

# SAR TEST REPORT



The following samples were submitted and identified on behalf of the client as:

| Product Type                         | 2TX 11ax (WiFi6) + BLE Combo Card                               |
|--------------------------------------|---|
| Trade Name                           | MediaTek  |
| Model Number                         | MT7921  |
| Company Name                         | ASUSTeK COMPUTER INC.   |
| Company Address                      | 1F., No. 15, Lide Rd., Beitou Dist., Taipei City 112,<br>Taiwan |
| Standards                            | IEEE/ANSI C95.1-1992, IEEE 1528-2013                            |
| FCC ID                               | RAS-MT7921  |
| Date of Receipt                      | Apr. 14, 2022   |
| Date of Test(s)                      | Jun 22, 2022 ~ Jun 24, 2022                                     |
| Date of Issue                        | Jul. 07, 2022   |
| In the configuration tested, the EUT | complied with the standards specified above.                    |

**Remarks:** 

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products

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#### Signed on behalf of SGS

| Clerk / Kimmy Chiou | PM / Jasper Wang | Asst. Manager / John Yeh |
|---------------------|------------------|--------------------------|
| Kimmy Chiou         | Jasper Wang      | John Teh                 |

Date: Jul. 07, 2022

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## **Revision History**

| Report Number    | Revision | Description                     | Issue Date    | Revised<br>By  | Remark |
|------------------|----------|---------------------------------|---------------|----------------|--------|
| TESA2204000040EN | Rev.00   | Initial creation<br>of document | Jun. 08, 2022 | Kimmy<br>Chiou | *      |
| TESA2204000040EN | Rev.01   | Modify the host<br>model name   | Jun. 23, 2022 | Kimmy<br>Chiou | *      |
| TESA2204000040EN | Rev.02   | Modify<br>comment               | Jul. 07, 2022 | Kimmy<br>Chiou |        |
|                  |          |                                 |               |                |        |
|                  |          |                                 |               |                |        |
|                  |          |                                 |               |                |        |
| Note:            |          |                                 |               |                |        |

The mark " \* " is the revised version of the report due to comments submitted by the certification.

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### 0. Guidance applied

The SAR testing method and procedure for this device is in accordance with the following standards: IEEE/ANSI C95.1-1992 IEEE 1528-2013 KDB248227D01v02r02 KDB865664D01v01r04 KDB865664D02v01r02 KDB447498D01v06 KDB616217D04v01r02

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| <ul> <li>2.1 Decision rules</li></ul>  | 37<br>38<br>40<br>41<br>42<br>42<br>45<br>46                               |
| <ul> <li>2.1 Decision rules</li></ul>  | 37<br>38<br>40<br>41<br>42<br>42<br>45<br>68                               |
| <ul> <li>2.1 Decision rules</li></ul>  | 37<br>38<br>40<br>41<br>42<br>45<br>45<br>68<br>72                         |
| <ul> <li>2.1 Decision rules</li></ul>  | 37<br>38<br>40<br>41<br>42<br>42<br>45<br>46<br>68<br>72<br>74             |
| <ul> <li>2.1 Decision rules</li></ul>  | 37<br>38<br>40<br>41<br>42<br>42<br>42<br>42<br>45<br>68<br>72<br>74<br>74 |

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### 1. General Information

#### **1.1 Testing Laboratory**

| Laboratory  | Test Site Address   | Test Site Name   | FCC Designation<br>number | IC CAB identifier |  |
|---|---|------------------|---------------------------|-------------------|--|
|   | 1F, No. 8, Alley 15, Lane 120,<br>Sec. 1, NeiHu Road, Neihu | SAR 2            | Thursdoo                  |                   |  |
| SGS Taiwan Ltd.<br>Central RF Lab.<br>(TAF code 3702) | District, Taipei City, 11493,<br>Taiwan.                    | SAR 6            | TW0029                    | TW3702            |  |
|   | •   | SAR 1            | -                         |                   |  |
|   | Township, Taoyuan County,<br>33383, Taiwan                  | SAR 4            | TW0028                    |                   |  |
|   | No.134, Wu Kung Road, New<br>Taipei Industrial Park, Wuku   | SAR 3            |                           |                   |  |
|   | District, New Taipei City,<br>Taiwan                        | SAR 7            | TW0027                    |                   |  |
| Note: Test site                                       | name is remarked on the                                     | equipment list i | in each section of        | this report as an |  |

indication where measurements occurred in specific test site and address.

#### **1.2 Details of Applicant**

| Company Name    | ASUSTeK COMPUTER INC.  |
|-----------------|--|
| Company Address | 1F., No. 15, Lide Rd., Beitou Dist., Taipei City 112, Taiwan |

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#### **1.3 Description of EUT**

| 2TX 11ax (WiFi6) + BLE Combo Card                            |   |  |  |  |  |
|--|---|--|--|--|--|
| MediaTek   |   |  |  |  |  |
| MT7921   |   |  |  |  |  |
| RAS-MT7921   |   |  |  |  |  |
| Product Type: E  | xpertbook   |  |  |  |  |
| Trade Name: A  | Trade Name: ASUS  |  |  |  |  |
| Model Name: B5402CB  |   |  |  |  |  |
| Family Model No.: B5402CBA                                   |   |  |  |  |  |
| All models are electrically identical, different model names |   |  |  |  |  |
| are for marketing purpose.                                   |   |  |  |  |  |
| WLAN802.11   |   |  |  |  |  |
| WLAN802.11   | Refer to page 19-20   |  |  |  |  |
| Bluetooth  | 76.8%   |  |  |  |  |
| WLAN   | 2412 ~ 2472, 5180 ~ 5240, 5260 ~ 5320,<br>5500 ~ 5720, 5745 ~ 5825  |  |  |  |  |
| Bluetooth  | 2402 ~ 2480   |  |  |  |  |
|  | MediaTek<br>MT7921<br>RAS-MT7921<br>Product Type: E<br>Trade Name: AS<br>Model Name: B<br>Family Model N<br>All models are e<br>are for marketin<br>WLAN802.11<br>Bluetooth<br>WLAN |  |  |  |  |

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#### Summary of Maximum SAR Value:

| Summary of Maximum SAR |                |  |  |  |  |
|------------------------|----------------|--|--|--|--|
|                        | Highest SAR 1g |  |  |  |  |
| Mode                   | Body           |  |  |  |  |
|                        | (W/kg)         |  |  |  |  |
| Bluetooth(GFSK)        | 0.12           |  |  |  |  |
| 2.4G WLAN              | 0.72           |  |  |  |  |
| 5.2G WLAN              | 1.08           |  |  |  |  |
| 5.3G WLAN              | 1.12           |  |  |  |  |
| 5.6G WLAN              | 1.04           |  |  |  |  |
| 5.8G WLAN              | 1.1            |  |  |  |  |

#### Antenna Information

| Vendor         |   | High-tek  |            |          |           |                       |           |            |           |      |  |
|----------------|---|---|------------|----------|-----------|-----------------------|-----------|------------|-----------|------|--|
| Туре           |   | PIFA  |            |          |           |                       |           |            |           |      |  |
| Antenna        |   | Main Aux  |            |          |           |                       |           |            |           |      |  |
| Part Number    |   | DC33002   | R600(0ACCN | 022001N) |           |                       | DC33002   | R610(0ACCN | 022002N)  |      |  |
| Frequency(MHz) | 2400~2500   | 00~2500 5150~5250 5250~5350 5470~5725 5725~5850 2400~2500 5150~5250 5250~5350 5470~57 |            |          |           | 5470~5725             | 5725~5850 |            |           |      |  |
| Gain (dBi)     | 1.81  | 1.81 3.16 3.16 3.91 4.21  |            |          |           |                       | 3.13      | 3.11       | 4.14      | 4.22 |  |
|                | -   |   | •          |          |           | •                     |           | •          | •         | -    |  |
| Vendor         |   |   |            |          | Pu        | lse                   |           |            |           |      |  |
| Туре           |   |   |            |          | PI        | FA                    |           |            |           |      |  |
| Antenna        |   |   | Main       |          |           |                       |           | Aux        |           |      |  |
| Part Number    |   | DC33002R500 (TZ2381D)   |            |          |           | DC33002R510 (TZ2381E) |           |            |           |      |  |
|                | 2400~2500 5150~5250 5250~5350 5470~5725 5725~5850   |   |            |          | 2400~2500 | 5150~5250             | 5250~5350 | 5470~5725  | 5725~5850 |      |  |
| Frequency(MHz) | 2400~2500 5150~5250 5250~5350 5470~5725 5725~5850 2400~2500 5150~5250 5250~5350 5470~5725 5.<br>1.07 2.81 2.81 3.70 3.77 2.59 2.96 3 3.86 |   |            |          |           |                       | 5725~5050 |            |           |      |  |

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#### Conducted power table:

|         |                 | 1       | Main               | Main      |  |                           |  |  |  |  |  |  |
|---------|-----------------|---------|--------------------|-----------|--|---------------------------|--|--|--|--|--|--|
| Band    | Mode            | Channel | Frequency<br>(MHz) | Data Rate | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm) | Average<br>power<br>(dBm) |  |  |  |  |  |  |
|         |                 | 1       | 2412               |           | 16.50  | 16.41                     |  |  |  |  |  |  |
|         | 802.11b         | 6       | 2437               | 1Mbps     | 16.50  | 16.47                     |  |  |  |  |  |  |
|         |                 | 11      | 2462               |           | 16.50  | 16.12                     |  |  |  |  |  |  |
|         |                 | 1       | 2412               |           | 16.50  | 16.01                     |  |  |  |  |  |  |
|         | 802.11g         | 6       | 2437               | 6Mbps     | 16.50  | 15.95                     |  |  |  |  |  |  |
|         |                 | 11      | 2462               |           | 16.50  | 15.98                     |  |  |  |  |  |  |
|         | 802.11n20-HT0   | 1       | 2412               |           | 16.50  | 15.96                     |  |  |  |  |  |  |
|         |                 | 6       | 2437               | MCS0      | 16.50  | 15.84                     |  |  |  |  |  |  |
|         |                 | 11      | 2462               |           | 16.50  | 15.83                     |  |  |  |  |  |  |
|         | 802.11ac20-VHT0 | 1       | 2412               | MCS0      | 16.50  | 15.88                     |  |  |  |  |  |  |
|         |                 | 6       | 2437               |           | 16.50  | 15.92                     |  |  |  |  |  |  |
| 2.45GHz |                 | 11      | 2462               |           | 16.50  | 15.90                     |  |  |  |  |  |  |
| 2.40012 | 802.11ax20-HE0  | 1       | 2412               | MCS0      | 16.50  | 15.94                     |  |  |  |  |  |  |
|         |                 | 6       | 2437               |           | 16.50  | 15.98                     |  |  |  |  |  |  |
|         |                 | 11      | 2462               |           | 16.50  | 15.94                     |  |  |  |  |  |  |
|         |                 | 3       | 2422               | MCS0      | 15.00  | 14.41                     |  |  |  |  |  |  |
|         | 802.11n40-HT0   | 6       | 2437               |           | 16.00  | 15.38                     |  |  |  |  |  |  |
|         |                 | 9       | 2452               |           | 15.00  | 14.40                     |  |  |  |  |  |  |
|         |                 | 3       | 2422               |           | 15.00  | 14.32                     |  |  |  |  |  |  |
|         | 802.11ac40-VHT0 | 6       | 2437               | MCS0      | 16.00  | 15.34                     |  |  |  |  |  |  |
|         |                 | 9       | 2452               | ]         | 15.00  | 14.38                     |  |  |  |  |  |  |
|         |                 | 3       | 2422               |           | 15.00  | 14.37                     |  |  |  |  |  |  |
|         | 802.11ax40-HE0  | 6       | 2437               | MCS0      | 16.00  | 15.33                     |  |  |  |  |  |  |
|         |                 | 9       | 2452               |           | 15.00  | 14.49                     |  |  |  |  |  |  |

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|               |                  | 1       | Main               |           |  |                           |
|---------------|------------------|---------|--------------------|-----------|--|---------------------------|
| Band          | Mode             | Channel | Frequency<br>(MHz) | Data Rate | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm) | Average<br>power<br>(dBm) |
|               |                  | 36      | 5180               |           | 11.50  | 11.10                     |
|               | 802.11a          | 40      | 5200               | 6Mbbb     | 11.50  | 11.10                     |
|               | 802.11a          | 44      | 5220               | 6Mbps     | 11.50  | 11.19                     |
|               |                  | 48      | 5240               |           | 11.50  | 11.22                     |
|               |                  | 36      | 5180               |           | 11.50  | 11.24                     |
|               | 802.11n20-HT0    | 40      | 5200               | MCS0      | 11.50  | 11.21                     |
|               | 802.11120-HTU    | 44      | 5220               | 10030     | 11.50  | 11.29                     |
|               |                  | 48      | 5240               |           | 11.50  | 11.24                     |
|               | 802.11ac20-VHT0  | 36      | 5180               | MCS0      | 11.50  | 11.16                     |
|               |                  | 40      | 5200               |           | 11.50  | 11.27                     |
|               |                  | 44      | 5220               |           | 11.50  | 11.13                     |
| 5.15-5.25 GHz |                  | 48      | 5240               |           | 11.50  | 11.18                     |
| 5.15-5.25 GHZ |                  | 36      | 5180               |           | 11.50  | 11.19                     |
|               | 802.11ax20-HE0   | 40      | 5200               | MCS0      | 11.50  | 11.17                     |
|               | 802.11ax20-HE0   | 44      | 5220               | 100.50    | 11.50  | 11.20                     |
|               |                  | 48      | 5240               |           | 11.50  | 11.27                     |
|               | 802.11n40-HT0    | 38      | 5190               | MCS0      | 11.50  | 11.49                     |
|               | 002.11140-010    | 46      | 5230               | 10030     | 11.50  | 11.47                     |
|               | 802.11ac40-VHT0  | 38      | 5190               | MCS0      | 11.50  | 11.14                     |
|               | 002.114040-01110 | 46      | 5230               | IVICOU    | 11.50  | 11.18                     |
|               | 802.11ax40-HE0   | 38      | 5190               | MCS0      | 11.50  | 11.13                     |
|               | 002.11ax40-nEU   | 46      | 5230               | IVICOU    | 11.50  | 11.17                     |
|               | 802.11ac80-VHT0  | 42      | 5210               | MCS0      | 11.50  | 11.37                     |
|               | 802.11ax80-HE0   | 42      | 5210               | MCS0      | 11.50  | 11.14                     |

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|               | Main            |         |                    |           |  |                           |  |  |  |  |
|---------------|-----------------|---------|--------------------|-----------|--|---------------------------|--|--|--|--|
| Band          | Mode            | Channel | Frequency<br>(MHz) | Data Rate | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm) | Average<br>power<br>(dBm) |  |  |  |  |
|               |                 | 52      | 5260               |           | 12.00  | 11.61                     |  |  |  |  |
|               | 802.11a         | 56      | 5280               | 6Mbps     | 12.00  | 11.60                     |  |  |  |  |
|               | 002.11a         | 60      | 5300               | olviops   | 12.00  | 11.75                     |  |  |  |  |
|               |                 | 64      | 5320               |           | 12.00  | 11.78                     |  |  |  |  |
|               |                 | 52      | 5260               |           | 12.00  | 11.63                     |  |  |  |  |
|               | 802.11n20-HT0   | 56      | 5280               | MCS0      | 12.00  | 11.78                     |  |  |  |  |
|               |                 | 60      | 5300               | 10030     | 12.00  | 11.60                     |  |  |  |  |
|               |                 | 64      | 5320               |           | 12.00  | 11.68                     |  |  |  |  |
|               | 802.11ac20-VHT0 | 52      | 5260               | MCS0      | 12.00  | 11.72                     |  |  |  |  |
|               |                 | 56      | 5280               |           | 12.00  | 11.65                     |  |  |  |  |
| 5.25-5.35 GHz |                 | 60      | 5300               |           | 12.00  | 11.71                     |  |  |  |  |
| 0.20-0.00 ONZ |                 | 64      | 5320               |           | 12.00  | 11.62                     |  |  |  |  |
|               |                 | 52      | 5260               |           | 12.00  | 11.70                     |  |  |  |  |
|               | 802.11ax20-HE0  | 56      | 5280               | MCS0      | 12.00  | 11.78                     |  |  |  |  |
|               | 002.110,20-1120 | 60      | 5300               | NIC SU    | 12.00  | 11.60                     |  |  |  |  |
|               |                 | 64      | 5320               |           | 12.00  | 11.61                     |  |  |  |  |
|               | 802.11n40-HT0   | 54      | 5270               | MCS0      | 12.00  | 11.69                     |  |  |  |  |
|               | 002.11140-1110  | 62      | 5310               | 10030     | 12.00  | 11.63                     |  |  |  |  |
|               | 802.11ax40-HE0  | 54      | 5270               | MCS0      | 12.00  | 11.60                     |  |  |  |  |
|               |                 | 62      | 5310               | 10000     | 12.00  | 11.62                     |  |  |  |  |
|               | 802.11ac80-VHT0 | 58      | 5290               | MCS0      | 12.00  | 11.78                     |  |  |  |  |
|               | 802.11ax80-HE0  | 58      | 5290               | MCS0      | 12.00  | 11.64                     |  |  |  |  |

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|         |                  | 1       | Main               |           |  |                           |
|---------|------------------|---------|--------------------|-----------|--|---------------------------|
| Band    | Mode             | Channel | Frequency<br>(MHz) | Data Rate | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm) | Average<br>power<br>(dBm) |
|         |                  | 100     | 5500               |           | 9.00   | 8.75                      |
|         | 000.44-          | 120     | 5600               | CN/hana   | 9.00   | 8.71                      |
|         | 802.11a          | 140     | 5700               | 6Mbps     | 9.00   | 8.73                      |
|         |                  | 144     | 5720               |           | 9.00   | 8.66                      |
|         |                  | 100     | 5500               |           | 9.00   | 8.73                      |
|         | 802.11n20-HT0    | 120     | 5600               | MCS0      | 9.00   | 8.71                      |
|         | 002.11120-010    | 140     | 5700               | IVIC SU   | 9.00   | 8.79                      |
|         |                  | 144     | 5720               |           | 9.00   | 8.80                      |
|         |                  | 100     | 5500               |           | 9.00   | 8.75                      |
|         | 802.11ac20-VHT0  | 120     | 5600               | MCS0      | 9.00   | 8.75                      |
|         | 002.11ac20-VH10  | 140     | 5700               | IVIC SU   | 9.00   | 8.68                      |
|         |                  | 144     | 5720               |           | 9.00   | 8.68                      |
|         |                  | 100     | 5500               |           | 9.00   | 8.79                      |
|         | 802.11ax20-HE0   | 120     | 5600               | MCS0      | 9.00   | 8.65                      |
|         | 002. Hax20-FIEU  | 140     | 5700               | IVIC SU   | 9.00   | 8.66                      |
|         |                  | 144     | 5720               |           | 9.00   | 8.80                      |
| 5.6GHz  |                  | 102     | 5510               |           | 9.00   | 8.65                      |
| 5.00112 | 802.11n40-HT0    | 118     | 5590               | MCS0      | 9.00   | 8.65                      |
|         | 002.11140-1110   | 134     | 5670               | 10030     | 9.00   | 8.70                      |
|         |                  | 142     | 5710               |           | 9.00   | 8.61                      |
|         |                  | 102     | 5510               |           | 9.00   | 8.67                      |
|         | 802.11ac40-VHT0  | 118     | 5590               | MCS0      | 9.00   | 8.65                      |
|         | 002.1100-0-01110 | 134     | 5670               | NIC GO    | 9.00   | 8.68                      |
|         |                  | 142     | 5710               |           | 9.00   | 8.61                      |
|         |                  | 102     | 5510               |           | 9.00   | 8.61                      |
|         | 802.11ax40-HE0   | 118     | 5590               | MCS0      | 9.00   | 8.79                      |
|         |                  | 134     | 5670               | 10000     | 9.00   | 8.76                      |
|         |                  | 142     | 5710               |           | 9.00   | 8.72                      |
|         |                  | 106     | 5530               |           | 9.00   | 8.74                      |
|         | 802.11ac80-VHT0  | 122     | 5610               | MCS0      | 9.00   | 8.66                      |
|         |                  | 138     | 5690               |           | 9.00   | 8.96                      |
|         |                  | 106     | 5530               |           | 9.00   | 8.70                      |
|         | 802.11ax80-HE0   | 122     | 5610               | MCS0      | 9.00   | 8.68                      |
|         |                  | 138     | 5690               |           | 9.00   | 8.69                      |

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| Main   |                 |         |                    |           |  |                           |  |  |  |
|--------|-----------------|---------|--------------------|-----------|--|---------------------------|--|--|--|
| Mode   | Mode            | Channel | Frequency<br>(MHz) | Data Rate | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm) | Average<br>power<br>(dBm) |  |  |  |
|        |                 | 149     | 5745               |           | 8.00   | 7.79                      |  |  |  |
|        | 802.11a         | 157     | 5785               | 6Mbps     | 8.00   | 7.76                      |  |  |  |
|        |                 | 165     | 5825               |           | 8.00   | 7.66                      |  |  |  |
|        |                 | 149     | 5745               |           | 8.00   | 7.67                      |  |  |  |
|        | 802.11n20-HT0   | 157     | 5785               | MCS0      | 8.00   | 7.64                      |  |  |  |
|        |                 | 165     | 5825               |           | 8.00   | 7.61                      |  |  |  |
|        |                 | 149     | 5745               |           | 8.00   | 7.67                      |  |  |  |
|        | 802.11ac20-VHT0 | 157     | 5785               | MCS0      | 8.00   | 7.73                      |  |  |  |
|        |                 | 165     | 5825               |           | 8.00   | 7.79                      |  |  |  |
| 5.8GHz |                 | 149     | 5745               |           | 8.00   | 7.80                      |  |  |  |
| 5.0GHZ | 802.11ax20-HE0  | 157     | 5785               | MCS0      | 8.00   | 7.61                      |  |  |  |
|        |                 | 165     | 5825               |           | 8.00   | 7.61                      |  |  |  |
|        | 802.11n40-HT0   | 151     | 5755               | MCS0      | 8.00   | 7.98                      |  |  |  |
|        | 002.11140-010   | 159     | 5795               | IVIC SU   | 8.00   | 7.93                      |  |  |  |
|        | 802.11ac40-VHT0 | 151     | 5755               | MCS0      | 8.00   | 7.67                      |  |  |  |
|        | 002.11ac40-VH10 | 159     | 5795               | IVIC SU   | 8.00   | 7.70                      |  |  |  |
|        | 802.11ax40-HE0  | 151     | 5755               | MCS0      | 8.00   | 7.70                      |  |  |  |
|        | 002.11ax40-nEU  | 159     | 5795               | IVICSU    | 8.00   | 7.68                      |  |  |  |
|        | 802.11ac80-VHT0 | 155     | 5775               | MCS0      | 8.00   | 7.71                      |  |  |  |
|        | 802.11ax80-HE0  | 155     | 5775               | MCS0      | 8.00   | 7.67                      |  |  |  |

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|         |                 |         | Aux                |           |  |                           |
|---------|-----------------|---------|--------------------|-----------|--|---------------------------|
| Band    | Mode            | Channel | Frequency<br>(MHz) | Data Rate | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm) | Average<br>power<br>(dBm) |
|         |                 | 1       | 2412               |           | 16.50  | 16.33                     |
|         | 802.11b         | 6       | 2437               | 1Mbps     | 16.50  | 16.23                     |
|         |                 | 11      | 2462               |           | 16.50  | 16.28                     |
|         |                 | 1       | 2412               |           | 16.50  | 15.88                     |
|         | 802.11g         | 6       | 2437               | 6Mbps     | 16.50  | 15.98                     |
|         |                 | 11      | 2462               |           | 16.50  | 15.91                     |
|         |                 | 1       | 2412               |           | 16.50  | 16.00                     |
|         | 802.11n20-HT0   | 6       | 2437               | MCS0      | 16.50  | 15.84                     |
|         |                 | 11      | 2462               |           | 16.50  | 15.94                     |
|         |                 | 1       | 2412               |           | 16.50  | 16.00                     |
|         | 802.11ac20-VHT0 | 6       | 2437               | MCS0      | 16.50  | 15.99                     |
| 2.45GHz |                 | 11      | 2462               |           | 16.50  | 15.90                     |
| 2.43GHZ |                 | 1       | 2412               |           | 16.50  | 15.86                     |
|         | 802.11ax20-HE0  | 6       | 2437               | MCS0      | 16.50  | 15.85                     |
|         |                 | 11      | 2462               |           | 16.50  | 15.94                     |
|         |                 | 3       | 2422               |           | 15.00  | 14.35                     |
|         | 802.11n40-HT0   | 6       | 2437               | MCS0      | 16.00  | 15.35                     |
|         |                 | 9       | 2452               |           | 15.00  | 14.50                     |
|         |                 | 3       | 2422               |           | 15.00  | 14.38                     |
|         | 802.11ac40-VHT0 | 6       | 2437               | MCS0      | 16.00  | 15.51                     |
|         |                 | 9       | 2452               | ]         | 15.00  | 14.36                     |
|         |                 | 3       | 2422               |           | 15.00  | 14.49                     |
|         | 802.11ax40-HE0  | 6       | 2437               | MCS0      | 16.00  | 15.51                     |
|         |                 | 9       | 2452               |           | 15.00  | 14.36                     |

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|               |                 |         | Aux                |           |  |                           |
|---------------|-----------------|---------|--------------------|-----------|--|---------------------------|
| Band          | Mode            | Channel | Frequency<br>(MHz) | Data Rate | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm) | Average<br>power<br>(dBm) |
|               |                 | 36      | 5180               |           | 14.00  | 13.51                     |
|               | 802.11a         | 40      | 5200               | 6Mbpa     | 14.00  | 13.41                     |
|               | 002.11a         | 44      | 5220               | 6Mbps     | 14.00  | 13.46                     |
|               |                 | 48      | 5240               |           | 14.00  | 13.44                     |
|               |                 | 36      | 5180               |           | 14.00  | 13.40                     |
|               | 802.11n20-HT0   | 40      | 5200               | MCS0      | 14.00  | 13.35                     |
|               | 002.11120-010   | 44      | 5220               | 10030     | 14.00  | 13.49                     |
|               |                 | 48      | 5240               |           | 14.00  | 13.38                     |
|               |                 | 36      | 5180               |           | 14.00  | 13.39                     |
|               | 802.11ac20-VHT0 | 40      | 5200               | MCS0      | 14.00  | 13.50                     |
|               | 002.11ac20-VH10 | 44      | 5220               | 10030     | 14.00  | 13.43                     |
| 5.15-5.25 GHz |                 | 48      | 5240               |           | 14.00  | 13.42                     |
| 5.15-5.25 GHZ |                 | 36      | 5180               |           | 14.00  | 13.44                     |
|               | 802.11ax20-HE0  | 40      | 5200               | MCS0      | 14.00  | 13.41                     |
|               | 002.11ax20-ne0  | 44      | 5220               | 10030     | 14.00  | 13.47                     |
|               |                 | 48      | 5240               |           | 14.00  | 13.41                     |
|               | 802.11n40-HT0   | 38      | 5190               | MCS0      | 14.00  | 13.50                     |
|               | 002.11140-010   | 46      | 5230               | 10030     | 14.00  | 13.40                     |
|               | 802.11ac40-VHT0 | 38      | 5190               | MCS0      | 14.00  | 13.40                     |
|               | 002.114040-0110 | 46      | 5230               | IVICOU    | 14.00  | 13.36                     |
|               | 802.11ax40-HE0  | 38      | 5190               | MCS0      | 14.00  | 13.50                     |
|               | 002.11aX40-HEU  | 46      | 5230               | 10030     | 14.00  | 13.45                     |
|               | 802.11ac80-VHT0 | 42      | 5210               | MCS0      | 14.00  | 13.95                     |
|               | 802.11ax80-HE0  | 42      | 5210               | MCS0      | 14.00  | 13.34                     |

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|               |                  |         | Aux                |           |  |                           |
|---------------|------------------|---------|--------------------|-----------|--|---------------------------|
| Band          | Mode             | Channel | Frequency<br>(MHz) | Data Rate | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm) | Average<br>power<br>(dBm) |
|               |                  | 52      | 5260               |           | 14.00  | 13.45                     |
|               | 802.11a          | 56      | 5280               | 6Mbps     | 14.00  | 13.43                     |
|               | 002.11a          | 60      | 5300               | olviops   | 14.00  | 13.34                     |
|               |                  | 64      | 5320               |           | 14.00  | 13.43                     |
|               |                  | 52      | 5260               |           | 14.00  | 13.47                     |
|               | 802.11n20-HT0    | 56      | 5280               | MCS0      | 14.00  | 13.33                     |
|               | 002.11120-1110   | 60      | 10030              | 14.00     | 13.34  |                           |
|               |                  | 64      | 5320               |           | 14.00  | 13.34                     |
|               |                  | 52      | 5260               |           | 14.00  | 13.41                     |
|               | 802.11ac20-VHT0  | 56      | 5280               | MCS0      | 14.00  | 13.44                     |
| 5.25-5.35 GHz | 002.118020-01110 | 60      | 5300               | 10030     | 14.00  | 13.49                     |
| J.20-J.30 GHZ |                  | 64      | 5320               |           | 14.00  | 13.34                     |
|               |                  | 52      | 5260               |           | 14.00  | 13.51                     |
|               | 802.11ax20-HE0   | 56      | 5280               | MCS0      | 14.00  | 13.42                     |
|               | 002.118.20-1120  | 60      | 5300               | 10030     | 14.00  | 13.33                     |
|               |                  | 64      | 5320               |           | 14.00  | 13.37                     |
|               | 802.11n40-HT0    | 54      | 5270               | MCS0      | 14.00  | 13.39                     |
|               | 002.11140-1110   | 62      | 5310               | 10030     | 14.00  | 13.33                     |
|               | 802.11ax40-HE0   | 54      | 5270               | MCS0      | 14.00  | 13.41                     |
|               |                  | 62      | 5310               |           | 14.00  | 13.47                     |
|               | 802.11ac80-VHT0  | 58      | 5290               | MCS0      | 14.00  | 13.78                     |
|               | 802.11ax80-HE0   | 58      | 5290               | MCS0      | 14.00  | 13.42                     |

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|         |                 |         | Aux                |           |  |                           |
|---------|-----------------|---------|--------------------|-----------|--|---------------------------|
| Band    | Mode            | Channel | Frequency<br>(MHz) | Data Rate | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm) | Average<br>power<br>(dBm) |
|         |                 | 100     | 5500               |           | 15.00  | 14.38                     |
|         | 000 44-         | 120     | 5600               | 014       | 15.00  | 14.40                     |
|         | 802.11a         | 140     | 5700               | 6Mbps     | 15.00  | 14.38                     |
|         |                 | 144     | 5720               |           | 15.00  | 14.34                     |
|         |                 | 100     | 5500               |           | 15.00  | 14.46                     |
|         | 802.11n20-HT0   | 120     | 5600               | MCS0      | 15.00  | 14.47                     |
|         | 802.11h20-H10   | 140     | 5700               | IVICSU    | 15.00  | 14.38                     |
|         |                 | 144     | 5720               |           | 15.00  | 14.45                     |
|         |                 | 100     | 5500               |           | 15.00  | 14.38                     |
|         | 802.11ac20-VHT0 | 120     | 5600               | MCS0      | 15.00  | 14.39                     |
|         | 802.11ac20-VH10 | 140     | 5700               | IVIC SU   | 15.00  | 14.40                     |
|         |                 | 144     | 5720               |           | 15.00  | 14.37                     |
|         |                 | 100     | 5500               |           | 15.00  | 14.45                     |
|         | 802.11ax20-HE0  | 120     | 5600               | MCS0      | 15.00  | 14.48                     |
|         | 002.11ax20-FIEU | 140     | 5700               | IVIC SU   | 15.00  | 14.41                     |
|         |                 | 144     | 5720               |           | 15.00  | 14.42                     |
| 5.6GHz  |                 | 102     | 5510               |           | 15.00  | 14.52                     |
| 5.00112 | 802.11n40-HT0   | 118     | 5590               | MCS0      | 15.00  | 14.48                     |
|         | 002.11140-1110  | 134     | 5670               | 10030     | 15.00  | 14.36                     |
|         |                 | 142     | 5710               |           | 15.00  | 14.50                     |
|         |                 | 102     | 5510               |           | 15.00  | 14.46                     |
|         | 802.11ac40-VHT0 | 118     | 5590               | MCS0      | 15.00  | 14.35                     |
|         | 002.110040 1110 | 134     | 5670               | MOOD      | 15.00  | 14.35                     |
|         |                 | 142     | 5710               |           | 15.00  | 14.46                     |
|         |                 | 102     | 5510               |           | 15.00  | 14.49                     |
|         | 802.11ax40-HE0  | 118     | 5590               | MCS0      | 15.00  | 14.42                     |
|         |                 | 134     | 5670               | 10000     | 15.00  | 14.39                     |
|         |                 | 142     | 5710               |           | 15.00  | 14.41                     |
|         |                 | 106     | 5530               |           | 14.50  | 14.42                     |
|         | 802.11ac80-VHT0 | 122     | 5610               | MCS0      | 15.00  | 14.87                     |
|         |                 | 138     | 5690               |           | 15.00  | 14.96                     |
|         |                 | 106     | 5530               |           | 14.50  | 14.25                     |
|         | 802.11ax80-HE0  | 122     | 5610               | MCS0      | 15.00  | 14.76                     |
|         |                 | 138     | 5690               |           | 15.00  | 14.81                     |

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|        |                 |         | Aux                |           |  |                           |
|--------|-----------------|---------|--------------------|-----------|--|---------------------------|
| Mode   | Mode            | Channel | Frequency<br>(MHz) | Data Rate | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm) | Average<br>power<br>(dBm) |
|        |                 | 149     | 5745               |           | 15.50  | 14.93                     |
|        | 802.11a         | 157     | 5785               | 6Mbps     | 15.50  | 14.98                     |
|        |                 | 165     | 5825               |           | 15.50  | 14.95                     |
|        |                 | 149     | 5745               |           | 15.50  | 14.84                     |
|        | 802.11n20-HT0   | 157     | 5785               | MCS0      | 15.50  | 14.96                     |
|        |                 | 165     | 5825               |           | 15.50  | 14.95                     |
|        |                 | 149     | 5745               |           | 15.50  | 14.99                     |
|        | 802.11ac20-VHT0 | 157     | 5785               | MCS0      | 15.50  | 14.97                     |
|        |                 | 165     | 5825               |           | 15.50  | 14.99                     |
| 5.8GHz |                 | 149     | 5745               |           | 15.50  | 14.84                     |
| 5.0GHZ | 802.11ax20-HE0  | 157     | 5785               | MCS0      | 15.50  | 14.92                     |
|        |                 | 165     | 5825               |           | 15.50  | 15.01                     |
|        | 802.11n40-HT0   | 151     | 5755               | MCS0      | 15.50  | 15.45                     |
|        | 002.11140-010   | 159     | 5795               | IVIC SU   | 15.50  | 15.42                     |
|        | 802.11ac40-VHT0 | 151     | 5755               | MCS0      | 15.50  | 15.02                     |
|        | 002.11ac40-VH10 | 159     | 5795               | 10030     | 15.50  | 14.87                     |
|        | 802.11ax40-HE0  | 151     | 5755               | MCS0      | 15.50  | 14.83                     |
|        | 002.118X40-HEU  | 159     | 5795               | IVICSU    | 15.50  | 14.88                     |
|        | 802.11ac80-VHT0 | 155     | 5775               | MCS0      | 15.50  | 15.46                     |
|        | 802.11ax80-HE0  | 155     | 5775               | MCS0      | 15.50  | 14.83                     |

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#### Bluetooth conducted power table:

|               |         |                    | 1Mbps  | 1Mbps 2Mbps 3Mbps         |  |                           |  |                           |
|---------------|---------|--------------------|--|---------------------------|--|---------------------------|--|---------------------------|
| Mode          | Channel | Frequency<br>(MHz) | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm) | Average<br>power<br>(dBm) | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm) | Average<br>power<br>(dBm) | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm) | Average<br>power<br>(dBm) |
|               | CH 00   | 2402               |  | 10.74                     |  | 8.12                      |  | 8.14                      |
| <b>BR/EDR</b> | CH 39   | 2441               | 11.50  | 10.67                     | 8.50   | 7.93                      | 8.50   | 7.92                      |
|               | CH 78   | 2480               |  | 10.47                     |  | 7.88                      |  | 7.87                      |

| Mode   | Channel | Frequency | (  | GFSK                       |
|--------|---------|-----------|--|----------------------------|
| Mode   | Channel | (MHz)     | Max. Rated Avg.Power<br>+ Max. Tolerance (dBm) | Average Output Power (dBm) |
|        | CH 00   | 2402      |  | 11.46                      |
| BLE_1M | CH 19   | 2440      | 11.5   | 11.37                      |
|        | CH 39   | 2480      |  | 11.18                      |

| Mode   | Channel | Frequency | C  | GFSK                       |
|--------|---------|-----------|--|----------------------------|
| Mode   | Channel | (MHz)     | Max. Rated Avg.Power<br>+ Max. Tolerance (dBm) | Average Output Power (dBm) |
|        | CH 00   | 2402      |  | 11.43                      |
| BLE_2M | CH 19   | 2440      | 11.5   | 11.27                      |
|        | CH 39   | 2480      |  | 11.09                      |

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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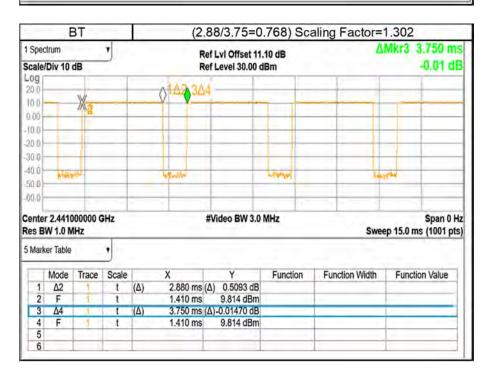
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#### **Duty Cycle:**

|                               | 2.4G               | b dut    | y     | Ś         | (8.37/8.46=0.989) Scaling Factor=1.011 |          |                |                                   |  |  |  |
|-------------------------------|--------------------|----------|-------|-----------|--|----------|----------------|-----------------------------------|--|--|--|
| 1 Spectrum<br>Scale/Div 10 dB |                    |          | ,     | _         | Ref Level 10.00                        | dBm      | ۵              | Mkr3 8.460 ms<br>-0.28 dB         |  |  |  |
| Log                           |                    | ub       |       |           | Nel Level 10.00                        |          |                | -0.00 00                          |  |  |  |
| 0.00                          |                    | _        | _     | ×.        |  |          | <u>04</u>      |                                   |  |  |  |
| 10.0                          |                    | _        | _     | 1112      |  |          |                |                                   |  |  |  |
| 20.0                          | -                  | _        | _     |           |  |          |                |                                   |  |  |  |
| 30.0                          |                    | 100      |       |           |  |          |                |                                   |  |  |  |
| 40.0                          |                    |          |       |           |  |          |                |                                   |  |  |  |
| 50 0                          |                    |          |       |           |  |          |                |                                   |  |  |  |
| 60.0                          |                    |          |       |           |  | 1        |                |                                   |  |  |  |
|                               |                    |          |       |           |  |          |                |                                   |  |  |  |
| 70.0                          |                    |          |       |           |  |          |                |                                   |  |  |  |
| 50.0                          | -                  | -        | _     |           |  |          |                |                                   |  |  |  |
|                               | r 2.4120<br>W 8 MH | 000000 d | SHz   |           | Video BW 8.0                           | MHz      | Swee           | Span 0 Hz<br>p 30.0 ms (1001 pts) |  |  |  |
| 5 Mari                        | ker Table          |          | ,     |           |  |          |                |                                   |  |  |  |
|                               | Mode               | Trace    | Scale | x         | Y                                      | Function | Function Width | Function Value                    |  |  |  |
| 1                             | Δ2                 | 1        | t     | (Δ) 8.370 | ms (A) -0.7783 dB                      | -        |                |                                   |  |  |  |
| 2                             | F                  | 1        | t     | 9.870     |  |          |                |                                   |  |  |  |
| 3                             | Δ4                 | 1-1-     | 1 1 - | (Δ) 8.460 | ms (Δ) -0.2785 dB                      |          | 1              |                                   |  |  |  |
| 4                             | F                  | 1.1.5    | t     | 9.870     | ms -0.8729 dBm                         |          |                | []                                |  |  |  |
| 5                             |                    |          |       |           |  |          |                |                                   |  |  |  |
| 6                             |                    |          |       |           |  |          |                |                                   |  |  |  |



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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| .016                            | g Factor=    | calir | .984) So | 8.025=0                        | .9   | (7.9/8.025=0.984) Scali |     |       |                  |                  |                         |  |
|---------------------------------|--------------|-------|----------|--------------------------------|------|-------------------------|-----|-------|------------------|------------------|-------------------------|--|
| lkr3 8.025 ms<br>0.32 dB        | Δ1           |       |          | vi Offset 11.<br>evel 30.00 di | 25.5 |                         |     | •     | trum<br>Div 10 ( | 1 Spec           |                         |  |
|                                 | 1.0304       | -unit | -        |                                |      | al and a                |     |       |                  |                  | 20.0                    |  |
|                                 |              |       |          | -                              | +    |                         | _   |       |                  | _                | 0.00                    |  |
|                                 |              |       | _        | 1-1-                           | -    |                         |     |       | 1                | _                | -20.0<br>-30.0<br>-40.0 |  |
|                                 |              |       |          |                                |      |                         |     |       |                  |                  | -50.0                   |  |
| Span 0 Hz<br>25.0 ms (1001 pts) | Swee         |       | IHz      | deo BW 8.0 N                   | Vi   | 1                       |     | Hz    | 00000 G<br>z     | 5.2100<br>W 8 MH | Cente                   |  |
|                                 |              |       | 2.2      |                                |      |                         |     | •     |                  | er Table         | 5 Mark                  |  |
| Function Value                  | nction Width | F     | Function | Y                              |      | x                       |     | Scale | Trace            | Mode             |                         |  |
|                                 |              |       |          | -0.8584 dB                     | (Δ)  | 7.900 ms                | (Δ) | t.    | 1                | Δ2               | 1                       |  |
|                                 |              |       |          | 13.37 dBm                      | -    | 11.00 ms                |     | 1     | 1                | F                | 2                       |  |
|                                 |              | 1     |          |                                | (Δ)  | 8.025 ms                | (Δ) | t     | 1                | Δ4               | 3                       |  |
|                                 |              |       |          | 13.37 dBm                      |      | 11.00 ms                |     | t     | 1.1              | F                | 4                       |  |
|                                 |              | -     |          |                                | -    |                         |     | -     |                  |                  | 5                       |  |

|         |                              |   |   |  |   |   |   |   |  | .025 ms<br>1.11 dB   |  |
|---------|------------------------------|---|---|--|---|---|---|---|--|--|--|
|         |                              | 1   |   |  | T   |   | -   | 0   | 364  | 1  |  |
| -       | - Chinese                    |   |   | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~  | 2   | All and a second  |   |   |  |  |  |
|         |                              |   |   |  |   |   |   |   | 1  |  |  |
| -       |                              |   |   |  |   |   |   |   |  |  |  |
| _       |                              | _   |   | _  | -   |   |   |   | -  |  |  |
| _       | -                            |   |   | -  | -   |   |   | _   |  |  |  |
| -       | -                            |   | -   | -  | -   |   |   |   |  |  |  |
|         | -                            | -   | _   | -  | -   |   |   | _   |  |  |  |
|         |                              |   |   |  | +   |   |   | -   |  |  |  |
| V 8 MH  |                              | SHz   |   |  | Vid   | eo BW 8.0 N   | IHz   |   | Swee   | p 25.0 ms  | Span 0 Ha<br>(1001 pts   |
| r Table |                              |   |   |  |   |   |   |   |  |  |  |
| Mode    | Trace                        | Scale   | 1   | x  |   | Y   | Function  | Fun   | ction Width  | Functio  | n Value  |
| Δ2      | 1                            | 1   | (Δ)   | 7.925 ms   | (Δ)   | 3.079 dB  |   |   |  |  |  |
|         | 1                            | - t -   |   |  |   |   | -   | -   |  |  |  |
|         | 1                            | - t   | (Δ)   |  |   |   | _   | -   |  |  |  |
| ۲       | -1                           | 1   | -   | 9.325 ms   |   | 13.14 dBm   |   | -   |  | -  |  |
|         |                              |   | -   | _  | -   |   |   | -   |  |  | -  |
|         | 5.1900<br>V 8 MH<br>rr Table | 5.190000000 C<br>V 8 MHz<br>mr Table<br>Mode Trace<br>A2 1<br>F 1<br>A4 | Div 10 dB           5.190000000 GHz           V 8 MHz           rr Table           V           Mode           Trace           Scale           Δ2           I           F           I           Δ4 | 5.190000000 GHz           V 8 MHz           or Table           Δ2         1           Γ         1           Δ4         t | Div 10 dB         F           5.190000000 GHz         X           V 8 MHz         Y           Mode         Trace           Scale         X           Δ2         1           1         1           9.325 ms           Δ4         t | Net L         Ref L           Div 10 dB         Ref L           Ref L         Ref L           S.190000000 GHz         Vid           V 8 MHz         Vid           r Table         V           Mode         Trace         Scale           X         Δ2         1           1         9.325 ms           Δ4         t         (Δ) | No         Trace         Scale         X         Y           Δ2         1         t         (Δ)         7.925 ms         (Δ)         3.079 dB           Δ2         1         t         9.325 ms         13.14 dBm           Δ4         t         (Δ)         1.106 dB | Note         Y         Function           5.190000000 GHz         Video BW 8.0 MHz           V 8 MHz         Video BW 8.0 MHz           r Table         V           Δ2         1           1         1           Δ2         1           1         1           0         3.079 dB           F         1           Δ4         t | Note         Trace         Scale         X         Y         Function         Function           Δ2         1         1         0.325 ms (Δ)         3.079 dB         Function         Function           Δ4         t         (Δ)         7.925 ms (Δ)         1.106 dB         Function         Function | Div 10 dB     Ref Level 30.00 dBm       Strip     304       Strip     307       Strip     3079       Strip     13.14       Strip     1.106       Strip     1.106 | Net Ext Onset 11.80 dB           Ref Level 30.00 dBm           304           5.190000000 GHz           Video BW 8.0 MHz           Sweep 25.0 ms           r Table           V           Mode         Trace         Scale         X         Y           F 1         1         9.325 ms         13.14 dBm         1           Δ4         t< (Δ)         8.025 ms(Δ)         1.106 dB         1 |

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#### **1.4 Test Environment**

Ambient Temperature: 22±2° C Tissue Simulating Liquid: 22±2° C

#### **1.5 Operation Description**

Use chipset specific software to control the EUT, and makes it transmit in maximum power. Measurements are performed respectively on the lowest, middle and highest channels of the operating band(s). The EUT is set to maximum power level during all tests, and at the beginning of each test the battery is fully charged.

#### Laptop mode

SAR is measured with display screen open at 90 degree and bottom side/front edge of keyboard touch against the flat phantom.

Note:

802.11b DSSS SAR Test Requirements:

- SAR is measured for 2.4 GHz 802.11b DSSS mode using the highest measured maximum output power channel, when the reported SAR of the highest measured maximum output power channel for the exposure configuration is  $\leq 0.8$  W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.
- 2. When the reported SAR is > 0.8 W/kg, SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

802.11g/n OFDM SAR Test Exclusion Requirements:

3. SAR is not required for 802.11g/n since the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg.

Initial Test Configuration:

- 4. An initial test configuration is determined for OFDM transmission modes according to the channel bandwidth, modulation and data rate combination(s) with the highest maximum output power specified for production units in each standalone and aggregated frequency band.
- 5. SAR is measured using the highest measured maximum output power channel.

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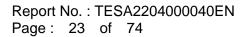


When the reported SAR of the initial test configuration is > 0.8 W/kg, SAR measurement is required for the subsequent next highest measured output power channel(s) in the initial test configuration until the reported SAR is  $\leq$  1.2 W/kg or all required channels are tested.

- 6. Since the highest reported SAR for the initial test configuration is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg, SAR is not required for subsequent test configuration.
- 7. According to KDB447498 D01, testing of other required channels is not required when the reported 1-g SAR for the highest output channel is  $\leq$  0.8 W/kg, when the transmission band is  $\leq$  100 MHz.
- According to KDB865664 D01, SAR measurement variability must be assessed for each frequency band. When the original highest measured SAR is  $\geq 0.8$  W/kg, repeated that measurement once. Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is  $\geq$  1.45 W/kg (~10% from the 1-g SAR limit)

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#### 1.6 The SAR Measurement System

A block diagram of the SAR measurement System is given in Fig. a. This SAR Measurement System uses a Computer-controlled 3-D stepper motor system (SPEAG DASY 5 professional system). The model EX3DV4 field probe is used to determine the internal electric fields. The SAR can be obtained from the equation SAR=  $\sigma$  (|Ei|<sup>2</sup>)/  $\rho$  where  $\sigma$  and  $\rho$  are the conductivity and mass density of the tissuesimulant.

The DASY 5 system for performing compliance tests consists of the following items:

- 1. A standard high precision 6-axis robot (Staubli RX family) with controller, teach pendant and software. An arm extension is for accommodating the data acquisition electronics (DAE).
- 2. A dosimetric probe, i.e., an isotropic E-field probe optimized and calibrated for usage intissue simulating liquid. The probe is equipped with an optical surface detector system.
- 3. A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.

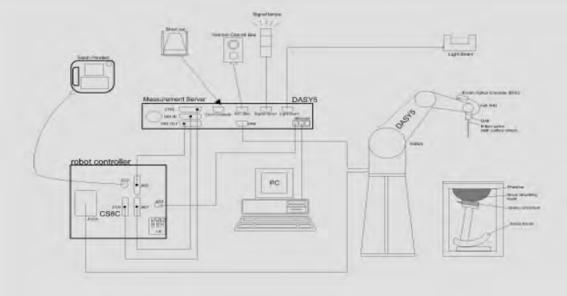


Fig. a The block diagram of SAR system

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- 4. The Electro-optical converter (EOC) performs the conversion between optical and electrical of the signals for the digital communication to the DAE and for the analog signal from the optical surface detection. The EOC is connected to the measurement server.
- 5. The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- 6. A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
- 7. A computer operating Windows 7.
- 8. DASY 5 software.
- 9. Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
- 10. Tissue simulating liquid mixed according to the given recipes.
- 11. Validation dipole kits allowing to validate the proper functioning of the system.

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#### **1.7 System Components**

#### **EX3DV4 E-Field Probe**

| Construction | Symmetrical design with triangular core<br>Built-in shielding against static charges<br>PEEK enclosure material (resistant to<br>organic solvents, e.g., DGBE)   |  |  |  |  |  |
|--------------|--|--|--|--|--|--|
| Calibration  | Basic Broad Band Calibration in air<br>Conversion Factors (CF) for HSL<br>2450/5250/5600/5750 MHz Additional<br>CF for other liquids and frequencies<br>upon request                                       |  |  |  |  |  |
| Frequency    | 10 MHz to > 6 GHz  |  |  |  |  |  |
| Directivity  | ± 0.3 dB in HSL (rotation around probe axis)<br>± 0.5 dB in tissue material (rotation normal to probe axis)  |  |  |  |  |  |
| Dynamic      | $10 \mu\text{W/g}$ to > 100 mW/g   |  |  |  |  |  |
| Range        | Linearity: $\pm 0.2$ dB (noise: typically < 1 $\mu$ W/g)   |  |  |  |  |  |
| Dimensions   | Tip diameter: 2.5 mm   |  |  |  |  |  |
| Application  | High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%. |  |  |  |  |  |

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#### PHANTOM

| Model          | ELI  |
|----------------|--|
| Construction   | The ELI phantom is used for compliance testing of handheld and<br>body-mounted wireless devices in the frequency range of 30 MHz<br>to 6 GHz. ELI is fully compatible with the IEC 62209-2<br>standard and all known tissue simulating liquids. ELI has been<br>optimized regarding its performance and can be integrated into<br>our standard phantom tables. A cover prevents evaporation of the<br>liquid. Reference markings on the phantom allow installation of<br>the complete setup, including all predefined phantom positions<br>and measurement grids, by teaching three points. The phantom<br>is compatible with all SPEAG dosimetric probes and dipoles. |
| Shell          | 2 ± 0.2 mm   |
| Thickness      |  |
| Filling Volume | Approx. 30 liters  |
| Dimensions     | Major axis: 600 mm   |
|                | Minor axis: 400 mm   |

#### **DEVICE HOLDER**

| Construction | The device holder (Supporter)<br>for Notebook is made by<br>POM (polyoxymethylene<br>resin), which is non-metal<br>and non-conductive. The<br>height can be adjusted to fit<br>varies kind of notebooks. |               |
|--------------|--|---------------|
|              |  | Device Holder |

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#### **1.8 SAR System Verification**

The microwave circuit arrangement for system verification is sketched in Fig. b. The daily system accuracy verification occurs within the flat section of the SAM phantom. A SAR measurement was performed to see if the measured SAR was within +/-10% from the target SAR values. These tests were done at 2450/5250/5600/5750 MHz. The tests were conducted on the same days as the measurement of the DUT. The obtained results from the system accuracy verification are displayed in the table 1 (SAR values are normalized to 1W forward power delivered to the dipole). During the tests, the liquid depth above the ear reference points was above 15 cm in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values.

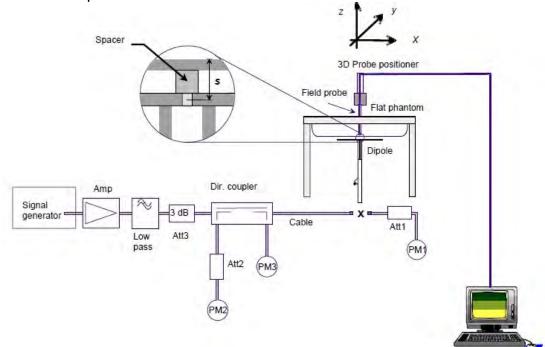


Fig. b The block diagram of system verification

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| Validation Kit | S/N | Frequency<br>(MHz) | 1W Target<br>1g-SAR<br>(W/kg) | pin=250mW<br>Measured<br>1g-SAR<br>(W/kg) | Normalized to<br>1W<br>1g-SAR (W/kg) | Deviation<br>(%) | Limit | Measurement<br>Date |
|----------------|-----|--------------------|-------------------------------|---|--------------------------------------|------------------|-------|---------------------|
| D2450V2        | 727 | 2450               | 52.8                          | 12.9                                      | 51.6                                 | -2.27            | ± 10% | Jun.22,2022         |

| Validation Kit | S/N  | Frequency<br>(MHz) | 1W Target<br>1g-SAR<br>(W/kg) | pin=100mW<br>Measured<br>1g-SAR<br>(W/kg) | Normalized to<br>1W<br>1g-SAR (W/kg) | Deviation<br>(%) | Limit | Measurement<br>Date |
|----------------|------|--------------------|-------------------------------|---|--------------------------------------|------------------|-------|---------------------|
| D5GHzV2        | 1023 | 5250               | 81                            | 8.15                                      | 81.5                                 | 0.62             | ± 10% | Jun.23,2022         |
| D5GHzV2        | 1023 | 5600               | 84.4                          | 8.18                                      | 81.8                                 | -3.08            | ± 10% | Jun.24,2022         |
| D5GHzV2        | 1023 | 5750               | 81                            | 8.11                                      | 81.1                                 | 0.12             | ± 10% | Jun.24,2022         |

Table 1. Results of system validation

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#### 1.9 Tissue Simulant Fluid for the Frequency Band

The dielectric properties for this Head-simulant fluid were measured by using the SPEAG Dielectric Assessment Kit (DAKS-3.5)

All dielectric parameters of tissue simulates were measured within 24 hours of SAR measurements. The measured conductivity and permittivity are all within ± 5% of the target values.

The depth of the tissue simulant in the flat section of the phantom was  $\geq 15$  cm  $\pm 5$ mm during all tests. (Fig. 2)

| Tissue<br>Type | Measurement<br>Date | Measured<br>Frequency<br>(MHz) | Target<br>Dielectric<br>Constant,<br>εr | Target<br>Conductivity,<br>σ (S/m) | Measured<br>Dielectric<br>Constant,<br>εr | Measured<br>Conductivity,<br>σ (S/m) | % dev εr | % dev σ |
|----------------|---------------------|--------------------------------|---|------------------------------------|---|--------------------------------------|----------|---------|
|                |                     | 2402                           | 39.285                                  | 1.757                              | 38.945                                    | 1.751                                | -0.87%   | -0.36%  |
|                |                     | 2412                           | 39.268                                  | 1.766                              | 38.927                                    | 1.759                                | -0.87%   | -0.38%  |
|                |                     | 2437                           | 39.223                                  | 1.788                              | 38.883                                    | 1.781                                | -0.87%   | -0.43%  |
|                | Jun. 22, 2022       | 2442                           | 39.214                                  | 1.793                              | 38.874                                    | 1.785                                | -0.87%   | -0.44%  |
|                |                     | 2450                           | 39.200                                  | 1.800                              | 38.859                                    | 1.792                                | -0.87%   | -0.45%  |
|                |                     | 2462                           | 39.185                                  | 1.813                              | 38.844                                    | 1.802                                | -0.87%   | -0.59%  |
|                |                     | 2480                           | 39.162                                  | 1.827                              | 38.821                                    | 1.818                                | -0.87%   | -0.46%  |
|                | Jun. 23, 2022       | 5190                           | 35.997                                  | 4.645                              | 35.657                                    | 4.597                                | -0.95%   | -1.02%  |
| Llaad          |                     | 5210                           | 35.974                                  | 4.665                              | 35.634                                    | 4.618                                | -0.95%   | -1.02%  |
| Head           |                     | 5250                           | 35.929                                  | 4.706                              | 35.588                                    | 4.658                                | -0.95%   | -1.02%  |
|                |                     | 5270                           | 35.906                                  | 4.727                              | 35.565                                    | 4.679                                | -0.95%   | -1.02%  |
|                |                     | 5290                           | 35.883                                  | 4.747                              | 35.542                                    | 4.699                                | -0.95%   | -1.02%  |
|                |                     | 5310                           | 35.860                                  | 4.768                              | 35.519                                    | 4.719                                | -0.95%   | -1.01%  |
|                |                     | 5600                           | 35.529                                  | 5.065                              | 35.188                                    | 5.015                                | -0.96%   | -0.99%  |
|                |                     | 5690                           | 35.426                                  | 5.157                              | 35.085                                    | 5.106                                | -0.96%   | -1.00%  |
|                | Jun. 24, 2022       | 5750                           | 35.357                                  | 5.218                              | 35.017                                    | 5.167                                | -0.96%   | -0.97%  |
|                |                     | 5755                           | 35.351                                  | 5.224                              | 35.011                                    | 5.172                                | -0.96%   | -1.00%  |
|                |                     | 5775                           | 35.329                                  | 5.244                              | 34.988                                    | 5.192                                | -0.96%   | -1.00%  |

Table 2. Dielectric Parameters of Tissue Simulant Fluid

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#### The composition of the brain tissue simulating liquid is:

Simulating Liquids for 600 MHz -10 GHz, Manufactured by SPEAG:

| Broad-band head              | SPEAG<br>Product    | Frequency range (MHz) | Main Ingredients |
|------------------------------|---------------------|-----------------------|------------------|
| tissue simulating<br>liquids | HBBL600-<br>10000V6 | 600 - 10000           | Water, Oil       |

Table 3. Recipes for tissue simulating liquid

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#### 1.10 Evaluation Procedures

The entire evaluation of the spatial peak values is performed within the Postprocessing engine (SEMCAD). The system always gives the maximum values for the 1 g and 10 g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

- 1. The extraction of the measured data (grid and values) from the Zoom Scan.
- 2. The calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
- 3. The generation of a high-resolution mesh within the measured volume
- 4. The interpolation of all measured values from the measurement grid to the highresolution arid
- 5. The extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
- 6. The calculation of the averaged SAR within masses of 1g and 10g.

The probe is calibrated at the center of the dipole sensors that is located 1 to 2.7mm away from the probe tip. During measurements, the probe stops shortly above the phantom surface, depending on the probe and the surface detecting system. Both distances are included as parameters in the probe configuration file. The software always knows exactly how far away the measured point is from the surface. As the probe cannot directly measure at the surface, the values between the deepest measured point and the surface must be extrapolated. The angle between the probe axis and the surface normal line is less than 30 degree.

In the Area Scan, the gradient of the interpolation function is evaluated to find all the extreme of the SAR distribution. The uncertainty on the locations of the extreme is less than 1/20 of the grid size. Only local maximum within -2 dB of the global maximum are searched and passed for the Cube Scan measurement. In the Cube Scan, the interpolation function is used to extrapolate the Peak SAR from the lowest measurement points to the inner phantom surface (the extrapolation distance). The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5mm.

The maximum search is automatically performed after each area scan measurement. It is based on splines in two or three dimensions. The procedure can find the maximum for most SAR distributions even with relatively large grid spacing. After the area scanning measurement, the probe is automatically moved to a position at the interpolated maximum. The following scan can directly use this position for reference, e.g., for a finer resolution grid or the cube evaluations. The 1g and 10g peak evaluations are only available for the predefined cube 7x7x7 scans. The routines are verified and optimized for the grid dimensions used in these cube measurements.

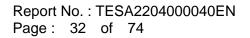
The measured volume of 30x30x30mm contains about 30g of tissue.

The first procedure is an extrapolation (incl. Boundary correction) to get the points between the lowest measured plane and the surface. The next step uses 3D

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interpolation to get all points within the measured volume. In the last step, a 1g cube is placed numerically into the volume and its averaged SAR is calculated. This cube is the moved around until the highest averaged SAR is found. If the highest SAR is found at the edge of the measured volume, the system will issue a warning: higher SAR values might be found outside of the measured volume. In that case the cube measurement can be repeated, using the new interpolated maximum as the center.

#### 1.11 Probe Calibration Procedures

For the calibration of E-field probes in lossy liquids, an electric field with an accurately known field strength must be produced within the measured liquid. For standardization purposes it would be desirable if all measurements which are necessary to assess the correct field strength would be traceable to standardized measurement procedures. In the following two different calibration techniques are summarized:

#### 1.11.1 Transfer Calibration with Temperature Probes

In lossy liquids the specific absorption rate (SAR) is related both to the electric field (*E*) and the temperature gradient ( $\delta T / \delta t$ ) in the liquid.

$$SAR = C \frac{\delta T}{\delta t}$$
,

whereby  $\sigma$  is the conductivity,  $\rho$  the density and c the heat capacity of the liquid.

Hence, the electric field in lossy liquid can be measured indirectly by measuring the temperature gradient in the liquid. Non-disturbing temperature probes (optical probes or thermistor probes with resistive lines) with high spatial resolution (<1-2 mm) and fast reaction time (<1 s) are available and can be easily calibrated with high precision [1]. The setup and the exciting source have no influence on the calibration; only the relative positioning uncertainties of the standard temperature probe and the E-field probe to be calibrated must be considered. However, several problems limit the available accuracy of probe calibrations with temperature probes:

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- The temperature gradient is not directly measurable but must be evaluated from temperature measurements at different time steps. Special precaution is necessary to avoid measurement errors caused by temperature gradients due to energy equalizing effects or convection currents in the liquid. Such effects cannot be completely avoided, as the measured field itself destroys the thermal equilibrium in the liquid. With a careful setup these errors can be kept small.
- The measured volume around the temperature probe is not well defined. It is difficult to calculate the energy transfer from a surrounding gradient temperature field into the probe. These effects must be considered, since temperature probes are calibrated in liquid with homogeneous temperatures. There is no traceable standard for temperature rise measurements.
- The calibration depends on the assessment of the specific density, the heat capacity and the conductivity of the medium. While the specific density and heat capacity can be measured accurately with standardized procedures (~ 2% for c; much better for  $\rho$ ), there is no standard for the measurement of the conductivity. Depending on the method and liquid, the error can well exceed ±5%.
- Temperature rise measurements are not very sensitive and therefore are often performed at a higher power level than the E-field measurements. The nonlinearities in the system (e.g., power measurements, different components, etc.) must be considered.

Considering these problems, the possible accuracy of the calibration of Efield probes with temperature gradient measurements in a carefully designed setup is about ±10% (RSS) [2]. Recently, a setup which is a combination of the waveguide techniques and the thermal measurements was presented in [3]. The estimated uncertainty of the setup is  $\pm 5\%$  (RSS) when the same liquid is used for the calibration and for actual measurements and ±7-9% (RSS) when not, which is in good agreement with the estimates given in [2].

#### 1.11.2 Calibration with Analytical Fields

In this method a technical setup is used in which the field can be calculated analytically from measurements of other physical magnitudes (e.g., input power). This corresponds to the standard field method for probe calibration in air; however, there is no standard defined for fields in lossy liquids.

When using calculated fields in lossy liquids for probe calibration, several points must be considered in the assessment of the uncertainty:

- The setup must enable accurate determination of the incident power.
- The accuracy of the calculated field strength will depend on the assessment of the dielectric parameters of the liquid.
- Due to the small wavelength in liquids with high permittivity, even small

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setups might be above the resonant cutoff frequencies. The field distribution in the setup must be carefully checked for conformity with the theoretical field distribution.

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#### 1.12 Test Standards and Limits

According to FCC 47CFR §2.1093(d) The limits to be used for evaluation are based generally on criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate ("SAR") in Section 4.2 of "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," ANSI/IEEE C95.1, By the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017. These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in "Biological Effects and Exposure Criteria for Radio frequency Electromagnetic Fields," NCRP Report No. 86, Section 17.4.5. Copyright NCRP, 1986, Bethesda, Maryland 20814. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards. The criteria to be used are specified in paragraphs (d)(1) and (d)(2) of this section and shall apply for portable devices transmitting in the frequency range from 100 kHz to 6 GHz. Portable devices that transmit at frequencies above 6 GHz are to be evaluated in terms of the MPE limits specified in § 1.1310 of this chapter. Measurements and calculations to demonstrate compliance with MPE field strength or power density limits for devices operating above 6 GHz should be made at a minimum distance of 5 cm from the radiating source.

- Limits for Occupational/Controlled exposure: 0.4 W/kg as averaged over the (1) whole-body and spatial peak SAR not exceeding 8 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 20 W/kg, as averaged over an 10 grams of tissue (defined as a tissue volume in the shape of a cube).
- Occupational/Controlled limits apply when persons are exposed as a (2) consequence of their employment provided these persons are fully aware of and exercise control over their exposure. Awareness of exposure can be accomplished by use of warning labels or by specific training or education through appropriate means, such as an RF safety program in a work environment.
- Limits for General Population/Uncontrolled exposure: 0.08 W/kg as averaged (3) over the whole-body and spatial peak SAR not exceeding 1.6 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 4 W/kg, as averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). General Population/Uncontrolled limits apply when the general public may be exposed, or when persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or do not exercise control over their exposure. Warning labels placed on consumer

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devices such as cellular telephones will not be sufficient reason to allow these devices to be evaluated subject to limits for occupational/controlled exposure in paragraph (d)(1) of this section. (Table 4.)

| Human Exposure                               | Uncontrolled<br>Environment<br>General Population | Controlled Environment<br>Occupational |
|--|---|--|
| Spatial Peak SAR<br>(Brain)                  | 1.60 W/kg   | 8.00 W/kg                              |
| Spatial Average SAR<br>(Whole Body)          | 0.08 W/kg   | 0.40 W/kg                              |
| Spatial Peak SAR<br>(Hands/Feet/Ankle/Wrist) | 4.00 W/kg   | 20.00 W/kg                             |

Table 4. RF exposure limits

Notes:

- 1. Uncontrolled environments are defined as locations where there is potential exposure of individuals who have no knowledge or control of their potential exposure.
- 2. Controlled environments are defined as locations where there is potential exposure of individuals who have knowledge of their potential exposure and can exercise control over their exposure.

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# 2. Summary of Results

## 2.1 Decision rules

Reported measurement data comply with IEEE 1528-2013: Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

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# 2.2 Summary of Results

## **High-Tek**

| Mode   |  |  |  |   |   |  |  |  |  |  |          |
|--|--|--|--|---|---|--|--|--|--|--|----------|
|  | Position   | Distance<br>(mm)   | СН   | Freq.<br>(MHz)  | Max. Rated Avg.<br>Power + Max.   | Measured<br>Avg. Power   | Duty cycle   | Power  | Averaged SAR   | over 1g (W/kg)   | D        |
|  |  | (mm)   |  | (WIFIZ)   | Tolerance (dBm)   | (dBm)  | scaling  | scaling  | Measured   | Reported   |          |
| WLAN 802.11b   | Bottom Surface   | 0  | 1  | 2412  | 16.50   | 16.41  | 1.011  | 102.09%  | 0.611  | 0.631  |          |
| WLAN 802.11b   | Bottom Surface   | 0  | 6  | 2437  | 16.50   | 16.47  | 1.011  | 100.69%  | 0.622  | 0.633  | 001      |
| WLAN 802.11b   | Bottom Surface   | 0  | 11   | 2462  | 16.50   | 16.12  | 1.011  | 109.14%  | 0.525  | 0.579  | -        |
| WLAN 802.11b   | Front Edge   | 0  | 6  | 2437  | 16.50   | 16.47  | 1.011  | 100.69%  | 0.464  | 0.472  |          |
| Mode   | Position   | Distance<br>(mm)   | сн   | Freq.<br>(MHz)  | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)  | Measured<br>Avg. Power<br>(dBm)  | Duty cycle<br>scaling  | Power<br>scaling   | Averaged SAR   |  | D        |
|  |  |  |  |   |   | ()   |  |  | Measured   | Reported   |          |
| WLAN 802.11n(40M) 5.2G   | Front Edge   | 0  | 38   | 5190  | 11.50   | 11.49  | 1.012  | 100.23%  | 0.869  | 0.881  |          |
| WLAN 802.11n(40M) 5.2G   | Front Edge*  | 0  | 38   | 5190  | 11.50   | 11.49  | 1.012  | 100.23%  | 0.831  | 0.843  |          |
| WLAN 802.11n(40M) 5.2G   | Front Edge   | 0  | 46   | 5230  | 11.50   | 11.47  | 1.012  | 100.69%  | 0.823  | 0.839  | -        |
| WLAN 802.11ac(80M) 5.2G  | Bottom Surface   | 0  | 42   | 5210  | 11.50   | 11.37  | 1.016  | 103.04%  | 0.213  | 0.223  | - 002    |
| WLAN 802.11ac(80M) 5.2G<br>WLAN 802.11ac(80M) 5.2G   | Front Edge*  | 0  | 42   | 5210<br>5210  | 11.50<br>11.50  | 11.37<br>11.37   | 1.016  | 103.04%<br>103.04%   | 0.926  | 0.969 0.950  | 002      |
| TEST COLL TRUCTORY 0.20  | T Tone Edge  | 0  | 12   | 0210  | 11.00   | 11.07  | 1.012  | 100.0470   | 0.011  | 0.000  |          |
| Mode   | Position   | Distance<br>(mm)   | СН   | Freq.<br>(MHz)  | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)  | Measured<br>Avg. Power<br>(dBm)  | Duty cycle<br>scaling  | Power<br>scaling   | Averaged SAR<br>Measured   | over 1g (W/kg)<br>Reported   | D        |
|  |  |  |  |   |   |  |  |  |  |  |          |
| WLAN 802.11n(40M) 5.3G   | Front Edge   | 0  | 54   | 5270  | 12.00   | 11.69  | 1.012  | 107.40%  | 0.772  | 0.839  | -        |
| WLAN 802.11n(40M) 5.3G<br>WLAN 802.11ac(80M) 5.3G  | Front Edge<br>Bottom Surface   | 0  | 62<br>58   | 5310<br>5290  | 12.00<br>12.00  | 11.63<br>11.78   | 1.012  | 108.89%<br>105.20%   | 0.736  | 0.811<br>0.251   |          |
| WLAN 802.11ac(80M) 5.3G  | Front Edge   | 0  | 58   | 5290  | 12.00   | 11.78  | 1.016  | 105.20%  | 0.235  | 1.067  | 003      |
| WLAN 802.11ac(80M) 5.3G  | Front Edge*  | 0  | 58   | 5290  | 12.00   | 11.78  | 1.016  | 105.20%  | 0.941  | 1.006  | 005      |
| WLAIN 802.1120(8000) 5.30  | FIOILEUge  | U  | 50   | 5290  | 12.00   | 11.70  | 1.010  | 103.20%  | 0.941  | 1.008  |          |
| Mode   | Position   | Distance<br>(mm)   | СН   | Freq.<br>(MHz)  | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)  | Measured<br>Avg. Power<br>(dBm)  | Duty cycle<br>scaling  | Power<br>scaling   | Averaged SAR<br>Measured   | over 1g (W/kg)<br>Reported   | D        |
| WI AN 802 11 ac (80M) 5.6G   | Bottom Surface   | 0  | 138  | 5690  | 9.00  | 8.96   | 1.016  | 100.93%  | 0.211  | 0.216  |          |
| WLAN 802.11ac(80M) 5.6G<br>WLAN 802.11ac(80M) 5.6G   | Bottom Surface<br>Front Edge   | 0  | 138  | 5530  | 9.00  | 8.74   | 1.016  | 106.17%  | 0.945  | 1.019  | -        |
| WLAN 802.11ac(80M) 5.6G  | Front Edge   | 0  | 122  | 5610  | 9.00  | 8.66   | 1.016  | 108.14%  | 0.917  | 1.008  |          |
| WLAN 802.11ac(80M) 5.6G  | Front Edge   | 0  | 138  | 5690  | 9.00  | 8.96   | 1.016  | 100.93%  | 1.010  | 1.036  | 004      |
| WLAN 802.11ac(80M) 5.6G  | Front Edge*  | 0  | 138  | 5690  | 9.00  | 8.96   | 1.016  | 100.93%  | 0.988  | 1.013  | -        |
|  |  |  | •  |   |   |  |  |  | •  |  |          |
| Mode   | Position   | Distance<br>(mm)   |  | Freq.<br>(MHz)  | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)  | Measured<br>Avg. Power<br>(dBm)  | Duty cycle<br>scaling  | Power<br>scaling   | Averaged SAR<br>Measured   | over 1g (W/kg)<br>Reported   | D        |
| WLAN 802.11n(40M) 5.8G   | Front Edge   | 0  | 151  | 5755  | 8.00  | 7.98   | 1.012  | 100.46%  | 0.941  | 0.957  |          |
| WLAN 802.11n(40M) 5.8G   | Front Edge*  | 0  | 151  | 5755  | 8.00  | 7.98   | 1.012  | 100.46%  | 0.926  | 0.941  |          |
| WLAN 802.11n(40M) 5.8G   | Front Edge   | 0  | 159  | 5795  | 8.00  | 7.93   | 1.012  | 101.62%  | 0.903  | 0.929  | -        |
| WLAN 802.11ac(80M) 5.8G  | Bottom Surface   | 0  | 155  | 5775  | 8.00  | 7.71   | 1.016  | 106.91%  | 0.208  | 0.226  |          |
| WLAN 802.11ac(80M) 5.8G  | Front Edge   | 0  | 155  | 5775  | 8.00  | 7.71   | 1.016  | 106.91%  | 0.966  | 1.049  | 005      |
| WLAN 802.11ac(80M) 5.8G  |  |  |  |   |   |  |  |  |  |  |          |
| WEAN 802.1120(8000) 5.80   | Front Edge*  | 0  | 155  | 5775  | 8.00  | 7.71   | 1.016  | 106.91%  | 0.938  | 1.019  |          |
| Aux<br>Mode  | Front Edge*  | 0<br>Distance<br>(mm)  | 155<br>CH  | 5775<br>Freq.<br>(MHz)  | 8.00<br>Max. Rated Avg.<br>Power + Max.   | 7.71<br>Measured<br>Avg. Power   |  |  | 0.938<br>Averaged SAR  | 1.019<br>over 1g (W/kg)  | -<br>ID  |
| Aux  | Position   | Distance<br>(mm)   | СН   | Freq.<br>(MHz)  | 8.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)  | 7.71<br>Measured<br>Avg. Power<br>(dBm)  | 1.016<br>Duty cycle<br>scaling   | 106.91%<br>Power<br>scaling  | 0.938<br>Averaged SAR<br>Measured  | 1.019<br>over 1g (W/kg)<br>Reported  |          |
| Aux<br>Mode<br>WLAN 802.11b  | Position<br>Bottom Surface   | Distance<br>(mm)<br>0  | CH<br>1  | Freq.<br>(MHz)<br>2412  | 8.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>16.50   | 7.71<br>Measured<br>Avg. Power<br>(dBm)<br>16.33   | 1.016<br>Duty cycle<br>scaling<br>1.011  | 106.91%<br>Power<br>scaling<br>103.99%   | 0.938<br>Averaged SAR<br>Measured<br>0.231   | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243   |          |
| Aux<br>Mode<br>WLAN 802.11b<br>WLAN 802.11b  | Position<br>Bottom Surface<br>Front Edge   | Distance<br>(mm)<br>0  | CH<br>1<br>6   | Freq.<br>(MHz)<br>2412<br>2437  | 8.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50  | 7.71<br>Measured<br>Avg. Power<br>(dBm)<br>16.33<br>16.23  | 1.016<br>Duty cycle<br>scaling<br>1.011<br>1.011   | 106.91%<br>Power<br>scaling<br>103.99%<br>106.41%  | 0.938<br>Averaged SAR<br>Measured<br>0.231<br>0.611  | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657  | -        |
| Aux<br>Mode<br>WLAN 802.11b  | Position<br>Bottom Surface   | Distance<br>(mm)<br>0  | CH<br>1  | Freq.<br>(MHz)<br>2412  | 8.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>16.50   | 7.71<br>Measured<br>Avg. Power<br>(dBm)<br>16.33   | 1.016<br>Duty cycle<br>scaling<br>1.011  | 106.91%<br>Power<br>scaling<br>103.99%   | 0.938<br>Averaged SAR<br>Measured<br>0.231   | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243   | -        |
| Aux<br>Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b  | Position<br>Bottom Surface<br>Front Edge<br>Front Edge   | Distance<br>(mm)<br>0<br>0<br>0<br>0<br>Distance   | CH<br>1<br>6<br>11   | Freq.<br>(MHz)<br>2412<br>2437<br>2462  | 8.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>Max. Rated Avg.<br>Power + Max.   | 7.71<br>Measured<br>Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.28<br>16.33<br>Measured<br>Avg. Power  | 1.016<br>Duty cycle<br>scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle   | 106.91%<br>Power<br>scaling<br>103.99%<br>106.41%<br>105.20%<br>103.99%<br>Power   | 0.938<br>Averaged SAR<br>Measured<br>0.231<br>0.611<br>0.624   | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657<br>0.664<br>0.724  | - ID<br> |
| Aux<br>Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b  | Position<br>Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge   | Distance<br>(mm)<br>0<br>0<br>0  | CH<br>1<br>6<br>11<br>1  | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>Freq.   | 8.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50  | 7.71<br>Measured<br>Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.33<br>Measured  | 1.016<br>Duty cycle<br>scaling<br>1.011<br>1.011<br>1.011<br>1.011   | 106.91%<br>Power<br>scaling<br>103.99%<br>106.41%<br>105.20%<br>103.99%  | 0.938<br>Averaged SAR<br>Measured<br>0.231<br>0.611<br>0.624<br>0.689  | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657<br>0.664<br>0.724  | - ID<br> |
| Aux<br>Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode  | Position<br>Front Edge<br>Front Edge<br>Front Edge<br>Pront Edge   | Distance<br>(mm)<br>0<br>0<br>0<br>Distance<br>(mm)  | CH<br>1<br>6<br>11<br>1<br>1<br>CH   | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>Freq.<br>(MHz)  | 8.00           Max. Rated Avg.           POwer + Max.           Tolerance (dBm)           16.50           17.50           18.50 | 7.71<br>Measured<br>Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.28<br>16.33<br>Measured<br>Avg. Power<br>(dBm)   | 1.016<br>Duty cycle<br>scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle<br>scaling   | 106.91%<br>Power<br>scaling<br>103.99%<br>106.41%<br>105.20%<br>103.99%<br>Power<br>scaling  | 0.938<br>Averaged SAR<br>Measured<br>0.231<br>0.611<br>0.624<br>0.689<br>Averaged SAR<br>Measured  | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657<br>0.654<br>0.724<br>over 1g (W/kg)<br>Reported  | - D      |
| Aux<br>Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode<br>Bluetooth(GFSK)   | Position<br>Bottom Surface<br>Front Edge<br>Front Edge<br>Pront Edge<br>Position<br>Bottom Surface   | Distance<br>(mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0   | CH<br>1<br>6<br>11<br>1<br>CH<br>0   | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>2412<br>2412<br>Freq.<br>(MHz)<br>2402                        | 8.00<br>Max Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>11.50   | 7.71<br>Measured<br>Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>16.23<br>16.33<br>Measured<br>Avg. Power<br>(dBm)<br>10.74  | 1.016<br>Duty cycle<br>scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle<br>scaling<br>1.302   | 106.91%<br>Power<br>scaling<br>103.99%<br>106.41%<br>105.20%<br>103.99%<br>Power<br>scaling<br>119.12%   | 0.938<br>Averaged SAR<br>Measured<br>0.231<br>0.611<br>0.624<br>0.669<br>Averaged SAR<br>Measured<br>0.014   | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657<br>0.664<br>0.724<br>over 1g (W/kg)<br>Reported<br>0.022   | - D<br>  |
| Aux<br>Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode  | Position<br>Front Edge<br>Front Edge<br>Front Edge<br>Pront Edge   | Distance<br>(mm)<br>0<br>0<br>0<br>Distance<br>(mm)  | CH<br>1<br>6<br>11<br>1<br>1<br>CH   | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>Freq.<br>(MHz)  | 8.00           Max. Rated Avg.           POwer + Max.           Tolerance (dBm)           16.50           17.50           18.50 | 7.71<br>Measured<br>Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.28<br>16.33<br>Measured<br>Avg. Power<br>(dBm)   | 1.016<br>Duty cycle<br>scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle<br>scaling   | 106.91%<br>Power<br>scaling<br>103.99%<br>106.41%<br>105.20%<br>103.99%<br>Power<br>scaling  | 0.938<br>Averaged SAR<br>Measured<br>0.231<br>0.611<br>0.624<br>0.689<br>Averaged SAR<br>Measured  | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657<br>0.654<br>0.724<br>over 1g (W/kg)<br>Reported  | - D      |
| Aux<br>Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode<br>Bilaetooth(GFSK)  | Position<br>Bottom Surface<br>Front Edge<br>Front Edge<br>Pront Edge<br>Position<br>Bottom Surface   | Distance<br>(mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0   | CH<br>1<br>6<br>11<br>1<br>CH<br>0   | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>2412<br>2412<br>Freq.<br>(MHz)<br>2402                        | 8.00           Max Rated Avg.           Power + Max.           Tolerance (dBm)           16.50           16.50           16.50           16.50           16.50           Tolerance (dBm)           Tolerance (dBm)           Tolerance (dBm)           11.50  | 7.71<br>Measured<br>Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>16.23<br>16.33<br>Measured<br>Avg. Power<br>(dBm)<br>10.74  | 1.016<br>Duty cycle<br>scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle<br>scaling<br>1.302   | 106.91%<br>Power<br>scaling<br>103.99%<br>106.41%<br>105.20%<br>103.99%<br>Power<br>scaling<br>119.12%   | 0.938 Averaged SAR Measured 0.231 0.611 0.611 0.624 0.689 Averaged SAR Measured 0.014 0.074 Averaged S   | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657<br>0.664<br>0.724<br>over 1g (W/kg)<br>Reported<br>0.022   | - D<br>  |
| Aux<br>Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode<br>Bluetooth(GFSK)<br>Bluetooth(GFSK)<br>Mode  | Position<br>Eottom Surface<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position   | Distance<br>(rmm)<br>0<br>0<br>0<br>Distance<br>(rmm)<br>0<br>Distance<br>(rmm)  | CH<br>1<br>6<br>11<br>1<br>CH<br>0<br>0<br>CH<br>CH  | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>2412<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402 | 8.00<br>Max Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>Max Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>11.50<br>Max Rated Avg.<br>Power + Max.<br>Tolerance (dBm)   | 7.71<br>Measured<br>Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>16.33<br>Measured<br>Avg. Power<br>(dBm)<br>10.74<br>10.74<br>Measured<br>Avg. Power<br>(dBm)   | 1.016 Duty cycle scaling 1.011 1.011 1.011 1.011 Duty cycle scaling 1.302 1.302 Duty cycle scaling Duty cycle  | 106.91%<br>Power<br>scaling<br>103.99%<br>106.41%<br>105.20%<br>103.99%<br>Power<br>scaling<br>Power<br>scaling  | 0.938  Averaged SAR  Measured  0.231 0.611 0.611 0.624 0.689  Averaged SAR Measured 0.014 0.074 Averaged S  Averag | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657<br>0.664<br>0.724<br>0.724<br>0.724<br>0.724<br>0.724<br>0.724<br>0.115<br>SAR over 1g<br>kg)<br>Reported  | - ID<br> |
| Aux<br>Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode<br>Bluetooth(GFSK)<br>Bluetooth(GFSK)<br>Bluetooth(GFSK)<br>Mode<br>WLAN 802.11ac(80M) 5.2G  | Position Bottom Surface Front Edge Front Edge Position Bottom Surface Position Bottom Surface Position Bottom Surface Bottom S | Distance<br>(rmm)<br>0<br>0<br>0<br>Distance<br>(rmm)<br>Distance<br>(rmm)   | CH<br>1<br>6<br>11<br>1<br>CH<br>0<br>0<br>CH<br>42  | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>2412<br>2412<br>2412<br>2402<br>2402<br>2402<br>240           | 8.00           Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)           16.50           16.50           16.50           16.50           16.50           170erance (dBm)           11.50           11.50           11.50           11.50           11.60           11.60           11.60   | 7.71<br>Measured<br>Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>16.33<br>Measured<br>Avg. Power<br>(dBm)<br>10.74<br>10.74<br>10.74<br>Measured<br>Avg. Power<br>(dBm)<br>13.95   | 1.016<br>Duty cycle<br>scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.02<br>1.302<br>Duty cycle<br>scaling<br>Duty cycle<br>scaling<br>1.012   | 106.91% Power scaling 103.99% 106.41% 106.20% 103.99% Power scaling 119.12% 119.12% Power scaling 101.16%  | 0.938 Averaged SAR Measured 0.231 0.611 0.624 0.689 Averaged SAR Measured 0.014 0.074 Averaged SAR Measured 0.014 0.074  | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657<br>0.664<br>0.724<br>over 1g (W/kg)<br>Reported<br>0.022<br>0.115<br>SAR over 1g<br>kg)<br>Reported<br>0.182   | - ID<br> |
| Aux<br>Mode<br>WLAN 902.11b<br>WLAN 902.11b<br>WLAN 902.11b<br>WLAN 902.11b<br>Mode<br>Bluetootr(GFSK)<br>Bluetootr(GFSK)  | Position<br>Eottom Surface<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position   | Distance<br>(rmm)<br>0<br>0<br>0<br>Distance<br>(rmm)<br>0<br>Distance<br>(rmm)  | CH<br>1<br>6<br>11<br>1<br>CH<br>0<br>0<br>CH<br>CH  | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>2412<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402 | 8.00<br>Max Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>Max Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>11.50<br>Max Rated Avg.<br>Power + Max.<br>Tolerance (dBm)   | 7.71<br>Measured<br>Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>16.33<br>Measured<br>Avg. Power<br>(dBm)<br>10.74<br>10.74<br>Measured<br>Avg. Power<br>(dBm)   | 1.016 Duty cycle scaling 1.011 1.011 1.011 1.011 Duty cycle scaling 1.302 1.302 Duty cycle scaling Duty cycle  | 106.91%<br>Power<br>scaling<br>103.99%<br>106.41%<br>105.20%<br>103.99%<br>Power<br>scaling<br>Power<br>scaling  | 0.938  Averaged SAR  Measured  0.231 0.611 0.611 0.624 0.689  Averaged SAR Measured 0.014 0.074 Averaged S  Averag | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657<br>0.664<br>0.724<br>0.724<br>0.0724<br>0.0724<br>0.115<br>SAR over 1g<br>kg)<br>Reported<br>0.182<br>0.738<br>over 1g (W/kg)  | - ID<br> |
| Aux<br>Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode<br>Bluetooth(GFSK)<br>Bluetooth(GFSK)<br>Bluetooth(GFSK)<br>Bluetooth(GFSK)<br>Wode  | Position Bottom Surface Front Edge Front Edge Position Bottom Surface Front Edge Position Bottom Surface Front Edge Bottom Surface Front Edge  | Distance<br>(mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>Distance<br>(mm)<br>Distance  | CH<br>1<br>6<br>11<br>1<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42   | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>2412<br>2412<br>2402<br>2402<br>2402<br>2402<br>240           | 8.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>11.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>14.00<br>Max. Rated Avg.<br>Power + Max.  | 7.71<br>Measured<br>Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.28<br>16.33<br>Measured<br>Avg. Power<br>(dBm)<br>10.74<br>10.74<br>10.74<br>Measured<br>Avg. Power<br>(dBm)<br>13.95<br>13.95<br>Measured<br>Avg. Power   | 1.016 Duty cycle scaling 1.011 1.011 1.011 Duty cycle scaling 1.011 1.011 Duty cycle scaling 1.302 1.302 Duty cycle scaling 1.016 1.016 Duty cycle  | 106.91% Power scaling 103.99% 106.41% 105.20% 103.99% 103.99% Power scaling 119.12% 119.12% 119.12% 101.16% Power scaling  | 0.938 Averaged SAR Measured 0.231 0.6511 0.6514 0.654 0.659 Averaged SAR Measured 0.014 0.074 Averaged SAR 0.074 Averaged SAR 0.074 Averaged SAR 0.077 0.718 Averaged SAR  | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657<br>0.664<br>0.724<br>over 1g (W/kg)<br>Reported<br>0.022<br>0.115<br>AR over 1g<br>kg)<br>Reported<br>0.162<br>0.738   | - ID<br> |
| Aux<br>Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode<br>WLAN 802.11ac(80M) 5.2G<br>WLAN 802.11ac(80M) 5.2G<br>Mode  | Position Bottom Surface Front Edge Front Edge Position Bottom Surface Front Edge Position Bottom Surface Front Edge Position Bottom Surface Front Edge Position  | Distance<br>(mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>Distance<br>(mm)<br>Distance  | CH<br>1<br>6<br>11<br>1<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42   | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>2412<br>2412<br>2402<br>2402<br>2402<br>2402<br>240           | 8.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>11.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>14.00<br>Max. Rated Avg.<br>Power + Max.  | 7.71<br>Measured<br>Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.28<br>16.33<br>Measured<br>Avg. Power<br>(dBm)<br>10.74<br>10.74<br>10.74<br>Measured<br>Avg. Power<br>(dBm)<br>13.95<br>13.95<br>Measured<br>Avg. Power   | 1.016 Duty cycle scaling 1.011 1.011 1.011 Duty cycle scaling 1.011 1.011 Duty cycle scaling 1.302 1.302 Duty cycle scaling 1.016 1.016 Duty cycle  | 106.91% Power scaling 103.99% 106.41% 105.20% 103.99% 108.41% 105.20% 103.99% 119.12% 119.12% 119.12% 101.16% 101.16% 101.16% Power scaling Power scaling  | 0.938 Averaged SAR Measured 0.231 0.6511 0.6514 0.654 0.659 Averaged SAR Measured 0.014 0.074 Averaged SAR 0.074 Averaged SAR 0.074 Averaged SAR 0.077 0.718 Averaged SAR  | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657<br>0.664<br>0.724<br>0.724<br>0.724<br>0.724<br>0.724<br>0.115<br>SAR over 1g<br>kg)<br>Reported<br>0.182<br>0.738<br>over 1g (W/kg)<br>Reported   | - ID<br> |
| Aux<br>Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode<br>Bluetooth(GFSK)<br>Bluetooth(GFSK)<br>Mode<br>WLAN 802.11ac(80M) 5.2G<br>WLAN 802.11ac(80M) 5.2G  | Position Bottom Surface Front Edge Front Edge Position Bottom Surface Front Edge Position Bottom Surface Front Edge Bottom Surface Front Edge  | Distance<br>(mm)<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                     | CH<br>1<br>6<br>11<br>1<br>CH<br>0<br>0<br>CH<br>42<br>42<br>CH<br>CH  | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>2412<br>2412<br>2402<br>2402<br>2402<br>2402<br>240           | 8.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>11.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>14.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)   | 7.71<br>Measured<br>Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>Measured<br>Avg. Power<br>(dBm)<br>10.74<br>10.74<br>Measured<br>Avg. Power<br>(dBm)<br>13.95<br>13.95<br>Measured<br>Avg. Power<br>(dBm)   | 1.016           Duty cycle           scaling           1.011           1.011           1.011           0.011           1.011           Duty cycle           scaling           1.302           Duty cycle           scaling           1.016           Duty cycle           scaling  | 106.91% Power scaling 103.99% 106.41% 105.20% 103.99% 103.99% Power scaling 119.12% 119.12% 119.12% 101.16% Power scaling  | 0.938 Averaged SAR Measured 0.231 0.6611 0.611 0.624 0.669 Averaged SAR Measured 0.014 0.074 Averaged SAR 0.017 0.771 Averaged SAR 0.177 0.7718 Averaged SAR Measured 0.177 0.718 Averaged SAR Measured 0.177 0.171 0.177 0.17 0.1   | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657<br>0.664<br>0.724<br>0.724<br>0.0724<br>0.0724<br>0.115<br>SAR over 1g<br>kg)<br>Reported<br>0.182<br>0.738<br>over 1g (W/kg)  | - ID<br> |
| Aux<br>Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode<br>Bluetooth(GFSK)<br>Bluetooth(GFSK)<br>Mode<br>WLAN 802.11ac(80M) 5.2G<br>Mode<br>WLAN 802.11ac(80M) 5.2G  | Position Bottom Surface Front Edge Front Edge Position Bottom Surface Front Edge Position Bottom Surface Front Edge Position Bottom Surface Front Edge Bottom Surface Front Edge Bottom Surface Front Edge Bottom Surface Bottom Surfac | Distance<br>(mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0<br>0<br>Distance<br>(mm)<br>0<br>0<br>0<br>0<br>Distance                              | CH<br>1<br>6<br>11<br>1<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>CH<br>CH<br>58                               | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>2412<br>2412<br>2402<br>2402<br>2402<br>2402<br>240           | 8.00           Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)           16.50           16.50           16.50           Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)           11.50           11.50           11.50           11.50           11.50           11.50           11.4.00           14.00           14.00           14.00           14.00           14.00           14.00           14.00           14.00  | 7.71<br>Measured<br>Avg, Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.33<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>16.35<br>17.55<br>16.35<br>16.35<br>16.35<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17.55<br>17 | 1.016 Duty cycle scaling 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.012 1.302 1.302 1.016 | 106.91% Power scaling 103.99% 106.41% 105.20% Power scaling 119.12% 119.12% 101.16% 101.16% 101.16% 101.16% 105.20%  | 0.938  Averaged SAR  Measured  0.231 0.689  Averaged SAR  Measured  0.014 0.074  Averaged SAR  Measured  0.177 0.718  Averaged SAR  Measured  0.177 0.718  Averaged SAR  Measured  0.171   | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657<br>0.664<br>0.724<br>over 1g (W/kg)<br>Reported<br>0.022<br>0.115<br>SAR over 1g<br>kg)<br>Reported<br>0.738<br>over 1g (W/kg)<br>Reported<br>0.182<br>0.738   | - ID<br> |
| Aux<br>Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode<br>WLAN 802.11ac(80M) 5.2G<br>WLAN 802.11ac(80M) 5.3G<br>WLAN 802.11ac(80M) 5.3G   | Position Bottom Surface Front Edge Front Edge Position Bottom Surface Front Edge   | Distance<br>(mm)<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                     | CH<br>1<br>6<br>11<br>1<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>CH<br>58<br>58<br>58<br>CH       | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>2412<br>2412<br>2402<br>2402<br>2402<br>2402<br>240           | 8.00           Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)           16.50           16.50           16.50           7000000000000000000000000000000000000   | 7.71           Measured<br>Avg. Power<br>(dBm)           16.33           16.23           16.33           Measured<br>Avg. Power<br>(dBm)           10.74           Measured<br>Avg. Power<br>(dBm)           13.95           Measured<br>Avg. Power<br>(dBm)           13.95           Measured<br>Avg. Power<br>(dBm)           13.78           Measured<br>Avg. Power<br>(dBm)   | 1.016           Duty cycle           scaling           1.011           1.011           1.011           Duty cycle           scaling           1.302           1.302           Duty cycle           scaling           1.016           Duty cycle           scaling           1.016           Duty cycle           scaling           1.016           Duty cycle           scaling           1.018           Duty cycle           scaling   | 106.91% Power scaling 103.99% 106.41% 105.20% 103.99% Power scaling 119.12% 119.12% 101.16% 101.16% 101.16% 101.16% 105.20% 105.20% 105.20% Power scaling  | 0.938 Averaged SAR Measured 0.231 0.6611 0.624 0.689 Averaged SAR Measured 0.014 0.074 Averaged SAR 0.017 0.0718 Averaged SAR Measured 0.177 0.718 Averaged SAR Measured 0.171 0.562 Averaged SAR Measured 0.171 0.562   | 1.019           over 1g (W/kg)           Reported           0.243           0.657           0.664           0.724           over 1g (W/kg)           Reported           0.022           0.115           SAR over 1g           kg)           Reported           0.738           over 1g (W/kg)           Reported           0.182           0.183           over 1g (W/kg)           Reported           0.183           over 1g (W/kg)  | - ID<br> |
| Aux Mode WLAN 802.11b WLAN 802.11b WLAN 802.11b WLAN 802.11b WLAN 802.11b Mode Bluetooth(GFSK) Bluetooth(GFSK) WLAN 802.11ac(80M) 5.2G WLAN 802.11ac(80M) 5.2G WLAN 802.11ac(80M) 5.3G                 | Position Bottom Surface Front Edge Front Edge Front Edge Rostion Bottom Surface Rostion Bottom Surface Rostion Bottom Surface Rostion Bottom Surface Rostion Rosti Rosti Rostion Rostion Rostion Ros | Distance<br>(mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0<br>0<br>0<br>Distance<br>(mm)                      | CH<br>1<br>6<br>11<br>1<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>58<br>58<br>58<br>58<br>58       | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>2412<br>2412<br>2402<br>2402<br>2402<br>2402<br>240           | 8.00           Max, Rated Avg,<br>Power + Max,<br>Tolerance (dBm)           16.50           16.50           16.50           16.50           7000000000000000000000000000000000000   | 7.71<br>Measured<br>Avg, Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.33<br>16.33<br>Measured<br>Avg, Power<br>(dBm)<br>10.74<br>10.74<br>10.74<br>Measured<br>Avg, Power<br>(dBm)<br>13.95<br>13.95<br>Measured<br>Avg, Power<br>(dBm)<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78          | 1.016 Duty cycle scaling 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.016 | 106.91% Power scaling Power scaling Power scaling Power scaling 103.99% Power scaling 101.16% 101.16% 101.16% 101.16% 101.20% Power scaling 105.20% Power scaling 105.20% Power scaling 105.20%  | 0.938  Averaged SAR  Measured  0.231 0.689 0.689 Averaged SAR  Measured  0.014 0.074 Averaged SAR  Measured  0.177 0.718 Averaged SAR  Measured  0.171 0.562 Averaged SAR  Measured  0.206   | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657<br>0.654<br>0.724<br>over 1g (W/kg)<br>Reported<br>0.022<br>0.115<br>SAR over 1g<br>kg)<br>Reported<br>0.182<br>0.738<br>over 1g (W/kg)<br>Reported<br>0.183<br>0.601<br>over 1g (W/kg)  | - ID<br> |
| Aux<br>Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode<br>WLAN 802.11ac(80M) 5.2G<br>WLAN 802.11ac(80M) 5.3G<br>WLAN 802.11ac(80M) 5.3G   | Position Bottom Surface Front Edge Front Edge Position Bottom Surface Front Edge   | Distance<br>(mm)<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                     | CH<br>1<br>6<br>11<br>1<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>CH<br>58<br>58<br>58<br>CH       | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>2412<br>2412<br>2402<br>2402<br>2402<br>2402<br>240           | 8.00           Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)           16.50           16.50           16.50           7000000000000000000000000000000000000   | 7.71           Measured<br>Avg. Power<br>(dBm)           16.33           16.23           16.33           Measured<br>Avg. Power<br>(dBm)           10.74           Measured<br>Avg. Power<br>(dBm)           13.95           Measured<br>Avg. Power<br>(dBm)           13.95           Measured<br>Avg. Power<br>(dBm)           13.78           Measured<br>Avg. Power<br>(dBm)   | 1.016           Duty cycle           scaling           1.011           1.011           1.011           Duty cycle           scaling           1.302           1.302           Duty cycle           scaling           1.016           Duty cycle           scaling           1.016           Duty cycle           scaling           1.016           Duty cycle           scaling           1.018           Duty cycle           scaling   | 106.91% Power scaling 103.99% 106.41% 105.20% 103.99% Power scaling 119.12% 119.12% 101.16% 101.16% 101.16% 101.16% 105.20% 105.20% 105.20% Power scaling  | 0.938 Averaged SAR Measured 0.231 0.6611 0.624 0.689 Averaged SAR Measured 0.014 0.074 Averaged SAR 0.017 0.0718 Averaged SAR Measured 0.177 0.718 Averaged SAR Measured 0.171 0.562 Averaged SAR Measured 0.171 0.562   | 1.019           over 1g (W/kg)           Reported           0.243           0.657           0.664           0.724           over 1g (W/kg)           Reported           0.022           0.115           SAR over 1g           kg)           Reported           0.738           over 1g (W/kg)           Reported           0.182           0.183           over 1g (W/kg)           Reported           0.183           over 1g (W/kg)  | - ID<br> |
| Aux Mode WLAN 802.11b WLAN 802.11b WLAN 802.11b WLAN 802.11b WLAN 802.11b Mode Bluetooth(GFSK) Bluetooth(GFSK) Bluetooth(GFSK) WLAN 802.11ac(80M) 5.2G WLAN 802.11ac(80M) 5.2G WLAN 802.11ac(80M) 5.3G | Position Bottom Surface Front Edge Front Edge Front Edge Rostion Bottom Surface Rostion Bottom Surface Rostion Bottom Surface Rostion Bottom Surface Rostion Rosti Rosti Rostion Rostion Rostion Ros | Distance<br>(mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0<br>0<br>0<br>Distance<br>(mm)                      | CH<br>1<br>6<br>11<br>1<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>58<br>58<br>58<br>58<br>58       | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>2412<br>2412<br>2402<br>2402<br>2402<br>2402<br>240           | 8.00           Max, Rated Avg,<br>Power + Max,<br>Tolerance (dBm)           16.50           16.50           16.50           16.50           16.50           Max, Rated Avg,<br>Power + Max,<br>Tolerance (dBm)           11.50           11.50           11.50           11.50           11.50           11.50           11.50           11.50           11.50           11.50           11.4.00           14.00           14.00           14.00           14.00           14.00           15.00  | 7.71<br>Measured<br>Avg, Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.33<br>Measured<br>Avg, Power<br>(dBm)<br>10.74<br>10.74<br>10.74<br>Measured<br>Avg, Power<br>(dBm)<br>13.95<br>13.95<br>Measured<br>Avg, Power<br>(dBm)<br>13.78<br>13.78<br>13.78<br>13.78  | 1.016 Duty cycle scaling 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.016 | 106.91% Power scaling Power scaling Power scaling Power scaling 103.99% Power scaling 101.16% 101.16% 101.16% 101.16% 101.20% Power scaling 105.20% Power scaling 105.20% Power scaling 105.20%  | 0.938  Averaged SAR  Measured  0.231 0.689 0.689 Averaged SAR  Measured  0.014 0.074 Averaged SAR  Measured  0.177 0.718 Averaged SAR  Measured  0.171 0.562 Averaged SAR  Measured  0.206   | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657<br>0.654<br>0.724<br>over 1g (W/kg)<br>Reported<br>0.022<br>0.115<br>SAR over 1g<br>kg)<br>Reported<br>0.182<br>0.738<br>over 1g (W/kg)<br>Reported<br>0.183<br>0.601<br>over 1g (W/kg)  | - ID<br> |
| Aux Mode WLAN 802.11b WLAN 802.11b WLAN 802.11b WLAN 802.11b WLAN 802.11b Mode Bluetooth(GFSK) Bluetooth(GFSK) WLAN 802.11ac(80M) 5.2G WLAN 802.11ac(80M) 5.2G WLAN 802.11ac(80M) 5.3G                 | Position Bottom Surface Front Edge Front Edge Front Edge Rostion Bottom Surface Rostion Bottom Surface Rostion Bottom Surface Rostion Bottom Surface Rostion Rosti Rosti Rostion Rostion Rostion Ros | Distance<br>(mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0<br>0<br>0<br>Distance<br>(mm)                      | CH<br>1<br>6<br>11<br>1<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>58<br>58<br>58<br>58<br>58       | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>2412<br>2412<br>2402<br>2402<br>2402<br>2402<br>240           | 8.00           Max, Rated Avg,<br>Power + Max,<br>Tolerance (dBm)           16.50           16.50           16.50           16.50           16.50           Max, Rated Avg,<br>Power + Max,<br>Tolerance (dBm)           11.50           11.50           11.50           11.50           11.50           11.50           11.50           11.50           11.50           11.50           11.4.00           14.00           14.00           14.00           14.00           14.00           15.00  | 7.71<br>Measured<br>Avg, Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.33<br>Measured<br>Avg, Power<br>(dBm)<br>10.74<br>10.74<br>10.74<br>Measured<br>Avg, Power<br>(dBm)<br>13.95<br>13.95<br>Measured<br>Avg, Power<br>(dBm)<br>13.78<br>13.78<br>13.78<br>13.78  | 1.016 Duty cycle scaling 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.016 | 106.91% Power scaling Power scaling Power scaling Power scaling 103.99% Power scaling 101.16% 101.16% 101.16% 101.16% 101.20% Power scaling 105.20% Power scaling 105.20% Power scaling 105.20%  | 0.938  Averaged SAR  Measured  0.231 0.689 0.689 Averaged SAR  Measured  0.014 0.074 Averaged SAR  Measured  0.177 0.718 Averaged SAR  Measured  0.171 0.562 Averaged SAR  Measured  0.206   | 1.019  over 1g (W/kg)  Reported 0.243 0.657 0.664 0.724 over 1g (W/kg)  Reported 0.022 0.115 SAR over 1g (W/kg) Reported 0.182 0.738 over 1g (W/kg) Reported 0.183 0.601 over 1g (W/kg) Reported 0.183 0.601 over 1g (W/kg) Reported 0.183 0.601 0.183 0.60 0.183 0.60 0.183 0.60 0.18 0.18 0.18 0.18 0.18 0.18 0.18 0.1   | - ID<br> |
| Aux<br>Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode<br>Bluetooth(GFSK)<br>Bluetooth(GFSK)<br>Mode<br>WLAN 802.11ac(80M) 5.2G<br>WLAN 802.11ac(80M) 5.3G<br>WLAN 802.11ac(80M) 5.3G<br>WLAN 802.11ac(80M) 5.3G<br>WLAN 802.11ac(80M) 5.3G   | Position Bottom Surface Front Edge Front Edge Front Edge Rostion Bottom Surface Front Edge Rostin Bottom Sur | Distance<br>(rmm)<br>0<br>0<br>0<br>0<br>Distance<br>(rmm)<br>0<br>0<br>Distance<br>(rmm)<br>0<br>0<br>Distance<br>(rmm)<br>0<br>0<br>Distance | CH<br>1<br>6<br>11<br>1<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>58<br>58<br>58<br>58<br>58<br>58 | Freq.<br>(MHz)<br>2412<br>2437<br>2462<br>2412<br>2412<br>2412<br>2402<br>2402<br>2402<br>2402<br>240           | 8.00           Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)           16.50           16.50           16.50           Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)           11.50           Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)           14.00           Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)           14.00           Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)           14.00           Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)           15.00           Max. Rated Avg.<br>Power + Max.           15.00  | 7.71           Measured<br>Avg. Power<br>(dBm)           16.33           16.29           16.20           16.31           Measured<br>Avg. Power<br>(dBm)           10.74           10.74           10.74           10.74           10.74           13.95           13.95           13.95           13.78           13.78           13.78           13.78           14.96           Measured<br>Avg. Power<br>(dBm)   | 1.016  Duty cycle scaling  1.011  1.011  1.011  Duty cycle scaling  1.302  1.302  Duty cycle scaling  1.016  1.016  1.016  1.016  1.016  Duty cycle scaling  Duty cycl | 106.91%           Power           scaing           103.99%           106.41%           105.20%           103.99%           Power           scaing           119.12%           Power           scaing           101.18%           Power           scaing           101.18%           Power           scaing           105.20%           Power           scaing           105.20%           Power           scaing           105.20%           100.33%           100.33%           100.33%           Power | 0.938 Averaged SAR Measured 0.231 0.624 0.654 0.654 Averaged SAR Measured 0.014 0.074 Averaged SAR Measured 0.177 0.718 Averaged SAR Measured 0.171 0.562 Averaged SAR Measured 0.206 0.740 Averaged SAR   | 1.019<br>over 1g (W/kg)<br>Reported<br>0.243<br>0.657<br>0.664<br>0.724<br>0.724<br>0.724<br>0.724<br>0.724<br>0.715<br>0.115<br>SAR over 1g<br>Kg)<br>Reported<br>0.182<br>0.738<br>over 1g (W/kg)<br>Reported<br>0.183<br>0.601<br>over 1g (W/kg)<br>Reported<br>0.183<br>0.601<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.759<br>0.021<br>0.021<br>0.759<br>0.021<br>0.021<br>0.021<br>0.759<br>0.021<br>0.021<br>0.021<br>0.759<br>0.021<br>0.021<br>0.759<br>0.021<br>0.021<br>0.021<br>0.759<br>0.021<br>0.021<br>0.021<br>0.022<br>0.738<br>0.021<br>0.022<br>0.738<br>0.021<br>0.022<br>0.738<br>0.021<br>0.022<br>0.759<br>0.021<br>0.022<br>0.759<br>0.021<br>0.022<br>0.759<br>0.021<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0.022<br>0 | - ID<br> |

\* - repeated at the highest SAR measurement according to the KDB 865664 D01

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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## Pulse

| Main  |  |   |   |  |  |  |  |  |   |  |                                 |
|---|--|---|---|--|--|--|--|--|---|--|---------------------------------|
|   |  |   |   |  | Mary Dated Ave   | Manager  |  |  | Averaged SAR  | over 1g (W/kg)   |                                 |
| Mode  | Position   | Distance  | СН  | Freq.  | Max. Rated Avg.<br>Power + Max.  | Measured<br>Avg. Power   | Duty cycle   | Power  | , theraged of a   | olor ig (ting)   | D                               |
| mode  | 1 0010011  | (mm)  | 0.11  | (MHz)  | Tolerance (dBm)  | (dBm)  | scaling  | scaling  | Measured  | Reported   | 2                               |
|   |  |   |   |  |  |  |  |  | Wedduleu  | Reported   |                                 |
| WLAN 802.11b  | Bottom Surface   | 0   | 6   | 2437   | 16.50  | 16.47  | 1.011  | 100.69%  | 0.325   | 0.331  | -                               |
| WLAN 802.11b  | Front Edge   | 0   | 6   | 2437   | 16.50  | 16.47  | 1.011  | 100.69%  | 0.440   | 0.448  | 012                             |
|   |  |   | 1   |  |  |  |  |  |   |  |                                 |
|   |  |   |   |  | Max. Rated Avg.  | Measured   |  |  | Averaged SAR  | over 1g (W/kg)   |                                 |
| Mode  | Position   | Distance  | СН  | Freq.  | Power + Max.   | Avg. Power   | Duty cycle   | Power  |   |  | D                               |
|   |  | (mm)  |   | (MHz)  | Tolerance (dBm)  | (dBm)  | scaling  | scaling  | Measured  | Reported   |                                 |
|   |  |   |   |  |  |  |  |  | mododrou  | Hoponou  |                                 |
| WLAN 802.11n(40M) 5.2G  | Front Edge   | 0   | 38  | 5190   | 11.50  | 11.49  | 1.012  | 100.23%  | 0.928   | 0.941  | -                               |
| WLAN 802.11n(40M) 5.2G  | Front Edge*  | 0   | 38  | 5190   | 11.50  | 11.49  | 1.012  | 100.23%  | 0.889   | 0.902  |                                 |
| WLAN 802.11n(40M) 5.2G<br>WLAN 802.11ac(80M) 5.2G   | Front Edge<br>Bottom Surface   | 0   | 46  | 5230   | 11.50<br>11.50   | 11.47<br>11.37   | 1.012  | 100.69%  | 0.903   | 0.920  |                                 |
| WLAN 802.11ac(80M) 5.2G<br>WLAN 802.11ac(80M) 5.2G  | Front Edge   | 0   | 42<br>42  | 5210<br>5210   | 11.50  | 11.37  | 1.016  | 103.04%  | 1.030   | 1.078  | 013                             |
| WLAN 802.11ac(80M) 5.2G   | Front Edge*  | 0   | 42  | 5210   | 11.50  | 11.37  | 1.016  | 103.04%  | 0.965   | 1.010  | -                               |
|   |  |   |   |  |  |  |  |  |   |  |                                 |
|   |  |   |   |  |  |  |  |  |   |  |                                 |
|   |  | Distance  |   | Freq.  | Max. Rated Avg.  | Measured   | Duty cycle   | Power  | Averaged SAR  | over 1g (W/kg)   |                                 |
| Mode  | Position   | (mm)  | СН  | (MHz)  | Power + Max.   | Avg. Power   | scaling  | scaling  |   |  | D                               |
|   |  |   |   |  | Tolerance (dBm)  | (dBm)  | ÷  | , , , , , , , , , , , , , , , , , , ,  | Measured  | Reported   |                                 |
| WLAN 802.11n(40M) 5.3G  | Front Edge   | 0   | 54  | 5270   | 12.00  | 11.69  | 1.012  | 107.40%  | 0.907   | 0.986  |                                 |
| WLAN 802.11n(40M) 5.3G  | Front Edge*  | 0   | 54  | 5270   | 12.00  | 11.69  | 1.012  | 107.40%  | 0.879   | 0.955  |                                 |
| WLAN 802.11n(40M) 5.3G  | Front Edge   | 0   | 62  | 5310   | 12.00  | 11.63  | 1.012  | 108.89%  | 0.845   | 0.931  |                                 |
| WLAN 802.11ac(80M) 5.3G   | Bottom Surface   | 0   | 58  | 5290   | 12.00  | 11.78  | 1.016  | 105.20%  | 0.289   | 0.309  |                                 |
| WLAN 802.11ac(80M) 5.3G   | Front Edge   | 0   | 58  | 5290   | 12.00  | 11.78  | 1.016  | 105.20%  | 1.050   | 1.122  | 014                             |
| WLAN 802.11ac(80M) 5.3G   | Front Edge*  | 0   | 58  | 5290   | 12.00  | 11.78  | 1.016  | 105.20%  | 0.981   | 1.048  |                                 |
|   |  |   |   |  |  |  |  |  |   |  |                                 |
|   |  |   |   |  | Max. Rated Avg.  | Maggired   |  |  | Averaged SAR  | over 1g (W/kg)   |                                 |
| Mode  | Position   | Distance  | СН  | Freq.  | Max. Rated Avg.<br>Power + Max.  | Measured<br>Avg. Power   | Duty cycle   | Power  |   |  | D                               |
| Wode  | 1 USIUUT   | (mm)  | UN UN   | (MHz)  | Tolerance (dBm)  | (dBm)  | scaling  | scaling  | Mar. 1  | Dearth   |                                 |
|   |  |   |   |  |  | (12))  |  |  | Measured  | Reported   |                                 |
| WLAN 802.11ac(80M) 5.6G   | Bottom Surface   | 0   | 138   | 5690   | 9.00   | 8.96   | 1.016  | 100.93%  | 0.150   | 0.154  | -                               |
| WLAN 802.11ac(80M) 5.6G   | Front Edge   | 0   | 106   | 5530   | 9.00   | 8.74   | 1.016  | 106.17%  | 0.699   | 0.754  |                                 |
| WLAN 802.11ac(80M) 5.6G   | Front Edge   | 0   | 122   | 5610   | 9.00   | 8.66   | 1.016  | 108.14%  | 0.873   | 0.959  | -                               |
| WLAN 802.11ac(80M) 5.6G   | Front Edge   | 0   | 138   | 5690   | 9.00   | 8.96   | 1.016  | 100.93%  | 0.981   | 1.006  | 015                             |
| WLAN 802.11ac(80M) 5.6G   | Front Edge*  | 0   | 138   | 5690   | 9.00   | 8.96   | 1.016  | 100.93%  | 0.977   | 1.002  |                                 |
|   | 1  |   | 1   |  |  |  |  |  | 1   |  |                                 |
|   |  |   |   |  | Max. Rated Avg.  | Measured   |  |  | Averaged SAR  | over 1g (W/kg)   |                                 |
| Mode  | Position   | Distance  | СН  | Freq.  | Power + Max.   | Avg. Power   | Duty cycle   | Power  |   |  | D                               |
| modo  | robiaon  | (mm)  | 011   | (MHz)  | Tolerance (dBm)  | (dBm)  | scaling  | scaling  | Measured  | Reported   | 5                               |
|   |  |   |   |  |  |  |  |  | Wedduleu  | Reported   |                                 |
| WLAN 802.11n(40M) 5.8G  | Front Edge   | 0   | 151   | 5755   | 8.00   | 7.98   | 1.012  | 100.46%  | 0.697   | 0.709  |                                 |
| WLAN 802.11ac(80M) 5.8G   | Bottom Surface   | 0   | 155   | 5775   | 8.00   | 7.71   | 1.016  | 106.91%  | 0.117   | 0.127  |                                 |
| WLAN 802.11ac(80M) 5.8G   | Front Edge   | 0   | 155   | 5775   | 8.00   | 7.71   | 1.016  | 106.91%  | 0.967   | 1.050  | 016                             |
| WLAN 802.11ac(80M) 5.8G   | Front Edge*  | 0   | 155   | 5775   | 8.00   | 7.71   | 1.016  | 106.91%  | 0.914   | 0.993  |                                 |
|   |  |   |   |  |  |  |  |  |   |  |                                 |
|   |  |   |   |  |  |  |  |  |   |  |                                 |
| Aux   |  |   |   |  |  |  |  |  |   |  |                                 |
| Aux   |  | Distance  |   | 5  | Max. Rated Avg.  | Measured   | Determine  | Denner   | Averaged SAR  | over 1g (W/kg)   |                                 |
| Mode  | Position   | Distance<br>(mm)  | СН  | Freq.  | Max. Rated Avg.<br>Power + Max.  | Avg. Power   | Duty cycle   | Power  | Averaged SAR  | over 1g (W/kg)   | D                               |
|   | Position   | Distance<br>(mm)  | СН  | Freq.<br>(MHz)   | Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)   | Measured<br>Avg. Power<br>(dBm)  | Duty cycle<br>scaling  | Power<br>scaling   | Averaged SAR<br>Measured  |  | D                               |
| Mode  |  | (mm)  |   | (MHz)  | Power + Max.<br>Tolerance (dBm)  | Avg. Power<br>(dBm)  | scaling  | scaling  | Measured  | Reported   | D                               |
| Mode<br>WLAN 802.11b  | Bottom Surface   | (mm)<br>0   | 1   | (MHz)<br>2412  | Power + Max.<br>Tolerance (dBm)<br>16.50   | Avg. Power<br>(dBm)<br>16.33   | scaling<br>1.011   | scaling<br>103.99%   | Measured 0.156  | Reported<br>0.164  | -                               |
| Mode<br>WLAN 802.11b<br>WLAN 802.11b  | Bottom Surface<br>Front Edge   | (mm)<br>0<br>0  | 1   | (MHz)<br>2412<br>2412  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50  | Avg. Power<br>(dBm)<br>16.33<br>16.33  | scaling<br>1.011<br>1.011  | scaling<br>103.99%<br>103.99%  | Measured<br>0.156<br>0.668  | Reported<br>0.164<br>0.702   | - D<br>                         |
| Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b  | Bottom Surface<br>Front Edge<br>Front Edge   | (mm)<br>0<br>0<br>0   | 1<br>1<br>6   | (MHz)<br>2412<br>2412<br>2437  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50   | Avg. Power<br>(dBm)<br><u>16.33</u><br>16.23   | scaling<br>1.011<br>1.011<br>1.011   | scaling<br>103.99%<br>103.99%<br>106.41%   | Measured<br>0.156<br>0.668<br>0.615   | Reported<br>0.164<br>0.702<br>0.662  | -                               |
| Mode<br>WLAN 802.11b<br>WLAN 802.11b  | Bottom Surface<br>Front Edge   | (mm)<br>0<br>0  | 1   | (MHz)<br>2412<br>2412  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50  | Avg. Power<br>(dBm)<br>16.33<br>16.33  | scaling<br>1.011<br>1.011  | scaling<br>103.99%<br>103.99%  | Measured<br>0.156<br>0.668  | Reported<br>0.164<br>0.702   | -                               |
| Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b  | Bottom Surface<br>Front Edge<br>Front Edge   | (mm)<br>0<br>0<br>0   | 1<br>1<br>6   | (MHz)<br>2412<br>2412<br>2437  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50   | Avg. Power<br>(dBm)<br><u>16.33</u><br>16.23   | scaling<br>1.011<br>1.011<br>1.011   | scaling<br>103.99%<br>103.99%<br>106.41%   | Measured<br>0.156<br>0.668<br>0.615<br>0.633  | Reported<br>0.164<br>0.702<br>0.662<br>0.673   | -                               |
| Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b  | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge   | (mm)<br>0<br>0<br>0<br>0  | 1<br>1<br>6<br>11   | (MH2)<br>2412<br>2412<br>2437<br>2462  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>Max. Rated Avg.   | Avg. Power<br>(dBm)<br>16.33<br>16.33<br>16.23<br>16.28<br>Measured  | scaling<br>1.011<br>1.011<br>1.011<br>1.011  | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%  | Measured<br>0.156<br>0.668<br>0.615<br>0.633  | Reported<br>0.164<br>0.702<br>0.662  |                                 |
| Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b  | Bottom Surface<br>Front Edge<br>Front Edge   | (mm)<br>0<br>0<br>0<br>Distance   | 1<br>1<br>6   | (MHz)<br>2412<br>2412<br>2437<br>2462<br>Freq.   | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>Max. Rated Avg.<br>Power + Max.  | Avg. Power<br>(dBm)<br>16.33<br>16.33<br>16.23<br>16.28<br>Measured<br>Avg. Power  | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle  | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%<br>Power   | Measured<br>0.156<br>0.668<br>0.615<br>0.633  | Reported<br>0.164<br>0.702<br>0.662<br>0.673   | -                               |
| Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b  | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge   | (mm)<br>0<br>0<br>0<br>0  | 1<br>1<br>6<br>11   | (MH2)<br>2412<br>2412<br>2437<br>2462  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>Max. Rated Avg.   | Avg. Power<br>(dBm)<br>16.33<br>16.33<br>16.23<br>16.28<br>Measured  | scaling<br>1.011<br>1.011<br>1.011<br>1.011  | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%  | Measured<br>0.156<br>0.668<br>0.615<br>0.633  | Reported<br>0.164<br>0.702<br>0.662<br>0.673   | -<br>017<br>-                   |
| Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode  | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Position   | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)   | 1<br>6<br>11<br>CH  | (MHz)<br>2412<br>2437<br>2462<br>Freq.<br>(MHz)  | Power + Max,<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50  | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.28<br>Measured<br>Avg. Power<br>(dBm)   | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle<br>scaling   | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%<br>Power<br>scaling  | Measured<br>0.156<br>0.668<br>0.615<br>0.633<br>Averaged SAR<br>Measured  | Reported           0.164           0.702           0.662           0.673           over 1g (W/kg)           Reported   | -<br>017<br>-                   |
| Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode<br>Bluetooth(GFSK)   | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface   | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0  | 1<br>6<br>11<br>CH  | (MHz)<br>2412<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>11.50  | Avg. Power<br>(dBm)<br><u>16.33</u><br>16.23<br>16.23<br>16.28<br>Measured<br>Avg. Power<br>(dBm)<br>10.74   | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle<br>scaling<br>1.302  | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%<br>Power<br>scaling<br>119.12%   | Measured<br>0.156<br>0.668<br>0.615<br>0.633<br>Averaged SAR<br>Measured<br>0.028   | Reported<br>0.164<br>0.702<br>0.662<br>0.673<br>over 1g (W/kg)<br>Reported<br>0.043  | . ID                            |
| Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode  | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Position   | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)   | 1<br>6<br>11<br>CH  | (MHz)<br>2412<br>2437<br>2462<br>Freq.<br>(MHz)  | Power + Max,<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50  | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.28<br>Measured<br>Avg. Power<br>(dBm)   | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle<br>scaling   | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%<br>Power<br>scaling  | Measured<br>0.156<br>0.668<br>0.615<br>0.633<br>Averaged SAR<br>Measured  | Reported           0.164           0.702           0.662           0.673           over 1g (W/kg)           Reported   | -<br>017<br>-<br>-              |
| Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode<br>Bluetooth(GFSK)   | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface   | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0  | 1<br>6<br>11<br>CH  | (MHz)<br>2412<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>11.50  | Avg. Power<br>(dBm)<br><u>16.33</u><br>16.23<br>16.23<br>16.28<br>Measured<br>Avg. Power<br>(dBm)<br>10.74   | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle<br>scaling<br>1.302  | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%<br>Power<br>scaling<br>119.12%   | Measured           0.156         0.668           0.615         0.615           0.633  | Reported<br>0.164<br>0.702<br>0.662<br>0.673<br>over 1g (W/kg)<br>Reported<br>0.043<br>0.119   | 017                             |
| Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode<br>Bluetooth(GFSK)   | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface   | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0<br>0   | 1<br>6<br>11<br>CH  | (MHz)<br>2412<br>2412<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>11.50  | Avg. Power<br>(dBm)<br>16.33<br>16.33<br>16.23<br>16.28<br>Measured<br>Avg. Power<br>(dBm)<br>10.74<br>10.74   | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle<br>scaling<br>1.302<br>1.302   | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%<br>Power<br>scaling<br>119.12%<br>119.12%  | Measured           0.156         0.668           0.615         0.633           Averaged SAF         Measured           0.028         0.077           Averaged SAF         0.028   | Reported           0.164           0.702           0.662           0.673           over 1g (W/kg)           Reported           0.043           0.119           SAR over 1g   | 017                             |
| Mode<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>WLAN 802.11b<br>Mode<br>Bluetooth(GFSK)   | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface   | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0<br>0<br>Distance   | 1<br>6<br>11<br>CH  | (MHz)<br>2412<br>2413<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>Freq.   | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>11.50<br>11.50<br>Max. Rated Avg.<br>Power + Max.   | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.28<br>Measured<br>Avg. Power<br>(dBm)<br>10.74<br>10.74<br>10.74<br>4vg. Power  | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle<br>scaling<br>1.302<br>1.302<br>Duty cycle  | scaling<br>103.99%<br>106.41%<br>105.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>Power  | Measured           0.156         0.668           0.615         0.633           Averaged SAF         Measured           0.028         0.077           Averaged SAF         0.028   | Reported<br>0.164<br>0.702<br>0.662<br>0.673<br>over 1g (W/kg)<br>Reported<br>0.043<br>0.119   | 017                             |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)   | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge   | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0<br>0   | 1<br>6<br>11<br>CH<br>0<br>0  | (MHz)<br>2412<br>2412<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>Max.Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>11.50<br>11.50  | Avg. Power<br>(dBm)<br>16.33<br>16.33<br>16.23<br>16.28<br>Measured<br>Avg. Power<br>(dBm)<br>10.74<br>10.74   | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle<br>scaling<br>1.302<br>1.302   | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%<br>Power<br>scaling<br>119.12%<br>119.12%  | Measured           0.156         0.668           0.615         0.633           Averaged SAF         Measured           0.028         0.077           Averaged SAF         0.028   | Reported<br>0.164<br>0.702<br>0.662<br>0.673<br>over 1g (W/kg)<br>Reported<br>0.043<br>0.119<br>SAR over 1g<br>(kg)  | 017                             |
| Mode WLAN 802.11b WLAN 802.11b WLAN 802.11b WLAN 802.11b WLAN 802.11b Biuetooth(GFSK) Biuetooth(GFSK) Biuetooth(GFSK) Mode Mode   | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge   | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>Distance<br>(mm)   | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>CH   | (MHz)<br>2412<br>2412<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>Freq.<br>(MHz)  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>11.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)  | Avg, Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>Measured<br>Avg, Power<br>(dBm)<br>10.74<br>10.74<br>Measured<br>Avg, Power<br>(dBm)  | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle<br>scaling<br>Duty cycle<br>scaling  | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%<br>Power<br>scaling<br>119.12%<br>Power<br>scaling   | Measured           0.156           0.668           0.615           0.633           Averaged SAR           0.028           0.027           Averaged SAR           Weasured   | Reported           0.164           0.702           0.662           0.673   over 1g (W/kg)           Reported           0.043           0.119           SAR over 1g           kg)   | 017                             |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G  | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Position<br>Bottom Surface<br>Position<br>Bottom Surface   | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>Distance<br>(mm)<br>0  | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>CH<br>CH   | (MHz)<br>2412<br>2412<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>251 | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50  | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.28<br>Measured<br>Avg. Power<br>(dBm)<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74  | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle<br>scaling<br>1.302<br>Duty cycle<br>scaling<br>Duty cycle<br>scaling<br>1.012  | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>Power<br>scaling<br>101.16%   | Measured           0.156           0.668           0.815           0.833           Averaged SAF           0.028           0.077           Averaged SAF           Weasured           0.157   | Reported           0.164           0.702           0.662           0.673   over 1g (W/kg)           Reported           0.043           0.119   SAR over 1g            Reported           0.161   |                                 |
| Mode WLAN 802.11b WLAN 802.11b WLAN 802.11b WLAN 802.11b WLAN 802.11b Biuetooth(GFSK) Biuetooth(GFSK) Biuetooth(GFSK) Mode Mode   | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge   | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>Distance<br>(mm)   | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>CH   | (MHz)<br>2412<br>2412<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>Freq.<br>(MHz)  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>11.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)  | Avg, Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>Measured<br>Avg, Power<br>(dBm)<br>10.74<br>10.74<br>Measured<br>Avg, Power<br>(dBm)  | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle<br>scaling<br>Duty cycle<br>scaling  | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%<br>Power<br>scaling<br>119.12%<br>Power<br>scaling   | Measured           0.156           0.668           0.615           0.633           Averaged SAR           0.028           0.027           Averaged SAR           Weasured   | Reported           0.164           0.702           0.662           0.673           over 1g (W/kg)           Reported           0.043           0.119           SAR over 1g           kg)           Reported  | 017                             |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G  | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Position<br>Bottom Surface   | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>Distance<br>(mm)<br>0  | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>CH<br>CH   | (MHz)<br>2412<br>2412<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>2510<br>251 | Power + Max.           Tolerance (dBm)           16.50           16.50           16.50           16.50           16.50           16.50           16.50           16.50           16.50           16.50           16.50           11.50           11.50           11.50           11.50           11.50           11.50           11.50           11.50           11.40   | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.28<br>Measured<br>Avg. Power<br>(dBm)<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74  | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>Duty cycle<br>scaling<br>1.302<br>Duty cycle<br>scaling<br>Duty cycle<br>scaling<br>1.012  | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>Power<br>scaling<br>101.16%   | Measured           0.156           0.668           0.615           0.633           .           Averaged SAF           Measured           0.028           0.077           Averaged SAF           Measured           0.077           Averaged SAF           0.028           0.077           0.077           0.077           0.077           0.077           0.077           0.077           0.077           0.077   | Reported           0.164           0.702           0.662           0.673   over 1g (W/kg)           Reported           0.043           0.119           SAR over 1g (kg)           Reported           0.161           0.640   |                                 |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G  | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Position<br>Bottom Surface   | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0<br>Distance<br>(mm)<br>0<br>0<br>0<br>0                                | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>CH<br>CH   | (MHz)<br>2412<br>2412<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>5210<br>5210  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>11.50<br>11.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>14.00<br>14.00  | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.28<br>Measured<br>Avg. Power<br>(dBm)<br>10.74<br>10.74<br>Measured<br>Avg. Power<br>(dBm)<br>13.95   | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.302<br>1.302<br>1.302<br>Duty cycle<br>scaling<br>Duty cycle<br>scaling<br>1.016<br>1.016  | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>101.16%  | Measured           0.156           0.668           0.615           0.633           .           Averaged SAF           Measured           0.028           0.077           Averaged SAF           Measured           0.077           Averaged SAF           0.028           0.077           0.077           0.077           0.077           0.077           0.077           0.077           0.077           0.077   | Reported           0.164           0.702           0.662           0.673   over 1g (W/kg)           Reported           0.043           0.119   SAR over 1g            Reported           0.161   |                                 |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G  | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Position<br>Bottom Surface   | (mm)  | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>CH<br>CH   | (MHz)<br>2412<br>2417<br>2437<br>2462<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>5210<br>5210<br>5210<br>Freq.   | Power + Max.           Tolerance (dBm)           16.50           16.50           16.50           16.50           16.50           16.50           16.50           16.50           16.50           16.50           16.50           11.50           11.50           11.50           11.50           11.50           11.50           11.50           11.50           11.40   | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.28<br>Measured<br>Avg. Power<br>(dBm)<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74  | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.022<br>1.302<br>1.302<br>1.302<br>1.302<br>1.302<br>1.302<br>1.302<br>Duty cycle<br>scaling<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.022<br>1.302<br>1.002<br>1.016<br>1.016<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.022<br>1.022<br>1.016<br>1.016<br>1.016<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.022<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.017<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>1  | scaling<br>103.99%<br>103.99%<br>106.41%<br>106.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>101.16%<br>101.16%  | Measured           0.156           0.668           0.615           0.633           .           Averaged SAF           Measured           0.028           0.077           Averaged SAF           Measured           0.077           Averaged SAF           0.028           0.077           0.077           0.077           0.077           0.077           0.077           0.077           0.077           0.077   | Reported           0.164           0.702           0.662           0.673   over 1g (W/kg)           Reported           0.043           0.119           SAR over 1g (kg)           Reported           0.161           0.640   |                                 |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G  | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge   | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0<br>Distance<br>(mm)<br>0<br>0<br>0<br>0                                | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>CH<br>42<br>42  | (MHz)<br>2412<br>2412<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>5210<br>5210  | Power + Max.           Tolerance (dBm)           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           11:50           11:50           11:50           Max Rated Avg.           POwer + Max.           Tolerance (dBm)           14:00           14:00           Max Rated Avg.  | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>16.28<br>Measured<br>Avg. Power<br>(dBm)<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.95<br>11.95  | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.302<br>1.302<br>1.302<br>Duty cycle<br>scaling<br>Duty cycle<br>scaling<br>1.016<br>1.016  | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>101.16%  | Measured           0.156           0.669           0.615           0.615           0.633           Measured           0.028           0.027           Averaged SAR           (W           Measured           0.157           0.623           Averaged SAR   | Reported           0.164           0.702           0.662           0.673   over 1g (W/kg)           Reported           0.043           0.119   SAR over 1g Reported            0.161           0.640   |                                 |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G           WLAN 802.11ac(80M) 5.2G           Mode   | Bottom Surface           Front Edge           Front Edge           Pront Edge           Position           Bottom Surface           Front Edge           Position           Bottom Surface           Front Edge           Position           Bottom Surface           Prosition           Bottom Surface           Position  | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0<br>0<br>Distance<br>(mm)<br>Distance                                   | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>CH<br>CH  | (MHz)<br>2412<br>2412<br>2437<br>2482<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>5210<br>5210<br>5210<br>Freq.<br>(MHz)  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>1 | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.24<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>1 | scaling<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1012<br>1002<br>Scaling<br>1016<br>1016<br>1016<br>Duty cycle<br>scaling  | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%<br>Power<br>scaling<br>101.16%<br>101.16%<br>Power<br>scaling  | Measured           0.156           0.068           0.015           0.033           Averaged SAR           Measured           0.028           0.077           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured  | Reported           0.164           0.702           0.662           0.673   cover 1g (W/kg)           Reported           0.043           0.119           SAR over 1g           %g)           Reported           0.161           0.640           over 1g (W/kg)  |                                 |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           WLAN 802.11ac(80M) 5.2G           Wode           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.3G   | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface   | (mm) 0 0 0 0 0 Distance (mm) 0 Distance (mm) 0 Distance (mm) 0 0 0 0 Distance 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>CH<br>CH<br>58  | (MHz)<br>2412<br>2412<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2510<br>5210<br>5210<br>5210<br>5210<br>5210<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220  | Power + Max.           Tolerance (dBm)           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           11:50           11:50           11:50           11:50           11:50           11:400           14:00           14:00           14:00           14:00           14:00           14:00  | Avg. Power<br>(dBm)           16.33           16.23           16.23           16.23           16.23           16.23           16.24           Measured<br>Avg. Power<br>(dBm)           10.74           10.74           10.74           Measured<br>Avg. Power<br>(dBm)           13.95           13.95           Measured<br>Avg. Power<br>(dBm)           13.78  | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.302<br>1.302<br>1.302<br>Duty cycle<br>scaling<br>1.016<br>1.016   | scaling<br>103.99%<br>103.99%<br>106.41%<br>106.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>101.16%<br>101.16%<br>101.16%<br>105.20%  | Measured           0.156           0.669           0.615           0.615           0.633           Measured           0.028           0.027           Averaged SAR           (W           Measured           0.157           0.623           Averaged SAR   | Reported           0.164           0.702           0.662           0.673             over 1g (W/kg)           Reported           0.043           0.119           SAR over 1g (kg)           Reported           0.161           0.640           over 1g (W/kg)  |                                 |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G           WLAN 802.11ac(80M) 5.2G           Mode   | Bottom Surface           Front Edge           Front Edge           Pront Edge           Position           Bottom Surface           Front Edge           Position           Bottom Surface           Front Edge           Position           Bottom Surface           Prosition           Bottom Surface           Position  | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0<br>0<br>Distance<br>(mm)<br>Distance                                   | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>CH  | (MHz)<br>2412<br>2412<br>2437<br>2482<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>5210<br>5210<br>5210<br>Freq.<br>(MHz)  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>17.50<br>1 | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.24<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>1 | scaling<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1012<br>1002<br>Scaling<br>1016<br>1016<br>1016<br>Duty cycle<br>scaling  | scaling<br>103.99%<br>103.99%<br>106.41%<br>105.20%<br>Power<br>scaling<br>101.16%<br>101.16%<br>Power<br>scaling  | Measured           0.156           0.068           0.015           0.033           Averaged SAR           Measured           0.028           0.077           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured  | Reported           0.164           0.702           0.662           0.673   cover 1g (W/kg)           Reported           0.043           0.119           SAR over 1g           %g)           Reported           0.161           0.640           over 1g (W/kg)  |                                 |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           WLAN 802.11ac(80M) 5.2G           Wode           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.3G   | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface   | (mm) 0 0 0 0 0 Distance (mm) 0 Distance (mm) 0 Distance (mm) 0 0 0 0 Distance 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>CH<br>CH<br>58  | (MHz)<br>2412<br>2412<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2510<br>5210<br>5210<br>5210<br>5210<br>5210<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220<br>5220  | Power + Max.           Tolerance (dBm)           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           11:50           11:50           11:50           11:50           11:50           11:400           14:00           14:00           14:00           14:00           14:00           14:00  | Avg. Power<br>(dBm)           16.33           16.23           16.23           16.23           16.23           16.23           16.24           Measured<br>Avg. Power<br>(dBm)           10.74           10.74           10.74           Measured<br>Avg. Power<br>(dBm)           13.95           13.95           Measured<br>Avg. Power<br>(dBm)           13.78  | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.302<br>1.302<br>1.302<br>Duty cycle<br>scaling<br>1.016<br>1.016   | scaling<br>103.99%<br>103.99%<br>106.41%<br>106.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>101.16%<br>101.16%<br>101.16%<br>105.20%  | Measured           0.156           0.068           0.015           0.033           Averaged SAR           Measured           0.028           0.077           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured  | Reported           0.164           0.702           0.662           0.673             over 1g (W/kg)           Reported           0.043           0.119           SAR over 1g (kg)           Reported           0.161           0.640           over 1g (W/kg)  |                                 |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           WLAN 802.11ac(80M) 5.2G           Wode           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.3G   | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface   | (mm)  | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>CH<br>CH<br>58  | (MHz)<br>2412<br>2412<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2510<br>5210<br>5220<br>5290<br>5290  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>1 | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.24<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>1 | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.02<br>1.302<br>1.302<br>1.302<br>Duty cycle<br>scaling<br>1.016<br>1.016<br>1.016<br>1.016   | scaling<br>103.99%<br>103.99%<br>106.41%<br>106.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>101.16%<br>101.16%<br>105.20%<br>105.20%   | Measured           0.156         0.668           0.615         0.633           .         Averaged SAR           Measured         0.028           0.0277         Averaged SAR           Averaged SAR         0.027           Averaged SAR         0.028           0.028         0.0277           Averaged SAR         Measured           0.157         0.623           Averaged SAR         Measured           0.157         0.0276  | Reported           0.164           0.702           0.662           0.673             over 1g (W/kg)           Reported           0.043           0.119           SAR over 1g (kg)           Reported           0.161           0.640           over 1g (W/kg)  |                                 |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           WLAN 802.11ac(80M) 5.2G           Wode           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.3G   | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface   | (mm)  | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>CH<br>CH<br>58  | (MHz)<br>2412<br>2417<br>2437<br>2462<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>5210<br>5210<br>5210<br>5210<br>5210<br>5290<br>5290<br>5290  | Power + Max.           Tolerance (dBm)           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           11:50           11:50           11:50           11:50           11:50           11:400           14:00           14:00           14:00           14:00           14:00           14:00  | Avg. Power<br>(dBm)           16.33           16.33           16.33           16.23           16.23           16.23           16.24           Measured<br>Avg. Power<br>(dBm)           10.74           Measured<br>Avg. Power<br>(dBm)           13.95           Measured<br>Avg. Power<br>(dBm)           13.78           13.78           Massured<br>Avg. Power   | scaling<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1012<br>1002<br>1002<br>1002<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016  | scaling<br>103.99%<br>103.99%<br>106.41%<br>106.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>101.16%<br>101.16%<br>101.16%<br>101.6%<br>105.20%<br>105.20%<br>105.20%  | Measured           0.156           0.668           0.615           0.633           Averaged SAR           Measured           0.028           0.0277           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.100           0.276   | Reported           0.164           0.702           0.662           0.673             over 1g (W/kg)             Reported           0.043           0.119           SAR over 1g           kg)           oeta           0.640           over 1g (W/kg)           Reported           0.161           0.640           over 1g (W/kg)           Reported           0.107           0.295  |                                 |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.3G           WLAN 802.11ac(80M) 5.3G  | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge   | (mm)  | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>CH<br>58<br>58  | (MHz)<br>2412<br>2412<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2510<br>5210<br>5220<br>5290<br>5290  | Power + Max.<br>Tolerance (dBm)<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>1 | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.24<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>16.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>17.27<br>1 | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.02<br>1.302<br>1.302<br>1.302<br>Duty cycle<br>scaling<br>1.016<br>1.016<br>1.016<br>1.016   | scaling<br>103.99%<br>103.99%<br>106.41%<br>106.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>101.16%<br>101.16%<br>105.20%<br>105.20%   | Measured           0.156           0.668           0.615           0.633           Averaged SAR           Measured           0.028           0.0277           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.100           0.276   | Reported           0.164           0.702           0.662           0.673   over 1g (W/kg)           Reported           0.043           0.119   SAR over 1g Reported            0.640           over 1g (W/kg)   Reported            0.161           0.640   over 1g (W/kg)    Reported    over 1g (W/kg)   | . ID<br>                        |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G           WLAN 802.11ac(80M) 5.3G           WLAN 802.11ac(80M) 5.3G           Mode   | Bottom Surface           Front Edge           Front Edge           Pront Edge           Position           Bottom Surface           Front Edge           Position   | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0<br>0<br>Distance<br>(mm)<br>0<br>0<br>Distance<br>(mm)                 | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>CH<br>58<br>58<br>58<br>CH  | (MHz)<br>2412<br>2412<br>2417<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>5210<br>5210<br>5210<br>5210<br>5220<br>5290<br>5290<br>Freq.<br>(MHz)  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>1 | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>10.74<br>10.74<br>10.74<br>10.74<br>13.95<br>13.95<br>13.95<br>13.95<br>13.35<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78  | scaling           1011           1011           1011           1011           1011           1011           1011           1011           1011           1011           1011           1011           1012           Duty cycle           scaling           1.016           Duty cycle           scaling           1.016           Duty cycle           scaling           1.016           Duty cycle   | scaling<br>103.99%<br>103.99%<br>106.41%<br>106.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>Power<br>scaling<br>101.16%<br>101.16%<br>Power<br>scaling<br>105.20%<br>105.20%<br>Power<br>scaling  | Measured<br>0.156<br>0.615<br>0.633<br>Averaged SAR<br>Measured<br>0.028<br>0.077<br>Averaged SAR<br>Measured<br>0.157<br>0.623<br>Averaged SAR<br>Measured<br>0.100<br>0.276<br>Averaged SAR   | Reported           0.164           0.702           0.662           0.673   cover 1g (W/kg)           Reported           0.043           0.119           SAR over 1g           %g)           Reported           0.161           0.640           over 1g (W/kg)           Reported           0.161           0.640           over 1g (W/kg)           Reported           0.107           0.295           over 1g (W/kg)  | . ID<br>                        |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.3G  | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface   | (mm)  | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>CH<br>58<br>58<br>58<br>CH<br>138   | (MHz)<br>2412<br>2413<br>2457<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2590<br>2590<br>2590  | Power + Max.           Tolerance (dBm)           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           Max. Rated Avg.           Power + Max.           Tolerance (dBm)           14:00           14:00           14:00           14:00           14:00           14:00           15:00  | Avg. Power<br>(dBm)           Avg. Power<br>(dBm)           16.33           16.23           16.23           16.23           16.23           Measured<br>Avg. Power<br>(dBm)           10.74           10.74           10.74           Measured<br>Avg. Power<br>(dBm)           13.95           13.95           13.95           Measured<br>Avg. Power<br>(dBm)           13.78           13.78           13.78           13.78           Measured<br>Avg. Power<br>(dBm)           14.96  | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.022<br>1.302<br>1.302<br>Duty cycle<br>scaling<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>Duty cycle<br>scaling<br>1.016<br>1.016   | scaling<br>103.99%<br>103.99%<br>106.41%<br>106.41%<br>105.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>101.16%<br>101.16%<br>101.16%<br>105.20%<br>105.20%<br>105.20%   | Measured           0.156           0.668           0.815           0.633           Averaged SAF           Measured           0.028           0.077           Averaged SAF           Measured           0.157           0.623           Averaged SAF           Measured           0.157           0.623           Averaged SAF           Measured           0.100           0.276           Averaged SAF           Measured           0.100           0.276  | Reported           0.164           0.702           0.662           0.673             over 1g (W/kg)           Reported           0.043           0.119             SAR over 1g (W/kg)           Reported           0.640             over 1g (W/kg)             Reported           0.161           0.640             over 1g (W/kg)             Reported           0.107           0.295           over 1g (W/kg)           Reported           0.107           0.295   |                                 |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G           WLAN 802.11ac(80M) 5.3G           WLAN 802.11ac(80M) 5.3G           Mode   | Bottom Surface           Front Edge           Front Edge           Pront Edge           Position           Bottom Surface           Front Edge           Position   | (mm)<br>0<br>0<br>0<br>Distance<br>(mm)<br>0<br>0<br>Distance<br>(mm)<br>0<br>0<br>Distance<br>(mm)                 | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>CH<br>58<br>58<br>58<br>CH  | (MHz)<br>2412<br>2412<br>2417<br>2437<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>5210<br>5210<br>5210<br>5210<br>5220<br>5290<br>5290<br>Freq.<br>(MHz)  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>1 | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>10.74<br>10.74<br>10.74<br>10.74<br>13.95<br>13.95<br>13.95<br>13.95<br>13.35<br>13.78<br>13.78<br>13.78<br>13.78<br>13.78  | scaling           1011           1011           1011           1011           1011           1011           1011           1011           1011           1011           1011           1011           1012           Duty cycle           scaling           1.016           Duty cycle           scaling           1.016           Duty cycle           scaling           1.016           Duty cycle   | scaling<br>103.99%<br>103.99%<br>106.41%<br>106.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>Power<br>scaling<br>101.16%<br>101.16%<br>Power<br>scaling<br>105.20%<br>105.20%<br>Power<br>scaling  | Measured<br>0.156<br>0.615<br>0.633<br>Averaged SAR<br>Measured<br>0.028<br>0.077<br>Averaged SAR<br>Measured<br>0.157<br>0.623<br>Averaged SAR<br>Measured<br>0.100<br>0.276<br>Averaged SAR   | Reported           0.164           0.702           0.662           0.673   cover 1g (W/kg)           Reported           0.043           0.119           SAR over 1g           %g)           Reported           0.161           0.640           over 1g (W/kg)           Reported           0.161           0.640           over 1g (W/kg)           Reported           0.107           0.295           over 1g (W/kg)  | D<br>D<br>D<br>D<br>D<br>D<br>D |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.3G  | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface   | (mm)  | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>CH<br>58<br>58<br>58<br>CH<br>138   | (MHz)<br>2412<br>2413<br>2457<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2590<br>2590<br>2590  | Power + Max.           Tolerance (dBm)           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           16:50           Max. Rated Avg.           Power + Max.           Tolerance (dBm)           14:00           14:00           14:00           14:00           14:00           14:00           15:00  | Avg. Power<br>(dBm)           Avg. Power<br>(dBm)           16.33           16.23           16.23           16.23           16.23           Measured<br>Avg. Power<br>(dBm)           10.74           10.74           10.74           Measured<br>Avg. Power<br>(dBm)           13.95           13.95           13.95           Measured<br>Avg. Power<br>(dBm)           13.78           13.78           13.78           13.78           Measured<br>Avg. Power<br>(dBm)           14.96  | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.022<br>1.302<br>1.302<br>Duty cycle<br>scaling<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>Duty cycle<br>scaling<br>1.016<br>1.016   | scaling<br>103.99%<br>103.99%<br>106.41%<br>106.41%<br>105.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>101.16%<br>101.16%<br>101.16%<br>105.20%<br>105.20%<br>105.20%   | Measured           0.156           0.668           0.815           0.633           Averaged SAF           Measured           0.028           0.077           Averaged SAF           Measured           0.157           0.623           Averaged SAF           Measured           0.157           0.623           Averaged SAF           Measured           0.100           0.276           Averaged SAF           Measured           0.100           0.276  | Reported           0.164           0.702           0.662           0.673             over 1g (W/kg)           Reported           0.043           0.119             SAR over 1g (W/kg)           Reported           0.640             over 1g (W/kg)             Reported           0.161           0.640             over 1g (W/kg)             Reported           0.107           0.295           over 1g (W/kg)           Reported           0.107           0.295   | D<br>D<br>D<br>D<br>D<br>D      |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.3G  | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface   | (mm)  | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>CH<br>58<br>58<br>58<br>CH<br>138   | (MHz)<br>2412<br>2413<br>2457<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2590<br>2590<br>2590  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>11.50<br>11.50<br>11.50<br>11.50<br>14.00<br>14.00<br>14.00<br>14.00<br>14.00<br>14.00<br>14.00<br>15.00<br>15.00   | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.75<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>1 | scaling<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.011<br>1.022<br>1.302<br>1.302<br>Duty cycle<br>scaling<br>1.016<br>1.016<br>1.016<br>1.016<br>1.016<br>Duty cycle<br>scaling<br>1.016<br>1.016   | scaling<br>103.99%<br>103.99%<br>106.41%<br>106.41%<br>105.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>101.16%<br>101.16%<br>101.16%<br>105.20%<br>105.20%<br>105.20%   | Measured           0.156           0.068           0.015           0.031           Averaged SAR           Measured           0.028           0.077           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.100           0.276           Averaged SAR           Measured           0.100           0.276           Averaged SAR           Measured           0.191           0.607  | Reported           0.164           0.702           0.662           0.673   cover 1g (W/kg)           Reported           0.043           0.019           SAR over 1g           /kg)           Reported           0.161           0.640           over 1g (W/kg)           Reported           0.161           0.295           over 1g (W/kg)           Reported           0.107           0.295           over 1g (W/kg)           Reported           0.107           0.295           over 1g (W/kg)           Reported           0.107           0.295                                  | D<br>D<br>D<br>D<br>D<br>D      |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.3G           WLAN 802.11ac(80M) 5.3G           WLAN 802.11ac(80M) 5.5G           WLAN 802.11ac(80M) 5.6G   | Bottom Surface           Front Edge           Front Edge           Front Edge           Position           Bottom Surface           Front Edge           Position  | (mm)  | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>CH<br>58<br>58<br>CH<br>138<br>138  | (MHz)<br>2412<br>2417<br>2437<br>2462<br>2462<br>2462<br>2462<br>2462<br>2462<br>2462<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>5210<br>5210<br>5210<br>5210<br>5290<br>5290<br>5290<br>5290<br>5690<br>5690<br>5690  | Power + Max.<br>Tolerance (dBm)<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>15:00<br>15:00   | Avg. Power<br>(dBm)           16.33           16.33           16.33           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           10.74           10.74           10.74           10.74           10.74           10.74           10.74           10.74           10.74           10.74           10.74           10.74           13.95           13.95           Measured           Avg. Power<br>(dBm)           13.78           13.78           13.78           14.96           14.96           14.96   | scaling<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1012<br>1002<br>1002<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>100 | scaling<br>103.99%<br>103.99%<br>106.41%<br>106.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>101.16%<br>101.16%<br>101.16%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.2   | Measured           0.156           0.068           0.015           0.031           Averaged SAR           Measured           0.028           0.077           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.100           0.276           Averaged SAR           Measured           0.100           0.276           Averaged SAR           Measured           0.191           0.607  | Reported           0.164           0.702           0.662           0.673             over 1g (W/kg)           Reported           0.043           0.119             SAR over 1g (W/kg)           Reported           0.640             over 1g (W/kg)             Reported           0.161           0.640             over 1g (W/kg)             Reported           0.107           0.295           over 1g (W/kg)           Reported           0.107           0.295   |                                 |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Biuetooth(GFSK)           Biuetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.3G   | Bottom Surface<br>Front Edge<br>Front Edge<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface<br>Front Edge<br>Position<br>Bottom Surface   | (mm)  | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>CH<br>58<br>58<br>58<br>CH<br>138   | (MHz)<br>2412<br>2412<br>2413<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2412<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2510<br>5290<br>5290<br>5690<br>5690<br>5690  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>14.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>14.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>15.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>15.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>15.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)   | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.75<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>10.76<br>1 | scaling  1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.011 1.02 1.302 1.302 1.302 1.302 Duty cycle scaling 1.016 1.0   | scaling<br>103.99%<br>103.99%<br>106.41%<br>106.41%<br>105.20%<br>109.20%<br>119.12%<br>Power<br>scaling<br>101.16%<br>101.16%<br>101.16%<br>101.16%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%  | Measured           0.156           0.669           0.615           0.633           Averaged SAR           Measured           0.028           0.027           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.100           0.276           Averaged SAR           Measured           0.100           0.276           Averaged SAR           Measured           0.191           0.607           Averaged SAR   | Reported           0.164           0.702           0.662           0.673   over 1g (W/kg)           Reported           0.043           0.043           0.119   SAR over 1g (W/kg)           Reported           0.161           0.640   over 1g (W/kg)           Reported           0.107           0.295   over 1g (W/kg)           Reported           0.196           0.622   over 1g (W/kg)  | D<br>D<br>D<br>D<br>D<br>D      |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.3G           WLAN 802.11ac(80M) 5.3G           WLAN 802.11ac(80M) 5.3G           Mode           WLAN 802.11ac(80M) 5.3G           Mode           WLAN 802.11ac(80M) 5.5G           WLAN 802.11ac(80M) 5.6G   | Bottom Surface           Front Edge           Front Edge           Front Edge           Position           Bottom Surface           Front Edge           Position  | (mm)  | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>CH<br>58<br>58<br>CH<br>138<br>138  | (MHz)<br>2412<br>2417<br>2437<br>2462<br>2462<br>2462<br>2462<br>2462<br>2462<br>2462<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>5210<br>5210<br>5210<br>5210<br>5290<br>5290<br>5290<br>5290<br>5690<br>5690<br>5690  | Power + Max.<br>Tolerance (dBm)<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>16:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:50<br>11:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>15:00<br>15:00   | Avg. Power<br>(dBm)           16.33           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.24           Measured<br>Avg. Power<br>(dBm)           13.95           Measured<br>Avg. Power<br>(dBm)           13.78           Measured<br>Avg. Power<br>(dBm)           14.96           Measured<br>Avg. Power   | scaling<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1012<br>1002<br>1002<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>100 | scaling<br>103.99%<br>103.99%<br>106.41%<br>106.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>101.16%<br>101.16%<br>101.16%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.2   | Measured           0.156           0.068           0.015           0.031           Averaged SAR           Measured           0.028           0.077           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.100           0.276           Averaged SAR           Measured           0.100           0.276           Averaged SAR           Measured           0.191           0.607  | Reported           0.164           0.702           0.662           0.673   cover 1g (W/kg)           Reported           0.043           0.019   SAR over 1g           kg)           Reported           0.161           0.640   over 1g (W/kg)           Reported           0.161           0.295   over 1g (W/kg)           Reported           0.107           0.295   over 1g (W/kg)           Reported           0.107           0.295   |                                 |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G           WLAN 802.11ac(80M) 5.2G           WLAN 802.11ac(80M) 5.3G           WLAN 802.11ac(80M) 5.3G           WLAN 802.11ac(80M) 5.3G           WLAN 802.11ac(80M) 5.6G                        | Bottom Surface           Front Edge           Front Edge           Pront Edge           Position           Bottom Surface           Front Edge           Position       | (mm)  | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>CH<br>58<br>58<br>CH<br>138<br>138  | (MHz)<br>2412<br>2417<br>2437<br>2462<br>2462<br>2462<br>2462<br>2462<br>2462<br>2462<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>5210<br>5210<br>5210<br>5210<br>5290<br>5290<br>5290<br>5290<br>5690<br>5690<br>5690  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>14.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>14.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>15.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>15.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>15.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)   | Avg. Power<br>(dBm)           16.33           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.24           Measured<br>Avg. Power<br>(dBm)           13.95           Measured<br>Avg. Power<br>(dBm)           13.78           Measured<br>Avg. Power<br>(dBm)           14.96           Measured<br>Avg. Power   | scaling<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1011<br>1012<br>1002<br>1002<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>1016<br>100 | scaling<br>103.99%<br>103.99%<br>105.20%<br>106.41%<br>105.20%<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>Power<br>scaling<br>101.16%<br>Power<br>scaling<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>105.20%<br>100.33%<br>100.33%<br>100.33%<br>100.33%<br>100.10%<br>100.10%<br>100.33%<br>100.33%<br>100.10%<br>100.10%<br>100.10%<br>100.10%<br>100.10%<br>100.10%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%<br>100.20%   | Measured           0.156           0.669           0.615           0.633           Averaged SAR           Measured           0.028           0.027           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.100           0.276           Averaged SAR           Measured           0.100           0.276           Averaged SAR           Measured           0.191           0.607           Averaged SAR   | Reported           0.164           0.702           0.662           0.673   over 1g (W/kg)           Reported           0.043           0.043           0.119   SAR over 1g (W/kg)           Reported           0.161           0.640   over 1g (W/kg)           Reported           0.107           0.295   over 1g (W/kg)           Reported           0.196           0.622   over 1g (W/kg)  |                                 |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G           WLAN 802.11ac(80M) 5.3G           WLAN 802.11ac(80M) 5.3G           WLAN 802.11ac(80M) 5.6G   | Bottom Surface           Front Edge           Front Edge           Front Edge           Position           Bottom Surface           Front Edge           Position  | (mm)  | 1           1           6           11           CH           0           0           CH           42           42           CH           58           58           CH           138           138           CH           151 | (MHz)<br>2412<br>2417<br>2417<br>2417<br>2417<br>2417<br>2417<br>2417<br>2417<br>2417<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>5210<br>5210<br>5210<br>5210<br>5210<br>5210<br>5210<br>5210<br>5290<br>5290<br>5290<br>5290<br>5690<br>5690<br>5690<br>5755<br>5755  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>11.50<br>14.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>14.00<br>14.00<br>14.00<br>14.00<br>14.00<br>15.00<br>15.00<br>Max. Rated Avg.<br>Power + Max.<br>Tolerance (dBm)<br>15.00<br>15.00  | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.24<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.35<br>13.95<br>13.95<br>13.95<br>13.76<br>13.76<br>13.76<br>13.76<br>13.76<br>14.37<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>14.96<br>15.45<br>15.45  | scaling  1011 1011 1011 1011 1011 1011 1011 1  | scaling<br>103.99%<br>103.99%<br>104.1%<br>106.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>Power<br>scaling<br>101.16%<br>Power<br>scaling<br>105.20%<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>106.10%<br>Power<br>scaling<br>106.10%<br>Power<br>scaling<br>107.10%<br>Power<br>scaling<br>106.20%<br>Power<br>scaling<br>106.20%<br>Power<br>scaling<br>106.20%<br>Power<br>scaling<br>106.20%<br>Power<br>scaling<br>106.20%<br>Power<br>scaling<br>106.20%<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power   | Measured           0.156           0.615           0.615           0.615           0.633           Averaged SAR           0.028           0.027           Averaged SAR           0.653           Averaged SAR           0.157           0.623           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.100           0.276           Averaged SAR           Measured           0.100           0.276           Averaged SAR           Measured           0.191           0.607           Averaged SAR           Measured           0.191           0.607           Averaged SAR           Measured           0.191           0.607           Averaged SAR           Measured           0.7978  | Reported           0.164           0.702           0.662           0.673             over 1g (W/kg)           Reported           0.043           0.119           SAR over 1g           kg)           Reported           0.161           0.640           over 1g (W/kg)           Reported           0.107           0.295           over 1g (W/kg)           Reported           0.196           0.522           over 1g (W/kg)           Reported           0.196           0.522           over 1g (W/kg)   |                                 |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.3G           WLAN 802.11ac(80M) 5.3G           WLAN 802.11ac(80M) 5.6G                 | Bottom Surface           Front Edge           Front Edge           Position           Bottom Surface           Front Edge           Position  | (mm)  | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>CH<br>58<br>58<br>58<br>CH<br>138<br>138<br>138<br>138<br>138<br>138<br>138<br>151<br>151<br>151  | (MHz)<br>2412<br>2413<br>2415<br>2457<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2590<br>2580<br>25755<br>57755<br>57755   | Power + Max.<br>Tolerance (dBm)<br>16:50<br>16:50<br>16:50<br>18:50<br>18:50<br>18:50<br>11:50<br>11:50<br>11:50<br>11:50<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>15:00<br>15:50<br>15:50  | Avg. Power<br>(dBm)           (dEm)           (dBm)           16.33           16.33           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           10.74           Measured           Avg. Power           (dBm)           13.78           13.78           13.78           13.78           Measured           Avg. Power           (dBm)           14.96           14.96           Measured           Avg. Power           (dBm)           15.45           15.45  | scaling 1011 1011 1011 1011 1011 1011 1011 10  | scaling<br>103.99%<br>103.99%<br>106.41%<br>106.41%<br>105.20%<br>105.20%<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>101.16%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100   | Measured           0.156           0.668           0.615           0.633           Averaged SAF           Measured           0.028           0.077           Averaged 10,077           Averaged 3AF           Measured           0.157           0.623           Averaged SAF           Measured           0.157           0.623           Averaged SAF           Measured           0.100           0.276           Averaged SAF           Measured           0.191           0.607           Averaged SAF           Measured           0.191           0.807  | Reported           0.164           0.702           0.662           0.673             over 1g (W/kg)           Reported           0.043           0.119             AR over 1g (W/kg)           Reported           0.640           over 1g (W/kg)           Reported           0.161           0.640           over 1g (W/kg)           Reported           0.107           0.295           over 1g (W/kg)           Reported           0.196           0.622           over 1g (W/kg)           Reported           0.196           0.622           over 1g (W/kg)                       |                                 |
| Mode           WLAN 802.11b           Mode           Biuetooth(GFSK)           Biuetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G           WLAN 802.11ac(80M) 5.3G           WUAN 802.11ac(80M) 5.3G           WUAN 802.11ac(80M) 5.8G           WUAN 802.11ac(80M) 5.8G           WLAN 802.11ac(80M) 5.8G | Bottom Surface           Front Edge           Front Edge           Front Edge           Position           Bottom Surface           Front Edge           Bottom Surface | (mm)  | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>58<br>58<br>58<br>CH<br>138<br>138<br>138<br>CH<br>151<br>151<br>155  | (MHz)<br>2412<br>2412<br>2412<br>2437<br>2462<br>2462<br>2462<br>2462<br>2462<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>5210<br>5210<br>5210<br>5210<br>5210<br>5210<br>5210<br>5220<br>5290<br>5290<br>5290<br>5290<br>5690<br>5690<br>5690<br>5690<br>5755<br>5755<br>5755<br>5775  | Power + Max.<br>Tolerance (dBm)<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>16.50<br>11.50<br>11.50<br>11.50<br>14.00<br>14.00<br>14.00<br>14.00<br>14.00<br>14.00<br>14.00<br>14.00<br>14.00<br>14.00<br>15.00<br>15.00<br>15.50<br>15.50   | Avg. Power<br>(dBm)<br>16.33<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.23<br>16.24<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.74<br>10.35<br>10.35<br>10.35<br>10.35<br>10.35<br>10.35<br>10.35<br>10.35<br>10.35<br>10.35<br>10.35<br>10.35<br>10.35<br>10.35<br>10.35<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.35<br>10.37<br>10.37<br>10.37<br>10.35<br>10.37<br>10.37<br>10.35<br>10.37<br>10.37<br>10.37<br>10.35<br>10.37<br>10.37<br>10.37<br>10.37<br>10.35<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.35<br>10.37<br>10.37<br>10.37<br>10.35<br>10.37<br>10.37<br>10.37<br>10.35<br>10.37<br>10.37<br>10.37<br>10.35<br>10.37<br>10.37<br>10.35<br>10.37<br>10.37<br>10.37<br>10.35<br>10.37<br>10.37<br>10.37<br>10.35<br>10.35<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>10.37<br>1 | scaling  1011 1011 1011 1011 1011 1011 1011 1  | scaling<br>103.99%<br>103.99%<br>103.99%<br>104.1%<br>105.20%<br>Power<br>scaling<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>101.16%<br>101.16%<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>105.20%<br>Power<br>scaling<br>106.20%<br>Power<br>scaling<br>107.16%<br>108.20%<br>Power<br>scaling<br>108.20%<br>Power<br>scaling<br>109.30%<br>Power<br>scaling<br>109.30%<br>Power<br>scaling<br>100.33%<br>Power<br>scaling<br>101.16%<br>Power<br>scaling<br>101.16%<br>Power<br>scaling<br>101.16%<br>Power<br>scaling<br>101.16%<br>Power<br>scaling<br>101.16%<br>Power<br>scaling<br>101.16%<br>Power<br>scaling<br>101.16%<br>Power<br>scaling<br>100.33%<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Scaling<br>Power<br>Power<br>Scaling<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power<br>Power | Measured           0.156           0.615           0.615           0.633           Averaged SAR           Measured           0.028           0.027           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.157           0.623           Averaged SAR           Measured           0.100           0.276           Averaged SAR           Measured           0.100           0.276           Averaged SAR           Measured           0.191           0.607           Averaged SAR           Measured           0.191           0.607           Averaged SAR           Measured           0.191           0.507           Averaged SAR           Measured           0.191           0.7978           1.070           0.978           1.020 | Reported           0.164           0.702           0.662           0.673             over 1g (W/kg)           Reported           0.043           0.119           SAR over 1g           kg)           Reported           0.161           0.640           over 1g (W/kg)           Reported           0.107           0.295           over 1g (W/kg)           Reported           0.196           0.622           over 1g (W/kg)           Reported           0.196           0.622           over 1g (W/kg)           Reported           0.196           0.522           over 1g (W/kg) |                                 |
| Mode           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           WLAN 802.11b           Mode           Bluetooth(GFSK)           Bluetooth(GFSK)           Bluetooth(GFSK)           Mode           WLAN 802.11ac(80M) 5.2G           WLAN 802.11ac(80M) 5.2G           Mode           WLAN 802.11ac(80M) 5.3G           WLAN 802.11ac(80M) 5.3G           WLAN 802.11ac(80M) 5.6G                 | Bottom Surface           Front Edge           Front Edge           Position           Bottom Surface           Front Edge           Position  | (mm)  | 1<br>1<br>6<br>11<br>CH<br>0<br>0<br>0<br>CH<br>42<br>42<br>42<br>CH<br>CH<br>58<br>58<br>58<br>CH<br>138<br>138<br>138<br>138<br>138<br>138<br>138<br>151<br>151<br>151  | (MHz)<br>2412<br>2413<br>2415<br>2457<br>2462<br>Freq.<br>(MHz)<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2402<br>2590<br>2580<br>25755<br>57755<br>57755   | Power + Max.<br>Tolerance (dBm)<br>16:50<br>16:50<br>16:50<br>18:50<br>18:50<br>18:50<br>11:50<br>11:50<br>11:50<br>11:50<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>14:00<br>15:00<br>15:50<br>15:50  | Avg. Power<br>(dBm)           (dEm)           (dBm)           16.33           16.33           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           16.23           10.74           Measured           Avg. Power           (dBm)           13.78           13.78           13.78           13.78           Measured           Avg. Power           (dBm)           14.96           14.96           Measured           Avg. Power           (dBm)           15.45           15.45  | scaling 1011 1011 1011 1011 1011 1011 1011 10  | scaling<br>103.99%<br>103.99%<br>106.41%<br>106.41%<br>105.20%<br>105.20%<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>119.12%<br>101.16%<br>101.16%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100.93%<br>100   | Measured           0.156           0.668           0.615           0.633           Averaged SAF           Measured           0.028           0.077           Averaged 10,077           Averaged 3AF           Measured           0.157           0.623           Averaged SAF           Measured           0.157           0.623           Averaged SAF           Measured           0.100           0.276           Averaged SAF           Measured           0.191           0.607           Averaged SAF           Measured           0.191           0.807  | Reported           0.164           0.702           0.662           0.673             over 1g (W/kg)           Reported           0.043           0.119             AR over 1g (W/kg)           Reported           0.640           over 1g (W/kg)           Reported           0.161           0.640           over 1g (W/kg)           Reported           0.107           0.295           over 1g (W/kg)           Reported           0.196           0.622           over 1g (W/kg)           Reported           0.196           0.622           over 1g (W/kg)                       |                                 |

\* - repeated at the highest SAR measurement according to the KDB 865664 D01

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Note:

Scaling =  $\frac{\text{reported SAR}}{\text{measured SAR}} = \frac{P2(mW)}{P1(mW)} = 10^{\left(\frac{P2-P1}{10}\right)(dBm)}$ Reported SAR = measured SAR \* (scaling)

Where P2 is maximum specified power, P1 is measured conducted power

# 2.3 Reporting statements of conformity

The conformity statement in this report is based solely on the test results, measurement uncertainty is excluded.

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# 3. Simultaneous Transmission Analysis

## **Simultaneous Transmission Scenarios:**

| Simultaneous Transmit Configurations        | Body |
|---|------|
| WLAN 2.4GHz Main + WLAN 2.4GHz Aux          | Yes  |
| WLAN 2.4GHz Main + BT Aux                   | Yes  |
| WLAN 2.4GHz Main + WLAN 2.4GHz Aux + BT Aux | Yes  |
| WLAN 5GHz Main + WLAN 5GHz Aux              | Yes  |
| WLAN 5GHz Main + BT Aux                     | Yes  |
| WLAN 5GHz Main + WLAN 5GHz Aux + BT Aux     | Yes  |

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## 3.1 Estimated SAR calculation

According to KDB447498 D01v06 – When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

Estimated SAR =  $\frac{\text{Max. tune up power (mW)}}{\text{Min. test separation distance(mm)}} \times \frac{\sqrt{f(\text{GHz})}}{7.5}$ 

If the minimum test separation distance is < 5mm, a distance of 5mm is used for estimated SAR calculation. When the test separation distance is >50mm, the 0.4W/kg is used for SAR-1q.

## 3.2 SPLSR evaluation and analysis

Per KDB447498D01, when the sum of SAR is larger than the limit, SAR test exclusion is determined by the SAR sum to peak location separation ratio(SPLSR).

The simultaneous transmitting antennas in each operating mode and exposure condition combination must be considered one pair at a time to determine the SAR to peak location separation ratio to qualify for test exclusion.

The ratio is determined by (SAR1 + SAR2)^1.5/Ri, rounded to two decimal digits, and must be  $\leq$  0.04 for all antenna pairs in the configuration to qualify for 1-g SAR test exclusion.

SAR1 and SAR2 are the highest reported or estimated SAR for each antenna in the pair, and Ri is the separation distance between the peak SAR locations for the antenna pair in mm.

When standalone test exclusion applies, SAR is estimated; the peak location is assumed to be at the feed-point or geometric center of the antenna.

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## **High-tek**

|                |      | Reported SAR        |                    |                   |                  |                  | Scenario1     | Scenario2     | Scenario3     | Scenario4     | Scenario5     | Scenario6     |
|----------------|------|---------------------|--------------------|-------------------|------------------|------------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                |      | 1                   | 2                  | 3                 | 4                | 5                | 1+2           | 1+5           | 1+2+5         | 3+4           | 3+5           | 3+4+5         |
| Exposure Posi  | tion | 2.4GHz WLAN<br>Main | 2.4GHz WLAN<br>Aux | 5GHz WLAN<br>Main | 5GHz WLAN<br>Aux | Bluetooth<br>Aux | Summed        | Summed        | Summed        | Summed        | Summed        | Summed        |
|                |      | 1g SAR<br>(W/kg)    | 1g SAR<br>(W/kg)   | 1g SAR<br>(W/kg)  | 1g SAR<br>(W/kg) | 1g SAR<br>(W/kg) | 1g SAR (W/kg) |
| Bottom Surface | 0    | 0.633               | 0.243              | 0.251             | 0.217            | 0.022            | 0.876         | 0.655         | 0.898         | 0.468         | 0.273         | 0.490         |
| Front Edge     | 0    | 0.472               | 0.724              | 1.067             | 0.759            | 0.115            | 1.196         | 0.587         | 1.311         | 1.826         | 1.182         | 1.941         |

|            |                        |              | S     | cenario:3+4-  | +5           |        |                             |       |                                  |
|------------|------------------------|--------------|-------|---------------|--------------|--------|-----------------------------|-------|----------------------------------|
| Position   | Conditions             | SAR<br>Value | Co    | oordinates (n | nm)          | ΣSAR   | Peak<br>Location            | SPLSR | Simultaneous<br>Transmission SAR |
|            | Conditiono             | (W/kg)       | х     | у             | z            | (W/kg) | Separation<br>Distance (mm) |       | Test                             |
| Front Edge | WLAN 5G Main           | 1.067        | -5.20 | 80.80         | -177.00      | -      | -                           | -     | -                                |
| FIONEEdge  | WLAN5G Aux +<br>BT Aux | 0.874        | -2.80 | -84.20        | -177.00      | 1.941  | 165.02                      | 0.016 | SPLSR ≤ 0.04,<br>Not required    |
|            |                        | 5G Main      |       | 165.0g<br>2   | mm<br>13.82m |        | S Aux                       | BT    |                                  |

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## Pulse

|                |      | Reported SAR        |                    |                   |                  |                  | Scenario1     | Scenario2     | Scenario3     | Scenario4     | Scenario5     | Scenario6     |
|----------------|------|---------------------|--------------------|-------------------|------------------|------------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                |      | 1                   | 2                  | 3                 | 4                | 5                | 1+2           | 1+5           | 1+2+5         | 3+4           | 3+5           | 3+4+5         |
| Exposure Posit | tion | 2.4GHz WLAN<br>Main | 2.4GHz WLAN<br>Aux | 5GHz WLAN<br>Main | 5GHz WLAN<br>Aux | Bluetooth<br>Aux | Summed        | Summed        | Summed        | Summed        | Summed        | Summed        |
|                |      | 1g SAR<br>(W/kg)    | 1g SAR<br>(W/kg)   | 1g SAR<br>(W/kg)  | 1g SAR<br>(W/kg) | 1g SAR<br>(W/kg) | 1g SAR (W/kg) |
| Bottom Surface | 0    | 0.331               | 0.164              | 0.331             | 0.254            | 0.043            | 0.495         | 0.374         | 0.538         | 0.585         | 0.374         | 0.628         |
| Front Edge     | 0    | 0.448               | 0.702              | 1.122             | 1.095            | 0.119            | 1.150         | 0.567         | 1.269         | 2.217         | 1.241         | 2.336         |

|               |                        |              |       | Scenar       | io:3+4+5                |        |                             |        |                                  |
|---------------|------------------------|--------------|-------|--------------|-------------------------|--------|-----------------------------|--------|----------------------------------|
| Position      | Conditions             | SAR<br>Value | Co    | ordinates (n | nm)                     | ΣSAR   | Peak<br>Location            | SPLSR  | Simultaneous<br>Transmission SAR |
| 1 USILIOIT    | Conditions             | (W/kg)       | x     | у            | z                       | (W/kg) | Separation<br>Distance (mm) | SILSIN | Test                             |
| Encent Enderg | WLAN 5G Main           | 1.122        | -3.60 | 80.00        | -177.00                 | -      | -                           | -      | -                                |
| Front Edge    | WLAN5G Aux +<br>BT Aux | 1.214        | -0.80 | -85.20       | -177.00                 | 2.336  | 165.22                      | 0.022  | SPLSR ≤ 0.04,<br>Not required    |
|               | 5G                     | Main         |       |              | 2 <b>2mm</b><br>13.03mi |        | Aux                         | BT     |                                  |

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# 4. Instruments List

|              |                                 | SAR Te               | st Site: SAR_4 |                             |                             |
|--------------|---------------------------------|----------------------|----------------|-----------------------------|-----------------------------|
| Manufacturer | Device                          | Туре                 | Serial number  | Date of last<br>calibration | Date of next calibration    |
| SPEAG        | Dosimetric E-Field<br>Probe     | EX3DV4               | 7712           | Mar/21/2022                 | Mar/20/2023                 |
| SPEAG        | System Validation<br>Dipole     | D2450V2              | 727            | Apr/25/2022                 | Apr/24/2023                 |
| SPEAG        | System Validation<br>Dipole     | D5GHzV2              | 1023           | Jan/27/2022                 | Jan/26/2023                 |
| SPEAG        | Data acquisition<br>Electronics | DAE4                 | 1719           | Mar/25/2022                 | Mar/24/2023                 |
| SPEAG        | Software                        | DASY 8<br>V16.0.2.83 | N/A            | Calibration not<br>required | Calibration not required    |
| SPEAG        | Phantom                         | ELI                  | N/A            | Calibration not required    | Calibration not required    |
| SPEAG        | Dielectric<br>Assessment Kit    | DAKS-3.5             | 1053           | Feb/28/2022                 | Feb/27/2023                 |
| Agilent      | Dual-directional<br>coupler     | 778D                 | MY48220468     | Aug/16/2021                 | Aug/15/2022                 |
| Agilent      | Dual-directional coupler        | 772D                 | MY46151242     | Aug/16/2021                 | Aug/15/2022                 |
| Agilent      | MXG Analog Signal<br>Generator  | N5181A               | MY50145142     | Dec/23/2021                 | Dec/22/2022                 |
| EMCI         | Amplifier                       | ZHL-42               | 980189         | Calibration not<br>required | Calibration not<br>required |
| EMCI         | Amplifier                       | ZVE-8G               | 980190         | Calibration not<br>required | Calibration not<br>required |
| Anritsu      | Power Meter                     | ML2496A              | 1337004        | Oct/08/2021                 | Oct/07/2022                 |
| Anritsu      | Power Sensor                    | MA2411B              | 1306052        | Oct/08/2021                 | Oct/07/2022                 |
| R&S          | Power Sensor                    | NRP18S               | 101973         | Jan/22/2022                 | Jan/21/2023                 |
| LKM          | Digital<br>thermometer          | DTM3000              | EC14010603     | Nov/09/2021                 | Nov/08/2022                 |
| TECPEL       | Digital thermometer             | DTM-303A             | TP130077       | Oct/28/2021                 | Oct/27/2022                 |

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# 5. Measurements

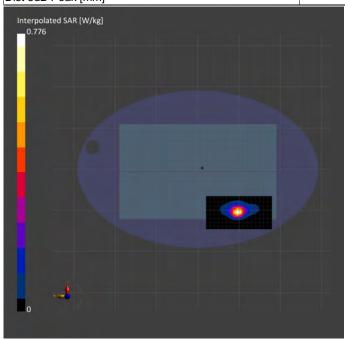
#### ID: 001

#### Report No. : TESA2204000040EN

Measurement Report for ASUS B5402(NB), WLAN 802.11b\_Body\_ Bottom Surface\_CH 6\_0mm\_Main Ambient temperature: 22.5°C; Liquid temperature: 22°C

## Exposure Conditions

| Exposure Condi          | tions                           |                                    |                      |            |                               |
|-------------------------|---------------------------------|------------------------------------|----------------------|------------|-------------------------------|
| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor | TSL Conduc | tivity [S/m] TSL Permittivity |
| Flat, HSL               | Bottom Surface, 0.00            | 2437.0, 6                          | 8.16                 | 1.781      | 38.883                        |
| Hardware Setup          |                                 |                                    |                      |            |                               |
| Phantom                 | Probe, Calibration Date         |                                    |                      | DAE, Calib | ration Date                   |
| ELI                     | EX3DV4 - SN7712, 2022           | -03-21                             |                      | DAE4 Sn17  | 719, 2022-03-25               |
| Scans Setup             |                                 |                                    |                      |            |                               |
|                         |                                 |                                    | Area Scan            |            | Zoom Scan                     |
| Grid Extents [mm]       |                                 |                                    | 84.0 x 156.0         |            | 30.0 x 30.0 x 30.0            |
| Grid Steps [mm]         |                                 |                                    | 12.0 x 12.0          |            | 5.0 x 5.0 x 5.0               |
| Sensor Surface [mm      | ו]                              |                                    | 3.0                  |            | 1.4                           |
| Measurement Re          | esults                          | ·                                  |                      |            |                               |
|                         |                                 |                                    | Are                  | ea Scan    | Zoom Scan                     |
| Date                    |                                 |                                    | 202                  | 2-06-22    | 2022-06-22                    |
| psSAR1g [W/kg]          |                                 |                                    |                      | 0.576      | 0.622                         |
| psSAR8g [W/kg]          |                                 |                                    |                      | 0.295      | 0.306                         |
| psSAR10g [W/kg]         |                                 |                                    |                      | 0.267      | 0.277                         |
| Power Drift [dB]        |                                 |                                    |                      | 0.02       | 0.01                          |
| M2/M1 [%]               |                                 |                                    |                      |            | 54.1                          |
| Dist 3dB Peak [mm]      |                                 |                                    |                      |            | 8.5                           |



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Report No. : TESA2204000040EN

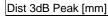
#### Measurement Report for ASUS B5402(NB), WLAN 802.11ac(80M) 5.2G\_Body\_Front Edge\_CH 42 0mm Main

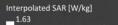
## Ambient temperature: 22.2°C; Liquid temperature: 21.8°C

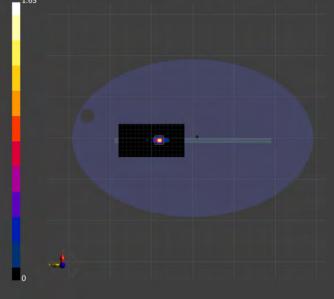
#### **Exposure Conditions**

| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor | TSL Conduc | tivity [S/m] TSL Permittivity |
|-------------------------|---------------------------------|------------------------------------|----------------------|------------|-------------------------------|
| Flat, HSL               | Front Edge, 0.00                | 5210.0, 42                         | 5.94                 | 4.618      | 35.634                        |
| Hardware Setup          |                                 |                                    |                      |            |                               |
| Phantom                 | Probe, Calibration Date         |                                    |                      | DAE, Calib | ration Date                   |
| ELI                     | EX3DV4 - SN7712, 2022           | -03-21                             |                      | DAE4 Sn17  | 719, 2022-03-25               |
| Scans Setup             |                                 |                                    |                      |            |                               |
|                         |                                 |                                    | Area Scan            |            | Zoom Scan                     |
| Grid Extents [mm]       |                                 |                                    | 80.0 x 160.0         |            | 24.0 x 24.0 x 22.0            |
| Grid Steps [mm]         |                                 |                                    | 10.0 x 10.0          |            | 4.0 x 4.0 x 2.0               |
| Sensor Surface [mm      | ו]                              |                                    | 3.0                  |            | 1.4                           |
| Measurement Re          | esults                          |                                    |                      |            |                               |
|                         |                                 |                                    | Are                  | ea Scan    | Zoom Scan                     |
| Date                    |                                 |                                    | 202                  | 2-06-23    | 2022-06-23                    |
| psSAR1g [W/kg]          |                                 |                                    |                      | 0.858      | 0.926                         |
| psSAR8g [W/kg]          |                                 | 0.234                              |                      |            |                               |
| psSAR10g [W/kg]         |                                 |                                    |                      | 0.197      | 0.205                         |
|                         |                                 |                                    |                      |            |                               |

Power Drift [dB] M2/M1 [%]







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-0.04

0.03

58.6

5.8



#### Report No. : TESA2204000040EN

## Measurement Report for ASUS B5402(NB), WLAN 802.11ac(80M) 5.3G\_Body\_Front Edge\_CH 58 0mm Main

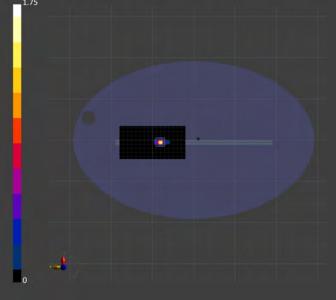
#### Ambient temperature: 22.2°C; Liquid temperature: 21.8°C

#### **Exposure Conditions**

| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor | TSL Conduc | ctivity [S/m] TSL Permittivity |
|-------------------------|---------------------------------|------------------------------------|----------------------|------------|--------------------------------|
| Flat, HSL               | Front Edge, 0.00                | 5290.0, 58                         | 5.94                 | 4.699      | 35.542                         |
| Hardware Setup          |                                 |                                    |                      |            |                                |
| Phantom                 | Probe, Calibration Date         |                                    |                      | DAE, Calib | oration Date                   |
| ELI                     | EX3DV4 - SN7712, 2022           | -03-21                             |                      | DAE4 Sn1   | 719, 2022-03-25                |
| Scans Setup             |                                 |                                    |                      | ·          |                                |
|                         |                                 |                                    | Area Scan            |            | Zoom Scan                      |
| Grid Extents [mm]       |                                 |                                    | 80.0 x 160.0         |            | 24.0 x 24.0 x 22.0             |
| Grid Steps [mm]         |                                 |                                    | 10.0 x 10.0          |            | 4.0 x 4.0 x 2.0                |
| Sensor Surface [mm      | ז]                              |                                    | 3.0                  |            | 1.4                            |
| Measurement R           | esults                          |                                    | ·                    |            |                                |
|                         |                                 |                                    | Are                  | ea Scan    | Zoom Scan                      |
| Date                    |                                 |                                    | 202                  | 2-06-23    | 2022-06-23                     |
| psSAR1g [W/kg]          |                                 |                                    |                      | 0.912      | 0.998                          |
| psSAR8g [W/kg]          |                                 |                                    |                      | 0.265      |                                |
| psSAR10g [W/kg]         |                                 |                                    |                      | 0.206      | 0.221                          |

psSAR10g [W/kg] Power Drift [dB] M2/M1 [%] Dist 3dB Peak [mm]





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-0.04

0.02

57.7

10.7



55.7

9.8

ID: 004

Report No. : TESA2204000040EN

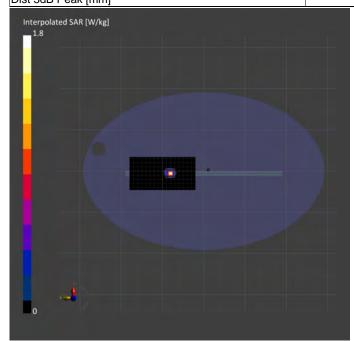
#### Measurement Report for ASUS B5402(NB), WLAN 802.11ac(80M) 5.6G\_Body\_Front Edge\_CH 138 0mm Main

## Ambient temperature: 22.1°C; Liquid temperature: 21.7°C

#### **Exposure Conditions**

| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor | TSL Conducti | ivity [S/m] TSL Permittivity |
|-------------------------|---------------------------------|------------------------------------|----------------------|--------------|------------------------------|
| Flat, HSL               | Front Edge, 0.00                | 5690.0, 138                        | 5.45                 | 5.106        | 35.085                       |
| Hardware Setup          |                                 |                                    |                      |              |                              |
| Phantom                 | Probe, Calibration Date         |                                    |                      | DAE, Calibra | ation Date                   |
| ELI                     | EX3DV4 - SN7712, 2022           | -03-21                             |                      | DAE4 Sn17    | 19, 2022-03-25               |
| Scans Setup             |                                 |                                    |                      |              |                              |
|                         |                                 |                                    | Area Scan            |              | Zoom Scan                    |
| Grid Extents [mm]       |                                 |                                    | 80.0 x 160.0         |              | 24.0 x 24.0 x 22.0           |
| Grid Steps [mm]         |                                 |                                    | 10.0 x 10.0          |              | 4.0 x 4.0 x 2.0              |
| Sensor Surface [mm      | ו]                              |                                    | 3.0                  |              | 1.4                          |
| Measurement Re          | esults                          |                                    |                      |              |                              |
|                         |                                 |                                    | Are                  | a Scan       | Zoom Scan                    |
| Date                    |                                 |                                    | 202                  | 2-06-24      | 2022-06-24                   |
| psSAR1g [W/kg]          |                                 |                                    |                      | 0.942        | 1.01                         |
| psSAR8g [W/kg]          |                                 |                                    |                      | 0.258        |                              |
| psSAR10g [W/kg]         |                                 |                                    |                      | 0.206        | 0.214                        |

psSAR10g [W/kg] Power Drift [dB] M2/M1 [%] Dist 3dB Peak [mm]



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-0.02



#### Report No. : TESA2204000040EN

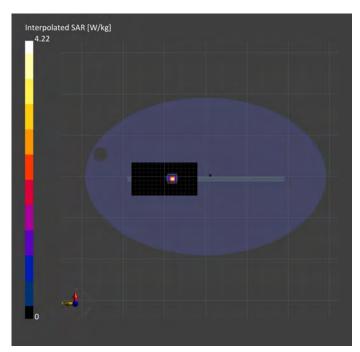
## Measurement Report for ASUS B5402(NB), WLAN 802.11ac(80M) 5.8G\_Body\_Front Edge\_CH 155 0mm Main

## Ambient temperature: 22.1°C; Liquid temperature: 21.7°C

#### **Exposure Conditions**

| Exposure contai         | lions                           |   |                      |               |                             |
|-------------------------|---------------------------------|---|----------------------|---------------|-----------------------------|
| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number        | Conversion<br>Factor | TSL Conductiv | vity [S/m] TSL Permittivity |
| Flat, HSL               | Front Edge, 0.00                | 5775.0, 155                               | 5.45                 | 5.192         | 34.988                      |
| Hardware Setup          |                                 |   |                      |               |                             |
| Phantom                 | Probe, Calibration Date         |   |                      | DAE, Calibra  | tion Date                   |
| ELI                     | EX3DV4 - SN7712, 2022           | 17712, 2022-03-21 DAE4 Sn1719, 2022-03-25 |                      |               |                             |
| Scans Setup             |                                 |   |                      |               |                             |
|                         |                                 |   | Area Scan            |               | Zoom Scar                   |
| Grid Extents [mm]       |                                 |   | 80.0 x 160.0         |               | 24.0 x 24.0 x 22.0          |
| Grid Steps [mm]         |                                 |   | 10.0 x 10.0          |               | 4.0 x 4.0 x 2.0             |
| Sensor Surface [mm      | ce [mm]                         |   | 3.0                  |               | 1.4                         |
| Measurement Re          | esults                          |   | ·                    |               |                             |
|                         |                                 |   | Are                  | ea Scan       | Zoom Scan                   |
| Date                    |                                 |   | 2022-06              |               | 2022-06-24                  |
| psSAR1g [W/kg]          |                                 |   | 0.8                  |               | 0.966                       |
| psSAR8g [W/kg]          |                                 |   | 0.232                |               | 0.247                       |

| psSAR8g [W/kg]     | 0.232 | 0.247 |
|--------------------|-------|-------|
| psSAR10g [W/kg]    | 0.195 | 0.205 |
| Power Drift [dB]   | -0.02 | 0.03  |
| M2/M1 [%]          |       | 55.3  |
| Dist 3dB Peak [mm] |       | 8.1   |



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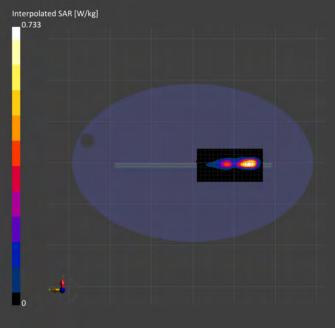


#### Report No. : TESA2204000040EN

## Measurement Report for ASUS B5402(NB), WLAN 802.11b\_Body\_Front Edge\_CH 1\_0mm\_Aux Ambient temperature: 22.5°C; Liquid temperature: 22°C

#### **Exposure Conditions**

| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor | TSL Condu        | ctivity [S/m] | TSL Permittivity  |
|-------------------------|---------------------------------|------------------------------------|----------------------|------------------|---------------|-------------------|
| Flat, HSL               | Front Edge, 0.00                | 2412.0, 1                          | 8.16                 | 1.759            |               | 38.927            |
| Hardware Setup          |                                 | ÷                                  |                      |                  |               |                   |
| Phantom                 | Probe, Calibration Date         |                                    | DAE,                 | Calibration Date |               |                   |
| ELI                     | EX3DV4 - SN7712, 2022-          | 03-21                              | DAE4                 | Sn1719, 2022-0   | 3-25          |                   |
| Scans Setup             |                                 |                                    | ·                    |                  |               |                   |
|                         |                                 |                                    | Area Scar            |                  |               | Zoom Scar         |
| Grid Extents [mm]       |                                 |                                    | 80.0 x 160.0         | 30.0 x 30        |               | 0.0 x 30.0 x 30.0 |
| Grid Steps [mm]         |                                 | 1:                                 |                      | 5.0 x 5          |               | 5.0 x 5.0 x 5.0   |
| Sensor Surface [mm      | ו]                              | 3.0                                |                      | 1.4              |               |                   |
| Measurement Re          | esults                          |                                    |                      |                  |               |                   |
|                         |                                 |                                    |                      | Area Scan        |               | Zoom Scar         |
| Date                    |                                 |                                    | 2                    | 022-06-22        |               | 2022-06-22        |
| psSAR1g [W/kg]          |                                 |                                    |                      | 0.576            |               | 0.689             |
| psSAR8g [W/kg]          |                                 |                                    | 0.299                |                  |               | 0.330             |
| psSAR10g [W/kg]         |                                 |                                    | 0.269                |                  |               | 0.297             |
| Power Drift [dB]        |                                 |                                    | -0.03                |                  |               | -0.05             |
| M2/M1 [%]               |                                 |                                    |                      |                  |               | 54.1              |
| Dist 3dB Peak [mm]      |                                 |                                    |                      |                  |               | 6.0               |



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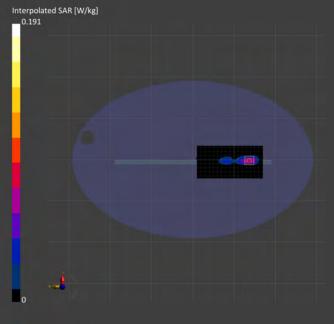


## Report No. : TESA2204000040EN

#### Measurement Report for ASUS B5402(NB), Bluetooth(GFSK)\_Body\_Front Edge\_CH 0\_0mm\_Aux Ambient temperature: 22.5°C; Liquid temperature: 22°C

#### **Exposure Conditions**

| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor | TSL Conductiv   | vity [S/m] TSL Permittivity |  |
|-------------------------|---------------------------------|------------------------------------|----------------------|-----------------|-----------------------------|--|
| Flat, HSL               | Front Edge, 0.00                | 2402.0, 0                          | 8.16                 | 1.751           | 38.945                      |  |
| Hardware Setup          |                                 |                                    | ·                    |                 |                             |  |
| Phantom                 | Probe, Calibration Date         |                                    |                      | DAE, Calibra    | tion Date                   |  |
| ELI                     | EX3DV4 - SN7712, 2022           | -03-21                             |                      | DAE4 Sn171      | 9, 2022-03-25               |  |
| Scans Setup             |                                 |                                    |                      |                 |                             |  |
|                         |                                 |                                    | Area Scan            |                 | Zoom Scan                   |  |
| Grid Extents [mm]       |                                 |                                    | 80.0 x 160.0         |                 | 30.0 x 30.0 x 30.0          |  |
| Grid Steps [mm]         |                                 | 12.0 x 12.0                        |                      | 5.0 x 5.0 x 5.0 |                             |  |
| Sensor Surface [mm      | ו]                              | 3.0                                |                      | 1.4             |                             |  |
| Measurement Re          | esults                          |                                    |                      |                 |                             |  |
|                         |                                 |                                    | Are                  | ea Scan         | Zoom Scan                   |  |
| Date                    |                                 |                                    | 2022-06-22           |                 | 2022-06-22                  |  |
| psSAR1g [W/kg]          |                                 |                                    | 0.063                |                 | 0.074                       |  |
| psSAR8g [W/kg]          |                                 |                                    | 0.033                |                 | 3 0.03                      |  |
| psSAR10g [W/kg]         |                                 |                                    | 0.029                |                 | 0.031                       |  |
| Power Drift [dB]        |                                 | -0.05                              |                      | 0.04            |                             |  |
| M2/M1 [%]               |                                 |                                    |                      |                 | 53.7                        |  |
| Dist 3dB Peak [mm]      |                                 |                                    |                      |                 | 5.0                         |  |



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0.03 56.0 7.0

#### ID: 008

Report No. : TESA2204000040EN

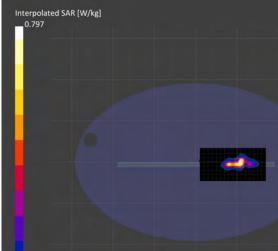
#### Measurement Report for ASUS B5402(NB), WLAN 802.11ac(80M) 5.2G\_Body\_Front Edge\_CH 42 0mm Aux

## Ambient temperature: 22.2°C; Liquid temperature: 21.8°C

#### **Exposure Conditions**

| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor | TSL Conduc    | ctivity [S/m] TSL Permittivity |  |
|-------------------------|---------------------------------|------------------------------------|----------------------|---------------|--------------------------------|--|
| Flat, HSL               | Front Edge, 0.00                | 5210.0, 42                         | 5.94                 | 4.618         | 35.634                         |  |
| Hardware Setup          |                                 |                                    |                      |               |                                |  |
| Phantom                 | Probe, Calibration Date         |                                    |                      | DAE, Calib    | oration Date                   |  |
| ELI                     | EX3DV4 - SN7712, 2022           | -03-21                             |                      | DAE4 Sn1      | 719, 2022-03-25                |  |
| Scans Setup             |                                 |                                    |                      | ·             |                                |  |
| -                       |                                 |                                    | Area Scan            |               | Zoom Scan                      |  |
| Grid Extents [mm]       |                                 |                                    | 80.0 x 160.0         | 24.0 x 24.0 x |                                |  |
| Grid Steps [mm]         |                                 |                                    | 10.0 x 10.0          |               | 4.0 x 4.0 x 2.0                |  |
| Sensor Surface [mm      | ו]                              | 3.0                                |                      |               | 1.4                            |  |
| Measurement Re          | esults                          |                                    |                      |               |                                |  |
|                         |                                 |                                    | Are                  | ea Scan       | Zoom Scan                      |  |
| Date                    |                                 |                                    | 202                  | 2-06-23       | 5-23 2022-06-2                 |  |
| psSAR1g [W/kg]          |                                 |                                    | 0.                   |               | 0.718                          |  |
| psSAR8g [W/kg]          |                                 |                                    | 0.219                |               | 0.159                          |  |
| psSAR10g [W/kg]         |                                 | 0.192                              |                      |               |                                |  |
|                         |                                 |                                    |                      |               |                                |  |

| psSAR10g [W/kg]    | 0.192 |  |
|--------------------|-------|--|
| Power Drift [dB]   | 0.02  |  |
| M2/M1 [%]          |       |  |
| Dist 3dB Peak [mm] |       |  |
|                    |       |  |



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7.6

#### ID: 009

Report No. : TESA2204000040EN

#### Measurement Report for ASUS B5402(NB), WLAN 802.11ac(80M) 5.3G\_Body\_Front Edge\_CH 58 0mm Aux

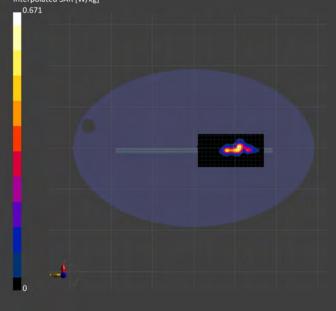
## Ambient temperature: 22.2°C; Liquid temperature: 21.8°C

#### **Exposure Conditions**

| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor | TSL Conductiv | ity [S/m] TSL Permittivity |  |
|-------------------------|---------------------------------|------------------------------------|----------------------|---------------|----------------------------|--|
| Flat, HSL               | Front Edge, 0.00                | 5290.0, 58                         | 5.94                 | 4.699         | 35.542                     |  |
| Hardware Setup          |                                 |                                    |                      |               |                            |  |
| Phantom                 | Probe, Calibration Date         |                                    |                      | DAE, Calibrat | ion Date                   |  |
| ELI                     | EX3DV4 - SN7712, 2022           | -03-21                             |                      |               |                            |  |
| Scans Setup             |                                 |                                    |                      |               |                            |  |
|                         |                                 |                                    | Area Scan            |               | Zoom Scan                  |  |
| Grid Extents [mm]       |                                 | 80.0 x 160.0                       | 24.0 x 24.0 x 22     |               |                            |  |
| Grid Steps [mm]         |                                 |                                    | 10.0 x 10.0 4.0 x    |               |                            |  |
| Sensor Surface [mm      | ]                               |                                    | 3.0                  |               |                            |  |
| Measurement Re          | esults                          |                                    |                      |               |                            |  |
|                         |                                 |                                    | Are                  | ea Scan       | Zoom Scan                  |  |
| Date                    |                                 |                                    | 2022-06-23           |               | 2022-06-23                 |  |
| psSAR1g [W/kg]          |                                 | 0.448                              |                      | 0.562         |                            |  |
| psSAR8g [W/kg]          |                                 |                                    | 0.173                |               | 0.126                      |  |
| psSAR10g [W/kg]         |                                 |                                    | 0.152                |               | 0.106                      |  |
| Power Drift [dB]        |                                 |                                    | -0.01                |               | 0.02                       |  |



M2/M1 [%]



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7.5

#### ID: 010

Report No. : TESA2204000040EN

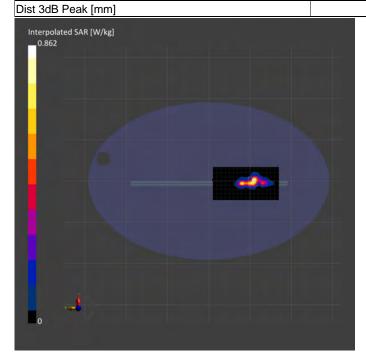
## Measurement Report for ASUS B5402(NB), WLAN 802.11ac(80M) 5.6G\_Body\_Front Edge\_CH 138 0mm Aux

## Ambient temperature: 22.1°C; Liquid temperature: 21.7°C

#### **Exposure Conditions**

| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor | TSL Conductiv | ity [S/m] TSL Permittivity |  |
|-------------------------|---------------------------------|------------------------------------|----------------------|---------------|----------------------------|--|
| Flat, HSL               | Front Edge, 0.00                | 5690.0, 138                        | 5.45                 | 5.106         | 35.085                     |  |
| Hardware Setup          |                                 |                                    |                      |               | ·                          |  |
| Phantom                 | Probe, Calibration Date         |                                    |                      | DAE, Calibrat | ion Date                   |  |
| ELI                     | EX3DV4 - SN7712, 2022           | -03-21                             |                      |               |                            |  |
| Scans Setup             |                                 |                                    |                      |               |                            |  |
| -                       |                                 |                                    | Area Scan            |               | Zoom Scan                  |  |
| Grid Extents [mm]       |                                 | 80.0 x 160.0                       | 24.0 x 24.0 x 22     |               |                            |  |
| Grid Steps [mm]         |                                 |                                    | 10.0 x 10.0 4.0 x 4  |               |                            |  |
| Sensor Surface [mm      | ו]                              |                                    | 3.0                  |               |                            |  |
| Measurement Re          | esults                          |                                    |                      |               |                            |  |
|                         |                                 |                                    | Are                  | ea Scan       | Zoom Scan                  |  |
| Date                    |                                 |                                    | 202                  | 2-06-24       | 2022-06-24                 |  |
| psSAR1g [W/kg]          |                                 |                                    | 0.582                |               | 582 0.740                  |  |
| psSAR8g [W/kg]          |                                 |                                    | 0.220                |               | 0.164                      |  |
| psSAR10g [W/kg]         |                                 |                                    | 0.193                |               | 0.138                      |  |
| Power Drift [dB]        |                                 |                                    | -0.01                |               | 0.03                       |  |
|                         |                                 |                                    |                      |               |                            |  |

M2/M1 [%]



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5.3

#### ID: 011

#### Report No. : TESA2204000040EN

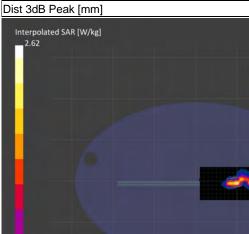
## Measurement Report for ASUS B5402(NB), WLAN 802.11ac(80M) 5.8G\_Body\_Front Edge\_CH 155 0mm Aux

### Ambient temperature: 22.1°C; Liquid temperature: 21.7°C

#### **Exposure Conditions**

| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor | TSL Conductiv | ity [S/m] TSL Permittivity |  |
|-------------------------|---------------------------------|------------------------------------|----------------------|---------------|----------------------------|--|
| Flat, HSL               | Front Edge, 0.00                | 5775.0, 155                        | 5.45                 | 5.192         | 34.988                     |  |
| Hardware Setup          |                                 |                                    |                      |               |                            |  |
| Phantom                 | Probe, Calibration Date         |                                    |                      | DAE, Calibrat | tion Date                  |  |
| ELI                     | EX3DV4 - SN7712, 2022           | -03-21                             |                      | DAE4 Sn1719   | 9, 2022-03-25              |  |
| Scans Setup             |                                 |                                    |                      |               |                            |  |
| -                       |                                 |                                    | Area Scan            |               | Zoom Scan                  |  |
| Grid Extents [mm]       |                                 | 80.0 x 160.0                       | 24.0 x 24.0 x 2      |               |                            |  |
| Grid Steps [mm]         |                                 |                                    | 10.0 x 10.0 4.0 x    |               |                            |  |
| Sensor Surface [mm      | ו]                              |                                    | 3.0                  |               |                            |  |
| Measurement Re          | esults                          |                                    |                      |               |                            |  |
|                         |                                 |                                    | Are                  | ea Scan       | Zoom Scan                  |  |
| Date                    |                                 |                                    | 202                  | 2-06-24       | 4 2022-06-24               |  |
| psSAR1g [W/kg]          |                                 |                                    | 0.529                |               | 0.590                      |  |
| psSAR8g [W/kg]          |                                 |                                    | 0.187                |               | 187 0.176                  |  |
| psSAR10g [W/kg]         |                                 |                                    | 0.166                |               | 0.166 0.151                |  |
| Power Drift [dB]        |                                 |                                    | 0.02                 |               | 0.03                       |  |
|                         |                                 |                                    |                      |               |                            |  |

M2/M1 [%]



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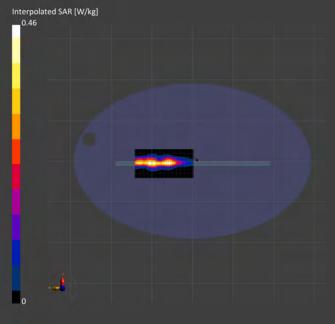


#### Report No. : TESA2204000040EN

## Measurement Report for ASUS B5402(NB), WLAN 802.11b\_Body\_Front Edge\_CH 6\_0mm\_Main Ambient temperature: 22.5°C; Liquid temperature: 22°C

#### **Exposure Conditions**

| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor | TSL Conductivity [ | S/m] TSL Permittivity |
|-------------------------|---------------------------------|------------------------------------|----------------------|--------------------|-----------------------|
| Flat, HSL               | Front Edge, 0.00                | 2437.0, 6                          | 8.16                 | 1.781              | 38.883                |
| Hardware Setup          |                                 |                                    | 1                    |                    |                       |
| Phantom                 | Probe, Calibration Date         |                                    | DAE, C               | alibration Date    |                       |
| ELI                     | EX3DV4 - SN7712, 2022-          | ·03-21                             | DAE4 S               | Sn1719, 2022-03-25 |                       |
| Scans Setup             |                                 |                                    | ·                    |                    |                       |
| -                       |                                 |                                    | Area S               | can                | Zoom Scan             |
| Grid Extents [mm]       |                                 |                                    | 72.0 x 14            | 4.0                | 30.0 x 30.0 x 30.0    |
| Grid Steps [mm]         |                                 |                                    | 12.0 x 1             | 2.0                | 5.0 x 5.0 x 5.0       |
| Sensor Surface [mm      | ]                               |                                    | 3.0                  |                    |                       |
| Measurement Re          | esults                          |                                    |                      |                    |                       |
|                         |                                 |                                    | Ar                   | ea Scan            | Zoom Scar             |
| Date                    |                                 |                                    | 202                  | 22-06-22           | 2022-06-22            |
| psSAR1g [W/kg]          |                                 |                                    | 0.353                |                    | 0.440                 |
| psSAR8g [W/kg]          |                                 |                                    | 0.183                |                    | 0.203                 |
| psSAR10g [W/kg]         |                                 | 0.167                              |                      | 0.182              |                       |
| Power Drift [dB]        |                                 | 0.02                               |                      | 0.04               |                       |
| M2/M1 [%]               |                                 |                                    |                      |                    | 59.4                  |
| Dist 3dB Peak [mm]      |                                 |                                    |                      |                    | 7.0                   |



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## ID: 013

Report No. : TESA2204000040EN

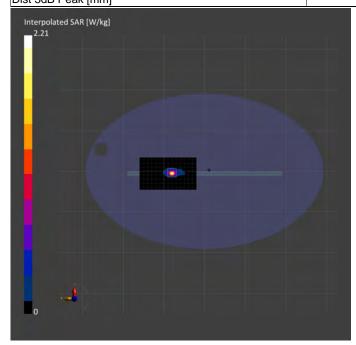
#### Measurement Report for ASUS B5402(NB), WLAN 802.11ac(80M) 5.2G\_Body\_Front Edge\_CH 42 0mm Main

## Ambient temperature: 22.2°C; Liquid temperature: 21.8°C

#### **Exposure Conditions**

| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor | TSL Cond           | ductivity [S/m] TSL Permittivity |  |
|-------------------------|---------------------------------|------------------------------------|----------------------|--------------------|----------------------------------|--|
| Flat, HSL               | Front Edge, 0.00                | 5210.0, 42                         | 5.94                 | 4.618              | 35.634                           |  |
| Hardware Setup          |                                 |                                    |                      |                    |                                  |  |
| Phantom                 | Probe, Calibration Date         |                                    |                      | DAE, Cali          | bration Date                     |  |
| ELI                     | EX3DV4 - SN7712, 2022-          | 03-21                              |                      | DAE4 Sn            | 1719, 2022-03-25                 |  |
| Scans Setup             |                                 |                                    |                      |                    |                                  |  |
| •                       |                                 |                                    | Area Scan            | Zoom S             |                                  |  |
| Grid Extents [mm]       | its [mm] 80.0 x 140.0 24.0      |                                    |                      | 24.0 x 24.0 x 22.0 |                                  |  |
| Grid Steps [mm]         |                                 |                                    | 10.0 x 10.0 4.0      |                    |                                  |  |
| Sensor Surface [mm      | ]                               |                                    | 3.0                  | 2                  |                                  |  |
| Measurement Re          | esults                          |                                    |                      |                    |                                  |  |
|                         |                                 |                                    | Are                  | ea Scan            | Zoom Scan                        |  |
| Date                    |                                 |                                    | 202                  | 2-06-23            | 3 2022-06-23                     |  |
| psSAR1g [W/kg]          |                                 |                                    | 0.893                |                    | 1.03                             |  |
| psSAR8g [W/kg]          |                                 |                                    | 0.267                |                    | 67 0.29                          |  |
| psSAR10g [W/kg]         | osSAR10g [W/kg]                 |                                    | 0.228                |                    | 0.252                            |  |
| Power Drift [dB]        |                                 |                                    | -0.02                |                    | -0.04                            |  |
| M2/M1 [%]               |                                 |                                    |                      |                    | 54.0                             |  |

M2/M1 [%] Dist 3dB Peak [mm]



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Report No. : TESA2204000040EN

## Measurement Report for ASUS B5402(NB), WLAN 802.11ac(80M) 5.3G\_Body\_Front Edge\_CH 58 0mm Main

## Ambient temperature: 22.2°C; Liquid temperature: 21.8°C

#### **Exposure Conditions**

| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversi<br>Factor |             |                    | TSL Permittivity |  |
|-------------------------|---------------------------------|------------------------------------|--------------------|-------------|--------------------|------------------|--|
| Flat, HSL               | Front Edge, 0.00                | 5290.0, 58                         | 5.94               | 4           | .699               | 35.542           |  |
| Hardware Setup          |                                 |                                    |                    |             |                    |                  |  |
| Phantom                 | Probe, Calibration Date         |                                    | D                  | AE, Calibra | ation Date         |                  |  |
| ELI                     | EX3DV4 - SN7712, 2022-          | 03-21                              | D                  | 0AE4 Sn171  | 9, 2022-03-25      |                  |  |
| Scans Setup             |                                 |                                    |                    |             |                    |                  |  |
|                         |                                 |                                    | A                  | rea Scan    |                    | Zoom Scar        |  |
| Grid Extents [mm]       |                                 |                                    | 80.0 x 140.0 24.0  |             | 24.0 x 24.0 x 22.0 |                  |  |
| Grid Steps [mm]         |                                 |                                    | 10                 | 0.0 x 10.0  |                    | 4.0 x 4.0 x 2.0  |  |
| Sensor Surface [mm      | n]                              |                                    | 3.0                |             |                    | 1.4              |  |
| Measurement Re          | esults                          |                                    |                    |             |                    |                  |  |
|                         |                                 |                                    |                    | Area S      | can                | Zoom Scar        |  |
| Date                    |                                 |                                    | 2022-06-2          |             | 06-23 2022-06-     |                  |  |
| psSAR1g [W/kg]          |                                 |                                    | 0.87               |             | 0.876 1.           |                  |  |
| psSAR8g [W/kg]          |                                 |                                    | 0.26               |             | 0.261 0.3          |                  |  |
| psSAR10g [W/kg]         |                                 |                                    | 0                  |             | 0.222 0            |                  |  |
| Power Drift [dB]        |                                 |                                    | -0.03              |             | 03 -0.0            |                  |  |
| M2/M1 [%]               | M2/M1 [%]                       |                                    |                    |             |                    | 54.1             |  |
| Dist 3dB Peak [mm]      |                                 |                                    |                    |             |                    | 11.4             |  |



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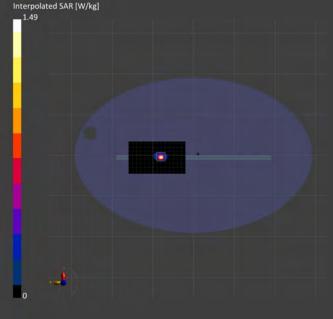
#### Report No. : TESA2204000040EN

## Measurement Report for ASUS B5402(NB), WLAN 802.11ac(80M) 5.6G\_Body\_Front Edge\_CH 138 0mm Main

## Ambient temperature: 22.1°C; Liquid temperature: 21.7°C

#### **Exposure Conditions**

| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor | TSL Conductivity [S/m] | TSL Permittivity  |
|-------------------------|---------------------------------|------------------------------------|----------------------|------------------------|-------------------|
| Flat, HSL               | Front Edge, 0.00                | 5690.0, 138                        | 5.45                 | 5.106                  | 35.085            |
| Hardware Setup          |                                 |                                    |                      |                        |                   |
| Phantom                 | Probe, Calibration Date         |                                    | DAE, Calib           | oration Date           |                   |
| ELI                     | EX3DV4 - SN7712, 2022-          | 03-21                              | DAE4 Sn1             | 719, 2022-03-25        |                   |
| Scans Setup             |                                 |                                    |                      |                        |                   |
|                         |                                 |                                    | Area Scar            | 1                      | Zoom Scan         |
| Grid Extents [mm]       |                                 |                                    | 80.0 x 140.0 24.0    |                        | 4.0 x 24.0 x 22.0 |
| Grid Steps [mm]         |                                 | 10.0 x 10.0 4.0                    |                      |                        | 4.0 x 4.0 x 2.0   |
| Sensor Surface [mm      | ]                               | 3.0                                |                      |                        | 1.4               |
| Measurement Re          | esults                          |                                    |                      |                        |                   |
|                         |                                 |                                    | Area                 | Scan                   | Zoom Scan         |
| Date                    |                                 |                                    | 2022-                | 06-24                  | 2022-06-24        |
| psSAR1g [W/kg]          |                                 |                                    |                      | 0.827                  | 0.981             |
| psSAR8g [W/kg]          |                                 |                                    | 0.235                |                        |                   |
| psSAR10g [W/kg]         |                                 |                                    |                      | 0.199                  | 0.226             |
| Power Drift [dB]        |                                 |                                    |                      | 0.03                   | 0.01              |
| M2/M1 [%]               |                                 |                                    |                      |                        | 51.5              |
| Dist 3dB Peak [mm]      |                                 |                                    |                      |                        | 9.1               |
| Internelated CAD [M/kg] |                                 |                                    |                      | ·                      |                   |



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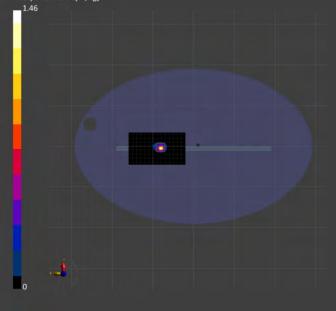
#### Report No. : TESA2204000040EN

## Measurement Report for ASUS B5402(NB), WLAN 802.11ac(80M) 5.8G\_Body\_Front Edge\_CH 155 0mm Main

## Ambient temperature: 22.1°C; Liquid temperature: 21.7°C

#### **Exposure Conditions**

| Phantom Sectio<br>TSL       | n, Position, Test Distanc<br>[mm] | e Frequency [MHz],<br>Channel Number | Conversion<br>Factor | TSL Conductivity [S | S/m]TSL Permittivity |  |
|-----------------------------|-----------------------------------|--------------------------------------|----------------------|---------------------|----------------------|--|
| Flat, HSL                   | Front Edge, 0.00                  | 5775.0, 155                          | 5.45                 | 5.192               | 34.988               |  |
| Hardware Se                 | up                                | ·                                    | ·                    |                     |                      |  |
| Phantom                     | Probe, Calibration Date           |                                      | DAE, Ca              | alibration Date     |                      |  |
| ELI                         | EX3DV4 - SN7712, 2022-0           | 3-21                                 | DAE4 S               | n1719, 2022-03-25   |                      |  |
| Scans Setup                 |                                   |                                      |                      |                     |                      |  |
|                             |                                   |                                      | Area Scan            |                     | Zoom Scan            |  |
| Grid Extents [mr            | n]                                |                                      | 80.0 x 140.0         |                     | 24.0 x 24.0 x 22.0   |  |
| Grid Steps [mm]             |                                   |                                      | 10.0 x 10.0 4        |                     |                      |  |
| Sensor Surface              | [mm]                              |                                      | 3.0                  |                     | 1.4                  |  |
| Measuremen                  | t Results                         |                                      |                      |                     |                      |  |
|                             |                                   |                                      | Ar                   | ea Scan             | Zoom Scan            |  |
| Date                        |                                   |                                      | 2022-06-24           |                     | 2022-06-24           |  |
| psSAR1g [W/kg               |                                   |                                      | 0.818                |                     | 0.967                |  |
| psSAR8g [W/kg               |                                   |                                      | 0.233                |                     | 0.233 0.26           |  |
| psSAR10g [W/kg]             |                                   |                                      | 0.19                 |                     | 0.198 0.22           |  |
| Power Drift [dB]            |                                   |                                      | 0.04                 |                     | .04 0.01             |  |
| M2/M1 [%]                   |                                   |                                      |                      |                     | 50.9                 |  |
| Dist 3dB Peak [r            | nm]                               |                                      |                      |                     | 8.4                  |  |
| Interpolated SAR [V<br>1.46 | //kg]                             |                                      |                      |                     |                      |  |



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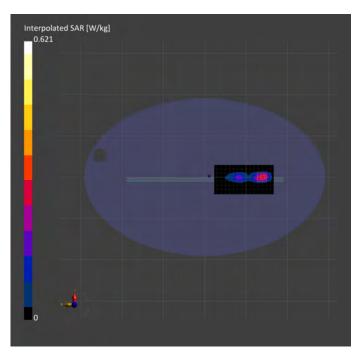


#### Report No. : TESA2204000040EN

## Measurement Report for ASUS B5402(NB), WLAN 802.11b\_Body\_Front Edge\_CH 1\_0mm\_Aux Ambient temperature: 22.5°C; Liquid temperature: 22°C

#### Exposure Conditions

| 10113                           |  |  |   |  |   |
|---------------------------------|--|--|---|--|---|
| Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number   | Convers<br>Factor  | ion TSL   | Conductivity [S/m]   | TSL Permittivity  |
| Front Edge, 0.00                | 2412.0, 1  | 8.16   | 1.75  | 9  | 38.927  |
|                                 |  |  |   |  |   |
| Probe, Calibration Date         |  | C  | AE, Calibratio  | n Date   |   |
| EX3DV4 - SN7712, 2022-          | 03-21  | C  | DAE4 Sn1719,  | 2022-03-25   |   |
|                                 |  |  |   |  |   |
|                                 |  | A  | vrea Scan   |  | Zoom Scan   |
| Grid Extents [mm]               |  |  | 72.0 x 144.0 30.0   |  | 0.0 x 30.0 x 30.0   |
|                                 |  | 12.0 x 12.0 5.0  |   |  |   |
| )]                              |  | 3.0  |   |  | 1.4   |
| esults                          |  |  |   |  |   |
|                                 |  |  | Area Sca  | า  | Zoom Scan   |
|                                 |  |  | 2022-06-22  | 2  | 2022-06-22  |
|                                 |  |  | 0.50  | 2  | 0.668   |
|                                 |  |  | 0.26  | 3  | 0.320   |
|                                 |  |  | 0.24  | 2  | 0.287   |
|                                 |  |  | -0.0  | 1  | -0.06   |
|                                 |  |  |   |  | 66.2  |
|                                 |  |  |   |  | 7.0   |
|                                 | Position, Test Distance<br>[mm]<br>Front Edge, 0.00<br>Probe, Calibration Date<br>EX3DV4 - SN7712, 2022- | Position, Test Distance<br>[mm]       Frequency [MHz],<br>Channel Number         Front Edge, 0.00       2412.0, 1         Probe, Calibration Date       EX3DV4 - SN7712, 2022-03-21         Image: State of the state | [mm]         Channel Number         Factor           Front Edge, 0.00         2412.0, 1         8.16           Probe, Calibration Date         E           EX3DV4 - SN7712, 2022-03-21         E           72.         72.           1         12 | Position, Test Distance<br>[mm]         Frequency [MHz],<br>Channel Number         Conversion<br>Factor         TSL           Front Edge, 0.00         2412.0, 1         8.16         1.75           Probe, Calibration Date         DAE, Calibration<br>DAE, Calibration<br>EX3DV4 - SN7712, 2022-03-21         DAE4 Sn1719,           Area Scan         72.0 x 144.0         12.0 x 12.0           J         3.0         2022-06-22           Ossilts         0.502         0.502           October Construction         0.266         0.242 | Position, Test Distance<br>[mm]       Frequency [MHz],<br>Channel Number       Conversion<br>Factor       TSL Conductivity [S/m]         Front Edge, 0.00       2412.0, 1       8.16       1.759         Probe, Calibration Date       DAE, Calibration Date       DAE4 Sn1719, 2022-03-25         EX3DV4 - SN7712, 2022-03-21       Area Scan       72.0 x 144.0       3         1       12.0 x 12.0       3.0       3.0 |



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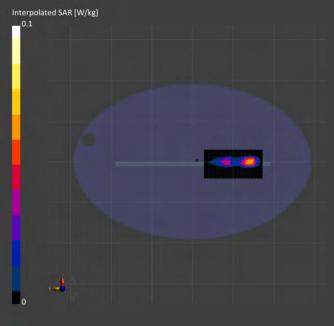


## Report No. : TESA2204000040EN

#### Measurement Report for ASUS B5402(NB), Bluetooth(GFSK)\_Body\_Front Edge\_CH 0\_0mm\_Aux Ambient temperature: 22.5°C; Liquid temperature: 22°C

#### Exposure Conditions

| Exposure conur          |                                  |                                    |                       |                     |                      |  |
|-------------------------|----------------------------------|------------------------------------|-----------------------|---------------------|----------------------|--|
| Phantom Section,<br>TSL | Position, Test Distance<br>[mm]  | Frequency [MHz],<br>Channel Number | Conversion<br>Factor  | TSL Conductivity [S | S/m]TSL Permittivity |  |
| Flat, HSL               | Front Edge, 0.00                 | 2402.0, 0                          | 8.16                  | 1.751               | 38.945               |  |
| Hardware Setup          |                                  |                                    |                       |                     |                      |  |
| Phantom                 | Probe, Calibration Date          |                                    | DAE, Ca               | libration Date      |                      |  |
| ELI                     | EX3DV4 - SN7712, 2022-           | 03-21                              | DAE4 Sr               | 1719, 2022-03-25    |                      |  |
| Scans Setup             |                                  |                                    |                       |                     |                      |  |
|                         |                                  |                                    | Area Sca              | an                  | Zoom Scan            |  |
| Grid Extents [mm]       | Extents [mm] 72.0 x 144.0 30.0 x |                                    |                       | 30.0 x 30.0 x 30.0  |                      |  |
| Grid Steps [mm]         |                                  |                                    | 12.0 x 12.0 5.0 x 5.0 |                     |                      |  |
| Sensor Surface [mm      | ]                                |                                    | 3.0                   |                     |                      |  |
| Measurement Re          | esults                           |                                    |                       |                     |                      |  |
|                         |                                  |                                    | Are                   | ea Scan             | Zoom Scan            |  |
| Date                    |                                  |                                    | 2022                  | 2-06-22             | 2022-06-22           |  |
| psSAR1g [W/kg]          |                                  |                                    |                       | 0.057               | 0.077                |  |
| psSAR8g [W/kg]          |                                  |                                    |                       | 0.031               | 0.037                |  |
| psSAR10g [W/kg]         |                                  |                                    |                       | 0.028               | 0.034                |  |
| Power Drift [dB]        |                                  |                                    |                       | -0.06               | 0.01                 |  |
| M2/M1 [%]               |                                  |                                    |                       |                     | 69.1                 |  |
| Dist 3dB Peak [mm]      |                                  |                                    |                       |                     | 5.1                  |  |
|                         |                                  |                                    |                       |                     |                      |  |



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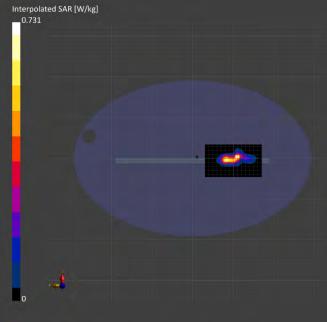
Report No. : TESA2204000040EN

## Measurement Report for ASUS B5402(NB), WLAN 802.11ac(80M) 5.2G\_Body\_Front Edge\_CH 42 0mm Aux

## Ambient temperature: 22.2°C; Liquid temperature: 21.8°C

#### **Exposure Conditions**

| Phantom Section,<br>TSL   | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor   | TSL Conductivity | [S/m] TSL Permittivity |
|---|---------------------------------|------------------------------------|------------------------|------------------|------------------------|
| Flat, HSL   | Front Edge, 0.00                | 5210.0, 42                         | 5.94                   | 4.618            | 35.634                 |
| Hardware Setup  |                                 |                                    |                        |                  |                        |
| Phantom   | Probe, Calibration Date         |                                    | DAE, Cal               | libration Date   |                        |
| ELI   | EX3DV4 - SN7712, 2022-0         | )3-21                              | DAE4 Sn                | 1719, 2022-03-25 |                        |
| Scans Setup   |                                 |                                    |                        |                  |                        |
|   |                                 |                                    | Area Scar              | n                | Zoom Scan              |
| Grid Extents [mm]   |                                 |                                    | 80.0 x 140.0 24.0 x 24 |                  |                        |
| Grid Steps [mm]   |                                 |                                    | 10.0 x 10.0 4.0 x 4    |                  |                        |
| Sensor Surface [mm  | ]                               |                                    | 3.0                    |                  |                        |
| Measurement Re  | esults                          |                                    |                        |                  |                        |
|   |                                 |                                    | Are                    | a Scan           | Zoom Scar              |
| Date  |                                 |                                    | 2022                   | 2-06-23          | 2022-06-23             |
| psSAR1g [W/kg]  |                                 |                                    |                        | 0.451            | 0.623                  |
| psSAR8g [W/kg]  |                                 |                                    | 0.182                  |                  | 0.207                  |
| psSAR10g [W/kg]   |                                 |                                    |                        | 0.161            | 0.178                  |
| Power Drift [dB]  |                                 |                                    |                        | 0.04             | -0.01                  |
| M2/M1 [%]   |                                 |                                    |                        |                  | 55.9                   |
| Dist 3dB Peak [mm]  |                                 |                                    |                        |                  | 7.2                    |
| <ul> <li>Constraint de la constraint de<br/>la constraint de la constraint de<br/>la constraint de la const<br/></li> </ul> |                                 |                                    |                        |                  |                        |



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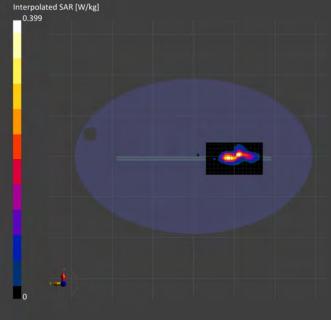
Report No. : TESA2204000040EN

## Measurement Report for ASUS B5402(NB), WLAN 802.11ac(80M) 5.3G\_Body\_Front Edge\_CH 58 0mm Aux

## Ambient temperature: 22.2°C; Liquid temperature: 21.8°C

#### **Exposure Conditions**

| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor |              | TSL Conductivity [S/m] | TSL Permittivity |  |
|-------------------------|---------------------------------|------------------------------------|----------------------|--------------|------------------------|------------------|--|
| Flat, HSL               | Front Edge, 0.00                | 5290.0, 58                         | 5.94                 |              | 4.699                  | 35.542           |  |
| Hardware Setup          |                                 |                                    |                      |              |                        |                  |  |
| Phantom                 | Probe, Calibration Date         |                                    |                      | DAE, Calib   | oration Date           |                  |  |
| ELI                     | EX3DV4 - SN7712, 2022-          | -03-21                             |                      | DAE4 Sn1     | 719, 2022-03-25        |                  |  |
| Scans Setup             |                                 |                                    |                      |              |                        |                  |  |
| -                       |                                 |                                    |                      | Area Scar    | 1                      | Zoom Scan        |  |
| Grid Extents [mm]       | Grid Extents [mm]               |                                    |                      | 80.0 x 140.0 | 40.0 24.0 x 24.0 x 2   |                  |  |
| Grid Steps [mm]         |                                 |                                    | 10.0 x 10.0 4.0 x    |              |                        | 4.0 x 4.0 x 2.0  |  |
| Sensor Surface [mm      | ]                               |                                    | 3.0                  |              |                        | 1.4              |  |
| Measurement Re          | esults                          |                                    |                      |              |                        |                  |  |
|                         |                                 |                                    |                      | Area         | Scan                   | Zoom Scar        |  |
| Date                    |                                 |                                    |                      | 2022-        | 06-23                  | 2022-06-23       |  |
| psSAR1g [W/kg]          |                                 |                                    |                      |              | 0.263                  | 0.276            |  |
| psSAR8g [W/kg]          |                                 |                                    | 0.107                |              | 0.107                  | 107 0.10         |  |
| psSAR10g [W/kg]         |                                 |                                    |                      |              | 0.095                  | 0.092            |  |
| Power Drift [dB]        |                                 |                                    |                      |              | -0.04                  | -0.01            |  |
| M2/M1 [%]               |                                 |                                    |                      |              |                        | 59.2             |  |
| Dist 3dB Peak [mm]      |                                 |                                    |                      |              |                        | 7.4              |  |
|                         |                                 |                                    |                      |              |                        |                  |  |



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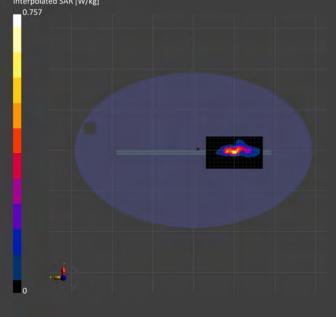
## Report No. : TESA2204000040EN

## Measurement Report for ASUS B5402(NB), WLAN 802.11ac(80M) 5.6G\_Body\_Front Edge\_CH 138 0mm Aux

## Ambient temperature: 22.1°C; Liquid temperature: 21.7°C

#### **Exposure Conditions**

| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor  | TSL Conductivity [S/m] | TSL Permittivity  |  |
|-------------------------|---------------------------------|------------------------------------|-----------------------|------------------------|-------------------|--|
| Flat, HSL               | Front Edge, 0.00                | 5690.0, 138                        | 5.45                  | 5.106                  | 35.085            |  |
| Hardware Setup          |                                 |                                    |                       |                        |                   |  |
| Phantom                 | Probe, Calibration Date         |                                    | DAE, Calib            | oration Date           |                   |  |
| ELI                     | EX3DV4 - SN7712, 2022-0         | 3-21                               | DAE4 Sn1              | 719, 2022-03-25        |                   |  |
| Scans Setup             |                                 |                                    | ·                     |                        |                   |  |
|                         |                                 |                                    | Area Scan             |                        | Zoom Scan         |  |
| Grid Extents [mm]       |                                 |                                    | 80.0 x 140.0 24.0 x 2 |                        | 4.0 x 24.0 x 22.0 |  |
| Grid Steps [mm]         |                                 | 10.0 x 10.0 4.0 x                  |                       |                        |                   |  |
| Sensor Surface [mm      | 1]                              | 3.0                                |                       |                        | 1.4               |  |
| Measurement Re          | esults                          |                                    |                       |                        |                   |  |
|                         |                                 |                                    | Area                  | Scan                   | Zoom Scan         |  |
| Date                    |                                 |                                    | 2022-                 | 06-24                  | 2022-06-24        |  |
| psSAR1g [W/kg]          |                                 |                                    |                       | 0.461                  | 0.607             |  |
| psSAR8g [W/kg]          |                                 |                                    | 0.170                 |                        | 170 0.203         |  |
| psSAR10g [W/kg]         |                                 |                                    |                       | 0.150                  | 0.178             |  |
| Power Drift [dB]        |                                 |                                    |                       | 0.03                   | 0.05              |  |
| M2/M1 [%]               |                                 |                                    |                       |                        | 62.3              |  |
| Dist 3dB Peak [mm]      |                                 |                                    |                       |                        | 7.8               |  |
| Interpolated SAR [W/kg] | 21                              |                                    |                       |                        |                   |  |



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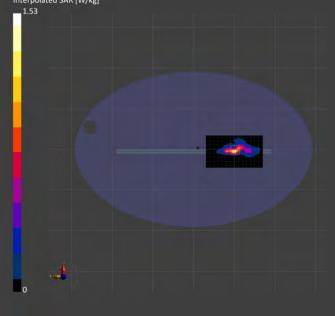
Report No. : TESA2204000040EN

## Measurement Report for ASUS B5402(NB), WLAN 802.11n(40M) 5.8G\_Body\_Front Edge\_CH 151 0mm Aux

## Ambient temperature: 22.1°C; Liquid temperature: 21.7°C

#### **Exposure Conditions**

| Phantom Section,<br>TSL | Position, Test Distance<br>[mm] | Frequency [MHz],<br>Channel Number | Conversion<br>Factor | TSL Conductivity [S/m] | TSL Permittivity  |
|-------------------------|---------------------------------|------------------------------------|----------------------|------------------------|-------------------|
| Flat, HSL               | Front Edge, 0.00                | 5755.0, 151                        | 5.45                 | 5.172                  | 35.011            |
| Hardware Setup          |                                 |                                    | ÷                    |                        |                   |
| Phantom                 | Probe, Calibration Date         |                                    | DAE, Calil           | oration Date           |                   |
| ELI                     | EX3DV4 - SN7712, 2022-          | ·03-21                             | DAE4 Sn1             | 719, 2022-03-25        |                   |
| Scans Setup             |                                 |                                    |                      |                        |                   |
| -                       |                                 |                                    | Area Scar            | ו                      | Zoom Scan         |
| Grid Extents [mm]       |                                 |                                    | 80.0 x 140.0         | ) 2                    | 4.0 x 24.0 x 22.0 |
| Grid Steps [mm]         |                                 | 10.0 x 10.0 4.0 x 4                |                      |                        | 4.0 x 4.0 x 2.0   |
| Sensor Surface [mm      | ו]                              |                                    | 3.0                  |                        |                   |
| Measurement Re          | esults                          |                                    |                      |                        |                   |
|                         |                                 |                                    | Area                 | Scan                   | Zoom Scan         |
| Date                    |                                 |                                    | 2022-                | 06-24                  | 2022-06-24        |
| psSAR1g [W/kg]          |                                 |                                    |                      | 0.911                  | 1.07              |
| psSAR8g [W/kg]          |                                 |                                    |                      | 0.321                  | 0.359             |
| psSAR10g [W/kg]         |                                 |                                    |                      | 0.284                  | 0.314             |
| Power Drift [dB]        |                                 |                                    |                      | -0.05                  | -0.02             |
| M2/M1 [%]               |                                 |                                    |                      |                        | 59.1              |
| Dist 3dB Peak [mm]      |                                 |                                    |                      |                        | 10.1              |
| Interpolated SAR [W/kg] | 21                              |                                    |                      |                        |                   |



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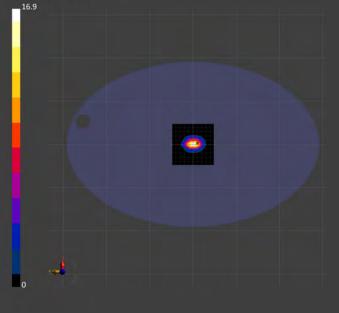


# 6. SAR System Performance Verification

#### Report No. : TESA2204000040EN

Measurement Report for Device, FRONT, D2450, CW, Channel 2450 (2450.0 MHz), SN:727 Ambient temperature: 22.5°C; Liquid temperature: 22°C **Exposure Conditions** 

| Phantom Section, TSL            | Position, Test Distance [mm | ]    | Conversion Factor | TSL Condu      | ctivity [S/m] | TSL Permittivity   |
|---------------------------------|-----------------------------|------|-------------------|----------------|---------------|--------------------|
| Flat, HSL                       | FRONT, 10.00                | -    | 8.16              | 1.792          |               | 38.859             |
| Hardware Setup                  |                             |      |                   |                |               |                    |
| Phantom                         | Probe, Calibration Date     |      | DA                | E, Calibration | Date          |                    |
| ELI                             | EX3DV4 - SN7712, 2022-03    | 3-21 | DA                | E4 Sn1719, 2   | 022-03-25     |                    |
| Scans Setup                     |                             |      |                   |                |               |                    |
|                                 |                             |      | Area Sca          | an             |               | Zoom Scan          |
| Grid Extents [mm]               |                             |      | 96.0 x 96         | .0             |               | 30.0 x 30.0 x 30.0 |
| Grid Steps [mm]                 |                             |      | 12.0 x 12         | .0             |               | 5.0 x 5.0 x 5.0    |
| Sensor Surface [mm]             |                             |      | 3                 | .0             |               | 1.4                |
| Measurement Resul               | lts                         |      |                   |                |               |                    |
|                                 |                             |      |                   | Area Scan      |               | Zoom Scan          |
| Date                            |                             |      |                   | 2022-06-22     |               | 2022-06-22         |
| psSAR1g [W/kg]                  |                             |      |                   | 12.8           |               | 12.9               |
| psSAR8g [W/kg]                  |                             |      |                   | 6.51           |               | 6.64               |
| psSAR10g [W/kg]                 |                             |      |                   | 5.88           |               | 6.02               |
| Power Drift [dB]                |                             |      |                   | -0.01          |               | -0.02              |
| M2/M1 [%]                       |                             |      |                   |                |               | 59.6               |
| Dist 3dB Peak [mm]              |                             |      |                   |                |               | 9.0                |
| Interpolated SAR [W/kg]<br>16.9 |                             |      |                   |                |               |                    |



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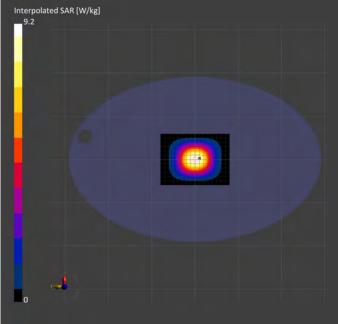
f (886-2) 2298-0488



#### Report No. : TESA2204000040EN Measurement Report for Device, FRONT, D5GHz, CW, Channel 5250 (5250.0 MHz) , SN:1023 Ambient temperature: 22.2°C; Liquid temperature: 21.8°C

#### **Exposure Conditions**

| Phantom Section, TSL | Position, Test Distance [mm] | Conversion Factor | TSL Conductivity [S/ | m] TSL Permittivity |
|----------------------|------------------------------|-------------------|----------------------|---------------------|
| Flat, HSL            | FRONT, 10.00                 | 5.94              | 4.658                | 35.588              |
| Hardware Setup       |                              |                   |                      |                     |
| Phantom              | Probe, Calibration Date      | DAI               | E, Calibration Date  |                     |
| ELI                  | EX3DV4 - SN7712, 2022-03-2   | 21 DAI            | E4 Sn1719, 2022-03-2 | 5                   |
| Scans Setup          |                              |                   |                      |                     |
|                      |                              | Area S            | can                  | Zoom Scan           |
| Grid Extents [mm]    |                              | 120.0 x 16        | 0.0                  | 24.0 x 24.0 x 22.0  |
| Grid Steps [mm]      |                              | 10.0 x 10.0       |                      | 4.0 x 4.0 x 2.0     |
| Sensor Surface [mm]  |                              | 3.0               |                      | 1.4                 |
| Measurement Resul    | ts                           |                   |                      |                     |
|                      |                              |                   | Area Scan            | Zoom Scan           |
| Date                 |                              |                   | 2022-06-23           | 2022-06-23          |
| psSAR1g [W/kg]       |                              |                   | 6.01                 | 8.15                |
| psSAR8g [W/kg]       |                              | 2.74              |                      | 3.05                |
| psSAR10g [W/kg]      |                              |                   | 2.35                 |                     |
| Power Drift [dB]     |                              |                   | -0.03                | -0.04               |
| M2/M1 [%]            |                              |                   |                      | 55.0                |
| Dist 3dB Peak [mm]   |                              |                   |                      | 7.4                 |



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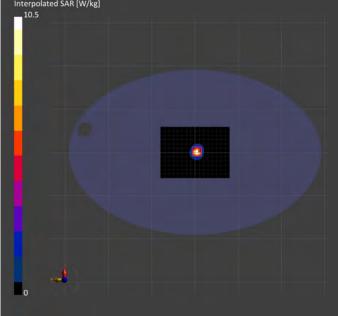
f (886-2) 2298-0488



#### Report No. : TESA2204000040EN Measurement Report for Device, FRONT, D5GHz, CW, Channel 5600 (5600.0 MHz) , SN:1023 Ambient temperature: 22.1°C; Liquid temperature: 21.7°C

#### **Exposure Conditions**

| Phantom Section, TSL | Position, Test Distance [mm] | Conversion Factor | TSL Conductivity [S/m] | TSL Permittivity   |
|----------------------|------------------------------|-------------------|------------------------|--------------------|
| Flat, HSL            | FRONT, 10.00                 | 5.29              | 5.015                  | 35.188             |
| Hardware Setup       |                              |                   |                        |                    |
| Phantom              | Probe, Calibration Date      | DAE               | E, Calibration Date    |                    |
| ELI                  | EX3DV4 - SN7712, 2022-03-2   | 1 DAE             | E4 Sn1719, 2022-03-25  |                    |
| Scans Setup          |                              |                   |                        |                    |
|                      |                              | Area S            | can                    | Zoom Scan          |
| Grid Extents [mm]    |                              | 120.0 x 16        | 60.0                   | 24.0 x 24.0 x 22.0 |
| Grid Steps [mm]      |                              | 10.0 x 1          | 0.0                    | 4.0 x 4.0 x 2.0    |
| Sensor Surface [mm]  |                              |                   | 3.0                    | 1.4                |
| Measurement Resul    | ts                           |                   |                        |                    |
|                      |                              |                   | Area Scan              | Zoom Scan          |
| Date                 |                              |                   | 2022-06-24             | 2022-06-24         |
| psSAR1g [W/kg]       |                              |                   | 7.52                   | 8.18               |
| psSAR8g [W/kg]       |                              |                   | 2.67                   | 2.73               |
| psSAR10g [W/kg]      |                              |                   | 2.30                   | 2.35               |
| Power Drift [dB]     |                              |                   | -0.03                  | -0.02              |
| M2/M1 [%]            |                              |                   |                        | 51.7               |
| Dist 3dB Peak [mm]   |                              |                   |                        | 7.5                |



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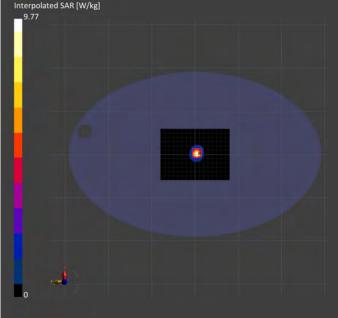
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#### Report No. : TESA2204000040EN Measurement Report for Device, FRONT, D5GHz, CW, Channel 5750 (5750.0 MHz) , SN:1023 Ambient temperature: 22.1°C; Liquid temperature: 21.7°C

#### **Exposure Conditions**

| Phantom Section, TSL | Position, Test Distance [mm] | Conversion Factor | TSL Conductivity [S/m] | TSL Permittivity   |
|----------------------|------------------------------|-------------------|------------------------|--------------------|
| Flat, HSL            | FRONT, 10.00                 | 5.45              | 5.167                  | 35.017             |
| Hardware Setup       |                              | ·                 |                        |                    |
| Phantom              | Probe, Calibration Date      | DAE               | E, Calibration Date    |                    |
| ELI                  | EX3DV4 - SN7712, 2022-03-2   | 1 DAE             | E4 Sn1719, 2022-03-25  |                    |
| Scans Setup          |                              |                   |                        |                    |
|                      |                              | Area So           | can                    | Zoom Scan          |
| Grid Extents [mm]    |                              | 120.0 x 16        | 0.0                    | 24.0 x 24.0 x 22.0 |
| Grid Steps [mm]      |                              | 10.0 x 1          | 0.0                    | 4.0 x 4.0 x 2.0    |
| Sensor Surface [mm]  |                              |                   | 3.0                    | 1.4                |
| Measurement Resul    | ts                           |                   |                        |                    |
|                      |                              |                   | Area Scan              | Zoom Scan          |
| Date                 |                              |                   | 2022-06-24             | 2022-06-24         |
| psSAR1g [W/kg]       |                              |                   | 7.00                   | 8.11               |
| psSAR8g [W/kg]       |                              |                   | 2.53                   | 2.71               |
| psSAR10g [W/kg]      |                              |                   | 2.19                   | 2.33               |
| Power Drift [dB]     |                              |                   | 0.06                   | 0.04               |
| M2/M1 [%]            |                              |                   |                        | 50.5               |
| Dist 3dB Peak [mm]   |                              |                   |                        | 7.5                |



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# 7. Uncertainty Budget

|  |                           |                            | -   |           |         |          |                         |                         |             |
|--|---------------------------|----------------------------|-----|-----------|---------|----------|-------------------------|-------------------------|-------------|
| A  | с                         | D                          | е   |           | f       | g        | h=c * f / e             | i=c * g / e             | k           |
| Source of Uncertainty                                | Tolerance/<br>Uncertainty | Probability<br>Distributio | Div | Div Value | ci (1g) | ci (10g) | Standard<br>uncertainty | Standard<br>uncertainty | vi, or Veff |
| Measurement system                                   |                           |                            |     |           |         |          |                         |                         |             |
| Probe calibration                                    | 6.55%                     | N                          | 1   | 1         | 1       | 1        | 6.55%                   | 6.55%                   | œ           |
| lsotropy , Axial                                     | 3.50%                     | R                          | √3  | 1.732     | 1       | 1        | 2.02%                   | 2.02%                   | œ           |
| lsotropy, Hemispherical                              | 9.60%                     | R                          | √3  | 1.732     | 1       | 1        | 5.54%                   | 5.54%                   | œ           |
| Modulation Response                                  | 2.40%                     | R                          | √3  | 1.732     | 1       | 1        | 1.40%                   | 1.40%                   | ~~~         |
| Boundary Effect                                      | 1.00%                     | R                          | √3  | 1.732     | 1       | 1        | 0.58%                   | 0.58%                   | œ           |
| Linearity  | 4.70%                     | R                          | √3  | 1.732     | 1       | 1        | 2.71%                   | 2.71%                   | æ           |
| Detection Limits                                     | 1.00%                     | R                          | √3  | 1.732     | 1       | 1        | 0.58%                   | 0.58%                   | œ           |
| Readout Electronics                                  | 0.30%                     | Ν                          | 1   | 1         | 1       | 1        | 0.30%                   | 0.30%                   | æ           |
| Response time  | 0.80%                     | R                          | √3  | 1.732     | 1       | 1        | 0.46%                   | 0.46%                   | œ           |
| Integration Time                                     | 2.60%                     | R                          | √3  | 1.732     | 1       | 1        | 1.50%                   | 1.50%                   | œ           |
| Measurement drift<br>(class A evaluation)            | 1.75%                     | R                          | √3  | 1.732     | 1       | 1        | 1.01%                   | 1.01%                   | œ           |
| RF ambient condition -<br>noise                      | 3.00%                     | R                          | √3  | 1.732     | 1       | 1        | 1.73%                   | 1.73%                   | œ           |
| RF ambient conditions - reflections                  | 3.00%                     | R                          | √3  | 1.732     | 1       | 1        | 1.73%                   | 1.73%                   | œ           |
| Probe positioner<br>Mechanical restrictions          | 0.40%                     | R                          | √3  | 1.732     | 1       | 1        | 0.23%                   | 0.23%                   | œ           |
| Probe Positioning with<br>respect to phantom shell   | 2.90%                     | R                          | √3  | 1.732     | 1       | 1        | 1.67%                   | 1.67%                   | œ           |
| Post-processing                                      | 1.00%                     | R                          | √3  | 1.732     | 1       | 1        | 0.58%                   | 0.58%                   | œ           |
| Max SAR Eval   | 1.00%                     | R                          | √3  | 1.732     | 1       | 1        | 0.58%                   | 0.58%                   | œ           |
| Test Sample related                                  |                           |                            |     |           |         |          |                         |                         |             |
| Test sample positioning                              | 2.90%                     | N                          | 1   | 1         | 1       | 1        | 2.90%                   | 2.90%                   | M-1         |
| Device Holder Uncertainty                            | 3.60%                     | N                          | 1   | 1         | 1       | 1        | 3.60%                   | 3.60%                   | M-1         |
| Drift of output power                                | 5.00%                     | R                          | √3  | 1.732     | 1       | 1        | 2.89%                   | 2.89%                   | œ           |
| Phantom and Setup                                    |                           |                            |     |           |         |          |                         |                         |             |
| Phantom Uncertainty                                  | 4.00%                     | R                          | √3  | 1.732     | 1       | 1        | 2.31%                   | 2.31%                   | œ           |
| Liquid permittivity (mea.)                           | 0.96%                     | N                          | 1   | 1         | 0.64    | 0.43     | 0.61%                   | 0.41%                   | М           |
| Liquid Conductivity (mea.)                           | 1.02%                     | N                          | 1   | 1         | 0.6     | 0.49     | 0.61%                   | 0.50%                   | М           |
| Combined standard<br>uncertainty                     |                           | RSS                        |     |           |         |          | 11.75%                  | 11.72%                  |             |
| Expant uncertainty (95%<br>confidence interval), K=2 |                           |                            |     |           |         |          | 23.50%                  | 23.45%                  |             |

Measurement Uncertainty evaluation template for DUT SAR test (3-6G)

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| A  | с                         | D                          | е   |           | f       | g        | h=c * f / e             | i=c * g / e             | k                                       |
|--|---------------------------|----------------------------|-----|-----------|---------|----------|-------------------------|-------------------------|---|
| Source of Uncertainty                              | Tolerance/<br>Uncertainty | Probability<br>Distributio | Div | Div Value | ci (1g) | ci (10g) | Standard<br>uncertainty | Standard<br>uncertainty | vi, or Veff                             |
| Measurement system                                 |                           |                            |     |           |         |          |                         |                         |   |
| Probe calibration                                  | 6.00%                     | N                          | 1   | 1         | 1       | 1        | 6.00%                   | 6.00%                   | ~                                       |
| lsotropy , Axial                                   | 3.50%                     | R                          | √3  | 1.732     | 1       | 1        | 2.02%                   | 2.02%                   | ~                                       |
| lsotropy, Hemispherical                            | 9.60%                     | R                          | √3  | 1.732     | 1       | 1        | 5.54%                   | 5.54%                   | ~                                       |
| Modulation Response                                | 2.40%                     | R                          | √3  | 1.732     | 1       | 1        | 1.40%                   | 1.40%                   | ~                                       |
| Boundary Effect                                    | 1.00%                     | R                          | √3  | 1.732     | 1       | 1        | 0.58%                   | 0.58%                   | ~                                       |
| Linearity  | 4.70%                     | R                          | √3  | 1.732     | 1       | 1        | 2.71%                   | 2.71%                   | ~~                                      |
| Detection Limits                                   | 1.00%                     | R                          | √3  | 1.732     | 1       | 1        | 0.58%                   | 0.58%                   | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |
| Readout Electronics                                | 0.30%                     | N                          | 1   | 1         | 1       | 1        | 0.30%                   | 0.30%                   | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |
| Response time                                      | 0.80%                     | R                          | √3  | 1.732     | 1       | 1        | 0.46%                   | 0.46%                   | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |
| Integration Time                                   | 2.60%                     | R                          | √3  | 1.732     | 1       | 1        | 1.50%                   | 1.50%                   | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |
| Measurement drift<br>(class A evaluation)          | 1.75%                     | R                          | √3  | 1.732     | 1       | 1        | 1.01%                   | 1.01%                   | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |
| RF ambient condition -<br>noise                    | 3.00%                     | R                          | √3  | 1.732     | 1       | 1        | 1.73%                   | 1.73%                   | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |
| RF ambient conditions - reflections                | 3.00%                     | R                          | √3  | 1.732     | 1       | 1        | 1.73%                   | 1.73%                   | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |
| Probe positioner<br>Mechanical restrictions        | 0.40%                     | R                          | √3  | 1.732     | 1       | 1        | 0.23%                   | 0.23%                   | ~                                       |
| Probe Positioning with<br>respect to phantom shell | 2.90%                     | R                          | √3  | 1.732     | 1       | 1        | 1.67%                   | 1.67%                   | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |
| Post-processing                                    | 1.00%                     | R                          | √3  | 1.732     | 1       | 1        | 0.58%                   | 0.58%                   | ~                                       |
| Max SAR Eval                                       | 1.00%                     | R                          | √3  | 1.732     | 1       | 1        | 0.58%                   | 0.58%                   | ~                                       |
| Test Sample related                                |                           |                            |     |           |         |          |                         |                         |   |
| Test sample positioning                            | 2.90%                     | N                          | 1   | 1         | 1       | 1        | 2.90%                   | 2.90%                   | M-1                                     |
| Device Holder Uncertainty                          | 3.60%                     | N                          | 1   | 1         | 1       | 1        | 3.60%                   | 3.60%                   | M-1                                     |
| Drift of output power                              | 5.00%                     | R                          | √3  | 1.732     | 1       | 1        | 2.89%                   | 2.89%                   | ~                                       |
| Phantom and Setup                                  |                           |                            |     |           |         |          |                         |                         |   |
| Phantom Uncertainty                                | 4.00%                     | R                          | √3  | 1.732     | 1       | 1        | 2.31%                   | 2.31%                   | ~~                                      |
| Liquid permittivity (mea.)                         | 0.87%                     | N                          | 1   | 1         | 0.64    | 0.43     | 0.56%                   | 0.37%                   | М                                       |
| Liquid Conductivity (mea.)                         | 0.59%                     | N                          | 1   | 1         | 0.6     | 0.49     | 0.35%                   | 0.29%                   | М                                       |
| Combined standard<br>uncertainty                   |                           | RSS                        |     |           |         |          | 11.44%                  | 11.42%                  |   |
| Expant uncertainty (95% confidence interval), K=2  |                           |                            |     |           |         |          | 22.87%                  | 22.84%                  |   |

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# Appendixes

Refer to separated files for the following appendixes.

TESA2204000040EN SAR\_Appendix A Photographs

TESA2204000040EN SAR\_Appendix B DAE & Probe Cal. Certificate

TESA2204000040EN SAR\_Appendix C Phantom Description & Dipole Cal. Certificate

- End of report -

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