

# FCC Part 47 §15.247 2400-2483.5 MHz 2015

## DUT Information

### Frequencies

|                     |                     |                     |
|---------------------|---------------------|---------------------|
| BT CH 0 (2402 MHz)  | BT CH 1 (2403 MHz)  | BT CH 2 (2404 MHz)  |
| BT CH 3 (2405 MHz)  | BT CH 4 (2406 MHz)  | BT CH 5 (2407 MHz)  |
| BT CH 6 (2408 MHz)  | BT CH 7 (2409 MHz)  | BT CH 8 (2410 MHz)  |
| BT CH 9 (2411 MHz)  | BT CH 10 (2412 MHz) | BT CH 11 (2413 MHz) |
| BT CH 12 (2414 MHz) | BT CH 13 (2415 MHz) | BT CH 14 (2416 MHz) |
| BT CH 15 (2417 MHz) | BT CH 16 (2418 MHz) | BT CH 17 (2419 MHz) |
| BT CH 18 (2420 MHz) | BT CH 19 (2421 MHz) | BT CH 20 (2422 MHz) |
| BT CH 21 (2423 MHz) | BT CH 22 (2424 MHz) | BT CH 23 (2425 MHz) |
| BT CH 24 (2426 MHz) | BT CH 25 (2427 MHz) | BT CH 26 (2428 MHz) |
| BT CH 27 (2429 MHz) | BT CH 28 (2430 MHz) | BT CH 29 (2431 MHz) |
| BT CH 30 (2432 MHz) | BT CH 31 (2433 MHz) | BT CH 32 (2434 MHz) |
| BT CH 33 (2435 MHz) | BT CH 34 (2436 MHz) | BT CH 35 (2437 MHz) |
| BT CH 36 (2438 MHz) | BT CH 37 (2439 MHz) | BT CH 38 (2440 MHz) |
| BT CH 39 (2441 MHz) | BT CH 40 (2442 MHz) | BT CH 41 (2443 MHz) |
| BT CH 42 (2444 MHz) | BT CH 43 (2445 MHz) | BT CH 44 (2446 MHz) |
| BT CH 45 (2447 MHz) | BT CH 46 (2448 MHz) | BT CH 47 (2449 MHz) |
| BT CH 48 (2450 MHz) | BT CH 49 (2451 MHz) | BT CH 50 (2452 MHz) |
| BT CH 51 (2453 MHz) | BT CH 52 (2454 MHz) | BT CH 53 (2455 MHz) |
| BT CH 54 (2456 MHz) | BT CH 55 (2457 MHz) | BT CH 56 (2458 MHz) |
| BT CH 57 (2459 MHz) | BT CH 58 (2460 MHz) | BT CH 59 (2461 MHz) |
| BT CH 60 (2462 MHz) | BT CH 61 (2463 MHz) | BT CH 62 (2464 MHz) |
| BT CH 63 (2465 MHz) | BT CH 64 (2466 MHz) | BT CH 65 (2467 MHz) |
| BT CH 66 (2468 MHz) | BT CH 67 (2469 MHz) | BT CH 68 (2470 MHz) |
| BT CH 69 (2471 MHz) | BT CH 70 (2472 MHz) | BT CH 71 (2473 MHz) |
| BT CH 72 (2474 MHz) | BT CH 73 (2475 MHz) | BT CH 74 (2476 MHz) |
| BT CH 75 (2477 MHz) | BT CH 76 (2478 MHz) | BT CH 77 (2479 MHz) |
| BT CH 78 (2480 MHz) |                     |                     |

### Bandwidths

|               |               |               |
|---------------|---------------|---------------|
| 1 MHz (1 MHz) | 2 MHz (2 MHz) | 3 MHz (3 MHz) |
|---------------|---------------|---------------|

### Power

20.000 dBm (20 dBm)

### Beamforming Gain

|                        |                              |
|------------------------|------------------------------|
| Powerstep name (value) | Beamforming gain table names |
| 20.000 dBm (20 dBm)    | ---                          |

### Gain Tables

|                        |                  |
|------------------------|------------------|
| Powerstep name (value) | Gain table names |
| 20.000 dBm (20 dBm)    | Port 1: ---;     |

### DUT Settings

|                              |       |
|------------------------------|-------|
| No. of transmission chains   | 1     |
| Equipment Type               | Other |
| Digital Modulation           | No    |
| Frequency Hopping            | Yes   |
| Carrier Frequency Separation | 1 MHz |
| Dwell Time                   | 5 ms  |

## Hardware Setup: WMS Measurements\TS8997

Spectrum Analyzer: SA FSV 40 (SA FSV 40) @ VISA (ADR  
TCPIP::192.168.48.111::INST0::INSTR), SN 1307.9002K40/101076,  
FW 3.40

Vector Generator: VG SMBV100B (VG SMBV100B) @ VISA (ADR  
TCPIP::192.168.48.29::INST0::INSTR), SN 101685, FW 4.70.006.33

Generator: SMB100Aa (1) (SMB100A) @ VISA (ADR  
TCPIP::192.168.48.30::INST0::INSTR), SN 178361, FW 3.20.390.24  
/ Drv:Rev 2.21.0, 07/2016, CVI 2015

OSP: OSP-B157W (OSP-B157W) @ VISA (ADR  
TCPIP::192.168.48.157::INST0::INSTR), SN 1527.1144. /, FW  
1.27.0.0

## Summary

| Test                      | Frequency (MHz)    | Nominal Power (dBm) | Nominal Bandwidth (MHz) | Result |
|---------------------------|--------------------|---------------------|-------------------------|--------|
| Band Edge low             | --- (hopping)      | 20.0                | 3.000000                | PASS   |
| Band Edge high            | --- (hopping)      | 20.0                | 3.000000                | PASS   |
| Time of Channel Occupancy | 2475.000 (hopping) | 20.0                | 3.000000                | PASS   |
| RF output power           | 2406.000 (single)  | 20.0                | 3.000000                | PASS   |
| Emission Bandwidth 20 dB  | 2406.000 (single)  | 20.0                | 3.000000                | PASS   |
| Band Edge low             | 2406.000 (single)  | 20.0                | 3.000000                | PASS   |
| Tx Spurious Emission      | 2406.000 (single)  | 20.0                | 3.000000                | PASS   |
| Emission Bandwidth 20 dB  | 2442.000 (single)  | 20.0                | 3.000000                | PASS   |
| RF output power           | 2442.000 (single)  | 20.0                | 3.000000                | PASS   |
| Tx Spurious Emission      | 2442.000 (single)  | 20.0                | 3.000000                | PASS   |
| Emission Bandwidth 20 dB  | 2475.000 (single)  | 20.0                | 3.000000                | PASS   |
| RF output power           | 2475.000 (single)  | 20.0                | 3.000000                | PASS   |
| Band Edge high            | 2475.000 (single)  | 20.0                | 3.000000                | PASS   |
| Tx Spurious Emission      | 2475.000 (single)  | 20.0                | 3.000000                | PASS   |

**Band Edge low (frequency independent; 20.000 dBm; 3 MHz)**

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

**Result**

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| hopping             | PASS   |

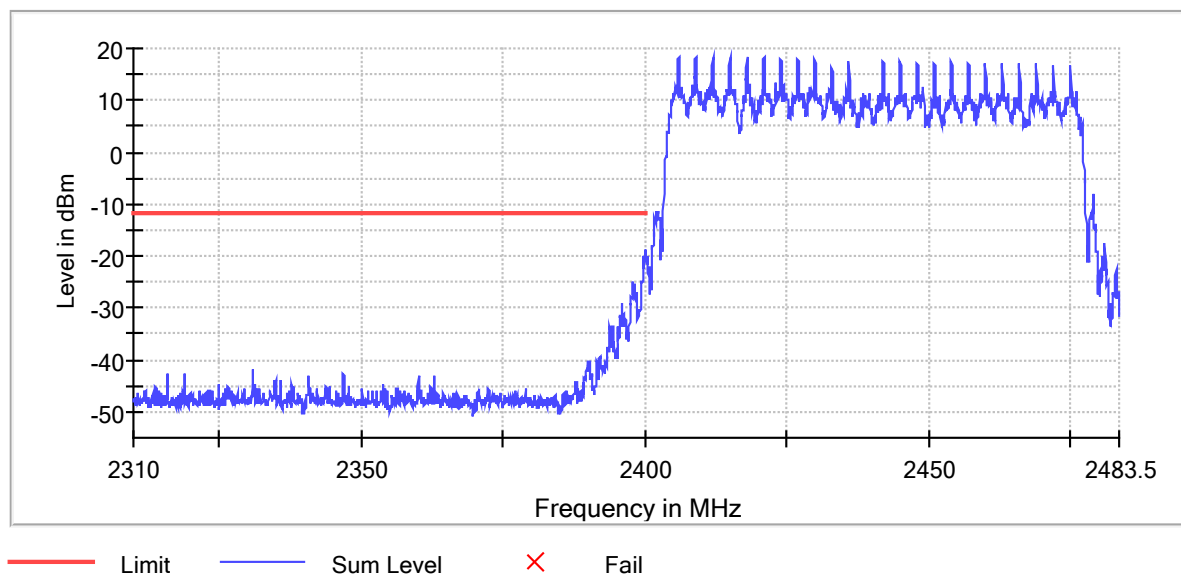
**Inband Peak**

| Frequency (MHz) | Level (dBm) |
|-----------------|-------------|
| 2408.975000     | 18.3        |

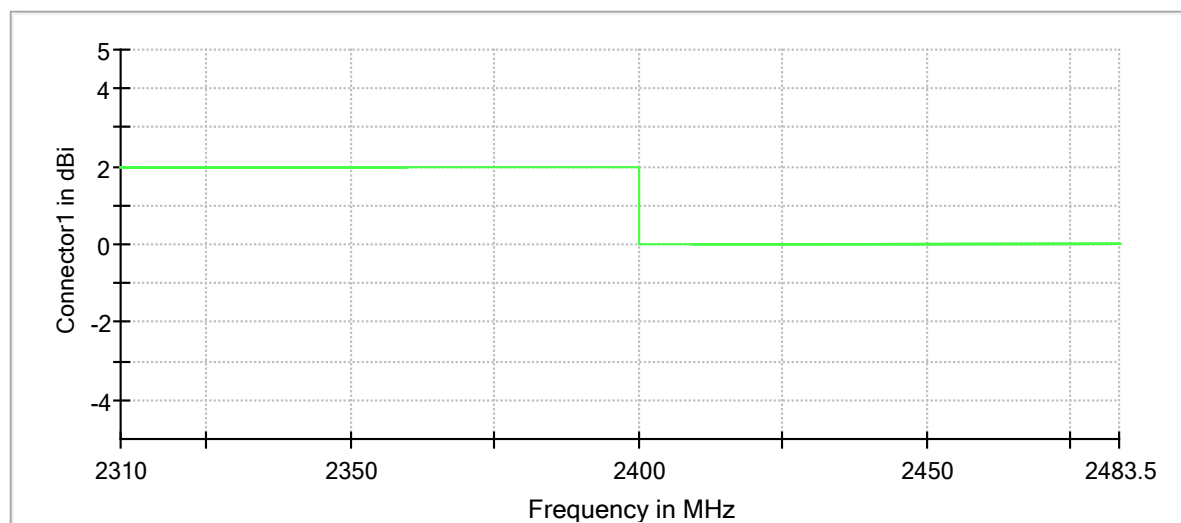
**Measurements**

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|-----------------|-------------|-------------|-------------|--------|
| 2399.825000     | -20.0       | 8.3         | -11.7       | PASS   |
| 2399.675000     | -20.1       | 8.4         | -11.7       | PASS   |
| 2399.775000     | -20.2       | 8.5         | -11.7       | PASS   |
| 2399.725000     | -20.4       | 8.7         | -11.7       | PASS   |
| 2399.975000     | -20.9       | 9.3         | -11.7       | PASS   |
| 2399.625000     | -21.0       | 9.3         | -11.7       | PASS   |
| 2399.925000     | -22.1       | 10.5        | -11.7       | PASS   |
| 2399.875000     | -22.6       | 10.9        | -11.7       | PASS   |
| 2399.575000     | -24.7       | 13.1        | -11.7       | PASS   |
| 2399.525000     | -24.9       | 13.2        | -11.7       | PASS   |
| 2397.925000     | -25.0       | 13.3        | -11.7       | PASS   |
| 2399.325000     | -25.0       | 13.3        | -11.7       | PASS   |
| 2397.875000     | -25.0       | 13.4        | -11.7       | PASS   |
| 2399.425000     | -25.2       | 13.5        | -11.7       | PASS   |
| 2399.475000     | -25.3       | 13.6        | -11.7       | PASS   |

Band Edge

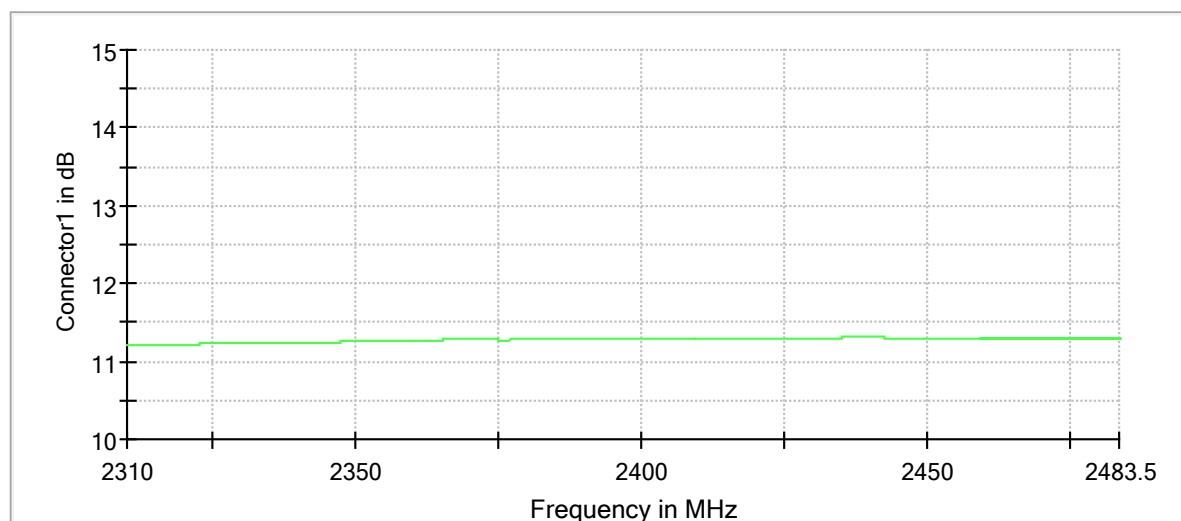


Gain



Connector1

Attenuation



Connector1

## Measurement 1

| Setting         | Instrument Value | Target Value   |
|-----------------|------------------|----------------|
| Start Frequency | 2.31000 GHz      | 2.31000 GHz    |
| Stop Frequency  | 2.40000 GHz      | 2.40000 GHz    |
| Span            | 90.000 MHz       | 90.000 MHz     |
| RBW             | 100.000 kHz      | <= 100.000 kHz |
| VBW             | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints     | 1800             | ~ 1800         |
| Sweeptime       | 113.672 $\mu$ s  | AUTO           |
| Reference Level | 10.000 dBm       | 10.000 dBm     |
| Attenuation     | 30.000 dB        | AUTO           |
| Detector        | MaxPeak          | MaxPeak        |
| SweepCount      | 100              | 100            |
| Filter          | 3 dB             | 3 dB           |
| Trace Mode      | Max Hold         | Max Hold       |
| SweepType       | FFT              | AUTO           |
| Preamp          | off              | off            |
| Stablemode      | Trace            | Trace          |
| Stablevalue     | 0.50 dB          | 0.50 dB        |

|                       |              |          |
|-----------------------|--------------|----------|
| Run                   | 9 / max. 150 | max. 150 |
| Stable                | 3 / 3        | 3        |
| Max Stable Difference | 0.00 dB      | 0.50 dB  |

## Measurement 2

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 2.40000 GHz      | 2.40000 GHz    |
| Stop Frequency        | 2.48350 GHz      | 2.48350 GHz    |
| Span                  | 83.500 MHz       | 83.500 MHz     |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 1670             | ~ 1670         |
| SweepTime             | 94.727 $\mu$ s   | AUTO           |
| Reference Level       | 10.000 dBm       | 10.000 dBm     |
| Attenuation           | 30.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | FFT              | AUTO           |
| Preamplifier          | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 90 / max. 150    | max. 150       |
| Stable                | 3 / 3            | 3              |
| Max Stable Difference | 0.10 dB          | 0.50 dB        |

## Band Edge high (frequency independent; 20.000 dBm; 3 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

### Result

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| hopping             | PASS   |

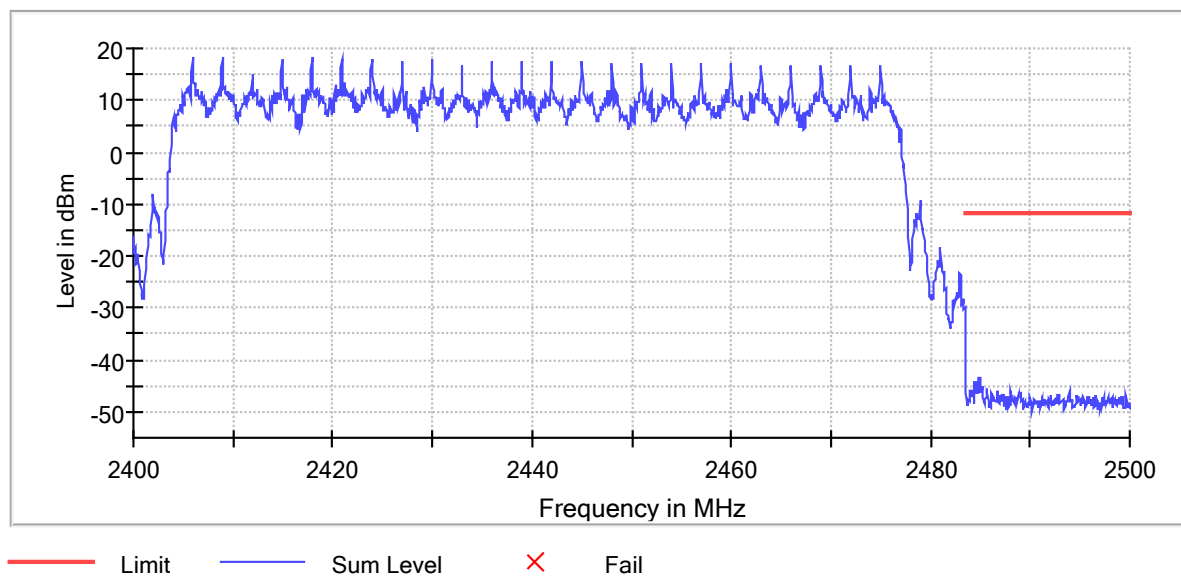
### Inband Peak

| Frequency (MHz) | Level (dBm) |
|-----------------|-------------|
| 2405.975000     | 18.2        |

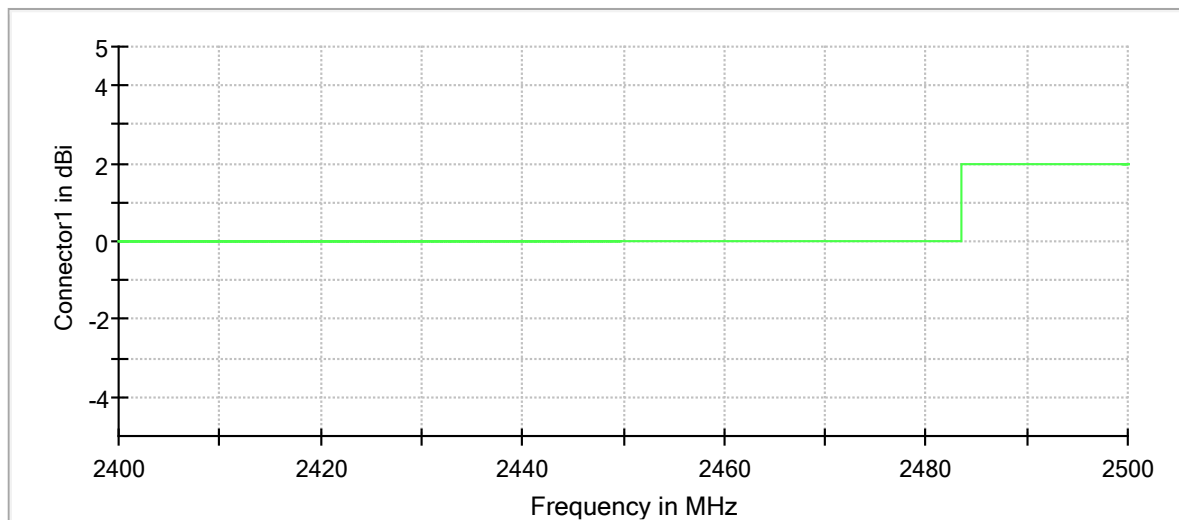
### Measurements

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|-----------------|-------------|-------------|-------------|--------|
| 2484.875000     | -43.3       | 31.5        | -11.8       | PASS   |
| 2484.925000     | -43.5       | 31.7        | -11.8       | PASS   |
| 2483.525000     | -43.9       | 32.1        | -11.8       | PASS   |
| 2484.525000     | -44.3       | 32.5        | -11.8       | PASS   |
| 2484.475000     | -44.4       | 32.7        | -11.8       | PASS   |
| 2485.175000     | -45.1       | 33.3        | -11.8       | PASS   |
| 2484.575000     | -45.2       | 33.4        | -11.8       | PASS   |
| 2485.225000     | -45.3       | 33.5        | -11.8       | PASS   |
| 2485.125000     | -45.4       | 33.6        | -11.8       | PASS   |
| 2485.675000     | -45.5       | 33.7        | -11.8       | PASS   |
| 2484.075000     | -45.7       | 33.9        | -11.8       | PASS   |
| 2493.925000     | -45.7       | 34.0        | -11.8       | PASS   |
| 2486.725000     | -45.8       | 34.0        | -11.8       | PASS   |
| 2484.825000     | -45.8       | 34.0        | -11.8       | PASS   |
| 2493.975000     | -45.8       | 34.0        | -11.8       | PASS   |

Band Edge

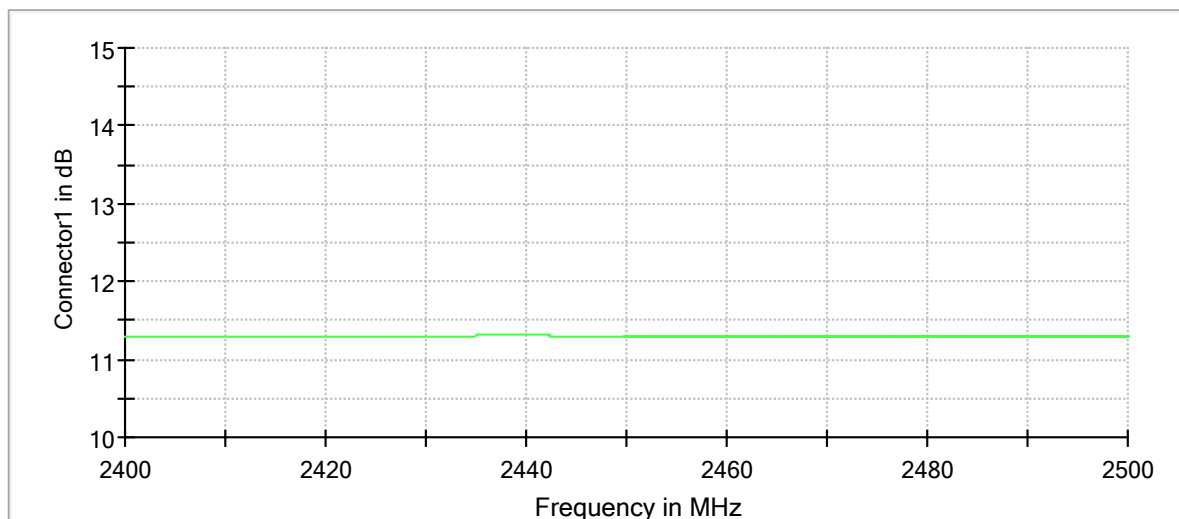


Gain



Connector1

Attenuation



Connector1

## Measurement 1

| Setting         | Instrument Value | Target Value   |
|-----------------|------------------|----------------|
| Start Frequency | 2.40000 GHz      | 2.40000 GHz    |
| Stop Frequency  | 2.48350 GHz      | 2.48350 GHz    |
| Span            | 83.500 MHz       | 83.500 MHz     |
| RBW             | 100.000 kHz      | <= 100.000 kHz |
| VBW             | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints     | 1670             | ~ 1670         |
| SweepTime       | 94.727 $\mu$ s   | AUTO           |
| Reference Level | 10.000 dBm       | 10.000 dBm     |
| Attenuation     | 30.000 dB        | AUTO           |
| Detector        | MaxPeak          | MaxPeak        |
| SweepCount      | 100              | 100            |
| Filter          | 3 dB             | 3 dB           |
| Trace Mode      | Max Hold         | Max Hold       |
| SweepType       | FFT              | AUTO           |
| Preamp          | off              | off            |
| Stablemode      | Trace            | Trace          |
| Stablevalue     | 0.50 dB          | 0.50 dB        |

|                       |               |          |
|-----------------------|---------------|----------|
| Run                   | 88 / max. 150 | max. 150 |
| Stable                | 3 / 3         | 3        |
| Max Stable Difference | 0.00 dB       | 0.50 dB  |

## Measurement 2

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 2.48350 GHz      | 2.48350 GHz    |
| Stop Frequency        | 2.50000 GHz      | 2.50000 GHz    |
| Span                  | 16.500 MHz       | 16.500 MHz     |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 330              | ~ 330          |
| Sweptime              | 18.945 $\mu$ s   | AUTO           |
| Reference Level       | 10.000 dBm       | 10.000 dBm     |
| Attenuation           | 30.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | FFT              | AUTO           |
| Preamplifier          | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 4 / max. 150     | max. 150       |
| Stable                | 3 / 3            | 3              |
| Max Stable Difference | 0.00 dB          | 0.50 dB        |

## Time of Channel Occupancy (2475 MHz; 20.000 dBm; 3 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

### Result

| DUT Frequency (MHz) | Result | Number of Hops | Average time of occupancy (ms) | Threshold (dBm) |
|---------------------|--------|----------------|--------------------------------|-----------------|
| 2475.000000         | PASS   | 39             | 108.050                        | 5.0             |

### Periode

| Min (ms) | Max (ms) | Mean (ms) |
|----------|----------|-----------|
| 69.733   | 230.289  | 160.523   |

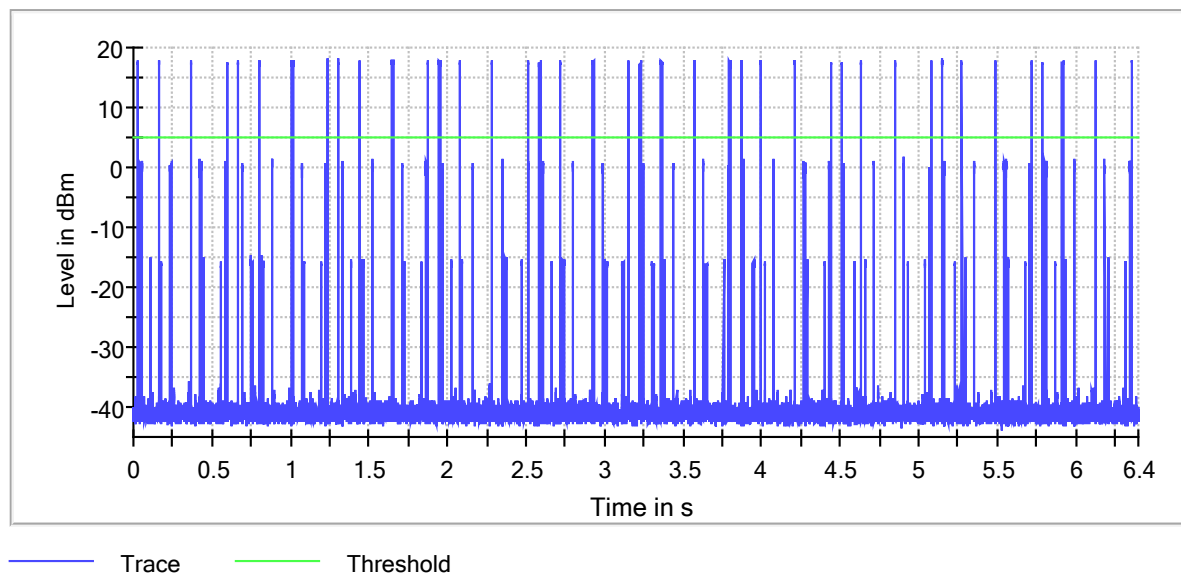
### Transmit Time per Hop

| Min (ms) | Max (ms) | Limit Max for Max (ms) | Limit Min for Max (ms) | Mean (ms) |
|----------|----------|------------------------|------------------------|-----------|
| 1.676    | 6.778    | 400.000                | 0.000                  | 2.727     |

### DwellTime

| Min (ms) | Max (ms) | Mean (ms) |
|----------|----------|-----------|
| 1.794    | 7.408    | 2.948     |

Time of Channel Occupancy



### Measurement

| Setting          | Instrument Value | Target Value |
|------------------|------------------|--------------|
| Center Frequency | 2.47500 GHz      | 2.47500 GHz  |

|                 |             |             |
|-----------------|-------------|-------------|
| Span            | ZeroSpan    | ZeroSpan    |
| RBW             | 1.500 MHz   | ~ 1.500 MHz |
| VBW             | 3.000 MHz   | ~ 3.000 MHz |
| SweepPoints     | 30001       | ~ 30001     |
| SweepTime       | 6.400 s     | 6.400 s     |
| Reference Level | -10.000 dBm | -10.000 dBm |
| Attenuation     | 0.000 dB    | 0.000 dB    |
| Detector        | MaxPeak     | MaxPeak     |
| SweepCount      | 1           | 1           |
| Filter          | Channel     | Channel     |
| Trace Mode      | Clear Write | Clear Write |
| SweepType       | Sweep       | AUTO        |
| Preamplifier    | off         | off         |
| Trigger         | External    | External    |
| Trigger Offset  | 0.000 s     | 0.000 s     |

## OSP

| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Measurement Time | 6.400 s          | 6.400 s       |
| Tracepoints      | 6400000          | 6400000       |
| Time resolution  | 1.000 $\mu$ s    | 1.000 $\mu$ s |
| Detector         | RMS              | RMS           |

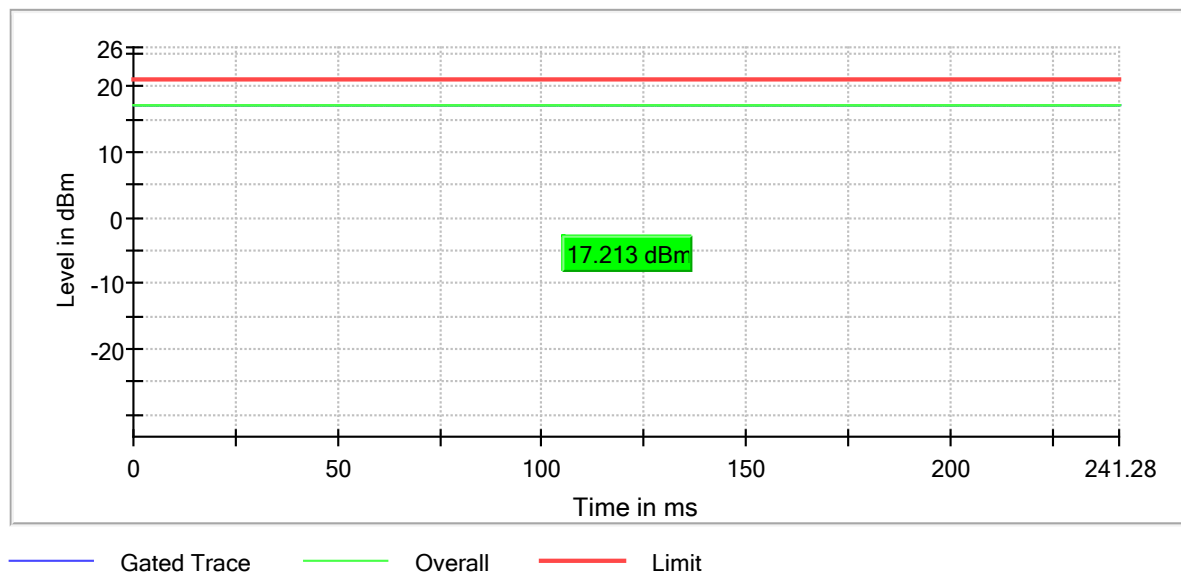
**RF output power (2406 MHz; 20.000 dBm; 3 MHz; Test Mode)**

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

**Result**

| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---------------------|-----------------|-----------------|------------------|---------------|--------|
| 2406.000000         | 17.2            | 21.0            | 17.2             | 24.267        | PASS   |

Gated Trace

**OSP PowerMeter settings**

| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Measurement Time | 1.000 s          | 1.000 s       |
| Points           | 1000000          | 1000000       |
| Time resolution  | 1.000 $\mu$ s    | 1.000 $\mu$ s |

## Emission Bandwidth 20 dB (2406 MHz; 20.000 dBm; 3 MHz; Test Mode)

Customized settings.

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

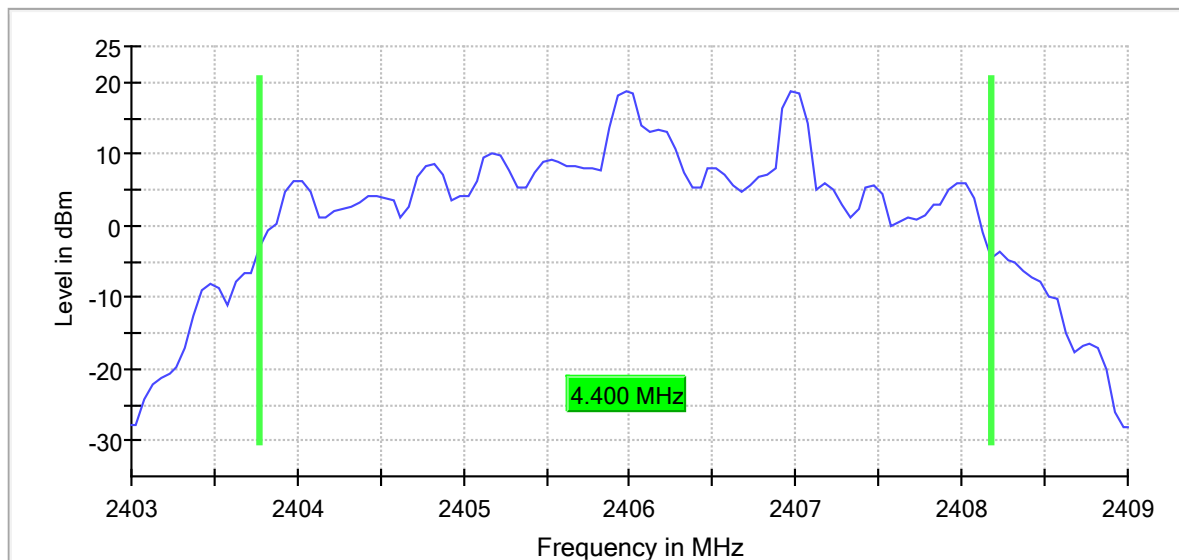
### 20 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 2406.000000         | 4.400000        | ---             | ---             | 2403.775000          | 2408.175000           |

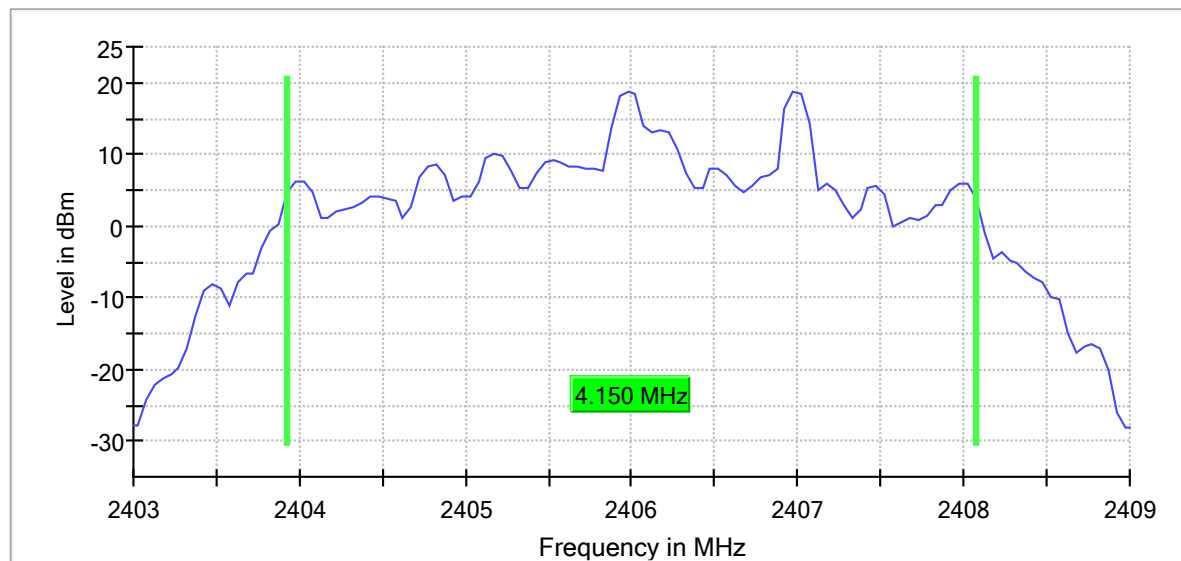
(continuation of the "20 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 2406.000000         | 18.6            | PASS   |

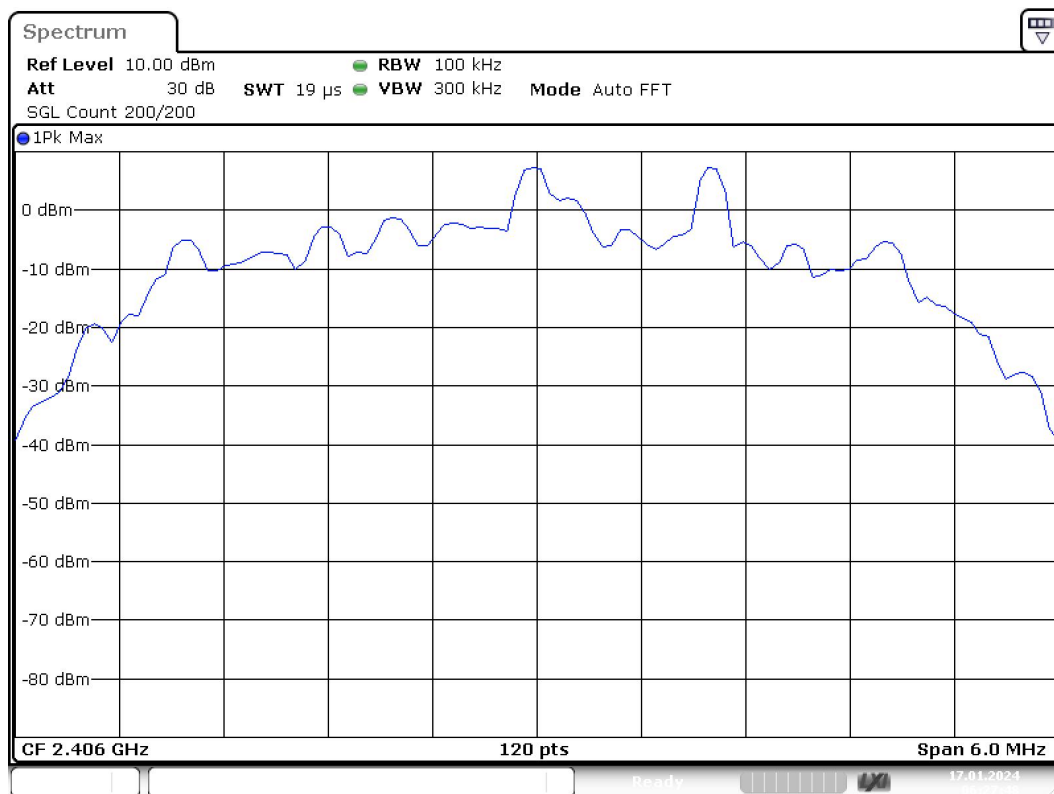
20 dB Bandwidth



99 % Bandwidth



Bandwidth



Date: 17.JAN.2024 06:27:49

## Measurement

| Setting         | Instrument Value | Target Value |
|-----------------|------------------|--------------|
| Start Frequency | 2.40300 GHz      | 2.40300 GHz  |
| Stop Frequency  | 2.40900 GHz      | 2.40900 GHz  |
| Span            | 6.000 MHz        | 6.000 MHz    |

|                              |                    |                          |
|------------------------------|--------------------|--------------------------|
| <b>RBW</b>                   | <b>100.000 kHz</b> | <b>&gt;= 100.000 kHz</b> |
| <b>VBW</b>                   | <b>300.000 kHz</b> | <b>&gt;= 300.000 kHz</b> |
| <b>SweepPoints</b>           | <b>120</b>         | <b>~ 120</b>             |
| <b>SweepTime</b>             | <b>18.984 µs</b>   | <b>AUTO</b>              |
| <b>Reference Level</b>       | <b>10.000 dBm</b>  | <b>10.000 dBm</b>        |
| <b>Attenuation</b>           | <b>30.000 dB</b>   | <b>AUTO</b>              |
| <b>Detector</b>              | <b>MaxPeak</b>     | <b>MaxPeak</b>           |
| <b>SweepCount</b>            | <b>200</b>         | <b>200</b>               |
| <b>Filter</b>                | <b>3 dB</b>        | <b>3 dB</b>              |
| <b>Trace Mode</b>            | <b>Max Hold</b>    | <b>Max Hold</b>          |
| <b>SweepType</b>             | <b>FFT</b>         | <b>AUTO</b>              |
| <b>Preamp</b>                | <b>off</b>         | <b>off</b>               |
| <b>Stablemode</b>            | <b>Trace</b>       | <b>Trace</b>             |
| <b>Stablevalue</b>           | <b>0.50 dB</b>     | <b>0.50 dB</b>           |
| <b>Run</b>                   | <b>1 / max. 1</b>  | <b>max. 1</b>            |
| <b>Stable</b>                | <b>0 / 1</b>       | <b>1</b>                 |
| <b>Max Stable Difference</b> | <b>0.00 dB</b>     | <b>0.50 dB</b>           |

**Band Edge low (2406 MHz; 20.000 dBm; 3 MHz; Test Mode)**

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

**Result**

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 2406.000000         | PASS   |

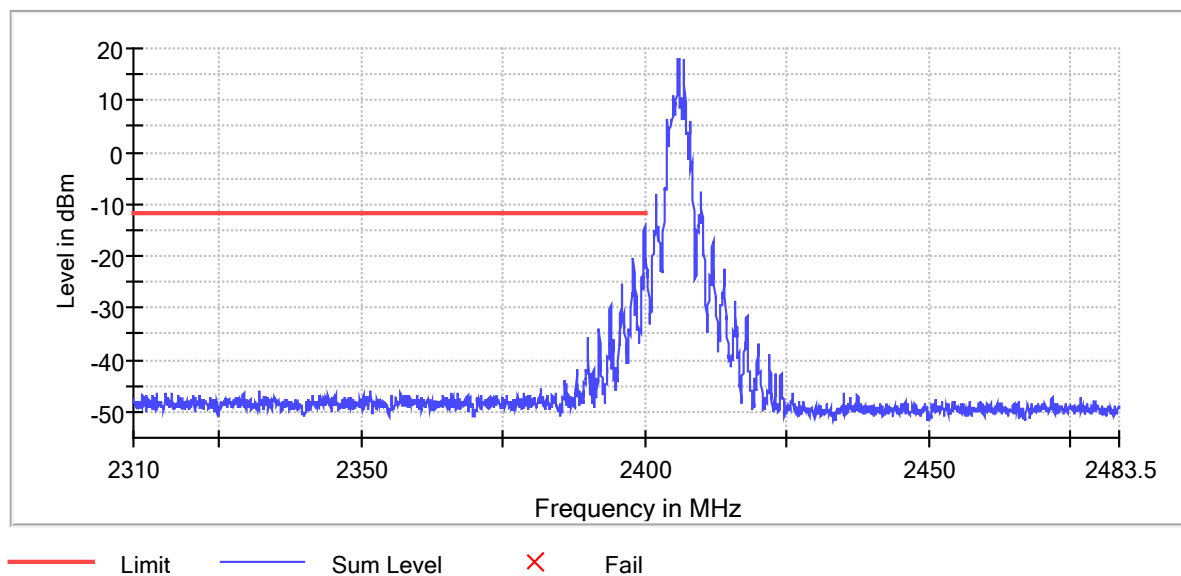
**Inband Peak**

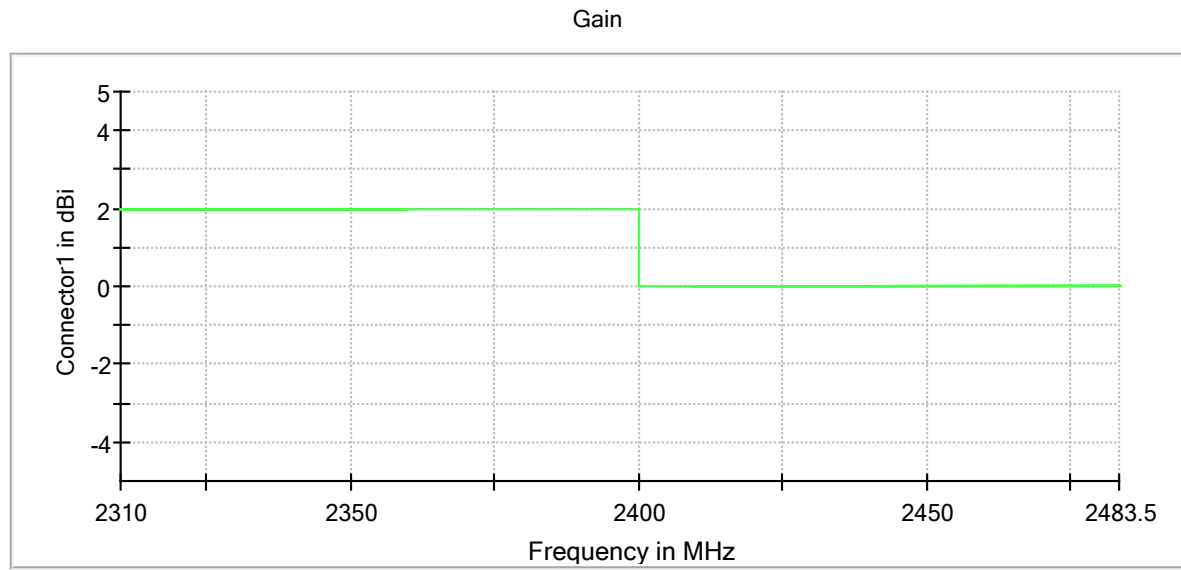
| Frequency (MHz) | Level (dBm) |
|-----------------|-------------|
| 2405.975000     | 18.1        |

**Measurements**

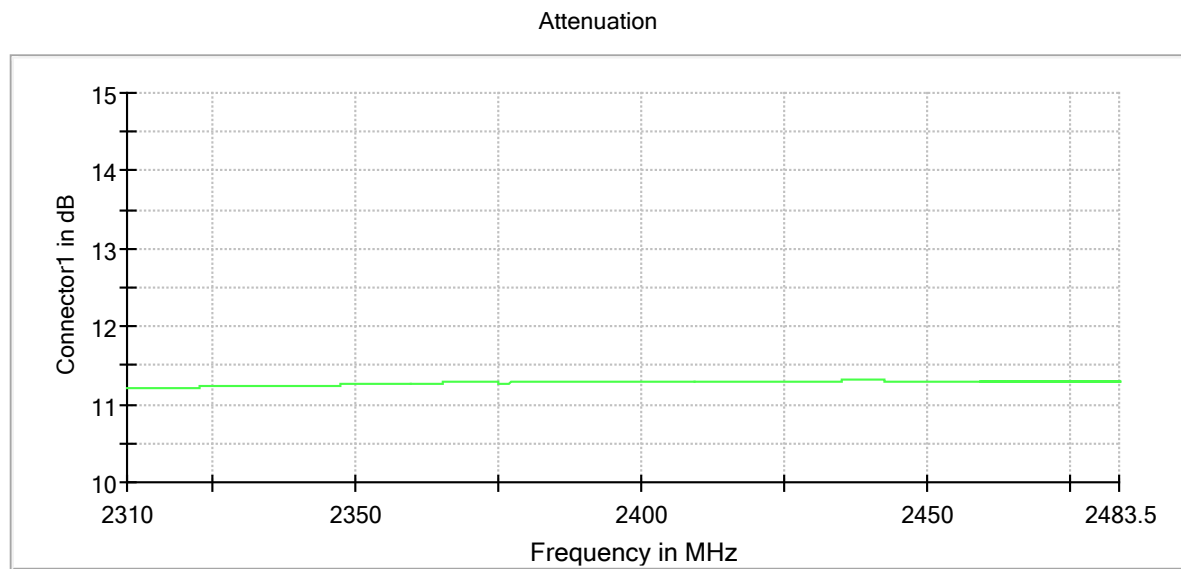
| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|-----------------|-------------|-------------|-------------|--------|
| 2399.975000     | -14.3       | 2.4         | -11.9       | PASS   |
| 2399.925000     | -15.2       | 3.3         | -11.9       | PASS   |
| 2399.875000     | -18.1       | 6.2         | -11.9       | PASS   |
| 2399.825000     | -19.6       | 7.7         | -11.9       | PASS   |
| 2397.975000     | -20.3       | 8.4         | -11.9       | PASS   |
| 2398.025000     | -20.5       | 8.6         | -11.9       | PASS   |
| 2397.925000     | -21.2       | 9.3         | -11.9       | PASS   |
| 2399.775000     | -22.5       | 10.6        | -11.9       | PASS   |
| 2398.075000     | -23.3       | 11.4        | -11.9       | PASS   |
| 2399.575000     | -23.6       | 11.7        | -11.9       | PASS   |
| 2399.625000     | -23.9       | 12.0        | -11.9       | PASS   |
| 2399.525000     | -24.1       | 12.2        | -11.9       | PASS   |
| 2398.125000     | -25.3       | 13.4        | -11.9       | PASS   |
| 2395.975000     | -25.5       | 13.6        | -11.9       | PASS   |
| 2396.025000     | -25.6       | 13.7        | -11.9       | PASS   |

Band Edge



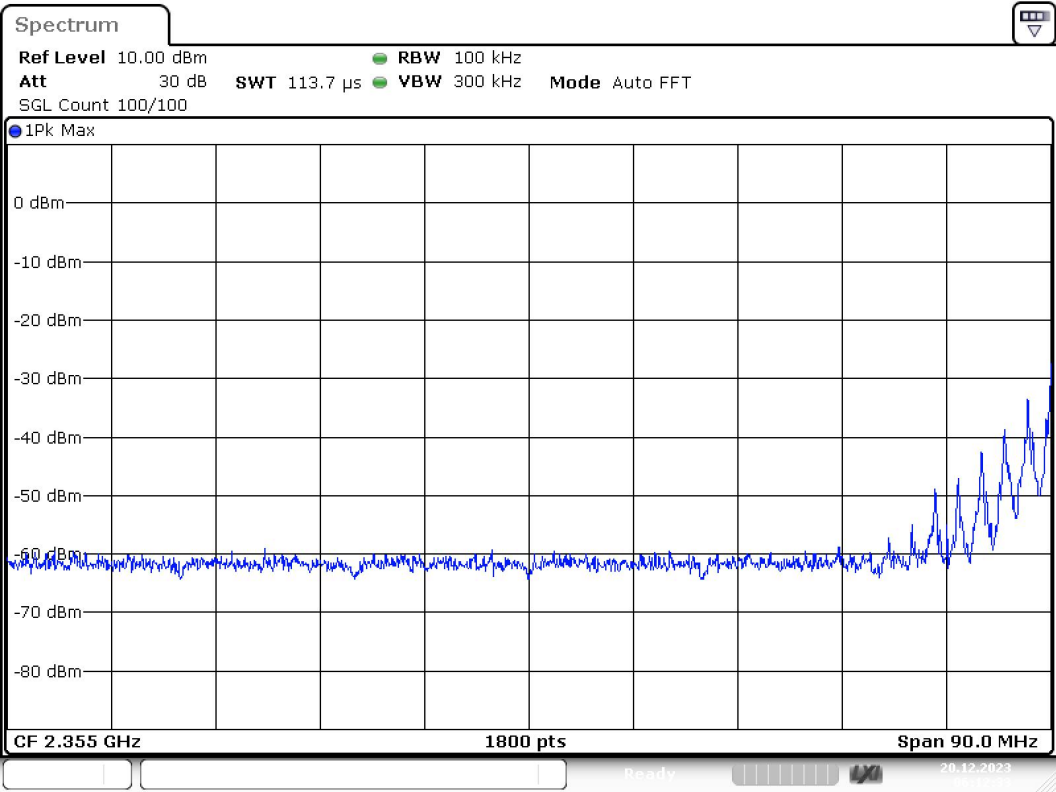


Connector1



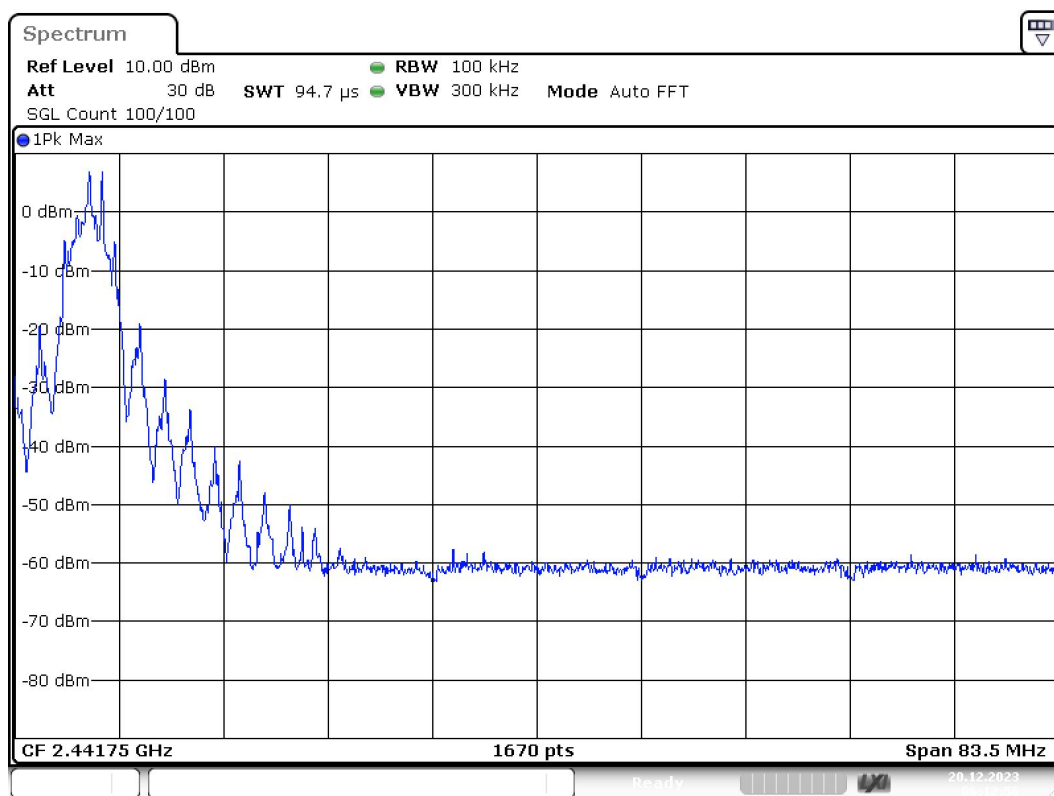
Connector1

Band Edge Connector 1\_0



Date: 20.DEC.2023 06:12:33

Band Edge Connector 1\_1



Date: 20.DEC.2023 06:12:57

## Measurement 1

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 2.31000 GHz      | 2.31000 GHz    |
| Stop Frequency        | 2.40000 GHz      | 2.40000 GHz    |
| Span                  | 90.000 MHz       | 90.000 MHz     |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 1800             | ~ 1800         |
| Sweptime              | 113.672 µs       | AUTO           |
| Reference Level       | 10.000 dBm       | 10.000 dBm     |
| Attenuation           | 30.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | FFT              | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 6 / max. 150     | max. 150       |
| Stable                | 3 / 3            | 3              |
| Max Stable Difference | 0.00 dB          | 0.50 dB        |

## Measurement 2

| Setting         | Instrument Value | Target Value   |
|-----------------|------------------|----------------|
| Start Frequency | 2.40000 GHz      | 2.40000 GHz    |
| Stop Frequency  | 2.48350 GHz      | 2.48350 GHz    |
| Span            | 83.500 MHz       | 83.500 MHz     |
| RBW             | 100.000 kHz      | <= 100.000 kHz |
| VBW             | 300.000 kHz      | >= 300.000 kHz |

|                              |                                 |                   |
|------------------------------|---------------------------------|-------------------|
| <b>SweepPoints</b>           | <b>1670</b>                     | <b>~ 1670</b>     |
| <b>SweepTime</b>             | <b>94.727 <math>\mu</math>s</b> | <b>AUTO</b>       |
| <b>Reference Level</b>       | <b>10.000 dBm</b>               | <b>10.000 dBm</b> |
| <b>Attenuation</b>           | <b>30.000 dB</b>                | <b>AUTO</b>       |
| <b>Detector</b>              | <b>MaxPeak</b>                  | <b>MaxPeak</b>    |
| <b>SweepCount</b>            | <b>100</b>                      | <b>100</b>        |
| <b>Filter</b>                | <b>3 dB</b>                     | <b>3 dB</b>       |
| <b>Trace Mode</b>            | <b>Max Hold</b>                 | <b>Max Hold</b>   |
| <b>SweepType</b>             | <b>FFT</b>                      | <b>AUTO</b>       |
| <b>Preamplifier</b>          | <b>off</b>                      | <b>off</b>        |
| <b>Stablemode</b>            | <b>Trace</b>                    | <b>Trace</b>      |
| <b>Stablevalue</b>           | <b>0.50 dB</b>                  | <b>0.50 dB</b>    |
| <b>Run</b>                   | <b>14 / max. 150</b>            | <b>max. 150</b>   |
| <b>Stable</b>                | <b>3 / 3</b>                    | <b>3</b>          |
| <b>Max Stable Difference</b> | <b>0.16 dB</b>                  | <b>0.50 dB</b>    |

**Tx Spurious Emission (2406 MHz; 20.000 dBm; 3 MHz; Test Mode)**

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

**Result**

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 2406.000000         | PASS   |

**Final measurements**

| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|-----------------|-----------------------------|-------------|-------------|-------------|--------|
| ---             | ---                         | ---         | ---         | ---         | ---    |

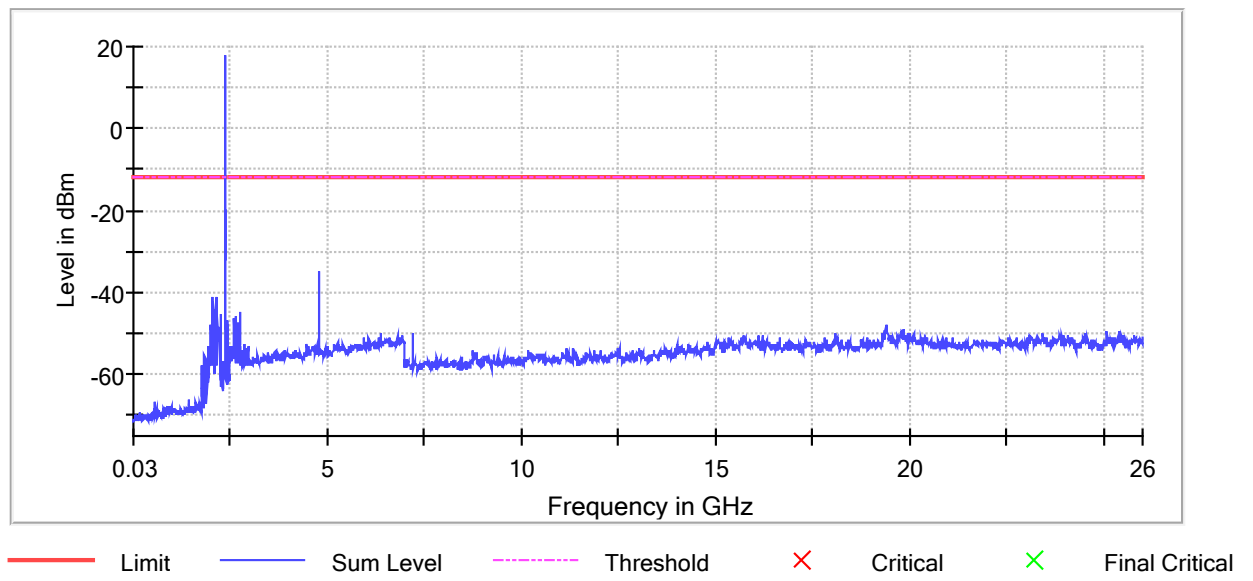
**Pre Measurements**

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|-----------------|-------------|-------------|-------------|
| 2395.021008     | -19.5       | 7.4         | -12.1       |
| 4817.160327     | -34.7       | 22.6        | -12.1       |
| 4807.166065     | -34.7       | 22.6        | -12.1       |
| 2385.063025     | -35.9       | 23.8        | -12.1       |
| 2146.071429     | -40.9       | 28.8        | -12.1       |
| 2056.449580     | -40.9       | 28.8        | -12.1       |
| 2086.323529     | -42.3       | 30.2        | -12.1       |
| 2185.903361     | -42.3       | 30.2        | -12.1       |
| 2106.239496     | -44.1       | 32.0        | -12.1       |
| 2116.197479     | -44.3       | 32.2        | -12.1       |
| 2758.342223     | -44.6       | 32.5        | -12.1       |
| 2195.861345     | -44.8       | 32.7        | -12.1       |
| 2165.987395     | -44.8       | 32.7        | -12.1       |
| 2275.525210     | -45.3       | 33.2        | -12.1       |
| 2136.113445     | -45.7       | 33.6        | -12.1       |

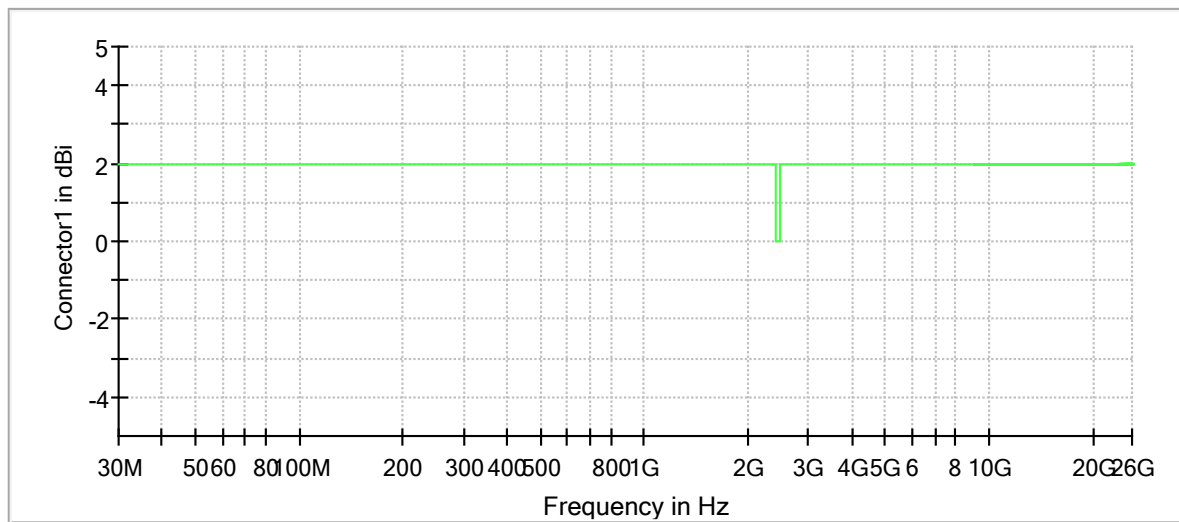
**Measurement Settings**

| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|-----------------------|----------------------|-----------------|-------------------|
| 30.000000             | 2400.000000          | 1               | 1                 |
| 2400.000000           | 2483.500000          | 1               | 1                 |
| 2483.500000           | 26000.000000         | 1               | 1                 |

Spurious

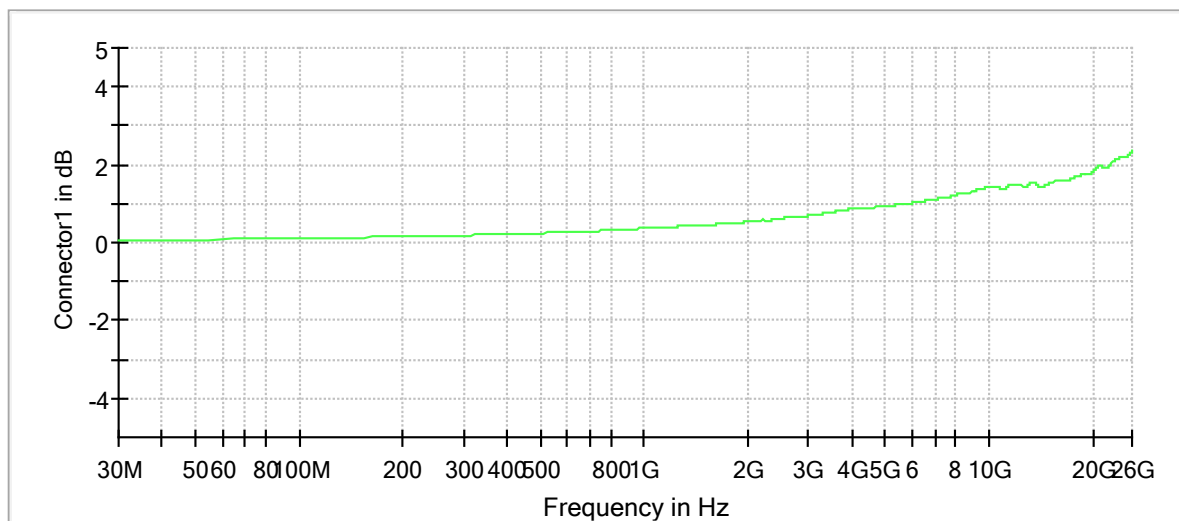


Gain



Connector1

Attenuation



Connector1

## Pre Measurement 1

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 238              | ~ 238          |
| SweepTime             | 23.700 ms        | AUTO           |
| Reference Level       | -10.000 dBm      | -30.000 dBm    |
| Attenuation           | 20.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 3                | 3              |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| Sweeptype             | Sweep            | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 6 / max. 40      | max. 40        |
| Stable                | 3 / 3            | 3              |
| Max Stable Difference | 0.00 dB          | 0.50 dB        |



## Emission Bandwidth 20 dB (2442 MHz; 20.000 dBm; 3 MHz; Test Mode)

Customized settings.

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

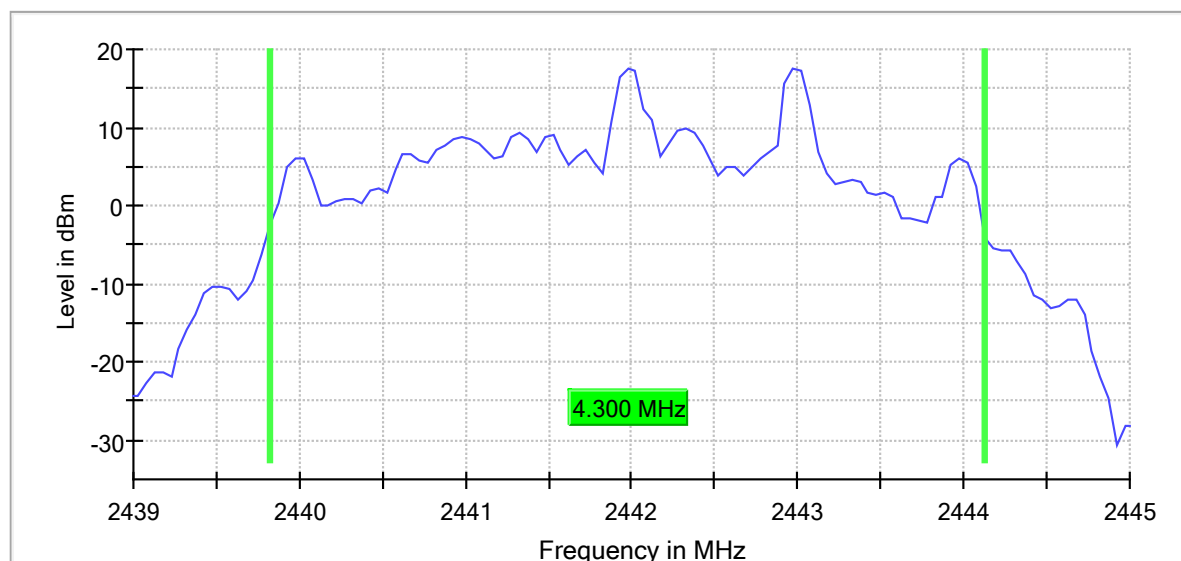
### 20 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 2442.000000         | 4.300000        | ---             | ---             | 2439.825000          | 2444.125000           |

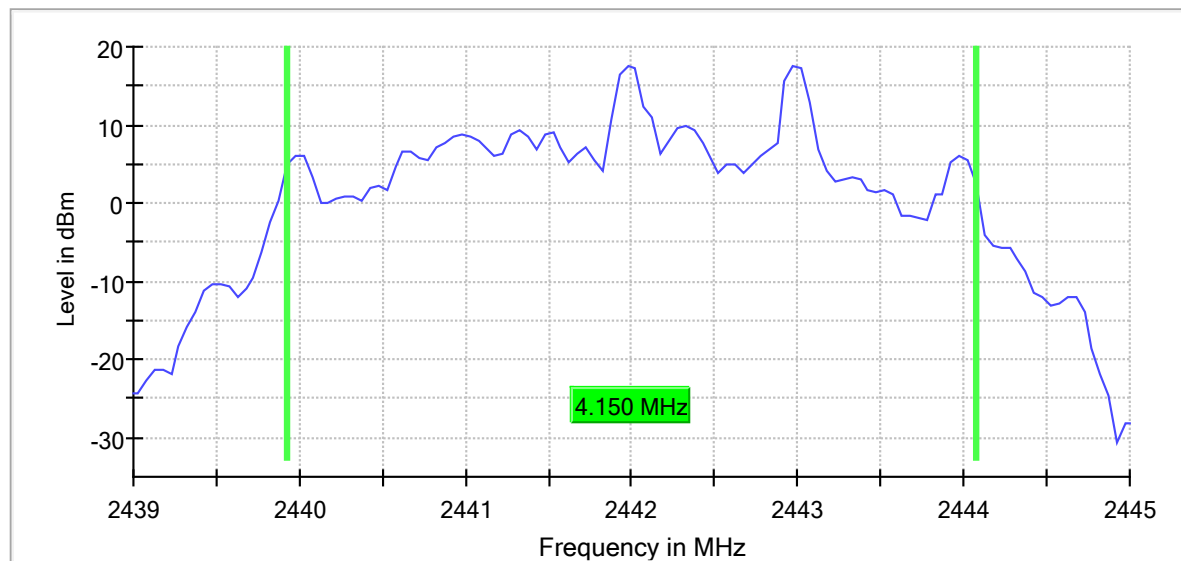
(continuation of the "20 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 2442.000000         | 17.6            | PASS   |

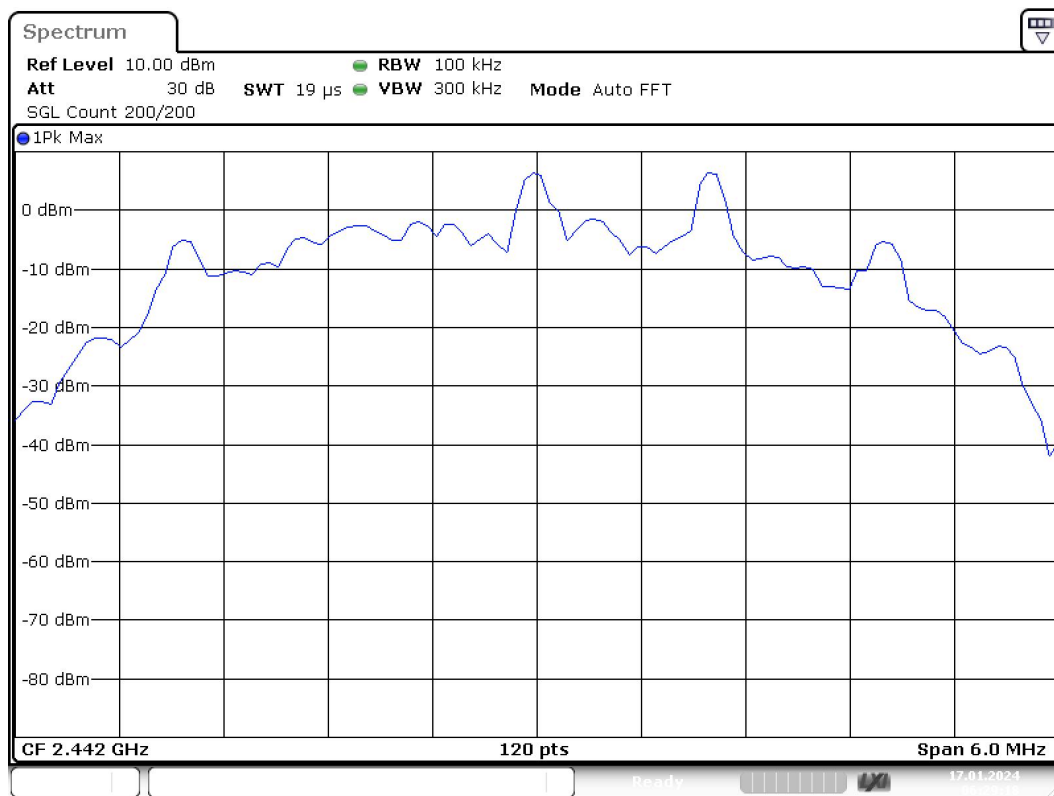
20 dB Bandwidth



99 % Bandwidth



Bandwidth



Date: 17.JAN.2024 06:29:18

## Measurement

| Setting         | Instrument Value | Target Value |
|-----------------|------------------|--------------|
| Start Frequency | 2.43900 GHz      | 2.43900 GHz  |
| Stop Frequency  | 2.44500 GHz      | 2.44500 GHz  |
| Span            | 6.000 MHz        | 6.000 MHz    |

|                              |                    |                          |
|------------------------------|--------------------|--------------------------|
| <b>RBW</b>                   | <b>100.000 kHz</b> | <b>&gt;= 100.000 kHz</b> |
| <b>VBW</b>                   | <b>300.000 kHz</b> | <b>&gt;= 300.000 kHz</b> |
| <b>SweepPoints</b>           | <b>120</b>         | <b>~ 120</b>             |
| <b>SweepTime</b>             | <b>18.984 µs</b>   | <b>AUTO</b>              |
| <b>Reference Level</b>       | <b>10.000 dBm</b>  | <b>10.000 dBm</b>        |
| <b>Attenuation</b>           | <b>30.000 dB</b>   | <b>AUTO</b>              |
| <b>Detector</b>              | <b>MaxPeak</b>     | <b>MaxPeak</b>           |
| <b>SweepCount</b>            | <b>200</b>         | <b>200</b>               |
| <b>Filter</b>                | <b>3 dB</b>        | <b>3 dB</b>              |
| <b>Trace Mode</b>            | <b>Max Hold</b>    | <b>Max Hold</b>          |
| <b>SweepType</b>             | <b>FFT</b>         | <b>AUTO</b>              |
| <b>Preamp</b>                | <b>off</b>         | <b>off</b>               |
| <b>Stablemode</b>            | <b>Trace</b>       | <b>Trace</b>             |
| <b>Stablevalue</b>           | <b>0.50 dB</b>     | <b>0.50 dB</b>           |
| <b>Run</b>                   | <b>1 / max. 1</b>  | <b>max. 1</b>            |
| <b>Stable</b>                | <b>0 / 1</b>       | <b>1</b>                 |
| <b>Max Stable Difference</b> | <b>0.00 dB</b>     | <b>0.50 dB</b>           |

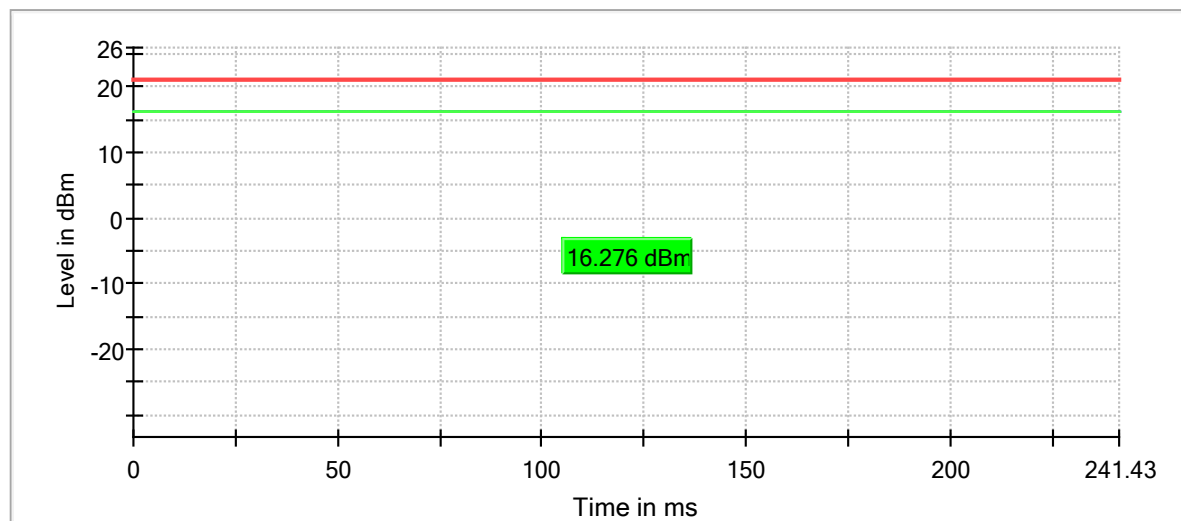
## RF output power (2442 MHz; 20.000 dBm; 3 MHz; Test Mode)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

### Result

| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---------------------|-----------------|-----------------|------------------|---------------|--------|
| 2442.000000         | 16.3            | 21.0            | 16.3             | 24.283        | PASS   |

Gated Trace



— Gated Trace — Overall — Limit

### OSP PowerMeter settings

| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Measurement Time | 1.000 s          | 1.000 s       |
| Points           | 1000000          | 1000000       |
| Time resolution  | 1.000 $\mu$ s    | 1.000 $\mu$ s |

**Tx Spurious Emission (2442 MHz; 20.000 dBm; 3 MHz; Test Mode)**

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

**Result**

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 2442.000000         | PASS   |

**Final measurements**

| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|-----------------|-----------------------------|-------------|-------------|-------------|--------|
| ---             | ---                         | ---         | ---         | ---         | ---    |

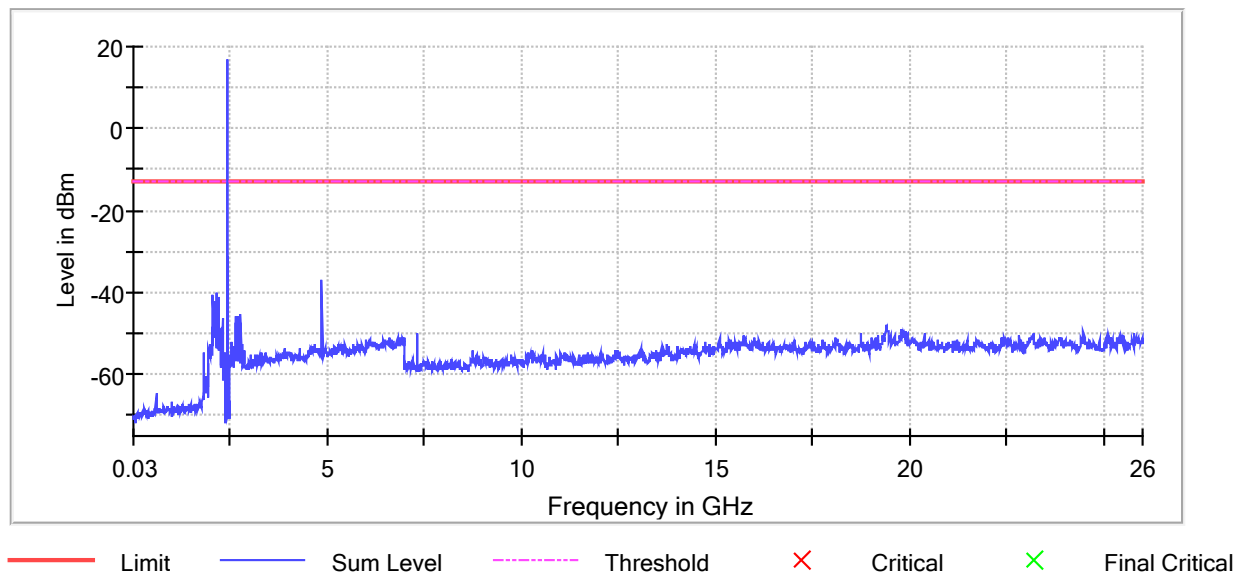
**Pre Measurements**

| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|-----------------|-------------|-------------|-------------|
| 4887.120166     | -36.8       | 23.8        | -12.9       |
| 2185.903361     | -40.0       | 27.1        | -12.9       |
| 2086.323529     | -40.8       | 27.8        | -12.9       |
| 2215.777311     | -41.3       | 28.4        | -12.9       |
| 2136.113445     | -41.9       | 29.0        | -12.9       |
| 2126.155462     | -43.1       | 30.2        | -12.9       |
| 2205.819328     | -43.2       | 30.3        | -12.9       |
| 2156.029412     | -43.5       | 30.5        | -12.9       |
| 2235.693277     | -43.5       | 30.6        | -12.9       |
| 2798.319273     | -45.4       | 32.4        | -12.9       |
| 2668.393859     | -45.9       | 32.9        | -12.9       |
| 2698.376647     | -46.0       | 33.1        | -12.9       |
| 2175.945378     | -46.2       | 33.3        | -12.9       |
| 2315.357143     | -46.4       | 33.4        | -12.9       |
| 2165.987395     | -46.8       | 33.9        | -12.9       |

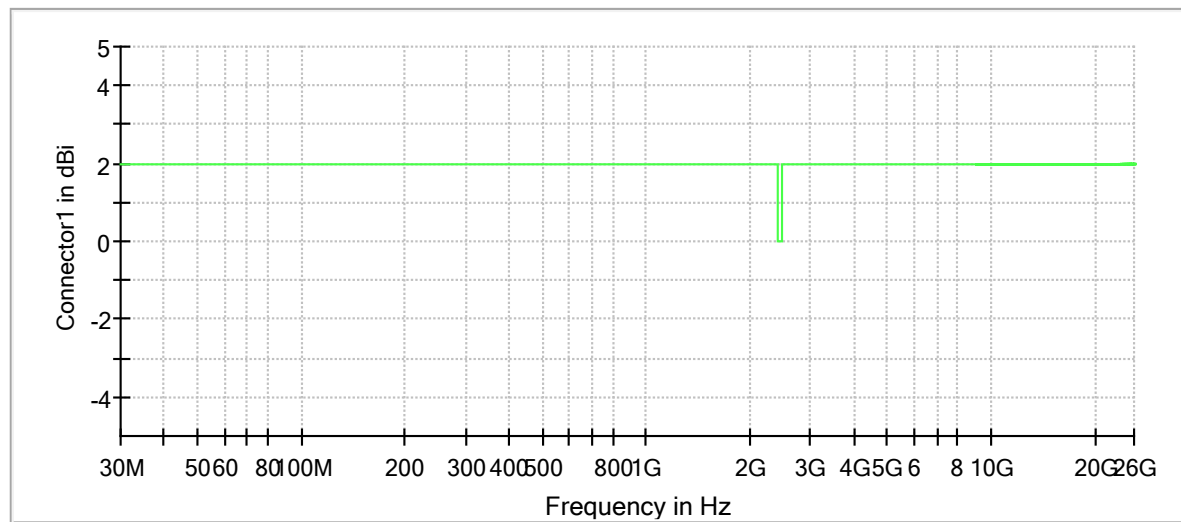
**Measurement Settings**

| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|-----------------------|----------------------|-----------------|-------------------|
| 30.000000             | 2400.000000          | 1               | 1                 |
| 2400.000000           | 2483.500000          | 1               | 1                 |
| 2483.500000           | 26000.000000         | 1               | 1                 |

Spurious

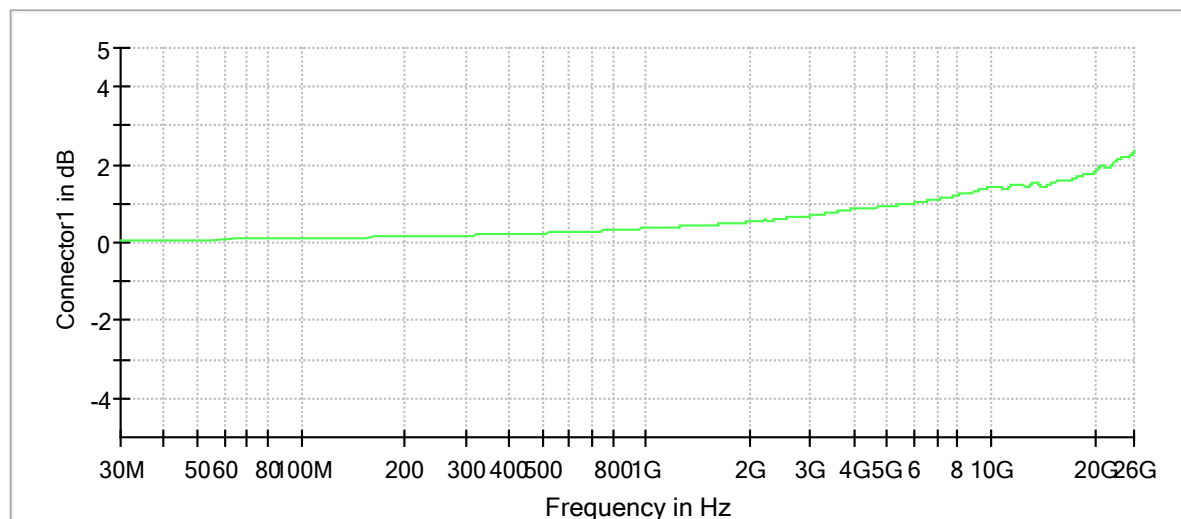


Gain



Connector1

Attenuation



Connector1

## Pre Measurement 1

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 238              | ~ 238          |
| SweepTime             | 23.700 ms        | AUTO           |
| Reference Level       | -10.000 dBm      | -30.000 dBm    |
| Attenuation           | 20.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 3                | 3              |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| Sweeptype             | Sweep            | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 12 / max. 40     | max. 40        |
| Stable                | 3 / 3            | 3              |
| Max Stable Difference | 0.08 dB          | 0.50 dB        |



## Emission Bandwidth 20 dB (2475 MHz; 20.000 dBm; 3 MHz; Test Mode)

Customized settings.

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

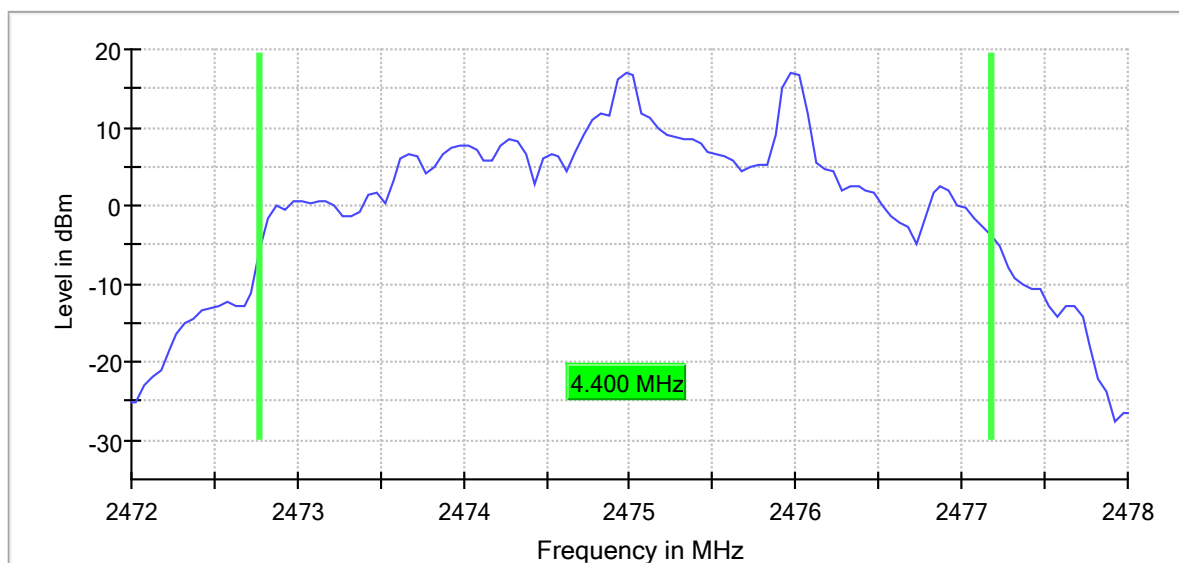
### 20 dB Bandwidth

| DUT Frequency (MHz) | Bandwidth (MHz) | Limit Min (MHz) | Limit Max (MHz) | Band Edge Left (MHz) | Band Edge Right (MHz) |
|---------------------|-----------------|-----------------|-----------------|----------------------|-----------------------|
| 2475.000000         | 4.400000        | ---             | ---             | 2472.775000          | 2477.175000           |

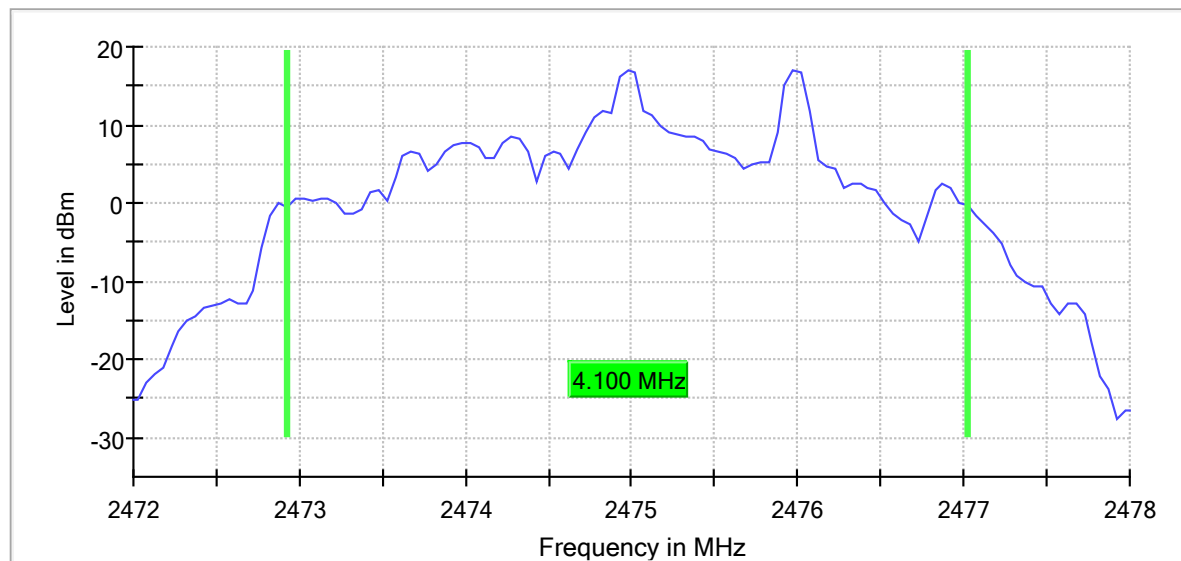
(continuation of the "20 dB Bandwidth" table from column 6 ...)

| DUT Frequency (MHz) | Max Level (dBm) | Result |
|---------------------|-----------------|--------|
| 2475.000000         | 17.1            | PASS   |

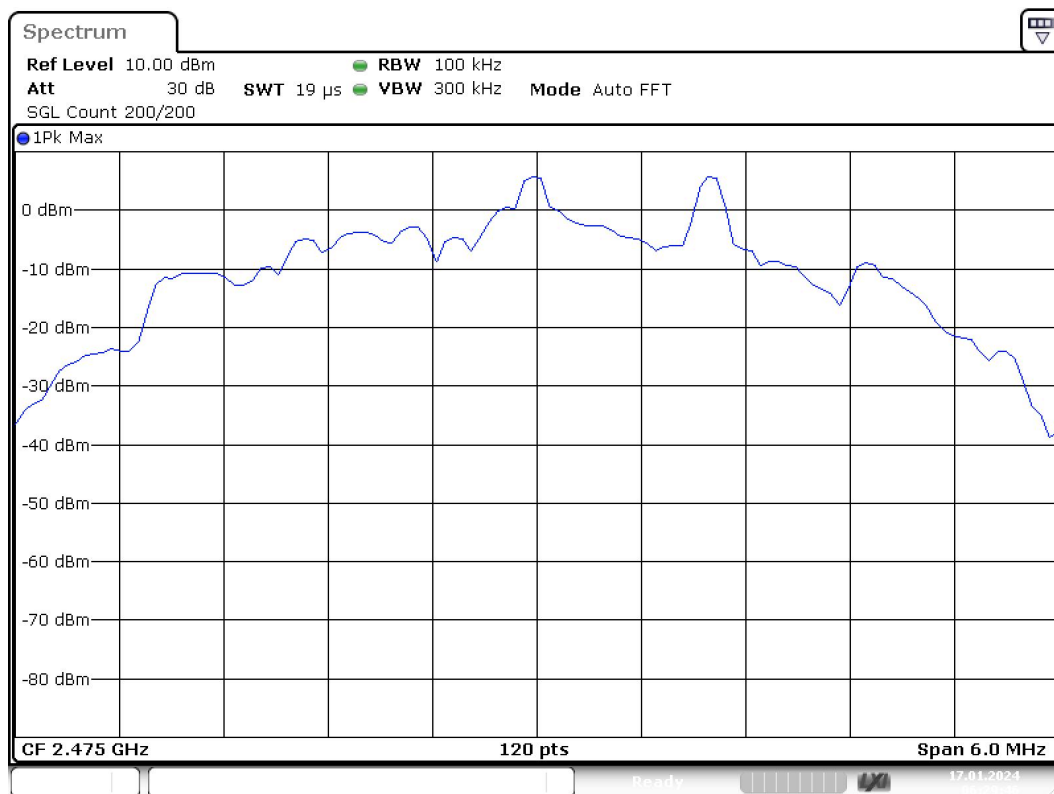
20 dB Bandwidth



99 % Bandwidth



Bandwidth



Date: 17.JAN.2024 06:29:47

## Measurement

| Setting         | Instrument Value | Target Value |
|-----------------|------------------|--------------|
| Start Frequency | 2.47200 GHz      | 2.47200 GHz  |
| Stop Frequency  | 2.47800 GHz      | 2.47800 GHz  |
| Span            | 6.000 MHz        | 6.000 MHz    |

|                              |                    |                          |
|------------------------------|--------------------|--------------------------|
| <b>RBW</b>                   | <b>100.000 kHz</b> | <b>&gt;= 100.000 kHz</b> |
| <b>VBW</b>                   | <b>300.000 kHz</b> | <b>&gt;= 300.000 kHz</b> |
| <b>SweepPoints</b>           | <b>120</b>         | <b>~ 120</b>             |
| <b>SweepTime</b>             | <b>18.984 µs</b>   | <b>AUTO</b>              |
| <b>Reference Level</b>       | <b>10.000 dBm</b>  | <b>10.000 dBm</b>        |
| <b>Attenuation</b>           | <b>30.000 dB</b>   | <b>AUTO</b>              |
| <b>Detector</b>              | <b>MaxPeak</b>     | <b>MaxPeak</b>           |
| <b>SweepCount</b>            | <b>200</b>         | <b>200</b>               |
| <b>Filter</b>                | <b>3 dB</b>        | <b>3 dB</b>              |
| <b>Trace Mode</b>            | <b>Max Hold</b>    | <b>Max Hold</b>          |
| <b>SweepType</b>             | <b>FFT</b>         | <b>AUTO</b>              |
| <b>Preamp</b>                | <b>off</b>         | <b>off</b>               |
| <b>Stablemode</b>            | <b>Trace</b>       | <b>Trace</b>             |
| <b>Stablevalue</b>           | <b>0.50 dB</b>     | <b>0.50 dB</b>           |
| <b>Run</b>                   | <b>1 / max. 1</b>  | <b>max. 1</b>            |
| <b>Stable</b>                | <b>0 / 1</b>       | <b>1</b>                 |
| <b>Max Stable Difference</b> | <b>0.00 dB</b>     | <b>0.50 dB</b>           |

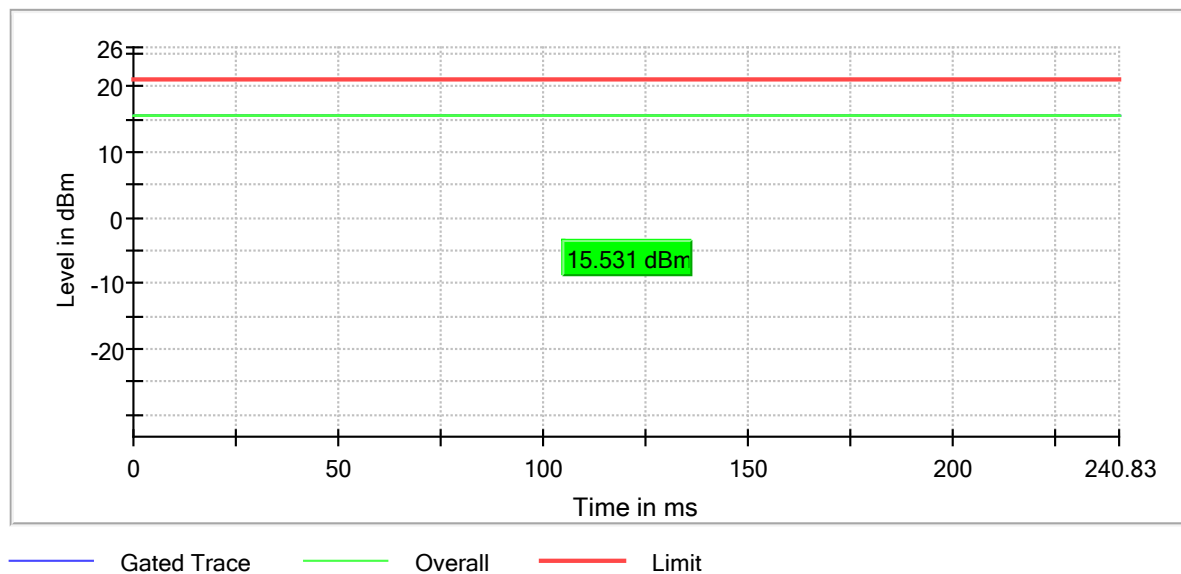
**RF output power (2475 MHz; 20.000 dBm; 3 MHz; Test Mode)**

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

**Result**

| DUT Frequency (MHz) | Gated RMS (dBm) | Limit Max (dBm) | Gated EIRP (dBm) | DutyCycle (%) | Result |
|---------------------|-----------------|-----------------|------------------|---------------|--------|
| 2475.000000         | 15.5            | 21.0            | 15.5             | 24.222        | PASS   |

Gated Trace

**OSP PowerMeter settings**

| Setting          | Instrument Value | Target Value  |
|------------------|------------------|---------------|
| Measurement Time | 1.000 s          | 1.000 s       |
| Points           | 1000000          | 1000000       |
| Time resolution  | 1.000 $\mu$ s    | 1.000 $\mu$ s |

## Band Edge high (2475 MHz; 20.000 dBm; 3 MHz; Test Mode)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

### Result

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 2475.000000         | PASS   |

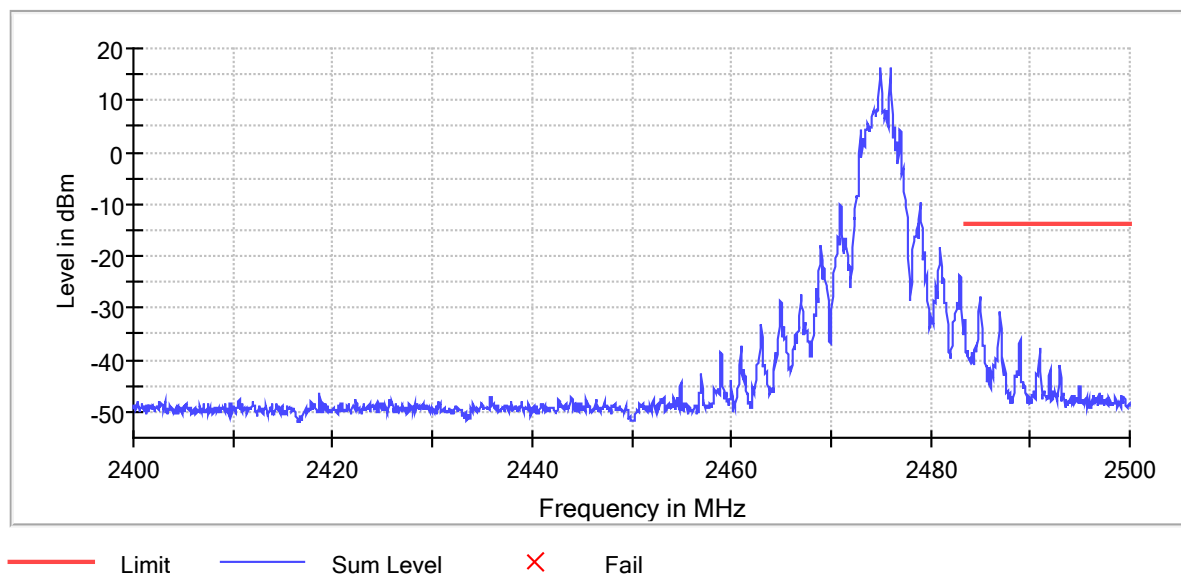
### Inband Peak

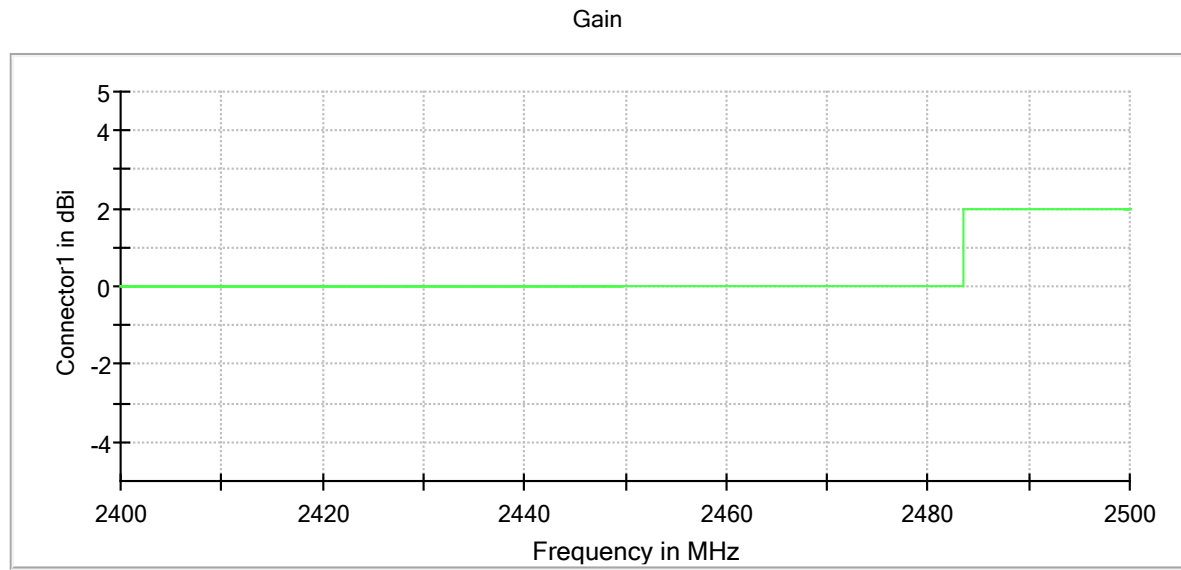
| Frequency (MHz) | Level (dBm) |
|-----------------|-------------|
| 2474.975000     | 16.4        |

### Measurements

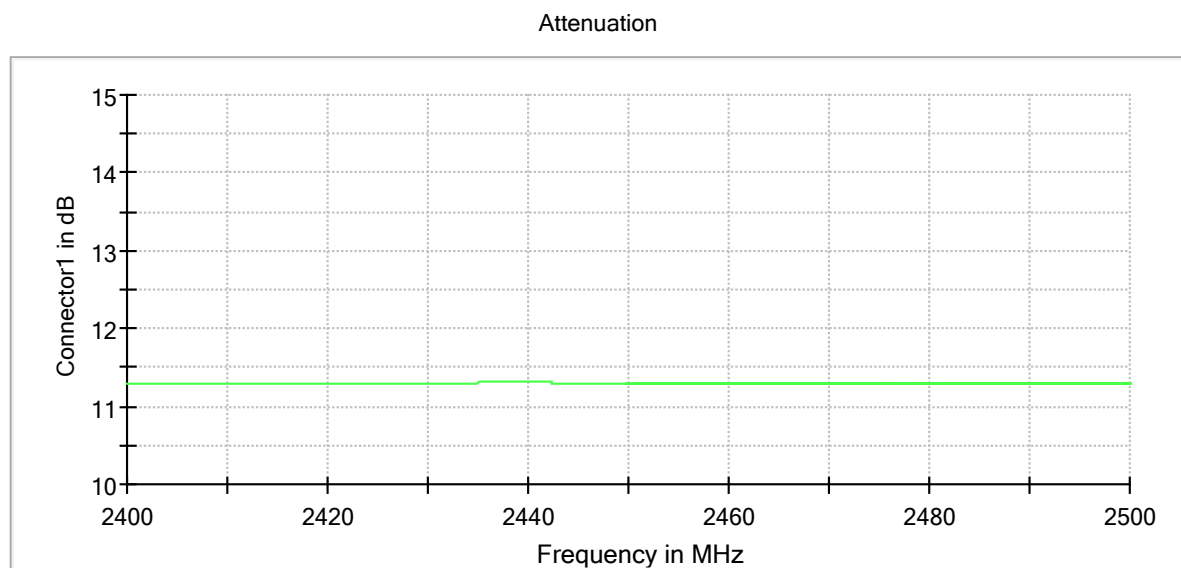
| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) | Result |
|-----------------|-------------|-------------|-------------|--------|
| 2484.975000     | -27.7       | 14.1        | -13.6       | PASS   |
| 2485.025000     | -28.1       | 14.5        | -13.6       | PASS   |
| 2484.925000     | -28.2       | 14.6        | -13.6       | PASS   |
| 2485.075000     | -30.5       | 16.9        | -13.6       | PASS   |
| 2484.875000     | -30.5       | 16.9        | -13.6       | PASS   |
| 2486.975000     | -30.6       | 17.0        | -13.6       | PASS   |
| 2487.025000     | -31.0       | 17.3        | -13.6       | PASS   |
| 2486.925000     | -31.3       | 17.7        | -13.6       | PASS   |
| 2487.075000     | -33.8       | 20.2        | -13.6       | PASS   |
| 2484.825000     | -33.9       | 20.2        | -13.6       | PASS   |
| 2485.125000     | -34.1       | 20.5        | -13.6       | PASS   |
| 2486.875000     | -34.3       | 20.7        | -13.6       | PASS   |
| 2485.175000     | -34.5       | 20.9        | -13.6       | PASS   |
| 2485.225000     | -34.5       | 20.9        | -13.6       | PASS   |
| 2484.775000     | -35.6       | 22.0        | -13.6       | PASS   |

Band Edge



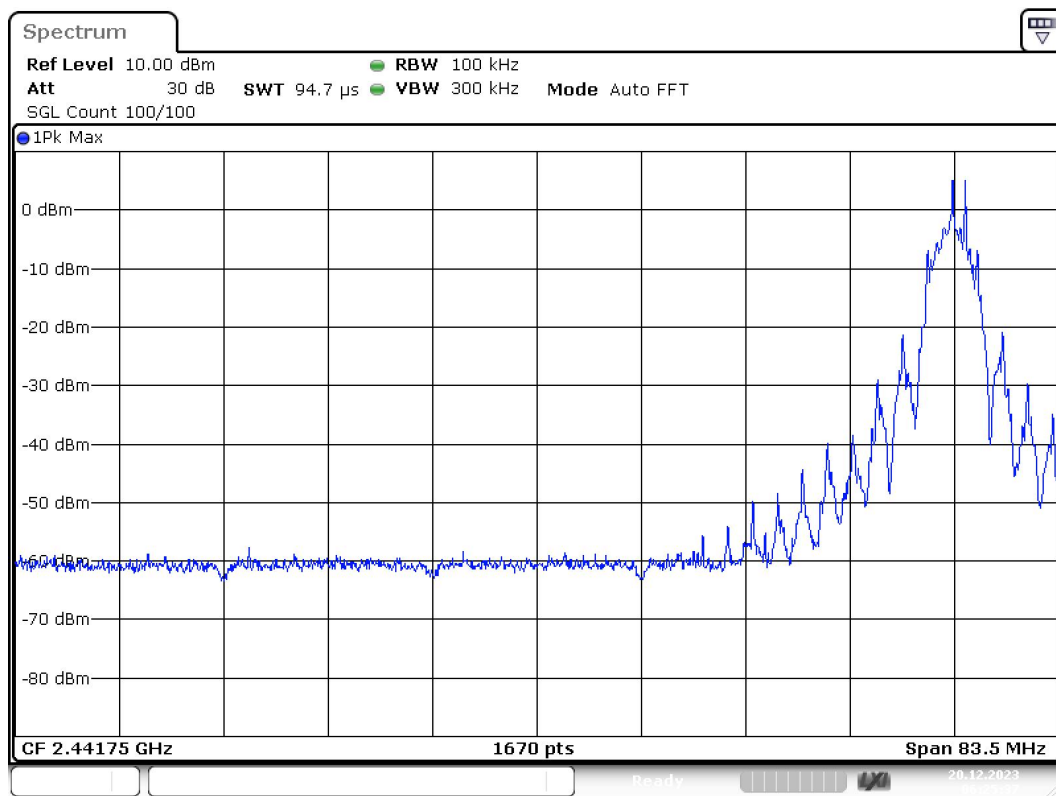


Connector1



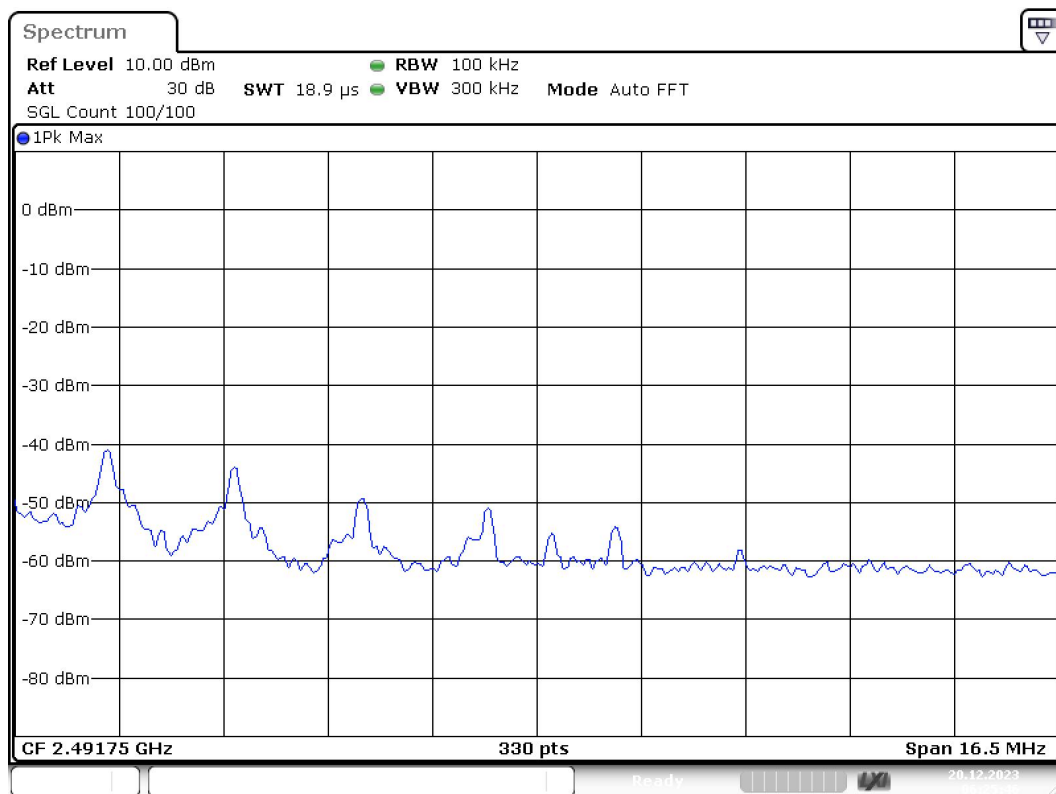
Connector1

Band Edge Connector 1\_0



Date: 20.DEC.2023 06:25:38

Band Edge Connector 1\_1



Date: 20.DEC.2023 06:25:46

## Measurement 1

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| Start Frequency       | 2.40000 GHz      | 2.40000 GHz    |
| Stop Frequency        | 2.48350 GHz      | 2.48350 GHz    |
| Span                  | 83.500 MHz       | 83.500 MHz     |
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 1670             | ~ 1670         |
| Sweptime              | 94.727 µs        | AUTO           |
| Reference Level       | 10.000 dBm       | 10.000 dBm     |
| Attenuation           | 30.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 100              | 100            |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | FFT              | AUTO           |
| Preamplifier          | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 20 / max. 150    | max. 150       |
| Stable                | 3 / 3            | 3              |
| Max Stable Difference | 0.13 dB          | 0.50 dB        |

## Measurement 2

| Setting         | Instrument Value | Target Value   |
|-----------------|------------------|----------------|
| Start Frequency | 2.48350 GHz      | 2.48350 GHz    |
| Stop Frequency  | 2.50000 GHz      | 2.50000 GHz    |
| Span            | 16.500 MHz       | 16.500 MHz     |
| RBW             | 100.000 kHz      | <= 100.000 kHz |
| VBW             | 300.000 kHz      | >= 300.000 kHz |

|                              |                                 |                   |
|------------------------------|---------------------------------|-------------------|
| <b>SweepPoints</b>           | <b>330</b>                      | <b>~ 330</b>      |
| <b>SweepTime</b>             | <b>18.945 <math>\mu</math>s</b> | <b>AUTO</b>       |
| <b>Reference Level</b>       | <b>10.000 dBm</b>               | <b>10.000 dBm</b> |
| <b>Attenuation</b>           | <b>30.000 dB</b>                | <b>AUTO</b>       |
| <b>Detector</b>              | <b>MaxPeak</b>                  | <b>MaxPeak</b>    |
| <b>SweepCount</b>            | <b>100</b>                      | <b>100</b>        |
| <b>Filter</b>                | <b>3 dB</b>                     | <b>3 dB</b>       |
| <b>Trace Mode</b>            | <b>Max Hold</b>                 | <b>Max Hold</b>   |
| <b>SweepType</b>             | <b>FFT</b>                      | <b>AUTO</b>       |
| <b>Preamp</b>                | <b>off</b>                      | <b>off</b>        |
| <b>Stablemode</b>            | <b>Trace</b>                    | <b>Trace</b>      |
| <b>Stablevalue</b>           | <b>0.50 dB</b>                  | <b>0.50 dB</b>    |
| <b>Run</b>                   | <b>5 / max. 150</b>             | <b>max. 150</b>   |
| <b>Stable</b>                | <b>3 / 3</b>                    | <b>3</b>          |
| <b>Max Stable Difference</b> | <b>0.00 dB</b>                  | <b>0.50 dB</b>    |

**Tx Spurious Emission (2475 MHz; 20.000 dBm; 3 MHz; Test Mode)**

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

**Result**

| DUT Frequency (MHz) | Result |
|---------------------|--------|
| 2475.000000         | PASS   |

**Final measurements**

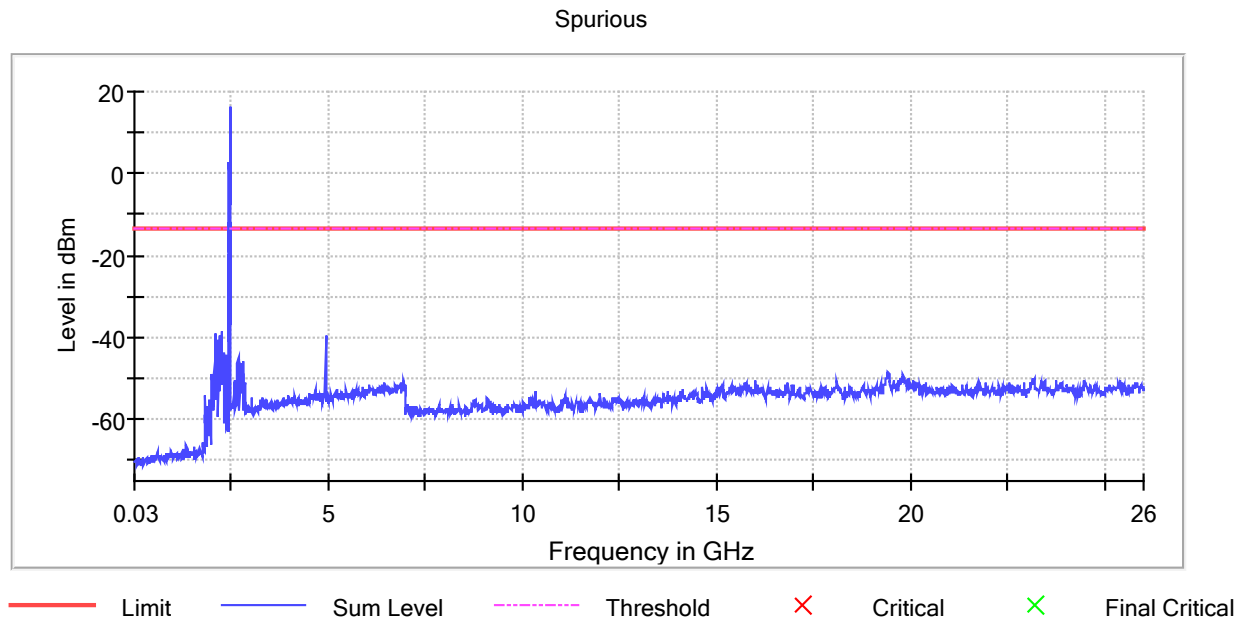
| Frequency (MHz) | Level Pre Measurement (dBm) | level (dBm) | Limit (dBm) | Margin (dB) | Result |
|-----------------|-----------------------------|-------------|-------------|-------------|--------|
| ---             | ---                         | ---         | ---         | ---         | ---    |

**Pre Measurements**

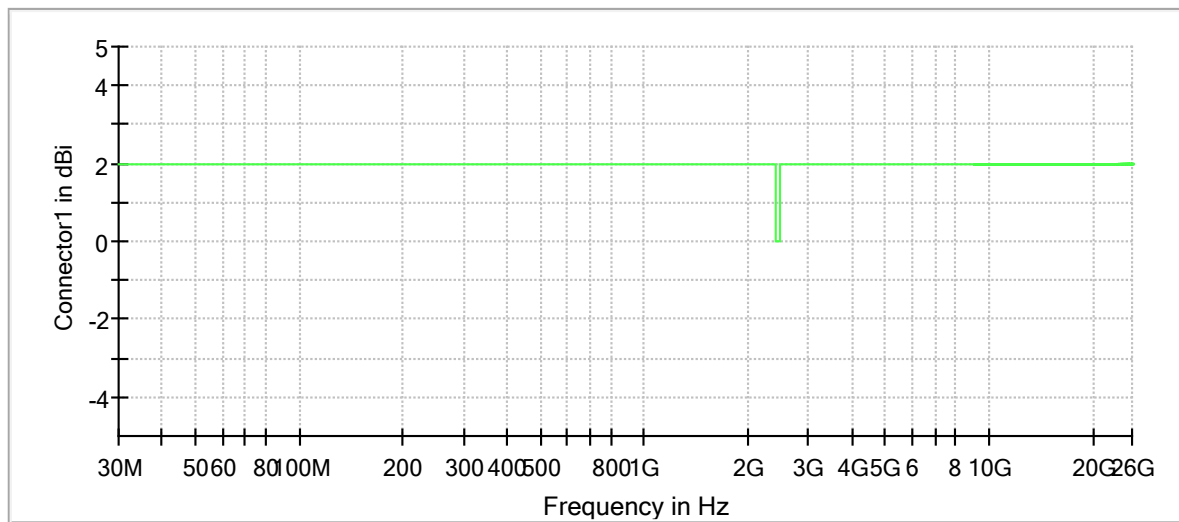
| Frequency (MHz) | Level (dBm) | Margin (dB) | Limit (dBm) |
|-----------------|-------------|-------------|-------------|
| 2255.609244     | -38.3       | 24.7        | -13.6       |
| 2126.155462     | -39.1       | 25.5        | -13.6       |
| 4947.085742     | -39.3       | 25.6        | -13.6       |
| 2215.777311     | -39.6       | 26.0        | -13.6       |
| 2185.903361     | -40.5       | 26.9        | -13.6       |
| 2265.567227     | -40.6       | 26.9        | -13.6       |
| 2235.693277     | -41.1       | 27.5        | -13.6       |
| 2175.945378     | -41.5       | 27.9        | -13.6       |
| 2488.497131     | -42.5       | 28.9        | -13.6       |
| 2156.029412     | -42.9       | 29.3        | -13.6       |
| 2205.819328     | -43.5       | 29.9        | -13.6       |
| 2335.273109     | -43.7       | 30.0        | -13.6       |
| 2365.147059     | -44.2       | 30.5        | -13.6       |
| 2136.113445     | -44.6       | 30.9        | -13.6       |
| 2345.231092     | -44.7       | 31.0        | -13.6       |

**Measurement Settings**

| Start Frequency (MHz) | Stop Frequency (MHz) | Pre Measurement | Final Measurement |
|-----------------------|----------------------|-----------------|-------------------|
| 30.000000             | 2400.000000          | 1               | 1                 |
| 2400.000000           | 2483.500000          | 1               | 1                 |
| 2483.500000           | 26000.000000         | 1               | 1                 |

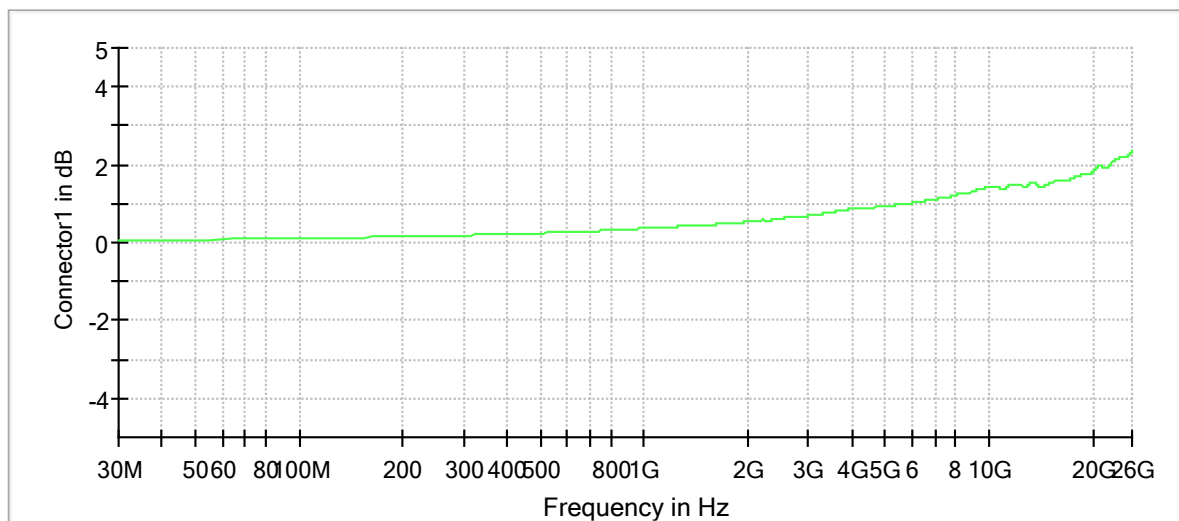


Gain



Connector1

Attenuation



Connector1

## Pre Measurement 1

| Setting               | Instrument Value | Target Value   |
|-----------------------|------------------|----------------|
| RBW                   | 100.000 kHz      | <= 100.000 kHz |
| VBW                   | 300.000 kHz      | >= 300.000 kHz |
| SweepPoints           | 238              | ~ 238          |
| SweepTime             | 23.700 ms        | AUTO           |
| Reference Level       | -10.000 dBm      | -30.000 dBm    |
| Attenuation           | 20.000 dB        | AUTO           |
| Detector              | MaxPeak          | MaxPeak        |
| SweepCount            | 3                | 3              |
| Filter                | 3 dB             | 3 dB           |
| Trace Mode            | Max Hold         | Max Hold       |
| SweepType             | Sweep            | AUTO           |
| Preamp                | off              | off            |
| Stablemode            | Trace            | Trace          |
| Stablevalue           | 0.50 dB          | 0.50 dB        |
| Run                   | 7 / max. 40      | max. 40        |
| Stable                | 3 / 3            | 3              |
| Max Stable Difference | 0.20 dB          | 0.50 dB        |

