



#### J.8 Probe Calibration Certificate

#### **Probe 9492 Calibration Certificate**

Calibration Laboratory of Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





Schweizerischer Kalibrierdienst Service suisse d'étalonnage Servizio svizzero di taratura Swiss Calibration Service

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Multilateral Agreement for the recognition of calibration certificates

Client

CTTL (Auden)

Certificate No: EUmmWV4-9492\_May22

Accreditation No.: SCS 0108

### CALIBRATION CERTIFICATE

Object EUmmWV4 - SN:9492

Calibration procedure(s) QA CAL-02.v9, QA CAL-25.v7, QA CAL-42.v2

Calibration procedure for E-field probes optimized for close near field

evaluations in air

Calibration date:

May 18, 2022

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards            | ID             | Cal Date (Certificate No.)         | Scheduled Calibration  |
|------------------------------|----------------|------------------------------------|------------------------|
| Power sensor NRP110T         | SN: 101244     | 14-Mar-22 (No. 20A1037915)         | Mar-23                 |
| R&S FSV40 Spectrum Analyzer  | SN: 101832     | 25-Jan-22 (No. 4030-315003399)     | Jan-25                 |
| Reference Probe EUmmWV3      | SN: 9374       | 21-Dec-21 (No. EUmmWV3-9374_Dec21) | Dec-22                 |
| DAE4                         | SN: 789        | 24-Dec-21 (No. DAE4-789_Dec21)     | Dec-22                 |
| Secondary Standards          | ID             | Check Date (in house)              | Scheduled Check        |
| Generator, Anapico, APSIN26G | SN: 669        | 28-Mar-17 (in house check May-22)  | In house check: May-23 |
| Generator, Agilent, E8251A   | SN: US41140111 | 28-Mar-17 (in house check May-22)  | In house check: May-23 |
|                              |                |                                    |                        |
|                              |                |                                    |                        |

Calibrated by:

Leif Klysner

Laboratory Technician

Signature

Laboratory Technician

Signature

Sof May

Approved by:

Sven Kühn

Technical Manager

Signature

Issued: May 21, 2022

This calibration certificate shall not be reproduced except in full without written approval of the laboratory

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#### Calibration Laboratory of

Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





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Glossary:

NORMx,y,z sensitivity in free space DCP diode compression point

CF crest factor (1/duty\_cycle) of the RF signal A, B, C, D modulation dependent linearization parameters

Polarization  $\phi$   $\phi$  rotation around probe axis

Polarization  $\vartheta$  rotation around an axis that is in the plane normal to probe axis (at measurement center),

i.e.,  $\vartheta = 0$  is normal to probe axis

Connector Angle information used in DASY system to align probe sensor X to the robot coordinate system

Sensor Angles sensor deviation from the probe axis, used to calculate the field orientation and polarization

is the wave propagation direction

#### Calibration is Performed According to the Following Standards:

 IEEE Std 1309-2005, "IEEE Standard for calibration of electromagnetic field sensors and probes, excluding antennas, from 9 kHz to 40 GHz", December 2005

#### Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization ϑ = 0 for XY sensors and ϑ = 90 for Z sensor (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). For frequencies > 6 GHz, the far field in front of waveguide horn antennas is measured for a set of frequencies in various waveguide bands up to 110 GHz.
- DCPx,y,z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- The frequency sensor model parameters are determined prior to calibration based on a frequency sweep (sensor model involving resistors R, R<sub>p</sub>, inductance L and capacitors C, C<sub>p</sub>).
- Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- Sensor Offset. The sensor offset corresponds to the mechanical from the probe tip (on probe axis). No
  tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORMx (no uncertainty required).
- Equivalent Sensor Angle: The two probe sensors are mounted in the same plane at different angles. The
  angles are assessed using the information gained by determining the NORMx (no uncertainty required).
- Spherical isotropy (3D deviation from isotropy): in a locally homogeneous field realized using an open waveguide / horn setup.

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## DASY - Parameters of Probe: EUmmWV4 - SN:9492

#### **Basic Calibration Parameters**

|                         | Sensor X | Sensor Y | Unc (k=2) |
|-------------------------|----------|----------|-----------|
| Norm $(\mu V/(V/m)^2)$  | 0.02044  | 0.02319  | ± 10.1 %  |
| DCP (mV) <sup>B</sup>   | 105.0    | 105.0    |           |
| Equivalent Sensor Angle | -60.7    | 35.7     |           |

Calibration results for Frequency Response (750 MHz - 110 GHz)

| Frequency<br>GHz | Target E-Field<br>V/m | Deviation Sensor X<br>dB | Deviation Sensor Y<br>dB | Unc (k=2)<br>dB |
|------------------|-----------------------|--------------------------|--------------------------|-----------------|
| 0.75             | 77.2                  | -0.17                    | -0.13                    | ± 0.43 dB       |
| 1.8              | 140.4                 | -0.01                    | -0.02                    | ± 0.43 dB       |
| 2                | 133.0                 | 0.13                     | 0.15                     | ± 0.43 dB       |
| 2.2              | 124.8                 | -0.07                    | -0.07                    | ± 0.43 dB       |
| 2.5              | 123.0                 | 0.07                     | 0.13                     | ± 0.43 dB       |
| 3.5              | 256.2                 | -0.19                    | -0.16                    | ± 0.43 dB       |
| 3.7              | 249.8                 | -0.08                    | -0.07                    | ± 0.43 dB       |
| 6.6              | 41.8                  | 0.23                     | 0.23                     | ± 0.98 dB       |
| 8                | 48.4                  | -0.05                    | -0.19                    | ± 0.98 dB       |
| 10               | 54.4                  | -0.04                    | 0.02                     | ± 0.98 dB       |
| 15               | 71.5                  | 0.24                     | -0.30                    | ± 0.98 dB       |
| 18               | 85.3                  | -0.21                    | 0.01                     | ± 0.98 dB       |
| 26.6             | 96.9                  | 0.09                     | 0.02                     | ± 0.98 dB       |
| 30               | 92.6                  | -0.03                    | 0.02                     | ± 0.98 dB       |
| 35               | 93.7                  | 0.13                     | 0.13                     | ± 0.98 dB       |
| 40               | 91.5                  | 0.01                     | -0.09                    | ± 0.98 dB       |
| 50               | 19.6                  | -0.01                    | -0.10                    | ± 0.98 dB       |
| 55               | 22.4                  | 0.00                     | 0.07                     | ± 0.98 dB       |
| 60               | 23.0                  | -0.02                    | -0.02                    | ± 0.98 dB       |
| 65               | 27.4                  | -0.37                    | -0.14                    | ± 0.98 dB       |
| 70               | 23.9                  | -0.04                    | -0.20                    | ± 0.98 dB       |
| 75               | 20.0                  | -0.24                    | -0.08                    | ± 0.98 dB       |
| 75               | 14.8                  | -0.09                    | -0.04                    | ± 0.98 dB       |
| 80               | 22.5                  | 0.14                     | 0.26                     | ± 0.98 dB       |
| 85               | 22.8                  | 0.11                     | 0.01                     | ± 0.98 dB       |
| 90               | 23.8                  | 0.05                     | 0.04                     | ± 0.98 dB       |
| 92               | 23.9                  | -0.02                    | -0.12                    | ± 0.98 dB       |
| 95               | 20.5                  | -0.24                    | -0.19                    | ± 0.98 dB       |
| 97               | 24.4                  | -0.06                    | -0.06                    | ± 0.98 dB       |
| 100              | 22.6                  | -0.10                    | -0.02                    | ± 0.98 dB       |
| 105              | 22.7                  | -0.02                    | 0.06                     | ± 0.98 dB       |
| 110              | 19.7                  | 0.18                     | 0.09                     | ± 0.98 dB       |

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

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<sup>&</sup>lt;sup>B</sup> Numerical linearization parameter: uncertainty not required.

E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.





# DASY - Parameters of Probe: EUmmWV4 - SN:9492

**Calibration Results for Modulation Response** 

| UID    | Communication System Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   | A<br>dB | B<br>dBõV | С     | D<br>dB                                 | VR<br>mV | Max<br>dev. | Max<br>Unc <sup>E</sup><br>(k=2) |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------|-----------|-------|-----------------------------------------|----------|-------------|----------------------------------|
| 0      | CW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | X | 0.00    | 0.00      | 1.00  | 0.00                                    | 113.2    | ± 2.7 %     | ± 4.7 %                          |
|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Υ | 0.00    | 0.00      | 1.00  |                                         | 98.5     |             |                                  |
| 10352- | Pulse Waveform (200Hz, 10%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | X | 1.86    | 60.00     | 14.23 | 10.00                                   | 6.0      | ± 1.3 %     | ± 9.6 %                          |
| AAA    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Y | 2.25    | 60.00     | 14.69 |                                         | 6.0      |             |                                  |
| 10353- | Pulse Waveform (200Hz, 20%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | X | 1.26    | 60.00     | 13.18 | 6.99                                    | 12.0     | ± 0.9 %     | ± 9.6 %                          |
| AAA    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Υ | 1.55    | 60.00     | 13.57 | 100000000000000000000000000000000000000 | 12.0     |             | CO. 15.000 100                   |
| 10354- | Pulse Waveform (200Hz, 40%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | X | 0.76    | 60.00     | 11.96 | 3.98                                    | 23.0     | ± 1.3 %     | ± 9.6 %                          |
| AAA    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Υ | 0.93    | 60.00     | 12.31 |                                         | 23.0     |             | (= 5,000 He                      |
| 10355- | Pulse Waveform (200Hz, 60%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | X | 0.47    | 60.00     | 11.21 | 2.22                                    | 27.0     | ± 0.8 %     | ± 9.6 %                          |
| AAA    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Υ | 0.59    | 60.00     | 11.42 |                                         | 27.0     |             |                                  |
| 10387- | QPSK Waveform, 1 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | X | 1.03    | 60.00     | 11.63 | 1.00                                    | 22.0     | ± 1.7 %     | ± 9.6 %                          |
| AAA    | 3000 C 1000 C 10 | Y | 1.18    | 60.00     | 11.76 | 100000                                  | 22.0     |             |                                  |
| 10388- | QPSK Waveform, 10 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | X | 1.26    | 60.00     | 11.82 | 0.00                                    | 22.0     | ± 0.7 %     | ± 9.6 %                          |
| AAA    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Y | 1.35    | 60.00     | 11.70 | 1222228                                 | 22.0     |             |                                  |
| 10396- | 64-QAM Waveform, 100 kHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | X | 1.99    | 60.58     | 13.94 | 3.01                                    | 17.0     | ± 0.7 %     | ± 9.6 %                          |
| AAA    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Y | 2.21    | 60.77     | 14.05 |                                         | 17.0     |             |                                  |
| 10399- | 64-QAM Waveform, 40 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | X | 2.08    | 60.00     | 12.34 | 0.00                                    | 19.0     | ± 1.1 %     | ± 9.6 %                          |
| AAA    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Y | 2.17    | 60.00     | 12.28 |                                         | 19.0     | 1           |                                  |
| 10414- | WLAN CCDF, 64-QAM, 40MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | X | 3.15    | 60.00     | 12.78 | 0.00                                    | 12.0     | ± 0.8 %     | ± 9.6 %                          |
| AAA    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Y | 3.31    | 60.00     | 12.72 |                                         | 12.0     |             |                                  |

Note: For details on all calibrated UID parameters see Appendix

Calibration Results for Linearity Response

| Frequency<br>GHz | Target E-Field<br>V/m | Deviation Sensor X dB | Deviation Sensor Y dB | Unc (k=2)<br>dB |
|------------------|-----------------------|-----------------------|-----------------------|-----------------|
| 0.9              | 50.0                  | -0.04                 | 0.14                  | ± 0.2 dB        |
| 0.9              | 100.0                 | 0.05                  | 0.02                  | ± 0.2 dB        |
| 0.9              | 500.0                 | 0.04                  | -0.04                 | ± 0.2 dB        |
| 0.9              | 1000.0                | 0.06                  | -0.02                 | ± 0.2 dB        |
| 0.9              | 1500.0                | 0.06                  | -0.05                 | ± 0.2 dB        |
| 0.9              | 2000.0                | 0.02                  | -0.07                 | ± 0.2 dB        |

Sensor Frequency Model Parameters (750 MHz - 55 GHz)

|                     | Sensor X | Sensor Y |
|---------------------|----------|----------|
| R (Ω)               | 73.94    | 71.21    |
| $R_{p}(\Omega)$     | 95.25    | 97.90    |
| L (nH)              | 0.11950  | 0.09777  |
| C (pF)              | 0.2243   | 0.2827   |
| C <sub>p</sub> (pF) | 0.0700   | 0.0750   |

Sensor Frequency Model Parameters (55 GHz - 110 GHz)

|                     | Sensor X | Sensor Y |
|---------------------|----------|----------|
| R (Ω)               | 34.83    | 34.15    |
| $R_{p}(\Omega)$     | 95.07    | 95.41    |
| L (nH)              | 0.03062  | 0.02871  |
| C (pF)              | 0.2422   | 0.2770   |
| C <sub>p</sub> (pF) | 0.1347   | 0.1394   |

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# DASY - Parameters of Probe: EUmmWV4 - SN:9492

#### **Sensor Model Parameters**

|   | C1<br>fF | C2<br>fF | α<br>V <sup>-1</sup> | T1<br>ms.V <sup>-2</sup> | T2<br>ms.V <sup>-1</sup> | T3<br>ms | T4<br>V <sup>-2</sup> | T5<br>V <sup>-1</sup> | <b>T</b> 6 |
|---|----------|----------|----------------------|--------------------------|--------------------------|----------|-----------------------|-----------------------|------------|
| X | 35.8     | 259.72   | 33.70                | 2.66                     | 3.69                     | 5.00     | 0.00                  | 1.07                  | 1.01       |
| Υ | 44.1     | 323.23   | 34.28                | 2.38                     | 5.13                     | 5.01     | 0.00                  | 1.48                  | 1.01       |

#### Other Probe Parameters

| Sensor Arrangement                      | Rectangular |
|-----------------------------------------|-------------|
| Connector Angle (°)                     | 31.0        |
| Mechanical Surface Detection Mode       | enabled     |
| Optical Surface Detection Mode          | disabled    |
| Probe Overall Length                    | 320 mm      |
| Probe Body Diameter                     | 8 mm        |
| Tip Length                              | 23 mm       |
| Tip Diameter                            | 8.0 mm      |
| Probe Tip to Sensor X Calibration Point | 1.5 mm      |
| Probe Tip to Sensor Y Calibration Point | 1.5 mm      |

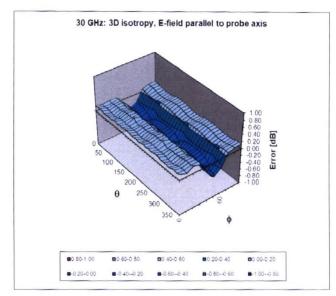
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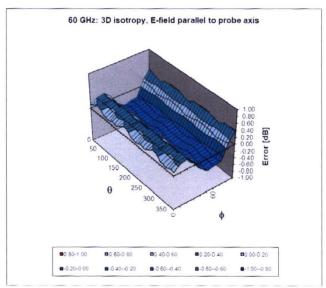
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# Deviation from Isotropy in Air f = 30, 60 GHz





Probe isotropy for E<sub>tot</sub>: probe rotated  $\phi=0^\circ$  to 360°, tilted from field propagation direction  $\overline{k}$  Parallel to the field propagation ( $\psi=0^\circ$  - 90°) at 30 GHz: deviation within  $\pm$  0.33 dB Parallel to the field propagation ( $\psi=0^\circ$  - 90°) at 60 GHz: deviation within  $\pm$  0.42 dB

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Appendix: Modulation Calibration Parameters

| UID   | Rev | Communication System Name                           | Group     | PAR<br>(dB) | Unc <sup>E</sup><br>(k=2) |
|-------|-----|-----------------------------------------------------|-----------|-------------|---------------------------|
| 0     | -   | CW                                                  | CW        | 0.00        | ± 4.7                     |
| 10010 | CAA | SAR Validation (Square, 100ms, 10ms)                | Test      | 10.00       | ± 9.6 %                   |
| 10011 | CAB | UMTS-FDD (WCDMA)                                    | WCDMA     | 2.91        | ± 9.6 %                   |
| 10012 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)            | WLAN      | 1.87        | ± 9.6 9                   |
| 10013 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)       | WLAN      | 9.46        | ± 9.6 %                   |
| 10021 | DAC | GSM-FDD (TDMA, GMSK)                                | GSM       | 9.39        | ± 9.6 %                   |
| 10023 | DAC | GPRS-FDD (TDMA, GMSK, TN 0)                         | GSM       | 9.57        | ± 9.6 %                   |
| 10024 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                       | GSM       | 6.56        | ± 9.6 9                   |
| 10025 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                         | GSM       | 12.62       | ± 9.6 °                   |
| 10026 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                       | GSM       | 9.55        | ± 9.6 9                   |
| 10027 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)                     | GSM       | 4.80        | ± 9.6 9                   |
| 10028 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)                   | GSM       | 3.55        | ± 9.6 9                   |
| 10029 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)                     | GSM       | 7.78        | ± 9.6 %                   |
| 10030 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)                 | Bluetooth | 5.30        | ± 9.6 %                   |
| 10031 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)                 | Bluetooth | 1.87        |                           |
| 10032 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | Bluetooth | 1.16        | ± 9.6 9                   |
| 10033 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | Bluetooth |             | ± 9.6 9                   |
| 10034 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | Bluetooth | 7.74        | ± 9.6 9                   |
| 10035 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           |           | 4.53        | ± 9.6 %                   |
| 10036 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | Bluetooth | 3.83        | ± 9.6 %                   |
| 10037 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | Bluetooth | 8.01        | ± 9.6 9                   |
| 10038 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | Bluetooth | 4.77        | ± 9.6 9                   |
| 10039 | CAB | CDMA2000 (1xRTT, RC1)                               | Bluetooth | 4.10        | ± 9.6 9                   |
| 10042 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | CDMA2000  | 4.57        | ± 9.6 9                   |
| 10044 | CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | AMPS      | 7.78        | ± 9.6 °                   |
| 10044 | CAA |                                                     | AMPS      | 0.00        | ± 9.6 °                   |
| 10048 |     | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | DECT      | 13.80       | ± 9.6 9                   |
| 10049 | CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | DECT      | 10.79       | ± 9.6 9                   |
|       |     | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | TD-SCDMA  | 11.01       | ± 9.6 %                   |
| 10058 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | GSM       | 6.52        | ± 9.6                     |
| 10059 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | WLAN      | 2.12        | ± 9.6 9                   |
| 10060 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | WLAN      | 2.83        | ± 9.6 %                   |
| 10061 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)           | WLAN      | 3.60        | ± 9.6 9                   |
| 10062 | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)            | WLAN      | 8.68        | ± 9.6 %                   |
| 10063 | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)            | WLAN      | 8.63        | ± 9.6 %                   |
| 10064 | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)           | WLAN      | 9.09        | ± 9.6 %                   |
| 10065 | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)           | WLAN      | 9.00        | ± 9.6 %                   |
| 10066 | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)           | WLAN      | 9.38        | ± 9.6 %                   |
| 10067 | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)           | WLAN      | 10.12       | ± 9.6 %                   |
| 10068 | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)           | WLAN      | 10.24       | ± 9.6 %                   |
| 10069 | CAD | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)           | WLAN      | 10.56       | ± 9.6 %                   |
| 10071 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)       | WLAN      | 9.83        | ± 9.6 %                   |
| 10072 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)      | WLAN      | 9.62        | ± 9.6 %                   |
| 10073 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)      | WLAN      | 9.94        | ± 9.6 %                   |
| 10074 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)      | WLAN      | 10.30       | ± 9.6 %                   |
| 10075 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)      | WLAN      | 10.77       | ± 9.6 %                   |
| 10076 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)      | WLAN      | 10.94       | ± 9.6 %                   |
| 10077 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)      | WLAN      | 11.00       | ± 9.6 %                   |
| 10081 | CAB | CDMA2000 (1xRTT, RC3)                               | CDMA2000  | 3.97        | ± 9.6 %                   |
| 10082 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | AMPS      | 4.77        | ± 9.6 %                   |
| 10090 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | GSM       | 6.56        | ± 9.6 %                   |
| 10097 | CAB | UMTS-FDD (HSDPA)                                    | WCDMA     | 3.98        | ± 9.6 9                   |
| 10098 | CAB | UMTS-FDD (HSUPA, Subtest 2)                         | WCDMA     | 3.98        | ± 9.6 %                   |
| 10099 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | GSM       | 9.55        | ± 9.6 %                   |

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| 10100 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)                                       | LTE-FDD            | 5.67          | ± 9.6 % |
|-------|-----|--------------------------------------------------------------------------------|--------------------|---------------|---------|
| 10101 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)                                     | LTE-FDD            | 6.42          | ± 9.6 % |
| 10102 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)                                     | LTE-FDD            | 6.60          | ± 9.6 % |
| 10103 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)                                       | LTE-TDD            | 9.29          | ± 9.6 % |
| 10104 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)                                     | LTE-TDD            | 9.97          | ± 9.6 % |
| 10105 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)                                     | LTE-TDD            | 10.01         | ± 9.6 % |
| 10108 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)                                       | LTE-FDD            | 5.80          | ± 9.6 % |
| 10109 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)                                     | LTE-FDD            | 6.43          | ± 9.6 % |
| 10110 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)                                        | LTE-FDD            | 5.75          | ± 9.6 % |
| 10111 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)                                      | LTE-FDD            | 6.44          | ± 9.6 % |
| 10112 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)                                     | LTE-FDD            | 6.59          | ± 9.6 % |
| 10113 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)                                      | LTE-FDD            | 6.62          | ± 9.6 % |
| 10114 | CAD | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)                                  | WLAN               | 8.10          | ± 9.6 % |
| 10115 | CAD | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)                                  | WLAN               | 8.46          | ± 9.6 % |
| 10116 | CAD | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)                                 | WLAN               | 8.15          | ± 9.6 % |
| 10117 | CAD | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)                                       | WLAN               | 8.07          | ± 9.6 % |
| 10118 | CAD | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)                                       | WLAN               | 8.59          | ± 9.6 % |
| 10119 | CAD | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)                                      | WLAN               | 8.13          | ± 9.6 % |
| 10140 | CAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)                                     | LTE-FDD            | 6.49          | ± 9.6 % |
| 10141 | CAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)                                     | LTE-FDD            | 6.53          | ± 9.6 % |
| 10142 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)                                        | LTE-FDD            | 5.73          | ± 9.6 % |
| 10143 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)                                      | LTE-FDD            | 6.35          | ± 9.6 % |
| 10144 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)                                      | LTE-FDD            | 6.65          | ± 9.6 % |
| 10145 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)                                      | LTE-FDD            | 5.76          |         |
| 10146 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)                                    | LTE-FDD            |               | ± 9.6 % |
| 10147 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)                                    | LTE-FDD            | 6.41          |         |
| 10149 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)                                      |                    | 6.72          | ± 9.6 % |
| 10150 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)                                      | LTE-FDD            | 6.42          | ± 9.6 % |
| 10151 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)                                        | LTE-FDD<br>LTE-TDD | 6.60          | ± 9.6 % |
| 10152 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)                                      |                    | 9.28          | ± 9.6 % |
| 10153 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)                                      | LTE-TDD            | 9.92          | ± 9.6 % |
| 10154 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)                                        | LTE-FDD            | 10.05<br>5.75 | ± 9.6 % |
| 10155 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)                                      | LTE-FDD            |               | ± 9.6 % |
| 10156 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)                                         |                    | 6.43          | ± 9.6 % |
| 10157 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)                                       | LTE-FDD            | 5.79          | ± 9.6 % |
| 10158 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)                                      | LTE-FDD            | 6.49          | ± 9.6 % |
| 10159 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)                                       | LTE-FDD            | 6.62          | ± 9.6 % |
| 10160 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)                                        | LTE-FDD            | 6.56          | ± 9.6 % |
| 10161 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)                                      | LTE-FDD            | 5.82          | ± 9.6 % |
| 10162 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)                                      | LTE-FDD            | 6.43          | ± 9.6 % |
| 10166 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)                                       | LTE-FDD            | 6.58          | ± 9.6 % |
| 10167 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)                                     | LTE-FDD            | 5.46          | ± 9.6 % |
| 10168 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)                                     | LTE-FDD            | 6.21          | ± 9.6 % |
| 10169 | CAE | LTE-FDD (SC-FDMA, 30% RB, 1.4 MHz, 64-QAM)                                     | LTE-FDD            | 6.79          | ± 9.6 % |
| 10170 | CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)                                        | LTE-FDD            | 5.73          | ± 9.6 % |
| 10171 | AAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)                                        | LTE-FDD            | 6.52          | ± 9.6 % |
| 10171 | CAG | LTE-FDD (SC-FDMA, 1 HB, 20 MHz, 64-QAM)  LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK) | LTE-FDD            | 6.49          | ± 9.6 % |
| 10172 | CAG |                                                                                | LTE-TDD            | 9.21          | ± 9.6 % |
| 10173 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)                                        | LTE-TDD            | 9.48          | ± 9.6 % |
|       | CAG | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)                                        | LTE-TDD            | 10.25         | ± 9.6 % |
| 10175 |     | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)                                          | LTE-FDD            | 5.72          | ± 9.6 % |
| 10176 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)                                        | LTE-FDD            | 6.52          | ± 9.6 % |
| 10177 | CAI | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)                                           | LTE-FDD            | 5.73          | ± 9.6 % |
| 10178 | CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)                                         | LTE-FDD            | 6.52          | ± 9.6 % |
| 10179 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)                                        | LTE-FDD            | 6.50          | ± 9.6 % |
| 10180 | CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)                                         | LTE-FDD            | 6.50          | ± 9.6 % |
| 10181 | CAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)                                          | LTE-FDD            | 5.73          | ± 9.6 % |

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| 10182 | CAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)       | LTE-FDD | 6.52  | ± 9.6 % |
|-------|-----|-----------------------------------------------|---------|-------|---------|
| 10183 | AAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)       | LTE-FDD | 6.50  | ± 9.6 % |
| 10184 | CAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | LTE-FDD | 5.73  | ± 9.6 % |
| 10185 | CAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | LTE-FDD | 6.51  | ± 9.6 % |
| 10186 | AAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | LTE-FDD | 6.50  | ± 9.6 % |
| 10187 | CAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)        | LTE-FDD | 5.73  | ± 9.6 % |
| 10188 | CAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | LTE-FDD | 6.52  | ± 9.6 % |
| 10189 | AAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)      | LTE-FDD | 6.50  | ± 9.6 % |
| 10193 | CAD | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)  | WLAN    | 8.09  | ± 9.6 % |
| 10194 | CAD | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) | WLAN    | 8.12  | ± 9.6 % |
| 10195 | CAD | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) | WLAN    | 8.21  | ± 9.6 % |
| 10196 | CAD | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)       | WLAN    | 8.10  | ± 9.6 % |
| 10197 | CAD | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)      | WLAN    | 8.13  | ± 9.6 % |
| 10198 | CAD | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)      | WLAN    | 8.27  | ± 9.6 % |
| 10219 | CAD | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)       | WLAN    | 8.03  | ± 9.6 % |
| 10220 | CAD | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)    | WLAN    | 8.13  | ± 9.6 % |
| 10221 | CAD | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)    | WLAN    | 8.27  | ± 9.6 % |
| 10222 | CAD | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)        | WLAN    | 8.06  | ± 9.6 % |
| 10223 | CAD | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)      | WLAN    | 8.48  | ± 9.6 % |
| 10224 | CAD | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)     | WLAN    | 8.08  | ± 9.6 % |
| 10225 | CAB | UMTS-FDD (HSPA+)                              | WCDMA   | 5.97  | ± 9.6 % |
| 10226 | CAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | LTE-TDD | 9.49  | ± 9.6 % |
| 10227 | CAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)      | LTE-TDD | 10.26 | ± 9.6 % |
| 10228 | CAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)        | LTE-TDD | 9.22  | ± 9.6 % |
| 10229 | CAD | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | LTE-TDD | 9.48  | ± 9.6 % |
| 10230 | CAD | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | LTE-TDD | 10.25 | ± 9.6 % |
| 10231 | CAD | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | LTE-TDD | 9.19  | ± 9.6 % |
| 10232 | CAG | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)        | LTE-TDD | 9.48  | ± 9.6 % |
| 10233 | CAG | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)        | LTE-TDD | 10.25 | ± 9.6 % |
| 10234 | CAG | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)          | LTE-TDD | 9.21  | ± 9.6 % |
| 10235 | CAG | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)       | LTE-TDD | 9.48  | ± 9.6 % |
| 10236 | CAG | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)       | LTE-TDD | 10.25 | ± 9.6 % |
| 10237 | CAG | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)         | LTE-TDD | 9.21  | ± 9.6 % |
| 10238 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)       | LTE-TDD | 9.48  | ± 9.6 % |
| 10239 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)       | LTE-TDD | 10.25 | ± 9.6 % |
| 10240 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)         | LTE-TDD | 9.21  | ± 9.6 % |
| 10241 | CAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)    | LTE-TDD | 9.82  | ± 9.6 % |
| 10242 | CAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)    | LTE-TDD | 9.86  | ± 9.6 % |
| 10243 | CAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)      | LTE-TDD | 9.46  | ± 9.6 % |
| 10244 | CAD | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)      | LTE-TDD | 10.06 | ± 9.6 % |
| 10245 | CAD | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)      | LTE-TDD | 10.06 | ± 9.6 % |
| 10246 | CAD | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)        | LTE-TDD | 9.30  | ± 9.6 % |
| 10247 | CAG | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)      | LTE-TDD | 9.91  | ± 9.6 % |
| 10248 | CAG | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)      | LTE-TDD | 10.09 | ± 9.6 % |
| 10249 | CAG | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)        | LTE-TDD | 9.29  | ± 9.6 % |
| 10250 | CAG | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)     | LTE-TDD | 9.81  | ± 9.6 % |
| 10251 | CAG | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)     | LTE-TDD | 10.17 | ± 9.6 % |
| 10252 | CAG | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)       | LTE-TDD | 9.24  | ± 9.6 % |
| 10253 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)     | LTE-TDD | 9.90  | ± 9.6 % |
| 10254 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)     | LTE-TDD | 10.14 | ± 9.6 % |
| 10255 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)       | LTE-TDD | 9.20  | ± 9.6 % |
| 10256 | CAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)   | LTE-TDD | 9.96  | ± 9.6 % |
| 10257 | CAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)   | LTE-TDD | 10.08 | ± 9.6 % |
| 10258 | CAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)     | LTE-TDD | 9.34  | ± 9.6 % |
| 10259 | CAD | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)     | LTE-TDD | 9.98  | ± 9.6 % |
| 10260 | CAD | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)     | LTE-TDD | 9.97  | ± 9.6 % |

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| 10261 | CAD | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LTE-TDD         | 9.24  | ± 9.6 % |
|-------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------|---------|
| 10262 | CAG | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | LTE-TDD         | 9.83  | ± 9.6 % |
| 10263 | CAG | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | LTE-TDD         | 10.16 | ± 9.6 % |
| 10264 | CAG | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LTE-TDD         | 9.23  | ± 9.6 % |
| 10265 | CAG | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LTE-TDD         | 9.92  | ± 9.6 % |
| 10266 | CAG | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LTE-TDD         | 10.07 | ± 9.6 % |
| 10267 | CAG | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LTE-TDD         | 9.30  | ± 9.6 % |
| 10268 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LTE-TDD         | 10.06 | ± 9.6 % |
| 10269 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LTE-TDD         | 10.13 | ± 9.6 % |
| 10270 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LTE-TDD         | 9.58  |         |
| 10274 | CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | WCDMA           |       | ± 9.6 % |
| 10275 | CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 | 4.87  | ± 9.6 % |
| 10277 | CAA | PHS (QPSK)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | WCDMA           | 3.96  | ± 9.6 % |
| 10278 | CAA | PHS (QPSK, BW 884MHz, Rolloff 0.5)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | PHS             | 11.81 | ± 9.6 % |
| 10278 | CAA | PHS (QPSK, BW 884MHz, Rolloff 0.38)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | PHS             | 11.81 | ± 9.6 % |
| 10279 |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | PHS             | 12.18 | ± 9.6 % |
|       | AAB | CDMA2000, RC1, SO55, Full Rate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CDMA2000        | 3.91  | ± 9.6 % |
| 10291 | AAB | CDMA2000, RC3, SO55, Full Rate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CDMA2000        | 3.46  | ± 9.6 % |
| 10292 | AAB | CDMA2000, RC3, SO32, Full Rate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CDMA2000        | 3.39  | ± 9.6 % |
| 10293 | AAB | CDMA2000, RC3, SO3, Full Rate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CDMA2000        | 3.50  | ± 9.6 % |
| 10295 | AAB | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | CDMA2000        | 12.49 | ± 9.6 % |
| 10297 | AAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LTE-FDD         | 5.81  | ± 9.6 % |
| 10298 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | LTE-FDD         | 5.72  | ± 9.6 % |
| 10299 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LTE-FDD         | 6.39  | ± 9.6 % |
| 10300 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LTE-FDD         | 6.60  | ± 9.6 % |
| 10301 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | WiMAX           | 12.03 | ± 9.6 % |
| 10302 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3CTRL)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | WiMAX           | 12.57 | ± 9.6 % |
| 10303 | AAA | IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | WiMAX           | 12.52 | ± 9.6 % |
| 10304 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | WiMAX           | 11.86 | ± 9.6 % |
| 10305 | AAA | IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | WiMAX           | 15.24 | ± 9.6 % |
| 10306 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | WiMAX           | 14.67 | ± 9.6 % |
| 10307 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | WiMAX           | 14.49 | ± 9.6 % |
| 10308 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | WiMAX           | 14.46 | ± 9.6 % |
| 10309 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM,AMC 2x3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | WiMAX           | 14.58 | ± 9.6 % |
| 10310 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | WiMAX           | 14.57 | ± 9.6 % |
| 10311 | AAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LTE-FDD         | 6.06  | ± 9.6 % |
| 10313 | AAA | iDEN 1:3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | iDEN            | 10.51 | ± 9.6 % |
| 10314 | AAA | iDEN 1:6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | iDEN            |       |         |
| 10314 | AAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Control Control | 13.48 | ± 9.6 % |
|       |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | WLAN            | 1.71  | ± 9.6 % |
| 10316 | AAB | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | WLAN            | 8.36  | ± 9.6 % |
| 10317 | AAD | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | WLAN            | 8.36  | ± 9.6 % |
| 10352 | AAA | Pulse Waveform (200Hz, 10%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Generic         | 10.00 | ± 9.6 % |
| 10353 | AAA | Pulse Waveform (200Hz, 20%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Generic         | 6.99  | ± 9.6 % |
| 10354 | AAA | Pulse Waveform (200Hz, 40%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Generic         | 3.98  | ± 9.6 % |
| 10355 | AAA | Pulse Waveform (200Hz, 60%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Generic         | 2.22  | ± 9.6 % |
| 10356 | AAA | Pulse Waveform (200Hz, 80%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Generic         | 0.97  | ± 9.6 % |
| 10387 | AAA | QPSK Waveform, 1 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Generic         | 5.10  | ± 9.6 % |
| 10388 | AAA | QPSK Waveform, 10 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Generic         | 5.22  | ± 9.6 % |
| 10396 | AAA | 64-QAM Waveform, 100 kHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Generic         | 6.27  | ± 9.6 % |
| 10399 | AAA | 64-QAM Waveform, 40 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Generic         | 6.27  | ± 9.6 % |
| 10400 | AAE | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | WLAN            | 8.37  | ± 9.6 % |
| 10401 | AAE | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | WLAN            | 8.60  | ± 9.6 % |
| 10402 | AAE | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc dc)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | WLAN            | 8.53  | ± 9.6 % |
| 10403 | AAB | CDMA2000 (1xEV-DO, Rev. 0)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | CDMA2000        | 3.76  | ± 9.6 % |
| 10404 | AAB | CDMA2000 (1xEV-DO, Rev. A)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | CDMA2000        | 3.77  | ± 9.6 % |
| 10406 | AAB | CDMA2000, RC3, SO32, SCH0, Full Rate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | CDMA2000        | 5.22  | ± 9.6 % |
| 10100 |     | COLOR |                 | -     |         |

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| 10414 | AAA | WLAN CCDF, 64-QAM, 40MHz                                                                         | Generic  | 8.54  | ± 9.6 % |
|-------|-----|--------------------------------------------------------------------------------------------------|----------|-------|---------|
| 10415 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc dc)                                                | WLAN     | 1.54  | ± 9.6 % |
| 10416 | AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc dc)                                            | WLAN     | 8.23  | ± 9.6 % |
| 10417 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc dc)                                                | WLAN     | 8.23  | ± 9.6 % |
| 10418 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Long)                                        | WLAN     | 8.14  | ± 9.6 % |
| 10419 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc, Short)                                       | WLAN     | 8.19  | ± 9.6 % |
| 10422 | AAC | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)                                                     | WLAN     | 8.32  | ± 9.6 % |
| 10423 | AAC | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)                                                  | WLAN     | 8.47  | ± 9.6 % |
| 10424 | AAC | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)                                                  | WLAN     | 8.40  | ± 9.6 % |
| 10425 | AAC | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                                                      | WLAN     | 8.41  | ± 9.6 % |
| 10426 | AAC | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)                                                    | WLAN     | 8.45  | ± 9.6 % |
| 10427 | AAC | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)                                                   | WLAN     | 8.41  | ± 9.6 % |
| 10430 | AAD | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                                                                 | LTE-FDD  | 8.28  | ± 9.6 ° |
| 10431 | AAD | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                                                                | LTE-FDD  | 8.38  | ± 9.6 ° |
| 10432 | AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                                                                |          | -     |         |
| 10433 | AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                                                                | LTE-FDD  | 8.34  | ± 9.6   |
| 10434 | AAA | W-CDMA (BS Test Model 1, 64 DPCH)                                                                | LTE-FDD  | 8.34  | ± 9.6 ° |
| 10435 | AAF |                                                                                                  | WCDMA    | 8.60  | ± 9.6 ° |
| 10433 |     | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub)                                                    | LTE-TDD  | 7.82  | ± 9.6 ° |
| 10447 | AAD | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)                                                   | LTE-FDD  | 7.56  | ± 9.6 ° |
|       | AAD | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)                                                   | LTE-FDD  | 7.53  | ± 9.6 ° |
| 10449 | AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)                                                   | LTE-FDD  | 7.51  | ± 9.6 ° |
| 10450 | AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)                                                  | LTE-FDD  | 7.48  | ± 9.6   |
| 10451 | AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)                                                  | WCDMA    | 7.59  | ± 9.6   |
| 10453 | AAD | Validation (Square, 10ms, 1ms)                                                                   | Test     | 10.00 | ± 9.6   |
| 10456 | AAC | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc dc)                                                     | WLAN     | 8.63  | ± 9.6   |
| 10457 | AAA | UMTS-FDD (DC-HSDPA)                                                                              | WCDMA    | 6.62  | ± 9.6   |
| 10458 | AAA | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                                                           | CDMA2000 | 6.55  | ± 9.6   |
| 10459 | AAA | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                                                           | CDMA2000 | 8.25  | ± 9.6   |
| 10460 | AAA | UMTS-FDD (WCDMA, AMR)                                                                            | WCDMA    | 2.39  | ± 9.6   |
| 10461 | AAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Sub)                                                   | LTE-TDD  | 7.82  | ± 9.6   |
| 10462 | AAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Sub)                                                 | LTE-TDD  | 8.30  | ± 9.6   |
| 10463 | AAB | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Sub)                                                 | LTE-TDD  | 8.56  | ± 9.6   |
| 10464 | AAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Sub)                                                     | LTE-TDD  | 7.82  | ± 9.6   |
| 10465 | AAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Sub)                                                   | LTE-TDD  | 8.32  | ± 9.6   |
| 10466 | AAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Sub)                                                   | LTE-TDD  | 8.57  | ± 9.6   |
| 10467 | AAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub)                                                     | LTE-TDD  | 7.82  | ± 9.6   |
| 10468 | AAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Sub)                                                   | LTE-TDD  | 8.32  | ± 9.6   |
| 10469 | AAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Sub)                                                   | LTE-TDD  | 8.56  | ± 9.6   |
| 10470 | AAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub)                                                    | LTE-TDD  | 7.82  | ± 9.6   |
| 10471 | AAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Sub)                                                  | LTE-TDD  | 8.32  | ± 9.6   |
| 10472 | AAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Sub)                                                  | LTE-TDD  | 8.57  | ± 9.6   |
| 10472 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Sub)                                                    |          |       |         |
| 10473 | AAE |                                                                                                  | LTE-TDD  | 7.82  | ± 9.6   |
|       |     | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Sub)  LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Sub) | LTE-TDD  | 8.32  | ± 9.6   |
| 10475 | AAE |                                                                                                  | LTE-TDD  | 8.57  | ± 9.6   |
| 10477 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Sub)                                                  | LTE-TDD  | 8.32  | ± 9.6   |
| 10478 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Sub)                                                  | LTE-TDD  | 8.57  | ± 9.6   |
| 10479 | AAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Sub)                                                 | LTE-TDD  | 7.74  | ± 9.6   |
| 10480 | AAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Sub)                                               | LTE-TDD  | 8.18  | ± 9.6   |
| 10481 | AAB | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Sub)                                               | LTE-TDD  | 8.45  | ± 9.6   |
| 10482 | AAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Sub)                                                   | LTE-TDD  | 7.71  | ± 9.6   |
| 10483 | AAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, Sub)                                                    | LTE-TDD  | 8.39  | ± 9.6   |
| 10484 | AAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Sub)                                                 | LTE-TDD  | 8.47  | ± 9.6   |
| 10485 | AAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Sub)                                                   | LTE-TDD  | 7.59  | ± 9.6   |
| 10486 | AAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Sub)                                                 | LTE-TDD  | 8.38  | ± 9.6   |
|       | AAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Sub)                                                 | LTE-TDD  | 9.60  | +069    |
| 10487 | AAF | ETE-TOD (30-1 DIVIA, 30 % HB, 3 WITZ, 04-QAIVI, 0E 30b)                                          | LIL-IUU  | 8.60  | ± 9.6   |

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| 10489          | AAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Sub)                                                      | LTE-TDD | 8.31 | ± 9.6 % |
|----------------|-----|--------------------------------------------------------------------------------------------------------|---------|------|---------|
| 10490          | AAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Sub)                                                      | LTE-TDD | 8.54 | ± 9.6 % |
| 10491          | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Sub)                                                        | LTE-TDD | 7.74 | ± 9.6 % |
| 10492          | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Sub)                                                      | LTE-TDD | 8.41 | ± 9.6 % |
| 10493          | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Sub)                                                      | LTE-TDD | 8.55 | ± 9.6 % |
| 10494          | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Sub)                                                        | LTE-TDD | 7.74 | ± 9.6 % |
| 10495          | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Sub)                                                      | LTE-TDD | 8.37 | ± 9.6 % |
| 10496          | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Sub)                                                      | LTE-TDD | 8.54 | ± 9.6 % |
| 10497          | AAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Sub)                                                      | LTE-TDD | 7.67 | ± 9.6 ° |
| 10498          | AAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Sub)                                                    | LTE-TDD | 8.40 | ± 9.6 ° |
| 10499          | AAB | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Sub)                                                    | LTE-TDD | 8.68 | ± 9.6 ° |
| 10500          | AAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Sub)                                                        | LTE-TDD | 7.67 | ± 9.6   |
| 10501          | AAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Sub)                                                      | LTE-TDD | 8.44 | ± 9.6 ° |
| 10502          | AAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Sub)                                                      | LTE-TDD | 8.52 | ± 9.6 ° |
| 10503          | AAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Sub)                                                        | LTE-TDD | 7.72 | ± 9.6 ° |
| 10504          | AAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Sub)                                                      | LTE-TDD | 8.31 | ± 9.6   |
| 10505          | AAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Sub)                                                      | LTE-TDD | 8.54 | ± 9.6   |
| 10506          | AAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Sub)                                                       | LTE-TDD | 7.74 | ± 9.6   |
| 10507          | AAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Sub)                                                     | LTE-TDD | 8.36 | ± 9.6   |
| 10508          | AAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Sub)                                                     | LTE-TDD | 8.55 | ± 9.6   |
| 10509          | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Sub)                                                       | LTE-TDD | 7.99 | ± 9.6   |
| 10510          | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Sub)                                                     | LTE-TDD | 8.49 | ± 9.6   |
| 10510          | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Sub)                                                     | LTE-TDD | 8.51 | ± 9.6   |
| 10512          | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Sub)                                                       | LTE-TDD | 7.74 | ± 9.6   |
|                | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Sub)                                                     | LTE-TDD | 8.42 | ± 9.6   |
| 10513<br>10514 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Sub)                                                     | LTE-TDD |      | ± 9.6   |
| 10514          | AAA |                                                                                                        | WLAN    | 1.58 |         |
| 10516          | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc dc)  IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc dc) | WLAN    |      | ± 9.6   |
|                |     | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1.1 Mbps, 99pc dc)                                                    |         | 1.57 | ± 9.6   |
| 10517          | AAA |                                                                                                        | WLAN    | 1.58 | ± 9.6   |
| 10518          | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc dc)                                                      | WLAN    | 8.23 | ± 9.6   |
| 10519          | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc dc)                                                     | WLAN    | 8.39 | ± 9.6   |
| 10520          | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc dc)                                                     | WLAN    | 8.12 | ± 9.6   |
| 10521          | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc dc)                                                     | WLAN    | 7.97 | ± 9.6   |
| 10522          | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc dc)                                                     | WLAN    | 8.45 | ± 9.6   |
| 10523          | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc dc)                                                     | WLAN    | 8.08 | ± 9.6   |
| 10524          | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc dc)                                                     | WLAN    | 8.27 | ± 9.6   |
| 10525          | AAC | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc dc)                                                              | WLAN    | 8.36 | ± 9.6   |
| 10526          | AAC | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc dc)                                                              | WLAN    | 8.42 | ± 9.6   |
| 10527          | AAC | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc dc)                                                              | WLAN    | 8.21 | ± 9.6   |
| 10528          | AAC | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc dc)                                                              | WLAN    | 8.36 | ± 9.6   |
| 10529          | AAC | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc dc)                                                              | WLAN    | 8.36 | ± 9.6   |
| 10531          | AAC | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc dc)                                                              | WLAN    | 8.43 | ± 9.6   |
| 10532          | AAC | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc dc)                                                              | WLAN    | 8.29 | ± 9.6   |
| 10533          |     | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc dc)                                                              | WLAN    | 8.38 | ± 9.6   |
| 10534          | AAC | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc dc)                                                              | WLAN    | 8.45 | ± 9.6   |
| 10535          | AAC | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc dc)                                                              | WLAN    | 8.45 | ± 9.6   |
| 10536          | AAC | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc dc)                                                              | WLAN    | 8.32 | ± 9.6   |
| 10537          | AAC | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc dc)                                                              | WLAN    | 8.44 | ± 9.6   |
| 10538          | AAC | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc dc)                                                              | WLAN    | 8.54 | ± 9.6   |
| 10540          | AAC | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc dc)                                                              | WLAN    | 8.39 | ± 9.6   |
| 10541          | AAC | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc dc)                                                              | WLAN    | 8.46 | ± 9.6   |
| 10542          |     | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc dc)                                                              | WLAN    | 8.65 | ± 9.6   |
| 10543          | AAC | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc dc)                                                              | WLAN    | 8.65 | ± 9.6   |
| 10544<br>10545 | AAC | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc dc)                                                              | WLAN    | 8.47 | ± 9.6   |
|                | AAC | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc dc)                                                              | WLAN    | 8.55 | ± 9.6   |

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| 10547 | AAC | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc dc)               | WLAN | 8.49 | ± 9.6 %                                 |
|-------|-----|---------------------------------------------------------|------|------|-----------------------------------------|
| 10548 | AAC | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc dc)               | WLAN | 8.37 | ± 9.6 %                                 |
| 10550 | AAC | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc dc)               | WLAN | 8.39 | ± 9.6 %                                 |
| 10551 | AAC | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc dc)               | WLAN | 8.50 | ± 9.6 %                                 |
| 10552 | AAC | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc dc)               | WLAN | 8.42 | ± 9.6 %                                 |
| 10553 | AAC | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc dc)               | WLAN | 8.45 | ± 9.6 %                                 |
| 10554 | AAD | IEEE 802.11ac WiFi (160MHz, MCS0, 99pc dc)              | WLAN | 8.48 | ± 9.6 %                                 |
| 10555 | AAD | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc dc)              | WLAN | 8.47 | ± 9.6 %                                 |
| 10556 | AAD | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc dc)              | WLAN | 8.50 | ± 9.6 %                                 |
| 10557 | AAD | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc dc)              | WLAN | 8.52 | ± 9.6 %                                 |
|       | AAD | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc dc)              | WLAN | 8.61 | ± 9.6 %                                 |
| 10558 |     | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc dc)              | WLAN | 8.73 | ± 9.6 %                                 |
| 10560 | AAD | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc dc)              | WLAN | 8.56 | ± 9.6 %                                 |
| 10561 | AAD | IEEE 802.11ac WiF1 (160MHz, MCS8, 99pc dc)              | WLAN | 8.69 | ± 9.6 %                                 |
| 10562 | AAD |                                                         | WLAN | 8.77 | ± 9.6 %                                 |
| 10563 | AAD | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc dc)              |      | 8.25 | ± 9.6 %                                 |
| 10564 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc dc)  | WLAN |      | 7,0000000000000000000000000000000000000 |
| 10565 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc dc) | WLAN | 8.45 | ± 9.6 %                                 |
| 10566 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc dc) | WLAN | 8.13 | ± 9.6 %                                 |
| 10567 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc dc) | WLAN | 8.00 | ± 9.6 %                                 |
| 10568 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc dc) | WLAN | 8.37 | ± 9.6 %                                 |
| 10569 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc dc) | WLAN | 8.10 | ± 9.6 %                                 |
| 10570 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc dc) | WLAN | 8.30 | ± 9.6 %                                 |
| 10571 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc dc)       | WLAN | 1.99 | ± 9.6 %                                 |
| 10572 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc dc)       | WLAN | 1.99 | ± 9.6 %                                 |
| 10573 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc dc)     | WLAN | 1.98 | ± 9.6 %                                 |
| 10574 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc dc)      | WLAN | 1.98 | ± 9.6 %                                 |
| 10575 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc dc)  | WLAN | 8.59 | ± 9.6 %                                 |
| 10576 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc dc)  | WLAN | 8.60 | ± 9.6 %                                 |
| 10577 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc dc) | WLAN | 8.70 | ± 9.6 %                                 |
| 10578 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc dc) | WLAN | 8.49 | ± 9.6 %                                 |
| 10579 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc dc) | WLAN | 8.36 | ± 9.6 %                                 |
| 10580 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc dc) | WLAN | 8.76 | ± 9.6 %                                 |
| 10581 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc dc) | WLAN | 8.35 | ± 9.6 %                                 |
| 10582 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc dc) | WLAN | 8.67 | ± 9.6 %                                 |
| 10583 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc dc)       | WLAN | 8.59 | ± 9.6 %                                 |
| 10584 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc dc)       | WLAN | 8.60 | ± 9.6 %                                 |
| 10585 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc dc)      | WLAN | 8.70 | ± 9.6 %                                 |
| 10586 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc dc)      | WLAN | 8.49 | ± 9.6 %                                 |
| 10587 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc dc)      | WLAN | 8.36 | ± 9.6 %                                 |
| 10588 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc dc)      | WLAN | 8.76 | ± 9.6 %                                 |
| 10589 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc dc)      | WLAN | 8.35 | ± 9.6 %                                 |
| 10590 | AAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc dc)      | WLAN | 8.67 | ± 9.6 %                                 |
| 10591 | AAC | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc dc)           | WLAN | 8.63 | ± 9.6 %                                 |
| 10592 | AAC | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc dc)           | WLAN | 8.79 | ± 9.6 %                                 |
| 10593 | AAC | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc dc)           | WLAN | 8.64 | ± 9.6 %                                 |
| 10594 | AAC | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc dc)           | WLAN | 8.74 | ± 9.6 %                                 |
| 10595 | AAC | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc dc)           | WLAN | 8.74 | ± 9.6 %                                 |
| 10596 | AAC | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc dc)           | WLAN | 8.71 | ± 9.6 %                                 |
| 10597 | AAC | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc dc)           | WLAN | 8.72 | ± 9.6 %                                 |
| 10598 | AAC | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc dc)           | WLAN | 8.50 | ± 9.6 %                                 |
| 10599 | AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc dc)           | WLAN | 8.79 | ± 9.6 %                                 |
| 10600 | AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc dc)           | WLAN | 8.88 | ± 9.6 %                                 |
| 10601 | AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc dc)           | WLAN | 8.82 | ± 9.6 %                                 |
| 10602 | AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc dc)           | WLAN | 8.94 | ± 9.6 %                                 |
| 10603 | AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc dc)           | WLAN | 9.03 | ± 9.6 %                                 |
| 10604 | AAC | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc dc)           | WLAN | 8.76 | ± 9.6 %                                 |

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| 10605 | ۸۸۵      | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc dc)     | WLAN      | 8.97  | ± 9.6 %                                 |
|-------|----------|---------------------------------------------------|-----------|-------|-----------------------------------------|
| 10605 | AAC      | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc dc)     | WLAN      | 8.82  | ± 9.6 %                                 |
| 10606 |          | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc dc)         | WLAN      | 8.64  | ± 9.6 %                                 |
| 10607 | AAC      | IEEE 802.11ac WiF1 (20MHz, MCS1, 90pc dc)         | WLAN      | 8.77  | ± 9.6 %                                 |
| 10608 | AAC      | IEEE 802.11ac WiF1 (20MHz, MCS2, 90pc dc)         | WLAN      | 8.57  | ± 9.6 %                                 |
| 10609 | AAC      | IEEE 802.11ac WiF1 (20MHz, MCS3, 90pc dc)         | WLAN      | 8.78  | ± 9.6 %                                 |
| 10610 | AAC      |                                                   | WLAN      | 8.70  | ± 9.6 %                                 |
| 10611 | AAC      | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc dc)         | WLAN      | 8.77  | ± 9.6 %                                 |
| 10612 | AAC      | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc dc)         | WLAN      | 8.94  | ± 9.6 %                                 |
| 10613 | AAC      | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc dc)         | WLAN      | 8.59  | ± 9.6 %                                 |
| 10614 | AAC      | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc dc)         |           | 8.82  | ± 9.6 %                                 |
| 10615 | AAC      | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc dc)         | WLAN      |       | ± 9.6 %                                 |
| 10616 | AAC      | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc dc)         | WLAN      | 8.82  | 100 100 100 100 100 100 100 100 100 100 |
| 10617 | AAC      | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc dc)         | WLAN      | 8.81  | ± 9.6 %                                 |
| 10618 | AAC      | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc dc)         | WLAN      | 8.58  | ± 9.6 %                                 |
| 10619 | AAC      | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc dc)         | WLAN      | 8.86  | ± 9.6 %                                 |
| 10620 | AAC      | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc dc)         | WLAN      | 8.87  | ± 9.6 %                                 |
| 10621 | AAC      | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc dc)         | WLAN      | 8.77  | ± 9.6 %                                 |
| 10622 | AAC      | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc dc)         | WLAN      | 8.68  | ± 9.6 %                                 |
| 10623 | AAC      | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc dc)         | WLAN      | 8.82  | ± 9.6 %                                 |
| 10624 | AAC      | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc dc)         | WLAN      | 8.96  | ± 9.6 %                                 |
| 10625 | AAC      | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc dc)         | WLAN      | 8.96  | ± 9.6 %                                 |
| 10626 | AAC      | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc dc)         | WLAN      | 8.83  | ± 9.6 %                                 |
| 10627 | AAC      | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc dc)         | WLAN      | 8.88  | ± 9.6 %                                 |
| 10628 | AAC      | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc dc)         | WLAN      | 8.71  | ± 9.6 %                                 |
| 10629 | AAC      | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc dc)         | WLAN      | 8.85  | ± 9.6 %                                 |
| 10630 | AAC      | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc dc)         | WLAN      | 8.72  | ± 9.6 %                                 |
| 10631 | AAC      | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc dc)         | WLAN      | 8.81  | ± 9.6 %                                 |
| 10632 | AAC      | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc dc)         | WLAN      | 8.74  | ± 9.6 %                                 |
| 10633 | AAC      | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc dc)         | WLAN      | 8.83  | ± 9.6 %                                 |
| 10634 | AAC      | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc dc)         | WLAN      | 8.80  | ± 9.6 %                                 |
| 10635 | AAC      | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc dc)         | WLAN      | 8.81  | ± 9.6 %                                 |
| 10636 | AAD      | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc dc)        | WLAN      | 8.83  | ± 9.6 %                                 |
| 10637 | AAD      | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc dc)        | WLAN      | 8.79  | ± 9.6 %                                 |
| 10638 | AAD      | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc dc)        | WLAN      | 8.86  | ± 9.6 %                                 |
| 10639 | AAD      | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc dc)        | WLAN      | 8.85  | ± 9.6 %                                 |
| 10640 | AAD      | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc dc)        | WLAN      | 8.98  | ± 9.6 %                                 |
| 10641 | AAD      | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc dc)        | WLAN      | 9.06  | ± 9.6 %                                 |
| 10642 | AAD      | IEEE 802.11ac WiFi (160MHz, MCS6, 90pc dc)        | WLAN      | 9.06  | ± 9.6 %                                 |
| 10643 | AAD      | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc dc)        | WLAN      | 8.89  | ± 9.6 %                                 |
| 10644 | AAD      | IEEE 802.11ac WiFi (160MHz, MCS8, 90pc dc)        | WLAN      | 9.05  | ± 9.6 %                                 |
| 10645 | AAD      | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc dc)        | WLAN      | 9.11  | ± 9.6 %                                 |
| 10646 | _        | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub=2,7)  | LTE-TDD   | 11.96 | ± 9.6 %                                 |
| 10647 | AAF      | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub=2,7) | LTE-TDD   | 11.96 | ± 9.6 %                                 |
| 10648 | 1        | CDMA2000 (1x Advanced)                            | CDMA2000  | 3.45  | ± 9.6 %                                 |
| 10652 | _        | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)    | LTE-TDD   | 6.91  | ± 9.6 %                                 |
| 10653 |          | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)   | LTE-TDD   | 7.42  | ± 9.6 %                                 |
| 10654 |          | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)   | LTE-TDD   | 6.96  | ± 9.6 %                                 |
| 10655 |          | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)   | LTE-TDD   | 7.21  | ± 9.6 %                                 |
| 10658 | AAA      | Pulse Waveform (200Hz, 10%)                       | Test      | 10.00 | ± 9.6 %                                 |
| 10659 | AAA      | Pulse Waveform (200Hz, 20%)                       | Test      | 6.99  | ± 9.6 %                                 |
| 10660 | AAA      | Pulse Waveform (200Hz, 40%)                       | Test      | 3.98  | ± 9.6 %                                 |
| 10661 | AAA      | Pulse Waveform (200Hz, 60%)                       | Test      | 2.22  | ± 9.6 %                                 |
| 10662 | 10.00000 | Pulse Waveform (200Hz, 80%)                       | Test      | 0.97  | ± 9.6 %                                 |
| 10670 |          | Bluetooth Low Energy                              | Bluetooth | 2.19  | ± 9.6 %                                 |
| 10671 | AAC      | IEEE 802.11ax (20MHz, MCS0, 90pc dc)              | WLAN      | 9.09  | ± 9.6 %                                 |
| 10672 |          | IEEE 802.11ax (20MHz, MCS1, 90pc dc)              | WLAN      | 8.57  | ± 9.6 %                                 |
| 10072 | AAC      | TELE OUE. I Tax (LOTHI IL, MICOT, SOPE GO)        | AAFVIA    | 0.57  | 1 3.0 /0                                |

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