



Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM _{x,y,z}
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices- Part 1: Device used next to the ear (Frequency range of 300MHz to 6GHz)", July 2016
- IEC 62209-2, "Procedure to measure the Specific Absorption Rate (SAR) For wireless communication devices used in close proximity to the human body (frequency range of 30MHz to 6GHz)", March 2010
- KDB865664, SAR Measurement Requirements for 100 MHz to 6 GHz

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:** These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:** One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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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Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	52.10.1.1476
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	5250 MHz ± 1 MHz 5600 MHz ± 1 MHz 5750 MHz ± 1 MHz	

Head TSL parameters at 5250 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.9	4.71 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.9 ± 6 %	4.82 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL at 5250 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.69 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	77.0 mW / g ± 24.4 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	Condition	
SAR measured	100 mW input power	2.20 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	22.0 mW / g ± 24.2 % (k=2)



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Head TSL parameters at 5600 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.5	5.07 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.1 ± 6 %	5.18 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL at 5600 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.09 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	80.8 mW / g ± 24.4 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	Condition	
SAR measured	100 mW input power	2.32 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	23.2 mW / g ± 24.2 % (k=2)

Head TSL parameters at 5750 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.4	5.22 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	34.9 ± 6 %	5.37 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL at 5750 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.70 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	76.9 mW / g ± 24.4 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	Condition	
SAR measured	100 mW input power	2.17 mW / g
SAR for nominal Head TSL parameters	normalized to 1W	21.6 mW / g ± 24.2 % (k=2)



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Body TSL parameters at 5250 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.9	5.36 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	48.4 ± 6 %	5.32 mho/m ± 6 %
Body TSL temperature change during test	<1.0 °C	----	----

SAR result with Body TSL at 5250 MHz

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.46 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	74.4 mW / g ± 24.4 % (k=2)
SAR averaged over 10 cm³ (10 g) of Body TSL	Condition	
SAR measured	100 mW input power	2.10 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	20.9 mW / g ± 24.2 % (k=2)

Body TSL parameters at 5600 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.5	5.77 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	47.7 ± 6 %	5.79 mho/m ± 6 %
Body TSL temperature change during test	<1.0 °C	----	----

SAR result with Body TSL at 5600 MHz

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.73 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	77.1 mW / g ± 24.4 % (k=2)
SAR averaged over 10 cm³ (10 g) of Body TSL	Condition	
SAR measured	100 mW input power	2.16 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	21.5 mW / g ± 24.2 % (k=2)



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Body TSL parameters at 5750 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.3	5.94 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	48.5 ± 6 %	5.93 mho/m ± 6 %
Body TSL temperature change during test	<1.0 °C	----	----

SAR result with Body TSL at 5750 MHz

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.43 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	74.3 mW /g ± 24.4 % (k=2)
SAR averaged over 10 cm³ (10 g) of Body TSL	Condition	
SAR measured	100 mW input power	2.08 mW / g
SAR for nominal Body TSL parameters	normalized to 1W	20.8 mW /g ± 24.2 % (k=2)



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Appendix (Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL at 5250 MHz

Impedance, transformed to feed point	50.3Ω - 9.42jΩ
Return Loss	- 20.6dB

Antenna Parameters with Head TSL at 5600 MHz

Impedance, transformed to feed point	58.1Ω - 7.15jΩ
Return Loss	- 20.0dB

Antenna Parameters with Head TSL at 5750 MHz

Impedance, transformed to feed point	53.5Ω - 7.66jΩ
Return Loss	- 21.8dB

Antenna Parameters with Body TSL at 5250 MHz

Impedance, transformed to feed point	49.5Ω - 7.40jΩ
Return Loss	- 22.6dB

Antenna Parameters with Body TSL at 5600 MHz

Impedance, transformed to feed point	58.0Ω - 6.37jΩ
Return Loss	- 20.5dB

Antenna Parameters with Body TSL at 5750 MHz

Impedance, transformed to feed point	54.5Ω - 7.07jΩ
Return Loss	- 21.9dB



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General Antenna Parameters and Design

Electrical Delay (one direction)	1.065 ns
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After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard. No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

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DASY5 Validation Report for Head TSL

Date: 07.27.2018

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 5GHz; Type: D5GHzV2; Serial: D5GHzV2 - SN: 1167

Communication System: CW; Frequency: 5250 MHz, Frequency: 5600 MHz,
Frequency: 5750 MHz,

Medium parameters used: $f = 5250$ MHz; $\sigma = 4.822$ S/m; $\epsilon_r = 35.92$; $\rho = 1000$ kg/m³,
Medium parameters used: $f = 5600$ MHz; $\sigma = 5.184$ S/m; $\epsilon_r = 35.14$; $\rho = 1000$ kg/m³,
Medium parameters used: $f = 5750$ MHz; $\sigma = 5.365$ S/m; $\epsilon_r = 34.88$; $\rho = 1000$ kg/m³,

Phantom section: Center Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7464; ConvF(5.68, 5.68, 5.68) @ 5250 MHz; Calibrated: 9/12/2017, ConvF(4.98, 4.98, 4.98) @ 5600 MHz; Calibrated: 9/12/2017, ConvF(5.04, 5.04, 5.04) @ 5750 MHz; Calibrated: 9/12/2017,
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1524; Calibrated: 9/13/2017
- Phantom: MFP_V5.1C ; Type: QD 000 P51CA; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

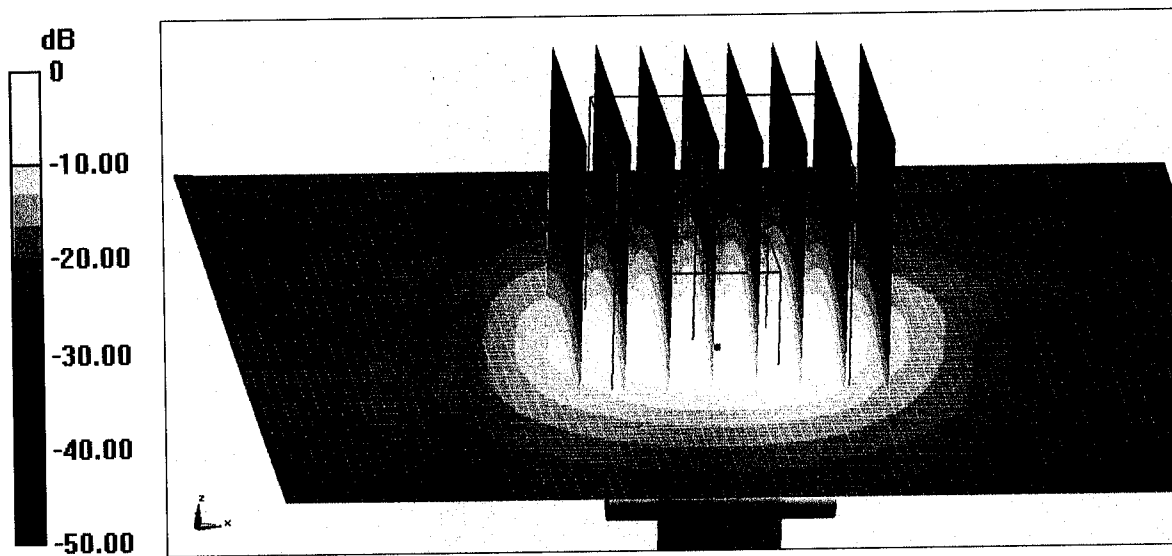
Dipole Calibration /Pin=100mW, d=10mm, f=5250 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 65.09 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 32.4 W/kg
SAR(1 g) = 7.69 W/kg; SAR(10 g) = 2.2 W/kg
Maximum value of SAR (measured) = 18.0 W/kg

Dipole Calibration /Pin=100mW, d=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 63.53 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 36.2 W/kg
SAR(1 g) = 8.09 W/kg; SAR(10 g) = 2.32 W/kg
Maximum value of SAR (measured) = 19.7 W/kg

Dipole Calibration /Pin=100mW, d=10mm, f=5750 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 63.79 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 36.2 W/kg
SAR(1 g) = 7.7 W/kg; SAR(10 g) = 2.17 W/kg
Maximum value of SAR (measured) = 19.0 W/kg



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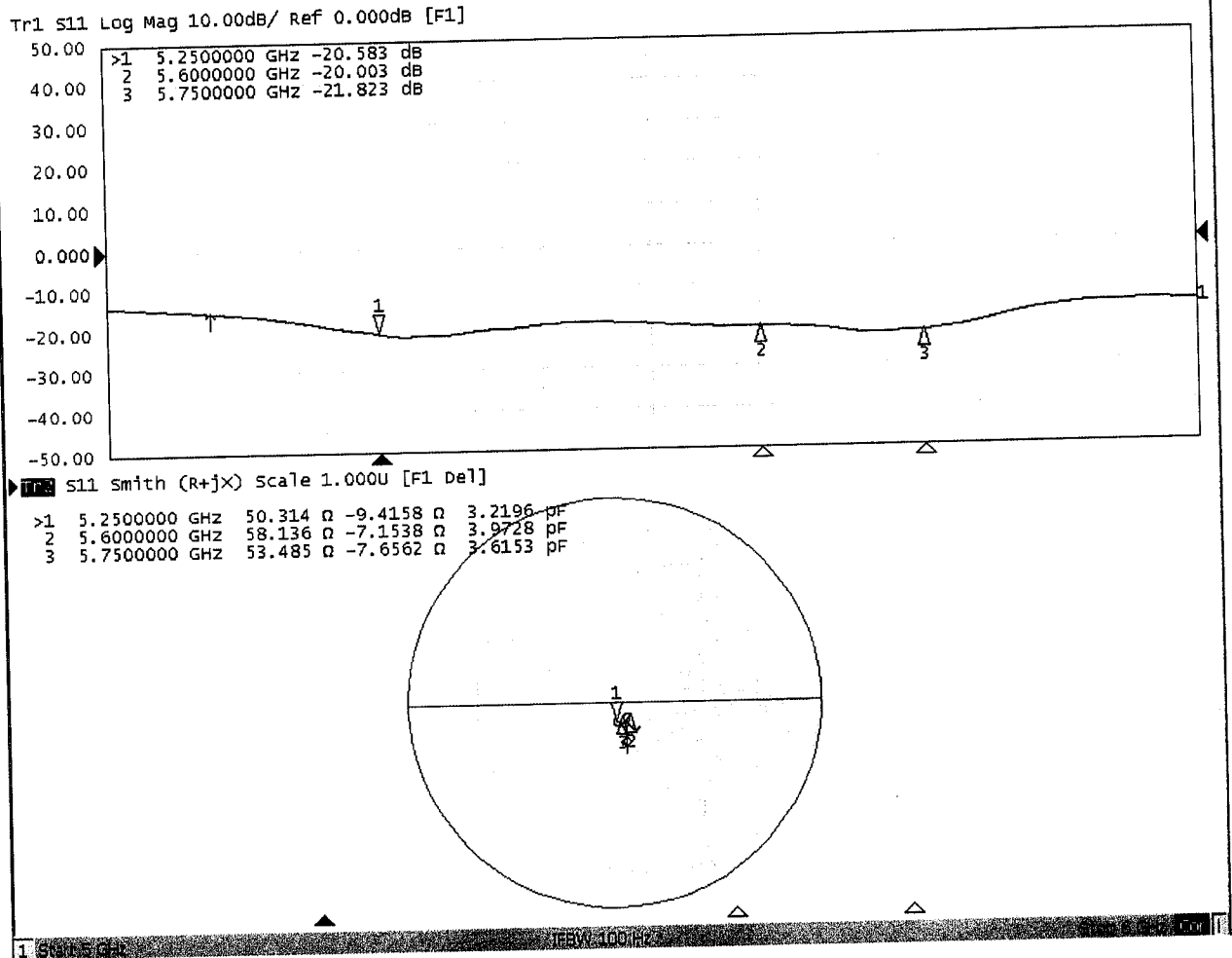


0 dB = 19.0 W/kg = 12.79 dBW/kg



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Impedance Measurement Plot for Head TSL





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DASY5 Validation Report for Body TSL

Date: 08.02.2018

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 5GHz; Type: D5GHzV2; Serial: D5GHzV2 - SN: 1167

Communication System: CW; Frequency: 5250 MHz, Frequency: 5600 MHz,
Frequency: 5750 MHz,

Medium parameters used: $f = 5250$ MHz; $\sigma = 5.316$ S/m; $\epsilon_r = 48.42$; $\rho = 1000$ kg/m³,
Medium parameters used: $f = 5600$ MHz; $\sigma = 5.789$ S/m; $\epsilon_r = 47.7$; $\rho = 1000$ kg/m³,
Medium parameters used: $f = 5750$ MHz; $\sigma = 5.926$ S/m; $\epsilon_r = 48.45$; $\rho = 1000$ kg/m³,

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7464; ConvF(5.29, 5.29, 5.29) @ 5250 MHz; Calibrated: 9/12/2017, ConvF(4.5, 4.5, 4.5) @ 5600 MHz; Calibrated: 9/12/2017, ConvF(4.59, 4.59, 4.59) @ 5750 MHz; Calibrated: 9/12/2017,
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1524; Calibrated: 9/13/2017
- Phantom: MFP_V5.1C ; Type: QD 000 P51CA; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

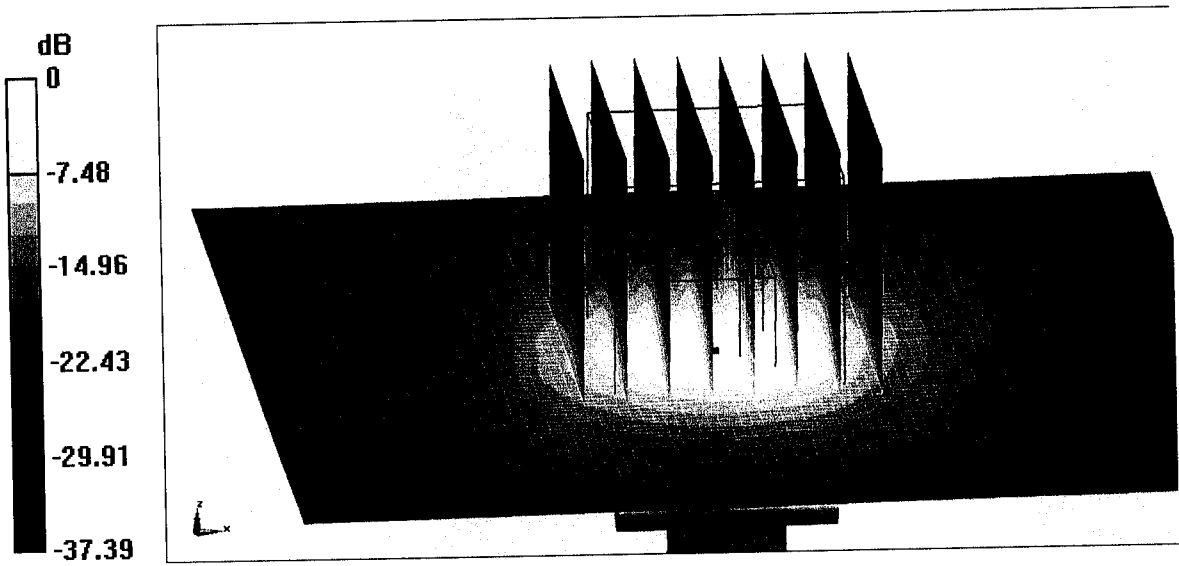
Dipole Calibration /Pin=100mW, d=10mm, f=5250 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 64.14 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 31.9 W/kg
SAR(1 g) = 7.46 W/kg; SAR(10 g) = 2.1 W/kg
Maximum value of SAR (measured) = 17.6 W/kg

Dipole Calibration /Pin=100mW, d=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 62.32 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 36.3 W/kg
SAR(1 g) = 7.73 W/kg; SAR(10 g) = 2.16 W/kg
Maximum value of SAR (measured) = 19.1 W/kg

Dipole Calibration /Pin=100mW, d=10mm, f=5750 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 63.99 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 35.2 W/kg
SAR(1 g) = 7.43 W/kg; SAR(10 g) = 2.08 W/kg
Maximum value of SAR (measured) = 18.0 W/kg



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0 dB = 18.0 W/kg = 12.55 dBW/kg

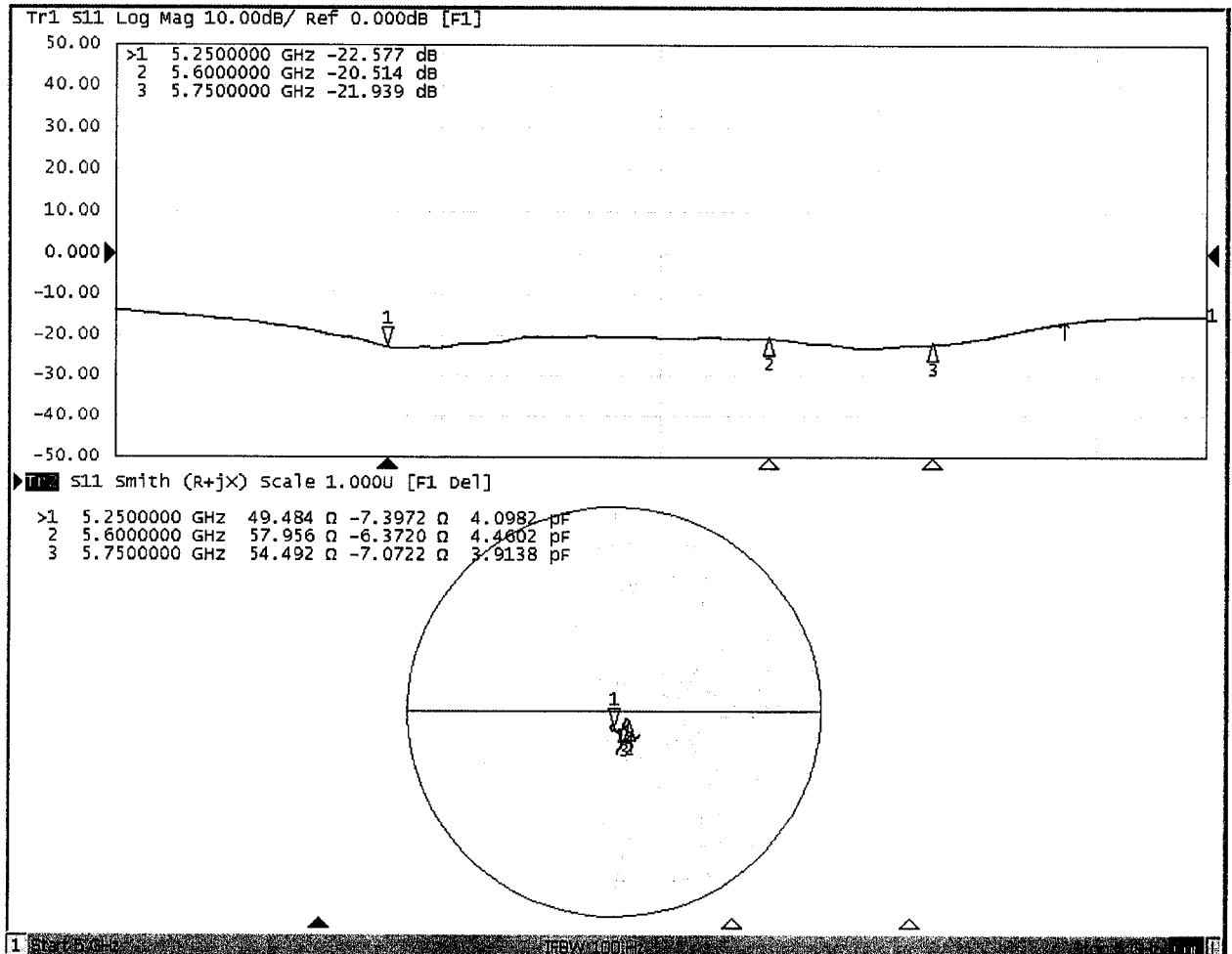


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Impedance Measurement Plot for Body TSL





D5GHzV3, Serial No. 1167 Extended Dipole Calibrations

Referring to KDB 865664 D01 v01r02, if dipoles are verified in return loss ($< -20\text{dB}$, within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

5250MHz

D5GHzV3 – serial no. 1167												
	5250 Head						5250 Body					
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2018.08.03	-20.6		50.3		-9.42		-22.6		49.5		-7.40	
2019.10.30	-20.3	1.5	50.9	0.6	-9.72	-0.3	-22.4	0.9	48.2	-1.3	-7.25	0.15
2020.10.30	-20.7	-0.05	50.19	-0.11	-9.09	0.33	-23.1	-2.2	50.2	0.7	-7.03	0.37

5600MHz

D5GHzV3 – serial no. 1167												
	5600 Head						5600 Body					
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2018.08.03	-20.0		58.1		-7.15		-20.5		58.0		-6.37	
2019.10.30	-20.1	-0.5	57.4	-0.7	-7.63	-0.48	-20.4	0.5	57.7	-0.3	-6.87	-0.5
2020.10.30	-19.99	0.05	58.2	0.1	-7.13	0.02	-20.1	1.95	58.9	0.9	-5.96	0.41

5750MHz

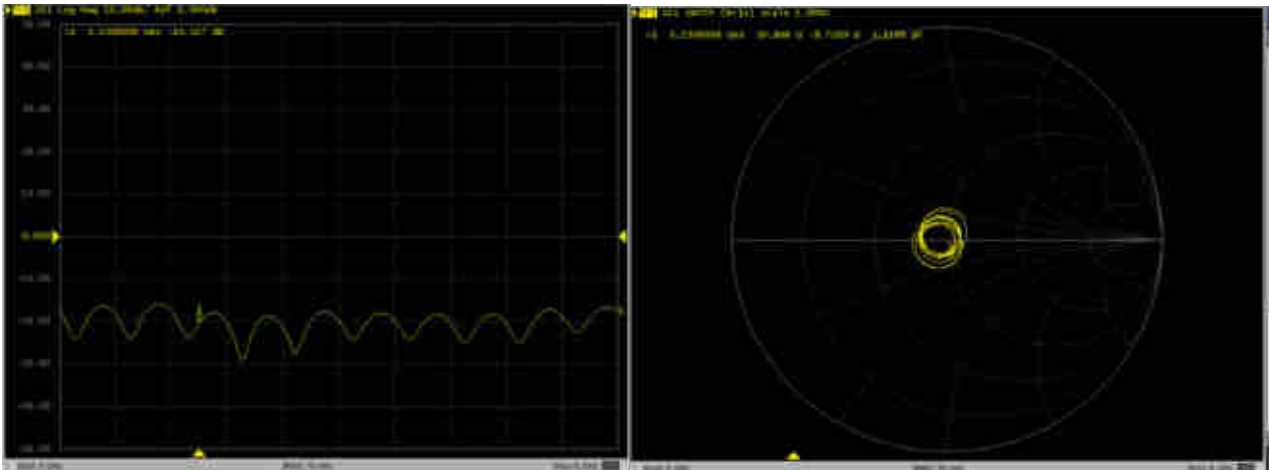
D5GHzV3 – serial no. 1167												
	5750 Head						5750 Body					
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2018.08.03	-21.8		53.5		-7.66		-21.9		54.5		-7.07	
2019.10.30	-21.1	3.2	53.0	-0.5	-8.58	-0.92	-21.6	1.4	55.2	0.7	-7.04	0.03
2020.10.30	-21.9	0.05	53.2	-0.3	-7.35	0.31	-21.6	1.4	54.2	-0.3	-7.60	-0.53

<Justification of the extended calibration>

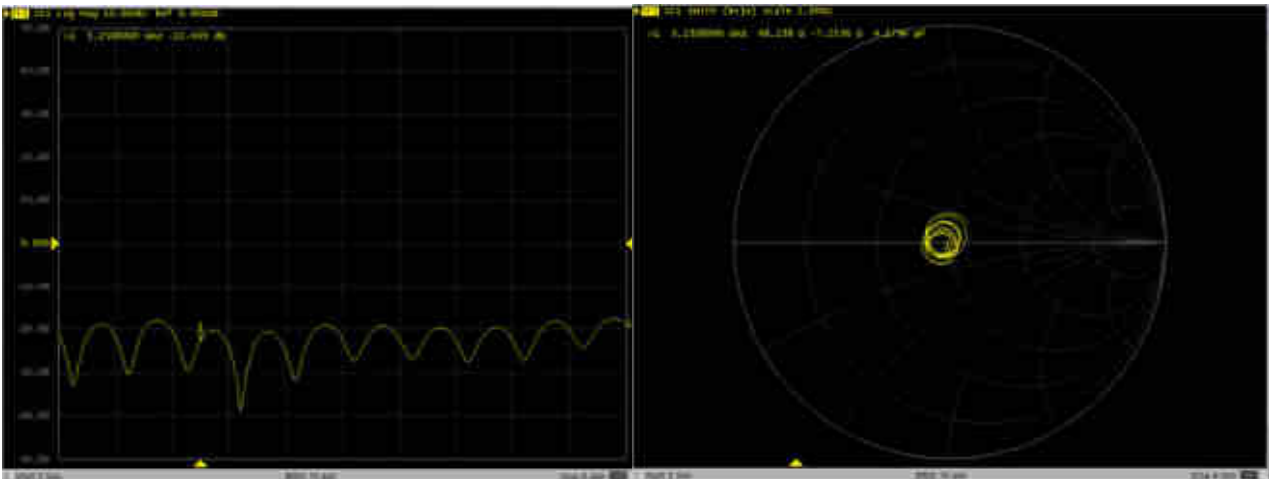
The return loss is $< -20\text{dB}$, within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

Dipole Verification Data> D5GHzV3, serial no. 1167

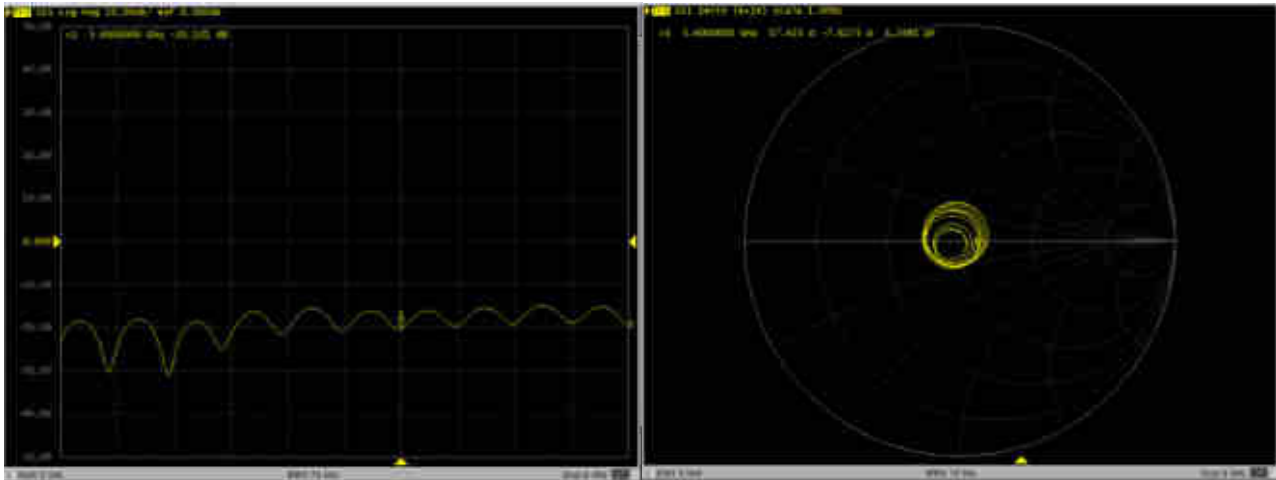
5250MHz – Head----2019.10.30



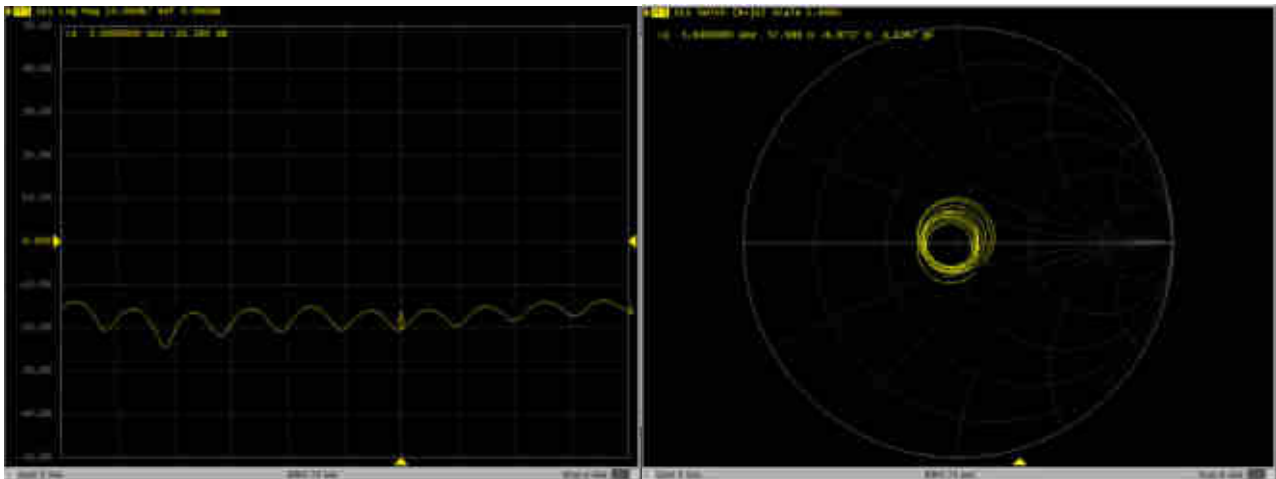
5250MHz – Body----2019.10.30



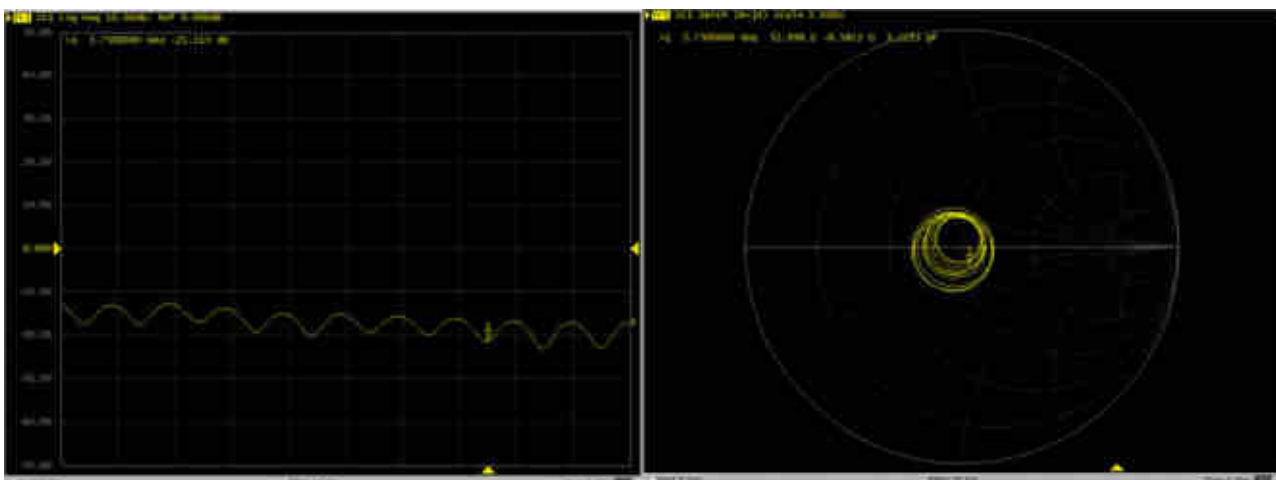
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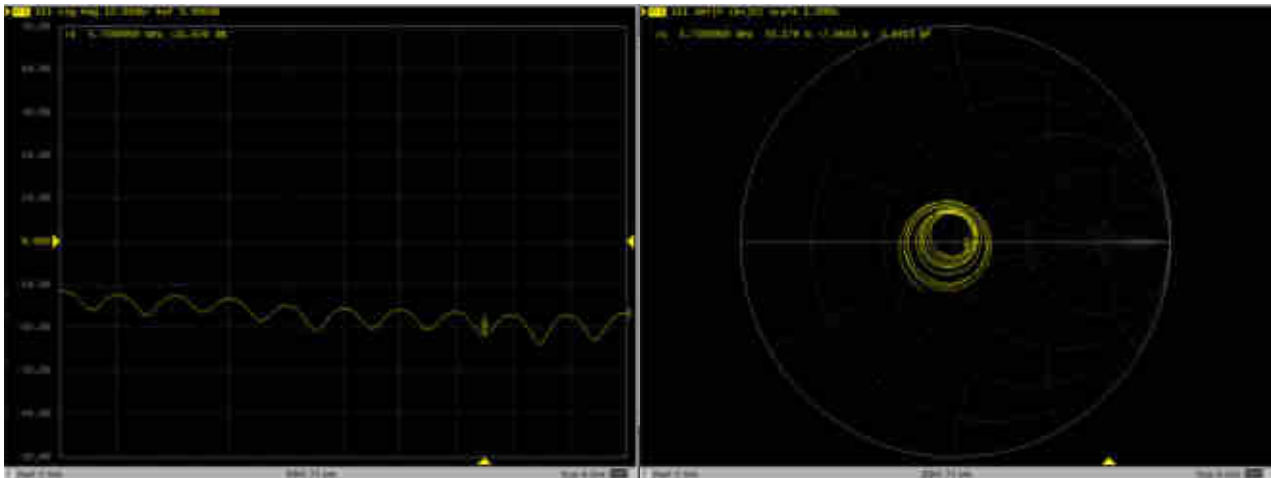
5600MHz – Body----2019.10.30



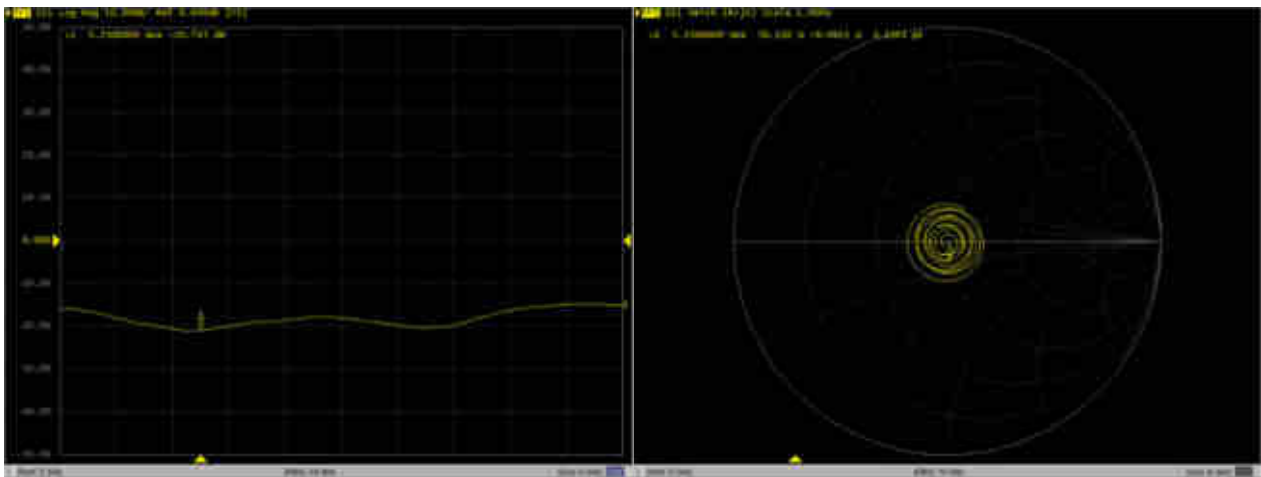
5750MHz – Head----2019.10.30



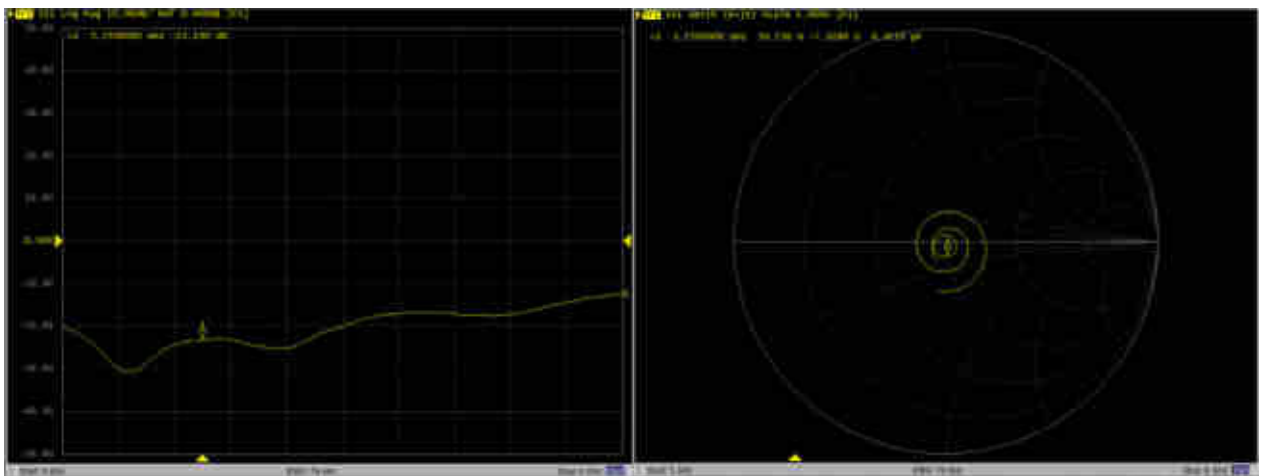
5750MHz – Body----2019.10.30



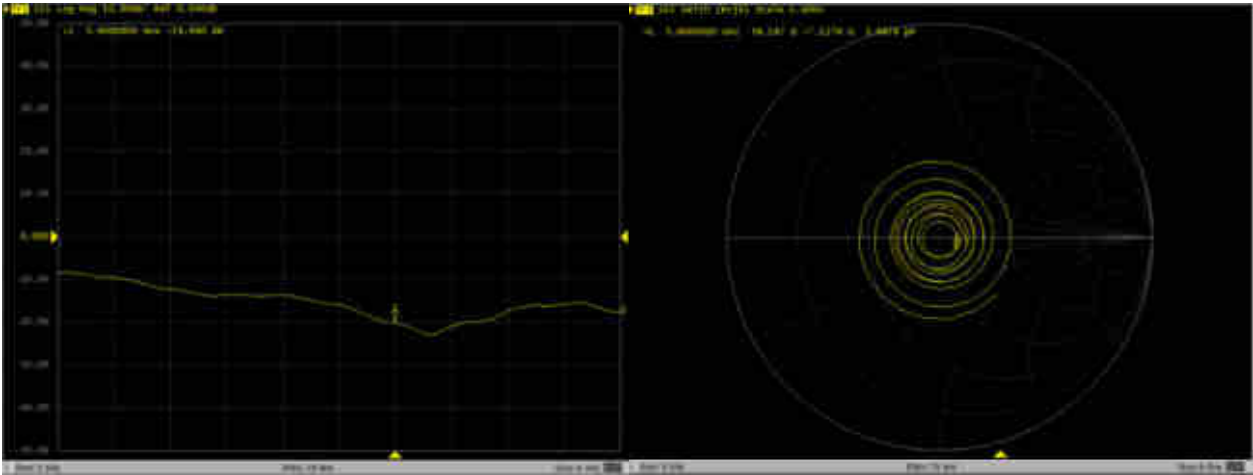
5250MHz – Head----2020.10.30



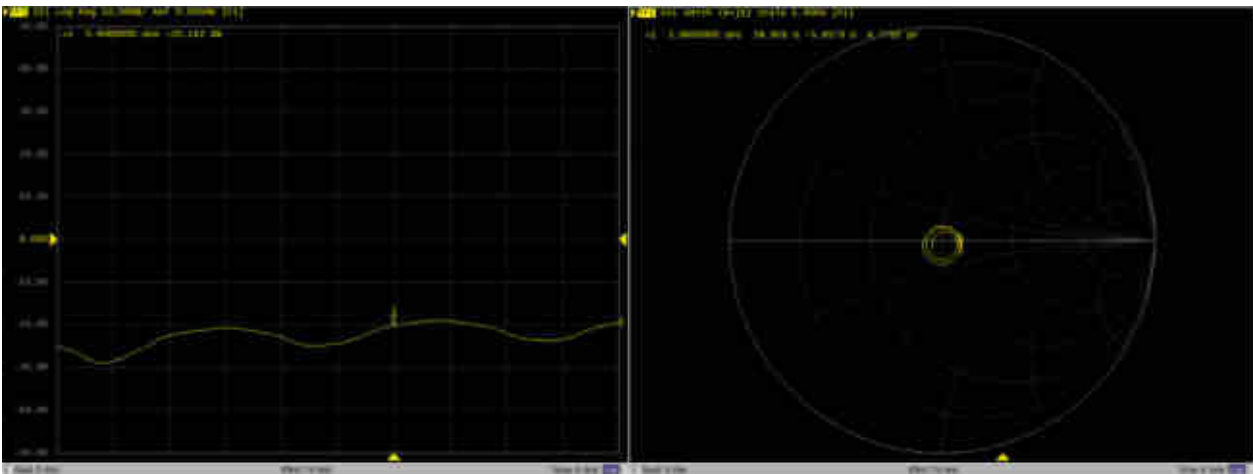
5250MHz – Body----2020.10.30



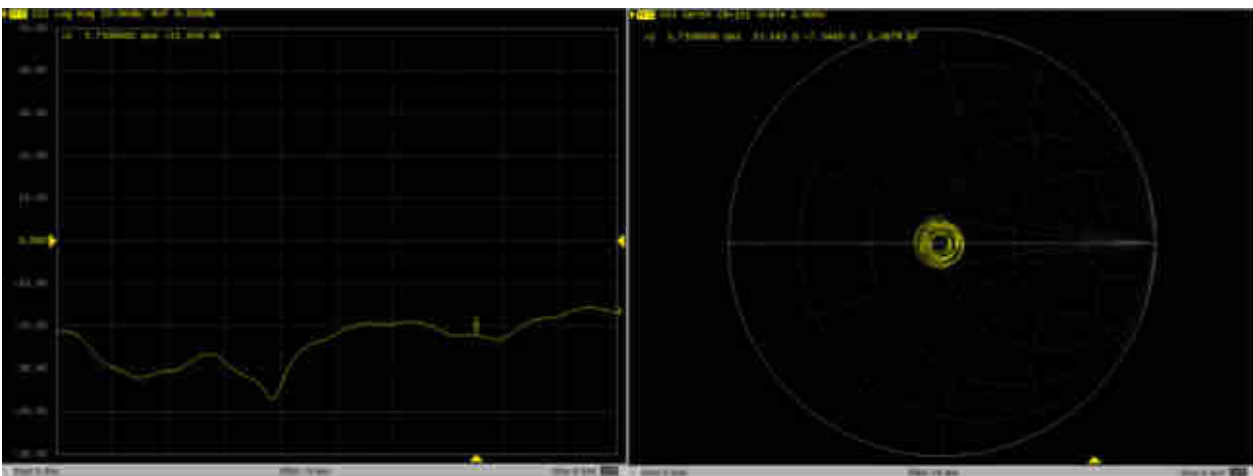
5600MHz – Head----2020.10.30



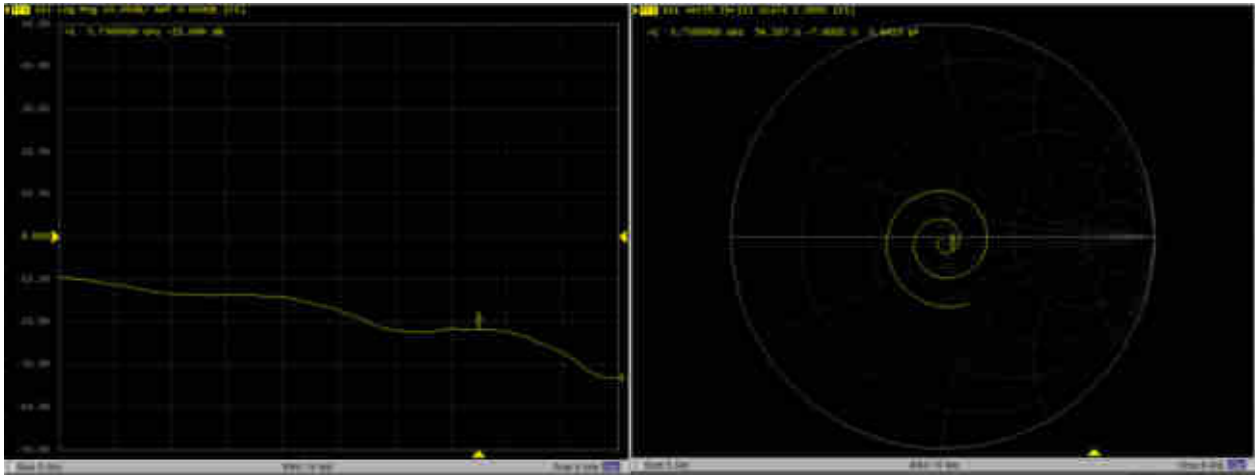
5600MHz – Body----2020.10.30



5750MHz – Head----2020.10.30



5750MHz – Body----2020.10.30





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Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China
 Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504
 E-mail: cttl@chinattl.com [Http://www.chinattl.cn](http://www.chinattl.cn)

Client : **Sporton**

Certificate No: **Z20-60271**

CALIBRATION CERTIFICATE

Object: **DAE4 - SN: 715**

Calibration Procedure(s): **FF-Z11-002-01**
 Calibration Procedure for the Data Acquisition Electronics (DAEx)

Calibration date: **July 27, 2020**

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(Calibrated by, Certificate No.)	Scheduled Calibration
Process Calibrator 753	1971018	16-Jun-20 (CTTL, No.J20X04342)	Jun-21

	Name	Function	Signature
Calibrated by:	Yu Zongying	SAR Test Engineer	
Reviewed by:	Lin Hao	SAR Test Engineer	
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: July 29, 2020

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In Collaboration with

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Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China

Tel: +86-10-62304633-2512 Fax: +86-10-62304633-2504

E-mail: ctl@chinatl.com [Http://www.chinatl.cn](http://www.chinatl.cn)

Glossary:

DAE data acquisition electronics
Connector angle information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters:

- *DC Voltage Measurement:* Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle:* The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The report provide only calibration results for DAE, it does not contain other performance test results.



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DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1 μ V, full range = -100...+300 mV

Low Range: 1LSB = 61nV, full range = -1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	405.113 \pm 0.15% (k=2)	404.657 \pm 0.15% (k=2)	404.478 \pm 0.15% (k=2)
Low Range	3.98921 \pm 0.7% (k=2)	3.97649 \pm 0.7% (k=2)	3.97576 \pm 0.7% (k=2)

Connector Angle

Connector Angle to be used in DASY system	330.5° \pm 1°
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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client **Sporton**

Certificate No: EX3-7577_Sep20

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:7577**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-14.v5, QA CAL-23.v5, QA CAL-25.v7
Calibration procedure for dosimetric E-field probes**

Calibration date **September 30, 2020**

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 $(22 \pm 3)^\circ\text{C}$ and humidity $< 70\%$.

Calibration Equipment used (M&E critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	01-Apr-20 (No. 217-03100/03101)	Apr-21
Power sensor NRP-Z91	SN: 103244	01-Apr-20 (No. 217-03100)	Apr-21
Power sensor NRP-Z91	SN: 103245	01-Apr-20 (No. 217-03101)	Apr-21
Reference 20 dB Attenuator	SN: CC2552 (20x)	31-Mar-20 (No. 217-03106)	Apr-21
DAE4	SN: 660	27-Dec-19 (No. DAE4-660_Dec19)	Dec-20
Reference Probe ES3DV2	SN: 3013	31-Dec-19 (No. ES3-3013_Dec19)	Dec-20
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-20)	In house check: Jun-22
RF generator HP 8648C	SN: US3642UD1700	04-Aug-99 (in house check Jun-20)	In house check: Jun-22
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-19)	In house check: Oct-20

Calibrated by:	Name Leif Klysner	Function Laboratory Technician	Signature
Approved by:	Name Katja Polovic	Function Technical Manager	

Issued: October 1, 2020

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Accreditation No.: SCS 0108

Glossary:

TSL	tissue simulating liquid
$NORM_{x,y,z}$	sensitivity in free space
$ConvF$	sensitivity in TSL / $NORM_{x,y,z}$
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization ϕ	ϕ rotation around probe axis
Polarization θ	θ rotation around an axis that is in the plane normal to probe-axis (at measurement center), i.e., $\theta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe-sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865864, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- $NORM_{x,y,z}$: Assessed for E-field polarization $\theta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). $NORM_{x,y,z}$ are only intermediate values, i.e., the uncertainties of $NORM_{x,y,z}$ does not affect the E^2 -field uncertainty inside TSL (see below $ConvF$).
- $NORM(f)_{x,y,z} = NORM_{x,y,z} * frequency_response$ (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of $ConvF$.
- $DCP_{x,y,z}$: 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
- $A_{x,y,z}$; $B_{x,y,z}$; $C_{x,y,z}$; $D_{x,y,z}$; $VR_{x,y,z}$; 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.
- $ConvF$ and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to $NORM_{x,y,z} * ConvF$ whereby the uncertainty corresponds to that given for $ConvF$. A frequency dependent $ConvF$ is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy): in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the $NORM_{x,y,z}$ (no uncertainty required).

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7577

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu\text{V}/(\text{V}/\text{m})^{\text{A}}$)	0.56	0.64	0.60	$\pm 10.1\%$
DCP (mV) ^B	100.3	99.6	100.2	

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Max dev.	Max Unc ^E (k=2)
0	CW	X	0.00	0.00	1.00	0.00	179.9	$\pm 3.5\%$	$\pm 4.7\%$
		Y	0.00	0.00	1.00		190.2		
		Z	0.00	0.00	1.00		187.4		
10352- AAA	Pulse Waveform (200Hz, 10%)	X	15.00	85.85	17.85	10.00	60.0	$\pm 3.3\%$	$\pm 9.6\%$
		Y	15.00	86.11	18.19		60.0		
		Z	15.00	86.79	18.62		60.0		
10353- AAA	Pulse Waveform (200Hz, 20%)	X	15.00	87.65	17.70	6.99	80.0	$\pm 2.1\%$	$\pm 9.6\%$
		Y	15.00	88.77	18.19		80.0		
		Z	15.00	89.85	19.02		80.0		
10354- AAA	Pulse Waveform (200Hz, 40%)	X	15.00	92.45	18.72	3.96	95.0	$\pm 1.0\%$	$\pm 9.6\%$
		Y	15.00	91.79	18.08		95.0		
		Z	15.00	96.85	21.09		95.0		
10355- AAA	Pulse Waveform (200Hz, 60%)	X	15.00	100.46	21.24	2.22	120.0	$\pm 1.1\%$	$\pm 9.6\%$
		Y	15.00	90.85	16.23		120.0		
		Z	15.00	108.65	25.24		120.0		
10387- AAA	QPSK Waveform, 1 MHz	X	0.61	61.31	8.06	0.00	150.0	$\pm 2.6\%$	$\pm 9.6\%$
		Y	0.51	60.00	6.74		150.0		
		Z	0.62	61.67	8.27		150.0		
10388- AAA	QPSK Waveform, 10 MHz	X	2.33	69.51	16.61	0.00	150.0	$\pm 1.2\%$	$\pm 9.6\%$
		Y	1.96	66.54	14.94		150.0		
		Z	2.39	70.09	16.90		150.0		
10396- AAA	64-QAM Waveform, 100 kHz	X	2.79	70.78	19.07	3.01	150.0	$\pm 1.1\%$	$\pm 9.6\%$
		Y	2.31	66.70	17.09		150.0		
		Z	2.98	71.91	19.51		150.0		
10399- AAA	64-QAM Waveform, 40 MHz	X	3.45	67.23	15.93	0.00	150.0	$\pm 2.0\%$	$\pm 9.6\%$
		Y	3.32	66.40	15.38		150.0		
		Z	3.47	67.48	16.06		150.0		
10414- AAA	WLAN CCDF, 64-QAM, 40MHz	X	4.71	65.62	15.58	0.00	150.0	$\pm 3.7\%$	$\pm 9.6\%$
		Y	4.64	65.21	15.32		150.0		
		Z	4.72	65.75	15.64		150.0		

Note: For details on UID parameters see Appendix

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%.

^A The uncertainties of Norm X,Y,Z do not affect the E²-field uncertainty inside TSL (see Page 5).

^B 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/EASY - Parameters of Probe: EX3DV4 - SN:7577

Sensor Model Parameters

	C1 fF	C2 fF	α V^{-1}	T1 $ms.V^{-2}$	T2 $ms.V^{-1}$	T3 ms	T4 V^{-2}	T5 V^{-1}	T6
X	37.3	275.86	35.01	9.44	0.00	5.05	1.02	0.18	1.01
Y	37.2	282.80	36.55	7.00	0.00	5.08	0.00	0.37	1.01
Z	37.3	273.69	34.51	9.73	0.00	5.07	1.16	0.19	1.01

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	-54.8
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7577

Calibration Parameter Determined in Head Tissue Simulating Media

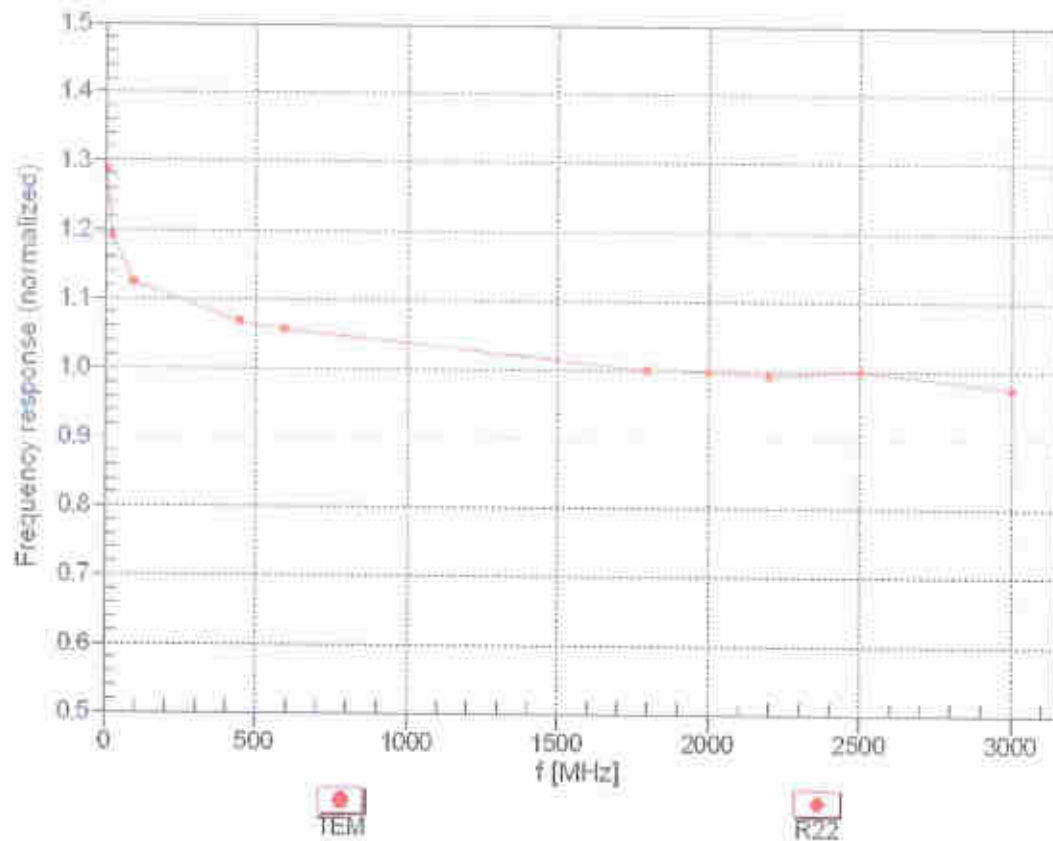
f (MHz) ^c	Relative Permittivity ^f	Conductivity (S/m) ^f	ConvF X	ConvF Y	ConvF Z	Alpha ^g	Depth (mm) ^g	Unc (k=2)
750	41.9	0.89	9.85	9.85	9.85	0.67	0.80	± 12.0 %
835	41.5	0.90	9.54	9.54	9.54	0.59	0.83	± 12.0 %
900	41.5	0.97	9.21	9.21	9.21	0.56	0.80	± 12.0 %
1750	40.1	1.37	8.62	8.62	8.62	0.40	0.86	± 12.0 %
1900	40.0	1.40	8.34	8.34	8.34	0.28	0.86	± 12.0 %
2000	40.0	1.40	8.24	8.24	8.24	0.37	0.86	± 12.0 %
2300	39.5	1.67	7.99	7.99	7.99	0.27	0.86	± 12.0 %
2450	39.2	1.80	7.95	7.95	7.95	0.39	0.90	± 12.0 %
2600	39.0	1.96	7.66	7.66	7.66	0.40	0.90	± 12.0 %
3300	38.2	2.71	6.96	6.96	6.96	0.30	1.35	± 14.0 %
3500	37.9	2.91	6.69	6.69	6.69	0.30	1.35	± 14.0 %
3700	37.7	3.12	6.52	6.52	6.52	0.30	1.35	± 14.0 %
3900	37.5	3.32	6.26	6.26	6.26	0.35	1.60	± 14.0 %
4100	37.2	3.53	5.94	5.94	5.94	0.35	1.60	± 14.0 %
5250	35.9	4.71	5.40	5.40	5.40	0.40	1.80	± 14.0 %
5600	35.5	5.07	4.79	4.79	4.79	0.40	1.80	± 14.0 %
5750	35.4	5.22	5.02	5.02	5.02	0.40	1.80	± 14.0 %

^c Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz.

^f At frequencies up to 6 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

^g Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



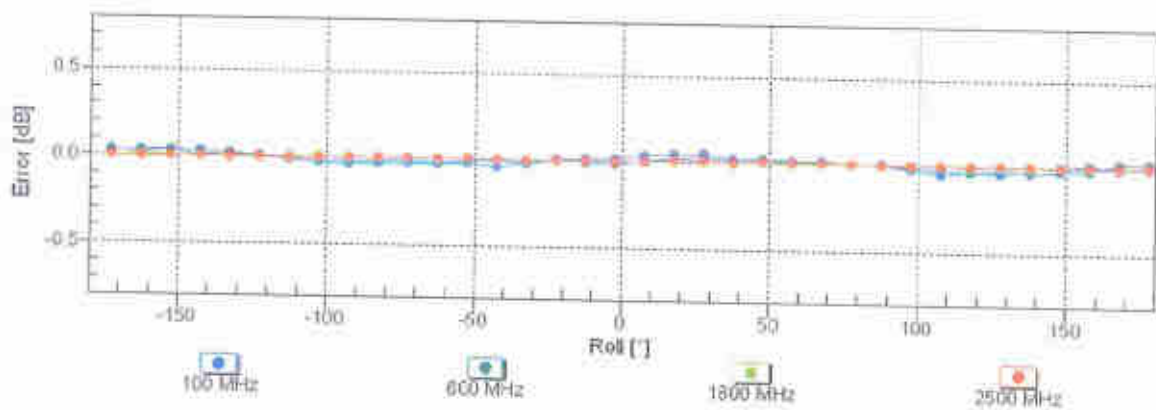
Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

Receiving Pattern (ϕ), $\theta = 0^\circ$

f=600 MHz,TEM

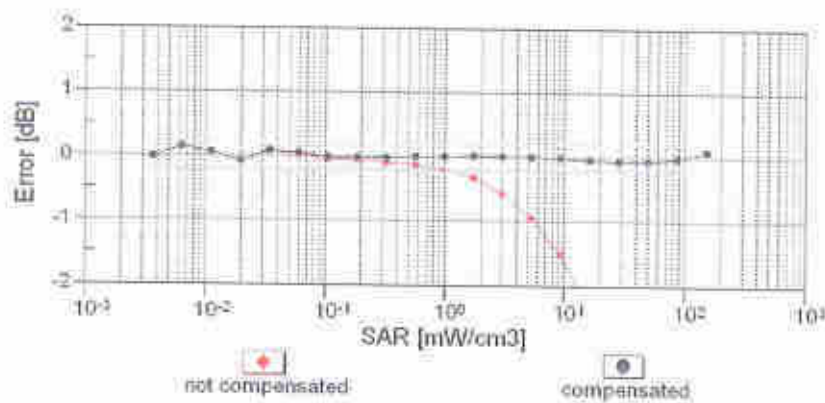
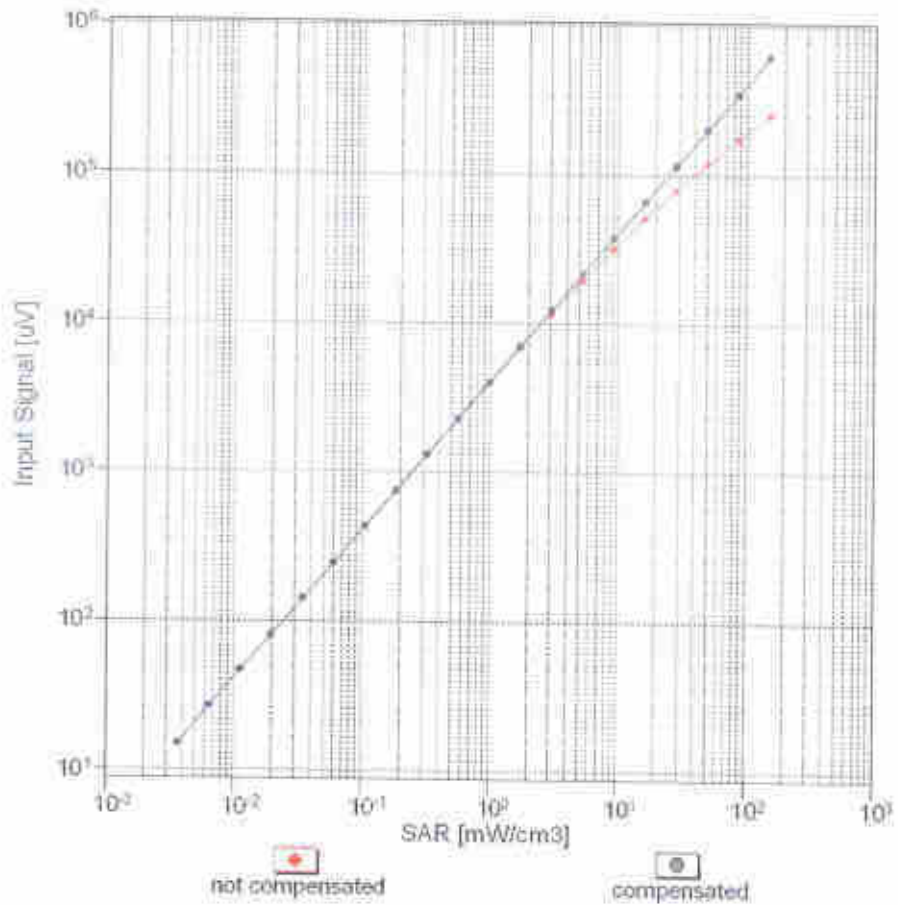


f=1800 MHz,R22



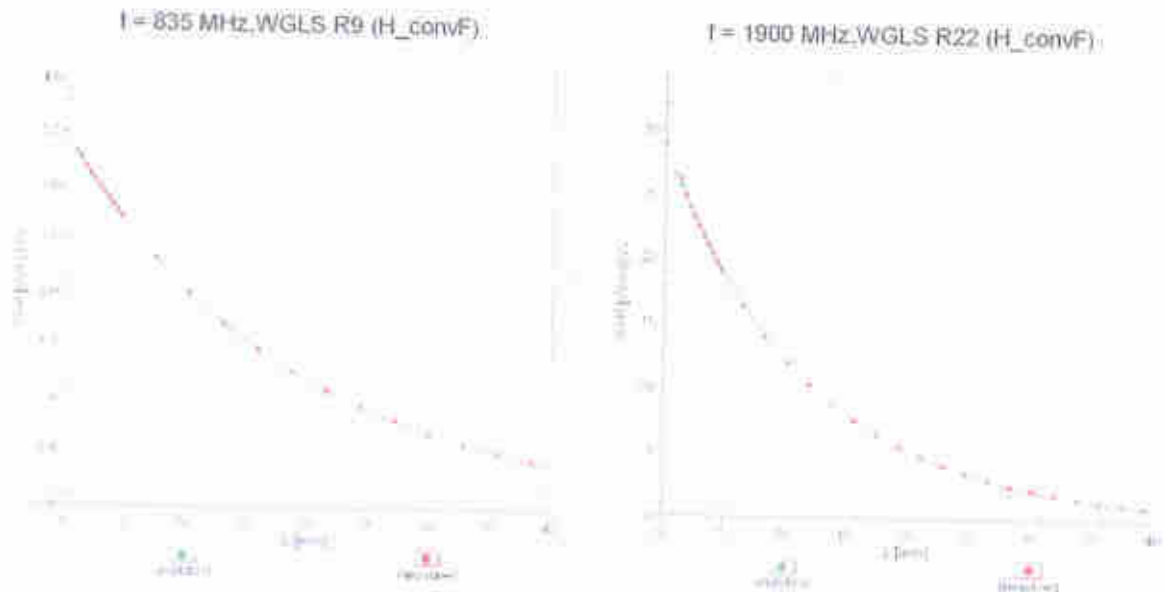
Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ ($k=2$)

Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell, $f_{\text{eval}} = 1900 \text{ MHz}$)

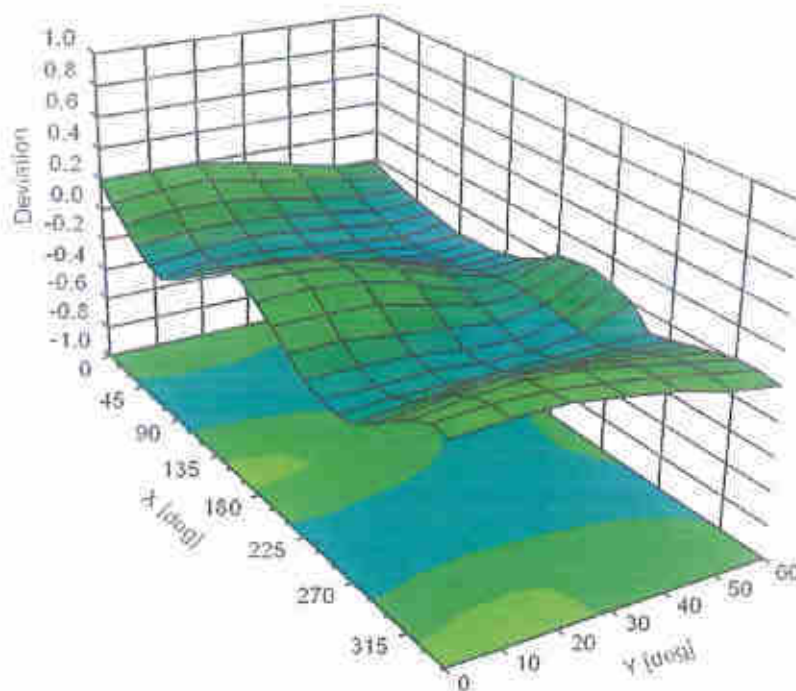


Uncertainty of Linearity Assessment: $\pm 0.6\%$ ($k=2$)

Conversion Factor Assessment



Deviation from Isotropy in Liquid Error (ϕ, θ), f = 900 MHz



Uncertainty of Spherical Isotropy Assessment: $\pm 2.6\%$ ($k=2$)

Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^F (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 %
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	6.58	± 9.6 %
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 %
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	± 9.6 %
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	± 9.6 %
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	± 9.6 %
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	± 9.6 %
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	± 9.6 %
10034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	± 9.6 %
10035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	± 9.6 %
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	± 9.6 %
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	± 9.6 %
10038	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	± 9.6 %
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	± 9.6 %
10042	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	7.78	± 9.6 %
10044	CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	± 9.6 %
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	± 9.6 %
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	± 9.6 %
10056	CAA	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 %
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 %
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	10.58	± 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	CAC	UMTS-FDD (HSDPA)	WCDMA	3.98	± 9.6 %
10098	DAC	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	± 9.6 %

10099	CAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	±9.6 %
10100	CAC	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	±9.6 %
10101	CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6 %
10102	CAB	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6 %
10103	DAC	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	±9.6 %
10104	CAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	±9.6 %
10105	CAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	±9.6 %
10108	CAE	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	CAG	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	±9.6 %
10115	CAG	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	±9.6 %
10116	CAG	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	±9.6 %
10117	CAG	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	CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	±9.6 %
10141	CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	±9.6 %
10142	CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6 %
10143	CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	±9.6 %
10144	CAC	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	±9.6 %
10145	CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	±9.6 %
10146	CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	±9.6 %
10147	CAC	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	±9.6 %
10149	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6 %
10150	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6 %
10151	CAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	±9.6 %
10152	CAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	9.92	±9.6 %
10153	CAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	±9.6 %
10154	CAF	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	±9.6 %
10155	CAF	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6 %
10156	CAF	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	±9.6 %
10157	CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	±9.6 %
10158	CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.62	±9.6 %
10159	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.56	±9.6 %
10160	CAG	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	5.82	±9.6 %
10161	CAG	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6.43	±9.6 %
10162	CAG	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	±9.6 %
10166	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	±9.6 %
10167	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	±9.6 %
10168	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	±9.6 %
10169	CAG	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	±9.6 %
10170	CAG	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	±9.6 %
10171	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	±9.6 %
10172	CAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	9.21	±9.6 %
10173	CAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.48	±9.6 %
10174	CAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	±9.6 %
10175	CAF	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	±9.6 %
10176	CAF	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	±9.6 %
10177	CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.73	±9.6 %
10178	CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.52	±9.6 %
10179	AAE	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	CAG	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10182	CAG	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10183	CAG	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10184	CAG	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10185	CAI	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	± 9.6 %
10186	CAG	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10187	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
10188	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	± 9.6 %
10189	CAE	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
10193	CAE	IEEE 802.11n (HT Greenfield, 8.5 Mbps, BPSK)	WLAN	8.09	± 9.6 %
10194	AAD	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	± 9.6 %
10195	CAE	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN	8.21	± 9.6 %
10196	CAE	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	WLAN	8.10	± 9.6 %
10197	AAE	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	WLAN	8.13	± 9.6 %
10198	CAF	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	± 9.6 %
10219	CAF	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8.03	± 9.6 %
10220	AAF	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	± 9.6 %
10221	CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	± 9.6 %
10222	CAC	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	CAD	UMTS-FDD (HSPA+)	WCDMA	5.97	± 9.6 %
10226	CAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.49	± 9.6 %
10227	CAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	± 9.6 %
10228	CAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	± 9.6 %
10229	DAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10230	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10231	CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.19	± 9.6 %
10232	CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10233	CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10234	CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10235	CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10236	CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10237	CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10238	CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10239	CAB	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10240	CAB	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	CAD	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	± 9.6 %
10243	CAD	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	CAG	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	± 9.6 %
10246	CAG	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	CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	± 9.6 %
10252	CAF	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	CAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	± 9.6 %
10255	CAB	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	CAD	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.08	± 9.6 %
10258	CAD	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	CAG	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.97	± 9.6 %
10261	CAG	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	CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	± 9.6 %
10267	CAF	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	CAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.13	± 9.6 %
10270	CAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.58	± 9.6 %
10274	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	WCDMA	4.87	± 9.6 %
10275	CAD	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	WCDMA	3.96	± 9.6 %
10277	CAD	PHS (QPSK)	PHS	11.81	± 9.6 %
10278	CAD	PHS (QPSK, BW 884MHz, Roll-off 0.5)	PHS	11.81	± 9.6 %
10279	CAG	PHS (QPSK, BW 884MHz, Roll-off 0.38)	PHS	12.18	± 9.6 %
10280	CAG	CDMA2000, RC1, SO55, Full Rate	CDMA2000	3.91	± 9.6 %
10291	CAG	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	± 9.6 %
10292	CAG	CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	± 9.6 %
10293	CAG	CDMA2000, RC3, SO3, Full Rate	CDMA2000	3.50	± 9.6 %
10295	CAG	CDMA2000, RC1, SO3, 1/8th Rate 25.1t	CDMA2000	12.49	± 9.6 %
10297	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-FDD	5.81	± 9.6 %
10298	CAF	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-FDD	5.72	± 9.6 %
10299	CAF	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.39	± 9.6 %
10300	CAC	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10301	CAC	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	WIMAX	12.03	± 9.6 %
10302	CAB	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3CTRL)	WIMAX	12.57	± 9.6 %
10303	CAB	IEEE 802.16e WIMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	WIMAX	12.52	± 9.6 %
10304	CAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	WIMAX	11.86	± 9.6 %
10305	CAA	IEEE 802.16e WIMAX (31:15, 10ms, 10MHz, 64QAM, PUSC)	WIMAX	15.24	± 9.6 %
10306	CAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 64QAM, PUSC)	WIMAX	14.67	± 9.6 %
10307	AAB	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, PUSC)	WIMAX	14.49	± 9.6 %
10308	AAB	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	WIMAX	14.46	± 9.6 %
10309	AAB	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3)	WIMAX	14.58	± 9.6 %
10310	AAB	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3)	WIMAX	14.57	± 9.6 %
10311	AAB	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.06	± 9.6 %
10313	AAD	IDEN 1:3	IDEN	10.51	± 9.6 %
10314	AAD	IDEN 1:6	IDEN	13.48	± 9.6 %
10315	AAD	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc dc)	WLAN	1.71	± 9.6 %
10316	AAD	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc dc)	WLAN	8.36	± 9.6 %
10317	AAA	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 99pc 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	AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc dc)	WLAN	8.37	± 9.6 %
10401	AAA	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc dc)	WLAN	8.60	± 9.6 %
10402	AAA	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	AAD	CDMA2000, RC3, SO32, SCH0, Full Rate	CDMA2000	5.22	± 9.6 %

10410	AAA	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL, Sub=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
10414	AAA	WLAN CCDF, 64-QAM, 40MHz	Generic	8.54	± 9.6 %
10416	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	AAA	IEEE 802.11a/n 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	AAA	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	± 9.6 %
10423	AAA	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	± 9.6 %
10424	AAE	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN	8.40	± 9.6 %
10425	AAE	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	± 9.6 %
10428	AAE	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	± 9.6 %
10427	AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	± 9.6 %
10430	AAB	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.28	± 9.6 %
10431	AAC	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38	± 9.6 %
10432	AAB	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10433	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	± 9.6 %
10434	AAG	W-CDMA (BS Test Model 1, 64 DPCH)	WCDMA	8.60	± 9.6 %
10435	AAA	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10447	AAA	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	± 9.6 %
10448	AAA	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.53	± 9.6 %
10448	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.51	± 9.6 %
10450	AAA	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	AAC	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	AAC	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	± 9.6 %
10458	AAC	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	± 9.6 %
10459	AAC	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	CDMA2000	8.25	± 9.6 %
10460	AAC	UMTS-FDD (WCDMA, AMR)	WCDMA	2.39	± 9.6 %
10461	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10462	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.30	± 9.6 %
10463	AAD	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.56	± 9.6 %
10464	AAD	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	AAA	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	AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Sub)	LTE-TDD	8.56	± 9.6 %
10470	AAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10471	AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10472	AAC	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10473	AAA	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.82	± 9.6 %
10474	AAC	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10475	AAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10477	AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDD	8.32	± 9.6 %
10478	AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.57	± 9.6 %
10479	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10480	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.18	± 9.6 %
10481	AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.45	± 9.6 %
10482	AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.71	± 9.6 %
10483	AAA	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, Sub)	LTE-TDD	8.39	± 9.6 %
10484	AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Sub)	LTE-TDD	8.47	± 9.6 %
10485	AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Sub)	LTE-TDD	7.59	± 9.6 %
10486	AAB	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Sub)	LTE-TDD	8.38	± 9.6 %
10487	AAC	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Sub)	LTE-TDD	8.60	± 9.6 %

10488	AAC	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.70	± 9.6 %
10489	AAC	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	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10492	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.41	± 9.6 %
10493	AAF	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	AAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	± 9.6 %
10497	AAE	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Sub)	LTE-TDD	7.67	± 9.6 %
10498	AAE	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Sub)	LTE-TDD	8.40	± 9.6 %
10499	AAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Sub)	LTE-TDD	8.68	± 9.6 %
10500	AAF	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Sub)	LTE-TDD	7.67	± 9.6 %
10501	AAF	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Sub)	LTE-TDD	8.44	± 9.6 %
10502	AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Sub)	LTE-TDD	8.52	± 9.6 %
10503	AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Sub)	LTE-TDD	7.72	± 9.6 %
10504	AAB	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Sub)	LTE-TDD	8.31	± 9.6 %
10505	AAC	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Sub)	LTE-TDD	8.54	± 9.6 %
10506	AAC	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Sub)	LTE-TDD	7.74	± 9.6 %
10507	AAC	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	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Sub)	LTE-TDD	7.99	± 9.6 %
10510	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Sub)	LTE-TDD	8.49	± 9.6 %
10511	AAF	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 %
10513	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Sub)	LTE-TDD	8.42	± 9.6 %
10514	AAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Sub)	LTE-TDD	8.45	± 9.6 %
10515	AAE	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc dc)	WLAN	1.58	± 9.6 %
10516	AAE	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc dc)	WLAN	1.57	± 9.6 %
10517	AAF	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc dc)	WLAN	1.58	± 9.6 %
10518	AAF	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc dc)	WLAN	8.23	± 9.6 %
10519	AAF	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc dc)	WLAN	8.39	± 9.6 %
10520	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc dc)	WLAN	8.12	± 9.6 %
10521	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc dc)	WLAN	7.97	± 9.6 %
10522	AAB	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	AAF	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc dc)	WLAN	8.42	± 9.6 %
10527	AAF	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc dc)	WLAN	8.21	± 9.6 %
10528	AAF	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc dc)	WLAN	8.36	± 9.6 %
10529	AAF	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc dc)	WLAN	8.36	± 9.6 %
10531	AAF	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc dc)	WLAN	8.43	± 9.6 %
10532	AAF	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc dc)	WLAN	8.29	± 9.6 %
10533	AAE	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc dc)	WLAN	8.38	± 9.6 %
10534	AAE	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc dc)	WLAN	8.45	± 9.6 %
10535	AAE	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc dc)	WLAN	8.45	± 9.6 %
10536	AAF	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc dc)	WLAN	8.32	± 9.6 %
10537	AAF	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc dc)	WLAN	8.44	± 9.6 %
10538	AAF	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc dc)	WLAN	8.54	± 9.6 %
10540	AAA	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc dc)	WLAN	8.39	± 9.6 %
10541	AAA	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc dc)	WLAN	8.46	± 9.6 %
10542	AAA	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	AAC	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc dc)	WLAN	8.47	± 9.6 %
10545	AAC	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc dc)	WLAN	8.55	± 9.6 %

10546	AAC	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc dc)	WLAN	8.35	± 9.6 %
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	8.38	± 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	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc dc)	WLAN	8.48	± 9.6 %
10555	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc dc)	WLAN	8.47	± 9.6 %
10556	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc dc)	WLAN	8.50	± 9.6 %
10557	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc dc)	WLAN	8.52	± 9.6 %
10558	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc dc)	WLAN	8.61	± 9.6 %
10560	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc dc)	WLAN	8.73	± 9.6 %
10561	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc dc)	WLAN	8.56	± 9.6 %
10562	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc dc)	WLAN	8.69	± 9.6 %
10563	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc dc)	WLAN	8.77	± 9.6 %
10564	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc dc)	WLAN	8.25	± 9.6 %
10565	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc dc)	WLAN	8.45	± 9.6 %
10566	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc dc)	WLAN	8.13	± 9.6 %
10567	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc dc)	WLAN	8.00	± 9.6 %
10568	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc dc)	WLAN	8.37	± 9.6 %
10569	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc dc)	WLAN	8.10	± 9.6 %
10570	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc dc)	WLAN	8.30	± 9.6 %
10571	AAC	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc dc)	WLAN	1.99	± 9.6 %
10572	AAC	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc dc)	WLAN	1.99	± 9.6 %
10573	AAC	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc dc)	WLAN	1.98	± 9.6 %
10574	AAC	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc dc)	WLAN	1.98	± 9.6 %
10575	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc dc)	WLAN	8.59	± 9.6 %
10576	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc dc)	WLAN	8.60	± 9.6 %
10577	AAC	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc dc)	WLAN	8.70	± 9.6 %
10578	AAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc dc)	WLAN	8.49	± 9.6 %
10579	AAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc dc)	WLAN	8.36	± 9.6 %
10580	AAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc dc)	WLAN	8.76	± 9.6 %
10581	AAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc dc)	WLAN	8.35	± 9.6 %
10582	AAD	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc dc)	WLAN	8.67	± 9.6 %
10583	AAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc dc)	WLAN	8.59	± 9.6 %
10584	AAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc dc)	WLAN	8.60	± 9.6 %
10585	AAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc dc)	WLAN	8.70	± 9.6 %
10586	AAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc dc)	WLAN	8.49	± 9.6 %
10587	AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc dc)	WLAN	8.36	± 9.6 %
10588	AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc dc)	WLAN	8.76	± 9.6 %
10589	AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc dc)	WLAN	8.35	± 9.6 %
10590	AAA	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc dc)	WLAN	8.67	± 9.6 %
10591	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc dc)	WLAN	8.63	± 9.6 %
10592	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc dc)	WLAN	8.79	± 9.6 %
10593	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc dc)	WLAN	8.64	± 9.6 %
10594	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc dc)	WLAN	8.74	± 9.6 %
10595	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc dc)	WLAN	8.74	± 9.6 %
10596	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc dc)	WLAN	8.71	± 9.6 %
10597	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc dc)	WLAN	8.72	± 9.6 %
10598	AAA	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc dc)	WLAN	8.50	± 9.6 %
10599	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc dc)	WLAN	8.79	± 9.6 %
10600	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc dc)	WLAN	8.88	± 9.6 %
10601	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc dc)	WLAN	8.82	± 9.6 %
10602	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc dc)	WLAN	8.94	± 9.6 %
10603	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc dc)	WLAN	9.03	± 9.6 %

10604	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc dc)	WLAN	8.76	± 9.6 %
10605	AAA	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc dc)	WLAN	8.97	± 9.6 %
10606	AAC	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc dc)	WLAN	8.82	± 9.6 %
10607	AAC	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc dc)	WLAN	8.64	± 9.6 %
10608	AAC	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc dc)	WLAN	8.77	± 9.6 %
10609	AAC	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc dc)	WLAN	8.57	± 9.6 %
10610	AAC	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc dc)	WLAN	8.78	± 9.6 %
10611	AAC	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc dc)	WLAN	8.70	± 9.6 %
10612	AAC	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc dc)	WLAN	8.77	± 9.6 %
10613	AAC	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc dc)	WLAN	8.94	± 9.6 %
10614	AAC	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc dc)	WLAN	8.59	± 9.6 %
10615	AAC	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc dc)	WLAN	8.82	± 9.6 %
10616	AAC	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc dc)	WLAN	8.82	± 9.6 %
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	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc dc)	WLAN	8.83	± 9.6 %
10637	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc dc)	WLAN	8.79	± 9.6 %
10638	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc dc)	WLAN	8.86	± 9.6 %
10639	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc dc)	WLAN	8.85	± 9.6 %
10640	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc dc)	WLAN	8.98	± 9.6 %
10641	AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc dc)	WLAN	9.06	± 9.6 %
10642	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc dc)	WLAN	9.06	± 9.6 %
10643	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc dc)	WLAN	8.89	± 9.6 %
10644	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc dc)	WLAN	9.05	± 9.6 %
10645	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc dc)	WLAN	9.11	± 9.6 %
10646	AAC	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Sub=2,7)	LTE-TDD	11.96	± 9.6 %
10647	AAC	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Sub=2,7)	LTE-TDD	11.96	± 9.6 %
10648	AAC	CDMA2000 (1x Advanced)	CDMA2000	3.45	± 9.6 %
10652	AAC	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	± 9.6 %
10653	AAC	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	± 9.6 %
10654	AAC	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	± 9.6 %
10655	AAC	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	± 9.6 %
10658	AAC	Pulse Waveform (200Hz, 10%)	Test	10.00	± 9.6 %
10659	AAC	Pulse Waveform (200Hz, 20%)	Test	6.99	± 9.6 %
10660	AAC	Pulse Waveform (200Hz, 40%)	Test	3.98	± 9.6 %
10661	AAC	Pulse Waveform (200Hz, 60%)	Test	2.22	± 9.6 %
10662	AAC	Pulse Waveform (200Hz, 80%)	Test	0.97	± 9.6 %
10670	AAC	Bluetooth Low Energy	Bluetooth	2.19	± 9.6 %
10671	AAD	IEEE 802.11ax (20MHz, MCS0, 90pc dc)	WLAN	9.09	± 9.6 %

10672	AAD	IEEE 802.11ax (20MHz, MCS1, 90pc dc)	WLAN	8.57	± 9.6 %
10673	AAD	IEEE 802.11ax (20MHz, MCS2, 90pc dc)	WLAN	8.78	± 9.6 %
10674	AAD	IEEE 802.11ax (20MHz, MCS3, 90pc dc)	WLAN	8.74	± 9.6 %
10675	AAD	IEEE 802.11ax (20MHz, MCS4, 90pc dc)	WLAN	8.90	± 9.6 %
10676	AAD	IEEE 802.11ax (20MHz, MCS5, 90pc dc)	WLAN	8.77	± 9.6 %
10677	AAD	IEEE 802.11ax (20MHz, MCS6, 90pc dc)	WLAN	8.73	± 9.6 %
10678	AAD	IEEE 802.11ax (20MHz, MCS7, 90pc dc)	WLAN	8.78	± 9.6 %
10679	AAD	IEEE 802.11ax (20MHz, MCS8, 90pc dc)	WLAN	8.89	± 9.6 %
10680	AAD	IEEE 802.11ax (20MHz, MCS9, 90pc dc)	WLAN	8.80	± 9.6 %
10681	AAG	IEEE 802.11ax (20MHz, MCS10, 90pc dc)	WLAN	8.62	± 9.6 %
10682	AAF	IEEE 802.11ax (20MHz, MCS11, 90pc dc)	WLAN	8.83	± 9.6 %
10683	AAA	IEEE 802.11ax (20MHz, MCS0, 99pc dc)	WLAN	8.42	± 9.6 %
10684	AAC	IEEE 802.11ax (20MHz, MCS1, 99pc dc)	WLAN	8.26	± 9.6 %
10685	AAC	IEEE 802.11ax (20MHz, MCS2, 99pc dc)	WLAN	8.33	± 9.6 %
10686	AAC	IEEE 802.11ax (20MHz, MCS3, 99pc dc)	WLAN	8.28	± 9.6 %
10687	AAE	IEEE 802.11ax (20MHz, MCS4, 99pc dc)	WLAN	8.45	± 9.6 %
10688	AAE	IEEE 802.11ax (20MHz, MCS5, 99pc dc)	WLAN	8.29	± 9.6 %
10689	AAD	IEEE 802.11ax (20MHz, MCS6, 99pc dc)	WLAN	8.55	± 9.6 %
10690	AAE	IEEE 802.11ax (20MHz, MCS7, 99pc dc)	WLAN	8.29	± 9.6 %
10691	AAB	IEEE 802.11ax (20MHz, MCS8, 99pc dc)	WLAN	8.25	± 9.6 %
10692	AAA	IEEE 802.11ax (20MHz, MCS9, 99pc dc)	WLAN	8.29	± 9.6 %
10693	AAA	IEEE 802.11ax (20MHz, MCS10, 99pc dc)	WLAN	8.25	± 9.6 %
10694	AAA	IEEE 802.11ax (20MHz, MCS11, 99pc dc)	WLAN	8.57	± 9.6 %
10695	AAA	IEEE 802.11ax (40MHz, MCS0, 90pc dc)	WLAN	8.78	± 9.6 %
10696	AAA	IEEE 802.11ax (40MHz, MCS1, 90pc dc)	WLAN	8.91	± 9.6 %
10697	AAA	IEEE 802.11ax (40MHz, MCS2, 90pc dc)	WLAN	8.61	± 9.6 %
10698	AAA	IEEE 802.11ax (40MHz, MCS3, 90pc dc)	WLAN	8.89	± 9.6 %
10699	AAA	IEEE 802.11ax (40MHz, MCS4, 90pc dc)	WLAN	8.82	± 9.6 %
10700	AAA	IEEE 802.11ax (40MHz, MCS5, 90pc dc)	WLAN	8.73	± 9.6 %
10701	AAA	IEEE 802.11ax (40MHz, MCS6, 90pc dc)	WLAN	8.88	± 9.6 %
10702	AAA	IEEE 802.11ax (40MHz, MCS7, 90pc dc)	WLAN	8.70	± 9.6 %
10703	AAA	IEEE 802.11ax (40MHz, MCS8, 90pc dc)	WLAN	8.82	± 9.6 %
10704	AAA	IEEE 802.11ax (40MHz, MCS9, 90pc dc)	WLAN	8.56	± 9.6 %
10705	AAA	IEEE 802.11ax (40MHz, MCS10, 90pc dc)	WLAN	8.69	± 9.6 %
10706	AAC	IEEE 802.11ax (40MHz, MCS11, 90pc dc)	WLAN	8.66	± 9.6 %
10707	AAC	IEEE 802.11ax (40MHz, MCS0, 99pc dc)	WLAN	8.32	± 9.6 %
10708	AAC	IEEE 802.11ax (40MHz, MCS1, 99pc dc)	WLAN	8.55	± 9.6 %
10709	AAC	IEEE 802.11ax (40MHz, MCS2, 99pc dc)	WLAN	8.33	± 9.6 %
10710	AAC	IEEE 802.11ax (40MHz, MCS3, 99pc dc)	WLAN	8.29	± 9.6 %
10711	AAC	IEEE 802.11ax (40MHz, MCS4, 99pc dc)	WLAN	8.39	± 9.6 %
10712	AAC	IEEE 802.11ax (40MHz, MCS5, 99pc dc)	WLAN	8.87	± 9.6 %
10713	AAC	IEEE 802.11ax (40MHz, MCS6, 99pc dc)	WLAN	8.33	± 9.6 %
10714	AAC	IEEE 802.11ax (40MHz, MCS7, 99pc dc)	WLAN	8.26	± 9.6 %
10715	AAC	IEEE 802.11ax (40MHz, MCS8, 99pc dc)	WLAN	8.45	± 9.6 %
10716	AAC	IEEE 802.11ax (40MHz, MCS9, 99pc dc)	WLAN	8.30	± 9.6 %
10717	AAC	IEEE 802.11ax (40MHz, MCS10, 99pc dc)	WLAN	8.48	± 9.6 %
10718	AAC	IEEE 802.11ax (40MHz, MCS11, 99pc dc)	WLAN	8.24	± 9.6 %
10719	AAC	IEEE 802.11ax (80MHz, MCS0, 90pc dc)	WLAN	8.81	± 9.6 %
10720	AAC	IEEE 802.11ax (80MHz, MCS1, 90pc dc)	WLAN	8.87	± 9.6 %
10721	AAC	IEEE 802.11ax (80MHz, MCS2, 90pc dc)	WLAN	8.76	± 9.6 %
10722	AAC	IEEE 802.11ax (80MHz, MCS3, 90pc dc)	WLAN	8.55	± 9.6 %
10723	AAC	IEEE 802.11ax (80MHz, MCS4, 90pc dc)	WLAN	8.70	± 9.6 %
10724	AAC	IEEE 802.11ax (80MHz, MCS5, 90pc dc)	WLAN	8.90	± 9.6 %
10725	AAC	IEEE 802.11ax (80MHz, MCS6, 90pc dc)	WLAN	8.74	± 9.6 %
10726	AAC	IEEE 802.11ax (80MHz, MCS7, 90pc dc)	WLAN	8.72	± 9.6 %
10727	AAC	IEEE 802.11ax (80MHz, MCS8, 90pc dc)	WLAN	8.66	± 9.6 %

10728	AAC	IEEE 802.11ax (80MHz, MCS9, 99pc dc)	WLAN	8.65	± 9.6 %
10729	AAC	IEEE 802.11ax (80MHz, MCS10, 99pc dc)	WLAN	8.64	± 9.6 %
10730	AAC	IEEE 802.11ax (80MHz, MCS11, 99pc dc)	WLAN	8.67	± 9.6 %
10731	AAC	IEEE 802.11ax (80MHz, MCS0, 99pc dc)	WLAN	8.42	± 9.6 %
10732	AAC	IEEE 802.11ax (80MHz, MCS1, 99pc dc)	WLAN	8.46	± 9.6 %
10733	AAC	IEEE 802.11ax (80MHz, MCS2, 99pc dc)	WLAN	8.40	± 9.6 %
10734	AAC	IEEE 802.11ax (80MHz, MCS3, 99pc dc)	WLAN	8.25	± 9.6 %
10735	AAC	IEEE 802.11ax (80MHz, MCS4, 99pc dc)	WLAN	8.33	± 9.6 %
10736	AAC	IEEE 802.11ax (80MHz, MCS5, 99pc dc)	WLAN	8.27	± 9.6 %
10737	AAC	IEEE 802.11ax (80MHz, MCS6, 99pc dc)	WLAN	8.36	± 9.6 %
10738	AAC	IEEE 802.11ax (80MHz, MCS7, 99pc dc)	WLAN	8.42	± 9.6 %
10739	AAC	IEEE 802.11ax (80MHz, MCS8, 99pc dc)	WLAN	8.29	± 9.6 %
10740	AAC	IEEE 802.11ax (80MHz, MCS9, 99pc dc)	WLAN	8.48	± 9.6 %
10741	AAC	IEEE 802.11ax (80MHz, MCS10, 99pc dc)	WLAN	8.40	± 9.6 %
10742	AAC	IEEE 802.11ax (80MHz, MCS11, 99pc dc)	WLAN	8.43	± 9.6 %
10743	AAC	IEEE 802.11ax (160MHz, MCS0, 99pc dc)	WLAN	8.94	± 9.6 %
10744	AAC	IEEE 802.11ax (160MHz, MCS1, 99pc dc)	WLAN	9.16	± 9.6 %
10745	AAC	IEEE 802.11ax (160MHz, MCS2, 99pc dc)	WLAN	8.93	± 9.6 %
10746	AAC	IEEE 802.11ax (160MHz, MCS3, 99pc dc)	WLAN	9.11	± 9.6 %
10747	AAC	IEEE 802.11ax (160MHz, MCS4, 99pc dc)	WLAN	9.04	± 9.6 %
10748	AAC	IEEE 802.11ax (160MHz, MCS5, 99pc dc)	WLAN	8.93	± 9.6 %
10749	AAC	IEEE 802.11ax (160MHz, MCS6, 99pc dc)	WLAN	8.90	± 9.6 %
10750	AAC	IEEE 802.11ax (160MHz, MCS7, 99pc dc)	WLAN	8.79	± 9.6 %
10751	AAC	IEEE 802.11ax (160MHz, MCS8, 99pc dc)	WLAN	8.82	± 9.6 %
10752	AAC	IEEE 802.11ax (160MHz, MCS9, 99pc dc)	WLAN	8.81	± 9.6 %
10753	AAC	IEEE 802.11ax (160MHz, MCS10, 99pc dc)	WLAN	9.00	± 9.6 %
10754	AAC	IEEE 802.11ax (160MHz, MCS11, 99pc dc)	WLAN	8.94	± 9.6 %
10755	AAC	IEEE 802.11ax (160MHz, MCS0, 99pc dc)	WLAN	8.64	± 9.6 %
10756	AAC	IEEE 802.11ax (160MHz, MCS1, 99pc dc)	WLAN	8.77	± 9.6 %
10757	AAC	IEEE 802.11ax (160MHz, MCS2, 99pc dc)	WLAN	8.77	± 9.6 %
10758	AAC	IEEE 802.11ax (160MHz, MCS3, 99pc dc)	WLAN	8.69	± 9.6 %
10759	AAC	IEEE 802.11ax (160MHz, MCS4, 99pc dc)	WLAN	8.58	± 9.6 %
10760	AAC	IEEE 802.11ax (160MHz, MCS5, 99pc dc)	WLAN	8.49	± 9.6 %
10761	AAC	IEEE 802.11ax (160MHz, MCS6, 99pc dc)	WLAN	8.58	± 9.6 %
10762	AAC	IEEE 802.11ax (160MHz, MCS7, 99pc dc)	WLAN	8.49	± 9.6 %
10763	AAC	IEEE 802.11ax (160MHz, MCS8, 99pc dc)	WLAN	8.53	± 9.6 %
10764	AAC	IEEE 802.11ax (160MHz, MCS9, 99pc dc)	WLAN	8.54	± 9.6 %
10765	AAC	IEEE 802.11ax (160MHz, MCS10, 99pc dc)	WLAN	8.54	± 9.6 %
10766	AAC	IEEE 802.11ax (160MHz, MCS11, 99pc dc)	WLAN	8.51	± 9.6 %
10767	AAC	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	7.99	± 9.6 %
10768	AAC	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	± 9.6 %
10769	AAC	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	± 9.6 %
10770	AAC	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	± 9.6 %
10771	AAC	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	± 9.6 %
10772	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.23	± 9.6 %
10773	AAC	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.03	± 9.6 %
10774	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	± 9.6 %
10775	AAC	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	± 9.6 %
10776	AAC	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	± 9.6 %
10777	AAC	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	± 9.6 %
10778	AAC	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10779	AAC	5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.42	± 9.6 %
10780	AAC	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	± 9.6 %
10781	AAC	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	± 9.6 %
10782	AAC	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.43	± 9.6 %
10783	AAC	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	± 9.6 %

10784	AAC	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.29	± 9.6 %
10785	AAC	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10786	AAC	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10787	AAC	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.44	± 9.6 %
10788	AAC	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10789	AAC	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10790	AAC	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10791	AAC	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.83	± 9.6 %
10792	AAC	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.92	± 9.6 %
10793	AAC	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.95	± 9.6 %
10794	AAC	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	± 9.6 %
10795	AAC	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.84	± 9.6 %
10796	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	± 9.6 %
10797	AAC	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.01	± 9.6 %
10798	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	± 9.6 %
10799	AAC	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	± 9.6 %
10801	AAC	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	± 9.6 %
10802	AAC	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.87	± 9.6 %
10803	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	± 9.6 %
10805	AAD	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10806	AAD	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10809	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10810	AAD	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10812	AAD	5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10817	AAD	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10818	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10819	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.33	± 9.6 %
10820	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.30	± 9.6 %
10821	AAC	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10822	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10823	AAC	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10824	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10825	AAD	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10827	AAD	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.42	± 9.6 %
10828	AAE	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.43	± 9.6 %
10829	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10830	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.63	± 9.6 %
10831	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.73	± 9.6 %
10832	AAD	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.74	± 9.6 %
10833	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10834	AAD	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.75	± 9.6 %
10835	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10836	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.66	± 9.6 %
10837	AAD	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.68	± 9.6 %
10839	AAD	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
10840	AAD	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.67	± 9.6 %
10841	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.71	± 9.6 %
10843	AAD	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.49	± 9.6 %
10844	AAD	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10846	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10854	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
10855	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10856	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10857	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10858	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
10859	AAD	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %

10860	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10861	AAD	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
10863	AAD	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10864	AAE	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
10865	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10866	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10868	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.89	± 9.6 %
10869	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10870	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.86	± 9.6 %
10871	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10872	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.52	± 9.6 %
10873	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	± 9.6 %
10874	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	± 9.6 %
10875	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	± 9.6 %
10876	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.39	± 9.6 %
10877	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	7.95	± 9.6 %
10878	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.41	± 9.6 %
10879	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.12	± 9.6 %
10880	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.38	± 9.6 %
10881	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	± 9.6 %
10882	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.96	± 9.6 %
10883	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.57	± 9.6 %
10884	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.53	± 9.6 %
10885	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	± 9.6 %
10886	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	± 9.6 %
10887	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	± 9.6 %
10888	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.35	± 9.6 %
10889	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.02	± 9.6 %
10890	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.40	± 9.6 %
10891	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.13	± 9.6 %
10892	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.41	± 9.6 %
10897	AAD	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.66	± 9.6 %
10898	AAD	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	± 9.6 %
10899	AAD	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	± 9.6 %
10900	AAD	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10901	AAD	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10902	AAD	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10903	AAD	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10904	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10905	AAD	5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10906	AAD	5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	± 9.6 %
10907	AAD	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.78	± 9.6 %
10908	AAD	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	± 9.6 %
10909	AAD	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.96	± 9.6 %
10910	AAD	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	± 9.6 %
10911	AAD	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	± 9.6 %
10912	AAD	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10913	AAD	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10914	AAD	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.85	± 9.6 %
10915	AAD	5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	± 9.6 %
10916	AAD	5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	± 9.6 %
10917	AAD	5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	± 9.6 %
10918	AAD	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	± 9.6 %
10919	AAD	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	± 9.6 %
10920	AAD	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	± 9.6 %
10921	AAD	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %

10922	AAD	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.82	± 9.6 %
10923	AAD	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10924	AAD	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10925	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.95	± 9.6 %
10926	AAD	5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	± 9.6 %
10927	AAD	5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	± 9.6 %
10928	AAD	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10929	AAD	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10930	AAD	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	± 9.6 %
10931	AAD	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10932	AAB	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10933	AAA	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10934	AAA	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10935	AAA	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	± 9.6 %
10936	AAC	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	± 9.6 %
10937	AAB	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.77	± 9.6 %
10938	AAB	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	± 9.6 %
10939	AAB	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.82	± 9.6 %
10940	AAB	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.89	± 9.6 %
10941	AAB	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	± 9.6 %
10942	AAB	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	± 9.6 %
10943	AAB	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.95	± 9.6 %
10944	AAB	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.81	± 9.6 %
10945	AAB	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	± 9.6 %
10946	AAC	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	± 9.6 %
10947	AAB	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	± 9.6 %
10948	AAB	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	± 9.6 %
10949	AAB	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	± 9.6 %
10950	AAB	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	± 9.6 %
10951	AAB	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.92	± 9.6 %
10952	AAB	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.25	± 9.6 %
10953	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.15	± 9.6 %
10954	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.23	± 9.6 %
10955	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.42	± 9.6 %
10956	AAB	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.14	± 9.6 %
10957	AAC	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.31	± 9.6 %
10958	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.61	± 9.6 %
10959	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.33	± 9.6 %
10960	AAB	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.32	± 9.6 %
10961	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.36	± 9.6 %
10962	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.40	± 9.6 %
10963	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.55	± 9.6 %
10964	AAB	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.29	± 9.6 %
10965	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.37	± 9.6 %
10966	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.55	± 9.6 %
10967	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.42	± 9.6 %
10968	AAB	5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.49	± 9.6 %
10972	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	11.59	± 9.6 %
10973	AAB	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	9.06	± 9.6 %
10974	AAB	5G NR (CP-OFDM, 100% RB, 100 MHz, 256-QAM, 30 kHz)	5G NR FR1 TDD	10.28	± 9.6 %

⁶ Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.



Appendix E. Conducted RF Output Power Table

The detailed power table are shown as follows.



WWAN Full Power Mode

GSM850 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	33.43	33.41	33.35	33.50	24.43	24.41	24.35	24.50
GPRS 1 Tx slot	33.42	33.37	33.34	33.50	24.42	24.37	24.34	24.50
GPRS 2 Tx slots	31.14	31.19	31.14	32.00	25.14	25.19	25.14	26.00
GPRS 3 Tx slots	29.44	29.45	29.40	30.00	25.18	25.19	25.14	25.74
GPRS 4 Tx slots	27.43	27.44	27.38	28.00	24.43	24.44	24.38	25.00
EDGE 1 Tx slot	25.96	26.17	26.22	27.00	16.96	17.17	17.22	18.00
EDGE 2 Tx slots	24.17	24.42	24.72	25.00	18.17	18.42	18.72	19.00
EDGE 3 Tx slots	21.90	22.03	22.35	23.00	17.64	17.77	18.09	18.74
EDGE 4 Tx slots	19.03	19.28	19.45	21.00	16.03	16.28	16.45	18.00

GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	30.03	30.15	30.10	30.50	21.03	21.15	21.10	21.50
GPRS 1 Tx slot	30.02	30.13	30.08	30.50	21.02	21.13	21.08	21.50
GPRS 2 Tx slots	27.77	27.84	27.80	29.50	21.77	21.84	21.80	23.50
GPRS 3 Tx slots	26.25	26.33	26.27	27.50	21.99	22.07	22.01	23.24
GPRS 4 Tx slots	24.22	24.26	24.18	25.50	21.22	21.26	21.18	22.50
EDGE 1 Tx slot	26.31	26.35	26.09	26.50	17.31	17.35	17.09	17.50
EDGE 2 Tx slots	25.01	24.75	24.51	25.50	19.01	18.75	18.51	19.50
EDGE 3 Tx slots	23.17	22.94	22.90	23.50	18.91	18.68	18.64	19.24
EDGE 4 Tx slots	21.18	20.87	20.60	21.50	18.18	17.87	17.60	18.50

Band TX Channel	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
	9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel	9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99 AMR 12.2Kbps	23.31	23.34	23.36	24.00	23.50	23.55	23.61	24.00	23.63	23.57	23.53	24.00
3GPP Rel 99 RMC 12.2Kbps	23.32	23.36	23.37	24.00	23.51	23.61	23.62	24.00	23.64	23.59	23.56	24.00
3GPP Rel 6 HSDPA Subtest-1	22.65	22.83	22.84	23.00	22.73	22.81	22.32	23.00	22.26	22.03	22.01	23.00
3GPP Rel 6 HSDPA Subtest-2	22.27	22.46	22.44	23.00	22.57	22.78	22.68	23.00	21.97	21.75	21.70	23.00
3GPP Rel 6 HSDPA Subtest-3	22.40	22.40	22.34	22.50	22.42	22.41	22.41	22.50	21.65	21.45	21.47	22.50
3GPP Rel 6 HSDPA Subtest-4	22.06	22.26	22.22	22.50	22.48	22.40	22.42	22.50	21.55	21.37	22.26	22.50
3GPP Rel 8 DC-HSDPA Subtest-1	22.55	22.21	22.30	23.00	22.83	22.93	22.32	23.00	22.85	22.38	21.83	23.00
3GPP Rel 8 DC-HSDPA Subtest-2	22.52	22.20	22.31	23.00	22.71	22.93	22.83	23.00	22.80	22.42	21.91	23.00
3GPP Rel 8 DC-HSDPA Subtest-3	22.44	22.37	22.24	22.50	22.33	22.37	22.44	22.50	22.43	22.36	21.98	22.50
3GPP Rel 8 DC-HSDPA Subtest-4	22.43	22.36	22.23	22.50	22.42	22.31	22.48	22.50	22.37	22.38	21.99	22.50
3GPP Rel 6 HSUPA Subtest-1	20.12	20.14	19.92	21.50	20.92	21.08	20.98	21.50	20.24	20.34	20.16	21.50
3GPP Rel 6 HSUPA Subtest-2	20.81	20.93	20.36	21.50	21.23	21.43	21.39	21.50	20.74	20.83	20.70	21.50
3GPP Rel 6 HSUPA Subtest-3	20.80	20.92	20.44	21.50	21.29	21.43	21.46	21.50	20.76	20.84	20.67	21.50
3GPP Rel 6 HSUPA Subtest-4	21.02	20.94	20.64	21.50	21.30	21.47	21.38	21.50	20.51	20.33	20.46	21.50
3GPP Rel 6 HSUPA Subtest-5	22.30	22.10	22.00	22.50	22.20	22.40	22.40	22.50	22.20	22.20	22.10	22.50



Band 2 (1900MHz Band) Part 24E									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	22.78	22.98	22.89			
20	QPSK	1	49	22.76	22.85	22.79	24	0	
20	QPSK	1	99	22.64	22.86	22.88			
20	QPSK	50	0	22.35	22.37	22.34			
20	QPSK	50	24	22.28	22.36	22.23	23	1	
20	QPSK	50	50	22.25	22.34	22.33			
20	QPSK	100	0	22.38	22.44	22.26			
20	16QAM	1	0	22.36	21.97	22.40			
20	16QAM	1	49	22.30	21.91	22.41	23	1	
20	16QAM	1	99	22.23	22.03	22.38			
20	16QAM	50	0	21.46	21.45	21.40			
20	16QAM	50	24	21.47	21.52	21.33	22	2	
20	16QAM	50	50	21.36	21.39	21.36			
20	16QAM	100	0	21.42	21.44	21.44			
20	64QAM	1	0	21.29	20.85	20.98			
20	64QAM	1	49	21.28	20.74	20.95	22	2	
20	64QAM	1	99	21.16	20.87	21.05			
20	64QAM	50	0	19.12	19.61	19.96			
20	64QAM	50	24	19.07	19.17	19.49	21	3	
20	64QAM	50	50	19.39	19.21	19.20			
20	64QAM	100	0	19.27	19.41	19.59			
Channel									
Frequency (MHz)									
15	QPSK	1	0	22.79	22.89	22.72	24	0	
15	QPSK	1	37	22.73	22.69	22.72			
15	QPSK	1	74	22.62	22.71	22.76			
15	QPSK	36	0	22.41	22.35	22.36	23	1	
15	QPSK	36	20	22.36	22.27	22.28			
15	QPSK	36	39	22.38	22.32	22.28			
15	QPSK	75	0	22.31	22.43	22.39			
15	16QAM	1	0	22.48	22.47	22.43	23	1	
15	16QAM	1	37	22.42	22.50	22.40			
15	16QAM	1	74	22.38	22.47	22.39			
15	16QAM	36	0	21.52	21.45	21.45	22	2	
15	16QAM	36	20	21.37	21.38	21.38			
15	16QAM	36	39	21.38	21.47	21.38			
15	16QAM	75	0	21.51	21.50	21.52	22	2	
15	64QAM	1	0	21.10	20.84	20.96	21	3	
15	64QAM	1	37	20.88	20.89	20.90			
15	64QAM	1	74	20.96	20.91	21.03			
15	64QAM	36	0	19.07	19.43	19.64			
15	64QAM	36	20	19.08	19.21	19.23			
15	64QAM	36	39	19.29	19.14	19.09			
15	64QAM	75	0	19.20	19.29	19.33			
Channel									
Frequency (MHz)									
10	QPSK	1	0	22.83	22.85	22.89	24	0	
10	QPSK	1	25	22.79	22.85	22.88			
10	QPSK	1	49	22.81	22.75	22.90			
10	QPSK	25	0	22.44	22.30	22.28	23	1	
10	QPSK	25	25	22.29	22.39	22.40			
10	QPSK	50	0	22.42	22.35	22.33			
10	16QAM	1	0	22.53	22.48	22.27	23	1	
10	16QAM	1	25	22.44	22.43	22.22			
10	16QAM	1	49	22.45	22.45	22.31			
10	16QAM	25	0	21.51	21.42	21.65	22	2	
10	16QAM	25	12	21.46	21.51	21.48			
10	16QAM	25	25	21.43	21.47	21.57			
10	16QAM	50	0	21.55	21.48	21.40	22	2	
10	64QAM	1	0	20.97	21.02	21.20	22	2	
10	64QAM	1	25	21.03	21.05	21.18			
10	64QAM	1	49	21.03	21.04	21.29			
10	64QAM	25	0	19.09	19.00	19.34	21	3	
10	64QAM	25	12	19.11	19.20	19.20			
10	64QAM	25	25	19.11	19.10	19.17			
10	64QAM	50	0	19.06	19.08	19.21			
Channel									
Frequency (MHz)									
5	QPSK	1	0	22.97	22.89	22.92	24	0	
5	QPSK	1	12	22.95	22.92	22.87			
5	QPSK	1	24	22.93	22.91	22.92			
5	QPSK	12	0	22.47	22.43	22.29	23	1	
5	QPSK	12	7	22.47	22.41	22.32			
5	QPSK	12	13	22.45	22.35	22.28			
5	QPSK	25	0	22.34	22.40	22.23			
5	16QAM	1	0	22.37	22.36	22.23	23	1	
5	16QAM	1	12	22.36	22.21	22.25			
5	16QAM	1	24	22.29	22.32	22.25			
5	16QAM	12	0	21.59	21.51	21.48	22	2	
5	16QAM	12	7	21.57	21.51	21.43			
5	16QAM	12	13	21.48	21.42	21.42			
5	16QAM	25	0	21.69	21.68	21.66	22	2	
5	64QAM	1	0	21.33	21.29	21.28	22	2	
5	64QAM	1	12	21.30	21.23	21.17			
5	64QAM	1	24	21.27	21.23	21.27			
5	64QAM	12	0	19.03	19.07	19.04	21	3	
5	64QAM	12	7	19.17	19.20	19.15			
5	64QAM	12	13	19.03	19.01	19.03			
5	64QAM	25	0	19.03	19.03	19.00			
Channel									
Frequency (MHz)									
3	QPSK	1	0	22.88	22.75	22.76	24	0	
3	QPSK	1	14	22.81	22.73	22.78			
3	QPSK	8	0	22.48	22.42	22.33	23	1	
3	QPSK	8	4	22.34	22.41	22.33			
3	QPSK	8	7	22.46	22.40	22.38			
3	QPSK	15	0	22.47	22.40	22.29			
3	16QAM	1	0	22.55	22.01	22.42	23	1	
3	16QAM	1	8	22.49	21.96	22.38			
3	16QAM	1	14	22.43	21.97	22.37			
3	16QAM	8	0	21.61	21.54	21.47	22	2	
3	16QAM	8	4	21.84	21.56	21.50			
3	16QAM	8	7	21.61	21.52	21.59			
3	16QAM	15	0	21.58	21.50	21.54	22	2	
3	64QAM	1	0	21.02	20.78	20.97	22	2	
3	64QAM	1	8	21.06	20.82	21.06			
3	64QAM	1	14	21.01	20.82	21.03			
3	64QAM	8	0	19.11	19.16	19.13	21	3	
3	64QAM	8	4	19.08	19.19	19.15			
3	64QAM	8	7	19.05	19.14	19.00			
3	64QAM	15	0	19.04	19.16	19.01			
Channel									
Frequency (MHz)									
1.4	QPSK	1	0	22.71	22.80	22.79	24	0	
1.4	QPSK	1	5	22.69	22.68	22.73			
1.4	QPSK	1	10	22.68	22.79	22.78			
1.4	QPSK	3	0	22.94	22.76	22.76	23	1	
1.4	QPSK	3	3	22.80	22.78	22.82			
1.4	QPSK	3	3	22.79	22.82	22.82			
1.4	16QAM	1	0	22.52	22.00	22.29	23	1	
1.4	16QAM	1	5	22.51	21.98	22.24			
1.4	16QAM	1	10	22.48	22.00	22.20	23	1	
1.4	16QAM	3	0	22.78	22.54	22.64			
1.4	16QAM	3	3	22.75	22.52	22.63			
1.4	16QAM	3	3	22.77	22.51	22.60			
1.4	16QAM	6	0	21.24	21.21	21.33	22	2	
1.4	64QAM	1	0	21.11	20.80	21.27	22	2	
1.4	64QAM	1	3	21.08	20.84	21.23			
1.4	64QAM	1	6	21.08	20.80	21.24	22	2	
1.4	64QAM	3	0	21.39	21.27	21.47			
1.4	64QAM	3	1	21.40	21.28	21.42			
1.4	64QAM	3	3	21.35	21.25	21.41			
1.4	64QAM	6	0	19.08	19.05	19.08	21	3	

Band 4 (AWS Band) Part 27L (only on channel required)									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	22.95	23.04	22.96			
20	QPSK	1	49	22.85	23.00	22.93	24	0	
20	QPSK	1	99	22.88	23.00	22.88			
20	QPSK	50	0	22.37	22.58	22.75			
20	QPSK	50	24	22.37	22.54	22.70	23	1	
20	QPSK	50	50	22.50	22.56	22.55			
20	QPSK	100	0	22.50	22.58	22.65			
20	16QAM	1	0	22.80	22.67	22.62			
20	16QAM	1	49	22.87	22.				



Band 7 (2600MHz Band) Part 27									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				2600	2636	2660			
Frequency (MHz)									
20	QPSK	1	0	22.82	22.96	22.76	24	0	
20	QPSK	1	49	22.88	22.86	22.87			
20	QPSK	1	99	22.96	22.97	22.99			
20	QPSK	50	0	22.44	22.50	22.38			
20	QPSK	50	24	22.37	22.47	22.38	23	1	
20	QPSK	50	50	22.45	22.32	22.54			
20	QPSK	100	0	22.35	22.44	22.50			
20	16QAM	1	0	22.27	22.32	22.14			
20	16QAM	1	49	22.30	22.32	22.27	23	1	
20	16QAM	1	99	22.30	22.29	22.43			
20	16QAM	50	0	21.53	21.66	21.65			
20	16QAM	50	24	21.65	21.68	21.62	22	2	
20	16QAM	50	50	21.63	21.66	21.64			
20	16QAM	100	0	21.59	21.67	21.62			
20	64QAM	1	0	21.35	21.45	21.33			
20	64QAM	1	49	21.33	21.36	21.31	22	2	
20	64QAM	1	99	21.39	21.50	21.49			
20	64QAM	50	0	19.07	19.12	19.01			
20	64QAM	50	24	19.08	19.03	19.06	21	3	
20	64QAM	50	50	19.16	19.11	19.01			
20	64QAM	100	0	19.04	19.08	19.02			
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2507.5	2535	2562.5			
15	QPSK	1	0	22.81	22.87	22.62	24	0	
15	QPSK	1	37	22.70	22.72	22.78			
15	QPSK	1	74	22.80	22.94	22.98			
15	QPSK	36	0	22.38	22.30	22.19	23	1	
15	QPSK	36	20	22.36	22.47	22.33			
15	QPSK	36	39	22.24	22.32	22.34			
15	QPSK	75	0	22.32	22.42	22.35			
15	16QAM	1	0	22.13	22.32	22.14	23	1	
15	16QAM	1	37	22.28	22.29	22.07			
15	16QAM	1	74	22.14	22.22	22.36			
15	16QAM	36	0	21.41	21.58	21.47	22	2	
15	16QAM	36	20	21.47	21.54	21.54			
15	16QAM	36	39	21.57	21.55	21.45			
15	16QAM	75	0	21.41	21.66	21.58			
15	64QAM	1	0	21.25	21.33	21.25	22	2	
15	64QAM	1	37	21.27	21.36	21.23			
15	64QAM	1	74	21.26	21.34	21.32			
15	64QAM	36	0	19.14	19.19	19.12	21	3	
15	64QAM	36	20	19.09	19.14	19.17			
15	64QAM	36	39	19.17	19.22	19.06			
15	64QAM	75	0	19.09	19.27	19.16			
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2505	2535	2565			
10	QPSK	1	0	22.74	22.85	22.57	24	0	
10	QPSK	1	25	22.72	22.66	22.78			
10	QPSK	1	49	22.77	22.85	22.96			
10	QPSK	25	0	22.38	22.36	22.36	23	1	
10	QPSK	25	25	22.42	22.42	22.28			
10	QPSK	50	0	22.35	22.28	22.39			
10	16QAM	1	0	22.22	22.18	22.05	23	1	
10	16QAM	1	25	22.17	22.25	22.24			
10	16QAM	1	49	22.18	22.15	22.24			
10	16QAM	25	0	21.37	21.65	21.49	22	2	
10	16QAM	25	12	21.63	21.49	21.48			
10	16QAM	25	25	21.54	21.54	21.52			
10	16QAM	50	0	21.44	21.65	21.49			
10	64QAM	1	0	21.24	21.25	21.13	22	2	
10	64QAM	1	25	21.14	21.36	21.28			
10	64QAM	1	49	21.22	21.44	21.43			
10	64QAM	25	0	19.10	19.30	19.01	21	3	
10	64QAM	25	12	19.11	19.14	19.20			
10	64QAM	25	25	19.18	19.27	19.11			
10	64QAM	50	0	19.08	19.17	19.05			
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2502.5	2535	2567.5			
5	QPSK	1	0	22.70	22.81	22.59	24	0	
5	QPSK	1	12	22.76	22.77	22.85			
5	QPSK	1	24	22.84	22.79	22.93			
5	QPSK	12	0	22.34	22.40	22.27	23	1	
5	QPSK	12	7	22.29	22.28	22.32			
5	QPSK	12	13	22.41	22.41	22.35			
5	QPSK	25	0	22.25	22.34	22.43			
5	16QAM	1	0	22.16	22.23	21.98	23	1	
5	16QAM	1	12	22.23	22.30	22.13			
5	16QAM	1	24	22.29	22.24	22.35			
5	16QAM	12	0	21.37	21.38	21.53	22	2	
5	16QAM	12	7	21.59	21.51	21.54			
5	16QAM	12	13	21.62	21.52	21.52			
5	16QAM	25	0	21.43	21.51	21.60			
5	64QAM	1	0	21.21	21.29	21.27	22	2	
5	64QAM	1	12	21.21	21.31	21.30			
5	64QAM	1	24	21.36	21.39	21.38			
5	64QAM	12	0	19.09	19.22	19.20	21	3	
5	64QAM	12	7	19.26	19.19	19.10			
5	64QAM	12	13	19.23	19.22	19.05			
5	64QAM	25	0	19.14	19.08	19.22			

Band 66									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				13072	13232	13572			
Frequency (MHz)				1720	1745	1770			
20	QPSK	1	0	22.90	23.05	23.01	24	0	
20	QPSK	1	49	22.84	22.99	22.94			
20	QPSK	1	99	22.89	22.95	22.85			
20	QPSK	50	0	22.37	22.61	22.63	23	1	
20	QPSK	50	24	22.38	22.68	22.64			
20	QPSK	50	50	22.37	22.53	22.48			
20	QPSK	100	0	22.44	22.77	22.55			
20	16QAM	1	0	22.59	22.73	22.62	23	1	
20	16QAM	1	49	22.54	22.79	22.59			
20	16QAM	1	99	22.45	22.70	22.44			
20	16QAM	50	0	21.51	21.75	21.73	22	2	
20	16QAM	50	24	21.54	21.71	21.64			
20	16QAM	50	50	21.57	21.69	21.58			
20	16QAM	100	0	21.64	21.85	21.84			
20	64QAM	1	0	21.45	21.55	21.28	22	2	
20	64QAM	1	49	21.40	21.50	21.02			
20	64QAM	1	99	21.39	21.35	20.88			
20	64QAM	50	0	19.21	19.44	19.69	21	3	
20	64QAM	50	24	19.48	19.03	19.15			
20	64QAM	50	50	19.23	19.31	19.80			
20	64QAM	100	0	19.76	19.39	19.20			
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	0	22.84	23.04	23.04	24	0	
15	QPSK	1	37	22.82	23.04	22.88			
15	QPSK	1	74	22.82	22.98	22.80			
15	QPSK	36	0	22.48	22.69	22.53	23	1	
15	QPSK	36	20	22.47	22.56	22.54			
15	QPSK	36	39	22.40	22.66	22.50			
15	QPSK	75	0	22.43	22.71	22.50			
15	16QAM	1	0	22.53	22.74	22.73	23	1	
15	16QAM	1	37	22.56	22.69	22.49			
15	16QAM	1	74	22.52	22.64	22.49			
15	16QAM	36	0	21.50	21.67	21.59	22	2	
15	16QAM	36	20	21.45	21.66	21.87			
15	16QAM	36	39	21.47	21.68	21.50			
15	16QAM	75	0	21.57	21.76	22.00			
15	64QAM	1	0	21.33	21.32	21.33	22	2	
15	64QAM	1	37	21.36	21.26	21.67			
15	64QAM	1	74	21.29	21.21	21.07			
15	64QAM	36	0	19.15	19.29	19.55	21	3	
15	64QAM	36	20	19.42	19.04	19.08			
15	64QAM	36	39	19.08	19.23	19.61			
15	64QAM	75	0	19.67	19.24	19.18			
Channel				132022</					



Reduced Power Mode for Sensor On

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
TX Channel								
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	31.42	31.37	31.35	31.50	22.42	22.37	22.35	22.50
GPRS 1 Tx slot	31.41	31.36	31.33	31.50	22.41	22.36	22.33	22.50
GPRS 2 Tx slots	29.34	29.35	29.26	30.00	23.34	23.35	23.26	24.00
GPRS 3 Tx slots	27.37	27.31	27.29	28.00	23.11	23.05	23.03	23.74
GPRS 4 Tx slots	25.27	25.26	25.26	26.00	22.27	22.26	22.26	23.00
EDGE 1 Tx slot	24.10	24.42	24.29	25.00	15.10	15.42	15.29	16.00
EDGE 2 Tx slots	22.05	22.32	22.33	23.00	16.05	16.32	16.33	17.00
EDGE 3 Tx slots	19.82	20.12	20.12	21.00	15.56	15.86	15.86	16.74
EDGE 4 Tx slots	17.34	17.75	17.62	19.00	14.34	14.75	14.62	16.00

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
TX Channel								
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	27.08	27.11	27.03	27.50	18.08	18.11	18.03	18.50
GPRS 1 Tx slot	27.01	27.04	27.00	27.50	18.01	18.04	18.00	18.50
GPRS 2 Tx slots	25.04	25.07	25.01	26.50	19.04	19.07	19.01	20.50
GPRS 3 Tx slots	23.03	23.08	23.01	24.50	18.77	18.82	18.75	20.24
GPRS 4 Tx slots	21.03	21.03	20.94	22.50	18.03	18.03	17.94	19.50
EDGE 1 Tx slot	22.70	22.62	22.31	23.50	13.70	13.62	13.31	14.50
EDGE 2 Tx slots	21.90	21.63	21.36	22.50	15.90	15.63	15.36	16.50
EDGE 3 Tx slots	20.10	19.76	19.80	20.50	15.84	15.50	15.54	16.24
EDGE 4 Tx slots	17.93	17.59	17.65	18.50	14.93	14.59	14.65	15.50

Band	TX Channel	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
		9262	9400	9538		1312	1413	1513		4132	4182	4233	
	Rx Channel	9662	9800	9938		1537	1638	1738		4357	4407	4458	
	Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2kbps	19.52	19.71	19.72	20.50	20.38	20.68	20.74	21.50	22.01	21.85	21.79	22.50
3GPP Rel 99	RMC 12.2kbps	19.62	19.74	19.77	20.50	20.41	20.72	20.76	21.50	22.04	21.94	21.98	22.50
3GPP Rel 6	HSDPA Subtest-1	18.28	18.44	18.48	19.50	19.44	19.73	19.61	20.50	21.39	21.27	21.02	21.50
3GPP Rel 6	HSDPA Subtest-2	18.02	18.08	18.01	19.50	19.45	19.75	19.28	20.50	21.15	21.04	20.95	21.50
3GPP Rel 6	HSDPA Subtest-3	18.37	18.24	18.31	19.00	19.41	19.71	19.38	20.00	20.81	20.70	20.65	21.00
3GPP Rel 6	HSDPA Subtest-4	17.84	17.87	17.82	19.00	19.41	19.72	19.19	20.00	20.71	20.59	20.55	21.00
3GPP Rel 8	DC-HSDPA Subtest-1	18.16	18.29	18.28	19.50	19.42	19.58	19.46	20.50	21.27	21.13	20.90	21.50
3GPP Rel 8	DC-HSDPA Subtest-2	17.80	17.98	17.90	19.50	19.40	19.70	19.26	20.50	20.96	20.92	20.86	21.50
3GPP Rel 8	DC-HSDPA Subtest-3	18.21	18.23	18.19	19.00	19.25	19.63	19.25	20.00	20.74	20.71	20.68	21.00
3GPP Rel 8	DC-HSDPA Subtest-4	17.93	17.94	17.92	19.00	19.29	19.71	19.16	20.00	20.74	20.68	20.63	21.00
3GPP Rel 6	HSUPA Subtest-1	16.07	16.16	16.02	18.00	17.56	17.59	17.28	19.00	18.65	18.01	17.97	20.00
3GPP Rel 6	HSUPA Subtest-2	16.08	16.14	16	18.00	17.12	18.10	17.77	19.00	18.07	18.34	18.31	20.00
3GPP Rel 6	HSUPA Subtest-3	16.08	16.11	16.01	18.00	17.52	18.07	17.72	19.00	18.61	18.27	18.26	20.00
3GPP Rel 6	HSUPA Subtest-4	16.09	16.35	16.23	18.00	17.87	18.35	17.74	19.00	18.04	17.90	17.98	20.00
3GPP Rel 6	HSUPA Subtest-5	18.00	18.40	18.00	19.00	18.06	18.40	18.01	20.00	20.40	20.10	20.10	21.00



Band 2 (1900MHz Band) Part 24E									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq	Power Middle Ch./Freq	Power High Ch./Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	20.51	21.39	21.38	21.5	0	
20	QPSK	1	49	20.41	20.44	20.68			
20	QPSK	1	99	20.46	20.91	20.60			
20	QPSK	50	0	19.21	19.89	19.67			
20	QPSK	50	24	19.17	19.34	19.57	20.5	1	
20	QPSK	50	50	19.15	19.37	19.67			
20	QPSK	100	0	19.00	19.56	19.54			
20	16QAM	1	0	19.10	20.36	20.33			
20	16QAM	1	49	18.98	19.33	19.60	20.5	1	
20	16QAM	1	99	19.51	19.76	19.22			
20	16QAM	50	0	17.91	18.80	19.01			
20	16QAM	50	24	17.86	18.32	18.56	19.5	2	
20	16QAM	50	50	18.19	18.34	18.25			
20	16QAM	100	0	18.03	18.55	18.63			
20	64QAM	1	0	18.14	19.33	19.28			
20	64QAM	1	49	17.82	18.28	18.54	19.5	2	
20	64QAM	1	99	18.51	18.69	18.14			
20	64QAM	50	0	16.54	17.44	17.67			
20	64QAM	50	24	16.56	16.88	17.16	18.5	3	
20	64QAM	50	50	16.73	16.97	16.89			
20	64QAM	100	0	16.57	17.20	17.28			
Channel									
Frequency (MHz)									
15	QPSK	1	0	20.05	20.68	21.13	21.5	0	
15	QPSK	1	37	20.00	20.28	20.43			
15	QPSK	1	74	20.38	20.01	19.97			
15	QPSK	36	0	19.07	19.65	19.74			
15	QPSK	36	20	19.14	19.36	19.36	20.5	1	
15	QPSK	36	50	19.21	19.37	19.15			
15	QPSK	75	0	19.11	19.53	19.48			
15	16QAM	1	0	19.13	19.93	20.07			
15	16QAM	1	37	19.19	19.60	19.51	20.5	1	
15	16QAM	1	74	19.51	19.38	19.11			
15	16QAM	36	0	18.01	18.67	18.90			
15	16QAM	36	20	18.03	18.44	18.49	19.5	2	
15	16QAM	36	50	18.22	18.35	18.26			
15	16QAM	75	0	18.13	18.52	18.59			
15	64QAM	1	0	18.04	18.80	19.18			
15	64QAM	1	37	18.16	18.52	18.58	19.5	2	
15	64QAM	1	74	18.39	18.24	18.13			
15	64QAM	36	0	16.68	17.35	17.59			
15	64QAM	36	20	16.65	16.87	17.08	18.5	3	
15	64QAM	36	50	16.89	16.83	16.79			
15	64QAM	75	0	16.77	16.77	16.80			
Channel									
Frequency (MHz)									
10	QPSK	1	0	19.87	20.48	20.51	21.5	0	
10	QPSK	1	25	19.89	20.35	20.30			
10	QPSK	1	49	20.54	20.48	20.47			
10	QPSK	25	0	19.01	20.43	20.46			
10	QPSK	25	12	18.74	19.20	19.48	20.5	1	
10	QPSK	25	25	19.04	19.28	19.54			
10	QPSK	50	0	18.86	19.27	19.59			
10	16QAM	1	0	18.75	19.41	19.89			
10	16QAM	1	25	18.94	19.34	19.58	20.5	1	
10	16QAM	1	49	19.43	19.46	19.71			
10	16QAM	25	0	17.80	18.30	18.45			
10	16QAM	25	12	17.94	18.35	18.45	19.5	2	
10	16QAM	25	25	18.19	18.34	18.22			
10	16QAM	50	0	18.03	18.32	18.28			
10	64QAM	1	0	17.93	18.41	18.50			
10	64QAM	1	25	18.06	18.28	18.20	19.5	2	
10	64QAM	1	49	18.56	18.43	18.37			
10	64QAM	25	0	16.51	16.82	16.96	18.5	3	
10	64QAM	25	12	16.52	16.78	16.81			
10	64QAM	25	25	16.53	16.85	16.83			
10	64QAM	50	0	16.50	16.84	16.90			
Channel									
Frequency (MHz)									
5	QPSK	1	0	20.10	20.00	19.07	21.5	0	
5	QPSK	1	12	20.34	20.34	20.34			
5	QPSK	1	24	19.89	19.88	20.00			
5	QPSK	12	0	18.73	19.36	19.86			
5	QPSK	12	13	18.79	19.60	18.70	20.5	1	
5	QPSK	12	25	18.84	19.13	18.51			
5	QPSK	25	0	19.01	19.20	19.02			
5	16QAM	1	0	18.89	19.23	19.04			
5	16QAM	1	12	19.33	19.58	19.35	20.5	1	
5	16QAM	1	24	18.87	19.02	18.81			
5	16QAM	12	0	18.06	18.25	18.07			
5	16QAM	12	13	18.18	18.35	18.13	19.5	2	
5	16QAM	12	25	18.03	18.13	17.95			
5	16QAM	25	0	18.04	18.19	18.01			
5	64QAM	1	0	17.86	18.05	17.93			
5	64QAM	1	12	18.33	18.27	18.28	19.5	2	
5	64QAM	1	24	17.81	17.75	17.72			
5	64QAM	12	0	16.64	16.58	16.69	18.5	3	
5	64QAM	12	13	16.77	16.68	16.77			
5	64QAM	12	25	16.62	16.53	16.61			
5	64QAM	25	0	16.60	16.60	16.51			
Channel									
Frequency (MHz)									
1.4	QPSK	1	0	20.26	19.97	19.78	21.5	0	
1.4	QPSK	1	3	20.42	20.06	20.24			
1.4	QPSK	1	5	20.21	20.07	20.00			
1.4	QPSK	3	0	20.36	20.52	20.14			
1.4	QPSK	3	1	20.41	20.55	20.18			
1.4	QPSK	3	3	20.34	20.47	20.10	20.5	1	
1.4	QPSK	6	0	19.17	19.38	19.10			
1.4	16QAM	1	0	19.29	19.54	19.26			
1.4	16QAM	1	3	19.51	19.73	19.41			
1.4	16QAM	1	5	19.35	19.48	19.22	20.5	1	
1.4	16QAM	3	0	19.23	19.52	19.14			
1.4	16QAM	3	1	19.29	19.15	19.18			
1.4	16QAM	3	3	19.24	19.03	19.14			
1.4	16QAM	6	0	18.39	17.99	18.24	19.5	2	
1.4	64QAM	1	0	18.34	17.99	18.18			
1.4	64QAM	1	3	18.56	18.15	18.37			
1.4	64QAM	1	5	18.34	17.91	18.16	19.5	2	
1.4	64QAM	3	0	18.48	18.06	18.27			
1.4	64QAM	3	1	18.53	18.11	18.35			
1.4	64QAM	3	3	18.45	18.03	18.27			
1.4	64QAM	6	0	16.86	16.78	16.79	18.5	3	

Band 4 (AWS Band) Part 27L (only on channel required)									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq	Power Middle Ch./Freq	Power High Ch./Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	18.12	18.82	19.25			
20	QPSK	1	49	18.03	19.10	18.23	20	0	
20	QPSK	1	99	18.30	18.89	19.29			
20	QPSK	50	0	17.03	17.87	17.66			
20	QPSK	50	24	17.06	17.63	17.29	19	1	
20	QPSK	50	50	16.17	17.01	16.78			
20	QPSK	100	0	17.09	17.90	17.58			
20	16QAM	1	0	17.67	18.12	18.31			
20	16QAM	1	49	17.41	18.45	17.30	19	1	
20	16QAM	1	99	17.60	18.10	18.28			
20	16QAM	50	0	16.06	16.90	16.59			
20	16QAM	50	24	16.07	16.76	16.26	18	2	
20	16QAM	50	50	15.92	16.52	16.32			
20	16QAM	100	0	16.15	16.89	16.74			
20	64QAM	1	0	16.51	17.14	17.44			
20	64QAM	1	49	16.32	17.25	16.52	18	2	
20	64QAM	1	99	16.66	16.98	17.40			
20	64QAM	50	0	15.20	15.36	15.22			
20	64QAM	50	24	15.04	15.21	15.03	17	3	
20	64QAM	50	50	15.17	15.31	15.09			
20	64QAM	100	0	15.35	15.41	15.13			
Channel									
Frequency (MHz)									
15	QPSK	1	0	18.44	18.44	18.44			
15	QPSK	1	37	18.16	18.16	18.16	20	0	
15	QPSK	1	74	18.33	18.33	18.33			
15	QPSK	36	0	17.17	17.17	17.17			
15	QPSK	36	20	17.09	17.29	17.09			



Band 7 (2600MHz Band) Part 27											
BW (MHz)	Modulatio n	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPR (dB)			
Channel				2050	2110	2150					
Frequency (MHz)				2510	2535	2560					
20	QPSK	1	0	17.03	17.56	17.38	19	0			
20	QPSK	1	49	17.01	17.26	17.04					
20	QPSK	1	99	17.43	17.58	17.66					
20	QPSK	50	0	16.22	16.43	16.31					
20	QPSK	50	24	16.15	16.25	16.06	18	1			
20	QPSK	50	50	16.42	16.44	16.45					
20	QPSK	100	0	16.21	16.25	16.27					
20	16QAM	1	0	16.74	16.89	16.90					
20	16QAM	1	49	16.49	16.48	16.18	18	1			
20	16QAM	1	99	16.87	16.94	16.87					
20	16QAM	50	0	15.05	15.54	15.21					
20	16QAM	50	24	15.28	15.24	15.29	17	2			
20	16QAM	50	50	15.28	15.36	15.22					
20	16QAM	100	0	15.17	15.43	15.20					
20	64QAM	1	0	15.33	15.88	15.61					
20	64QAM	1	49	15.21	15.36	15.07	17	2			
20	64QAM	1	99	15.61	15.60	15.64					
20	64QAM	50	0	13.94	14.25	14.22					
20	64QAM	50	24	13.87	14.26	14.01	16	3			
20	64QAM	50	50	14.14	14.07	14.21					
20	64QAM	100	0	14.02	14.15	14.19					
Channel				2085	2110	2135	Tune-up limit (dBm)	MPR (dB)			
Frequency (MHz)				2507.5	2535	2562.5					
15	QPSK	1	0	16.99	17.21	17.33	19	0			
15	QPSK	1	37	17.09	17.04	16.84					
15	QPSK	1	74	17.04	17.00	17.21					
15	QPSK	36	0	16.13	16.38	16.21					
15	QPSK	36	20	16.14	16.25	16.19	18	1			
15	QPSK	36	39	16.31	16.34	16.18					
15	QPSK	75	0	16.21	16.36	16.14					
15	16QAM	1	0	16.30	16.71	16.53					
15	16QAM	1	37	16.46	16.65	16.29	18	1			
15	16QAM	1	74	16.68	16.70	16.63					
15	16QAM	36	0	15.29	15.40	15.28					
15	16QAM	36	20	15.03	15.29	15.19	17	2			
15	16QAM	36	39	15.19	15.31	15.19					
15	16QAM	75	0	15.02	15.21	15.23					
15	64QAM	1	0	15.20	15.33	15.08					
15	64QAM	1	37	15.00	15.24	15.21	17	2			
15	64QAM	1	74	15.29	15.30	15.13					
15	64QAM	36	0	13.94	14.25	13.87					
15	64QAM	36	20	13.96	14.13	13.81	16	3			
15	64QAM	36	39	14.11	14.19	13.83					
15	64QAM	75	0	14.00	14.19	13.88					
Channel				2080	2110	2140	Tune-up limit (dBm)	MPR (dB)			
Frequency (MHz)				2505	2535	2565					
10	QPSK	1	0	16.38	16.83	16.63	19	0			
10	QPSK	1	25	16.75	17.09	16.89					
10	QPSK	1	49	17.25	17.07	17.00					
10	QPSK	25	0	15.94	16.06	15.96					
10	QPSK	25	12	16.09	16.14	16.07	18	1			
10	QPSK	25	25	16.03	16.27	16.01					
10	QPSK	50	0	16.11	16.16	16.14					
10	16QAM	1	0	16.07	16.20	16.09					
10	16QAM	1	25	16.09	16.44	16.06	18	1			
10	16QAM	1	49	16.54	16.67	16.54					
10	16QAM	25	0	14.93	15.03	14.96					
10	16QAM	25	12	15.10	15.12	15.10	17	2			
10	16QAM	25	25	15.06	15.29	15.05					
10	16QAM	50	0	15.18	15.19	15.19					
10	64QAM	1	0	14.85	15.03	14.85					
10	64QAM	1	25	15.29	15.30	15.29	17	2			
10	64QAM	1	49	15.39	15.57	15.36					
10	64QAM	25	0	13.74	14.09	13.72					
10	64QAM	25	12	13.92	14.17	13.84	16	3			
10	64QAM	25	25	14.15	14.02	14.08					
10	64QAM	50	0	13.96	14.22	13.91					
Channel				2077.5	2110	2142.5	Tune-up limit (dBm)	MPR (dB)			
Frequency (MHz)				2502.5	2535	2567.5					
5	QPSK	1	0	16.51	16.59	16.36	19	0			
5	QPSK	1	12	17.13	17.21	16.93					
5	QPSK	1	24	16.63	16.78	16.61					
5	QPSK	12	0	16.08	16.08	16.02					
5	QPSK	12	7	16.28	16.22	16.04	18	1			
5	QPSK	12	13	16.15	16.03	16.23					
5	QPSK	25	0	16.13	16.05	16.19					
5	16QAM	1	0	15.99	16.07	16.13					
5	16QAM	1	12	16.34	16.57	16.41	18	1			
5	16QAM	1	24	16.21	16.29	16.29					
5	16QAM	12	0	14.93	15.12	15.03					
5	16QAM	12	7	15.16	15.29	15.22	17	2			
5	16QAM	12	13	15.04	15.12	15.02					
5	16QAM	25	0	15.02	15.08	15.01					
5	64QAM	1	0	14.73	15.15	14.71					
5	64QAM	1	12	15.29	15.29	15.03	17	2			
5	64QAM	1	24	14.74	14.96	14.82					
5	64QAM	12	0	13.61	13.99	13.66					
5	64QAM	12	7	13.82	14.15	13.87	16	3			
5	64QAM	12	13	13.68	13.97	13.75					
5	64QAM	25	0	13.63	13.96	13.68					

Band 66											
BW (MHz)	Modulatio n	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPR (dB)			
Channel				13392	13322	13352					
Frequency (MHz)				1720	1745	1770					
20	QPSK	1	0	19.39	19.80	18.96	20	0			
20	QPSK	1	49	19.06	18.91	18.91					
20	QPSK	1	99	19.38	19.83	18.95					
20	QPSK	50	0	18.07	18.17	17.65					
20	QPSK	50	24	18.08	18.28	18.21	19	1			
20	QPSK	50	50	17.82	18.27	17.65					
20	QPSK	100	0	17.81	18.42	17.57					
20	16QAM	1	0	17.84	18.75	17.54					
20	16QAM	1	49	17.85	17.77	17.85	19	1			
20	16QAM	1	99	17.88	18.70	17.79					
20	16QAM	50	0	16.48	17.07	16.29					
20	16QAM	50	24	16.47	16.78	17.04	18	2			
20	16QAM	50	50	16.52	17.13	16.37					
20	16QAM	100	0	16.53	17.07	16.26					
20	64QAM	1	0	16.83	17.67	16.62					
20	64QAM	1	49	16.87	16.71	16.82	18	2			
20	64QAM	1	99	16.81	17.63	16.85					
20	64QAM	50	0	15.30	15.64	15.38					
20	64QAM	50	24	16.03	15.32	15.59	17	3			
20	64QAM	50	50	15.31	15.71	15.48					
20	64QAM	100	0	15.20	15.66	15.47					
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)			
Frequency (MHz)				1717.5	1745	1772.5					
15	QPSK	1	0	18.87	18.68	18.76	20	0			
15	QPSK	1	37	18.55	18.40	18.59					
15	QPSK	1	74	18.89	18.51	19.14					
15	QPSK	36	0	17.81	17.63	17.72					
15	QPSK	36	20	17.69	17.54	18.14	19	1			
15	QPSK	36	39	17.85	17.33	17.93					
15	QPSK	75	0	17.74	17.39	17.78					
15	16QAM	1	0	18.14	17.93	18.21					
15	16QAM	1	37	18.01	17.71	17.97	19	1			
15	16QAM	1	74	18.21	17.66	18.47					
15	16QAM	36	0	16.84	16.69	16.67					
15	16QAM	36	20	16.79	16.61	17.04	18	2			
15	16QAM	36	39	16.67	16.44	16.62					
15	16QAM	75	0	16.85	16.51	16.81					
15	64QAM	1	0	17.19	16.66	16.90					



Reduced Power Mode for Hotspot On

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
TX Channel	824.2	836.4	848.8		824.2	836.4	848.8	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	31.42	31.37	31.35	31.50	22.42	22.37	22.35	22.50
GPRS 1 Tx slot	31.41	31.36	31.33	31.50	22.41	22.36	22.33	22.50
GPRS 2 Tx slots	29.34	29.35	29.26	30.00	23.34	23.35	23.26	24.00
GPRS 3 Tx slots	27.37	27.31	27.29	28.00	23.11	23.05	23.03	23.74
GPRS 4 Tx slots	25.27	25.26	25.26	26.00	22.27	22.26	22.26	23.00
EDGE 1 Tx slot	24.10	24.42	24.29	25.00	15.10	15.42	15.29	16.00
EDGE 2 Tx slots	22.05	22.32	22.33	23.00	16.05	16.32	16.33	17.00
EDGE 3 Tx slots	19.82	20.12	20.12	21.00	15.56	15.86	15.86	16.74
EDGE 4 Tx slots	17.34	17.75	17.62	19.00	14.34	14.75	14.62	16.00

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
TX Channel	1850.2	1880	1909.8		1850.2	1880	1909.8	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	25.56	25.61	25.47	26.00	16.56	16.61	16.47	17.00
GPRS 1 Tx slot	25.52	25.57	25.41	26.00	16.52	16.57	16.41	17.00
GPRS 2 Tx slots	23.58	23.59	23.41	25.00	17.58	17.59	17.41	19.00
GPRS 3 Tx slots	21.63	21.62	21.42	23.00	17.37	17.36	17.16	18.74
GPRS 4 Tx slots	19.51	19.48	19.36	21.00	16.51	16.48	16.36	18.00
EDGE 1 Tx slot	21.12	21.09	20.65	22.00	12.12	12.09	11.65	13.00
EDGE 2 Tx slots	20.44	20.74	20.12	21.00	14.44	14.74	14.12	15.00
EDGE 3 Tx slots	18.33	18.56	18.15	19.00	14.07	14.30	13.89	14.74
EDGE 4 Tx slots	16.16	16.20	15.66	17.00	13.16	13.20	12.66	14.00

Band	TX Channel	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)
		9262	9400	9538		1312	1413	1513		4132	4182	4233	
	Rx Channel	9662	9800	9938		1537	1638	1738		4357	4407	4458	
	Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	19.52	19.71	19.72	20.50	20.38	20.68	20.74	21.50	22.01	21.85	21.79	22.50
3GPP Rel 99	RMC 12.2Kbps	19.62	19.74	19.77	20.50	20.41	20.72	20.76	21.50	22.04	21.94	21.98	22.50
3GPP Rel 6	HSDPA Subtest-1	18.28	18.44	18.48	19.50	19.44	19.73	19.61	20.50	21.39	21.27	21.02	21.50
3GPP Rel 6	HSDPA Subtest-2	18.02	18.08	18.01	19.50	19.45	19.75	19.28	20.50	21.15	21.04	20.95	21.50
3GPP Rel 6	HSDPA Subtest-3	18.37	18.24	18.31	19.00	19.41	19.71	19.38	20.00	20.81	20.70	20.65	21.00
3GPP Rel 6	HSDPA Subtest-4	17.84	17.87	17.82	19.00	19.41	19.72	19.19	20.00	20.71	20.59	20.55	21.00
3GPP Rel 8	DC-HSDPA Subtest-1	18.16	18.29	18.28	19.50	19.42	19.58	19.46	20.50	21.27	21.13	20.90	21.50
3GPP Rel 8	DC-HSDPA Subtest-2	17.80	17.98	17.90	19.50	19.40	19.70	19.26	20.50	20.96	20.92	20.86	21.50
3GPP Rel 8	DC-HSDPA Subtest-3	18.21	18.23	18.19	19.00	19.25	19.63	19.25	20.00	20.74	20.71	20.68	21.00
3GPP Rel 8	DC-HSDPA Subtest-4	17.93	17.94	17.92	19.00	19.29	19.71	19.16	20.00	20.74	20.68	20.63	21.00
3GPP Rel 6	HSUPA Subtest-1	16.07	16.16	16.02	18.00	17.56	17.59	17.28	19.00	18.65	18.01	17.97	20.00
3GPP Rel 6	HSUPA Subtest-2	16.08	16.14	16	18.00	17.12	18.10	17.77	19.00	18.07	18.34	18.31	20.00
3GPP Rel 6	HSUPA Subtest-3	16.08	16.11	16.01	18.00	17.52	18.07	17.72	19.00	18.61	18.27	18.26	20.00
3GPP Rel 6	HSUPA Subtest-4	16.09	16.35	16.23	18.00	17.87	18.35	17.74	19.00	18.04	17.90	17.98	20.00
3GPP Rel 6	HSUPA Subtest-5	18.00	18.40	18.00	19.00	18.06	18.40	18.01	20.00	20.40	20.10	20.10	21.00



Band 2 (1900MHz Band) Part 24E									
BW (MHz)	Modulo	RB Size	RB Offset	Power Low Ch./Freq	Power Middle Ch./Freq	Power High Ch./Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	18.06	18.09	18.22	20	0	
20	QPSK	1	49	18.51	18.61	18.96			
20	QPSK	1	99	18.65	18.04	18.47			
20	QPSK	50	0	17.51	18.34	18.32			
20	QPSK	50	24	17.40	17.78	18.10	19	1	
20	QPSK	50	50	17.44	17.77	17.70			
20	QPSK	100	0	17.42	18.12	17.92			
20	16QAM	1	0	18.02	18.81	18.76			
20	16QAM	1	49	17.48	17.59	17.89	19	1	
20	16QAM	1	99	17.95	18.12	17.58			
20	16QAM	50	0	16.19	17.13	17.35			
20	16QAM	50	24	16.09	16.58	16.85	18	2	
20	16QAM	50	50	16.45	16.94	16.55			
20	16QAM	100	0	16.30	16.85	16.96			
20	64QAM	1	0	17.06	17.78	17.71			
20	64QAM	1	49	16.10	16.53	16.88	18	2	
20	64QAM	1	99	16.88	17.07	16.51			
20	64QAM	50	0	15.07	15.58	15.91			
20	64QAM	50	24	15.01	15.01	15.42	17	3	
20	64QAM	50	50	15.34	15.38	15.11			
20	64QAM	100	0	15.19	15.31	15.51			
Channel									
Frequency (MHz)									
15	QPSK	1	0	18.23	18.49	18.83	20	0	
15	QPSK	1	37	18.21	18.17	18.28			
15	QPSK	1	74	18.26	18.13	18.15			
15	QPSK	36	0	17.12	17.56	17.78			
15	QPSK	36	20	17.23	17.27	17.31	19	1	
15	QPSK	36	32	17.33	17.20	17.09			
15	QPSK	75	0	17.01	17.39	17.45			
15	16QAM	1	0	17.16	17.92	18.25			
15	16QAM	1	37	17.09	17.46	17.54	19	1	
15	16QAM	1	74	17.50	17.29	17.19			
15	16QAM	36	0	16.02	16.65	16.87			
15	16QAM	36	20	16.02	16.35	16.40	18	2	
15	16QAM	36	30	16.21	16.28	16.18			
15	16QAM	75	0	16.12	16.47	16.53			
15	64QAM	1	0	16.15	16.89	17.22			
15	64QAM	1	37	16.07	16.47	16.50	18	2	
15	64QAM	1	74	16.44	16.25	16.25			
15	64QAM	36	0	15.02	15.13	15.44			
15	64QAM	36	20	15.03	15.18	15.32	17	3	
15	64QAM	36	30	15.19	15.09	15.07			
15	64QAM	75	0	15.06	15.12	15.08			
Channel									
Frequency (MHz)									
10	QPSK	1	0	18.13	18.72	18.86	20	0	
10	QPSK	1	25	18.33	18.56	18.63			
10	QPSK	1	49	18.67	18.72	18.72			
10	QPSK	25	0	17.37	17.47	17.67	19	1	
10	QPSK	25	12	17.33	17.42	17.78			
10	QPSK	25	25	17.14	17.45	17.41			
10	QPSK	50	0	17.12	17.43	17.48			
10	16QAM	1	0	17.14	17.58	17.87			
10	16QAM	1	25	17.12	17.58	17.54	19	1	
10	16QAM	1	49	17.53	17.62	17.65			
10	16QAM	25	0	16.02	16.50	16.69			
10	16QAM	25	12	16.01	16.24	16.54	18	2	
10	16QAM	25	25	16.24	16.52	16.54			
10	16QAM	50	0	16.10	16.51	16.62			
10	64QAM	1	0	16.12	16.56	16.85			
10	64QAM	1	25	16.10	16.55	16.54	18	2	
10	64QAM	1	49	16.54	16.60	16.70			
10	64QAM	25	0	15.12	15.22	15.15			
10	64QAM	25	12	15.06	15.20	15.00	17	3	
10	64QAM	25	25	15.17	15.15	15.00			
10	64QAM	50	0	15.03	15.14	15.08			
Channel									
Frequency (MHz)									
5	QPSK	1	0	18.15	18.43	18.07	20	0	
5	QPSK	1	12	18.61	18.88	18.61			
5	QPSK	1	24	18.11	18.56	18.06			
5	QPSK	12	0	17.45	18.30	17.28	19	1	
5	QPSK	12	6	17.58	17.41	17.65			
5	QPSK	12	13	17.42	17.18	17.47			
5	QPSK	25	0	17.45	17.23	17.53			
5	16QAM	1	0	17.42	17.27	17.55			
5	16QAM	1	12	17.85	17.84	17.92	19	1	
5	16QAM	1	24	17.38	17.52	17.36			
5	16QAM	12	0	16.56	16.70	16.54	18	2	
5	16QAM	12	6	16.69	16.63	16.72			
5	16QAM	12	13	16.53	16.73	16.53			
5	16QAM	25	0	16.56	16.80	16.59			
5	64QAM	1	0	16.39	16.68	16.51			
5	64QAM	1	12	16.86	17.07	16.87	18	2	
5	64QAM	1	24	16.31	16.47	16.32			
5	64QAM	12	0	15.13	15.22	15.19			
5	64QAM	12	6	15.25	15.34	15.28	17	3	
5	64QAM	12	13	15.11	15.11	15.10			
5	64QAM	25	0	15.10	15.15	15.12			
Channel									
Frequency (MHz)									
3	QPSK	1	0	18.51	18.74	18.43	20	0	
3	QPSK	1	8	18.59	18.76	18.49			
3	QPSK	1	14	18.44	18.60	18.34			
3	QPSK	8	0	17.56	17.27	17.58	19	1	
3	QPSK	8	4	17.59	17.75	17.58			
3	QPSK	8	7	17.54	17.69	17.52			
3	QPSK	15	0	17.55	17.73	17.54			
3	16QAM	1	0	17.73	17.92	17.73	19	1	
3	16QAM	1	8	17.83	17.99	17.83			
3	16QAM	1	14	17.68	17.81	17.66			
3	16QAM	8	0	16.71	16.91	16.67	18	2	
3	16QAM	8	4	16.74	16.91	16.69			
3	16QAM	8	7	16.71	16.86	16.64			
3	16QAM	15	0	16.88	16.85	16.83			
3	64QAM	1	0	16.73	16.94	16.70			
3	64QAM	1	8	16.83	16.97	16.74	18	2	
3	64QAM	1	14	16.67	16.82	16.62			
3	64QAM	8	0	15.24	15.27	15.19			
3	64QAM	8	4	15.27	15.30	15.22	17	3	
3	64QAM	8	7	15.23	15.21	15.16			
3	64QAM	15	0	15.20	15.15	15.16			
Channel									
Frequency (MHz)									
1.4	QPSK	1	0	18.47	18.64	18.32	20	0	
1.4	QPSK	1	3	18.64	18.79	18.48			
1.4	QPSK	1	5	18.45	18.59	18.30			
1.4	QPSK	3	0	18.58	18.75	18.44	19	1	
1.4	QPSK	3	1	18.84	18.80	18.49			
1.4	QPSK	3	3	18.58	18.73	18.42			
1.4	QPSK	6	0	17.52	17.68	17.47	19	1	
1.4	16QAM	1	0	17.70	17.84	17.61			
1.4	16QAM	1	3	17.89	18.01	17.85			
1.4	16QAM	1	5	17.68	17.83	17.84	19	1	
1.4	16QAM	3	0	17.65	17.69	17.48			
1.4	16QAM	3	1	17.82	17.77	17.54			
1.4	16QAM	3	3	17.56	17.66	17.46			
1.4	16QAM	6	0	16.72	16.85	16.61	18	2	
1.4	64QAM	1	0	16.69	16.82	16.58			
1.4	64QAM	1	3	16.85	17.02	16.76			
1.4	64QAM	1	5	16.70	16.78	16.54	18	2	
1.4	64QAM	3	0	16.77	16.83	16.67			
1.4	64QAM	3	1	16.85	16.96	16.72			
1.4	64QAM	3	3	16.76	16.90	16.68			
1.4	64QAM	6	0	15.18	15.15	15.08	17	3	

Band 4 (AWS Band) Part 27L (only on channel required)									
BW (MHz)	Modulo	RB Size	RB Offset	Power Low Ch./Freq	Power Middle Ch./Freq	Power High Ch./Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	17.27	17.75	18.23	19	0	
20	QPSK	1	49	17.03	18.09	17.23			
20	QPSK	1	99	17.23	17.74	18.19			
20	QPSK	50	0	16.77	16.83	16.80			
20	QPSK	50	24	16.10	16.68	16.57	18	1	
20	QPSK	50	50	16.17	16.95	16.96			



Band 7 (2600MHz Band) Part 27												
BW (MHz)	Modulatio n	RB Size	RB Offset	Power Low Ch./ Freq	Power Middle Ch./ Freq	Power High Ch./ Freq	Tune-up limit (dBm)	MPR (dB)				
Channel												
Frequency (MHz)												
20	QPSK	1	0	15.64	16.08	15.87	17.5	0				
20	QPSK	1	49	15.51	15.60	15.56						
20	QPSK	1	99	15.68	16.09	16.10						
20	QPSK	50	0	14.85	15.22	15.17						
20	QPSK	50	24	14.58	15.13	14.90	16.5	1				
20	QPSK	50	50	14.13	14.37	14.08						
20	QPSK	100	0	14.77	15.23	15.29						
20	QPSK	100	0	14.85	15.22	15.17						
20	16QAM	1	0	15.19	15.93	15.67	16.5	1				
20	16QAM	1	49	14.94	15.45	15.06						
20	16QAM	1	99	15.57	15.80	15.57						
20	16QAM	50	0	13.94	14.55	14.12						
20	16QAM	50	24	13.96	14.26	13.88	15.5	2				
20	16QAM	50	50	12.51	12.85	12.58						
20	16QAM	100	0	14.00	14.43	14.07						
20	16QAM	100	0	14.08	14.85	14.45						
20	64QAM	1	0	13.91	14.26	13.87	15.5	2				
20	64QAM	1	49	14.44	14.54	14.41						
20	64QAM	1	99	12.69	13.03	12.59						
20	64QAM	50	24	12.56	12.78	12.68						
20	64QAM	50	50	12.51	12.85	12.58	14.5	3				
20	64QAM	100	0	12.70	12.92	12.59						
Channel												
Frequency (MHz)												
15	QPSK	1	0	15.65	15.73	15.62	17.5	0				
15	QPSK	1	37	15.62	15.65	15.69						
15	QPSK	1	74	15.53	15.77	15.70						
15	QPSK	36	0	14.62	15.13	14.55	16.5	1				
15	QPSK	36	20	14.63	14.78	14.78						
15	QPSK	36	39	14.8	15.04	14.60						
15	QPSK	75	0	14.73	15.10	14.57	16.5	1				
15	16QAM	1	0	14.84	15.39	14.91						
15	16QAM	1	37	14.99	15.26	14.79						
15	16QAM	1	74	15.17	15.33	14.98	15.5	2				
15	16QAM	36	0	13.89	13.96	13.52						
15	16QAM	36	20	13.71	13.77	13.75						
15	16QAM	36	39	13.87	13.84	13.87	15.5	2				
15	16QAM	75	0	13.8	13.85	13.54						
15	64QAM	1	0	13.74	13.96	13.88						
15	64QAM	1	37	13.87	13.96	13.60	14.5	3				
15	64QAM	1	74	14.05	13.94	13.79						
15	64QAM	36	0	12.55	12.72	12.63						
15	64QAM	36	20	12.62	12.63	12.63	15.5	2				
15	64QAM	36	39	12.88	12.66	12.69						
15	64QAM	75	0	12.57	12.67	12.63						
Channel												
Frequency (MHz)												
10	QPSK	1	0	15.62	15.70	15.50	17.5	0				
10	QPSK	1	25	15.57	15.64	15.59						
10	QPSK	1	49	15.68	15.96	15.71						
10	QPSK	25	0	14.60	14.81	14.76	16.5	1				
10	QPSK	25	12	14.75	14.88	14.80						
10	QPSK	25	25	14.69	15.02	14.82						
10	QPSK	50	0	14.50	14.92	14.64	16.5	1				
10	16QAM	1	0	14.68	14.97	14.55						
10	16QAM	1	25	14.78	15.17	14.89						
10	16QAM	1	49	15.16	15.47	15.28	15.5	2				
10	16QAM	25	0	13.76	13.82	13.74						
10	16QAM	25	12	13.64	13.81	13.58						
10	16QAM	25	25	13.96	14.05	13.80	15.5	2				
10	16QAM	50	0	13.67	13.94	13.63						
10	64QAM	1	0	13.59	13.75	13.63						
10	64QAM	1	25	13.74	14.08	13.73	14.5	3				
10	64QAM	1	49	14.05	14.26	14.10						
10	64QAM	25	0	12.51	12.64	12.51						
10	64QAM	25	12	12.56	12.74	12.63	15.5	2				
10	64QAM	25	25	12.59	12.57	12.65						
10	64QAM	50	0	12.61	12.76	12.50						
Channel												
Frequency (MHz)												
5	QPSK	1	0	15.55	15.53	15.61	17.5	0				
5	QPSK	1	12	15.70	15.78	15.76						
5	QPSK	1	24	15.58	15.76	15.61						
5	QPSK	12	0	14.50	14.71	14.86	16.5	1				
5	QPSK	12	7	14.65	14.78	14.50						
5	QPSK	12	13	14.54	15.64	15.17						
5	QPSK	25	0	14.63	14.85	14.51	16.5	1				
5	16QAM	1	0	14.60	14.84	14.52						
5	16QAM	1	12	14.88	15.37	15.10						
5	16QAM	1	24	14.65	14.77	14.64	15.5	2				
5	16QAM	12	0	13.79	13.87	13.53						
5	16QAM	12	7	13.68	14.02	13.73						
5	16QAM	12	13	13.54	13.82	13.59	15.5	2				
5	16QAM	25	0	13.51	13.83	13.56						
5	64QAM	1	0	13.53	13.66	13.59						
5	64QAM	1	12	13.88	14.22	13.91	14.5	3				
5	64QAM	1	24	13.64	13.58	13.72						
5	64QAM	12	0	12.61	12.69	12.58						
5	64QAM	12	7	12.60	12.55	12.59	15.5	2				
5	64QAM	12	13	12.51	12.67	12.67						
5	64QAM	25	0	12.68	12.65	12.59						

Band 66												
BW (MHz)	Modulatio n	RB Size	RB Offset	Power Low Ch./ Freq	Power Middle Ch./ Freq	Power High Ch./ Freq	Tune-up limit (dBm)	MPR (dB)				
Channel												
Frequency (MHz)												
20	QPSK	1	0	18.24	18.93	17.91	19	0				
20	QPSK	1	49	17.84	17.94	17.71						
20	QPSK	1	99	18.00	18.91	17.86						
20	QPSK	50	0	16.54	17.46	16.56						
20	QPSK	50	24	16.58	17.58	17.51	18	1				
20	QPSK	50	50	16.50	17.44	16.70						
20	QPSK	100	0	16.76	17.77	16.75						
20	16QAM	1	0	17.30	17.76	16.56						
20	16QAM	1	49	17.15	16.78	16.91	18	1				
20	16QAM	1	99	17.37	17.77	16.87						
20	16QAM	50	0	15.94	16.07	15.59						
20	16QAM	50	24	15.95	15.78	16.05						
20	16QAM	50	50	16.00	16.13	15.70	17	2				
20	16QAM	100	0	16.00	16.08	15.57						
20	64QAM	1	0	16.36	16.62	15.56						
20	64QAM	1	49	16.09	15.68	15.77						
20	64QAM	1	99	16.46	16.58	15.82	17	2				
20	64QAM	50	0	14.71	15.37	14.54						
20	64QAM	50	24	14.73	15.04	15.44						
20	64QAM	50	50	14.75	15.41	14.78						
20	64QAM	100	0	14.78	15.33	14.57	16	3				
Channel												
Frequency (MHz)												
15	QPSK	1	0	18.75	18.71	18.52			19	0		
15	QPSK	1	37	18.52	18.52	18.36						
15	QPSK	1	74	18.75	18.35	18.66						
15	QPSK	36	0	17.45	17.62	17.23	18	1				
15	QPSK	36	20	17.44	17.53	17.63						
15	QPSK	36	39	17.53	17.30	17.42						
15	QPSK	75	0	17.50	17.36	17.24	18	1				
15	16QAM	1	0	17.99	17.95	17.71						
15	16QAM	1	37	17.73	17.70	17.49						
15	16QAM	1	74	17.87	17.66	17.96	17	2				
15	16QAM	36	0	16.57	16.64	16.22						
15	16QAM	36	20	16.45	16.38	16.63						
15	16QAM	36	39	16.63	16.62	16.39	17	2				
15	16QAM	75	0	16.52	16.48	16.35						
15	64QAM	1	0	16.97	16.62	16.61						
15	64QAM	1	37	16.65	16.60	16.43	16	3				
15	64QAM	1	74	16.88	16.62	16.77						
15	64QAM	36	0	15.24	15.24	14.79						
15	64QAM	36	20	15.03	15.15	15.30	15.5	2				
15	64QAM	36	39	15.18	15.04	15.04						
15	64QAM	75	0	15.07	15.00	14.99						
Channel												
Frequency (MHz)												
10	QPSK	1	0	18.08	18.73	17.62	19	0				
10	QPSK	1	25	17.84	17.87	17.77						
10	QPSK	1	49	17.90	18.85	18.02						
10	QPSK	25	0	16.58	17.26	16.64	18	1				
10	QPSK	25	12	16.55	17.09	17.38						
10	QPSK	25	25	16.64	16.30	17.64						
10	QPSK	50	0	16.94	16.38	17.72	18	1				
10	16QAM	1	0	17.46	16.55	17.50						
10	16QAM	1	25	17.08	16.75	17.31						
10	16QAM	1	49	17.26	16.60	17.58	17	2				
10	16QAM	25	0	16.07	15.54	16.11						
10	16QAM	25	12	15.72	15.65	15.38						
10	16QAM	25	25	15.93	15.35	16.08	17	2				
10	16QAM	50	0	16.07	15.46	16.17						
10	64QAM	1	0	16.32	15.52	16.35						



Reduced Power Mode for Handheld On

GSM1900		Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
Tx Channel	512	661	810	512		661	810		
Frequency (MHz)	1850.2	1880	1909.8	1850.2	1880	1909.8			
GSM 1 Tx slot	28.85	28.94	28.84	29.50	19.85	19.94	19.84	20.50	
GPRS 1 Tx slot	28.81	28.91	28.82	29.50	19.81	19.81	19.82	20.50	
GPRS 2 Tx slots	27.01	27.02	26.87	28.50	21.01	21.02	20.87	22.50	
GPRS 3 Tx slots	24.96	24.97	24.81	26.50	20.70	20.71	20.55	22.24	
GPRS 4 Tx slots	23.01	23.05	22.86	24.50	20.01	20.05	19.86	21.50	
EDGE 1 Tx slot	25.12	25.30	24.89	25.50	16.12	16.30	15.89	16.50	
EDGE 2 Tx slots	23.67	23.56	23.01	24.50	17.67	17.56	17.01	18.50	
EDGE 3 Tx slots	21.61	21.10	20.74	22.50	17.35	16.84	16.48	18.24	
EDGE 4 Tx slots	19.81	19.60	19.32	20.50	16.81	16.60	16.32	17.50	
Band		WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)
Tx Channel	9262	9400	9538	1312		1413	1513		
Rx Channel	9662	9800	9938	1537	1638	1738			
Frequency (MHz)	1852.4	1880	1907.6	1712.4	1732.6	1752.6			
3GPP Rel 99 AMR 12.2kbps	21.12	21.24	21.32	22.00	21.38	21.59	21.71	22.00	
3GPP Rel 99 RMC 12.2kbps	21.14	21.36	21.38	22.00	21.41	21.74	21.75	22.00	
3GPP Rel 6 HSDPA Subtest-1	20.28	20.31	20.51	21.00	19.54	19.82	19.52	21.00	
3GPP Rel 6 HSDPA Subtest-2	19.89	19.94	20.17	21.00	19.53	19.85	19.56	21.00	
3GPP Rel 6 HSDPA Subtest-3	20.02	20.09	20.33	20.50	19.52	19.82	19.53	20.50	
3GPP Rel 6 HSDPA Subtest-4	19.74	19.73	19.97	20.50	19.53	19.86	19.51	20.50	
3GPP Rel 8 DC-HSDPA Subtest-1	20.28	20.12	20.33	21.00	19.30	19.64	19.41	21.00	
3GPP Rel 8 DC-HSDPA Subtest-2	19.84	19.75	20.10	21.00	19.36	19.66	19.45	21.00	
3GPP Rel 8 DC-HSDPA Subtest-3	19.94	19.91	20.21	20.50	19.41	19.74	19.34	20.50	
3GPP Rel 8 DC-HSDPA Subtest-4	19.89	19.87	20.00	20.50	19.44	19.77	19.37	20.50	
3GPP Rel 6 HSUPA Subtest-1	18.02	17.56	17.57	19.50	18.71	18.59	18.35	19.50	
3GPP Rel 6 HSUPA Subtest-2	17.74	18.02	18.24	19.50	18.22	19.08	18.75	19.50	
3GPP Rel 6 HSUPA Subtest-3	18.14	18.06	18.27	19.50	18.90	19.04	18.72	19.50	
3GPP Rel 6 HSUPA Subtest-4	18.12	18.03	18.25	19.50	18.96	19.08	19.01	19.50	
3GPP Rel 6 HSUPA Subtest-5	20.40	20.40	20.50	20.50	19.00	19.40	19.00	20.50	



Band 2 (1900MHz Band) Part 24E												
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)				
Channel				1870	1880	1900						
Frequency (MHz)				1870	1880	1900						
20	QPSK	1	0	22.11	22.12	21.94						
20	QPSK	1	49	21.97	21.94	21.81	23.5	0				
20	QPSK	1	99	21.79	21.93	21.66						
20	QPSK	50	0	21.59	21.60	21.35						
20	QPSK	50	24	21.51	21.46	21.32	22.5	1				
20	QPSK	50	50	21.38	21.27	21.25						
20	QPSK	100	0	21.44	21.46	21.33						
20	16QAM	1	0	21.41	20.97	21.48						
20	16QAM	1	49	21.34	20.94	21.36	22.5	1				
20	16QAM	1	99	21.25	20.95	21.33						
20	16QAM	50	0	20.62	20.57	20.49						
20	16QAM	50	24	20.51	20.53	20.43	21.5	2				
20	16QAM	50	50	20.50	20.42	20.40						
20	16QAM	100	0	20.56	20.55	20.51						
20	64QAM	1	0	20.39	19.86	20.09						
20	64QAM	1	49	20.40	19.92	19.88	21.5	2				
20	64QAM	1	99	20.27	19.79	19.95						
20	64QAM	50	0	19.06	19.90	19.98						
20	64QAM	50	24	19.05	19.30	19.39						
20	64QAM	50	50	19.39	19.40	19.45	20.5	3				
20	64QAM	100	0	19.24	19.44	19.81						
Channel				1897.5	1890	1912						
Frequency (MHz)				1897.5	1880	1902.5						
15	QPSK	1	0	21.83	21.79	21.80	23.5	0				
15	QPSK	1	37	21.79	21.83	21.77						
15	QPSK	1	74	21.84	21.69	21.75						
15	QPSK	36	0	21.48	21.42	21.38						
15	QPSK	36	20	21.40	21.37	21.31	22.5	1				
15	QPSK	36	39	21.47	21.29	21.28						
15	QPSK	75	0	21.51	21.39	21.31						
15	16QAM	1	0	21.56	21.63	21.22						
15	16QAM	1	37	21.50	21.50	21.25	22.5	1				
15	16QAM	1	74	21.48	21.50	21.28						
15	16QAM	36	0	20.57	20.52	20.48						
15	16QAM	36	20	20.46	20.43	20.53	21.5	2				
15	16QAM	36	39	20.45	20.48	20.53						
15	16QAM	75	0	20.55	20.53	20.41						
15	64QAM	1	0	20.18	20.05	20.31						
15	64QAM	1	37	19.99	19.97	20.33	21.5	2				
15	64QAM	1	74	19.88	19.89	20.23						
15	64QAM	36	0	18.96	19.61	19.63						
15	64QAM	36	20	19.02	19.40	19.29	20.5	3				
15	64QAM	36	39	19.29	19.34	19.10						
15	64QAM	75	0	19.11	19.40	19.36						
Channel				1855	1880	1910						
Frequency (MHz)				1855	1880	1905						
10	QPSK	1	0	21.98	21.81	21.74	23.5	0				
10	QPSK	1	25	21.89	21.77	21.79						
10	QPSK	1	49	21.86	21.72	21.83						
10	QPSK	25	0	21.52	21.32	21.34						
10	QPSK	25	12	21.48	21.43	21.23	22.5	1				
10	QPSK	25	25	21.45	21.37	21.23						
10	QPSK	50	0	21.44	21.35	21.30						
10	16QAM	1	0	21.56	21.30	21.44						
10	16QAM	1	25	21.47	21.27	21.43	22.5	1				
10	16QAM	1	49	21.52	21.22	21.38						
10	16QAM	25	0	20.54	20.64	20.34						
10	16QAM	25	12	20.53	20.68	20.35	21.5	2				
10	16QAM	25	25	20.49	20.65	20.35						
10	16QAM	50	0	20.55	20.44	20.41						
10	64QAM	1	0	20.20	20.21	20.02						
10	64QAM	1	25	20.18	20.23	20.04	21.5	2				
10	64QAM	1	49	20.34	20.28	19.99						
10	64QAM	25	0	18.96	19.47	19.47						
10	64QAM	25	12	19.97	19.46	19.36	20.5	3				
10	64QAM	25	25	19.24	19.55	19.43						
10	64QAM	50	0	19.08	19.55	19.47						
Channel				1825	1890	1917.5						
Frequency (MHz)				1825	1880	1907.5						
5	QPSK	1	0	22.10	21.99	21.89	23.5	0				
5	QPSK	1	12	22.07	21.90	21.87						
5	QPSK	1	24	22.07	22.10	22.09						
5	QPSK	12	0	21.60	21.50	21.58						
5	QPSK	12	6	21.52	21.43	21.47	22.5	1				
5	QPSK	12	13	21.55	21.44	21.37						
5	QPSK	25	0	21.53	21.52	21.32						
5	16QAM	1	0	21.74	21.36	21.25						
5	16QAM	1	12	21.64	21.41	21.23	22.5	1				
5	16QAM	1	24	21.64	21.45	21.18						
5	16QAM	12	0	20.74	20.59	20.47						
5	16QAM	12	7	20.75	20.50	20.52	21.5	2				
5	16QAM	12	13	20.74	20.55	20.42						
5	16QAM	25	0	20.64	20.52	20.64						
5	64QAM	1	0	20.37	20.14	20.23						
5	64QAM	1	12	20.29	20.08	20.20	21.5	2				
5	64QAM	1	24	20.24	20.12	20.26						
5	64QAM	12	0	19.07	19.37	19.19						
5	64QAM	12	7	19.22	19.48	19.29	20.5	3				
5	64QAM	12	13	19.10	19.31	19.13						
5	64QAM	25	0	19.10	19.38	19.16						
Channel				1815	1890	1918.5						
Frequency (MHz)				1815	1880	1908.5						
3	QPSK	1	0	22.01	21.84	21.73	23.5	0				
3	QPSK	1	8	22.05	21.80	21.81						
3	QPSK	1	14	22.07	21.92	21.71						
3	QPSK	8	0	21.52	21.48	21.29	22.5	1				
3	QPSK	8	4	21.57	21.45	21.31						
3	QPSK	8	7	21.58	21.52	21.36						
3	QPSK	15	0	21.56	21.55	21.34						
3	16QAM	1	0	21.66	20.85	21.40						
3	16QAM	1	8	21.64	20.76	21.40	22.5	1				
3	16QAM	1	14	21.65	20.74	21.36						
3	16QAM	8	0	20.78	20.56	20.57	21.5	2				
3	16QAM	8	4	20.78	20.55	20.58						
3	16QAM	8	7	20.80	20.54	20.56						
3	16QAM	15	0	20.80	20.61	20.50						
3	64QAM	1	0	20.52	20.21	20.03	21.5	2				
3	64QAM	1	8	20.49	20.19	20.02						
3	64QAM	1	14	20.52	20.23	19.92						
3	64QAM	8	0	19.22	19.42	19.14	20.5	3				
3	64QAM	8	4	19.24	19.45	19.18						
3	64QAM	8	7	19.22	19.41	19.15						
3	64QAM	15	0	19.21	19.43	19.15						
Channel				1807	1890	1919.5						
Frequency (MHz)				1807	1880	1909.5						
1.4	QPSK	1	0	22.00	21.93	21.80	23.5	0				
1.4	QPSK	1	3	22.11	21.96	21.83						
1.4	QPSK	1	5	22.10	21.88	21.77						
1.4	QPSK	3	0	22.08	22.05	21.86						
1.4	QPSK	3	1	22.11	22.04	21.90	22.5	1				
1.4	QPSK	3	3	22.10	22.02	21.88						
1.4	QPSK	6	0	21.67	21.41	21.40						
1.4	16QAM	1	0	21.51	20.85	21.18	22.5	1				
1.4	16QAM	1	3	21.45	20.88	21.31						
1.4	16QAM	1	5	21.47	20.75	21.19	22.5	1				
1.4	16QAM	3	0	21.91	21.43	21.60						
1.4	16QAM	3	1	21.94	21.38	21.64						
1.4	16QAM	3	3	21.87	21.61	21.59						
1.4	16QAM	6	0	20.58	20.36	20.34	21.5	2				
1.4	64QAM	1	0	20.01	20.01	20.77						
1.4	64QAM	1	3	20.02	19.89	20.80						
1.4	64QAM	1	5	20.08	19.83	20.79	21.5	2				
1.4	64QAM	3	0	20.68	20.35	20.40						
1.4	64QAM	3	1	20.70	20.35	20.43						
1.4	64QAM	3	3	20.66	20.32	20.42						
1.4	64QAM	6	0	19.18	19.34	19.02	20.5	3				

Band 4 (AWS Band) Part 27L (only on channel required)												
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)				
Channel												



Band 7 (2600MHz Band) Part 27									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				20850	21100	21350			
Frequency (MHz)				2510	2535	2560			
20	QPSK	1	0	21.67	21.72	21.67			
20	QPSK	1	49	21.65	21.57	21.54	23.5	0	
20	QPSK	1	99	21.70	21.73	21.75			
20	QPSK	50	0	21.11	21.02	21.27			
20	QPSK	50	24	21.21	21.32	21.14	22.5	1	
20	QPSK	50	50	21.24	21.34	21.35			
20	QPSK	100	0	21.09	21.30	21.39			
20	16QAM	1	0	21.25	21.10	21.34			
20	16QAM	1	49	21.36	21.18	21.37	22.5	1	
20	16QAM	1	99	21.36	21.17	21.44			
20	16QAM	50	0	19.80	20.22	20.12			
20	16QAM	50	24	19.74	19.93	19.93	21.5	2	
20	16QAM	50	50	20.05	20.07	20.17			
20	16QAM	100	0	19.90	20.24	20.11			
20	64QAM	1	0	19.94	20.64	20.52			
20	64QAM	1	49	19.99	20.05	20.03	21.5	2	
20	64QAM	1	99	20.37	20.36	20.50			
20	64QAM	50	0	18.65	19.15	18.83			
20	64QAM	50	24	18.63	18.92	18.66	20.5	3	
20	64QAM	50	50	18.85	19.05	18.91			
20	64QAM	100	0	18.62	19.08	18.87			
Channel				20925	21100	21375	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2507.5	2535	2562.5			
15	QPSK	1	0	21.58	21.62	21.53	23.5	0	
15	QPSK	1	37	21.55	21.61	21.66			
15	QPSK	1	74	21.60	21.70	21.74			
15	QPSK	36	0	21.25	21.20	21.22			
15	QPSK	36	20	21.26	21.22	21.32	22.5	1	
15	QPSK	36	39	21.25	21.30	21.32			
15	QPSK	75	0	21.15	21.32	21.39			
15	16QAM	1	0	21.40	21.57	21.03			
15	16QAM	1	37	21.34	21.49	21.20	22.5	1	
15	16QAM	1	74	21.43	21.54	21.21			
15	16QAM	36	0	20.01	20.18	19.90			
15	16QAM	36	20	20.05	20.01	19.84	21.5	2	
15	16QAM	36	39	20.05	20.03	20.03			
15	16QAM	75	0	19.97	20.07	19.96			
15	64QAM	1	0	19.82	20.22	20.03			
15	64QAM	1	37	20.03	20.14	19.97	21.5	2	
15	64QAM	1	74	20.27	20.16	20.27			
15	64QAM	36	0	18.57	18.99	18.65			
15	64QAM	36	20	18.64	18.90	18.63	20.5	3	
15	64QAM	36	39	18.59	18.99	18.79			
15	64QAM	75	0	18.70	18.90	18.72			
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2505	2535	2565			
10	QPSK	1	0	21.70	21.61	21.59	23.5	0	
10	QPSK	1	25	21.52	21.61	21.54			
10	QPSK	1	49	21.62	21.70	21.50			
10	QPSK	25	0	21.03	21.17	21.16			
10	QPSK	25	39	21.20	21.30	21.22	22.5	1	
10	QPSK	25	25	21.06	21.18	21.15			
10	QPSK	50	0	21.19	21.31	21.19			
10	16QAM	1	0	21.23	21.39	21.32			
10	16QAM	1	25	21.28	21.43	21.32	22.5	1	
10	16QAM	1	49	21.34	21.43	21.38			
10	16QAM	25	0	19.55	20.06	19.67			
10	16QAM	25	12	19.69	20.11	20.02	21.5	2	
10	16QAM	25	25	19.97	20.26	20.32			
10	16QAM	50	0	19.87	20.16	20.15			
10	64QAM	1	0	19.77	20.05	19.90			
10	64QAM	1	25	20.09	20.19	20.11	21.5	2	
10	64QAM	1	49	20.54	20.56	20.66			
10	64QAM	25	0	18.52	18.87	18.68			
10	64QAM	25	12	18.71	18.95	18.90	20.5	3	
10	64QAM	25	25	18.89	19.13	19.07			
10	64QAM	50	0	18.63	19.04	18.91			
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2502.5	2535	2567.5			
5	QPSK	1	0	21.65	21.70	21.59	23.5	0	
5	QPSK	1	12	21.59	21.65	21.58			
5	QPSK	1	24	21.58	21.55	21.59			
5	QPSK	12	0	21.08	21.27	21.12			
5	QPSK	12	7	21.14	21.34	21.20	22.5	1	
5	QPSK	12	13	21.16	21.31	21.27			
5	QPSK	25	0	21.08	21.32	21.14			
5	16QAM	1	0	21.13	21.52	21.37			
5	16QAM	1	12	21.12	21.27	21.44	22.5	1	
5	16QAM	1	24	21.16	21.31	21.36			
5	16QAM	12	0	20.05	19.93	19.88			
5	16QAM	12	7	20.24	20.04	20.05	21.5	2	
5	16QAM	12	13	20.17	19.96	20.01			
5	16QAM	25	0	20.07	19.92	19.90			
5	64QAM	1	0	19.82	19.79	19.65			
5	64QAM	1	12	20.41	20.26	20.23	21.5	2	
5	64QAM	1	24	19.96	19.70	19.86			
5	64QAM	12	0	18.54	18.78	18.66			
5	64QAM	12	7	18.69	18.94	18.73	20.5	3	
5	64QAM	12	13	18.60	18.79	18.62			
5	64QAM	25	0	18.54	18.78	18.56			

Band 66									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				13272	13322	13372			
Frequency (MHz)				1720	1745	1770			
20	QPSK	1	0	21.67	21.76	21.75			
20	QPSK	1	49	21.63	21.73	21.74	22.5	0	
20	QPSK	1	99	21.59	21.75	21.65			
20	QPSK	50	0	21.07	21.27	21.33			
20	QPSK	50	24	21.13	21.36	21.34	21.5	1	
20	QPSK	50	50	21.12	21.22	21.19			
20	QPSK	100	0	21.12	21.26	21.27			
20	16QAM	1	0	21.02	21.31	21.14			
20	16QAM	1	49	21.05	21.31	21.11	21.5	1	
20	16QAM	1	99	20.99	21.32	20.97			
20	16QAM	50	0	20.06	20.45	19.80			
20	16QAM	50	24	19.97	20.23	20.36	20.5	2	
20	16QAM	50	50	20.05	20.43	19.90			
20	16QAM	100	0	20.05	20.49	19.87			
20	64QAM	1	0	20.33	20.41	20.06			
20	64QAM	1	49	20.10	20.09	20.09	20.5	2	
20	64QAM	1	99	20.29	20.48	20.03			
20	64QAM	50	0	18.65	19.06	18.62			
20	64QAM	50	24	18.60	18.73	18.15	19.5	3	
20	64QAM	50	50	18.51	19.03	18.49			
20	64QAM	100	0	18.62	18.92	18.36			
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	0	21.31	21.63	21.73	22.5	0	
15	QPSK	1	37	21.34	21.62	21.57			
15	QPSK	1	74	21.32	21.61	21.48			
15	QPSK	36	0	20.90	21.18	21.25			
15	QPSK	36	20	21.03	21.09	21.17	21.5	1	
15	QPSK	36	39	20.84	21.17	21.14			
15	QPSK	75	0	20.97	21.23	21.13			
15	16QAM	1	0	21.06	21.01	21.24			
15	16QAM	1	37	21.07	20.97	21.04	21.5	1	
15	16QAM	1	74	21.06	20.89	20.94			
15	16QAM	36	0	20.02	20.09	19.81			
15	16QAM	36	20	20.00	20.04	20.11	20.5	2	
15	16QAM	36	39	20.15	19.94	19.83			
15	16QAM	75	0	20.02	20.04	19.83			
15	64QAM	1	0	20.12	20.23	20.02			
15	64QAM	1	37	20.12	20.07	19.86	20.5	2	
15	64QAM	1	74	20.31	20.13	19.99			
15	64QAM	36	0	18.73	18.87	18.49			
15	64QAM	36	20	18.70	18.78	18.64	19.5	3	
15	64QAM	36	39	18.74	18.64	18.65			
15	64QAM	75	0	18.75	18.80	18.51			
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1715	1745	1775			
10	QPSK	1	0	21.57	21.32	21.69	22.5	0	
10	QPSK	1	25	21.51	21.74	21.59			
10	QPSK	1	49	21.48	21.59	21.51			
10	QPSK	25	0	20.91	20.99	21.14			
10	QPSK	25	12	20.96	21.10	21.10	21.5	1	
10	QPSK	25	25	21.00	21.05	20.90			
10	QPSK	50	0	20.97	21.13	21.10			
10	16QAM	1	0	20.79	20.89	20.99			
10	16QAM	1	25	20.81	20.96	20.93	21.5	1	
10	16QAM	1	49	20.88	20.90	20.95			
10	16QAM	25	0	20.09	20.01	20.43			
10	16QAM	25	12	19.74	20.11	19.83	20.5	2	
10	16QAM	25	25	19.99	19.93	20.42			
10	16QAM	50	0	20.06	20.06	20.50			
10	64QAM	1	0	20.21	20.03	20.35			
10	64QAM	1	25	20.04	20.14				



WLAN/BT Full Power Mode

2.4GHz WLAN				Ant 1		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11b 1Mbps	1	2412	18.10	18.50	98.60	
	6	2437	18.00	18.50		
	11	2462	18.00	18.50		
802.11g 6Mbps	1	2412	16.60	17.50	91.53	
	6	2437	17.30	17.50		
	11	2462	13.60	14.00		
802.11n-HT20 MCS0	1	2412	17.00	17.50	90.62	
	6	2437	16.80	17.50		
	11	2462	9.30	11.00		

5.2GHz WLAN				Ant 1		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	36	5180	16.43	17.50	91.12	
	40	5200	16.24	17.50		
	44	5220	16.27	17.50		
	48	5240	16.11	17.50		
802.11n-HT20 MCS0	36	5180	16.05	17.50	90.62	
	40	5200	15.93	17.50		
	44	5220	16.59	17.50		
802.11n-HT40 MCS0	38	5190	15.11	16.50	82.96	
	46	5230	16.44	17.00		
802.11ac-VHT20 MCS0	36	5180	15.98	17.50	90.97	
	40	5200	15.90	17.50		
	44	5220	16.54	17.50		
802.11ac-VHT40 MCS0	48	5240	16.33	17.50	83.09	
	38	5190	15.06	16.00		
802.11ac-VHT80 MCS0	46	5230	16.35	17.00	70.79	
	42	5210	14.92	16.00		

5.3GHz WLAN				Ant 1		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	52	5260	16.62	17.50	91.12	
	56	5280	16.18	17.50		
	60	5300	16.20	17.50		
	64	5320	16.11	17.50		
802.11n-HT20 MCS0	52	5260	16.21	17.50	90.62	
	56	5280	16.03	17.50		
	60	5300	16.61	17.50		
802.11n-HT40 MCS0	64	5320	15.56	16.50	82.96	
	54	5270	16.04	17.00		
802.11ac-VHT20 MCS0	62	5310	14.76	15.50	90.97	
	52	5260	16.13	17.50		
	56	5280	16.00	17.50		
802.11ac-VHT40 MCS0	60	5300	16.39	17.50	83.09	
	64	5320	15.54	17.50		
802.11ac-VHT80 MCS0	54	5270	16.02	17.00	70.79	
	62	5310	14.74	15.50		
802.11ac-VHT80 MCS0	58	5290	14.76	15.50		

5.5GHz WLAN				Ant 1		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	100	5500	16.04	17.50	91.12	
	116	5580	15.97	17.50		
	124	5620	15.73	17.50		
	132	5660	15.53	17.50		
	140	5700	13.70	15.50		
	144	5720	15.76	17.50		
802.11n-HT20 MCS0	100	5500	16.15	17.50	90.62	
	116	5580	16.11	17.50		
	124	5620	16.00	17.50		
	132	5660	16.41	17.50		
	140	5700	15.07	16.50		
	144	5720	16.25	17.50		
802.11n-HT40 MCS0	102	5510	16.03	17.00	82.96	
	110	5550	15.87	17.00		
	126	5630	15.76	17.00		
	134	5670	16.09	17.00		
	142	5710	16.15	17.00		
	142	5710	16.15	17.00		
802.11ac-VHT20 MCS0	100	5500	16.07	17.50	90.97	
	116	5580	15.99	17.50		
	124	5620	15.98	17.50		
	132	5660	16.37	17.50		
	140	5700	15.05	16.50		
	144	5720	16.04	17.50		
802.11ac-VHT40 MCS0	102	5510	15.92	17.00	83.09	
	110	5550	15.82	17.00		
	126	5630	15.72	17.00		
	134	5670	15.99	17.00		
802.11ac-VHT80 MCS0	142	5710	16.09	17.00	70.79	
	106	5530	13.80	15.00		
	122	5610	15.92	17.00		
	138	5690	16.18	17.00		

5.8GHz WLAN				Ant 1		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	149	5745	16.07	17.50	91.12	
	157	5785	15.81	17.50		
	165	5825	16.47	17.50		
802.11n-HT20 MCS0	149	5745	16.37	17.50	90.62	
	157	5785	16.07	17.50		
	165	5825	15.84	17.50		
802.11n-HT40 MCS0	151	5755	16.13	17.00	82.96	
	159	5795	15.85	17.00		
	149	5745	16.30	17.50		
802.11ac-VHT20 MCS0	149	5745	16.30	17.50	90.97	
	157	5785	16.06	17.50		
	165	5825	15.83	17.50		
802.11ac-VHT40 MCS0	151	5755	16.11	17.00	83.09	
	159	5795	15.80	17.00		
802.11ac-VHT80 MCS0	155	5775	15.70	17.00	70.79	



BT BR/EDR

Mode	Channel	Frequency (MHz)	Average power (dBm)									Tune-up Limit
			Packet Type									
			DH1	DH3	DH5	2DH1	2DH3	2DH5	3DH1	3DH3	3DH5	
Bluetooth	CH 0	2402	5.70	5.60	5.60	5.60	5.50	5.40	5.50	5.40	5.40	6.00
	CH 39	2441	6.00	5.90	5.90	5.90	5.80	5.70	5.80	5.70	5.70	
	CH 78	2480	4.40	4.30	4.30	4.30	4.20	4.10	4.30	4.20	4.20	

BT LE 4.0

Mode	Channel	Frequency (MHz)	Average power (dBm)	
			GFSK	Tune-up Limit
LE	CH 00	2402	5.70	6.00
	CH 19	2440	5.60	6.00
	CH 39	2480	4.50	6.00

BT LE 5.0

Mode	Channel	Frequency (MHz)	Average power (dBm)	
			GFSK	Tune-up Limit
LE	CH 00	2402	5.60	6.00
	CH 19	2440	5.50	6.00
	CH 39	2480	4.40	6.00



Reduced Power Mode for Receiver On

2.4GHz WLAN				Ant 1		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11b 1Mbps	1	2412	17.10	17.50	98.60	
	6	2437	17.00	17.50		
	11	2462	17.00	17.50		
802.11g 6Mbps	1	2412	15.70	16.50	91.53	
	6	2437	16.30	16.50		
	11	2462	12.60	13.00		
802.11n-HT20 MCS0	1	2412	16.00	16.50	90.62	
	6	2437	15.80	16.50		
	11	2462	8.40	10.00		

5.2GHz WLAN				Ant 1		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	36	5180	14.83	16.00	91.12	
	40	5200	14.53	16.00		
	44	5220	14.67	16.00		
	48	5240	14.51	16.00		
802.11n-HT20 MCS0	36	5180	14.45	16.00	90.62	
	40	5200	14.73	16.00		
	44	5220	14.99	16.00		
	48	5240	14.82	16.00		
802.11n-HT40 MCS0	38	5190	13.51	15.00	82.96	
	46	5230	14.84	15.50		
802.11ac-VHT20 MCS0	36	5180	14.38	16.00	90.97	
	40	5200	14.88	16.00		
	44	5220	14.94	16.00		
	48	5240	14.73	16.00		
802.11ac-VHT40 MCS0	38	5190	13.46	14.50	83.09	
	46	5230	14.75	15.50		
802.11ac-VHT80 MCS0	42	5210	13.32	14.50	70.79	

5.3GHz WLAN				Ant 1		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	52	5260	15.02	16.00	91.12	
	56	5280	14.55	16.00		
	60	5300	14.60	16.00		
	64	5320	14.51	16.00		
802.11n-HT20 MCS0	52	5260	14.61	16.00	90.62	
	56	5280	14.87	16.00		
	60	5300	15.01	16.00		
	64	5320	13.96	15.00		
802.11n-HT40 MCS0	54	5270	14.44	15.50	82.96	
	62	5310	13.16	14.00		
802.11ac-VHT20 MCS0	52	5260	14.53	16.00	90.97	
	56	5280	14.52	16.00		
	60	5300	14.79	16.00		
	64	5320	13.94	15.50		
802.11ac-VHT40 MCS0	54	5270	14.42	15.50	83.09	
	62	5310	13.14	14.00		
802.11ac-VHT80 MCS0	58	5290	13.16	14.00	70.79	

5.5GHz WLAN				Ant 1		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	100	5500	14.51	16.00	91.12	
	116	5580	14.37	16.00		
	124	5620	14.12	16.00		
	132	5660	14.01	16.00		
	140	5700	12.10	14.00		
	144	5720	14.16	16.00		
802.11n-HT20 MCS0	100	5500	14.55	16.00	90.62	
	116	5580	14.51	16.00		
	124	5620	14.19	16.00		
	132	5660	14.08	16.00		
	140	5700	13.47	15.00		
	144	5720	14.65	16.00		
802.11n-HT40 MCS0	102	5510	14.43	15.50	82.96	
	110	5550	14.27	15.50		
	126	5630	14.31	16.00		
	134	5670	14.49	15.50		
	142	5710	14.55	15.50		
	100	5500	14.47	16.00		90.97
116	5580	14.39	16.00			
124	5620	14.07	16.00			
132	5660	14.05	16.00			
140	5700	13.45	15.00			
144	5720	14.44	16.00			
802.11ac-VHT40 MCS0	102	5510	14.32	15.50	83.09	
	110	5550	14.22	15.50		
	126	5630	13.89	15.50		
	134	5670	14.39	15.50		
802.11ac-VHT80 MCS0	106	5530	12.20	13.50	70.79	
	122	5610	14.32	15.50		
	138	5690	14.58	15.50		

5.8GHz WLAN				Ant 1		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	149	5745	14.47	16.00	91.12	
	157	5785	14.21	16.00		
	165	5825	14.87	16.00		
802.11n-HT20 MCS0	149	5745	14.77	16.00	90.62	
	157	5785	14.47	16.00		
	165	5825	14.24	16.00		
802.11n-HT40 MCS0	151	5755	14.53	15.50	82.96	
	159	5795	14.25	15.50		
	149	5745	14.70	16.00		
802.11ac-VHT20 MCS0	157	5785	14.46	16.00	90.97	
	165	5825	14.23	16.00		
	151	5755	14.51	15.50		
802.11ac-VHT40 MCS0	159	5795	14.20	15.50	83.09	
	155	5775	14.10	15.50		

Reduced Power Mode for Hotspot On

5.2GHz WLAN				Ant 1		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
5.2GHz WLAN	802.11a 6Mbps	36	5180	14.03	15.00	91.12
		40	5200	13.62	15.00	
		44	5220	13.87	15.00	
		48	5240	13.71	15.00	
	802.11n-HT20 MCS0	36	5180	13.65	15.00	90.62
		40	5200	13.70	15.00	
		44	5220	14.19	15.00	
		48	5240	14.02	15.00	
	802.11n-HT40 MCS0	38	5190	12.71	14.00	82.96
		46	5230	14.04	14.50	
	802.11ac-VHT20 MCS0	36	5180	13.58	15.00	90.97
		40	5200	13.87	15.00	
44		5220	14.14	15.00		
48		5240	13.93	15.00		
802.11ac-VHT40 MCS0	38	5190	12.66	13.50	83.09	
	46	5230	13.95	14.50		
802.11ac-VHT80 MCS0	42	5210	12.52	13.50	70.79	

5.8GHz WLAN				Ant 1		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
5.8GHz WLAN	802.11a 6Mbps	149	5745	13.67	15.00	91.12
		157	5785	13.41	15.00	
		165	5825	14.07	15.00	
	802.11n-HT20 MCS0	149	5745	13.97	15.00	90.62
		157	5785	13.67	15.00	
		165	5825	13.44	15.00	
	802.11n-HT40 MCS0	151	5755	13.73	14.50	82.96
		159	5795	13.45	14.50	
	802.11ac-VHT20 MCS0	149	5745	13.90	15.00	90.97
		157	5785	13.66	15.00	
		165	5825	13.43	15.00	
	802.11ac-VHT40 MCS0	151	5755	13.71	14.50	83.09
159		5795	13.40	14.50		
802.11ac-VHT80 MCS0	155	5775	13.30	14.50	70.79	



Reduced Power Mode for Sensor On

5.2GHz WLAN				Ant 1		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	36	5180	14.03	15.00	91.12	
	40	5200	13.62	15.00		
	44	5220	13.87	15.00		
	48	5240	13.71	15.00		
802.11n-HT20 MCS0	36	5180	13.65	15.00	90.62	
	40	5200	13.70	15.00		
	44	5220	14.19	15.00		
	48	5240	14.02	15.00		
802.11n-HT40 MCS0	38	5190	12.71	14.00	82.96	
	46	5230	14.04	14.50		
	36	5180	13.58	15.00		
802.11ac-VHT20 MCS0	40	5200	13.87	15.00	90.97	
	44	5220	14.14	15.00		
	48	5240	13.93	15.00		
802.11ac-VHT40 MCS0	38	5190	12.66	13.50	83.09	
	46	5230	13.95	14.50		
802.11ac-VHT80 MCS0	42	5210	12.52	13.50	70.79	

5.3GHz WLAN				Ant 1		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	52	5260	15.02	16.00	91.12	
	56	5280	14.55	16.00		
	60	5300	14.60	16.00		
	64	5320	14.51	16.00		
802.11n-HT20 MCS0	52	5260	14.61	16.00	90.62	
	56	5280	14.87	16.00		
	60	5300	15.01	16.00		
	64	5320	13.96	15.00		
802.11n-HT40 MCS0	54	5270	14.44	15.50	82.96	
	62	5310	13.16	14.00		
802.11ac-VHT20 MCS0	52	5260	14.53	16.00	90.97	
	56	5280	14.52	16.00		
	60	5300	14.79	16.00		
	64	5320	13.94	15.50		
802.11ac-VHT40 MCS0	54	5270	14.42	15.50	83.09	
	62	5310	13.14	14.00		
802.11ac-VHT80 MCS0	58	5290	13.16	14.00	70.79	

5.5GHz WLAN				Ant 1		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	100	5500	13.64	15.00	91.12	
	116	5680	13.57	15.00		
	124	5620	13.32	15.00		
	132	5660	13.08	15.00		
	140	5700	11.30	13.00		
	144	5720	13.36	15.00		
802.11n-HT20 MCS0	100	5500	13.75	15.00	90.62	
	116	5680	13.71	15.00		
	124	5620	13.34	15.00		
	132	5660	13.09	15.00		
	140	5700	12.67	14.00		
	144	5720	13.85	15.00		
802.11n-HT40 MCS0	102	5510	13.63	14.50	82.96	
	110	5550	13.47	14.50		
	126	5630	13.58	15.00		
	134	5670	13.69	14.50		
	142	5710	13.75	14.50		
	140	5700	12.65	14.00		
802.11ac-VHT20 MCS0	100	5500	13.67	15.00	90.97	
	116	5680	13.59	15.00		
	124	5620	13.22	15.00		
	132	5660	13.01	15.00		
	140	5700	12.65	14.00		
	144	5720	13.64	15.00		
802.11ac-VHT40 MCS0	102	5510	13.52	14.50	83.09	
	110	5550	13.42	14.50		
	126	5630	13.11	14.50		
	134	5670	13.59	14.50		
	142	5710	13.69	14.50		
	106	5530	11.40	12.50		
802.11ac-VHT80 MCS0	122	5610	13.52	14.50	70.79	
	138	5690	13.78	14.50		

5.8GHz WLAN				Ant 1		
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	
802.11a 6Mbps	149	5745	13.67	15.00	91.12	
	157	5785	13.41	15.00		
	165	5825	14.07	15.00		
802.11n-HT20 MCS0	149	5745	13.97	15.00	90.62	
	157	5785	13.67	15.00		
	165	5825	13.44	15.00		
802.11n-HT40 MCS0	151	5755	13.73	14.50	82.96	
	159	5795	13.45	14.50		
802.11ac-VHT20 MCS0	149	5745	13.90	15.00	90.97	
	157	5785	13.66	15.00		
	165	5825	13.43	15.00		
802.11ac-VHT40 MCS0	151	5755	13.71	14.50	83.09	
	159	5795	13.40	14.50		
802.11ac-VHT80 MCS0	155	5775	13.30	14.50	70.79	