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Client

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Certificate No: **Z19-60327**

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:3923**

Calibration Procedure(s) **FF-Z11-004-01**
Calibration Procedures for Dosimetric E-field Probes

Calibration date: **October 22, 2019**

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
Power Meter NRP2	101919	18-Jun-19 (CTTL, No.J19X05125)	Jun-20
Power sensor NRP-Z91	101547	18-Jun-19 (CTTL, No.J19X05125)	Jun-20
Power sensor NRP-Z91	101548	18-Jun-19 (CTTL, No.J19X05125)	Jun-20
Reference10dBAttenuator	18N50W-10dB	09-Feb-18(CTTL, No.J18X01133)	Feb-20
Reference20dBAttenuator	18N50W-20dB	09-Feb-18(CTTL, No.J18X01132)	Feb-20
Reference Probe EX3DV4	SN 7307	24-May-19(SPEAG,No.EX3-7307_May19/2)	May-20
DAE4	SN 1525	26-Aug-19(SPEAG, No.DAE4-1525_Aug19)	Aug -20
Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
SignalGeneratorMG3700A	6201052605	18-Jun-19 (CTTL, No.J19X05127)	Jun-20
Network Analyzer E5071C	MY46110673	24-Jan-19 (CTTL, No.J19X00547)	Jan -20

	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: October 24, 2019

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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), $\theta=0$ 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 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}*: Assessed for E-field polarization $\theta=0$ ($f \leq 900\text{MHz}$ in TEM-cell; $f > 1800\text{MHz}$: waveguide). *NORM_{x,y,z}* are only intermediate values, i.e., the uncertainties of *NORM_{x,y,z}* does not effect 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 (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}*; *VR_{x,y,z}*: A,B,C 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 $f \leq 800\text{MHz}$) and inside waveguide using analytical field distributions based on power measurements for $f > 800\text{MHz}$. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty valued 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 $\pm 50\text{MHz}$ to $\pm 100\text{MHz}$.
- 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* (no uncertainty required).



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Probe EX3DV4

SN: 3923

Calibrated: October 22, 2019

Calibrated for DASY/EASY Systems

(Note: non-compatible with DASY2 system!)



DASY/EASY – Parameters of Probe: EX3DV4 – SN: 3923

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.57	0.46	0.48	±10.0%
DCP(mV) ^B	101.6	103.7	103.8	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB/ μV	C	D dB	VR mV	Unc ^E (k=2)
0	CW	X	0.0	0.0	1.0	0.00	181.3	±2.6%
		Y	0.0	0.0	1.0		164.5	
		Z	0.0	0.0	1.0		166.3	

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: 3923

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 ^G (mm)	Unct. (k=2)
750	41.9	0.89	10.62	10.62	10.62	0.40	0.80	± 12.1%
835	41.5	0.90	10.34	10.34	10.34	0.13	1.48	± 12.1%
1450	40.5	1.20	9.20	9.20	9.20	0.10	1.46	± 12.1%
1640	40.3	1.29	9.06	9.06	9.06	0.24	0.97	± 12.1%
1750	40.1	1.37	8.90	8.90	8.90	0.20	1.14	± 12.1%
1900	40.0	1.40	8.64	8.64	8.64	0.26	0.96	± 12.1%
2000	40.0	1.40	8.63	8.63	8.63	0.19	1.11	± 12.1%
2450	39.2	1.80	7.87	7.87	7.87	0.53	0.74	± 12.1%
2600	39.0	1.96	7.74	7.74	7.74	0.47	0.82	± 12.1%
5250	35.9	4.71	5.34	5.34	5.34	0.40	1.70	± 13.3%
5600	35.5	5.07	4.90	4.90	4.90	0.50	1.20	± 13.3%
5750	35.4	5.22	4.83	4.83	4.83	0.45	1.70	± 13.3%

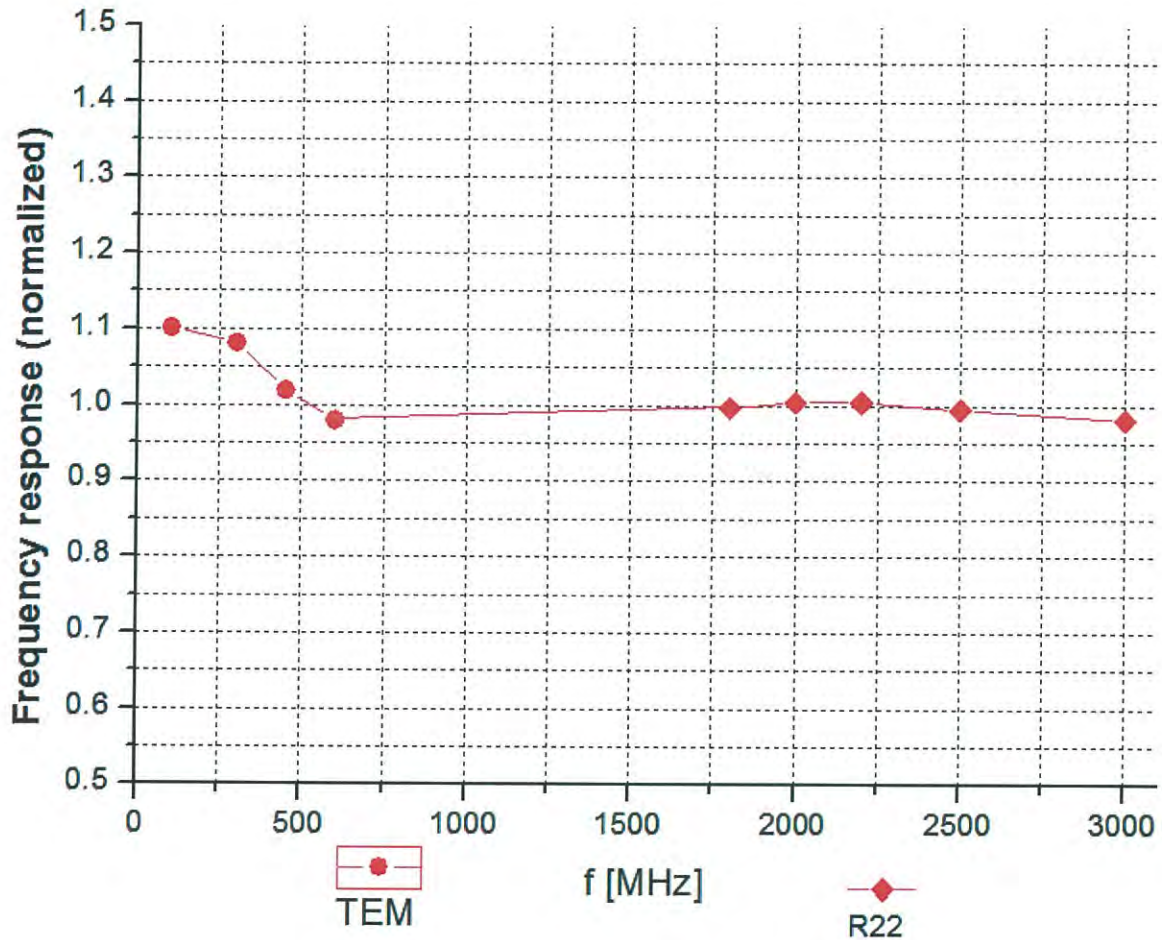
^C Frequency validity above 300 MHz of ±100MHz only applies for DASY v4.4 and higher (Page 2), else it is restricted to ±50MHz. The uncertainty is the RSS of ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25,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

^F At frequency below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ±10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ϵ and σ) is restricted to ±5%. 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 the 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)

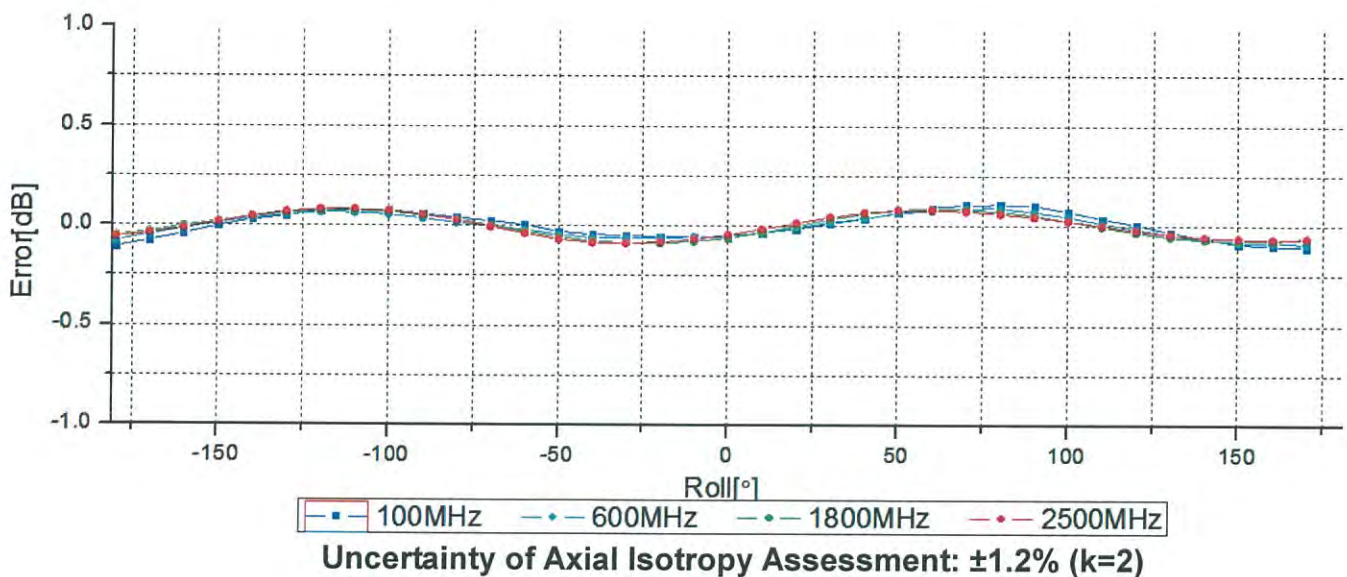
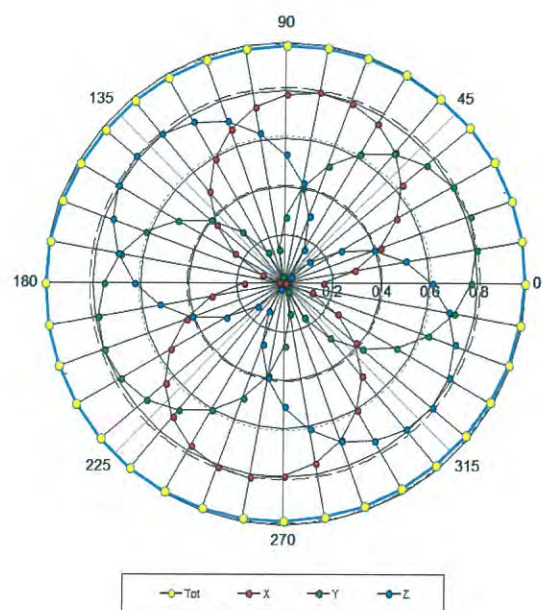
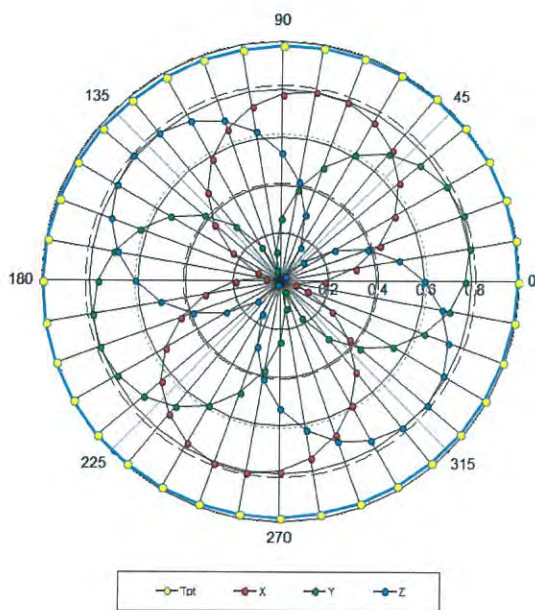


Uncertainty of Frequency Response of E-field: $\pm 7.4\%$ (k=2)

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

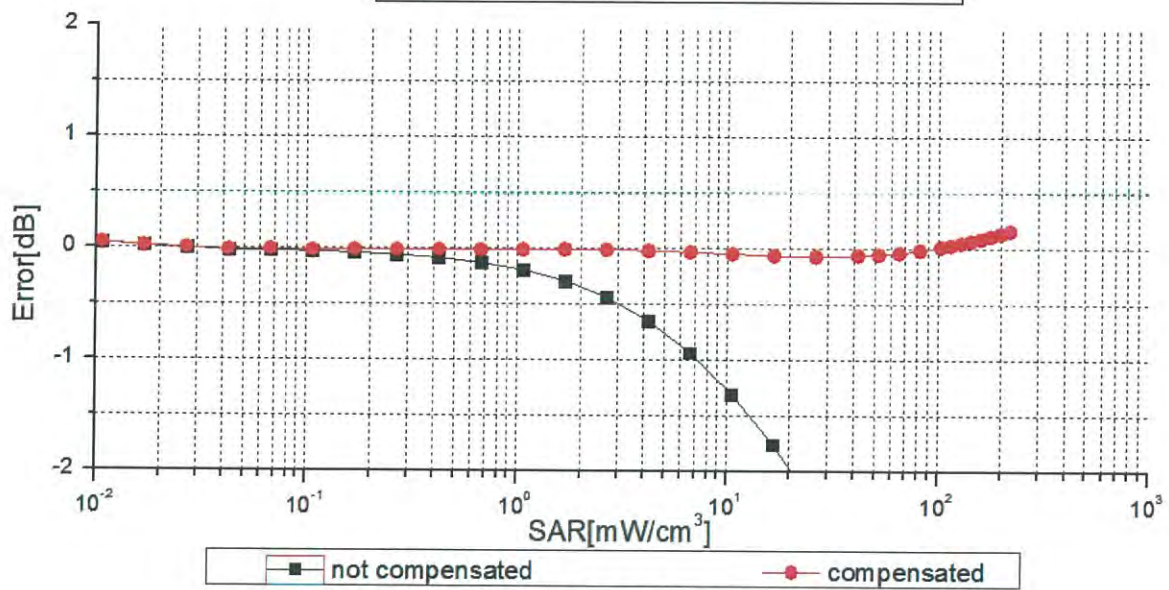
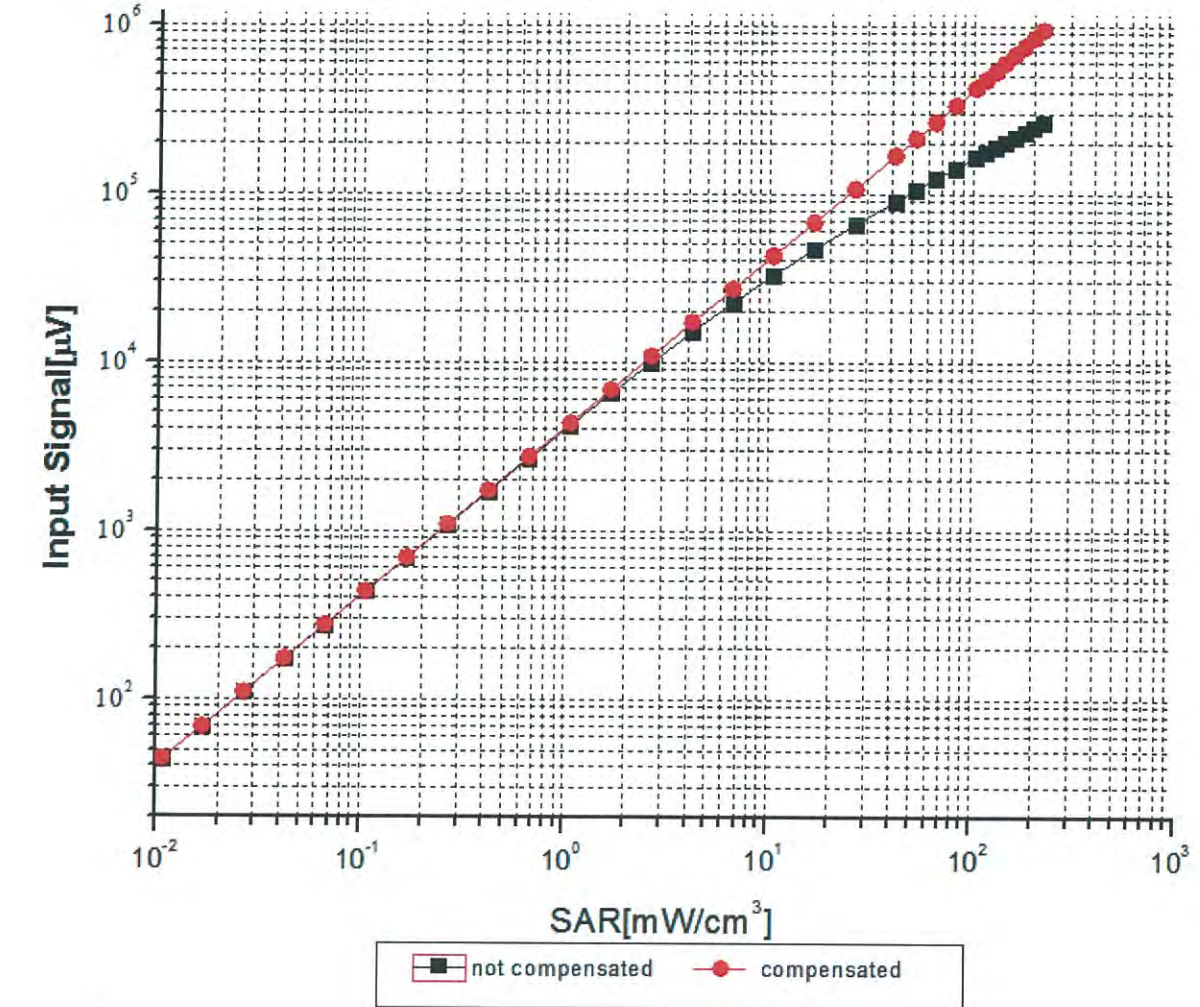
f=600 MHz, TEM

f=1800 MHz, R22





Dynamic Range f(SAR_{head}) (TEM cell, f = 900 MHz)



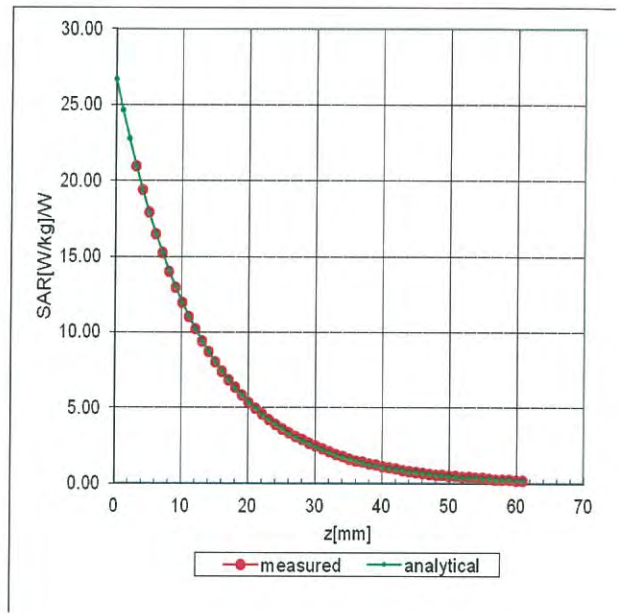
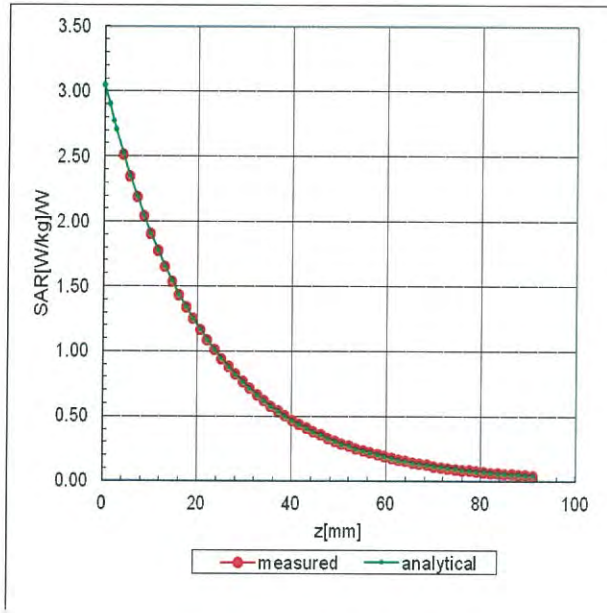
Uncertainty of Linearity Assessment: ±0.9% (k=2)



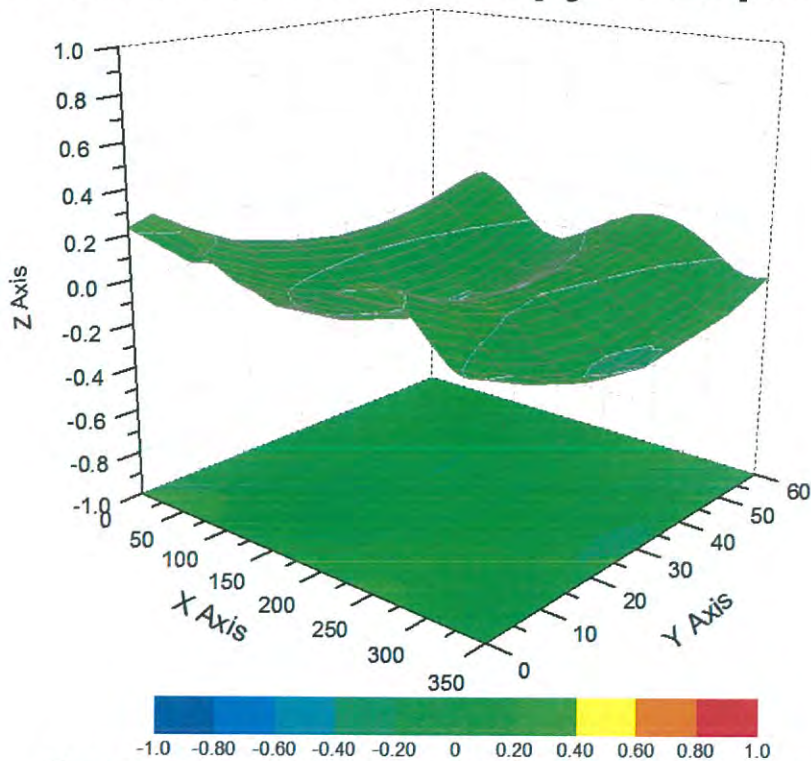
Conversion Factor Assessment

f=750 MHz, WGLS R9(H_convF)

f=1750 MHz, WGLS R22(H_convF)



Deviation from Isotropy in Liquid





DASY/EASY – Parameters of Probe: EX3DV4 – SN: 3923

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	26.2
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disable
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	9mm
Tip Diameter	2.5mm
Probe Tip to Sensor X Calibration Point	1mm
Probe Tip to Sensor Y Calibration Point	1mm
Probe Tip to Sensor Z Calibration Point	1mm
Recommended Measurement Distance from Surface	1.4mm



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Client **SGS**

Certificate No: **Z20-60146**

CALIBRATION CERTIFICATE

Object: EX3DV4 - SN : 3793

Calibration Procedure(s): FF-Z11-004-01
Calibration Procedures for Dosimetric E-field Probes

Calibration date: May 09, 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
Power Meter NRP2	101919	18-Jun-19(CTTL, No.J19X05125)	Jun-20
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Power sensor NRP-Z91	101548	18-Jun-19(CTTL, No.J19X05125)	Jun-20
Reference 10dBAttenuator	18N50W-10dB	10-Feb-20(CTTL, No.J20X00525)	Feb-22
Reference 20dBAttenuator	18N50W-20dB	10-Feb-20(CTTL, No.J20X00526)	Feb-22
Reference Probe EX3DV4	SN 3617	30-Jan-20(SPEAG, No.EX3-3617_Jan20/2)	Jan-21
DAE4	SN 1556	4-Feb-20(SPEAG, No.DAE4-1556_Feb20)	Feb-21
Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
SignalGenerator MG3700A	6201052605	18-Jun-19(CTTL, No.J19X05127)	Jun-20
Network Analyzer E5071C	MY46110673	10-Feb-20(CTTL, No.J20X00515)	Feb-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: May 11, 2020

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Glossary:

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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), $\theta=0$ 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
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- 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 865664, "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: waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not effect 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 (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}; VR_{x,y,z}; A,B,C** 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 valued 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 (no uncertainty required).



DASY/EASY – Parameters of Probe: EX3DV4 – SN:3793

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.49	0.47	0.47	±10.0%
DCP(mV) ^B	101.8	104.6	103.9	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Unc ^E (k=2)
0	CW	X	0.0	0.0	1.0	0.00	161.2	±2.0%
		Y	0.0	0.0	1.0		154.8	
		Z	0.0	0.0	1.0		161.8	

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 E^2 -field uncertainty inside TSL (see Page 4).

^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:3793

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 ^G (mm)	Unct. (k=2)
750	41.9	0.89	9.34	9.34	9.34	0.40	0.80	±12.1%
835	41.5	0.90	9.05	9.05	9.05	0.14	1.28	±12.1%
1750	40.1	1.37	7.81	7.81	7.81	0.24	1.04	±12.1%
1900	40.0	1.40	7.61	7.61	7.61	0.26	1.01	±12.1%
2300	39.5	1.67	7.30	7.30	7.30	0.60	0.69	±12.1%
2450	39.2	1.80	7.06	7.06	7.06	0.40	0.91	±12.1%
2600	39.0	1.96	6.88	6.88	6.88	0.50	0.80	±12.1%
3300	38.2	2.71	6.54	6.54	6.54	0.44	0.93	±13.3%
3500	37.9	2.91	6.51	6.51	6.51	0.44	0.94	±13.3%
3700	37.7	3.12	6.30	6.30	6.30	0.46	0.95	±13.3%

^C Frequency validity above 300 MHz of ±100MHz only applies for DASY v4.4 and higher (Page 2), else it is restricted to ±50MHz. The uncertainty is the RSS of 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. Above 5 GHz frequency validity can be extended to ± 110 MHz.

^F At frequency below 3 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ±10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ϵ and σ) is restricted to ±5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

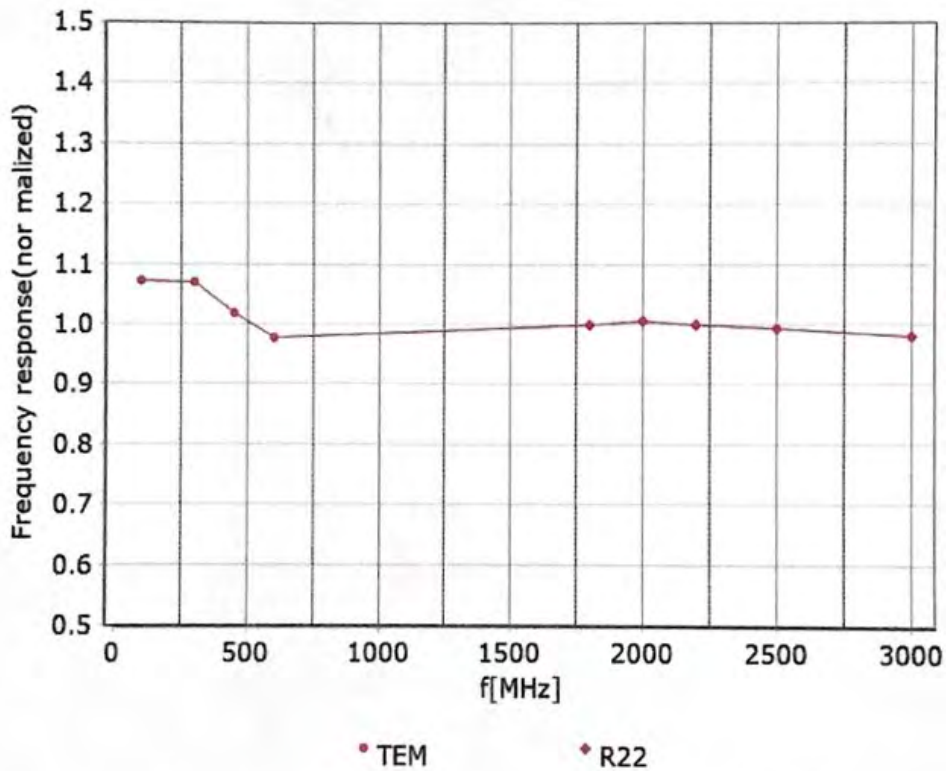
^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for the frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from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



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



Uncertainty of Frequency Response of E-field: $\pm 7.4\%$ ($k=2$)



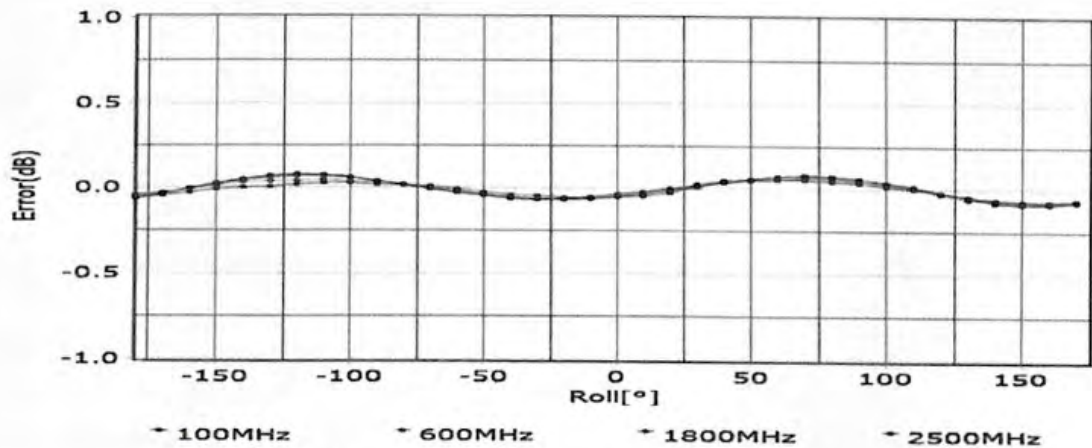
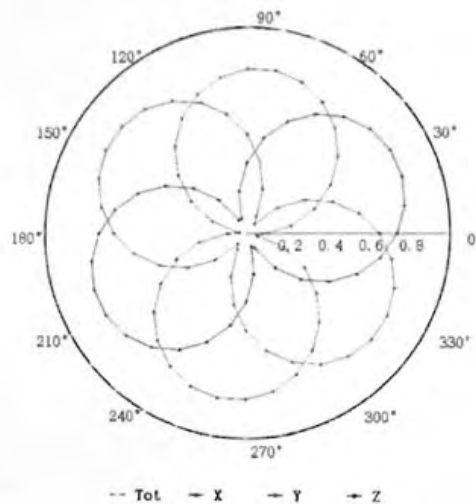
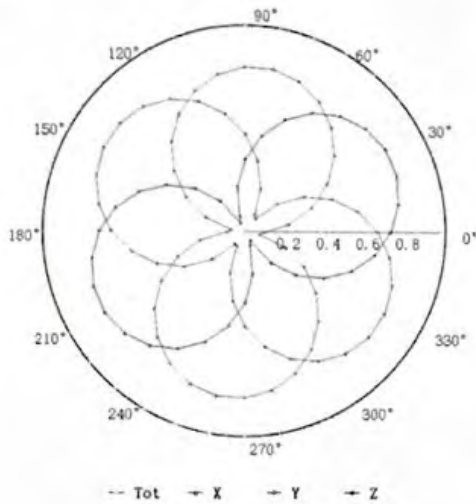
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Receiving Pattern (Φ), $\theta=0^\circ$

f=600 MHz, TEM

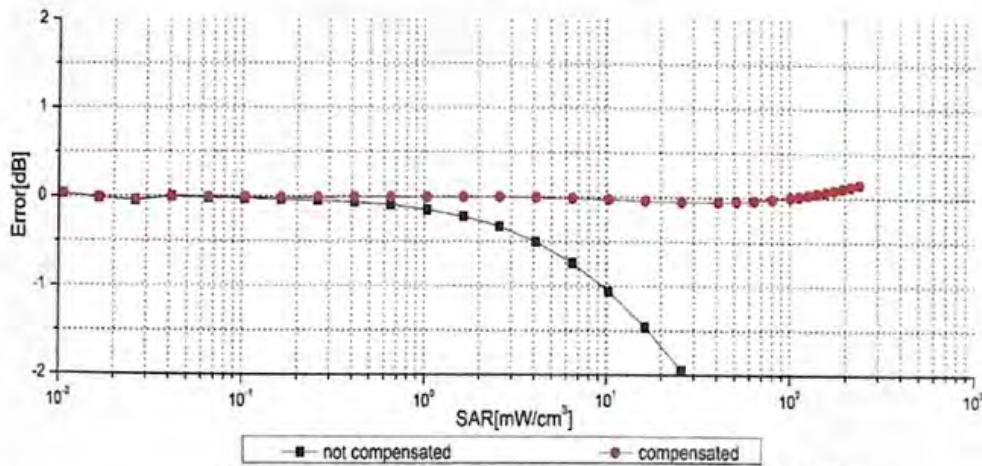
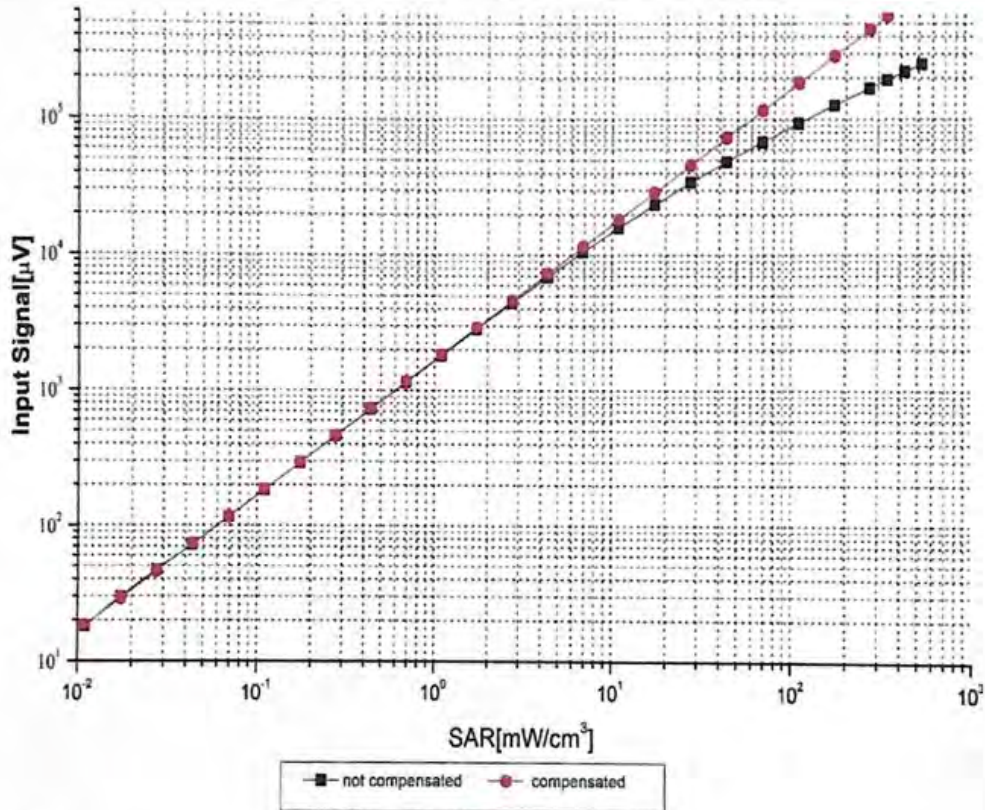
f=1800 MHz, R22



Uncertainty of Axial Isotropy Assessment: $\pm 1.2\%$ ($k=2$)



Dynamic Range f(SAR_{head}) (TEM cell, f = 900 MHz)



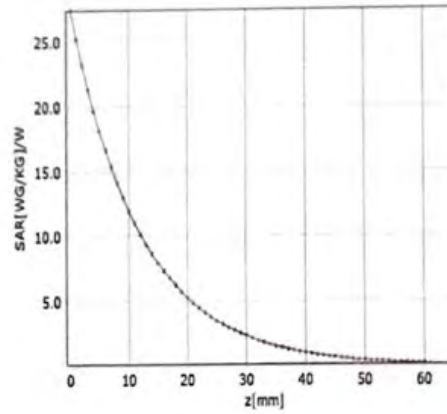
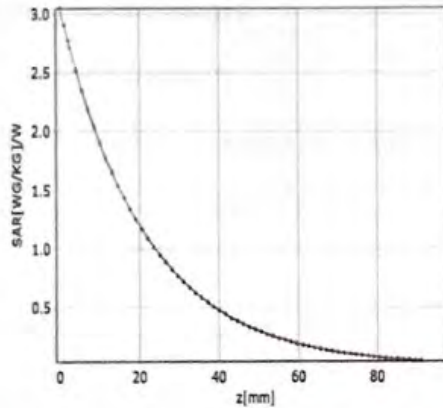
Uncertainty of Linearity Assessment: ±0.9% (k=2)



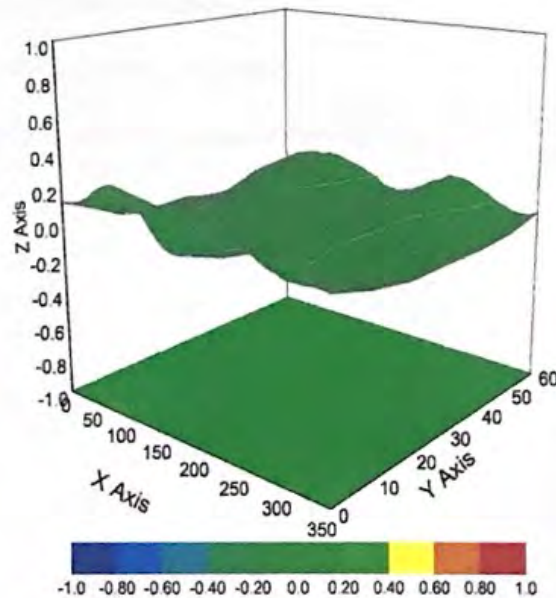
Conversion Factor Assessment

f=750 MHz,WGLS R9(H_convF)

f=1750 MHz,WGLS R22(H_convF)



Deviation from Isotropy in Liquid



Uncertainty of Spherical Isotropy Assessment: $\pm 3.2\%$ ($k=2$)



In Collaboration with
s p e a g
CALIBRATION LABORATORY

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

DASY/EASY – Parameters of Probe: EX3DV4 – SN:3793

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	115.7
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disable
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	10mm
Tip Diameter	2.5mm
Probe Tip to Sensor X Calibration Point	1mm
Probe Tip to Sensor Y Calibration Point	1mm
Probe Tip to Sensor Z Calibration Point	1mm
Recommended Measurement Distance from Surface	1.4mm

Dipole D1750V2 SN 1149				
Head Liquid				
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	$\Delta\Omega$
2019-05-21	-31.8	/	47.6	/
2020-05-20	-32.3	1.57%	48.9	1.3 Ω

Dipole D2300V2 SN 1072				
Head Liquid				
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	$\Delta\Omega$
2019-05-21	-26.7	/	46.9	/
2020-05-20	-27.6	3.37%	48.5	1.6 Ω

Dipole D2600V2 SN 1125				
Head Liquid				
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	$\Delta\Omega$
2019-05-20	-25.7	/	48.9	/
2020-05-19	-26.6	3.50%	50.8	1.9 Ω



Appendix E

Conducted RF Output Power Table

1	Measurement of RF conducted Power
1.1	Conducted Power of Main Antenna (Ant1)
1.2	Conducted Power of Main Antenna (Ant4)
1.3	Conducted Power of Main Antenna (Ant5)
2	Conducted Power of NR Antenna
2.1	Conducted Power of NR Antenna (Ant1)
2.2	Conducted Power of NR Antenna (Ant4)
3	Conducted Power of Uplink CA and Downlink CA
3.1	Uplink LTE CA Conducted Power of Ant1
3.2	Uplink LTE CA Conducted Power of Ant5
3.3	Downlink LTE CA Conducted Power of LTA
3.4	Downlink LTE CA Conducted Power of UTA
4	Conducted Power of WiFi and BT
4.1	Conducted Power of WiFi
4.2	Conducted Power of BT

1 Measurement of RF conducted Power

1.1 Conducted Power of Main Antenna (Ant1)

1.1.1 Conducted Power of GSM

GSM 850 receiver off										
Burst Output Power(dBm)				Tune up	Division Factors	Frame-Average Output Power(dBm)			Tune up	
Channel		128	190			251	128	190		251
GSM(GMSK)	GSM	33.47	33.46	33.52	34.00	-9.19	24.28	24.27	24.33	24.81
GPRS/EGPRS (GMSK)	1 TX Slot	33.54	33.48	33.53	34.00	-9.19	24.35	24.29	24.34	24.81
	2 TX Slots	30.37	30.38	30.33	31.00	-6.18	24.19	24.20	24.15	24.82
	3 TX Slots	28.32	28.43	28.53	29.20	-4.42	23.90	24.01	24.11	24.78
	4 TX Slots	27.23	27.36	27.54	28.00	-3.17	24.06	24.19	24.37	24.83
EGPRS(8PSK)	1 TX Slot	27.01	27.05	27.10	28.50	-9.19	17.82	17.86	17.91	19.31
	2 TX Slots	24.63	24.34	24.68	25.50	-6.18	18.45	18.16	18.50	19.32
	3 TX Slots	22.97	23.10	22.91	23.70	-4.42	18.55	18.68	18.49	19.28
	4 TX Slots	21.92	21.84	21.91	22.50	-3.17	18.75	18.67	18.74	19.33

GSM 1900 Receiver on/Receiver off/ Hotspot off/Sensor off										
Burst Output Power(dBm)				Tune up	Division Factors	Frame-Average Output Power(dBm)			Tune up	
Channel		512	661			810	512	661		810
GSM(GMSK)	GSM	29.96	29.94	29.91	30.50	-9.19	20.77	20.75	20.72	21.31
GPRS/EGPRS (GMSK)	1 TX Slot	29.87	29.89	29.93	30.50	-9.19	20.68	20.70	20.74	21.31
	2 TX Slots	26.91	26.94	26.89	27.50	-6.18	20.73	20.76	20.71	21.32
	3 TX Slots	25.24	25.31	24.71	25.70	-4.42	20.82	20.89	20.29	21.28
	4 TX Slots	23.98	23.78	23.73	24.50	-3.17	20.81	20.61	20.56	21.33
EGPRS (8PSK)	1 TX Slot	26.25	26.26	26.14	27.50	-9.19	17.06	17.07	16.95	18.31
	2 TX Slots	23.39	23.45	23.59	24.50	-6.18	17.21	17.27	17.41	18.32
	3 TX Slots	21.79	21.34	21.75	22.70	-4.42	17.37	16.92	17.33	18.28
	4 TX Slots	20.12	20.11	20.16	21.50	-3.17	16.95	16.94	16.99	18.33



GSM 1900 Hotspot on										
Burst Output Power(dBm)				Tune up	Division Factors	Frame-Average Output Power(dBm)			Tune up	
Channel	512	661	810			512	661	810		
GSM(GMSK)	GSM	27.45	27.43	27.37	28.00	-9.19	18.26	18.24	18.18	18.81
GPRS/EGPRS (GMSK)	1 TX Slot	27.46	27.36	27.37	28.00	-9.19	18.27	18.17	18.18	18.81
	2 TX Slots	24.56	24.45	23.86	25.00	-6.18	18.38	18.27	17.68	18.82
	3 TX Slots	22.47	22.23	22.34	23.20	-4.42	18.05	17.81	17.92	18.78
	4 TX Slots	20.85	20.83	20.88	22.00	-3.17	17.68	17.66	17.71	18.83
EGPRS (8PSK)	1 TX Slot	24.25	24.18	24.17	25.00	-9.19	15.06	14.99	14.98	15.81
	2 TX Slots	21.16	20.97	21.02	22.00	-6.18	14.98	14.79	14.84	15.82
	3 TX Slots	18.94	19.58	19.41	20.20	-4.42	14.52	15.16	14.99	15.78
	4 TX Slots	17.96	18.02	17.89	19.00	-3.17	14.79	14.85	14.72	15.83
GSM 1900 Sensor on										
Burst Output Power(dBm)				Tune up	Division Factors	Frame-Average Output Power(dBm)			Tune up	
Channel	512	661	810			512	661	810		
GSM(GMSK)	GSM	29.50	29.39	29.44	30.00	-9.19	20.31	20.20	20.25	20.81
GPRS/EGPRS (GMSK)	1 TX Slot	29.36	29.35	29.41	30.00	-9.19	20.17	20.16	20.22	20.81
	2 TX Slots	26.42	26.39	26.43	27.00	-6.18	20.24	20.21	20.25	20.82
	3 TX Slots	24.79	24.82	24.25	25.20	-4.42	20.37	20.40	19.83	20.78
	4 TX Slots	23.48	23.28	23.24	24.00	-3.17	20.31	20.11	20.07	20.83
EGPRS (8PSK)	1 TX Slot	25.72	25.74	25.67	27.00	-9.19	16.53	16.55	16.48	17.81
	2 TX Slots	22.94	22.90	23.11	24.00	-6.18	16.76	16.72	16.93	17.82
	3 TX Slots	21.25	20.89	21.20	22.20	-4.42	16.83	16.47	16.78	17.78
	4 TX Slots	19.64	19.61	19.71	21.00	-3.17	16.47	16.44	16.54	17.83

Table 1 : Conducted Power of GSM

1.1.2 Conducted Power of WCDMA

WCDMA Band II Receiver on					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	23.83	23.75	23.78	25.00
	12.2kbps AMR	23.76	23.74	23.71	25.00
HSDPA	Subtest 1	22.55	22.45	22.50	24.00
	Subtest 2	22.46	22.39	22.47	24.00
	Subtest 3	22.09	21.90	21.89	23.50
	Subtest 4	21.92	21.92	21.87	23.50
HSUPA	Subtest 1	22.50	22.36	22.30	24.00
	Subtest 2	20.47	20.36	20.46	22.00
	Subtest 3	21.53	21.45	21.40	23.00
	Subtest 4	20.32	20.33	20.45	22.00
	Subtest 5	22.58	22.41	22.49	24.00
DC-HSDPA	Subtest 1	22.54	22.48	22.42	24.00
	Subtest 2	22.47	22.44	22.39	24.00
	Subtest 3	22.12	21.98	21.93	23.50
	Subtest 4	21.93	21.91	21.88	23.50
HSPA+	16QAM	21.25	21.33	21.19	22.50

WCDMA Band II Receiver off/Hotsprt off/Sensor off					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	22.52	22.37	22.29	23.50
	12.2kbps AMR	22.48	22.28	22.24	23.50
HSDPA	Subtest 1	21.23	21.14	21.25	22.50
	Subtest 2	21.04	21.03	21.18	22.50
	Subtest 3	20.67	20.65	20.47	22.00
	Subtest 4	20.65	20.61	20.43	22.00
HSUPA	Subtest 1	21.08	21.01	20.96	22.50
	Subtest 2	19.07	18.92	19.14	20.50
	Subtest 3	20.16	20.10	20.13	21.50
	Subtest 4	19.06	19.07	19.17	20.50
	Subtest 5	21.13	21.07	21.22	22.50
DC-HSDPA	Subtest 1	21.11	21.20	21.05	22.50
	Subtest 2	21.03	21.00	20.98	22.50
	Subtest 3	20.84	20.55	20.63	22.00
	Subtest 4	20.50	20.48	20.55	22.00
HSPA+	16QAM	19.89	20.02	19.94	21.00



WCDMA Band II Hotsprt on					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	16.49	16.62	16.54	18.00
	12.2kbps AMR	16.43	16.50	16.51	18.00
HSDPA	Subtest 1	15.48	15.32	15.41	17.00
	Subtest 2	15.38	15.25	15.39	17.00
	Subtest 3	14.98	14.85	14.82	16.50
	Subtest 4	14.84	14.79	14.75	16.50
HSUPA	Subtest 1	15.40	15.22	15.24	17.00
	Subtest 2	13.36	13.23	13.31	15.00
	Subtest 3	14.38	14.35	14.32	16.00
	Subtest 4	13.17	13.20	13.35	15.00
	Subtest 5	15.47	15.34	15.42	17.00
DC-HSDPA	Subtest 1	15.49	15.38	15.33	17.00
	Subtest 2	15.37	15.33	15.28	17.00
	Subtest 3	14.98	14.90	14.78	16.50
	Subtest 4	14.84	14.77	14.83	16.50
HSPA+	16QAM	14.14	14.24	14.05	15.50

WCDMA Band II Sensor on					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	18.77	18.73	18.80	20.00
	12.2kbps AMR	18.67	18.71	18.78	20.00
HSDPA	Subtest 1	17.48	17.45	17.51	19.00
	Subtest 2	17.39	17.43	17.40	19.00
	Subtest 3	17.04	16.83	16.88	18.50
	Subtest 4	16.90	17.00	16.92	18.50
HSUPA	Subtest 1	17.54	17.46	17.23	19.00
	Subtest 2	15.48	15.27	15.36	17.00
	Subtest 3	16.60	16.36	16.36	18.00
	Subtest 4	15.25	15.39	15.54	17.00
	Subtest 5	17.60	17.50	17.42	19.00
DC-HSDPA	Subtest 1	17.46	17.58	17.33	19.00
	Subtest 2	17.57	17.44	17.46	19.00
	Subtest 3	17.08	17.03	16.83	18.50
	Subtest 4	17.02	16.86	16.82	18.50
HSPA+	16QAM	16.15	16.31	16.15	17.50



WCDMA Band VI Receiver on					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	23.51	23.66	23.71	25.00
	12.2kbps AMR	23.49	23.65	23.66	25.00
HSDPA	Subtest 1	22.49	22.46	22.47	24.00
	Subtest 2	22.38	22.43	22.41	24.00
	Subtest 3	22.05	22.04	22.05	23.50
	Subtest 4	21.98	22.08	22.06	23.50
HSUPA	Subtest 1	22.41	22.55	22.51	24.00
	Subtest 2	20.42	20.59	20.55	22.00
	Subtest 3	21.46	21.56	21.49	23.00
	Subtest 4	20.49	20.52	20.56	22.00
	Subtest 5	22.44	22.58	22.57	24.00
DC-HSDPA	Subtest 1	22.39	22.52	22.50	24.00
	Subtest 2	22.37	22.46	22.45	24.00
	Subtest 3	21.96	22.04	21.93	23.50
	Subtest 4	21.92	21.97	21.92	23.50
HSPA+	16QAM	20.86	20.94	21.01	22.50

WCDMA Band VI Receiver off/Hotsprt off/Sensor off					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	21.95	22.06	22.17	23.50
	12.2kbps AMR	21.90	22.05	22.05	23.50
HSDPA	Subtest 1	20.88	20.91	20.95	22.50
	Subtest 2	20.81	20.95	20.87	22.50
	Subtest 3	20.57	20.58	20.47	22.00
	Subtest 4	20.39	20.54	20.53	22.00
HSUPA	Subtest 1	20.86	20.96	21.00	22.50
	Subtest 2	18.95	19.12	19.04	20.50
	Subtest 3	19.87	20.09	20.01	21.50
	Subtest 4	19.04	18.93	19.02	20.50
	Subtest 5	20.95	21.00	21.09	22.50
DC-HSDPA	Subtest 1	20.85	20.90	20.92	22.50
	Subtest 2	20.79	20.85	20.83	22.50
	Subtest 3	20.40	20.55	20.46	22.00
	Subtest 4	20.42	20.51	20.42	22.00
HSPA+	16QAM	19.31	19.39	19.48	21.00



WCDMA Band VI Hotspot on/Sensor on					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	18.57	18.61	18.77	20.00
	12.2kbps AMR	18.56	18.59	18.75	20.00
HSDPA	Subtest 1	17.39	17.40	17.37	19.00
	Subtest 2	17.28	17.28	17.35	19.00
	Subtest 3	16.94	16.98	16.95	18.50
	Subtest 4	16.83	17.03	16.98	18.50
HSUPA	Subtest 1	17.32	17.42	17.43	19.00
	Subtest 2	15.33	15.50	15.44	17.00
	Subtest 3	16.41	16.51	16.35	18.00
	Subtest 4	15.40	15.47	15.44	17.00
	Subtest 5	17.36	17.47	17.49	19.00
DC-HSDPA	Subtest 1	17.34	17.40	17.41	19.00
	Subtest 2	17.24	17.38	17.31	19.00
	Subtest 3	16.83	16.94	16.80	18.50
	Subtest 4	16.87	16.91	16.82	18.50
HSPA+	16QAM	15.81	15.85	15.89	17.50

WCDMA Band V					
Average Conducted Power(dBm)					
Channel		4132	4182	4233	Tune up
WCDMA	12.2kbps RMC	23.45	23.55	23.49	25.00
	12.2kbps AMR	23.41	23.45	23.50	25.00
HSDPA	Subtest 1	22.41	22.41	22.42	24.00
	Subtest 2	22.35	22.38	22.37	24.00
	Subtest 3	21.83	21.80	21.83	23.50
	Subtest 4	21.76	21.77	21.88	23.50
HSUPA	Subtest 1	22.31	22.33	22.33	24.00
	Subtest 2	20.36	20.35	20.39	22.00
	Subtest 3	21.35	21.48	21.29	23.00
	Subtest 4	20.37	20.33	20.42	22.00
	Subtest 5	22.37	22.36	22.37	24.00
DC-HSDPA	Subtest 1	22.24	22.43	22.32	24.00
	Subtest 2	22.16	22.40	22.24	24.00
	Subtest 3	21.69	21.77	21.81	23.50
	Subtest 4	21.78	21.80	21.72	23.50
HSPA+	16QAM	20.86	20.78	20.79	22.50

Table 2 : Conducted Power of WCDMA



1.1.3 Conducted Power of LTE

LTE Band 2 Receiver on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18607	18900	19193	
1.4MHz	QPSK	1	0	23.82	23.82	23.85	25.00
		1	2	23.80	23.97	24.04	25.00
		1	5	23.96	24.07	23.99	25.00
		3	0	23.83	23.85	23.90	25.00
		3	2	23.97	23.92	24.05	25.00
		3	3	23.96	24.02	23.98	25.00
	16QAM	6	0	22.87	22.86	22.91	24.00
		1	0	23.34	23.27	23.09	24.00
		1	2	23.09	22.97	23.47	24.00
		1	5	23.09	23.31	23.35	24.00
		3	0	22.85	22.97	22.94	24.00
		3	2	22.95	23.02	23.04	24.00
	64QAM	3	3	22.90	23.01	23.12	24.00
		6	0	22.02	21.99	21.93	23.00
		1	0	21.88	22.02	22.03	23.00
		1	2	21.86	22.04	21.88	23.00
		1	5	21.86	22.02	21.92	23.00
		3	0	22.05	22.07	22.02	23.00
3MHz	QPSK	3	2	21.97	22.07	22.00	23.00
		3	3	22.03	22.00	21.98	23.00
		6	0	21.20	20.80	20.86	22.00
		1	0	23.83	23.79	23.88	25.00
		1	7	23.79	23.96	24.06	25.00
		1	14	23.94	24.10	23.91	25.00
	16QAM	8	0	22.89	22.91	22.97	24.00
		8	4	22.90	22.98	22.98	24.00
		8	7	22.89	23.00	23.03	24.00
		15	0	22.91	22.91	22.98	24.00
		1	0	23.28	23.23	23.07	24.00
		1	7	23.03	23.00	23.40	24.00
	64QAM	1	14	23.11	23.34	23.33	24.00
		8	0	21.82	22.00	21.94	23.00
		8	4	21.90	21.97	22.07	23.00
		8	7	21.86	21.98	22.14	23.00
		15	0	21.98	21.97	21.97	23.00
		1	0	22.00	21.90	21.89	23.00
64QAM	1	7	22.06	21.99	21.97	23.00	
	1	14	22.07	21.93	21.87	23.00	
	8	0	21.97	20.75	21.33	22.00	
	8	4	20.78	21.37	21.27	22.00	
	8	7	21.83	21.10	21.05	22.00	
	15	0	21.61	20.88	20.79	22.00	



SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

Report No.: ZR/2020/6003708

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18625	18900	19175	
5MHz	QPSK	1	0	23.89	23.87	23.96	25.00
		1	13	23.92	24.08	24.12	25.00
		1	24	24.02	24.17	24.06	25.00
		12	0	22.97	22.99	23.04	24.00
		12	6	23.05	23.06	23.13	24.00
		12	13	23.02	23.11	23.11	24.00
		25	0	23.02	22.99	23.06	24.00
	16QAM	1	0	23.41	23.37	23.17	24.00
		1	13	23.17	23.10	23.52	24.00
		1	24	23.16	23.40	23.47	24.00
		12	0	21.94	22.05	22.04	23.00
		12	6	22.04	22.11	22.12	23.00
		12	13	21.97	22.07	22.19	23.00
		25	0	22.10	22.07	22.05	23.00
	64QAM	1	0	21.94	21.95	21.89	23.00
		1	13	21.96	22.01	21.98	23.00
		1	24	22.00	22.01	22.02	23.00
		12	0	21.96	21.50	21.89	22.00
		12	6	21.90	21.30	21.47	22.00
		12	13	21.51	20.89	21.18	22.00
		25	0	21.53	21.04	21.03	22.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
10MHz	QPSK	1	0	23.93	24.10	24.06	25.00
		1	25	24.01	24.14	23.97	25.00
		1	49	24.02	23.92	24.10	25.00
		25	0	23.00	22.96	23.03	24.00
		25	13	23.07	23.08	23.12	24.00
		25	25	23.03	23.03	23.19	24.00
		50	0	22.99	22.96	23.16	24.00
	16QAM	1	0	23.02	23.08	23.24	24.00
		1	25	23.51	23.37	23.21	24.00
		1	49	23.11	23.17	23.41	24.00
		25	0	21.98	22.02	21.90	23.00
		25	13	22.14	22.04	22.23	23.00
		25	25	22.10	22.09	22.34	23.00
		50	0	22.04	22.15	22.22	23.00
	64QAM	1	0	21.92	22.04	21.88	23.00
		1	25	22.01	21.96	21.88	23.00
		1	49	21.96	21.91	21.97	23.00
		25	0	21.59	21.43	21.18	22.00
		25	13	21.26	21.57	20.95	22.00
		25	25	21.42	20.92	21.31	22.00
		50	0	21.17	21.54	21.45	22.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
10MHz	QPSK	1	0	23.93	24.10	24.06	25.00
		1	25	24.01	24.14	23.97	25.00
		1	49	24.02	23.92	24.10	25.00
		25	0	23.00	22.96	23.03	24.00
		25	13	23.07	23.08	23.12	24.00
		25	25	23.03	23.03	23.19	24.00
		50	0	22.99	22.96	23.16	24.00
	16QAM	1	0	23.02	23.08	23.24	24.00
		1	25	23.51	23.37	23.21	24.00
		1	49	23.11	23.17	23.41	24.00
		25	0	21.98	22.02	21.90	23.00
		25	13	22.14	22.04	22.23	23.00
		25	25	22.10	22.09	22.34	23.00
		50	0	22.04	22.15	22.22	23.00
	64QAM	1	0	21.92	22.04	21.88	23.00
		1	25	22.01	21.96	21.88	23.00
		1	49	21.96	21.91	21.97	23.00
		25	0	21.59	21.43	21.18	22.00
		25	13	21.26	21.57	20.95	22.00
		25	25	21.42	20.92	21.31	22.00
		50	0	21.17	21.54	21.45	22.00



Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18675	18900	19125	
15MHz	QPSK	1	0	23.77	23.92	23.85	25.00
		1	38	23.84	23.91	23.89	25.00
		1	74	23.83	24.01	23.96	25.00
		36	0	22.93	22.84	22.85	24.00
		36	18	22.99	22.95	22.95	24.00
		36	39	23.00	22.95	23.08	24.00
		75	0	22.94	22.84	22.93	24.00
	16QAM	1	0	23.14	23.19	22.84	24.00
		1	38	23.40	23.12	23.42	24.00
		1	74	22.98	23.43	23.14	24.00
		36	0	21.83	21.78	21.83	23.00
		36	18	21.95	21.94	21.95	23.00
		36	39	21.95	22.03	22.00	23.00
		75	0	21.93	21.87	21.94	23.00
	64QAM	1	0	21.87	22.06	22.06	23.00
		1	38	22.03	21.91	21.93	23.00
		1	74	22.05	21.95	22.01	23.00
		36	0	20.96	21.14	21.70	22.00
		36	18	21.41	21.12	20.77	22.00
		36	39	21.72	21.05	21.21	22.00
		75	0	21.93	20.81	21.46	22.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18700	18900	19100	
20MHz	QPSK	1	0	24.23	24.22	24.25	25.00
		1	50	24.06	24.20	24.17	25.00
		1	99	24.10	24.19	24.30	25.00
		50	0	23.24	23.20	23.31	24.00
		50	25	23.32	23.23	23.32	24.00
		50	50	23.32	23.28	23.39	24.00
		100	0	23.24	23.16	23.34	24.00
	16QAM	1	0	23.72	23.46	23.37	24.00
		1	50	23.63	23.48	23.73	24.00
		1	99	23.13	23.54	23.85	24.00
		50	0	22.33	22.20	22.24	23.00
		50	25	22.25	22.33	22.33	23.00
		50	50	22.33	22.42	22.41	23.00
		100	0	22.26	22.23	22.31	23.00
	64QAM	1	0	22.02	22.08	21.95	23.00
		1	50	22.05	22.01	21.91	23.00
		1	99	22.06	21.98	22.02	23.00
		50	0	21.33	21.10	21.08	22.00
		50	25	20.75	21.88	21.94	22.00
		50	50	21.86	21.66	21.63	22.00
		100	0	21.19	21.82	21.12	22.00



LTE Band 2 Receiver off/Hotsprt off/Sensor off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18607	18900	19193	
1.4MHz	QPSK	1	0	22.22	22.26	22.16	23.50
		1	2	22.08	22.23	22.10	23.50
		1	5	22.00	22.22	22.25	23.50
		3	0	22.18	22.10	22.22	23.50
		3	2	22.23	22.14	22.13	23.50
		3	3	22.27	22.37	22.26	23.50
	16QAM	6	0	22.16	22.14	22.22	23.50
		1	0	22.58	22.38	22.59	23.50
		1	2	22.33	22.53	22.46	23.50
		1	5	22.44	22.45	22.30	23.50
		3	0	22.78	22.61	22.62	23.50
		3	2	22.68	22.70	22.73	23.50
	64QAM	3	3	22.73	22.76	22.77	23.50
		6	0	21.72	21.76	21.68	22.50
		1	0	21.53	21.47	21.45	22.50
		1	2	21.55	21.53	21.42	22.50
		1	5	21.54	21.54	21.41	22.50
		3	0	21.37	21.42	21.55	22.50
3MHz	QPSK	3	2	21.56	21.58	21.55	22.50
		3	3	21.38	21.57	21.51	22.50
		6	0	20.71	21.08	21.04	21.50
		1	0	22.59	22.39	22.54	23.50
		1	7	22.34	22.37	22.73	23.50
		1	14	22.62	22.49	22.50	23.50
	16QAM	8	0	22.16	22.27	22.12	23.50
		8	4	22.21	22.23	22.22	23.50
		8	7	22.18	22.36	22.36	23.50
		15	0	22.21	22.09	22.28	23.50
		1	0	22.12	22.07	22.10	23.50
		1	7	22.00	22.08	21.98	23.50
64QAM	1	14	22.21	22.03	22.24	23.50	
	8	0	21.69	21.67	21.72	22.50	
	8	4	21.81	21.73	21.77	22.50	
	8	7	21.69	21.84	21.89	22.50	
	15	0	21.77	21.72	21.74	22.50	
	1	0	21.41	21.48	21.54	22.50	
64QAM	1	7	21.53	21.43	21.52	22.50	
	1	14	21.58	21.35	21.54	22.50	
	8	0	21.31	20.38	20.88	21.50	
	8	4	20.55	20.56	20.59	21.50	
	8	7	21.35	21.01	20.53	21.50	
	15	0	20.31	20.78	21.12	21.50	



Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				18625	18900	19175		
5MHz	QPSK	1	0	22.36	22.11	22.70	23.50	
		1	13	22.26	22.53	22.73	23.50	
		1	24	22.73	22.42	22.50	23.50	
		12	0	22.15	22.12	22.20	23.50	
		12	6	22.29	22.22	22.25	23.50	
		12	13	22.21	22.26	22.38	23.50	
	16QAM	25	0	22.22	22.09	22.24	23.50	
		1	0	22.14	21.93	22.15	23.50	
		1	13	22.04	22.00	22.17	23.50	
		1	24	22.04	22.15	22.19	23.50	
		12	0	21.76	21.63	21.70	22.50	
		12	6	21.76	21.67	21.74	22.50	
	64QAM	12	13	21.81	21.78	21.86	22.50	
		25	0	21.69	21.71	21.68	22.50	
		1	0	21.41	21.56	21.39	22.50	
		1	13	21.58	21.46	21.49	22.50	
		1	24	21.35	21.55	21.44	22.50	
		12	0	20.55	20.97	20.84	21.50	
	10MHz	QPSK	12	6	20.66	21.19	20.53	21.50
			12	13	20.36	21.45	20.91	21.50
			25	0	20.71	20.43	21.37	21.50
1			0	22.43	22.19	22.76	23.50	
1			25	22.36	22.59	22.80	23.50	
1			49	22.81	22.52	22.61	23.50	
16QAM		25	0	22.23	22.23	22.28	23.50	
		25	13	22.35	22.29	22.32	23.50	
		25	25	22.27	22.34	22.45	23.50	
		50	0	22.31	22.14	22.35	23.50	
		1	0	22.20	22.02	22.26	23.50	
		1	25	22.12	22.09	22.23	23.50	
64QAM		1	49	22.14	22.21	22.26	23.50	
		25	0	21.86	21.73	21.77	22.50	
		25	13	21.87	21.77	21.81	22.50	
		25	25	21.90	21.88	21.91	22.50	
		50	0	21.76	21.79	21.73	22.50	
		1	0	21.44	21.35	21.49	22.50	
64QAM		1	25	21.37	21.46	21.53	22.50	
		1	49	21.56	21.44	21.40	22.50	
		25	0	20.96	20.94	21.00	21.50	
	25	13	21.03	21.07	21.10	21.50		
	25	25	21.39	20.59	21.33	21.50		
	50	0	20.46	20.31	20.58	21.50		



Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18675	18900	19125	
15MHz	QPSK	1	0	22.66	22.46	22.65	23.50
		1	38	22.43	22.47	22.81	23.50
		1	74	22.68	22.54	22.56	23.50
		36	0	22.25	22.33	22.21	23.50
		36	18	22.32	22.34	22.32	23.50
		36	39	22.28	22.44	22.44	23.50
		75	0	22.31	22.20	22.34	23.50
	16QAM	1	0	22.22	22.17	22.21	23.50
		1	38	22.05	22.17	22.09	23.50
		1	74	22.27	22.12	22.30	23.50
		36	0	21.75	21.72	21.80	22.50
		36	18	21.91	21.79	21.82	22.50
		36	39	21.78	21.90	21.97	22.50
		75	0	21.85	21.81	21.84	22.50
	64QAM	1	0	21.41	21.38	21.49	22.50
		1	38	21.58	21.37	21.42	22.50
		1	74	21.52	21.56	21.38	22.50
		36	0	20.42	21.20	20.51	21.50
		36	18	20.43	20.39	20.52	21.50
		36	39	20.96	21.39	20.63	21.50
		75	0	20.89	21.23	20.70	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18700	18900	19100	
20MHz	QPSK	1	0	22.60	22.54	22.17	23.50
		1	50	22.39	22.48	22.43	23.50
		1	99	22.53	22.54	22.45	23.50
		50	0	22.23	22.16	22.27	23.50
		50	25	22.34	22.24	22.22	23.50
		50	50	22.38	22.22	22.36	23.50
		100	0	22.36	22.22	22.31	23.50
	16QAM	1	0	22.42	22.31	22.23	23.50
		1	50	22.16	22.29	22.18	23.50
		1	99	22.11	22.28	22.35	23.50
		50	0	21.87	21.68	21.73	22.50
		50	25	21.77	21.77	21.79	22.50
		50	50	21.83	21.82	21.85	22.50
		100	0	21.80	21.81	21.78	22.50
	64QAM	1	0	21.36	21.52	21.39	22.50
		1	50	21.58	21.36	21.46	22.50
		1	99	21.57	21.39	21.36	22.50
		50	0	21.11	20.92	20.51	21.50
		50	25	21.25	20.92	20.86	21.50
		50	50	20.52	20.48	20.68	21.50
		100	0	21.36	20.41	20.75	21.50



SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

Report No.: ZR/2020/6003708

LTE Band 2 Hotspot on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18607	18900	19193	
1.4MHz	QPSK	1	0	16.92	16.54	16.99	17.50
		1	2	16.66	17.06	16.88	17.50
		1	5	16.59	16.97	17.05	17.50
		3	0	16.51	16.54	16.58	17.50
		3	2	16.63	16.57	16.70	17.50
		3	3	16.56	16.55	16.52	17.50
		6	0	16.56	16.55	16.54	17.50
	16QAM	1	0	16.61	16.27	16.44	17.50
		1	2	16.70	16.44	16.59	17.50
		1	5	16.47	16.53	16.48	17.50
		3	0	16.57	16.41	16.42	17.50
		3	2	16.54	16.59	16.75	17.50
		3	3	16.56	16.49	16.68	17.50
		6	0	16.57	16.44	16.49	17.50
	64QAM	1	0	16.57	16.51	16.69	17.50
		1	2	16.45	16.56	16.56	17.50
		1	5	16.50	16.51	16.55	17.50
		3	0	16.57	16.62	16.59	17.50
		3	2	16.46	16.56	16.64	17.50
		3	3	16.49	16.53	16.62	17.50
		6	0	16.52	16.51	16.61	17.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
3MHz	QPSK	1	0	16.94	16.53	16.90	17.50
		1	7	16.69	17.16	16.86	17.50
		1	14	16.57	16.99	17.06	17.50
		8	0	16.58	16.50	16.56	17.50
		8	4	16.63	16.59	16.74	17.50
		8	7	16.48	16.52	16.55	17.50
		15	0	16.55	16.52	16.51	17.50
	16QAM	1	0	16.52	16.29	16.35	17.50
		1	7	16.70	16.45	16.59	17.50
		1	14	16.45	16.63	16.50	17.50
		8	0	16.54	16.42	16.44	17.50
		8	4	16.48	16.64	16.67	17.50
		8	7	16.58	16.53	16.68	17.50
		15	0	16.57	16.47	16.56	17.50
	64QAM	1	0	16.51	16.49	16.54	17.50
		1	7	16.66	16.61	16.52	17.50
		1	14	16.62	16.57	16.60	17.50
		8	0	16.69	16.58	16.56	17.50
		8	4	16.62	16.55	16.51	17.50
		8	7	16.48	16.55	16.68	17.50
		15	0	16.56	16.65	16.51	17.50



Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				18625	18900	19175		
5MHz	QPSK	1	0	17.00	16.59	17.04	17.50	
		1	13	16.81	17.21	17.01	17.50	
		1	24	16.68	17.09	17.20	17.50	
		12	0	16.66	16.61	16.67	17.50	
		12	6	16.74	16.67	16.79	17.50	
		12	13	16.62	16.65	16.66	17.50	
	16QAM	25	0	16.63	16.62	16.60	17.50	
		1	0	16.66	16.40	16.49	17.50	
		1	13	16.75	16.56	16.72	17.50	
		1	24	16.54	16.68	16.59	17.50	
		12	0	16.65	16.55	16.49	17.50	
		12	6	16.61	16.74	16.80	17.50	
	64QAM	12	13	16.66	16.62	16.76	17.50	
		25	0	16.66	16.58	16.62	17.50	
		1	0	16.56	16.58	16.60	17.50	
		1	13	16.51	16.68	16.58	17.50	
		1	24	16.50	16.59	16.56	17.50	
		12	0	16.45	16.50	16.53	17.50	
	10MHz	QPSK	12	6	16.59	16.47	16.59	17.50
			12	13	16.56	16.64	16.69	17.50
			25	0	16.65	16.45	16.57	17.50
1			0	16.41	16.94	16.86	17.50	
1			25	16.70	16.90	17.09	17.50	
1			49	16.74	16.81	16.58	17.50	
16QAM		25	0	16.56	16.37	16.46	17.50	
		25	13	16.55	16.49	16.56	17.50	
		25	25	16.68	16.60	16.68	17.50	
		50	0	16.55	16.51	16.54	17.50	
		1	0	16.38	16.37	16.44	17.50	
		1	25	16.42	16.55	16.33	17.50	
64QAM		1	49	16.43	16.60	16.58	17.50	
		25	0	16.44	16.52	16.55	17.50	
		25	13	16.54	16.49	16.55	17.50	
	25	25	16.53	16.63	16.72	17.50		
	50	0	16.54	16.46	16.54	17.50		
	1	0	16.53	16.49	16.66	17.50		
10MHz	64QAM	1	25	16.54	16.51	16.49	17.50	
		1	49	16.64	16.63	16.52	17.50	
		25	0	16.58	16.68	16.67	17.50	
		25	13	16.63	16.47	16.46	17.50	
		25	25	16.63	16.66	16.67	17.50	
		50	0	16.58	16.64	16.68	17.50	



Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18675	18900	19125	
15MHz	QPSK	1	0	16.69	16.95	16.52	17.50
		1	38	16.99	16.83	16.65	17.50
		1	74	17.10	16.74	16.69	17.50
		36	0	16.48	16.55	16.44	17.50
		36	18	16.52	16.57	16.52	17.50
		36	39	16.60	16.55	16.66	17.50
		75	0	16.60	16.39	16.42	17.50
	16QAM	1	0	16.35	16.42	16.47	17.50
		1	38	16.49	16.49	16.48	17.50
		1	74	16.56	16.49	16.57	17.50
		36	0	16.52	16.47	16.57	17.50
		36	18	16.60	16.50	16.54	17.50
		36	39	16.54	16.60	16.65	17.50
		75	0	16.42	16.51	16.52	17.50
	64QAM	1	0	16.55	16.63	16.64	17.50
		1	38	16.63	16.53	16.56	17.50
		1	74	16.60	16.63	16.45	17.50
		36	0	16.68	16.45	16.49	17.50
		36	18	16.59	16.63	16.61	17.50
		36	39	16.48	16.63	16.55	17.50
		75	0	16.57	16.53	16.45	17.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
20MHz	QPSK	1	0	16.93	16.40	16.63	17.50
		1	50	17.01	16.52	16.75	17.50
		1	99	17.12	16.91	16.77	17.50
		50	0	16.52	16.43	16.57	17.50
		50	25	16.53	16.51	16.55	17.50
		50	50	16.50	16.69	16.56	17.50
		100	0	16.63	16.45	16.50	17.50
	16QAM	1	0	16.45	16.36	16.37	17.50
		1	50	16.41	16.41	16.46	17.50
		1	99	16.47	16.42	16.73	17.50
		50	0	16.51	16.43	16.48	17.50
		50	25	16.51	16.48	16.51	17.50
		50	50	16.56	16.51	16.59	17.50
		100	0	16.49	16.45	16.51	17.50
	64QAM	1	0	16.66	16.51	16.67	17.50
		1	50	16.58	16.60	16.66	17.50
		1	99	16.65	16.50	16.62	17.50
		50	0	16.46	16.53	16.58	17.50
		50	25	16.69	16.54	16.64	17.50
		50	50	16.66	16.66	16.52	17.50
		100	0	16.65	16.67	16.68	17.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
20MHz	QPSK	1	0	16.93	16.40	16.63	17.50
		1	50	17.01	16.52	16.75	17.50
		1	99	17.12	16.91	16.77	17.50
		50	0	16.52	16.43	16.57	17.50
		50	25	16.53	16.51	16.55	17.50
		50	50	16.50	16.69	16.56	17.50
		100	0	16.63	16.45	16.50	17.50
	16QAM	1	0	16.45	16.36	16.37	17.50
		1	50	16.41	16.41	16.46	17.50
		1	99	16.47	16.42	16.73	17.50
		50	0	16.51	16.43	16.48	17.50
		50	25	16.51	16.48	16.51	17.50
		50	50	16.56	16.51	16.59	17.50
		100	0	16.49	16.45	16.51	17.50
	64QAM	1	0	16.66	16.51	16.67	17.50
		1	50	16.58	16.60	16.66	17.50
		1	99	16.65	16.50	16.62	17.50
		50	0	16.46	16.53	16.58	17.50
		50	25	16.69	16.54	16.64	17.50
		50	50	16.66	16.66	16.52	17.50
		100	0	16.65	16.67	16.68	17.50



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LTE Band 2 Sensor on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18607	18900	19193	
1.4MHz	QPSK	1	0	20.22	20.19	20.23	21.00
		1	2	20.00	20.14	20.04	21.00
		1	5	20.20	20.35	20.34	21.00
		3	0	20.20	20.13	20.12	21.00
		3	2	20.24	20.44	20.17	21.00
		3	3	20.25	20.19	20.19	21.00
	16QAM	6	0	20.08	20.14	20.34	21.00
		1	0	20.51	20.32	20.30	21.00
		1	2	20.40	20.51	20.49	21.00
		1	5	20.04	20.51	20.46	21.00
		3	0	20.15	20.15	20.16	21.00
		3	2	20.08	20.30	20.31	21.00
	64QAM	3	3	20.23	20.32	20.26	21.00
		6	0	20.11	20.13	20.20	21.00
		1	0	19.91	20.05	19.89	21.00
		1	2	20.02	20.02	19.84	21.00
		1	5	20.00	19.90	20.05	21.00
		3	0	20.30	20.15	19.95	21.00
3MHz	QPSK	3	2	19.72	20.49	20.45	21.00
		3	3	20.49	20.49	20.46	21.00
		6	0	20.05	20.50	20.11	21.00
		1	0	20.18	20.19	20.23	21.00
		1	7	19.96	20.13	20.05	21.00
		1	14	20.21	20.30	20.29	21.00
	16QAM	8	0	20.21	20.09	20.17	21.00
		8	4	20.22	20.40	20.17	21.00
		8	7	20.22	20.19	20.21	21.00
		15	0	20.10	20.18	20.34	21.00
		1	0	20.50	20.29	20.32	21.00
		1	7	20.38	20.50	20.48	21.00
	64QAM	1	14	20.08	20.50	20.45	21.00
		8	0	20.18	20.17	20.13	21.00
		8	4	20.10	20.33	20.31	21.00
		8	7	20.27	20.34	20.30	21.00
		15	0	20.14	20.10	20.23	21.00
		1	0	19.90	20.06	19.93	21.00
	64QAM	1	7	19.98	20.00	19.85	21.00
		1	14	19.99	19.90	20.06	21.00
		8	0	20.30	20.15	19.96	21.00
		8	4	19.75	20.49	20.46	21.00
		8	7	20.50	20.47	20.45	21.00
		15	0	20.01	20.52	20.14	21.00



Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18625	18900	19175	
5MHz	QPSK	1	0	20.21	20.15	20.24	21.00
		1	13	19.99	20.15	20.02	21.00
		1	24	20.18	20.33	20.33	21.00
		12	0	20.22	20.10	20.16	21.00
		12	6	20.25	20.44	20.17	21.00
		12	13	20.25	20.16	20.20	21.00
		25	0	20.09	20.14	20.31	21.00
	16QAM	1	0	20.52	20.33	20.27	21.00
		1	13	20.42	20.49	20.49	21.00
		1	24	20.08	20.46	20.44	21.00
		12	0	20.18	20.18	20.12	21.00
		12	6	20.12	20.30	20.29	21.00
		12	13	20.27	20.32	20.30	21.00
		25	0	20.10	20.09	20.23	21.00
	64QAM	1	0	19.95	20.06	19.88	21.00
		1	13	20.03	19.99	19.84	21.00
		1	24	19.98	19.90	20.01	21.00
		12	0	20.26	20.10	19.97	21.00
		12	6	19.74	20.47	20.46	21.00
		12	13	20.50	20.49	20.45	21.00
		25	0	20.00	20.50	20.13	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
10MHz	QPSK	1	0	20.19	20.19	20.23	21.00
		1	25	19.97	20.15	20.05	21.00
		1	49	20.16	20.34	20.33	21.00
		25	0	20.21	20.10	20.17	21.00
		25	13	20.22	20.40	20.15	21.00
		25	25	20.21	20.19	20.20	21.00
		50	0	20.09	20.17	20.32	21.00
	16QAM	1	0	20.51	20.32	20.31	21.00
		1	25	20.40	20.49	20.49	21.00
		1	49	20.05	20.51	20.42	21.00
		25	0	20.15	20.16	20.11	21.00
		25	13	20.07	20.34	20.29	21.00
		25	25	20.24	20.31	20.26	21.00
		50	0	20.13	20.11	20.23	21.00
	64QAM	1	0	19.92	20.05	19.92	21.00
		1	25	20.00	20.02	19.81	21.00
		1	49	19.98	19.89	20.06	21.00
		25	0	20.28	20.12	19.97	21.00
		25	13	19.72	20.47	20.48	21.00
		25	25	20.51	20.51	20.46	21.00
		50	0	20.03	20.50	20.12	21.00



Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18675	18900	19125	
15MHz	QPSK	1	0	20.18	20.19	20.22	21.00
		1	38	20.01	20.12	20.03	21.00
		1	74	20.19	20.31	20.30	21.00
		36	0	20.22	20.08	20.17	21.00
		36	18	20.20	20.42	20.18	21.00
		36	39	20.26	20.15	20.21	21.00
		75	0	20.08	20.17	20.36	21.00
	16QAM	1	0	20.52	20.31	20.32	21.00
		1	38	20.41	20.52	20.46	21.00
		1	74	20.05	20.48	20.44	21.00
		36	0	20.15	20.13	20.16	21.00
		36	18	20.11	20.31	20.33	21.00
		36	39	20.24	20.35	20.27	21.00
		75	0	20.10	20.13	20.23	21.00
	64QAM	1	0	19.94	20.02	19.92	21.00
		1	38	20.01	20.00	19.80	21.00
		1	74	19.98	19.90	20.04	21.00
		36	0	20.26	20.13	20.00	21.00
		36	18	19.76	20.45	20.49	21.00
		36	39	20.51	20.51	20.41	21.00
		75	0	20.00	20.52	20.16	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18700	18900	19100	
20MHz	QPSK	1	0	20.28	20.24	20.29	21.00
		1	50	20.06	20.22	20.10	21.00
		1	99	20.26	20.40	20.39	21.00
		50	0	20.28	20.18	20.22	21.00
		50	25	20.30	20.49	20.24	21.00
		50	50	20.31	20.24	20.29	21.00
		100	0	20.17	20.43	20.41	21.00
	16QAM	1	0	20.57	20.39	20.37	21.00
		1	50	20.47	20.58	20.56	21.00
		1	99	20.13	20.56	20.52	21.00
		50	0	20.24	20.23	20.21	21.00
		50	25	20.17	20.40	20.38	21.00
		50	50	20.33	20.41	20.35	21.00
		100	0	20.20	20.19	20.29	21.00
	64QAM	1	0	20.00	20.11	19.98	21.00
		1	50	20.08	20.07	19.90	21.00
		1	99	20.07	19.98	20.11	21.00
		50	0	20.35	20.20	20.05	21.00
		50	25	19.81	20.54	20.54	21.00
		50	50	20.59	20.56	20.51	21.00
		100	0	20.10	20.58	20.21	21.00



LTE Band 4 Receiver on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19957	20175	20393	
1.4MHz	QPSK	1	0	23.50	24.00	23.96	25.00
		1	2	23.63	23.70	23.92	25.00
		1	5	23.58	23.47	23.92	25.00
		3	0	23.79	23.71	23.72	25.00
		3	2	23.66	23.77	23.86	25.00
		3	3	23.76	23.79	23.74	25.00
		6	0	22.77	22.71	23.10	24.00
	16QAM	1	0	22.98	23.16	23.26	24.00
		1	2	22.90	22.79	23.37	24.00
		1	5	22.76	22.86	22.94	24.00
		3	0	22.64	22.87	22.89	24.00
		3	2	22.79	22.68	22.83	24.00
		3	3	23.09	22.89	22.86	24.00
		6	0	21.70	21.71	21.95	23.00
	64QAM	1	0	21.96	22.00	22.08	23.00
		1	2	22.03	21.87	21.86	23.00
		1	5	21.94	21.86	21.89	23.00
		3	0	22.01	21.97	21.89	23.00
		3	2	21.99	22.03	21.92	23.00
		3	3	21.96	21.86	22.06	23.00
		6	0	21.24	21.89	21.39	22.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
3MHz	QPSK	1	0	23.56	24.01	23.90	25.00
		1	7	23.65	23.70	23.93	25.00
		1	14	23.61	23.52	23.85	25.00
		8	0	22.74	22.71	22.74	24.00
		8	4	22.64	22.72	22.94	24.00
		8	7	22.73	22.80	22.77	24.00
		15	0	22.81	22.70	23.11	24.00
	16QAM	1	0	22.93	23.10	23.30	24.00
		1	7	22.90	22.84	23.35	24.00
		1	14	22.78	22.87	22.96	24.00
		8	0	21.60	21.88	21.87	23.00
		8	4	21.76	21.69	21.89	23.00
		8	7	22.01	21.99	21.91	23.00
		15	0	21.62	21.70	21.90	23.00
	64QAM	1	0	21.85	22.05	21.88	23.00
		1	7	22.08	22.05	22.05	23.00
		1	14	21.95	21.96	22.00	23.00
		8	0	21.95	20.94	21.23	22.00
		8	4	20.75	21.49	21.96	22.00
		8	7	21.83	21.05	20.78	22.00
		15	0	20.88	21.41	21.40	22.00



Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19975	20175	20375	
5MHz	QPSK	1	0	23.63	24.09	24.02	25.00
		1	13	23.77	23.79	24.02	25.00
		1	24	23.67	23.62	23.97	25.00
		12	0	22.84	22.86	22.87	24.00
		12	6	22.77	22.83	22.99	24.00
		12	13	22.82	22.88	22.87	24.00
		25	0	22.89	22.84	23.22	24.00
	16QAM	1	0	23.03	23.24	23.36	24.00
		1	13	23.00	22.94	23.50	24.00
		1	24	22.89	23.00	23.04	24.00
		12	0	21.74	21.97	21.95	23.00
		12	6	21.87	21.82	21.95	23.00
		12	13	21.95	22.04	21.99	23.00
		25	0	21.77	21.85	22.04	23.00
	64QAM	1	0	22.05	21.94	21.95	23.00
		1	13	22.04	21.92	21.93	23.00
		1	24	21.89	21.86	21.85	23.00
		12	0	21.49	21.73	21.79	22.00
		12	6	21.87	21.11	21.67	22.00
		12	13	20.77	21.04	20.89	22.00
		25	0	20.96	21.34	21.63	22.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
10MHz	QPSK	1	0	23.97	23.59	23.78	25.00
		1	25	23.92	23.96	24.00	25.00
		1	49	23.74	24.07	24.03	25.00
		25	0	22.74	22.89	22.91	24.00
		25	13	22.96	22.84	23.02	24.00
		25	25	22.91	23.02	22.94	24.00
		50	0	22.97	22.93	23.03	24.00
	16QAM	1	0	23.26	22.75	23.08	24.00
		1	25	22.77	22.89	23.15	24.00
		1	49	22.73	23.28	23.13	24.00
		25	0	21.90	21.87	21.94	23.00
		25	13	21.94	21.95	22.01	23.00
		25	25	22.05	21.94	22.07	23.00
		50	0	21.95	21.92	22.01	23.00
	64QAM	1	0	22.01	21.96	21.87	23.00
		1	25	21.92	21.98	21.97	23.00
		1	49	22.00	22.04	22.01	23.00
		25	0	21.32	20.97	21.88	22.00
		25	13	21.98	21.90	21.97	22.00
		25	25	21.53	21.95	21.03	22.00
		50	0	21.83	21.42	20.81	22.00



Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20025	20175	20325	
15MHz	QPSK	1	0	23.74	23.68	23.84	25.00
		1	38	23.68	23.66	23.72	25.00
		1	74	23.68	23.70	23.79	25.00
		36	0	22.85	22.90	22.77	24.00
		36	18	22.75	22.77	22.86	24.00
		36	39	22.75	22.81	22.95	24.00
		75	0	22.91	22.82	22.84	24.00
	16QAM	1	0	23.12	22.82	23.05	24.00
		1	38	22.81	22.88	23.08	24.00
		1	74	23.18	22.73	22.87	24.00
		36	0	21.83	21.77	21.87	23.00
		36	18	21.91	21.76	21.79	23.00
		36	39	21.80	21.88	21.83	23.00
		75	0	21.87	21.69	21.83	23.00
	64QAM	1	0	21.91	21.98	21.88	23.00
		1	38	21.90	22.00	22.04	23.00
		1	74	22.05	21.98	22.04	23.00
		36	0	21.60	21.54	21.63	22.00
		36	18	21.93	20.91	20.84	22.00
		36	39	21.97	21.04	21.23	22.00
		75	0	21.98	21.58	21.02	22.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
20MHz	QPSK	1	0	24.03	24.02	24.12	25.00
		1	50	24.03	24.02	23.90	25.00
		1	99	23.88	23.91	24.10	25.00
		50	0	23.09	23.12	23.20	24.00
		50	25	23.20	23.03	23.17	24.00
		50	50	23.25	23.17	23.21	24.00
		100	0	23.21	23.07	23.08	24.00
	16QAM	1	0	23.61	23.53	23.37	24.00
		1	50	23.40	23.46	23.46	24.00
		1	99	23.59	23.21	23.27	24.00
		50	0	22.23	22.24	22.17	23.00
		50	25	22.22	22.13	22.17	23.00
		50	50	22.09	22.07	22.11	23.00
		100	0	22.15	22.07	22.14	23.00
	64QAM	1	0	22.03	21.87	21.96	23.00
		1	50	21.86	22.02	21.89	23.00
		1	99	21.95	21.97	21.95	23.00
		50	0	21.67	21.70	21.23	22.00
		50	25	21.61	21.54	21.36	22.00
		50	50	20.78	21.55	20.92	22.00
		100	0	20.98	20.80	21.14	22.00



LTE Band 4 Receiver off/Hotsprt off/Sensor off				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				19957	20175	20393		
1.4MHz	QPSK	1	0	22.50	22.47	22.47	24.00	
		1	2	22.44	22.41	22.37	24.00	
		1	5	22.44	22.46	22.57	24.00	
		3	0	22.43	22.49	22.55	24.00	
		3	2	22.58	22.50	22.56	24.00	
		3	3	22.54	22.51	22.60	24.00	
	16QAM	6	0	22.49	22.46	22.49	24.00	
		1	0	22.44	22.91	22.64	24.00	
		1	2	22.79	22.82	22.37	24.00	
		1	5	22.66	22.77	22.62	24.00	
		3	0	22.41	22.93	22.65	24.00	
		3	2	22.79	22.84	22.38	24.00	
	64QAM	3	3	22.68	22.76	22.61	24.00	
		6	0	21.53	21.56	21.53	23.00	
		1	0	21.47	21.39	21.40	23.00	
		1	2	21.58	21.39	21.47	23.00	
		1	5	21.58	21.44	21.42	23.00	
		3	0	21.57	21.43	21.35	23.00	
	3MHz	QPSK	3	2	21.39	21.50	21.46	23.00
			3	3	21.48	21.42	21.41	23.00
			6	0	20.79	21.16	21.10	22.00
1			0	22.51	22.98	22.73	24.00	
1			7	22.90	22.91	22.46	24.00	
1			14	22.75	22.84	22.69	24.00	
16QAM		8	0	22.51	22.59	22.61	24.00	
		8	4	22.64	22.56	22.61	24.00	
		8	7	22.59	22.56	22.65	24.00	
		15	0	22.56	22.53	22.54	24.00	
		1	0	22.56	22.53	22.53	24.00	
		1	7	22.54	22.47	22.44	24.00	
64QAM		1	14	22.50	22.51	22.67	24.00	
		8	0	21.61	21.65	21.63	23.00	
		8	4	21.52	21.59	21.51	23.00	
	8	7	21.61	21.61	21.64	23.00		
	15	0	21.59	21.59	21.56	23.00		
	1	0	21.45	21.58	21.39	23.00		
64QAM	1	7	21.38	21.51	21.57	23.00		
	1	14	21.46	21.42	21.37	23.00		
	8	0	21.40	20.57	20.82	22.00		
	8	4	20.32	20.96	20.48	22.00		
	8	7	21.31	20.86	20.54	22.00		
	15	0	21.44	21.19	20.34	22.00		



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				19975	20175	20375		
5MHz	QPSK	1	0	22.40	23.12	22.78	24.00	
		1	13	22.45	22.98	22.64	24.00	
		1	24	22.59	22.70	22.39	24.00	
		12	0	22.66	22.67	22.61	24.00	
		12	6	22.65	22.59	22.60	24.00	
		12	13	22.66	22.59	22.67	24.00	
	16QAM	25	0	22.51	22.58	22.61	24.00	
		1	0	22.58	22.71	22.68	24.00	
		1	13	22.44	22.39	22.54	24.00	
		1	24	22.50	22.54	22.54	24.00	
		12	0	21.53	21.58	21.65	23.00	
		12	6	21.69	21.56	21.49	23.00	
	64QAM	12	13	21.63	21.64	21.58	23.00	
		25	0	21.65	21.56	21.61	23.00	
		1	0	21.54	21.45	21.53	23.00	
		1	13	21.48	21.54	21.58	23.00	
		1	24	21.54	21.35	21.39	23.00	
		12	0	21.01	21.14	20.95	22.00	
	10MHz	QPSK	12	6	21.19	20.49	20.81	22.00
			12	13	20.64	20.73	21.43	22.00
			25	0	20.26	21.26	20.71	22.00
1			0	22.48	23.18	22.87	24.00	
1			25	22.53	23.06	22.75	24.00	
1			49	22.68	22.77	22.47	24.00	
16QAM		25	0	22.72	22.78	22.68	24.00	
		25	13	22.76	22.66	22.65	24.00	
		25	25	22.72	22.67	22.77	24.00	
		50	0	22.62	22.64	22.69	24.00	
		1	0	22.64	22.81	22.78	24.00	
		1	25	22.49	22.47	22.65	24.00	
64QAM	1	49	22.61	22.63	22.65	24.00		
	25	0	21.64	21.66	21.73	23.00		
	25	13	21.77	21.61	21.58	23.00		
	25	25	21.72	21.71	21.67	23.00		
	50	0	21.70	21.62	21.67	23.00		
	1	0	21.46	21.52	21.56	23.00		
10MHz	64QAM	1	25	21.44	21.39	21.37	23.00	
		1	49	21.38	21.47	21.41	23.00	
		25	0	21.41	20.75	20.90	22.00	
		25	13	21.36	20.50	21.34	22.00	
		25	25	20.31	20.35	20.31	22.00	
		50	0	20.81	20.27	20.80	22.00	



Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20025	20175	20325	
15MHz	QPSK	1	0	22.59	23.07	22.81	24.00
		1	38	22.97	23.02	22.54	24.00
		1	74	22.81	22.95	22.78	24.00
		36	0	22.61	22.68	22.67	24.00
		36	18	22.75	22.67	22.66	24.00
		36	39	22.68	22.66	22.70	24.00
		75	0	22.61	22.64	22.62	24.00
	16QAM	1	0	22.62	22.62	22.61	24.00
		1	38	22.60	22.58	22.51	24.00
		1	74	22.56	22.61	22.76	24.00
		36	0	21.70	21.73	21.68	23.00
		36	18	21.62	21.68	21.57	23.00
		36	39	21.68	21.69	21.69	23.00
		75	0	21.69	21.69	21.62	23.00
	64QAM	1	0	21.49	21.39	21.48	23.00
		1	38	21.47	21.49	21.56	23.00
		1	74	21.46	21.55	21.53	23.00
		36	0	20.50	21.27	20.69	22.00
		36	18	20.42	21.17	20.86	22.00
		36	39	20.48	21.15	20.32	22.00
		75	0	20.66	20.40	20.96	22.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
20MHz	QPSK	1	0	22.60	22.75	23.22	24.00
		1	50	22.59	23.08	22.69	24.00
		1	99	23.00	22.71	23.17	24.00
		50	0	22.94	23.04	22.97	24.00
		50	25	22.95	22.93	23.02	24.00
		50	50	23.02	23.03	22.99	24.00
		100	0	22.92	23.05	22.98	24.00
	16QAM	1	0	22.51	22.76	22.63	24.00
		1	50	22.60	22.53	22.41	24.00
		1	99	22.40	22.44	22.71	24.00
		50	0	21.63	21.73	21.74	23.00
		50	25	21.74	21.74	21.60	23.00
		50	50	21.65	21.67	21.71	23.00
		100	0	21.70	21.55	21.77	23.00
	64QAM	1	0	21.51	21.45	21.37	23.00
		1	50	21.55	21.38	21.55	23.00
		1	99	21.55	21.54	21.55	23.00
		50	0	21.34	21.05	20.25	22.00
		50	25	21.07	21.03	20.94	22.00
		50	50	21.04	20.98	20.79	22.00
		100	0	20.86	20.54	20.59	22.00



LTE Band 4 Hotspot on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19957	20175	20393	
1.4MHz	QPSK	1	0	17.25	17.27	17.34	18.50
		1	2	17.44	17.88	17.77	18.50
		1	5	17.16	17.76	17.75	18.50
		3	0	17.04	17.37	17.23	18.50
		3	2	17.26	17.27	17.36	18.50
		3	3	17.21	17.35	17.45	18.50
		6	0	17.16	17.27	17.34	18.50
	16QAM	1	0	17.01	17.12	17.19	18.50
		1	2	17.21	17.30	17.34	18.50
		1	5	17.19	17.16	17.35	18.50
		3	0	17.11	17.20	17.24	18.50
		3	2	17.29	17.21	17.32	18.50
		3	3	17.18	17.22	17.34	18.50
		6	0	17.20	17.24	17.33	18.50
	64QAM	1	0	17.37	17.34	17.28	18.50
		1	2	17.35	17.28	17.38	18.50
		1	5	17.39	17.32	17.28	18.50
		3	0	17.49	17.47	17.42	18.50
		3	2	17.48	17.41	17.38	18.50
		3	3	17.46	17.42	17.39	18.50
		6	0	17.35	17.48	17.30	18.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
3MHz	QPSK	1	0	17.29	17.24	17.42	18.50
		1	7	17.39	17.86	17.84	18.50
		1	14	17.20	17.83	17.74	18.50
		8	0	17.11	17.32	17.27	18.50
		8	4	17.27	17.24	17.42	18.50
		8	7	17.17	17.30	17.45	18.50
		15	0	17.25	17.32	17.40	18.50
	16QAM	1	0	17.02	17.09	17.09	18.50
		1	7	17.17	17.33	17.37	18.50
		1	14	17.14	17.10	17.36	18.50
		8	0	17.05	17.24	17.33	18.50
		8	4	17.31	17.16	17.27	18.50
		8	7	17.22	17.19	17.35	18.50
		15	0	17.26	17.23	17.26	18.50
	64QAM	1	0	17.30	17.27	17.32	18.50
		1	7	17.42	17.49	17.42	18.50
		1	14	17.47	17.41	17.48	18.50
		8	0	17.46	17.45	17.37	18.50
		8	4	17.36	17.28	17.33	18.50
		8	7	17.35	17.40	17.47	18.50
		15	0	17.44	17.47	17.34	18.50



Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19975	20175	20375	
5MHz	QPSK	1	0	17.37	17.37	17.48	18.50
		1	13	17.49	17.97	17.91	18.50
		1	24	17.27	17.91	17.87	18.50
		12	0	17.16	17.42	17.33	18.50
		12	6	17.37	17.35	17.48	18.50
		12	13	17.32	17.42	17.50	18.50
		25	0	17.30	17.38	17.47	18.50
	16QAM	1	0	17.13	17.21	17.24	18.50
		1	13	17.30	17.39	17.49	18.50
		1	24	17.25	17.24	17.49	18.50
		12	0	17.17	17.34	17.39	18.50
		12	6	17.37	17.31	17.40	18.50
		12	13	17.28	17.33	17.42	18.50
		25	0	17.32	17.32	17.41	18.50
	64QAM	1	0	17.45	17.28	17.44	18.50
		1	13	17.47	17.37	17.49	18.50
		1	24	17.41	17.38	17.31	18.50
		12	0	17.39	17.43	17.32	18.50
		12	6	17.45	17.28	17.34	18.50
		12	13	17.34	17.38	17.49	18.50
		25	0	17.49	17.46	17.33	18.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
10MHz	QPSK	1	0	17.35	17.23	17.66	18.50
		1	25	17.57	17.54	17.16	18.50
		1	49	17.61	17.40	17.77	18.50
		25	0	17.09	17.10	17.29	18.50
		25	13	17.26	17.16	17.25	18.50
		25	25	17.17	17.23	17.26	18.50
		50	0	17.20	17.21	17.29	18.50
	16QAM	1	0	17.05	17.17	17.28	18.50
		1	25	16.89	17.05	17.20	18.50
		1	49	17.07	17.05	17.15	18.50
		25	0	17.12	17.16	17.28	18.50
		25	13	17.14	17.24	17.22	18.50
		25	25	17.08	17.20	17.26	18.50
		50	0	17.21	17.19	17.24	18.50
	64QAM	1	0	17.46	17.39	17.41	18.50
		1	25	17.34	17.36	17.27	18.50
		1	49	17.28	17.27	17.45	18.50
		25	0	17.39	17.45	17.47	18.50
		25	13	17.44	17.29	17.38	18.50
		25	25	17.43	17.36	17.45	18.50
		50	0	17.46	17.41	17.41	18.50



Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20025	20175	20325	
15MHz	QPSK	1	0	17.62	17.35	17.81	18.50
		1	38	17.21	17.57	17.36	18.50
		1	74	17.62	17.43	17.69	18.50
		36	0	17.19	17.22	17.18	18.50
		36	18	17.17	17.14	17.17	18.50
		36	39	17.20	17.19	17.20	18.50
		75	0	17.16	17.23	17.24	18.50
	16QAM	1	0	17.01	17.25	17.19	18.50
		1	38	16.84	17.13	17.07	18.50
		1	74	17.00	17.12	17.13	18.50
		36	0	17.15	17.13	17.25	18.50
		36	18	17.21	17.13	17.21	18.50
		36	39	17.19	17.21	17.26	18.50
		75	0	17.22	17.19	17.13	18.50
	64QAM	1	0	17.29	17.39	17.49	18.50
		1	38	17.33	17.31	17.37	18.50
		1	74	17.48	17.47	17.44	18.50
		36	0	17.36	17.38	17.27	18.50
		36	18	17.37	17.39	17.34	18.50
		36	39	17.46	17.42	17.30	18.50
		75	0	17.38	17.41	17.30	18.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
20MHz	QPSK	1	0	17.65	17.10	17.41	18.50
		1	50	17.07	17.66	17.00	18.50
		1	99	17.58	17.62	17.08	18.50
		50	0	17.16	17.27	17.36	18.50
		50	25	17.19	17.11	17.11	18.50
		50	50	17.25	17.23	17.22	18.50
		100	0	17.18	17.18	17.29	18.50
	16QAM	1	0	17.25	17.25	17.08	18.50
		1	50	16.85	17.01	16.98	18.50
		1	99	17.04	17.15	17.14	18.50
		50	0	17.22	17.19	17.25	18.50
		50	25	17.26	17.14	17.20	18.50
		50	50	17.17	17.15	17.18	18.50
		100	0	17.21	17.08	17.11	18.50
	64QAM	1	0	17.40	17.31	17.46	18.50
		1	50	17.39	17.47	17.43	18.50
		1	99	17.39	17.45	17.37	18.50
		50	0	17.47	17.42	17.32	18.50
		50	25	17.29	17.27	17.46	18.50
		50	50	17.44	17.36	17.46	18.50
		100	0	17.25	17.29	17.36	18.50



LTE Band 4 Sensor on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19957	20175	20393	
1.4MHz	QPSK	1	0	20.05	20.05	20.20	21.00
		1	2	19.97	20.04	19.76	21.00
		1	5	20.04	19.98	20.10	21.00
		3	0	19.94	20.11	20.03	21.00
		3	2	20.14	20.02	20.17	21.00
		3	3	20.17	20.04	20.10	21.00
		6	0	20.02	20.10	20.08	21.00
	16QAM	1	0	20.24	20.26	20.33	21.00
		1	2	20.09	20.26	20.32	21.00
		1	5	20.27	20.22	20.26	21.00
		3	0	20.10	20.22	20.19	21.00
		3	2	20.10	19.99	20.09	21.00
		3	3	20.06	19.98	20.04	21.00
		6	0	20.05	20.03	20.18	21.00
	64QAM	1	0	20.03	19.81	19.83	21.00
		1	2	19.86	19.90	19.84	21.00
		1	5	19.83	19.89	19.97	21.00
		3	0	20.21	20.21	19.84	21.00
		3	2	20.16	20.01	19.97	21.00
		3	3	19.78	20.30	19.93	21.00
		6	0	19.97	19.63	20.08	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
3MHz	QPSK	1	0	20.01	20.03	20.20	21.00
		1	7	20.02	20.09	19.79	21.00
		1	14	20.04	19.97	20.09	21.00
		8	0	19.95	20.09	20.03	21.00
		8	4	20.12	20.03	20.19	21.00
		8	7	20.10	20.02	20.11	21.00
		15	0	20.01	20.10	20.11	21.00
	16QAM	1	0	20.27	20.28	20.33	21.00
		1	7	20.10	20.24	20.32	21.00
		1	14	20.28	20.23	20.31	21.00
		8	0	20.09	20.20	20.15	21.00
		8	4	20.06	19.99	20.06	21.00
		8	7	20.04	20.00	20.03	21.00
		15	0	20.06	20.00	20.13	21.00
	64QAM	1	0	20.04	19.77	19.85	21.00
		1	7	19.86	19.89	19.86	21.00
		1	14	19.81	19.89	19.99	21.00
		8	0	20.19	20.21	19.83	21.00
		8	4	20.17	20.00	19.98	21.00
		8	7	19.78	20.31	19.91	21.00
		15	0	19.96	19.63	20.14	21.00



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19975	20175	20375	
5MHz	QPSK	1	0	20.07	20.03	20.18	21.00
		1	13	19.97	20.07	19.76	21.00
		1	24	20.04	19.97	20.09	21.00
		12	0	19.97	20.08	20.08	21.00
		12	6	20.13	20.04	20.16	21.00
		12	13	20.17	20.03	20.17	21.00
		25	0	20.07	20.11	20.10	21.00
	16QAM	1	0	20.26	20.30	20.33	21.00
		1	13	20.11	20.22	20.35	21.00
		1	24	20.29	20.28	20.26	21.00
		12	0	20.13	20.19	20.18	21.00
		12	6	20.05	20.05	20.11	21.00
		12	13	20.03	20.02	20.06	21.00
		25	0	20.05	20.02	20.13	21.00
	64QAM	1	0	20.02	19.78	19.83	21.00
		1	13	19.90	19.84	19.87	21.00
		1	24	19.82	19.91	20.00	21.00
		12	0	20.20	20.18	19.86	21.00
		12	6	20.19	20.03	19.99	21.00
		12	13	19.79	20.28	19.91	21.00
		25	0	19.96	19.61	20.14	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
10MHz	QPSK	1	0	20.01	20.04	20.18	21.00
		1	25	19.95	20.03	19.73	21.00
		1	49	20.05	19.99	20.04	21.00
		25	0	19.91	20.11	20.03	21.00
		25	13	20.15	20.02	20.13	21.00
		25	25	20.10	20.04	20.16	21.00
		50	0	20.01	20.07	20.12	21.00
	16QAM	1	0	20.23	20.26	20.30	21.00
		1	25	20.10	20.23	20.31	21.00
		1	49	20.28	20.27	20.27	21.00
		25	0	20.15	20.18	20.21	21.00
		25	13	20.11	20.01	20.09	21.00
		25	25	20.02	19.95	20.00	21.00
		50	0	19.99	20.02	20.16	21.00
	64QAM	1	0	20.07	19.81	19.85	21.00
		1	25	19.87	19.87	19.85	21.00
		1	49	19.84	19.89	19.97	21.00
		25	0	20.26	20.15	19.86	21.00
		25	13	20.21	20.03	20.02	21.00
		25	25	19.79	20.28	19.95	21.00
		50	0	19.95	19.64	20.09	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
10MHz	QPSK	1	0	20.01	20.04	20.18	21.00
		1	25	19.95	20.03	19.73	21.00
		1	49	20.05	19.99	20.04	21.00
		25	0	19.91	20.11	20.03	21.00
		25	13	20.15	20.02	20.13	21.00
		25	25	20.10	20.04	20.16	21.00
		50	0	20.01	20.07	20.12	21.00
	16QAM	1	0	20.23	20.26	20.30	21.00
		1	25	20.10	20.23	20.31	21.00
		1	49	20.28	20.27	20.27	21.00
		25	0	20.15	20.18	20.21	21.00
		25	13	20.11	20.01	20.09	21.00
		25	25	20.02	19.95	20.00	21.00
		50	0	19.99	20.02	20.16	21.00
	64QAM	1	0	20.07	19.81	19.85	21.00
		1	25	19.87	19.87	19.85	21.00
		1	49	19.84	19.89	19.97	21.00
		25	0	20.26	20.15	19.86	21.00
		25	13	20.21	20.03	20.02	21.00
		25	25	19.79	20.28	19.95	21.00
		50	0	19.95	19.64	20.09	21.00



Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20025	20175	20325	
15MHz	QPSK	1	0	20.06	20.04	20.20	21.00
		1	38	19.97	20.04	19.78	21.00
		1	74	20.02	19.98	20.03	21.00
		36	0	19.92	20.04	20.01	21.00
		36	18	20.13	20.00	20.18	21.00
		36	39	20.16	20.07	20.17	21.00
		75	0	20.00	20.09	20.06	21.00
	16QAM	1	0	20.22	20.31	20.28	21.00
		1	38	20.10	20.26	20.36	21.00
		1	74	20.29	20.26	20.24	21.00
		36	0	20.13	20.22	20.15	21.00
		36	18	20.07	20.03	20.12	21.00
		36	39	20.03	19.96	20.00	21.00
		75	0	20.04	20.01	20.15	21.00
	64QAM	1	0	20.06	19.75	19.82	21.00
		1	38	19.92	19.83	19.85	21.00
		1	74	19.81	19.93	20.01	21.00
		36	0	20.24	20.14	19.80	21.00
		36	18	20.19	20.02	20.02	21.00
		36	39	19.77	20.25	19.88	21.00
		75	0	19.92	19.65	20.10	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
20MHz	QPSK	1	0	20.10	20.11	20.24	21.00
		1	50	20.05	20.12	19.83	21.00
		1	99	20.11	20.07	20.13	21.00
		50	0	20.00	20.14	20.11	21.00
		50	25	20.18	20.09	20.22	21.00
		50	50	20.20	20.12	20.20	21.00
		100	0	20.10	20.15	20.16	21.00
	16QAM	1	0	20.32	20.36	20.36	21.00
		1	50	20.17	20.31	20.39	21.00
		1	99	20.34	20.31	20.34	21.00
		50	0	20.19	20.26	20.24	21.00
		50	25	20.14	20.09	20.16	21.00
		50	50	20.12	20.05	20.10	21.00
		100	0	20.09	20.06	20.23	21.00
	64QAM	1	0	20.10	19.85	19.91	21.00
		1	50	19.95	19.93	19.93	21.00
		1	99	19.87	19.98	20.04	21.00
		50	0	20.29	20.24	19.90	21.00
		50	25	20.24	20.06	20.05	21.00
		50	50	19.84	20.35	19.98	21.00
		100	0	20.00	19.70	20.17	21.00



LTE Band 5				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20407	20525	20643	
1.4MHz	QPSK	1	0	23.38	23.42	23.49	25.00
		1	2	23.52	23.57	23.53	25.00
		1	5	23.39	23.46	23.44	25.00
		3	0	23.43	23.46	23.48	25.00
		3	2	23.50	23.60	23.52	25.00
		3	3	23.47	23.50	23.47	25.00
		6	0	22.52	22.61	22.62	24.00
	16QAM	1	0	23.03	22.70	23.10	24.00
		1	2	23.15	23.12	22.82	24.00
		1	5	22.62	23.01	22.73	24.00
		3	0	22.63	22.54	22.64	24.00
		3	2	22.84	22.56	22.60	24.00
		3	3	22.50	22.69	22.55	24.00
		6	0	21.66	21.61	21.73	23.00
	64QAM	1	0	21.94	21.81	21.67	23.00
		1	2	21.62	21.92	21.45	23.00
		1	5	21.88	21.78	21.51	23.00
		3	0	21.67	21.64	21.53	23.00
		3	2	21.95	21.76	21.49	23.00
		3	3	21.48	21.83	21.71	23.00
		6	0	20.60	20.87	20.65	22.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
3MHz	QPSK	1	0	23.49	23.65	23.58	25.00
		1	7	23.53	23.53	23.57	25.00
		1	14	23.57	23.49	23.44	25.00
		8	0	22.59	22.66	22.65	24.00
		8	4	22.61	22.74	22.69	24.00
		8	7	22.63	22.68	22.65	24.00
		15	0	22.59	22.69	22.62	24.00
	16QAM	1	0	22.79	22.72	23.09	24.00
		1	7	22.74	22.86	22.82	24.00
		1	14	22.73	22.77	22.76	24.00
		8	0	21.59	21.70	21.74	23.00
		8	4	21.63	21.78	21.77	23.00
		8	7	21.66	21.71	21.71	23.00
		15	0	21.69	21.67	21.56	23.00
	64QAM	1	0	21.77	21.77	21.46	23.00
		1	7	21.63	21.92	21.78	23.00
		1	14	21.51	21.95	21.88	23.00
		8	0	20.89	20.56	20.54	22.00
		8	4	20.63	20.93	20.83	22.00
		8	7	20.48	20.47	20.68	22.00
		15	0	20.86	20.55	20.53	22.00



Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20425	20525	20625	
5MHz	QPSK	1	0	23.58	23.52	23.59	25.00
		1	13	23.48	23.56	23.53	25.00
		1	24	23.46	23.46	23.64	25.00
		12	0	22.58	22.68	22.66	24.00
		12	6	22.62	22.73	22.65	24.00
		12	13	22.60	22.69	22.67	24.00
		25	0	22.65	22.74	22.69	24.00
	16QAM	1	0	22.80	22.82	23.18	24.00
		1	13	22.53	22.88	23.00	24.00
		1	24	22.75	22.95	22.93	24.00
		12	0	21.69	21.69	21.73	23.00
		12	6	21.64	21.73	21.70	23.00
		12	13	21.61	21.78	21.78	23.00
		25	0	21.69	21.72	21.73	23.00
	64QAM	1	0	21.49	21.90	21.90	23.00
		1	13	21.80	21.82	21.73	23.00
		1	24	21.58	21.53	21.91	23.00
		12	0	20.82	20.66	20.80	22.00
		12	6	20.51	20.81	20.58	22.00
		12	13	20.69	20.90	20.91	22.00
		25	0	20.58	20.90	20.72	22.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
10MHz	QPSK	1	0	23.91	23.66	23.91	25.00
		1	25	23.92	23.88	23.93	25.00
		1	49	23.85	23.74	23.81	25.00
		25	0	22.82	22.89	22.81	24.00
		25	13	22.89	22.85	22.97	24.00
		25	25	22.90	22.91	22.98	24.00
		50	0	22.90	22.88	22.93	24.00
	16QAM	1	0	22.90	23.01	23.13	24.00
		1	25	22.81	22.94	22.92	24.00
		1	49	22.95	23.01	23.09	24.00
		25	0	21.77	21.89	21.97	23.00
		25	13	21.94	21.98	22.02	23.00
		25	25	21.94	21.81	22.02	23.00
		50	0	21.93	21.88	21.96	23.00
	64QAM	1	0	21.57	21.95	21.93	23.00
		1	25	21.70	21.70	21.52	23.00
		1	49	21.81	21.52	21.87	23.00
		25	0	20.73	20.60	20.53	22.00
		25	13	20.53	20.50	20.49	22.00
		25	25	20.90	20.72	20.47	22.00
		50	0	20.84	20.87	20.62	22.00



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LTE Band 7 Receiver on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20775	21100	21425	
5MHz	QPSK	1	0	23.89	23.97	24.08	25.00
		1	13	24.04	23.98	24.08	25.00
		1	24	23.94	24.07	23.94	25.00
		12	0	23.15	23.17	23.16	24.00
		12	6	23.12	23.22	23.18	24.00
		12	13	23.20	23.21	23.13	24.00
	16QAM	25	0	23.16	23.13	23.13	24.00
		1	0	23.53	23.20	23.62	24.00
		1	13	23.57	23.07	23.13	24.00
		1	24	23.51	23.28	23.59	24.00
		12	0	22.08	22.18	22.21	23.00
		12	6	22.13	22.28	22.25	23.00
	64QAM	12	13	22.16	22.21	22.17	23.00
		25	0	22.04	22.14	22.23	23.00
		1	0	22.17	22.16	22.07	23.00
		1	13	22.11	22.15	22.24	23.00
		1	24	22.25	22.13	22.23	23.00
		12	0	21.19	21.61	21.25	22.00
10MHz	QPSK	12	6	21.88	20.97	21.69	22.00
		12	13	21.89	21.16	21.90	22.00
		25	0	21.18	21.70	21.12	22.00
		1	0	24.02	23.95	24.02	25.00
		1	25	23.97	24.03	24.05	25.00
		1	49	24.00	24.01	24.07	25.00
	16QAM	25	0	23.00	23.07	23.21	24.00
		25	13	23.17	23.22	23.23	24.00
		25	25	23.04	23.23	23.22	24.00
		50	0	23.24	23.09	23.17	24.00
		1	0	23.02	22.95	23.34	24.00
		1	25	22.96	23.50	23.08	24.00
	64QAM	1	49	23.30	23.32	23.59	24.00
		25	0	22.08	22.00	22.19	23.00
		25	13	22.04	22.26	22.23	23.00
		25	25	22.15	22.23	22.25	23.00
		50	0	22.07	22.24	22.22	23.00
		1	0	21.97	22.04	21.96	23.00
10MHz	64QAM	1	25	21.97	21.99	21.90	23.00
		1	49	21.89	21.87	21.90	23.00
		25	0	21.97	21.86	21.12	22.00
		25	13	21.17	21.70	20.97	22.00
		25	25	21.40	21.95	21.48	22.00
		50	0	21.65	21.59	20.78	22.00



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20825	21100	21375	
15MHz	QPSK	1	0	23.87	23.82	23.88	25.00
		1	38	23.97	23.94	23.96	25.00
		1	74	24.06	24.04	23.86	25.00
		36	0	22.87	22.96	23.09	24.00
		36	18	23.02	23.02	23.13	24.00
		36	39	23.04	23.07	23.07	24.00
	16QAM	75	0	23.02	23.01	23.09	24.00
		1	0	23.07	23.40	23.02	24.00
		1	38	23.12	23.59	23.38	24.00
		1	74	23.45	23.25	23.15	24.00
		36	0	21.83	22.02	22.02	23.00
		36	18	22.07	22.06	22.12	23.00
	64QAM	36	39	22.14	22.13	22.09	23.00
		75	0	22.03	21.92	22.21	23.00
		1	0	21.94	22.06	21.89	23.00
		1	38	21.97	21.94	22.05	23.00
		1	74	21.88	21.85	21.85	23.00
		36	0	20.82	21.20	21.43	22.00
20MHz	QPSK	36	18	21.72	21.97	21.46	22.00
		36	39	20.95	20.87	21.88	22.00
		75	0	21.01	21.57	21.56	22.00
		1	0	23.67	23.86	23.90	25.00
		1	50	23.83	24.06	23.83	25.00
		1	99	24.53	24.02	23.89	25.00
	16QAM	50	0	22.82	22.94	23.01	24.00
		50	25	23.01	23.04	23.14	24.00
		50	50	22.94	23.04	23.07	24.00
		100	0	22.98	22.91	23.03	24.00
		1	0	23.02	23.05	23.40	24.00
		1	50	23.12	23.34	23.23	24.00
	64QAM	1	99	23.42	23.23	23.25	24.00
		50	0	21.88	21.89	22.05	23.00
		50	25	22.02	21.96	22.07	23.00
		50	50	22.10	21.82	22.19	23.00
		100	0	22.03	21.98	22.08	23.00
		1	0	22.00	22.04	21.88	23.00
64QAM	1	50	22.06	22.04	21.92	23.00	
	1	99	21.93	22.08	22.03	23.00	
	50	0	21.24	21.18	20.84	22.00	
	50	25	20.83	20.91	21.73	22.00	
	50	50	20.91	21.58	20.84	22.00	
	100	0	21.15	21.80	21.56	22.00	



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LTE Band 7 Receiver off/Hotsprt off/Sensor off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20775	21100	21425	
5MHz	QPSK	1	0	20.68	20.84	20.90	21.50
		1	13	20.79	20.80	20.89	21.50
		1	24	20.75	20.60	20.74	21.50
		12	0	20.66	20.65	20.59	21.50
		12	6	20.56	20.65	20.60	21.50
		12	13	20.66	20.69	20.60	21.50
	16QAM	25	0	20.60	20.56	20.60	21.50
		1	0	20.50	20.50	20.61	21.50
		1	13	20.56	20.64	20.59	21.50
		1	24	20.53	20.56	20.45	21.50
		12	0	19.15	19.18	19.15	21.00
		12	6	19.14	19.17	19.24	21.00
	64QAM	12	13	19.18	19.27	19.12	21.00
		25	0	19.19	19.11	19.19	21.00
		1	0	19.27	19.36	19.35	21.00
		1	13	19.32	19.36	19.25	21.00
		1	24	19.19	19.33	19.26	21.00
		12	0	19.16	18.86	18.21	20.00
10MHz	QPSK	12	6	18.34	18.20	18.11	20.00
		12	13	19.09	19.16	19.09	20.00
		25	0	18.82	18.45	18.36	20.00
		1	0	20.68	20.74	20.81	21.50
		1	25	20.53	20.87	20.89	21.50
		1	49	20.62	20.67	20.72	21.50
	16QAM	25	0	20.48	20.62	20.62	21.50
		25	13	20.62	20.60	20.70	21.50
		25	25	20.60	20.77	20.65	21.50
		50	0	20.63	20.58	20.67	21.50
		1	0	20.53	20.40	20.60	21.50
		1	25	20.52	20.38	20.49	21.50
	64QAM	1	49	20.75	20.32	20.63	21.50
		25	0	19.03	19.18	19.19	21.00
		25	13	19.23	19.13	19.25	21.00
		25	25	19.12	19.18	19.25	21.00
		50	0	19.18	19.19	19.23	21.00
		1	0	19.27	19.33	19.28	21.00
64QAM	1	25	19.17	19.19	19.28	21.00	
	1	49	19.22	19.22	19.36	21.00	
	25	0	18.26	18.65	18.42	20.00	
	25	13	18.79	18.80	18.05	20.00	
	25	25	18.38	18.07	18.64	20.00	
	50	0	18.05	18.34	19.00	20.00	



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20825	21100	21375	
15MHz	QPSK	1	0	20.83	20.66	20.54	21.50
		1	38	20.84	20.80	20.69	21.50
		1	74	20.83	20.90	20.43	21.50
		36	0	20.32	20.39	20.49	21.50
		36	18	20.50	20.43	20.61	21.50
		36	39	20.57	20.59	20.53	21.50
		75	0	20.51	20.45	20.60	21.50
	16QAM	1	0	20.31	20.34	20.41	21.50
		1	38	20.50	20.57	20.44	21.50
		1	74	20.59	20.52	20.56	21.50
		36	0	19.13	19.09	19.21	21.00
		36	18	19.08	19.07	19.13	21.00
		36	39	19.04	19.07	19.06	21.00
		75	0	19.06	19.05	19.02	21.00
	64QAM	1	0	19.17	19.25	19.18	21.00
		1	38	19.23	19.31	19.15	21.00
		1	74	19.35	19.15	19.24	21.00
		36	0	18.83	18.93	18.76	20.00
		36	18	18.67	18.62	19.07	20.00
		36	39	18.86	18.34	19.11	20.00
		75	0	19.03	18.70	18.31	20.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
20MHz	QPSK	1	0	20.62	20.73	20.88	21.50
		1	50	20.71	20.88	20.91	21.50
		1	99	20.66	20.67	20.74	21.50
		50	0	20.73	20.77	20.78	21.50
		50	25	20.88	20.74	20.79	21.50
		50	50	20.85	20.89	20.69	21.50
		100	0	20.83	20.81	20.86	21.50
	16QAM	1	0	20.89	20.58	20.71	21.50
		1	50	20.83	20.73	20.77	21.50
		1	99	20.74	20.89	20.78	21.50
		50	0	19.05	19.15	19.08	21.00
		50	25	19.07	19.10	19.04	21.00
		50	50	19.15	19.19	19.02	21.00
		100	0	19.18	19.20	19.05	21.00
	64QAM	1	0	19.38	19.37	19.38	21.00
		1	50	19.21	19.37	19.38	21.00
		1	99	19.26	19.21	19.31	21.00
		50	0	19.27	19.16	18.33	20.00
		50	25	18.96	19.24	19.03	20.00
		50	50	18.21	18.08	18.49	20.00
		100	0	18.12	18.98	19.00	20.00



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LTE Band 7 Hotspot on/Sensor on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20775	21100	21425	
5MHz	QPSK	1	0	17.11	17.38	17.31	18.00
		1	13	17.38	17.28	17.37	18.00
		1	24	17.63	17.48	17.68	18.00
		12	0	17.23	17.27	17.24	18.00
		12	6	17.13	17.32	17.21	18.00
		12	13	17.18	17.30	17.31	18.00
		25	0	17.18	17.24	17.27	18.00
	16QAM	1	0	17.09	17.02	17.20	18.00
		1	13	17.09	17.17	17.08	18.00
		1	24	17.15	17.21	17.23	18.00
		12	0	17.15	17.23	17.32	18.00
		12	6	17.15	17.29	17.32	18.00
		12	13	17.25	17.33	17.30	18.00
		25	0	17.22	17.34	17.25	18.00
	64QAM	1	0	17.04	17.04	17.14	18.00
		1	13	17.17	17.15	17.14	18.00
		1	24	17.07	17.07	17.09	18.00
		12	0	17.03	17.13	17.10	18.00
		12	6	17.11	17.15	17.11	18.00
		12	13	17.06	17.08	17.03	18.00
		25	0	16.98	16.99	17.13	18.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
10MHz	QPSK	1	0	17.29	17.52	17.63	18.00
		1	25	16.99	17.48	17.57	18.00
		1	49	17.68	17.13	17.73	18.00
		25	0	17.02	17.04	17.14	18.00
		25	13	17.10	17.11	17.15	18.00
		25	25	17.16	17.22	17.22	18.00
		50	0	17.11	17.08	17.09	18.00
	16QAM	1	0	16.90	16.89	16.94	18.00
		1	25	16.97	17.04	17.17	18.00
		1	49	17.08	17.14	17.00	18.00
		25	0	17.04	17.12	17.14	18.00
		25	13	17.16	17.11	17.21	18.00
		25	25	17.15	17.17	17.33	18.00
		50	0	17.09	17.07	17.17	18.00
	64QAM	1	0	16.97	17.04	17.15	18.00
		1	25	17.15	17.04	17.14	18.00
		1	49	17.00	17.06	17.16	18.00
		25	0	17.14	17.19	17.12	18.00
		25	13	17.06	17.10	17.09	18.00
		25	25	17.14	17.06	17.19	18.00
		50	0	17.00	17.16	17.15	18.00



Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20825	21100	21375	
15MHz	QPSK	1	0	17.30	17.35	17.55	18.00
		1	38	17.52	17.03	17.51	18.00
		1	74	17.12	17.18	17.14	18.00
		36	0	17.07	17.04	17.14	18.00
		36	18	17.14	17.09	17.20	18.00
		36	39	17.13	17.25	17.22	18.00
		75	0	17.09	17.12	17.18	18.00
	16QAM	1	0	16.87	16.94	17.04	18.00
		1	38	17.02	17.13	16.94	18.00
		1	74	17.12	17.05	17.08	18.00
		36	0	17.03	17.06	17.14	18.00
		36	18	17.03	17.04	17.24	18.00
		36	39	17.16	17.17	17.20	18.00
		75	0	17.07	17.09	17.13	18.00
	64QAM	1	0	17.16	17.02	17.08	18.00
		1	38	17.12	17.00	17.00	18.00
		1	74	17.02	17.05	17.10	18.00
		36	0	17.06	17.12	17.11	18.00
		36	18	17.05	16.99	17.19	18.00
		36	39	17.19	16.95	16.96	18.00
		75	0	17.14	17.19	17.09	18.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
20MHz	QPSK	1	0	17.42	17.67	17.19	18.00
		1	50	16.86	17.39	17.62	18.00
		1	99	17.74	17.49	17.32	18.00
		50	0	17.01	17.04	17.10	18.00
		50	25	17.10	16.97	17.07	18.00
		50	50	17.08	17.16	17.19	18.00
		100	0	17.12	17.05	17.10	18.00
	16QAM	1	0	16.89	16.91	16.87	18.00
		1	50	16.88	16.97	16.98	18.00
		1	99	17.14	16.92	16.88	18.00
		50	0	17.00	17.04	17.07	18.00
		50	25	17.05	17.09	17.23	18.00
		50	50	17.07	17.14	17.07	18.00
		100	0	17.05	17.13	17.17	18.00
	64QAM	1	0	16.95	16.99	17.14	18.00
		1	50	17.02	16.97	17.00	18.00
		1	99	17.09	16.96	17.04	18.00
		50	0	16.96	17.01	17.17	18.00
		50	25	17.17	17.09	17.08	18.00
		50	50	17.01	17.10	17.10	18.00
		100	0	17.14	16.96	17.12	18.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20850	21100	21350	



LTE Band 38 Receiver on/Receiver off/Hotsprt off/Sensor off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				37775	38000	38225	
5MHz	QPSK	1	0	23.82	23.79	23.70	25.00
		1	13	23.74	23.61	23.58	25.00
		1	24	23.76	23.57	23.57	25.00
		12	0	23.01	22.87	22.81	24.00
		12	6	22.93	22.88	22.80	24.00
		12	13	22.85	22.90	22.81	24.00
		25	0	22.87	22.85	22.77	24.00
	16QAM	1	0	23.08	22.99	22.92	24.00
		1	13	22.91	22.92	22.53	24.00
		1	24	23.02	22.87	22.57	24.00
		12	0	21.96	21.84	21.80	23.00
		12	6	21.81	21.89	21.85	23.00
		12	13	21.96	21.82	21.82	23.00
		25	0	21.89	21.90	21.81	23.00
	64QAM	1	0	21.85	21.98	21.97	23.00
		1	13	22.06	22.02	21.86	23.00
		1	24	22.05	21.98	22.00	23.00
		12	0	20.95	21.76	21.46	22.00
		12	6	20.94	21.62	21.78	22.00
		12	13	20.80	21.22	20.87	22.00
		25	0	21.84	21.01	21.05	22.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				37800	38000	38200	
10MHz	QPSK	1	0	23.81	23.61	23.66	25.00
		1	25	23.62	23.63	23.47	25.00
		1	49	23.67	23.53	23.47	25.00
		25	0	22.92	22.76	22.71	24.00
		25	13	22.81	22.80	22.65	24.00
		25	25	22.82	22.78	22.67	24.00
		50	0	22.79	22.82	22.62	24.00
	16QAM	1	0	23.01	22.91	22.70	24.00
		1	25	22.92	22.73	22.69	24.00
		1	49	22.99	22.69	22.73	24.00
		25	0	22.03	21.77	21.72	23.00
		25	13	21.87	21.75	21.80	23.00
		25	25	21.83	21.72	21.61	23.00
		50	0	21.90	21.83	21.72	23.00
	64QAM	1	0	21.96	21.98	21.87	23.00
		1	25	22.03	21.88	21.88	23.00
		1	49	21.99	21.90	21.88	23.00
		25	0	20.94	20.85	20.19	22.00
		25	13	20.87	20.87	20.41	22.00
		25	25	20.89	20.93	20.51	22.00
		50	0	20.91	20.85	20.56	22.00



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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				37825	38000	38175	
15MHz	QPSK	1	0	23.89	23.73	23.71	25.00
		1	38	23.71	23.69	23.54	25.00
		1	74	23.77	23.67	23.61	25.00
		36	0	23.03	22.87	22.81	24.00
		36	18	22.94	22.86	22.73	24.00
		36	39	22.91	22.91	22.78	24.00
		75	0	22.93	22.89	22.76	24.00
	16QAM	1	0	23.15	22.97	22.82	24.00
		1	38	22.98	22.83	22.84	24.00
		1	74	23.05	22.84	22.82	24.00
		36	0	22.08	21.92	21.83	23.00
		36	18	22.01	21.89	21.86	23.00
		36	39	21.93	21.86	21.74	23.00
		75	0	22.05	21.97	21.86	23.00
	64QAM	1	0	22.01	22.01	21.89	23.00
		1	38	22.05	21.89	22.00	23.00
		1	74	22.05	22.04	21.99	23.00
		36	0	20.82	20.89	20.46	22.00
		36	18	20.79	20.79	20.26	22.00
		36	39	20.76	20.85	20.51	22.00
		75	0	20.91	20.86	20.15	22.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				37850	38000	38150	
20MHz	QPSK	1	0	24.12	24.01	23.84	25.00
		1	50	24.13	23.99	23.86	25.00
		1	99	24.05	23.90	23.78	25.00
		50	0	23.18	23.05	22.97	24.00
		50	25	23.14	23.01	22.90	24.00
		50	50	23.16	23.03	22.93	24.00
		100	0	23.15	22.99	22.87	24.00
	16QAM	1	0	23.17	22.97	23.07	24.00
		1	50	23.22	23.07	23.04	24.00
		1	99	23.18	23.19	23.06	24.00
		50	0	22.10	21.95	21.88	23.00
		50	25	22.12	22.03	21.87	23.00
		50	50	22.14	22.01	21.89	23.00
		100	0	22.21	21.99	21.93	23.00
	64QAM	1	0	21.97	21.88	22.05	23.00
		1	50	21.85	22.04	22.01	23.00
		1	99	21.95	21.99	22.07	23.00
		50	0	20.95	20.97	20.48	22.00
		50	25	20.95	20.93	20.18	22.00
		50	50	20.96	20.92	20.38	22.00
		100	0	20.82	20.88	20.47	22.00



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LTE Band 38 Hotspot on/Sensor on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				37775	38000	38225	
5MHz	QPSK	1	0	19.05	19.00	19.09	20.00
		1	13	19.12	19.02	19.01	20.00
		1	24	19.05	19.13	19.05	20.00
		12	0	19.08	19.12	19.10	20.00
		12	6	19.09	19.11	19.13	20.00
		12	13	19.06	19.00	19.07	20.00
		25	0	19.08	19.11	19.09	20.00
	16QAM	1	0	19.11	19.10	19.08	20.00
		1	13	19.13	19.08	19.13	20.00
		1	24	19.14	19.06	19.02	20.00
		12	0	19.09	19.07	19.01	20.00
		12	6	19.01	19.10	19.12	20.00
		12	13	19.13	19.11	19.06	20.00
		25	0	19.06	19.09	19.12	20.00
	64QAM	1	0	18.76	18.64	18.78	20.00
		1	13	18.83	18.75	18.78	20.00
		1	24	18.75	18.73	18.71	20.00
		12	0	18.73	18.86	18.78	20.00
		12	6	18.84	18.87	18.69	20.00
		12	13	18.74	18.86	18.73	20.00
		25	0	18.77	18.77	18.67	20.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				37800	38000	38200	
10MHz	QPSK	1	0	19.10	18.96	18.89	20.00
		1	25	18.92	18.88	18.82	20.00
		1	49	18.89	18.83	18.76	20.00
		25	0	19.08	19.10	19.01	20.00
		25	13	19.10	19.13	19.00	20.00
		25	25	19.10	19.09	18.93	20.00
		50	0	19.14	19.08	18.98	20.00
	16QAM	1	0	19.06	19.10	19.14	20.00
		1	25	19.13	19.11	19.00	20.00
		1	49	19.13	19.01	18.87	20.00
		25	0	19.08	19.12	19.01	20.00
		25	13	19.07	19.06	18.93	20.00
		25	25	19.01	19.13	18.98	20.00
		50	0	19.11	19.05	19.05	20.00
	64QAM	1	0	18.69	18.74	18.70	20.00
		1	25	18.78	18.81	18.78	20.00
		1	49	18.73	18.82	18.79	20.00
		25	0	18.83	18.69	18.67	20.00
		25	13	18.72	18.81	18.67	20.00
		25	25	18.73	18.82	18.80	20.00
		50	0	18.67	18.69	18.66	20.00