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Report No.: SZEM180200129907  
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## **TEST REPORT**

**Application No.:** SZEM1802001299CR  
**Applicant / Manufacturer** Hytera Communications Corporation Limited  
**Address of Applicant / Manufacturer** Hytera Tower, Hi-Tech Industrial Park North, 9108# Beihuan Road, Nanshan District, Shenzhen, People's Republic of China  
**Factory:** Hytera Communications Corporation Limited Baolong Branch  
**Address of Factory:** Plant No.3, Hytera Hi-Tech Park, Baolong Industrial Area, Longgang District, Shenzhen, People's Republic of China

**Equipment Under Test (EUT):**

**EUT Name:** Multi-mode Radio  
**Model No.:** PDC760 V1B1  
**Trade mark:** Hytera  
**FCC ID:** YAMPDC760V1B1  
**Standard(s) :** 47 CFR Part 2(2017);  
47 CFR Part 22 subpart H  
47 CFR Part 24 subpart E;  
47 CFR Part 27 subpart C  
47 CFR Part 90 subpart S

**Date of Receipt:** 2018-02-11  
**Date of Test:** 2018-03-01 to 2018-03-16  
**Date of Issue:** 2018-04-09

<b>Test Result:</b>	<b>Pass</b>
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\* In the configuration tested, the EUT complied with the standards specified above.




Keny Xu  
EMC Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

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<i>Revision Record</i>				
<i>Version</i>	<i>Chapter</i>	<i>Date</i>	<i>Modifier</i>	<i>Remark</i>
01		2018-04-09		Original

Authorized for issue by:			
			
	<hr/>		
	Edison Li /Project Engineer		
			
	<hr/>		
	Eric Fu /Reviewer		



## 2 Test Summary

Test Item	FCC Rule No.	Requirements	Verdict
Effective (Isotropic) Radiated Power Output Data	§2.1046, §22.913, §24.232 §27.50(c) §27.50(d) §90.635(b)	ERP≤7W(LTE Band 5) ERP≤100W(LTE Band 26) EIRP≤ 2W(LTE Band 2,7,38, 41) EIRP≤ 1W(LTE Band 4) EIRP≤ 0.25W(LTE Band 40)	PASS
Peak-Average Ratio	§24.232 §27.50(c) §27.50(d)	≤13dB	PASS
Modulation Characteristics	§2.1047	Digital modulation	PASS
Bandwidth	§2.1049(h) §90.209	OBW:No limit EBW: No limit	PASS
Band Edge Compliance	§2.1051, §22.917, §24.238 §27.53(h) §27.53(g) §90.691	≤ -13dBm/1%*EBW, in 1 MHz bands immediately outside and adjacent to the frequency block(LTE Band2,4,5,26,38,40, 41) ≤ -13dBm(LTE Band7, <5.5MHz) -25dBm(LTE Band7, ≥5.5MHz) ≤50+10*log10(P) at bandedge and for all out-of-band emissions within 37.5KHz of block edge(LTE Band26)	PASS
Spurious emissions at antenna terminals	§2.1051, §22.917, §24.238 §27.53(h) §27.53(g) §90.691	≤ -13dBm(LTE Band2,4,5,26) ≤ -25dBm(LTE Band7,38, 41) ≤ -40dBm(LTE Band40)	PASS
Field strength of spurious radiation	§2.1051, §22.917, §24.238 §27.53(h) §27.53(g) §90.691	≤ -13dBm(LTE Band2,4,5,26) ≤ -25dBm(LTE Band7,38, 41) ≤ -40dBm(LTE Band40)	PASS
Frequency stability	§2.1055, §22.355, §24.235 §27.54 §90.213	≤ ±2.5ppm.	PASS



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## 4 General Information

### 4.1 Details of E.U.T.

Power supply:	DC 7.6V, 2900mAh Li-ion battery which charged by MCU Charger MCU Charger Model: CH20L08 Input: DC 12V, 2000mA Output: DC12V, 2000mA  AC Adapter Model: HKA02412020-XG Input: AC 100-240V, 50/60Hz, 0.8A Output: DC 12V, 2A
Sample Type:	Portable production
LTE Operation Frequency Band:	LTE FDD Band 2, 4, 5, 7, 26, 38, 40, 41
Modulation Type:	QPSK, 16QAM
LTE Release Version:	R8
LTE Power Class:	Level 3
Antenna Type:	PIFA
Antenna Gain:	0dBi
Extreme temp. Tolerance:	-30°C to +50°C
Extreme vol. Limits:	6.46VDC to 8.74VDC (nominal: 7.6VDC)



**4.2 Test Frequency**

Test Mode	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 2	1.4	1850.7	1880	1909.3
	3	1851.5	1880	1908.5
	5	1852.5	1880	1907.5
	10	1855.0	1880	1905.0
	15	1857.5	1880	1902.5
	20	1860.0	1880	1900.0
Test Mode	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 4	1.4	1710.7	1732.5	1754.3
	3	1711.5	1732.5	1753.5
	5	1712.5	1732.5	1752.5
	10	1715.0	1732.5	1750.0
	15	1717.5	1732.5	1747.5
	20	1720.0	1732.5	1745.0
Test Mode	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 5	1.4	824.7	836.5	848.3
	3	825.5	836.5	847.5
	5	826.5	836.5	846.5
	10	829.0	836.5	844.0
Test Mode	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 7	5	2502.5	2535.0	2567.5
	10	2505.0	2535.0	2565.0
	15	2507.5	2535.0	2562.5
	20	2510.0	2535.0	2560.0
Test Mode	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 26 (814-824MHz)	1.4	814.7	819.0	823.3
	3	815.5	819.0	822.5
	5	816.5	819.0	821.5
	10	/	819.0	/



	15	821.5	/	/
<b>Test Mode</b>	<b>Nominal Bandwidth (MHz)</b>	<b>RF Channel</b>		
		<b>Low (L)</b>	<b>Middle (M)</b>	<b>High (H)</b>
		<b>MHz</b>	<b>MHz</b>	<b>MHz</b>
LTE FDD Band 26 (824-849MHz)	1.4	824.7	836.5	848.3
	3	825.5	836.5	847.5
	5	826.5	836.5	846.5
	10	829.0	836.5	844.0
	15	831.5	836.5	841.5
<b>Test Mode</b>	<b>Nominal Bandwidth (MHz)</b>	<b>RF Channel</b>		
		<b>Low (L)</b>	<b>Middle (M)</b>	<b>High (H)</b>
		<b>MHz</b>	<b>MHz</b>	<b>MHz</b>
LTE TDD Band 38	5	2572.5	2595.0	2617.5
	10	2575.0	2595.0	2615.0
	15	2577.5	2595.0	2612.5
	20	2580.0	2595.0	2610.0
<b>Test Mode</b>	<b>Nominal Bandwidth (MHz)</b>	<b>RF Channel</b>		
		<b>Low (L)</b>	<b>Middle (M)</b>	<b>High (H)</b>
		<b>MHz</b>	<b>MHz</b>	<b>MHz</b>
LTE TDD Band 40 (2305-2315MHz)	5	2307.5	2310	2312.5
	10	/	2310	/
<b>Test Mode</b>	<b>Nominal Bandwidth (MHz)</b>	<b>RF Channel</b>		
		<b>Low (L)</b>	<b>Middle (M)</b>	<b>High (H)</b>
		<b>MHz</b>	<b>MHz</b>	<b>MHz</b>
LTE TDD Band 40 (2350-2360MHz)	5	2352.5	2355	2357.5
	10	/	2355	/
<b>Test Mode</b>	<b>Nominal Bandwidth (MHz)</b>	<b>RF Channel</b>		
		<b>Low (L)</b>	<b>Middle (M)</b>	<b>High (H)</b>
		<b>MHz</b>	<b>MHz</b>	<b>MHz</b>
LTE TDD Band 41	5	2498.5	2593.0	2687.5
	10	2501.0	2593.0	2685.0
	15	2503.5	2593.0	2682.5
	20	2506.0	2593.0	2680.0





**4.3 Max ERP/EIRP Power, Frequency Tolerance and Emission Designator**

FCC Rule	Band	Modulation	BW (MHz)	Emission Designator	Frequency Tolerance (ppm)	Maximum ERP/EIRP (W)
Part24E	LTE Band2	QPSK	1.4	1M10G7D	/	0.15560
Part24E	LTE Band2	16QAM	1.4	1M10W7D	/	0.13243
Part24E	LTE Band2	QPSK	3	2M69G7D	/	0.15740
Part24E	LTE Band2	16QAM	3	2M68W7D	/	0.12246
Part24E	LTE Band2	QPSK	5	4M51G7D	/	0.17338
Part24E	LTE Band2	16QAM	5	4M49W7D	/	0.13122
Part24E	LTE Band2	QPSK	10	9M06G7D	/	0.15996
Part24E	LTE Band2	16QAM	10	8M94W7D	/	0.12388
Part24E	LTE Band2	QPSK	15	13M5G7D	/	<b>0.17701</b>
Part24E	LTE Band2	16QAM	15	13M5W7D	/	0.11722
Part24E	LTE Band2	QPSK	20	17M9G7D	0.00207	0.16482
Part24E	LTE Band2	16QAM	20	17M9W7D	0.00216	0.11722
Part27	LTE Band4	QPSK	1.4	1M10G7D	/	0.18197
Part27	LTE Band4	16QAM	1.4	1M10W7D	/	0.15136
Part27	LTE Band4	QPSK	3	2M69G7D	/	0.17989
Part27	LTE Band4	16QAM	3	2M69W7D	/	0.13996
Part27	LTE Band4	QPSK	5	4M50G7D	/	<b>0.19770</b>
Part27	LTE Band4	16QAM	5	4M49W7D	/	0.15171
Part27	LTE Band4	QPSK	10	8M94G7D	/	0.19143
Part27	LTE Band4	16QAM	10	8M94W7D	/	0.15136
Part27	LTE Band4	QPSK	15	13M4G7D	/	0.19543
Part27	LTE Band4	16QAM	15	13M5W7D	/	0.14521
Part27	LTE Band4	QPSK	20	17M9G7D	0.00209	0.19320
Part27	LTE Band4	16QAM	20	17M9W7D	0.00269	0.14656
Part22H	LTE Band5	QPSK	1.4	1M10G7D	/	0.12134
Part22H	LTE Band5	16QAM	1.4	1M10W7D	/	0.09638
Part22H	LTE Band5	QPSK	3	2M69G7D	/	0.11967
Part22H	LTE Band5	16QAM	3	2M68W7D	/	0.09441
Part22H	LTE Band5	QPSK	5	4M50G7D	/	<b>0.13092</b>
Part22H	LTE Band5	16QAM	5	4M48W7D	/	0.09977
Part22H	LTE Band5	QPSK	10	8M94G7D	0.00424	0.12589
Part22H	LTE Band5	16QAM	10	8M96W7D	0.00479	0.09683
Part27	LTE Band7	QPSK	5	4M50G7D	/	0.28054
Part27	LTE Band7	16QAM	5	4M49W7D	/	0.20606
Part27	LTE Band7	QPSK	10	8M94G7D	/	<b>0.29107</b>
Part27	LTE Band7	16QAM	10	8M92W7D	/	0.20370
Part27	LTE Band7	QPSK	15	13M4G7D	/	0.27542



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Part27	LTE Band7	16QAM	15	13M5W7D	/	0.21038
Part27	LTE Band7	QPSK	20	17M9G7D	0.00138	0.27542
Part27	LTE Band7	16QAM	20	17M9W7D	0.00153	0.20845
Part90	LTE Band26 <sup>a</sup>	QPSK	1.4	1M10G7D	/	0.11995
Part90	LTE Band26 <sup>a</sup>	16QAM	1.4	1M10W7D	/	0.09484
Part90	LTE Band26 <sup>a</sup>	QPSK	3	2M69G7D	/	0.10814
Part90	LTE Band26 <sup>a</sup>	16QAM	3	2M69W7D	/	0.08950
Part90	LTE Band26 <sup>a</sup>	QPSK	5	4M49G7D	/	<b>0.12106</b>
Part90	LTE Band26 <sup>a</sup>	16QAM	5	4M50W7D	/	0.08531
Part90	LTE Band26 <sup>a</sup>	QPSK	10	8M90G7D	/	0.11830
Part90	LTE Band26 <sup>a</sup>	16QAM	10	8M90W7D	/	0.08531
Part90	LTE Band26 <sup>a</sup>	QPSK	15	13M4G7D	0.00319	0.09728
Part90	LTE Band26 <sup>a</sup>	16QAM	15	13M4W7D	0.00338	0.08590
Part22H	LTE Band26 <sup>b</sup>	QPSK	1.4	1M10G7D	/	0.11722
Part22H	LTE Band26 <sup>b</sup>	16QAM	1.4	1M10W7D	/	0.09616
Part22H	LTE Band26 <sup>b</sup>	QPSK	3	2M68G7D	/	0.10839
Part22H	LTE Band26 <sup>b</sup>	16QAM	3	2M69W7D	/	0.08570
Part22H	LTE Band26 <sup>b</sup>	QPSK	5	4M49G7D	/	0.12050
Part22H	LTE Band26 <sup>b</sup>	16QAM	5	4M48W7D	/	0.08570
Part22H	LTE Band26 <sup>b</sup>	QPSK	10	8M94G7D	/	0.12134
Part22H	LTE Band26 <sup>b</sup>	16QAM	10	8M94W7D	/	0.09528
Part22H	LTE Band26 <sup>b</sup>	QPSK	15	13M4G7D	0.00453	<b>0.12162</b>
Part22H	LTE Band26 <sup>b</sup>	16QAM	15	13M5W7D	0.00540	0.08551
Part27	LTE Band38	QPSK	5	4M50G7D	/	0.29717
Part27	LTE Band38	16QAM	5	4M49W7D	/	0.20797
Part27	LTE Band38	QPSK	10	8M94G7D	/	0.29040
Part27	LTE Band38	16QAM	10	8M94W7D	/	0.21727
Part27	LTE Band38	QPSK	15	13M5G7D	/	0.29107
Part27	LTE Band38	16QAM	15	13M5W7D	/	0.21429
Part27	LTE Band38	QPSK	20	17M9G7D	0.00141	<b>0.30339</b>
Part27	LTE Band38	16QAM	20	17M9W7D	0.00171	0.23227
Part27	LTE Band40 <sup>c</sup>	QPSK	5	4M50G7D	/	<b>0.17660</b>
Part27	LTE Band40 <sup>c</sup>	16QAM	5	4M51W7D	/	0.12474
Part27	LTE Band40 <sup>c</sup>	QPSK	10	8M94G7D	0.00205	0.17660
Part27	LTE Band40 <sup>c</sup>	16QAM	10	8M94W7D	0.00181	0.12474
Part27	LTE Band40 <sup>d</sup>	QPSK	5	4M49G7D	/	<b>0.17660</b>
Part27	LTE Band40 <sup>d</sup>	16QAM	5	4M49W7D	/	0.11588
Part27	LTE Band40 <sup>d</sup>	QPSK	10	8M94G7D	0.00202	0.16558
Part27	LTE Band40 <sup>d</sup>	16QAM	10	8M94W7D	0.00171	0.12388
Part27	LTE Band41	QPSK	5	4M51G7D	/	0.16866
Part27	LTE Band41	16QAM	5	4M49W7D	/	0.11429

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Part27	LTE Band41	QPSK	10	8M92G7D	/	0.17338
Part27	LTE Band41	16QAM	10	8M94W7D	/	0.12246
Part27	LTE Band41	QPSK	15	13M5G7D	/	0.17418
Part27	LTE Band41	16QAM	15	13M5W7D	/	0.11803
Part27	LTE Band41	QPSK	20	17M9G7D	0.00141	<b>0.17742</b>
Part27	LTE Band41	16QAM	20	17M9W7D	0.0017	0.12106

Note: The frequency band of LTE Band26<sup>a</sup> is 814MHz-824MHz;

The frequency band of LTE Band26<sup>b</sup> is 824MHz-849MHz;

The frequency band of LTE Band40<sup>c</sup> is 2305MHz-2315MHz;

The frequency band of LTE Band40<sup>d</sup> is 2350MHz-2360MHz;



#### 4.4 Test Environment

Environment Parameter	Selected Values During Tests	
Relative Humidity	52%	
Atmospheric Pressure:	1015Pa	
Temperature:	TN	25 °C
Voltage:	VL	6.46 V
	VN	7.6 V
	VH	8.74 V

NOTE: VL= lower extreme test voltage  
VN= nominal voltage  
VH= upper extreme test voltage  
TN= normal temperature

#### 4.5 Description of Support Units

The EUT has been tested independent unit.

#### 4.6 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	$7.25 \times 10^{-8}$
2	Duty cycle	0.37%
3	Occupied Bandwidth	3%
4	RF conducted power	0.75dB
5	RF power density	2.84dB
6	Conducted Spurious emissions	0.75dB
7	RF Radiated power	4.5dB (below 1GHz)
		4.8dB (above 1GHz)
8	Radiated Spurious emission test	4.5dB (Below 1GHz)
		4.8dB (Above 1GHz)
9	Temperature test	1 °C
10	Humidity test	3%
11	Supply voltages	1.5%
12	Time	3%



#### **4.7 Test Location**

All tests were performed at:

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

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China.  
518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

#### **4.8 Test Facility**

The test facility is recognized, certified, or accredited by the following organizations:

- **CNAS (No. CNAS L2929)**

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

- **A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

- **VCCI**

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

- **FCC –Designation Number: CN1178**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

- **Industry Canada (IC)**

Two 3m Semi-anechoic chambers and the 10m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1, 4620C-2, 4620C-3.

#### **4.9 Deviation from Standards**

None

#### **4.10 Abnormalities from Standard Conditions**

None



## 5 Equipment List

<b>RF Conducted Test</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Inventory No</b>	<b>Cal Date</b>	<b>Cal Due Date</b>
DC Power Supply	ZhaoXin	RXN-305D	SEM011-02	2017-09-27	2018-09-26
Spectrum Analyzer	Rohde & Schwarz	FSP	SEM004-06	2017-09-27	2018-09-26
Measurement Software	JS Tonscend	JS1120-2 BT/WIFI V2.	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-02	2017-07-13	2018-07-12
Attenuator	Weinschel Associates	WA41	SEM021-09	N/A	N/A
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2017-09-27	2018-09-26
Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2017-09-27	2018-09-26
Audio Analyzer	Rohde & Schwarz	UPL	SEM0093	2017-09-27	2018-09-26
Universal Radio Communication Tester	Rohde & Schwarz	CMU200	W005-02	2017-04-14	2018-04-13
Wireless Communication Tester	Rohde & Schwarz	CMW500	W005-03	2017-04-14	2018-04-13
Splitter	MACOM	2090-6214-00	SEL0226	2017-04-14	2018-04-13

<b>Radiated Spurious Emissions</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Inventory No</b>	<b>Cal Date</b>	<b>Cal Due Date</b>
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2017-05-02	2020-05-01
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2017-07-13	2018-07-12
Spectrum Analyzer	Rohde & Schwarz	FSU43	SEM004-08	2017-04-14	2018-04-13
BiConiLog Antenna (26-3000MHz)	ETS-Lindgren	3142C	SEM003-01	2017-06-27	2020-06-26
Horn Antenna (1-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2015-06-14	2018-06-13
Horn Antenna (15GHz-40GHz)	Schwarzbeck	BBHA 9170	SEM003-15	2017-10-17	2020-10-16
Pre-amplifier (0.1-1300MHz)	HP	8447D	SEM005-02	2017-09-27	2018-09-26
Low Noise Amplifier (100MHz-18GHz)	Black Diamond Series	BDLNA-0118-352810	SEM005-05	2017-09-27	2018-09-27
Pre-amplifier(18-26GHz)	Rohde & Schwarz	CH14-H052	SEM005-17	2017-12-04	2018-12-03
Pre-amplifier (26GHz-40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2017-04-14	2018-04-13
DC Power Supply	Zhao Xin	RXN-305D	SEM011-02	2017-09-27	2018-09-26
Active Loop Antenna	ETS-Lindgren	6502	SEM003-08	2017-08-22	2020-08-21
Band filter	N/A	N/A	SEM023-01	N/A	N/A



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Universal Radio Communication Tester	Rohde & Schwarz	CMU200	W005-02	2017-04-14	2018-04-13
Wireless Communication Tester	Rohde & Schwarz	CMW500	W005-03	2017-04-14	2018-04-13

<b>RE in Chamber</b>					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2017-08-05	2020-08-04
MXE EMI Receiver (20Hz-8.4GHz)	Agilent Technologies	N9038A	SEM004-05	2017-09-27	2018-09-26
BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEM003-01	2017-06-27	2020-06-26
Trilog-Broadband Antenna(30M-1GHz)	Schwarzbeck	VULB9168	SEM003-18	2016-06-29	2019-06-28
Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEM005-01	2017-04-14	2018-04-13
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM025-01	2017-07-13	2018-07-12

<b>General used equipment</b>					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	ZJ1-2B	SEM002-03	2017-09-29	2018-09-28
Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	ZJ1-2B	SEM002-04	2017-09-29	2018-09-28
Humidity/ Temperature Indicator	Mingle	N/A	SEM002-08	2017-09-29	2018-09-28
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2017-04-18	2018-04-17

## 6 Radio Spectrum Matter Test Results

### 6.1 Effective (Isotropic) Radiated Power Output Data

Test Requirement: §2.1046, §22.913, §24.232, §27.50(c), §27.50(d), §90.635(d)  
 Test Method: ANSI C63.26, KDB 971168 D01 v03  
 Limit:  
 ERP≤7W(LTE Band 5)  
 ERP≤100W(LTE Band 26)  
 EIRP≤ 2W(LTE Band 2,7,38,41)  
 EIRP≤ 1W(LTE Band 4)  
 EIRP≤ 0.25W(LTE Band 40)

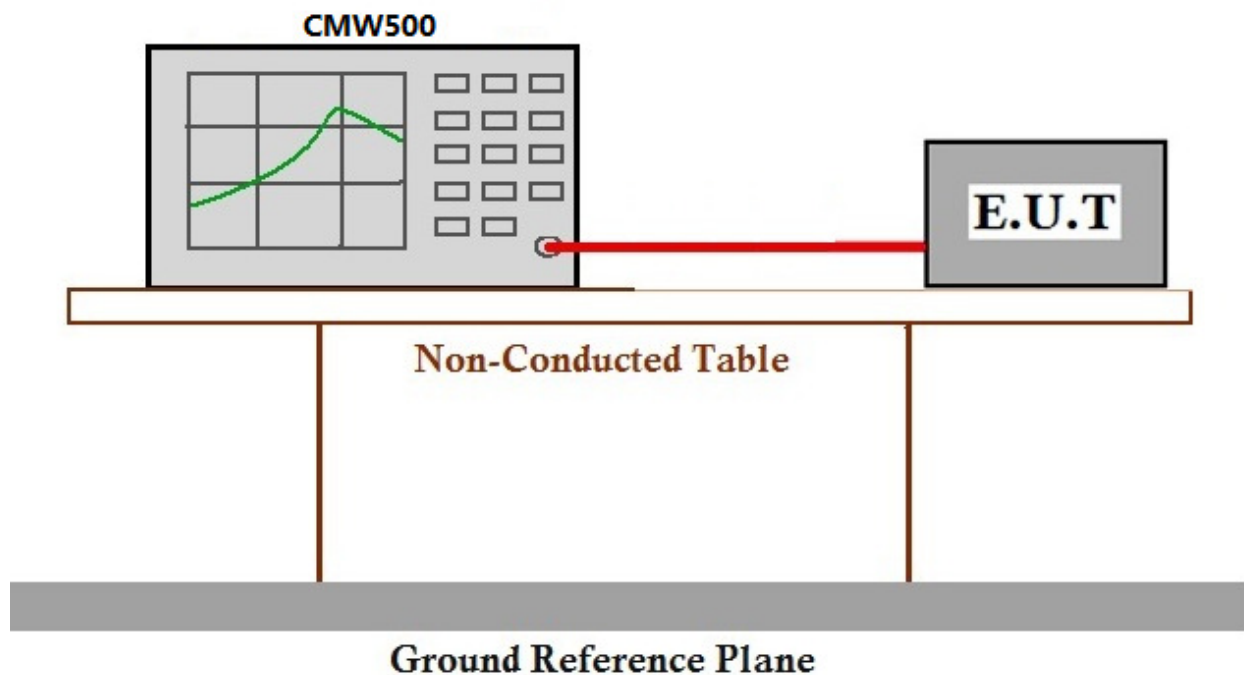
#### 6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 18.6 °C Humidity: 29.1 % RH Atmospheric Pressure: 1025 mbar

Test mode b: Tx mode, Keep the EUT in transmitting mode.

#### 6.1.2 Test Setup Diagram



#### 6.1.3 Measurement Data

Please refer to Appendix B-Output power



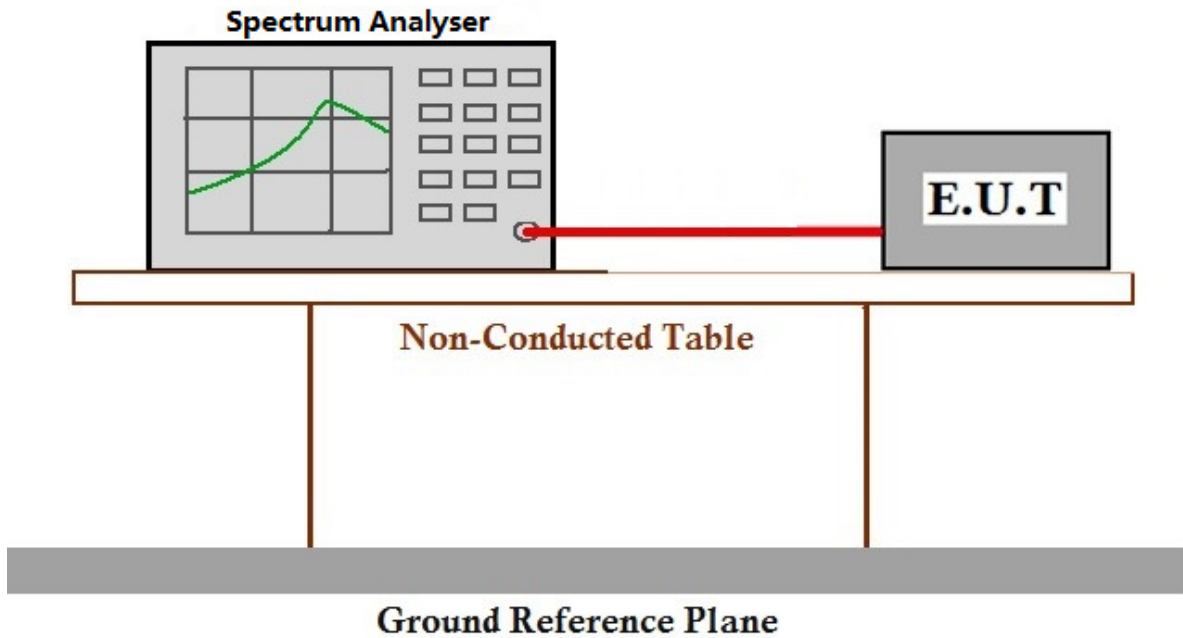
**6.2 Peak-Average Ratio**

Test Requirement: §24.232  
 Test Method: ANSI C63.26, KDB 971168 D01 v03  
 Limit: ≤13dB

**6.2.1 E.U.T. Operation**

Operating Environment:  
 Temperature: 18.6 °C Humidity: 29.1 % RH Atmospheric Pressure: 1025 mbar  
 Test mode a: Tx mode, Keep the EUT in transmitting mode.

**6.2.2 Test Setup Diagram**



**6.2.3 Measurement Data**

Please refer to Appendix C- Peak-Average Ratio

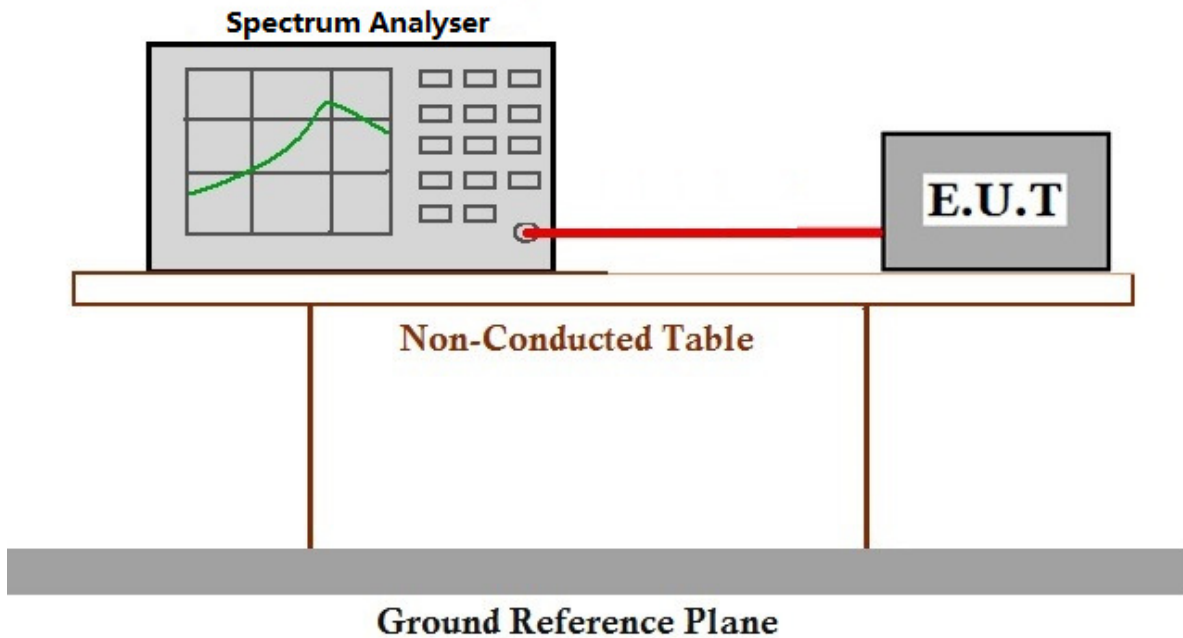
**6.3 Bandwidth**

Test Requirement: §2.1049(h), §22.917, §24.238, §90.209  
 Test Method: ANSI C63.26, KDB 971168 D01 v03  
 Limit: OBW: No limit  
 EBW: No limit

**6.3.1 E.U.T. Operation**

Operating Environment:  
 Temperature: 18.6 °C Humidity: 29.1 % RH Atmospheric Pressure: 1025 mbar  
 Test mode a: Tx mode, Keep the EUT in transmitting mode.

**6.3.2 Test Setup Diagram**



**6.3.3 Measurement Data**

Please refer to Appendix D- Bandwidth

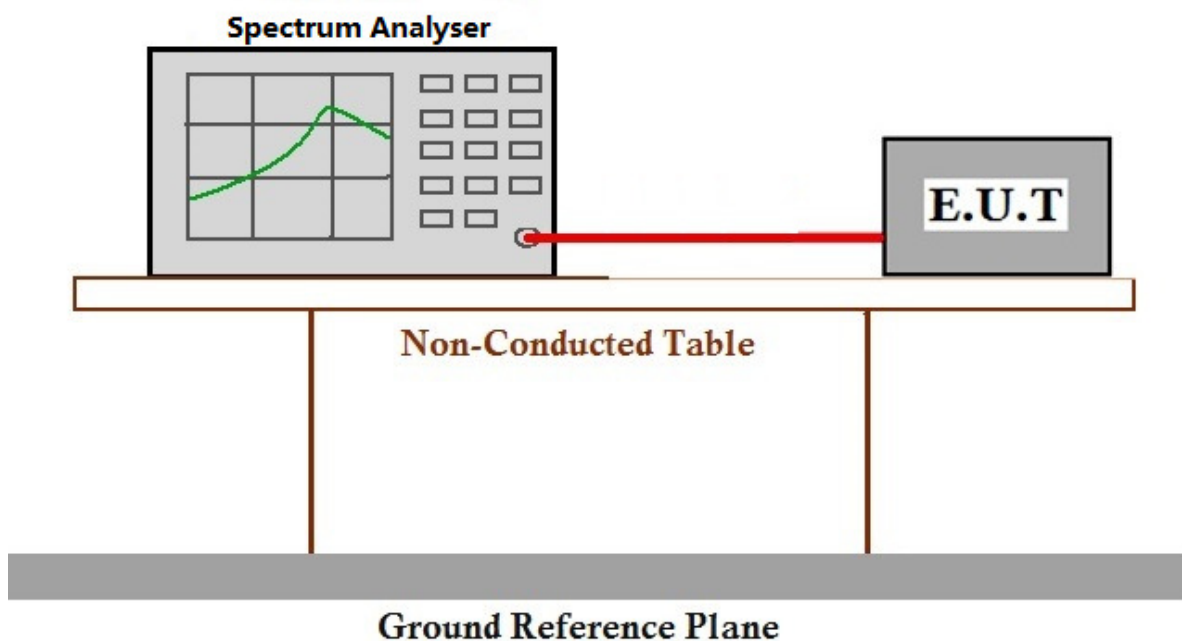
**6.4 Band Edge Compliance**

Test Requirement: §2.1051, §22.917, §24.238, §90.691  
 Test Method: ANSI C63.26, KDB 971168 D01 v03  
 Limit:  $\leq -13\text{dBm}/1\% \cdot \text{EBW}$ , in 1 MHz bands immediately outside and adjacent to the frequency block(LTE Band2,4,5,26,38,40, 41)  
 For mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log (P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log (P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that  $43 + 10 \log (P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log (P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees. (LTE Band7)  
 $\leq 50 + 10 \cdot \log_{10}(P)$  at bandedge and for all out-of-band emissions within 37.5KHz of block edge(LTE Band26)

**6.4.1 E.U.T. Operation**

Operating Environment:  
 Temperature: 18.6 °C Humidity: 29.1 % RH Atmospheric Pressure: 1025 mbar  
 Test mode a: Tx mode, Keep the EUT in transmitting mode.

**6.4.2 Test Setup Diagram**



**6.4.3 Measurement Data**

Please refer to Appendix E- Band Edge

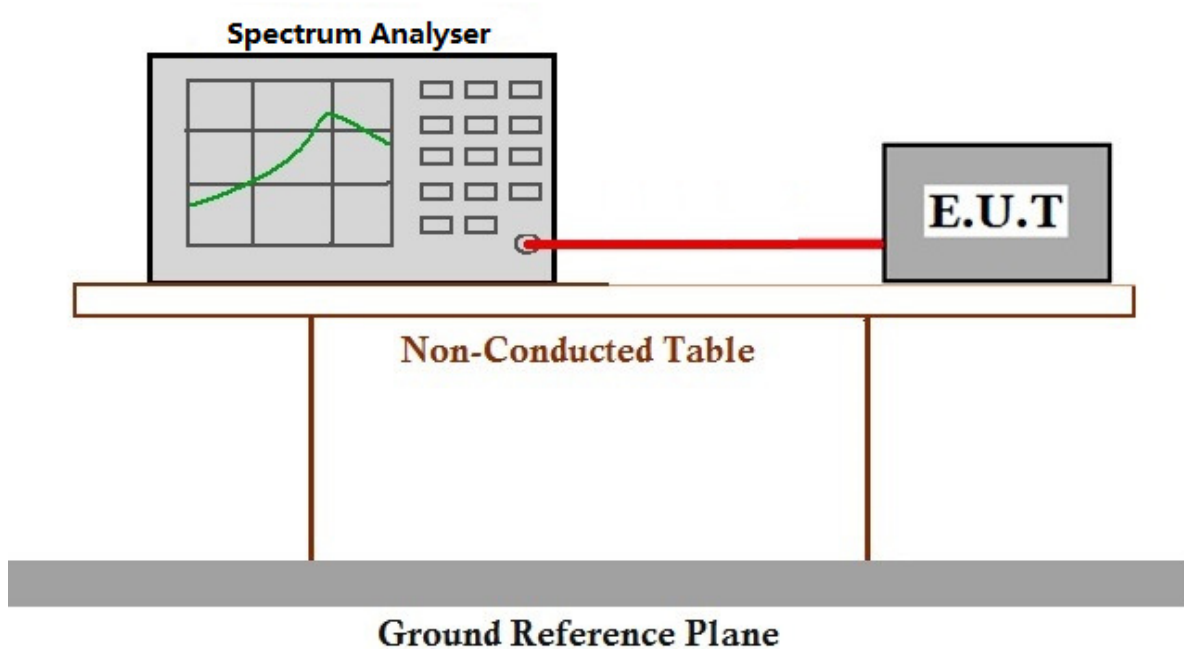
**6.5 Spurious emissions at antenna terminals**

Test Requirement: §2.1051, §22.917, §24.238, §90.691  
 Test Method: ANSI C63.26, KDB 971168 D01 v03  
 Limit: ≤ -13dBm(LTE Band2,4,5,26)  
 ≤ -25dBm(LTE Band7,38, 41)  
 ≤ -40dBm(LTE Band40)

**6.5.1 E.U.T. Operation**

Operating Environment:  
 Temperature: 18.6 °C Humidity: 29.1 % RH Atmospheric Pressure: 1025 mbar  
 Test mode a: Tx mode, Keep the EUT in transmitting mode.

**6.5.2 Test Setup Diagram**



**6.5.3 Measurement Data**

Please refer to Appendix F- Spurious emissions at antenna terminals

## 6.6 Field strength of spurious radiation

Test Requirement: §2.1051, §22.917, §24.238, §90.691  
 Test Method: ANSI C63.26, KDB 971168 D01 v03  
 Limit: ≤ -13dBm(LTE Band2,4,5,26)  
 ≤ -25dBm(LTE Band7,38, 41)  
 ≤ -40dBm(LTE Band40)

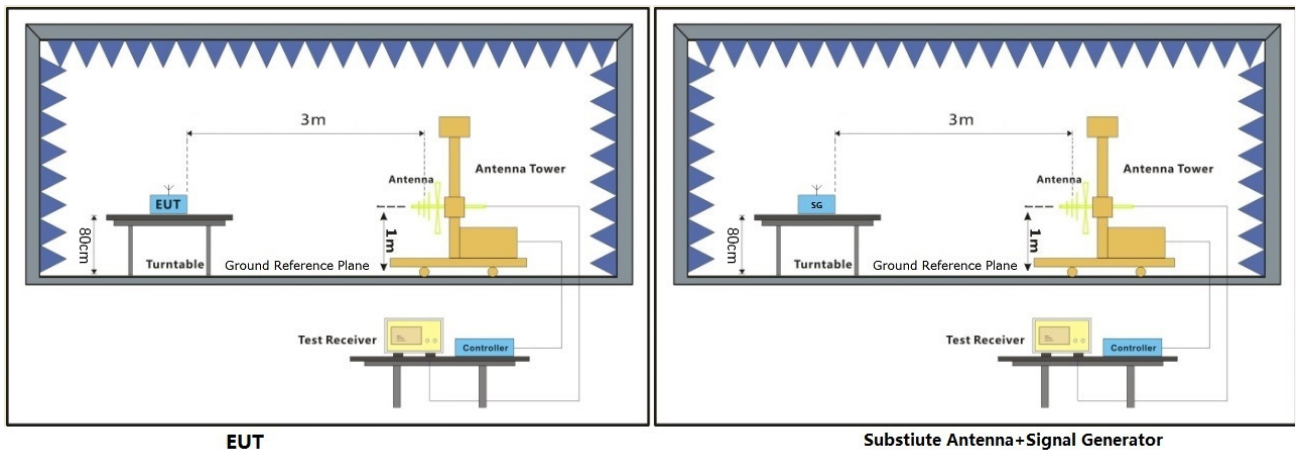
### 6.6.1 E.U.T. Operation

Operating Environment:

Temperature: 18.6 °C Humidity: 29.1 % RH Atmospheric Pressure: 1025 mbar

Test mode a: Tx mode, Keep the EUT in transmitting mode.

### 6.6.2 Test Setup Diagram





### **6.6.3 Measurement Procedure and Data**

#### **Test Procedure:**

- (1) On a test site, the EUT shall be placed on a turntable and in the position closest to the normal use as declared by the user.
- (2) The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the transmitter.
- (3) The output of the antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.
- (4) The transmitter shall be switched on; if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
- (5) The test antenna shall be raised and lowered through the specified range of height until the measuring receiver detects a maximum signal level.
- (6) The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- (7) The test antenna shall be raised and lowered again through the specified range of height until the measuring receiver detects a maximum signal level.
- (8) The maximum signal level detected by the measuring receiver shall be noted.
- (9) The measurement shall be repeated with the test antenna set to horizontal polarization.
- (10) Replace the antenna with a proper Antenna (substitution antenna).
- (11) The substitution antenna shall be oriented for vertical polarization and, if necessary, the length of the substitution antenna shall be adjusted to correspond to the frequency of transmitting.
- (12) The substitution antenna shall be connected to a calibrated signal generator.
- (13) If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- (14) The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
- (15) The input signal to substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
- (16) The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
- (17) The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.



FDD LTE Band2-Low channel, Modulation: QPSK, Bandwidth: 20MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
3720.00	-73.91	0.71	7.6	-67.02	-13.00	-54.02	Horizontal	Pass
5580.00	-67.21	0.85	10.3	-57.76	-13.00	-44.76	Horizontal	Pass
7440.00	-79	1	12.9	-67.10	-13.00	-54.1	Horizontal	Pass
9300.00	-77.51	1.23	12.4	-66.34	-13.00	-53.34	Horizontal	Pass
11160.00	-77.13	1.59	13.6	-65.12	-13.00	-52.12	Horizontal	Pass
13020.00	-75.08	1.8	13.2	-63.68	-13.00	-50.68	Horizontal	Pass
3720.00	-73.24	0.71	7.6	-66.35	-13.00	-53.35	Vertical	Pass
5580.00	-76.01	0.85	10.3	-66.56	-13.00	-53.56	Vertical	Pass
7440.00	-69.26	1	12.9	-57.36	-13.00	-44.36	Vertical	Pass
9300.00	-79.22	1.23	12.4	-68.05	-13.00	-55.05	Vertical	Pass
11160.00	-78.36	1.59	13.6	-66.35	-13.00	-53.35	Vertical	Pass
13020.00	-76.63	1.8	13.2	-65.23	-13.00	-52.23	Vertical	Pass

FDD LTE Band2-Middle channel, Modulation: QPSK, Bandwidth: 20MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
3760.00	-74.38	0.71	7.6	-67.49	-13.00	-54.49	Horizontal	Pass
5640.00	-76.15	0.85	10.3	-66.70	-13.00	-53.7	Horizontal	Pass
7520.00	-71.61	0.99	13.2	-59.40	-13.00	-46.4	Horizontal	Pass
9400.00	-78.91	1.23	12.4	-67.74	-13.00	-54.74	Horizontal	Pass
11280.00	-78.75	1.59	13.6	-66.74	-13.00	-53.74	Horizontal	Pass
13160.00	-76.24	1.8	13.2	-64.84	-13.00	-51.84	Horizontal	Pass
3760.00	-73.59	0.71	7.6	-66.70	-13.00	-53.7	Vertical	Pass
5640.00	-68.67	0.85	10.3	-59.22	-13.00	-46.22	Vertical	Pass
7520.00	-79.63	0.99	13.2	-67.42	-13.00	-54.42	Vertical	Pass
9400.00	-77.78	1.23	12.4	-66.61	-13.00	-53.61	Vertical	Pass
11280.00	-76.87	1.59	13.6	-64.86	-13.00	-51.86	Vertical	Pass
13160.00	-75.13	1.8	13.2	-63.73	-13.00	-50.73	Vertical	Pass



FDD LTE Band2-High channel, Modulation: QPSK, Bandwidth: 20MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
3800.00	-73.95	0.71	7.6	-67.06	-13.00	-54.06	Horizontal	Pass
5700.00	-74.96	0.85	10.3	-65.51	-13.00	-52.51	Horizontal	Pass
7600.00	-71.08	0.99	13.2	-58.87	-13.00	-45.87	Horizontal	Pass
9500.00	-78.42	1.27	13	-66.69	-13.00	-53.69	Horizontal	Pass
11400.00	-77.62	1.59	13.6	-65.61	-13.00	-52.61	Horizontal	Pass
13300.00	-75.01	1.8	13.2	-63.61	-13.00	-50.61	Horizontal	Pass
3800.00	-73.23	0.71	7.6	-66.34	-13.00	-53.34	Vertical	Pass
5700.00	-68.33	0.85	10.3	-58.88	-13.00	-45.88	Vertical	Pass
7600.00	-80.81	0.99	13.2	-68.60	-13.00	-55.6	Vertical	Pass
9500.00	-78.48	1.27	13	-66.75	-13.00	-53.75	Vertical	Pass
11400.00	-77.33	1.59	13.6	-65.32	-13.00	-52.32	Vertical	Pass
13300.00	-75.88	1.8	13.2	-64.48	-13.00	-51.48	Vertical	Pass

FDD LTE Band4-Low channel, Modulation: QPSK, Bandwidth: 20MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
3440.00	-72.61	0.65	6.2	-67.06	-13.00	-54.06	Horizontal	Pass
5160.00	-74.37	0.82	9.6	-65.59	-13.00	-52.59	Horizontal	Pass
6880.00	-68.56	0.95	11.8	-57.71	-13.00	-44.71	Horizontal	Pass
8600.00	-80.21	1.13	12.5	-68.84	-13.00	-55.84	Horizontal	Pass
10320.00	-78.11	1.26	12.7	-66.67	-13.00	-53.67	Horizontal	Pass
12040.00	-75.78	1.87	12.8	-64.85	-13.00	-51.85	Horizontal	Pass
3440.00	-71.87	0.65	6.2	-66.32	-13.00	-53.32	Vertical	Pass
5160.00	-75.13	0.82	9.6	-66.35	-13.00	-53.35	Vertical	Pass
6880.00	-69.72	0.95	11.8	-58.87	-13.00	-45.87	Vertical	Pass
8600.00	-79.24	1.13	12.5	-67.87	-13.00	-54.87	Vertical	Pass
10320.00	-78.1	1.26	12.7	-66.66	-13.00	-53.66	Vertical	Pass
12040.00	-76.55	1.87	12.8	-65.62	-13.00	-52.62	Vertical	Pass





FDD LTE Band4-Middle channel, Modulation: QPSK, Bandwidth: 20MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
3465.00	-73.01	0.65	6.2	-67.46	-13.00	-54.46	Horizontal	Pass
5197.50	-73.97	0.82	9.6	-65.19	-13.00	-52.19	Horizontal	Pass
6930.00	-69.69	0.95	11.8	-58.84	-13.00	-45.84	Horizontal	Pass
8662.50	-78.47	1.13	12.5	-67.10	-13.00	-54.1	Horizontal	Pass
10395.00	-78.15	1.26	12.7	-66.71	-13.00	-53.71	Horizontal	Pass
12127.50	-76.13	1.87	12.8	-65.20	-13.00	-52.2	Horizontal	Pass
3465.00	-72.07	0.65	6.2	-66.52	-13.00	-53.52	Vertical	Pass
5197.50	-75.1	0.82	9.6	-66.32	-13.00	-53.32	Vertical	Pass
6930.00	-68.96	0.95	11.8	-58.11	-13.00	-45.11	Vertical	Pass
8662.50	-79.58	1.13	12.5	-68.21	-13.00	-55.21	Vertical	Pass
10395.00	-78.12	1.26	12.7	-66.68	-13.00	-53.68	Vertical	Pass
12127.50	-75.69	1.87	12.8	-64.76	-13.00	-51.76	Vertical	Pass

FDD LTE Band4-High channel, Modulation: QPSK, Bandwidth: 20MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
3490.00	-73	0.65	6.2	-67.45	-13.00	-54.45	Horizontal	Pass
5235.00	-74.39	0.82	9.6	-65.61	-13.00	-52.61	Horizontal	Pass
6980.00	-69.73	0.95	11.8	-58.88	-13.00	-45.88	Horizontal	Pass
8725.00	-79.96	1.13	12.5	-68.59	-13.00	-55.59	Horizontal	Pass
10470.00	-78.4	1.26	12.7	-66.96	-13.00	-53.96	Horizontal	Pass
12215.00	-75.76	1.87	12.8	-64.83	-13.00	-51.83	Horizontal	Pass
3490.00	-71.76	0.65	6.2	-66.21	-13.00	-53.21	Vertical	Pass
5235.00	-74.76	0.82	9.6	-65.98	-13.00	-52.98	Vertical	Pass
6980.00	-69.72	0.95	11.8	-58.87	-13.00	-45.87	Vertical	Pass
8725.00	-79.9	1.13	12.5	-68.53	-13.00	-55.53	Vertical	Pass
10470.00	-78.08	1.26	12.7	-66.64	-13.00	-53.64	Vertical	Pass
12215.00	-76.06	1.87	12.8	-65.13	-13.00	-52.13	Vertical	Pass



FDD LTE Band5-Low channel, Modulation: QPSK, Bandwidth: 10MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
1658.00	-70.38	0.52	6	-67.05	-13.00	-54.05	Horizontal	Pass
2487.00	-62.36	0.53	5.8	-59.24	-13.00	-46.24	Horizontal	Pass
3316.00	-72	0.65	6.2	-68.60	-13.00	-55.6	Horizontal	Pass
4145.00	-72.75	0.7	8.5	-67.10	-13.00	-54.1	Horizontal	Pass
4974.00	-71.99	0.76	9.7	-65.20	-13.00	-52.2	Horizontal	Pass
5803.00	-72.37	0.85	10.3	-65.07	-13.00	-52.07	Horizontal	Pass
1658.00	-70.64	0.52	6	-67.31	-13.00	-54.31	Vertical	Pass
2487.00	-61.58	0.53	5.8	-58.46	-13.00	-45.46	Vertical	Pass
3316.00	-71.22	0.65	6.2	-67.82	-13.00	-54.82	Vertical	Pass
4145.00	-72.37	0.7	8.5	-66.72	-13.00	-53.72	Vertical	Pass
4974.00	-71.63	0.76	9.7	-64.84	-13.00	-51.84	Vertical	Pass
5803.00	-71.41	0.85	10.3	-64.11	-13.00	-51.11	Vertical	Pass

FDD LTE Band5-Middle channel, Modulation: QPSK, Bandwidth: 10MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
1673.00	-70.8	0.52	6	-67.47	-13.00	-54.47	Horizontal	Pass
2509.50	-61.8	0.59	5.3	-59.24	-13.00	-46.24	Horizontal	Pass
3346.00	-61.12	0.65	6.2	-57.72	-13.00	-44.72	Horizontal	Pass
4182.50	-73.46	0.7	8.5	-67.81	-13.00	-54.81	Horizontal	Pass
5019.00	-73.27	0.82	9.6	-66.64	-13.00	-53.64	Horizontal	Pass
5855.50	-72.86	0.85	10.3	-65.56	-13.00	-52.56	Horizontal	Pass
1673.00	-70.4	0.52	6	-67.07	-13.00	-54.07	Vertical	Pass
2509.50	-68.16	0.59	5.3	-65.60	-13.00	-52.6	Vertical	Pass
3346.00	-62.26	0.65	6.2	-58.86	-13.00	-45.86	Vertical	Pass
4182.50	-73.44	0.7	8.5	-67.79	-13.00	-54.79	Vertical	Pass
5019.00	-73.8	0.82	9.6	-67.17	-13.00	-54.17	Vertical	Pass
5855.50	-72.53	0.85	10.3	-65.23	-13.00	-52.23	Vertical	Pass



FDD LTE Band5-High channel, Modulation: QPSK, Bandwidth: 10MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
1688.00	-70.8	0.52	6	-67.47	-13.00	-54.47	Horizontal	Pass
2532.00	-68.8	0.59	5.3	-66.24	-13.00	-53.24	Horizontal	Pass
3376.00	-62.65	0.65	6.2	-59.25	-13.00	-46.25	Horizontal	Pass
4220.00	-72.65	0.7	8.5	-67.00	-13.00	-54	Horizontal	Pass
5064.00	-73.29	0.82	9.6	-66.66	-13.00	-53.66	Horizontal	Pass
5908.00	-72.48	0.85	10.3	-65.18	-13.00	-52.18	Horizontal	Pass
1688.00	-69.83	0.52	6	-66.50	-13.00	-53.5	Vertical	Pass
2532.00	-68.91	0.59	5.3	-66.35	-13.00	-53.35	Vertical	Pass
3376.00	-61.53	0.65	6.2	-58.13	-13.00	-45.13	Vertical	Pass
4220.00	-73.1	0.7	8.5	-67.45	-13.00	-54.45	Vertical	Pass
5064.00	-72.22	0.82	9.6	-65.59	-13.00	-52.59	Vertical	Pass
5908.00	-71.71	0.85	10.3	-64.41	-13.00	-51.41	Vertical	Pass

FDD LTE Band7-Low channel, Modulation: QPSK, Bandwidth: 20MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
5020.00	-75.48	0.82	9.6	-66.70	-25.00	-41.7	Horizontal	Pass
7530.00	-77.4	0.99	13.2	-65.19	-25.00	-40.19	Horizontal	Pass
10040.00	-69.11	1.26	12.7	-57.67	-25.00	-32.67	Horizontal	Pass
12550.00	-78.69	1.75	13.4	-67.04	-25.00	-42.04	Horizontal	Pass
15060.00	-77.45	1.44	13.3	-65.59	-25.00	-40.59	Horizontal	Pass
17570.00	-76.02	1.52	12.4	-65.14	-25.00	-40.14	Horizontal	Pass
5020.00	-75.13	0.82	9.6	-66.35	-25.00	-41.35	Vertical	Pass
7530.00	-71.06	0.99	13.2	-58.85	-25.00	-33.85	Vertical	Pass
10040.00	-78.9	1.26	12.7	-67.46	-25.00	-42.46	Vertical	Pass
12550.00	-78.38	1.75	13.4	-66.73	-25.00	-41.73	Vertical	Pass
15060.00	-78.59	1.44	13.3	-66.73	-25.00	-41.73	Vertical	Pass
17570.00	-76.13	1.52	12.4	-65.25	-25.00	-40.25	Vertical	Pass



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FDD LTE Band7-Middle channel, Modulation: QPSK, Bandwidth: 20MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
5070.00	-68.11	0.82	9.6	-59.33	-25.00	-34.33	Horizontal	Pass
7605.00	-68.83	0.99	13.2	-56.62	-25.00	-31.62	Horizontal	Pass
10140.00	-78.16	1.26	12.7	-66.72	-25.00	-41.72	Horizontal	Pass
12675.00	-78.37	1.75	13.4	-66.72	-25.00	-41.72	Horizontal	Pass
15210.00	-77.42	1.44	13.3	-65.56	-25.00	-40.56	Horizontal	Pass
17745.00	-74.99	1.52	12.4	-64.11	-25.00	-39.11	Horizontal	Pass
5070.00	-68.01	0.82	9.6	-59.23	-25.00	-34.23	Vertical	Pass
7605.00	-69.59	0.99	13.2	-57.38	-25.00	-32.38	Vertical	Pass
10140.00	-79.5	1.26	12.7	-68.06	-25.00	-43.06	Vertical	Pass
12675.00	-78.42	1.75	13.4	-66.77	-25.00	-41.77	Vertical	Pass
15210.00	-78.52	1.44	13.3	-66.66	-25.00	-41.66	Vertical	Pass
17745.00	-76.53	1.52	12.4	-65.65	-25.00	-40.65	Vertical	Pass

FDD LTE Band7-High channel, Modulation: QPSK, Bandwidth: 20MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
5120.00	-76.28	0.82	9.6	-67.50	-25.00	-42.5	Horizontal	Pass
7680.00	-71.44	0.99	13.2	-59.23	-25.00	-34.23	Horizontal	Pass
10240.00	-69.54	1.26	12.7	-58.10	-25.00	-33.1	Horizontal	Pass
12800.00	-78.68	1.75	13.4	-67.03	-25.00	-42.03	Horizontal	Pass
15360.00	-78.73	1.44	13.3	-66.87	-25.00	-41.87	Horizontal	Pass
17920.00	-74.98	1.52	12.4	-64.10	-25.00	-39.1	Horizontal	Pass
5120.00	-75.06	0.82	9.6	-66.28	-25.00	-41.28	Vertical	Pass
7680.00	-76.43	0.99	13.2	-64.22	-25.00	-39.22	Vertical	Pass
10240.00	-70.27	1.26	12.7	-58.83	-25.00	-33.83	Vertical	Pass
12800.00	-79.12	1.75	13.4	-67.47	-25.00	-42.47	Vertical	Pass
15360.00	-78.53	1.44	13.3	-66.67	-25.00	-41.67	Vertical	Pass
17920.00	-76.06	1.52	12.4	-65.18	-25.00	-40.18	Vertical	Pass



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FDD LTE Band26-Low channel, Modulation: QPSK, Bandwidth: 15MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
1663.00	-70.34	0.52	6	-67.01	-13.00	-54.01	Horizontal	Pass
2494.50	-67.22	0.53	5.8	-64.10	-13.00	-51.1	Horizontal	Pass
3326.00	-62.81	0.65	6.2	-59.41	-13.00	-46.41	Horizontal	Pass
4157.50	-63.75	0.7	8.5	-58.10	-13.00	-45.1	Horizontal	Pass
4989.00	-73.45	0.76	9.7	-66.66	-13.00	-53.66	Horizontal	Pass
5820.50	-72.53	0.85	10.3	-65.23	-13.00	-52.23	Horizontal	Pass
1663.00	-69.95	0.52	6	-66.62	-13.00	-53.62	Vertical	Pass
2494.50	-72.07	0.53	5.8	-68.95	-13.00	-55.95	Vertical	Pass
3326.00	-70.5	0.65	6.2	-67.10	-13.00	-54.1	Vertical	Pass
4157.50	-72.35	0.7	8.5	-66.70	-13.00	-53.7	Vertical	Pass
4989.00	-71.62	0.76	9.7	-64.83	-13.00	-51.83	Vertical	Pass
5820.50	-72.01	0.85	10.3	-64.71	-13.00	-51.71	Vertical	Pass

FDD LTE Band26-Middle channel, Modulation: QPSK, Bandwidth: 15MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
1673.00	-70.79	0.52	6	-67.46	-13.00	-54.46	Horizontal	Pass
2509.50	-67.04	0.59	5.3	-64.48	-13.00	-51.48	Horizontal	Pass
3346.00	-61.89	0.65	6.2	-58.49	-13.00	-45.49	Horizontal	Pass
4182.50	-72.58	0.7	8.5	-66.93	-13.00	-53.93	Horizontal	Pass
5019.00	-73.3	0.82	9.6	-66.67	-13.00	-53.67	Horizontal	Pass
5855.50	-72.14	0.85	10.3	-64.84	-13.00	-51.84	Horizontal	Pass
1673.00	-70.06	0.52	6	-66.73	-13.00	-53.73	Vertical	Pass
2509.50	-61.78	0.59	5.3	-59.22	-13.00	-46.22	Vertical	Pass
3346.00	-60.96	0.65	6.2	-57.56	-13.00	-44.56	Vertical	Pass
4182.50	-73.49	0.7	8.5	-67.84	-13.00	-54.84	Vertical	Pass
5019.00	-72.17	0.82	9.6	-65.54	-13.00	-52.54	Vertical	Pass
5855.50	-72.1	0.85	10.3	-64.80	-13.00	-51.8	Vertical	Pass



FDD LTE Band26-High channel, Modulation: QPSK, Bandwidth: 15MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
1683.00	-70.4	0.52	6	-67.07	-13.00	-54.07	Horizontal	Pass
2524.50	-68.14	0.59	5.3	-65.58	-13.00	-52.58	Horizontal	Pass
3366.00	-61.12	0.65	6.2	-57.72	-13.00	-44.72	Horizontal	Pass
4207.50	-73.83	0.7	8.5	-68.18	-13.00	-55.18	Horizontal	Pass
5049.00	-73.33	0.82	9.6	-66.70	-13.00	-53.7	Horizontal	Pass
5890.50	-72.11	0.85	10.3	-64.81	-13.00	-51.81	Horizontal	Pass
1683.00	-69.99	0.52	6	-66.66	-13.00	-53.66	Vertical	Pass
2524.50	-67.04	0.59	5.3	-64.48	-13.00	-51.48	Vertical	Pass
3366.00	-62.25	0.65	6.2	-58.85	-13.00	-45.85	Vertical	Pass
4207.50	-73.85	0.7	8.5	-68.20	-13.00	-55.2	Vertical	Pass
5049.00	-73.35	0.82	9.6	-66.72	-13.00	-53.72	Vertical	Pass
5890.50	-72.15	0.85	10.3	-64.85	-13.00	-51.85	Vertical	Pass

TDD LTE Band38-Low channel, Modulation: QPSK, Bandwidth: 20MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
5160.00	-76.53	0.82	9.6	-67.75	-25.00	-42.75	Horizontal	Pass
7740.00	-78.16	0.99	13.2	-65.95	-25.00	-40.95	Horizontal	Pass
10320.00	-70.3	1.26	12.7	-58.86	-25.00	-33.86	Horizontal	Pass
12900.00	-80.3	1.75	13.4	-68.65	-25.00	-43.65	Horizontal	Pass
15480.00	-78.54	1.44	13.3	-66.68	-25.00	-41.68	Horizontal	Pass
18060.00	-76.02	1.65	12.1	-65.57	-25.00	-40.57	Horizontal	Pass
5160.00	-74.91	0.82	9.6	-66.13	-25.00	-41.13	Vertical	Pass
7740.00	-78.16	0.99	13.2	-65.95	-25.00	-40.95	Vertical	Pass
10320.00	-70.67	1.26	12.7	-59.23	-25.00	-34.23	Vertical	Pass
12900.00	-79.53	1.75	13.4	-67.88	-25.00	-42.88	Vertical	Pass
15480.00	-77.09	1.44	13.3	-65.23	-25.00	-40.23	Vertical	Pass
18060.00	-74.93	1.65	12.1	-64.48	-25.00	-39.48	Vertical	Pass



TDD LTE Band38-Middle channel, Modulation: QPSK, Bandwidth: 20MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
5190.00	-76.24	0.82	9.6	-67.46	-25.00	-42.46	Horizontal	Pass
7785.00	-78.16	0.99	13.2	-65.95	-25.00	-40.95	Horizontal	Pass
10380.00	-70.3	1.26	12.7	-58.86	-25.00	-33.86	Horizontal	Pass
12975.00	-79.45	1.75	13.4	-67.80	-25.00	-42.8	Horizontal	Pass
15570.00	-78.56	1.62	13	-67.18	-25.00	-42.18	Horizontal	Pass
18165.00	-75.26	1.65	12.1	-64.81	-25.00	-39.81	Horizontal	Pass
5190.00	-75.86	0.82	9.6	-67.08	-25.00	-42.08	Vertical	Pass
7785.00	-80.66	0.99	13.2	-68.45	-25.00	-43.45	Vertical	Pass
10380.00	-78.56	1.26	12.7	-67.12	-25.00	-42.12	Vertical	Pass
12975.00	-77.12	1.75	13.4	-65.47	-25.00	-40.47	Vertical	Pass
15570.00	-76.43	1.62	13	-65.05	-25.00	-40.05	Vertical	Pass
18165.00	-74.8	1.65	12.1	-64.35	-25.00	-39.35	Vertical	Pass

TDD LTE Band38-High channel, Modulation: QPSK, Bandwidth: 20MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
5220.00	-75.48	0.82	9.6	-66.70	-25.00	-41.7	Horizontal	Pass
7830.00	-69.2	0.99	13.2	-56.99	-25.00	-31.99	Horizontal	Pass
10440.00	-79.65	1.26	12.7	-68.21	-25.00	-43.21	Horizontal	Pass
13050.00	-78.04	1.8	13.2	-66.64	-25.00	-41.64	Horizontal	Pass
15660.00	-76.59	1.62	13	-65.21	-25.00	-40.21	Horizontal	Pass
18270.00	-75.24	1.65	12.1	-64.79	-25.00	-39.79	Horizontal	Pass
5220.00	-75.1	0.82	9.6	-66.32	-25.00	-41.32	Vertical	Pass
7830.00	-77.41	0.99	13.2	-65.20	-25.00	-40.2	Vertical	Pass
10440.00	-70.31	1.26	12.7	-58.87	-25.00	-33.87	Vertical	Pass
13050.00	-79.3	1.8	13.2	-67.90	-25.00	-42.9	Vertical	Pass
15660.00	-78.1	1.62	13	-66.72	-25.00	-41.72	Vertical	Pass
18270.00	-75.26	1.65	12.1	-64.81	-25.00	-39.81	Vertical	Pass



TDD LTE Band40-Middle channel1, Modulation: QPSK, Bandwidth: 10MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
4625.00	-75.76	0.76	9.7	-66.82	-40.00	-26.82	Horizontal	Pass
6937.50	-77.05	0.95	11.8	-66.20	-40.00	-26.2	Horizontal	Pass
9250.00	-68.13	1.23	12.4	-56.96	-40.00	-16.96	Horizontal	Pass
11562.50	-80.28	1.81	13.1	-68.99	-40.00	-28.99	Horizontal	Pass
13875.00	-76.48	1.72	13.2	-65.00	-40.00	-25	Horizontal	Pass
16187.50	-76.86	1.74	13.6	-65.00	-40.00	-25	Horizontal	Pass
4625.00	-73.77	0.76	9.7	-64.83	-40.00	-24.83	Vertical	Pass
6937.50	-71.87	0.95	11.8	-61.02	-40.00	-21.02	Vertical	Pass
9250.00	-69.08	1.23	12.4	-57.91	-40.00	-17.91	Vertical	Pass
11562.50	-80	1.81	13.1	-68.71	-40.00	-28.71	Vertical	Pass
13875.00	-76.43	1.72	13.2	-64.95	-40.00	-24.95	Vertical	Pass
16187.50	-75.81	1.74	13.6	-63.95	-40.00	-23.95	Vertical	Pass

TDD LTE Band40-Middle channel2, Modulation: QPSK, Bandwidth: 10MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
4625.00	-76.47	0.76	9.7	-67.53	-40.00	-27.53	Horizontal	Pass
6937.50	-70.05	0.95	11.8	-59.20	-40.00	-19.2	Horizontal	Pass
9250.00	-68.37	1.23	12.4	-57.20	-40.00	-17.2	Horizontal	Pass
11562.50	-79.98	1.81	13.1	-68.69	-40.00	-28.69	Horizontal	Pass
13875.00	-79.01	1.72	13.2	-67.53	-40.00	-27.53	Horizontal	Pass
16187.50	-75.66	1.74	13.6	-63.80	-40.00	-23.8	Horizontal	Pass
4625.00	-75.45	0.76	9.7	-66.51	-40.00	-26.51	Vertical	Pass
6937.50	-75.31	0.95	11.8	-64.46	-40.00	-24.46	Vertical	Pass
9250.00	-70.34	1.23	12.4	-59.17	-40.00	-19.17	Vertical	Pass
11562.50	-80.06	1.81	13.1	-68.77	-40.00	-28.77	Vertical	Pass
13875.00	-78.93	1.72	13.2	-67.45	-40.00	-27.45	Vertical	Pass
16187.50	-76.65	1.74	13.6	-64.79	-40.00	-24.79	Vertical	Pass





TDD LTE Band40-Middle channel3, Modulation: QPSK, Bandwidth: 10MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
4625.00	-76.39	0.76	9.7	-67.45	-40.00	-27.45	Horizontal	Pass
6937.50	-72.11	0.95	11.8	-61.26	-40.00	-21.26	Horizontal	Pass
9250.00	-79.04	1.23	12.4	-67.87	-40.00	-27.87	Horizontal	Pass
11562.50	-77	1.81	13.1	-65.71	-40.00	-25.71	Horizontal	Pass
13875.00	-75.39	1.72	13.2	-63.91	-40.00	-23.91	Horizontal	Pass
16187.50	-75.83	1.74	13.6	-63.97	-40.00	-23.97	Horizontal	Pass
4625.00	-75.08	0.76	9.7	-66.14	-40.00	-26.14	Vertical	Pass
6937.50	-70.07	0.95	11.8	-59.22	-40.00	-19.22	Vertical	Pass
9250.00	-80.11	1.23	12.4	-68.94	-40.00	-28.94	Vertical	Pass
11562.50	-78.92	1.81	13.1	-67.63	-40.00	-27.63	Vertical	Pass
13875.00	-76.38	1.72	13.2	-64.90	-40.00	-24.9	Vertical	Pass
16187.50	-76.17	1.74	13.6	-64.31	-40.00	-24.31	Vertical	Pass

TDD LTE Band41-Low channel, Modulation: QPSK, Bandwidth: 20MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
5012.00	-75.13	0.82	9.6	-66.35	-25.00	-41.35	Horizontal	Pass
7518.00	-70.71	0.99	13.2	-58.50	-25.00	-33.5	Horizontal	Pass
10024.00	-79.25	1.26	12.7	-67.81	-25.00	-42.81	Horizontal	Pass
12530.00	-78.22	1.75	13.4	-66.57	-25.00	-41.57	Horizontal	Pass
15036.00	-77.4	1.44	13.3	-65.54	-25.00	-40.54	Horizontal	Pass
17542.00	-75.57	1.52	12.4	-64.69	-25.00	-39.69	Horizontal	Pass
5012.00	-75.13	0.82	9.6	-66.35	-25.00	-41.35	Vertical	Pass
7518.00	-78.74	0.99	13.2	-66.53	-25.00	-41.53	Vertical	Pass
10024.00	-80.71	1.26	12.7	-69.27	-25.00	-44.27	Vertical	Pass
12530.00	-79.12	1.75	13.4	-67.47	-25.00	-42.47	Vertical	Pass
15036.00	-78.86	1.44	13.3	-67.00	-25.00	-42	Vertical	Pass
17542.00	-77.21	1.52	12.4	-66.33	-25.00	-41.33	Vertical	Pass



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Shenzhen Branch**

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TDD LTE Band41-Middle channel, Modulation: QPSK, Bandwidth: 20MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
5186.00	-75.64	0.82	9.6	-66.86	-25.00	-41.86	Horizontal	Pass
7779.00	-78.42	0.99	13.2	-66.21	-25.00	-41.21	Horizontal	Pass
10372.00	-70.34	1.26	12.7	-58.90	-25.00	-33.9	Horizontal	Pass
12965.00	-78.75	1.75	13.4	-67.10	-25.00	-42.1	Horizontal	Pass
15558.00	-76.61	1.62	13	-65.23	-25.00	-40.23	Horizontal	Pass
18151.00	-76.05	1.65	12.1	-65.60	-25.00	-40.6	Horizontal	Pass
5186.00	-74.9	0.82	9.6	-66.12	-25.00	-41.12	Vertical	Pass
7779.00	-69.89	0.99	13.2	-57.68	-25.00	-32.68	Vertical	Pass
10372.00	-78.54	1.26	12.7	-67.10	-25.00	-42.1	Vertical	Pass
12965.00	-78.3	1.75	13.4	-66.65	-25.00	-41.65	Vertical	Pass
15558.00	-77.41	1.62	13	-66.03	-25.00	-41.03	Vertical	Pass
18151.00	-74.5	1.65	12.1	-64.05	-25.00	-39.05	Vertical	Pass

TDD LTE Band41-High channel, Modulation: QPSK, Bandwidth: 20MHz, Full RB								
Frequency (MHz)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	Polarization (H/V)	Result
5360.00	-73.25	0.82	9.6	-64.47	-25.00	-39.47	Horizontal	Pass
8040.00	-70.82	1.01	12.9	-58.93	-25.00	-33.93	Horizontal	Pass
10720.00	-80.2	1.49	13.5	-68.19	-25.00	-43.19	Horizontal	Pass
13400.00	-78.36	1.8	13.2	-66.96	-25.00	-41.96	Horizontal	Pass
16080.00	-77.05	1.74	13.6	-65.19	-25.00	-40.19	Horizontal	Pass
18760.00	-74.86	1.65	12.1	-64.41	-25.00	-39.41	Horizontal	Pass
5360.00	-73.77	0.82	9.6	-64.99	-25.00	-39.99	Vertical	Pass
8040.00	-71.14	1.01	12.9	-59.25	-25.00	-34.25	Vertical	Pass
10720.00	-69.39	1.49	13.5	-57.38	-25.00	-32.38	Vertical	Pass
13400.00	-78.49	1.8	13.2	-67.09	-25.00	-42.09	Vertical	Pass
16080.00	-78.52	1.74	13.6	-66.66	-25.00	-41.66	Vertical	Pass
18760.00	-75.67	1.65	12.1	-65.22	-25.00	-40.22	Vertical	Pass

Note: All modes have been tested and we found max bandwidth, full RB test mode has the worst test result. Only record the worst test result.

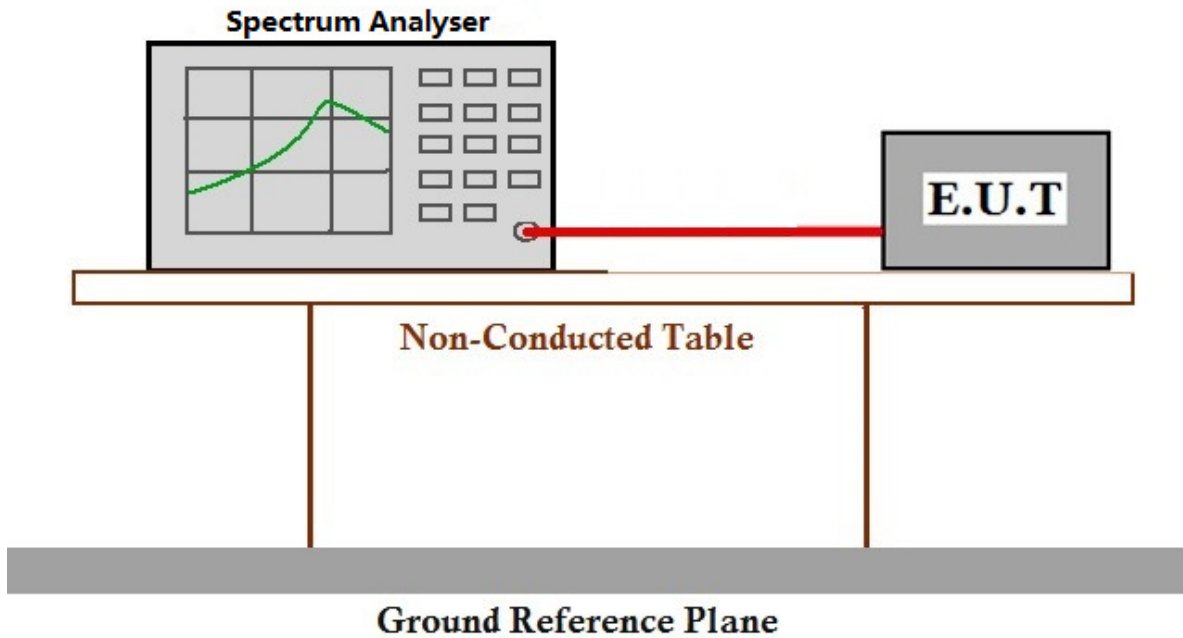
**6.7 Frequency stability**

Test Requirement: §2.1055, §22.355, §24.235, §90.213  
 Test Method: ANSI C63.26, KDB 971168 D01 v03  
 Limit:  $\leq \pm 2.5\text{ppm}$ .

**6.7.1 E.U.T. Operation**

Operating Environment:  
 Temperature: 18.6 °C Humidity: 29.1 % RH Atmospheric Pressure: 1025 mbar  
 Test mode a: Tx mode, Keep the EUT in transmitting mode.

**6.7.2 Test Setup Diagram**



**6.7.3 Measurement Data**



Frequency Error VS. Voltage

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband2	QPSK/20MHz	LCH	TN	VL	-4.54	-0.00244	PASS
				VN	0.41	0.00022	PASS
				VH	-2.71	-0.00146	PASS
		MCH	TN	VL	1.45	0.00077	PASS
				VN	-2.82	-0.00150	PASS
				VH	2.61	0.00139	PASS
		HCH	TN	VL	-1.57	-0.00083	PASS
				VN	-1.18	-0.00062	PASS
				VH	-0.76	-0.00040	PASS
	16QAM/20MHz	LCH	TN	VL	-4.27	-0.00230	PASS
				VN	-2.98	-0.00160	PASS
				VH	-3.11	-0.00167	PASS
		MCH	TN	VL	1.52	0.00081	PASS
				VN	-2.85	-0.00152	PASS
				VH	2.58	0.00137	PASS
		HCH	TN	VL	-3.06	-0.00161	PASS
				VN	-2.03	-0.00107	PASS
				VH	1.43	0.00075	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband4	QPSK/20MHz	LCH	TN	VL	-4.56	-0.00265	PASS
				VN	0.43	0.00025	PASS
				VH	-1.74	-0.00101	PASS
		MCH	TN	VL	1.48	0.00085	PASS
				VN	-2.85	-0.00165	PASS
				VH	2.63	0.00152	PASS
		HCH	TN	VL	-2.51	-0.00144	PASS
				VN	-1.16	-0.00066	PASS
				VH	-0.77	-0.00044	PASS
	16QAM/20MHz	LCH	TN	VL	-4.26	-0.00248	PASS
				VN	-2.95	-0.00172	PASS
				VH	-1.12	-0.00065	PASS
		MCH	TN	VL	1.52	0.00088	PASS
				VN	-2.84	-0.00164	PASS
				VH	2.55	0.00147	PASS
		HCH	TN	VL	-3.06	-0.00175	PASS
				VN	-2.03	-0.00116	PASS
				VH	0.42	0.00024	PASS



Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband5	QPSK/10MHz	LCH	TN	VL	-4.56	-0.00550	PASS
				VN	0.43	0.00052	PASS
				VH	-1.73	-0.00209	PASS
		MCH	TN	VL	1.43	0.00171	PASS
				VN	-2.82	-0.00337	PASS
				VH	2.61	0.00312	PASS
		HCH	TN	VL	-2.53	-0.00300	PASS
				VN	-1.17	-0.00139	PASS
				VH	-0.76	-0.00090	PASS
	16QAM/10MHz	LCH	TN	VL	-4.28	-0.00516	PASS
				VN	-2.96	-0.00357	PASS
				VH	-2.13	-0.00257	PASS
		MCH	TN	VL	1.56	0.00186	PASS
				VN	-2.87	-0.00343	PASS
				VH	2.56	0.00306	PASS
		HCH	TN	VL	-3.09	-0.00366	PASS
				VN	-1.04	-0.00123	PASS
				VH	0.42	0.00050	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband7	QPSK/20MHz	LCH	TN	VL	-4.56	-0.00182	PASS
				VN	0.43	0.00017	PASS
				VH	-1.72	-0.00069	PASS
		MCH	TN	VL	1.46	0.00058	PASS
				VN	-2.83	-0.00112	PASS
				VH	2.61	0.00103	PASS
		HCH	TN	VL	-1.56	-0.00061	PASS
				VN	-1.17	-0.00046	PASS
				VH	-0.76	-0.00030	PASS
	16QAM/20MHz	LCH	TN	VL	-4.29	-0.00171	PASS
				VN	-2.96	-0.00118	PASS
				VH	-1.13	-0.00045	PASS
		MCH	TN	VL	1.58	0.00062	PASS
				VN	-2.83	-0.00112	PASS
				VH	2.52	0.00099	PASS
		HCH	TN	VL	-3.07	-0.00120	PASS
				VN	-1.04	-0.00041	PASS
				VH	0.42	0.00016	PASS

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Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband26 (814-824MHz)	QPSK/10MHz	LCH	TN	VL	/	/	/
				VN	/	/	/
				VH	/	/	/
		MCH	TN	VL	1.45	0.00177	PASS
				VN	-2.83	-0.00346	PASS
				VH	2.61	0.00319	PASS
	HCH	TN	VL	/	/	/	
			VN	/	/	/	
			VH	/	/	/	
	16QAM/10MHz	LCH	TN	VL	/	/	/
				VN	/	/	/
				VH	/	/	/
		MCH	TN	VL	1.51	0.00184	PASS
				VN	-2.85	-0.00348	PASS
				VH	2.57	0.00314	PASS
		HCH	TN	VL	/	/	/
				VN	/	/	/
				VH	/	/	/

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband26 (824-849MHz)	QPSK/15MHz	LCH	TN	VL	-4.56	-0.00548	PASS
				VN	0.42	0.00051	PASS
				VH	-2.71	-0.00326	PASS
		MCH	TN	VL	1.47	0.00176	PASS
				VN	-2.83	-0.00338	PASS
				VH	2.61	0.00312	PASS
	HCH	TN	VL	-2.57	-0.00305	PASS	
			VN	-2.19	-0.00260	PASS	
			VH	-0.74	-0.00088	PASS	
	16QAM/15MHz	LCH	TN	VL	-4.27	-0.00514	PASS
				VN	-2.96	-0.00356	PASS
				VH	-2.12	-0.00255	PASS
		MCH	TN	VL	1.55	0.00185	PASS
				VN	-2.81	-0.00336	PASS
				VH	2.56	0.00306	PASS
		HCH	TN	VL	-3.07	-0.00365	PASS
				VN	-2.03	-0.00241	PASS
				VH	0.42	0.00050	PASS

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Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband38	QPSK/20MHz	LCH	TN	VL	-4.56	-0.00177	PASS
				VN	0.43	0.00017	PASS
				VH	-2.74	-0.00106	PASS
		MCH	TN	VL	1.48	0.00057	PASS
				VN	-2.84	-0.00109	PASS
				VH	2.62	0.00101	PASS
		HCH	TN	VL	-6.57	-0.00252	PASS
				VN	-2.19	-0.00084	PASS
				VH	-0.75	-0.00029	PASS
	16QAM/20MHz	LCH	TN	VL	-4.27	-0.00166	PASS
				VN	-2.99	-0.00116	PASS
				VH	-2.12	-0.00082	PASS
		MCH	TN	VL	1.57	0.00061	PASS
				VN	-2.82	-0.00109	PASS
				VH	2.56	0.00099	PASS
		HCH	TN	VL	-3.07	-0.00118	PASS
				VN	-2.09	-0.00080	PASS
				VH	0.41	0.00016	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband40 (2305-2315MHz)	QPSK/5MHz	LCH	TN	VL	/	/	/
				VN	/	/	/
				VH	/	/	/
		MCH	TN	VL	1.45	0.00063	PASS
				VN	-2.82	-0.00122	PASS
				VH	2.65	0.00115	PASS
		HCH	TN	VL	/	/	/
				VN	/	/	/
				VH	/	/	/
	16QAM/5MHz	LCH	TN	VL	/	/	/
				VN	/	/	/
				VH	/	/	/
		MCH	TN	VL	1.57	0.00068	PASS
				VN	-2.83	-0.00122	PASS
				VH	2.51	0.00109	PASS
		HCH	TN	VL	/	/	/
				VN	/	/	/
				VH	/	/	/

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Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband40 (2350-2360MHz)	QPSK/10MHz	LCH	TN	VL	/	/	/
				VN	/	/	/
				VH	/	/	/
		MCH	TN	VL	1.49	0.00063	PASS
				VN	-2.85	-0.00121	PASS
				VH	1.63	0.00069	PASS
		HCH	TN	VL	/	/	/
				VN	/	/	/
				VH	/	/	/
	16QAM/10MHz	LCH	TN	VL	/	/	/
				VN	/	/	/
				VH	/	/	/
		MCH	TN	VL	1.56	0.00066	PASS
				VN	-2.85	-0.00121	PASS
				VH	3.57	0.00152	PASS
		HCH	TN	VL	/	/	/
				VN	/	/	/
				VH	/	/	/

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband41	QPSK/20MHz	LCH	TN	VL	-4.56	-0.00182	PASS
				VN	0.43	0.00017	PASS
				VH	-3.71	-0.00148	PASS
		MCH	TN	VL	1.46	0.00056	PASS
				VN	-2.82	-0.00109	PASS
				VH	2.67	0.00103	PASS
		HCH	TN	VL	-3.54	-0.00132	PASS
				VN	-5.17	-0.00193	PASS
				VH	-0.77	-0.00029	PASS
	16QAM/20MHz	LCH	TN	VL	-4.29	-0.00171	PASS
				VN	-2.96	-0.00118	PASS
				VH	-2.12	-0.00085	PASS
		MCH	TN	VL	1.58	0.00061	PASS
				VN	-2.82	-0.00109	PASS
				VH	2.56	0.00099	PASS
		HCH	TN	VL	-3.07	-0.00115	PASS
				VN	-1.04	-0.00039	PASS
				VH	0.42	0.00016	PASS

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Frequency Error VS. Temperature

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband2	QPSK/20MHz	LCH	VN	-30	0.85	0.00046	PASS
				-20	0.86	0.00046	PASS
				-10	-0.01	-0.00001	PASS
				0	3.68	0.00198	PASS
				10	3.07	0.00165	PASS
				20	2.94	0.00158	PASS
				30	1.48	0.00080	PASS
				40	0.99	0.00053	PASS
				50	1.14	0.00061	PASS
		MCH	VN	-30	-3.53	-0.00187	PASS
				-20	-3.52	-0.00187	PASS
				-10	-4.66	-0.00248	PASS
				0	-1.12	-0.00060	PASS
				10	-4.36	-0.00232	PASS
				20	-2.78	-0.00148	PASS
				30	-2.66	-0.00141	PASS
				40	-4.31	-0.00229	PASS
				50	-3.36	-0.00179	PASS
		HCH	VN	-30	1.88	0.00099	PASS
				-20	1.89	0.00099	PASS
				-10	-0.18	-0.00009	PASS
				0	2.83	0.00149	PASS
				10	-1.58	-0.00083	PASS
				20	3.94	0.00207	PASS
30	0.76			0.00040	PASS		
40	-1.37			-0.00072	PASS		
50	-4.11			-0.00216	PASS		



Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband2	16QAM/20MHz	LCH	VN	-30	0.22	0.00012	PASS
				-20	0.23	0.00012	PASS
				-10	-1.62	-0.00087	PASS
				0	4.01	0.00216	PASS
				10	3.57	0.00192	PASS
				20	2.63	0.00141	PASS
				30	0.8	0.00043	PASS
				40	0.59	0.00032	PASS
				50	2.77	0.00149	PASS
		MCH	VN	-30	-2.56	-0.00137	PASS
				-20	-2.57	-0.00137	PASS
				-10	-4.35	-0.00231	PASS
				0	-2.76	-0.00147	PASS
				10	-3.89	-0.00207	PASS
				20	-0.01	-0.00001	PASS
				30	2.77	0.00147	PASS
				40	-2.51	-0.00134	PASS
				50	-1.79	-0.00095	PASS
		HCH	VN	-30	2.58	0.00135	PASS
				-20	2.57	0.00135	PASS
				-10	-1.42	-0.00075	PASS
				0	2.62	0.00138	PASS
				10	-2.4	-0.00126	PASS
				20	3.71	0.00195	PASS
30	-0.44			-0.00023	PASS		
40	-2.16			-0.00114	PASS		
50	-3.4			-0.00179	PASS		



Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband4	QPSK/20MHz	LCH	VN	-30	0.56	0.00033	PASS
				-20	0.57	0.00033	PASS
				-10	-0.3	-0.00017	PASS
				0	3.39	0.00197	PASS
				10	2.78	0.00162	PASS
				20	2.65	0.00154	PASS
				30	1.19	0.00069	PASS
				40	0.7	0.00041	PASS
				50	0.85	0.00049	PASS
		MCH	VN	-30	-2.81	-0.00162	PASS
				-20	-2.81	-0.00162	PASS
				-10	-4.95	-0.00286	PASS
				0	-2.41	-0.00139	PASS
				10	-4.65	-0.00268	PASS
				20	-3.07	-0.00177	PASS
				30	-3.95	-0.00228	PASS
				40	-4.6	-0.00266	PASS
				50	-3.65	-0.00211	PASS
		HCH	VN	-30	1.61	0.00092	PASS
				-20	1.6	0.00092	PASS
				-10	-0.47	-0.00027	PASS
				0	2.54	0.00146	PASS
				10	-1.87	-0.00107	PASS
				20	3.65	0.00209	PASS
				30	0.47	0.00027	PASS
				40	-1.66	-0.00095	PASS
				50	-4.4	-0.00252	PASS



Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband4	16QAM/20MHz	LCH	VN	-30	0.85	0.00049	PASS
				-20	0.84	0.00049	PASS
				-10	-1.01	-0.00059	PASS
				0	4.62	0.00269	PASS
				10	4.18	0.00243	PASS
				20	3.24	0.00188	PASS
				30	1.41	0.00082	PASS
				40	1.2	0.00070	PASS
				50	3.38	0.00197	PASS
		MCH	VN	-30	-1.95	-0.00113	PASS
				-20	-1.96	-0.00113	PASS
				-10	-3.74	-0.00216	PASS
				0	-1.15	-0.00066	PASS
				10	-3.28	-0.00189	PASS
				20	0.6	0.00035	PASS
				30	3.38	0.00195	PASS
				40	-1.9	-0.00110	PASS
				50	-1.18	-0.00068	PASS
		HCH	VN	-30	3.17	0.00182	PASS
				-20	3.18	0.00182	PASS
				-10	-0.81	-0.00046	PASS
				0	3.23	0.00185	PASS
				10	-1.79	-0.00103	PASS
				20	4.32	0.00248	PASS
30	0.17			0.00010	PASS		
40	-1.55			-0.00089	PASS		
50	-2.79			-0.00160	PASS		



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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband5	QPSK/10MHz	LCH	VN	-30	0.51	0.00060	PASS
				-20	0.5	0.00060	PASS
				-10	-0.37	-0.00045	PASS
				0	3.32	0.00400	PASS
				10	2.71	0.00327	PASS
				20	2.58	0.00311	PASS
				30	1.12	0.00135	PASS
				40	0.63	0.00076	PASS
				50	0.78	0.00094	PASS
		MCH	VN	-30	-3.87	-0.00464	PASS
				-20	-3.88	-0.00464	PASS
				-10	-5.02	-0.00600	PASS
				0	-1.48	-0.00177	PASS
				10	-4.72	-0.00564	PASS
				20	-3.14	-0.00375	PASS
				30	-2.02	-0.00241	PASS
				40	-4.67	-0.00558	PASS
				50	-3.72	-0.00445	PASS
		HCH	VN	-30	1.54	0.00181	PASS
				-20	1.53	0.00181	PASS
				-10	-0.54	-0.00064	PASS
				0	2.47	0.00293	PASS
				10	-1.94	-0.00230	PASS
				20	3.58	0.00424	PASS
				30	0.4	0.00047	PASS
				40	-1.73	-0.00205	PASS
				50	-4.47	-0.00530	PASS



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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband5	16QAM/10MHz	LCH	VN	-30	0.18	0.00023	PASS
				-20	0.19	0.00023	PASS
				-10	-1.66	-0.00200	PASS
				0	3.97	0.00479	PASS
				10	3.53	0.00426	PASS
				20	2.59	0.00312	PASS
				30	0.76	0.00092	PASS
				40	0.55	0.00066	PASS
				50	2.73	0.00329	PASS
		MCH	VN	-30	-2.62	-0.00312	PASS
				-20	-2.61	-0.00312	PASS
				-10	-4.39	-0.00525	PASS
				0	-1.8	-0.00215	PASS
				10	-3.93	-0.00470	PASS
				20	-0.05	-0.00006	PASS
				30	2.73	0.00326	PASS
				40	-2.55	-0.00305	PASS
				50	-1.83	-0.00219	PASS
		HCH	VN	-30	2.52	0.00300	PASS
				-20	2.53	0.00300	PASS
				-10	-1.46	-0.00173	PASS
				0	2.58	0.00306	PASS
				10	-2.44	-0.00289	PASS
				20	3.67	0.00435	PASS
				30	-0.48	-0.00057	PASS
				40	-2.2	-0.00261	PASS
				50	-3.44	-0.00408	PASS



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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband7	QPSK/20MHz	LCH	VN	-30	0.45	0.00018	PASS
				-20	0.46	0.00018	PASS
				-10	-0.41	-0.00016	PASS
				0	3.28	0.00131	PASS
				10	2.67	0.00106	PASS
				20	2.54	0.00101	PASS
				30	1.08	0.00043	PASS
				40	0.59	0.00024	PASS
				50	0.74	0.00029	PASS
		MCH	VN	-30	-3.93	-0.00155	PASS
				-20	-3.92	-0.00155	PASS
				-10	-5.06	-0.00200	PASS
				0	-2.52	-0.00099	PASS
				10	-4.76	-0.00188	PASS
				20	-3.18	-0.00125	PASS
				30	-1.06	-0.00042	PASS
				40	-4.71	-0.00186	PASS
				50	-3.76	-0.00148	PASS
		HCH	VN	-30	1.48	0.00058	PASS
				-20	1.49	0.00058	PASS
				-10	-0.58	-0.00023	PASS
				0	2.43	0.00095	PASS
				10	-1.98	-0.00077	PASS
				20	3.54	0.00138	PASS
				30	0.36	0.00014	PASS
				40	-1.77	-0.00069	PASS
				50	-4.51	-0.00176	PASS



Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband7	16QAM/20MHz	LCH	VN	-30	0.06	0.00003	PASS
				-20	0.07	0.00003	PASS
				-10	-1.78	-0.00071	PASS
				0	3.85	0.00153	PASS
				10	3.41	0.00136	PASS
				20	2.47	0.00098	PASS
				30	0.64	0.00025	PASS
				40	0.43	0.00017	PASS
				50	2.61	0.00104	PASS
		MCH	VN	-30	-2.72	-0.00108	PASS
				-20	-2.73	-0.00108	PASS
				-10	-4.51	-0.00178	PASS
				0	-1.92	-0.00076	PASS
				10	-4.05	-0.00160	PASS
				20	-0.17	-0.00007	PASS
				30	2.61	0.00103	PASS
				40	-2.67	-0.00105	PASS
				50	-1.95	-0.00077	PASS
		HCH	VN	-30	2.42	0.00094	PASS
				-20	2.41	0.00094	PASS
				-10	-1.58	-0.00062	PASS
				0	2.46	0.00096	PASS
				10	-2.56	-0.00100	PASS
				20	3.55	0.00139	PASS
				30	-0.6	-0.00023	PASS
				40	-2.32	-0.00091	PASS
				50	-3.56	-0.00139	PASS





Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband26 (814-824MHz)	QPSK/10MHz	LCH	VN	-20	/	/	/
				-10	/	/	/
				0	/	/	/
				10	/	/	/
				20	/	/	/
				30	/	/	/
				40	/	/	/
				50	/	/	/
				55	/	/	/
		MCH	VN	-30	-1.15	-0.00142	PASS
				-20	-1.16	-0.00142	PASS
				-10	-5.3	-0.00647	PASS
				0	-2.76	-0.00337	PASS
				10	-2	-0.00244	PASS
				20	-3.42	-0.00418	PASS
				30	-1.3	-0.00159	PASS
				40	-4.95	-0.00604	PASS
				50	-4	-0.00488	PASS
		HCH	VN	-20	/	/	/
				-10	/	/	/
				0	/	/	/
				10	/	/	/
				20	/	/	/
				30	/	/	/
				40	/	/	/
				50	/	/	/
				55	/	/	/



Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband26 (814-824MHz)	16QAM/10MHz	LCH	VN	-20	/	/	/
				-10	/	/	/
				0	/	/	/
				10	/	/	/
				20	/	/	/
				30	/	/	/
				40	/	/	/
				50	/	/	/
				55	/	/	/
		MCH	VN	-30	-2.56	-0.00314	PASS
				-20	-2.57	-0.00314	PASS
				-10	-4.35	-0.00531	PASS
				0	-2.76	-0.00337	PASS
				10	-3.89	-0.00475	PASS
				20	-0.01	-0.00001	PASS
				30	2.77	0.00338	PASS
				40	-2.51	-0.00306	PASS
				50	-1.79	-0.00219	PASS
		HCH	VN	-20	/	/	/
				-10	/	/	/
				0	/	/	/
				10	/	/	/
				20	/	/	/
				30	/	/	/
				40	/	/	/
				50	/	/	/
				55	/	/	/



Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband26 (824-849MHz)	QPSK/15MHz	LCH	VN	-30	0.72	0.00088	PASS
				-20	0.73	0.00088	PASS
				-10	-0.14	-0.00017	PASS
				0	3.55	0.00427	PASS
				10	2.94	0.00354	PASS
				20	2.81	0.00338	PASS
				30	1.35	0.00162	PASS
				40	0.86	0.00103	PASS
				50	1.01	0.00121	PASS
		MCH	VN	-30	-2.66	-0.00317	PASS
				-20	-2.65	-0.00317	PASS
				-10	-4.79	-0.00573	PASS
				0	-2.25	-0.00269	PASS
				10	-4.49	-0.00537	PASS
				20	-2.91	-0.00348	PASS
				30	-1.79	-0.00214	PASS
				40	-4.44	-0.00531	PASS
				50	-3.49	-0.00417	PASS
		HCH	VN	-30	1.75	0.00209	PASS
				-20	1.76	0.00209	PASS
				-10	-0.31	-0.00037	PASS
				0	2.7	0.00321	PASS
				10	-1.71	-0.00203	PASS
				20	3.81	0.00453	PASS
				30	0.63	0.00075	PASS
				40	-1.5	-0.00178	PASS
				50	-4.24	-0.00504	PASS



Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband26 (824-849MHz)	16QAM/15MHz	LCH	VN	-30	0.72	0.00085	PASS
				-20	0.71	0.00085	PASS
				-10	-1.14	-0.00137	PASS
				0	4.49	0.00540	PASS
				10	4.05	0.00487	PASS
				20	3.11	0.00374	PASS
				30	1.28	0.00154	PASS
				40	1.07	0.00129	PASS
				50	2.25	0.00271	PASS
		MCH	VN	-30	-2.09	-0.00250	PASS
				-20	-2.09	-0.00250	PASS
				-10	-3.87	-0.00463	PASS
				0	-1.28	-0.00153	PASS
				10	-3.41	-0.00408	PASS
				20	0.47	0.00056	PASS
				30	3.25	0.00389	PASS
				40	-2.03	-0.00243	PASS
				50	-1.31	-0.00157	PASS
		HCH	VN	-30	3.04	0.00362	PASS
				-20	3.05	0.00362	PASS
				-10	-0.94	-0.00112	PASS
				0	3.1	0.00368	PASS
				10	-1.92	-0.00228	PASS
				20	4.19	0.00498	PASS
				30	0.04	0.00005	PASS
				40	-1.68	-0.00200	PASS
				50	-2.92	-0.00347	PASS



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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband38	QPSK/20MHz	LCH	VN	-30	0.60	0.00024	PASS
				-20	0.61	0.00024	PASS
				-10	-0.26	-0.00010	PASS
				0	3.43	0.00133	PASS
				10	2.82	0.00109	PASS
				20	2.69	0.00104	PASS
				30	1.23	0.00048	PASS
				40	0.74	0.00029	PASS
				50	0.89	0.00034	PASS
		MCH	VN	-30	-2.76	-0.00107	PASS
				-20	-2.77	-0.00107	PASS
				-10	-4.91	-0.00189	PASS
				0	-2.37	-0.00091	PASS
				10	-4.61	-0.00178	PASS
				20	-3.03	-0.00117	PASS
				30	-1.91	-0.00074	PASS
				40	-4.56	-0.00176	PASS
				50	-3.61	-0.00139	PASS
		HCH	VN	-30	1.65	0.00063	PASS
				-20	1.64	0.00063	PASS
				-10	-0.43	-0.00016	PASS
				0	2.58	0.00099	PASS
				10	-1.83	-0.00070	PASS
				20	3.69	0.00141	PASS
				30	0.51	0.00020	PASS
				40	-1.62	-0.00062	PASS
				50	-4.36	-0.00167	PASS



Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband38	16QAM/20MHz	LCH	VN	-30	0.61	0.00024	PASS
				-20	0.62	0.00024	PASS
				-10	-1.23	-0.00048	PASS
				0	4.4	0.00171	PASS
				10	3.96	0.00153	PASS
				20	3.02	0.00117	PASS
				30	1.19	0.00046	PASS
				40	0.98	0.00038	PASS
				50	1.16	0.00045	PASS
		MCH	VN	-30	-2.19	-0.00084	PASS
				-20	-2.18	-0.00084	PASS
				-10	-3.96	-0.00153	PASS
				0	-1.37	-0.00053	PASS
				10	-3.5	-0.00135	PASS
				20	0.38	0.00015	PASS
				30	3.16	0.00122	PASS
				40	-2.12	-0.00082	PASS
				50	-1.4	-0.00054	PASS
		HCH	VN	-30	2.95	0.00113	PASS
				-20	2.96	0.00113	PASS
				-10	-1.03	-0.00039	PASS
				0	3.01	0.00115	PASS
				10	-2.01	-0.00077	PASS
				20	4.1	0.00157	PASS
				30	-0.05	-0.00002	PASS
				40	-1.77	-0.00068	PASS
				50	-3.01	-0.00115	PASS



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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband40 (2305-2315MHz)	QPSK/10MHz	LCH	VN	-20	/	/	/
				-10	/	/	/
				0	/	/	/
				10	/	/	/
				20	/	/	/
				30	/	/	/
				40	/	/	/
				50	/	/	/
				55	/	/	/
		MCH	VN	-30	-2.62	-0.00113	PASS
				-20	-2.61	-0.00113	PASS
				-10	-4.75	-0.00205	PASS
				0	-1.21	-0.00052	PASS
				10	-4.45	-0.00192	PASS
				20	-2.87	-0.00124	PASS
				30	-1.75	-0.00076	PASS
				40	-4.4	-0.00190	PASS
				50	-3.45	-0.00149	PASS
		HCH	VN	-20	/	/	/
				-10	/	/	/
				0	/	/	/
				10	/	/	/
				20	/	/	/
				30	/	/	/
				40	/	/	/
				50	/	/	/
				55	/	/	/



Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband40 (2305-2315MHz)	16QAM/10MHz	LCH	VN	-20	/	/	/
				-10	/	/	/
				0	/	/	/
				10	/	/	/
				20	/	/	/
				30	/	/	/
				40	/	/	/
				50	/	/	/
				55	/	/	/
		MCH	VN	-30	-2.40	-0.00104	PASS
				-20	-2.41	-0.00104	PASS
				-10	-4.19	-0.00181	PASS
				0	-2.6	-0.00112	PASS
				10	-3.73	-0.00161	PASS
				20	0.15	0.00006	PASS
				30	2.93	0.00127	PASS
				40	-2.35	-0.00102	PASS
				50	-1.63	-0.00070	PASS
		HCH	VN	-20	/	/	/
				-10	/	/	/
				0	/	/	/
				10	/	/	/
				20	/	/	/
				30	/	/	/
				40	/	/	/
				50	/	/	/
				55	/	/	/





Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband40 (2350-2360MHz)	QPSK/10MHz	LCH	VN	-20	/	/	/
				-10	/	/	/
				0	/	/	/
				10	/	/	/
				20	/	/	/
				30	/	/	/
				40	/	/	/
				50	/	/	/
				55	/	/	/
		MCH	VN	-30	-1.92	-0.00081	PASS
				-20	-1.91	-0.00081	PASS
				-10	-1.05	-0.00045	PASS
				0	-2.51	-0.00107	PASS
				10	-4.75	-0.00202	PASS
				20	-3.17	-0.00135	PASS
				30	-1.05	-0.00045	PASS
				40	-4.7	-0.00200	PASS
				50	-3.75	-0.00159	PASS
		HCH	VN	-20	/	/	/
				-10	/	/	/
				0	/	/	/
				10	/	/	/
				20	/	/	/
				30	/	/	/
				40	/	/	/
				50	/	/	/
				55	/	/	/



Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband40 (2350-2360MHz)	16QAM/10MHz	LCH	VN	-20	/	/	/
				-10	/	/	/
				0	/	/	/
				10	/	/	/
				20	/	/	/
				30	/	/	/
				40	/	/	/
				50	/	/	/
				55	/	/	/
		MCH	VN	-30	-2.23	-0.00095	PASS
				-20	-2.24	-0.00095	PASS
				-10	-4.02	-0.00171	PASS
				0	-1.43	-0.00061	PASS
				10	-3.56	-0.00151	PASS
				20	0.32	0.00014	PASS
				30	3.1	0.00132	PASS
				40	-2.18	-0.00093	PASS
				50	-1.46	-0.00062	PASS
		HCH	VN	-20	/	/	/
				-10	/	/	/
				0	/	/	/
				10	/	/	/
				20	/	/	/
				30	/	/	/
				40	/	/	/
				50	/	/	/
				55	/	/	/



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Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband41	QPSK/20MHz	LCH	VN	-30	0.72	0.00028	PASS
				-20	0.71	0.00028	PASS
				-10	-0.16	-0.00006	PASS
				0	3.53	0.00141	PASS
				10	2.92	0.00117	PASS
				20	2.79	0.00111	PASS
				30	1.33	0.00053	PASS
				40	0.84	0.00034	PASS
				50	0.99	0.00040	PASS
		MCH	VN	-30	-2.66	-0.00103	PASS
				-20	-2.67	-0.00103	PASS
				-10	-4.81	-0.00185	PASS
				0	-2.27	-0.00088	PASS
				10	-4.51	-0.00174	PASS
				20	-2.93	-0.00113	PASS
				30	-1.81	-0.00070	PASS
				40	-4.46	-0.00172	PASS
				50	-3.51	-0.00135	PASS
		HCH	VN	-30	1.75	0.00065	PASS
				-20	1.74	0.00065	PASS
				-10	-0.33	-0.00012	PASS
				0	2.68	0.00100	PASS
				10	-1.73	-0.00065	PASS
				20	3.79	0.00141	PASS
				30	0.61	0.00023	PASS
				40	-1.52	-0.00057	PASS
				50	-4.26	-0.00159	PASS



Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
LTEband41	16QAM/20MHz	LCH	VN	-30	0.48	0.00020	PASS
				-20	0.49	0.00020	PASS
				-10	-1.36	-0.00054	PASS
				0	4.27	0.00170	PASS
				10	3.83	0.00153	PASS
				20	2.89	0.00115	PASS
				30	1.06	0.00042	PASS
				40	0.85	0.00034	PASS
				50	2.03	0.00081	PASS
		MCH	VN	-30	-2.32	-0.00089	PASS
				-20	-2.31	-0.00089	PASS
				-10	-4.09	-0.00158	PASS
				0	-2.5	-0.00096	PASS
				10	-3.63	-0.00140	PASS
				20	0.25	0.00010	PASS
				30	3.03	0.00117	PASS
				40	-2.25	-0.00087	PASS
				50	-1.53	-0.00059	PASS
		HCH	VN	-30	2.82	0.00106	PASS
				-20	2.83	0.00106	PASS
				-10	-1.16	-0.00043	PASS
				0	2.88	0.00107	PASS
				10	-2.14	-0.00080	PASS
				20	3.97	0.00148	PASS
				30	-0.18	-0.00007	PASS
				40	-1.9	-0.00071	PASS
				50	-3.14	-0.00117	PASS

Note: All modes have been tested and we only record the worst test result.

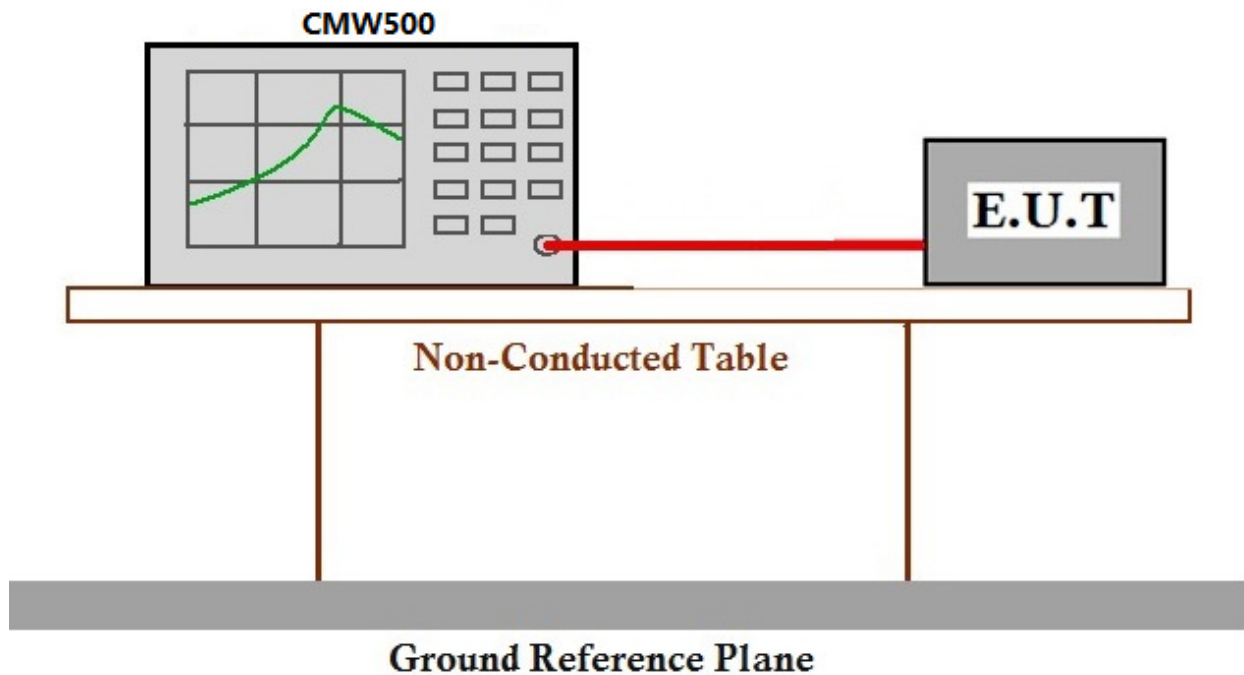
**6.8 Modulation Characteristics**

Test Requirement: §2.1047  
 Test Method: ANSI C63.26, KDB 971 168 D01 v03  
 Limit: Digital modulation

**6.8.1 E.U.T. Operation**

Operating Environment:  
 Temperature: 18.6 °C Humidity: 29.1 % RH Atmospheric Pressure: 1025 mbar  
 Test mode a: Tx mode, Keep the EUT in transmitting mode.

**6.8.2 Test Setup Diagram**

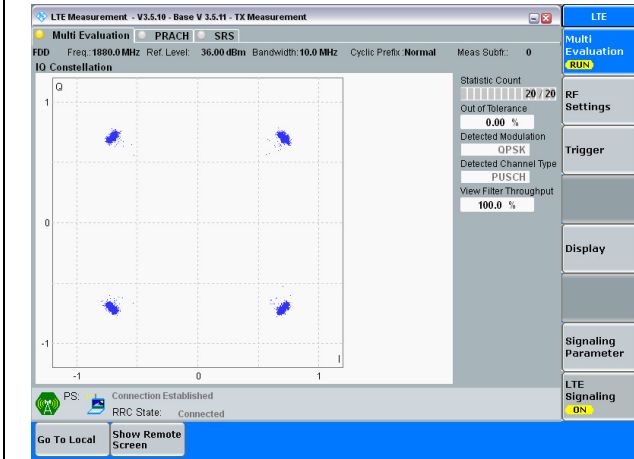


**6.8.3 Measurement Data**

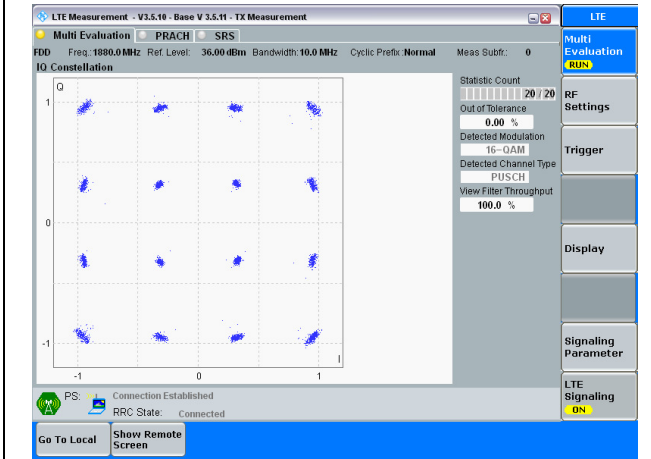


Test Plot

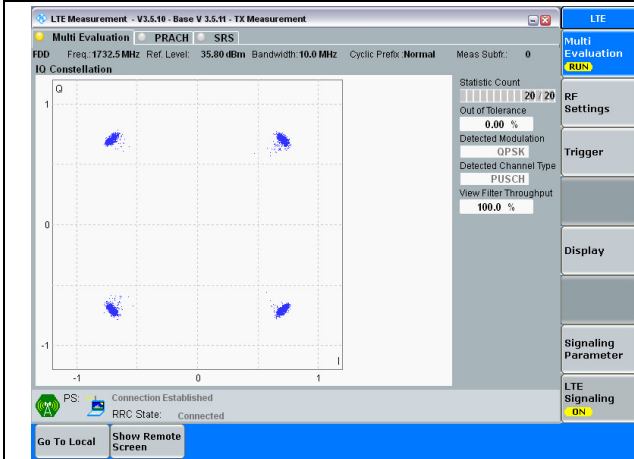
LTE FDD Band 2 QPSK



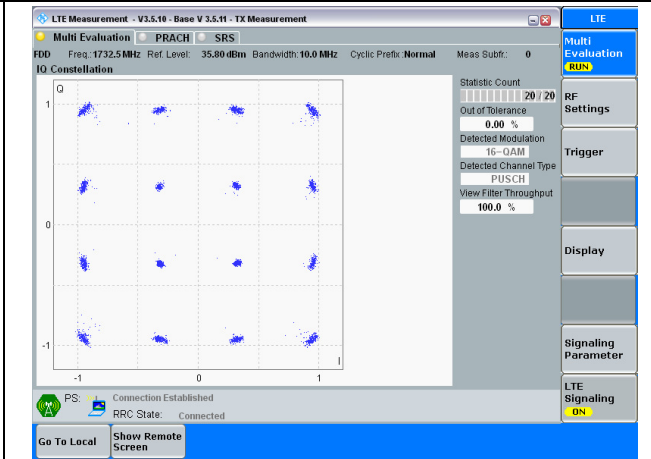
LTE FDD Band 2 16QAM



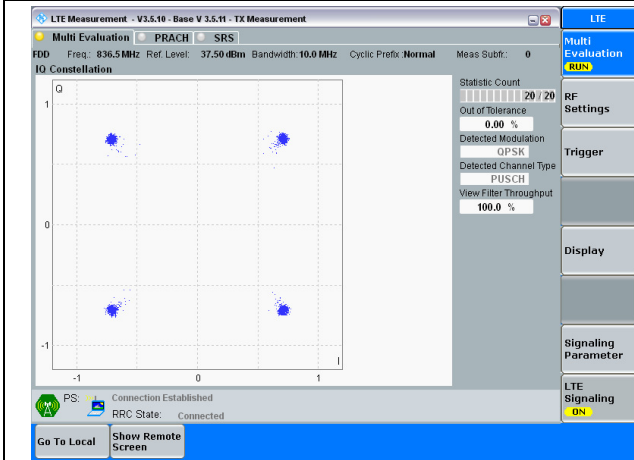
LTE FDD Band 4 QPSK



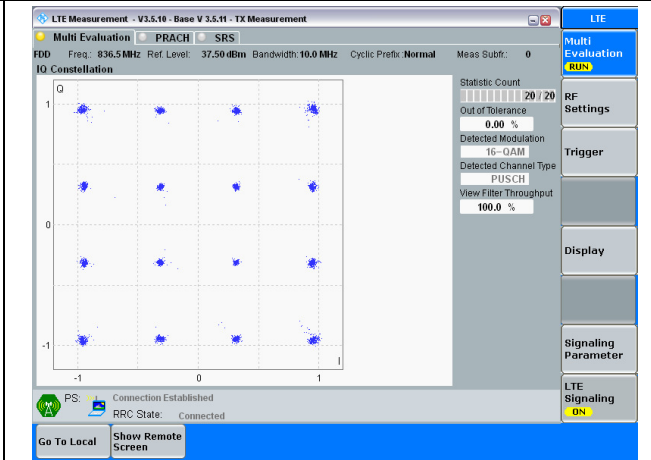
LTE FDD Band 4 16QAM

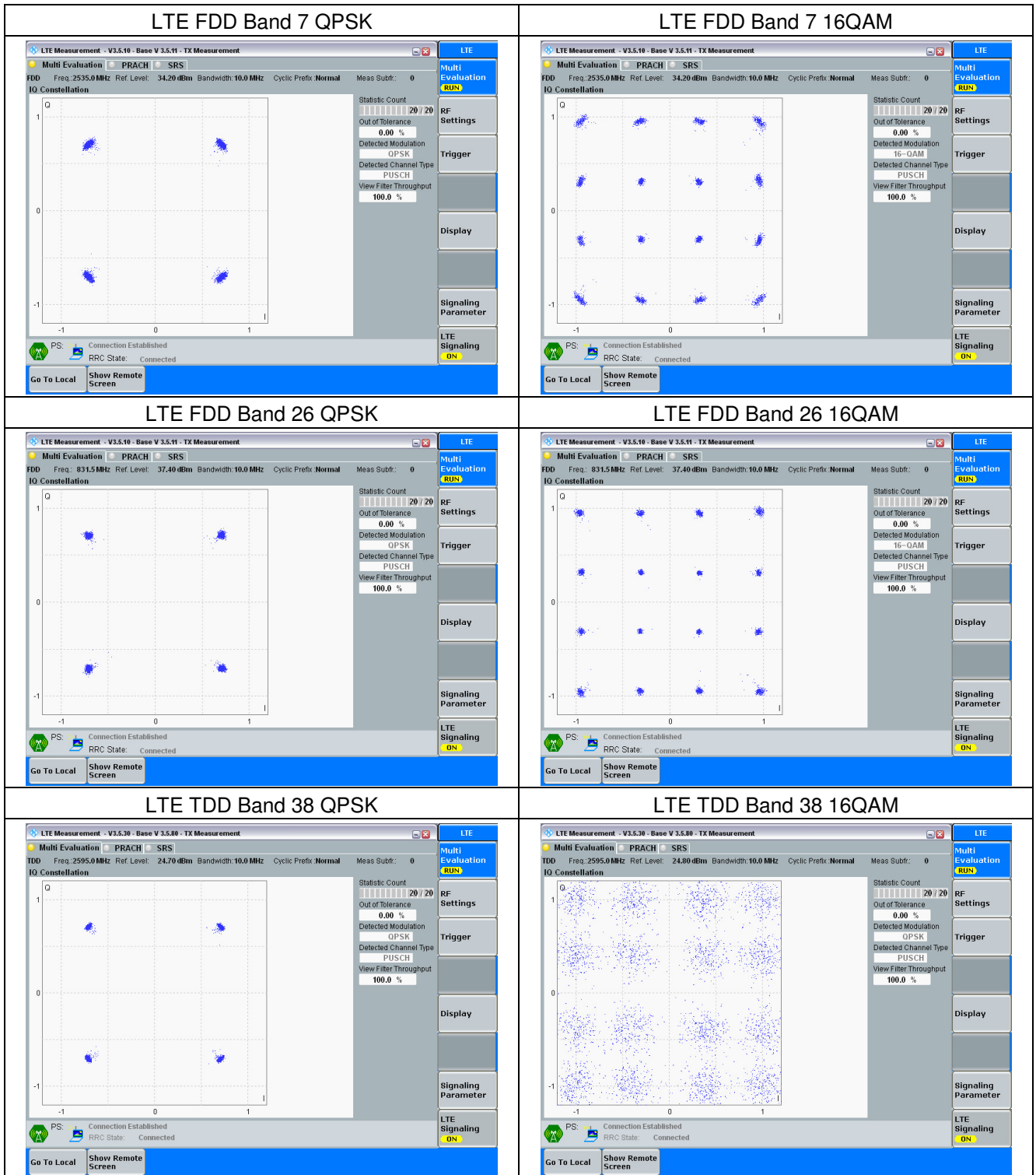


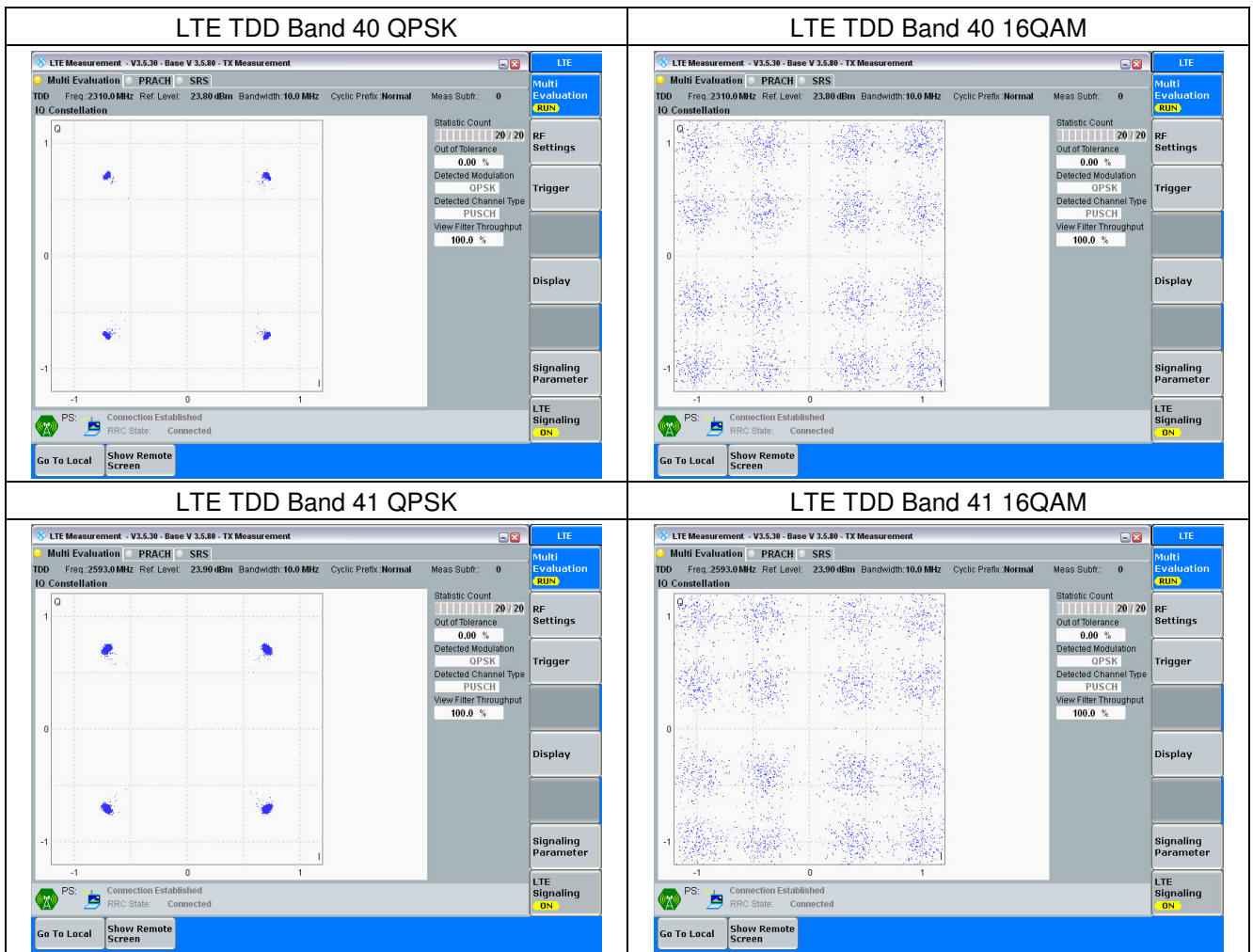
LTE FDD Band 5 QPSK



LTE FDD Band 5 16QAM







- End of the Report -