FCC Part 22H & 24E & 27 F&L Test Report

Product Name	:	Wireless Module
Model No.	:	HL7588
FCC ID	:	N7NHL7588

Applicant	:	Sierra Wireless Technology (SZ) Ltd.
Address	:	2/F Jiuzhou Electronic Building, Southern No.12 Road, Hi-Tech Park. Nanshan, Shenzhen, Guangdong, China, 518057

Date of Receipt	:	May. 24, 2016
Test Date	:	May. 24, 2016~ Jun. 07, 2016
Issued Date	:	Jul. 04 , 2016
Report No.	:	1652086R-HP-US-P07V01
Report Version	:	V 1.2

Test Report Certification

Issued Date : Jul. 04, 2016
Report No. : 1652086R-HP-US-P07V01

Product Name	:	Wireless Module
Applicant	:	Sierra Wireless Technology (SZ) Ltd.
Address	:	2/F Jiuzhou Electronic Building, Southern No.12 Road, Hi-Tech Park. Nanshan, Shenzhen, Guangdong, China, 518057
Manufacturer	:	Sierra Wireless Inc.
Address	:	13811 Wireless Way Richmond, British Columbia, Canada, V6V 3A4.
Model No.	:	HL7588
FCC ID	:	N7NHL7588
EUT Voltage	:	Low: 3.2V, High: 4.5V, Normal: 3.7V
Brand Name	:	AirPrime
Applicable Standard	:	FCC CFR Title 47 Part 2,TIA/EIA 603-C FCC Part 22 Subpart H FCC Part 24 Subpart E FCC Part 27 Subpart H&F&L
Test Result	:	Complied
Performed Location	:	Suzhou EMC Laboratory No.99 Hongye Rd., Suzhou Industrial Park, Suzhou, 215006, Jiangsu, China TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098
Documented By	:	(Vice Supervisor: Kery Zha)
Reviewed By	:	(Senior Engineer: Jack Zhang)
Approved By	:	(Engineering Manager: Harry Zhao)

Laboratory Information

We, **QuieTek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted(audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scope:

Taiwan R.O.C.	**:**	**BSMI, NCC,TAF**
USA	**:**	**FCC**
Japan	**:**	**VCCI**
China	**:**	**CNAS**

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site : http://www.quietek.com/english/about/certificates.aspx?bval=5
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/index_en.aspx
If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

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TABLE OF CONTENTS

History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
1652086R-HP-US-P07V01	V1.0	Initial Issued Report	Jun. 29, 2016
1652086R-HP-US-P07V01	V1.1	Update test mode	Jun. 29, 2016
1652086R-HP-US-P07V01	V1.2	Update WCDMA Band 2 Conducted power	Jul. 04, 2016

1. General Information

1.1. EUT Description

Product Name	Wireless Module
Model No.	HL7588
Brand Name	AirPrime
EUT Voltage	Low: 3.2V, High: 4.5V, Normal: 3.7V
3G	
Support Band	WCDMA Band 2/WCDMA Band 5
Uplink	WCDMA Band 2: 1850~1910MHz WCDMA Band 5: 824~849MHz
Downlink	WCDMA Band 2: 1930~1990MHz WCDMA Band 5: 869~894MHz
Type of modulation	QPSK for Uplink
Antenna Type	Dipole
Antenna Gain	Band 2: 1.3dBi Band 5: 1.2dBi
4G	
Support Band	LTE Band 2/4/5/13/17
Uplink	Band 2: 1850-1910MHz Band 4: 1710~1755MHz Band 5: 824-849MHz Band 13: 777-787MHz Band 17: 704-716MHz
Downlink	Band 2: 1930-1990MHz Band 4: 2110~2155MHz Band 5: 869-894MHz Band 13: 746-756MHz Band 17: 734-746MHz
Type of modulation	QPSK, 16QAM
Antenna Type	Dipole
Antenna Gain	Band 2:1.3 Band 4: 1.3dBi Band 5: 1.2dBi Band 13: 1.2dBi Band 17: 1.2dBi

1.2. Mode of Operation

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: WCDMA Band 2 Link
Mode 2 : WCDMA Band 5 Link
Mode 3: LTE Band 2 Link
Mode 4: LTE Band 4 Link
Mode 5: LTE Band 5 Link
Mode 6: LTE Band 13 Link
Mode 7: LTE Band 17 Link

Note:

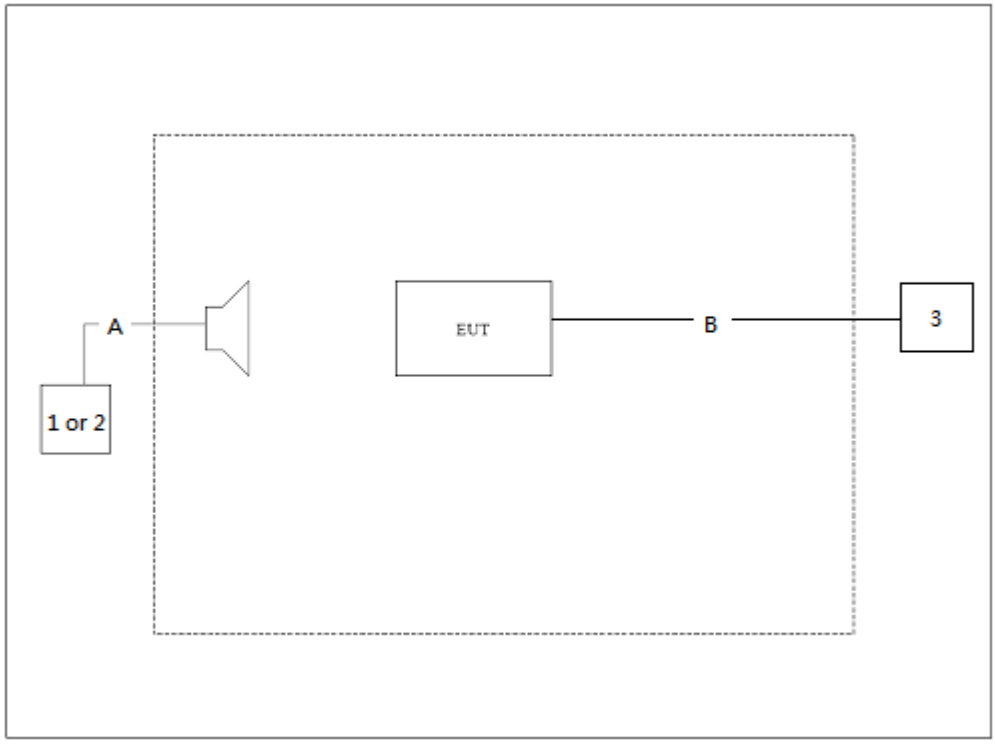
1. Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report. For the LTE band, we also evaluate the each channel of bandwidth, RB offset and modulation, we will choose the worse case shown on this report.

1.3. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Radio Communication Tester	R&S	CMU 200	106388	N/A
2	Radio Communication Tester	Anritsu	MT8820C	6201181503	N/A
3	DC Power Supply	IDRC	CD-035-020PR	977272	N/A

1.4. Configuration of Tested System

Connection Diagram


Signal Cable Type		Signal cable Description
A	Coaxial Cable	Shielded, >5m
B	Control Cable	Non-Shielded, 1.5m

1.5. EUT Exercise Software

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of all equipment.
3	EUT Communicate with MT8820C or CMU200, then select channel to test.

2. Technical Test

2.1. Summary of Test Result

For LTE Band 2/WCDMA Band 2

(FCC Part 24 Subpart E)

Performed Item	FCC Rule	Limit	Result
Maximum Output Power	§2.1033 §2.1046 §24.232	< 2 Watts	Pass
Equivalent Isotropic Radiated Power	§24.232	< 2 Watts	Pass
Occupied Bandwidth	§2.1049	N/A	Pass
Conducted Band Edge Emissions	§27.238	< -13dBm	Pass
Field Strength of Spurious Radiation	§2.1053 §24.238	< -13dBm	Pass
Frequency Stability Under Temperature & Voltage Variations	§2.1055 §24.235	< 2.5 ppm	Pass

For LTE Band 4

(FCC Part 27 Subpart L)

Performed Item	FCC Rule	Limit	Result
Maximum Output Power	§2.1033 §2.1046 §27.50	< 1 Watts	Pass
Equivalent Isotropic Radiated Power	§27.50	< 1 Watts	Pass
Occupied Bandwidth	§2.1049	N/A	Pass
Conducted Band Edge Emissions	§27.50	< -13dBm	Pass
Field Strength of Spurious Radiation	§2.1053 §27.53	< -13dBm	Pass
Frequency Stability Under Temperature & Voltage Variations	§2.1055 §27.54	< 2.5 ppm	Pass

For LTE Band 5/WCDMA Band 5

(FCC Part 22 Subpart H)

Performed Item	FCC Rule	Limit	Result
Maximum Output Power	§2.1033 §2.1046 §22.913	< 7 Watts	Pass
Equivalent Isotropic Radiated Power	§22.913	< 7 Watts	Pass
Occupied Bandwidth	§2.1049	N/A	Pass
Conducted Band Edge Emissions	§22.917	< -13dBm	Pass
Field Strength of Spurious Radiation	§2.1053 §§22.917	< -13dBm	Pass
Frequency Stability Under Temperature & Voltage Variations	§2.1055 §22.335	< 2.5 ppm	Pass

For LTE Band 13

(FCC Part 27 Subpart F)

Performed Item	FCC Rule	Limit	Result
Maximum Output Power	§2.1033 §2.1046 §27.50	< 3 Watts	Pass
Equivalent Isotropic Radiated Power	§27.50	< 3 Watts	Pass
Modulation characteristics	§2.1047	N/A	Pass
Occupied Bandwidth	§2.1049	N/A	Pass
Conducted Band Edge Emissions	§27.50	< -13dBm	Pass
Field Strength of Spurious Radiation	§2.1053 §27.53	< -13dBm	Pass
Frequency Stability Under Temperature & Voltage Variations	§2.1055 §27.54	< 2.5 ppm	Pass

For LTE Band 17

(FCC Part 27 Subpart H)

Performed Item	FCC Rule	Limit	Result
Maximum Output Power	§2.1033 §2.1046 §27.50	< 3 Watts	Pass
Equivalent Isotropic Radiated Power	§27.50	< 3 Watts	Pass
Occupied Bandwidth	§2.1049	N/A	Pass
Conducted Band Edge Emissions	§27.50	< -13 dBm	Pass
Field Strength of Spurious Radiation	§2.1053 §27.53	< -13 dBm	Pass
Frequency Stability Under Temperature & Voltage Variations	§2.1055 §27.54	< 2.5 ppm	Pass

2.2. Test Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	23
Humidity (%RH)	25-75	52
Barometric pressure (mbar)	860-1060	950-1000

3. Maximum Output Power and Effective Isotropic Radiated Power Measurement

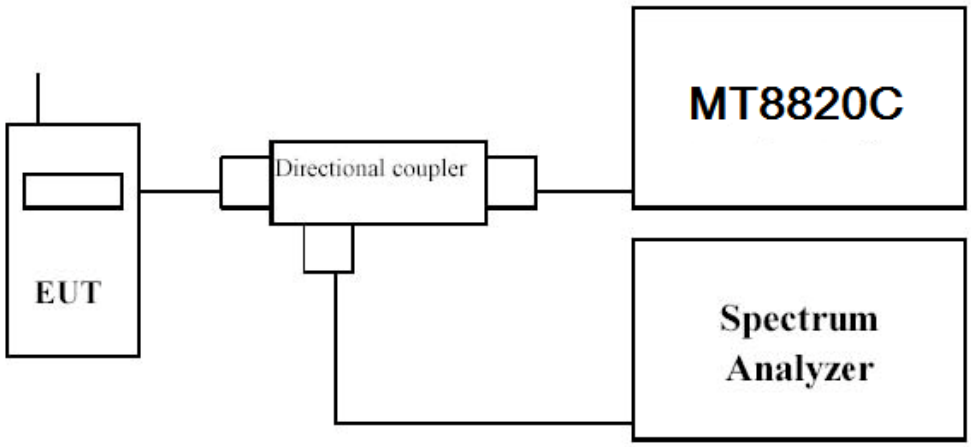
3.1. Test Equipment

Spurious Emission / AC-5

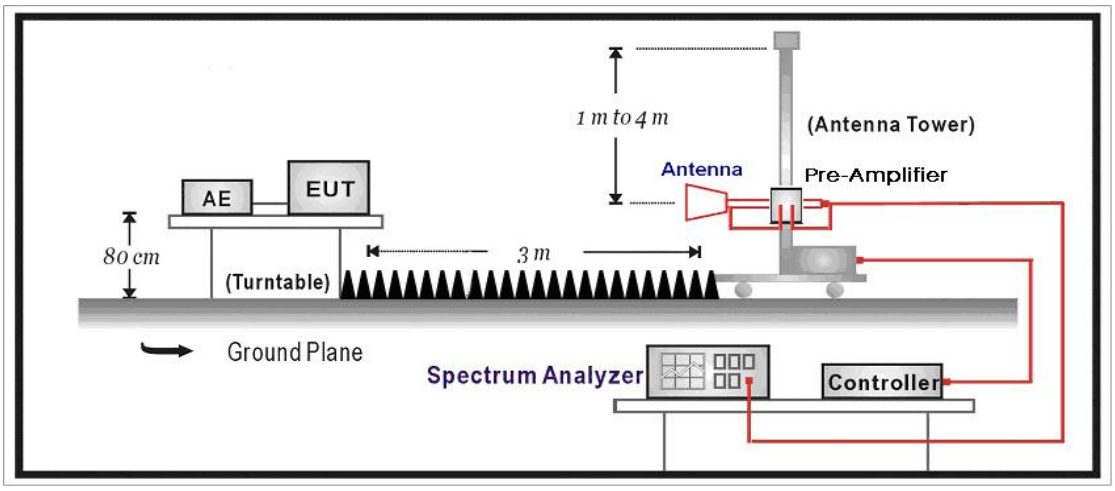
Instrument	Manufacturer	Type No.	Serial No	Cali. Due Date
PSA Series Spectrum Analyzer	Agilent	E4440A	MY49420184	2017.02.04
Radio Communication Tester	Anritsu	MT8820C	6201181503	2016.09.16
Dual Directional Coupler	Agilent	778D	20160	2017.02.04
10dB Coaxial Coupler	Agilent	87300C	MY44300299	2017.03.28
PSG Analog Signal Generator	Agilent	E8257D	MY44321116	2017.02.04
Preamplifier	QuieTek	AP-025C	CHM-0503006	2017.04.11
Preamplifier	Miteq	NSP1800-25	1364185	2017.05.03
Bilog Antenna	Teseq GmbH	CBL6112D	27612	2017.01.23
Half Wave Tuned Dipole Antenna	COM-POWER	AD-100	40137	2017.02.26
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	737	2017.03.06
DRG Horn	ETS-Lindgren	3117	00167055	2016.07.23
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC5-TH	2017.01.05

3.2. Test Setup

Conducted Power Measurement:



Radiated Power Measurement:



3.3. Test Procedure

For Conducted Power Measurement:

a) The RF output of the transmitter was connected to base station simulator.

b) The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement..

c) Set EUT at maximum average power by base station simulator.

d) Measure lowest, middle, and highest channels for each bandwidth and different modulation.

For Effective Isotropic Radiated Power Measurement:

e) The EUT was placed on a turntable with 1.5 meter height in a fully anechoic chamber.
f) The EUT was set at 3 meters from the receiving antenna, which was mounted on the antenna tower
g) LTE operating modes: Set RBW= 100 KHz, VBW= 300 KHz, RMS detector over frame, and use
h) channel power option with bandwidth=5MHz, per section 4.0 of KDB 971168 D01.
i) The table was rotated 360 degrees to determine the position of the highest radiated power.
j) The height of the receiving antenna is adjusted to look for the maximum EIRP.
k) Taking the record of maximum EIRP.
l) A dipole antenna was substituted in place of the EUT and was driven by a signal generator.
m) The conducted power at the terminal of the dipole antenna is measured.
n) Repeat step 3 to step 5 to get the maximum EIRP of the substitution antenna.
o) EIRP = Ps + Et – Es + Gs = Ps + Rt – Rs + Gs.
p) Ps (dBm)：Input power to substitution antenna
q) Gs (dBi or dBd)：Substitution antenna Gain.
r) Et = Rt + AF
s) Es = Rs + AF
t) AF (dB/m)：Receive antenna factor
u) Rt：The highest received signal in spectrum analyzer for EUT.
v) Rs：The highest received signal in spectrum analyzer for substitution antenna.

3.4. Uncertainty

The measurement uncertainty is defined as for Conducted Power Measurement ± 1.2 dB, for Radiated Power Measurement ± 3.2 dB

3.5. Test Result

Product	Wireless Module		
Test Item	Maximum Output Power		
Test Mode	Mode 1: WCDMA Band 2 Link		
Date of Test	2016/06/07	Test Site	TR-8

Mode	3GPP Subtset	Maximum Average Power [dBm]		
		Low Ch. / Freq.	Mid Ch. / Freq.	High Ch. / Freq.
Channel		**9262**	**9400**	**9538**
Frequency		**1852.4**	**1880**	**1907.6**
WCDMA R99	1	24.06	23.97	24.11
Rel5 HSDPA	1	23.93	23.96	24.08
	2	23.91	23.93	24.04
	3	23.44	23.47	23.58
	4	23.46	23.48	23.61
Rel6 HSUPA	1	23.92	23.95	24.03
	2	21.91	21.96	21.99
	3	22.94	22.99	23.02
	4	21.89	21.94	22.01
	5	23.91	23.92	23.99
Rel7 HSPA+	1	23.89	23.92	23.98
Rel8 DC-HSDPA	1	23.87	23.91	23.98
	2	23.86	23.93	23.99
	3	23.37	23.39	23.44
	4	23.39	23.41	23.49

Note: The maximum PAR for WCDMA Band II is 8.1dB less than 13 dB.

Product	Wireless Module		
Test Item	Maximum Output Power		
Test Mode	Mode 2: WCDMA Band 5 Link		
Date of Test	2016/06/07	Test Site	TR-8

Mode	3GPP Subtset	Maximum Average Power [dBm]		
		Low Ch. / Freq.	Mid Ch. / Freq.	High Ch. / Freq.
Channel		4132	4182	4233
Frequency		826.4	836.4	846.6
WCDMA R99	1	23.74	23.86	23.84
Rel5 HSDPA	1	23.44	23.57	23.49
	2	23.43	23.55	23.48
	3	23.01	23.08	23.09
	4	23.02	23.11	23.12
Rel6 HSUPA	1	23.33	23.36	23.41
	2	21.28	21.30	21.35
	3	22.29	22.34	22.37
	4	21.26	21.28	21.31
	5	23.31	23.34	23.39
Rel7 HSPA+	1	23.11	23.15	23.28
Rel8 DC-HSDPA	1	23.19	23.23	23.31
	2	23.17	23.19	23.29
	3	22.87	22.89	22.94
	4	22.81	22.83	22.89

Product	Wireless Module		
Test Item	Maximum Output Power		
Test Mode	Mode 3: LTE Band 2 Link		
Date of Test	2016/06/07	Test Site	TR-8

BW [MHz]	RB Size	RB Offset	Mod	Maximum Average Power [dBm]		
				Low Ch. / Freq.	Mid Ch. / Freq.	High Ch. / Freq.
Channel				18700	18900	19100
Frequency				1860	1880	1900
20	1	0	QPSK	23.91	23.76	23.98
20	1	49		23.34	23.50	23.6
20	1	99		23.15	23.56	22.97
20	50	0		23.00	23.25	23.4
20	50	24		22.75	23.04	23.16
20	50	49		22.74	23.11	22.86
20	100	0		22.92	23.16	23.19
20	1	0	16-QAM	23.48	23.23	23.51
20	1	49		22.91	23.08	23.12
20	1	99		22.93	23.06	22.41
20	50	0		22.14	22.69	22.98
20	50	24		21.98	22.57	22.61
20	50	49		21.97	22.59	22.31
20	100	0		22.05	22.49	22.33
Channel				18675	18900	19125
Frequency				1857.5	1880	1902.5
15	1	0	QPSK	23.84	24.01	24.21
15	1	37		23.38	23.84	23.57
15	1	74		23.41	23.92	23.32
15	36	0		22.90	23.22	23.38
15	36	18		22.74	23.02	23.19
15	36	37		22.69	23.13	22.92
15	75	0		22.97	23.23	23.19
15	1	0	16-QAM	23.41	23.49	23.72
15	1	37		23.00	23.32	23.09
15	1	74		23.13	23.43	22.88
15	36	0		22.15	22.59	22.81

15	36	18		21.95	22.57	22.60
15	36	37		21.98	22.62	22.41
15	75	0		21.97	22.71	22.62
Channel				**18650**	**18900**	**19150**
Frequency				**1855**	**1880**	**1905**
10	1	0		23.45	23.90	24.11
10	1	24		23.22	23.79	23.58
10	1	49		23.26	23.61	23.45
10	25	0	QPSK	22.68	23.03	23.31
10	25	12		22.55	23.05	23.60
10	25	24		22.68	23.04	22.98
10	50	0		22.74	23.05	23.20
10	1	0		22.83	23.42	23.63
10	1	24		22.66	23.21	23.01
10	1	49		22.72	23.10	22.94
10	25	0	16-QAM	22.11	22.52	22.82
10	25	12		22.13	22.51	23.06
10	25	24		22.21	22.52	22.11
10	50	0		22.13	22.51	22.23
Channel				**18625**	**18900**	**19175**
Frequency				**1852.5**	**1880**	**1907.5**
5	1	0		23.33	23.74	23.98
5	1	12		23.32	23.79	23.58
5	1	24		23.22	23.64	23.45
5	12	0	QPSK	22.74	23.06	23.31
5	12	6		22.67	23.03	23.60
5	12	11		22.69	22.96	22.98
5	25	0		22.68	23.01	23.20
5	1	0		22.81	23.23	23.69
5	1	12		22.77	23.27	23.04
5	1	24		22.69	23.11	22.91
5	12	0	16-QAM	22.21	22.58	22.83
5	12	6		22.18	22.52	23.12
5	12	11		22.11	22.41	22.41
5	25	0		22.12	22.50	22.59
Channel				**18615**	**18900**	**19185**
Frequency				**1851.5**	**1880**	**1908.5**

3	1	0	QPSK	23.38	23.79	23.65
3	1	7		23.39	23.78	23.44
3	1	14		23.26	23.69	23.26
3	8	0		22.76	23.01	22.81
3	8	4		22.75	23.07	22.76
3	8	7		22.72	23.05	22.69
3	15	0		22.79	23.06	22.77
3	1	0	16-QAM	22.86	23.25	23.25
3	1	7		22.81	23.23	22.84
3	1	14		22.73	23.17	22.16
3	8	0		22.22	22.55	22.61
3	8	4		22.21	22.51	22.46
3	8	7		22.29	22.52	22.29
3	15	0		22.21	22.53	22.37
Channel				**18607**	**18900**	**19193**
Frequency				**1850.7**	**1880**	**1909.3**
1.4	1	0	QPSK	23.33	23.79	23.68
1.4	1	2		23.29	23.79	23.51
1.4	1	5		23.35	23.97	23.39
1.4	3	0		23.39	23.97	23.51
1.4	3	1		23.40	23.90	23.44
1.4	3	2		23.31	23.88	23.41
1.4	6	0		22.49	23.02	22.66
1.4	1	0	16-QAM	22.73	23.25	23.12
1.4	1	2		22.39	23.24	23.09
1.4	1	5		22.65	23.43	22.85
1.4	3	0		22.59	23.42	23.03
1.4	3	1		22.19	23.44	22.92
1.4	3	2		22.83	23.31	22.98
1.4	6	0		21.92	22.53	22.14

Product	Wireless Module		
Test Item	Maximum Output Power		
Test Mode	Mode 4: LTE Band 4 Link		
Date of Test	2016/06/07	Test Site	TR-8

BW [MHz]	RB Size	RB Offset	Mod	Maximum Average Power [dBm]		
				Low Ch. / Freq.	Mid Ch. / Freq.	High Ch. / Freq.
Channel				20050	20175	20300
Frequency				1720	1732.5	1745
20	1	0	QPSK	23.32	23.71	23.94
20	1	49		22.68	22.89	23.42
20	1	99		22.81	23.06	23.48
20	50	0		22.62	23.12	23.21
20	50	24		22.46	22.95	23.05
20	50	49		22.78	23.02	22.99
20	100	0		22.60	23.11	23.23
20	1	0	16-QAM	22.86	23.27	23.41
20	1	49		22.15	22.31	22.94
20	1	99		22.33	22.52	22.91
20	50	0		22.11	22.71	22.73
20	50	24		21.94	22.43	22.51
20	50	49		22.21	22.51	22.42
20	100	0		22.18	22.62	22.71
Channel				20025	20175	20325
Frequency				1717.5	1732.5	1747.5
15	1	0	QPSK	23.56	23.51	23.55
15	1	37		23.19	22.96	23.22
15	1	74		23.26	23.10	23.32
15	36	0		21.99	23.21	23.30
15	36	18		21.81	23.02	23.09
15	36	37		21.82	23.00	23.23
15	75	0		21.91	22.93	23.40
15	1	0	16-QAM	23.02	23.03	22.93
15	1	37		22.67	22.42	22.79
15	1	74		22.75	22.67	22.86
15	36	0		21.42	22.73	22.87

15	36	18		21.33	22.56	22.61
15	36	37		21.36	22.61	22.71
15	75	0		21.47	22.35	22.85
Channel				**20000**	**20175**	**20350**
Frequency				**1715**	**1732.5**	**1750**
10	1	0		23.53	23.53	23.62
10	1	24		23.01	23.29	23.31
10	1	49		23.18	23.32	23.34
10	25	0	QPSK	22.85	22.95	23.36
10	25	12		21.79	22.86	23.16
10	25	24		21.89	22.79	23.27
10	50	0		21.86	22.80	23.24
10	1	0		23.01	23.02	23.15
10	1	24		22.54	22.74	22.84
10	1	49		22.61	22.81	22.81
10	25	0	16-QAM	22.32	22.43	22.88
10	25	12		21.26	22.39	22.69
10	25	24		21.32	22.25	22.71
10	50	0		21.31	22.31	22.71
Channel				**19975**	**20175**	**20375**
Frequency				**1712.5**	**1732.5**	**1752.5**
5	1	0		23.01	23.59	23.42
5	1	12		22.98	23.42	23.37
5	1	24		23.09	23.48	23.08
5	12	0	QPSK	22.85	22.91	23.22
5	12	6		22.92	22.93	23.27
5	12	11		22.77	22.99	23.19
5	25	0		22.68	22.82	23.22
5	1	0		22.61	23.03	22.91
5	1	12		22.42	22.97	22.83
5	1	24		22.51	22.94	22.51
5	12	0	16-QAM	22.33	22.46	22.74
5	12	6		22.41	22.44	22.75
5	12	11		22.24	22.45	22.66
5	25	0		22.16	22.37	22.77
Channel				**19965**	**20175**	**20385**
Frequency				**1711.5**	**1732.5**	**1753.5**

3	1	0	QPSK	22.92	23.62	23.31
3	1	7		22.90	23.41	23.39
3	1	14		23.07	23.46	23.20
3	8	0		22.88	22.92	23.31
3	8	4		22.96	22.88	23.25
3	8	7		22.89	22.86	23.19
3	15	0		22.93	22.91	23.23
3	1	0	16-QAM	22.43	23.16	22.82
3	1	7		22.47	22.97	22.87
3	1	14		22.51	22.95	22.74
3	8	0		22.32	22.47	22.82
3	8	4		22.43	22.34	22.73
3	8	7		22.31	22.31	22.65
3	15	0		22.42	22.45	22.71
Channel				**19957**	**20175**	**20393**
Frequency				**1710.7**	**1732.5**	**1754.3**
1.4	1	0	QPSK	23.18	23.53	23.27
1.4	1	2		23.21	23.41	23.24
1.4	1	5		23.26	23.45	23.13
1.4	3	0		23.22	23.46	23.45
1.4	3	1		23.19	23.39	23.41
1.4	3	2		23.23	23.42	23.38
1.4	6	0		23.04	22.83	23.23
1.4	1	0	16-QAM	22.66	23.08	22.75
1.4	1	2		22.73	22.96	22.71
1.4	1	5		22.74	22.97	22.68
1.4	3	0		22.75	22.99	22.99
1.4	3	1		22.67	22.81	22.95
1.4	3	2		22.76	22.95	22.84
1.4	6	0		22.51	22.31	22.71

Product	Wireless Module		
Test Item	Maximum Output Power		
Test Mode	Mode 5: LTE Band 5 Link		
Date of Test	2016/06/07	Test Site	TR-8

BW [MHz]	RB Size	RB Offset	Mod	Maximum Average Power [dBm]		
				Low Ch. / Freq.	Mid Ch. / Freq.	High Ch. / Freq.
Channel				20450	20525	20600
Frequency				829	836.5	844
10	1	0	QPSK	23.46	23.33	23.21
10	1	24		23.39	23.18	23.11
10	1	49		23.25	23.16	23.09
10	25	0		23.22	23.11	23.05
10	25	12		23.28	23.24	23.15
10	25	24		23.19	23.09	23.04
10	50	0		23.23	23.17	23.11
10	1	0	16-QAM	22.91	22.82	22.73
10	1	24		22.83	22.61	22.66
10	1	49		22.74	22.64	22.54
10	25	0		22.79	22.63	22.51
10	25	12		22.75	22.72	22.63
10	25	24		22.61	22.55	22.52
10	50	0		22.72	22.61	22.65
Channel				20425	20525	20625
Frequency				826.5	836.5	846.5
5	1	0	QPSK	23.42	23.32	23.23
5	1	12		23.33	23.17	23.12
5	1	24		23.21	23.11	23.01
5	12	0		23.20	23.13	23.04
5	12	6		23.22	23.22	23.11
5	12	11		23.14	23.01	23.03
5	25	0		23.21	23.15	23.12
5	1	0	16-QAM	22.98	22.83	22.77
5	1	12		22.84	22.66	22.61
5	1	24		22.75	22.65	22.55
5	12	0		22.76	22.61	22.53

5	12	6		22.78	22.74	22.65
5	12	11		22.65	22.53	22.51
5	25	0		22.72	22.62	22.69
Channel				**20415**	**20525**	**20635**
Frequency				**825.5**	**836.5**	**847.5**
3	1	0		23.43	23.34	23.22
3	1	7		23.33	23.15	23.17
3	1	14		23.26	23.11	23.02
3	8	0	QPSK	23.27	23.13	23.01
3	8	4		23.21	23.28	23.13
3	8	7		23.12	23.01	23.02
3	15	0		23.22	23.08	23.19
3	1	0		22.95	22.83	22.71
3	1	7		22.87	22.66	22.63
3	1	14		22.78	22.65	22.57
3	8	0	16-QAM	22.74	22.64	22.54
3	8	4		22.73	22.74	22.65
3	8	7		22.65	22.56	22.59
3	15	0		22.71	22.52	22.66
Channel				**80407**	**20525**	**20643**
Frequency				**824.7**	**836.5**	**848.3**
1.4	1	0		23.41	23.32	23.25
1.4	1	2		23.32	23.16	23.16
1.4	1	5		23.21	23.11	23.04
1.4	3	0	QPSK	23.23	23.19	23.02
1.4	3	1		23.27	23.25	23.11
1.4	3	2		23.15	23.04	23.03
1.4	6	0		23.24	23.11	23.17
1.4	1	0		22.97	22.87	22.73
1.4	1	2		22.84	22.68	22.65
1.4	1	5		22.73	22.66	22.54
1.4	3	0	16-QAM	22.74	22.61	22.56
1.4	3	1		22.72	22.74	22.62
1.4	3	2		22.65	22.52	22.55
1.4	6	0		22.79	22.63	22.68

Product	Wireless Module		
Test Item	Maximum Output Power		
Test Mode	Mode 6: LTE Band 13 Link		
Date of Test	2016/06/07	Test Site	TR-8

BW [MHz]	RB Size	RB Offset	Mod	Maximum Average Power [dBm]		
				Low Ch. / Freq.	Mid Ch. / Freq.	High Ch. / Freq.
Channel				23205	23230	23255
Frequency				779.5	782	784.5
5	1	0	QPSK	23.96	23.96	24.02
5	1	12		23.95	24.03	23.91
5	1	24		23.99	23.91	23.88
5	12	0		23.16	23.36	23.35
5	12	6		23.08	23.15	23.26
5	12	11		23.13	23.22	23.29
5	25	0		23.21	23.25	23.21
5	1	0	16-QAM	23.52	23.43	23.55
5	1	12		23.48	23.54	23.44
5	1	24		23.41	23.47	23.33
5	12	0		22.34	22.84	22.89
5	12	6		22.37	22.61	22.71
5	12	11		22.40	22.73	22.72
5	25	0		22.27	22.79	22.74
Channel				/	23230	/
Frequency				/	782	/
10	1	0	QPSK	/	23.82	/
10	1	24		/	23.79	/
10	1	49		/	23.31	/
10	25	0		/	23.34	/
10	25	12		/	23.23	/
10	25	24		/	23.15	/
10	50	0		/	23.32	/
10	1	0	16-QAM	/	23.36	/
10	1	24		/	23.24	/
10	1	49		/	22.82	/
10	25	0		/	22.83	/

10	25	12		/	22.75	/
10	25	24		/	22.64	/
10	50	0		/	22.83	/

Product	Wireless Module		
Test Item	Maximum Output Power		
Test Mode	Mode 7: LTE Band 17 Link		
Date of Test	2016/06/07	Test Site	TR-8

Channel				23780	23790	23800
Frequency				709	710	711
10	1	0	QPSK	23.72	23.43	23.38
10	1	24		23.46	23.14	23.15
10	1	49		23.38	23.08	23.06
10	25	0		23.42	23.14	23.17
10	25	12		23.37	23.08	23.06
10	25	24		23.19	22.91	22.94
10	50	0		23.05	22.81	22.76
10	1	0	16-QAM	22.56	22.33	22.24
10	1	24		22.36	22.13	22.03
10	1	49		22.23	22.02	22.00
10	25	0		22.32	22.02	22.09
10	25	12		22.27	22.01	21.94
10	25	24		22.13	21.82	21.87
10	50	0		21.97	21.71	21.62
Channel				23755	23790	23825
Frequency				706.5	710	713.5
5	1	0	QPSK	23.58	23.28	23.23
5	1	12		23.26	22.95	22.98
5	1	24		23.24	22.86	22.91
5	12	0		23.26	22.95	22.96
5	12	6		23.15	22.92	22.85
5	12	11		23.01	22.69	22.75
5	25	0		22.90	22.63	22.60
5	1	0	16-QAM	22.48	22.12	22.11
5	1	12		22.14	21.88	21.88
5	1	24		22.17	21.80	21.85
5	12	0		22.17	21.87	21.85
5	12	6		22.03	21.84	21.76
5	12	11		21.91	21.56	21.63
5	25	0		21.83	21.59	21.51

Note: All conducted measurements are based on a RMS detector.

Product	Wireless Module		
Test Item	Effective Isotropic Radiated Power		
Test Mode	Mode 1: WCDMA Band 2 Link		
Date of Test	2016/06/07	Test Site	AC-5

WCDMA Band 2 Radiated Power EIRP				
WCDMA Band	**Modulation**	**Channel**	**EIRP (dBm)**	**Freq. (MHz)**
2	QPSK	Low	1852.4	23.44
2	QPSK	Mid	1880.0	23.51
2	QPSK	High	1907.6	23.69

Product	Wireless Module		
Test Item	Effective Radiated Power		
Test Mode	Mode 2: WCDMA Band 5 Link		
Date of Test	2016/06/07	Test Site	AC-5

WCDMA Band 5 Radiated Power ERP				
WCDMA Band	**Modulation**	**Channel**	**EIRP (dBm)**	**Freq. (MHz)**
5	QPSK	Low	826.4	24.11
5	QPSK	Mid	836.4	24.22
5	QPSK	High	846.6	24.23

Product	Wireless Module		
Test Item	Effective Isotropic Radiated Power		
Test Mode	Mode 3: LTE Band 2 Link		
Date of Test	2016/06/07	Test Site	AC-5

LTE Band 2 Radiated Power EIRP							
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Channel	Freq. (MHz)	EIRP (dBm)
			RB Size	RB Offset			
2	20	QPSK	1	0	Low	1860	24.17
2	20	QPSK	1	0	Mid	1880	23.44
2	20	QPSK	1	0	High	1900	23.54
2	20	16QAM	1	0	Low	1860	23.90
2	20	16QAM	1	0	Mid	1880	23.98
2	20	16QAM	1	0	High	1900	24.08
2	15	QPSK	1	0	Low	1857.5	24.77
2	15	QPSK	1	0	Mid	1880.0	24.84
2	15	QPSK	1	0	High	1902.5	24.91
2	15	16QAM	1	0	Low	1857.5	24.25
2	15	16QAM	1	0	Mid	1880.0	24.33
2	15	16QAM	1	0	High	1902.5	24.41
2	10	QPSK	1	0	Low	1855	24.17
2	10	QPSK	1	0	Mid	1880	24.56
2	10	QPSK	1	0	High	1905	25.03
2	10	16QAM	1	0	Low	1855	24.40
2	10	16QAM	1	0	Mid	1880	23.56
2	10	16QAM	1	0	High	1905	23.83
2	5	QPSK	1	0	Low	1852.5	24.46
2	5	QPSK	1	0	Mid	1880	23.94
2	5	QPSK	1	0	High	1907.5	24.82
2	5	16QAM	1	0	Low	1852.5	24.23

2	5	16QAM	1	0	Mid	1880	23.64
2	5	16QAM	1	0	High	1907.5	23.69
2	3	QPSK	1	0	Low	1851.5	23.83
2	3	QPSK	1	0	Mid	1880	24.47
2	3	QPSK	1	0	High	1908.5	24.25
2	3	16QAM	1	0	Low	1851.5	23.35
2	3	16QAM	1	0	Mid	1880	23.48
2	3	16QAM	1	0	High	1908.5	23.70
2	1.4	QPSK	1	0	Low	1850.7	24.61
2	1.4	QPSK	1	0	Mid	1880	23.89
2	1.4	QPSK	1	0	High	1909.3	24.04
2	1.4	16QAM	1	0	Low	1850.7	24.20
2	1.4	16QAM	1	0	Mid	1880	24.29
2	1.4	16QAM	1	0	High	1909.3	23.80

Note: For EIRP test, we have evaluated all the and RB size and Offset in each channel, we choose the worse data shown in the report.

Product	Wireless Module		
Test Item	Effective Isotropic Radiated Power		
Test Mode	Mode 4: LTE Band 4 Link		
Date of Test	2016/06/07	Test Site	AC-5

LTE Band 4 Radiated Power EIRP							
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Channel	EIRP (dBm)	Freq. (MHz)
			RB Size	RB Offset			
4	20	QPSK	1	0	Low	1720.0	24.08
4	20	QPSK	1	0	Mid	1723.5	24.12
4	20	QPSK	1	0	High	1745.0	24.21
4	20	16QAM	1	0	Low	1720.0	23.79
4	20	16QAM	1	0	Mid	1723.5	23.85
4	20	16QAM	1	0	High	1745.0	23.96
4	15	QPSK	1	0	Low	1717.5	23.69
4	15	QPSK	1	0	Mid	1732.5	23.60
4	15	QPSK	1	0	High	1747.5	23.42
4	15	16QAM	1	0	Low	1717.5	22.84
4	15	16QAM	1	0	Mid	1732.5	22.94
4	15	16QAM	1	0	High	1747.5	23.38
4	10	QPSK	1	0	Low	1715	23.58
4	10	QPSK	1	0	Mid	1732.5	23.61
4	10	QPSK	1	0	High	1750	23.87
4	10	16QAM	1	0	Low	1715	22.86
4	10	16QAM	1	0	Mid	1732.5	23.77
4	10	16QAM	1	0	High	1750	23.32
4	5	QPSK	1	0	Low	1712.5	23.51
4	5	QPSK	1	0	Mid	1732.5	23.81
4	5	QPSK	1	0	High	1752.5	23.47
4	5	16QAM	1	0	Low	1712.5	22.98

4	5	16QAM	1	0	Mid	1732.5	23.82
4	5	16QAM	1	0	High	1752.5	23.84
4	3	QPSK	1	0	Low	1711.5	23.58
4	3	QPSK	1	0	Mid	1732.5	24.08
4	3	QPSK	1	0	High	1753.5	23.43
4	3	16QAM	1	0	Low	1711.5	23.10
4	3	16QAM	1	0	Mid	1732.5	23.19
4	3	16QAM	1	0	High	1753.5	23.86
4	1.4	QPSK	1	0	Low	1710.7	23.57
4	1.4	QPSK	1	0	Mid	1732.5	23.84
4	1.4	QPSK	1	0	High	1754.3	23.97
4	1.4	16QAM	1	0	Low	1710.7	23.33
4	1.4	16QAM	1	0	Mid	1732.5	23.48
4	1.4	16QAM	1	0	High	1754.3	23.86

Note: For EIRP test, we have evaluated all the and RB size and Offset in each channel, we choose the worse data shown in the report.

Product	Wireless Module		
Test Item	Effective Radiated Power		
Test Mode	Mode 5: LTE Band 5 Link		
Date of Test	2016/06/07	Test Site	AC-5

LTE Band 5 Radiated Power ERP							
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Channel	EIRP (dBm)	Freq. (MHz)
			RB Size	RB Offset			
5	10	QPSK	1	0	Low	829	24.26
5	10	QPSK	1	0	Mid	836.5	24.19
5	10	QPSK	1	0	High	844	24.03
5	10	16QAM	1	0	Low	829	23.56
5	10	16QAM	1	0	Mid	836.5	23.49
5	10	16QAM	1	0	High	844	23.41
5	5	QPSK	1	0	Low	826.5	24.19
5	5	QPSK	1	0	Mid	836.5	23.71
5	5	QPSK	1	0	High	846.5	23.74
5	5	16QAM	1	0	Low	826.5	23.51
5	5	16QAM	1	0	Mid	836.5	23.08
5	5	16QAM	1	0	High	846.5	22.57
5	3	QPSK	1	0	Low	825.5	23.63
5	3	QPSK	1	0	Mid	836.5	23.25
5	3	QPSK	1	0	High	847.5	23.58
5	3	16QAM	1	0	Low	825.5	22.57
5	3	16QAM	1	0	Mid	836.5	22.61
5	3	16QAM	1	0	High	847.5	22.51
5	1.4	QPSK	1	0	Low	824.7	23.55
5	1.4	QPSK	1	0	Mid	836.5	23.20
5	1.4	QPSK	1	0	High	848.3	23.58

5	1.4	16QAM	1	0	Low	824.7	23.28
5	1.4	16QAM	1	0	Mid	836.5	22.58
5	1.4	16QAM	1	0	High	848.3	22.98

Note: For ERP test, we have evaluated all the bandwidth and RB size and Offset in each channel, we choose the worse data shown in the report.

Product	Wireless Module		
Test Item	Effective Radiated Power		
Test Mode	Mode 6: LTE Band 13 Link		
Date of Test	2016/06/07	Test Site	AC-5

LTE Band 13 Radiated Power ERP							
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Channel	EIRP (dBm)	Freq. (MHz)
			RB Size	RB Offset			
13	10	QPSK	1	0	Mid	23230	24.02
13	10	16QAM	1	0	Mid	23230	22.51
13	5	QPSK	1	12	Low	779.5	24.33
13	5	QPSK	1	12	Mid	782	24.56
13	5	QPSK	1	12	High	784.5	24.41
13	5	16QAM	1	12	Low	779.5	23.79
13	5	16QAM	1	12	Mid	782	23.91
13	5	16QAM	1	12	High	784.5	23.83

Note: For ERP test, we have evaluated all the and RB size and Offset in each channel, we choose the worse data shown in the report.

Product	Wireless Module		
Test Item	Effective Radiated Power		
Test Mode	Mode 7: LTE Band 17 Link		
Date of Test	2016/06/07	Test Site	AC-5

LTE Band 17 Radiated Power ERP							
LTE Band	Channel BW (MHz)	Modulation	RB Configuration		Channel	EIRP (dBm)	Freq. (MHz)
			RB Size	RB Offset			
17	10	QPSK	1	0	Low	709	24.52
17	10	QPSK	1	0	Mid	710	24.31
17	10	QPSK	1	0	High	711	24.12
17	10	16QAM	1	0	Low	709	23.09
17	10	16QAM	1	0	Mid	710	23.01
17	10	16QAM	1	0	High	711	22.98
17	5	QPSK	1	0	Low	706.5	24.25
17	5	QPSK	1	0	Mid	710	23.60
17	5	QPSK	1	0	High	713.5	23.19
17	5	16QAM	1	0	Low	706.5	22.64
17	5	16QAM	1	0	Mid	710	22.22
17	5	16QAM	1	0	High	713.5	22.58

Note: For ERP test, we have evaluated all the RB size and Offset in each channel, we choose the worse data shown in the report.

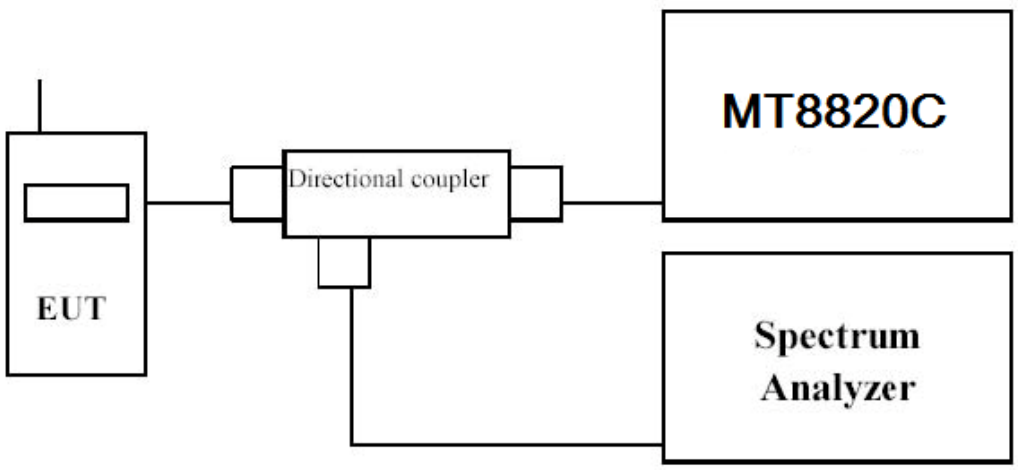
4. Occupied Bandwidth

4.1. Test Equipment

Occupied Bandwidth / AC-6

Instrument	Manufacturer	Type No.	Serial No	Cali. Due Date
PSA Series Spectrum Analyzer	Agilent	E4440A	MY49420184	2017.02.04
Radio Communication Tester	Anritsu	MT8820C	6201181503	2016.09.16
Dual Directional Coupler	Agilent	778D	20160	2017.02.04
10dB Coaxial Coupler	Agilent	87300C	MY44300299	2017.03.28
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC6-TH	2017.01.05

4.2. Test Setup



4.3. Test Procedure

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. The 99% occupied bandwidth and 26 dB bandwidth of the middle channel for the highest RF powers were measured.

4.4. Uncertainty

The measurement uncertainty is defined as ± 10 Hz

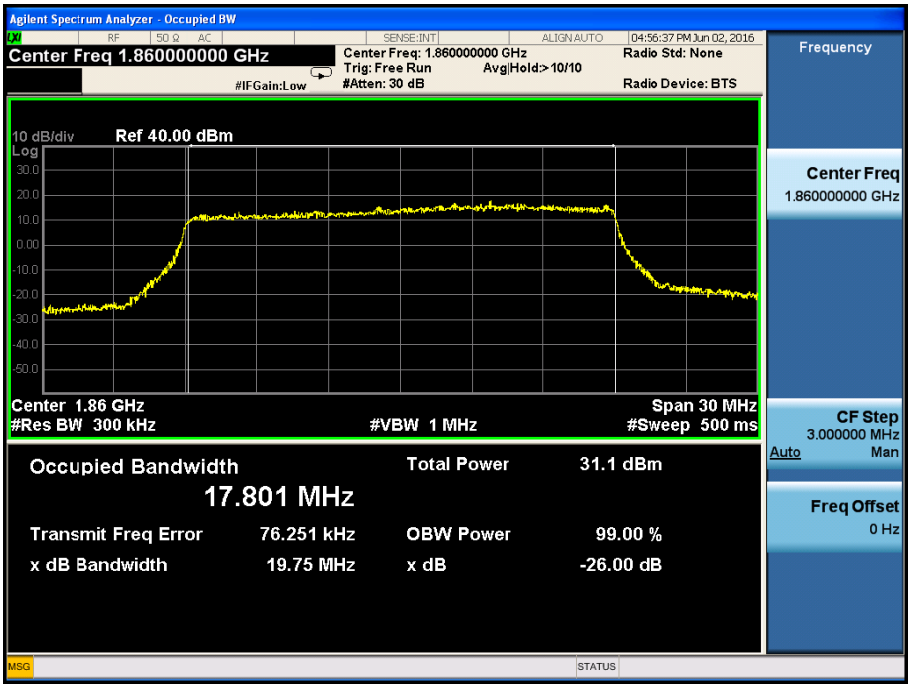
4.5. Test Result

Product	Wireless Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1-7(QPSK)		
Date of Test	2016/06/07	Test Site	AC6

Mode	Bandwidth (MHz)	Channel No.	Frequency (MHz)	99% Occupied Bandwidth (kHz)	-26dB Occupied Bandwidth (kHz)
WCDMA Band 2	5	9262	1852.4	4069.7	4642.0
		9400	1880	4089.0	4660.0
		9538	1907.6	4079.6	4625.0
WCDMA Band 5	5	4132	826.4	4075.3	4620.0
		4182	836.4	4069.8	4627.0
		4233	846.6	4065.8	4625.0
LTE Band 2	20	18700	1860	17801.0	19750
		18900	1880	17842.0	19535
		19100	1900	17867.0	19585
	15	18675	1857.5	13443.4	14921.0
		18900	1880	13569.0	15860.0
		19125	1902.5	13406.0	15340.0
	10	18650	1855	9058.3	10120.0
		18900	1880	9028.2	10094.0
		19150	1905	9044.2	10148.0
	5	18625	1852.5	4503.3	5089.0
		18900	1880	4500.3	5078.0
		19175	1907.5	4496.7	5085.0
	3	18615	1851.5	2731.4	3146.0
		18900	1880	2735.0	3149.0
		19185	1908.5	2739.4	3149.0
	1.4	18607	1850.7	1103.8	1311.0
		18900	1880	1103.2	1307.0
		19193	1909.3	1105.5	1305.0
LTE Band 4	20	20050	1720	17864.5	19629.0
		20175	1732.5	17865.2	19637.0
		20300	1745	17849.8	19637.0
	15	20025	1717.5	13555.6	15121.0

		20175	17.32.5	13434.5	14869.0
		20325	17.47.5	13423.6	14858.0
	10	20000	1715	9054.7	10153.0
		20175	1732.5	9041.0	10142.0
		20350	1750	9032.2	10164.0
	5	19975	1712.5	4478.3	4996.0
		20175	1732.5	4475.9	5002.0
		20375	1752.5	4476.7	4994.0
	3	19965	1711.5	2733.2	3144.0
		20175	1732.5	2734.0	3132.0
		20385	1753.5	2731.6	3135.0
	1.4	19957	1710.7	1104.8	1330.0
		20175	1732.5	1103.9	1329.0
		20393	1754.3	1105.4	1327.0
LTE Band 5	10	20450	829	9004.6	10074.0
		20525	836.5	9025.8	10080.0
		20600	844	9029.7	10085.0
	5	20425	826.5	4501.4	5093.0
		20525	836.5	4506.2	5096.0
		20625	846.5	4496.2	5072.0
	3	20415	825.5	2739.9	3150.0
		20525	836.5	2743.2	3181.0
		20635	847.5	2733.5	3150.0
	1.4	20407	824.7	1091.2	1296.0
		20525	836.5	1092.0	1380.0
		20643	848.3	1091.0	1300.0
LTE Band 13	10	23230	782	9036.2	10065.0
	5	23205	779.5	4488.7	5003.0
		23230	782	4489.9	5027.0
		23255	784.5	4491.4	5034.0
LTE Band 17	10	23780	709	8888.8	9663.0
		23790	710	8887.7	9550.0
		23800	711	8892.0	9620.0
	5	23755	706.5	4489.4	5046.0
		23790	710	4491.8	5038.0
		23825	713.5	4492.6	5071.0
Note1: The worse case as below:					

LTE Band 2 BW20M Channel 18700 100RB0 (1860.00MHz)

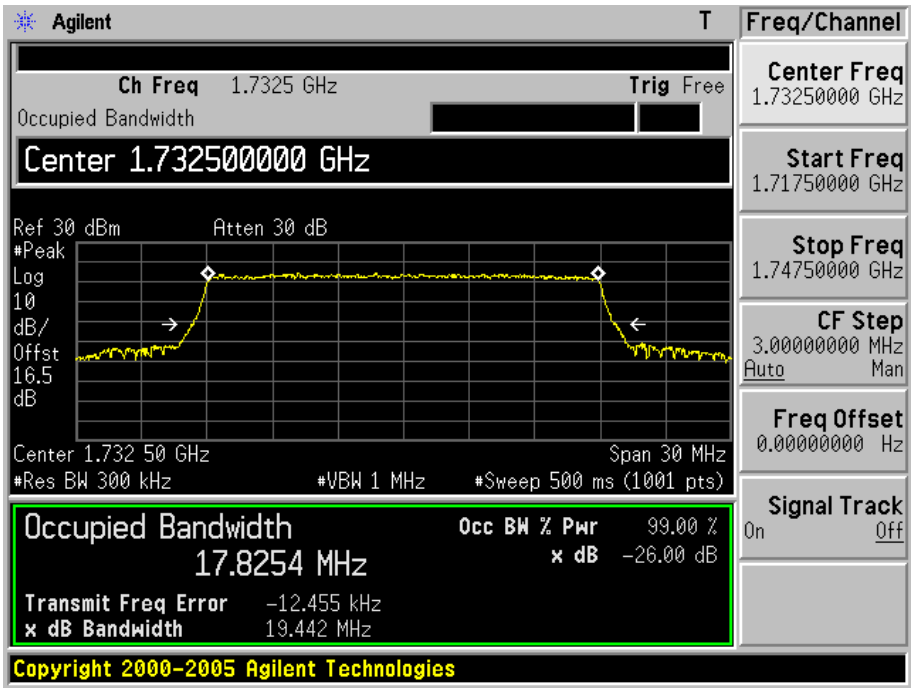


Product	Wireless Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 3-7(16QAM)		
Date of Test	2016/06/07	Test Site	AC6

Mode	Bandwidth (MHz)	Channel No.	Frequency (MHz)	99% Occupied Bandwidth (kHz)	-26dB Occupied Bandwidth (kHz)
LTE Band 2	20	18700	1860	17824.6	19390.0
		18900	1880	17825.4	19441.0
		19100	1900	17824.0	19407.0
	15	18675	1857.5	13444.3	14837.0
		18900	1880	13436.0	14858.0
		19125	1902.5	13436.3	14864.0
	10	18650	1855	9012.1	10106.0
		18900	1880	9002.2	10094.0
		19150	1905	9009.6	10107.0
	5	18625	1852.5	4479.8	5020.0
		18900	1880	4483.1	5014.0
		19175	1907.5	4479.8	5005.0
	3	18615	1851.5	2742.2	3161.0
		18900	1880	2746.8	3178.0
		19185	1908.5	2740.8	3150.0
	1.4	18607	1850.7	1092.0	1316.0
		18900	1880	1091.5	1309.0
		19193	1909.3	1092.4	1313.0
LTE Band 4	20	20050	1720	17824.6	19432.0
		20175	1732.5	17825.1	19442.0
		20300	1745	17824.9	19409.0
	15	20025	1717.5	13452.6	15021.0
		20175	1732.5	13434.8	14964.0
		20325	17.47.5	13430.	14951.0
	10	20000	1715	9017.70	10120.0
		20175	1732.5	9011.30	10087.0
		20350	1750	9007.50	10093.0
	5	19975	1712.5	4501.10	5087.0
		20175	1732.5	4490.20	5092.0

		20375	1752.5	4499.4	5077.0
	3	19965	1711.5	2745.5	3176.0
		20175	1732.5	2730.9	3153.0
		20385	1753.5	2738.7	3156.0
	1.4	19957	1710.7	1092.4	1314.0
		20175	1732.5	1092.4	1309.0
		20393	1754.3	1091.8	1322.0
LTE Band 5	10	20450	829	9031.5	10091.0
		20525	836.5	9058.3	10086.0
		20600	844	9056.7	10146.0
	5	20425	826.5	4484.0	5017.0
		20525	836.5	4487.3	5032.0
		20625	846.5	4474.3	5000.0
	3	20415	825.5	2739.3	3149.0
		20525	836.5	2738.8	3142.0
		20635	847.5	2731.4	3122.0
	1.4	20407	824.7	1103.9	1312.0
		20525	836.5	1105.0	1310.0
		20643	848.3	1099.9	1315.0
LTE Band 13	10	23230	782	9037.6	10077
	5	23205	779.5	4489.4	5046.0
		23230	782	4491.8	5038.0
		23255	784.5	4492.6	5071.0
LTE Band 17	10	23780	709	8999.8	10034.0
		23790	710	8994.3	10043.0
		23800	711	8897.4	9683.0
	5	23755	706.5	4488.7	5003.0
		23790	710	4489.9	5027.0
		23825	713.5	4491.4	5034.0
Note1: The worse case as below:					

LTE Band 4 BW 20M Channel 20175 100RB0 (1732.50MHz)



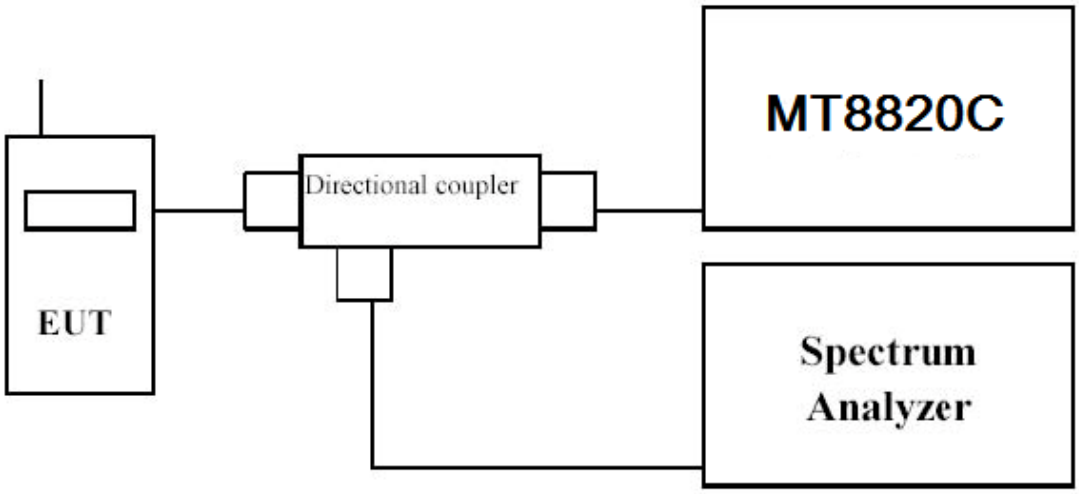
5. Conducted Band Edge

5.1. Test Equipment

Spurious Emission At Antenna Terminals (+/- 1MHz) / AC-6

Instrument	Manufacturer	Type No.	Serial No	Cali. Due Date
PSA Series Spectrum Analyzer	Agilent	E4440A	MY49420184	2017.02.04
Radio Communication Tester	Anritsu	MT8820C	6201181503	2016.09.16
Dual Directional Coupler	Agilent	778D	20160	2017.02.04
10dB Coaxial Coupler	Agilent	87300C	MY44300299	2017.03.28
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC6-TH	2017.01.05

5.2. Test Setup



5.3. Test Procedure

1. The EUT was connected to spectrum analyzer and System Simulator via power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. The conducted spurious emission for the whole frequency range was taken.

5.4. Uncertainty

The measurement uncertainty is defined as ± 1.2 dB.

5.5. Test Result

Product	Wireless Module		
Test Item	Conducted Band Edge		
Test Mode	Mode 1-7(QPSK)		
Date of Test	2016/06/07	Test Site	AC6

Mode	Bandwidth	Channel	Test Frequency (MHz)	RB	Measure Level (dBm)	Limit (dBm)	Result
WCDM Band 2	5M	9262	1852.4	--	-27.406	＜-13	Pass
		9538	1907.6	--	-13.856	＜-13	Pass
WCDM Band 5	5M	4132	826.4	--	-29.861	＜-13	Pass
		4233	846.6	--	-29.238	＜-13	Pass
LTE Band 2	20M	18700	1860	1RB0	-15.719	＜-13	Pass
				100RB0	-15.971	＜-13	Pass
		19100	1900	1RB99	-16.725	＜-13	Pass
				100RB0	-17.774	＜-13	Pass
	15M	18675	1857.5	1RB0	-14.723	＜-13	Pass
				75RB0	-15.665	＜-13	Pass
		19125	1902.5	1RB74	-35.092	＜-13	Pass
				75RB0	-24.581	＜-13	Pass
	10M	18650	1855	1RB0	-14.234	＜-13	Pass
				50RB0	-18.774	＜-13	Pass
		19150	1905	1RB49	-23.526	＜-13	Pass
				50RB0	-26.795	＜-13	Pass
	5M	18625	1852.5	1RB0	-14.114	＜-13	Pass

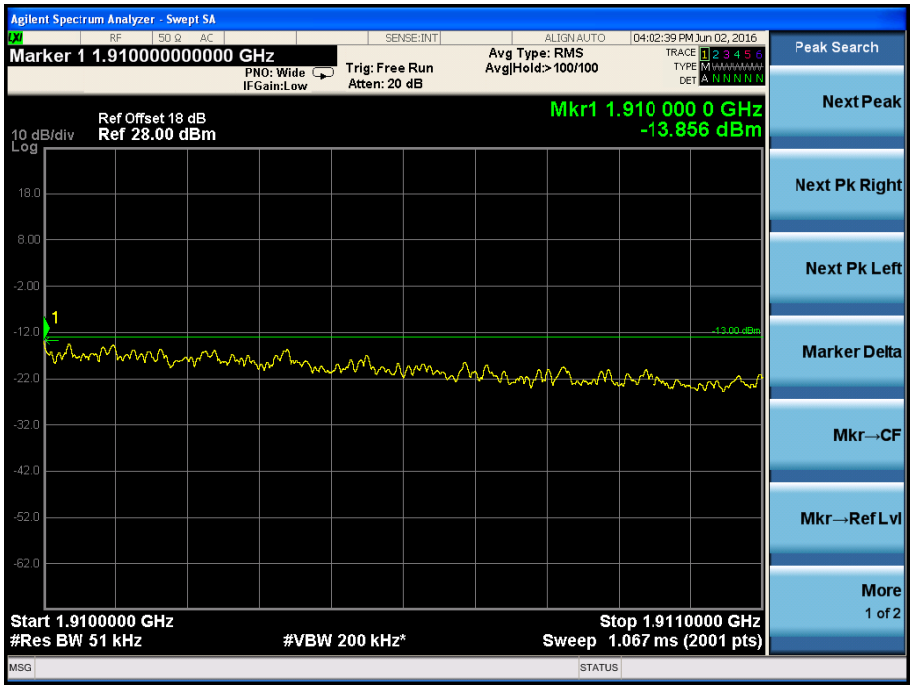
				25RB0	-17.859	<-13	Pass
		19175	1907.5	1RB24	-17.896	<-13	Pass
				25RB0	-14.259	<-13	Pass
	3M	18615	1851.5	1RB0	-21.256	<-13	Pass
				15RB0	-18.795	<-13	Pass
		19185	1908.5	1RB14	-15.589	<-13	Pass
				15RB0	-17.529	<-13	Pass
	1.4M	18607	1850.7	1RB0	-15.558	<-13	Pass
				7RB0	-17.546	<-13	Pass
		19193	1909.3	1RB6	-32.254	<-13	Pass
				7RB0	-29.454	<-13	Pass
LTE Band 4	20M	20050	1720	1RB0	-18.542	<-13	Pass
				100RB0	-26.584	<-13	Pass
		20030	1745	1RB99	-20.047	<-13	Pass
				100RB0	-30.372	<-13	Pass
	15M	20025	1717.5	1RB0	-14.589	<-13	Pass
				75RB0	-21.536	<-13	Pass
		20325	1747.5	1RB74	-16.589	<-13	Pass
				75RB0	-28.798	<-13	Pass
	10M	20000	1715	1RB0	-13.876	<-13	Pass
				50RB0	-23.614	<-13	Pass
		20350	1750	1RB49	-18.895	<-13	Pass
				50RB0	-26.563	<-13	Pass
	5M	19975	1712.5	1RB0	-16.969	<-13	Pass

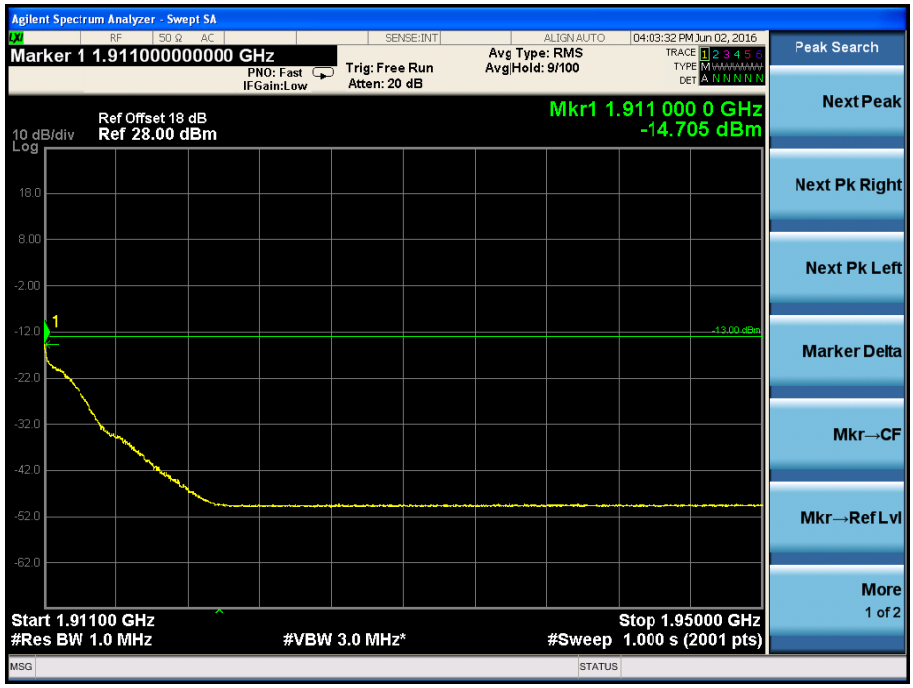
				25RB0	-25.563	<-13	Pass
		20375	1752.5	1RB24	-15.528	<-13	Pass
				25RB0	-19.893	<-13	Pass
	3M	19965	1711.5	1RB0	-26.693	<-13	Pass
				15RB0	-37.589	<-13	Pass
		20385	1753.5	1RB14	-26.896	<-13	Pass
				15RB0	-21.522	<-13	Pass
	1.4M	19957	1710.7	1RB0	-15.524	<-13	Pass
				7RB0	-16.638	<-13	Pass
		20393	1754.3	1RB6	-23.562	<-13	Pass
				7RB0	-28.752	<-13	Pass
LTE Band 5	10M	20450	829	1RB0	-15.401	<-13	Pass
				50RB0	-30.441	<-13	Pass
		20600	844	1RB49	-37.332	<-13	Pass
				50RB0	-30.635	<-13	Pass
	5M	20425	826.5	1RB0	-25.365	<-13	Pass
				25RB0	-18.762	<-13	Pass
		20625	846.5	1RB24	-18.652	<-13	Pass
				25RB0	-23.563	<-13	Pass
	3M	20415	825.5	1RB0	-25.589	<-13	Pass
				15RB0	-30.236	<-13	Pass
		20635	847.5	1RB14	-21.256	<-13	Pass
				15RB0	-29.254	<-13	Pass
	1.4M	20407	824.7	1RB0	-25.635	<-13	Pass
				7RB0	-20.132	<-13	Pass

		20643	848.3	1RB6	-24.256	＜-13	Pass
				7RB0	-36.694	＜-13	Pass
RLTE Band 13	10M	23230	782	1RB0	-29.652	＜-13	Pass
				50RB0	-35.236	＜-13	Pass
	5M	23205	779.5	1RB0	-39.441	＜-13	Pass
				25RB0	-39.536	＜-13	Pass
		23255	784.5	1RB24	-33.095	＜-13	Pass
				25RB0	-36.785	＜-13	Pass
RLTE Band 17	10M	23780	709	1RB0	-17.668	＜-13	Pass
				50RB0	-29.236	＜-13	Pass
		23800	711	1RB49	-38.554	＜-13	Pass
				50RB0	-29.744	＜-13	Pass
	5M	23755	706.5	1RB0	-25.896	＜-13	Pass
				25RB0	-36.635	＜-13	Pass
		23825	713.5	1RB24	-31.256	＜-13	Pass
				25RB0	-27.785	＜-13	Pass

Note: The worst case of emissions in non-restricted frequency bands as below:

WCDMA Band 2 CH9538(1907.6MHz)





Product	Wireless Module		
Test Item	Conducted Band Edge		
Test Mode	Mode 3-7(16QAM)		
Date of Test	2016/06/07	Test Site	AC6

Mode	Bandwidth	Channel	Test Frequency (MHz)	RB	Measure Level (dBm)	Limit (dBm)	Result
LTE Band 2	20M	18700	1860	1RB0	-16.673	＜-13	Pass
				100RB0	-16.251	＜-13	Pass
		19100	1900	1RB99	-17.367	＜-13	Pass
				100RB0	-18.120	＜-13	Pass
	15M	18675	1857.5	1RB0	-14.825	＜-13	Pass
				75RB0	-16.651	＜-13	Pass
		19125	1902.5	1RB74	-35.177	＜-13	Pass
				75RB0	-25.429	＜-13	Pass
	10M	18650	1855	1RB0	-14.372	＜-13	Pass
				50RB0	-19.609	＜-13	Pass
		19150	1905	1RB49	-23.694	＜-13	Pass
				50RB0	-27.592	＜-13	Pass
	5M	18625	1852.5	1RB0	-14.961	＜-13	Pass
				25RB0	-18.283	＜-13	Pass
		19175	1907.5	1RB24	-18.025	＜-13	Pass
				25RB0	-14.463	＜-13	Pass
	3M	18615	1851.5	1RB0	-21.265	＜-13	Pass
				15RB0	-19.492	＜-13	Pass

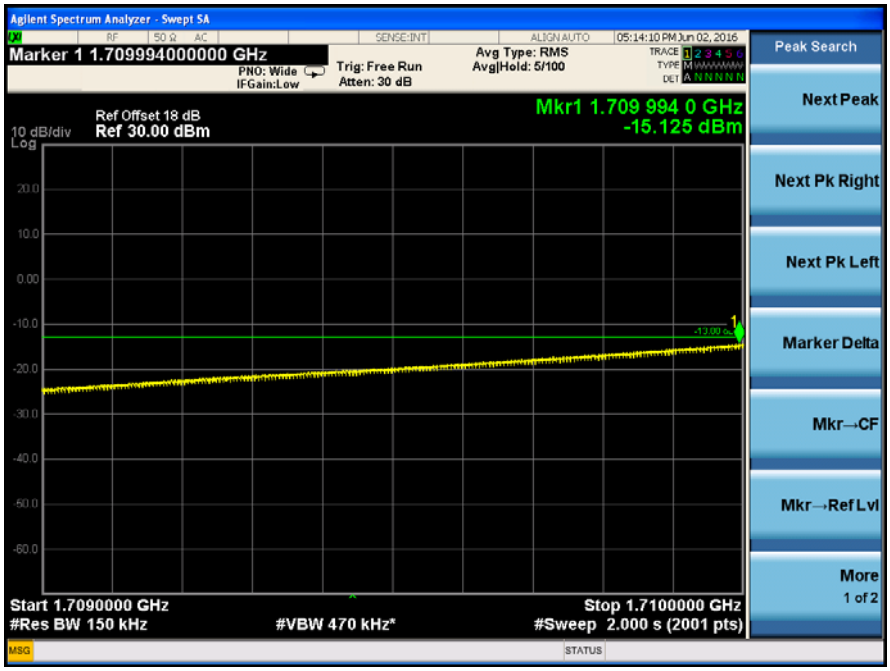
		19185	1908.5	1RB14	-15.922	＜-13	Pass
				15RB0	-17.594	＜-13	Pass
	1.4M	18607	1850.7	1RB0	-15.599	＜-13	Pass
				7RB0	-18.322	＜-13	Pass
		19193	1909.3	1RB6	-33.004	＜-13	Pass
				7RB0	-29.510	＜-13	Pass
LTE Band 4	20M	20050	1720	1RB0	-19.139	＜-13	Pass
				100RB0	-26.971	＜-13	Pass
		20030	1745	1RB99	-20.108	＜-13	Pass
				100RB0	-30.576	＜-13	Pass
	15M	20025	1717.5	1RB0	-15.125	＜-13	Pass
				75RB0	-14.424	＜-13	Pass
		20325	1747.5	1RB74	-17.558	＜-13	Pass
				75RB0	-29.290	＜-13	Pass
	10M	20000	1715	1RB0	-14.993	＜-13	Pass
				50RB0	-23.799	＜-13	Pass
		20350	1750	1RB49	-18.982	＜-13	Pass
				50RB0	-27.555	＜-13	Pass
	5M	19975	1712.5	1RB0	-17.121	＜-13	Pass
				25RB0	-25.846	＜-13	Pass
		20375	1752.5	1RB24	-16.395	＜-13	Pass
				25RB0	-20.835	＜-13	Pass
	3M	19965	1711.5	1RB0	-27.470	＜-13	Pass
				15RB0	-38.578	＜-13	Pass

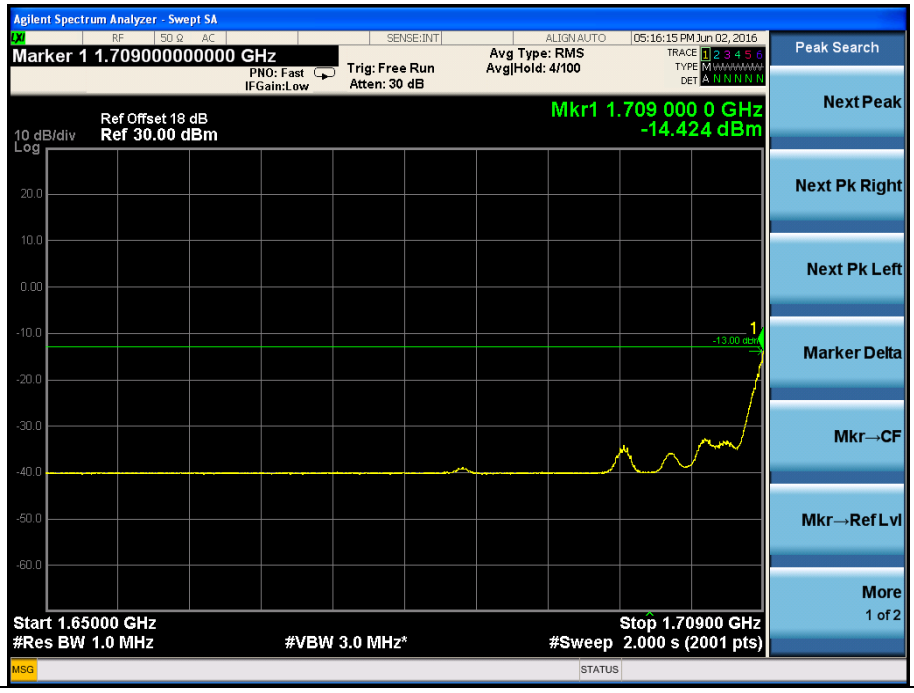
		20385	1753.5	1RB14	-27.240	<-13	Pass
				15RB0	-22.181	<-13	Pass
	1.4M	19957	1710.7	1RB0	-15.634	<-13	Pass
				7RB0	-17.486	<-13	Pass
		20393	1754.3	1RB6	-24.033	<-13	Pass
				7RB0	-29.612	<-13	Pass
LTE Band 5	10M	20450	829	1RB0	-16.083	<-13	Pass
				50RB0	-30.458	<-13	Pass
		20600	844	1RB49	-37.485	<-13	Pass
				50RB0	-31.187	<-13	Pass
	5M	20425	826.5	1RB0	-26.101	<-13	Pass
				25RB0	-19.722	<-13	Pass
		20625	846.5	1RB24	-19.450	<-13	Pass
				25RB0	-24.002	<-13	Pass
	3M	20415	825.5	1RB0	-26.070	<-13	Pass
				15RB0	-30.696	<-13	Pass
		20635	847.5	1RB14	-22.151	<-13	Pass
				15RB0	-30.073	<-13	Pass
	1.4M	20407	824.7	1RB0	-25.738	<-13	Pass
				7RB0	-20.279	<-13	Pass
		20643	848.3	1RB6	-24.996	<-13	Pass
				7RB0	-37.120	<-13	Pass
RLTE Band 13	10M	23230	782	1RB0	-29.990	<-13	Pass
				50RB0	-35.307	<-13	Pass
	5M	23205	779.5	1RB0	-39.593	<-13	Pass

				25RB0	-39.845	＜-13	Pass
		23255	784.5	1RB24	-33.782	＜-13	Pass
				25RB0	-37.323	＜-13	Pass
RLTE Band 17	10M	23780	709	1RB0	-17.932	＜-13	Pass
				50RB0	-29.372	＜-13	Pass
		23800	711	1RB49	-38.740	＜-13	Pass
				50RB0	-30.517	＜-13	Pass
	5M	23755	706.5	1RB0	-26.055	＜-13	Pass
				25RB0	-36.879	＜-13	Pass
		23825	713.5	1RB24	-31.323	＜-13	Pass
				25RB0	-28.181	＜-13	Pass

Note: The worst case of emissions in non-restricted frequency bands as below:

LTE Band 4 BW 15M Channel 20025 (1717.5MHz)





6. Spurious Emission

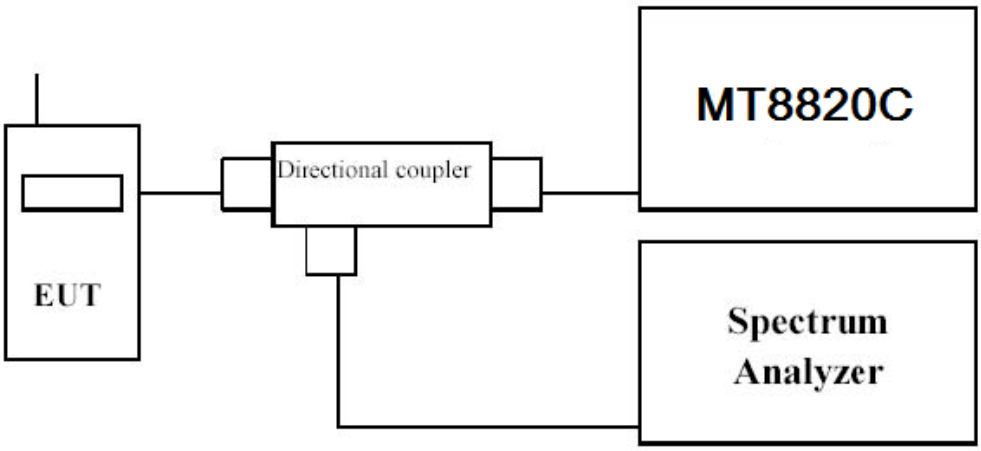
6.1. Test Equipment

Spurious Emission / AC-5

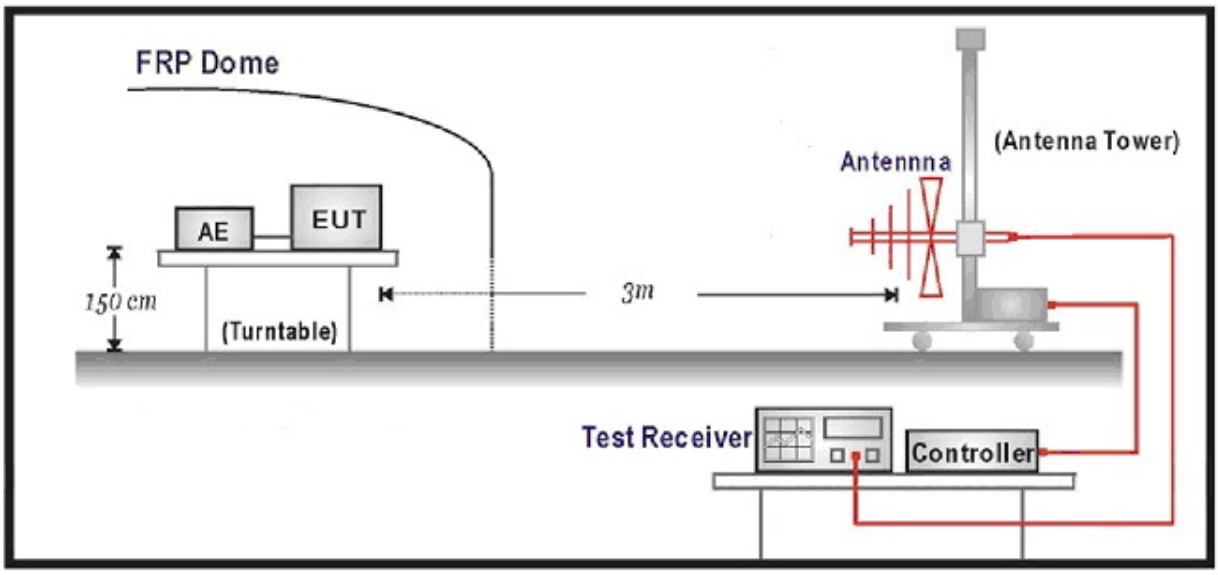
Instrument	Manufacturer	Type No.	Serial No	Cali. Due Date
PSA Series Spectrum Analyzer	Agilent	E4440A	MY49420184	2017.02.04
Radio Communication Tester	Anritsu	MT8820C	6201181503	2016.09.16
Dual Directional Coupler	Agilent	778D	20160	2017.02.04
10dB Coaxial Coupler	Agilent	87300C	MY44300299	2017.03.28
PSG Analog Signal Generator	Agilent	E8257D	MY44321116	2017.02.04
Preamplifier	QuieTek	AP-025C	CHM-0503006	2017.04.11
Preamplifier	Miteq	NSP1800-25	1364185	2017.05.03
Bilog Antenna	Teseq GmbH	CBL6112D	27612	2017.01.23
Half Wave Tuned Dipole Antenna	COM-POWER	AD-100	40137	2017.02.26
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	737	2017.03.06
DRG Horn	ETS-Lindgren	3117	00167055	2016.07.23
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC5-TH	2017.01.05

6.2. Test Setup

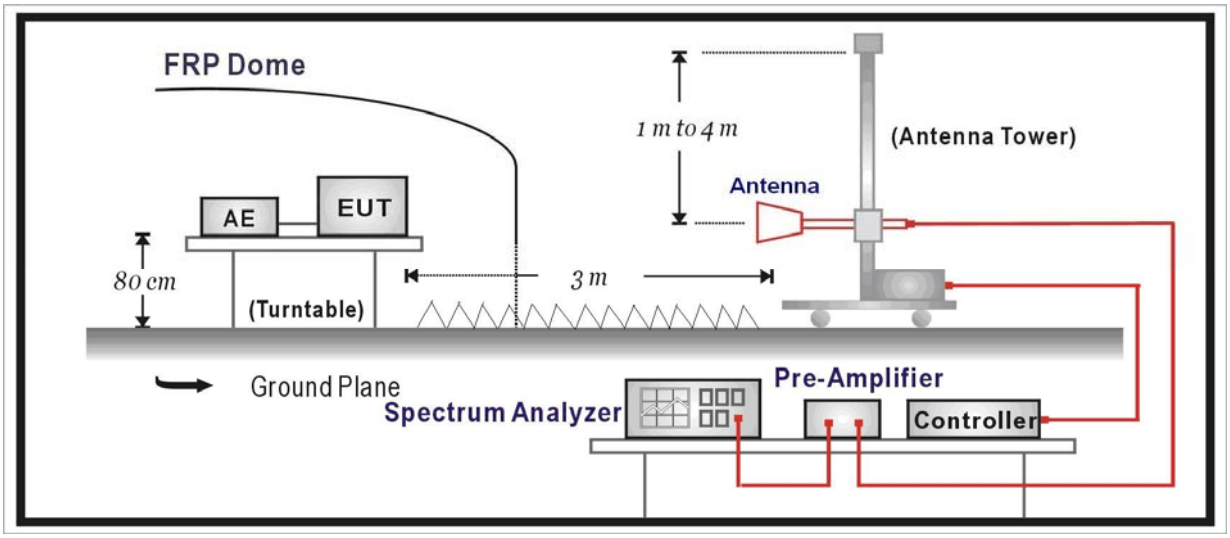
Conducted Spurious Measurement: below 1GHz



Radiated Spurious Measurement: below 1GHz



Radiated Spurious Measurement: above 1GHz



6.3. Test Procedure

Conducted Spurious Measurement:

a) The EUT was connected to spectrum analyzer and System Simulator via power divider.
b) The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.
   The path loss was compensated to the results for each measurement.
c) The conducted spurious emission for the whole frequency range was taken.

Radiated Spurious Measurement:

d) The EUT was placed on a rotatable wooden table with 1.5 meter above ground.
e) The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
f) The table was rotated 360 degrees to determine the position of the highest spurious emission.
g) The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
h) Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 1MHz, Sweep 500ms, Taking the record of maximum spurious emission.
i) A horn antenna was substituted in place of the EUT and was driven by a signal generator.
j) Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
k) Taking the record of output power at antenna port
l) Repeat step 7 to step 8 for another polarization.
m) EIRP = SG - Cable loss + Antenna Gain

6.4. Uncertainty

The measurement uncertainty is defined as 3.2 dB for Radiated Power Measurement.

6.5. Test Result

Product	Wireless Module		
Test Item	Conducted Spurious Emission		
Test Mode	Mode 1-7(QPSK)		
Date of Test	2016/06/07	Test Site	TR8

Mode	Bandwidth	Channel	Test Frequency (MHz)	RB	Measure Level (dBm)	Limit (dBm)	Result
WCDM Band 2	5M	9262	1852.4	--	-32.71	＜-13	Pass
		9400	1880		-33.56	＜-13	Pass
		9538	1907.6	--	-33.79	＜-13	Pass
WCDM Band 5	5M	4132	826.4	--	-30.504	＜-13	Pass
		4182	836.4		-31.457	＜-13	Pass
		4233	846.6	--	-31.369	＜-13	Pass
LTE Band 2	20M	18700	1860	1RB0	-21.655	＜-13	Pass
		18900	1880	1RB0	-22.569	＜-13	Pass
		19100	1900	1RB0	-21.647	＜-13	Pass
	15 M	18675	1857.5	1RB0	-21.562	＜-13	Pass
		18900	1880	1RB0	-20.954	＜-13	Pass
		19125	1902.5	1RB0	-21.095	＜-13	Pass
	10M	18650	1855	1RB0	21.563	＜-13	Pass
		18900	1880	1RB0	-21.425	＜-13	Pass
		19150	1905	1RB0	-20.998	＜-13	Pass
	5	18625	1852.5	1RB0	-22.256	＜-13	Pass

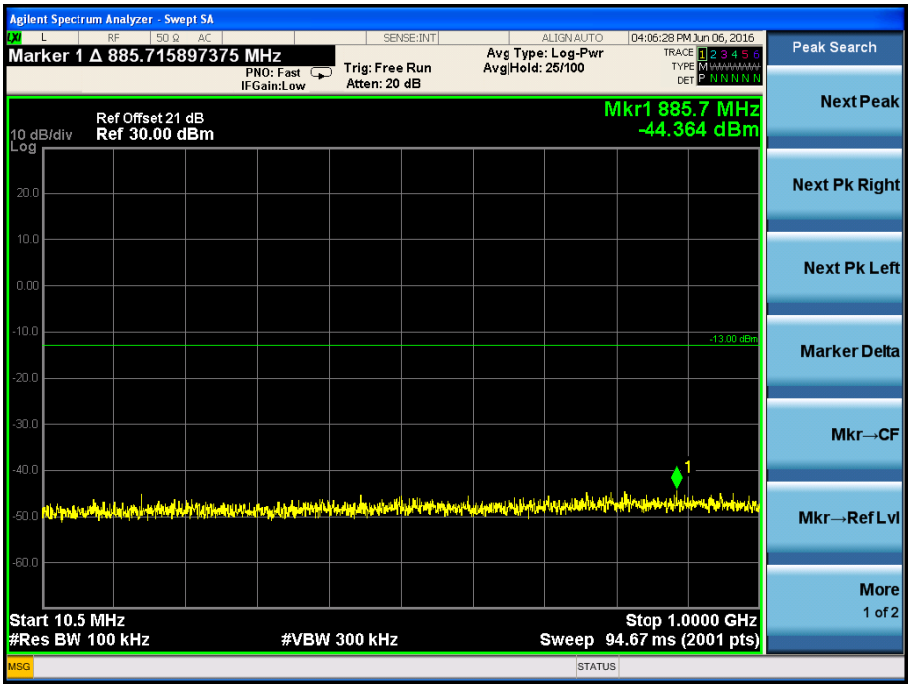
		18900	1880	1RB0	-24.525	<-13	Pass
		19175	1907.5	1RB0	-23.639	<-13	Pass
	3	18615	1851.5	1RB0	-21.589	<-13	Pass
		18900	1880	1RB0	-21.798	<-13	Pass
		19185	1908.5	1RB0	-21.531	<-13	Pass
	1.4	18607	1850.7	1RB0	-22.263	<-13	Pass
		18900	1880	1RB0	-21.896	<-13	Pass
		19193	1909.3	1RB0	-22.315	<-13	Pass
LTE Band 4	20M	20050	1720	1RB0	-21.958	<-13	Pass
		20175	1732.5	1RB0	-21.842	<-13	Pass
		20030	1745	1RB0	-21.432	<-13	Pass
	15 M	20025	1717.5	1RB0	-21.527	<-13	Pass
		20175	1732.5	1RB0	-21.589	<-13	Pass
		20325	1747.5	1RB0	-21.453	<-13	Pass
	10M	20000	1715	1RB0	-21.625	<-13	Pass
		20175	1732.5	1RB0	-22.563	<-13	Pass
		20350	1750	1RB0	-21.896	<-13	Pass
	5	19975	1712.5	1RB0	-22.036	<-13	Pass
		20175	1732.5	1RB0	-21.562	<-13	Pass
		20375	1752.5	1RB0	-23.331	<-13	Pass

	3	19965	1711.5	1RB0	-21.741	＜-13	Pass
		20175	1732.5	1RB0	-21.569	＜-13	Pass
		20385	1753.5	1RB0	-21.775	＜-13	Pass
	1.4	19957	1710.7	1RB0	-21.893	＜-13	Pass
		20175	1732.5	1RB0	-21.562	＜-13	Pass
		20393	1754.3	1RB0	-21.581	＜-13	Pass
LTE Band 5	10M	20450	829	1RB0	-31.369	＜-13	Pass
		20525	836.5	1RB0	-31.694	＜-13	Pass
		20600	844	1RB0	-31.461	＜-13	Pass
	5	20425	826.5	1RB0	-31.256	＜-13	Pass
		20525	836.5	1RB0	-31.785	＜-13	Pass
		20625	846.5	1RB0	-31.569	＜-13	Pass
	3	20415	825.5	1RB0	-31.458	＜-13	Pass
		20525	836.5	1RB0	-31.785	＜-13	Pass
		20635	847.5	1RB0	-31.469	＜-13	Pass
	1.4	20407	824.7	1RB0	-31.562	＜-13	Pass
		20525	836.5	1RB0	-31.852	＜-13	Pass
		20643	848.3	1RB0	-31.569	＜-13	Pass
LTE Band 13	10M	20525	836.5	1RB0	-31.526	＜-13	Pass
	5	23205	779.5	1RB0	-31.369	＜-13	Pass

		23230	782	1RB0	-31.694	＜-13	Pass
		23255	784.5	1RB0	-31.461	＜-13	Pass
LTE Band 17	10M	23780	709	1RB0	-31.369	＜-13	Pass
		23790	710	1RB0	-31.621	＜-13	Pass
		23800	711	1RB0	-30.940	＜-13	Pass
	5	23755	706.5	1RB0	-31.526	＜-13	Pass
		23790	710	1RB0	-31.741	＜-13	Pass
		23825	713.5	1RB0	-31.268	＜-13	Pass

Note: The worst case of emissions in non-restricted frequency bands as below:

LTE Band 2 BW 15MHz Channel 18900 1RB0



Product	Wireless Module		
Test Item	Conducted Spurious Emission		
Test Mode	Mode 3-7(16QAM)		
Date of Test	2016/06/07	Test Site	TR8

Mode	Bandwidth	Channel	Test Frequency (MHz)	RB	Measure Level (dBm)	Limit (dBm)	Result
LTE Band 2	20M	18700	1860	1RB0	-22.504	＜-13	Pass
		18900	1880	1RB0	-22.804	＜-13	Pass
		19100	1900	1RB0	-22.278	＜-13	Pass
	15 M	18675	1857.5	1RB0	-22.128	＜-13	Pass
		18900	1880	1RB0	-21.212	＜-13	Pass
		19125	1902.5	1RB0	-21.340	＜-13	Pass
	10M	18650	1855	1RB0	20.797	＜-13	Pass
		18900	1880	1RB0	-21.685	＜-13	Pass
		19150	1905	1RB0	-21.339	＜-13	Pass
	5	18625	1852.5	1RB0	-22.895	＜-13	Pass
		18900	1880	1RB0	-24.872	＜-13	Pass
		19175	1907.5	1RB0	-24.416	＜-13	Pass
	3	18615	1851.5	1RB0	-22.177	＜-13	Pass
		18900	1880	1RB0	-22.358	＜-13	Pass
		19185	1908.5	1RB0	-21.792	＜-13	Pass
	1.4	18607	1850.7	1RB0	-23.092	＜-13	Pass

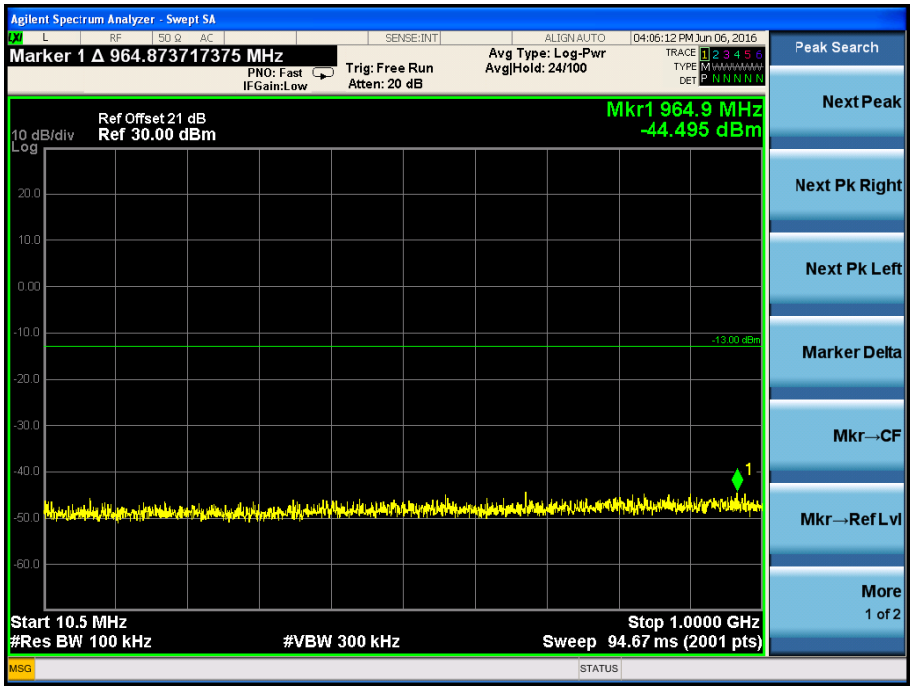
		18900	1880	1RB0	-22.179	<-13	Pass
		19193	1909.3	1RB0	-22.596	<-13	Pass
LTE Band 4	20M	20050	1720	1RB0	-22.785	<-13	Pass
		20175	1732.5	1RB0	-22.376	<-13	Pass
		20030	1745	1RB0	-22.207	<-13	Pass
	15 M	20025	1717.5	1RB0	-22.119	<-13	Pass
		20175	1732.5	1RB0	-21.732	<-13	Pass
		20325	1747.5	1RB0	-21.462	<-13	Pass
	10M	20000	1715	1RB0	-22.281	<-13	Pass
		20175	1732.5	1RB0	-22.650	<-13	Pass
		20350	1750	1RB0	-22.174	<-13	Pass
	5	19975	1712.5	1RB0	-22.909	<-13	Pass
		20175	1732.5	1RB0	-22.313	<-13	Pass
		20375	1752.5	1RB0	-23.814	<-13	Pass
	3	19965	1711.5	1RB0	-21.995	<-13	Pass
		20175	1732.5	1RB0	-21.593	<-13	Pass
		20385	1753.5	1RB0	-22.406	<-13	Pass
	1.4	19957	1710.7	1RB0	-22.730	<-13	Pass
		20175	1732.5	1RB0	-22.462	<-13	Pass
		20393	1754.3	1RB0	-22.112	<-13	Pass

LTE Band 5	10M	20450	829	1RB0	-31.618	<-13	Pass
		20525	836.5	1RB0	-31.987	<-13	Pass
		20600	844	1RB0	-32.100	<-13	Pass
	5	20425	826.5	1RB0	-31.578	<-13	Pass
		20525	836.5	1RB0	-32.410	<-13	Pass
		20625	846.5	1RB0	-32.142	<-13	Pass
	3	20415	825.5	1RB0	-32.009	<-13	Pass
		20525	836.5	1RB0	-32.202	<-13	Pass
		20635	847.5	1RB0	-31.980	<-13	Pass
	1.4	20407	824.7	1RB0	-32.090	<-13	Pass
		20525	836.5	1RB0	-32.528	<-13	Pass
		20643	848.3	1RB0	-32.375	<-13	Pass
LTE Band 13	10M	20525	836.5	1RB0	-31.882	<-13	Pass
	5	23205	779.5	1RB0	-32.249	<-13	Pass
		23230	782	1RB0	-32.572	<-13	Pass
		23255	784.5	1RB0	-31.544	<-13	Pass
LTE Band 17	10M	23780	709	1RB0	-31.644	<-13	Pass
		23790	710	1RB0	-31.754	<-13	Pass
		23800	711	1RB0	-31.739	<-13	Pass
	5	23755	706.5	1RB0	-32.255	<-13	Pass

		23790	710	1RB0	-32.681	<-13	Pass
		23825	713.5	1RB0	-31.641	<-13	Pass

Note: The worst case of emissions in non-restricted frequency bands as below:

LTE Band 2 BW 15MHz Channel 18900 1RB0



Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode3: LTE Band 2 Link QPSK 20MHz		
Date of Test	2016/06/07	Test Site	AC5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 18700 (1860MHz) BW20MHz 1RB0								
3720.00	-52.39	V	-59.48	4.79	12.71	-51.56	-13.00	38.56
5580.00	-53.39	V	-55.43	4.83	13.16	-47.10	-13.00	34.10
3720.00	-52.39	H	-59.60	4.79	12.71	-51.68	-13.00	38.68
5580.00	-53.12	H	-54.32	4.83	13.16	-45.99	-13.00	32.99
Middle Channel 18900 (1880.00MHz) BW20MHz 1RB0								
3760.00	-42.22	V	-50.87	5.03	12.72	-43.18	-13.00	30.18
5640.00	-50.93	V	-55.48	5.93	13.14	-48.27	-13.00	35.27
3760.00	-41.74	H	-59.60	5.03	12.72	-42.73	-13.00	29.73
5640.00	-50.01	H	-54.32	5.93	13.14	-47.55	-13.00	34.55
High Channel 19100 (1900.00MHz) BW20MHz 1RB0								
3800.00	-42.48	V	-50.66	5.05	12.74	-42.97	-13.00	29.97
5700.00	-52.25	V	-58.77	4.85	13.26	-50.36	-13.00	37.36
3800.00	-40.00	H	-48.23	5.03	12.76	-40.50	-13.00	27.50
5700.00	-53.42	H	-58.17	4.87	13.12	-49.92	-13.00	36.92

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode3: LTE Band 2 Link QPSK 15MHz		
Date of Test	2016/06/07	Test Site	AC5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 18675 (1857.5MHz) BW15MHz 1RB0								
3715.00	-52.01	V	-59.28	4.79	12.71	-51.36	-13.00	38.36
5572.50	-53.17	V	-55.24	4.83	13.16	-46.91	-13.00	33.91
3715.00	-51.93	H	-59.14	4.79	12.71	-51.22	-13.00	38.22
5572.50	-53.02	H	-53.92	4.83	13.16	-45.59	-13.00	32.59
Middle Channel 18900 (1880.00MHz) BW15MHz 1RB0								
3760.00	-42.11	V	-50.82	5.03	12.72	-43.13	-13.00	30.13
5640.00	-50.73	V	-55.00	5.93	13.14	-47.79	-13.00	34.79
3760.00	-41.53	H	-59.32	5.03	12.72	-51.63	-13.00	38.63
5640.00	-49.66	H	-54.15	5.93	13.14	-46.94	-13.00	33.94
High Channel 19125 (1902.50MHz) BW15MHz 1RB0								
3805.00	-42.55	V	-50.88	5.02	12.72	-43.18	-13.00	30.18
5707.50	-52.75	V	-58.90	4.86	13.10	-50.66	-13.00	37.66
3805.00	-39.99	H	-48.48	5.02	12.72	-40.78	-13.00	27.78
5707.50	-53.71	H	-58.65	4.86	13.10	-50.41	-13.00	37.41

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode3: LTE Band 2 Link QPSK 10MHz		
Date of Test	2016/06/07	Test Site	AC5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 18650 (1855MHz) BW10MHz 1RB0								
3710.00	-51.97	V	-59.38	4.78	12.76	-51.40	-13.00	38.40
5565.00	-52.94	V	-55.38	4.87	13.22	-47.03	-13.00	34.03
3710.00	-52.32	H	-59.39	4.81	12.78	-51.42	-13.00	38.42
5565.00	-52.77	H	-53.91	4.86	13.17	-45.60	-13.00	32.60
Middle Channel 18900 (1880.00MHz) BW10MHz 1RB0								
3760.00	-42.25	V	-50.47	5.03	12.72	-42.78	-13.00	29.78
5640.00	-50.46	V	-55.06	5.93	13.14	-47.85	-13.00	34.85
3760.00	-41.68	H	-59.28	5.03	12.72	-51.59	-13.00	38.59
5640.00	-49.78	H	-53.87	5.93	13.14	-46.66	-13.00	33.66
High Channel 19150 (1905.00MHz) BW10MHz 1RB0								
3810.00	-42.38	V	-50.46	5.06	12.72	-42.80	-13.00	29.80
5715.00	-52.50	V	-58.58	4.85	13.14	-50.29	-13.00	37.29
3810.00	-40.08	H	-48.17	4.97	12.75	-40.39	-13.00	27.39
5715.00	-53.24	H	-58.19	4.88	13.12	-49.95	-13.00	36.95

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode3: LTE Band 2 Link QPSK 5MHz		
Date of Test	2016/06/07	Test Site	AC5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 18625 (1852.5MHz) BW5MHz 1RB0								
3705.00	-52.08	V	-58.91	4.76	12.73	-50.94	-13.00	37.94
5557.50	-53.11	V	-55.03	4.81	13.20	-46.64	-13.00	33.64
3705.00	-52.26	H	-59.11	4.83	12.73	-51.21	-13.00	38.21
5557.50	-53.04	H	-54.25	4.87	13.18	-45.94	-13.00	32.94
Middle Channel 18900 (1880.00MHz) BW5MHz 1RB0								
3760.00	-42.28	V	-50.84	5.03	12.72	-43.15	-13.00	30.15
5640.00	-50.45	V	-55.22	5.93	13.14	-48.01	-13.00	35.01
3760.00	-41.70	H	-59.02	5.03	12.72	-51.33	-13.00	38.33
5640.00	-49.95	H	-54.23	5.93	13.14	-47.02	-13.00	34.02
High Channel 19175 (1907.50MHz) BW5MHz 1RB0								
3815.00	-42.55	V	-50.49	5.01	12.80	-42.70	-13.00	29.70
5722.50	-52.52	V	-58.33	4.84	13.13	-50.04	-13.00	37.04
3815.00	-39.88	H	-48.05	5.04	12.81	-40.28	-13.00	27.28
5722.50	-53.47	H	-58.11	4.88	13.12	-49.87	-13.00	36.87

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode3: LTE Band 2 Link QPSK 3MHz		
Date of Test	2016/06/07	Test Site	AC5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 18615 (1851.5MHz) BW3MHz 1RB0								
3703.00	-51.93	V	-59.21	4.81	12.75	-51.27	-13.00	38.27
5554.50	-53.11	V	-54.98	4.84	13.22	-46.60	-13.00	33.60
3703.00	-52.18	H	-59.50	4.79	12.80	-51.49	-13.00	38.49
5554.50	-52.73	H	-54.15	4.80	13.24	-45.71	-13.00	32.71
Middle Channel 18900 (1880.00MHz) BW3MHz 1RB0								
3760.00	-42.06	V	-50.57	5.03	12.72	-42.88	-13.00	29.88
5640.00	-50.50	V	-55.40	5.93	13.14	-48.19	-13.00	35.19
3760.00	-41.65	H	-59.47	5.03	12.72	-51.78	-13.00	38.78
5640.00	-49.61	H	-53.97	5.93	13.14	-46.76	-13.00	33.76
High Channel 19185 (1908.50MHz) BW3MHz 1RB0								
3817.00	-42.55	V	-50.37	5.03	12.79	-42.61	-13.00	29.61
5725.50	-52.70	V	-58.45	4.85	13.17	-50.13	-13.00	37.13
3817.00	-39.66	H	-48.28	5.02	12.78	-40.52	-13.00	27.52
5725.50	-53.22	H	-58.15	4.86	13.12	-49.89	-13.00	36.89

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode3: LTE Band 2 Link QPSK 1.4MHz		
Date of Test	2016/06/07	Test Site	AC5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 18607 (1850.70MHz) BW1.4MHz 1RB0								
3701.40	-52.15	V	-59.03	4.78	12.70	-51.11	-13.00	38.11
5552.10	-53.21	V	-55.12	4.85	13.18	-46.79	-13.00	33.79
3701.40	-51.87	H	-59.38	4.81	12.72	-51.47	-13.00	38.47
5552.10	-52.85	H	-54.04	4.80	13.17	-45.67	-13.00	32.67
Middle Channel 18900 (1880.00MHz) BW1.4MHz 1RB0								
3760.00	-42.22	V	-50.56	5.03	12.72	-42.87	-13.00	29.87
5640.00	-50.63	V	-55.08	5.93	13.14	-47.87	-13.00	34.87
3760.00	-41.62	H	-59.03	5.03	12.72	-51.34	-13.00	38.34
5640.00	-49.90	H	-53.90	5.93	13.14	-46.69	-13.00	33.69
High Channel 19193 (1909.30MHz) BW1.4MHz 1RB0								
3818.60	-42.16	V	-50.46	5.05	12.73	-42.78	-13.00	29.78
5727.90	-52.30	V	-58.73	4.87	13.13	-50.47	-13.00	37.47
3818.60	-39.88	H	-48.01	5.03	12.74	-40.30	-13.00	27.30
5727.90	-53.60	H	-58.14	4.84	13.15	-49.83	-13.00	36.83

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 4: LTE Band 4 Link QPSK 20MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20050 (1720.00MHz) BW20MHz 1RB0								
3440.00	-50.33	V	-60.25	4.75	12.84	-52.16	-13.00	39.16
5160.00	-54.02	V	-58.34	4.81	12.87	-50.28	-13.00	37.28
3440.00	-50.42	H	-60.19	4.82	12.85	-52.16	-13.00	39.16
5160.00	-53.30	H	-57.83	4.79	12.82	-49.80	-13.00	36.80
Middle Channel 20175 (1732.50MHz) BW20MHz 1RB0								
3465.00	-45.92	V	-54.97	5.03	12.73	-47.27	-13.00	34.27
5197.50	-42.68	V	-46.83	5.93	12.85	-39.91	-13.00	26.91
3465.00	-47.05	H	-56.44	5.03	12.73	-48.74	-13.00	35.74
5197.50	-51.65	H	-57.95	5.93	12.85	-51.03	-13.00	38.03
High Channel 20300 (1745.00MHz) BW20MHz 1RB0								
3490.00	-51.81	V	-58.85	5.02	12.64	-51.23	-13.00	38.23
5235.50	-51.10	V	-54.10	4.86	12.90	-46.06	-13.00	33.06
3490.00	-51.00	H	-59.89	5.02	12.64	-52.27	-13.00	39.27
5235.50	-52.98	H	-58.41	4.86	12.90	-50.37	-13.00	37.37

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 4: LTE Band 4 Link QPSK 15MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20025 (1717.50MHz) BW15MHz 1RB0								
3435.00	-50.62	V	-60.28	4.81	12.87	-52.22	-13.00	39.22
5152.50	-53.82	V	-58.38	4.80	12.82	-50.36	-13.00	37.36
3435.00	-50.36	H	-60.02	4.80	12.88	-51.94	-13.00	38.94
5152.50	-53.29	H	-57.71	4.85	12.86	-49.70	-13.00	36.70
Middle Channel 20175 (1732.50MHz) BW15MHz 1RB0								
3465.00	-46.08	V	-54.81	5.03	12.73	-47.11	-13.00	34.11
5197.50	-42.57	V	-46.75	5.93	12.85	-39.83	-13.00	26.83
3465.00	-47.05	H	-56.37	5.03	12.73	-48.67	-13.00	35.67
5197.50	-51.62	H	-57.95	5.93	12.85	-51.03	-13.00	38.03
High Channel 20325 (1747.50MHz) BW15MHz 1RB0								
3495.00	-52.15	V	-58.93	5.07	12.63	-51.37	-13.00	38.37
5242.50	-51.01	V	-54.30	4.90	12.93	-46.27	-13.00	33.27
3495.00	-50.60	H	-59.87	5.06	12.64	-52.29	-13.00	39.29
5242.50	-52.68	H	-58.27	4.87	12.92	-50.22	-13.00	37.22

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 4: LTE Band 4 Link QPSK 10MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20000 (1715.00MHz) BW10MHz 1RB0								
3430.00	-50.36	V	-60.13	4.78	12.89	-52.02	-13.00	39.02
5145.00	-53.85	V	-58.50	4.85	12.82	-50.53	-13.00	37.53
3430.00	-50.43	H	-59.97	4.80	12.80	-51.97	-13.00	38.97
5145.00	-53.06	H	-57.41	4.79	12.89	-49.31	-13.00	36.31
Middle Channel 20175 (1732.50MHz) BW10MHz 1RB0								
3465.00	-46.18	V	-54.97	5.03	12.73	-47.27	-13.00	34.27
5197.50	-42.94	V	-46.72	5.93	12.85	-39.80	-13.00	26.80
3465.00	-47.06	H	-56.09	5.03	12.73	-48.39	-13.00	35.39
5197.50	-51.59	H	-57.76	5.93	12.85	-50.84	-13.00	37.84
High Channel 20325 (1750.00MHz) BW10MHz 1RB0								
3500.00	-51.82	V	-58.73	4.99	12.63	-51.09	-13.00	38.09
5250.00	-51.09	V	-54.52	4.85	12.94	-46.43	-13.00	33.43
3500.00	-50.94	H	-59.77	5.01	12.64	-52.14	-13.00	39.14
5250.00	-53.13	H	-58.60	4.89	12.96	-50.53	-13.00	37.53

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 4: LTE Band 4 Link QPSK 5MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 19975 (1712.50MHz) BW5MHz 1RB0								
3425.00	-50.50	V	-60.46	4.78	12.81	-52.43	-13.00	39.43
5137.50	-53.70	V	-58.73	4.79	12.83	-50.69	-13.00	37.69
3425.00	-50.37	H	-60.11	4.80	12.84	-52.07	-13.00	39.07
5137.50	-53.15	H	-57.73	4.80	12.82	-49.71	-13.00	36.71
Middle Channel 20175 (1732.50MHz) BW5MHz 1RB0								
3465.00	-46.06	V	-54.93	5.03	12.73	-47.23	-13.00	34.23
5197.50	-42.75	V	-46.93	5.93	12.85	-40.01	-13.00	27.01
3465.00	-47.20	H	-56.42	5.03	12.73	-48.72	-13.00	35.72
5197.50	-51.70	H	-57.99	5.93	12.85	-51.07	-13.00	38.07
High Channel 20375 (1752.50MHz) BW5MHz 1RB0								
3505.00	-52.00	V	-58.58	4.98	12.65	-50.91	-13.00	37.91
5257.50	-51.00	V	-54.21	4.81	12.97	-46.05	-13.00	33.05
3505.00	-50.56	H	-59.55	5.00	12.63	-51.92	-13.00	38.92
5257.50	-52.96	H	-58.68	4.84	12.94	-50.58	-13.00	37.58

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 4: LTE Band 4 Link QPSK 3MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 19965 (1711.50MHz) BW3MHz 1RB0								
3425.00	-50.60	V	-60.28	4.79	12.90	-52.17	-13.00	39.17
5137.50	-53.61	V	-58.63	4.87	12.84	-50.66	-13.00	37.66
3425.00	-50.39	H	-60.18	4.77	12.80	-52.15	-13.00	39.15
5137.50	-53.24	H	-57.75	4.86	12.81	-49.80	-13.00	36.80
Middle Channel 20175 (1732.50MHz) BW3MHz 1RB0								
3465.00	-45.92	V	-54.98	5.03	12.73	-47.28	-13.00	34.28
5197.50	-42.90	V	-46.61	5.93	12.85	-39.69	-13.00	26.69
3465.00	-47.36	H	-56.13	5.03	12.73	-48.43	-13.00	35.43
5197.50	-51.95	H	-57.81	5.93	12.85	-50.89	-13.00	37.89
High Channel 20385 (1753.50MHz) BW3MHz 1RB0								
3505.00	-52.09	V	-58.71	5.01	12.65	-51.07	-13.00	38.07
5257.50	-51.09	V	-54.10	4.87	12.98	-45.99	-13.00	32.99
3505.00	-50.92	H	-59.81	5.05	12.71	-52.15	-13.00	39.15
5257.50	-53.01	H	-58.40	4.82	12.99	-50.23	-13.00	37.23

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 4: LTE Band 4 Link QPSK 1.4MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 19957 (1710.70MHz) BW1.4MHz 1RB0								
3421.40	-50.63	V	-60.02	4.81	12.88	-51.95	-13.00	38.95
5132.10	-53.67	V	-58.53	4.86	12.84	-50.55	-13.00	37.55
3421.40	-50.62	H	-60.23	4.81	12.88	-52.16	-13.00	39.16
5132.10	-53.17	H	-57.87	4.88	12.89	-49.86	-13.00	36.86
Middle Channel 20175 (1732.50MHz) BW1.4MHz 1RB0								
3465.00	-46.06	V	-54.98	5.03	12.73	-47.28	-13.00	34.28
5197.50	-42.63	V	-46.71	5.93	12.85	-39.79	-13.00	26.79
3465.00	-47.06	H	-56.20	5.03	12.73	-48.50	-13.00	35.50
5197.50	-51.53	H	-57.85	5.93	12.85	-50.93	-13.00	37.93
High Channel 20393 (1754.30MHz) BW1.4MHz 1RB0								
3508.60	-52.06	V	-58.80	5.00	12.72	-51.08	-13.00	38.08
5262.90	-51.29	V	-54.10	4.87	12.90	-46.07	-13.00	33.07
3508.60	-50.99	H	-59.74	4.99	12.68	-52.05	-13.00	39.05
5262.90	-52.73	H	-58.59	4.88	12.93	-50.54	-13.00	37.54

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 5: LTE Band 5 Link QPSK 10MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20450 (829MHz) BW10MHz 1RB0								
1658.00	-51.01	V	-65.17	3.31	9.76	-58.72	-13.00	45.72
2487.00	-53.14	V	-62.65	4.13	10.49	-56.29	-13.00	43.29
1658.00	-51.07	H	-65.50	3.31	9.76	-59.05	-13.00	46.05
2487.00	-51.93	H	-62.61	4.13	10.49	-56.25	-13.00	43.25
Middle Channel 20525 (836.5MHz) BW10MHz 1RB0								
1673.00	-51.24	V	-64.70	3.27	9.73	-58.24	-13.00	45.24
2509.50	-53.06	V	-62.86	4.09	10.47	-56.48	-13.00	43.48
1673.00	-50.46	H	-64.90	3.27	9.73	-58.44	-13.00	45.44
2509.50	-52.69	H	-62.41	4.09	10.47	-56.03	-13.00	43.03
High Channel 20600 (844MHz) BW10MHz 1RB0								
1688.00	-51.34	V	-65.31	3.29	10.06	-58.54	-13.00	45.54
2532.00	-53.13	V	-61.79	4.08	10.31	-55.56	-13.00	42.56
1688.00	-51.49	H	-65.10	3.29	10.06	-58.33	-13.00	45.33
2532.00	-52.80	H	-62.16	4.08	10.31	-55.93	-13.00	42.93

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 5: LTE Band 5 Link QPSK 5MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20425 (826.5MHz) BW5MHz 1RB0								
1653.00	-51.24	V	-65.51	3.28	9.75	-59.04	-13.00	46.04
2479.50	-53.45	V	-62.72	4.18	10.58	-56.32	-13.00	43.32
1653.00	-51.24	H	-65.22	3.31	9.83	-58.70	-13.00	45.70
2479.50	-52.32	H	-62.73	4.15	10.50	-56.38	-13.00	43.38
Middle Channel 20525 (836.5MHz) BW5MHz 1RB0								
1673.00	-51.18	V	-64.71	3.27	9.73	-58.25	-13.00	45.25
2509.50	-53.25	V	-62.96	4.09	10.47	-56.58	-13.00	43.58
1673.00	-50.73	H	-64.93	3.27	9.73	-58.47	-13.00	45.47
2509.50	-52.80	H	-62.66	4.09	10.47	-56.28	-13.00	43.28
High Channel 20625 (846.5MHz) BW5MHz 1RB0								
1693.00	-51.37	V	-65.07	3.27	10.08	-58.26	-13.00	45.26
2539.50	-52.78	V	-61.77	4.09	10.32	-55.54	-13.00	42.54
1693.00	-51.31	H	-65.17	3.33	10.13	-58.37	-13.00	45.37
2539.50	-53.01	H	-62.54	4.04	10.37	-56.21	-13.00	43.21

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 5: LTE Band 5 Link QPSK 3MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20415 (825.5MHz) BW3MHz 1RB0								
1651.00	-51.17	V	-65.37	3.30	9.84	-58.83	-13.00	45.83
2476.50	-53.20	V	-62.52	4.09	10.50	-56.11	-13.00	43.11
1651.00	-51.28	H	-65.23	3.30	9.78	-58.75	-13.00	45.75
2476.50	-52.09	H	-62.36	4.18	10.54	-56.00	-13.00	43.00
Middle Channel 20525 (836.5MHz) BW3MHz 1RB0								
1673.00	-51.16	V	-65.02	3.27	9.73	-58.56	-13.00	45.56
2509.50	-53.32	V	-62.75	4.09	10.47	-56.37	-13.00	43.37
1673.00	-50.46	H	-65.06	3.27	9.73	-58.60	-13.00	45.60
2509.50	-52.95	H	-62.50	4.09	10.47	-56.12	-13.00	43.12
High Channel 20635 (847.5MHz) BW3MHz 1RB0								
1695.00	-51.20	V	-65.10	3.26	10.14	-58.22	-13.00	45.22
2542.50	-53.14	V	-61.99	4.08	10.39	-55.68	-13.00	42.68
1695.00	-51.42	H	-65.10	3.31	10.09	-58.32	-13.00	45.32
2542.50	-52.99	H	-62.52	4.04	10.39	-56.17	-13.00	43.17

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 5: LTE Band 5 Link QPSK 1.4MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20407 (824.7MHz) BW1.4MHz 1RB0								
1649.40	-50.98	V	-65.51	3.31	9.82	-59.00	-13.00	46.00
2474.10	-53.32	V	-62.83	4.13	10.51	-56.45	-13.00	43.45
1649.40	-51.35	H	-65.44	3.36	9.82	-58.98	-13.00	45.98
2474.10	-52.16	H	-62.63	4.11	10.53	-56.21	-13.00	43.21
Middle Channel 20525 (836.5MHz) BW1.4MHz 1RB0								
1673.00	-51.24	V	-64.77	3.27	9.73	-58.31	-13.00	45.31
2509.50	-53.18	V	-62.79	4.09	10.47	-56.41	-13.00	43.41
1673.00	-50.68	H	-64.90	3.27	9.73	-58.44	-13.00	45.44
2509.50	-52.99	H	-62.61	4.09	10.47	-56.23	-13.00	43.23
High Channel 20643 (848.3MHz) BW1.4MHz 1RB0								
1696.60	-51.55	V	-64.98	3.32	10.10	-58.20	-13.00	45.20
2544.90	-53.08	V	-62.22	4.09	10.30	-56.01	-13.00	43.01
1696.60	-51.41	H	-65.01	3.35	10.14	-58.22	-13.00	45.22
2544.90	-52.70	H	-62.42	4.08	10.37	-56.13	-13.00	43.13

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 6: LTE Band 13 Link QPSK 10MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Middle Channel 23230 (782MHz) BW10MHz 1RB0								
1564.00	-46.25	V	-60.10	3.26	9.51	-53.85	-13.00	40.85
2346.50	-52.04	V	-62.39	4.08	10.39	-56.08	-13.00	43.08
1564.00	-45.88	H	-60.19	3.26	9.51	-53.94	-13.00	40.94
2346.50	-52.27	H	-62.57	4.08	10.39	-56.26	-13.00	43.26

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 6: LTE Band 13 Link QPSK 5MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 23205 (779.5MHz) BW5MHz 1RB0								
1559.00	-41.87	V	-55.58	3.29	9.32	-49.55	-13.00	36.55
2338.50	-52.18	V	-61.75	4.12	10.21	-55.66	-13.00	42.66
1559.00	-44.08	H	-57.79	3.29	9.32	-51.76	-13.00	38.76
2338.50	-53.77	H	-62.83	4.12	10.21	-56.74	-13.00	43.74
Middle Channel 23230 (782MHz) BW5MHz 1RB0								
1564.00	-46.08	V	-59.78	3.26	9.51	-53.53	-13.00	40.53
2346.50	-52.08	V	-62.34	4.08	10.39	-56.03	-13.00	43.03
1564.00	-46.23	H	-60.06	3.26	9.51	-53.81	-13.00	40.81
2346.50	-52.11	H	-62.75	4.08	10.39	-56.44	-13.00	43.44
High Channel 23255 (784.5MHz) BW5MHz 1RB0								
1569.00	-43.61	V	-57.60	3.28	9.87	-51.01	-13.00	38.01
2353.50	-53.78	V	-63.51	4.06	10.41	-57.16	-13.00	44.16
1569.00	-43.47	H	-58.28	3.28	9.87	-51.69	-13.00	38.69
2353.50	-53.88	H	-62.97	4.06	10.41	-56.62	-13.00	43.62

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 7: LTE Band 17 Link QPSK 10MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 23780 (709MHz) BW10MHz 1RB0								
1418.00	-50.20	V	-63.65	3.25	9.21	-57.69	-13.00	44.69
2127.00	-53.24	V	-62.67	4.08	10.11	-56.64	-13.00	43.64
1418.00	-44.79	H	-58.22	3.25	9.21	-52.26	-13.00	39.26
2127.00	-53.64	H	-63.02	4.08	10.11	-56.99	-13.00	43.99
Middle Channel 23790 (710MHz) BW10MHz 1RB0								
1420.00	-50.09	V	-62.96	3.25	9.21	-57.00	-13.00	44.00
2130.00	-52.60	V	-62.45	4.08	10.11	-56.42	-13.00	43.42
1420.00	-44.91	H	-58.17	3.25	9.21	-52.21	-13.00	39.21
2130.00	-52.93	H	-62.74	4.08	10.11	-56.71	-13.00	43.71
High Channel 23800 (711MHz) BW10MHz 1RB0								
1422.00	-44.69	V	-57.96	3.25	9.21	-52.00	-13.00	39.00
2133.00	-48.22	V	-58.19	4.08	10.11	-52.16	-13.00	39.16
1422.00	-45.41	H	-58.77	3.25	9.21	-52.81	-13.00	39.81
2133.00	-54.25	H	-62.57	4.08	10.11	-56.54	-13.00	43.54

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 7: LTE Band 17 Link QPSK 5MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 23755 (706.5MHz) BW5MHz 1RB0								
1413.00	-50.33	V	-63.35	3.29	9.25	-57.39	-13.00	44.39
2119.50	-52.92	V	-62.47	4.12	10.11	-56.48	-13.00	43.48
1413.00	-44.95	H	-58.17	3.23	9.20	-52.20	-13.00	39.20
2119.50	-53.66	H	-63.14	4.13	10.10	-57.17	-13.00	44.17
Middle Channel 23790 (710MHz) BW5MHz 1RB0								
1420.00	-50.09	V	-63.30	3.25	9.21	-57.34	-13.00	44.34
2130.00	-52.83	V	-62.51	4.08	10.11	-56.48	-13.00	43.48
1420.00	-44.72	H	-57.91	3.25	9.21	-51.95	-13.00	38.95
2130.00	-52.67	H	-62.80	4.08	10.11	-56.77	-13.00	43.77
High Channel 23825 (713.5MHz) BW5MHz 1RB0								
1427.00	-44.95	V	-57.90	3.30	9.29	-51.91	-13.00	38.91
2140.50	-48.16	V	-58.08	4.12	10.18	-52.02	-13.00	39.02
1427.00	-45.38	H	-58.65	3.29	9.21	-52.73	-13.00	39.73
2140.50	-54.44	H	-62.83	4.09	10.12	-56.80	-13.00	43.80

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode3: LTE Band 2 Link 16QAM 20MHz		
Date of Test	2016/06/07	Test Site	AC5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 18700 (1860MHz) BW20MHz 1RB0								
3720.00	-52.20	V	-58.92	4.79	12.71	-51.00	-13.00	38.00
5580.00	-52.89	V	-55.23	4.83	13.16	-46.90	-13.00	33.90
3720.00	-51.96	H	-59.27	4.79	12.71	-51.35	-13.00	38.35
5580.00	-52.76	H	-54.14	4.83	13.16	-45.81	-13.00	32.81
Middle Channel 18900 (1880.00MHz) BW20MHz 1RB0								
3760.00	-42.07	V	-50.42	5.03	12.72	-42.73	-13.00	29.73
5640.00	-50.43	V	-55.23	5.93	13.14	-48.02	-13.00	35.02
3760.00	-41.69	H	-59.31	5.03	12.72	-51.62	-13.00	38.62
5640.00	-49.59	H	-54.15	5.93	13.14	-46.94	-13.00	33.94
High Channel 19100 (1900.00MHz) BW20MHz 1RB0								
3800.00	-42.27	V	-50.48	5.05	12.74	-42.79	-13.00	29.79
5700.00	-51.77	V	-58.60	4.85	13.26	-50.19	-13.00	37.19
3800.00	-40.02	H	-48.16	5.03	12.76	-40.43	-13.00	27.43
5700.00	-53.18	H	-57.60	4.87	13.12	-49.35	-13.00	36.35

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode3: LTE Band 2 Link 16QAM 15MHz		
Date of Test	2016/06/07	Test Site	AC5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 18675 (1857.5MHz) BW15MHz 1RB0								
3715.00	-51.82	V	-58.72	4.79	12.71	-50.80	-13.00	37.80
5572.50	-53.08	V	-55.07	4.83	13.16	-46.74	-13.00	33.74
3715.00	-51.88	H	-58.80	4.79	12.71	-50.88	-13.00	37.88
5572.50	-52.56	H	-53.75	4.83	13.16	-45.42	-13.00	32.42
Middle Channel 18900 (1880.00MHz) BW15MHz 1RB0								
3760.00	-42.01	V	-50.64	5.03	12.72	-42.95	-13.00	29.95
5640.00	-50.55	V	-54.85	5.93	13.14	-47.64	-13.00	34.64
3760.00	-41.43	H	-59.02	5.03	12.72	-51.33	-13.00	38.33
5640.00	-49.54	H	-53.67	5.93	13.14	-46.46	-13.00	33.46
High Channel 19125 (1902.50MHz) BW15MHz 1RB0								
3805.00	-42.50	V	-50.74	5.02	12.72	-43.04	-13.00	30.04
5707.50	-52.34	V	-58.50	4.86	13.10	-50.26	-13.00	37.26
3805.00	-39.63	H	-48.09	5.02	12.72	-40.39	-13.00	27.39
5707.50	-53.33	H	-58.36	4.86	13.10	-50.12	-13.00	37.12

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode3: LTE Band 2 Link 16QAM 10MHz		
Date of Test	2016/06/07	Test Site	AC5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 18650 (1855MHz) BW10MHz 1RB0								
3710.00	-51.89	V	-59.12	4.78	12.76	-51.14	-13.00	38.14
5565.00	-52.43	V	-54.96	4.87	13.22	-46.61	-13.00	33.61
3710.00	-52.01	H	-59.14	4.81	12.78	-51.17	-13.00	38.17
5565.00	-52.59	H	-53.77	4.86	13.17	-45.46	-13.00	32.46
Middle Channel 18900 (1880.00MHz) BW10MHz 1RB0								
3760.00	-42.09	V	-50.17	5.03	12.72	-42.48	-13.00	29.48
5640.00	-50.44	V	-54.70	5.93	13.14	-47.49	-13.00	34.49
3760.00	-41.70	H	-58.92	5.03	12.72	-51.23	-13.00	38.23
5640.00	-49.53	H	-53.35	5.93	13.14	-46.14	-13.00	33.14
High Channel 19150 (1905.00MHz) BW10MHz 1RB0								
3810.00	-42.13	V	-50.37	5.06	12.72	-42.71	-13.00	29.71
5715.00	-52.04	V	-58.39	4.85	13.14	-50.10	-13.00	37.10
3810.00	-40.03	H	-48.11	4.97	12.75	-40.33	-13.00	27.33
5715.00	-52.98	H	-57.90	4.88	13.12	-49.66	-13.00	36.66

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode3: LTE Band 2 Link 16QAM 5MHz		
Date of Test	2016/06/07	Test Site	AC5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 18625 (1852.5MHz) BW5MHz 1RB0								
3705.00	-52.04	V	-58.37	4.76	12.73	-50.40	-13.00	37.40
5557.50	-52.60	V	-54.72	4.81	13.20	-46.33	-13.00	33.33
3705.00	-52.18	H	-58.55	4.83	12.73	-50.65	-13.00	37.65
5557.50	-52.63	H	-53.91	4.87	13.18	-45.60	-13.00	32.60
Middle Channel 18900 (1880.00MHz) BW5MHz 1RB0								
3760.00	-42.23	V	-50.63	5.03	12.72	-42.94	-13.00	29.94
5640.00	-50.11	V	-54.94	5.93	13.14	-47.73	-13.00	34.73
3760.00	-41.38	H	-58.90	5.03	12.72	-51.21	-13.00	38.21
5640.00	-49.47	H	-54.08	5.93	13.14	-46.87	-13.00	33.87
High Channel 19175 (1907.50MHz) BW5MHz 1RB0								
3815.00	-42.19	V	-50.29	5.01	12.80	-42.50	-13.00	29.50
5722.50	-52.39	V	-58.03	4.84	13.13	-49.74	-13.00	36.74
3815.00	-39.62	H	-47.87	5.04	12.81	-40.10	-13.00	27.10
5722.50	-53.19	H	-58.01	4.88	13.12	-49.77	-13.00	36.77

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode3: LTE Band 2 Link 16QAM 3MHz		
Date of Test	2016/06/07	Test Site	AC5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 18615 (1851.5MHz) BW3MHz 1RB0								
3703.00	-51.88	V	-59.00	4.81	12.75	-51.06	-13.00	38.06
5554.50	-52.64	V	-54.91	4.84	13.22	-46.53	-13.00	33.53
3703.00	-51.95	H	-59.35	4.79	12.80	-51.34	-13.00	38.34
5554.50	-52.46	H	-54.05	4.80	13.24	-45.61	-13.00	32.61
Middle Channel 18900 (1880.00MHz) BW3MHz 1RB0								
3760.00	-41.94	V	-50.46	5.03	12.72	-42.77	-13.00	29.77
5640.00	-50.16	V	-55.14	5.93	13.14	-47.93	-13.00	34.93
3760.00	-41.31	H	-58.99	5.03	12.72	-51.30	-13.00	38.30
5640.00	-49.28	H	-53.73	5.93	13.14	-46.52	-13.00	33.52
High Channel 19185 (1908.50MHz) BW3MHz 1RB0								
3817.00	-42.28	V	-49.87	5.03	12.79	-42.11	-13.00	29.11
5725.50	-52.66	V	-58.24	4.85	13.17	-49.92	-13.00	36.92
3817.00	-39.52	H	-48.22	5.02	12.78	-40.46	-13.00	27.46
5725.50	-53.14	H	-57.83	4.86	13.12	-49.57	-13.00	36.57

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode3: LTE Band 2 Link 16QAM 1.4MHz		
Date of Test	2016/06/07	Test Site	AC5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 18607 (1850.70MHz) BW1.4MHz 1RB0								
3701.40	-51.71	V	-58.61	4.78	12.70	-50.69	-13.00	37.69
5552.10	-52.75	V	-54.72	4.85	13.18	-46.39	-13.00	33.39
3701.40	-51.76	H	-59.07	4.81	12.72	-51.16	-13.00	38.16
5552.10	-52.55	H	-53.74	4.80	13.17	-45.37	-13.00	32.37
Middle Channel 18900 (1880.00MHz) BW1.4MHz 1RB0								
3760.00	-42.03	V	-50.10	5.03	12.72	-42.41	-13.00	29.41
5640.00	-50.28	V	-54.71	5.93	13.14	-47.50	-13.00	34.50
3760.00	-41.48	H	-58.53	5.03	12.72	-50.84	-13.00	37.84
5640.00	-49.49	H	-53.72	5.93	13.14	-46.51	-13.00	33.51
High Channel 19193 (1909.30MHz) BW1.4MHz 1RB0								
3818.60	-42.13	V	-50.24	5.05	12.73	-42.56	-13.00	29.56
5727.90	-52.09	V	-58.41	4.87	13.13	-50.15	-13.00	37.15
3818.60	-39.81	H	-47.77	5.03	12.74	-40.06	-13.00	27.06
5727.90	-53.26	H	-57.83	4.84	13.15	-49.52	-13.00	36.52

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 4: LTE Band 4 Link 16QAM 20MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20050 (1720.00MHz) BW20MHz 1RB0								
3440.00	-49.99	V	-59.88	4.75	12.84	-51.79	-13.00	38.79
5160.00	-53.89	V	-57.93	4.81	12.87	-49.87	-13.00	36.87
3440.00	-50.30	H	-60.03	4.82	12.85	-52.00	-13.00	39.00
5160.00	-52.88	H	-57.42	4.79	12.82	-49.39	-13.00	36.39
Middle Channel 20175 (1732.50MHz) BW20MHz 1RB0								
3465.00	-45.58	V	-54.51	5.03	12.73	-46.81	-13.00	33.81
5197.50	-42.62	V	-46.56	5.93	12.85	-39.64	-13.00	26.64
3465.00	-46.66	H	-56.07	5.03	12.73	-48.37	-13.00	35.37
5197.50	-51.50	H	-57.64	5.93	12.85	-50.72	-13.00	37.72
High Channel 20300 (1745.00MHz) BW20MHz 1RB0								
3490.00	-51.45	V	-58.70	5.02	12.64	-51.08	-13.00	38.08
5235.50	-50.62	V	-53.72	4.86	12.90	-45.68	-13.00	32.68
3490.00	-50.91	H	-59.66	5.02	12.64	-52.04	-13.00	39.04
5235.50	-52.91	H	-57.91	4.86	12.90	-49.87	-13.00	36.87

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 4: LTE Band 4 Link 16QAM 15MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20025 (1717.50MHz) BW15MHz 1RB0								
3435.00	-50.40	V	-60.07	4.81	12.87	-52.01	-13.00	39.01
5152.50	-53.43	V	-58.12	4.80	12.82	-50.10	-13.00	37.10
3435.00	-50.25	H	-59.69	4.80	12.88	-51.61	-13.00	38.61
5152.50	-53.26	H	-57.14	4.85	12.86	-49.13	-13.00	36.13
Middle Channel 20175 (1732.50MHz) BW15MHz 1RB0								
3465.00	-45.84	V	-54.33	5.03	12.73	-46.63	-13.00	33.63
5197.50	-42.24	V	-46.41	5.93	12.85	-39.49	-13.00	26.49
3465.00	-47.06	H	-56.08	5.03	12.73	-48.38	-13.00	35.38
5197.50	-51.29	H	-57.73	5.93	12.85	-50.81	-13.00	37.81
High Channel 20325 (1747.50MHz) BW15MHz 1RB0								
3495.00	-51.93	V	-58.82	5.07	12.63	-51.26	-13.00	38.26
5242.50	-50.63	V	-53.88	4.90	12.93	-45.85	-13.00	32.85
3495.00	-50.57	H	-59.50	5.06	12.64	-51.92	-13.00	38.92
5242.50	-52.21	H	-57.76	4.87	12.92	-49.71	-13.00	36.71

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 4: LTE Band 4 Link 16QAM 10MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20000 (1715.00MHz) BW10MHz 1RB0								
3430.00	-50.00	V	-59.66	4.78	12.89	-51.55	-13.00	38.55
5145.00	-53.37	V	-58.30	4.85	12.82	-50.33	-13.00	37.33
3430.00	-50.33	H	-59.69	4.80	12.80	-51.69	-13.00	38.69
5145.00	-52.83	H	-56.94	4.79	12.89	-48.84	-13.00	35.84
Middle Channel 20175 (1732.50MHz) BW10MHz 1RB0								
3465.00	-45.93	V	-54.46	5.03	12.73	-46.76	-13.00	33.76
5197.50	-42.97	V	-46.51	5.93	12.85	-39.59	-13.00	26.59
3465.00	-46.94	H	-55.84	5.03	12.73	-48.14	-13.00	35.14
5197.50	-51.14	H	-57.58	5.93	12.85	-50.66	-13.00	37.66
High Channel 20325 (1750.00MHz) BW10MHz 1RB0								
3500.00	-51.39	V	-58.16	4.99	12.63	-50.52	-13.00	37.52
5250.00	-51.04	V	-54.28	4.85	12.94	-46.19	-13.00	33.19
3500.00	-50.72	H	-59.34	5.01	12.64	-51.71	-13.00	38.71
5250.00	-52.94	H	-58.15	4.89	12.96	-50.08	-13.00	37.08

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 4: LTE Band 4 Link 16QAM 5MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 19975 (1712.50MHz) BW5MHz 1RB0								
3425.00	-50.07	V	-60.09	4.78	12.81	-52.06	-13.00	39.06
5137.50	-53.63	V	-58.15	4.79	12.83	-50.11	-13.00	37.11
3425.00	-49.91	H	-60.00	4.80	12.84	-51.96	-13.00	38.96
5137.50	-53.07	H	-57.21	4.80	12.82	-49.19	-13.00	36.19
Middle Channel 20175 (1732.50MHz) BW5MHz 1RB0								
3465.00	-45.93	V	-54.52	5.03	12.73	-46.82	-13.00	33.82
5197.50	-42.78	V	-46.77	5.93	12.85	-39.85	-13.00	26.85
3465.00	-47.02	H	-56.30	5.03	12.73	-48.60	-13.00	35.60
5197.50	-51.27	H	-57.90	5.93	12.85	-50.98	-13.00	37.98
High Channel 20375 (1752.50MHz) BW5MHz 1RB0								
3505.00	-51.87	V	-58.10	4.98	12.65	-50.43	-13.00	37.43
5257.50	-50.68	V	-54.14	4.81	12.97	-45.98	-13.00	32.98
3505.00	-50.10	H	-59.31	5.00	12.63	-51.68	-13.00	38.68
5257.50	-52.55	H	-58.31	4.84	12.94	-50.21	-13.00	37.21

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 4: LTE Band 4 Link 16QAM 3MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 19965 (1711.50MHz) BW3MHz 1RB0								
3425.00	-50.17	V	-59.78	4.79	12.90	-51.67	-13.00	38.67
5137.50	-53.36	V	-58.53	4.87	12.84	-50.56	-13.00	37.56
3425.00	-50.04	H	-59.94	4.77	12.80	-51.91	-13.00	38.91
5137.50	-52.89	H	-57.29	4.86	12.81	-49.34	-13.00	36.34
Middle Channel 20175 (1732.50MHz) BW3MHz 1RB0								
3465.00	-45.77	V	-54.50	5.03	12.73	-46.80	-13.00	33.80
5197.50	-42.72	V	-46.19	5.93	12.85	-39.27	-13.00	26.27
3465.00	-47.32	H	-55.89	5.03	12.73	-48.19	-13.00	35.19
5197.50	-51.90	H	-57.46	5.93	12.85	-50.54	-13.00	37.54
High Channel 20385 (1753.50MHz) BW3MHz 1RB0								
3505.00	-51.79	V	-58.61	5.01	12.65	-50.97	-13.00	37.97
5257.50	-51.03	V	-53.63	4.87	12.98	-45.52	-13.00	32.52
3505.00	-50.89	H	-59.62	5.05	12.71	-51.96	-13.00	38.96
5257.50	-52.52	H	-58.29	4.82	12.99	-50.12	-13.00	37.12

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 4: LTE Band 4 Link 16QAM 1.4MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 19957 (1710.70MHz) BW1.4MHz 1RB0								
3421.40	-50.52	V	-59.60	4.81	12.88	-51.53	-13.00	38.53
5132.10	-53.40	V	-58.18	4.86	12.84	-50.20	-13.00	37.20
3421.40	-50.38	H	-59.97	4.81	12.88	-51.90	-13.00	38.90
5132.10	-52.90	H	-57.40	4.88	12.89	-49.39	-13.00	36.39
Middle Channel 20175 (1732.50MHz) BW1.4MHz 1RB0								
3465.00	-45.74	V	-54.56	5.03	12.73	-46.86	-13.00	33.86
5197.50	-42.66	V	-46.27	5.93	12.85	-39.35	-13.00	26.35
3465.00	-46.69	H	-55.87	5.03	12.73	-48.17	-13.00	35.17
5197.50	-51.25	H	-57.70	5.93	12.85	-50.78	-13.00	37.78
High Channel 20393 (1754.30MHz) BW1.4MHz 1RB0								
3508.60	-51.93	V	-58.66	5.00	12.72	-50.94	-13.00	37.94
5262.90	-50.98	V	-53.69	4.87	12.90	-45.66	-13.00	32.66
3508.60	-50.58	H	-59.43	4.99	12.68	-51.74	-13.00	38.74
5262.90	-52.43	H	-58.48	4.88	12.93	-50.43	-13.00	37.43

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 5: LTE Band 5 Link 16QAM 10MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20450 (829MHz) BW10MHz 1RB0								
1658.00	-50.94	V	-64.76	3.31	9.76	-58.31	-13.00	45.31
2487.00	-52.66	V	-62.51	4.13	10.49	-56.15	-13.00	43.15
1658.00	-50.85	H	-65.12	3.31	9.76	-58.67	-13.00	45.67
2487.00	-51.65	H	-62.21	4.13	10.49	-55.85	-13.00	42.85
Middle Channel 20525 (836.5MHz) BW10MHz 1RB0								
1673.00	-50.73	V	-64.27	3.27	9.73	-57.81	-13.00	44.81
2509.50	-53.02	V	-62.56	4.09	10.47	-56.18	-13.00	43.18
1673.00	-50.37	H	-64.52	3.27	9.73	-58.06	-13.00	45.06
2509.50	-52.61	H	-62.20	4.09	10.47	-55.82	-13.00	42.82
High Channel 20600 (844MHz) BW10MHz 1RB0								
1688.00	-51.16	V	-64.67	3.29	10.06	-57.90	-13.00	44.90
2532.00	-52.81	V	-61.47	4.08	10.31	-55.24	-13.00	42.24
1688.00	-51.22	H	-64.70	3.29	10.06	-57.93	-13.00	44.93
2532.00	-52.32	H	-62.02	4.08	10.31	-55.79	-13.00	42.79

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 5: LTE Band 5 Link 16QAM 5MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20425 (826.5MHz) BW5MHz 1RB0								
1653.00	-51.05	V	-65.02	3.28	9.75	-58.55	-13.00	45.55
2479.50	-52.99	V	-62.13	4.18	10.58	-55.73	-13.00	42.73
1653.00	-51.15	H	-64.72	3.31	9.83	-58.20	-13.00	45.20
2479.50	-51.88	H	-62.21	4.15	10.50	-55.86	-13.00	42.86
Middle Channel 20525 (836.5MHz) BW5MHz 1RB0								
1673.00	-50.98	V	-64.21	3.27	9.73	-57.75	-13.00	44.75
2509.50	-53.07	V	-62.59	4.09	10.47	-56.21	-13.00	43.21
1673.00	-50.67	H	-64.61	3.27	9.73	-58.15	-13.00	45.15
2509.50	-52.72	H	-62.05	4.09	10.47	-55.67	-13.00	42.67
High Channel 20625 (846.5MHz) BW5MHz 1RB0								
1693.00	-50.93	V	-64.85	3.27	10.08	-58.04	-13.00	45.04
2539.50	-52.48	V	-61.42	4.09	10.32	-55.19	-13.00	42.19
1693.00	-51.10	H	-64.98	3.33	10.13	-58.18	-13.00	45.18
2539.50	-52.61	H	-62.18	4.04	10.37	-55.85	-13.00	42.85

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 5: LTE Band 5 Link 16QAM 3MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20415 (825.5MHz) BW3MHz 1RB0								
1651.00	-50.89	V	-65.11	3.30	9.84	-58.57	-13.00	45.57
2476.50	-52.98	V	-62.36	4.09	10.50	-55.95	-13.00	42.95
1651.00	-50.90	H	-64.84	3.30	9.78	-58.36	-13.00	45.36
2476.50	-51.62	H	-62.03	4.18	10.54	-55.67	-13.00	42.67
Middle Channel 20525 (836.5MHz) BW3MHz 1RB0								
1673.00	-50.79	V	-64.41	3.27	9.73	-57.95	-13.00	44.95
2509.50	-53.26	V	-62.19	4.09	10.47	-55.81	-13.00	42.81
1673.00	-50.21	H	-64.66	3.27	9.73	-58.20	-13.00	45.20
2509.50	-52.58	H	-62.26	4.09	10.47	-55.88	-13.00	42.88
High Channel 20635 (847.5MHz) BW3MHz 1RB0								
1695.00	-50.84	V	-64.75	3.26	10.14	-57.87	-13.00	44.87
2542.50	-52.80	V	-61.71	4.08	10.39	-55.40	-13.00	42.40
1695.00	-51.30	H	-64.51	3.31	10.09	-57.73	-13.00	44.73
2542.50	-52.88	H	-62.38	4.04	10.39	-56.03	-13.00	43.03

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 5: LTE Band 5 Link 16QAM 1.4MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 20407 (824.7MHz) BW1.4MHz 1RB0								
1649.40	-50.91	V	-65.30	3.31	9.82	-58.79	-13.00	45.79
2474.10	-52.87	V	-62.69	4.13	10.51	-56.31	-13.00	43.31
1649.40	-51.31	H	-65.04	3.36	9.82	-58.58	-13.00	45.58
2474.10	-52.02	H	-62.04	4.11	10.53	-55.62	-13.00	42.62
Middle Channel 20525 (836.5MHz) BW1.4MHz 1RB0								
1673.00	-51.12	V	-64.19	3.27	9.73	-57.73	-13.00	44.73
2509.50	-53.14	V	-62.56	4.09	10.47	-56.18	-13.00	43.18
1673.00	-50.31	H	-64.27	3.27	9.73	-57.81	-13.00	44.81
2509.50	-52.93	H	-62.10	4.09	10.47	-55.72	-13.00	42.72
High Channel 20643 (848.3MHz) BW1.4MHz 1RB0								
1696.60	-51.26	V	-64.57	3.32	10.10	-57.79	-13.00	44.79
2544.90	-52.95	V	-62.04	4.09	10.30	-55.83	-13.00	42.83
1696.60	-51.04	H	-64.78	3.35	10.14	-57.99	-13.00	44.99
2544.90	-52.48	H	-61.80	4.08	10.37	-55.51	-13.00	42.51

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 6: LTE Band 13 Link 16QAM 10MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Middle Channel 23230 (782MHz) BW10MHz 1RB0								
1564.00	-45.97	V	-59.72	3.26	9.51	-53.47	-13.00	40.47
2346.50	-51.91	V	-61.85	4.08	10.39	-55.54	-13.00	42.54
1564.00	-45.42	H	-59.62	3.26	9.51	-53.37	-13.00	40.37
2346.50	-51.95	H	-62.44	4.08	10.39	-56.13	-13.00	43.13

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 6: LTE Band 13 Link 16QAM 5MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 23205 (779.5MHz) BW5MHz 1RB0								
1559.00	-41.94	V	-55.20	3.29	9.32	-49.17	-13.00	36.17
2338.50	-51.68	V	-61.48	4.12	10.21	-55.39	-13.00	42.39
1559.00	-43.73	H	-57.44	3.29	9.32	-51.41	-13.00	38.41
2338.50	-53.59	H	-62.21	4.12	10.21	-56.12	-13.00	43.12
Middle Channel 23230 (782MHz) BW5MHz 1RB0								
1564.00	-46.08	V	-59.51	3.26	9.51	-53.26	-13.00	40.26
2346.50	-51.76	V	-62.11	4.08	10.39	-55.80	-13.00	42.80
1564.00	-46.19	H	-59.46	3.26	9.51	-53.21	-13.00	40.21
2346.50	-51.63	H	-62.40	4.08	10.39	-56.09	-13.00	43.09
High Channel 23255 (784.5MHz) BW5MHz 1RB0								
1569.00	-43.25	V	-57.26	3.28	9.87	-50.67	-13.00	37.67
2353.50	-53.51	V	-62.92	4.06	10.41	-56.57	-13.00	43.57
1569.00	-43.42	H	-57.81	3.28	9.87	-51.22	-13.00	38.22
2353.50	-53.68	H	-62.80	4.06	10.41	-56.45	-13.00	43.45

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 7: LTE Band 17 Link 16QAM 10MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 23780 (709MHz) BW10MHz 1RB0								
1418.00	-50.07	V	-63.34	3.25	9.21	-57.38	-13.00	44.38
2127.00	-52.92	V	-62.20	4.08	10.11	-56.17	-13.00	43.17
1418.00	-44.58	H	-57.84	3.25	9.21	-51.88	-13.00	38.88
2127.00	-53.53	H	-62.77	4.08	10.11	-56.74	-13.00	43.74
Middle Channel 23790 (710MHz) BW10MHz 1RB0								
1420.00	-50.03	V	-62.70	3.25	9.21	-56.74	-13.00	43.74
2130.00	-52.19	V	-62.06	4.08	10.11	-56.03	-13.00	43.03
1420.00	-44.80	H	-57.83	3.25	9.21	-51.87	-13.00	38.87
2130.00	-52.80	H	-62.24	4.08	10.11	-56.21	-13.00	43.21
High Channel 23800 (711MHz) BW10MHz 1RB0								
1422.00	-44.61	V	-57.42	3.25	9.21	-51.46	-13.00	38.46
2133.00	-48.06	V	-58.01	4.08	10.11	-51.98	-13.00	38.98
1422.00	-45.07	H	-58.22	3.25	9.21	-52.26	-13.00	39.26
2133.00	-54.16	H	-62.43	4.08	10.11	-56.40	-13.00	43.40

Product	Wireless Module		
Test Item	Radiated Spurious Emission		
Test Mode	Mode 7: LTE Band 17 Link 16QAM 5MHz		
Date of Test	2016/06/07	Test Site	AC-5

Frequency (MHz)	SA Reading (dBm)	Ant.Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)
Low Channel 23755 (706.5MHz) BW5MHz 1RB0								
1413.00	-50.31	V	-62.80	3.29	9.25	-56.84	-13.00	43.84
2119.50	-52.67	V	-61.99	4.12	10.11	-56.00	-13.00	43.00
1413.00	-44.52	H	-57.82	3.23	9.20	-51.85	-13.00	38.85
2119.50	-53.14	H	-62.59	4.13	10.10	-56.62	-13.00	43.62
Middle Channel 23790 (710MHz) BW5MHz 1RB0								
1420.00	-49.69	V	-62.70	3.25	9.21	-56.74	-13.00	43.74
2130.00	-52.33	V	-62.17	4.08	10.11	-56.14	-13.00	43.14
1420.00	-44.48	H	-57.82	3.25	9.21	-51.86	-13.00	38.86
2130.00	-52.59	H	-62.34	4.08	10.11	-56.31	-13.00	43.31
High Channel 23825 (713.5MHz) BW5MHz 1RB0								
1427.00	-44.78	V	-57.52	3.30	9.29	-51.53	-13.00	38.53
2140.50	-48.17	V	-57.92	4.12	10.18	-51.86	-13.00	38.86
1427.00	-45.42	H	-58.34	3.29	9.21	-52.42	-13.00	39.42
2140.50	-54.16	H	-62.44	4.09	10.12	-56.41	-13.00	43.41

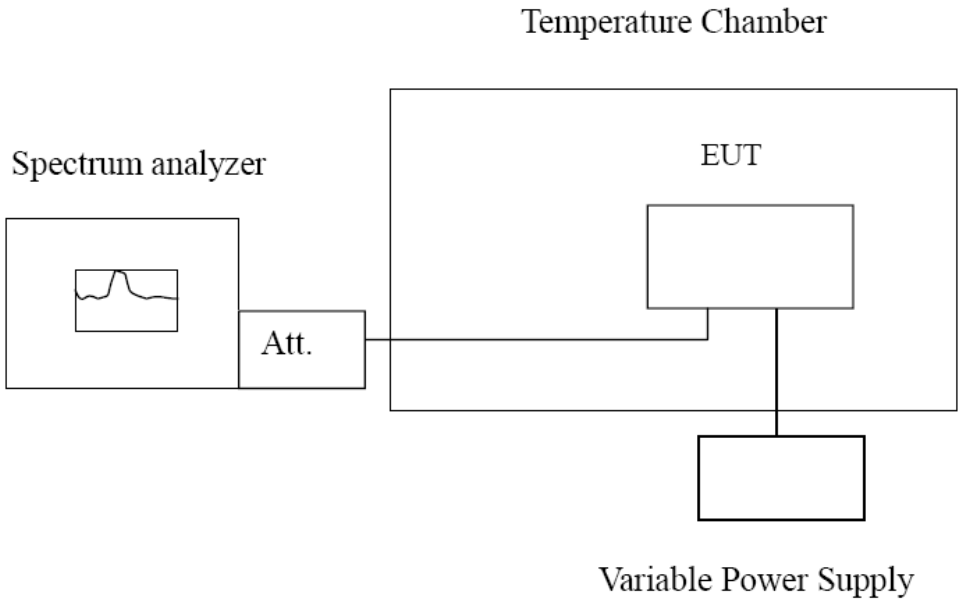
7. Frequency Stability Under Temperature & Voltage Variations

7.1. Test Equipment

Frequency Stability Under Temperature & Voltage Variations / AC-6

Instrument	Manufacturer	Type No.	Serial No	Cali. Due Date
PSA Series Spectrum Analyzer	Agilent	E4440A	MY49420184	2017.02.04
Radio Communication Tester	Anritsu	MT8820C	6201181503	2016.09.16
Dual Directional Coupler	Agilent	778D	20160	2017.02.04
10dB Coaxial Coupler	Agilent	87300C	MY44300299	2017.03.28
DC Power Supply	IDRC	CD-035-020PR	977272	2016.09.16
Temperature & Humidity Chamber	Gaoyu	TH-1P-B	WIT-05121302	2017.01.04
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC6-TH	2017.01.05

7.2. Test Setup



7.3. Test Procedure

Frequency Stability Under Temperature Variations:

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20℃ operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30℃. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10℃ increased per stage until the highest temperature of +50℃ reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20℃. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation (±15%) and endpoint, record the maximum frequency change.

7.4. Uncertainty

The measurement uncertainty is defined as ± 10 Hz.

7.5. Test Result

Product	Wireless Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 1: WCDMA Band 2 Link		
Date of Test	2016/06/07	Test Site	AC6

Frequency Stability under Temperature

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	1880.00	-32	± 4331.3
-20	1880.00	48	± 4331.3
-10	1880.00	-35	± 4331.3
0	1880.00	35	± 4331.3
10	1880.00	49	± 4331.3
20	1880.00	-47	± 4331.3
30	1880.00	-59	± 4331.3
40	1880.00	62	± 4331.3
50	1880.00	-12	± 4331.3

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
4.5	1880.00	-26	± 4331.3
3.7	1880.00	39	± 4331.3
3.2	1880.00	-27	± 4331.3

Product	Wireless Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 2: WCDMA Band 5 Link		
Date of Test	2016/06/07	Test Site	AC6

Frequency Stability under Temperature

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	836.4	53	± 4331.3
-20	836.4	-47	± 4331.3
-10	836.4	28	± 4331.3
0	836.4	32	± 4331.3
10	836.4	-41	± 4331.3
20	836.4	-55	± 4331.3
30	836.4	67	± 4331.3
40	836.4	51	± 4331.3
50	836.4	40	± 4331.3

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
4.5	836.4	53	± 4331.3
3.7	836.4	-47	± 4331.3
3.2	836.4	28	± 4331.3

Product	Wireless Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 3: LTE Band 2 Link		
Date of Test	2016/06/07	Test Site	TR7

Frequency Stability under Temperature

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	1880	-55	± 4331.3
-20	1880	30	± 4331.3
-10	1880	-33	± 4331.3
0	1880	57	± 4331.3
10	1880	-17	± 4331.3
20	1880	-41	± 4331.3
30	1880	-25	± 4331.3
40	1880	49	± 4331.3
50	1880	26	± 4331.3

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
4.5	1880	67	± 4331.3
3.7	1880	-71	± 4331.3
3.2	1880	44	± 4331.3

Product	Wireless Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 4: LTE Band 4 Link		
Date of Test	2016/06/07	Test Site	TR7

Frequency Stability under Temperature

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	1732.50	56	± 4331.3
-20	1732.50	32	± 4331.3
-10	1732.50	-14	± 4331.3
0	1732.50	31	± 4331.3
10	1732.50	-13	± 4331.3
20	1732.50	14	± 4331.3
30	1732.50	-54	± 4331.3
40	1732.50	16	± 4331.3
50	1732.50	26	± 4331.3

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
4.5	1732.50	-13	± 4331.3
3.7	1732.50	24	± 4331.3
3.2	1732.50	-19	± 4331.3

Product	Wireless Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 5: LTE Band 5 Link		
Date of Test	2016/06/07	Test Site	TR7

Frequency Stability under Temperature

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	836.5	-33	± 4331.3
-20	836.5	50	± 4331.3
-10	836.5	44	± 4331.3
0	836.5	36	± 4331.3
10	836.5	27	± 4331.3
20	836.5	-23	± 4331.3
30	836.5	41	± 4331.3
40	836.5	36	± 4331.3
50	836.5	-11	± 4331.3

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
4.5	836.5	29	± 4331.3
3.7	836.5	-33	± 4331.3
3.2	836.5	-21	± 4331.3

Product	Wireless Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 6: LTE Band 13 Link		
Date of Test	2016/06/07	Test Site	TR7

Frequency Stability under Temperature

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	782	-41	± 4331.3
-20	782	12	± 4331.3
-10	782	43	± 4331.3
0	782	25	± 4331.3
10	782	-17	± 4331.3
20	782	25	± 4331.3
30	782	56	± 4331.3
40	782	19	± 4331.3
50	782	41	± 4331.3

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
4.5	782	-23	± 4331.3
3.7	782	19	± 4331.3
3.2	782	16	± 4331.3

Product	Wireless Module		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 7: LTE Band 17 Link		
Date of Test	2016/06/07	Test Site	TR7

Frequency Stability under Temperature

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
-30	710	22	± 4331.3
-20	710	-21	± 4331.3
-10	710	17	± 4331.3
0	710	15	± 4331.3
10	710	26	± 4331.3
20	710	-10	± 4331.3
30	710	58	± 4331.3
40	710	41	± 4331.3
50	710	21	± 4331.3

Frequency Stability under Voltage

DC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	Limit (Hz)
4.5	710	24	± 4331.3
3.7	710	-11	± 4331.3
3.2	710	59	± 4331.3

The End