FCC RF TEST REPORT

ISSUED BY
Shenzhen BALUN Technology Co., Ltd.

FOR

RF 5G Wireless Module

ISSUED TO
SYNCOMM TECHNOLOGY CORP.

10F., No.101, Sec.2 Gongdao 5th Rd., Hsinchu City, Taiwan 300, R.O.C

Prepared by: Hu Chao
Hu Chao
(Engineer)
Date Nov. 06, 2017

Approved by:
Wei Yanquan
(Chief Engineer)
Date Nov. 06, 2017

Report No.:	BL-HK17A0037-601
EUT Name:	RF 5G Wireless Module
Model Name:	IA9Q5 S83D-E
Brand Name:	Syncomm
Test Standard:	47 CFR Part 15 Subpart E
FCC ID:	PJH-IA9Q5S83D-E
Test conclusion:	Pass
Test Date:	Oct. 15, 2017~ Oct. 23, 2017
Date of Issue:	Nov. 06, 2017

Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong, P. R. China 518055
TEL: +86-755-66850100, FAX: +86-755-61824271
Email: info@baluntek.com
www.baluntek.com

Revision History

Version	Issue Date	Revisions Content
Rev. 01	Nov. 06, 2017	Initial Issue

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1 ADMINISTRATIVE DATA (GENERAL INFORMATION)

1.1 Identification of the Testing Laboratory

Company Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A-1. The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196. The laboratory is a testing organization accredited by American Association for Laboratory Accreditation (A2LA) according to ISO/IEC 17025.The accreditation certificate is 4344.01. The laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L6791.
Description	All measurement facilities used to collect the measurement data are located at Block B, FL 1, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China 518055

1.3 Laboratory Condition

Ambient Temperature	20 to 25℃
Ambient Relative Humidity	45% - 55%
Ambient Pressure	100 kPa - 102 kPa

1.4 Announce

(1) The test report reference to the report template version v4.1.

(2) The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.

(3) The test report is invalid if there is any evidence and/or falsification.

(4) The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.

(5) This document may not be altered or revised in any way unless done so by BALUN and all revisions are duly noted in the revisions section.

(6) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

2 PRODUCT INFORMATION

2.1 Applicant

Applicant	SYNCOMM TECHNOLOGY CORP.
Address	10F., No.101, Sec.2 Gongdao 5th Rd., Hsinchu City, Taiwan 300, R.O.C

2.2 Manufacturer

Manufacturer	SYNCOMM TECHNOLOGY CORP.
Address	10F., No.101, Sec.2 Gongdao 5th Rd., Hsinchu City, Taiwan 300, ROC

2.3 Factory

Factory	SYNCOMM TECHNOLOGY CORP.
Address	10F., No.101, Sec.2 Gongdao 5th Rd., Hsinchu City, Taiwan 300, R.O.C

2.4 General Description for Equipment under Test (EUT)

EUT Type	RF 5G Wireless Module
Model Name Under Test	IA9Q5 S83D-E
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	V1.1
Software Version	V1.00E1
Network and Wireless connectivity	5.2 G and 5.8 G ISM Band(GFSK modulation)

2.5 Ancillary Equipment

Note: Not applicable.

2.6 Technical Information

Frequency Range	5150 MHz to 5250 MHz; 5725 MHz to 5850 MHz
Product Type	☒ Mobile ☐ Portable ☐ Fix Location
Modulation Type	GFSK
Product Type	Indoor for IC standard Mobile and portable for FCC standard
Transfer Rate (Mbps) (Single RF path)	2 Mbps
Channel Bandwidth	less than or equal to 4MHz
Maximum Output Power	5150 MHz - 5250 MHz: 15.49 dBm 5725 MHz - 5850 MHz: 17.34 dBm
Antenna Type	PCB Antenna
Antenna Gain	5150 MHz to 5250 MHz: 2.5 dBi 5725 MHz to 5850 MHz: 2.5 dBi
About the Product	The equipment is RF 5G Wireless Module, intended for used with information technology equipment.

2.7 Additional Instructions

Mode	☒ Special software is used. The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

During testing, Channel and Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

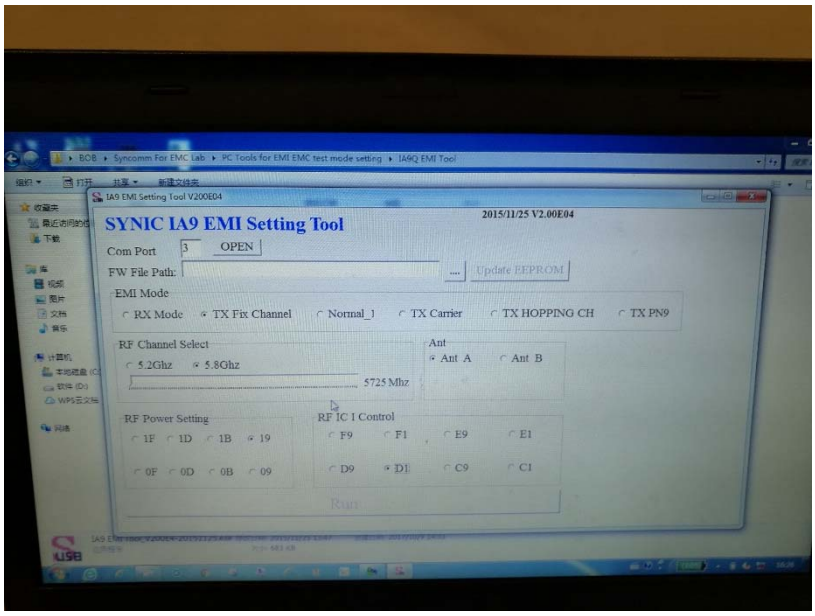
EUT Software Settings:

Test Software Version	IA9		
Support Units (Software installation media)	Description	Manufacturer	Model
	Notebook	Lenovo	X220

5150 MHz - 5250 MHz Power level setup in software			
Mode	Channel	Frequency (MHz)	Soft Set
GFSK	Low	5165	D1
	Middle	5180	D1
	High	5200	D1

5725 MHz - 5850 MHz Power level setup in software			
Mode	Channel	Frequency (MHz)	Soft Set
GFSK	Low	5740	D1
	Middle	5790	C9
	High	5840	D1

Run Software



2.8 Channel List

5150 MHz - 5250 MHz		5725 MHz - 5850 MHz	
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
Low	5165	Low	5740
Middle	5180	Middle	5790
High	5200	High	5840

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15 Subpart E (10-1-15 Edition)	Unlicensed National Information Infrastructure Devices
2	KDB Publication 789033 D02v01r04	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E
3	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

3.2 Verdict

No.	Description	FCC Part No.	Test Result	Verdict
1	Antenna Requirement	15.203	--	Pass[Note1]
2	RF Output Power	15.407(a)	ANNEX A.1	Pass
3	Emission Bandwidth & 99% Occupied Bandwidth	15.407(a)	ANNEX A.2	Pass
4	6 dB bandwidth	15.407(e)	ANNEX A.3	Pass
5	Power Spectral Density	15.407(a)	ANNEX A.4	Pass
6	Conducted Emission	15.207	ANNEX A.5	Pass
7	Conducted Spurious Emission and Band Edge (Authorized-band)	15.407(b) 15.209	ANNEX A.6	Pass
8	Radiated Spurious Emissions and Band Edge (Restricted-band)	15.407(b)	ANNEX A.7	Pass
9	Frequency Stability	15.407(g)	ANNEX A.8	Pass
10	Receiver Spurious Emissions	--	--	N/A[Note2]

Note [1]: The EUT has a permanently and irreplaceable attached antenna, which complies with the requirement FCC 15.203.

Note [2]: Only radio communication receivers operating in stand-alone mode within the band 30-960 MHz, as well as scanner receivers, are subject to Industry Canada requirements, so this test is not applicable

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

During the measurement, the normal environmental conditions were within the listed ranges:

Relative Humidity	45% - 55%	
Atmospheric Pressure	100 kPa - 102 kPa	
Temperature	NT (Normal Temperature)	+22℃ to +25℃
	LT (Low Temperature)	-0℃
	HT (High Temperature)	+55℃
Working Voltage of the EUT	NV (Normal Voltage)	3.3 V
	LV (Low Voltage)	3.0V
	HV (High Voltage)	3.6 V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	ROHDE&SCHWARZ	FSV-30	103118	2017.06.22	2018.06.21
Switch Unit with OSP-B157	ROHDE&SCHWARZ	OSP120	101270	2017.06.22	2018.06.21
EMI Receiver	KEYSIGHT	N9038A	MY53220118	2017.09.07	2018.09.06
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2017.06.22	2018.06.21
LISN	SCHWARZBECK	NSLK 8127	8127-687	2017.06.22	2018.06.21
Bluetooth Tester	ROHDE&SCHWARZ	CBT	101005	2017.06.22	2018.06.21
Power Splitter	KMW	DCPD-LDC	1305003215	--	--
Power Sensor	ROHDE&SCHWARZ	NRP-Z21	103971	2017.06.22	2018.06.21
Attenuator (20 dB)	KMW	ZA-S1-201	110617091	--	--
Attenuator (6 dB)	KMW	ZA-S1-61	1305003189	--	--
DC Power Supply	ROHDE&SCHWARZ	HMP2020	018141664	2017.06.22	2018.06.21
Temperature Chamber	ANGELANTIONI SCIENCE	NTH64-40A	1310	2017.06.22	2018.06.21
Test Antenna-Loop(9 kHz-30 MHz)	SCHWARZBECK	FMZB 1519	1519-037	2017.06.22	2018.06.21
Test Antenna-Bi-Log(30 MHz-3 GHz)	SCHWARZBECK	VULB 9163	9163-624	2017.06.22	2018.06.21
Test Antenna-Horn(1-18 GHz)	SCHWARZBECK	BBHA 9120D	9120D-1148	2017.06.22	2018.06.21
Test Antenna-Horn(15-26.5 GHz)	SCHWARZBECK	BBHA 9170	9170-305	2017.06.22	2018.06.21
Test Antenna-Horn (18-40 GHz)	A-INFO	LB-180400KF	J211060273	N/A	2018.01.06
Anechoic Chamber	RAINFORD	9m*6m*6m	N/A	2017.02.24	2019.02.23
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60*7.35m	N/A	2016.08.09	2018.08.08
Shielded Enclosure	ChangNing	CN-130701	130703	--	--
Signal Generator	ROHDE&SCHWARZ	SMB100A	177746	2017.06.22	2018.06.21

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Power Amplifier	OPHIR RF	5225F	1037	2017.02.17	2018.02.16
Power Amplifier	OPHIR RF	5273F	1016	2017.02.17	2018.02.16
Directional Coupler	Werlantone	C5982-10	109275	N/A	N/A
Directional Coupler	Werlantone	CHP-273E	S00801z-01	N/A	N/A
Feld Strength Meter	Narda	EP601	511WX51129	2017.02.23	2018.02.22
Mouth Simulator	B&K	4227	2423931	2016.11.15	2017.11.14
Sound Calibrator	B&K	4231	2430337	2016.11.09	2017.11.08
Sound Level Meter	B&K	NL-20	00844023	2016.11.11	2017.11.10
Ear Simulator	B&K	4185	2409449	2016.11.15	2017.11.14
Ear Simulator	B&K	4195	2418189	2016.11.15	2017.11.14
Audio analyzer	B&K	UPL 16	100129	2016.11.08	2017.11.07

4.3 Measurement Uncertainty

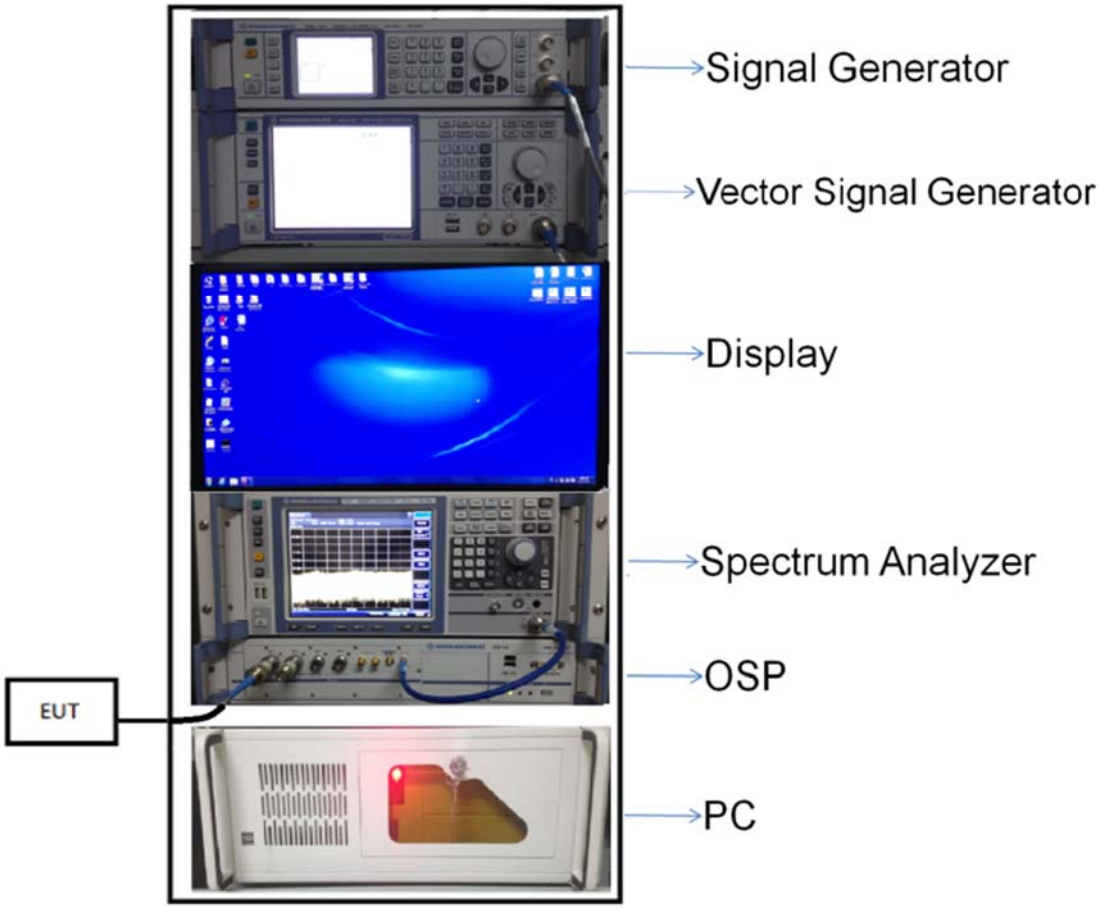
The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2.

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Measurement	Value
Occupied Channel Bandwidth	±4%
RF output power, conducted	±1.4 dB
Power Spectral Density, conducted	±2.5 dB
Unwanted Emissions, conducted	±2.8 dB
All emissions, radiated	±5.4 dB
Temperature	±1°C
Humidity	±4%

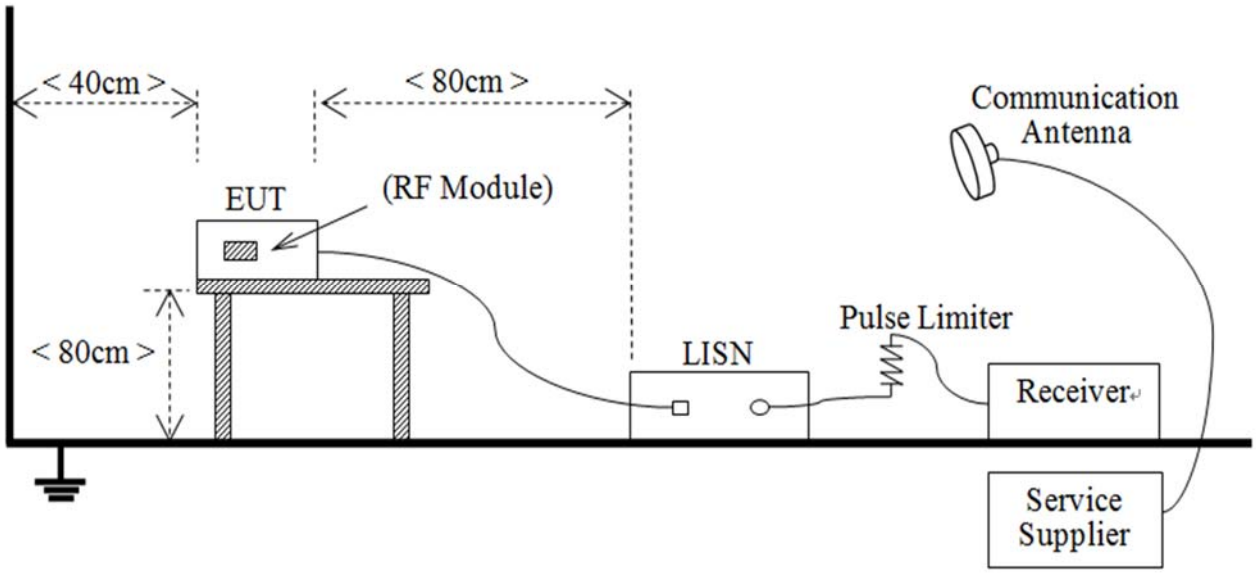
4.4 Description of Test Setup

4.4.1 For Antenna Port Test



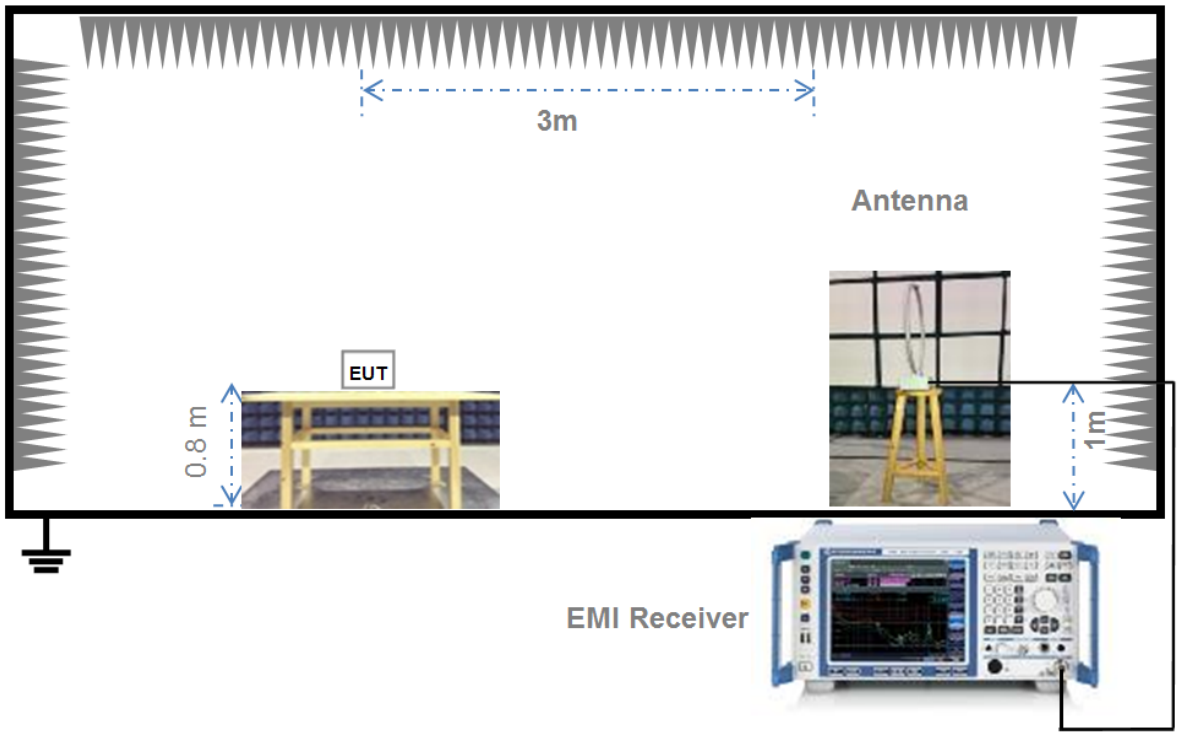
(Diagram 1)

4.4.2 For AC Power Supply Port Test



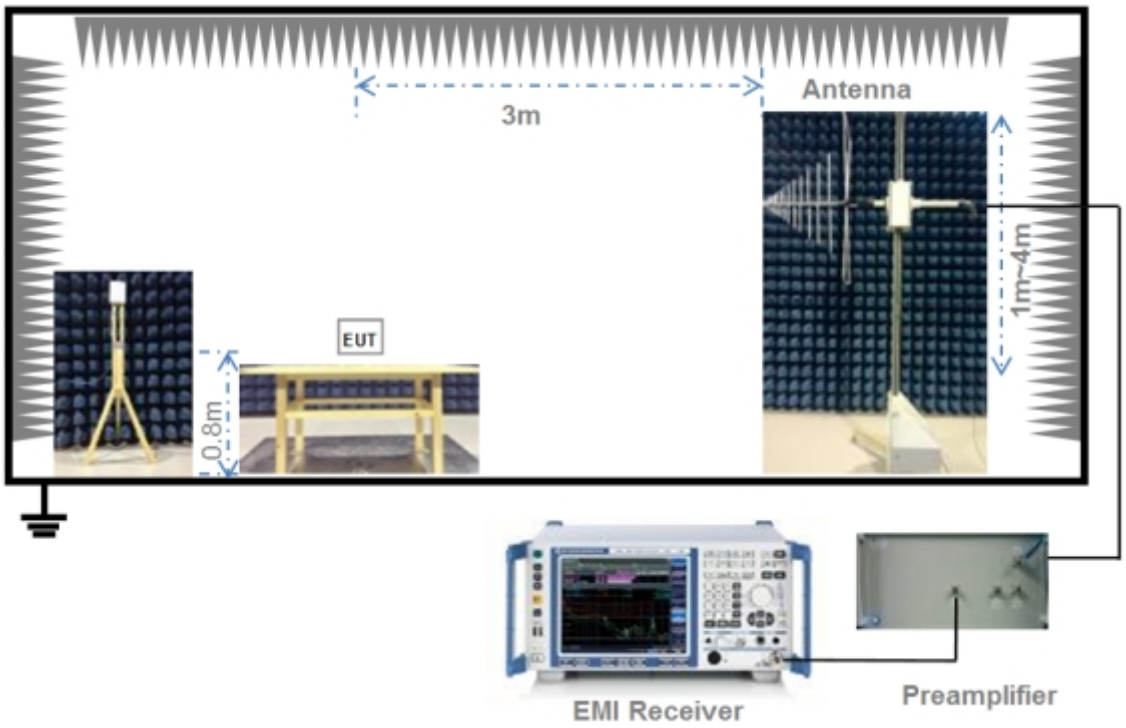
(Diagram 2)

4.4.3 For Radiated Test (Below 30 MHz)



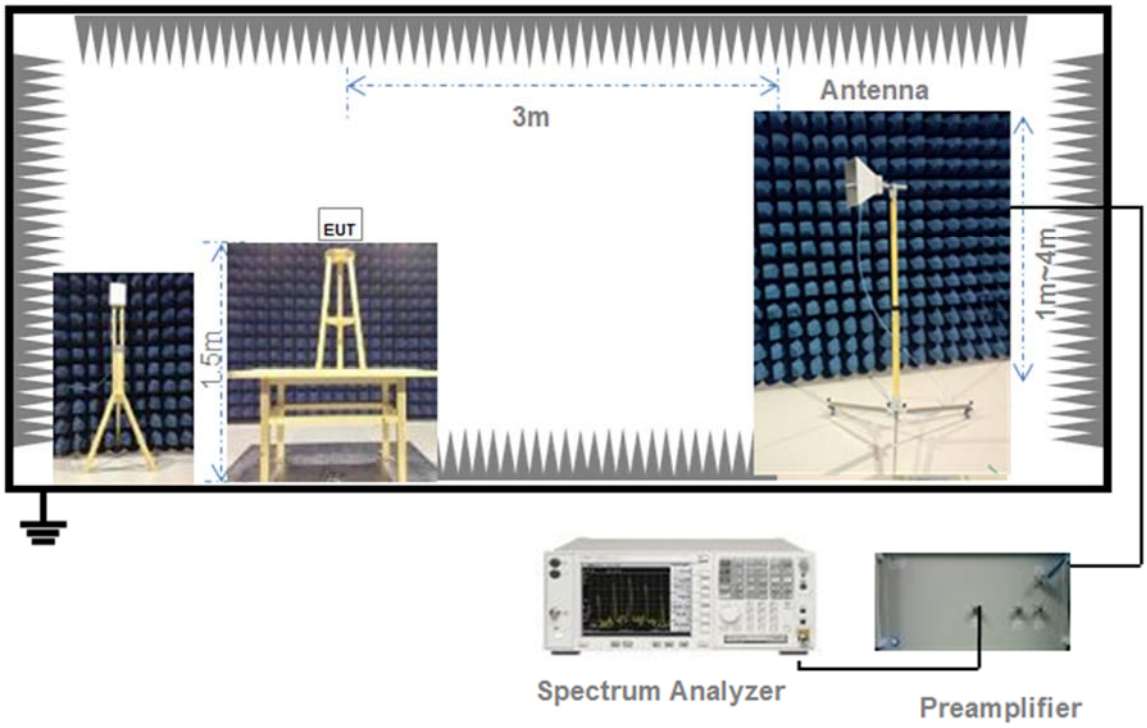
(Diagram 3)

4.4.4 For Radiated Test (30 MHz-1 GHz)



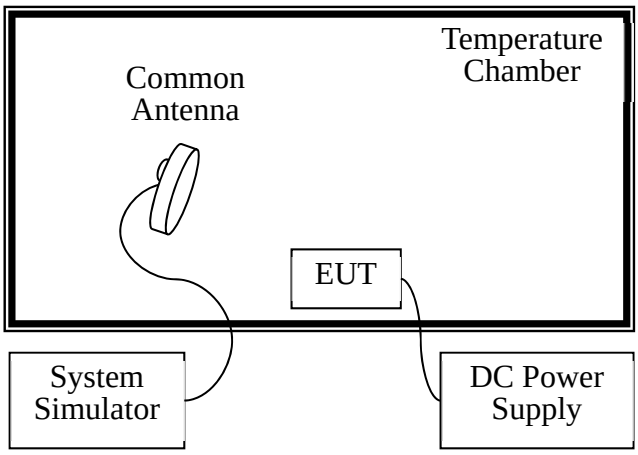
(Diagram 4)

4.4.5 For Radiated Test (Above 1 GHz)



(Diagram 5)

4.4.6 For Frequency Stability Test



(Diagram 6)

5 TEST ITEMS

5.1 RF Output Power

5.1.1 Test Limit

FCC §15.407(a)

The maximum conducted output power should not exceed:

Frequency Band (MHz)	Limit
5150-5250	250 mW
5250-5350	250 mW or 11 dBm + 10log B, whichever is less.
5470-5725	250 mW or 11 dBm + 10log B, whichever is less.
5725-5850	1 W
Note: Where “B” is the 26 dB emissions bandwidth in MHz.	

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The maximum conducted output power shall not exceed:

Frequency Band (MHz)	Limit
5150-5250	N/A
5250-5350	250 mW or 11 dBm + 10log B, whichever is less.
5470-5725	250 mW or 11 dBm + 10log B, whichever is less.
5725-5850	1 W
Note: Where “B” is the 99% emissions bandwidth in MHz.	

The maximum e.i.r.p. shall not exceed:

Frequency Band (MHz)	Limit
5150-5250	200 mW or 10 dBm + 10log B, whichever is less.
5250-5350	1W or 17 dBm + 10log B, whichever is less.
5470-5725	1W or 17 dBm + 10log B, whichever is less.
5725-5850	N/A
Note: Where “B” is the 99% emissions bandwidth in MHz.	

5.1.2 Test Setup

The section 4.4.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.3 Test Procedure

The maximum peak conducted output power may be measured using a broadband Average RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the emission bandwidth and utilize a fast-responding diode detector.

The E.I.R.P used radiated test method. At a test site that has been validated using the procedures of ANSI C63.4 or the latest CISPR 16-1-4 for measurements above 1 GHz, so as to simulate a near free-space environment.

5.1.4 Test Result

Please refer to ANNEX A.1.

5.2 Emission Bandwidth and 6 dB Bandwidth

5.2.1 Limit

FCC §15.407(a), RSS-247, 6.2

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

5.2.2 Test Setup

The test setup photo please refer to 4.4.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.2.3 Test Procedure

Emission bandwidth

1. Set RBW = approximately 1% of the emission bandwidth.

2. Set VBW ≥ 3*RBW,

3. Detector = Peak.

4. Trace mode = Max hold.

5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission.

Occupied Bandwidth

1. Set Span = 1.5 times to 5.0 times the OBW

2. Set RBW = 1% to 5% of the OBW.

3. Set VBW ≥ 3*RBW, Detector = Peak.

4. Trace mode = Max hold.

5. Use the 99% power bandwidth function of the instrument.

6 dB bandwidth

1. Set RBW = 100 kHz, VBW = 300 kHz.

2. Detector = Peak.Trace mode = Max hold.

3. Allow the trace to stabilize.

4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

5.2.4 Test Result

Please refer to ANNEX A.2 and ANNEX A.3.

5.3 Power Spectral density (PSD)

5.3.1 Limit

FCC §15.407(a)

The maximum power spectral density should not exceed:

Frequency Band (MHz)	Limit
5150-5250	11 dBm/MHz
5250-5350	11 dBm/MHz
5470-5725	11 dBm/MHz
5725-5850	30 dBm/500kHz

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The maximum power spectral density should not exceed:

Frequency Band (MHz)	Limit
5150-5250	N/A
5250-5350	11 dBm/MHz
5470-5725	11 dBm/MHz
5725-5850	30 dBm/500kHz

The e.i.r.p. spectral density should not exceed:

Frequency Band (MHz)	Limit
5150-5250	10 dBm/MHz
5250-5350	N/A
5470-5725	N/A
5725-5850	N/A

5.3.2 Test Setup

The section 4.4.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.3.3 Test Procedure

Set the spectrum analyzer or EMI receiver span to view the entire emission bandwidth.

1. Set RBW = 510 kHz/1 MHz, VBW ≥ 3*RBW, Sweep time = Auto, Detector = RMS.
2. Allow the sweeps to continue until the trace stabilizes.
3. Use the peak marker function to determine the maximum amplitude level.
4. The E.I.R.P spectral density used radiated test method. At a test site that has been validated using the procedures of ANSI C63.4 or the latest CISPR 16-1-4 for measurements above 1 GHz, so as to simulate a near free-space environment.

5.3.4 Test Result

Please refer to ANNEX A.4.

5.4 Conducted Emission

5.4.1 Limit

FCC §15.207, RSS-GEN, 8.8

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50μH/50Ω line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dBμV)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
0.50 - 30	60	50

5.4.2 Test Setup

The section 4.4.2 (Diagram 2) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.4.3 Test Procedure

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

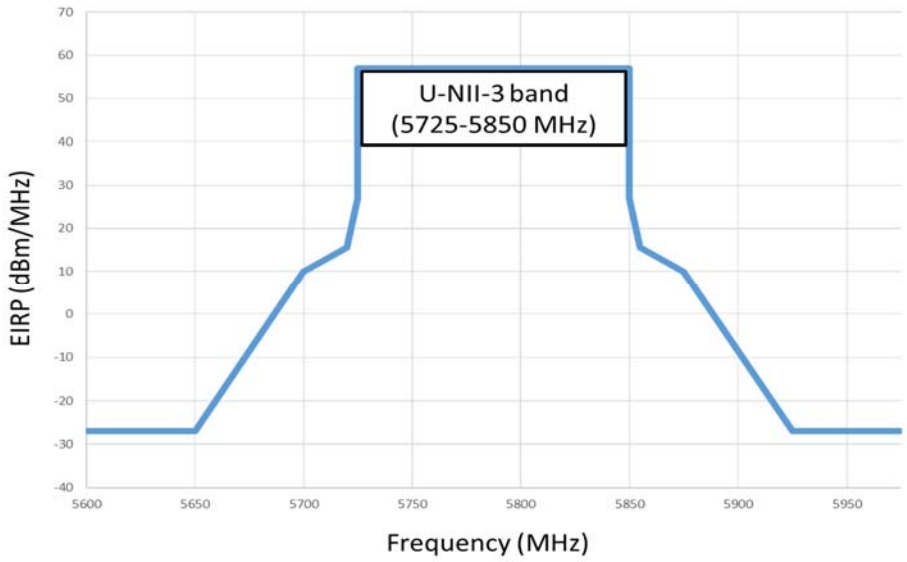
5.4.4 Test Result

Please refer to ANNEX A.5.

5.5 Conducted Spurious Emission and Band Edge (Authorized-band)

5.5.1 Limit

FCC §15.407(b)

Un-restricted band emissions	
Frequency Band (MHz)	Limit
5150 - 5250	Outside of the 5.15-5.35 GHz band: e.i.r.p. -27 dBm
5250 - 5350	Outside of the 5.15-5.35 GHz band: e.i.r.p. -27 dBm
5470 - 5725	Outside of the 5.47-5.725 GHz band: e.i.r.p. -27 dBm
5725 - 5850	All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. 

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Un-restricted band emissions	
Frequency Band (MHz)	Limit
5150 - 5250	Outside of the 5.15-5.35 GHz band: e.i.r.p. -27 dBm, However, any unwanted emissions that fall into the band 5250-5350 MHz must be 26 dBc, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth, above 5.25 GHz.
5250 - 5350	Outside of the 5.15-5.35 GHz band: e.i.r.p. -27 dBm. And any emissions within the band 5150-5250 MHz shall meet the power spectral density limits of 10 dBm/MHz, The device shall be labelled “for indoor use only.”
5470 - 5725	Outside of the 5.47-5.725 GHz band: e.i.r.p. -27 dBm
5725 - 5850	5715 -5725 MHz: e.i.r.p. -17 dBm 5850 -5860 MHz: e.i.r.p. -17 dBm Other un-restricted band: e.i.r.p .-27 dBm

5.5.2 Test Setup

See section 4.4.2 (Diagram 2) for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.5.3 Test Procedure

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.
RBW = 1 MHz for f ≥ 1 GHz, 100 kHz for f < 1 GHz
VBW ≥ RBW
Sweep = auto
Detector function = peak
Trace = max hold
Allow the trace to stabilize

5.5.4 Test Result

Please refer to ANNEX A.6.

5.6 Radiated Spurious Emissions and Band Edge (Restricted-band)

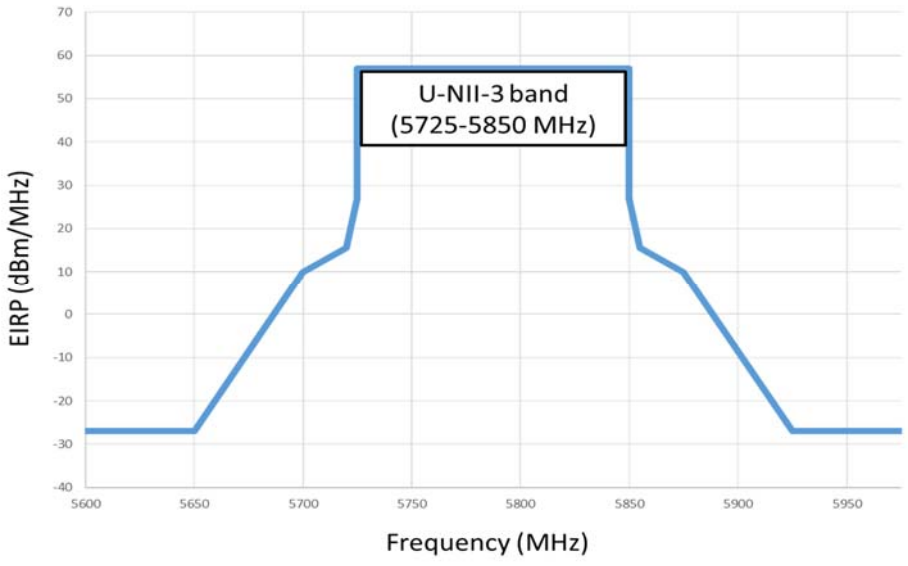
5.6.1 Limit

FCC §15.209 & 15.407(b), RSS-247, 6.2

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

Note [1]: The Limit for radiated test was performed according to FCC Part 15C

Note [2]: The tighter limit applies at the band edge.

Un-restricted band emissions	
Out Operating Band (MHz）	Limit
5150 - 5250	e.i.r.p. -27 dBm (68.2 dBuV/m@3m)
5250 - 5350	e.i.r.p. -27 dBm (68.2 dBuV/m@3m)
5470 - 5725	e.i.r.p. -27 dBm (68.2 dBuV/m@3m)
5725 - 5850	All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. 

Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength.

5.6.2 Test Setup

The section 4.4.3-4.4.5 (Diagram 3 - Diagram 5) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.6.3 Test Procedure

Since the emission limits are specified in terms of radiated field strength levels, measurements performed to demonstrate compliance have traditionally relied on a radiated test configuration. Radiated measurements remain the principal method for demonstrating compliance to the specified limits; however antenna-port conducted measurements are also now acceptable to demonstrate compliance (see below for details). When radiated measurements are utilized, test site requirements and procedures for maximizing and measuring radiated emissions that are described in ANSI C63.10 shall be followed.

Antenna-port conducted measurements may also be used as an alternative to radiated measurements for demonstrating compliance in the restricted frequency bands. If conducted measurements are performed, then proper impedance matching must be ensured and an additional radiated test for cabinet/case spurious emissions is required.

General Procedure for conducted measurements in restricted bands

a) Measure the conducted output power (in dBm) using the detector specified (see guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).

b) Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the EIRP level (see guidance on determining the applicable antenna gain)

c) Add the appropriate maximum ground reflection factor to the EIRP level (6 dB for frequencies ≤ 30 MHz, 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive and 0 dB for frequencies > 1000 MHz).

d) For devices with multiple antenna-ports, measure the power of each individual chain and sum the EIRP of all chains in linear terms (e.g., Watts, mW).

e) Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

E = EIRP – 20log D + 104.8

where:

E = electric field strength in dBμV/m,

EIRP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

f) Compare the resultant electric field strength level to the applicable limit.

g) Perform radiated spurious emission test.

Quasi-Peak measurement procedure

The specifications for measurements using the CISPR quasi-peak detector can be found in Publication 16 of the International Special Committee on Radio Frequency Interference (CISPR) of the International Electrotechnical Commission.

As an alternative to CISPR quasi-peak measurement, compliance can be demonstrated to the applicable emission limits using a peak detector.

Peak power measurement procedure

Peak emission levels are measured by setting the instrument as follows:

a) RBW = as specified in Table 1.

b) VBW ≥ 3 x RBW.

c) Detector = Peak.

d) Sweep time = auto.

e) Trace mode = max hold.

f) Allow sweeps to continue until the trace stabilizes. (Note that the required measurement time may be longer for low duty cycle applications).

Table 1—RBW as a function of frequency

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
> 1000 MHz	1 MHz

If the peak-detected amplitude can be shown to comply with the average limit, then it is not necessary to perform a separate average measurement.

Trace averaging across on and off times of the EUT transmissions followed by duty cycle correction

If continuous transmission of the EUT (i.e., duty cycle ≥ 98 percent) cannot be achieved and the duty cycle is constant (i.e., duty cycle variations are less than ± 2 percent), then the following procedure shall be used:

a) The EUT shall be configured to operate at the maximum achievable duty cycle.

b) Measure the duty cycle, x, of the transmitter output signal as described in section 6.0.

c) RBW = 1 MHz (unless otherwise specified).

d) VBW ≥ 3 x RBW.

e) Detector = RMS, if span/(# of points in sweep) ≤ (RBW/2). Satisfying this condition may require increasing the number of points in the sweep or reducing the span. If this condition cannot be satisfied, then the detector mode shall be set to peak.

f) Averaging type = power (i.e., RMS).

1) As an alternative, the detector and averaging type may be set for linear voltage averaging.

2) Some instruments require linear display mode in order to use linear voltage averaging. Log or dB averaging shall not be used.

g) Sweep time = auto.

h) Perform a trace average of at least 100 traces.

i) A correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle. The correction factor is computed as follows:

1) If power averaging (RMS) mode was used in step f), then the applicable correction factor is 10 log(1/x), where x is the duty cycle.

2) If linear voltage averaging mode was used in step f), then the applicable correction factor is 20 log(1/x), where x is the duty cycle.

3) If a specific emission is demonstrated to be continuous (≥ 98 percent duty cycle) rather than turning on and off with the transmit cycle, then no duty cycle correction is required for that emission.

NOTE: Reduction of the measured emission amplitude levels to account for operational duty factor is not permitted. Compliance is based on emission levels occurring during transmission - not on an average across on and off times of the transmitter.

Determining the applicable transmit antenna gain

A conducted power measurement will determine the maximum output power associated with a restricted band emission; however, in order to determine the associated EIRP level, the gain of the transmitting antenna (in dBi) must be added to the measured output power (in dBm).

Since the out-of-band characteristics of the EUT transmit antenna will often be unknown, the use of a conservative antenna gain value is necessary. Thus, when determining the EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2 dBi, whichever is greater. However, for devices that operate in multiple frequency bands while using the same transmit antenna, the highest gain of the antenna within the operating band nearest in frequency to the restricted band emission being measured may be used in lieu of the overall highest gain when the emission is at a frequency that is within 20 percent of the nearest band edge frequency, but in no case shall a value less than 2 dBi be used.

See KDB 662911 for guidance on calculating the additional array gain term when determining the effective antenna gain for a EUT with multiple outputs occupying the same or overlapping frequency ranges in the same band.

Radiated spurious emission test

An additional consideration when performing conducted measurements of restricted band emissions is that unwanted emissions radiating from the EUT cabinet, control circuits, power leads, or intermediate circuit elements will likely go undetected in a conducted measurement configuration. To address this concern, a radiated test shall be performed to ensure that emissions emanating from the EUT cabinet (rather than the antenna port) also comply with the applicable limits.

For these cabinet radiated spurious emission measurements the EUT transmit antenna may be replaced with a termination matching the nominal impedance of the antenna. Procedures for performing radiated measurements are specified in ANSI C63.10. All detected emissions shall comply with the applicable limits.

The measurement frequency range is from 30 MHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

The power of the EUT transmitting frequency should be ignored.

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured
RBW = 1 MHz for f ≥ 1 GHz, 100 kHz for f < 1 GHz
VBW ≥ RBW
Sweep = auto
Detector function = peak
Trace = max hold

5.6.4 Test Result

Please refer to ANNEX A.7 and Please refer to ANNEX A.9

5.7 Frequency Stability

5.7.1 Limit

FCC §15.407(g)

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

5.7.2 Test Setup

The section 4.4.6 (Diagram 6) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.7.3 Test Procedure

The EUT is installed in an environment test chamber with external power source.
Set the chamber to operate at 50 centigrade and external power source to output at nominal voltage of EUT.
A sufficient stabilization period at each temperatures is used prior to each frequency measurement.
When temperature is stabled, measure the frequency stability.
The test shall be performed under -30 to 50 centigrade and 85 to 115 percent of the nominal voltage.
Change setting of chamber and external power source to complete all conditions.

5.7.4 Test Result

Please refer to ANNEX A.8.

ANNEX A TEST RESULT

A.1 RF Output Power

Note [1]: For FCC standard, if transmitting antennas of directional gain greater than 6 dBi are used, all band maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Data

Conducted Power

5150 MHz - 5250 MHz						
Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
GFSK	Low	5165	15.24	33.42	250	Pass
	Middle	5180	15.14	32.66	250	Pass
	High	5200	15.49	35.40	250	Pass

5725 MHz - 5850 MHz						
Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Conducted Power (mW)	FCC/IC Limit (W)	Verdict
GFSK	Low	5740	15.61	36.39	1.00	Pass
	Middle	5790	17.34	54.20	1.00	Pass
	High	5840	15.65	36.73	1.00	Pass

A.2 Emission Bandwidth & 99% Bandwidth

Test Data

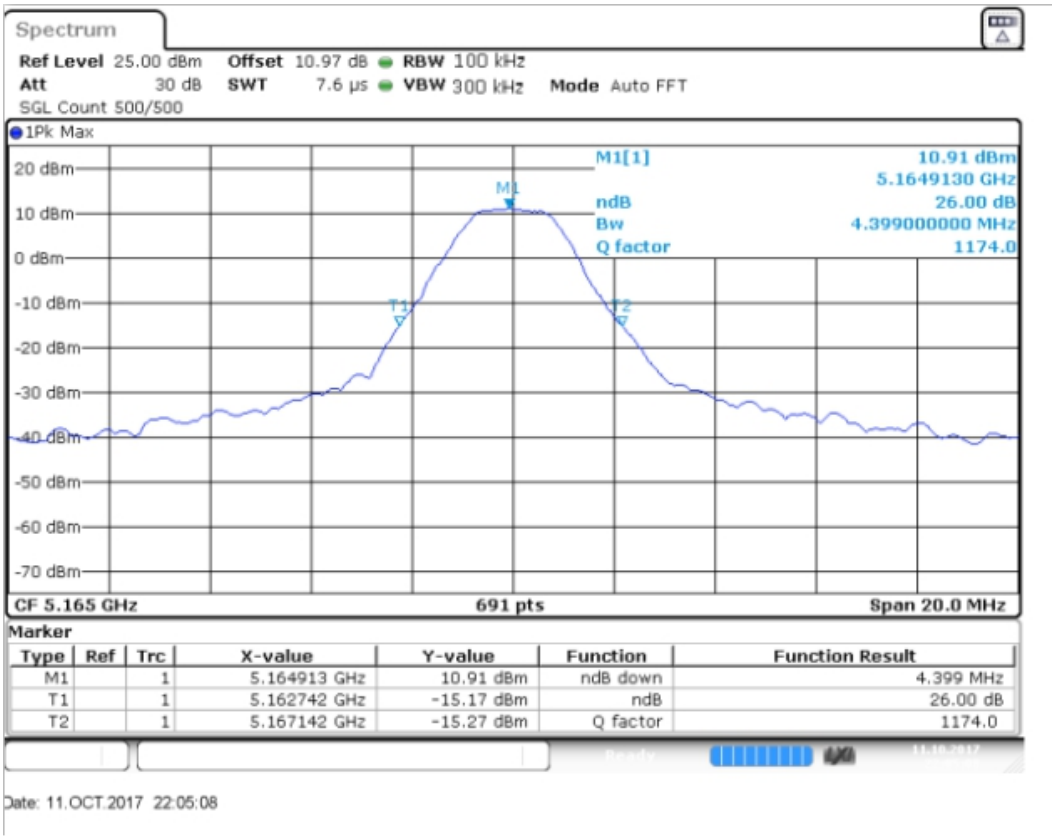
5150 MHz - 5250 MHz				
Mode	Channel	Frequency	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
GFSK	Low	5165	4.399	2.981
	Middle	5180	4.457	2.981
	High	5200	4.370	3.010

5725 MHz - 5850 MHz				
Mode	Channel	Frequency(MHz)	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
GFSK	Low	5740	5.239	3.560
	Middle	5790	5.355	3.792
	High	5840	5.499	3.792

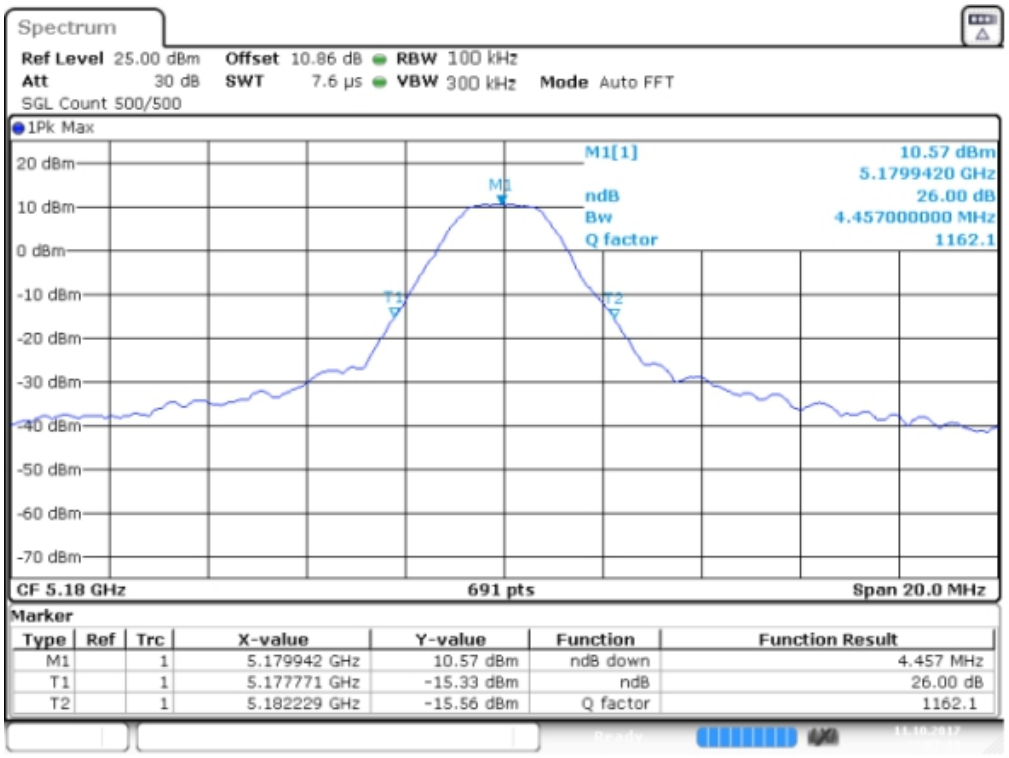
Test plots

26 dB Bandwidth

5150 MHz - 5250 MHz, LOW CHANNEL

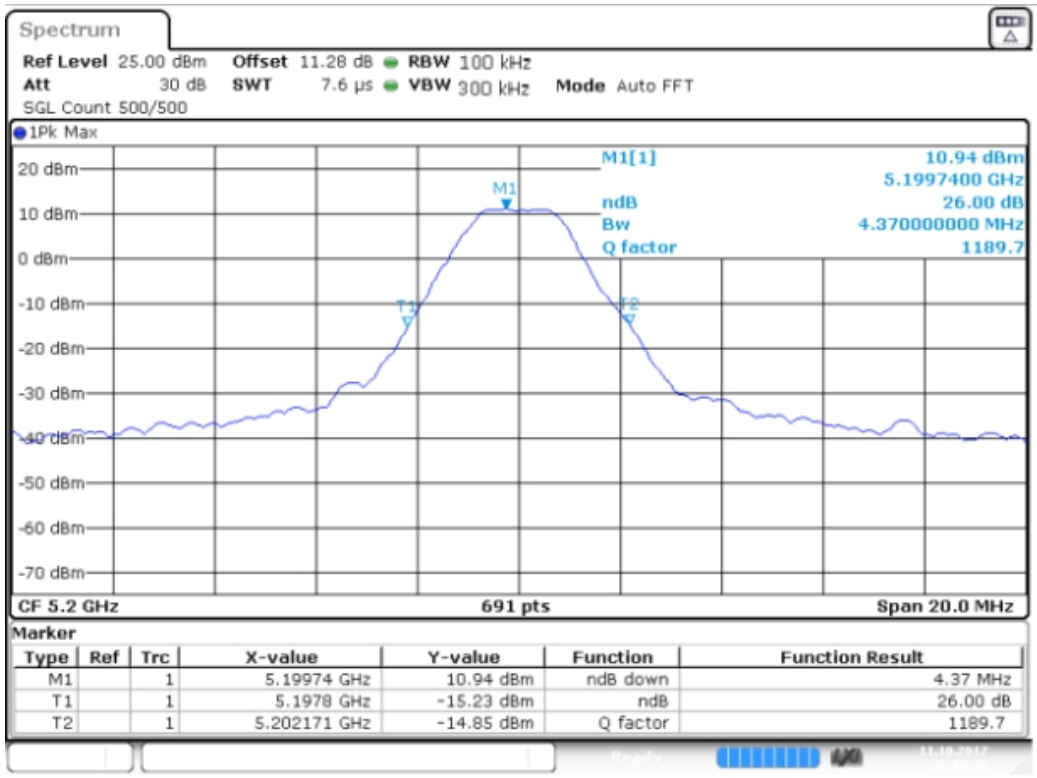


5150 MHz - 5250 MHz, MIDDLE CHANNEL



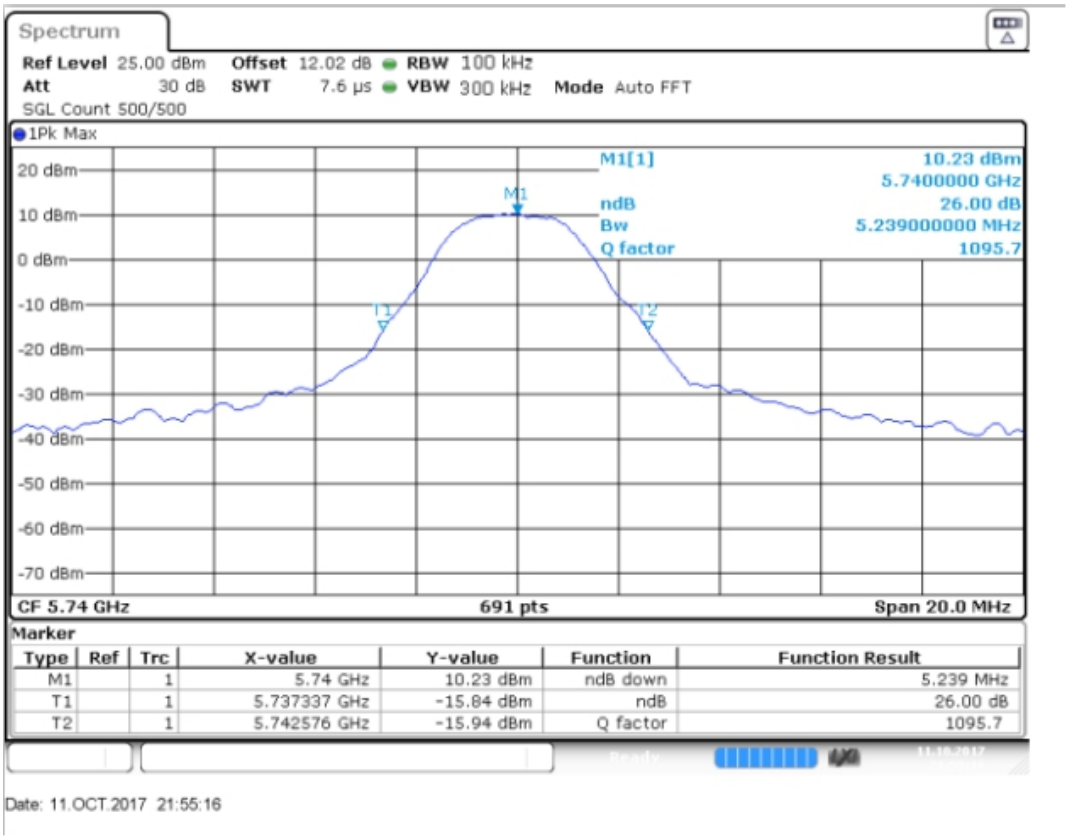
Date: 11.OCT.2017 22:07:18

5150 MHz - 5250 MHz, HIGH CHANNEL

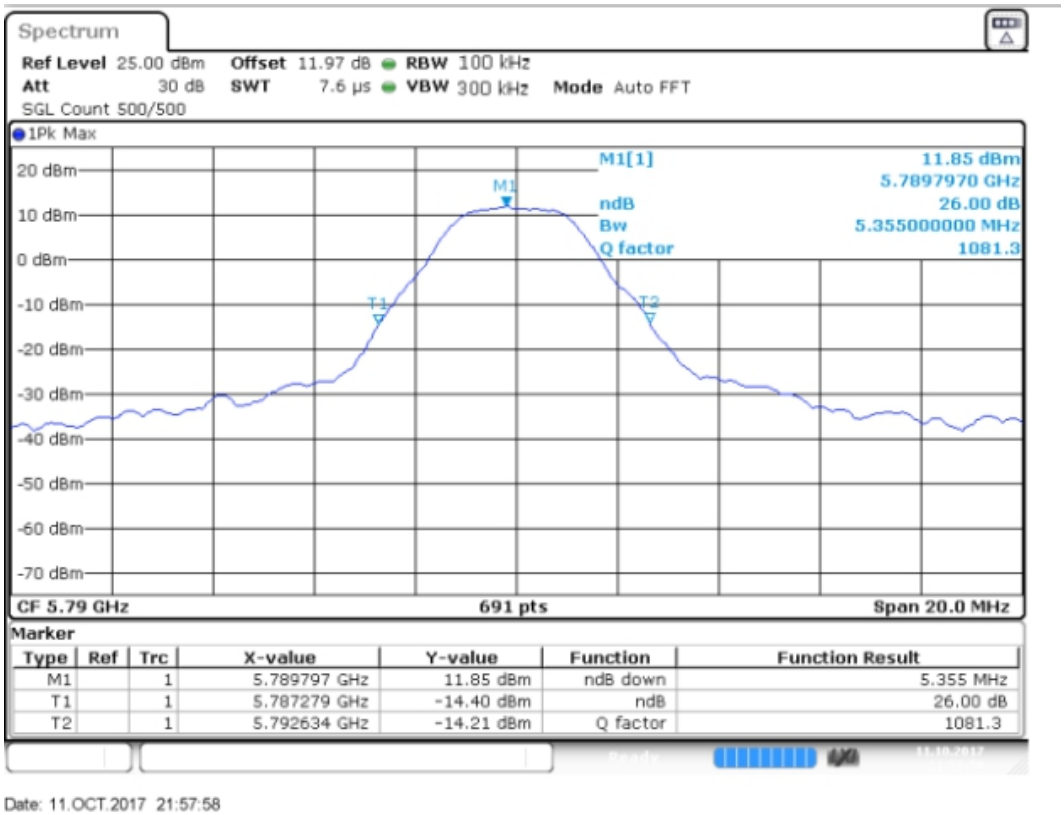


Date: 11.OCT.2017 22:10:29

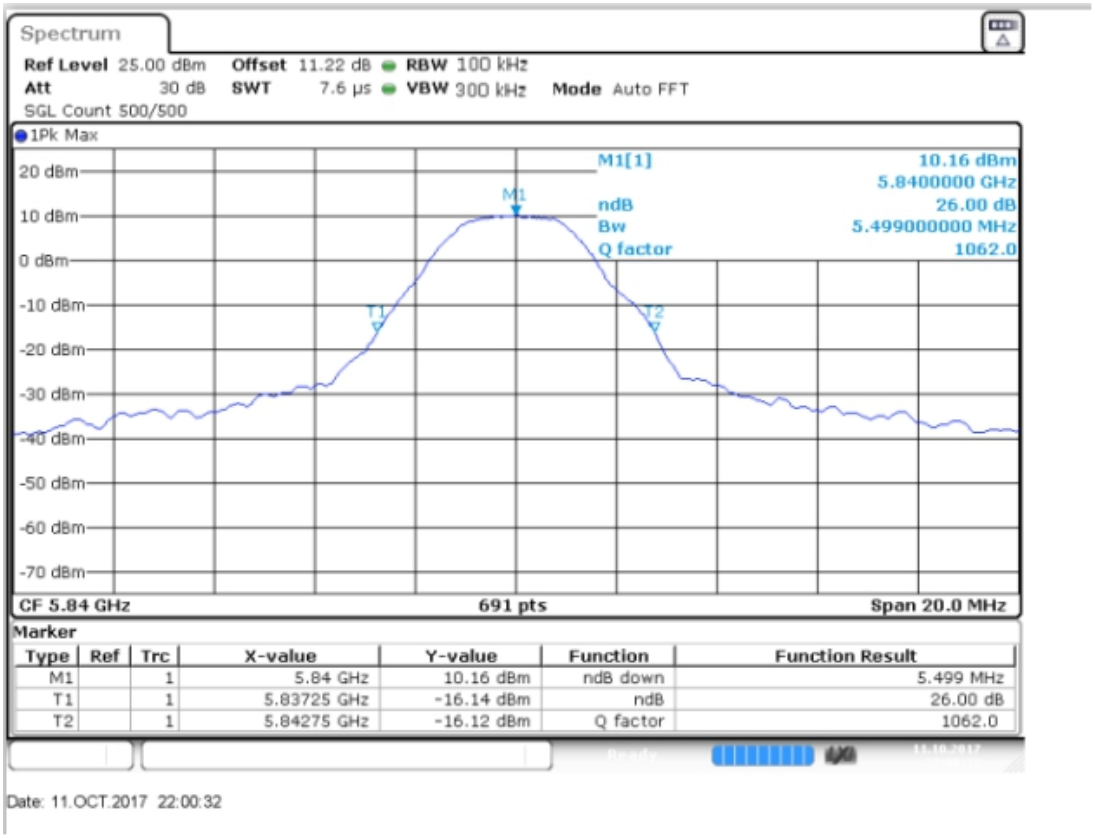
5725 MHz - 5850 MHz, LOW CHANNEL



5725 MHz - 5850 MHz, MIDDLE CHANNEL

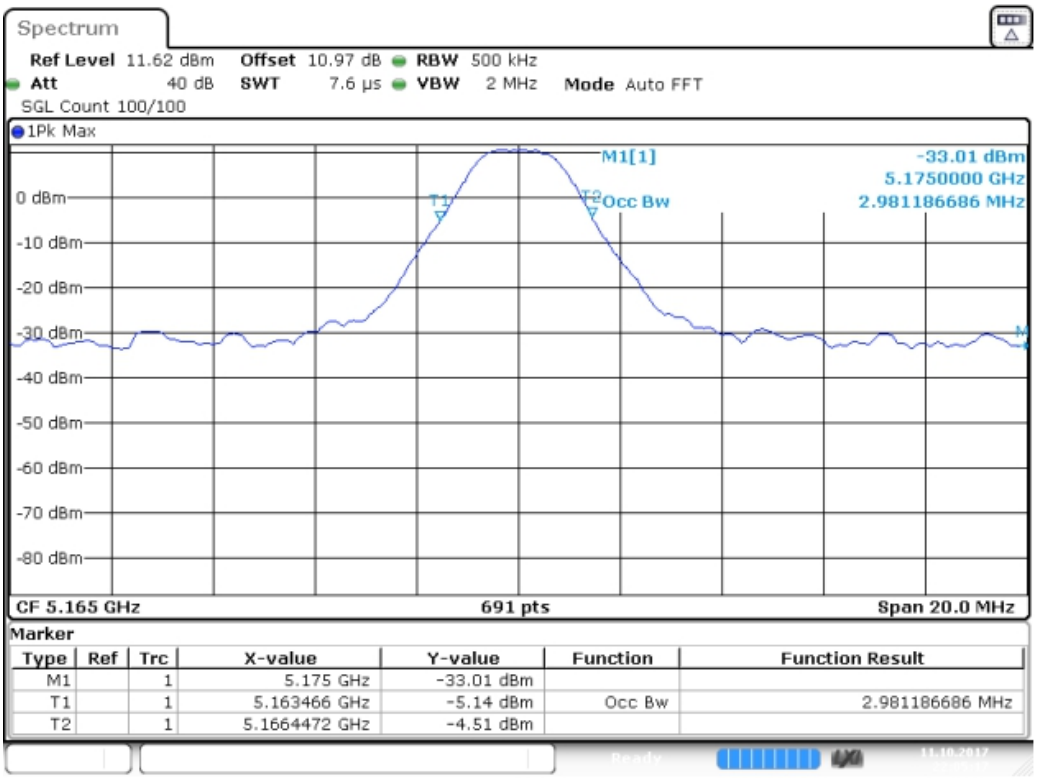


5725 MHz - 5850 MHz, HIGH CHANNEL



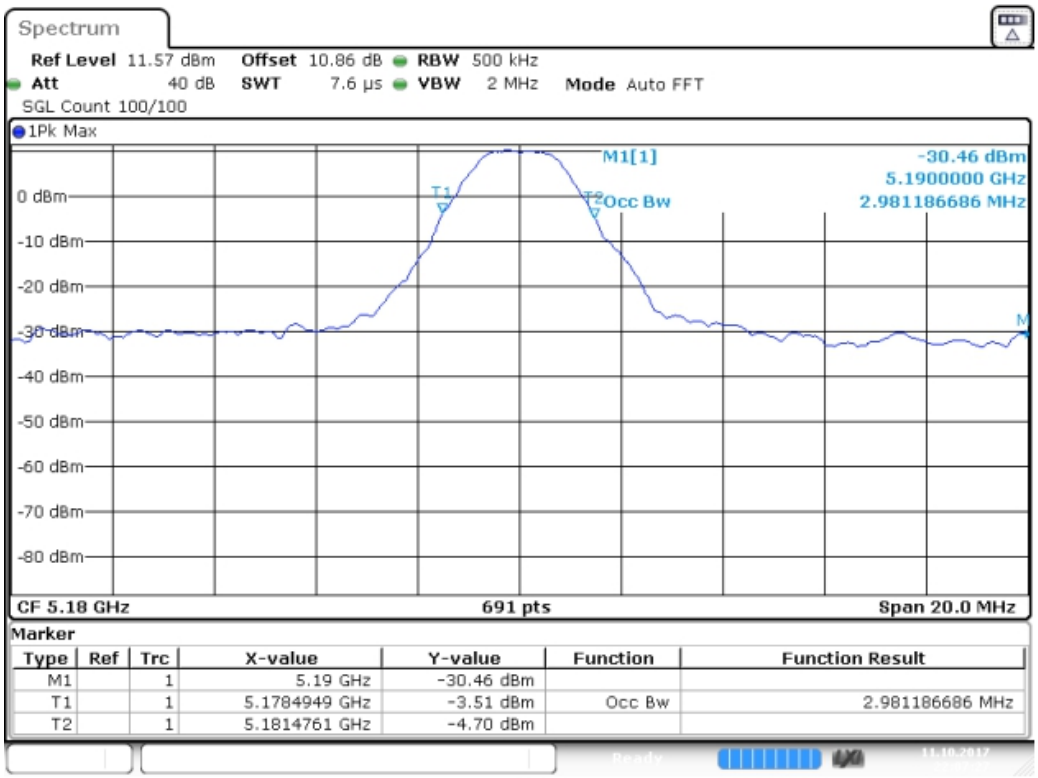
99% Bandwidth

5150 MHz - 5250 MHz, LOW CHANNEL



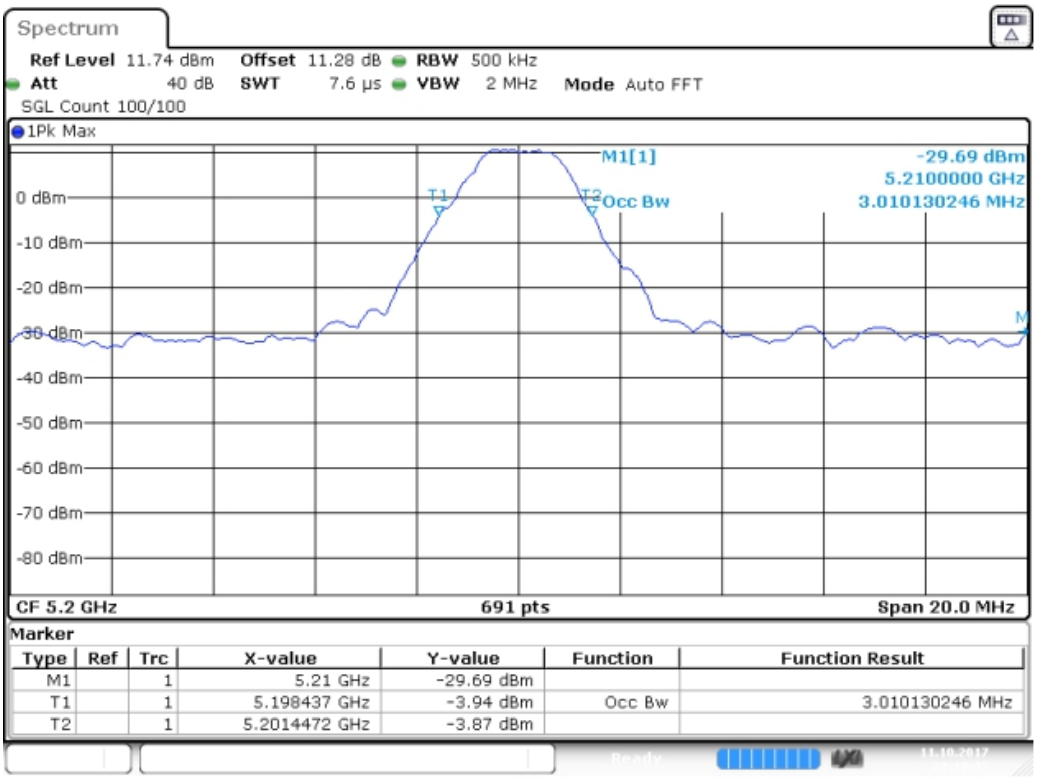
Date: 11.OCT.2017 22:05:17

5150 MHz - 5250 MHz, MIDDLE CHANNEL



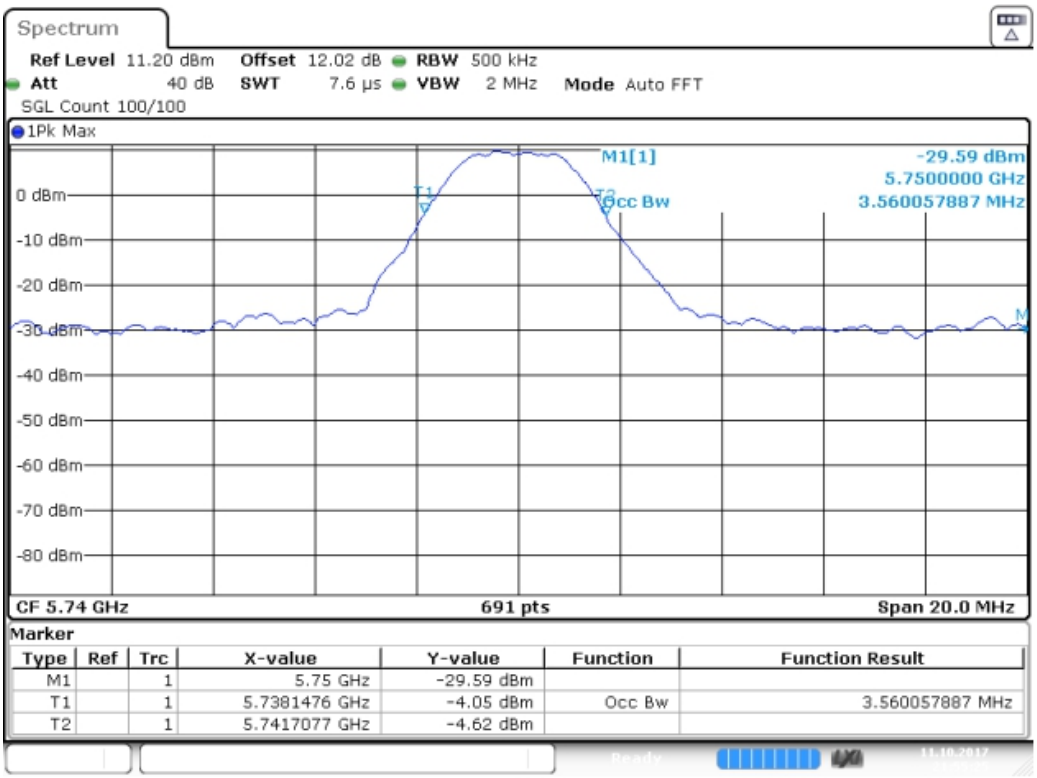
Date: 11.OCT.2017 22:07:27

5150 MHz - 5250 MHz, HIGH CHANNEL



Date: 11.OCT.2017 22:10:38

5725 MHz - 5850 MHz, LOW CHANNEL



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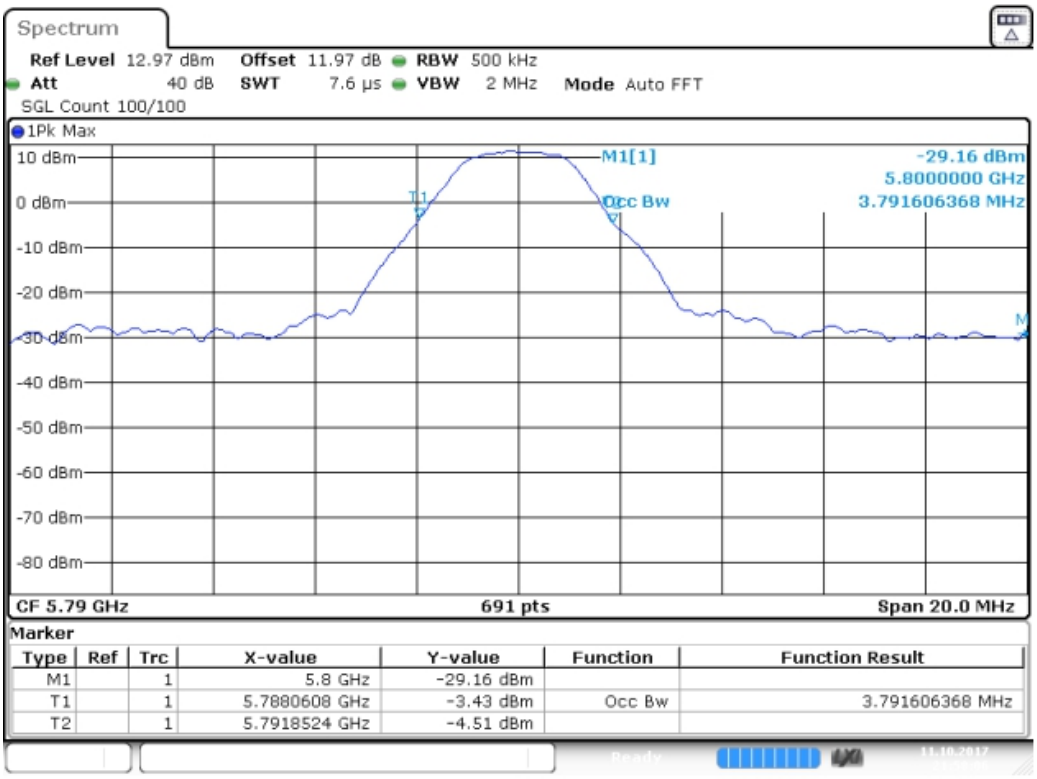
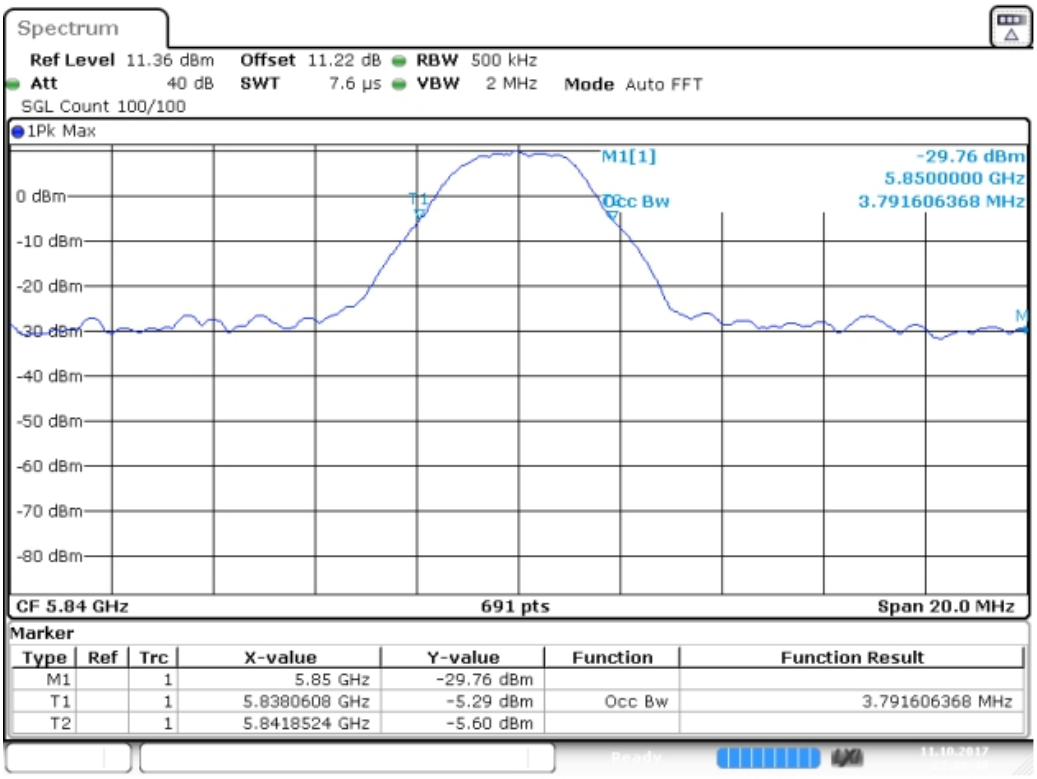
5725 MHz - 5850 MHz, MIDDLE CHANNEL



Date: 11.OCT.2017 21:58:07

5725 MHz - 5850 MHz, HIGH CHANNEL



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A.3 6 dB Bandwidth

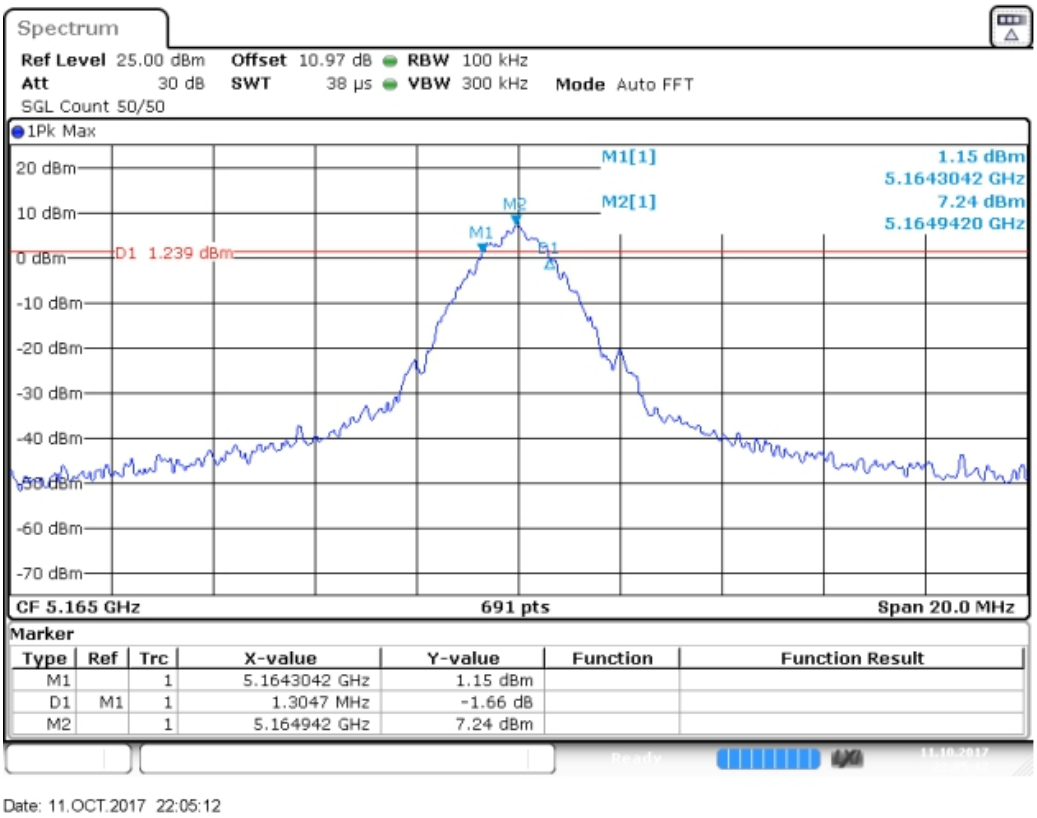
Test Data

5150 MHz - 5250 MHz					
Mode	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (kHz)	Verdict
GFSK	Low	5165	1.304687	500	Pass
	Middle	5180	1.362305	500	Pass
	High	5200	1.391113	500	Pass

5725 MHz - 5850 MHz					
Mode	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (kHz)	Verdict
GFSK	Low	5740	1.739258	500	Pass
	Middle	5790	1.942383	500	Pass
	High	5840	1.941895	500	Pass

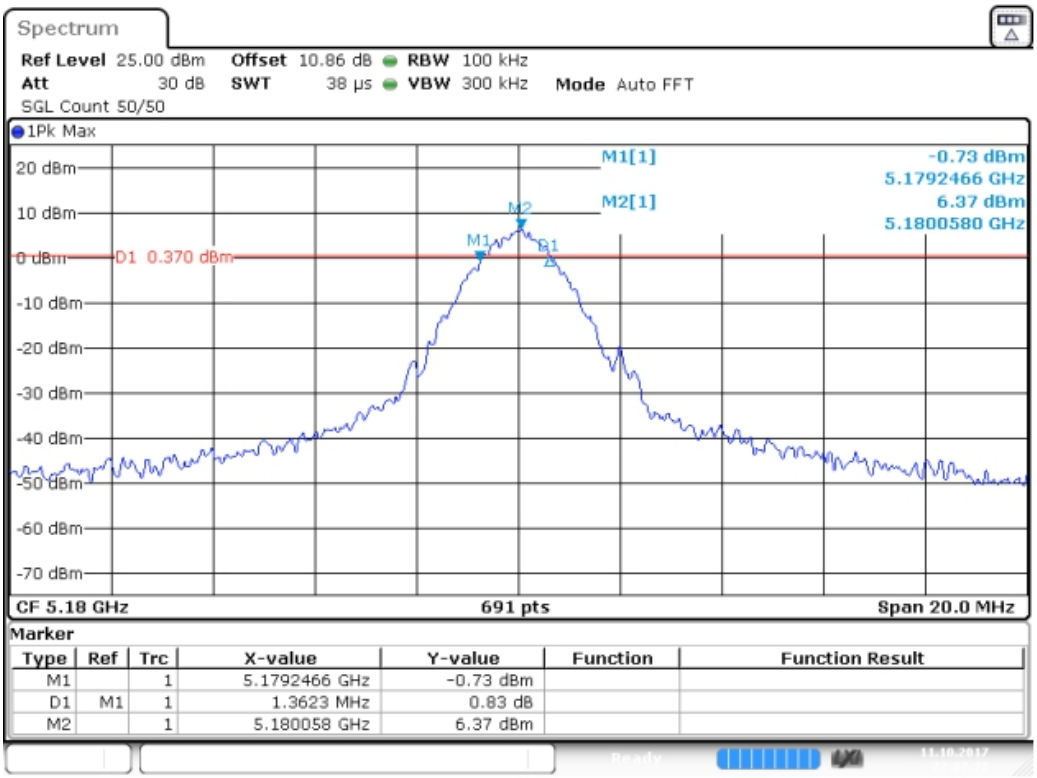
Test plots

5150 MHz - 5250 MHz, LOW CHANNEL



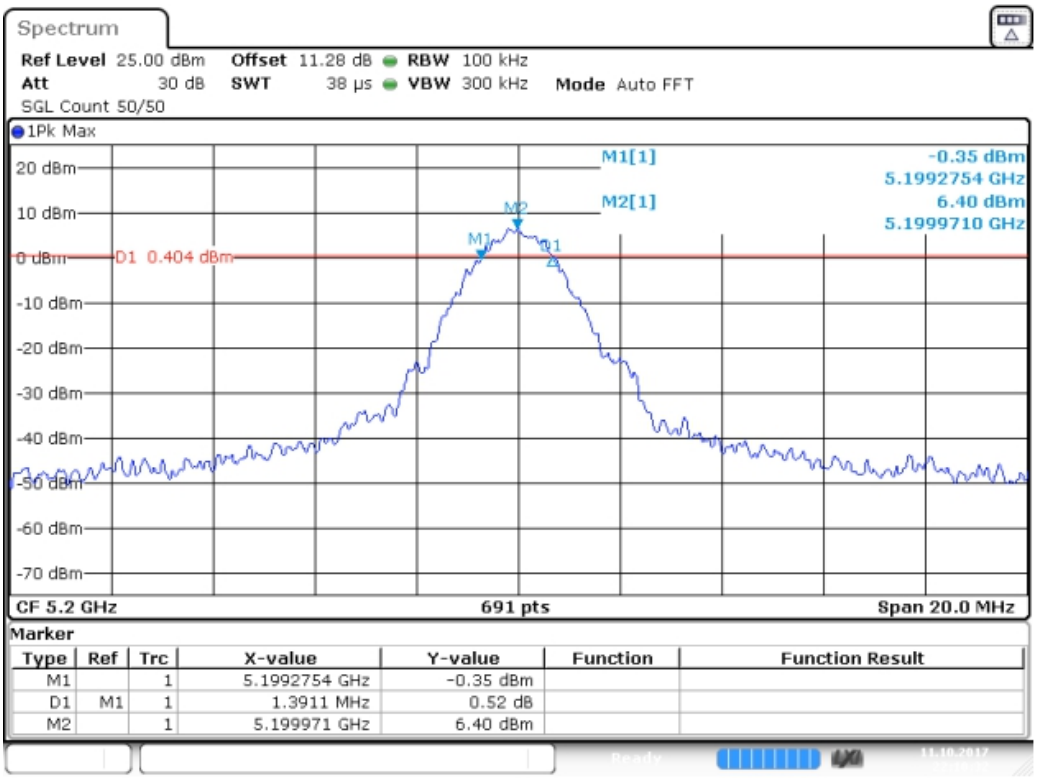
Date: 11.OCT.2017 22:05:12

5150 MHz - 5250 MHz, MIDDLE CHANNEL



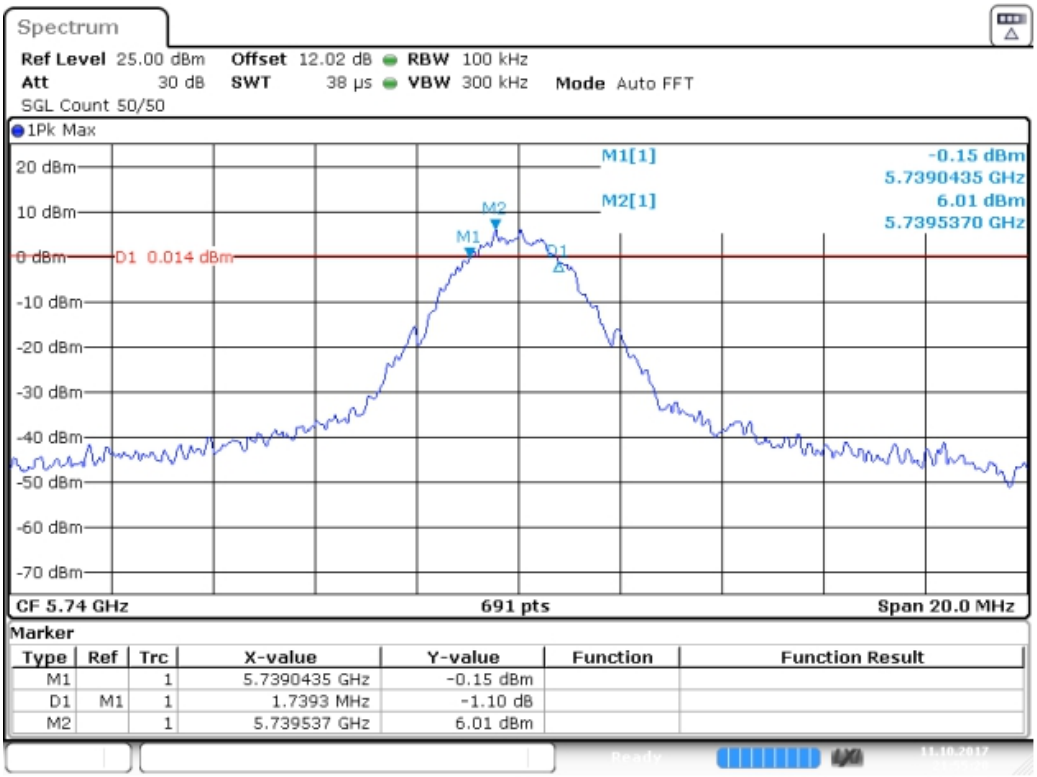
Date: 11.OCT.2017 22:07:22

5150 MHz - 5250 MHz, HIGH CHANNEL



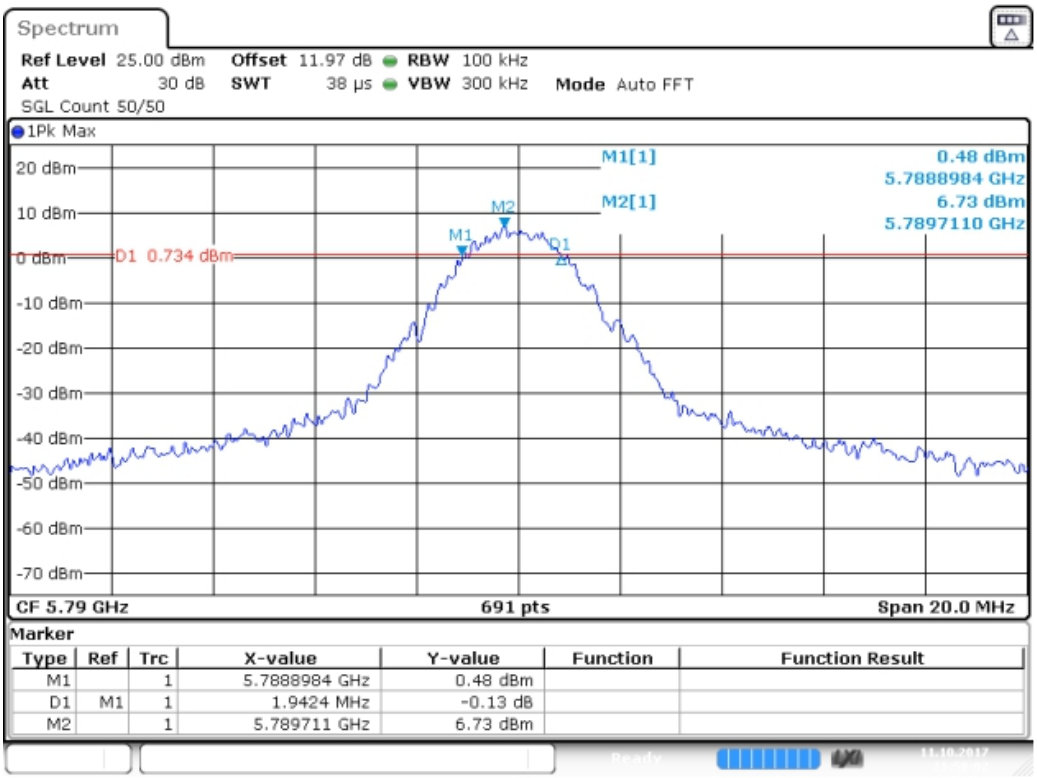
Date: 11.OCT.2017 22:10:33

5725 MHz - 5850 MHz, LOW CHANNEL



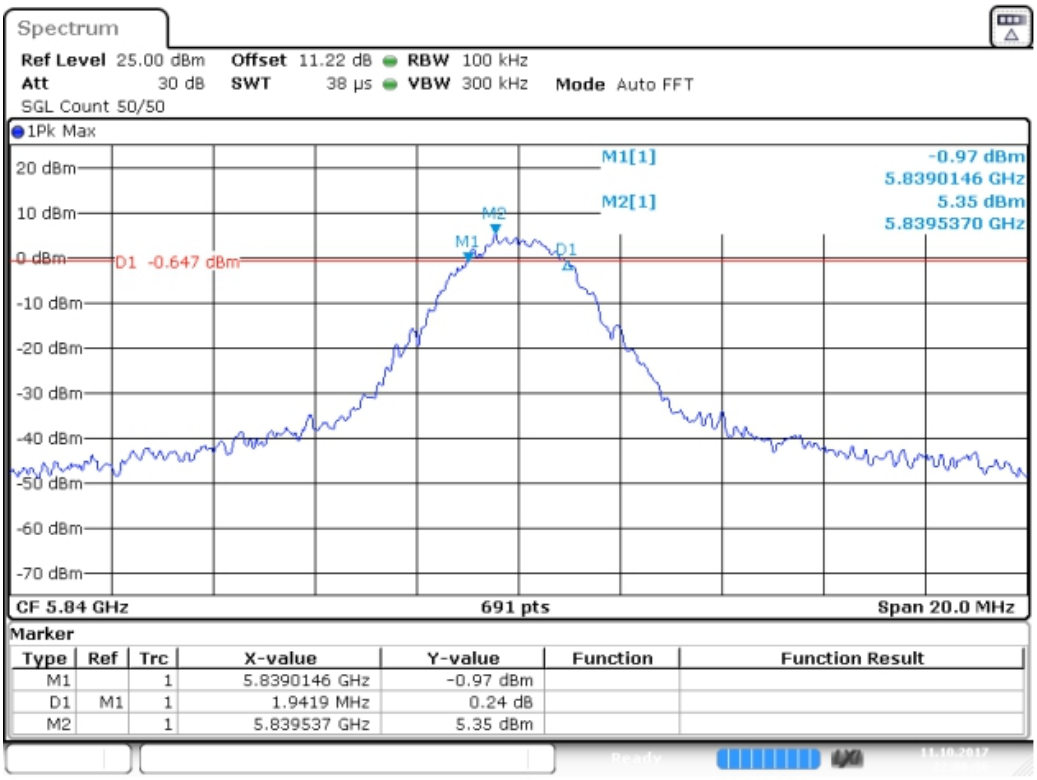
Date: 11.OCT.2017 21:55:20

5725 MHz - 5850 MHz, MIDDLE CHANNEL



Date: 11.OCT.2017 21:58:02

5725 MHz - 5850 MHz, HIGH CHANNEL



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A.4 Power Spectral Density

Test Data

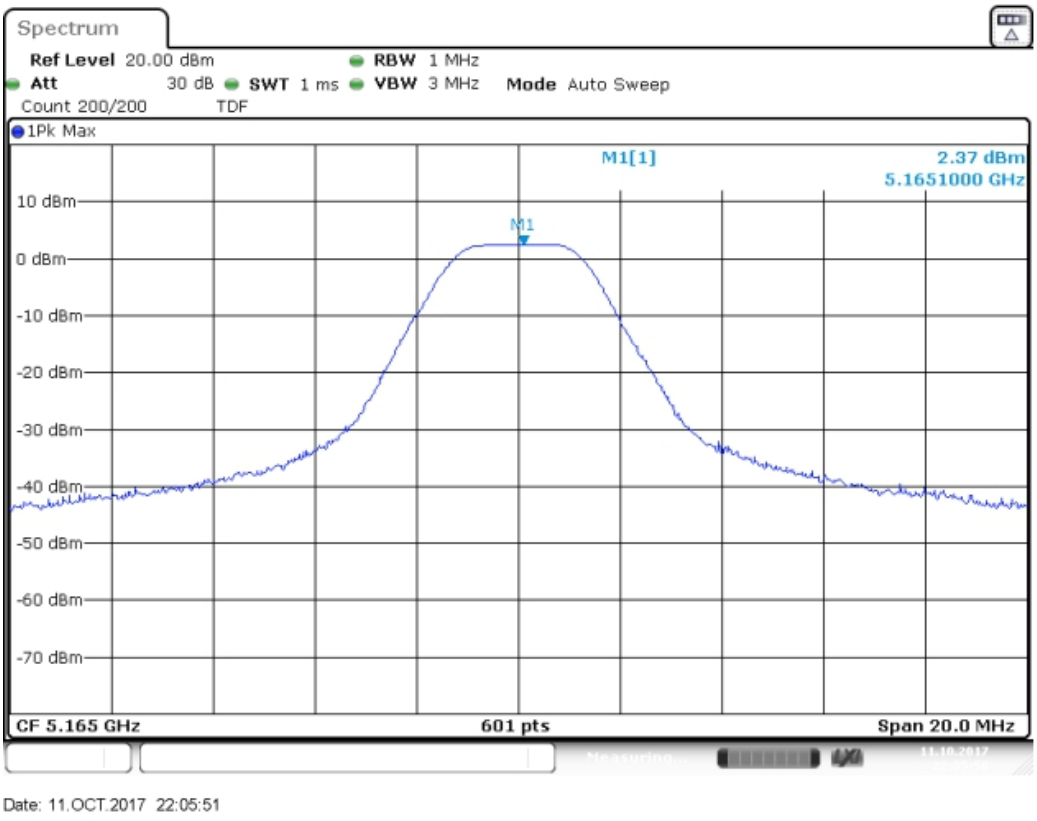
Note [1]: The RBW used in Band IV is 1 MHz, and the PSD factor is: 10*log (500 kHz/RBW) =-3 dBm.

5150 MHz - 5250 MHz					
Mode	Channel	Frequency (MHz)	PSD at ant 0 (dBm/MHz)	FCC Limit(dBm/MHz)	Verdict
GFSK	Low	5165	2.37	11	Pass
	Middle	5180	2.43	11	Pass
	High	5200	2.38	11	Pass

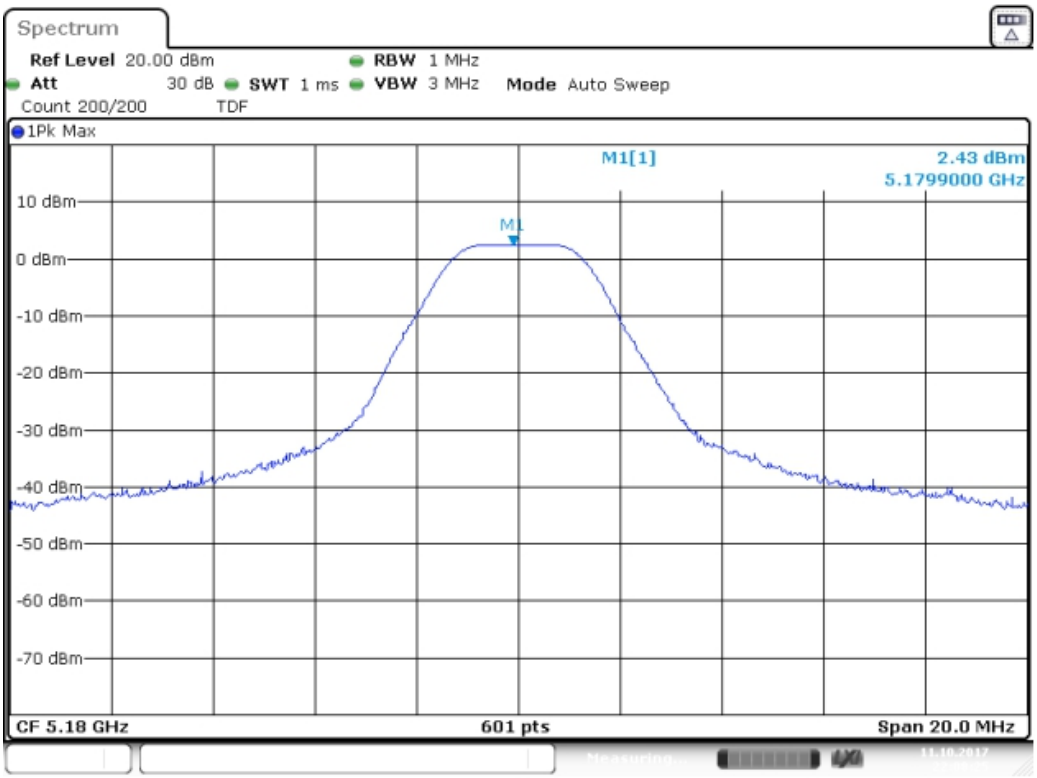
5725 MHz - 5850 MHz					
Mode	Channel	Frequency (MHz)	PSD at ant 0 (dBm/MHz)	FCC/IC Limit(dBm/ 500 kHz)	Verdict
GFSK	Low	5740	1.01	30	Pass
	Middle	5790	2.57	30	Pass
	High	5840	1.83	30	Pass

Test plots

5150 MHz - 5250 MHz, LOW CHANNEL



5150 MHz - 5250 MHz, MIDDLE CHANNEL



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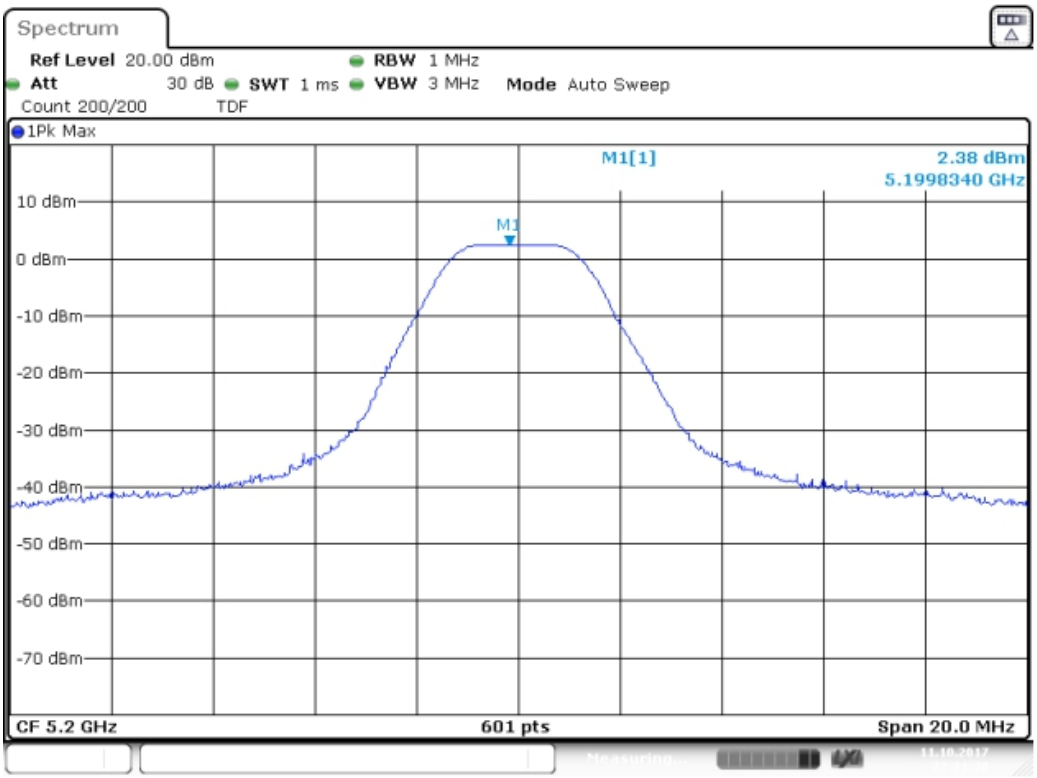
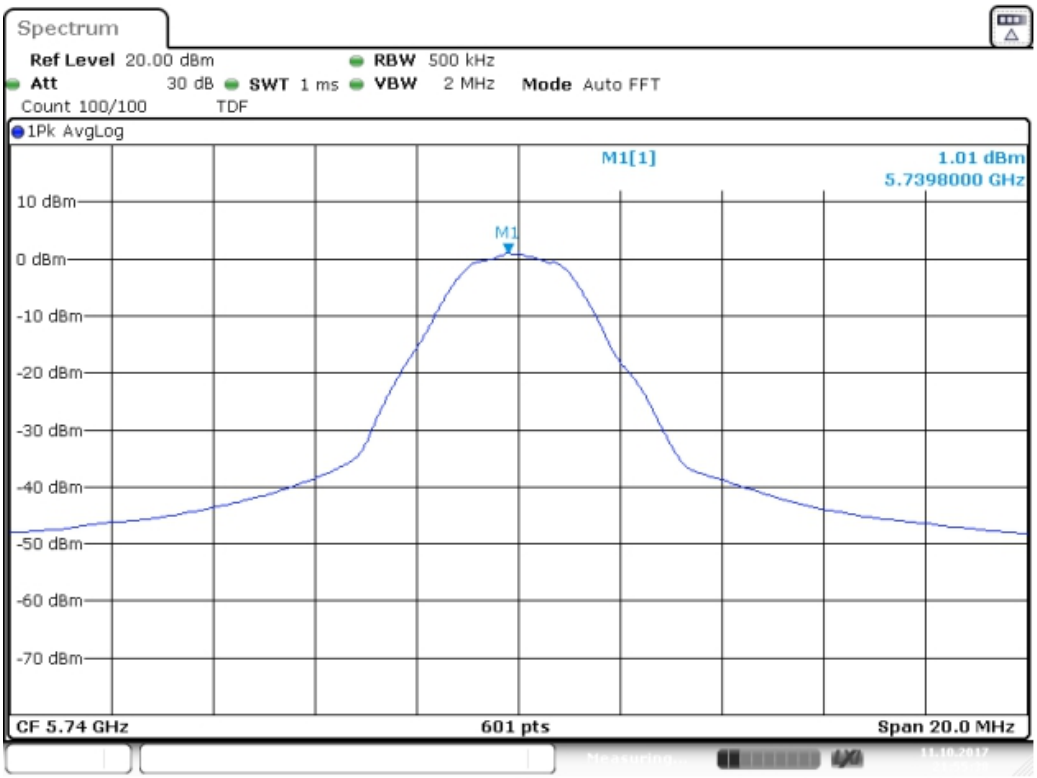
5150 MHz - 5250 MHz, HIGH CHANNEL



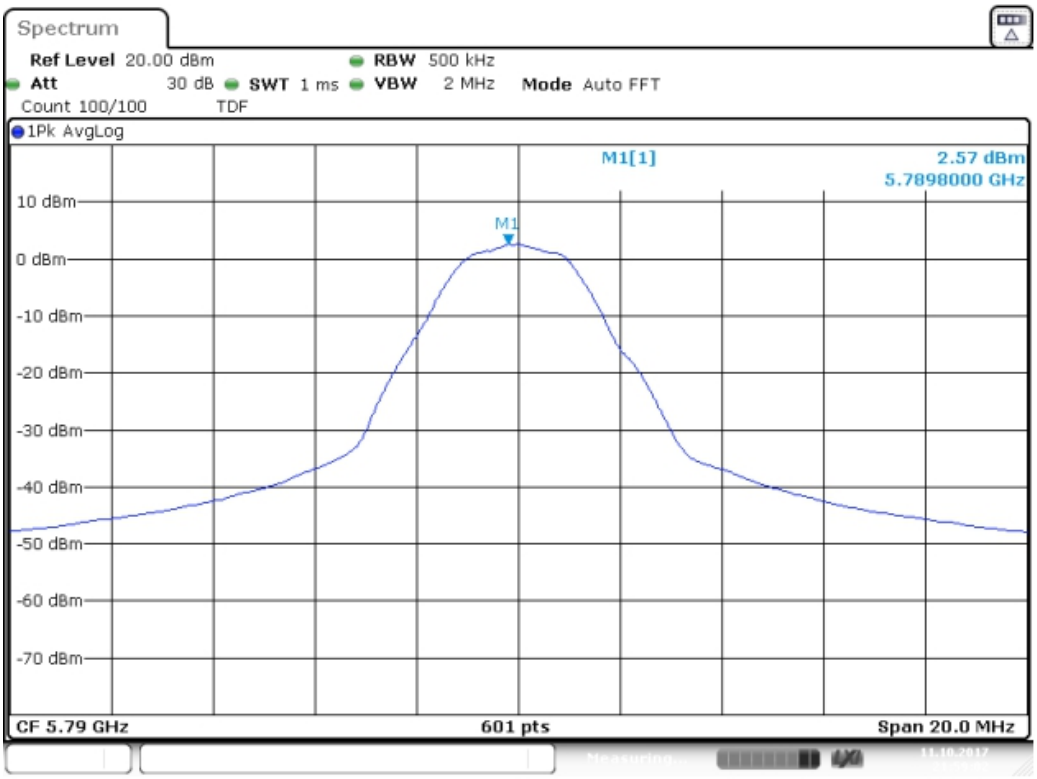
Date: 11.OCT.2017 22:11:38

5725 MHz - 5850 MHz, LOW CHANNEL



Date: 11.OCT.2017 21:55:38

5725 MHz - 5850 MHz, MIDDLE CHANNEL



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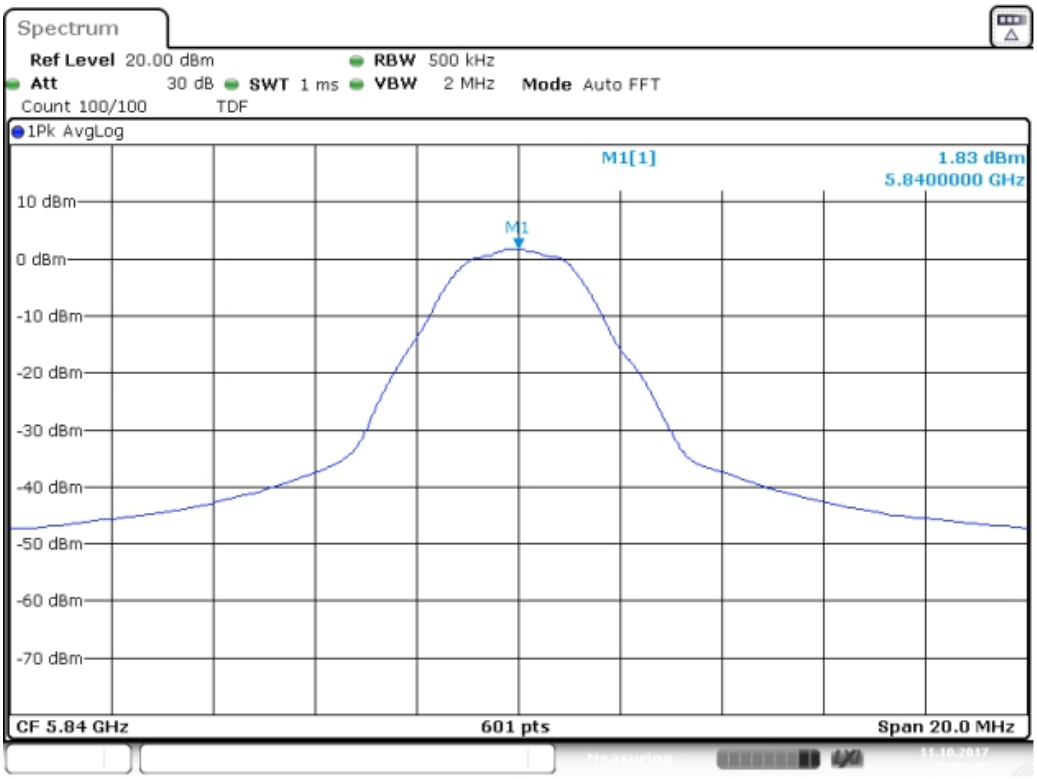
5725 MHz - 5850 MHz, HIGH CHANNEL



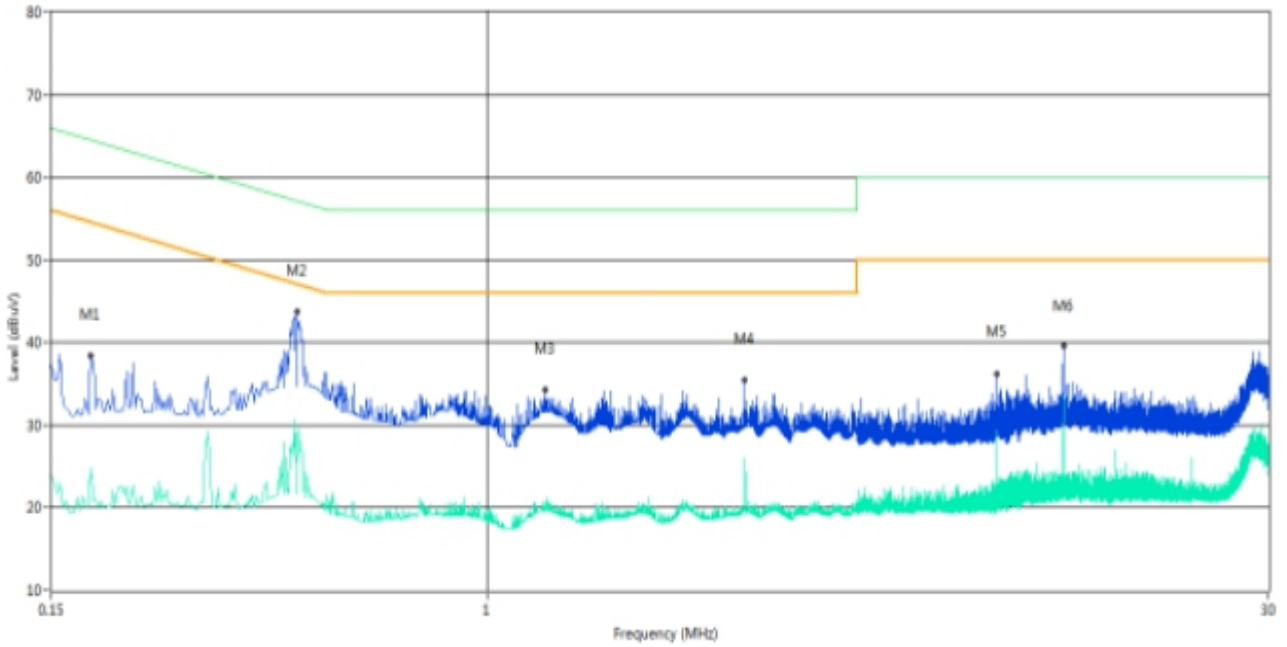
Date: 11.OCT.2017 22:01:32

A.5 Conducted Emissions

Note [1]: The EUT is working in the Normal link mode.

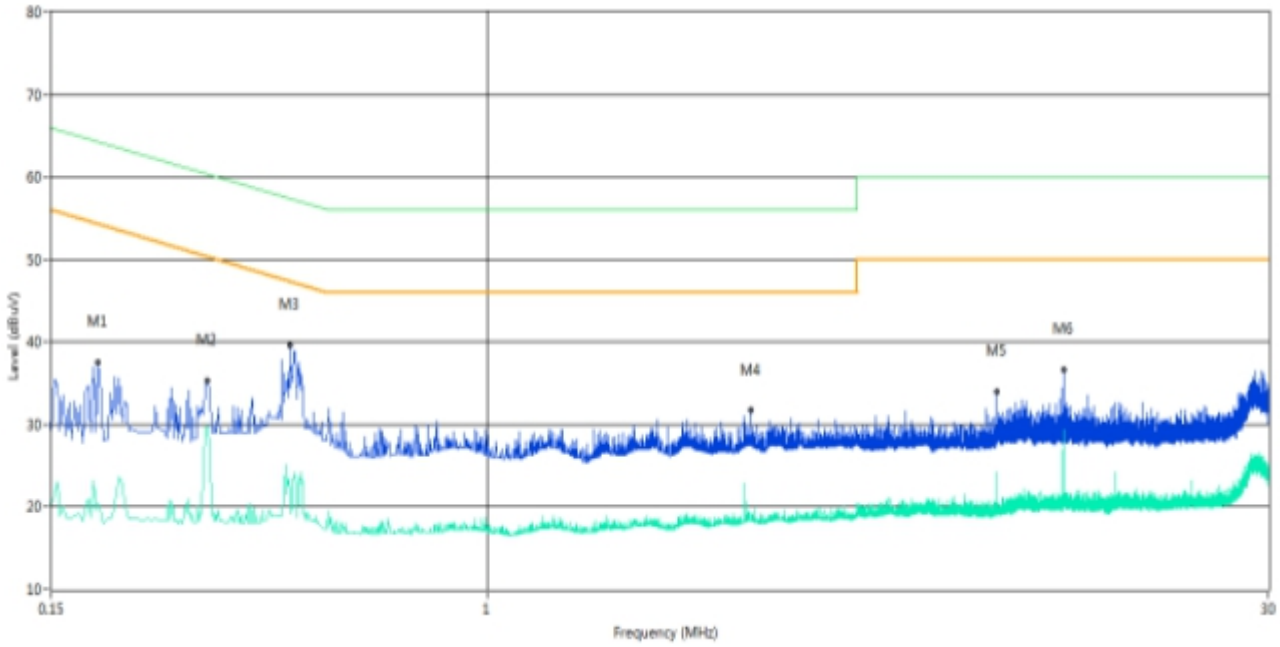
Test Data and Plots

PHASE L



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.178	38.4	10.04	54.6	16.20	Peak	L Line	Pass
1**	0.178	24.7	10.04	64.6	39.90	AV	L Line	Pass
2	0.438	43.7	10.04	47.1	3.40	Peak	L Line	Pass
2**	0.438	29.1	10.04	57.1	28.00	AV	L Line	Pass
3	1.290	34.3	10.07	46.0	11.70	Peak	L Line	Pass
3**	1.290	20.7	10.07	56.0	35.30	AV	L Line	Pass
4	3.072	35.5	10.12	46.0	10.50	Peak	L Line	Pass
4**	3.072	26.0	10.12	56.0	30.00	AV	L Line	Pass
5	9.212	36.2	10.29	50.0	13.80	Peak	L Line	Pass
5**	9.212	29.0	10.29	60.0	31.00	AV	L Line	Pass
6	12.284	39.6	10.38	50.0	10.40	Peak	L Line	Pass
6**	12.284	33.5	10.38	60.0	26.50	AV	L Line	Pass

PHASE N



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.184	37.5	10.04	54.3	16.80	Peak	N Line	Pass
1**	0.184	20.5	10.04	64.3	43.80	AV	N Line	Pass
2	0.296	35.4	10.04	50.4	15.00	Peak	N Line	Pass
2**	0.296	29.8	10.04	60.4	30.60	AV	N Line	Pass
3	0.424	39.6	10.04	47.4	7.80	Peak	N Line	Pass
3**	0.424	22.0	10.04	57.4	35.40	AV	N Line	Pass
4	3.150	31.7	10.12	46.0	14.30	Peak	N Line	Pass
4**	3.150	18.9	10.12	56.0	37.10	AV	N Line	Pass
5	9.212	34.0	10.29	50.0	16.00	Peak	N Line	Pass
5**	9.212	24.2	10.29	60.0	35.80	AV	N Line	Pass
6	12.284	36.7	10.38	50.0	13.30	Peak	N Line	Pass
6**	12.284	28.5	10.38	60.0	31.50	AV	N Line	Pass

A.6 Conducted Spurious Emission and Band Edge (Authorized-band)

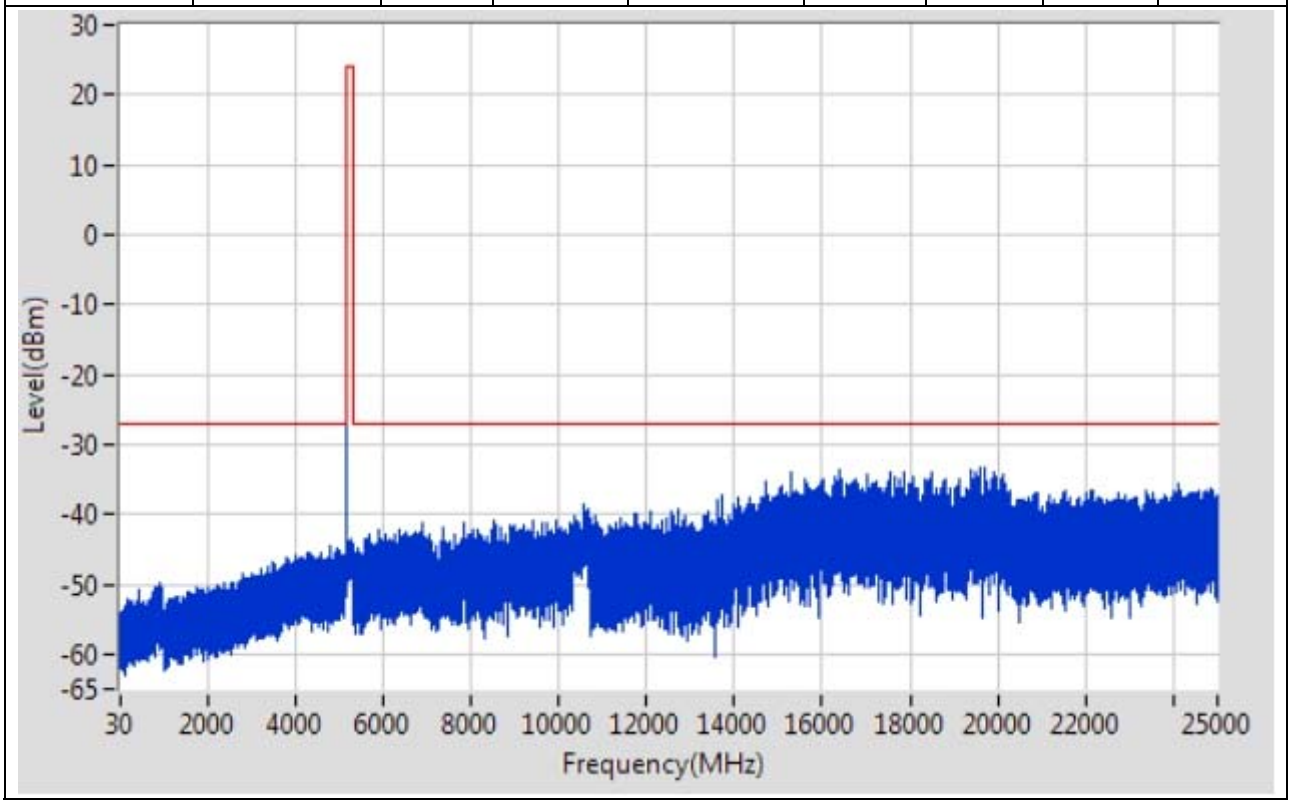
Note [1]: Test plots please refer to the document “Annex No.: BL-SZ1680175-604 Data Part 4.pdf”.

Test Band	Channel	Verdict
5150 MHz - 5250 MHz	Low	Pass
	Middle	Pass
	High	Pass
5725 MHz - 5850 MHz	Low	Pass
	Middle	Pass
	High	Pass

Test plots

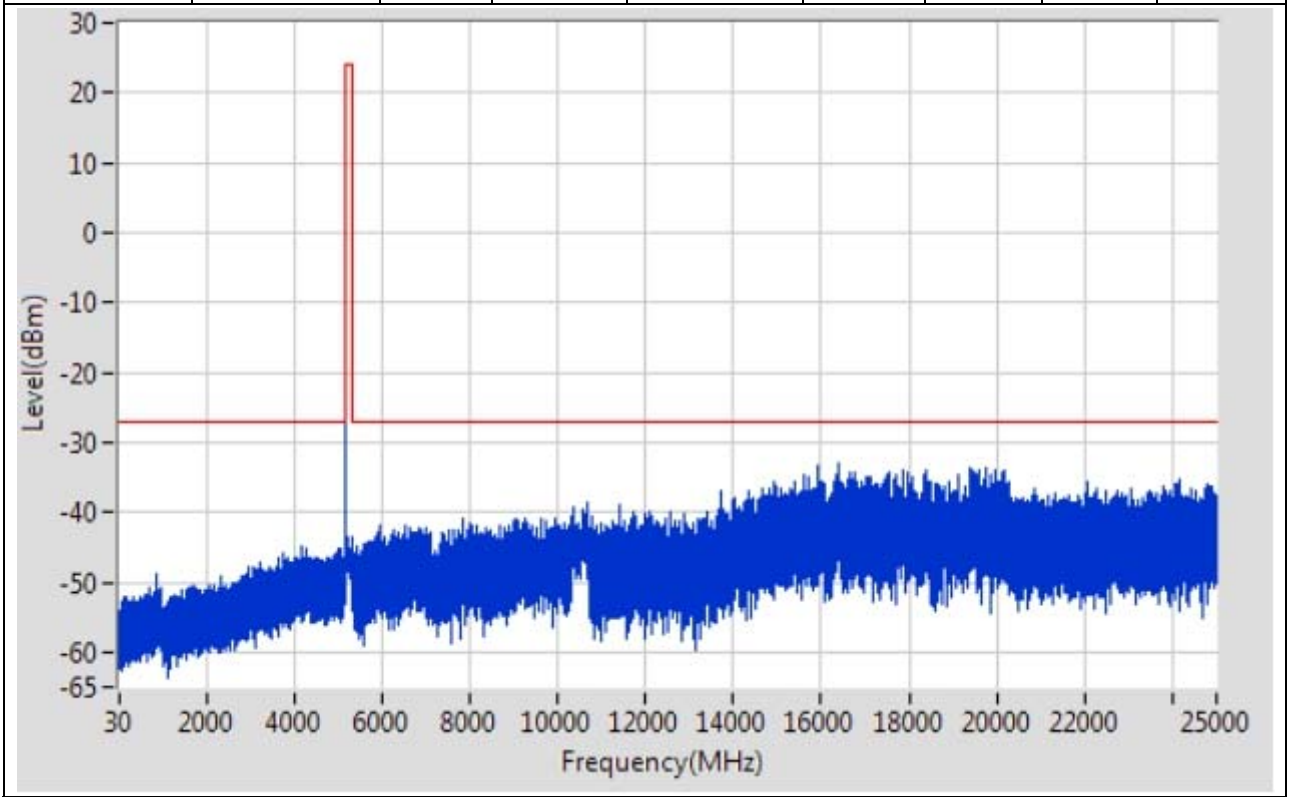
5150 MHz - 5250 MHz, LOW CHANNEL

Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	937.794	-49.89	-27	Pass	9700
1000	5150	0.1	Peak	5149.1	-43.35	-27	Pass	41499
5150	5350	0.1	Peak	5165.008	8.37	24	Pass	2000
5350	10300	0.1	Peak	9939.759	-40.85	-27	Pass	49499
10300	10700	0.1	Peak	10597.874	-38.76	-27	Pass	4000
10700	25000	0.1	Peak	19604.078	-33.45	-27	Pass	142999



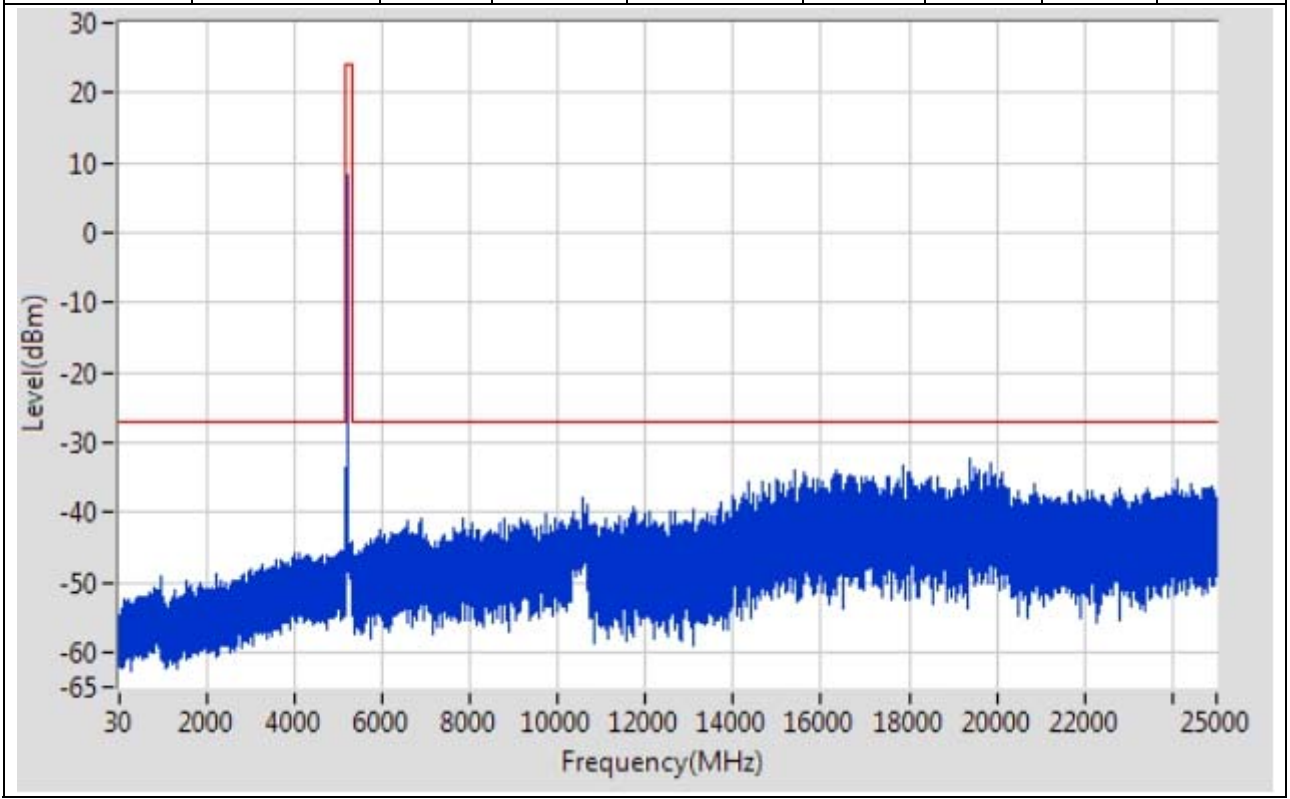
5150 MHz - 5250 MHz, MIDDLE CHANNEL

Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	888.789	-48.9	-27	Pass	9700
1000	5150	0.1	Peak	4178.099	-44.72	-27	Pass	41499
5150	5350	0.1	Peak	5180.015	8.48	24	Pass	2000
5350	10300	0.1	Peak	9030.555	-40.87	-27	Pass	49499
10300	10700	0.1	Peak	10660.69	-38.75	-27	Pass	4000
10700	25000	0.1	Peak	16386.378	-32.89	-27	Pass	142999



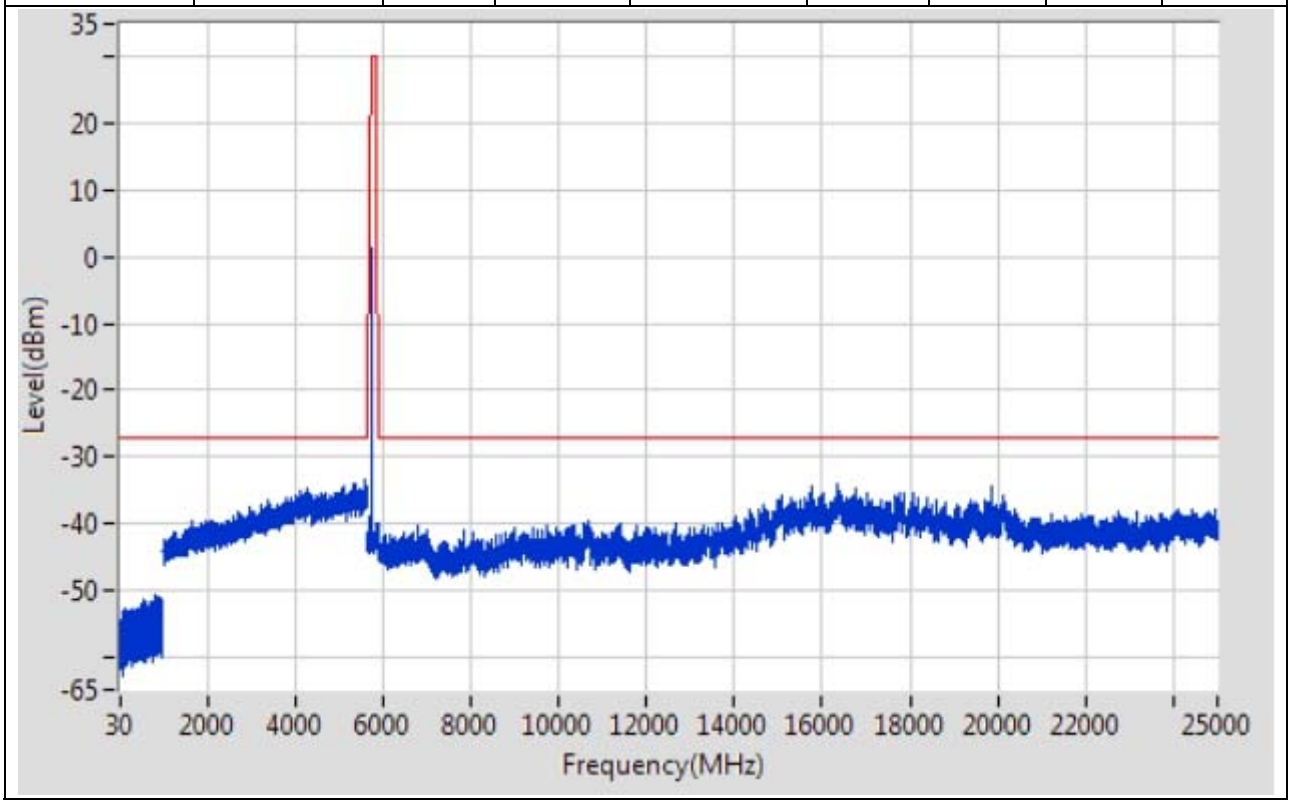
5150 MHz - 5250 MHz, HIGH CHANNEL

Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	975.597	-49.26	-27	Pass	9700
1000	5150	0.1	Peak	5077.185	-45.38	-27	Pass	41499
5150	5350	0.1	Peak	5199.925	8.28	24	Pass	2000
5350	10300	0.1	Peak	9733.835	-40.36	-27	Pass	49499
10300	10700	0.1	Peak	10590.473	-38.07	-27	Pass	4000
10700	25000	0.1	Peak	19393.972	-32.25	-27	Pass	142999



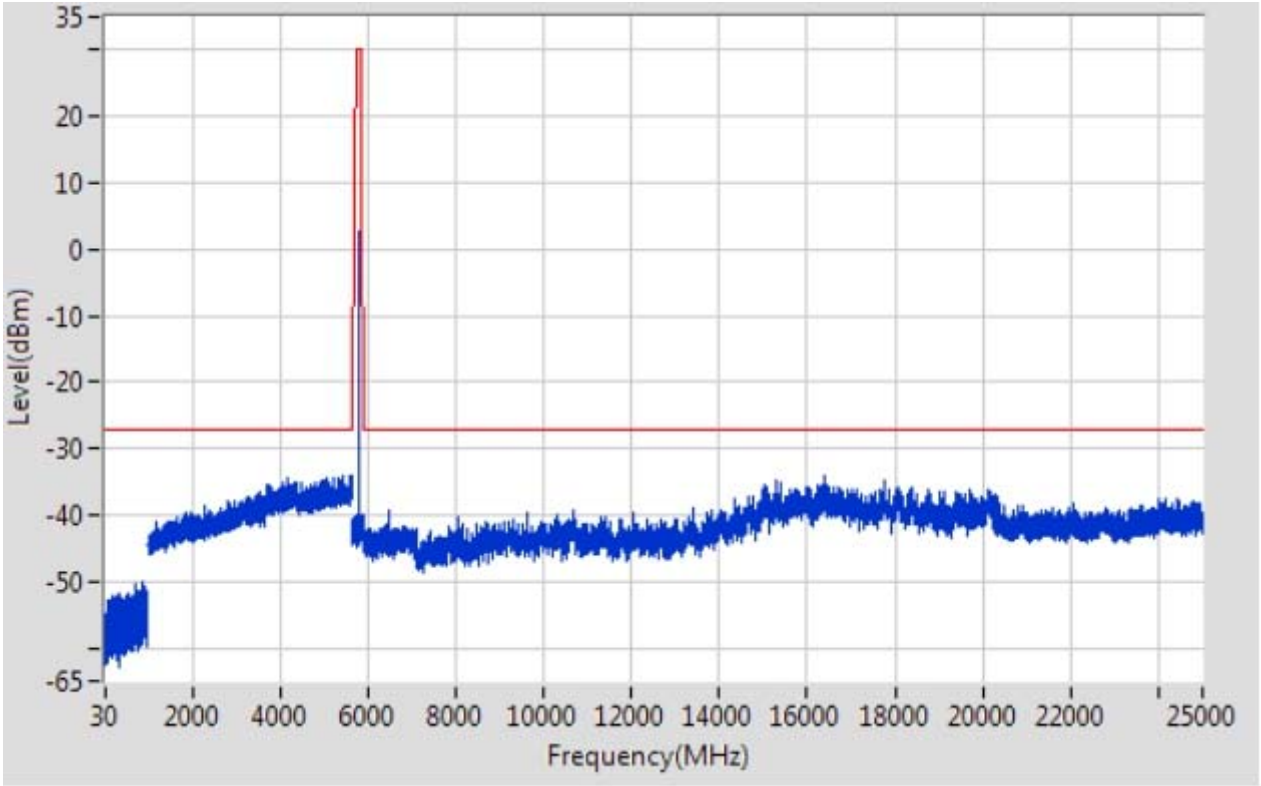
5725 MHz - 5850 MHz, LOW CHANNEL

Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	827.182	-50.85	-27	Pass	9700
1000	5650	1	Peak	5604.99	-33.36	-27	Pass	4650
5650	5700	1	Peak	5651.159	-41.59	-26.14	Pass	691
5700	5720	1	Peak	5708.841	-38.85	12.48	Pass	691
5720	5725	1	Peak	5720.072	-41.81	15.77	Pass	691
5725	5850	1	Peak	5739.855	1.16	30	Pass	691
5850	5855	1	Peak	5854.978	-41.48	15.65	Pass	691
5855	5875	1	Peak	5874.71	-40.57	10.08	Pass	691
5875	5925	1	Peak	5924.783	-42.34	-26.84	Pass	691
5925	25000	1	Peak	16364.547	-34.23	-27	Pass	19075



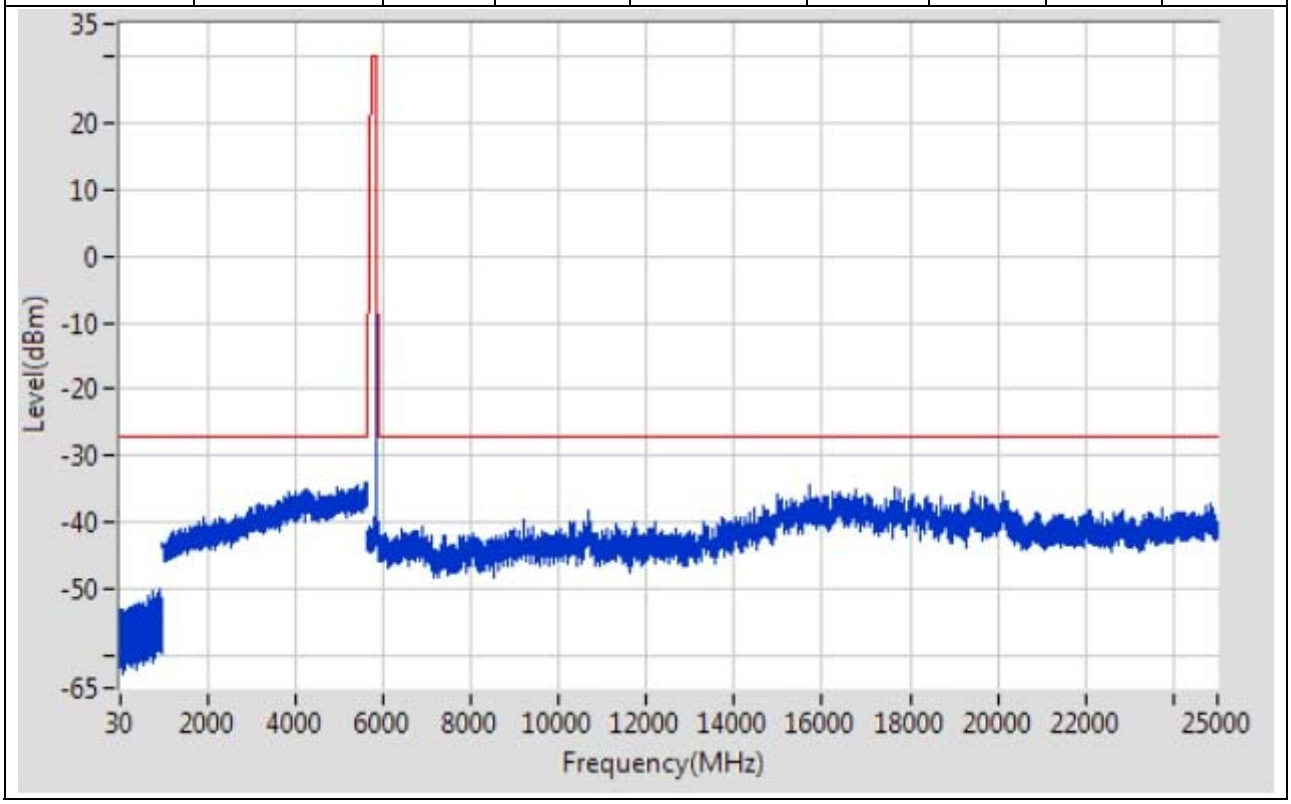
5725 MHz - 5850 MHz, MIDDLE CHANNEL

Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	885.388	-50.23	-27	Pass	9700
1000	5650	1	Peak	5598.989	-33.96	-27	Pass	4650
5650	5700	1	Peak	5650.797	-41.51	-26.41	Pass	691
5700	5720	1	Peak	5700.696	-40.32	10.19	Pass	691
5720	5725	1	Peak	5720.232	-40.79	16.13	Pass	691
5725	5850	1	Peak	5790.036	2.79	30	Pass	691
5850	5855	1	Peak	5854.812	-40.45	16.03	Pass	691
5855	5875	1	Peak	5874.942	-40.69	10.02	Pass	691
5875	5925	1	Peak	5925	-42.44	-27	Pass	691
5925	25000	1	Peak	16386.548	-33.97	-27	Pass	19075



5725 MHz - 5850 MHz, HIGH CHANNEL

Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	922.692	-49.91	-27	Pass	9700
1000	5650	1	Peak	5645.999	-34.03	-27	Pass	4650
5650	5700	1	Peak	5650.145	-42.25	-26.89	Pass	691
5700	5720	1	Peak	5702.638	-41.07	10.74	Pass	691
5720	5725	1	Peak	5720.022	-41.28	15.65	Pass	691
5725	5850	1	Peak	5839.855	2.08	30	Pass	691
5850	5855	1	Peak	5855	-39.17	15.6	Pass	691
5855	5875	1	Peak	5872.71	-37.98	10.64	Pass	691
5875	5925	1	Peak	5924.71	-42.05	-26.79	Pass	691
5925	25000	1	Peak	15729.514	-34.49	-27	Pass	19075



A.7 Radiated Spurious Emissions and Band Edge (Restricted-band)

Test Data

Cabinet Radiated spurious emission test

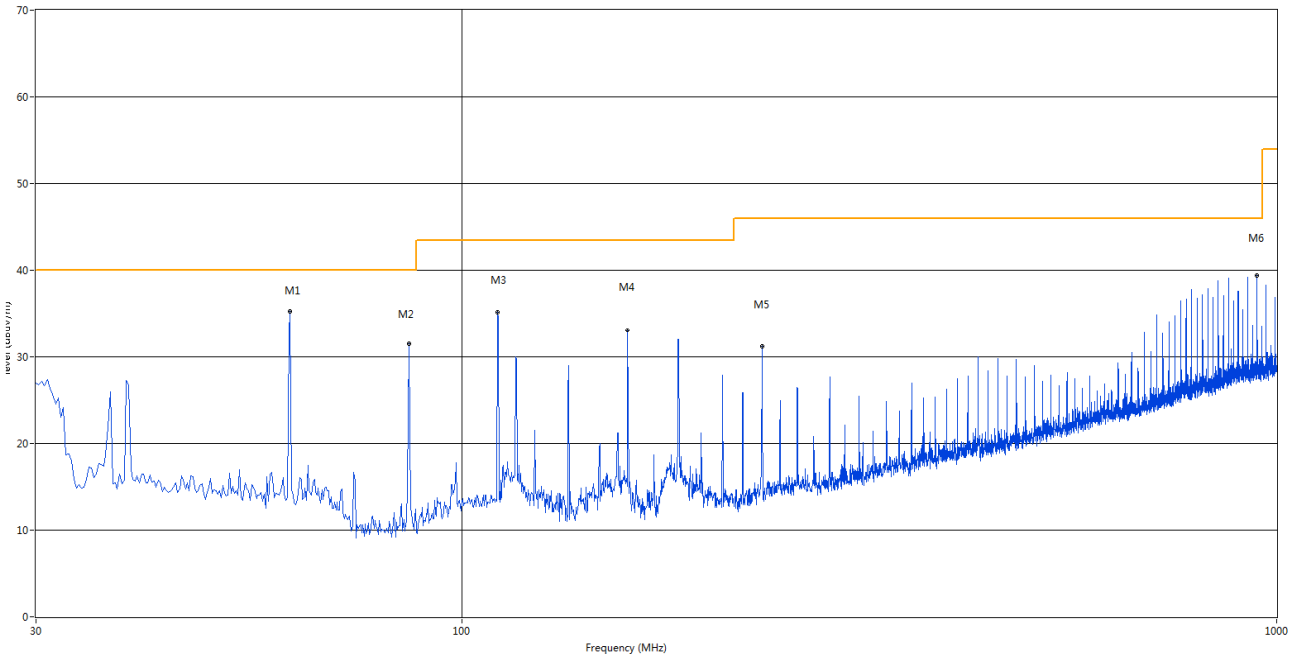
Note [1]: The symbol of "--" in the table which means not application.

Note [2]: For the test data above 1 GHz，According the ANSI C63.4, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note [3]: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

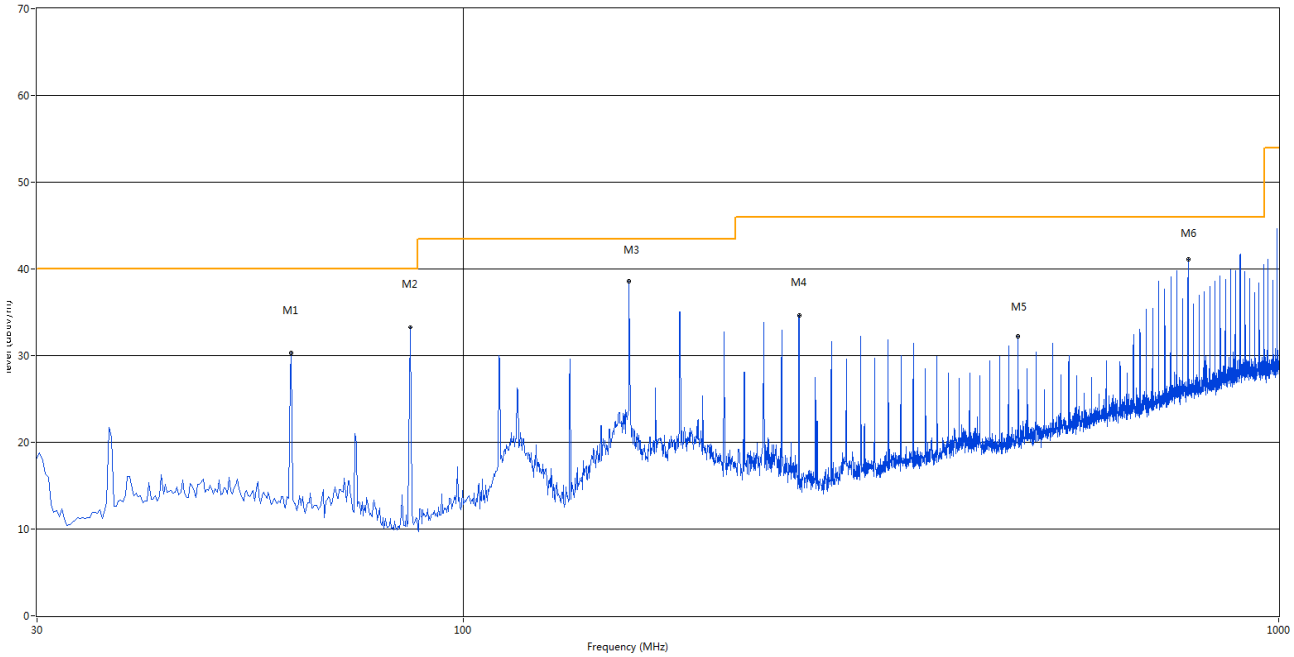
Note [4]: The EUT is working in the Normal link mode below 1 GHz.

30 MHz to 1 GHz, ANT V



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	61.525	35.30	-13.57	40.0	4.70	Peak	59.00	100	Vertical	Pass
2	86.018	31.49	-16.31	40.0	8.51	Peak	2.00	100	Vertical	Pass
3	110.510	35.22	-13.55	43.5	8.28	Peak	3.00	100	Vertical	Pass
4	159.738	33.13	-16.14	43.5	10.37	Peak	5.00	100	Vertical	Pass
5	233.458	31.14	-12.49	46.0	14.86	Peak	1.00	100	Vertical	Pass
6	946.165	39.45	1.52	46.0	6.55	Peak	6.00	100	Vertical	Pass

30 MHz to 1 GHz, ANT H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	61.525	30.23	-13.57	40.0	9.77	Peak	261.00	100	Horizontal	Pass
2	86.018	33.30	-16.31	40.0	6.70	Peak	4.00	100	Horizontal	Pass
3	159.738	38.62	-16.14	43.5	4.88	Peak	6.00	100	Horizontal	Pass
4	258.193	34.74	-11.66	46.0	11.26	Peak	1.00	100	Horizontal	Pass
5	479.353	32.22	-6.57	46.0	13.78	Peak	2.00	100	Horizontal	Pass
6	774.233	41.19	-1.02	46.0	4.81	Peak	2.00	100	Horizontal	Pass

Note [1]: The device was evaluated/tested in XYZ orientation for radiated spurious emissions. And only the worst orientation of EUT was reported, which is the horizontal orientation.

5150 MHz - 5250 MHz

1 GHz to 6 GHz, ANT V Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1992.500	53.68	-2.73	68.2	14.52	Peak	79.00	150	Vertical	Pass
2	2643.500	53.07	2.00	68.2	15.13	Peak	5.00	150	Vertical	Pass
3	3322.000	53.51	7.57	68.2	14.69	Peak	5.00	150	Vertical	Pass
4	3734.000	48.58	9.97	74.0	25.42	Peak	2.00	150	Vertical	Pass
5	4799.000	52.27	12.57	74.0	21.73	Peak	5.00	150	Vertical	Pass
6	5165.000	106.21	13.28	74.0	-32.21	Peak	2.00	150	Vertical	N/A

6 GHz to 40 GHz, ANT V Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	8083.500	47.94	15.34	74.0	26.06	Peak	19.90	150	Vertical	Pass
2	9233.000	48.62	16.37	68.2	19.58	Peak	42.70	150	Vertical	Pass
3	9554.750	50.65	17.55	68.2	17.55	Peak	225.50	150	Vertical	Pass
4	10586.000	49.36	16.80	68.2	18.84	Peak	294.20	150	Vertical	Pass
5	11383.500	49.33	17.49	74.0	24.67	Peak	61.10	150	Vertical	Pass
6	12717.250	51.01	18.94	68.2	17.19	Peak	74.70	150	Vertical	Pass

1 GHz to 6 GHz, ANT H Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1329.500	44.51	-3.92	74.0	29.49	Peak	332.00	150	Horizontal	Pass
2	1995.000	45.51	-2.66	68.2	22.69	Peak	3.00	150	Horizontal	Pass
3	2655.000	51.70	2.01	68.2	16.5	Peak	1.00	150	Horizontal	Pass
4	3293.000	47.76	7.79	68.2	20.44	Peak	2.00	150	Horizontal	Pass
5	3745.000	49.51	10.07	74.0	24.49	Peak	3.00	150	Horizontal	Pass
6	5165.000	109.15	13.28	74.0	-35.15	Peak	4.00	150	Horizontal	N/A

6 GHz to 40 GHz, ANT H Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	8628.000	47.85	15.65	68.2	20.35	Peak	327.20	150	Horizontal	Pass
2	9282.500	48.92	16.76	68.2	19.28	Peak	295.40	150	Horizontal	Pass
3	10800.500	48.88	17.46	74.0	25.12	Peak	55.80	150	Horizontal	Pass
4	11386.250	49.29	17.47	74.0	24.71	Peak	158.00	150	Horizontal	Pass
5	12029.750	50.72	18.10	74.0	23.28	Peak	111.80	150	Horizontal	Pass
6	12442.250	51.33	18.92	74.0	22.67	Peak	350.50	150	Horizontal	Pass

1 GHz to 6 GHz, ANT V Middle channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1329.000	45.47	-3.96	74.0	28.53	Peak	259.00	150	Vertical	Pass
2	1938.000	49.39	-3.04	68.2	18.81	Peak	5.00	150	Vertical	Pass
3	2663.000	52.24	2.14	68.2	15.96	Peak	0.00	150	Vertical	Pass
4	3322.000	48.10	7.57	68.2	20.1	Peak	2.00	150	Vertical	Pass
5	3987.000	51.08	10.11	74.0	22.92	Peak	2.00	150	Vertical	Pass
6	5180.000	105.83	13.17	74.0	-31.83	Peak	5.00	150	Vertical	N/A

6 GHz to 40 GHz, ANT V Middle channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	8380.500	47.19	15.33	74.0	26.81	Peak	183.40	150	Vertical	Pass
2	9541.000	48.75	17.38	68.2	19.45	Peak	265.90	150	Vertical	Pass
3	10335.750	49.52	17.28	68.2	18.68	Peak	289.50	150	Vertical	Pass
4	10803.250	48.88	17.44	74.0	25.12	Peak	29.20	150	Vertical	Pass
5	11609.000	49.41	17.45	74.0	24.59	Peak	360.00	150	Vertical	Pass
6	12687.000	51.92	19.17	74.0	22.08	Peak	335.10	150	Vertical	Pass

1 GHz to 6 GHz, ANT H Middle channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1994.000	47.02	-2.68	68.2	21.18	Peak	58.00	150	Horizontal	Pass
2	2199.500	46.78	0.25	68.2	21.42	Peak	5.00	150	Horizontal	Pass
3	2663.000	51.96	2.14	68.2	16.24	Peak	0.00	150	Horizontal	Pass
4	3141.000	48.19	8.30	68.2	20.01	Peak	4.00	150	Horizontal	Pass
5	3778.000	48.83	9.93	74.0	25.17	Peak	3.00	150	Horizontal	Pass
6	5180.000	108.17	13.17	74.0	-34.17	Peak	6.00	150	Horizontal	N/A

6 GHz to 40 GHz, ANT H Middle channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	7533.500	48.11	14.78	74.0	25.89	Peak	355.90	150	Horizontal	Pass
2	9274.250	49.19	16.70	68.2	19.01	Peak	194.90	150	Horizontal	Pass
3	11350.500	48.80	17.69	74.0	25.20	Peak	47.40	150	Horizontal	Pass
4	11834.500	49.91	17.73	74.0	24.09	Peak	208.40	150	Horizontal	Pass
5	12601.750	51.45	18.94	74.0	22.55	Peak	116.90	150	Horizontal	Pass
6**	15538.383	51.79	21.68	54.0	2.21	AV	358.60	124	Horizontal	Pass
6	15538.383	64.16	21.68	74.0	9.84	Peak	358.60	124	Horizontal	N/A

1 GHz to 6 GHz, ANT V High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1994.000	51.05	-2.68	68.2	17.15	Peak	252.00	150	Vertical	Pass
2	2667.500	52.33	2.27	68.2	15.87	Peak	3.00	150	Vertical	Pass
3	3985.000	50.24	10.11	74.0	23.76	Peak	1.00	150	Vertical	Pass
4	4571.000	50.81	12.07	74.0	23.19	Peak	2.00	150	Vertical	Pass
5	5200.000	106.12	13.12	74.0	-32.12	Peak	4.00	150	Vertical	N/A
6	6894.000	53.66	14.46	68.2	14.54	Peak	3.00	150	Vertical	Pass

6 GHz to 40 GHz, ANT V High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	8509.750	47.42	16.20	68.2	20.78	Peak	24.20	150	Vertical	Pass
2	9271.500	48.35	16.69	68.2	19.85	Peak	353.10	150	Vertical	Pass
3	11325.750	49.56	17.49	74.0	24.44	Peak	0.50	150	Vertical	Pass
4	12112.250	50.32	18.16	74.0	23.68	Peak	0.10	150	Vertical	Pass
5	12431.250	51.02	19.00	74.0	22.98	Peak	1.10	150	Vertical	Pass
6	13061.000	51.87	19.75	68.2	16.33	Peak	60.20	150	Vertical	Pass

1 GHz to 6 GHz, ANT H High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1992.500	46.04	-2.73	68.2	22.16	Peak	168.00	150	Horizontal	Pass
2	2653.000	50.69	1.95	68.2	17.51	Peak	4.00	150	Horizontal	Pass
3	3328.000	48.06	7.53	68.2	20.14	Peak	5.00	150	Horizontal	Pass
4	3787.000	48.75	9.84	74.0	25.25	Peak	6.00	150	Horizontal	Pass
5	4512.000	50.47	12.12	74.0	23.53	Peak	3.00	150	Horizontal	Pass
6	5201.000	107.92	13.07	74.0	-33.92	Peak	78.00	150	Horizontal	N/A

6 GHz to 40 GHz, ANT H High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	8485.000	47.45	15.90	74.0	26.55	Peak	2.60	150	Horizontal	Pass
2	9021.250	48.60	16.18	74.0	25.40	Peak	70.00	150	Horizontal	Pass
3	9706.000	51.76	19.32	68.2	16.44	Peak	212.10	150	Horizontal	Pass
4	10844.500	49.18	17.05	74.0	24.82	Peak	349.20	150	Horizontal	Pass
5	11490.750	48.75	17.44	74.0	25.25	Peak	359.90	150	Horizontal	Pass
6	12909.750	51.64	19.22	68.2	16.56	Peak	303.60	150	Horizontal	Pass

5725 MHz - 5850 MHz

1 GHz to 6 GHz, ANT V Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1993.000	50.57	-2.70	68.2	17.63	Peak	59.00	150	Vertical	Pass
2	2178.500	50.43	-0.02	68.2	17.77	Peak	4.00	150	Vertical	Pass
3	2629.500	52.47	2.11	68.2	15.73	Peak	5.00	150	Vertical	Pass
4	3983.000	52.63	10.07	74.0	21.37	Peak	6.00	150	Vertical	Pass
5	4655.000	51.74	12.09	74.0	22.26	Peak	4.00	150	Vertical	Pass
6	5740.000	100.62	14.61	74.0	-26.62	Peak	1.00	150	Vertical	N/A

6 GHz to 40 GHz, ANT V Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	8240.250	47.25	15.22	74.0	26.75	Peak	149.40	150	Vertical	Pass
2	9252.250	49.16	16.56	68.2	19.04	Peak	287.90	150	Vertical	Pass
3	10553.000	49.97	17.06	68.2	18.23	Peak	154.20	150	Vertical	Pass
4	11658.500	49.44	17.55	74.0	24.56	Peak	204.70	150	Vertical	Pass
5	12390.000	51.71	19.26	74.0	22.29	Peak	357.60	150	Vertical	Pass
6	13044.500	52.01	19.73	68.2	16.19	Peak	52.10	150	Vertical	Pass

1 GHz to 6 GHz, ANT H Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1237.000	42.84	-4.41	74.0	31.16	Peak	9.00	150	Horizontal	Pass
2	1993.500	45.35	-2.68	68.2	22.85	Peak	2.00	150	Horizontal	Pass
3	2661.500	50.75	2.12	68.2	17.45	Peak	1.00	150	Horizontal	Pass
4	3839.000	48.38	9.36	74.0	25.62	Peak	5.00	150	Horizontal	Pass
5	4633.000	51.66	11.99	74.0	22.34	Peak	2.00	150	Horizontal	Pass
6	5740.000	103.78	14.61	74.0	-29.78	Peak	1.00	150	Horizontal	N/A

6 GHz to 40 GHz, ANT H Low channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	8254.000	47.39	15.36	74.0	26.61	Peak	358.60	150	Horizontal	Pass
2	9180.750	48.75	15.94	74.0	25.25	Peak	207.00	150	Horizontal	Pass
3	10833.500	49.50	17.17	74.0	24.50	Peak	174.70	150	Horizontal	Pass
4	11479.750	51.94	17.41	74.0	22.06	Peak	303.00	150	Horizontal	Pass
5	12381.750	50.63	19.21	74.0	23.37	Peak	110.50	150	Horizontal	Pass
6	12629.250	51.07	19.08	74.0	22.93	Peak	161.20	150	Horizontal	Pass

1 GHz to 6 GHz, ANT V Middle channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1141.000	41.58	-5.07	74.0	32.42	Peak	118.00	150	Vertical	Pass
2	1863.500	51.14	-3.56	68.2	17.06	Peak	5.00	150	Vertical	Pass
3	2665.500	51.75	2.13	68.2	16.45	Peak	2.00	150	Vertical	Pass
4	3142.000	48.16	8.31	68.2	20.04	Peak	0.00	150	Vertical	Pass
5	4634.000	51.11	11.97	74.0	22.89	Peak	4.00	150	Vertical	Pass
6	5791.000	101.72	14.63	74.0	-27.72	Peak	5.00	150	Vertical	N/A

6 GHz to 40 GHz, ANT V Middle channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	7550.000	47.19	14.58	74.0	26.81	Peak	2.90	150	Vertical	Pass
2	8116.500	47.15	15.98	74.0	26.85	Peak	141.40	150	Vertical	Pass
3	9356.750	48.39	16.70	74.0	25.61	Peak	280.30	150	Vertical	Pass
4	10874.750	49.23	16.90	74.0	24.77	Peak	90.00	150	Vertical	Pass
5	11878.500	50.27	17.85	74.0	23.73	Peak	216.30	150	Vertical	Pass
6	12629.250	52.57	19.08	74.0	21.43	Peak	62.10	150	Vertical	Pass

1 GHz to 6 GHz, ANT H Middle channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1141.500	42.85	-5.07	74.0	31.15	Peak	211.00	150	Horizontal	Pass
2	1668.000	43.40	-3.74	74.0	30.60	Peak	1.00	150	Horizontal	Pass
3	1994.000	49.39	-2.68	68.2	18.81	Peak	4.00	150	Horizontal	Pass
4	2660.000	55.89	2.08	68.2	12.31	Peak	1.00	150	Horizontal	Pass
5	4077.000	48.78	10.44	74.0	25.22	Peak	1.00	150	Horizontal	Pass
6	5791.000	103.82	14.63	74.0	-29.82	Peak	0.00	150	Horizontal	N/A

6 GHz to 40 GHz, ANT H Middle channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	7643.500	46.95	14.44	74.0	27.05	Peak	353.40	150	Horizontal	Pass
2	8108.250	47.55	15.67	74.0	26.45	Peak	30.30	150	Horizontal	Pass
3	9263.250	49.49	16.63	68.2	18.71	Peak	294.30	150	Horizontal	Pass
4	10531.000	49.11	17.00	68.2	19.09	Peak	25.70	150	Horizontal	Pass
5**	11579.239	47.97	17.33	54.0	6.03	AV	294.30	214	Horizontal	Pass
5	11579.239	59.31	17.33	74.0	14.69	Peak	294.30	214	Horizontal	Pass
6	12684.250	52.17	19.20	68.2	16.03	Peak	107.90	150	Horizontal	Pass

1 GHz to 6 GHz, ANT V High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1116.500	42.21	-5.29	74.0	31.79	Peak	208.00	150	Vertical	Pass
2	1995.500	51.93	-2.65	68.2	16.27	Peak	358.50	150	Vertical	Pass
3	2158.000	50.26	-0.22	68.2	17.94	Peak	5.00	150	Vertical	Pass
4	2652.500	51.83	1.94	68.2	16.37	Peak	5.00	150	Vertical	Pass
5	3987.000	58.72	10.11	74.0	15.28	Peak	5.00	150	Vertical	Pass
6	5840.000	102.23	14.73	74.0	-28.23	Peak	2.00	150	Vertical	N/A

6 GHz to 40 GHz, ANT V High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	8064.250	47.17	15.59	74.0	26.83	Peak	96.00	150	Vertical	Pass
2	8977.250	47.79	16.67	68.2	20.41	Peak	0.00	150	Vertical	Pass
3	9521.750	49.06	17.22	68.2	19.14	Peak	72.90	150	Vertical	Pass
4	10564.000	49.02	17.02	68.2	19.18	Peak	2.70	150	Vertical	Pass
5	11581.500	49.13	17.33	74.0	24.87	Peak	330.30	150	Vertical	Pass
6	12909.750	51.63	19.22	68.2	16.57	Peak	355.50	150	Vertical	Pass

1 GHz to 6 GHz, ANT H High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	1329.500	43.70	-3.92	74.0	30.30	Peak	173.00	150	Horizontal	Pass
2	1498.000	44.30	-3.34	74.0	29.70	Peak	44.80	150	Horizontal	Pass
3	1863.500	44.77	-3.56	68.2	23.43	Peak	111.90	150	Horizontal	Pass
4	2663.500	50.85	2.13	68.2	17.35	Peak	165.00	150	Horizontal	Pass
5	3986.000	49.51	10.11	74.0	24.49	Peak	210.90	150	Horizontal	Pass
6	5841.000	104.69	14.73	68.2	-30.69	Peak	6.00	150	Horizontal	N/A

6 GHz to 40 GHz, ANT H High channel

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	7363.000	46.56	14.12	74.0	27.44	Peak	358.00	150	Horizontal	Pass
2	8771.000	47.38	15.57	68.2	20.82	Peak	79.90	150	Horizontal	Pass
3	9648.250	49.82	18.70	68.2	18.38	Peak	79.90	150	Horizontal	Pass
4**	11678.240	47.39	17.75	54.0	6.61	AV	299.10	150	Horizontal	Pass
4	11678.240	59.16	17.75	74.0	14.84	Peak	299.10	150	Horizontal	Pass
5	12373.500	52.21	19.23	74.0	21.79	Peak	125.80	150	Horizontal	Pass
6	12995.000	51.00	19.55	68.2	17.2	Peak	70.70	150	Horizontal	Pass

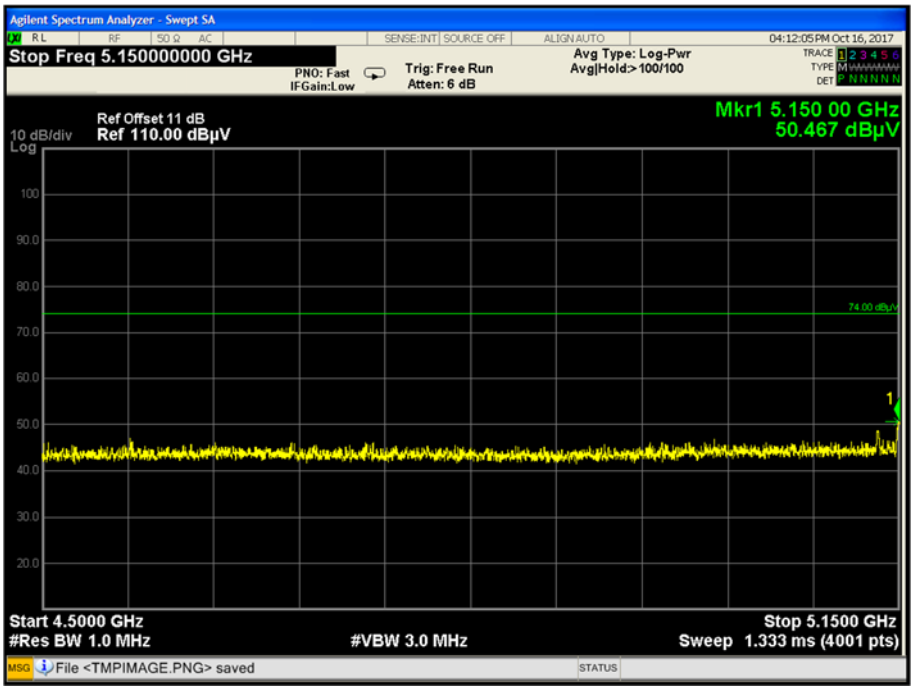
A.7.2 Band Edge (Restricted-band)

Note: Test plots please refer to the document “Annex No.: BL-SZ1680175-604 Data Part 5.pdf”.

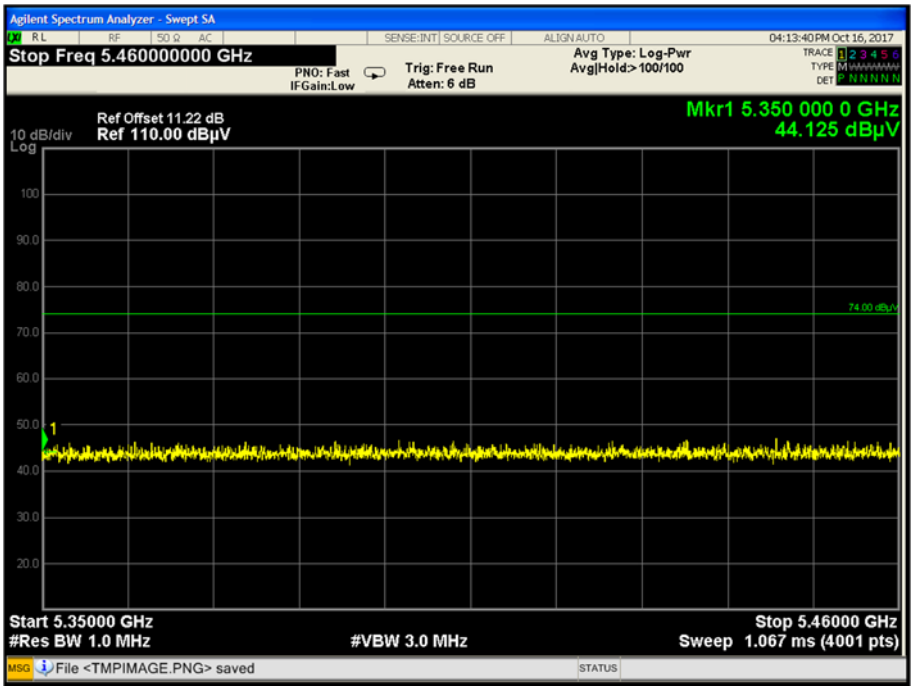
Test Band	Channel	Verdict
5150 MHz - 5250 MHz	Low	Pass
	High	Pass
5725 MHz - 5850 MHz	Low	Pass
	High	Pass

Test Plots

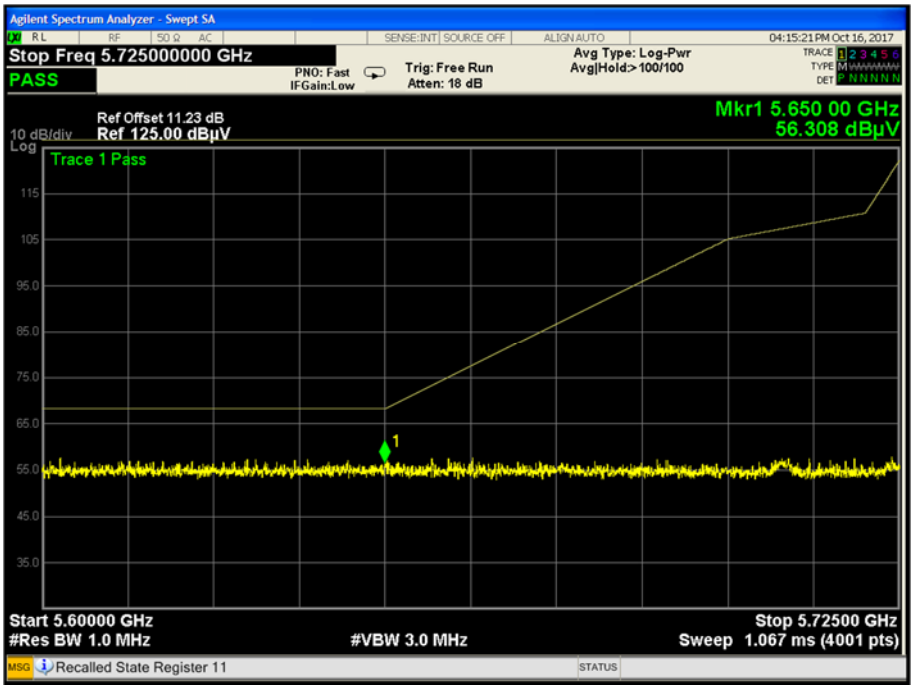
5150 MHz - 5250 MHz Low Channel



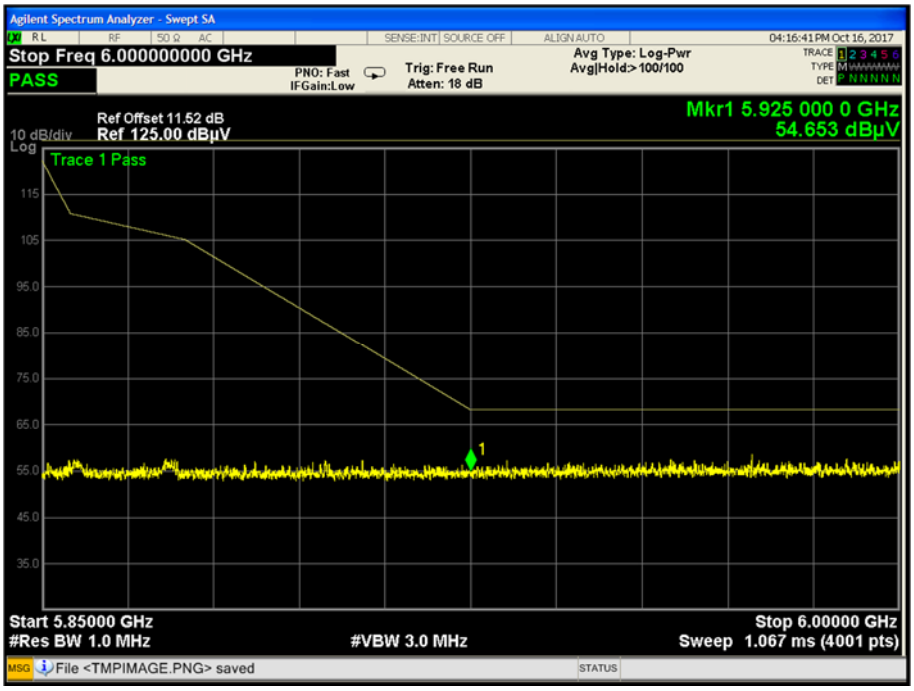
5150 MHz - 5250 MHz High Channel



5725 MHz - 5850 MHz Low Channel



5725 MHz - 5850 MH High Channel



Test Data and Plot

A.8 Frequency Stability

Measurement Data (the worst channel)

Voltage vs. Frequency Stability (5180 MHz)

Test Conditions		Test Frequency (MHz)	0 Minute		2 Minute		5 Minute		10Minute	
TEMP. (°C)	Voltage (VDC)		Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)
20	3.0	5180	5179.988223	-2.27	5180.038898	7.51	5180.033994	6.56	5179.97732	-4.38
	3.3	5180	5180.039328	7.59	5179.958808	-7.95	5180.043812	8.46	5180.019083	3.68
	3.6	5180	5180.035758	6.90	5180.031228	6.03	5180.049842	9.62	5180.016628	3.21

Temperature vs. Frequency Stability (5180 MHz)

Test Conditions		Test Frequency (MHz)	0 Minute		2 Minute		5 Minute		10Minute	
Voltage (VDC)	TEMP. (°C)		Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)
3.3	0	5180	5179.99858	-0.27	5179.967125	-6.35	5179.96869	-6.04	5180.014203	2.74
	-5	5180	5180.003416	0.66	5180.039797	7.68	5180.0126	2.43	5180.012987	2.51
	0	5180	5179.970782	-5.64	5180.024416	4.71	5180.045197	8.73	5180.026599	5.13
	10	5180	5180.042046	8.12	5180.037158	7.17	5179.955581	-8.58	5180.046697	9.01
	20	5180	5180.047344	9.14	5179.971073	-5.58	5180.006202	1.20	5180.005748	1.11
	30	5180	5179.980107	-3.84	5180.046321	8.94	5180.011949	2.31	5180.024224	4.68
	40	5180	5180.019457	3.76	5179.998833	-0.23	5180.049201	9.50	5179.987152	-2.48
	55	5180	5180.038777	7.49	5180.03635	7.02	5179.967606	-6.25	5180.014085	2.72

Voltage vs. Frequency Stability (5790 MHz)

Test Conditions		Test Frequency (MHz)	0 Minute		2 Minute		5 Minute		10Minute	
TEMP. (°C)	Voltage (VDC)		Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)
20	3.0	5790	5790.000447	0.08	5789.954824	-7.80	5790.008873	1.53	5789.965171	-6.02
	3.3	5790	5790.036694	6.34	5790.016427	2.84	5789.951829	-8.32	5790.0132	2.28
	3.6	5790	5790.009494	1.64	5790.026103	4.51	5790.019237	3.32	5790.034354	5.93

Temperature vs. Frequency Stability (5790 MHz)

Test Conditions		Test Frequency (MHz)	0 Minute		2 Minute		5 Minute		10Minute	
Voltage (VDC)	TEMP. (°C)		Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)	Measurement Frequency (MHz)	Max. Deviation (ppm)
3.3	0	5790	5789.968783	-5.39	5790.045159	7.80	5790.023898	4.13	5789.959876	-6.93
	-5	5790	5790.003493	0.60	5790.036046	6.30	5790.046077	7.96	5790.030005	5.19
	0	5790	5790.01325	2.29	5790.045265	7.82	5790.032511	5.62	5790.029008	5.01
	10	5790	5790.036251	6.26	5789.97028	-5.13	5789.963087	-6.38	5790.044272	7.65
	20	5790	5789.958133	-7.23	5789.973834	-4.52	5790.004279	0.74	5790.038913	6.72
	30	5790	5790.015491	2.68	5790.043015	7.45	5790.000631	0.11	5790.029118	5.03
	40	5790	5790.022444	3.88	5790.004598	0.79	5789.977427	-3.90	5790.032283	5.58
	55	5790	5790.031532	5.45	5790.019579	3.38	5790.00445	0.77	5789.985913	-2.43

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-HK17A0037-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL- HK17A0037-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL- HK17A0037-AI.PDF”.

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