

## FCC TEST REPORT

For

**4G/LTE PCIE module**

**Model: SIM7100C**

**Trade Name: Billion 、BEC**

*Issued to*

**Billion Electric Co., Ltd.**  
8F., No.192, Sec. 2, Zhongxing Rd., Xindian Dist.,  
New Taipei City 231, Taiwan (R.O.C.)

*Issued by*

**Compliance Certification Services Inc.**  
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**Issued Date: October 23, 2015**



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**Revision History**

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	October 23, 2015	Initial Issue	ALL	Kelly Cheng

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# 1. TEST RESULT CERTIFICATION

**Applicant:** Billion Electric Co., Ltd.  
 8F., No.192, Sec. 2, Zhongxing Rd., Xindian Dist.,  
 New Taipei City 231, Taiwan (R.O.C.)

**Equipment Under Test:** 4G/LTE PCIE module

**Trade Name:** Billion · BEC

**Model:** SIM7100C

**Date of Test:** October 2~23, 2015

OPERATING BAND: 2496 ~ 2690 MHz	
Standard	TEST TYPE AND LIMIT
2.1046 27.50(d)(4)	Maximum Peak Output Power Limit: max. 1 watts e.i.r.p peak power
2.1055 27.54	Frequency Stability
2.1049 27.53(h)	Occupied Bandwidth
27.50(d)(5)	Peak to average ratio
27.53(h)	Band Edge Measurements
2.1051 27.53(h)	Conducted Spurious Emissions
2.1053 27.53(h)	Radiated Spurious Emissions

Note: 1. The test result judgment is decided by the limit of test standard  
 2. The information of measurement uncertainty is available upon the customer's request.

Deviation from Applicable Standard
None

The above equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved by

Reviewed by




Miller Lee  
 Manager  
 Compliance Certification Services Inc.

Angel Cheng  
 Section Manager  
 Compliance Certification Services Inc.

## 2. EUT DESCRIPTION

<b>Product</b>	4G/LTE PCIE module		
<b>Model Number</b>	SIM7100C		
<b>Model Discrepancy</b>	N/A		
<b>Trade</b>	Billion - BEC		
<b>Received Date</b>	September 2, 2015		
<b>Power Source</b>	Powered from host device		
<b>Modulation Technology</b>	LTE Band 41	QPSK, 16QAM	
<b>Frequency Range</b>	LTE Band 41 Channel Bandwidth: 5MHz	2557.5MHz ~ 2652.5MHz	
	LTE Band 41 Channel Bandwidth: 10MHz	2560.0MHz ~ 2650.0MHz	
	LTE Band 41 Channel Bandwidth: 20MHz	2555.0MHz ~ 2655.0MHz	
<b>Maximum EIRP Power</b>	For Antenna P/N: AN2600-6007WSM	LTE Band 41 Channel Bandwidth: 5MHz	QPSK: 25.76dBm 16QAM: 26.26dBm
		LTE Band 41 Channel Bandwidth: 10MHz	QPSK: 24.08dBm 16QAM: 24.25dBm
		LTE Band 41 Channel Bandwidth: 20MHz	QPSK: 22.50 dBm 16QAM: 22.87dBm
	For Antenna P/N: DA-B41-16-01-BL	LTE Band 41 Channel Bandwidth: 5MHz	QPSK: 32.20dBm 16QAM: 32.00dBm
		LTE Band 41 Channel Bandwidth: 10MHz	QPSK: 32.14dBm 16QAM: 32.36dBm
		LTE Band 41 Channel Bandwidth: 20MHz	QPSK: 30.30dBm 16QAM: 30.57dBm
<b>Antenna Specification</b>	<ol style="list-style-type: none"> <li>P/N: AN2600-6007WSM Dipole Antenn / Gain: 7.14dBi</li> <li>P/N: AN2600-5002BSM Dipole Antenn / Gain: 4.15dBi</li> <li>P/N: AN0727-64DP5BSM Dipole Antenn / Gain: 3.7dBi</li> <li>P/N: DA-B41-16-03-BL Dual Polarization Directional Antenn / Gain: 11dBi</li> </ol>		

**Note:** 1. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

### 3. TEST METHODOLOGY

#### 3.1 DESCRIPTION OF TEST TYPE

The EUT (model: SIM7100C) had been tested under operating condition.

Software used to control the EUT for staying in continuous transmitting mode was programmed.

#### **LTE Band 41: 2555 MHz ~ 2655 MHz**

Three channels had been tested for each channel bandwidth.

Channel Bandwidth	5MHz		10MHz		20MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low channel (L)	40265	2557.50	40290	2560.00	40240	2555.00
Middle channel (M)	40620	2593.00	40620	2593.00	40620	2593.00
High channel (H)	41215	2652.50	41190	2650.00	41240	2655.00

The field strength of spurious emission was measured in the following position: EUT stand-up position (Z mode), lie-down position (X, Y mode). The worst emission was found in lie-down position (Z axis) and the worst case was recorded.

## 4. INSTRUMENT CALIBRATION

### 4.1 MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

### 4.2 MEASUREMENT EQUIPMENT USED

#### Equipment Used for Emissions Measurement

*Remark: Each piece of equipment is scheduled for calibration once a year.*

Wugu 966 Chamber A				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	US42510268	01/25/2016
EMI Test Receiver	R&S	ESCI	100064	06/03/2016
Bilog Antenna	Sunol Sciences	JB3	A030105	08/05/2016
Horn Antenna	EMCO	3117	00055165	01/26/2016
Horn Antenna	EMCO	3116	26370	12/25/2015
Turn Table	CCS	CC-T-1F	N/A	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R
Pre-Amplifier	MITEQ	1652-3000	1490939	08/09/2016
Pre-Amplifier	EMC	EMC 012635	980151	06/04/2016
Pre-Amplifier	MITEQ	AMF-6F-260400-40-8P	985646	12/25/2015
Coaxial Cable	Huber+Suhner	102	29212/2	12/25/2015
Coaxial Cable	Huber+Suhner	102	29406/2	12/25/2015
Test S/W	EZ-EMC (CCS-3A1RE)			

### 4.3 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
3M Semi Anechoic Chamber / 30M~200M	+/- 4.0138
3M Semi Anechoic Chamber / 200M~1000M	+/- 3.9483
3M Semi Anechoic Chamber / 1G~8G	+/- 2.5975
3M Semi Anechoic Chamber / 8G~18G	+/- 2.6112
3M Semi Anechoic Chamber / 18G~26G	+/- 2.7389
3M Semi Anechoic Chamber / 26G~40G	+/- 2.9683

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



## 5. FACILITIES AND ACCREDITATIONS

### 5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

- No.199, Chunghsen Road, Hsintien City, Taipei Hsien, Taiwan, R.O.C.  
Tel: 886-2-2217-0894 / Fax: 886-2-2217-1029
- No.11, Wugong 6th Rd., Wugu Dist., New Taipei City 24891, Taiwan. (R.O.C.)  
Tel: 886-2-2299-9720 / Fax: 886-2-2298-4045
- No.81-1, Lane 210, Bade 2nd Rd., Luchu Hsiang, Taoyuan Hsien 338, Taiwan  
Tel: 886-3-324-0332 / Fax: 886-3-324-5235

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

### 5.2 EQUIPMENT




Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

### 5.3 TABLE OF ACCREDITATIONS AND LISTINGS

Country	Agency	Scope of Accreditation	Logo
USA	FCC	3M Semi Anechoic Chamber (FCC MRA: TW1039) to perform FCC Part 15 measurements	 FCC MRA: TW1039
Taiwan	TAF	LP0002, RTTE01, FCC Method-47 CFR Part 15 Subpart C, D, E, RSS-210, RSS-310 IDA TS SRD, AS/NZS 4268, AS/NZS 4771, TS 12.1 & 12.2, ETSI EN 300 440-1, ETSI EN 300 440-2, ETSI EN 300 328, ETSI EN 300 220-1, ETSI EN 300 220-2, ETSI EN 301 893, ETSI EN 301 489-1/3/7/17 FCC OET Bulletin 65 + Supplement C, EN 50360, EN 50361, EN 50371, RSS 102, EN 50383, EN 50385, EN 50392, IEC 62209, CNS 14958-1, CNS 14959 FCC Method -47 CFR Part 15 Subpart B IEC / EN 61000-3-2, IEC / EN 61000-3-3, IEC / EN 61000-4-2/3/4/5/6/8/11	
Canada	Industry Canada	3M Semi Anechoic Chamber (IC 2324G-1 / IC 2324G-2) to perform	 IC 2324G-1 IC 2324G-2

*\* No part of this report may be used to claim or imply product endorsement by A2LA or any agency of the US Government.*

## 6. SETUP OF EQUIPMENT UNDER TEST

### 6.1 SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix I for the actual connections between EUT and support equipment.

### 6.2 SUPPORT EQUIPMENT

No.	Device Type	Brand	Model	Series No.	FCC ID	Data Cable	Power Cord
1	LTE simulator	R&S	CMW500	201.0002k50-116 875.cA	N/A	N/A	N/A
2	Notebook PC	TOSHIBA	Satellite M840	N/A	PPD-AR5B225	N/A	AC I/P: Unshielded, 1.8m DC O/P: Unshielded, 1.8m with a core

**Remark:**

1. *All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.*
2. *Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.*

## **7. TEST PROCEDURE AND RESULT**

### **7.1 OUTPUT POWER MEASUREMENT**

#### **LIMITS**

Portable stations (hand-held devices) operating in the 2496-2690 MHz band are limited to 2 watts ERP

#### **TEST PROCEDURES**

##### **EIRP / ERP MEASUREMENT:**

1. The EUT was set up for the maximum power with LTE link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range). RWB and VBW is 10MHz for LTE.
2. E.I.R.P power measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
3. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step a. Record the power level of S.G d.  $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$
4.  $E.R.P = E.I.R.P - 2.15 \text{ dB}$

##### **CONDUCTED POWER MEASUREMENT:**

1. The EUT was set up for the maximum power with LTE link data modulation and link up with simulator.
2. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

## TEST RESULTS

### Channel Bandwidth: 5MHz

Frequency (MHz)		CH	Peak Power (dBm)	Output Power (W)	Frequency (MHz)		CH	Peak Power (dBm)	Output Power (W)
QPSK 1 RB ALLOCATED AT THE LOWER EDGE	2557.50	40265	21.66	0.14655	QPSK 50% RB ALLOCATION CENTERED	2557.50	40265	20.34	0.10814
	2593.00	40620	21.04	0.12706		2593.00	40620	19.97	0.09931
	2652.50	41215	21.87	0.15382		2652.50	41215	20.43	0.11041
QPSK 1 RB ALLOCATED AT THE UPPER EDGE	2557.50	40265	21.54	0.14256	QPSK 100% RB ALLOCATION CENTERED	2557.50	40265	20.36	0.10864
	2593.00	40620	20.89	0.12274		2593.00	40620	19.90	0.09772
	2652.50	41215	21.65	0.14622		2652.50	41215	20.92	0.12359

Frequency (MHz)		CH	Peak Power (dBm)	Output Power (W)	Frequency (MHz)		CH	Peak Power (dBm)	Output Power (W)
16QAM 1 RB ALLOCATED AT THE LOWER EDGE	2557.50	40265	21.25	0.13335	QPSK 100% RB ALLOCATION CENTERED	2557.50	40265	20.36	0.10864
	2593.00	40620	21.17	0.13092		2593.00	40620	20.07	0.10162
	2652.50	41215	21.93	0.15596		2652.50	41215	20.86	0.12190
16QAM 1 RB ALLOCATED AT THE UPPER EDGE	2557.50	40265	21.73	0.14894	QPSK 50% RB ALLOCATION CENTERED	2557.50	40265	20.38	0.10914
	2593.00	40620	21.03	0.12677		2593.00	40620	20.14	0.10328
	2652.50	41215	21.68	0.14723		2652.50	41215	20.98	0.12531

**Remarks:**

1. *Output Power (dBm) = Raw Value (dBm) + Correction Factor (dB).*
2. *Correction Factor (dB) = Power Splitter Loss (dB) + Cable Loss (dB) + 20dB Attenuator.*
3. *The value in bold is the worst.*

**Channel Bandwidth: 10MHz**

Frequency (MHz)		CH	Peak Power (dBm)	Output Power (W)	Frequency (MHz)		CH	Peak Power (dBm)	Output Power (W)
QPSK 1 RB ALLOCATED AT THE LOWER EDGE	2560.00	40290	21.22	0.13243	QPSK 100% RB ALLOCATION CENTERED	2560.00	40290	20.58	0.11429
	2593.00	40620	20.65	0.11614		2593.00	40620	19.69	0.09311
	2650.00	41190	21.63	0.14555		2650.00	41190	20.91	0.12331
QPSK 1 RB ALLOCATED AT THE UPPER EDGE	2560.00	40290	21.78	0.15066	QPSK 50% RB ALLOCATION CENTERED	2560.00	40290	20.54	0.11324
	2593.00	40620	20.53	0.11298		2593.00	40620	19.81	0.09572
	2650.00	41190	21.57	0.14355		2650.00	41190	21.00	0.12589

Frequency (MHz)		CH	Peak Power (dBm)	Output Power (W)	Frequency (MHz)		CH	Peak Power (dBm)	Output Power (W)
16QAM 1 RB ALLOCATED AT THE LOWER EDGE	2560.00	40290	21.31	0.13521	QPSK 100% RB ALLOCATION CENTERED	2560.00	40290	20.57	0.11402
	2593.00	40620	20.62	0.11535		2593.00	40620	19.77	0.09484
	2650.00	41190	21.41	0.13836		2650.00	41190	20.86	0.12190
16QAM 1 RB ALLOCATED AT THE UPPER EDGE	2560.00	40290	21.64	0.14588	QPSK 50% RB ALLOCATION CENTERED	2560.00	40290	20.53	0.11298
	2593.00	40620	20.54	0.11324		2593.00	40620	19.77	0.09484
	2650.00	41190	21.48	0.14060		2650.00	41190	20.98	0.12531

**Remarks:**

1. Output Power (dBm) = Raw Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Power Splitter Loss (dB) + Cable Loss (dB) + 20dB Attenuator.
3. The value in bold is the worst.

**Channel Bandwidth: 20MHz**

Frequency (MHz)		CH	Peak Power (dBm)	Output Power (W)	Frequency (MHz)		CH	Peak Power (dBm)	Output Power (W)
QPSK 1 RB ALLOCATED AT THE LOWER EDGE	2555.00	40240	20.83	0.12106	QPSK 100% RB ALLOCATION CENTERED	2555.00	40240	20.13	0.10304
	2593.00	40620	20.82	0.12078		2593.00	40620	19.55	0.09016
	2655.00	41240	21.68	0.14723		2655.00	41240	20.51	0.11246
QPSK 1 RB ALLOCATED AT THE UPPER EDGE	2555.00	40240	21.36	0.13677	QPSK 50% RB ALLOCATION CENTERED	2555.00	40240	19.94	0.09863
	2593.00	40620	20.41	0.10990		2593.00	40620	19.92	0.09817
	2655.00	41240	20.96	0.12474		2655.00	41240	21.05	0.12735

Frequency (MHz)		CH	Peak Power (dBm)	Output Power (W)	Frequency (MHz)		CH	Peak Power (dBm)	Output Power (W)
16QAM 1 RB ALLOCATED AT THE LOWER EDGE	2555.00	40240	19.85	0.09661	QPSK 100% RB ALLOCATION CENTERED	2555.00	40240	19.36	0.08630
	2593.00	40620	20.35	0.10839		2593.00	40620	18.71	0.07430
	2655.00	41240	20.79	0.11995		2655.00	41240	19.74	0.09419
16QAM 1 RB ALLOCATED AT THE UPPER EDGE	2555.00	40240	20.56	0.11376	QPSK 50% RB ALLOCATION CENTERED	2555.00	40240	19.04	0.08017
	2593.00	40620	19.41	0.08730		2593.00	40620	18.66	0.07345
	2655.00	41240	20.23	0.10544		2655.00	41240	19.98	0.09954

**Remarks:**

1. Output Power (dBm) = Raw Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Power Splitter Loss (dB) + Cable Loss (dB) + 20dB Attenuator.
3. The value in bold is the worst.

**EIRP POWER**

**For Antenna P/N: AN2600-6007WSM**

**Channel Bandwidth: 5MHz / QPSK**

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
40265	2558.100	V	25.94	6.43	6.25	<b>*25.76</b>	33.00	-7.24
	2555.900	H	13.69	6.43	6.25	13.51	33.00	-19.49
40620	2591.320	V	25.41	6.48	6.34	25.27	33.00	-7.73
	2593.300	H	13.52	6.48	6.34	13.38	33.00	-19.62
41215	2654.020	V	25.79	6.62	6.5	25.67	33.00	-7.33
	2651.160	H	13.76	6.61	6.49	13.64	33.00	-19.36

**Channel Bandwidth: 5MHz / 16QAM**

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
40265	2557.880	V	26.44	6.43	6.25	<b>*26.26</b>	33.00	-6.74
	2559.200	H	14.42	6.43	6.25	14.24	33.00	-18.76
40620	2593.520	V	26.09	6.48	6.34	25.95	33.00	-7.05
	2592.860	H	13.93	6.48	6.34	13.79	33.00	-19.21
41215	2653.140	V	26.21	6.62	6.5	26.09	33.00	-6.91
	2652.260	H	14.06	6.62	6.5	13.94	33.00	-19.06



**Channel Bandwidth: 10MHz / QPSK**

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
40290	2562.720	V	14.1	6.44	6.26	13.92	33.00	-19.08
	2563.600	H	24.25	6.44	6.27	<b>*24.08</b>	33.00	-8.92
40620	2589.560	V	23.77	6.48	6.33	23.62	33.00	-9.38
	2595.280	H	11.75	6.48	6.35	11.62	33.00	-21.38
41190	2647.200	V	13.49	6.6	6.48	13.37	33.00	-19.63
	2647.860	H	22.68	6.6	6.48	22.56	33.00	-10.44

**Channel Bandwidth: 10MHz / 16QAM**

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
40290	2563.820	V	14.03	6.44	6.27	13.86	33.00	-19.14
	2563.160	H	24.29	6.44	6.26	24.11	33.00	-8.89
40620	2589.560	V	24.4	6.48	6.33	<b>*24.25</b>	33.00	-8.75
	2595.720	H	12.38	6.48	6.35	12.25	33.00	-20.75
41190	2646.980	V	13.52	6.6	6.48	13.40	33.00	-19.60
	2646.540	H	22.49	6.6	6.48	22.37	33.00	-10.63

**Channel Bandwidth: 20MHz / QPSK**

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
40240	2563.160	V	11.44	6.44	6.26	11.26	33.00	-21.74
	2562.060	H	21.67	6.44	6.26	21.49	33.00	-11.51
40620	2588.460	V	22.64	6.47	6.33	<b>*22.50</b>	33.00	-10.50
	2586.040	H	10.65	6.47	6.32	10.50	33.00	-22.50
41240	2650.280	V	11.93	6.61	6.49	11.81	33.00	-21.19
	2650.280	H	21.13	6.61	6.49	21.01	33.00	-11.99

**Channel Bandwidth: 20MHz / 16QAM**

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
40240	2562.060	V	11.18	6.44	6.26	11.00	33.00	-22.00
	2562.720	H	21.74	6.44	6.26	21.56	33.00	-11.44
40620	2588.020	V	23.01	6.47	6.33	<b>*22.87</b>	33.00	-10.13
	2587.140	H	11.09	6.47	6.33	10.95	33.00	-22.05
41240	2650.280	H	11.94	6.61	6.49	11.82	33.00	-21.18
	2647.420	H	21.37	6.6	6.48	21.25	33.00	-11.75

**Remark:**

1. Output Power (dBm) = Raw Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = S.G Level + Gain of Substitution horn + TX cable loss.
3. The value in bold is the worst.

**For Antenna P/N: DA-B41-16-01-BL**

**Channel Bandwidth: 5MHz / QPSK**

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
40265	2556.780	V	31.88	6.43	6.25	31.70	33.00	-1.30
	2557.880	H	30.71	6.43	6.25	30.53	33.00	-2.47
40620	2591.320	V	31.25	6.48	6.34	31.11	33.00	-1.89
	2593.300	H	32.34	6.48	6.34	<b>*32.20</b>	33.00	-0.80
41215	2652.480	V	31.12	6.62	6.5	31.00	33.00	-2.00
	2651.380	H	32.1	6.61	6.49	31.98	33.00	-1.02

**Channel Bandwidth: 5MHz / 16QAM**

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
40265	2558.100	V	31.57	6.43	6.25	31.39	33.00	-1.61
	2555.900	H	31.73	6.43	6.25	31.55	33.00	-1.45
40620	2593.080	V	31.73	6.48	6.34	31.59	33.00	-1.41
	2593.960	H	31.49	6.48	6.34	31.35	33.00	-1.65
41215	2652.260	V	32.08	6.62	6.5	31.96	33.00	-1.04
	2652.260	H	32.12	6.62	6.5	<b>*32.00</b>	33.00	-1.00

**Channel Bandwidth: 10MHz / QPSK**

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
40290	2563.380	V	29.89	6.44	6.26	29.71	33.00	-3.29
	2563.160	H	31.81	6.44	6.26	31.63	33.00	-1.37
40620	2596.600	V	31.49	6.49	6.35	31.35	33.00	-1.65
	2596.380	H	32.27	6.48	6.35	<b>*32.14</b>	33.00	-0.86
41190	2646.760	V	27.61	6.6	6.48	27.49	33.00	-5.51
	2646.980	H	30.25	6.6	6.48	30.13	33.00	-2.87

**Channel Bandwidth: 10MHz / 16QAM**

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
40290	2563.600	V	29.93	6.44	6.27	29.76	33.00	-3.24
	2563.380	H	32.2	6.44	6.26	32.02	33.00	-0.98
40620	2590.220	V	31.97	6.48	6.33	31.82	33.00	-1.18
	2590.440	H	32.5	6.48	6.34	<b>*32.36</b>	33.00	-0.64
41190	2646.980	V	28.72	6.6	6.48	28.60	33.00	-4.40
	2646.980	H	28.62	6.6	6.48	28.50	33.00	-4.50

**Channel Bandwidth: 20MHz / QPSK**

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
40240	2562.060	V	28.1	6.44	6.26	27.92	33.00	-5.08
	2559.420	H	29.08	6.43	6.25	28.90	33.00	-4.10
40620	2588.680	V	29.8	6.47	6.33	29.66	33.00	-3.34
	2588.900	H	30.44	6.47	6.33	<b>*30.30</b>	33.00	-2.70
41240	2647.420	V	28.8	6.6	6.48	28.68	33.00	-4.32
	2647.640	H	28.88	6.6	6.48	28.76	33.00	-4.24

**Channel Bandwidth: 20MHz / 16QAM**

Channel	Frequency (MHz)	Antenna Pol.	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)
40240	2562.720	V	28.4	6.44	6.26	28.22	33.00	-4.78
	2561.840	H	29.01	6.44	6.26	28.83	33.00	-4.17
40620	2595.940	V	30.13	6.48	6.35	30.00	33.00	-3.00
	2586.700	H	30.71	6.47	6.33	<b>*30.57</b>	33.00	-2.43
41240	2647.860	V	28.65	6.6	6.48	28.53	33.00	-4.47
	2646.980	H	28.6	6.6	6.48	28.48	33.00	-4.52

**Remark:**

1. Output Power (dBm) = Raw Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = S.G Level + Gain of Substitution horn + TX cable loss.
3. The value in bold is the worst.

## 7.2 FREQUENCY STABILITY MEASUREMENT

### LIMIT

According to the FCC part 27.54 shall be tested the frequency stability. The rule is defined that” The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation. The test extreme voltage is according to the 2.1055(d)(1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment and the extreme temperature rule is comply with the 1055(a)(1)  $-30^{\circ}\text{C} \sim 50^{\circ}\text{C}$ .

### TEST PROCEDURE

1. Because of the measure the carrier frequency under the condition of the AFC lock, it shall be used the mobile station in the LTE link mode. This is accomplished with the use of the communication simulator station. The oven room could control the temperatures and humidity.
2. Power must be removed when changing from one temperature to another or one voltage to another voltage. Power warm up is at least 15 min and power applied should perform before recording frequency error.
3. Laptop pc is connected the external power supply to control the AC input power. The various Volts from the minimum 126.5 Volts to 93.5 Volts. Each step shall be record the frequency error rate.
4. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the  $\pm 0.5^{\circ}\text{C}$  during the measurement testing.
5. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

**NOTE:** *The frequency error was recorded frequency error from the communication simulator.*

**TEST RESULTS**

**FREQUENCY STABILITY V.S. TEMPERATURE MEASUREMENT:**

Reference Frequency: LTE Band 41 2593 MHz @ 20°C								
Limit: +/- 2.5 ppm = 6482.5Hz								
Power Supply	Environment	Frequency	Delta	Frequency	Delta	Frequency	Delta	Limit
Vdc	Temperature (°C)	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)	(Hz)
5.5	20	2593000011	9	2593000005	-20	2593000002	-7	6482.5
5	20	2593000002	0	2593000025	0	2593000009	0	6482.5
4.25	20	2593000015	13	2593000002	-23	2593000012	3	6482.5

**FREQUENCY STABILITY V.S. VOLTAGE MEASUREMENT:**

Reference Frequency: LTE Band 41 2593MHz @ 20°C								
Limit: +/- 2.5 ppm = 6482.5Hz								
Power Supply	Environment	5M	Delta	10M	Delta	20M	Delta	Limit
Vdc	Temperature (°C)	Frequency (Hz)	(Hz)	Frequency (Hz)	(Hz)	Frequency (Hz)	(Hz)	(Hz)
5	50	2592999998	-4	2592999995	-30	2592999979	-46	6482.5
5	40	2592999995	-7	2592999998	-27	2592999985	-40	6482.5
5	30	2592999994	-8	2592999995	-30	2592999986	-39	6482.5
5	20	2593000002	0	2593000025	0	2593000009	0	6482.5
5	10	2592999995	-7	2592999999	-26	2592999995	-30	6482.5
5	0	2592999996	-6	2592999992	-33	2592999991	-34	6482.5
5	-10	2592999998	-4	2592999994	-31	2592999995	-30	6482.5
5	-20	2592999997	-5	2592999995	-30	2593000011	-14	6482.5
5	-30	2592999992	-10	2592999988	-37	2593000005	-20	6482.5

## **7.3 OCCUPIED BANDWIDTH MEASUREMENT**

### **LIMITS**

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 1~5 %of the total mean power of a given emission.

### **TEST PROCEDURES**

1. The EUT makes a phone call to the communication simulator. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels. (low, middle and high operational frequency range.)
2. The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
3. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.



**TEST RESULTS**

**CHANNEL BANDWIDTH: 5MHz / QPSK**

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
Low	2557.50	4.5413
Mid	2593.00	4.5387
High	2652.50	4.5270

**CHANNEL BANDWIDTH: 5MHz / 16QAM**

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
Low	2557.50	4.5366
Mid	2593.00	4.5417
High	2652.50	4.5274

**CHANNEL BANDWIDTH: 10MHz / QPSK**

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
Low	2560.00	8.9438
Mid	2593.00	8.9380
High	2650.00	8.9296

**CHANNEL BANDWIDTH: 10MHz / 16QAM**

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
Low	2560.00	8.9463
Mid	2593.00	8.9530
High	2650.00	8.9425

**CHANNEL BANDWIDTH: 20MHz / QPSK**

<b>Channel</b>	<b>FREQUENCY (MHz)</b>	<b>Occupied bandwidth (MHz)</b>
Low	2555.00	17.7669
Mid	2593.00	17.8481
High	2655.00	17.7735

**CHANNEL BANDWIDTH: 20MHz / 16QAM**

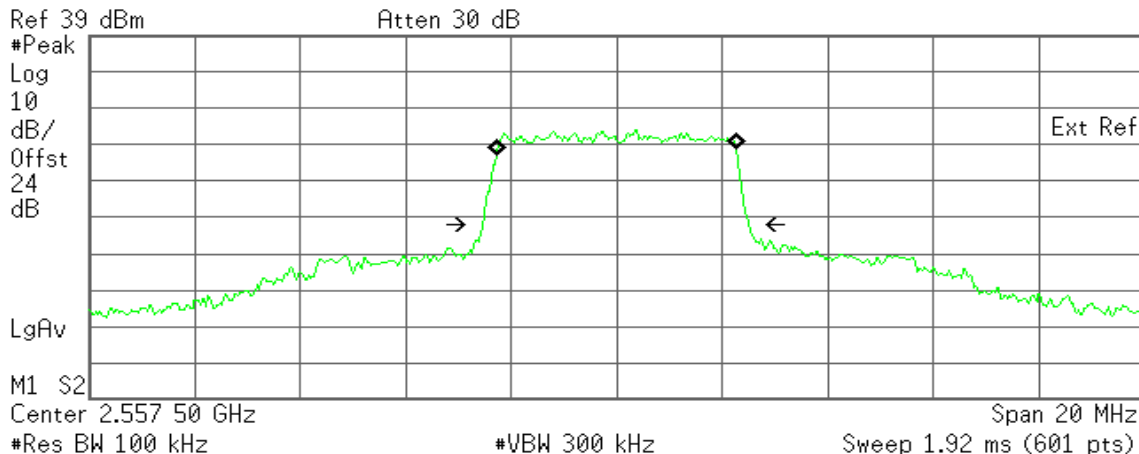
<b>Channel</b>	<b>FREQUENCY (MHz)</b>	<b>Occupied bandwidth (MHz)</b>
Low	2555.00	17.7921
Mid	2593.00	17.8358
High	2655.00	17.7244

**CHANNEL BANDWIDTH: 5MHz / QPSK**

**CH Low**

Agilent

R T



**Occupied Bandwidth**  
 4.5413 MHz

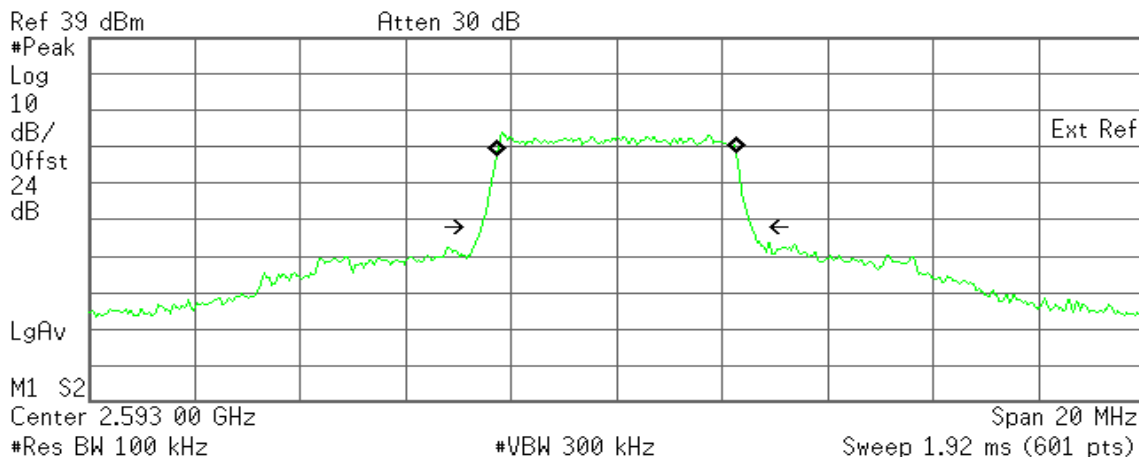
**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

**Transmit Freq Error** -4.430 kHz  
**x dB Bandwidth** 5.039 MHz

**CH Mid**

Agilent

R T



**Occupied Bandwidth**  
 4.5387 MHz

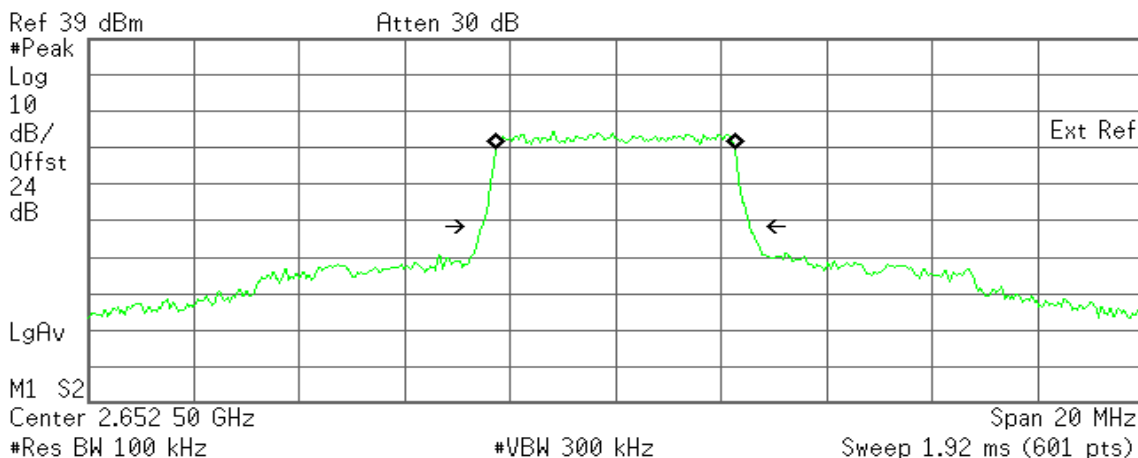
**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

**Transmit Freq Error** -2.177 kHz  
**x dB Bandwidth** 5.120 MHz

### CH High

Agilent

R T



**Occupied Bandwidth**  
4.5270 MHz

**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

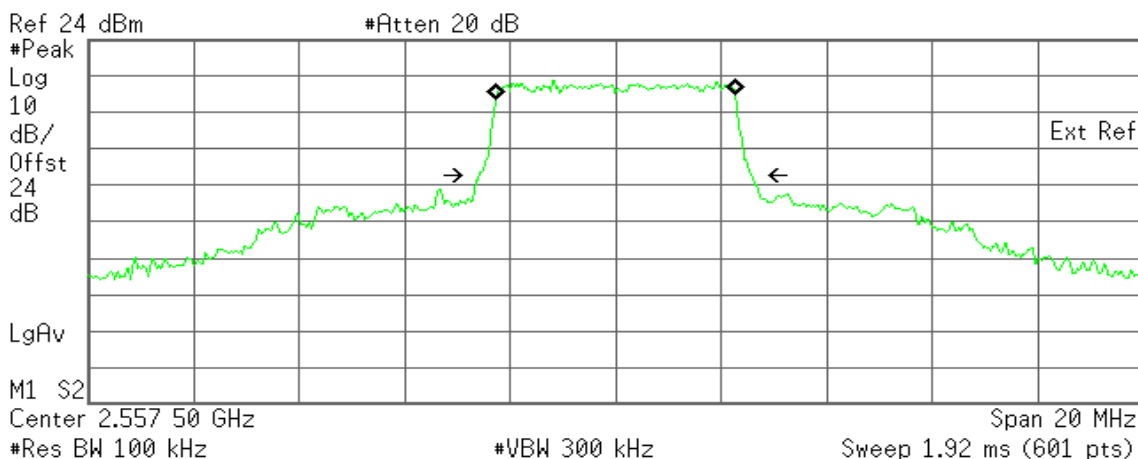
**Transmit Freq Error** -3.865 kHz  
**x dB Bandwidth** 5.081 MHz

### CHANNEL BANDWIDTH: 5MHz / 16QAM

### CH Low

Agilent

R T



**Occupied Bandwidth**  
4.5366 MHz

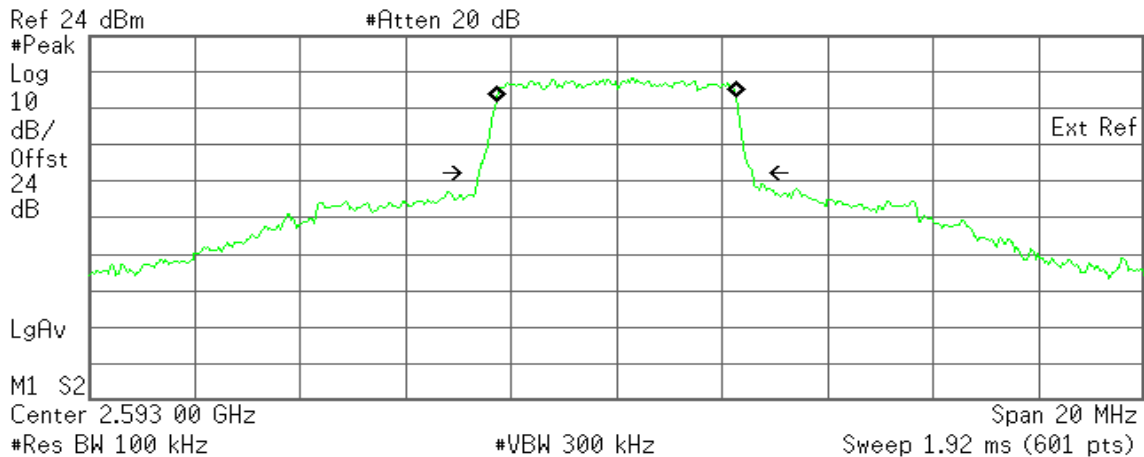
**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

**Transmit Freq Error** 3.542 kHz  
**x dB Bandwidth** 5.156 MHz

### CH Mid

Agilent

R T



**Occupied Bandwidth**  
 4.5417 MHz

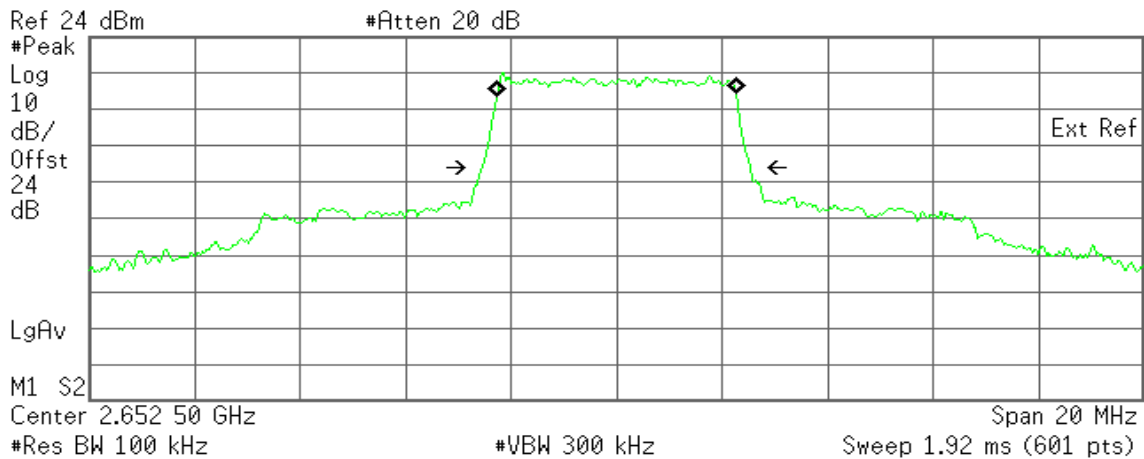
**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

**Transmit Freq Error** -7.087 kHz  
**x dB Bandwidth** 5.179 MHz

### CH High

Agilent

R T



**Occupied Bandwidth**  
 4.5274 MHz

**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

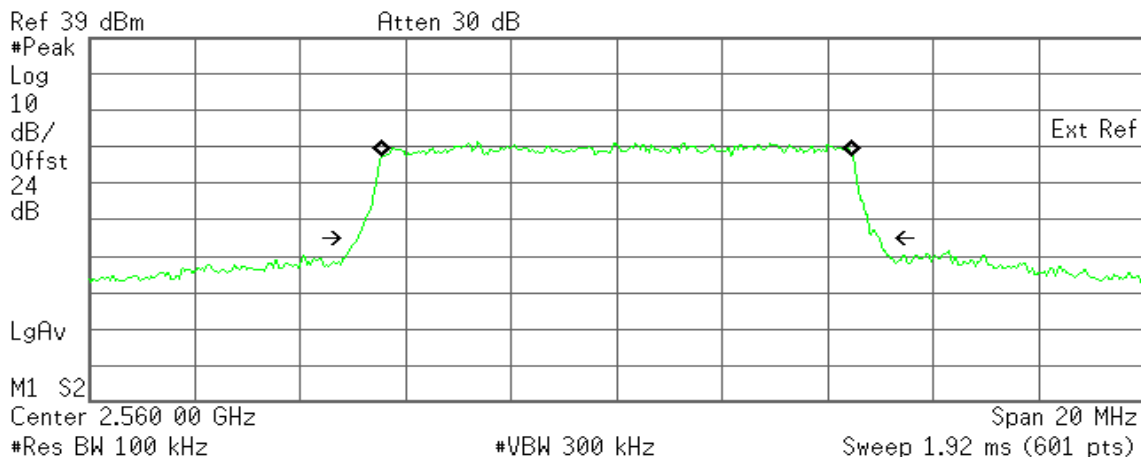
**Transmit Freq Error** -661.673 Hz  
**x dB Bandwidth** 5.089 MHz

**CHANNEL BANDWIDTH: 10MHz / QPSK**

**CH Low**

Agilent

R T



**Occupied Bandwidth**  
 8.9438 MHz

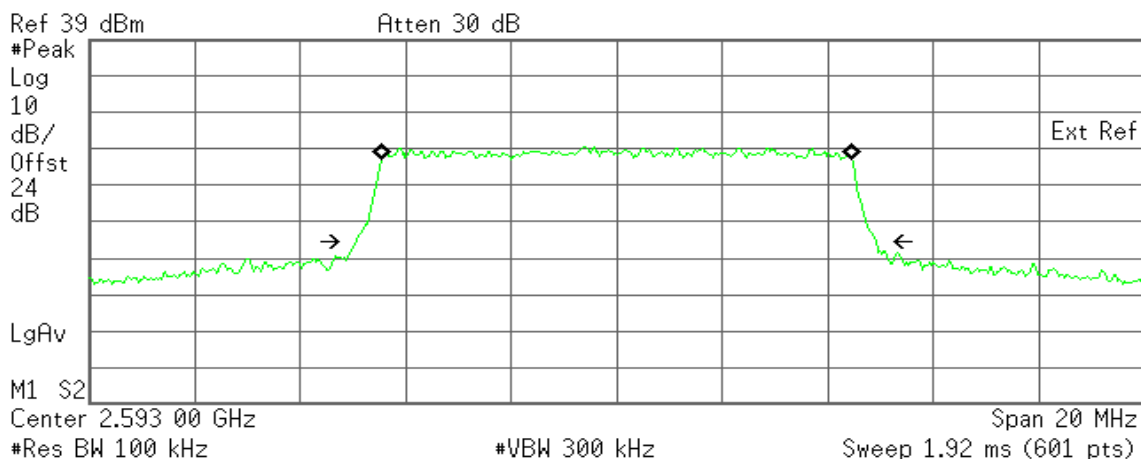
**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

**Transmit Freq Error** 6.326 kHz  
**x dB Bandwidth** 9.885 MHz

**CH Mid**

Agilent

R T



**Occupied Bandwidth**  
 8.9380 MHz

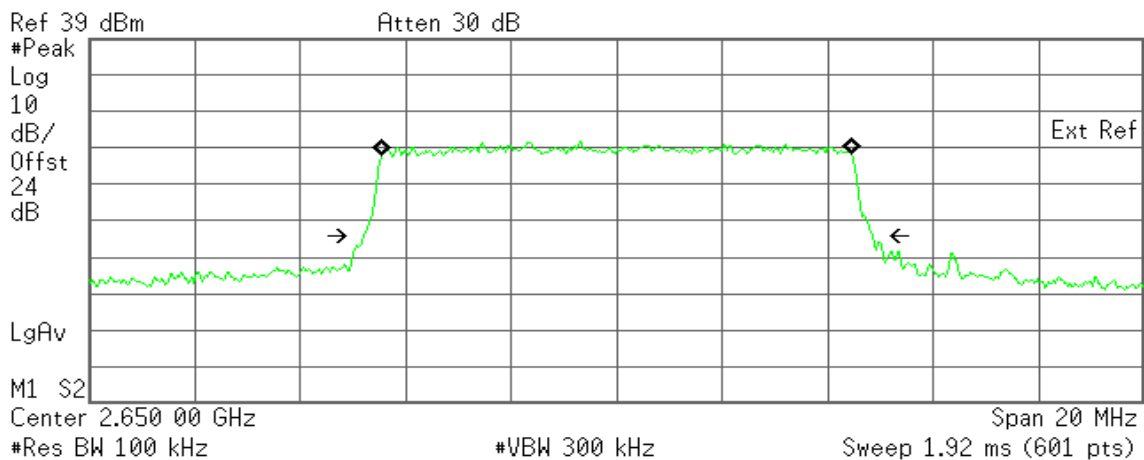
**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

**Transmit Freq Error** 805.508 Hz  
**x dB Bandwidth** 9.886 MHz

### CH High

Agilent

R T



**Occupied Bandwidth**  
 8.9296 MHz

**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

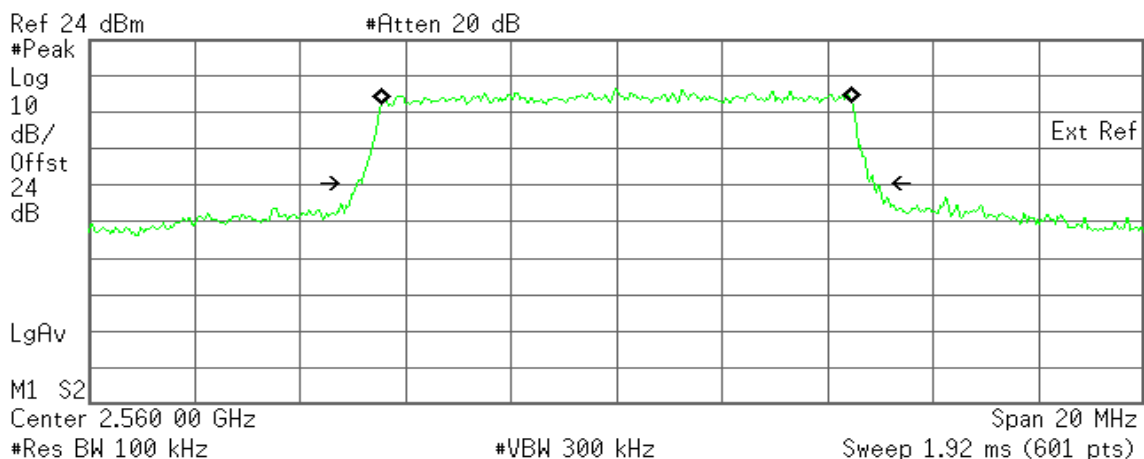
**Transmit Freq Error** 5.033 kHz  
**x dB Bandwidth** 9.681 MHz

### CHANNEL BANDWIDTH: 10MHz / 16QAM

#### CH Low

Agilent

R T



**Occupied Bandwidth**  
 8.9463 MHz

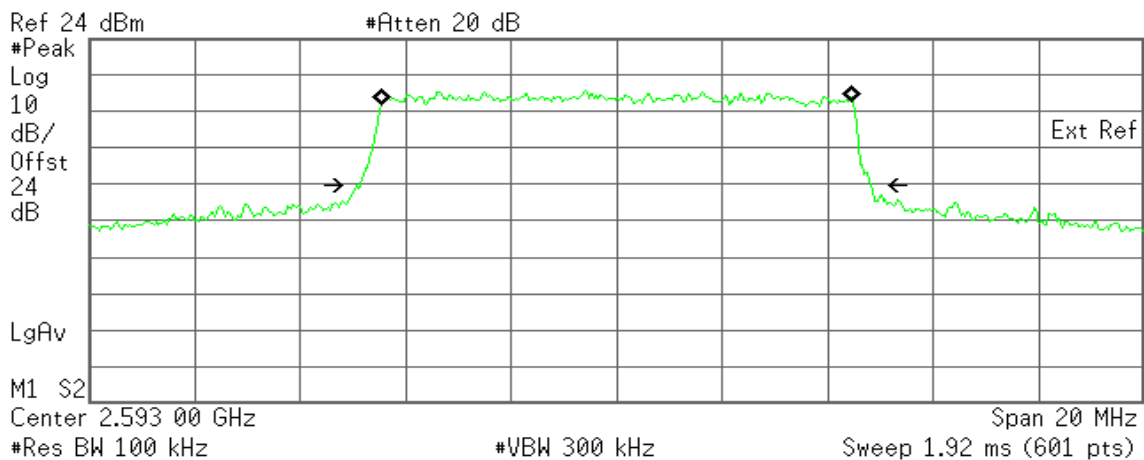
**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

**Transmit Freq Error** 4.025 kHz  
**x dB Bandwidth** 9.818 MHz

### CH Mid

Agilent

R T



**Occupied Bandwidth**  
 8.9530 MHz

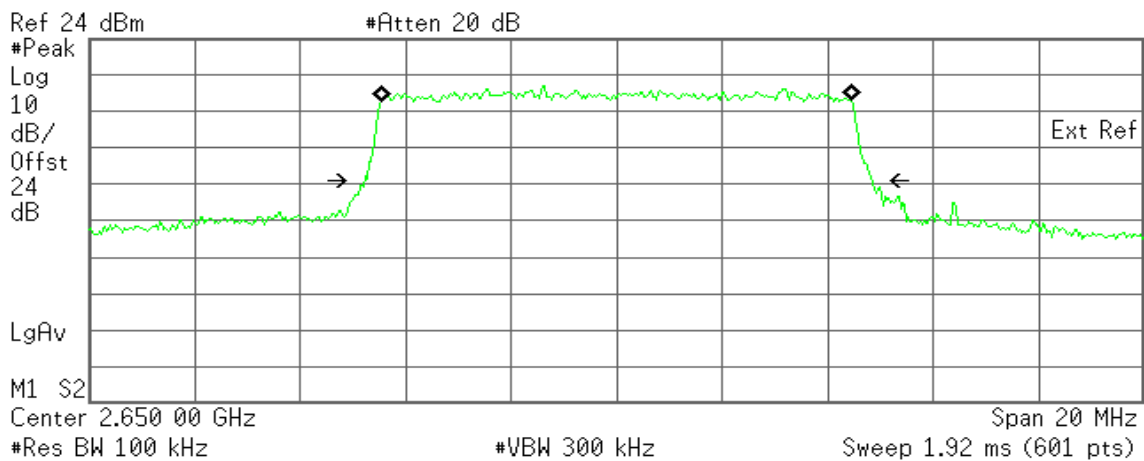
**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

**Transmit Freq Error** 6.316 kHz  
**x dB Bandwidth** 9.703 MHz

### CH High

Agilent

R T



**Occupied Bandwidth**  
 8.9425 MHz

**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

**Transmit Freq Error** -2.858 kHz  
**x dB Bandwidth** 9.638 MHz



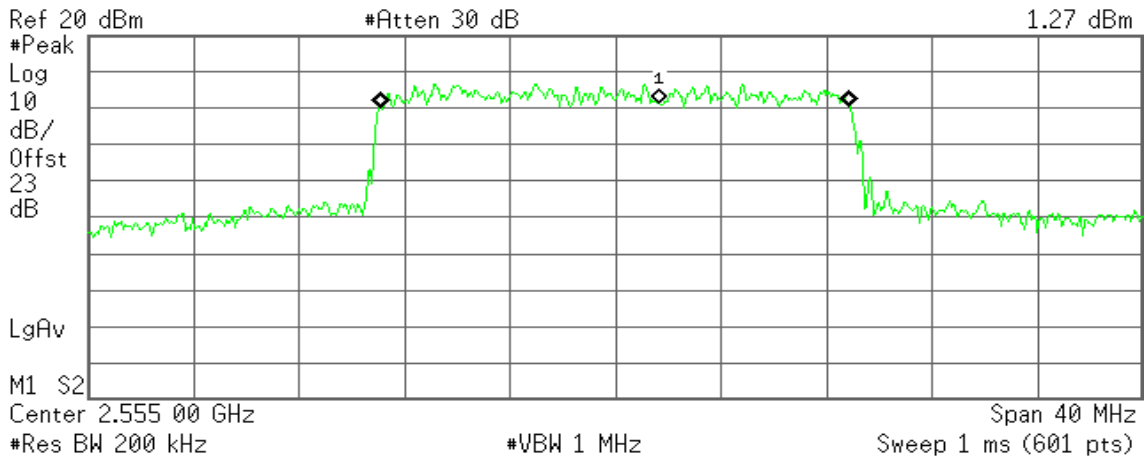
**CHANNEL BANDWIDTH: 20MHz / QPSK**

**CH Low**

Agilent 02:20:49 Oct 23, 2015

R T

Mkr1 2.556 67 GHz  
 1.27 dBm



**Occupied Bandwidth**  
 17.7669 MHz

**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

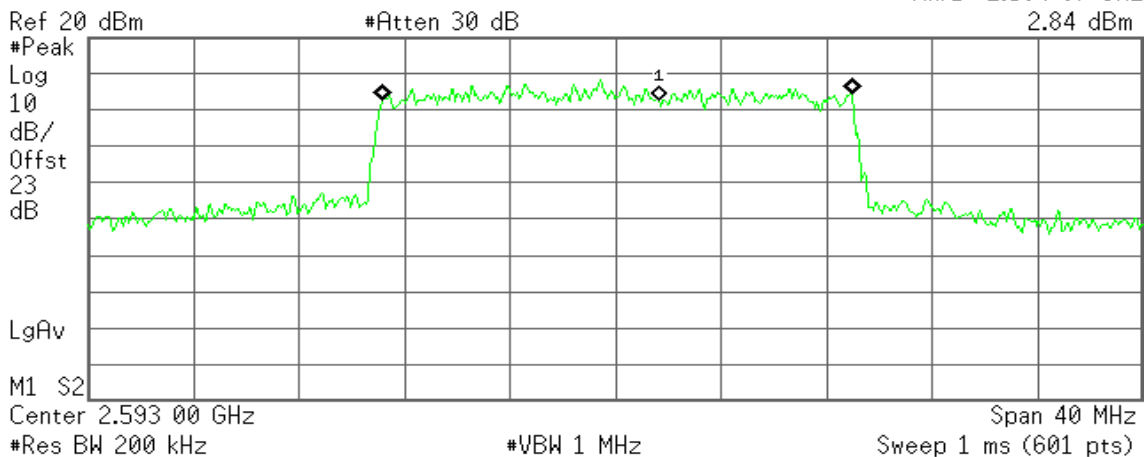
**Transmit Freq Error** -23.052 kHz  
**x dB Bandwidth** 19.126 MHz

**CH Mid**

Agilent 02:19:18 Oct 23, 2015

R T

Mkr1 2.594 67 GHz  
 2.84 dBm



**Occupied Bandwidth**  
 17.8481 MHz

**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

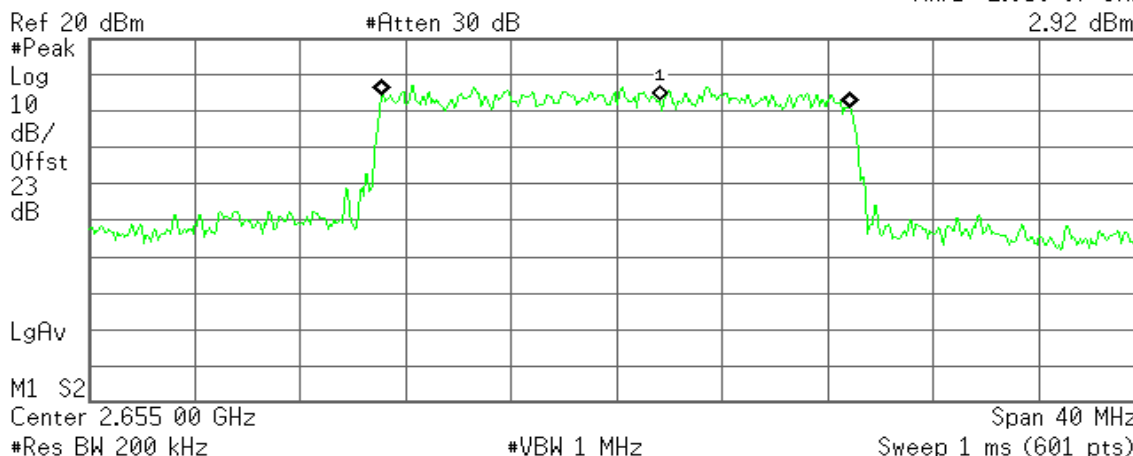
**Transmit Freq Error** 46.335 kHz  
**x dB Bandwidth** 18.869 MHz

### CH High

Agilent 02:17:57 Oct 23, 2015

R T

Mkr1 2.656 67 GHz  
2.92 dBm



**Occupied Bandwidth**  
17.7735 MHz

**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

**Transmit Freq Error** -38.341 kHz  
**x dB Bandwidth** 18.988 MHz

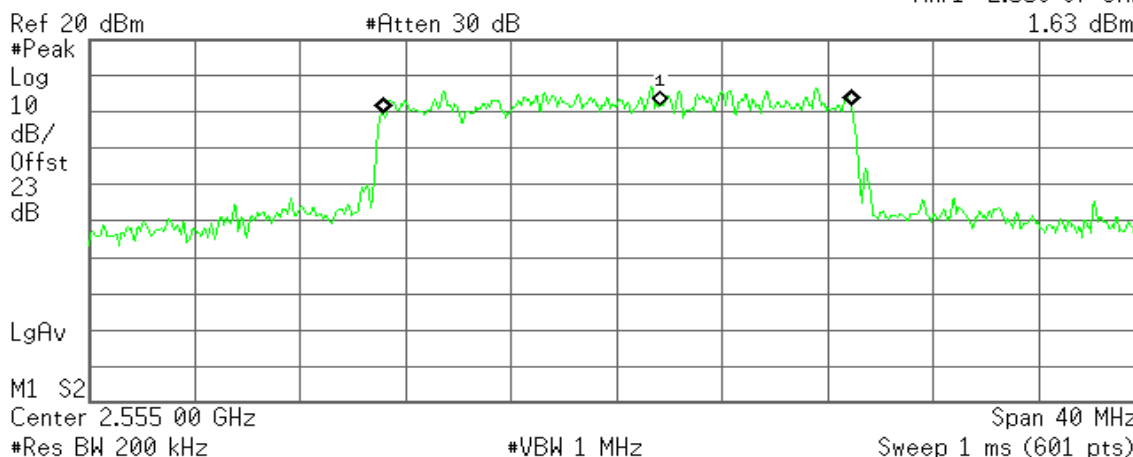
### CHANNEL BANDWIDTH: 20MHz / 16QAM

### CH Low

Agilent 02:09:54 Oct 23, 2015

R T

Mkr1 2.556 67 GHz  
1.63 dBm



**Occupied Bandwidth**  
17.7921 MHz

**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

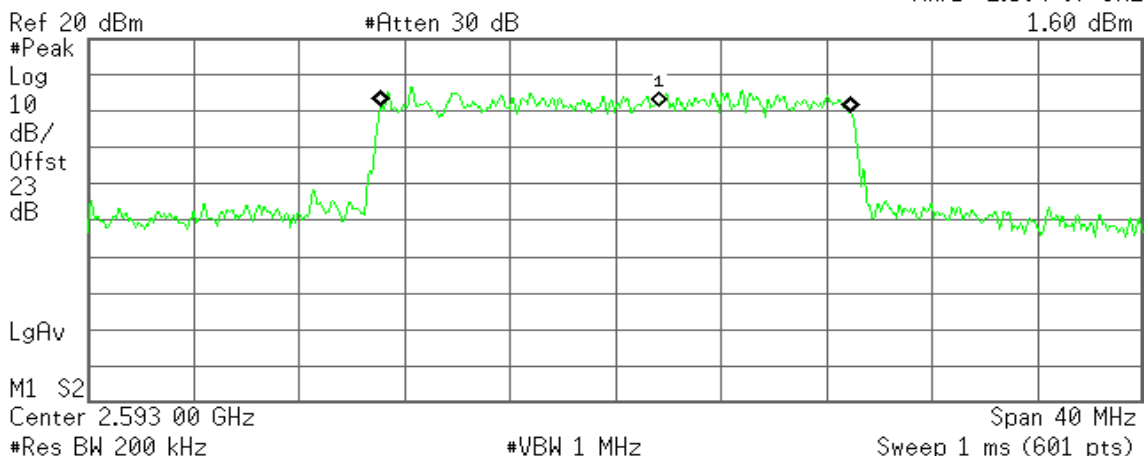
**Transmit Freq Error** 16.762 kHz  
**x dB Bandwidth** 18.779 MHz

**CH Mid**

Agilent 02:14:01 Oct 23, 2015

R T

Mkr1 2.594 67 GHz  
 1.60 dBm



**Occupied Bandwidth**  
 17.8358 MHz

**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

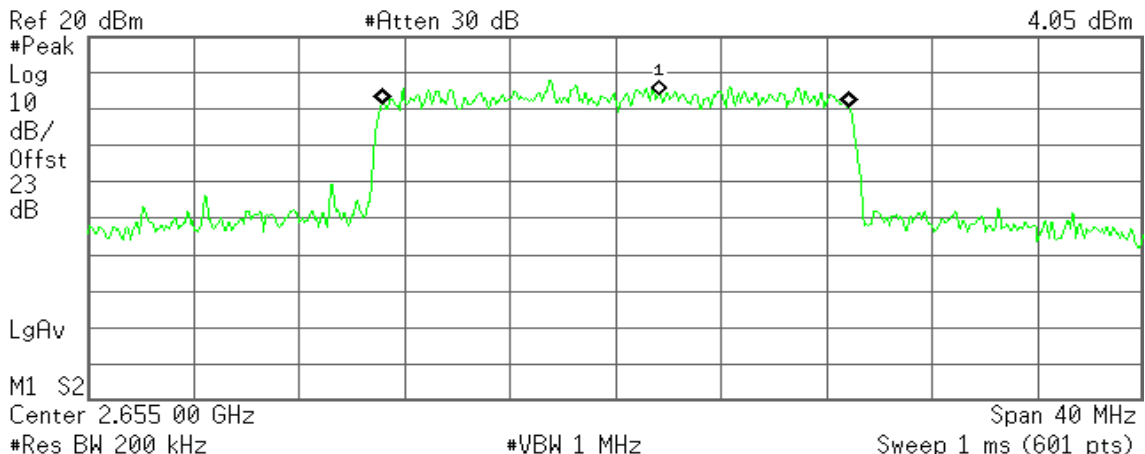
**Transmit Freq Error** 1.918 kHz  
**x dB Bandwidth** 18.939 MHz

**CH High**

Agilent 02:15:31 Oct 23, 2015

R T

Mkr1 2.656 67 GHz  
 4.05 dBm



**Occupied Bandwidth**  
 17.7244 MHz

**Occ BW % Pwr** 99.00 %  
**x dB** -26.00 dB

**Transmit Freq Error** -19.184 kHz  
**x dB Bandwidth** 18.553 MHz

## **7.4 PEAK TO AVERAGE RATIO**

### **LIMIT**

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB.

### **TEST PROCEDURES**

1. Set resolution/measurement bandwidth  $\geq$  signal's occupied bandwidth.
2. Set the number of counts to a value that stabilizes the measured CCDF curve.
3. Record the maximum PAPR level associated with a probability of 0.1%.

**TEST RESULTS**

**CHANNEL BANDWIDTH: 5MHz / QPSK / 0.1%RB**

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
Low	2557.50	8.35
Mid	2593.00	8.52
High	2652.50	8.23

**CHANNEL BANDWIDTH: 5MHz / 16QAM / 0.1%RB**

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
Low	2557.50	8.49
Mid	2593.00	8.38
High	2652.50	8.46

**CHANNEL BANDWIDTH: 10MHz / QPSK / 0.1%RB**

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
Low	2560.00	8.32
Mid	2593.00	8.17
High	2650.00	8.17

**CHANNEL BANDWIDTH: 10MHz / 16QAM / 0.1%RB**

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
Low	2560.00	8.26
Mid	2593.00	8.17
High	2650.00	8.23

**CHANNEL BANDWIDTH: 20MHz / QPSK / 0.1%RB**

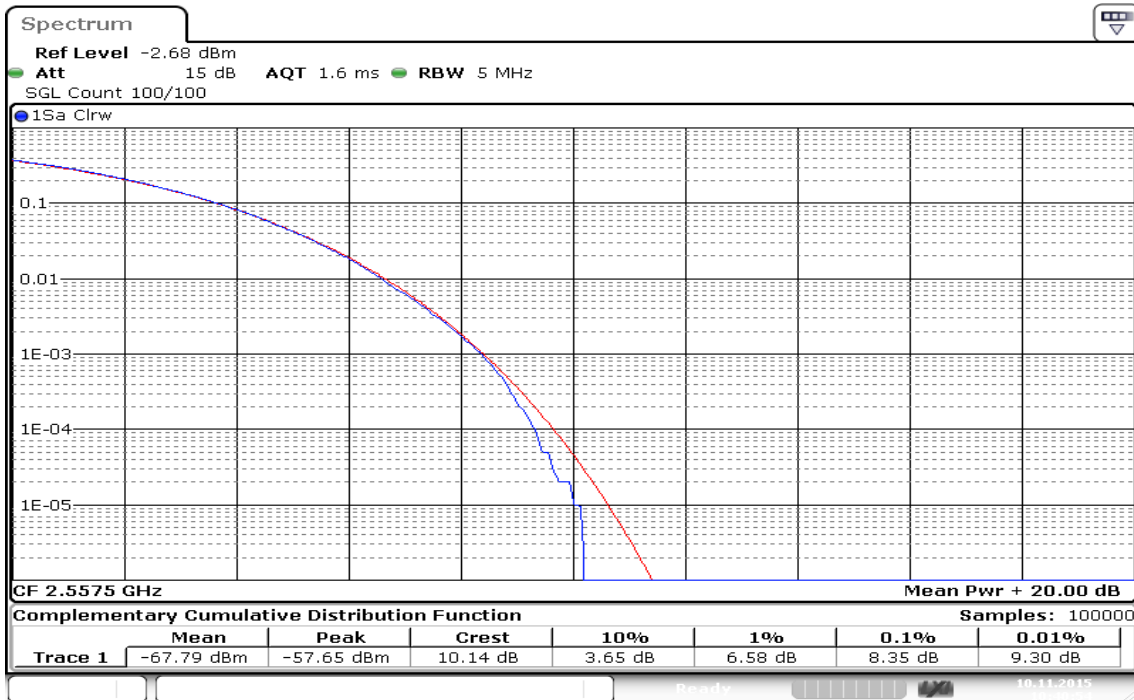
Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
Low	2555.00	8.23
Mid	2593.00	8.26
High	2655.00	8.26

**CHANNEL BANDWIDTH: 20MHz / 16QAM / 0.1%RB**

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
Low	2555.00	8.29
Mid	2593.00	8.26
High	2655.00	8.06

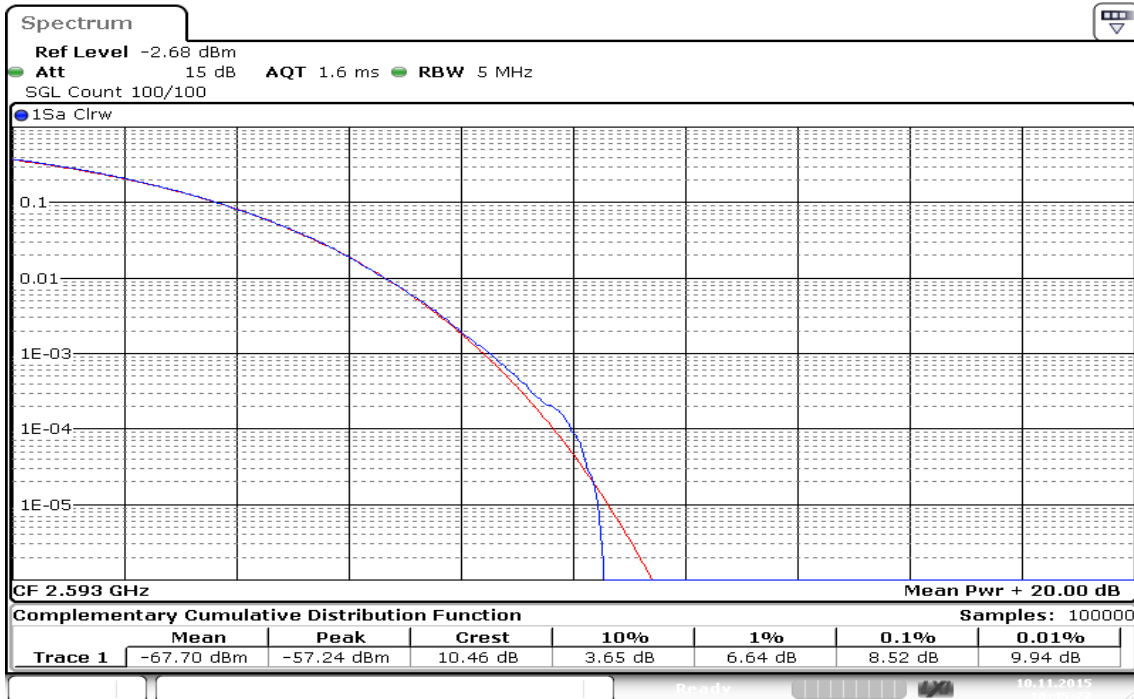
### CHANNEL BANDWIDTH: 5MHz / QPSK

#### CH Low



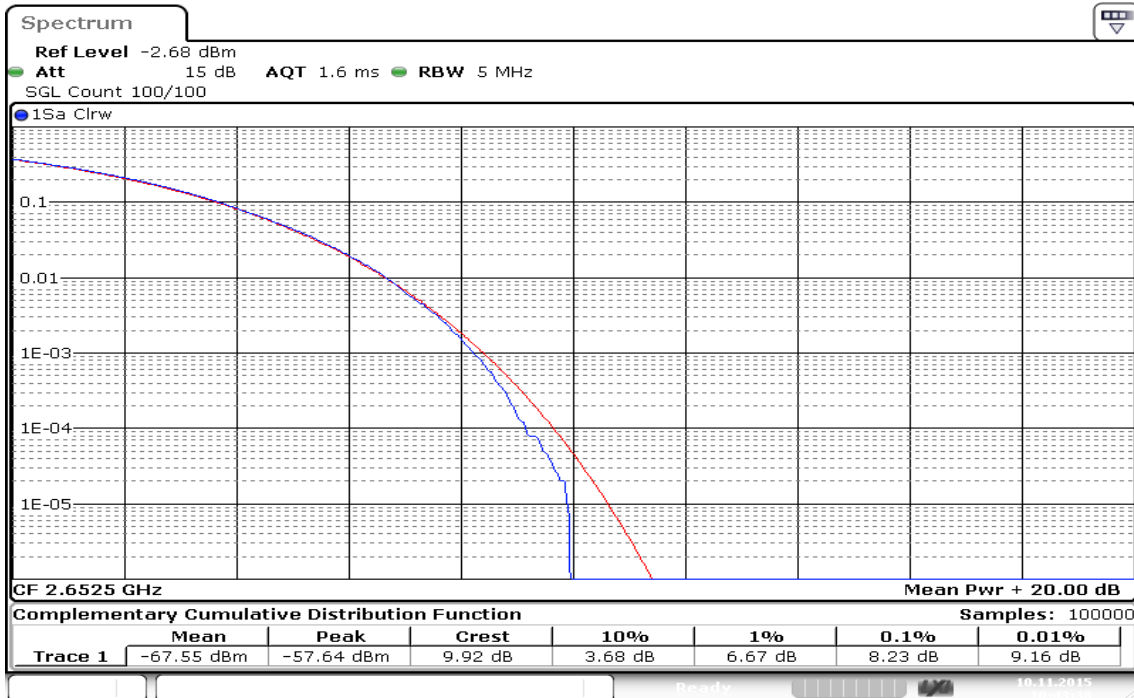
Date: 10.NOV.2015 10:40:54

#### CH Mid



Date: 10.NOV.2015 10:45:27

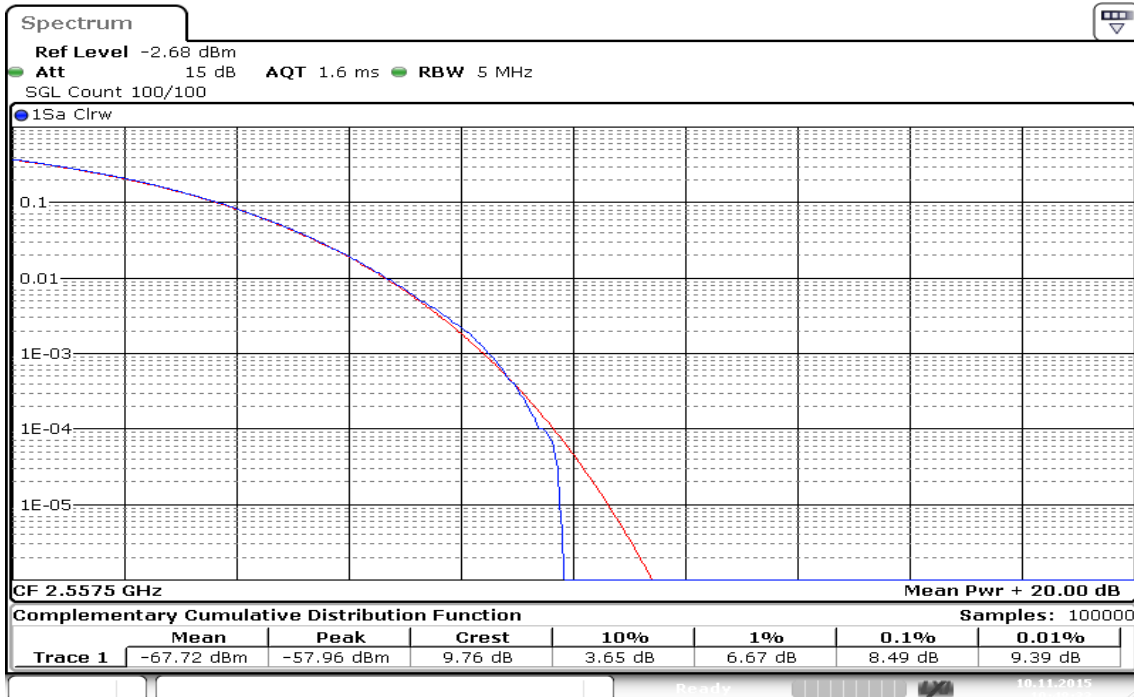
### CH High



Date: 10.NOV.2015 10:43:37

### CHANNEL BANDWIDTH: 5MHz / 16QAM

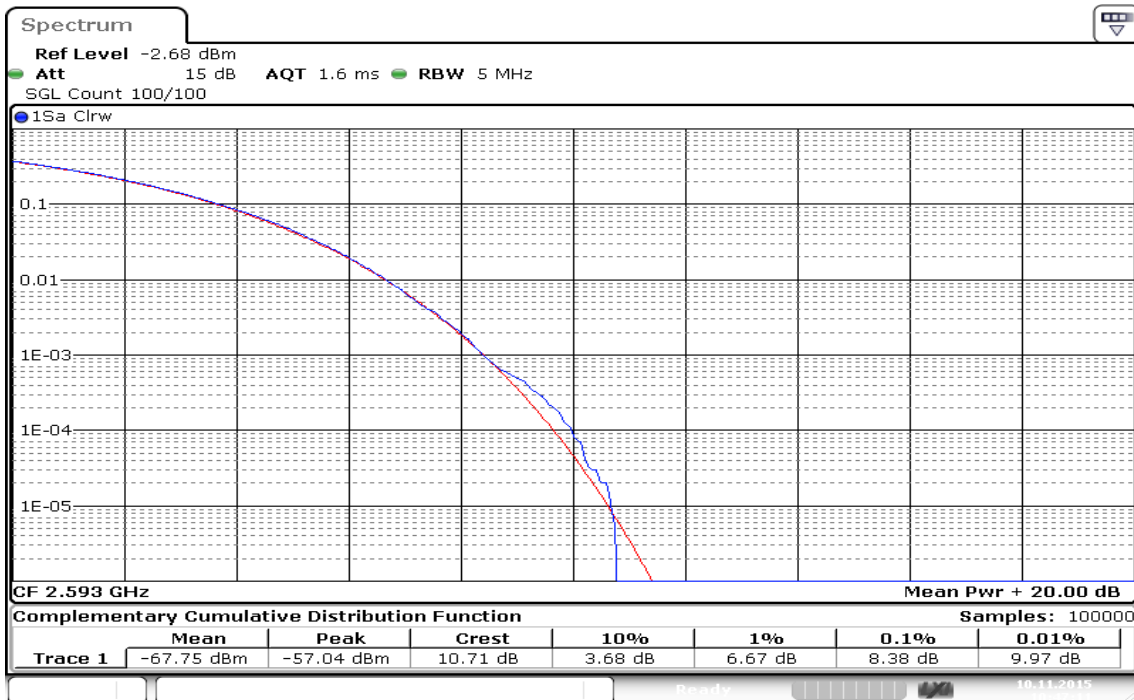
### CH Low



Date: 10.NOV.2015 10:48:33

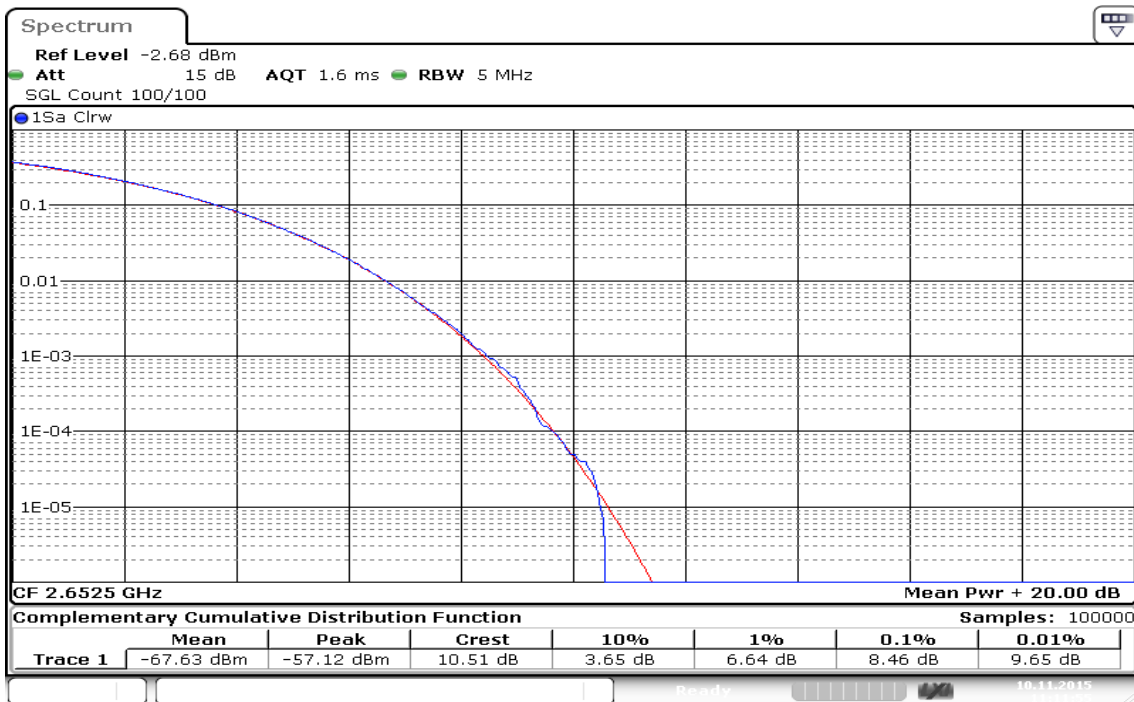


### CH Mid



Date: 10.NOV.2015 10:47:10

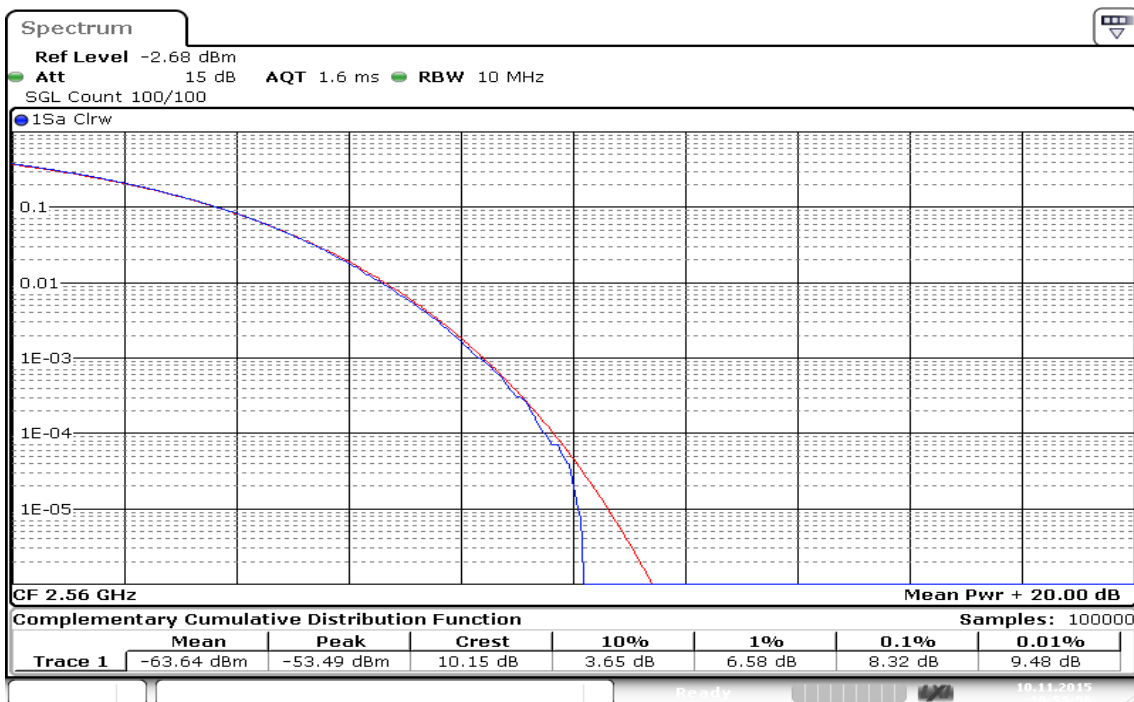
### CH High



Date: 10.NOV.2015 11:11:55

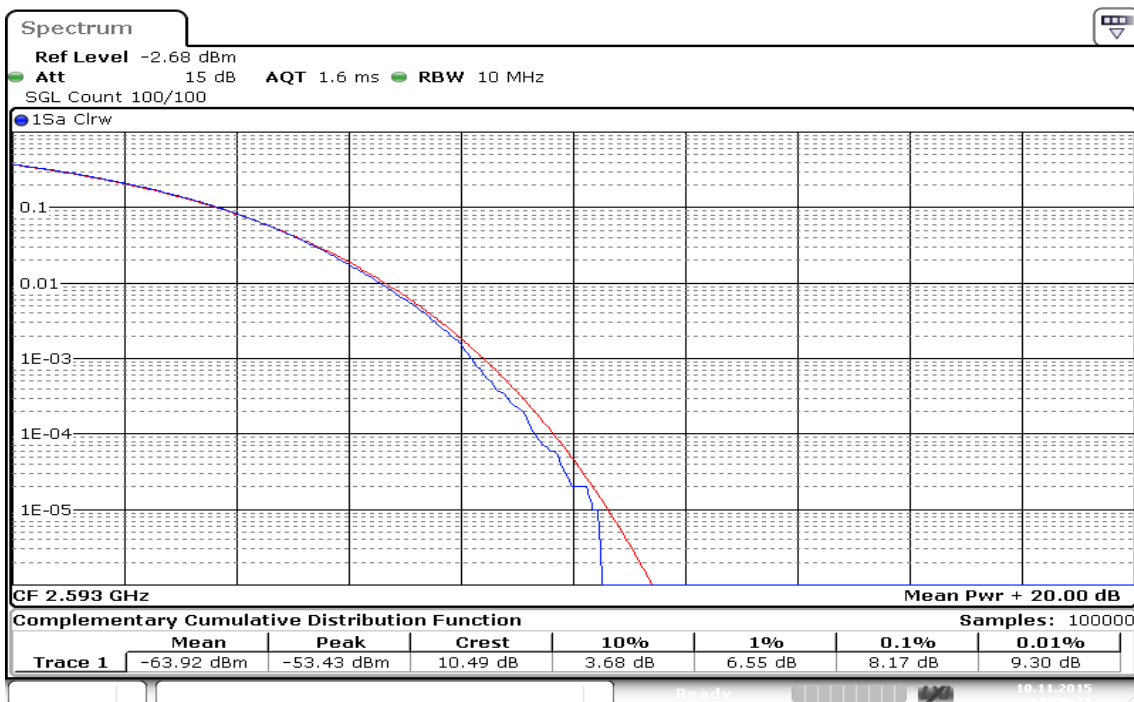
## CHANNEL BANDWIDTH: 10MHz / QPSK

### CH Low



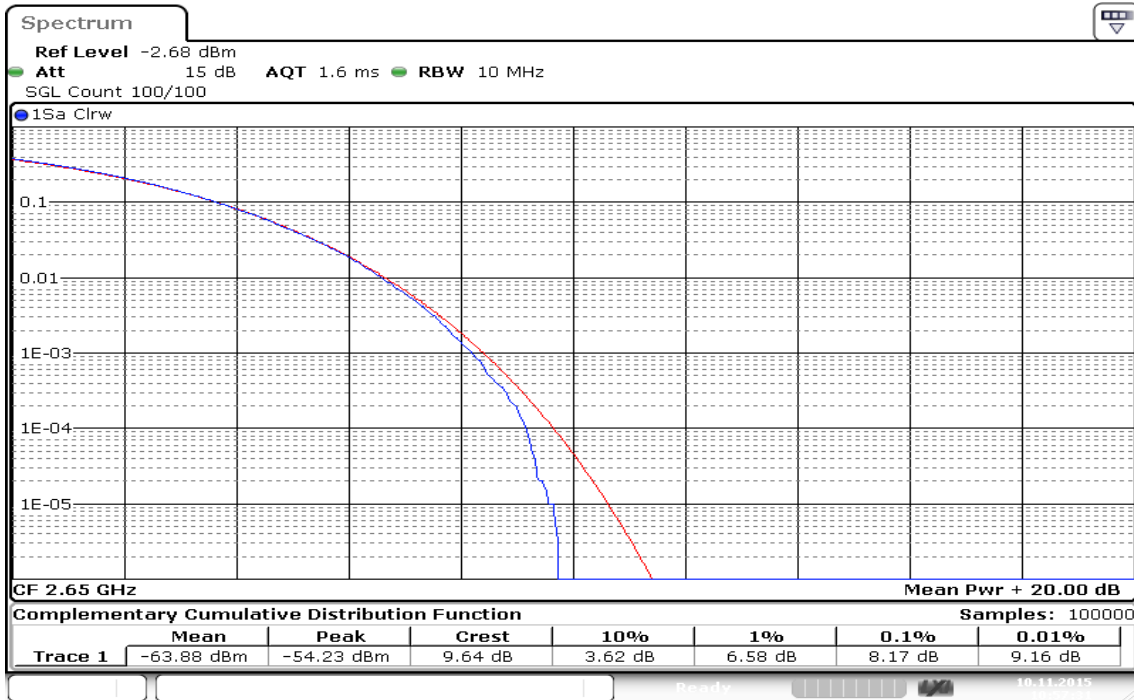
Date: 10.NOV.2015 10:58:56

### CH Mid



Date: 10.NOV.2015 11:00:21

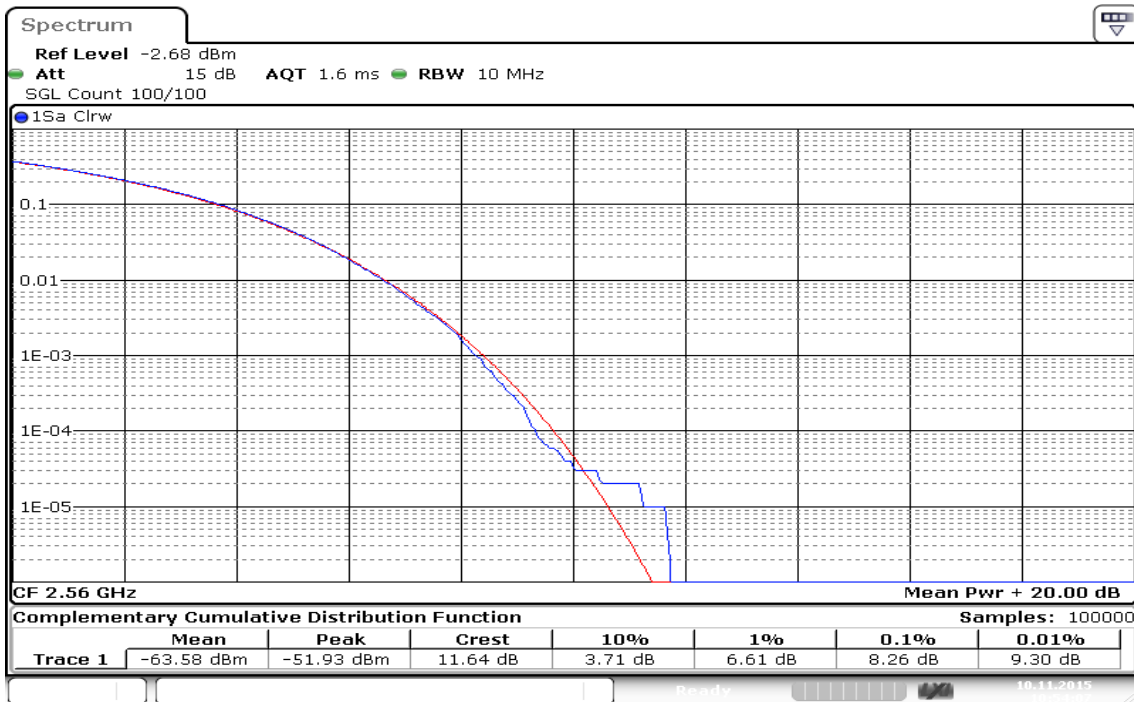
### CH High



Date: 10.NOV.2015 10:57:31

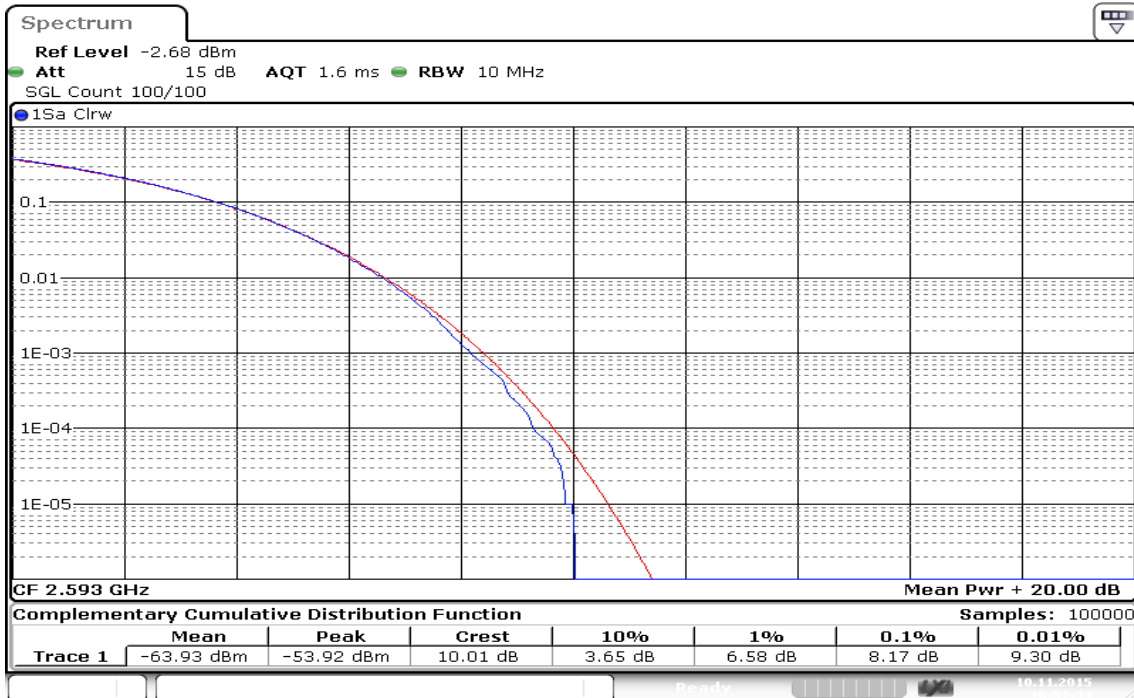
### CHANNEL BANDWIDTH: 10MHz / 16QAM

### CH Low



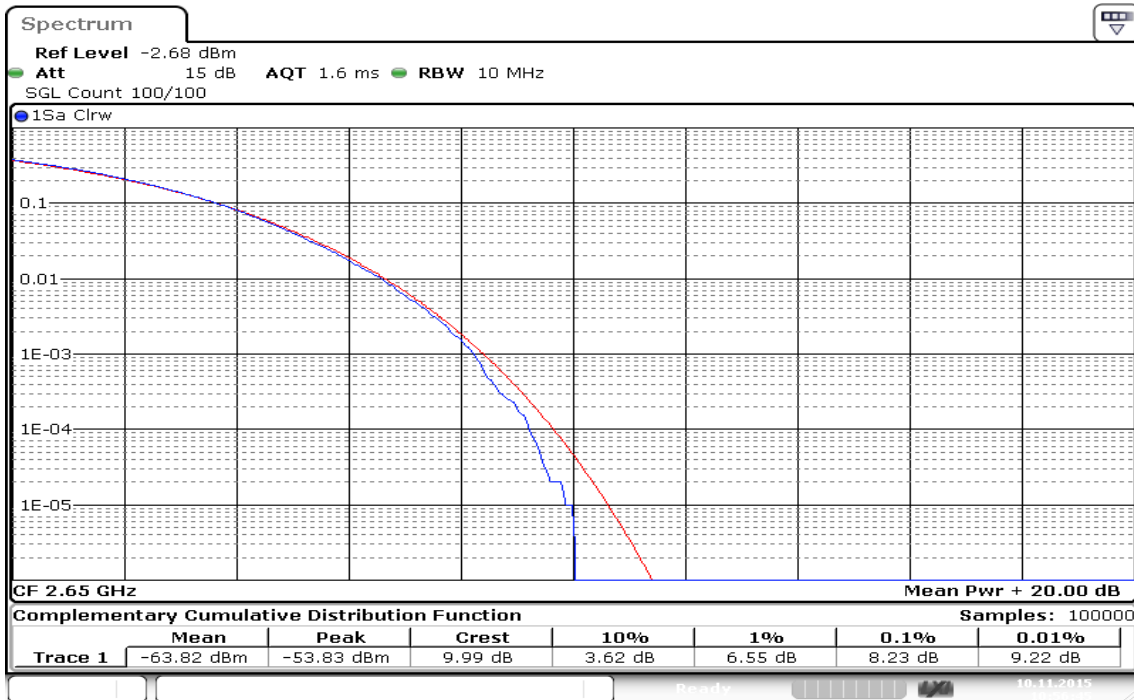
Date: 10.NOV.2015 10:54:07

### CH Mid



Date: 10.NOV.2015 10:51:34

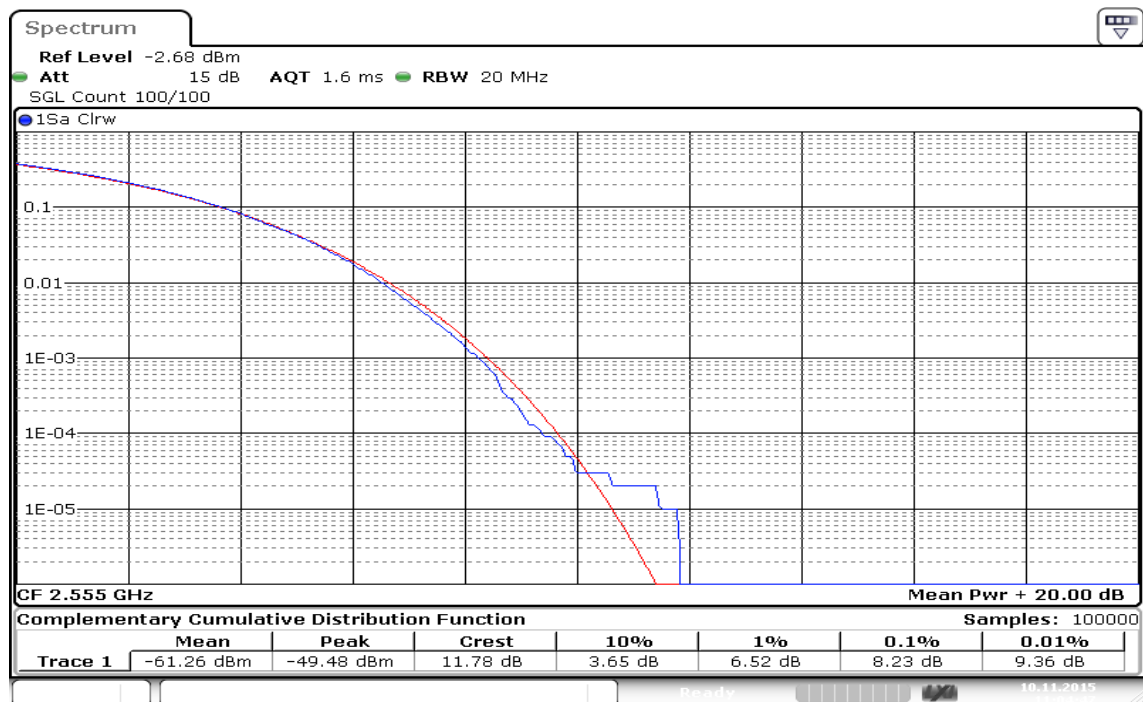
### CH High



Date: 10.NOV.2015 10:56:45

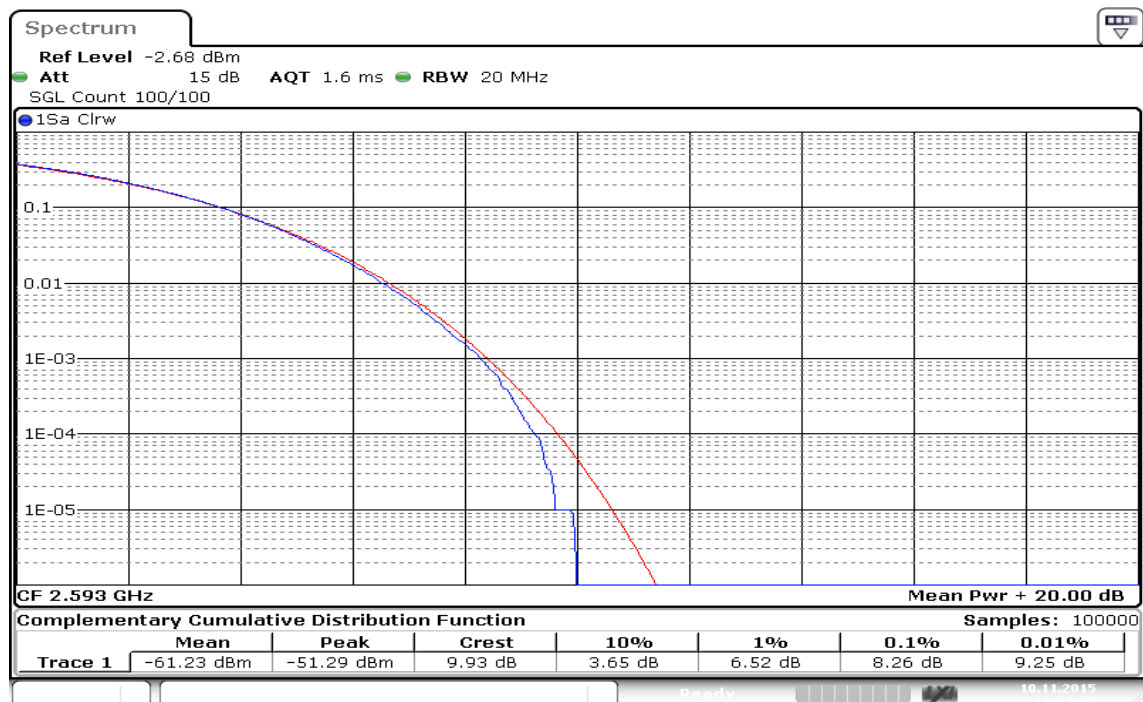
## CHANNEL BANDWIDTH: 20MHz / QPSK

### CH Low



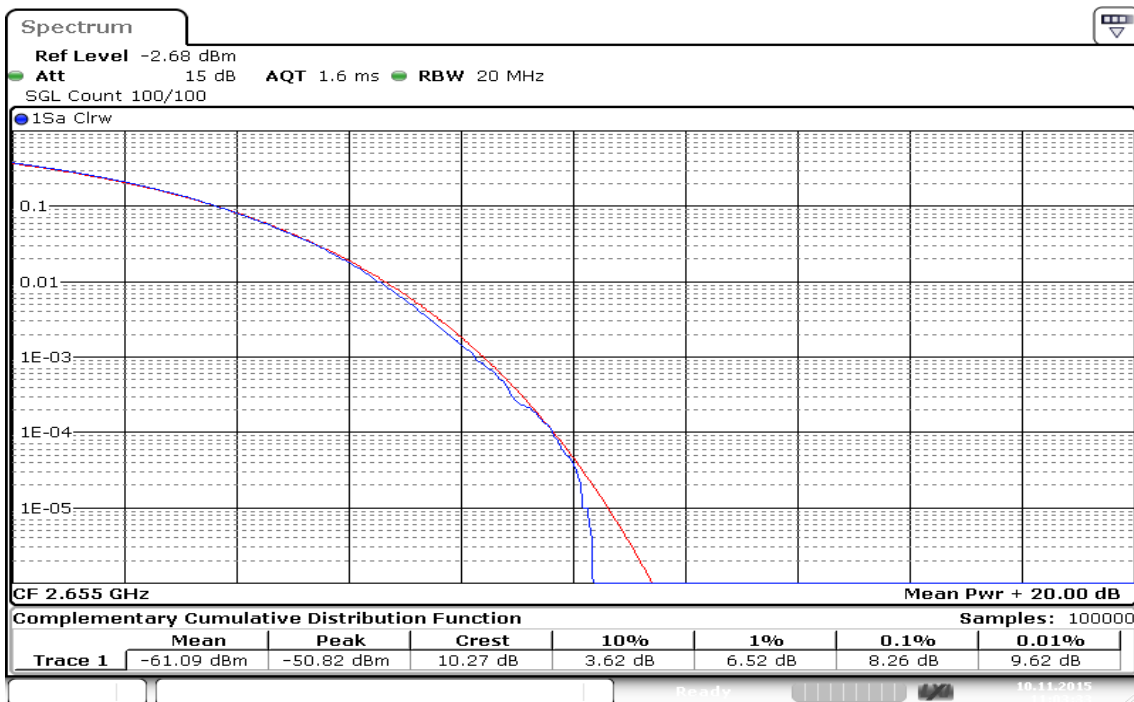
Date: 10.NOV.2015 11:04:47

### CH Mid



Date: 10.NOV.2015 11:02:05

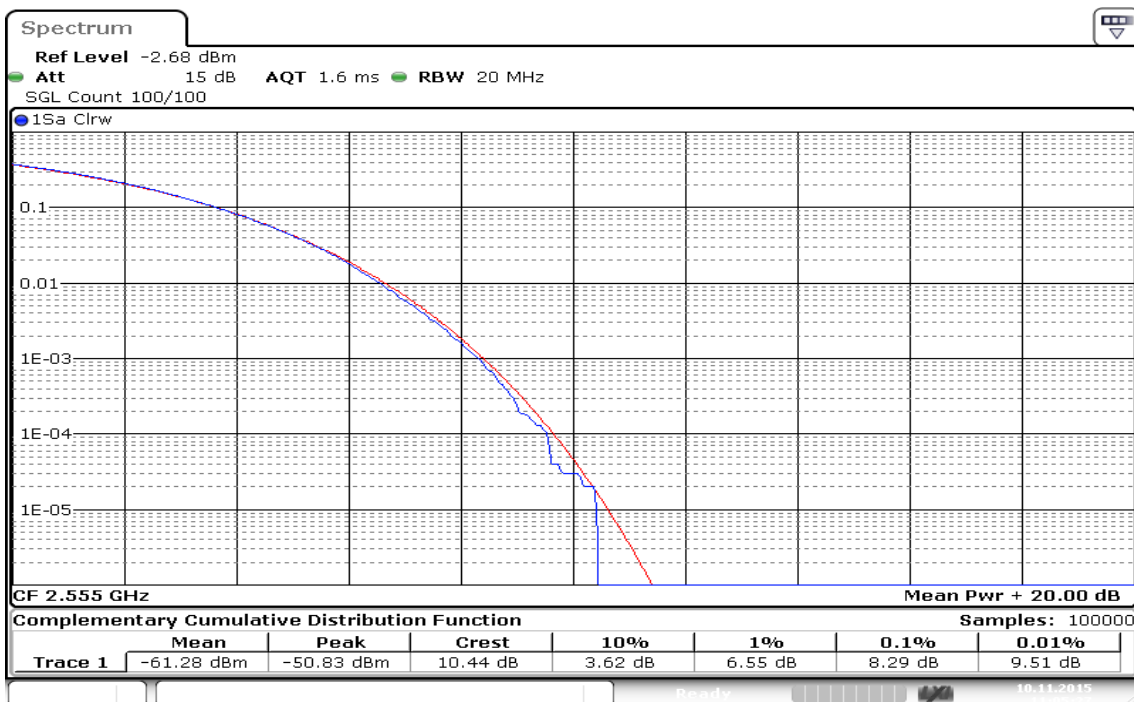
### CH High



Date: 10.NOV.2015 11:03:33

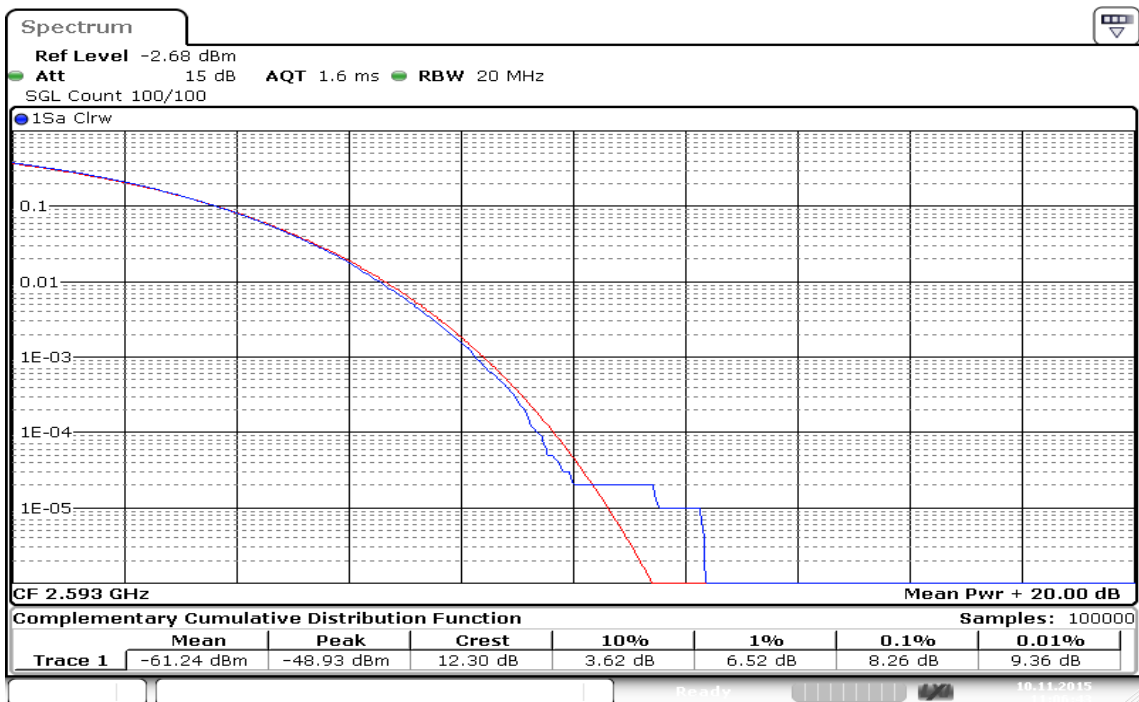
### CHANNEL BANDWIDTH: 20MHz / 16QAM

### CH Low



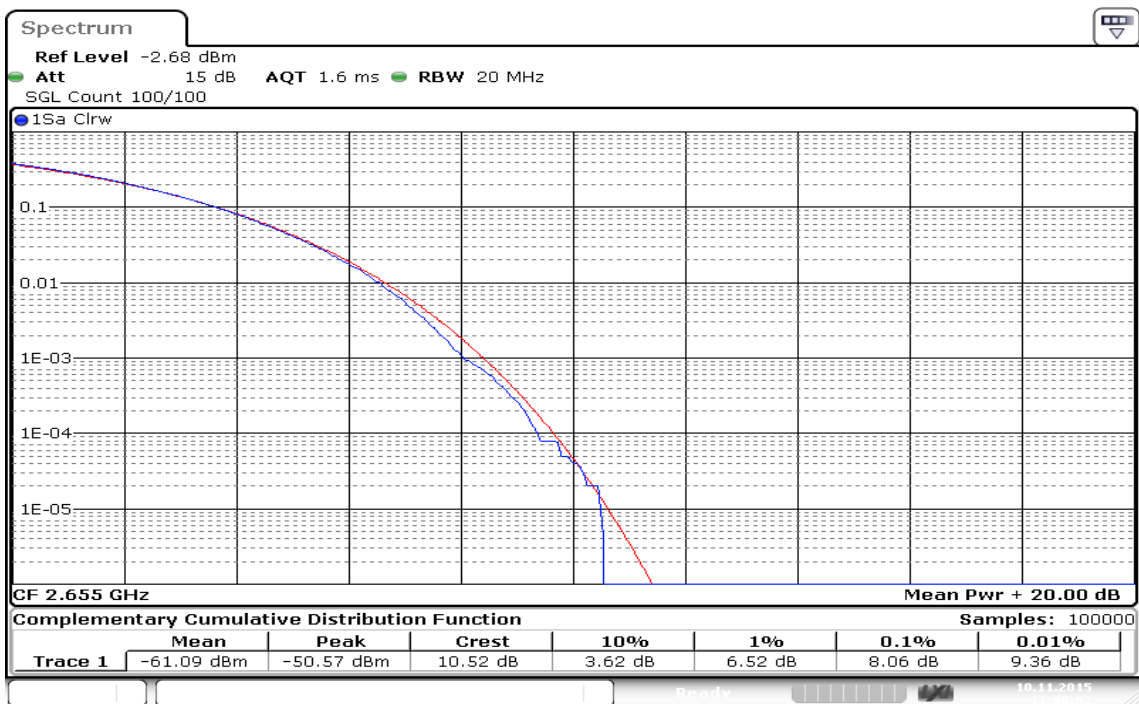
Date: 10.NOV.2015 11:05:27

### CH Mid



Date: 10.NOV.2015 11:06:43

### CH High



Date: 10.NOV.2015 11:08:02

## 7.5 BAND EDGE MEASUREMENT

### LIMIT

For operations in the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $55 + 10 \log(P)$  dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed. For operations in the 1710–1755 MHz and 2110–2155 MHz bands, the power of any

emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $55 + 10 \log_{10}(P)$  dB. The limit of emission equal to  $-25\text{dBm}$ . In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

### TEST PROCEDURES

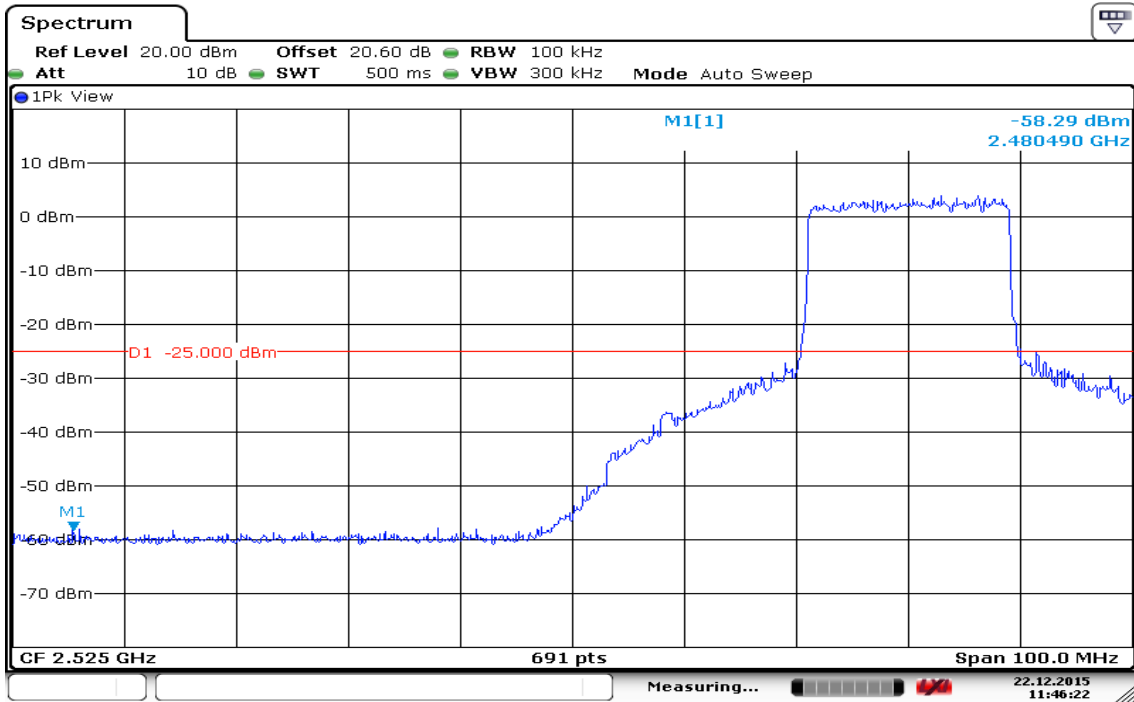
1. The EUT was set up for the maximum peak power with LTE link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 2 channels (low and high operational frequency range.).
2. The band edge measurement used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer. This splitter loss and cable loss are the worst loss 7.2 dB in the transmitted path track.
3. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 50kHz and VB of the spectrum is 200kHz.
4. Record the max trace plot into the test report.
5. According to tests conducted power worst 1RB in this report.



**TEST RESULTS:**

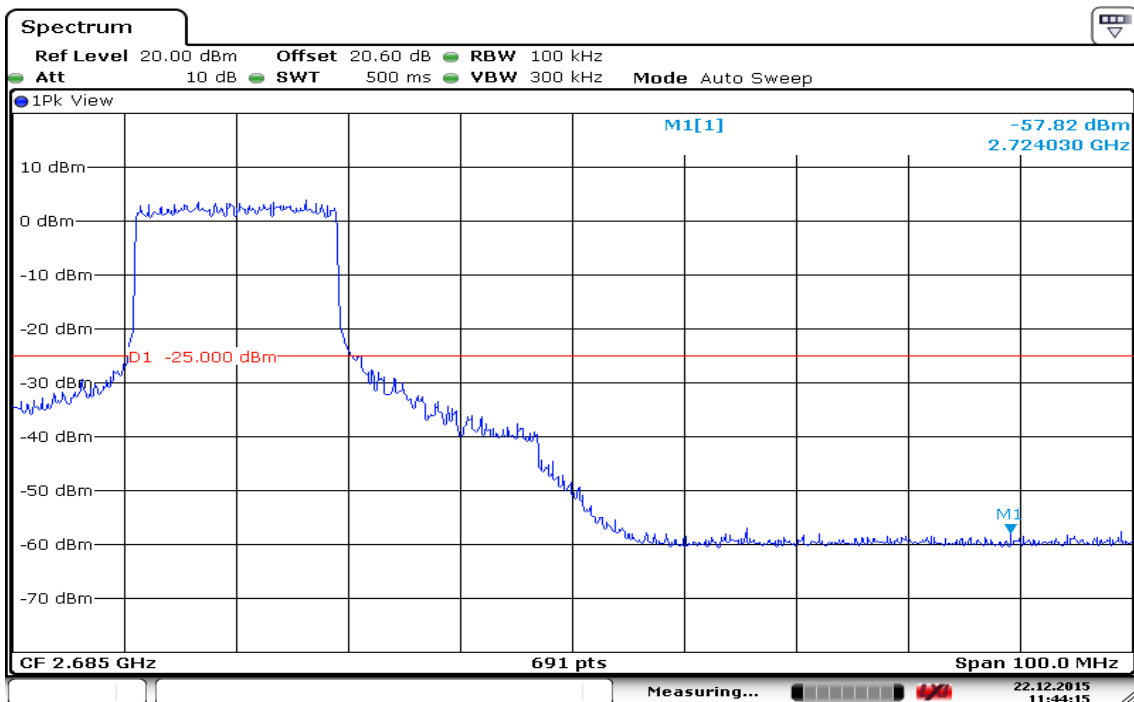
**CHANNEL BANDWIDTH: 20MHz / QPSK / FULL RB ALLOCATION**

**LOWER BAND EDGE**



Date: 22.DEC.2015 11:46:22

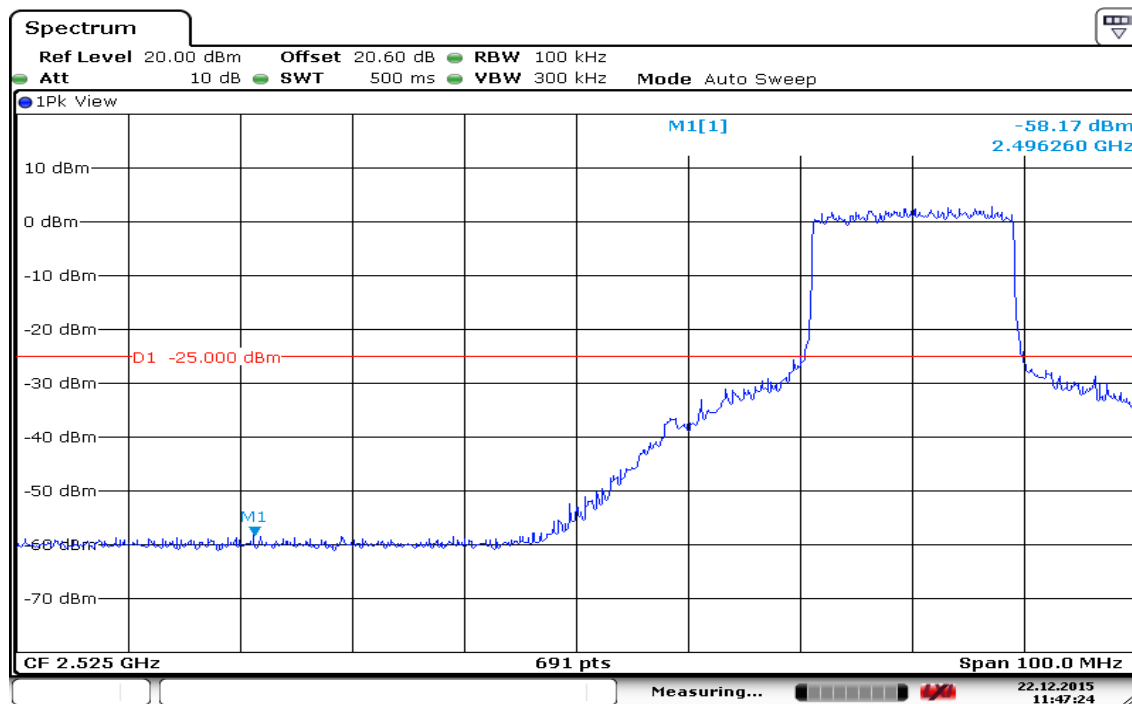
**HIGHER BAND EDGE**



Date: 22.DEC.2015 11:44:15

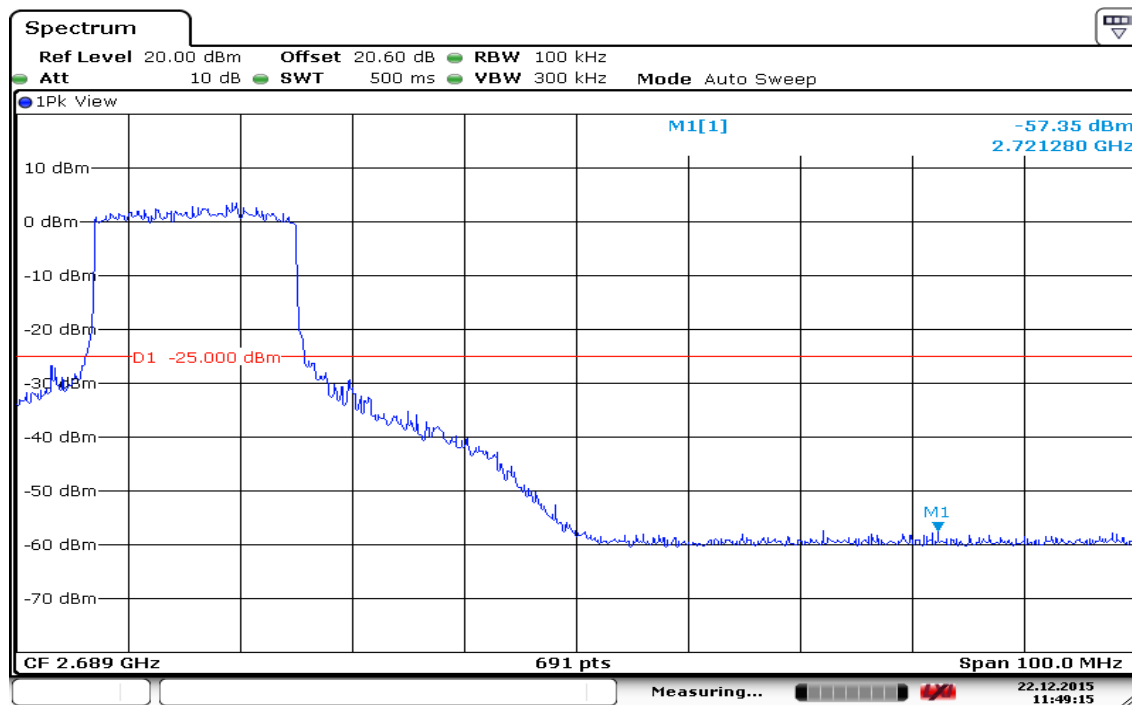
## CHANNEL BANDWIDTH: 20MHz / 16QAM / FULL RB ALLOCATION

### LOWER BAND EDGE



Date: 22.DEC.2015 11:47:24

### HIGHER BAND EDGE



Date: 22.DEC.2015 11:49:15

## **7.6 CONDUCTED SPURIOUS EMISSIONS**

### **LIMITS**

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $55 + 10 \log_{10}(P)$  dB. The limit of emission equal to  $-25\text{dBm}$

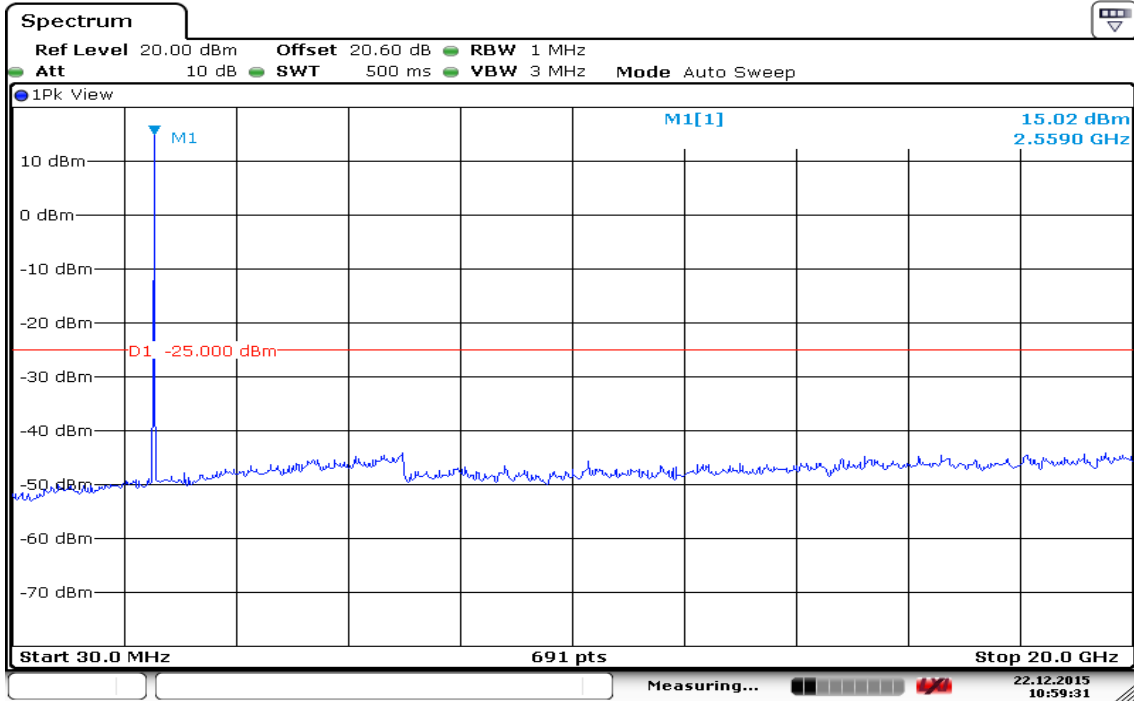
### **TEST PROCEDURES**

1. The EUT was set up for the maximum peak power with LTE link data modulation. The power was measured with Spectrum Analyzer. All measurements were done at 3 channels (low, middle and high operational frequency range.).
2. The conducted spurious emission used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
3. When the spectrum scanned from 30MHz to 3GHz, it shall be connected to the band reject filter attenuated the carried frequency. The spectrum set RBW=1MHz, VBW=3MHz.
4. When the spectrum scanned from 3GHz to 20GHz, it shall be connected to the high pass filter attenuated the carried frequency. The spectrum set RBW=1MHz, VBW=3MHz.

## TEST RESULTS

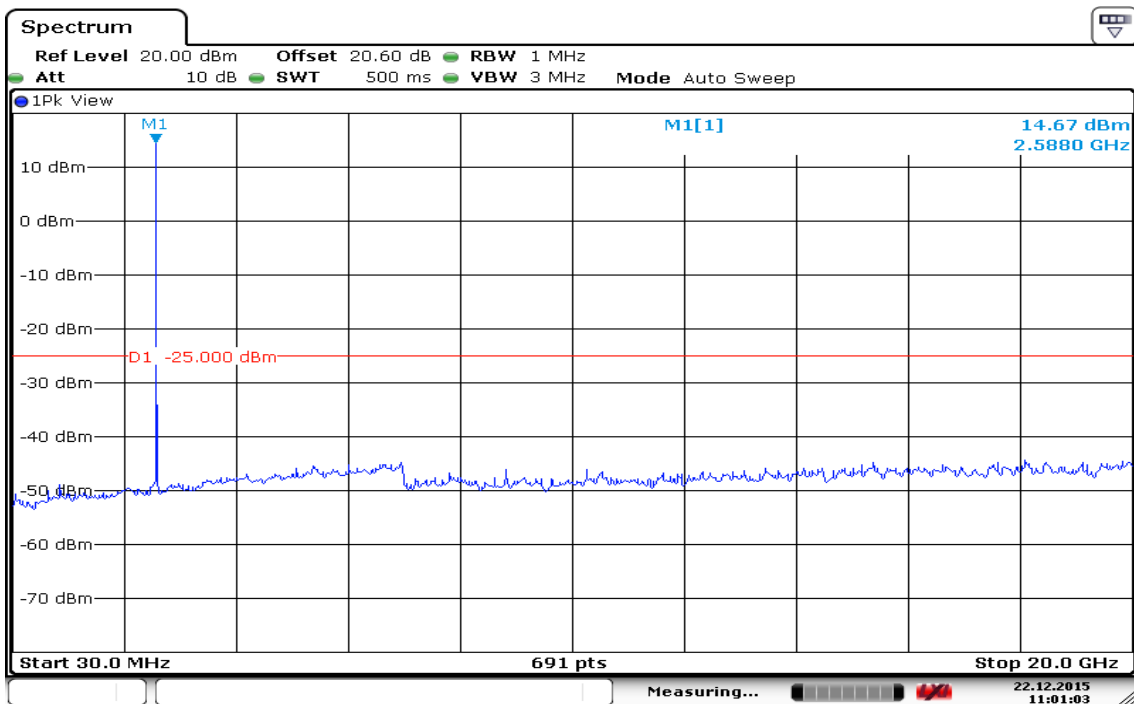
CHANNEL BANDWIDTH: 5MHz / QPSK

CH Low



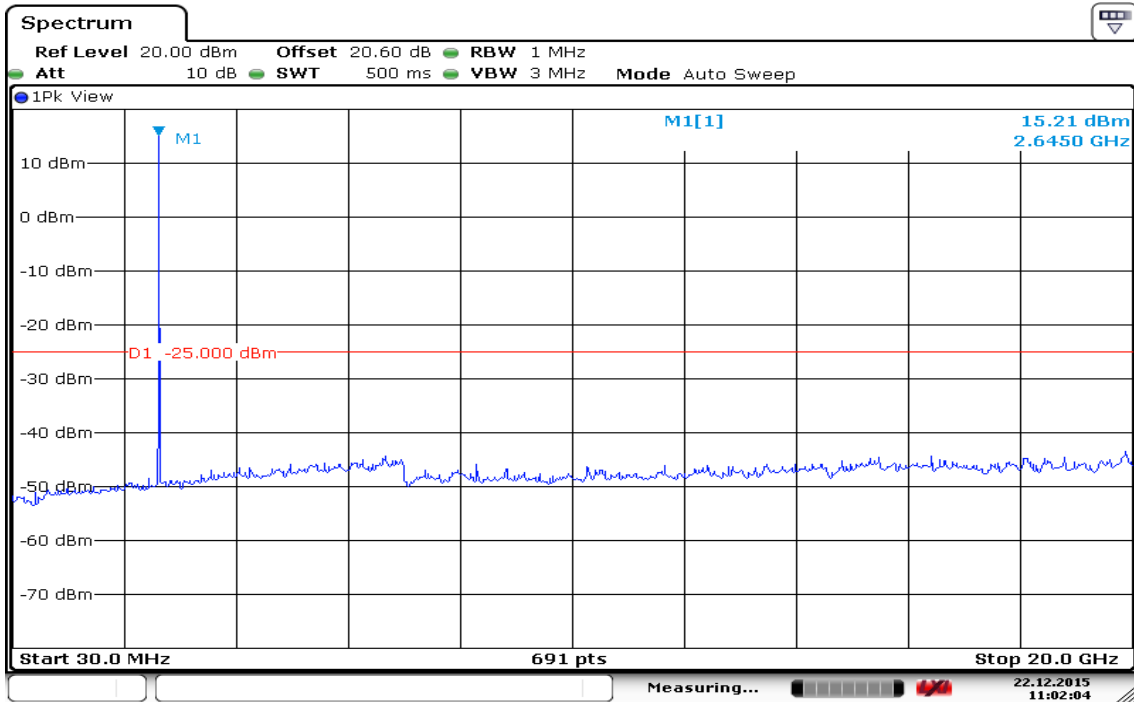
Date: 22.DEC.2015 10:59:31

CH Mid



Date: 22.DEC.2015 11:01:03

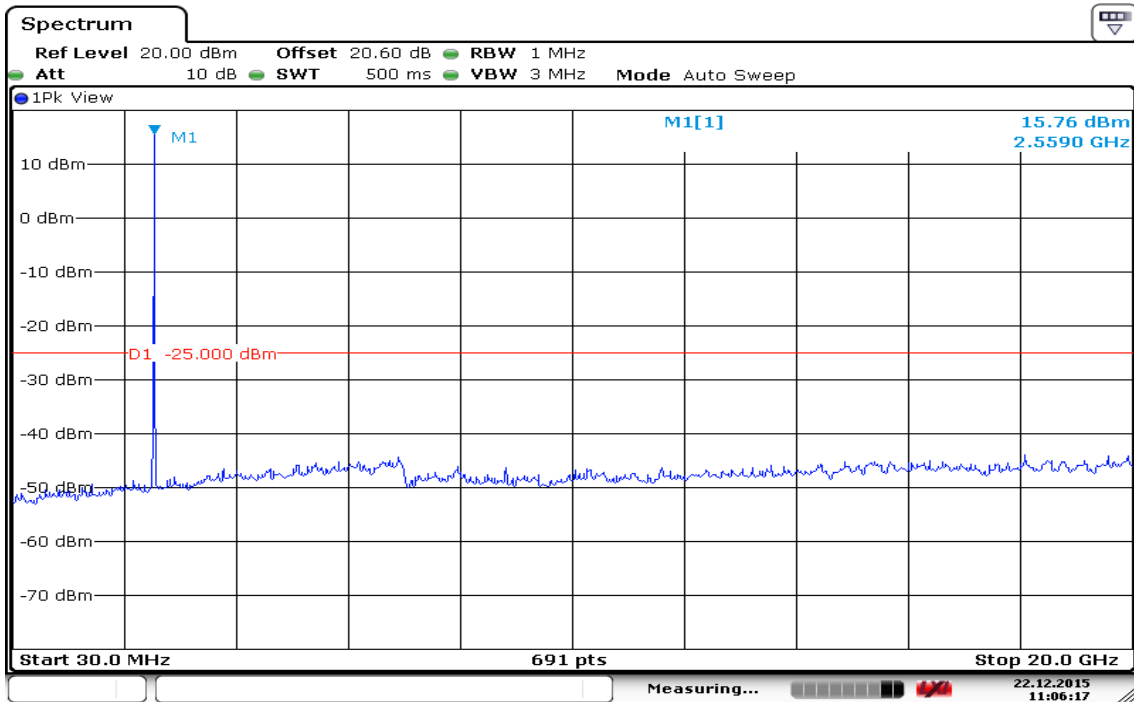
### CH High



Date: 22.DEC.2015 11:02:04

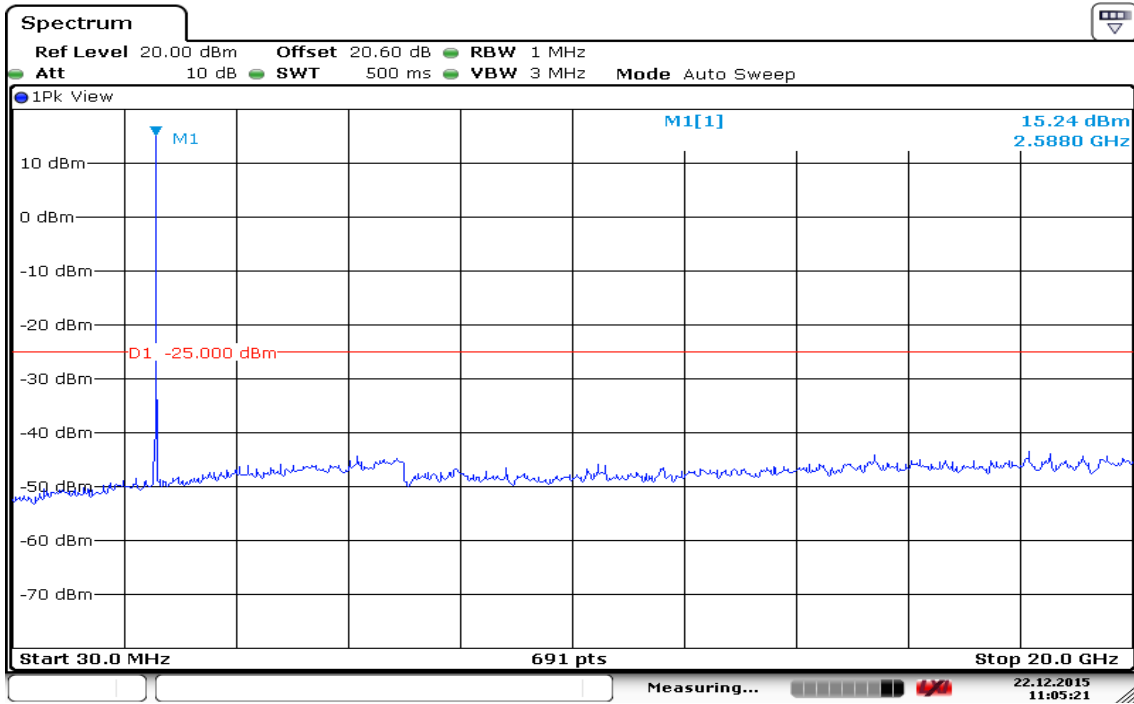
### CHANNEL BANDWIDTH: 5MHz / 16QAM

### CH Low



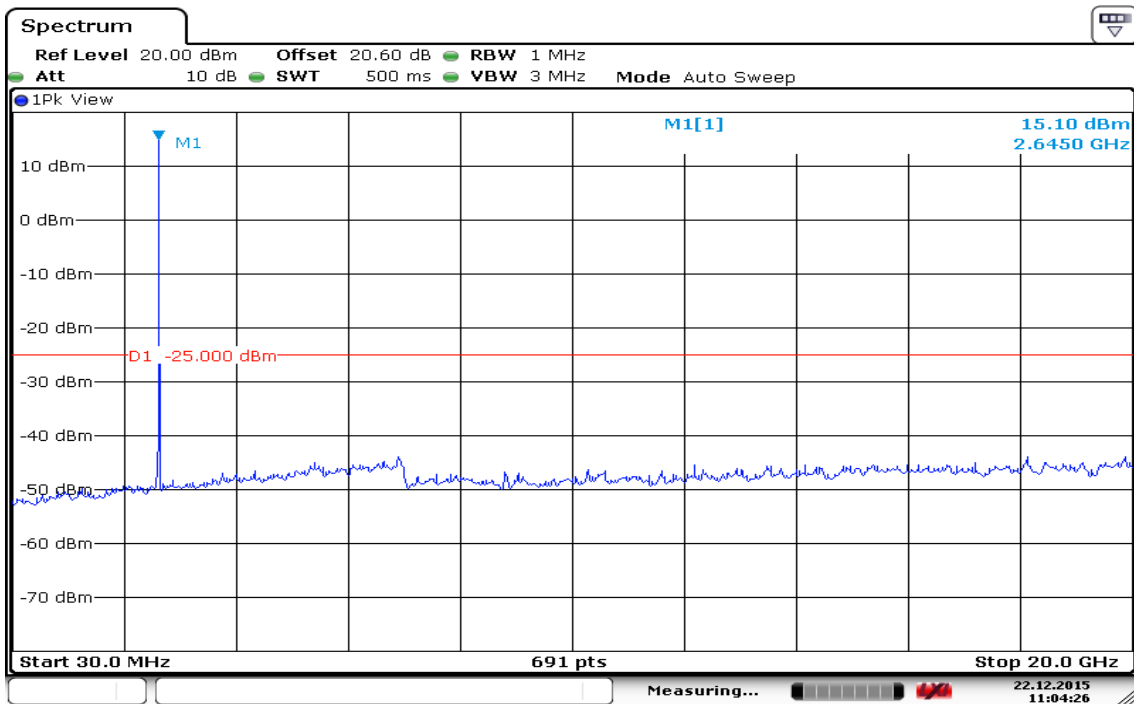
Date: 22.DEC.2015 11:06:17

### CH Mid



Date: 22.DEC.2015 11:05:21

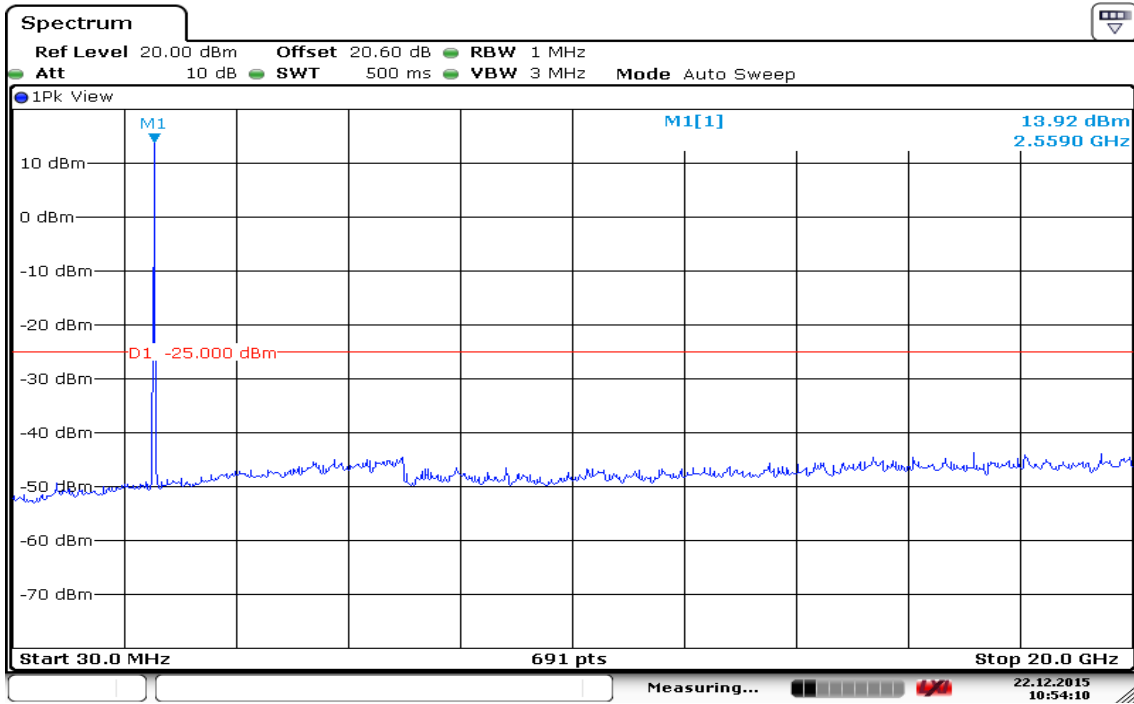
### CH High



Date: 22.DEC.2015 11:04:26

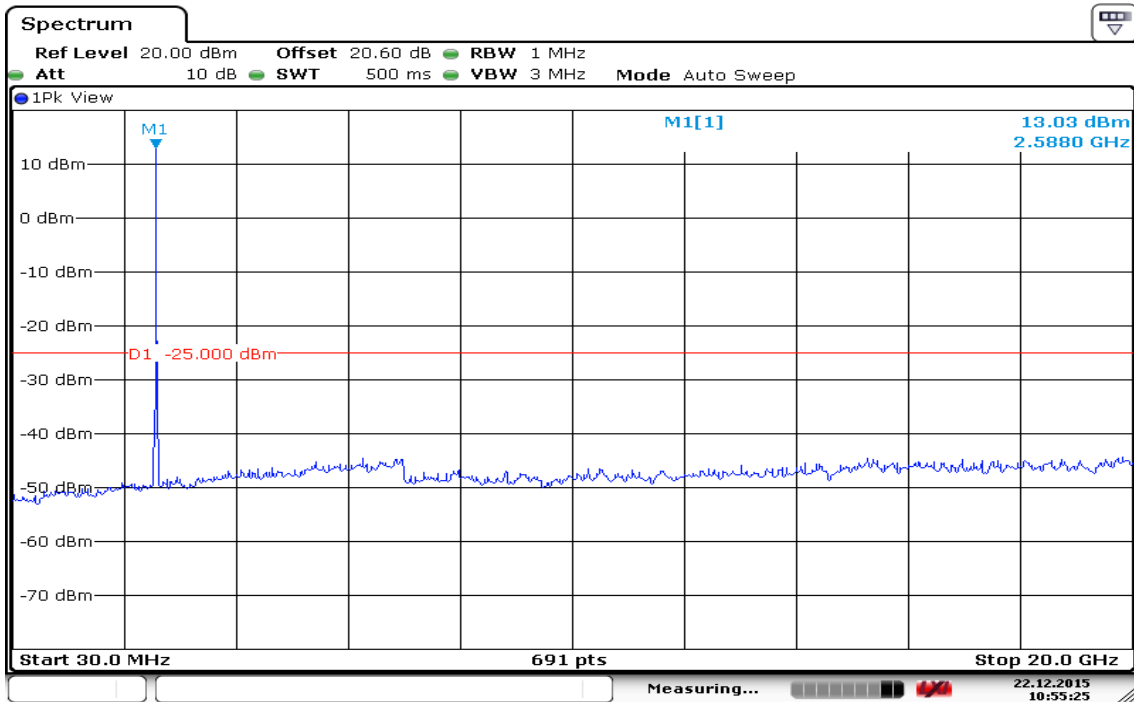
### CHANNEL BANDWIDTH: 10MHz / QPSK

#### CH Low



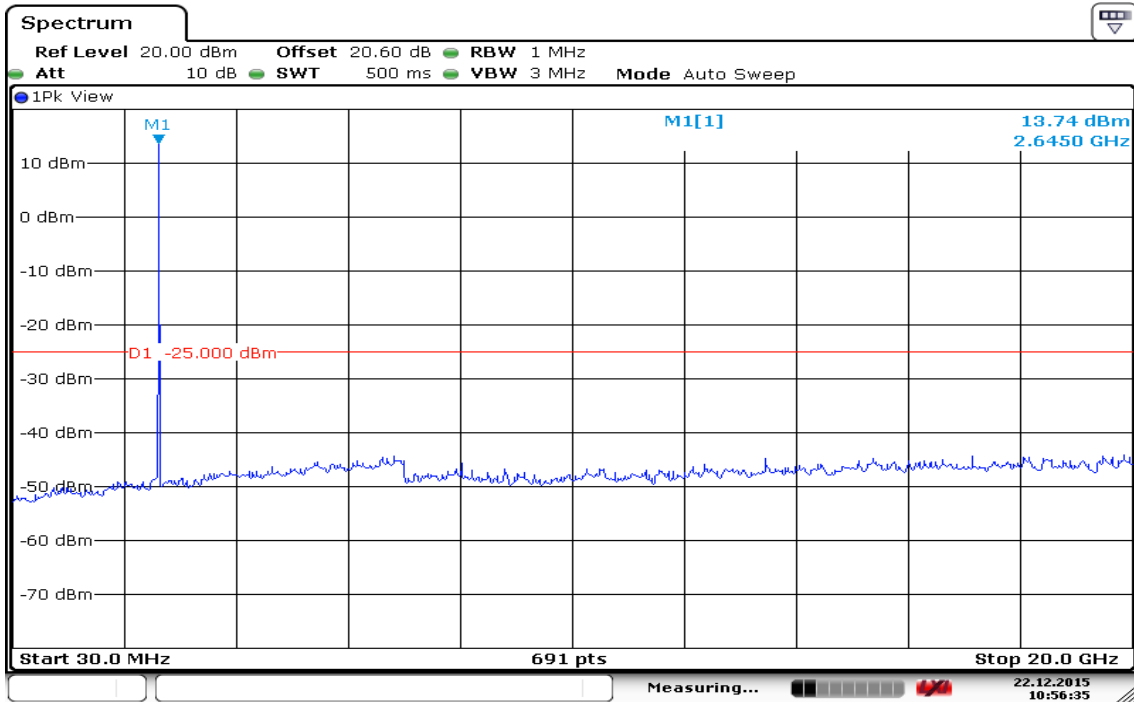
Date: 22.DEC.2015 10:54:10

#### CH Mid



Date: 22.DEC.2015 10:55:25

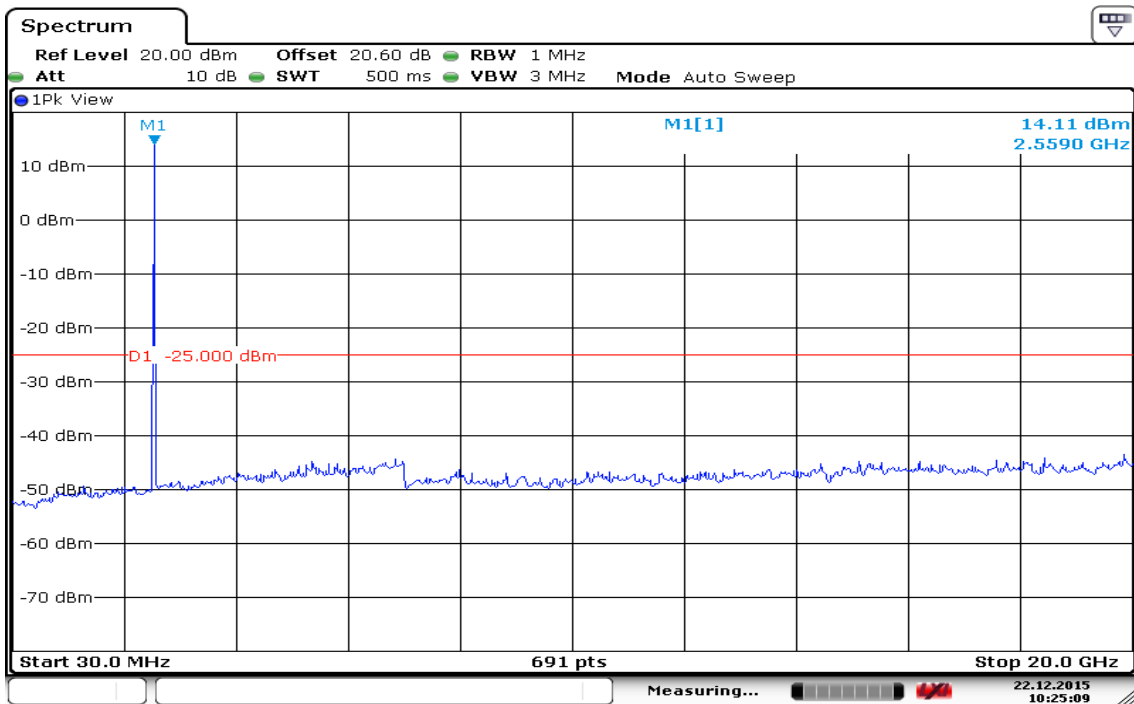
### CH High



Date: 22.DEC.2015 10:56:35

### CHANNEL BANDWIDTH: 10MHz / 16QAM

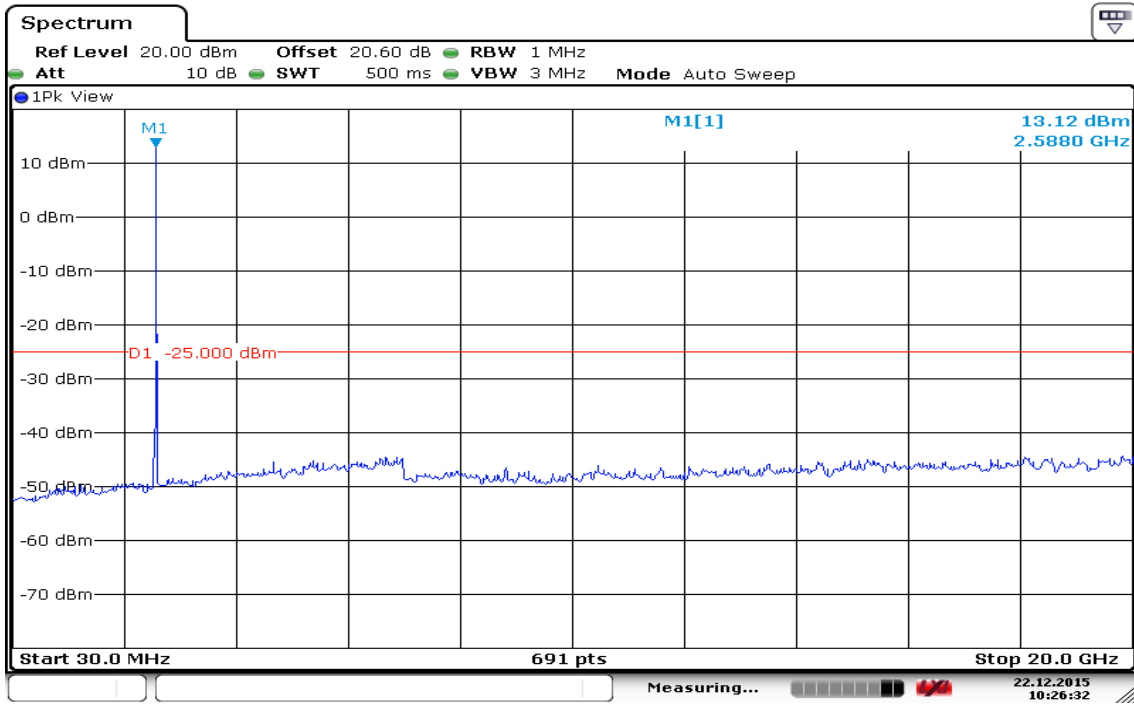
### CH Low



Date: 22.DEC.2015 10:25:09

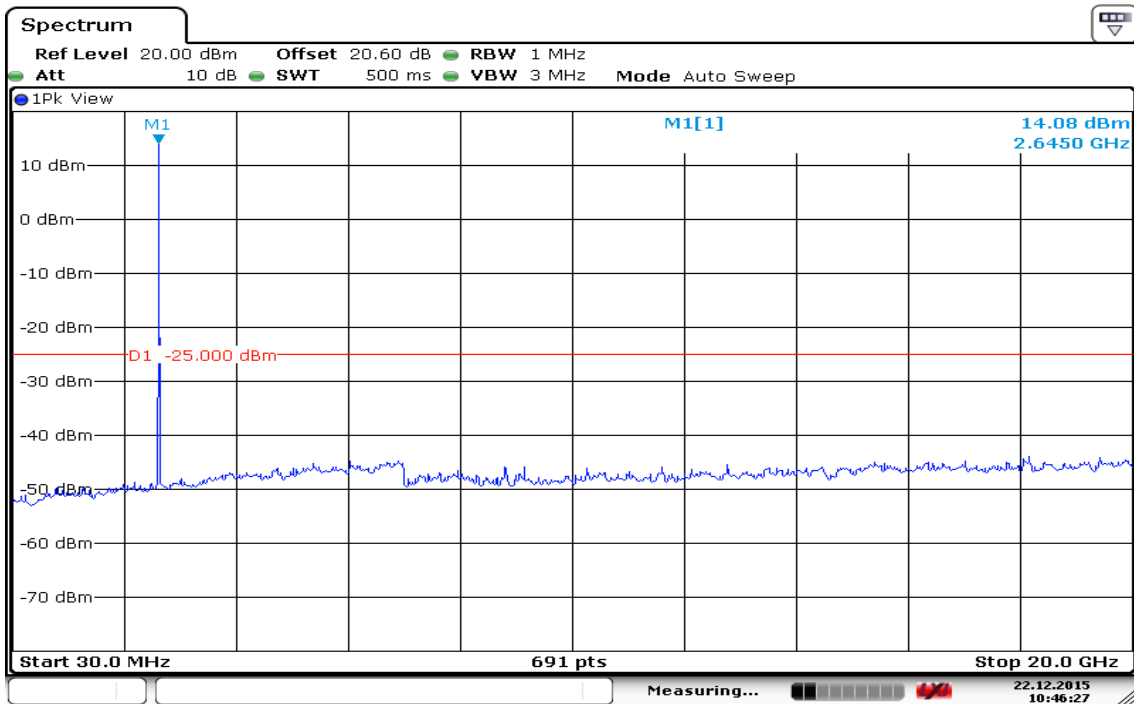


### CH Mid



Date: 22.DEC.2015 10:26:32

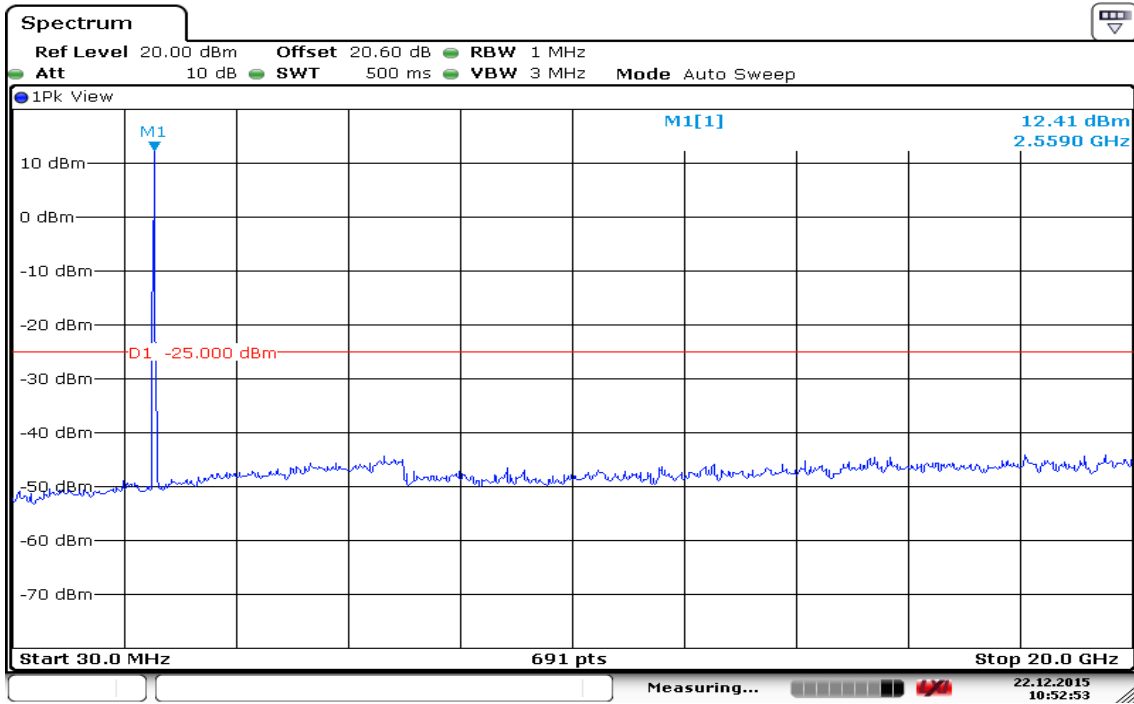
### CH High



Date: 22.DEC.2015 10:46:27

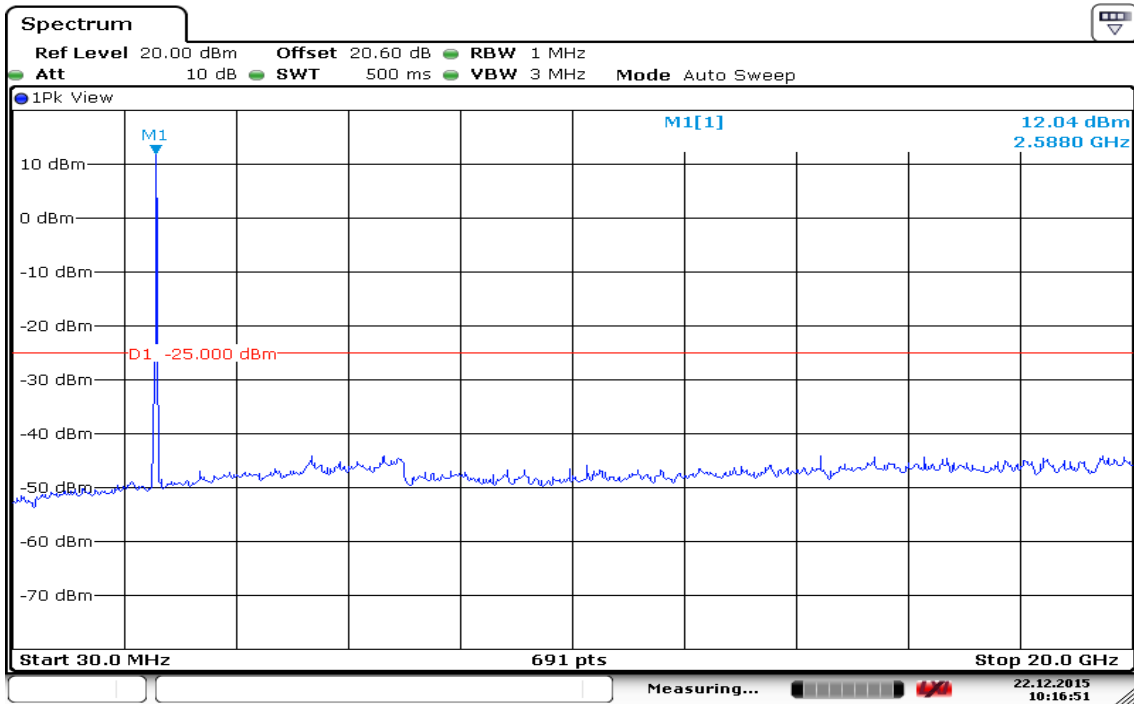
### CHANNEL BANDWIDTH: 20MHz / QPSK

#### CH Low



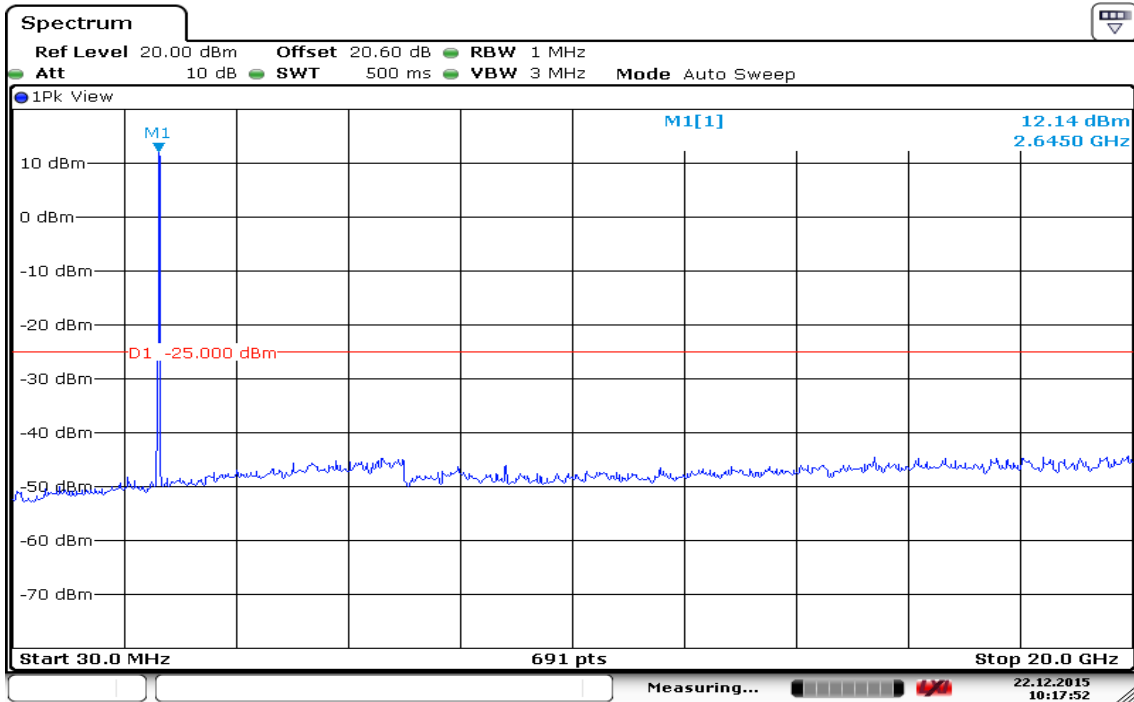
Date: 22.DEC.2015 10:52:53

#### CH Mid



Date: 22.DEC.2015 10:16:51

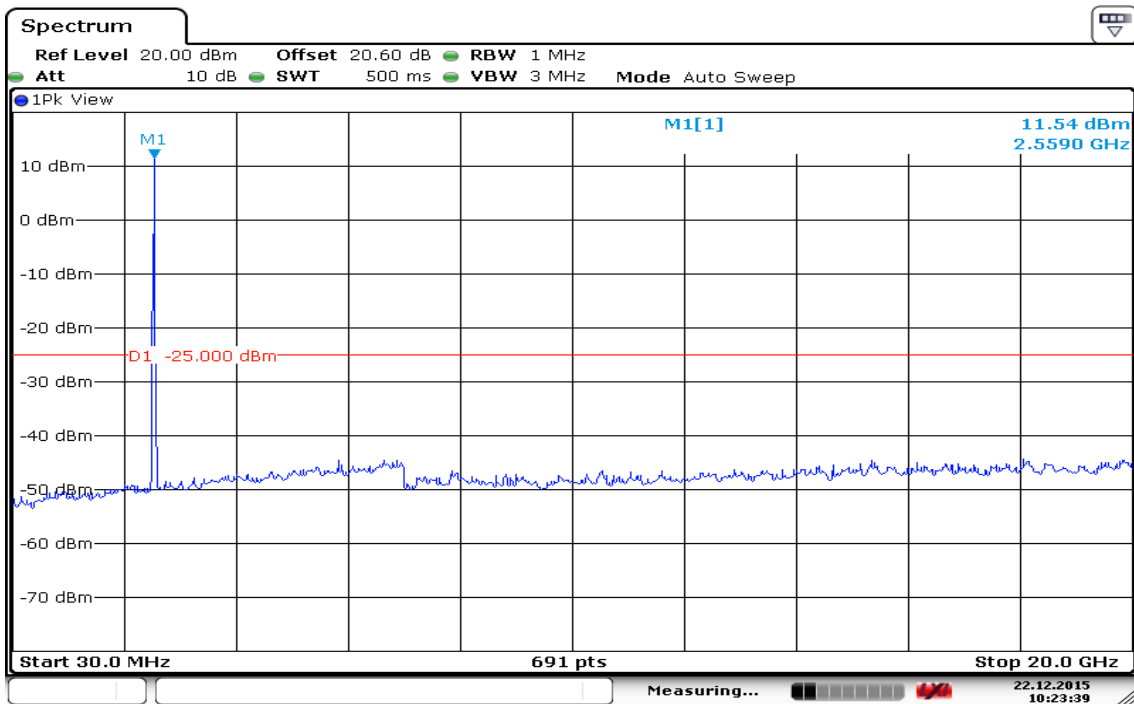
### CH High



Date: 22.DEC.2015 10:17:52

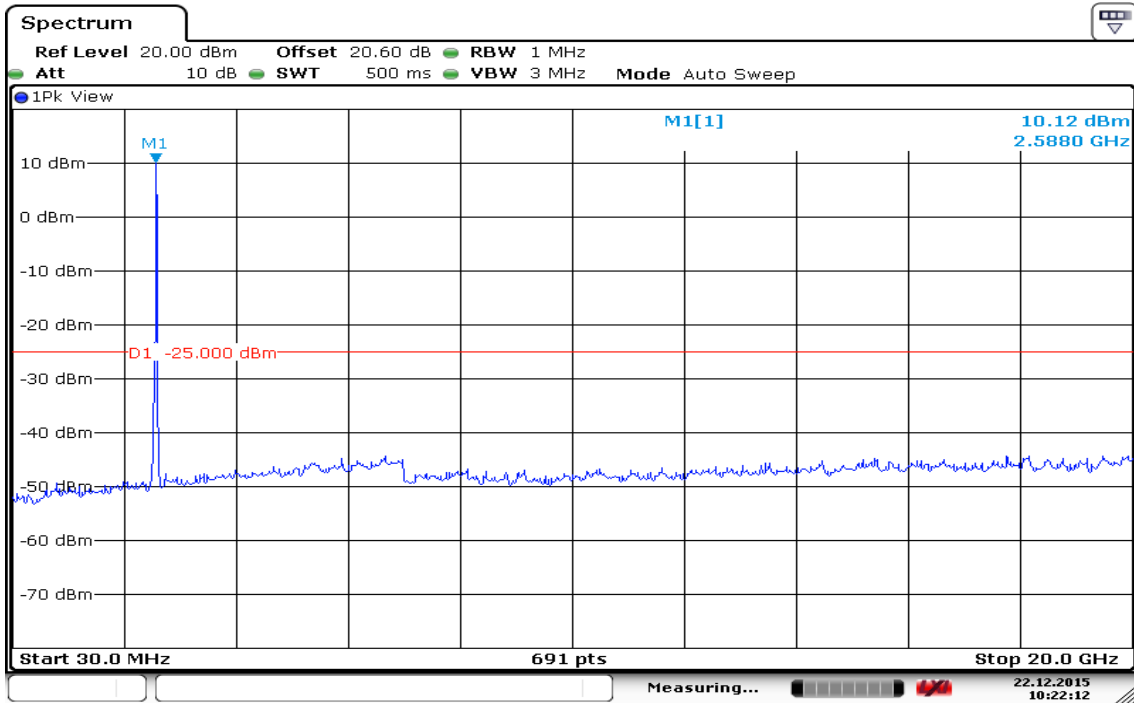
### CHANNEL BANDWIDTH: 20MHz / 16QAM

### CH Low



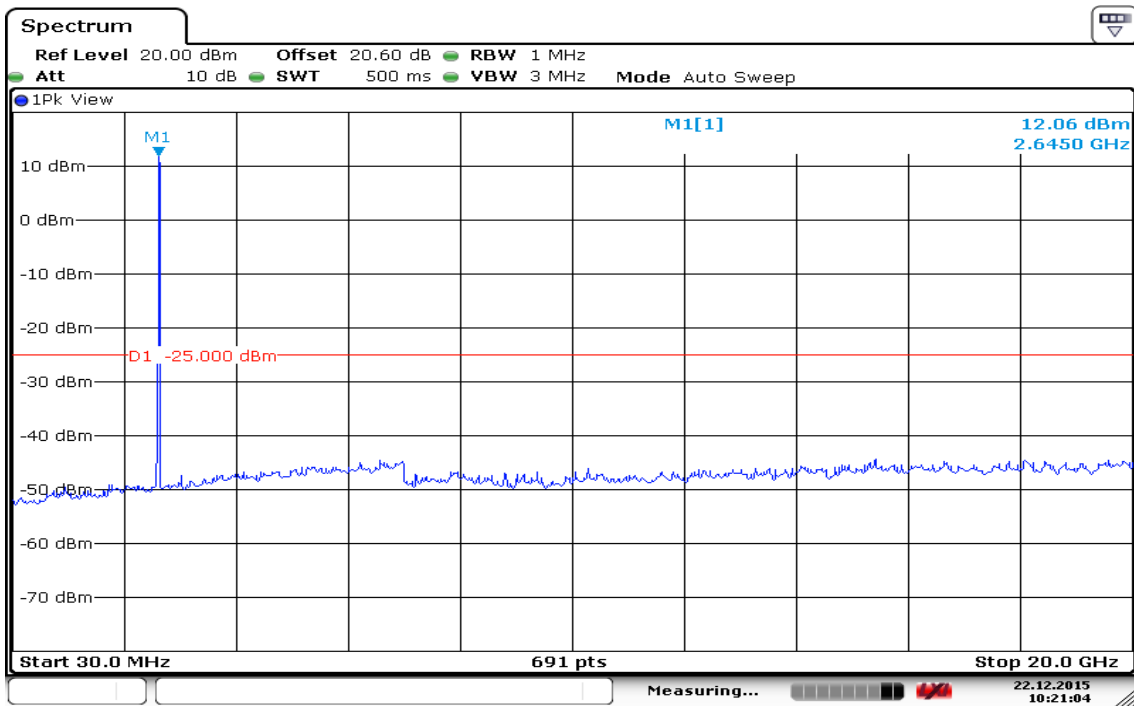
Date: 22.DEC.2015 10:23:40

### CH Mid



Date: 22.DEC.2015 10:22:12

### CH High



Date: 22.DEC.2015 10:21:04

## 7.7 RADIATED EMISSION MEASUREMENT

### LIMITS

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $55 + 10 \log_{10}(P)$  dB. The limit of emission equal to  $-25\text{dBm}$

So the limit of emission is the same absolute specified line.

Limits	EQUIVALENT FIELD STRENGTH AT 3m (dBuV/m) (NOTE)
-25	70.2

**NOTE:** The following formula is used to convert the equipment radiated power to field strength.

$$E = [1000000\sqrt{(30P)}] / 3 \text{ uV/m, where P is Watts}$$

### TEST PROCEDURES

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the receiving antenna, which was mounted on antenna tower and its position at 0.8 m above the ground.
3. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading and recorded the value.
4. Repeat step 1 ~ 3 for horizontal polarization.

**NOTE:** The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

**TEST RESULTS**

**For Antenna P/N: AN2600-6007WSM**

**Below 1GHz**

**CHANNEL BANDWIDTH: 5MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
102.7500	-73.79	1.16	-0.76	-75.71	-25.00	-50.71	V
272.5000	-78.52	1.99	5.15	-75.36	-25.00	-50.36	V
359.8000	-80	2.27	5.7	-76.57	-25.00	-51.57	V
480.0800	-79.81	2.64	5.54	-76.91	-25.00	-51.91	V
600.3600	-77.05	2.9	6.4	-73.55	-25.00	-48.55	V
781.7500	-79.03	3.31	6.13	-76.21	-25.00	-51.21	V
57.1600	-65.66	0.86	-2.8	-69.32	-25.00	-44.32	H
229.8200	-76.44	1.8	5.39	-72.85	-25.00	-47.85	H
362.7100	-78.55	2.28	5.73	-75.10	-25.00	-50.10	H
540.2200	-75.11	2.78	6.26	-71.63	-25.00	-46.63	H
600.3600	-72.67	2.9	6.4	-69.17	-25.00	-44.17	H
721.6100	-76.33	3.17	6.49	-73.01	-25.00	-48.01	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
139.6100	-73.55	1.39	-0.28	-75.22	-25.00	-50.22	V
270.5600	-78.75	1.98	5.11	-75.62	-25.00	-50.62	V
344.2800	-83.97	2.19	5.8	-80.36	-25.00	-55.36	V
562.5300	-81.38	2.85	6.01	-78.22	-25.00	-53.22	V
600.3600	-77.36	2.9	6.4	-73.86	-25.00	-48.86	V
721.6100	-80.39	3.17	6.49	-77.07	-25.00	-52.07	V
57.1600	-65.63	0.86	-2.8	-69.29	-25.00	-44.29	H
264.7400	-77.84	1.94	5.36	-74.42	-25.00	-49.42	H
480.0800	-74.23	2.64	5.54	-71.33	-25.00	-46.33	H
600.3600	-72.13	2.9	6.4	-68.63	-25.00	-43.63	H
648.8600	-76.09	3.03	6.26	-72.86	-25.00	-47.86	H
729.3700	-73.15	3.18	6.4	-69.93	-25.00	-44.93	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the ackground noise floor.

<b>Operation Mode:</b>	Tx / High channel	<b>Test Date:</b>	October 2, 2015
<b>Temperature:</b>	21°C	<b>Tested by:</b>	Jason Lu
<b>Humidity:</b>	56% RH	<b>Polarity:</b>	Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
30.9700	-46.67	0.65	-21.42	-68.74	-25.00	-43.74	V
240.4900	-80.98	1.81	5.34	-77.45	-25.00	-52.45	V
359.8000	-78.42	2.27	5.7	-74.99	-25.00	-49.99	V
450.0100	-81.4	2.59	5.72	-78.27	-25.00	-53.27	V
600.3600	-76.82	2.9	6.4	-73.32	-25.00	-48.32	V
723.5500	-80.22	3.17	6.47	-76.92	-25.00	-26.92	V
57.1600	-65.98	0.86	-2.8	-69.64	-25.00	-44.64	H
359.8000	-78.23	2.27	5.7	-74.80	-25.00	-49.80	H
560.5900	-77.1	2.85	6.01	-73.94	-25.00	-48.94	H
600.3600	-72.37	2.9	6.4	-68.87	-25.00	-43.87	H
749.7400	-75.25	3.2	6.1	-72.35	-25.00	-47.35	H
886.5100	-73.41	3.49	6.7	-70.20	-25.00	-45.20	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



**CHANNEL BANDWIDTH: 5MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
42.6100	-62.01	0.74	-10.34	-73.09	-25.00	-48.09	V
288.0200	-83.9	2.02	5.38	-80.54	-25.00	-55.54	V
480.0800	-78.97	2.64	5.54	-76.07	-25.00	-51.07	V
576.1100	-82.11	2.88	6.05	-78.94	-25.00	-53.94	V
600.3600	-77.21	2.9	6.4	-73.71	-25.00	-48.71	V
678.9300	-80.44	3.09	6.48	-77.05	-25.00	-52.05	V
86.2600	-70.98	1.08	0.62	-71.44	-25.00	-46.44	H
244.3700	-78.08	1.82	5.47	-74.43	-25.00	-49.43	H
379.2000	-80.14	2.31	5.98	-76.47	-25.00	-51.47	H
450.0100	-74.53	2.59	5.72	-71.40	-25.00	-46.40	H
600.3600	-72.89	2.9	6.4	-69.39	-25.00	-44.39	H
727.4300	-75.09	3.18	6.42	-71.85	-25.00	-46.85	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
126.0300	-77.08	1.32	-1.69	-80.09	-25.00	-55.09	V
323.9100	-81.7	2.17	5.7	-78.17	-25.00	-53.17	V
504.3300	-83.82	2.7	5.94	-80.58	-25.00	-55.58	V
600.3600	-80.59	2.9	6.4	-77.09	-25.00	-52.09	V
770.1100	-80.57	3.27	6.38	-77.46	-25.00	-52.46	V
852.5600	-74.54	3.41	6.4	-71.55	-25.00	-46.55	V
128.9400	-68.25	1.34	-1.5	-71.09	-25.00	-46.09	H
226.9100	-75.73	1.79	5.37	-72.15	-25.00	-47.15	H
359.8000	-78.65	2.27	5.7	-75.22	-25.00	-20.22	H
399.5700	-79.24	2.39	5.98	-75.65	-25.00	-20.65	H
600.3600	-70.04	2.9	6.4	-66.54	-25.00	-41.54	H
719.6700	-75.49	3.17	6.48	-72.18	-25.00	-47.18	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the ackground noise floor.

<b>Operation Mode:</b>	Tx / High channel	<b>Test Date:</b>	October 2, 2015
<b>Temperature:</b>	21°C	<b>Tested by:</b>	Jason Lu
<b>Humidity:</b>	56% RH	<b>Polarity:</b>	Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
104.6900	-73.83	1.18	-1.01	-76.02	-25.00	-51.02	V
266.6800	-81.57	1.96	5.27	-78.26	-25.00	-53.26	V
450.0100	-80.82	2.59	5.72	-77.69	-25.00	-52.69	V
540.2200	-81.4	2.78	6.26	-77.92	-25.00	-52.92	V
623.6400	-80.41	2.95	6.14	-77.22	-25.00	-52.22	V
747.8000	-79.18	3.2	6.1	-76.28	-25.00	-51.28	V
128.9400	-67.28	1.34	-1.5	-70.12	-25.00	-45.12	H
265.7100	-79.19	1.95	5.32	-75.82	-25.00	-50.82	H
403.4500	-77.27	2.41	5.96	-73.72	-25.00	-48.72	H
450.0100	-73.05	2.59	5.72	-69.92	-25.00	-44.92	H
600.3600	-71.37	2.9	6.4	-67.87	-25.00	-42.87	H
779.8100	-75.12	3.3	6.11	-72.31	-25.00	-47.31	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**CHANNEL BANDWIDTH: 10MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
30.9700	-46.39	0.65	-21.42	-68.46	-25.00	-43.46	V
268.6200	-81.12	1.97	5.17	-77.92	-25.00	-52.92	V
386.9600	-82.41	2.32	6	-78.73	-25.00	-53.73	V
480.0800	-79.57	2.64	5.54	-76.67	-25.00	-51.67	V
600.3600	-77.47	2.9	6.4	-73.97	-25.00	-48.97	V
758.4700	-78.92	3.22	6.27	-75.87	-25.00	-50.87	V
86.2600	-70.4	1.08	0.62	-70.86	-25.00	-45.86	H
359.8000	-77.65	2.27	5.7	-74.22	-25.00	-49.22	H
480.0800	-73.86	2.64	5.54	-70.96	-25.00	-45.96	H
540.2200	-74.09	2.78	6.26	-70.61	-25.00	-45.61	H
600.3600	-70.89	2.9	6.4	-67.39	-25.00	-42.39	H
631.4000	-75.13	2.98	6.2	-71.91	-25.00	-46.91	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
55.2200	-71.13	0.84	-3.37	-75.34	-25.00	-50.34	V
272.5000	-78.27	1.99	5.15	-75.11	-25.00	-50.11	V
359.8000	-78.22	2.27	5.7	-74.79	-25.00	-49.79	V
540.2200	-80.46	2.78	6.26	-76.98	-25.00	-51.98	V
600.3600	-77.37	2.9	6.4	-73.87	-25.00	-48.87	V
779.8100	-78.23	3.3	6.11	-75.42	-25.00	-50.42	V
123.1200	-67.97	1.29	-1.87	-71.13	-25.00	-46.13	H
288.0200	-78.42	2.02	5.38	-75.06	-25.00	-50.06	H
450.0100	-72.14	2.59	5.72	-69.01	-25.00	-44.01	H
600.3600	-71.83	2.9	6.4	-68.33	-25.00	-43.33	H
790.4800	-74.83	3.33	6.24	-71.92	-25.00	-46.92	H
941.8000	-73.91	3.61	6.38	-71.14	-25.00	-46.14	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
139.6100	-74.13	1.39	-0.28	-75.80	-25.00	-50.80	V
359.8000	-77.94	2.27	5.7	-74.51	-25.00	-49.51	V
480.0800	-78.56	2.64	5.54	-75.66	-25.00	-50.66	V
600.3600	-77.13	2.9	6.4	-73.63	-25.00	-48.63	V
699.3000	-80.33	3.11	6.4	-77.04	-25.00	-52.04	V
816.6700	-77.56	3.37	6.2	-74.73	-25.00	-49.73	V
86.2600	-70.76	1.08	0.62	-71.22	-25.00	-46.22	H
259.8900	-78.71	1.91	5.59	-75.03	-25.00	-50.03	H
450.0100	-73.15	2.59	5.72	-70.02	-25.00	-45.02	H
540.2200	-74.14	2.78	6.26	-70.66	-25.00	-45.66	H
600.3600	-70.54	2.9	6.4	-67.04	-25.00	-42.04	H
730.3400	-75.89	3.18	6.39	-72.68	-25.00	-47.68	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**CHANNEL BANDWIDTH: 10MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C                      **Tested by:** Jason Lu  
**Humidity:** 56% RH                      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
104.6900	-74.9	1.18	-1.01	-77.09	-25.00	-52.09	V
271.5300	-78.24	1.98	5.13	-75.09	-25.00	-50.09	V
359.8000	-78.8	2.27	5.7	-75.37	-25.00	-50.37	V
480.0800	-77.29	2.64	5.54	-74.39	-25.00	-49.39	V
599.3900	-77.49	2.9	6.39	-74.00	-25.00	-49.00	V
838.0100	-78.79	3.41	6.38	-75.82	-25.00	-50.82	V
86.2600	-70.54	1.08	0.62	-71.00	-25.00	-46.00	H
249.2200	-78.75	1.84	5.65	-74.94	-25.00	-49.94	H
380.1700	-79.55	2.31	5.98	-75.88	-25.00	-50.88	H
600.3600	-73.45	2.9	6.4	-69.95	-25.00	-44.95	H
757.5000	-76.21	3.22	6.25	-73.18	-25.00	-48.18	H
913.6700	-74.25	3.57	6.6	-71.22	-25.00	-46.22	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
102.7500	-74.4	1.16	-0.76	-76.32	-25.00	-51.32	V
299.6600	-83.67	2.09	5.59	-80.17	-25.00	-55.17	V
400.5400	-82.55	2.4	5.98	-78.97	-25.00	-53.97	V
480.0800	-77.97	2.64	5.54	-75.07	-25.00	-50.07	V
702.2100	-79.77	3.12	6.37	-76.52	-25.00	-51.52	V
816.6700	-78.73	3.37	6.2	-75.90	-25.00	-50.90	V
57.1600	-65.94	0.86	-2.8	-69.60	-25.00	-44.60	H
256.9800	-78.21	1.89	5.62	-74.48	-25.00	-49.48	H
450.0100	-73.05	2.59	5.72	-69.92	-25.00	-44.92	H
600.3600	-71.13	2.9	6.4	-67.63	-25.00	-42.63	H
620.7300	-76.3	2.94	6.12	-73.12	-25.00	-48.12	H
851.5900	-74.04	3.41	6.4	-71.05	-25.00	-46.05	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



<b>Operation Mode:</b>	Tx / High channel	<b>Test Date:</b>	October 2, 2015
<b>Temperature:</b>	21°C	<b>Tested by:</b>	Jason Lu
<b>Humidity:</b>	56% RH	<b>Polarity:</b>	Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
54.2500	-70.2	0.83	-3.66	-74.69	-25.00	-49.69	V
261.8300	-81.71	1.92	5.51	-78.12	-25.00	-53.12	V
288.0200	-82.45	2.02	5.38	-79.09	-25.00	-54.09	V
480.0800	-77.85	2.64	5.54	-74.95	-25.00	-49.95	V
600.3600	-77.86	2.9	6.4	-74.36	-25.00	-49.36	V
668.2600	-80.28	3.07	6.3	-77.05	-25.00	-52.05	V
57.1600	-66.2	0.86	-2.8	-69.86	-25.00	-44.86	H
300.6300	-79.71	2.1	5.61	-76.20	-25.00	-51.20	H
480.0800	-74.48	2.64	5.54	-71.58	-25.00	-46.58	H
600.3600	-69.93	2.9	6.4	-66.43	-25.00	-41.43	H
800.1800	-75.01	3.33	6.52	-71.82	-25.00	-46.82	H
924.3400	-73.27	3.59	6.51	-70.35	-25.00	-45.35	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**CHANNEL BANDWIDTH: 20MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
143.4900	-76.36	1.4	0.08	-77.68	-25.00	-52.68	V
288.0200	-82.35	2.02	5.38	-78.99	-25.00	-53.99	V
359.8000	-80.57	2.27	5.7	-77.14	-25.00	-52.14	V
466.5000	-83.77	2.61	5.82	-80.56	-25.00	-55.56	V
599.3900	-82.82	2.9	6.39	-79.33	-25.00	-54.33	V
772.0500	-79.22	3.28	6.32	-76.18	-25.00	-51.18	V
127.9700	-72.32	1.33	-1.56	-75.21	-25.00	-50.21	H
259.8900	-79.74	1.91	5.59	-76.06	-25.00	-51.06	H
480.0800	-74.86	2.64	5.54	-71.96	-25.00	-46.96	H
540.2200	-77.95	2.78	6.26	-74.47	-25.00	-49.47	H
600.3600	-71.51	2.9	6.4	-68.01	-25.00	-43.01	H
844.8000	-75.31	3.41	6.4	-72.32	-25.00	-47.32	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
105.6600	-75.66	1.18	-1.14	-77.98	-25.00	-52.98	V
271.5300	-81.35	1.98	5.13	-78.20	-25.00	-53.20	V
359.8000	-82.2	2.27	5.7	-78.77	-25.00	-53.77	V
472.3200	-84.25	2.62	5.72	-81.15	-25.00	-56.15	V
688.6300	-81.39	3.13	6.5	-78.02	-25.00	-53.02	V
839.9500	-80.6	3.41	6.4	-77.61	-25.00	-52.61	V
127.9700	-71.26	1.33	-1.56	-74.15	-25.00	-49.15	H
413.1500	-80.48	2.45	5.88	-77.05	-25.00	-52.05	H
547.9800	-78.96	2.8	6.2	-75.56	-25.00	-50.56	H
621.7000	-78.71	2.95	6.13	-75.53	-25.00	-50.53	H
754.5900	-75.17	3.21	6.19	-72.19	-25.00	-47.19	H
850.6200	-77.45	3.4	6.4	-74.45	-25.00	-49.45	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
101.7800	-76.4	1.16	-0.64	-78.20	-25.00	-53.20	V
258.9200	-83.94	1.9	5.6	-80.24	-25.00	-55.24	V
273.4700	-80.99	1.99	5.17	-77.81	-25.00	-52.81	V
359.8000	-80.71	2.27	5.7	-77.28	-25.00	-52.28	V
480.0800	-82.24	2.64	5.54	-79.34	-25.00	-54.34	V
670.2000	-81.64	3.07	6.3	-78.41	-25.00	-53.41	V
126.0300	-70.44	1.32	-1.69	-73.45	-25.00	-48.45	H
263.7700	-80.33	1.93	5.41	-76.85	-25.00	-51.85	H
457.7700	-78.54	2.6	5.85	-75.29	-25.00	-50.29	H
540.2200	-76.16	2.78	6.26	-72.68	-25.00	-47.68	H
728.4000	-77.33	3.18	6.41	-74.10	-25.00	-49.10	H
805.0300	-76.56	3.33	6.41	-73.48	-25.00	-48.48	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**CHANNEL BANDWIDTH: 20MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
82.3800	-67.47	1.06	0.16	-68.37	-25.00	-43.37	V
151.2500	-65.69	1.43	0.8	-66.32	-25.00	-41.32	V
268.6200	-79.17	1.97	5.17	-75.97	-25.00	-50.97	V
450.0100	-79.67	2.59	5.72	-76.54	-25.00	-51.54	V
540.2200	-75.02	2.78	6.26	-71.54	-25.00	-46.54	V
600.3600	-71.58	2.9	6.4	-68.08	-25.00	-43.08	V
122.1500	-70.32	1.29	-1.93	-73.54	-25.00	-48.54	H
343.3100	-81.67	2.19	5.8	-78.06	-25.00	-53.06	H
403.4500	-79.88	2.41	5.96	-76.33	-25.00	-51.33	H
450.0100	-75.42	2.59	5.72	-72.29	-25.00	-47.29	H
599.3900	-74.06	2.9	6.39	-70.57	-25.00	-45.57	H
659.5300	-77.77	3.06	6.3	-74.53	-25.00	-49.53	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
107.6000	-74.95	1.19	-1.39	-77.53	-25.00	-52.53	V
186.1700	-82.65	1.62	3.85	-80.42	-25.00	-55.42	V
359.8000	-80.57	2.27	5.7	-77.14	-25.00	-52.14	V
480.0800	-81.75	2.64	5.54	-78.85	-25.00	-53.85	V
747.8000	-80.98	3.2	6.1	-78.08	-25.00	-53.08	V
851.5900	-80.46	3.41	6.4	-77.47	-25.00	-52.47	V
57.1600	-67.56	0.86	-2.8	-71.22	-25.00	-46.22	H
199.7500	-74.63	1.63	2.94	-73.32	-25.00	-48.32	H
450.0100	-75.46	2.59	5.72	-72.33	-25.00	-47.33	H
480.0800	-75.11	2.64	5.54	-72.21	-25.00	-47.21	H
600.3600	-74.4	2.9	6.4	-70.90	-25.00	-45.90	H
718.7000	-76.92	3.16	6.46	-73.62	-25.00	-48.62	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
105.6600	-75.55	1.18	-1.14	-77.87	-25.00	-52.87	V
199.7500	-79.16	1.63	2.94	-77.85	-25.00	-52.85	V
359.8000	-78.57	2.27	5.7	-75.14	-25.00	-50.14	V
450.0100	-83.32	2.59	5.72	-80.19	-25.00	-55.19	V
600.3600	-80.47	2.9	6.4	-76.97	-25.00	-51.97	V
728.4000	-81.6	3.18	6.41	-78.37	-25.00	-53.37	V
126.0300	-69.39	1.32	-1.69	-72.40	-25.00	-47.40	H
206.5400	-78.17	1.67	4.7	-75.14	-25.00	-25.14	H
356.8900	-80.49	2.26	5.73	-77.02	-25.00	-52.02	H
450.0100	-71.33	2.59	5.72	-68.20	-25.00	-43.20	H
600.3600	-72.56	2.9	6.4	-69.06	-25.00	-44.06	H
770.1100	-76.79	3.27	6.38	-73.68	-25.00	-48.68	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Above 1GHz**

**CHANNEL BANDWIDTH: 5MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1959.000	-49.64	5.61	5.47	-49.78	-25.00	-24.78	V
5116.000	-45.61	9.47	10.65	-44.43	-25.00	-19.43	V
N/A							
3205.000	-52.1	7.27	8.02	-51.35	-25.00	-26.35	H
5116.000	-48.58	9.47	10.65	-47.40	-25.00	-22.40	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*



**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
5186.000	-47.02	9.54	10.67	-45.89	-25.00	-20.89	V
6810.000	-47.51	11.32	11.67	-47.16	-25.00	-22.16	V
N/A							
4360.000	-51.91	8.62	9.69	-50.84	-25.00	-25.84	H
7412.000	-44.47	12.11	12.56	-44.02	-25.00	-19.02	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
4045.000	-52.61	8.4	9.44	-51.57	-25.00	-26.57	V
5305.000	-48.09	9.66	10.72	-47.03	-25.00	-22.03	V
N/A							
3730.000	-52.08	8.22	9.13	-51.17	-25.00	-26.17	H
6495.000	-47.91	11.05	11.3	-47.66	-25.00	-22.66	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

**CHANNEL BANDWIDTH: 5MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1952.000	-52.86	5.59	5.49	-52.96	-25.00	-27.96	V
5116.000	-46.3	9.47	10.65	-45.12	-25.00	-20.12	V
N/A							
1952.000	-51.73	5.59	5.49	-51.83	-25.00	-26.83	H
6810.000	-45.65	11.32	11.67	-45.30	-25.00	-20.30	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3898.000	-49.97	8.39	9.3	-49.06	-25.00	-24.06	V
5186.000	-44.06	9.54	10.67	-42.93	-25.00	-17.93	V
N/A							
1952.000	-48.85	5.59	5.49	-48.95	-25.00	-23.95	H
5795.000	-49.11	10.41	10.86	-48.66	-25.00	-23.66	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3954.000	-52.28	8.37	9.35	-51.30	-25.00	-26.30	V
5305.000	-48.21	9.66	10.72	-47.15	-25.00	-22.15	V
N/A							
2288.000	-55.15	6.06	5.8	-55.41	-25.00	-30.41	H
6502.000	-47.15	11.04	11.3	-46.89	-25.00	-21.89	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**CHANNEL BANDWIDTH: 10MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C                      **Tested by:** Jason Lu  
**Humidity:** 56% RH                      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1798.000	-55.56	5.29	5.76	-55.09	-25.00	-30.09	V
5116.000	-48.06	9.47	10.65	-46.88	-25.00	-21.88	V
N/A							
3891.000	-52.21	8.38	9.29	-51.30	-25.00	-26.30	H
6817.000	-46.81	11.34	11.68	-46.47	-25.00	-21.47	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1952.000	-54.11	5.59	5.49	-54.21	-25.00	-29.21	V
5186.000	-47.58	9.54	10.67	-46.45	-25.00	-21.45	V
N/A							
3891.000	-52.21	8.38	9.29	-51.30	-25.00	-26.30	H
6173.000	-48.53	11.06	11.04	-48.55	-25.00	-23.55	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1798.000	-52.32	5.29	5.76	-51.85	-25.00	-26.85	V
5298.000	-47.15	9.65	10.72	-46.08	-25.00	-21.08	V
N/A							
4500.000	-47.32	8.91	9.8	-46.43	-25.00	-21.43	H
6971.000	-45.62	11.54	11.87	-45.29	-25.00	-20.29	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



**CHANNEL BANDWIDTH: 10MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1728.000	-54.39	5.16	5.89	-53.66	-25.00	-28.66	V
5109.000	-47.92	9.46	10.64	-46.74	-25.00	-21.74	V
N/A							
1770.000	-52.44	5.24	5.81	-51.87	-25.00	-26.87	H
6453.000	-45.96	11.12	11.26	-45.82	-25.00	-20.82	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1952.000	-56.43	5.59	5.49	-56.53	-25.00	-31.53	V
5186.000	-48.93	9.54	10.67	-47.80	-25.00	-22.80	V
N/A							
4094.000	-51.79	8.45	9.48	-50.76	-25.00	-25.76	H
6103.000	-50.69	10.64	10.98	-50.35	-25.00	-25.35	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3898.000	-48.15	8.39	9.3	-47.24	-25.00	-22.24	V
5305.000	-47.36	9.66	10.72	-46.30	-25.00	-21.30	V
N/A							
3898.000	-48.29	8.39	9.3	-47.38	-25.00	-22.38	H
6684.000	-46.26	11.29	11.52	-46.03	-25.00	-21.03	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

**CHANNEL BANDWIDTH: 20MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1350.000	-54.7	4.58	5.22	-54.06	-25.00	-29.06	V
4766.000	-52.38	9.26	10.23	-51.41	-25.00	-26.41	V
N/A							
3905.000	-52.1	8.39	9.31	-51.18	-25.00	-26.18	H
7391.000	-43.49	12.09	12.53	-43.05	-25.00	-18.05	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3891.000	-52.24	8.38	9.29	-51.33	-25.00	-26.33	V
6320.000	-49.9	10.84	11.16	-49.58	-25.00	-24.58	V
N/A							
4703.000	-51.19	9.14	10.12	-50.21	-25.00	-25.21	H
7377.000	-43.53	12.08	12.5	-43.11	-25.00	-18.11	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
4143.000	-52.32	8.47	9.51	-51.28	-25.00	-26.28	V
6740.000	-48.64	11.3	11.59	-48.35	-25.00	-23.35	V
N/A							
3198.000	-54.44	7.26	7.99	-53.71	-25.00	-28.71	H
5165.000	-51.22	9.52	10.67	-50.07	-25.00	-25.07	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**CHANNEL BANDWIDTH: 20MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
4199.000	-53.13	8.49	9.56	-52.06	-25.00	-27.06	V
5935.000	-51.63	10.55	10.89	-51.29	-25.00	-26.29	V
N/A							
4458.000	-50.95	8.8	9.77	-49.98	-25.00	-24.98	H
7006.000	-46.32	11.56	11.91	-45.97	-25.00	-25.97	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1728.000	-54.53	5.16	5.89	-53.80	-25.00	-28.80	V
5151.000	-52.2	9.51	10.66	-51.05	-25.00	-26.05	V
N/A							
4248.000	-51.63	8.54	9.6	-50.57	-25.00	-25.57	H
6376.000	-48.68	11.11	11.2	-48.59	-25.00	-23.59	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1350.000	-54.1	4.58	5.22	-53.46	-25.00	-28.46	V
5186.000	-52.01	9.54	10.67	-50.88	-25.00	-25.88	V
N/A							
3842.000	-51.27	8.31	9.24	-50.34	-25.00	-25.34	H
5900.000	-50.61	10.4	10.88	-50.13	-25.00	-25.13	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**For Antenna P/N: DA-B41-16-01-BL**

**Below 1GHz**

**CHANNEL BANDWIDTH: 5MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
139.6100	-72.4	1.39	-0.28	-74.07	-25.00	-49.07	V
345.2500	-83.33	2.2	5.8	-79.73	-25.00	-54.73	V
480.0800	-78.03	2.64	5.54	-75.13	-25.00	-50.13	V
600.3600	-76.14	2.9	6.4	-72.64	-25.00	-47.64	V
706.0900	-79.51	3.13	6.33	-76.31	-25.00	-51.31	V
883.6000	-77.81	3.48	6.7	-74.59	-25.00	-49.59	V
128.9400	-67.78	1.34	-1.5	-70.62	-25.00	-45.62	H
359.8000	-74.15	2.27	5.7	-70.72	-25.00	-45.72	H
480.0800	-74.39	2.64	5.54	-71.49	-25.00	-46.49	H
599.3900	-73.19	2.9	6.39	-69.70	-25.00	-44.70	H
758.4700	-75.36	3.22	6.27	-72.31	-25.00	-47.31	H
911.7300	-73.26	3.57	6.6	-70.23	-25.00	-45.23	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
103.7200	-73.44	1.17	-0.89	-75.50	-25.00	-50.50	V
270.5600	-79.21	1.98	5.11	-76.08	-25.00	-51.08	V
359.8000	-78.76	2.27	5.7	-75.33	-25.00	-50.33	V
480.0800	-78.26	2.64	5.54	-75.36	-25.00	-50.36	V
772.0500	-79.09	3.28	6.32	-76.05	-25.00	-51.05	V
829.2800	-78.36	3.39	6.29	-75.46	-25.00	-50.46	V
57.1600	-65.93	0.86	-2.8	-69.59	-25.00	-44.59	H
278.3200	-79.56	2	5.27	-76.29	-25.00	-51.29	H
450.0100	-72.88	2.59	5.72	-69.75	-25.00	-44.75	H
600.3600	-70.72	2.9	6.4	-67.22	-25.00	-42.22	H
737.1300	-75.43	3.2	6.2	-72.43	-25.00	-47.43	H
862.2600	-74.66	3.43	6.43	-71.66	-25.00	-46.66	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the ackground noise floor.

<b>Operation Mode:</b>	Tx / High channel	<b>Test Date:</b>	October 2, 2015
<b>Temperature:</b>	21°C	<b>Tested by:</b>	Jason Lu
<b>Humidity:</b>	56% RH	<b>Polarity:</b>	Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
104.6900	-73.38	1.18	-1.01	-75.57	-25.00	-50.57	V
272.5000	-79.32	1.99	5.15	-76.16	-25.00	-51.16	V
450.0100	-81.28	2.59	5.72	-78.15	-25.00	-53.15	V
600.3600	-78.1	2.9	6.4	-74.60	-25.00	-49.60	V
701.2400	-79.53	3.12	6.38	-76.27	-25.00	-51.27	V
846.7400	-79.06	3.4	6.4	-76.06	-25.00	-51.06	V
159.9800	-71.58	1.48	1.43	-71.63	-25.00	-46.63	H
335.5500	-80.3	2.17	5.75	-76.72	-25.00	-51.72	H
480.0800	-74.59	2.64	5.54	-71.69	-25.00	-46.69	H
600.3600	-72.48	2.9	6.4	-68.98	-25.00	-43.98	H
710.9400	-76.51	3.14	6.33	-73.32	-25.00	-48.32	H
891.3600	-73.44	3.5	6.7	-70.24	-25.00	-45.24	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**CHANNEL BANDWIDTH: 5MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C                      **Tested by:** Jason Lu  
**Humidity:** 56% RH                      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
128.9400	-74.53	1.34	-1.5	-77.37	-25.00	-52.37	V
274.4400	-80.75	1.99	5.19	-77.55	-25.00	-52.55	V
400.5400	-83.17	2.4	5.98	-79.59	-25.00	-54.59	V
540.2200	-81.36	2.78	6.26	-77.88	-25.00	-52.88	V
600.3600	-77.86	2.9	6.4	-74.36	-25.00	-49.36	V
750.7100	-79.59	3.2	6.11	-76.68	-25.00	-51.68	V
128.9400	-68.8	1.34	-1.5	-71.64	-25.00	-46.64	H
239.5200	-78.76	1.81	5.35	-75.22	-25.00	-50.22	H
450.0100	-75.3	2.59	5.72	-72.17	-25.00	-47.17	H
540.2200	-75.89	2.78	6.26	-72.41	-25.00	-47.41	H
600.3600	-73.21	2.9	6.4	-69.71	-25.00	-44.71	H
796.3000	-75.33	3.33	6.41	-72.25	-25.00	-47.25	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
42.6100	-62.75	0.74	-10.34	-73.83	-25.00	-48.83	V
274.4400	-80.89	1.99	5.19	-77.69	-25.00	-52.69	V
480.0800	-80.52	2.64	5.54	-77.62	-25.00	-52.62	V
600.3600	-79.33	2.9	6.4	-75.83	-25.00	-50.83	V
706.0900	-80.09	3.13	6.33	-76.89	-25.00	-51.89	V
806.9700	-78.45	3.34	6.34	-75.45	-25.00	-50.45	V
57.1600	-65.98	0.86	-2.8	-69.64	-25.00	-44.64	H
191.0200	-76.25	1.62	3.89	-73.98	-25.00	-48.98	H
367.5600	-79.93	2.29	5.78	-76.44	-25.00	-51.44	H
450.0100	-73.54	2.59	5.72	-70.41	-25.00	-45.41	H
600.3600	-71.95	2.9	6.4	-68.45	-25.00	-43.45	H
818.6100	-75.41	3.38	6.2	-72.59	-25.00	-47.59	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the ackground noise floor.

**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
102.7500	-74.38	1.16	-0.76	-76.30	-25.00	-51.30	V
273.4700	-79	1.99	5.17	-75.82	-25.00	-50.82	V
294.8100	-84.06	2.06	5.5	-80.62	-25.00	-55.62	V
359.8000	-79.43	2.27	5.7	-76.00	-25.00	-51.00	V
526.6400	-81.05	2.74	6.03	-77.76	-25.00	-52.76	V
770.1100	-79.03	3.27	6.38	-75.92	-25.00	-50.92	V
57.1600	-66	0.86	-2.8	-69.66	-25.00	-44.66	H
243.4000	-76.14	1.82	5.43	-72.53	-25.00	-47.53	H
480.0800	-75.58	2.64	5.54	-72.68	-25.00	-47.68	H
600.3600	-72.44	2.9	6.4	-68.94	-25.00	-43.94	H
638.1900	-77.04	3	6.14	-73.90	-25.00	-48.90	H
978.6600	-73.85	3.69	6.29	-71.25	-25.00	-46.25	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**CHANNEL BANDWIDTH: 10MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
31.9400	-48.48	0.66	-20.44	-69.58	-25.00	-44.58	V
179.3800	-81.39	1.61	3.52	-79.48	-25.00	-54.48	V
350.1000	-83.81	2.23	5.8	-80.24	-25.00	-55.24	V
480.0800	-79.39	2.64	5.54	-76.49	-25.00	-46.49	V
540.2200	-80.9	2.78	6.26	-77.42	-25.00	-47.42	V
600.3600	-77.53	2.9	6.4	-74.03	-25.00	-44.03	V
66.8600	-70.43	0.93	-1.89	-73.25	-25.00	-48.25	H
239.5200	-77.69	1.81	5.35	-74.15	-25.00	-49.15	H
351.0700	-78.5	2.23	5.79	-74.94	-25.00	-49.94	H
480.0800	-75.34	2.64	5.54	-72.44	-25.00	-47.44	H
600.3600	-71.44	2.9	6.4	-67.94	-25.00	-42.94	H
801.1500	-76.09	3.33	6.55	-72.87	-25.00	-47.87	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
101.7800	-74.4	1.16	-0.64	-76.20	-25.00	-51.20	V
359.8000	-77.48	2.27	5.7	-74.05	-25.00	-49.05	V
450.0100	-80.62	2.59	5.72	-77.49	-25.00	-52.49	V
600.3600	-77.59	2.9	6.4	-74.09	-25.00	-49.09	V
723.5500	-79.77	3.17	6.47	-76.47	-25.00	-51.47	V
859.3500	-78.27	3.43	6.4	-75.30	-25.00	-50.30	V
57.1600	-66.82	0.86	-2.8	-70.48	-25.00	-45.48	H
230.7900	-76.76	1.8	5.4	-73.16	-25.00	-48.16	H
450.0100	-71.65	2.59	5.72	-68.52	-25.00	-43.52	H
480.0800	-74.53	2.64	5.54	-71.63	-25.00	-46.63	H
600.3600	-72.21	2.9	6.4	-68.71	-25.00	-43.00	H
773.0200	-74.98	3.28	6.29	-71.97	-25.00	-46.97	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

<b>Operation Mode:</b>	Tx / High channel	<b>Test Date:</b>	October 2, 2015
<b>Temperature:</b>	21°C	<b>Tested by:</b>	Jason Lu
<b>Humidity:</b>	56% RH	<b>Polarity:</b>	Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
152.2200	-75.05	1.44	0.87	-75.62	-25.00	-50.62	V
271.5300	-78.38	1.98	5.13	-75.23	-25.00	-50.23	V
359.8000	-76.4	2.27	5.7	-72.97	-25.00	-47.97	V
480.0800	-78.11	2.64	5.54	-75.21	-25.00	-50.21	V
600.3600	-76.56	2.9	6.4	-73.06	-25.00	-48.06	V
779.8100	-77.45	3.3	6.11	-74.64	-25.00	-49.64	V
86.2600	-71.29	1.08	0.62	-71.75	-25.00	-46.75	H
256.9800	-78.98	1.89	5.62	-75.25	-25.00	-50.25	H
450.0100	-73.23	2.59	5.72	-70.10	-25.00	-45.10	H
540.2200	-74.04	2.78	6.26	-70.56	-25.00	-45.56	H
600.3600	-71.05	2.9	6.4	-67.55	-25.00	-47.55	H
749.7400	-74.17	3.2	6.1	-71.27	-25.00	-46.27	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**CHANNEL BANDWIDTH: 10MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C                      **Tested by:** Jason Lu  
**Humidity:** 56% RH                      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
104.6900	-76.02	1.18	-1.01	-78.21	-25.00	-53.21	V
239.5200	-81.97	1.81	5.35	-78.43	-25.00	-53.43	V
307.4200	-84.97	2.12	5.75	-81.34	-25.00	-56.34	V
359.8000	-78.01	2.27	5.7	-74.58	-25.00	-49.58	V
450.0100	-80.3	2.59	5.72	-77.17	-25.00	-52.17	V
908.8200	-78.79	3.56	6.6	-75.75	-25.00	-50.75	V
128.9400	-67.41	1.34	-1.5	-70.25	-25.00	-45.25	H
354.9500	-79.27	2.25	5.75	-75.77	-25.00	-50.77	H
522.7600	-77.43	2.71	6.07	-74.07	-25.00	-49.07	H
600.3600	-72.8	2.9	6.4	-69.30	-25.00	-44.30	H
640.1300	-77.08	3.01	6.13	-73.96	-25.00	-48.96	H
836.0700	-75.24	3.4	6.36	-72.28	-25.00	-47.28	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
107.6000	-73.86	1.19	-1.39	-76.44	-25.00	-51.44	V
268.6200	-78.74	1.97	5.17	-75.54	-25.00	-50.54	V
480.0800	-78.19	2.64	5.54	-75.29	-25.00	-50.29	V
600.3600	-78.31	2.9	6.4	-74.81	-25.00	-49.81	V
716.7600	-80.23	3.16	6.43	-76.96	-25.00	-51.96	V
876.8100	-78.34	3.46	6.63	-75.17	-25.00	-50.17	V
57.1600	-65.79	0.86	-2.8	-69.45	-25.00	-44.45	H
196.8400	-74.36	1.63	3.26	-72.73	-25.00	-47.73	H
359.8000	-79.54	2.27	5.7	-76.11	-25.00	-51.11	H
599.3900	-75.28	2.9	6.39	-71.79	-25.00	-46.79	H
748.7700	-75.85	3.2	6.1	-72.95	-25.00	-47.95	H
915.6100	-74.53	3.58	6.6	-71.51	-25.00	-46.51	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

<b>Operation Mode:</b>	Tx / High channel	<b>Test Date:</b>	October 2, 2015
<b>Temperature:</b>	21°C	<b>Tested by:</b>	Jason Lu
<b>Humidity:</b>	56% RH	<b>Polarity:</b>	Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
30.9700	-46.9	0.65	-21.42	-68.97	-25.00	-43.97	V
249.2200	-80.57	1.84	5.65	-76.76	-25.00	-51.76	V
398.6000	-80.46	2.38	5.98	-76.86	-25.00	-51.86	V
600.3600	-77.45	2.9	6.4	-73.95	-25.00	-48.95	V
726.4600	-80.12	3.18	6.43	-76.87	-25.00	-51.87	V
764.2900	-79.76	3.24	6.34	-76.66	-25.00	-51.66	V
57.1600	-64.7	0.86	-2.8	-68.36	-25.00	-43.36	H
194.9000	-74.24	1.63	3.47	-72.40	-25.00	-47.40	H
331.6700	-79.45	2.16	5.72	-75.89	-25.00	-45.89	H
450.0100	-74.41	2.59	5.72	-71.28	-25.00	-46.28	H
600.3600	-72.28	2.9	6.4	-68.78	-25.00	-43.78	H
736.1600	-75.99	3.2	6.23	-72.96	-25.00	-47.96	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**CHANNEL BANDWIDTH: 20MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
104.6900	-74.48	1.18	-1.01	-76.67	-25.00	-51.67	V
176.4700	-80.35	1.59	3.21	-78.73	-25.00	-53.73	V
272.5000	-80.28	1.99	5.15	-77.12	-25.00	-52.12	V
359.8000	-80.4	2.27	5.7	-76.97	-25.00	-51.97	V
480.0800	-80.1	2.64	5.54	-77.20	-25.00	-52.20	V
559.6200	-82.72	2.84	6.03	-79.53	-25.00	-54.53	V
113.4200	-60.93	1.23	-1.84	-64.00	-25.00	-39.00	H
199.7500	-66.69	1.63	2.94	-65.38	-25.00	-40.38	H
288.0200	-71.36	2.02	5.38	-68.00	-25.00	-43.00	H
359.8000	-74.95	2.27	5.7	-71.52	-25.00	-46.52	H
480.0800	-72.06	2.64	5.54	-69.16	-25.00	-44.16	H
600.3600	-69.65	2.9	6.4	-66.15	-25.00	-41.15	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
100.8100	-77.02	1.15	-0.51	-78.68	-25.00	-53.68	V
249.2200	-84.24	1.84	5.65	-80.43	-25.00	-55.43	V
288.0200	-84.98	2.02	5.38	-81.62	-25.00	-56.62	V
390.8400	-84.16	2.32	6	-80.48	-25.00	-55.48	V
655.6500	-81.74	3.04	6.3	-78.48	-25.00	-53.48	V
798.2400	-80.14	3.33	6.47	-77.00	-25.00	-52.00	V
159.9800	-72.52	1.48	1.43	-72.57	-25.00	-47.57	H
257.9500	-79.41	1.89	5.61	-75.69	-25.00	-50.69	H
450.0100	-77.38	2.59	5.72	-74.25	-25.00	-49.25	H
496.5700	-77.92	2.69	5.86	-74.75	-25.00	-49.75	H
600.3600	-72.79	2.9	6.4	-69.29	-25.00	-44.29	H
815.7000	-76	3.37	6.2	-73.17	-25.00	-48.17	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

<b>Operation Mode:</b>	Tx / High channel	<b>Test Date:</b>	October 2, 2015
<b>Temperature:</b>	21°C	<b>Tested by:</b>	Jason Lu
<b>Humidity:</b>	56% RH	<b>Polarity:</b>	Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
102.7500	-75.38	1.16	-0.76	-77.30	-25.00	-52.30	V
249.2200	-83.8	1.84	5.65	-79.99	-25.00	-54.99	V
271.5300	-80.72	1.98	5.13	-77.57	-25.00	-52.57	V
359.8000	-79.91	2.27	5.7	-76.48	-25.00	-51.48	V
540.2200	-80.42	2.78	6.26	-76.94	-25.00	-51.94	V
835.1000	-79.93	3.4	6.35	-76.98	-25.00	-51.98	V
125.0600	-72.44	1.31	-1.75	-75.50	-25.00	-50.50	H
268.6200	-79.11	1.97	5.17	-75.91	-25.00	-50.91	H
450.0100	-74.63	2.59	5.72	-71.50	-25.00	-46.50	H
600.3600	-77.01	2.9	6.4	-73.51	-25.00	-48.51	H
795.3300	-75.55	3.33	6.38	-72.50	-25.00	-47.50	H
914.6400	-76.07	3.57	6.6	-73.04	-25.00	-48.04	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



**CHANNEL BANDWIDTH: 20MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015

**Temperature:** 21°C      **Tested by:** Jason Lu

**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
138.6400	-76.11	1.39	-0.38	-77.88	-25.00	-52.88	V
240.4900	-83.07	1.81	5.34	-79.54	-25.00	-54.54	V
270.5600	-80.16	1.98	5.11	-77.03	-25.00	-52.03	V
359.8000	-79.63	2.27	5.7	-76.20	-25.00	-51.20	V
480.0800	-78.86	2.64	5.54	-75.96	-25.00	-50.96	V
658.5600	-79.58	3.05	6.3	-76.33	-25.00	-51.33	V
57.1600	-63.4	0.86	-2.8	-67.06	-25.00	-42.06	H
150.2800	-63.41	1.43	0.71	-64.13	-25.00	-39.13	H
193.9300	-70.37	1.62	3.58	-68.41	-25.00	-43.41	H
480.0800	-71.85	2.64	5.54	-68.95	-25.00	-43.95	H
600.3600	-67.88	2.9	6.4	-64.38	-25.00	-39.38	H
780.7800	-73.79	3.3	6.12	-70.97	-25.00	-45.97	H

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
100.8100	-75.67	1.15	-0.51	-77.33	-25.00	-52.33	V
198.7800	-81.01	1.63	3.05	-79.59	-25.00	-54.59	V
271.5300	-80.22	1.98	5.13	-77.07	-25.00	-52.07	V
359.8000	-80.11	2.27	5.7	-76.68	-25.00	-51.68	V
480.0800	-81.09	2.64	5.54	-78.19	-25.00	-53.19	V
773.0200	-79.38	3.28	6.29	-76.37	-25.00	-51.37	V
57.1600	-68.14	0.86	-2.8	-71.80	-25.00	-46.80	H
198.7800	-73.95	1.63	3.05	-72.53	-25.00	-47.53	H
354.9500	-79.68	2.25	5.75	-76.18	-25.00	-51.18	H
488.8100	-78.06	2.66	5.74	-74.98	-25.00	-49.98	H
600.3600	-72.89	2.9	6.4	-69.39	-25.00	-44.39	H
807.9400	-76.61	3.34	6.3	-73.65	-25.00	-48.65	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
139.6100	-76.75	1.39	-0.28	-78.42	-25.00	-53.42	V
270.5600	-82.28	1.98	5.11	-79.15	-25.00	-54.15	V
403.4500	-83.35	2.41	5.96	-79.80	-25.00	-54.80	V
540.2200	-82.1	2.78	6.26	-78.62	-25.00	-53.62	V
716.7600	-80.53	3.16	6.43	-77.26	-25.00	-52.26	V
768.1700	-81.35	3.26	6.38	-78.23	-25.00	-53.23	V
57.1600	-68.5	0.86	-2.8	-72.16	-25.00	-47.16	H
260.8600	-79.66	1.91	5.56	-76.01	-25.00	-51.01	H
457.7700	-77.17	2.6	5.85	-73.92	-25.00	-48.92	H
540.2200	-76.97	2.78	6.26	-73.49	-25.00	-48.49	H
786.6000	-76.52	3.32	6.18	-73.66	-25.00	-48.66	H
883.6000	-76.09	3.48	6.7	-72.87	-25.00	-47.87	H

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Above 1GHz**

**CHANNEL BANDWIDTH: 5MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3191.000	-50.82	7.25	7.97	-50.10	-25.00	-25.10	V
5116.000	-40.09	9.47	10.65	-38.91	-25.00	-13.91	V
N/A							
1798.000	-53.31	5.29	5.76	-52.84	-25.00	-27.84	H
5116.000	-42.51	9.47	10.65	-41.33	-25.00	-16.33	H
N/A							

**Remark:**

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3751.000	-49.27	8.23	9.15	-48.35	-25.00	-23.35	V
5186.000	-41.62	9.54	10.67	-40.49	-25.00	-15.49	V
N/A							
1798.000	-51.99	5.29	5.76	-51.52	-25.00	-26.52	H
5186.000	-44.92	9.54	10.67	-43.79	-25.00	-18.79	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1952.000	-50.35	5.59	5.49	-50.45	-25.00	-25.45	V
5305.000	-41.18	9.66	10.72	-40.12	-25.00	-15.12	V
N/A							
1798.000	-51.06	5.29	5.76	-50.59	-25.00	-25.59	H
5305.000	-43.45	9.66	10.72	-42.39	-25.00	-17.39	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**CHANNEL BANDWIDTH: 5MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1798.000	-52.55	5.29	5.76	-52.08	-25.00	-27.08	V
5109.000	-39.16	9.46	10.64	-37.98	-25.00	-12.98	V
N/A							
1952.000	-50.22	5.59	5.49	-50.32	-25.00	-25.32	H
5116.000	-43.79	9.47	10.65	-42.61	-25.00	-17.61	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
4199.000	-46.83	8.49	9.56	-45.76	-25.00	-25.76	V
5186.000	-41.57	9.54	10.67	-40.44	-25.00	-15.44	V
N/A							
1966.000	-50.22	5.63	5.46	-50.39	-25.00	-25.39	H
5186.000	-45.72	9.54	10.67	-44.59	-25.00	-19.59	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
3198.000	-51.82	7.26	7.99	-51.09	-25.00	-26.09	V
5305.000	-43.22	9.66	10.72	-42.16	-25.00	-17.16	V
N/A							
1798.000	-53.26	5.29	5.76	-52.79	-25.00	-25.79	H
5305.000	-46.85	9.66	10.72	-45.79	-25.00	-20.79	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**CHANNEL BANDWIDTH: 10MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1798.000	-54.13	5.29	5.76	-53.66	-25.00	-28.66	V
5116.000	-41.94	9.47	10.65	-40.76	-25.00	-15.76	V
N/A							
1952.000	-54.09	5.59	5.49	-54.19	-25.00	-29.19	H
5116.000	-47.4	9.47	10.65	-46.22	-25.00	-21.22	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1959.000	-49.61	5.61	5.47	-49.75	-25.00	-24.75	V
5186.000	-44.65	9.54	10.67	-43.52	-25.00	-18.52	V
N/A							
1763.000	-48.05	5.22	5.83	-47.44	-25.00	-22.44	H
5186.000	-45.36	9.54	10.67	-44.23	-25.00	-19.23	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1756.000	-45.64	5.21	5.84	-45.01	-25.00	-20.01	V
5102.000	-41.33	9.45	10.64	-40.14	-25.00	-15.14	V
N/A							
1945.000	-49.55	5.57	5.5	-49.62	-25.00	-24.62	H
5102.000	-44.29	9.45	10.64	-43.10	-25.00	-18.10	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**CHANNEL BANDWIDTH: 10MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1798.000	-55.01	5.29	5.76	-54.54	-25.00	-29.54	V
5116.000	-40.86	9.47	10.65	-39.68	-25.00	-14.68	V
N/A							
1756.000	-45.55	5.21	5.84	-44.92	-25.00	-19.92	H
5109.000	-44.8	9.46	10.64	-43.62	-25.00	-18.62	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1798.000	-53.39	5.29	5.76	-52.92	-25.00	-27.92	V
5186.000	-44.03	9.54	10.67	-42.90	-25.00	-17.90	V
N/A							
1770.000	-49.01	5.24	5.81	-48.44	-25.00	-23.44	H
5186.000	-47.12	9.54	10.67	-45.99	-25.00	-20.99	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1756.000	-46.97	5.21	5.84	-46.34	-25.00	-21.34	V
5102.000	-41.9	9.45	10.64	-40.71	-25.00	-15.71	V
N/A							
1798.000	-53.86	5.29	5.76	-53.39	-25.00	-28.39	H
5102.000	-43.86	9.45	10.64	-42.67	-25.00	-17.67	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**CHANNEL BANDWIDTH: 20MHz / QPSK**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1798.000	-54.37	5.29	5.76	-53.90	-25.00	-23.90	V
5116.000	-45.22	9.47	10.65	-44.04	-25.00	-19.04	V
N/A							
1945.000	-50.94	5.57	5.5	-51.01	-25.00	-26.01	H
5116.000	-46.11	9.47	10.65	-44.93	-25.00	-19.93	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1770.000	-45.89	5.24	5.81	-45.32	-25.00	-20.32	V
5102.000	-44.14	9.45	10.64	-42.95	-25.00	-17.95	V
N/A							
1763.000	-45.87	5.22	5.83	-45.26	-25.00	-20.26	H
5102.000	-47.78	9.45	10.64	-46.59	-25.00	-21.59	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1770.000	-42.68	5.24	5.81	-42.11	-25.00	-17.11	V
5109.000	-43.01	9.46	10.64	-41.83	-25.00	-16.83	V
N/A							
1756.000	-46.59	5.21	5.84	-45.96	-25.00	-20.96	H
5109.000	-47.87	9.46	10.64	-46.69	-25.00	-21.69	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**CHANNEL BANDWIDTH: 20MHz / 16QAM**

**Operation Mode:** Tx / Low channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1798.000	-54.79	5.29	5.76	-54.32	-25.00	-29.32	V
5116.000	-43.02	9.47	10.65	-41.84	-25.00	-16.84	V
N/A							
1959.000	-52.19	5.61	5.47	-52.33	-25.00	-27.33	H
5116.000	-46.1	9.47	10.65	-44.92	-25.00	-19.92	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / Middle channel    **Test Date:** October 2, 2015  
**Temperature:** 21°C    **Tested by:** Jason Lu  
**Humidity:** 56% RH    **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1756.000	-48.82	5.21	5.84	-48.19	-25.00	-23.19	V
5109.000	-44.34	9.46	10.64	-43.16	-25.00	-18.16	V
N/A							
1756.000	-48.8	5.21	5.84	-48.17	-25.00	-23.17	H
5102.000	-46.98	9.45	10.64	-45.79	-25.00	-20.79	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

**Operation Mode:** Tx / High channel      **Test Date:** October 2, 2015  
**Temperature:** 21°C      **Tested by:** Jason Lu  
**Humidity:** 56% RH      **Polarity:** Ver. / Hor.

Frequency (MHz)	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dBi)	Emission level (dBm)	Limit (dBm)	Margin (dB)	Antenna Polarization (V/H)
1798.000	-54.21	5.29	5.76	-53.74	-25.00	-28.74	V
5109.000	-43.49	9.46	10.64	-42.31	-25.00	-17.31	V
N/A							
1959.000	-48.7	5.61	5.47	-48.84	-25.00	-23.84	H
5109.000	-46.13	9.46	10.64	-44.95	-25.00	-19.95	H
N/A							

**Remark:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.