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Report No.: T190115W01-RP3

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Rev.: 00

**FCC 47 CFR PART 22 SUBPART H AND PART 24 SUBPART E
&
INDUSTRY CANADA RSS-132 & RSS-133**

TEST REPORT

For

Body Worn Camera

FCC Model No.: BC-03

ISED Model No.: ATT-WP7603

Trade Name: Getac

Issued to

**Getac Technology Corp.
5F, Building A, No.209, Sec.1, Nangang Rd., Nangang Dist., Taipei City
11568, Taiwan.**

Issued by

**Compliance Certification Services Inc.
No.11, Wugong 6th Rd., Wugu Dist.,
New Taipei City 24891, Taiwan. (R.O.C.)
Issued Date: June 12, 2019**

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
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1. TEST RESULT CERTIFICATION

Applicant: Getac Technology Corp.
5F, Building A, No.209, Sec.1, Nangang Rd., Nangang Dist.,
Taipei City 11568, Taiwan.

Manufacturer: Getac Technology Corp.
4F., NO.1, R&D ROAD 2, SCIENCE PARK, HSINCHU,
TAIWAN, R.O.C.

Equipment Under Test: Body Worn Camera

Trade Name: Getac

FCC Model No.: BC-03

ISED Model No.: ATT-WP7603

Date of Test: February 18 ~ March 13, 2019

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 47 CFR PART 22 SUBPART H AND PART 24 SUBPART E & IC RSS-132 Issue 3: January, 2013 and IC RSS-133 Issue 6: January, 2013	No non-compliance noted

Statements of Conformity
Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

We hereby certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in TIA/EIA-603-C and the energy emitted by the sample EUT tested as described in this report is in compliance with radiated emission limits of FCC Rule FCC PART 22 Subpart H, PART 24 Subpart E and IC RSS-132 Issue 3 and IC RSS-133 Issue 6.

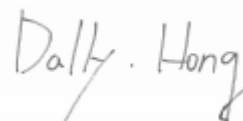
The test results of this report relate only to the tested sample identified in this report.

Approved by:

Tested by:



Kevin Tsai
Deputy Manager
Compliance Certification Services Inc.



Dally Hong
Engineer
Compliance Certification Services Inc.

2. EUT DESCRIPTION

Product	Body Worn Camera	
FCC Model No.	BC-03	
ISED Model No.	ATT-WP7603	
Model Discrepancy	N/A	
Model:	Getac	
Received Date	January 15, 2019	
Power Supply	1. Powered from battery: DC 5V 2. Powered from docking	
Frequency Range	LTE Band 2 Channel Bandwidth: 1.4MHz	1850.7MHz ~1909.2MHz
	LTE Band 2 Channel Bandwidth: 3MHz	1851.5MHz ~ 1908.4MHz
	LTE Band 2 Channel Bandwidth: 5MHz	1852.5MHz ~1907.5MHz
	LTE Band 2 Channel Bandwidth: 10MHz	1855MHz ~1905MHz
	LTE Band 2 Channel Bandwidth: 15MHz	1857.5MHz ~1902.5MHz
	LTE Band 2 Channel Bandwidth: 20MHz	1860MHz ~1900MHz
	LTE Band 5 Channel Bandwidth: 1.4MHz	824.7MHz ~848.2MHz
	LTE Band 5 Channel Bandwidth: 3MHz	825.5MHz ~ 847.4MHz
	LTE Band 5 Channel Bandwidth: 5MHz	826.5MHz ~846.5MHz
	LTE Band 5 Channel Bandwidth: 10MHz	829MHz ~844MHz
	Modulation Technique	LTE Band 2
LTE Band 5		QPSK, 16QAM

Maximum EIRP Power	LTE Band 2 Channel Bandwidth: 1.4MHz	QPSK: 29.30 dBm 16QAM: 28.76 dBm
	LTE Band 2 Channel Bandwidth: 3MHz	QPSK : 29.76 dBm 16QAM: 28.70 dBm
	LTE Band 2 Channel Bandwidth: 5MHz	QPSK: 28.53 dBm 16QAM: 28.52 dBm
	LTE Band 2 Channel Bandwidth: 10MHz	QPSK:28.71 dBm 16QAM: 28.13 dBm
	LTE Band 2 Channel Bandwidth: 15MHz	QPSK: 29.27 dBm 16QAM: 28.95 dBm
	LTE Band 2 Channel Bandwidth: 20MHz	QPSK: 29.23 dBm 16QAM: 28.23 dBm
Maximum ERP Power	LTE Band 5 Channel Bandwidth: 1.4MHz	QPSK: 24.54 dBm 16QAM:24.18 dBm
	LTE Band 5 Channel Bandwidth: 3MHz	QPSK: 24.30 dBm 16QAM: 24.76 dBm
	LTE Band 5 Channel Bandwidth: 5MHz	QPSK: 24.02 dBm 16QAM: 23.90 dBm
	LTE Band 5 Channel Bandwidth: 10MHz	QPSK: 23.91 dBm 16QAM: 22.83 dBm
Antenna Specification	Coupling Antenna LTE Band 2: Gain: 0.49dBi LTE Band 5: Gain: -4.6dBi	

Remark: The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.

3. TEST METHODOLOGY

Both conducted and radiated testing were performed according to the procedures document on chapter 13 of ANSI C63.10: 2013, TIA/EIA-603-C: 2004 and FCC CFR 47, Part 2 and Part 22 Subpart H & Part 24 Subpart E.

The tests documented in this report were performed in accordance with IC RSS-132, SPSR503, RSS-133, SPSR510 and ANSI C63.10: 2013 for IC, ANSI C63.10: 2009 for FCC and TIA/EIA-603-C.

3.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

6.1 DESCRIPTION OF TEST MODES

The EUT (Model: BC-03) had been tested under operating condition.

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

LTE Band 2: 1850MHz ~ 1910MHz

Three channels had been tested for each channel bandwidth.

Channel Bandwidth	1.4MHz		3MHz		5MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low channel (L)	18607	1850.7	18615	1851.5	18625	1852.5
Middle channel (M)	18900	1880	18900	1880.0	18900	1880
High channel (H)	19192	1909.2	19184	1908.4	19175	1907.5
Channel Bandwidth	10MHz		15MHz		20MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low channel (L)	18650	1855	18675	1857.5	18700	1860
Middle channel (M)	18900	1880	18900	1880.0	18900	1880
High channel (H)	19150	1905	19125	1902.5	19100	1900

LTE Band 5: 824MHz ~ 849MHz

Three channels had been tested for each channel bandwidth.

Channel Bandwidth	1.4MHz		3MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low channel (L)	20407	824.7	20415	825.5
Middle channel (M)	20525	836.5	20525	836.5
High channel (H)	20642	848.2	20634	847.4
Channel Bandwidth	5MHz		10MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Low channel (L)	20425	826.5	20450	829
Middle channel (M)	20525	836.5	20525	836.5
High channel (H)	20625	846.5	20600	844

For test mode:

The conducted power be measured in 1, 50% and 100% RB allocation, offset to upper edge, centered and lower edge of the channel bandwidth of each required channel.

	QPSK	Worst Mode	16QAM	Worst Mode
Band2	1.4M	1 RB ALLOCATED AT THE UPPER EDGE	1.4M	1 RB ALLOCATED AT THE UPPER EDGE
	5M	1 RB ALLOCATED AT THE UPPER EDGE	5M	1 RB ALLOCATED AT THE UPPER EDGE
	10M	1 RB ALLOCATED AT THE UPPER EDGE	10M	1 RB ALLOCATED AT THE CENTERED
	20M	1 RB ALLOCATED AT THE UPPER EDGE	20M	1 RB ALLOCATED AT THE UPPER EDGE
Band5	1.4M	1 RB ALLOCATED AT THE UPPER EDGE	1.4M	1 RB ALLOCATED AT THE CENTERED
	5M	1 RB ALLOCATED AT THE LOWER EDGE	5M	1 RB ALLOCATED AT THE LOWER EDGE
	10M	1 RB ALLOCATED AT THE LOWER EDGE	10M	1 RB ALLOCATED AT THE LOWER EDGE

6.2 THE WORST MODE OF MEASUREMENT

Radiated Emission Measurement	
Test Condition	Band edge, Emission for Unwanted and Fundamental
Power supply Mode	Mode 1: EUT Power by Docking (Big). Mode 2: EUT Power by Docking (Small). Mode 3: EUT Power by Battery.
Worst Mode	<input checked="" type="checkbox"/> Mode 1 <input type="checkbox"/> Mode 2 <input type="checkbox"/> Mode 3 <input type="checkbox"/> Mode 4
Position	<input type="checkbox"/> Placed in fixed position. <input checked="" type="checkbox"/> Placed in fixed position at X-Plane (E2-Plane) <input type="checkbox"/> Placed in fixed position at Y-Plane (E1-Plane) <input type="checkbox"/> Placed in fixed position at Z-Plane (H-Plane)

Radiated Emission Measurement Below 1G	
Test Condition	Radiated Emission Below 1G
Power supply Mode	Mode 1: EUT Power by Docking (Big). Mode 2: EUT Power by Docking (Small). Mode 3: EUT Power by Battery.
Worst Mode	<input checked="" type="checkbox"/> Mode 1 <input type="checkbox"/> Mode 2 <input type="checkbox"/> Mode 3 <input type="checkbox"/> Mode 4

Remark:

1. The worst mode was record in this test report.
2. The EUT pre-scanned in three axis, X, Y, Z and two polarity, Horizontal and Vertical for radiated measurement. The worst case (X-Plane) were recorded in this report.

4. TEST SUMMERY

FCC Standard Sec.	IC Standard Sec.	Chapter	Test Item	Result
2.1046	RSS-GEN Sec. 6.12	8.1	Output Power Measurement	Pass
22.913(b) 24.232(b)	RSS-132 RSS-133	8.2	Erp & Eirp	Pass
2.1055 22.355 24.235	RSS-132 RSS-133	8.3	Frequency Stability V.S. Temperature	Pass
2.1049	RSS-GEN Sec. 6.6	8.4	Occupied Bandwidth	Pass
24.232	RSS-132 RSS-133	8.5	Peak To Average Power Ratio	Pass
22.917(a) 24.238(a)	RSS-132 RSS-133	8.6	Band Edge	Pass
22.917(a) 24.238(a)	RSS-132 RSS-133	8.7	Conducted Spurious Emissions	Pass
22.917(a) 24.238(a)	RSS-132 RSS-133	8.8	Field Strength Of Spurious Radiation	Pass

5. INSTRUMENT CALIBRATION

6.3 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.

6.4 MEASUREMENT EQUIPMENT USED

Equipment Used for Emissions Measurement

Conducted Emissions Test Site					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Coaxial Cable	Woken	WC12	CC001	06/29/2018	06/28/2019
Coaxial Cable	Woken	WC12	CC002	06/29/2018	06/28/2019
Coaxial Cable	Woken	WC12	CC003	06/29/2018	06/28/2019
Power Divider	Solvang Technology	STI08-0015	008	07/27/2018	07/26/2019
Wideband Radio Communication Tester	R&S	CMW 500	116875	04/20/2018	04/19/2019
Signal Analyzer	R&S	FSV 40	101073	09/27/2018	09/26/2019
Wireless Communication Test Set	Agilent	8960/E5515C	MY48363204	07/23/2018	07/22/2019
Software	N/A				

Wugu 966 Chamber A					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Bilog Antenna	Sunol Sciences	JB1	A052609	03/14/2018	03/13/2019
Cable	HUBER SUHNER	SUCOFLEX 104PEA	23452	06/29/2018	06/28/2019
Cable	HUBER SUHNER	SUCOFLEX 104PEA	33960	06/29/2018	06/28/2019
Digital Radio Communication Tester	R&S	CMU200	116604	07/19/2018	07/18/2019
Digital Thermo-Hygro Meter	WISEWIND	1110	D06	01/30/2019	01/29/2020
Horn Antenna	SCHWARZBECK	BBHA 9120D	779	03/14/2018	03/13/2019
Pre-Amplifier	Anritsu	MH648A	M89145	06/29/2018	06/28/2019
Pre-Amplifier	EMEC	EM01G26G	060570	06/29/2018	06/28/2019
Signal Analyzer	Agilent	N9010A	MY52220817	03/22/2018	03/21/2019
Wideband Radio Communication Tester	R&S	CMW 500	116875	04/20/2018	04/19/2019
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Software	EZ-EMC (CCS-3A1RE)				

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

6.5 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
3M Semi Anechoic Chamber / 30M~200M	+/-1.2575
3M Semi Anechoic Chamber / 200M~1000M	+/- 4.12
3M Semi Anechoic Chamber / 1G~8G	+/- 4.68
3M Semi Anechoic Chamber / 8G~18G	+/- 5.18
3M Semi Anechoic Chamber / 18G~26G	+/- 5.47
3M Semi Anechoic Chamber / 26G~40G	+/- 3.81

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

6. FACILITIES AND ACCREDITATIONS

6.6 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., Lujhu Township, Taoyuan County 33841, TAIWAN, R.O.C.
Tel: 886-3-324-0332 / Fax: 886-3-324-5235

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10: 2013 and CISPR Publication 22.

6.7 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."

6.8 LABORATORY ACCREDITATIONS AND LISTING

The test facilities used to perform radiated and conducted emissions tests are accredited by American Association for Laboratory Accreditation Program for the specific scope accreditation under Lab Code: 0824-01 to perform Electromagnetic Interference tests according to FCC Part 15 and CISPR 22 requirements. In addition, the test facilities are listed with Industry Canada, Certification and Engineering Bureau, IC 2324G-1 for 3M Semi Anechoic Chamber A, 2324G-2 for 3M Semi Anechoic Chamber B.

7.1 SETUP CONFIGURATION OF EUT

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

7.2 SUPPORT EQUIPMENT

No	Equipment	Brand	Model	Series No.	FCC ID	Data Cable	Power Cord
	N/A						

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.*

8.1 OUTPUT POWER MEASUREMENT

Test Procedures

CONDUCTED POWER MEASUREMENT:

1. The transmitter output power was connected to the call box.
2. Set EUT at maximum output power via call box.
3. Set Call box at lowest, middle and highest channels for each band and modulation.

TEST RESULTS

LTE Band 5

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	Output Power (W)
5	10	20450	829.0	QPSK	1	0	0	22.8	0.18923
					1	24	0	22.7	0.18578
					1	49	0	22.7	0.18408
					25	0	1	22.0	0.15776
					25	12	1	21.8	0.15276
					25	24	1	21.7	0.14622
				16QAM	50	0	1	21.8	0.15031
					1	0	1	21.9	0.15524
					1	24	1	21.9	0.15488
					1	49	1	21.9	0.15417
					25	0	2	21.0	0.12531
					25	12	2	20.9	0.12331
		20525	836.5	QPSK	1	0	0	22.3	0.16788
					1	24	0	22.2	0.16520
					1	49	0	22.1	0.16331
					25	0	1	21.5	0.14223
					25	12	1	21.4	0.13868
					25	24	1	21.4	0.13677
				16QAM	50	0	1	21.3	0.13428
					1	0	1	21.7	0.14791
					1	24	1	21.7	0.14723
					1	49	1	21.6	0.14421
					25	0	2	20.5	0.11298
					25	12	2	20.4	0.10965
		20600	844.0	QPSK	25	24	2	20.4	0.11066
					50	0	2	20.3	0.10691
					1	0	0	22.7	0.18535
					1	24	0	22.7	0.18664
					1	49	0	22.6	0.18155
					25	0	1	21.7	0.14723
16QAM	25			12	1	21.7	0.14859		
	25			24	1	21.8	0.15101		
	50			0	1	21.8	0.15276		
	1			0	1	21.9	0.15417		
	1			24	1	21.8	0.14962		
	1			49	1	22.1	0.16144		
16QAM	25	0	2	20.8	0.11885				
	25	12	2	20.9	0.12274				
	25	24	2	20.9	0.12218				
	50	0	2	20.9	0.12218				

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Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	Output Power (W)
5	5	20425	826.5	QPSK	1	0	0	22.7	0.18707
					1	12	0	22.6	0.18365
					1	24	0	22.6	0.18197
					12	0	1	21.9	0.15596
					12	6	1	21.8	0.15101
					12	11	1	21.6	0.14454
					25	0	1	21.7	0.14859
				16QAM	1	0	1	21.9	0.15346
					1	12	1	21.9	0.15311
					1	24	1	21.8	0.15241
					12	0	2	20.9	0.12388
					12	6	2	20.9	0.12190
					12	11	2	20.8	0.12106
					25	0	2	20.9	0.12274
		20525	836.5	QPSK	1	0	0	22.2	0.16634
					1	12	0	22.1	0.16368
					1	24	0	22.1	0.16181
					12	0	1	21.5	0.14093
					12	6	1	21.4	0.13740
					12	11	1	21.3	0.13552
					25	0	1	21.2	0.13305
				16QAM	1	0	1	21.7	0.14655
					1	12	1	21.6	0.14588
					1	24	1	21.6	0.14289
					12	0	2	20.5	0.11194
					12	6	2	20.4	0.10864
					12	11	2	20.4	0.10965
					25	0	2	20.3	0.10593
		20625	846.5	QPSK	1	0	0	22.6	0.18239
					1	12	0	22.6	0.18365
1	24				0	22.5	0.17865		
12	0				1	21.6	0.14488		
12	6				1	21.7	0.14622		
12	11				1	21.7	0.14859		
25	0				1	21.8	0.15031		
16QAM	1			0	1	21.8	0.15171		
	1			12	1	21.7	0.14723		
	1			24	1	22.0	0.15885		
	12			0	2	20.7	0.11695		
	12			6	2	20.8	0.12078		
	12			11	2	20.8	0.12023		
	25			0	2	20.8	0.12023		

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Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	Output Power (W)
5	3	20415	825.5	QPSK	1	0	0	22.7	0.18621
					1	7	0	22.6	0.18281
					1	14	0	22.6	0.18113
					8	0	1	21.9	0.15524
					8	4	1	21.8	0.15031
					8	7	1	21.6	0.14388
				15	0	1	21.7	0.14791	
				16QAM	1	0	1	21.8	0.15276
					1	7	1	21.8	0.15241
		1	14		1	21.8	0.15171		
		8	0		2	20.9	0.12331		
		8	4		2	20.8	0.12134		
		8	7		2	20.8	0.12050		
		20525	836.5	QPSK	15	0	2	20.9	0.12218
					1	0	0	22.2	0.16596
					1	7	0	22.1	0.16331
					1	14	0	22.1	0.16144
					8	0	1	21.5	0.14060
	8				4	1	21.4	0.13709	
	8			7	1	21.3	0.13521		
	15			0	1	21.2	0.13274		
	16QAM			1	0	1	21.7	0.14622	
		1	7	1	21.6	0.14555			
		1	14	1	21.5	0.14256			
		8	0	2	20.5	0.11169			
		8	4	2	20.4	0.10839			
		8	7	2	20.4	0.10940			
	20634	847.4	QPSK	15	0	2	20.2	0.10568	
				1	0	0	22.6	0.18155	
				1	7	0	22.6	0.18281	
				1	14	0	22.5	0.17783	
				8	0	1	21.6	0.14421	
				8	4	1	21.6	0.14555	
			8	7	1	21.7	0.14791		
			15	0	1	21.8	0.14962		
			16QAM	1	0	1	21.8	0.15101	
1				7	1	21.7	0.14655		
1				14	1	22.0	0.15812		
8				0	2	20.7	0.11641		
8				4	2	20.8	0.12023		
8				7	2	20.8	0.11967		
15				0	2	20.8	0.11967		

Report No.: T190115W01-RP3

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	Output Power (W)
5	1.4	20407	824.7	QPSK	1	0	0	22.7	0.18493
					1	2	0	22.6	0.18155
					1	5	0	22.6	0.17989
					3	0	1	21.9	0.15417
					3	1	1	21.7	0.14928
					3	2	1	21.6	0.14289
				6	0	1	21.7	0.14689	
				16QAM	1	0	1	21.8	0.15171
					1	2	1	21.8	0.15136
					1	5	1	21.8	0.15066
					3	0	2	20.9	0.12246
					3	1	2	20.8	0.12050
					3	2	2	20.8	0.11967
					6	0	2	20.8	0.12134
		6	0		0	22.2	0.16558		
		20525	836.5	QPSK	1	2	0	22.1	0.16293
					1	5	0	22.1	0.16106
					3	0	1	21.5	0.14028
					3	1	1	21.4	0.13677
					3	2	1	21.3	0.13490
					6	0	1	21.2	0.13243
				16QAM	1	0	1	21.6	0.14588
					1	2	1	21.6	0.14521
					1	5	1	21.5	0.14223
					3	0	2	20.5	0.11143
					3	1	2	20.3	0.10814
					3	2	2	20.4	0.10914
					6	0	2	20.2	0.10544
					6	0	0	22.6	0.18072
		20642	848.2	QPSK	1	2	0	22.6	0.18197
1	5				0	22.5	0.17701		
3	0				1	21.6	0.14355		
3	1				1	21.6	0.14488		
3	2				1	21.7	0.14723		
6	0				1	21.7	0.14825		
16QAM	1			0	1	21.8	0.15031		
	1			2	1	21.6	0.14588		
	1			5	1	22.0	0.15740		
	3			0	2	20.6	0.11588		
	3			1	2	20.8	0.11967		
	3			2	2	20.8	0.11912		
	6			0	2	20.8	0.11912		

Report No.: T190115W01-RP3

LTE Band 2

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	Output Power (W)				
2	20	18700	1860.0	QPSK	1	0	0	23.0	0.19861				
					1	49	0	23.0	0.19724				
					1	99	0	22.6	0.17989				
					50	0	1	22.0	0.15885				
					50	24	1	22.0	0.15668				
					50	49	1	21.9	0.15311				
				16QAM	100	0	1	22.0	0.15812				
					1	0	1	22.1	0.16032				
					1	49	1	22.0	0.15704				
					1	99	1	21.8	0.15101				
					50	0	2	21.2	0.13032				
					50	24	2	21.1	0.12912				
		18900	1880.0	QPSK	1880.0	QPSK	50	49	2	21.0	0.12647		
							100	0	2	21.1	0.12735		
							1	0	0	22.9	0.19588		
							1	49	0	23.0	0.19999		
							1	99	0	22.9	0.19679		
							50	0	1	22.1	0.16106		
				16QAM	50	24	1	22.1	0.16331				
					50	49	1	22.0	0.15885				
					100	0	1	22.0	0.15885				
					1	0	1	22.3	0.17022				
					1	49	1	22.4	0.17258				
					1	99	1	22.0	0.15885				
				19100	1900.0	QPSK	1900.0	QPSK	50	0	2	21.1	0.12735
									50	24	2	21.1	0.13002
									50	49	2	21.0	0.12589
									100	0	2	21.0	0.12618
									1	0	0	23.0	0.19999
									1	49	0	23.1	0.20184
16QAM	1	99	0			22.8	0.19055						
	50	0	1			22.0	0.15922						
	50	24	1			22.1	0.16293						
	50	49	1			22.0	0.15959						
	100	0	1			22.0	0.15959						
	1	0	1			22.2	0.16520						
16QAM	1	49	1	22.3	0.17100								
	1	99	1	22.1	0.16181								
	50	0	2	21.0	0.12589								
	50	24	2	21.1	0.12794								
	50	49	2	21.0	0.12589								
	100	0	2	21.0	0.12445								

Report No.: T190115W01-RP3

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	Output Power (W)
2	15	18675	1857.5	QPSK	1	0	0	23.0	0.19724
					1	37	0	22.9	0.19588
					1	74	0	22.5	0.17865
					36	0	1	22.0	0.15776
					36	18	1	21.9	0.15560
					36	35	1	21.8	0.15205
					75	0	1	22.0	0.15704
				16QAM	1	0	1	22.0	0.15922
					1	37	1	21.9	0.15596
					1	74	1	21.8	0.14997
					36	0	2	21.1	0.12942
					36	18	2	21.1	0.12823
					36	35	2	21.0	0.12560
					75	0	2	21.0	0.12647
		18900	1880.0	QPSK	1	0	0	22.9	0.19320
					1	37	0	23.0	0.19724
					1	74	0	22.9	0.19409
					36	0	1	22.0	0.15885
					36	18	1	22.1	0.16106
					36	35	1	22.0	0.15668
					75	0	1	22.0	0.15668
				16QAM	1	0	1	22.3	0.16788
					1	37	1	22.3	0.17022
					1	74	1	22.0	0.15668
					36	0	2	21.0	0.12560
					36	18	2	21.1	0.12823
					36	35	2	20.9	0.12417
					75	0	2	21.0	0.12445
		19125	1902.5	QPSK	1	0	0	22.9	0.19679
					1	37	0	23.0	0.19861
1	74				0	22.7	0.18750		
36	0				1	22.0	0.15668		
36	18				1	22.1	0.16032		
36	35				1	22.0	0.15704		
75	0				1	22.0	0.15704		
16QAM	1			0	1	22.1	0.16255		
	1			37	1	22.3	0.16827		
	1			74	1	22.0	0.15922		
	36			0	2	20.9	0.12388		
	36			18	2	21.0	0.12589		
	36			35	2	20.9	0.12388		
	75			0	2	20.9	0.12246		

Report No.: T190115W01-RP3

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	Output Power (W)
2	10	18650	1855.0	QPSK	1	0	0	22.9	0.19679
					1	24	0	22.9	0.19543
					1	49	0	22.5	0.17824
					25	0	1	22.0	0.15740
					25	12	1	21.9	0.15524
					25	24	1	21.8	0.15171
				50	0	1	22.0	0.15668	
				16QAM	1	0	1	22.0	0.15885
					1	24	1	21.9	0.15560
					1	49	1	21.8	0.14962
					25	0	2	21.1	0.12912
					25	12	2	21.1	0.12794
					25	24	2	21.0	0.12531
					50	0	2	21.0	0.12618
		18900	QPSK		1	0	0	22.9	0.19275
				1	24	0	22.9	0.19679	
				1	49	0	22.9	0.19364	
				25	0	1	22.0	0.15849	
				25	12	1	22.1	0.16069	
				25	24	1	21.9	0.15631	
			50	0	1	21.9	0.15631		
			16QAM	1	0	1	22.2	0.16749	
				1	24	1	22.3	0.16982	
				1	49	1	21.9	0.15631	
				25	0	2	21.0	0.12531	
				25	12	2	21.1	0.12794	
		25		24	2	20.9	0.12388		
		50	0	2	20.9	0.12417			
		19150	QPSK	1	0	0	22.9	0.19634	
				1	24	0	23.0	0.19815	
1	49			0	22.7	0.18707			
25	0			1	21.9	0.15631			
25	12			1	22.0	0.15996			
25	24			1	22.0	0.15668			
50	0			1	22.0	0.15668			
16QAM	1		0	1	22.1	0.16218			
	1		24	1	22.3	0.16788			
	1		49	1	22.0	0.15885			
	25		0	2	20.9	0.12359			
	25		12	2	21.0	0.12560			
	25		24	2	20.9	0.12359			
	50		0	2	20.9	0.12218			

Report No.: T190115W01-RP3

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	Output Power (W)	
2	5	18625	1852.5	QPSK	1	0	0	22.9	0.19588	
					1	12	0	22.9	0.19454	
					1	24	0	22.5	0.17742	
					12	0	1	22.0	0.15668	
					12	6	1	21.9	0.15453	
					12	11	1	21.8	0.15101	
				25	0	1	21.9	0.15596		
				16QAM	1	0	1	22.0	0.15812	
					1	12	1	21.9	0.15488	
					1	24	1	21.7	0.14894	
					12	0	2	21.1	0.12853	
					12	6	2	21.1	0.12735	
					12	11	2	21.0	0.12474	
					25	0	2	21.0	0.12560	
					18900	1880.0	QPSK	1	0	0
		1	12					0	22.9	0.19588
		1	24	0				22.9	0.19275	
		12	0	1				22.0	0.15776	
		12	6	1				22.0	0.15996	
		12	11	1				21.9	0.15560	
		25	0	1			21.9	0.15560		
		16QAM	1	0			1	22.2	0.16672	
			1	12			1	22.3	0.16904	
			1	24			1	21.9	0.15560	
			12	0			2	21.0	0.12474	
			12	6			2	21.1	0.12735	
			12	11			2	20.9	0.12331	
			25	0			2	20.9	0.12359	
			19175	1907.5			QPSK	1	0	0
					1	12		0	22.9	0.19679
1	24	0			22.7	0.18578				
12	0	1			21.9	0.15524				
12	6	1			22.0	0.15885				
12	11	1			21.9	0.15560				
25	0	1			21.9	0.15560				
16QAM	1	0			1	22.1	0.16106			
	1	12			1	22.2	0.16672			
	1	24			1	22.0	0.15776			
	12	0			2	20.9	0.12274			
	12	6			2	21.0	0.12474			
	12	11			2	20.9	0.12274			
	25	0			2	20.8	0.12134			

Report No.: T190115W01-RP3

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	Output Power (W)	
2	3	18615	1851.5	QPSK	1	0	0	22.9	0.19364	
					1	7	0	22.8	0.19231	
					1	14	0	22.4	0.17539	
					8	0	1	21.9	0.15488	
					8	4	1	21.8	0.15276	
					8	7	1	21.7	0.14928	
				15	0	1	21.9	0.15417		
				16QAM	1	0	1	21.9	0.15631	
					1	7	1	21.9	0.15311	
					1	14	1	21.7	0.14723	
					8	0	2	21.0	0.12706	
					8	4	2	21.0	0.12589	
					8	7	2	20.9	0.12331	
					15	0	2	20.9	0.12417	
					18900	1880.0	QPSK	1	0	0
		1	7					0	22.9	0.19409
		1	14	0				22.8	0.19099	
		8	0	1				21.9	0.15631	
		8	4	1				22.0	0.15849	
		8	7	1				21.9	0.15417	
		15	0	1			21.9	0.15417		
		16QAM	1	0			1	22.2	0.16520	
			1	7			1	22.2	0.16749	
			1	14			1	21.9	0.15417	
			8	0			2	20.9	0.12359	
			8	4			2	21.0	0.12618	
			8	7			2	20.9	0.12218	
			15	0			2	20.9	0.12246	
			19184	1908.4			QPSK	1	0	0
					1	7		0	22.9	0.19454
1	14	0			22.6	0.18365				
8	0	1			21.9	0.15346				
8	4	1			22.0	0.15704				
8	7	1			21.9	0.15382				
15	0	1			21.9	0.15382				
16QAM	1	0			1	22.0	0.15922			
	1	7			1	22.2	0.16482			
	1	14			1	21.9	0.15596			
	8	0			2	20.8	0.12134			
	8	4			2	20.9	0.12331			
	8	7			2	20.8	0.12134			
	15	0			2	20.8	0.11995			

Report No.: T190115W01-RP3

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Average power(dBm)	Output Power (W)	
2	1.4	18607	1850.7	QPSK	1	0	0	22.9	0.19320	
					1	2	0	22.8	0.19187	
					1	5	0	22.4	0.17498	
					3	0	1	21.9	0.15453	
					3	1	1	21.8	0.15241	
					3	2	1	21.7	0.14894	
				6	0	1	21.9	0.15382		
				16QAM	1	0	1	21.9	0.15596	
					1	2	1	21.8	0.15276	
					1	5	1	21.7	0.14689	
					3	0	2	21.0	0.12677	
					3	1	2	21.0	0.12560	
		3	2		2	20.9	0.12303			
		18900	1880.0	QPSK	1880.0	6	0	2	20.9	0.12388
						1	0	0	22.8	0.18967
						1	2	0	22.9	0.19364
						1	5	0	22.8	0.19055
						3	0	1	21.9	0.15596
						3	1	1	22.0	0.15812
				16QAM	3	2	1	21.9	0.15382	
					6	0	1	21.9	0.15382	
					1	0	1	22.2	0.16482	
					1	2	1	22.2	0.16711	
					1	5	1	21.9	0.15382	
					3	0	2	20.9	0.12331	
		19192	1909.2	QPSK	1909.2	3	1	2	21.0	0.12589
						3	2	2	20.9	0.12190
						6	0	2	20.9	0.12218
						1	0	0	22.8	0.19187
						1	2	0	22.9	0.19364
						1	5	0	22.6	0.18281
				16QAM	3	0	1	21.8	0.15276	
					3	1	1	21.9	0.15631	
					3	2	1	21.9	0.15311	
					6	0	1	21.9	0.15311	
					1	0	1	22.0	0.15849	
1	2				1	22.2	0.16406			
16QAM	1	5	1	21.9	0.15524					
	3	0	2	20.8	0.12078					
	3	1	2	20.9	0.12274					
	3	2	2	20.8	0.12078					
	6	0	2	20.8	0.11940					

8.2 ERP & EIRP MEASUREMENT

LIMIT

According to FCC §2.1046

FCC 22.913(b):

The Effective Radiated Power (ERP) of mobile transmitters must not exceed 7 Watts.

FCC 24.232(b):

The equivalent Isotropic Radiated Power (EIRP) must not exceed 2 Watts.

According to RSS-132, section 5.4

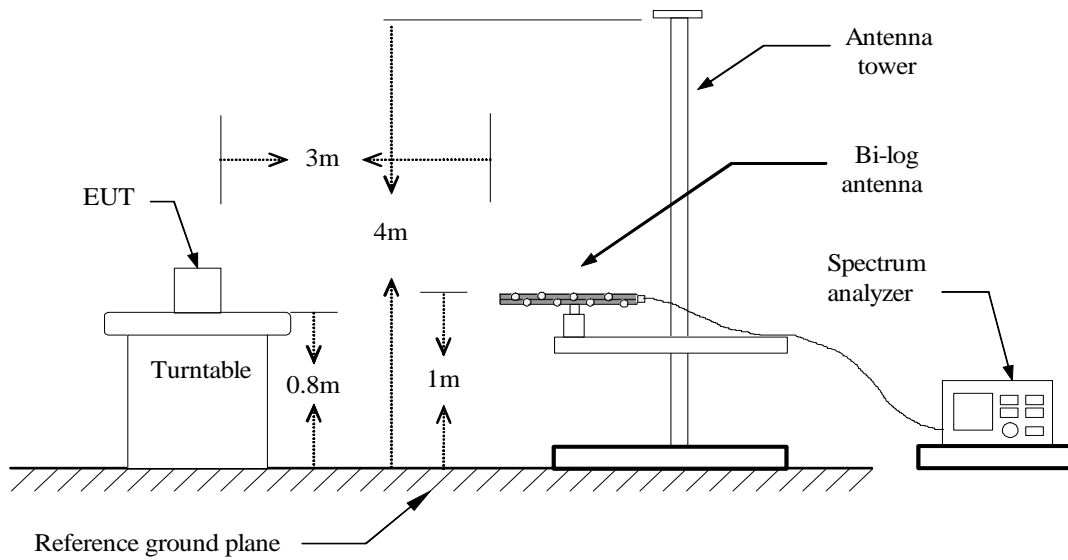
The transmitter output power shall be measured in terms of average power. The equivalent isotropically radiated power (e.i.r.p.) for mobile equipment shall not exceed 11.5 watts. Refer to SRSP-503 for base station e.i.r.p. limits.

According to RSS-133, section 6.4

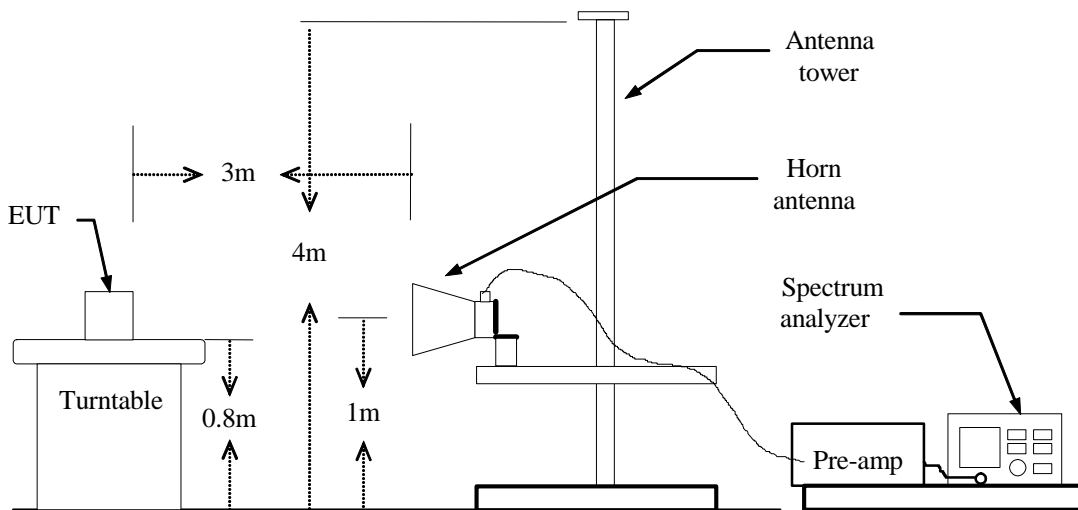
The equivalent isotropically radiated power (e.i.r.p.) for transmitters shall not exceed the limits given in SRSP-510. Moreover, base station transmitters operating in the band 1930-1995 MHz shall not have output power exceeding 100 watts.

Test Configuration

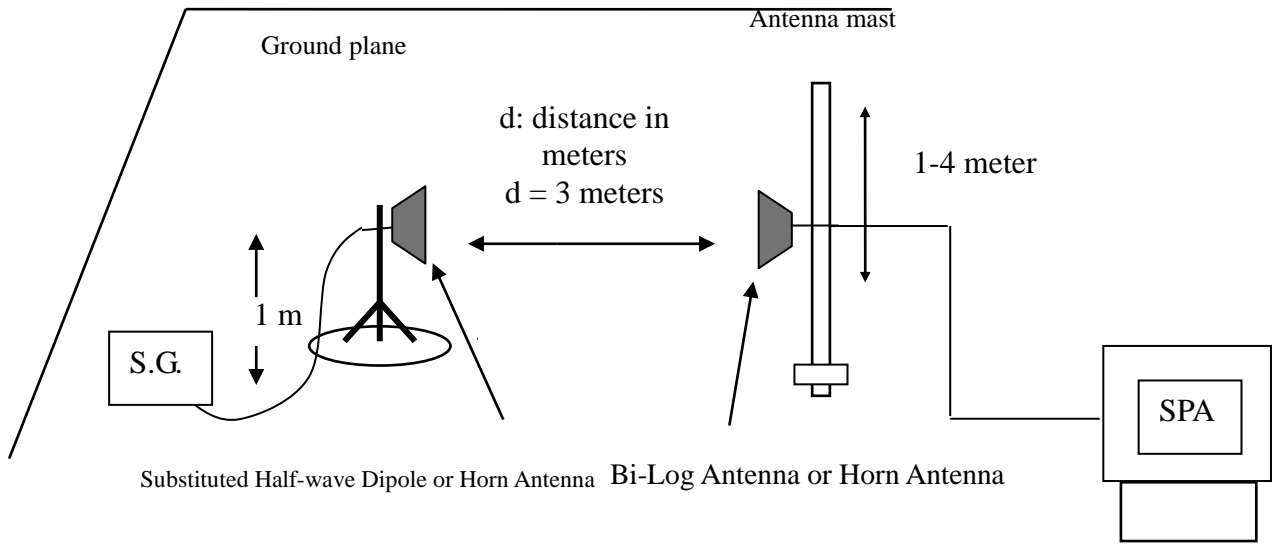
Below 1 GHz



Above 1 GHz



For Substituted Method Test Set-UP



TEST PROCEDURE

The EUT was placed on a non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.

During the measurement of the EUT, the resolution bandwidth was set to 5MHz and the average bandwidth was set to 50MHz. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna. The reading was recorded and the field strength (E in dBuV/m) was calculated.

ERP in frequency band 824-849MHz, and EIRP in frequency band 1851.25 –1910MHz were measured using a substitution method. The EUT was replaced by half-wave dipole (824-849MHz) or horn antenna (1851.25-1910MHz) connected to a signal generator. The spectrum analyzer reading was recorded and ERP/EIRP was calculated as follows:

$$ERP = S.G. \text{ output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable (dB)} - 2.15$$

$$EIRP = S.G. \text{ output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable (dB)}$$

TEST RESULTS

No non-compliance noted.

LTE BAND 5
BW: 1.4MHz / RB=1, RB Offset=0

Band	BW (MHz)	Channel	Mode	UL RB Allocation	UL RB offset	Vertical		Horizontal	
						ERP (dBm)	ERP (W)	ERP (dBm)	ERP (W)
5	1.4	Lowest	QPSK	1	0	8.46	0.00701	24.01	0.25177
		Middle		1	0	10.16	0.01038	24.54	0.28445
		Highest		1	0	10.87	0.01222	23.24	0.21086
		Lowest	16 QAM	1	0	9.65	0.00923	23.90	0.24547
		Middle		1	0	10.85	0.01216	24.18	0.26182
		Highest		1	0	11.14	0.01300	23.26	0.21184

BW: 3MHz / RB=1, RB Offset=0

Band	BW (MHz)	Channel	Mode	UL RB Allocation	UL RB offset	Vertical		Horizontal	
						ERP (dBm)	ERP (W)	ERP (dBm)	ERP (W)
5	3	Lowest	QPSK	1	0	9.21	0.00834	23.47	0.22233
		Middle		1	0	10.86	0.01219	24.30	0.26915
		Highest		1	0	10.52	0.01127	23.34	0.21577
		Lowest	16 QAM	1	0	9.50	0.00891	24.51	0.28249
		Middle		1	0	11.70	0.01479	24.76	0.29923
		Highest		1	0	10.66	0.01164	23.38	0.21777

BW: 5MHz / RB=1, RB Offset=0

Band	BW (MHz)	Channel	Mode	UL RB Allocation	UL RB offset	Vertical		Horizontal	
						ERP (dBm)	ERP (W)	ERP (dBm)	ERP (W)
5	5	Lowest	QPSK	1	0	8.73	0.00746	23.81	0.24044
		Middle		1	0	10.72	0.01180	24.02	0.25235
		Highest		1	0	10.15	0.01035	23.36	0.21677
		Lowest	16 QAM	1	0	7.97	0.00627	23.90	0.24547
		Middle		1	0	10.03	0.01007	23.25	0.21135
		Highest		1	0	10.18	0.01042	22.97	0.19815

BW: 10MHz / RB=1, RB Offset=0

Band	BW (MHz)	Channel	Mode	UL RB Allocation	UL RB offset	Vertical		Horizontal	
						ERP (dBm)	ERP (W)	ERP (dBm)	ERP (W)
5	10	Lowest	QPSK	1	0	7.68	0.00586	23.54	0.22594
		Middle		1	0	8.63	0.00729	23.40	0.21878
		Highest		1	0	9.78	0.00951	23.91	0.24604
		Lowest	16 QAM	1	0	8.20	0.00661	22.83	0.19187
		Middle		1	0	8.44	0.00698	22.60	0.18197
		Highest		1	0	9.19	0.00830	22.63	0.18323

Report No.: T190115W01-RP3

LTE BAND 2

BW: 1.4MHz / RB=1, RB Offset=0

Band	BW (MHz)	Channel	Mode	UL RB Allocation	UL RB offset	Vertical		Horizontal	
						EIRP (dBm)	EIRP (W)	EIRP (dBm)	EIRP (W)
2	1.4	Lowest	QPSK	1	0	12.46	0.01762	29.30	0.85114
		Middle		1	0	10.18	0.01042	28.54	0.71450
		Highest		1	0	10.66	0.01164	28.51	0.70958
		Lowest	16 QAM	1	0	12.26	0.01683	28.76	0.75162
		Middle		1	0	9.24	0.00839	28.53	0.71285
		Highest		1	0	10.42	0.01102	27.95	0.62373

BW: 3MHz / RB=1, RB Offset=0

Band	BW (MHz)	Channel	Mode	UL RB Allocation	UL RB offset	Vertical		Horizontal	
						EIRP (dBm)	EIRP (W)	EIRP (dBm)	EIRP (W)
2	3	Lowest	QPSK	1	0	12.68	0.01854	29.16	0.82414
		Middle		1	0	9.52	0.00895	28.70	0.74131
		Highest		1	0	10.71	0.01178	28.39	0.69024
		Lowest	16 QAM	1	0	12.39	0.01734	28.70	0.74131
		Middle		1	0	10.51	0.01125	28.13	0.65013
		Highest		1	0	10.52	0.01127	27.91	0.61802

BW: 5MHz / RB=1, RB Offset=0

Band	BW (MHz)	Channel	Mode	UL RB Allocation	UL RB offset	Vertical		Horizontal	
						EIRP (dBm)	EIRP (W)	EIRP (dBm)	EIRP (W)
2	5	Lowest	QPSK	1	0	13.12	0.02051	28.53	0.71285
		Middle		1	0	9.76	0.00946	28.39	0.69024
		Highest		1	0	10.56	0.01138	27.92	0.61944
		Lowest	16 QAM	1	0	13.12	0.02051	28.52	0.71121
		Middle		1	0	9.38	0.00867	28.04	0.63680
		Highest		1	0	10.11	0.01026	27.76	0.59704

BW: 10MHz / RB=1, RB Offset=0

Band	BW (MHz)	Channel	Mode	UL RB Allocation	UL RB offset	Vertical		Horizontal	
						EIRP (dBm)	EIRP (W)	EIRP (dBm)	EIRP (W)
2	10	Lowest	QPSK	1	0	12.77	0.01892	28.71	0.74302
		Middle		1	0	9.44	0.00879	28.48	0.70469
		Highest		1	0	10.81	0.01205	28.27	0.67143
		Lowest	16 QAM	1	0	12.76	0.01888	28.13	0.65013
		Middle		1	0	9.96	0.00991	27.83	0.60674
		Highest		1	0	10.82	0.01208	27.72	0.59156

BW: 15MHz / RB=1, RB Offset=0

Band	BW (MHz)	Channel	Mode	UL RB Allocation	UL RB offset	Vertical		Horizontal	
						EIRP (dBm)	EIRP (W)	EIRP (dBm)	EIRP (W)
2	15	Lowest	QPSK	1	0	13.44	0.02208	29.27	0.84528
		Middle		1	0	9.34	0.00859	28.56	0.71779
		Highest		1	0	10.96	0.01247	27.86	0.61094
		Lowest	16 QAM	1	0	13.25	0.02113	28.95	0.78524
		Middle		1	0	10.60	0.01148	27.71	0.59020
		Highest		1	0	11.18	0.01312	27.27	0.53333

BW: 20MHz / RB=1, RB Offset=0

Band	BW (MHz)	Channel	Mode	UL RB Allocation	UL RB offset	Vertical		Horizontal	
						EIRP (dBm)	EIRP (W)	EIRP (dBm)	EIRP (W)
2	20	Lowest	QPSK	1	0	13.60	0.02291	29.23	0.83753
		Middle		1	0	9.20	0.00832	28.63	0.72946
		Highest		1	0	11.73	0.01489	27.78	0.59979
		Lowest	16 QAM	1	0	13.34	0.02158	28.23	0.66527
		Middle		1	0	10.28	0.01067	27.51	0.56364
		Highest		1	0	11.68	0.01472	27.43	0.55335

8.3 FREQUENCY STABILITY V.S. TEMPERATURE MEASUREMENT

LIMIT

According to FCC §2.1055, FCC §22.355, FCC §24.235.

Frequency Tolerance: +/- 2.5ppm_

According to RSS-132 section 5.3,

The carrier frequency shall not depart from the reference frequency, in excess of ± 2.5 ppm for mobile stations and ± 1.0 ppm for base stations.

In lieu of meeting the above stability values, the test report may show that the frequency stability is sufficient to ensure that the emission bandwidth stays within the operating frequency block when tested to the temperature and supply voltage variations specified in RSS-Gen.

According to RSS -133 section 6.3

The carrier frequency shall not depart from the reference frequency in excess of ± 2.5 ppm for mobile stations and ± 1.5 ppm for base stations.

In lieu of meeting the above stability values, the test report may show that the frequency stability is sufficient to ensure that the occupied bandwidth stays within each of the sub-bands (see Section 5.1) when tested to the temperature and supply voltage variations specified in RSS-Gen.

Test Procedure

Use Anritsu 8820 with frequency Error measurement capability.

Temp = -30 to +50°C

Voltage= 85% to 115% of the nominal value for AC powered equipment.

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

TEST RESULTS

No non-compliance noted.

Test Results

FREQUENCY STABILITY V.S. TEMPERATURE MEASUREMENT: LTE Band 5

Reference Frequency: LTE Band 5 Max Bandwidth QPSK, 836.5 MHz				
Limit: ± 2.5 ppm = 2091.25Hz				
Power Supply	Environment	Frequency Error	Frequency Error	Limit (ppm)
Vdc	Temperature ($^{\circ}$ C)	(Hz)	(ppm)	(ppm)
120	50	0.00	0.000000	+/- 2.5
120	40	0.01	0.000012	
120	30	0.00	0.000000	
120	20	0.01	0.000012	
120	10	-0.02	-0.000024	
120	0	0.01	0.000012	
120	-10	0.01	0.000012	
120	-20	0.01	0.000012	

Reference Frequency: LTE Band 5 Max Bandwidth 16QAM, 836.5 MHz				
Limit: ± 2.5 ppm = 2091.25Hz				
Power Supply	Environment	Frequency Error	Frequency Error	Limit (ppm)
Vdc	Temperature ($^{\circ}$ C)	(Hz)	(ppm)	(ppm)
120	50	0.00	0.000000	+/- 2.5
120	40	0.01	0.000012	
120	30	-0.01	-0.000012	
120	20	0.00	0.000000	
120	10	0.00	0.000000	
120	0	-0.01	-0.000012	
120	-10	0.01	0.000012	
120	-20	0.01	0.000012	

LTE Band 2

Reference Frequency: LTE Band 2 Max Bandwidth QPSK, 1880 MHz				
Limit: ± 2.5 ppm = 4700Hz				
Power Supply	Environment	Frequency Error	Frequency Error	Limit (ppm)
Vdc	Temperature (°C)	(Hz)	(ppm)	(ppm)
120	50	0.00	0.000000	+/- 2.5
120	40	0.00	0.000000	
120	30	0.01	0.000005	
120	20	0.02	0.000011	
120	10	0.02	0.000011	
120	0	0.01	0.000005	
120	-10	0.01	0.000005	
120	-20	0.04	0.000021	

Reference Frequency: LTE Band 2 Max Bandwidth 16QAM, 1880 MHz				
Limit: ± 2.5 ppm = 4700Hz				
Power Supply	Environment	Frequency Error	Frequency Error	Limit (ppm)
Vdc	Temperature (°C)	(Hz)	(ppm)	(ppm)
120	50	0.01	0.000005	+/- 2.5
120	40	0.00	0.000000	
120	30	0.01	0.000005	
120	20	0.00	0.000000	
120	10	0.02	0.000011	
120	0	0.02	0.000011	
120	-10	0.02	0.000011	
120	-20	0.01	0.000005	

**FREQUENCY STABILITY V.S. VOLTAGE MEASUREMENT:
LTE Band 5**

Reference Frequency: LTE Band 5 Max Bandwidth QPSK, 836.5 MHz				
Limit: ± 2.5 ppm = 2091.25Hz				
Power Supply	Environment	Frequency Error	Frequency Error	Limit (ppm)
Vdc	Temperature (°C)	(Hz)	(ppm)	(ppm)
102	20	0.00	0.000004	+/- 2.5
120	20	0.01	0.000012	
138	20	0.02	0.000024	

Reference Frequency: LTE Band 5 Max Bandwidth 16QAM, 836.5 MHz				
Limit: ± 2.5 ppm = 2091.25Hz				
Power Supply	Environment	Frequency Error	Frequency Error	Limit (ppm)
Vdc	Temperature (°C)	(Hz)	(ppm)	(ppm)
102	20	-0.01	-0.000008	+/- 2.5
120	20	0.00	0.000000	
138	20	0.01	0.000008	

LTE Band 2

Reference Frequency: LTE Band 2 Max Bandwidth QPSK, 1880 MHz				
Limit: ± 2.5 ppm = 4700Hz				
Power Supply	Environment	Frequency Error	Frequency Error	Limit (ppm)
Vdc	Temperature ($^{\circ}$ C)	(Hz)	(ppm)	(ppm)
102	20	0.01	0.000005	+/- 2.5
120	20	0.02	0.000011	
138	20	0.02	0.000011	

Reference Frequency: LTE Band 2 Max Bandwidth 16QAM, 1880 MHz				
Limit: ± 2.5 ppm = 4700Hz				
Power Supply	Environment	Frequency Error	Frequency Error	Limit (ppm)
Vdc	Temperature ($^{\circ}$ C)	(Hz)	(ppm)	(ppm)
102	20	-0.01	-0.000003	+/- 2.5
120	20	0.02	0.000011	
138	20	0.01	0.000005	

8.4 OCCUPIED BANDWIDTH MEASUREMENT

LIMIT

For Reporting purposes only.

TEST PROCEDURES

KDB 971168 D01 v02r02 - Section 4.2

1. The occupied bandwidth was measured with the spectrum analyzer at the lowest, middle and highest channels in each band and different modulation. The 99% and -26dB bandwidth was measured and recorded.
2. RBW = 1-5% of the expected OBW
3. VBW \geq 3 x RBW
4. Detector = Peak
5. Trace mode = max. hold

TEST RESULTS

No non-compliance noted

LTE Band 5

CHANNEL BANDWIDTH: 1.4MHz / QPSK

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
20525	836.5	1.1027

CHANNEL BANDWIDTH: 1.4MHz / 16QAM

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
20525	836.5	1.0940

CHANNEL BANDWIDTH: 3MHz / QPSK

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
20525	836.50	2.6917

CHANNEL BANDWIDTH: 3MHz / 16QAM

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
20525	836.50	2.6917

CHANNEL BANDWIDTH: 5MHz / QPSK

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
20525	836.50	4.4862

CHANNEL BANDWIDTH: 5MHz / 16QAM

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
20525	836.50	4.4862

CHANNEL BANDWIDTH: 10MHz / QPSK

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
20525	836.50	8.9725

CHANNEL BANDWIDTH: 10MHz / 16QAM

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
20525	836.50	8.9435

LTE Band 2

CHANNEL BANDWIDTH: 1.4MHz / QPSK

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
18900	1880	1.1027

CHANNEL BANDWIDTH: 1.4MHz / 16QAM

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
18900	1880	1.1070

CHANNEL BANDWIDTH: 3MHz / QPSK

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
18900	1880.00	2.6917

CHANNEL BANDWIDTH: 3MHz / 16QAM

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
18900	1880.00	2.6917

CHANNEL BANDWIDTH: 5MHz / QPSK

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
18900	1880.00	4.4862

CHANNEL BANDWIDTH: 5MHz / 16QAM

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
18900	1880.00	4.4862

CHANNEL BANDWIDTH: 10MHz / QPSK

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
18900	1880.00	8.9435

CHANNEL BANDWIDTH: 10MHz / 16QAM

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
18900	1880.00	8.9435

CHANNEL BANDWIDTH: 15MHz / QPSK

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
18900	1880.00	13.4587

CHANNEL BANDWIDTH: 15MHz / 16QAM

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
18900	1880.00	13.4587

CHANNEL BANDWIDTH: 20MHz / QPSK

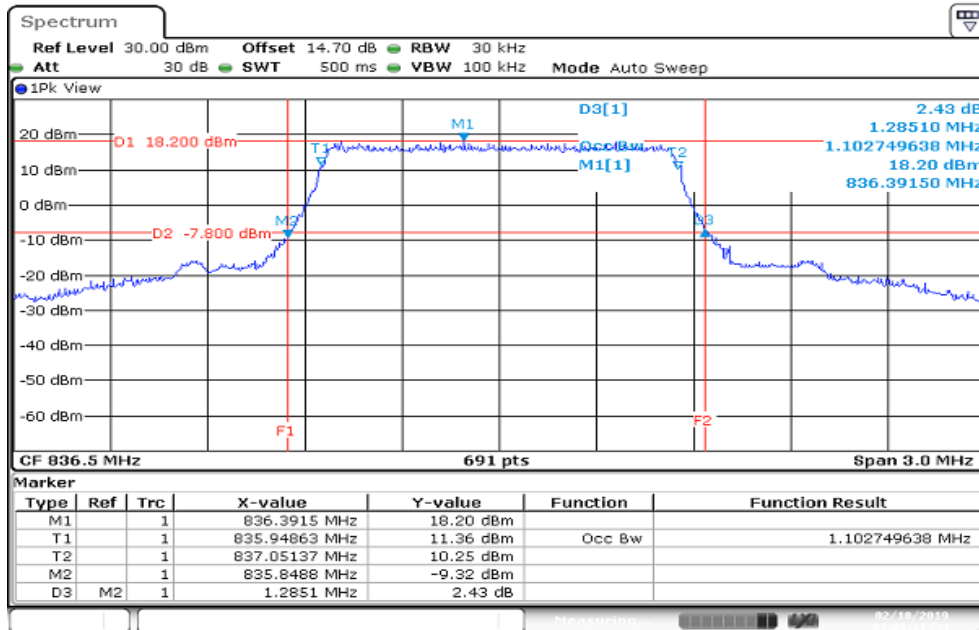
Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
18900	1880.00	18.0607

CHANNEL BANDWIDTH: 20MHz / 16QAM

Channel	FREQUENCY (MHz)	Occupied bandwidth (MHz)
18900	1880.00	18.0607

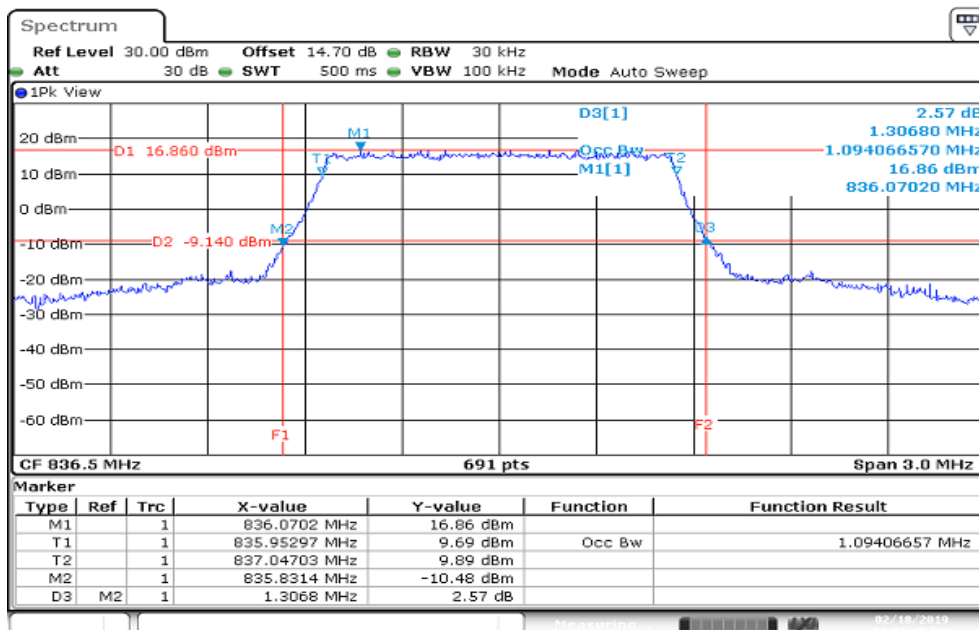
Report No.: T190115W01-RP3

LTE Band 5 CHANNEL BANDWIDTH: 1.4MHz / QPSK CH Mid



Date: 18 FEB 2019 13:03:12

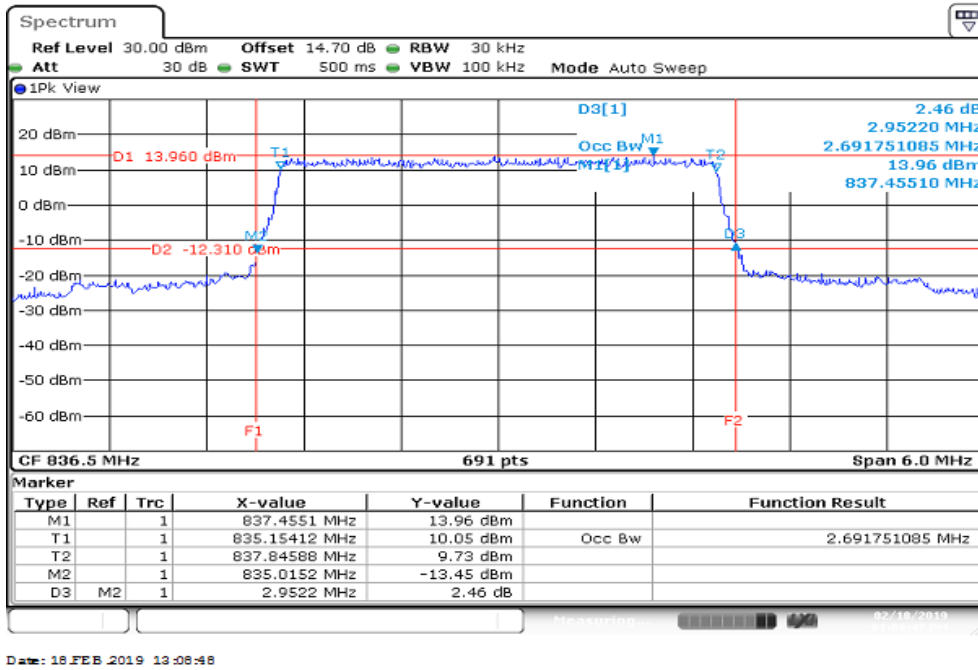
CHANNEL BANDWIDTH: 1.4MHz / 16QAM CH Mid



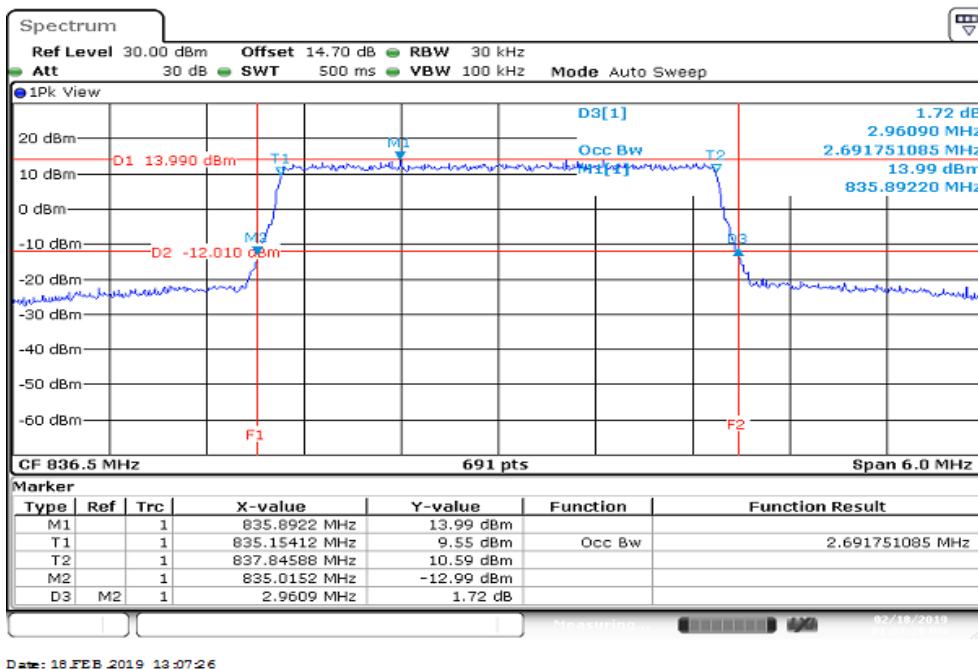
Date: 18 FEB 2019 13:00:40

Report No.: T190115W01-RP3

CHANNEL BANDWIDTH: 3MHz / QPSK CH Mid

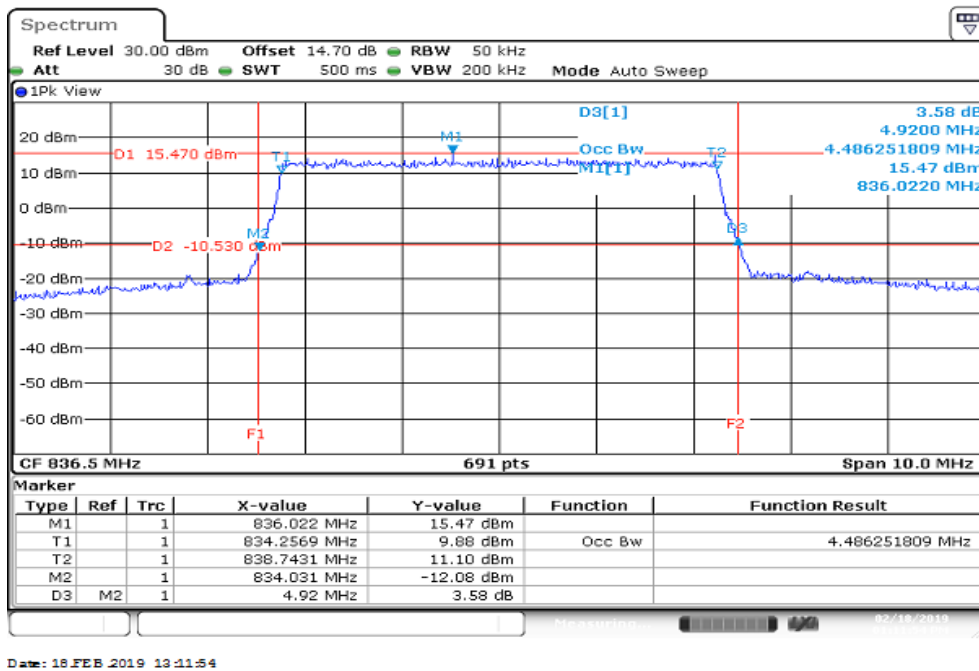


CHANNEL BANDWIDTH: 3MHz / 16QAM CH Mid

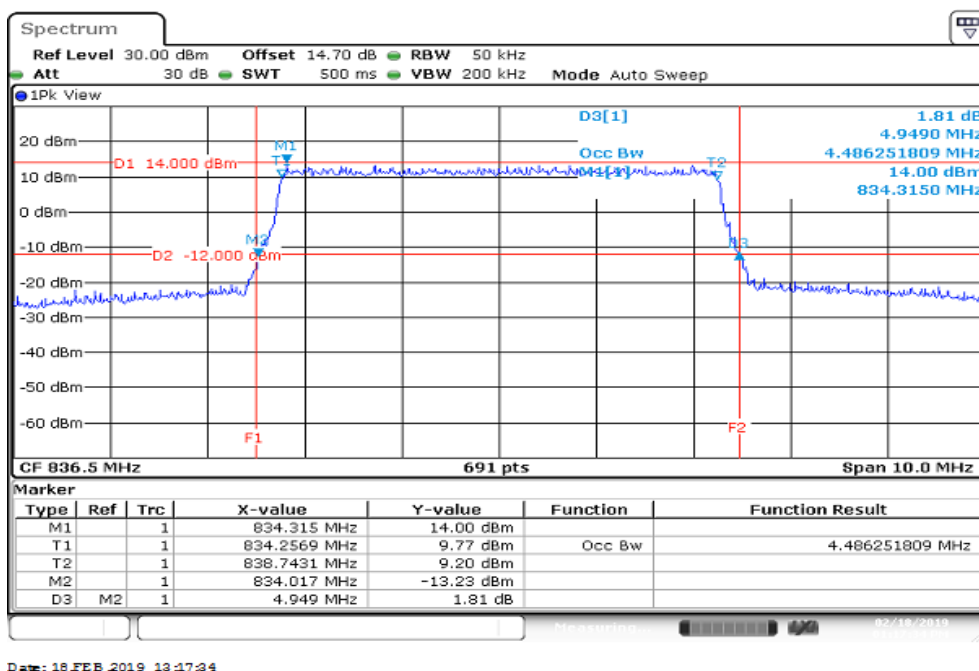


Report No.: T190115W01-RP3

CHANNEL BANDWIDTH: 5MHz / QPSK CH Mid

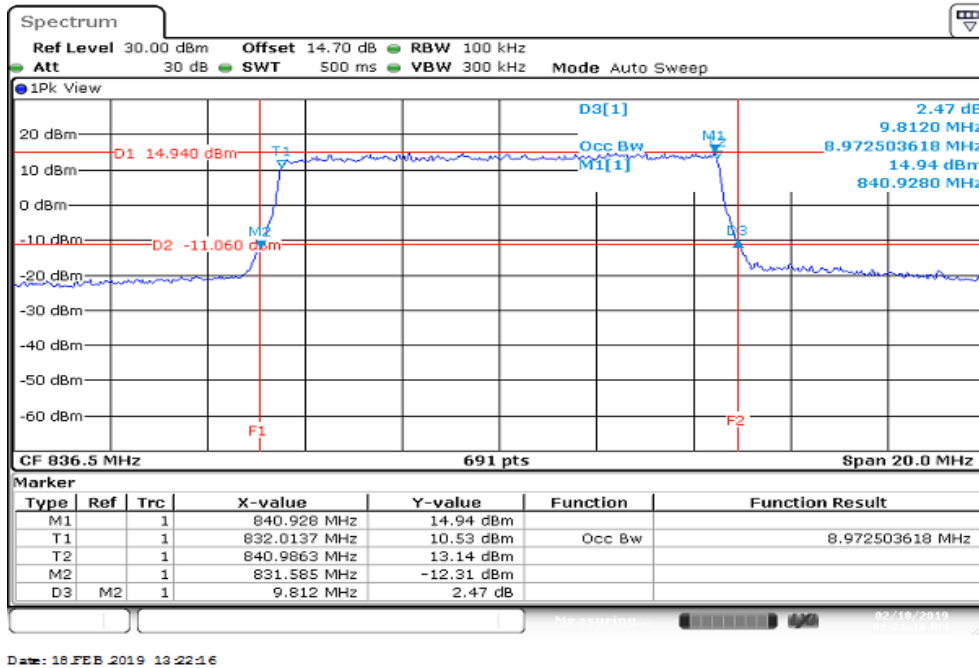


CHANNEL BANDWIDTH: 5MHz / 16QAM CH Mid

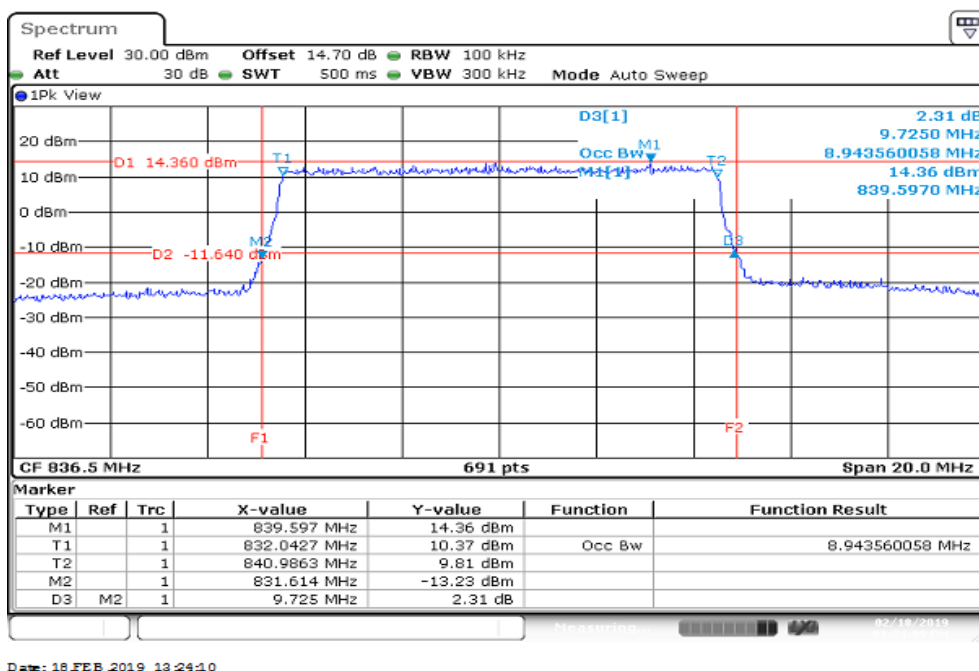


Report No.: T190115W01-RP3

CHANNEL BANDWIDTH: 10MHz / QPSK CH Mid

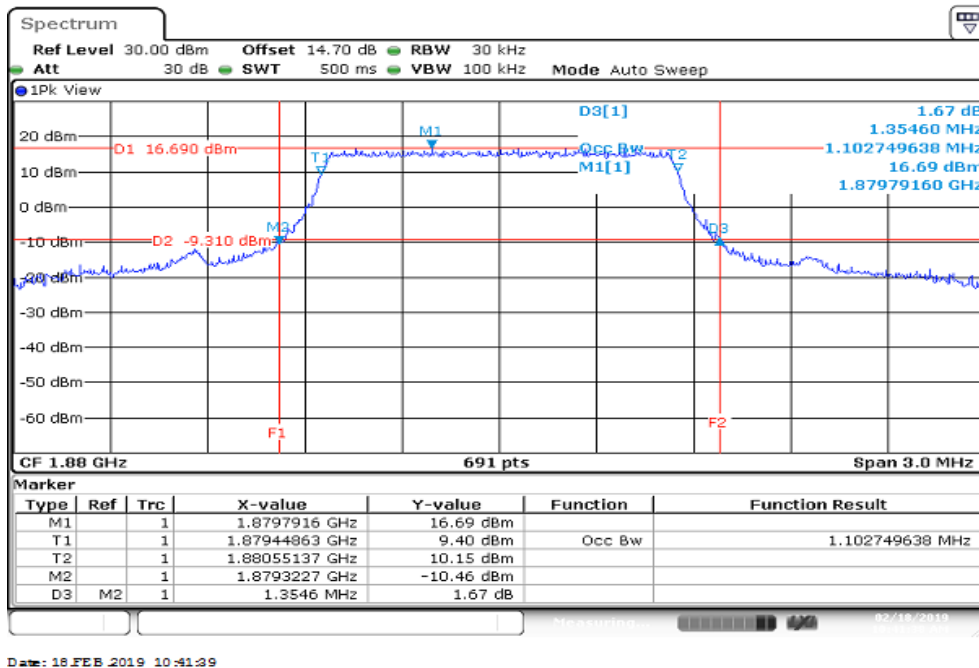


CHANNEL BANDWIDTH: 10MHz / 16QAM CH Mid

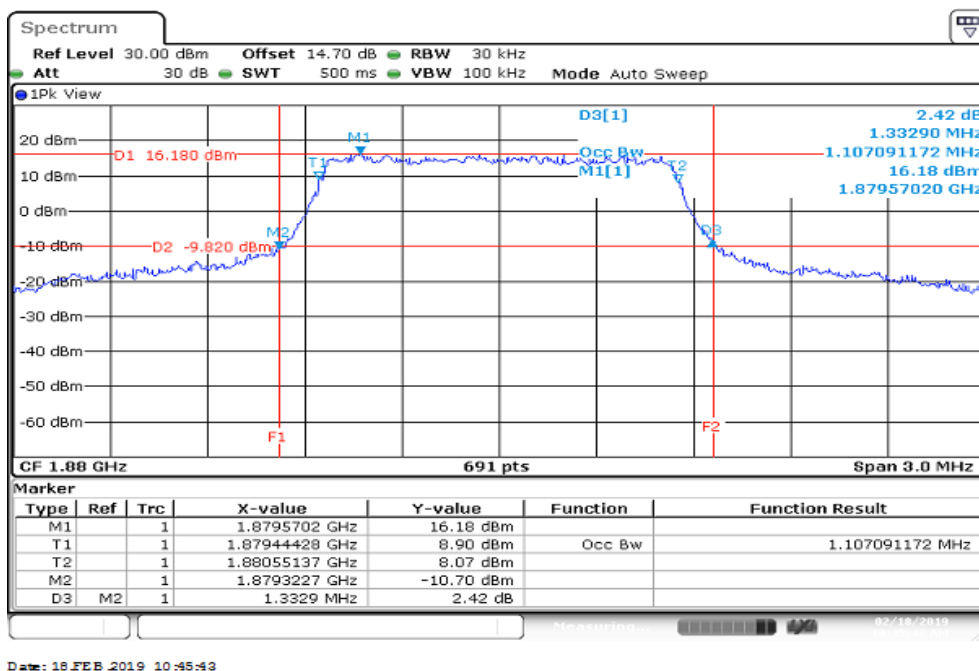


Report No.: T190115W01-RP3

LTE Band 2 CHANNEL BANDWIDTH: 1.4MHz / QPSK CH Mid

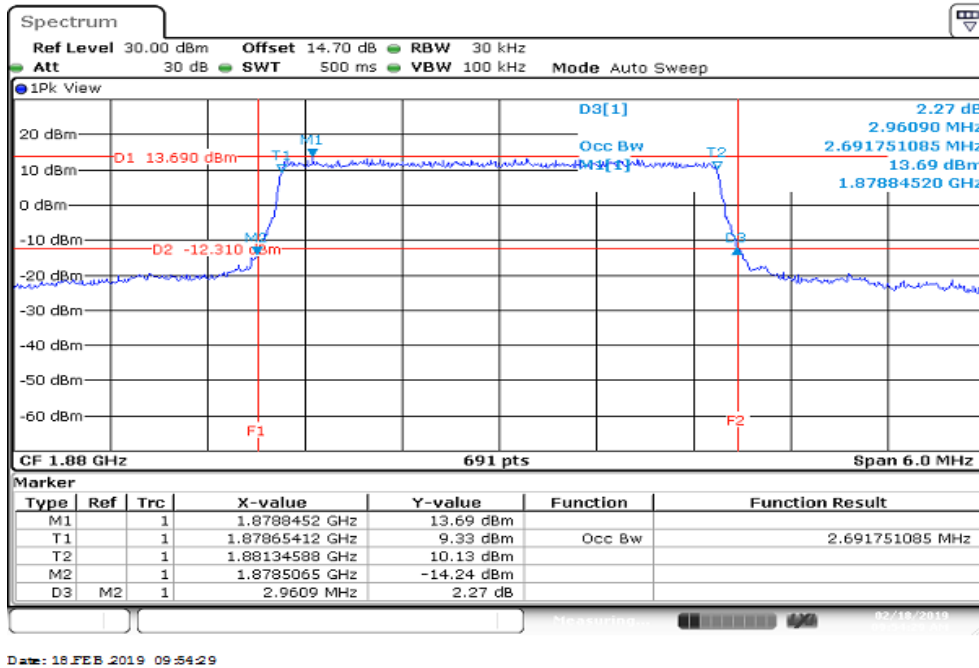


CHANNEL BANDWIDTH: 1.4MHz / 16QAM CH Mid

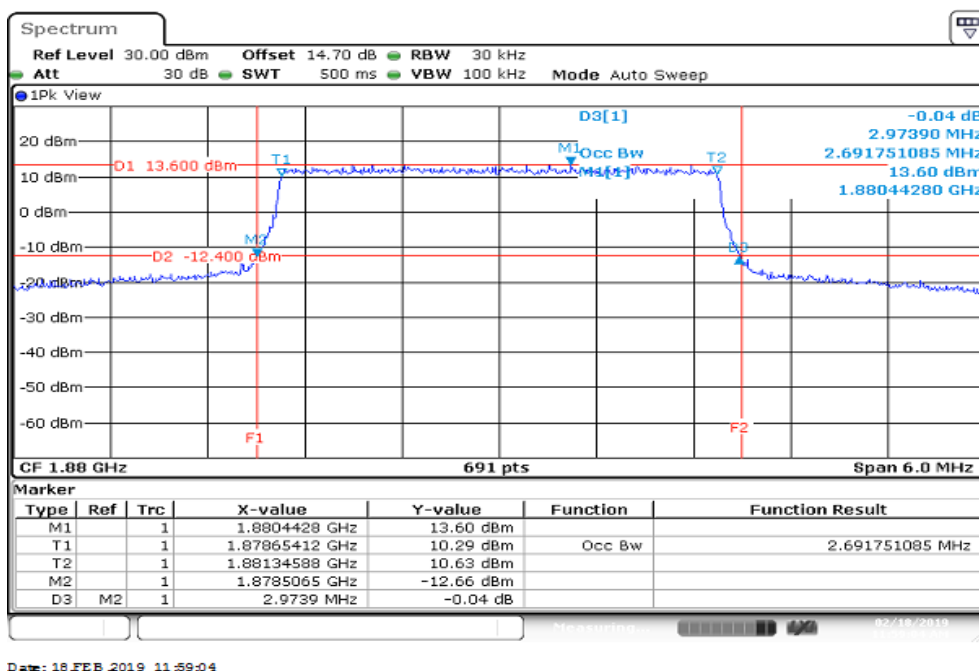


Report No.: T190115W01-RP3

CHANNEL BANDWIDTH: 3MHz / QPSK CH Mid

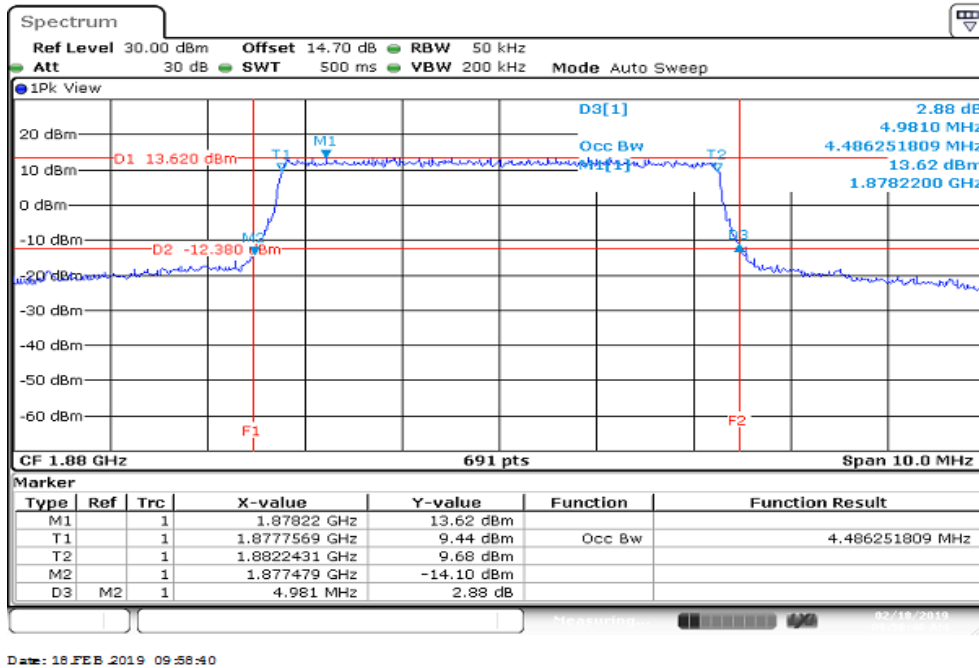


CHANNEL BANDWIDTH: 3MHz / 16QAM CH Mid

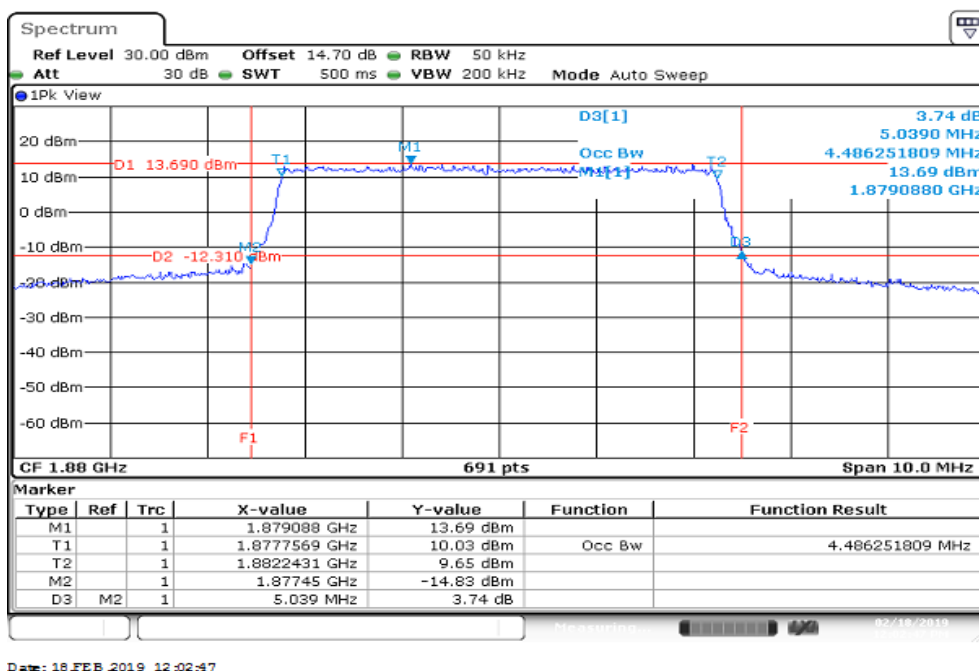


Report No.: T190115W01-RP3

CHANNEL BANDWIDTH: 5MHz / QPSK CH Mid

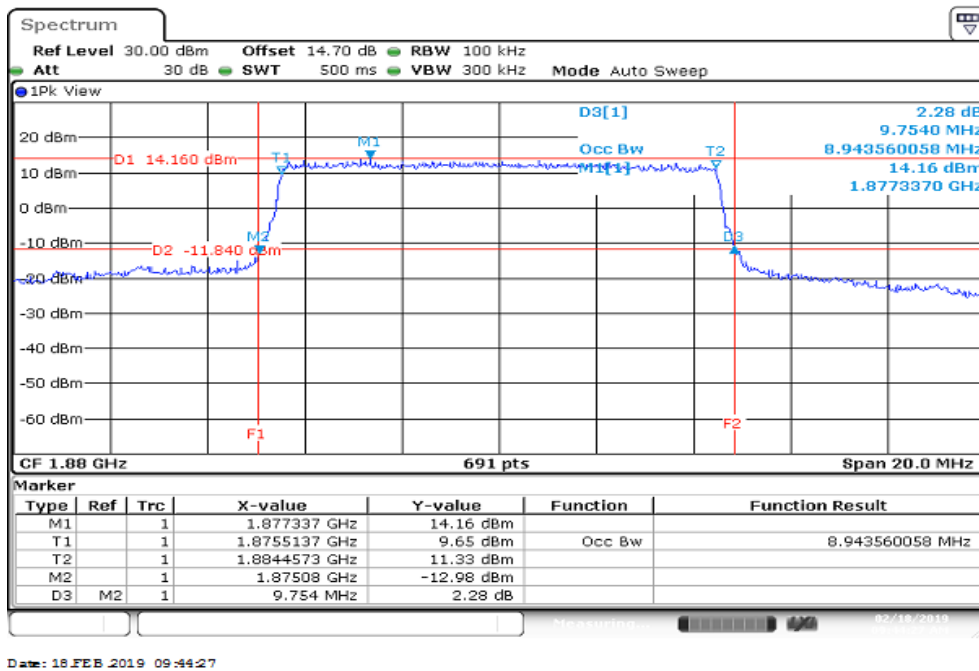


CHANNEL BANDWIDTH: 5MHz / 16QAM CH Mid

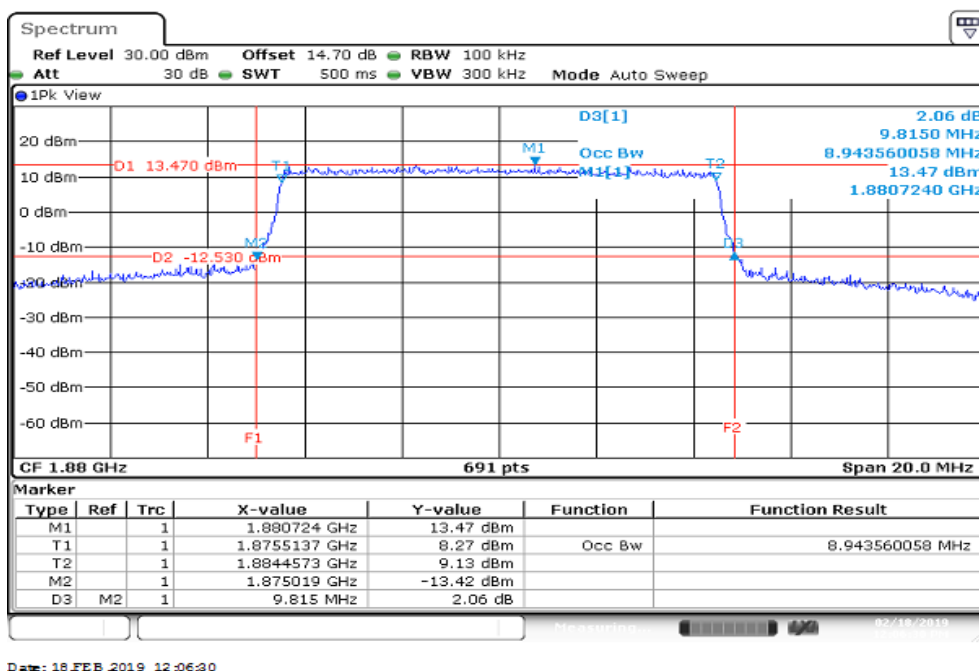


Report No.: T190115W01-RP3

CHANNEL BANDWIDTH: 10MHz / QPSK CH Mid

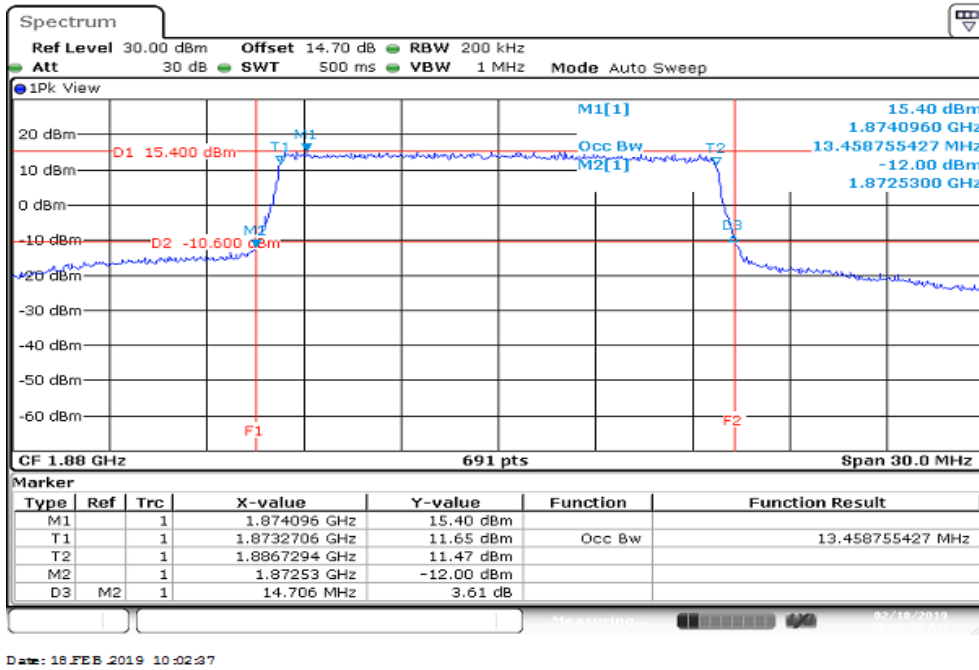


CHANNEL BANDWIDTH: 10MHz / 16QAM CH Mid

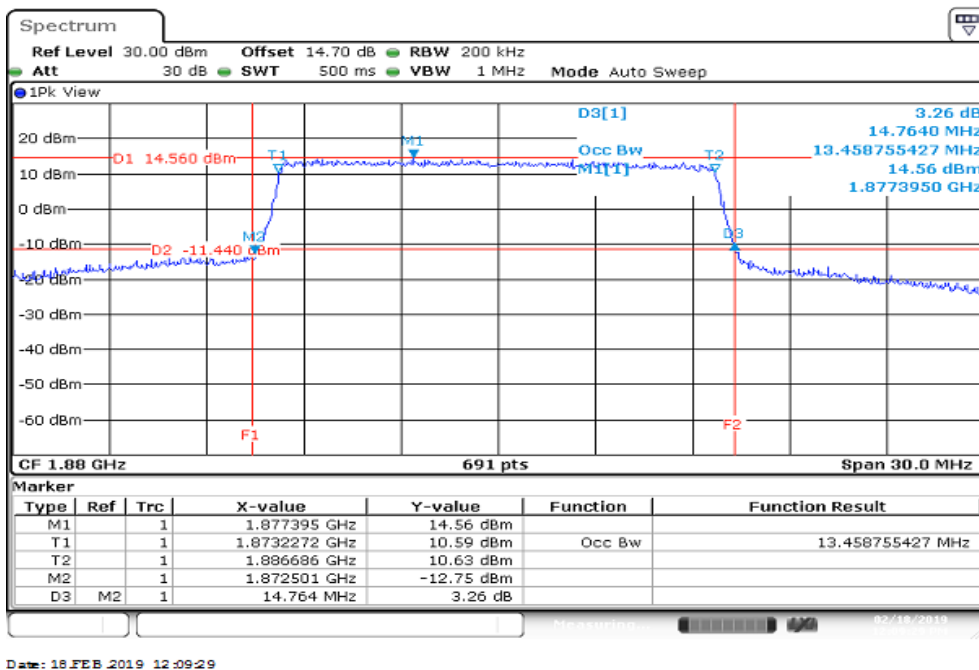


Report No.: T190115W01-RP3

CHANNEL BANDWIDTH: 15MHz / QPSK CH Mid

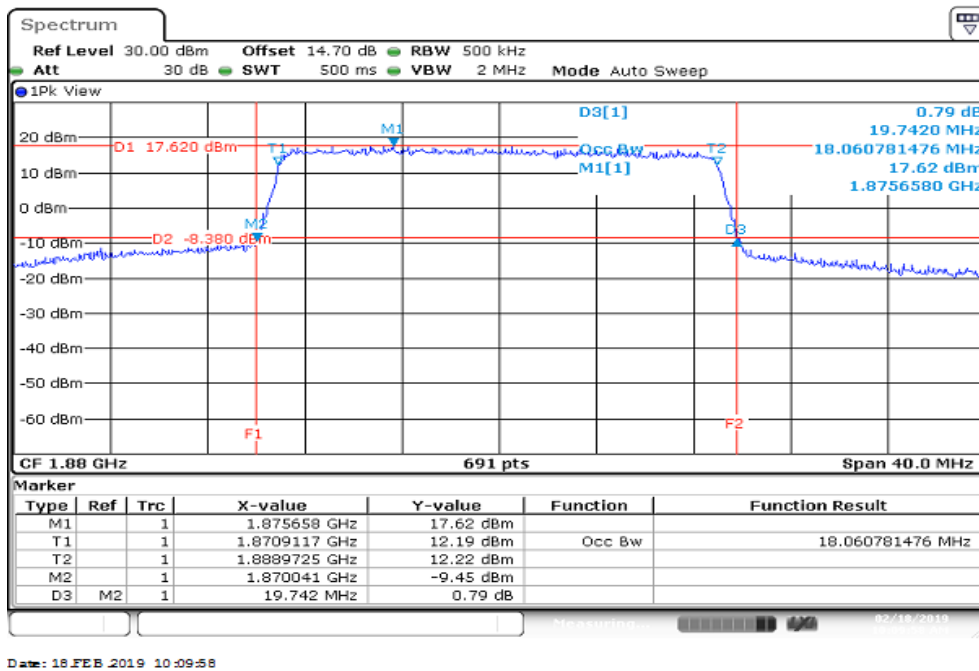


CHANNEL BANDWIDTH: 15MHz / 16QAM CH Mid

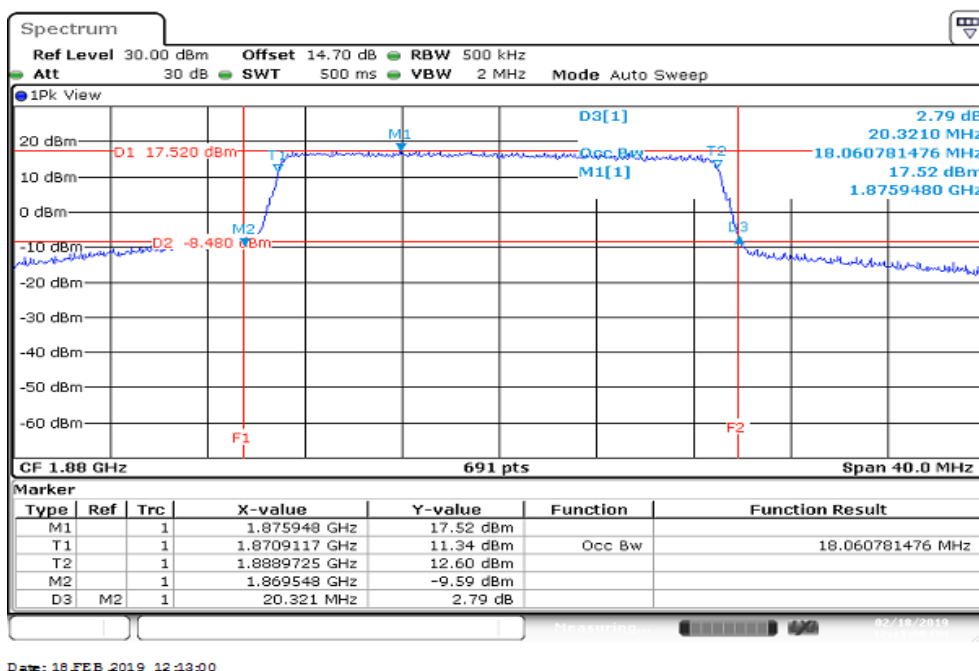


Report No.: T190115W01-RP3

CHANNEL BANDWIDTH: 20MHz / QPSK CH Mid



CHANNEL BANDWIDTH: 20MHz / 16QAM CH Mid



8.5 PEAK TO AVERAGE POWER RATIO

Limit

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

Test Procedures

1. According to RSS-132 section 5.4 and RSS-133 section 6.4
2. The EUT was connect to spectrum analyzer and call box.
3. Set the CCDF function in spectrum analyzer.
4. The highest RF output power were measured and recorded the maximum PAPR level associated with a probability of 0.1%.
5. Record the Peak to Average Power Ratio.

Test Results

LTE Band 5

CHANNEL BANDWIDTH: 1.4MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20525	836.5	4.93

CHANNEL BANDWIDTH: 1.4MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20525	836.5	6.09

CHANNEL BANDWIDTH: 3MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20525	836.50	4.96

CHANNEL BANDWIDTH: 3MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20525	836.50	5.91

CHANNEL BANDWIDTH: 5MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20525	836.50	5.04

CHANNEL BANDWIDTH: 5MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20525	836.50	6.03

CHANNEL BANDWIDTH: 10MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20525	836.50	4.99

CHANNEL BANDWIDTH: 10MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20525	836.50	5.68

CHANNEL BANDWIDTH: 1.4MHz / QPSK / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20525	836.5	5.74

CHANNEL BANDWIDTH: 1.4MHz / 16QAM / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20525	836.5	6.46

CHANNEL BANDWIDTH: 3MHz / QPSK / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20525	836.50	5.42

CHANNEL BANDWIDTH: 3MHz / 16QAM / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20525	836.50	6.49

CHANNEL BANDWIDTH: 5MHz / QPSK / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20525	836.50	4.70

CHANNEL BANDWIDTH: 5MHz / 16QAM / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20525	836.50	6.20

CHANNEL BANDWIDTH: 10MHz / QPSK / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20525	836.50	4.61

CHANNEL BANDWIDTH: 10MHz / 16QAM / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
20525	836.50	6.64

LTE Band 2

CHANNEL BANDWIDTH: 1.4MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880	3.07

CHANNEL BANDWIDTH: 1.4MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880	3.86

CHANNEL BANDWIDTH: 3MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	2.93

CHANNEL BANDWIDTH: 3MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	3.80

CHANNEL BANDWIDTH: 5MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	2.93

CHANNEL BANDWIDTH: 5MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	3.74

CHANNEL BANDWIDTH: 10MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	3.33

CHANNEL BANDWIDTH: 10MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	4.17

CHANNEL BANDWIDTH: 15MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	3.74

CHANNEL BANDWIDTH: 15MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	3.25

CHANNEL BANDWIDTH: 20MHz / QPSK / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	3.62

CHANNEL BANDWIDTH: 20MHz / 16QAM / 1RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	3.04

CHANNEL BANDWIDTH: 1.4MHz / QPSK / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880	3.86

CHANNEL BANDWIDTH: 1.4MHz / 16QAM / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880	4.70

CHANNEL BANDWIDTH: 3MHz / QPSK / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	3.91

CHANNEL BANDWIDTH: 3MHz / 16QAM / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	4.87

CHANNEL BANDWIDTH: 5MHz / QPSK / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	3.59

CHANNEL BANDWIDTH: 5MHz / 16QAM / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	5.04

CHANNEL BANDWIDTH: 10MHz / QPSK / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	4.81

CHANNEL BANDWIDTH: 10MHz / 16QAM / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	4.81

CHANNEL BANDWIDTH: 15MHz / QPSK / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	6.26

CHANNEL BANDWIDTH: 15MHz / 16QAM / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	6.84

CHANNEL BANDWIDTH: 20MHz / QPSK / 100%RB

Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	6.96

CHANNEL BANDWIDTH: 20MHz / 16QAM / 100%RB

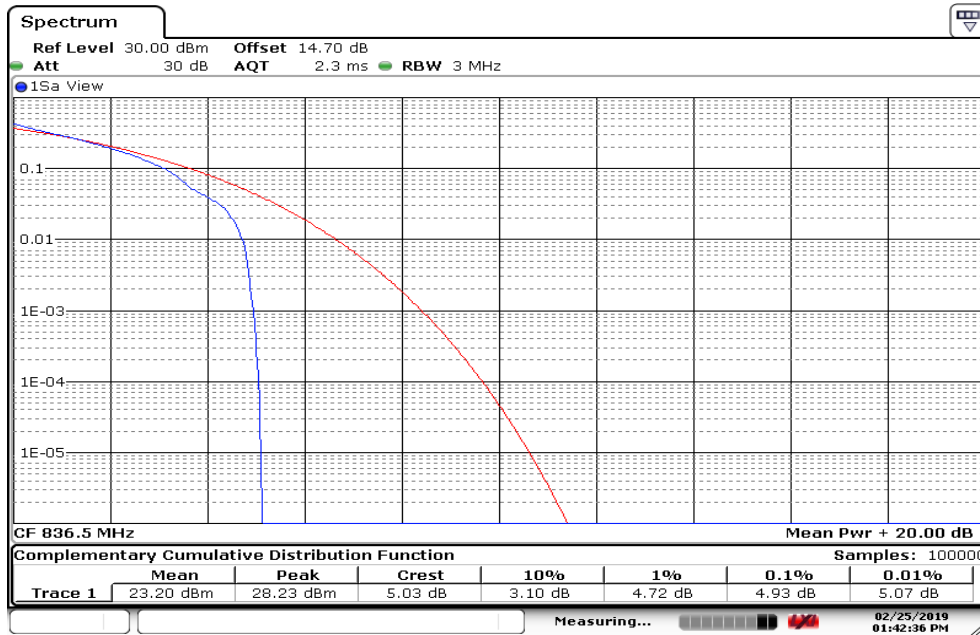
Channel	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
18900	1880.00	7.25

Report No.: T190115W01-RP3

LTE Band 5

CHANNEL BANDWIDTH: 1.4MHz / QPSK / 1RB

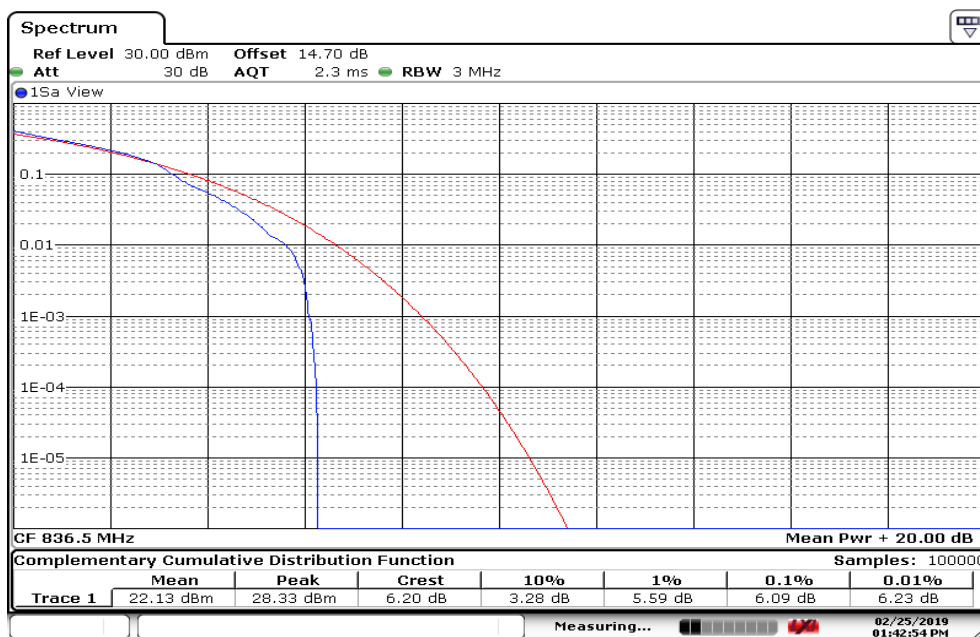
CH Mid



Date: 25.FEB.2019 13:42:36

CHANNEL BANDWIDTH: 1.4MHz / 16QAM / 1RB

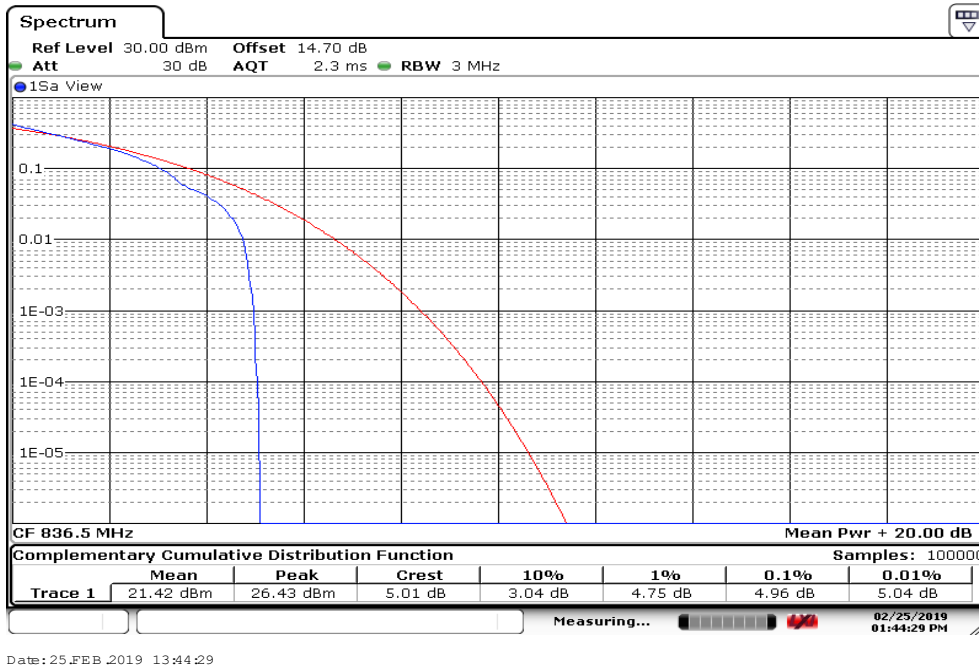
CH Mid



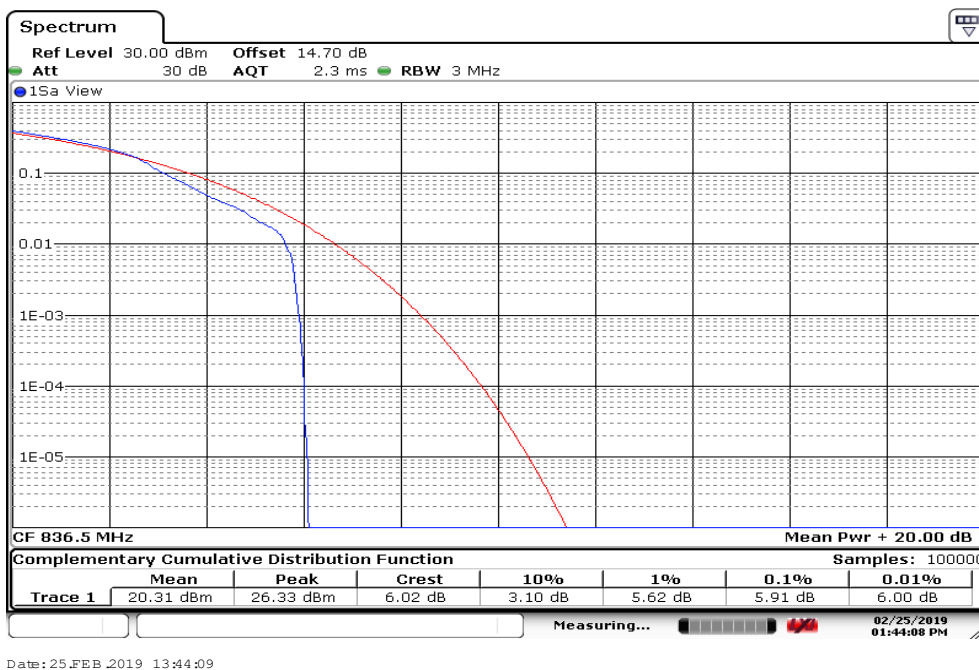
Date: 25.FEB.2019 13:42:54

Report No.: T190115W01-RP3

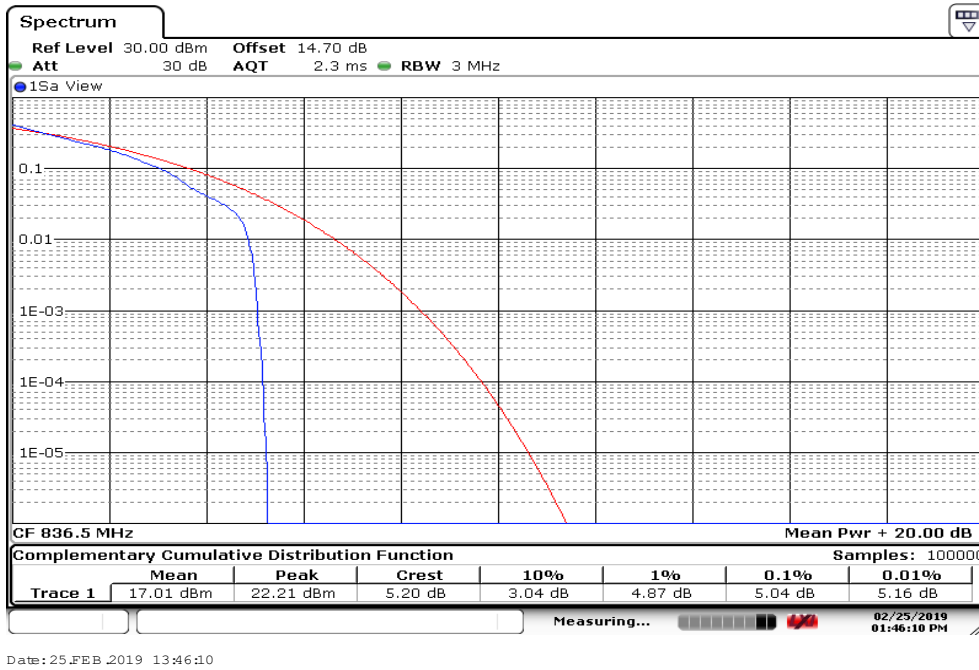
CHANNEL BANDWIDTH: 3MHz / QPSK / 1RB CH Mid



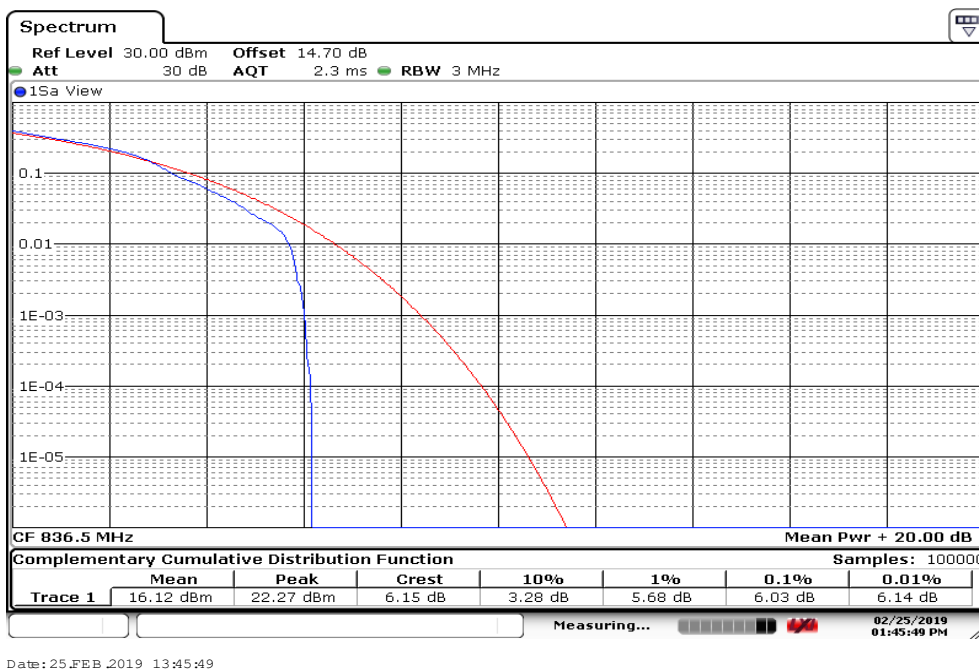
CHANNEL BANDWIDTH: 3MHz / 16QAM / 1RB CH Mid



CHANNEL BANDWIDTH: 5MHz / QPSK / 1RB CH Mid



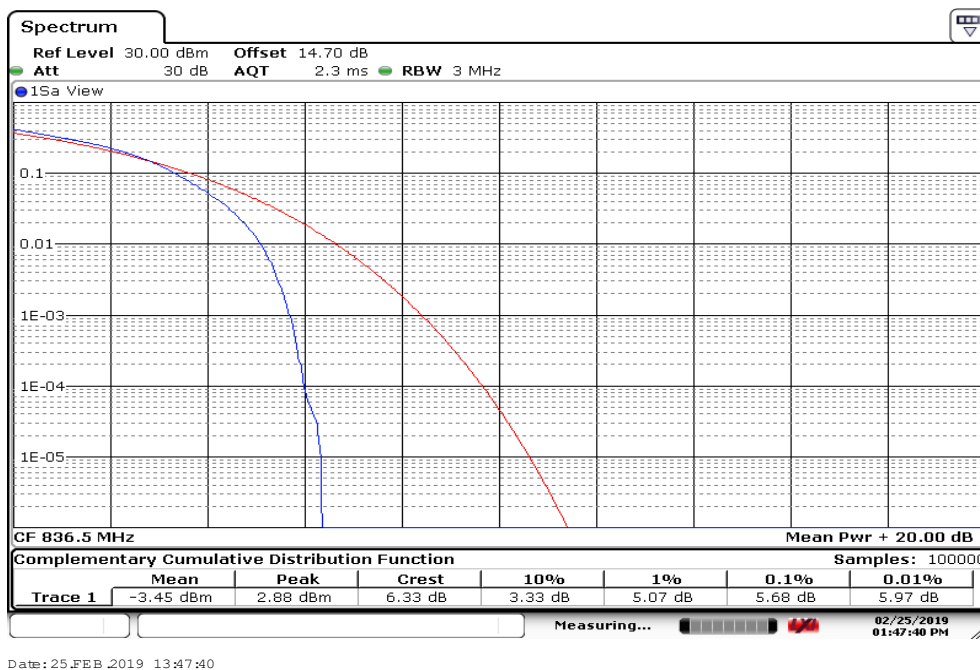
CHANNEL BANDWIDTH: 5MHz / 16QAM / 1RB CH Mid



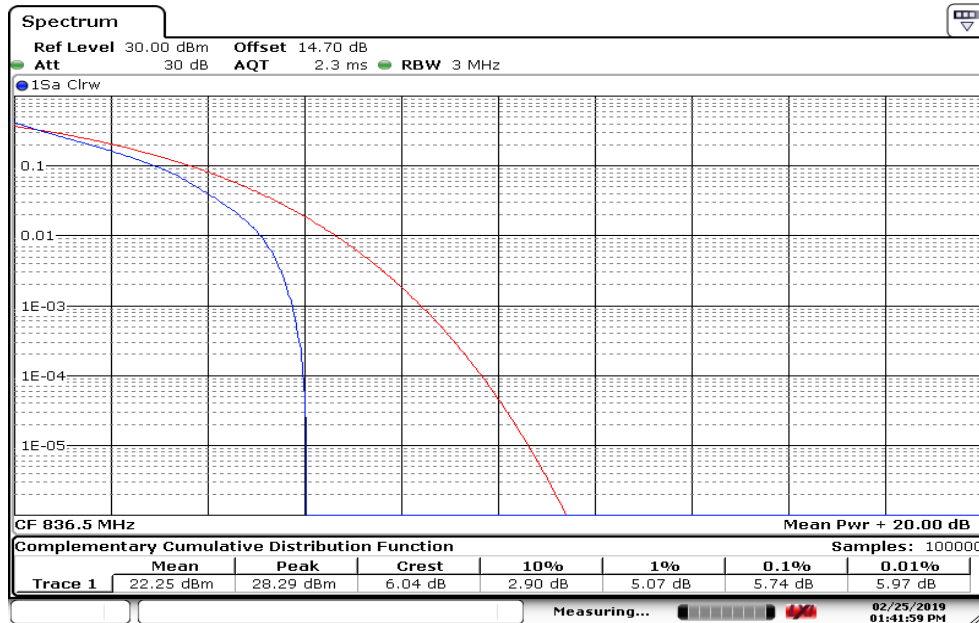
CHANNEL BANDWIDTH: 10MHz / QPSK / 1RB CH Mid



CHANNEL BANDWIDTH: 10MHz / 16QAM / 1RB CH Mid

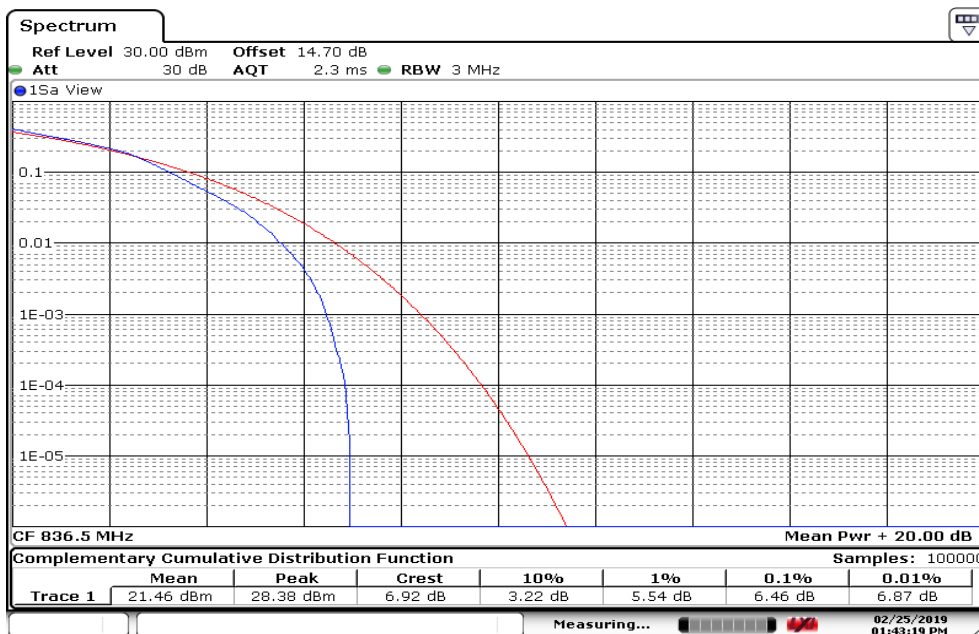


CHANNEL BANDWIDTH: 1.4MHz / QPSK / 100%RB
CH Mid



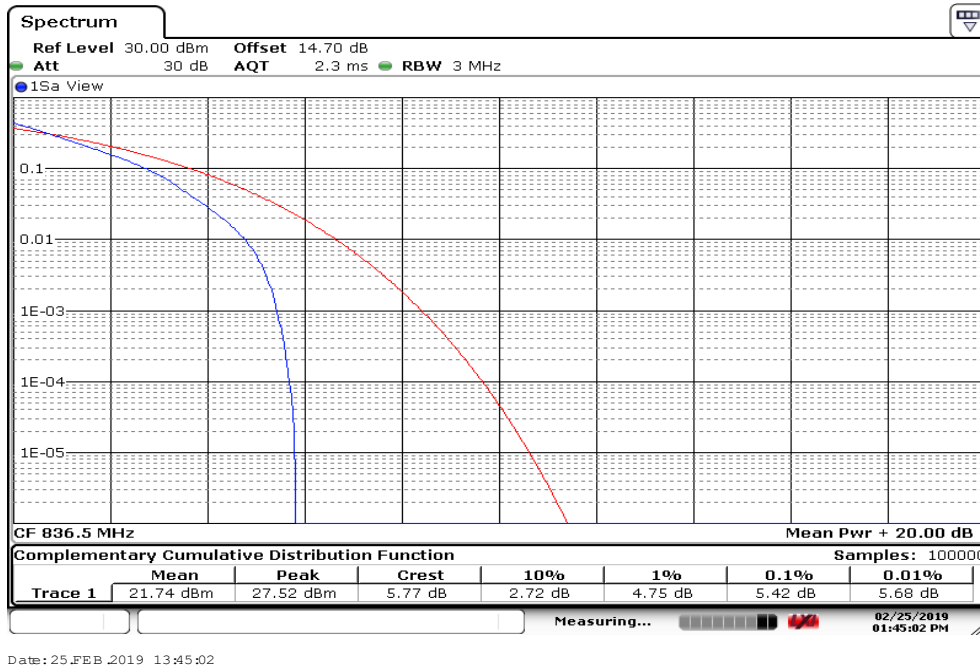
Date: 25.FEB.2019 13:42:00

CHANNEL BANDWIDTH: 1.4MHz / 16QAM / 100%RB
CH Mid

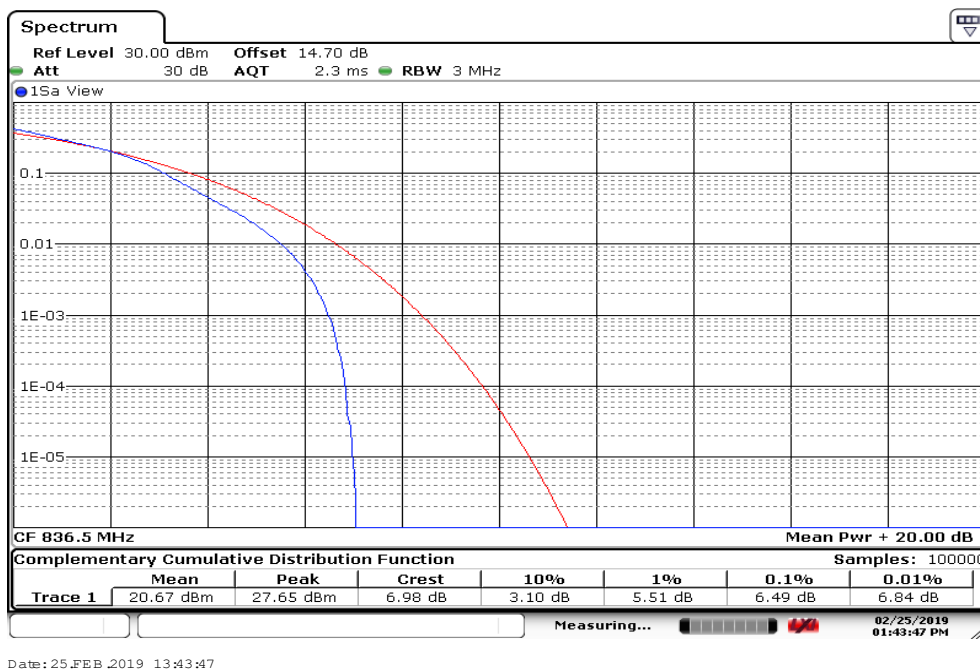


Date: 25.FEB.2019 13:43:19

CHANNEL BANDWIDTH: 3MHz / QPSK / 100%RB CH Mid

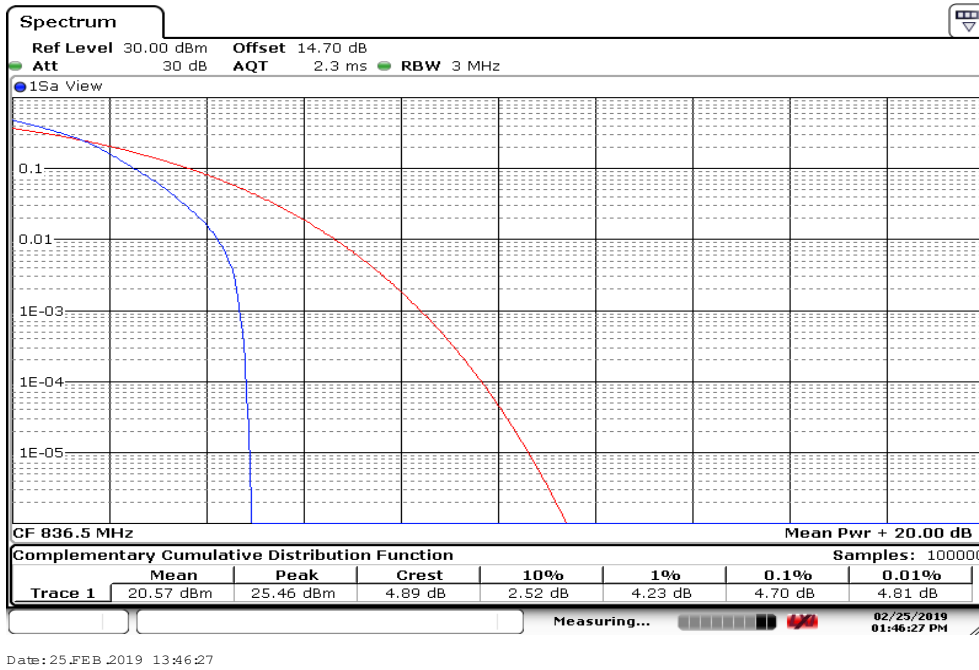


CHANNEL BANDWIDTH: 3MHz / 16QAM / 100%RB CH Mid

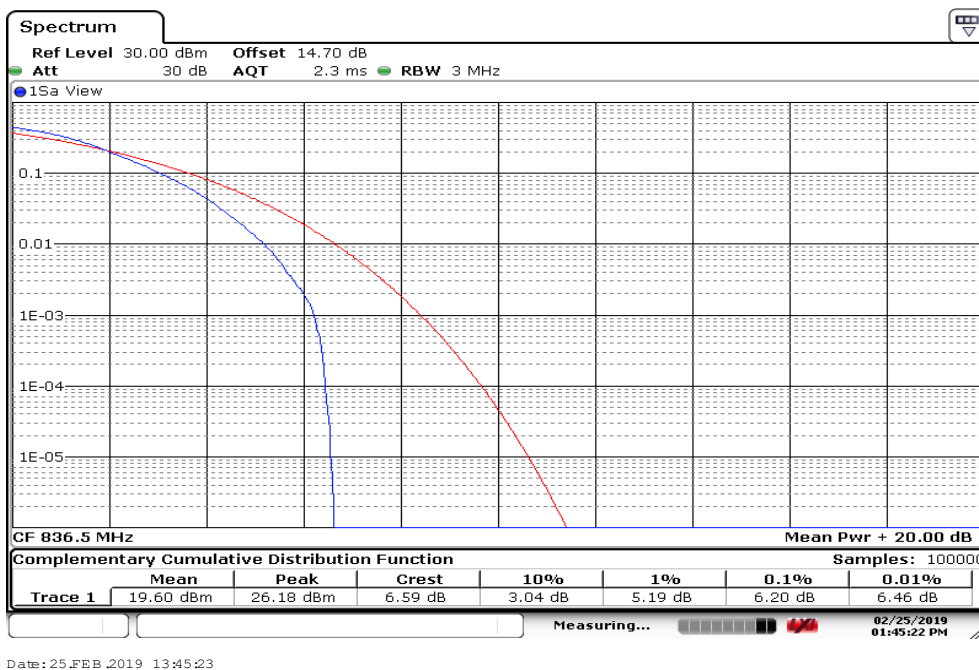


Report No.: T190115W01-RP3

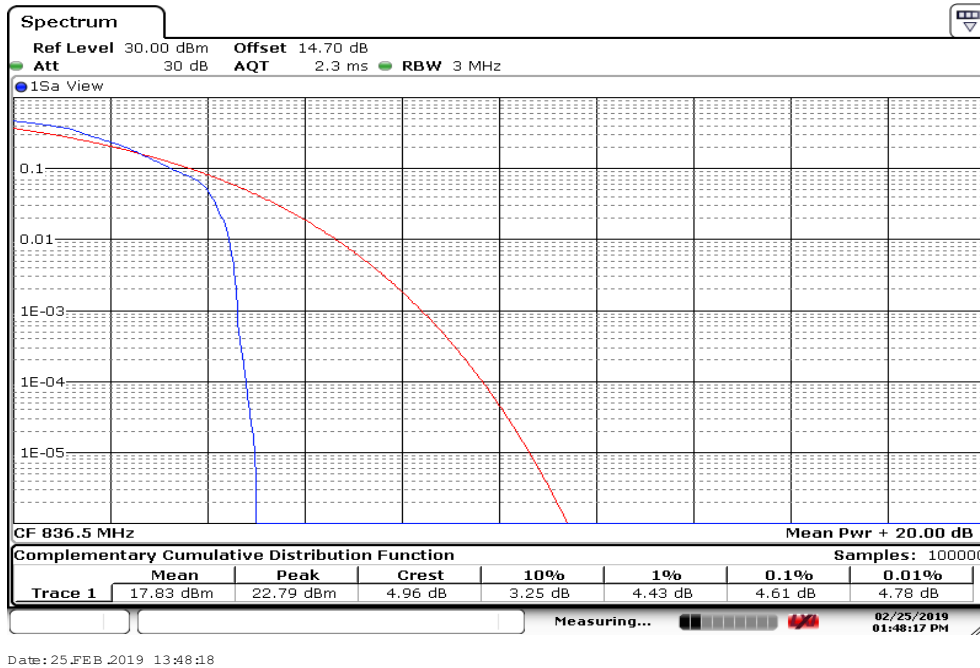
CHANNEL BANDWIDTH: 5MHz / QPSK / 100%RB CH Mid



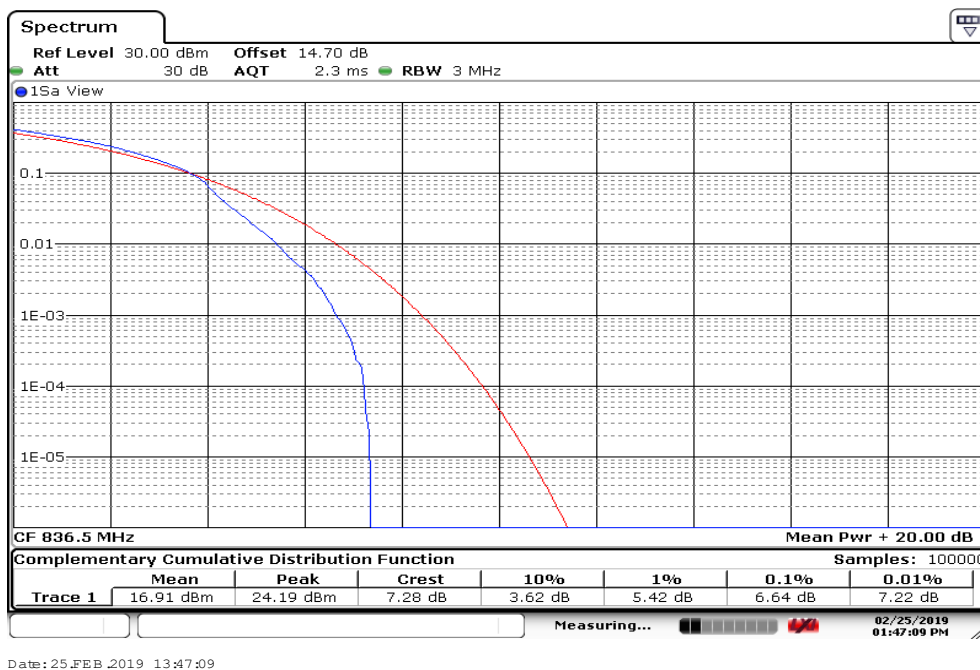
CHANNEL BANDWIDTH: 5MHz / 16QAM / 100%RB CH Mid



CHANNEL BANDWIDTH: 10MHz / QPSK / 100%RB CH Mid



CHANNEL BANDWIDTH: 10MHz / 16QAM / 100%RB CH Mid

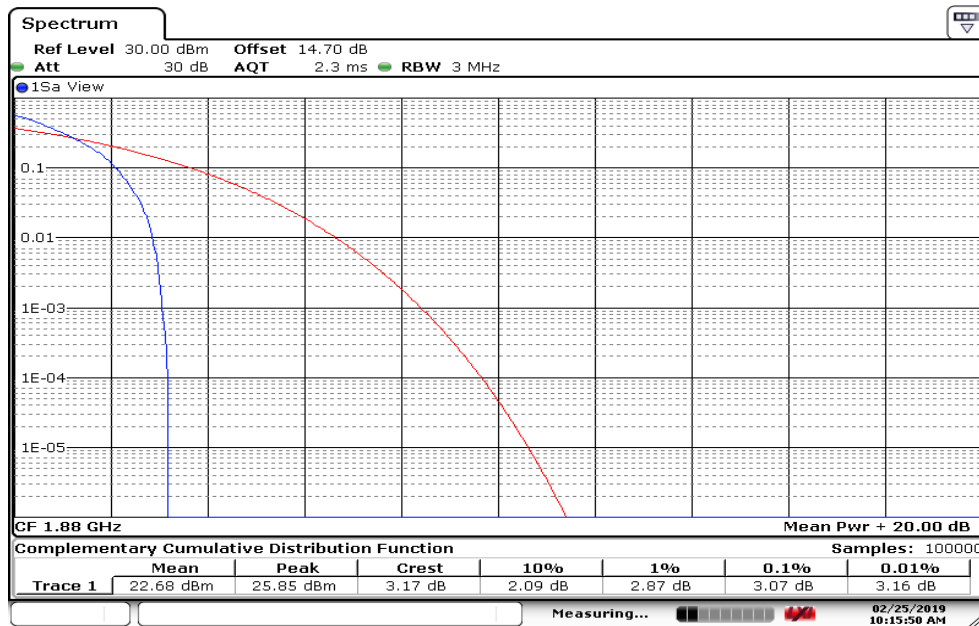


Report No.: T190115W01-RP3

LTE Band 2

CHANNEL BANDWIDTH: 1.4MHz / QPSK / 1RB

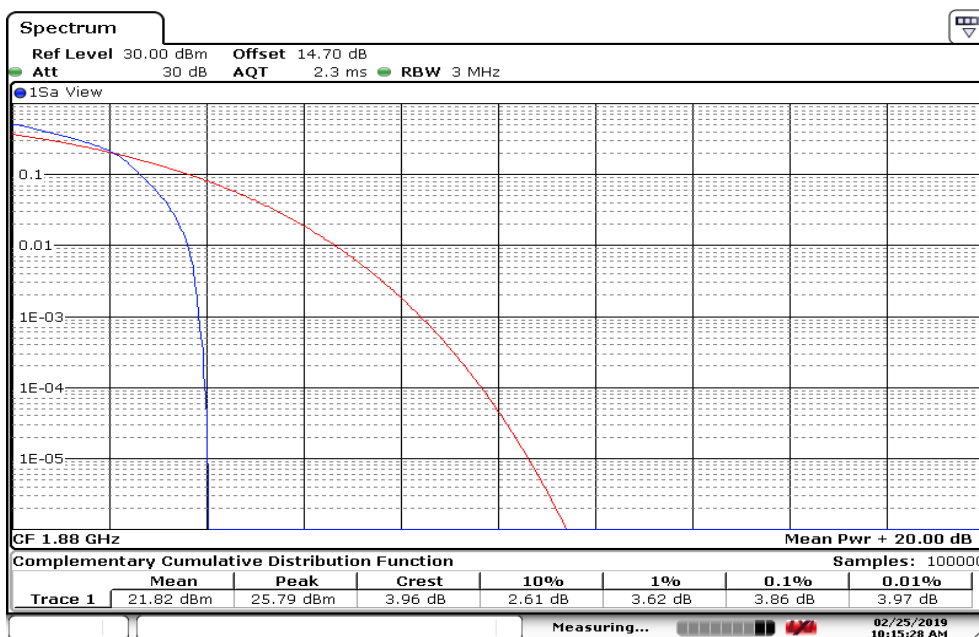
CH Mid



Date: 25.FEB.2019 10:15:51

CHANNEL BANDWIDTH: 1.4MHz / 16QAM / 1RB

CH Mid

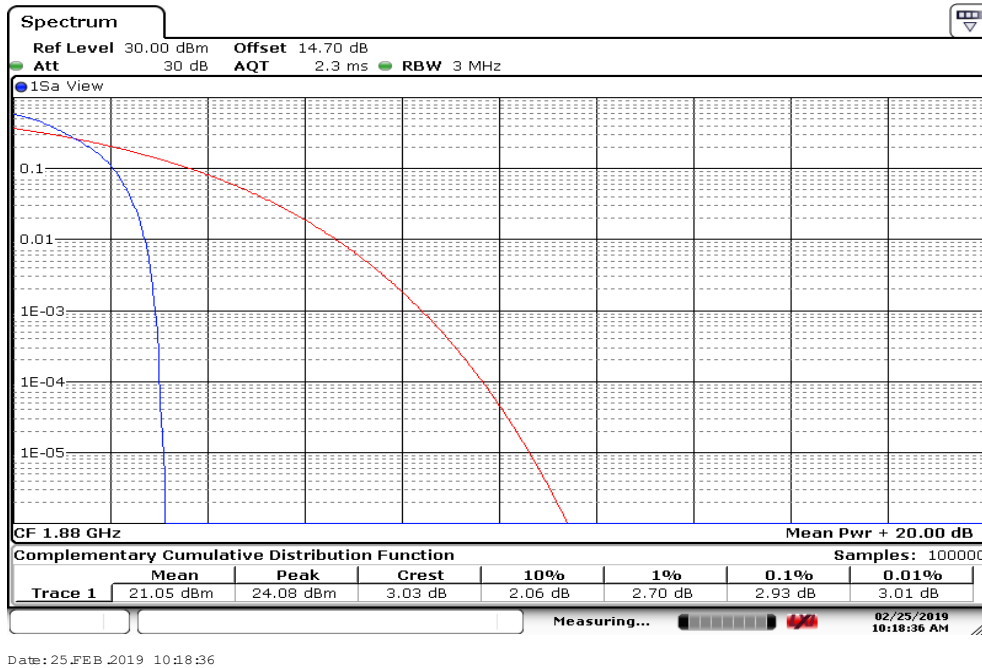


Date: 25.FEB.2019 10:15:28

Report No.: T190115W01-RP3

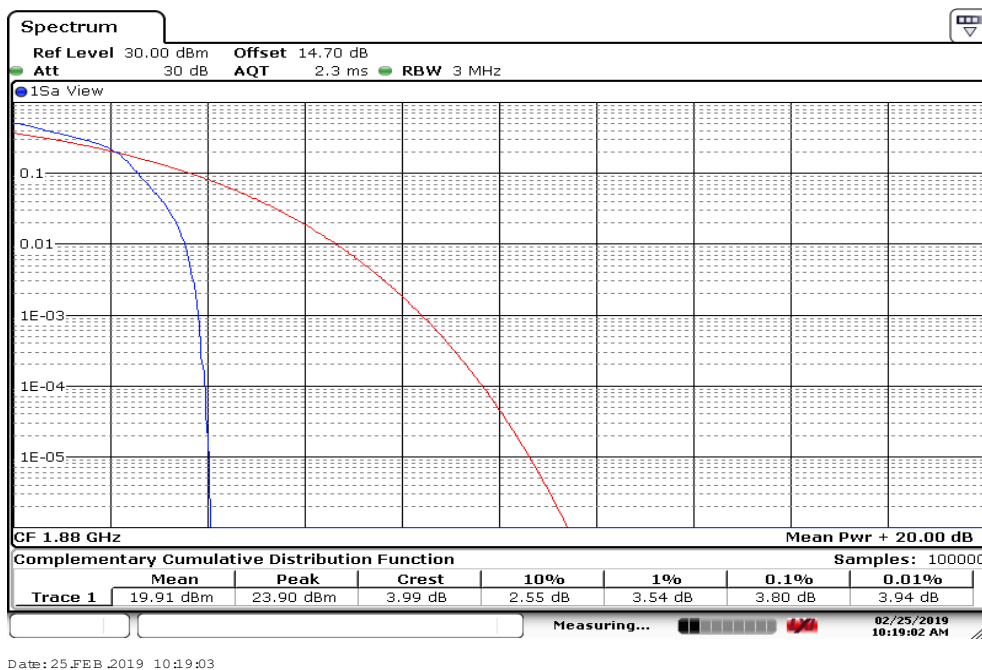
CHANNEL BANDWIDTH: 3MHz / QPSK / 1RB

CH Mid

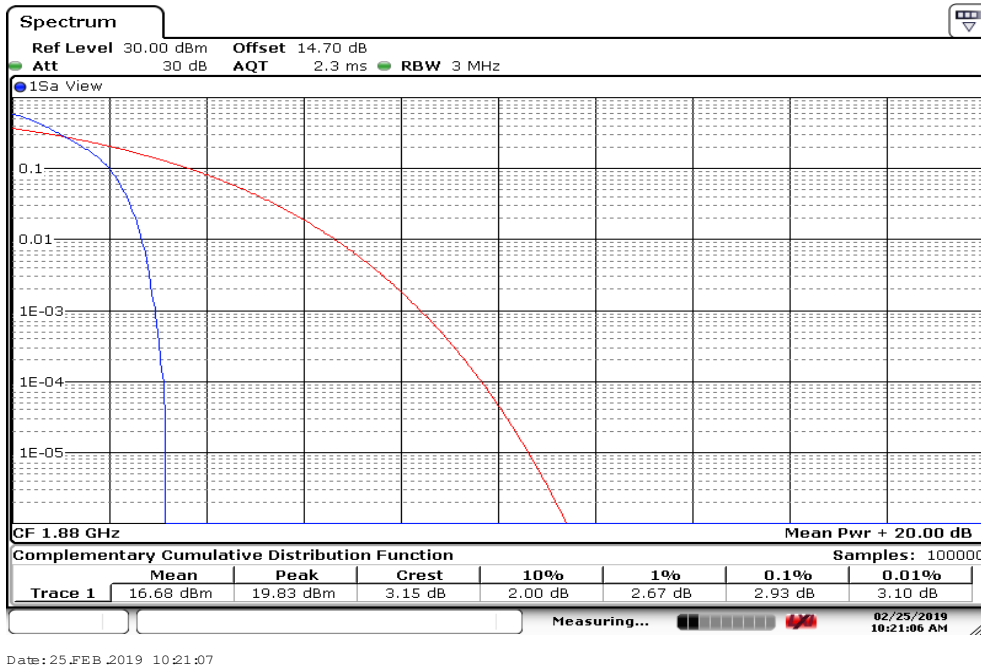


CHANNEL BANDWIDTH: 3MHz / 16QAM / 1RB

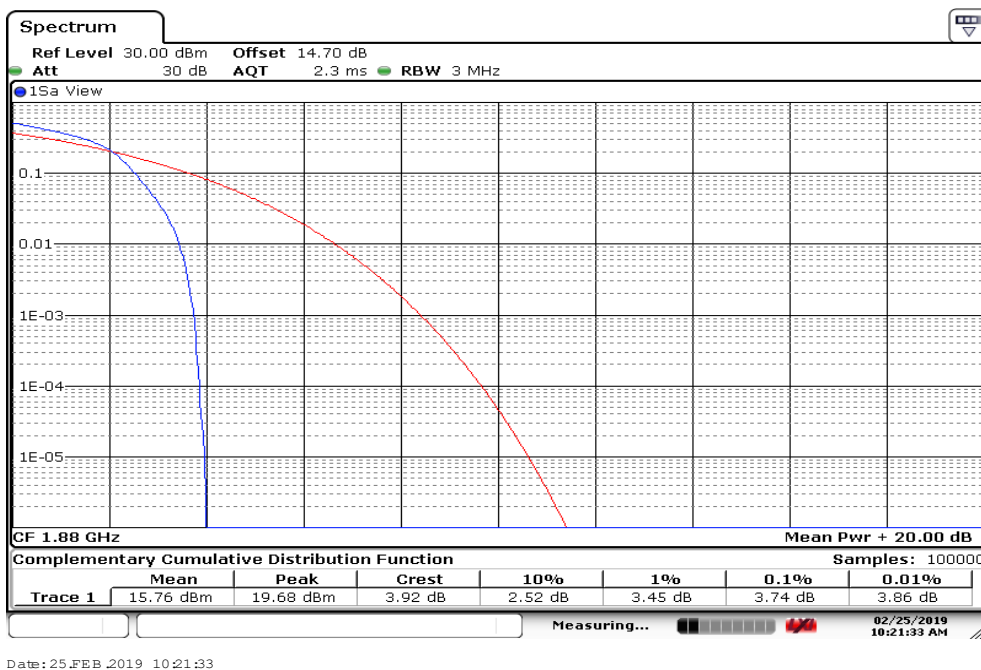
CH Mid



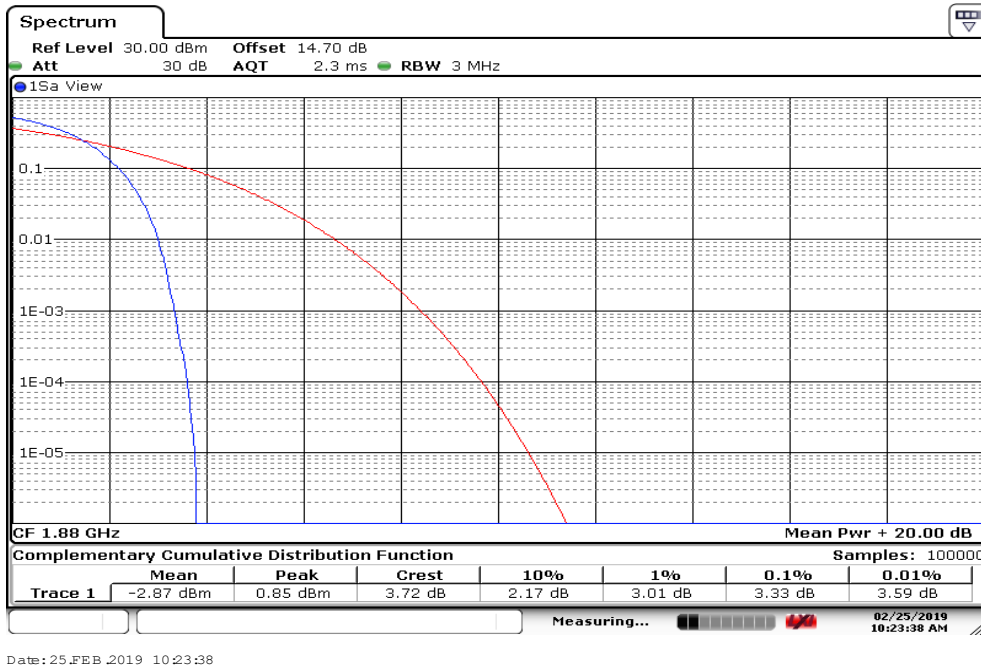
CHANNEL BANDWIDTH: 5MHz / QPSK / 1RB CH Mid



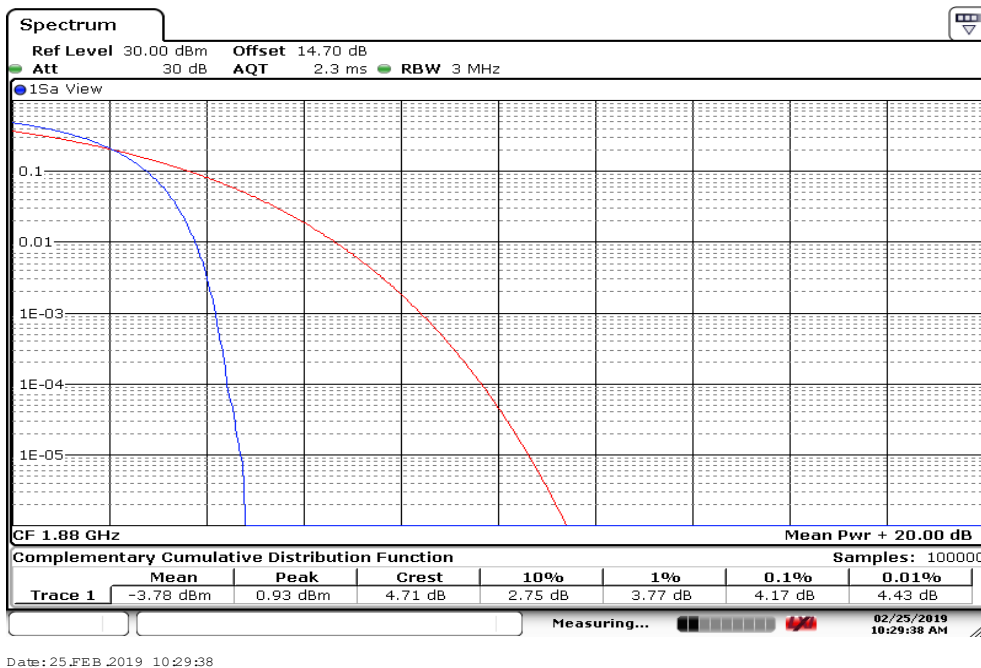
CHANNEL BANDWIDTH: 5MHz / 16QAM / 1RB CH Mid



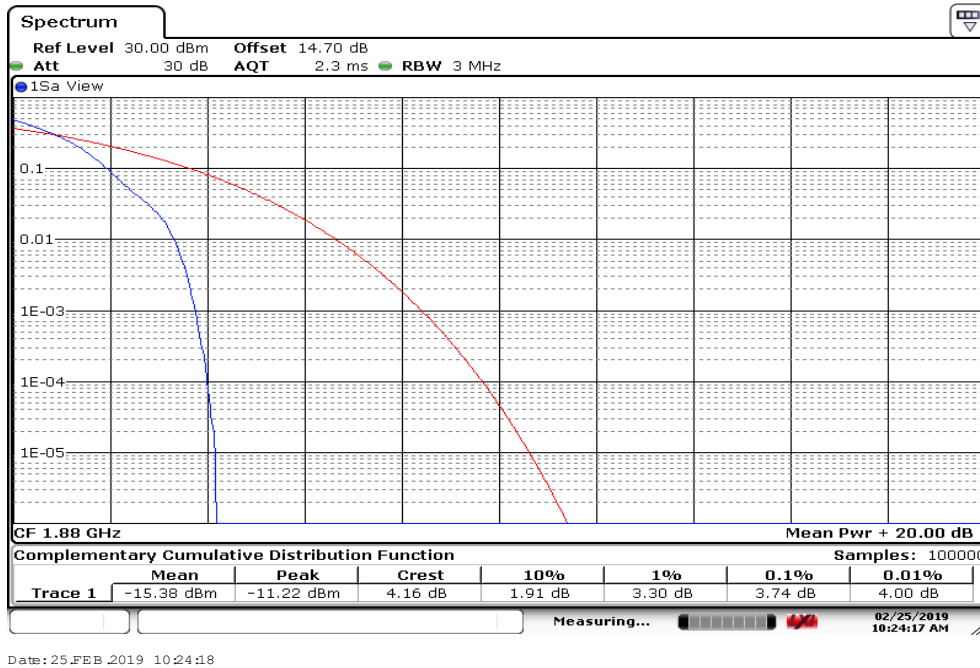
CHANNEL BANDWIDTH: 10MHz / QPSK / 1RB CH Mid



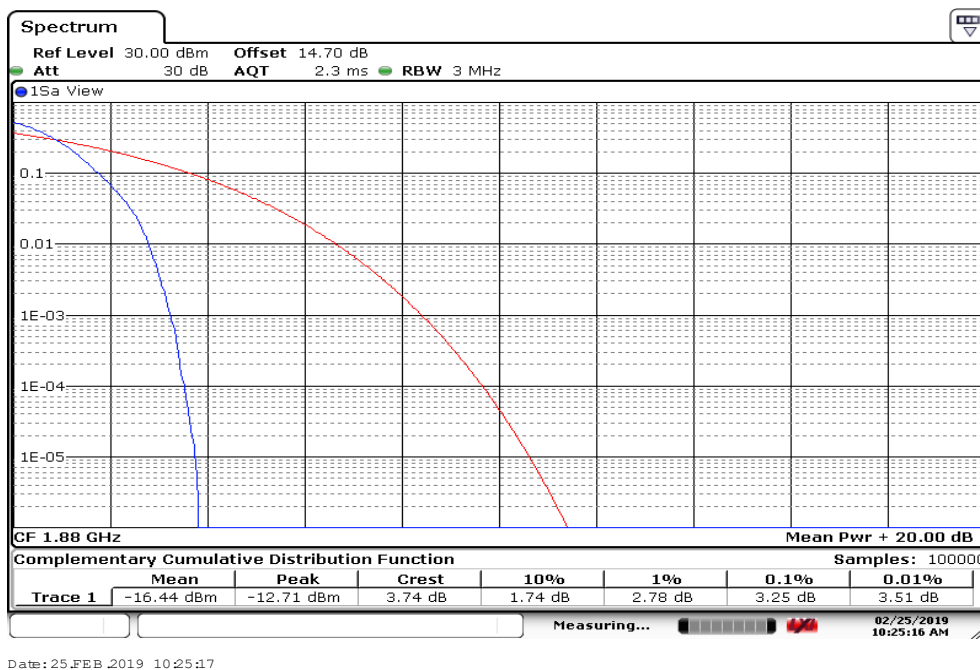
CHANNEL BANDWIDTH: 10MHz / 16QAM / 1RB CH Mid



CHANNEL BANDWIDTH: 15MHz / QPSK / 1RB CH Mid

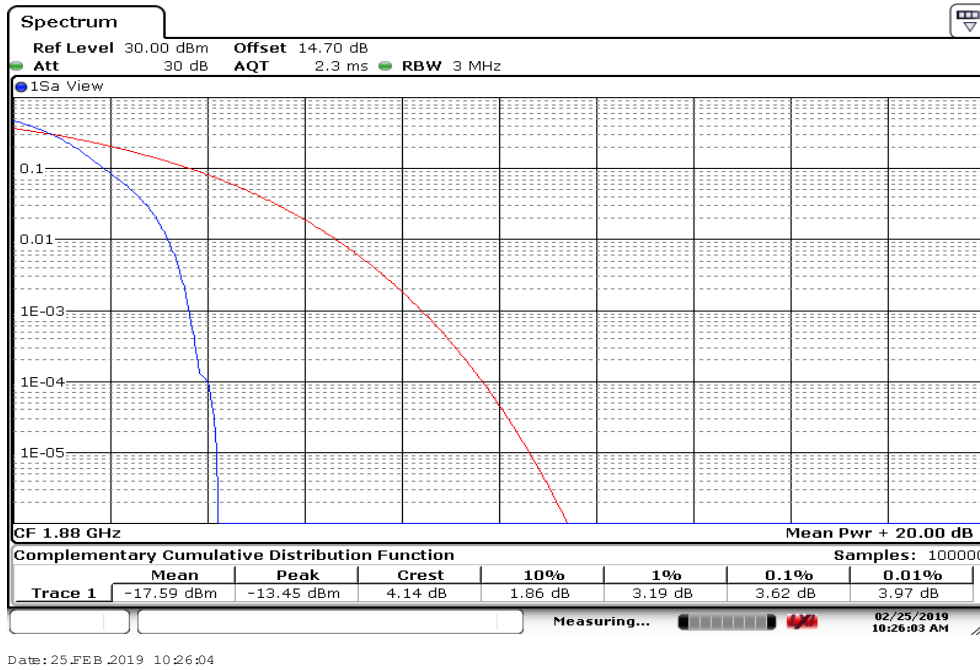


CHANNEL BANDWIDTH: 15MHz / 16QAM / 1RB CH Mid

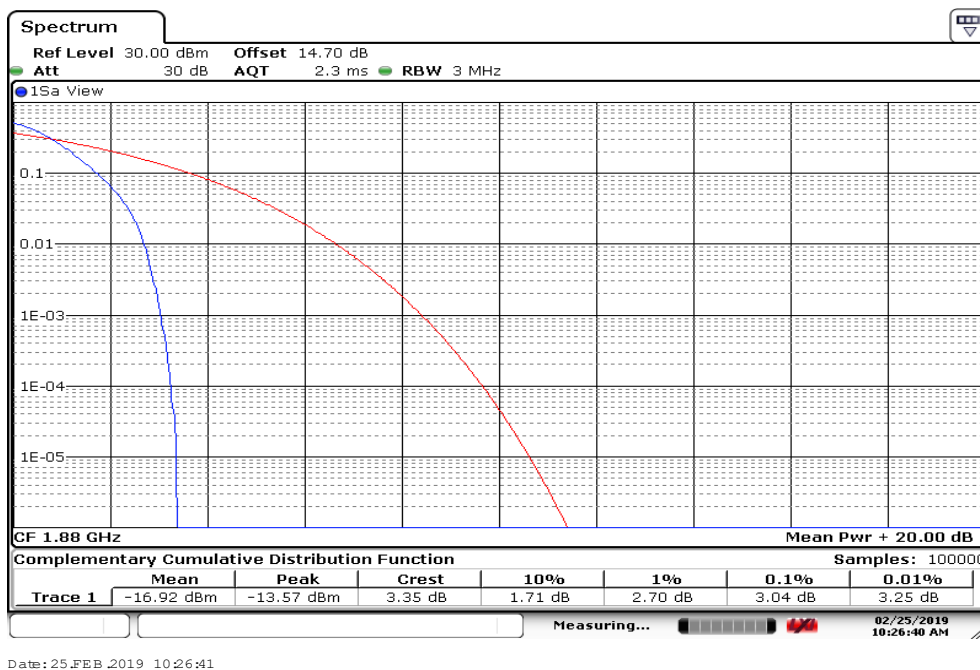


Report No.: T190115W01-RP3

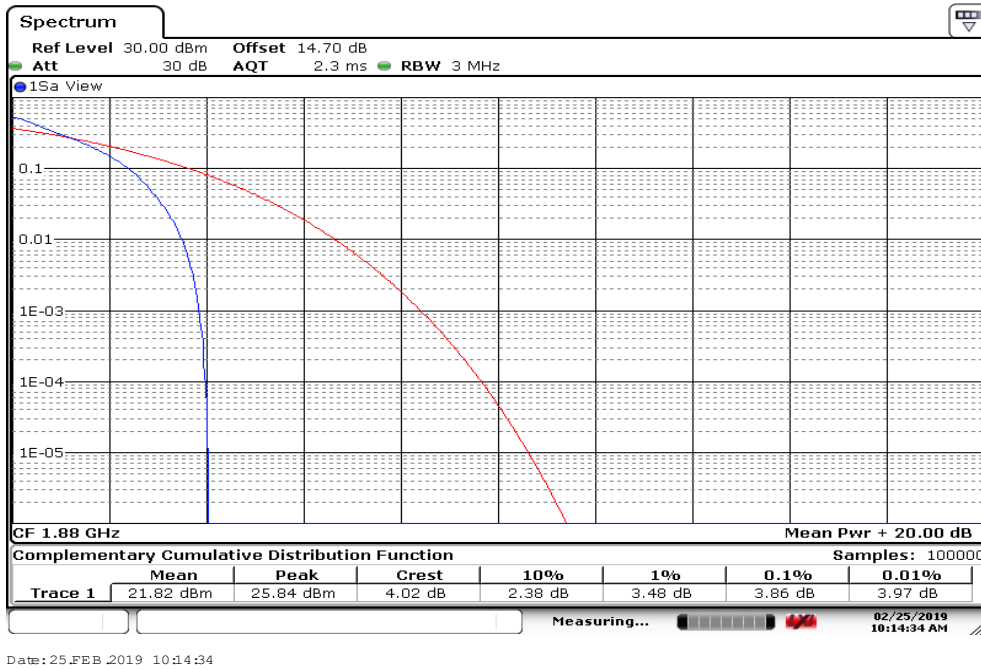
CHANNEL BANDWIDTH: 20MHz / QPSK / 1RB CH Mid



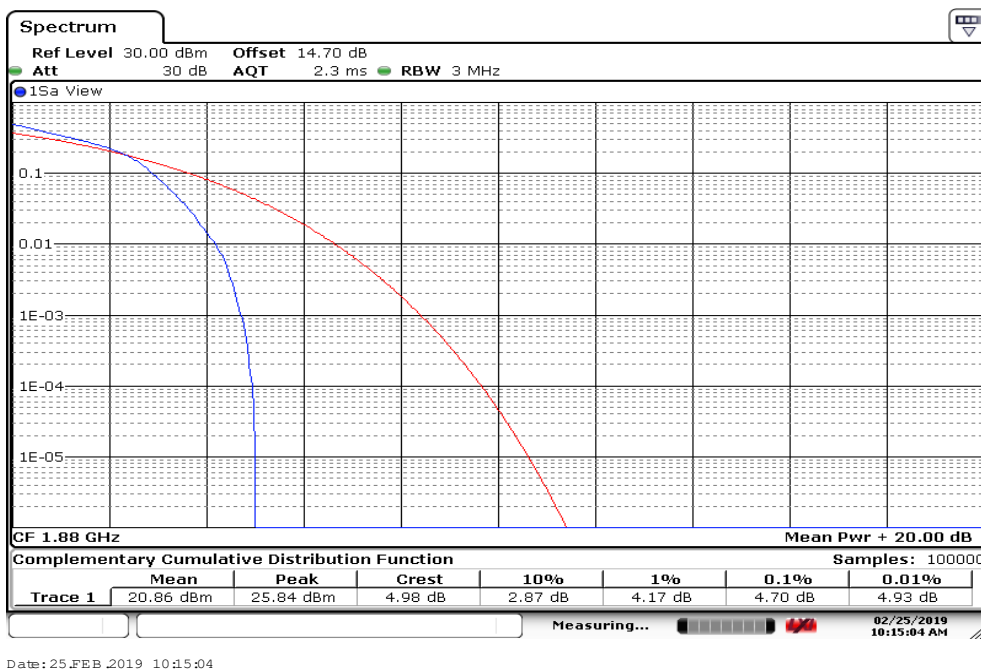
CHANNEL BANDWIDTH: 20MHz / 16QAM / 1RB CH Mid



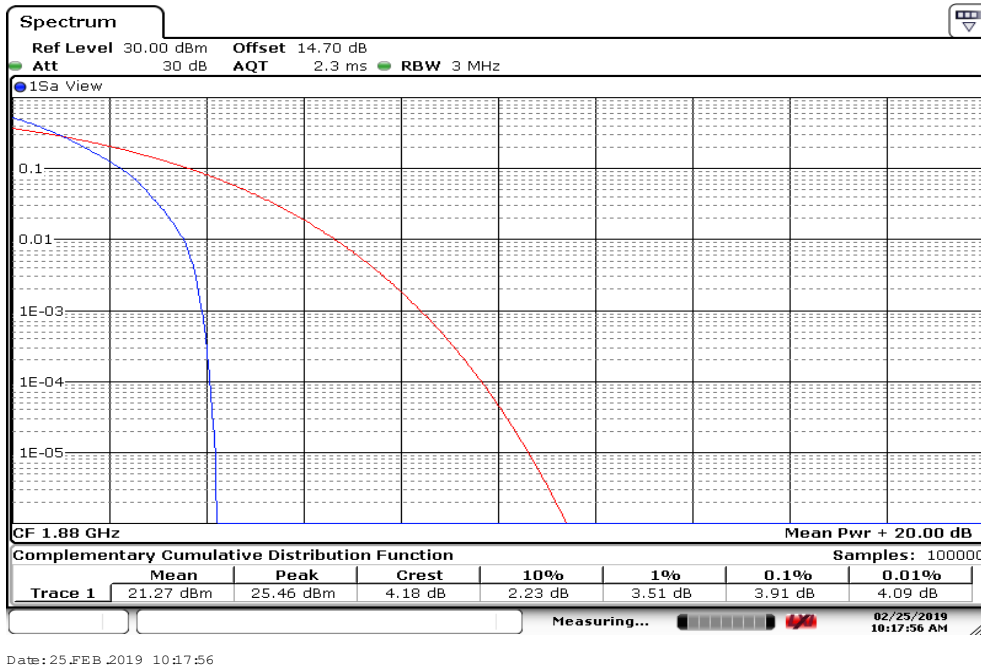
CHANNEL BANDWIDTH: 1.4MHz / QPSK / 100%RB
CH Mid



CHANNEL BANDWIDTH: 1.4MHz / 16QAM / 100%RB
CH Mid



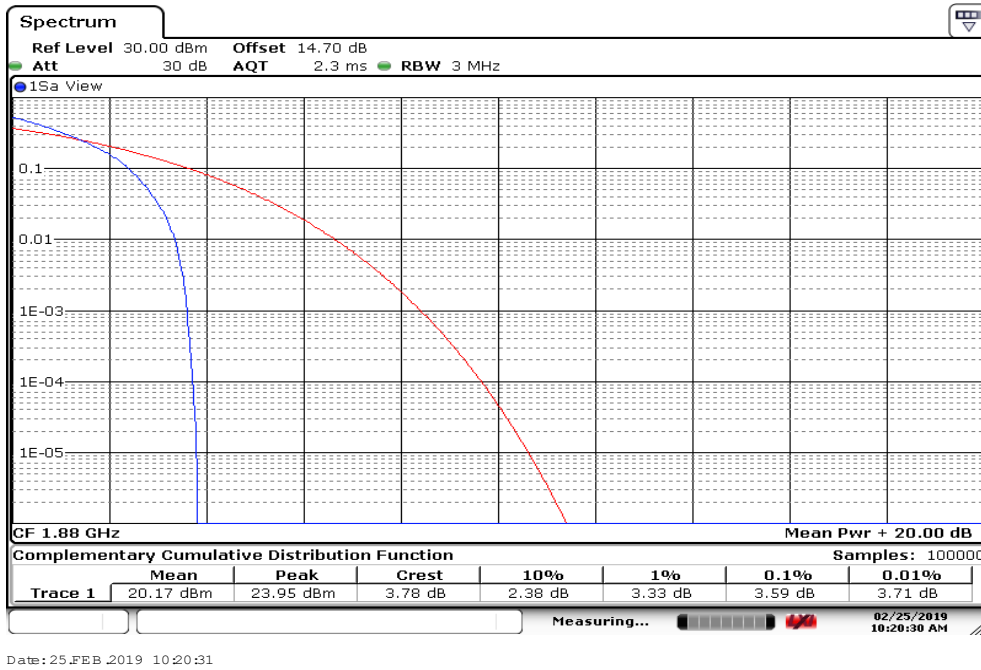
CHANNEL BANDWIDTH: 3MHz / QPSK / 100%RB
CH Mid



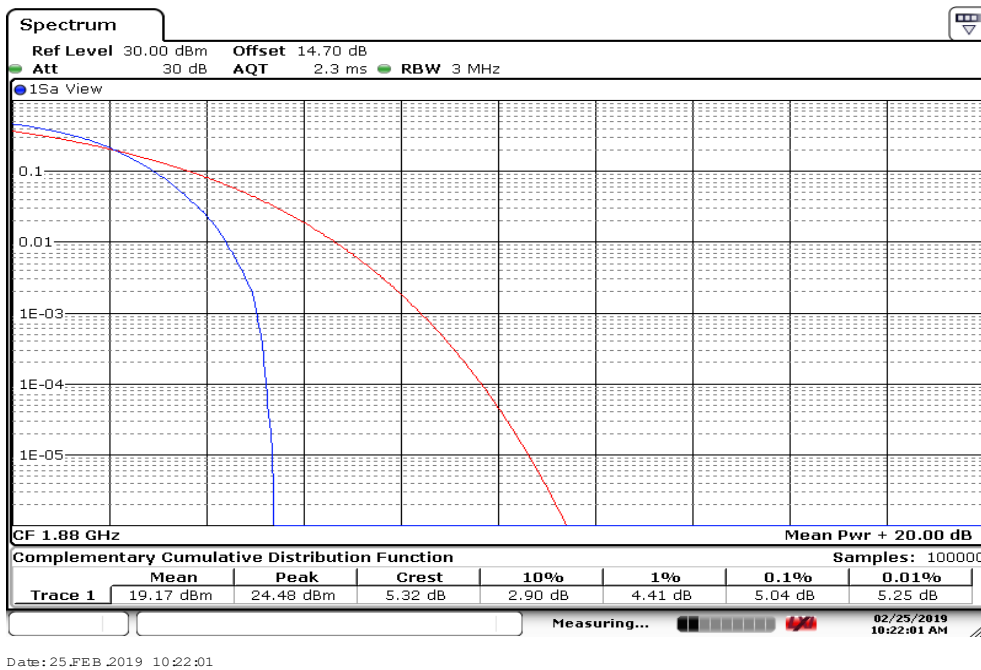
CHANNEL BANDWIDTH: 3MHz / 16QAM / 100%RB
CH Mid



CHANNEL BANDWIDTH: 5MHz / QPSK / 100%RB
CH Mid

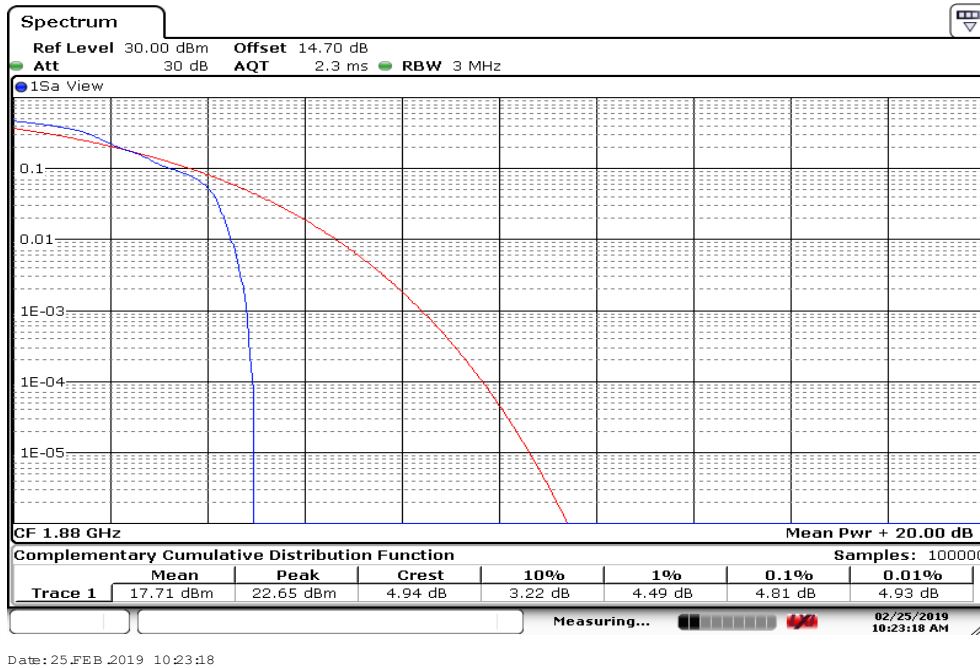


CHANNEL BANDWIDTH: 5MHz / 16QAM / 100%RB
CH Mid

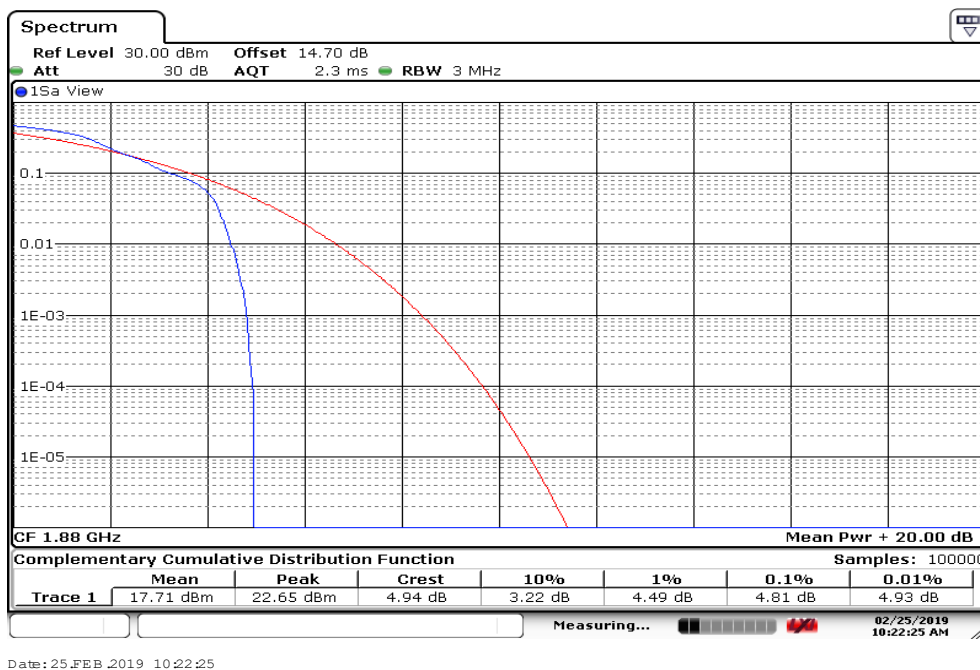


Report No.: T190115W01-RP3

CHANNEL BANDWIDTH: 10MHz / QPSK / 100%RB CH Mid



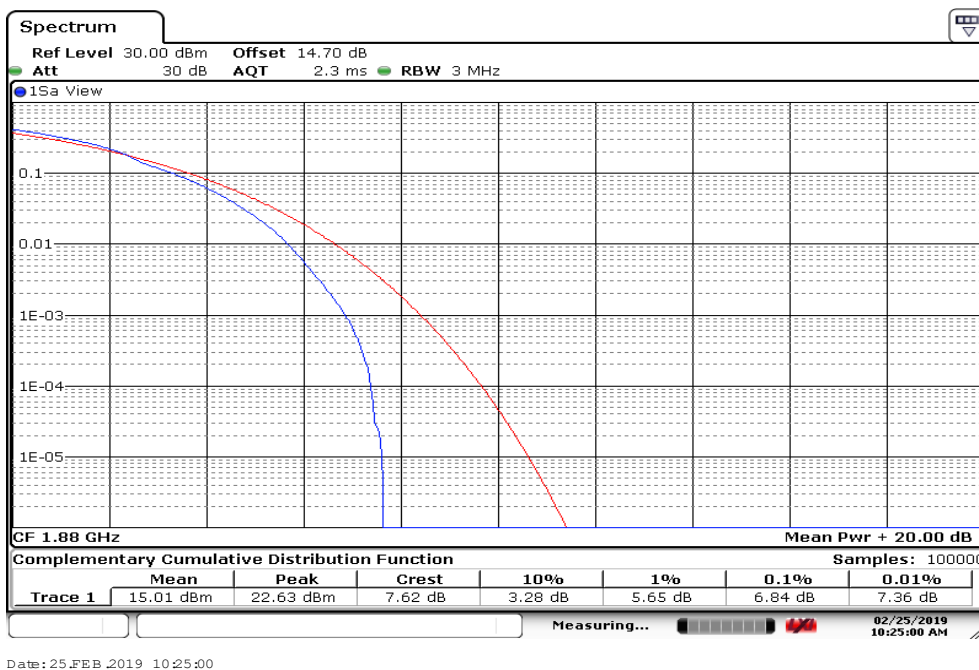
CHANNEL BANDWIDTH: 10MHz / 16QAM / 100%RB CH Mid



CHANNEL BANDWIDTH: 15MHz / QPSK / 100%RB
CH Mid



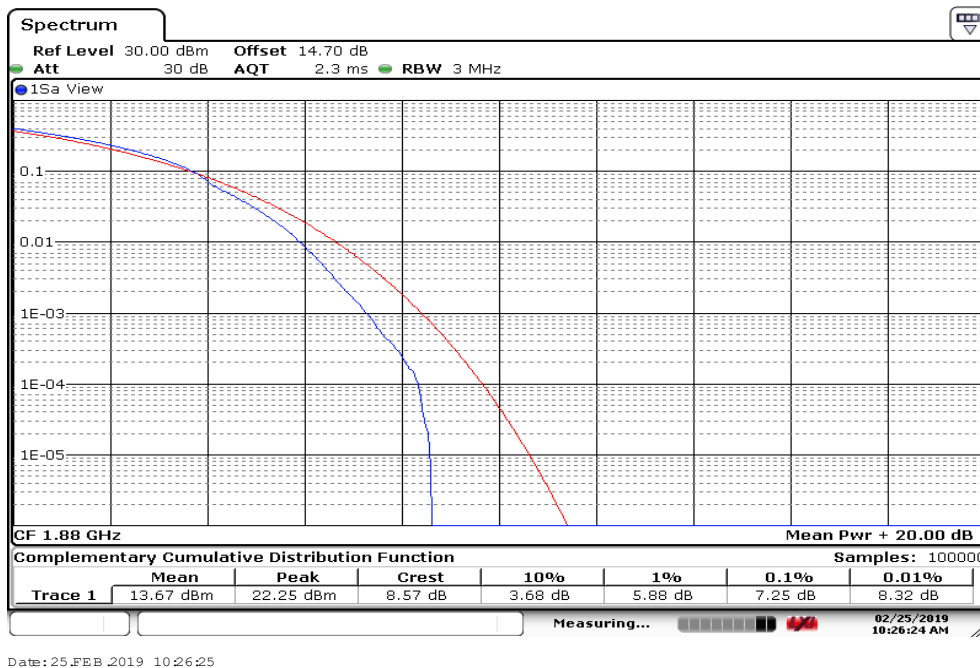
CHANNEL BANDWIDTH: 15MHz / 16QAM / 100%RB
CH Mid



CHANNEL BANDWIDTH: 20MHz / QPSK / 100%RB
CH Mid



CHANNEL BANDWIDTH: 20MHz / 16QAM / 100%RB
CH Mid



8.6 BAND EDGE MEASUREMENT

Limit

FCC §22.917(a), Band 5

For operations in the 824-849 MHz band ,Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

FCC §24.238(a), Band 2

For operations in the 1850-1910 and 1930-1950 MHz band , Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

RSS-132 section 5.5 and RSS-133 section 6.5

In the first 1.0 MHz band immediately outside and adjacent to each of the sub-bands specified in Section 5.1, the power of emissions per any 1% of the occupied bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least $43 + 10 \log_{10} p$ (watts).

Test Procedures

KDB 971168 D01 v02r02 - Section 6.0

1. RBW \geq 1% of the emission bandwidth
2. VBW \geq 3 x RBW
3. Span was set large enough so as to capture all out of emissions near the band edge.

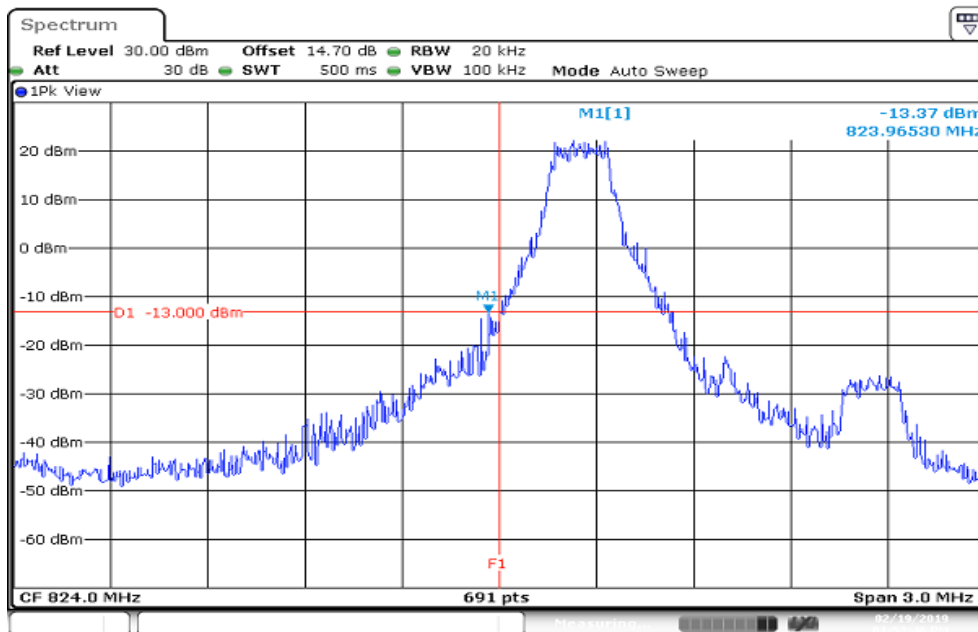
Report No.: T190115W01-RP3

Test Results:

LTE Band 5

CHANNEL BANDWIDTH: 1.4MHz / QPSK / 1 RB ALLOCATED

LOWER BAND EDGE



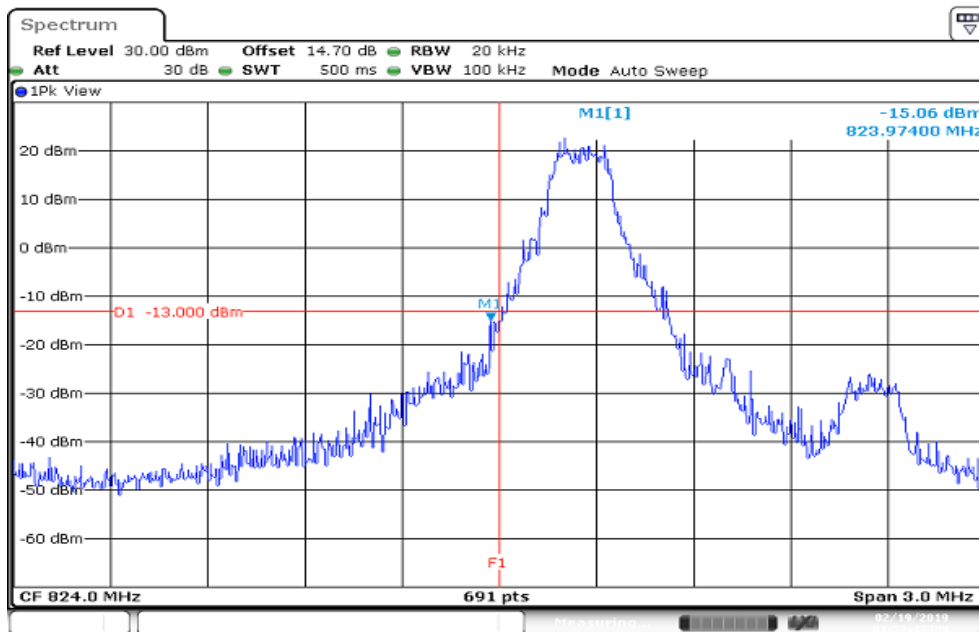
Date: 19.FEB.2019 13:53:47

HIGHER BAND EDGE

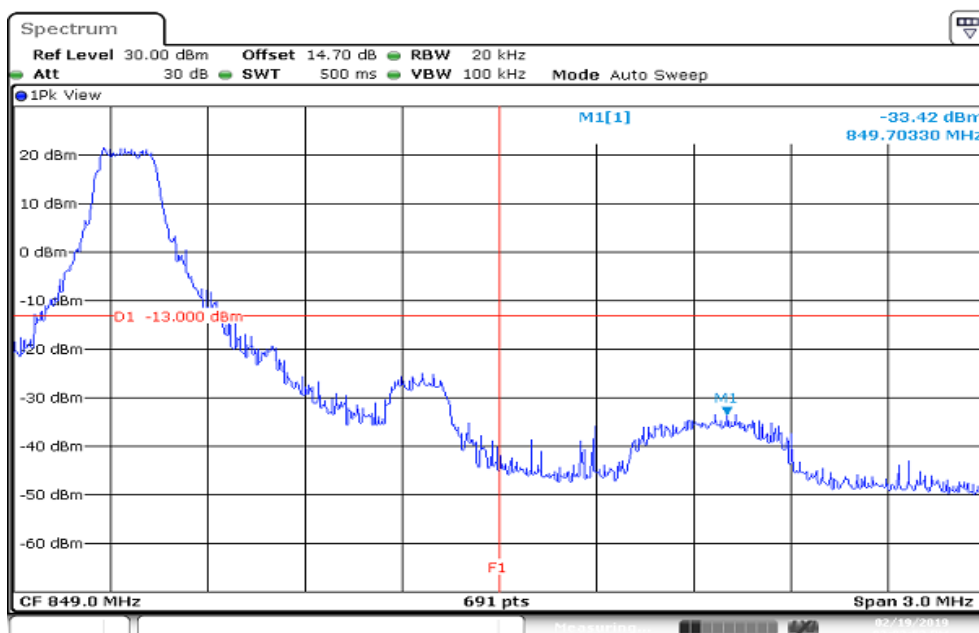


Date: 19.FEB.2019 14:02:07

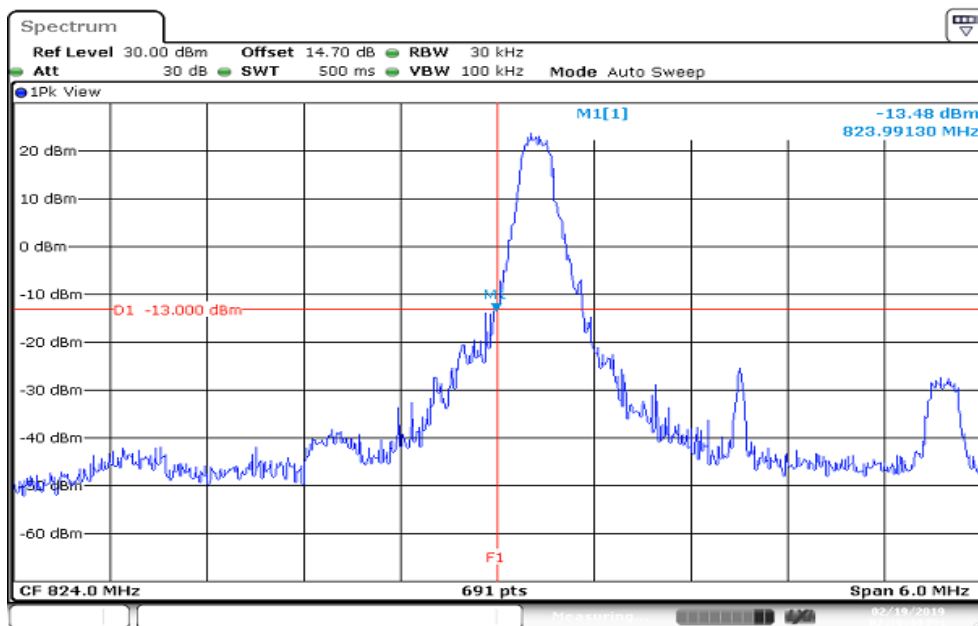
CHANNEL BANDWIDTH: 1.4MHz / 16QAM / 1 RB ALLOCATED LOWER BAND EDGE



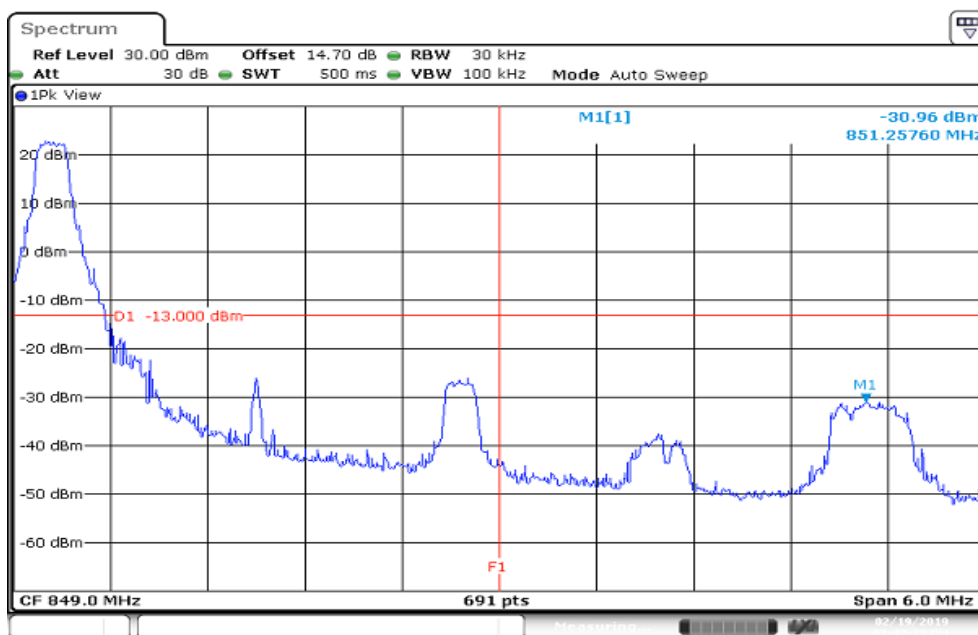
HIGHER BAND EDGE



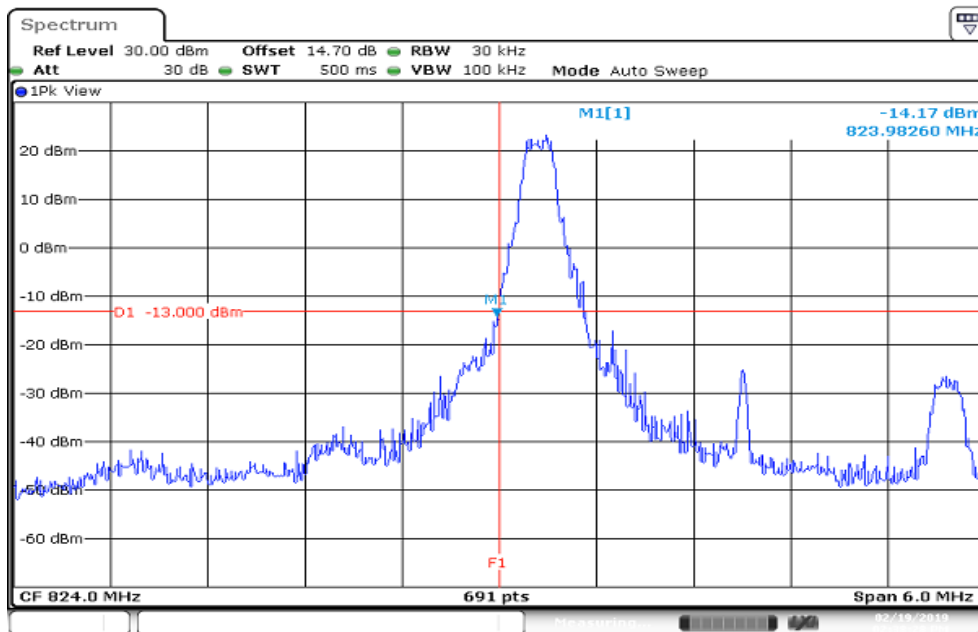
CHANNEL BANDWIDTH: 3MHz / QPSK / 1 RB ALLOCATED LOWER BAND EDGE



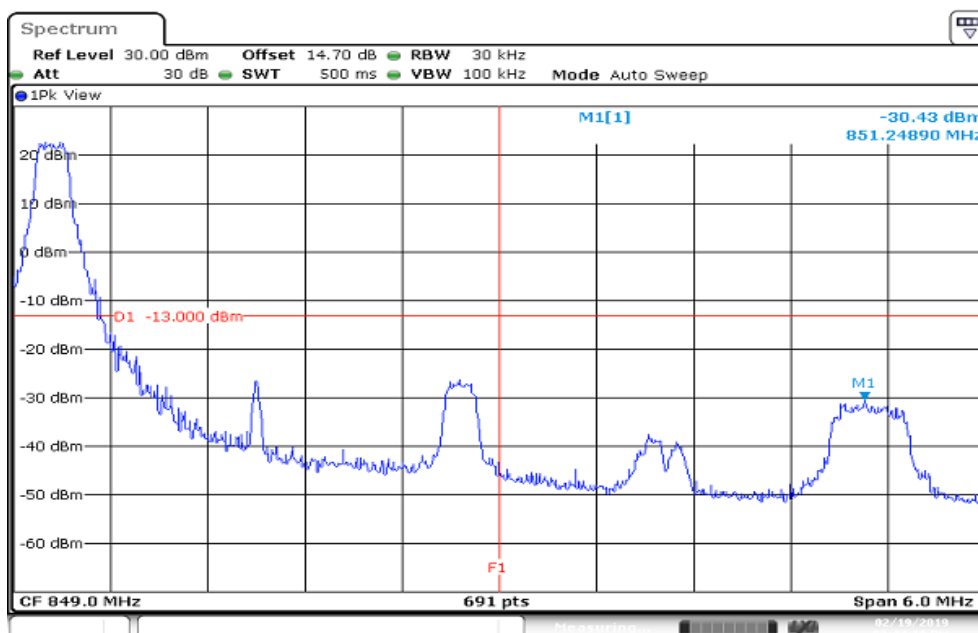
HIGHER BAND EDGE



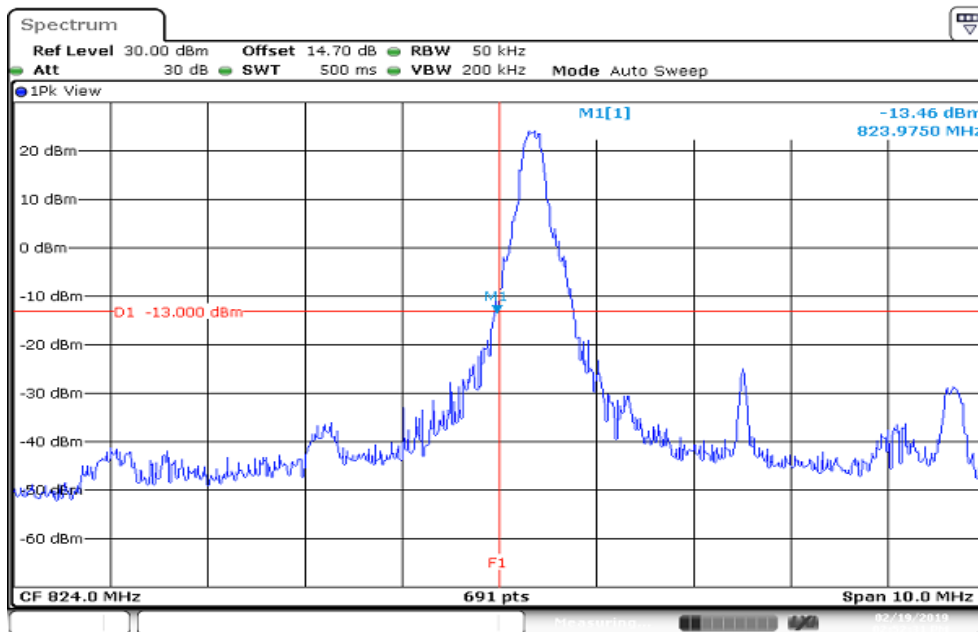
CHANNEL BANDWIDTH: 3MHz / 16QAM / 1 RB ALLOCATED LOWER BAND EDGE



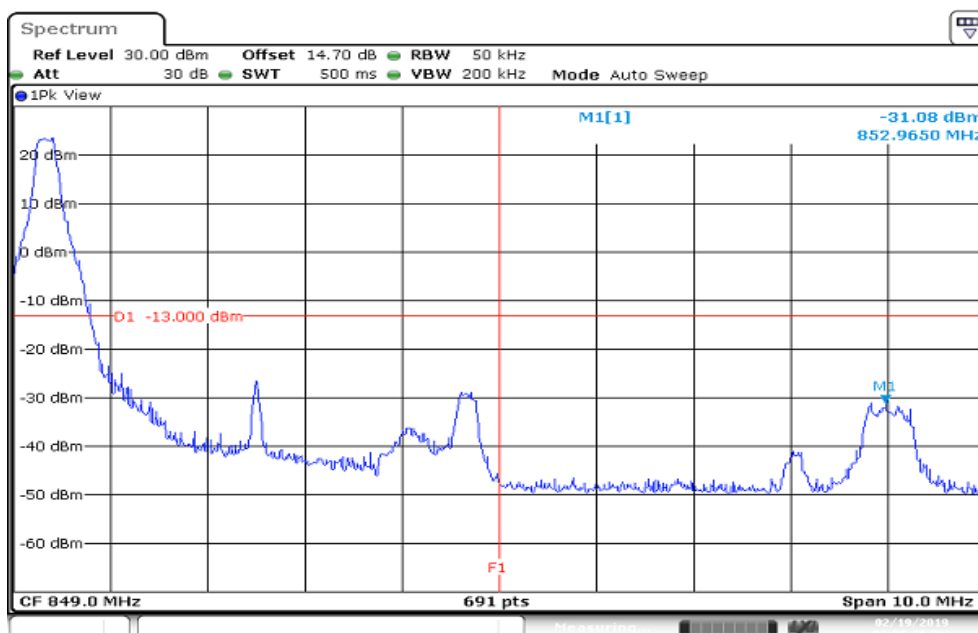
HIGHER BAND EDGE



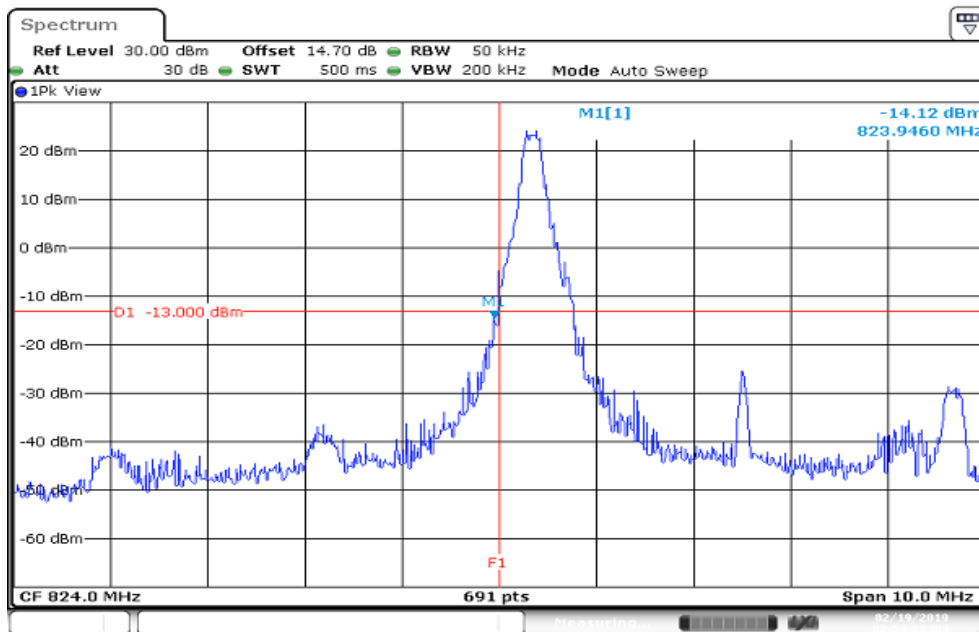
CHANNEL BANDWIDTH: 5MHz / QPSK / 1 RB ALLOCATED LOWER BAND EDGE



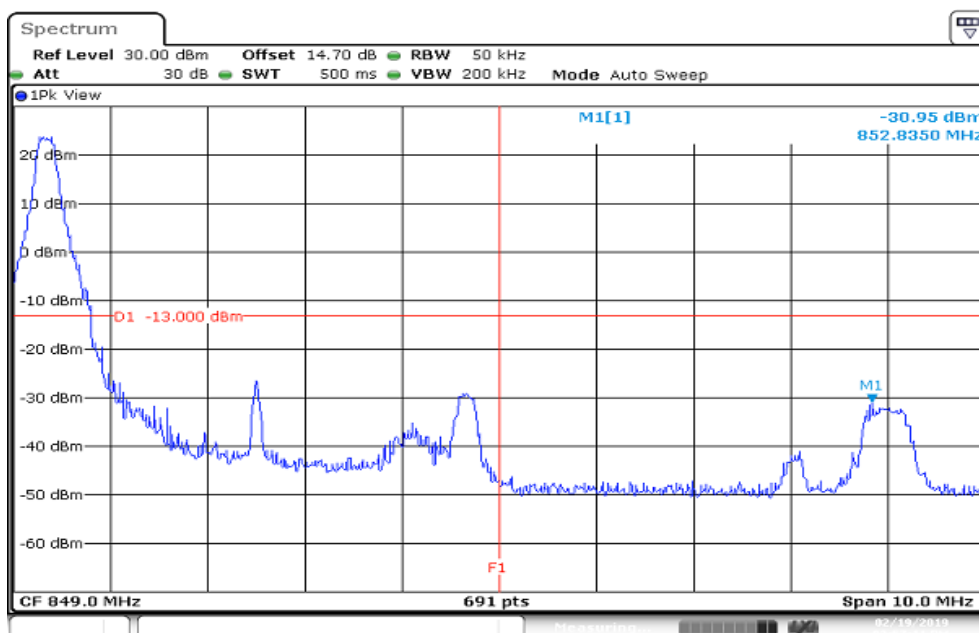
HIGHER BAND EDGE



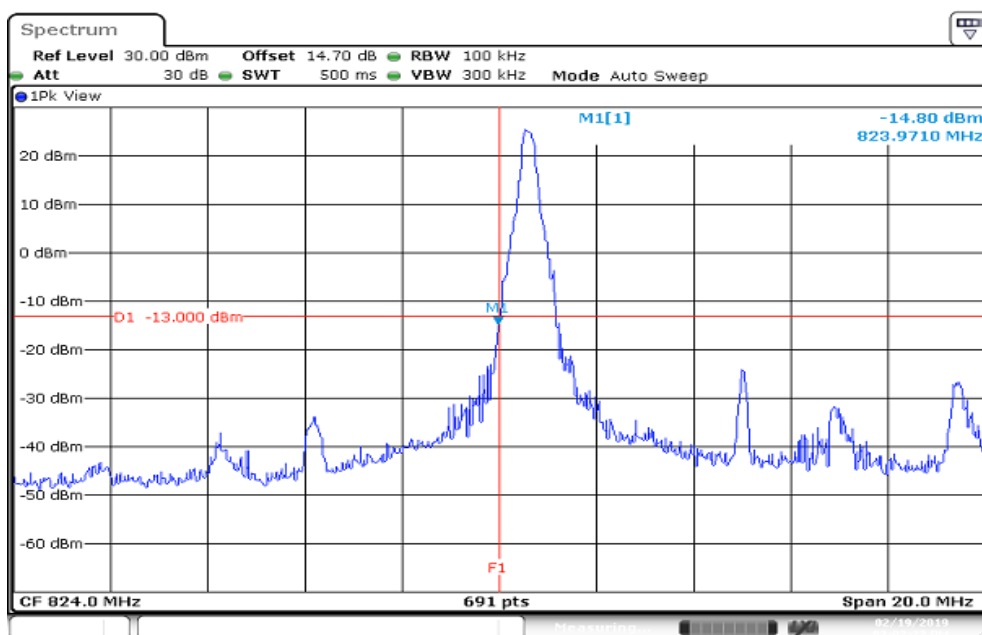
CHANNEL BANDWIDTH: 5MHz / 16QAM / 1 RB ALLOCATED LOWER BAND EDGE



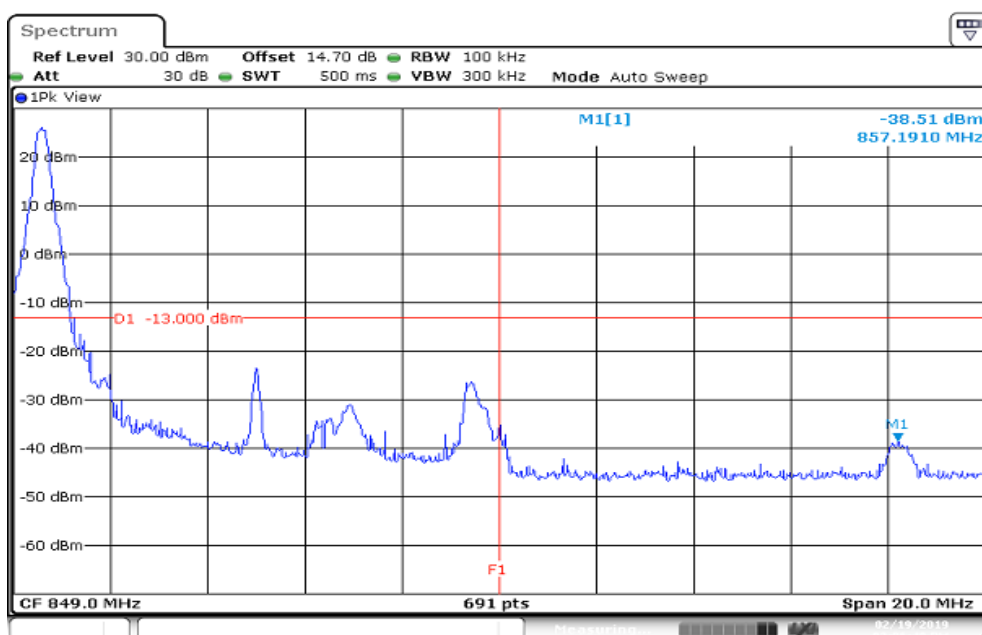
HIGHER BAND EDGE



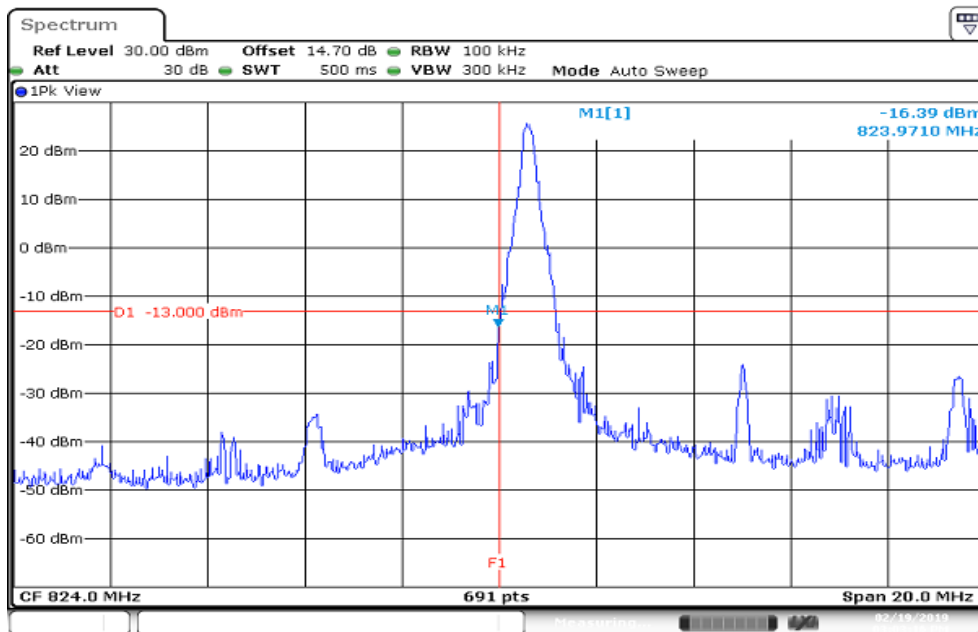
CHANNEL BANDWIDTH: 10MHz / QPSK / 1 RB ALLOCATED LOWER BAND EDGE



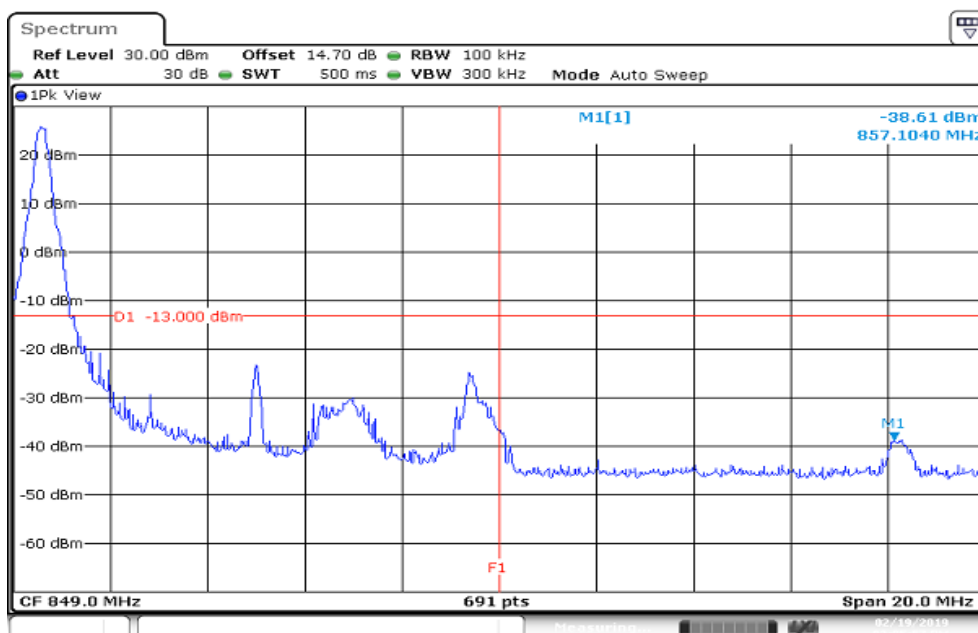
HIGHER BAND EDGE



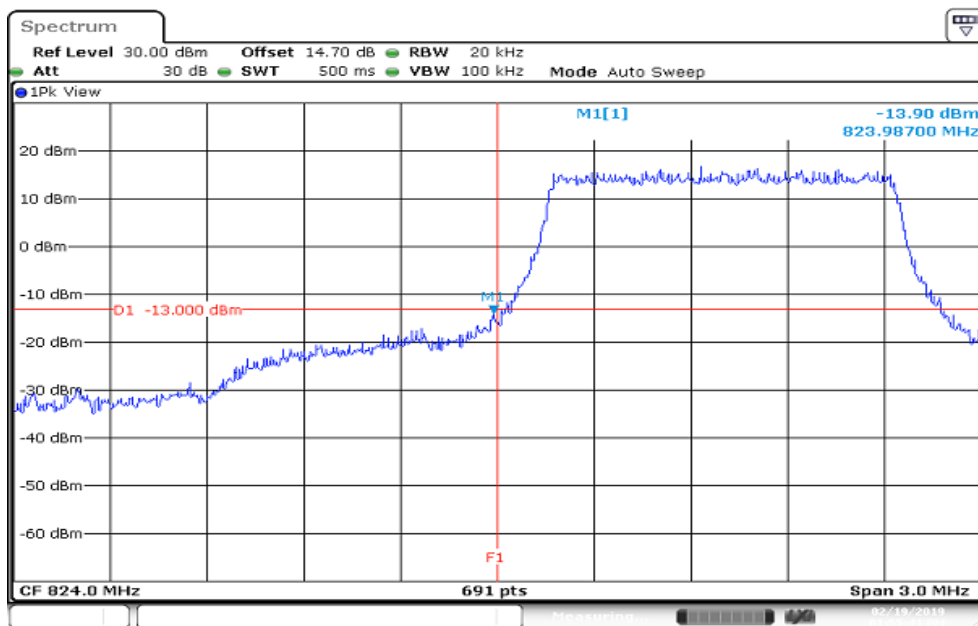
CHANNEL BANDWIDTH: 10MHz / 16QAM / 1 RB ALLOCATED LOWER BAND EDGE



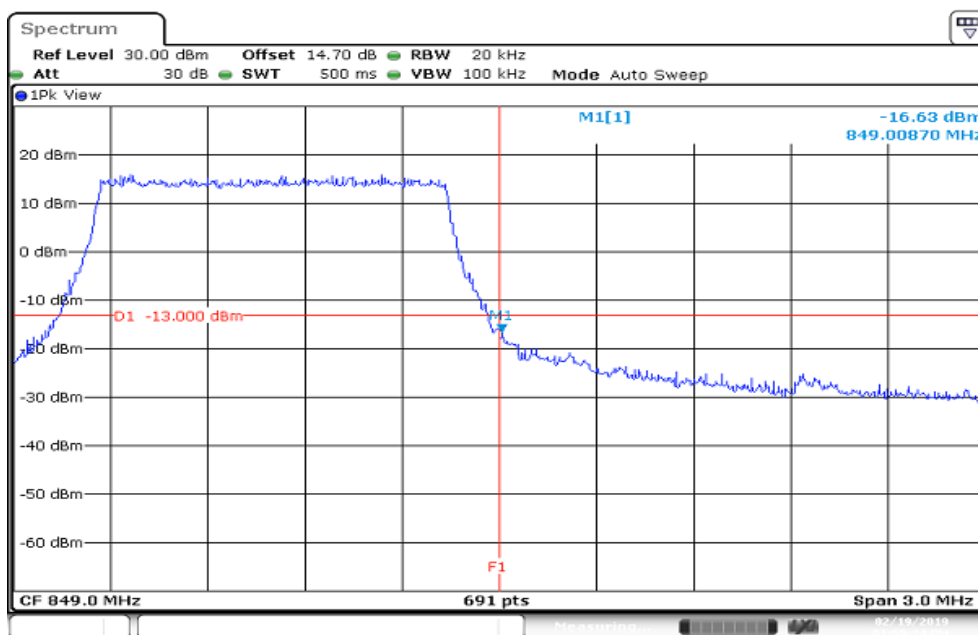
HIGHER BAND EDGE



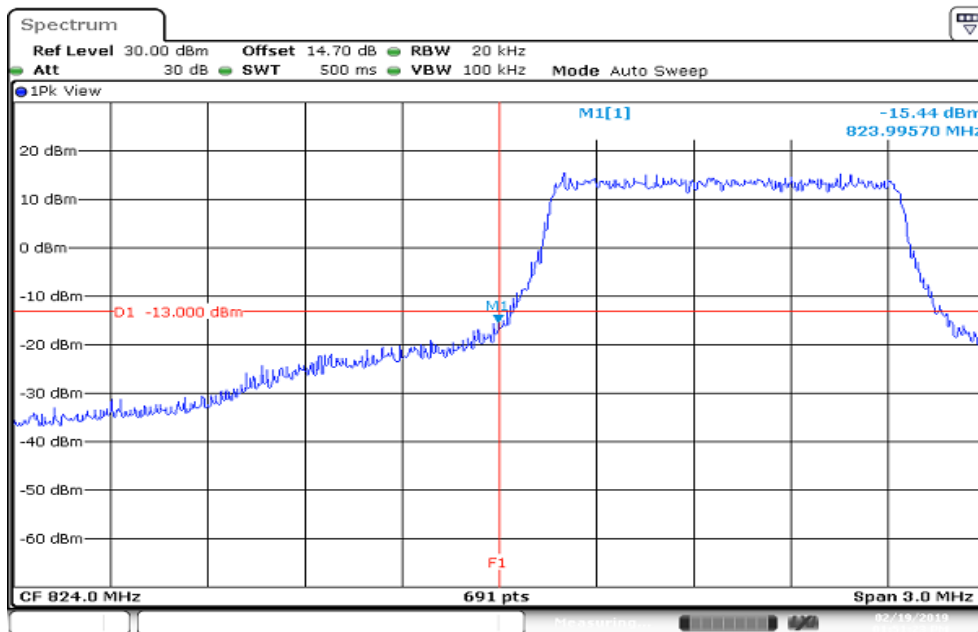
CHANNEL BANDWIDTH: 1.4MHz / QPSK / 100%RB ALLOCATED LOWER BAND EDGE



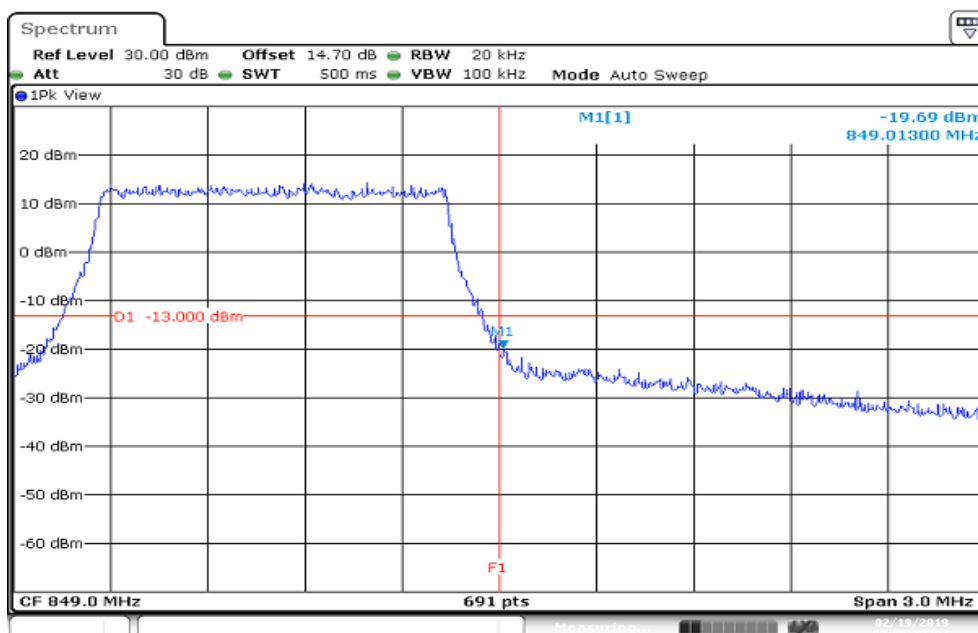
HIGHER BAND EDGE



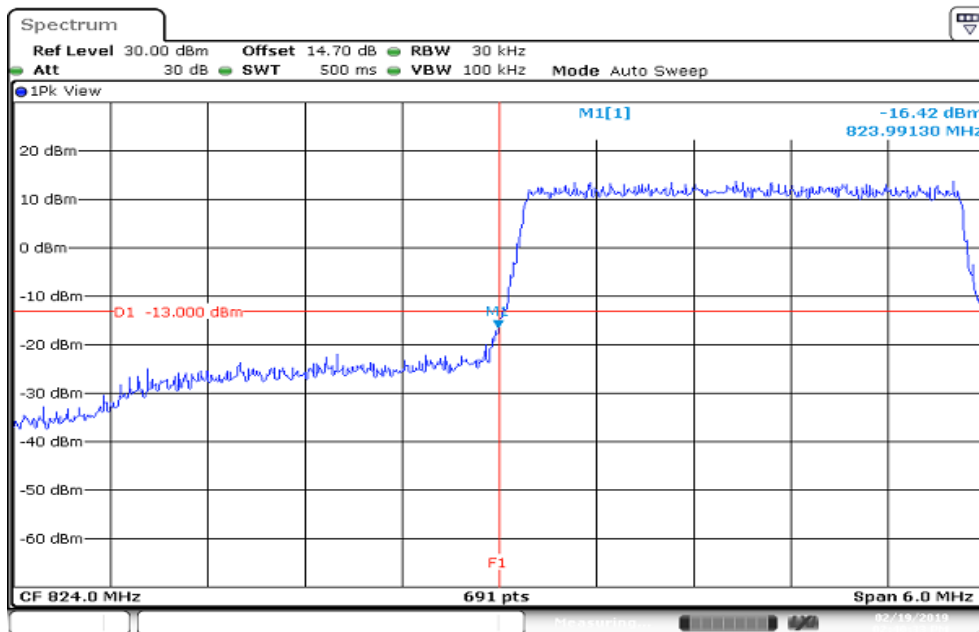
CHANNEL BANDWIDTH: 1.4MHz / 16QAM / 100%RB ALLOCATED LOWER BAND EDGE



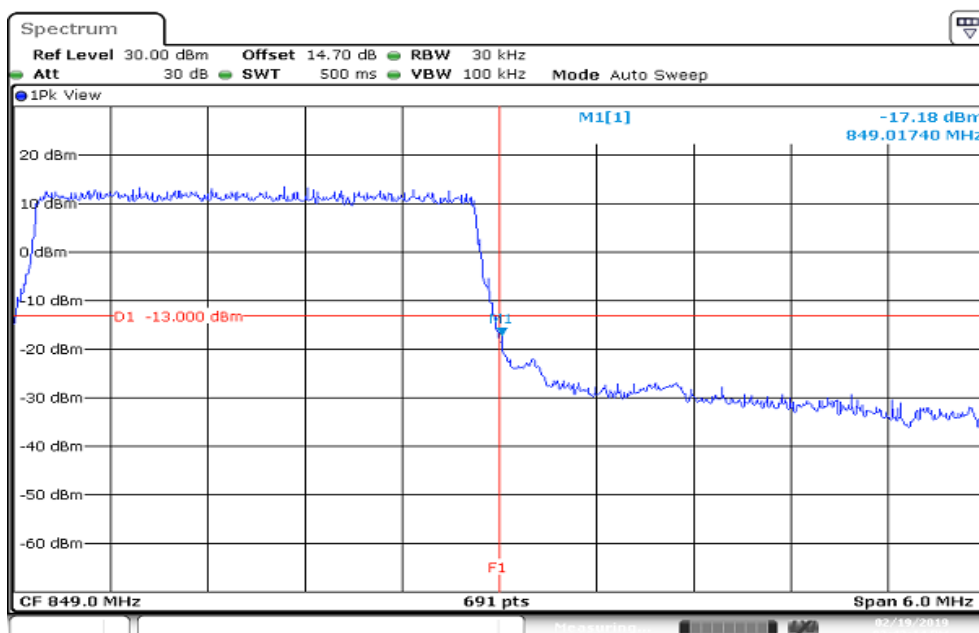
HIGHER BAND EDGE



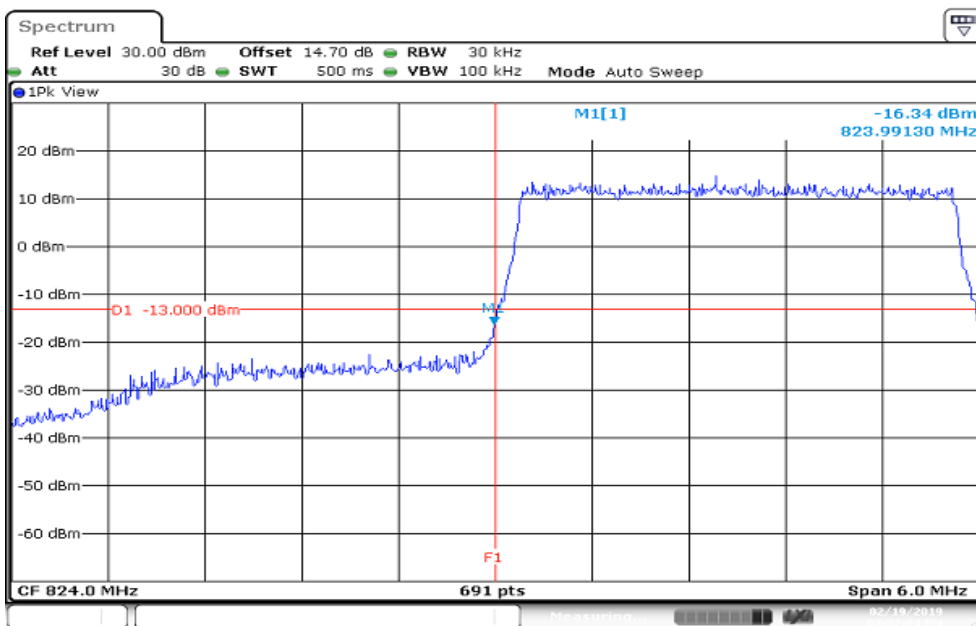
CHANNEL BANDWIDTH: 3MHz / QPSK / 100%RB ALLOCATED LOWER BAND EDGE



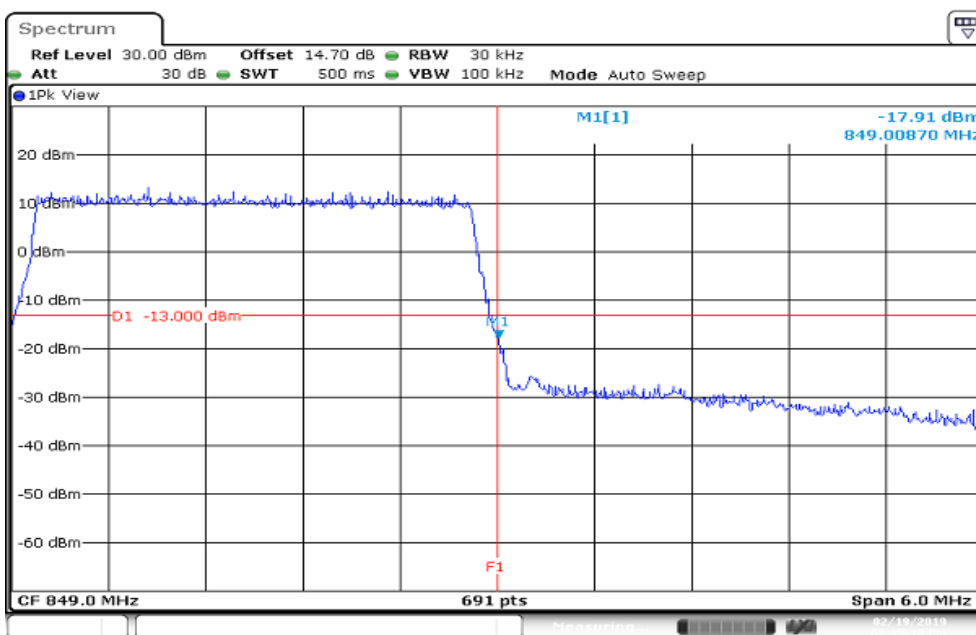
HIGHER BAND EDGE



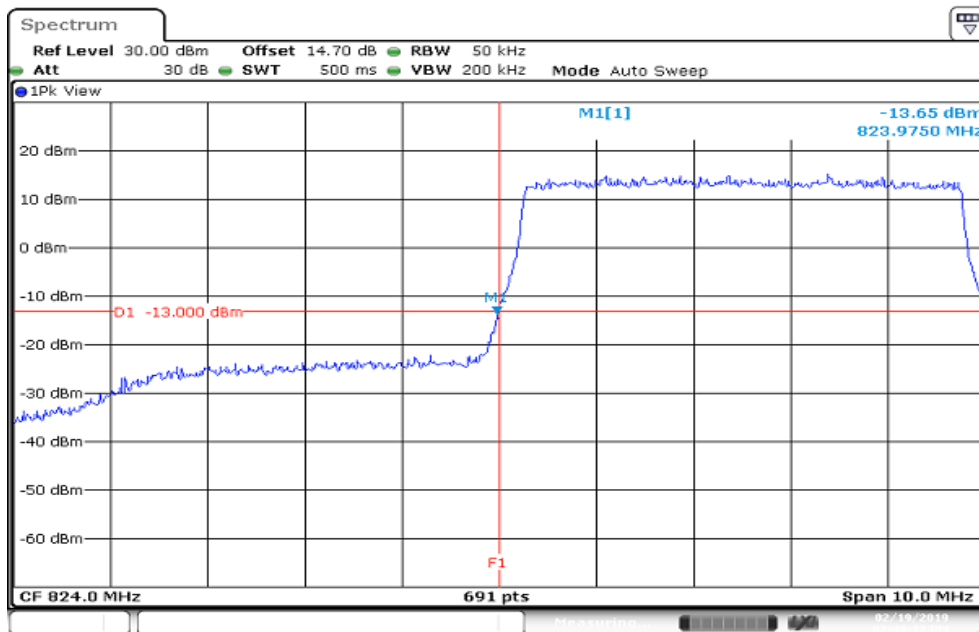
CHANNEL BANDWIDTH: 3MHz / 16QAM / 100%RB ALLOCATED LOWER BAND EDGE



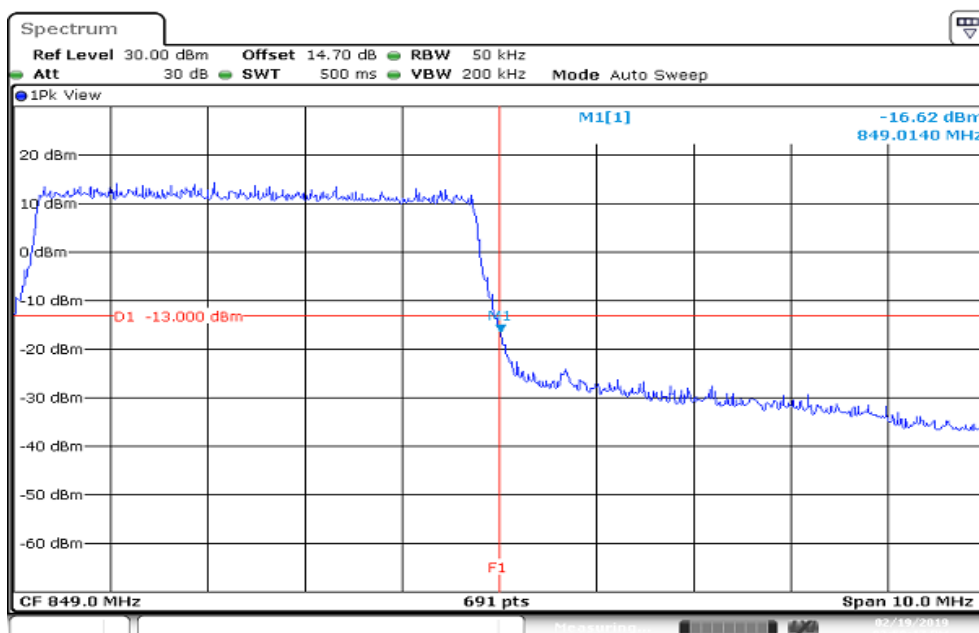
HIGHER BAND EDGE



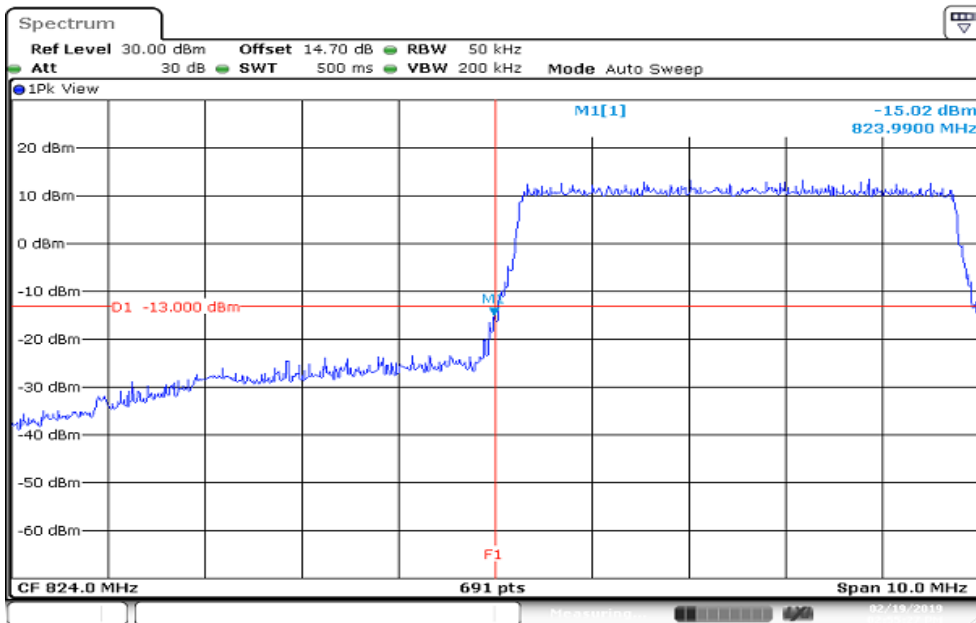
CHANNEL BANDWIDTH: 5MHz / QPSK / 100%RB ALLOCATED LOWER BAND EDGE



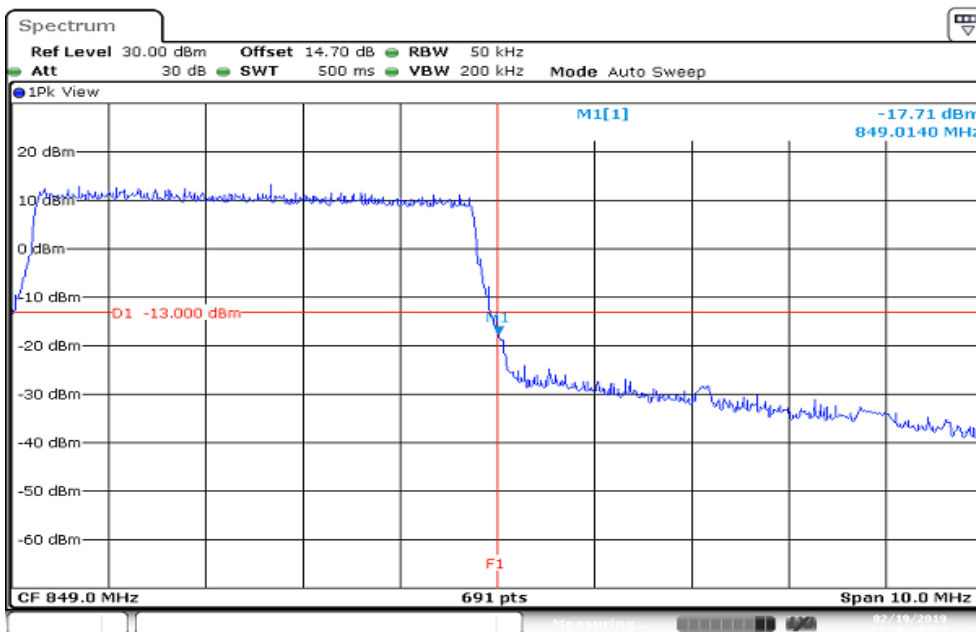
HIGHER BAND EDGE



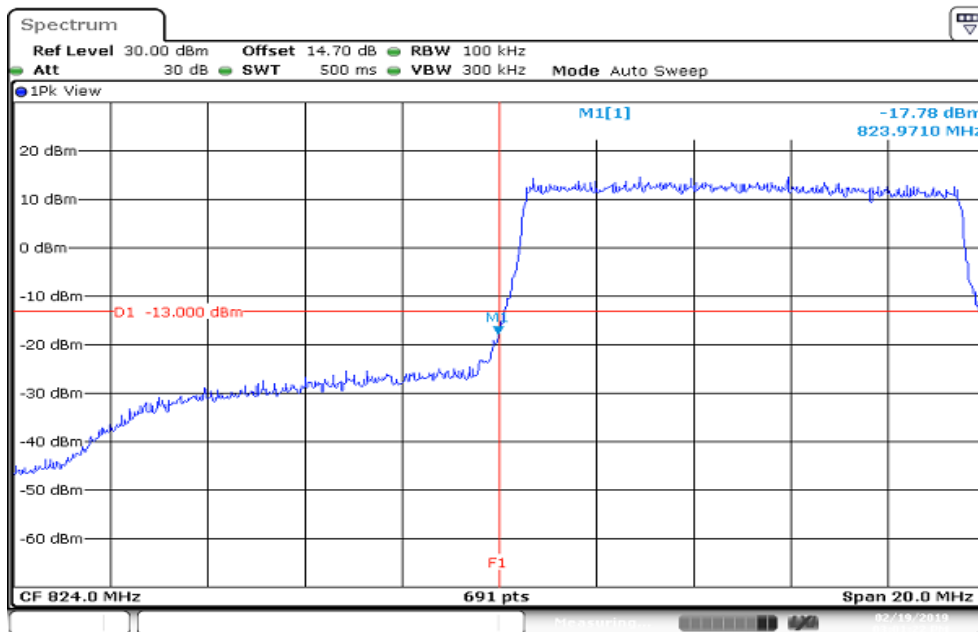
CHANNEL BANDWIDTH: 5MHz / 16QAM / 100%RB ALLOCATED LOWER BAND EDGE



HIGHER BAND EDGE



CHANNEL BANDWIDTH: 10MHz / QPSK / 100%RB ALLOCATED LOWER BAND EDGE



HIGHER BAND EDGE

