

FCC/ISED Test Report

Product Name : Module
Trade Name : AirPrime
Model No. : WP7610
FCC ID. : N7NWP7610
IC ID. : 2417C-WP7610

Applicant : SIERRA WIRELESS HONG KONG LIMITED
Address : 6/F Enterprise Place, No.5 Science Park West Avenue, Hong
Kong Science Park, Shatin, New Territories, Hong Kong

Date of Receipt : Dec. 03, 2018
Issued Date : Jan. 03, 2019
Report No. : 18C0023R-HPUSP51V00
Report Version : V1.0



The test results relate only to the samples tested.

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Test Report Certification

Issued Date : Jan. 03, 2019

Report No. : 18C0023R-HPUSP51V00



Product Name : Module
Applicant : SIERRA WIRELESS HONG KONG LIMITED
Address : 6/F Enterprise Place, No.5 Science Park West Avenue, Hong Kong Science Park, Shatin, New Territories, Hong Kong
Manufacturer : SIERRA WIRELESS HONG KONG LIMITED
Address : 6/F Enterprise Place, No.5 Science Park West Avenue, Hong Kong Science Park, Shatin, New Territories, Hong Kong
Trade name : AirPrime
Model No. : WP7610
FCC ID. : N7NWP7610
IC ID. : 2417C-WP7610
EUT Voltage : DC 3.7V
Testing Voltage : DC 3.7V
Applicable Standard : FCC CFR Title 47 Part 22 Subpart H
FCC CFR Title 47 Part 24 Subpart E
FCC CFR Title 47 Part 27 Subpart L, Subpart F
FCC CFR Title 47 Part 90 Subpart R
KDB 971168 D01 Power Meas License Digital Systems v03
Industry Canada RSS-GEN Issue 5
Industry Canada RSS-130 Issue 1
Industry Canada RSS-132 Issue 3
Industry Canada RSS-133 Issue 6
Industry Canada RSS-139 Issue 3
Industry Canada RSS-140 Issue 1
ANSI/TIA-603-D-2010
Test Lab : Hsin Chu Laboratory
Address : No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 310, Taiwan, R.O.C.
TEL: +886-3-582-8001 / FAX: +886-3-582-8958
Test Result : Complied

Documented By :



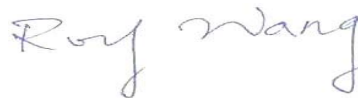
(Carol Tsai / Senior Engineering Adm. Specialist)

Tested By :



(Andy Tsai / Senior Engineer)

Approved By :



(Roy Wang / Director)

Revision History

Report No.	Version	Description	Issued Date
18C0023R-HPUSP51V00	V1.0	Initial issue of report	Jan. 03, 2019

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1. General Information

1.1. EUT Description

Product Name	Module	
Trade Name	AirPrime	
Model No.	WP7610	
Uplink Frequency Range (MHz)	LTE Band 2: 1850~1910 LTE Band 4: 1710~1755 LTE Band 5: 824~849 LTE Band 12: 699~716	LTE Band 13: 777~787 LTE Band 14: 788~798 LTE Band 17: 704~716 LTE Band 66: 1710~1780
Downlink Frequency Range (MHz)	LTE Band 2: 1930~1990 LTE Band 4: 2110~2115 LTE Band 5: 869~894 LTE Band 12: 729~746	LTE Band 13: 746~756 LTE Band 14: 758~768 LTE Band 17: 734~746 LTE Band 66: 2110~2200
Modulation	QPSK / 16QAM	
HW Version	1.0	
FW Version	through AT19	
IMEI No.	015250000002000	

Antenna Information	
MFR. / Model	Pulse Electronics, Inc. / SPDA24700/2700
Antenna Type	Dipole Antenna
Antenna Gain	2 dBi

Accessories Information	
Antenna	1set

Note:

1. This WP7610 support WCDMA Band 2/4/5 and LTE Band 2/4/5/12/13/14/17/66.

1.2. Mode of Operation

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

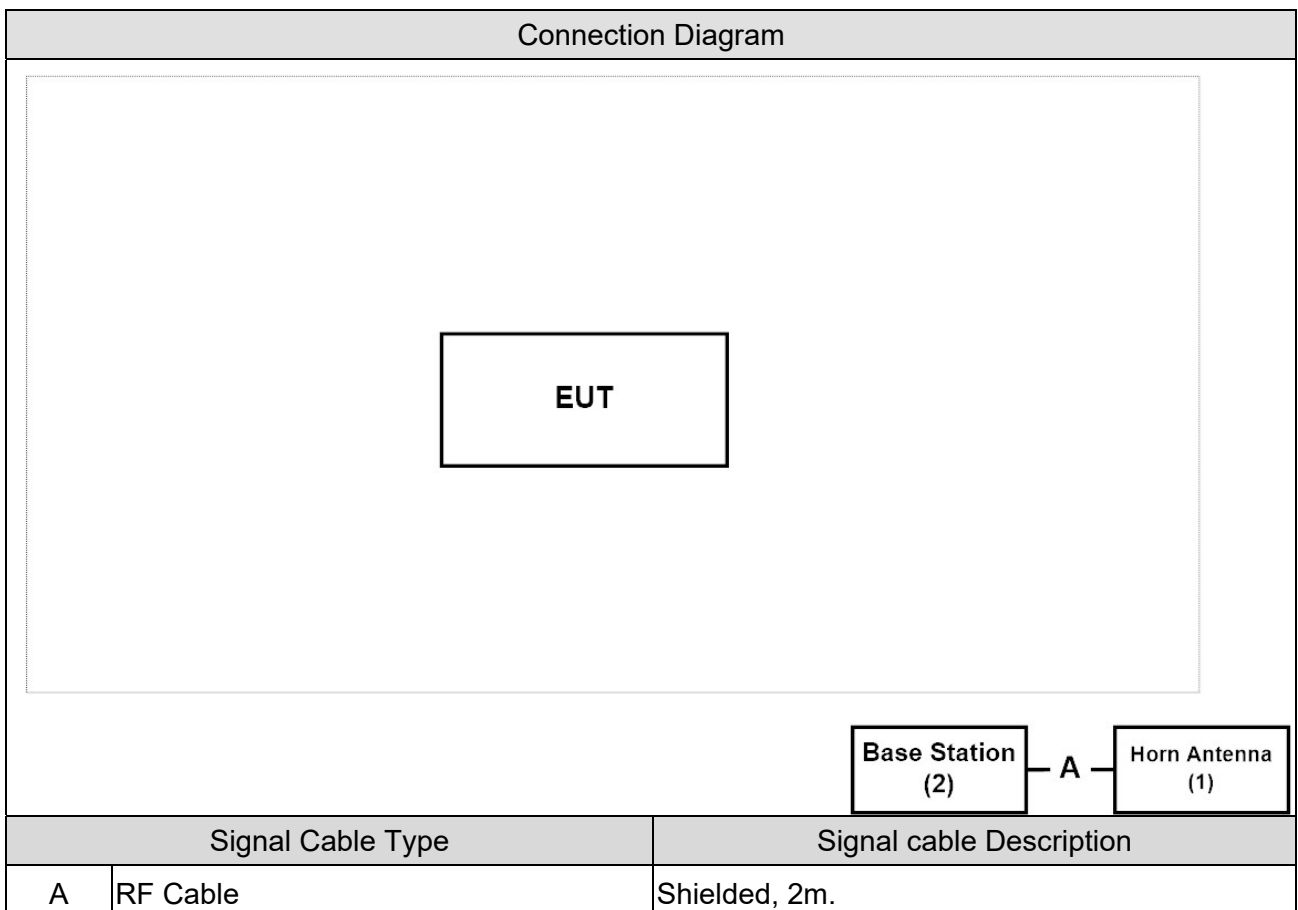
Test Mode
Mode 1: LTE Band 2
Mode 2: LTE Band 4
Mode 3: LTE Band 5
Mode 4: LTE Band 12
Mode 5: LTE Band 13
Mode 6: LTE Band 14
Mode 7: LTE Band 17
Mode 8: LTE Band 66

1.3. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Horn Antenna	ELECTRO METRICS	EM-6961	103326	DoC	--
2	Base Station	R&S	CMW500	106071	DoC	Non-Shielded, 1.8m

1.4. Configuration of Tested System



1.5. EUT Exercise Software

1	Setup the EUT and simulators as shown on 1.4.
2	Turn on the power of all equipment. Horn link with base station.
3	The EUT link with base station and it will continue receive the signal.
4	Repeat the above procedure.

2. Technical Test

2.1. Summary of Test Result

B2

Uplink: 1850-1910MHz

Downlink: 1930-1990MHz

LTE B2					
FCC Part 24 Subpart E					
Industry Canada RSS-133, issue 6, Industry Canada RSS-GEN					
Test item	FCC Reference section	FCC Limit	IC Reference section	IC Limit	Result
RF Output Power	§2.1033 §2.1046 §24.232	<2 Watts	§6.4	<2 Watts	Pass
Occupied Bandwidth	§2.1049	N/A	RSS-GEN §4.2	N/A	Pass
Peak-to-average power ratio	§24.232	<13 dB	§6.4	<13 dB	Pass
Spurious Emissions	§2.1053 §24.238	<-13dBm	§6.5	<-13dBm	Pass
Spurious Emissions at Antenna Terminals	§27.238	<-13dBm	§6.5	<-13dBm	Pass
Frequency Stability	§2.1055 §24.235	<±2.5 ppm	§6.3	<±2.5 ppm	Pass

B4

Uplink: 1710-1755MHz

Downlink: 2100-2155MHz

LTE B4					
FCC Part 27 Subpart L					
Industry Canada RSS-139, issue 3, Industry Canada RSS-GEN					
Test item	FCC Reference section	FCC Limit	IC Reference section	IC Limit	Result
RF Output Power	§2.1033 §2.1046 §27.50	<1 Watt	§6.5	<1 Watt	Pass
Occupied Bandwidth	§2.1049	N/A	RSS-GEN §4.2	N/A	Pass
Peak-to-average power ratio	§27.50	<13 dB	§6.5	<13 dB	Pass
Spurious Emissions	§2.1053 §27.53	<-13dBm	§6.6	<-13dBm	Pass
Spurious Emissions at Antenna Terminals	§27.53	<-13dBm	§6.6	<-13dBm	Pass
Frequency Stability	§2.1055 §27.54	<2.5 ppm	§6.4	Within the frequency range	Pass

B5

Uplink: 824-849MHz

Downlink: 869-894MHz

LTE B5					
FCC Part 22 Subpart H					
Industry Canada RSS-132, issue 3, Industry Canada RSS-GEN					
Test item	FCC Reference section	FCC Limit	IC Reference section	IC Limit	Result
RF Output Power	§2.1033 §2.1046 §22.913	<7 Watts	§5.4	<7 Watts EIRP: <11.5 Watts	Pass
Occupied Bandwidth	§2.1049	N/A	RSS-GEN §4.2	N/A	Pass
Peak-to-average power ratio	§22.913	<13 dB	§5.4	<13 dB	Pass
Spurious Emissions	§2.1053 §22.917	<-13dBm	§5.5	<-13dBm	Pass
Spurious Emissions at Antenna Terminals	§22.917	<-13dBm	§5.5	<-13dBm	Pass
Frequency Stability	§2.1055 §22.335	<±2.5 ppm	§5.3	<±2.5 ppm for mobile stations <±1.5 ppm for base stations	Pass

B12

Uplink: 699-716MHz

Downlink: 729-746MHz

LTE B12					
FCC Part 27 Subpart F					
Industry Canada RSS-130, issue 1, Industry Canada RSS-GEN					
Test item	FCC Reference section	FCC Limit	IC Reference section	IC Limit	Result
RF Output Power	§2.1033 §2.1046 §27.50	<3 Watts	§4.4	<5 Watts E.I.R.P for portable equipment or for indoor fixed subscriber equipment.	Pass
Occupied Bandwidth	§2.1049	N/A	§4.2	N/A	Pass
Peak-to-average power ratio	§27.50	<13 dB	§4.4	<13 dB	Pass
Spurious Emissions	§2.1053 §27.53	<-13dBm	§4.6	<-13dBm The e.i.r.p. in the band 1559-1610 MHz shall not exceed -70 dBW/MHz for wideband signal and -80 dBW for discrete emission with bandwidth less than 700 Hz.	Pass
Spurious Emissions at Antenna Terminals	§27.53	<-13dBm	§4.6	<-13dBm	Pass
Frequency Stability	§2.1055 §27.54	<±2.5 ppm	§4.3	Within the frequency range	Pass

B13

Uplink: 777-787MHz

Downlink: 746-756MHz

LTE B13					
FCC Part 27 Subpart F					
Industry Canada RSS-130, issue 1, Industry Canada RSS-GEN					
RF Output Power	FCC Reference section	FCC Limit	IC Reference section	IC Limit	Result
RF Output Power	§2.1055 §27.54	<±2.5 ppm	§4.3	Within the frequency range	Pass
Occupied Bandwidth	§2.1033 §2.1046 §27.50	<3 Watts	§4.4	<5 Watts	Pass
Peak-to-average power ratio	§2.1049	N/A	RSS-GEN §4.2	N/A	Pass
Spurious Emissions	§27.50	<-13 dB	§4.4	<13 dB	Pass
Spurious Emissions at Antenna Terminals	§2.1053 §27.53	<-13dBm	§4.6	<-13dBm	Pass
Frequency Stability	§27.53	<-13dBm	§4.6	<-13dBm	Pass

B14

Uplink: 788-798MHz

Downlink: 758-768MHz

LTE B14					
FCC Part 90 Subpart R					
Industry Canada RSS-140, issue 1, Industry Canada RSS-GEN					
Test item	FCC Reference section	FCC Limit	IC Reference section	IC Limit	Result
RF Output Power	§2.1033 §2.1046 §90.542	<3 Watts ERP	§4.3	<3 Watts ERP	Pass
Occupied Bandwidth	§2.1049	N/A	RSS-GEN §4.2	N/A	Pass
Peak-to-average power ratio	§27.50	<13 dB	§4.3	<13 dB	Pass
Spurious Emissions	§2.1053 §90.543	<-13dBm	§4.4	<-13dBm <-70 dBW/MHz e.i.r.p.of all emissions, including harmonics in the band 1559-1610 MHz.	Pass
Spurious Emissions at Antenna Terminals	§90.543	<-35dBm	§4.4	<-35dBm for mobile and portable/hand-held equipment	Pass
Frequency Stability	§2.1055 §90.543	<±2.5 ppm	§4.2	Within the frequency range	Pass

B17

Uplink: 704-716MHz

Downlink: 734-746MHz

LTE B17					
FCC Part 27 Subpart F					
Industry Canada RSS-130, issue1, Industry Canada RSS-GEN					
Test item	FCC Reference section	FCC Limit	IC Reference section	IC Limit	Result
RF Output Power	§2.1033 §2.1046 §27.50	<3 Watts	§4.4	<5 Watts	Pass
Occupied Bandwidth	§2.1049	N/A	§4.4	<13 dB	Pass
Peak-to-average power ratio	§27.50	<13 dB	§4.3	<13 dB	Pass
Spurious Emissions	§2.1053 §27.53	<-13dBm	§4.6	<-13dBm	Pass
Spurious Emissions at Antenna Terminals	§27.53	<-13dBm	RSS-GEN §4.2	N/A	Pass
Frequency Stability	§2.1055 §27.54	<2.5 ppm	§4.6	<-13dBm	Pass

B66

Uplink: 1710~1780MHz

Downlink: 2110~2200MHz

LTE B66					
FCC Part 27 Subpart L					
Industry Canada RSS-139, issue 3, Industry Canada RSS-GEN					
Test item	FCC Reference section	FCC Limit	IC Reference section	IC Limit	Result
RF Output Power	§2.1033 §2.1046 §27.50	<1 Watts	§6.5	<1 Watts	Pass
Occupied Bandwidth	§2.1049	N/A	RSS-GEN §4.2	N/A	Pass
Peak-to-average power ratio	§27.50	<13 dB	§6.5	<13 dB	Pass
Spurious Emissions	§2.1053 §27.53	<-13dBm	§6.6	<-13dBm	Pass
Spurious Emissions at Antenna Terminals	§27.53	<-13dBm	§6.6	<-13dBm	Pass
Frequency Stability	§2.1055 §27.54	<2.5 ppm	§6.4	Within the frequency range	Pass

2.2. Test Environment

Items	Required (IEC 68-1)	Actual	Test Site
Temperature (°C)	15-35	23	2 & 3
Humidity (%RH)	25-75	52	
Barometric pressure (mbar)	860-1060	950-1000	

Note: Test site information refers to Laboratory Information.

Laboratory Information

USA : FCC Registration Number: TW3024
Canada : IC Registration Number: 22397-1 / 22397-2 / 22397-3

The related certificate for our laboratories about the test site and management system can be downloaded from DEKRA Testing and Certification Co., Ltd. Web Site:

<http://www.dekra.com.tw/english/about/certificates.aspx?bval=5>

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site : http://www.dekra.com.tw/index_en.aspx

If you have any comments, Please don't hesitate to contact us. Our test sites as below:

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TEL: +886-3-582-8001 / FAX: +886-3-582-8958 E-Mail : info.tw@dekra.com

2.3. List of Test Equipment

RF Output Power / SR10-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
High Speed Peak Power Meter Dual Input	Anritsu	ML2496A	1602004	2018/01/02	2019/01/01
Pulse Power Sensor	Anritsu	MA2411B	1531043	2018/01/02	2019/01/01
Pulse Power Sensor	Anritsu	MA2411B	1531044	2018/01/02	2019/01/01
Power Meter	Keysight	8990B	MY51000248	2018/06/07	2019/06/06
Power Sensor	Keysight	N1923A	MY57240005	2018/06/07	2019/06/06
Wideband Radio Communication Tester	R&S	CMW500	106071	2018/01/29	2019/01/28

Occupied Bandwidth / SR10-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Keysight	N9030B	MY57140404	2018/06/26	2019/06/25
Spectrum Analyzer	Keysight	N9010B	MY57110159	2018/05/25	2019/05/24
Spectrum Analyzer	Agilent	N9010A	US47140172	2018/07/18	2019/07/17
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/10	2019/01/09
Wideband Radio Communication Tester	R&S	CMW500	106071	2018/01/29	2019/01/28

Peak To Average Ratio / SR10-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Keysight	N9030B	MY57140404	2018/06/26	2019/06/25
Spectrum Analyzer	Keysight	N9010B	MY57110159	2018/05/25	2019/05/24
Spectrum Analyzer	Agilent	N9010A	US47140172	2018/07/18	2019/07/17
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/10	2019/01/09
Wideband Radio Communication Tester	R&S	CMW500	106071	2018/01/29	2019/01/28

Conducted Spurious Emissions / SR10-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Keysight	N9030B	MY57140404	2018/06/26	2019/06/25
Spectrum Analyzer	Keysight	N9010B	MY57110159	2018/05/25	2019/05/24
Spectrum Analyzer	Agilent	N9010A	US47140172	2018/07/18	2019/07/17
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/10	2019/01/09
Wideband Radio Communication Tester	R&S	CMW500	106071	2018/01/29	2019/01/28

Radiated Spurious Emissions / CB4-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Signal Analyzer	R&S	FSVA40	101455	2018/11/05	2019/11/04
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/10	2019/01/09
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2018/03/05	2019/03/04
Bilog Antenna	Teseq	CBL6112D	23191	2018/06/26	2019/06/25
Horn Antenna	Schwarzbeck	BBHA 9120D	312	2018/09/26	2019/09/25
Horn Antenna	Schwarzbeck	BBHA 9170	202	2018/01/31	2019/01/30
Pre-Amplifier	Dekra	AP-025C	201801236	2018/02/26	2019/02/25
Pre-Amplifier	EMCI	EMC11830I	980366	2018/01/08	2019/01/07
Pre-Amplifier	Dekra	AP-400C	201801231	2018/12/05	2019/12/04
Wideband Radio Communication Tester	R&S	CMW500	106071	2018/01/29	2019/01/28

Spurious Emissions at Antenna Terminals / SR10-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Keysight	N9030B	MY57140404	2018/06/26	2019/06/25
Spectrum Analyzer	Keysight	N9010B	MY57110159	2018/05/25	2019/05/24
Spectrum Analyzer	Agilent	N9010A	US47140172	2018/07/18	2019/07/17
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/10	2019/01/09
Wideband Radio Communication Tester	R&S	CMW500	106071	2018/01/29	2019/01/28

Frequency Stability / SR10-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Keysight	N9030B	MY57140404	2018/06/26	2019/06/25
Spectrum Analyzer	Keysight	N9010B	MY57110159	2018/05/25	2019/05/24
Spectrum Analyzer	Agilent	N9010A	US47140172	2018/07/18	2019/07/17
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/01/10	2019/01/09
Wideband Radio Communication Tester	R&S	CMW500	106071	2018/01/29	2019/01/28

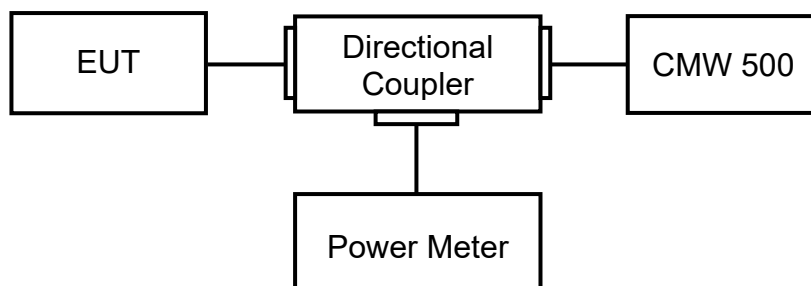
Note: All equipment upon which need to calibrated are with calibration period of 1 year.

2.4. Uncertainty

Test Item	Uncertainty
RF Output Power	$\pm 1.27\text{dB}$.
Occupied Bandwidth	$\pm 10\text{ Hz}$
Peak To Average Ratio	not exceed 13 dB.
Spurious Emissions	$\pm 1.27\text{ dB}$ for Conducted Measurement. $\pm 3.2\text{ dB}$ for Radiated Measurement.
Spurious Emissions at Antenna Terminals	$\pm 3.2\text{ dB}$
Frequency Stability	$\pm 10\text{ Hz}$

3. RF Output Power

3.1. Test Setup



3.2. Test Procedure

- The RF output of the transmitter was connected to base station simulator.
- The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement..
- Set EUT at maximum average power by base station simulator.
- Measure lowest, middle, and highest channels for each bandwidth and different modulation.

Effective Isotropic Radiated Power = Conducted Power(dBm) + Antenna Gain(dBi)

Effective Radiated Power = Conducted Power(dBm) + Antenna Gain(dBi) - 2.15dB

3.3. Test Method

KDB 971168 D01 Power Meas License Digital Systems v03 sub-clause 5.2.4

ANSI C63.26: 2015 Sub-clause 5.2.4.2

3.4. Test Result

Product	Module		
Test Item	RF Output Power		
Test Mode	Mode 1: LTE Band 2 Mode 2: LTE Band 4 Mode 3: LTE Band 5 Mode 4: LTE Band 12 Mode 5: LTE Band 13 Mode 6: LTE Band 14 Mode 7: LTE Band 17 Mode 8: LTE Band 66		
Date of Test	2018/12/13	Test Site	SR10-H

Band	Channel	Lower Limit (dBm)	Upper Limit (dBm)	Actual Result (dBm)	Uncertainty (dB)
2	Low	20.00	24.00	23.20	± 1.27
	Middle	20.00	24.00	23.32	± 1.27
	High	20.00	24.00	23.55	± 1.27
4	Low	20.00	23.50	23.39	± 1.27
	Middle	20.00	23.50	23.25	± 1.27
	High	20.00	23.50	23.38	± 1.27
5	Low	21.00	24.50	24.01	± 1.27
	Middle	21.00	24.50	23.91	± 1.27
	High	21.00	24.50	23.74	± 1.27
12	Low	21.50	24.00	23.83	± 1.27
	Middle	21.50	24.00	23.77	± 1.27
	High	21.50	24.00	23.87	± 1.27
13	Low	22.00	24.00	23.98	± 1.27
	Middle	22.00	24.00	23.94	± 1.27
	High	22.00	24.00	23.82	± 1.27
14	Low	22.00	24.50	24.15	± 1.27
	Middle	22.00	24.50	24.12	± 1.27
	High	22.00	24.50	24.13	± 1.27
17	Low	21.50	24.00	23.99	± 1.27
	Middle	21.50	24.00	23.94	± 1.27
	High	21.50	24.00	23.89	± 1.27
66	Low	21.00	24.00	23.52	± 1.27
	Middle	21.00	24.00	23.59	± 1.27
	High	21.00	24.00	23.30	± 1.27

Product	Module		
Test Item	RF Output Power		
Test Mode	Mode 1: LTE Band 2		
Date of Test	2018/12/13	Test Site	SR10-H

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 2 1.4MHz	18607 1850.7	QPSK	1	0	0	22.82	0.303	2
				2		22.79	0.301	2
				5		22.80	0.302	2
			3	0	0	21.83	0.242	2
				1		21.82	0.241	2
				2		21.86	0.243	2
			6	0	1	21.79	0.239	2
		16-QAM	1	0	1	21.52	0.225	2
				2		21.44	0.221	2
				5		21.43	0.220	2
			3	0	1	20.72	0.187	2
				1		20.72	0.187	2
				2		20.76	0.189	2
			6	0	2	20.60	0.182	2
	18900 1880	QPSK	1	0	0	23.16	0.328	2
				2		23.05	0.320	2
				5		23.03	0.318	2
			3	0	0	22.26	0.267	2
				1		22.22	0.264	2
				2		22.21	0.264	2
			6	0	1	22.11	0.258	2
		16-QAM	1	0	1	21.95	0.248	2
				2		21.93	0.247	2
				5		21.85	0.243	2
			3	0	1	21.33	0.215	2
				1		21.34	0.216	2
				2		21.38	0.218	2
			6	0	2	21.28	0.213	2

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 2 1.4MHz	19193 1909.3	QPSK	1	0	0	23.55	0.359	2
				2		23.48	0.353	2
				5		23.37	0.344	2
			3	0	0	23.45	0.351	2
				1		23.51	0.356	2
				2		23.40	0.347	2
			6	0	1	22.38	0.274	2
		16-QAM	1	0	1	22.37	0.274	2
				2		22.32	0.270	2
				5		22.31	0.270	2
			3	0	1	21.39	0.218	2
				1		21.36	0.217	2
				2		21.30	0.214	2
			6	0	2	21.30	0.214	2

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 2 3MHz	18615 1851.5	QPSK	1	0	0	23.20	0.331	2
				7		23.18	0.330	2
				14		23.17	0.329	2
			8	0	1	22.24	0.265	2
				4		22.28	0.268	2
				7		22.31	0.270	2
			15	0	1	22.16	0.261	2
		16-QAM	1	0	1	21.96	0.249	2
				7		21.93	0.247	2
				14		21.94	0.248	2
			8	0	2	20.76	0.189	2
				4		20.75	0.188	2
				7		20.79	0.190	2
			15	0	2	20.77	0.189	2
	18900 1880	QPSK	1	0	0	23.32	0.340	2
				7		23.25	0.335	2
				14		23.24	0.334	2
			8	0	1	22.39	0.275	2
				4		22.41	0.276	2
				7		22.43	0.277	2
			15	0	1	22.28	0.268	2
		16-QAM	1	0	1	22.05	0.254	2
				7		22.02	0.252	2
				14		21.96	0.249	2
			8	0	2	21.45	0.221	2
				4		21.44	0.221	2
				7		21.46	0.222	2
			15	0	2	21.38	0.218	2

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 2 3MHz	19185 1908.5	QPSK	1	0	0	23.35	0.343	2
				7		23.28	0.337	2
				14		23.29	0.338	2
			8	0	1	22.37	0.274	2
				4		22.34	0.272	2
				7		22.35	0.272	2
			15	0	1	22.25	0.266	2
		16-QAM	1	0	1	22.23	0.265	2
				7		22.14	0.259	2
				14		22.11	0.258	2
			8	0	2	21.11	0.205	2
				4		21.14	0.206	2
				7		21.20	0.209	2
			15	0	2	21.07	0.203	2

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 2 5MHz	18625 1852.5	QPSK	1	0	0	22.86	0.306	2
				12		22.86	0.306	2
				24		22.92	0.310	2
			12	0	1	22.00	0.251	2
				6		22.01	0.252	2
				11		22.12	0.258	2
			25	0		22.00	0.251	2
		16-QAM	1	0	1	21.54	0.226	2
				12		21.71	0.235	2
				24		21.75	0.237	2
			12	0	2	20.82	0.191	2
				6		20.80	0.191	2
				11		20.82	0.191	2
			25	0		20.80	0.191	2
	18900 1880	QPSK	1	0	0	22.73	0.297	2
				12		22.61	0.289	2
				24		22.62	0.290	2
			12	0	1	21.69	0.234	2
				6		21.80	0.240	2
				11		21.84	0.242	2
			25	0		21.68	0.233	2
		16-QAM	1	0	1	21.55	0.226	2
				12		21.49	0.223	2
				24		21.48	0.223	2
			12	0	2	20.71	0.187	2
				6		20.69	0.186	2
				11		20.71	0.187	2
			25	0		20.54	0.179	2

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 2 5MHz	19175 1907.5	QPSK	1	0	0	23.15	0.327	2
				12		23.11	0.324	2
				24		23.12	0.325	2
			12	0	1	22.35	0.272	2
				6		22.31	0.270	2
				11		22.33	0.271	2
			25	0		22.26	0.267	2
		16-QAM	1	0	1	22.68	0.294	2
				12		22.88	0.308	2
				24		23.11	0.324	2
			12	0	2	21.47	0.222	2
				6		21.41	0.219	2
				11		21.36	0.217	2
			25	0		21.30	0.214	2

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 2 10MHz	18650 1855	QPSK	1	0	0	23.03	0.318	2
				24		22.97	0.314	2
				49		22.99	0.316	2
			25	0	1	22.00	0.251	2
				12		21.98	0.250	2
				24		21.92	0.247	2
			50	0		21.94	0.248	2
		16-QAM	1	0	1	21.78	0.239	2
				24		21.72	0.236	2
				49		21.71	0.235	2
			25	0	2	20.84	0.192	2
				12		20.73	0.187	2
				24		20.72	0.187	2
			50	0		20.66	0.185	2
	18900 1880	QPSK	1	0	0	22.86	0.306	2
				24		22.84	0.305	2
				49		22.82	0.303	2
			25	0	1	21.69	0.234	2
				12		21.65	0.232	2
				24		21.65	0.232	2
			50	0		21.66	0.232	2
		16-QAM	1	0	1	21.67	0.233	2
				24		21.63	0.231	2
				49		21.64	0.231	2
			25	0	2	20.73	0.187	2
				12		20.71	0.187	2
				24		20.73	0.187	2
			50	0		20.60	0.182	2

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 2 10MHz	19150 1905	QPSK	1	0	0	22.74	0.298	2
				24		22.64	0.291	2
				49		22.63	0.290	2
			25	0	1	21.59	0.229	2
				12		21.72	0.236	2
				24		21.78	0.239	2
			50	0	1	21.60	0.229	2
		16-QAM	1	0		21.50	0.224	2
				24		21.46	0.222	2
				49		21.43	0.220	2
			25	0	2	21.43	0.220	2
				12		21.40	0.219	2
				24		21.40	0.219	2
			50	0		21.25	0.211	2

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 2 15MHz	18675 1857.5	QPSK	1	0	0	23.10	0.324	2
				37		23.07	0.321	2
				74		23.03	0.318	2
			36	0	1	22.09	0.256	2
				19		22.12	0.258	2
				38		22.16	0.261	2
			75	0		22.04	0.254	2
		16-QAM	1	0	1	21.93	0.247	2
				37		21.84	0.242	2
				74		21.83	0.242	2
			36	0	2	20.87	0.194	2
				19		20.84	0.192	2
				38		20.86	0.193	2
			75	0		20.84	0.192	2
	18900 1880	QPSK	1	0	0	22.94	0.312	2
				37		22.91	0.310	2
				74		22.86	0.306	2
			36	0	1	21.83	0.242	2
				19		21.85	0.243	2
				38		21.93	0.247	2
			75	0		21.78	0.239	2
		16-QAM	1	0	1	21.74	0.237	2
				37		21.64	0.231	2
				74		21.65	0.232	2
			36	0	2	20.69	0.186	2
				19		20.70	0.186	2
				38		20.79	0.190	2
			75	0		20.67	0.185	2

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 2 15MHz	19125 1902.5	QPSK	1	0	0	22.73	0.297	2
				37		22.70	0.295	2
				74		22.68	0.294	2
			36	0	1	21.59	0.229	2
				19		21.69	0.234	2
				38		21.72	0.236	2
				75		21.56	0.227	2
		16-QAM	1	0	1	21.56	0.227	2
				37		21.53	0.225	2
				74		21.54	0.226	2
			36	0	2	21.33	0.215	2
				19		21.35	0.216	2
				38		21.46	0.222	2
				75		21.32	0.215	2

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 2 20MHz	18700 1860	QPSK	1	0	0	23.06	0.321	2
				49		22.95	0.313	2
				99		22.95	0.313	2
			50	0	1	22.20	0.263	2
				25		22.16	0.261	2
				49		22.17	0.261	2
			100	0		22.03	0.253	2
		16-QAM	1	0	1	21.96	0.249	2
				49		22.17	0.261	2
				99		22.21	0.264	2
			50	0	2	21.15	0.207	2
				25		21.17	0.207	2
				49		21.21	0.209	2
			100	0		21.04	0.201	2
	18900 1880	QPSK	1	0	0	22.92	0.310	2
				49		22.89	0.308	2
				99		22.88	0.308	2
			50	0	1	21.92	0.247	2
				25		21.96	0.249	2
				49		21.99	0.251	2
			100	0		21.84	0.242	2
		16-QAM	1	0	1	21.62	0.230	2
				49		21.59	0.229	2
				99		21.59	0.229	2
			50	0	2	20.66	0.185	2
				25		20.63	0.183	2
				49		20.63	0.183	2
			100	0		20.48	0.177	2

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 2 20MHz	19100 1900	QPSK	1	0	0	23.16	0.328	2
				49		23.09	0.323	2
				99		23.10	0.324	2
			50	0	1	22.38	0.274	2
				25		22.39	0.275	2
				49		22.49	0.281	2
			100	0		22.36	0.273	2
		16-QAM	1	0	1	22.93	0.311	2
				49		22.91	0.310	2
				99		22.91	0.310	2
			50	0	2	21.39	0.218	2
				25		21.46	0.222	2
				49		21.54	0.226	2
			100	0		21.41	0.219	2

Product	Module		
Test Item	RF Output Power		
Test Mode	Mode 2: LTE Band 4		
Date of Test	2018/12/13	Test Site	SR10-H

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 4 1.4MHz	19957 1710.7	QPSK	1	0	0	23.15	0.327	1
				2		23.10	0.324	1
				5		23.08	0.322	1
			3	0	0	22.08	0.256	1
				1		22.06	0.255	1
				2		22.09	0.256	1
			6	0	1	22.01	0.252	1
		16-QAM	1	0	1	21.89	0.245	1
				2		21.83	0.242	1
				5		21.77	0.238	1
			3	0	1	20.79	0.190	1
				1		20.85	0.193	1
				2		20.89	0.195	1
			6	0	2	20.75	0.188	1
	20175 1732.5	QPSK	1	0	0	22.98	0.315	1
				2		22.95	0.313	1
				5		22.86	0.306	1
			3	0	0	22.02	0.252	1
				1		22.00	0.251	1
				2		22.03	0.253	1
			6	0	1	21.89	0.245	1
		16-QAM	1	0	1	21.68	0.233	1
				2		21.63	0.231	1
				5		21.64	0.231	1
			3	0	1	20.60	0.182	1
				1		20.50	0.178	1
				2		20.51	0.178	1
			6	0	2	20.47	0.177	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 4 1.4MHz	20393 1754.3	QPSK	1	0	0	23.38	0.345	1
				2		23.33	0.341	1
				5		23.32	0.340	1
			3	0	0	22.35	0.272	1
				1		22.33	0.271	1
				2		22.35	0.272	1
			6	0	1	22.28	0.268	1
		16-QAM	1	0	1	22.18	0.262	1
				2		22.15	0.260	1
				5		22.13	0.259	1
			3	0	1	21.27	0.212	1
				1		21.26	0.212	1
				2		21.28	0.213	1
			6	0	2	21.15	0.207	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 4 3MHz	19965 1711.5	QPSK	1	0	0	23.39	0.346	1
				7		23.33	0.341	1
				14		23.33	0.341	1
			8	0	1	22.37	0.274	1
				4		22.35	0.272	1
				7		22.37	0.274	1
			15	0		22.38	0.274	1
		16-QAM	1	0	1	22.17	0.261	1
				7		22.14	0.259	1
				14		22.14	0.259	1
			8	0	2	21.27	0.212	1
				4		21.22	0.210	1
				7		21.23	0.210	1
			15	0		21.14	0.206	1
	20175 1732.5	QPSK	1	0	0	23.25	0.335	1
				7		23.23	0.333	1
				14		23.20	0.331	1
			8	0	1	22.36	0.273	1
				4		22.27	0.267	1
				7		22.26	0.267	1
			15	0		22.21	0.264	1
		16-QAM	1	0	1	22.01	0.252	1
				7		21.95	0.248	1
				14		21.94	0.248	1
			8	0	2	21.13	0.206	1
				4		21.07	0.203	1
				7		21.03	0.201	1
			15	0		20.96	0.198	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 4 3MHz	20385 1753.5	QPSK	1	0	0	23.20	0.331	1
				7		23.11	0.324	1
				14		23.11	0.324	1
			8	0	1	22.12	0.258	1
				4		22.14	0.259	1
				7		22.24	0.265	1
			15	0		22.09	0.256	1
		16-QAM	1	0	1	22.00	0.251	1
				7		21.92	0.247	1
				14		21.92	0.247	1
			8	0	2	21.53	0.225	1
				4		21.50	0.224	1
				7		21.44	0.221	1
			15	0		21.37	0.217	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 4 5MHz	19975 1712.5	QPSK	1	0	0	23.33	0.341	1
				12		23.29	0.338	1
				24		23.21	0.332	1
			12	0	1	22.37	0.274	1
				6		22.30	0.269	1
				11		22.28	0.268	1
			25	0		22.23	0.265	1
		16-QAM	1	0	1	22.13	0.259	1
				12		22.09	0.256	1
				24		22.10	0.257	1
			12	0	2	20.97	0.198	1
				6		20.95	0.197	1
				11		21.01	0.200	1
			25	0		20.93	0.196	1
	20175 1732.5	QPSK	1	0	0	23.21	0.332	1
				12		23.16	0.328	1
				24		23.15	0.327	1
			12	0	1	22.15	0.260	1
				6		22.16	0.261	1
				11		22.25	0.266	1
			25	0		22.14	0.259	1
		16-QAM	1	0	1	22.03	0.253	1
				12		21.97	0.249	1
				24		21.95	0.248	1
			12	0	2	20.99	0.199	1
				6		20.93	0.196	1
				11		20.91	0.195	1
			25	0		20.83	0.192	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 4 5MHz	20375 1752.5	QPSK	1	0	0	22.96	0.313	1
				12		22.92	0.310	1
				24		22.92	0.310	1
			12	0	1	21.92	0.247	1
				6		21.89	0.245	1
				11		21.91	0.246	1
			25	0		21.92	0.247	1
		16-QAM	1	0	1	21.71	0.235	1
				12		21.68	0.233	1
				24		21.66	0.232	1
			12	0	2	21.57	0.228	1
				6		21.52	0.225	1
				11		21.51	0.224	1
			25	0		21.48	0.223	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 4 10MHz	20000 1715	QPSK	1	0	0	23.33	0.341	1
				24		23.27	0.337	1
				49		23.27	0.337	1
			25	0	1	22.33	0.271	1
				12		22.31	0.270	1
				24		22.33	0.271	1
			50	0		22.32	0.270	1
		16-QAM	1	0	1	22.05	0.254	1
				24		21.93	0.247	1
				49		21.95	0.248	1
			25	0	2	21.05	0.202	1
				12		20.98	0.199	1
				24		20.99	0.199	1
			50	0		20.93	0.196	1
	20175 1732.5	QPSK	1	0	0	23.13	0.326	1
				24		23.10	0.324	1
				49		23.11	0.324	1
			25	0	1	22.27	0.267	1
				12		22.20	0.263	1
				24		22.12	0.258	1
			50	0		22.09	0.256	1
		16-QAM	1	0	1	21.96	0.249	1
				24		21.92	0.247	1
				49		21.94	0.248	1
			25	0	2	21.03	0.201	1
				12		20.88	0.194	1
				24		20.85	0.193	1
			50	0		20.86	0.193	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 4 10MHz	20350 1750	QPSK	1	0	0	22.99	0.316	1
				24		22.96	0.313	1
				49		22.94	0.312	1
			25	0	1	21.99	0.251	1
				12		22.01	0.252	1
				24		22.07	0.255	1
			50	0		21.97	0.249	1
		16-QAM	1	0	1	21.86	0.243	1
				24		21.81	0.240	1
				49		21.77	0.238	1
			25	0	2	21.31	0.214	1
				12		21.21	0.209	1
				24		21.20	0.209	1
			50	0		21.21	0.209	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 4 15MHz	20025 1717.5	QPSK	1	0	0	23.11	0.324	1
				37		23.06	0.321	1
				74		23.05	0.320	1
			36	0	1	22.23	0.265	1
				19		22.20	0.263	1
				38		22.21	0.264	1
				75		22.05	0.254	1
		16-QAM	1	0	1	21.88	0.244	1
				37		21.84	0.242	1
				74		21.85	0.243	1
			36	0	2	20.72	0.187	1
				19		20.70	0.186	1
				38		20.79	0.190	1
				75		20.68	0.185	1
	20175 1732.5	QPSK	1	0	0	22.94	0.312	1
				37		22.89	0.308	1
				74		22.87	0.307	1
			36	0	1	21.92	0.247	1
				19		21.91	0.246	1
				38		21.95	0.248	1
				75		21.92	0.247	1
		16-QAM	1	0	1	21.79	0.239	1
				37		21.72	0.236	1
				74		21.68	0.233	1
			36	0	2	20.75	0.188	1
				19		20.73	0.187	1
				38		20.75	0.188	1
				75		20.62	0.183	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 4 15MHz	20325 1747.5	QPSK	1	0	0	22.78	0.301	1
				37		22.76	0.299	1
				74		22.75	0.299	1
			36	0	1	21.67	0.233	1
				19		21.64	0.231	1
				38		21.66	0.232	1
			75	0		21.63	0.231	1
		16-QAM	1	0	1	21.61	0.230	1
				37		21.55	0.226	1
				74		21.56	0.227	1
			36	0	2	21.26	0.212	1
				19		21.24	0.211	1
				38		21.26	0.212	1
			75	0		21.23	0.210	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 4 20MHz	20050 1720	QPSK	1	0	0	23.20	0.331	1
				49		23.14	0.327	1
				99		23.15	0.327	1
			50	0	1	22.06	0.255	1
				25		22.12	0.258	1
				49		22.16	0.261	1
			100	0		22.03	0.253	1
		16-QAM	1	0	1	22.40	0.275	1
				49		22.37	0.274	1
				99		22.36	0.273	1
			50	0	2	21.31	0.214	1
				25		21.31	0.214	1
				49		21.35	0.216	1
			100	0		21.26	0.212	1
	20175 1732.5	QPSK	1	0	0	22.95	0.313	1
				49		22.85	0.305	1
				99		22.84	0.305	1
			50	0	1	22.40	0.275	1
				25		22.49	0.281	1
				49		22.52	0.283	1
			100	0		22.53	0.284	1
		16-QAM	1	0	1	22.05	0.254	1
				49		21.99	0.251	1
				99		21.96	0.249	1
			50	0	2	21.40	0.219	1
				25		21.54	0.226	1
				49		21.62	0.230	1
			100	0		21.57	0.228	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 4 20MHz	20300 1745	QPSK	1	0	0	22.79	0.301	1
				49		22.70	0.295	1
				99		22.68	0.294	1
			50	0	1	21.77	0.238	1
				25		21.75	0.237	1
				49		21.74	0.237	1
			100	0		21.63	0.231	1
		16-QAM	1	0	1	21.64	0.231	1
				49		21.57	0.228	1
				99		21.53	0.225	1
			50	0	2	21.40	0.219	1
				25		21.42	0.220	1
				49		21.51	0.224	1
			100	0		21.42	0.220	1

Product	Module		
Test Item	RF Output Power		
Test Mode	Mode 3: LTE Band 5		
Date of Test	2018/12/13	Test Site	SR10-H

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 5 1.4MHz	20407 824.7	QPSK	1	0	0	23.88	0.236	7
				2		23.71	0.227	7
				5		23.58	0.220	7
			3	0	0	22.81	0.185	7
				1		22.79	0.184	7
				2		22.81	0.185	7
			6	0	1	22.71	0.180	7
		16-QAM	1	0	1	22.62	0.177	7
				2		22.55	0.174	7
				5		22.52	0.173	7
			3	0	1	21.74	0.144	7
				1		21.69	0.143	7
				2		21.62	0.140	7
			6	0	2	21.57	0.139	7
	20525 836.5	QPSK	1	0	0	23.75	0.229	7
				2		23.71	0.227	7
				5		23.72	0.228	7
			3	0	0	22.75	0.182	7
				1		22.67	0.179	7
				2		22.60	0.176	7
			6	0	1	22.61	0.176	7
		16-QAM	1	0	1	22.47	0.171	7
				2		22.34	0.166	7
				5		22.36	0.166	7
			3	0	1	21.50	0.136	7
				1		21.47	0.136	7
				2		21.47	0.136	7
			6	0	2	21.43	0.134	7

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 5 1.4MHz	20643 848.3	QPSK	1	0	0	23.63	0.223	7
				2		23.56	0.219	7
				5		23.53	0.218	7
			3	0	0	22.55	0.174	7
				1		22.52	0.173	7
				2		22.51	0.172	7
			6	0	1	22.46	0.170	7
		16-QAM	1	0	1	22.51	0.172	7
				2		22.48	0.171	7
				5		22.43	0.169	7
			3	0	1	21.74	0.144	7
				1		21.73	0.144	7
				2		21.86	0.148	7
			6	0	2	21.74	0.144	7

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 5 3MHz	20415 825.5	QPSK	1	0	0	23.95	0.240	7
				7		23.93	0.239	7
				14		23.92	0.238	7
			8	0	1	23.02	0.194	7
				4		22.97	0.191	7
				7		22.98	0.192	7
			15	0		22.87	0.187	7
		16-QAM	1	0	1	22.75	0.182	7
				7		22.71	0.180	7
				14		22.67	0.179	7
			8	0	2	21.76	0.145	7
				4		21.69	0.143	7
				7		21.70	0.143	7
			15	0		21.60	0.140	7
	20525 836.5	QPSK	1	0	0	23.76	0.230	7
				7		23.66	0.224	7
				14		23.67	0.225	7
			8	0	1	22.78	0.183	7
				4		22.75	0.182	7
				7		22.74	0.182	7
			15	0		22.67	0.179	7
		16-QAM	1	0	1	22.63	0.177	7
				7		22.60	0.176	7
				14		22.59	0.175	7
			8	0	2	21.62	0.140	7
				4		21.58	0.139	7
				7		21.59	0.139	7
			15	0		21.49	0.136	7

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 5 3MHz	20635 847.5	QPSK	1	0	0	23.61	0.222	7
				7		23.58	0.220	7
				14		23.57	0.220	7
			8	0	1	22.60	0.176	7
				4		22.51	0.172	7
				7		22.49	0.171	7
			15	0		22.46	0.170	7
		16-QAM	1	0	1	22.42	0.169	7
				7		22.37	0.167	7
				14		22.39	0.167	7
			8	0	2	21.66	0.142	7
				4		21.67	0.142	7
				7		21.74	0.144	7
			15	0		21.63	0.141	7

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 5 5MHz	20425 826.5	QPSK	1	0	0	23.82	0.233	7
				12		23.79	0.231	7
				24		23.79	0.231	7
			12	0	1	22.81	0.185	7
				6		22.79	0.184	7
				11		22.82	0.185	7
			25	0		22.76	0.182	7
		16-QAM	1	0	1	22.65	0.178	7
				12		22.59	0.175	7
				24		22.59	0.175	7
			12	0	2	21.75	0.145	7
				6		21.67	0.142	7
				11		21.66	0.142	7
			25	0		21.59	0.139	7
	20525 836.5	QPSK	1	0	0	23.60	0.221	7
				12		23.55	0.219	7
				24		23.56	0.219	7
			12	0	1	22.40	0.168	7
				6		22.41	0.168	7
				11		22.51	0.172	7
			25	0		22.39	0.167	7
		16-QAM	1	0	1	22.31	0.164	7
				12		22.23	0.161	7
				24		22.24	0.162	7
			12	0	2	21.34	0.132	7
				6		21.32	0.131	7
				11		21.32	0.131	7
			25	0		21.29	0.130	7

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 5 5MHz	20625 846.5	QPSK	1	0	0	23.44	0.213	7
				12		23.37	0.210	7
				24		23.33	0.208	7
			12	0	1	22.33	0.165	7
				6		22.31	0.164	7
				11		22.33	0.165	7
			25	0		22.32	0.165	7
		16-QAM	1	0	1	22.20	0.160	7
				12		22.13	0.158	7
				24		22.13	0.158	7
			12	0	2	22.79	0.184	7
				6		22.80	0.184	7
				11		22.83	0.185	7
			25	0		22.76	0.182	7

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 5 10MHz	20450 829	QPSK	1	0	0	24.01	0.243	7
				24		23.94	0.239	7
				49		23.95	0.240	7
			25	0	1	23.00	0.193	7
				12		22.95	0.191	7
				24		22.90	0.188	7
			50	0		22.84	0.186	7
		16-QAM	1	0	1	23.57	0.220	7
				24		23.55	0.219	7
				49		23.53	0.218	7
			25	0	2	22.52	0.173	7
				12		22.47	0.171	7
				24		22.47	0.171	7
			50	0		22.42	0.169	7
	20525 836.5	QPSK	1	0	0	23.91	0.238	7
				24		23.87	0.236	7
				49		23.82	0.233	7
			25	0	1	22.82	0.185	7
				12		22.88	0.187	7
				24		22.92	0.189	7
			50	0		22.81	0.185	7
		16-QAM	1	0	1	22.98	0.192	7
				24		22.93	0.190	7
				49		22.94	0.190	7
			25	0	2	22.01	0.153	7
				12		21.68	0.142	7
				24		21.69	0.143	7
			50	0		21.69	0.143	7

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 5 10MHz	20600 844	QPSK	1	0	0	23.74	0.229	7
				24		23.69	0.226	7
				49		23.65	0.224	7
			25	0	1	22.60	0.176	7
				12		22.69	0.179	7
				24		22.71	0.180	7
				50		22.60	0.176	7
		16-QAM	1	0	1	22.48	0.171	7
				24		22.42	0.169	7
				49		22.41	0.168	7
			25	0	2	21.85	0.148	7
				12		21.83	0.147	7
				24		21.86	0.148	7
				50		21.80	0.146	7

Product	Module		
Test Item	RF Output Power		
Test Mode	Mode 4: LTE Band 12		
Date of Test	2018/12/13	Test Site	SR10-H

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	FCC Limit (W) ERP	IC Limit (W) EIRP
Band 12 1.4MHz	23017 699.7	QPSK	1	0	0	23.83	0.233	3	5
				2		23.73	0.228	3	5
				5		23.74	0.229	3	5
			3	0	0	22.77	0.183	3	5
				1		22.74	0.182	3	5
				2		22.73	0.181	3	5
			6	0	1	22.65	0.178	3	5
		16-QAM	1	0	1	23.54	0.218	3	5
				2		23.51	0.217	3	5
				5		23.43	0.213	3	5
			3	0	1	21.79	0.146	3	5
				1		21.78	0.146	3	5
				2		21.84	0.148	3	5
			6	0	2	21.72	0.144	3	5
	23095 707.5	QPSK	1	0	0	23.70	0.226	3	5
				2		23.67	0.225	3	5
				5		23.65	0.224	3	5
			3	0	0	22.75	0.182	3	5
				1		22.74	0.182	3	5
				2		22.77	0.183	3	5
			6	0	1	22.66	0.178	3	5
		16-QAM	1	0	1	22.38	0.167	3	5
				2		22.36	0.166	3	5
				5		22.26	0.163	3	5
			3	0	1	21.86	0.148	3	5
				1		21.91	0.150	3	5
				2		21.98	0.152	3	5
			6	0	2	21.86	0.148	3	5

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	FCC Limit (W) ERP	IC Limit (W) EIRP
Band 12 1.4MHz	23173 715.3	QPSK	1	0	0	23.74	0.229	3	5
				2		23.69	0.226	3	5
				5		23.69	0.226	3	5
			3	0	0	22.76	0.182	3	5
				1		22.76	0.182	3	5
				2		22.79	0.184	3	5
			6	0	1	22.62	0.177	3	5
		16-QAM	1	0	1	22.81	0.185	3	5
				2		22.76	0.182	3	5
				5		22.74	0.182	3	5
			3	0	1	21.86	0.148	3	5
				1		21.85	0.148	3	5
				2		21.93	0.151	3	5
			6	0	2	21.88	0.149	3	5

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	FCC Limit (W) ERP	IC Limit (W) EIRP
Band 12 3MHz	23025 700.5	QPSK	1	0	0	23.82	0.233	3	5
				7		23.77	0.230	3	5
				14		23.78	0.231	3	5
			8	0	1	22.60	0.176	3	5
				4		22.63	0.177	3	5
				7		22.68	0.179	3	5
			15	0	1	22.61	0.176	3	5
		16-QAM	1	0		23.60	0.221	3	5
				7		23.57	0.220	3	5
				14		23.55	0.219	3	5
			8	0	2	22.03	0.154	3	5
				4		22.00	0.153	3	5
				7		21.98	0.152	3	5
			15	0		21.87	0.149	3	5
	23095 707.5	QPSK	1	0	0	23.76	0.230	3	5
				7		23.72	0.228	3	5
				14		23.67	0.225	3	5
			8	0	1	22.77	0.183	3	5
				4		22.73	0.181	3	5
				7		22.72	0.181	3	5
			15	0	1	22.65	0.178	3	5
		16-QAM	1	0		22.65	0.178	3	5
				7		22.57	0.175	3	5
				14		22.59	0.175	3	5
			8	0	2	21.96	0.152	3	5
				4		21.94	0.151	3	5
				7		21.97	0.152	3	5
			15	0		21.80	0.146	3	5

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	FCC Limit (W) ERP	IC Limit (W) EIRP
Band 12 3MHz	23165 714.5	QPSK	1	0	0	23.87	0.236	3	5
				7		23.85	0.234	3	5
				14		23.81	0.232	3	5
			8	0	1	22.81	0.185	3	5
				4		22.79	0.184	3	5
				7		22.80	0.184	3	5
			15	0		22.74	0.182	3	5
		16-QAM	1	0	1	22.83	0.185	3	5
				7		22.81	0.185	3	5
				14		22.78	0.183	3	5
			8	0	2	21.78	0.146	3	5
				4		21.76	0.145	3	5
				7		21.79	0.146	3	5
			15	0		21.79	0.146	3	5

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	FCC Limit (W) ERP	IC Limit (W) EIRP
Band 12 5MHz	23035 701.5	QPSK	1	0	0	23.64	0.223	3	5
				12		23.57	0.220	3	5
				24		23.59	0.221	3	5
			12	0	1	22.61	0.176	3	5
				6		22.56	0.174	3	5
				11		22.54	0.173	3	5
			25	0		22.50	0.172	3	5
		16-QAM	1	0	1	23.06	0.195	3	5
				12		23.02	0.194	3	5
				24		23.04	0.195	3	5
			12	0	2	21.93	0.151	3	5
				6		21.85	0.148	3	5
				11		21.85	0.148	3	5
			25	0		21.77	0.145	3	5
	23095 707.5	QPSK	1	0	0	23.77	0.230	3	5
				12		23.73	0.228	3	5
				24		23.69	0.226	3	5
			12	0	1	22.62	0.177	3	5
				6		22.61	0.176	3	5
				11		22.77	0.183	3	5
			25	0		22.62	0.177	3	5
		16-QAM	1	0	1	22.13	0.158	3	5
				12		22.09	0.156	3	5
				24		22.08	0.156	3	5
			12	0	2	21.97	0.152	3	5
				6		21.93	0.151	3	5
				11		21.90	0.150	3	5
			25	0		21.79	0.146	3	5

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	FCC Limit (W) ERP	IC Limit (W) EIRP
Band 12 5MHz	23155 713.5	QPSK	1	0	0	23.72	0.228	3	5
				12		23.69	0.226	3	5
				24		23.69	0.226	3	5
			12	0	1	22.58	0.175	3	5
				6		22.57	0.175	3	5
				11		22.60	0.176	3	5
			25	0	1	22.55	0.174	3	5
		16-QAM	1	0		22.41	0.168	3	5
				12		22.36	0.166	3	5
				24		22.30	0.164	3	5
			12	0	2	21.77	0.145	3	5
				6		21.75	0.145	3	5
				11		21.75	0.145	3	5
			25	0		21.74	0.144	3	5

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	FCC Limit (W) ERP	IC Limit (W) EIRP
Band 12 10MHz	23060 704	QPSK	1	0	0	23.76	0.230	3	5
				24		23.72	0.228	3	5
				49		23.71	0.227	3	5
			25	0	1	22.87	0.187	3	5
				12		22.83	0.185	3	5
				24		22.84	0.186	3	5
			50	0		22.74	0.182	3	5
		16-QAM	1	0	1	23.04	0.195	3	5
				24		22.97	0.191	3	5
				49		22.96	0.191	3	5
			25	0	2	22.09	0.156	3	5
				12		22.07	0.156	3	5
				24		22.02	0.154	3	5
			50	0		21.97	0.152	3	5
	23095 707.5	QPSK	1	0	0	23.65	0.224	3	5
				24		23.63	0.223	3	5
				49		23.57	0.220	3	5
			25	0	1	22.67	0.179	3	5
				12		22.58	0.175	3	5
				24		22.58	0.175	3	5
			50	0		22.55	0.174	3	5
		16-QAM	1	0	1	22.89	0.188	3	5
				24		22.81	0.185	3	5
				49		22.80	0.184	3	5
			25	0	2	22.04	0.155	3	5
				12		22.02	0.154	3	5
				24		22.04	0.155	3	5
			50	0		21.87	0.149	3	5

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	FCC Limit (W) ERP	IC Limit (W) EIRP
Band 12 10MHz	23130 711	QPSK	1	0	0	23.60	0.221	3	5
				24		23.55	0.219	3	5
				49		23.51	0.217	3	5
			25	0	1	22.62	0.177	3	5
				12		22.60	0.176	3	5
				24		22.60	0.176	3	5
			50	0		22.57	0.175	3	5
		16-QAM	1	0	1	22.85	0.186	3	5
				24		22.79	0.184	3	5
				49		22.78	0.183	3	5
			25	0	2	21.94	0.151	3	5
				12		21.92	0.150	3	5
				24		21.91	0.150	3	5
			50	0		21.83	0.147	3	5

Product	Module		
Test Item	RF Output Power		
Test Mode	Mode 5: LTE Band 13		
Date of Test	2018/12/13	Test Site	SR10-H

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 13 5MHz	23205 779.5	QPSK	1	0	0	23.98	0.242	3
				12		23.94	0.239	3
				24		23.96	0.240	3
			12	0	1	23.13	0.199	3
				6		23.06	0.195	3
				11		23.07	0.196	3
				0		22.96	0.191	3
				0		22.71	0.180	3
				12	1	22.66	0.178	3
		16-QAM	1	24		22.67	0.179	3
				0	2	22.13	0.158	3
			12	6		22.11	0.157	3
				11		22.12	0.157	3
				0		22.13	0.158	3
	23230 782	QPSK	1	0	0	23.86	0.235	3
				12		23.80	0.232	3
				24		23.77	0.230	3
			12	0	1	22.77	0.183	3
				6		22.76	0.182	3
				11		22.85	0.186	3
				0		22.77	0.183	3
		16-QAM	1	0	1	22.49	0.171	3
				12		22.43	0.169	3
				24		22.44	0.169	3
			12	0	2	22.24	0.162	3
				6		22.22	0.161	3
				11		22.24	0.162	3
				0		22.12	0.157	3

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 13 5MHz	23255 784.5	QPSK	1	0	0	23.82	0.233	3
				12		23.77	0.230	3
				24		23.71	0.227	3
			12	0	1	22.79	0.184	3
				6		22.78	0.183	3
				11		22.88	0.187	3
			25	0		22.77	0.183	3
		16-QAM	1	0	1	22.17	0.159	3
				12		22.08	0.156	3
				24		22.08	0.156	3
			12	0	2	22.18	0.160	3
				6		22.17	0.159	3
				11		22.24	0.162	3
			25	0		22.11	0.157	3

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 13 10MHz	23230 782	QPSK	1	0	0	23.94	0.239	3
				24		23.90	0.237	3
				49		23.88	0.236	3
			25	0	1	22.98	0.192	3
				12		22.92	0.189	3
				24		22.93	0.190	3
			50	0		22.82	0.185	3
		16-QAM	1	0	1	23.54	0.218	3
				24		23.50	0.216	3
				49		23.49	0.216	3
			25	0	2	22.21	0.161	3
				12		22.03	0.154	3
				24		22.02	0.154	3
			50	0		22.04	0.155	3

Product	Module		
Test Item	RF Output Power		
Test Mode	Mode 6: LTE Band 14		
Date of Test	2018/12/13	Test Site	SR10-H

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 14 5MHz	23305 790.5	QPSK	1	0	0	24.15	0.251	3
				12		24.12	0.249	3
				24		24.09	0.248	3
			12	0	1	23.13	0.199	3
				6		23.11	0.198	3
				11		23.13	0.199	3
			25	0	1	23.05	0.195	3
		16-QAM	1	0		23.45	0.214	3
				12		23.40	0.211	3
				24		23.34	0.208	3
			12	0	2	22.17	0.159	3
				6		22.12	0.157	3
				11		22.10	0.157	3
			25	0		22.10	0.157	3
	23330 793	QPSK	1	0	0	24.12	0.249	3
				12		24.06	0.246	3
				24		24.08	0.247	3
			12	0	1	22.99	0.192	3
				6		22.97	0.191	3
				11		23.08	0.196	3
			25	0	1	22.93	0.190	3
		16-QAM	1	0		22.44	0.169	3
				12		22.40	0.168	3
				24		22.41	0.168	3
			12	0	2	22.23	0.161	3
				6		22.10	0.157	3
				11		22.09	0.156	3
			25	0		22.07	0.156	3

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 14 5MHz	23355 795.5	QPSK	1	0	0	24.13	0.250	3
				12		24.10	0.248	3
				24		24.08	0.247	3
			12	0	1	22.95	0.191	3
				6		22.98	0.192	3
				11		23.09	0.197	3
			25	0		22.96	0.191	3
		16-QAM	1	0	1	22.86	0.187	3
				12		22.82	0.185	3
				24		22.74	0.182	3
			12	0	2	22.23	0.161	3
				6		22.22	0.161	3
				11		22.26	0.163	3
			25	0		22.11	0.157	3

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	Limit (W) ERP
Band 14 10MHz	23330 793	QPSK	1	0	0	23.93	0.239	3
				24		23.89	0.237	3
				49		23.88	0.236	3
			25	0	1	22.82	0.185	3
				12		22.82	0.185	3
				24		22.89	0.188	3
			50	0		22.76	0.182	3
		16-QAM	1	0	1	23.07	0.196	3
				24		23.03	0.194	3
				49		23.04	0.195	3
			25	0	2	22.16	0.159	3
				12		22.14	0.158	3
				24		22.14	0.158	3
			50	0		22.06	0.155	3

Product	Module		
Test Item	RF Output Power		
Test Mode	Mode 7: LTE Band 17		
Date of Test	2018/12/13	Test Site	SR10-H

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	FCC Limit (W) ERP	IC Limit (W) EIRP
Band 17 5MHz	23755 706.5	QPSK	1	0	0	23.83	0.233	3	5
				12		23.77	0.230	3	5
				24		23.78	0.231	3	5
			12	0	1	22.83	0.185	3	5
				6		22.76	0.182	3	5
				11		22.67	0.179	3	5
		16-QAM	1	0	1	22.67	0.179	3	5
				12		23.05	0.195	3	5
				24		23.02	0.194	3	5
			12	0	2	23.02	0.194	3	5
				6		22.07	0.156	3	5
				11		21.99	0.153	3	5
	23790 710	QPSK	1	0	0	21.91	0.150	3	5
				12		21.92	0.150	3	5
				24		23.94	0.239	3	5
			12	0	1	23.89	0.237	3	5
				6		23.87	0.236	3	5
				11		22.89	0.188	3	5
		16-QAM	1	0	1	22.92	0.189	3	5
				12		22.98	0.192	3	5
				24		22.80	0.184	3	5
			12	0	2	22.00	0.153	3	5
				6		21.94	0.151	3	5
				11		21.89	0.149	3	5
		16-QAM	12	0	2	22.00	0.153	3	5
				6		21.98	0.152	3	5
				11		22.01	0.153	3	5
		16-QAM	25	0		21.87	0.149	3	5

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	FCC Limit (W) ERP	IC Limit (W) EIRP
Band 17 5MHz	23825 713.5	QPSK	1	0	0	23.87	0.236	3	5
				12		23.85	0.234	3	5
				24		23.84	0.234	3	5
			12	0	1	22.78	0.183	3	5
				6		22.76	0.182	3	5
				11		22.78	0.183	3	5
			25	0		22.73	0.181	3	5
		16-QAM	1	0	1	22.08	0.156	3	5
				12		22.05	0.155	3	5
				24		22.05	0.155	3	5
			12	0	2	21.91	0.150	3	5
				6		21.88	0.149	3	5
				11		21.90	0.150	3	5
			25	0		21.81	0.147	3	5

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	FCC Limit (W) ERP	IC Limit (W) EIRP
Band 17 10MHz	23780 709	QPSK	1	0	0	23.99	0.242	3	5
				24		23.97	0.241	3	5
				49		23.97	0.241	3	5
			25	0	1	22.94	0.190	3	5
				12		22.91	0.189	3	5
				24		22.90	0.188	3	5
			50	0		22.84	0.186	3	5
		16-QAM	1	0	1	23.36	0.209	3	5
				24		23.33	0.208	3	5
				49		23.27	0.205	3	5
			25	0	2	22.10	0.157	3	5
				12		22.03	0.154	3	5
				24		21.99	0.153	3	5
			50	0		21.98	0.152	3	5
	23790 710	QPSK	1	0	0	23.85	0.234	3	5
				24		23.80	0.232	3	5
				49		23.79	0.231	3	5
			25	0	1	22.71	0.180	3	5
				12		22.76	0.182	3	5
				24		22.86	0.187	3	5
			50	0		22.72	0.181	3	5
		16-QAMM	1	0	1	23.04	0.195	3	5
				24		22.98	0.192	3	5
				49		22.95	0.191	3	5
			25	0	2	22.00	0.153	3	5
				12		21.98	0.152	3	5
				24		22.01	0.153	3	5
			50	0		21.87	0.149	3	5

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) ERP	FCC Limit (W) ERP	IC Limit (W) EIRP
Band 17 10MHz	23800 711	QPSK	1	0	0	23.89	0.237	3	5
				24		23.83	0.233	3	5
				49		23.84	0.234	3	5
			25	0	1	22.82	0.185	3	5
				12		22.84	0.186	3	5
				24		22.96	0.191	3	5
			50	0		22.79	0.184	3	5
		16-QAM	1	0	1	22.68	0.179	3	5
				24		22.62	0.177	3	5
				49		22.62	0.177	3	5
			25	0	2	21.99	0.153	3	5
				12		22.01	0.153	3	5
				24		22.05	0.155	3	5
			50	0		21.92	0.150	3	5

Product	Module		
Test Item	RF Output Power		
Test Mode	Mode 8: LTE Band 66		
Date of Test	2018/12/13	Test Site	SR10-H

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 1.4MHz	131979 1710.7	QPSK	1	0	0	23.52	0.356	1
				2		23.50	0.355	1
				5		23.48	0.353	1
			3	0	0	22.46	0.279	1
				1		22.44	0.278	1
				2		22.43	0.277	1
			6	0	1	22.37	0.274	1
		16-QAM	1	0	1	22.80	0.302	1
				2		22.69	0.294	1
				5		22.69	0.294	1
			3	0	1	21.94	0.248	1
				1		21.89	0.245	1
				2		21.90	0.245	1
			6	0	2	21.83	0.242	1
	132322 1745	QPSK	1	0	0	23.20	0.331	1
				2		23.13	0.326	1
				5		23.11	0.324	1
			3	0	0	22.12	0.258	1
				1		22.00	0.251	1
				2		21.99	0.251	1
			6	0	1	22.01	0.252	1
		16-QAM	1	0	1	22.40	0.275	1
				2		22.36	0.273	1
				5		22.36	0.273	1
			3	0	1	21.47	0.222	1
				1		21.43	0.220	1
				2		21.41	0.219	1
			6	0	2	21.39	0.218	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 1.4MHz	132665 1779.3	QPSK	1	0	0	23.18	0.330	1
				2		23.15	0.327	1
				5		23.16	0.328	1
			3	0	0	22.23	0.265	1
				1		22.20	0.263	1
				2		22.21	0.264	1
			6	0	1	22.10	0.257	1
		16-QAM	1	0	1	22.00	0.251	1
				2		21.95	0.248	1
				5		21.92	0.247	1
			3	0	1	21.55	0.226	1
				1		21.48	0.223	1
				2		21.46	0.222	1
			6	0	2	21.44	0.221	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 3MHz	131987 1711.5	QPSK	1	0	0	23.50	0.355	1
				7		23.47	0.352	1
				14		23.41	0.348	1
			8	0	1	22.46	0.279	1
				4		22.45	0.279	1
				7		22.47	0.280	1
			15	0	1	22.39	0.275	1
		16-QAM	1	0	1	23.19	0.330	1
				7		23.11	0.324	1
				14		23.13	0.326	1
			8	0	2	21.96	0.249	1
				4		21.95	0.248	1
				7		22.00	0.251	1
			15	0	2	21.88	0.244	1
	132322 1745	QPSK	1	0	0	23.21	0.332	1
				7		23.17	0.329	1
				14		23.13	0.326	1
			8	0	1	22.10	0.257	1
				4		22.07	0.255	1
				7		22.09	0.256	1
			15	0	1	22.08	0.256	1
		16-QAM	1	0	1	22.09	0.256	1
				7		21.99	0.251	1
				14		21.99	0.251	1
			8	0	2	21.55	0.226	1
				4		21.47	0.222	1
				7		21.45	0.221	1
			15	0	2	21.45	0.221	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 3MHz	132657 1778.5	QPSK	1	0	0	23.30	0.339	1
				7		23.25	0.335	1
				14		23.22	0.333	1
			8	0	1	22.10	0.257	1
				4		22.09	0.256	1
				7		22.12	0.258	1
			15	0	1	22.10	0.257	1
		16-QAM	1	0	1	22.04	0.254	1
				7		22.00	0.251	1
				14		21.99	0.251	1
			8	0	2	21.44	0.221	1
				4		21.43	0.220	1
				7		21.46	0.222	1
			15	0	2	21.36	0.217	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 5MHz	131997 1712.5	QPSK	1	0	0	23.34	0.342	1
				12		23.31	0.340	1
				24		23.27	0.337	1
			12	0	1	22.42	0.277	1
				6		22.39	0.275	1
				11		22.32	0.270	1
			25	0		22.31	0.270	1
		16-QAM	1	0	1	22.79	0.301	1
				12		22.75	0.299	1
				24		22.76	0.299	1
			12	0	2	21.86	0.243	1
				6		21.81	0.240	1
				11		21.82	0.241	1
			25	0		21.76	0.238	1
	132322 1745	QPSK	1	0	0	23.21	0.332	1
				12		23.18	0.330	1
				24		23.14	0.327	1
			12	0	1	22.33	0.271	1
				6		22.31	0.270	1
				11		22.32	0.270	1
			25	0		22.19	0.262	1
		16-QAM	1	0	1	22.52	0.283	1
				12		22.39	0.275	1
				24		22.41	0.276	1
			12	0	2	21.32	0.215	1
				6		21.31	0.214	1
				11		21.36	0.217	1
			25	0		21.33	0.215	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 5MHz	132647 1777.5	QPSK	1	0	0	23.28	0.337	1
				12		23.18	0.330	1
				24		23.20	0.331	1
			12	0	1	22.26	0.267	1
				6		22.14	0.259	1
				11		22.12	0.258	1
			25	0		22.14	0.259	1
		16-QAM	1	0	1	22.08	0.256	1
				12		22.06	0.255	1
				24		22.06	0.255	1
			12	0	2	21.59	0.229	1
				6		21.47	0.222	1
				11		21.47	0.222	1
			25	0		21.43	0.220	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 10MHz	132022 1715	QPSK	1	0	0	23.31	0.340	1
				24		23.29	0.338	1
				49		23.28	0.337	1
			25	0	1	22.20	0.263	1
				12		22.13	0.259	1
				24		22.14	0.259	1
			50	0	1	22.12	0.258	1
		16-QAM	1	0		22.73	0.297	1
				24		22.70	0.295	1
				49		22.71	0.296	1
			25	0	2	21.51	0.224	1
				12		21.56	0.227	1
				24		21.65	0.232	1
			50	0		21.50	0.224	1
	132322 1745	QPSK	1	0	0	23.54	0.358	1
				24		23.50	0.355	1
				49		23.50	0.355	1
			25	0	1	22.52	0.283	1
				12		22.50	0.282	1
				24		22.52	0.283	1
			50	0	1	22.39	0.275	1
		16-QAM	1	0		22.98	0.315	1
				24		22.94	0.312	1
				49		22.89	0.308	1
			25	0	2	21.44	0.221	1
				12		21.39	0.218	1
				24		21.37	0.217	1
			50	0		21.37	0.217	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 10MHz	132622 1775	QPSK	1	0	0	23.30	0.339	1
				24		23.27	0.337	1
				49		23.24	0.334	1
			25	0	1	22.18	0.262	1
				12		22.19	0.262	1
				24		22.28	0.268	1
			50	0		22.15	0.260	1
		16-QAM	1	0	1	22.44	0.278	1
				24		22.40	0.275	1
				49		22.42	0.277	1
			25	0	2	21.50	0.224	1
				12		21.48	0.223	1
				24		21.50	0.224	1
			50	0		21.40	0.219	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 15MHz	132047 1717.5	QPSK	1	0	0	23.39	0.346	1
				37		23.33	0.341	1
				74		23.29	0.338	1
			36	0	1	22.35	0.272	1
				19		22.34	0.272	1
				38		22.39	0.275	1
			75	0		22.34	0.272	1
		16-QAM	1	0	1	22.48	0.281	1
				37		22.41	0.276	1
				74		22.41	0.276	1
			36	0	2	21.40	0.219	1
				19		21.39	0.218	1
				38		21.44	0.221	1
			75	0		21.41	0.219	1
	132322 1745	QPSK	1	0	0	23.51	0.356	1
				37		23.44	0.350	1
				74		23.43	0.349	1
			36	0	1	22.40	0.275	1
				19		22.31	0.270	1
				38		22.30	0.269	1
			75	0		22.32	0.270	1
		16-QAM	1	0	1	22.94	0.312	1
				37		22.91	0.310	1
				74		22.90	0.309	1
			36	0	2	21.34	0.216	1
				19		21.32	0.215	1
				38		21.35	0.216	1
			75	0		21.25	0.211	1

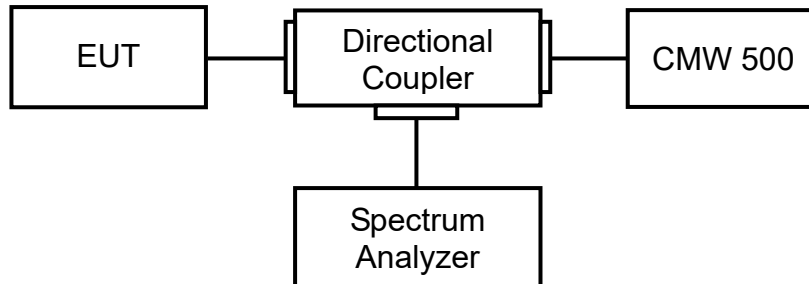
Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 15MHz	132597 1772.5	QPSK	1	0	0	23.07	0.321	1
				37		23.04	0.319	1
				74		22.99	0.316	1
			36	0	1	22.10	0.257	1
				19		22.07	0.255	1
				38		22.08	0.256	1
				75		21.98	0.250	1
		16-QAM	1	0	1	22.53	0.284	1
				37		22.45	0.279	1
				74		22.47	0.280	1
			36	0	2	21.49	0.223	1
				19		21.38	0.218	1
				38		21.37	0.217	1
				75		21.39	0.218	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 20MHz	132072 1720	QPSK	1	0	0	23.31	0.340	1
				49		23.28	0.337	1
				99		23.29	0.338	1
			50	0	1	22.24	0.265	1
				25		22.23	0.265	1
				49		22.28	0.268	1
			100	0		22.16	0.261	1
		16-QAM	1	0	1	22.85	0.305	1
				49		22.83	0.304	1
				99		22.80	0.302	1
			50	0	2	21.56	0.227	1
				25		21.61	0.230	1
				49		21.64	0.231	1
			100	0		21.55	0.226	1
	132322 1745	QPSK	1	0	0	23.59	0.362	1
				49		23.57	0.361	1
				99		23.57	0.361	1
			50	0	1	22.51	0.282	1
				25		22.48	0.281	1
				49		22.40	0.275	1
			100	0		22.41	0.276	1
		16-QAM	1	0	1	22.25	0.266	1
				49		22.20	0.263	1
				99		22.18	0.262	1
			50	0	2	21.42	0.220	1
				25		21.40	0.219	1
				49		21.43	0.220	1
			100	0		21.28	0.213	1

Band	Channel Freq. (MHz)	Modulation	RB No.	RB offset	MPR	Conducted Output Power (dBm)	RF Output Power (W) EIRP	Limit (W) EIRP
Band 66 20MHz	132572 1770	QPSK	1	0	0	22.87	0.307	1
				49		22.85	0.305	1
				99		22.84	0.305	1
			50	0	1	21.93	0.247	1
				25		21.90	0.245	1
				49		21.89	0.245	1
			100	0		21.79	0.239	1
		16-QAM	1	0	1	22.67	0.293	1
				49		22.58	0.287	1
				99		22.56	0.286	1
			50	0	2	21.46	0.222	1
				25		21.25	0.211	1
				49		21.27	0.212	1
			100	0		21.29	0.213	1

4. Occupied Bandwidth

4.1. Test Setup



4.2. Test Procedure

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

4.3. Test Method

KDB 971168 D01 Power Meas License Digital Systems v03 sub-clause 4.2 & 4.3

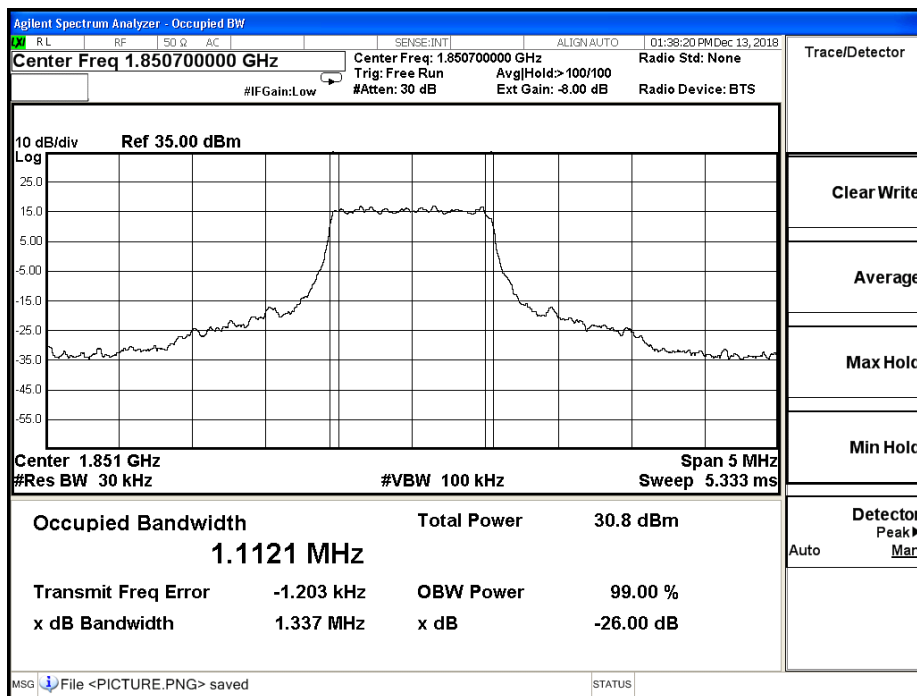
ANSI C63.26: 2015 Sub-clause 5.4.3 & 5.4.4

4.4. Test Result

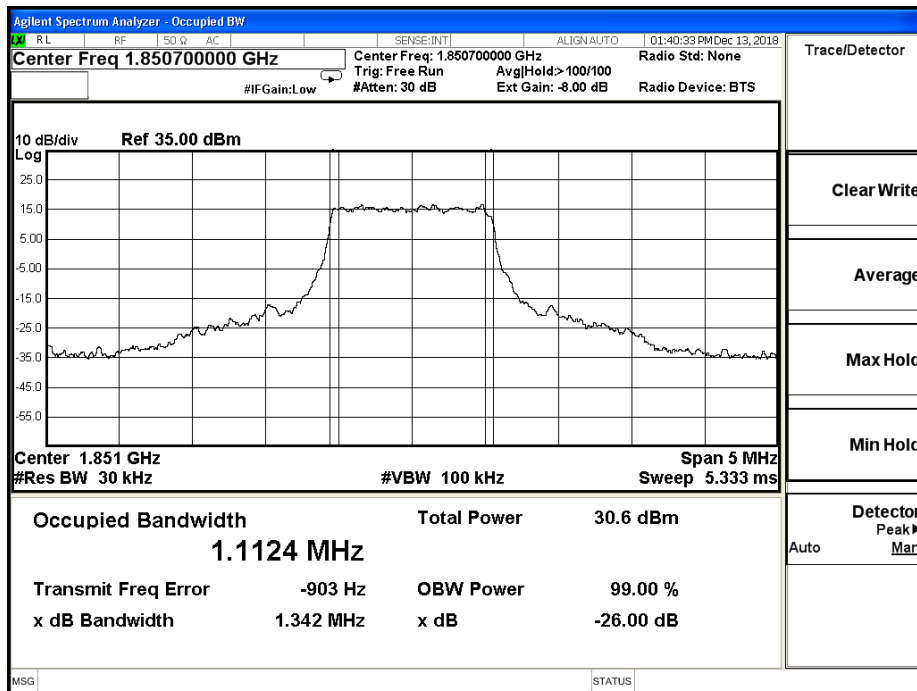
Product	Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: LTE Band 2		
Date of Test	2018/12/13	Test Site	SR10-H

Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
1.4M	QPSK	18607	1850.7	1.337	1.112	N/A
		18900	1880.0	1.325	1.106	N/A
		19193	1909.3	1.374	1.106	N/A
	16-QAM	18607	1850.7	1.342	1.112	N/A
		18900	1880.0	1.360	1.099	N/A
		19193	1909.3	1.320	1.101	N/A

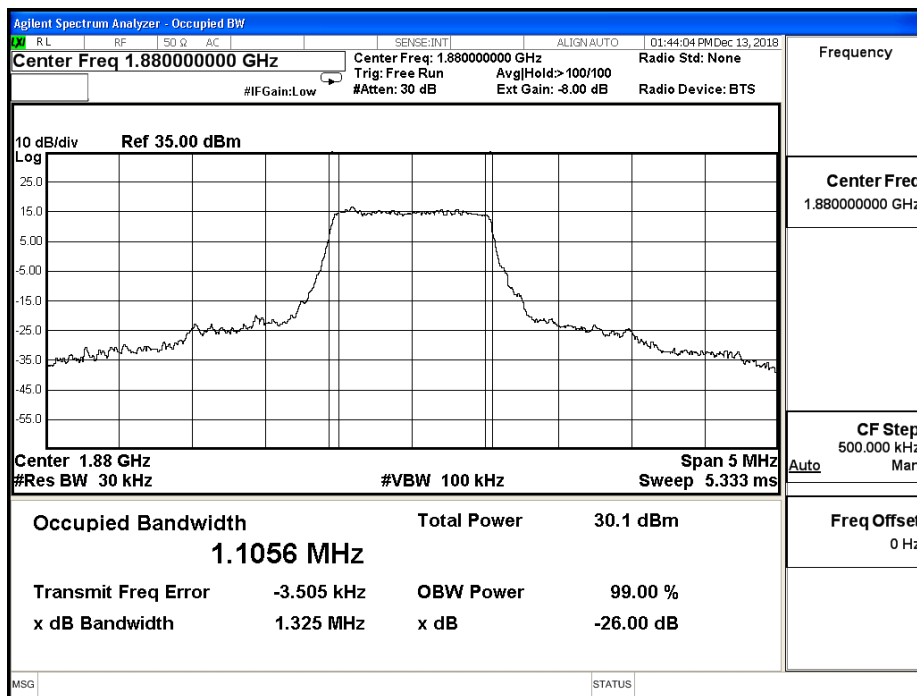
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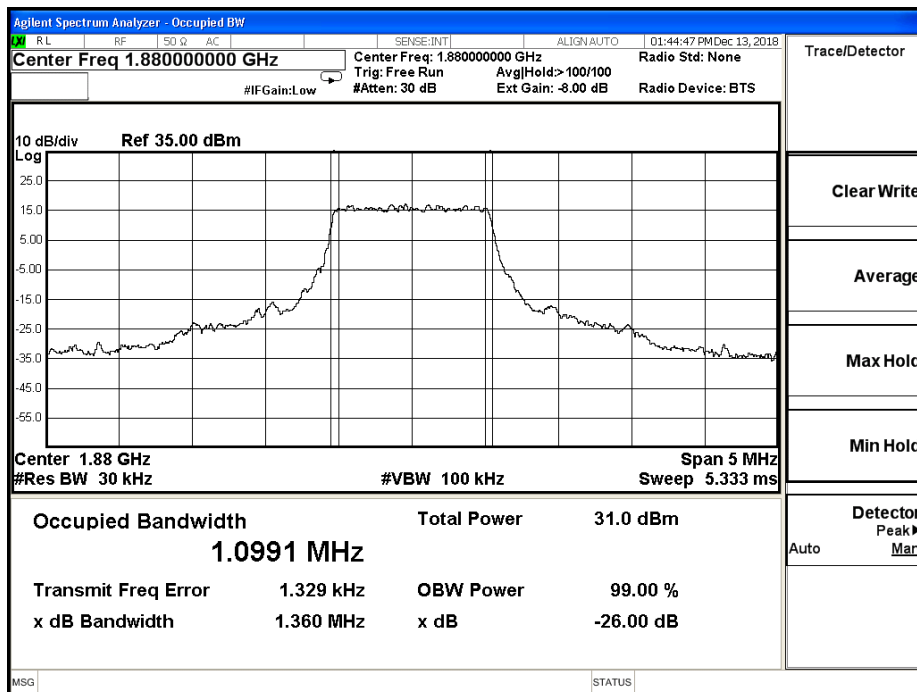
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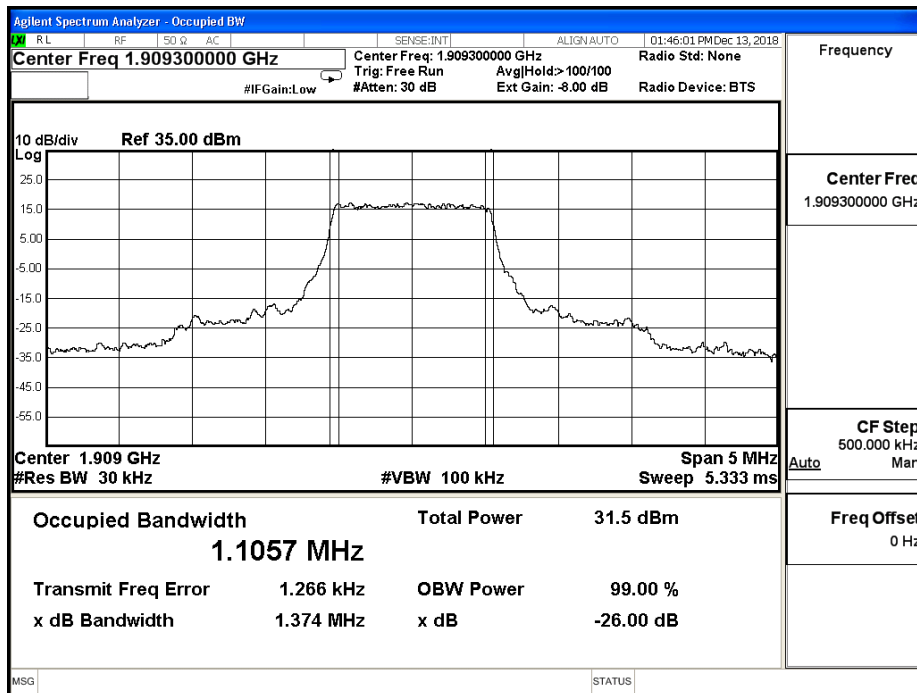
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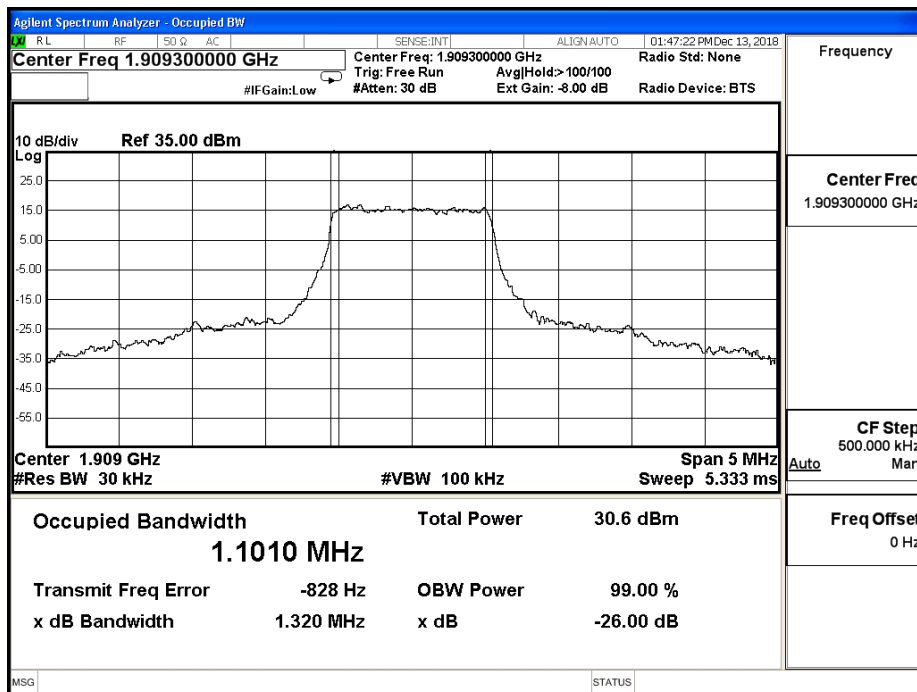
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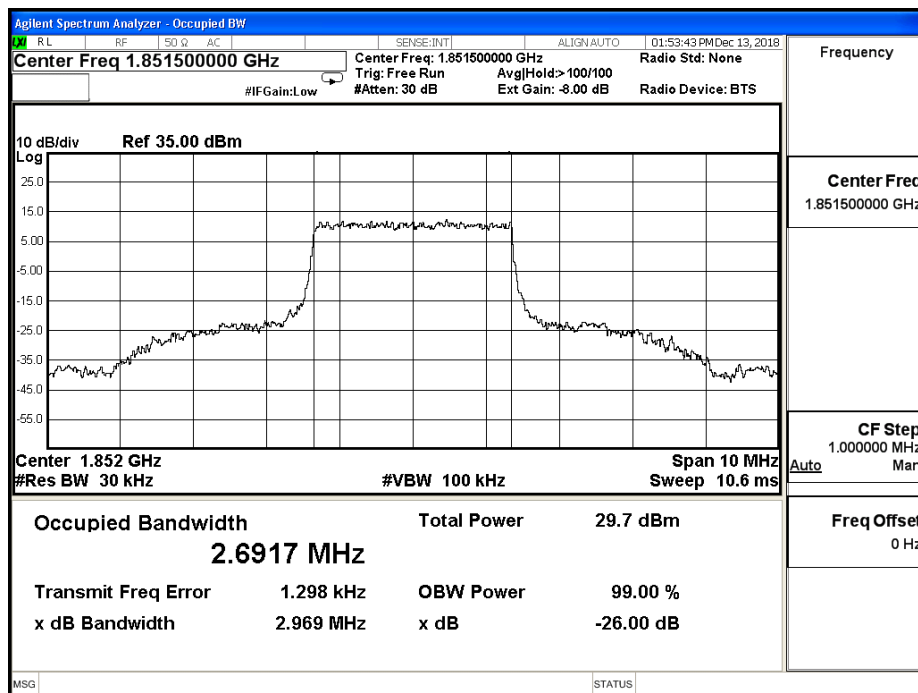


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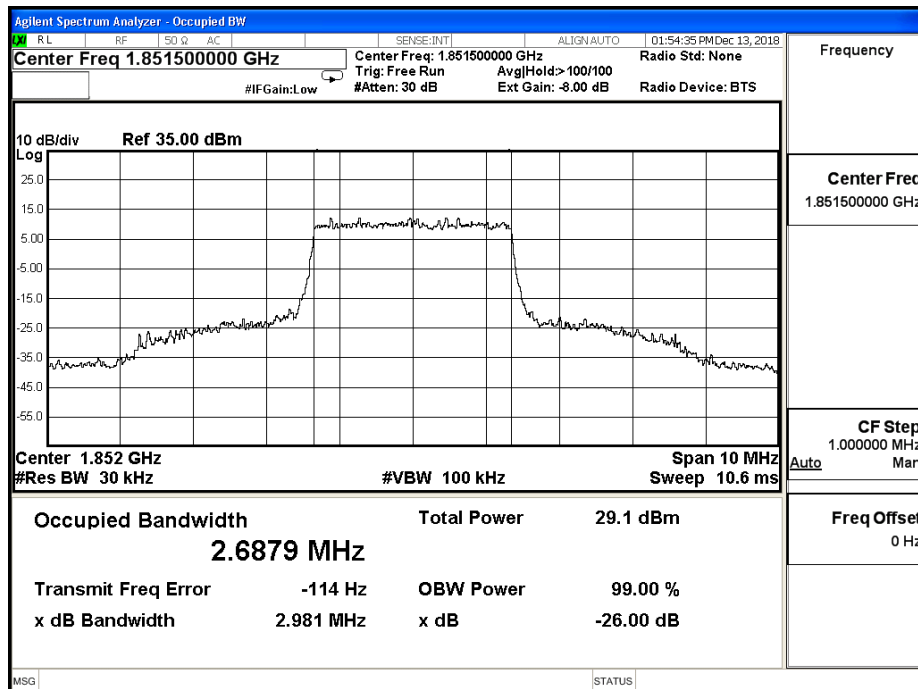


Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
3M	QPSK	18615	1851.5	2.969	2.692	N/A
		18900	1880.0	2.973	2.688	N/A
		19185	1908.5	2.962	2.690	N/A
	16-QAM	18615	1851.5	2.981	2.688	N/A
		18900	1880.0	2.972	2.688	N/A
		19185	1908.5	2.954	2.691	N/A

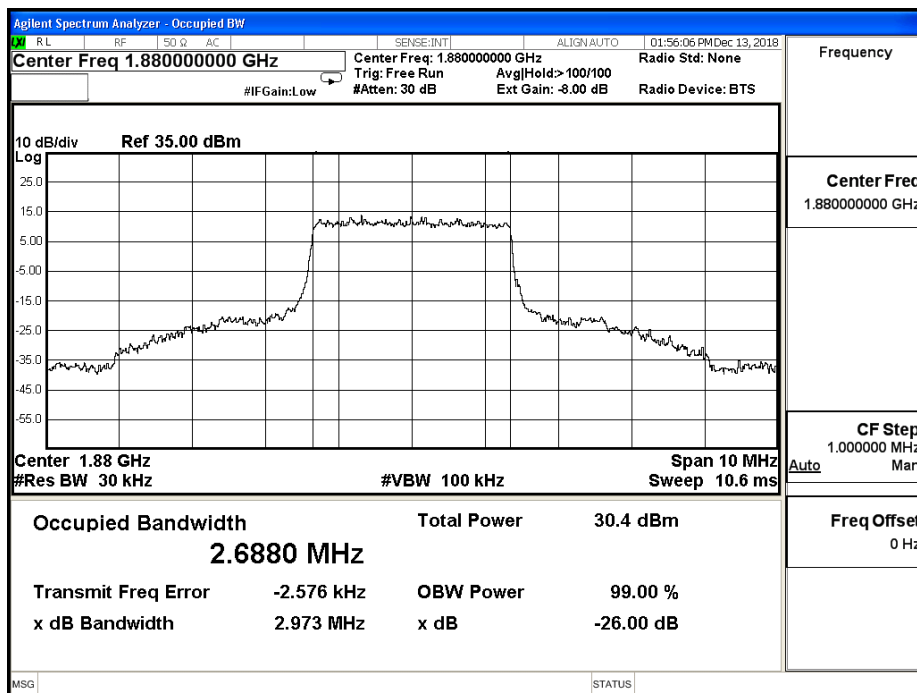
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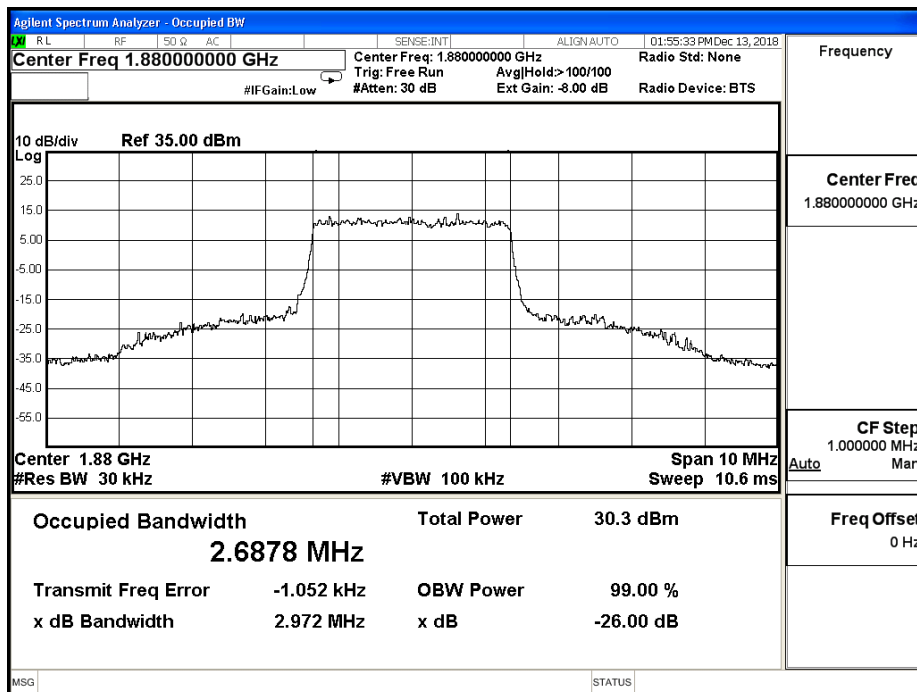
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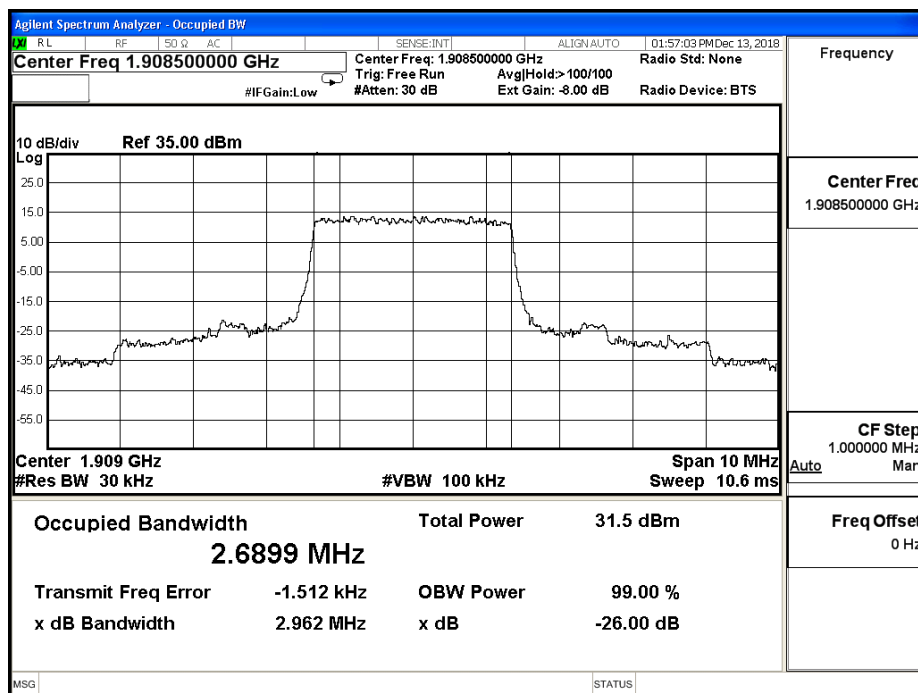
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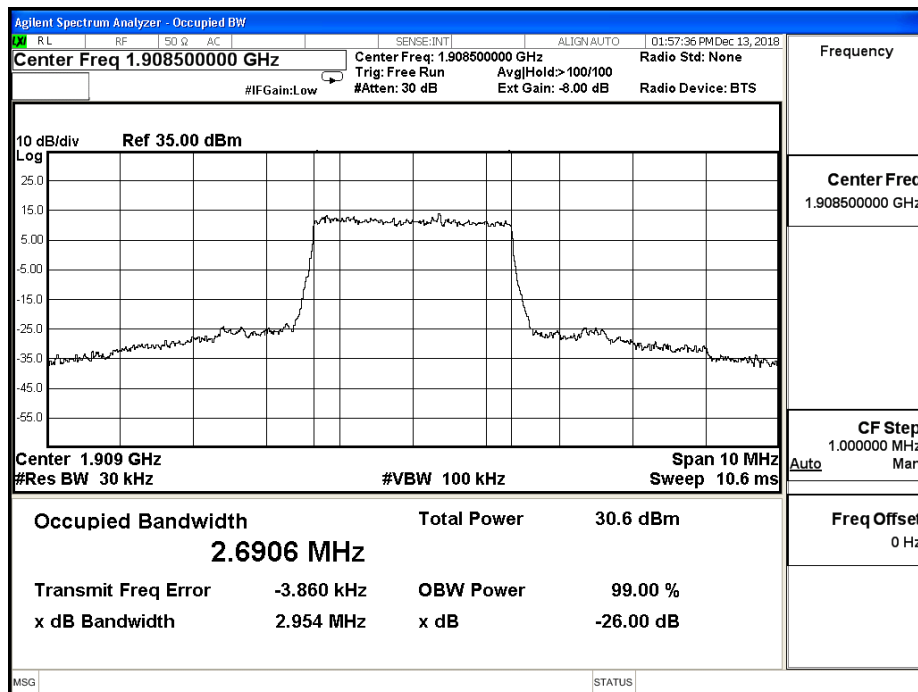
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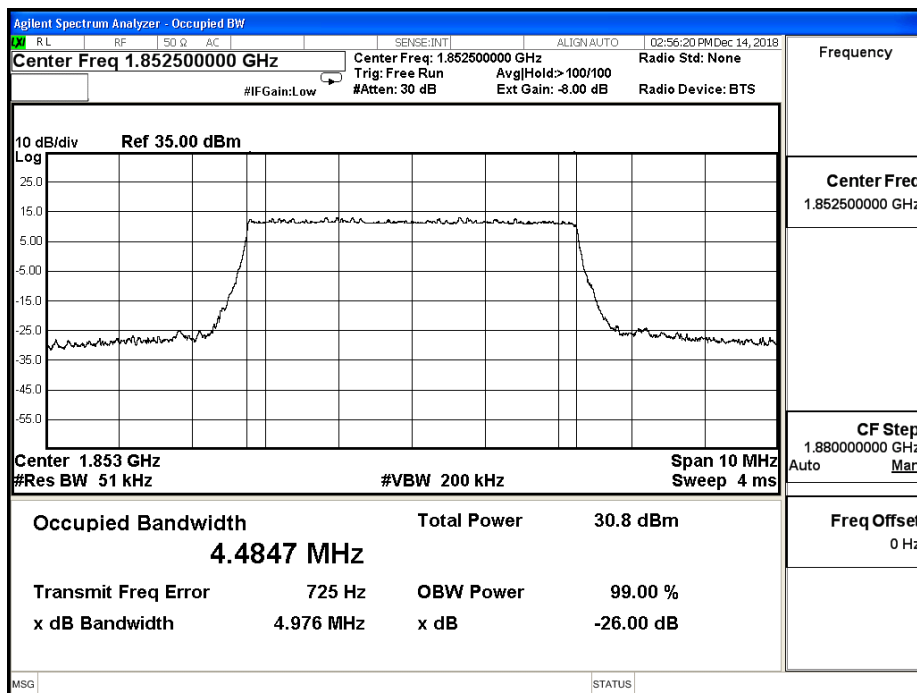


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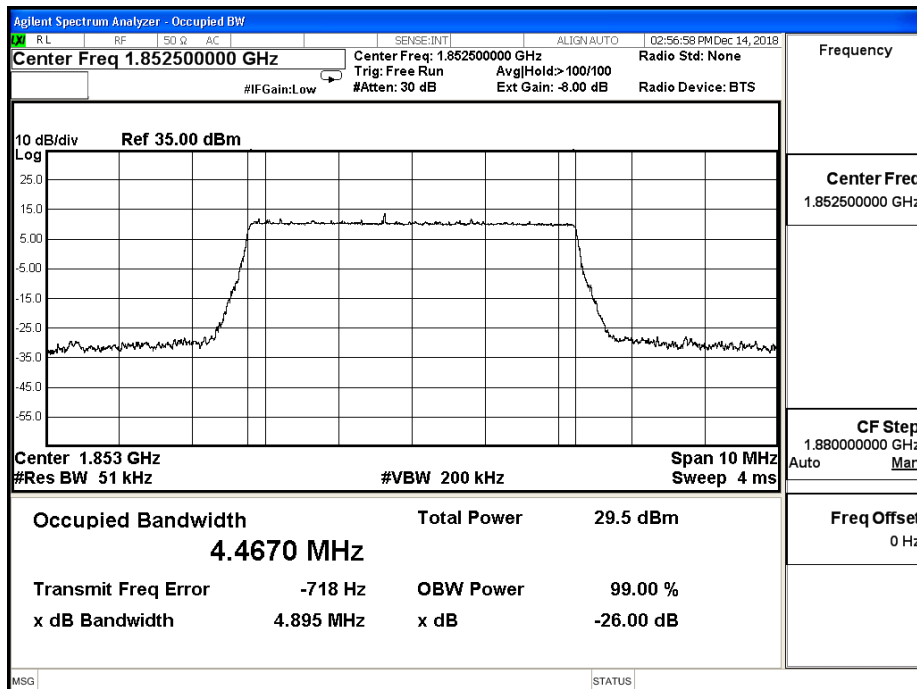


Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
5M	QPSK	18625	1852.5	4.976	4.485	N/A
		18900	1880.0	4.933	4.461	N/A
		19175	1907.5	4.897	4.461	N/A
	16-QAM	18625	1852.5	4.895	4.467	N/A
		18900	1880.0	4.969	4.473	N/A
		19175	1907.5	4.911	4.465	N/A

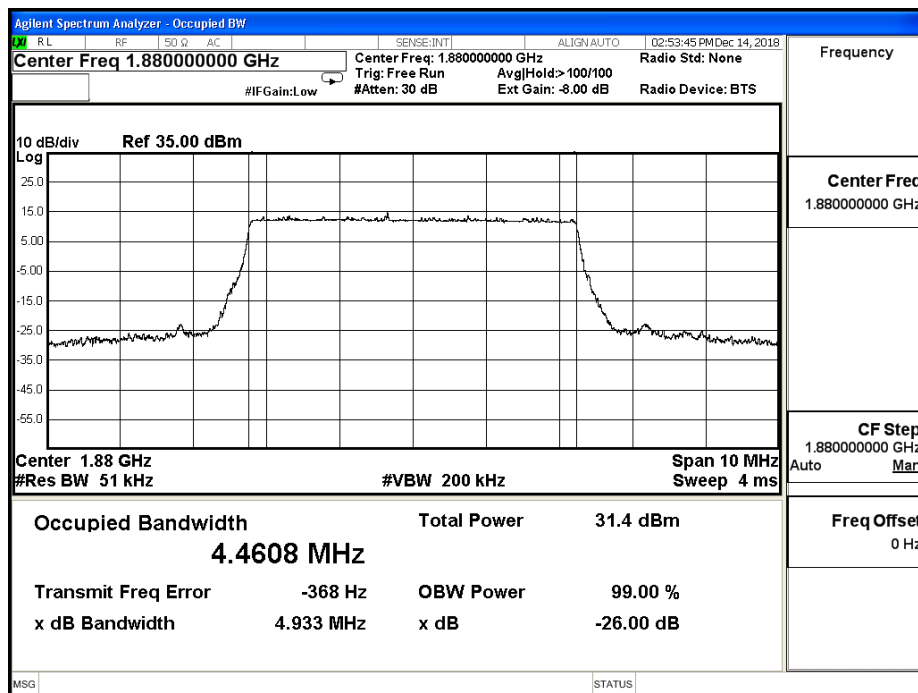
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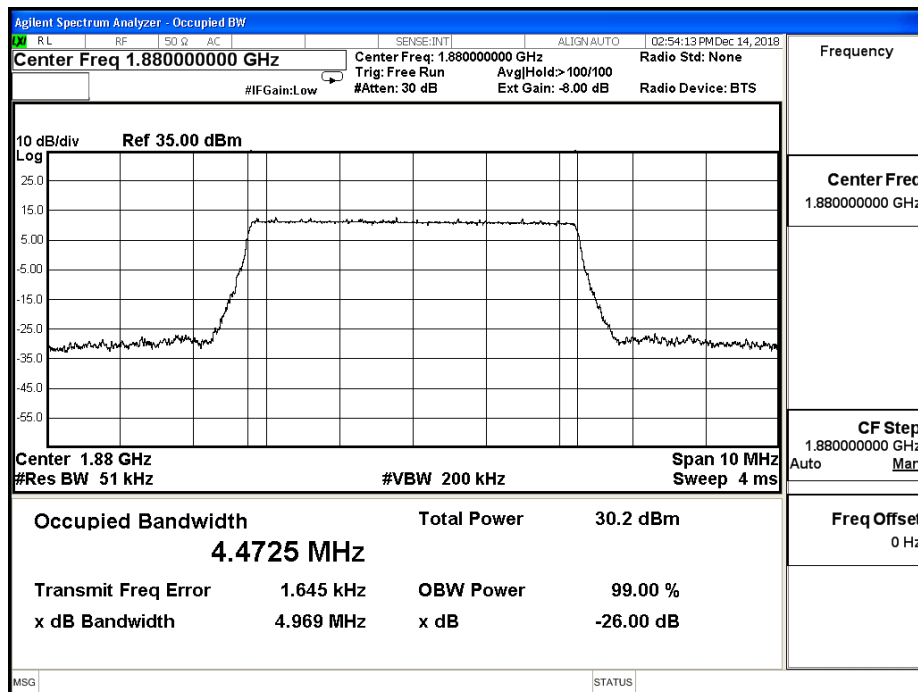
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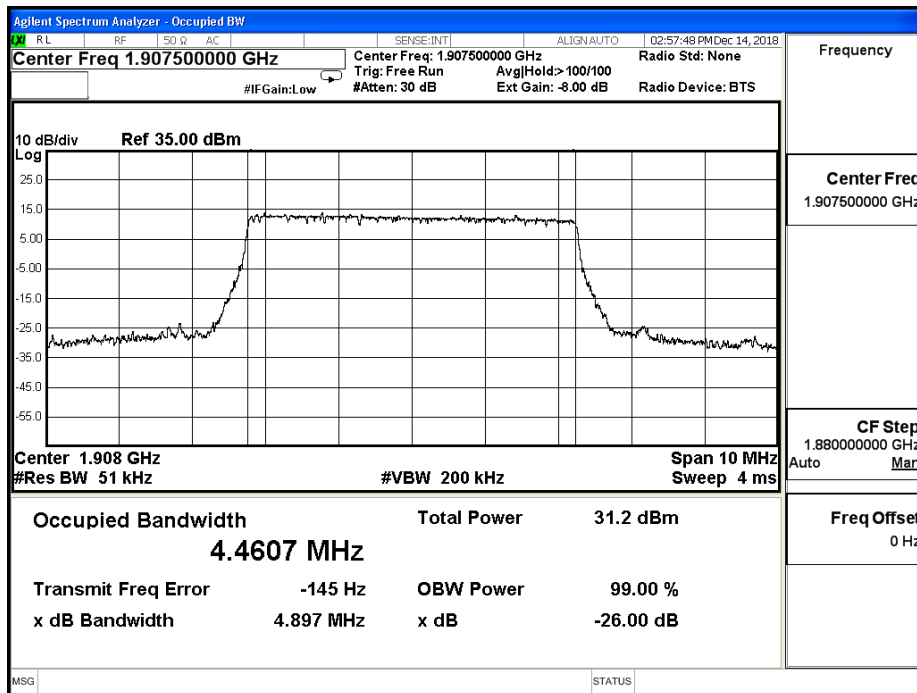
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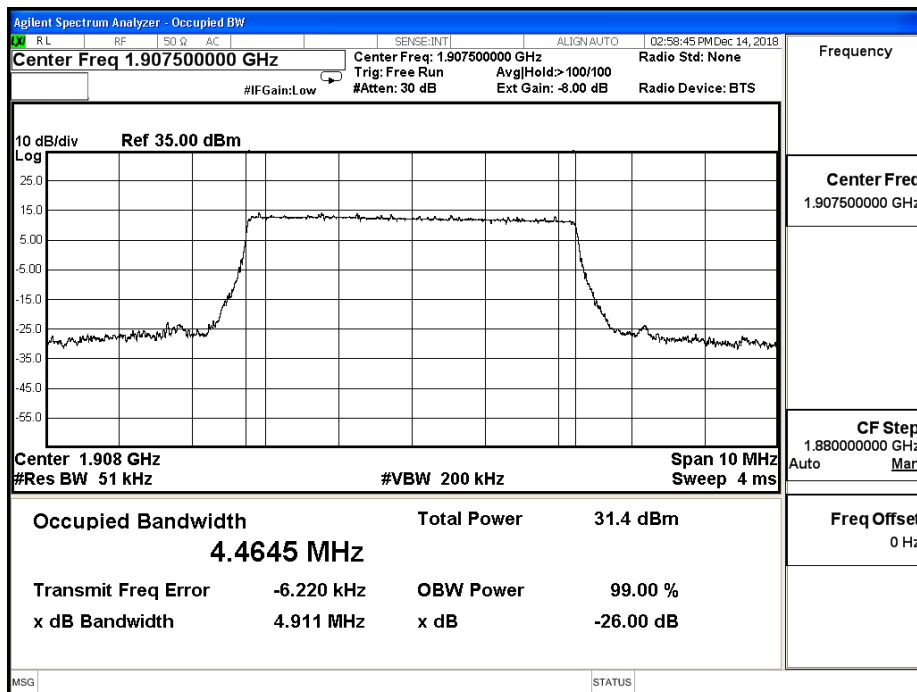
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B2_5M_CH19175_QPSK_25RB0

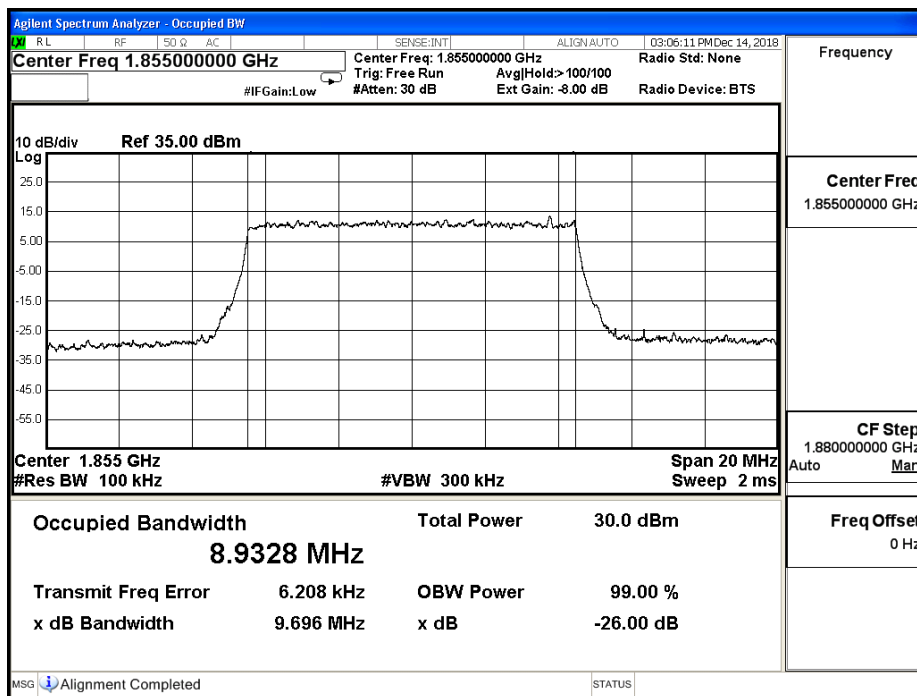


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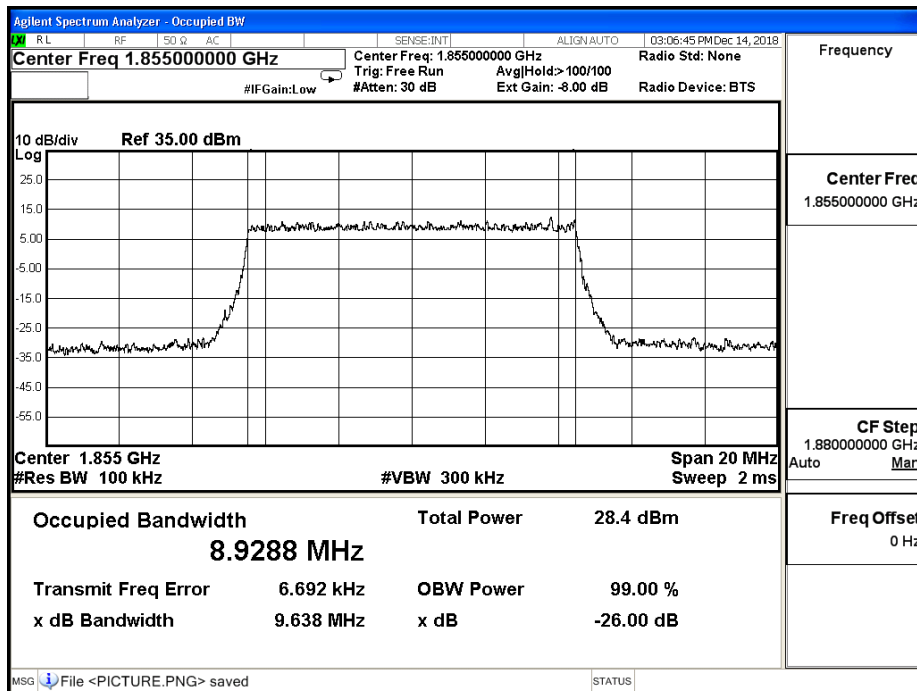


Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
10M	QPSK	18650	1855.0	9.696	8.933	N/A
		18900	1880.0	9.619	8.923	N/A
		19150	1905.0	9.618	8.892	N/A
	16-QAM	18650	1855.0	9.638	8.929	N/A
		18900	1880.0	9.589	8.933	N/A
		19150	1905.0	9.578	8.914	N/A

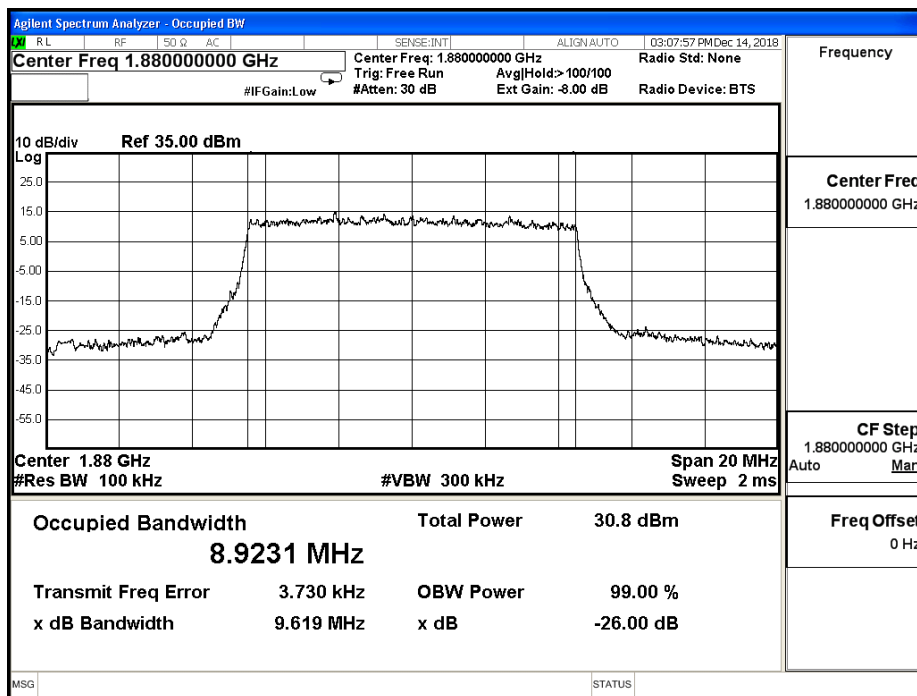
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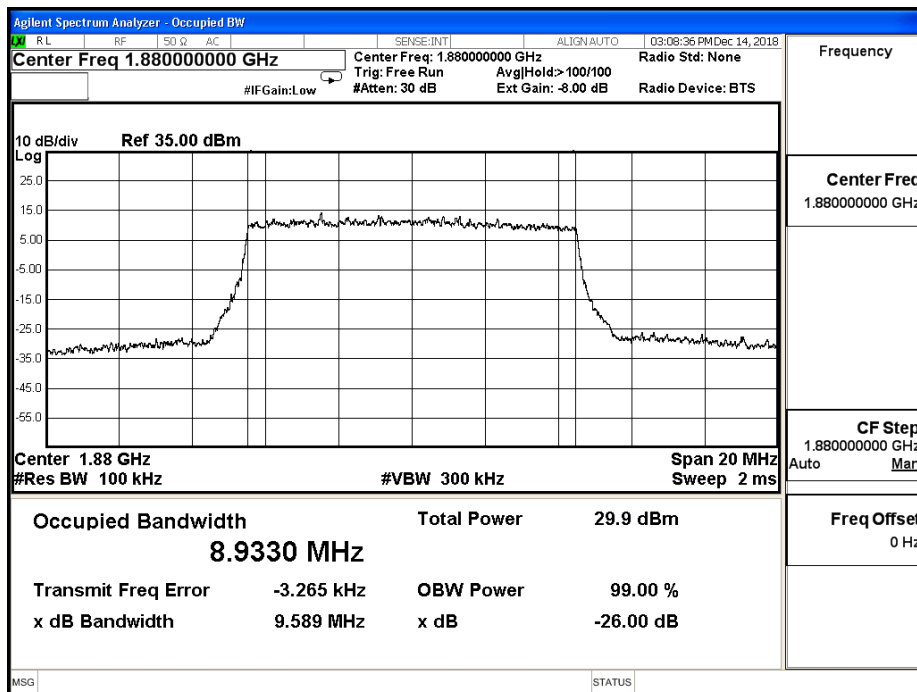
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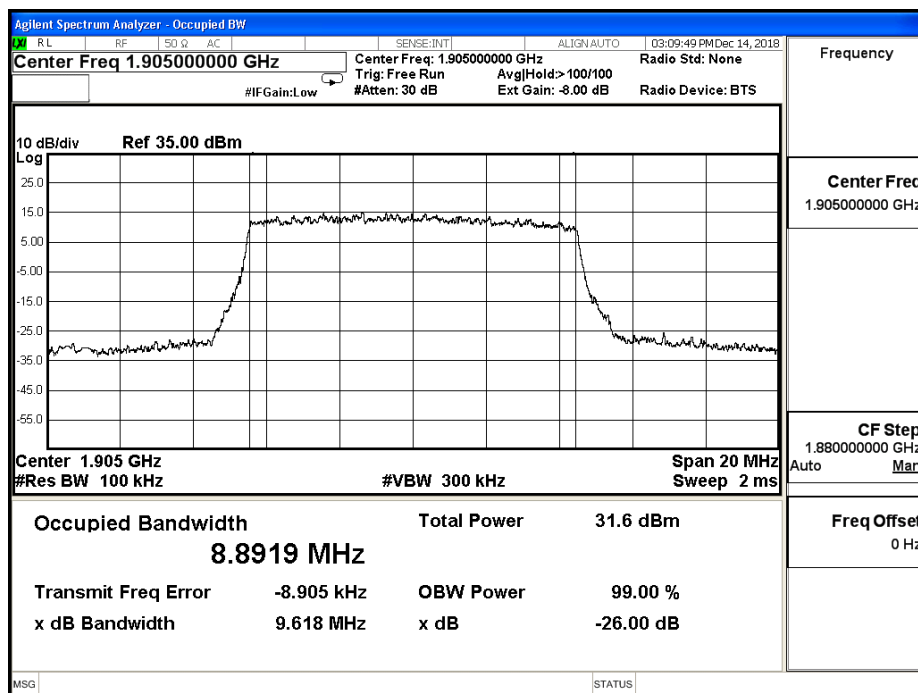
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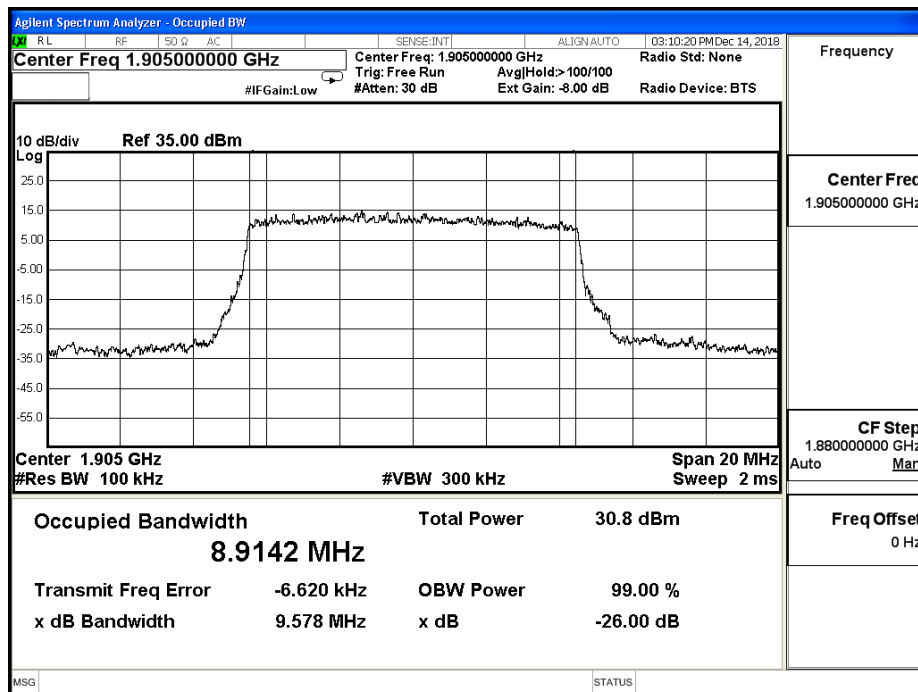
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B2_10M_CH19150_QPSK_50RB0

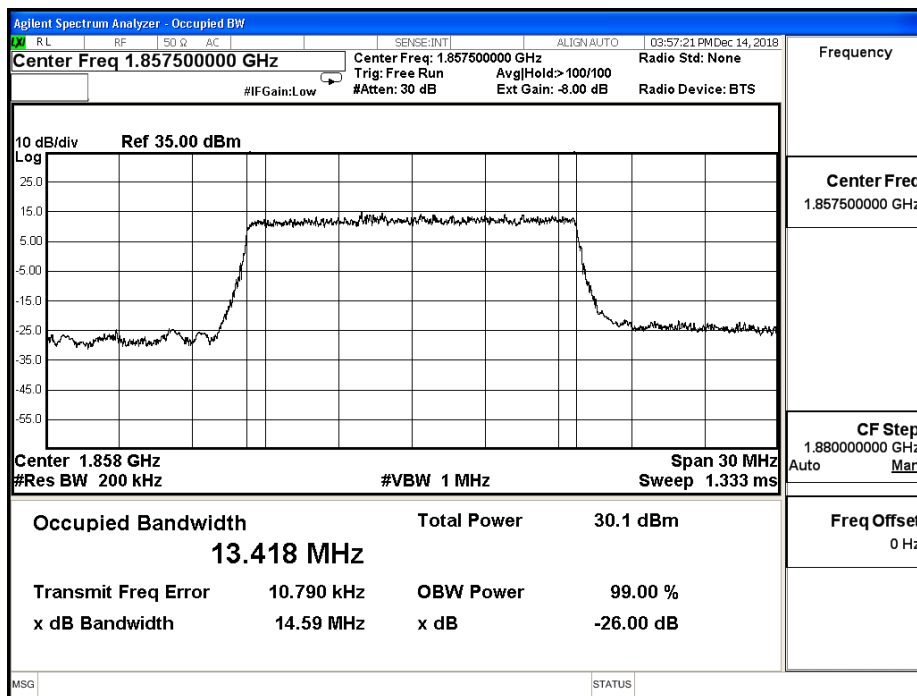


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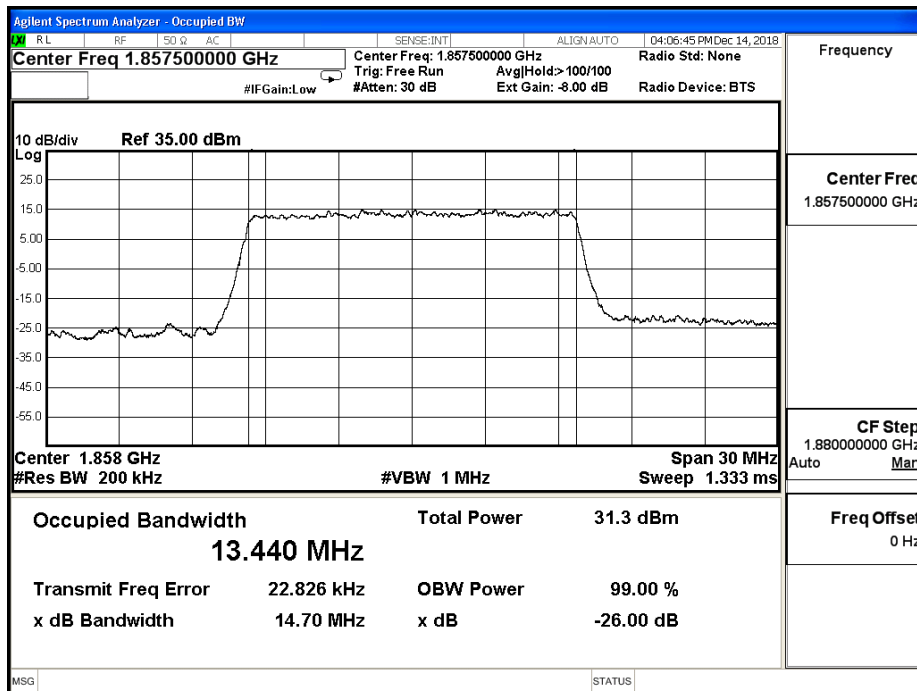


Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
15M	QPSK	18675	1857.5	14.590	13.418	N/A
		18900	1880.0	14.620	13.343	N/A
		19125	1902.5	14.520	13.326	N/A
	16-QAM	18675	1857.5	14.700	13.440	N/A
		18900	1880.0	14.540	13.343	N/A
		19125	1902.5	14.440	13.336	N/A

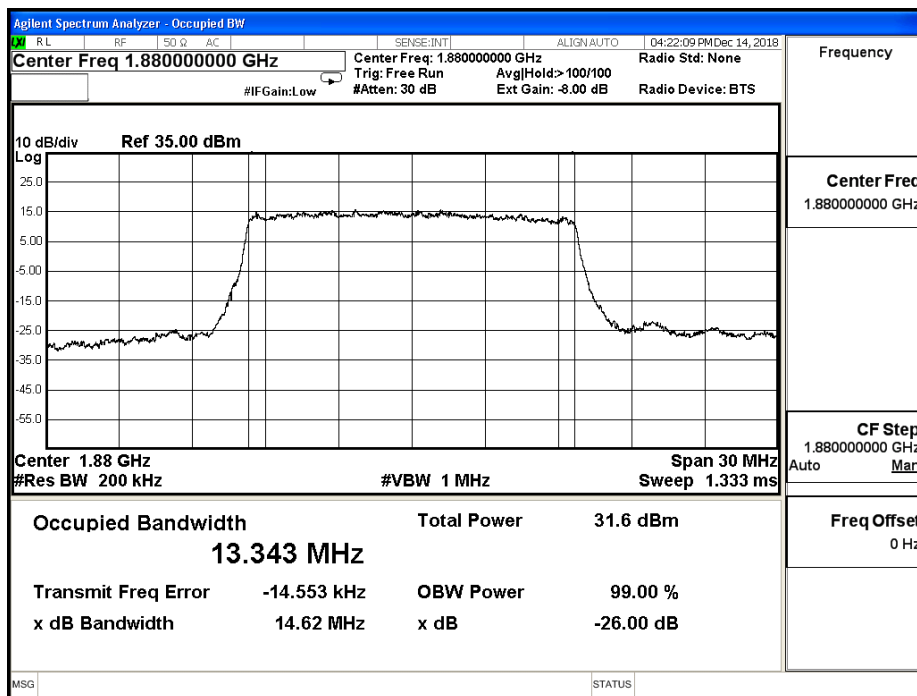
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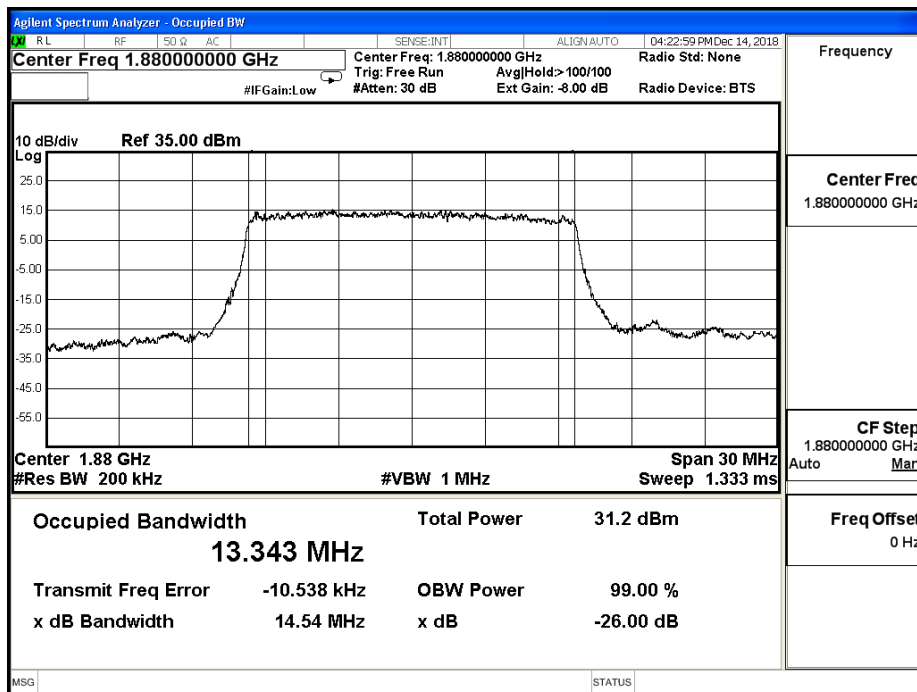
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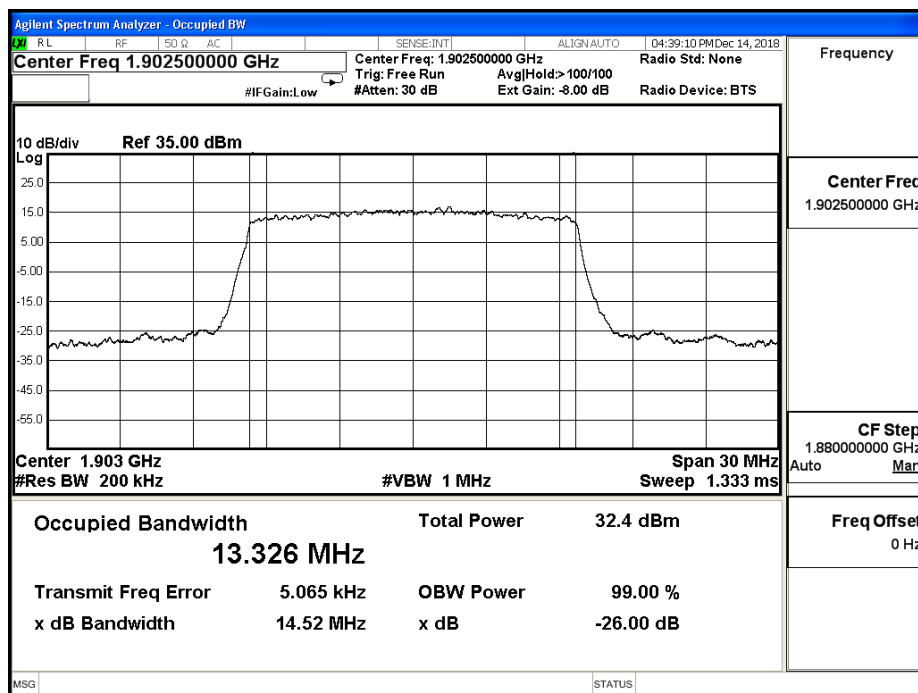
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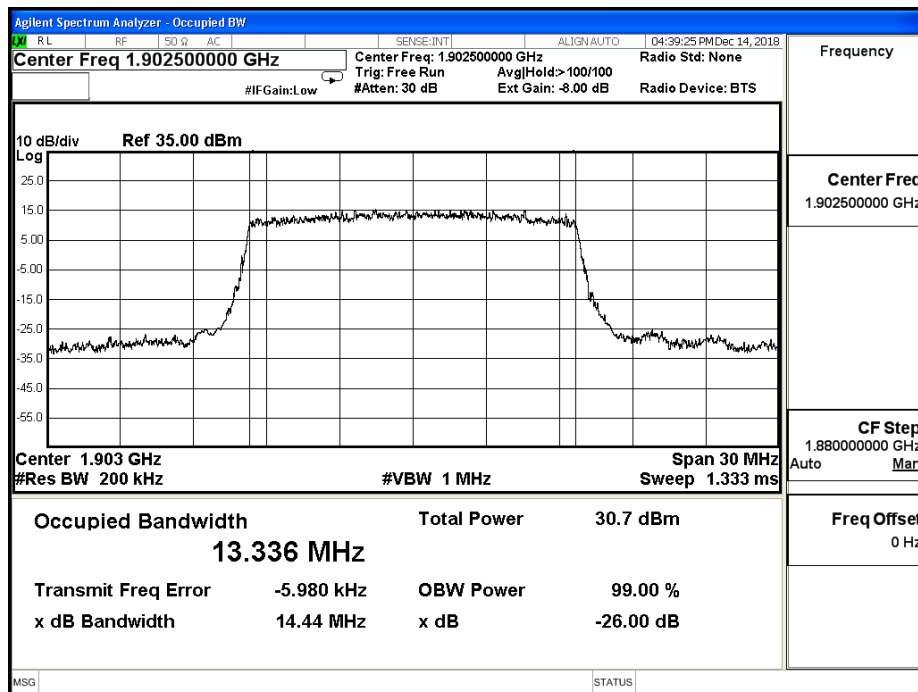
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B2_15M_CH19125_QPSK_75RB0

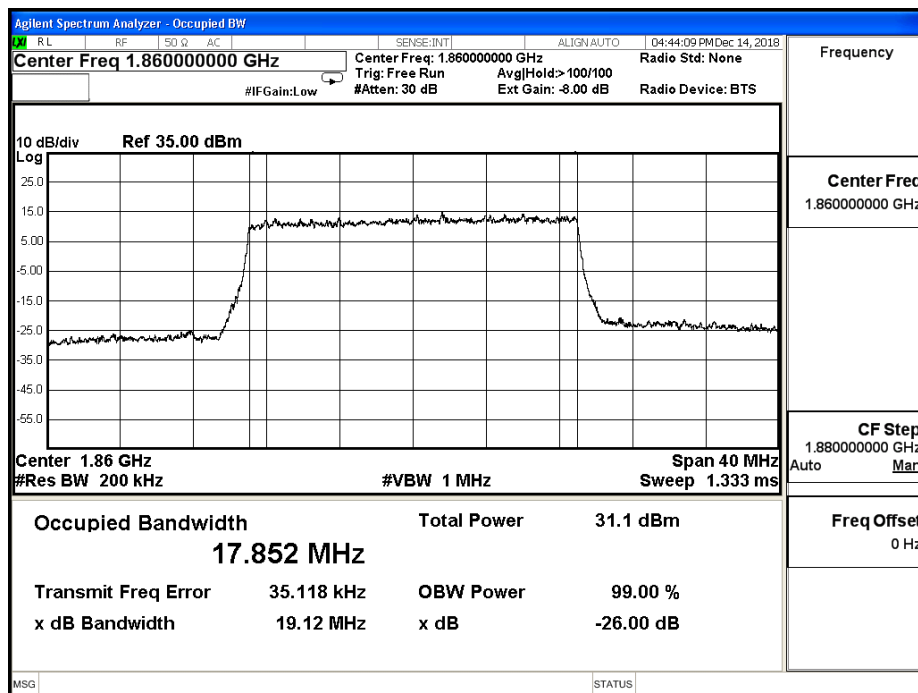


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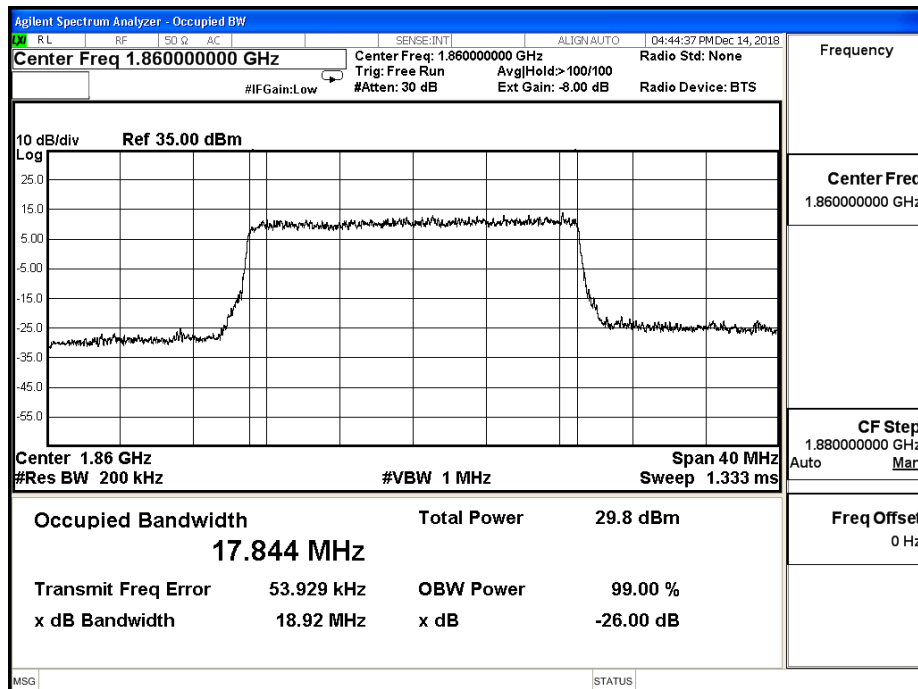


Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
20M	QPSK	18700	1860.0	19.120	17.852	N/A
		18900	1880.0	18.890	17.756	N/A
		19100	1900.0	19.020	17.797	N/A
	16-QAM	18700	1860.0	18.920	17.844	N/A
		18900	1880.0	18.970	17.762	N/A
		19100	1900.0	19.170	17.778	N/A

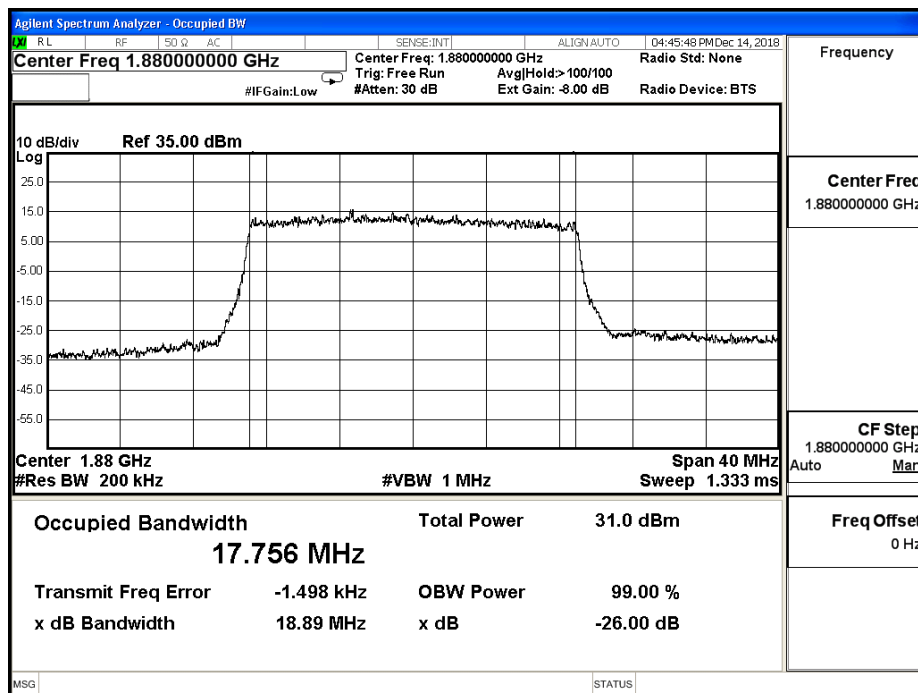
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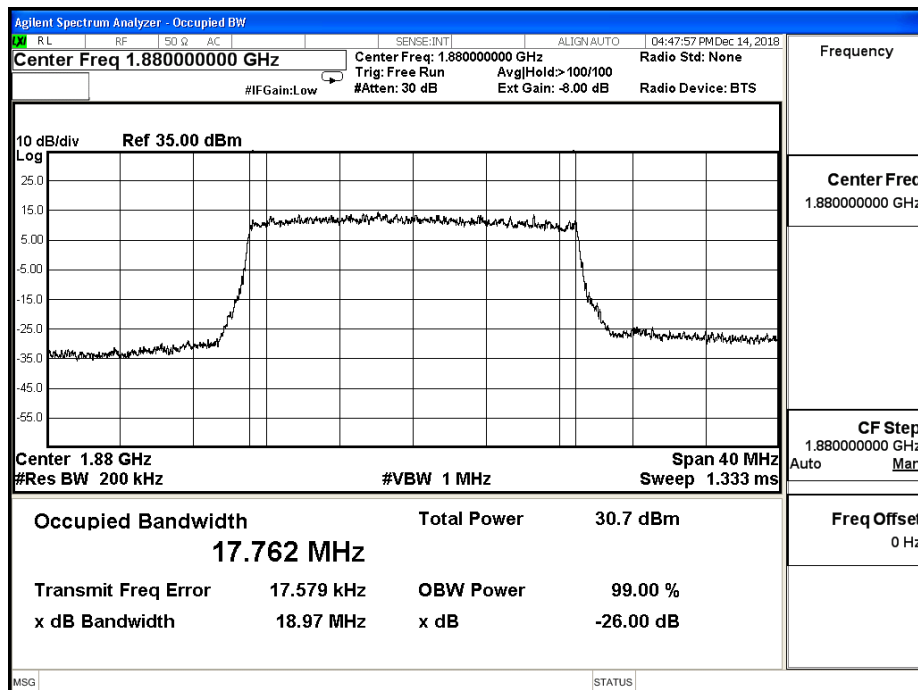
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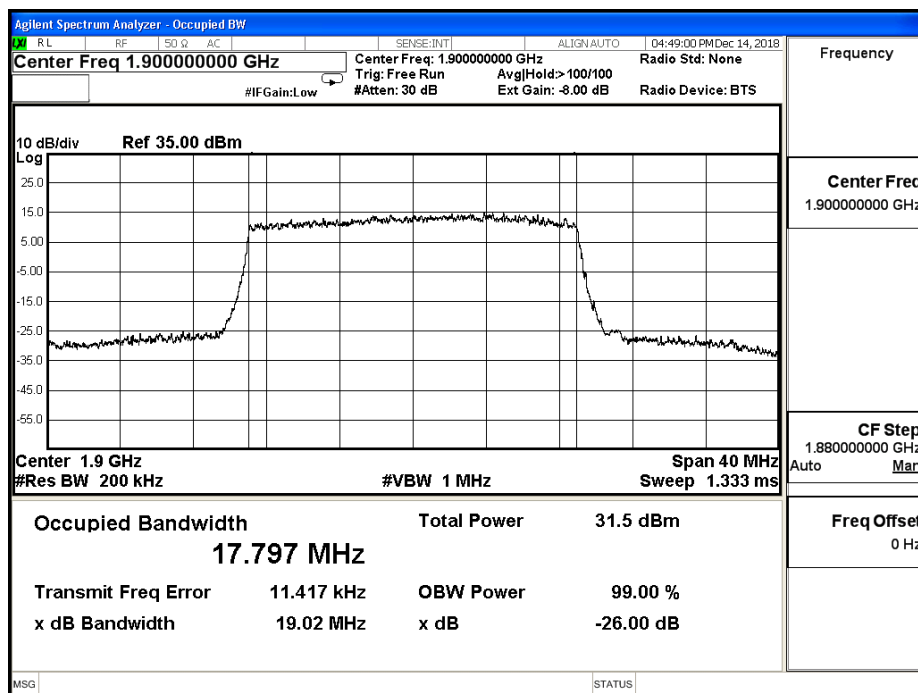
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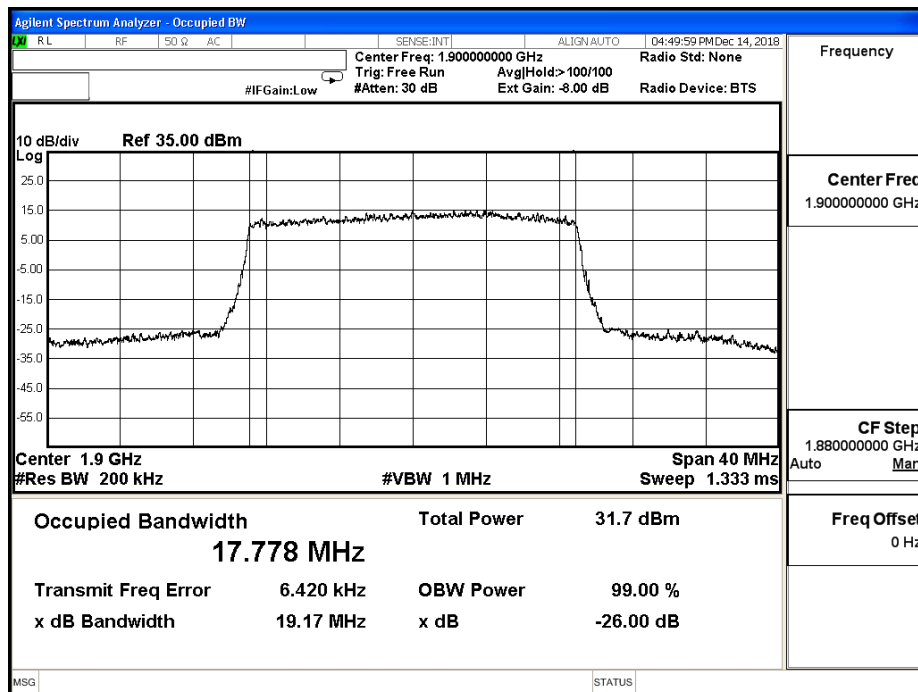
B2_20M_CH18900_16-QAM_100RB0



B2_20M_CH19100_QPSK_100RB0



B2_20M_CH19100_16-QAM_100RB0



Product	Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 2: LTE Band 4		
Date of Test	2018/12/13	Test Site	SR10-H

Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
1.4M	QPSK	19957	1710.7	1.315	1.097	N/A
		20175	1732.5	1.287	1.097	N/A
		20393	1754.3	1.283	1.092	N/A
	16-QAM	19957	1710.7	1.282	1.094	N/A
		20175	1732.5	1.289	1.096	N/A
		20393	1754.3	1.302	1.094	N/A
3M	QPSK	19965	1711.5	2.941	2.684	N/A
		20175	1732.5	2.931	2.684	N/A
		20385	1753.5	2.930	2.682	N/A
	16-QAM	19965	1711.5	2.928	2.672	N/A
		20175	1732.5	2.921	2.681	N/A
		20385	1753.5	2.944	2.679	N/A
5M	QPSK	19975	1712.5	4.940	4.459	N/A
		20175	1732.5	4.939	4.469	N/A
		20375	1753.5	4.960	4.481	N/A
	16-QAM	19975	1712.5	4.921	4.463	N/A
		20175	1732.5	4.881	4.467	N/A
		20375	1753.5	4.936	4.461	N/A
10M	QPSK	20000	1715.0	9.724	8.924	N/A
		20175	1732.5	9.783	8.922	N/A
		20350	1750.0	9.636	8.907	N/A
	16-QAM	20000	1715.0	9.651	8.939	N/A
		20175	1732.5	9.706	8.920	N/A
		20350	1750.0	9.713	8.927	N/A

Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
15M	QPSK	20025	1717.5	14.600	13.380	N/A
		20175	1732.5	14.450	13.386	N/A
		20325	1747.5	14.600	13.323	N/A
	16-QAM	20025	1717.5	14.360	13.384	N/A
		20175	1732.5	14.470	13.384	N/A
		20325	1747.5	14.600	13.349	N/A
20M	QPSK	20050	1720.0	19.100	17.834	N/A
		20175	1732.5	19.090	17.810	N/A
		20300	1745.0	18.970	17.781	N/A
	16-QAM	20050	1720.0	18.950	17.815	N/A
		20175	1732.5	19.090	17.813	N/A
		20300	1745.0	18.960	17.812	N/A

Product	Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 3: LTE Band 5		
Date of Test	2018/12/13	Test Site	SR10-H

Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
1.4M	QPSK	20407	824.7	1.317	1.1012	N/A
		20525	836.5	1.327	1.1068	N/A
		20643	848.3	1.328	1.1121	N/A
	16-QAM	20407	824.7	1.291	1.0958	N/A
		20525	836.5	1.405	1.1048	N/A
		20643	848.3	1.319	1.1030	N/A
3M	QPSK	20415	825.5	2.919	2.6815	N/A
		20525	836.5	2.984	2.6914	N/A
		20635	847.5	2.941	2.6873	N/A
	16-QAM	20415	825.5	2.903	2.6838	N/A
		20525	836.5	2.940	2.6845	N/A
		20635	847.5	2.919	2.6825	N/A
5M	QPSK	20425	826.5	4.910	4.4645	N/A
		20525	836.5	4.979	4.4728	N/A
		20625	846.5	4.933	4.4688	N/A
	16-QAM	20425	826.5	4.814	4.4571	N/A
		20525	836.5	4.994	4.4683	N/A
		20625	846.5	4.908	4.4650	N/A
10M	QPSK	20450	829.0	9.665	8.9304	N/A
		20525	836.5	9.532	8.9260	N/A
		20600	844.0	9.732	8.9318	N/A
	16-QAM	20450	829.0	9.583	8.9252	N/A
		20525	836.5	9.703	8.9278	N/A
		20600	844.0	9.766	8.9293	N/A

Product	Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 4: LTE Band 12		
Date of Test	2018/12/13	Test Site	SR10-H

Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
1.4M	QPSK	23017	699.7	1.305	1.0983	N/A
		23095	707.5	1.309	1.0980	N/A
		23173	715.3	1.261	1.1019	N/A
	16-QAM	23017	699.7	1.284	1.0975	N/A
		23095	707.5	1.313	1.0984	N/A
		23173	715.3	1.275	1.1051	N/A
3M	QPSK	23025	700.5	2.947	2.6826	N/A
		23095	707.5	2.928	2.6825	N/A
		23165	714.5	2.890	2.6751	N/A
	16-QAM	23025	700.5	2.917	2.6806	N/A
		23095	707.5	2.934	2.6858	N/A
		23165	714.5	2.912	2.6804	N/A
5M	QPSK	23035	710.5	4.893	4.4652	N/A
		23095	707.5	4.841	4.4705	N/A
		23155	713.5	4.879	4.4594	N/A
	16-QAM	23035	710.5	4.910	4.4643	N/A
		23095	707.5	4.895	4.4817	N/A
		23155	713.5	4.874	4.4537	N/A
10M	QPSK	23060	704.0	9.626	8.8935	N/A
		23095	707.5	9.601	8.9419	N/A
		23130	711.0	9.725	8.9505	N/A
	16-QAM	23060	704.0	9.585	8.9019	N/A
		23095	707.5	9.616	8.9280	N/A
		23130	711.0	9.602	8.9310	N/A

Product	Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 5: LTE Band 13		
Date of Test	2018/12/13	Test Site	SR10-H

Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
5M	QPSK	23205	779.5	4.897	4.4777	N/A
		23230	782.0	4.923	4.4754	N/A
		23255	784.5	4.850	4.4464	N/A
	16-QAM	23205	779.5	4.896	4.4653	N/A
		23230	782.0	4.923	4.4722	N/A
		23255	784.5	4.855	4.4530	N/A
10M	QPSK	23230	782.0	9.595	8.8989	N/A
	16-QAM	23230	782.0	9.543	8.9158	N/A

Product	Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 6: LTE Band 14		
Date of Test	2018/12/13	Test Site	SR10-H

Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
5M	QPSK	23305	790.5	4.892	4.4593	N/A
		23330	793.0	4.909	4.4779	N/A
		23355	795.5	4.926	4.4776	N/A
	16-QAM	23305	790.5	4.899	4.4686	N/A
		23330	793.0	4.893	4.4620	N/A
		23355	795.5	4.911	4.4785	N/A
10M	QPSK	23330	793.0	9.691	8.8905	N/A
	16-QAM	23330	793.0	9.535	8.8863	N/A

Product	Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 7: LTE Band 17		
Date of Test	2018/12/13	Test Site	SR10-H

Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
5M	QPSK	23755	706.5	4.951	4.4823	N/A
		23790	710.0	4.950	4.4662	N/A
		23825	713.5	4.933	4.4757	N/A
	16-QAM	23755	706.5	4.886	4.4627	N/A
		23790	710.0	4.946	4.4797	N/A
		23825	713.5	4.919	4.4722	N/A
10M	QPSK	23780	709.0	9.840	8.9532	N/A
		23790	710.0	9.806	8.9637	N/A
		23800	711.0	9.758	8.9475	N/A
	16-QAM	23780	709.0	9.785	8.9522	N/A
		23790	710.0	9.735	8.9427	N/A
		23800	711.0	9.630	8.9409	N/A

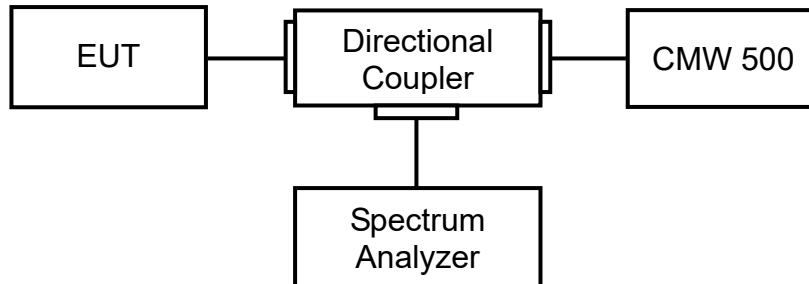
Product	Module		
Test Item	Occupied Bandwidth		
Test Mode	Mode 8: LTE Band 66		
Date of Test	2018/12/13	Test Site	SR10-H

Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
1.4M	QPSK	131979	1710.7	1.309	1.0963	N/A
		132322	1745.0	1.297	1.0971	N/A
		132665	1779.3	1.297	1.1089	N/A
	16-QAM	131979	1710.7	1.283	1.0964	N/A
		132322	1745.0	1.315	1.1010	N/A
		132665	1779.3	1.317	1.0987	N/A
3M	QPSK	131987	1711.5	2.916	2.6825	N/A
		132322	1745.0	2.923	2.6829	N/A
		132657	1778.5	2.922	2.6944	N/A
	16-QAM	131987	1711.5	2.933	2.6828	N/A
		132322	1745.0	2.915	2.6790	N/A
		132657	1778.5	2.927	2.6805	N/A
5M	QPSK	131997	1712.5	4.908	4.4789	N/A
		132322	1745.0	4.927	4.4815	N/A
		132647	1777.5	4.944	4.4663	N/A
	16-QAM	131997	1712.5	4.930	4.4763	N/A
		132322	1745.0	4.865	4.4648	N/A
		132647	1777.5	4.950	4.4681	N/A
10M	QPSK	132022	1715.0	9.726	8.9360	N/A
		132322	1745.0	9.616	8.9225	N/A
		132622	1775.0	9.598	8.9162	N/A
	16-QAM	132022	1715.0	9.622	8.9094	N/A
		132322	1745.0	9.657	8.9135	N/A
		132622	1775.0	9.645	8.9255	N/A

Bandwidth (MHz)	Modulation	Channel	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
				26dB BW	99% BW	
15M	QPSK	132047	1717.5	14.400	13.3700	N/A
		132322	1745.0	14.550	13.3740	N/A
		132597	1772.5	14.510	13.3560	N/A
	16-QAM	132047	1717.5	14.470	13.3890	N/A
		132322	1745.0	14.480	13.3510	N/A
		132597	1772.5	14.400	13.3670	N/A
20M	QPSK	132072	1720.0	18.970	17.8110	N/A
		132322	1745.0	18.960	17.7700	N/A
		132572	1770.0	19.160	17.7870	N/A
	16-QAM	132072	1720.0	19.160	17.8560	N/A
		132322	1745.0	18.980	17.8220	N/A
		132572	1770.0	19.040	17.7910	N/A

5. Peak To Average Ratio

5.1. Test Setup



5.2. Test Procedure

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 %.

5.3. Test Method

KDB 971168 D01 Power Meas License Digital Systems v03 sub-clause 5.7.2

ANSI C63.26: 2015 Sub-clause 5.2.3.4

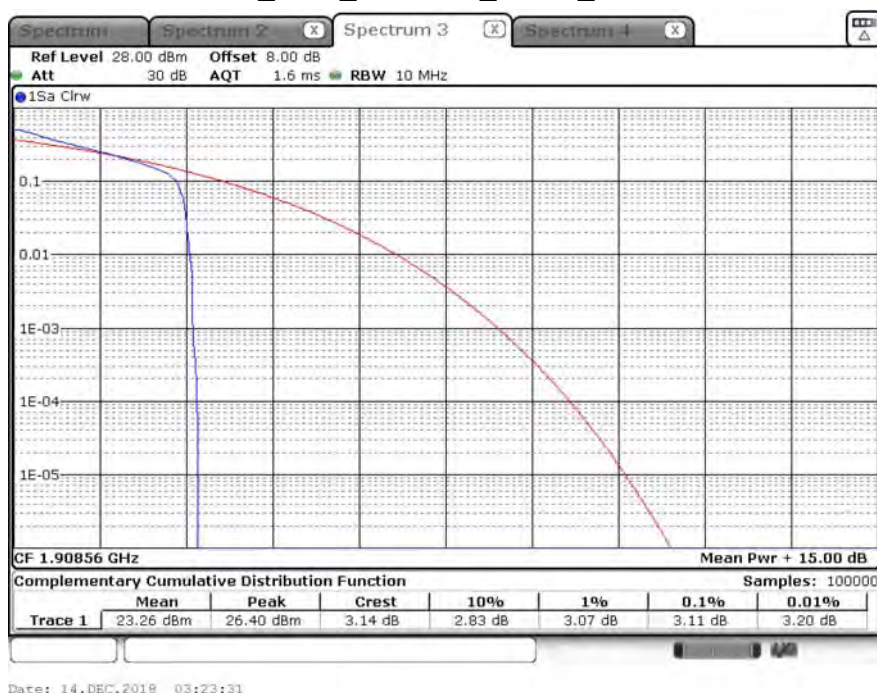
5.4. Limit

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

5.5. Test Result

Product	Module		
Test Item	Peak To Average Ratio		
Test Mode	Mode 1: LTE Band 2		
Date of Test	2018/12/14	Test Site	SR10-H

B2_1.4M_CH19193_QPSK_1RB0



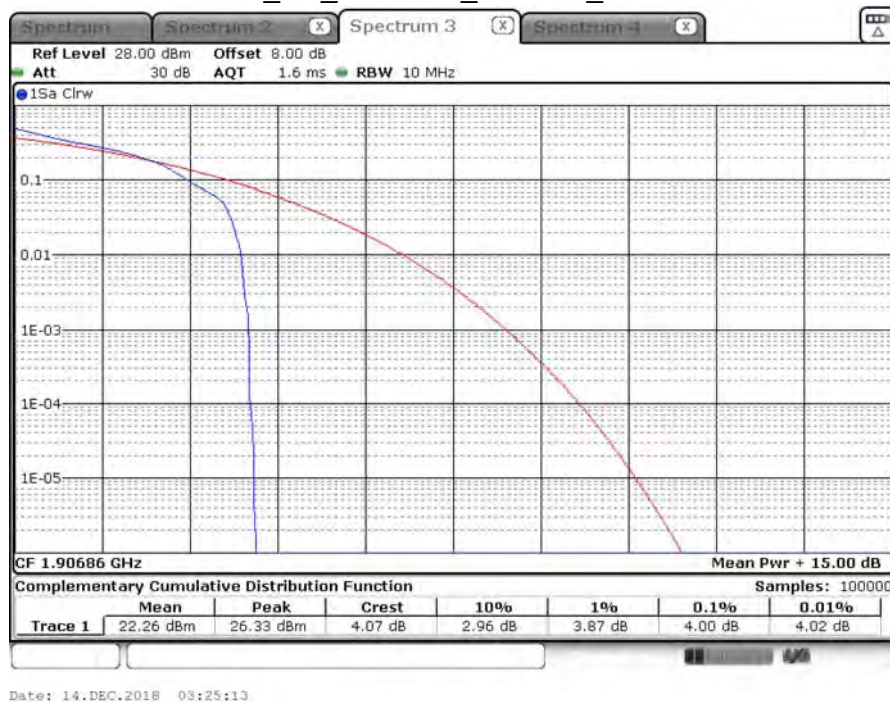
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B2_3M_CH19185_QPSK_1RB0



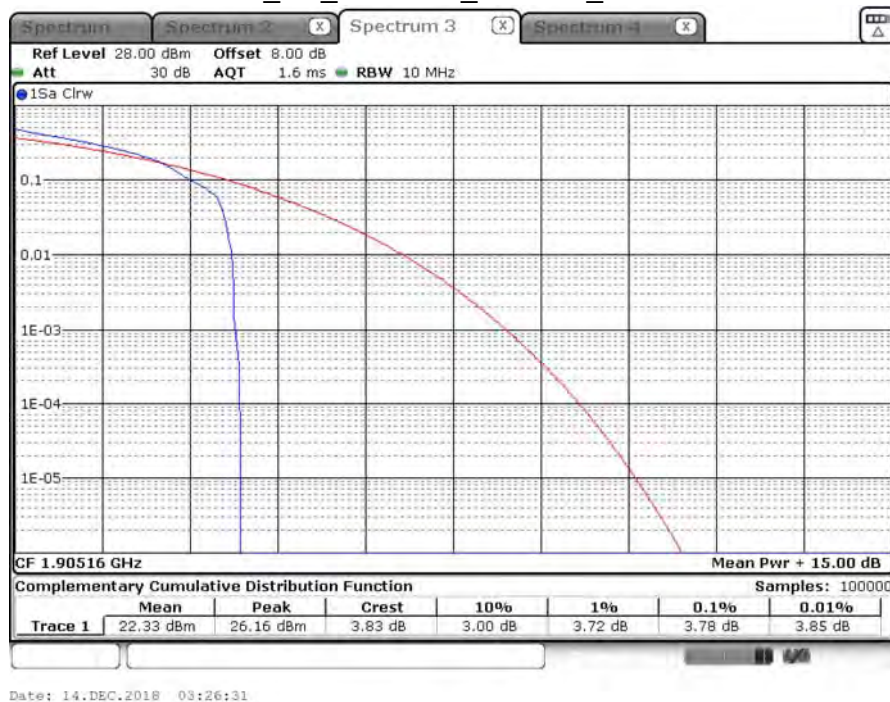
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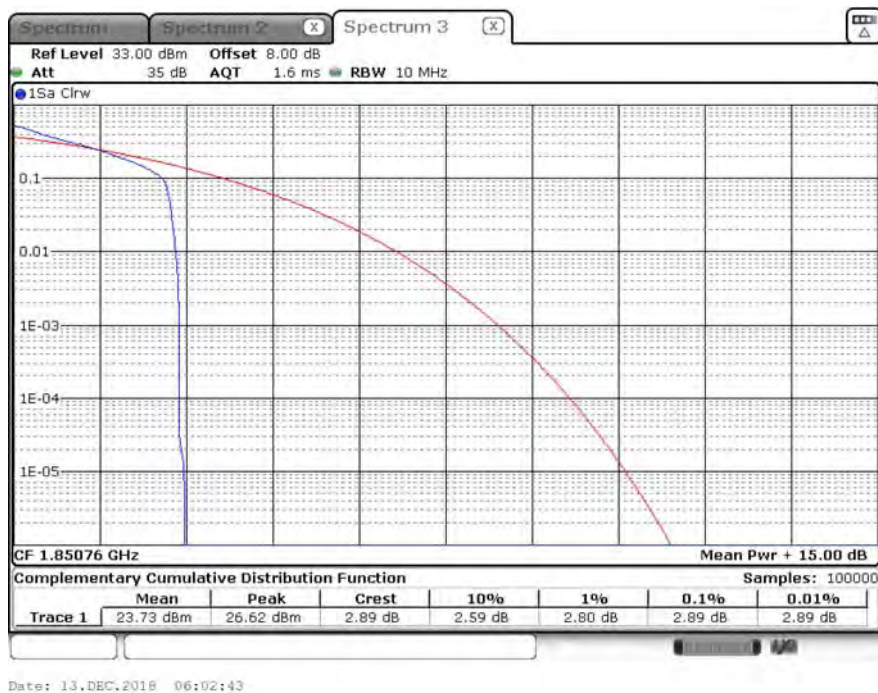
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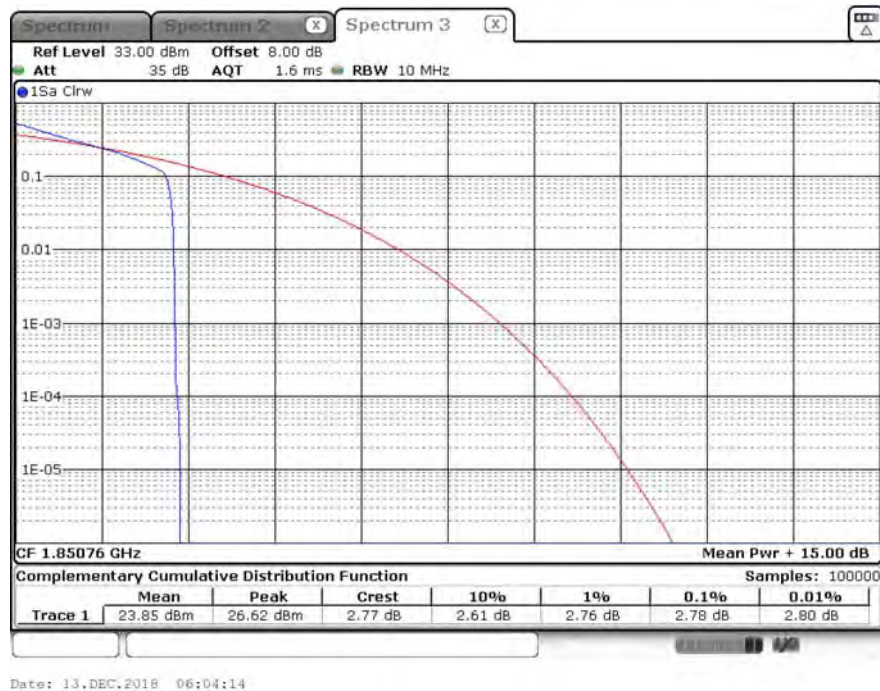
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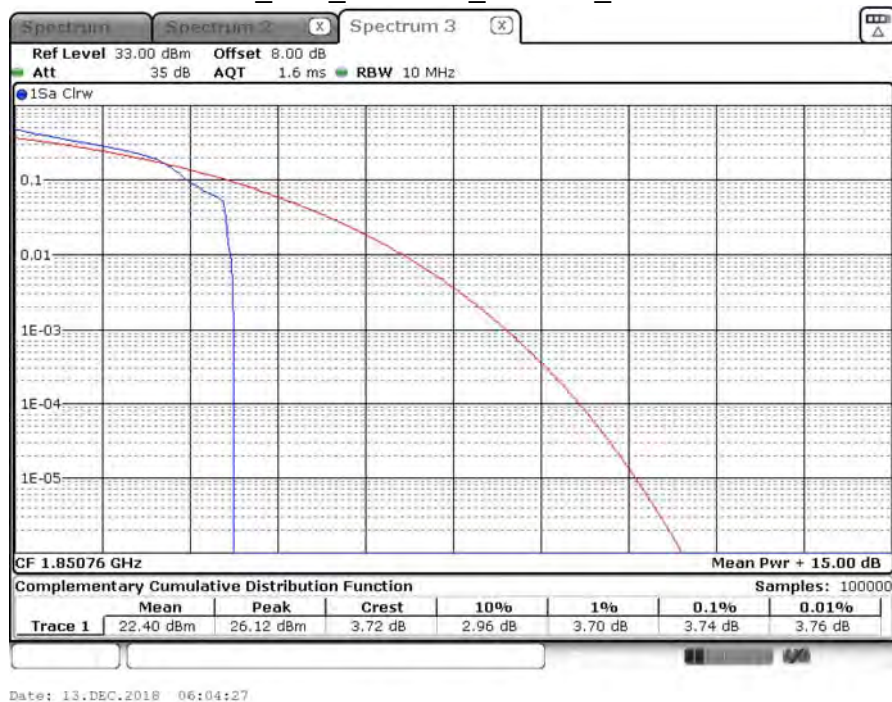
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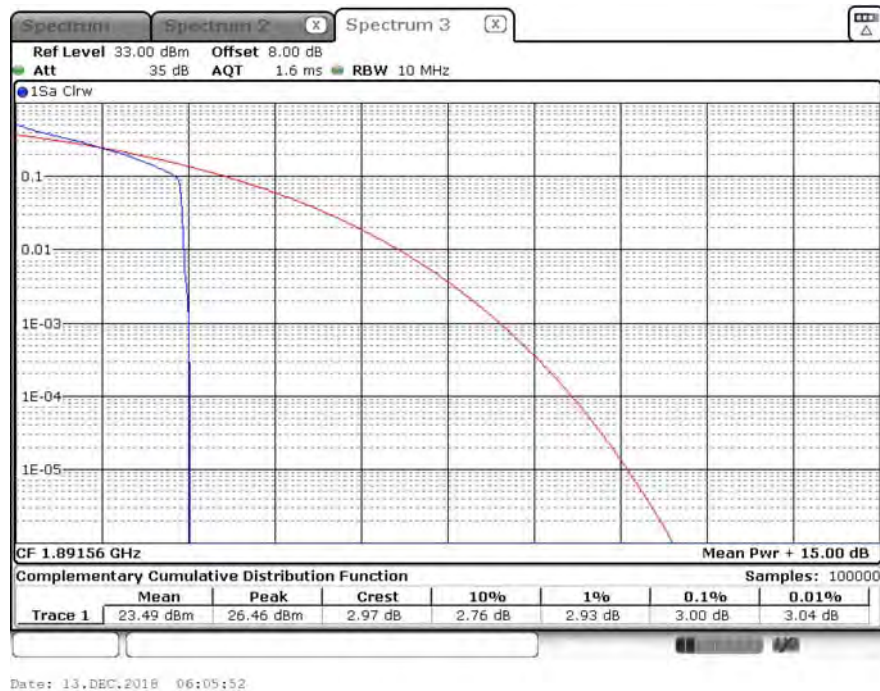
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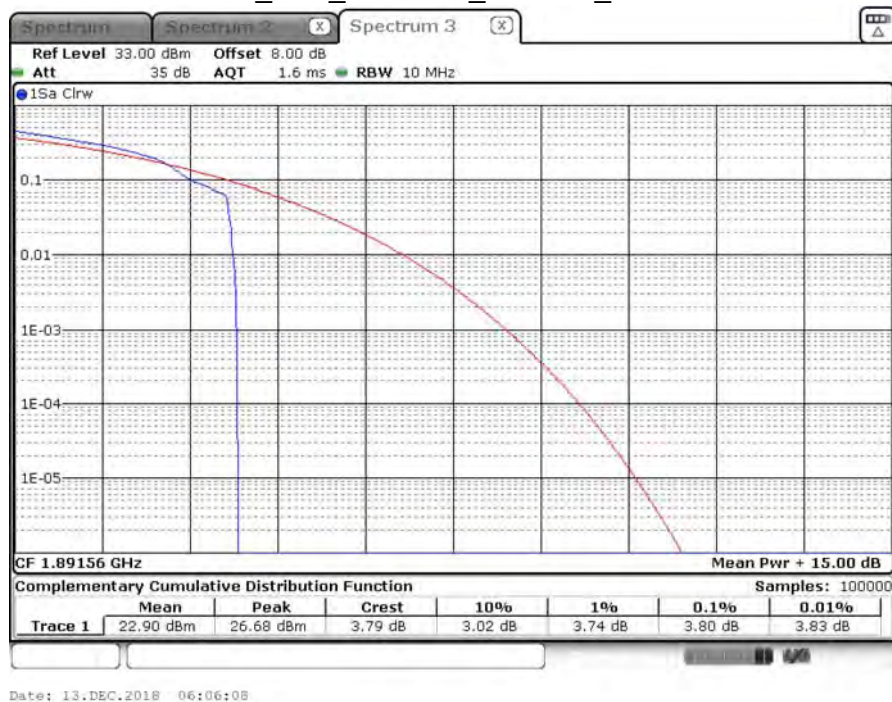
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B2_20M_CH19100_QPSK_1RB0

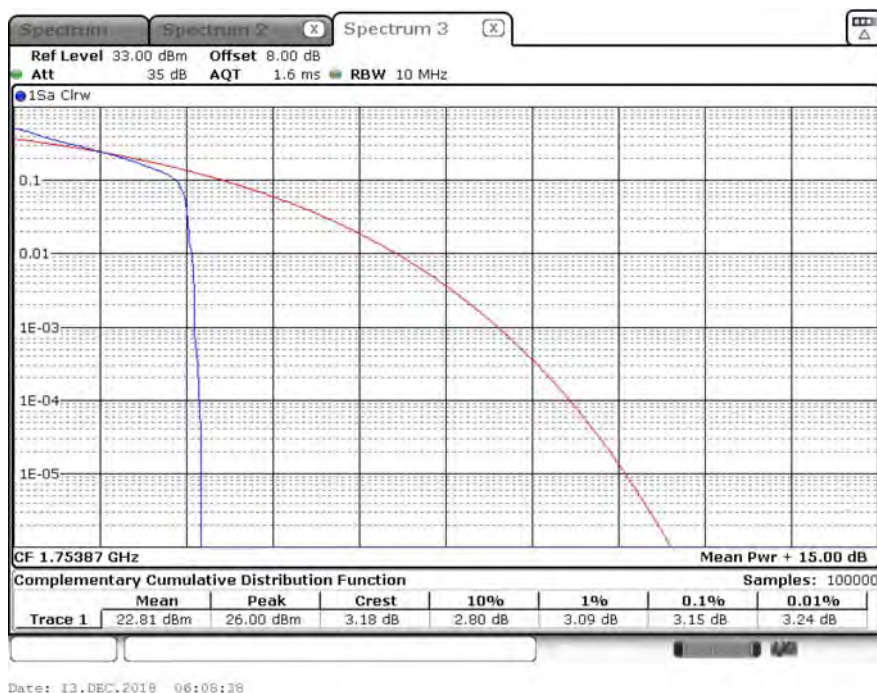


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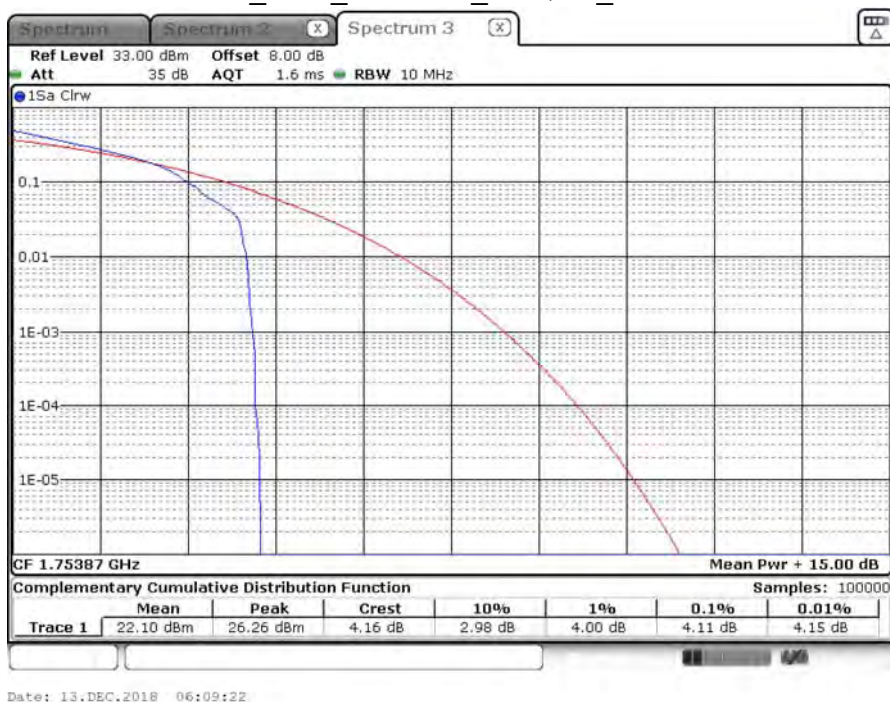


Product	Module		
Test Item	Peak To Average Ratio		
Test Mode	Mode 2: LTE Band 4		
Date of Test	2018/12/13	Test Site	SR10-H

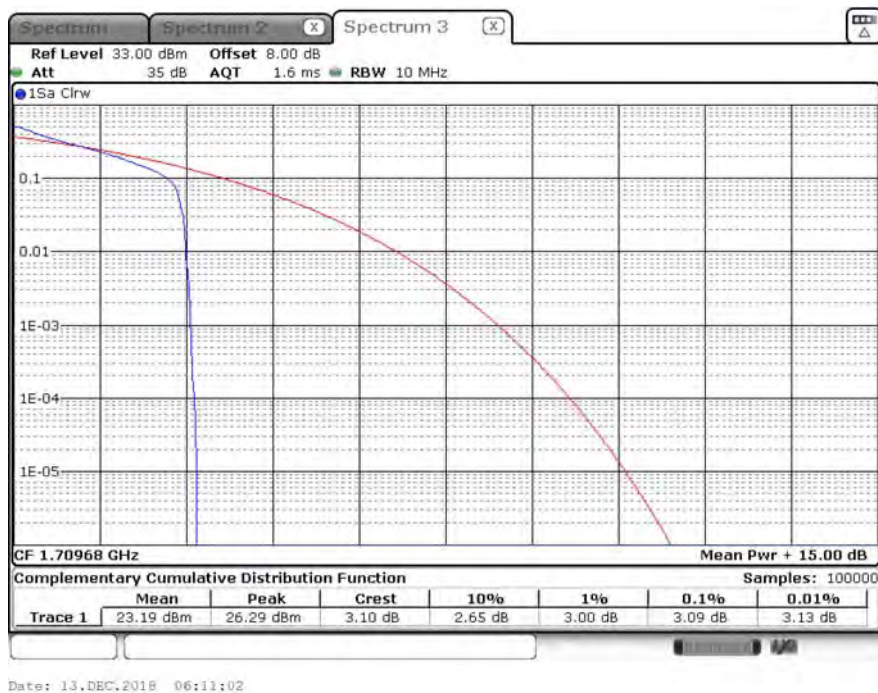
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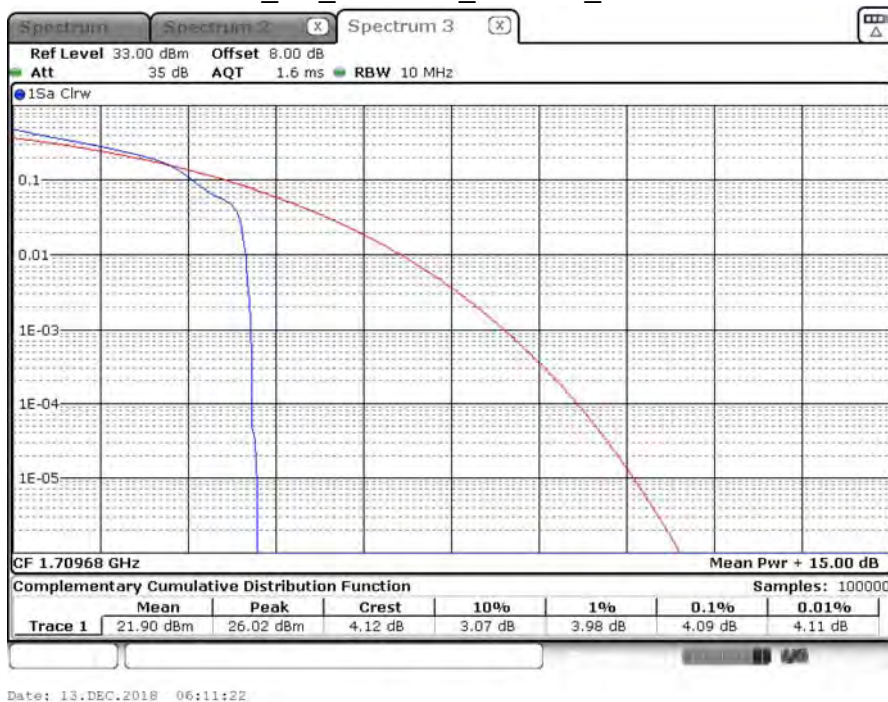
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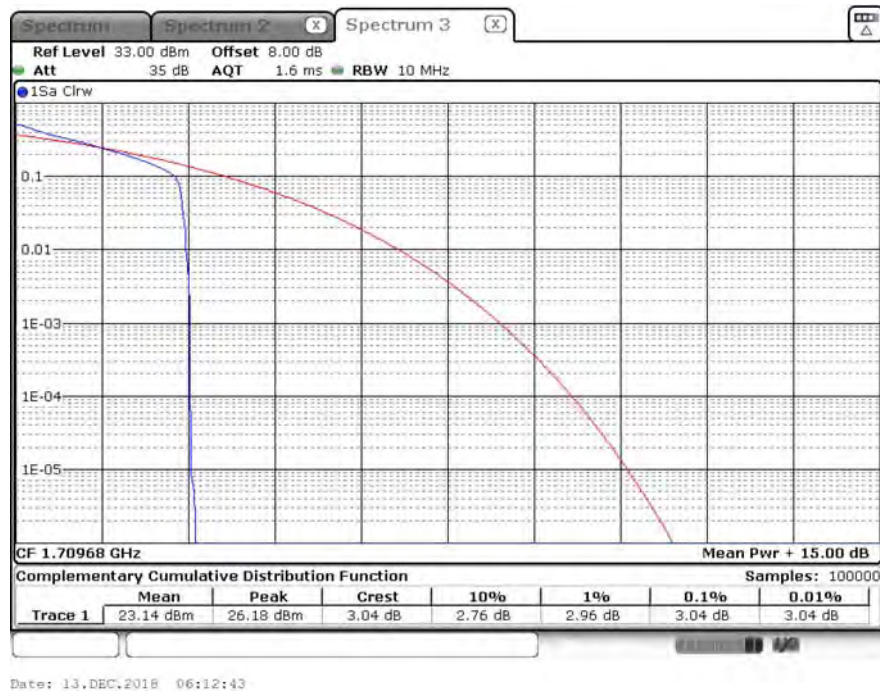
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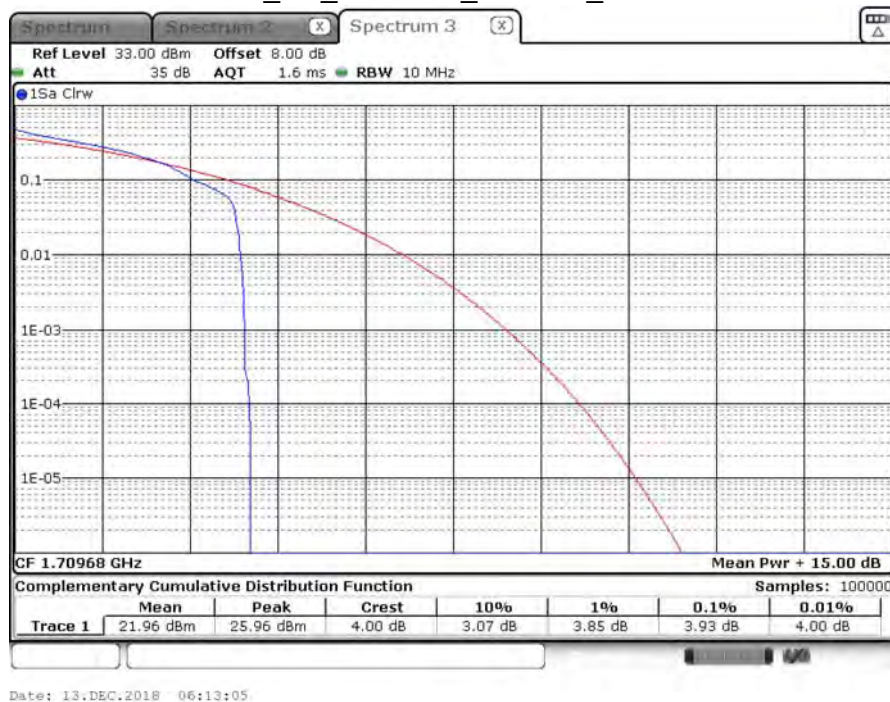
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B4_5M_CH19975_QPSK_1RB0



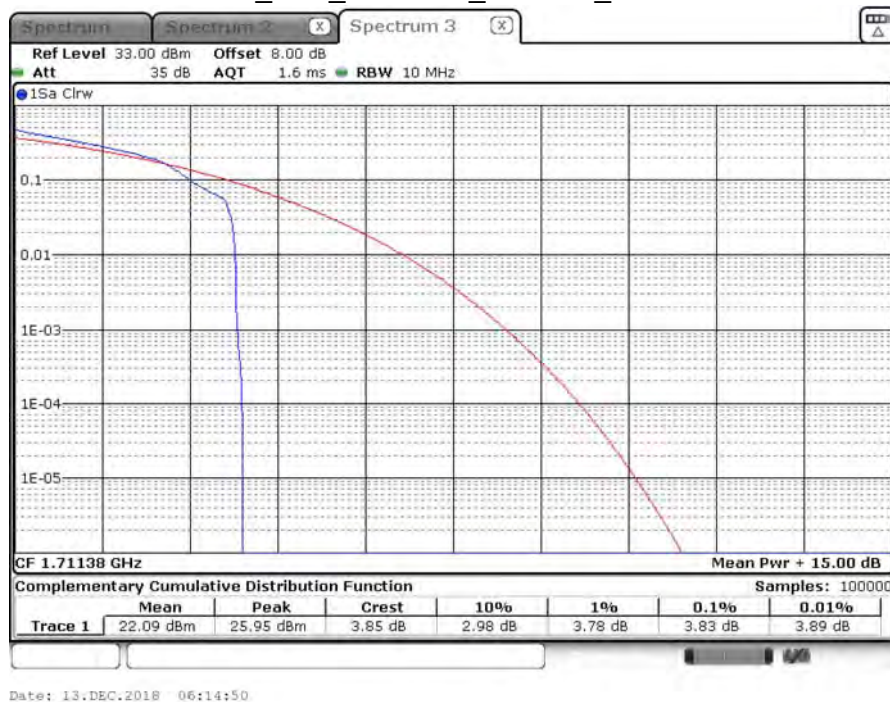
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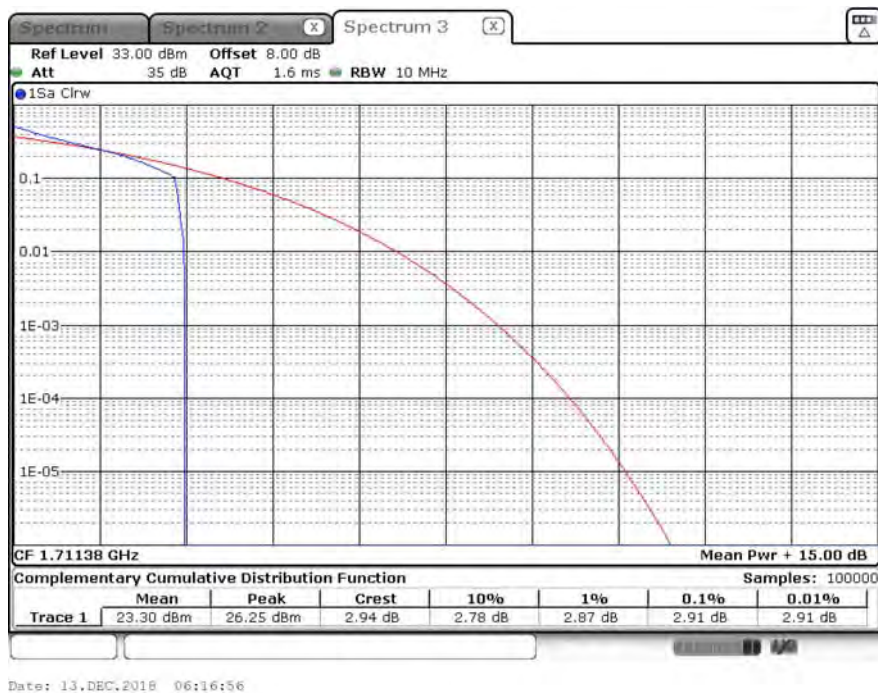
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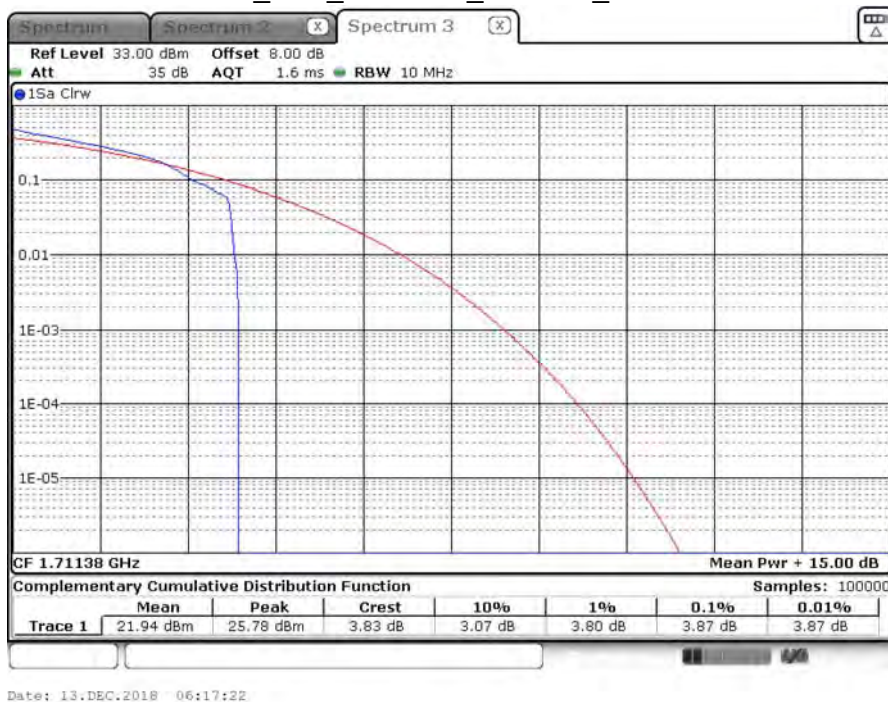
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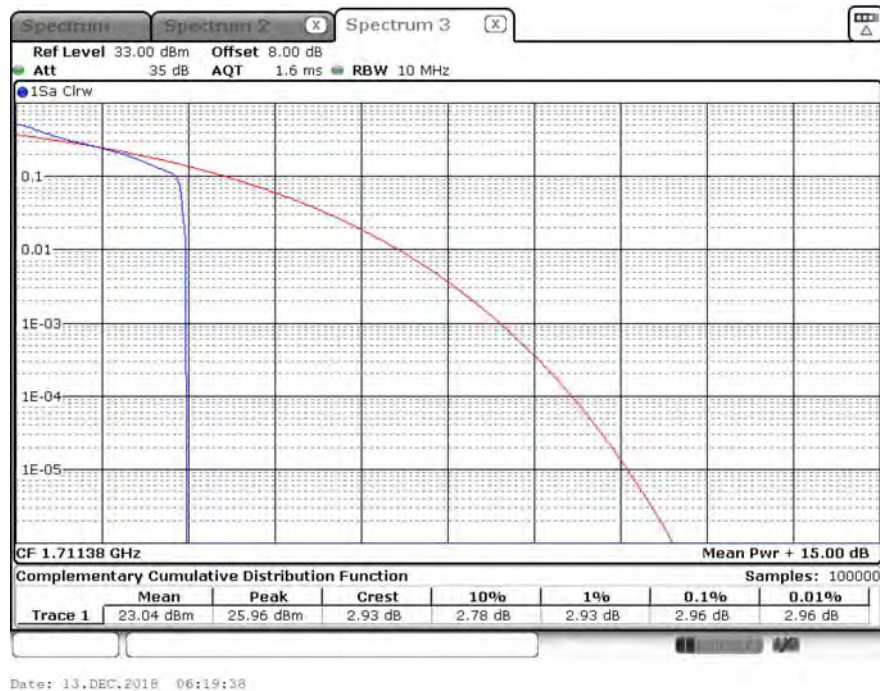
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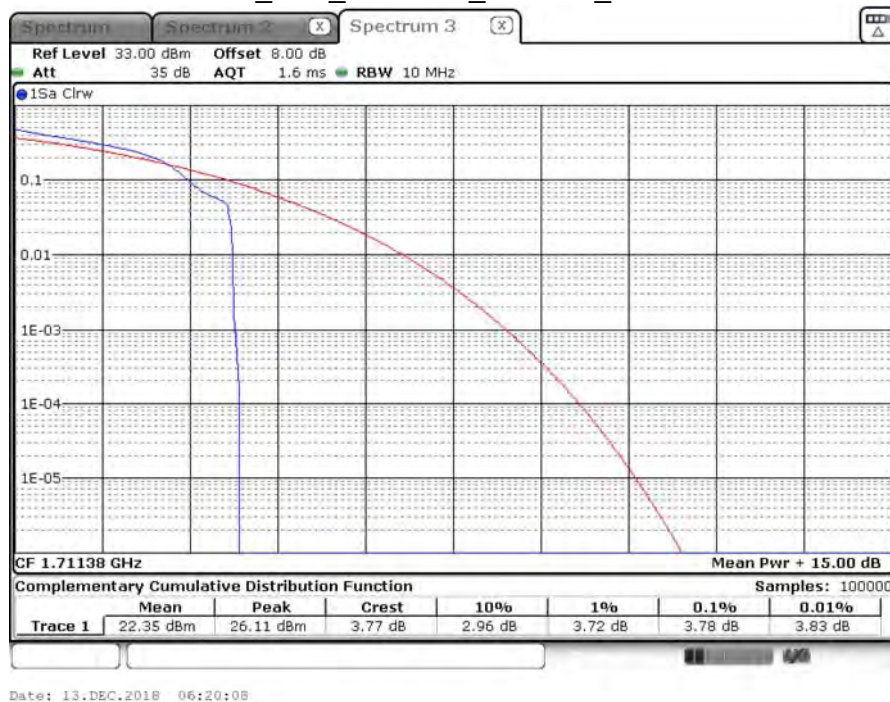
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B4_20M_CH20050_QPSK_1RB0



B4_20M_CH20050_16-QAM_1RB0

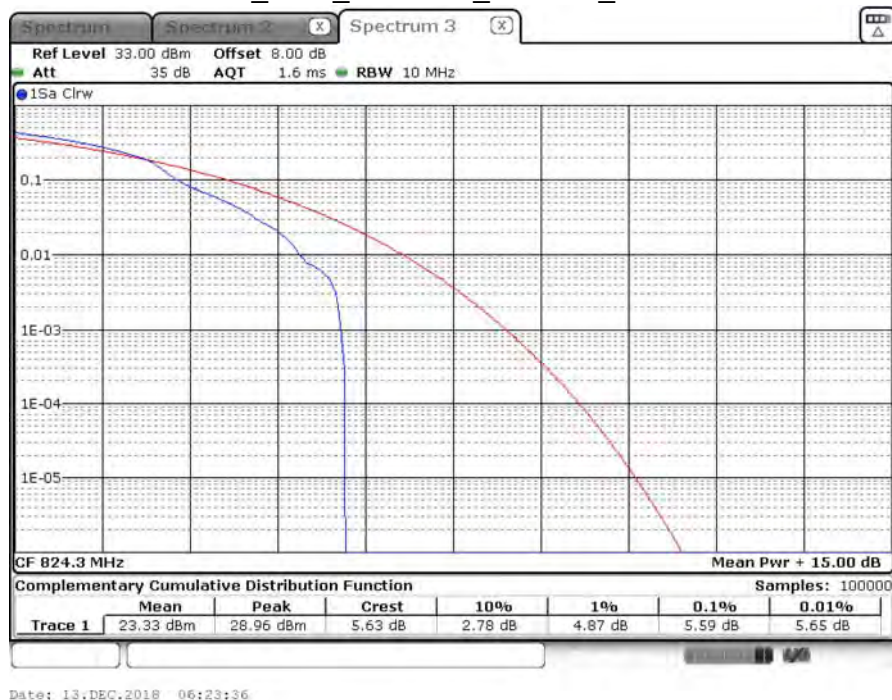


Product	Module		
Test Item	Peak To Average Ratio		
Test Mode	Mode 3: LTE Band 5		
Date of Test	2018/12/13	Test Site	SR10-H

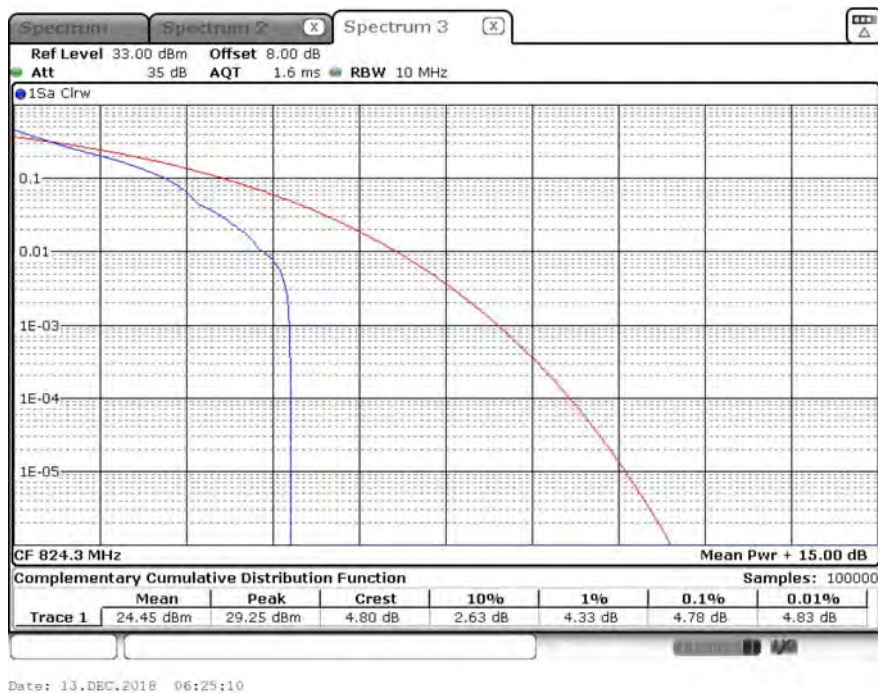
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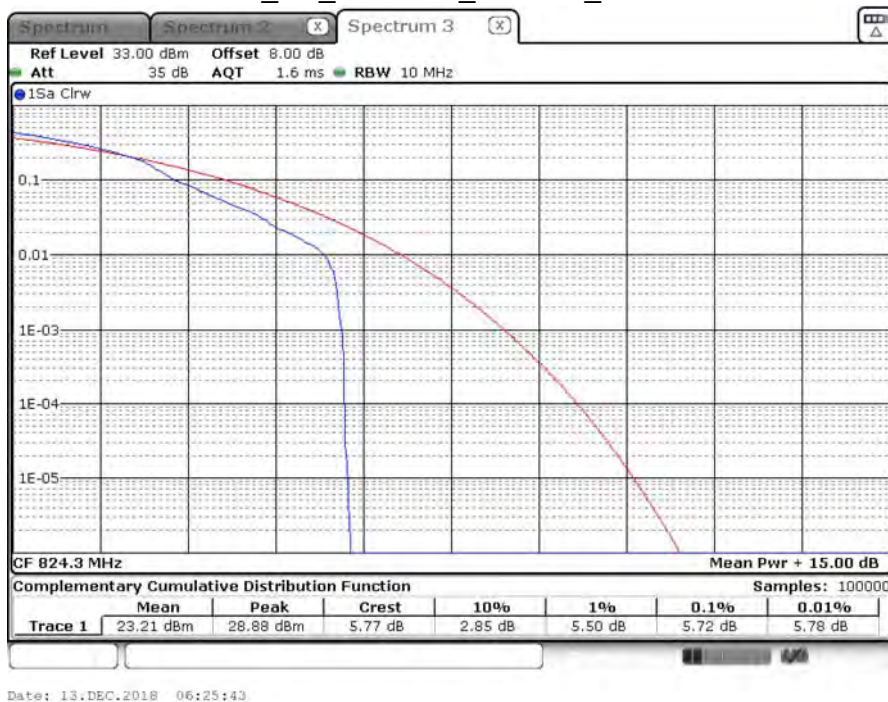
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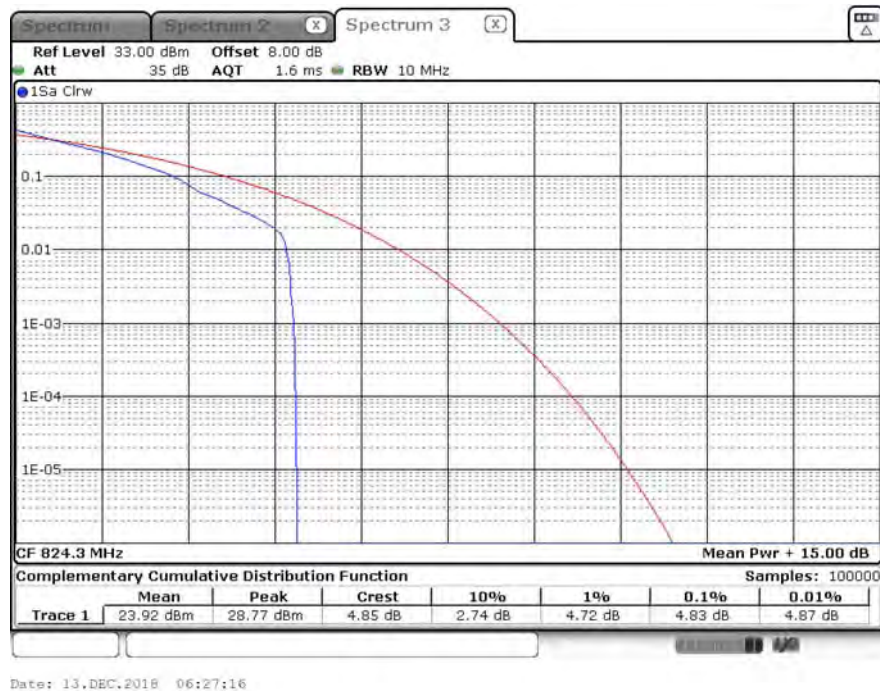
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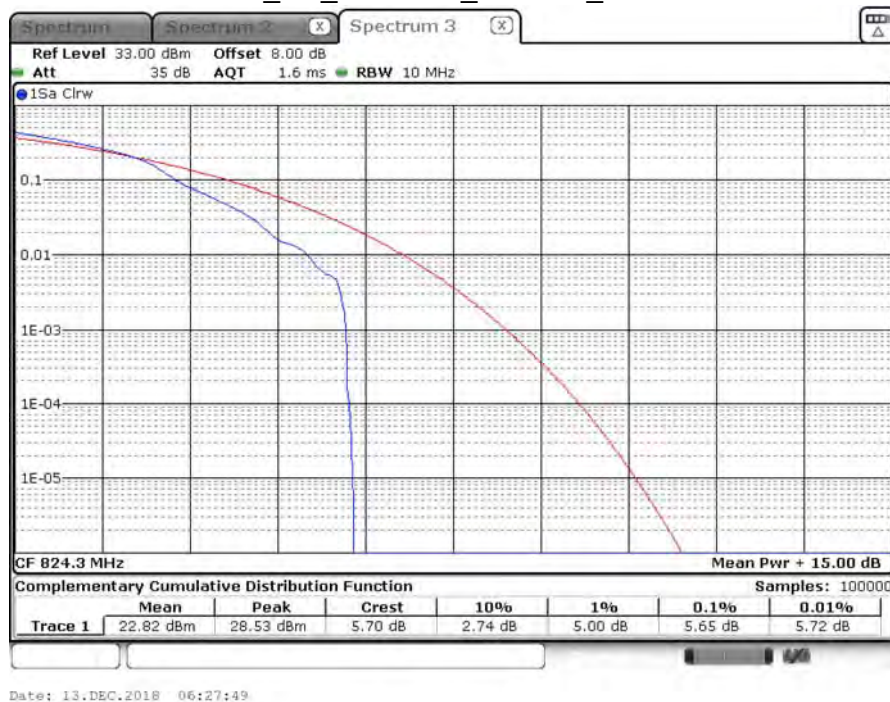
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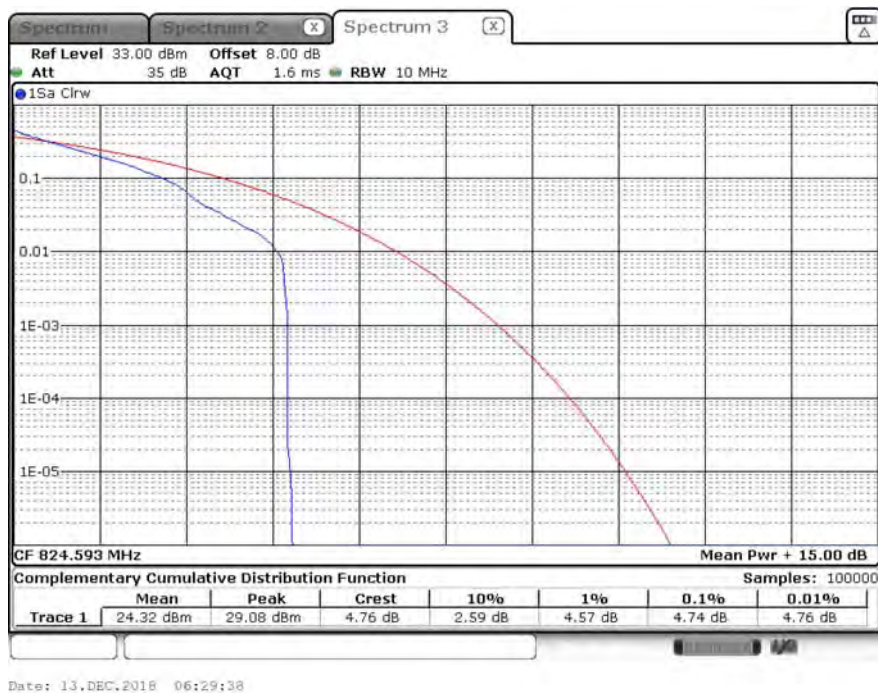
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B5_5M_CH20425_16-QAM_1RB0



B5_10M_CH20450_QPSK_1RB0

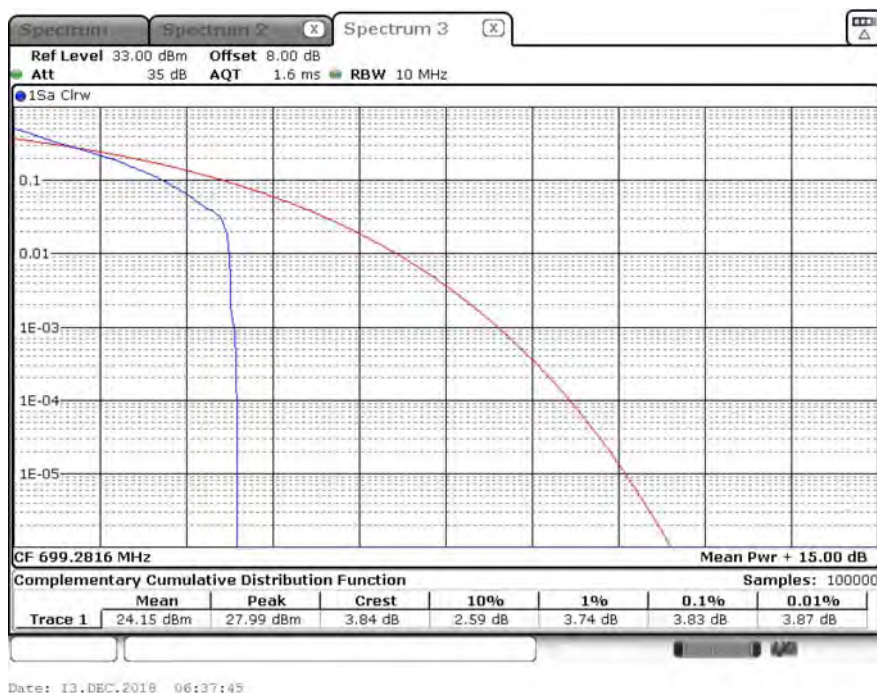


B5_10M_CH20450_16-QAM_1RB0



Product	Module		
Test Item	Peak To Average Ratio		
Test Mode	Mode 4: LTE Band 12		
Date of Test	2018/12/13	Test Site	SR10-H

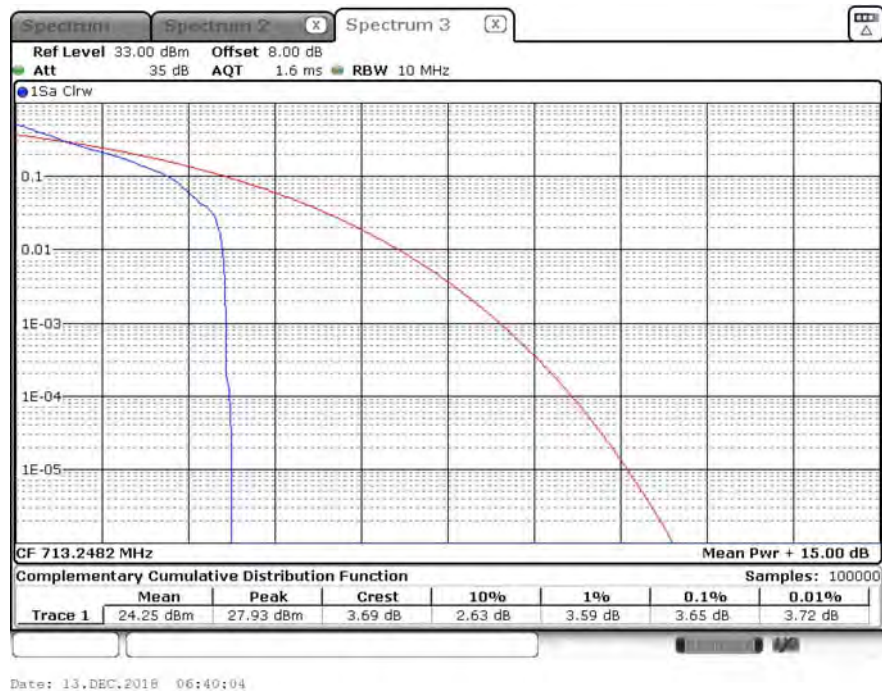
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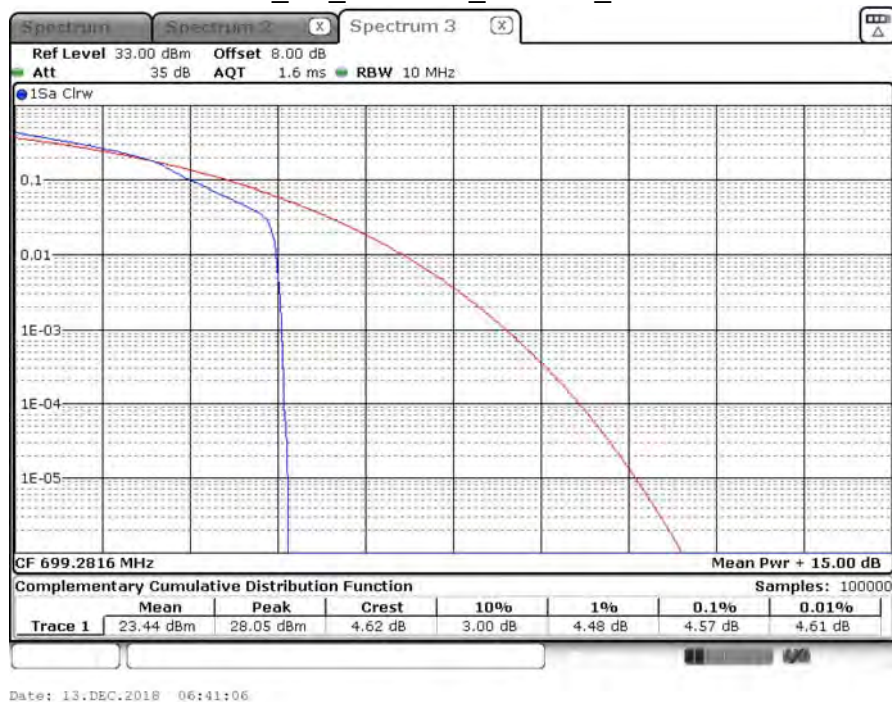
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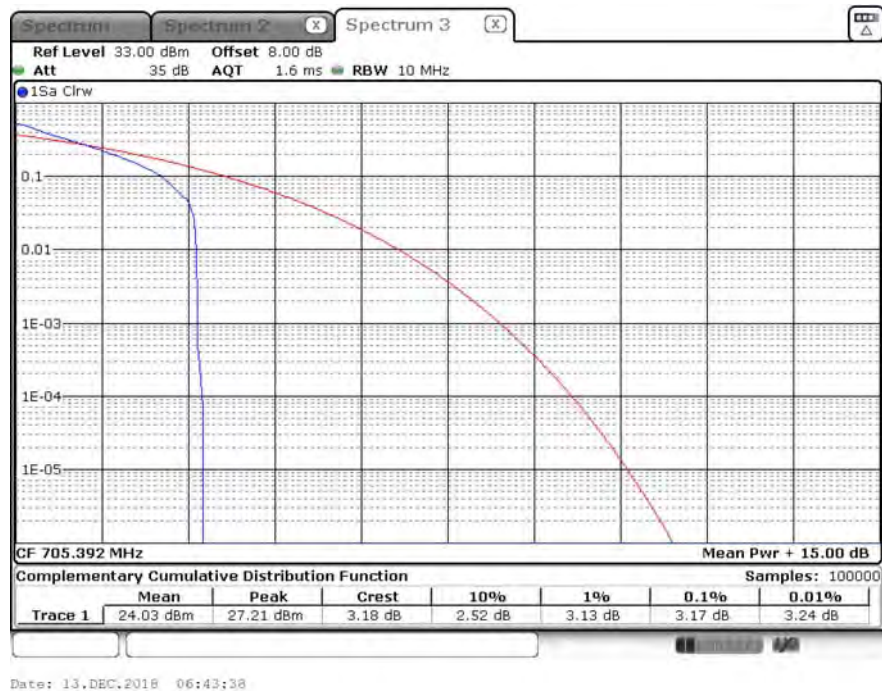
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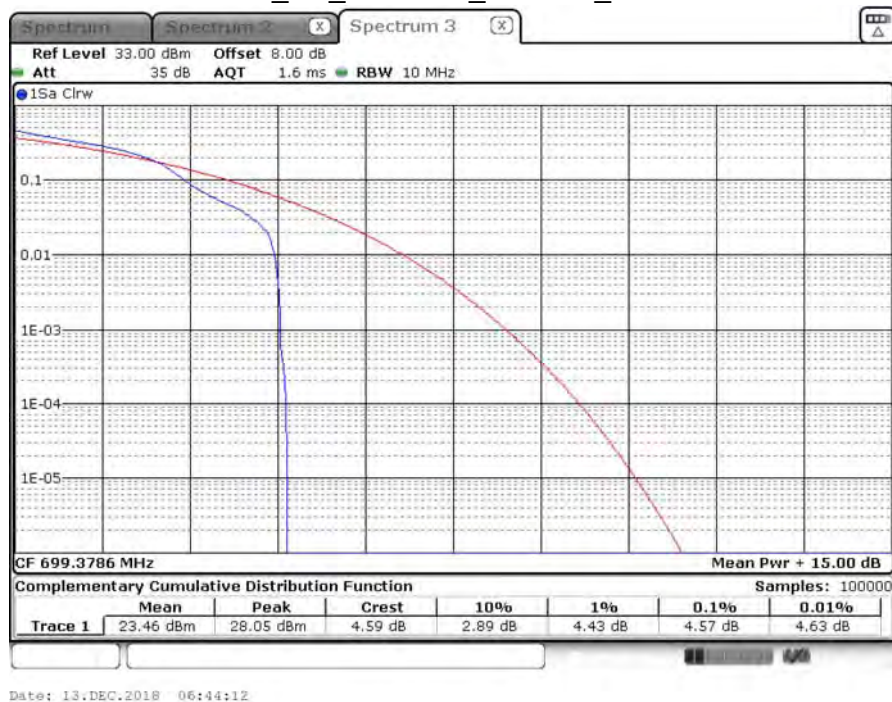
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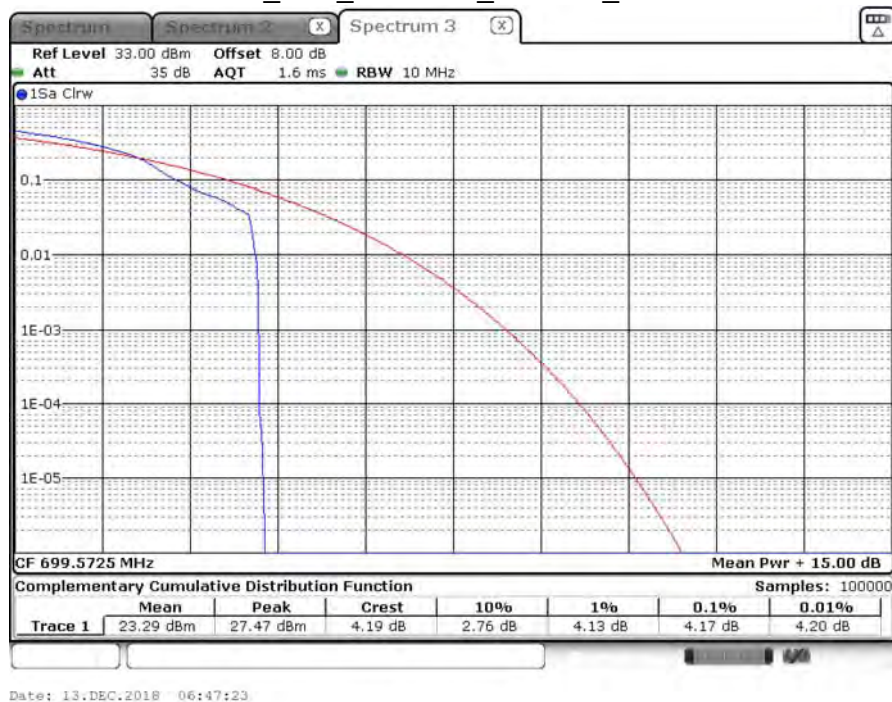
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B12_10M_CH23060_QPSK_1RB0

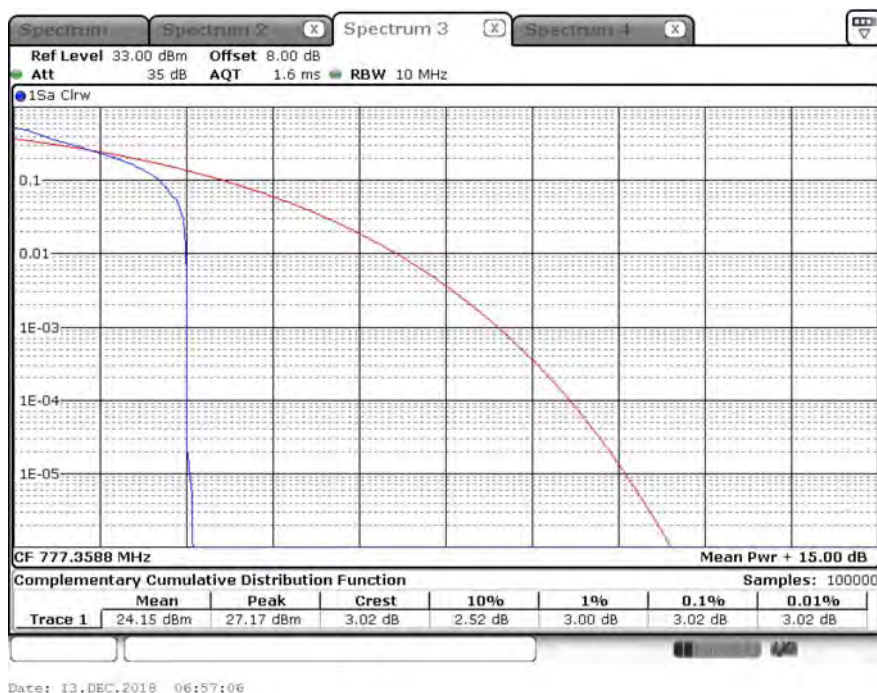


B12_10M_CH23060_16-QAM_1RB0



Product	Module		
Test Item	Peak To Average Ratio		
Test Mode	Mode 5: LTE Band 13		
Date of Test	2018/12/13	Test Site	SR10-H

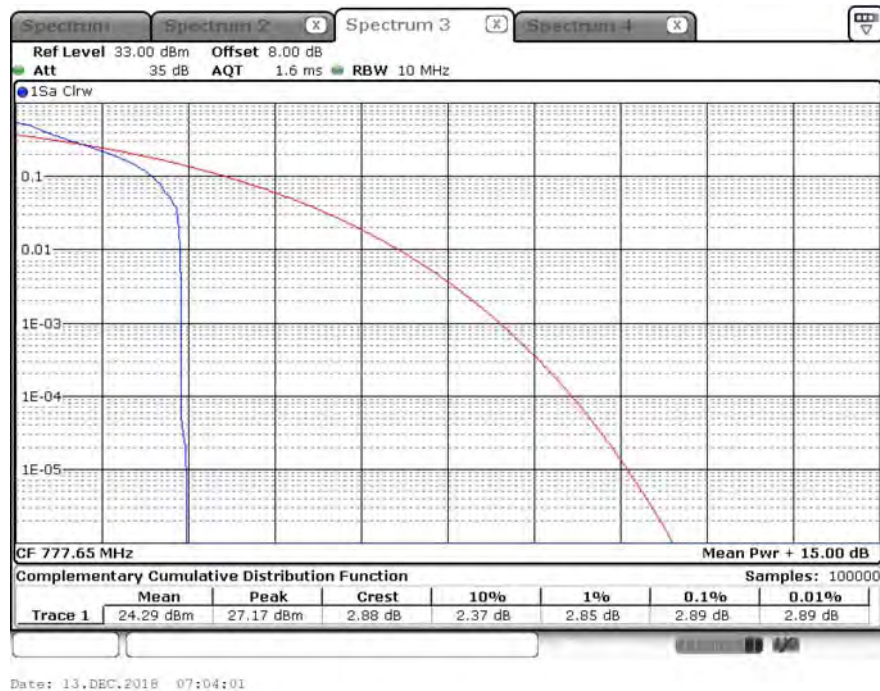
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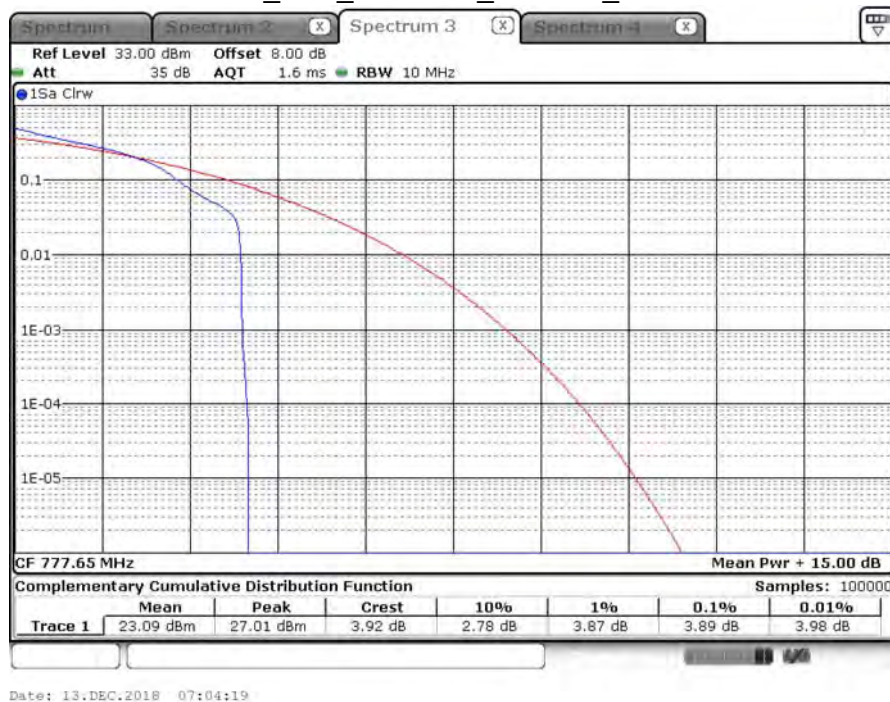
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B13_10M_CH23230_QPSK_1RB0



B13_10M_CH23230_16-QAM_1RB0

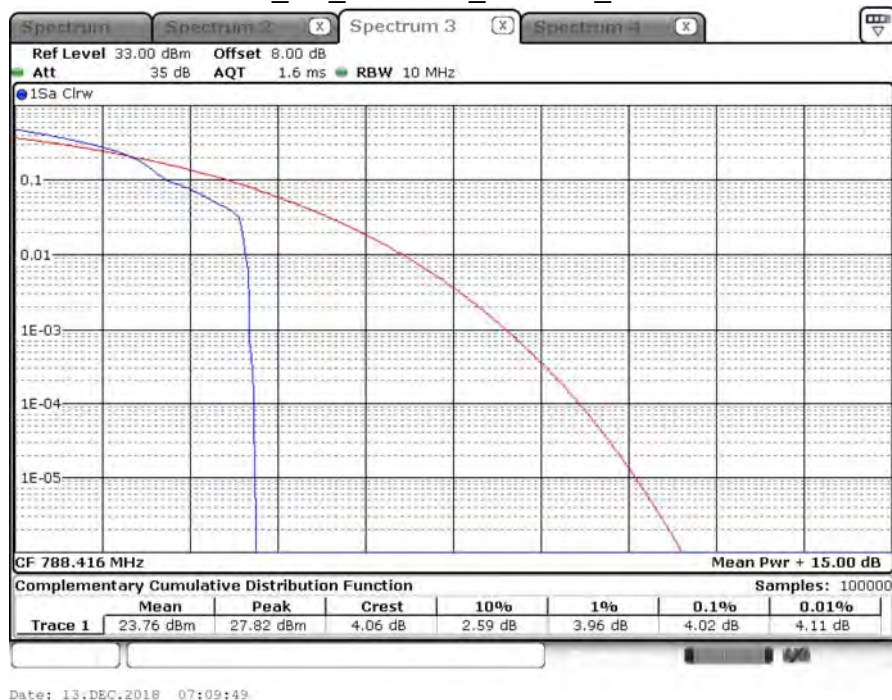


Product	Module		
Test Item	Peak To Average Ratio		
Test Mode	Mode 6: LTE Band 14		
Date of Test	2018/12/13	Test Site	SR10-H

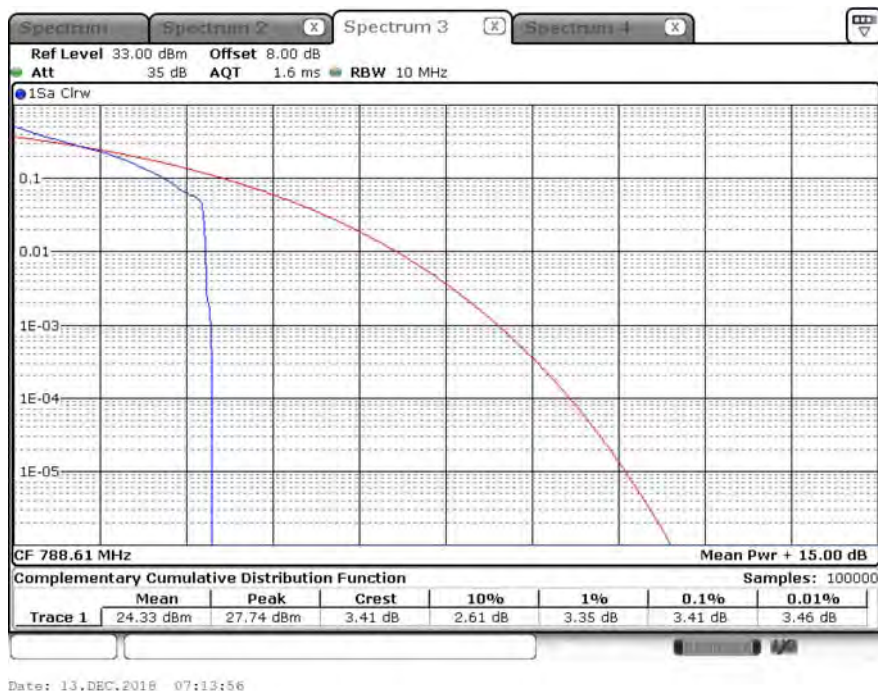
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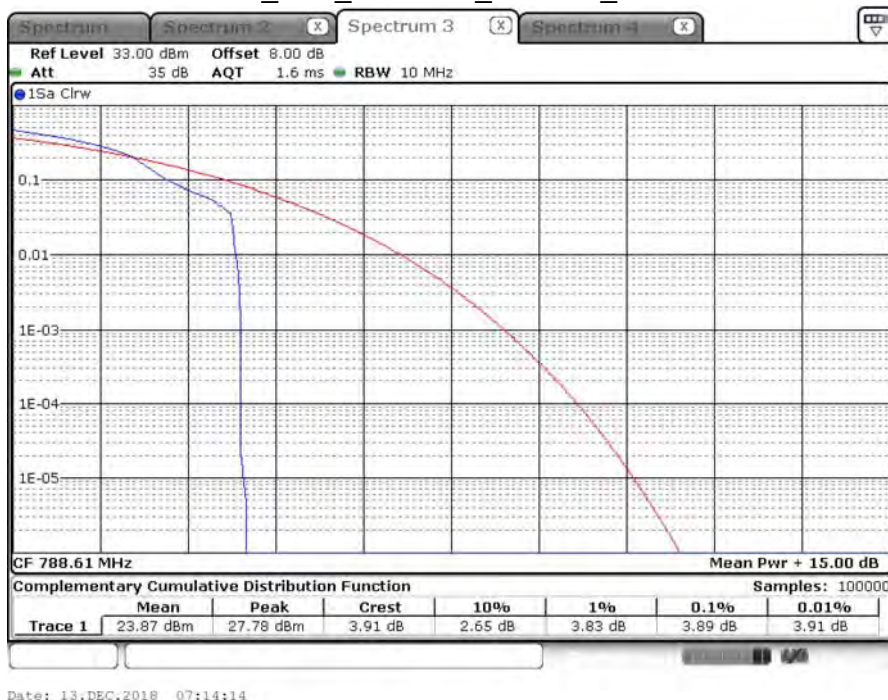
B14_5M_CH23305_16-QAM_1RB0



B14_10M_CH23330_QPSK_1RB0



B14_10M_CH23330_16-QAM_1RB0



Product	Module		
Test Item	Peak To Average Ratio		
Test Mode	Mode 7: LTE Band 17		
Date of Test	2018/12/13	Test Site	SR10-H

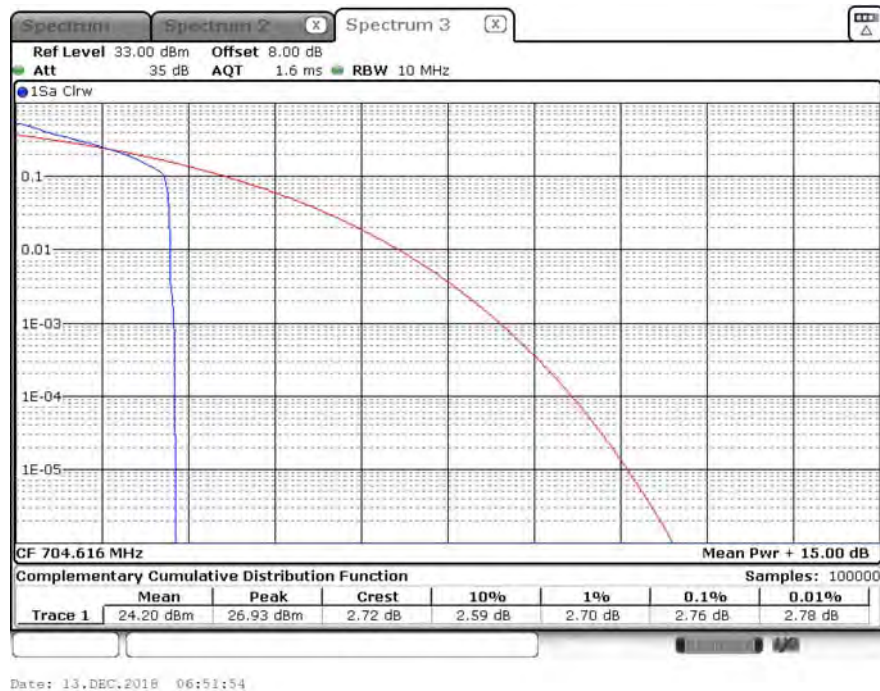
B17_5M_CH23790_QPSK_1RB0



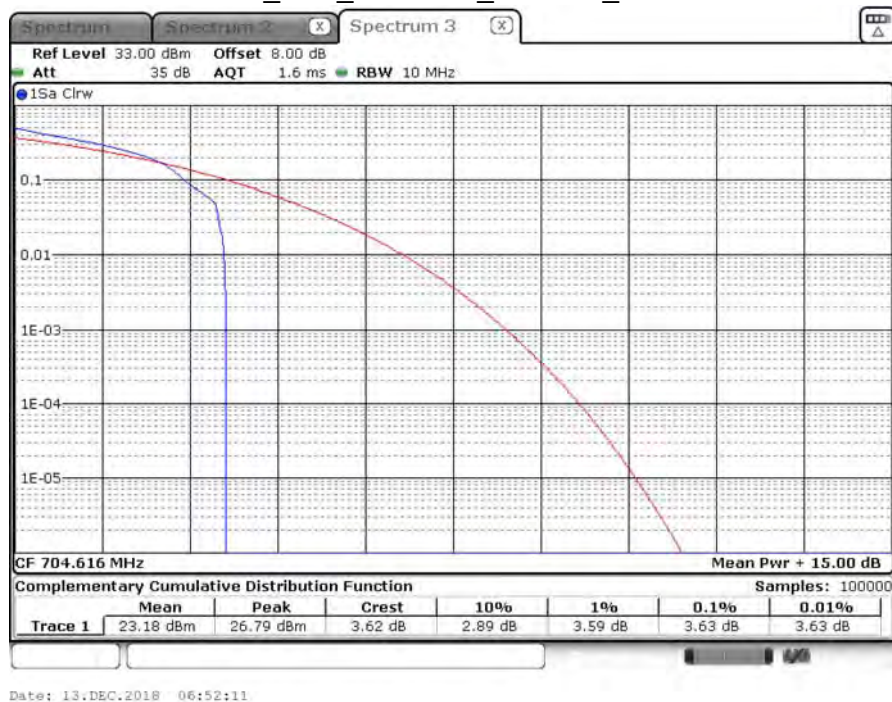
B17 5M CH23790 16-QAM 1RB0



B17_10M_CH23780_QPSK_1RB0



B17_10M_CH23780_16-QAM_1RB0

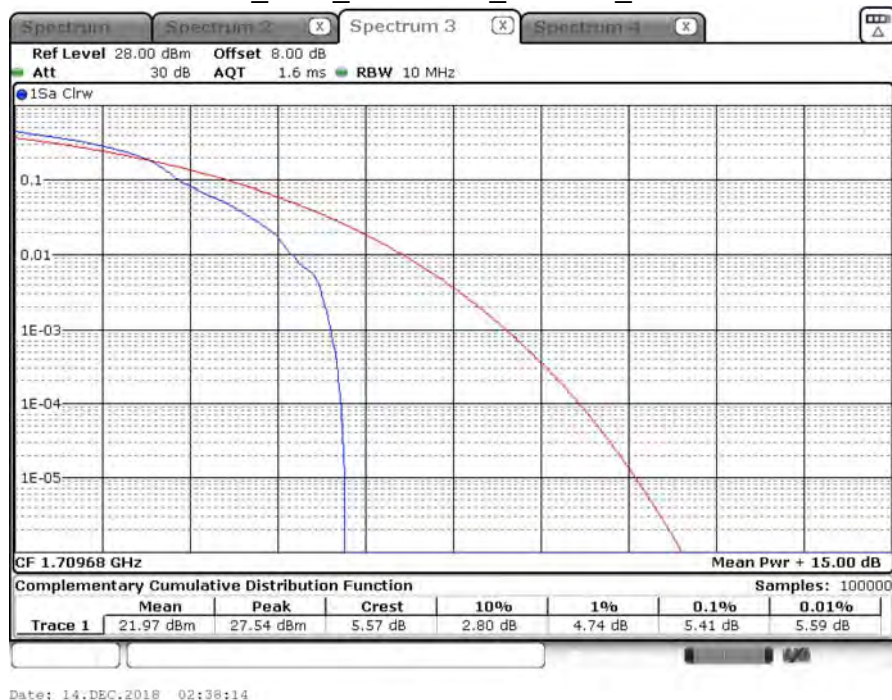


Product	Module		
Test Item	Peak To Average Ratio		
Test Mode	Mode 8: LTE Band 66		
Date of Test	2018/12/14	Test Site	SR10-H

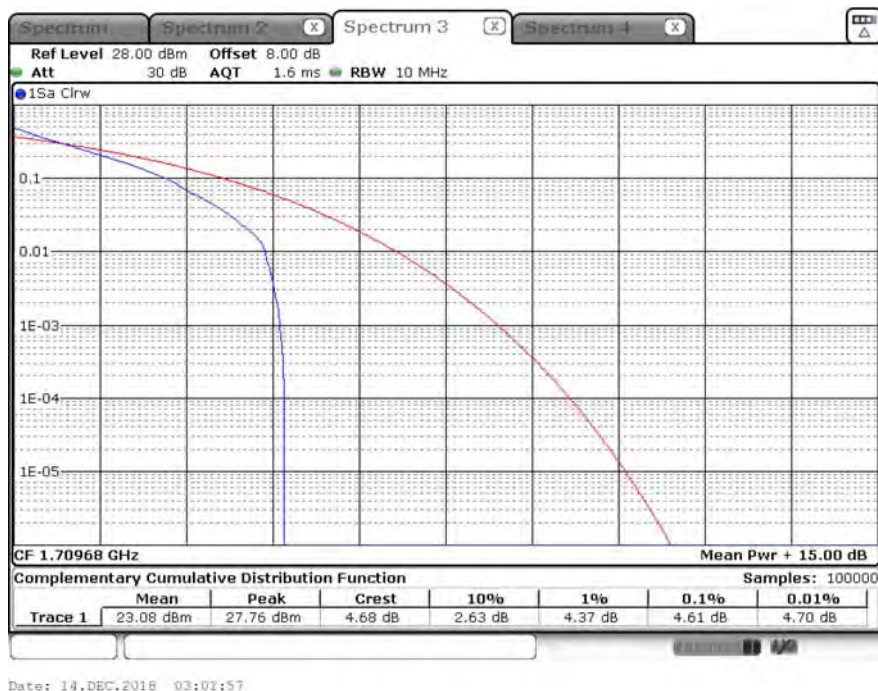
B66_1.4M_CH131979_QPSK_1RB0



B66_1.4M_CH131979_16-QAM_1RB0



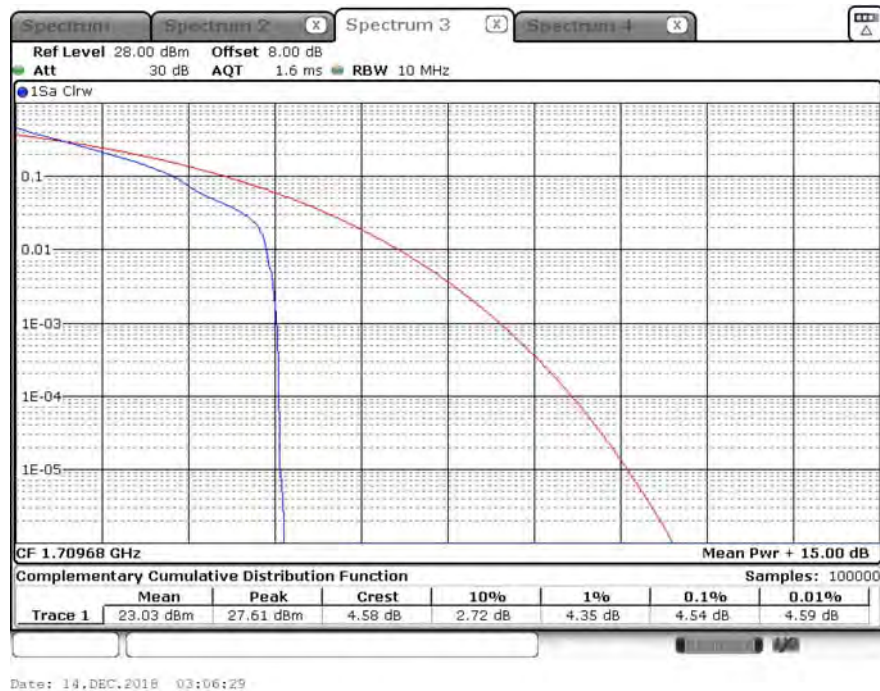
B66_3M_CH131987_QPSK_1RB0



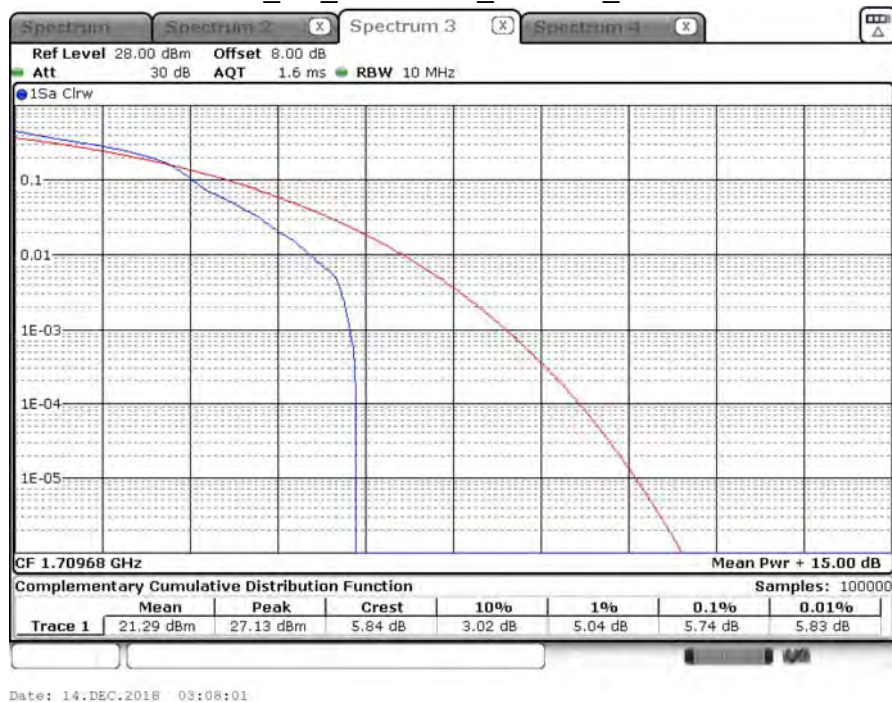
B66_3M_CH131987_16-QAM_1RB0



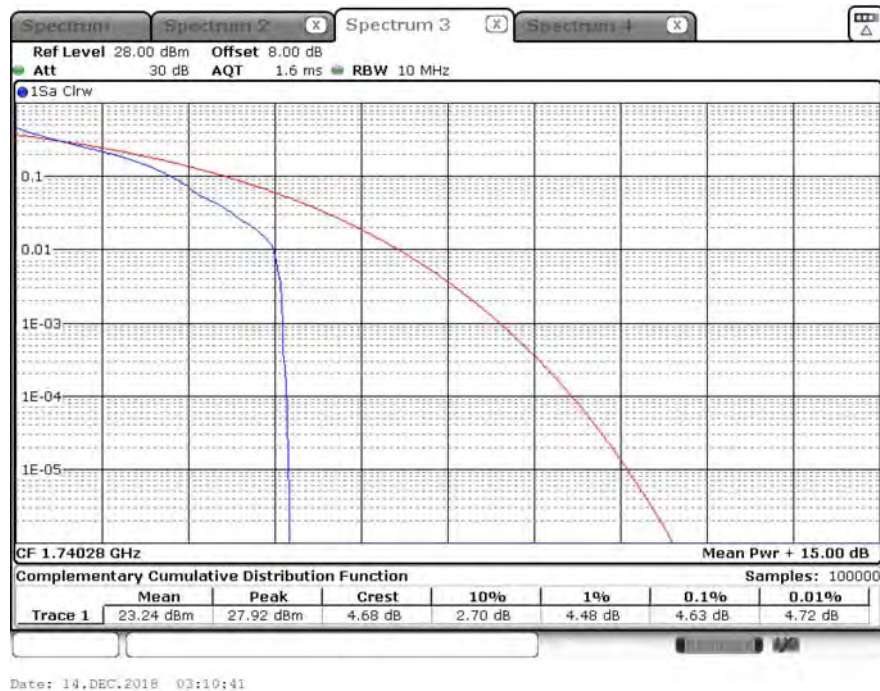
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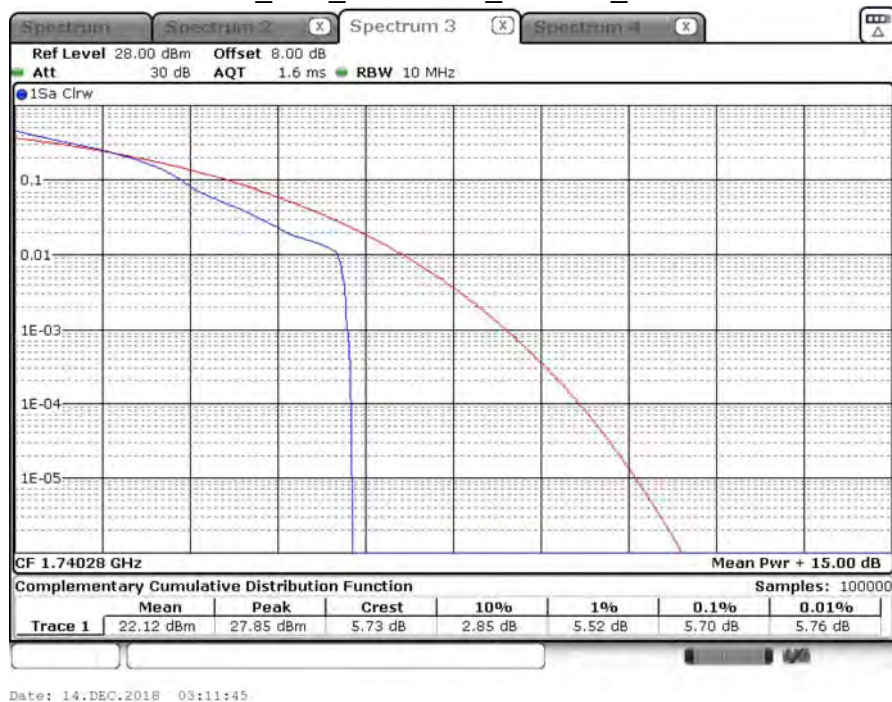
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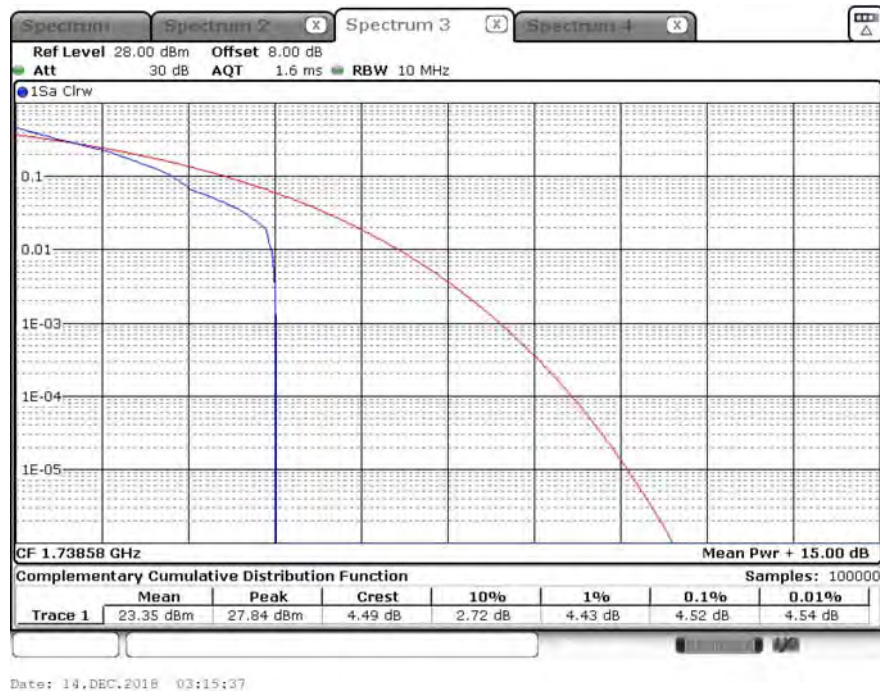
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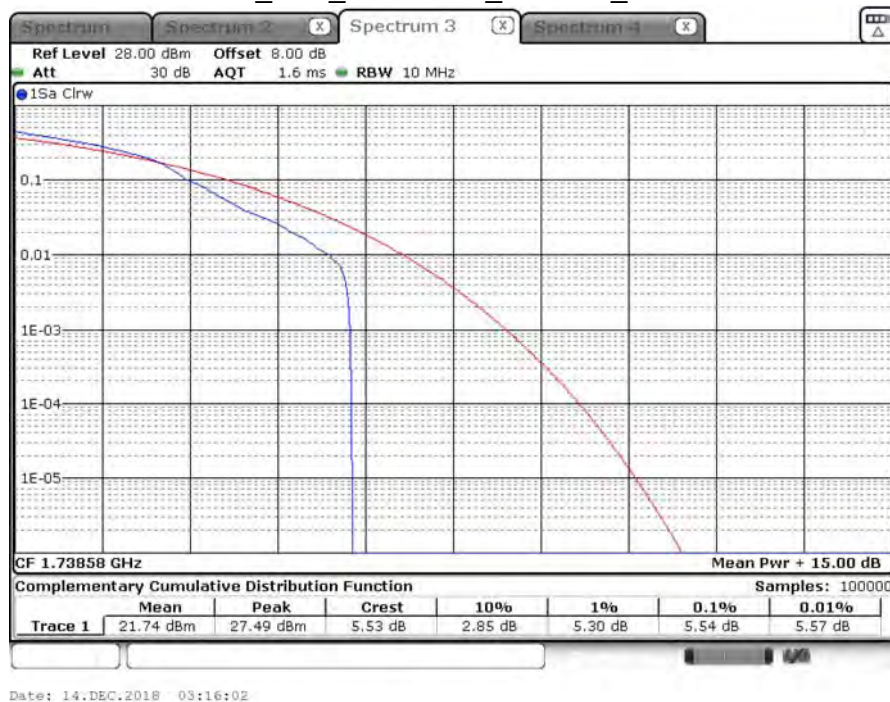
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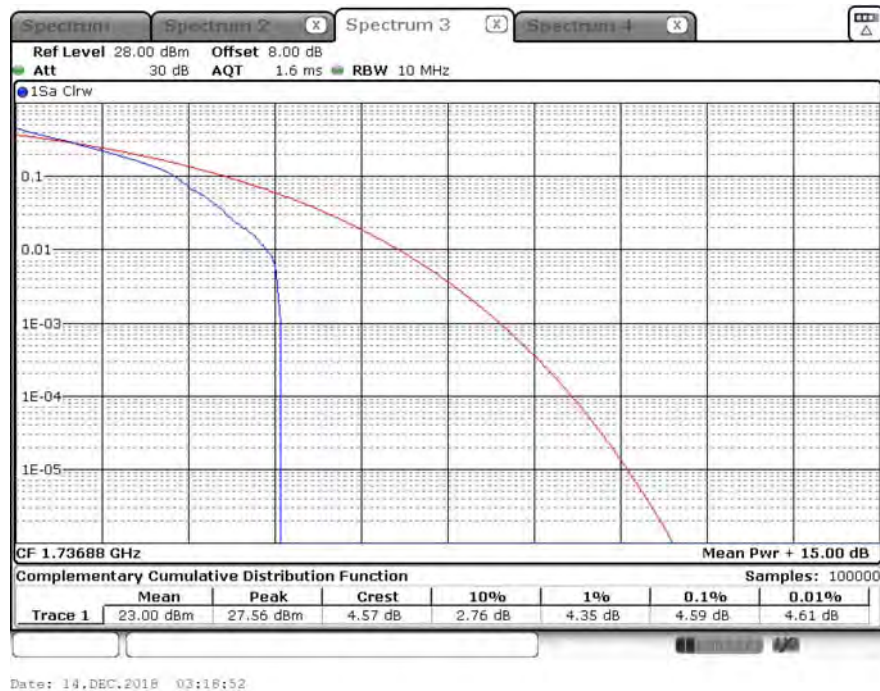
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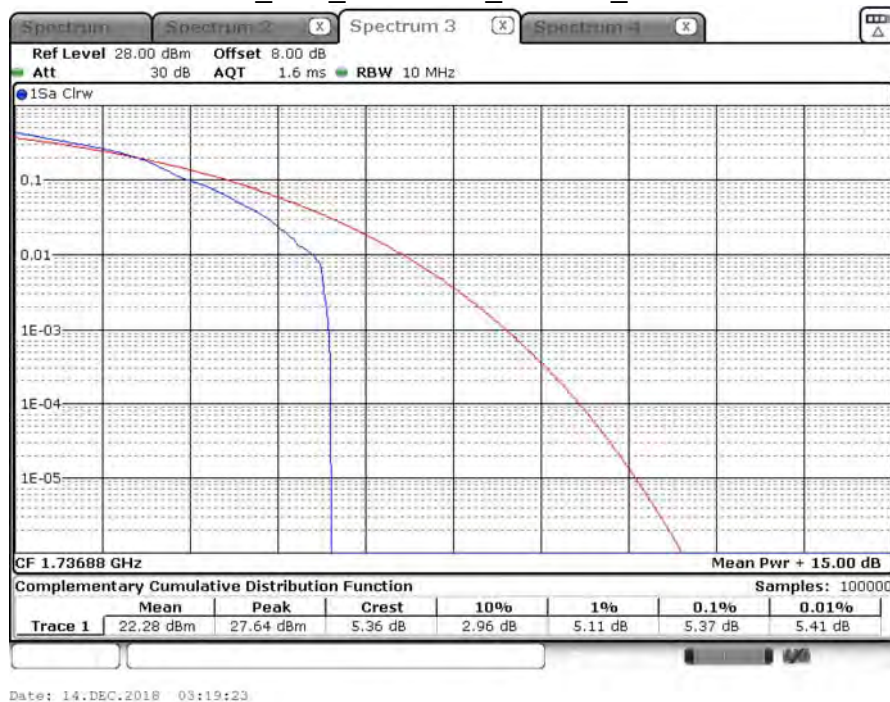
B66_15M_CH132322_16-QAM_1RB0



B66_20M_CH132322_QPSK_1RB0



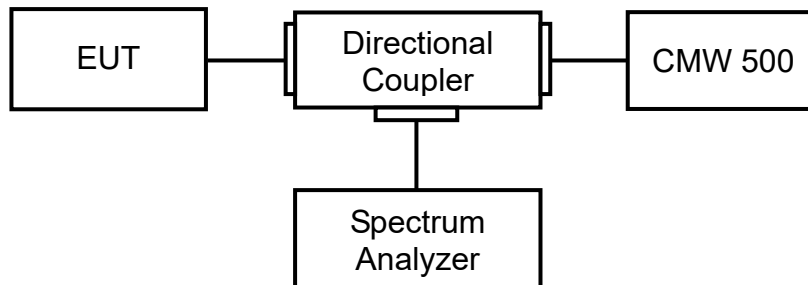
B66_20M_CH132072_16-QAM_1RB0



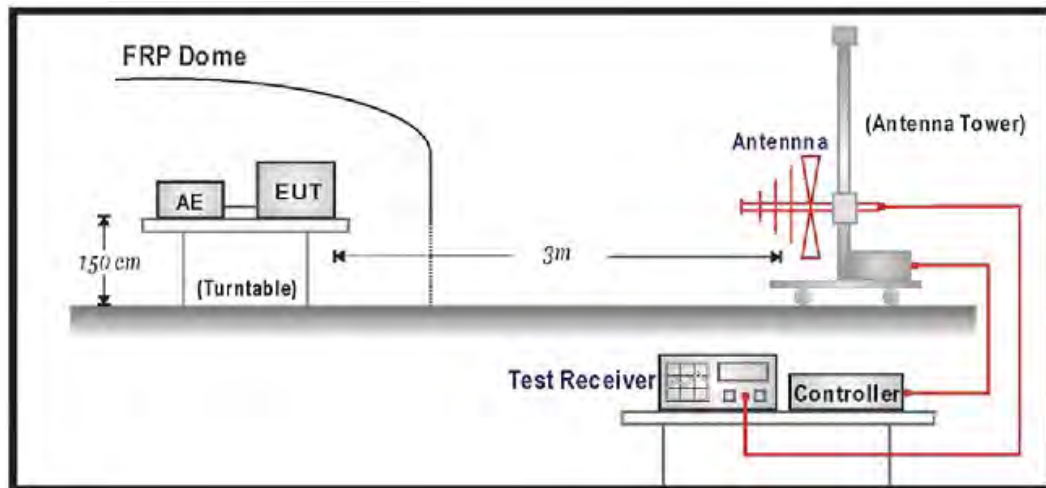
6. Spurious Emissions

6.1. Test Setup

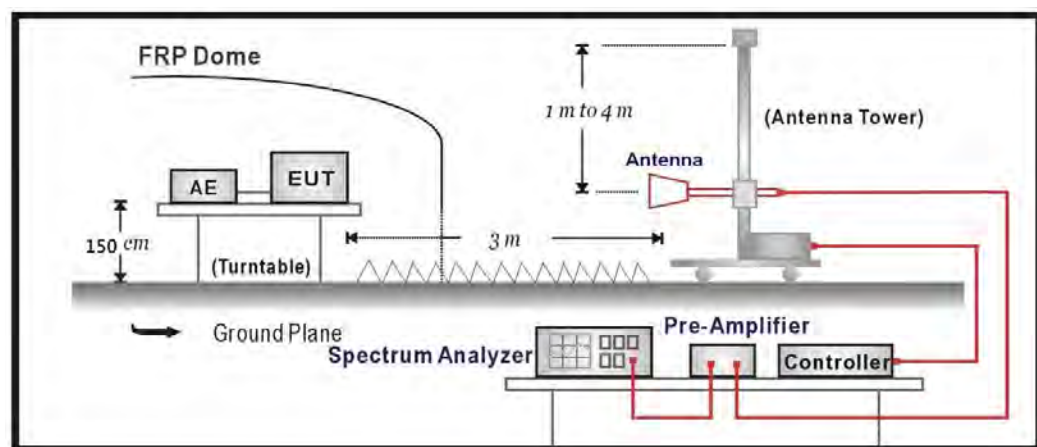
Conducted Spurious Measurement:



Radiated Spurious Measurement (below 1GHz)



Radiated Spurious Measurement (above 1GHz)



6.2. Test Procedure

Conducted Spurious Measurement:

- a) Place the EUT on a bench and set it in transmitting mode.
- b) Connect a low loss RF cable from the antenna port to a spectrum analyzer and CMW500 by a Directional Couple.
- c) EUT Communicate with CMW500, then select a channel for testing.
- d) Add a correction factor to the display of spectrum, and then test.
- e) The resolution bandwidth of the spectrum analyzer was set at 1 MHz, sufficient scans were taken to show the out of band Emission if any up to 10th harmonic.

Radiated Spurious Measurement:

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

6.3. Test Method

Conducted Spurious Measurement:

KDB 971168 D01 Power Meas License Digital Systems v03 sub-clause 6.1
ANSI C63.26: 2015 Sub-clause 5.7

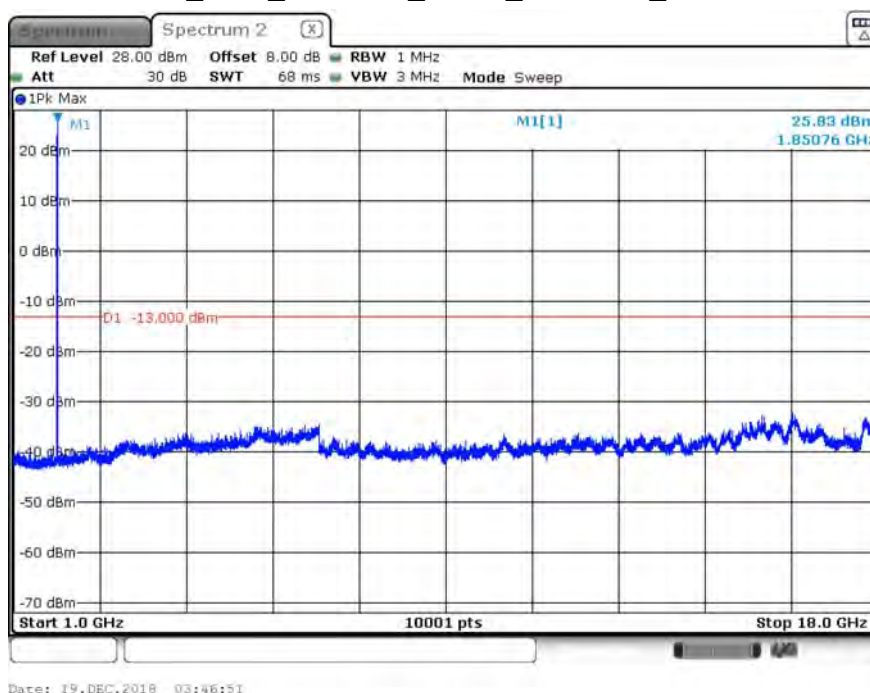
Radiated Spurious Measurement:

KDB 971168 D01 Power Meas License Digital Systems v03 sub-clause 5.8
ANSI C63.26: 2015 Sub-clause 5.5.3.2

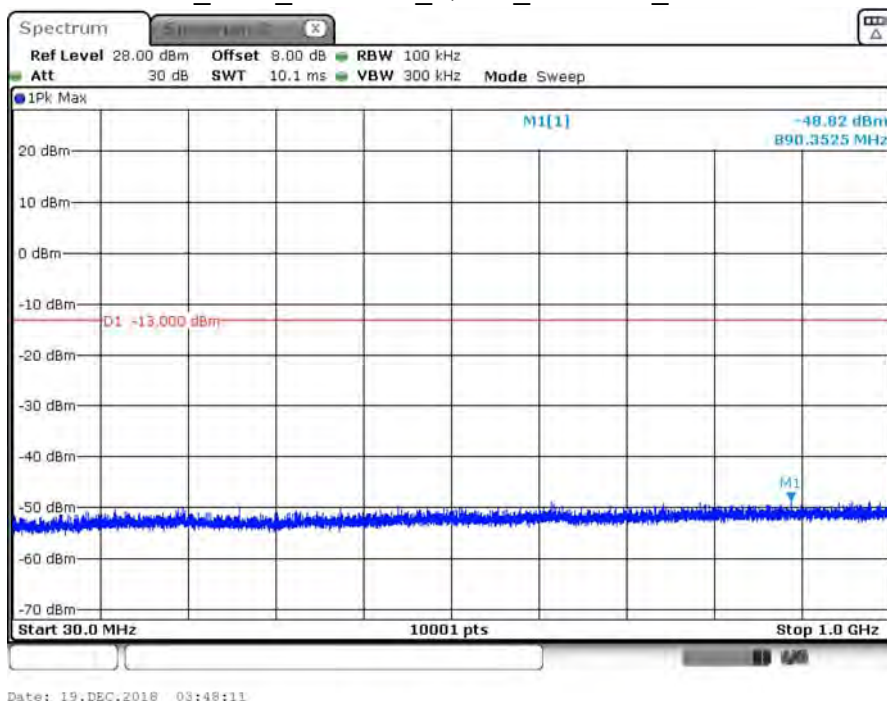
6.4. Test Result

Product	Module		
Test Item	Conducted Spurious Emissions		
Test Mode	Mode 1: LTE Band 2		
Date of Test	2018/12/19	Test Site	SR10-H

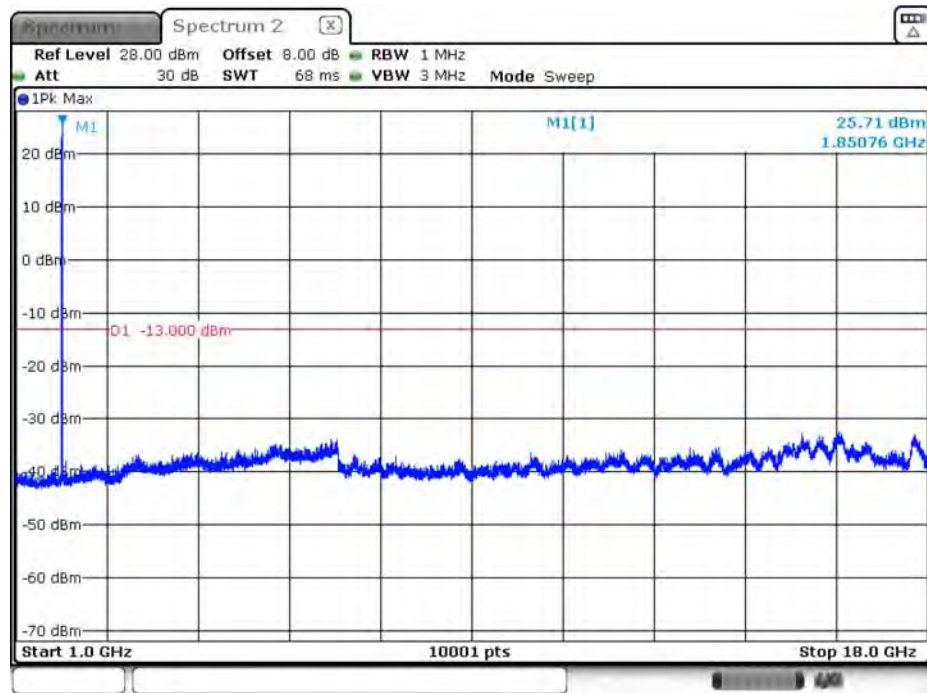
B2_1.4M_CH18607_QPSK_above 1G_1RB0



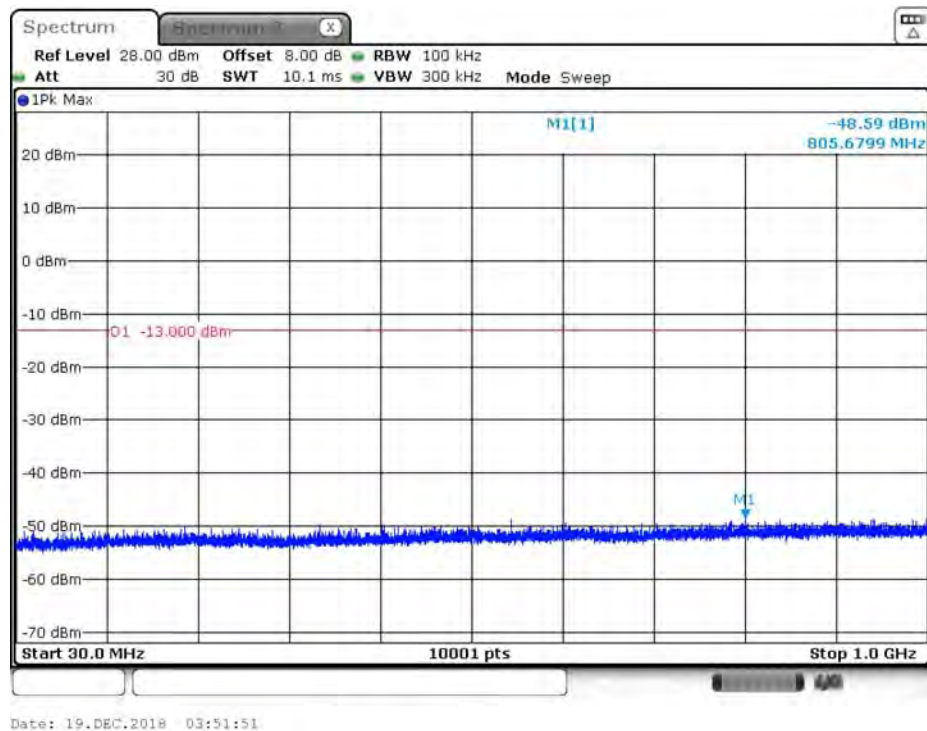
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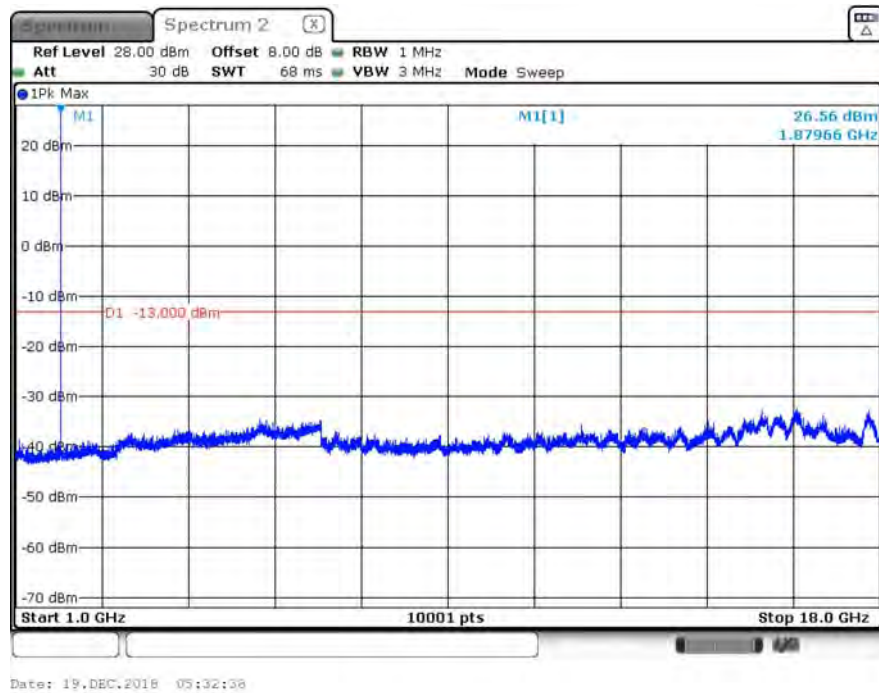
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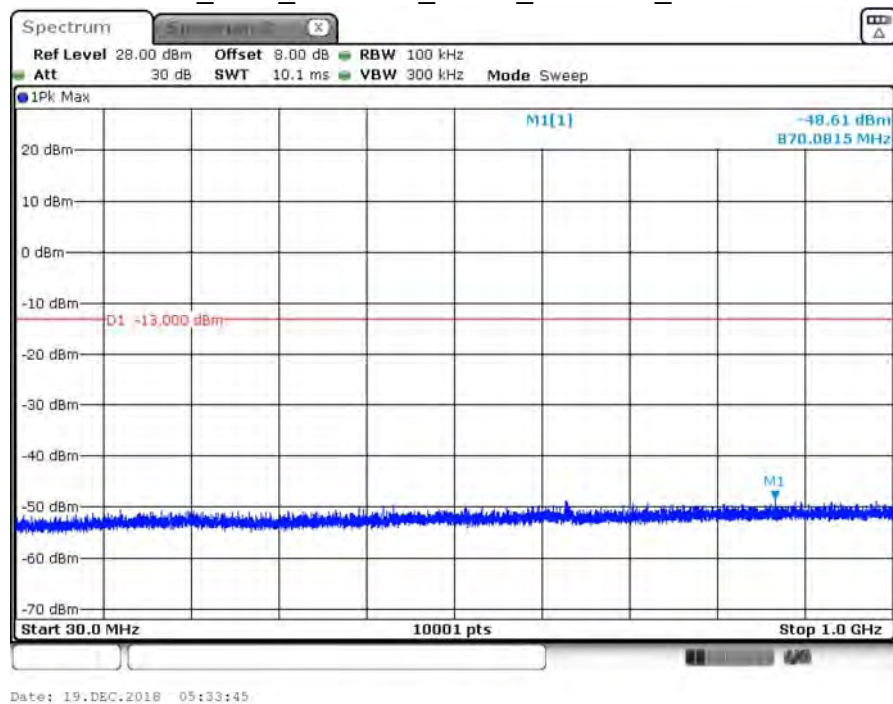
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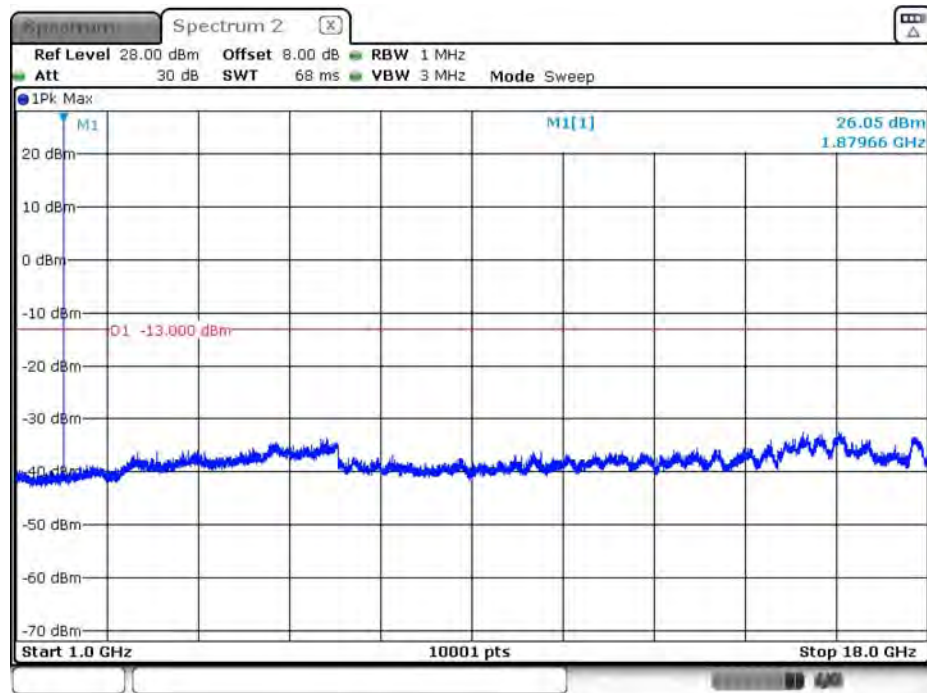
B2_1.4M_CH18900_QPSK_above 1G_1RB0



B2_1.4M_CH18900_QPSK_under 1G_1RB0

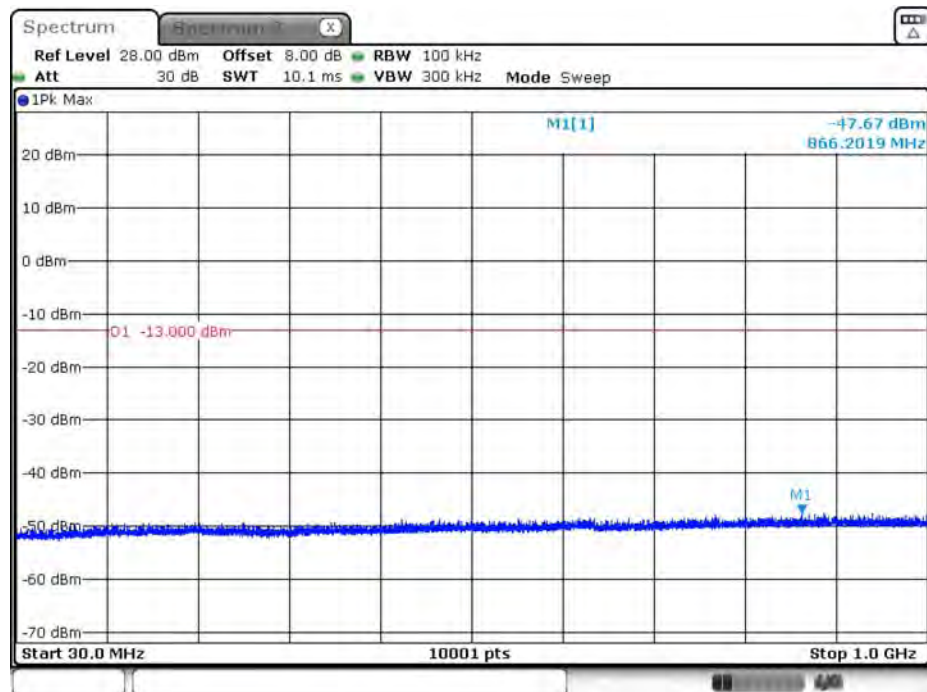


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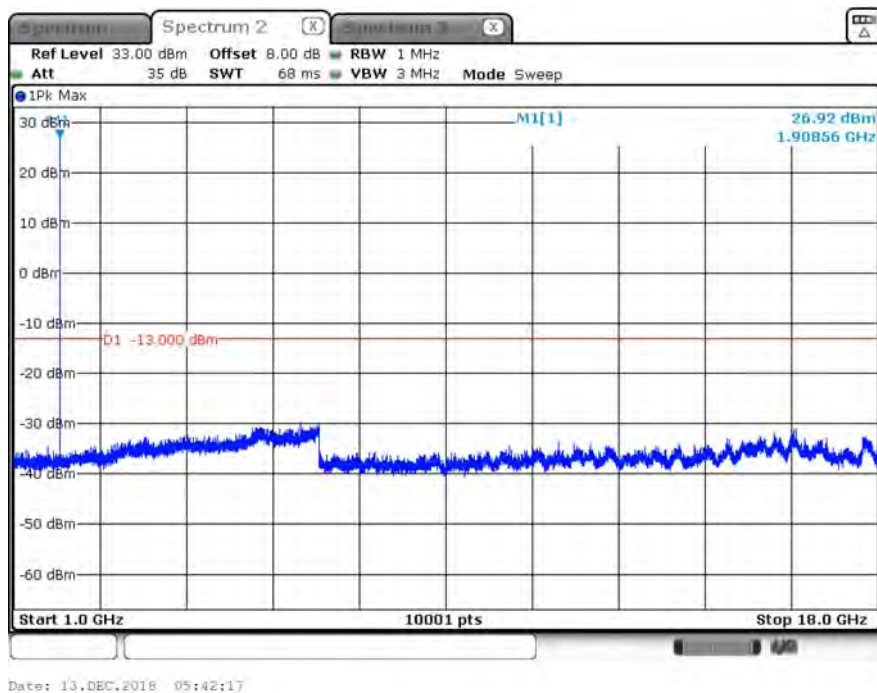
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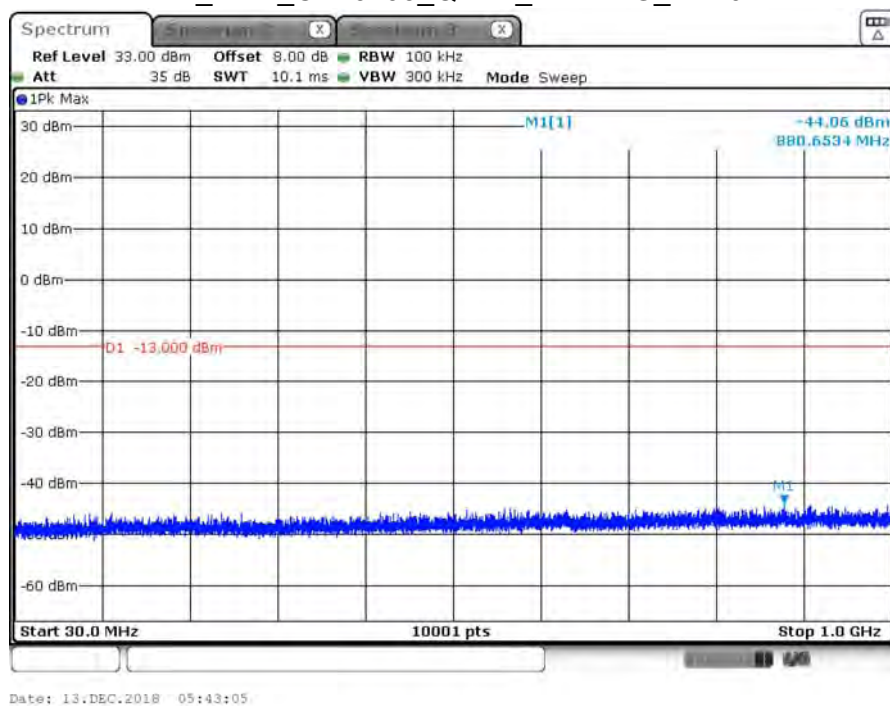


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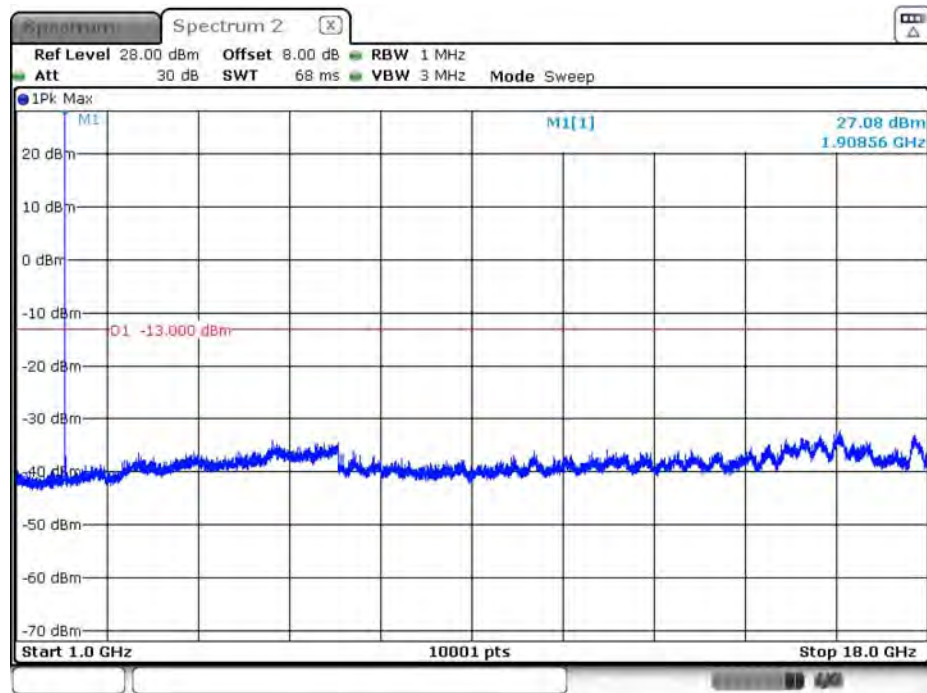
B2_1.4M_CH19193_QPSK_above 1G_1RB0



B2_1.4M_CH19193_QPSK_under 1G_1RB0

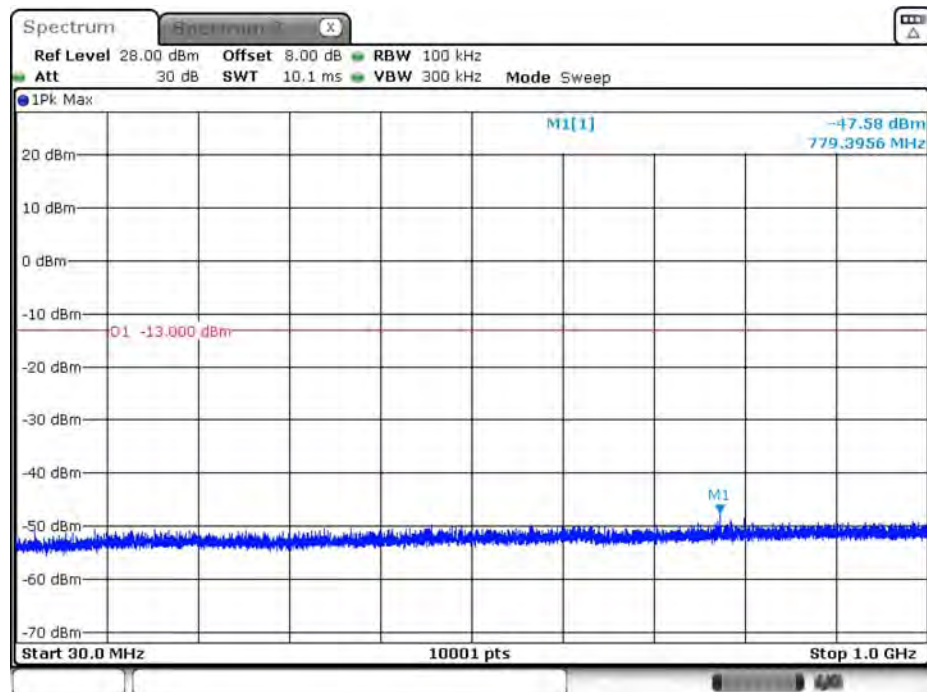


B2_1.4M_CH19193_16QAM_above 1G_1RB0



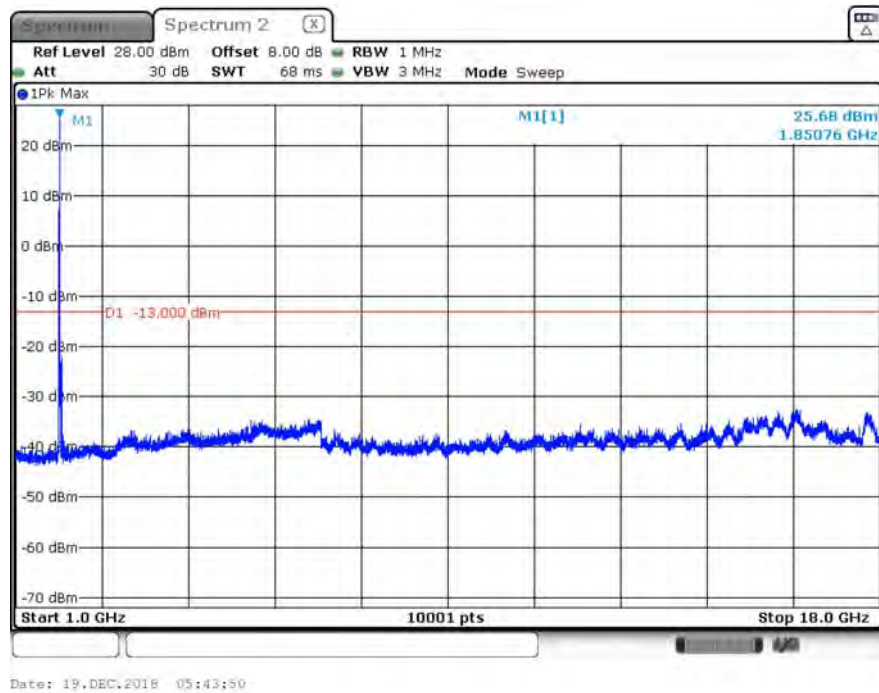
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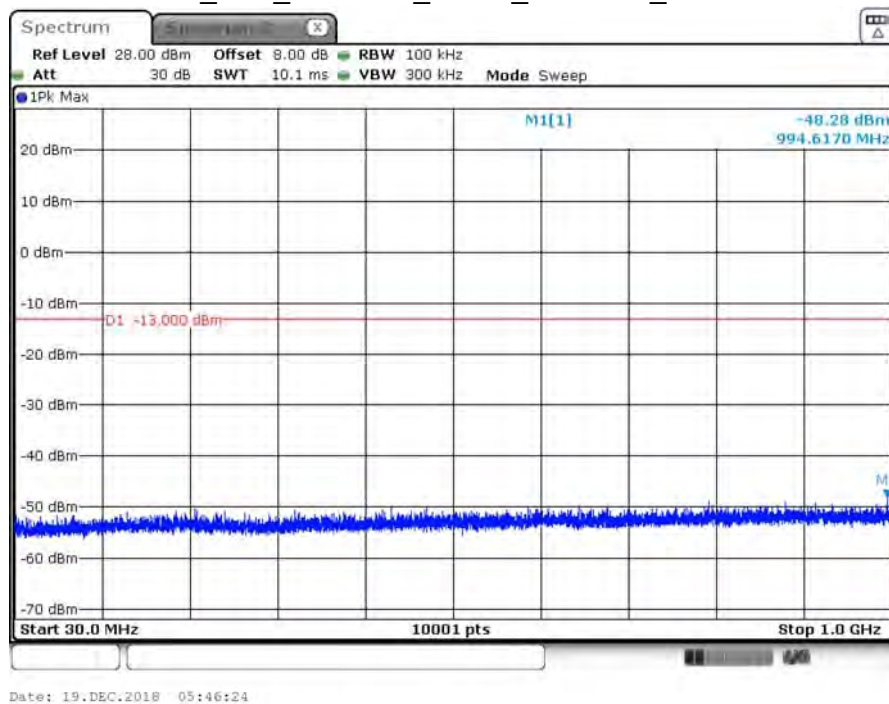


Date: 19.DEC.2018 03:57:15

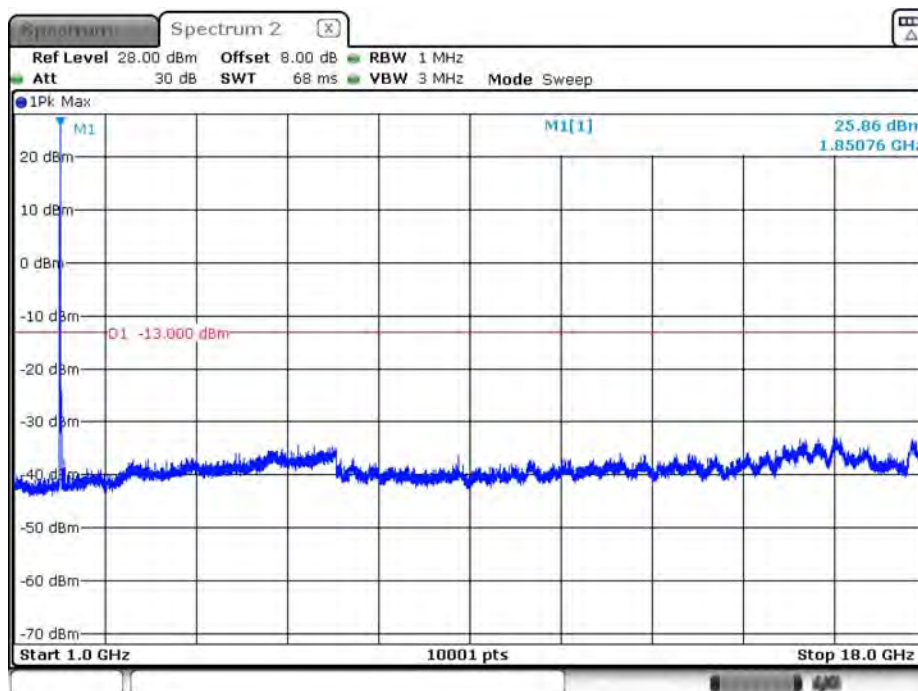
B2_20M_CH18700_QPSK_above 1G_1RB0



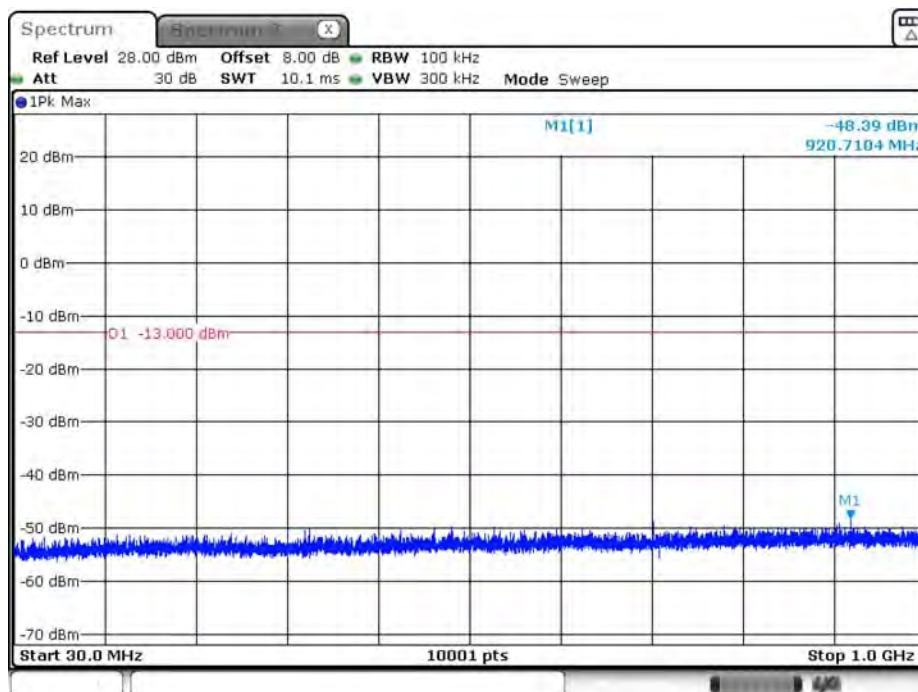
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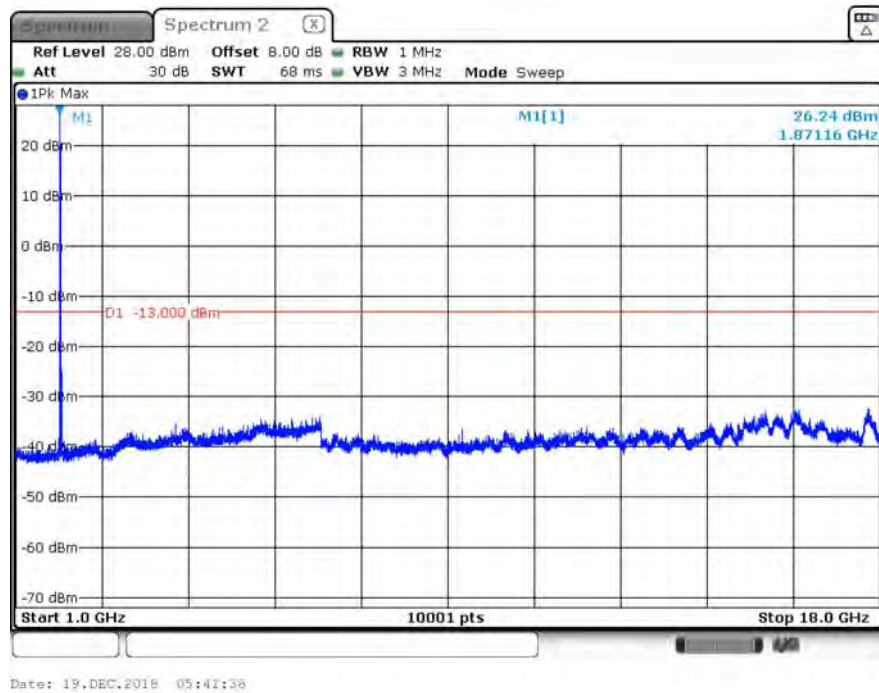
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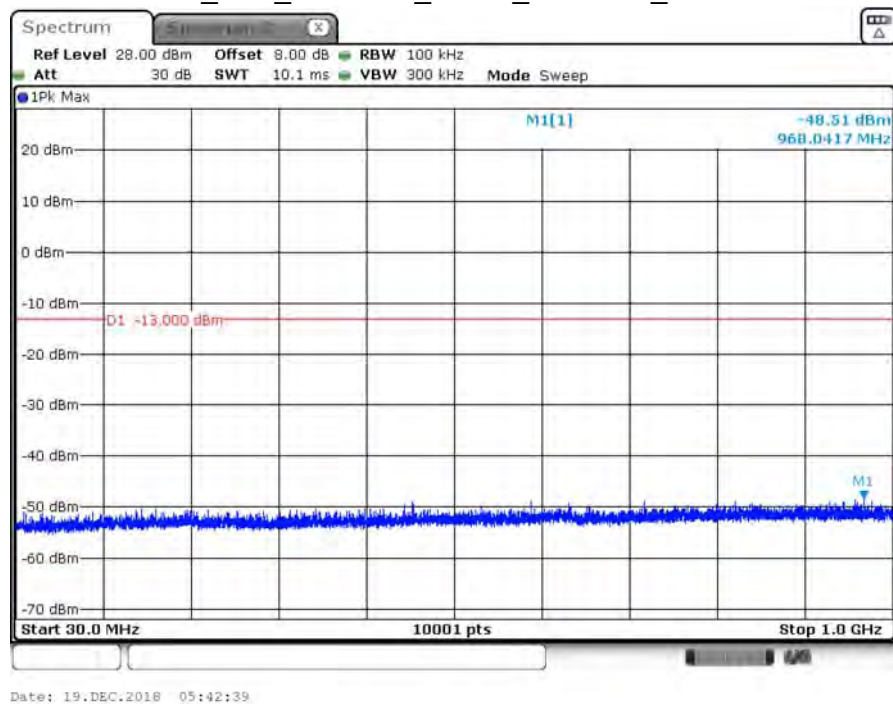
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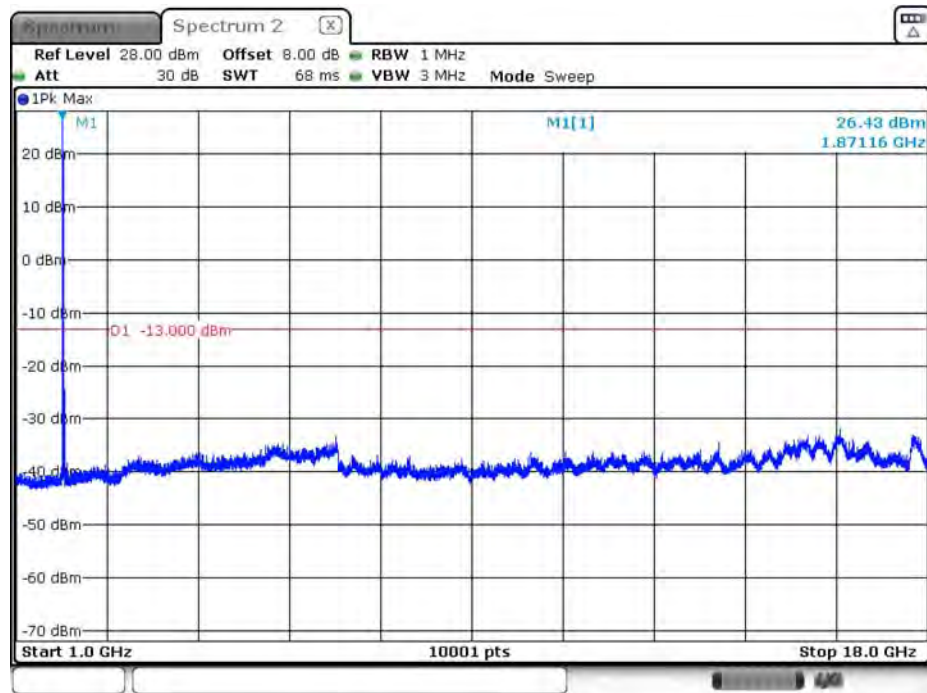
B2_20M_CH18900_QPSK_above 1G_1RB0



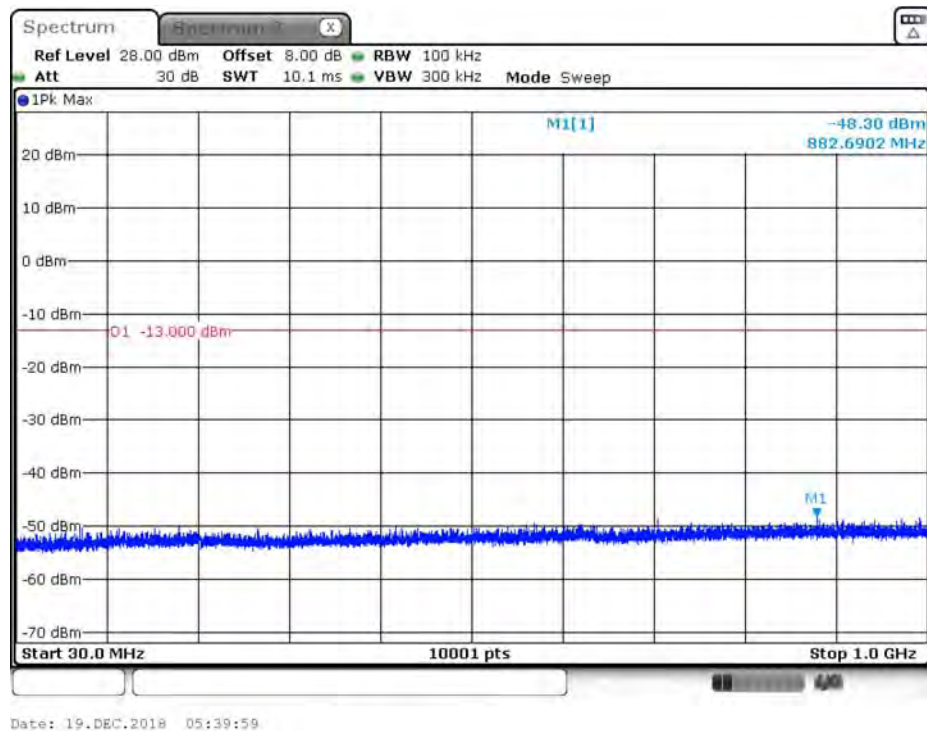
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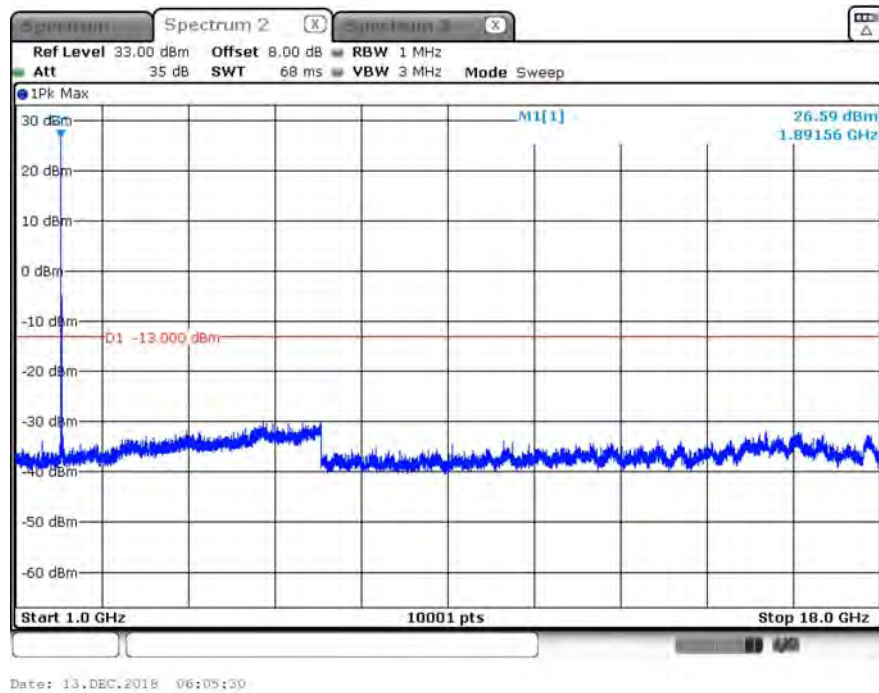
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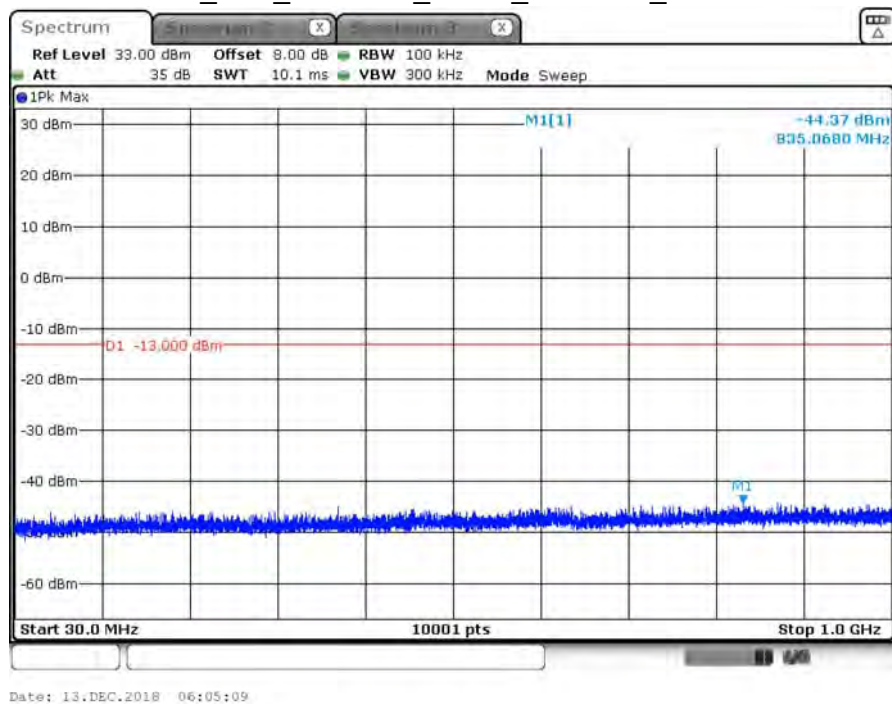
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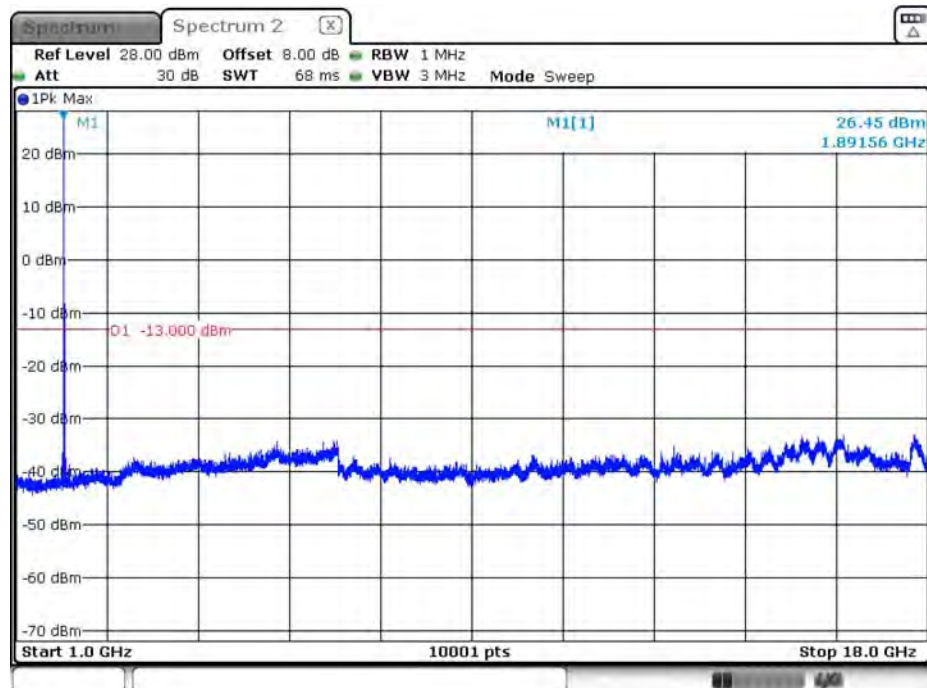
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B2_20M_CH19100_QPSK_under 1G_1RB0

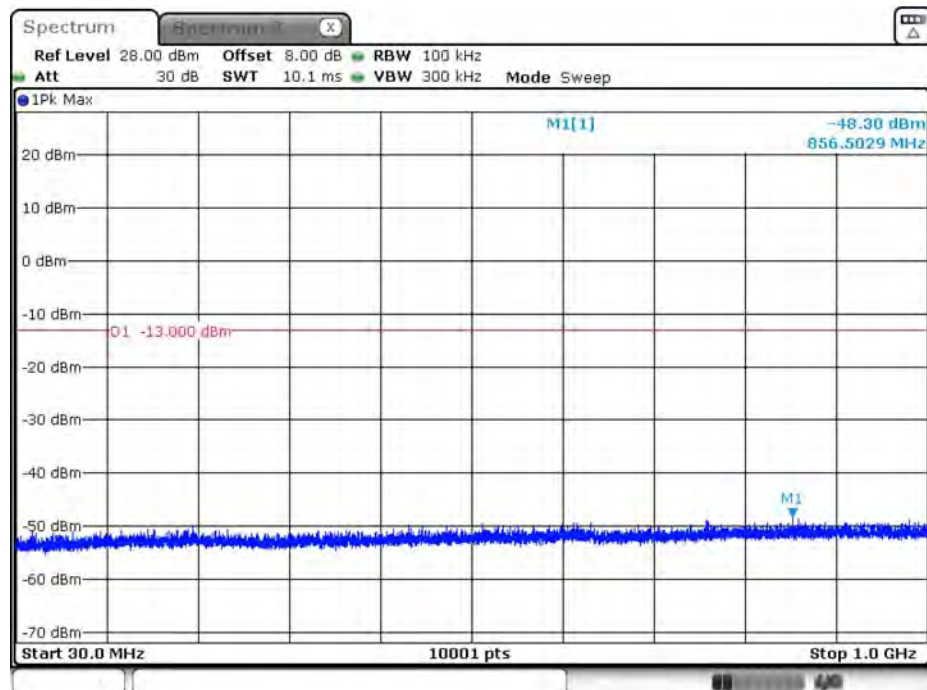


B2_20M_CH19100_16QAM_above 1G_1RB0



Date: 19.DEC.2018 05:35:30

B2_20M_CH19100_16QAM_under 1G_1RB0



Date: 19.DEC.2018 05:36:56