

TEST REPORT

REPORT NUMBER: B18W50495-WWAN

ON

Type of Equipment: LTE Wireless Module
Model Name: BM818
Manufacturer: Top wise communication Co., Ltd

ACCORDING TO

FCC CFR Part 2, FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS;

PART 22, PUBLIC MOBILE SERVICES;

PART 24, PERSONAL COMMUNICATIONS SERVICES;

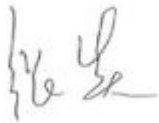
PART 27, MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES.

Chongqing Academy of Information and Communications Technology

Month date, year

Nov, 20, 2018

Signature



Zhang Yan

Director

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of Chongqing Academy of Information and Communications Technology.

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Report No.:B18W50495-WWAN

Revision Version

Report Number	Revision	Date	Memo
B18W50495	V1.0	2018-11-20	--

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

FCC ID: 2AON8-BM818

Report Date: 2018-11-20

Test Firm Name: Chongqing Academy of Information and
Communications Technology

FCC Registration Number: CN1239

Statement

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported tests were carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Parts 2, 22, 24, 27, The sample tested was found to comply with the requirements defined in the applied rules.

CONTENTS

1 GENERAL INFORMATION 4

1.1 NOTES 4

1.2 TESTERS 5

1.3 TESTING LABORATORY INFORMATION 6

1.4 DETAILS OF APPLICANT OR MANUFACTURER 7

2 TEST ITEM 8

2.1 GENERAL INFORMATION 8

2.2 OUTLINE OF EQUIPMENT UNDER TEST 8

2.3 MODIFICATIONS INCORPORATED IN EUT 9

2.4 EQUIPMENT CONFIGURATION 9

2.5 OTHER INFORMATION 9

3 SUMMARY OF TEST RESULTS 10

4 TEST EQUIPMENTS AND ANCILLARIES USED FOR TESTS 11

5 TEST RESULTS 12

5.1 CONDUCTED RF POWER OUTPUT 12

5.2 OCCUPIED BANDWIDTH 39

5.3 CONDUCTED SPURIOUS EMISSION 104

5.4 RADIATED SPURIOUS EMISSION 154

5.5 BAND EDGE 181

5.6 FREQUENCY STABILITY OVER TEMPERATURE VARIATION 278

5.7 FREQUENCY STABILITY OVER VOLTAGE VARIATION 281

5.8 PEAK TO AVERAGE RATIO 284

5.9 ERP AND EIRP 296

ANNEX A EUT PHOTOS 302

ANNEX B DEVIATIONS FROM PRESCRIBED TEST METHODS 303

31 General Information

1.1 Notes

All reported tests were carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Parts 2, 22, 24, 27.

The test results of this test report relate exclusively to the item(s) tested as specified in section 2.

The following deviation from, additions to, or exclusions from the test specifications have been made. See Annex B.

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1.2 Testers

Name: Bao Cheng
Position: Engineer
Department: Department of RF test
Date: 2018-10-10 to 2018-11-20

Signature:



Editor of this test report:

Name: Chen Wen
Position: Engineer
Department: Department of RF test
Date: 2018-11-20

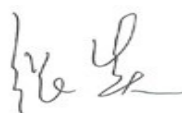
Signature:



Technical responsibility for area of testing:

Name: Zhang Yan
Position: Manager
Department: Director of the laboratory
Date: 2018-11-20

Signature:



Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

1.3 Testing Laboratory information

1.3.1 Location

Name: Chongqing Academy of Information and Communications Technology

Address: Building B, Technology Innovation Center, No.8, Yuma Road, Chayuan New Area, Nan'an District, Chongqing, People's Republic of China, 401336

Tel: +86-23-88069965

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1.3.2 Test location, where different from section 1.3.1

Name: -----

Street: -----

City: -----

Country: -----

Telephone: -----

Fax: -----

Postcode: -----

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

1.4 Details of applicant or manufacturer

1.4.1 Applicant

Name: Shanghai BroadMobi Communication Technology Co., Ltd.
Address: 15F,Building9,No99.Tianzhou Rd., Xuhui District, Shanghai,
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1.4.2 Manufacturer (if different from applicant in section 1.4.1)

Name: Top wise communication Co., Ltd
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2 Test Item

2.1 General Information

Manufacturer: Top wise communication Co., Ltd
 Type of Equipment: LTE Wireless Module
 Model Name: BM818
 Production Status: Product
 Hardware Version: M100_2.0
 Software Version: M1.0.7_E1.0.1_R1.0.1
 Receipt date of test item: 2018-10-09

2.2 Outline of Equipment under Test

The BM818, referred to as “EUT” hereafter, is a multi-Band wireless module operating on the GSM/WCDMA/LTE networks. The table below shows the supported Bands for the EUT.

Technology	Band	UL Freq.(MHz)	DL Freq.(MHz)	Note
GSM	GSM850	824 – 849	869 – 894	--
	PCS1900	1850 – 1910	1930 – 1990	--
WCDMA	B2	1850 – 1910	1930 – 1990	--
	B4	1710 – 1755	2110 – 2155	--
	B5	824 – 849	869 – 894	--
LTE	B2	1850 – 1910	1930 – 1990	--
	B4	1710 – 1755	2110 – 2155	--
	B5	824 – 849	869 – 894	--
	B12	699 – 716	729 – 746	--
	B13	777 - 787	746 - 756	--
	B17	704 – 716	734 – 746	Covered by Band12 (Band17 is a subset of Band12. Both Bands share the same hardware and have the same radio performance. Separate measurement in Band17 is not required.)

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

2.3 Modifications Incorporated in EUT

The EUT has not been modified from what is described by the brand name and unique type identification stated above.

2.4 Equipment Configuration

Equipment configuration list:

Item	Generic Description	Manufacturer	Type	Serial No.	Remarks
A	Modules	Top wise ommunication Co., Ltd	BM818	863424030965642	None
B	Modules	Top wise ommunication Co., Ltd	BM818	863424030965758	None

2.5 Other Information

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3 Summary of Test Results

A brief summary of the tests carried out is shown as following.

FCC Rules	Name of Test	Result
2.1046, 22.913(a) 24.232(c), 27.50	Conducted RF Power Output	Pass
2.1049, 22.917(b), 24.238(b)	Occupied Bandwidth	*Note 1
2.1051, 2.1053 22.917, 24.238 27.53	Conducted spurious emissions	Pass
2.1051, 2.1053 22.917, 24.238 27.53	Radiated Spurious Emission	Pass
2.1051, 2.1053 22.917, 24.238 27.53	Band Edge	Pass
2.1055, 22.355 24.235, 27.54	Frequency Stability over Temperature Variation	Pass
2.1055, 22.355 24.235, 27.54	Frequency Stability over Voltage Variation	Pass
24.232, 27.50	Peak to Average Ratio	Pass
22.913(a), 24.232(b)	ERP and EIRP	Pass
Note 1: No applicable performance criteria.		

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

4 Test Equipments and Ancillaries Used For Tests

The test equipments and ancillaries used are as follows.

No.	Equipment	Model	SN	Manufacture	Cal. Due Date
1	EMI Test Receiver	ESU26	100367	R&S	2019-03-02
2	Trilog super broadBand test antenna	VULB 9163	9163-544	R&S	2018-11-30
3	Double-Ridged Horn Antenna	HF907	100356	R&S	2018-11-30
4	Fully-Anechoic Chamber	11.8m×6.5m×6.3m	--	ETS	2019-10-23
5	Universal Radio Communication Tester	CMW500	152395	R&S	2019-03-02
6	Signal Generator	SMU200A	104517	R&S	2019-03-02
7	spectrum analyzer	FSQ 26	201137/026	R&S	2019-03-02
8	spectrum analyzer	N9020A	MY50200376	Agilent	2019-03-02
9	Universal Radio Communication Tester	CMU200	112012	R&S	2019-03-02
10	Climate chamber	SH-241	92010759	ESPEC	2019-03-02
11	DC Power Supply	N6705B	MY50000919	Agilent	2019-12-05

5 Test Results

5.1 Conducted RF Power Output

Specifications:	FCC Part 2.1046, 22.913(a), 24.232(c), 27.50
DUT Serial Number:	S3: 863424030965642
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Limit Level Construction:

According to Part 22.913(a), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

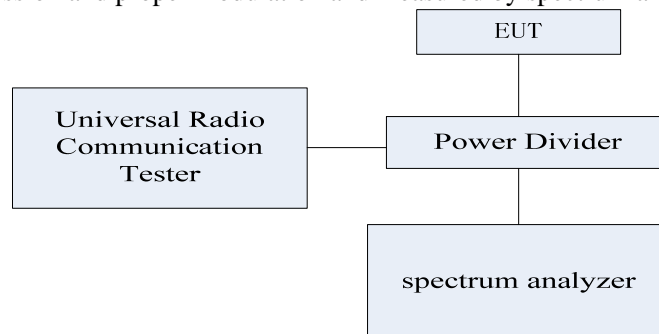
According to Part24.232(c), mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

According to Part 27.50(c), portable stations (hand-held devices) in the 600 MHz uplink Band and the 698-746 MHz Band, and fixed and mobile stations in the 600 MHz uplink Band are limited to 3 watts ERP.

According to Part 27.50(d), fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz Band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz Bands are limited to 1 watt EIRP.

Test Setup:

During the test, the EUT was controlled via the Wireless Telecommunications Test Set to ensure max power transmission and proper modulation and measured by spectrum analyzer.



Test Method:

Method of measurements please refer to KDB971168 D01 v03 clause 5.

1) The EUT was coupled to the spectrum analyzer and the Wireless Telecommunications Test Set through a power divider. The loss of the RF cables of the test system is calibrated to correct the readings.

2) For RMS power test, the spectrum analyzer was set to RMS Detector function and Maximum hold mode.

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

3) For Peak power test, the spectrum analyzer was set to Maxpeak Detector function and Maximum hold mode.

4) The resolution Bandwidth of the spectrum analyzer was comparable to the emission Bandwidth.

Note: --

5.1.1 GSM850 Conducted RF Power Output Results

GSM GMSK Mode:

Channel No.	Maximum output power(pk) [dBm]
128 (824.2MHz)	34.1
190 (836.6MHz)	34.0
251 (848.8MHz)	34.0

GPRS GMSK Mode:

Channel No.	Maximum output power(pk) [dBm]			
	1TS	2TS	3TS	4TS
128 (824.2MHz)	34.1	32.3	30.5	29.2
190 (836.6MHz)	33.8	32.0	30.5	29.5
251 (848.8MHz)	33.8	32.2	30.8	29.4

EGPRS GMSK Mode

Channel No.	Maximum output power(pk) [dBm]			
	1TS	2TS	3TS	4TS
128 (824.2MHz)	34.0	32.2	30.8	29.4
190 (836.6MHz)	33.8	32.1	30.7	29.3
251 (848.8MHz)	33.9	32.3	30.7	29.5

EGPRS 8PSK Mode

Channel No.	Maximum output power(pk) [dBm]			
	1TS	2TS	3TS	4TS
128 (824.2MHz)	27.3	25.5	24.5	23.3
190 (836.6MHz)	27.4	25.6	24.5	23.3
251	27.4	25.6	24.5	23.4

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

(848.8MHz)				
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5.1.2 PCS1900 Conducted RF Power Output Results

GSM GMSK Mode:

Channel No.	Maximum output power(pk) [dBm]
512 (1850.2MHz)	29.7
661 (1880.0MHz)	29.7
810 (1909.8MHz)	29.9

GPRS GMSK Mode

Channel No.	Maximum output power(pk) [dBm]			
	1TS	2TS	3TS	4TS
512 (1850.2MHz)	29.8	28.5	27.1	25.8
661 (1880.0MHz)	30.0	28.4	27.3	26.0
810 (1909.8MHz)	29.8	28.5	27.2	26.0

EGPRS GMSK Mode

Channel No.	Maximum output power(pk) [dBm]			
	1TS	2TS	3TS	4TS
512 (1850.2MHz)	29.8	28.6	27.2	25.8
661 (1880.0MHz)	30.0	28.4	27.2	26.0
810 (1909.8MHz)	29.8	28.9	27.7	26.5

EGPRS 8PSK Mode

Channel No.	Maximum output power(pk) [dBm]			
	1TS	2TS	3TS	4TS
512 (1850.2MHz)	25.3	24.1	23.1	22.0
661 (1880.0MHz)	25.4	24.2	23.1	22.1
810 (1909.8MHz)	25.7	24.5	23.5	22.3

5.1.3 WCDMA Band2 Conducted RF Power Output Results

		Maximum output power(pk) [dBm]			Maximum output power(RMS) [dBm]		
Mode	3GPP Subtest	9262	9400	9538	9262	9400	9538
RMC	--	26.03	26.27	26.18	23.41	23.46	23.38
HSDPA	1	25.50	25.63	25.54	22.44	22.49	22.50
	2	25.35	25.84	25.77	22.61	22.55	22.51
	3	24.86	25.28	25.33	22.06	22.10	22.01
	4	24.91	25.56	25.56	22.15	22.08	22.02
HSUPA	1	25.21	25.32	25.54	21.71	21.74	22.34
	2	25.34	25.48	25.64	21.48	21.25	21.33
	3	25.15	25.68	25.84	21.13	21.40	21.00
	4	25.46	25.16	25.31	21.58	21.82	21.53
	5	25.84	25.92	25.85	22.33	22.35	22.57

5.1.4 WCDMA Band4 Conducted RF Power Output Results

		Maximum output power(pk) [dBm]			Maximum output power(RMS) [dBm]		
Mode	3GPP Subtest	1312	1412	1512	1312	1412	1512
RMC	--	26.34	26.45	26.16	23.64	23.60	23.76
HSDPA	1	25.84	25.92	25.86	22.83	22.79	22.95
	2	25.51	25.44	25.16	22.97	22.83	22.96
	3	24.45	25.66	24.98	22.39	22.44	22.37
	4	25.74	25.15	25.64	22.49	22.34	22.38
HSUPA	1	25.39	25.45	24.95	22.43	22.04	22.58
	2	25.48	24.79	25.64	21.33	21.33	21.34
	3	25.54	25.64	25.31	21.78	20.91	21.84
	4	25.45	25.64	25.34	22.26	22.26	21.68
	5	25.95	26.15	26.78	22.72	22.84	22.69

5.1.5 WCDMA Band5 Conducted RF Power Output Results

Mode	3GPP Subtest	Maximum output power(pk) [dBm]			Maximum output power(RMS) [dBm]		
		4132	4182	4233	4132	4182	4233
RMC	--	26.35	26.16	26.64	23.23	23.31	23.22
HSDPA	1	25.41	25.97	24.98	22.28	22.37	22.29
	2	25.64	25.67	25.38	22.38	22.34	22.26
	3	25.64	25.64	25.64	21.74	21.85	21.77
	4	25.46	25.78	25.48	21.78	21.84	21.78
HSUPA	1	25.97	25.79	25.49	21.89	21.82	21.44
	2	25.68	24.98	25.18	20.72	20.79	21.09
	3	25.48	25.47	25.49	21.01	21.08	21.30
	4	25.49	25.54	25.19	21.52	21.61	21.26
	5	25.77	25.58	25.94	22.16	22.31	22.12

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

5.1.6 LTE B2 Conducted RF Power Output Results

Test Data (1.4MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
18607	1850.7	1	0	QPSK	23.83	27.28	3.45
		1	2		24.00	27.29	3.29
		1	5		23.96	27.28	3.32
		6	0		23.00	27.53	4.53
		1	0	16QAM	22.63	27.04	4.41
		1	2		22.55	26.98	4.43
		1	5		22.60	27.02	4.42
		6	0		21.80	27.35	5.55
18900	1880	1	0	QPSK	24.29	27.74	3.45
		1	2		24.46	27.64	3.18
		1	5		24.57	27.68	3.11
		6	0		23.13	28.04	4.91
		1	0	16QAM	22.79	27.45	4.66
		1	2		22.78	27.73	4.95
		1	5		22.83	27.48	4.65
		6	0		22.26	27.86	5.60
19193	1909.3	1	0	QPSK	24.18	26.82	2.64
		1	2		24.14	26.49	2.35
		1	5		23.95	26.44	2.49
		6	0		23.28	27.26	3.98
		1	0	16QAM	23.73	26.77	3.04
		1	2		23.60	26.53	2.93
		1	5		23.53	26.56	3.03
		6	0		22.67	27.19	4.52

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (3MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
18615	1851.5	1	0	QPSK	23.88	27.22	3.34
		1	8		24.04	27.26	3.22
		1	15		23.90	27.35	3.45
		15	0		23.06	27.86	4.80
		1	0	16QAM	23.68	27.18	3.50
		1	8		23.67	27.13	3.46
		1	15		23.70	27.38	3.68
		15	0		22.37	27.72	5.35
18900	1880	1	0	QPSK	24.44	27.58	3.14
		1	8		24.17	27.42	3.25
		1	15		24.43	27.49	3.06
		15	0		23.49	28.23	4.74
		1	0	16QAM	23.57	27.47	3.90
		1	8		23.54	27.41	3.87
		1	15		23.42	27.4	3.98
		15	0		22.37	27.74	5.37
19185	1908.5	1	0	QPSK	23.76	27.37	3.61
		1	8		23.94	27.15	3.21
		1	15		23.86	27.02	3.16
		15	0		23.1	27.8	4.70
		1	0	16QAM	23.28	27.22	3.94
		1	8		23.22	26.98	3.76
		1	15		23.31	26.85	3.54
		15	0		22.02	27.52	5.50

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (5MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
18625	1852.5	1	0	QPSK	23.96	27.28	3.32
		1	13		24.04	27.39	3.35
		1	24		24.07	27.53	3.46
		25	0		23.07	28.04	4.97
		1	0	16QAM	23.11	27.19	4.08
		1	13		23.38	27.38	4.00
		1	24		23.40	27.54	4.14
		25	0		23.15	28.00	4.85
18900	1880	1	0	QPSK	24.08	27.86	3.78
		1	13		24.09	27.59	3.50
		1	24		23.95	27.66	3.71
		25	0		23.33	28.13	4.80
		1	0	16QAM	22.87	27.48	4.61
		1	13		22.74	27.24	4.50
		1	24		22.59	27.26	4.67
		25	0		22.23	28.00	5.77
19175	1907.5	1	0	QPSK	23.98	27.18	3.20
		1	13		23.93	26.89	2.96
		1	24		24.14	26.75	2.61
		25	0		23.26	27.83	4.57
		1	0	16QAM	23.09	27.02	3.93
		1	13		22.8	26.82	4.02
		1	24		22.82	26.64	3.82
		25	0		22.27	27.61	5.34

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (10MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
18650	1855	1	0	QPSK	24.08	27.33	3.25
		1	25		24.14	27.43	3.29
		1	49		24.10	27.60	3.50
		50	0		23.20	28.13	4.93
		1	0	16QAM	23.03	27.04	4.01
		1	25		23.65	27.50	3.85
		1	49		23.12	27.35	4.23
		50	0		22.20	27.65	5.45
18900	1880	1	0	QPSK	24.30	27.83	3.53
		1	25		24.44	27.67	3.23
		1	49		24.35	27.81	3.46
		50	0		23.36	28.02	4.66
		1	0	16QAM	23.85	27.79	3.94
		1	25		23.98	27.61	3.63
		1	49		23.95	27.78	3.83
		50	0		22.33	27.82	5.49
19150	1905	1	0	QPSK	24.13	27.32	3.19
		1	25		24.56	27.21	2.65
		1	49		23.83	26.64	2.81
		50	0		23.43	27.72	4.29
		1	0	16QAM	23.72	27.45	3.73
		1	25		23.43	27.04	3.61
		1	49		22.97	26.70	3.73
		50	0		22.36	27.76	5.40

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (15MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
18675	1857.5	1	0	QPSK	24.00	27.33	3.33
		1	38		24.09	27.52	3.43
		1	74		24.05	27.53	3.48
		75	0		23.21	28.19	4.98
		1	0	16QAM	23.41	27.23	3.82
		1	38		24.13	27.70	3.57
		1	74		23.33	27.43	4.10
		75	0		22.25	28.01	5.76
18900	1880	1	0	QPSK	24.13	27.70	3.57
		1	38		24.37	27.56	3.19
		1	74		24.35	27.65	3.30
		75	0		23.48	28.39	4.91
		1	0	16QAM	23.71	27.61	3.9
		1	38		24.22	27.50	3.28
		1	74		23.81	27.57	3.76
		75	0		22.41	28.04	5.63
19125	1902.5	1	0	QPSK	24.15	27.25	3.10
		1	38		24.46	27.00	2.54
		1	74		23.16	26.10	2.94
		75	0		23.42	28.11	4.69
		1	0	16QAM	23.66	27.29	3.63
		1	38		23.43	26.86	3.43
		1	74		22.60	26.23	3.63
		75	0		22.20	27.76	5.56

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (20MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
18700	1860	1	0	QPSK	23.98	27.27	3.29
		1	50		24.34	27.39	3.05
		1	99		24.14	27.55	3.41
		100	0		23.31	28.13	4.82
		1	0	16QAM	23.72	27.37	3.65
		1	50		24.05	27.54	3.49
		1	99		23.31	27.47	4.16
		100	0		22.25	28.08	5.83
18900	1880	1	0	QPSK	24.11	27.56	3.45
		1	50		24.36	27.70	3.34
		1	99		23.99	27.63	3.64
		100	0		23.32	28.53	5.21
		1	0	16QAM	23.61	27.86	4.25
		1	50		23.89	27.71	3.82
		1	99		23.64	27.71	4.07
		100	0		24.44	28.03	3.59
19100	1900	1	0	QPSK	24.32	27.67	3.35
		1	50		24.58	27.35	2.77
		1	99		24.06	27.02	2.96
		100	0		23.28	28.42	5.14
		1	0	16QAM	24.11	27.85	3.74
		1	50		24.03	27.33	3.30
		1	99		23.50	26.87	3.37
		100	0		22.32	28.13	5.81

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

5.1.7 LTE B4 Conducted RF Power Output Results

Test Data (1.4MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
19957	1710.7	1	0	QPSK	23.83	27.75	3.92
		1	2		23.15	27.83	4.68
		1	5		23.83	27.63	3.80
		6	0		22.95	27.82	4.87
		1	0	16QAM	23.08	27.41	4.33
		1	2		22.72	27.38	4.66
		1	5		22.68	27.40	4.72
		6	0		21.91	27.63	5.72
20175	1732.5	1	0	QPSK	24.03	27.83	3.80
		1	2		23.98	27.66	3.68
		1	5		24.08	27.67	3.59
		6	0		22.95	27.91	4.96
		1	0	16QAM	23.06	27.71	4.65
		1	2		23.13	27.67	4.54
		1	5		22.92	27.56	4.64
		6	0		22.08	27.96	5.88
20393	1754.3	1	0	QPSK	23.75	27.69	3.94
		1	2		23.93	27.56	3.63
		1	5		23.74	27.51	3.77
		6	0		22.84	27.75	4.91
		1	0	16QAM	22.91	27.46	4.55
		1	2		23.33	27.53	4.20
		1	5		23.17	27.52	4.35
		6	0		22.12	27.81	5.69

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (3MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
19965	1711.5	1	0	QPSK	23.71	27.79	4.08
		1	8		23.81	27.44	3.63
		1	15		23.96	27.55	3.59
		15	0		22.90	27.88	4.98
		1	0	16QAM	23.13	27.48	4.35
		1	8		23.10	27.24	4.14
		1	15		22.94	27.33	4.39
		15	0		22.04	27.88	5.84
20175	1732.5	1	0	QPSK	23.83	27.57	3.74
		1	8		23.80	27.26	3.46
		1	15		23.78	27.56	3.78
		15	0		22.91	27.70	4.79
		1	0	16QAM	23.11	27.37	4.26
		1	8		23.44	27.33	3.89
		1	15		23.51	27.61	4.1
		15	0		21.88	27.71	5.83
20385	1753.5	1	0	QPSK	23.86	27.73	3.87
		1	8		24.15	27.67	3.52
		1	15		23.91	27.49	3.58
		15	0		22.92	27.93	5.01
		1	0	16QAM	22.85	27.69	4.84
		1	8		22.93	27.45	4.52
		1	15		22.81	27.42	4.61
		15	0		21.96	28.00	6.04

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (5MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
19975	1712.5	1	0	QPSK	24.03	27.78	3.75
		1	13		24.09	27.66	3.57
		1	24		23.87	27.59	3.72
		25	0		22.91	27.98	5.07
		1	0	16QAM	22.56	27.47	4.91
		1	13		22.61	27.43	4.82
		1	24		22.61	27.38	4.77
		25	0		21.90	27.85	5.95
20175	1732.5	1	0	QPSK	23.86	27.69	3.83
		1	13		23.87	27.56	3.69
		1	24		23.92	27.86	3.94
		25	0		22.84	27.92	5.08
		1	0	16QAM	22.24	27.14	4.90
		1	13		22.47	27.27	4.80
		1	24		22.42	27.27	4.85
		25	0		21.91	28.06	6.15
20375	1752.5	1	0	QPSK	23.91	27.99	4.08
		1	13		24.13	27.87	3.74
		1	24		24.00	27.66	3.66
		25	0		23.06	28.12	5.06
		1	0	16QAM	23.24	27.98	4.74
		1	13		23.22	27.79	4.57
		1	24		23.16	27.64	4.48
		25	0		21.90	28.01	6.11

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (10MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
20000	1715	1	0	QPSK	23.84	27.52	3.68
		1	25		24.10	27.37	3.27
		1	49		23.80	27.87	4.07
		50	0		22.87	28.10	5.23
		1	0	16QAM	23.46	27.48	4.02
		1	25		23.80	27.15	3.35
		1	49		23.09	27.10	4.01
		50	0		21.96	27.78	5.82
20175	1732.5	1	0	QPSK	23.46	27.06	3.60
		1	25		24.27	27.41	3.14
		1	49		23.63	27.20	3.57
		50	0		23.94	27.40	3.46
		1	0	16QAM	23.33	26.95	3.62
		1	25		24.19	27.35	3.16
		1	49		23.99	27.53	3.54
		50	0		23.08	27.80	4.72
20350	1750	1	0	QPSK	24.19	27.90	3.71
		1	25		24.33	27.81	3.48
		1	49		24.11	27.47	3.36
		50	0		23.19	27.89	4.70
		1	0	16QAM	23.36	27.76	4.40
		1	25		23.72	27.89	4.17
		1	49		22.37	27.45	5.08
		50	0		22.14	28.22	6.08

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (15MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
20025	1717.5	1	0	QPSK	23.89	27.39	3.50
		1	38		23.68	27.07	3.39
		1	74		23.46	26.96	3.50
		75	0		22.24	27.85	5.61
		1	0	16QAM	22.11	27.13	5.02
		1	38		22.12	26.97	4.85
		1	74		21.29	26.47	5.18
		75	0		21.15	27.55	6.40
20175	1732.5	1	0	QPSK	23.24	27.53	4.29
		1	38		23.43	27.71	4.28
		1	74		23.26	27.73	4.47
		75	0		22.46	28.11	5.65
		1	0	16QAM	22.49	27.28	4.79
		1	38		23.38	27.87	4.49
		1	74		22.58	27.53	4.95
		75	0		21.55	27.97	6.42
20325	1747.5	1	0	QPSK	23.31	27.60	4.29
		1	38		23.31	27.52	4.21
		1	74		23.04	27.36	4.32
		75	0		22.31	27.91	5.60
		1	0	16QAM	22.66	27.51	4.85
		1	38		23.35	27.75	4.40
		1	74		22.61	27.36	4.75
		75	0		21.36	27.71	6.35

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (20MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
20050	1720	1	0	QPSK	23.03	27.06	4.03
		1	50		23.23	26.85	3.62
		1	99		23.20	26.91	3.71
		100	0		22.24	27.47	5.23
		1	0	16QAM	22.09	26.92	4.83
		1	50		22.22	26.66	4.44
		1	99		21.68	26.62	4.94
		100	0		21.18	27.39	6.21
20175	1732.5	1	0	QPSK	22.99	27.01	4.02
		1	50		23.39	27.18	3.79
		1	99		23.02	27.31	4.29
		100	0		22.12	27.76	5.64
		1	0	16QAM	22.63	27.02	4.39
		1	50		22.83	27.24	4.41
		1	99		22.71	27.54	4.83
		100	0		21.29	27.88	6.59
20300	1745	1	0	QPSK	23.30	27.52	4.22
		1	50		23.53	27.65	4.12
		1	99		23.11	27.35	4.24
		100	0		22.25	28.13	5.88
		1	0	16QAM	22.99	27.66	4.67
		1	50		23.21	27.62	4.41
		1	99		22.76	27.44	4.68
		100	0		21.33	27.66	6.33

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

5.1.8 LTE B5 Conducted RF Power Output Results

Test Data (1.4MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
20407	824.7	1	0	QPSK	22.28	26.91	4.63
		1	2		22.19	26.77	4.58
		1	5		22.06	26.78	4.72
		6	0		22.19	27.44	5.25
		1	0	16QAM	22.39	27.01	4.62
		1	2		22.32	26.89	4.57
		1	5		22.18	26.89	4.71
		6	0		22.30	27.58	5.28
20525	836.5	1	0	QPSK	23.61	28.17	4.56
		1	2		23.77	28.20	4.43
		1	5		23.75	28.13	4.38
		6	0		22.72	27.89	5.17
		1	0	16QAM	22.41	27.81	5.40
		1	2		22.55	27.90	5.35
		1	5		22.48	27.80	5.32
		6	0		21.72	27.78	6.06
20643	848.3	1	0	QPSK	23.49	27.45	3.96
		1	2		23.33	27.21	3.88
		1	5		22.86	26.93	4.07
		6	0		22.54	27.49	4.95
		1	0	16QAM	22.80	27.54	4.74
		1	2		22.48	27.23	4.75
		1	5		22.06	26.95	4.89
		6	0		21.59	27.67	6.08

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (3MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
20415	825.5	1	0	QPSK	22.67	27.28	4.61
		1	8		22.43	27.00	4.57
		1	15		22.19	26.96	4.77
		15	0		22.40	27.61	5.21
		1	0	16QAM	21.82	26.85	5.03
		1	8		21.65	26.66	5.01
		1	15		21.40	26.54	5.14
		15	0		21.50	27.94	6.44
20525	836.5	1	0	QPSK	23.48	28.10	4.62
		1	8		23.86	28.25	4.39
		1	15		23.62	28.26	4.64
		15	0		22.68	28.17	5.49
		1	0	16QAM	22.58	28.00	5.42
		1	8		22.74	28.01	5.27
		1	15		22.78	27.98	5.20
		15	0		21.70	27.94	6.24
20635	847.5	1	0	QPSK	23.43	27.83	4.40
		1	8		23.28	27.24	3.96
		1	15		22.78	26.88	4.10
		15	0		22.50	27.65	5.15
		1	0	16QAM	22.68	27.60	4.92
		1	8		22.38	26.95	4.57
		1	15		22.49	27.02	4.53
		15	0		21.66	27.62	5.96

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (5MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
20425	826.5	1	0	QPSK	22.55	27.08	4.53
		1	13		22.39	26.94	4.55
		1	24		22.13	26.87	4.74
		25	0		22.28	28.12	5.84
		1	0	16QAM	21.82	27.06	5.24
		1	13		21.73	26.98	5.25
		1	24		21.50	26.96	5.46
		25	0		21.42	28.34	6.92
20525	836.5	1	0	QPSK	23.56	28.32	4.76
		1	13		23.79	28.19	4.40
		1	24		23.60	28.02	4.42
		25	0		22.67	28.04	5.37
		1	0	16QAM	22.36	27.95	5.59
		1	13		22.51	27.78	5.27
		1	24		22.34	27.67	5.33
		25	0		21.59	27.59	6.00
20625	846.5	1	0	QPSK	23.33	27.91	4.58
		1	13		23.43	27.59	4.16
		1	24		22.76	26.91	4.15
		25	0		22.57	27.90	5.33
		1	0	16QAM	22.08	27.41	5.33
		1	13		22.54	27.48	4.94
		1	24		21.85	26.78	4.93
		25	0		21.75	27.84	6.09

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (10MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
20450	829	1	0	QPSK	21.92	26.51	4.59
		1	25		22.41	27.16	4.75
		1	49		23.18	27.92	4.74
		50	0		22.45	28.61	6.16
		1	0	16QAM	21.09	26.10	5.01
		1	25		21.66	26.75	5.09
		1	49		22.41	27.60	5.19
		50	0		21.61	28.58	6.97
20525	836.5	1	0	QPSK	22.65	27.65	5.00
		1	25		23.94	28.35	4.41
		1	49		23.65	28.05	4.40
		50	0		22.75	28.33	5.58
		1	0	16QAM	21.73	27.33	5.60
		1	25		22.45	27.80	5.35
		1	49		22.13	27.47	5.34
		50	0		21.75	28.20	6.45
20600	844	1	0	QPSK	23.81	28.21	4.40
		1	25		23.58	28.17	4.59
		1	49		22.49	26.72	4.23
		50	0		22.79	28.42	5.63
		1	0	16QAM	23.71	28.73	5.02
		1	25		23.33	28.32	4.99
		1	49		22.14	26.79	4.65
		50	0		21.78	28.52	6.74

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

5.1.9 LTE B12 Conducted RF Power Output Results

Test Data (1.4MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
23017	699.7	1	0	QPSK	23.25	27.40	4.15
		1	2		23.10	27.37	4.27
		1	5		23.10	27.45	4.35
		6	0		22.18	27.35	5.17
		1	0	16QAM	22.51	27.23	4.72
		1	2		22.65	27.35	4.70
		1	5		22.52	27.42	4.90
		6	0		21.64	27.57	5.93
23095	707.5	1	0	QPSK	23.23	27.91	4.68
		1	2		23.23	27.71	4.48
		1	5		23.25	27.65	4.40
		6	0		22.43	27.71	5.28
		1	0	16QAM	22.39	27.89	5.50
		1	2		22.02	27.45	5.43
		1	5		21.92	27.33	5.41
		6	0		21.31	27.50	6.19
23173	715.3	1	0	QPSK	23.42	27.95	4.53
		1	2		23.66	27.91	4.25
		1	5		23.67	27.68	4.01
		6	0		22.43	27.88	5.45
		1	0	16QAM	22.60	27.99	5.39
		1	2		23.06	28.11	5.05
		1	5		22.67	27.67	5.00
		6	0		21.34	27.74	6.40

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (3MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
23025	700.5	1	0	QPSK	23.31	27.43	4.12
		1	8		23.23	27.52	4.29
		1	15		23.35	27.91	4.56
		15	0		22.34	27.66	5.32
		1	0	16QAM	22.85	27.40	4.55
		1	8		22.93	27.60	4.67
		1	15		23.10	27.98	4.88
		15	0		21.52	27.87	6.35
23095	707.5	1	0	QPSK	23.34	28.03	4.69
		1	8		23.51	27.75	4.24
		1	15		23.34	27.50	4.16
		15	0		22.48	27.91	5.43
		1	0	16QAM	22.04	27.69	5.65
		1	8		21.94	27.30	5.36
		1	15		22.04	27.21	5.17
		15	0		21.23	27.50	6.27
23165	714.5	1	0	QPSK	23.39	27.60	4.21
		1	8		23.32	27.78	4.46
		1	15		23.44	27.46	4.02
		15	0		22.40	27.91	5.51
		1	0	16QAM	22.63	27.45	4.82
		1	8		22.31	27.35	5.04
		1	15		22.43	27.45	5.02
		15	0		21.45	27.91	6.46

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (5MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
23035	701.5	1	0	QPSK	23.21	27.35	4.14
		1	13		23.29	27.71	4.42
		1	24		23.25	27.98	4.73
		25	0		22.34	28.18	5.84
		1	0	16QAM	22.50	27.34	4.84
		1	13		22.83	27.87	5.04
		1	24		22.74	28.16	5.42
		25	0		21.45	28.04	6.59
23095	707.5	1	0	QPSK	23.29	28.04	4.75
		1	13		23.44	27.70	4.26
		1	24		23.41	27.38	3.97
		25	0		22.48	27.91	5.43
		1	0	16QAM	21.88	27.67	5.79
		1	13		22.01	27.39	5.38
		1	24		22.06	27.14	5.08
		25	0		21.31	27.66	6.35
23155	713.5	1	0	QPSK	23.26	27.23	3.97
		1	13		23.24	27.56	4.32
		1	24		23.32	27.49	4.17
		25	0		22.37	28.02	5.65
		1	0	16QAM	21.96	26.89	4.93
		1	13		21.96	27.22	5.26
		1	24		22.42	27.47	5.05
		25	0		21.29	27.92	6.63

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (10MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
23060	704	1	0	QPSK	23.31	27.48	4.17
		1	25		23.54	28.24	4.70
		1	49		23.44	27.65	4.21
		50	0		22.37	27.85	5.48
		1	0	16QAM	22.76	27.42	4.66
		1	25		23.54	28.32	4.78
		1	49		23.01	27.66	4.65
		50	0		21.45	28.37	6.92
23095	707.5	1	0	QPSK	23.11	27.83	4.72
		1	25		23.56	27.83	4.27
		1	49		23.11	27.24	4.13
		50	0		22.48	27.82	5.34
		1	0	16QAM	22.02	27.71	5.69
		1	25		23.00	28.05	5.05
		1	49		21.96	27.11	5.15
		50	0		21.26	27.79	6.53
23130	711	1	0	QPSK	23.31	27.97	4.66
		1	25		23.55	27.34	3.79
		1	49		23.33	27.76	4.43
		50	0		22.45	27.82	5.37
		1	0	16QAM	22.78	27.93	5.15
		1	25		23.06	27.34	4.28
		1	49		23.34	28.06	4.72
		50	0		21.46	27.88	6.42

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Report No.:B18W50495-WWAN

5.1.10 LTE B13 Conducted RF Power Output Results

Test Data (5MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
23205	779.5	1	0	QPSK	23.45	27.35	3.90
		1	13		23.28	27.87	4.59
		1	24		23.22	27.32	4.10
		25	0		22.63	27.99	5.36
		1	0	16QAM	22.22	27.03	4.81
		1	13		22.01	27.33	5.32
		1	24		22.26	26.82	4.56
		25	0		21.57	27.75	6.18
23230	782	1	0	QPSK	23.62	27.90	4.28
		1	13		23.65	27.18	3.53
		1	24		23.40	27.55	4.15
		25	0		22.60	27.83	5.23
		1	0	16QAM	22.91	27.91	5.00
		1	13		22.76	27.18	4.42
		1	24		22.54	27.36	4.82
		25	0		21.45	27.65	6.20
23255	784.5	1	0	QPSK	23.47	27.22	3.75
		1	13		23.58	27.70	4.12
		1	24		23.36	27.91	4.55
		25	0		22.63	27.89	5.26
		1	0	16QAM	22.57	27.11	4.54
		1	13		22.13	27.36	5.23
		1	24		22.33	27.73	5.40
		25	0		21.57	27.77	6.20

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (10MHz bandwidth Mode)

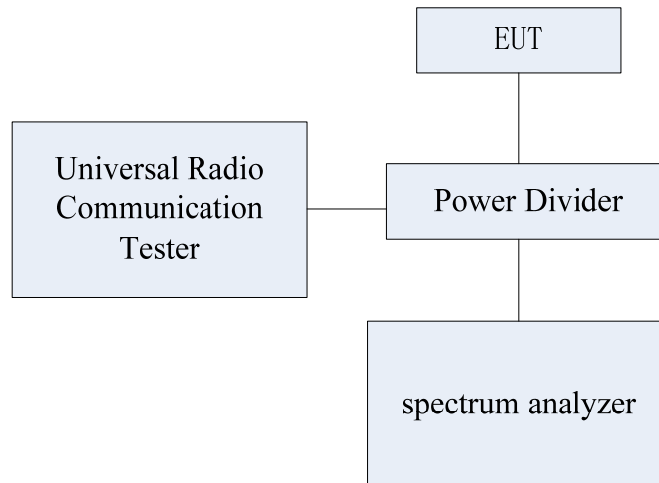
Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
23230	782	1	0	QPSK	23.78	27.87	4.09
		1	25		23.78	27.30	3.52
		1	49		23.39	27.95	4.56
		50	0		22.69	28.30	5.61
		1	0	16QAM	22.90	27.57	4.67
		1	25		23.49	27.39	3.90
		1	49		22.47	27.56	5.09
		50	0		21.73	27.93	6.20

5.2 Occupied Bandwidth

Specifications:	FCC Part 2.1049, 22.917(b), 24.238(b)
DUT Serial Number:	S3: 863424030965642
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	--

Test Setup

During the test, the EUT was controlled via the Wireless Communications Test Set to ensure max power transmission and proper modulation and measured by spectrum analyzer.



Test Method

Method of test please refer to KDB971168 D01 v03 clause 4.0.

The 99% occupied Bandwidth was calculated from the spectrum analyzer. Markers in the spectrum analyzer were then placed between the calculated frequencies to show the calculated 99% power Band. The 26dB Bandwidth was also measured and recorded.

Note: --

5.2.1 GSM Mode Occupied Bandwidth Results

Band	EUT channel No.	Mode	99% OBW (MHz)	-26dBc OBW (MHz)
GSM850	128	GMSK	0.24	0.32
		8PSK	0.24	0.31
	190	GMSK	0.24	0.32
		8PSK	0.24	0.31
	251	GMSK	0.24	0.32
		8PSK	0.24	0.29
PCS1900	512	GMSK	0.24	0.32
		8PSK	0.24	0.31
	661	GMSK	0.25	0.31
		8PSK	0.24	0.31
	810	GMSK	0.24	0.31
		8PSK	0.25	0.31

5.2.2 WCDMA Band mode occupied bandwidth Results

Band	EUT channel No.	Mode	99% OBW (MHz)	-26dBc OBW (MHz)
B2	9400 (1880.0 MHz)	QPSK	4.15	4.76
B4	1412 (1732.4 MHz)	QPSK	4.13	4.73
B5	4182 (836.4MHz)	QPSK	4.13	4.70

5.2.3 LTE B2 occupied bandwidth Results

Mode	EUT channel No.	bandwidth	No. RB	RB offset	99% occupied bandwidth [MHz]	-26dBc occupied bandwidth [MHz]
QPSK	18900 (1880MHz)	1.4MHz	6	0	1.09	1.24
		3MHz	15		2.69	2.84
		5MHz	25		4.49	4.71
		10MHz	50		8.94	9.29
		15MHz	75		13.46	14.20
		20MHz	100		17.88	18.75
16QAM		1.4MHz	6		1.09	1.25
		3MHz	15		2.69	2.88
		5MHz	25		4.49	4.70
		10MHz	50		8.91	9.29
		15MHz	75		13.40	14.23
		20MHz	100		17.88	18.65

5.2.3 LTE B4 occupied bandwidth Results

Mode	EUT channel No.	bandwidth	No. RB	RB offset	99% occupied bandwidth [MHz]	-26dBc occupied bandwidth [MHz]
QPSK	20175 (1732.5MHz)	1.4MHz	6	0	1.09	1.23
		3MHz	15		2.68	2.84
		5MHz	25		4.49	4.74
		10MHz	50		8.94	9.29
		15MHz	75		13.43	14.23
		20MHz	100		17.88	18.70
16QAM		1.4MHz	6		1.07	1.25
		3MHz	15		2.68	2.88
		5MHz	25		4.49	4.71
		10MHz	50		8.91	9.29
		15MHz	75		13.43	14.20
		20MHz	100		17.84	18.70

5.2.4 LTE B5 occupied bandwidth Results

Mode	EUT channel No.	bandwidth	No. RB	RB offset	99% occupied bandwidth [MHz]	-26dBc occupied bandwidth [MHz]
QPSK	20525 (836.5MHz)	1.4MHz	6	0	1.07	1.22
		3MHz	15		2.68	2.84
		5MHz	25		4.49	4.71
		10MHz	50		8.91	9.29
16QAM		1.4MHz	6		1.07	1.24
		3MHz	15		2.68	2.84
		5MHz	25		4.47	4.68
		10MHz	50		8.91	9.26

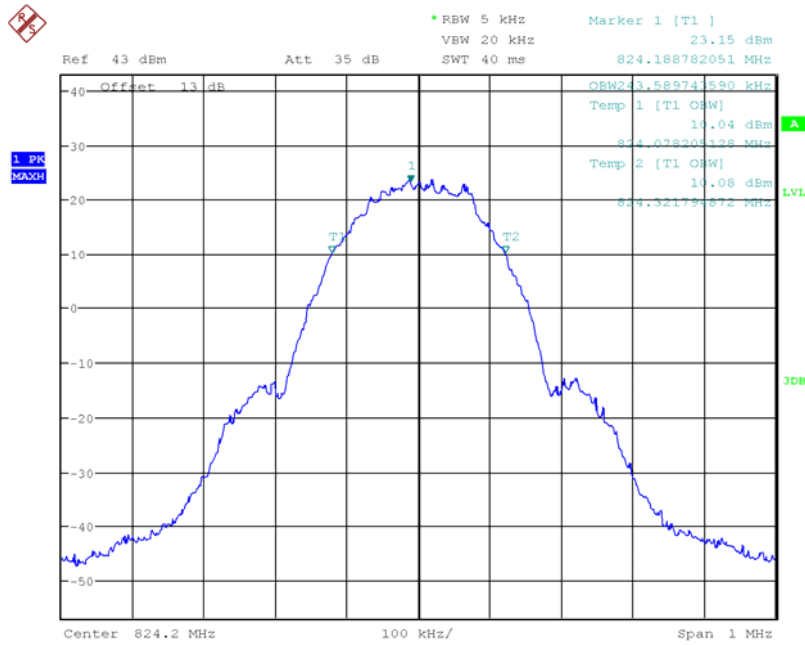
5.2.5 LTE B12 occupied bandwidth Results

Mode	EUT channel No.	bandwidth	No. RB	RB offset	99% occupied bandwidth [MHz]	-26dBc occupied bandwidth [MHz]
QPSK	23095 (707.5MHz)	1.4MHz	6	0	1.08	1.22
		3MHz	15		2.68	2.86
		5MHz	25		4.47	4.71
		10MHz	50		8.91	9.29
16QAM		1.4MHz	6		1.08	1.24
		3MHz	15		2.68	2.87
		5MHz	25		4.47	4.71
		10MHz	50		8.91	9.29

5.2.6 LTE B13 occupied bandwidth Results

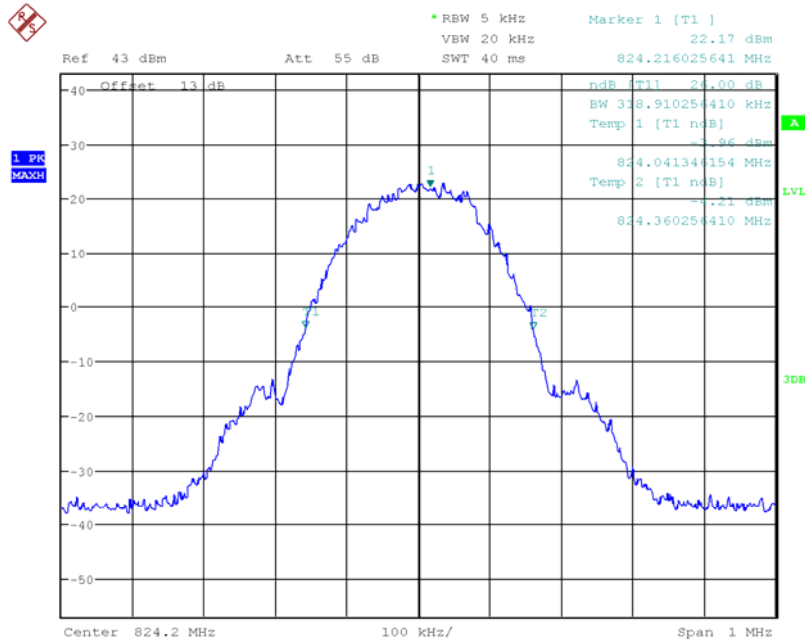
Mode	EUT channel No.	bandwidth	No. RB	RB offset	99% occupied bandwidth [MHz]	-26dBc occupied bandwidth [MHz]
QPSK	23230 (782MHz)	5MHz	25	0	4.47	4.73
		10MHz	50		8.91	9.29
16QAM		5MHz	25		4.47	4.66
		10MHz	50		8.91	9.26

Graphical results for GSM850:



Date: 17.OCT.2018 10:13:02

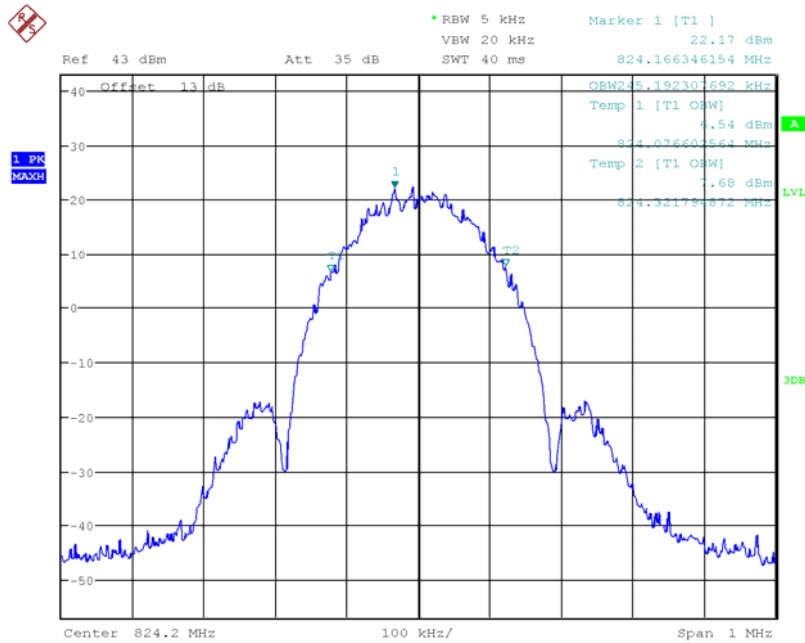
GMSK 99% Channel 128



Date: 17.OCT.2018 10:13:45

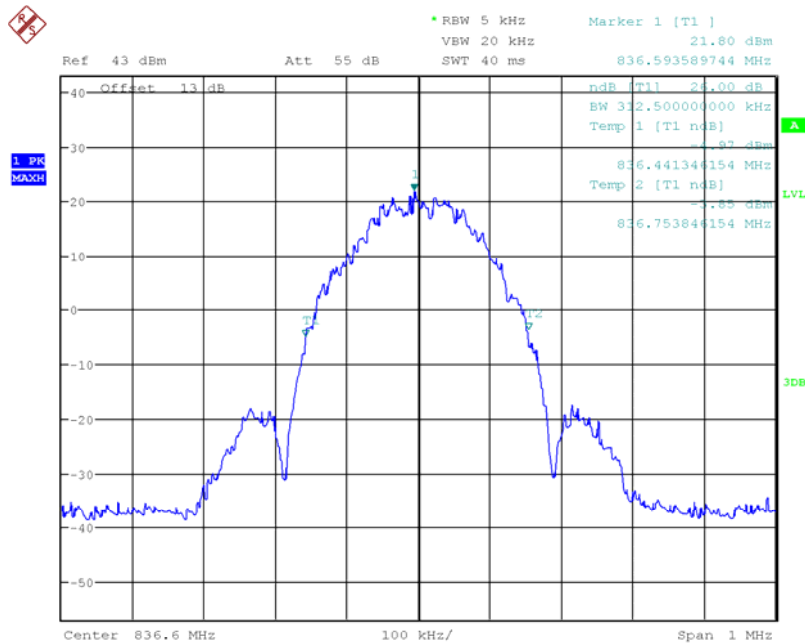
GMSK -26dBc Channel 128

Report No.:B18W50495-WWAN



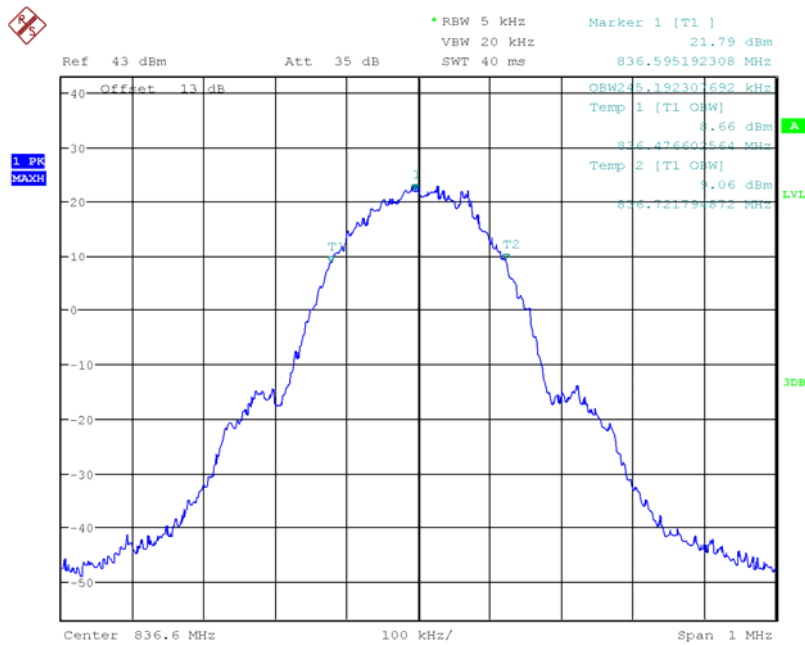
Date: 17.OCT.2018 10:18:36

8PSK 99% Channel 128



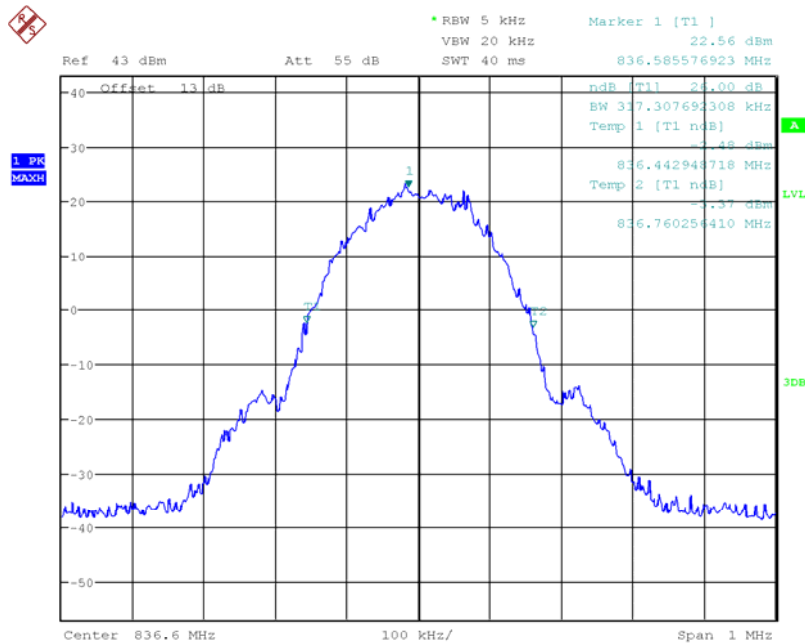
Date: 17.OCT.2018 10:19:28

8PSK -26dBc Channel 128



Date: 17.OCT.2018 10:14:50

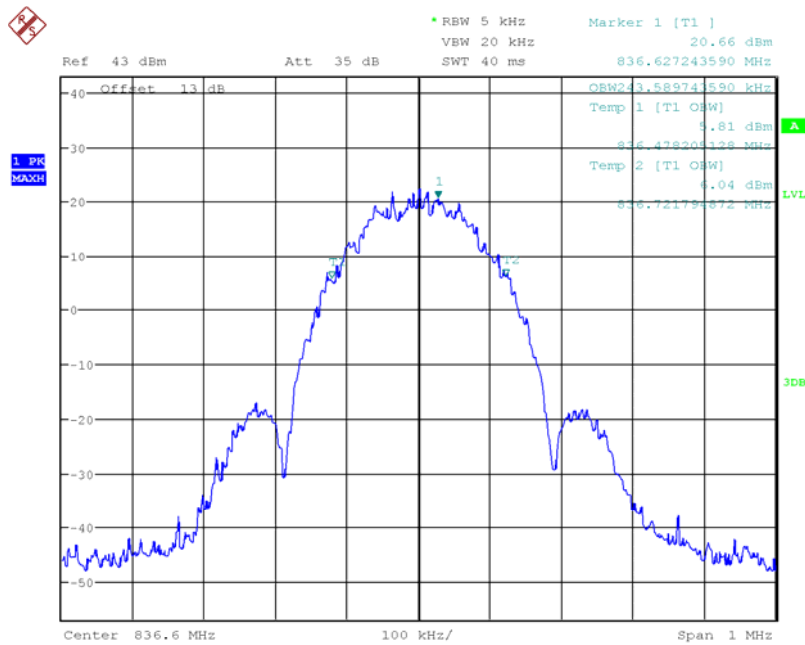
GMSK 99% Channel 190



Date: 17.OCT.2018 10:15:12

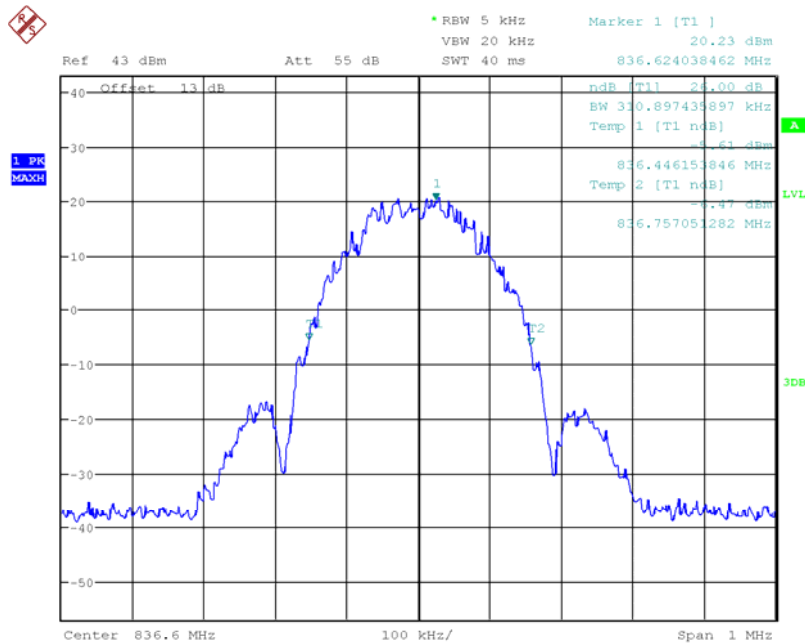
GMSK -26dBc Channel 190

Report No.:B18W50495-WWAN



Date: 17.OCT.2018 10:21:40

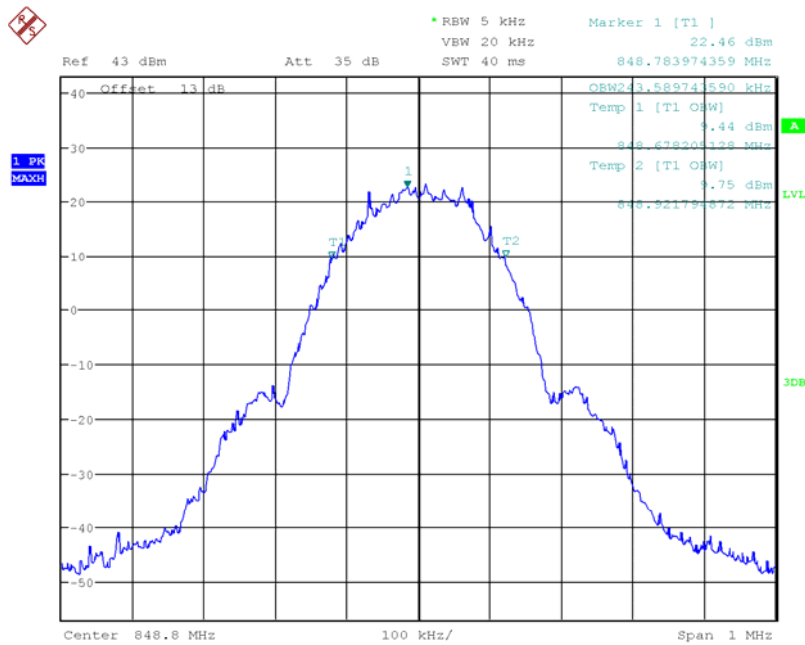
8PSK 99% Channel 190



Date: 17.OCT.2018 10:22:01

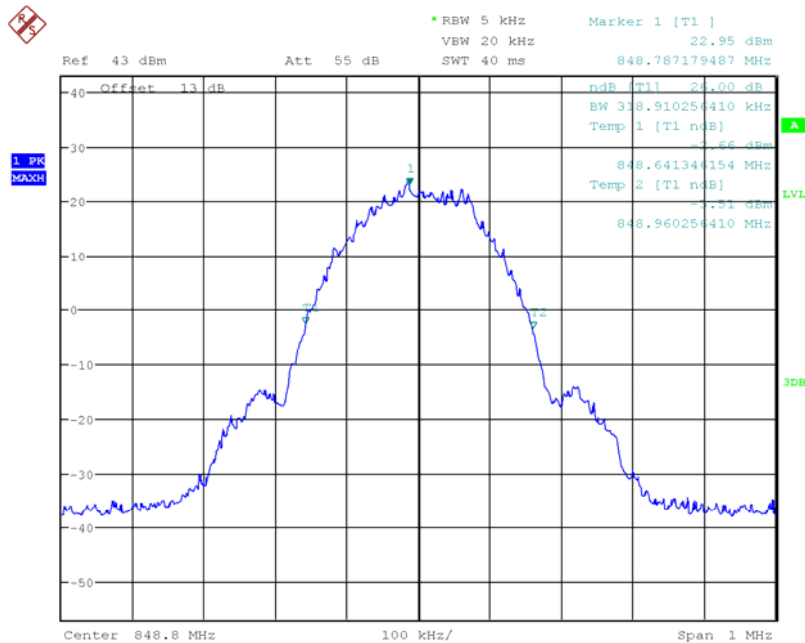
8PSK -26dBc Channel 190

Report No.:B18W50495-WWAN



Date: 17.OCT.2018 10:16:00

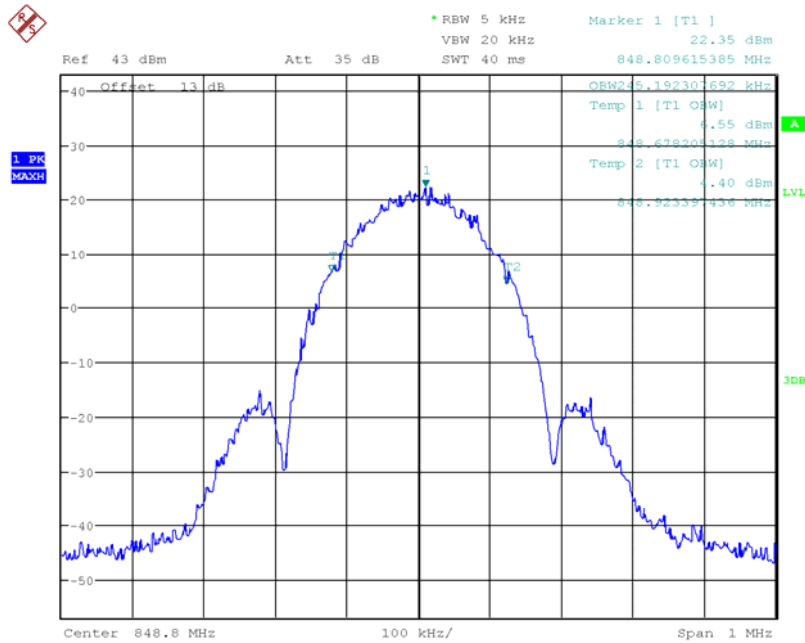
GMSK 99% Channel 251



Date: 17.OCT.2018 10:16:29

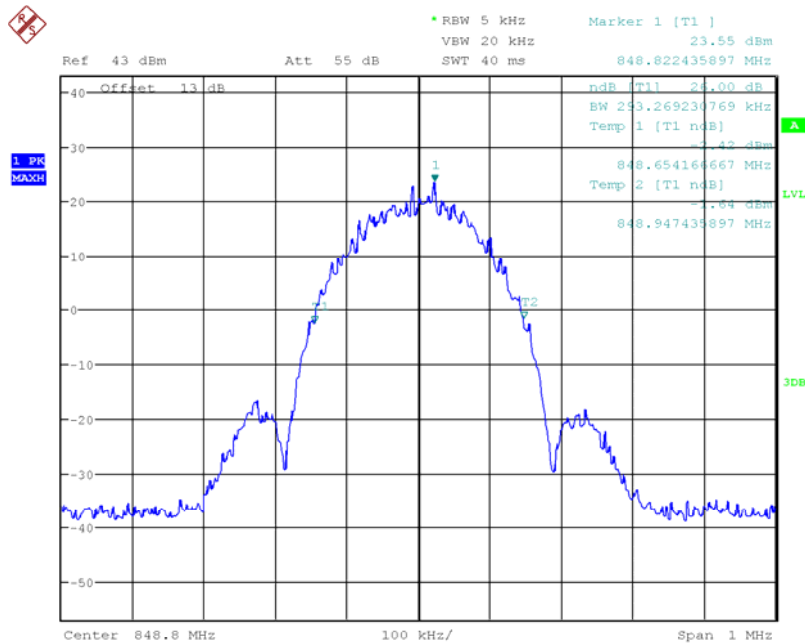
GMSK -26dBc Channel 251

Report No.:B18W50495-WWAN



Date: 17.OCT.2018 10:20:39

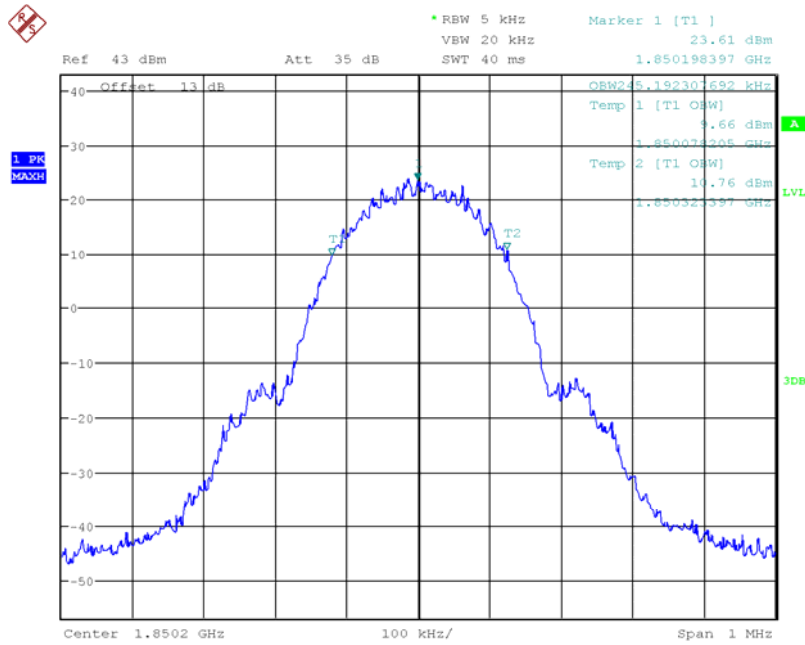
8PSK 99% Channel 251



Date: 17.OCT.2018 10:21:01

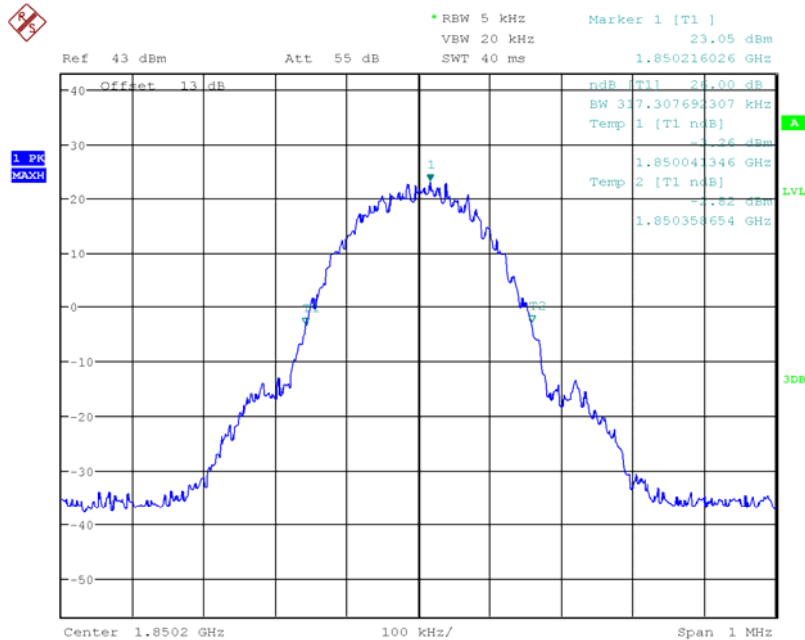
8PSK -26dBc Channel 251

Graphical results for GSM1900:



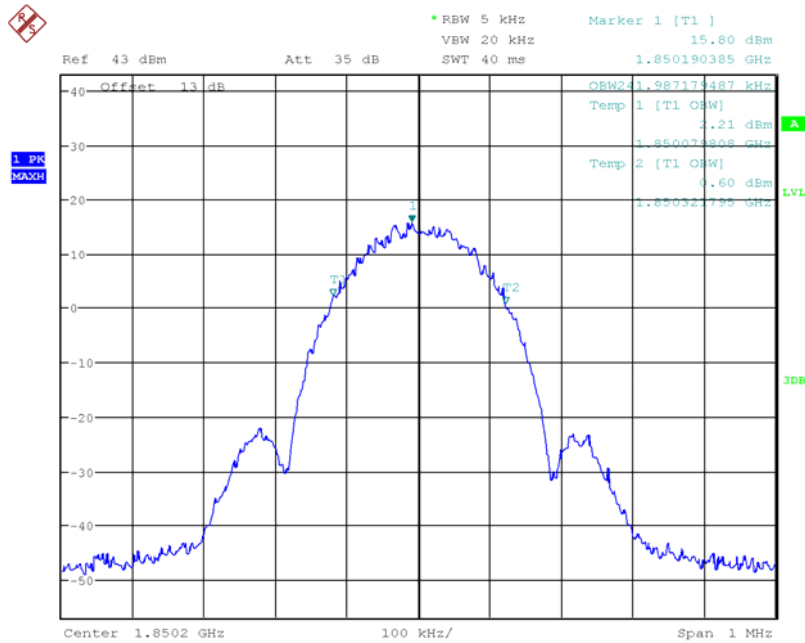
Date: 17.OCT.2018 10:56:52

GMSK 99% Channel 512



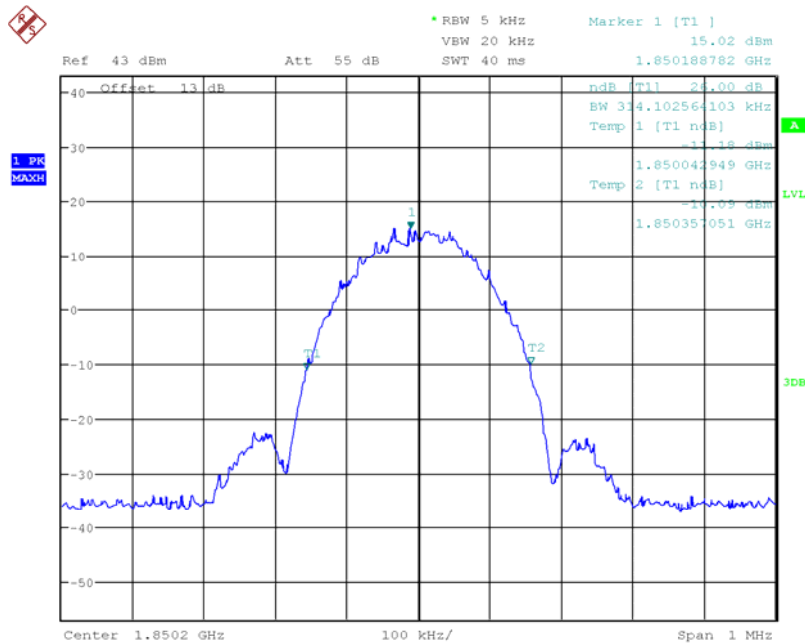
Date: 17.OCT.2018 10:57:18

GMSK -26dBc Channel



Date: 17.OCT.2018 10:50:37

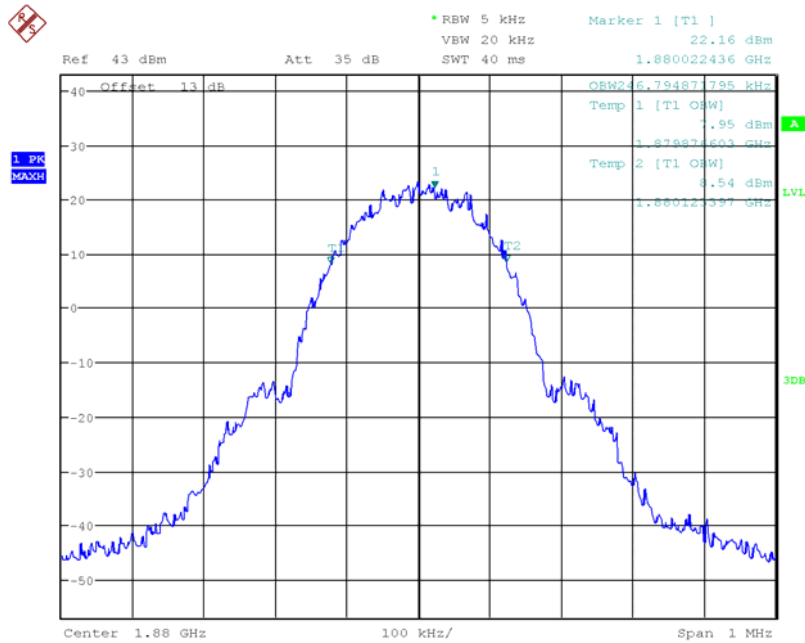
8PSK 99% Channel 512



Date: 17.OCT.2018 10:51:46

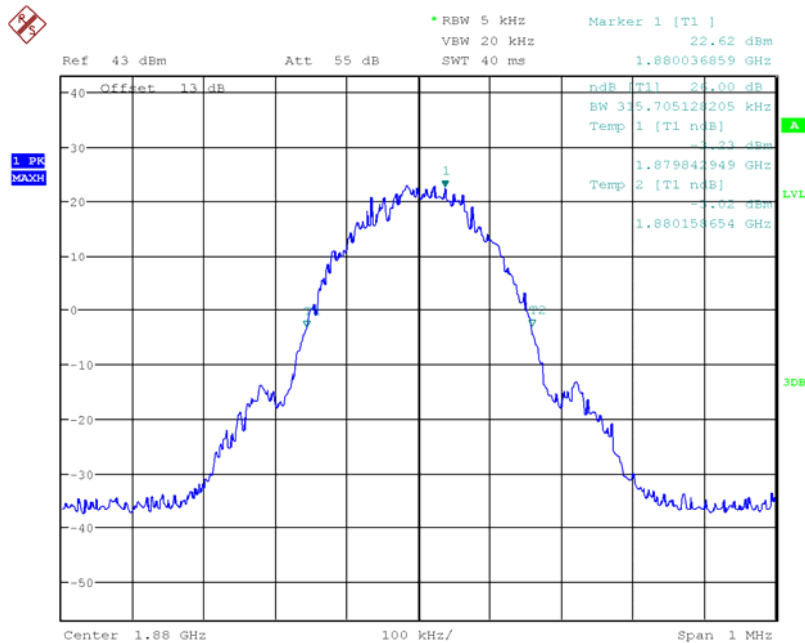
8PSK -26dBc Channel 512

Report No.:B18W50495-WWAN



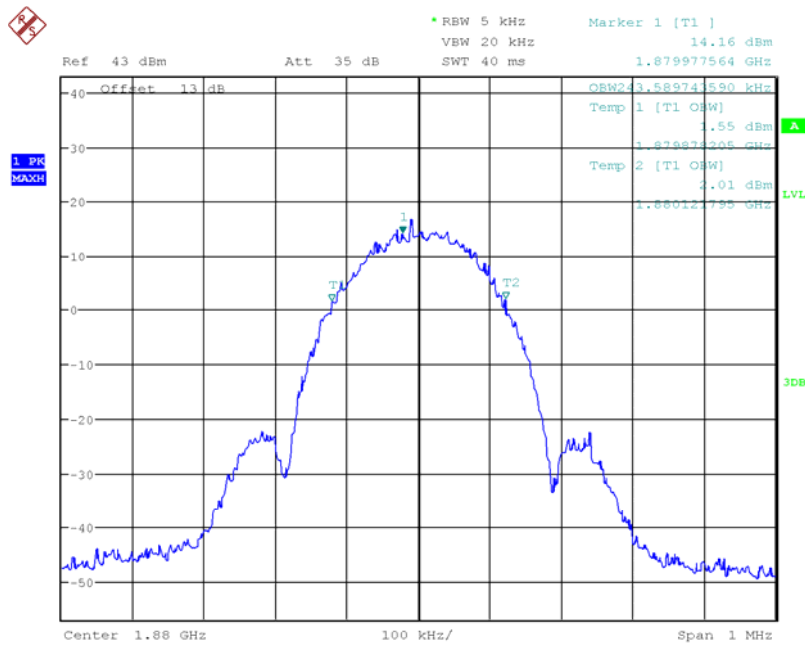
Date: 17.OCT.2018 10:57:58

GMSK 99% Channel 661



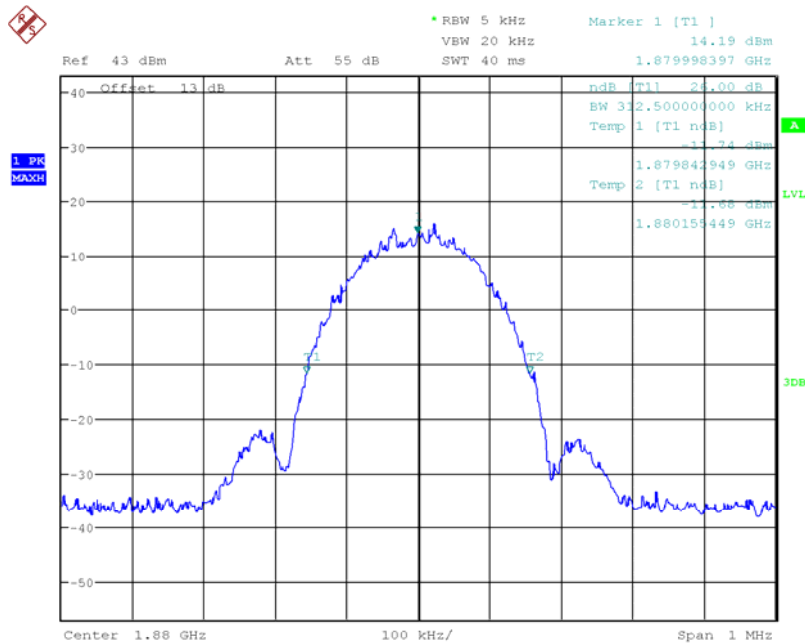
Date: 17.OCT.2018 10:58:19

GMSK -26dBc Channel 661



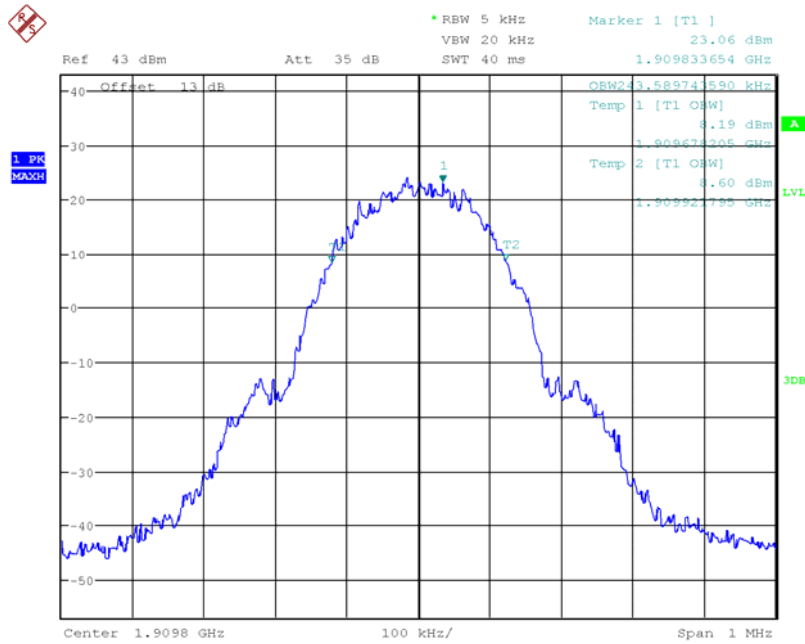
Date: 17.OCT.2018 10:52:33

8PSK 99% Channel 661



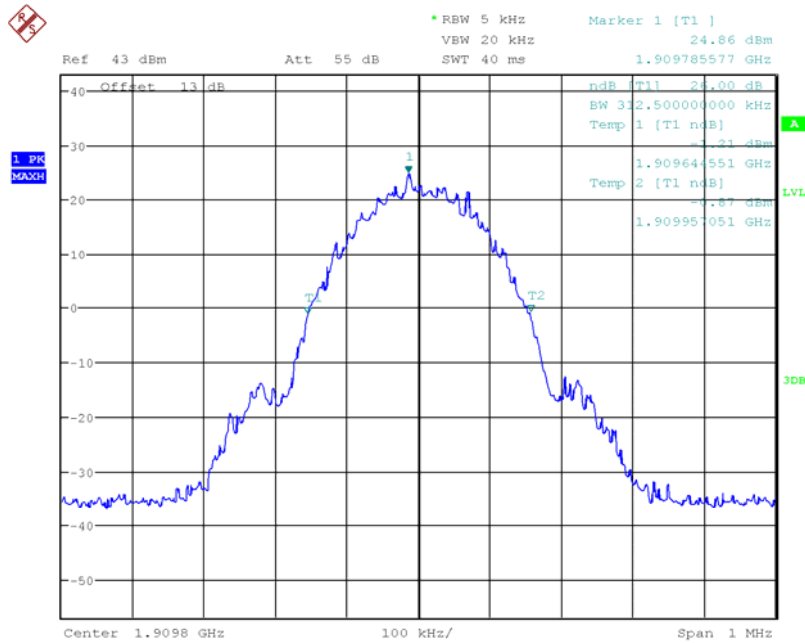
Date: 17.OCT.2018 10:52:51

8PSK -26dBc Channel 661



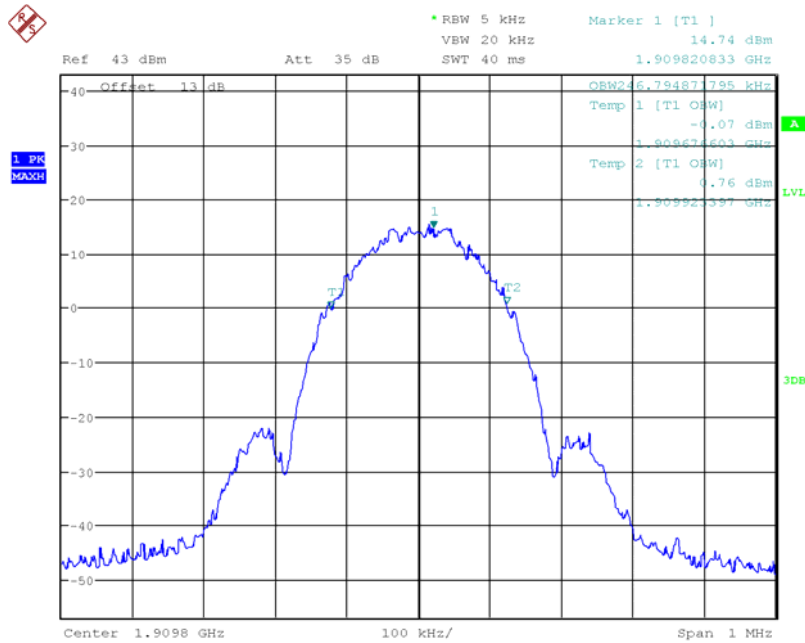
Date: 17.OCT.2018 10:59:26

GMSK 99% Channel 810



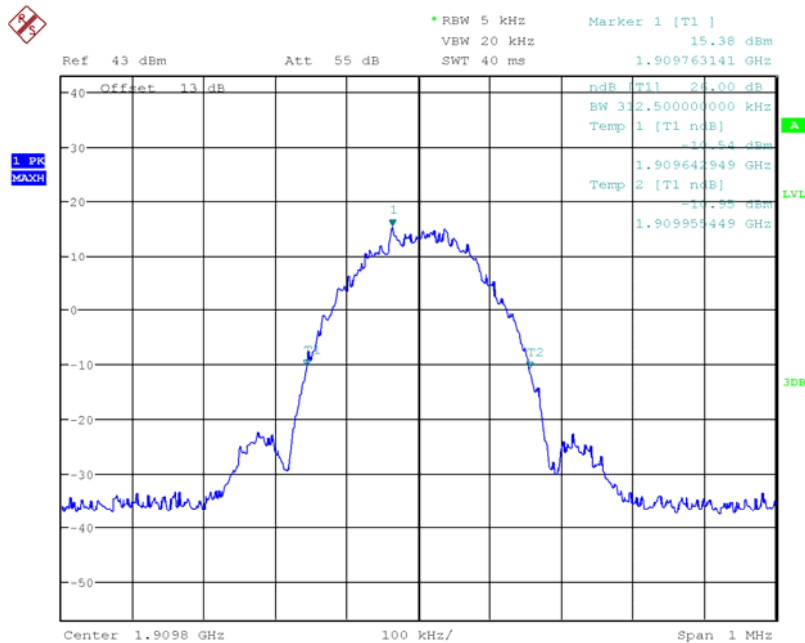
Date: 17.OCT.2018 10:59:56

GMSK -26dBc Channel 810



Date: 17.OCT.2018 10:53:54

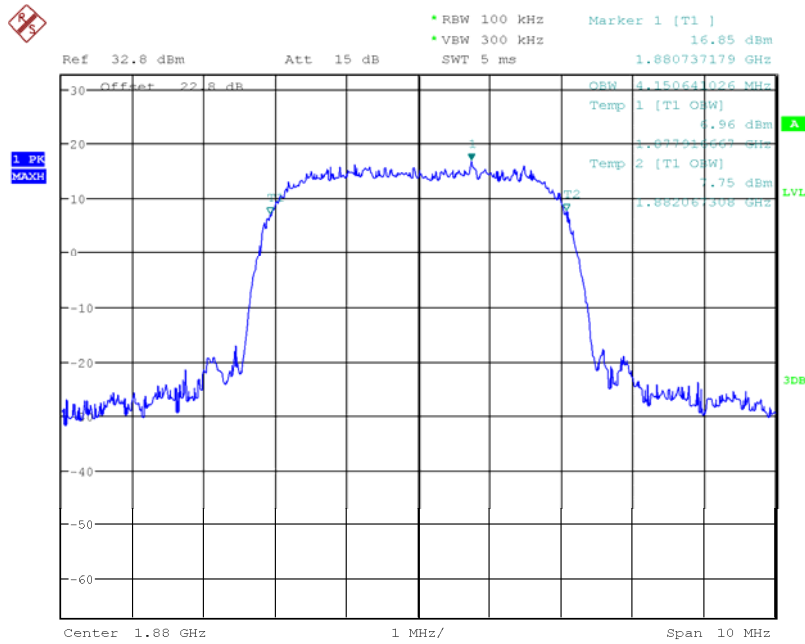
8PSK 99% Channel 810



Date: 17.OCT.2018 10:54:14

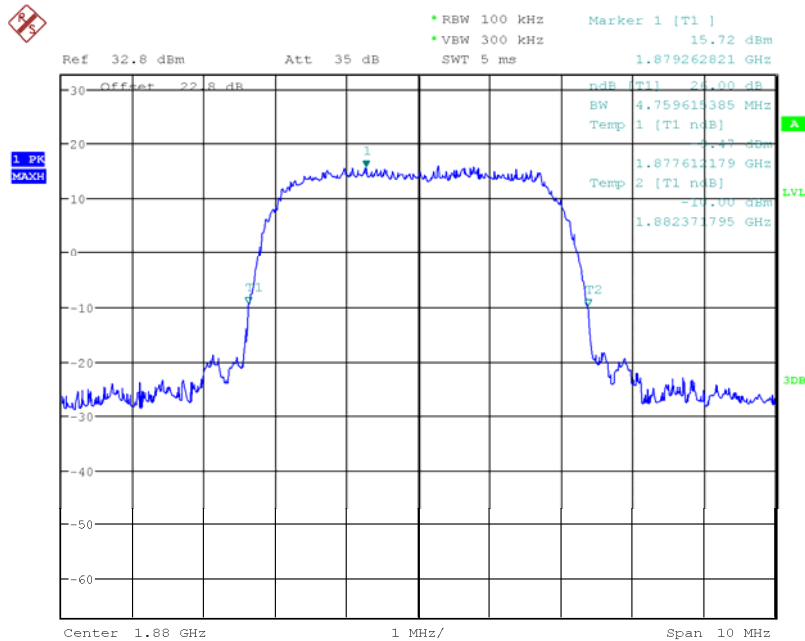
8PSK -26dBc Channel 810

Graphical results for WCDMA Band2:



Date: 22.OCT.2018 17:40:03

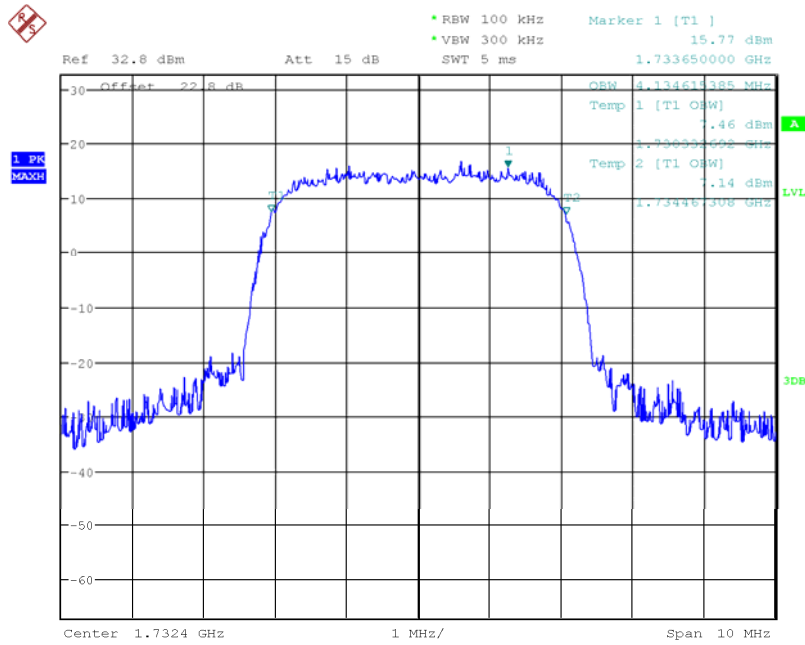
WCDMA B2 99% QPSK



Date: 22.OCT.2018 17:40:31

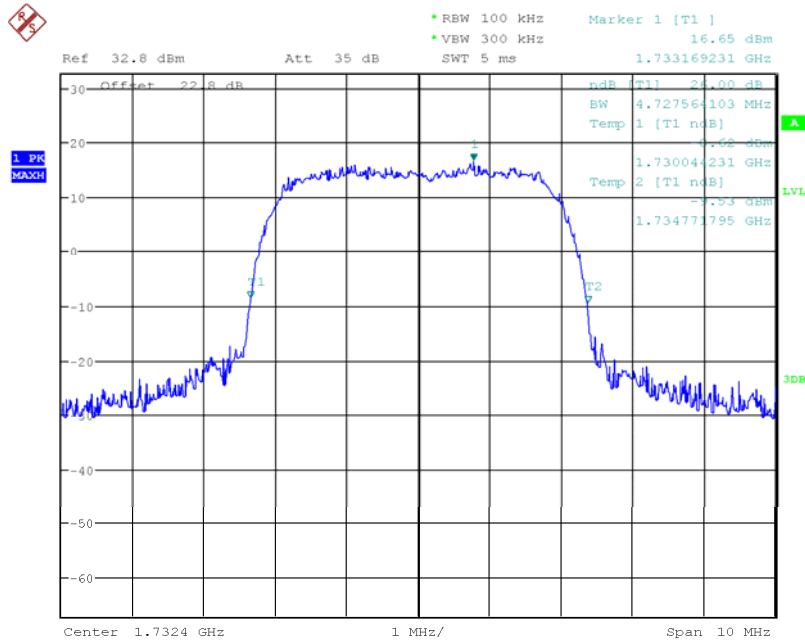
WCDMA B2 -26dBc QPSK

Graphical results for WCDMA Band4:



Date: 22.OCT.2018 17:42:39

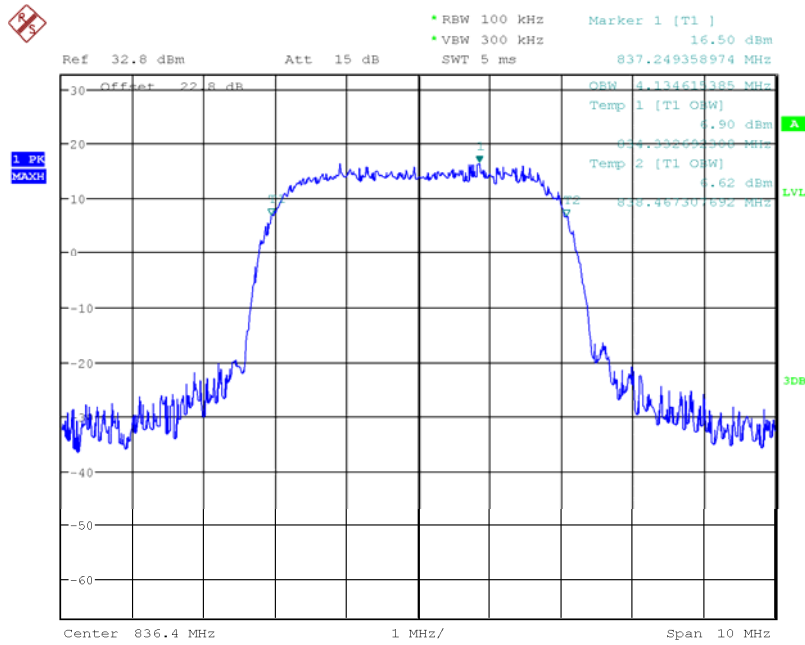
WCDMA B4 99% QPSK



Date: 22.OCT.2018 17:42:17

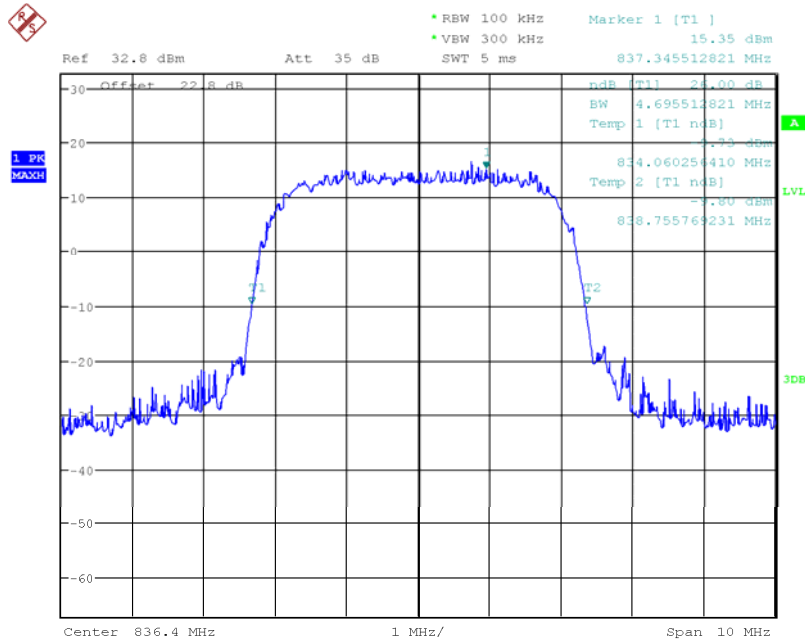
WCDMA B4 -26dBc QPSK

Graphical results for WCDMA Band5:



Date: 22.OCT.2018 17:45:17

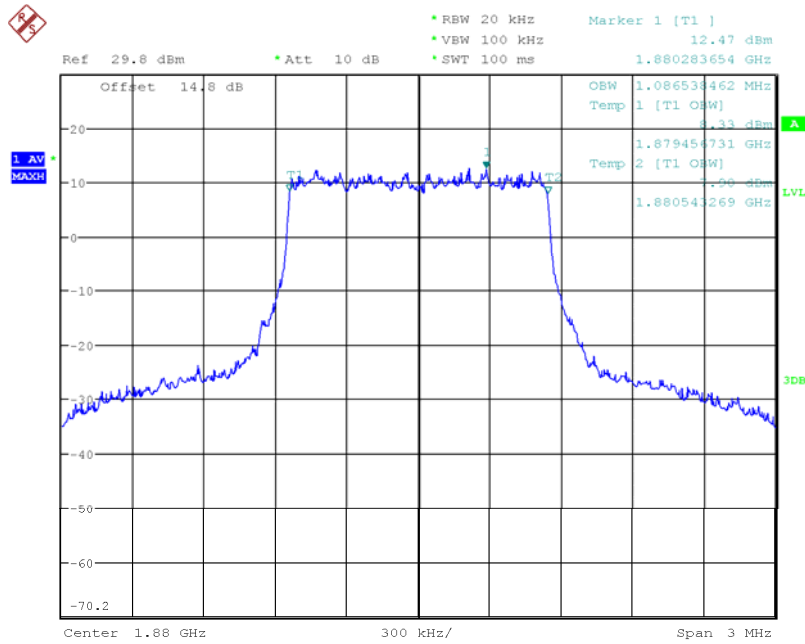
WCDMA B5 99% QPSK



Date: 22.OCT.2018 17:45:40

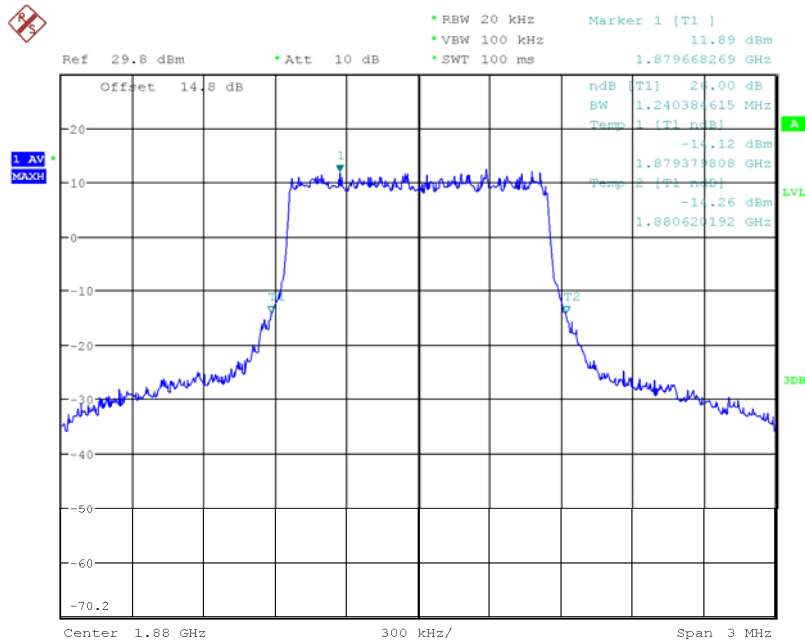
WCDMA B5 -26dBc QPSK

Graphical results for LTE B2:



Date: 18.OCT.2018 15:08:04

LTE Band2 QPSK 99% Channel 1890 BW=1.4MHz RB=6 RB Offset=0

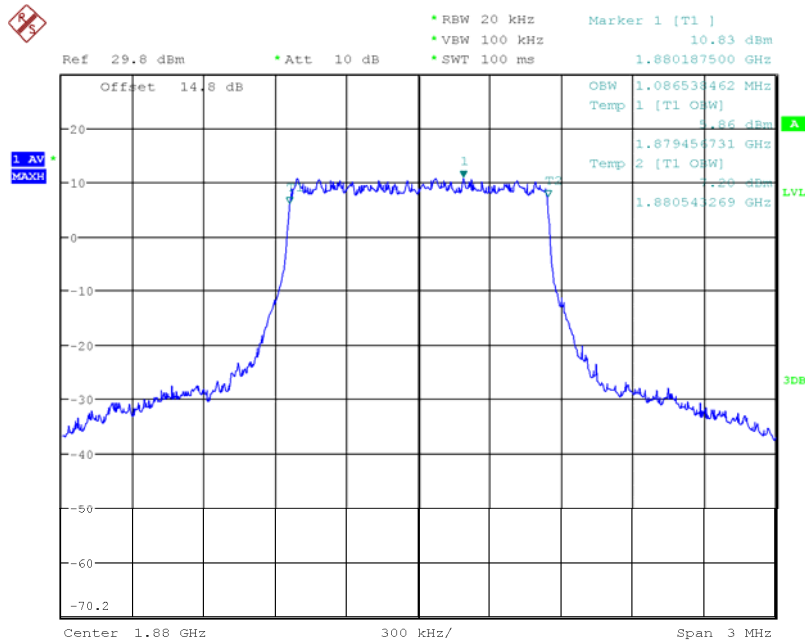


Date: 18.OCT.2018 15:08:24

LTE Band2 QPSK -26dBc Channel 1890 BW=1.4MHz RB=6 RB Offset=0

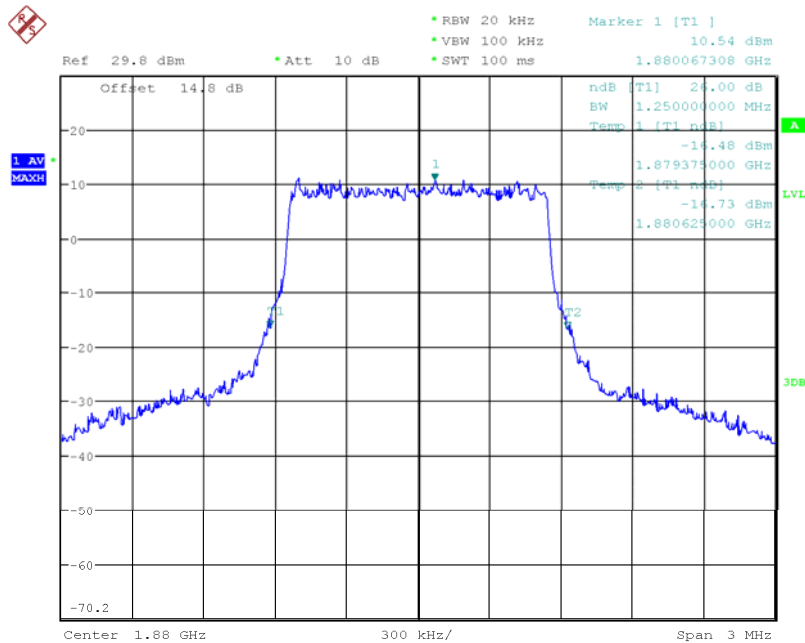
Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

Report No.:B18W50495-WWAN



Date: 18.OCT.2018 15:22:22

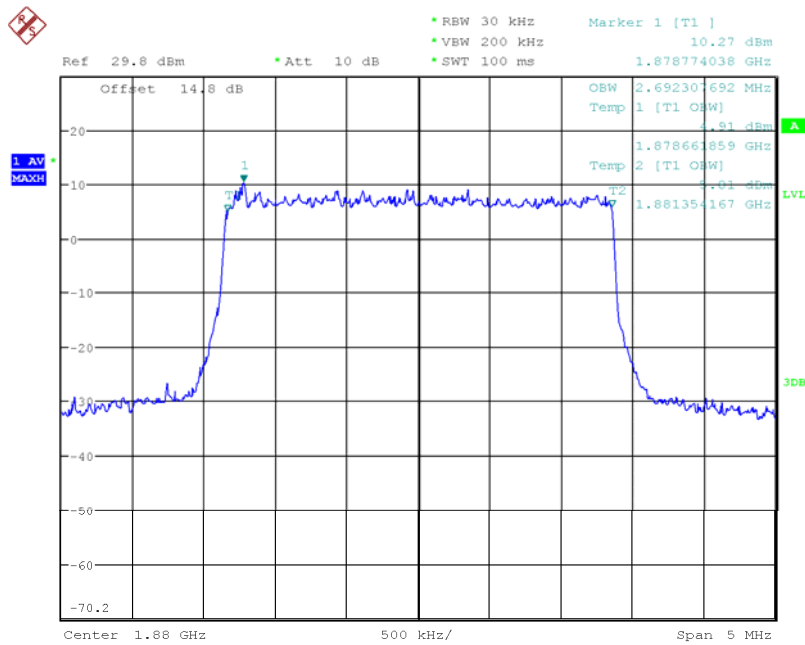
LTE Band2 16QAM 99% Channel 18900 BW=1.4MHz RB=6 RB Offset=0



Date: 18.OCT.2018 15:22:44

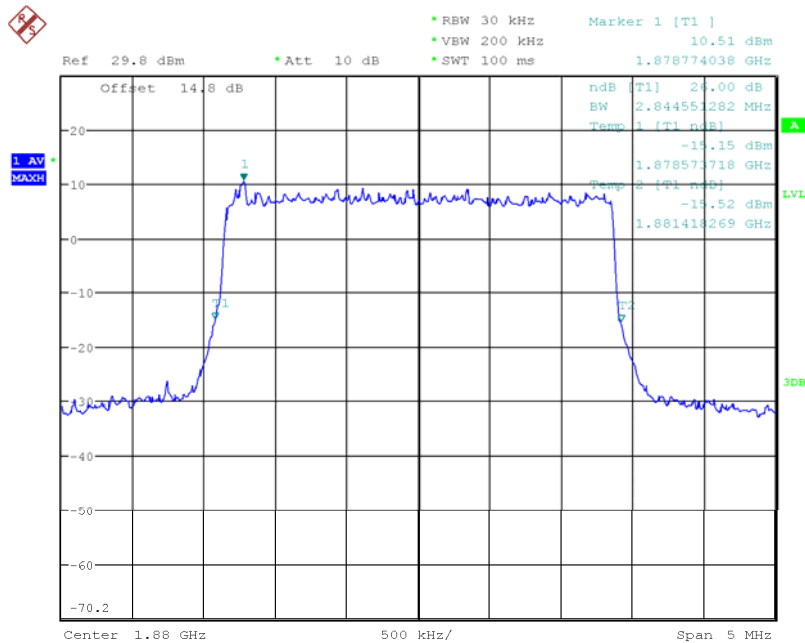
LTE Band2 16QAM -26dBc Channel 18900 BW=1.4MHz RB=6 RB Offset=0

Report No.:B18W50495-WWAN



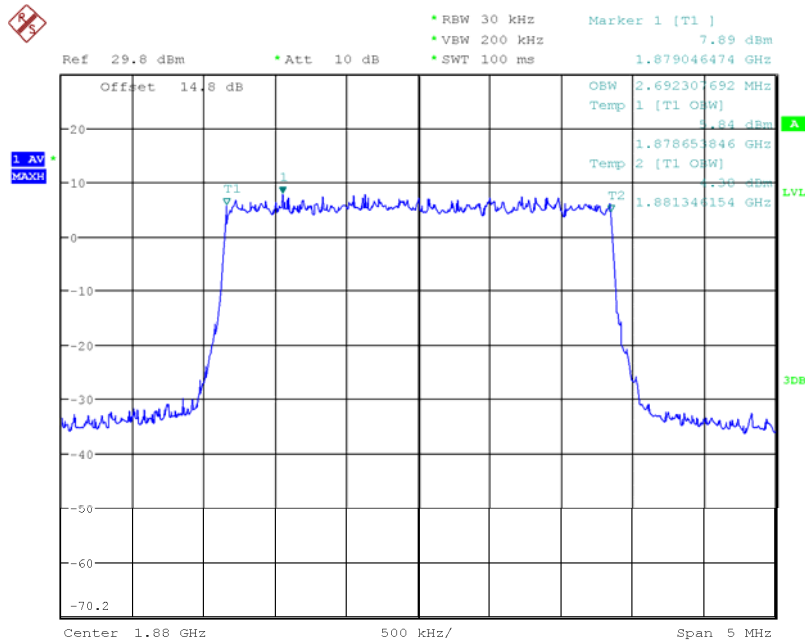
Date: 18.OCT.2018 15:10:56

LTE Band2 QPSK 99% Channel 18900 BW=3MHz RB=15 RB Offset=0



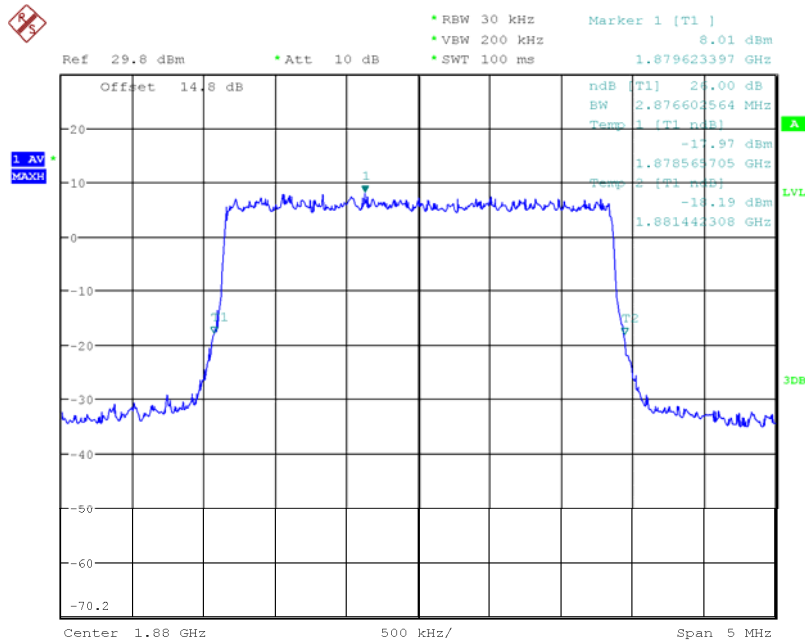
Date: 18.OCT.2018 15:10:30

LTE Band2 QPSK -26dBc Channel 18900 BW=3MHz RB=15 RB Offset=0



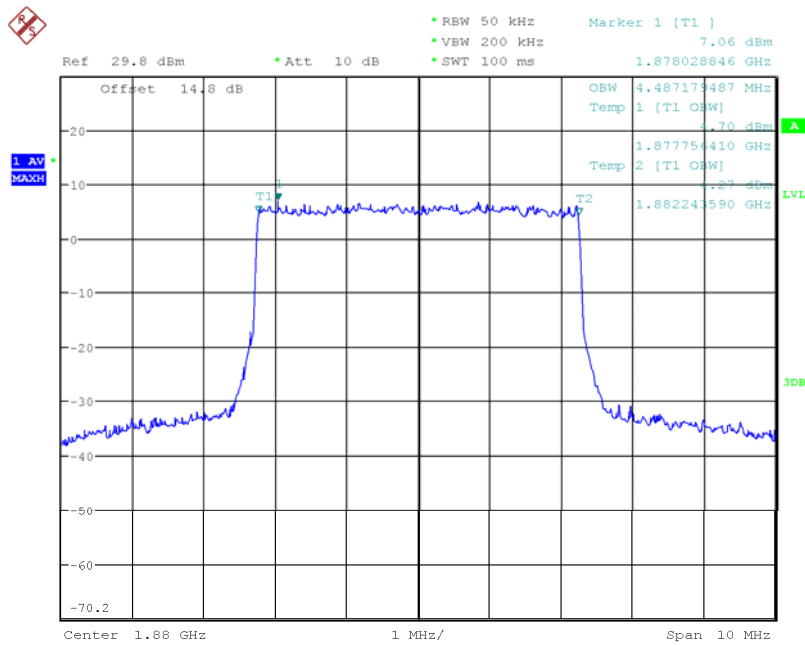
Date: 18.OCT.2018 15:23:38

LTE Band2 16QAM 99% Channel 18900 BW=3MHz RB=15 RB Offset=0



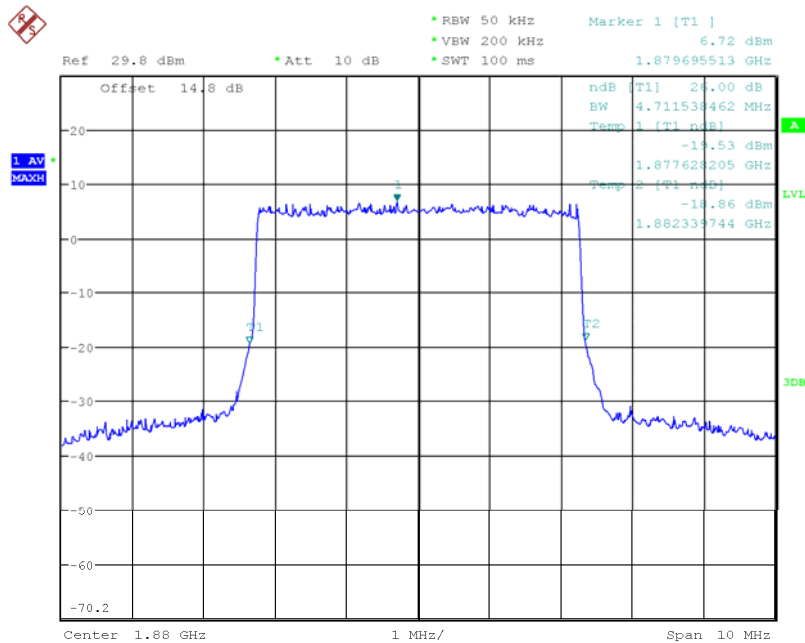
Date: 18.OCT.2018 15:23:22

LTE Band2 16QAM -26dBc Channel 18900 BW=3MHz RB=15 RB Offset=0



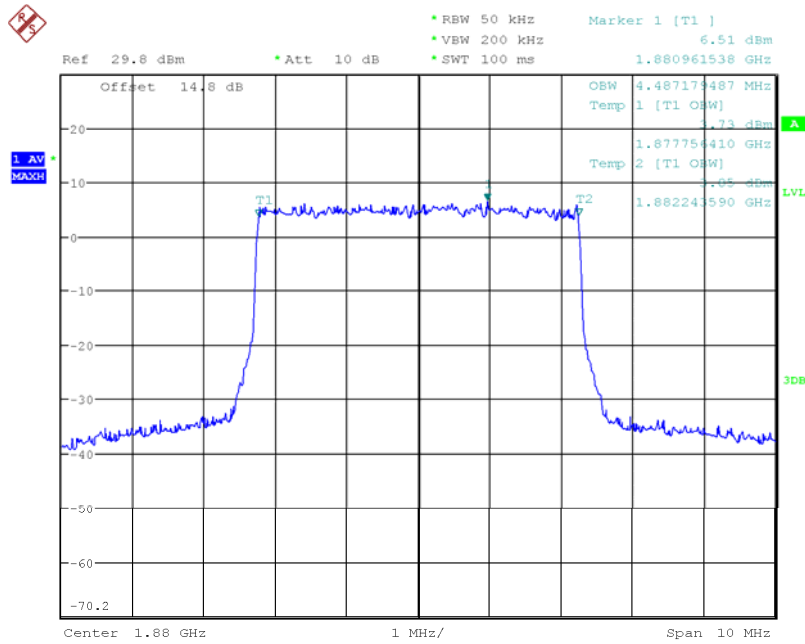
Date: 18.OCT.2018 15:11:59

LTE Band2 QPSK 99% Channel 18900 BW=5MHz RB=25 RB Offset=0



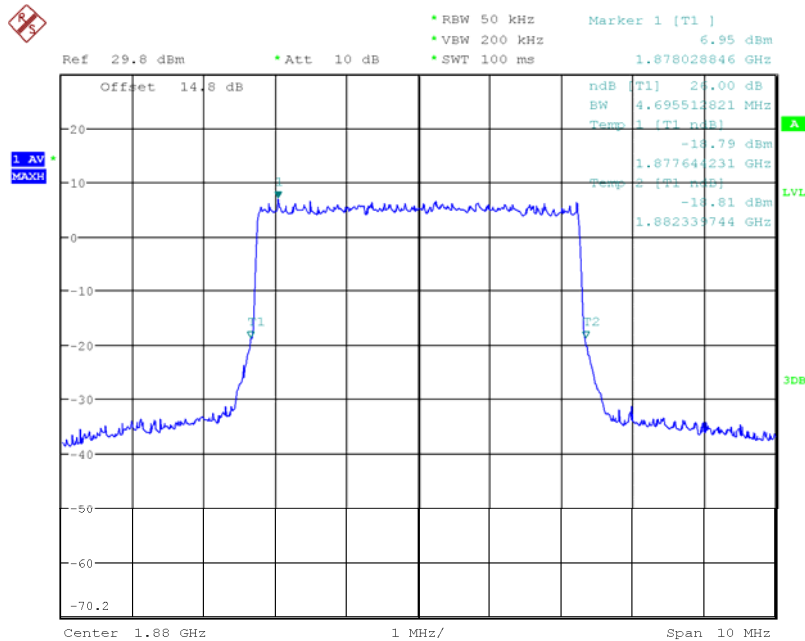
Date: 18.OCT.2018 15:12:18

LTE Band2 QPSK -26dBc Channel 18900 BW=5MHz RB=25 RB Offset=0



Date: 18.OCT.2018 15:24:09

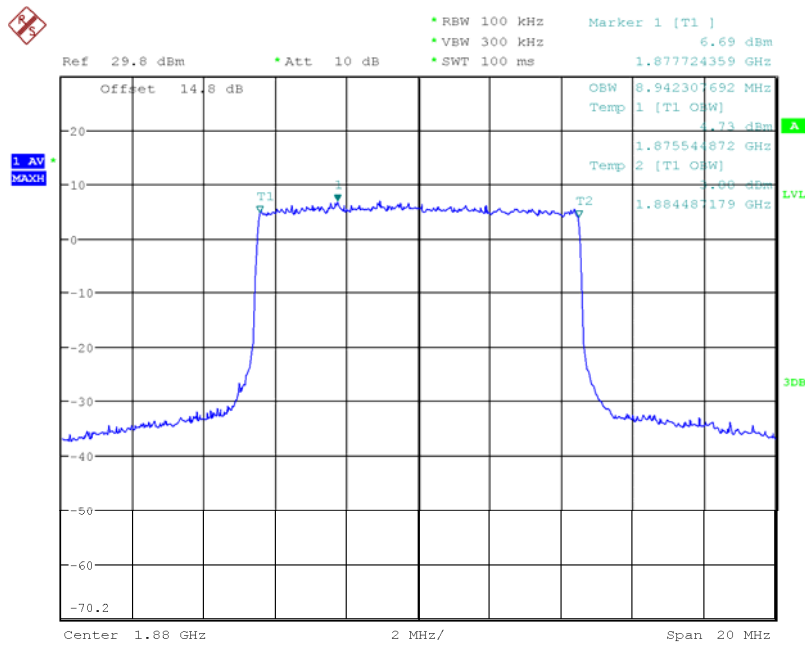
LTE Band2 16QAM 99% Channel 18900 BW=5MHz RB=25 RB Offset=0



Date: 18.OCT.2018 15:24:28

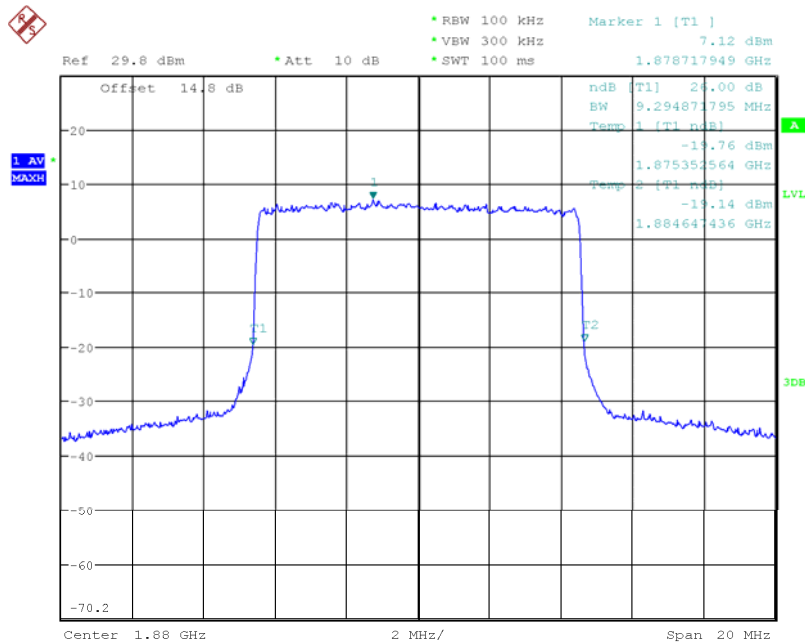
LTE Band2 16QAM -26dBc Channel 18900 BW=5MHz RB=25 RB Offset=0

Report No.:B18W50495-WWAN



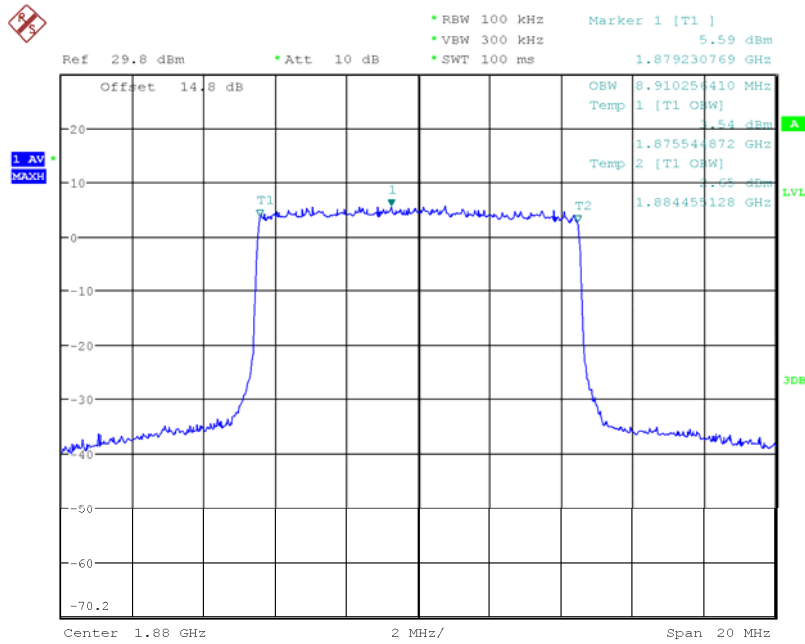
Date: 18.OCT.2018 15:18:38

LTE Band2 QPSK 99% Channel 18900 BW=10MHz RB=50 RB Offset=0



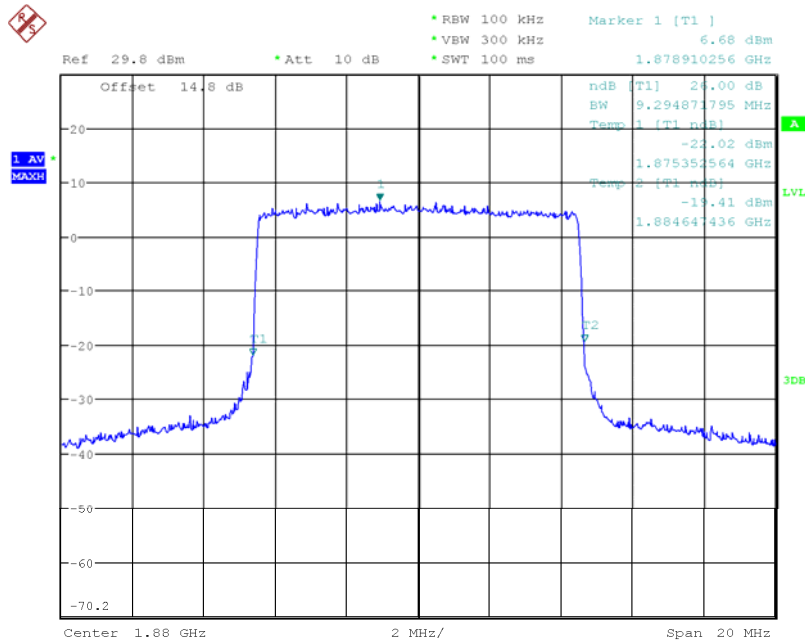
Date: 18.OCT.2018 15:18:11

LTE Band2 QPSK -26dBc Channel 18900 BW=10MHz RB=50 RB Offset=0



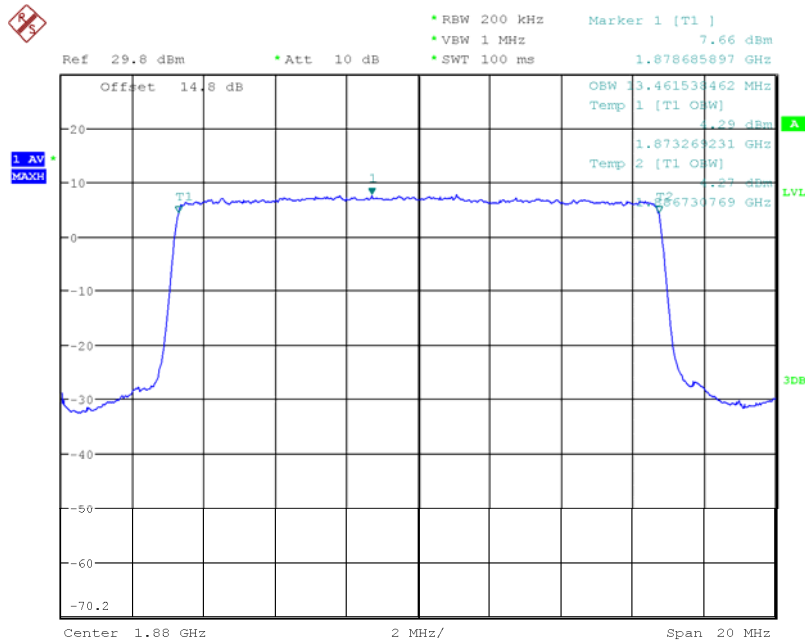
Date: 18.OCT.2018 15:25:23

LTE Band2 16QAM 99% Channel 18900 BW=10MHz RB=50 RB Offset=0



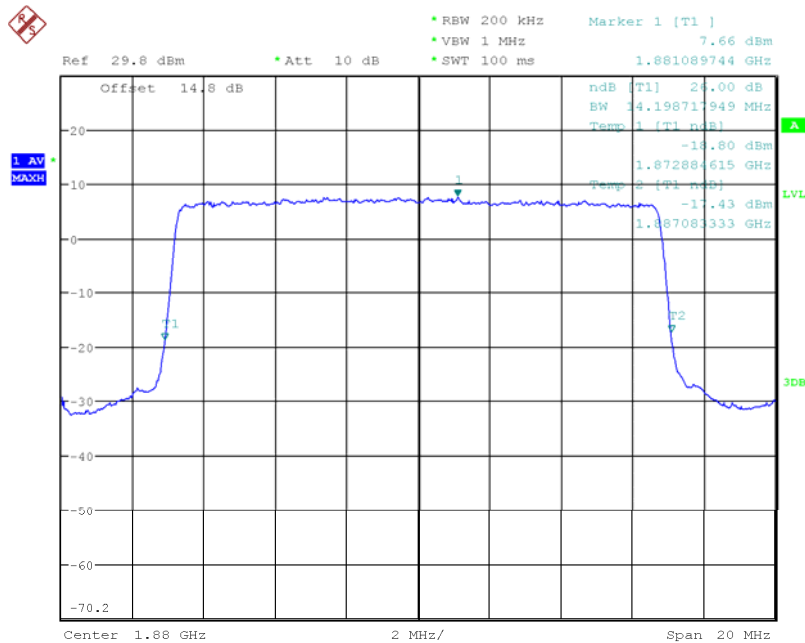
Date: 18.OCT.2018 15:25:06

LTE Band2 16QAM -26dBc Channel 18900 BW=10MHz RB=50 RB Offset=0



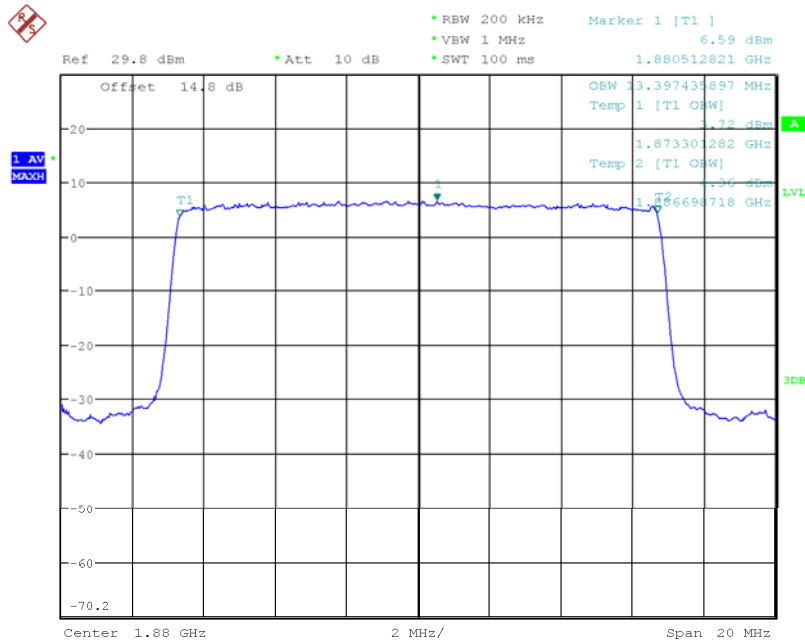
Date: 18.OCT.2018 15:19:38

LTE Band2 QPSK 99% Channel 18900 BW=15MHz RB=75 RB Offset=0



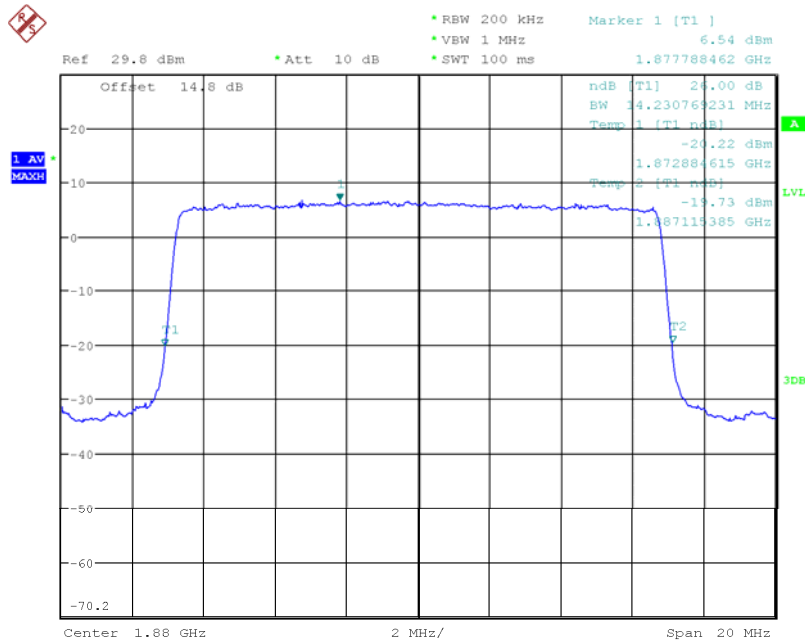
Date: 18.OCT.2018 15:20:06

LTE Band2 QPSK -26dBc Channel 18900 BW=15MHz RB=75 RB Offset=0



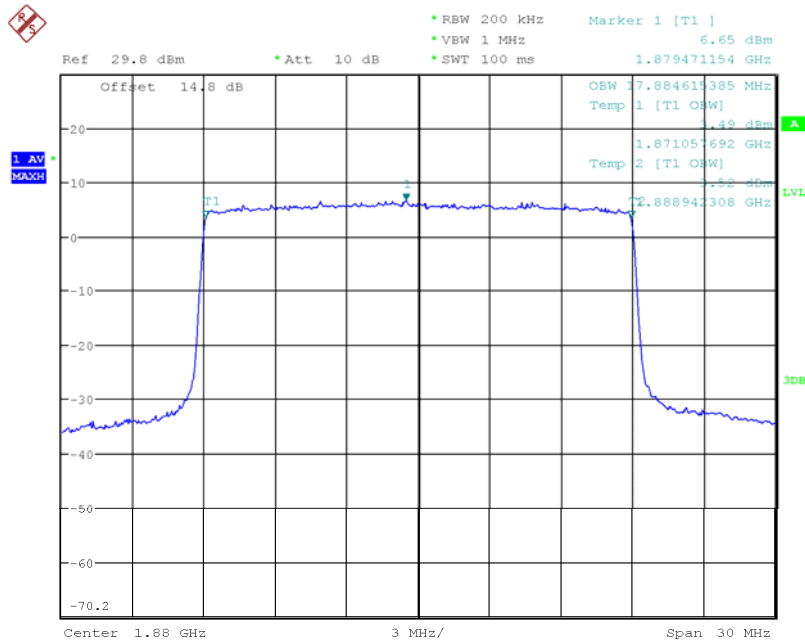
Date: 18.OCT.2018 15:25:58

LTE Band2 16QAM 99% Channel 18900 BW=15MHz RB=75 RB Offset=0



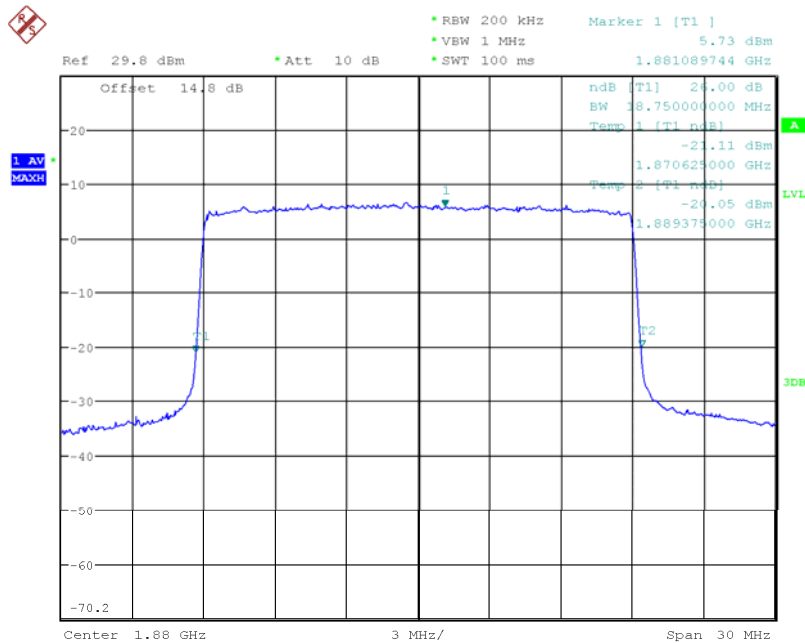
Date: 18.OCT.2018 15:26:13

LTE Band2 16QAM -26dBc Channel 18900 BW=15MHz RB=75 RB Offset=0



Date: 18.OCT.2018 15:21:03

LTE Band2 QPSK 99% Channel 18900 BW=20MHz RB=100 RB Offset=0

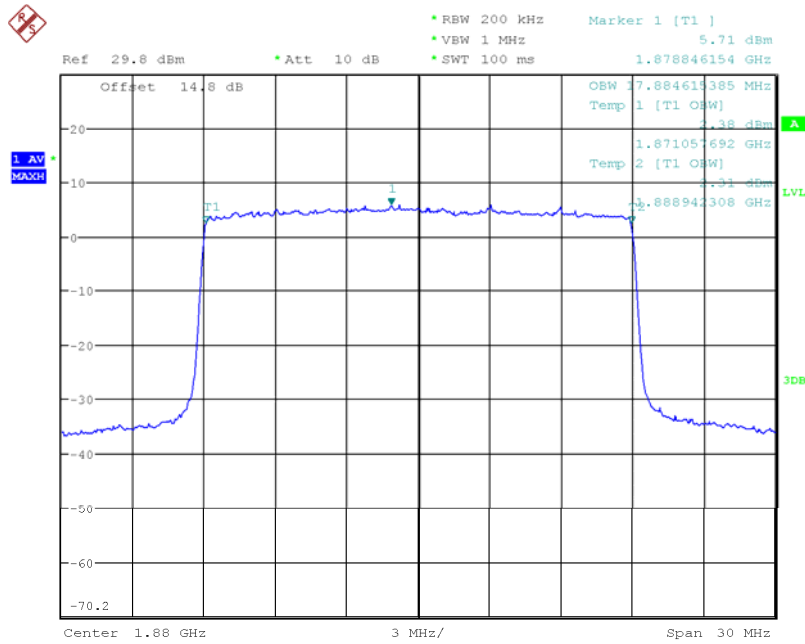


Date: 18.OCT.2018 15:20:48

LTE Band2 QPSK -26dBc Channel 18900 BW=20MHz RB=100 RB Offset=0

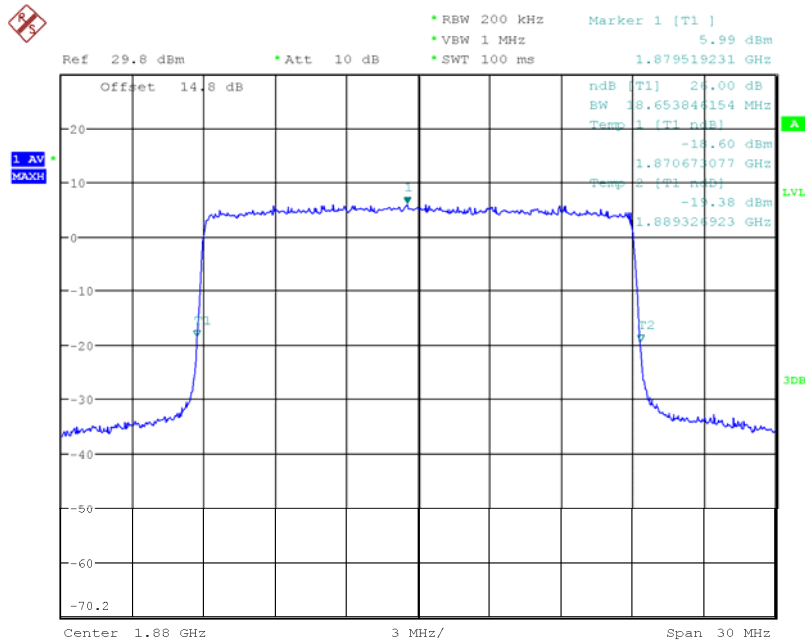
Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN



Date: 18.OCT.2018 15:27:00

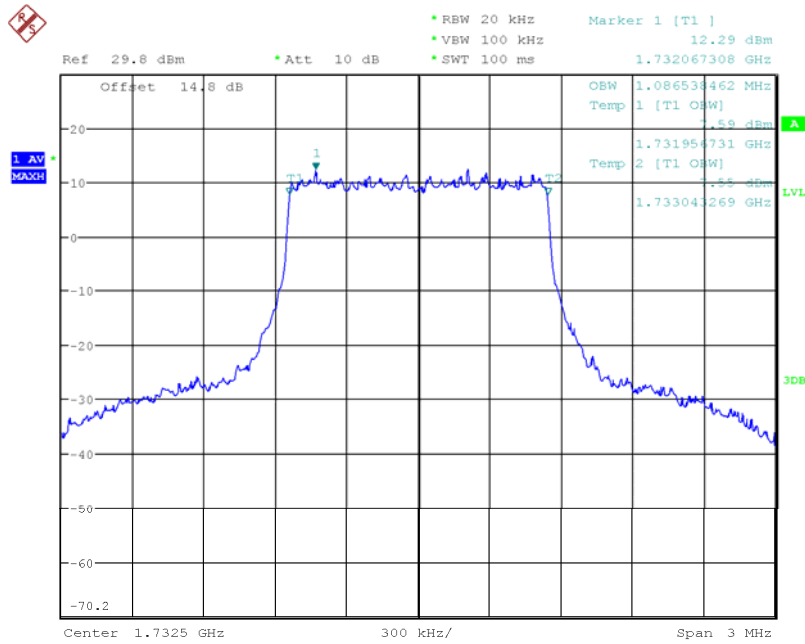
LTE Band2 16QAM 99% Channel 18900 BW=20MHz RB=100 RB Offset=0



Date: 18.OCT.2018 15:26:40

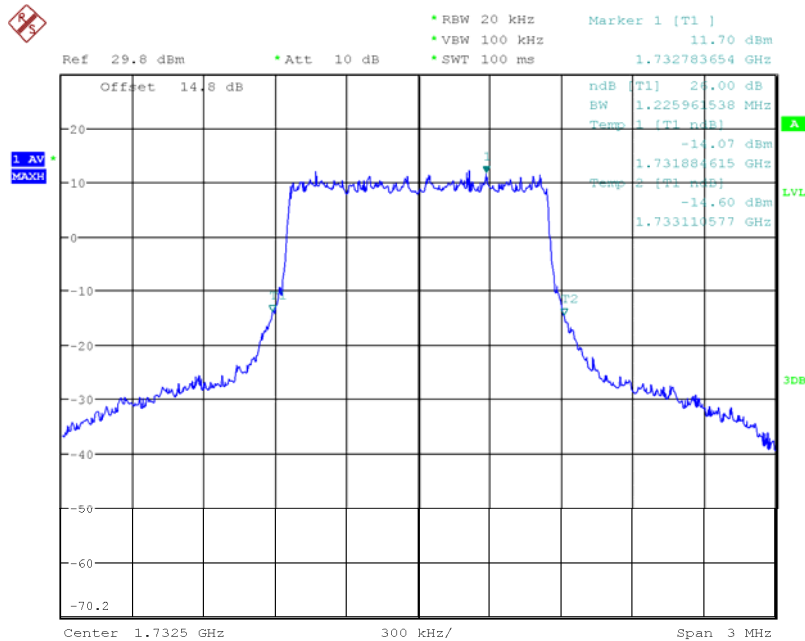
LTE Band2 16QAM -26dBc Channel 18900 BW=20MHz RB=100 RB Offset=0

Graphical results for LTE B4:



Date: 18.OCT.2018 15:31:27

LTE Band4 QPSK 99% Channel 20175 BW=1.4MHz RB=6 RB Offset=0

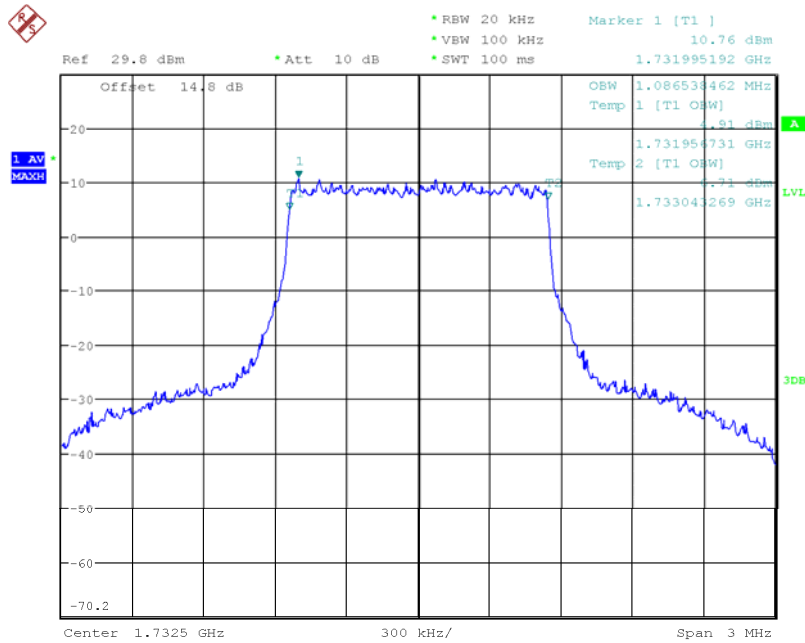


Date: 18.OCT.2018 15:31:46

LTE Band4 QPSK -26dBc Channel 20175 BW=1.4MHz RB=6 RB Offset=0

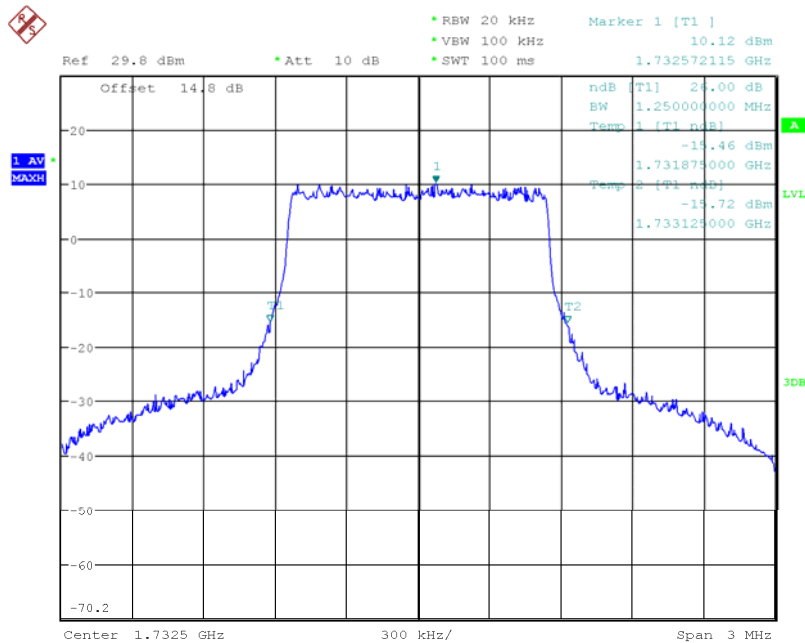
Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

Report No.:B18W50495-WWAN



Date: 18.OCT.2018 15:36:14

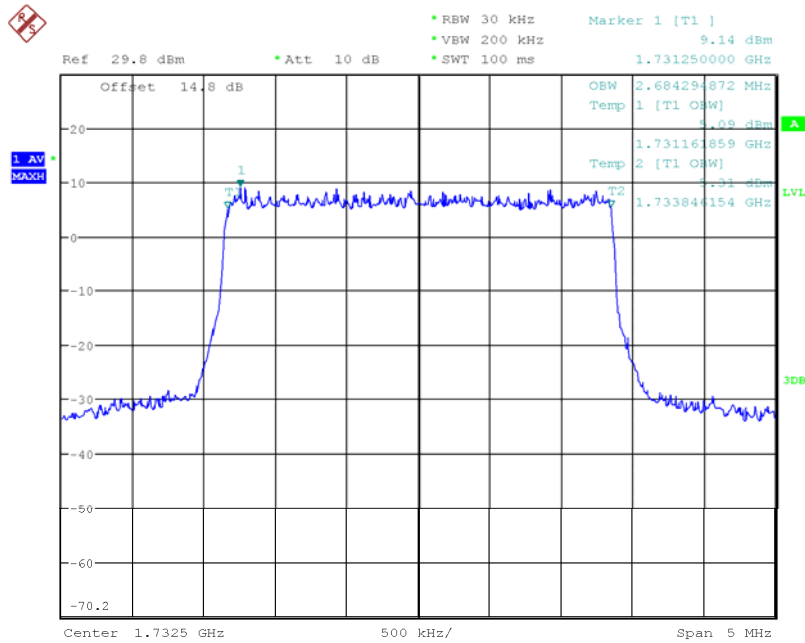
LTE Band4 16QAM 99% Channel 20175 BW=1.4MHz RB=6 RB Offset=0



Date: 18.OCT.2018 15:36:30

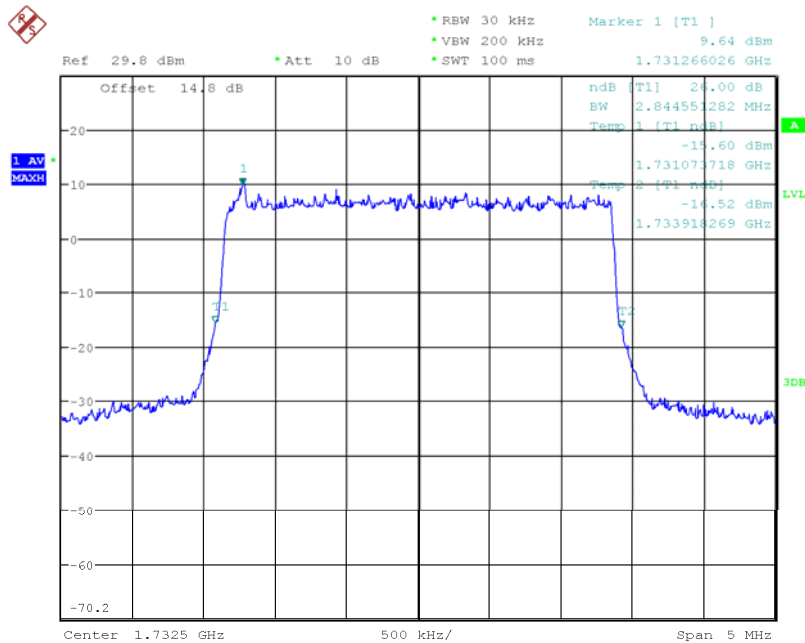
LTE Band4 16QAM -26dBc Channel 20175 BW=1.4MHz RB=6 RB Offset=0

Report No.:B18W50495-WWAN



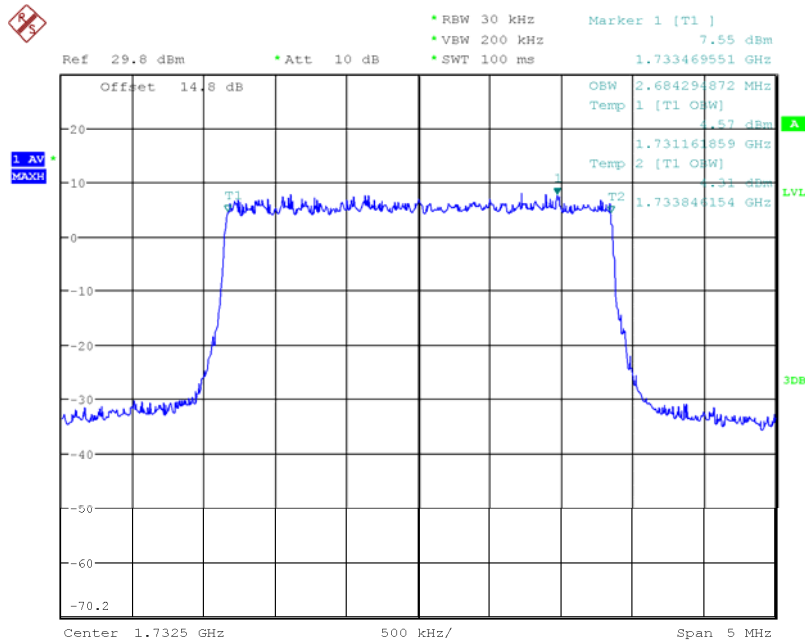
Date: 18.OCT.2018 15:32:32

LTE Band4 QPSK 99% Channel 20175 BW=3MHz RB=15 RB Offset=0



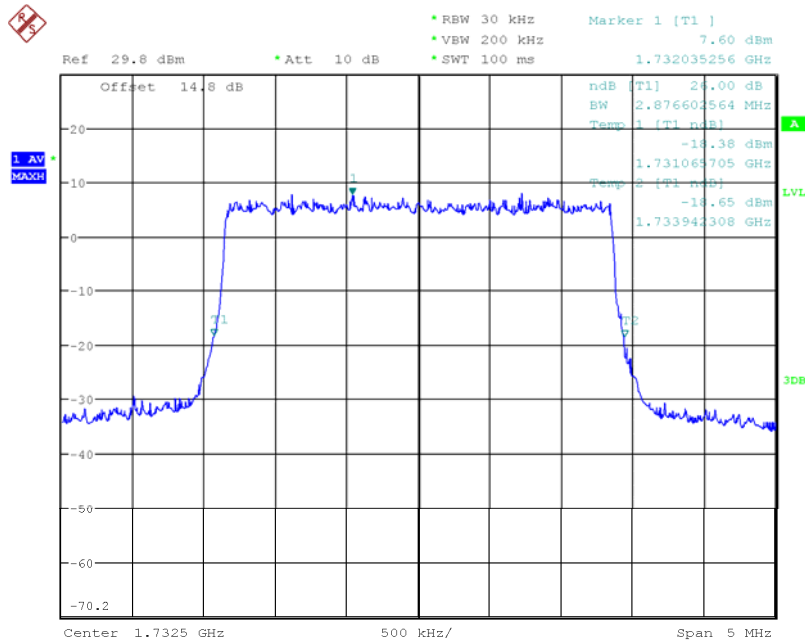
Date: 18.OCT.2018 15:32:18

LTE Band4 QPSK -26dBc Channel 20175 BW=3MHz RB=15 RB Offset=0



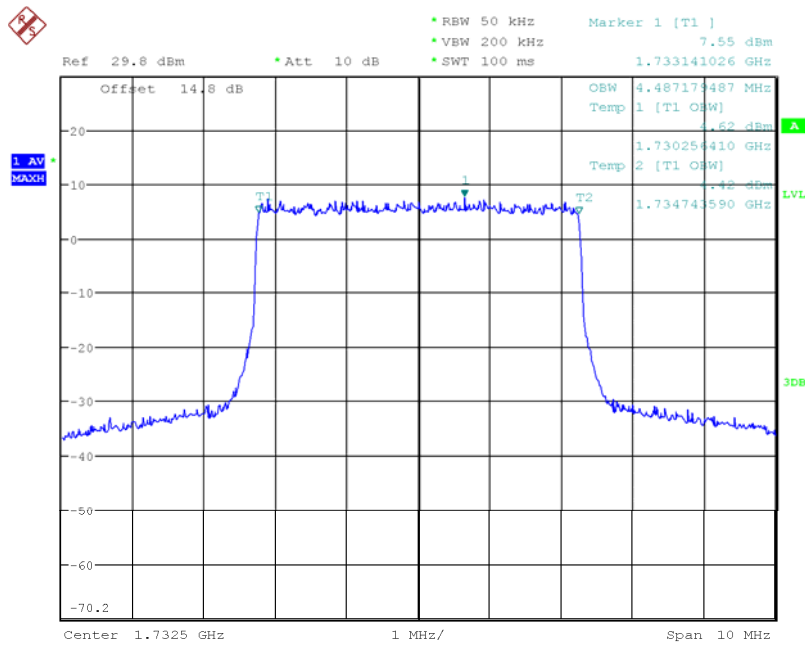
Date: 18.OCT.2018 15:37:08

LTE Band4 16QAM 99% Channel 20175 BW=3MHz RB=15 RB Offset=0



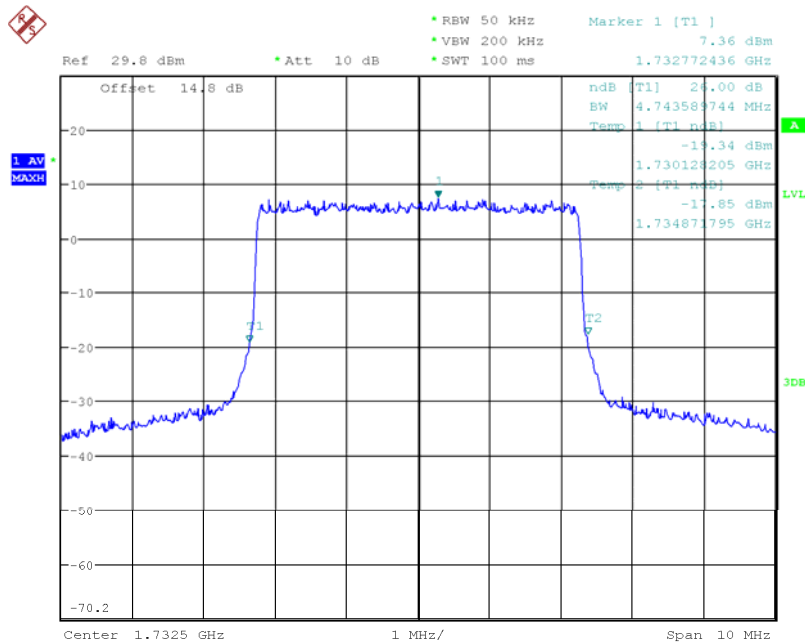
Date: 18.OCT.2018 15:36:55

LTE Band4 16QAM -26dBc Channel 20175 BW=3MHz RB=15 RB Offset=0



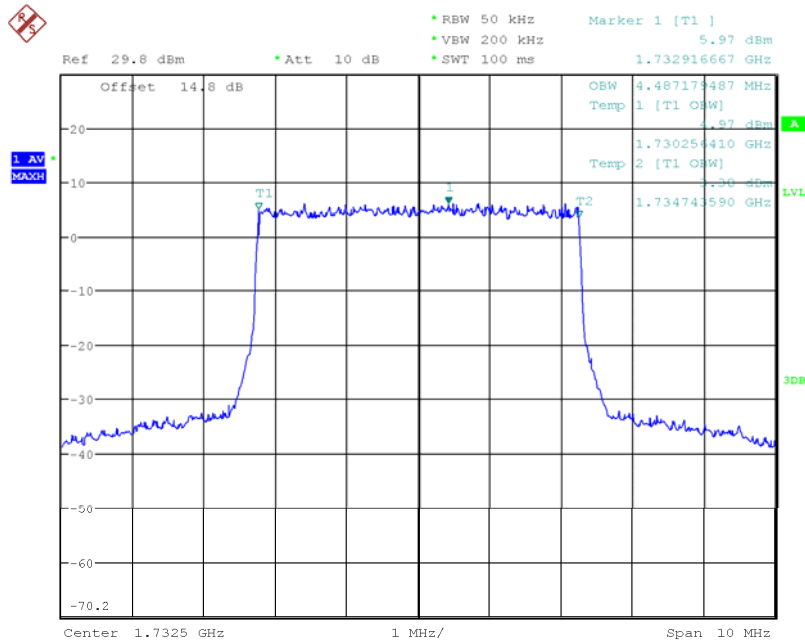
Date: 18.OCT.2018 15:33:02

LTE Band4 QPSK 99% Channel 20175 BW=5MHz RB=25 RB Offset=0



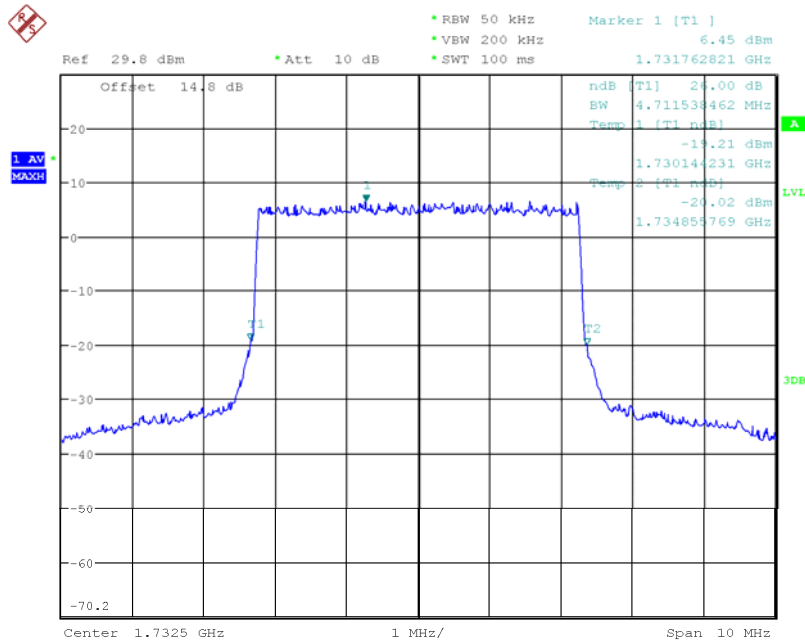
Date: 18.OCT.2018 15:33:18

LTE Band4 QPSK -26dBc Channel 20175 BW=5MHz RB=25 RB Offset=0



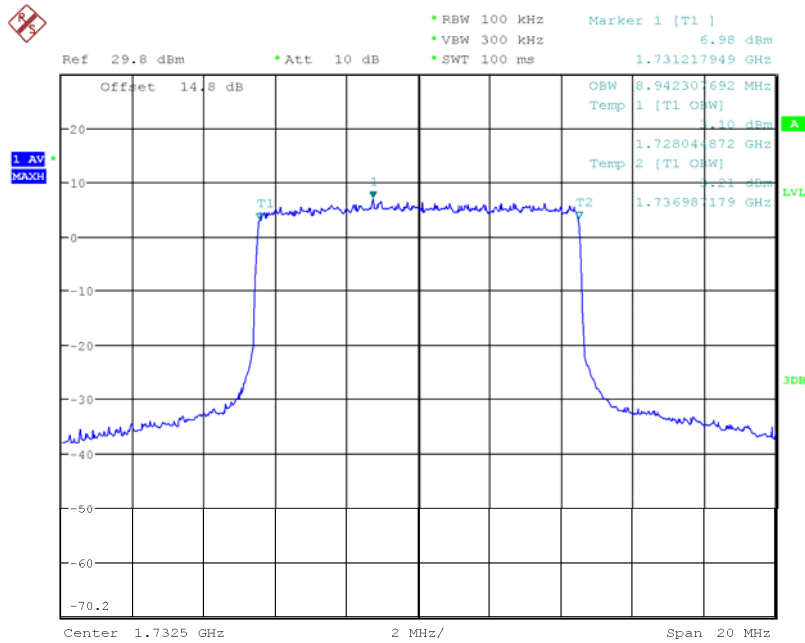
Date: 18.OCT.2018 15:37:33

LTE Band4 16QAM 99% Channel 20175 BW=5MHz RB=25 RB Offset=0



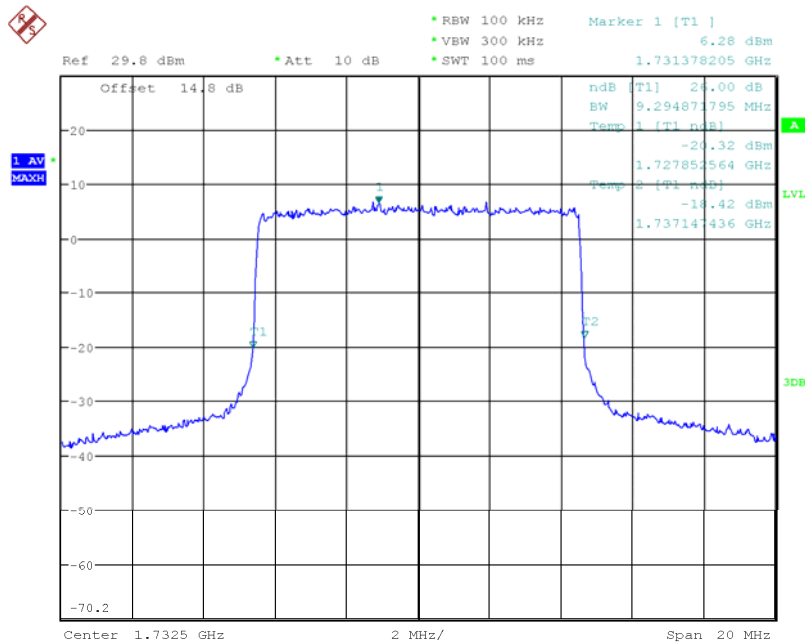
Date: 18.OCT.2018 15:37:53

LTE Band4 16QAM -26dBc Channel 20175 BW=5MHz RB=25 RB Offset=0



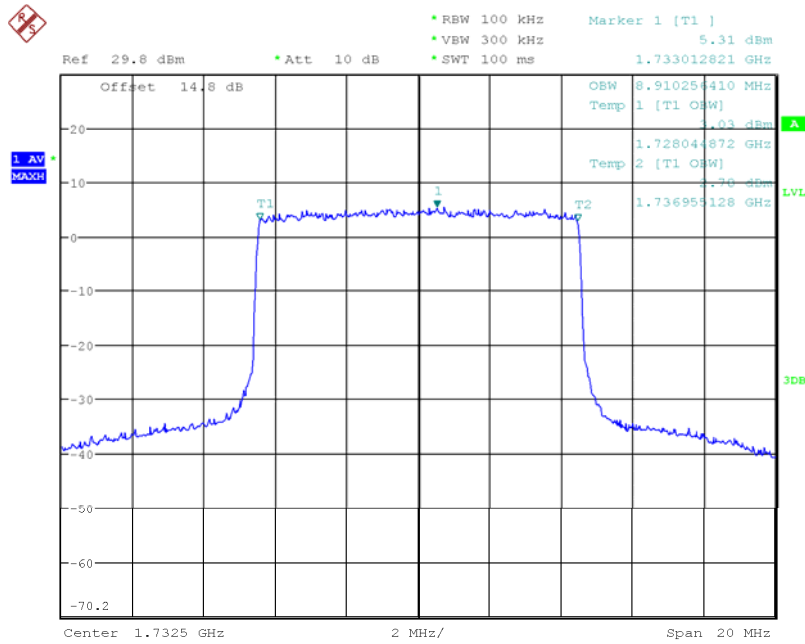
Date: 18.OCT.2018 15:34:11

LTE Band4 QPSK 99% Channel 20175 BW=10MHz RB=50 RB Offset=0



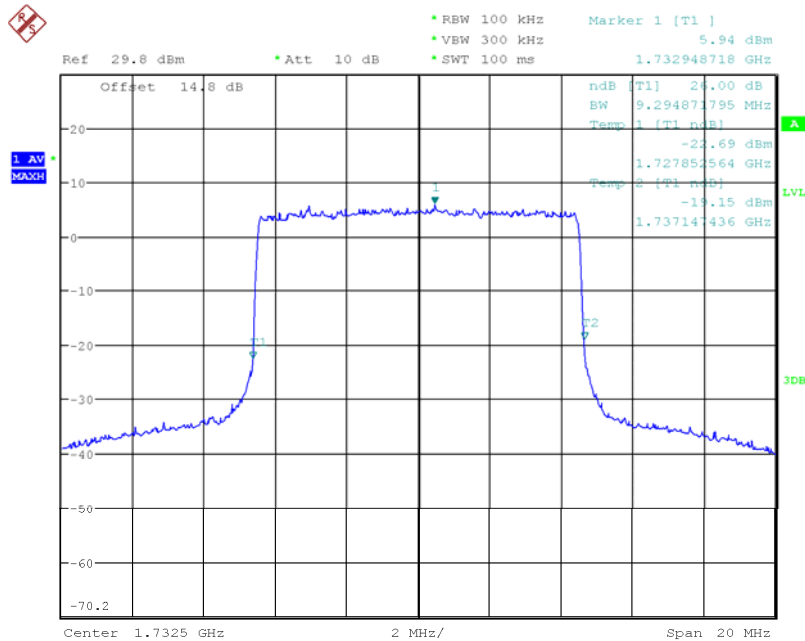
Date: 18.OCT.2018 15:33:52

LTE Band4 QPSK -26dBc Channel 20175 BW=10MHz RB=50 RB Offset=0



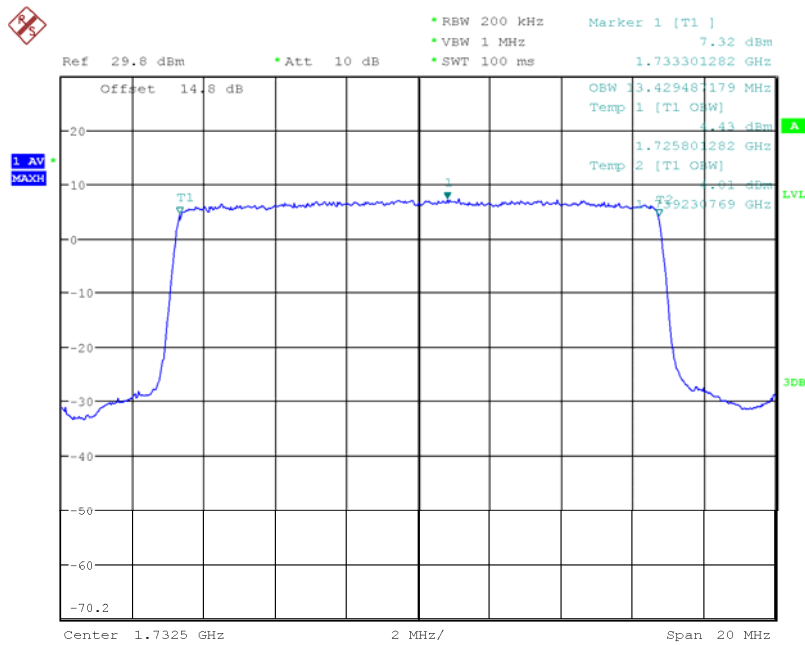
Date: 18.OCT.2018 15:38:42

LTE Band4 16QAM 99% Channel 20175 BW=10MHz RB=50 RB Offset=0



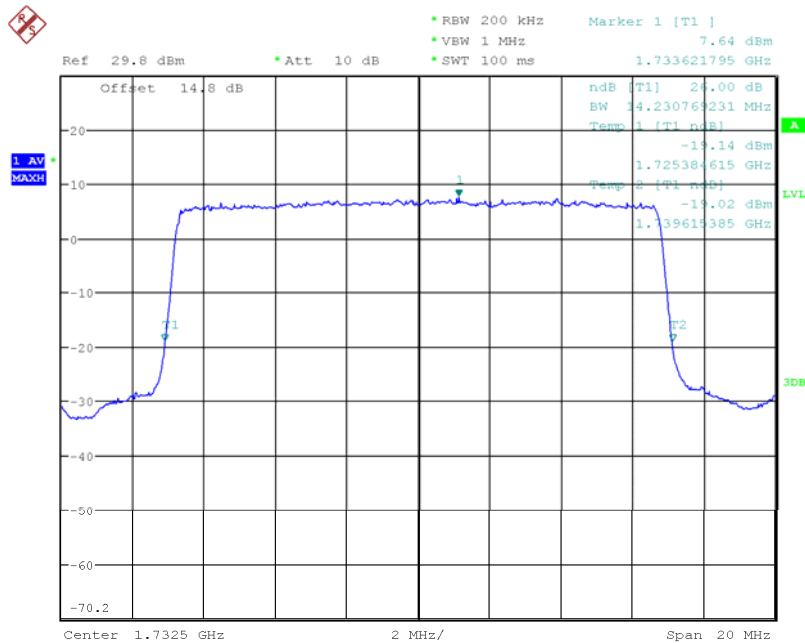
Date: 18.OCT.2018 15:38:29

LTE Band4 16QAM -26dBc Channel 20175 BW=10MHz RB=50 RB Offset=0



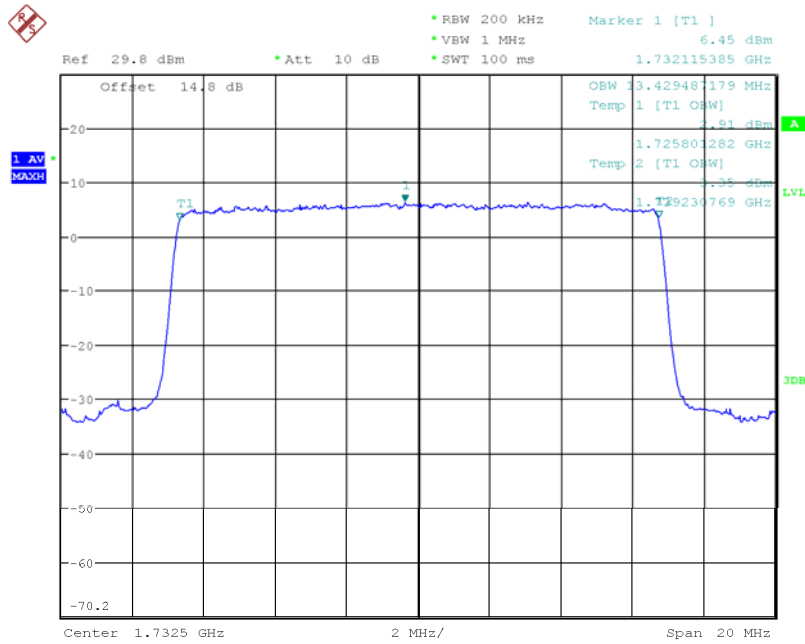
Date: 18.OCT.2018 15:34:37

LTE Band4 QPSK 99% Channel 20175 BW=15MHz RB=75 RB Offset=0



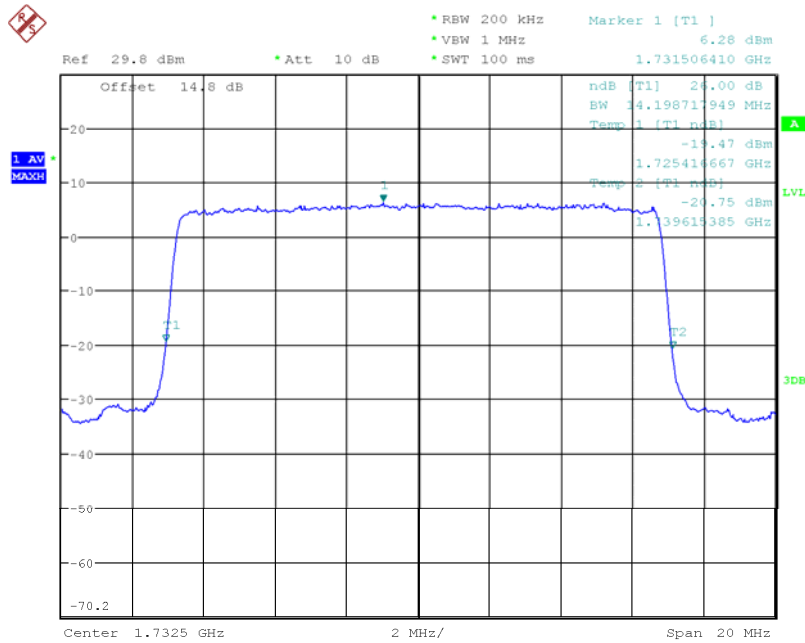
Date: 18.OCT.2018 15:34:49

LTE Band4 QPSK -26dBc Channel 20175 BW=15MHz RB=75 RB Offset=0



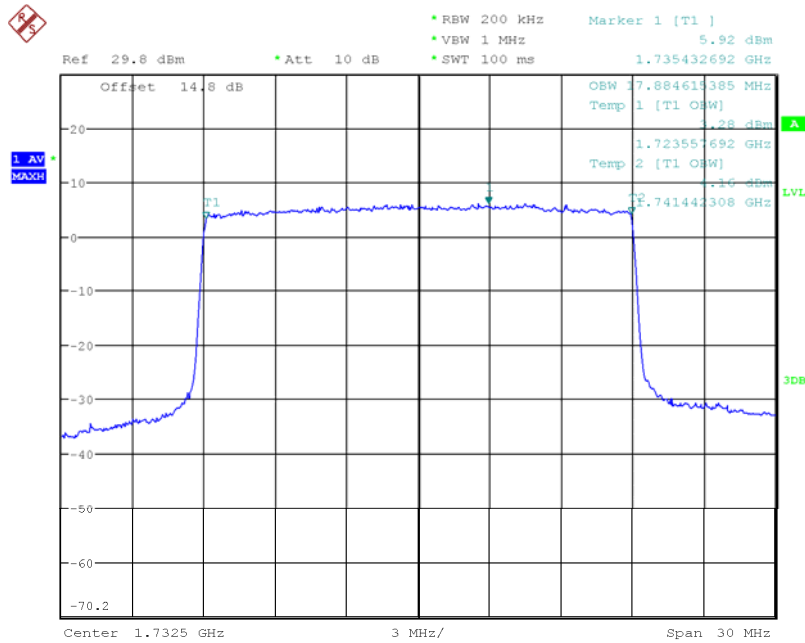
Date: 18.OCT.2018 15:39:08

LTE Band4 16QAM 99% Channel 20175 BW=15MHz RB=75 RB Offset=0



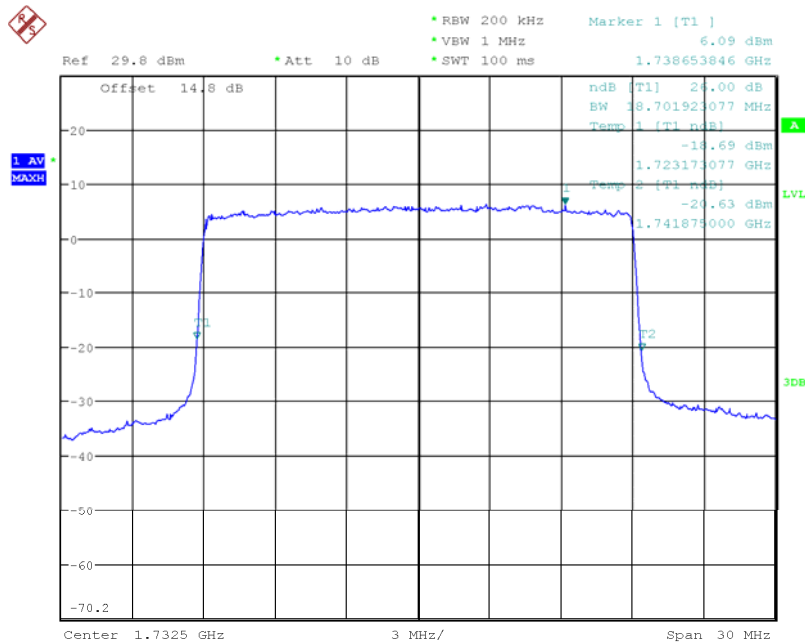
Date: 18.OCT.2018 15:39:22

LTE Band4 16QAM -26dBc Channel 20175 BW=15MHz RB=75 RB Offset=0



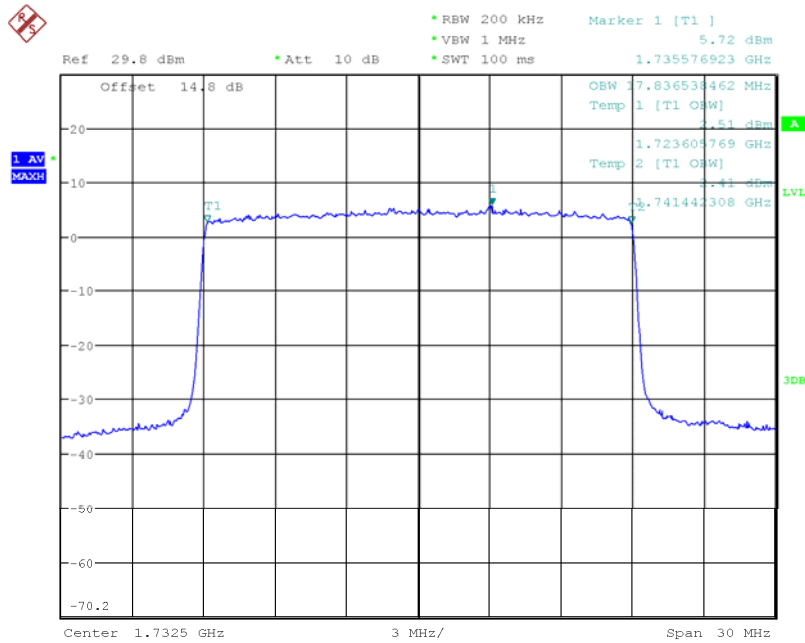
Date: 18.OCT.2018 15:35:23

LTE Band4 QPSK 99% Channel 20175 BW=20MHz RB=100 RB Offset=0



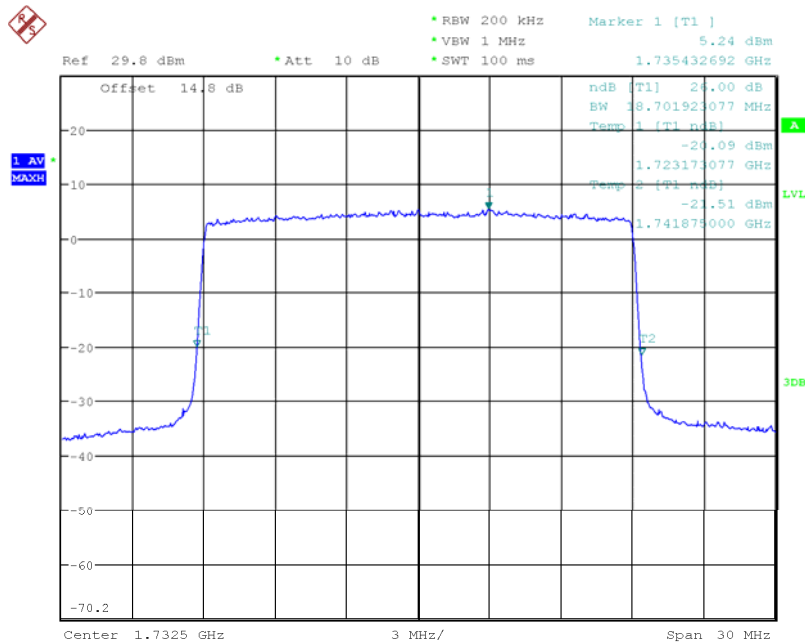
Date: 18.OCT.2018 15:35:11

LTE Band4 QPSK -26dBc Channel 20175 BW=20MHz RB=100 RB Offset=0



Date: 18.OCT.2018 15:39:56

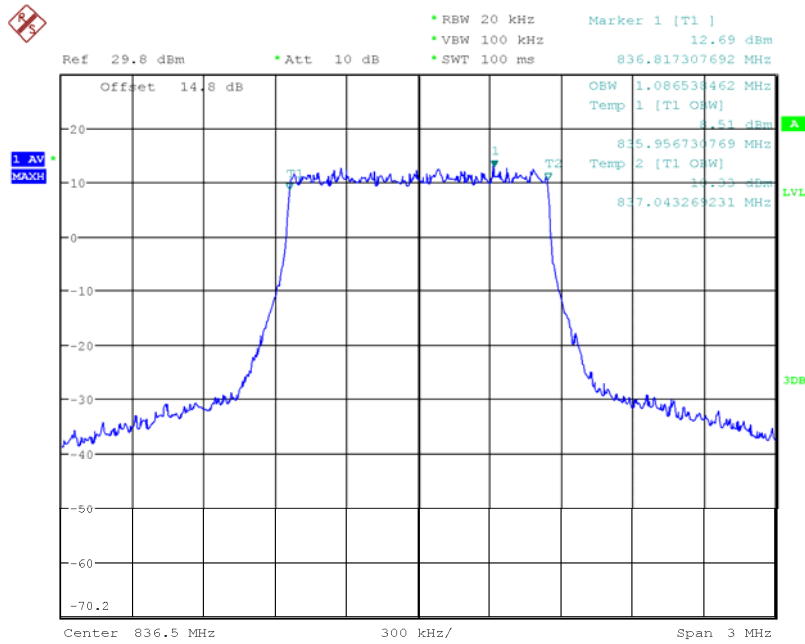
LTE Band4 16QAM 99% Channel 20175 BW=20MHz RB=100 RB Offset=0



Date: 18.OCT.2018 15:39:43

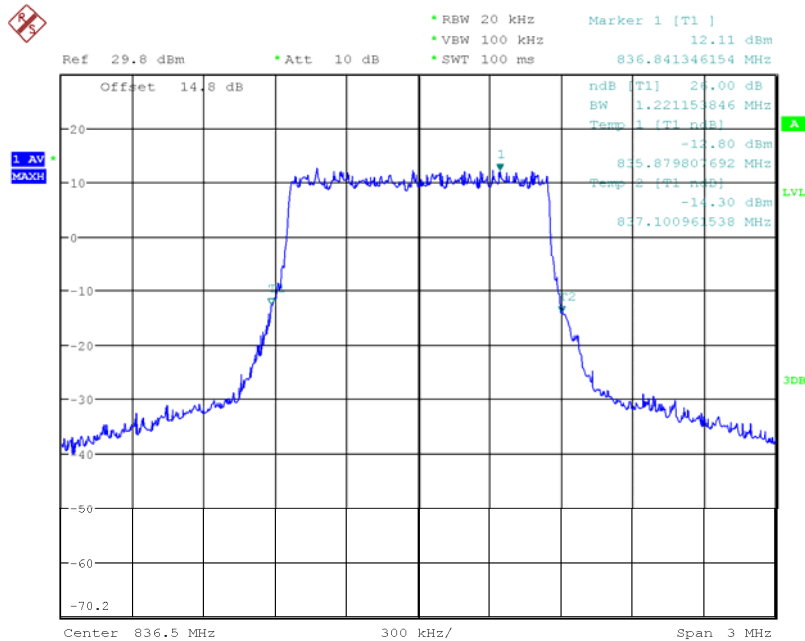
LTE Band4 16QAM -26dBc Channel 20175 BW=20MHz RB=100 RB Offset=0

Graphical results for LTE B5:



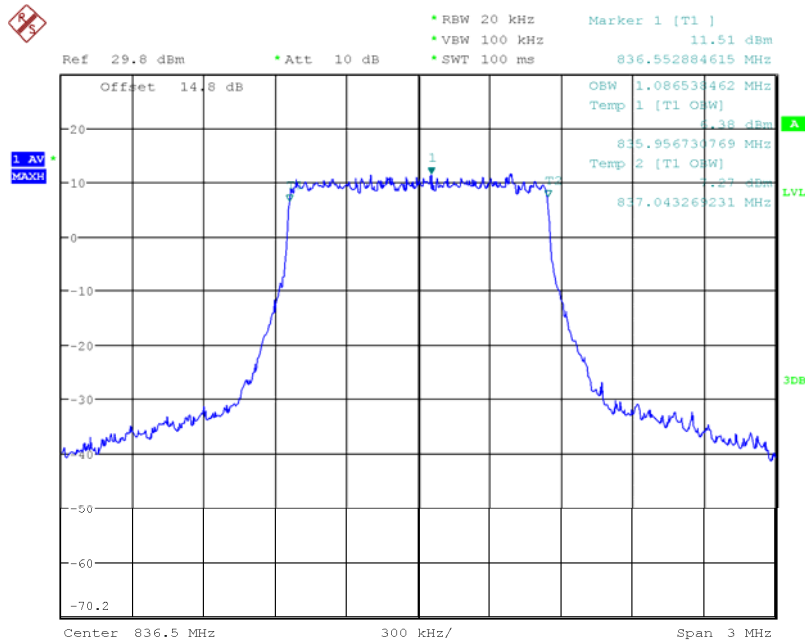
Date: 18.OCT.2018 15:46:35

LTE Band5 QPSK 99% Channel 20525 BW=1.4MHz RB=6 RB Offset=0



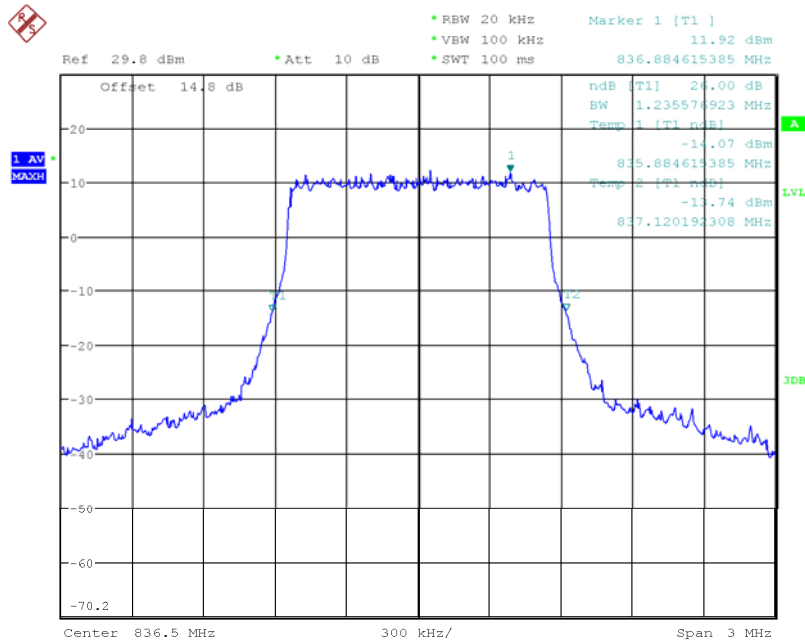
Date: 18.OCT.2018 15:46:49

LTE Band5 QPSK -26dBc Channel 20525 BW=1.4MHz RB=6 RB Offset=0



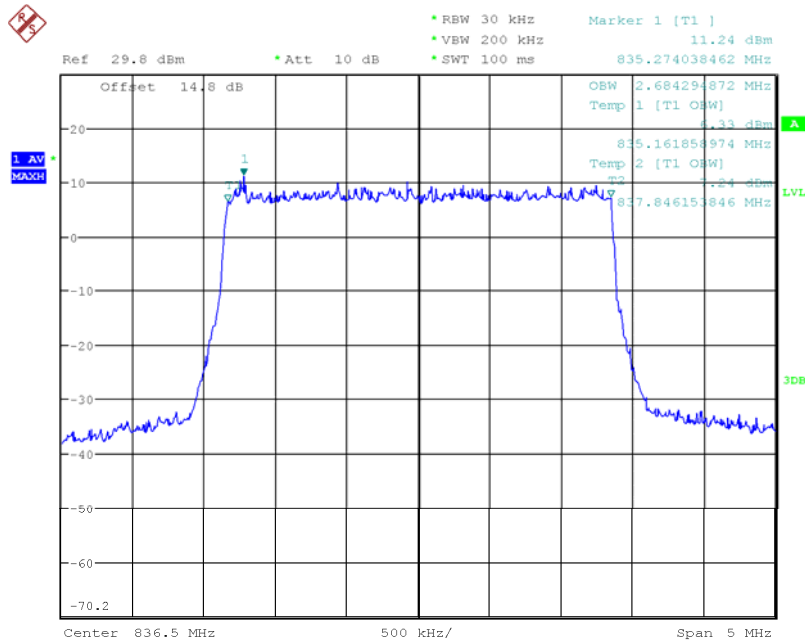
Date: 18.OCT.2018 15:51:30

LTE Band5 16QAM 99% Channel 20525 BW=1.4MHz RB=6 RB Offset=0



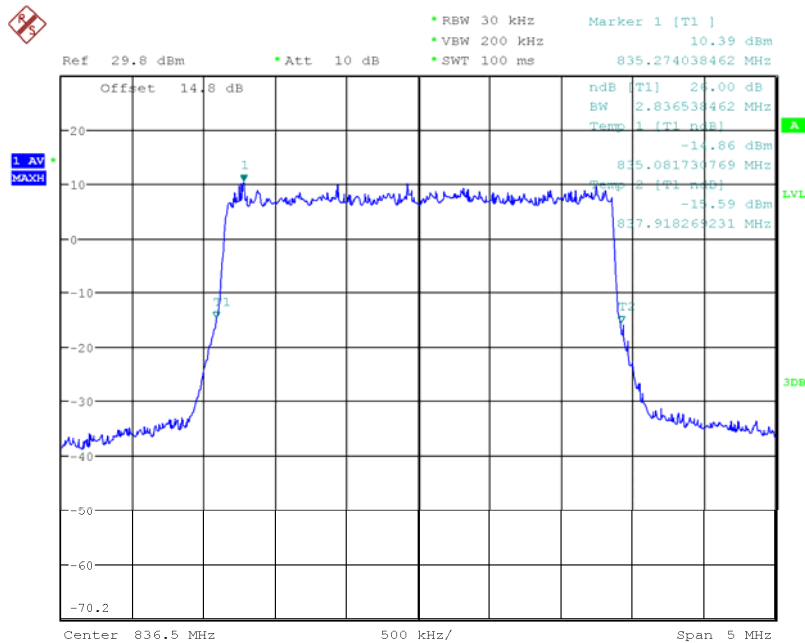
Date: 18.OCT.2018 15:52:18

LTE Band5 16QAM -26dBc Channel 20525 BW=1.4MHz RB=6 RB Offset=0



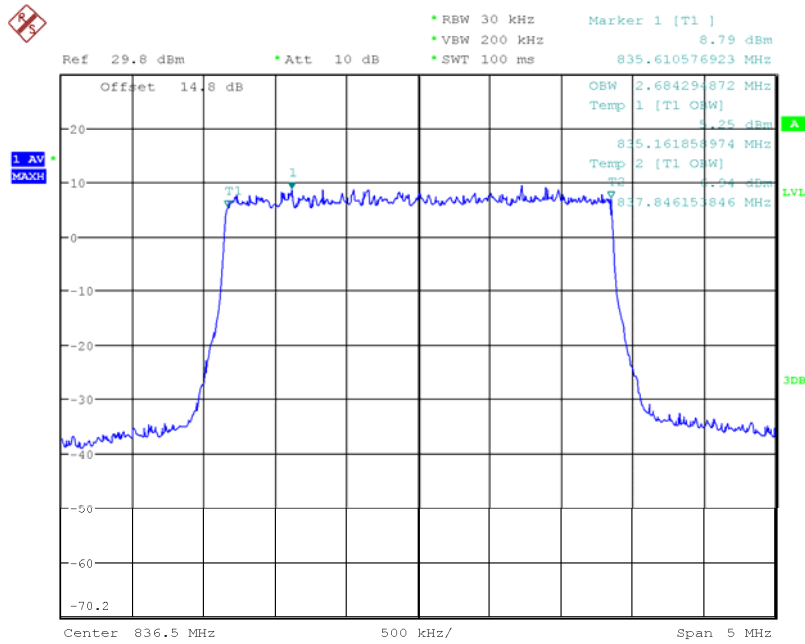
Date: 18.OCT.2018 15:47:36

LTE Band5 QPSK 99% Channel 20525 BW=3MHz RB=15 RB Offset=0



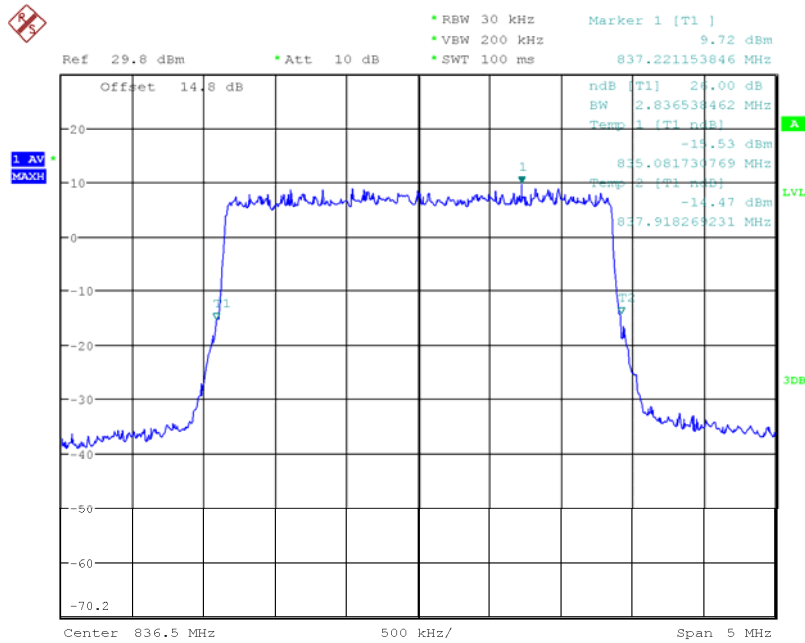
Date: 18.OCT.2018 15:47:13

LTE Band5 QPSK 16dBc Channel 20525 BW=3MHz RB=15 RB Offset=0



Date: 18.OCT.2018 15:53:27

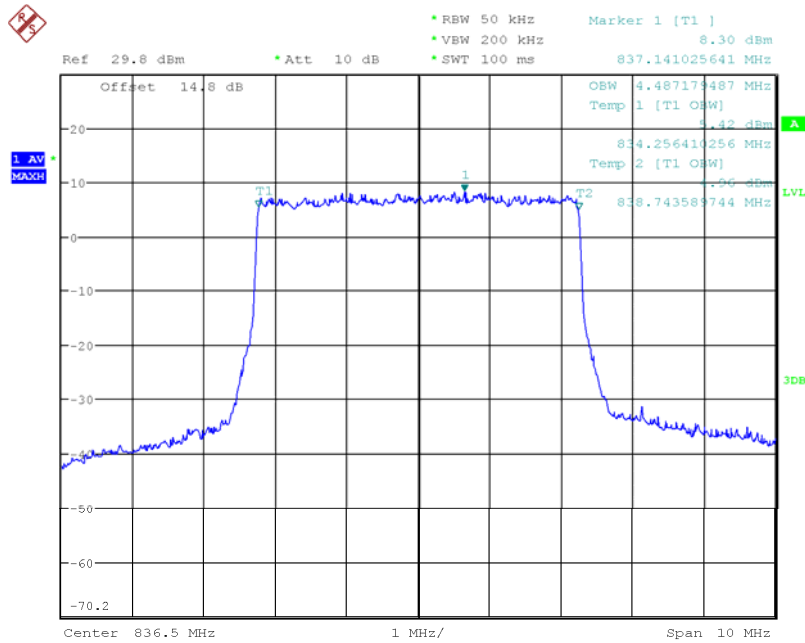
LTE Band5 16QAM 99% Channel 20525 BW=3MHz RB=15 RB Offset=0



Date: 18.OCT.2018 15:53:01

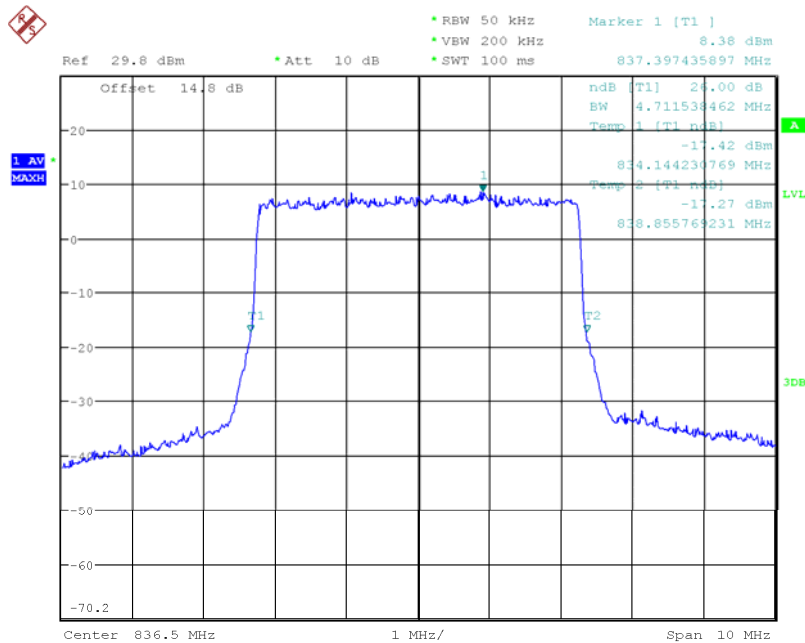
LTE Band5 16QAM -26dBc Channel 20525 BW=3MHz RB=15 RB Offset=0

Report No.:B18W50495-WWAN



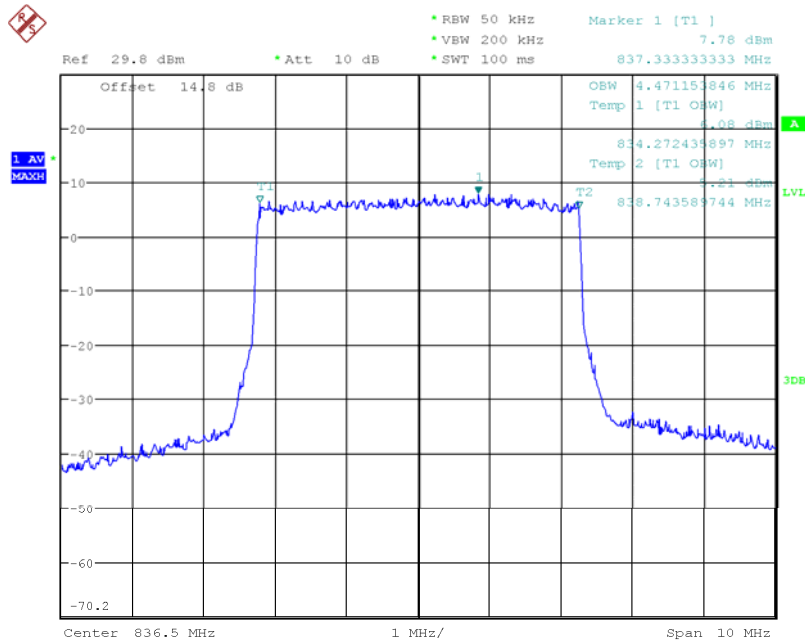
Date: 18.OCT.2018 15:48:42

LTE Band5 QPSK 99% Channel 20525 BW=5MHz RB=25 RB Offset=0



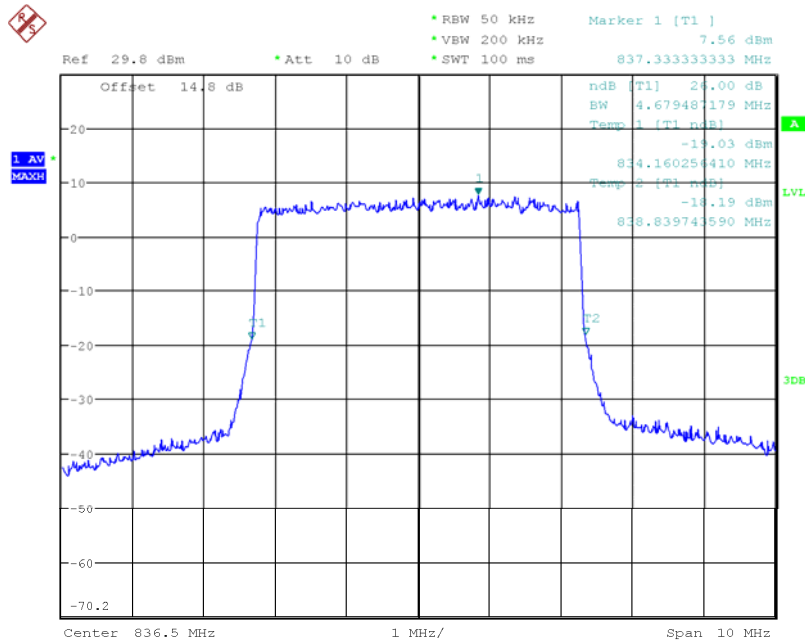
Date: 18.OCT.2018 15:49:04

LTE Band5 QPSK -26dBc Channel 20525 BW=5MHz RB=25 RB Offset=0



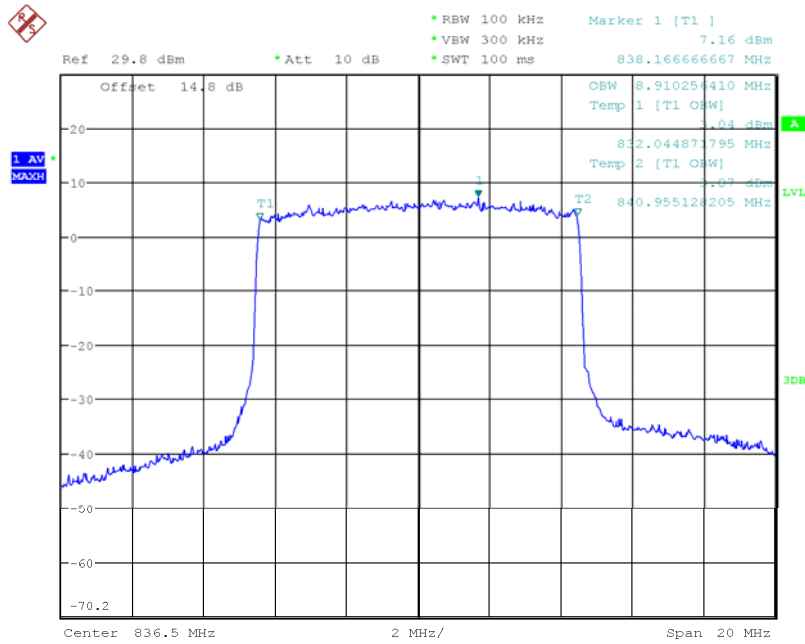
Date: 18.OCT.2018 15:53:55

LTE Band5 16QAM 99% Channel 20525 BW=5MHz RB=25 RB Offset=0



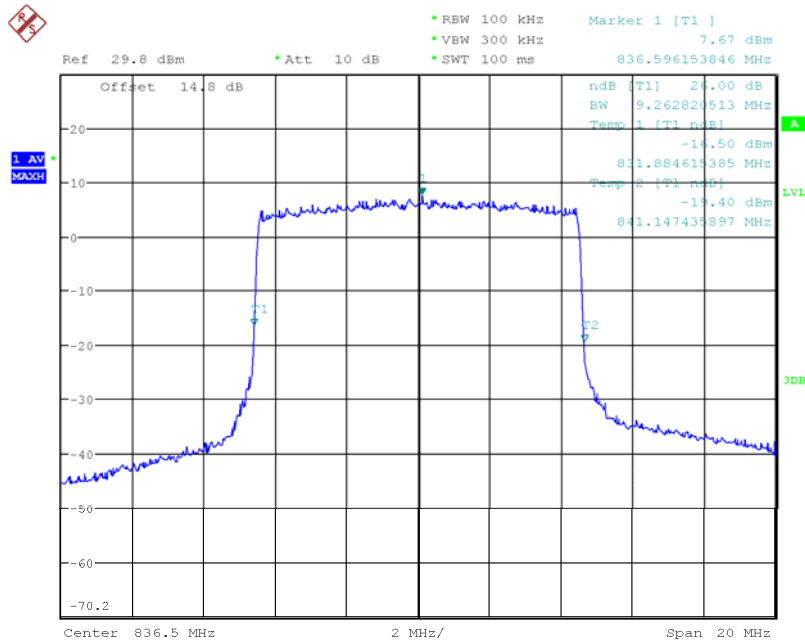
Date: 18.OCT.2018 15:54:08

LTE Band5 16QAM -26dBc Channel 20525 BW=5MHz RB=25 RB Offset=0



Date: 18.OCT.2018 15:54:44

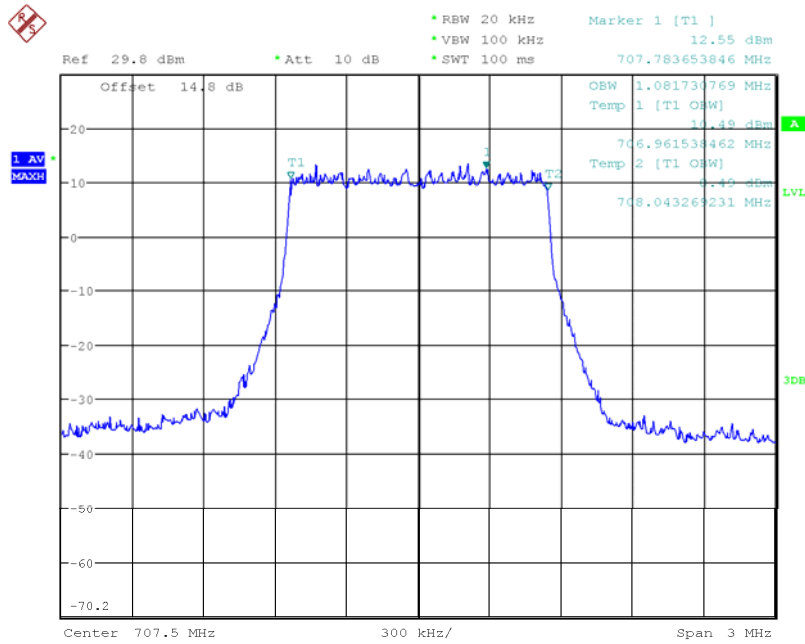
LTE Band5 16QAM 99% Channel 20525 BW=10MHz RB=50 RB Offset=0



Date: 18.OCT.2018 15:54:31

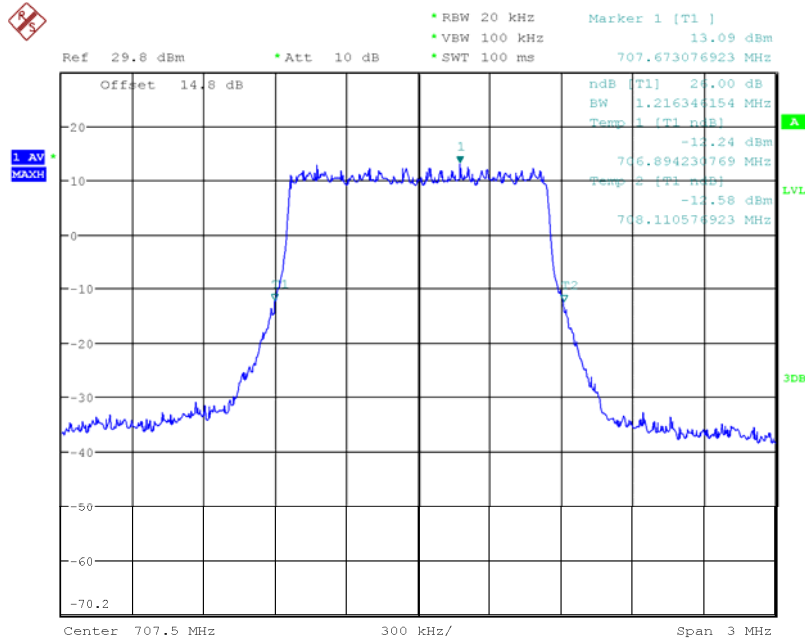
LTE Band5 16QAM -26dBc Channel 20525 BW=10MHz RB=50 RB Offset=0

Graphical results for LTE B12:



Date: 18.OCT.2018 15:56:17

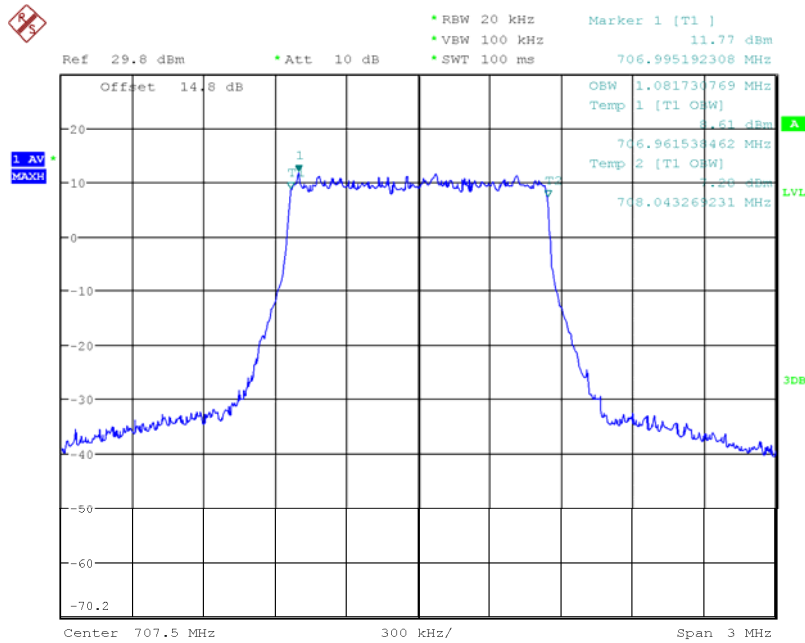
LTE Band12 QPSK 99% Channel 21625 BW=1.4MHz RB=6 RB Offset=0



Date: 18.OCT.2018 15:56:47

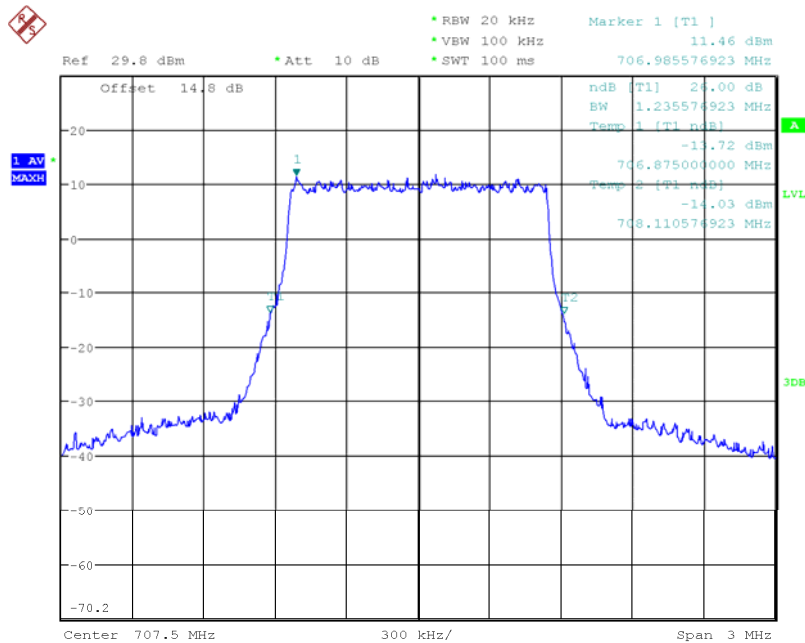
LTE Band12 QPSK -26dBc Channel 21625 BW=1.4MHz RB=6 RB Offset=0

Report No.:B18W50495-WWAN



Date: 18.OCT.2018 16:00:52

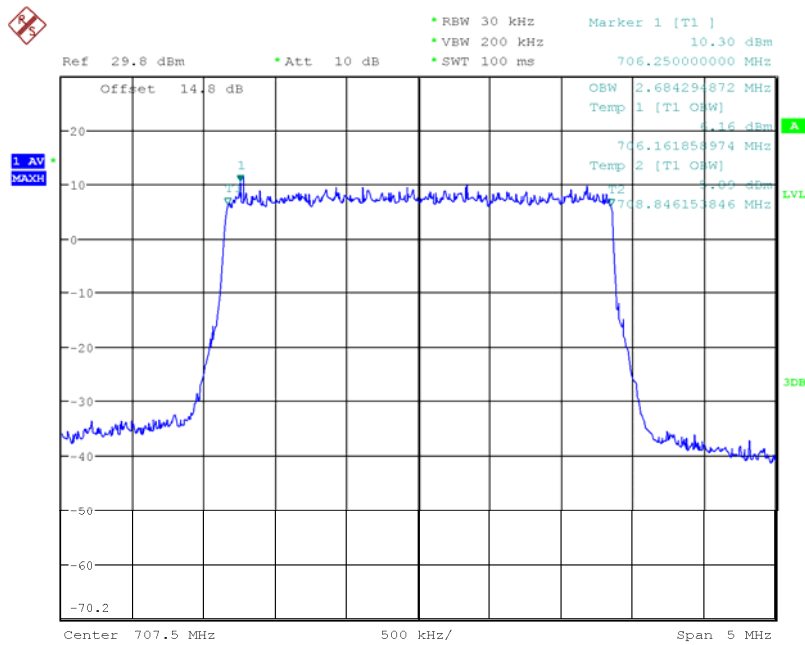
LTE Band12 16QAM 99% Channel 21625 BW=1.4MHz RB=6 RB Offset=0



Date: 18.OCT.2018 16:01:10

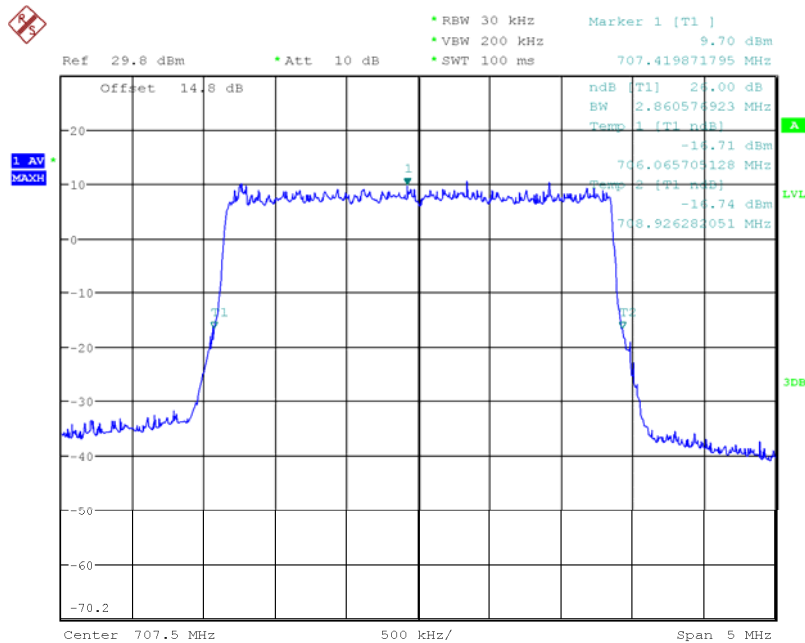
LTE Band12 16QAM -26dBc Channel 21625 BW=1.4MHz RB=6 RB Offset=0

Report No.:B18W50495-WWAN



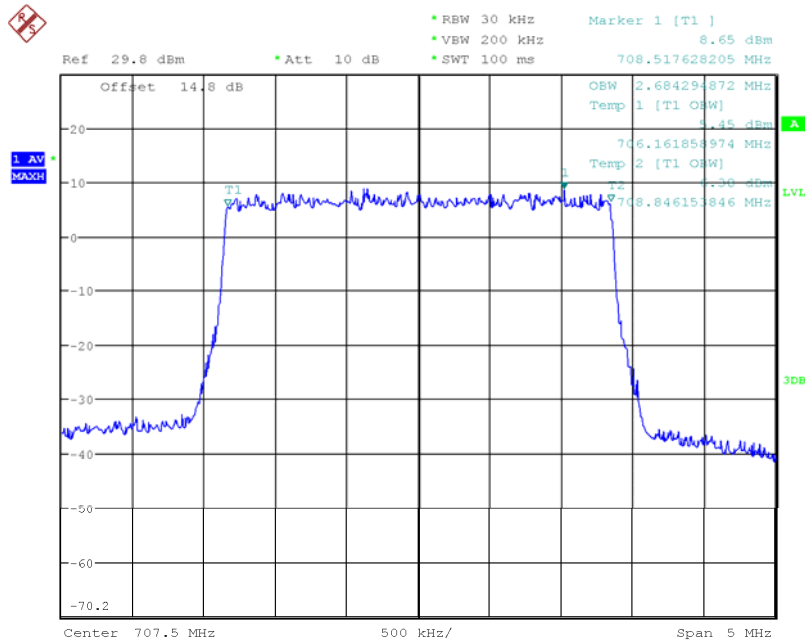
Date: 18.OCT.2018 15:57:47

LTE Band12 QPSK 99% Channel 21625 BW=3MHz RB=15 RB Offset=0



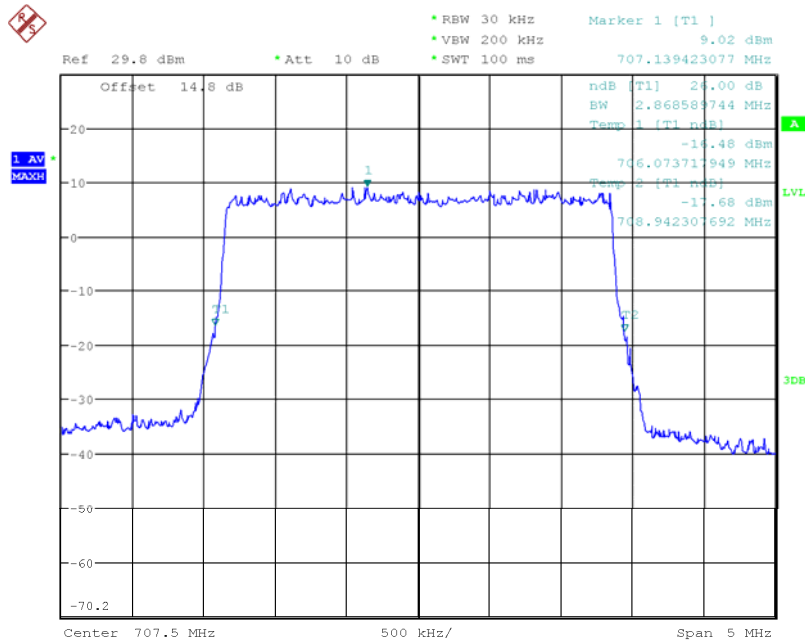
Date: 18.OCT.2018 15:57:35

LTE Band12 QPSK -26dBc Channel 21625 BW=3MHz RB=15 RB Offset=0



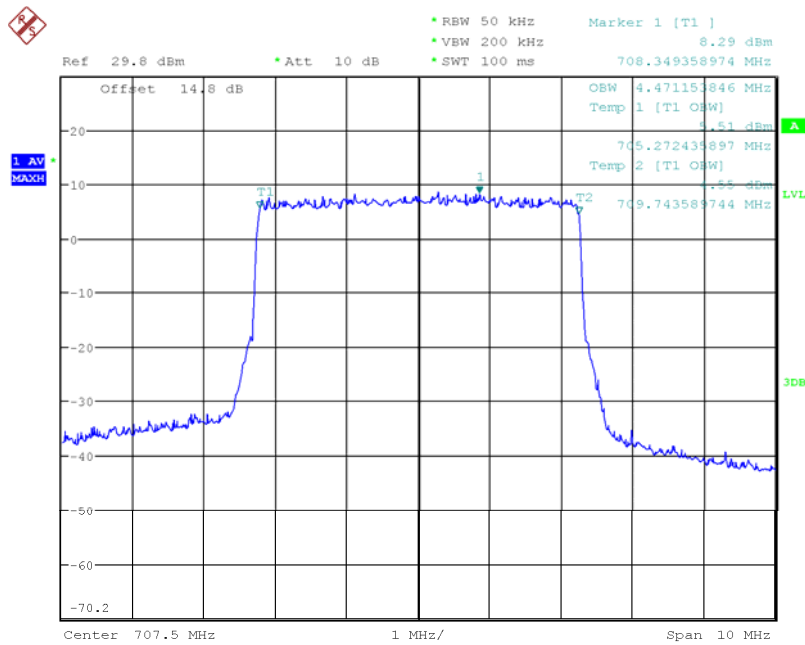
Date: 18.OCT.2018 16:01:52

LTE Band12 16QAM 99% Channel 21625 BW=3MHz RB=15 RB Offset=0



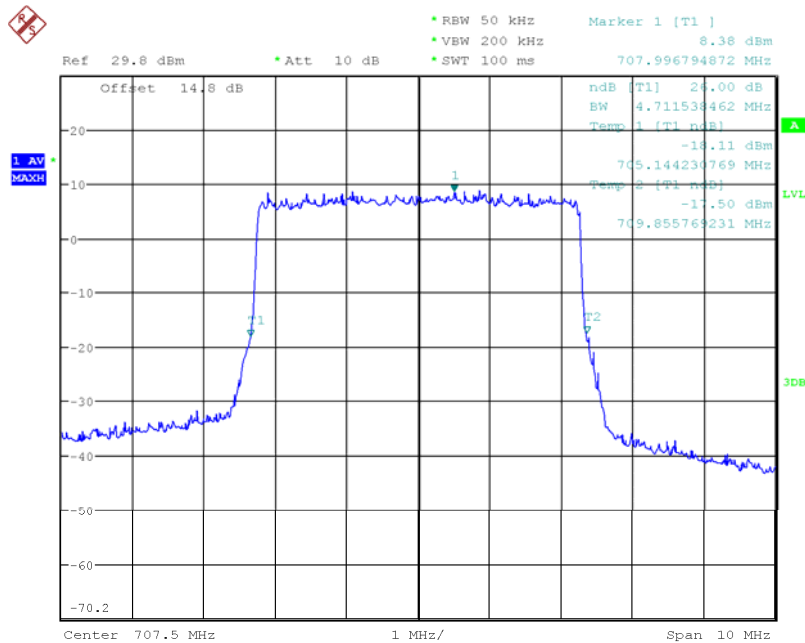
Date: 18.OCT.2018 16:01:40

LTE Band12 16QAM -26dBc Channel 21625 BW=3MHz RB=15 RB Offset=0



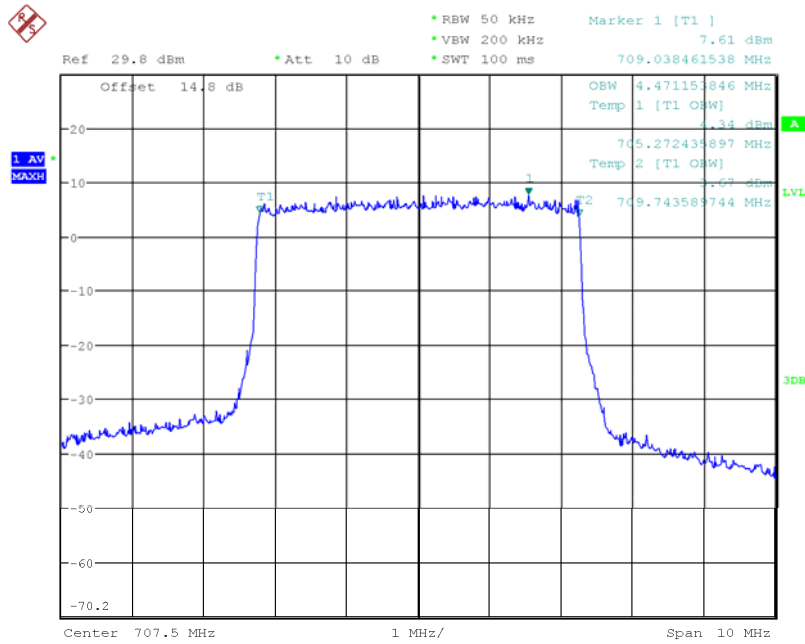
Date: 18.OCT.2018 15:58:20

LTE Band12 QPSK 99% Channel 21625 BW=5MHz RB=25 RB Offset=0



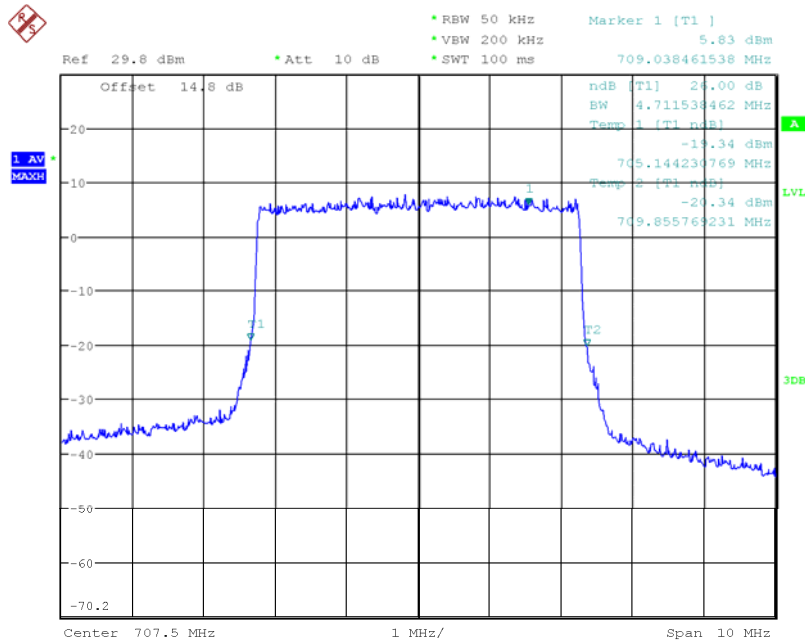
Date: 18.OCT.2018 15:58:43

LTE Band12 QPSK -26dBc Channel 21625 BW=5MHz RB=25 RB Offset=0



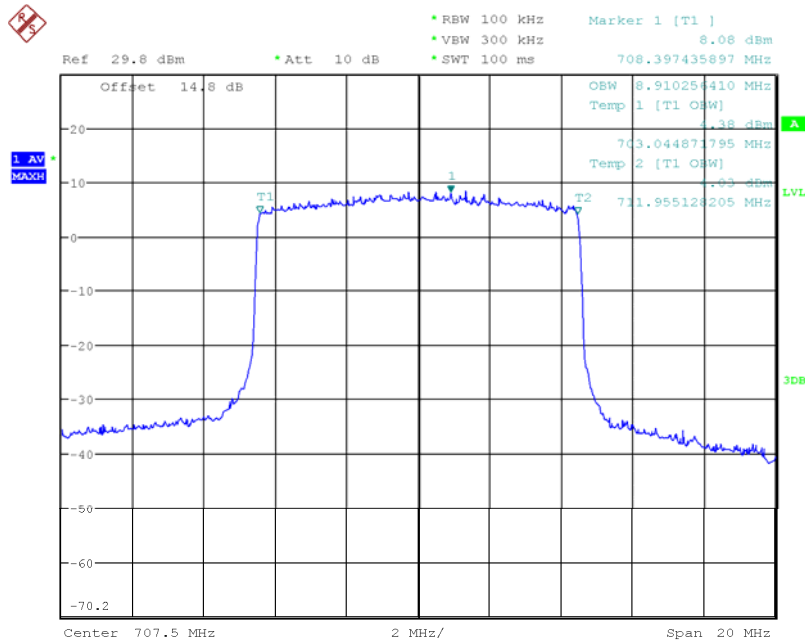
Date: 18.OCT.2018 16:02:29

LTE Band12 16QAM 99% Channel 21625 BW=5MHz RB=25 RB Offset=0



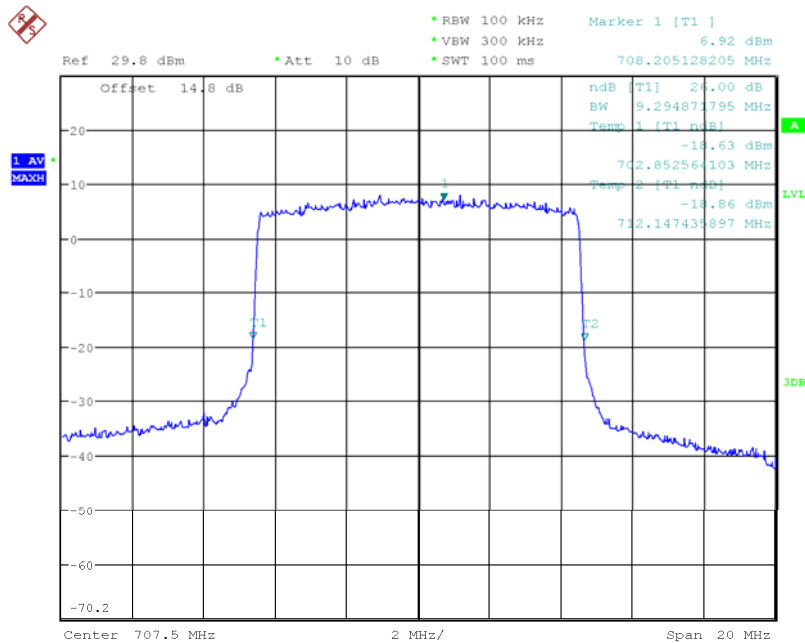
Date: 18.OCT.2018 16:02:46

LTE Band12 16QAM -26dBc Channel 21625 BW=5MHz RB=25 RB Offset=0



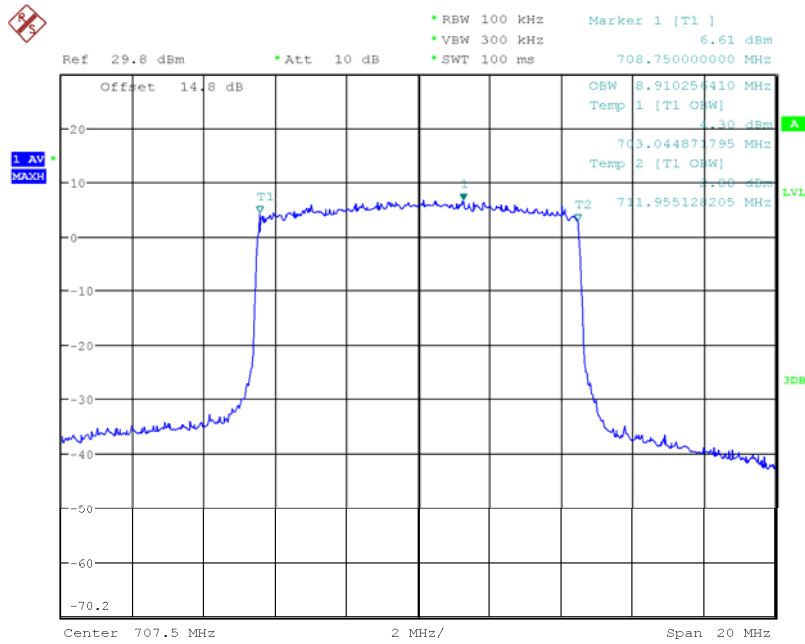
Date: 18.OCT.2018 15:59:38

LTE Band12 QPSK 99% Channel 21625 BW=10MHz RB=50 RB Offset=0



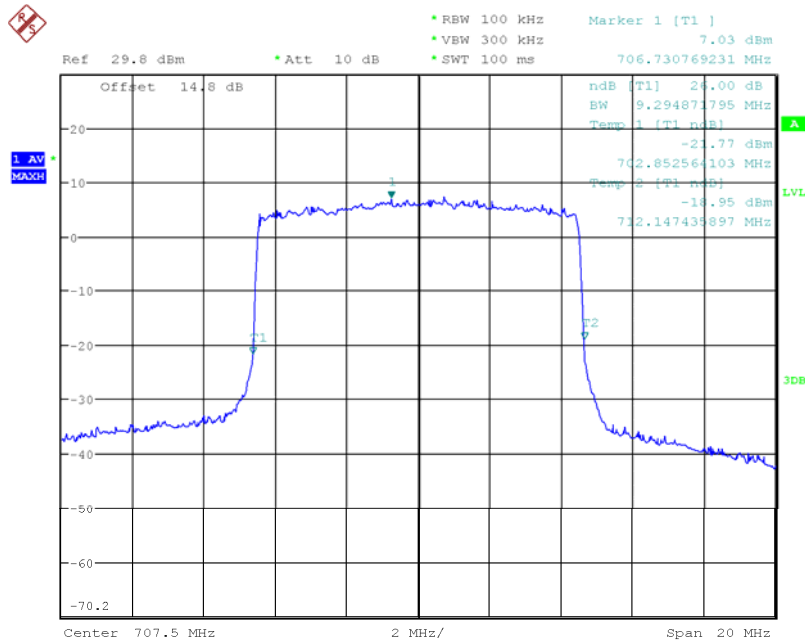
Date: 18.OCT.2018 15:59:14

LTE Band12 QPSK -26dBc Channel 21625 BW=10MHz RB=50 RB Offset=0



Date: 18.OCT.2018 16:03:43

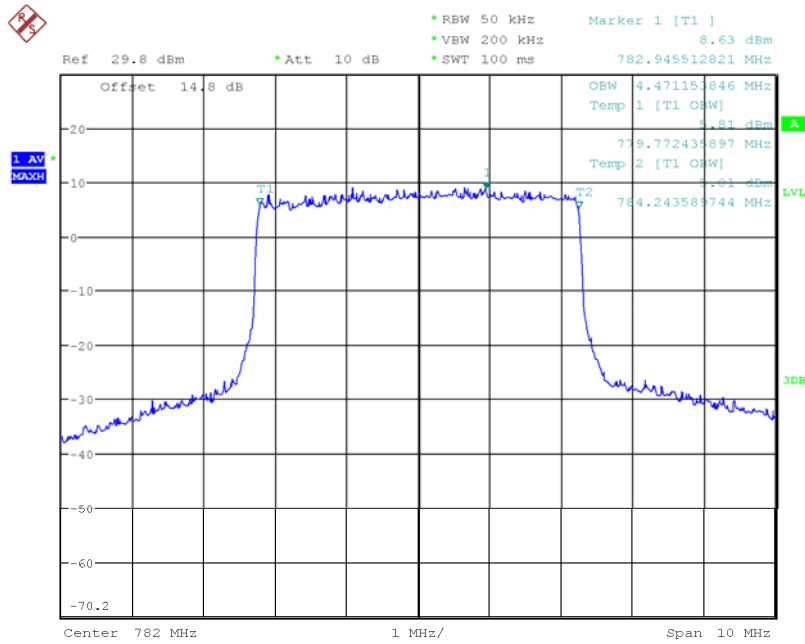
LTE Band12 16QAM 99% Channel 21625 BW=10MHz RB=50 RB Offset=0



Date: 18.OCT.2018 16:03:29

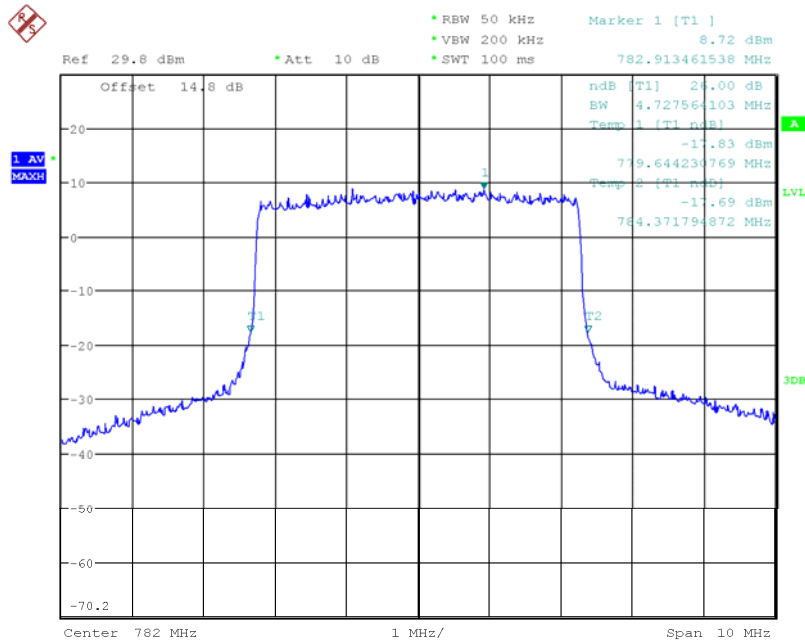
LTE Band12 16QAM -26dBc Channel 21625 BW=10MHz RB=50 RB Offset=0

Graphical results for LTE B13:



Date: 18.OCT.2018 16:10:38

LTE Band13 QPSK 99% Channel 23230 BW=5MHz RB=25 RB Offset=0

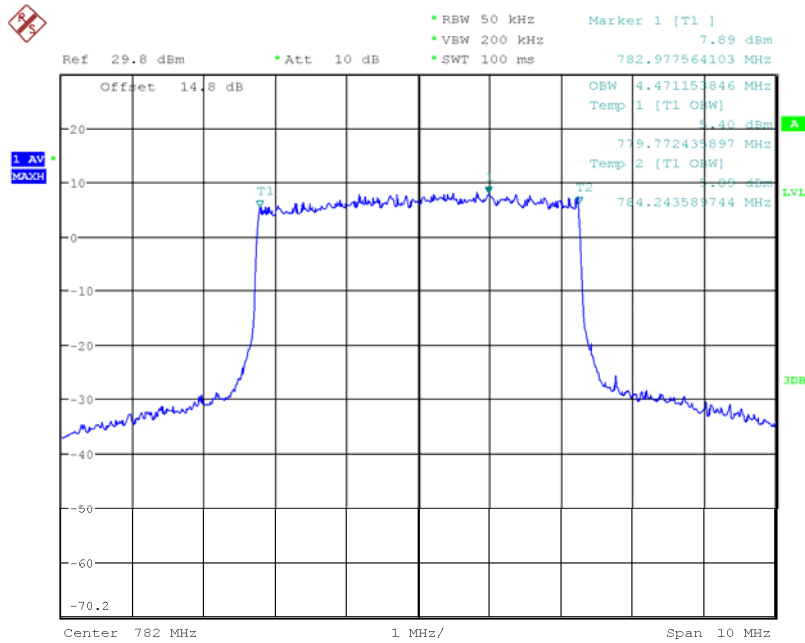


Date: 18.OCT.2018 16:10:54

LTE Band13 QPSK -26dBc Channel 23230 BW=5MHz RB=25 RB Offset=0

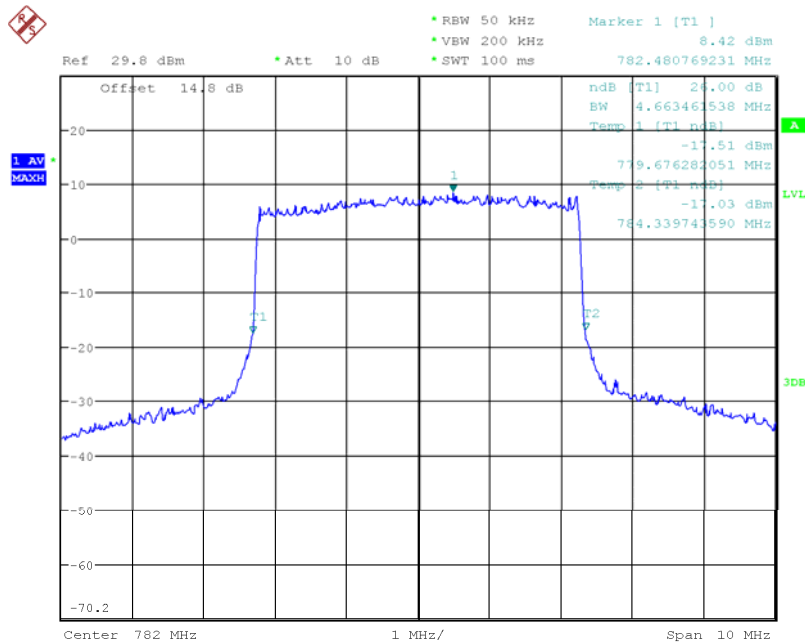
Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

Report No.:B18W50495-WWAN



Date: 18.OCT.2018 16:13:17

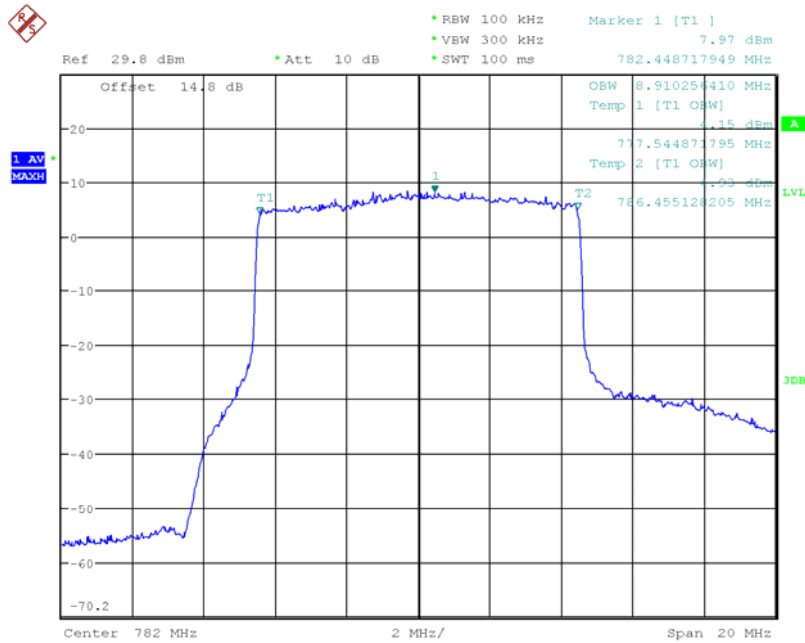
LTE Band13 16QAM 99% Channel 23230 BW=5MHz RB=25 RB Offset=0



Date: 18.OCT.2018 16:13:49

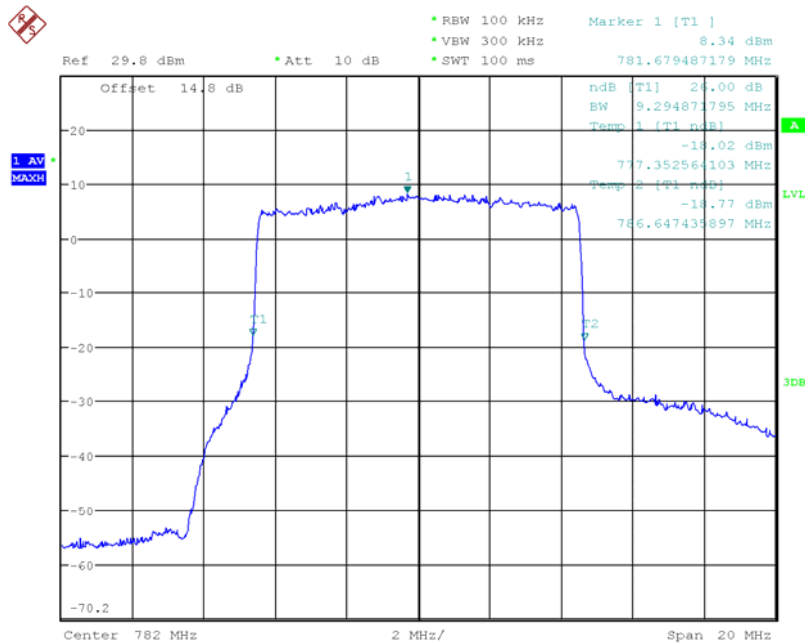
LTE Band13 16QAM -26dBc Channel 23230 BW=5MHz RB=25 RB Offset=0

Report No.:B18W50495-WWAN



Date: 18.OCT.2018 16:12:39

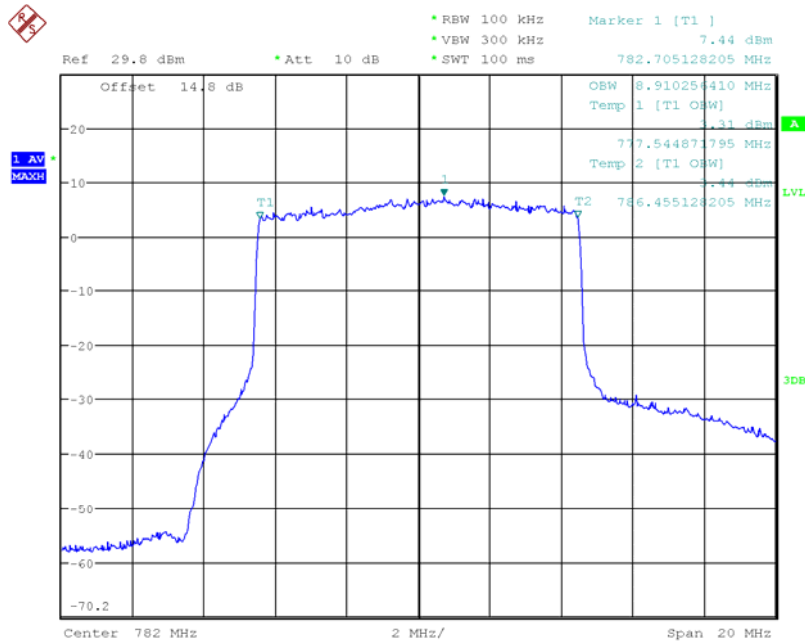
LTE Band13 QPSK 99% Channel 23230 BW=10MHz RB=50 RB Offset=0



Date: 18.OCT.2018 16:11:23

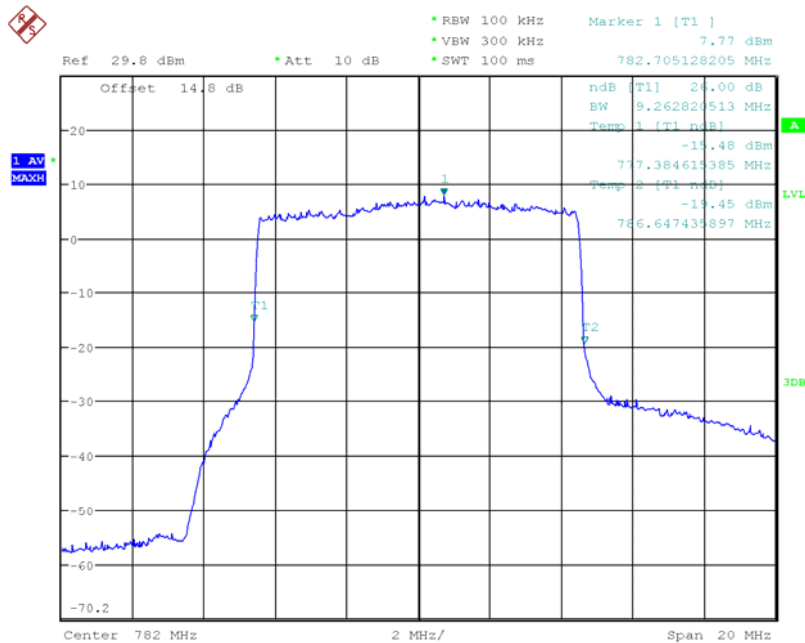
LTE Band13 QPSK -26dBc Channel 23230 BW=10MHz RB=50 RB Offset=0

Report No.:B18W50495-WWAN



Date: 18.OCT.2018 16:16:19

LTE Band13 16QAM -99% Channel 23230 BW=10MHz RB=50 RB Offset=0



Date: 18.OCT.2018 16:15:58

LTE Band13 16QAM -26dBc Channel 23230 BW=10MHz RB=50 RB Offset=0

5.3 Conducted Spurious Emission

Specifications:	FCC Part 2.1051, 24.238, 2.1053, 22.917, 27.53
DUT Serial Number:	S3: 863424030965642
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	--

Limit Level Construction:

According to Part 22.917 (a), i.e., Out of Band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

According to Part 24.238 (a), i.e., Out of Band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB, so the limit level is: $P(\text{dBm}) - (43 + 10 \log(P)) \text{ dB} = -13\text{dBm}$.

According to Part 27.53(h):

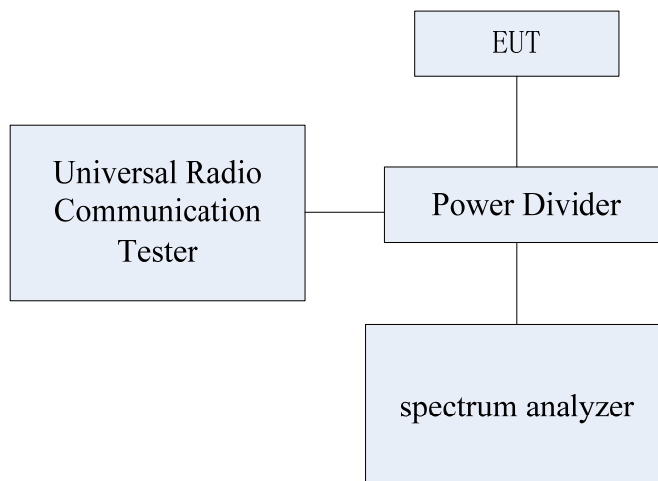
Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 Bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ dB.

According to Part 27.53(g):

For operations in the 600 MHz Band and the 698-746 MHz Band, the power of any emission outside a licensee's frequency Band(s) of operation shall be attenuated below the transmitter power (P) within the licensed Band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution Bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz Bands immediately outside and adjacent to a licensee's frequency block, a resolution Bandwidth of at least 30 kHz may be employed.

Test Setup:

During the test, the EUT was controlled via the Wireless Communications Test Set to ensure max power transmission and proper modulation and measured by spectrum analyzer.



Test Method:

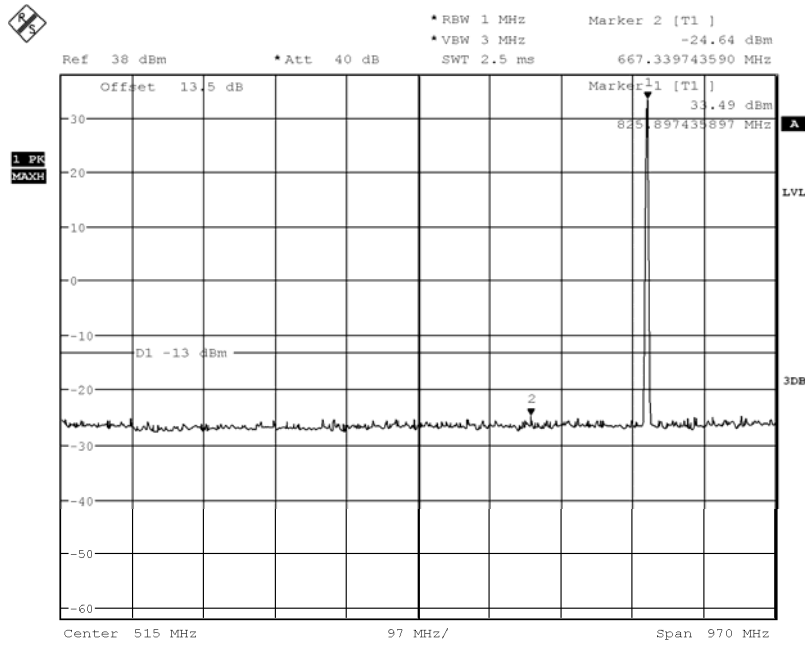
The measurement was performed accordance with section 2.2.13 of ANSI/TIA-603-E: Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

The measurement was performed accordance with section 2.2.13 of ANSI/TIA-603-E-2016: Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-Band emissions, if any, up to 10th harmonic. The EUT was scanned for spurious emissions from 30MHz to 20GHz with sufficient Bandwidth and video resolution. The spectrum analyzer was set to Maximum hold mode to ensure that the worst-case emissions were captured.

Note: --

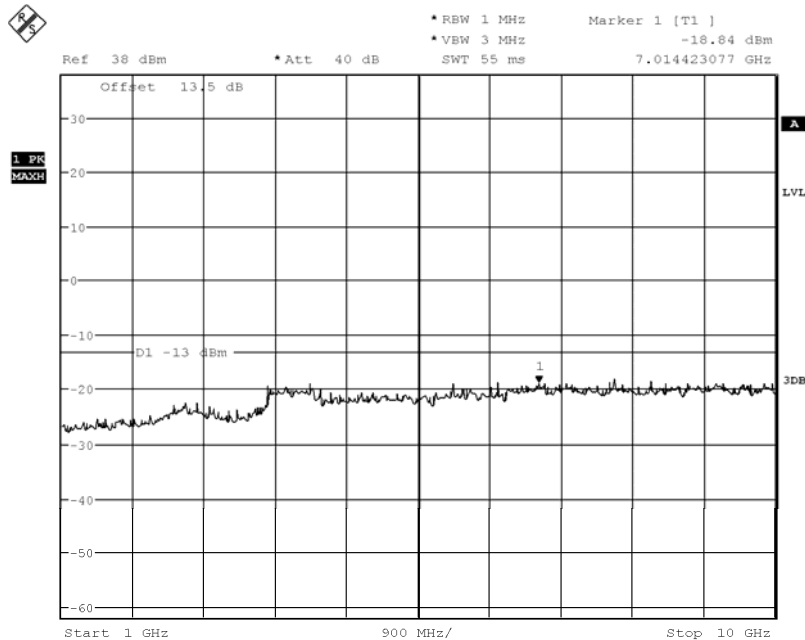
5.3.1 GSM850 Conducted Spurious Emission Results



Date: 18.OCT.2018 10:03:29

GMSK, Low channel, 824.200 MHz, 30MHz to 1GHz

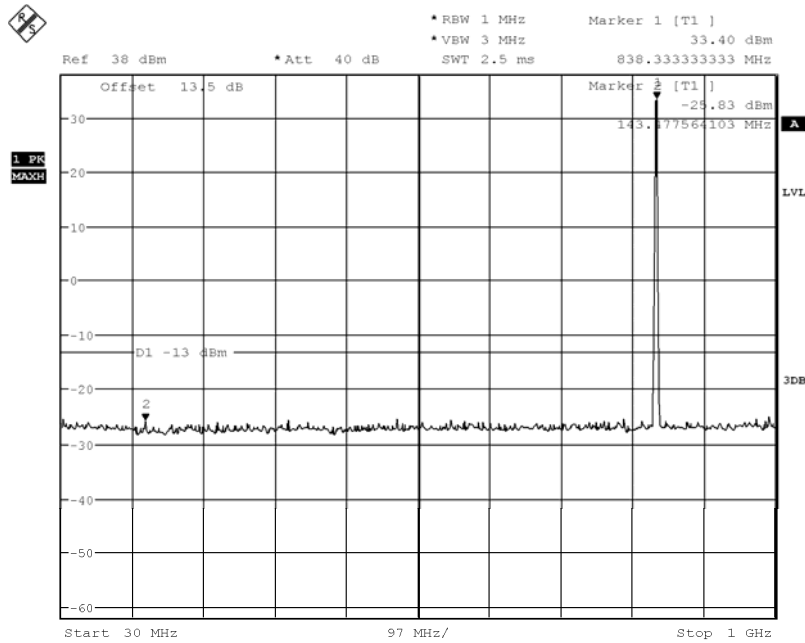
Note: The strong emission shown in each case is the carrier signal.



Date: 18.OCT.2018 10:04:47

GMSK, Low channel, 824.200 MHz, 1GHz to 10GHz

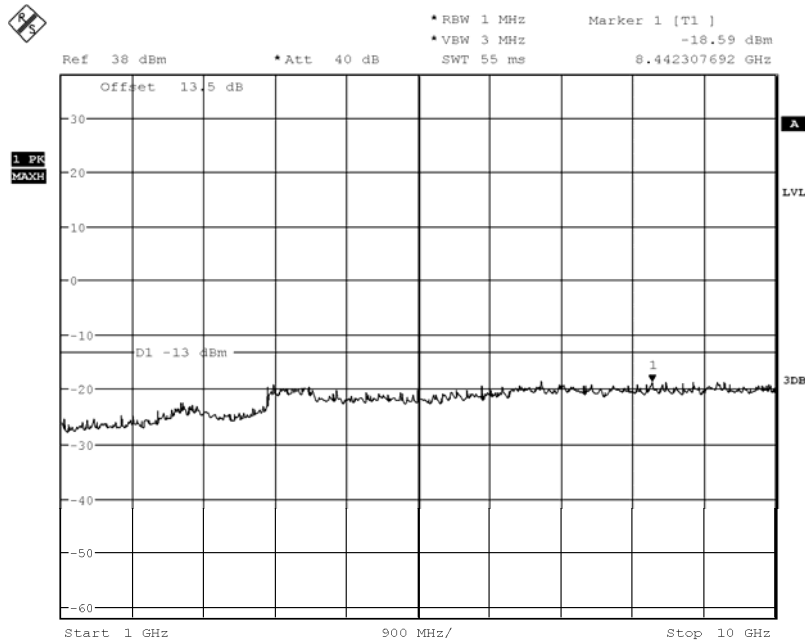
Report No.:B18W50495-WWAN



Date: 18.OCT.2018 10:06:46

GMSK, Mid Channel, 836.6 MHz, 30MHz to 1GHz

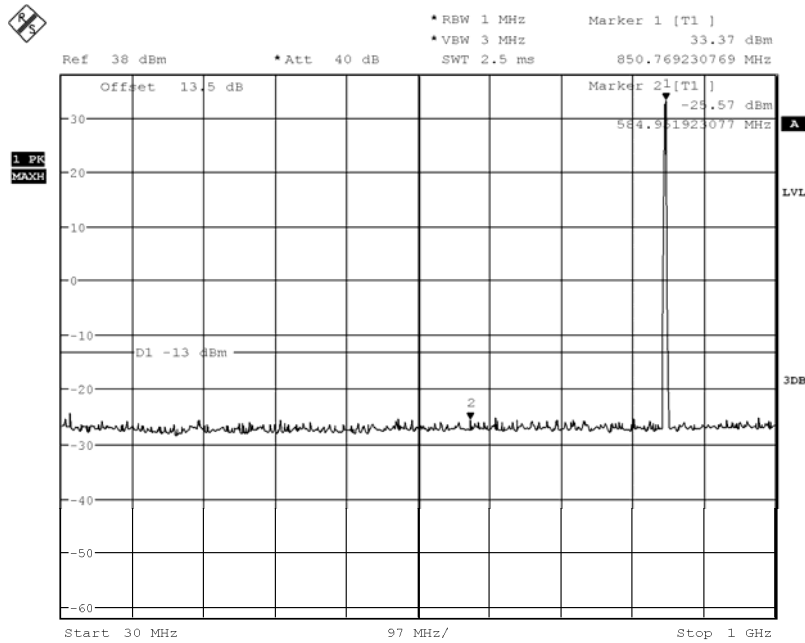
Note: The strong emission shown in each case is the carrier signal.



Date: 18.OCT.2018 10:07:52

GMSK, Mid Channel, 836.6 MHz, 1GHz to 10GHz

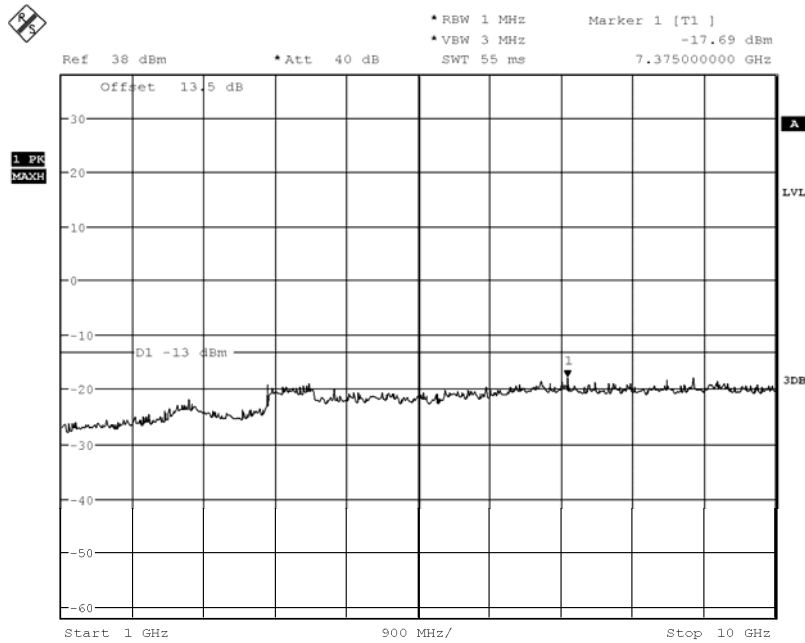
Report No.:B18W50495-WWAN



Date: 18.OCT.2018 10:23:41

GMSK, High Channel, 848.8 MHz, 30MHz to 1GHz

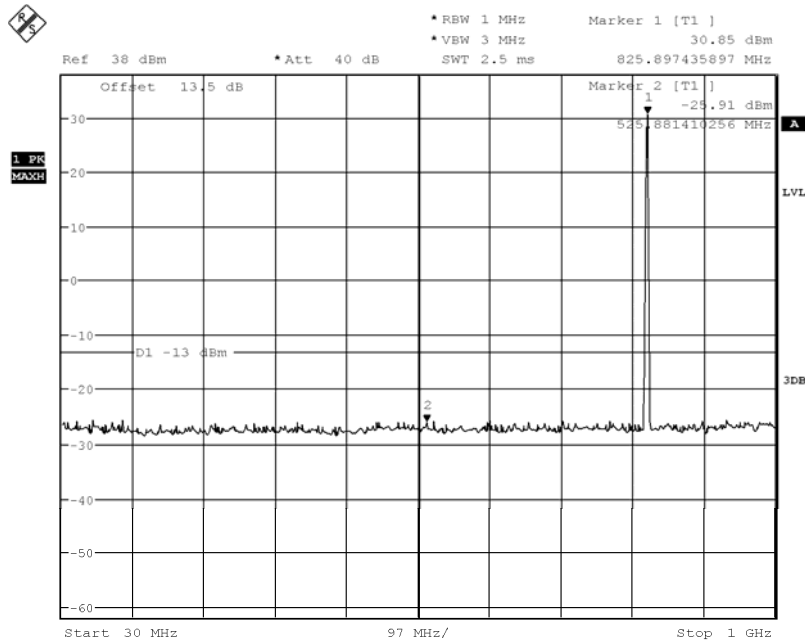
Note: The strong emission shown in each case is the carrier signal.



Date: 18.OCT.2018 10:10:27

GMSK, High Channel, 848.8 MHz, 1GHz to 10GHz

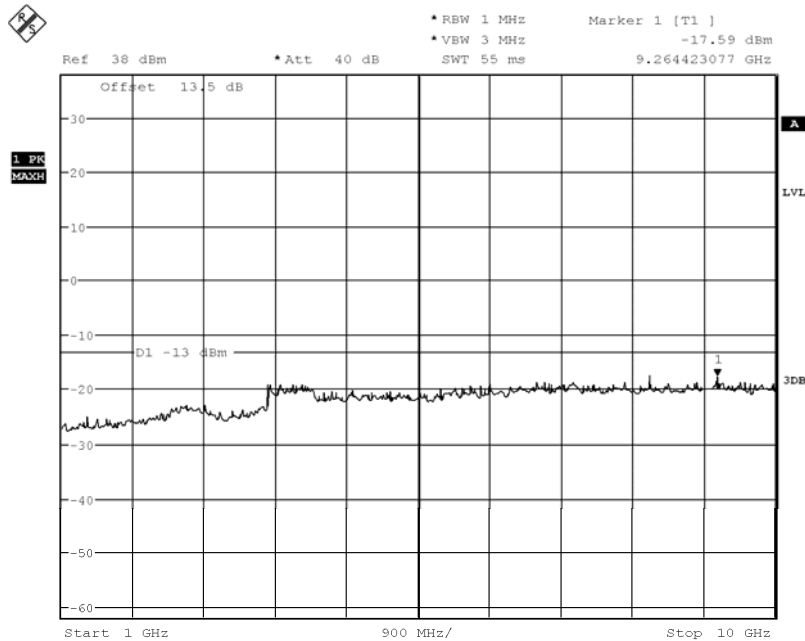
Report No.:B18W50495-WWAN



Date: 18.OCT.2018 10:17:53

8PSK, Low channel, 824.200 MHz, 30MHz to 1GHz

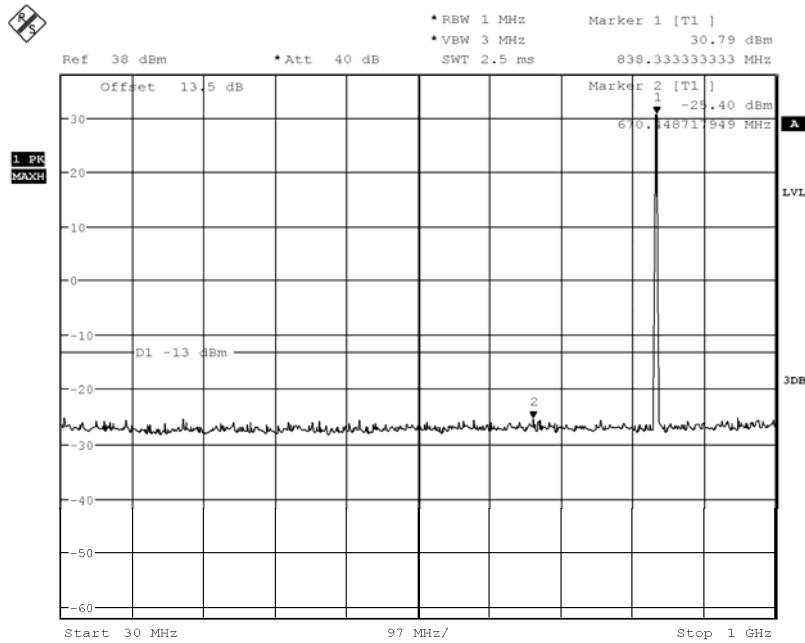
Note: The strong emission shown in each case is the carrier signal.



Date: 18.OCT.2018 10:13:51

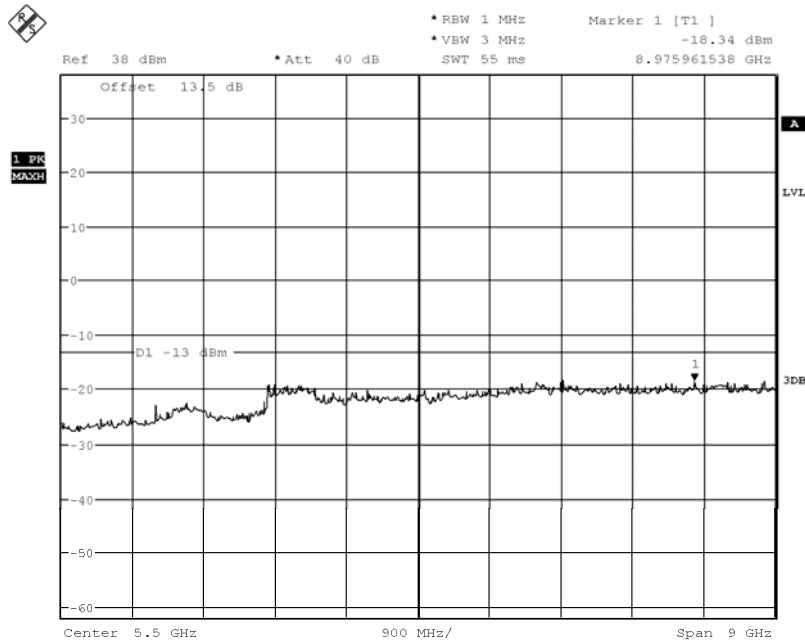
8PSK, Low channel, 824.200 MHz, 1GHz to 10GHz

Report No.:B18W50495-WWAN



Date: 18.OCT.2018 10:15:21

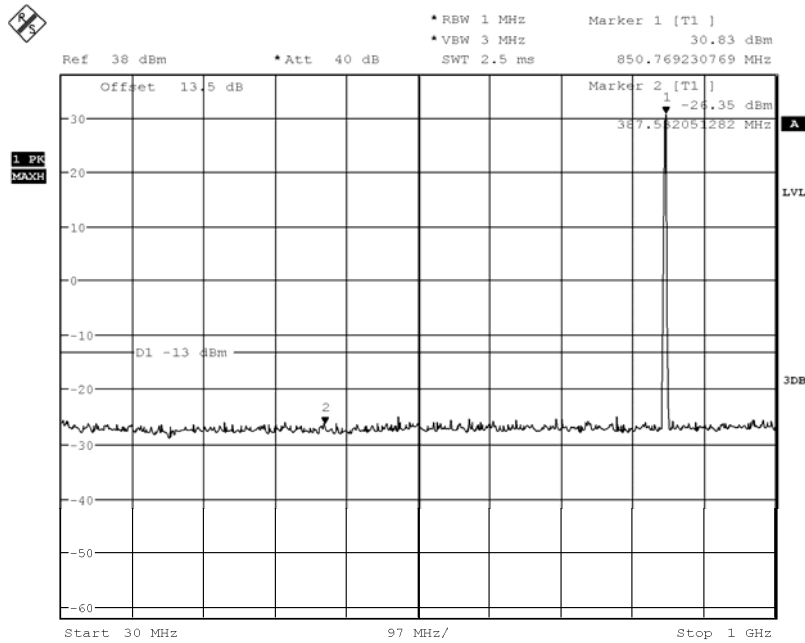
8PSK, Mid Channel, 836.6 MHz, 30MHz to 1GHz
 Note: The strong emission shown in each case is the carrier signal.



Date: 18.OCT.2018 10:16:30

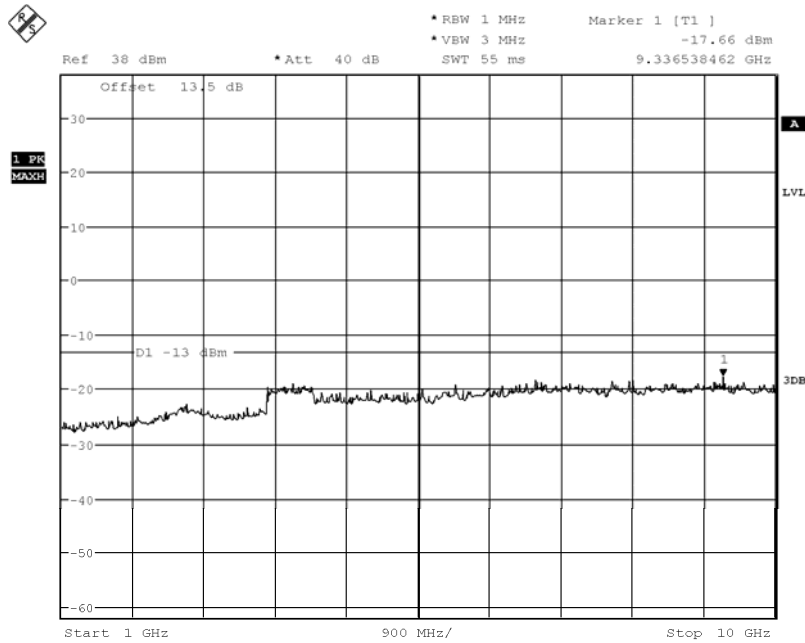
8PSK, Mid Channel, 836.6 MHz, 1GHz to 10GHz

Report No.:B18W50495-WWAN



Date: 18.OCT.2018 10:21:26

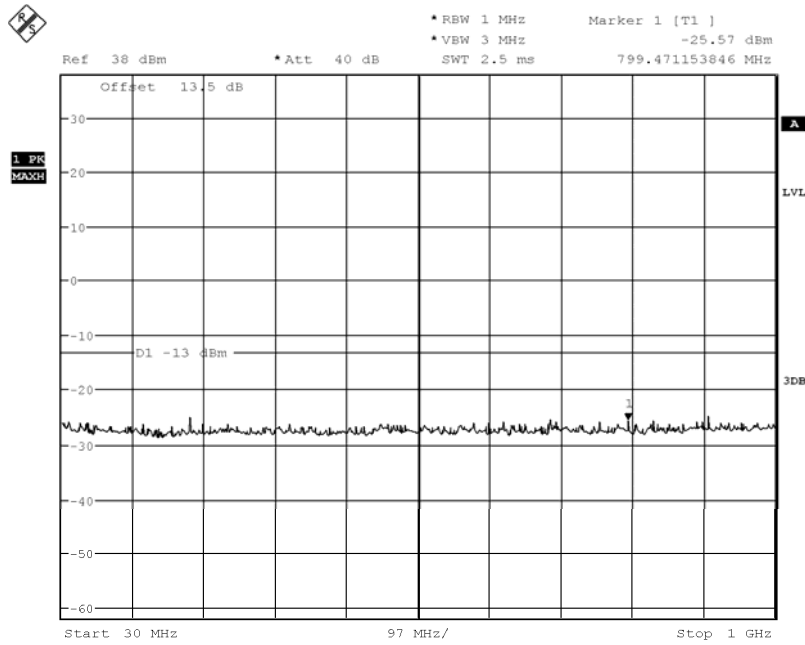
8PSK, High Channel, 848.8 MHz, 30MHz to 1GHz
 Note: The strong emission shown in each case is the carrier signal.



Date: 18.OCT.2018 10:22:02

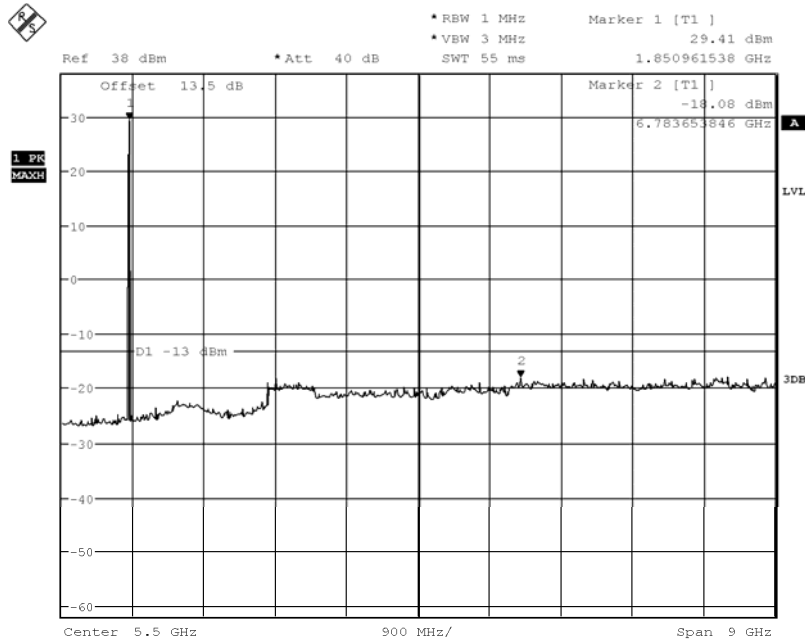
8PSK, High Channel, 848.8 MHz, 1GHz to 10GHz

5.3.2 PCS1900 Conducted Spurious Emission Results



Date: 18.OCT.2018 10:28:16

GMSK, Low channel, 1850.2 MHz, 30MHz to 1GHz

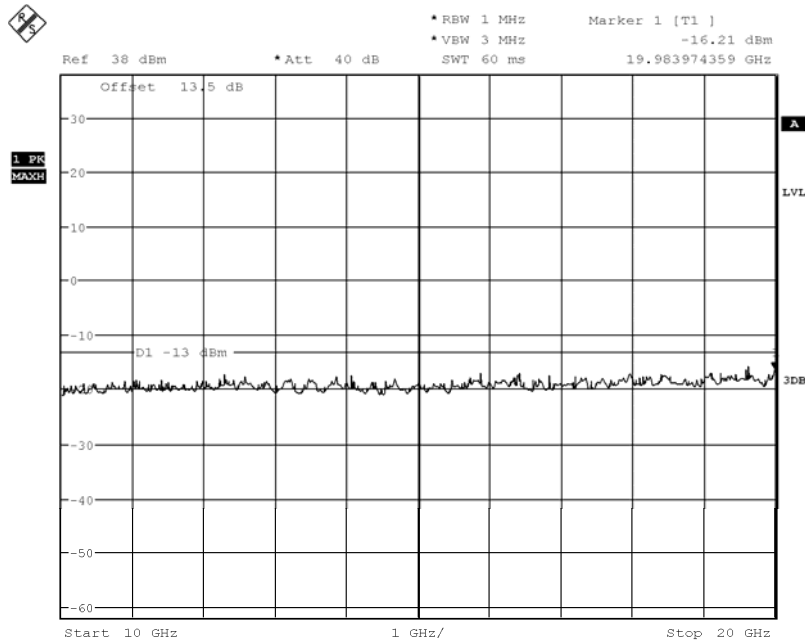


Date: 18.OCT.2018 10:29:54

GMSK, Low channel, 1850.2 MHz, 1GHz to 10GHz

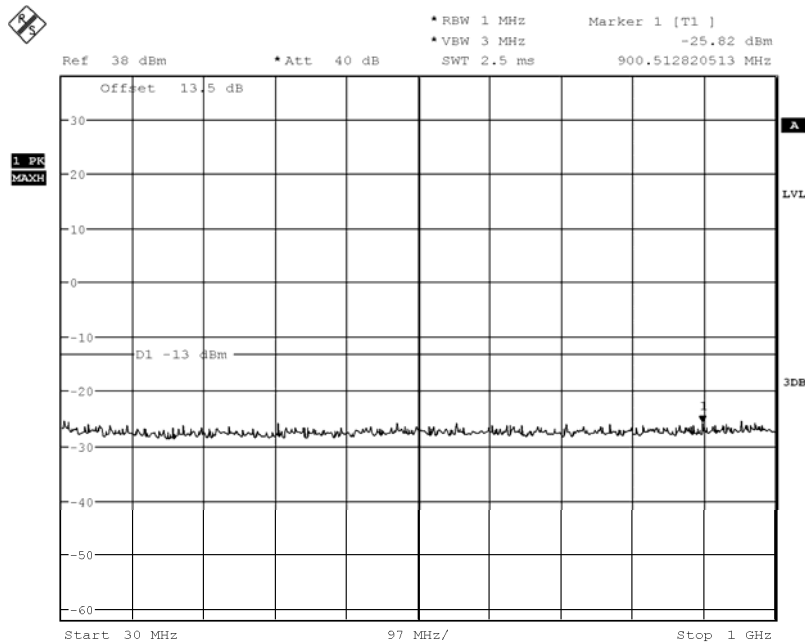
Note: The strong emission shown is the carrier signal.

Report No.:B18W50495-WWAN



Date: 18.OCT.2018 10:33:20

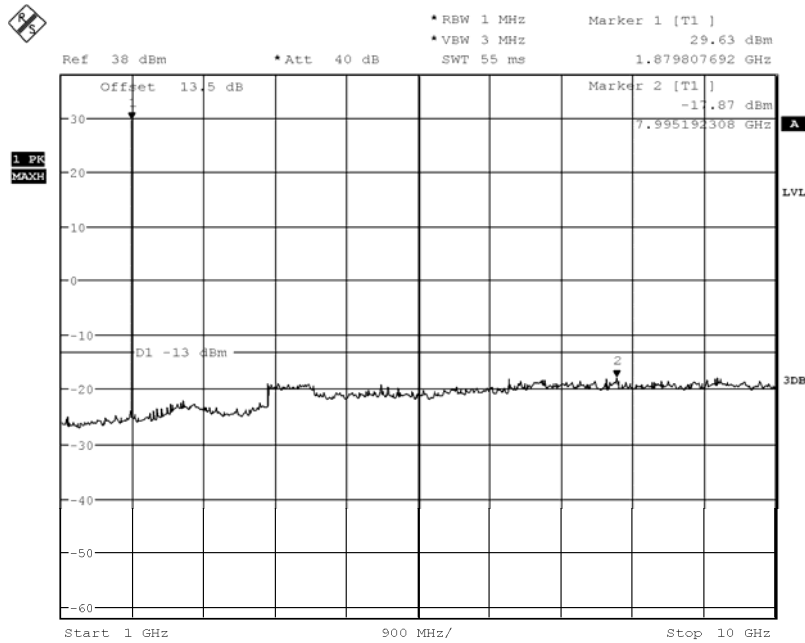
GMSK, Low channel, 1850.2 MHz, 10GHz to 20GHz



Date: 18.OCT.2018 10:34:20

GMSK, Middle channel, 1880.0 MHz, 30MHz to 1GHz

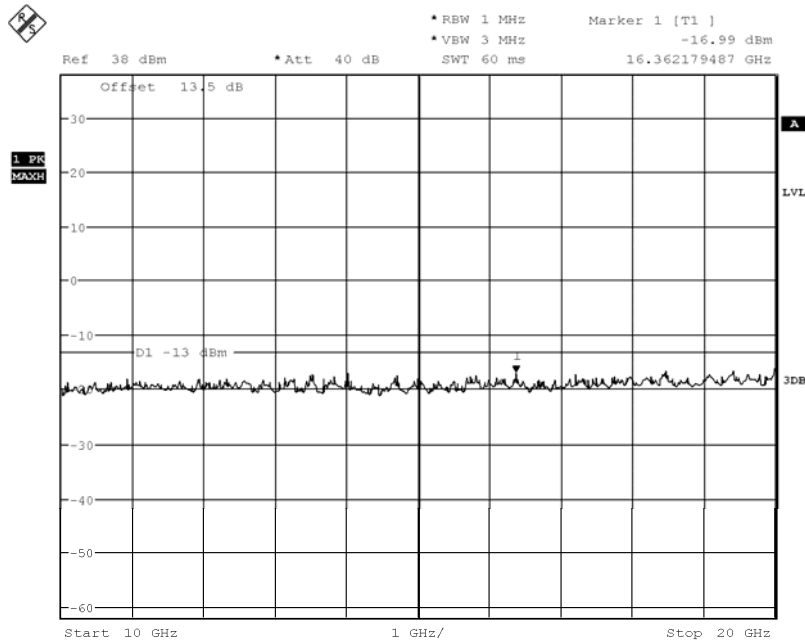
Report No.:B18W50495-WWAN



Date: 18.OCT.2018 10:37:02

GMSK, Middle channel, 1880.0 MHz, 1GHz to 10GHz

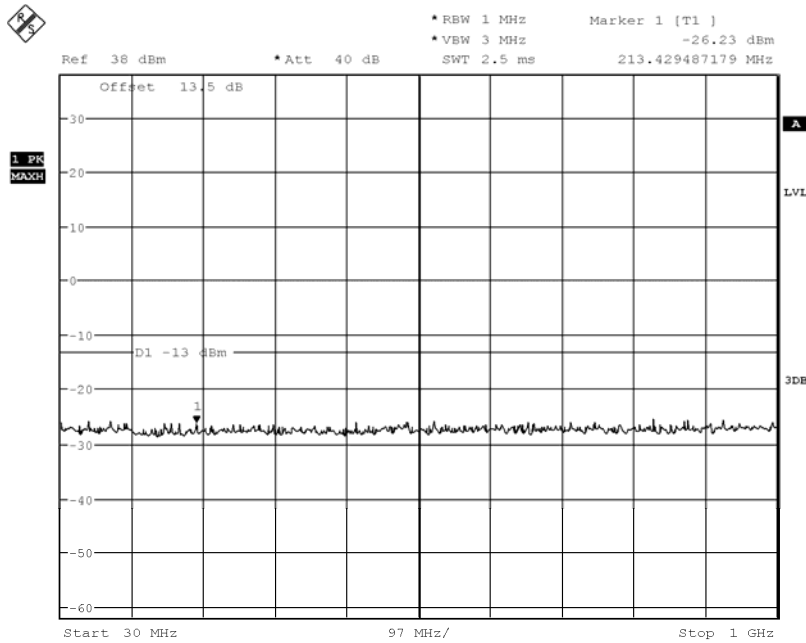
Note: The strong emission shown is the carrier signal.



Date: 18.OCT.2018 10:37:43

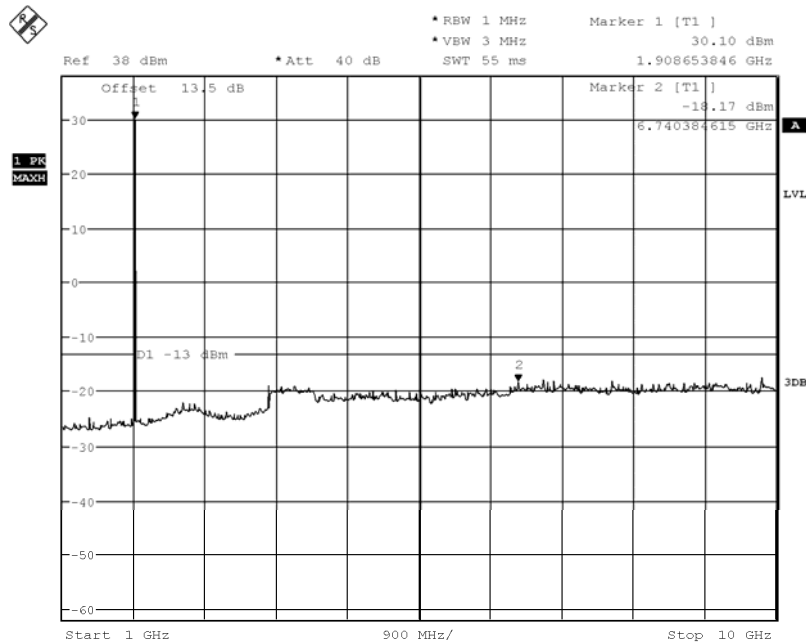
GMSK, Middle channel, 1880.0 MHz, 10GHz to 20GHz

Report No.:B18W50495-WWAN



Date: 18.OCT.2018 10:38:54

GMSK, High channel, 1909.8 MHz, 30MHz to 1GHz

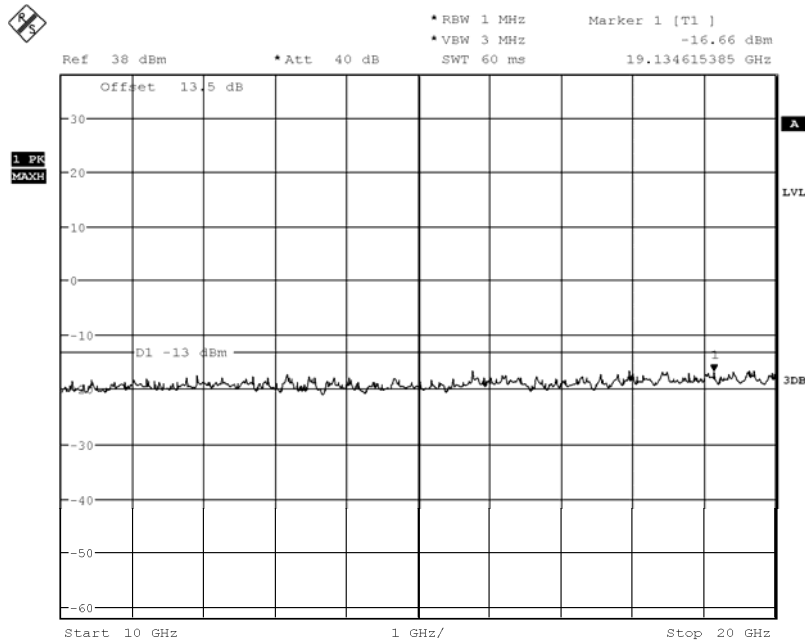


Date: 18.OCT.2018 10:40:28

GMSK, High channel, 1909.8 MHz, 1GHz to 10GHz

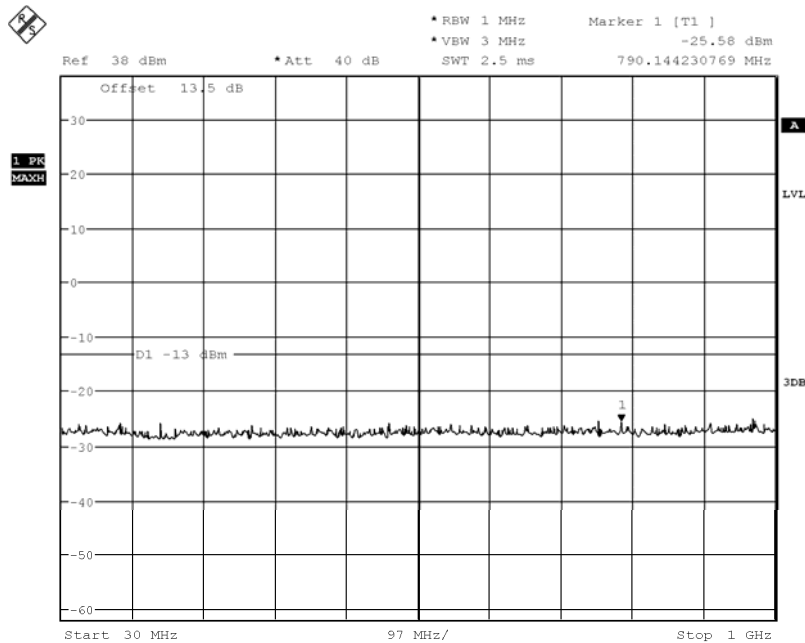
Note: The strong emission shown is the carrier signal.

Report No.:B18W50495-WWAN



Date: 18.OCT.2018 10:41:16

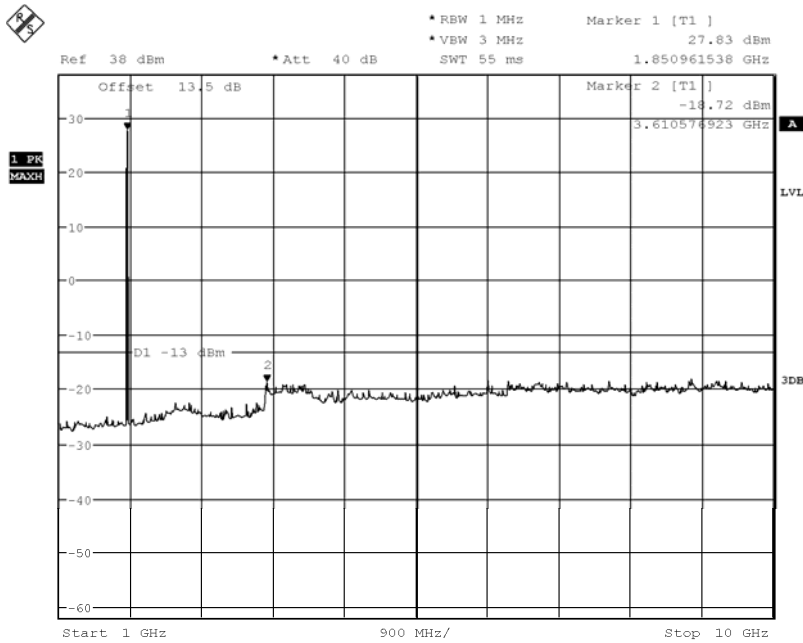
GMSK, High channel, 1909.8 MHz, 10GHz to 20GHz



Date: 18.OCT.2018 10:44:08

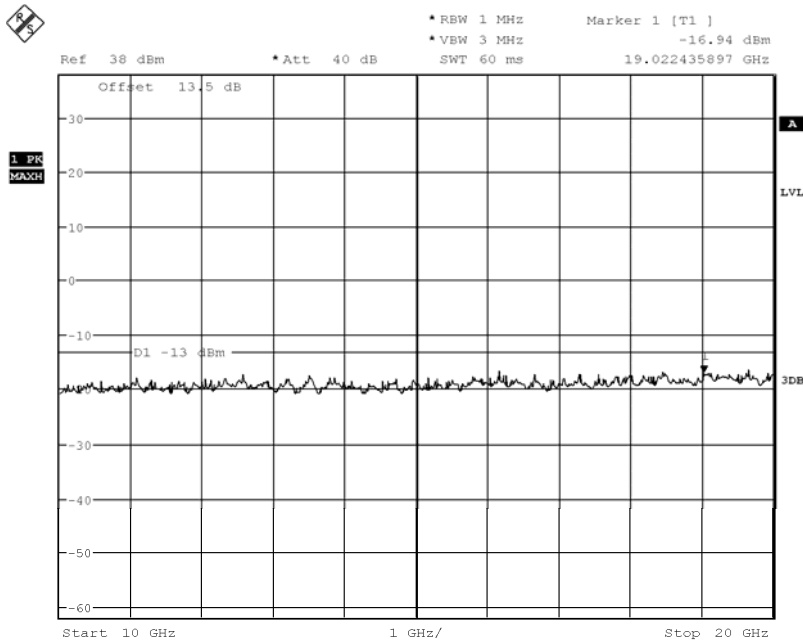
8PSK, Low channel, 1850.2 MHz, 30MHz to 1GHz

Report No.:B18W50495-WWAN



Date: 18.OCT.2018 10:45:02

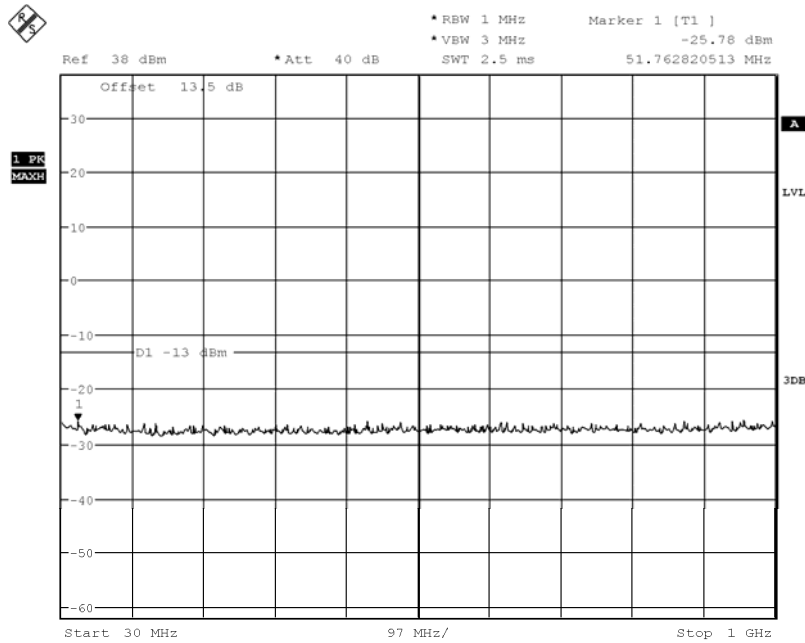
8PSK, Low channel, 1850.2 MHz, 1GHz to 10GHz
 Note: The strong emission shown is the carrier signal.



Date: 18.OCT.2018 10:45:36

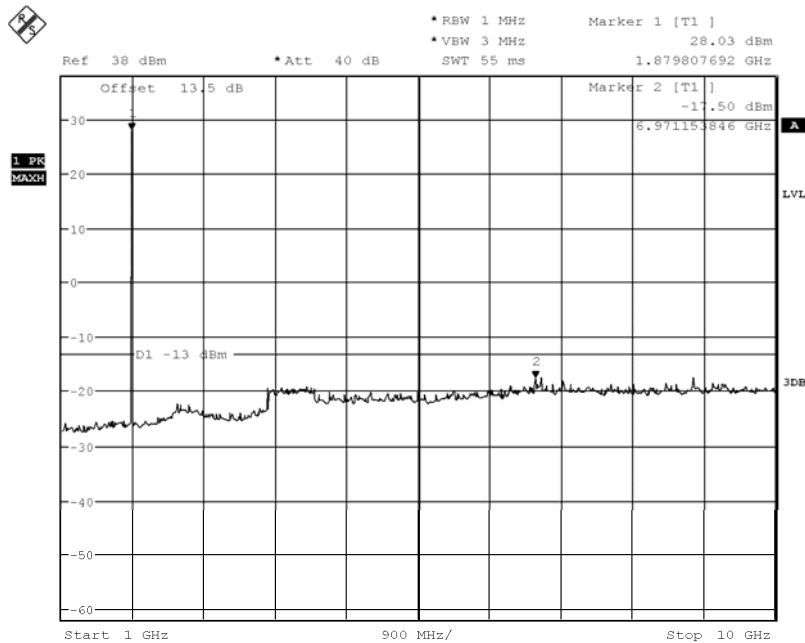
8PSK, Low channel, 1850.2 MHz, 10GHz to 20GHz

Report No.:B18W50495-WWAN



Date: 18.OCT.2018 10:52:23

8PSK, Middle channel, 1880.0 MHz, 30MHz to 1GHz

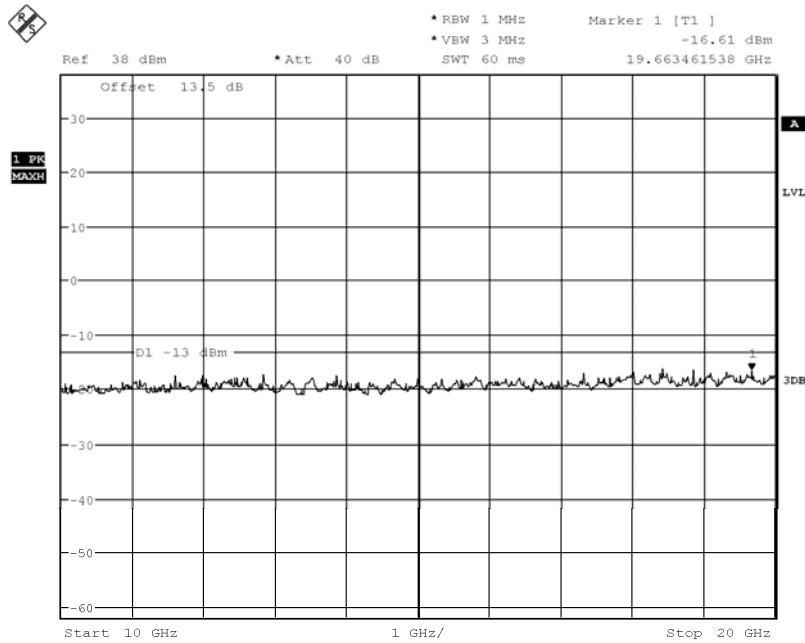


Date: 18.OCT.2018 10:53:10

8PSK, Middle channel, 1880.0 MHz, 1GHz to 10GHz

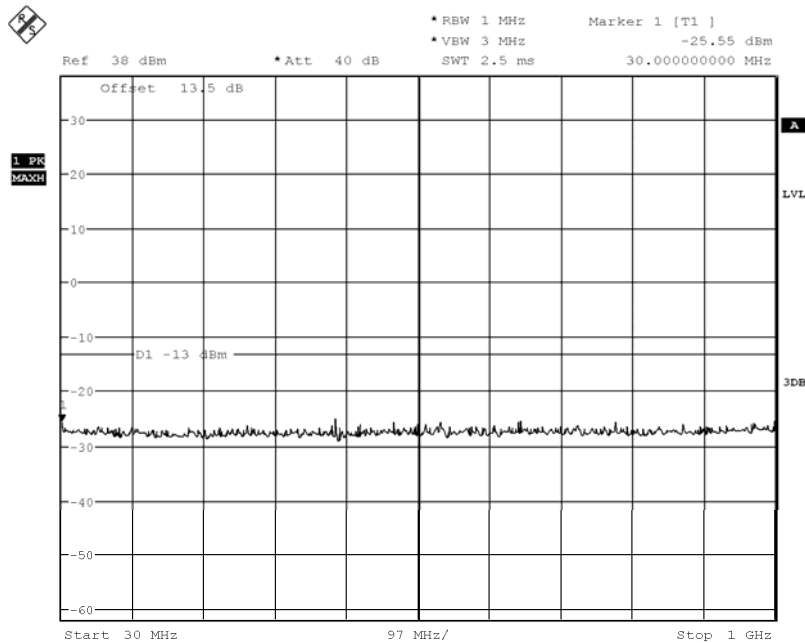
Note: The strong emission shown is the carrier signal.

Report No.:B18W50495-WWAN



Date: 18.OCT.2018 10:53:37

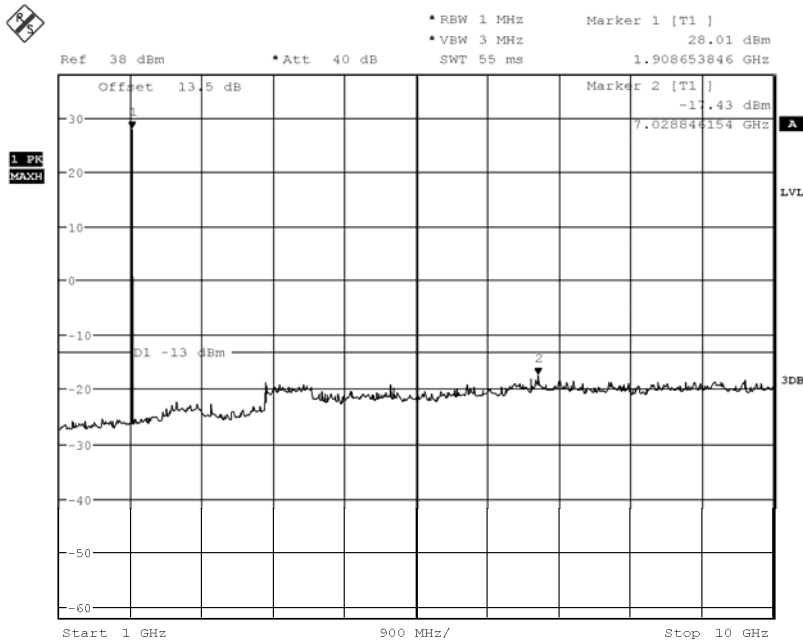
8PSK, Middle channel, 1880.0 MHz, 10GHz to 20GHz



Date: 18.OCT.2018 10:54:46

8PSK, High channel, 1909.8 MHz, 30MHz to 1GHz

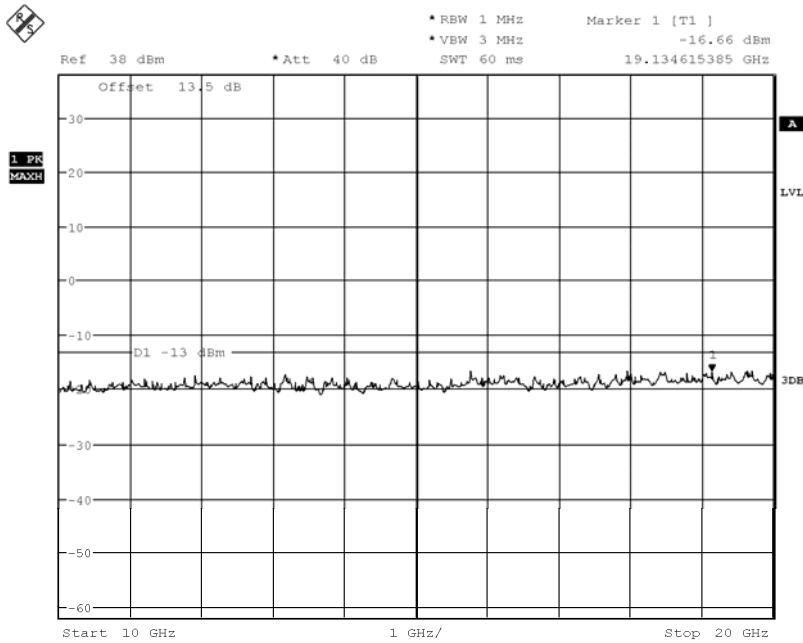
Report No.:B18W50495-WWAN



Date: 18.OCT.2018 10:55:37

8PSK, High channel, 1909.8 MHz, 1GHz to 10GHz

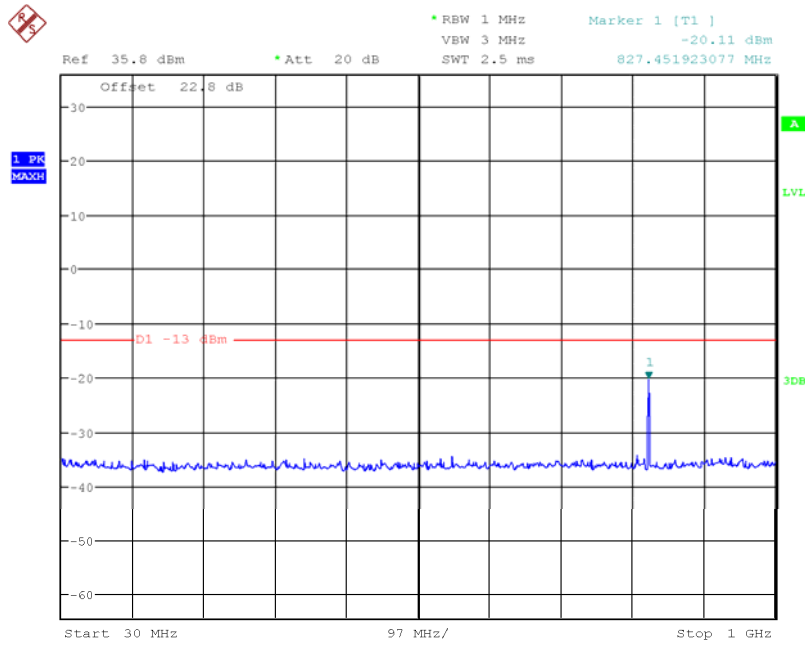
Note: The strong emission shown is the carrier signal



Date: 18.OCT.2018 10:41:16

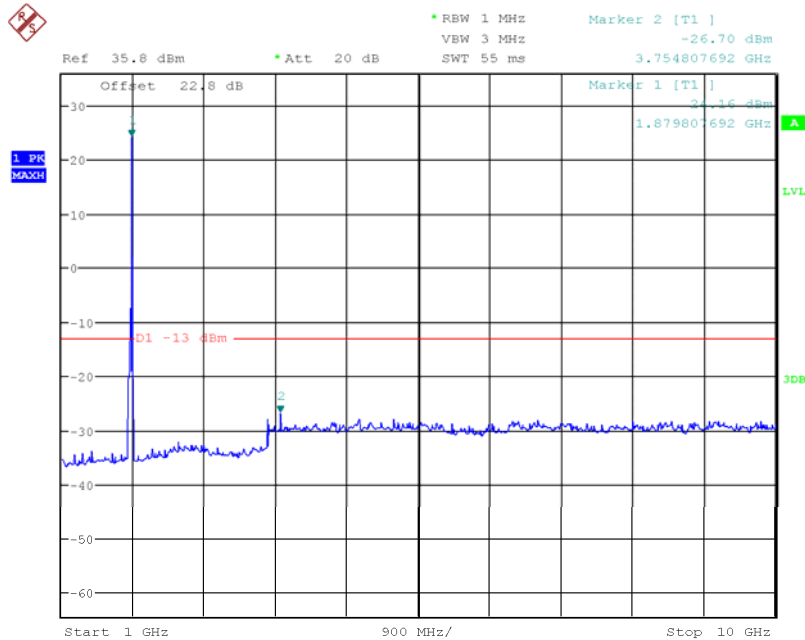
8PSK, High channel, 1909.8 MHz, 10GHz to 20GHz

5.3.3 WCDMA Band 2 Conducted Spurious Emission Results



Date: 23.OCT.2018 09:42:33

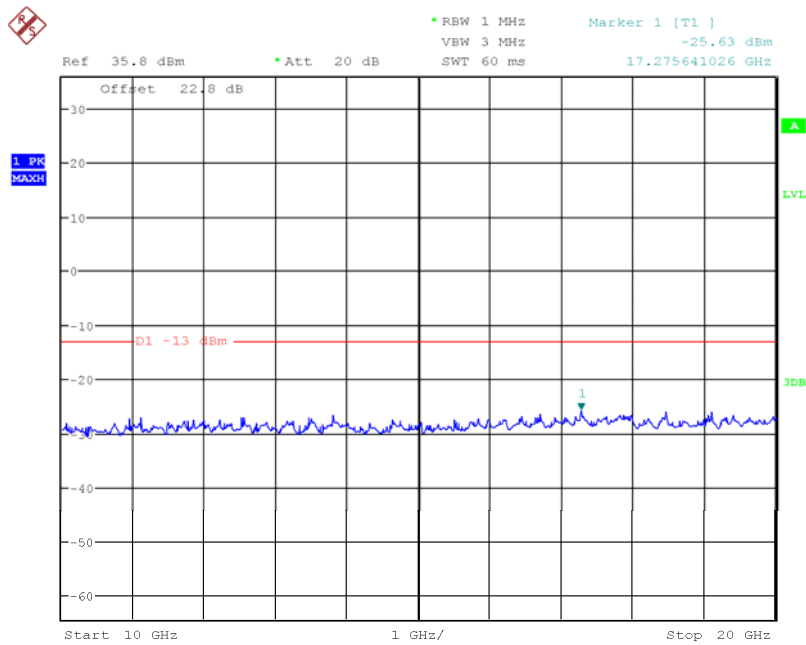
WCDMA Band 2 Middle Channel, 1880 MHz, 30MHz to 1GHz



Date: 23.OCT.2018 09:43:26

WCDMA Band 2 Middle Channel, 1880 MHz, 1GHz to 10GHz

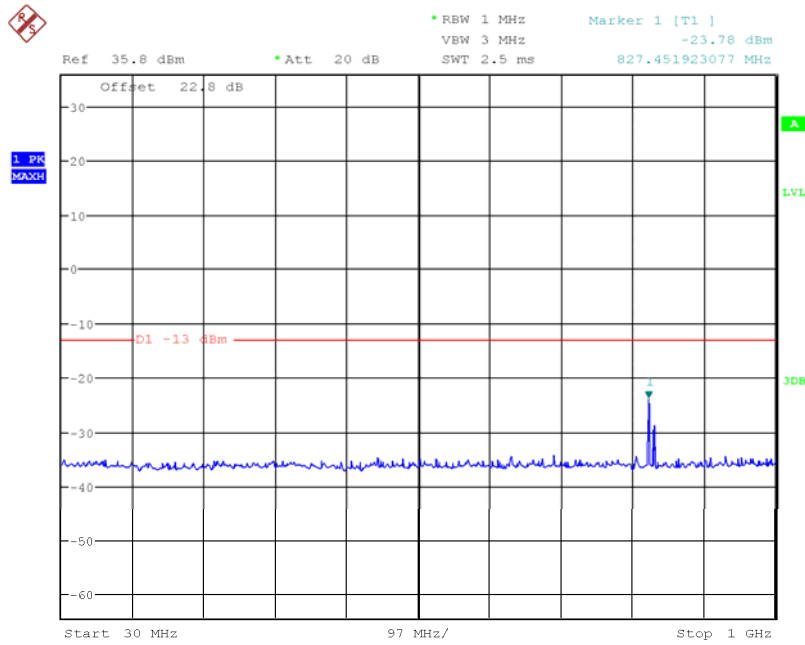
Note: The strong emission shown in each case is the carrier signal.



Date: 23.OCT.2018 09:44:12

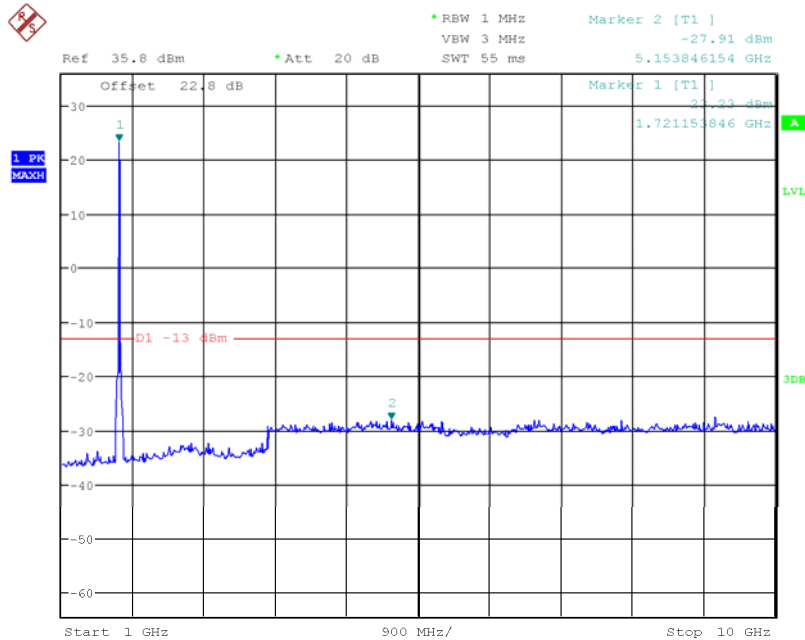
WCDMA Band 2 Middle Channel, 1880 MHz, 10GHz to 20GHz

5.3.4 WCDMA Band 4 Conducted Spurious Emission Results



Date: 23.OCT.2018 09:47:05

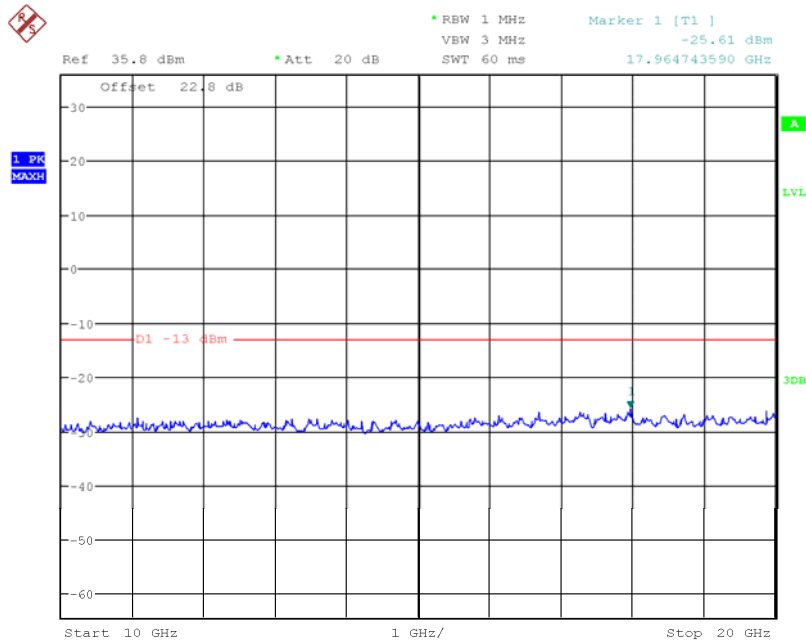
WCDMA Band 4 Middle Channel, 1732.4 MHz, 30MHz to 1GHz



Date: 23.OCT.2018 09:47:45

WCDMA Band 4 Middle Channel, 1732.4 MHz, 1GHz to 10GHz

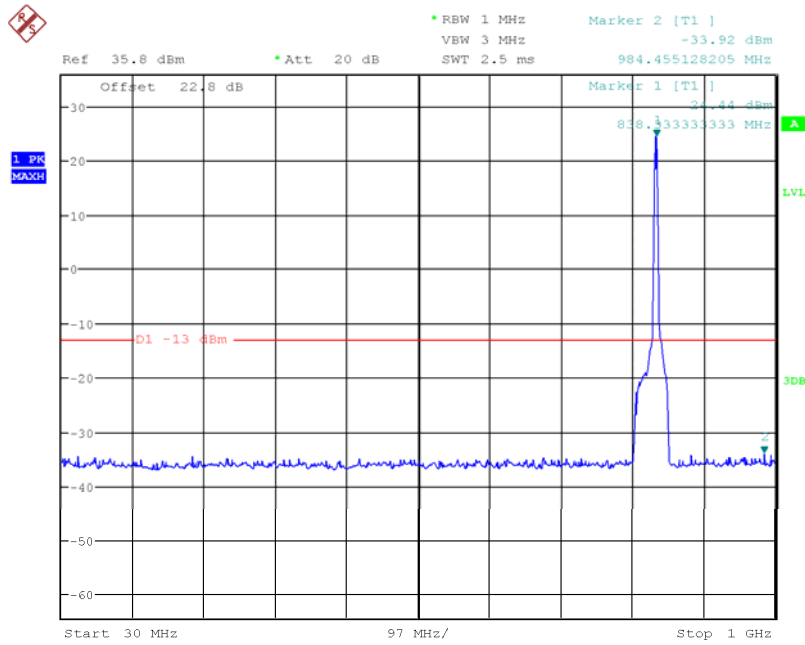
Note: The strong emission shown in each case is the carrier signal.



Date: 23.OCT.2018 09:48:23

WCDMA Band 4 Middle Channel, 1732.4 MHz, 10GHz to 20GHz

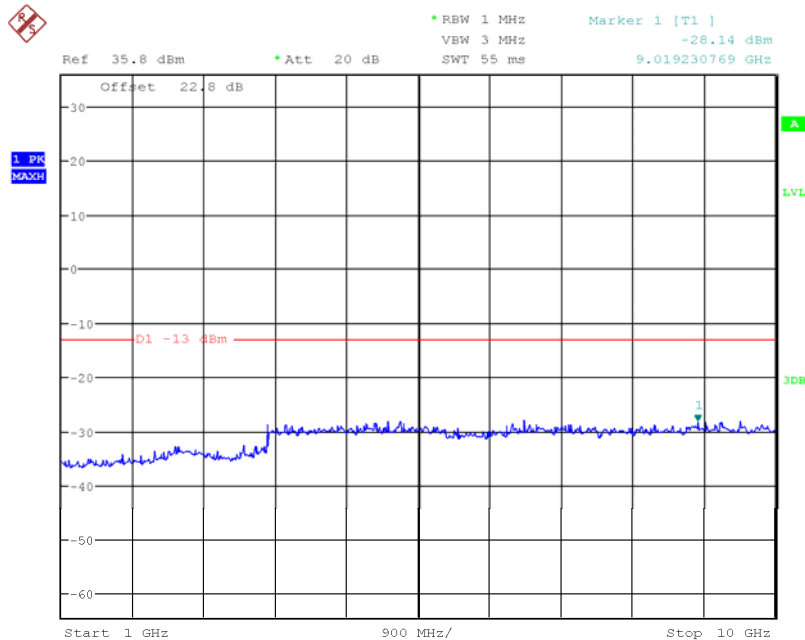
5.3.5 WCDMA Band 5 Conducted Spurious Emission Results



Date: 23.OCT.2018 09:39:31

WCDMA Band 5 Middle Channel, 836.4 MHz, 30MHz to 1GHz

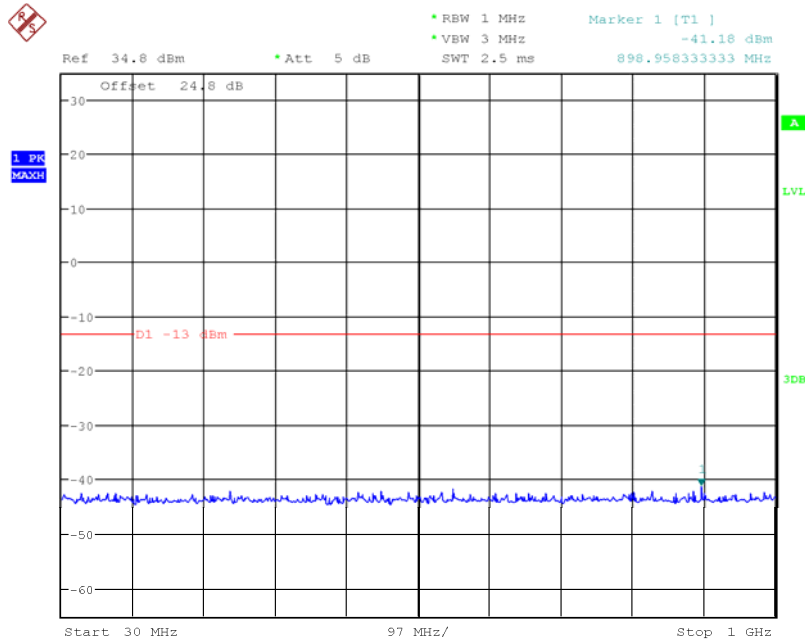
Note: The strong emission shown in each case is the carrier signal.



Date: 23.OCT.2018 09:40:02

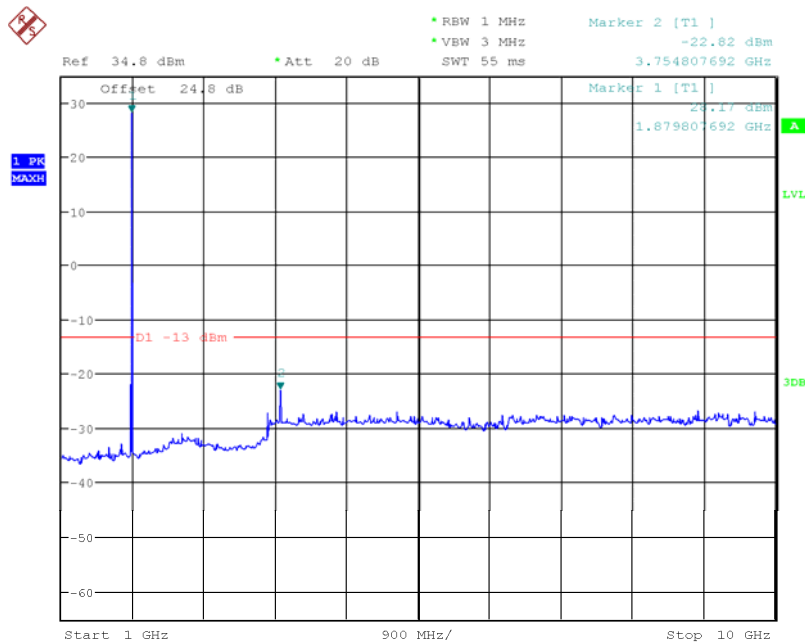
WCDMA Band 5 Middle Channel, 836.4 MHz, 1GHz to 10GHz

5.3.6 LTE B2 Conducted Spurious Emission Results



Date: 19.OCT.2018 09:56:52

1.4MHz bandwidth QPSK Mode Middle channel, 1880 MHz, 30MHz to 1GHz

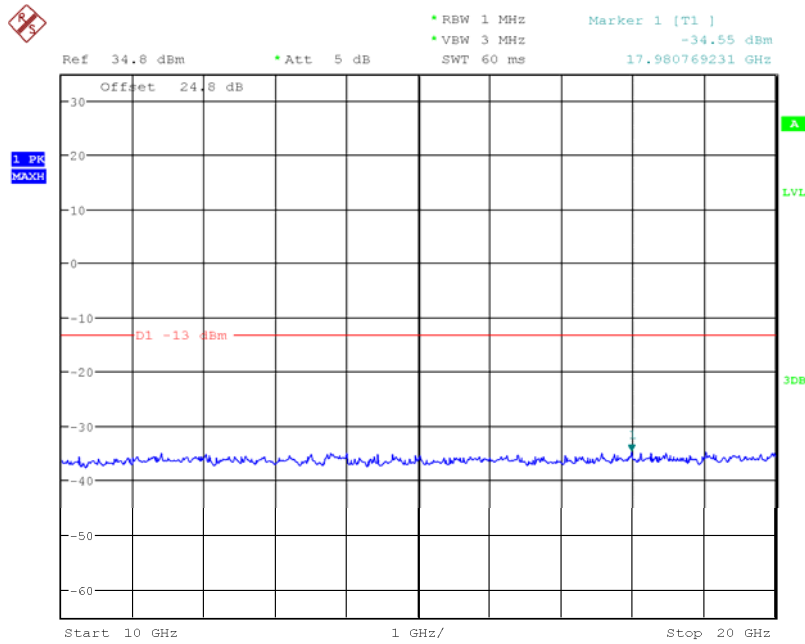


Date: 19.OCT.2018 09:55:33

1.4MHz bandwidth QPSK Middle channel, 1880MHz,1GHz to 10GHz

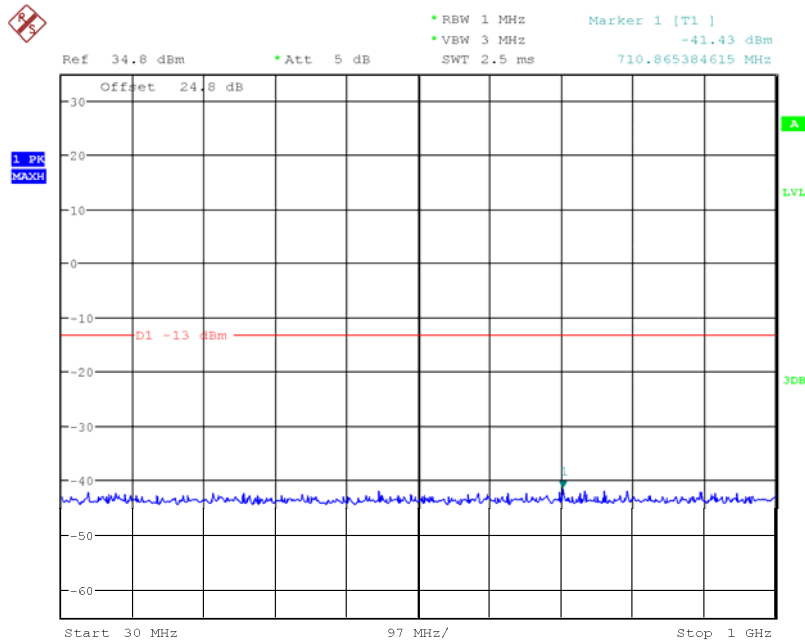
Report No.:B18W50495-WWAN

Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 10:02:48

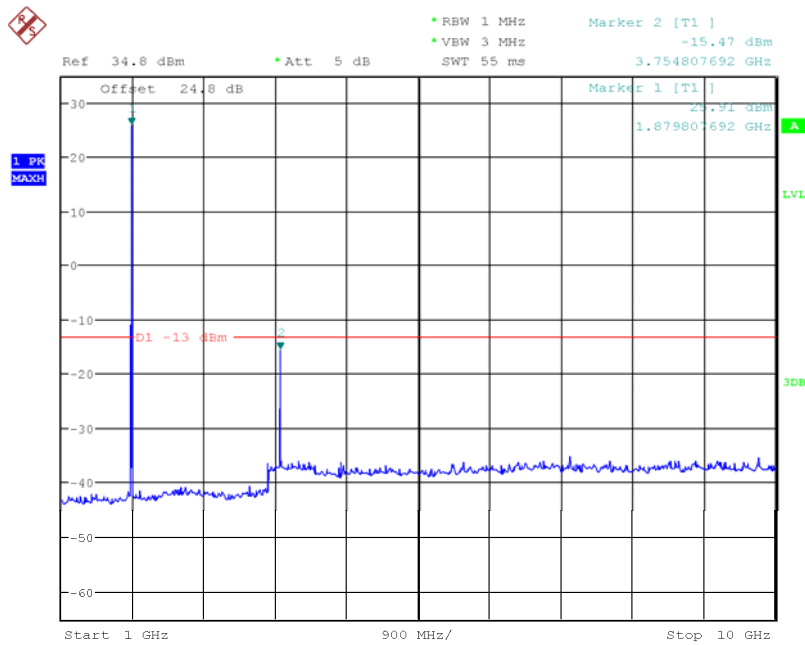
1.4MHz bandwidth QPSK Middle channel, 1880 MHz, 10GHz to 20GHz



Date: 19.OCT.2018 10:03:46

3MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 30MHz to 1GHz

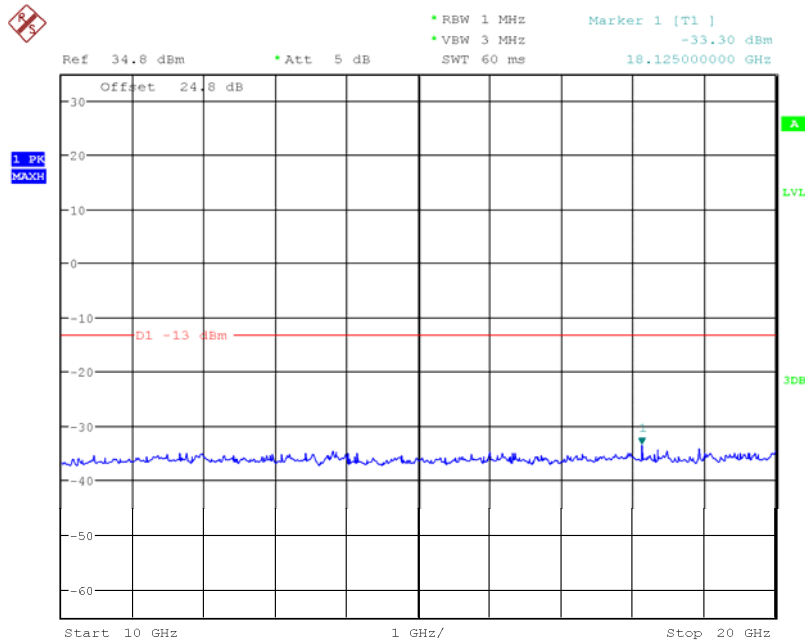
Report No.:B18W50495-WWAN



Date: 19.OCT.2018 10:04:32

3MHz bandwidth QPSK Middle Channel, 1880 MHz, 1GHz to 10GHz

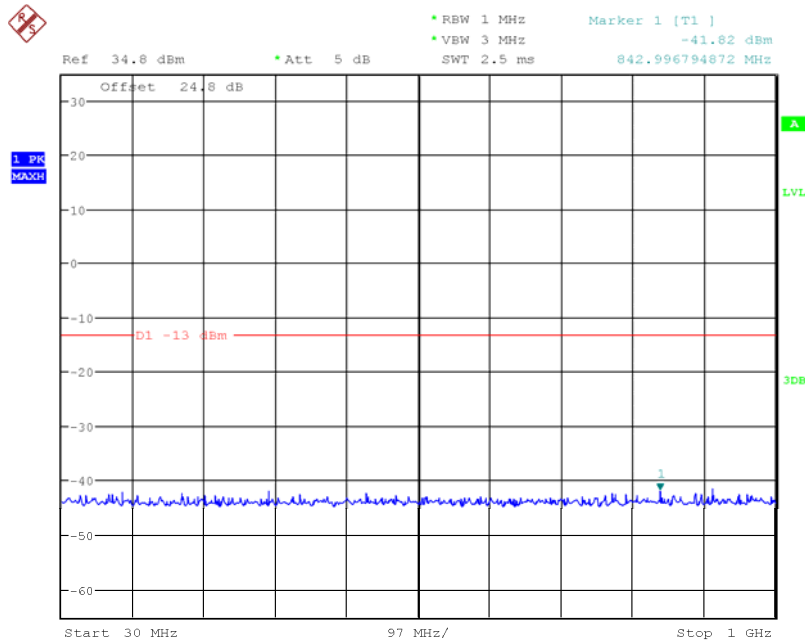
Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 10:09:14

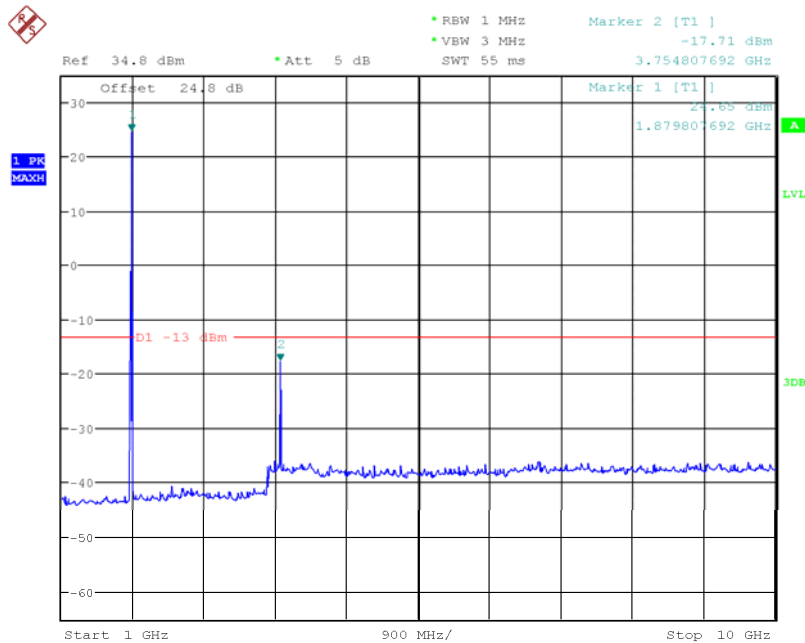
3MHz bandwidth QPSK Middle Channel, 1880 MHz, 10GHz to 20GHz

Report No.:B18W50495-WWAN



Date: 19.OCT.2018 10:10:32

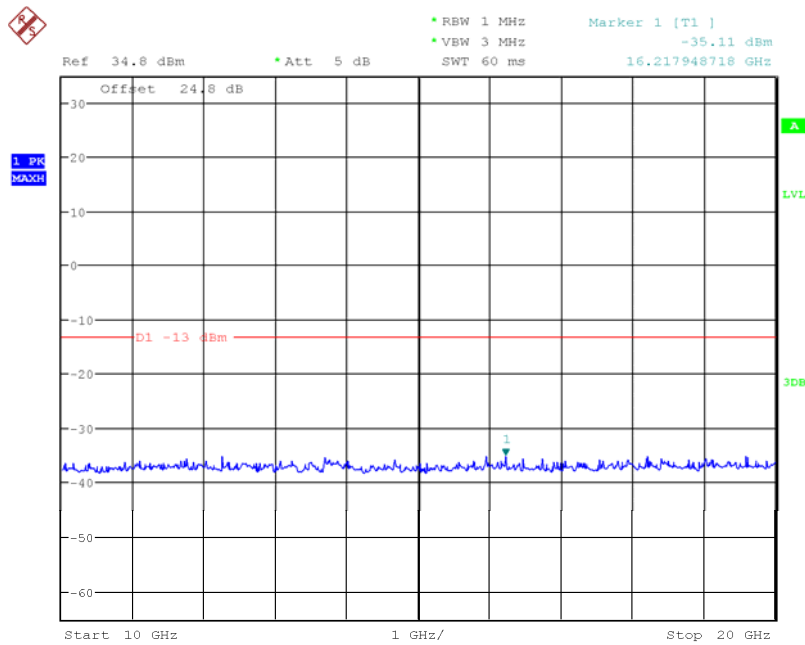
5MHz bandwidth QPSK Mode Middle Channel, 1880 MHz,30MHz to 1GHz



Date: 19.OCT.2018 10:11:01

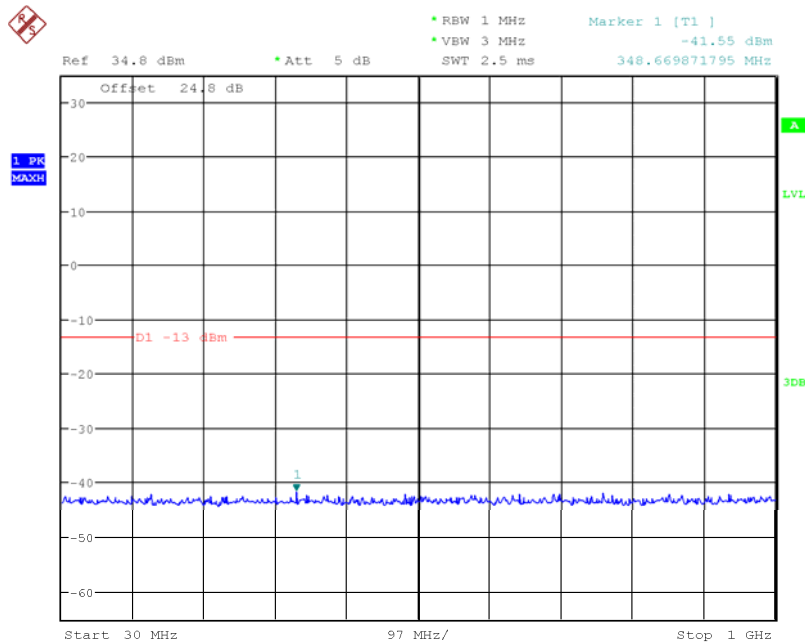
5MHz bandwidth QPSK Mode Middle Channel, 1880 MHz,1GHz to 10GHz

Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 10:11:23

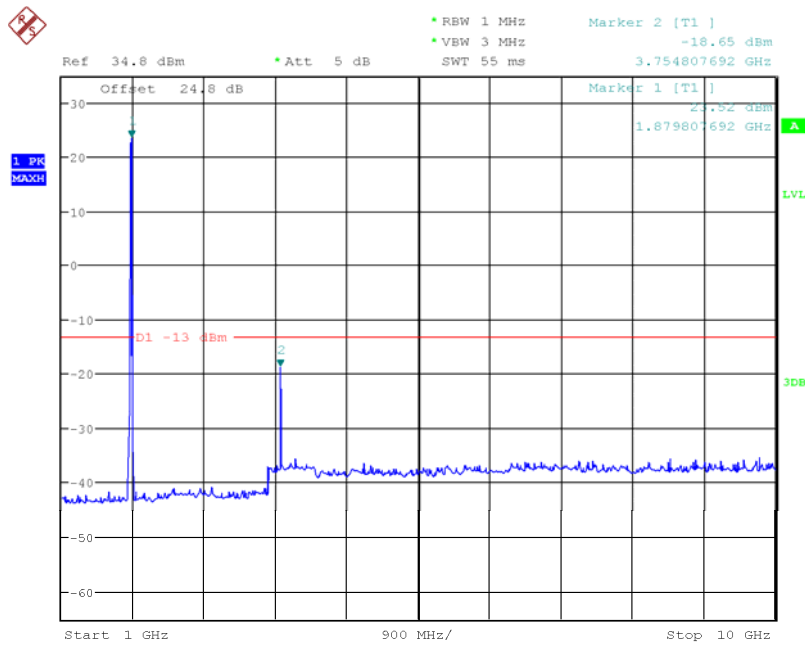
5MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 10GHz to 20GHz



Date: 19.OCT.2018 10:20:12

10MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 30MHz to 1GHz

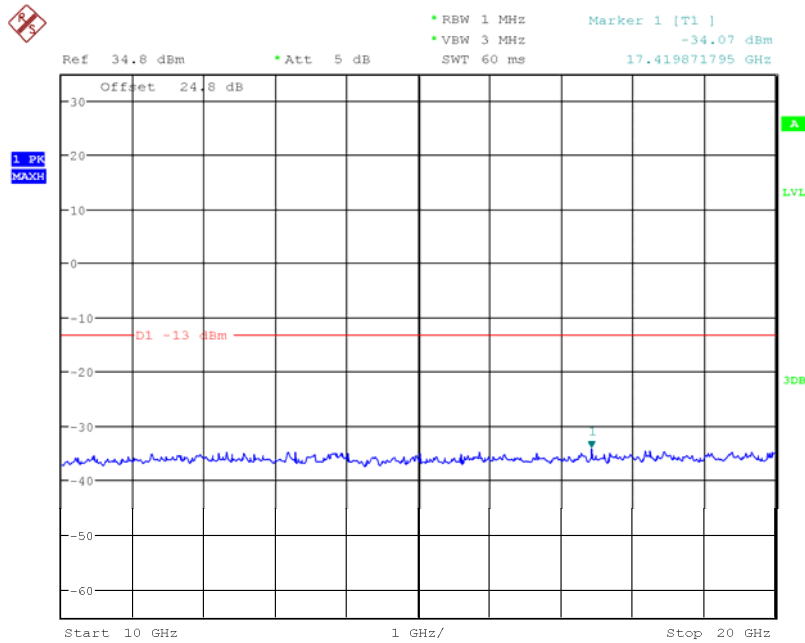
Report No.:B18W50495-WWAN



Date: 19.OCT.2018 10:20:49

10MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 1GHz to 10GHz

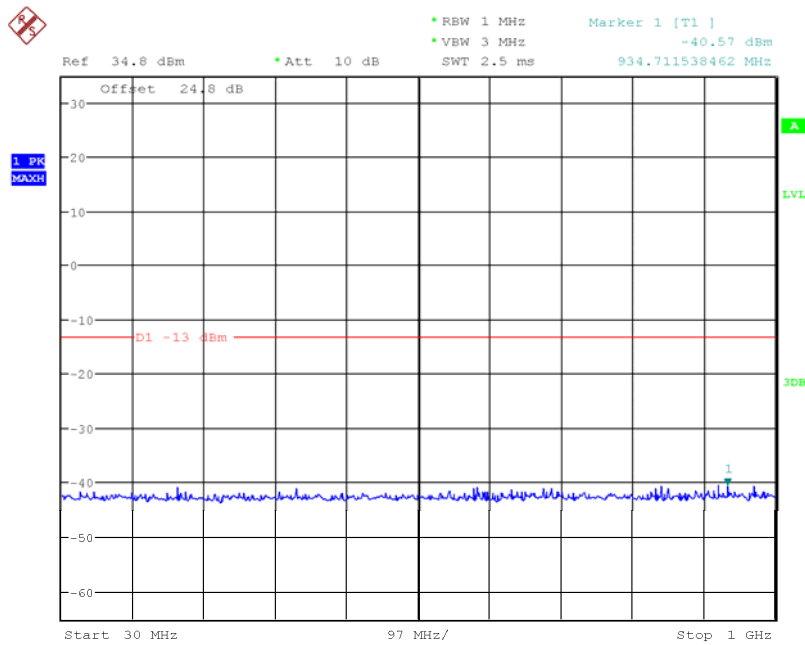
Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 10:25:52

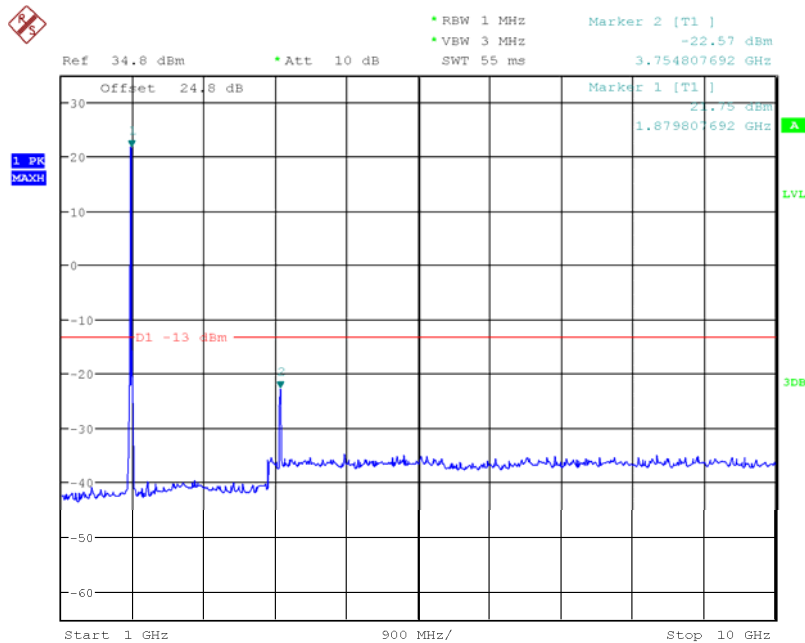
10MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 10GHz to 20GHz

Report No.:B18W50495-WWAN



Date: 19.OCT.2018 10:44:39

15MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 30MHz to 1GHz

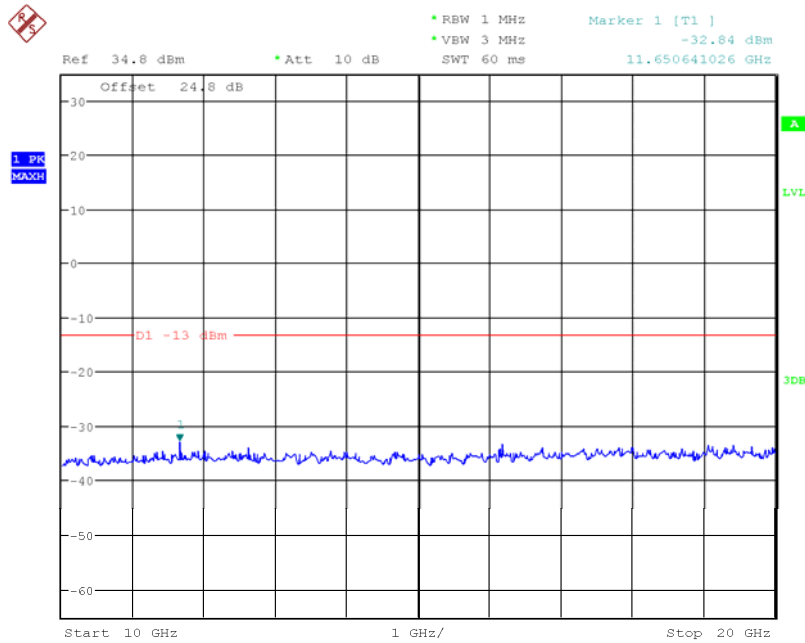


Date: 19.OCT.2018 10:45:27

15MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 1GHz to 10GHz

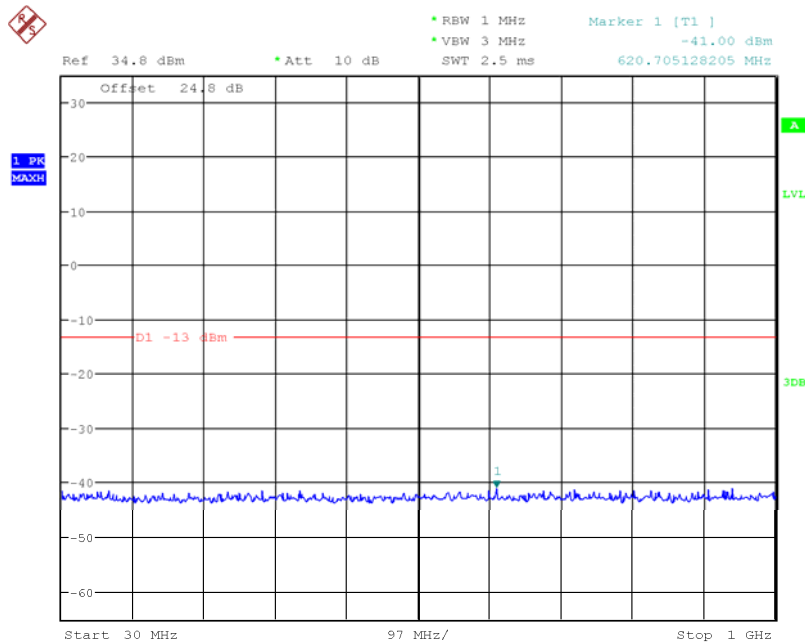
Note: The strong emission shown in each case is the carrier signal.

Report No.:B18W50495-WWAN



Date: 19.OCT.2018 10:46:01

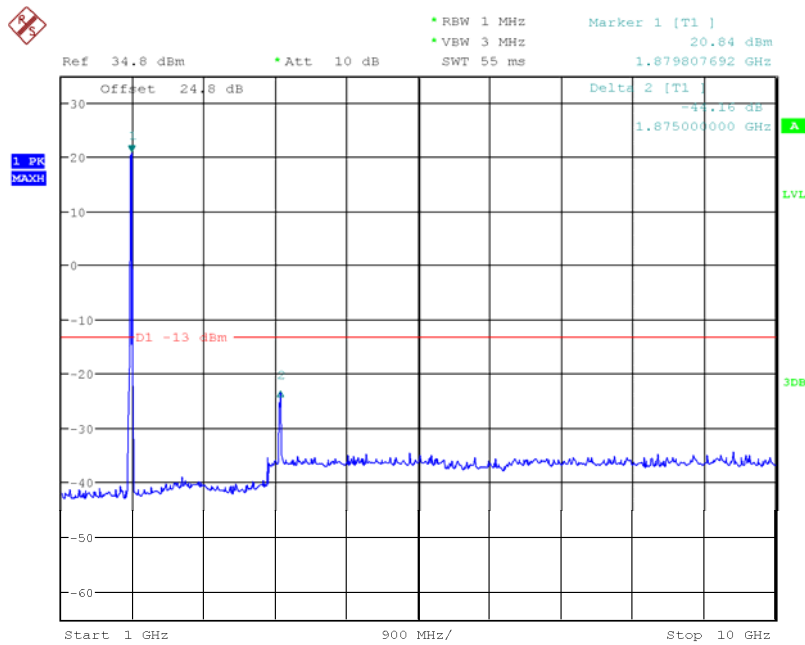
15MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 10GHz to 20GHz



Date: 19.OCT.2018 10:46:59

20MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 30MHz to 1GHz

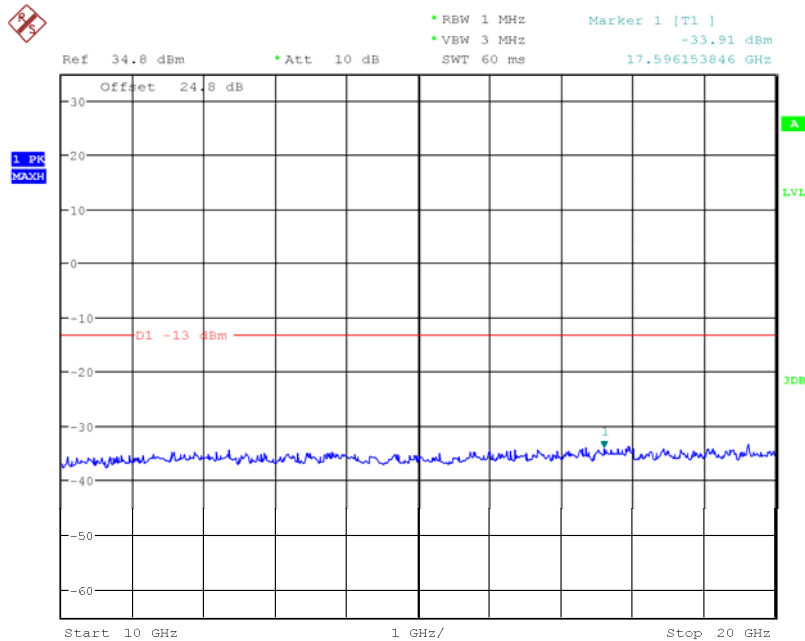
Report No.:B18W50495-WWAN



Date: 19.OCT.2018 10:47:40

20MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 1GHz to 10GHz

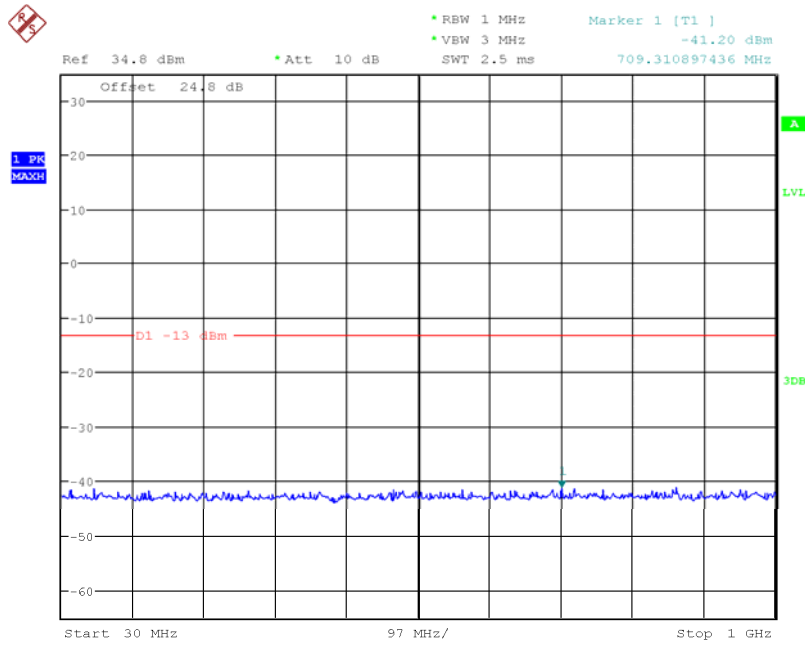
Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 10:48:10

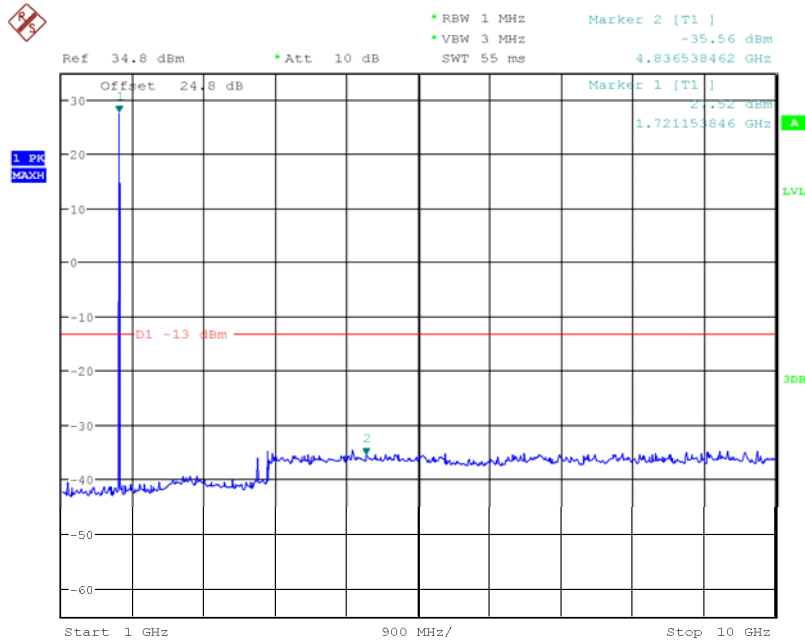
20MHz bandwidth QPSK Mode Middle Channel, 1880 MHz, 10GHz to 20GHz

5.3.7 LTE B4 Conducted Spurious Emission Results



Date: 19.OCT.2018 10:53:07

1.4MHz bandwidth QPSK Mode Middle channel, 1732.5 MHz, 30MHz to 1GHz



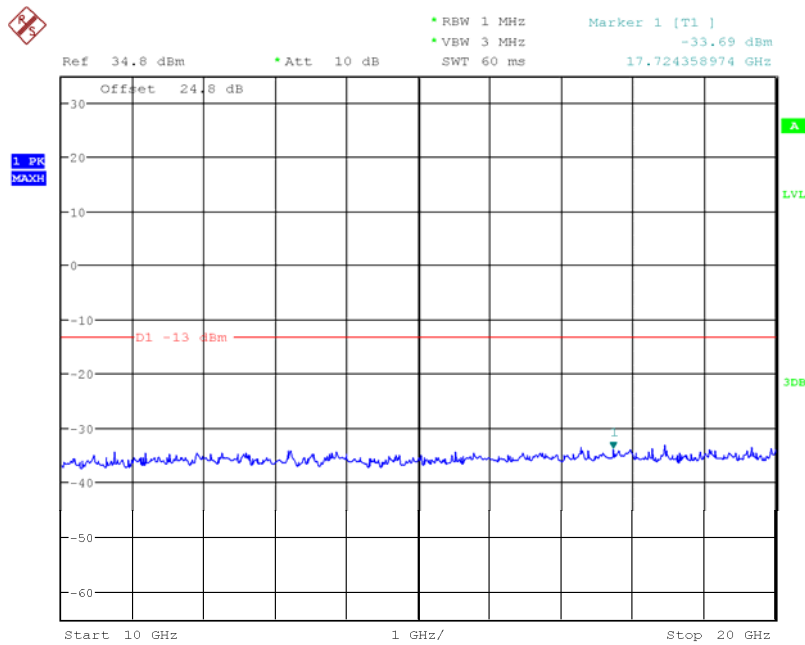
Date: 19.OCT.2018 10:54:02

1.4MHz bandwidth QPSK Middle channel, 1732.5MHz,1GHz to 10GHz

Note: The strong emission shown in each case is the carrier signal.

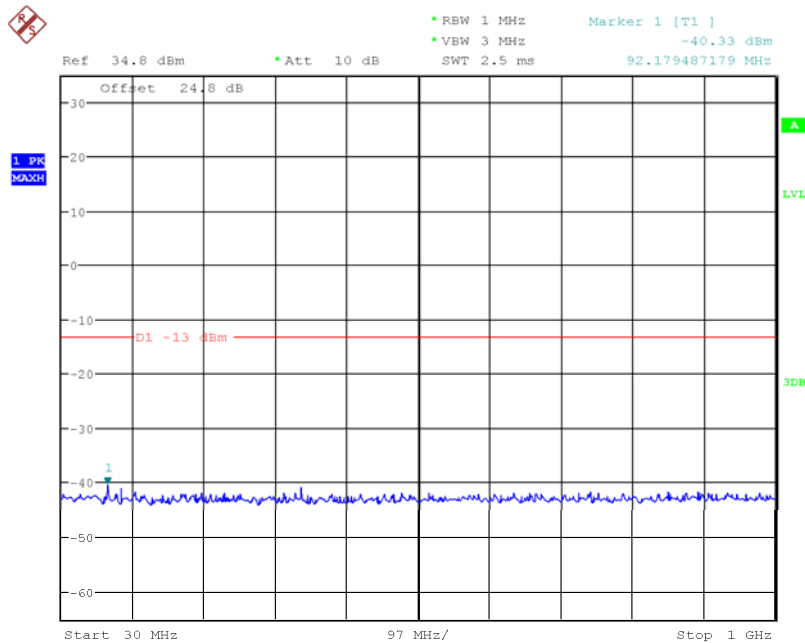
Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

Report No.:B18W50495-WWAN



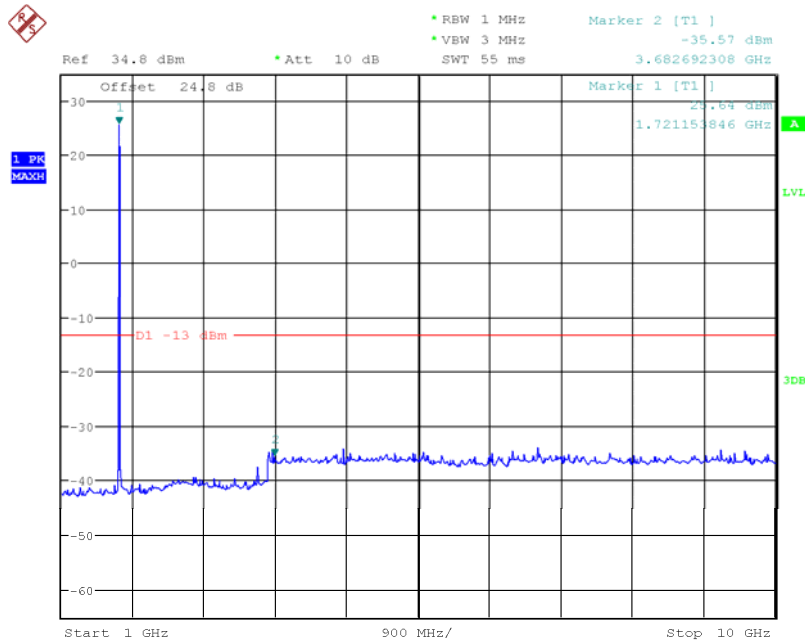
Date: 19.OCT.2018 10:54:26

1.4MHz bandwidth QPSK Middle channel, 1732.5 MHz,10GHz to 20GHz



Date: 19.OCT.2018 10:55:06

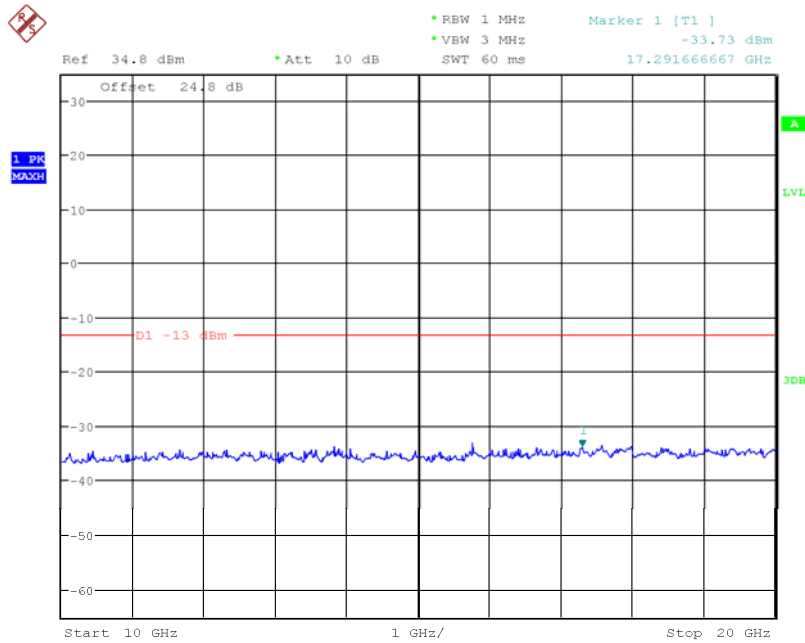
3MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 30MHz to 1GHz



Date: 19.OCT.2018 10:57:54

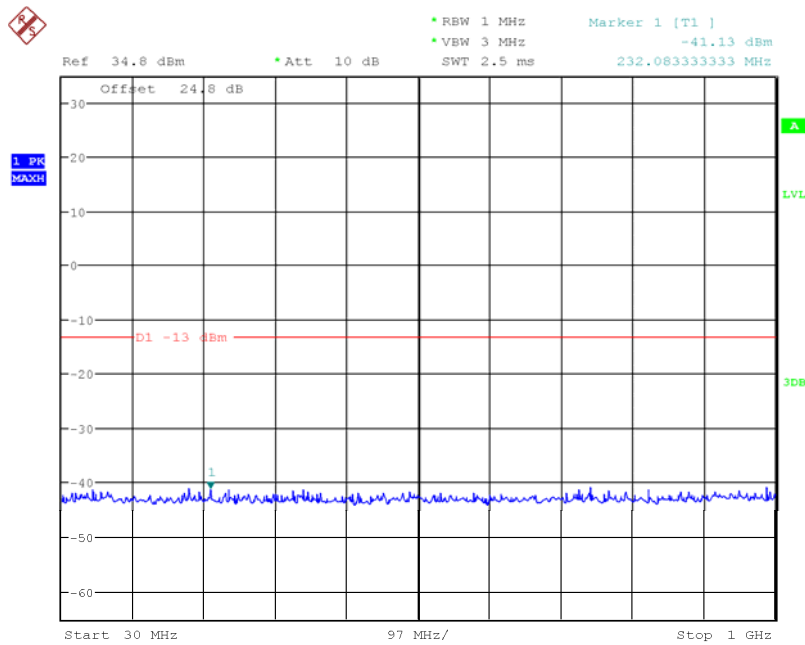
3MHz bandwidth QPSK Middle Channel, 1732.5 MHz, 1GHz to 10GHz

Note: The strong emission shown in each case is the carrier signal.



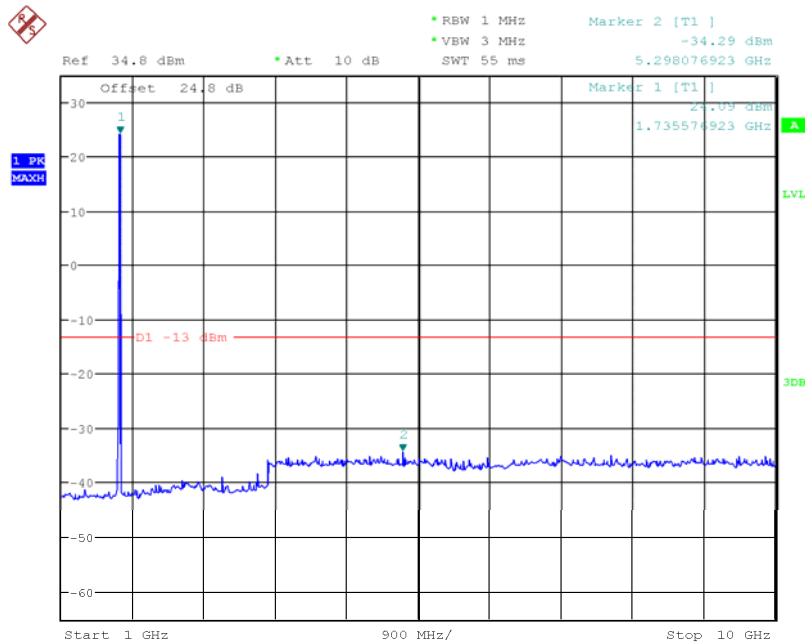
Date: 19.OCT.2018 10:59:13

3MHz bandwidth QPSK Middle Channel, 1732.5 MHz, 10GHz to 20GHz



Date: 19.OCT.2018 10:59:53

5MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz,30MHz to 1GHz

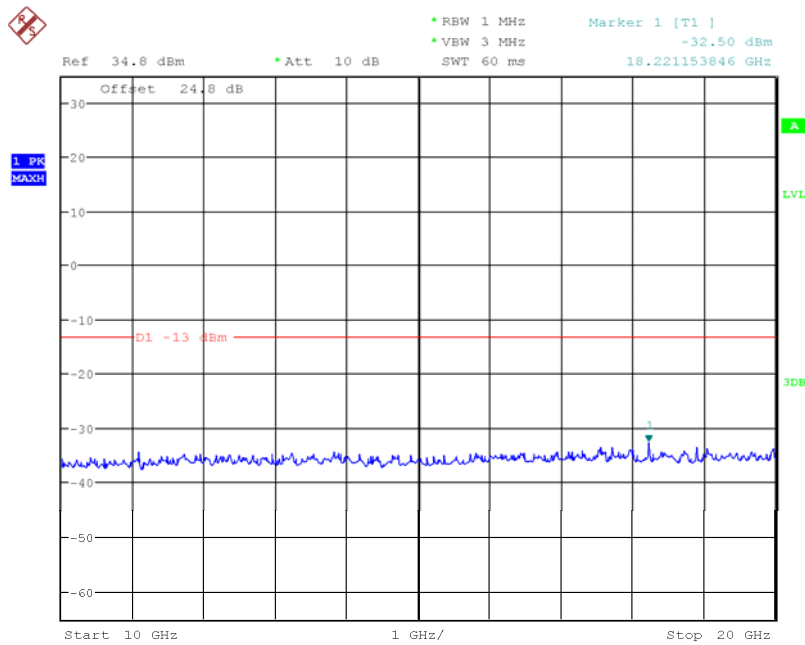


Date: 19.OCT.2018 11:00:38

5MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz,1GHz to 10GHz

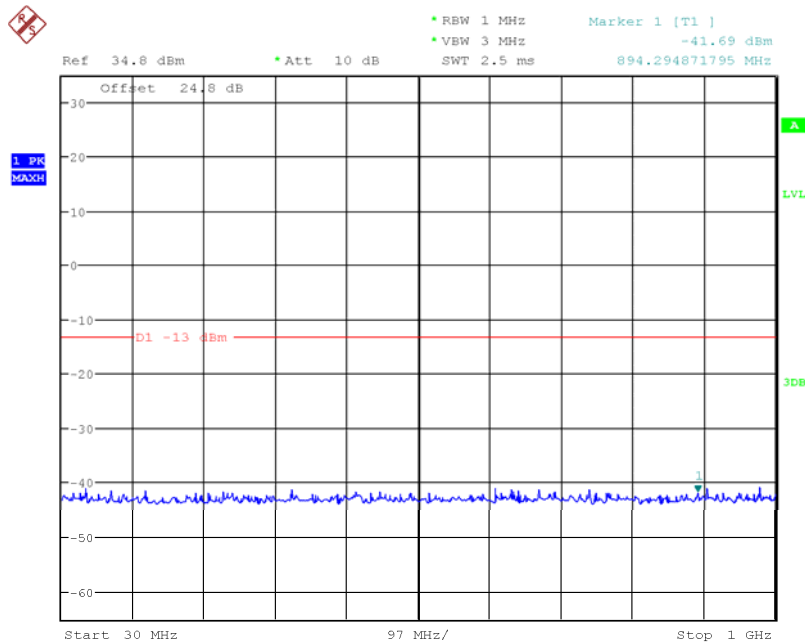
Note: The strong emission shown in each case is the carrier signal.

Report No.:B18W50495-WWAN



Date: 19.OCT.2018 11:01:01

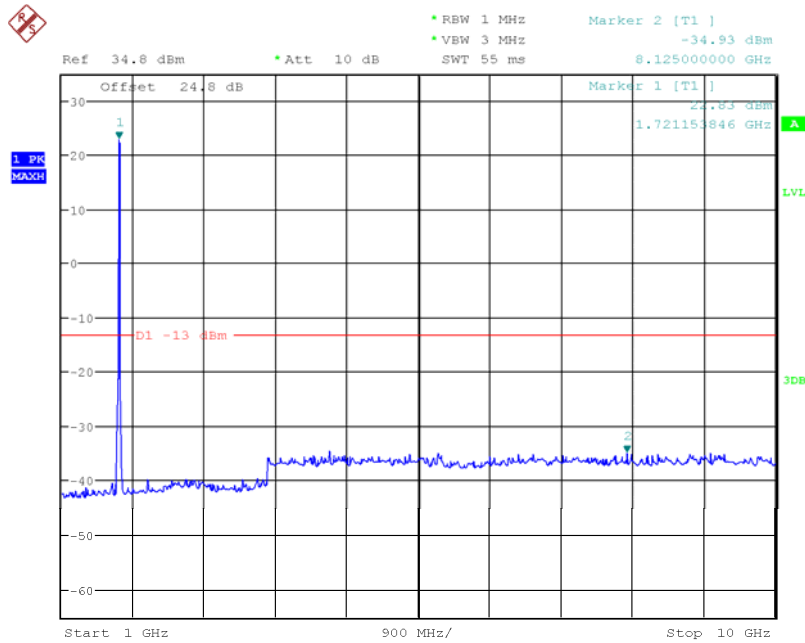
5MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz,10GHz to 20GHz



Date: 19.OCT.2018 11:01:36

10MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 30MHz to 1GHz

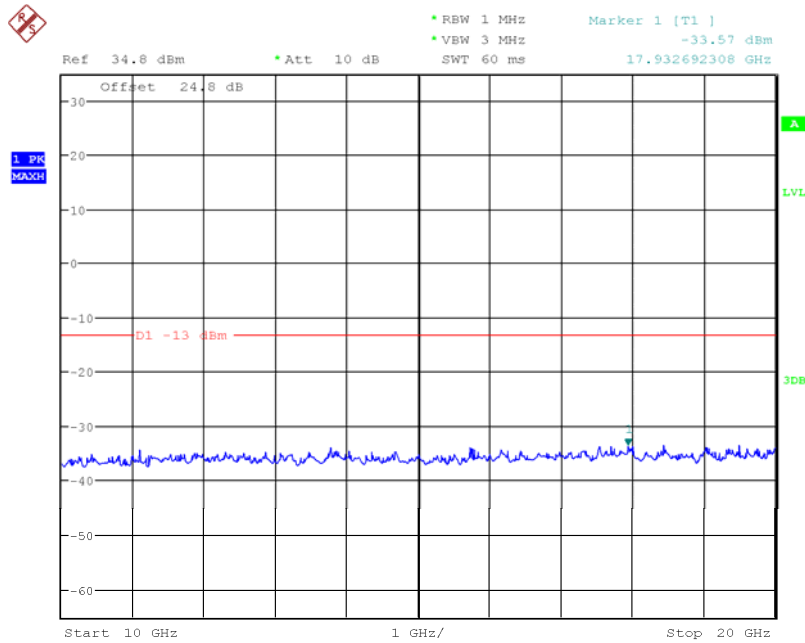
Report No.:B18W50495-WWAN



Date: 19.OCT.2018 11:02:14

10MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 1GHz to 10GHz

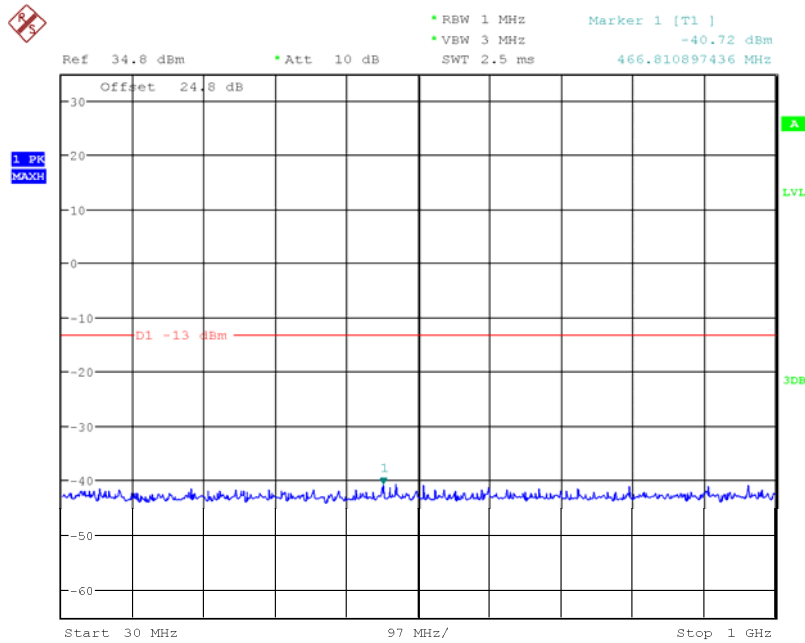
Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 11:02:38

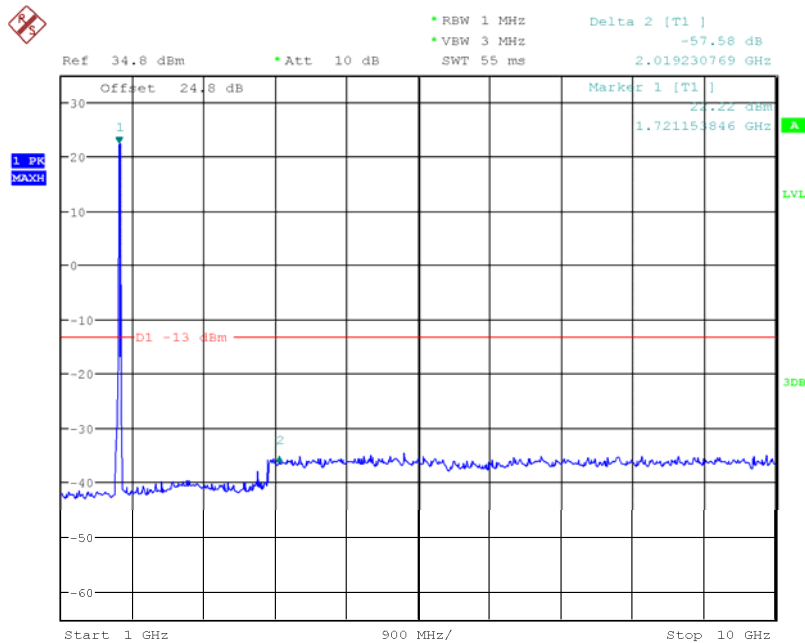
10MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 10GHz to 20GHz

Report No.:B18W50495-WWAN



Date: 19.OCT.2018 11:03:15

15MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 30MHz to 1GHz

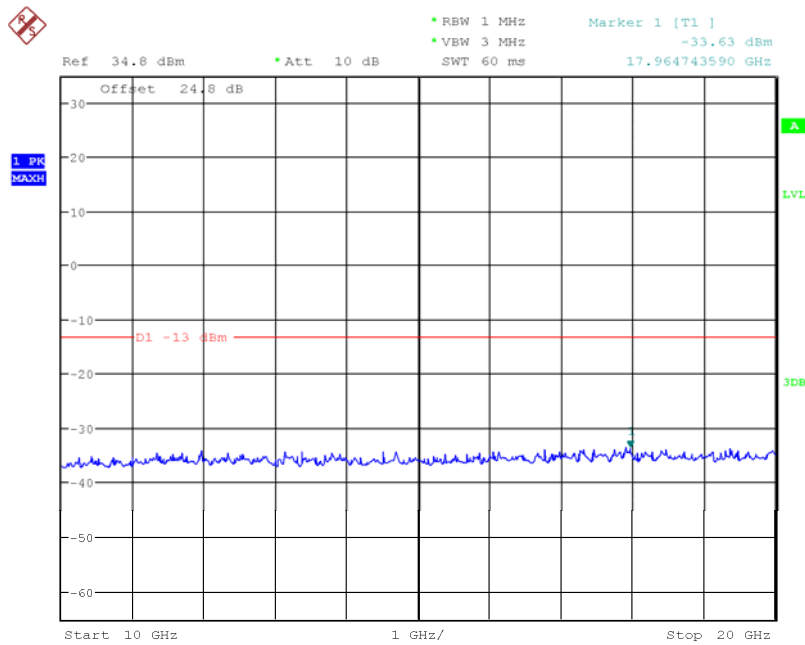


Date: 19.OCT.2018 11:03:59

15MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 1GHz to 10GHz

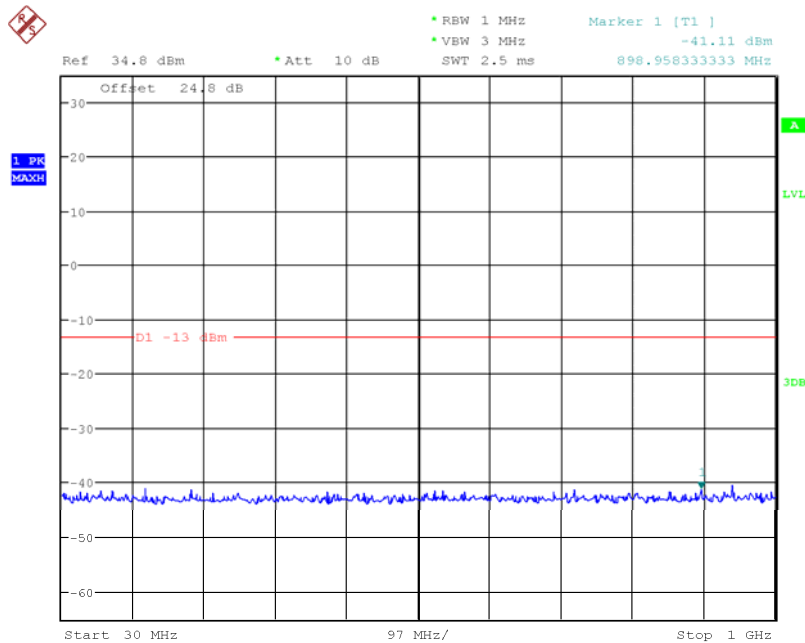
Note: The strong emission shown in each case is the carrier signal.

Report No.:B18W50495-WWAN



Date: 19.OCT.2018 11:05:47

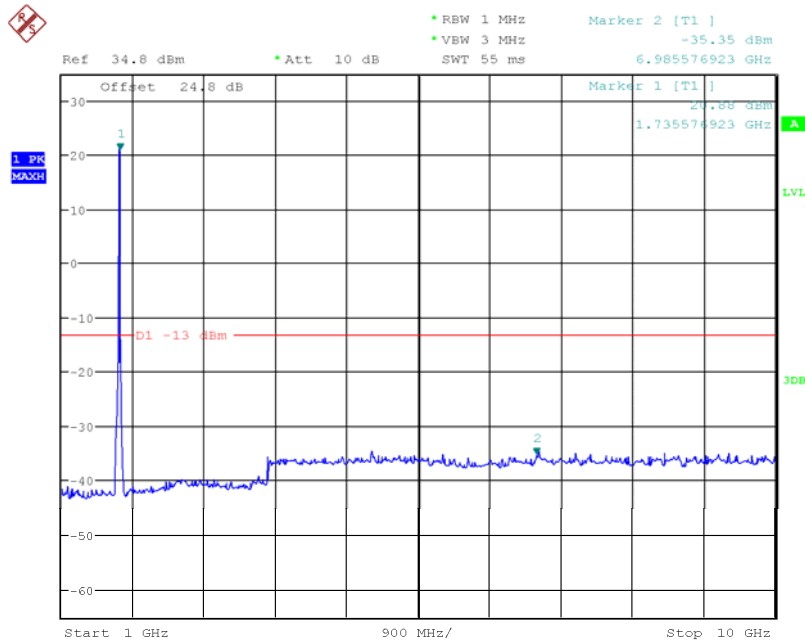
15MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 10GHz to 20GHz



Date: 19.OCT.2018 11:06:16

20MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 30MHz to 1GHz

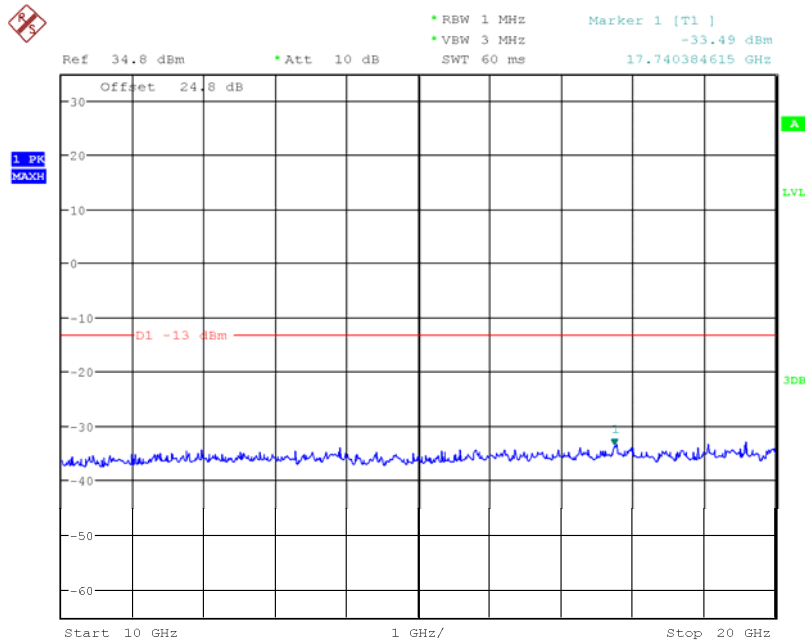
Report No.:B18W50495-WWAN



Date: 19.OCT.2018 11:06:49

20MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 1GHz to 10GHz

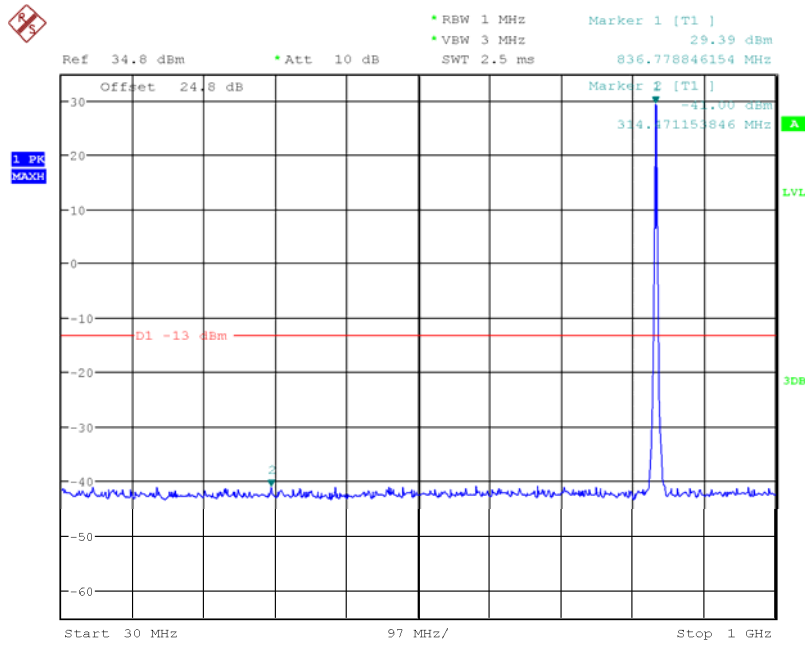
Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 11:07:13

20MHz bandwidth QPSK Mode Middle Channel, 1732.5 MHz, 10GHz to 20GHz

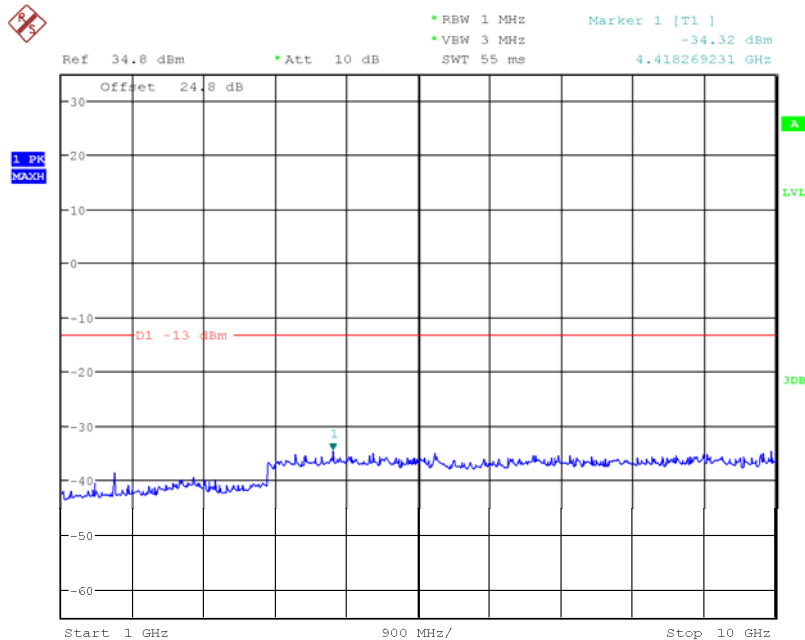
5.3.8 LTE B5 Conducted Spurious Emission Results



Date: 19.OCT.2018 11:12:32

1.4MHz bandwidth QPSK Mode Middle Channel, 836.5 MHz,30MHz to 1GHz

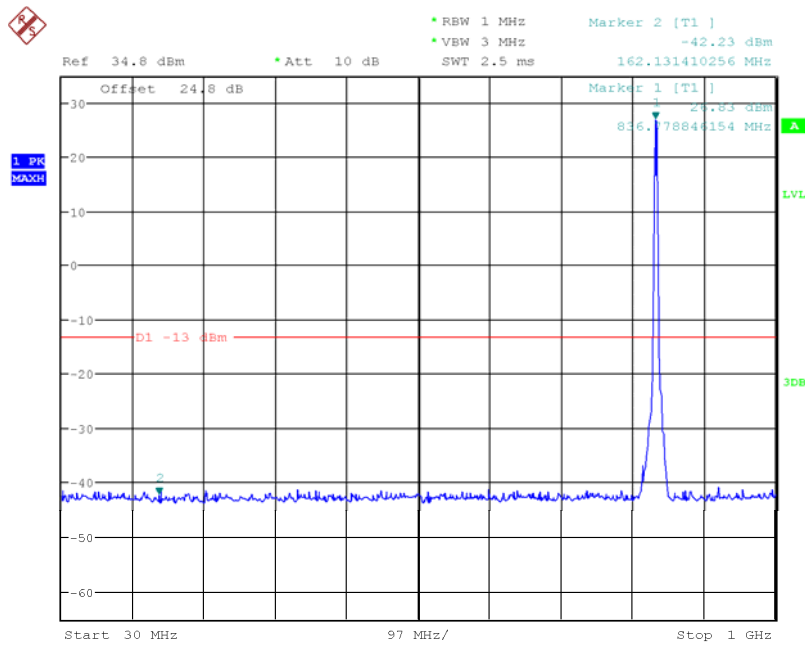
Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 11:13:03

1.4MHz bandwidth QPSK Mode Middle Channel, 836.5 MHz,1GHz to 10GHz

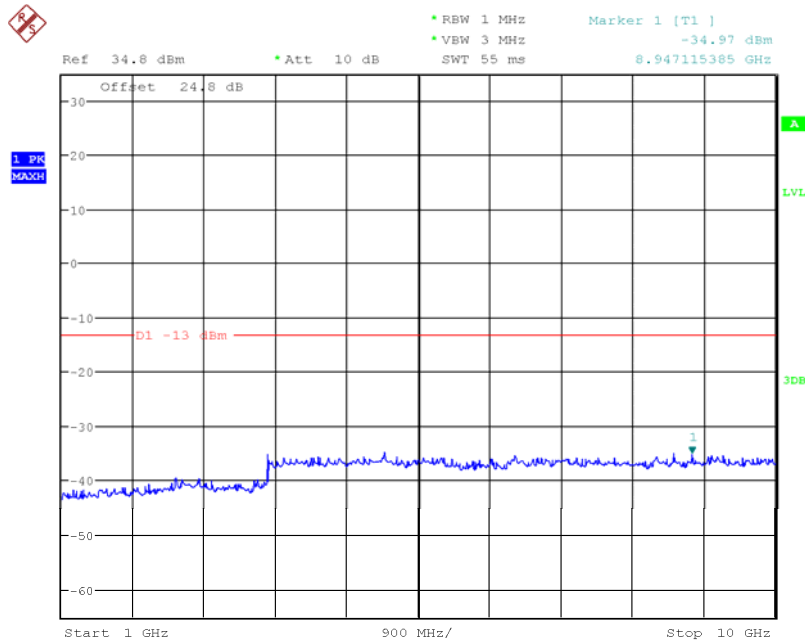
Report No.:B18W50495-WWAN



Date: 19.OCT.2018 11:13:49

3MHz bandwidth QPSK Mode Middle Channel, 836.5 MHz,30MHz to 1GHz

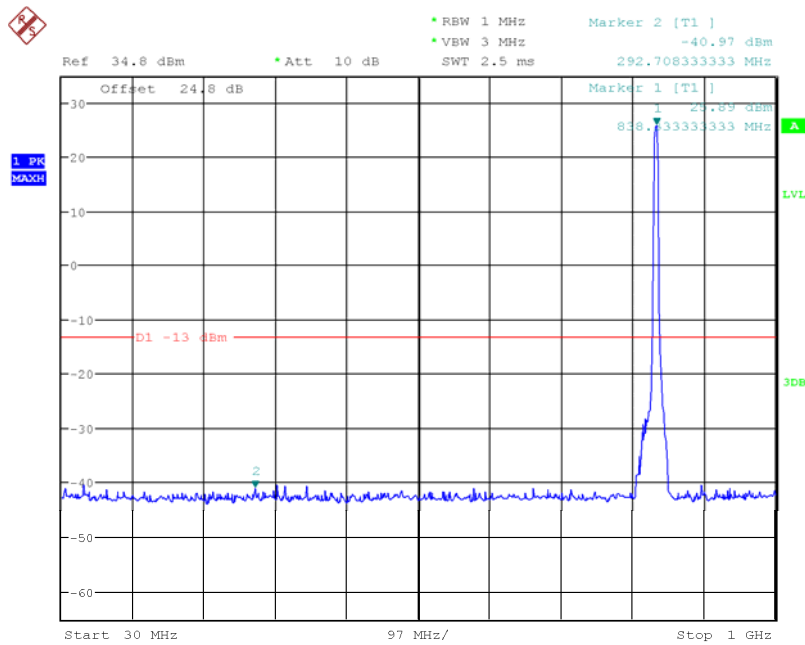
Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 11:14:12

3MHz bandwidth QPSK Mode Middle Channel, 836.5 MHz,1GHz to 10GHz

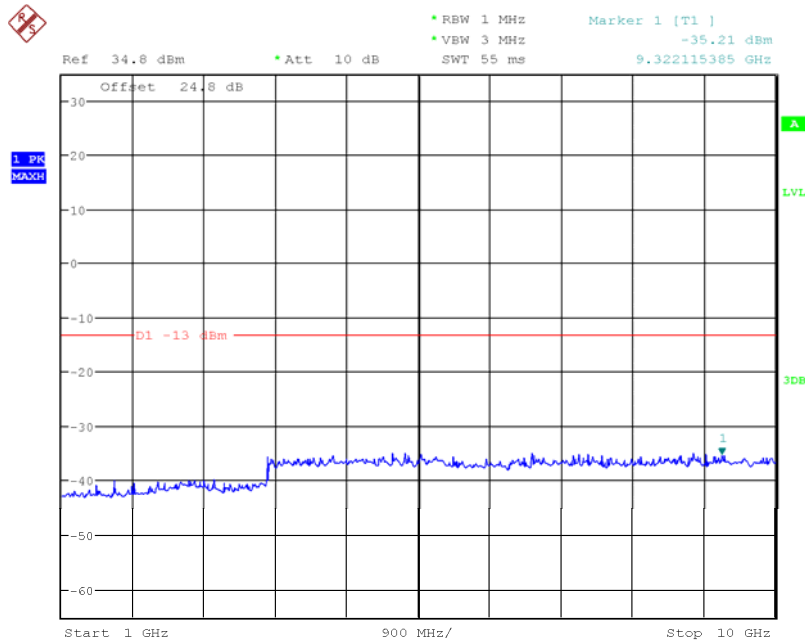
Report No.:B18W50495-WWAN



Date: 19.OCT.2018 11:14:57

5MHz bandwidth QPSK Mode Middle Channel, 836.5 MHz,30MHz to 1GHz

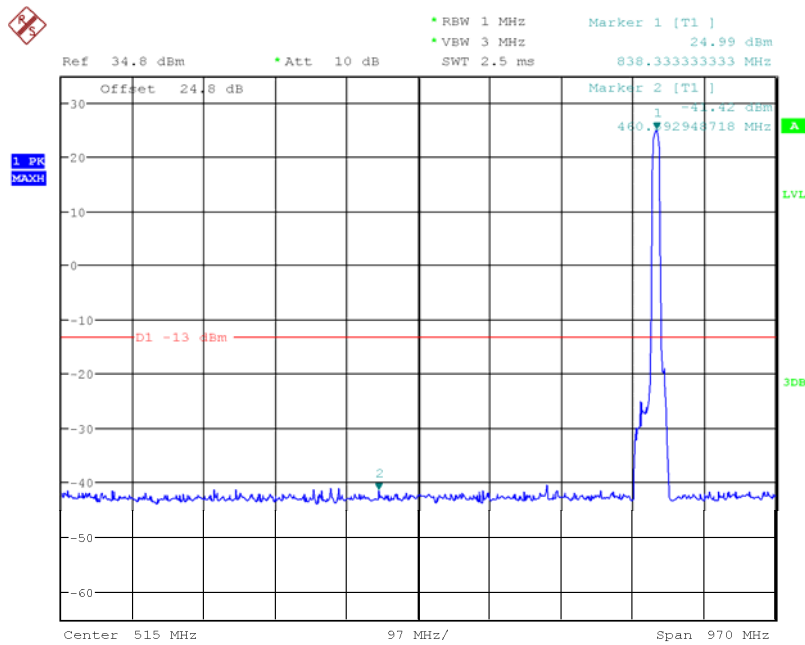
Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 11:15:20

5MHz bandwidth QPSK Mode Middle Channel, 836.5 MHz, 1GHz to 10GHz

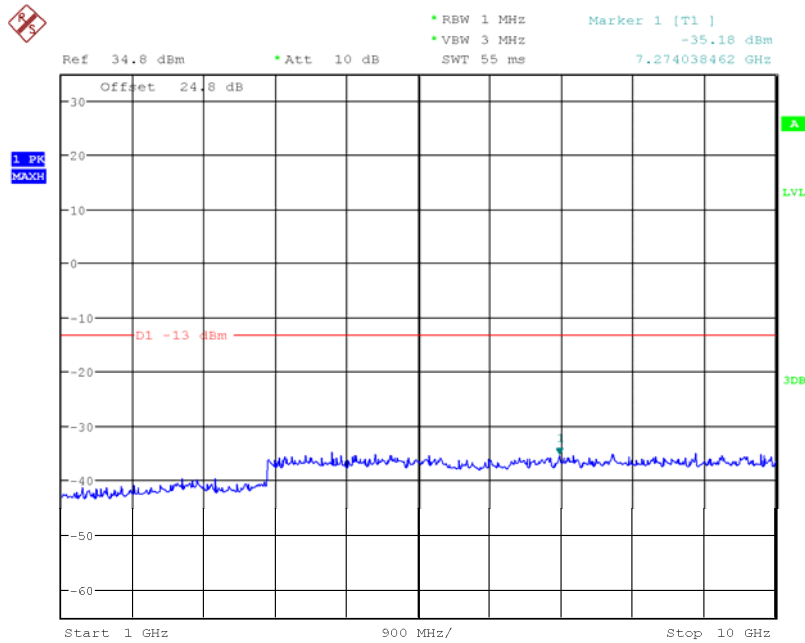
Report No.:B18W50495-WWAN



Date: 19.OCT.2018 11:16:01

10MHz bandwidth QPSK Mode Middle Channel, 836.5 MHz,30MHz to 1GHz

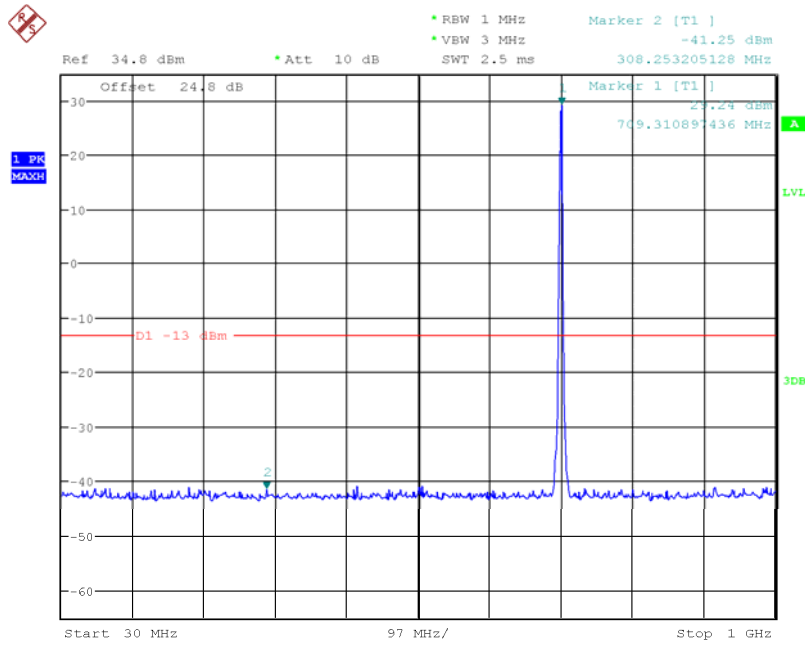
Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 11:16:20

10MHz bandwidth QPSK Mode Middle Channel, 836.5 MHz,1GHz to 10GHz

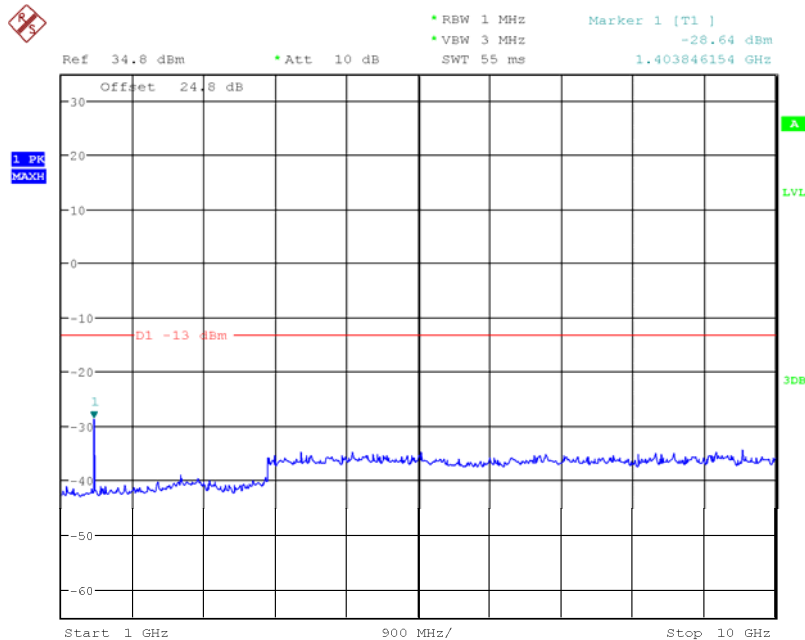
5.3.9 LTE B12 Conducted Spurious Emission Results



Date: 19.OCT.2018 11:20:13

1.4MHz bandwidth QPSK Mode Middle Channel, 707.5 MHz,30MHz to 1GHz

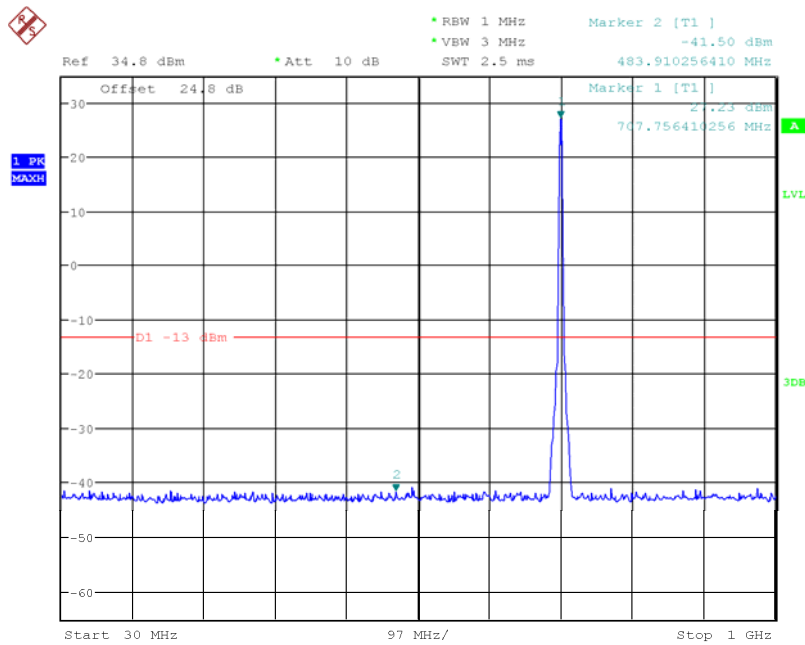
Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 11:20:53

1.4MHz bandwidth QPSK Mode Middle Channel, 707.5 MHz,1GHz to 10GHz

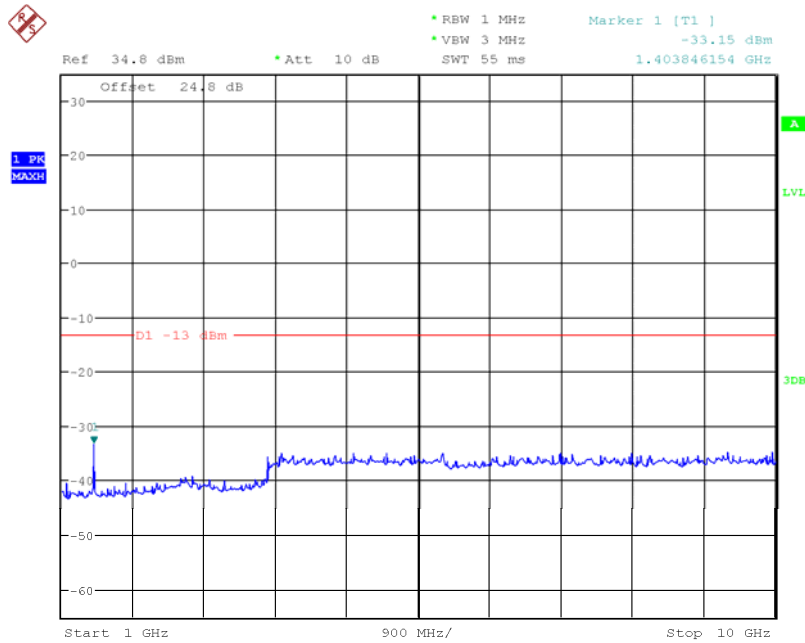
Report No.:B18W50495-WWAN



Date: 19.OCT.2018 11:21:53

3MHz bandwidth QPSK Mode Middle Channel, 707.5 MHz,30MHz to 1GHz

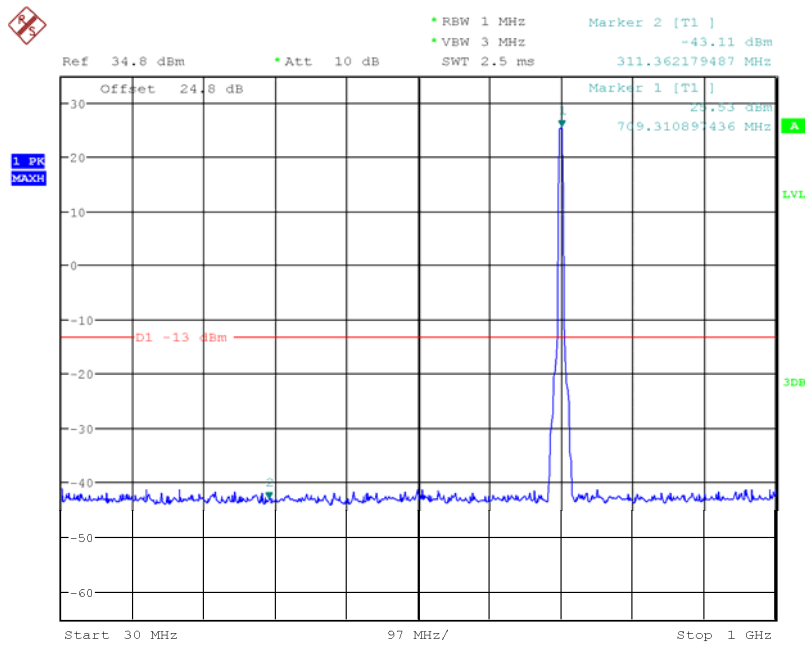
Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 11:22:34

3MHz bandwidth QPSK Mode Middle Channel, 707.5 MHz, 1GHz to 10GHz

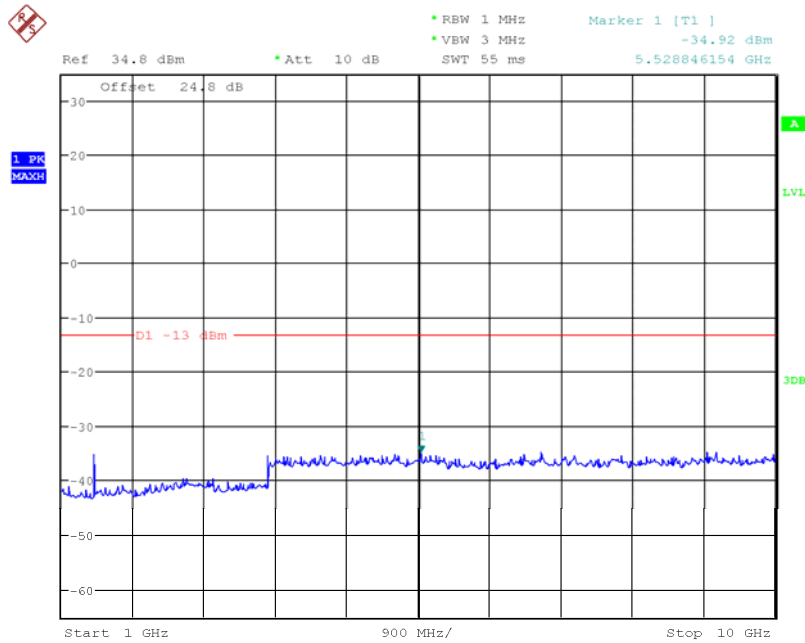
Report No.:B18W50495-WWAN



Date: 19.OCT.2018 11:23:14

5MHz bandwidth QPSK Mode Middle Channel, 707.5 MHz,30MHz to 1GHz

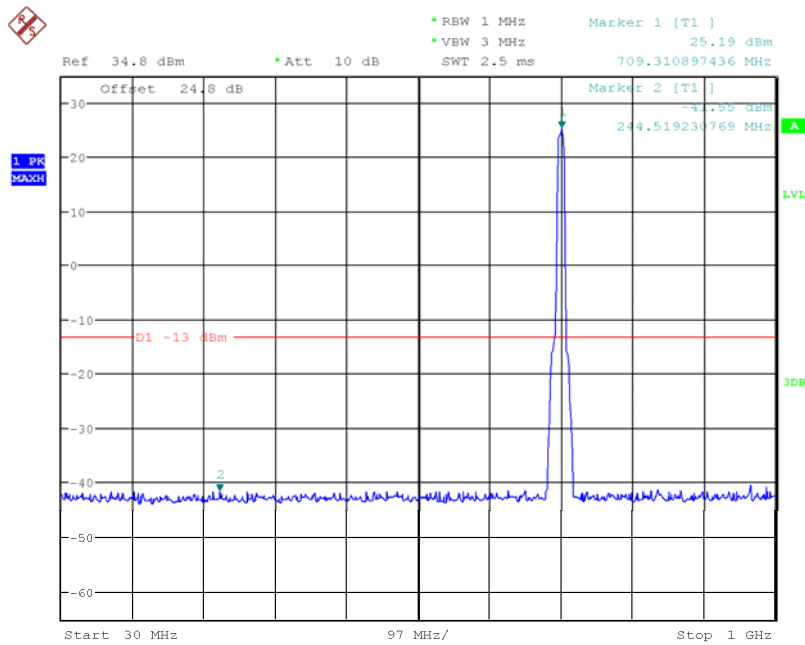
Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 11:23:41

5MHz bandwidth QPSK Mode Middle Channel, 707.5 MHz, 1GHz to 10GHz

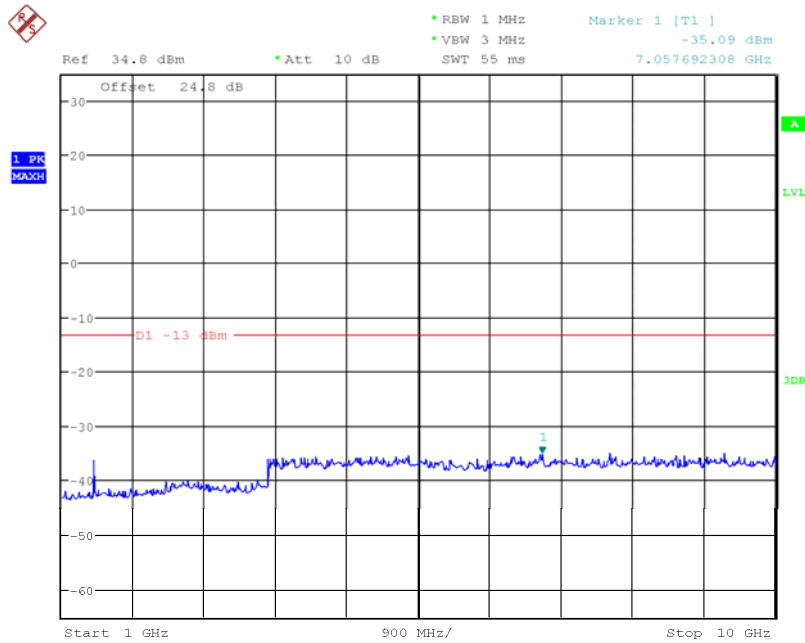
Report No.:B18W50495-WWAN



Date: 19.OCT.2018 11:24:20

10MHz bandwidth QPSK Mode Middle Channel, 707.5 MHz,30MHz to 1GHz

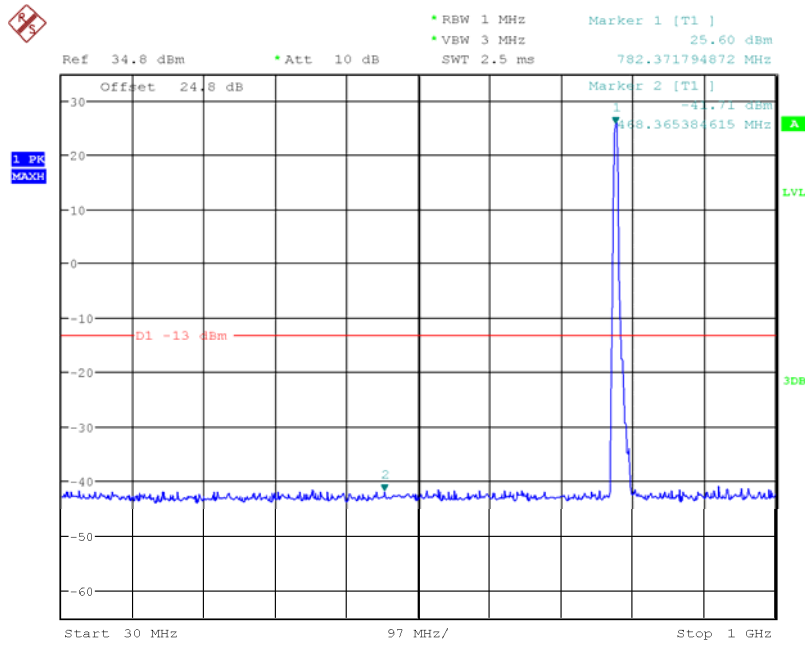
Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 11:24:39

10MHz bandwidth QPSK Mode Middle Channel, 707.5 MHz, 1GHz to 10GHz

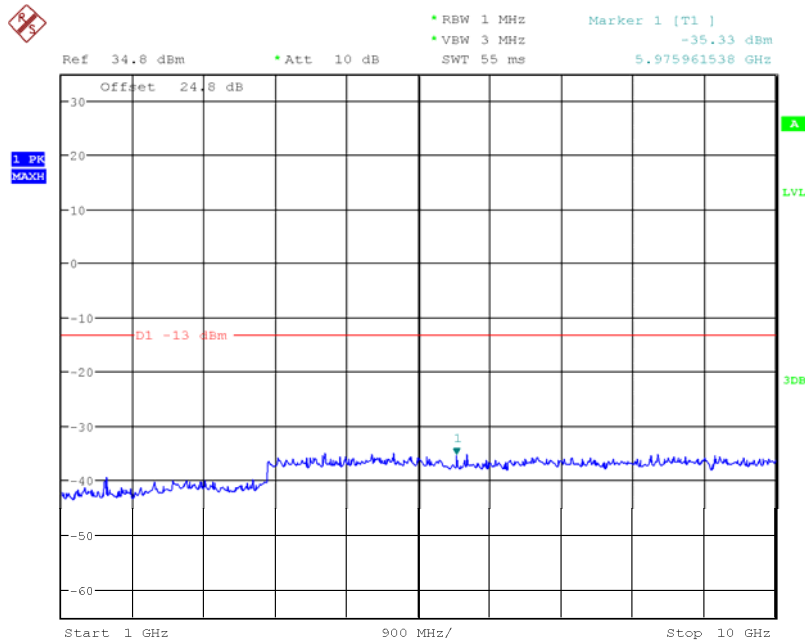
5.3.10 LTE B13 Conducted Spurious Emission Results



Date: 19.OCT.2018 11:26:36

5 MHz bandwidth QPSK Mode Middle Channel, 782 MHz,30MHz to 1GHz

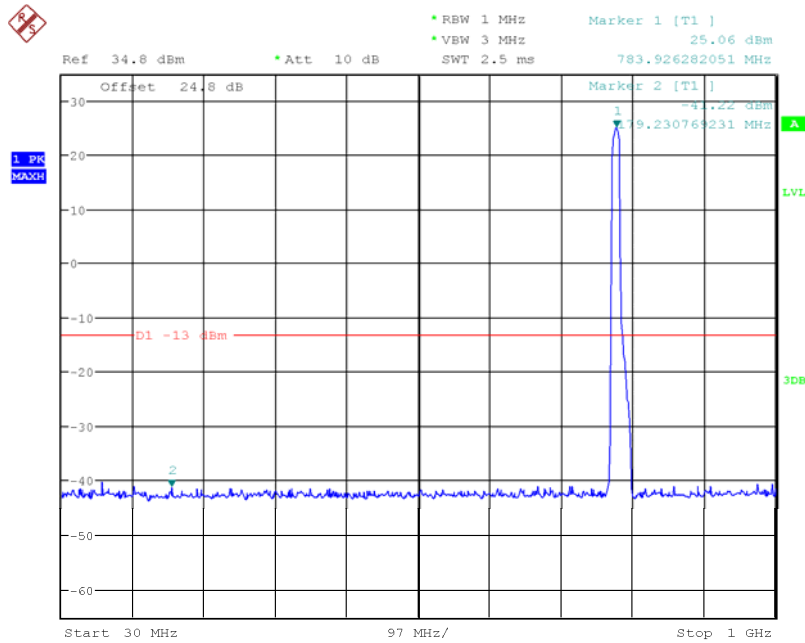
Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 11:26:58

5 MHz bandwidth QPSK Mode Middle Channel, 782 MHz,1GHz to 10GHz

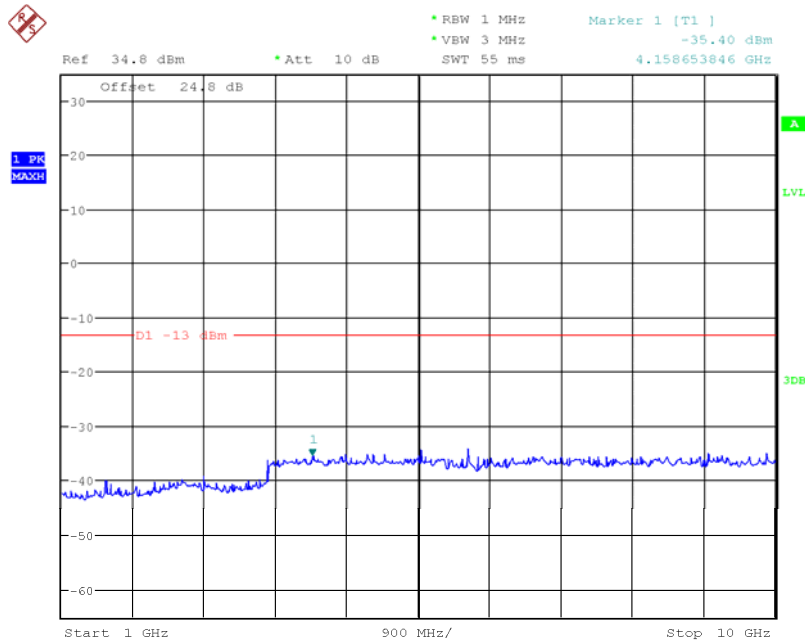
Report No.:B18W50495-WWAN



Date: 19.OCT.2018 11:28:26

10MHz bandwidth QPSK Mode Middle Channel, 782 MHz,30MHz to 1GHz

Note: The strong emission shown in each case is the carrier signal.



Date: 19.OCT.2018 11:28:50

10MHz bandwidth QPSK Mode Middle Channel, 782 MHz, 1GHz to 10GHz

5.4 Radiated Spurious Emission

Specifications:	FCC Part 2.1051, 24.238, 2.1053, 22.917, 27.53
DUT Serial Number:	S2: 863424030965758
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	--

Limit Level Construction:

According to Part 22.917 (a), i.e., Out of Band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

According to Part 24.238 (a), i.e., Out of Band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB, so the limit level is: $P(\text{dBm}) - (43 + 10 \log(P)) \text{ dB} = -13\text{dBm}$.

According to Part 27.53(h):

Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 Bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ dB.

According to Part 27.53(g):

For operations in the 600 MHz Band and the 698-746 MHz Band, the power of any emission outside a licensee's frequency Band(s) of operation shall be attenuated below the transmitter power (P) within the licensed Band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution Bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz Bands immediately outside and adjacent to a licensee's frequency block, a resolution Bandwidth of at least 30 kHz may be employed.

Limits for Radiated spurious emissions(UE)	
Frequency range	Limit Level /Resolution Bandwidth
30 MHz to 20000 MHz	-13dBm/1MHz

Test Setup:

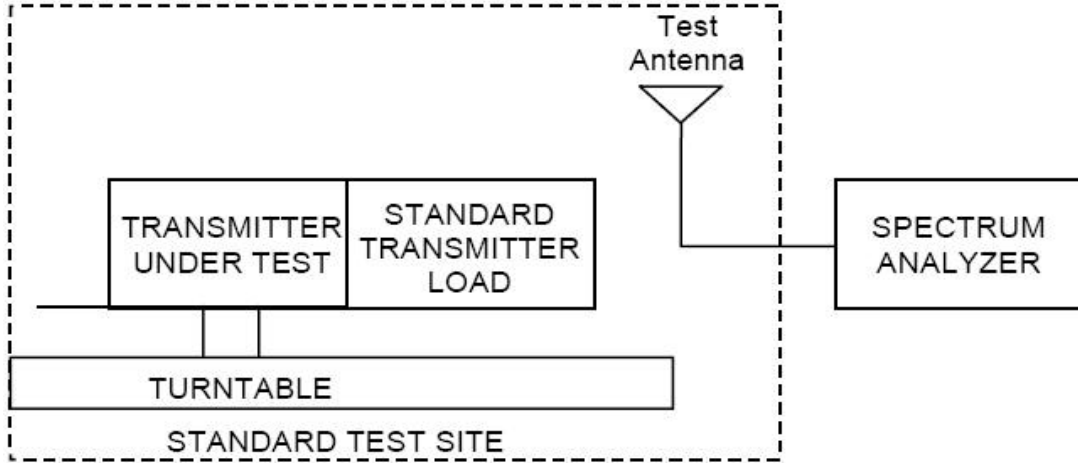
The EUT was placed in an anechoic chamber. The Wireless Communications Test Set was used to set the TX channel and power level and modulate the TX signal with different bit patterns.

Test Method:

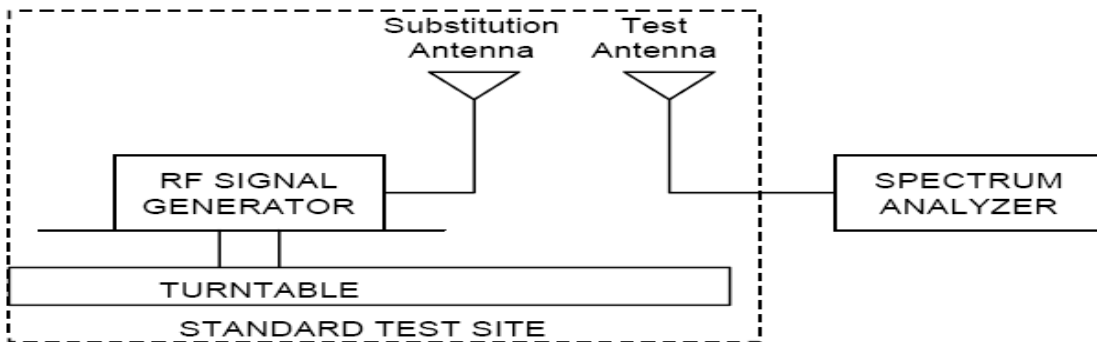
The measurement method is substitution method accordance with section 2.2.12 of ANSI/TIA-603-E: Land Mobile FM or PM Communications Equipment Measurement and

Performance Standards.

(a) Connect the equipment as illustrated and measure the spurious emissions as the method as above. The distance from the device to the antenna is 3 m .



(b) Reconnect the equipment as illustrated.



(c) Remove the transmitter and replace it with a substitution antenna. The center of the substitution antenna should be approximately at the same location as the center of the transmitter.

(d) Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a non-radiating cable. With the antennas at both ends horizontally polarized, and with the signal generator tuned to a particular spurious frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output.

(e) Repeat step d) with both antennas vertically polarized for each spurious frequency.

(f) Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps d) and e) by the power loss in the cable between the generator and the antenna, and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna by the following formula:

$$P_d(\text{dBm}) = P_g(\text{dBm}) - \text{cable loss (dB)} + \text{antenna gain (dB)}$$

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

where:

P_d is the dipole equivalent power and P_g is the generator output power into the substitution antenna.

5.4.1 GSM850 GMSK Radiated Spurious Emission Results

Test Data (GMSK Mode channel 128)

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1648.80	-64.85	4.7	7.3	-62.25	H
2472.00	-52.43	5.9	5.0	-53.33	H
3296.40	-55.29	6.7	10.5	-51.49	V
4120.80	-52.4	7.6	9.8	-50.20	V
4945.20	-51.8	7.7	11.3	-48.20	V
5769.60	-59.62	1.4	12.0	-49.02	V

Test Data (GMSK Mode channel 190)

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (P_d) [dBm]	Antenna Polarization [H/V]
1672.80	-49.46	4.7	7.3	-46.86	H
2510.40	-39.37	5.9	5.0	-40.27	H
3346.80	-55.37	6.7	10.5	-51.57	V
4182.00	-51.84	7.6	9.8	-49.64	V
5019.60	-47.72	7.7	11.3	-44.12	V
5856.00	-57.67	1.4	12.0	-47.07	V

Test Data (GMSK Mode channel 251)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1696.80	-64.38	4.8	7.3	-61.88	H
2544.00	-50.75	5.9	5.0	-51.65	H
3392.40	-54.97	6.9	10.5	-51.37	V
4240.80	-51.97	7.8	9.8	-49.97	V
5089.20	-53.65	6.8	11.3	-49.15	V
5937.60	-59.68	1.4	12.0	-49.08	V

5.4.2 GSM850 8PSK Radiated Spurious Emission Results

Test Data (8PSK Mode channel 128)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1647.60	-64.87	4.7	7.3	-62.27	H
2471.78	-52.03	5.9	5.0	-52.93	H
3296.40	-55.29	6.7	10.5	-51.49	V
4120.80	-52.4	7.6	9.8	-50.20	V
4945.20	-51.8	7.7	11.3	-48.20	V
5769.60	-59.62	1.4	12.0	-49.02	V

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (8PSK Mode channel 190)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1673.23	-49.91	4.7	7.3	-47.31	H
2510.40	-39.37	5.9	5.0	-40.27	H
3346.80	-55.37	6.7	10.5	-51.57	V
4183.20	-51.51	7.6	9.8	-49.31	V
5019.60	-47.72	7.7	11.3	-44.12	V
5856.00	-57.67	1.4	12.0	-47.07	V

Test Data (8PSK Mode channel 251)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1696.42	-63.06	4.8	7.3	-60.56	H
2545.20	-50.76	5.9	5.0	-51.66	H
3392.40	-54.97	6.9	10.5	-51.37	V
4242.00	-50.99	7.8	9.8	-48.99	V
5089.20	-53.65	6.8	11.3	-49.15	V
5937.60	-59.68	1.4	12.0	-49.08	V

5.4.3 PCS1900 GMSK Radiated Spurious Emission Results

Test Data (GMSK Mode channel 512)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3700.80	-57.03	7.2	10.3	-53.93	V
5550.00	-61.06	2.0	12.0	-51.06	V
7401.30	-60.76	0.9	11.9	-49.76	V
9250.80	-61.16	1.0	13.0	-49.16	V
11100.30	-59.84	0.4	12.4	-47.84	V
12951.65	-55.53	0.4	14.2	-41.73	V

Test Data (GMSK Mode channel 661)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.80	-55.25	7.4	10.3	-52.35	V
5641.20	-62.23	1.8	12.0	-52.03	V
7517.40	-59.93	0.9	11.9	-48.93	V
9399.30	-59.41	0.8	13.0	-47.21	V
11278.50	-59.15	0.3	12.4	-47.05	V
13160.33	-53.55	0.4	14.2	-39.75	V

Test Data (GMSK Mode channel 810)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3818.40	-56.4	7.4	10.3	-53.50	V
5727.60	-59.75	1.8	12.0	-49.55	V
7636.20	-58.05	0.9	11.9	-47.05	V
9547.80	-59.93	0.8	13.0	-47.73	V
11454.00	-59.76	0.3	12.4	-47.66	V
13362.79	-50.81	0.4	14.2	-37.01	V

5.4.4 PCS 1900 8PSK Radiated Spurious Emission Results

Test Data (8PSK Mode channel 512)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3700.80	-57.03	7.2	10.3	-53.93	V
5550.00	-61.06	2.0	12.0	-51.06	V
7401.30	-60.76	0.9	11.9	-49.76	V
9250.80	-61.16	1.0	13.0	-49.16	V
11100.30	-59.84	0.4	12.4	-47.84	V
12950.98	-53.14	0.4	14.2	-39.34	V

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (8PSK Mode channel 661)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.80	-55.25	7.4	10.3	-52.35	V
5641.20	-62.23	1.8	12.0	-52.03	V
7520.10	-59.68	0.9	11.9	-48.68	V
9402.00	-60.36	0.8	13.0	-48.16	V
11281.20	-60.32	0.3	12.4	-48.22	V
13160.81	-54.28	0.4	14.2	-40.48	V

Test Data (8PSK Mode channel 810)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3818.40	-56.4	7.4	10.3	-53.50	V
5728.80	-62.39	1.8	12.0	-52.19	V
7636.20	-58.05	0.9	11.9	-47.05	V
9547.80	-59.93	0.8	13.0	-47.73	V
11146.20	-59.69	0.3	12.4	-47.59	V
13362.53	-52.6	0.4	14.2	-38.80	V

5.4.5 WCDMA B2 Radiated Spurious Emission Results

Test Data (QPSK Mode channel 9262)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3705.90	-61.45	4.4	10.3	-55.55	V
5558.40	-48.39	5.4	12.0	-41.79	V
7410.90	-57.81	6.3	11.9	-52.21	V
9263.40	-57.37	7.0	13.0	-51.37	V
11115.90	-54.56	7.8	12.4	-49.96	V
12966.80	-59.88	7.7	14.2	-53.38	V

Test Data (QPSK Mode channel 9400)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3760.50	-61.37	4.4	10.3	-55.47	V
5640.30	-61.5	5.4	12.0	-54.90	V
7520.10	-58.15	6.4	11.9	-52.65	V
9440.85	-57.79	7.0	13.0	-51.79	V
11281.65	-55.86	7.8	12.4	-51.26	V
13160.00	-60.95	7.5	14.2	-54.25	V

Test Data (QPSK Mode channel 9538)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3815.10	-60.73	4.4	10.3	-54.83	V
5722.20	-61.55	5.4	12.0	-54.95	V
7631.25	-57.6	6.4	11.9	-52.10	V
9538.35	-57.13	7.2	13.0	-51.33	V
11445.45	-55.51	7.8	12.4	-50.91	V
13353.20	-61.0	7.5	14.2	-54.30	V

5.4.6 WCDMA B4 Radiated Spurious Emission Results

Test Data (QPSK Mode channel 1312)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3425.10	-62.0	4.4	10.3	-56.10	V
5137.20	-61.25	5.4	11.3	-55.35	V
6849.30	-58.67	6.3	12.0	-52.97	V
8563.35	-58.19	7.0	12.3	-52.89	V
10275.45	-55.78	7.8	12.3	-51.28	V
11987.55	-56.36	7.7	13.1	-50.96	V

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (QPSK Mode channel 1412)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3464.10	-61.66	4.4	10.3	-55.76	V
5197.65	-61.27	5.4	11.3	-55.37	V
6929.25	-59.12	6.4	12.0	-53.52	V
8662.80	-55.81	7.0	12.3	-50.51	V
10394.40	-55.67	7.8	12.3	-51.17	V
12126.00	-57.13	7.5	13.1	-51.53	V

Test Data (QPSK Mode channel 1513)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3505.05	-61.55	4.4	10.3	-55.65	V
5258.10	-61.08	5.4	11.3	-55.18	V
7011.15	-56.3	6.4	12.0	-50.70	V
8764.20	-55.83	7.2	12.3	-50.73	V
10515.30	-56.88	7.8	12.3	-52.38	V
12268.35	-56.16	7.5	13.1	-50.56	V

5.4.7 WCDMA B5 Radiated Spurious Emission Results

Test Data (QPSK Mode channel 4132)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1653.00	-57.41	4.8	7.3	-54.91	H
2479.20	-46.94	5.9	5.0	-47.84	H
3306.15	-59.19	6.8	10.3	-55.69	V
4132.95	-57.75	7.6	9.8	-55.55	V
4959.75	-56.42	7.7	11.3	-52.82	V
5784.60	-66.1	1.4	12.0	-55.50	V

Test Data (QPSK Mode channel 4182)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1672.80	-59.39	4.8	7.3	-56.89	H
2509.20	-44.57	5.9	5.0	-45.47	H
3345.15	-59.43	6.8	10.3	-55.93	V
4183.65	-56.23	7.6	9.8	-54.03	V
5018.25	-58.27	7.7	11.3	-54.67	V
5854.80	-63.59	1.4	12.0	-52.99	V

Test Data (QPSK Mode channel 4233)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1693.20	-59.94	4.8	7.3	-57.44	H
2539.80	-47.67	5.9	5.0	-48.57	H
3386.10	-60.31	6.8	10.3	-56.81	V
4234.35	-57.22	7.6	9.8	-55.02	V
5080.65	-58.26	7.7	11.3	-54.66	V
5926.95	-64.53	1.4	12.0	-53.93	V

5.4.8 LTE B2 Radiated Spurious Emission Results

Test Data (5MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3700.05	-58.91	7.2	10.3	-55.81	V
5550.60	-64.47	2.0	12.0	-54.47	V
7401.15	-63.43	0.9	11.9	-52.43	V
9249.75	-64.27	1.0	13.0	-52.27	V
11100.30	-63.36	0.4	12.4	-51.36	V
12950.72	-53.43	0.4	14.2	-39.63	V

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (5MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3770.25	-58.25	7.2	10.3	-55.15	V
5550.60	-64.34	2.0	12.0	-54.34	V
7399.20	-63.27	0.9	11.9	-52.27	V
9251.15	-64.8	1.0	13.0	-52.25	V
11100.25	-63.52	0.4	12.4	-51.47	V
12950.39	-52.63	0.4	14.2	-38.83	V

Test Data (10MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3700.05	-58.56	7.2	10.3	-55.31	V
5550.60	-64.53	2.0	12.0	-54.53	V
7401.15	-63.47	0.9	11.9	-52.47	V
9249.75	-64.45	1.0	13.0	-52.45	V
11100.30	-63.37	0.4	12.4	-51.37	V
12950.72	-53.58	0.4	14.2	-39.78	V

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (10MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3770.25	-58.28	7.2	10.3	-55.18	V
5550.60	-64.33	2.0	12.0	-54.33	V
7399.20	-63.46	0.9	11.9	-52.46	V
9251.70	-64.37	1.0	13.0	-52.37	V
11100.30	-63.26	0.4	12.4	-51.26	V
12950.39	-52.66	0.4	14.2	-38.86	V

Test Data (15MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3700.05	-58.71	7.2	10.3	-55.61	V
5550.60	-64.43	2.0	12.0	-54.43	V
7401.15	-63.76	0.9	11.9	-52.76	V
9249.75	-64.51	1.0	13.0	-52.51	V
11100.30	-63.34	0.4	12.4	-51.34	V
12950.72	-53.56	0.4	14.2	-39.76	V

Test Data (15MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3770.25	-58.34	7.2	10.3	-55.24	V
5550.60	-64.48	2.0	12.0	-54.48	V
7399.20	-63.67	0.9	11.9	-52.67	V
9251.70	-64.46	1.0	13.0	-52.46	V
11100.30	-63.43	0.4	12.4	-51.43	V
12950.39	-52.68	0.4	14.2	-38.88	V

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Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (20MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3700.05	-58.17	7.2	10.3	-55.07	V
5550.60	-64.35	2.0	12.0	-54.35	V
7401.15	-63.13	0.9	11.9	-52.13	V
9249.75	-64.08	1.0	13.0	-52.08	V
11100.30	-63.28	0.4	12.4	-51.28	V
12950.72	-53.37	0.4	14.2	-39.57	V

Test Data (20MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3770.25	-58.32	7.2	10.3	-55.22	V
5550.60	-64.56	2.0	12.0	-54.56	V
7399.20	-63.17	0.9	11.9	-52.17	V
9251.70	-64.37	1.0	13.0	-52.37	V
11100.30	-63.26	0.4	12.4	-51.26	V
12950.39	-52.27	0.4	14.2	-38.47	V

5.4.9 LTE B4 Radiated Spurious Emission Results

Test Data (1.4MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3430.95	-58.46	6.9	10.3	-55.06	V
5145.00	-58.73	6.3	11.3	-53.73	V
6859.05	-64.32	1.0	12.0	-53.32	V
8575.05	-63.16	0.9	12.3	-51.76	V
10289.10	-64.26	0.7	12.3	-52.66	V
12005.10	-63.27	0.5	13.1	-50.67	V

Test Data (1.4MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3429.00	-59.28	6.9	10.3	-55.88	V
5143.05	-58.16	6.3	11.3	-53.16	V
6861.00	-63.43	0.9	12.0	-52.33	V
8577.00	-63.33	0.9	12.3	-51.93	V
10291.05	-64.12	0.5	12.3	-52.12	V
12003.15	-63.07	0.4	13.1	-50.07	V

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (3MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3466.05	-53.37	7.4	12.6	-56.38	V
5197.65	-52.08	1.8	13.1	-53.77	V
6929.25	-54.33	0.9	11.7	-53.42	V
8662.80	-50.33	0.8	11.9	-52.39	V
10394.40	-51.28	0.3	11.5	-51.17	V
12127.95	-51.08	0.4	13.6	-50.12	V

Test Data (3MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3464.10	-53.04	7.4	12.6	-56.07	V
5195.70	-53.01	1.8	13.1	-53.33	V
6929.25	-51.26	0.9	11.7	-53.42	V
8662.50	-53.27	0.8	11.9	-50.99	V
10394.40	-50.21	0.3	11.5	-51.47	V
12126.00	-52.36	0.4	13.6	-50.29	V

Test Data (5MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3499.20	-54.51	7.4	12.6	-55.06	V
5250.30	-50.01	1.8	13.1	-55.04	V
6999.45	-53.04	0.9	11.7	-53.32	V
8750.55	-52.27	0.8	11.9	-51.51	V
10501.65	-53.28	0.3	11.5	-50.42	V
12250.80	-53.05	0.4	13.6	-50.21	V

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 Tel: 0086-23-88069965 FAX: 0086-23-88608777

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (5MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3499.20	-50.31	7.4	12.6	-55.06	V
5248.35	-53.38	1.8	13.1	-55.38	V
7001.40	-50.33	0.9	11.7	-52.17	V
8748.60	-52.61	0.8	11.9	-52.05	V
10499.70	-50.89	0.3	11.5	-49.02	V
12250.80	-54.27	0.4	13.6	-50.21	V

Test Data (10MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3430.95	-54.25	7.2	12.6	-55.07	V
5145.00	-50.09	2.0	13.1	-53.15	V
6859.05	-53.30	0.9	11.7	-53.82	V
8575.05	-52.81	1.0	11.9	-51.77	V
10289.10	-51.21	0.4	11.5	-52.53	V
12005.10	-52.10	0.4	13.6	-50.31	V

Test Data (10MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3429.00	-54.04	7.2	12.6	-55.66	V
5143.05	-52.20	2.0	13.1	-53.61	V
6861.00	-53.19	0.9	11.7	-52.22	V
8577.00	-53.79	1.0	11.9	-51.67	V
10291.05	-51.25	0.4	11.5	-52.28	V
12003.15	-51.73	0.4	13.6	-50.62	V

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (15MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3466.05	-53.46	7.4	12.6	-56.41	V
5197.65	-51.71	1.8	13.1	-53.40	V
6929.25	-54.43	0.9	11.7	-53.52	V
8662.80	-50.43	0.8	11.9	-52.49	V
10394.40	-51.68	0.3	11.5	-51.47	V
12127.95	-51.18	0.4	13.6	-50.22	V

Test Data (15MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3464.10	-53.04	7.4	12.6	-56.07	V
5195.70	-53.01	1.8	13.1	-53.33	V
6929.25	-51.26	0.9	11.7	-53.52	V
8662.50	-53.37	0.8	11.9	-51.09	V
10394.40	-50.21	0.3	11.5	-51.47	V
12126.00	-52.86	0.4	13.6	-50.59	V

Test Data (20MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3499.20	-54.51	7.4	12.6	-55.06	V
5250.30	-50.01	1.8	13.1	-55.04	V
6999.45	-53.04	0.9	11.7	-53.32	V
8750.55	-52.27	0.8	11.9	-51.51	V
10501.65	-52.98	0.3	11.5	-50.02	V
12250.80	-53.05	0.4	13.6	-50.21	V

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Tel: 0086-23-88069965 FAX: 0086-23-88608777

Test Data (20MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
3499.20	-50.81	7.4	12.6	-55.56	V
5248.35	-53.84	1.8	13.1	-55.84	V
7001.40	-50.83	0.9	11.7	-52.67	V
8748.60	-53.11	0.8	11.9	-52.55	V
10499.70	-51.14	0.3	11.5	-49.27	V
12250.80	-54.87	0.4	13.6	-50.61	V

5.4.10 LTE B5 Radiated Spurious Emission Results

Test Data (1.4MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1658.00	-54.55	7.2	12.6	-55.80	H
2487.00	-50.19	2.0	13.1	-51.80	H
3317.85	-53.18	0.9	11.7	-55.60	V
4146.60	-53.01	1.0	11.9	-55.96	V
4975.35	-51.41	0.4	11.5	-54.98	V
5804.10	-52.60	0.4	13.6	-54.62	V

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (1.4MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1658.00	-54.14	7.2	12.6	-57.60	H
2487.00	-52.09	2.0	13.1	-51.40	H
3315.90	-53.29	0.9	11.7	-56.36	V
4144.65	-53.99	1.0	11.9	-55.08	V
4973.40	-51.45	0.4	11.5	-54.75	V
5802.15	-51.80	0.4	13.6	-54.98	V

Test Data (3MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1673.00	-53.62	7.4	12.6	-74.60	H
2509.50	-52.11	1.8	13.1	-69.30	H
3347.10	-54.63	0.9	11.7	-56.20	V
4183.65	-50.63	0.8	11.9	-54.37	V
5020.20	-51.88	0.3	11.5	-56.18	V
5856.75	-51.28	0.4	13.6	-54.26	V

Test Data (3MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1673.00	-53.14	7.4	12.6	-75.16	H
2509.50	-53.11	1.8	13.1	-70.25	H
3345.15	-51.56	0.9	11.7	-55.63	V
4181.70	-53.57	0.8	11.9	-55.92	V
5018.25	-50.41	0.3	11.5	-53.56	V
5854.80	-52.86	0.4	13.6	-52.63	V

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Tel: 0086-23-88069965 FAX: 0086-23-88608777

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (5MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1686.00	-54.81	7.4	12.6	-60.20	H
2529.00	-50.11	1.8	13.1	-50.90	H
3372.45	-53.14	0.9	11.7	-55.74	V
4216.80	-52.47	0.8	11.9	-56.49	V
5059.20	-53.08	0.3	11.5	-54.22	V
5901.60	-53.25	0.4	13.6	-54.72	V

Test Data (5MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1686.00	-50.61	7.4	12.6	-60.40	H
2529.00	-53.64	1.8	13.1	-51.40	H
3370.50	-50.63	0.9	11.7	-56.76	V
4214.85	-52.91	0.8	11.9	-56.19	V
5057.25	-50.94	0.3	11.5	-55.52	V
5899.65	-54.67	0.4	13.6	-53.20	V

Test Data (10MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1658.00	-54.35	7.2	12.6	-55.60	H
2487.00	-50.09	2.0	13.1	-51.70	H
3317.85	-53.08	0.9	11.7	-55.50	V
4146.60	-52.81	1.0	11.9	-55.76	V
4975.35	-51.21	0.4	11.5	-54.78	V
5804.10	-52.80	0.4	13.6	-54.82	V

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Test Data (10MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1658.00	-54.34	7.2	12.6	-57.80	H
2487.00	-52.39	2.0	13.1	-51.70	H
3315.90	-53.09	0.9	11.7	-56.16	V
4144.65	-53.79	1.0	11.9	-54.88	V
4973.40	-51.25	0.4	11.5	-54.55	V
5802.15	-51.60	0.4	13.6	-54.78	V

5.4.11 LTE B12 Radiated Spurious Emission Results

Test Data (5MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1298.40	-28.99	4.2	7.5	-69.50	H
2097.20	-33.28	5.4	10.4	-42.15	H
2796.40	-37.23	6.2	10.6	-42.74	H
3495.30	-53.90	7.0	12.6	-56.73	V
4195.35	-50.99	7.8	12.6	-56.15	V
4893.45	-54.28	7.8	12.7	-54.55	V

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (5MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1298.19	-27.65	4.2	7.5	-71.29	H
2097.80	-32.76	5.4	10.4	-45.94	H
2795.99	-38.67	6.2	10.6	-44.57	H
3495.30	-53.99	7.0	12.6	-56.73	V
4195.35	-51.69	7.8	12.6	-56.15	V
4893.45	-27.65	4.2	7.5	-54.55	V

Test Data (10MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1415.40	-28.77	4.4	8.0	-14.31	H
2122.60	-33.18	5.4	10.4	-18.98	H
2830.40	-38.58	6.3	11.5	-23.50	H
3538.20	-50.74	7.0	12.6	-56.44	V
4246.05	-50.51	7.8	12.6	-55.05	V
4953.90	-51.64	7.9	13.1	-54.33	V

Test Data (10MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1415.20	-29.01	4.4	8.0	-15.63	H
2122.00	-32.78	5.4	10.4	-20.45	H
2831.40	-37.77	6.3	11.5	-28.48	H
3538.20	-53.41	7.0	12.6	-56.44	V
4246.05	-53.93	7.8	12.6	-55.05	V
4951.95	-54.49	7.9	13.1	-53.44	V

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5.4.12 LTE B13 Radiated Spurious Emission Results

Test Data (5MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1554.40	-78.0	4.6	7.3	-75.30	H
2331.80	-70.48	5.6	5.0	-71.08	H
3109.20	-59.85	6.5	10.5	-55.85	V
3885.30	-57.5	7.4	9.8	-55.10	V
4663.35	-58.11	8.1	10.7	-55.51	V
5441.40	-63.7	2.9	12.0	-54.60	V

Test Data (5MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1554.20	-78.15	4.6	7.3	-75.45	H
2332.00	-70.49	5.6	5.0	-71.09	H
3109.20	-59.85	6.5	10.5	-55.85	V
3885.30	-57.5	7.4	9.8	-55.10	V
4622.40	-57.29	8.1	10.7	-54.69	V
5441.40	-63.7	2.9	12.0	-54.60	V

Chongqing Academy of Information and Communications Technology

Report No.:B18W50495-WWAN

Test Data (10MHz bandwidth QPSK Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1565.20	-78.77	4.6	7.3	-76.07	H
2346.80	-69.79	5.6	5.0	-70.39	H
3128.70	-60.07	6.6	10.5	-56.17	V
3912.60	-57.86	7.4	9.8	-55.46	V
4692.60	-58.86	8.1	10.7	-56.26	V
5476.50	-64.04	2.9	12.0	-54.94	V

Test Data (10MHz bandwidth 16QAM Mode)

Frequency [MHz]	Generator output power(Pg) [dBm]	Cable loss [dB]	Antenna Gain [dB]	Spurious Emission Power (Pd) [dBm]	Antenna Polarization [H/V]
1565.00	-78.82	4.6	7.3	-76.12	H
2346.60	-69.97	5.6	5.0	-70.57	H
3128.70	-60.07	6.6	10.5	-56.17	V
3910.65	-58.04	7.4	9.8	-55.64	V
4690.65	-57.3	8.1	10.7	-54.70	V
5476.50	-64.04	2.9	12.0	-54.94	V