

TEST REPORT

REPORT NUMBER: B19W50074-WWAN_Rev3

ON

Type of Equipment: LTE/HSPA/GSM/GNSS Module
Model Name: SIM7600SA-H,SIM7600SA-H miniPCIE
Manufacturer: SIMCom Wireless Solutions Limited

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

May, 06, 2019

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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Revision Version

Report Number	Revision	Date	Memo
B19W50074-WWAN	V0.0	2019-03-27	Initial creation of test report
B19W50074-WWAN-Rev1	V1.0	2019-04-19	First Revision of test report
B19W50074-WWAN-Rev2	V2.0	2019-04-30	Second Revision of test report
B19W50074-WWAN-Rev3	V3.0	2019-05-06	Third Revision of test report

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Report No.:B19W50074-WWAN_Rev3

FCC ID: 2AJYU-8PYA002

Report Date: 2019-05-06

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.

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1 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: Li Xu
Position: Engineer
Department: Department of RF test
Date: 2019-02-27 to 2019-05-06

Signature: 

Editor of this test report:

Name: Chen Wen
Position: Engineer
Department: Department of RF test
Date: 2019-05-06

Signature: 

Technical responsibility for area of testing:

Name: Zhang Yan
Position: Manager
Department: Director of the laboratory
Date: 2019-05-06

Signature: 

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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: -----

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1.4 Details of applicant or manufacturer

1.4.1 Applicant

Name: SIMCom Wireless Solutions Limited
Address: SIM Technology Building.,No.633, Jinzhong Rd,Changning
District, Shanghai, P.R.China
Country: China
Telephone: +86-21-32523423
Fax: +86-21-32523020
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Email: --

1.4.2 Manufacturer (if different from applicant in section 1.4.1)

Name: -----
Address: -----
Country: -----
Telephone: -----
Fax: -----
Contact: -----
Telephone: -----
Email: -----

2 Test Item

2.1 General Information

Manufacturer: SIMCom Wireless Solutions Limited

Type of Equipment: LTE/HSPA/GSM/GNSS Module

Model Name: SIM7600SA-H,SIM7600SA-H miniPCIE

Production Status: Product

Hardware Version: V1.01

Software Version: SIM7600M22_V2.2

Receipt date of test item: 2019-02-27

Note: SIM7600SA and SIM7600SA miniPCIE are both LTE modules. They have the same software version and hardware design, including chipset, circuits, PCB and components. SIM7600SA miniPCIE is combined with a SIM7600SA module and a miniPCIE adapter board. The adapter board switches SIM7600SA module to follow PCI Express Mini Card 1.2 standard connector protocol. No any other internal changes in SIM7600SA module.

2.2 Outline of Equipment under Test

The SIM7600SA-H,SIM7600SA-H miniPCIE 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	--
	B5	824 – 849	869 – 894	--
LTE	B2	1850 – 1910	1930 – 1990	--
	B4	1710 – 1755	2110 – 2155	--
	B5	824 – 849	869 – 894	--
	B28	703 – 748	758 – 803	--
	B66	1710 - 1780	2110 - 2180	--

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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	SIMCom Wireless Solutions Limited	SIM7600SA-H, SIM7600SA-H miniPCIE	868020030259286	None
B	Modules	SIMCom Wireless Solutions Limited	SIM7600SA-H, SIM7600SA-H miniPCIE	868020030259252	None
C	Adaptor	None	None	--	None

2.5 Other Information

--

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. 2: All test items use SIM7600SA-H miniPCIE.		

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	2020-03-01
2	Trilog super broadBand test antenna	VULB 9163	9163-544	R&S	2019-11-24
3	Double-Ridged Horn Antenna	HF907	100357	R&S	2019-6-22
4	Fully-Anechoic Chamber	11.8m×6.5m×6.3m	--	ETS	2020-8-20
5	Universal Radio Communication Tester	CMW500	152395	R&S	2020-03-01
6	Signal Generator	SMU200A	104517	R&S	2020-03-01
7	spectrum analyzer	FSQ 26	201137/026	R&S	2020-03-01
8	spectrum analyzer	N9020A	MY50200376	Agilent	2020-03-01
9	Universal Radio Communication Tester	CMU200	112012	R&S	2020-03-01
10	Climate chamber	SH-241	92010759	ESPEC	2020-03-01
11	DC Power Supply	N6705B	MY50000919	Agilent	2019-12-05
12	Ultra Wideband Antenna	SWB-VU LB 9163	00995	R&S	2019-06-04

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:	868020030259286
Test conditions:	Ambient Temperature:15℃-35℃ 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.

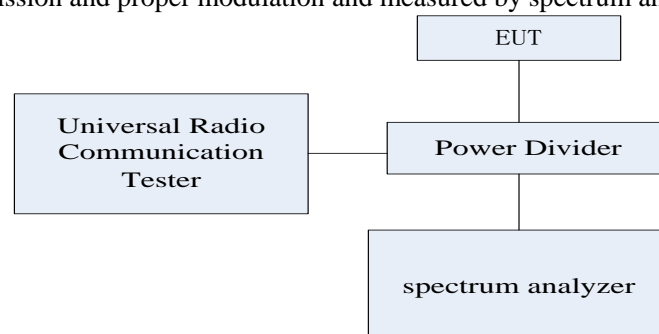
According to Part 24.232(c), mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

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:

- 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.

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

GPRS GMSK Mode:

Channel No.	Maximum output power(pk) [dBm]			
	1TS	2TS	3TS	4TS
128 (824.2MHz)	33.5	32.6	30.3	29.1
190 (836.6MHz)	33.3	32.2	30.3	29.2
251 (848.8MHz)	33.5	32.4	30.4	29.3

EGPRS GMSK Mode

Channel No.	Maximum output power(pk) [dBm]			
	1TS	2TS	3TS	4TS
128 (824.2MHz)	33.5	32.5	30.3	29.1
190 (836.6MHz)	33.7	32.3	30.3	29.1
251 (848.8MHz)	33.5	32.4	30.5	29.3

EGPRS 8PSK Mode

Channel No.	Maximum output power(pk) [dBm]			
	1TS	2TS	3TS	4TS
128 (824.2MHz)	27.2	26.7	24.4	23.4
190 (836.6MHz)	27.0	26.5	24.6	23.4
251 (848.8MHz)	27.4	26.7	24.6	23.5

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GPRS GMSK Mode:

Channel No.	Maximum output power(avg) [dBm]			
	1TS	2TS	3TS	4TS
128 (824.2MHz)	33.1	32.2	30.1	28.8
190 (836.6MHz)	33.0	31.9	30.1	28.9
251 (848.8MHz)	33.2	32.1	30.0	28.9

EGPRS GMSK Mode

Channel No.	Maximum output power(avg) [dBm]			
	1TS	2TS	3TS	4TS
128 (824.2MHz)	33.2	32.1	30.1	28.7
190 (836.6MHz)	33.3	32.0	30.0	28.8
251 (848.8MHz)	33.1	32.1	30.2	28.9

EGPRS 8PSK Mode

Channel No.	Maximum output power(avg) [dBm]			
	1TS	2TS	3TS	4TS
128 (824.2MHz)	26.9	26.4	24.2	23.1
190 (836.6MHz)	26.7	26.2	24.3	23.0
251 (848.8MHz)	27.0	26.3	24.3	23.2

5.1.2 PCS1900 Conducted RF Power Output Results

GPRS GMSK Mode

Channel No.	Maximum output power(pk) [dBm]			
	1TS	2TS	3TS	4TS
512 (1850.2MHz)	30.3	29.4	27.5	25.9
661 (1880.0MHz)	30.2	29.0	27.1	25.6
810 (1909.8MHz)	30.1	29.1	27.3	25.7

EGPRS GMSK Mode

Channel No.	Maximum output power(pk) [dBm]			
	1TS	2TS	3TS	4TS
512 (1850.2MHz)	30.3	29.4	27.6	25.9
661 (1880.0MHz)	30.0	29.0	27.1	25.6
810 (1909.8MHz)	30.1	29.1	27.4	25.7

EGPRS 8PSK Mode

Channel No.	Maximum output power(pk) [dBm]			
	1TS	2TS	3TS	4TS
512 (1850.2MHz)	26.3	25.3	23.2	22.1
661 (1880.0MHz)	25.8	24.8	22.7	21.6
810 (1909.8MHz)	26.0	25.0	22.8	21.7

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GPRS GMSK Mode

Channel No.	Maximum output power(avg) [dBm]			
	1TS	2TS	3TS	4TS
512 (1850.2MHz)	30.1	29.1	27.2	25.6
661 (1880.0MHz)	29.8	28.6	26.8	25.3
810 (1909.8MHz)	29.8	28.7	27.0	25.4

EGPRS GMSK Mode

Channel No.	Maximum output power(avg) [dBm]			
	1TS	2TS	3TS	4TS
512 (1850.2MHz)	30.1	29.0	27.3	25.5
661 (1880.0MHz)	29.8	28.7	26.8	25.3
810 (1909.8MHz)	29.9	28.8	27.1	25.5

EGPRS 8PSK Mode

Channel No.	Maximum output power(avg) [dBm]			
	1TS	2TS	3TS	4TS
512 (1850.2MHz)	26.0	24.9	22.7	21.8
661 (1880.0MHz)	25.5	24.5	22.3	21.2
810 (1909.8MHz)	25.8	24.7	22.5	21.3

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	--	26.54	26.16	26.39	23.12	23.25	23.27
HSDPA	1	25.46	25.33	25.48	22.27	22.18	22.21
	2	25.18	25.62	25.57	22.31	22.18	22.20
	3	25.78	25.36	25.42	22.02	22.09	22.12
	4	25.08	25.10	25.47	22.13	22.07	22.13
HSUPA (QPSK)	1	25.53	25.42	25.35	21.51	21.43	22.37
	2	25.39	25.16	25.27	21.25	21.29	21.35
	3	25.14	25.50	25.38	21.07	21.32	21.15
	4	25.49	25.63	25.27	21.29	21.24	21.36
	5	25.79	25.39	25.44	21.52	21.43	21.09
HSUPA (16QAM)	1	25.33	25.40	25.25	21.27	21.29	21.96
	2	25.32	25.05	25.17	21.18	21.20	21.40
	3	25.09	25.26	25.24	21.02	21.09	21.10
	4	25.21	25.53	25.29	21.24	21.06	21.13
	5	25.48	25.33	25.51	21.35	21.41	21.02

5.1.4 WCDMA Band5 Conducted RF Power Output Results

		Maximum output power(pk) [dBm]			Maximum output power(RMS) [dBm]		
Mode	3GPP Subtest	4132	4182	4233	4132	4182	4233
RMC	--	27.13	26.45	26.62	23.29	23.33	23.19
HSDPA	1	25.64	25.38	25.55	22.06	22.24	22.30
	2	25.39	25.72	25.43	22.47	22.29	22.28
	3	25.99	25.28	25.67	22.57	22.36	22.24
	4	25.12	25.35	25.66	22.23	22.12	22.27
HSUPA (QPSK)	1	25.78	25.61	25.26	21.34	21.50	22.39
	2	25.34	25.13	25.77	21.61	21.43	21.57
	3	25.60	25.91	25.48	21.21	21.13	21.32
	4	25.73	25.26	25.44	21.06	21.42	21.17
	5	25.65	25.83	25.57	21.15	21.36	21.24
HSUPA (16QAM)	1	25.57	25.32	25.30	21.19	21.43	22.41
	2	25.26	25.07	25.53	21.57	21.29	21.45
	3	25.48	25.76	25.57	21.29	21.04	21.37
	4	25.62	25.17	25.37	21.15	21.56	21.12
	5	25.54	25.53	25.41	21.17	21.25	21.28

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5.1.5 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	22.61	27.53	4.92
		1	2		22.71	27.40	4.69
		1	5		22.61	27.50	4.89
		6	0		21.67	27.24	5.57
		1	0	16QAM	21.64	27.41	5.77
		1	2		21.26	27.03	5.77
		1	5		21.22	27.09	5.87
		6	0		20.72	27.28	6.56
18900	1880	1	0	QPSK	22.86	27.73	4.87
		1	2		22.89	27.66	4.77
		1	5		22.85	27.69	4.84
		6	0		21.68	27.12	5.44
		1	0	16QAM	21.83	27.65	5.82
		1	2		21.98	27.74	5.76
		1	5		21.86	27.65	5.79
		6	0		20.79	27.23	6.44
19193	1909.3	1	0	QPSK	22.56	27.10	4.54
		1	2		22.53	26.86	4.33
		1	5		22.65	27.01	4.36
		6	0		21.67	26.87	5.20
		1	0	16QAM	22.11	27.05	4.94
		1	2		21.96	26.77	4.81
		1	5		21.89	26.77	4.88
		6	0		20.61	26.72	6.11

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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	22.76	27.69	4.93
		1	8		22.62	27.60	4.98
		1	15		22.80	27.81	5.01
		15	0		21.69	27.32	5.63
		1	0	16QAM	21.60	27.04	5.44
		1	8		21.80	27.24	5.44
		1	15		21.68	27.20	5.52
		15	0		20.78	27.62	6.84
18900	1880	1	0	QPSK	22.75	27.57	4.82
		1	8		22.53	27.33	4.80
		1	15		22.80	27.56	4.76
		15	0		21.69	27.39	5.70
		1	0	16QAM	20.54	27.04	6.50
		1	8		22.12	27.38	5.26
		1	15		22.13	27.32	5.19
		15	0		20.94	27.22	6.28
19185	1908.5	1	0	QPSK	23.02	27.64	4.62
		1	8		22.52	26.93	4.41
		1	15		22.53	26.97	4.44
		15	0		21.72	27.30	5.58
		1	0	16QAM	20.77	27.05	6.28
		1	8		21.72	27.33	5.61
		1	15		21.15	26.57	5.42
		15	0		21.15	26.64	5.49

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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	22.62	27.50	4.88
		1	13		22.47	27.45	4.98
		1	24		22.53	27.52	4.99
		25	0		21.68	27.28	5.60
		1	0	16QAM	21.67	27.34	5.67
		1	13		21.53	27.28	5.75
		1	24		21.63	27.36	5.73
		25	0		20.69	27.33	6.64
18900	1880	1	0	QPSK	22.61	27.40	4.79
		1	13		22.57	27.35	4.78
		1	24		22.64	27.33	4.69
		25	0		21.67	27.55	5.88
		1	0	16QAM	22.15	27.62	5.47
		1	13		22.01	27.49	5.48
		1	24		21.80	27.24	5.44
		25	0		20.73	27.95	7.22
19175	1907.5	1	0	QPSK	22.67	27.69	5.02
		1	13		22.57	27.10	4.53
		1	24		22.60	27.06	4.46
		25	0		21.65	27.28	5.63
		1	0	16QAM	21.43	27.50	6.07
		1	13		21.09	27.63	6.54
		1	24		21.05	26.61	5.56
		25	0		20.74	27.33	6.59

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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	22.76	27.77	5.01
		1	25		22.81	27.72	4.91
		1	49		22.51	27.71	5.20
		50	0		21.64	27.73	6.09
		1	0	16QAM	21.87	27.25	5.38
		1	25		21.96	27.51	5.55
		1	49		21.40	26.94	5.54
		50	0		20.64	27.07	6.43
18900	1880	1	0	QPSK	22.11	27.57	5.46
		1	25		22.15	27.57	5.42
		1	49		22.27	27.55	5.28
		50	0		21.76	27.08	5.32
		1	0	16QAM	22.36	27.80	5.44
		1	25		22.41	27.48	5.07
		1	49		22.22	27.50	5.28
		50	0		20.84	27.67	6.83
19150	1905	1	0	QPSK	22.71	28.03	5.32
		1	25		22.93	27.69	4.76
		1	49		22.49	26.96	4.47
		50	0		21.72	27.10	5.38
		1	0	16QAM	21.50	27.80	6.30
		1	25		21.26	27.14	5.88
		1	49		21.15	26.70	5.55
		50	0		20.80	27.49	6.69

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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	22.77	27.79	5.02
		1	38		22.75	27.77	5.02
		1	74		22.57	27.77	5.20
		75	0		21.70	27.68	5.98
		1	0	16QAM	22.02	27.40	5.38
		1	38		21.81	27.43	5.62
		1	74		21.22	26.74	5.52
		75	0		20.67	27.48	6.81
18900	1880	1	0	QPSK	22.78	27.81	5.03
		1	38		22.65	27.48	4.83
		1	74		22.69	27.53	4.84
		75	0		21.73	27.61	5.88
		1	0	16QAM	22.20	27.74	5.54
		1	38		22.22	27.24	5.02
		1	74		22.15	27.49	5.34
		75	0		20.58	27.22	6.64
19125	1902.5	1	0	QPSK	22.52	27.64	5.12
		1	38		22.60	27.46	4.86
		1	74		22.63	26.91	4.28
		75	0		21.71	27.79	6.08
		1	0	16QAM	21.48	27.30	5.82
		1	38		21.59	27.18	5.59
		1	74		21.04	26.31	5.27
		75	0		20.66	27.44	6.78

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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	22.65	27.66	5.01
		1	50		22.89	27.85	4.96
		1	99		22.53	27.60	5.07
		100	0		21.71	27.97	6.26
		1	0	16QAM	22.01	27.72	5.71
		1	50		22.53	28.18	5.65
		1	99		21.76	27.59	5.83
		100	0		20.69	27.42	6.73
18900	1880	1	0	QPSK	23.05	28.01	4.96
		1	50		23.38	27.82	4.44
		1	99		22.58	27.47	4.89
		100	0		21.71	27.71	6.00
		1	0	16QAM	21.65	27.57	5.92
		1	50		21.59	27.03	5.44
		1	99		21.05	26.68	5.63
		100	0		20.70	27.25	6.55
19100	1900	1	0	QPSK	22.68	27.80	5.12
		1	50		22.81	27.96	5.15
		1	99		22.37	26.95	4.58
		100	0		21.72	27.82	6.10
		1	0	16QAM	22.41	27.92	5.51
		1	50		22.89	28.32	5.43
		1	99		22.44	27.31	4.87
		100	0		20.72	27.97	7.25

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5.1.6 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	23.48	28.83	5.35
		1	2		23.47	28.67	5.20
		1	5		23.17	28.59	5.42
		6	0		22.39	28.27	5.88
		1	0	16QAM	23.40	29.04	5.64
		1	2		23.40	28.93	5.53
		1	5		22.96	28.81	5.85
		6	0		21.11	27.85	6.74
20175	1732.5	1	0	QPSK	22.87	27.38	4.51
		1	2		23.43	27.26	3.83
		1	5		23.23	27.60	4.37
		6	0		22.02	27.25	5.23
		1	0	16QAM	21.91	27.24	5.33
		1	2		22.10	27.38	5.28
		1	5		22.01	27.40	5.39
		6	0		21.28	27.40	6.12
20393	1754.3	1	0	QPSK	23.03	28.33	5.30
		1	2		23.23	28.35	5.12
		1	5		23.20	28.43	5.23
		6	0		22.19	28.09	5.90
		1	0	16QAM	22.42	28.56	6.14
		1	2		22.63	28.67	6.04
		1	5		22.45	28.59	6.14
		6	0		21.03	27.75	6.72

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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	23.37	28.75	5.38
		1	8		22.93	28.96	6.03
		1	15		23.04	28.48	5.44
		15	0		22.20	28.13	5.93
		1	0	16QAM	22.70	28.62	5.92
		1	8		22.47	28.56	6.09
		1	15		22.50	28.42	5.92
		15	0		21.33	28.44	7.11
20175	1732.5	1	0	QPSK	23.27	27.64	4.37
		1	8		23.16	27.48	4.32
		1	15		23.39	27.93	4.54
		15	0		22.12	27.26	5.14
		1	0	16QAM	22.68	27.50	4.82
		1	8		22.56	27.35	4.79
		1	15		22.86	27.85	4.99
		15	0		21.08	28.13	7.05
20385	1753.5	1	0	QPSK	22.86	28.09	5.23
		1	8		23.01	28.10	5.09
		1	15		23.51	28.53	5.02
		15	0		22.05	28.14	6.09
		1	0	16QAM	21.75	27.86	6.11
		1	8		22.03	27.87	5.84
		1	15		22.19	28.23	6.04
		15	0		21.05	27.89	6.84

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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	23.12	28.51	5.39
		1	13		23.18	28.37	5.19
		1	24		23.01	28.30	5.29
		25	0		22.13	28.22	6.09
		1	0	16QAM	21.39	27.64	6.25
		1	13		21.47	27.42	5.95
		1	24		21.51	27.60	6.09
		25	0		21.12	27.95	6.83
20175	1732.5	1	0	QPSK	22.93	27.33	4.40
		1	13		23.01	27.44	4.43
		1	24		22.93	27.50	4.57
		25	0		22.08	27.53	5.45
		1	0	16QAM	22.38	27.45	5.07
		1	13		22.37	27.52	5.15
		1	24		22.75	27.99	5.24
		25	0		21.20	27.75	6.55
20375	1752.5	1	0	QPSK	23.40	28.44	5.04
		1	13		23.02	28.08	5.06
		1	24		23.45	28.54	5.09
		25	0		22.05	28.18	6.13
		1	0	16QAM	21.83	28.00	6.17
		1	13		21.95	28.07	6.12
		1	24		21.98	28.17	6.19
		25	0		21.22	28.05	6.83

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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	23.25	28.69	5.44
		1	25		23.00	28.08	5.08
		1	49		23.26	28.18	4.92
		50	0		22.23	27.98	5.75
		1	0	16QAM	22.59	28.53	5.94
		1	25		22.73	28.28	5.55
		1	49		22.35	27.70	5.35
		50	0		21.17	27.93	6.76
20175	1732.5	1	0	QPSK	23.16	27.49	4.33
		1	25		23.11	27.49	4.38
		1	49		23.14	27.88	4.74
		50	0		22.03	27.13	5.1
		1	0	16QAM	22.66	27.44	4.78
		1	25		22.50	27.33	4.83
		1	49		22.58	27.79	5.21
		50	0		21.04	27.02	5.98
20350	1750	1	0	QPSK	22.95	27.95	5.00
		1	25		23.06	28.06	5.00
		1	49		23.76	28.64	4.88
		50	0		22.22	28.51	6.29
		1	0	16QAM	21.83	27.84	6.01
		1	25		21.91	27.92	6.01
		1	49		22.39	28.38	5.99
		50	0		21.11	28.20	7.09

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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	23.31	28.78	5.47
		1	38		23.36	28.27	4.91
		1	74		23.14	27.54	4.40
		75	0		22.36	28.30	5.94
		1	0	16QAM	22.76	28.71	5.95
		1	38		23.40	28.65	5.25
		1	74		22.42	27.38	4.96
		75	0		21.28	28.14	6.86
20175	1732.5	1	0	QPSK	23.21	27.57	4.36
		1	38		23.06	27.47	4.41
		1	74		23.02	27.86	4.84
		75	0		22.21	27.66	5.45
		1	0	16QAM	22.62	27.48	4.86
		1	38		22.57	27.36	4.79
		1	74		22.70	27.99	5.29
		75	0		21.09	27.56	6.47
20325	1747.5	1	0	QPSK	23.07	27.81	4.74
		1	38		22.92	27.76	4.84
		1	74		23.49	28.31	4.82
		75	0		22.14	28.27	6.13
		1	0	16QAM	21.68	28.63	6.95
		1	38		21.61	27.17	5.56
		1	74		21.83	27.64	5.81
		75	0		21.08	28.10	7.02

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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	23.25	28.64	5.39
		1	50		23.47	28.09	4.62
		1	99		22.80	27.13	4.33
		100	0		22.21	28.16	5.95
		1	0	16QAM	22.24	27.23	4.99
		1	50		23.13	28.41	5.28
		1	99		22.28	27.16	4.88
		100	0		21.18	27.84	6.66
20175	1732.5	1	0	QPSK	23.48	27.85	4.37
		1	50		23.19	27.50	4.31
		1	99		23.37	28.16	4.79
		100	0		22.17	27.88	5.71
		1	0	16QAM	22.18	27.48	5.30
		1	50		21.60	26.81	5.21
		1	99		22.09	27.89	5.80
		100	0		21.15	27.82	6.67
20300	1745	1	0	QPSK	23.28	27.90	4.62
		1	50		23.38	28.25	4.87
		1	99		23.58	28.65	5.07
		100	0		22.19	28.57	6.38
		1	0	16QAM	23.11	28.04	4.93
		1	50		22.97	28.10	5.13
		1	99		23.27	28.79	5.52
		100	0		21.15	28.44	7.29

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5.1.7 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	23.48	28.08	4.60
		1	2		23.69	28.22	4.53
		1	5		23.70	28.33	4.63
		6	0		22.59	27.89	5.30
		1	0	16QAM	22.13	27.65	5.52
		1	2		22.19	27.64	5.45
		1	5		22.78	28.30	5.52
		6	0		21.31	27.62	6.31
20525	836.5	1	0	QPSK	23.38	28.23	4.85
		1	2		23.38	28.14	4.76
		1	5		23.37	28.26	4.89
		6	0		22.43	27.72	5.29
		1	0	16QAM	22.81	28.07	5.26
		1	2		22.99	28.24	5.25
		1	5		22.81	28.07	5.26
		6	0		21.57	27.67	6.10
20643	848.3	1	0	QPSK	23.43	27.90	4.47
		1	2		23.50	27.87	4.37
		1	5		23.65	28.07	4.42
		6	0		22.45	27.64	5.19
		1	0	16QAM	22.24	27.53	5.29
		1	2		22.35	27.61	5.26
		1	5		22.23	27.49	5.26
		6	0		21.50	27.67	6.17

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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	23.44	28.03	4.59
		1	8		23.43	27.91	4.48
		1	15		23.21	27.83	4.62
		15	0		22.54	27.93	5.39
		1	0	16QAM	22.78	27.86	5.08
		1	8		22.78	27.69	4.91
		1	15		22.58	27.67	5.09
		15	0		21.51	27.67	6.16
20525	836.5	1	0	QPSK	23.44	28.31	4.87
		1	8		23.44	28.16	4.72
		1	15		23.37	28.26	4.89
		15	0		22.49	28.10	5.61
		1	0	16QAM	22.90	28.13	5.23
		1	8		22.75	27.91	5.16
		1	15		23.04	28.31	5.27
		15	0		21.77	28.02	6.25
20635	847.5	1	0	QPSK	23.43	27.90	4.47
		1	8		23.48	27.83	4.35
		1	15		23.30	27.79	4.49
		15	0		22.48	28.02	5.54
		1	0	16QAM	22.29	27.58	5.29
		1	8		22.41	27.62	5.21
		1	15		22.08	27.40	5.32
		15	0		21.55	27.73	6.18

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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	23.37	27.90	4.53
		1	13		23.42	27.83	4.41
		1	24		23.09	27.57	4.48
		25	0		22.51	28.17	5.66
		1	0	16QAM	22.64	27.86	5.22
		1	13		22.63	27.74	5.11
		1	24		22.21	27.38	5.17
		25	0		21.38	28.00	6.62
20525	836.5	1	0	QPSK	23.18	27.91	4.73
		1	13		23.46	28.13	4.67
		1	24		23.16	27.90	4.74
		25	0		22.52	28.50	5.98
		1	0	16QAM	21.64	27.18	5.54
		1	13		21.97	27.49	5.52
		1	24		21.84	27.44	5.60
		25	0		21.41	28.03	6.62
20625	846.5	1	0	QPSK	23.23	27.71	4.48
		1	13		23.56	27.91	4.35
		1	24		23.19	27.71	4.52
		25	0		22.51	27.91	5.40
		1	0	16QAM	21.83	27.10	5.27
		1	13		21.95	27.10	5.15
		1	24		21.98	27.24	5.26
		25	0		21.39	27.86	6.47

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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	23.43	28.05	4.62
		1	25		23.50	27.95	4.45
		1	49		23.26	27.99	4.73
		50	0		22.53	28.29	5.76
		1	0	16QAM	22.69	27.69	5.00
		1	25		22.98	27.91	4.93
		1	49		22.19	27.27	5.08
		50	0		21.42	28.34	6.92
20525	836.5	1	0	QPSK	23.62	28.27	4.65
		1	25		23.35	28.14	4.79
		1	49		23.29	27.97	4.68
		50	0		22.61	28.47	5.86
		1	0	16QAM	22.99	28.09	5.10
		1	25		22.96	28.13	5.17
		1	49		22.87	28.01	5.14
		50	0		21.60	28.16	6.56
20600	844	1	0	QPSK	23.43	28.11	4.68
		1	25		23.77	28.10	4.33
		1	49		23.21	27.67	4.46
		50	0		22.60	28.50	5.90
		1	0	16QAM	22.03	27.41	5.38
		1	25		22.42	27.69	5.27
		1	49		22.28	27.88	5.60
		50	0		21.62	28.61	6.99

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5.1.8 LTE B28 Conducted RF Power Output Results

Test Data (3MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
27225	704.5	1	0	QPSK	23.61	27.59	3.98
		1	8		23.58	27.71	4.13
		1	15		23.47	27.82	4.35
		15	0		22.49	28.16	5.67
		1	0	16QAM	22.12	27.17	5.05
		1	8		22.16	27.35	5.19
		1	15		22.59	27.79	5.20
		15	0		21.51	27.79	6.28
27435	725.5	1	0	QPSK	23.68	28.52	4.84
		1	8		23.50	28.25	4.75
		1	15		23.57	28.50	4.93
		15	0		22.65	28.17	5.52
		1	0	16QAM	22.85	28.16	5.31
		1	8		22.62	27.85	5.23
		1	15		22.31	27.77	5.46
		15	0		21.67	28.07	6.40
27644	746.5	1	0	QPSK	23.46	28.24	4.78
		1	8		23.32	27.78	4.46
		1	15		23.56	27.91	4.35
		15	0		22.26	27.64	5.38
		1	0	16QAM	22.73	27.93	5.20
		1	8		22.53	27.55	5.02
		1	15		23.30	28.04	4.74
		15	0		21.52	27.76	6.24

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Test Data (5MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
27235	705.5	1	0	QPSK	23.07	27.28	4.21
		1	13		23.11	27.44	4.33
		1	24		23.10	27.43	4.33
		25	0		22.20	27.56	5.36
		1	0	16QAM	21.40	26.60	5.20
		1	13		21.52	27.66	6.14
		1	24		21.83	27.03	5.20
		25	0		21.40	27.61	6.21
27435	725.5	1	0	QPSK	23.43	28.15	4.72
		1	13		23.15	27.87	4.72
		1	24		23.13	27.96	4.83
		25	0		22.25	28.17	5.92
		1	0	16QAM	22.99	28.42	5.43
		1	13		22.57	28.01	5.44
		1	24		22.53	28.10	5.57
		25	0		21.20	28.26	7.06
27634	745.5	1	0	QPSK	23.06	27.83	4.77
		1	13		23.19	27.78	4.59
		1	24		22.89	27.37	4.48
		25	0		22.07	27.68	5.61
		1	0	16QAM	21.98	27.68	5.70
		1	13		21.65	27.24	5.59
		1	24		21.92	27.36	5.44
		25	0		20.97	27.58	6.61

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Test Data (10MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
27260	708	1	0	QPSK	23.01	27.10	4.09
		1	25		23.21	27.42	4.21
		1	49		22.97	27.19	4.22
		50	0		22.17	27.65	5.48
		1	0	16QAM	22.04	26.93	4.89
		1	25		23.12	27.68	4.56
		1	49		21.98	26.80	4.82
		50	0		21.24	27.94	6.70
27435	725.5	1	0	QPSK	23.36	28.06	4.70
		1	25		23.26	28.09	4.83
		1	49		23.04	27.89	4.85
		50	0		22.27	28.21	5.94
		1	0	16QAM	23.36	28.40	5.04
		1	25		23.25	28.42	5.17
		1	49		22.64	27.96	5.32
		50	0		21.02	27.62	6.60
27609	743	1	0	QPSK	23.21	27.69	4.48
		1	25		23.07	27.75	4.68
		1	49		23.04	27.51	4.47
		50	0		22.00	28.11	6.11
		1	0	16QAM	22.36	27.75	5.39
		1	25		21.80	27.37	5.57
		1	49		21.70	27.18	5.48
		50	0		21.12	27.99	6.87

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Test Data (15MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
27285	710.5	1	0	QPSK	22.88	27.25	4.37
		1	38		22.97	27.08	4.11
		1	74		22.86	27.44	4.58
		75	0		21.88	27.56	5.68
		1	0	16QAM	21.86	26.83	4.97
		1	38		22.37	27.00	4.63
		1	74		21.58	26.72	5.14
		75	0		21.04	27.51	6.47
27435	725.5	1	0	QPSK	23.23	27.97	4.74
		1	38		22.92	27.76	4.84
		1	74		22.75	27.54	4.79
		75	0		22.17	28.04	5.87
		1	0	16QAM	22.42	27.65	5.23
		1	38		23.24	28.45	5.21
		1	74		22.43	27.64	5.21
		75	0		21.22	28.21	6.99
27584	740.5	1	0	QPSK	22.80	27.33	4.53
		1	38		22.86	27.23	4.37
		1	74		22.73	27.09	4.36
		75	0		21.95	27.44	5.49
		1	0	16QAM	21.43	26.73	5.30
		1	38		21.92	27.02	5.10
		1	74		21.93	27.07	5.14
		75	0		20.94	27.42	6.48

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Test Data (20MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
27315	713.5	1	0	QPSK	22.70	27.18	4.48
		1	50		22.95	27.17	4.22
		1	99		22.88	27.34	4.46
		100	0		21.81	27.33	5.52
		1	0	16QAM	22.43	27.51	5.08
		1	50		21.46	26.59	5.13
		1	99		22.45	27.56	5.11
		100	0		21.01	27.56	6.55
27435	725.5	1	0	QPSK	22.76	27.30	4.54
		1	50		23.19	27.13	3.94
		1	99		22.69	26.52	3.83
		100	0		21.82	27.33	5.51
		1	0	16QAM	21.31	26.73	5.42
		1	50		21.84	26.72	4.88
		1	99		21.72	26.44	4.72
		100	0		20.94	27.41	6.47
27559	738	1	0	QPSK	22.82	27.75	4.93
		1	50		23.03	27.55	4.52
		1	99		22.62	27.64	5.02
		100	0		21.80	27.19	5.39
		1	0	16QAM	22.63	27.95	5.32
		1	50		22.78	27.69	4.91
		1	99		22.50	27.93	5.43
		100	0		20.94	27.58	6.64

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5.1.9 LTE B66 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
131979	1710.7	1	0	QPSK	22.90	28.29	5.39
		1	2		23.04	28.30	5.26
		1	5		22.94	28.37	5.43
		6	0		21.90	27.79	5.89
		1	0	16QAM	22.44	28.20	5.76
		1	2		22.57	28.23	5.66
		1	5		22.48	28.36	5.88
		6	0		21.07	27.85	6.78
132322	1745	1	0	QPSK	22.65	27.64	4.99
		1	2		22.88	27.72	4.84
		1	5		22.84	27.78	4.94
		6	0		22.04	27.62	5.58
		1	0	16QAM	21.68	27.55	5.87
		1	2		21.86	27.68	5.82
		1	5		21.71	27.61	5.90
		6	0		21.10	27.69	6.59
132664	1779.3	1	0	QPSK	22.85	27.33	4.48
		1	2		22.93	27.37	4.44
		1	5		22.90	27.42	4.52
		6	0		21.86	27.14	5.28
		1	0	16QAM	22.01	27.40	5.39
		1	2		22.02	27.41	5.39
		1	5		21.44	26.89	5.45
		6	0		20.90	27.14	6.24

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Test Data (3MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
131987	1711.5	1	0	QPSK	22.83	28.20	5.37
		1	8		22.87	28.16	5.29
		1	15		22.83	28.17	5.34
		15	0		21.98	27.91	5.93
		1	0	16QAM	22.22	28.08	5.86
		1	8		22.50	28.21	5.71
		1	15		22.48	28.35	5.87
		15	0		21.09	28.18	7.09
132322	1745	1	0	QPSK	23.03	27.89	4.86
		1	8		22.93	27.77	4.84
		1	15		22.96	27.90	4.94
		15	0		22.10	27.58	5.48
		1	0	16QAM	22.39	27.68	5.29
		1	8		22.27	27.45	5.18
		1	15		22.33	27.73	5.40
		15	0		20.91	27.52	6.61
132656	1778.5	1	0	QPSK	22.70	27.17	4.47
		1	8		22.67	27.11	4.44
		1	15		22.65	27.26	4.61
		15	0		21.94	27.41	5.47
		1	0	16QAM	22.15	27.10	4.95
		1	8		21.95	26.87	4.92
		1	15		21.89	26.99	5.10
		15	0		20.87	26.99	6.12

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Test Data (5MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
131997	1712.5	1	0	QPSK	22.78	28.13	5.35
		1	13		23.08	28.23	5.15
		1	24		22.78	27.96	5.18
		25	0		21.99	28.00	6.01
		1	0	16QAM	21.78	27.91	6.13
		1	13		21.85	27.82	5.97
		1	24		21.73	27.71	5.98
		25	0		20.97	27.90	6.93
132322	1745	1	0	QPSK	22.75	27.64	4.89
		1	13		22.86	27.69	4.83
		1	24		22.70	27.67	4.97
		25	0		21.98	28.00	6.02
		1	0	16QAM	22.22	27.77	5.55
		1	13		22.50	27.96	5.46
		1	24		22.10	27.83	5.73
		25	0		20.80	28.00	7.20
132646	1777.5	1	0	QPSK	22.62	27.10	4.48
		1	13		22.64	27.01	4.37
		1	24		22.64	27.18	4.54
		25	0		21.82	27.33	5.51
		1	0	16QAM	21.64	27.04	5.40
		1	13		21.50	26.82	5.32
		1	24		21.10	26.61	5.51
		25	0		20.66	26.97	6.31

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Test Data (10MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
132022	1715	1	0	QPSK	22.50	27.58	5.08
		1	25		22.86	27.99	5.13
		1	49		22.89	27.82	4.93
		50	0		21.95	27.83	5.88
		1	0	16QAM	22.08	27.94	5.86
		1	25		22.55	28.12	5.57
		1	49		22.17	27.58	5.41
		50	0		20.96	28.24	7.28
132322	1745	1	0	QPSK	23.08	27.82	4.74
		1	25		23.09	27.83	4.74
		1	49		21.83	27.03	5.20
		50	0		21.96	27.84	5.88
		1	0	16QAM	22.23	27.51	5.28
		1	25		22.43	27.64	5.21
		1	49		21.08	26.79	5.71
		50	0		20.87	27.37	6.50
132621	1775	1	0	QPSK	22.59	27.31	4.72
		1	25		23.07	27.35	4.28
		1	49		22.67	27.10	4.43
		50	0		21.81	27.00	5.19
		1	0	16QAM	21.26	27.07	5.81
		1	25		21.70	26.98	5.28
		1	49		21.18	26.63	5.45
		50	0		20.68	27.24	6.56

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Test Data (15MHz bandwidth Mode)

Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
132047	1717.5	1	0	QPSK	22.38	27.86	5.48
		1	38		22.88	27.90	5.02
		1	74		23.02	27.49	4.47
		75	0		21.98	28.03	6.05
		1	0	16QAM	22.03	27.94	5.91
		1	38		22.35	27.85	5.50
		1	74		21.74	27.86	6.12
		75	0		20.78	27.64	6.86
132322	1745	1	0	QPSK	23.08	27.72	4.64
		1	38		22.85	27.73	4.88
		1	74		21.51	26.74	5.23
		75	0		21.93	27.96	6.03
		1	0	16QAM	22.58	27.68	5.10
		1	38		22.28	27.41	5.13
		1	74		20.80	26.56	5.76
		75	0		20.82	27.93	7.11
132596	1772.5	1	0	QPSK	22.59	27.52	4.93
		1	38		22.55	26.90	4.35
		1	74		22.40	26.65	4.25
		75	0		21.67	27.31	5.64
		1	0	16QAM	21.15	26.81	5.66
		1	38		21.94	26.96	5.02
		1	74		20.74	25.87	5.13
		75	0		20.66	27.12	6.46

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Test Data (20MHz bandwidth Mode)

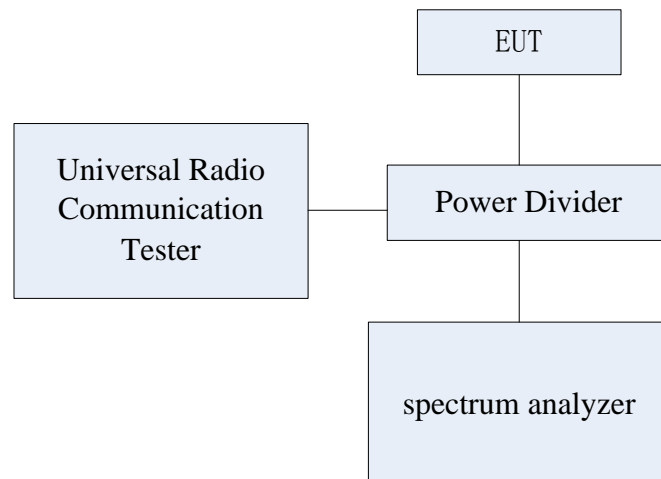
Channel	Frequency (MHz)	No.RB	RB START	Modulation	Max Power(RMS)	Max Power (PK)	PAR
132072	1720	1	0	QPSK	22.30	27.71	5.41
		1	50		23.16	27.89	4.73
		1	99		22.76	27.11	4.35
		100	0		22.03	27.45	5.42
		1	0	16QAM	21.60	27.77	6.17
		1	50		22.89	28.28	5.39
		1	99		21.86	26.93	5.07
		100	0		20.96	27.78	6.82
132322	1745	1	0	QPSK	22.90	27.43	4.53
		1	50		23.14	27.94	4.80
		1	99		21.48	26.80	5.32
		100	0		22.02	27.72	5.70
		1	0	16QAM	22.72	27.66	4.94
		1	50		22.82	27.91	5.09
		1	99		21.13	26.89	5.76
		100	0		20.93	27.65	6.72
132571	1770	1	0	QPSK	22.35	27.69	5.34
		1	50		22.96	27.62	4.66
		1	99		22.41	26.84	4.43
		100	0		21.70	27.17	5.47
		1	0	16QAM	21.58	27.70	6.12
		1	50		22.48	27.86	5.38
		1	99		22.23	27.26	5.03
		100	0		20.58	27.16	6.58

5.2 Occupied Bandwidth

Specifications:	FCC Part 2.1049, 22.917(b), 24.238(b)
DUT Serial Number:	868020030259286
Test conditions:	Ambient Temperature:15℃-35℃ 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

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	0.25	0.32
		8PSK	0.24	0.29
	190	GMSK	0.25	0.32
		8PSK	0.25	0.30
	251	GMSK	0.25	0.31
		8PSK	0.24	0.29
PCS1900	512	GMSK	0.24	0.32
		8PSK	0.24	0.32
	661	GMSK	0.25	0.32
		8PSK	0.25	0.31
	810	GMSK	0.25	0.32
		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	4.11	4.71
B5	4182 (836.4MHz)	QPSK	4.13	4.74
B2	9400 (1880.0 MHz)	16QAM	4.13	4.74
B5	4182 (836.4MHz)	16QAM	4.21	4.85

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	1.23
		3MHz	15		2.69	2.86
		5MHz	25		4.50	4.80
		10MHz	50		8.96	9.28
		15MHz	75		13.44	14.52
		20MHz	100		17.92	19.04
16QAM		1.4MHz	6		1.09	1.26
		3MHz	15		2.68	2.87
		5MHz	25		4.50	4.76
		10MHz	50		8.92	9.28
		15MHz	75		13.44	14.52
		20MHz	100		17.92	19.04

5.2.4 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	1.21
		3MHz	15		2.68	2.86
		5MHz	25		4.50	4.78
		10MHz	50		8.92	9.28
		15MHz	75		13.44	14.52
20MHz		100	17.84		18.96	
16QAM		1.4MHz	6		1.09	1.24
		3MHz	15		2.69	2.84
		5MHz	25		4.50	4.76
		10MHz	50		8.92	9.28
		15MHz	75		13.50	14.52
		20MHz	100		17.84	18.96

5.2.5 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	1.09	1.24
		3MHz	15		2.69	2.83
		5MHz	25		4.50	4.78
		10MHz	50		8.96	9.28
16QAM		1.4MHz	6		1.09	1.22
		3MHz	15		2.68	2.86
		5MHz	25		4.52	4.76
		10MHz	50		8.96	9.28

5.2.6 LTE B28 occupied bandwidth Results

Mode	EUT channel No.	bandwidth	No. RB	RB offset	99% occupied bandwidth [MHz]	-26dBc occupied bandwidth [MHz]
QPSK	27435 (725.5MHz)	3MHz	15	0	2.69	2.83
		5MHz	25		4.50	4.78
		10MHz	50		9.04	10.00
		15MHz	75		13.50	14.46
		20MHz	100		17.84	18.88
16QAM		3MHz	15		2.69	2.84
		5MHz	25		4.52	4.76
		10MHz	50		9.04	10.00
		15MHz	75		13.44	14.46
		20MHz	100		17.76	18.88

5.2.7 LTE B66 occupied bandwidth Results

Mode	EUT channel No.	bandwidth	No. RB	RB offset	99% occupied bandwidth [MHz]	-26dBc occupied bandwidth [MHz]
QPSK	132322 (1745MHz)	1.4MHz	6	0	1.09	1.22
		3MHz	15		2.69	2.86
		5MHz	25		4.50	4.80
		10MHz	50		8.96	9.32
		15MHz	75		13.50	14.58
20MHz		100	18.00		19.12	
16QAM		1.4MHz	6		1.09	1.24
		3MHz	15		2.68	2.85
		5MHz	25		4.52	4.78
		10MHz	50		8.96	9.28
		15MHz	75		13.50	14.58
		20MHz	100		18.00	19.12

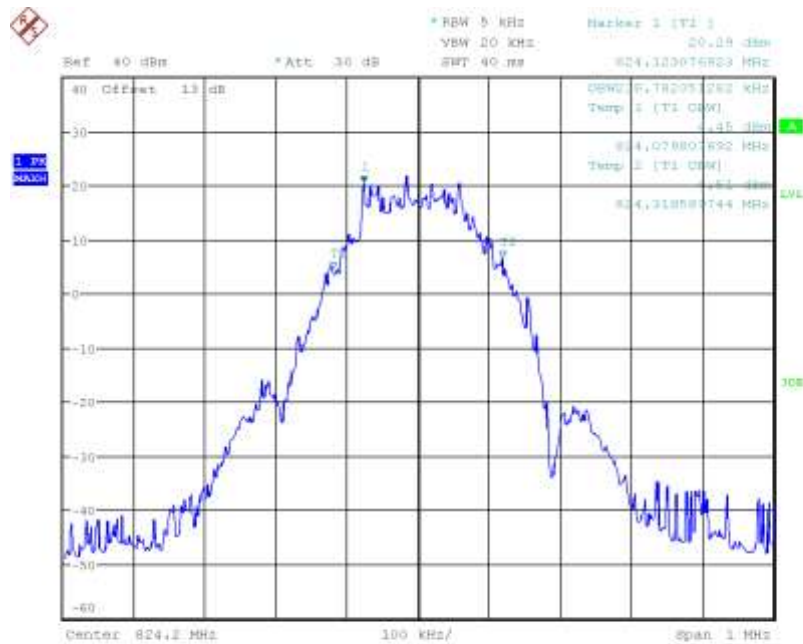
Graphical results for GSM850:



GMSK 99% Channel 128

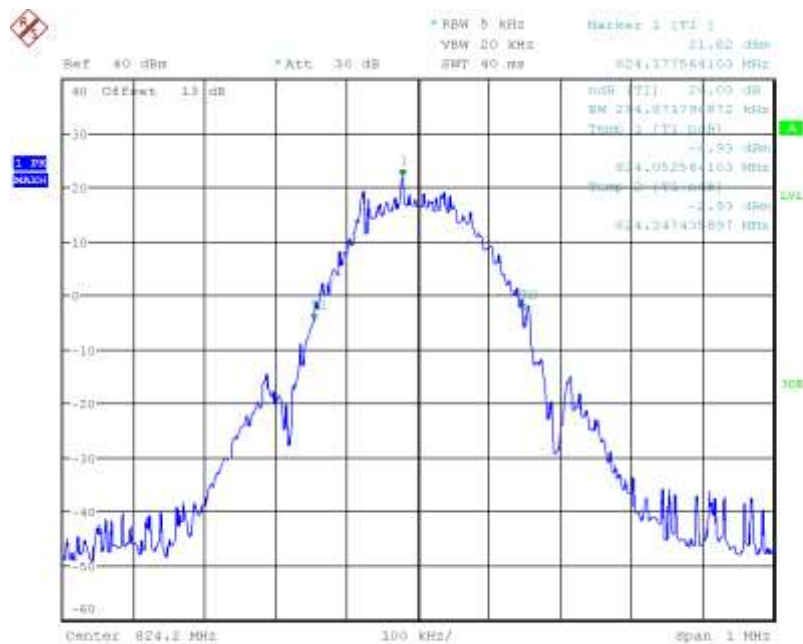


GMSK -26dBc Channel 128



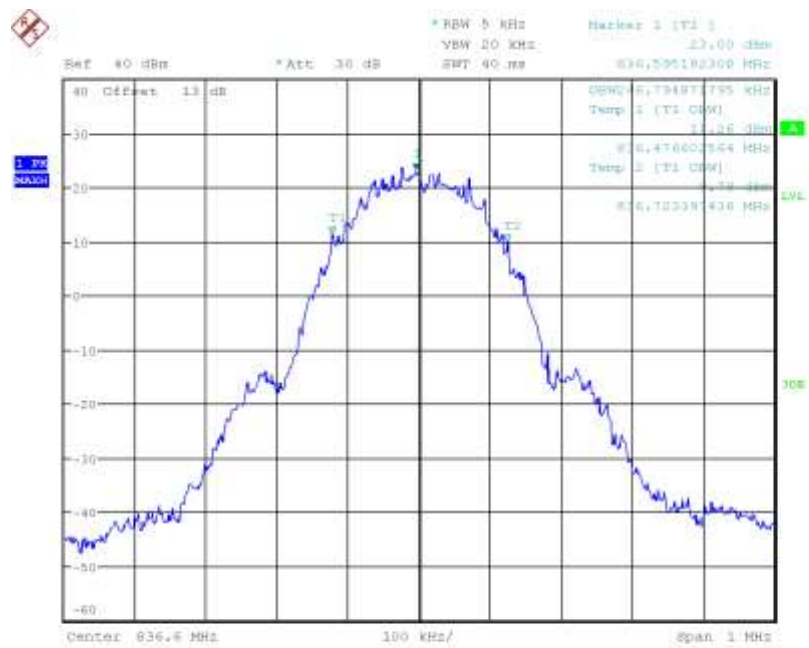
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8PSK 99% Channel 128



Date: 14.MAR.2019 05:27:11

8PSK -26dBc Channel 128



Date: 14.MAR.2019: 05:22:32

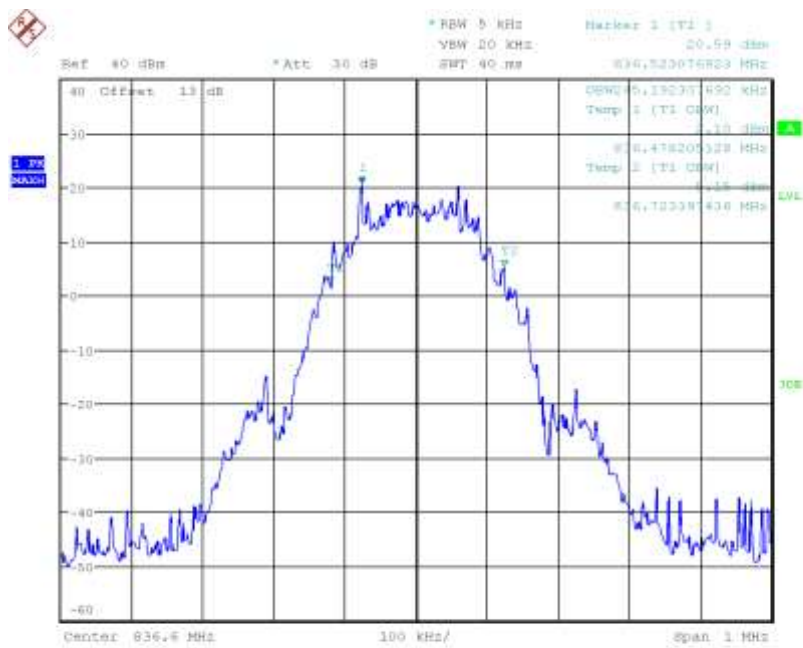
GMSK 99% Channel 190



Date: 14.MAR.2019: 05:22:07

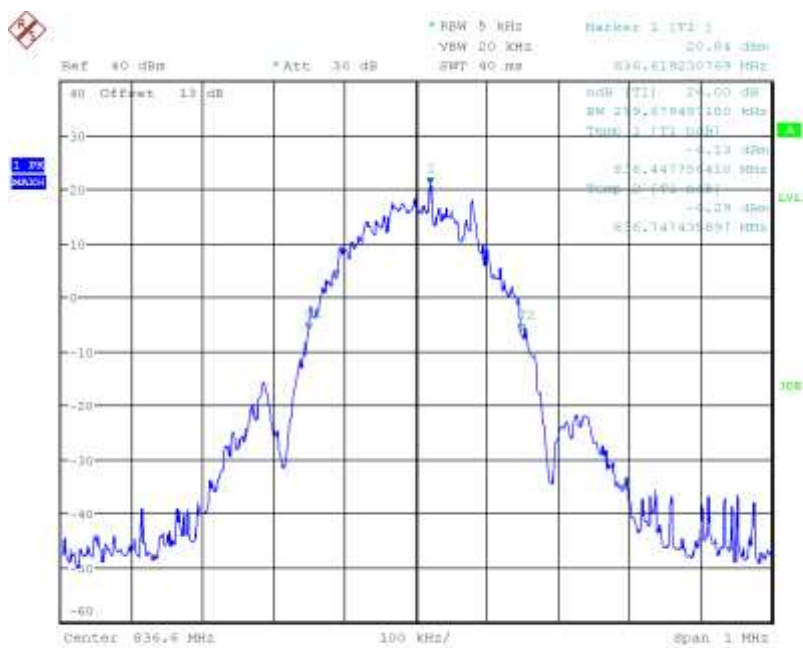
GMSK -26dBc Channel 190

Report No.:B19W50074-WWAN_Rev3



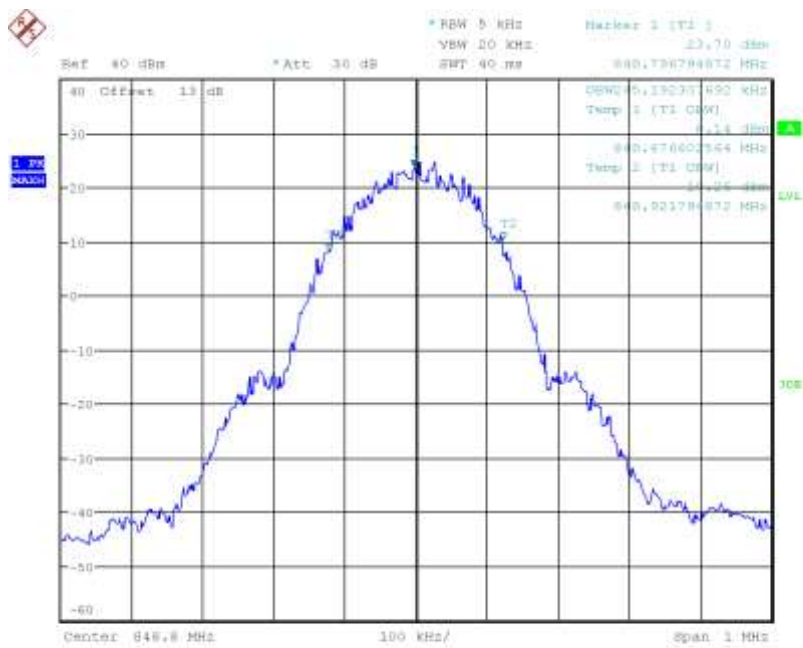
Date: 14.MAR.2019: 05:28:25

8PSK 99% Channel 190



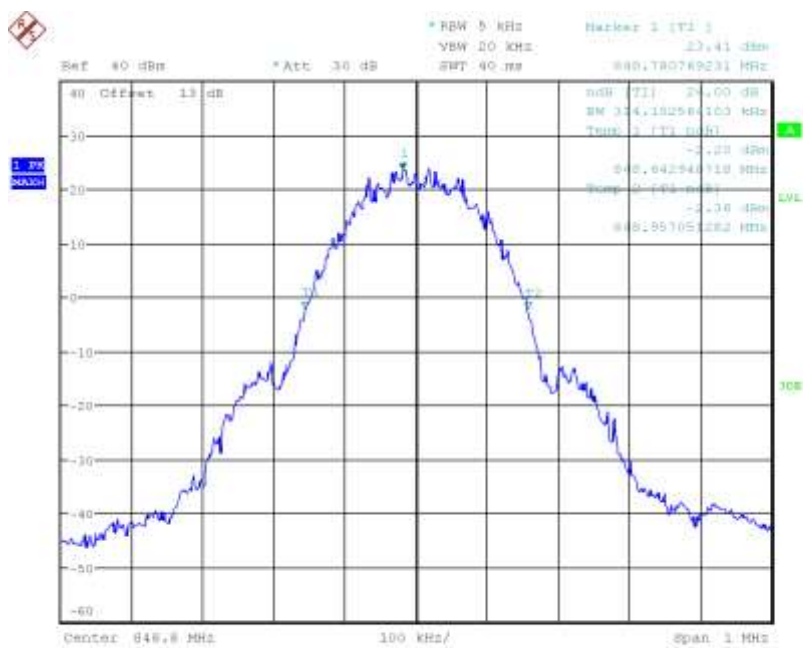
Date: 14.MAR.2019: 05:28:01

8PSK -26dBc Channel 190



Date: 14.MAR.2019: 05:23:10

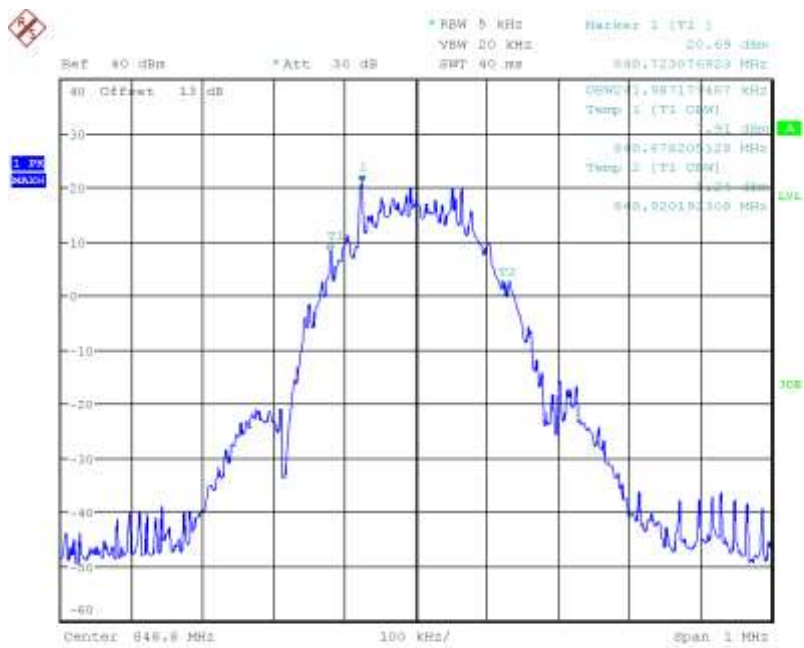
GMSK 99% Channel 251



Date: 14.MAR.2019: 05:23:36

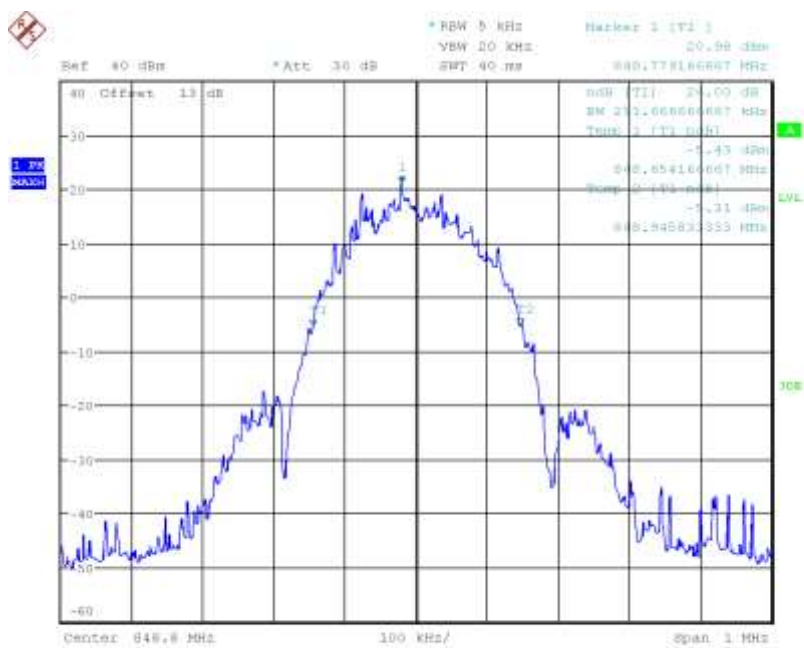
GMSK -26dBc Channel 251

Report No.:B19W50074-WWAN_Rev3



Date: 14.MAR.2019 05:29:20

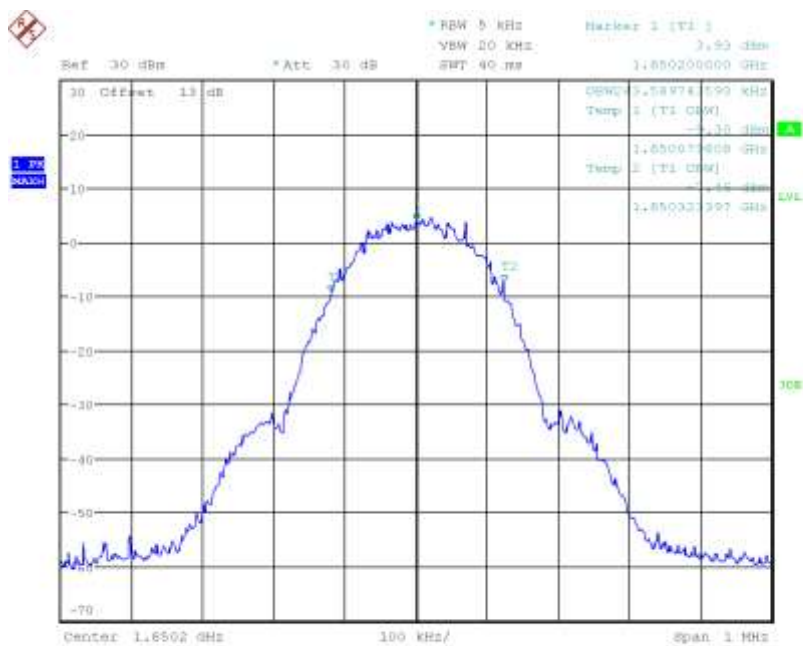
8PSK 99% Channel 251



Date: 14.MAR.2019 05:29:40

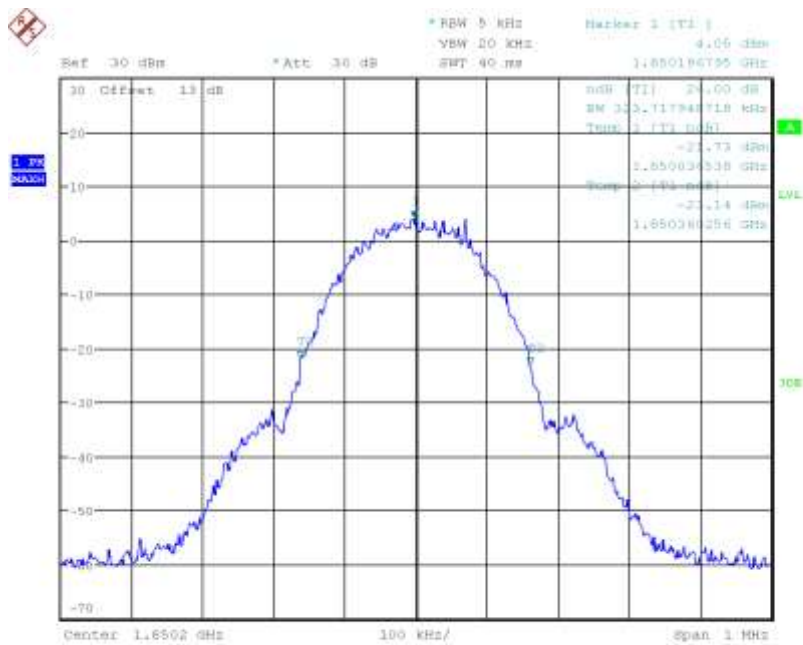
8PSK -26dBc Channel 251

Graphical results for GSM1900:



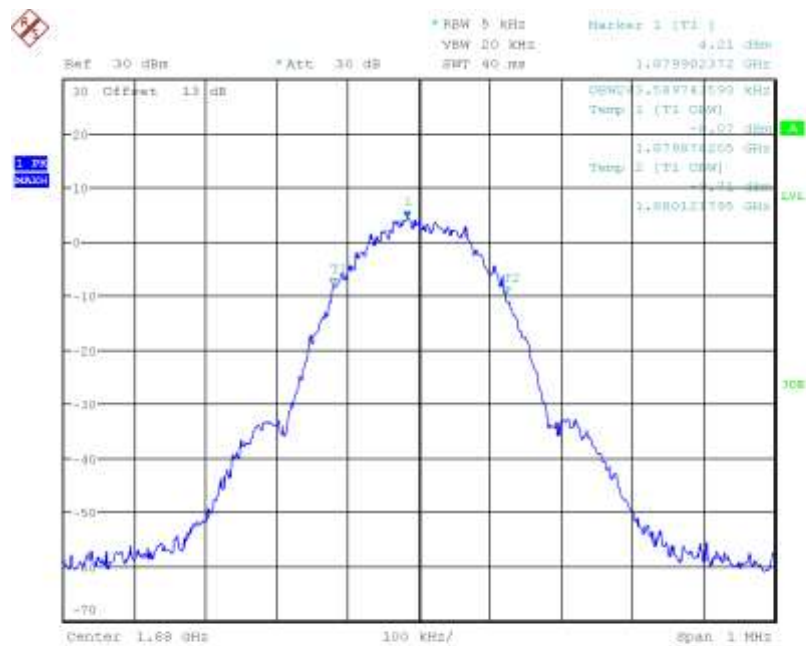
Date: 14.MAR.2019: 05:31:32

GMSK 99% Channel 512



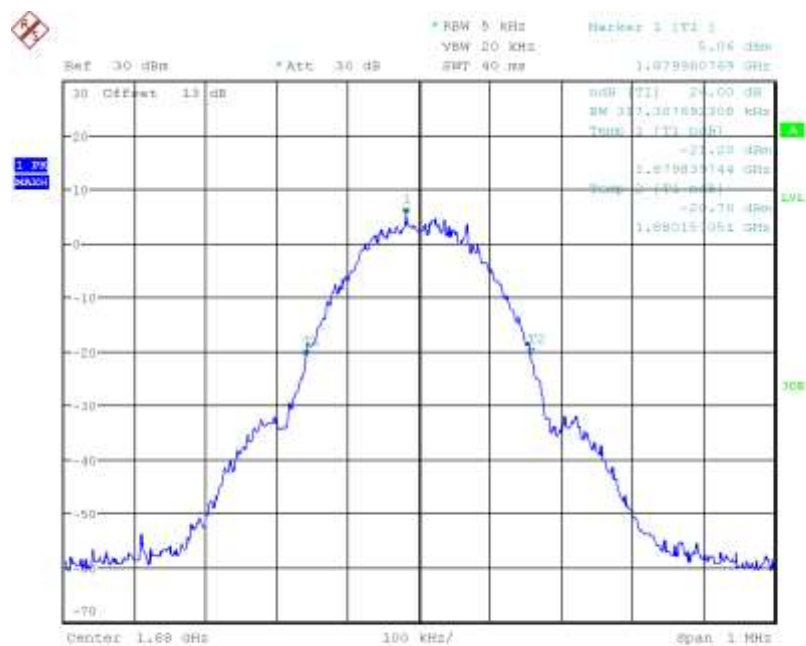
Date: 14.MAR.2019: 05:31:52

GMSK -26dBc Channel 512



Date: 14.MAR.2019: 05:32:43

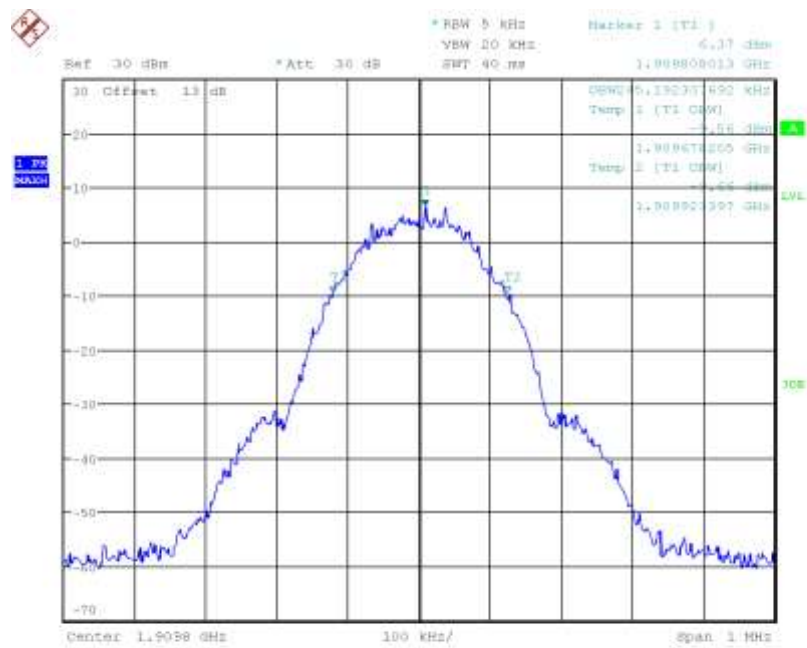
8PSK 99% Channel 512



Date: 14.MAR.2019: 05:32:26

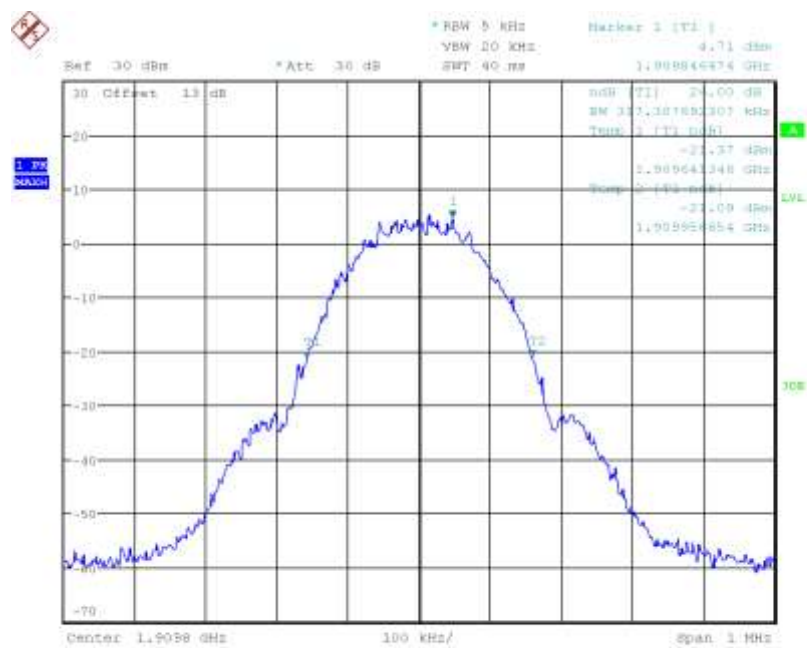
8PSK -26dBc Channel 512

Report No.:B19W50074-WWAN_Rev3



Date: 14.MAR.2019: 05:33:29

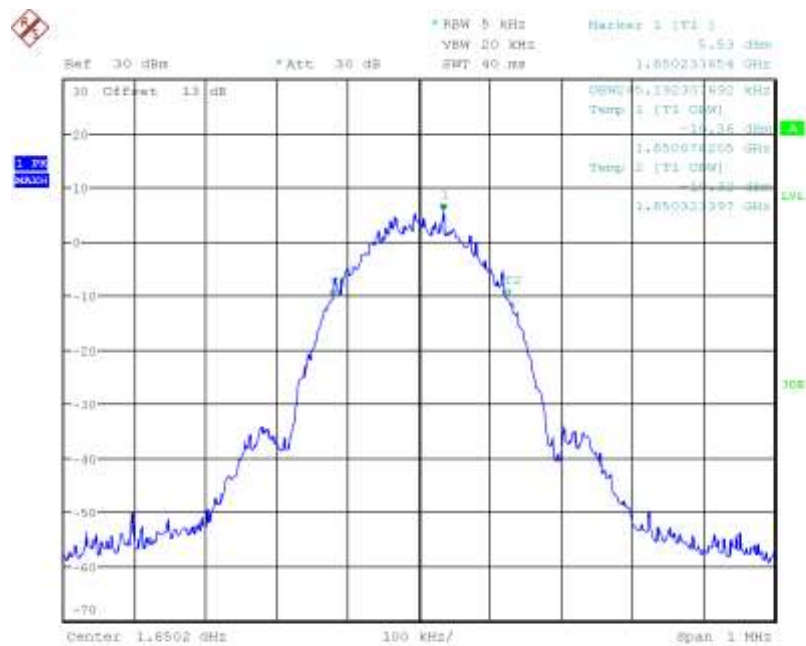
GMSK 99% Channel 661



Date: 14.MAR.2019: 05:33:50

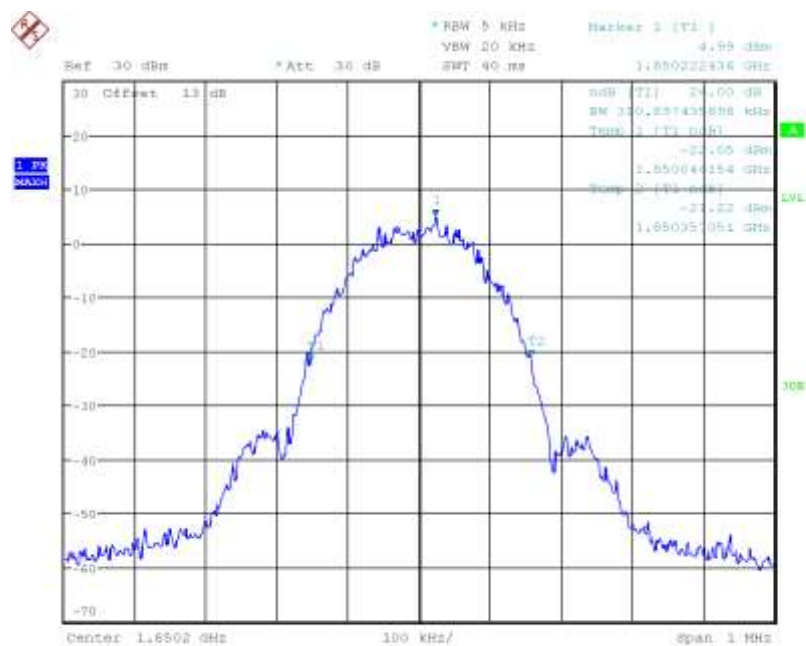
GMSK -26dBc Channel 661

Report No.:B19W50074-WWAN_Rev3



Date: 14.MAR.2019: 05:38:36

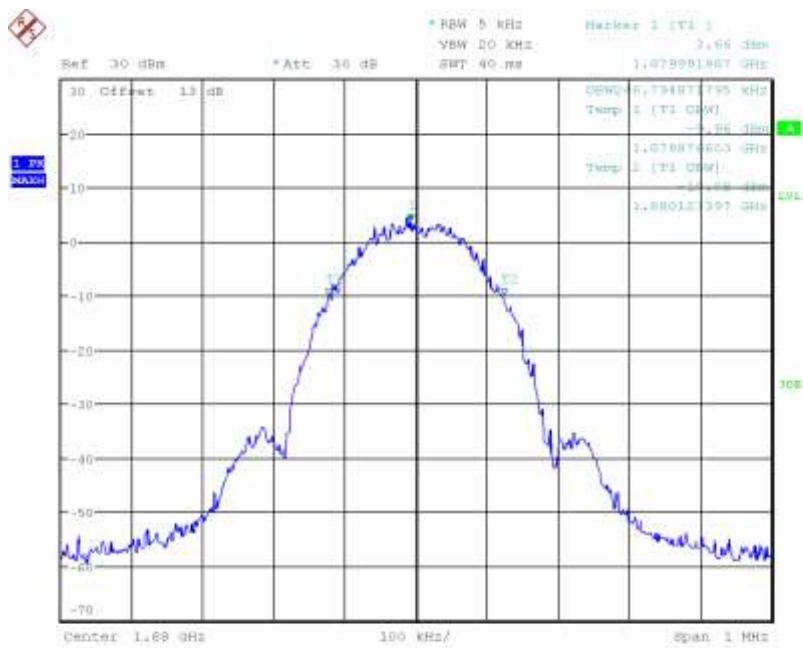
8PSK 99% Channel 661



Date: 14.MAR.2019: 05:38:10

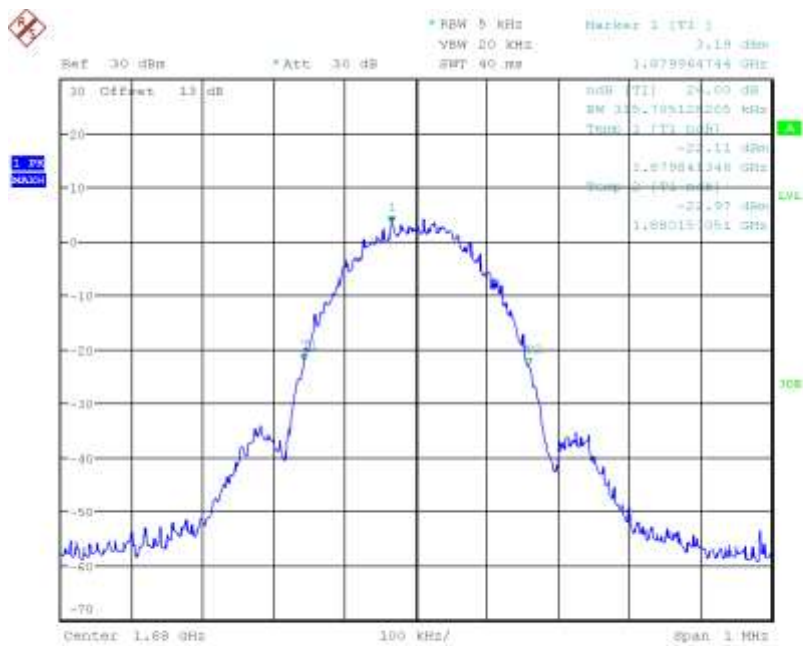
8PSK -26dBc Channel 661

Report No.:B19W50074-WWAN_Rev3



Date: 14.MAR.2019: 05:37:14

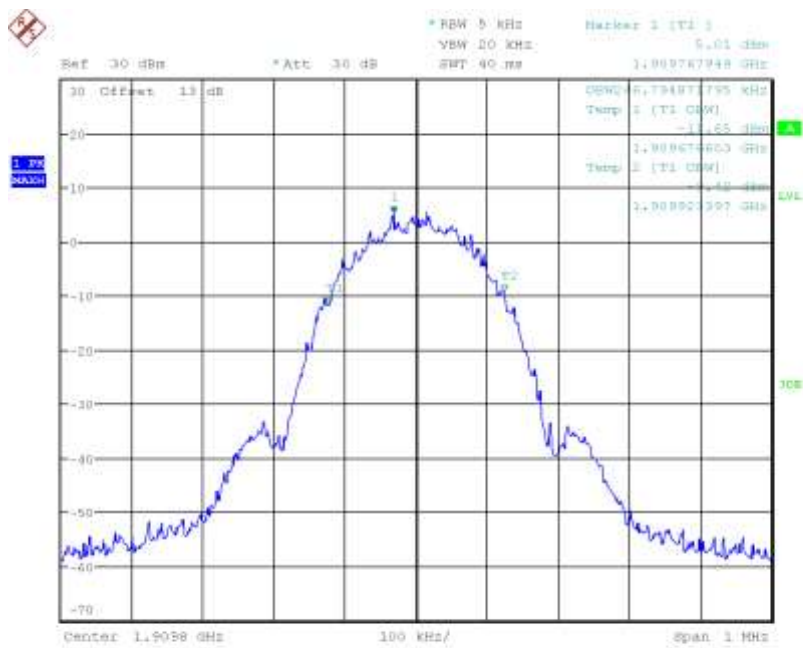
GMSK 99% Channel 810



Date: 14.MAR.2019: 05:37:33

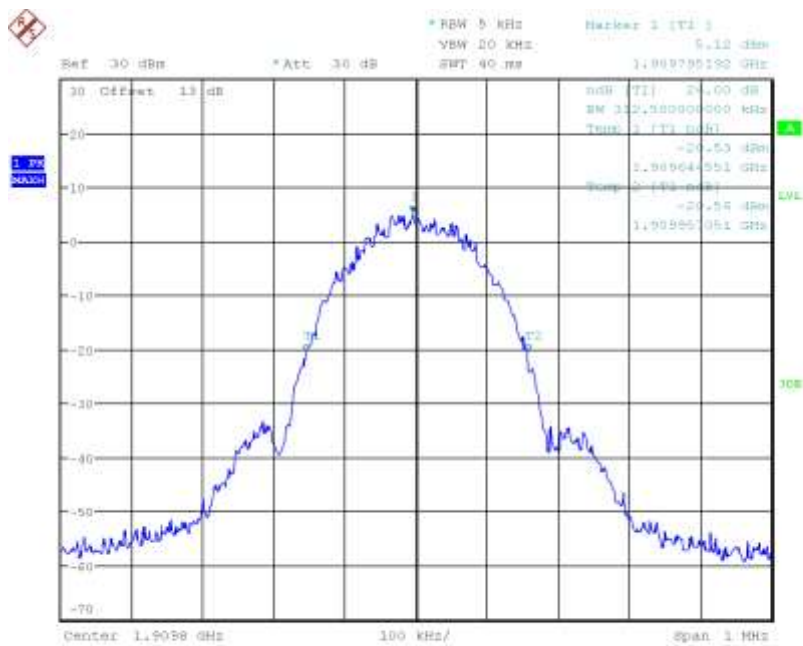
GMSK -26dBc Channel 810

Report No.:B19W50074-WWAN_Rev3



Date: 14.MAR.2019: 05:36:32

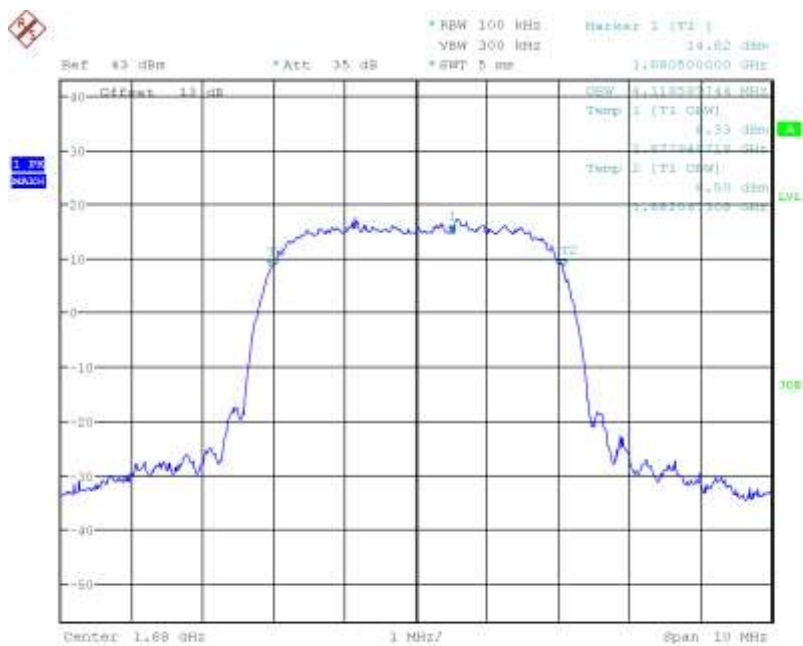
8PSK 99% Channel 810



Date: 14.MAR.2019: 05:36:13

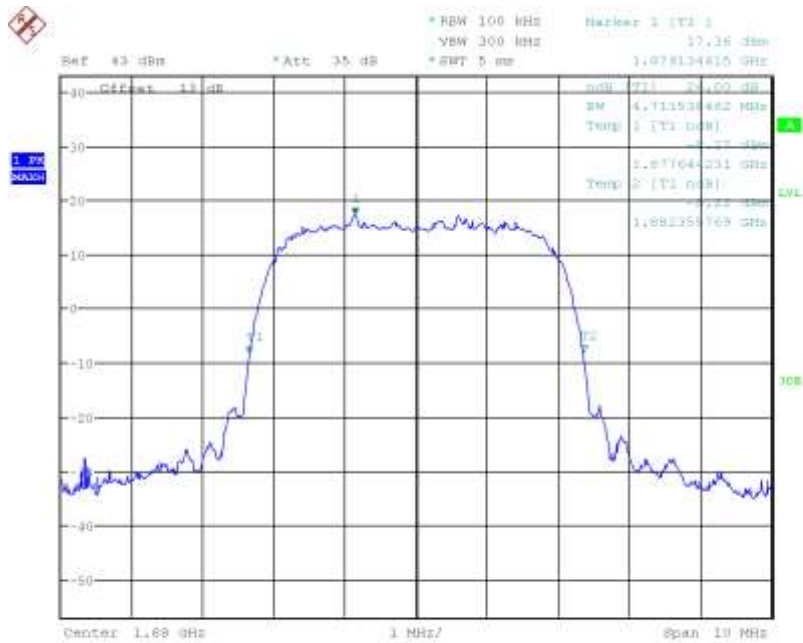
8PSK -26dBc Channel 810

Graphical results for WCDMA Band2:



Date: 12.MAR.2019 09:59:50

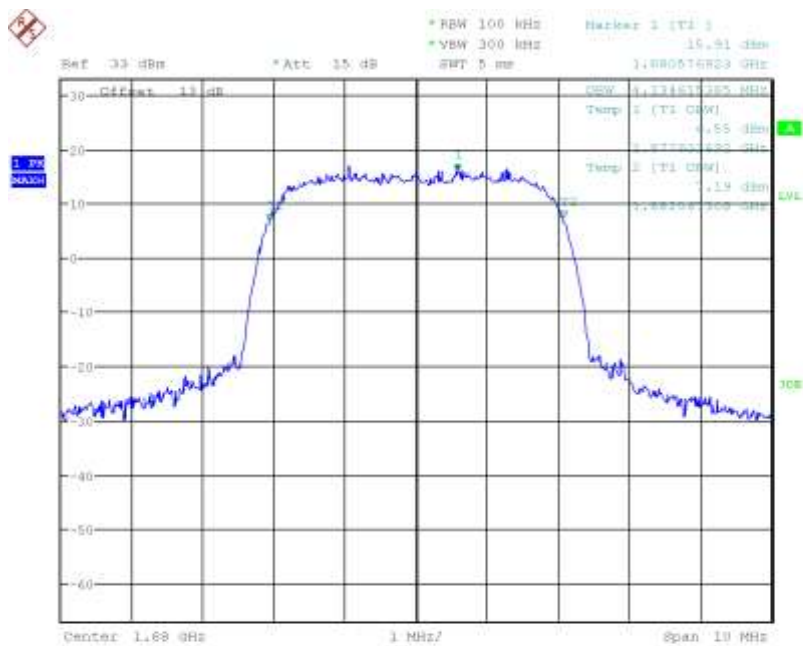
WCDMA B2 99% QPSK



Date: 12.MAR.2019 10:12:11

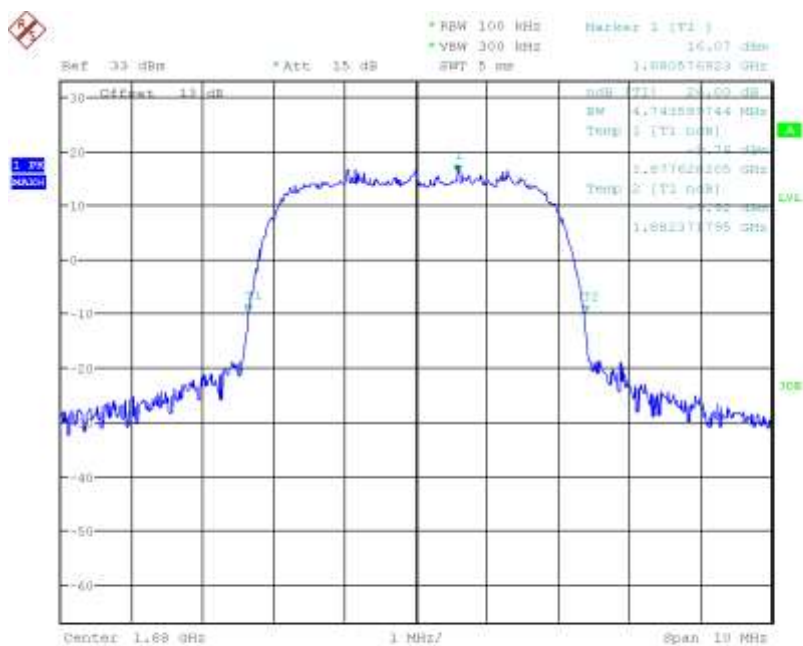
WCDMA B2 -26dBc QPSK

Report No.:B19W50074-WWAN_Rev3



Date: 16.APR.2019: 04:57:07

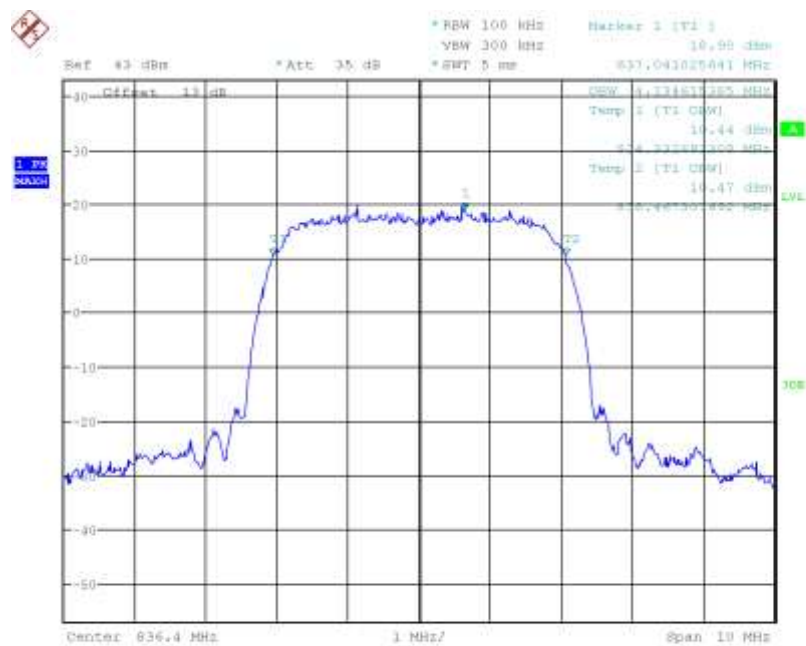
WCDMA B2 99% 16QAM



Date: 16.APR.2019: 04:59:13

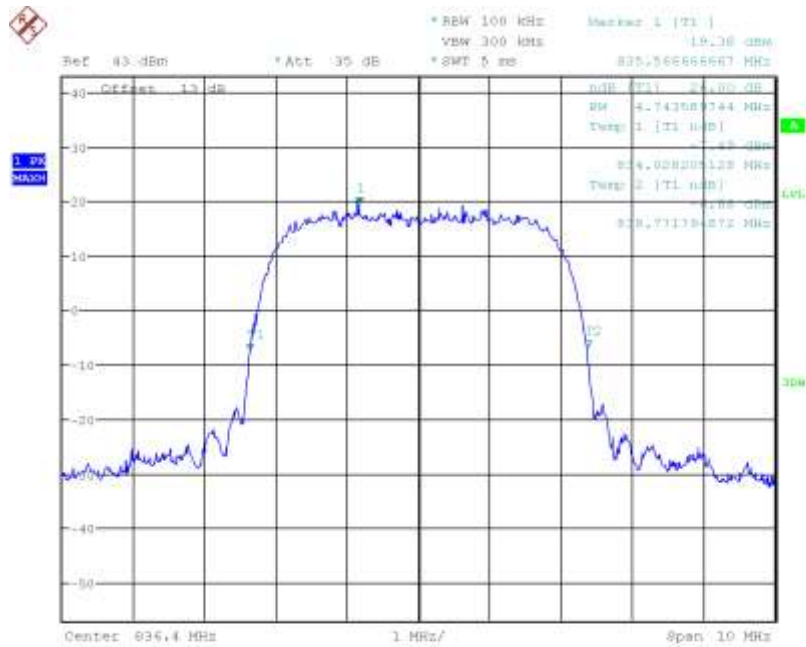
WCDMA B2 -26dBc 16QAM

Graphical results for WCDMA Band5:



Date: 12.MAR.2019 10:01:50

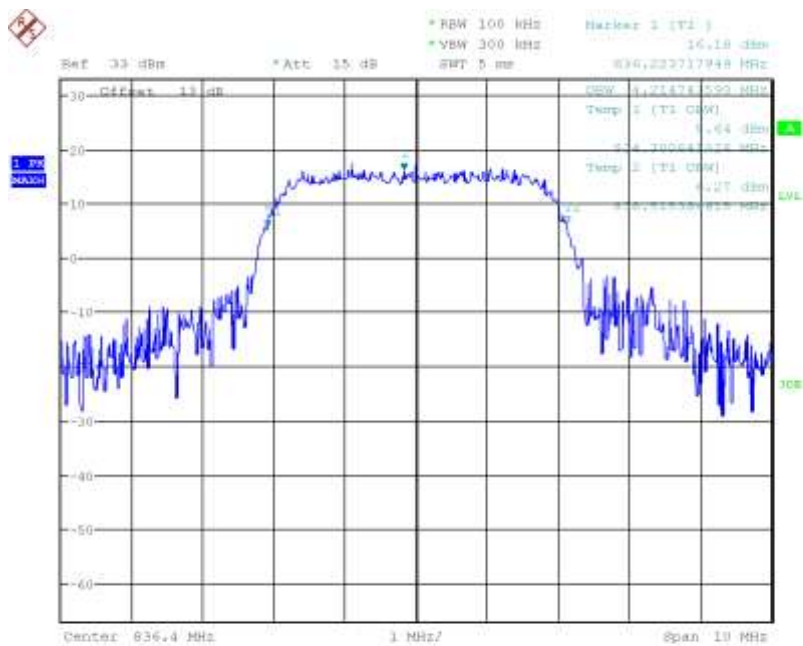
WCDMA B5 99% QPSK



Date: 12.MAR.2019 10:13:00

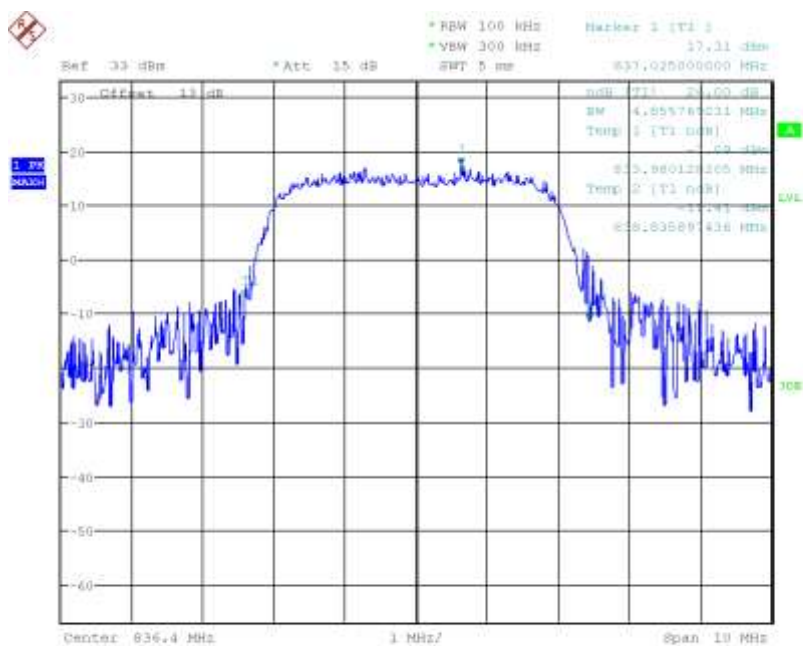
WCDMA B5 -26dBc QPSK

Report No.:B19W50074-WWAN_Rev3



Date: 16.APR.2019: 05:01:25

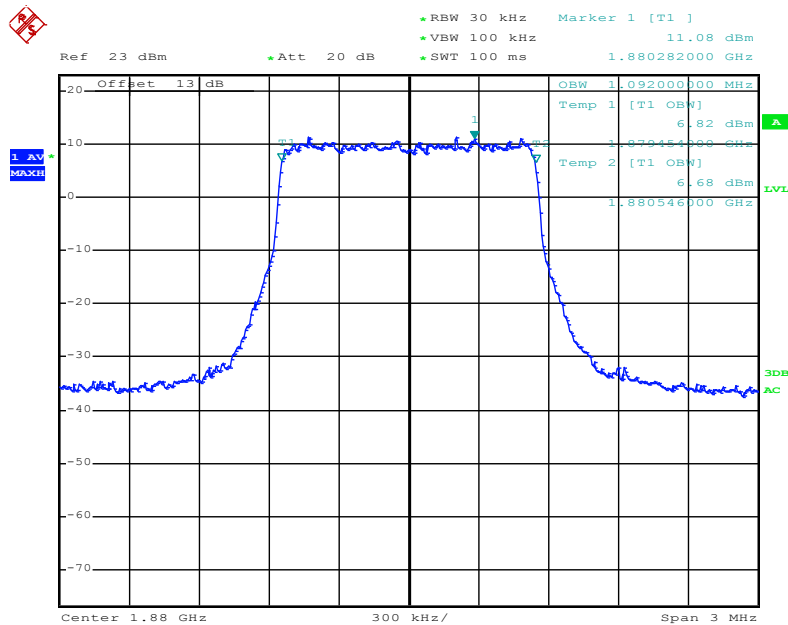
WCDMA B5 99% 16QAM



Date: 16.APR.2019: 05:00:59

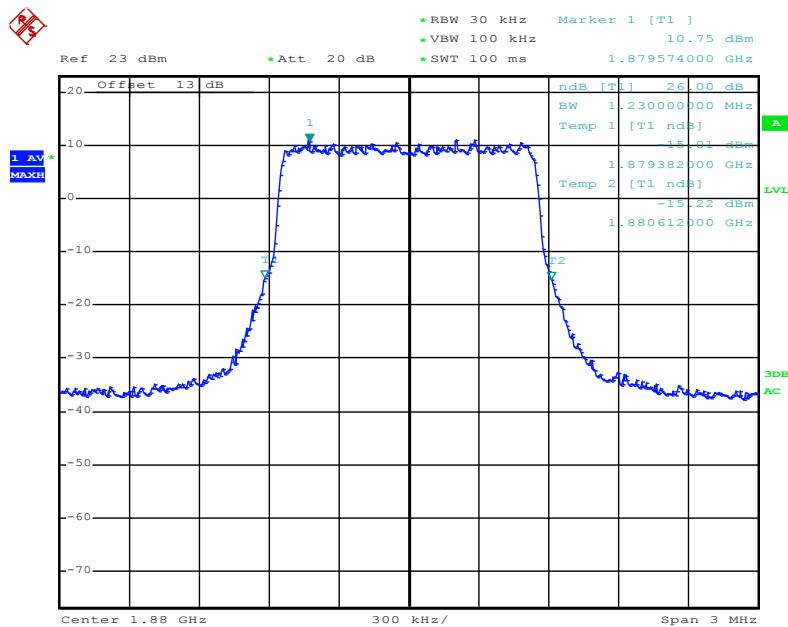
WCDMA B5 -26dBc 16QAM

Graphical results for LTE B2:



Date: 11.MAR.2019 09:42:21

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

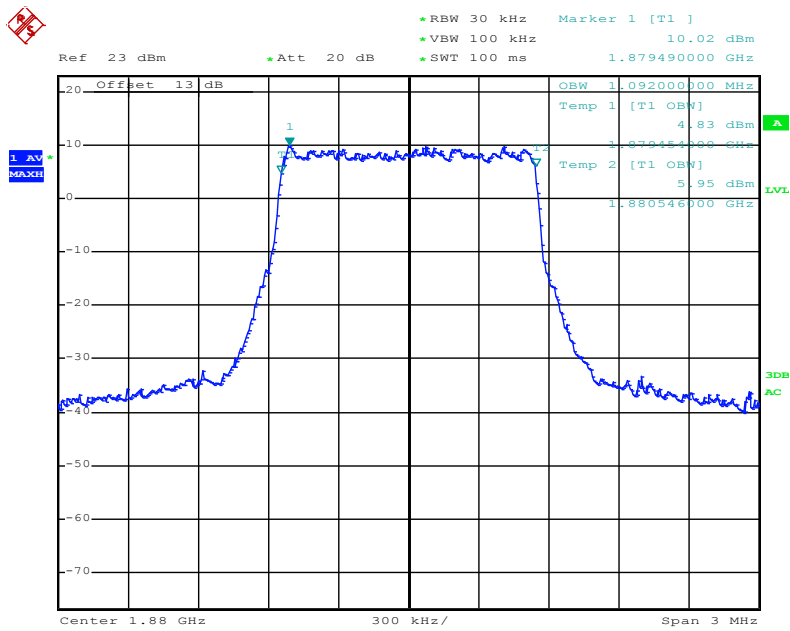


Date: 11.MAR.2019 09:46:40

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

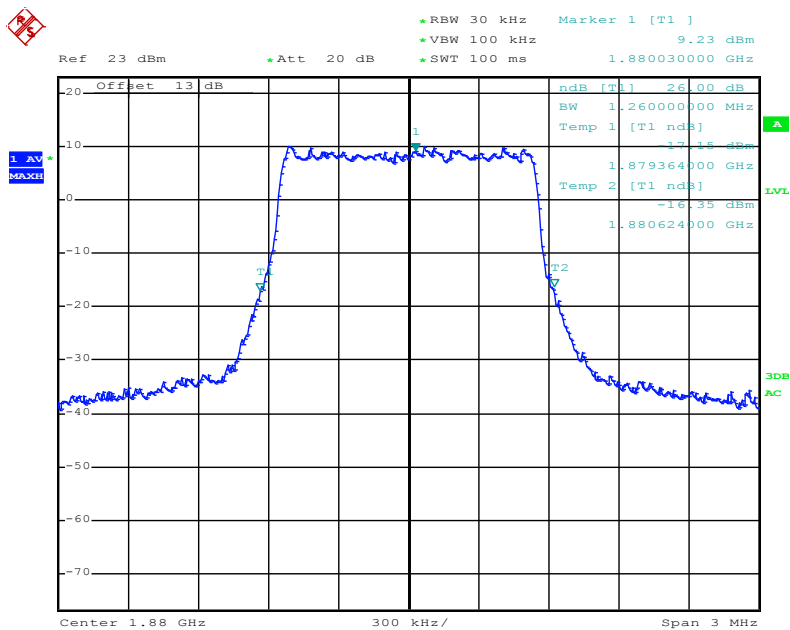
Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 10:03:03

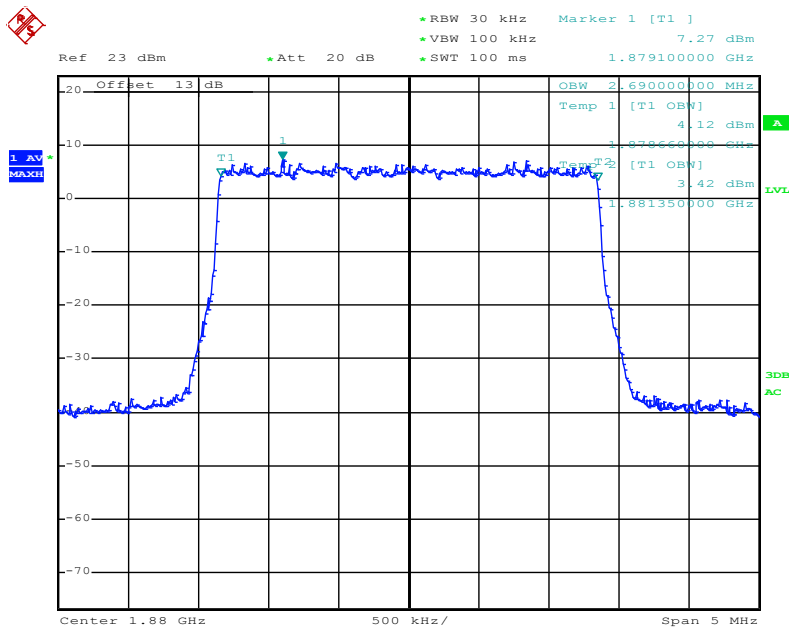
LTE Band2 16QAM 99% Channel 18900 BW=1.4MHz RB=6 RB Offset=0



Date: 11.MAR.2019 10:04:26

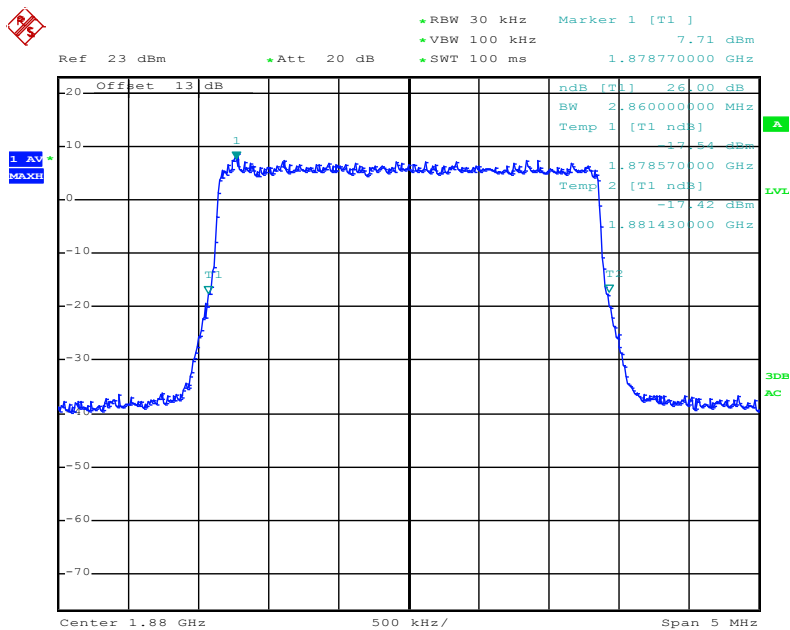
LTE Band2 16QAM -26dBc Channel 18900 BW=1.4MHz RB=6 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 10:12:37

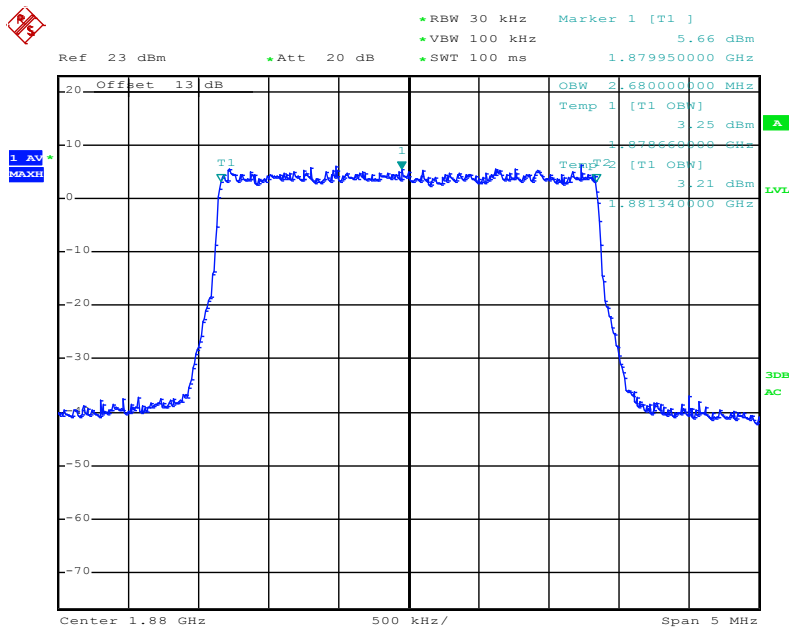
LTE Band2 QPSK 99% Channel 18900 BW=3MHz RB=15 RB Offset=0



Date: 11.MAR.2019 10:12:07

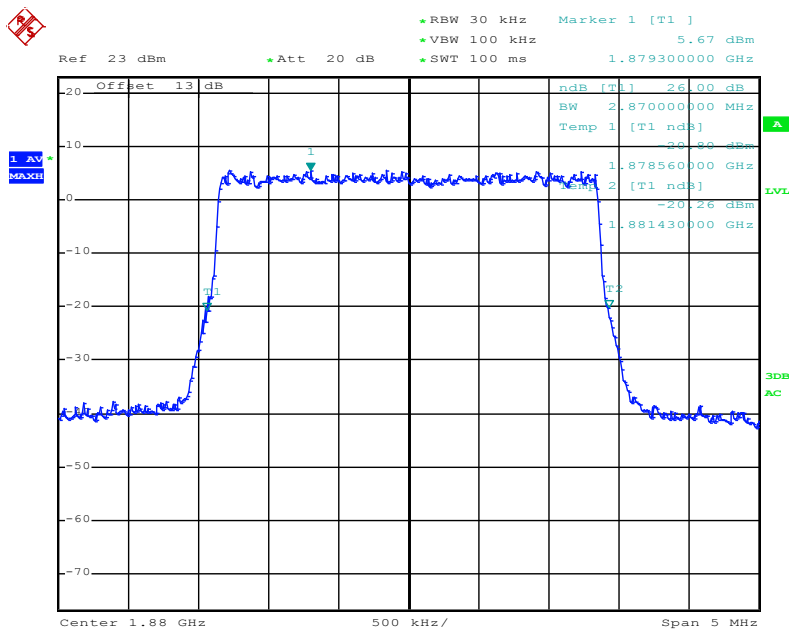
LTE Band2 QPSK -26dBc Channel 18900 BW=3MHz RB=15 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 10:15:35

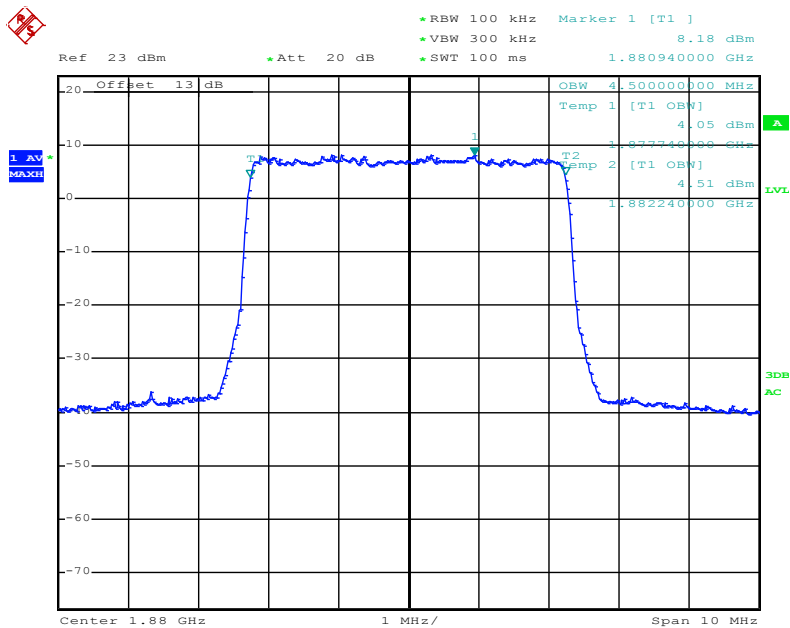
LTE Band2 16QAM 99% Channel 18900 BW=3MHz RB=15 RB Offset=0



Date: 11.MAR.2019 10:15:56

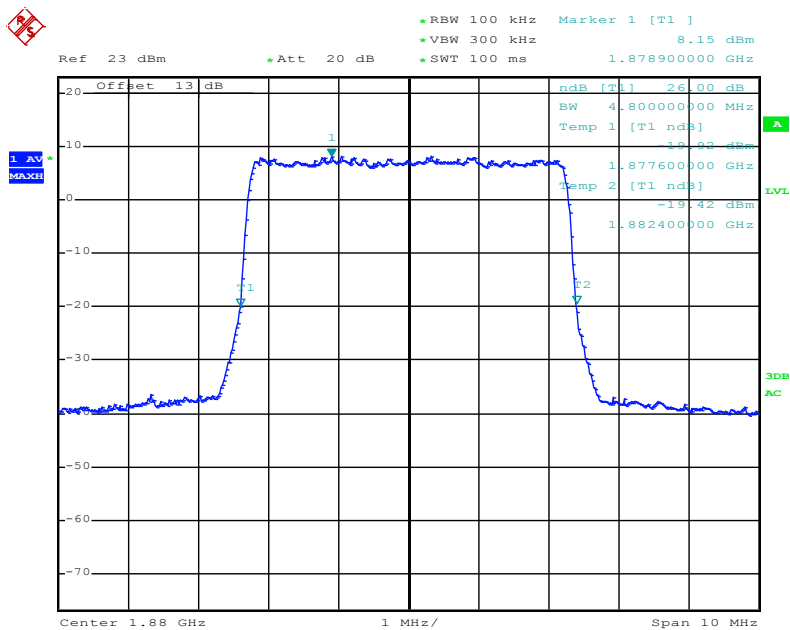
LTE Band2 16QAM -26dBc Channel 18900 BW=3MHz RB=15 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 10:30:46

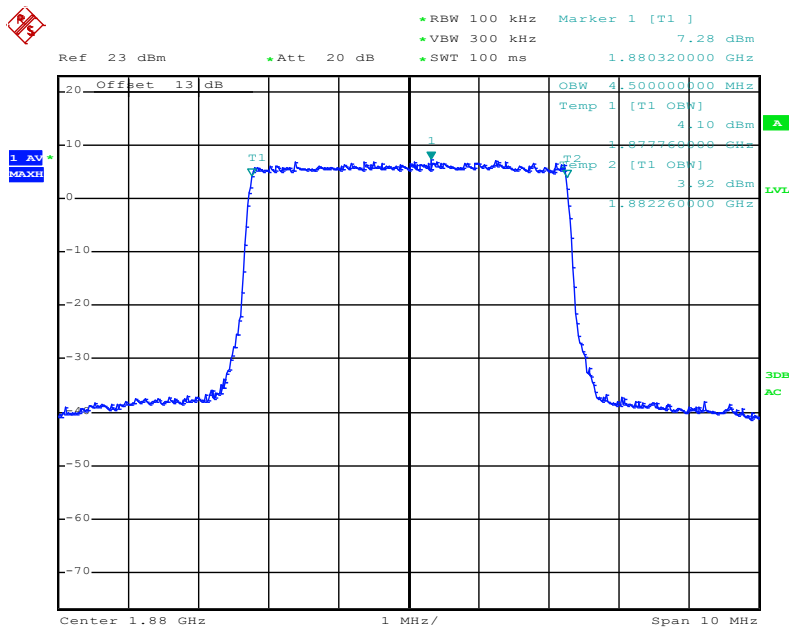
LTE Band2 QPSK 99% Channel 18900 BW=5MHz RB=25 RB Offset=0



Date: 11.MAR.2019 10:29:34

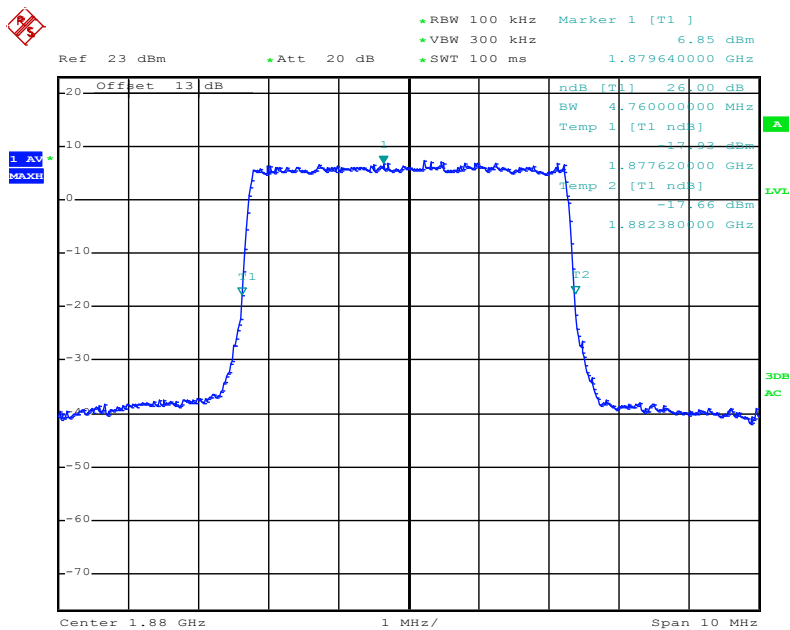
LTE Band2 QPSK -26dBc Channel 18900 BW=5MHz RB=25 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 10:31:31

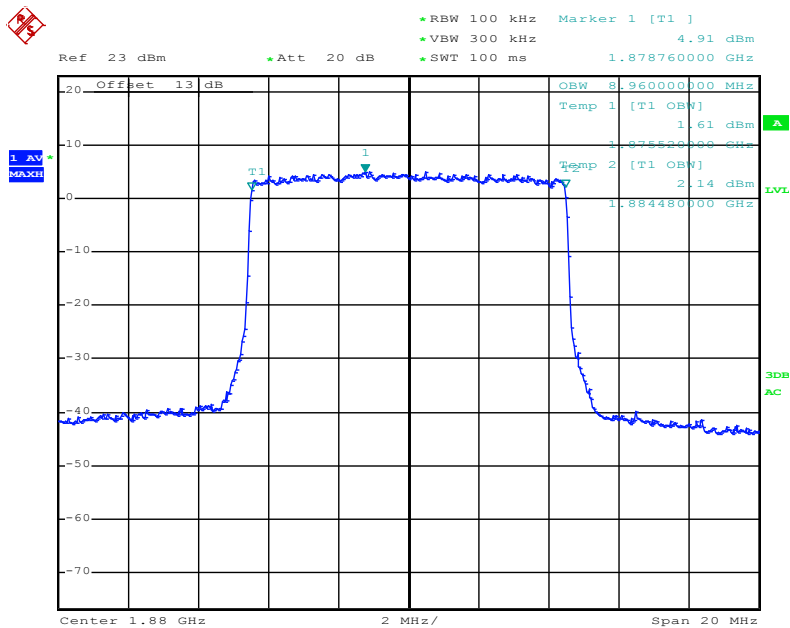
LTE Band2 16QAM 99% Channel 18900 BW=5MHz RB=25 RB Offset=0



Date: 11.MAR.2019 10:31:48

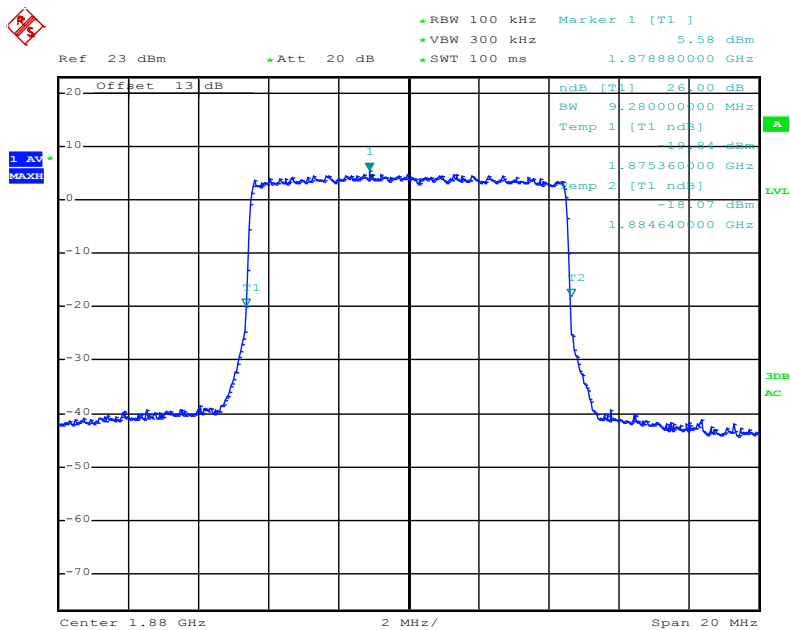
LTE Band2 16QAM -26dBc Channel 18900 BW=5MHz RB=25 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 10:43:43

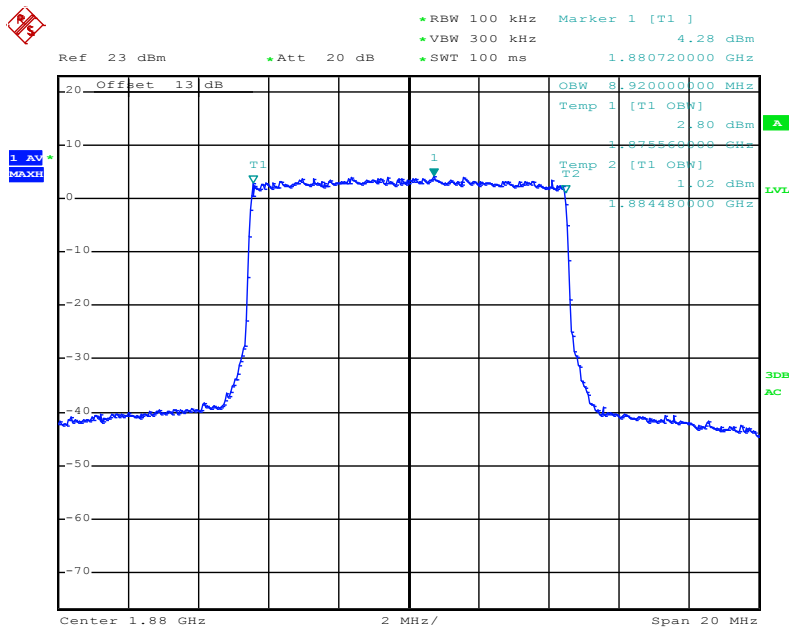
LTE Band2 QPSK 99% Channel 18900 BW=10MHz RB=50 RB Offset=0



Date: 11.MAR.2019 10:44:03

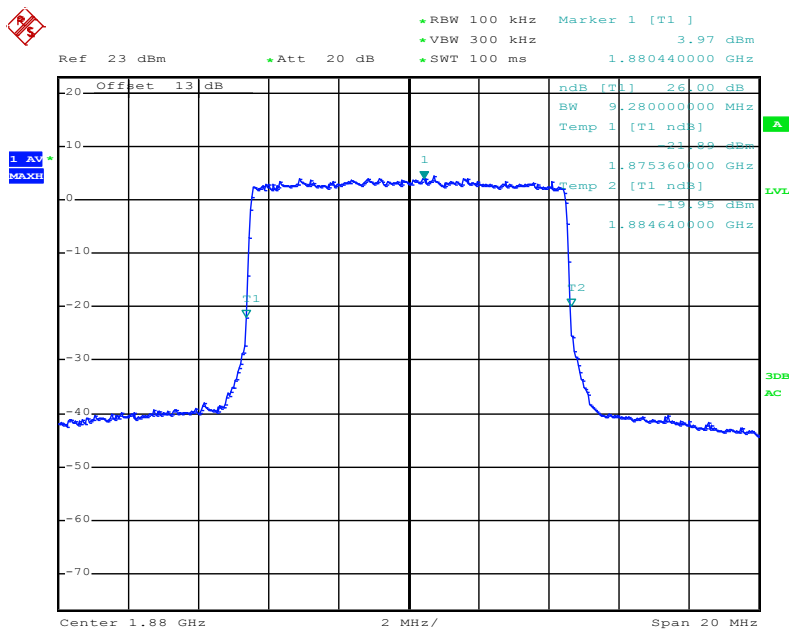
LTE Band2 QPSK -26dBc Channel 18900 BW=10MHz RB=50 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 10:40:51

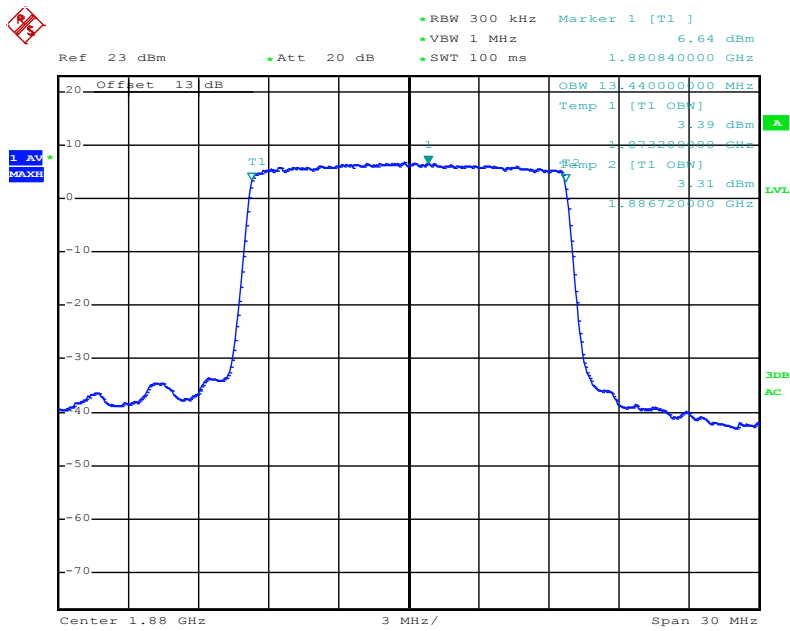
LTE Band2 16QAM 99% Channel 18900 BW=10MHz RB=50 RB Offset=0



Date: 11.MAR.2019 10:40:11

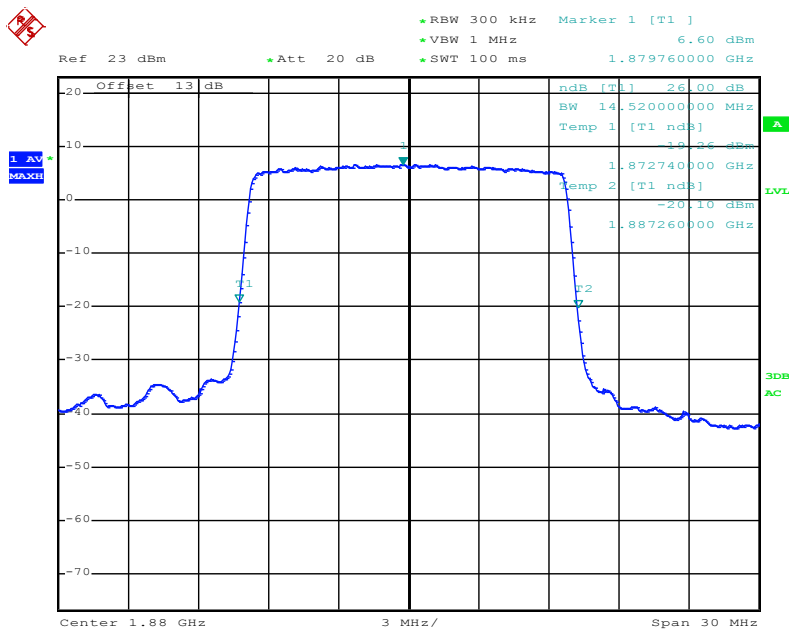
LTE Band2 16QAM -26dBc Channel 18900 BW=10MHz RB=50 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 10:48:13

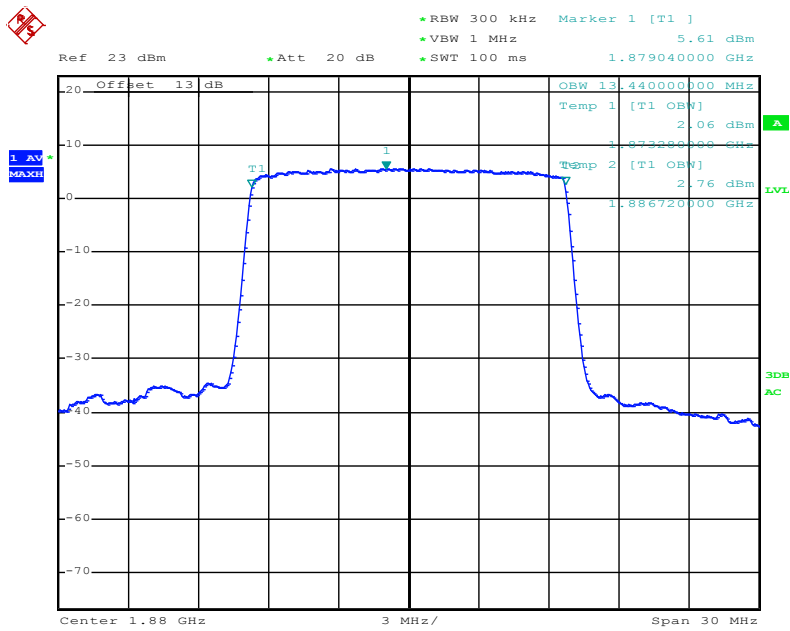
LTE Band2 QPSK 99% Channel 18900 BW=15MHz RB=75 RB Offset=0



Date: 11.MAR.2019 10:47:45

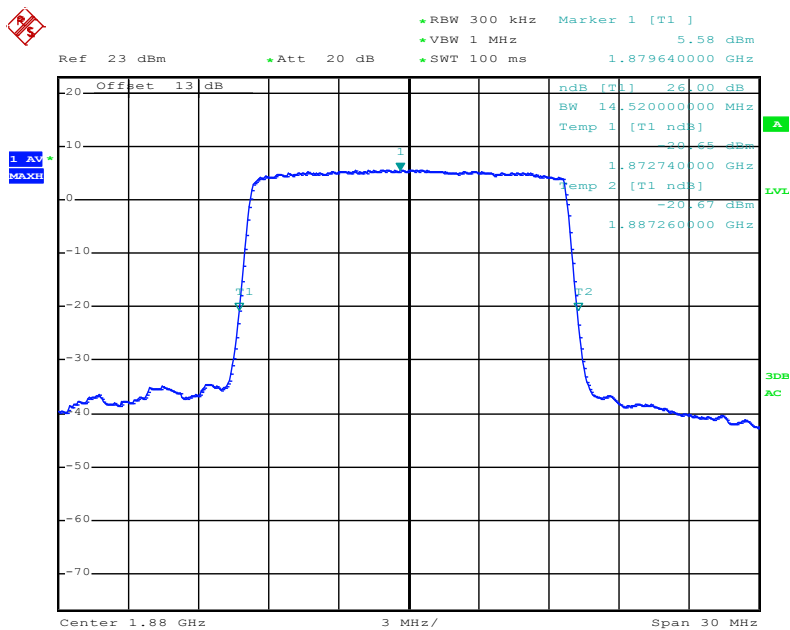
LTE Band2 QPSK -26dBc Channel 18900 BW=15MHz RB=75 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 10:50:27

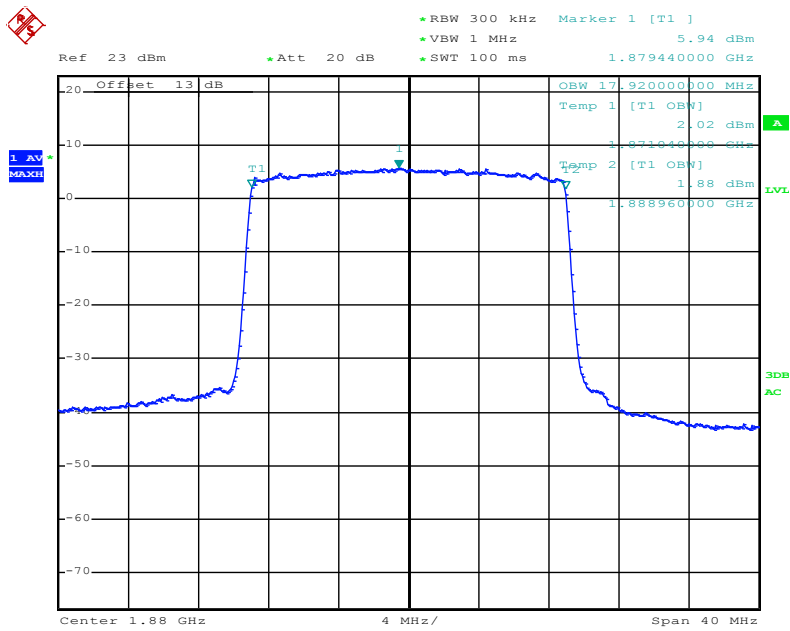
LTE Band2 16QAM 99% Channel 18900 BW=15MHz RB=75 RB Offset=0



Date: 11.MAR.2019 10:50:54

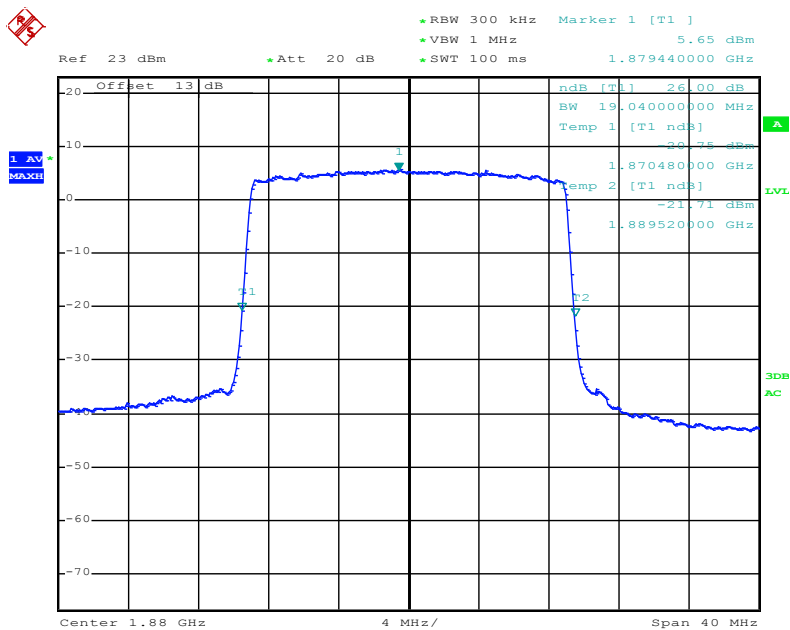
LTE Band2 16QAM -26dBc Channel 18900 BW=15MHz RB=75 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 10:57:52

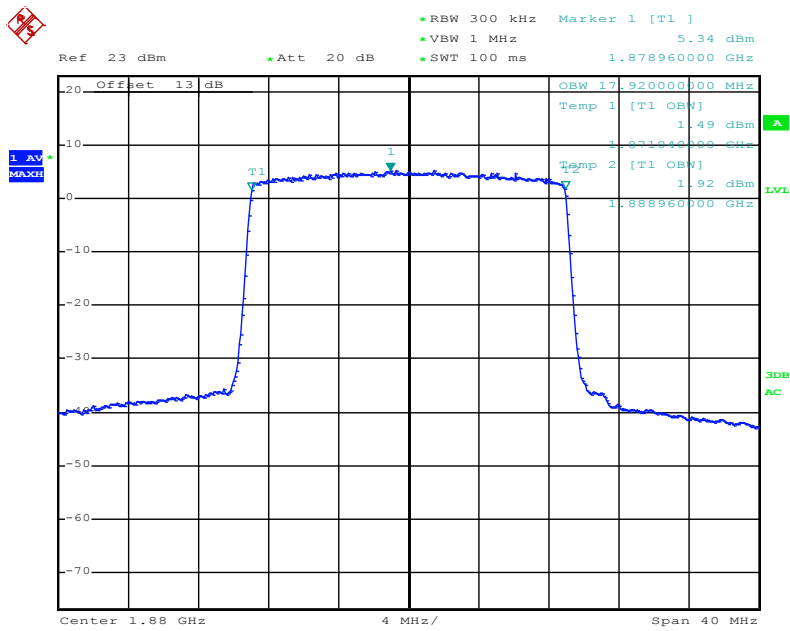
LTE Band2 QPSK 99% Channel 18900 BW=20MHz RB=100 RB Offset=0



Date: 11.MAR.2019 10:57:31

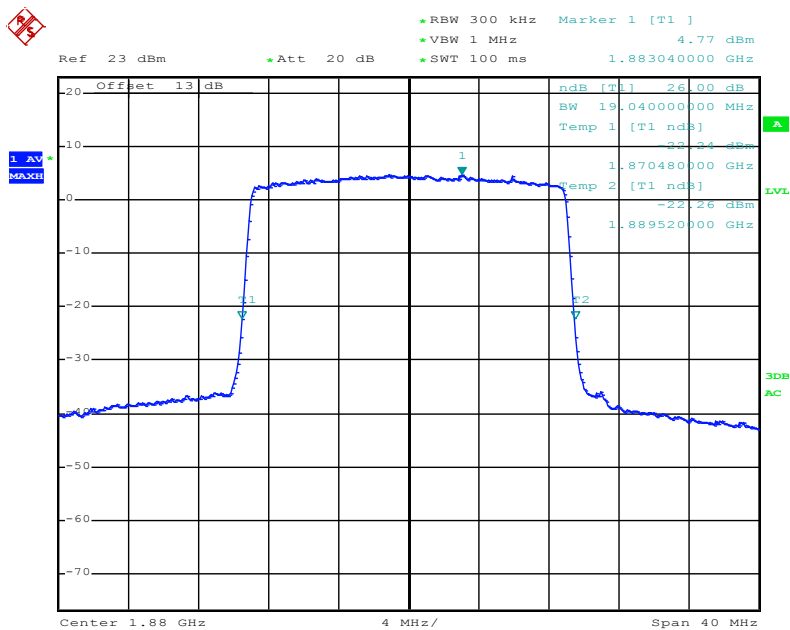
LTE Band2 QPSK -26dBc Channel 18900 BW=20MHz RB=100 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 10:59:19

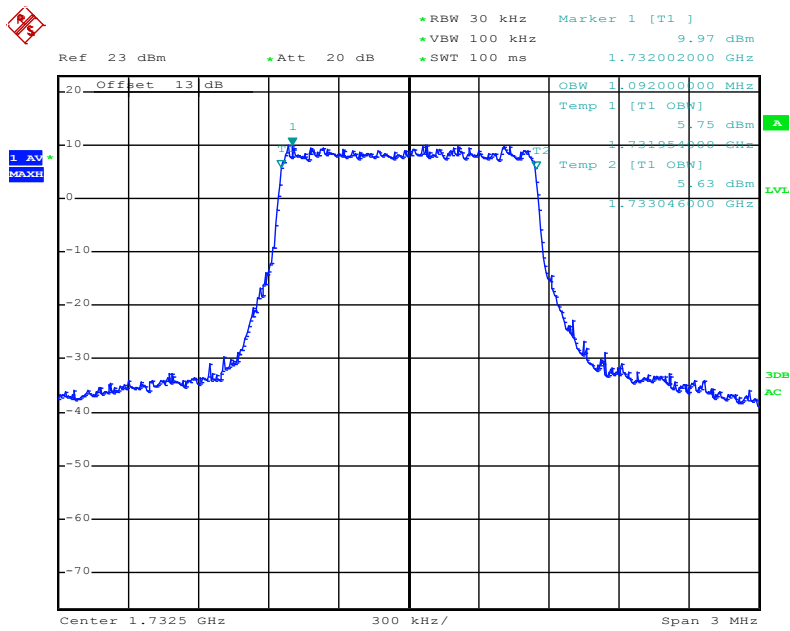
LTE Band2 16QAM 99% Channel 18900 BW=20MHz RB=100 RB Offset=0



Date: 11.MAR.2019 10:59:42

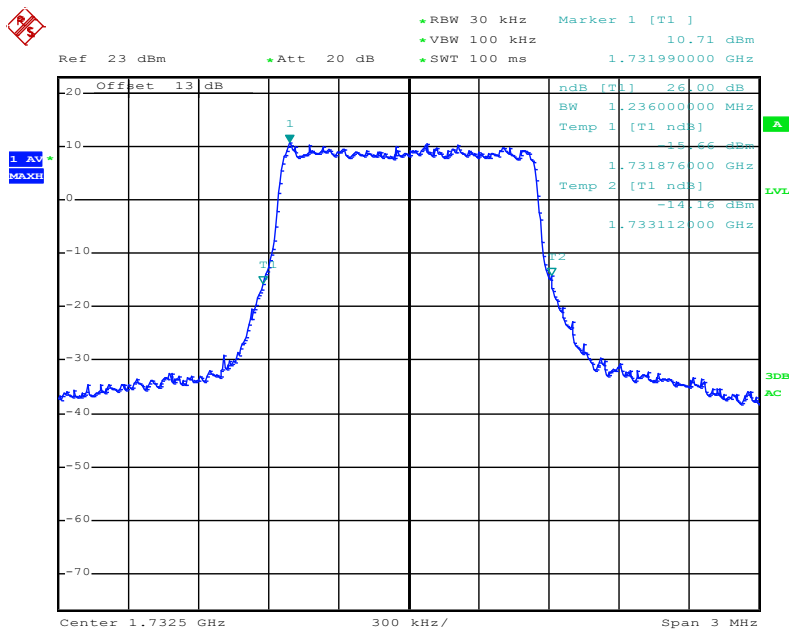
LTE Band2 16QAM -26dBc Channel 18900 BW=20MHz RB=100 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 11:05:31

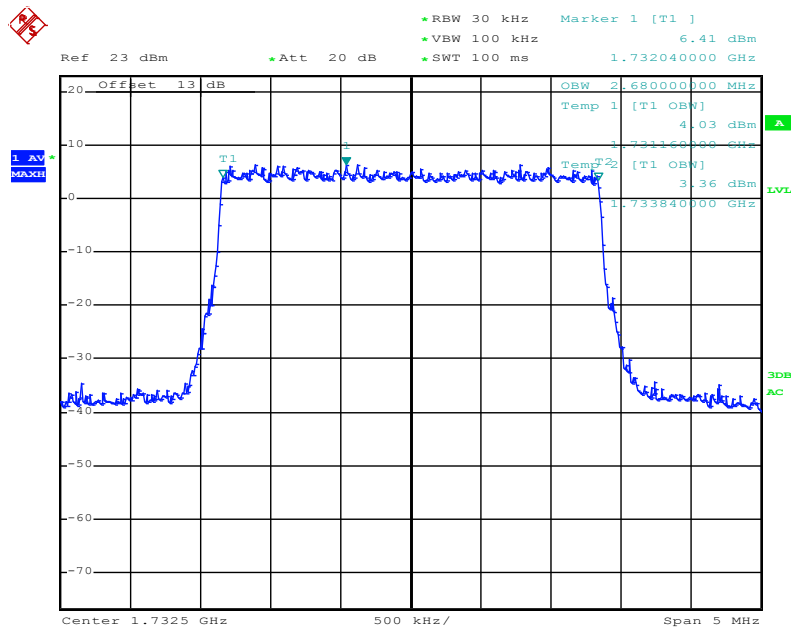
LTE Band4 16QAM 99% Channel 20175 BW=1.4MHz RB=6 RB Offset=0



Date: 11.MAR.2019 11:04:55

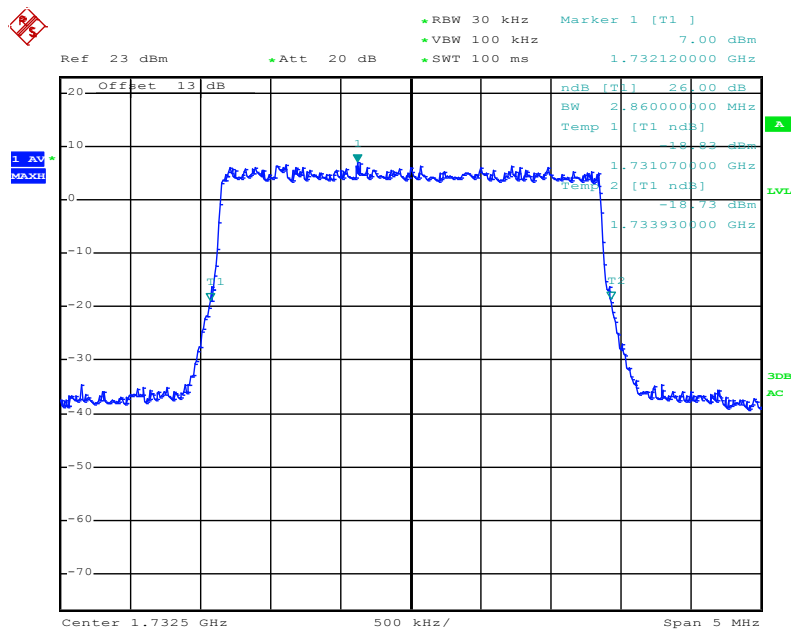
LTE Band4 16QAM -26dBc Channel 20175 BW=1.4MHz RB=6 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 11:11:47

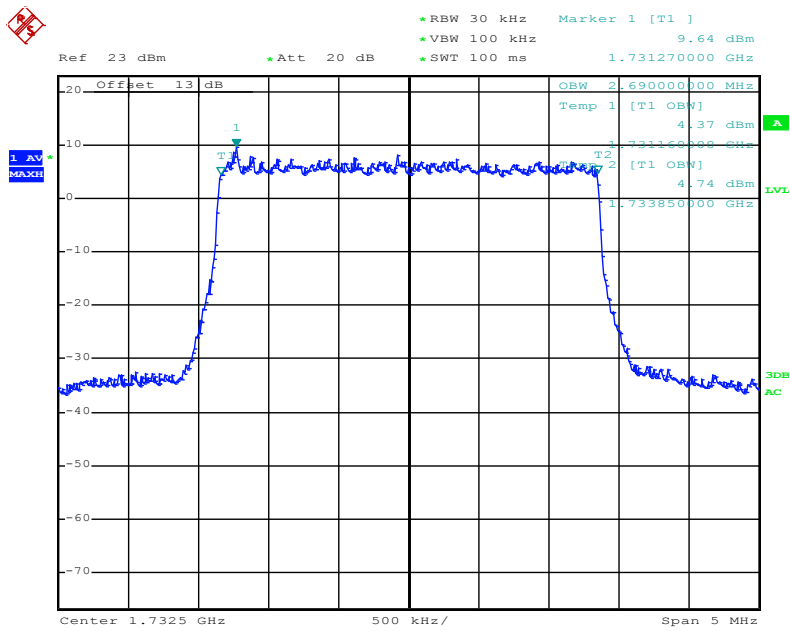
LTE Band4 QPSK 99% Channel 20175 BW=3MHz RB=15 RB Offset=0



Date: 11.MAR.2019 11:11:30

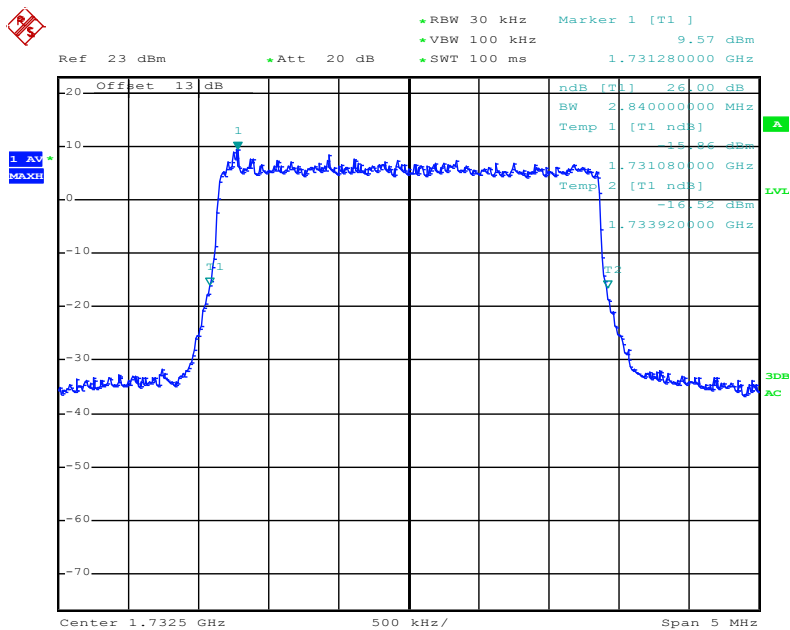
LTE Band4 QPSK -26dBc Channel 20175 BW=3MHz RB=15 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 11:12:47

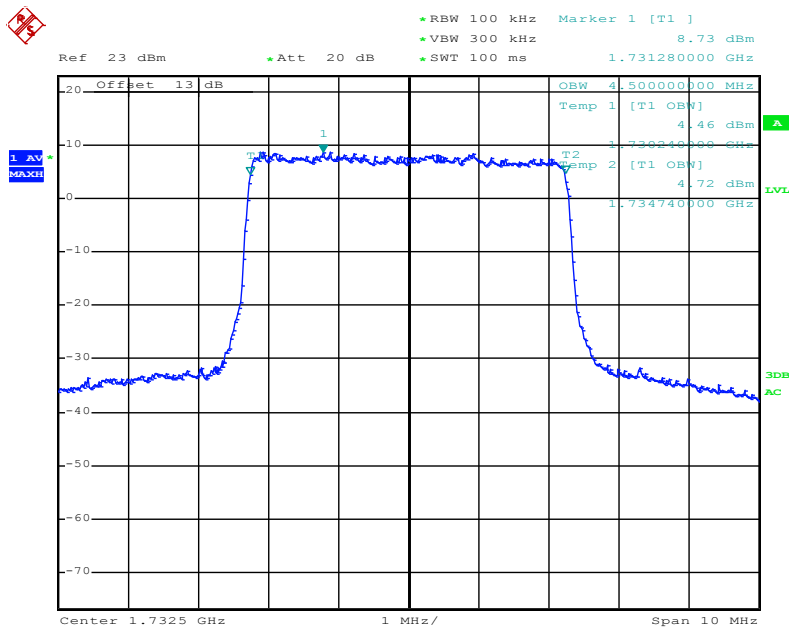
LTE Band4 16QAM 99% Channel 20175 BW=3MHz RB=15 RB Offset=0



Date: 11.MAR.2019 11:13:11

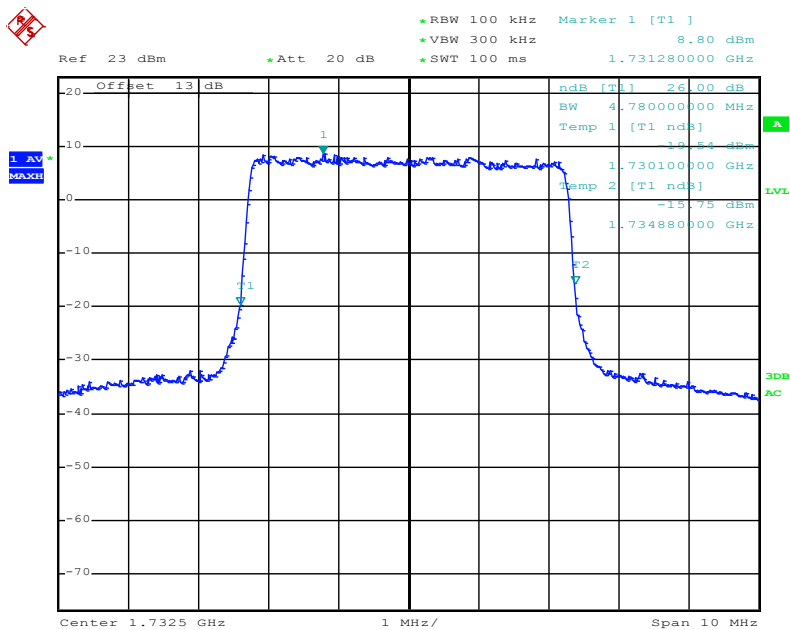
LTE Band4 16QAM -26dBc Channel 20175 BW=3MHz RB=15 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 11:16:39

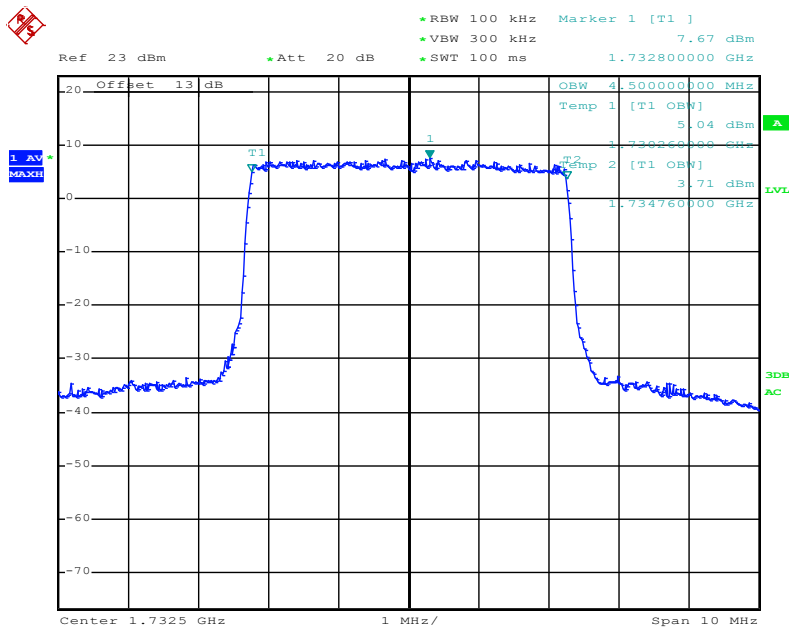
LTE Band4 QPSK 99% Channel 20175 BW=5MHz RB=25 RB Offset=0



Date: 11.MAR.2019 11:16:49

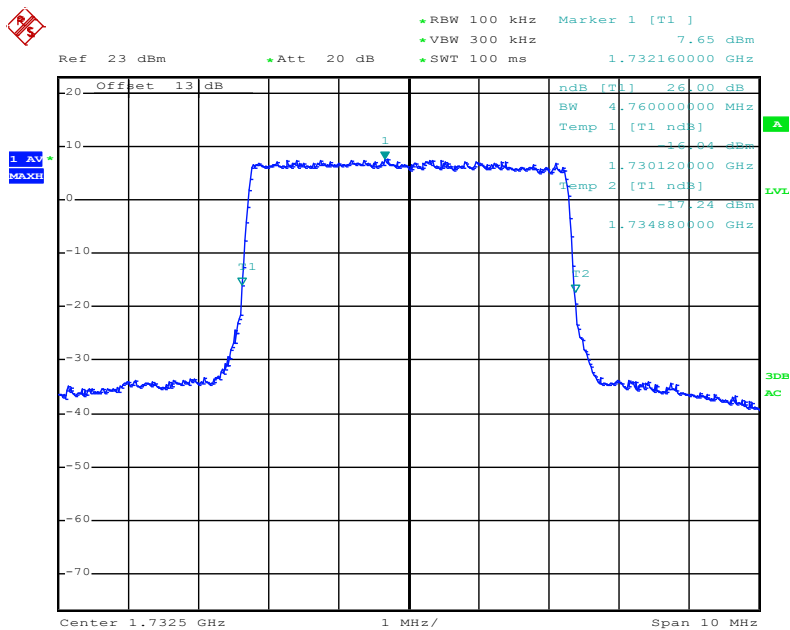
LTE Band4 QPSK -26dBc Channel 20175 BW=5MHz RB=25 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 11:15:57

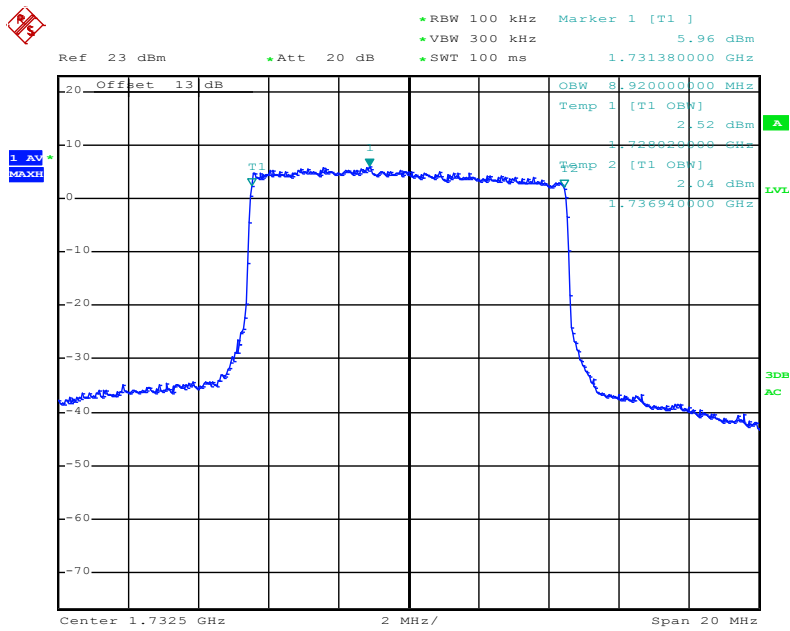
LTE Band4 16QAM 99% Channel 20175 BW=5MHz RB=25 RB Offset=0



Date: 11.MAR.2019 11:15:44

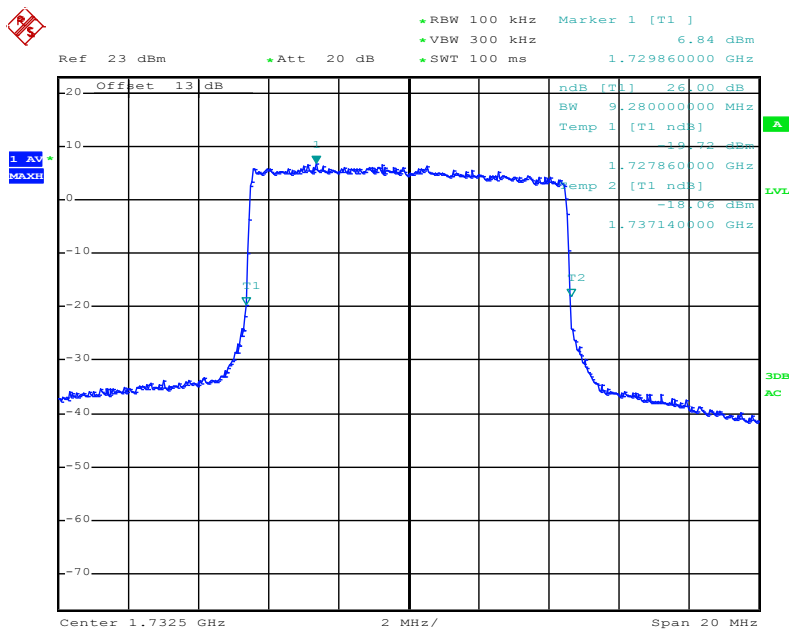
LTE Band4 16QAM -26dBc Channel 20175 BW=5MHz RB=25 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 11:26:40

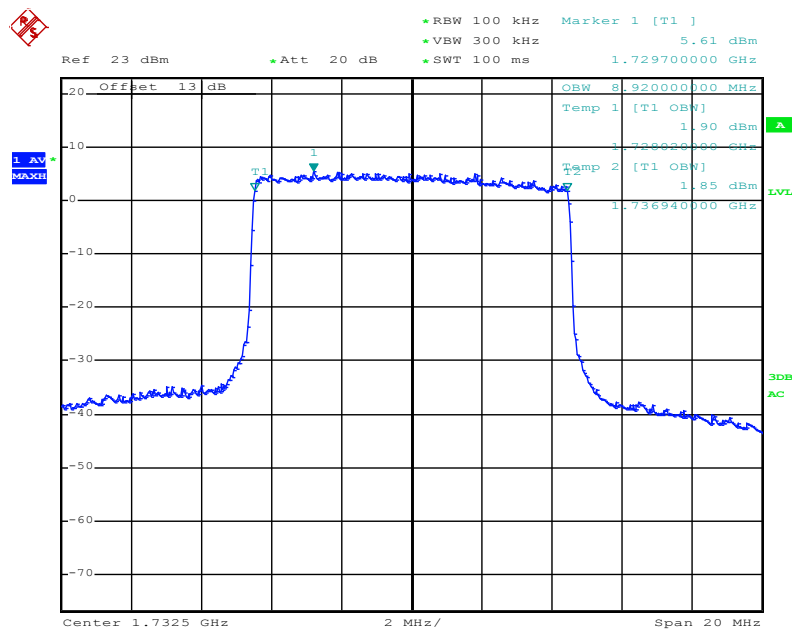
LTE Band4 QPSK 99% Channel 20175 BW=10MHz RB=50 RB Offset=0



Date: 11.MAR.2019 11:43:53

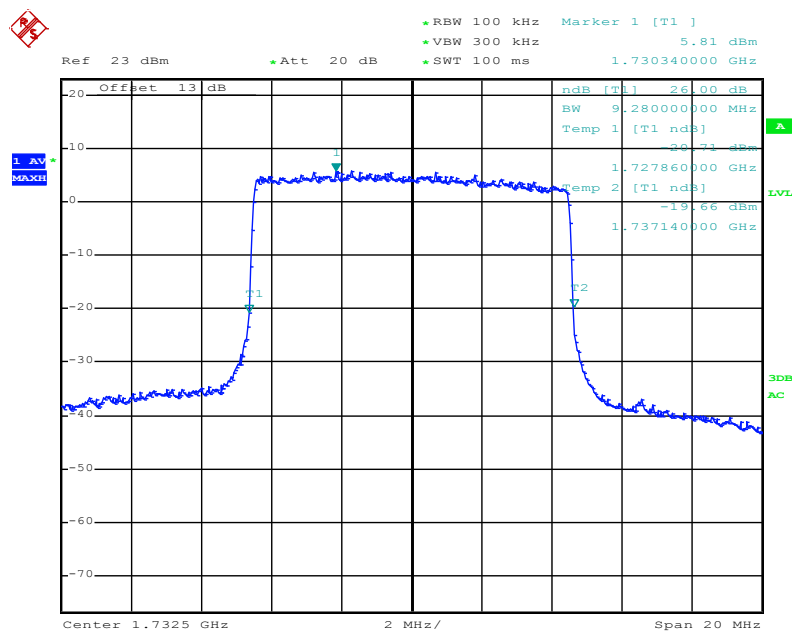
LTE Band4 QPSK -26dBc Channel 20175 BW=10MHz RB=50 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 11:45:16

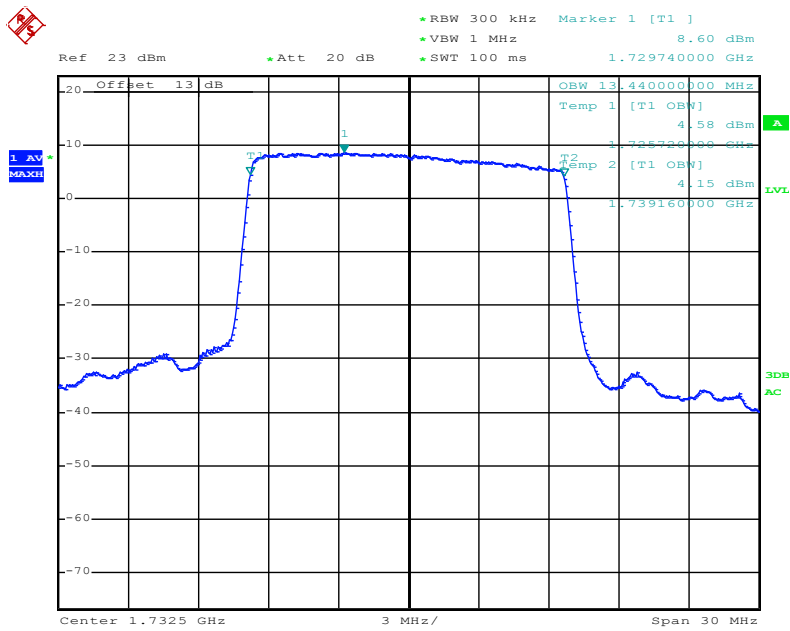
LTE Band4 16QAM 99% Channel 20175 BW=10MHz RB=50 RB Offset=0



Date: 11.MAR.2019 11:47:10

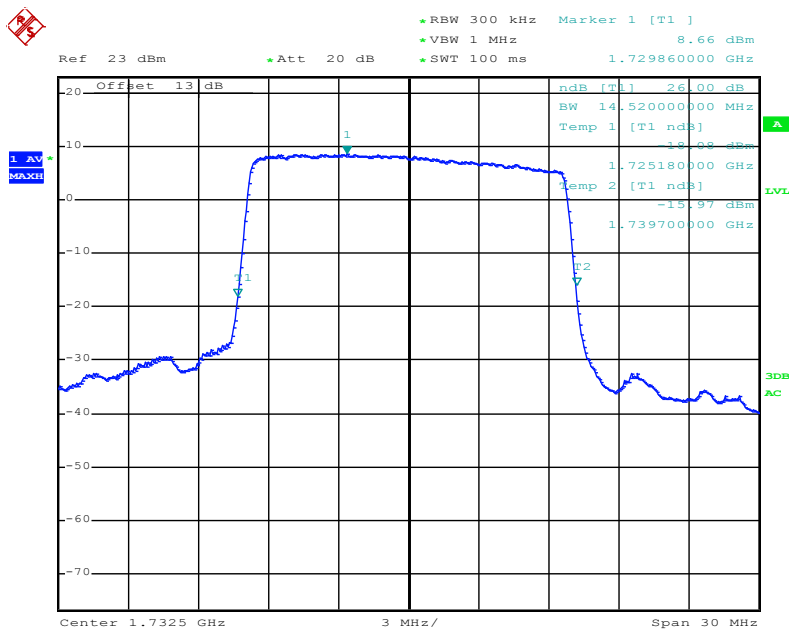
LTE Band4 16QAM -26dBc Channel 20175 BW=10MHz RB=50 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 11:49:46

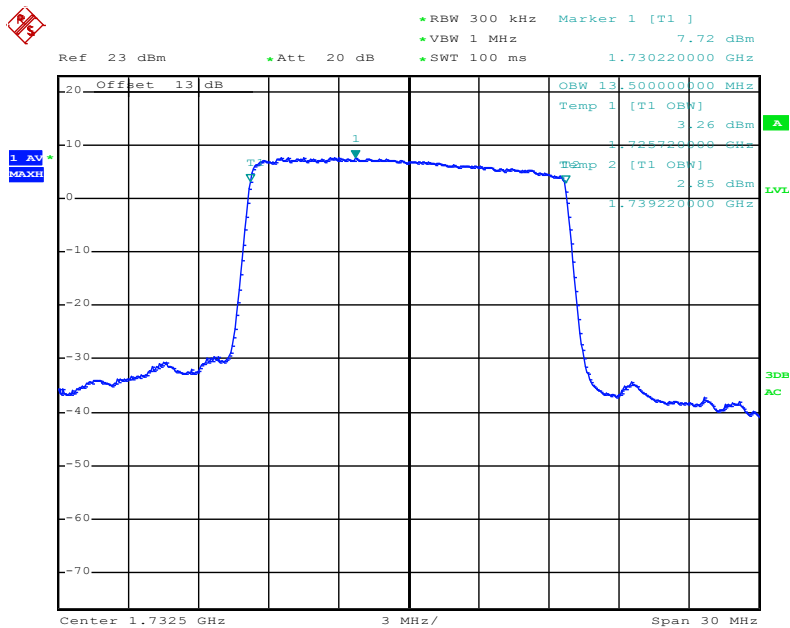
LTE Band4 QPSK 99% Channel 20175 BW=15MHz RB=75 RB Offset=0



Date: 11.MAR.2019 11:50:12

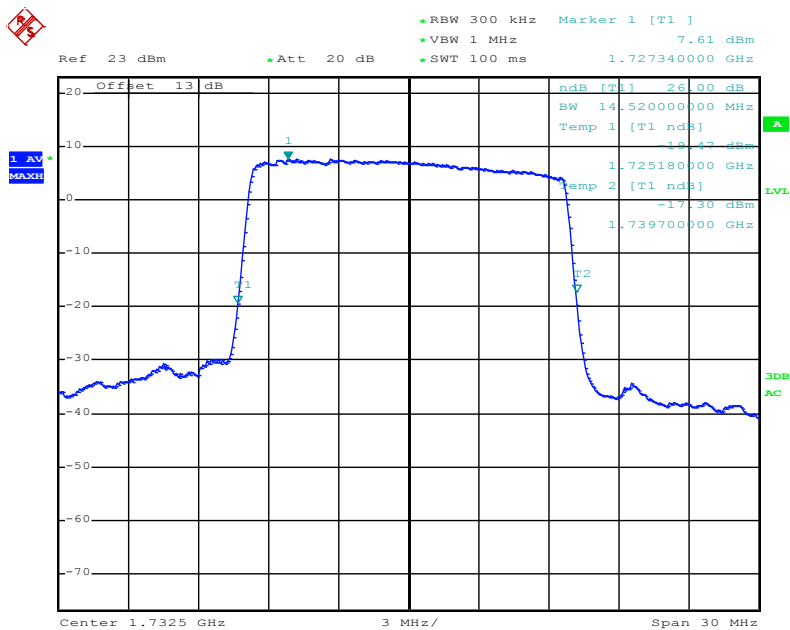
LTE Band4 QPSK -26dBc Channel 20175 BW=15MHz RB=75 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 11:49:09

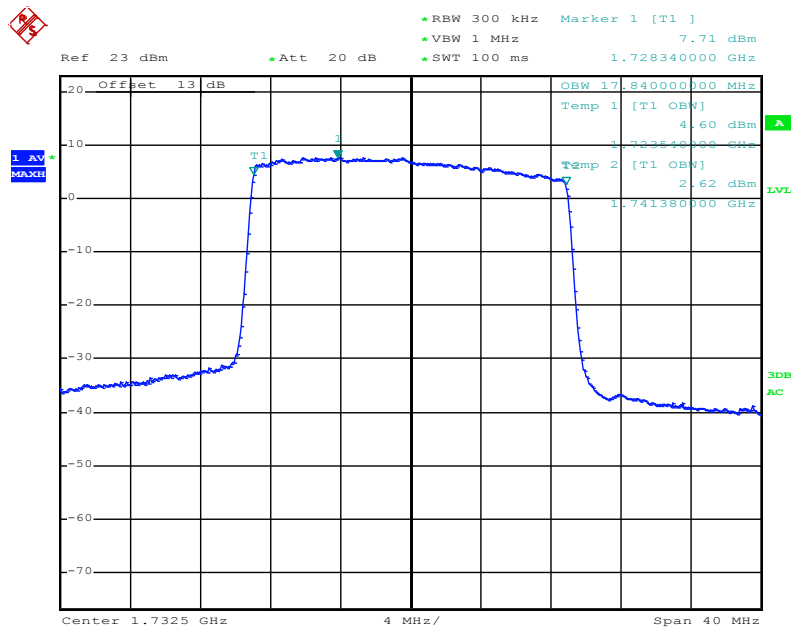
LTE Band4 16QAM 99% Channel 20175 BW=15MHz RB=75 RB Offset=0



Date: 11.MAR.2019 11:48:26

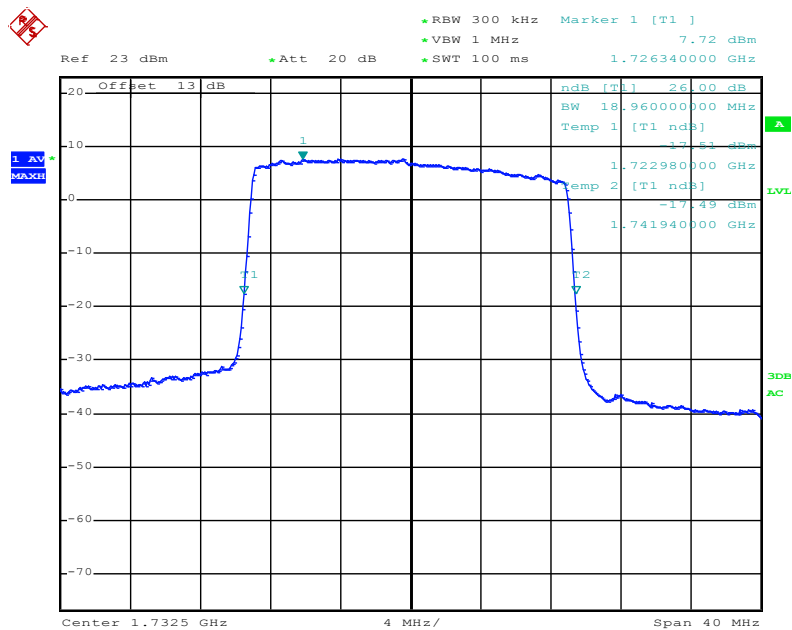
LTE Band4 16QAM -26dBc Channel 20175 BW=15MHz RB=75 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 11:53:02

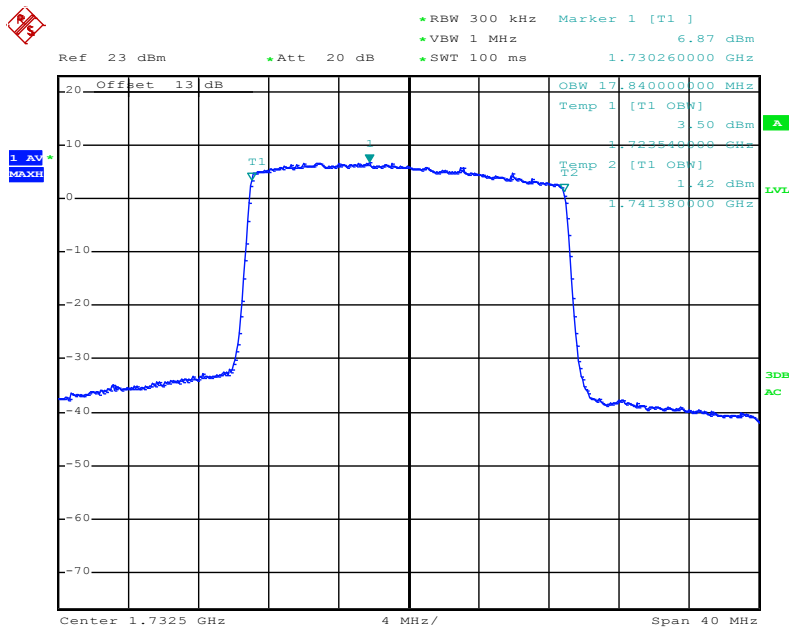
LTE Band4 QPSK 99% Channel 20175 BW=20MHz RB=100 RB Offset=0



Date: 11.MAR.2019 11:53:41

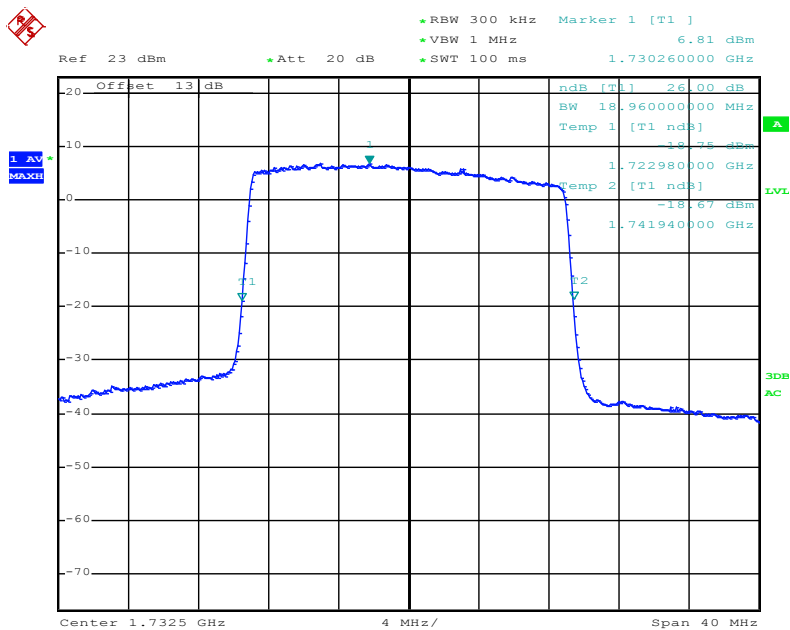
LTE Band4 QPSK -26dBc Channel 20175 BW=20MHz RB=100 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 11:52:10

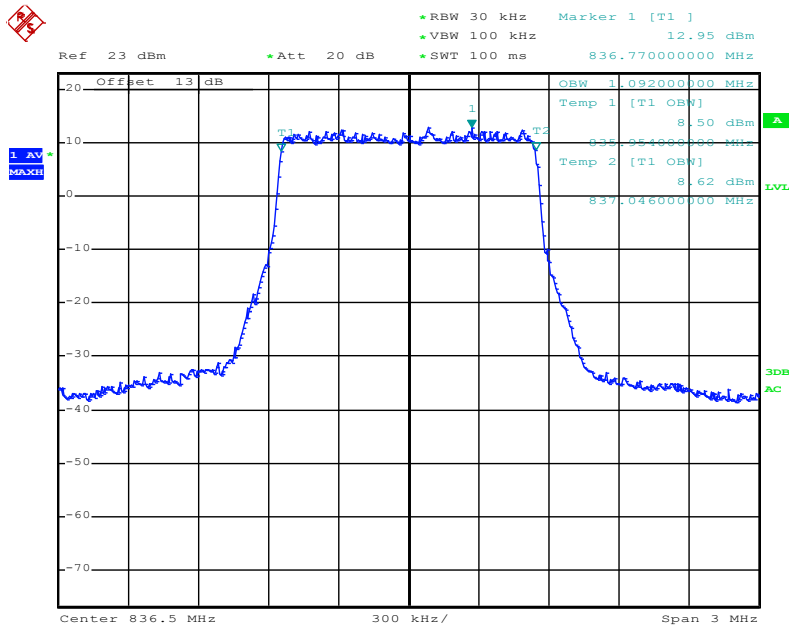
LTE Band4 16QAM 99% Channel 20175 BW=20MHz RB=100 RB Offset=0



Date: 11.MAR.2019 11:51:43

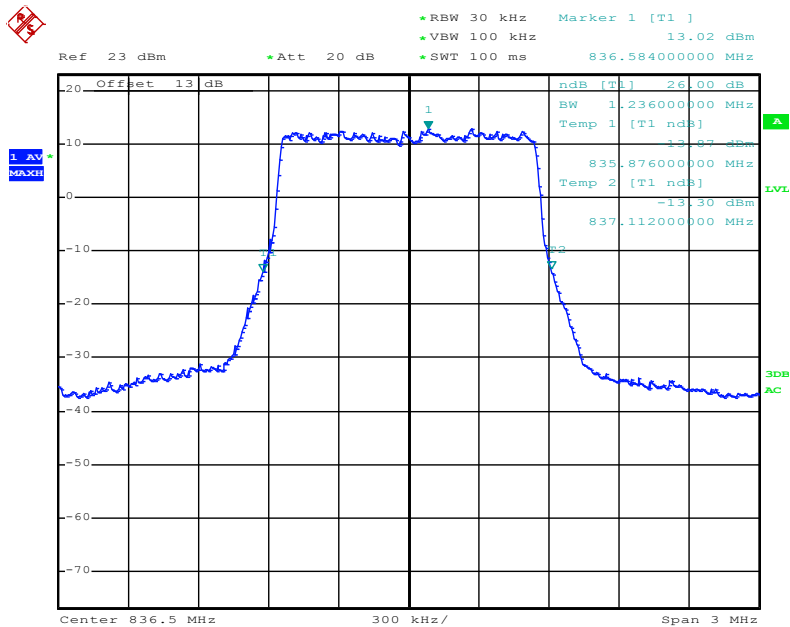
LTE Band4 16QAM -26dBc Channel 20175 BW=20MHz RB=100 RB Offset=0

Graphical results for LTE B5:



Date: 11.MAR.2019 11:59:48

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

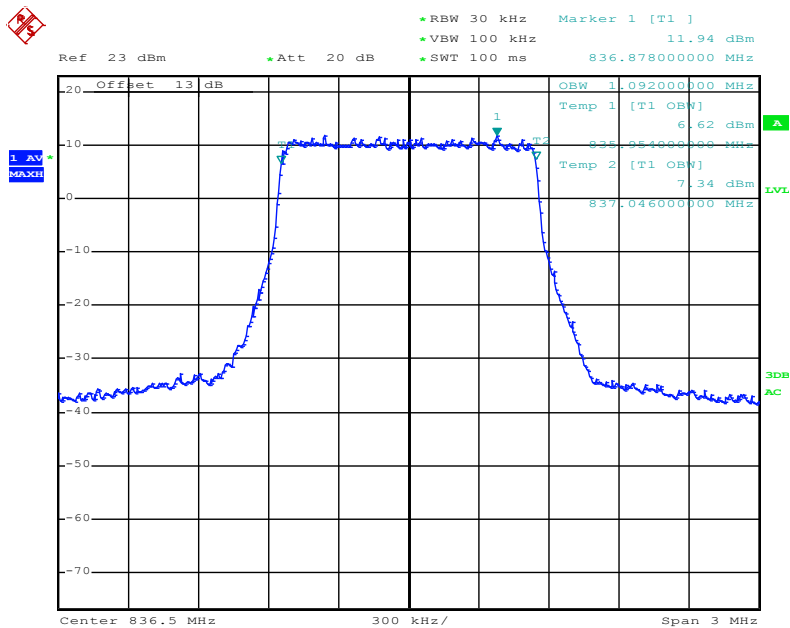


Date: 11.MAR.2019 11:59:23

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

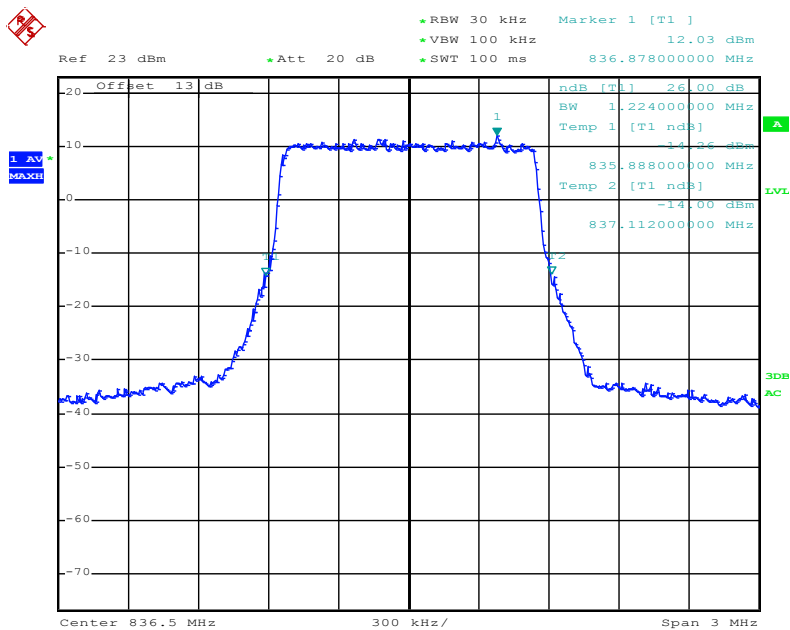
Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 12:00:32

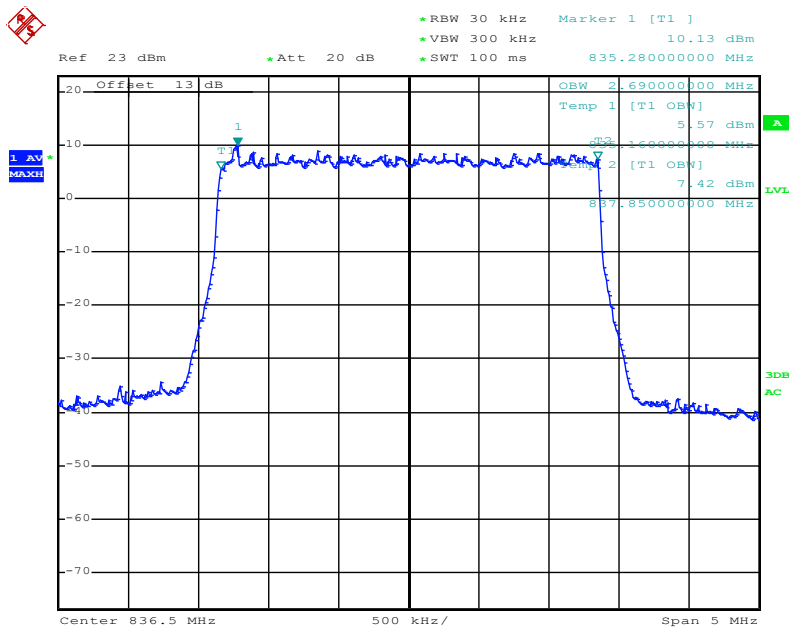
LTE Band5 16QAM 99% Channel 20525 BW=1.4MHz RB=6 RB Offset=0



Date: 11.MAR.2019 12:01:05

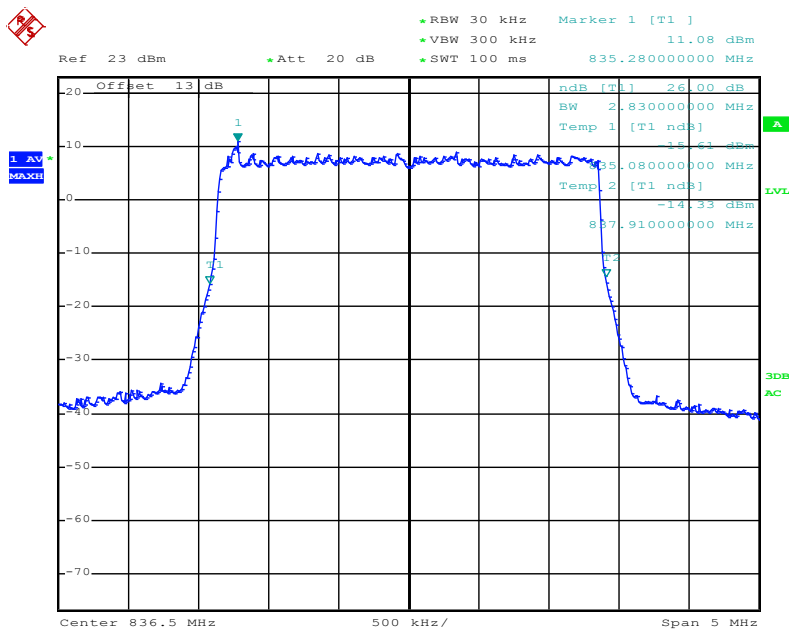
LTE Band5 16QAM -26dBc Channel 20525 BW=1.4MHz RB=6 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 12:04:09

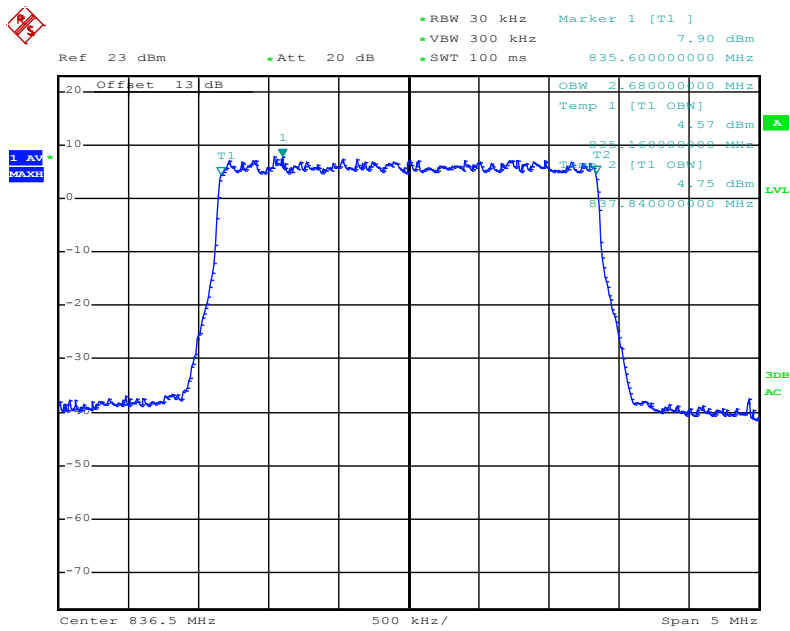
LTE Band5 QPSK 99% Channel 20525 BW=3MHz RB=15 RB Offset=0



Date: 11.MAR.2019 12:03:24

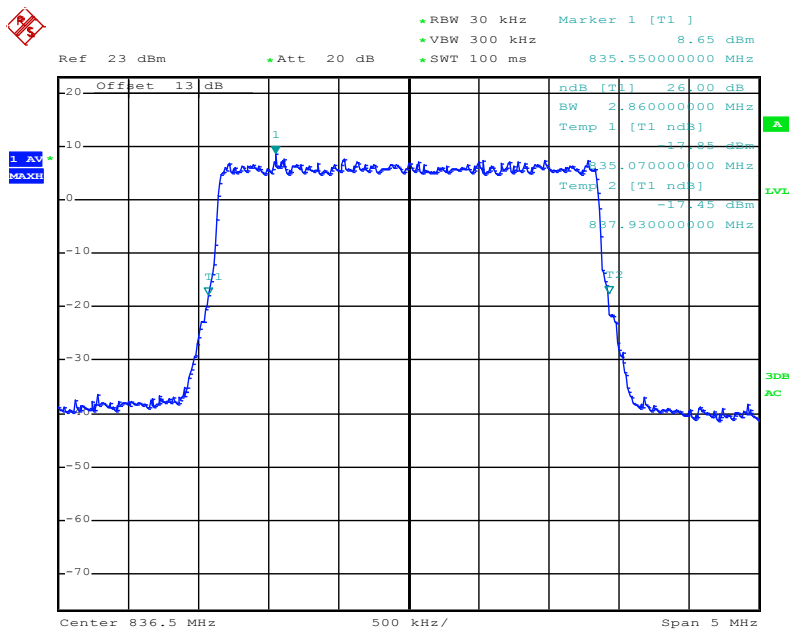
LTE Band5 QPSK 16dBc Channel 20525 BW=3MHz RB=15 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 12:07:58

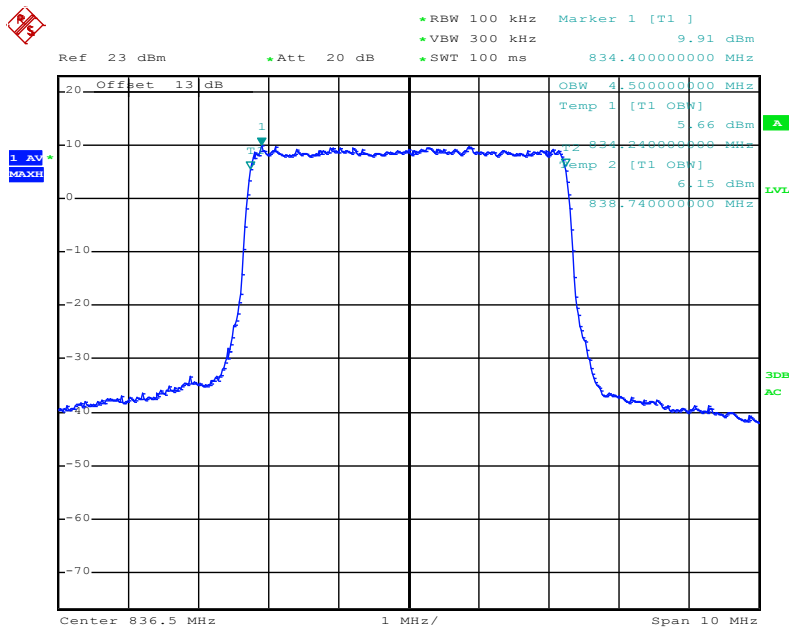
LTE Band5 16QAM 99% Channel 20525 BW=3MHz RB=15 RB Offset=0



Date: 11.MAR.2019 12:08:27

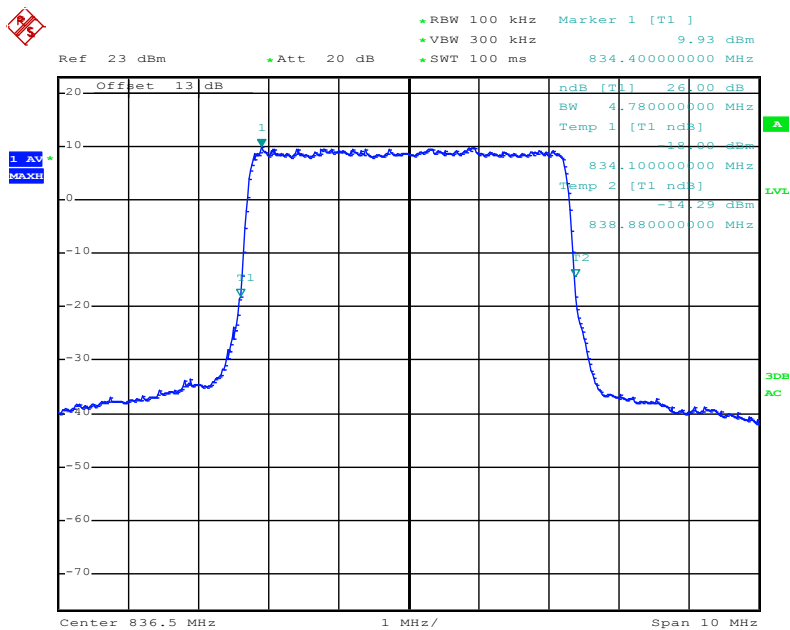
LTE Band5 16QAM -26dBc Channel 20525 BW=3MHz RB=15 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 12:10:17

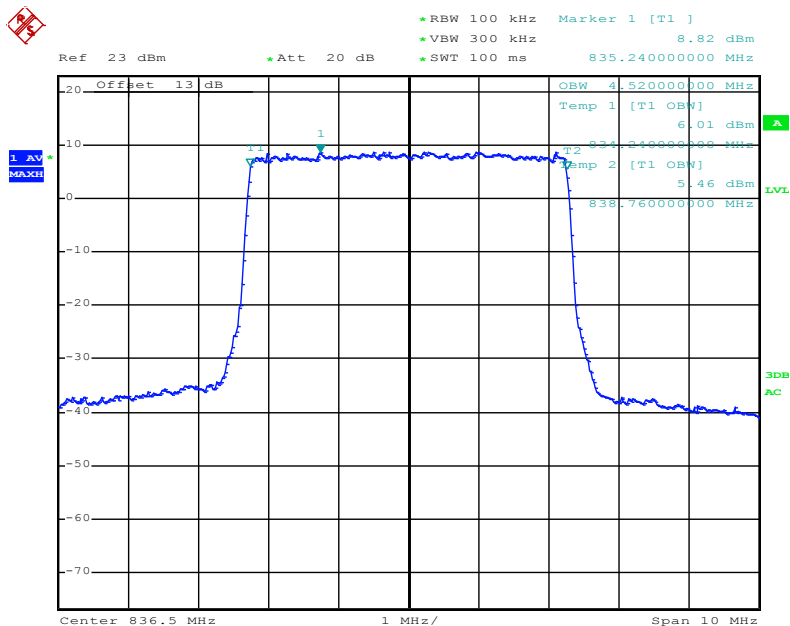
LTE Band5 QPSK 99% Channel 20525 BW=5MHz RB=25 RB Offset=0



Date: 11.MAR.2019 12:09:41

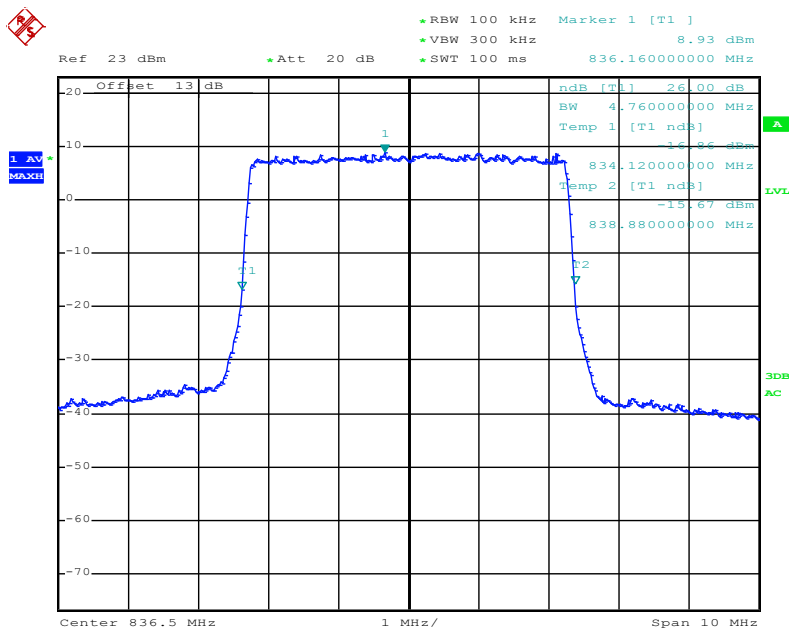
LTE Band5 QPSK -26dBc Channel 20525 BW=5MHz RB=25 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 12:11:12

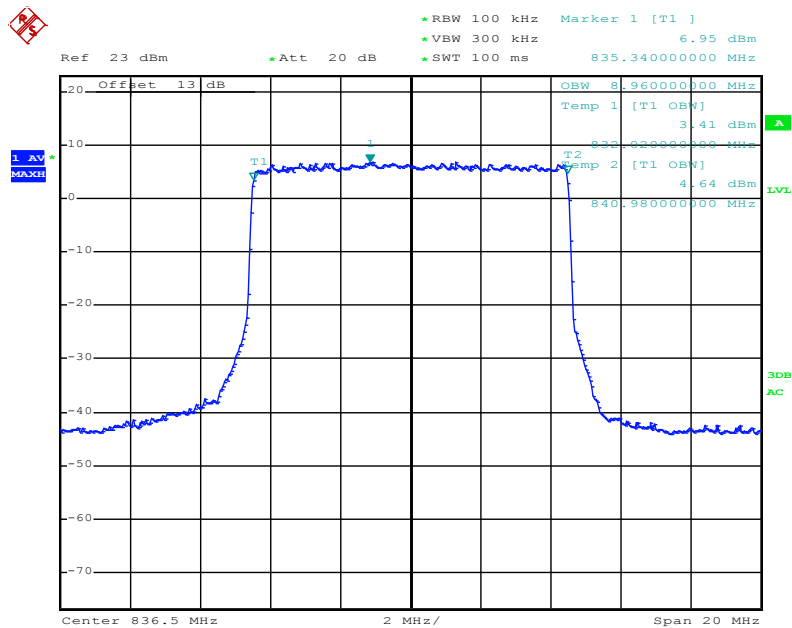
LTE Band5 16QAM 99% Channel 20525 BW=5MHz RB=25 RB Offset=0



Date: 11.MAR.2019 12:11:35

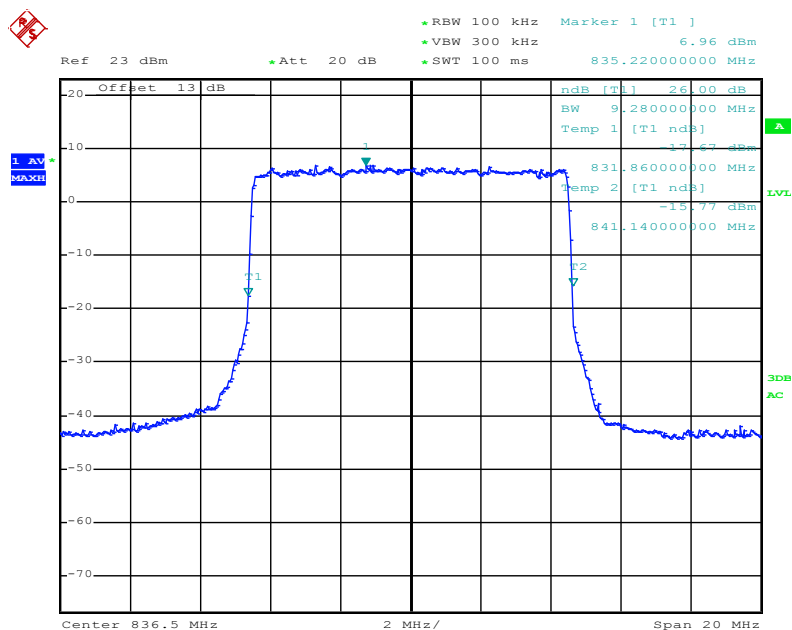
LTE Band5 16QAM -26dBc Channel 20525 BW=5MHz RB=25 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 12:14:57

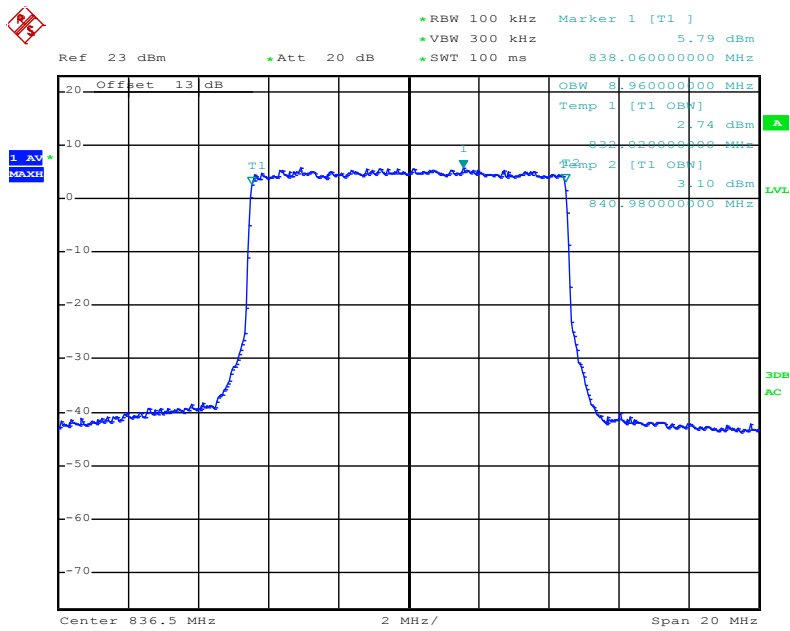
LTE Band5 QPSK 99% Channel 20525 BW=10MHz RB=50 RB Offset=0



Date: 11.MAR.2019 12:15:20

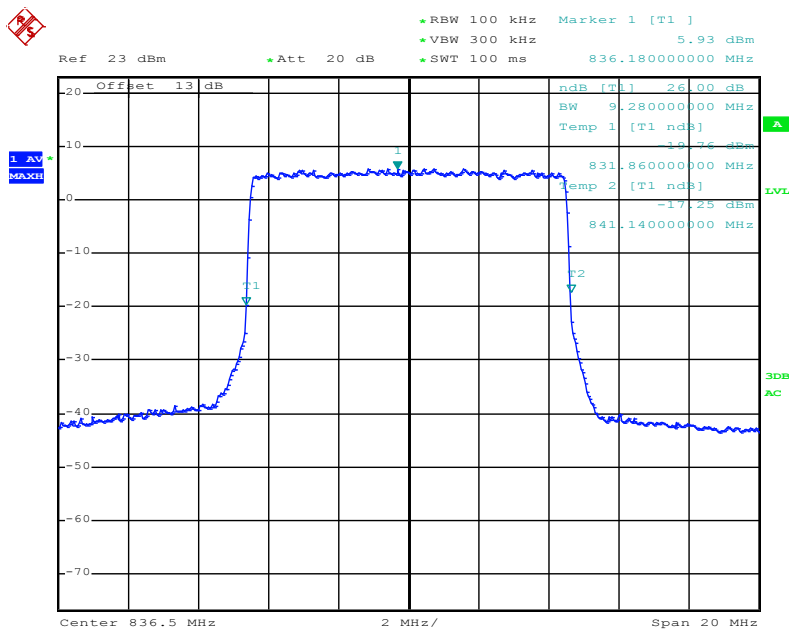
LTE Band5 QPSK -26dBc Channel 20525 BW=10MHz RB=50 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 12:13:47

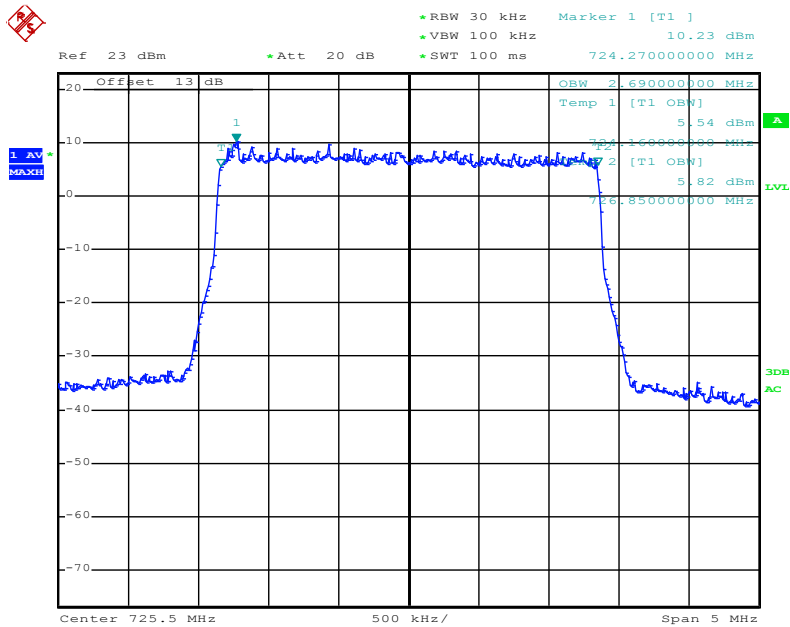
LTE Band5 16QAM 99% Channel 20525 BW=10MHz RB=50 RB Offset=0



Date: 11.MAR.2019 12:12:51

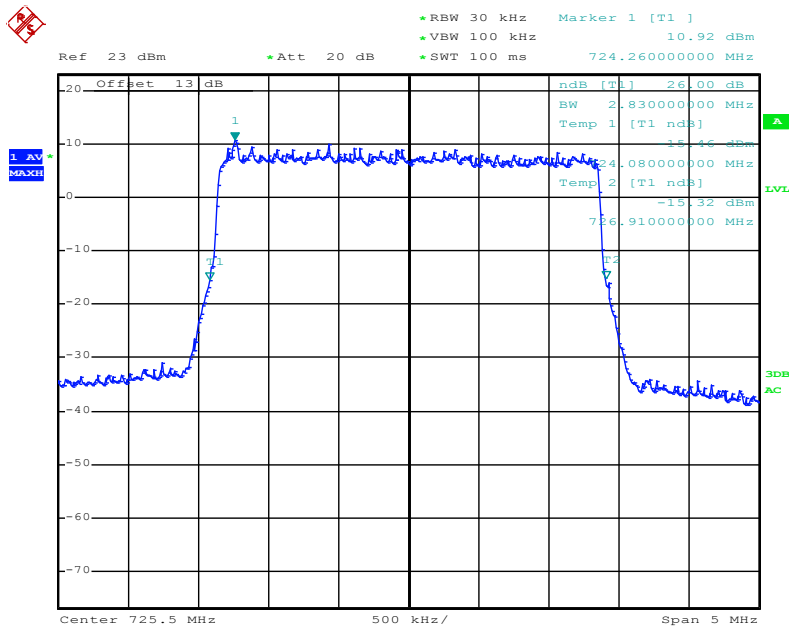
LTE Band5 16QAM -26dBc Channel 20525 BW=10MHz RB=50 RB Offset=0

Graphical results for LTE B28:



Date: 11.MAR.2019 12:26:56

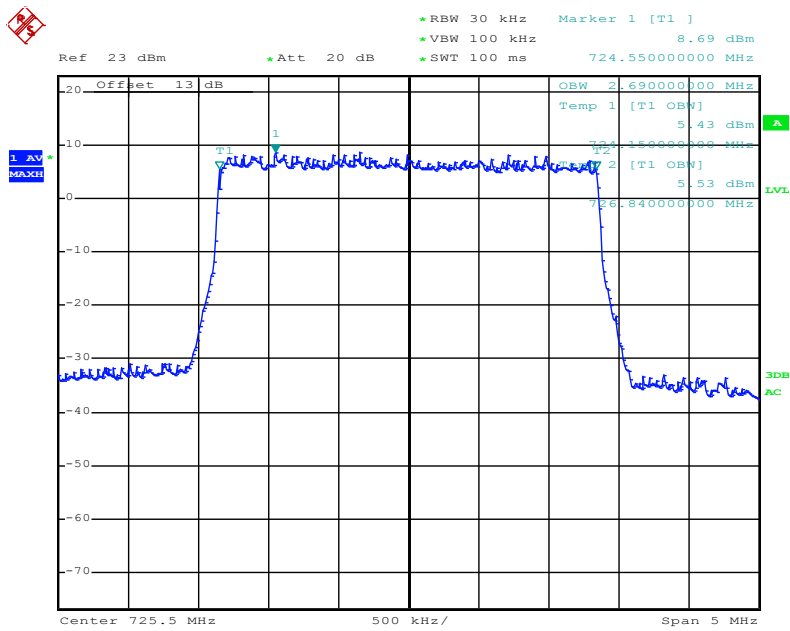
LTE Band28 QPSK 99% Channel 27435 BW=3MHz RB=15 RB Offset=0



Date: 11.MAR.2019 12:53:50

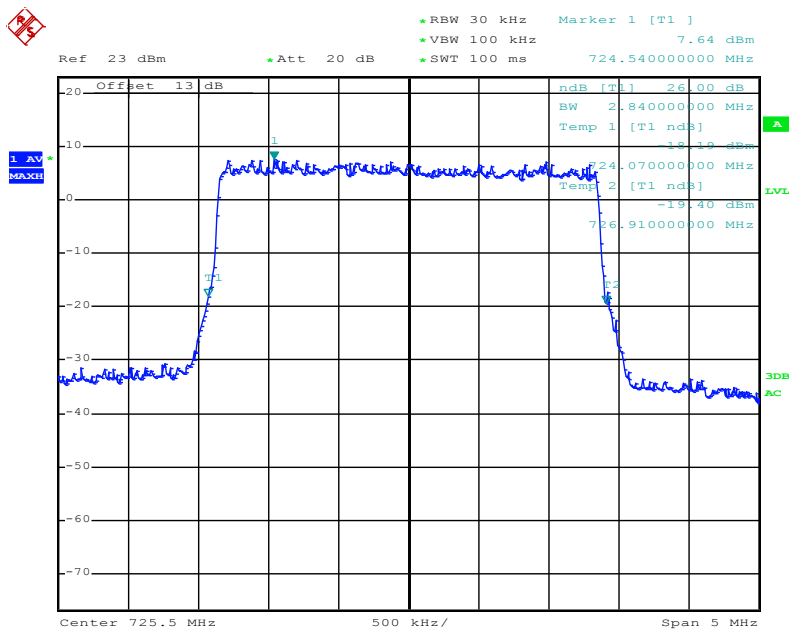
LTE Band28 QPSK -26dBc Channel 27435 BW=3MHz RB=15 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 12:25:53

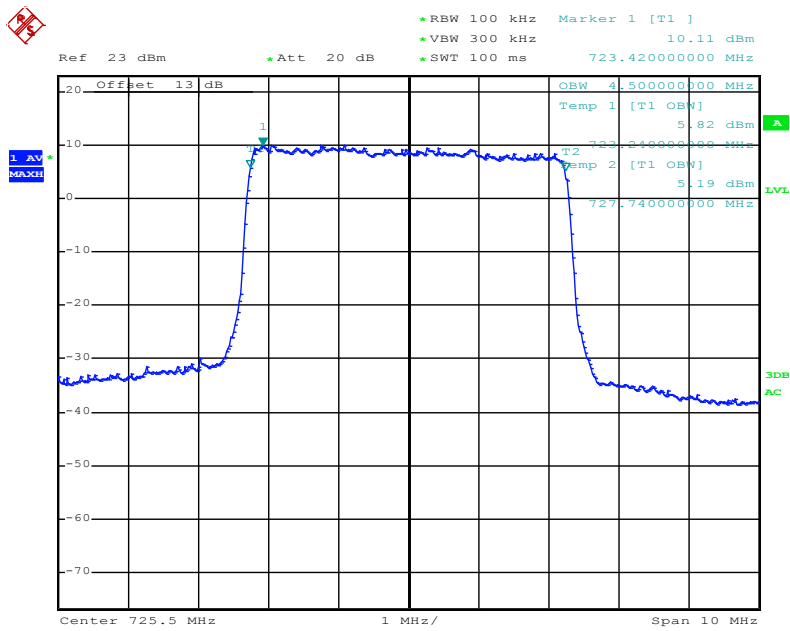
LTE Band28 16QAM 99% Channel 27435 BW=3MHz RB=15 RB Offset=0



Date: 11.MAR.2019 12:54:10

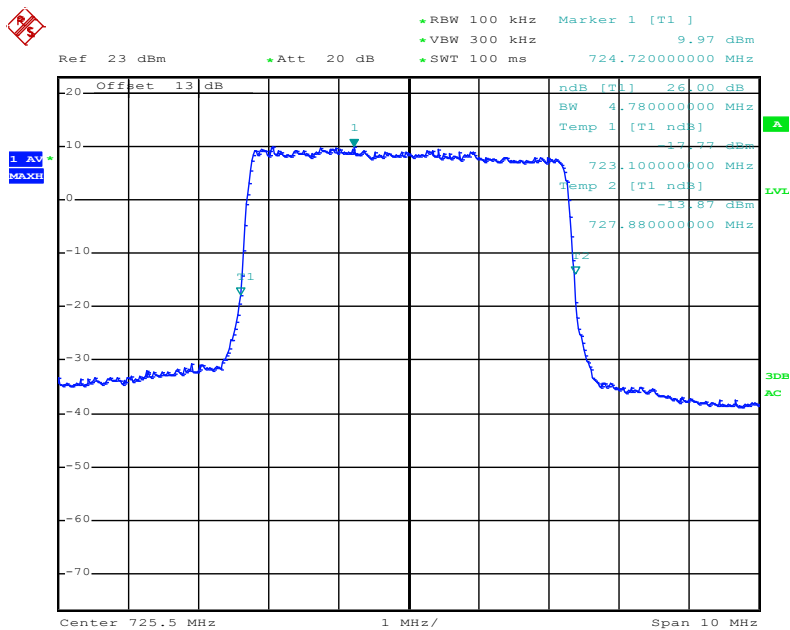
LTE Band28 16QAM -26dBc Channel 27435 BW=3MHz RB=15 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 12:58:23

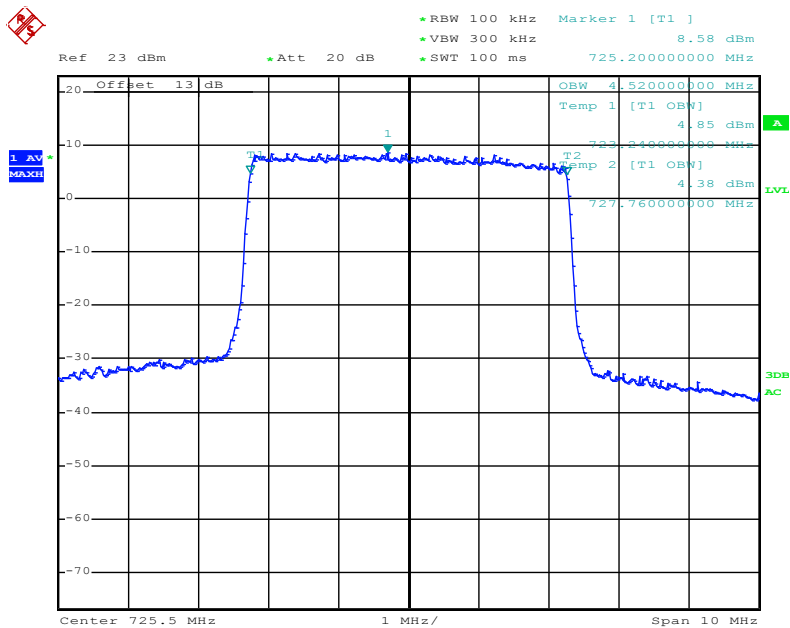
LTE Band28 QPSK 99% Channel 27435 BW=5MHz RB=25 RB Offset=0



Date: 11.MAR.2019 12:58:58

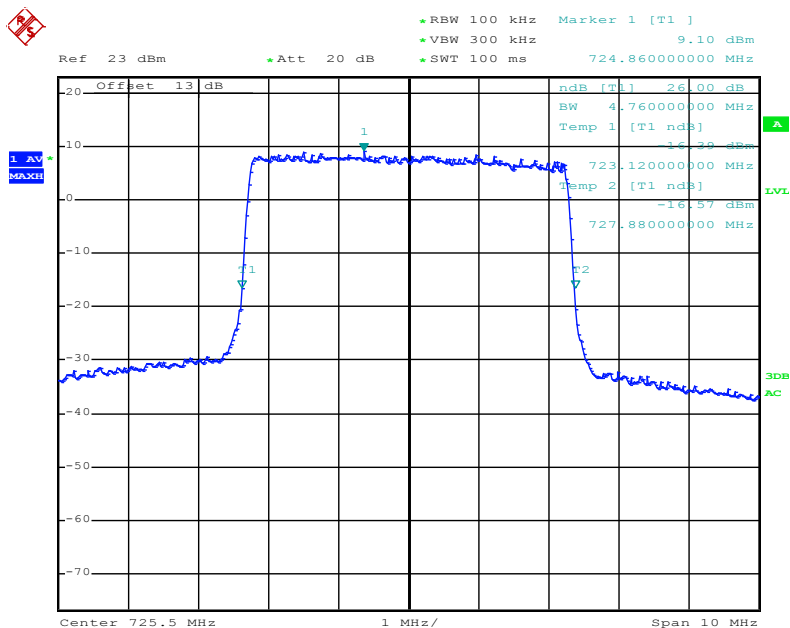
LTE Band28 QPSK -26dBc Channel 27435 BW=5MHz RB=25 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 12:55:09

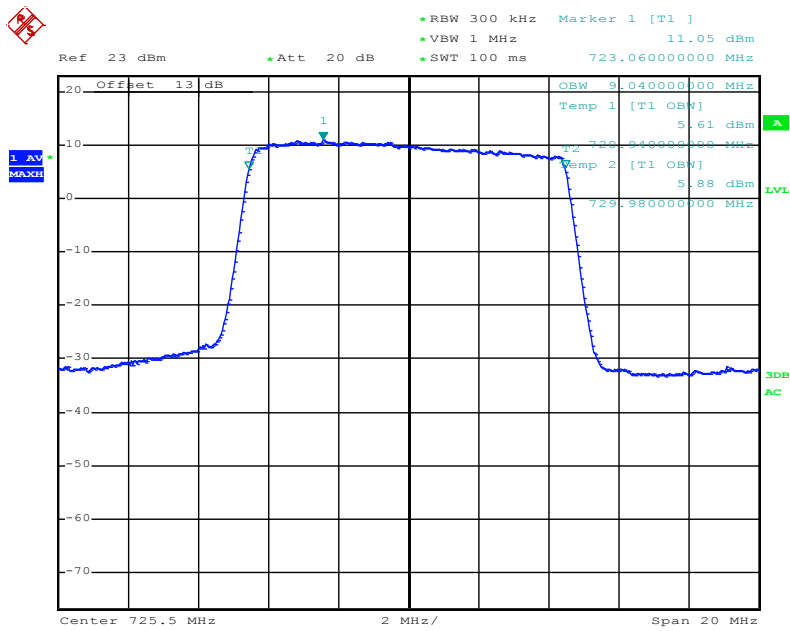
LTE Band28 16QAM 99% Channel 27435 BW=5MHz RB=25 RB Offset=0



Date: 11.MAR.2019 12:54:57

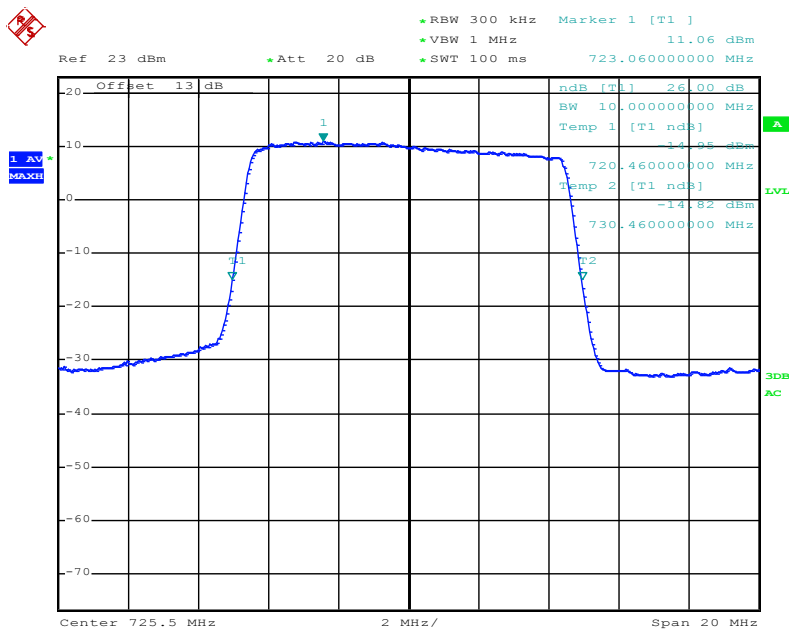
LTE Band28 16QAM -26dBc Channel 27435 BW=5MHz RB=25 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 13:08:51

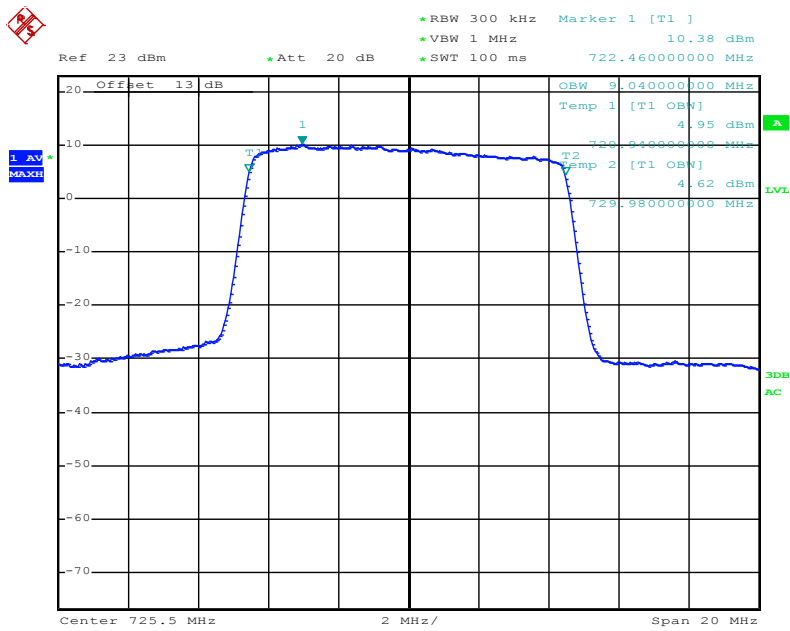
LTE Band28 QPSK 99% Channel 27435 BW=10MHz RB=50 RB Offset=0



Date: 11.MAR.2019 13:08:39

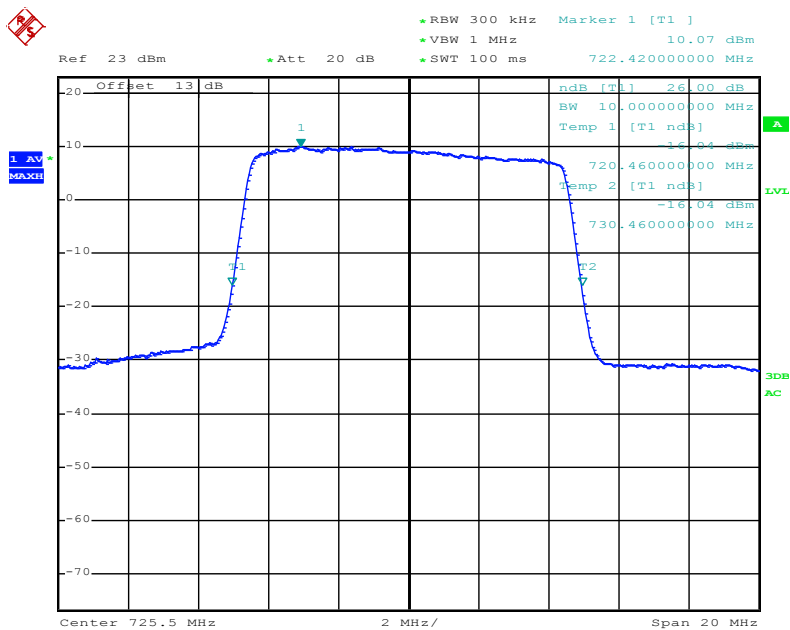
LTE Band28 QPSK -26dBc Channel 27435 BW=10MHz RB=50 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 13:10:20

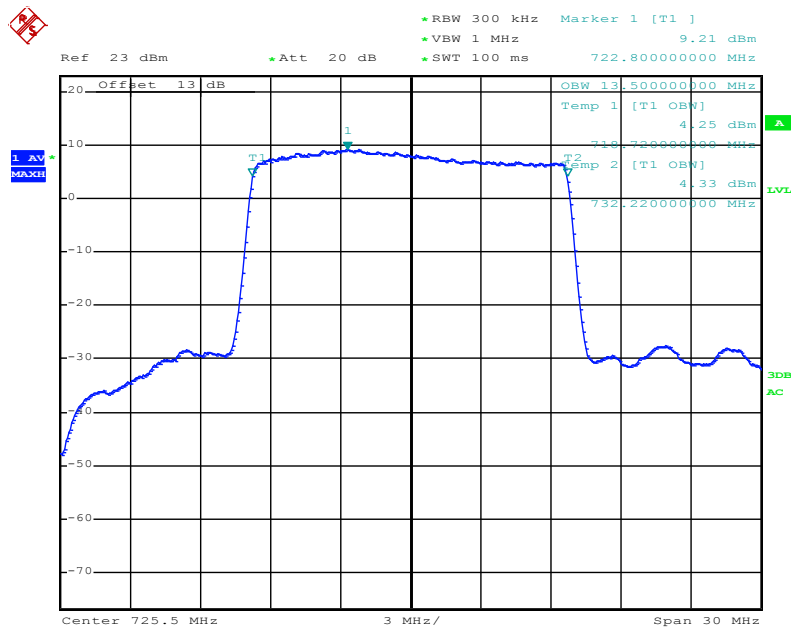
LTE Band28 16QAM 99% Channel 27435 BW=10MHz RB=50 RB Offset=0



Date: 11.MAR.2019 13:10:46

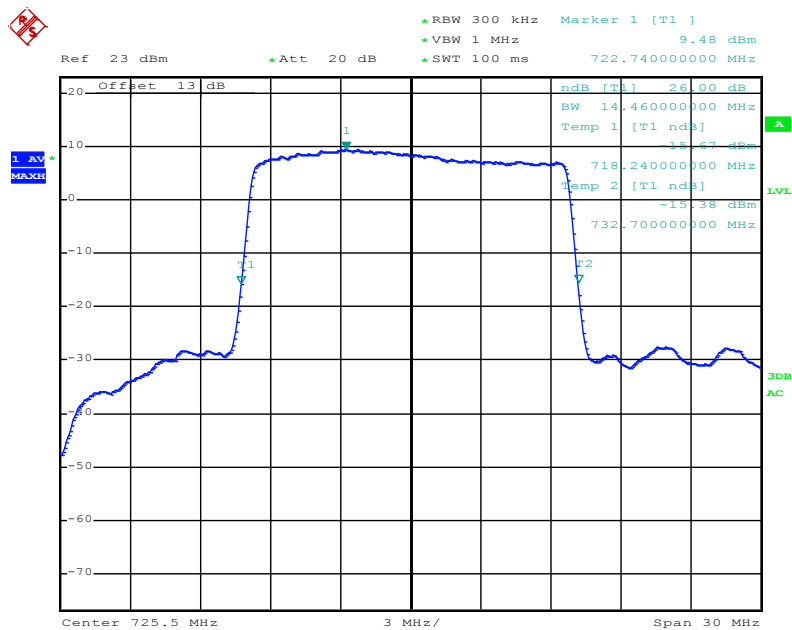
LTE Band28 16QAM -26dBc Channel 27435 BW=10MHz RB=50 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 13:23:20

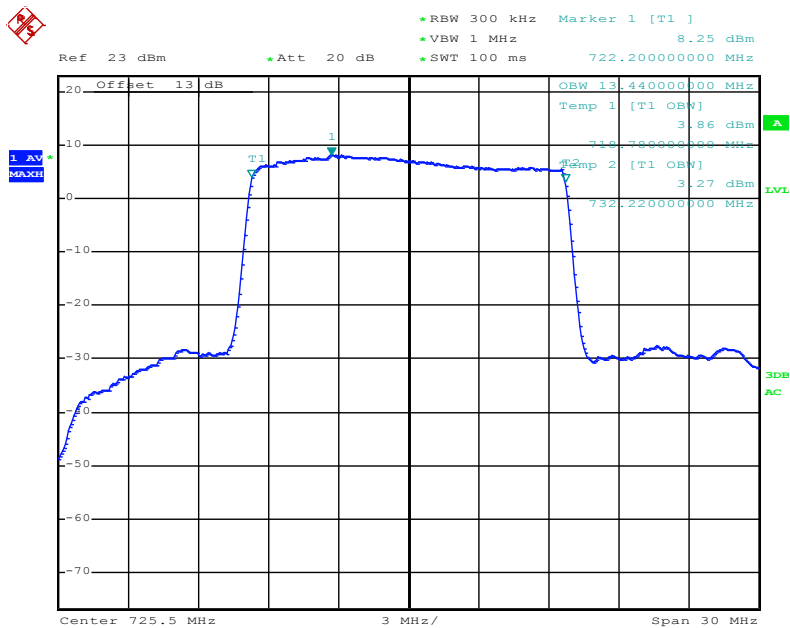
LTE Band28 QPSK 99% Channel 27435 BW=15MHz RB=75 RB Offset=0



Date: 11.MAR.2019 13:22:50

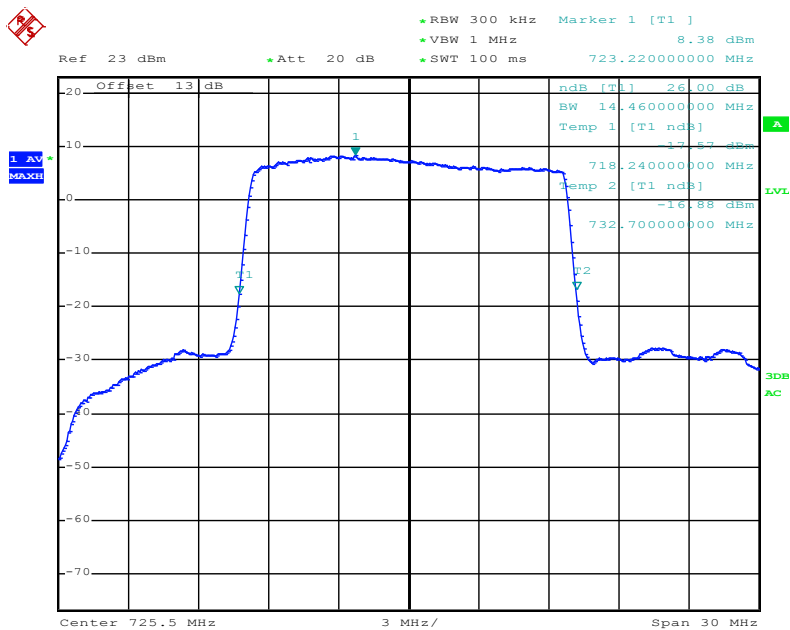
LTE Band28 QPSK -26dBc Channel 27435 BW=15MHz RB=75 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 13:23:41

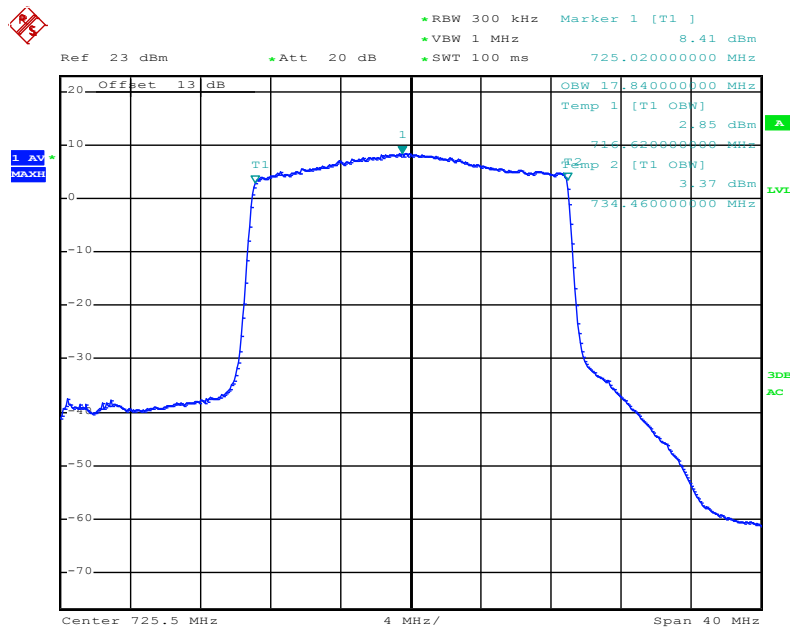
LTE Band28 16QAM 99% Channel 27435 BW=15MHz RB=75 RB Offset=0



Date: 11.MAR.2019 13:24:11

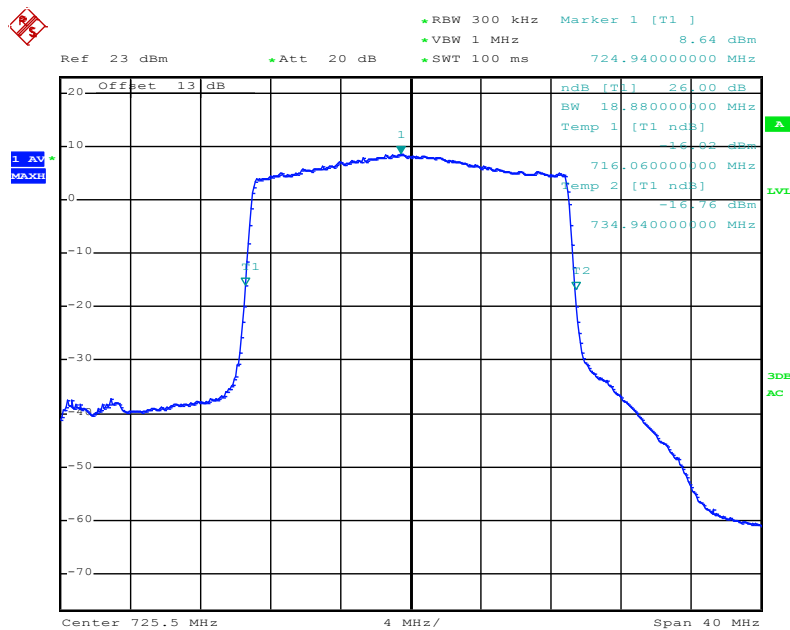
LTE Band28 16QAM -26dBc Channel 27435 BW=15MHz RB=75 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 13:26:11

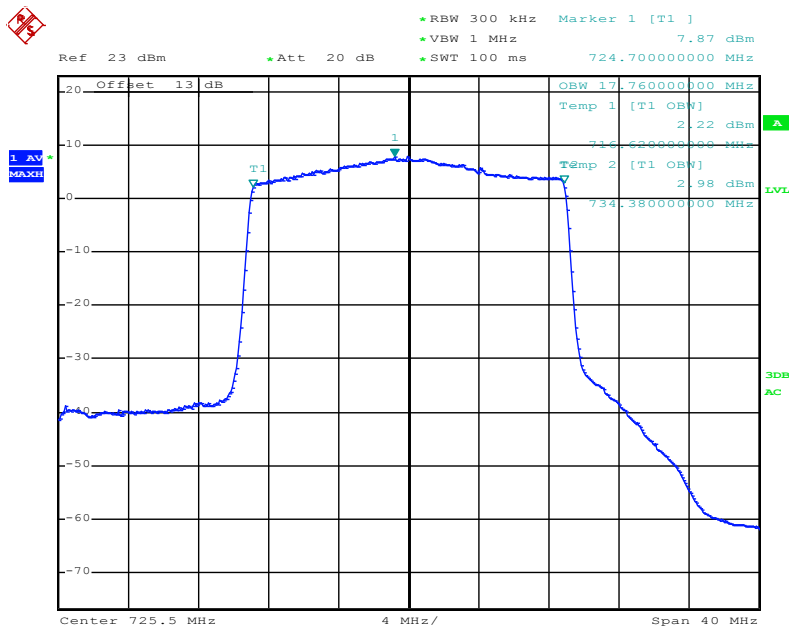
LTE Band28 QPSK 99% Channel 27435 BW=20MHz RB=100 RB Offset=0



Date: 11.MAR.2019 13:25:59

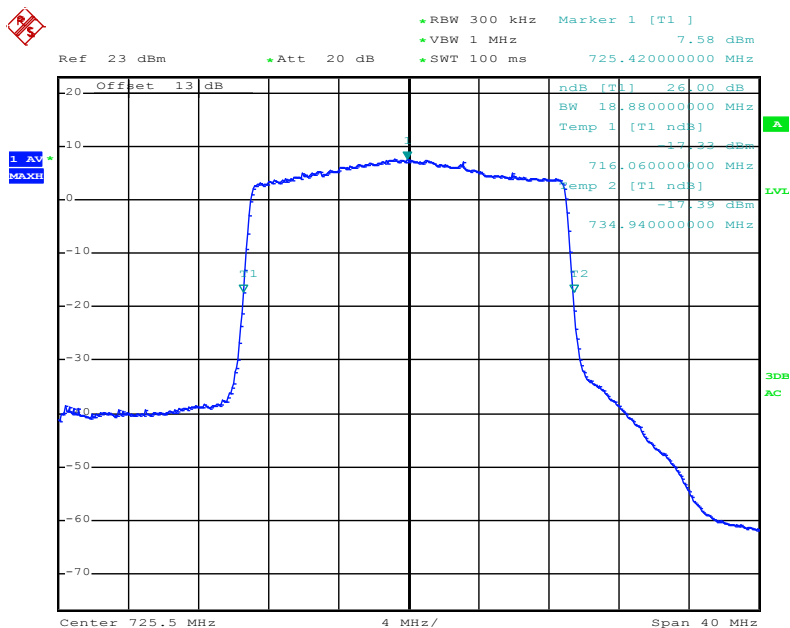
LTE Band28 QPSK -26dBc Channel 27435 BW=20MHz RB=100 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 13:26:32

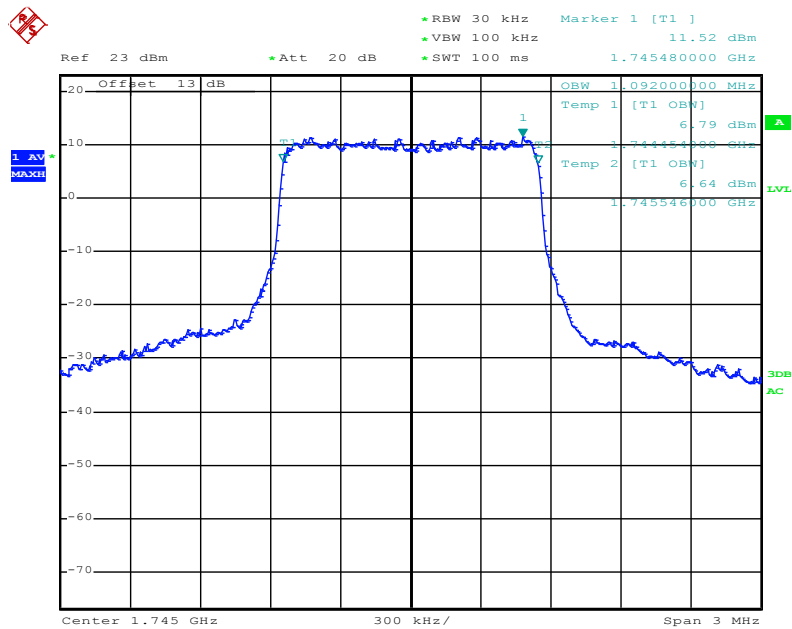
LTE Band28 16QAM 99% Channel 27435 BW=20MHz RB=100 RB Offset=0



Date: 11.MAR.2019 13:26:55

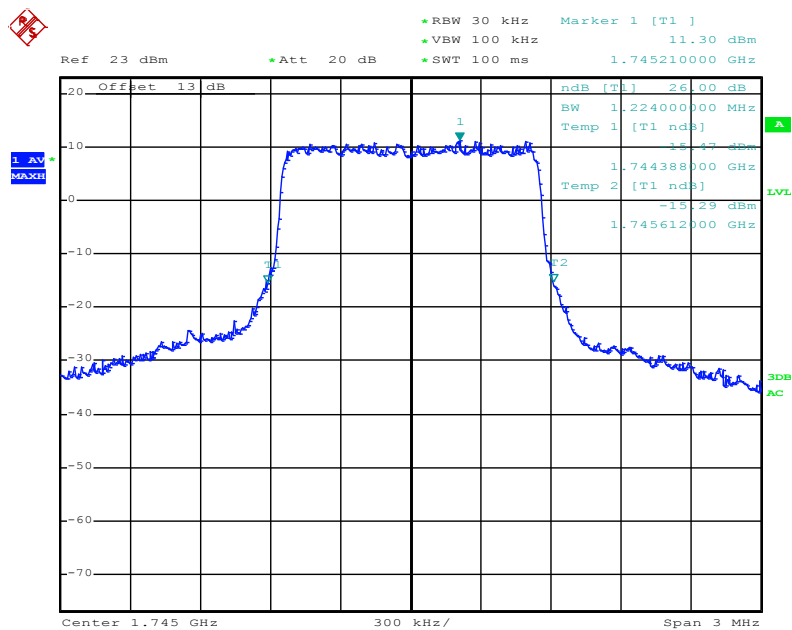
LTE Band28 16QAM -26dBc Channel 27435 BW=20MHz RB=100 RB Offset=0

Graphical results for LTE B66:



Date: 11.MAR.2019 13:44:28

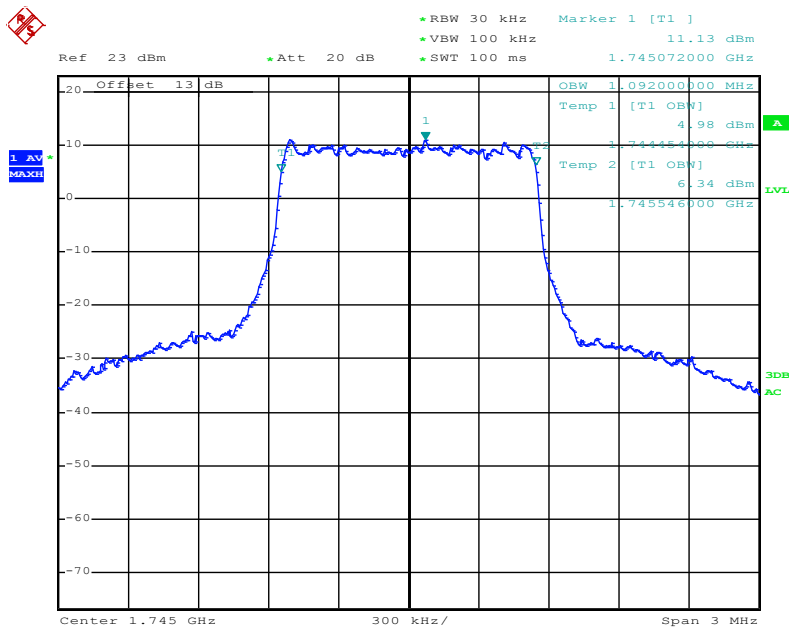
LTE Band66 QPSK 99% Channel 132322 BW=1.4MHz RB=6 RB Offset=0



Date: 11.MAR.2019 13:44:37

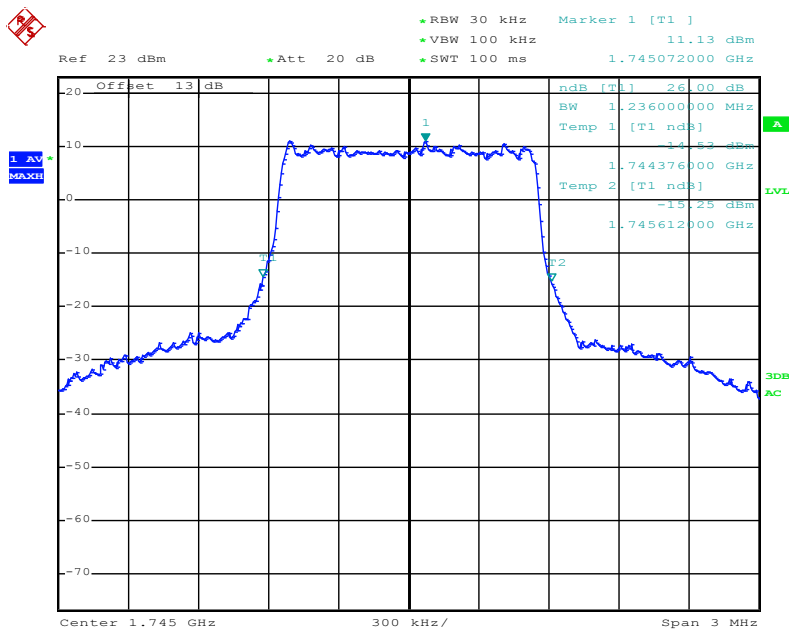
LTE Band66 QPSK -26dBc Channel 132322 BW=1.4MHz RB=6 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 13:43:39

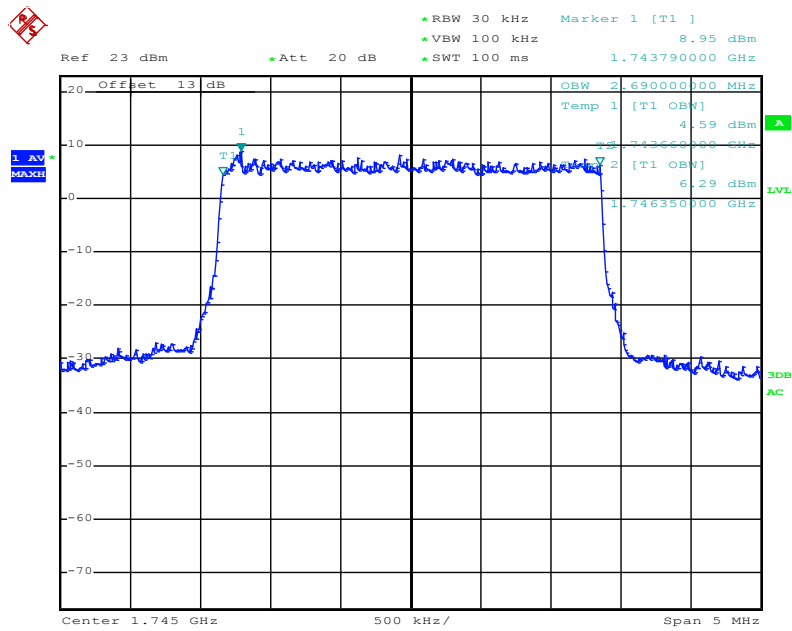
LTE Band66 16QAM 99% Channel 132322 BW=1.4MHz RB=6 RB Offset=0



Date: 11.MAR.2019 13:42:32

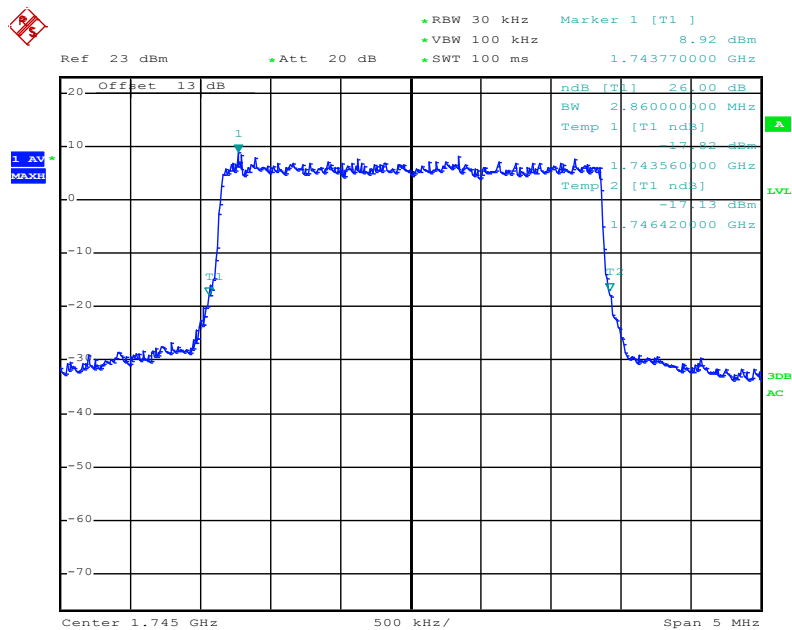
LTE Band66 16QAM -26dBc Channel 132322 BW=1.4MHz RB=6 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 13:45:47

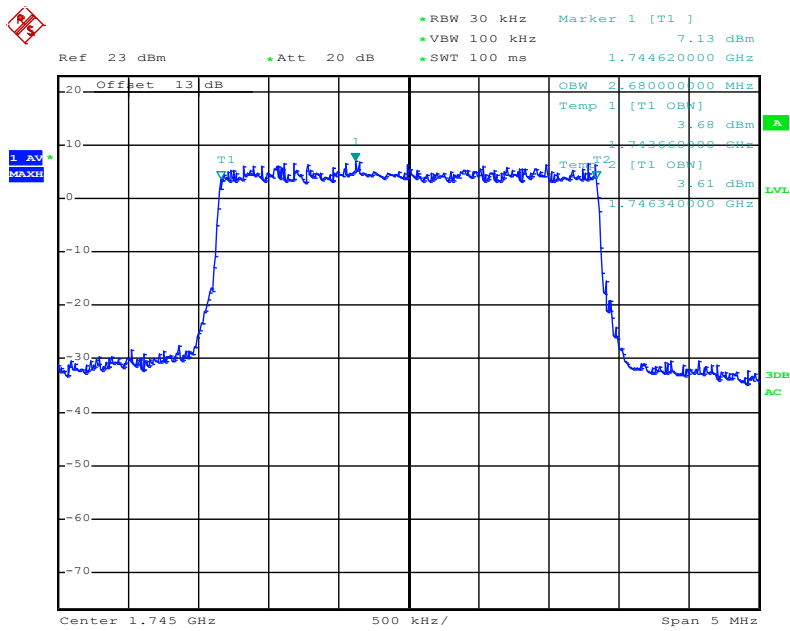
LTE Band66 QPSK 99% Channel 132322 BW=3MHz RB=15 RB Offset=0



Date: 11.MAR.2019 13:46:04

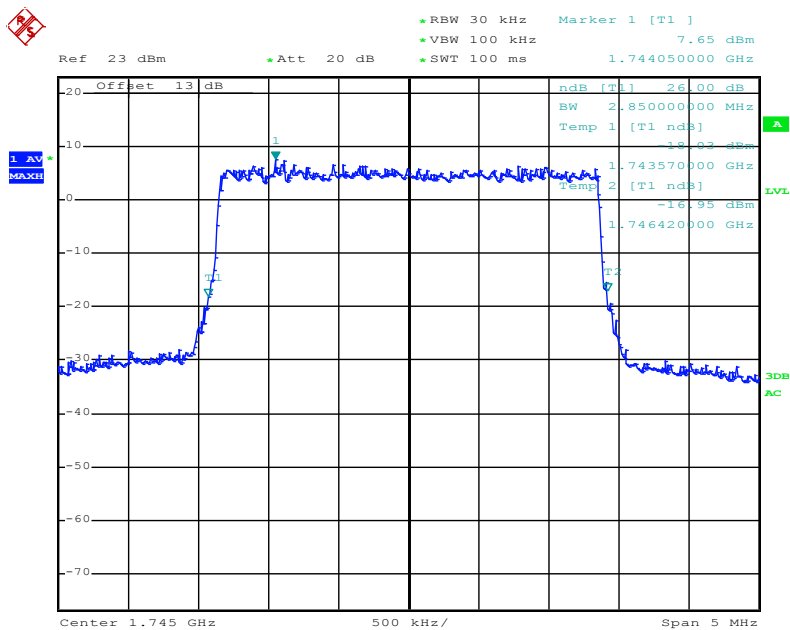
LTE Band66 QPSK -26dBc Channel 132322 BW=3MHz RB=15 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 13:45:15

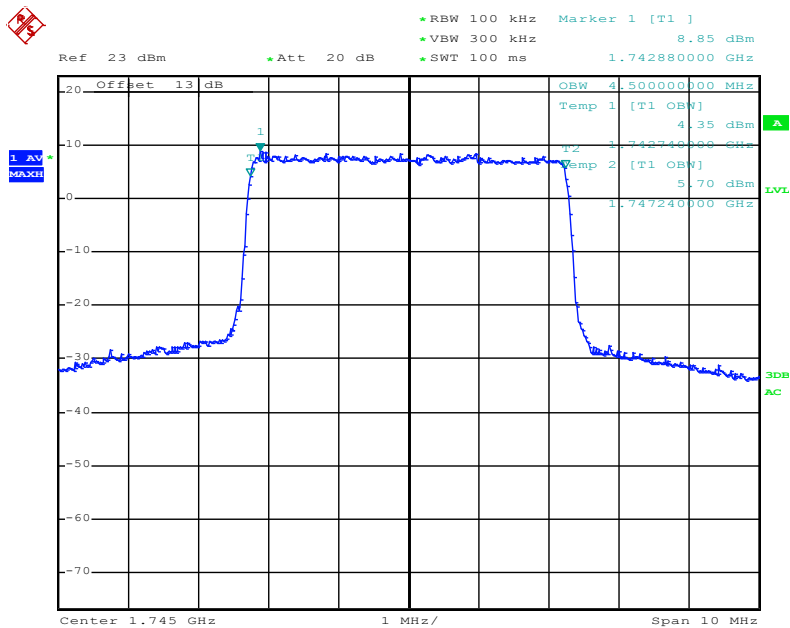
LTE Band66 16QAM 99% Channel 132322 BW=3MHz RB=15 RB Offset=0



Date: 11.MAR.2019 13:45:06

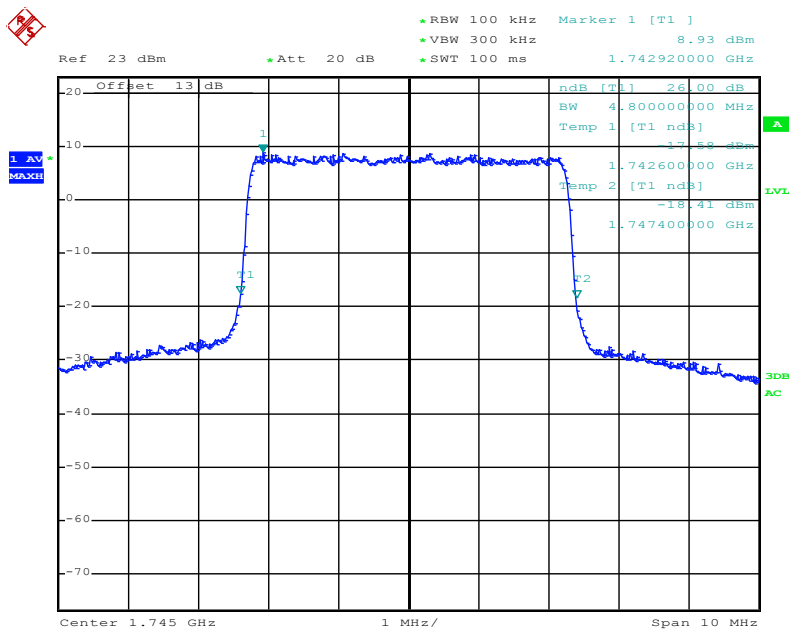
LTE Band66 16QAM -26dBc Channel 132322 BW=3MHz RB=15 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 13:46:51

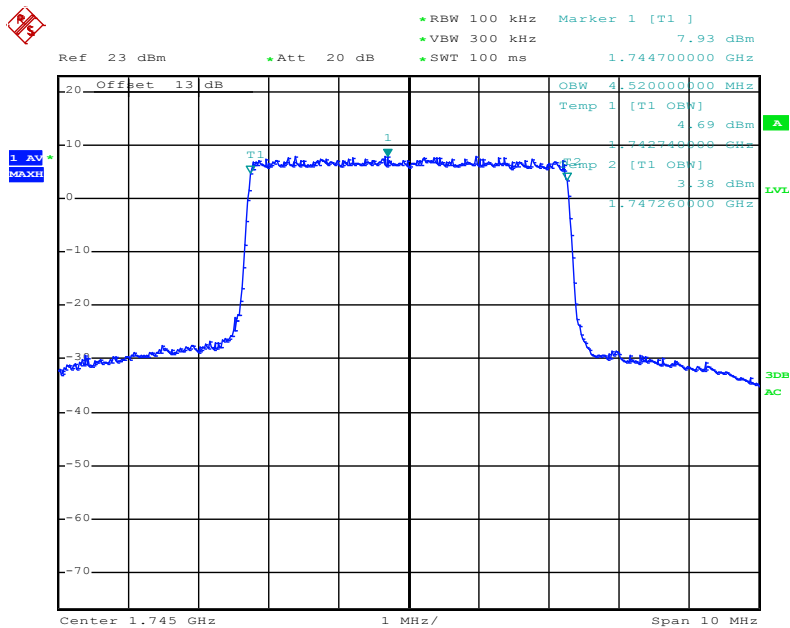
LTE Band66 QPSK 99% Channel 132322 BW=5MHz RB=25 RB Offset=0



Date: 11.MAR.2019 13:46:41

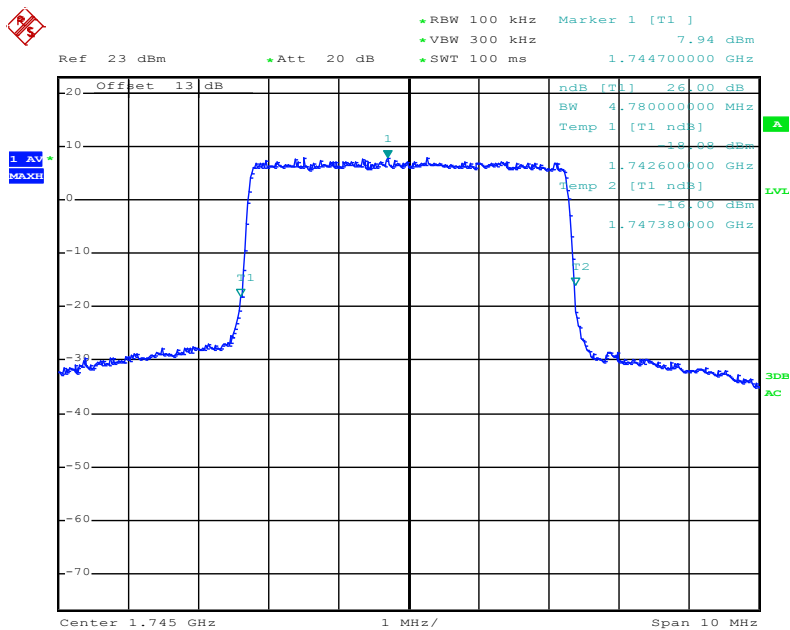
LTE Band66 QPSK -26dBc Channel 132322 BW=5MHz RB=25 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 13:47:08

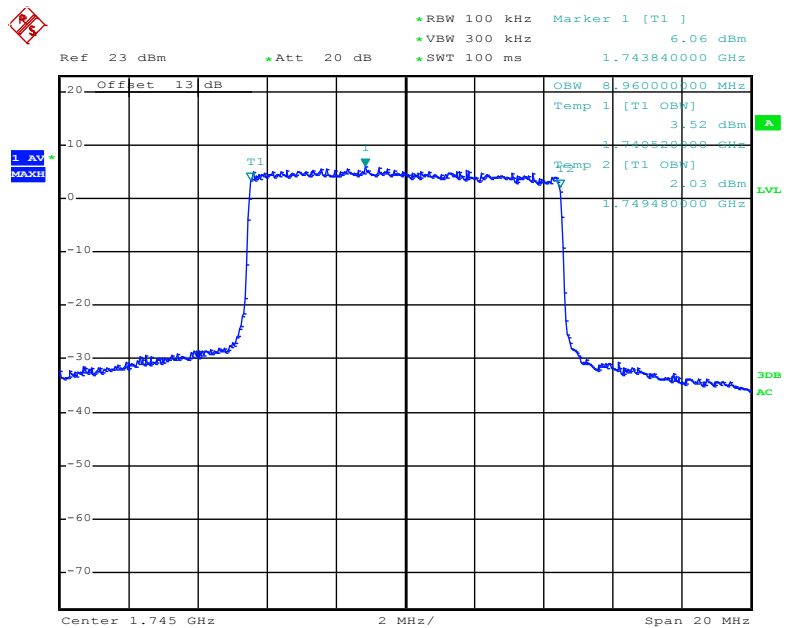
LTE Band66 16QAM 99% Channel 132322 BW=5MHz RB=25 RB Offset=0



Date: 11.MAR.2019 13:47:21

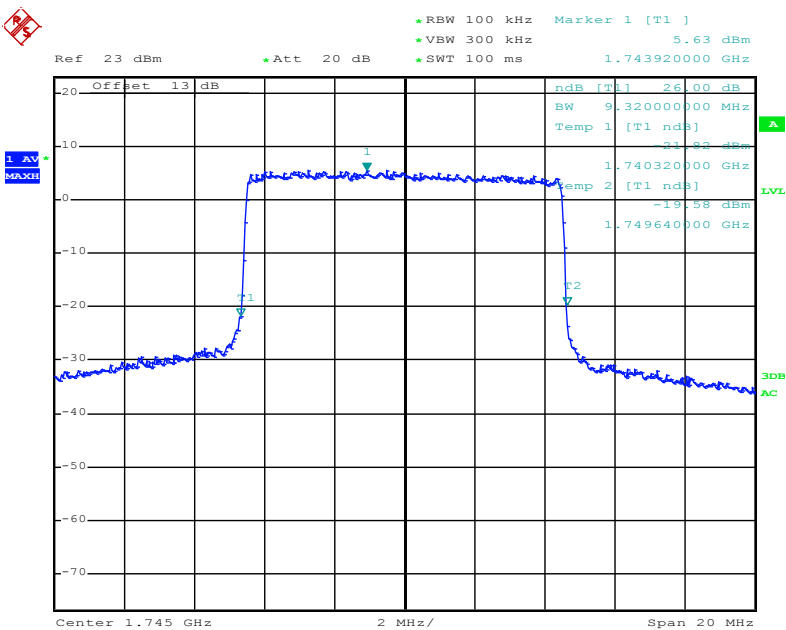
LTE Band66 16QAM -26dBc Channel 132322 BW=5MHz RB=25 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 13:48:01

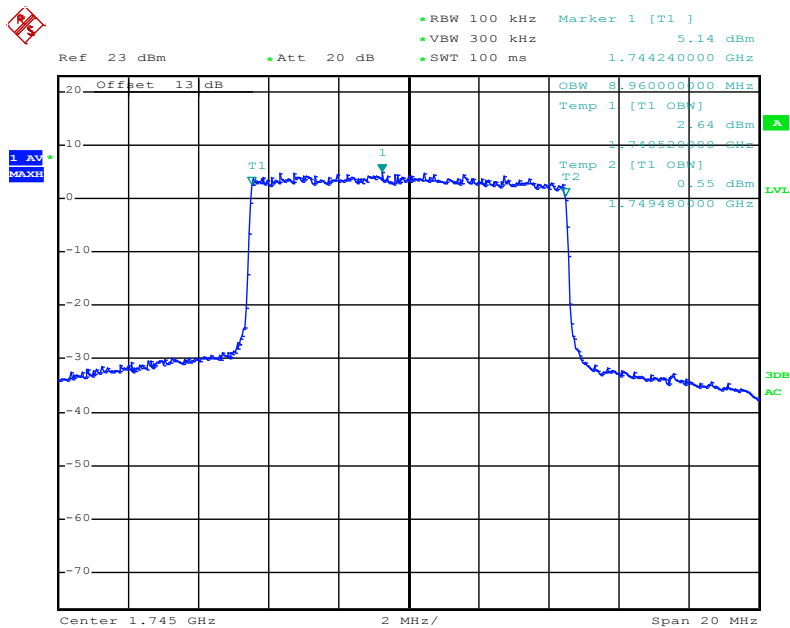
LTE Band66 QPSK 99% Channel 132322 BW=10MHz RB=50 RB Offset=0



Date: 11.MAR.2019 13:48:09

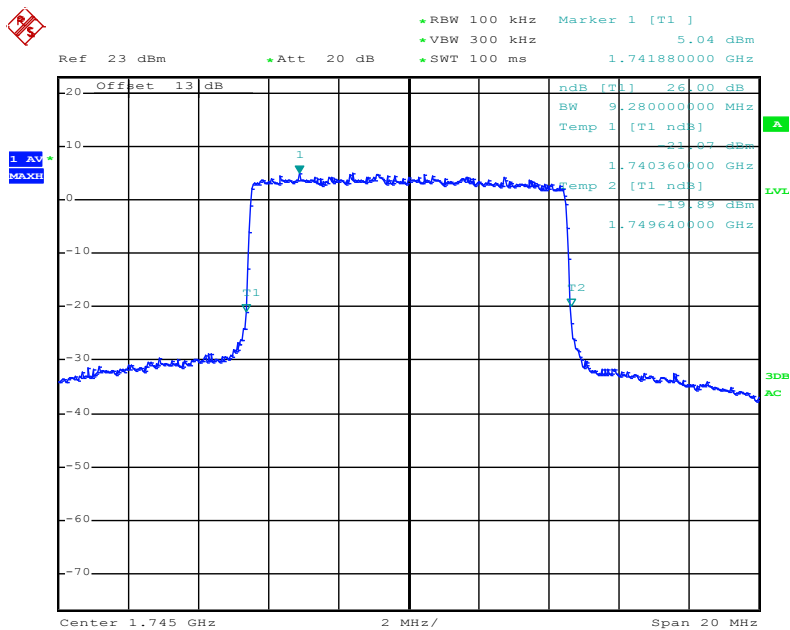
LTE Band66 QPSK -26dBc Channel 132322 BW=10MHz RB=50 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 13:47:48

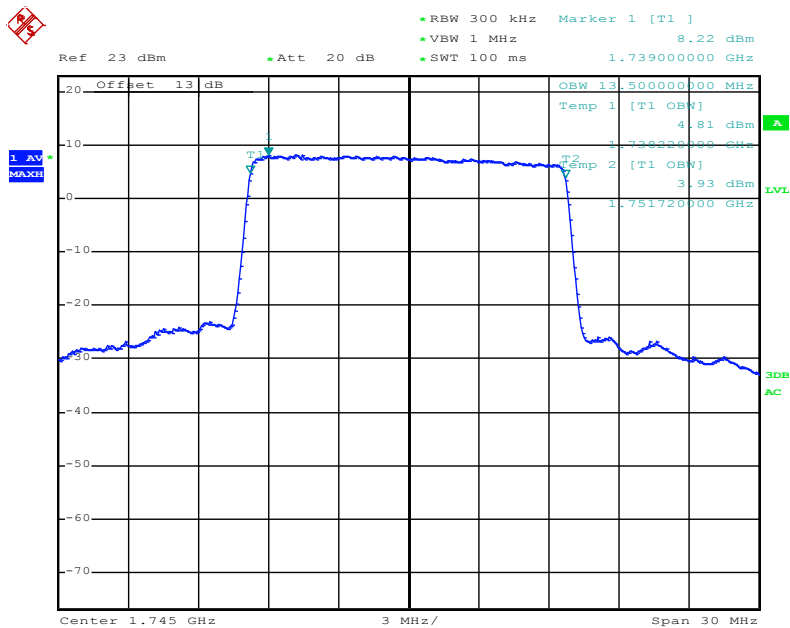
LTE Band66 16QAM -99% Channel 132322 BW=10MHz RB=50 RB Offset=0



Date: 11.MAR.2019 13:47:37

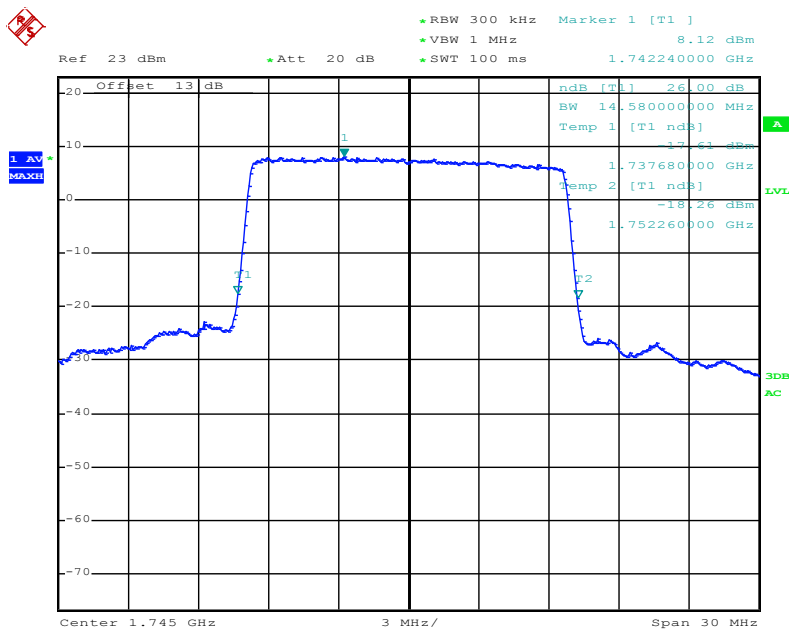
LTE Band66 16QAM -26dBc Channel 132322 BW=10MHz RB=50 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 13:49:40

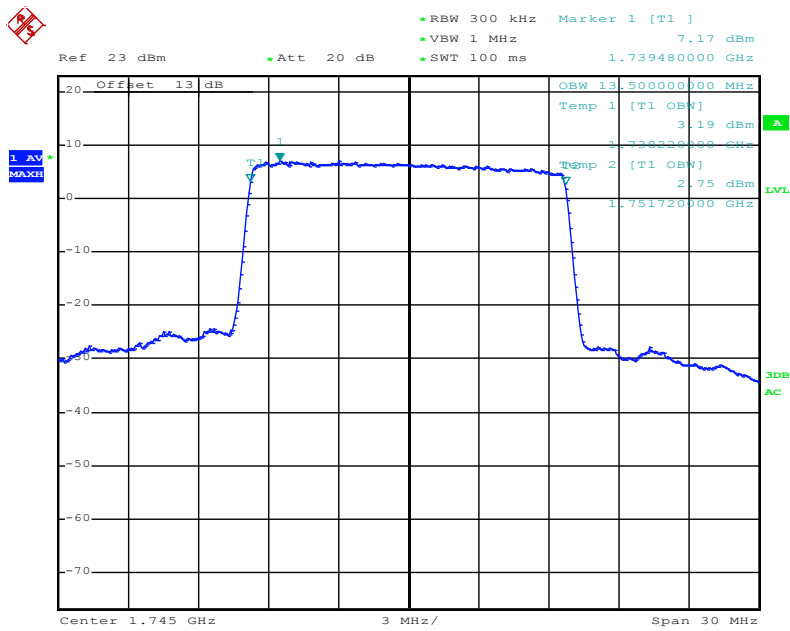
LTE Band66 QPSK 99% Channel 132322 BW=15MHz RB=75 RB Offset=0



Date: 11.MAR.2019 13:49:51

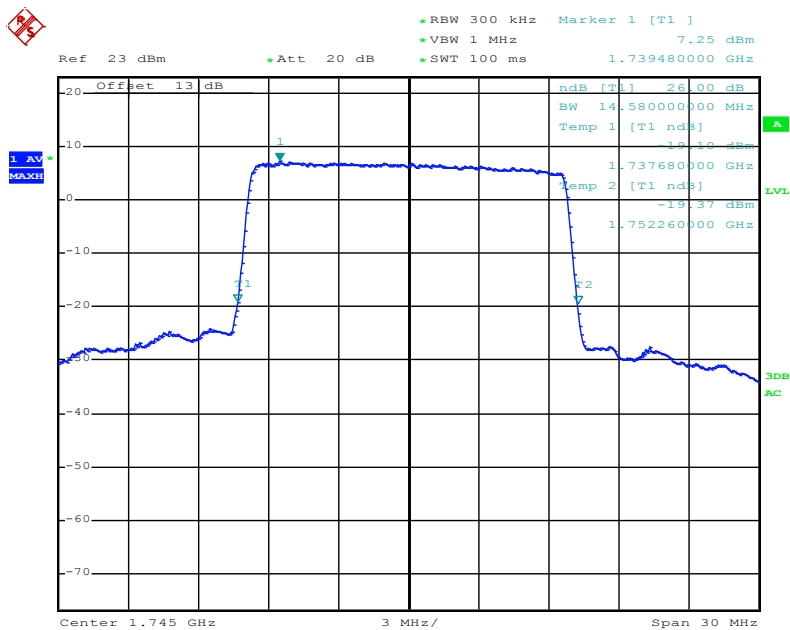
LTE Band66 QPSK -26dBc Channel 132322 BW=15MHz RB=75 RB Offset=0

Report No.:B19W50074-WWAN_Rev3



Date: 11.MAR.2019 13:49:12

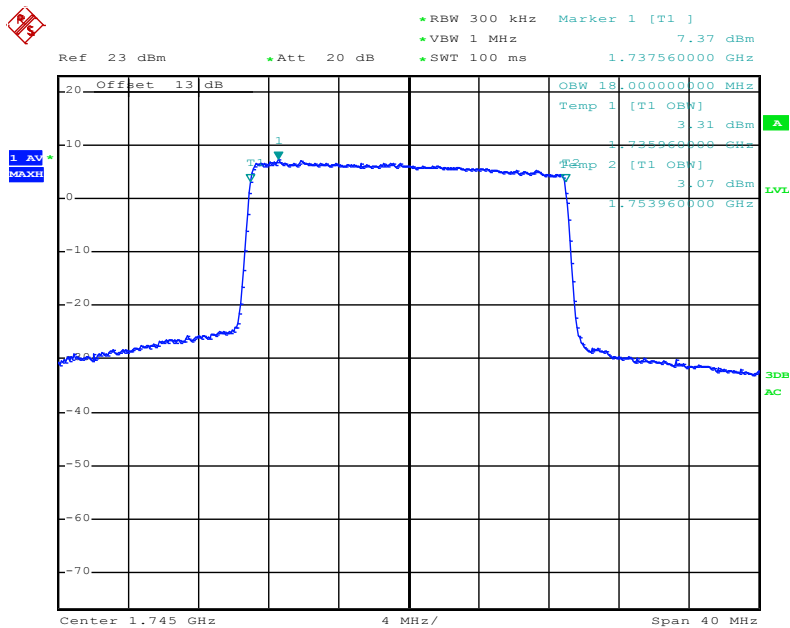
LTE Band66 16QAM 99% Channel 132322 BW=15MHz RB=75 RB Offset=0



Date: 11.MAR.2019 13:49:01

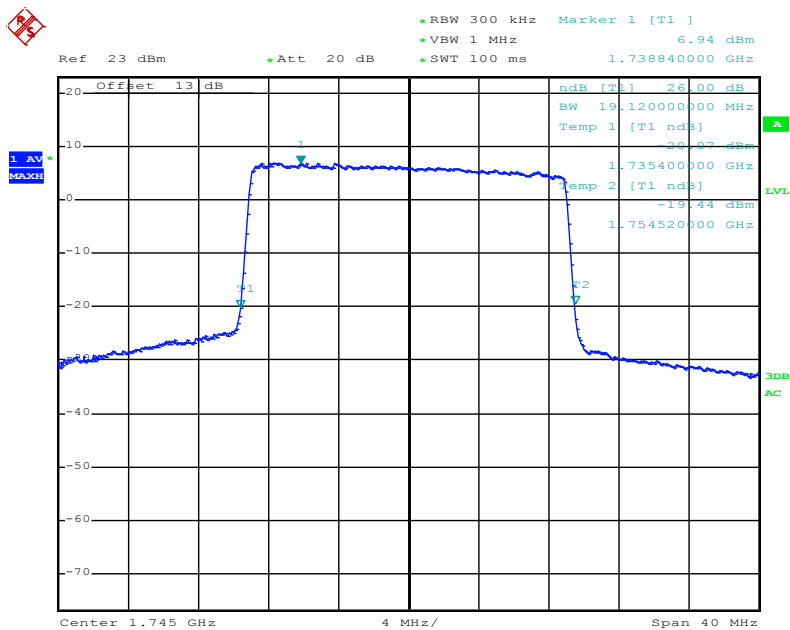
LTE Band66 16QAM -26dBc Channel 132322 BW=15MHz RB=75 RB Offset=0

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Date: 11.MAR.2019 13:50:43

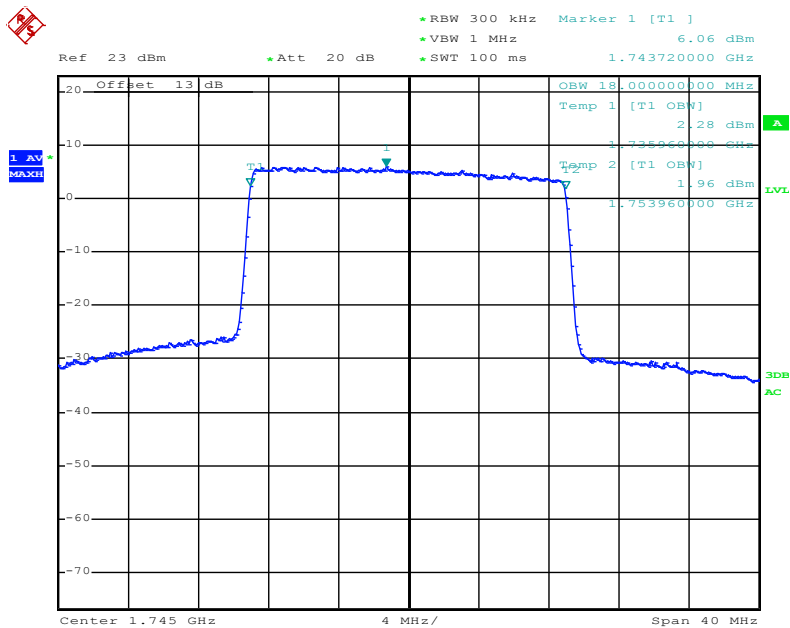
LTE Band66 QPSK 99% Channel 132322 BW=20MHz RB=100 RB Offset=0



Date: 11.MAR.2019 13:50:51

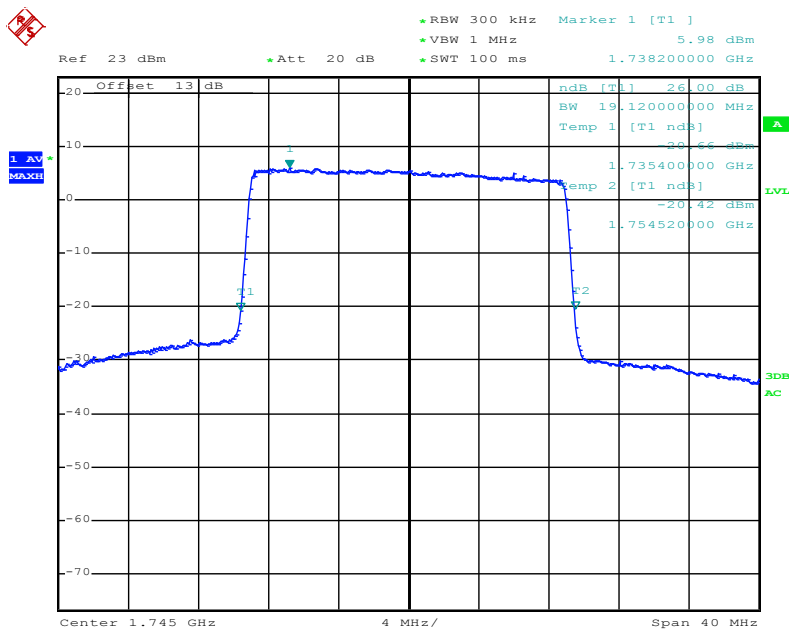
LTE Band66 QPSK -26dBc Channel 132322 BW=20MHz RB=100 RB Offset=0

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Date: 11.MAR.2019 13:50:32

LTE Band66 16QAM 99% Channel 132322 BW=20MHz RB=100 RB Offset=0



Date: 11.MAR.2019 13:50:19

LTE Band66 16QAM -26dBc Channel 132322 BW=20MHz RB=100 RB Offset=0

5.3 Conducted Spurious Emission

Specifications:	FCC Part 2.1051, 24.238, 2.1053, 22.917, 27.53
DUT Serial Number:	868020030259286
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

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):

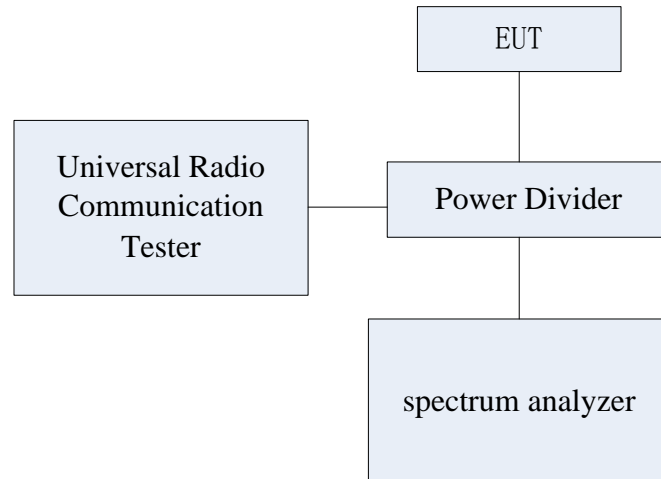
Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 Bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter 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:

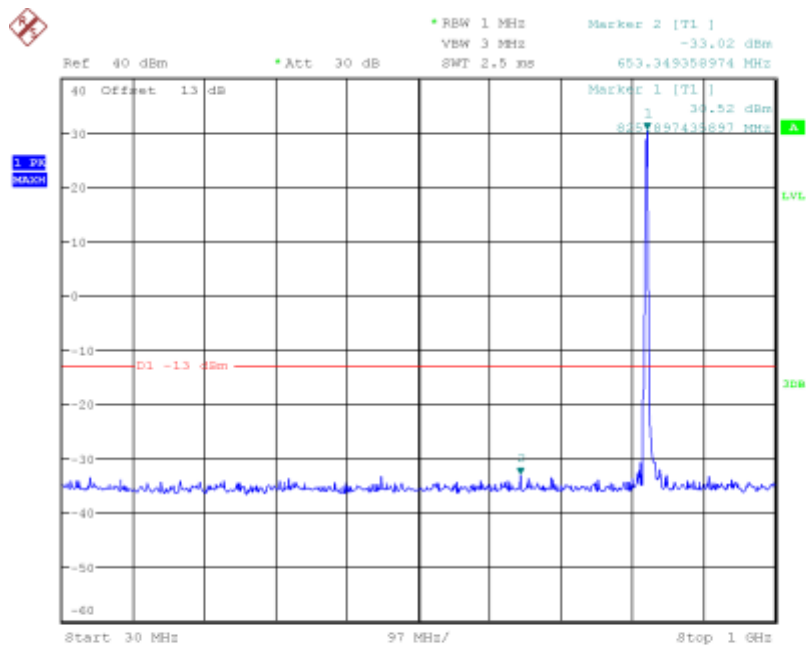
The measurement was performed accordance with section 2.2.13 of ANSI/TIA-603-D: Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

The measurement was performed accordance with section 2.2.13 of ANSI/TIA-603-D-2010: 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: --

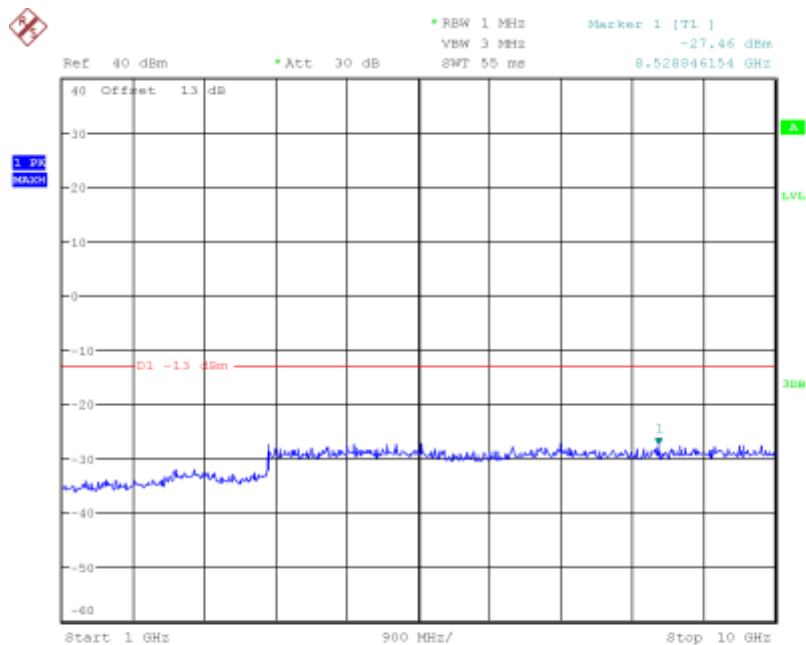
5.3.1 GSM850 Conducted Spurious Emission Results



Date: 14.MAR.2019 05:52:28

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

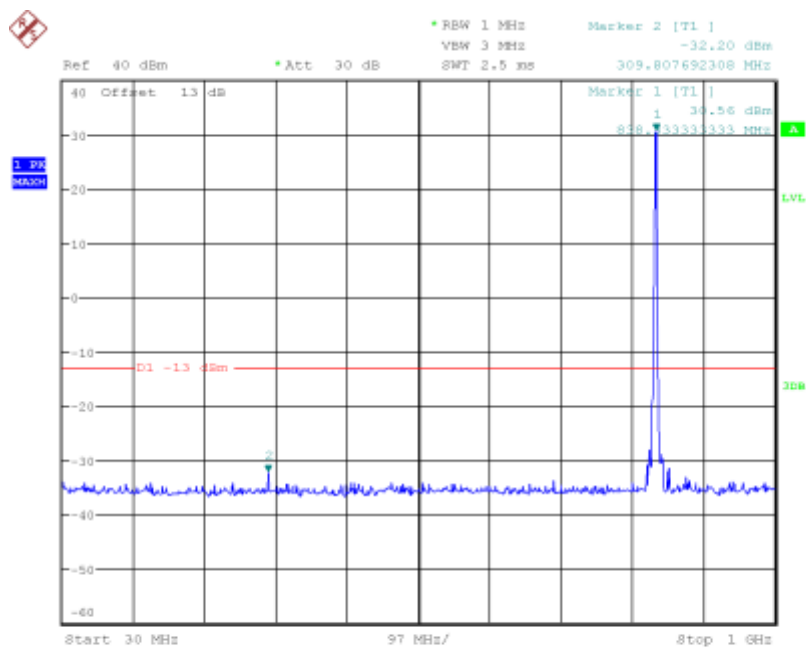
Note: The strong emission shown in each case is the carrier signal.



Date: 14.MAR.2019 05:52:52

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

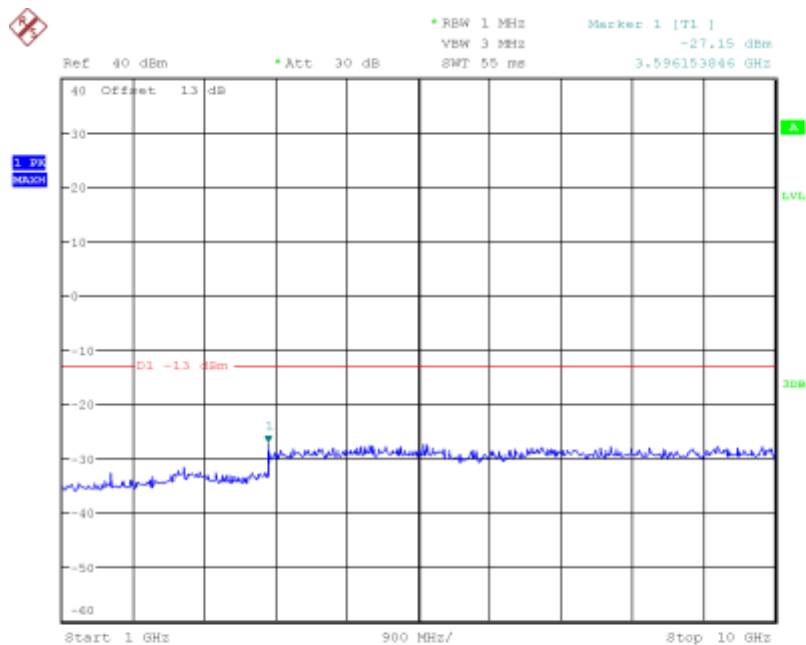
Report No.:B19W50074-WWAN_Rev3



Date: 14.MAR.2019 05:53:51

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

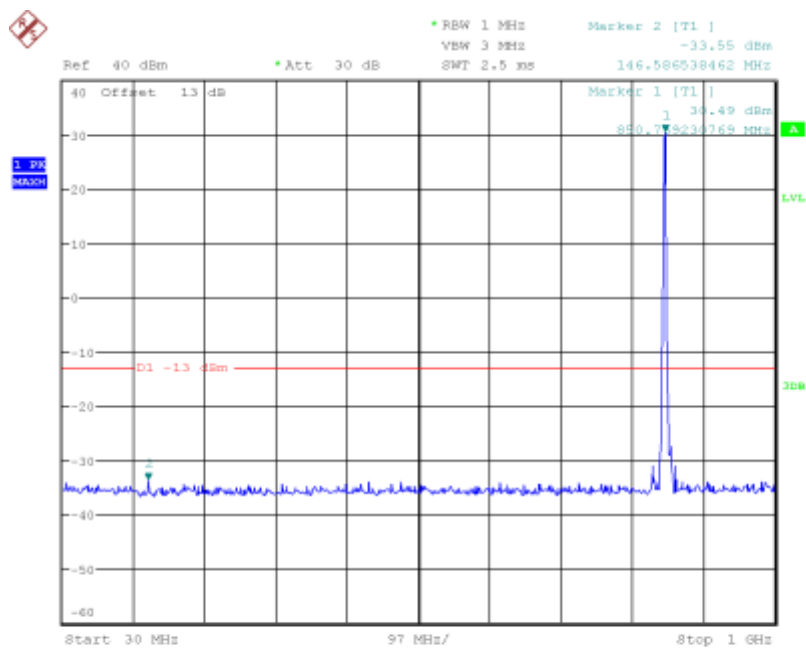
Note: The strong emission shown in each case is the carrier signal.



Date: 14.MAR.2019 05:53:17

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

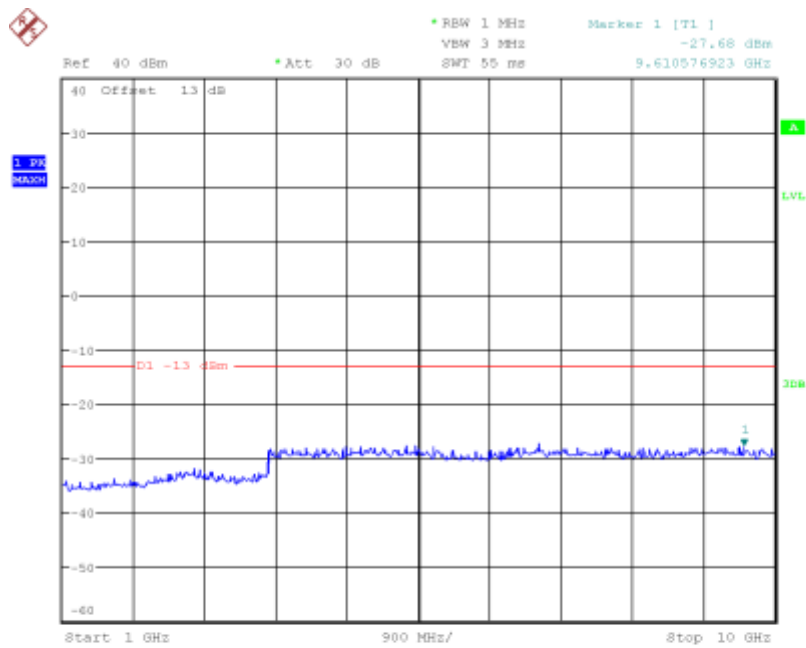
Report No.:B19W50074-WWAN_Rev3



Date: 14.MAR.2019 05:54:33

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

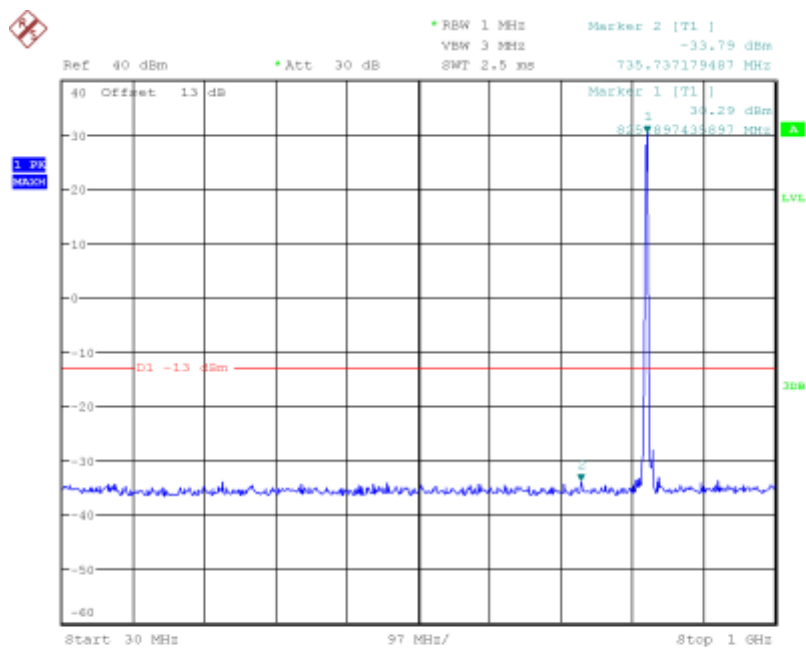
Note: The strong emission shown in each case is the carrier signal.



Date: 14.MAR.2019 05:54:54

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

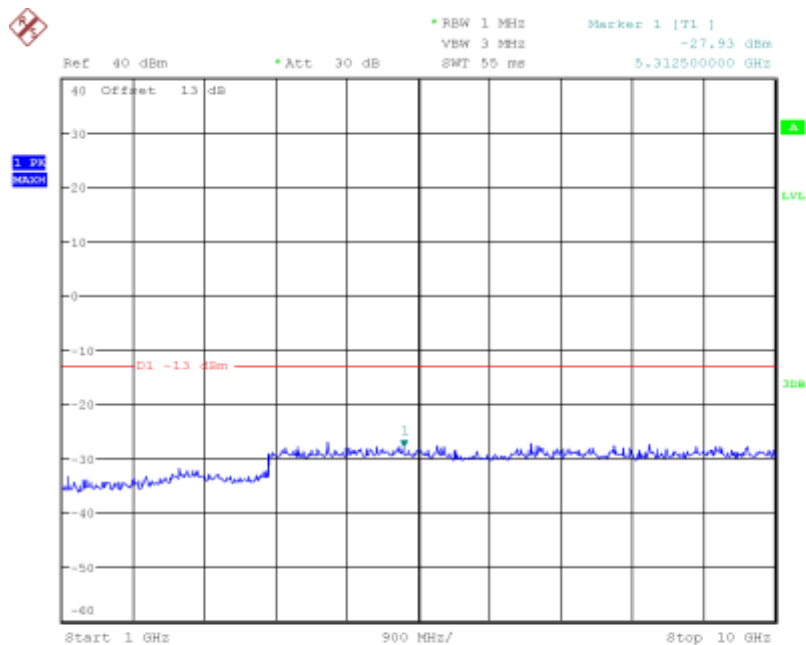
Report No.:B19W50074-WWAN_Rev3



Date: 14.MAR.2019 05:57:07

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

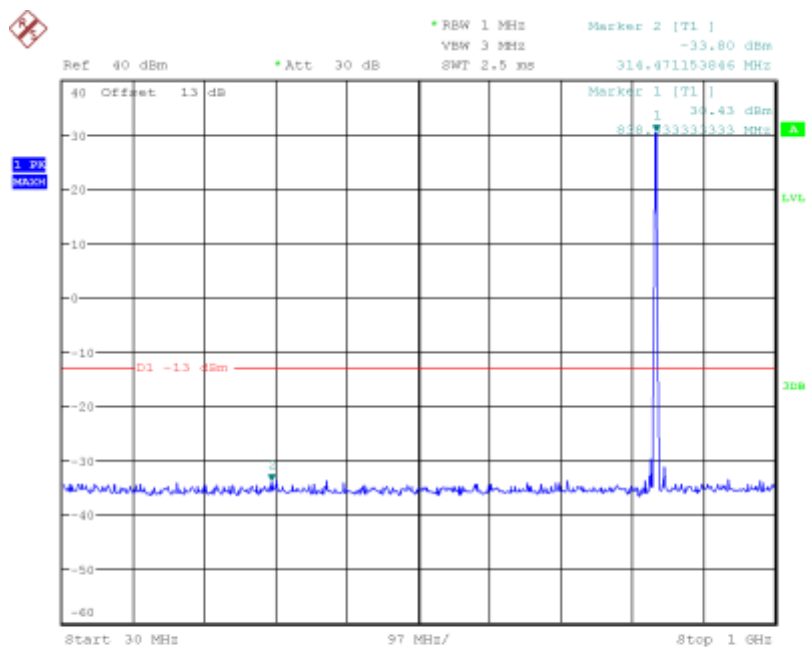
Note: The strong emission shown in each case is the carrier signal.



Date: 14.MAR.2019 05:56:36

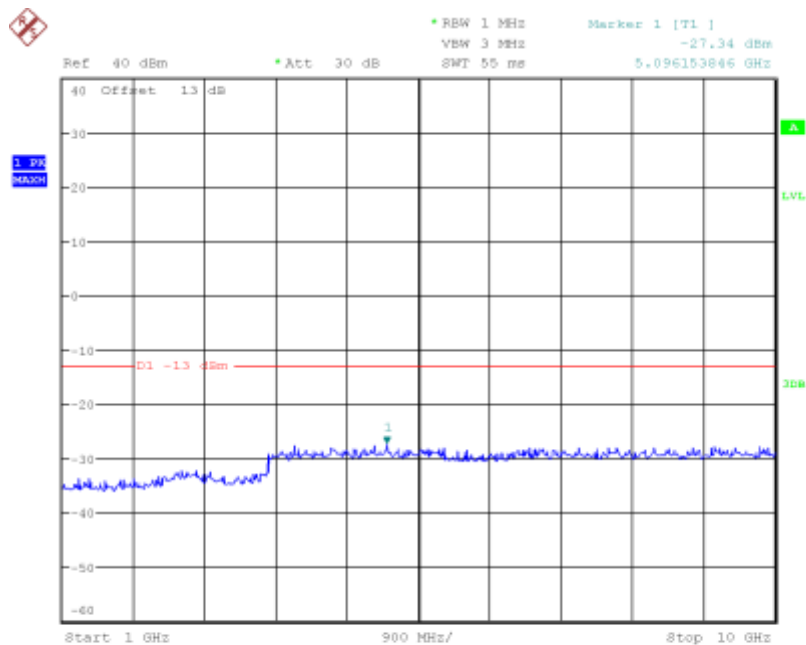
8PSK, Low channel, 824.200 MHz, 1GHz to 10GHz

Report No.:B19W50074-WWAN_Rev3



Date: 14.MAR.2019 05:57:48

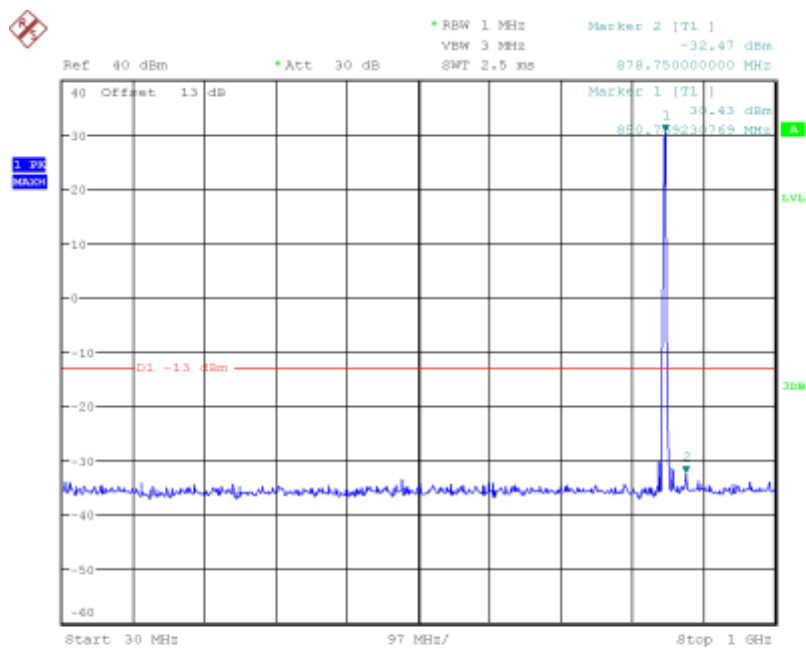
8PSK, Mid Channel, 836.6 MHz, 30MHz to 1GHz
Note: The strong emission shown in each case is the carrier signal.



Date: 14.MAR.2019 05:58:17

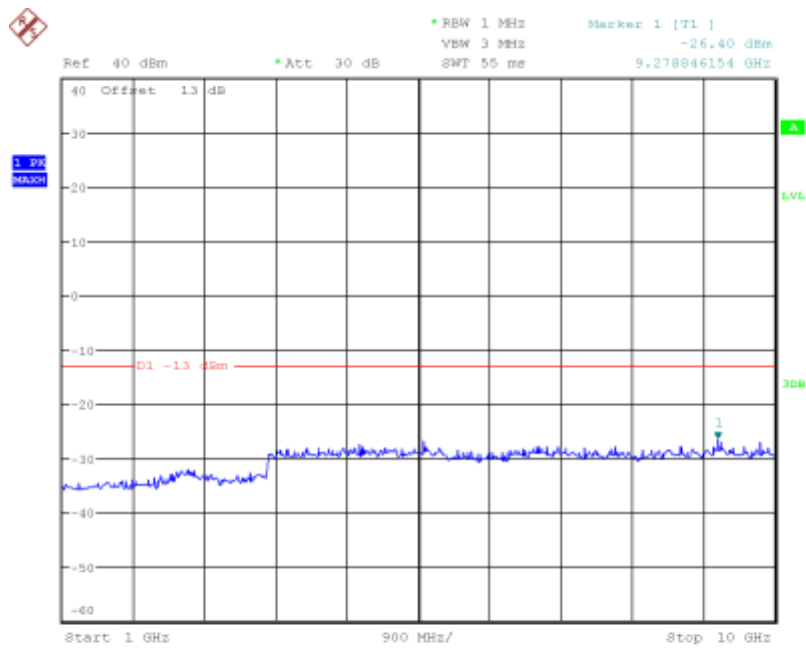
8PSK, Mid Channel, 836.6 MHz, 1GHz to 10GHz

Report No.:B19W50074-WWAN_Rev3



Date: 14.MAR.2019 05:59:10

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



Date: 14.MAR.2019 05:58:41

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