FCC PART 22H, PART 24E

FCC PART 27

MEASUREMENT AND TEST REPORT

For

Shenzhen Jingwah Information Technology Co., Ltd.

4F, Bldg 4, Jinghua Square, No.1 Huafa North Road, Futian District, Shenzhen, China

FCC ID: RBD-S55L

Report Type:	**Product Type:**
Original Report	Smart phone

Test Engineer:	Dean Liu
Report Number:	RSZ151216006-00C
Report Date:	2015-12-28
Reviewed By:	Sula Huang RF Leader
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Dongguan) No.69 Pulongcun, Puxinhu Industrial Zone, Tangxia, Dongguan, Guangdong, China Tel: +86-769-86858888 Fax: +86-769-86858891 www.baclcorp.com.cn

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Shenzhen Jingwah Information Technology Co., Ltd.*'s product, model number: *S55L (FCC ID: RBD-S55L)* (the "EUT") in this report was a *Smart Phone*, which was measured approximately: 15.5 cm (L) x 7.8cm (W) x 0.8 cm (H), rated input voltage: DC3.8V rechargeable Li-ion battery or DC5.0V charging from adapter.

Adapter information:
Model: KA25-0501000US
Input: 100-240VAC, 50/60 Hz, 0.25A Max
Output: DC 5V, 1000mA

Note: the series product, model S55L, S55 are electrically identical, the differences between them are model name, we selected S55L for fully testing, the details was explained in the attached declaration letter.

All measurement and test data in this report was gathered from production sample serial number: 151216006 (Assigned by BACL, Dongguan). The EUT was received on 2015-12-17.

Objective

This report is prepared on behalf of *Shenzhen Jingwah Information Technology Co., Ltd.* in accordance with: Part 2-Subpart J, Part 22-Subpart H, and Part 24-Subpart E of the Federal Communications Commission's rules.
Part 2, Part 27 of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC rules for output power, modulation characteristic, occupied bandwidth, spurious emissions at antenna terminal, spurious radiated emission, frequency stability and band edge.

Related Submittal(s)/Grant(s)

FCC Part 15B JBP submissions with FCC ID: RBD-S55L
FCC Part 15C DSS submissions with FCC ID: RBD-S55L
FCC Part 15C DTS submissions with FCC ID: RBD-S55L

Test Methodology

All tests and measurements indicated in this document were performed in accordance with the Code of Federal Regulations Title 47 Part 2, Sub-part J as well as the following parts:

Part 22 Subpart H - Public Mobile Services
Part 24 Subpart E - Personal Communication Services
Part 27 – Miscellaneous wireless communications services

Applicable Standards: TIA/EIA-603-D-2010.

All radiated and conducted emissions measurements were performed at Bay Area Compliance Laboratories Corp.(Dongguan).

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industrial Zone, Tangxia, Dongguan, Guangdong, China

Test site at Bay Area Compliance Laboratories Corp. (Dongguan) has been fully described in reports submitted to the Federal Communications Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on February 06, 2015.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 273710. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

SYSTEM TEST CONFIGURATION

Justification

The EUT was configured for testing according to TIA/EIA-603-D-2010.

The test items were performed with the EUT operating at testing mode.

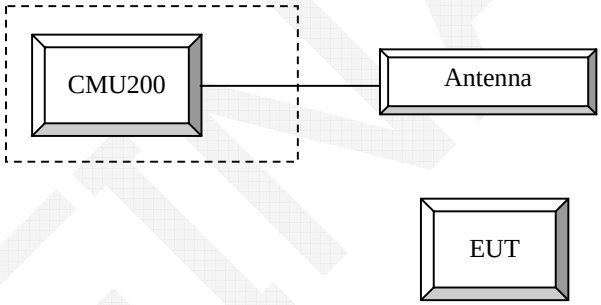
Equipment Modifications

No modification was made to the EUT.

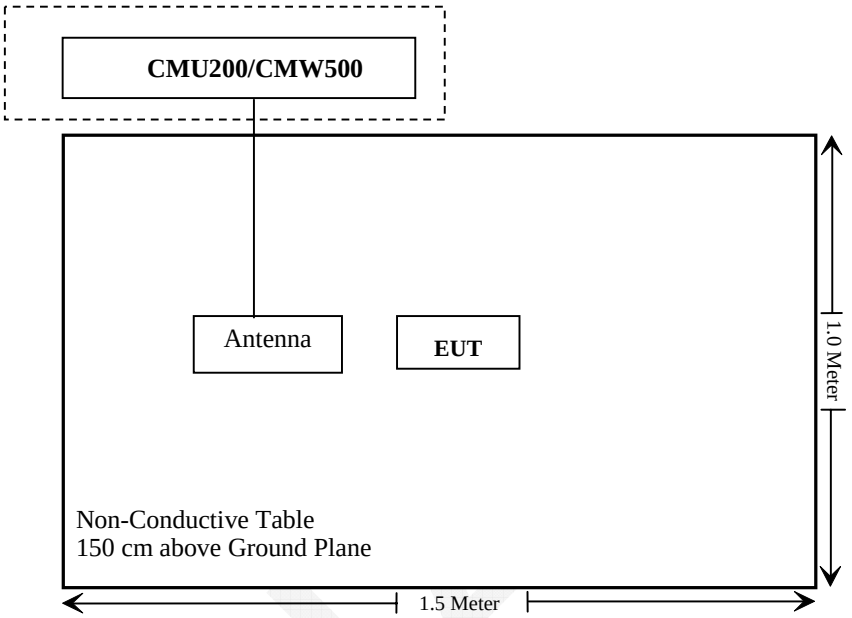
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
R&S	Universal Radio Communication Tester	CMU200	109038
R&S	Wideband Radio Communication Tester	CMW500	106891

Configuration of Test Setup



Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1310, §2.1093	RF Exposure	Compliance
§2.1046; § 22.913 (a); § 24.232 (c); §27.50	RF Output Power	Compliance
§ 2.1047	Modulation Characteristics	Not Applicable
§ 2.1049; § 22.905 § 22.917; § 24.238; §27.53	Occupied Bandwidth	Compliance
§ 2.1051, § 22.917 (a); § 24.238 (a); §27.53	Spurious Emissions at Antenna Terminal	Compliance
§ 2.1053 § 22.917 (a); § 24.238 (a); §27.53	Field Strength of Spurious Radiation	Compliance
§ 22.917 (a); § 24.238 (a); §27.53	Out of band emission, Band Edge	Compliance
§ 2.1055 § 22.355; § 24.235; §27.54	Frequency stability vs. temperature Frequency stability vs. voltage	Compliance

FCC §1.1310 & §2.1093- RF EXPOSURE

Applicable Standard

FCC§1.1310 and §2.1093.

Test Result

Compliance, please refer to the SAR report: RSZ151216006-20A.

FCC §2.1047 - MODULATION CHARACTERISTIC

According to FCC § 2.1047(d), Part 22H & 24E, Part 27 there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

FCC § 2.1046, § 22.913 (a) & § 24.232 (c) & § 27.50 - RF OUTPUT POWER

Applicable Standard

According to FCC §2.1046 and §22.913 (a), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC §2.1046 and §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 §24.232 (d) Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of §24.51. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

According to FCC §2.1046 and §27.50 (c), (10) 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 FCC §2.1046 and §27.50 (d), (4) 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. Fixed stations operating in the 1710-1755 MHz band are limited to a maximum antenna height of 10 meters above ground. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

According to FCC §2.1046 and §27.50 (h), (2) Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

Test Procedure

GSM/GPRS/EGPRS

Function: Menu select > GSM Mobile Station > GSM 850/1900
Press Connection control to choose the different menus
Press RESET > choose all the reset all settings
Connection Press Signal Off to turn off the signal and change settings
Network Support > GSM + GPRS or GSM + EGSM
Main Service > Packet Data
Service selection > Test Mode A – Auto Slot Config. off
MS Signal Press Slot Config Bottom on the right twice to select and change the number of time slots and power setting
> Slot configuration > Uplink/Gamma
> 33 dBm for GPRS 850
> 30 dBm for GPRS 1900
> 27 dBm for EGPRS 850
> 26 dBm for EGPRS 1900
BS Signal Enter the same channel number for TCH channel (test channel) and BCCH channel
Frequency Offset > + 0 Hz
Mode > BCCH and TCH
BCCH Level > -85 dBm (May need to adjust if link is not stable)
BCCH Channel > choose desire test channel [Enter the same channel number for TCH channel (test channel) and BCCH channel]

Channel Type > Off

P0 > 4 dB
Slot Config > Unchanged (if already set under MS signal)
TCH > choose desired test channel
Hopping > Off
Main Timeslot > 3
Network Coding Scheme > CS4 (GPRS) and MCS5 (EGPRS)

Bit Stream > 2E9-1 PSR Bit Stream
AF/RF Enter appropriate offsets for Ext. Att. Output and Ext. Att. Input
Connection Press Signal on to turn on the signal and change settings

WCDMA-Release 99

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification. The EUT has a nominal maximum output power of 24dBm (+1.7/-3.7).

WCDMA General Settings	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	Power Control Algorithm	Algorithm2
	βc / βd	8/15

WCDMA HSDPA

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification.

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subset	1	2	3	4
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	Power Control Algorithm	Algorithm2			
	βc	2/15	12/15	15/15	15/15
	βd	15/15	15/15	8/15	4/15
	βd (SF)	64			
	βc/ βd	2/15	12/15	15/8	15/4
	βhs	4/15	24/15	30/15	30/15
	MPR(dB)	0	0	0.5	0.5
HSDPA Specific Settings	DACK	8			
	DNAK	8			
	DCQI	8			
	Ack-Nack repetition factor	3			
	CQI Feedback	4ms			
	CQI Repetition Factor	2			
	Ahs=βhs/ βc	30/15			

WCDMA HSUPA

The following tests were conducted according to the test requirements outlines in section 5.2 of the 3GPP TS34.121-1 specification.

	Mode	HSUPA	HSUPA	HSUPA	HSUPA	HSUPA
	Subset	1	2	3	4	5
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
	βc	11/15	6/15	15/15	2/15	15/15
	βd	15/15	15/15	9/15	15/15	0
	βec	209/225	12/15	30/15	2/15	5/15
	βc/ βd	11/15	6/15	15/9	2/15	-
	βhs	22/15	12/15	30/15	4/15	5/15
	CM(dB)	1.0	3.0	2.0	3.0	1.0
	MPR(dB)	0	2	1	2	0
HSDPA Specific Settings	DACK	8				
	DNAK	8				
	DCQI	8				
	Ack-Nack repetition factor	3				
	CQI Feedback	4ms				
	CQI Repetition Factor	2				
	Ahs=βhs/ βc	30/15				
HSUPA Specific Settings	DE-DPCCH	6	8	8	5	7
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	21
	ETFCI	75	67	92	71	81
	Associated Max UL Data Rate kbps	242.1	174.9	482.8	205.8	308.9
	Reference E_FCIs	E-TFCI 11 E E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO23 E-TFCI 75 E-TFCI PO26 E-TFCI 81 E-TFCI PO 27		E-TFCI 11 E-TFCI PO4 E-TFCI 92 E-TFCI PO 18	E-TFCI 11 E E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO23 E-TFCI 75 E-TFCI PO26 E-TFCI 81 E-TFCI PO 27	

HSPA+

The following tests were conducted according to the test requirements in Table C.11.1.4 of 3GPP TS 34.121-1

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed}1: 30/15 β_{ed}2: 30/15	β_{ed}3: 24/15 β_{ed}4: 24/15	3.5	2.5	14	105	105

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c .

Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).

Note 3: DPDCH is not configured, therefore the β_c is set to 1 and β_d = 0 by default.

Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signalled to use the extrapolation algorithm.

DC-HSDPA

The following tests were conducted according to the test requirements in Table C.8.1.12 of 3GPP TS 34.121-1

Table C.8.1.12: Fixed Reference Channel H-Set 12

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Processes	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK

Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.

Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.

LTE:

The following tests were conducted according to the test requirements in 3GPP TS36.101

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3

Modulation	Channel bandwidth / Transmission bandwidth (RB)						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2

The allowed A-MPR values specified below in Table 6.2.4.-1 of 3GPP TS36.101 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of "NS_01".

Table 6.2.4-1: Additional Maximum Power Reduction (A-MPR)

Network Signalling value	Requirements (sub-clause)	E-UTRA Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01	6.6.2.1.1	Table 5.5-1	1.4, 3, 5, 10, 15, 20	Table 5.6-1	NA
NS_03	6.6.2.2.1	2, 4,10, 23, 25, 35, 36	3	>5	≤ 1
			5	>6	≤ 1
			10	>6	≤ 1
			15	>8	≤ 1
			20	>10	≤ 1
NS_04	6.6.2.2.2	41	5	>6	≤ 1
			10, 15, 20	See Table 6.2.4-4	
NS_05	6.6.3.3.1	1	10,15,20	≥ 50	≤ 1
NS_06	6.6.2.2.3	12, 13, 14, 17	1.4, 3, 5, 10	Table 5.6-1	n/a
NS_07	6.6.2.2.3 6.6.3.3.2	13	10	Table 6.2.4-2	Table 6.2.4-2
NS_08	6.6.3.3.3	19	10, 15	> 44	≤ 3
NS_09	6.6.3.3.4	21	10, 15	> 40	≤ 1
				> 55	≤ 2
NS_10		20	15, 20	Table 6.2.4-3	Table 6.2.4-3
NS_11	6.6.2.2.1	23[1]	1.4, 3, 5, 10	Table 6.2.4-5	Table 6.2.4-5
...					
NS_32	-	-	-	-	-

Note 1: Applies to the lower block of Band 23, i.e. a carrier placed in the 2000-2010 MHz region

Radiated method:

ANSI/TIA-603-D section 2.2.17

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCI	100224	2015-08-03	2016-08-02
Sunol Sciences	Antenna	JB3	A060611-3	2014-11-06	2017-11-05
HP	Amplifier	8447E	2434A02181	2015-09-01	2016-09-01
Agilent	Spectrum Analyzer	E4440A	SG43360054	2015-11-23	2016-11-22
ETS-Lindgren	Horn Antenna	3115	9808-5557	2015-09-06	2018-09-06
Mini-Circuit	Amplifier	ZVA-213-S+	054201245	2015-02-19	2016-02-19
Giga	Signal Generator	1026	320408	2015-11-23	2016-11-22
EMCO	Adjustable Dipole Antenna	3121C	9109-753	N/A	N/A
TDK RF	Horn Antenna	HRN-0118	130 084	2015-09-06	2018-09-06

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	22.5~25.3℃
Relative Humidity:	46~52%
ATM Pressure:	101~101.7 kPa

The testing was performed by Dean Liu from 2015-12-23 to 2015-12-26

Conducted Power

Cellular Band (Part 22H) & PCS Band (Part 24E)

Band	Channel No.	Peak Output Power (dBm)								
		GSM	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
Cellular	128	32.76	32.37	31.67	29.73	28.78	26.25	24.88	22.40	21.04
	190	32.89	32.58	31.50	29.66	28.66	26.75	24.22	22.82	21.18
	251	32.62	32.50	31.48	29.79	28.87	26.22	24.85	22.53	21.11
PCS	512	29.34	28.86	27.50	26.10	24.38	25.24	23.75	22.17	20.49
	661	29.47	28.81	27.58	26.01	24.39	25.68	23.56	22.13	20.51
	810	29.76	28.75	27.39	26.05	24.38	25.35	23.81	22.23	20.48

WCDMA Band Ⅱ (PART 24E)

Mode	3GPP Sub Test	Average Output Power (dBm)					
		Low Channel (Ave. Power)	Low Channel (PAR)	Middle Channel (Ave. Power)	Middle Channel (PAR)	High Channel (Ave. Power)	High Channel (PAR)
Rel 99	1	22.64	2.72	22.79	2.60	22.68	2.40
HSDPA	1	21.93	2.73	21.94	2.51	21.92	2.29
	2	21.87	2.64	21.82	2.54	21.89	2.31
	3	21.79	2.78	21.76	2.56	21.81	2.45
	4	21.68	2.66	21.65	2.53	21.76	2.49
HSUPA	1	22.08	2.75	22.07	2.62	22.09	2.47
	2	22.01	2.69	21.98	2.58	22.02	2.33
	3	21.94	2.75	21.91	2.66	21.96	2.36
	4	21.89	2.71	21.87	2.61	21.87	2.44
	5	21.78	2.69	21.76	2.59	21.76	2.37
DC-HSDPA	1	21.94	2.74	21.84	2.58	21.97	2.38
	2	21.85	2.74	21.81	2.63	21.90	2.42
	3	21.71	2.63	21.72	2.61	21.84	2.39
	4	21.64	2.74	21.62	2.59	21.76	2.43
HSPA+	1	21.84	2.77	21.89	2.63	21.92	2.42

WCDMA Band V (PART 22H)

Mode	3GPP Sub Test	Average Output Power (dBm)					
		Low Channel (Ave. Power)	Low Channel (PAR)	Middle Channel (Ave. Power)	Middle Channel (PAR)	High Channel (Ave. Power)	High Channel (PAR)
Rel 99	1	22.44	2.64	22.57	2.48	22.65	2.36
HSDPA	1	21.67	2.62	21.74	2.49	21.53	2.32
	2	21.54	2.57	21.64	2.54	21.48	2.42
	3	21.46	2.66	21.59	2.47	21.46	2.33
	4	21.43	2.58	21.52	2.42	21.41	2.46
HSUPA	1	21.54	2.61	21.69	2.53	21.57	2.34
	2	21.46	2.63	21.66	2.52	21.55	2.46
	3	21.44	2.59	21.57	2.49	21.51	2.31
	4	21.41	2.62	21.54	2.48	21.42	2.45
	5	21.35	2.53	21.48	2.56	21.37	2.44
DC-HSDPA	1	21.38	2.65	21.62	2.55	21.45	2.39
	2	21.32	2.59	21.53	2.47	21.42	2.37
	3	21.26	2.62	21.49	2.52	21.36	2.41
	4	21.21	2.57	21.32	2.49	21.31	2.41
HSPA+	1	21.58	2.61	21.41	2.53	21.52	2.38

WCDMA Band IV (PART 27)

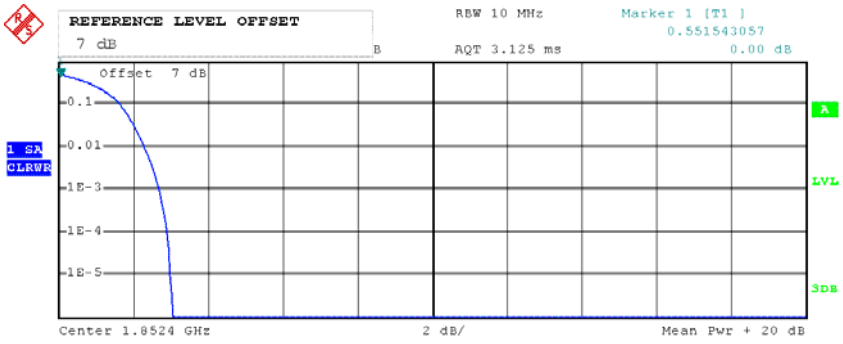
Mode	3GPP Sub Test	Average Output Power (dBm)					
		Low Channel (Ave. Power)	Low Channel (PAR)	Middle Channel (Ave. Power)	Middle Channel (PAR)	High Channel (Ave. Power)	High Channel (PAR)
Rel 99	1	22.69	2.64	22.82	2.52	22.13	2.64
HSDPA	1	22.12	2.52	22.05	2.64	21.70	2.53
	2	22.06	2.64	21.94	2.69	21.65	2.47
	3	21.97	2.61	21.81	2.66	21.68	2.41
	4	21.89	2.59	21.77	2.51	21.62	2.43
HSUPA	1	22.01	2.67	22.00	2.53	21.59	2.58
	2	21.94	2.71	21.94	2.59	21.55	2.49
	3	21.85	2.43	21.87	2.57	21.60	2.58
	4	21.74	2.53	21.80	2.64	21.54	2.56
	5	21.68	2.54	21.68	2.63	21.51	2.44
DC-HSDPA	1	22.01	2.63	21.95	2.6	21.43	2.55
	2	21.94	2.66	21.93	2.54	21.50	2.59
	3	21.88	2.54	21.88	2.58	21.48	2.54
	4	21.79	2.67	21.78	2.64	21.44	2.53
HSPA+	1	21.90	2.69	21.95	2.63	21.64	2.47

Note: peak-to-average ratio (PAR) <13 dB.

Peak-to-average ratio (PAR)

WCDMA Band Ⅱ(PART 24E)

Low Channel



Complementary Cumulative Distribution Function (100000 samples)

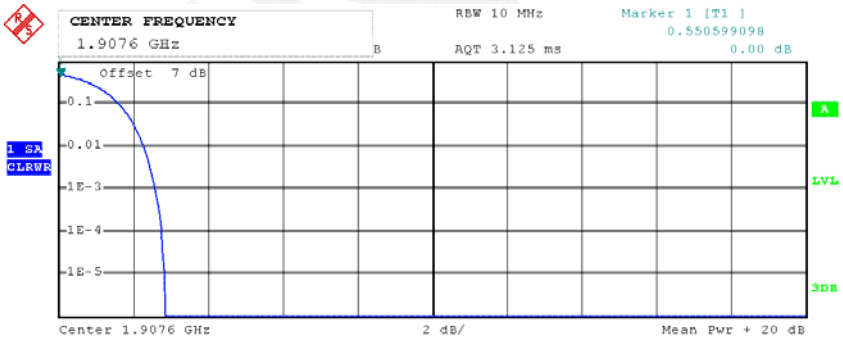
Trace 1

Mean 21.40 dBm
Peak 24.46 dBm
Crest 3.06 dB

10% @ 1.68 dB
1% @ 2.32 dB
.1% @ 2.72 dB

Date: 24.DEC.2015 23:42:48

Middle Channel



Complementary Cumulative Distribution Function (100000 samples)

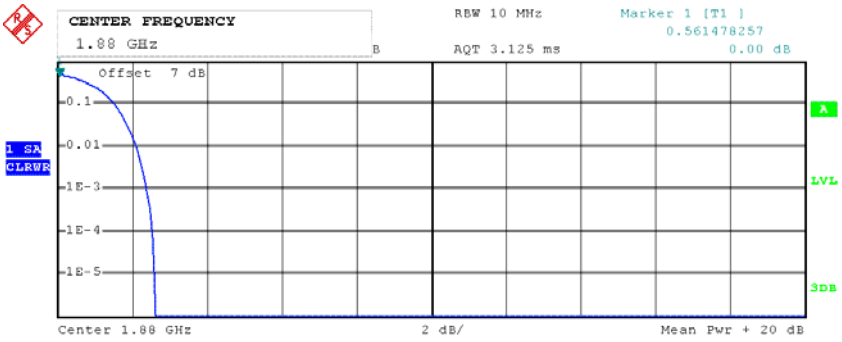
Trace 1

Mean 20.82 dBm
Peak 23.69 dBm
Crest 2.87 dB

10% @ 1.64 dB
1% @ 2.28 dB
.1% @ 2.60 dB

Date: 24.DEC.2015 23:43:10

High Channel



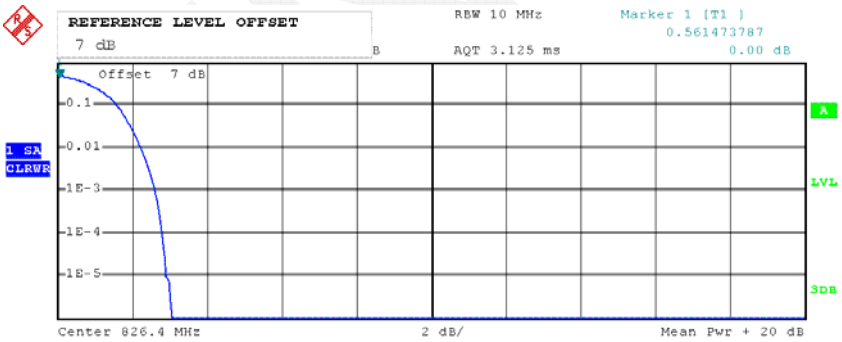
Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	20.45 dBm
Peak	23.05 dBm
Crest	2.60 dB
10% @	1.56 dB
1% @	2.12 dB
.1% @	2.40 dB

Date: 24.DEC.2015 23:43:44

WCDMA Band V (PART 22H)

Low Channel

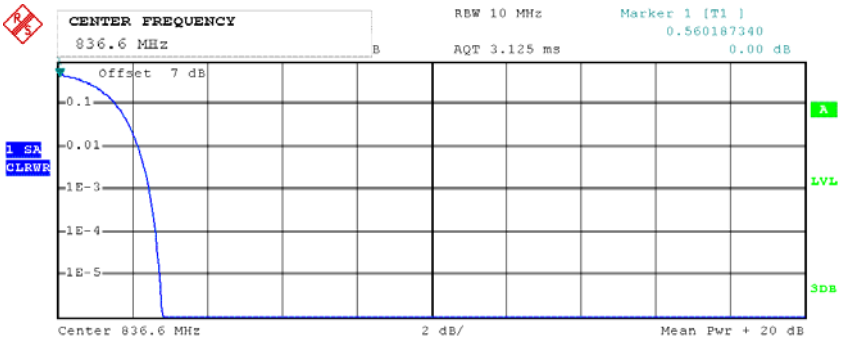


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	21.48 dBm
Peak	24.53 dBm
Crest	3.05 dB
10% @	1.60 dB
1% @	2.24 dB
.1% @	2.64 dB

Date: 24.DEC.2015 23:52:14

Middle Channel



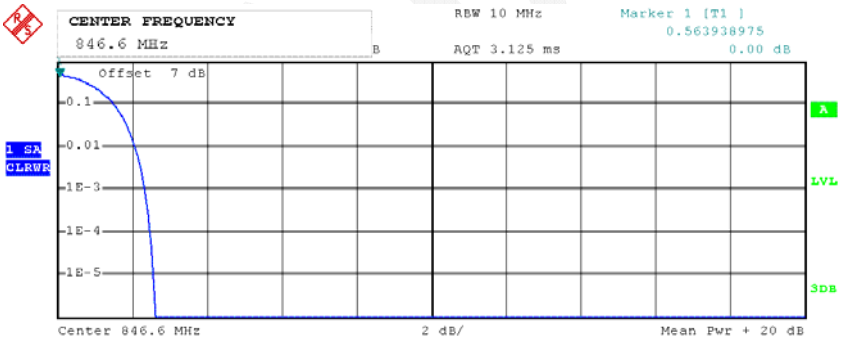
Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	21.80 dBm
Peak	24.60 dBm
Crest	2.81 dB
10% @	1.60 dB
1% @	2.16 dB
.1% @	2.48 dB

Date: 24.DEC.2015 23:52:56

High Channel



Complementary Cumulative Distribution Function (100000 samples)

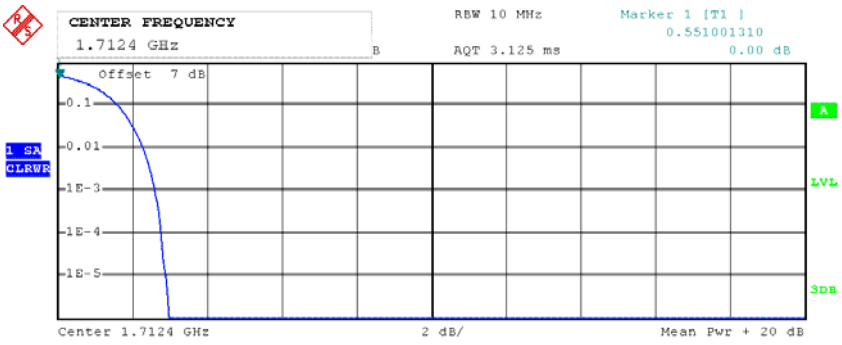
Trace 1

Mean	21.36 dBm
Peak	23.97 dBm
Crest	2.61 dB
10% @	1.52 dB
1% @	2.08 dB
.1% @	2.36 dB

Date: 24.DEC.2015 23:53:11

WCDMA Band Ⅳ(PART 27)

Low Channel



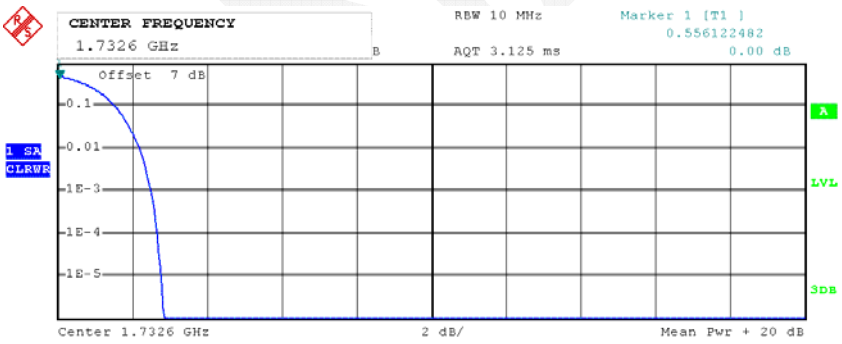
Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	20.57 dBm
Peak	23.55 dBm
Crest	2.98 dB
10% @	1.64 dB
1% @	2.32 dB
.1% @	2.64 dB

Date: 24.DEC.2015 23:45:54

Middle Channel



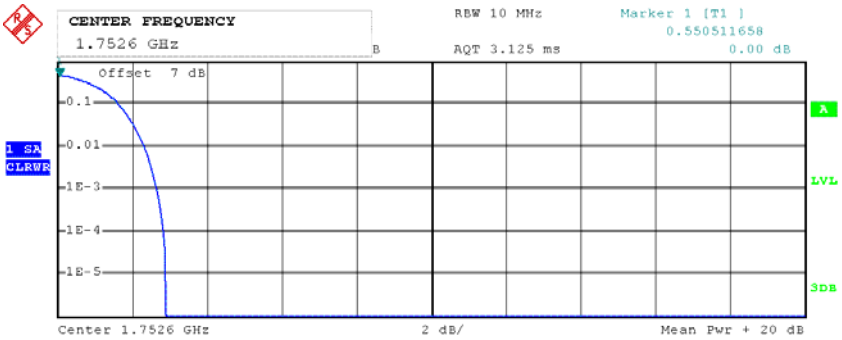
Complementary Cumulative Distribution Function (100000 samples)

Trace 1

Mean	20.84 dBm
Peak	23.69 dBm
Crest	2.85 dB
10% @	1.56 dB
1% @	2.20 dB
.1% @	2.52 dB

Date: 24.DEC.2015 23:46:20

High Channel



Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.06 dBm
Peak	23.97 dBm
Crest	2.91 dB
10% @	1.64 dB
1% @	2.36 dB
.1% @	2.68 dB

Date: 24.DEC.2015 23:45:38

LTE Band 2

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	22.63	22.67	22.49
		1#3	22.72	22.65	22.49
		1#5	22.73	22.64	22.41
		3#0	22.24	22.65	22.54
		3#1	22.23	22.56	22.39
		3#3	22.23	22.42	22.24
		6#0	22.17	22.14	22.12
	16-QAM	1#0	22.11	22.15	22.13
		1#3	22.03	22.06	22.07
		1#5	22.07	22.06	22.04
		3#0	21.60	21.68	21.54
		3#1	21.35	21.57	21.80
		3#3	21.57	21.71	21.75
		6#0	21.09	21.11	21.17
3M	QPSK	1#0	22.46	22.21	22.51
		1#7	22.41	22.41	22.16
		1#14	22.32	22.37	22.00
		8#0	22.02	21.95	21.88
		8#4	21.95	21.99	21.88
		8#7	21.83	21.77	21.73
		15#0	20.99	20.99	20.93
	16-QAM	1#0	21.79	21.88	21.85
		1#7	21.68	21.79	21.66
		1#14	21.66	21.73	21.82
		8#0	21.63	21.42	21.43
		8#4	21.90	21.17	21.39
		8#7	21.62	21.52	21.55
		15#0	20.88	20.83	20.67
5M	QPSK	1#0	22.87	22.14	22.53
		1#12	22.66	22.41	22.03
		1#24	22.47	22.37	22.19
		12#0	21.55	21.51	21.52
		12#6	21.84	21.30	21.75
		12#11	21.53	21.28	21.52
		25#0	20.88	20.83	20.78
	16-QAM	1#0	21.77	21.42	21.81
		1#12	21.81	21.25	21.69
		1#24	21.15	21.12	21.79
		12#0	21.56	21.26	21.08
		12#6	21.36	21.40	21.12
		12#11	21.37	20.90	21.07
		25#0	20.65	20.60	20.47

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
10M	QPSK	1#0	22.48	22.37	22.11
		1#24	22.75	22.69	22.71
		1#49	22.32	22.08	22.23
		25#0	21.84	21.49	21.44
		25#12	21.98	21.47	21.61
		25#24	21.85	21.43	21.65
		50#0	21.35	21.13	21.21
	16-QAM	1#0	22.30	22.03	22.14
		1#24	22.11	22.11	22.01
		1#49	22.03	22.13	22.06
		25#0	21.64	21.40	21.01
		25#12	21.49	21.51	21.15
		25#24	21.47	21.35	21.07
		50#0	20.52	20.30	20.13
15M	QPSK	1#0	22.25	22.25	22.32
		1#37	22.25	22.35	22.34
		1#74	22.08	22.22	22.52
		36#0	21.79	21.77	21.80
		36#17	21.71	21.88	21.79
		36#35	21.46	21.86	21.98
		75#0	21.50	20.74	20.82
	16-QAM	1#0	22.13	21.62	21.80
		1#37	22.11	21.34	21.53
		1#74	22.00	21.29	21.68
		36#0	21.41	20.38	20.77
		36#17	21.54	20.78	20.94
		36#35	21.45	20.63	20.86
		75#0	20.67	20.14	19.99
20M	QPSK	1#0	22.21	21.78	22.01
		1#49	22.35	21.96	22.35
		1#99	22.30	22.17	22.76
		50#0	21.62	21.18	21.81
		50#24	21.45	21.30	21.94
		50#49	22.66	21.55	21.63
		100#0	21.46	20.75	20.82
	16-QAM	1#0	21.89	21.72	21.89
		1#49	22.10	21.55	21.76
		1#99	21.93	21.55	21.95
		50#0	21.31	20.86	20.98
		50#24	21.24	21.08	21.07
		50#49	21.18	21.00	20.92
		100#0	20.24	20.39	20.39

LTE Band 4

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	22.37	22.43	22.29
		1#3	22.46	22.41	22.24
		1#5	22.49	22.44	22.23
		3#0	22.04	22.43	21.62
		3#1	21.89	22.34	21.71
		3#3	21.65	22.32	21.64
		6#0	21.03	21.33	21.03
	16-QAM	1#0	22.02	22.14	21.75
		1#3	22.24	21.47	21.62
		1#5	22.14	22.17	21.52
		3#0	21.52	22.19	21.17
		3#1	21.28	22.19	21.44
		3#3	21.52	22.12	21.41
		6#0	20.72	20.37	20.81
3M	QPSK	1#0	22.18	21.95	22.29
		1#7	22.14	22.16	21.95
		1#14	22.08	22.15	21.82
		8#0	21.74	21.69	21.66
		8#4	21.68	21.74	21.67
		8#7	21.54	21.50	21.50
		15#0	20.75	20.77	20.75
	16-QAM	1#0	22.08	21.62	21.63
		1#7	22.15	21.56	21.47
		1#14	22.13	21.48	21.61
		8#0	21.36	21.17	21.22
		8#4	21.63	20.92	21.18
		8#7	21.36	21.28	21.35
		15#0	20.61	20.58	20.46
5M	QPSK	1#0	22.61	21.89	22.32
		1#12	22.41	21.77	21.84
		1#24	22.19	19.78	21.97
		12#0	21.27	21.25	21.30
		12#6	21.59	21.07	21.56
		12#11	21.26	21.03	21.31
		25#0	20.62	20.59	20.58
	16-QAM	1#0	21.47	21.14	21.57
		1#12	21.58	21.04	21.52
		1#24	20.90	20.89	21.60
		12#0	21.27	20.99	20.85
		12#6	21.10	21.16	20.92
		12#11	21.08	20.63	20.84
		25#0	20.41	20.38	20.29

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
10M	QPSK	1#0	22.18	21.81	21.87
		1#24	22.50	21.71	21.87
		1#49	22.02	21.80	21.99
		25#0	21.56	21.23	21.22
		25#12	21.75	21.26	21.44
		25#24	21.57	21.17	21.43
		50#0	21.09	20.58	20.62
	16-QAM	1#0	22.03	21.69	21.52
		1#24	21.86	21.61	21.59
		1#49	20.84	21.38	21.44
		25#0	21.38	21.16	20.81
		25#12	21.17	21.21	20.89
		25#24	20.27	20.37	20.82
		50#0	20.26	20.06	19.93
15M	QPSK	1#0	22.01	22.02	22.13
		1#37	21.96	22.08	22.11
		1#74	21.85	22.01	22.35
		36#0	21.50	21.50	21.57
		36#17	21.45	21.64	21.59
		36#35	21.22	21.64	21.80
		75#0	21.23	20.49	20.61
	16-QAM	1#0	21.84	21.35	21.57
		1#37	21.84	21.09	21.32
		1#74	21.73	21.04	21.47
		36#0	21.14	20.13	20.56
		36#17	21.29	20.55	20.75
		36#35	21.20	20.40	20.67
		75#0	20.42	19.91	19.80
20M	QPSK	1#0	21.95	21.54	21.81
		1#49	22.08	21.71	22.14
		1#99	22.04	21.93	22.97
		50#0	21.38	20.96	21.63
		50#24	21.19	21.06	21.74
		50#49	22.38	21.29	21.41
		100#0	21.18	20.49	20.60
	16-QAM	1#0	21.60	21.45	21.66
		1#49	21.81	21.28	21.53
		1#99	21.66	21.30	21.74
		50#0	21.04	20.61	20.77
		50#24	20.96	20.82	20.85
		50#49	20.88	20.72	20.68
		100#0	19.99	20.16	20.20

LTE Band 5

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	23.09	22.93	22.87
		1#3	23.04	22.99	22.83
		1#5	22.81	23.02	22.73
		3#0	22.28	22.07	22.31
		3#1	22.35	22.39	21.82
		3#3	22.17	22.32	22.10
		6#0	21.73	21.81	21.57
	16-QAM	1#0	22.32	22.40	22.29
		1#3	22.37	22.30	21.96
		1#5	22.19	22.59	22.02
		3#0	21.60	21.36	21.37
		3#1	21.16	21.26	21.12
		3#3	21.29	21.51	21.09
		6#0	21.72	20.68	20.62
3M	QPSK	1#0	22.85	23.02	22.60
		1#7	22.75	22.78	22.56
		1#14	22.69	22.95	22.75
		8#0	22.70	22.41	21.76
		8#4	22.50	22.32	22.11
		8#7	22.37	22.31	21.94
		15#0	21.76	21.97	21.37
	16-QAM	1#0	22.35	22.20	22.20
		1#7	22.01	22.40	22.32
		1#14	22.20	22.41	22.12
		8#0	21.34	21.57	21.01
		8#4	21.40	21.23	20.94
		8#7	21.43	21.33	20.95
		15#0	20.53	20.80	20.45
5M	QPSK	1#0	22.93	22.83	22.65
		1#12	22.97	22.67	22.46
		1#24	22.86	22.68	22.79
		12#0	22.21	22.38	21.93
		12#6	22.46	22.12	22.08
		12#11	22.20	22.20	21.89
		25#0	21.69	21.67	21.34
	16-QAM	1#0	22.26	22.29	22.01
		1#12	22.45	22.21	22.10
		1#24	22.44	22.67	21.93
		12#0	21.43	21.40	20.95
		12#6	21.11	21.57	21.09
		12#11	21.22	21.63	20.86
		25#0	20.68	20.91	20.63

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
10M	QPSK	1#0	22.83	22.62	22.04
		1#24	22.85	22.98	22.25
		1#49	22.86	22.72	21.95
		25#0	22.05	22.37	21.62
		25#12	22.34	22.50	21.78
		25#24	22.12	22.49	21.74
		50#0	21.65	21.66	21.15
	16-QAM	1#0	22.46	22.13	21.99
		1#24	22.30	22.01	21.82
		1#49	22.24	22.19	22.00
		25#0	21.46	21.74	21.24
		25#12	21.68	21.71	21.35
		25#24	21.65	21.89	21.46
		50#0	20.31	20.80	20.57

LTE Band 7

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	22.57	22.61	22.38
		1#12	22.64	22.45	22.23
		1#24	22.52	22.45	22.51
		12#0	21.85	22.17	21.68
		12#6	22.11	21.91	21.85
		12#11	21.82	21.98	21.65
		25#0	21.35	21.44	21.11
	16-QAM	1#0	21.88	22.05	21.75
		1#12	22.09	22.01	21.84
		1#24	22.01	22.45	21.72
		12#0	21.07	21.17	20.72
		12#6	20.74	21.31	20.83
		12#11	20.87	21.41	20.60
		25#0	20.35	20.69	20.37

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
10M	QPSK	1#0	22.47	22.37	21.81
		1#24	22.51	22.78	22.01
		1#49	22.49	22.48	21.70
		25#0	21.73	22.12	21.39
		25#12	21.99	22.28	21.53
		25#24	21.75	22.22	21.49
		50#0	21.32	21.44	20.92
	16-QAM	1#0	22.15	21.91	21.77
		1#24	21.92	21.80	21.59
		1#49	21.88	21.95	21.75
		25#0	21.08	21.51	20.99
		25#12	21.31	21.48	21.07
		25#24	21.27	21.64	21.24
		50#0	19.95	20.55	20.32
15M	QPSK	1#0	22.76	22.99	22.01
		1#37	22.76	22.99	22.14
		1#74	22.80	22.89	22.35
		36#0	21.87	22.16	21.11
		36#17	22.10	21.97	21.01
		36#35	22.18	22.06	21.25
		75#0	21.42	21.46	20.70
	16-QAM	1#0	21.91	21.75	21.87
		1#37	22.04	22.05	21.67
		1#74	21.88	21.70	21.42
		36#0	20.98	21.30	21.16
		36#17	20.90	21.33	20.94
		36#35	20.82	21.40	20.93
		75#0	19.92	20.74	20.34
20M	QPSK	1#0	22.35	22.79	22.04
		1#49	22.50	22.84	21.99
		1#99	22.64	22.84	22.15
		50#0	22.23	22.17	21.29
		50#24	21.89	21.72	21.45
		50#49	21.91	21.36	21.52
		100#0	21.33	20.60	20.62
	16-QAM	1#0	21.99	21.70	21.53
		1#49	21.95	21.97	21.64
		1#99	21.72	21.81	21.86
		50#0	21.10	21.08	20.68
		50#24	20.91	20.97	20.59
		50#49	21.02	20.97	21.00
		100#0	20.29	20.78	19.95

LTE Band 17

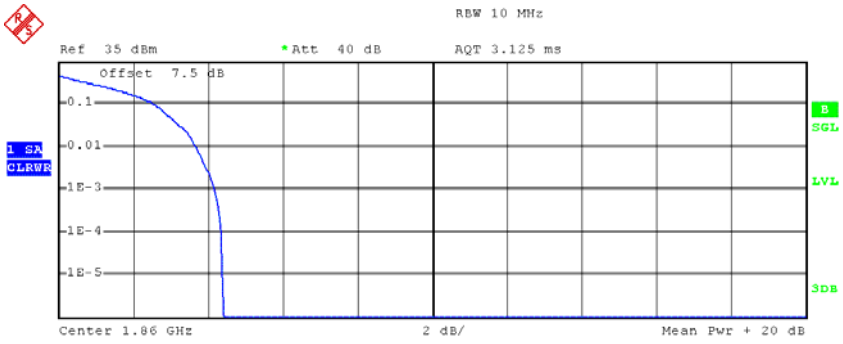
Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	22.96	22.76	22.73
		1#12	22.98	22.57	22.56
		1#24	22.84	22.56	22.86
		12#0	22.25	22.25	21.91
		12#6	22.49	22.31	22.17
		12#11	22.35	22.11	21.96
		25#0	21.69	21.54	21.42
	16-QAM	1#0	22.27	22.15	22.10
		1#12	22.48	22.12	22.16
		1#24	22.42	22.57	22.03
		12#0	21.44	21.29	21.05
		12#6	21.10	21.46	21.15
		12#11	21.26	21.52	20.97
		25#0	20.70	20.79	20.71
10M	QPSK	1#0	22.83	22.48	22.11
		1#24	22.87	22.88	22.33
		1#49	22.85	22.58	22.05
		25#0	22.08	22.23	21.69
		25#12	22.33	22.36	21.86
		25#24	22.11	22.38	21.82
		50#0	21.69	21.52	21.24
	16-QAM	1#0	22.48	22.06	22.07
		1#24	22.29	21.93	21.88
		1#49	22.25	22.07	22.06
		25#0	21.46	21.67	21.33
		25#12	21.68	21.60	21.40
		25#24	21.67	21.78	21.57
		50#0	20.33	20.70	20.66

Peak-to-average ratio (PAR)

LTE Band	Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit (dB)
Band 2	QPSK	1 RB	20M	4.20	3.40	3.52	≤13
		Full RB		6.48	6.40	6.40	≤13
	16-QAM	1 RB		4.24	3.40	3.56	≤13
		Full RB		6.44	6.40	6.36	≤13
Band 4	QPSK	1 RB	20M	4.44	4.28	3.36	≤13
		Full RB		6.56	6.28	6.36	≤13
	16-QAM	1 RB		4.48	4.40	3.40	≤13
		Full RB		6.60	6.28	6.32	≤13
Band 5	QPSK	1 RB	10M	4.36	4.24	3.96	≤13
		Full RB		5.40	5.44	5.36	≤13
	16-QAM	1 RB		4.32	4.40	3.92	≤13
		Full RB		5.44	5.48	5.36	≤13
Band 7	QPSK	1 RB	20M	2.60	2.44	2.04	≤13
		Full RB		6.48	6.40	6.44	≤13
	16-QAM	1 RB		2.64	2.36	2.04	≤13
		Full RB		6.44	6.40	6.44	≤13
Band 17	QPSK	1 RB	10M	4.08	3.80	4.04	≤13
		Full RB		5.72	5.68	5.76	≤13
	16-QAM	1 RB		4.16	3.76	4.00	≤13
		Full RB		5.76	5.72	5.80	≤13

LTE Band 2

QPSK-1RB, 20M Low Channel

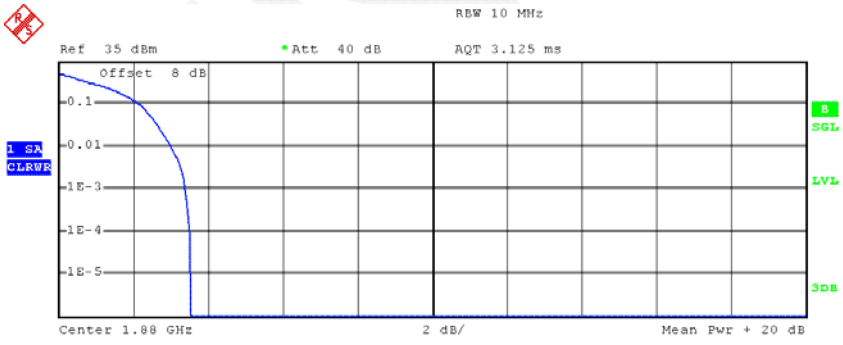


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.15 dBm
Peak	26.54 dBm
Crest	4.39 dB
10% @	2.60 dB
1% @	3.72 dB
.1% @	4.20 dB

Date: 26.DEC.2015 13:45:09

QPSK-1RB, 20M Middle Channel

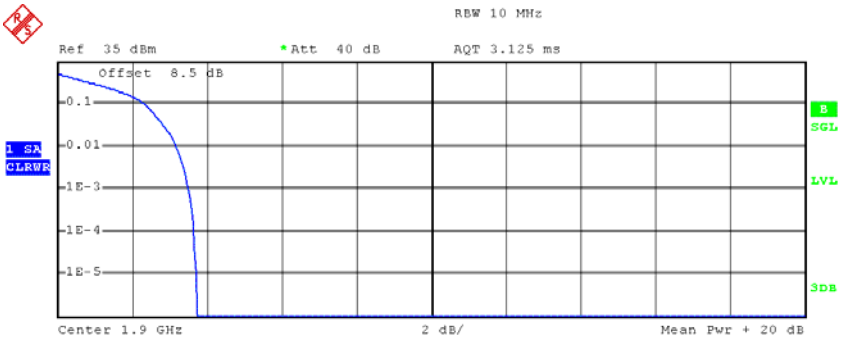


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.01 dBm
Peak	25.56 dBm
Crest	3.54 dB
10% @	2.20 dB
1% @	3.04 dB
.1% @	3.40 dB

Date: 26.DEC.2015 13:51:52

QPSK-1RB, 20M High Channel

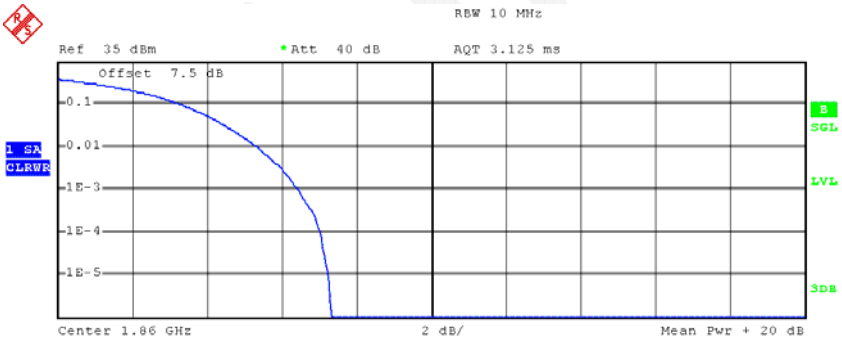


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	22.02 dBm
Peak	25.77 dBm
Crest	3.74 dB
10% @	2.36 dB
1% @	3.20 dB
.1% @	3.52 dB

Date: 26.DEC.2015 13:53:01

QPSK- Full RB, 20M Low Channel

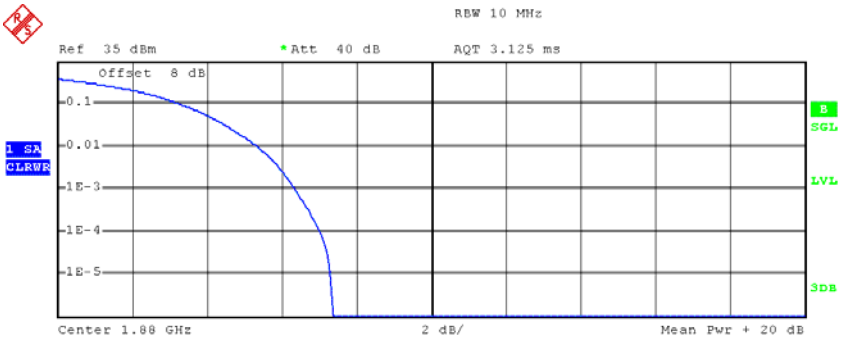


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	18.38 dBm
Peak	25.70 dBm
Crest	7.32 dB
10% @	3.40 dB
1% @	5.36 dB
.1% @	6.48 dB

Date: 26.DEC.2015 13:48:53

QPSK- Full RB, 20M Middle Channel

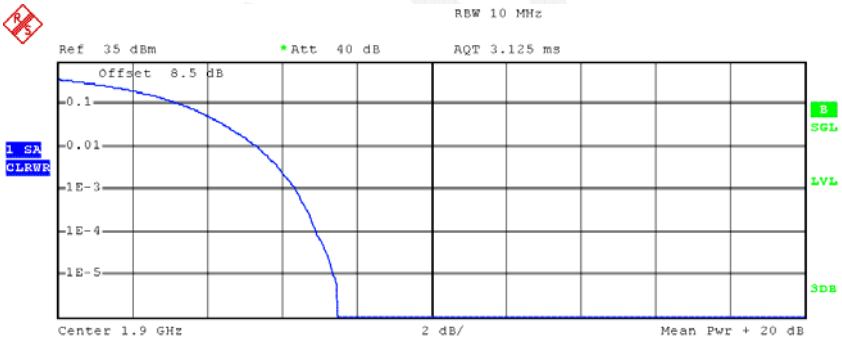


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	18.19 dBm
Peak	25.56 dBm
Crest	7.37 dB
10% @	3.36 dB
1% @	5.36 dB
.1% @	6.40 dB

Date: 26.DEC.2015 13:50:58

QPSK- Full RB, 20M High Channel

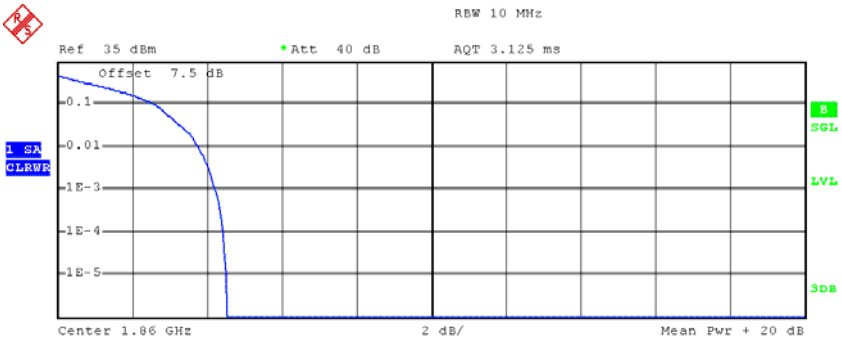


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	18.33 dBm
Peak	25.84 dBm
Crest	7.51 dB
10% @	3.40 dB
1% @	5.40 dB
.1% @	6.40 dB

Date: 26.DEC.2015 13:53:27

16QAM- 1RB, 20M Low Channel

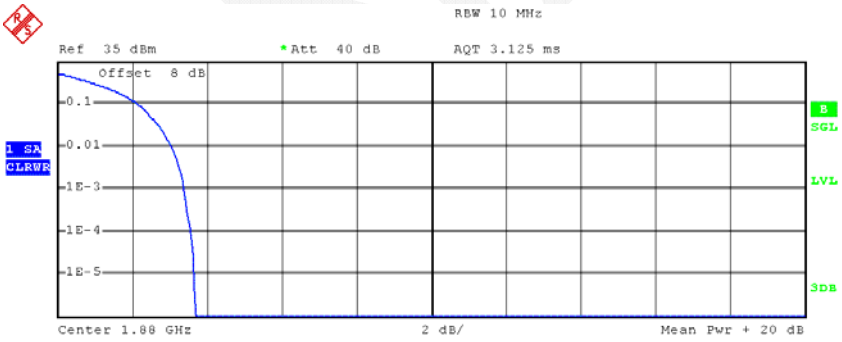


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.07 dBm
Peak	26.61 dBm
Crest	4.54 dB
10% @	2.64 dB
1% @	3.80 dB
.1% @	4.24 dB

Date: 26.DEC.2015 13:45:31

16QAM- 1RB, 20M Middle Channel

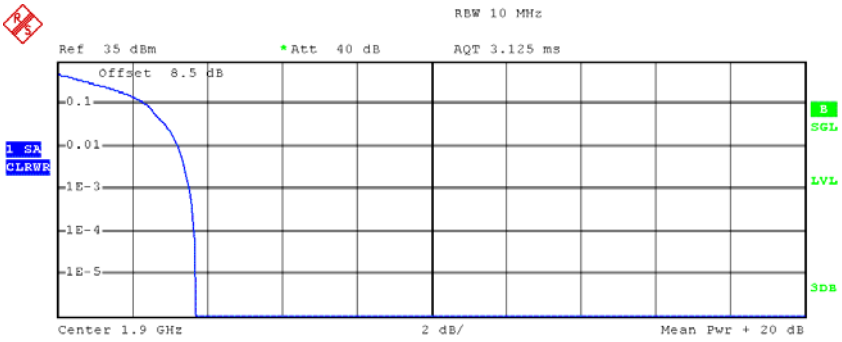


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.95 dBm
Peak	25.63 dBm
Crest	3.68 dB
10% @	2.20 dB
1% @	3.08 dB
.1% @	3.40 dB

Date: 26.DEC.2015 13:52:09

16QAM- 1RB, 20M High Channel

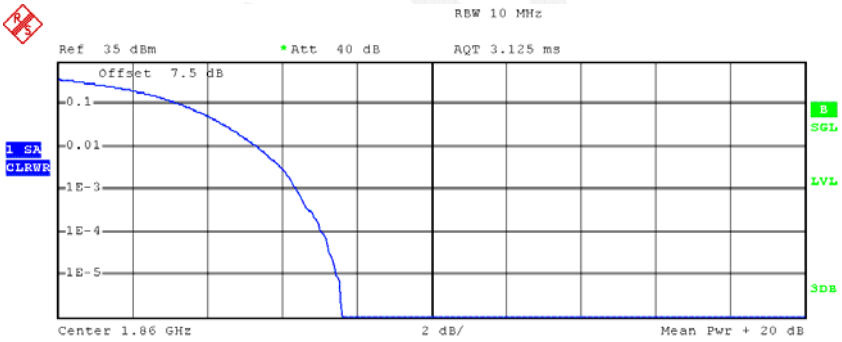


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.00 dBm
Peak	25.70 dBm
Crest	3.70 dB
10% @	2.40 dB
1% @	3.24 dB
.1% @	3.56 dB

Date: 26.DEC.2015 13:53:08

16QAM- Full RB, 20M Low Channel

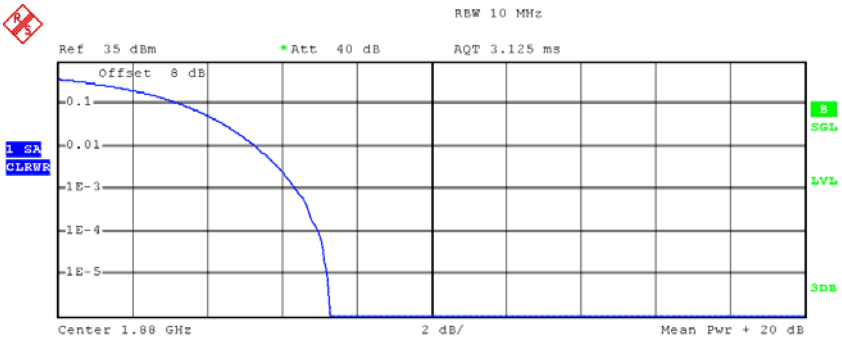


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	18.31 dBm
Peak	25.91 dBm
Crest	7.60 dB
10% @	3.40 dB
1% @	5.40 dB
.1% @	6.44 dB

Date: 26.DEC.2015 13:49:42

16QAM- Full RB, 20M Middle Channel

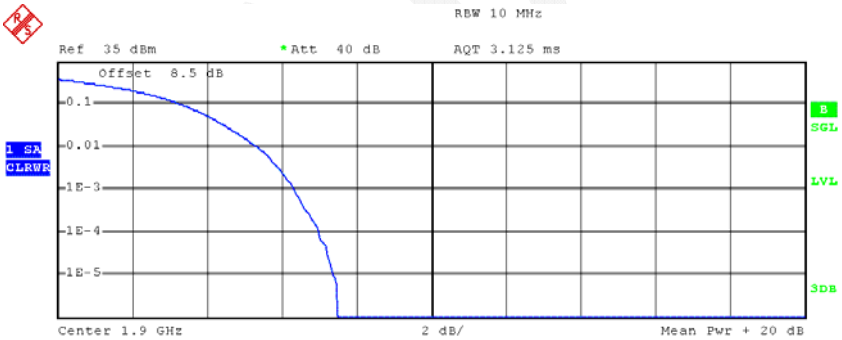


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	18.20 dBm
Peak	25.49 dBm
Crest	7.29 dB
10% @	3.36 dB
1% @	5.36 dB
.1% @	6.40 dB

Date: 26.DEC.2015 13:51:20

16QAM- Full RB, 20M High Channel



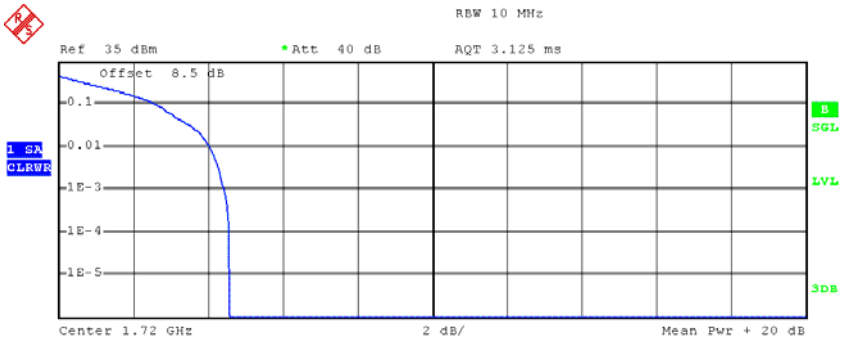
Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	18.33 dBm
Peak	25.84 dBm
Crest	7.51 dB
10% @	3.40 dB
1% @	5.40 dB
.1% @	6.36 dB

Date: 26.DEC.2015 13:53:39

LTE Band 4

QPSK-1RB, 20M Low Channel

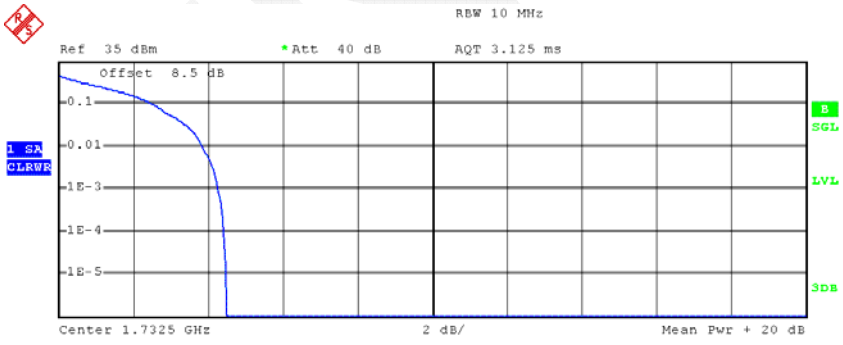


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.89 dBm
Peak	26.47 dBm
Crest	4.58 dB
10% @	2.68 dB
1% @	4.08 dB
.1% @	4.44 dB

Date: 26.DEC.2015 13:55:32

QPSK-1RB, 20M Middle Channel

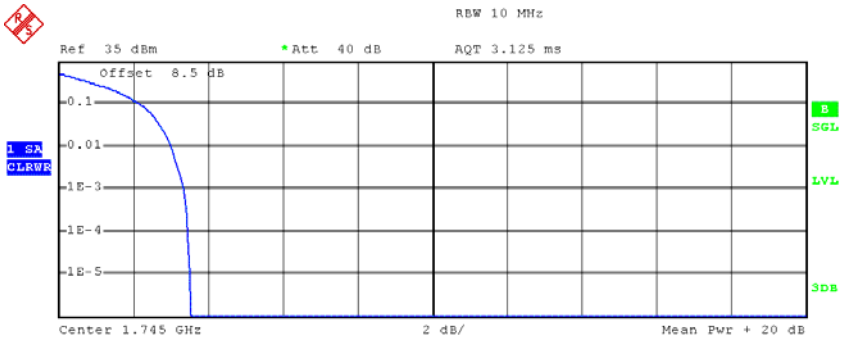


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.41 dBm
Peak	26.90 dBm
Crest	4.49 dB
10% @	2.60 dB
1% @	3.88 dB
.1% @	4.28 dB

Date: 26.DEC.2015 13:56:12

QPSK-1RB, 20M High Channel

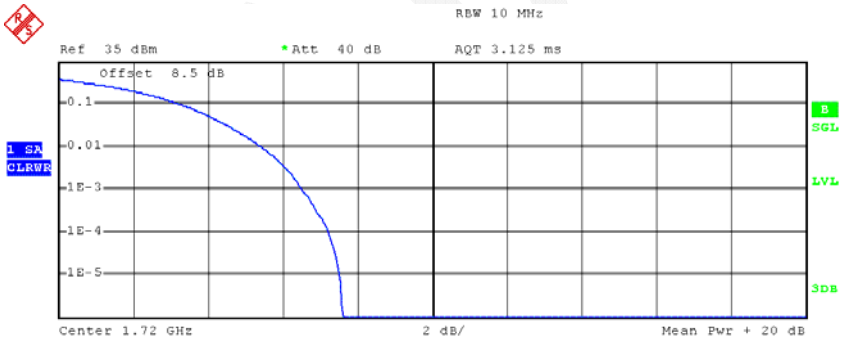


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	22.71 dBm
Peak	26.26 dBm
Crest	3.55 dB
10% @	2.20 dB
1% @	3.04 dB
.1% @	3.36 dB

Date: 26.DEC.2015 13:58:08

QPSK- Full RB, 20M Low Channel

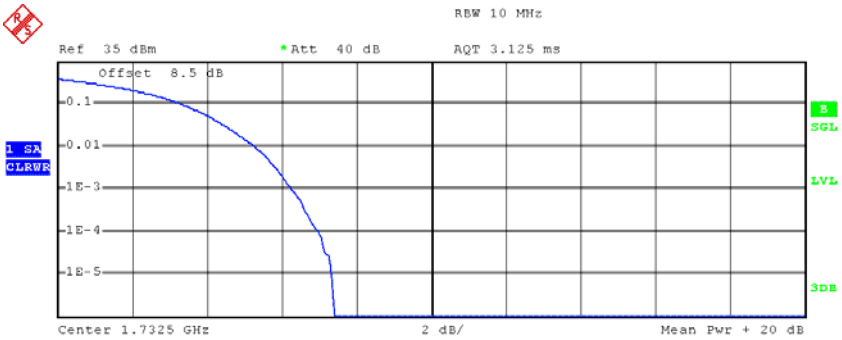


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	18.73 dBm
Peak	26.33 dBm
Crest	7.60 dB
10% @	3.36 dB
1% @	5.48 dB
.1% @	6.56 dB

Date: 26.DEC.2015 13:55:03

QPSK- Full RB, 20M Middle Channel

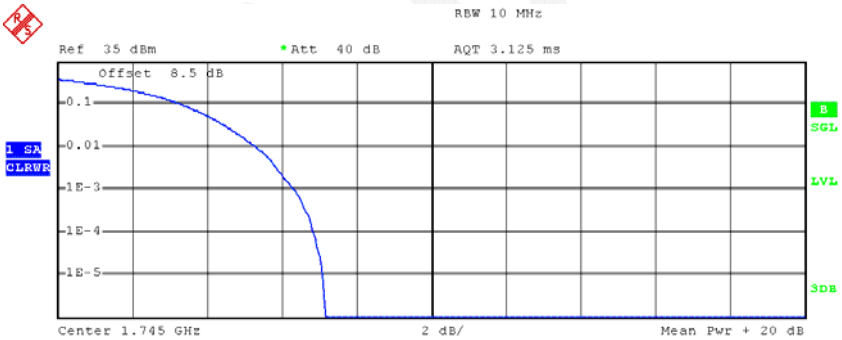


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	19.84 dBm
Peak	27.25 dBm
Crest	7.41 dB
10% @	3.40 dB
1% @	5.32 dB
.1% @	6.28 dB

Date: 26.DEC.2015 13:57:05

QPSK- Full RB, 20M High Channel

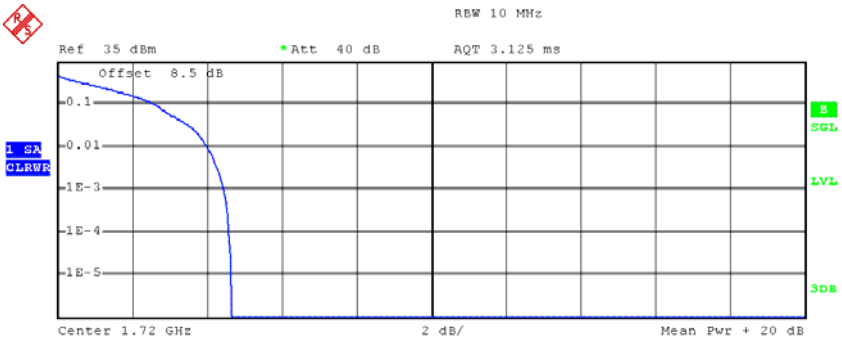


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	19.59 dBm
Peak	26.76 dBm
Crest	7.17 dB
10% @	3.40 dB
1% @	5.36 dB
.1% @	6.36 dB

Date: 26.DEC.2015 13:57:33

16QAM- 1RB, 20M Low Channel

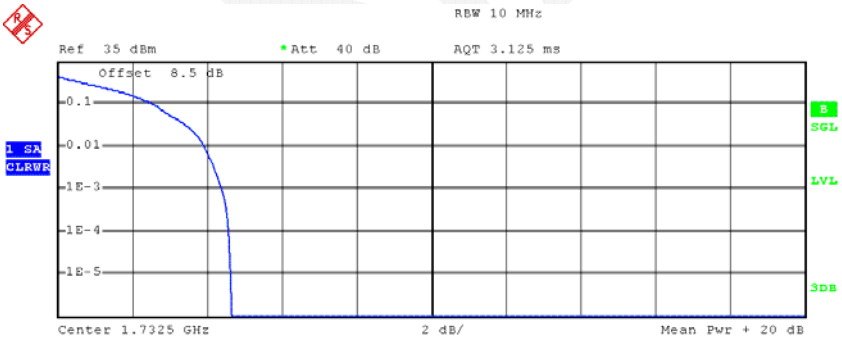


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.96 dBm
Peak	26.61 dBm
Crest	4.65 dB
10% @	2.64 dB
1% @	4.04 dB
.1% @	4.48 dB

Date: 26.DEC.2015 13:55:43

16QAM- 1RB, 20M Middle Channel

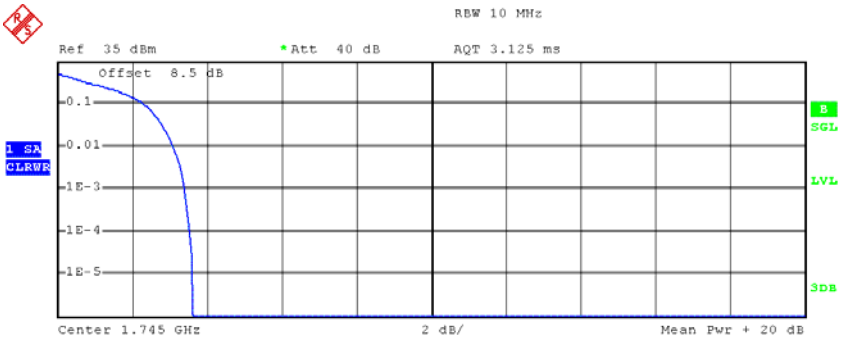


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.40 dBm
Peak	27.04 dBm
Crest	4.64 dB
10% @	2.60 dB
1% @	3.96 dB
.1% @	4.40 dB

Date: 26.DEC.2015 13:56:27

16QAM- 1RB, 20M High Channel

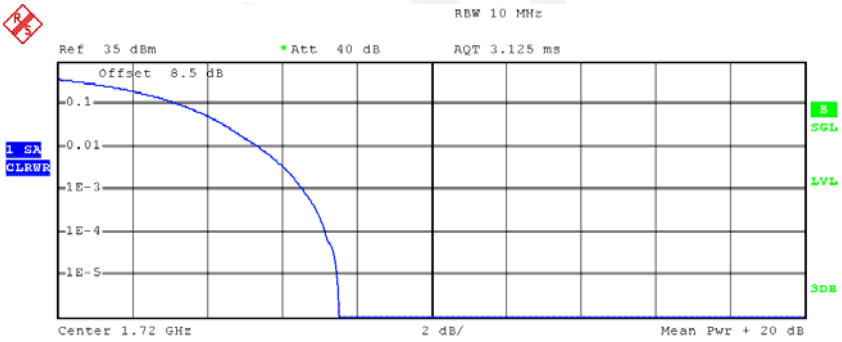


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	22.70 dBm
Peak	26.33 dBm
Crest	3.63 dB
10% @	2.36 dB
1% @	3.12 dB
.1% @	3.40 dB

Date: 26.DEC.2015 13:58:16

16QAM- Full RB, 20M Low Channel

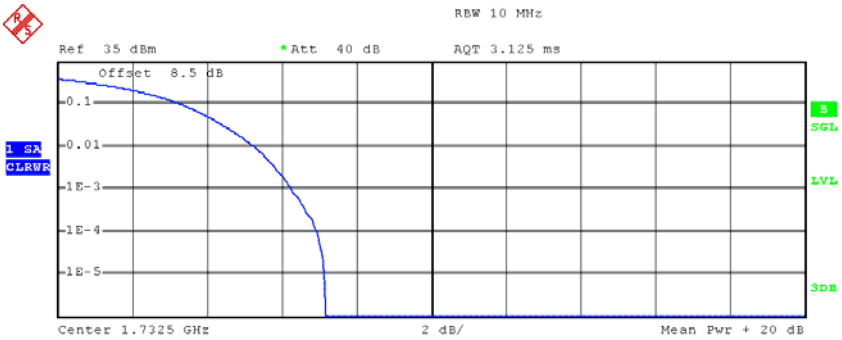


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	18.71 dBm
Peak	26.26 dBm
Crest	7.55 dB
10% @	3.36 dB
1% @	5.40 dB
.1% @	6.60 dB

Date: 26.DEC.2015 13:55:11

16QAM- Full RB, 20M Middle Channel

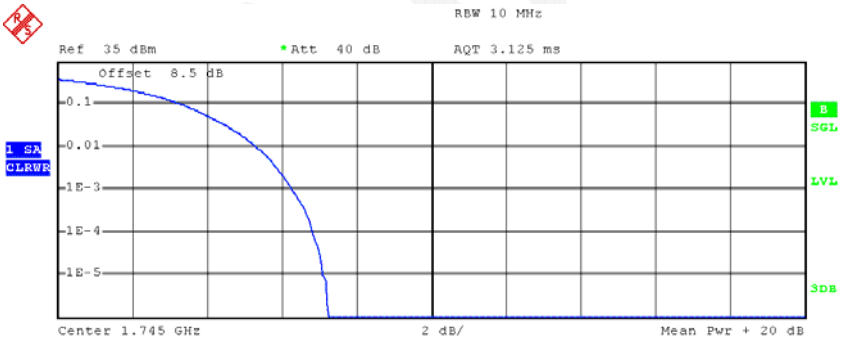


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	19.87 dBm
Peak	27.04 dBm
Crest	7.16 dB
10% @	3.36 dB
1% @	5.32 dB
.1% @	6.28 dB

Date: 26.DEC.2015 13:57:12

16QAM- Full RB, 20M High Channel



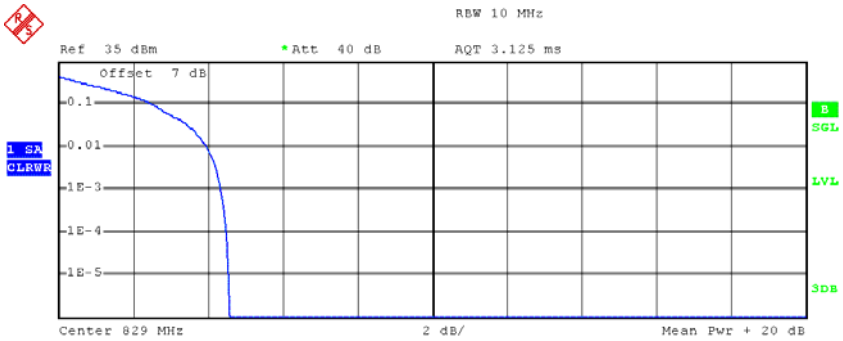
Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	19.59 dBm
Peak	26.83 dBm
Crest	7.24 dB
10% @	3.40 dB
1% @	5.36 dB
.1% @	6.32 dB

Date: 26.DEC.2015 13:57:50

LTE Band 5

QPSK-1RB, 10M Low Channel

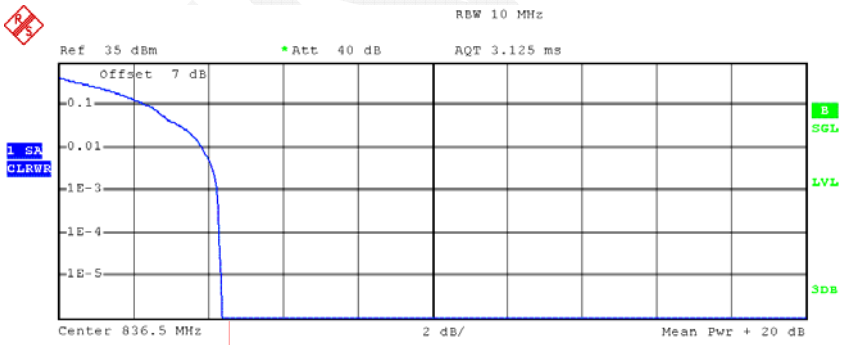


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	21.98 dBm
Peak	26.54 dBm
Crest	4.56 dB
10% @	2.60 dB
1% @	4.00 dB
.1% @	4.36 dB

Date: 26.DEC.2015 14:01:48

QPSK-1RB, 10M Middle Channel

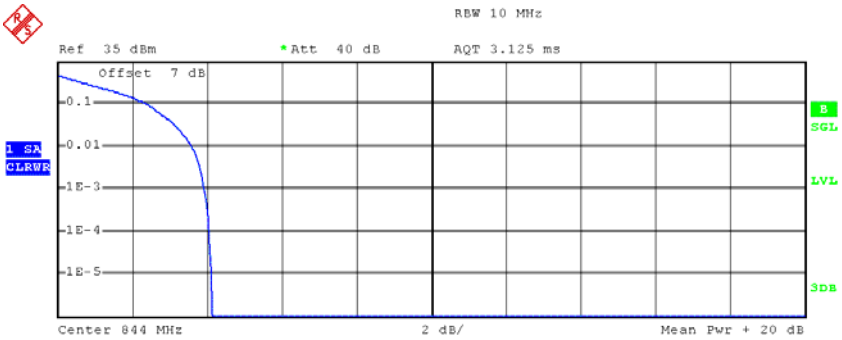


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	22.04 dBm
Peak	26.40 dBm
Crest	4.36 dB
10% @	2.44 dB
1% @	3.88 dB
.1% @	4.24 dB

Date: 26.DEC.2015 14:04:11

QPSK-1RB, 10M High Channel

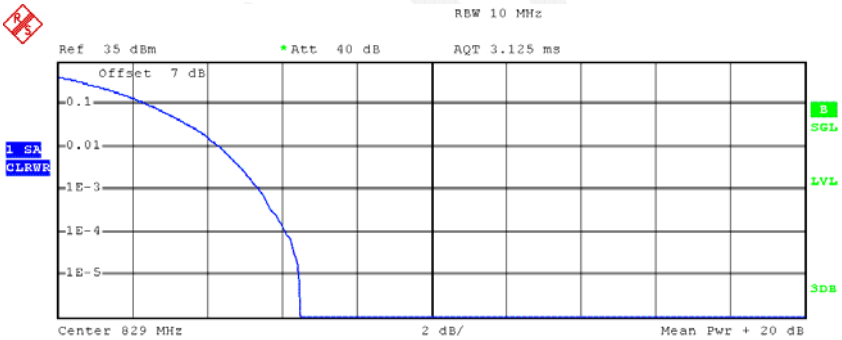


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.06 dBm
Peak	26.19 dBm
Crest	4.13 dB
10% @	2.44 dB
1% @	3.60 dB
.1% @	3.96 dB

Date: 26.DEC.2015 14:04:56

QPSK- Full RB, 10M Low Channel

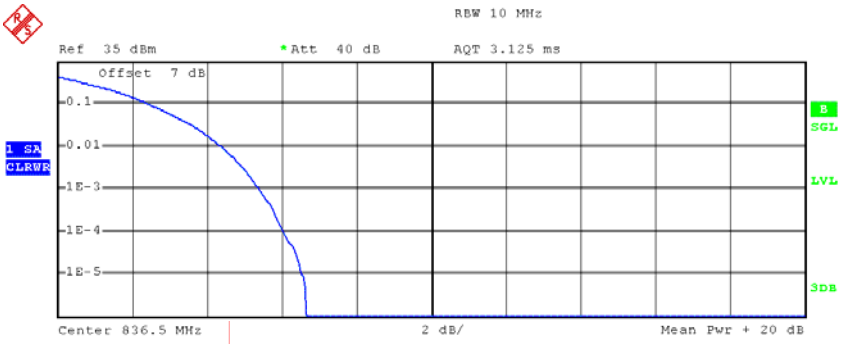


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.04 dBm
Peak	27.53 dBm
Crest	6.50 dB
10% @	2.48 dB
1% @	4.36 dB
.1% @	5.40 dB

Date: 26.DEC.2015 14:02:36

QPSK- Full RB, 10M Middle Channel

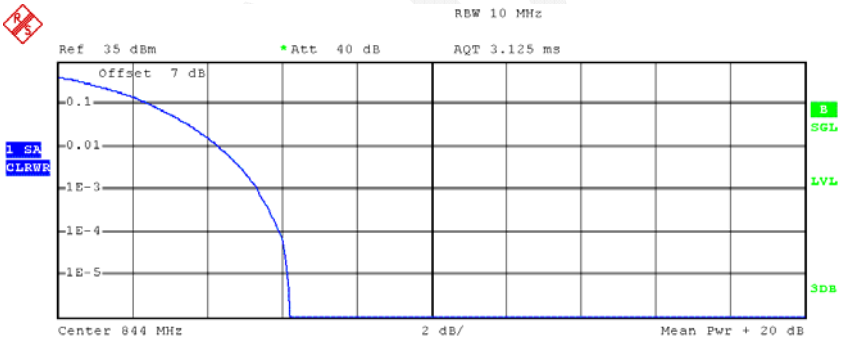


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	21.00 dBm
Peak	27.67 dBm
Crest	6.67 dB
10% @	2.52 dB
1% @	4.40 dB
.1% @	5.44 dB

Date: 26.DEC.2015 14:03:42

QPSK- Full RB, 10M High Channel

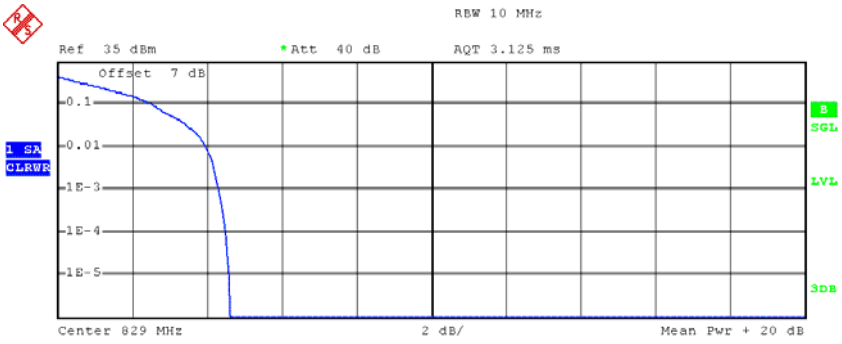


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	21.16 dBm
Peak	27.39 dBm
Crest	6.23 dB
10% @	2.52 dB
1% @	4.36 dB
.1% @	5.36 dB

Date: 26.DEC.2015 14:05:38

16QAM- 1RB, 10M Low Channel

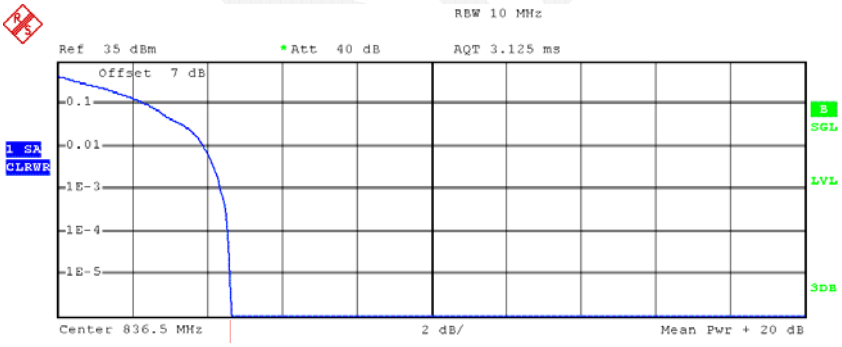


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.00 dBm
Peak	26.61 dBm
Crest	4.62 dB
10% @	2.60 dB
1% @	4.00 dB
.1% @	4.32 dB

Date: 26.DEC.2015 14:02:04

16QAM- 1RB, 10M Middle Channel

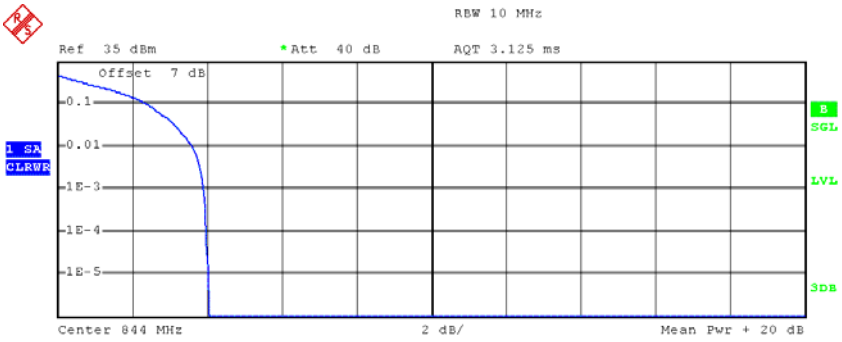


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.98 dBm
Peak	26.61 dBm
Crest	4.64 dB
10% @	2.44 dB
1% @	3.92 dB
.1% @	4.40 dB

Date: 26.DEC.2015 14:04:27

16QAM- 1RB, 10M High Channel

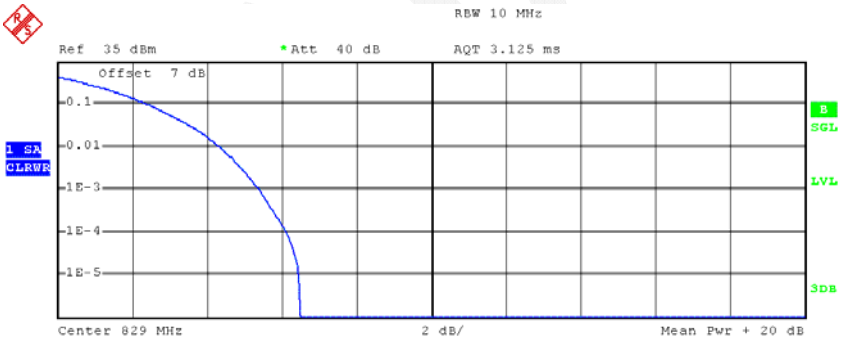


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.06 dBm
Peak	26.12 dBm
Crest	4.06 dB
10% @	2.44 dB
1% @	3.64 dB
.1% @	3.92 dB

Date: 26.DEC.2015 14:05:04

16QAM- Full RB, 10M Low Channel

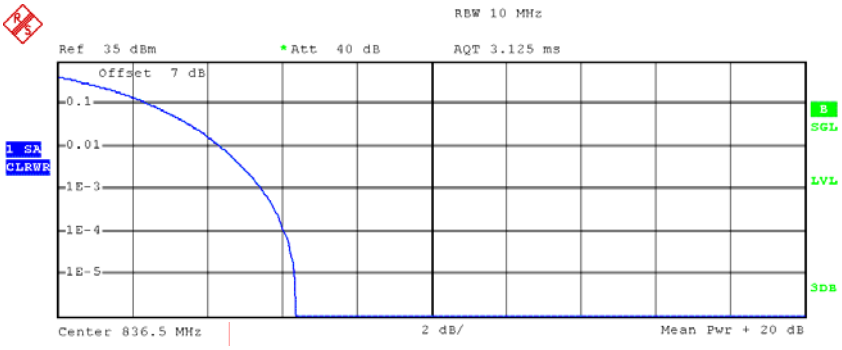


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.04 dBm
Peak	27.53 dBm
Crest	6.49 dB
10% @	2.48 dB
1% @	4.36 dB
.1% @	5.44 dB

Date: 26.DEC.2015 14:02:44

16QAM- Full RB, 10M Middle Channel

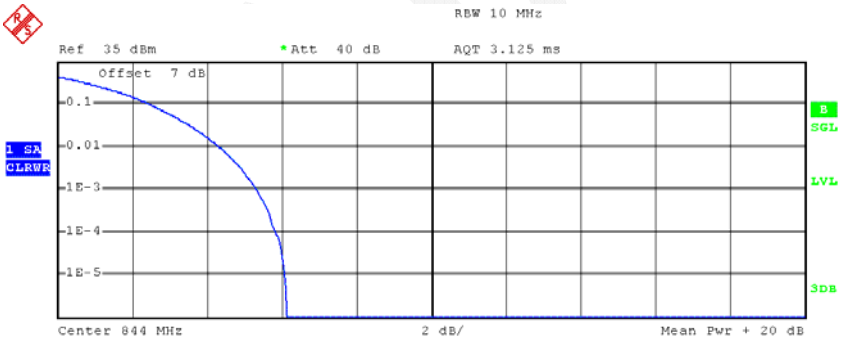


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.01 dBm
Peak	27.39 dBm
Crest	6.38 dB
10% @	2.52 dB
1% @	4.40 dB
.1% @	5.48 dB

Date: 26.DEC.2015 14:03:47

16QAM- Full RB, 10M High Channel



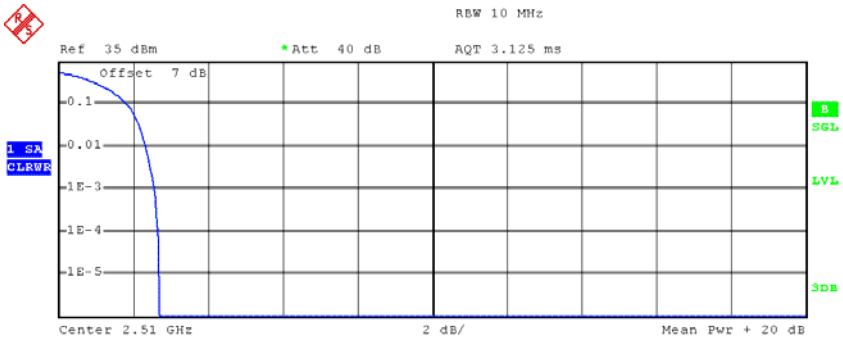
Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.17 dBm
Peak	27.32 dBm
Crest	6.15 dB
10% @	2.52 dB
1% @	4.36 dB
.1% @	5.36 dB

Date: 26.DEC.2015 14:05:44

LTE Band 7

QPSK-1RB, 20M Low Channel

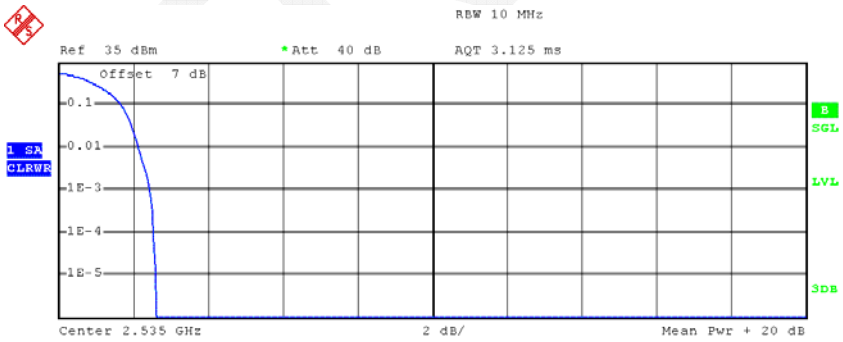


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	21.87 dBm
Peak	24.57 dBm
Crest	2.70 dB
10% @	1.84 dB
1% @	2.36 dB
.1% @	2.60 dB

Date: 26.DEC.2015 14:07:09

QPSK-1RB, 20M Middle Channel

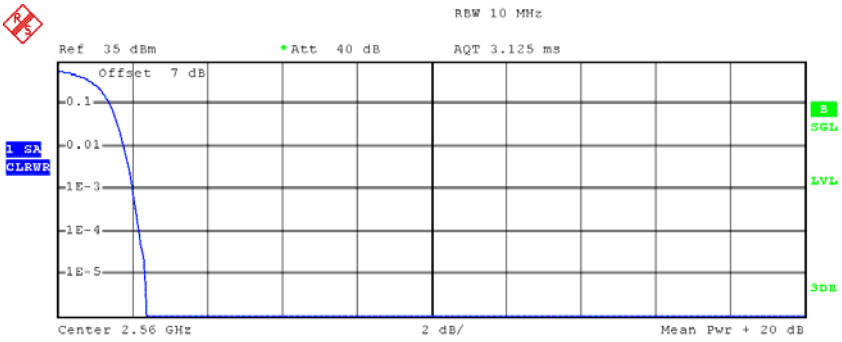


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	22.29 dBm
Peak	24.92 dBm
Crest	2.63 dB
10% @	1.72 dB
1% @	2.16 dB
.1% @	2.44 dB

Date: 26.DEC.2015 14:08:57

QPSK-1RB, 20M High Channel

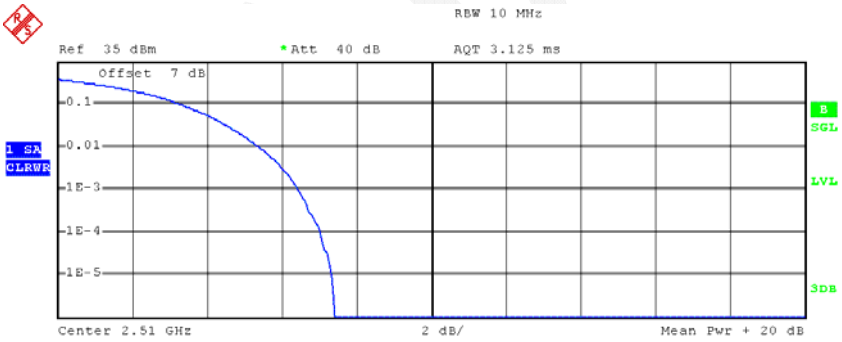


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.70 dBm
Peak	24.07 dBm
Crest	2.37 dB
10% @	1.40 dB
1% @	1.80 dB
.1% @	2.04 dB

Date: 26.DEC.2015 14:10:17

QPSK- Full RB, 20M Low Channel

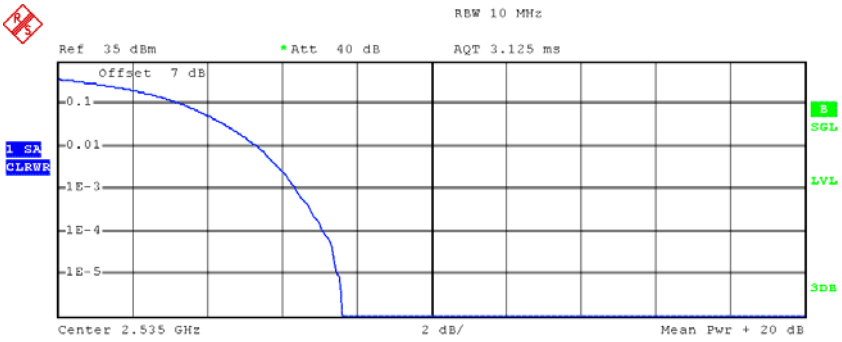


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	17.93 dBm
Peak	25.34 dBm
Crest	7.41 dB
10% @	3.40 dB
1% @	5.44 dB
.1% @	6.48 dB

Date: 26.DEC.2015 14:07:43

QPSK- Full RB, 20M Middle Channel

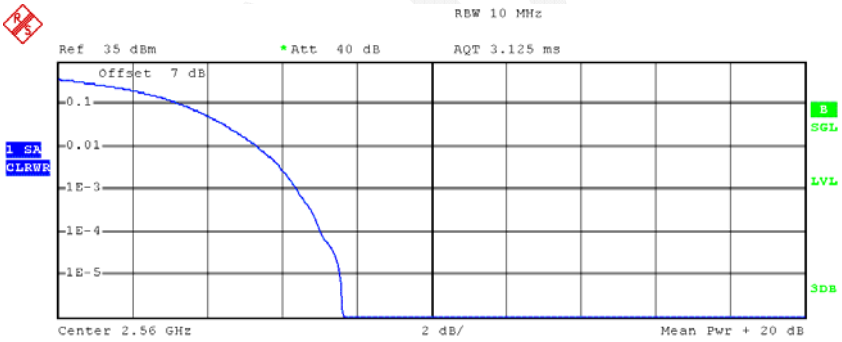


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	18.22 dBm
Peak	25.84 dBm
Crest	7.62 dB
10% @	3.40 dB
1% @	5.40 dB
.1% @	6.40 dB

Date: 26.DEC.2015 14:08:26

QPSK- Full RB, 20M High Channel

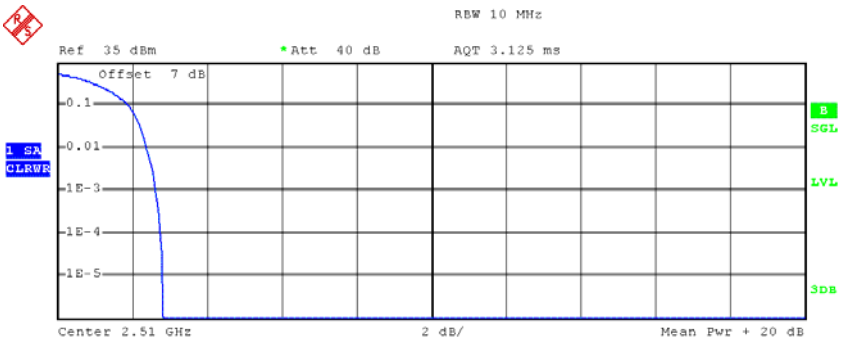


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	17.64 dBm
Peak	25.27 dBm
Crest	7.64 dB
10% @	3.40 dB
1% @	5.40 dB
.1% @	6.44 dB

Date: 26.DEC.2015 14:11:23

16QAM- 1RB, 20M Low Channel

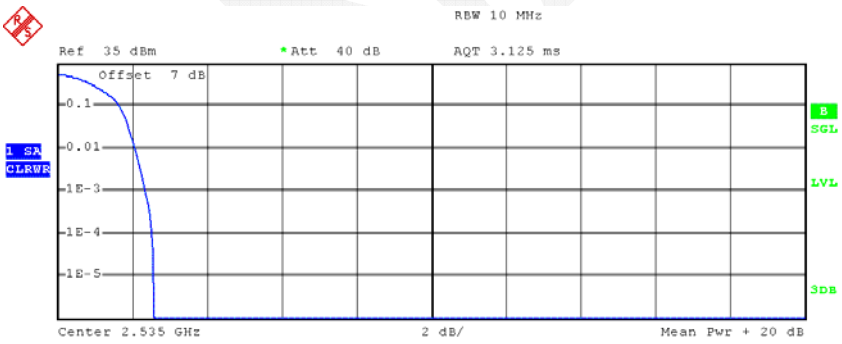


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.82 dBm
Peak	24.64 dBm
Crest	2.82 dB
10% @	1.92 dB
1% @	2.40 dB
.1% @	2.64 dB

Date: 26.DEC.2015 14:07:25

16QAM- 1RB, 20M Middle Channel

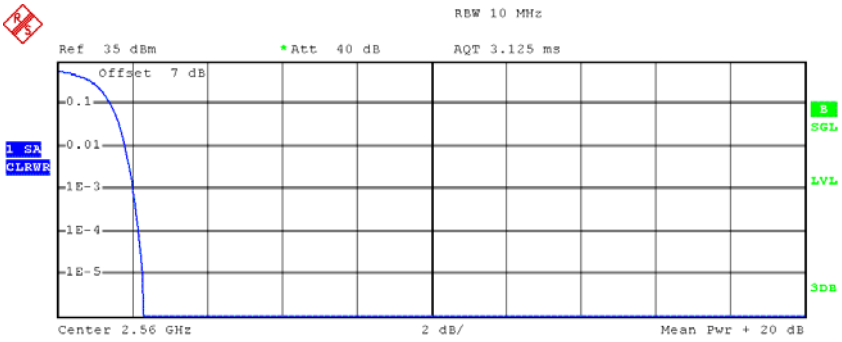


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.34 dBm
Peak	24.92 dBm
Crest	2.58 dB
10% @	1.68 dB
1% @	2.08 dB
.1% @	2.36 dB

Date: 26.DEC.2015 14:09:20

16QAM- 1RB, 20M High Channel

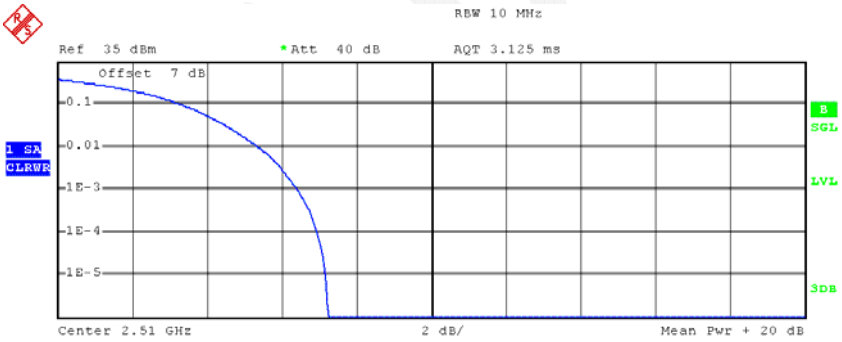


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	21.68 dBm
Peak	24.00 dBm
Crest	2.32 dB
10% @	1.44 dB
1% @	1.80 dB
.1% @	2.04 dB

Date: 26.DEC.2015 14:10:25

16QAM- Full RB, 20M Low Channel

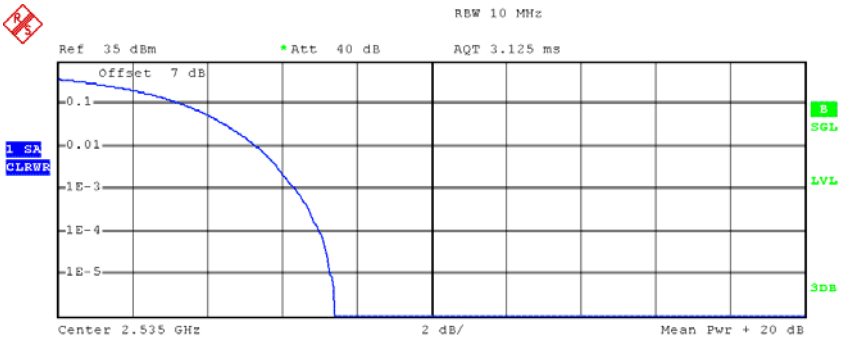


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	17.96 dBm
Peak	25.20 dBm
Crest	7.24 dB
10% @	3.40 dB
1% @	5.40 dB
.1% @	6.44 dB

Date: 26.DEC.2015 14:07:49

16QAM- Full RB, 20M Middle Channel

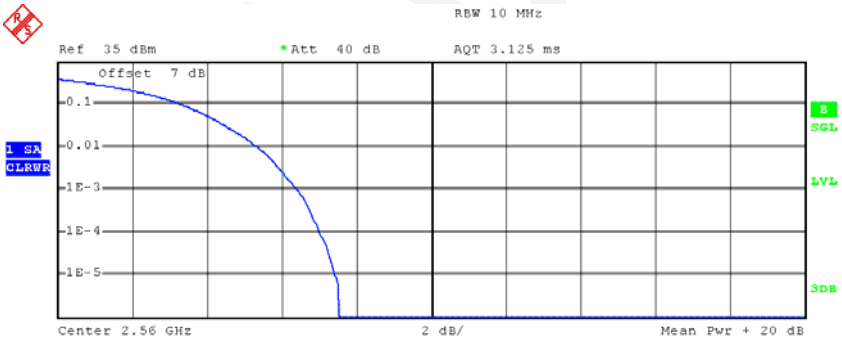


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	18.20 dBm
Peak	25.63 dBm
Crest	7.43 dB
10% @	3.40 dB
1% @	5.36 dB
.1% @	6.40 dB

Date: 26.DEC.2015 14:08:36

16QAM- Full RB, 20M High Channel



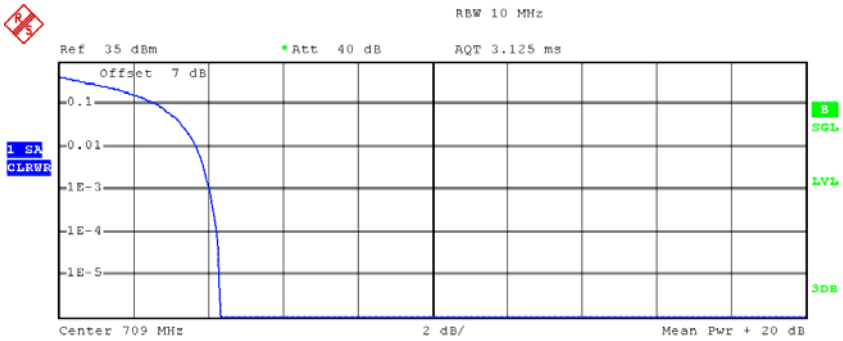
Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	17.65 dBm
Peak	25.20 dBm
Crest	7.55 dB
10% @	3.40 dB
1% @	5.36 dB
.1% @	6.44 dB

Date: 26.DEC.2015 14:11:33

LTE Band 17

QPSK-1RB, 10M Low Channel

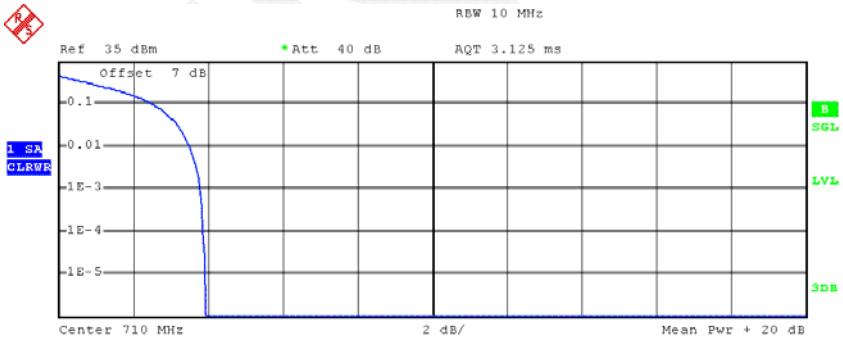


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	22.44 dBm
Peak	26.76 dBm
Crest	4.32 dB
10% @	2.68 dB
1% @	3.72 dB
.1% @	4.08 dB

Date: 26.DEC.2015 14:12:56

QPSK-1RB, 10M Middle Channel

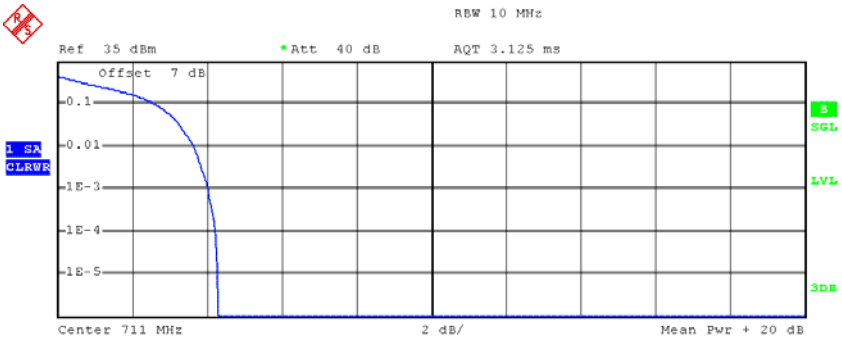


Complementary Cumulative Distribution Function (100000 samples)

Trace 1	
Mean	22.75 dBm
Peak	26.68 dBm
Crest	3.94 dB
10% @	2.56 dB
1% @	3.52 dB
.1% @	3.80 dB

Date: 26.DEC.2015 14:14:47

QPSK-1RB, 10M High Channel

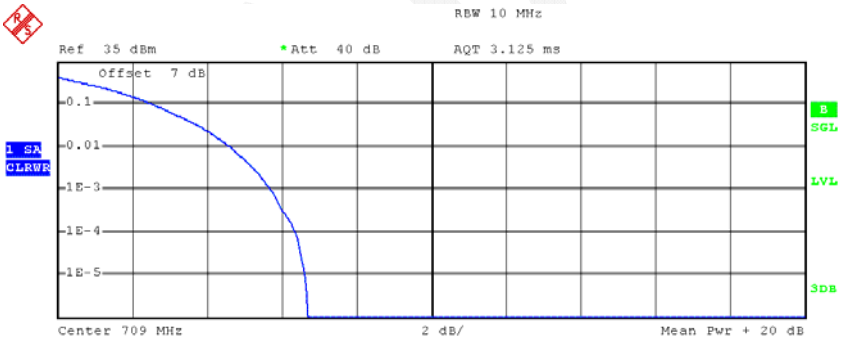


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.54 dBm
Peak	26.83 dBm
Crest	4.28 dB
10% @	2.64 dB
1% @	3.68 dB
.1% @	4.04 dB

Date: 26.DEC.2015 14:15:17

QPSK- Full RB, 10M Low Channel

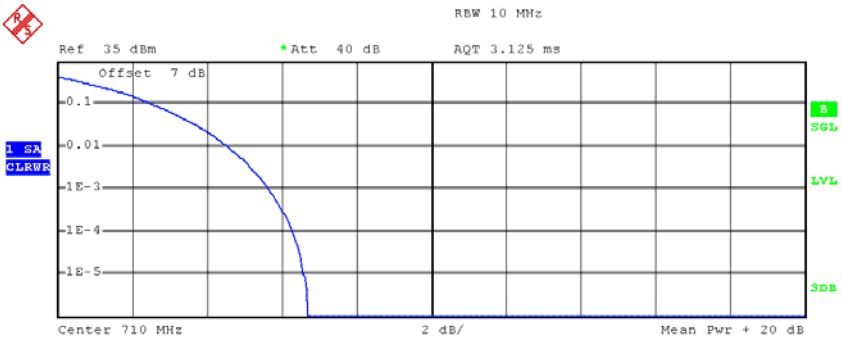


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	20.90 dBm
Peak	27.60 dBm
Crest	6.70 dB
10% @	2.64 dB
1% @	4.64 dB
.1% @	5.72 dB

Date: 26.DEC.2015 14:13:34

QPSK- Full RB, 10M Middle Channel

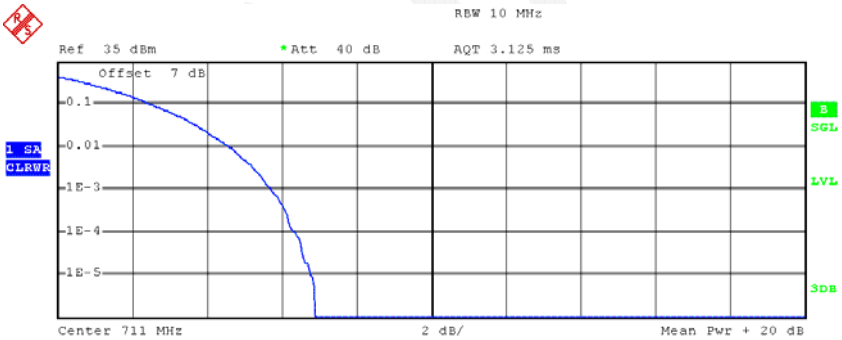


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	20.97 dBm
Peak	27.67 dBm
Crest	6.70 dB
10% @	2.60 dB
1% @	4.60 dB
.1% @	5.68 dB

Date: 26.DEC.2015 14:14:13

QPSK- Full RB, 10M High Channel

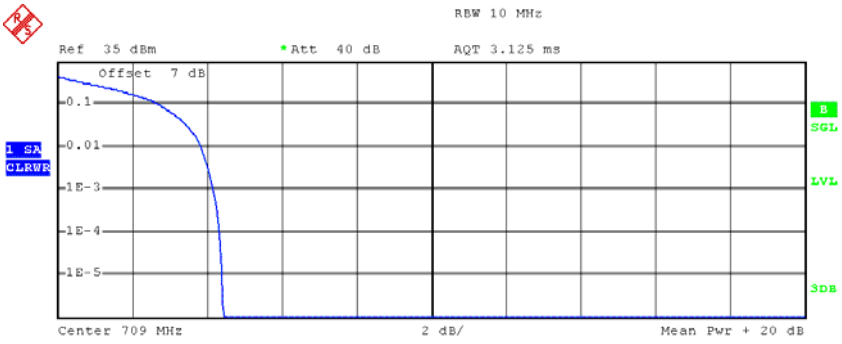


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	20.97 dBm
Peak	27.88 dBm
Crest	6.91 dB
10% @	2.60 dB
1% @	4.64 dB
.1% @	5.76 dB

Date: 26.DEC.2015 14:15:54

16QAM- 1RB, 10M Low Channel

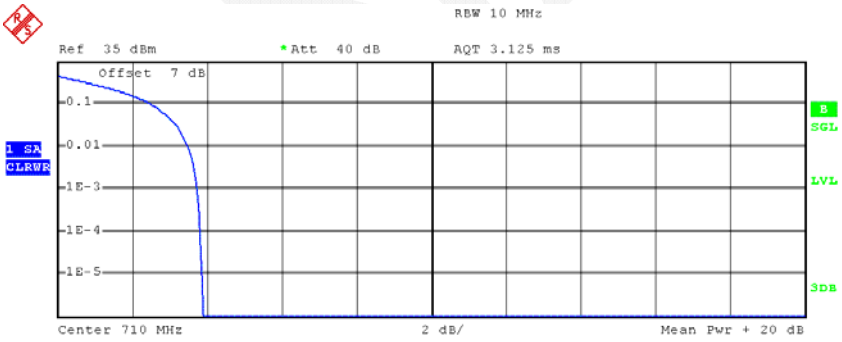


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.39 dBm
Peak	26.83 dBm
Crest	4.44 dB
10% @	2.76 dB
1% @	3.88 dB
.1% @	4.16 dB

Date: 26.DEC.2015 14:13:06

16QAM- 1RB, 10M Middle Channel

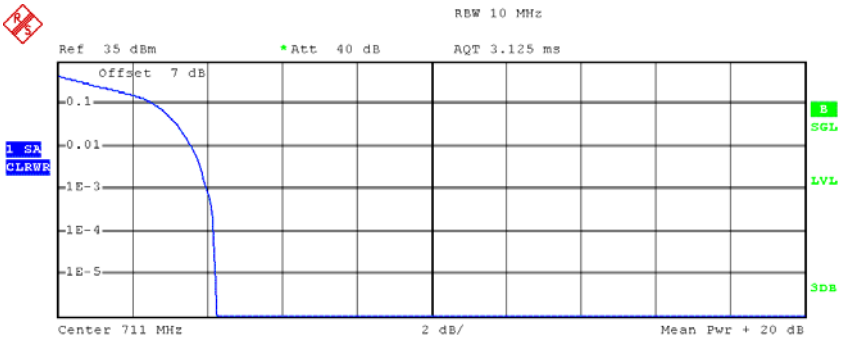


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.73 dBm
Peak	26.61 dBm
Crest	3.88 dB
10% @	2.56 dB
1% @	3.52 dB
.1% @	3.76 dB

Date: 26.DEC.2015 14:14:52

16QAM- 1RB, 10M High Channel

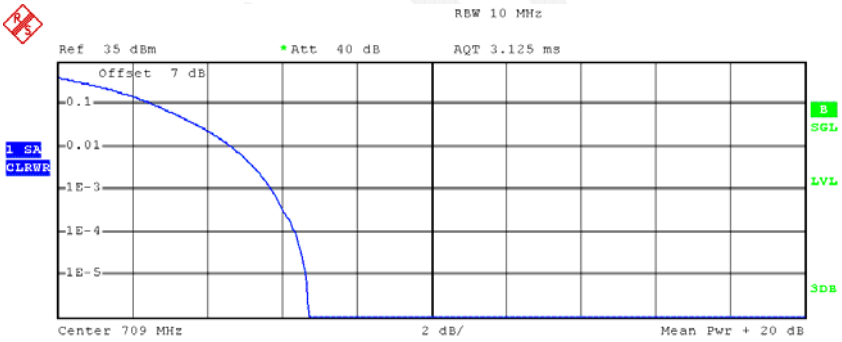


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	22.56 dBm
Peak	26.83 dBm
Crest	4.27 dB
10% @	2.64 dB
1% @	3.60 dB
.1% @	4.00 dB

Date: 26.DEC.2015 14:15:27

16QAM- Full RB, 10M Low Channel

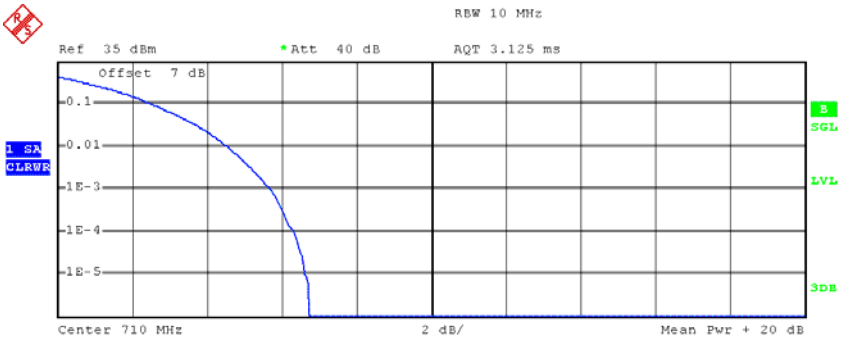


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	20.95 dBm
Peak	27.67 dBm
Crest	6.72 dB
10% @	2.64 dB
1% @	4.68 dB
.1% @	5.76 dB

Date: 26.DEC.2015 14:13:51

16QAM- Full RB, 10M Middle Channel

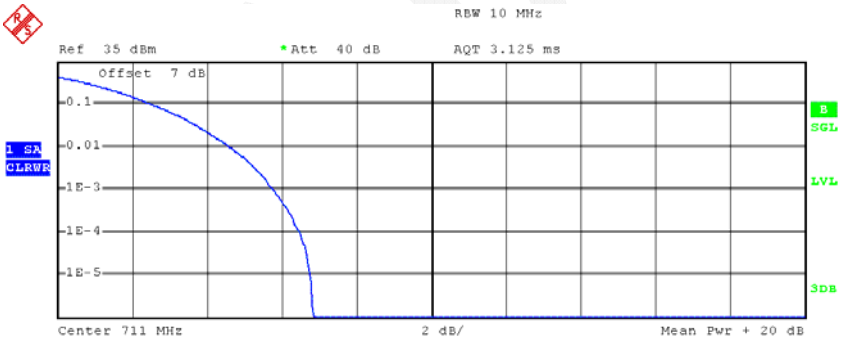


Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	20.99 dBm
Peak	27.74 dBm
Crest	6.75 dB
10% @	2.60 dB
1% @	4.56 dB
.1% @	5.72 dB

Date: 26.DEC.2015 14:14:28

16QAM- Full RB, 10M High Channel



Complementary Cumulative Distribution Function (100000 samples)

	Trace 1
Mean	20.97 dBm
Peak	27.81 dBm
Crest	6.84 dB
10% @	2.60 dB
1% @	4.64 dB
.1% @	5.80 dB

Date: 26.DEC.2015 14:16:04

ERP & EIRP

PART 22H

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			S.G. Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
GSM 850 Middle Channel								
836.600	H	98.46	23.5	0.0	1.0	22.5	38.50	16.0
836.600	V	104.09	32.3	0.0	1.0	31.3	38.50	7.2
EGPRS 850 Middle Channel								
836.600	H	93.31	18.4	0.0	1.0	17.4	38.50	21.1
836.600	V	98.03	26.2	0.0	1.0	25.2	38.50	13.3
WCDMA Band V Middle Channel								
836.600	H	86.82	11.9	0.0	1.0	10.9	38.50	27.6
836.600	V	92.74	20.9	0.0	1.0	19.9	38.50	18.6

PART 24E

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			S.G. Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
PCS 1900 Middle Channel								
1880.000	H	90.19	18.6	11.1	1.4	28.3	33.00	4.7
1880.000	V	90.42	19.0	11.1	1.4	28.7	33.00	4.3
EGPRS 1900 Middle Channel								
1880.000	H	86.14	14.5	11.1	1.4	24.2	33.00	8.8
1880.000	V	86.53	15.1	11.1	1.4	24.8	33.00	8.2
WCDMA Band II Middle Channel								
1880.000	H	81.48	9.9	11.1	1.4	19.6	33.00	13.4
1880.000	V	82.50	11	11.1	1.4	20.7	33.00	12.3

PART 27

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			S.G. Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
WCDMA Band IV Middle Channel								
1732.600	H	78.82	5.8	10.7	1.4	15.1	33.00	17.9
1732.600	V	84.42	11.1	10.7	1.4	20.4	33.00	12.6

LTE Band 2

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			S.G. Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK 1.4M BW Middle Channel								
1880.000	H	79.59	8	11.1	1.4	17.7	33.00	15.3
1880.000	V	83.53	12.1	11.1	1.4	21.8	33.00	11.2
QPSK 3M BW Middle Channel								
1880.000	H	76.85	5.3	11.1	1.4	15.0	33.00	18.0
1880.000	V	80.92	9.5	11.1	1.4	19.2	33.00	13.8
QPSK 5M BW Middle Channel								
1880.000	H	74.37	2.8	11.1	1.4	12.5	33.00	20.5
1880.000	V	78.44	7	11.1	1.4	16.7	33.00	16.3
QPSK 10M BW Middle Channel								
1880.000	H	71.45	-0.1	11.1	1.4	9.6	33.00	23.4
1880.000	V	75.62	4.2	11.1	1.4	13.9	33.00	19.1
QPSK 15M BW Middle Channel								
1880.000	H	69.63	-2	11.1	1.4	7.7	33.00	25.3
1880.000	V	72.84	1.4	11.1	1.4	11.1	33.00	21.9
QPSK 20M BW Middle Channel								
1880.000	H	68.57	-3	11.1	1.4	6.7	33.00	26.3
1880.000	V	72.72	1.3	11.1	1.4	11.0	33.00	22.0
16-QAM 1.4M BW Middle Channel								
1880.000	H	78.92	7.3	11.1	1.4	17.0	33.00	16.0
1880.000	V	82.89	11.4	11.1	1.4	21.1	33.00	11.9
16-QAM 3M BW Middle Channel								
1880.000	H	76.09	4.5	11.1	1.4	14.2	33.00	18.8
1880.000	V	80.16	8.7	11.1	1.4	18.4	33.00	14.6
16-QAM 5M BW Middle Channel								
1880.000	H	73.64	2	11.1	1.4	11.7	33.00	21.3
1880.000	V	77.66	6.2	11.1	1.4	15.9	33.00	17.1
16-QAM 10M BW Middle Channel								
1880.000	H	70.72	-0.9	11.1	1.4	8.8	33.00	24.2
1880.000	V	74.87	3.4	11.1	1.4	13.1	33.00	19.9
16-QAM 15M BW Middle Channel								
1880.000	H	68.84	-2.8	11.1	1.4	6.9	33.00	26.1
1880.000	V	72.08	0.6	11.1	1.4	10.3	33.00	22.7
16-QAM 20M BW Middle Channel								
1880.000	H	67.82	-3.8	11.1	1.4	5.9	33.00	27.1
1880.000	V	71.99	0.5	11.1	1.4	10.2	33.00	22.8

LTE Band 4

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			S.G. Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK 1.4M BW Middle Channel								
1732.500	H	81.49	8.5	10.7	1.4	17.8	30.00	12.2
1732.500	V	85.03	11.7	10.7	1.4	21.0	30.00	9.0
QPSK 3M BW Middle Channel								
1732.500	H	78.11	5.1	10.7	1.4	14.4	30.00	15.6
1732.500	V	81.63	8.3	10.7	1.4	17.6	30.00	12.4
QPSK 5M BW Middle Channel								
1732.500	H	75.69	2.7	10.7	1.4	12.0	30.00	18.0
1732.500	V	79.09	5.8	10.7	1.4	15.1	30.00	14.9
QPSK 10M BW Middle Channel								
1732.500	H	72.54	-0.5	10.7	1.4	8.8	30.00	21.2
1732.500	V	76.01	2.7	10.7	1.4	12.0	30.00	18.0
QPSK 15M BW Middle Channel								
1732.500	H	70.38	-2.6	10.7	1.4	6.7	30.00	23.3
1732.500	V	73.87	0.5	10.7	1.4	9.8	30.00	20.2
QPSK 20M BW Middle Channel								
1732.500	H	69.61	-3.4	10.7	1.4	5.9	30.00	24.1
1732.500	V	72.89	-0.4	10.7	1.4	8.9	30.00	21.1
16-QAM 1.4M BW Middle Channel								
1732.500	H	81.31	8.3	10.7	1.4	17.6	30.00	12.4
1732.500	V	84.85	11.5	10.7	1.4	20.8	30.00	9.2
16-QAM 3M BW Middle Channel								
1732.500	H	78.03	5	10.7	1.4	14.3	30.00	15.7
1732.500	V	81.47	8.1	10.7	1.4	17.4	30.00	12.6
16-QAM 5M BW Middle Channel								
1732.500	H	75.59	2.6	10.7	1.4	11.9	30.00	18.1
1732.500	V	78.98	5.7	10.7	1.4	15.0	30.00	15.0
16-QAM 10M BW Middle Channel								
1732.500	H	72.43	-0.6	10.7	1.4	8.7	30.00	21.3
1732.500	V	75.93	2.6	10.7	1.4	11.9	30.00	18.1
16-QAM 15M BW Middle Channel								
1732.500	H	70.27	-2.7	10.7	1.4	6.6	30.00	23.4
1732.500	V	73.79	0.5	10.7	1.4	9.8	30.00	20.2
16-QAM 20M BW Middle Channel								
1732.500	H	69.52	-3.5	10.7	1.4	5.8	30.00	24.2
1732.500	V	72.78	-0.5	10.7	1.4	8.8	30.00	21.2

LTE Band 5

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			S.G. Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK 1.4M BW Middle Channel								
836.500	H	97.89	23	0.0	1.0	22.0	38.50	16.5
836.500	V	94.43	22.6	0.0	1.0	21.6	38.50	16.9
QPSK 3M BW Middle Channel								
836.500	H	94.52	19.6	0.0	1.0	18.6	38.50	19.9
836.500	V	91.14	19.3	0.0	1.0	18.3	38.50	20.2
QPSK 5M BW Middle Channel								
836.500	H	92.06	17.1	0.0	1.0	16.1	38.50	22.4
836.500	V	88.66	16.9	0.0	1.0	15.9	38.50	22.6
QPSK 10M BW Middle Channel								
836.500	H	88.89	14	0.0	1.0	13.0	38.50	25.5
836.500	V	85.63	13.8	0.0	1.0	12.8	38.50	25.7
16-QAM 1.4M BW Middle Channel								
836.500	H	97.57	22.6	0.0	1.0	21.6	38.50	16.9
836.500	V	94.25	22.5	0.0	1.0	21.5	38.50	17.0
16-QAM 3M BW Middle Channel								
836.500	H	94.46	19.5	0.0	1.0	18.5	38.50	20.0
836.500	V	91.16	19.4	0.0	1.0	18.4	38.50	20.1
16-QAM 5M BW Middle Channel								
836.500	H	92.11	17.2	0.0	1.0	16.2	38.50	22.3
836.500	V	88.41	16.6	0.0	1.0	15.6	38.50	22.9
16-QAM 10M BW Middle Channel								
836.500	H	88.74	13.8	0.0	1.0	12.8	38.50	25.7
836.500	V	85.36	13.6	0.0	1.0	12.6	38.50	25.9

LTE Band 7

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			S.G. Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK 5M BW Middle Channel								
2535.000	H	78.41	7.2	12.2	2.5	16.9	33.00	16.1
2535.000	V	81.36	11.6	12.2	2.5	21.3	33.00	11.7
QPSK 10M BW Middle Channel								
2535.000	H	75.39	4.2	12.2	2.5	13.9	33.00	19.1
2535.000	V	78.42	8.7	12.2	2.5	18.4	33.00	14.6
QPSK 15M BW Middle Channel								
2535.000	H	72.78	1.6	12.2	2.5	11.3	33.00	21.7
2535.000	V	75.81	6.1	12.2	2.5	15.8	33.00	17.2
QPSK 20M BW Middle Channel								
2535.000	H	72.28	1.1	12.2	2.5	10.8	33.00	22.2
2535.000	V	75.33	5.6	12.2	2.5	15.3	33.00	17.7
16-QAM 5M BW Middle Channel								
2535.000	H	78.37	7.2	12.2	2.5	16.9	33.00	16.1
2535.000	V	81.35	11.6	12.2	2.5	21.3	33.00	11.7
16-QAM 10M BW Middle Channel								
2535.000	H	75.37	4.2	12.2	2.5	13.9	33.00	19.1
2535.000	V	78.38	8.6	12.2	2.5	18.3	33.00	14.7
16-QAM 15M BW Middle Channel								
2535.000	H	72.74	1.5	12.2	2.5	11.2	33.00	21.8
2535.000	V	75.76	6	12.2	2.5	15.7	33.00	17.3
16-QAM 20M BW Middle Channel								
2535.000	H	72.25	1	12.2	2.5	10.7	33.00	22.3
2535.000	V	75.31	5.6	12.2	2.5	15.3	33.00	17.7

LTE Band 17

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			S.G. Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK 5M BW Middle Channel								
710.000	H	99.12	22.3	0.0	0.9	21.4	34.77	13.4
710.000	V	94.67	20.3	0.0	0.9	19.4	34.77	15.4
QPSK 10M BW Middle Channel								
710.000	H	95.94	19.1	0.0	0.9	18.2	34.77	16.6
710.000	V	91.59	17.2	0.0	0.9	16.3	34.77	18.5
16-QAM 5M BW Middle Channel								
710.000	H	98.96	22.1	0.0	0.9	21.2	34.77	13.6
710.000	V	94.47	20.1	0.0	0.9	19.2	34.77	15.6
16-QAM 10M BW Middle Channel								
710.000	H	95.81	19	0.0	0.9	18.1	34.77	16.7
710.000	V	91.41	17.1	0.0	0.9	16.2	34.77	18.6

Note:
1) The unit of Antenna Gain is dBd for frequency below 1GHz, and the unit of Antenna Gain is dBi for frequency above 1GHz.
2) Absolute Level = SG Level - Cable loss + Antenna Gain
3) Margin = Limit-Absolute Level

FCC §2.1049, §22.917, §22.905 & §24.238 & §27.53- OCCUPIED BANDWIDTH

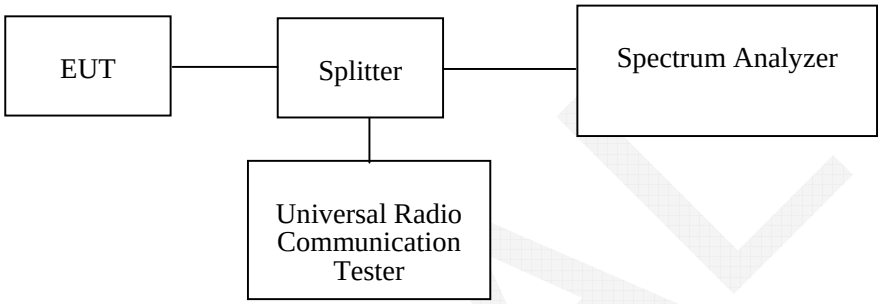
Applicable Standard

FCC §2.1049, §22.917, §22.905, §24.238 and §27.53.

Test Procedure

The RF output of the transmitter was connected to the simulator and the spectrum analyzer through sufficient attenuation.

The 26 dB & 99% bandwidth was recorded.



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	2015-11-23	2015-11-23	2016-11-22
R&S	Universal Radio Communication Tester	CMU200	109038	2015-05-09	2016-05-09
R&S	Wideband Radio Communication Tester	CMW500	1201.002K50-146520-wh	2015-12-19	2016-12-19

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	24.5~25.3 °C
Relative Humidity:	45~48%
ATM Pressure:	101~101.7 kPa

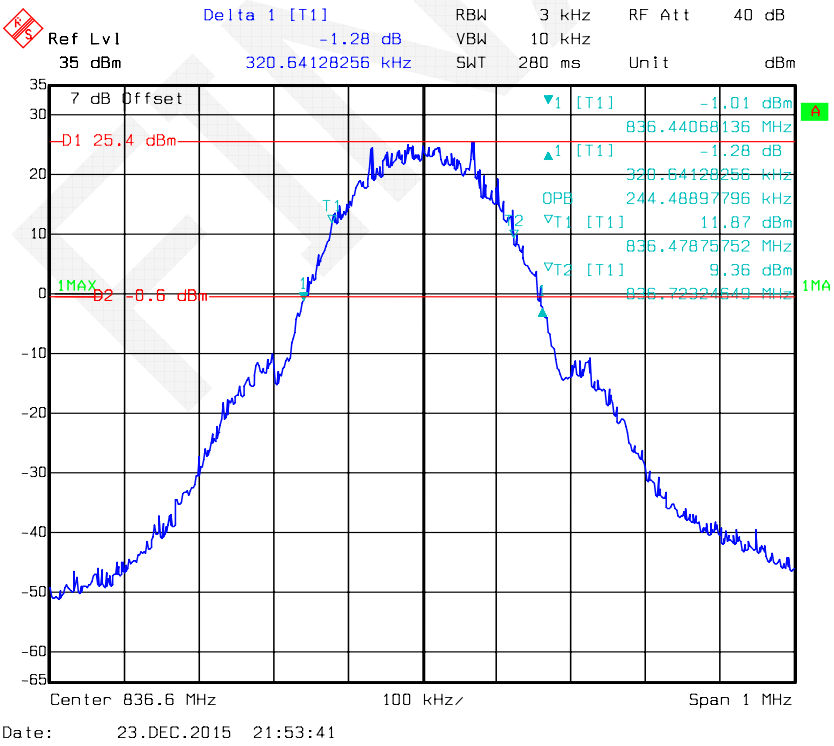
The testing was performed by Dean Liu from 2015-12-23 to 2015-12-26.

Test Mode: Transmitting

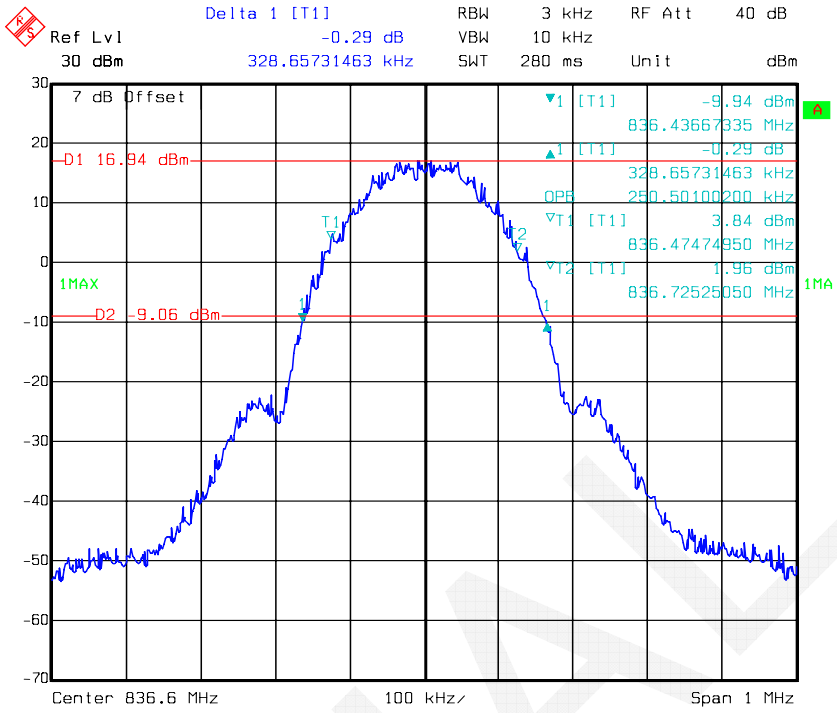
Test Result: Compliance. Please refer to the following table and plots.

Band	Channel No.	Mode	99% Occupied Bandwidth (kHz)	26 dB Occupied Bandwidth (kHz)
Cellular	190	GSM	244	321
		EDGE	251	329
PCS	661	PCS	246	320
		EDGE	255	322
WCDMA Band Ⅱ	9400	Rel 99	4248	4946
	9400	HSDPA	4248	4946
	9400	HSUPA	4248	4970
WCDMA Band V	4183	Rel 99	4228	4950
	4183	HSDPA	4228	4930
	4183	HSUPA	4228	4910
WCDMA Band IV	1413	Rel 99	4228	4954
	1413	HSDPA	4248	4938
	1413	HSUPA	4208	4938

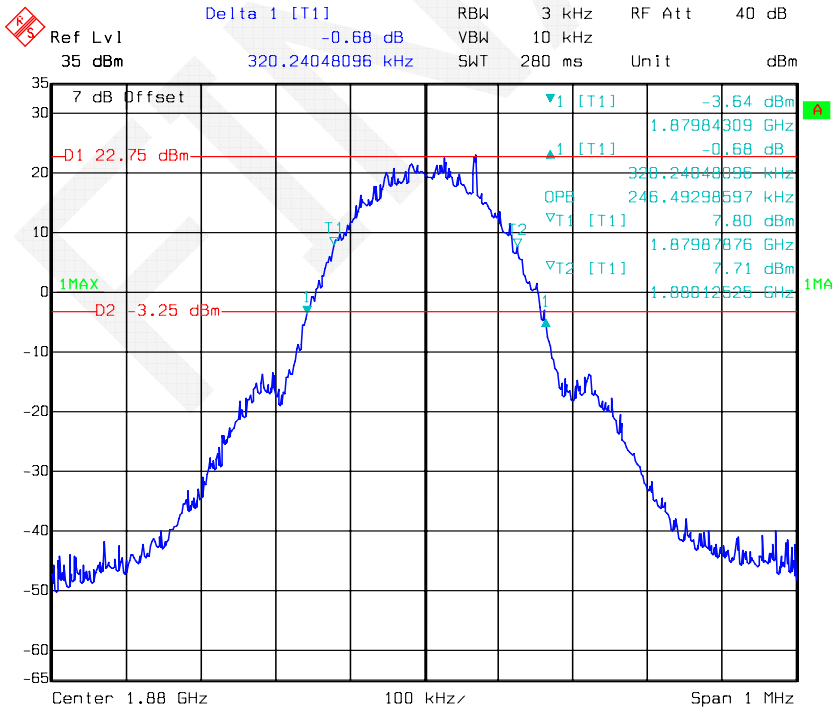
GMSK 850 Cellular Band



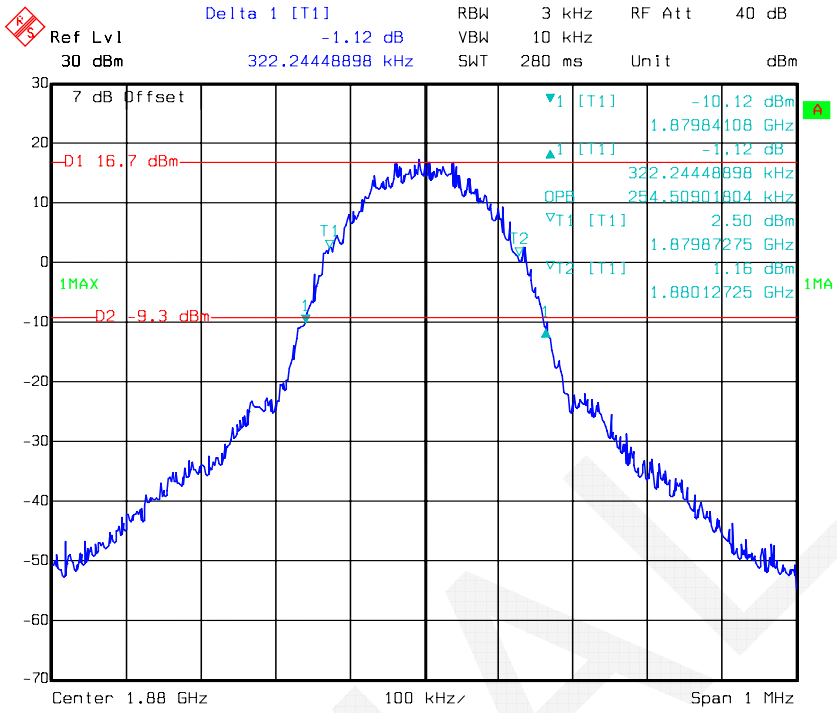
EDGE 850 Cellular Band



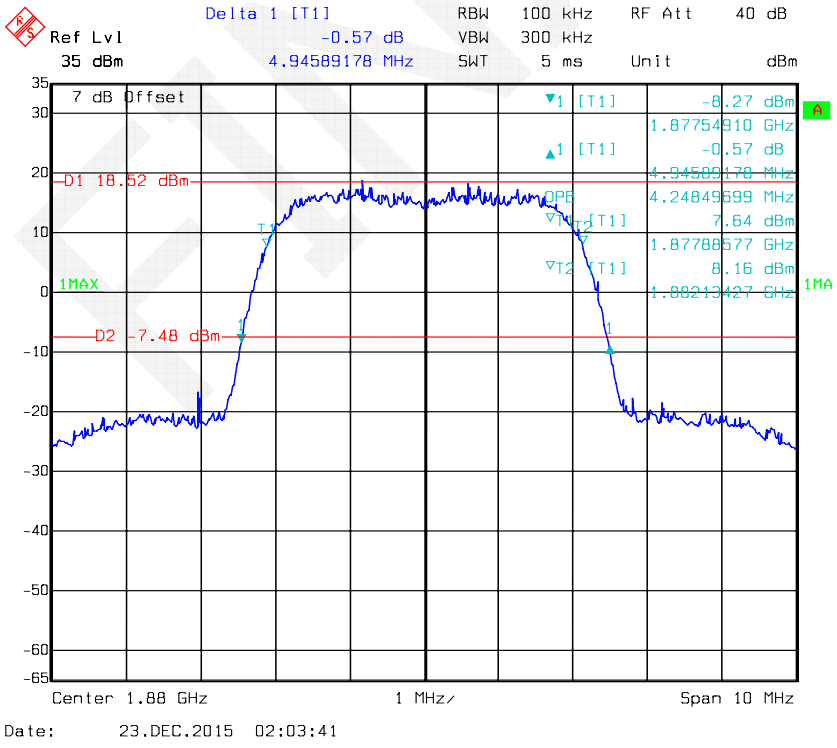
GMSK PCS Band



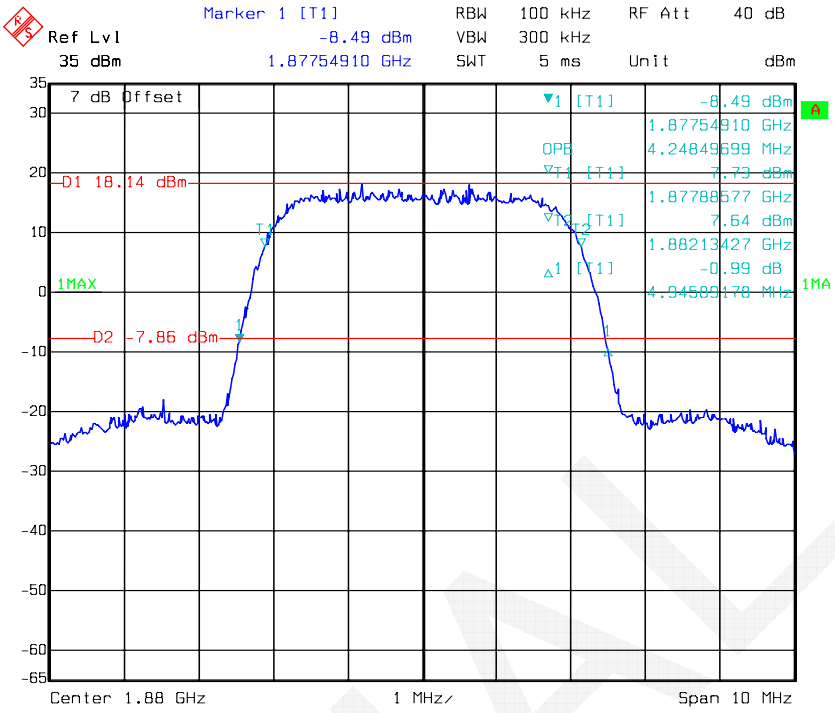
EDGE PCS Band



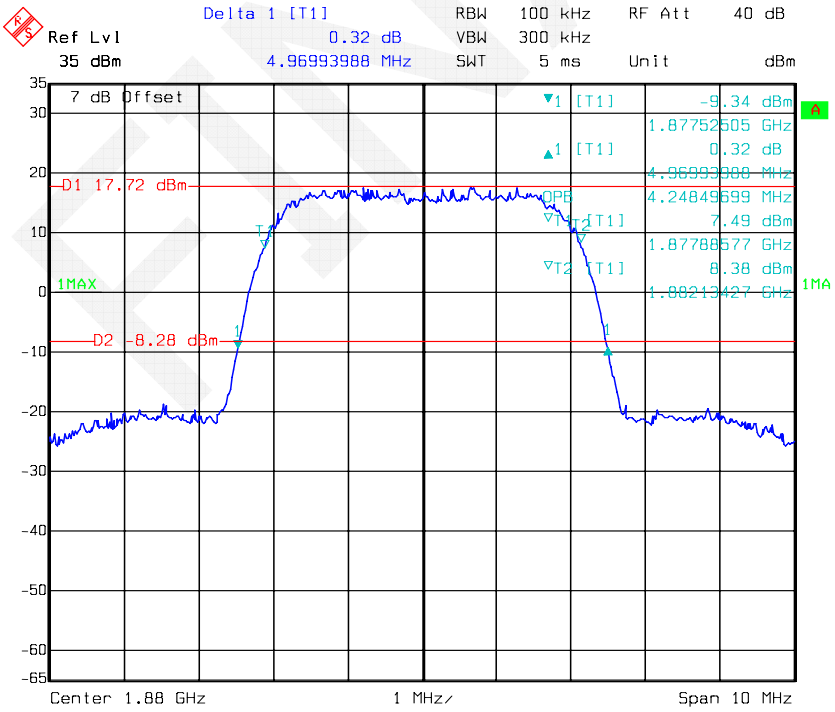
REL99 Band II



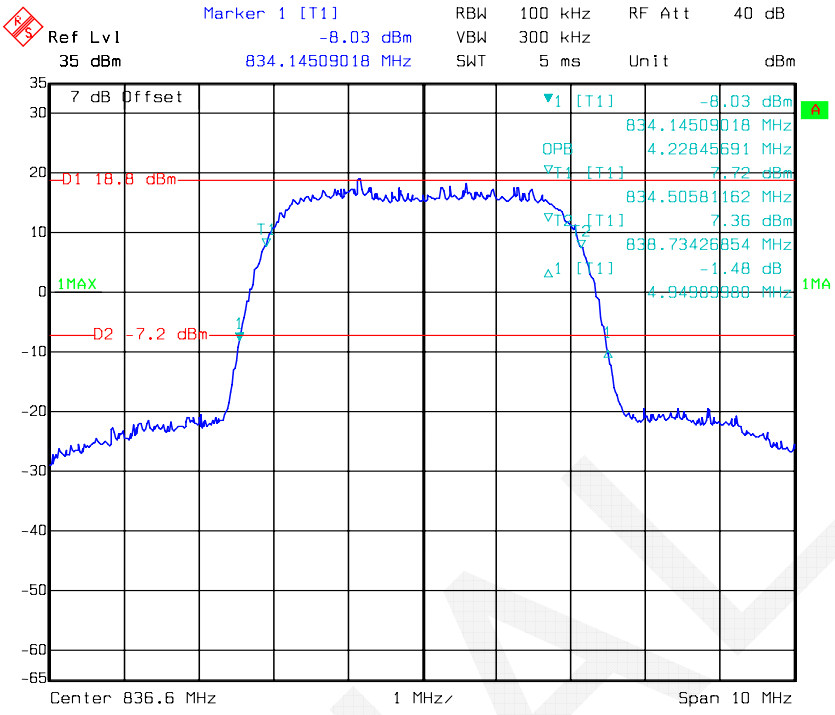
HSDPA Band II



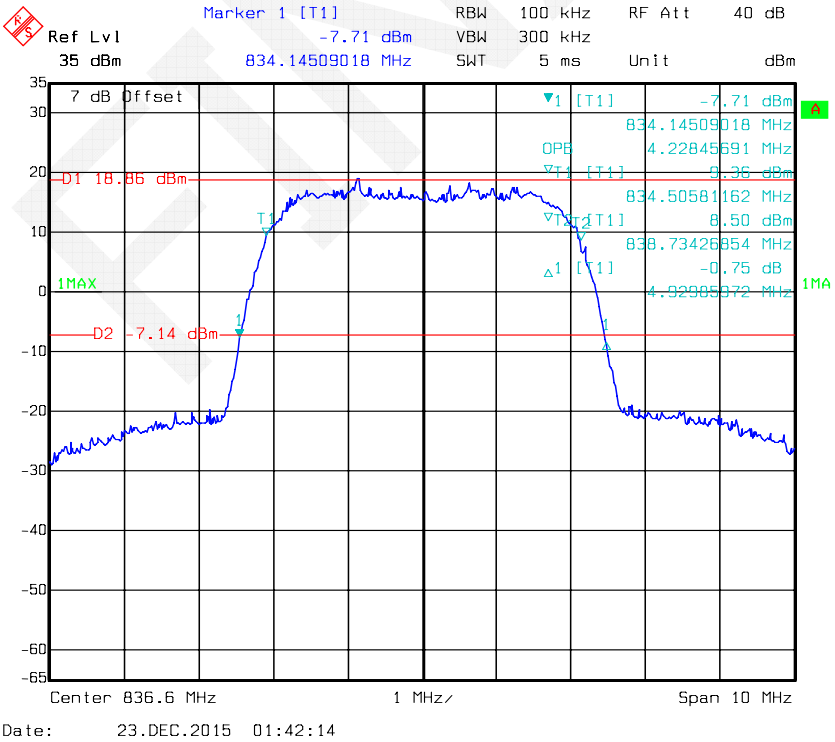
HSUPA Band II



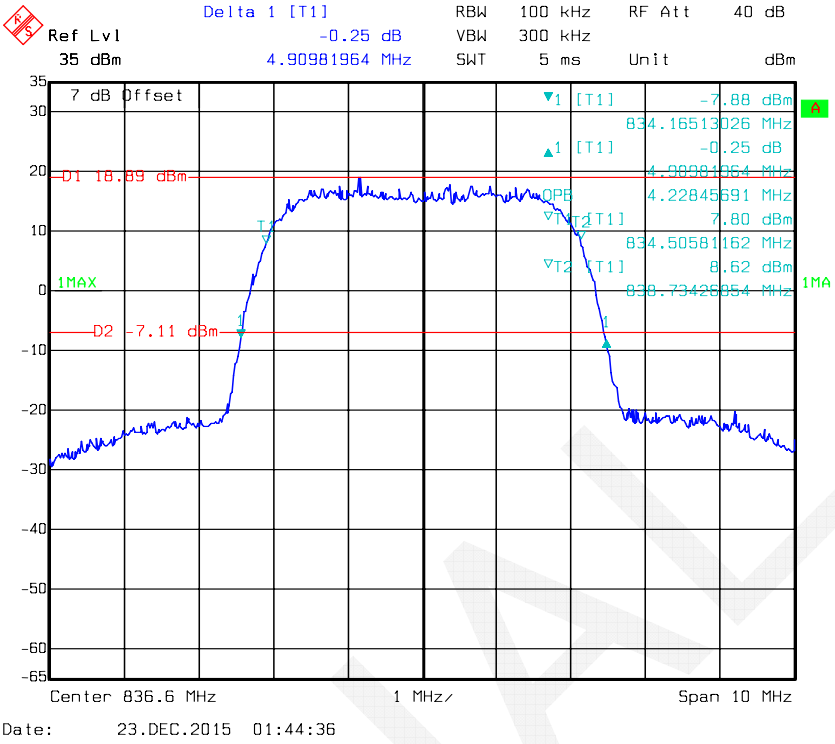
REL99 Band V



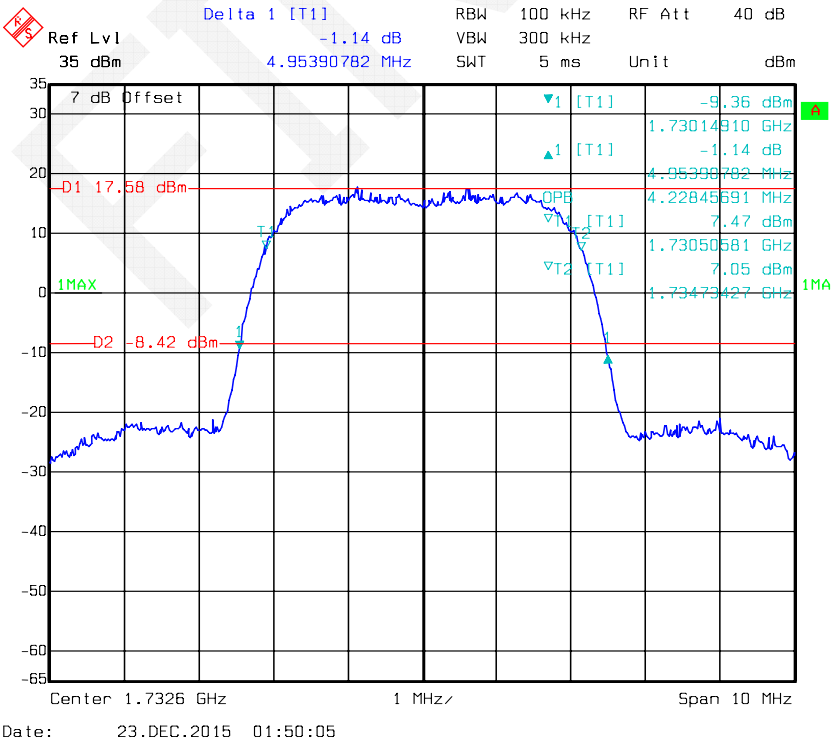
HSDPA Band V



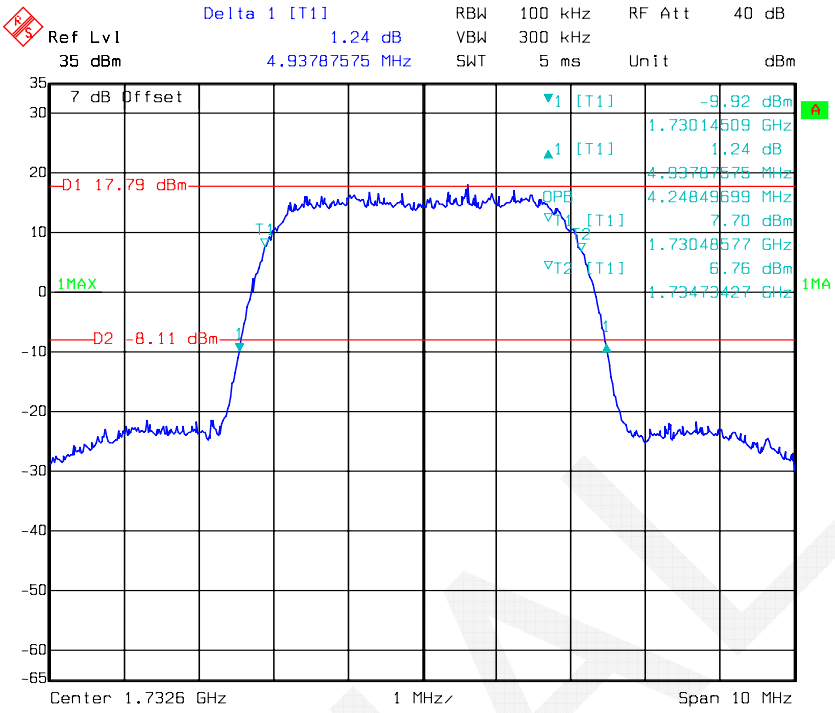
HSUPA Band V



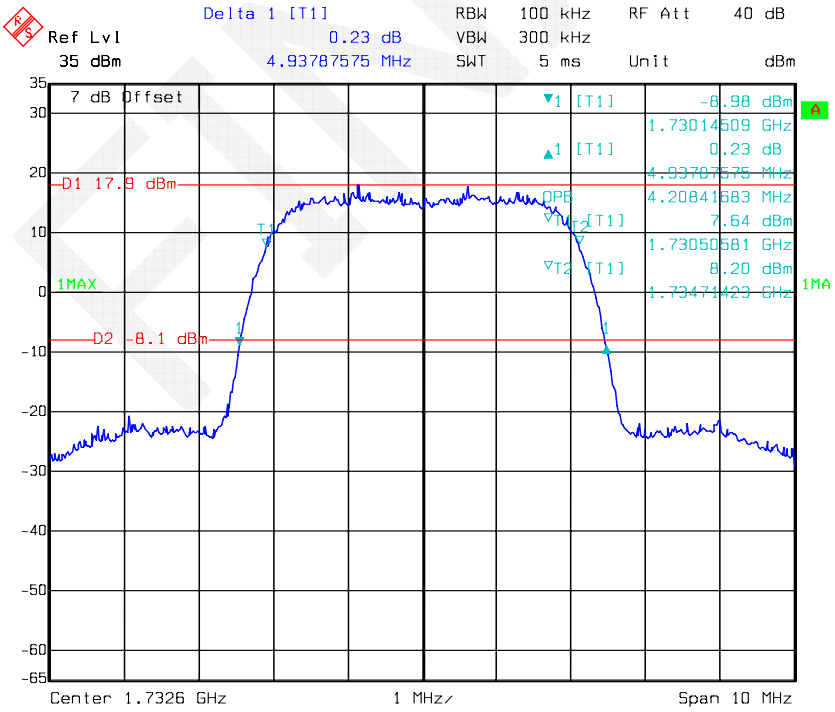
REL99 Band IV



HSDPA Band IV



HSUPA Band IV

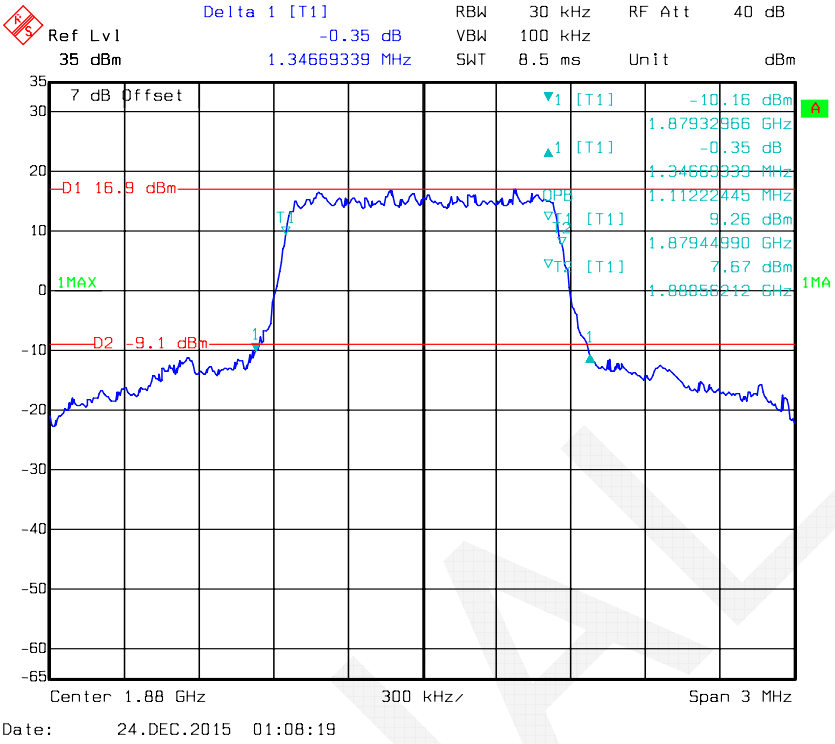


LTE Band	Test Modulation	Test Bandwidth	Test Channel	99% Occupied Bandwidth	26 dB Bandwidth
				MHz	MHz
Band 2	QPSK	1.4M	Middle	1.112	1.347
		3M		2.754	3.158
		5M		4.569	5.133
		10M		9.098	10.352
		15M		13.527	15.137
		20M		18.196	20.115
	16-QAM	1.4M	Middle	1.112	1.341
		3M		2.741	3.123
		5M		4.529	5.099
		10M		9.138	10.191
		15M		13.587	15.131
		20M		18.196	20.035
Band 4	QPSK	1.4M	Middle	1.112	1.299
		3M		2.766	3.138
		5M		4.569	5.13
		10M		9.098	10.341
		15M		13.587	15.24
		20M		18.116	19.96
	16-QAM	1.4M	Middle	1.112	1.732
		3M		2.766	3.126
		5M		4.549	5.05
		10M		9.098	10.341
		15M		13.587	15.18
		20M		18.116	19.88
Band 5	QPSK	1.4M	24085	1.1	1.287
		3M		2.741	3.094
		5M		4.549	5.09
		10M		9.138	10.341
	16-QAM	1.4M		1.1	1.287
		3M		2.741	3.118
		5M		4.529	5.07
		10M		9.098	10.301

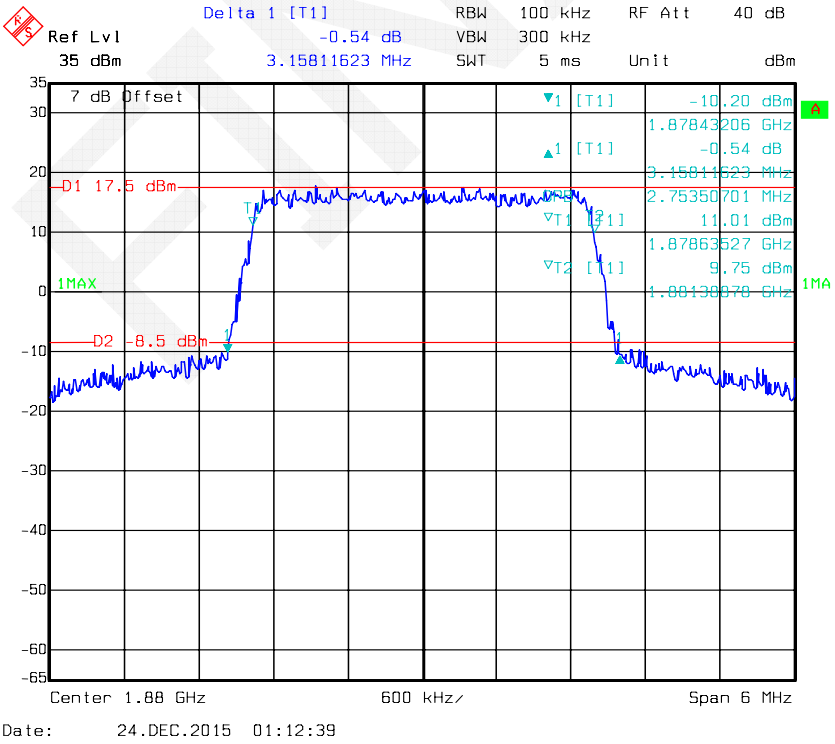
LTE Band	Test Modulation	Test Bandwidth	Test Channel	99% Occupied Bandwidth	26 dB Bandwidth
				MHz	MHz
Band 7	QPSK	5M	Middle	4.549	5.11
		10M		9.138	10.411
		15M		13.587	14.91
		20M		18.196	20.07
	16-QAM	5M		4.569	5.21
		10M		9.098	10.251
		15M		13.527	15.15
		20M		18.116	20.07
Band 17	QPSK	5M	Middle	4.509	5.07
		10M		9.138	10.341
	16-QAM	5M		4.549	5.07
		10M		9.098	10.301

LTE band 2

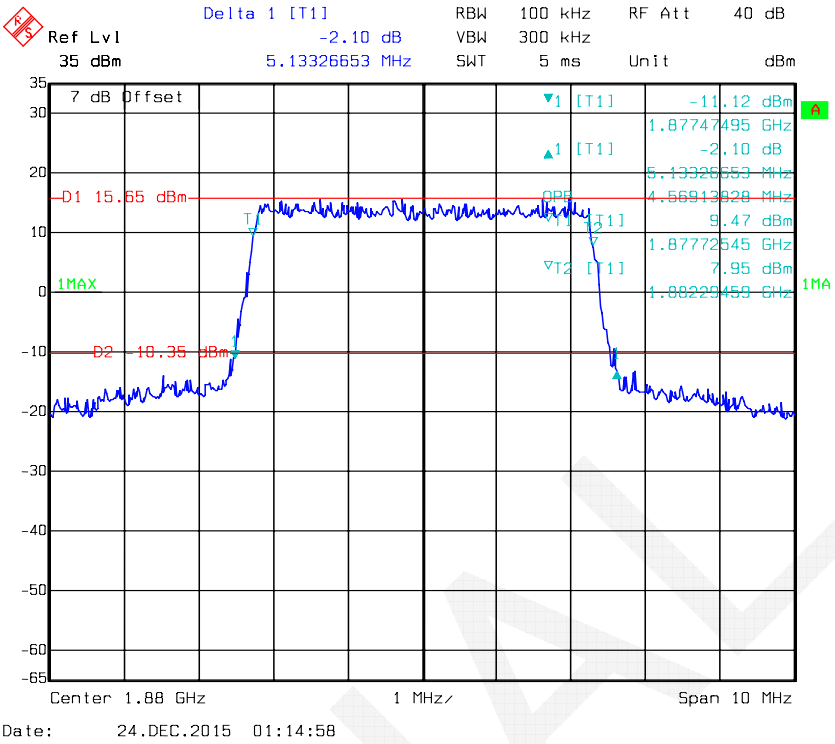
QPSK, Band 2-1.4M



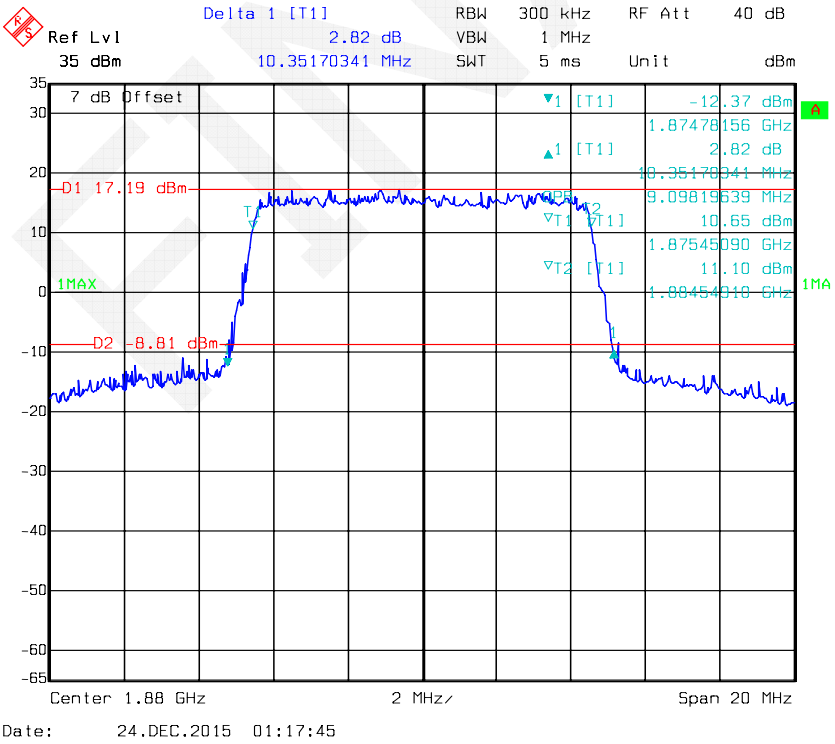
QPSK, Band 2-3M



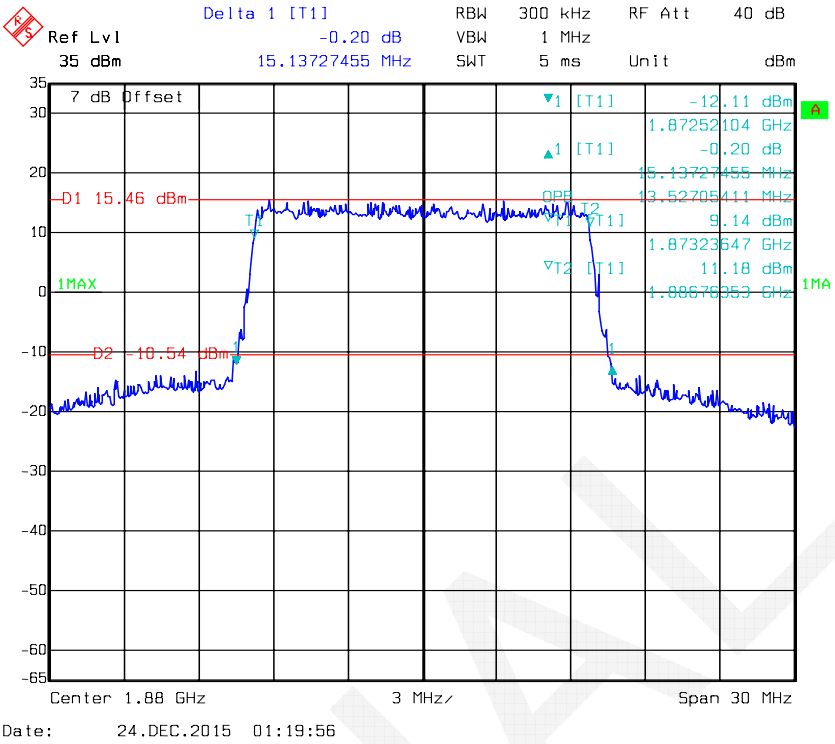
QPSK, Band 2-5M



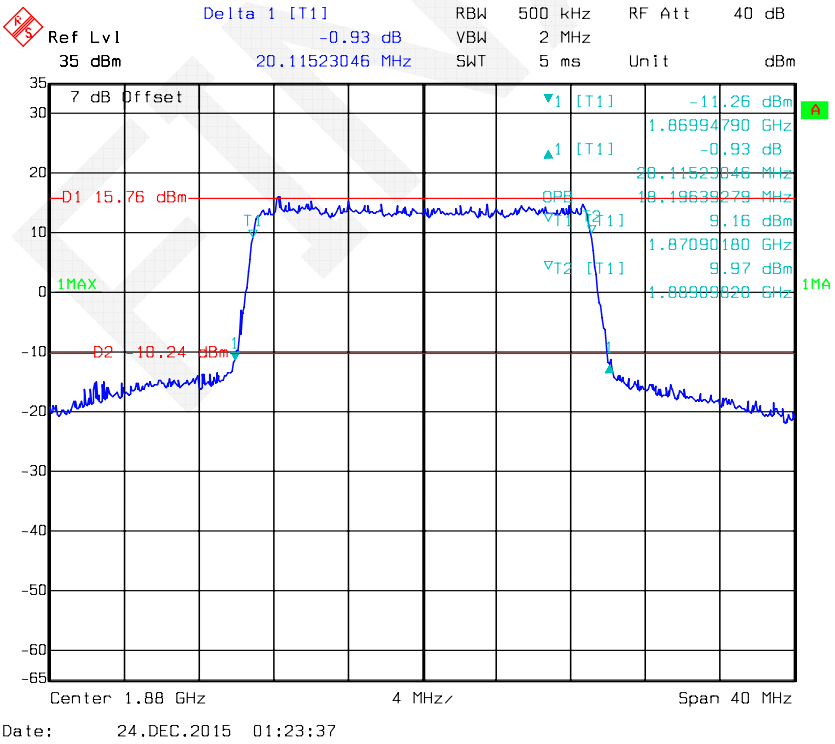
QPSK, Band 2-10M



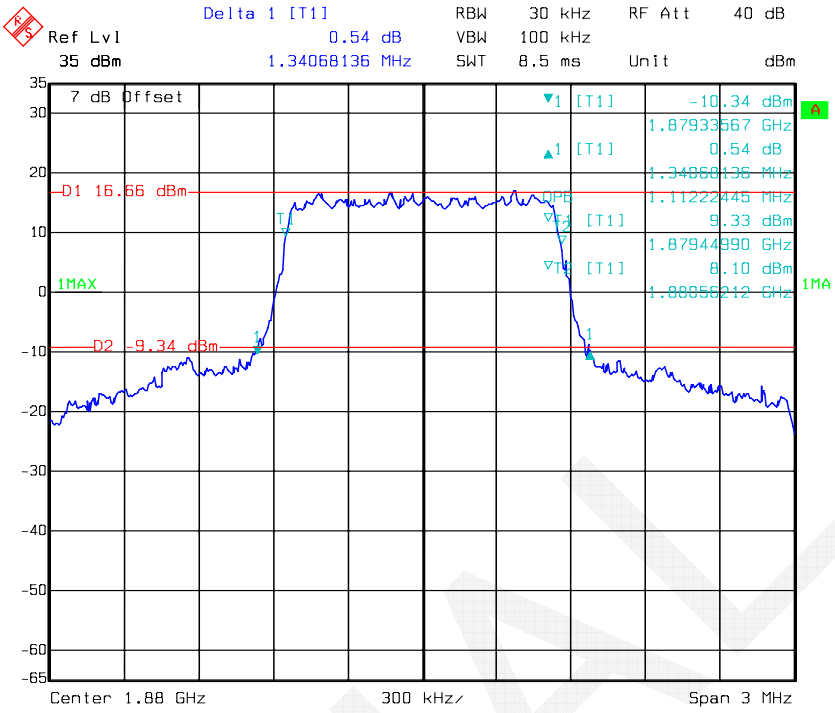
QPSK, Band 2-15M



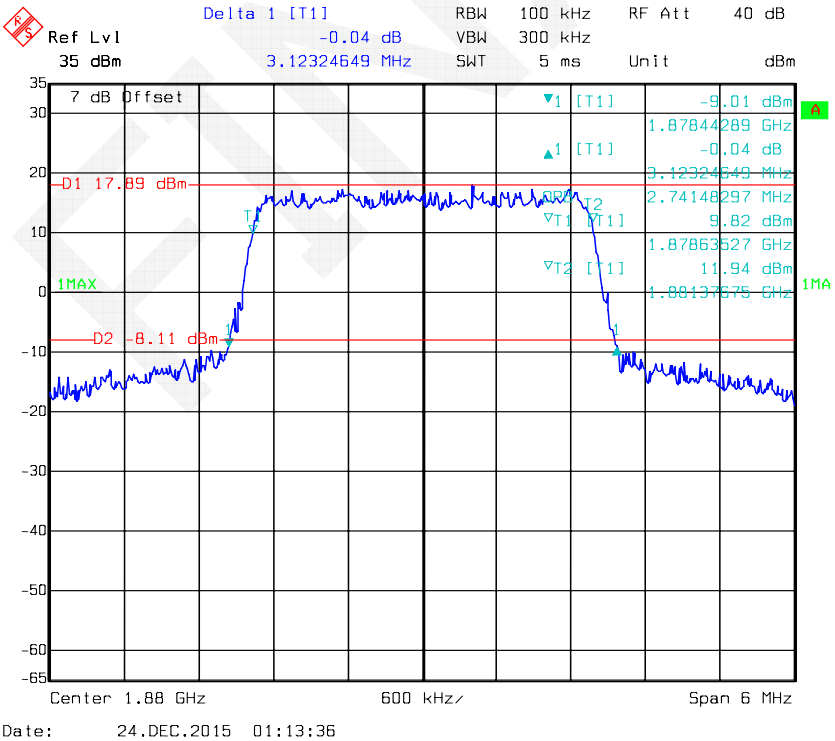
QPSK, Band 2-20M



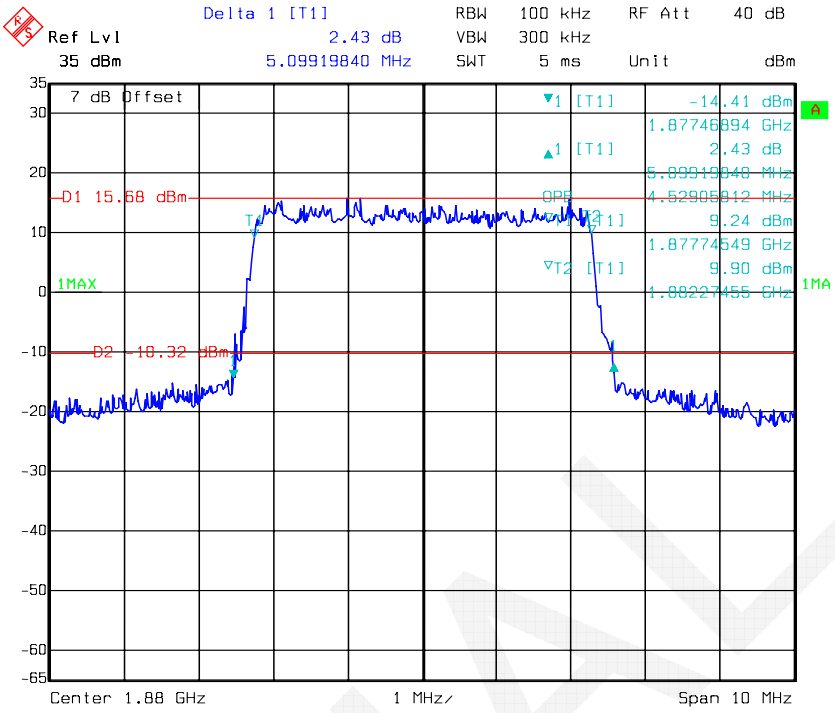
16-QAM, Band 2-1.4M



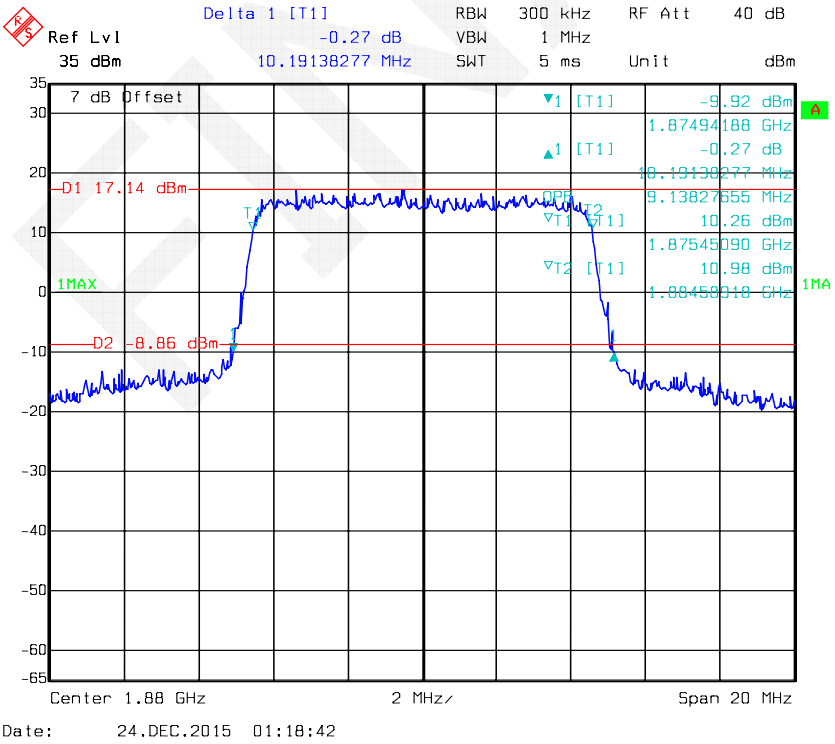
16-QAM, Band 2-3M



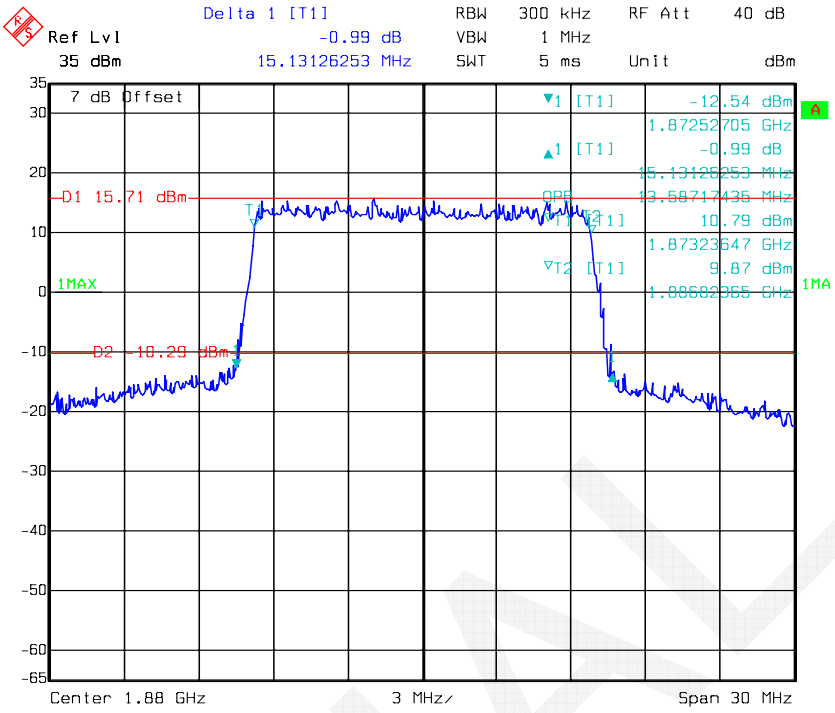
16-QAM, Band 2-5M



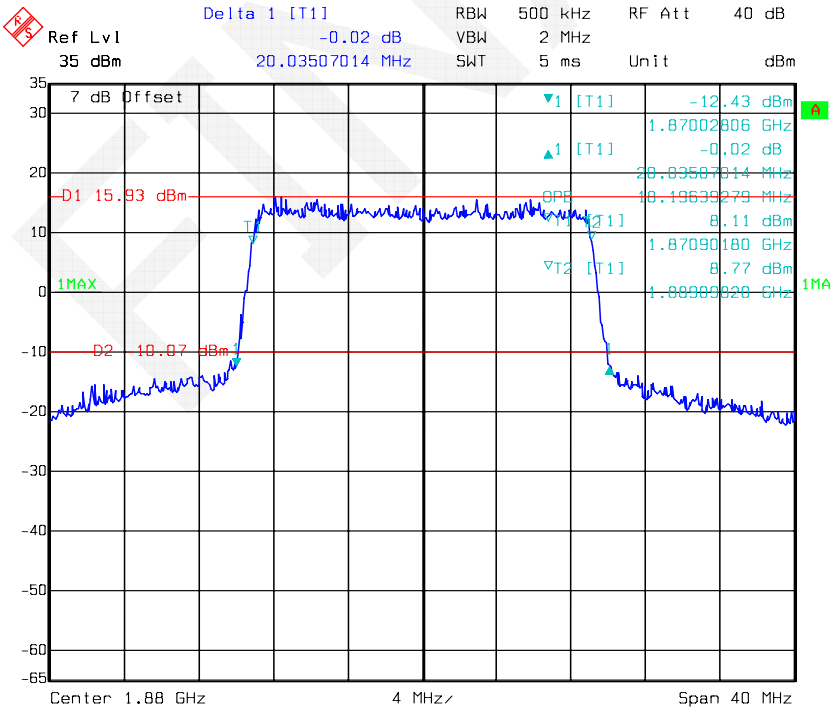
16-QAM, Band 2-10M



16-QAM, Band 2-15M

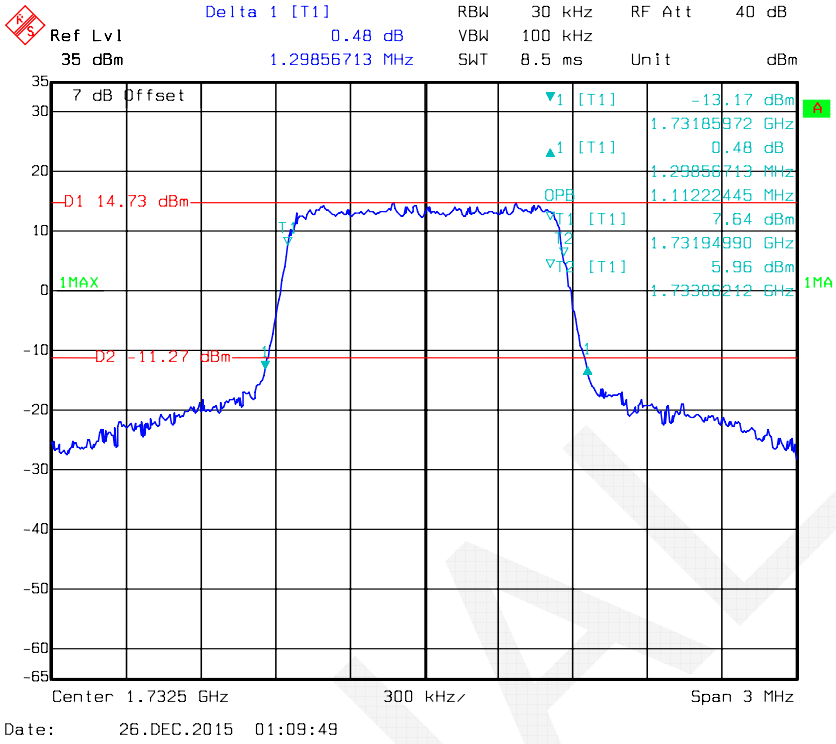


16-QAM, Band 2-20M

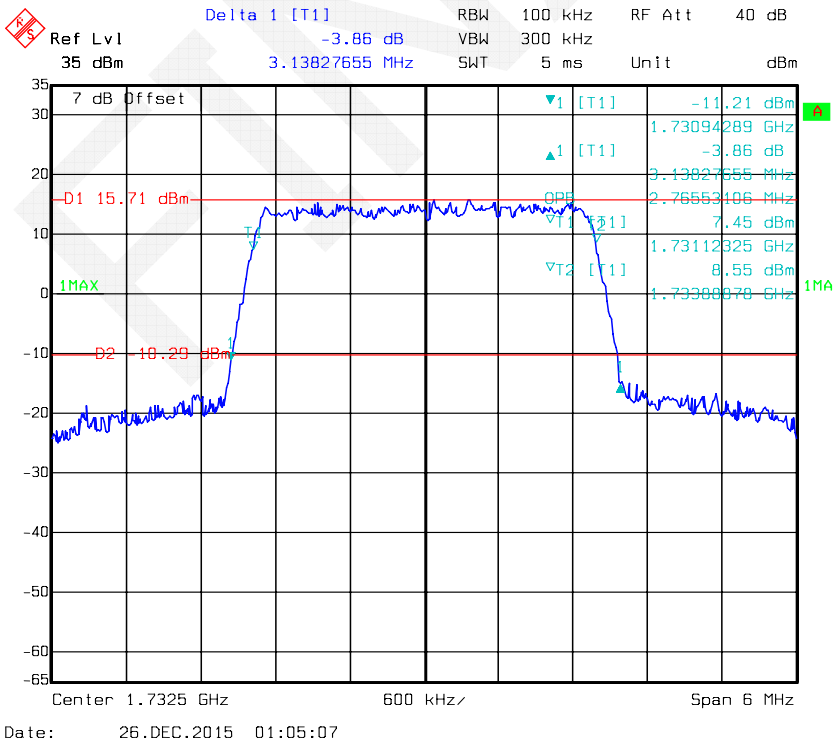


LTE band 4

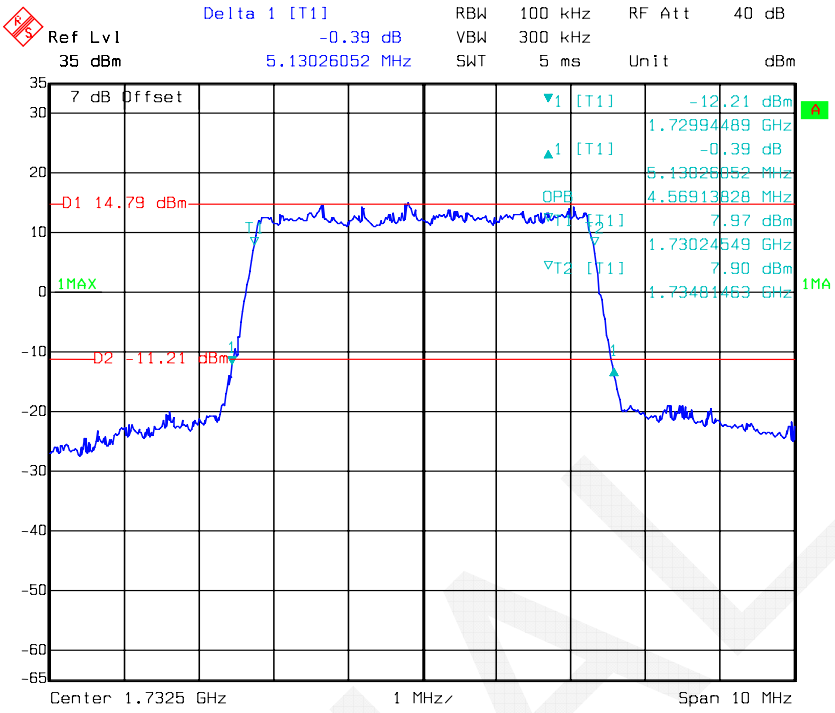
QPSK, Band 4-1.4M



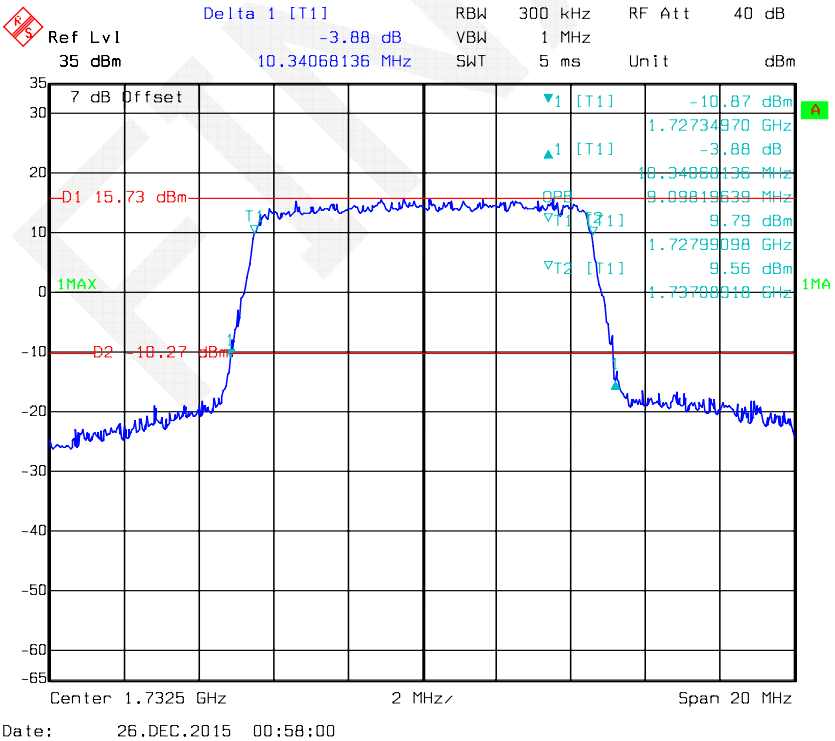
QPSK, Band 4-3M



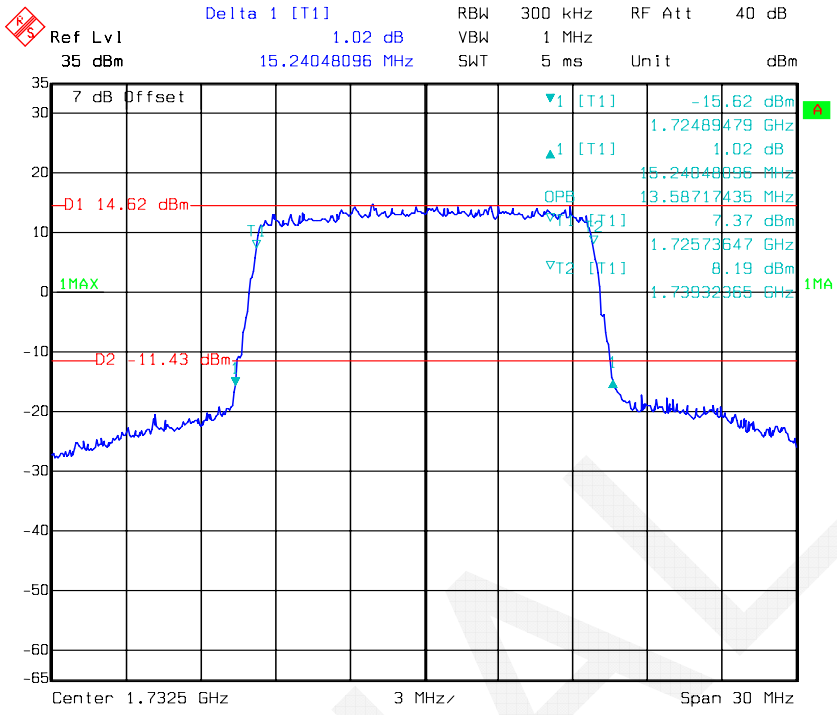
QPSK, Band 4-5M



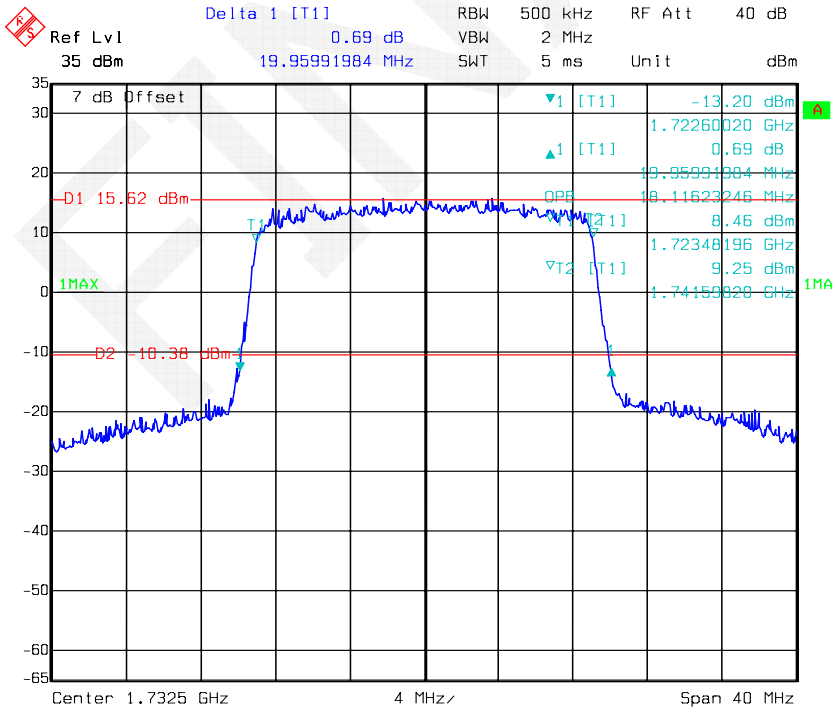
QPSK, Band 4-10M



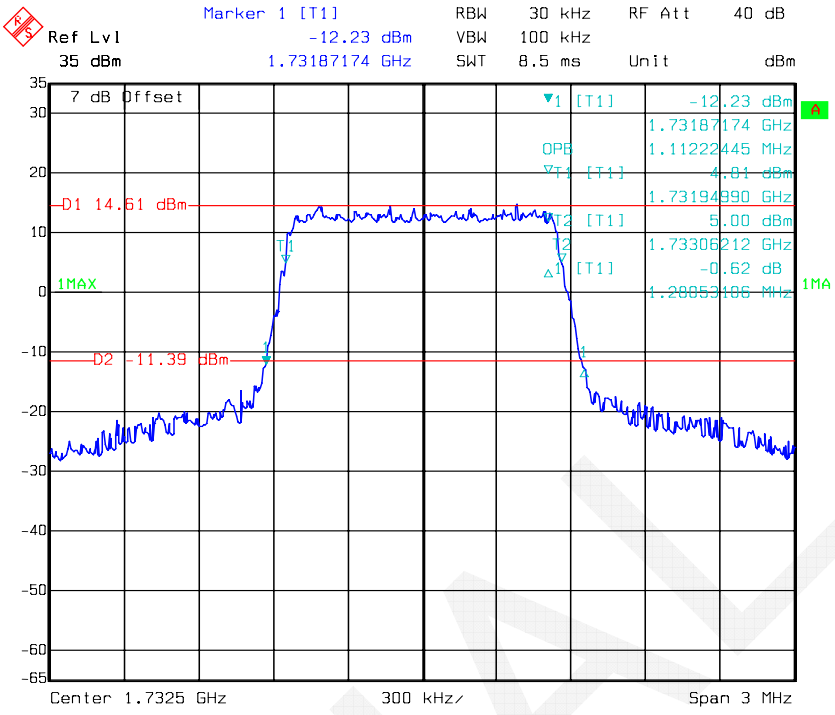
QPSK, Band 4-15M



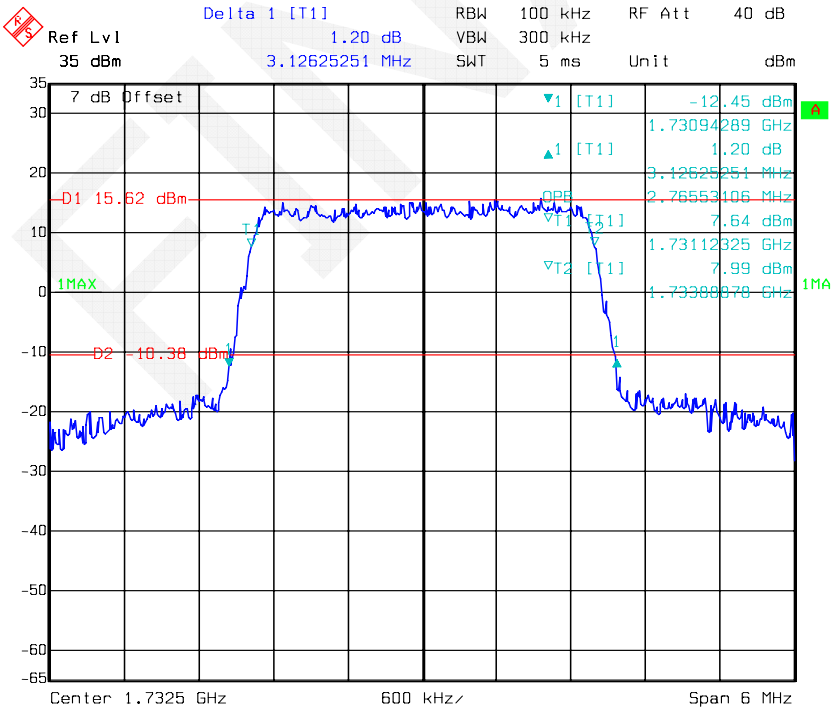
QPSK, Band 4-20M



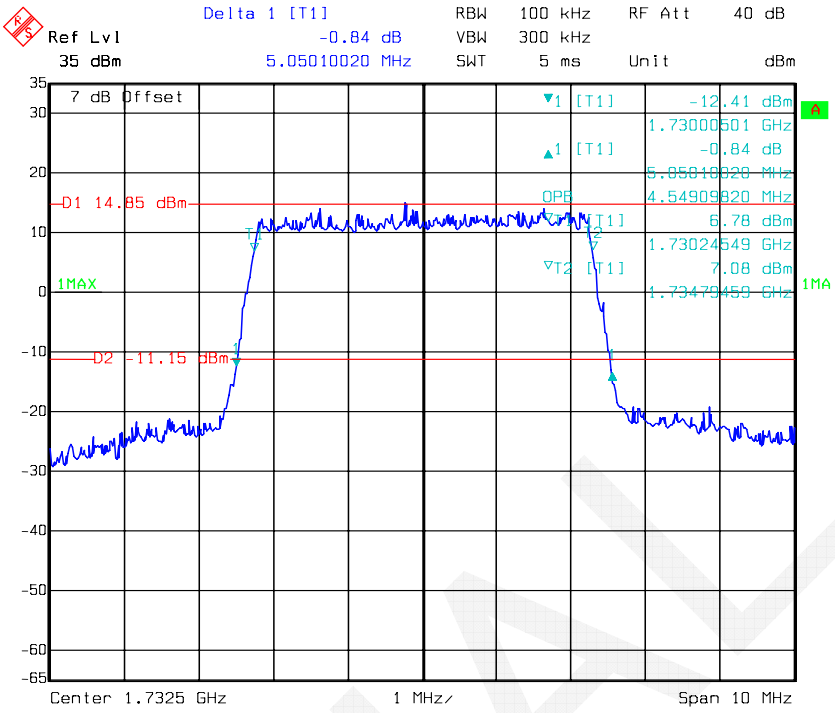
16-QAM, Band 4-1.4M



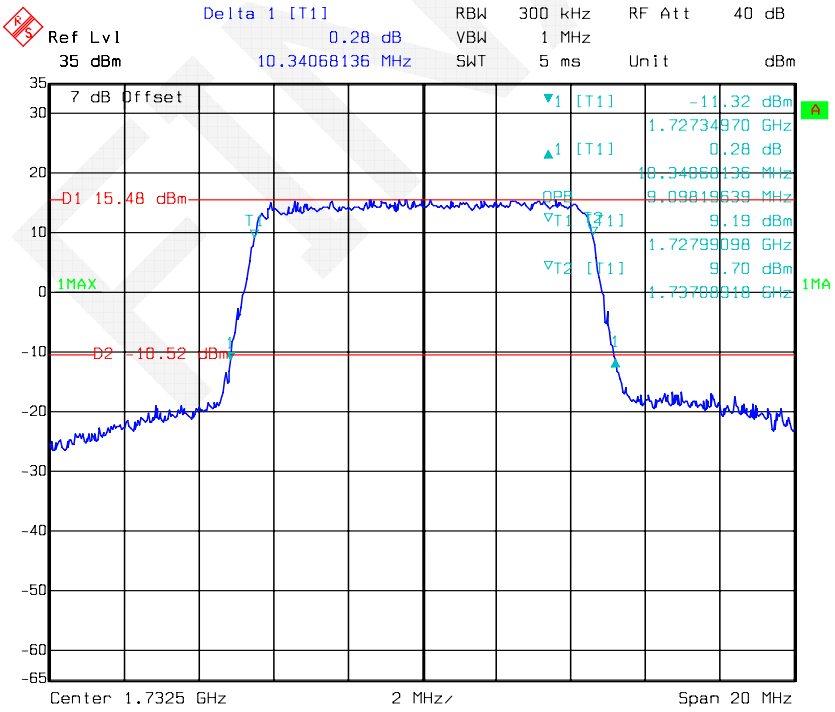
16-QAM, Band 4-3M



16-QAM, Band 4-5M



16-QAM, Band 4-10M



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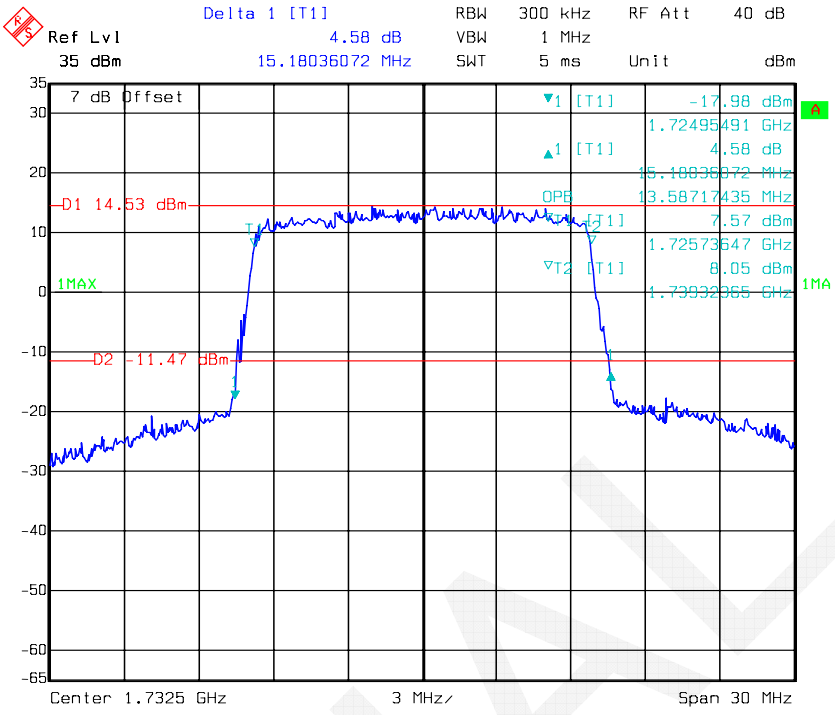

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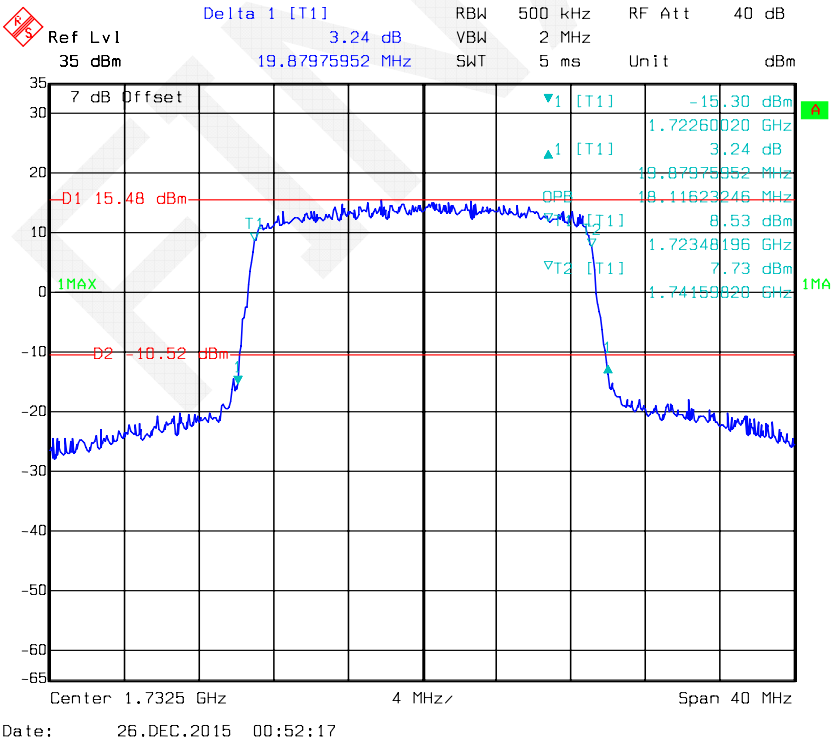
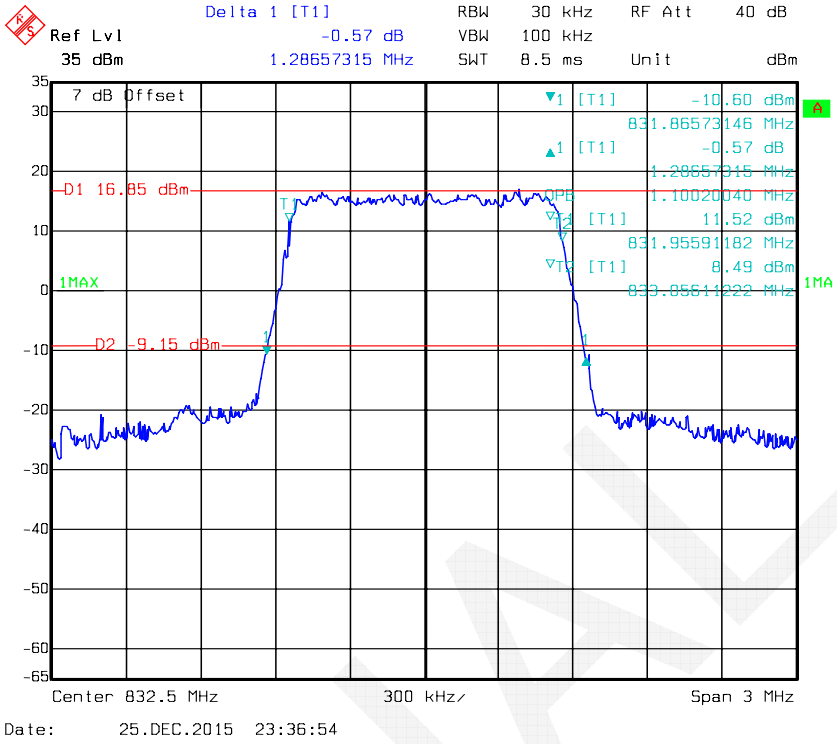
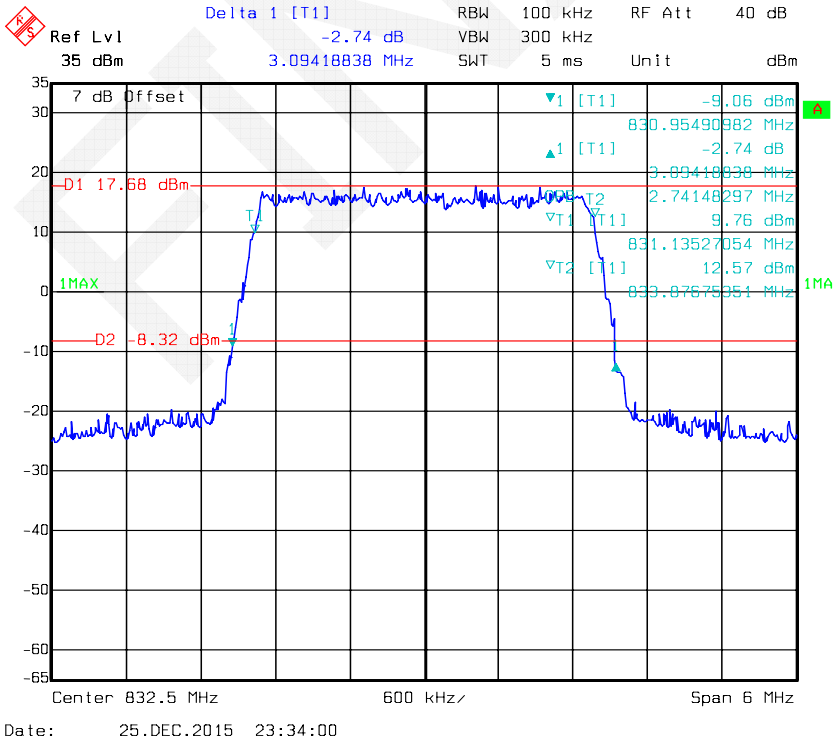


LTE band 5

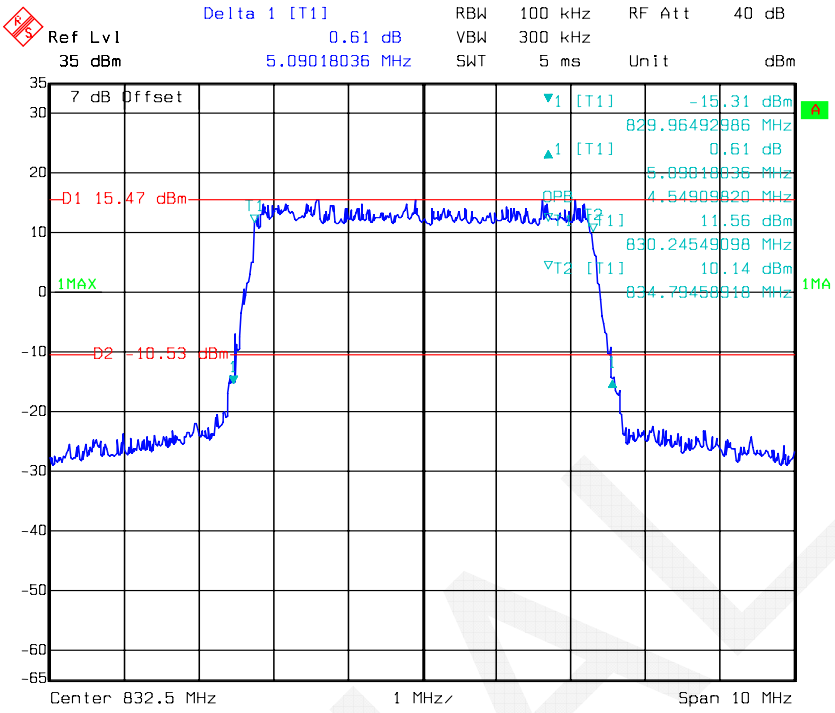
QPSK, Band 5-1.4M



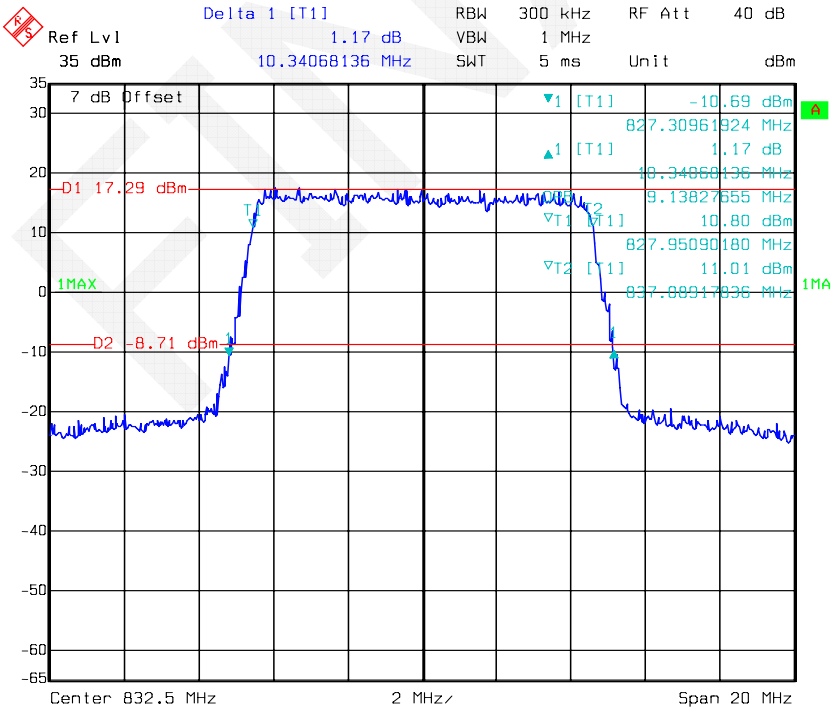
QPSK, Band 5-3M



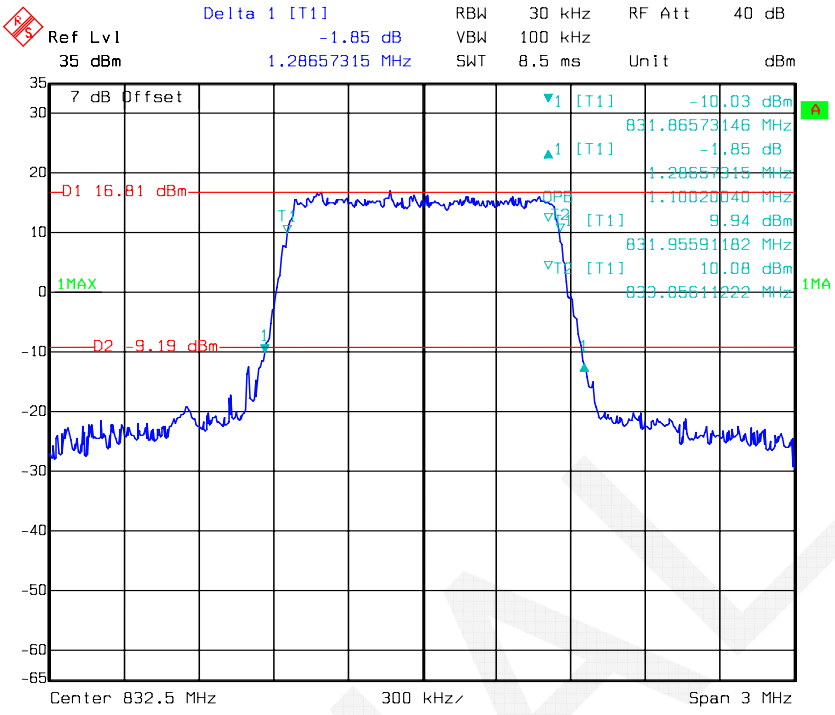
QPSK, Band 5-5M



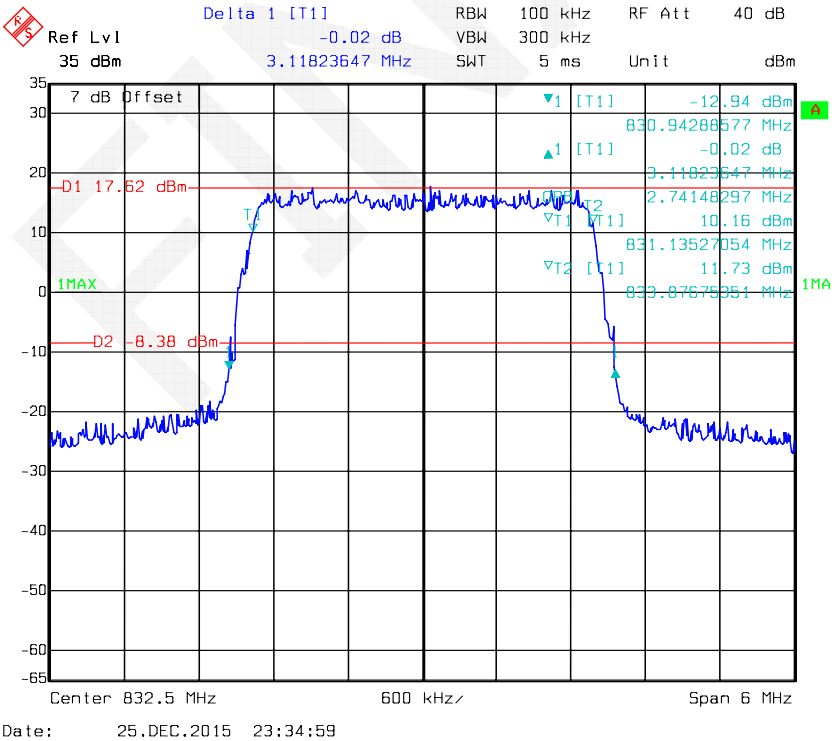
QPSK, Band 5-10M



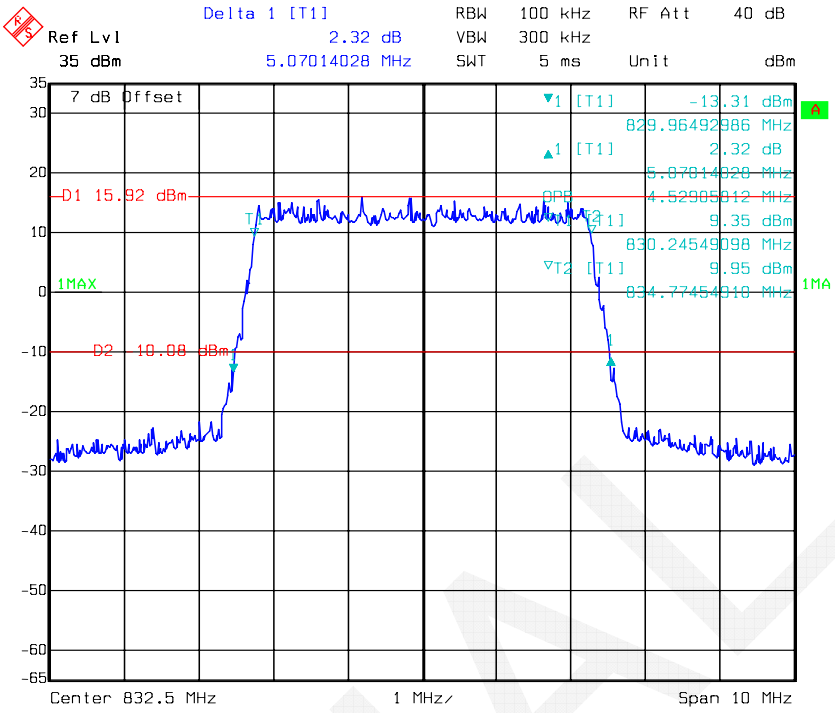
16-QAM, Band 5-1.4M



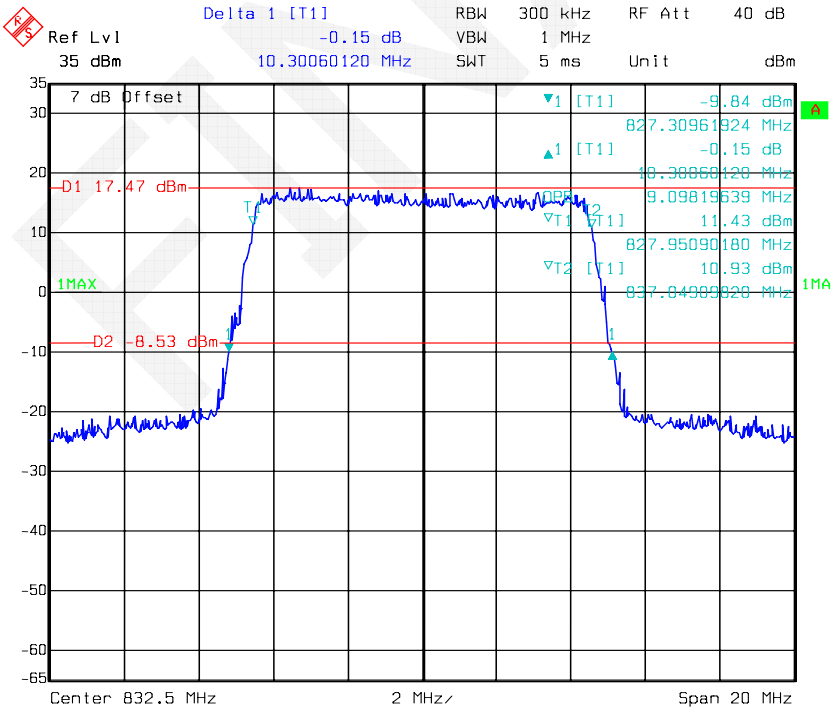
16-QAM, Band 5-3M



16-QAM, Band 5-5M

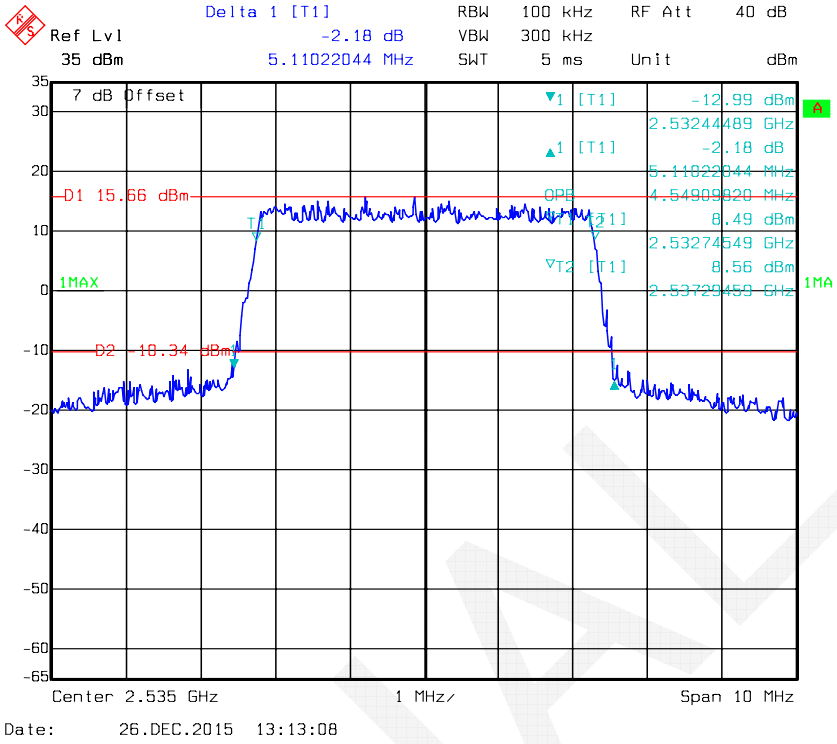


16-QAM, Band 5-10M

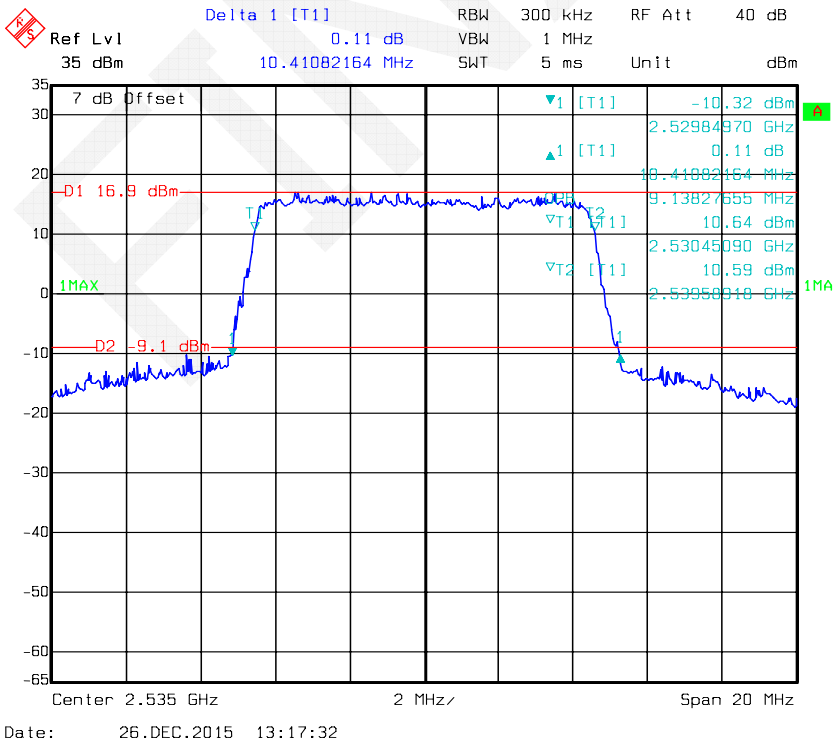


LTE band 7

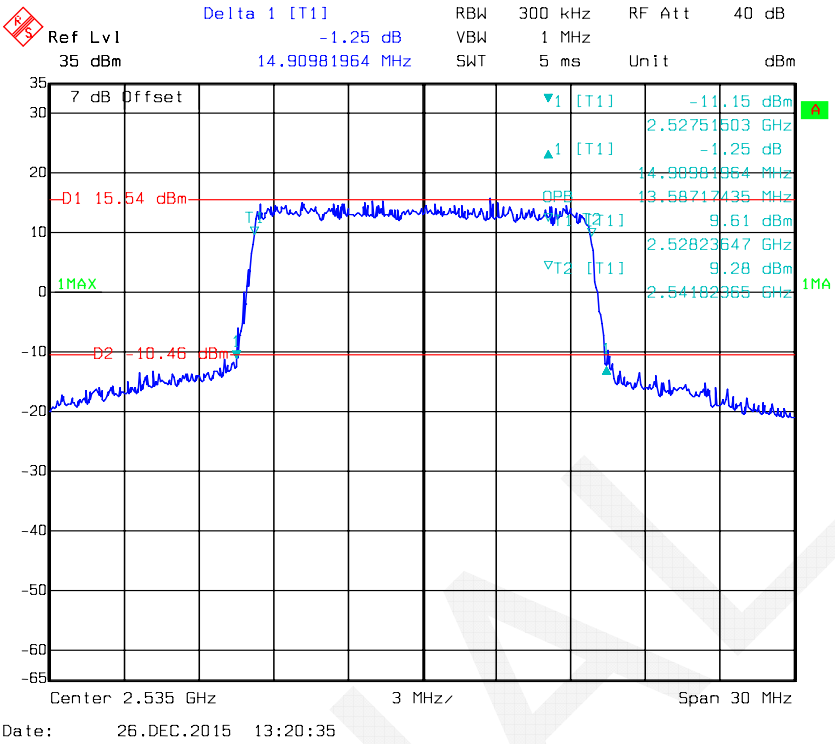
QPSK, Band 7-5M



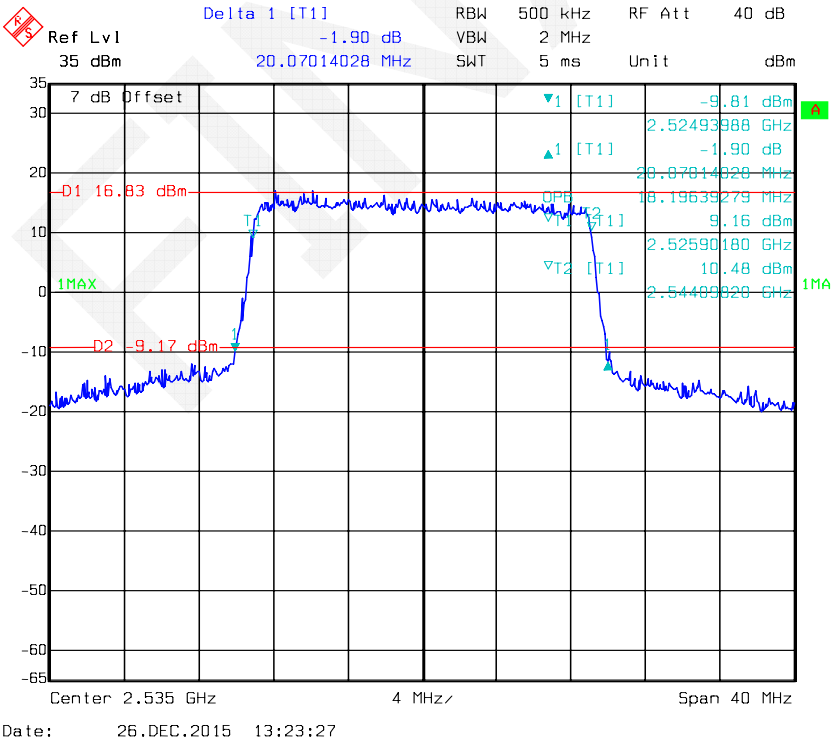
QPSK, Band 7-10M



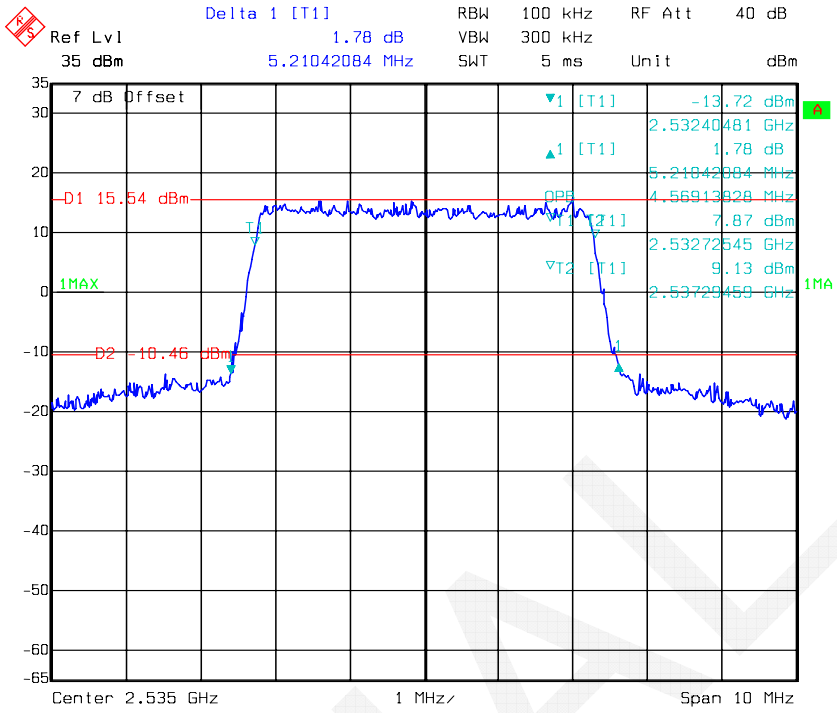
QPSK, Band 7-15M



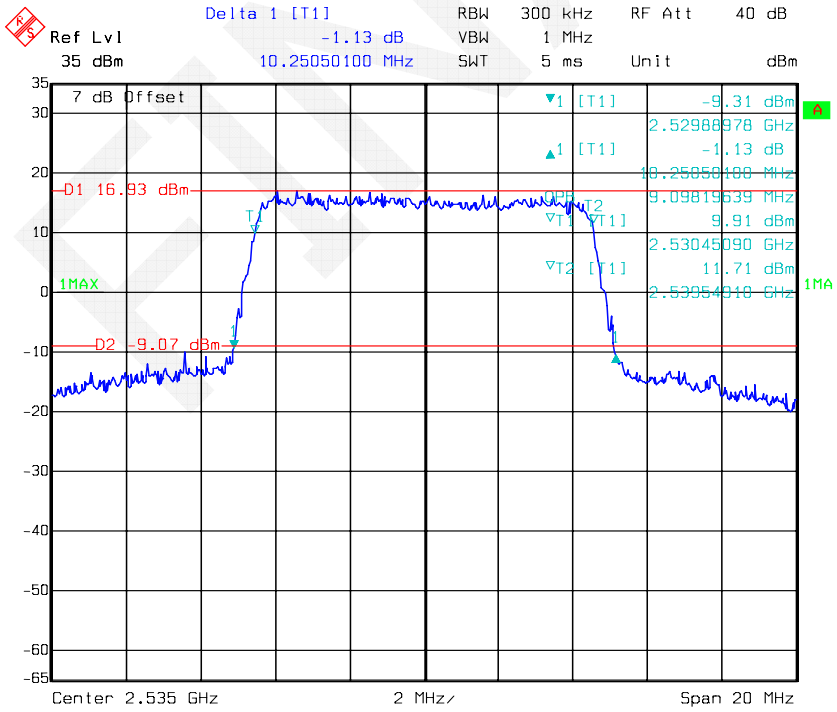
QPSK, Band 7-20M



16-QAM, Band 7-5M



16-QAM, Band 7-10M



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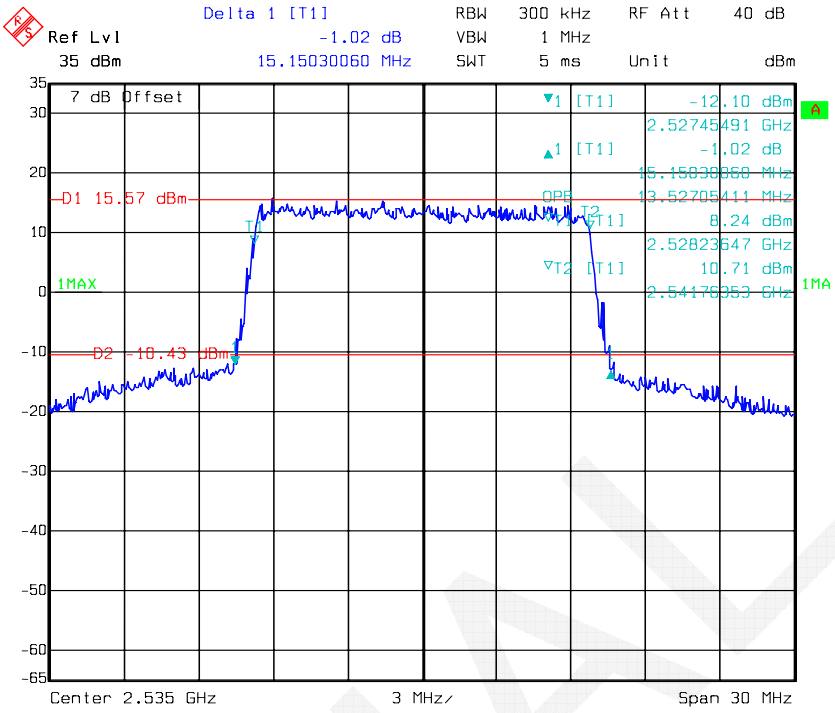
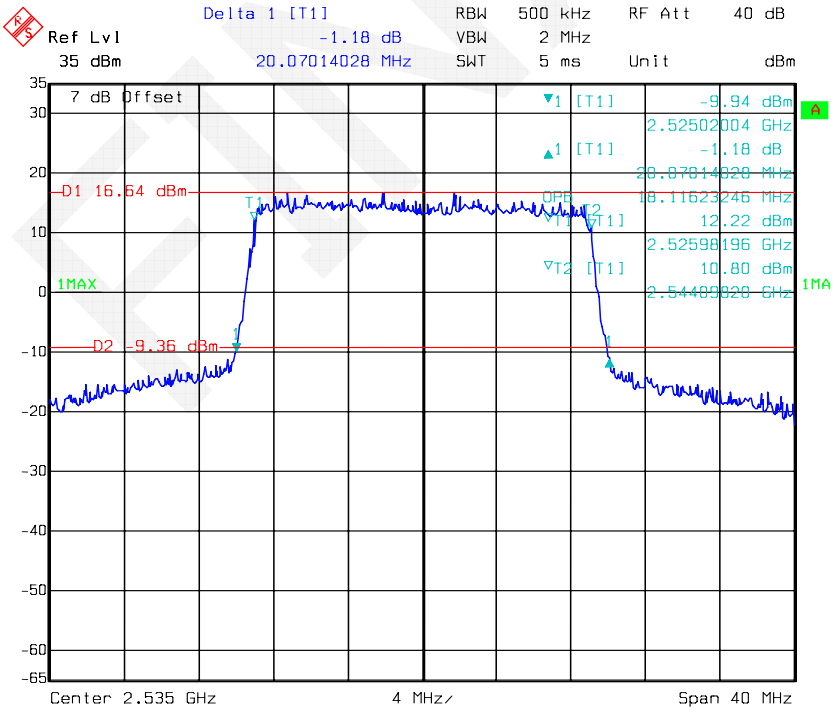
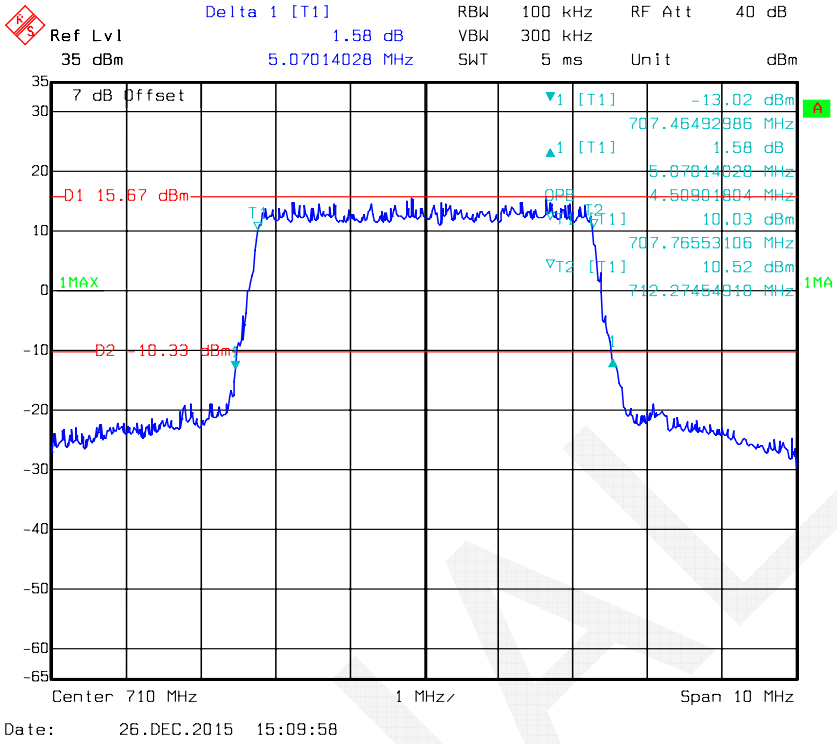


16-QAM, Band 7-20M



LTE band 17

QPSK, Band 17-5M



QPSK, Band 17-10M