FCC REPORT
(LTE)

Applicant:	Sun Cupid Technology (HK) Ltd.
Address of Applicant:	16/F, CEO Tower, 77 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong.

Equipment Under Test (EUT)

Product Name:	LTE Smart phone
Model No.:	N6201L, G4
Trade mark:	NUU
FCC ID:	2ADINN6201L
Applicable standards:	FCC CFR Title 47 Part 2 FCC CFR Title 47 Part 22 Subpart H FCC CFR Title 47 Part 24 Subpart E FCC CFR Title 47 Part 27 Subpart L FCC CFR Title 47 Part 27 Subpart H FCC CFR Title 47 Part 27 Subpart M FCC CFR Title 47 Part 27 Subpart E FCC CFR Title 47 Part 90 Subpart S
Date of sample receipt:	14 Dec., 2018
Date of Test:	14 Dec., to 22 Dec., 2018
Date of report issued:	25 Dec., 2018
Test Result:	PASS*

Authorized Signature:

Bruce Zhang
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the CCIS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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*In the configuration tested, the EUT complied with the standards specified above.

2. Version

Version No.	Date	Description
00	*25 Dec., 2018*	*Original*

Tested by: Carey Chen ***Date:*** *25 Dec., 2018*

Test Engineer

Reviewed by: Wimer Zhang ***Date:*** *25 Dec., 2018*

Project Engineer

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4. Test Summary

Test Items	Section in CFR 47	Result
RF Exposure (SAR)	Part 1.1307 Part 2.1093	Passed (Please refer to SAR Report)
RF Output Power	Part 2.1046 Part 22.913 (a)(2) Part 24.232 (c) Part 27.50 (b)(10) Part 27.50 (c)(10) Part 27.50 (d)(4) Part 27.50 (h)(2) Part 90.635 (b)	Pass
Peak-to-Average Ratio	Part 24.232 (d) Part 27.50(d)(5)	Pass
Modulation Characteristics	Part 2.1047	Pass
99% & -26 dB Occupied Bandwidth	Part 2.1049 Part 22.917(b) Part 24.238(b) Part 27.53(c) Part 27.53(g) Part 27.53(h) Part 27.53(m) Part 90.691(a)	Pass
Out of band emission at antenna terminals	Part 22.917(a) Part 24.238(a) Part 27.53(c) Part 27.53(g) Part 27.53(h) Part 27.53(m) Part 90.691(a)	Pass
Field strength of spurious radiation	Part 2.1053 Part 22.917(a) Part 24.238(a) Part 27.53(c & f) Part 27.53(g) Part 27.53(h) Part 27.53(m) Part 90.691(a)	Pass
Frequency stability vs. temperature	Part 22.355 Part 24.235 Part 27.54 Part 2.1055(a)(1)(b)	Pass
Frequency stability vs. voltage	Part 22.355 Part 24.235 Part 27.54 Part 2.1055(d)(2)	Pass
Pass: The EUT complies with the essential requirements in the standard.		

5. General Information

5.1 Client Information

Applicant:	Sun Cupid Technology (HK) Ltd.
Address:	16/F, CEO Tower, 77 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong.
Manufacturer	Sun Cupid Technology (HK) Ltd.
Address:	16/F, CEO Tower, 77 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong.
Factory:	SUNCUPID (ShenZhen) Electronic Ltd
Address:	Baolong Industrial City, Longgang District, Shenzhen Hi-Tech Road, Building 1, A 7, China.

5.2 General Description of E.U.T.

Product Name:	LTE Smart phone
Model No.:	N6201L, G4
Operation Frequency range:	LTE Band 4: TX: 1710MHz-1755MHz, RX: 2110MHz-2155MHz LTE Band 7: TX: 2500MHz-2570MHz, RX: 2620MHz-2690MHz LTE Band 12: TX: 699MHz-716MHz, RX: 729MHz-746MHz LTE Band 13: TX: 777 MHz-787 MHz, RX: 746 MHz-756 MHz LTE Band 17: TX: 704MHz-716MHz, RX: 734MHz-746MHz LTE Band 25: TX: 1850 MHz-1915 MHz, RX: 1930 MHz-1995 MHz LTE Band 26: TX: 814MHz-849MHz, RX: 859MHz-894MHz LTE Band 41: TX: 2555MHz-2655MHz, RX: 2555 MHz-2655 MHz
Modulation type:	QPSK, 16QAM
Antenna type:	Internal Antenna
Antenna gain:	LTE Band 4: 0.07dBi; LTE Band 7: 1.18dBi; LTE Band 12: -2.64dBi; LTE Band 13: -2.60dBi; LTE Band 17: -2.40dBi; LTE Band 25: 0.15dBi LTE Band 26: -0.10dBi; LTE Band 41: -2.01dBi
Power supply:	Rechargeable Li-ion Battery DC 3.85V, 3750mAh
AC adapter:	Model: HJ-FC001K7-US Input: AC100-240V, 50/60Hz, 0.6A Output: DC 5.0V, 2000mA / DC 9.0V, 2000mA
Test Sample Condition:	The applicant provided engineering samples for staying in continuously transmitting for testing.
Remark:	N6201L, G4 were identical inside, the electrical circuit design, layout, components used and internal wiring, with only difference being model name and for different areas , They all have two memory configurations, 1:6G(RAM) + 64G(ROM); 2: 6G(RAM) + 128G(ROM).

Operation Frequency List:

LTE Band 4 (1.4MHz)		LTE Band 4 (3MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
19957	1710.70	19965	1711.50
19958	1710.80	19966	1711.60
….	….	….	….
20174	1732.40	20174	1732.40
20175	1732.50	20175	1732.50
20176	1732.60	20176	1732.60
…	…	…	…
20392	1754.20	20384	1753.40
20393	1754.30	20385	1753.50
LTE Band 4 (5MHz)		LTE Band 4 (10MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
19975	1712.50	20000	1715.00
19976	1712.60	20001	1715.10
….	….	….	….
20174	1732.40	20174	1732.40
20175	1732.50	20175	1732.50
20176	1732.60	20176	1732.60
…	…	…	…
20374	1752.40	20349	1749.90
20375	1752.50	20350	1750.00
LTE Band 4 (15MHz)		LTE Band 4 (20MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
20025	1717.50	20050	1720.00
20026	1717.60	20051	1720.10
….	….	….	….
20174	1732.40	20174	1732.40
20175	1732.50	20175	1732.50
20176	1732.60	20176	1732.60
…	…	…	…
20324	1747.40	20299	1744.90
20325	1747.50	20300	1745.00

LTE Band 7 (5MHz)		LTE Band 7 (10MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
20775	2502.50	20800	2505.00
20776	2502.60	20801	2502.10
….	….	….	….
21099	2534.90	21099	2534.90
21100	2535.00	21100	2535.00
21101	2535.20	21101	2535.20
…	…	…	…
21424	2567.40	21399	2564.90
21425	2567.50	21400	2565.00
LTE Band 7 (15MHz)		LTE Band 7 (20MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
20825	2507.50	20850	2510.00
20826	2507.60	20851	2510.10
….	….	….	….
21099	2534.90	21099	2534.90
21100	2535.00	21100	2535.00
21101	2535.20	21101	2535.20
…	…	…	…
21374	2562.40	21349	2559.90
21375	2562.50	21350	2560.00

LTE Band 12 (1.4MHz)		LTE Band 12 (3MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
23017	699.70	23025	700.50
23756	699.80	23026	700.60
….	….	….	….
23094	707.40	23094	707.40
23095	707.50	23095	707.50
23096	707.60	23096	707.60
…	…	…	…
23172	715.20	23164	714.40
23173	715.30	23165	714.50
LTE Band 12 (5MHz)		LTE Band 12 (10MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
23035	701.50	23060	704.00
23036	701.60	23061	704.10
….	….	….	….
23094	707.40	23094	707.40
23095	707.50	23095	707.50
23096	707.60	23096	707.60
…	…	…	…
23154	713.40	23129	710.90
23155	713.50	23130	711.00

LTE Band 13 (5MHz)		LTE Band 13 (10MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
23205	779.50	/	/
23206	779.60	/	/
….	….	/	/
23229	781.90	/	/
23230	782.00	23230	782
23231	782.10	/	/
…	…	/	/
23255	784.50	/	/
23256	784.60	/	/

LTE Band 17 (5MHz)		LTE Band 17 (10MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
23755	706.50	23780	709.00
23756	706.60	23781	709.10
….	….	….	….
23789	709.90	23789	709.90
23790	710.00	23790	710.00
23791	710.10	23791	710.10
…	…	…	…
23824	713.40	23799	710.90
23825	713.50	23800	711.00

LTE Band 25 (1.4MHz)		LTE Band 25 (3MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
26047	1850.70	26055	1851.50
26048	1850.80	26056	1851.60
….	….	….	….
26364	1882.40	26367	1882.40
26365	1882.50	26365	1882.50
26366	1882.60	26366	1882.60
…	…	…	…
26682	1914.20	26676	1913.40
26683	1914.30	26675	1913.50
LTE Band 25 (5MHz)		LTE Band 25 (10MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
26065	1852.50	26090	1855.00
26066	1852.60	26091	1855.10
….	….	….	….
26364	1882.40	26364	1882.40
26365	1882.50	26365	1882.50
26366	1882.60	26366	1882.60
…	…	…	…
26664	1912.40	26639	1909.90
26665	1912.50	26640	1910.00
LTE Band 25 (15MHz)		LTE Band 25 (20MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
26115	1857.50	26140	1860.00
26116	1857.60	26139	1860.10
….	….	….	….
26364	1882.40	26364	1882.40
26365	1882.50	26365	1882.50
36366	1882.60	26366	1882.60
…	…	…	…
26614	1907.40	26589	1904.90
26615	1907.50	26590	1905.00

LTE Band 26 (1.4MHz)		LTE Band 26 (3MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
26697	814.70	26705	815.50
26698	814.80	26706	815.60
….	….	….	….
26864	831.40	26864	831.40
26865	831.50	26865	831.50
26866	831.60	26866	831.60
…	…	…	…
27032	848.20	27024	847.40
27033	848.30	27025	847.50
LTE Band 26 (5MHz)		LTE Band 26 (10MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
26715	816.50	26750	820.00
26716	816.60	26760	820.10
….	….	….	….
26864	831.40	26864	831.40
26865	831.50	26865	831.50
26866	831.60	26866	831.60
…	…	…	…
27014	846.40	26980	843.90
27015	846.50	26990	844.00
LTE Band 26 (15MHz)			
Channel	Frequency (MHz)		
26775	822.50		
26776	822.60		
….	….		
26864	831.40		
26865	831.50		
26866	831.60		
…	…		
26964	841.40		
26965	841.50		

LTE Band 41(5MHz)	
Channel	Frequency (MHz)
40265	2557.50
40266	2557.60
….	….
40739	2604.90
40740	2605.00
40741	2605.10
…	…
41214	2652.40
41215	2652.50

Regards to the operating frequency range, the lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channels as below:

LTE Band 4 (1.4MHz)			LTE Band 4 (3MHz)		
Channel:		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	19957	1710.70	Lowest channel	19965	1711.50
Middle channel	20175	1732.50	Middle channel	20175	1732.50
Highest channel	20393	1754.30	Highest channel	20385	1753.50
LTE Band 4 (5MHz)			LTE Band 4 (10MHz)		
Channel		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	19975	1712.50	Lowest channel	20000	1715.00
Middle channel	20175	1732.50	Middle channel	20175	1732.50
Highest channel	20375	1752.50	Highest channel	20350	1750.00
LTE Band 4 (15MHz)			LTE Band 4 (20MHz)		
Channel		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	20025	1717.50	Lowest channel	20050	1720.00
Middle channel	20175	1732.50	Middle channel	20175	1732.50
Highest channel	20325	1747.50	Highest channel	20300	1745.00

LTE Band 7 (5MHz)			LTE Band 7 (10MHz)		
Channel		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	20775	2502.50	Lowest channel	20800	2505.00
Middle channel	21100	2535.00	Middle channel	21100	2535.00
Highest channel	21425	2567.50	Highest channel	21400	2565.00
LTE Band 7 (15MHz)			LTE Band 7 (20MHz)		
Channel		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	20825	2507.50	Lowest channel	20850	2510.00
Middle channel	21100	2535.00	Middle channel	21100	2535.00
Highest channel	21375	2562.50	Highest channel	21350	2560.00

LTE Band 12(1.4MHz)			LTE Band 12(3MHz)		
Channel		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	23017	699.70	Lowest channel	23025	700.50
Middle channel	23095	707.50	Middle channel	23095	707.50
Highest channel	23173	715.30	Highest channel	23165	714.50
LTE Band 12(5MHz)			LTE Band 12(10MHz)		
Channel		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	23035	701.50	Lowest channel	23060	704.00
Middle channel	23095	707.50	Middle channel	23095	707.50
Highest channel	23155	713.50	Highest channel	23130	711.00

LTE Band 13(5MHz)			LTE Band 13(10MHz)		
Channel		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	23205	779.50	Lowest channel	/	/
Middle channel	23230	782.00	Middle channel	23230	782
Highest channel	23255	784.50	Highest channel	/	/

LTE Band 17(5MHz)			LTE Band 17(10MHz)		
Channel		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	23755	706.50	Lowest channel	23780	709.00
Middle channel	23790	710.00	Middle channel	23790	710.00
Highest channel	23825	713.50	Highest channel	23800	711.00

LTE Band 25 includes LTE Band 2:

LTE Band 25 (1.4MHz)			LTE Band 25 (3MHz)		
Channel:		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	26047	1850.70	Lowest channel	26055	1851.50
Middle channel	26365	1882.50	Middle channel	26365	1882.50
Highest channel	26683	1914.30	Highest channel	26675	1913.50
LTE Band 25 (5MHz)			LTE Band 25 (10MHz)		
Channel		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	26065	1852.50	Lowest channel	26090	1855.00
Middle channel	26365	1882.50	Middle channel	26365	1882.50
Highest channel	26665	1912.50	Highest channel	26640	1910.00
LTE Band 25 (15MHz)			LTE Band 25 (20MHz)		
Channel		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	26115	1857.50	Lowest channel	26140	1860.00
Middle channel	26365	1882.50	Middle channel	26365	1882.50
Highest channel	26615	1907.50	Highest channel	26590	1905.00

LTE Band 5&26(1.4MHz) for Part 22			LTE Band 26(1.4MHz) for Part 90		
Channel		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	26797	824.7	Lowest channel	26697	814.7
Middle channel	26915	836.5	Middle channel	26740	819.0
Highest channel	27033	848.3	Highest channel	26783	823.3
LTE Band 5&26(3MHz) for Part 22			LTE Band 26(3MHz) for Part 90		
Channel		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	26805	825.5	Lowest channel	26705	815.5
Middle channel	26915	836.5	Middle channel	26740	819.0
Highest channel	27025	847.5	Highest channel	26775	822.5
LTE Band 5&26(5MHz) for Part 22			LTE Band 26(5MHz) for Part 90		
Channel		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	26815	826.5	Lowest channel	26715	816.5
Middle channel	26915	836.5	Middle channel	26740	819.0
Highest channel	27015	846.5	Highest channel	26765	821.5
LTE Band 5&26(10MHz) for Part 22			LTE Band 26(10MHz) for Part 90		
Channel		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	26840	829.0	Lowest channel	/	/
Middle channel	26915	836.5	Middle channel	26740	819.0
Highest channel	26990	844.0	Highest channel	/	/
LTE Band 26(15MHz) for Part 22H			LTE Band 26(15MHz) (Straddling Part 22H, 90S)		
Channel		Frequency (MHz)	Channel		Frequency (MHz)
Lowest channel	26865	831.5	Lowest channel	26765	821.5
Middle Channel	26915	836.5	/	/	/
Highest channel	26965	841.5	/	/	/

LTE Band 41 includes LTE Band 38:

LTE Band 41(5MHz)		
Channel		Frequency (MHz)
Lowest channel	39675	2498.50
Middle channel	40620	2593.00
Highest channel	41565	2687.50

5.3 Test environment and mode

Operating Environment:	
Temperature:	Normal: 15℃ ~ 35℃, Extreme: -30℃ ~ +50℃
Humidity:	20 % ~ 75 % RH
Atmospheric Pressure:	1008 mbar
Voltage:	Nominal: 3.85Vdc, Extreme: Low 3.5Vdc, High 4.4Vdc
Test mode:	
LTE QPSK mode	Keep the EUT communication with simulated station in QPSK mode
LTE 16-QAM mode	Keep the EUT communication with simulated station in 16-QAM mode
Remark: The EUT has been tested under continuous transmitting mode. Channel Low, Mid and High for each type band with rated data rate were chosen for full testing. The field strength of spurious radiation emission was measured as EUT stand-up position (H mode) and lie down position (E1, E2 mode) for these modes with power adaptor, earphone and Data cable. Just the worst case position (H mode) shown in report.	

5.4 Description of Support Units

Test Equipment	Manufacturer	Model No.	Serial No.
Simulated Station	Anritsu	MT8820C	6201026545

5.5 Measurement Uncertainty

Parameters	Expanded Uncertainty
Radiated Emission (9kHz ~ 30MHz)	±2.76 dB (k=2)
Radiated Emission (30MHz ~ 1000MHz)	±4.28 dB (k=2)
Radiated Emission (1GHz ~ 18GHz)	±5.72 dB (k=2)
Radiated Emission (18GHz ~ 40GHz)	±2.88 dB (k=2)

5.6 Related Submittal(s) / Grant (s)

This is an original grant, no related submittals and grants.

5.7 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC - Registration No.: 727551**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been accredited as a testing laboratory by FCC (Federal Communications Commission). The Registration No. is 727551.

- **IC - Registration No.: 10106A-1**

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

- **CNAS - Registration No.: CNAS L6048**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

- **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

5.8 Laboratory Location

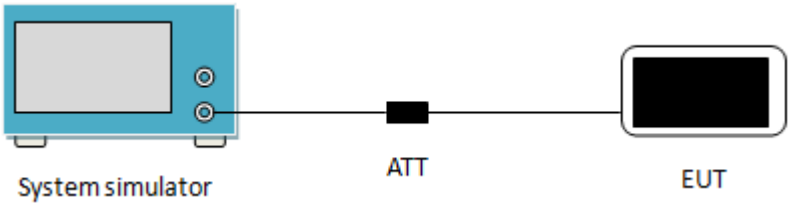
Shenzhen Zhongjian Nanfang Testing Co., Ltd.
Address: No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,
Bao'an District, Shenzhen, Guangdong, China
Tel: +86-755-23118282, Fax: +86-755-23116366
Email: info@ccis-cb.com, Website: http://www.ccis-cb.com

5.9 Test Instruments list

Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
3m SAC	SAEMC	9m*6m*6m	966	07-22-2017	07-21-2020
BiConiLog Antenna	SCHWARZBECK	VULB9163	497	03-16-2018	03-15-2019
Biconical Antenna	SCHWARZBECK	VUBA9117	359	06-22-2017	06-21-2020
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-16-2018	03-15-2019
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-22-2017	06-21-2020
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170582	11-21-2018	11-20-2019
EMI Test Software	AUDIX	E3	Version: 6.110919b		
Pre-amplifier	HP	8447D	2944A09358	03-07-2018	03-06-2019
Pre-amplifier	CD	PAP-1G18	11804	03-07-2018	03-06-2019
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-07-2018	03-06-2019
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-07-2018	03-06-2019
Spectrum Analyzer	Agilent	N9020A	MY50510123	10-29-2018	10-28-2019
Signal Generator	Rohde & Schwarz	SMX	835454/016	03-07-2018	03-06-2019
Signal Generator	R&S	SMR20	1008100050	03-07-2018	03-06-2019
RF Switch Unit	MWRFTEST	MW200	N/A	N/A	N/A
Test Software	MWRFTEST	MTS8200	Version: 2.0.0.0		
Cable	ZDECL	Z108-NJ-NJ-81	1608458	03-07-2018	03-06-2019
Cable	MICRO-COAX	MFR64639	K10742-5	03-07-2018	03-06-2019
Cable	SUHNER	SUCOFLEX100	58193/4PE	03-07-2018	03-06-2019
DC Power Supply	XinNuoEr	WYK-10020K	1409050110020	10-31-2018	10-30-2019
Temperature Humidity Chamber	HengPu	HPGDS-500	20140828008	09-24-2018	09-23-2019
Simulated Station	Rohde & Schwarz	CMW500	140493	07-16-2018	07-15-2019

6. Test results

6.1 Conducted Output Power, ERP and EIRP

Test Requirement:	Part 22.913(a)(2), Part 24.232(c), part 27.50(c)(10), part 27.50(c)(10), Part 27.50(d)(4), Part 27.50 (h)(2), Part90.635 (b)
Test Method:	ANSI/TIA-603-D 2010
Limit:	LTE Band 4: 1W, LTE Band 7: 2W, LTE Band 12: 3W, LTE Band 13: 3W, LTE Band 17: 3W, LTE Band 25: 2W, LTE Band 26: 7W (for Part 22H), 100W (for Part 90S), LTE Band 41: 2W,
Test Setup:	
Test Procedure:	The transmitter output was connected to a calibrated attenuator, the other end of which was connected to the CMW500. Transmitter output power was read off in dBm.
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data:

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					19957	20175	20393
					1710.7MHz	1732.5MHz	1754.3MHz
4	1.4	QPSK	1	0	22.55	22.49	22.60
			1	2	22.61	22.71	22.80
			1	5	22.53	22.54	22.64
			3	0	21.63	21.72	21.74
			3	1	21.67	21.64	21.97
			3	2	21.63	21.76	21.64
			6	0	21.83	21.64	21.67
		Antenna Gain (dBi):			0.07		
		Max. EIRP (dBm):			22.87		
		EIRP Limit (dBm):			30.00		
		16QAM	1	0	21.90	21.71	21.73
			1	2	22.01	21.66	21.79
			1	5	21.69	21.63	21.68
			3	0	21.69	21.82	21.74
			3	1	21.78	21.87	21.89
			3	2	21.67	21.54	21.87
			6	0	20.57	20.66	20.87
		Antenna Gain (dBi):			0.07		
		Max. EIRP (dBm):			22.08		
		EIRP Limit (dBm):			30.00		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					19965	20175	20385
					1711.5MHz	1732.5MHz	1753.5MHz
4	3	QPSK	1	0	22.73	22.69	22.74
			1	7	22.70	22.56	22.64
			1	14	22.64	22.68	22.55
			8	0	21.64	21.61	21.77
			8	4	21.72	21.67	21.73
			8	7	21.67	21.62	21.72
			15	0	21.66	21.67	21.70
		Antenna Gain (dBi):			0.07		
		Max. EIRP (dBm):			22.81		
		EIRP Limit (dBm):			30.00		
		16QAM	1	0	21.65	21.78	21.73
			1	7	21.49	21.64	21.64
			1	14	21.67	21.97	21.57
			8	0	20.56	20.65	20.74
			8	4	20.56	20.71	20.70
			8	7	20.67	20.48	20.69
			15	0	20.54	20.63	20.52
		Antenna Gain (dBi):			0.07		
		Max. EIRP (dBm):			22.04		
		EIRP Limit (dBm):			30.00		

Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					19975	20175	20375
					1712.5MHz	1732.5MHz	1752.5MHz
4	5	QPSK	1	0	22.55	22.59	22.59
			1	12	22.57	22.56	22.60
			1	24	22.51	22.58	22.48
			12	0	21.57	21.74	21.71
			12	6	21.78	21.71	21.87
			12	11	21.59	21.71	21.69
			25	0	21.74	21.68	21.71
		Antenna Gain (dBi):			0.07		
		Max. EIRP (dBm):			22.67		
		EIRP Limit (dBm):			30.00		
		16QAM	1	0	21.98	21.71	22.06
			1	12	21.74	21.77	21.46
			1	24	21.72	21.74	21.70
			12	0	20.57	20.70	20.72
			12	6	20.63	20.54	20.82
			12	11	20.66	20.68	20.56
			25	0	20.68	20.81	20.76
		Antenna Gain (dBi):			0.07		
		Max. EIRP (dBm):			22.13		
		EIRP Limit (dBm):			30.00		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					20000	20175	20350
					1715.0MHz	1732.5MHz	1750.0MHz
4	10	QPSK	1	0	22.73	22.65	22.68
			1	24	22.77	22.77	22.76
			1	49	22.54	22.56	22.64
			25	0	21.69	21.79	21.74
			25	12	21.71	21.72	21.77
			25	24	21.73	21.68	21.75
			50	0	21.74	21.91	21.79
		Antenna Gain (dBi):			0.07		
		Max. EIRP (dBm):			22.84		
		EIRP Limit (dBm):			30.00		
		16QAM	1	0	21.76	21.77	21.57
			1	24	21.87	21.94	21.96
			1	49	21.64	21.72	21.73
			25	0	20.64	20.91	20.80
			25	12	20.71	20.82	20.79
			25	24	20.76	20.83	20.74
			50	0	20.80	20.83	20.72
		Antenna Gain (dBi):			0.07		
		Max. EIRP (dBm):			22.03		
		EIRP Limit (dBm):			30.00		

Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					20025	20175	20325
					1717.5MHz	1732.5MHz	1747.5MHz
4	15	QPSK	1	0	22.72	22.71	22.68
			1	37	22.58	22.65	22.63
			1	74	22.54	22.80	22.58
			36	0	21.64	21.89	21.81
			36	16	21.61	21.80	21.80
			36	35	21.75	21.72	21.82
			75	0	21.64	21.79	21.79
		Antenna Gain (dBi):			0.07		
		Max. EIRP (dBm):			22.87		
		EIRP Limit (dBm):			30.00		
		16QAM	1	0	22.18	21.87	21.86
			1	37	21.78	21.86	21.91
			1	74	21.47	21.21	21.80
			36	0	20.67	20.72	20.88
			36	16	20.77	20.77	20.76
			36	35	20.65	20.79	20.73
			75	0	20.67	20.74	20.77
		Antenna Gain (dBi):			0.07		
		Max. EIRP (dBm):			22.25		
		EIRP Limit (dBm):			30.00		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					20050	20175	20300
					1720.0MHz	1732.5MHz	1745.0MHz
4	20	QPSK	1	0	22.59	22.58	22.63
			1	49	22.69	22.63	22.69
			1	99	22.38	22.53	22.55
			50	0	21.66	21.86	21.80
			50	24	21.72	21.73	21.90
			50	49	21.62	21.60	21.74
			100	0	21.61	21.71	21.76
		Antenna Gain (dBi):			0.07		
		Max. EIRP (dBm):			22.76		
		EIRP Limit (dBm):			30.00		
		16QAM	1	0	21.47	21.95	21.87
			1	49	21.90	22.00	21.97
			1	99	21.52	21.80	21.70
			50	0	20.66	20.82	20.74
			50	24	20.71	20.73	20.70
			50	49	20.67	20.62	20.86
			100	0	20.63	20.78	20.77
		Antenna Gain (dBi):			0.07		
		Max. EIRP (dBm):			22.07		
		EIRP Limit (dBm):			30.00		

Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					20775	21100	21425
					2502.5MHz	2535.0MHz	2567.5MHz
7	5	QPSK	1	0	22.59	22.63	22.67
			1	12	22.60	22.67	22.74
			1	24	22.57	22.66	22.59
			12	0	21.71	21.69	21.78
			12	6	21.83	21.81	21.81
			12	11	21.78	21.72	21.79
			25	0	21.72	21.66	21.88
		Antenna Gain (dBi):			1.18		
		Max. EIRP (dBm):			23.92		
		EIRP Limit (dBm):			33.00		
		16QAM	1	0	21.91	21.90	21.63
			1	12	21.77	21.66	21.87
			1	24	21.49	21.66	21.46
			12	0	20.67	20.74	20.78
			12	6	20.68	20.74	20.84
			12	11	20.70	20.64	20.73
			25	0	20.69	20.68	20.88
		Antenna Gain (dBi):			1.18		
		Max. EIRP (dBm):			23.09		
		EIRP Limit (dBm):			33.00		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					20800	21100	21400
					2505.0MHz	2535.0MHz	2565.0MHz
7	10	QPSK	1	0	22.60	22.65	22.76
			1	24	22.85	22.65	22.82
			1	49	22.63	22.69	22.69
			25	0	21.76	21.76	21.82
			25	12	21.82	21.80	21.83
			25	24	21.90	21.86	21.89
			50	0	21.89	21.75	21.84
		Antenna Gain (dBi):			1.18		
		Max. EIRP (dBm):			24.03		
		EIRP Limit (dBm):			33.00		
		16QAM	1	0	21.70	21.68	22.08
			1	24	22.06	21.78	21.86
			1	49	21.67	21.84	21.75
			25	0	20.63	20.73	20.93
			25	12	20.77	20.78	20.86
			25	24	20.79	20.72	20.89
			50	0	20.77	20.87	20.80
		Antenna Gain (dBi):			1.18		
		Max. EIRP (dBm):			23.26		
		EIRP Limit (dBm):			33.00		

Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					20825	21100	21375
					2507.5MHz	2535.0MHz	2562.5MHz
7	15	QPSK	1	0	22.63	22.55	22.64
			1	37	22.75	22.62	22.87
			1	74	22.72	22.58	22.65
			36	0	21.73	21.79	21.89
			36	16	21.84	21.78	21.92
			36	35	21.79	21.69	21.73
			75	0	21.78	21.70	21.79
		Antenna Gain (dBi):			1.18		
		Max. EIRP (dBm):			24.05		
		EIRP Limit (dBm):			33.00		
		16QAM	1	0	21.35	21.54	22.20
			1	37	21.89	22.21	22.07
			1	74	21.92	22.16	21.97
			36	0	20.75	20.73	20.91
			36	16	20.66	20.82	20.86
			36	35	20.73	20.73	20.84
			75	0	20.80	20.76	20.84
		Antenna Gain (dBi):			1.18		
		Max. EIRP (dBm):			23.39		
		EIRP Limit (dBm):			33.00		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					20850	21100	21350
					2510.0MHz	2535.0MHz	2560.0MHz
7	20	QPSK	1	0	22.63	22.49	22.62
			1	49	22.74	22.75	22.95
			1	99	22.54	22.51	22.57
			50	0	21.66	21.84	21.82
			50	24	21.81	21.75	21.91
			50	49	21.77	21.84	21.78
			100	0	21.69	21.74	21.72
		Antenna Gain (dBi):			1.18		
		Max. EIRP (dBm):			24.13		
		EIRP Limit (dBm):			33.00		
		16QAM	1	0	22.11	21.71	21.84
			1	49	22.15	21.67	22.09
			1	99	21.45	21.75	21.82
			50	0	20.56	20.72	20.75
			50	24	20.68	20.67	20.83
			50	49	20.91	20.68	20.67
			100	0	20.67	20.82	20.77
		Antenna Gain (dBi):			1.18		
		Max. EIRP (dBm):			23.33		
		EIRP Limit (dBm):			33.00		

Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					23017	23095	23173
					699.7MHz	707.5MHz	715.3MHz
12	1.4	QPSK	1	0	22.99	22.97	23.03
			1	2	23.03	23.13	23.14
			1	5	23.09	23.11	22.89
			3	0	22.18	22.18	22.03
			3	1	22.16	22.25	22.18
			3	2	22.09	22.14	22.09
			6	0	22.21	22.03	22.13
		Antenna Gain(dBi):			-2.64		
		Max. ERP (dBm):			18.35		
		ERP Limit (dBm):			34.77		
		16QAM	1	0	22.11	22.03	21.90
			1	2	22.23	22.21	22.21
			1	5	22.50	22.28	21.90
			3	0	21.91	22.30	22.01
			3	1	22.24	22.20	22.00
			3	2	22.25	22.06	22.05
			6	0	21.09	21.20	21.11
		Antenna Gain(dBi):			-2.64		
		Max. ERP (dBm):			17.71		
		ERP Limit (dBm):			34.77		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					23025	23095	23165
					700.5MHz	707.5MHz	714.5MHz
12	3	QPSK	1	0	23.06	23.17	22.94
			1	7	23.07	23.11	22.96
			1	14	23.01	23.16	23.05
			8	0	22.00	22.19	22.16
			8	4	22.22	22.17	22.24
			8	7	22.16	22.21	22.08
			15	0	22.09	22.12	22.10
		Antenna Gain(dBi):			-2.64		
		Max. ERP (dBm):			18.38		
		ERP Limit (dBm):			34.77		
		16QAM	1	0	22.29	22.28	22.02
			1	7	22.36	22.40	22.25
			1	14	22.26	22.09	22.25
			8	0	21.26	21.32	21.24
			8	4	21.20	21.23	21.10
			8	7	21.17	21.37	21.12
			15	0	21.26	21.12	21.19
		Antenna Gain(dBi):			-2.64		
		Max. ERP (dBm):			17.61		
		ERP Limit (dBm):			34.77		

Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi).
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					23035	23095	23155
					701.5MHz	707.5MHz	713.5MHz
12	5	QPSK	1	0	22.96	22.93	22.95
			1	12	23.05	23.10	23.03
			1	24	22.99	22.94	22.92
			12	0	22.12	22.11	22.02
			12	6	22.16	22.30	22.21
			12	11	22.18	22.26	22.06
			25	0	22.11	22.16	22.13
		Antenna Gain(dBi):			-2.64		
		Max. ERP (dBm):			18.31		
		ERP Limit (dBm):			34.77		
		16QAM	1	0	22.52	21.92	21.87
			1	12	22.47	22.38	22.12
			1	24	22.21	22.52	21.81
			12	0	21.14	21.16	21.08
			12	6	21.20	21.19	21.18
			12	11	21.15	21.15	20.89
			25	0	21.12	21.19	20.96
		Antenna Gain(dBi):			-2.64		
		Max. ERP (dBm):			17.73		
		ERP Limit (dBm):			34.77		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					23060	23095	23130
					704.0MHz	707.5MHz	711.0MHz
12	10	QPSK	1	0	23.03	22.97	23.04
			1	24	23.13	23.27	23.22
			1	49	23.11	23.02	23.15
			25	0	22.18	22.20	22.14
			25	12	22.32	22.19	22.19
			25	24	22.19	22.19	22.24
			50	0	22.22	22.31	22.11
		Antenna Gain(dBi):			-2.64		
		Max. ERP (dBm):			18.48		
		ERP Limit (dBm):			34.77		
		16QAM	1	0	22.19	22.16	22.27
			1	24	22.65	22.76	22.24
			1	49	22.27	22.17	22.17
			25	0	21.09	21.30	21.18
			25	12	21.25	21.21	21.14
			25	24	21.18	21.34	21.14
			50	0	21.18	21.32	21.12
		Antenna Gain(dBi):			-2.64		
		Max. ERP (dBm):			17.97		
		ERP Limit (dBm):			34.77		

Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi).
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					23205	23230	23255
					779.5MHz	782.0MHz	784.5MHz
13	5	QPSK	1	0	23.00	23.04	22.97
			1	12	23.17	23.17	23.16
			1	24	22.95	23.02	22.99
			12	0	22.05	22.23	22.33
			12	6	22.27	22.24	22.36
			12	11	22.21	22.20	22.08
			25	0	22.16	22.25	22.32
		Antenna Gain(dBi):			-2.60		
		Max. ERP (dBm):			18.42		
		ERP Limit (dBm):			34.77		
		16QAM	1	0	22.29	22.15	22.52
			1	12	22.19	22.34	22.34
			1	24	22.10	21.89	22.12
			12	0	21.01	21.06	21.26
			12	6	21.07	21.32	21.22
			12	11	21.17	21.22	21.10
			25	0	21.07	21.17	21.29
		Antenna Gain(dBi):			-2.60		
		Max. ERP (dBm):			17.77		
		ERP Limit (dBm):			34.77		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					/	23230	/
					/	782.0MHz	/
13	10	QPSK	1	0	/	23.03	/
			1	24	/	23.25	/
			1	49	/	23.05	/
			25	0	/	22.16	/
			25	12	/	22.25	/
			25	24	/	22.20	/
			50	0	/	22.11	/
		Antenna Gain(dBi):			-2.60		
		Max. ERP (dBm):			18.50		
		ERP Limit (dBm):			34.77		
		16QAM	1	0	/	22.50	/
			1	24	/	22.43	/
			1	49	/	22.34	/
			25	0	/	21.18	/
			25	12	/	21.20	/
			25	24	/	21.12	/
			50	0	/	21.11	/
		Antenna Gain(dBi):			-2.60		
		Max. ERP (dBm):			17.75		
		ERP Limit (dBm):			34.77		

Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi).
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					23755	23790	23825
					706.5MHz	710.0MHz	713.5MHz
17	5	QPSK	1	0	23.06	23.08	22.90
			1	12	23.14	23.21	23.07
			1	24	23.16	22.90	23.00
			12	0	22.18	22.13	22.14
			12	6	22.22	22.16	22.17
			12	11	22.26	22.26	22.07
			25	0	22.15	22.17	22.07
		Antenna Gain(dBi):			-2.40		
		Max. ERP (dBm):			18.66		
		ERP Limit (dBm):			34.77		
		16QAM	1	0	22.25	22.10	22.37
			1	12	22.71	22.35	22.12
			1	24	22.34	22.12	22.21
			12	0	21.24	21.19	21.10
			12	6	21.22	21.11	21.10
			12	11	21.15	21.13	21.24
			25	0	21.31	21.16	21.18
		Antenna Gain(dBi):			-2.40		
		Max. ERP (dBm):			18.16		
		ERP Limit (dBm):			34.77		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					23780	23790	23800
					709.0MHz	710.0MHz	711.0MHz
17	10	QPSK	1	0	23.13	23.14	23.08
			1	24	23.26	23.22	23.14
			1	49	23.15	23.06	23.11
			25	0	22.23	22.19	22.10
			25	12	22.29	22.19	22.20
			25	24	22.23	22.20	22.13
			50	0	22.30	22.27	22.14
		Antenna Gain(dBi):			-2.40		
		Max. ERP (dBm):			18.71		
		ERP Limit (dBm):			34.77		
		16QAM	1	0	22.27	22.28	22.54
			1	24	22.67	22.31	22.32
			1	49	22.00	22.22	22.05
			25	0	21.29	21.28	21.21
			25	12	21.24	21.14	21.20
			25	24	21.30	21.25	21.18
			50	0	21.36	21.24	21.22
		Antenna Gain(dBi):			-2.40		
		Max. ERP (dBm):			18.12		
		ERP Limit (dBm):			34.77		

Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi).
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					18607	18900	19193
					1850.7MHz	1880.0MHz	1909.3MHz
25	1.4	QPSK	1	0	22.51	22.51	22.44
			1	2	22.74	22.55	22.58
			1	5	22.57	22.60	22.46
			3	0	21.59	21.64	21.63
			3	1	21.64	21.69	21.58
			3	2	21.66	21.56	21.49
			6	0	21.61	21.70	21.64
			Antenna Gain(dBi):		0.15		
			Max. EIRP(dBm):		22.89		
			EIRP Limit(dBm):		33.00		
		16QAM	1	0	21.67	21.72	22.07
			1	2	21.82	21.81	21.62
			1	5	21.53	21.78	21.36
			3	0	21.68	21.69	21.62
			3	1	21.87	21.66	21.60
			3	2	21.89	21.77	21.75
			6	0	20.68	20.62	20.81
			Antenna Gain(dBi):		0.15		
			Max. EIRP(dBm):		22.22		
			EIRP Limit(dBm):		33.00		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					18615	18900	19185
					1851.5MHz	1880.0MHz	1908.5MHz
25	3	QPSK	1	0	22.56	22.48	22.66
			1	7	22.76	22.68	22.58
			1	14	22.66	22.64	22.62
			8	0	21.71	21.59	21.64
			8	4	21.75	21.71	21.63
			8	7	21.70	21.62	21.51
			15	0	21.71	21.70	21.72
			Antenna Gain(dBi):		0.15		
			Max. EIRP(dBm):		22.91		
			EIRP Limit(dBm):		33.00		
		16QAM	1	0	21.69	21.97	21.81
			1	7	21.59	21.23	21.70
			1	14	21.88	22.15	21.69
			8	0	20.93	20.79	20.81
			8	4	20.79	20.74	20.64
			8	7	20.70	20.77	20.62
			15	0	20.60	20.57	20.54
			Antenna Gain(dBi):		0.15		
			Max. EIRP(dBm):		22.30		
			EIRP Limit(dBm):		33.00		

Note: EIRP (dBm) = Burst Average power (dBm) + Antenna Gain (dBi).
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					18625	18900	19175
					1852.5MHz	1880.0MHz	1907.5MHz
25	5	QPSK	1	0	22.57	22.57	22.47
			1	12	22.59	22.62	22.56
			1	24	22.51	22.52	22.36
			12	0	21.71	21.71	21.76
			12	6	21.73	21.80	21.69
			12	11	21.70	21.65	21.65
			25	0	21.69	21.66	21.65
			Antenna Gain(dBi):		0.15		
			Max. EIRP(dBm):		22.77		
			EIRP Limit(dBm):		33.00		
		16QAM	1	0	22.14	21.50	21.35
			1	12	21.56	21.81	21.53
			1	24	21.45	21.67	21.95
			12	0	20.76	20.82	20.73
			12	6	20.89	20.72	20.71
			12	11	20.67	20.57	20.61
			25	0	20.83	20.63	20.65
			Antenna Gain(dBi):		0.15		
			Max. EIRP(dBm):		22.29		
			EIRP Limit(dBm):		33.00		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					18650	18900	19150
					1855.0MHz	1880.0MHz	1905.0MHz
25	10	QPSK	1	0	22.66	22.73	22.62
			1	24	22.74	22.62	22.82
			1	49	22.56	22.54	22.54
			25	0	21.74	21.75	21.61
			25	12	21.82	21.70	21.68
			25	24	21.85	21.70	21.60
			50	0	21.77	21.71	21.72
			Antenna Gain(dBi):		0.15		
			Max. EIRP(dBm):		22.97		
			EIRP Limit(dBm):		33.00		
		16QAM	1	0	21.83	22.23	21.55
			1	24	21.95	22.22	22.31
			1	49	22.21	21.70	21.66
			25	0	20.66	20.80	20.70
			25	12	20.79	20.71	20.76
			25	24	20.80	20.59	20.56
			50	0	20.75	20.74	20.68
			Antenna Gain(dBi):		0.15		
			Max. EIRP(dBm):		22.46		
			EIRP Limit(dBm):		33.00		

Note: EIRP (dBm) = Burst Average power (dBm) + Antenna Gain (dBi).
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					18675	18900	19125
					1857.5MHz	1880.0MHz	1902.5MHz
25	15	QPSK	1	0	22.61	22.57	22.59
			1	37	22.74	22.65	22.62
			1	74	22.48	22.43	22.51
			36	0	21.81	21.82	21.65
			36	16	21.68	21.72	21.73
			36	35	21.83	21.67	21.70
			75	0	21.65	21.61	21.73
			Antenna Gain(dBi):		0.15		
			Max. EIRP(dBm):		22.89		
			EIRP Limit(dBm):		33.00		
		16QAM	1	0	21.93	21.92	21.68
			1	37	21.72	22.42	21.98
			1	74	21.44	21.77	21.70
			36	0	20.84	20.79	20.65
			36	16	20.84	20.83	20.67
			36	35	20.66	20.64	20.62
			75	0	20.75	20.66	20.63
			Antenna Gain(dBi):		0.15		
			Max. EIRP(dBm):		22.57		
			EIRP Limit(dBm):		33.00		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					18700	18900	19100
					1860.0MHz	1880.0MHz	1900.0MHz
25	20	QPSK	1	0	22.59	22.53	22.48
			1	49	22.84	22.68	22.61
			1	99	22.49	22.38	22.46
			50	0	21.73	21.75	21.71
			50	24	21.67	21.58	21.80
			50	49	21.71	21.56	21.68
			100	0	21.75	21.72	21.68
			Antenna Gain(dBi):		0.15		
			Max. EIRP(dBm):		22.99		
			EIRP Limit(dBm):		33.00		
		16QAM	1	0	21.70	22.37	21.81
			1	49	22.48	21.85	22.50
			1	99	22.22	22.82	21.54
			50	0	20.63	20.75	20.75
			50	24	20.77	20.65	20.78
			50	49	20.69	20.59	20.70
			100	0	20.66	20.76	20.69
			Antenna Gain(dBi):		0.15		
			Max. EIRP(dBm):		22.97		
			EIRP Limit(dBm):		33.00		

Note: EIRP (dBm) = Burst Average power (dBm) + Antenna Gain (dBi).
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26797	26915	27033
					824.7MHz	836.5MHz	848.3MHz
5&26 (Part 22H)	1.4	QPSK	1	0	23.13	22.64	23.23
			1	2	23.24	22.79	23.32
			1	5	23.14	22.50	23.18
			3	0	22.17	22.17	22.34
			3	1	22.34	22.27	22.33
			3	2	22.21	22.35	22.18
			6	0	22.30	21.78	22.24
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		21.07		
			ERP Limit (dBm):		38.45		
		16QAM	1	0	22.24	21.79	22.28
			1	2	22.43	21.89	22.36
			1	5	21.98	21.81	22.33
			3	0	22.25	21.70	22.34
			3	1	22.25	21.89	22.46
			3	2	22.34	21.80	22.13
			6	0	21.28	20.74	21.44
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		20.21		
			ERP Limit (dBm):		38.45		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26805	26915	27025
					825.5MHz	836.5MHz	847.50MHz
5&26 (Part 22H)	3	QPSK	1	0	23.23	22.99	23.13
			1	7	23.22	23.04	23.20
			1	14	23.07	23.10	23.18
			8	0	22.19	22.10	22.34
			8	4	22.26	22.20	22.23
			8	7	22.16	22.05	22.11
			15	0	22.26	22.17	22.16
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		20.98		
			ERP Limit (dBm):		38.45		
		16QAM	1	0	22.31	22.50	22.67
			1	7	22.66	22.17	22.70
			1	14	22.27	22.24	22.33
			8	0	21.12	21.16	21.36
			8	4	21.19	21.30	21.30
			8	7	21.17	21.17	21.29
			15	0	21.16	21.21	21.33
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		20.45		
			ERP Limit (dBm):		38.45		

Note: EIRP (dBm) = Burst Average power (dBm) + Antenna Gain (dBi).
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26815	26915	27015
					826.5MHz	836.5MHz	846.5MHz
5&26 (Part 22H)	5	QPSK	1	0	23.08	23.05	22.98
			1	12	23.24	23.10	23.20
			1	24	23.03	22.88	23.10
			12	0	22.19	22.17	22.33
			12	6	22.26	22.23	22.29
			12	11	22.19	22.11	22.07
			25	0	22.17	22.11	22.28
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		20.99		
			ERP Limit (dBm):		38.45		
		16QAM	1	0	22.52	22.12	22.34
			1	12	22.28	22.26	22.69
			1	24	21.96	22.09	22.22
			12	0	21.31	21.20	21.32
			12	6	21.18	21.28	21.36
			12	11	21.27	21.10	21.12
			25	0	21.23	21.11	21.28
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		20.44		
			ERP Limit (dBm):		38.45		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26840	26915	26990
					829.0MHz	836.5MHz	844.0MHz
5&26 (Part 22H)	10	QPSK	1	0	23.11	23.06	23.16
			1	24	23.28	23.13	23.38
			1	49	23.07	23.08	23.20
			25	0	22.21	22.23	22.30
			25	12	22.11	22.15	22.23
			25	24	22.24	22.13	21.96
			50	0	22.25	22.20	22.25
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		21.13		
			ERP Limit (dBm):		38.45		
		16QAM	1	0	22.27	22.31	21.99
			1	24	22.31	22.19	22.46
			1	49	22.50	22.58	22.27
			25	0	21.42	21.32	21.23
			25	12	21.20	21.22	21.29
			25	24	21.39	21.11	21.11
			50	0	21.31	21.14	21.18
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		20.33		
			ERP Limit (dBm):		38.45		

Note: EIRP (dBm) = Burst Average power (dBm) + Antenna Gain (dBi).
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26865	26915	26965
					831.5MHz	836.5MHz	841.5MHz
26 (Part 22H)	15	QPSK	1	0	23.14	23.05	23.09
			1	37	23.18	23.27	23.18
			1	74	23.02	23.11	23.03
			36	0	22.14	22.09	22.18
			36	16	22.24	22.13	22.13
			36	35	22.11	22.29	22.11
			75	0	22.13	22.09	22.10
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		21.02		
			ERP Limit (dBm):		38.45		
		16QAM	1	0	21.89	22.45	21.98
			1	37	22.52	22.23	21.94
			1	74	21.92	22.41	21.99
			36	0	21.17	21.10	21.13
			36	16	21.26	21.13	21.21
			36	35	21.04	21.14	21.09
			75	0	21.16	21.05	21.18
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		20.27		
			ERP Limit (dBm):		38.45		

Note: EIRP (dBm) = Burst Average power (dBm) + Antenna Gain (dBi).
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26697	26740	26783
					814.7MHz	819.0MHz	823.3MHz
26 (Part 90S)	1.4	QPSK	1	0	23.05	23.10	23.05
			1	2	23.16	23.24	23.30
			1	5	23.14	23.09	23.03
			3	0	22.16	22.34	22.20
			3	1	22.23	22.33	22.20
			3	2	22.19	22.19	22.20
			6	0	22.16	22.30	22.19
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		21.05		
			ERP Limit (dBm):		50.00		
		16QAM	1	0	22.50	22.66	22.32
			1	2	22.51	22.44	22.46
			1	5	21.96	22.26	22.21
			3	0	22.21	22.18	22.20
			3	1	22.35	22.16	22.10
			3	2	22.12	22.32	22.20
			6	0	21.28	21.28	21.28
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		20.41		
			ERP Limit (dBm):		50.00		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26705	26740	26775
					815.5MHz	819.0MHz	822.5MHz
26 (Part 90S)	3	QPSK	1	0	23.00	23.01	23.02
			1	7	23.11	23.18	23.13
			1	14	23.17	23.02	23.03
			8	0	22.05	22.15	22.12
			8	4	22.14	22.27	22.06
			8	7	22.17	22.09	22.08
			15	0	22.27	22.10	22.15
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		20.93		
			ERP Limit (dBm):		50.00		
		16QAM	1	0	21.68	22.61	22.04
			1	7	22.27	22.07	22.57
			1	14	22.70	22.50	22.14
			8	0	21.21	21.30	21.16
			8	4	21.21	21.29	21.22
			8	7	21.22	21.26	21.13
			15	0	21.14	21.20	21.21
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		20.45		
			ERP Limit (dBm):		50.00		

Note: EIRP (dBm) = Burst Average power (dBm) + Antenna Gain (dBi).
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26715	26740	26765
					816.5MHz	819.0MHz	821.5MHz
26 (Part 90S)	5	QPSK	1	0	23.01	23.14	23.07
			1	12	23.12	23.14	23.05
			1	24	23.04	22.95	22.96
			12	0	22.11	22.20	22.19
			12	6	22.22	22.23	22.22
			12	11	22.29	22.20	22.15
			25	0	22.22	22.17	22.07
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		20.89		
			ERP Limit (dBm):		50.00		
		16QAM	1	0	22.18	22.23	22.04
			1	12	22.02	22.77	22.30
			1	24	22.20	22.65	22.18
			12	0	21.18	21.12	21.21
			12	6	21.25	21.22	21.14
			12	11	21.20	21.23	21.09
			25	0	21.27	21.19	21.15
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		20.52		
			ERP Limit (dBm):		50.00		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					/	26740	/
					/	819MHz	/
26 (Part 90S)	10	QPSK	1	0	/	23.10	/
			1	24	/	23.19	/
			1	49	/	23.04	/
			25	0	/	22.20	/
			25	12	/	22.17	/
			25	24	/	22.20	/
			50	0	/	22.12	/
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		20.92		
			ERP Limit (dBm):		38.45		
		16QAM	1	0	/	22.29	/
			1	24	/	22.45	/
			1	49	/	22.60	/
			25	0	/	21.30	/
			25	12	/	21.32	/
			25	24	/	21.12	/
			50	0	/	21.19	/
			Antenna Gain(dBi):		-0.10		
			Max. ERP (dBm):		20.35		
			ERP Limit (dBm):		50.00		

Note: EIRP (dBm) = Burst Average power (dBm) + Antenna Gain (dBi).
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					26765	/	/
					821.5MHz	/	/
26 (Part 22H &Part 90S)	15	QPSK	1	0	23.13	/	/
			1	37	23.23	/	/
			1	74	22.98	/	/
			36	0	22.18	/	/
			36	16	22.15	/	/
			36	35	22.15	/	/
			75	0	22.17	/	/
			Antenna Gain(dBi):		-0.10		
			Limit (dBm):		38.45		
		16QAM	1	0	22.49	/	/
			1	37	22.58	/	/
			1	74	21.98	/	/
			36	0	21.10	/	/
			36	16	21.24	/	/
			36	35	21.29	/	/
			75	0	21.09	/	/
			Antenna Gain(dBi):		-0.10		
			Limit (dBm):		38.45		

Note: EIRP (dBm) = Burst Average power (dBm) + Antenna Gain (dBi).
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

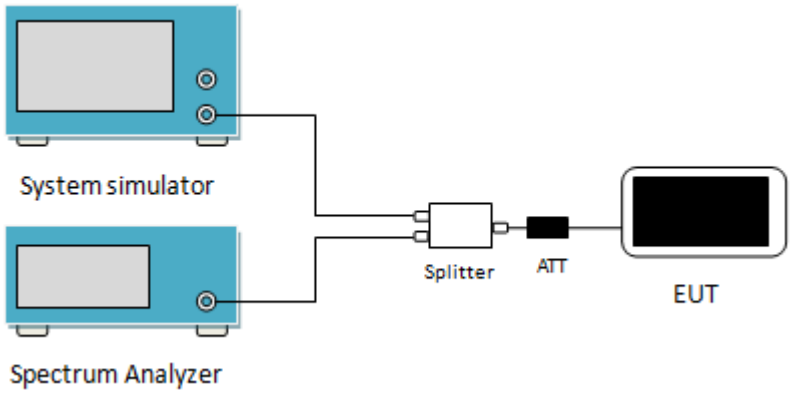
Band 26 BW=15MHz ERP in frequency band below 1GHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows.

LTE Band 26							
BW: 15MHz							
Frequency (MHz)	UL Channel	Modulation	EUT Pol.	Antenna Pol.	ERP(dBm)	Limit (dBm)	Result
Lowest Channel							
821.5	26765	QPSK	H	V	18.26	38.45	Pass
				H	19.44		
821.5	26765	16QAM	H	V	18.15		
				H	19.37		

LTE Band	Bandwidth (MHz)	Modulation	RB Size	RB Offset	Average Power (dBm)		
					40265	40740	41215
					2557.5MHz	2605.0MHz	2652.5MHz
41	5	QPSK	1	0	22.51	22.95	23.07
			1	12	22.74	23.14	23.17
			1	24	22.57	23.01	23.05
			12	0	21.80	22.13	22.22
			12	6	21.81	22.21	22.25
			12	11	21.71	22.24	22.22
			25	0	21.69	22.16	22.13
			Antenna Gain(dBi):		-2.01		
			Max. EIRP(dBm):		21.16		
			EIRP Limit(dBm):		33.00		
		16QAM	1	0	21.71	22.09	22.18
			1	12	21.87	22.25	22.22
			1	24	21.70	22.13	22.10
			12	0	20.66	21.15	21.18
			12	6	20.72	21.15	21.30
			12	11	20.61	21.16	21.15
			25	0	20.74	21.29	21.20
			Antenna Gain(dBi):		-2.01		
			Max. EIRP(dBm):		20.24		
			EIRP Limit(dBm):		33.00		

Note: EIRP (dBm) = Burst Average power (dBm) + Antenna Gain (dBi).
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

6.2 Peak-to-Average Ratio

Test Requirement:	Part 24.232 (d), Part 27.50(d)(5)
Test Method:	ANSI/TIA-603-D 2010
Limit:	The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.
Test Setup:	
Test Procedure:	1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. 2 Set the CCDF option in spectrum analyzer, RBW ≥ OBW, 3 Set the EUT working in highest power level, measured and recorded the 0.1% as PAPR level. 4 Repeat step 1~3 at other frequency and modulations.
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

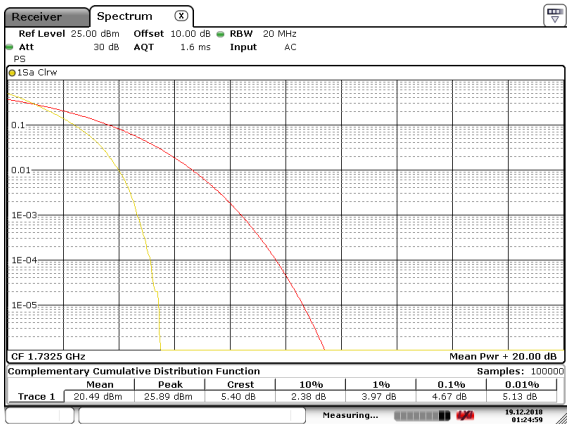
Measurement Data (Worst case):

Bandwidth	Modulation	RB Size	RB Offset	PAPR
LTE Band 4 (Middle Channel)				
20MHz	QPSK	100	0	4.67
	16QAM	100	0	5.68
LTE Band 7 (Middle Channel)				
20MHz	QPSK	100	0	4.84
	16QAM	100	0	5.68
LTE Band 12 (Middle Channel)				
10MHz	QPSK	50	0	5.22
	16QAM	50	0	6.00
LTE Band 13 (Middle Channel)				
20MHz	QPSK	100	0	4.78
	16QAM	100	0	5.62
LTE Band 17 (Middle Channel)				
20MHz	QPSK	100	0	5.01
	16QAM	100	0	5.91
LTE Band 25 (Middle Channel)				
10MHz	QPSK	50	0	5.42
	16QAM	50	0	6.23
LTE Band 5&26(part 22H) (Middle Channel)				
10MHz	QPSK	50	0	5.19
	16QAM	50	0	6.00
LTE Band 26(part 90S) (Middle Channel)				
10MHz	QPSK	50	0	5.25
	16QAM	50	0	6.06
LTE Band 41 (Middle Channel)				
10MHz	QPSK	50	0	8.41
	16QAM	50	0	8.58

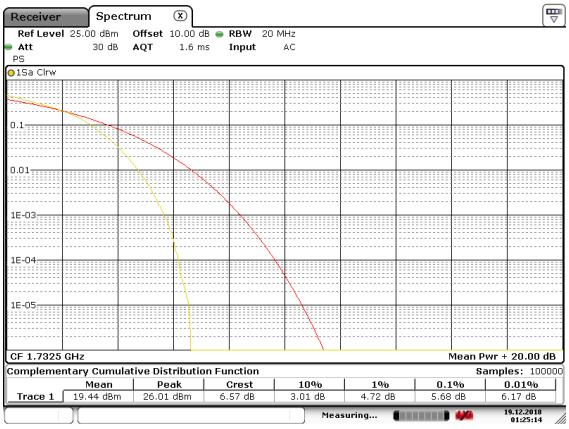
Test plots as below:

LTE Band 4 Middle channel

Modulation: QPSK

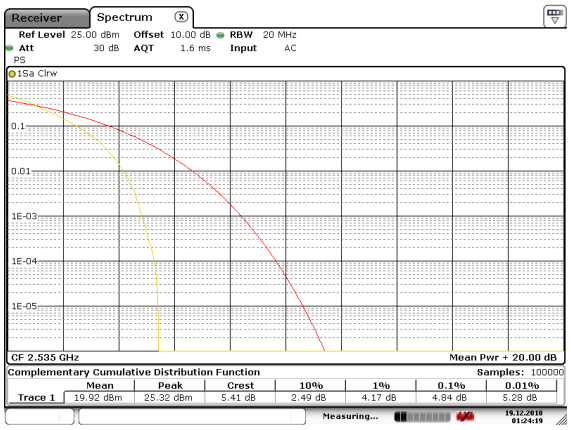


Modulation:16QAM

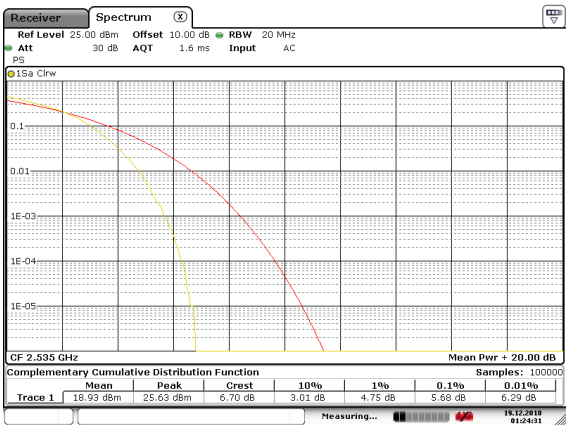


LTE Band 7 Middle channel

Modulation: QPSK

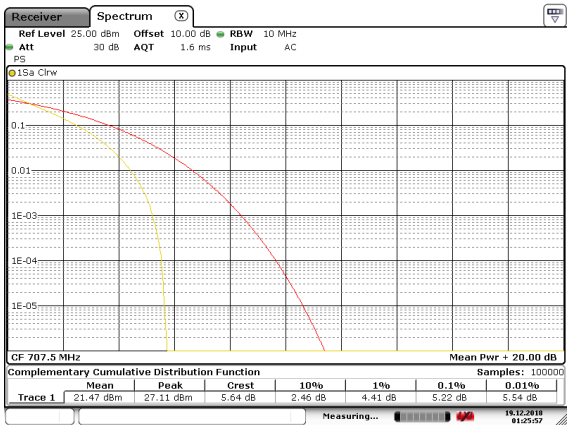


Modulation:16QAM

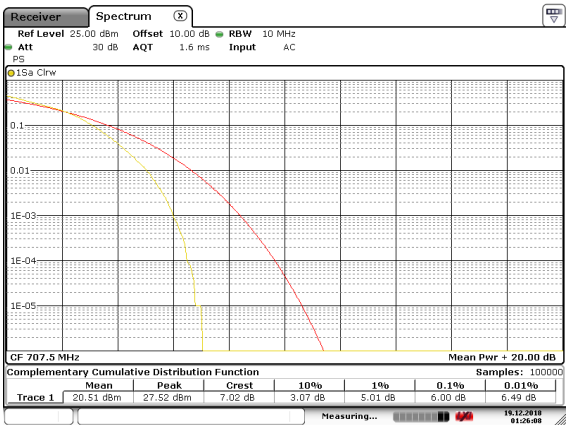


LTE Band 12 Middle channel

Modulation: QPSK

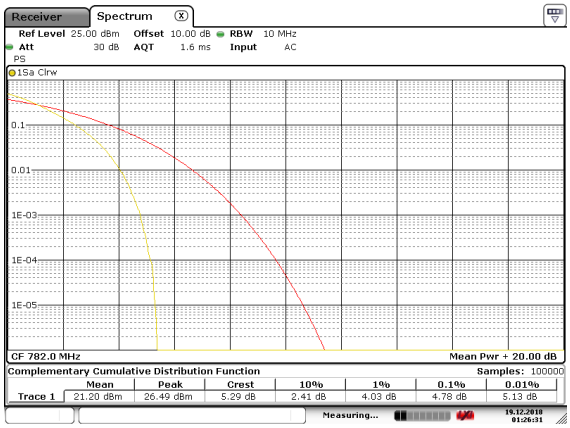


Modulation:16QAM

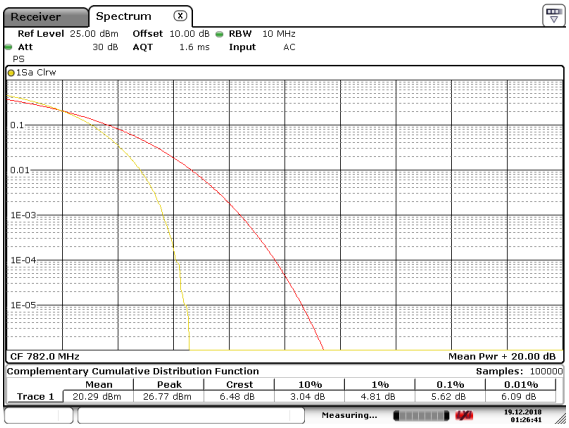


LTE Band 13 Middle channel

Modulation: QPSK

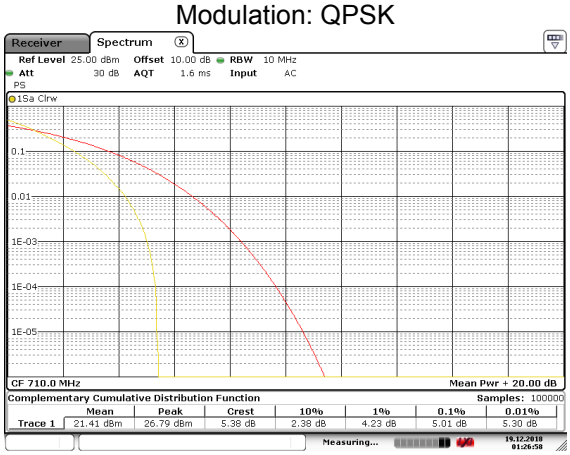


Modulation:16QAM

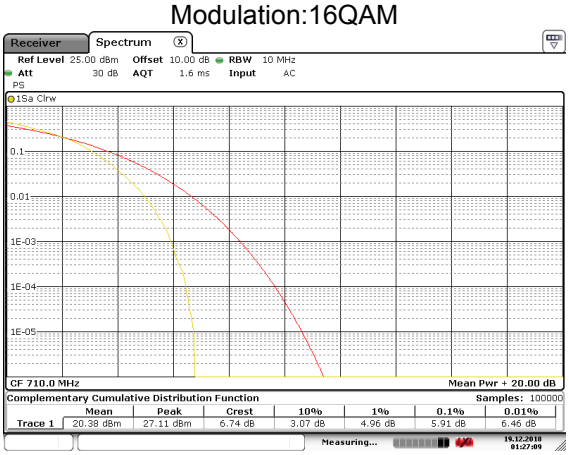


LTE Band 17 Middle channel

Modulation: QPSK

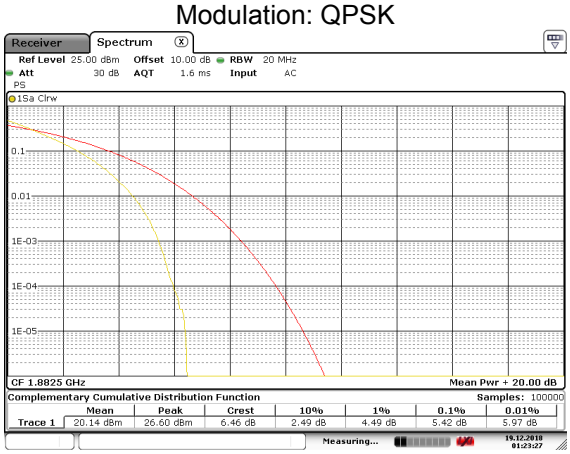


Modulation:16QAM

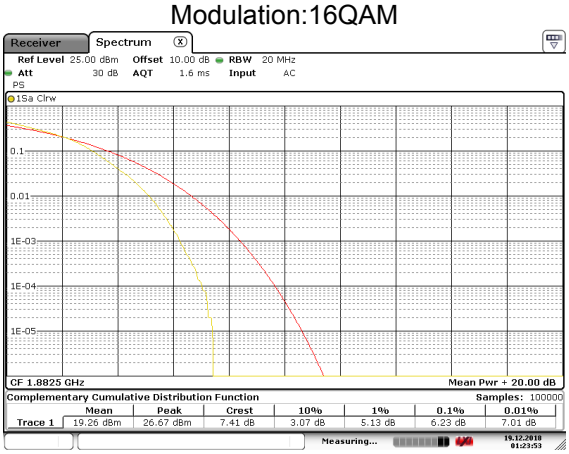


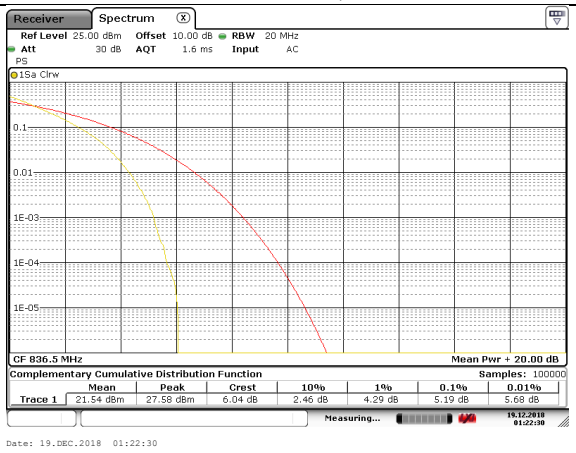
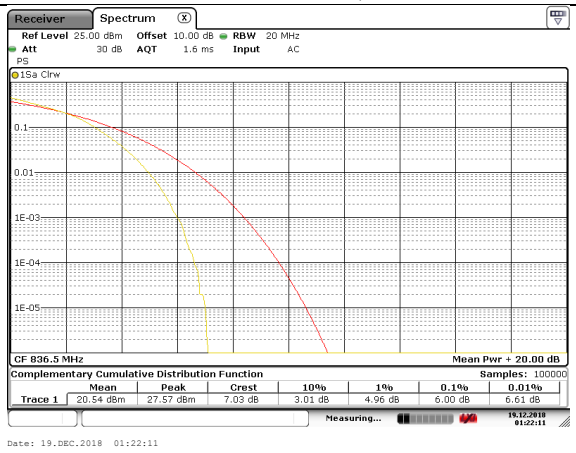
LTE Band 25 Middle channel

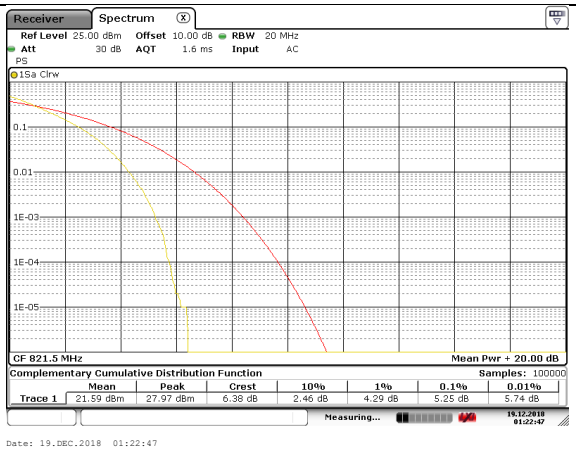
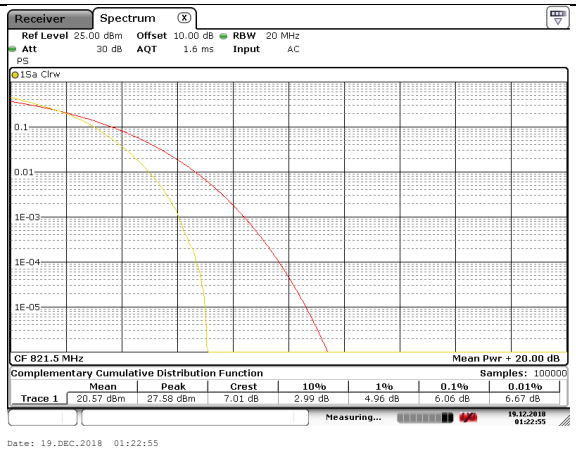
Modulation: QPSK

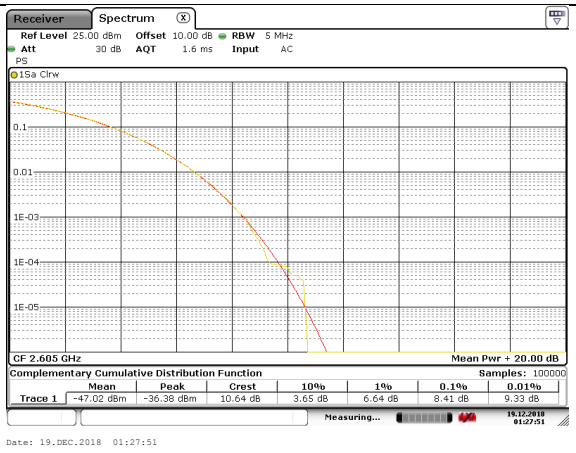
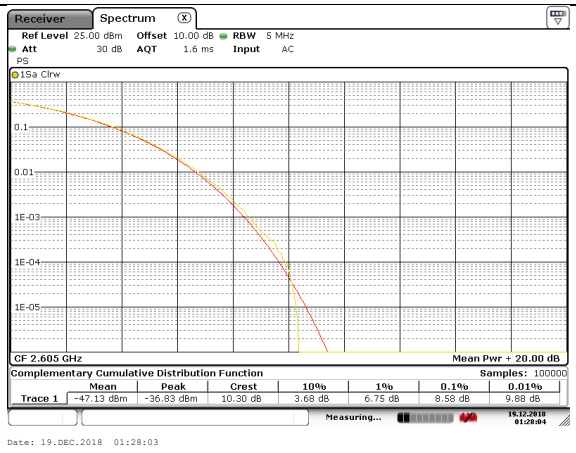


Modulation:16QAM

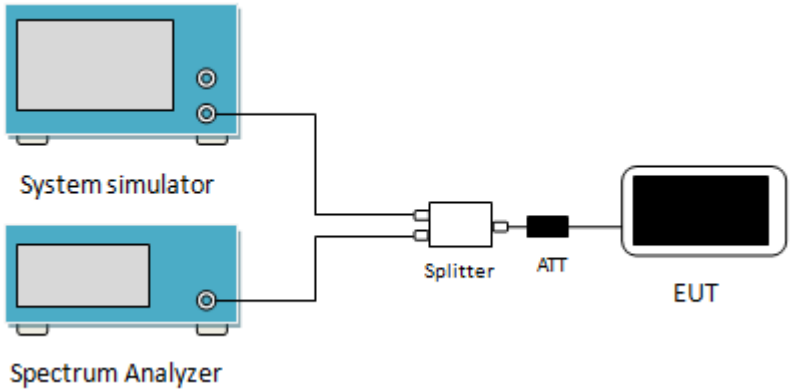


LTE Band 5&26(part 22H) Middle channel	
Modulation: QPSK	Modulation:16QAM
	

LTE Band 26(part 90S) (Middle Channel)	
Modulation: QPSK	Modulation:16QAM
	

LTE Band 41 Middle channel	
Modulation: QPSK	Modulation:16QAM
	

6.3 Occupy Bandwidth

Test Requirement:	Part 22.917(b), Part 24.238(b), Part 27.53(c), Part 27.53(g), Part 27.53(h), Part 27.53(m), Part 90.691(a),
Test Method:	ANSI/TIA-603-D 2010
Test Setup:	
Test Procedure:	1. The EUT's output RF connector was connected with a short cable to the spectrum analyzer 2. RBW was set to about 1% ~ 5% of emission BW, VBW= 3 times RBW. 3. -26dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data:

LTE Band 4					
Bandwidth	Channel	Frequency (MHz)	Modulation	99% OBW (kHz)	-26dBcEBW (kHz)
1.4MHz	19957	1710.7	16QAM	1092	1290
			QPSK	1104	1296
	20175	1732.5	16QAM	1086	1284
			QPSK	1098	1266
	20393	1754.3	16QAM	1092	1266
			QPSK	1098	1272
3MHz	19965	1711.5	16QAM	2724	3952
			QPSK	2724	2988
	20175	1732.5	16QAM	2736	2976
			QPSK	2736	2988
	20385	1750.5	16QAM	2724	2976
			QPSK	2736	3000
5MHz	19975	1712.5	16QAM	4520	4900
			QPSK	4540	5060
	20175	1732.5	16QAM	4520	4960
			QPSK	4520	5020
	20375	1752.5	16QAM	4500	4980
			QPSK	4520	5000
10MHz	20000	1715.0	16QAM	9080	10000
			QPSK	9120	10320
	20175	1732.5	16QAM	9120	10080
			QPSK	9120	10360
	20350	1750.0	16QAM	9120	9920
			QPSK	9120	10360
15MHz	20025	1717.5	16QAM	13500	14760
			QPSK	13500	14940
	20175	1732.5	16QAM	13500	14640
			QPSK	13500	15000
	20325	1747.5	16QAM	13440	14700
			QPSK	13500	15060
20MHz	20050	1720.0	16QAM	17920	19440
			QPSK	18000	19440
	20175	1732.5	16QAM	18000	19360
			QPSK	18080	19760
	20300	1745.0	16QAM	18000	19200
			QPSK	18080	19520

LTE Band 7					
Bandwidth	Channel	Frequency (MHz)	Modulation	99% OBW (kHz)	-26dBcEBW (kHz)
5MHz	20775	2502.5	16QAM	4520	4940
			QPSK	4520	5120
	21100	2535.0	16QAM	4520	4960
			QPSK	4520	5080
	21425	2567.5	16QAM	4520	5000
			QPSK	1240	5100
10MHz	20800	2505.0	16QAM	9160	10360
			QPSK	9120	10360
	21100	2535.0	16QAM	9160	10120
			QPSK	9160	10320
	21400	2565.0	16QAM	9120	10120
			QPSK	9120	10360
15MHz	20825	2507.5	16QAM	13560	14640
			QPSK	13560	15000
	21100	2535.0	16QAM	13560	14940
			QPSK	13560	15060
	21375	2562.5	16QAM	13500	14640
			QPSK	13500	14820
20MHz	20850	2510.0	16QAM	18000	19280
			QPSK	18000	19600
	21100	2535.0	16QAM	17920	19200
			QPSK	18000	19440
	21350	2560.0	16QAM	18000	19360
			QPSK	17920	19600

LTE Band 12					
Bandwidth	Channel	Frequency (MHz)	Modulation	99% OBW (kHz)	-26dBcEBW (kHz)
1.4MHz	23017	699.7	16QAM	1092	1290
			QPSK	1098	1296
	23095	707.5	16QAM	1092	1254
			QPSK	1098	1296
	23173	715.3	16QAM	1086	1248
			QPSK	1104	1272
3MHz	23025	700.5	16QAM	2712	2928
			QPSK	2736	2988
	23095	707.5	16QAM	2712	2952
			QPSK	2736	3000
	23165	714.5	16QAM	2724	2916
			QPSK	2724	3000
5MHz	23035	701.5	16QAM	4500	4940
			QPSK	4500	5120
	23095	707.5	16QAM	4520	4820
			QPSK	4520	5100
	23155	713.5	16QAM	4500	4960
			QPSK	4520	5080
10MHz	23060	704.0	16QAM	9080	10360
			QPSK	9080	10400
	23095	707.5	16QAM	9120	10800
			QPSK	9120	10240
	23130	711.0	16QAM	9080	10800
			QPSK	9120	10360

LTE Band 13					
Bandwidth	Channel	Frequency (MHz)	Modulation	99% OBW (kHz)	-26dBcEBW (kHz)
5MHz	23205	779.5	16QAM	4500	4980
			QPSK	4500	5000
	23230	782.0	16QAM	4500	4900
			QPSK	4520	5060
	23255	784.5	16QAM	4520	5020
			QPSK	4540	5240
10MHz	23230	782.0	16QAM	9080	10000
			QPSK	9080	10440

LTE Band 17					
Bandwidth	Channel	Frequency (MHz)	Modulation	99% OBW (kHz)	-26dBcEBW (kHz)
5MHz	23755	706.5	16QAM	4520	4900
			QPSK	4520	5140
	23790	710.0	16QAM	4480	5000
			QPSK	4540	5020
	23825	713.5	16QAM	4480	4820
			QPSK	4520	5080
10MHz	23780	709.0	16QAM	9120	10360
			QPSK	9120	10240
	23790	710.0	16QAM	9120	10200
			QPSK	9120	10520
	23130	711.0	16QAM	9040	10200
			QPSK	9120	10400

LTE Band 25					
Bandwidth	Channel	Frequency (MHz)	Modulation	99% OBW (kHz)	-26dBcEBW (kHz)
1.4MHz	26047	1850.7	16QAM	1098	1284
			QPSK	1104	1296
	26365	1882.5	16QAM	1098	1266
			QPSK	1098	1284
	26683	1914.3	16QAM	1092	1284
			QPSK	1104	1278
3MHz	26055	1851.5	16QAM	2712	2952
			QPSK	2724	3000
	26365	1882.5	16QAM	2724	2940
			QPSK	2724	2976
	26675	1913.5	16QAM	2688	2952
			QPSK	2724	2976
5MHz	26065	1852.5	16QAM	4500	5000
			QPSK	4540	5060
	26365	1882.5	16QAM	4520	4960
			QPSK	4520	5080
	26665	1912.5	16QAM	4480	5000
			QPSK	4500	5040
10MHz	26090	1855.0	16QAM	9120	10160
			QPSK	9120	10320
	26365	1882.5	16QAM	9080	10240
			QPSK	9080	10360
	26640	1910.0	16QAM	9120	10160
			QPSK	9080	10400
15MHz	26115	1857.5	16QAM	13560	14640
			QPSK	13560	14940
	26365	1882.5	16QAM	13560	15000
			QPSK	13560	15120
	26615	1907.5	16QAM	13440	14820
			QPSK	13500	15000
20MHz	26140	1860.0	16QAM	17840	19520
			QPSK	18000	19520
	26365	1882.5	16QAM	18000	19200
			QPSK	18000	19680
	26590	1905.0	16QAM	17920	19360
			QPSK	18080	19760

LTE Band 5&26(part 22H)					
Bandwidth	Channel	Frequency (MHz)	Modulation	99% OBW (kHz)	-26dBcEBW (kHz)
1.4MHz	26697	824.7	16QAM	1086	1278
			QPSK	1098	1290
	26865	836.5	16QAM	1092	1278
			QPSK	1098	1284
	27033	848.3	16QAM	1092	1272
			QPSK	1098	1290
3MHz	26705	825.5	16QAM	2712	2940
			QPSK	2724	3012
	26865	836.5	16QAM	2712	2976
			QPSK	2724	3000
	27025	847.5	16QAM	2736	2940
			QPSK	2724	2988
5MHz	26715	826.5	16QAM	4500	4880
			QPSK	4500	4900
	26865	836.5	16QAM	4500	4840
			QPSK	4520	4880
	27015	846.5	16QAM	4480	4860
			QPSK	4480	4880
10MHz	26740	829.0	16QAM	9080	9920
			QPSK	9080	10160
	26865	836.5	16QAM	9080	9920
			QPSK	9080	10040
	26990	844.0	16QAM	9040	9960
			QPSK	9080	10120
15MHz	26765	831.5	16QAM	13500	14580
			QPSK	13560	14700
	26865	836.5	16QAM	13500	14580
			QPSK	13500	14760
	26965	841.5	16QAM	13440	14520
			QPSK	13440	14700

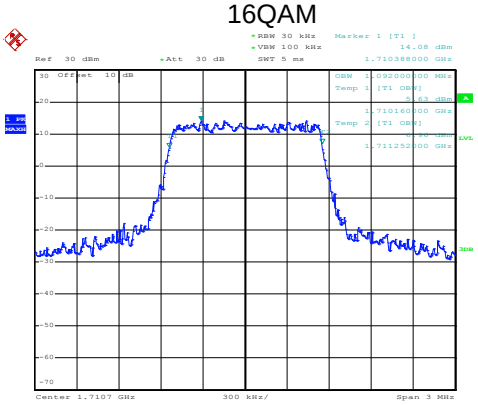
LTE Band 26(part 90S)					
Bandwidth	Channel	Frequency (MHz)	Modulation	99% OBW (kHz)	-26dBcEBW (kHz)
1.4MHz	26697	814.7	16QAM	1092	1302
			QPSK	1098	1296
	26865	819.0	16QAM	1092	1248
			QPSK	1098	1272
	27033	823.3	16QAM	1092	1272
			QPSK	1098	1278
3MHz	26705	815.5	16QAM	2724	2952
			QPSK	2736	2988
	26865	819.0	16QAM	2700	2976
			QPSK	2724	3000
	27025	822.5	16QAM	2724	2976
			QPSK	2712	2988
5MHz	26715	816.5	16QAM	4480	4840
			QPSK	4500	4860
	26865	819.0	16QAM	4500	4800
			QPSK	4520	4860
	27015	821.5	16QAM	4500	4820
			QPSK	4520	4860
10 MHz	26865	819.0	16QAM	9080	10080
			QPSK	9040	10080
15 MHz	26765	821.5	16QAM	13500	14580
			QPSK	13500	14820

LTE Band 41					
Bandwidth	Channel	Frequency (MHz)	Modulation	99% OBW (kHz)	-26dBcEBW (kHz)
5MHz	40265	2557.50	16QAM	4520	4840
			QPSK	4500	4980
	40740	2605.00	16QAM	4500	4820
			QPSK	4500	4920
	41215	2652.50	16QAM	4500	4840
			QPSK	4500	4900

Test plot as follows:
LTE Band 4 part:

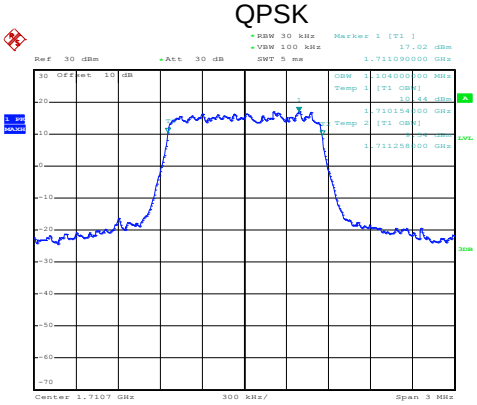
LTE Band 4: 99% Occupy bandwidth
BW: 1.4MHz

16QAM



Date: 17.DEC.2018 23:43:20

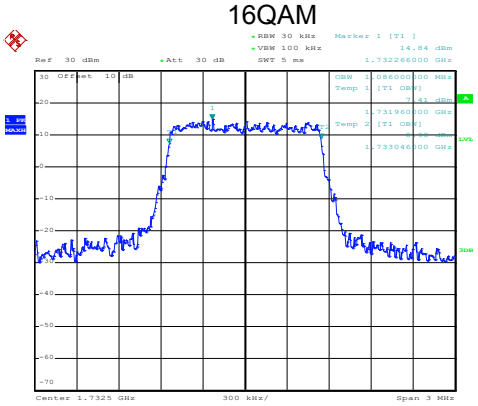
QPSK



Date: 17.DEC.2018 23:43:12

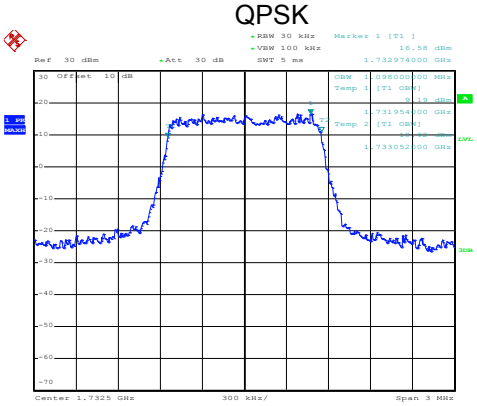
Lowest channel

16QAM



Date: 17.DEC.2018 23:45:35

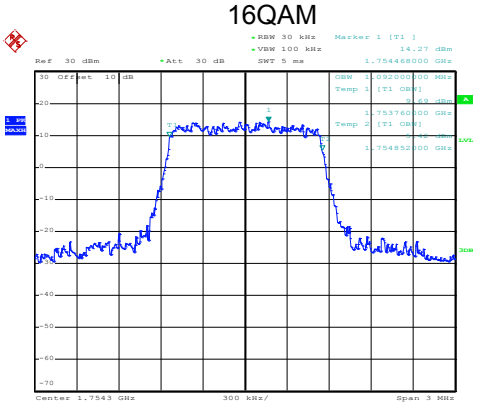
QPSK



Date: 17.DEC.2018 23:44:45

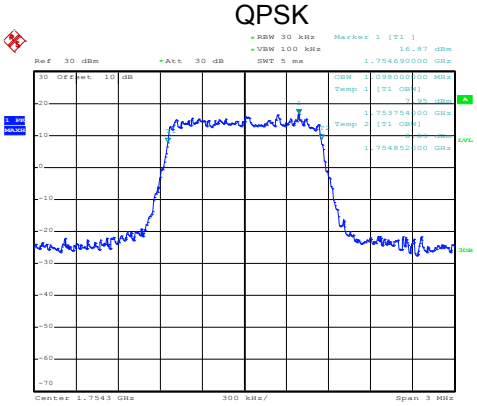
Middle channel

16QAM



Date: 17.DEC.2018 23:45:57

QPSK

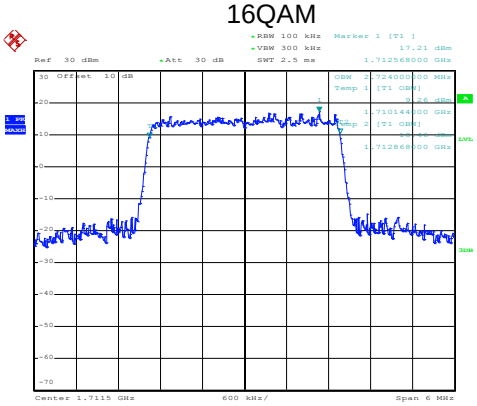


Date: 17.DEC.2018 23:45:53

Highest channel

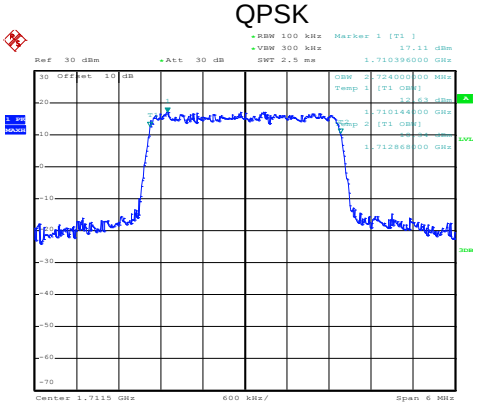
LTE Band 4: 99% Occupy bandwidth
BW: 3MHz

16QAM



Date: 17.DEC.2018 23:52:08

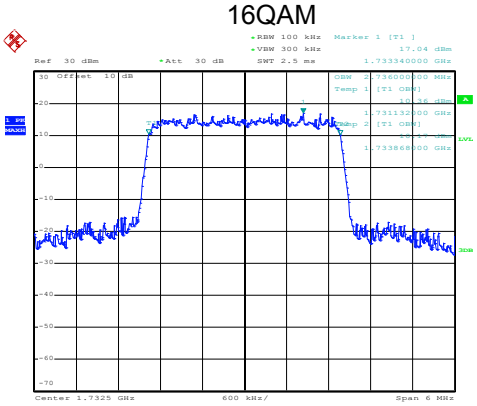
QPSK



Date: 17.DEC.2018 23:52:02

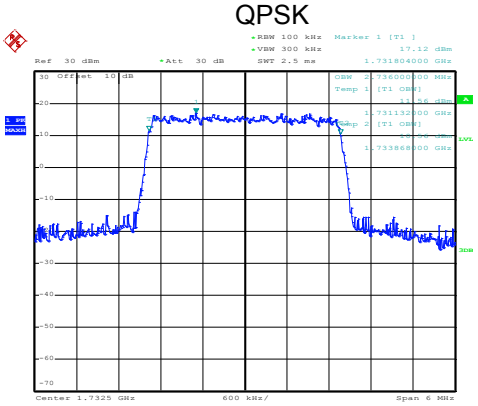
Lowest channel

16QAM



Date: 17.DEC.2018 23:52:24

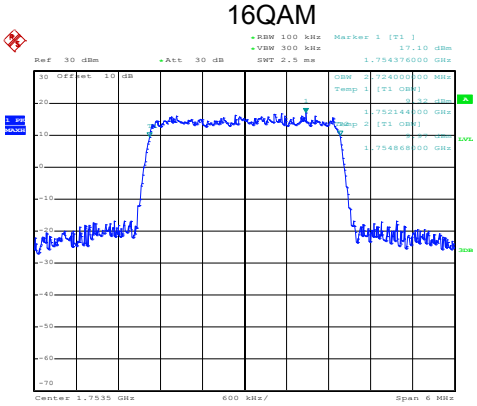
QPSK



Date: 17.DEC.2018 23:52:18

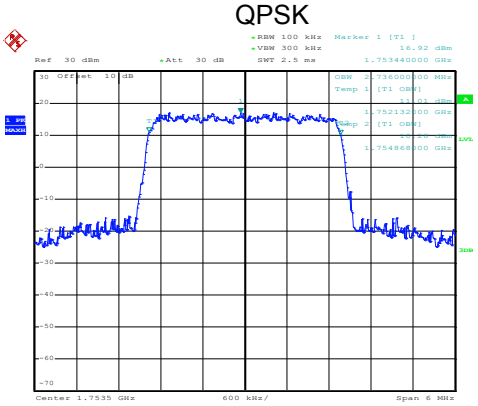
Middle channel

16QAM



Date: 17.DEC.2018 23:53:45

QPSK

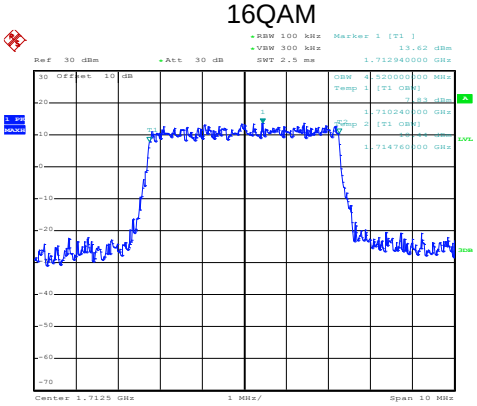


Date: 17.DEC.2018 23:53:39

Highest channel

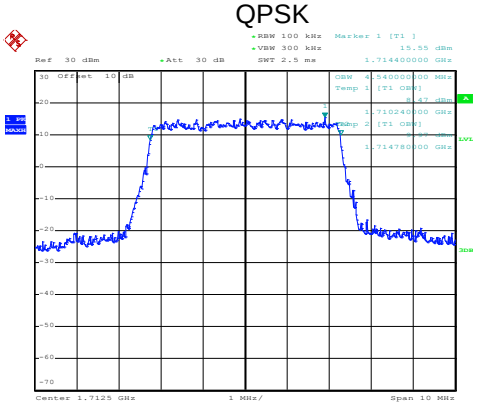
LTE Band 4: 99% Occupy bandwidth
BW: 5MHz

16QAM



Date: 17.DEC.2018 23:49:18

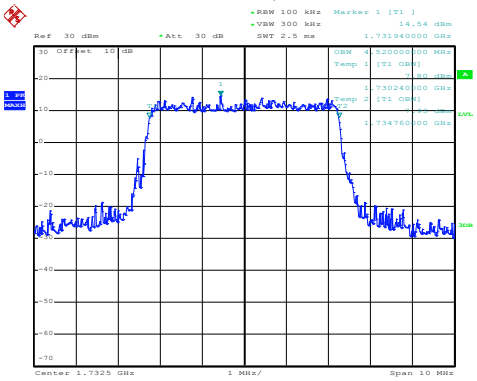
QPSK



Date: 17.DEC.2018 23:49:15

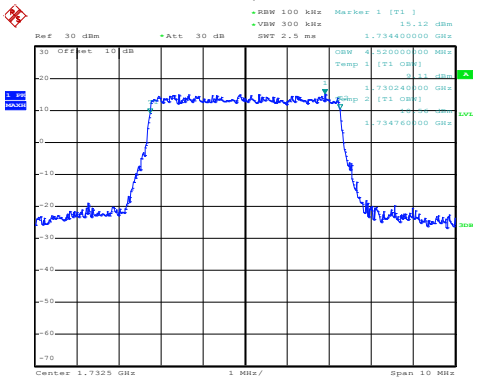
Lowest channel

16QAM



Date: 17.DEC.2018 23:50:01

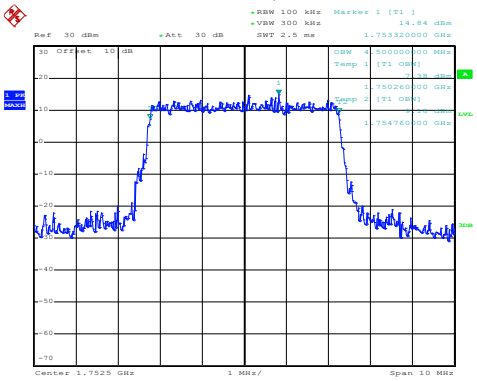
QPSK



Date: 17.DEC.2018 23:49:56

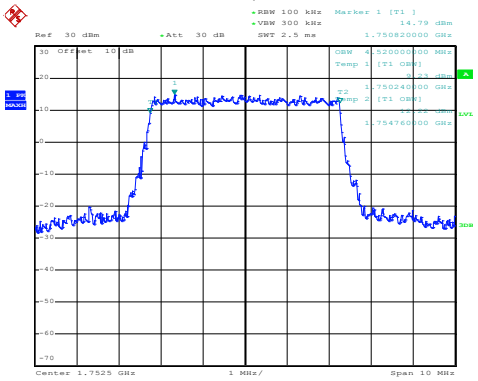
Middle channel

16QAM



Date: 17.DEC.2018 23:50:20

QPSK

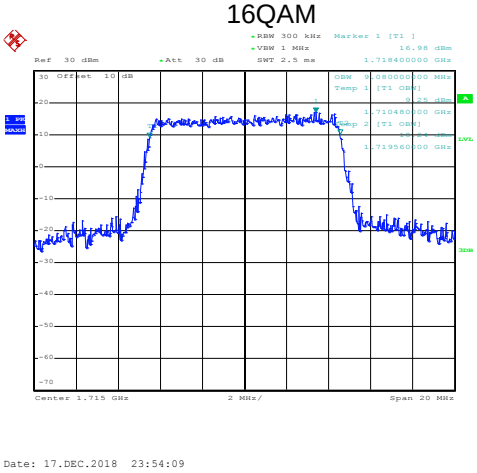


Date: 17.DEC.2018 23:50:15

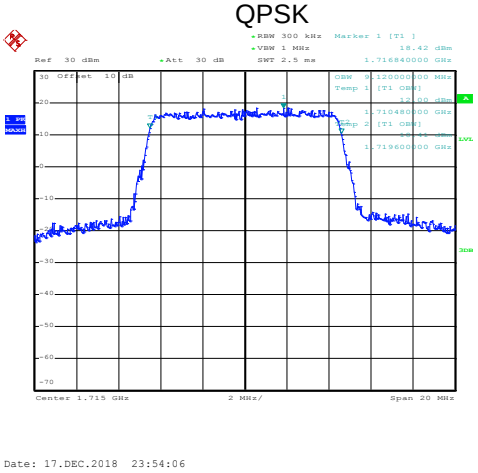
Highest channel

LTE Band 4: 99% Occupy bandwidth
BW: 10MHz

16QAM

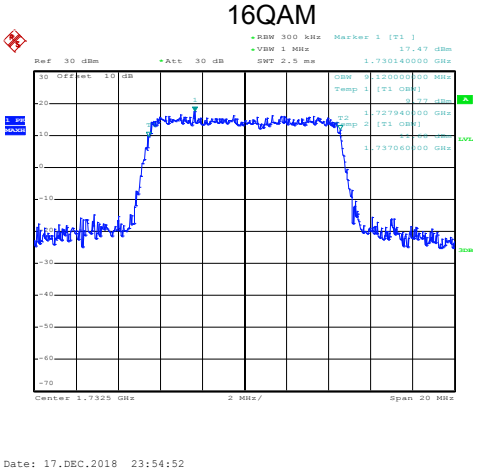


QPSK

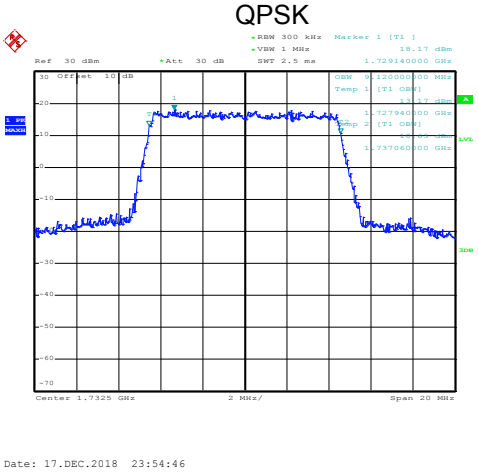


Lowest channel

16QAM

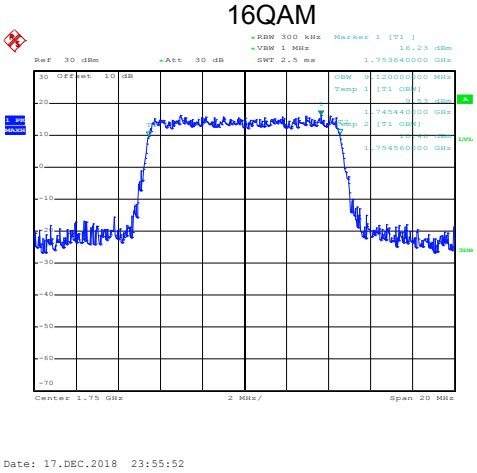


QPSK



Middle channel

16QAM



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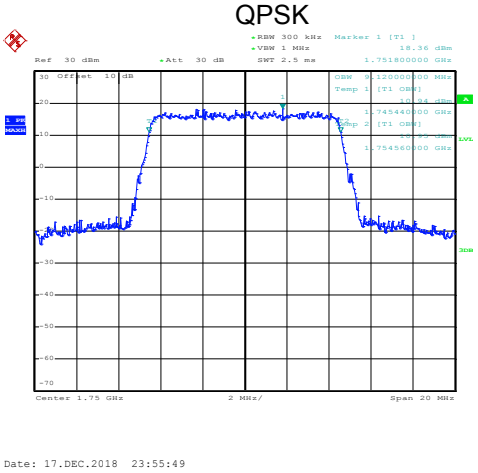
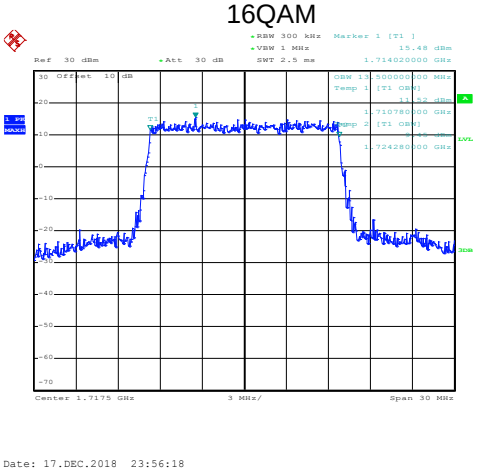


Highest channel

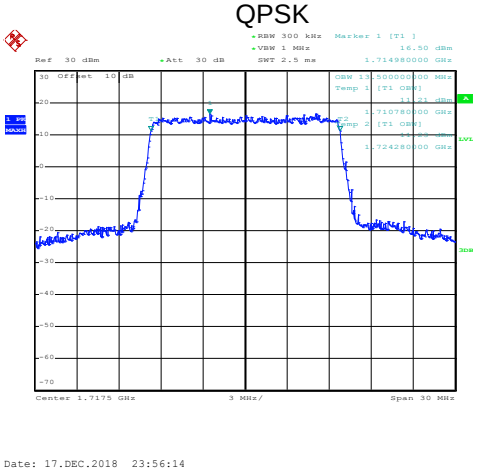
LTE Band 4: 99% Occupy bandwidth
BW: 15MHz

16QAM



Date: 17.DEC.2018 23:56:18

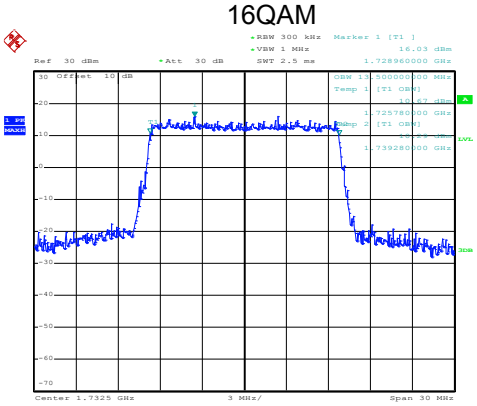
QPSK



Date: 17.DEC.2018 23:56:14

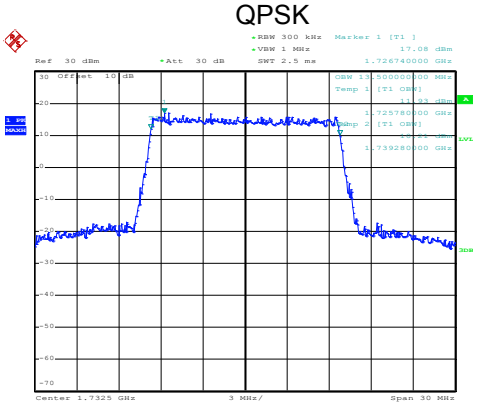
Lowest channel

16QAM



Date: 17.DEC.2018 23:56:55

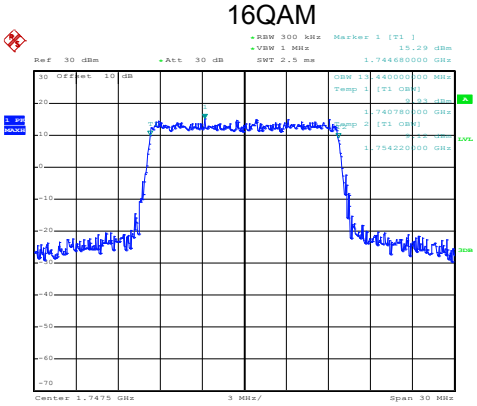
QPSK



Date: 17.DEC.2018 23:56:51

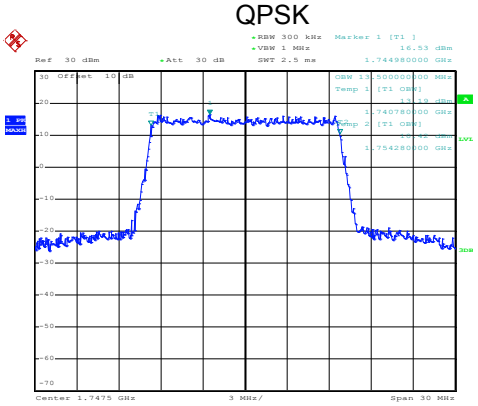
Middle channel

16QAM



Date: 17.DEC.2018 23:57:50

QPSK

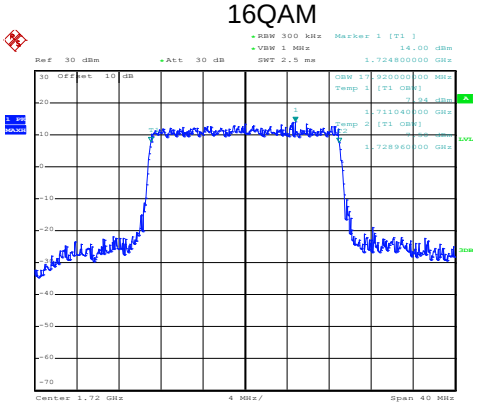


Date: 17.DEC.2018 23:57:45

Highest channel

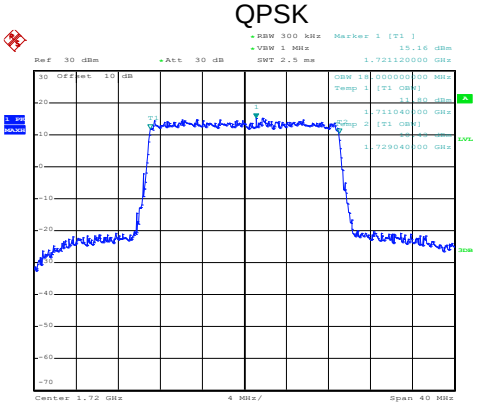
LTE Band 4: 99% Occupy bandwidth
BW: 20MHz

16QAM



Date: 17.DEC.2018 23:58:20

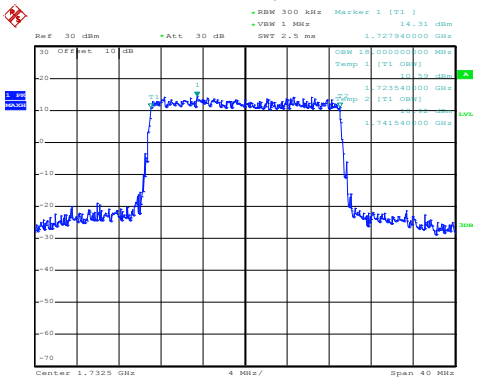
QPSK



Date: 17.DEC.2018 23:58:13

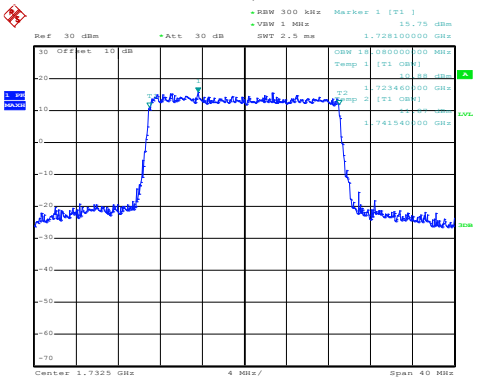
Lowest channel

16QAM



Date: 17.DEC.2018 23:59:00

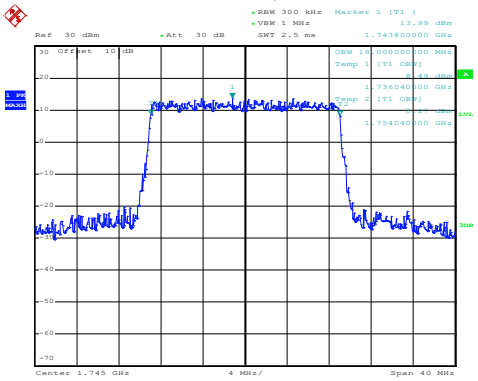
QPSK



Date: 17.DEC.2018 23:58:57

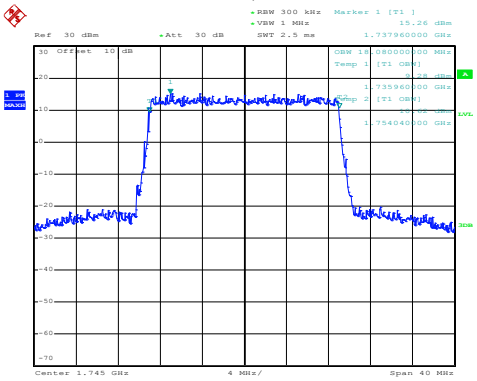
Middle channel

16QAM



Date: 17.DEC.2018 23:59:22

QPSK

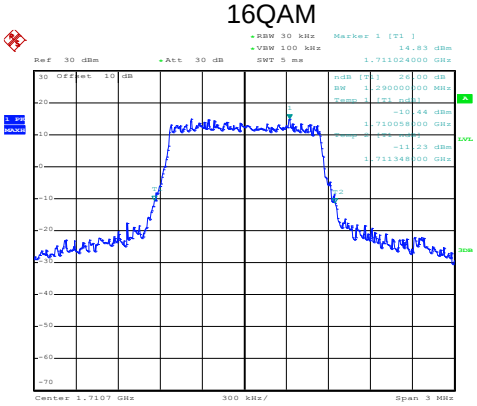


Date: 17.DEC.2018 23:59:14

Highest channel

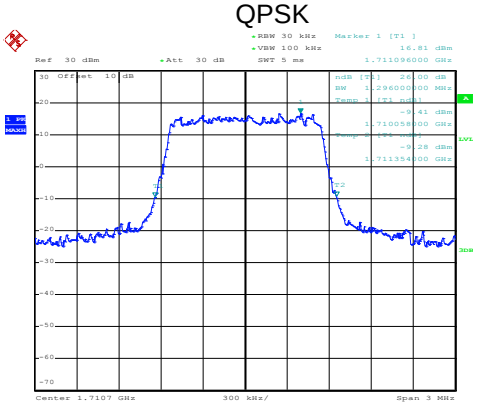
LTE Band 4: -26dBc bandwidth
BW: 1.4MHz

16QAM



Date: 17.DEC.2018 23:43:40

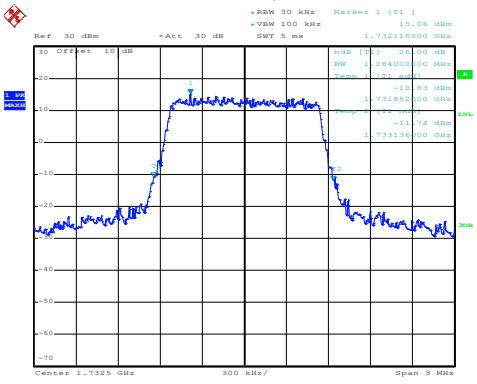
QPSK



Date: 17.DEC.2018 23:43:34

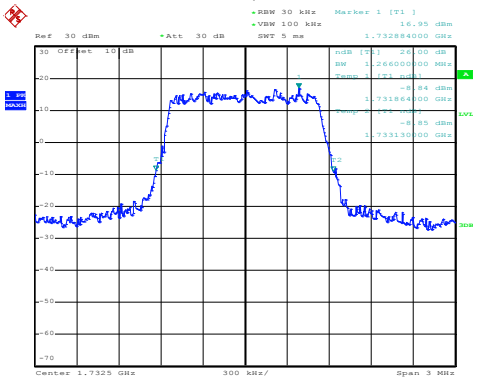
Lowest channel

16QAM



Date: 17.DEC.2018 23:44:33

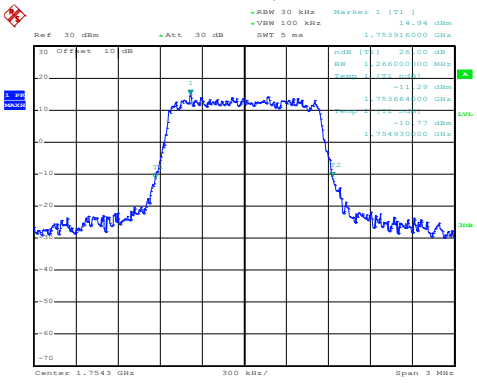
QPSK



Date: 17.DEC.2018 23:44:24

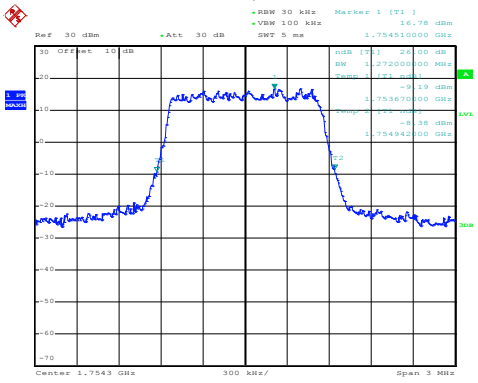
Middle channel

16QAM



Date: 17.DEC.2018 23:46:11

QPSK

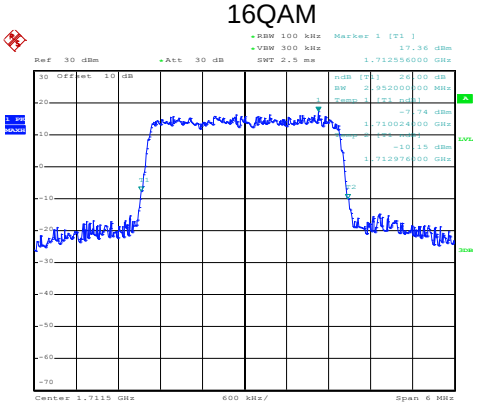


Date: 17.DEC.2018 23:46:06

Highest channel

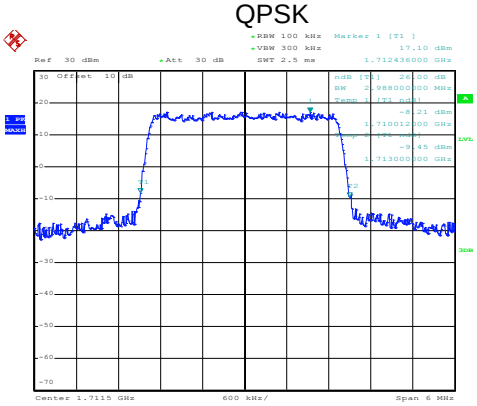
LTE Band 4: -26dBc bandwidth
BW: 3MHz

16QAM



Date: 17.DEC.2018 23:51:49

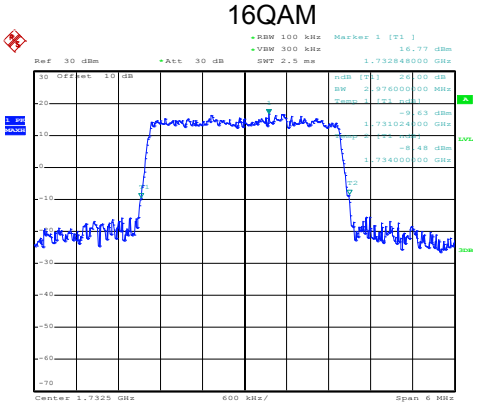
QPSK



Date: 17.DEC.2018 23:51:43

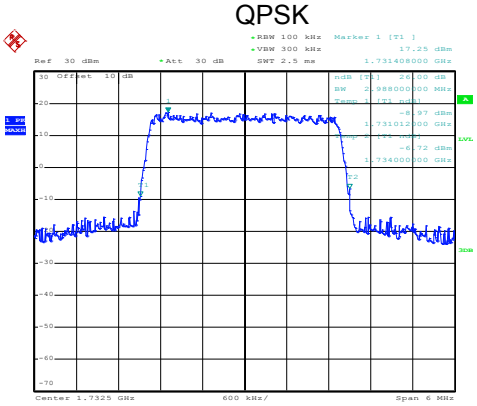
Lowest channel

16QAM



Date: 17.DEC.2018 23:52:38

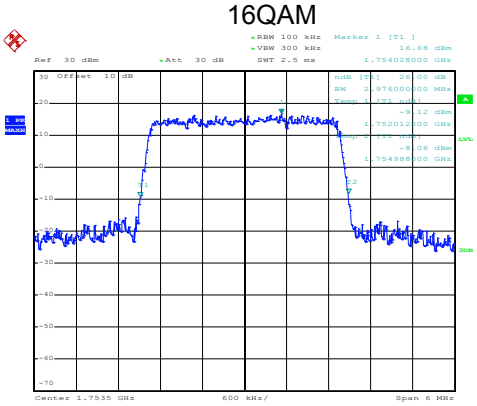
QPSK



Date: 17.DEC.2018 23:52:32

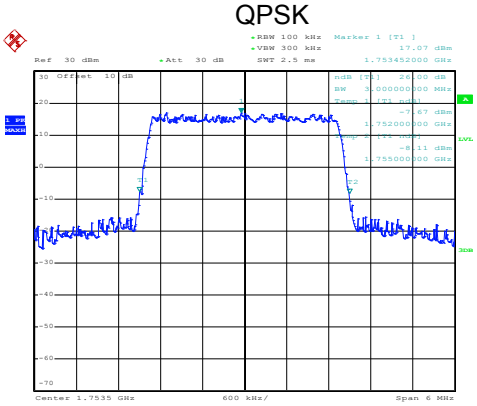
Middle channel

16QAM



Date: 17.DEC.2018 23:53:31

QPSK

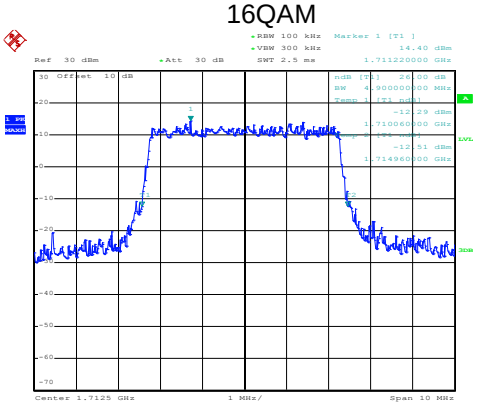


Date: 17.DEC.2018 23:53:24

Highest channel

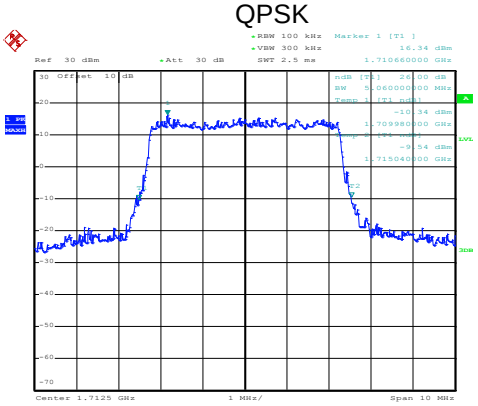
LTE Band 4: -26dBc bandwidth
BW: 5MHz

16QAM



Date: 17.DEC.2018 23:49:32

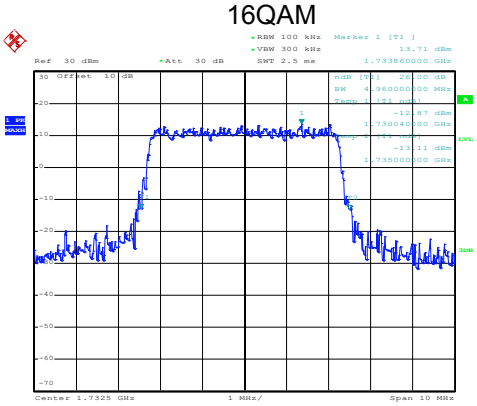
QPSK



Date: 17.DEC.2018 23:49:27

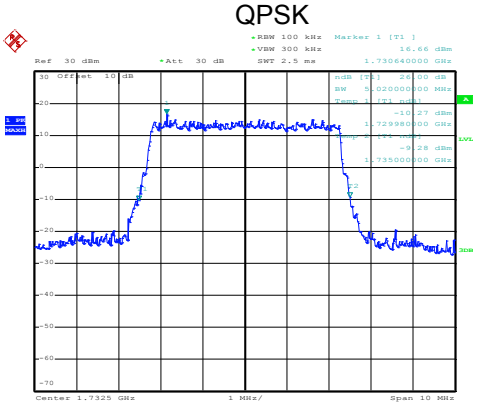
Lowest channel

16QAM



Date: 17.DEC.2018 23:49:45

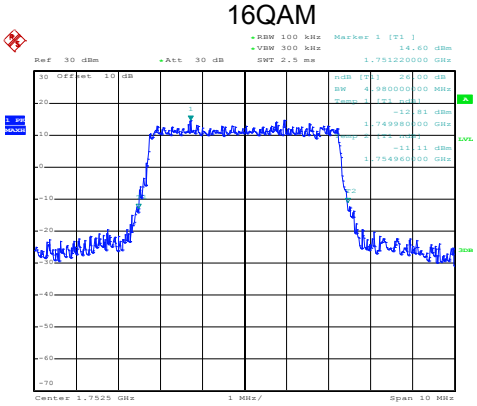
QPSK



Date: 17.DEC.2018 23:49:42

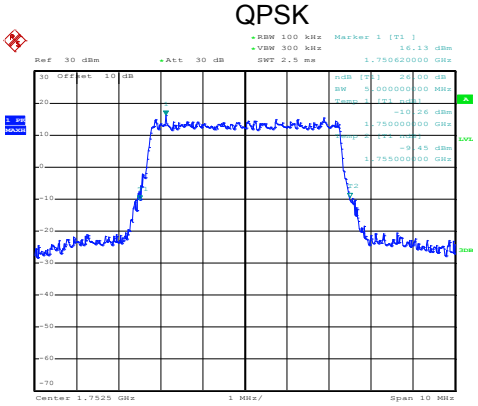
Middle channel

16QAM



Date: 17.DEC.2018 23:50:32

QPSK

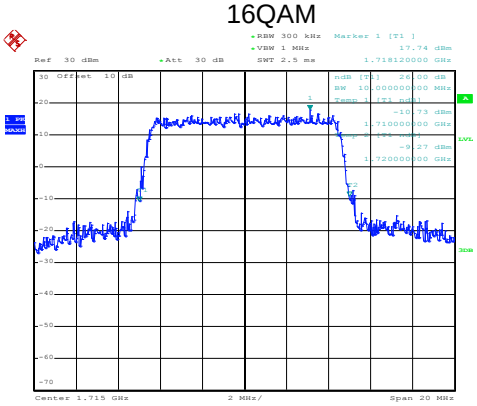


Date: 17.DEC.2018 23:50:27

Highest channel

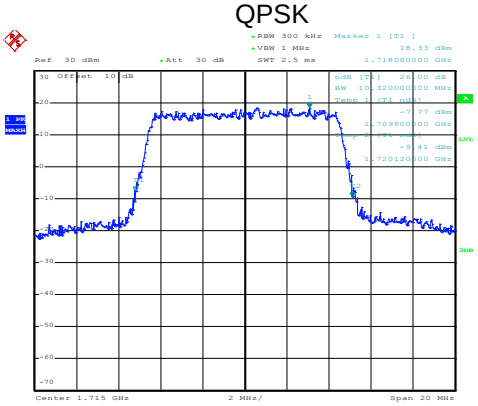
LTE Band 4: -26dBc bandwidth
BW: 10MHz

16QAM



Date: 17.DEC.2018 23:54:22

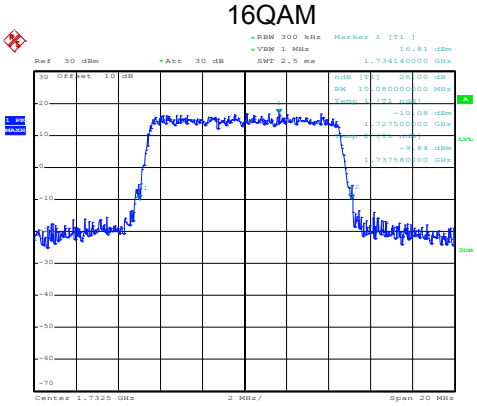
QPSK



Date: 17.DEC.2018 23:54:17

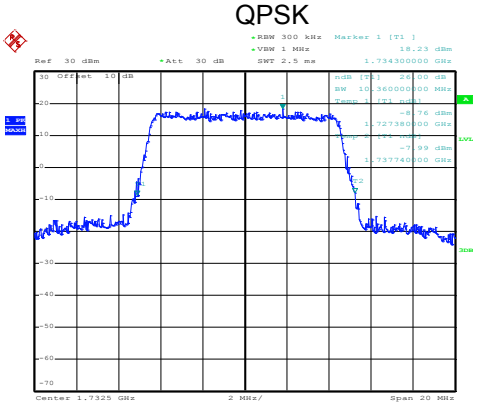
Lowest channel

16QAM



Date: 17.DEC.2018 23:54:38

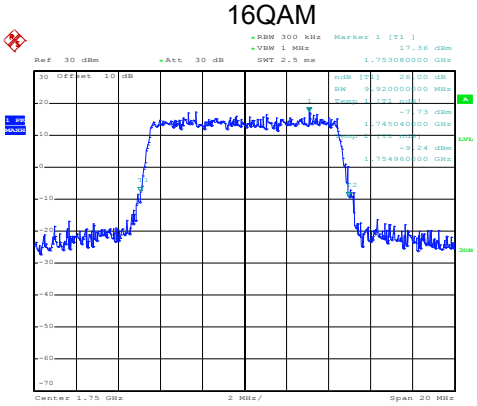
QPSK



Date: 17.DEC.2018 23:54:32

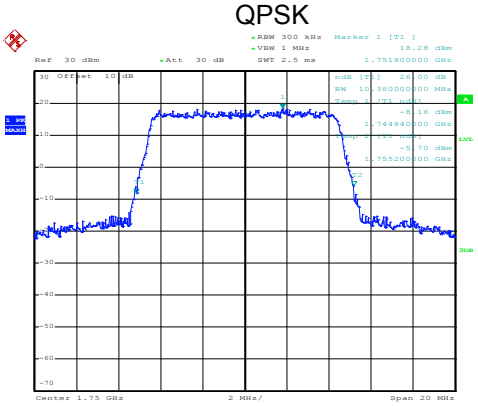
Middle channel

16QAM



Date: 17.DEC.2018 23:55:40

QPSK

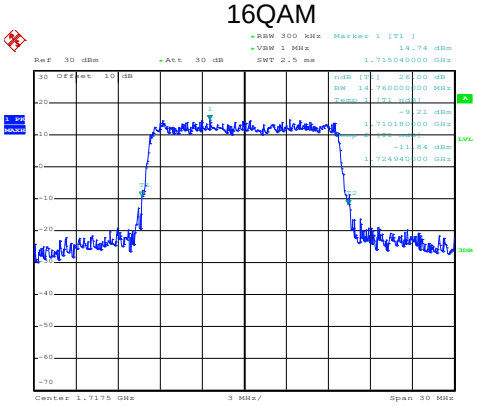


Date: 17.DEC.2018 23:55:36

Highest channel

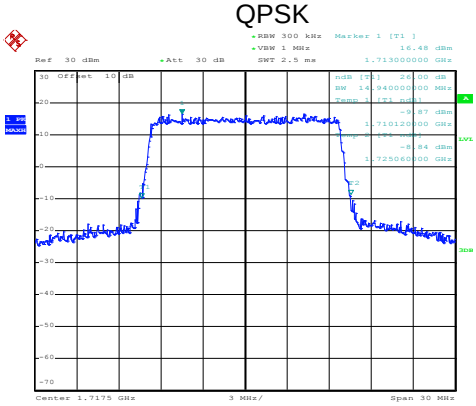
LTE Band 4: -26dBc bandwidth
BW: 15MHz

16QAM



Date: 17.DEC.2018 23:56:29

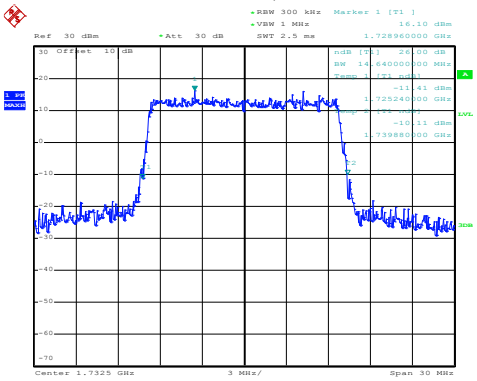
QPSK



Date: 17.DEC.2018 23:56:26

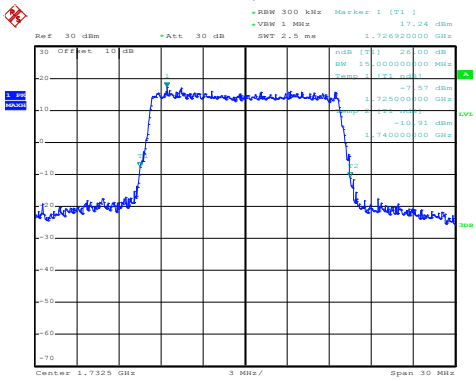
Lowest channel

16QAM



Date: 17.DEC.2018 23:56:43

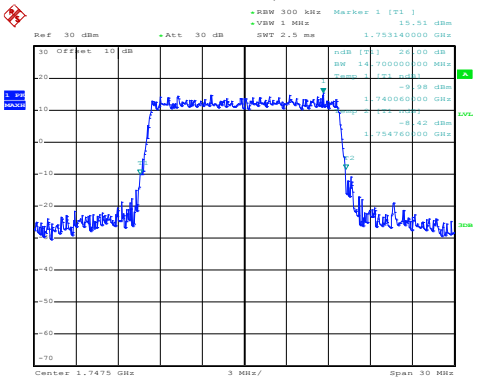
QPSK



Date: 17.DEC.2018 23:56:39

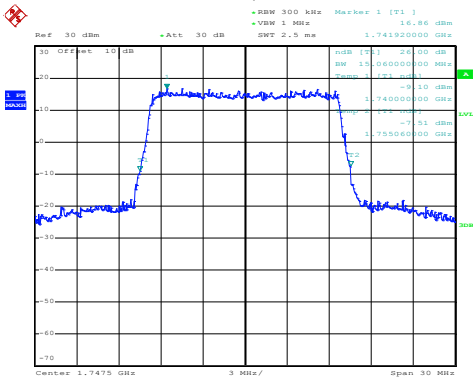
Middle channel

16QAM



Date: 17.DEC.2018 23:57:38

QPSK

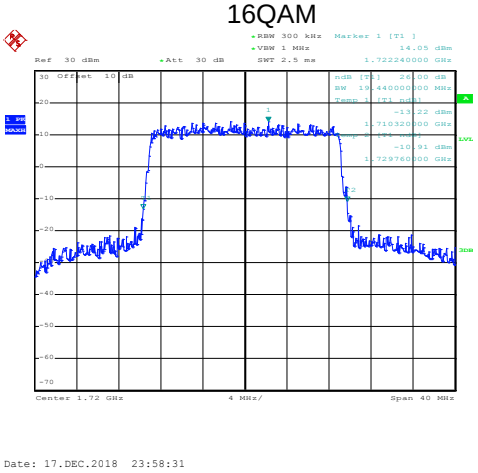


Date: 17.DEC.2018 23:57:35

Highest channel

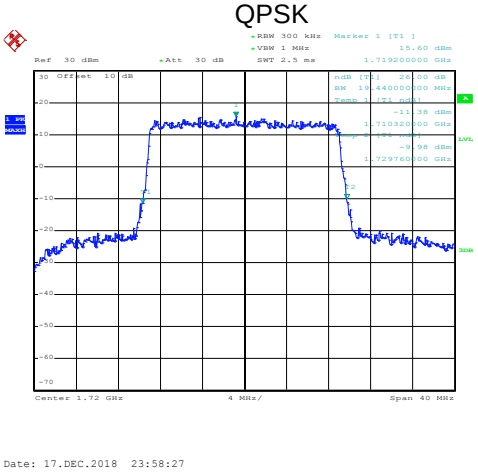
LTE Band 4: -26dBc bandwidth
BW: 20MHz

16QAM



Date: 17.DEC.2018 23:58:31

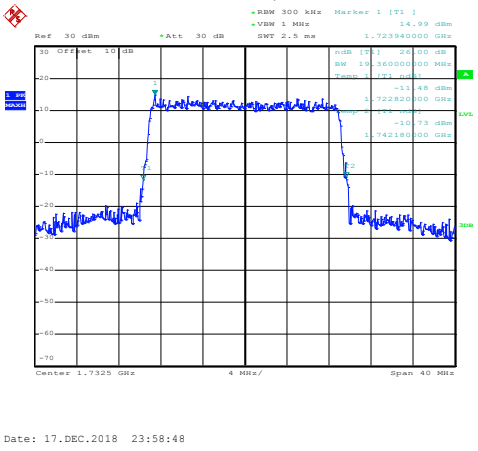
QPSK



Date: 17.DEC.2018 23:58:27

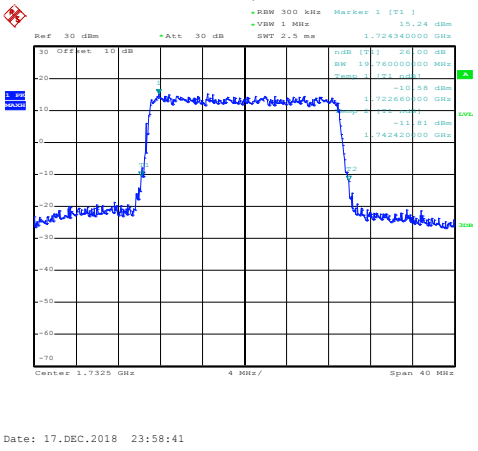
Lowest channel

16QAM



Date: 17.DEC.2018 23:58:48

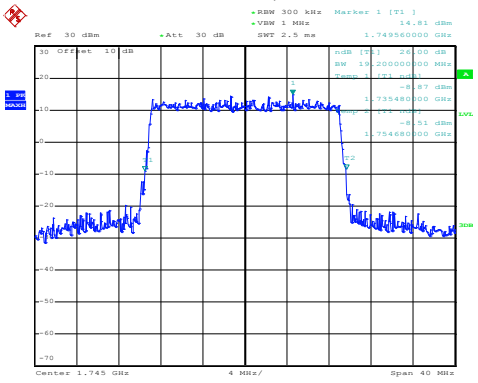
QPSK



Date: 17.DEC.2018 23:58:41

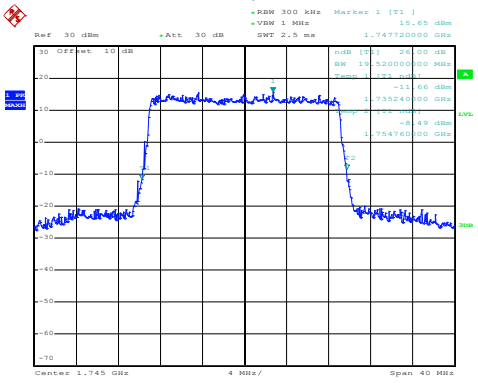
Middle channel

16QAM



Date: 17.DEC.2018 23:59:38

QPSK



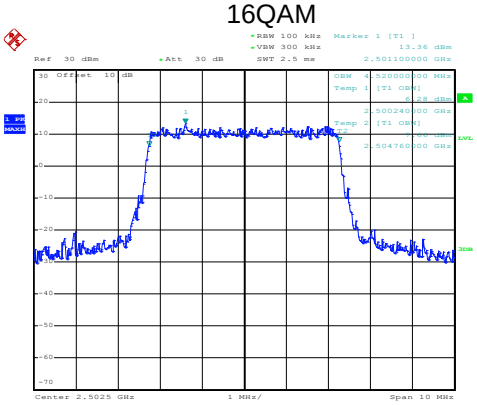
Date: 17.DEC.2018 23:59:31

Highest channel

LTE-Band 7 part:

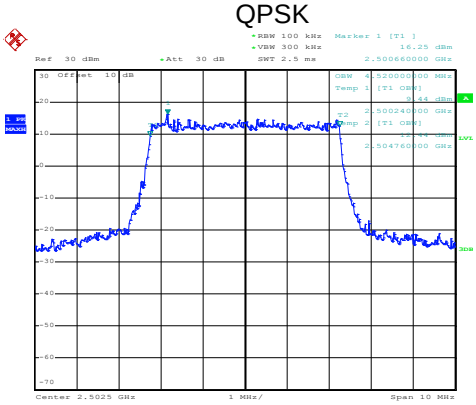
LTE Band 7: 99% Occupy bandwidth
BW: 5MHz

16QAM



Date: 18.DEC.2018 00:03:06

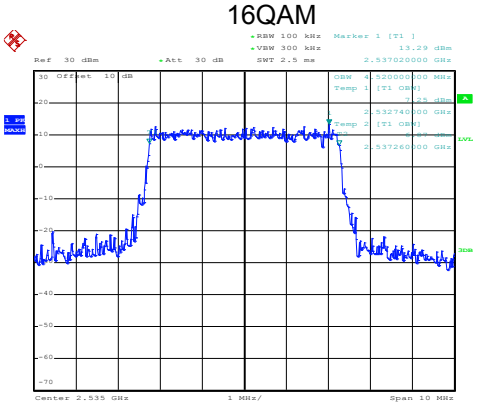
QPSK



Date: 18.DEC.2018 00:03:03

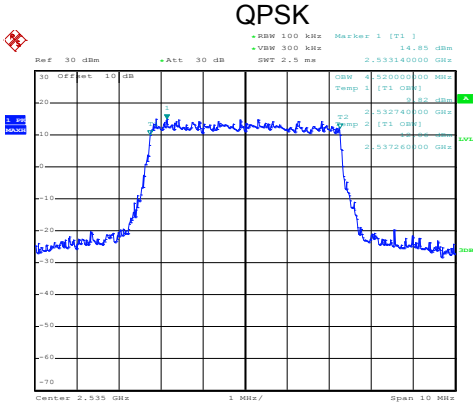
Lowest channel

16QAM



Date: 18.DEC.2018 00:03:21

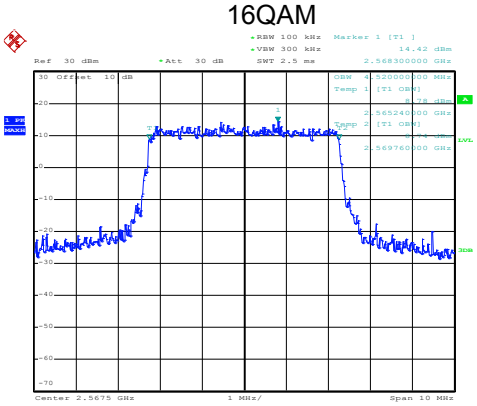
QPSK



Date: 18.DEC.2018 00:03:16

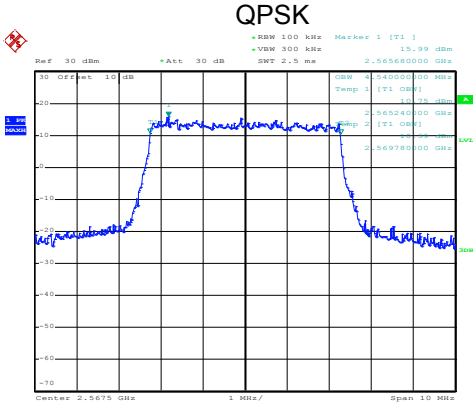
Middle channel

16QAM



Date: 18.DEC.2018 00:04:11

QPSK

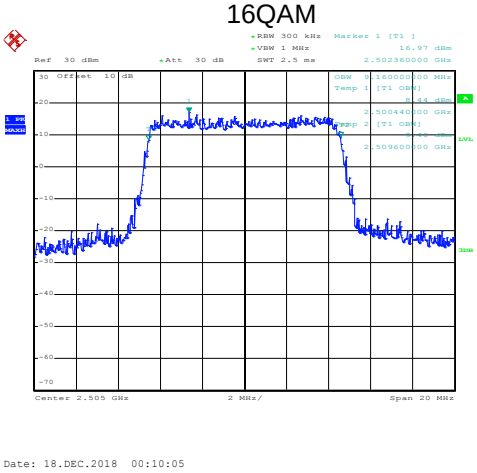


Date: 18.DEC.2018 00:04:06

Highest channel

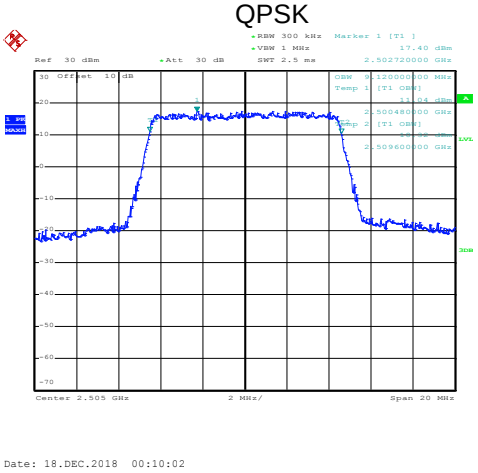
LTE Band 7: 99% Occupy bandwidth
BW: 10MHz

16QAM



Date: 18.DEC.2018 00:10:05

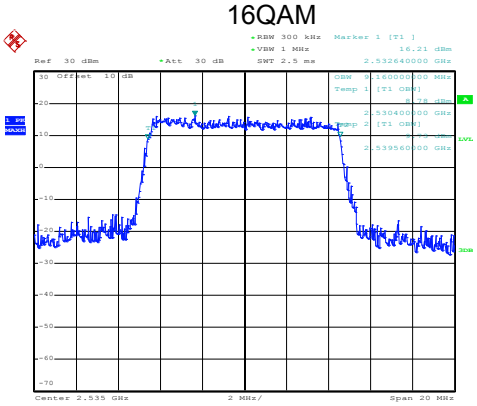
QPSK



Date: 18.DEC.2018 00:10:02

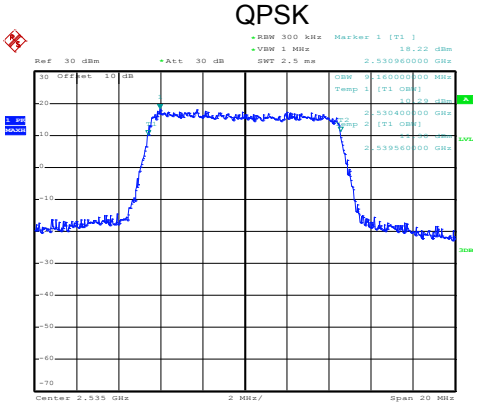
Lowest channel

16QAM



Date: 18.DEC.2018 00:10:48

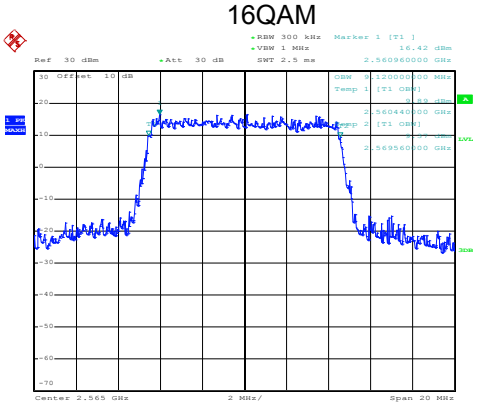
QPSK



Date: 18.DEC.2018 00:10:44

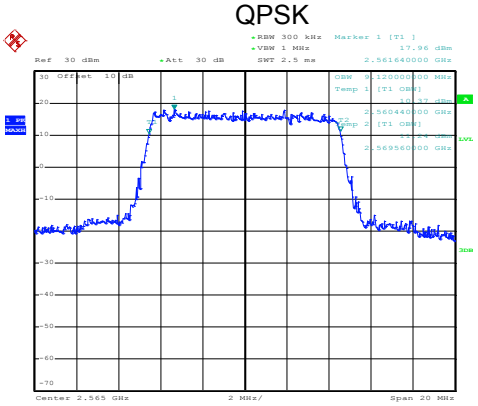
Middle channel

16QAM



Date: 18.DEC.2018 00:11:03

QPSK

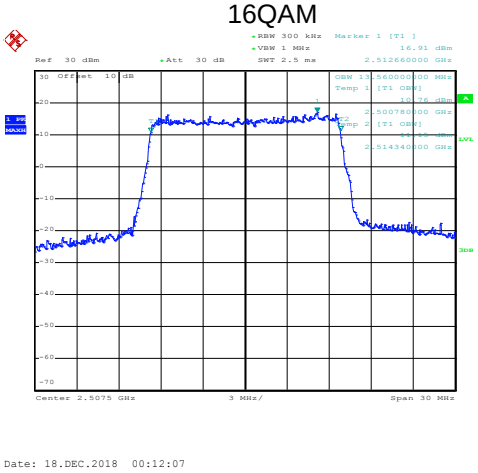


Date: 18.DEC.2018 00:10:59

Highest channel

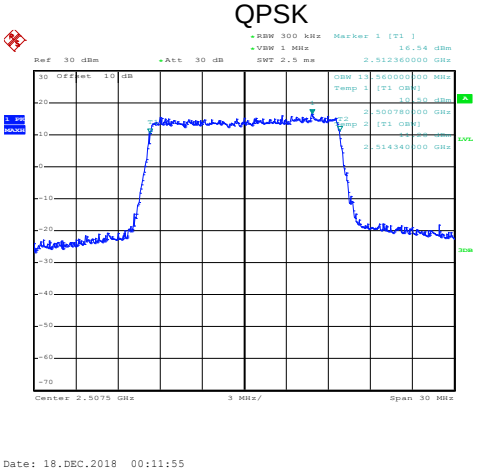
LTE Band 7: 99% Occupy bandwidth
BW: 15MHz

16QAM



Date: 18.DEC.2018 00:12:07

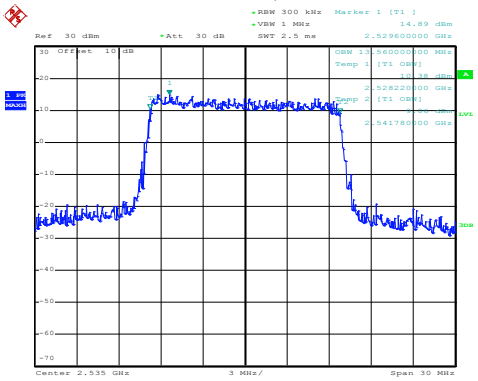
QPSK



Date: 18.DEC.2018 00:11:55

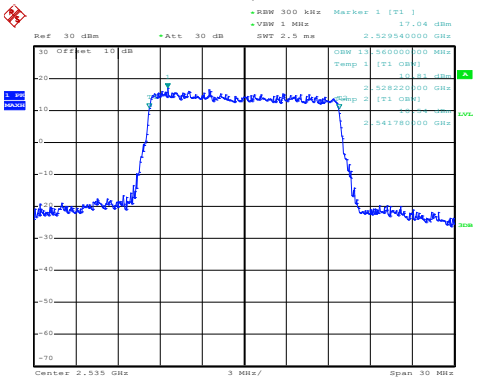
Lowest channel

16QAM



Date: 18.DEC.2018 00:13:27

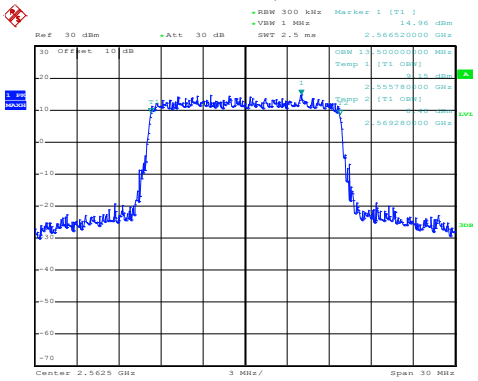
QPSK



Date: 18.DEC.2018 00:13:22

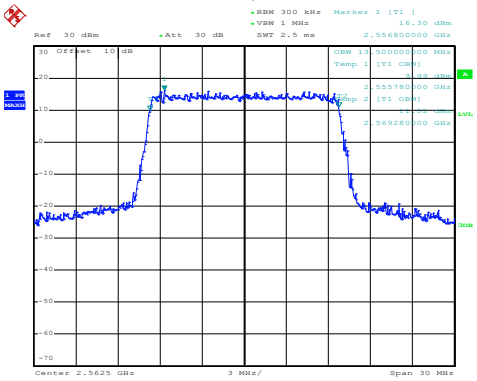
Middle channel

16QAM



Date: 18.DEC.2018 00:14:12

QPSK

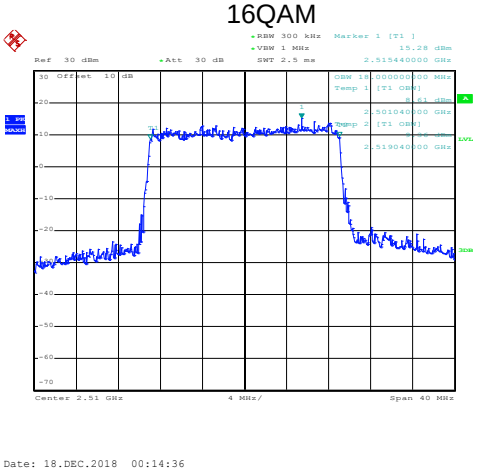


Date: 18.DEC.2018 00:14:09

Highest channel

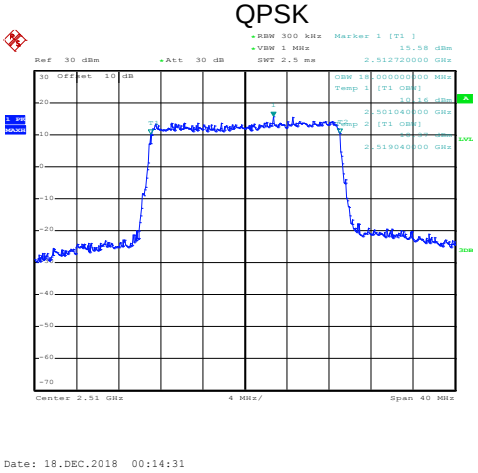
LTE Band 7: 99% Occupy bandwidth
BW: 20MHz

16QAM



Date: 18.DEC.2018 00:14:36

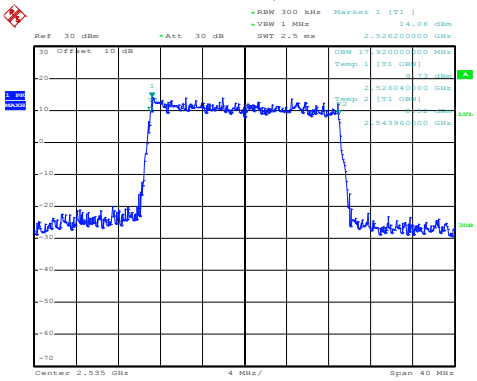
QPSK



Date: 18.DEC.2018 00:14:31

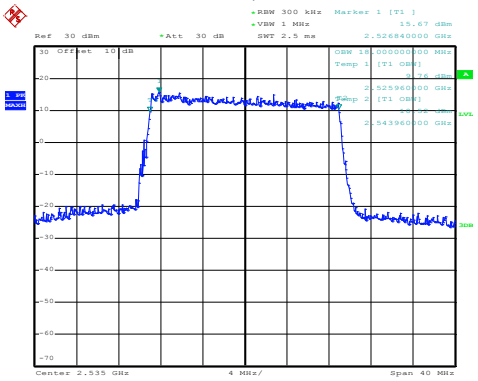
Lowest channel

16QAM



Date: 18.DEC.2018 00:15:13

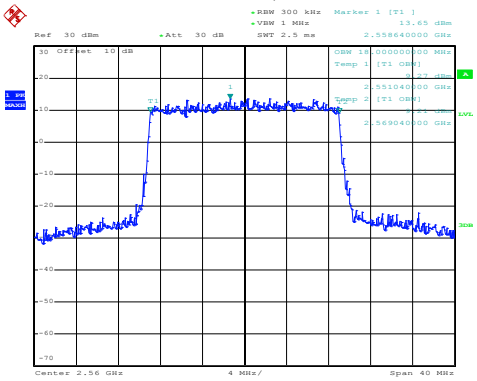
QPSK



Date: 18.DEC.2018 00:15:09

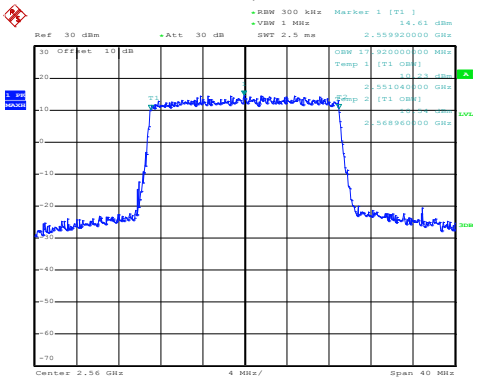
Middle channel

16QAM



Date: 18.DEC.2018 00:15:28

QPSK

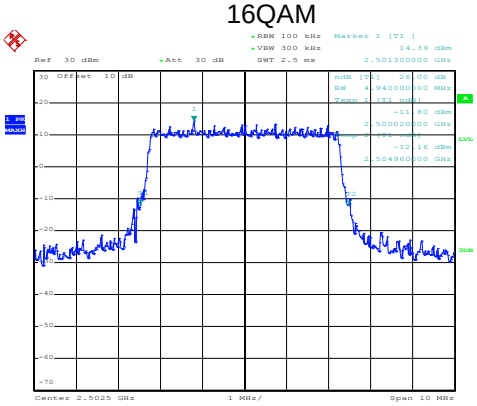


Date: 18.DEC.2018 00:15:25

Highest channel

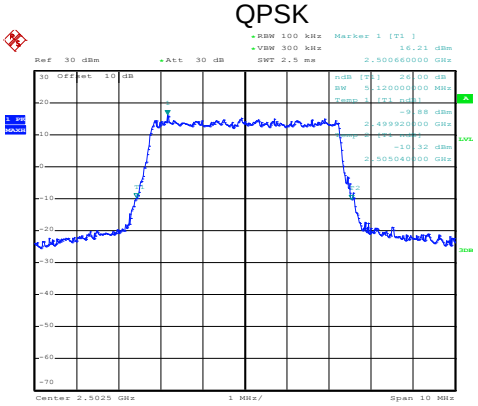
LTE Band 7: -26dBc bandwidth
BW: 5MHz

16QAM



Date: 18.DEC.2018 00:02:55

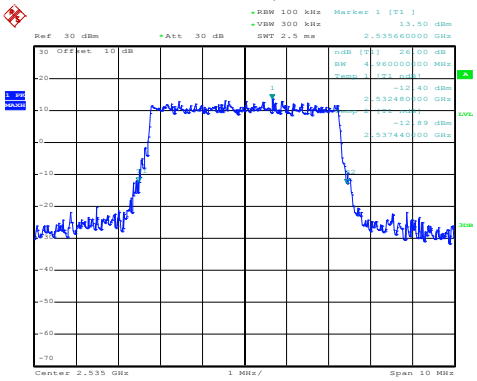
QPSK



Date: 18.DEC.2018 00:02:51

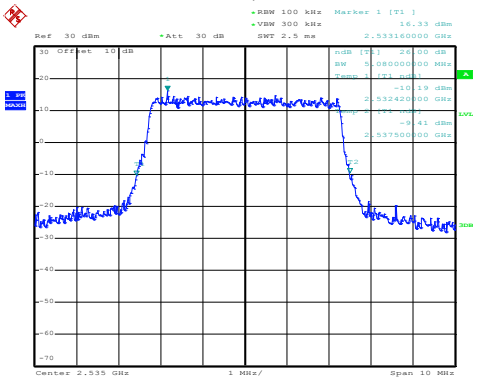
Lowest channel

16QAM



Date: 18.DEC.2018 00:03:36

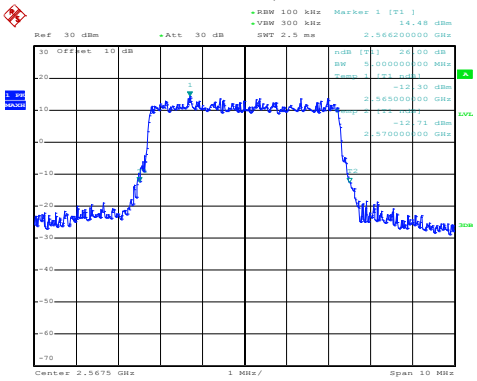
QPSK



Date: 18.DEC.2018 00:03:30

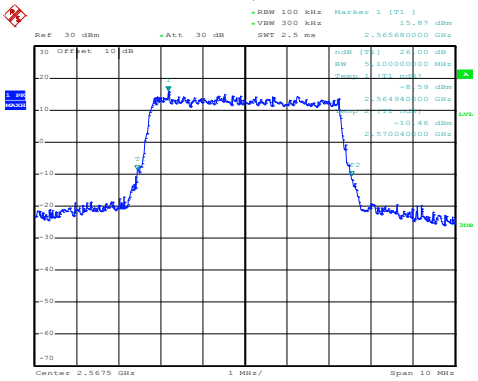
Middle channel

16QAM



Date: 18.DEC.2018 00:03:58

QPSK

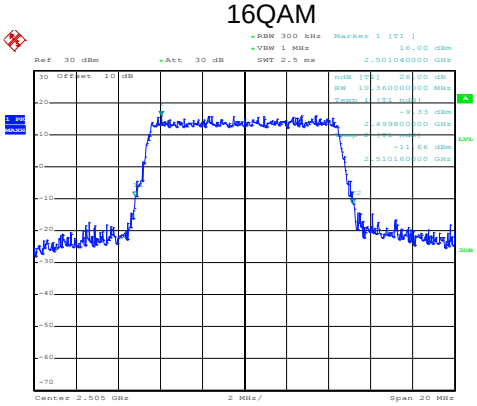


Date: 18.DEC.2018 00:03:53

Highest channel

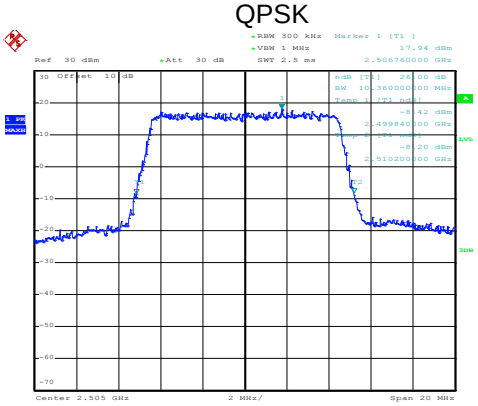
LTE Band 7: -26dBc bandwidth
BW: 10MHz

16QAM



Date: 18.DEC.2018 00:10:18

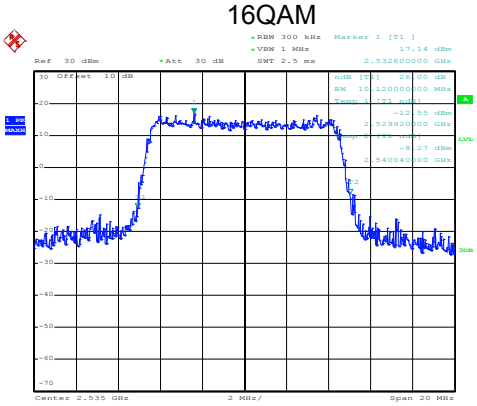
QPSK



Date: 18.DEC.2018 00:10:15

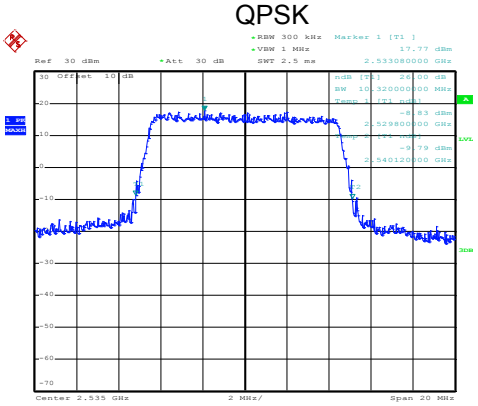
Lowest channel

16QAM



Date: 18.DEC.2018 00:10:32

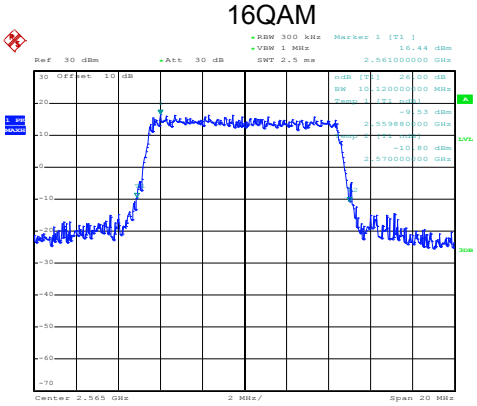
QPSK



Date: 18.DEC.2018 00:10:28

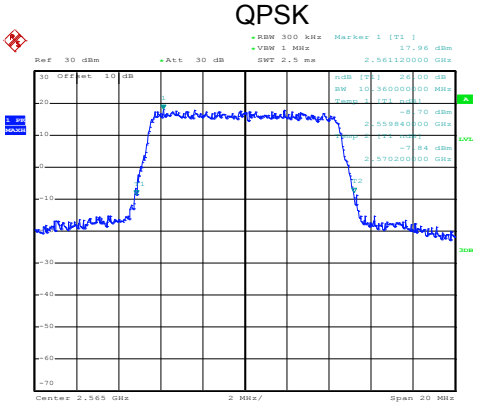
Middle channel

16QAM



Date: 18.DEC.2018 00:11:16

QPSK

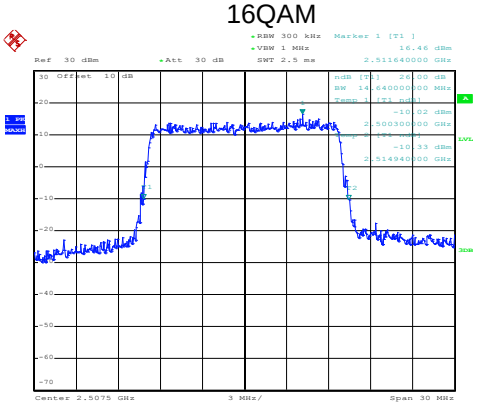


Date: 18.DEC.2018 00:11:12

Highest channel

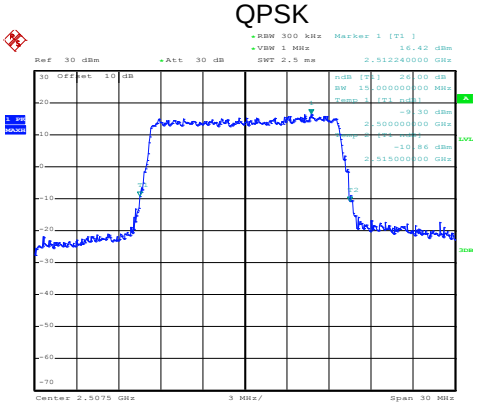
LTE Band 7: -26dBc bandwidth
BW: 15MHz

16QAM



Date: 18.DEC.2018 00:11:46

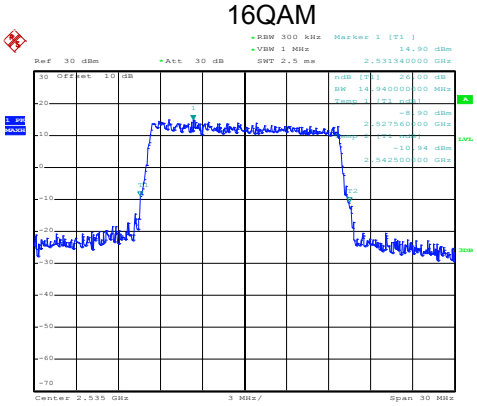
QPSK



Date: 18.DEC.2018 00:11:42

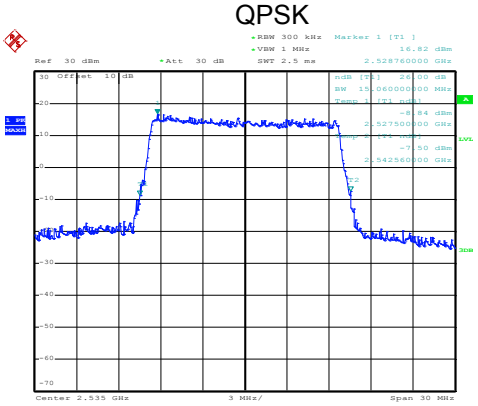
Lowest channel

16QAM



Date: 18.DEC.2018 00:13:43

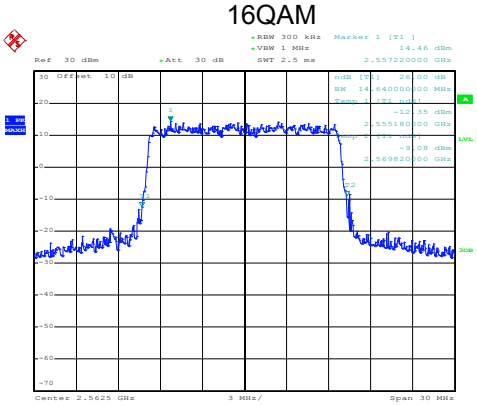
QPSK



Date: 18.DEC.2018 00:13:36

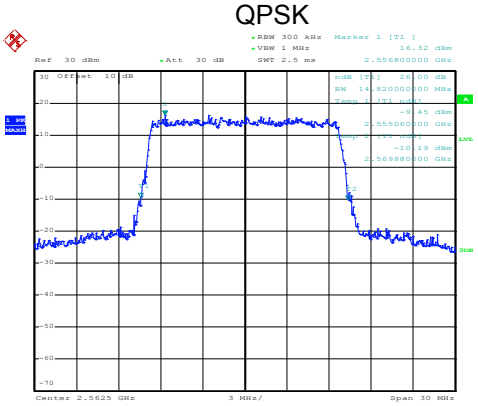
Middle channel

16QAM



Date: 18.DEC.2018 00:14:01

QPSK

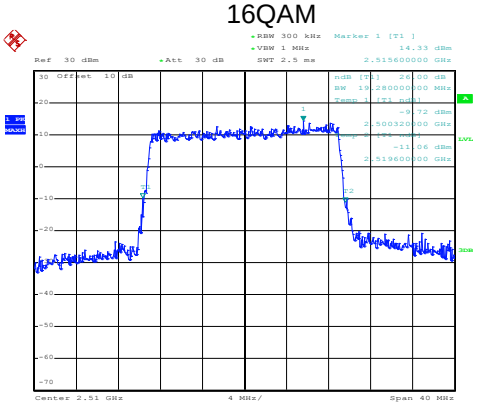


Date: 18.DEC.2018 00:13:57

Highest channel

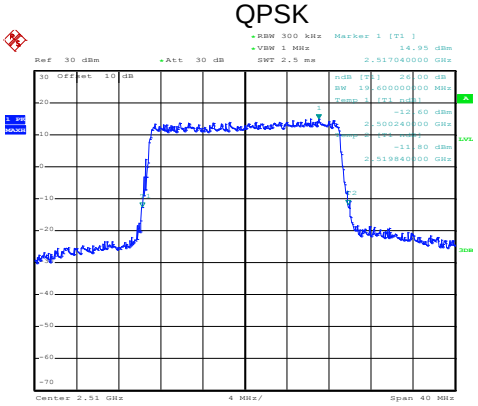
LTE Band 7: -26dBc bandwidth
BW: 20MHz

16QAM



Date: 18.DEC.2018 00:14:46

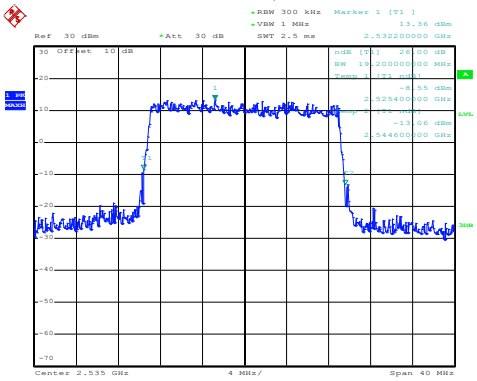
QPSK



Date: 18.DEC.2018 00:14:43

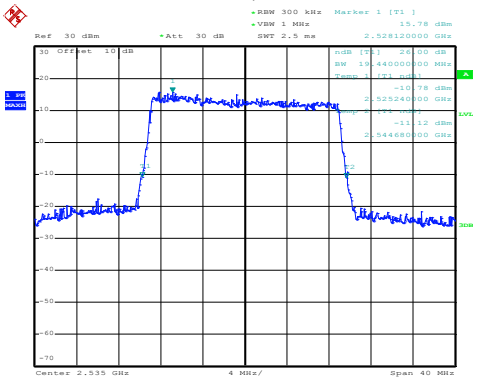
Lowest channel

16QAM



Date: 18.DEC.2018 00:15:02

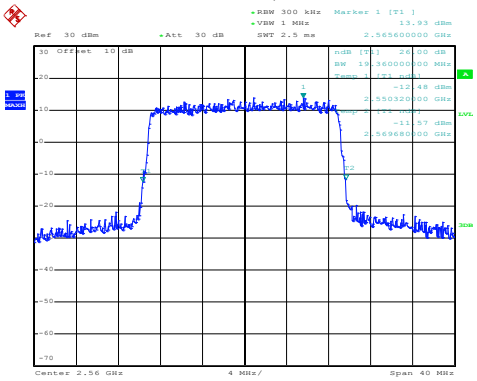
QPSK



Date: 18.DEC.2018 00:14:58

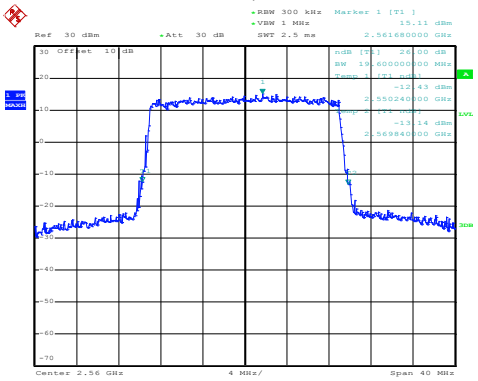
Middle channel

16QAM



Date: 18.DEC.2018 00:15:40

QPSK



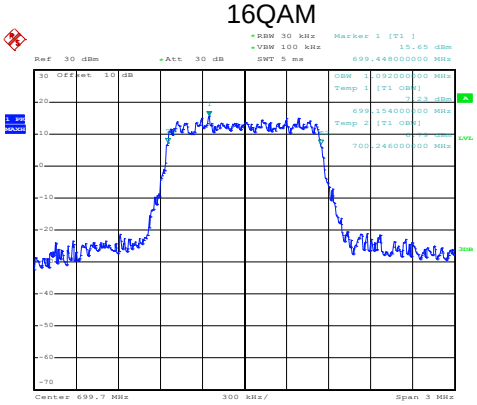
Date: 18.DEC.2018 00:15:36

Highest channel

LTE Band 12 part:

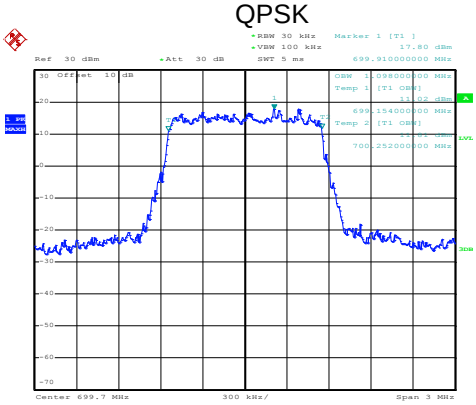
LTE Band 12: 99% Occupy bandwidth
BW: 1.4MHz

16QAM



Date: 18.DEC.2018 00:20:09

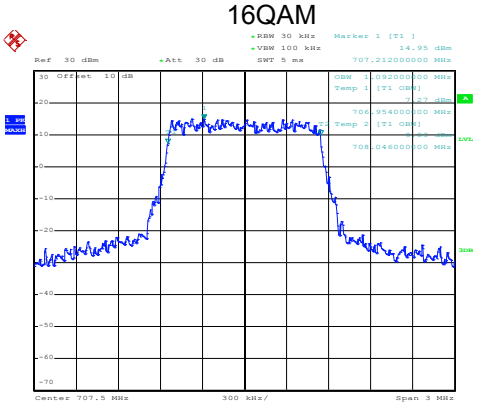
QPSK



Date: 18.DEC.2018 00:20:04

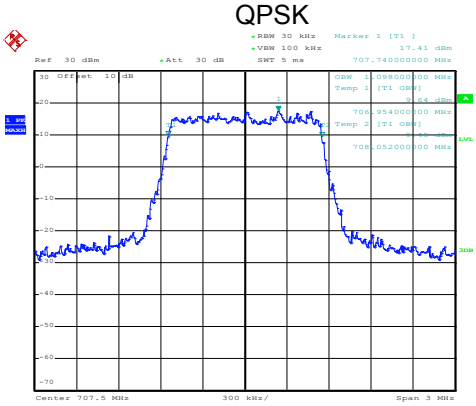
Lowest channel

16QAM



Date: 18.DEC.2018 00:20:23

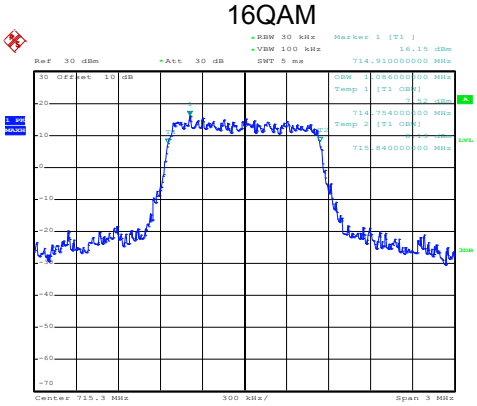
QPSK



Date: 18.DEC.2018 00:20:19

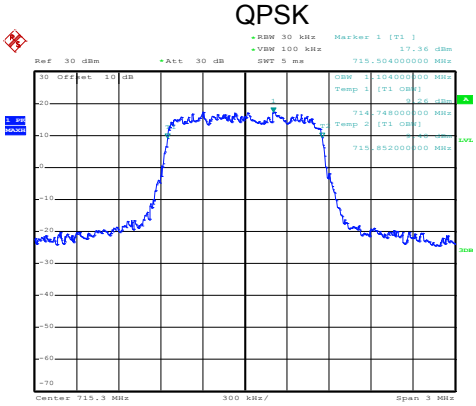
Middle channel

16QAM



Date: 18.DEC.2018 00:21:48

QPSK

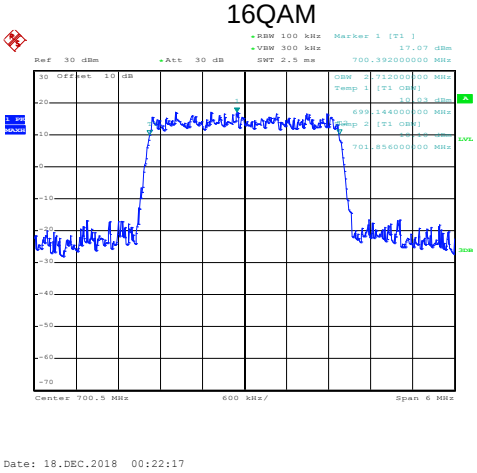


Date: 18.DEC.2018 00:21:44

Highest channel

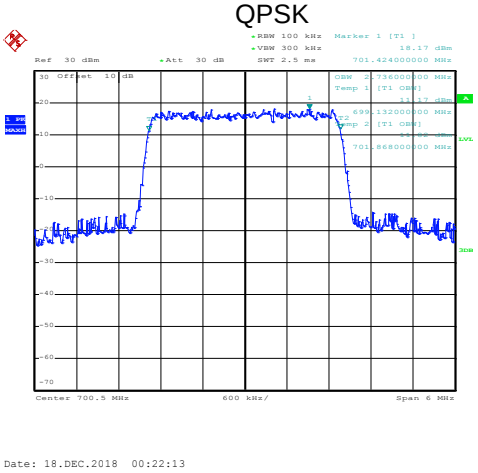
LTE Band 12: 99% Occupy bandwidth
BW: 3MHz

16QAM



Date: 18.DEC.2018 00:22:17

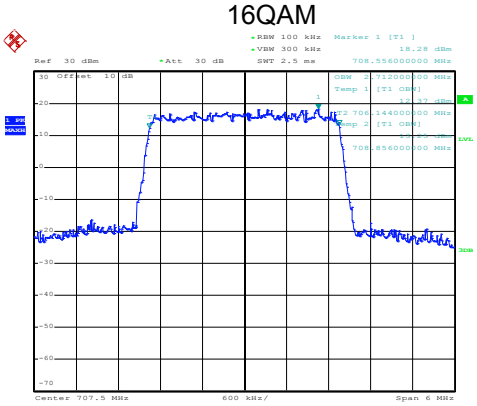
QPSK



Date: 18.DEC.2018 00:22:13

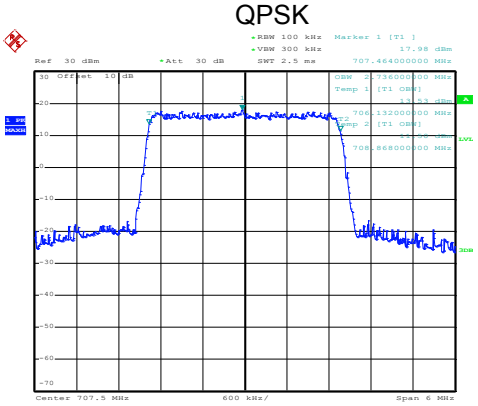
Lowest channel

16QAM



Date: 18.DEC.2018 00:23:05

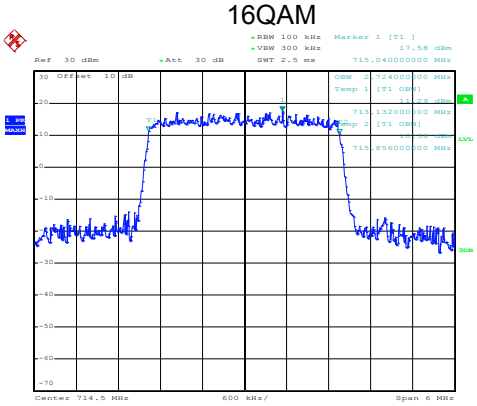
QPSK



Date: 18.DEC.2018 00:22:53

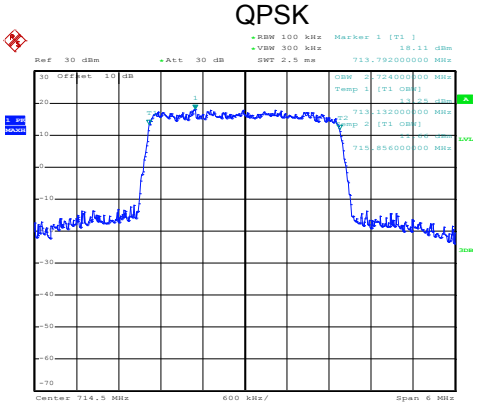
Middle channel

16QAM



Date: 18.DEC.2018 00:24:00

QPSK

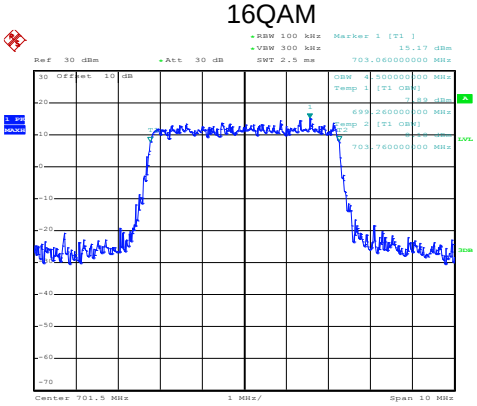


Date: 18.DEC.2018 00:23:55

Highest channel

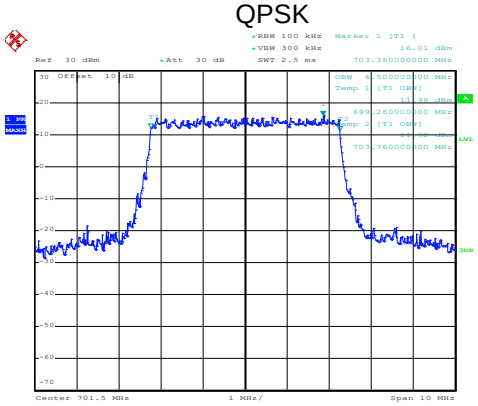
LTE Band 12: 99% Occupy bandwidth
BW: 5MHz

16QAM



Date: 18.DEC.2018 00:24:23

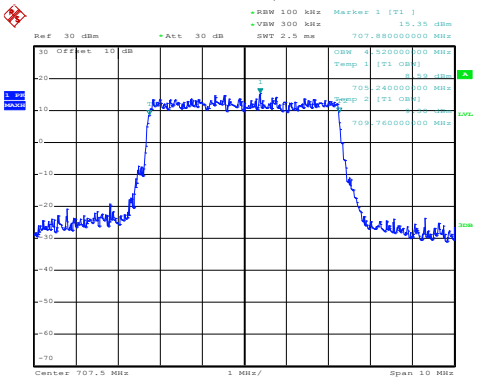
QPSK



Date: 18.DEC.2018 00:24:18

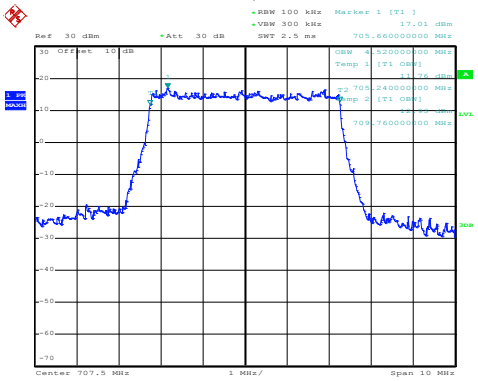
Lowest channel

16QAM



Date: 18.DEC.2018 00:25:16

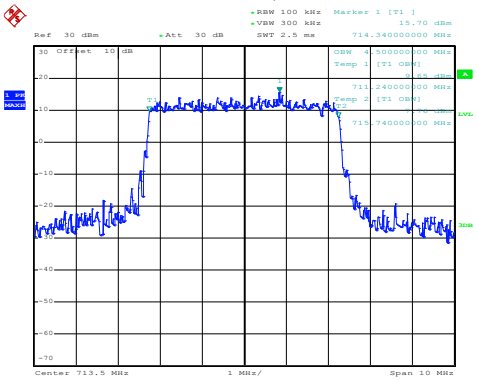
QPSK



Date: 18.DEC.2018 00:25:08

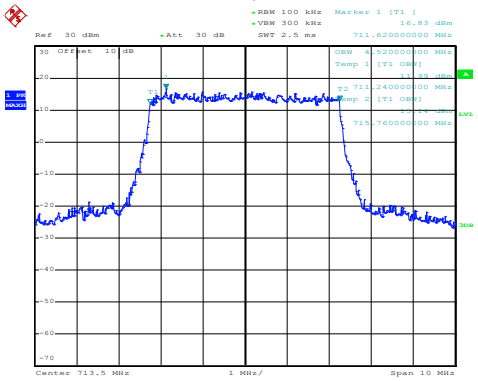
Middle channel

16QAM



Date: 18.DEC.2018 00:25:58

QPSK

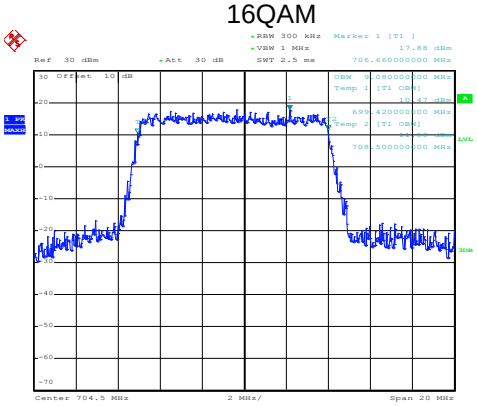


Date: 18.DEC.2018 00:25:54

Highest channel

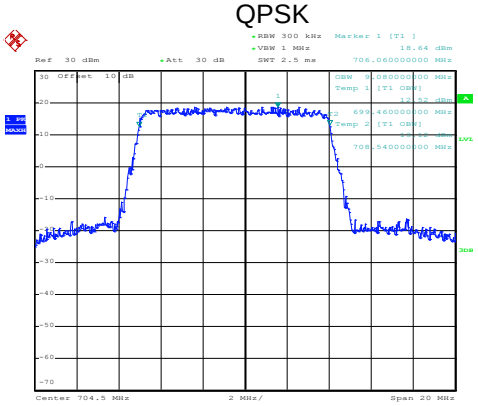
LTE Band 12: 99% Occupy bandwidth
BW: 10MHz

16QAM



Date: 18.DEC.2018 00:26:27

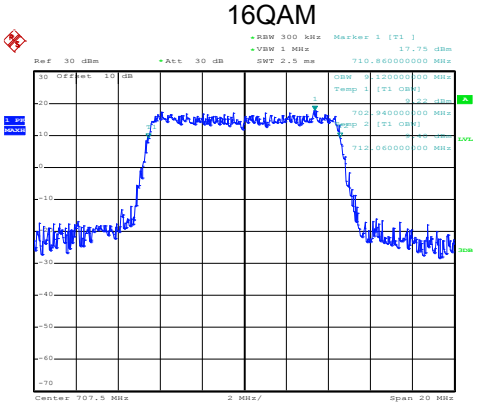
QPSK



Date: 18.DEC.2018 00:26:23

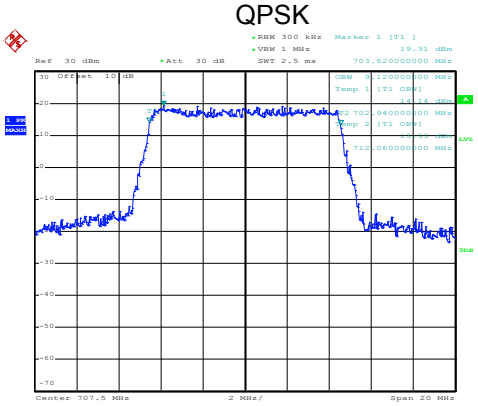
Lowest channel

16QAM



Date: 18.DEC.2018 00:27:06

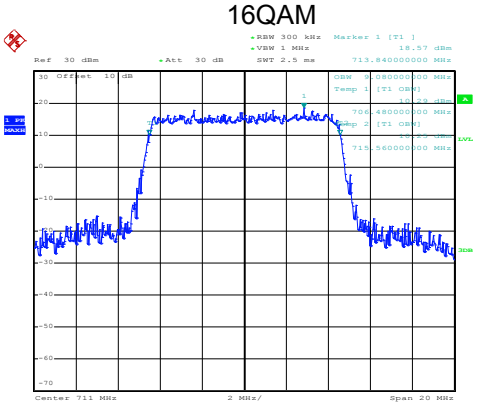
QPSK



Date: 18.DEC.2018 00:27:02

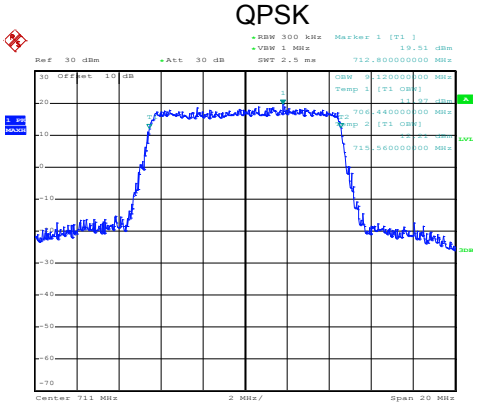
Middle channel

16QAM



Date: 18.DEC.2018 00:27:19

QPSK

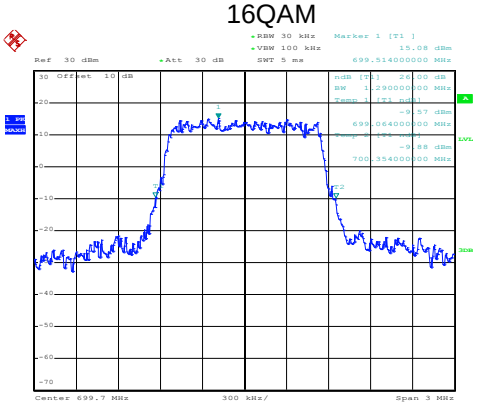


Date: 18.DEC.2018 00:27:15

Highest channel

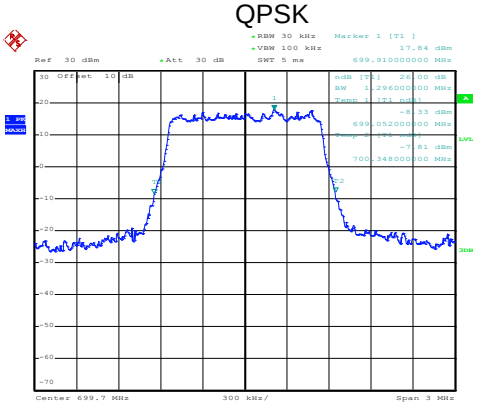
LTE Band 12: -26dBc bandwidth
BW: 1.4MHz

16QAM



Date: 18.DEC.2018 00:19:57

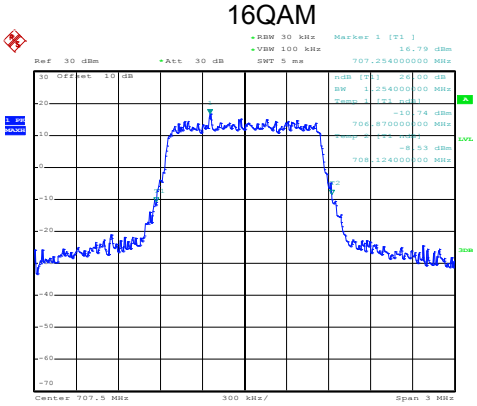
QPSK



Date: 18.DEC.2018 00:19:52

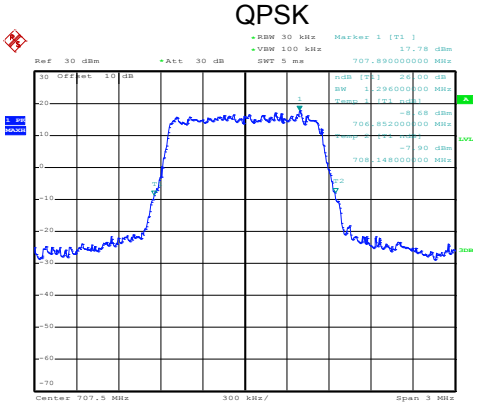
Lowest channel

16QAM



Date: 18.DEC.2018 00:20:42

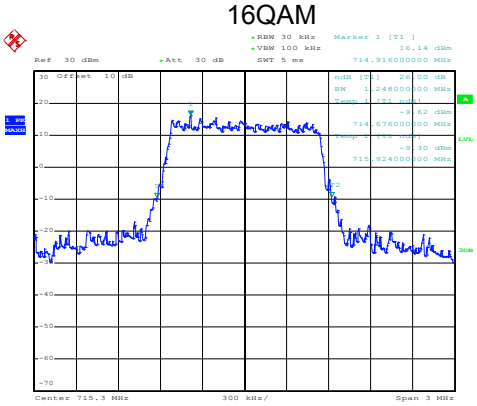
QPSK



Date: 18.DEC.2018 00:20:31

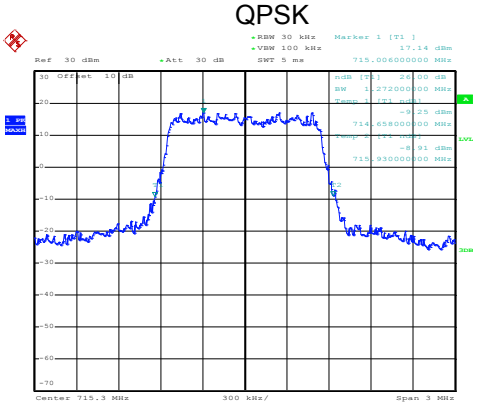
Middle channel

16QAM



Date: 18.DEC.2018 00:21:35

QPSK

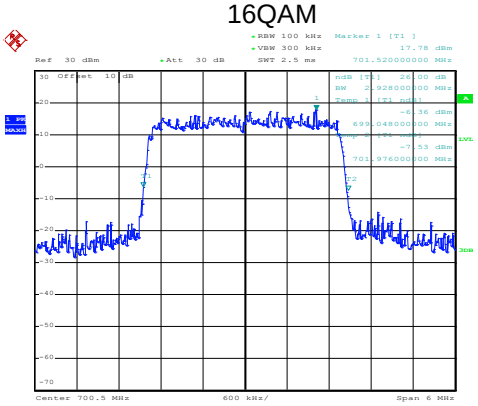


Date: 18.DEC.2018 00:21:31

Highest channel

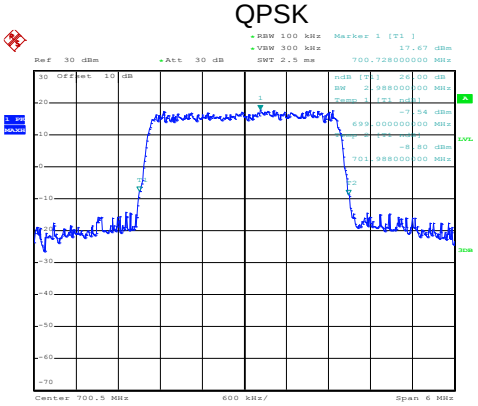
LTE Band 12: -26dBc bandwidth
BW: 3MHz

16QAM



Date: 18.DEC.2018 00:22:29

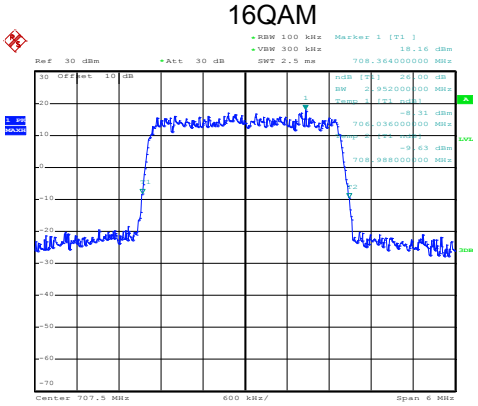
QPSK



Date: 18.DEC.2018 00:22:25

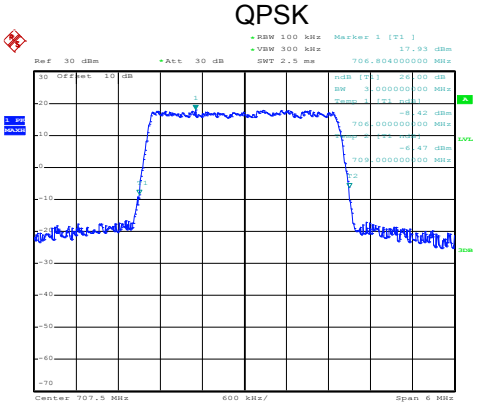
Lowest channel

16QAM



Date: 18.DEC.2018 00:22:45

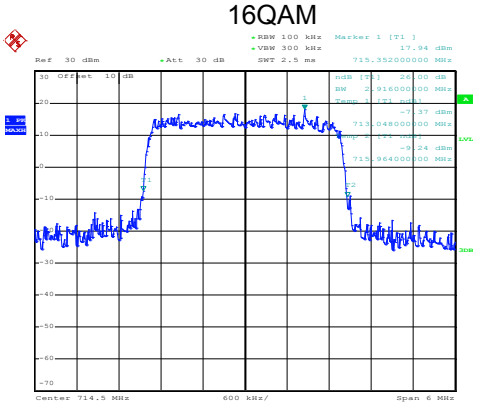
QPSK



Date: 18.DEC.2018 00:23:24

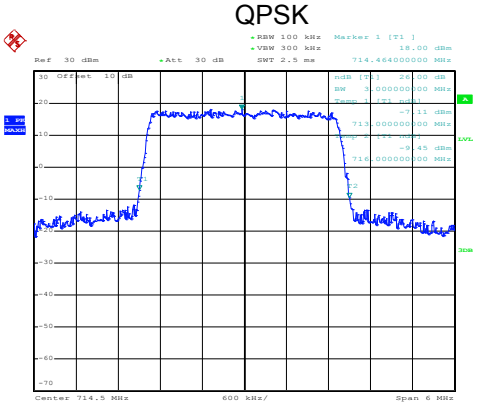
Middle channel

16QAM



Date: 18.DEC.2018 00:23:47

QPSK

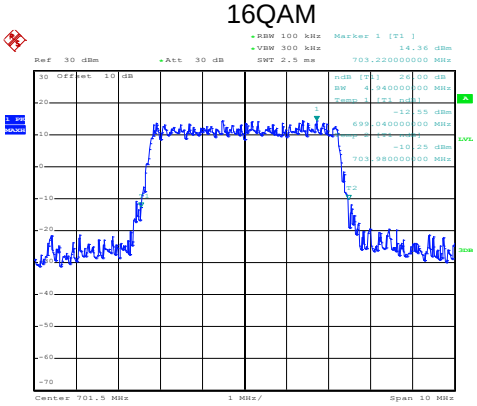


Date: 18.DEC.2018 00:23:44

Highest channel

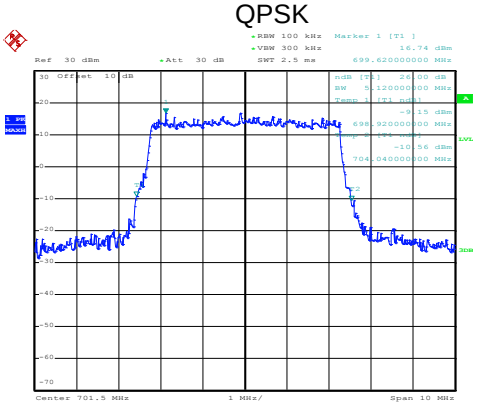
LTE Band 12: -26dBc bandwidth
BW: 5MHz

16QAM



Date: 18.DEC.2018 00:24:35

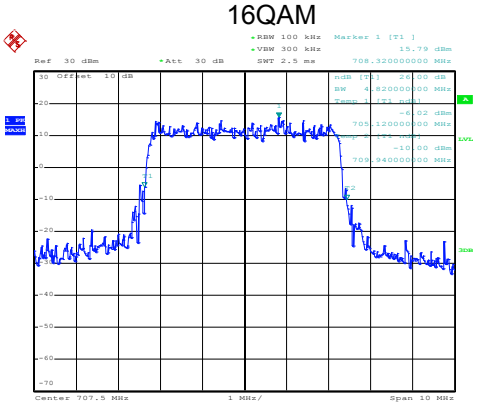
QPSK



Date: 18.DEC.2018 00:24:31

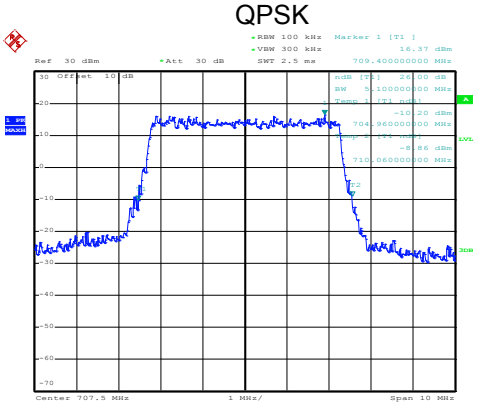
Lowest channel

16QAM



Date: 18.DEC.2018 00:24:50

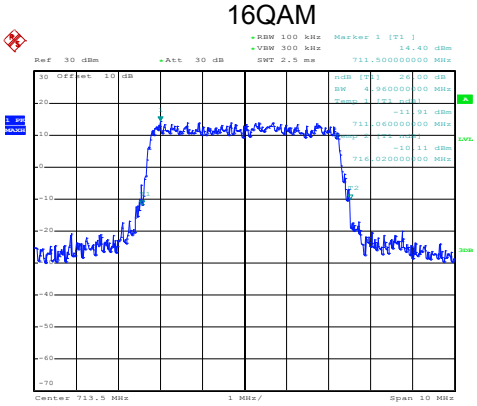
QPSK



Date: 18.DEC.2018 00:25:24

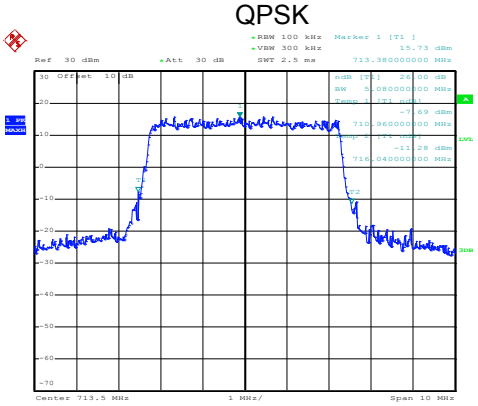
Middle channel

16QAM



Date: 18.DEC.2018 00:25:45

QPSK

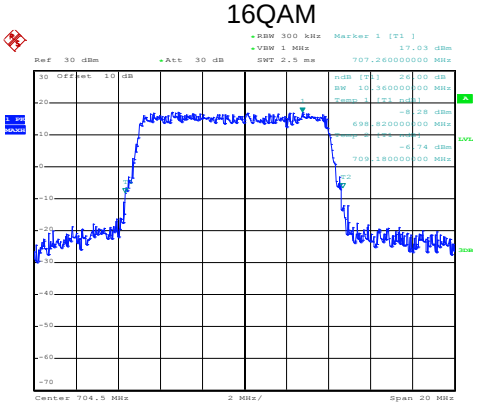


Date: 18.DEC.2018 00:25:42

Highest channel

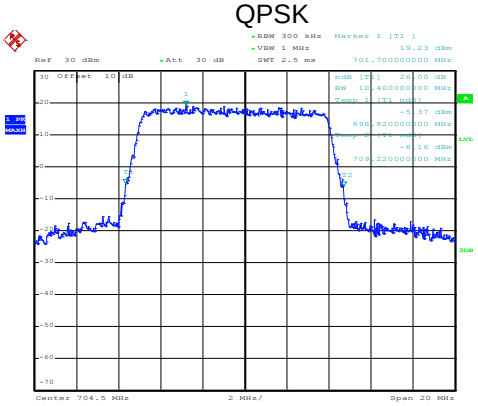
LTE Band 12: -26dBc bandwidth
BW: 10MHz

16QAM



Date: 18.DEC.2018 00:26:39

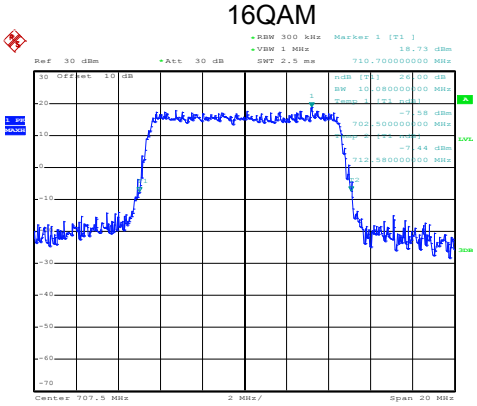
QPSK



Date: 18.DEC.2018 00:26:35

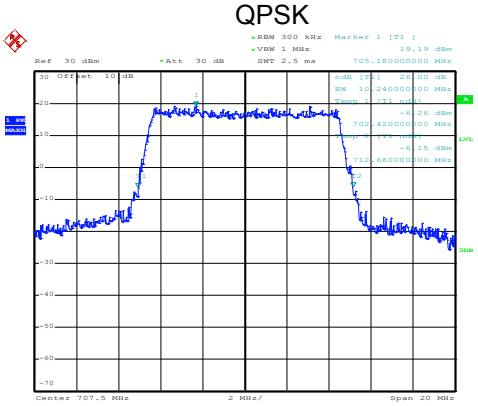
Lowest channel

16QAM



Date: 18.DEC.2018 00:26:54

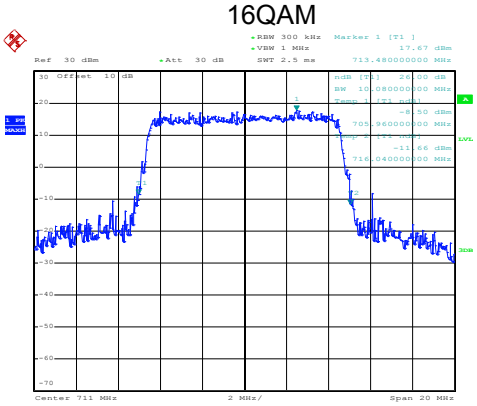
QPSK



Date: 18.DEC.2018 00:26:50

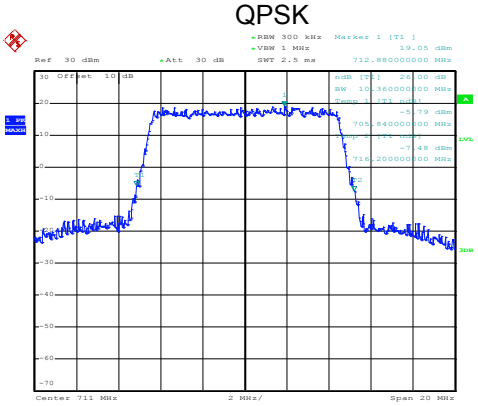
Middle channel

16QAM



Date: 18.DEC.2018 00:27:32

QPSK



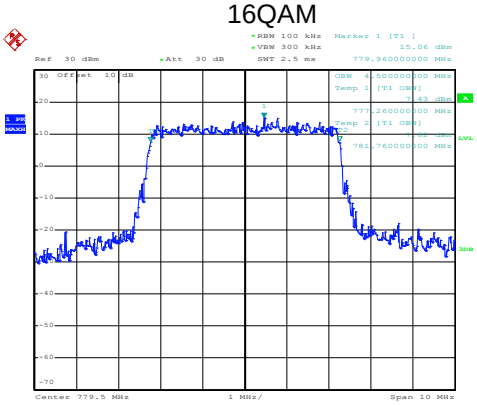
Date: 18.DEC.2018 00:27:27

Highest channel

LTE-Band 13 part:

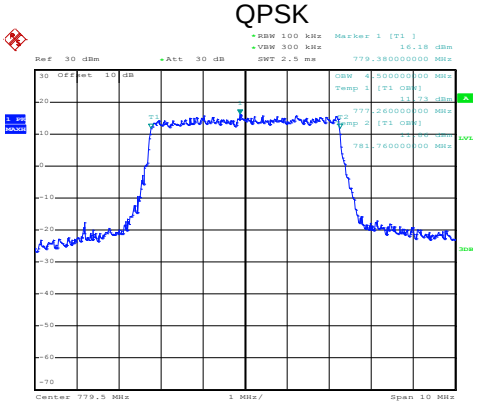
LTE Band 13: 99% Occupy bandwidth
BW: 5MHz

16QAM



Date: 18.DEC.2018 00:28:46

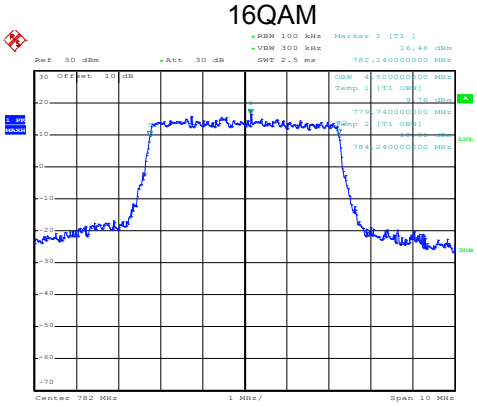
QPSK



Date: 18.DEC.2018 00:28:42

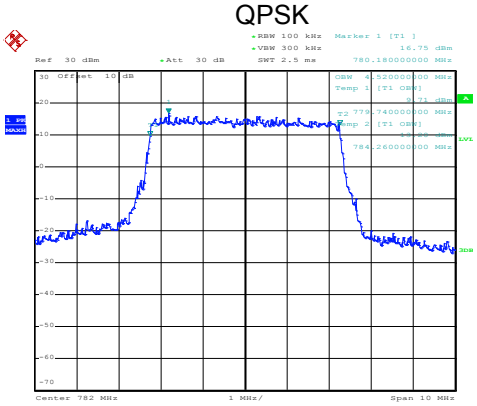
Lowest channel

16QAM



Date: 18.DEC.2018 00:29:36

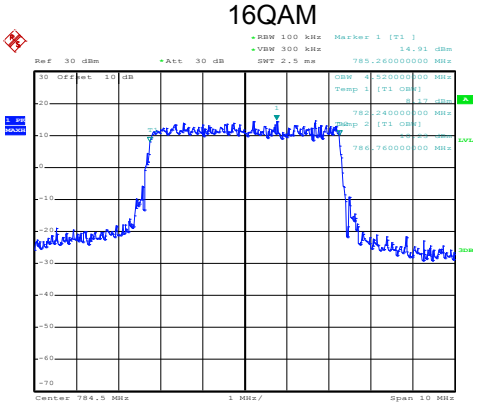
QPSK



Date: 18.DEC.2018 00:29:21

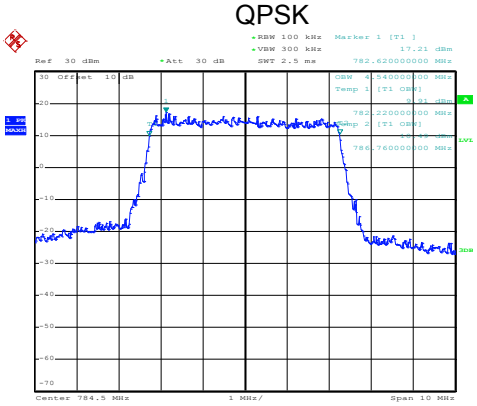
Middle channel

16QAM



Date: 18.DEC.2018 00:30:23

QPSK

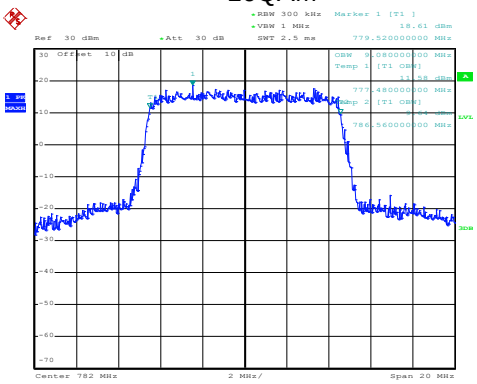


Date: 18.DEC.2018 00:30:19

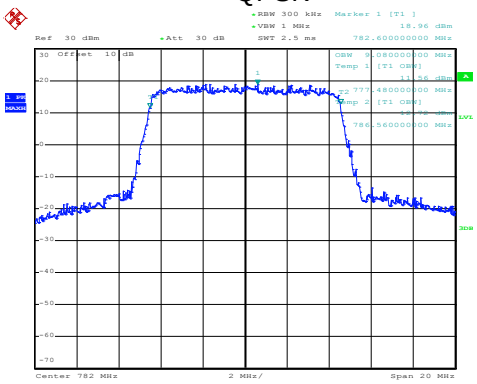
Highest channel

LTE Band 13: 99% Occupy bandwidth
BW: 10MHz

16QAM



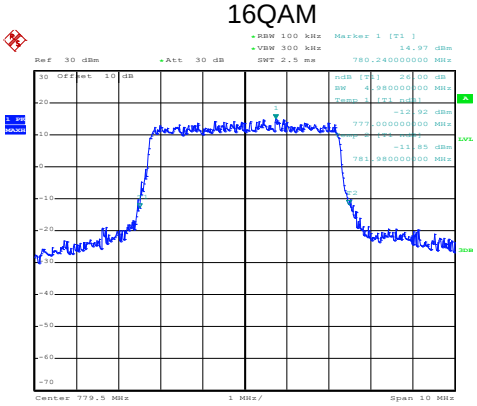
QPSK



Middle channel

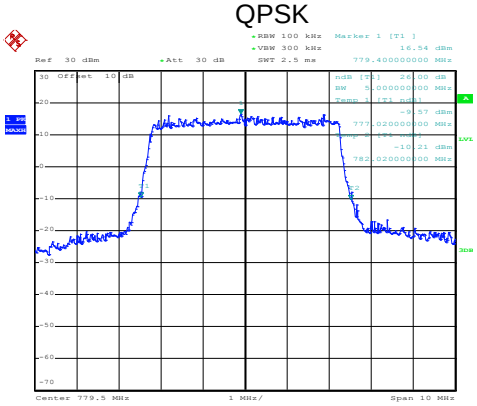
LTE Band 13: -26dBc bandwidth
BW: 5MHz

16QAM



Date: 18.DEC.2018 00:28:58

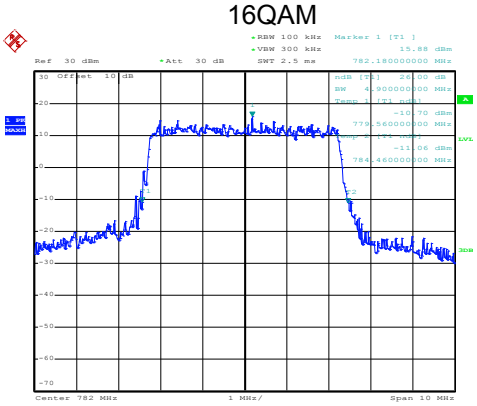
QPSK



Date: 18.DEC.2018 00:28:54

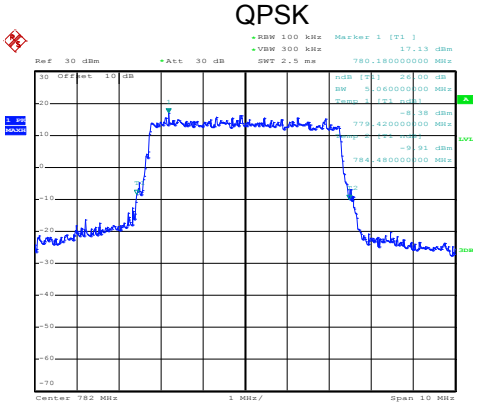
Lowest channel

16QAM



Date: 18.DEC.2018 00:29:13

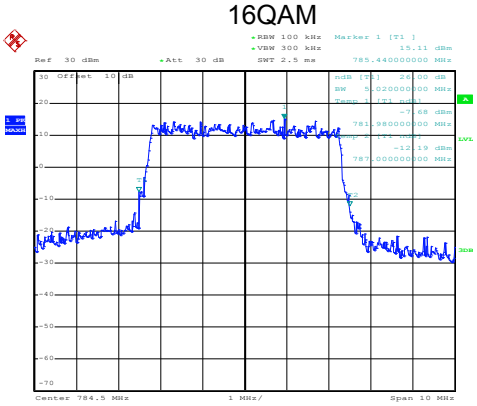
QPSK



Date: 18.DEC.2018 00:29:09

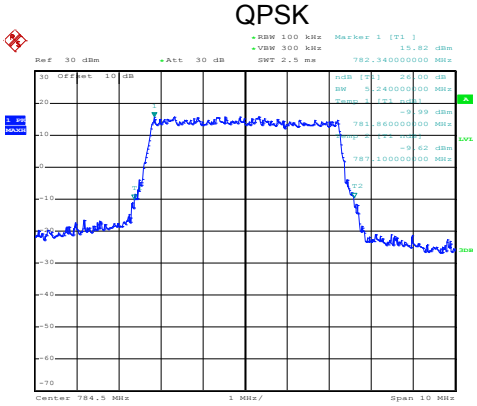
Middle channel

16QAM



Date: 18.DEC.2018 00:30:10

QPSK

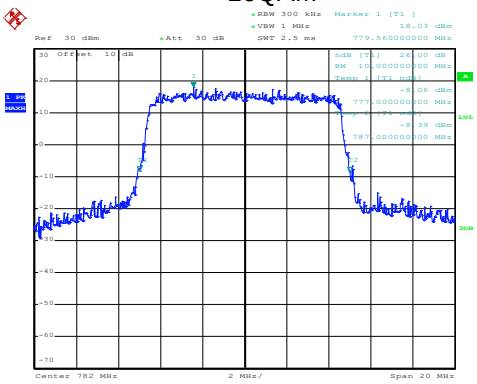


Date: 18.DEC.2018 00:30:06

Highest channel

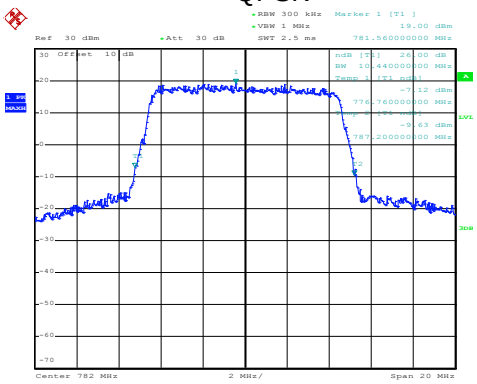
LTE Band 13: -26dBc bandwidth
BW: 10MHz

16QAM



Date: 18.DEC.2018 00:28:03

QPSK



Date: 18.DEC.2018 00:27:59

Middle channel