TESTING LABORATORY
CERTIFICATE#4323.01

FCC PART 27

FCC PART 22H, PART 24E, PART 90

TEST REPORT

For

Shanghai Sunmi Technology Co.,Ltd.

Room 505, KIC Plaza, No.388 Song Hu Road, Yang Pu District, Shanghai, China

FCC ID: 2AH25TF701

Report Type:	**Product Type:**
Original Report	WIRELESS DATA TERMINAL

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Report Number:	RKSA200706001-00D
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	Shanghai Sunmi Technology Co.,Ltd.
Tested Model:	WIRELESS DATA TERMINAL
Product Type:	TF701
Power Supply:	DC 3.85V from battery DC 5.0/9.0/12.0/3.6~6.0/6.0~9.0/9.0~12.0V from adapter
Maximum Output Power:	WCDMA Band II: 22.89 dBm WCDMA Band IV: 22.74 dBm WCDMA Band V: 22.86 dBm LTE Band 2: 22.51 dBm LTE Band 4: 22.45 dBm LTE Band 7:22.37 dBm LTE Band 12: 22.52 dBm LTE Band 13: 22.39 dBm LTE Band 14: 22.42 dBm LTE Band 17: 22.23 dBm LTE Band 25: 22.28 dBm LTE Band 26: 22.43 dBm LTE Band 41: 22.34 dBm LTE Band 66: 22.58 dBm LTE Band 71: 22.41 dBm
RF Function:	WCDMA, LTE
Operating Band/Frequency:	WCDMA Band II: 1850-1910 MHz MHz(TX), 1930-1990 MHz(RX) WCDMA Band IV: 1710-1755 MHz(TX), 2110-2155MHz(RX) WCDMA Band V: 824-849 MHz(TX), 869-894 MHz(RX) LTE Band 2: 1850-1910 MHz(TX), 1930-1990MHz(RX) LTE Band 4: 1710-1755 MHz(TX), 2110-2155MHz(RX) LTE Band 7: 2500-2570 MHz(TX), 2620-2690 MHz(RX) LTE Band 12: 699-716 MHz(TX), 729-746 MHz(RX) LTE Band 13: 777-787MHz(TX), 746-756MHz(RX) LTE Band 14: 788-798MHz(TX), 758-768MHz(RX) LTE Band 17: 704-716 MHz(TX), 734-746 MHz(RX) LTE Band 25: 1850-1915 MHz(TX), 1930-1995 MHz(RX) LTE Band 26: 814-849 MHz(TX), 859-894 MHz(RX) LTE Band 41: 2555-2655 MHz(TX), 2555-2655 MHz(RX) LTE Band 66: 1710-1780 MHz(TX), 2110-2200 MHz(RX) LTE Band 71: 663-698MHz(TX), 617-652MHz(RX)
Modulation Type:	WCDMA: BPSK,QPSK,16QAM LTE: QPSK,16QAM

Antenna Type:	FPC Antenna
*Maximum Antenna Gain:	Chain 0： WCDMA Band II: -4.01dBi WCDMA Band IV: -2.1dBi LTE Band 2: -4.01dBi LTE Band 4: -2.1dBi LTE Band 7: -2.2dBi LTE Band 12: -2.9dBi LTE Band 17: -2.9dBi LTE Band 25: -2.1dBi LTE Band 66: -2.1dBi Chain 1： WCDMA Band V: -2.6dBi LTE Band 13: -2.9dBi LTE Band 14: -2.9dBi LTE Band 26: -2.6dBi LTE Band 41: -2.2dBi LTE Band 71: -3.5dBi

Adapter-1 Information:
Model: CK18W02U
Input: AC 100-240V~50/60Hz 0.5A
Output: DC 5.0V/3A, 9V/2A, 12V/1.5A

Adapter-2 Information:
Model: TPA-10120150UU
Input: AC 100-240V 50/60Hz 0.6A
Output: DC 3.6-6V/3A, 6-9V/2A, 9-12V/1.5A

Adapter-3 Information:
Model: TPA-23A050200UU01
Input: AC100-240V 50/60Hz 0.3A
Output:5.0V, 2.0A

Adapter-4 Information:
Model: UC13US
Input: AC100-240V 50/60Hz 0.35A
Output:5.0V, 2.0A

Note: The Maximum Antenna Gain was declared by the manufacturer.

**All measurement and test data in this report was gathered from production sample serial number: RKSA200706001-1 (Assigned by the BACL. The EUT supplied by the applicant was received on 2020-07-06)*

Objective

This type approval report is prepared on behalf of *Shanghai Sunmi Technology Co.,Ltd.* in accordance with Part 2, Part 22-Subpart H and Part 24-Subpart E , Part 27 and Part 90 of the Federal Communication Commission's rules.

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

Related Submittal(s)/Grant(s)

FCC Part 15.247 DTS submissions with FCC ID: 2AH25TF701
FCC Part 15.247 DSS submissions with FCC ID: 2AH25TF701
FCC Part 15.407 NII submissions with FCC ID: 2AH25TF701
FCC Part 15.225 DXX submissions with FCC ID: 2AH25TF701
FCC Part 15B JBP submissions with FCC ID: 2AH25TF701

Test Methodology

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

Part 22 Subpart H - Public Mobile Services
Part 24 Subpart E - Personal Communication Services
Part 27 – Miscellaneous wireless communications services
Part 90 – Private Land Mobile Radio Service

Applicable Standards: ANSI C63.26-2015.

All radiated and conducted emissions measurements were performed at Bay Area Compliance Laboratories Corp. (Kunshan). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Measurement Uncertainty

Item		Uncertainty
AC Power Lines Conducted Emissions		3.19dB
RF conducted test with spectrum		0.9dB
RF Output Power with Power meter		0.5dB
Radiated emission	30MHz~1GHz	5.91dB
	1GHz~6GHz	4.68dB
	6GHz~18GHz	4.92dB
	18GHz~40GHz	5.21dB
Occupied Bandwidth		0.5kHz
Temperature		1.0℃
Humidity		6%

Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road, Kunshan, Jiangsu province, China.

Bay Area Compliance Laboratories Corp. (Kunshan) Lab is accredited to ISO/IEC 17025 by A2LA (Lab code: 4323.01) and the FCC designation No. CN1185 under the FCC KDB 974614 D01 and CAB identifier CN0004 under the ISED requirement. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2014.

SYSTEM TEST CONFIGURATION

Justification

The EUT was configured for testing according to ANSI C63.26-2015.

The final qualification test was performed with the EUT operating at normal mode.

Channel List

Mode		Channel		Frequency (MHz)
WCDMA Band II		Low	9262	1852.4
		Middle	9400	1880.0
		High	9538	1907.6
WCDMA Band IV		Low	1312	1712.4
		Middle	1413	1732.6
		High	1513	1752.6
WCDMA Band V		Low	4132	826.4
		Middle	4183	836.6
		High	4233	846.6
LTE Band 2	1.4M	Low	18607	1850.7
		Middle	18900	1880.0
		High	19193	1909.3
	3M	Low	18615	1851.5
		Middle	18900	1880.0
		High	19185	1908.5
	5M	Low	18625	1852.5
		Middle	18900	1880.0
		High	19175	1907.5
	10M	Low	18650	1855.0
		Middle	18900	1880.0
		High	19150	1905.0
	15M	Low	18675	1857.5
		Middle	18900	1880.0
		High	19125	1902.5
	20M	Low	18700	1860.0
		Middle	18900	1880.0
		High	19100	1900.0

Mode		Channel		Frequency (MHz)
LTE Band 4	1.4M	Low	19957	1710.7
		Middle	20175	1732.5
		High	20393	1754.3
	3M	Low	19965	1711.5
		Middle	20175	1732.5
		High	20385	1753.5
	5M	Low	19975	1712.5
		Middle	20175	1732.5
		High	20375	1752.5
	10M	Low	20000	1715.0
		Middle	20175	1732.5
		High	20350	1750.0
	15M	Low	20025	1717.5
		Middle	20175	1732.5
		High	20325	1747.5
	20M	Low	20050	1720.0
		Middle	20175	1732.5
		High	20300	1745.0
LTE Band 7	5M	Low	20775	2502.5
		Middle	21100	2535.0
		High	21425	2567.5
	10M	Low	20800	2505.0
		Middle	21100	2535.0
		High	21400	2565.0
	15M	Low	20825	2507.5
		Middle	21100	2535.0
		High	21375	2562.5
	20M	Low	20850	2510.0
		Middle	21100	2535.0
		High	21350	2560.0

Mode		Channel		Frequency (MHz)
LTE Band 12	1.4M	Low	23017	699.7
		Middle	23095	707.5
		High	23173	715.3
	3M	Low	23025	700.5
		Middle	23095	707.5
		High	23165	714.5
	5M	Low	23035	701.5
		Middle	23095	707.5
		High	23155	713.5
	10M	Low	23060	704.0
		Middle	23095	707.5
		High	23130	711.0
LTE Band 13	5M	Low	23205	779.5
		Middle	23230	782.0
		High	23255	784.5
	10M	Low	/	/
		Middle	23230	782.0
		High	/	/
LTE Band 14	5M	Low	23305	790.5
		Middle	23330	793.0
		High	23355	795.5
	10M	Low	/	/
		Middle	23330	793.0
		High	/	/
LTE Band 17	5M	Low	23755	706.5
		Middle	23790	710.0
		High	23825	713.5
	10M	Low	23780	709.0
		Middle	23790	710.0
		High	23800	711.0

Mode		Channel		Frequency (MHz)
LTE Band 25	1.4M	Low	26047	1850.7
		Middle	26365	1882.5
		High	26683	1914.3
	3M	Low	26055	1851.5
		Middle	26683	1882.5
		High	26675	1913.5
	5M	Low	26065	1852.5
		Middle	26683	1882.5
		High	26665	1912.5
	10M	Low	26090	1855.0
		Middle	26683	1882.5
		High	26640	1910.0
	15M	Low	26115	1857.5
		Middle	26683	1882.5
		High	26615	1907.5
	20M	Low	26140	1860.0
		Middle	26683	1882.5
		High	26590	1905.0
LTE Band 26	1.4M	Low	26697	814.7
		Middle	26915	831.5
		High	27033	848.3
	3M	Low	26705	815.5
		Middle	26915	831.5
		High	27025	847.5
	5M	Low	26715	816.5
		Middle	26915	831.5
		High	27015	846.5
	10M	Low	26740	819.0
		Middle	26915	831.5
		High	26990	844.0
	15M	Low	26765	821.5
		Middle	26915	831.5
		High	26965	841.5

Mode		Channel		Frequency (MHz)
LTE Band 41	5M	Low	40265	2557.5
		Middle	40740	2593.0
		High	41215	2652.5
	10M	Low	40290	2560.0
		Middle	40740	2593.0
		High	41190	2650.0
	15M	Low	40315	2562.5
		Middle	40740	2593.0
		High	41165	2647.5
	20M	Low	40340	2565.0
		Middle	40740	2593.0
		High	41140	2645.0
LTE Band 66	1.4M	Low	131979	1710.7
		Middle	132322	1745.0
		High	132665	1779.3
	3M	Low	131987	1711.5
		Middle	132322	1745.0
		High	132657	1778.5
	5M	Low	131997	1712.5
		Middle	132333	1745.0
		High	132647	1777.5
	10M	Low	132022	1715.0
		Middle	132322	1745.0
		High	132622	1775.0
	15M	Low	132047	1717.5
		Middle	132300	1745.0
		High	132579	1772.5
	20M	Low	132072	1720.0
		Middle	132322	1745.0
		High	132572	1770.0
LTE Band 71	5M	Low	133147	665.5
		Middle	133297	680.5
		High	133447	695.5
	10M	Low	133172	668.0
		Middle	133279	680.5
		High	133422	693.0
	15M	Low	133197	670.5
		Middle	133297	680.5
		High	133397	690.5
	20M	Low	133222	673.0
		Middle	133297	680.5
		High	133372	688.0

Equipment Modifications

No modifications were made to the EUT.

Support Equipment List and Details

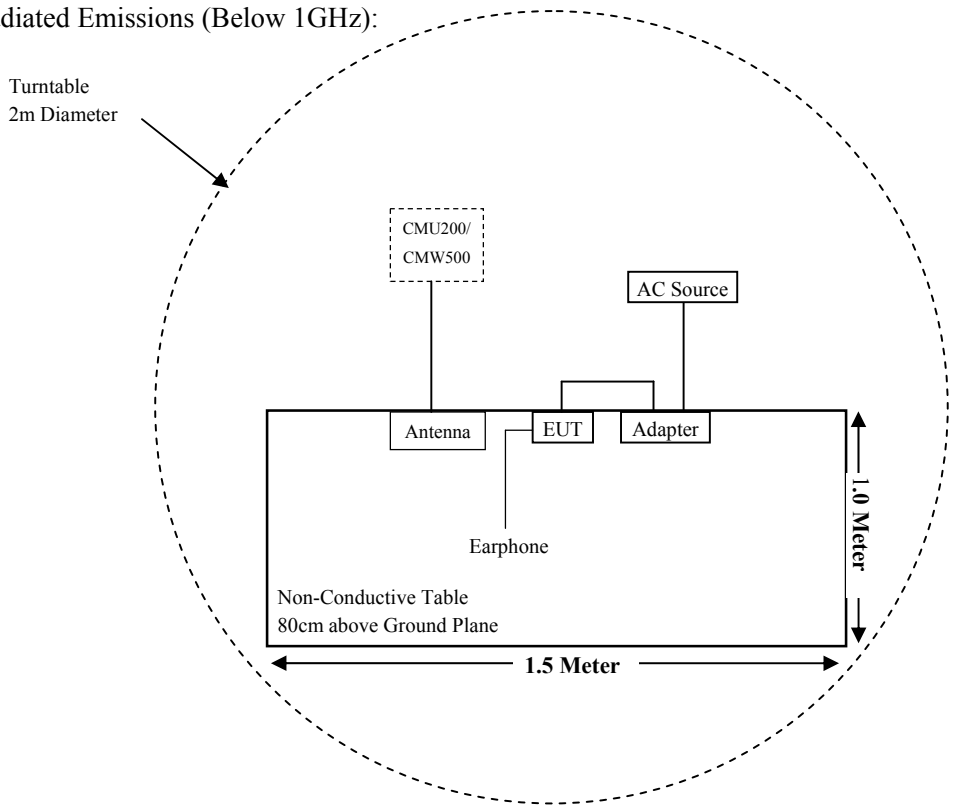
Manufacturer	Description	Model	Serial Number
Aihuaxin technology	Antenna	/	/
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	110605
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	104478
BOLD	Earphone	/	/

External I/O Cable

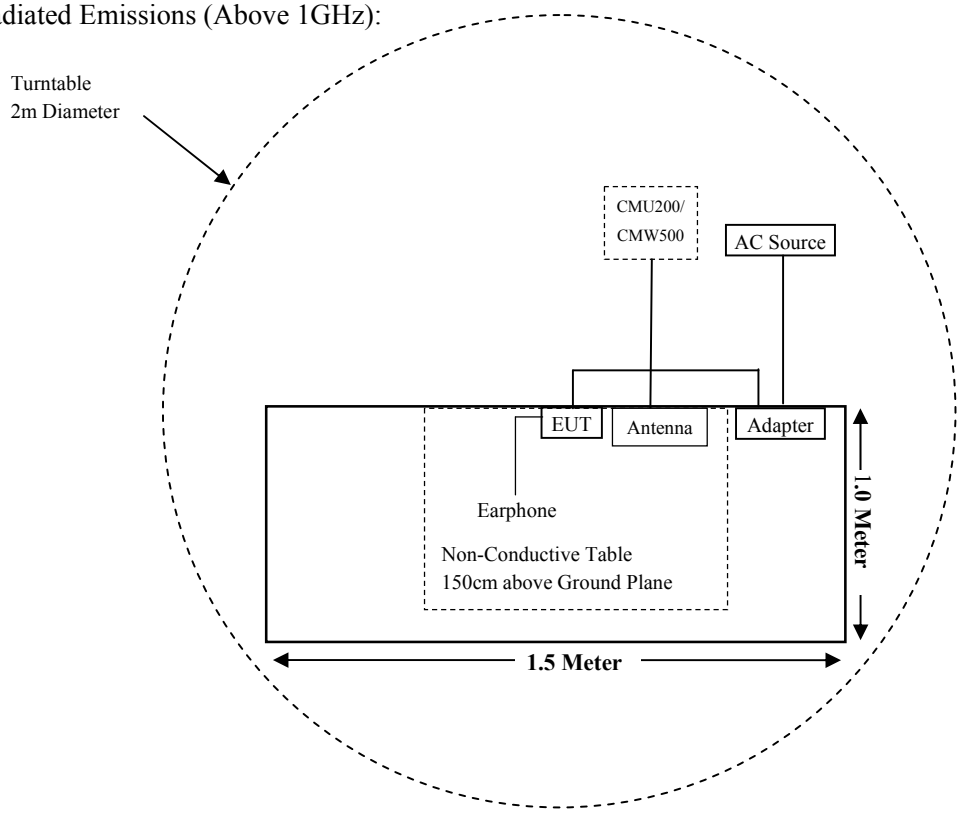
Cable Description	Length (m)	From Port	To
Power Cable	1.0	EUT	Adapter
Power Cable	1.0	Adapter	LISN/AC source

Block Diagram of Test Setup

For Radiated Emissions (Below 1GHz):



For Radiated Emissions (Above 1GHz):



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1307(b)(1) & §2.1093	RF Exposure Information	Compliant
§2.1046; § 22.913 (a); §24.232 (c); §27.50 (b) (c) (d) (h) (2); §90.635 (b); § 90.542	RF Output Power	Compliant
§2.1047	Modulation Characteristics	Not Applicable
§2.1049; §22.905; §22.917; §24.238; §27.53; §90.209	Occupied Bandwidth	Compliant
§2.1051; §22.917 (a); §24.238 (a); §27.53(c) (f) (g) (h) (m); §90.691; § 90.543	Spurious Emissions at Antenna Terminal	Compliant
§ 2.1053; §22.917 (a); §24.238 (a); §27.53(c) (f) (g) (h) (m); §90.691; § 90.543	Spurious Radiated Emissions	Compliant
§22.917 (a); §24.238 (a); §27.53(c) (f) (g) (h) (m); §90.691; § 90.543	Band Edge	Compliant
§2.1055; §22.355; §24.235;§27.54; §90.213	Frequency stability	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test（Chamber 1#）					
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2019-11-27	2020-11-26
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2020-11-27	2021-11-26
HP	Signal Generator	N5183A	MY51040755	2019-11-27	2020-11-26
HP	Signal Generator	N5183A	MY51040755	2020-11-27	2021-11-26
Sunol Sciences	Hybrid Antenna	JB3	A090314-2	2020-01-07	2023-01-06
Sunol Sciences	Bilog antenna	JB3	A060217	2017-11-28	2020-11-27
Sunol Sciences	Bilog antenna	JB3	A060217	2020-11-28	2023-11-27
Sonoma Instrunent	Pre-amplifier	310N	171205	2020-08-14	2021-08-13
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-8	008	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-9	009	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-10	010	2020-08-15	2021-08-14
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	110605	2020-04-01	2021-03-31
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	110605	2021-04-01	2022-03-31
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	104478	2020-07-28	2021-07-27
Radiated Emission Test（Chamber 2#）					
HP	Signal Generator	N5183A	MY51040755	2019-11-27	2020-11-26
HP	Signal Generator	N5183A	MY51040755	2020-11-27	2021-11-26
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2020-04-01	2021-03-31
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2021-04-01	2022-03-31
ETS-LINDGREN	Horn Antenna	3115	9311-4159	2020-07-15	2023-07-14
ETS-LINDGREN	Horn Antenna	3115	6229	2020-01-07	2023-01-06
ETS-LINDGREN	Horn Antenna	3116	84159	2019-12-12	2022-12-11
ETS-LINDGREN	Horn Antenna	3116	2516	2020-01-07	2023-01-06
A.H.Systems,inc	Amplifier	PAM-0118P	512	2020-08-14	2021-08-13
EM Electronics Corporation	Amplifier	EM18G40G	060726	2020-03-22	2021-03-21
EM Electronics Corporation	Amplifier	EM18G40G	060726	2021-03-22	2022-03-21
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-4	004	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-5	005	2020-08-15	2021-08-14
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	110605	2020-04-01	2021-03-31
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	110605	2021-04-01	2022-03-31
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	104478	2020-07-28	2021-07-27

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde & Schwarz	EMI Test Receiver	ESIB26	100146	2019-11-27	2020-11-26
Rohde & Schwarz	EMI Test Receiver	ESIB26	100146	2020-11-27	2021-11-26
Rohde & Schwarz	Signal Analyzer	FSIQ26	100048/027	2019-11-27	2020-11-26
Rohde & Schwarz	Signal Analyzer	FSIQ26	100048/027	2020-11-27	2021-11-26
Narda	Attenuator	6dB	006	2020-08-15	2021-08-14
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	110605	2020-04-01	2021-03-31
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	110605	2021-04-01	2022-03-31
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	104478	2020-07-28	2021-07-27
Mini-Ciruits	Power splitter	ZFRSC-14-S+	SF019411452	2019-11-10	2020-11-09
Mini-Ciruits	Power splitter	ZFRSC-14-S+	SF019411452	2020-11-10	2021-11-09
BACL	Temperature & Humidity Chamber	BTH-150	30023	2020-11-25	2021-11-24
EAST	Regulated DC Power Supply	MCH-303D-II	14070562	2019-10-10	2020-10-09
EAST	Regulated DC Power Supply	MCH-303D-II	14070562	2020-10-10	2021-10-09
Sunmi	RF Cable	Sunmi C01	C01	Each Time	N/A

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

FCC §1.1307(b) & §2.1093 - RF EXPOSURE INFORMATION

Applicable Standard

FCC§1.1307, §2.1093.

Test Result

Compliance, please refer to the SAR report: RKSA200706001-20A

FCC §2.1047 - MODULATION CHARACTERISTIC

According to FCC § 2.1047(d), Part 22H & 24E, Part 27, Part 90 there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

FCC § 2.1046; § 22.913 (a); §24.232 (c); §27.50 (b) (c) (d) (h) (2); §90.635 (b); § 90.542 - RF OUTPUT POWER

Applicable Standards

According to FCC §2.1046 and §22.913 (a), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts (38.45dBm).

According to FCC §2.1046 and §24.232 (c), mobile and portable stations are limited to 2 watts (33dBm) EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

According to §27.50(b), Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

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

According to §27.50(d), the maximum EIRP must not exceed 1Watts (30dBm) for 1710-1780MHz.

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

According to FCC §2.1046 and §90.635 (b), The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw)

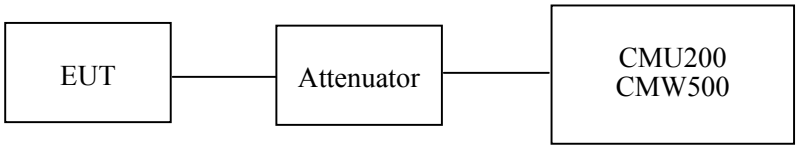
According to §90.542 ,Portable stations (hand-held devices) transmitting in the 758-768 MHz band and the 788-798 MHz band are limited to 3 watts ERP.

The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB.

Test Procedure

Conducted method:

The RF output of the transmitter was connected to the CMW500/CMU200 through sufficient attenuation.



Radiated Output Power:

The measurements procedures specified in TIA-603-E were applied.

a) Connect the equipment as illustrated. Mount the equipment with the manufacturer specified antenna in a vertical orientation on a manufacturer specified mounting surface located on a non-conducting rotating platform of a RF anechoic chamber (preferred) or a standard radiation site.

b) Key the transmitter, then rotate the EUT 360o azimuthally and record spectrum analyzer power level (LVL) measurements at angular increments that are sufficiently small to permit resolution of all peaks. If a standard radiation test site is used, raise and lower the test antenna to obtain a maximum reading at each angular increment. (Note: several batteries may be needed to offset the effect of battery voltage droop, which should not exceed 5% of the manufactured specified battery voltage during transmission).

c) Replace the transmitter under test with a vertically polarized half-wave dipole (or an antenna whose gain is known relative to an ideal half-wave dipole). The center of the antenna should be at the same location as the center of the antenna under test.

d) Connect the antenna to a signal generator with a known output power and record the path loss (in dB) as LOSS. If a standard radiation test site is used,raise and lower the test antenna to obtain a maximum reading.
LOSS = Generator Output Power (dBm) – Analyzer reading (dBm)

e) Determine the effective radiated output power at each angular position from the readings in steps b) and d) using the following equation:

ERP (dBm) = LVL (dBm) + LOSS (dB)

f) The maximum ERP is the maximum value determined in the preceding step.
(Note: Effective Isotropic Radiated Power (EIRP) can be computed using the following:
EIRP (dBm) = ERP (dBm) + 2.15 (dB)

Test Data

Environmental Conditions

Temperature:	22.5-23.9 ℃
Relative Humidity:	48-53 %
ATM Pressure:	101.4-101.9 kPa

The testing was performed by Stone Zhang from 2020 11-24 to 2020-11-28.

Conducted Power:

WCDMA Band V

Mode	Test Condition	Test Mode	3GPP Sub Test	Average Output Power (dBm)		
				Low Frequency	Middle Frequency	High Frequency
WCDMA (Band V)	Normal	Rel 99	1	22.68	22.86	22.54
		HSDPA	1	21.99	22.07	22.20
			2	22.08	22.03	22.12
			3	21.99	22.04	22.15
			4	22.09	22.11	22.06
		HSUPA	1	22.14	22.13	22.14
			2	21.91	22.17	22.16
			3	21.96	21.95	22.27
			4	21.98	21.92	22.07
			5	21.93	22.10	22.18
		HSPA+	1	21.95	21.97	22.21

WCDMA Band II

Mode	Test Condition	Test Mode	3GPP Sub Test	Average Output Power (dBm)		
				Low Frequency	Middle Frequency	High Frequency
WCDMA (Band II)	Normal	Rel 99	1	22.42	22.89	22.59
		HSDPA	1	22.31	22.07	22.07
			2	22.33	22.06	22.14
			3	22.15	22.04	22.17
			4	22.14	22.02	22.19
		HSUPA	1	22.20	22.04	22.11
			2	22.27	22.12	22.10
			3	22.19	21.98	22.26
			4	22.28	22.00	22.20
			5	22.28	22.16	22.13
		HSPA+	1	22.12	22.09	22.17

WCDMA Band IV

Mode	Test Condition	Test Mode	3GPP Sub Test	Average Output Power (dBm)		
				Low Frequency	Middle Frequency	High Frequency
WCDMA (Band IV)	Normal	Rel 99	1	22.32	22.74	22.65
		HSDPA	1	22.30	22.12	22.20
			2	22.27	22.14	22.08
			3	22.24	22.09	22.18
			4	22.18	22.16	22.14
		HSUPA	1	22.23	22.15	22.24
			2	22.21	21.97	22.25
			3	22.21	22.06	22.14
			4	22.36	22.00	22.16
			5	22.16	21.96	22.11
		HSPA+	1	22.19	22.06	22.17

Maximum Output Power:

LTE Band 2

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	21.68	21.98	21.85
		1#3	21.63	21.99	21.94
		1#5	21.67	21.89	22.07
		3#0	21.62	21.85	22.14
		3#1	21.71	21.77	22.11
		3#3	21.69	21.76	22.15
		6#0	21.71	21.73	22.17
	16-QAM	1#0	21.65	21.77	22.06
		1#3	21.71	21.71	22.13
		1#5	21.67	21.73	22.07
		3#0	21.72	21.72	22.18
		3#1	21.76	21.72	22.26
		3#3	21.68	21.6	22.21
		6#0	21.65	21.49	22.12
3M	QPSK	1#0	21.61	21.60	22.08
		1#7	21.54	21.61	22.08
		1#14	21.47	21.68	22.14
		8#0	21.44	21.65	22.13
		8#4	21.33	21.63	22.23
		8#7	21.21	21.5	22.22
		15#0	21.23	21.48	22.22
	16-QAM	1#0	21.23	21.54	22.31
		1#7	21.22	21.5	22.31
		1#14	21.22	21.53	22.38
		8#0	21.23	21.53	22.38
		8#4	21.27	21.63	22.32
		8#7	21.23	21.61	22.37
		15#0	21.28	21.67	22.32

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.27	21.66	22.34
		1#12	21.27	21.70	22.46
		1#24	21.33	21.78	22.44
		12#0	21.31	21.89	22.45
		12#6	21.33	21.92	22.46
		12#11	21.38	21.90	22.39
		25#0	21.38	21.85	22.45
	16-QAM	1#0	21.42	21.85	22.45
		1#12	21.50	21.81	21.32
		1#24	21.51	21.79	22.46
		12#0	21.50	21.85	22.37
		12#6	21.39	21.83	22.38
		12#11	21.34	21.82	22.43
		25#0	21.34	21.75	22.38
10M	QPSK	1#0	21.39	21.82	22.44
		1#24	21.41	21.80	22.36
		1#49	21.32	21.78	22.34
		25#0	21.26	21.80	22.38
		25#12	21.25	21.79	22.24
		25#24	21.25	21.87	22.29
		50#0	21.25	21.94	22.35
	16-QAM	1#0	21.18	21.95	22.28
		1#24	21.13	21.96	22.21
		1#49	21.13	22.01	22.16
		25#0	21.05	22.00	22.16
		25#12	21.02	21.98	22.06
		25#24	21.05	22.03	22.00
		50#0	20.99	22.02	21.95

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	20.95	22.03	21.98
		1#37	20.97	21.92	22.00
		1#74	21.04	21.84	22.01
		36#0	20.93	21.83	21.98
		36#17	20.85	21.89	21.88
		36#35	20.80	21.88	21.83
		75#0	20.82	21.90	21.79
	16-QAM	1#0	20.79	21.86	21.76
		1#37	20.91	21.77	21.64
		1#74	20.99	21.84	21.63
		36#0	21.03	21.73	21.69
		36#17	21.06	21.83	21.75
		36#35	20.99	21.84	21.80
		75#0	20.98	21.93	21.84
20M	QPSK	1#0	22.39	22.51	22.46
		1#49	21.19	22.03	21.91
		1#99	21.09	22.06	22.00
		50#0	22.21	22.32	22.16
		50#24	21.07	22.07	22.03
		50#49	21.03	22.07	22.03
		100#0	20.99	22.18	22.01
	16-QAM	1#0	20.98	22.24	22.00
		1#49	20.91	22.31	21.95
		1#99	21.00	22.20	21.92
		50#0	21.00	22.12	21.87
		50#24	20.92	22.16	21.96
		50#49	20.99	22.18	21.98
		100#0	20.96	22.21	21.99

LTE Band 4

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	21.68	21.98	21.85
		1#3	21.79	21.99	21.79
		1#5	21.77	21.99	21.72
		3#0	21.73	21.99	21.75
		3#1	21.69	22.01	21.69
		3#3	21.74	22.04	21.64
		6#0	21.73	22.04	21.60
	16-QAM	1#0	21.61	22.10	21.50
		1#3	21.50	22.12	21.43
		1#5	21.57	22.09	21.55
		3#0	21.58	22.14	21.45
		3#1	21.56	22.04	21.36
		3#3	21.47	22.07	21.24
		6#0	21.41	22.09	21.36
3M	QPSK	1#0	21.43	22.15	21.42
		1#7	21.43	22.26	21.39
		1#14	21.52	22.28	21.38
		8#0	21.44	22.32	21.37
		8#4	21.41	22.25	21.31
		8#7	21.30	22.25	21.23
		15#0	21.31	22.31	21.31
	16-QAM	1#0	21.31	22.19	21.29
		1#7	21.33	22.16	21.35
		1#14	21.35	22.16	21.29
		8#0	21.34	22.22	21.34
		8#4	21.28	22.23	21.31
		8#7	21.29	22.22	21.40
		15#0	21.31	22.23	21.40

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.41	22.19	21.44
		1#12	21.34	22.08	21.52
		1#24	21.47	22.00	21.47
		12#0	21.45	21.96	21.52
		12#6	21.40	21.97	21.57
		12#11	21.49	22.07	21.61
		25#0	21.61	22.07	21.57
	16-QAM	1#0	21.61	21.98	21.50
		1#12	21.59	21.99	21.53
		1#24	21.50	22.02	21.50
		12#0	21.60	21.93	21.42
		12#6	21.62	22.03	21.49
		12#11	21.59	22.16	21.41
		25#0	21.58	22.15	21.50
10M	QPSK	1#0	21.65	22.10	21.44
		1#24	21.58	22.08	21.39
		1#49	21.50	22.18	21.31
		25#0	21.55	22.11	21.40
		25#12	21.59	22.15	21.40
		25#24	21.60	22.05	21.32
		50#0	21.73	22.11	21.34
	16-QAM	1#0	21.82	22.13	21.27
		1#24	21.82	22.09	21.21
		1#49	21.86	22.12	21.18
		25#0	21.88	22.07	21.23
		25#12	21.95	22.11	21.23
		25#24	21.91	22.08	21.25
		50#0	21.97	22.17	21.37

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	21.94	22.23	21.44
		1#37	21.92	22.33	21.47
		1#74	21.90	22.31	21.49
		36#0	21.93	22.35	21.39
		36#17	21.93	22.42	21.39
		36#35	21.93	22.36	21.28
		75#0	21.91	22.30	21.24
	16-QAM	1#0	21.93	22.26	21.35
		1#37	22.00	22.35	21.34
		1#74	22.10	22.44	21.33
		36#0	22.09	22.44	21.37
		36#17	22.13	22.41	21.34
		36#35	22.14	22.43	21.43
		75#0	22.15	22.34	21.37
20M	QPSK	1#0	22.26	22.45	22.36
		1#49	22.15	22.29	21.36
		1#99	22.17	22.25	21.39
		50#0	22.11	22.28	21.37
		50#24	22.07	22.30	21.40
		50#49	22.04	22.31	21.34
		100#0	22.00	22.22	21.45
	16-QAM	1#0	22.06	22.20	21.56
		1#49	22.09	22.19	21.57
		1#99	22.11	22.20	21.65
		50#0	22.01	22.34	21.70
		50#24	22.12	22.30	21.68
		50#49	22.01	22.32	21.63
		100#0	22.01	22.37	21.63

LTE Band 7

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.77	21.96	21.13
		1#12	21.70	21.56	21.63
		1#24	21.67	21.33	21.58
		12#0	21.71	21.74	21.88
		12#6	22.23	21.61	21.08
		12#11	21.33	21.96	21.75
		25#0	22.11	21.27	21.61
	16-QAM	1#0	21.91	22.06	22.02
		1#12	22.05	21.64	21.59
		1#24	21.99	21.94	21.90
		12#0	21.74	21.28	21.15
		12#6	21.66	21.79	21.91
		12#11	21.45	21.38	21.71
		25#0	21.47	21.78	21.40
10M	QPSK	1#0	21.45	21.23	22.15
		1#24	21.49	21.90	22.08
		1#49	21.71	21.86	22.27
		25#0	21.53	21.56	22.08
		25#12	21.56	21.42	21.63
		25#24	21.90	21.63	21.68
		50#0	21.21	21.90	22.13
	16-QAM	1#0	21.66	21.34	21.65
		1#24	21.46	21.21	21.71
		1#49	21.54	21.67	22.02
		25#0	21.06	21.78	22.23
		25#12	21.11	21.35	22.24
		25#24	21.70	22.04	21.76
		50#0	21.23	21.86	21.36

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	21.52	21.09	21.51
		1#37	21.54	21.55	21.32
		1#74	21.66	21.60	21.23
		36#0	21.43	21.74	22.02
		36#17	21.68	21.58	21.31
		36#35	21.27	21.81	21.15
		75#0	21.28	21.75	21.61
	16-QAM	1#0	20.91	21.82	21.34
		1#37	21.69	21.26	22.08
		1#74	21.55	22.05	21.57
		36#0	21.40	21.43	21.43
		36#17	21.73	21.26	21.22
		36#35	21.66	21.90	21.81
		75#0	21.17	21.98	21.64
20M	QPSK	1#0	22.26	22.37	21.26
		1#49	21.50	21.67	21.60
		1#99	21.37	21.56	21.76
		50#0	20.97	22.26	21.12
		50#24	21.58	21.78	20.87
		50#49	21.61	21.69	21.62
		100#0	21.79	21.05	21.49
	16-QAM	1#0	21.34	21.55	21.14
		1#49	21.09	21.15	21.43
		1#99	20.87	21.22	21.07
		50#0	21.18	21.74	20.93
		50#24	21.64	21.29	21.59
		50#49	21.32	21.70	21.21
		100#0	21.01	20.94	21.33

LTE Band 12

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	21.68	21.98	21.85
		1#3	21.76	22.03	21.82
		1#5	21.64	21.90	21.87
		3#0	21.69	21.90	21.84
		3#1	21.65	22.01	21.74
		3#3	21.57	22.01	21.77
		6#0	21.55	22.04	21.64
	16-QAM	1#0	21.63	22.08	21.75
		1#3	21.66	22.03	21.74
		1#5	21.70	22.16	21.71
		3#0	21.65	22.04	21.62
		3#1	21.71	22.06	21.60
		3#3	21.76	22.07	21.52
		6#0	21.67	22.04	21.52
3M	QPSK	1#0	21.68	22.09	21.51
		1#7	21.68	22.09	21.52
		1#14	21.72	22.13	21.66
		8#0	21.70	22.18	21.58
		8#4	21.83	22.16	21.65
		8#7	21.82	22.14	21.70
		15#0	21.79	22.10	21.83
	16-QAM	1#0	21.75	22.11	21.72
		1#7	21.71	22.13	21.79
		1#14	21.72	22.18	21.81
		8#0	21.71	22.13	21.68
		8#4	21.72	22.26	21.66
		8#7	21.63	22.34	21.58
		15#0	21.59	22.44	21.62

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.56	22.49	21.73
		1#12	21.58	22.47	21.85
		1#24	21.49	22.51	21.77
		12#0	21.47	22.42	21.74
		12#6	21.40	22.28	21.84
		12#11	21.41	22.27	21.86
		25#0	21.41	22.25	21.95
	16-QAM	1#0	21.54	22.12	22.00
		1#12	21.54	22.09	22.05
		1#24	21.49	22.08	22.13
		12#0	21.46	22.05	22.15
		12#6	21.52	22.13	22.12
		12#11	21.56	22.09	22.20
		25#0	21.66	22.12	22.14
10M	QPSK	1#0	22.46	22.52	22.30
		1#24	21.68	22.12	22.15
		1#49	21.75	22.15	22.14
		25#0	21.75	22.17	22.12
		25#12	21.78	22.08	22.13
		25#24	21.81	21.95	22.20
		50#0	21.88	21.91	22.16
	16-QAM	1#0	21.82	21.87	22.20
		1#24	21.81	21.93	22.23
		1#49	21.86	21.86	22.22
		25#0	21.94	21.89	22.32
		25#12	21.96	21.96	22.30
		25#24	22.05	22.03	22.37
		50#0	22.08	22.04	22.42

LTE Band 13

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.33	21.90	21.40
		1#12	22.26	21.56	21.18
		1#24	21.64	21.34	21.04
		12#0	21.99	21.91	21.15
		12#6	21.56	21.72	21.49
		12#11	21.57	21.30	21.31
		25#0	21.97	21.56	21.98
	16-QAM	1#0	21.28	21.84	21.29
		1#12	21.86	21.91	21.57
		1#24	21.46	21.23	21.61
		12#0	22.05	21.90	21.69
		12#6	21.81	21.40	21.56
		12#11	21.98	21.92	21.14
		25#0	21.86	21.73	21.82
10M	QPSK	1#0	/	22.39	/
		1#24	/	21.94	/
		1#49	/	21.82	/
		25#0	/	22.16	/
		25#12	/	21.83	/
		25#24	/	21.22	/
		50#0	/	21.45	/
	16-QAM	1#0	/	21.41	/
		1#24	/	21.72	/
		1#49	/	21.59	/
		25#0	/	21.61	/
		25#12	/	22.07	/
		25#24	/	21.34	/
		50#0	/	21.49	/

LTE Band 14

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.53	21.22	21.65
		1#12	22.15	22.03	21.77
		1#24	21.62	21.32	21.72
		12#0	21.29	21.97	21.24
		12#6	22.24	21.45	21.23
		12#11	22.18	21.69	21.77
		25#0	21.49	21.95	21.57
	16-QAM	1#0	21.81	21.82	21.33
		1#12	21.52	21.78	21.63
		1#24	21.81	21.85	21.79
		12#0	21.81	21.47	21.20
		12#6	21.74	21.65	21.08
		12#11	21.38	21.79	21.77
		25#0	22.13	21.18	21.50
10M	QPSK	1#0	/	22.42	/
		1#24	/	21.20	/
		1#49	/	21.70	/
		25#0	/	22.29	/
		25#12	/	21.49	/
		25#24	/	21.73	/
		50#0	/	21.15	/
	16-QAM	1#0	/	21.27	/
		1#24	/	21.25	/
		1#49	/	21.41	/
		25#0	/	21.39	/
		25#12	/	21.93	/
		25#24	/	21.86	/
		50#0	/	21.83	/

LTE Band 17

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.69	21.19	21.90
		1#12	21.74	21.22	21.14
		1#24	21.77	21.42	21.21
		12#0	21.28	21.98	21.64
		12#6	22.23	22.07	21.17
		12#11	21.33	21.71	21.19
		25#0	22.03	21.89	21.44
	16-QAM	1#0	21.37	22.03	21.36
		1#12	21.74	21.49	21.83
		1#24	22.13	21.71	21.66
		12#0	22.07	21.71	21.75
		12#6	21.95	21.55	21.97
		12#11	22.09	21.50	21.16
		25#0	21.67	21.33	21.29
10M	QPSK	1#0	21.41	21.17	22.08
		1#24	21.41	21.76	22.11
		1#49	21.36	22.11	22.16
		25#0	21.34	21.28	22.05
		25#12	21.45	21.27	22.05
		25#24	21.51	21.96	22.08
		50#0	21.52	21.91	22.06
	16-QAM	1#0	21.61	21.20	22.08
		1#24	21.59	21.93	22.02
		1#49	21.50	21.24	21.90
		25#0	21.51	21.19	21.87
		25#12	21.39	21.64	21.85
		25#24	21.29	21.47	21.82
		50#0	21.19	22.12	21.76

LTE Band 25

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	21.68	21.98	21.85
		1#3	21.68	22.01	21.88
		1#5	21.72	21.93	21.75
		3#0	21.66	21.94	21.74
		3#1	21.69	21.92	21.79
		3#3	21.68	21.79	21.72
		6#0	21.61	21.88	21.69
	16-QAM	1#0	21.61	21.85	21.76
		1#3	21.52	21.90	21.86
		1#5	21.57	21.84	21.93
		3#0	21.47	21.80	21.86
		3#1	21.50	21.88	21.91
		3#3	21.47	21.93	21.97
		6#0	21.46	21.91	21.88
3M	QPSK	1#0	21.35	21.96	21.97
		1#7	21.33	21.95	22.02
		1#14	21.21	21.84	21.96
		8#0	21.29	21.90	21.95
		8#4	21.27	21.78	22.07
		8#7	21.21	21.78	22.07
		15#0	21.27	21.78	22.15
	16-QAM	1#0	21.31	21.74	22.14
		1#7	21.25	21.64	22.03
		1#14	21.20	21.63	22.01
		8#0	21.16	21.68	21.93
		8#4	21.09	21.75	21.96
		8#7	21.09	21.82	22.02
		15#0	21.17	21.85	22.00

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.11	21.91	21.95
		1#12	21.17	21.92	21.86
		1#24	21.28	21.91	21.92
		12#0	21.24	21.87	21.84
		12#6	21.32	21.88	21.76
		12#11	21.26	21.90	21.63
		25#0	21.34	21.86	21.66
	16-QAM	1#0	21.33	21.84	21.59
		1#12	21.32	21.84	21.62
		1#24	21.41	21.87	21.58
		12#0	21.41	21.83	21.62
		12#6	21.53	21.90	21.59
		12#11	21.47	21.87	21.55
		25#0	21.57	21.89	21.51
10M	QPSK	1#0	21.56	21.93	21.43
		1#24	21.57	21.95	21.29
		1#49	21.56	21.99	21.28
		25#0	21.61	22.02	21.19
		25#12	21.57	22.02	21.24
		25#24	21.60	22.00	21.25
		50#0	21.59	22.10	21.22
	16-QAM	1#0	21.49	22.06	21.33
		1#24	21.52	22.02	21.40
		1#49	21.62	22.06	21.34
		25#0	21.53	22.11	21.34
		25#12	21.43	22.08	21.39
		25#24	21.31	21.98	21.44
		50#0	21.27	21.88	21.43

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	21.55	21.56	21.70
		1#37	21.53	21.55	21.53
		1#74	21.05	21.62	21.35
		36#0	21.37	21.07	21.68
		36#17	21.73	21.48	22.12
		36#35	20.85	21.42	21.16
		75#0	21.64	21.86	21.32
	16-QAM	1#0	21.44	21.49	21.27
		1#37	21.65	21.54	21.70
		1#74	20.92	21.60	21.81
		36#0	20.78	21.43	22.00
		36#17	21.57	22.04	21.62
		36#35	21.08	21.23	21.95
		75#0	20.78	21.25	21.18
20M	QPSK	1#0	21.16	22.28	22.09
		1#49	21.85	21.42	20.84
		1#99	21.82	21.25	21.18
		50#0	22.05	22.14	22.17
		50#24	21.33	21.77	20.82
		50#49	21.71	21.45	20.98
		100#0	21.78	21.35	21.29
	16-QAM	1#0	21.45	21.37	20.85
		1#49	21.77	21.73	21.70
		1#99	20.98	21.44	21.06
		50#0	21.58	21.20	20.93
		50#24	20.99	21.74	21.63
		50#49	20.86	21.66	21.58
		100#0	21.82	21.20	21.40

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Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	21.68	21.98	21.85
		1#3	21.61	22.03	21.88
		1#5	21.71	22.08	21.80
		3#0	21.64	22.14	21.82
		3#1	21.62	22.16	21.76
		3#3	21.57	22.11	21.75
		6#0	21.46	22.02	21.70
	16-QAM	1#0	21.42	22.08	21.68
		1#3	21.50	22.04	21.58
		1#5	21.45	22.00	21.52
		3#0	21.57	21.99	21.61
		3#1	21.56	22.05	21.64
		3#3	21.53	21.93	21.61
		6#0	21.53	21.99	21.48
3M	QPSK	1#0	21.53	22.11	21.43
		1#7	21.58	22.11	21.35
		1#14	21.59	22.02	21.24
		8#0	21.59	22.13	21.17
		8#4	21.67	22.13	21.05
		8#7	21.66	22.26	20.97
		15#0	21.69	22.24	20.85
	16-QAM	1#0	21.69	22.21	20.85
		1#7	21.72	22.21	20.79
		1#14	21.68	22.17	20.84
		8#0	21.67	22.25	20.75
		8#4	21.62	22.20	20.71
		8#7	21.61	22.19	20.74
		15#0	21.71	22.16	20.65

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.75	22.10	20.72
		1#12	21.70	22.09	20.71
		1#24	21.74	22.13	20.71
		12#0	21.71	22.10	20.81
		12#6	21.66	22.08	20.84
		12#11	21.67	22.01	20.88
		25#0	21.71	22.01	20.84
	16-QAM	1#0	21.76	22.01	20.90
		1#12	21.76	22.03	20.86
		1#24	21.65	22.02	20.95
		12#0	21.60	22.12	20.91
		12#6	21.62	22.21	20.88
		12#11	21.69	22.24	20.89
		25#0	21.78	22.28	20.93
10M	QPSK	1#0	21.86	22.24	21.00
		1#24	21.93	22.16	21.06
		1#49	21.94	22.20	21.13
		25#0	21.83	22.09	21.16
		25#12	21.75	22.09	21.12
		25#24	21.66	21.99	21.04
		50#0	21.63	22.00	21.02
	16-QAM	1#0	21.67	22.13	21.03
		1#24	21.54	22.14	21.00
		1#49	21.48	22.21	20.95
		25#0	21.46	22.32	20.82
		25#12	21.37	22.35	20.84
		25#24	21.39	22.36	20.83
		50#0	21.39	22.33	20.87

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	22.29	22.43	22.35
		1#37	20.95	21.43	21.31
		1#74	21.61	21.16	21.31
		36#0	20.94	21.92	21.47
		36#17	21.17	21.89	21.29
		36#35	21.23	21.27	21.93
		75#0	21.68	22.04	21.85
	16-QAM	1#0	21.66	21.47	21.76
		1#37	21.51	21.77	21.85
		1#74	21.73	21.71	21.14
		36#0	21.16	21.52	21.73
		36#17	21.35	21.28	21.54
		36#35	20.84	21.42	21.21
		75#0	21.01	21.25	21.37

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Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.49	21.53	21.49
		1#12	21.57	21.89	21.16
		1#24	21.32	21.40	22.00
		12#0	21.45	21.62	21.83
		12#6	21.36	21.82	21.25
		12#11	22.19	21.49	21.47
		25#0	22.16	22.02	21.35
	16-QAM	1#0	22.10	21.46	21.87
		1#12	21.82	21.62	21.83
		1#24	22.23	21.38	21.42
		12#0	21.81	21.34	21.16
		12#6	22.22	21.43	21.65
		12#11	21.28	21.52	21.59
		25#0	21.68	21.47	21.04
10M	QPSK	1#0	21.25	21.39	21.95
		1#24	21.82	21.94	22.22
		1#49	21.08	21.44	21.74
		25#0	21.54	21.75	22.18
		25#12	21.99	22.06	21.82
		25#24	21.11	21.36	22.01
		50#0	22.00	21.78	21.75
	16-QAM	1#0	21.03	21.16	21.77
		1#24	21.22	21.56	22.16
		1#49	21.31	21.43	22.24
		25#0	21.85	21.53	21.63
		25#12	21.98	21.64	22.04
		25#24	21.92	21.18	21.95
		50#0	21.55	21.85	21.40

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	20.80	21.12	22.00
		1#37	21.56	21.45	21.22
		1#74	21.25	21.50	21.23
		36#0	21.60	21.63	21.30
		36#17	20.85	21.93	21.68
		36#35	21.70	22.01	22.12
		75#0	21.62	21.16	21.89
	16-QAM	1#0	21.37	21.56	21.59
		1#37	21.45	21.07	21.49
		1#74	21.70	21.68	21.66
		36#0	21.00	21.63	21.70
		36#17	21.07	21.46	21.18
		36#35	21.24	21.84	21.83
		75#0	20.74	21.96	21.31
20M	QPSK	1#0	22.33	22.34	22.28
		1#49	21.03	21.06	20.85
		1#99	21.63	21.89	21.72
		50#0	22.13	22.07	22.26
		50#24	21.45	21.76	21.64
		50#49	21.72	21.45	21.78
		100#0	21.71	21.52	21.67
	16-QAM	1#0	21.82	21.23	20.92
		1#49	20.92	20.92	21.50
		1#99	21.03	21.10	20.95
		50#0	21.19	21.02	20.94
		50#24	21.59	21.29	21.42
		50#49	21.14	20.94	21.60
		100#0	20.95	21.40	20.92

LTE Band 66

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	21.68	21.98	21.85
		1#3	21.66	21.94	21.93
		1#5	21.69	21.95	21.96
		3#0	21.57	21.96	21.96
		3#1	21.66	22.06	21.89
		3#3	21.53	22.17	21.84
		6#0	21.58	22.25	21.88
	16-QAM	1#0	21.69	22.34	21.99
		1#3	21.69	22.33	22.08
		1#5	21.58	22.31	22.11
		3#0	21.62	22.31	22.12
		3#1	21.59	22.31	22.08
		3#3	21.56	22.31	22.03
		6#0	21.50	22.37	22.00
3M	QPSK	1#0	21.62	22.39	21.91
		1#7	21.67	22.33	21.83
		1#14	21.63	22.42	21.81
		8#0	21.67	22.34	21.85
		8#4	21.75	22.33	21.89
		8#7	21.79	22.39	21.93
		15#0	21.82	22.44	21.98
	16-QAM	1#0	21.80	22.45	21.93
		1#7	21.70	22.43	22.03
		1#14	21.82	22.36	22.02
		8#0	21.85	22.38	22.01
		8#4	21.78	22.46	21.96
		8#7	21.75	22.45	21.95
		15#0	21.72	22.41	21.86

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.70	22.35	21.87
		1#12	21.61	22.38	21.88
		1#24	21.68	22.36	21.91
		12#0	21.69	22.40	21.98
		12#6	21.70	22.45	21.94
		12#11	21.74	22.48	21.93
		25#0	21.68	22.36	21.92
	16-QAM	1#0	21.61	22.34	21.89
		1#12	21.69	22.34	21.85
		1#24	21.69	22.35	21.88
		12#0	21.59	22.33	21.98
		12#6	21.60	22.33	22.03
		12#11	21.6	22.34	22.14
		25#0	21.53	22.29	22.25
10M	QPSK	1#0	21.57	22.37	22.26
		1#24	21.52	22.39	22.33
		1#49	21.44	22.44	22.35
		25#0	21.46	22.47	22.43
		25#12	21.43	22.35	22.42
		25#24	21.47	22.32	22.50
		50#0	21.41	22.41	22.56
	16-QAM	1#0	21.41	22.35	22.51
		1#24	21.35	22.31	22.48
		1#49	21.35	22.26	22.46
		25#0	21.28	22.29	22.39
		25#12	21.33	22.25	22.39
		25#24	21.25	22.24	22.45
		50#0	21.23	22.10	22.51

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	21.18	22.06	22.48
		1#37	21.27	22.02	22.44
		1#74	21.23	22.00	22.37
		36#0	21.21	22.04	22.37
		36#17	21.21	22.01	22.27
		36#35	21.27	22.05	22.39
		75#0	21.12	22.04	22.31
	16-QAM	1#0	21.16	22.05	22.36
		1#37	21.03	21.96	22.36
		1#74	21.06	21.90	22.36
		36#0	21.11	21.90	22.34
		36#17	21.06	21.84	22.42
		36#35	20.99	21.84	22.51
		75#0	20.95	21.97	22.51
20M	QPSK	1#0	21.31	22.58	22.54
		1#49	20.93	21.89	22.44
		1#99	20.87	21.95	22.51
		50#0	22.10	22.43	22.34
		50#24	20.75	22.07	22.46
		50#49	20.77	22.16	22.51
		100#0	20.75	22.12	22.45
	16-QAM	1#0	20.71	22.15	22.45
		1#49	20.67	22.16	22.58
		1#99	20.70	22.16	22.50
		50#0	20.72	22.17	22.54
		50#24	20.75	22.13	22.51
		50#49	20.72	22.15	22.50
		100#0	20.82	22.11	22.34

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Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.45	21.38	21.67
		1#12	21.86	21.45	21.15
		1#24	21.57	21.64	21.46
		12#0	21.59	21.91	21.73
		12#6	22.18	21.70	21.35
		12#11	21.32	21.56	21.08
		25#0	21.80	22.00	21.68
	16-QAM	1#0	21.52	21.79	21.14
		1#12	21.71	21.76	21.27
		1#24	22.24	21.98	21.19
		12#0	22.06	22.09	21.77
		12#6	21.48	21.60	21.61
		12#11	21.86	21.90	21.40
		25#0	22.16	21.50	21.78
10M	QPSK	1#0	21.62	21.90	21.66
		1#24	21.98	21.20	21.86
		1#49	21.71	21.67	22.20
		25#0	21.08	21.34	21.41
		25#12	21.23	21.33	22.31
		25#24	21.78	22.00	21.69
		50#0	21.28	21.64	22.29
	16-QAM	1#0	21.43	21.76	21.63
		1#24	21.40	22.02	21.79
		1#49	21.87	22.09	21.39
		25#0	21.69	21.76	22.10
		25#12	21.57	21.91	22.08
		25#24	21.33	21.34	21.62
		50#0	21.26	21.81	21.88

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	20.99	22.03	21.75
		1#37	21.60	21.94	21.68
		1#74	21.06	22.04	21.66
		36#0	20.86	21.16	21.28
		36#17	21.40	21.61	21.20
		36#35	20.84	22.00	21.78
		75#0	20.95	21.82	21.43
	16-QAM	1#0	21.36	21.46	21.93
		1#37	20.86	21.98	21.75
		1#74	20.87	21.85	21.70
		36#0	21.36	21.12	21.23
		36#17	21.73	21.22	21.99
		36#35	20.86	21.21	21.42
		75#0	20.95	21.52	21.21
20M	QPSK	1#0	22.26	22.41	22.31
		1#49	21.22	21.75	21.61
		1#99	21.07	21.91	20.94
		50#0	22.14	22.33	22.26
		50#24	21.40	21.76	21.66
		50#49	21.79	21.86	21.79
		100#0	20.92	21.42	21.28
	16-QAM	1#0	21.34	21.20	21.59
		1#49	21.14	21.20	21.01
		1#99	21.06	21.56	20.92
		50#0	21.28	21.44	20.97
		50#24	21.33	21.02	21.05
		50#49	20.97	21.42	21.36
		100#0	21.67	21.62	21.35

Peak-to-average ratio (PAR):

WCDMA Band V

Mode	Channel	PAR (dB)	Limit (dB)
WCDMA (Rel99)	Low	2.14	≤ 13
	Middle	2.12	≤ 13
	High	2.10	≤ 13
WCDMA (HSDPA)	Low	2.15	≤ 13
	Middle	2.23	≤ 13
	High	2.13	≤ 13
WCDMA (HSUPA)	Low	2.10	≤ 13
	Middle	2.02	≤ 13
	High	2.21	≤ 13
WCDMA (HSPA+)	Low	2.04	≤ 13
	Middle	2.04	≤ 13
	High	2.08	≤ 13

WCDMA Band II

Mode	Channel	PAR (dB)	Limit (dB)
WCDMA (Rel99)	Low	2.05	≤ 13
	Middle	2.03	≤ 13
	High	2.06	≤ 13
WCDMA (HSDPA)	Low	2.06	≤ 13
	Middle	2.10	≤ 13
	High	1.92	≤ 13
WCDMA (HSUPA)	Low	2.14	≤ 13
	Middle	2.27	≤ 13
	High	2.01	≤ 13
WCDMA (HSPA+)	Low	2.21	≤ 13
	Middle	1.99	≤ 13
	High	2.11	≤ 13

WCDMA Band IV

Mode	Channel	PAR (dB)	Limit (dB)
WCDMA (Rel99)	Low	2.13	≤ 13
	Middle	2.16	≤ 13
	High	2.12	≤ 13
WCDMA (HSDPA)	Low	2.21	≤ 13
	Middle	2.12	≤ 13
	High	2.16	≤ 13
WCDMA (HSUPA)	Low	2.01	≤ 13
	Middle	2.16	≤ 13
	High	1.94	≤ 13
WCDMA (HSPA+)	Low	2.29	≤ 13
	Middle	2.07	≤ 13
	High	2.20	≤ 13

LTE Band 2

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit (dB)
QPSK	1 RB	20M	3.20	3.11	3.10	13
	100 RB		5.16	5.07	5.15	13
16-QAM	1 RB	20M	4.01	4.10	4.09	13
	100 RB		6.03	6.01	6.10	13

LTE Band 4

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	20M	3.10	3.14	3.19	13
	100 RB		5.16	5.06	5.01	13
16-QAM	1 RB	20M	4.01	4.13	4.09	13
	100 RB		6.16	6.04	6.19	13

LTE Band 7

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	20M	3.01	3.03	3.14	≤ 13
	100 RB		5.15	5.13	5.06	≤ 13
16-QAM	1 RB	20M	4.14	4.09	4.06	≤ 13
	100 RB		6.01	6.07	6.07	≤ 13

LTE Band 12

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	10M	3.03	3.04	3.17	≤ 13
	50 RB		5.17	5.04	5.17	≤ 13
16-QAM	1 RB	10M	4.13	4.20	4.07	≤ 13
	50 RB		6.03	6.15	6.05	≤ 13

LTE Band 13

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	10M	/	3.17	/	13
	50 RB		/	5.04	/	13
16-QAM	1 RB	10M	/	4.12	/	13
	50 RB		/	6.03	/	13

LTE Band 14

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	10M	/	3.09	/	13
	50 RB		/	5.02	/	13
16-QAM	1 RB	10M	/	4.14	/	13
	50 RB		/	6.03	/	13

LTE Band 17

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	10M	3.12	3.00	3.09	≤ 13
	50 RB		5.03	5.02	5.05	≤ 13
16-QAM	1 RB	10M	4.07	4.04	4.14	≤ 13
	50 RB		6.01	6.05	6.10	≤ 13

LTE Band 25

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	20M	3.11	3.03	3.07	≤ 13
	100 RB		5.09	5.20	5.09	≤ 13
16-QAM	1 RB	20M	4.16	4.12	4.00	≤ 13
	100 RB		6.16	6.10	6.17	≤ 13

LTE Band 26

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	15M	3.10	3.08	3.06	≤ 13
	75 RB		5.12	5.09	5.17	≤ 13
16-QAM	1 RB	15M	4.06	4.12	4.20	≤ 13
	75 RB		6.15	6.08	6.11	≤ 13

LTE Band 41

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	20M	3.14	3.12	3.02	≤ 13
	100 RB		5.14	5.02	5.01	≤ 13
16-QAM	1 RB	20M	4.19	4.11	4.07	≤ 13
	100 RB		6.07	6.14	6.13	≤ 13

LTE Band 66

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	20M	3.13	3.06	3.03	≤ 13
	100 RB		5.18	5.03	5.17	≤ 13
16-QAM	1 RB	20M	4.13	4.10	4.14	≤ 13
	100 RB		6.09	6.08	6.11	≤ 13

LTE Band 71

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	20M	3.17	3.08	3.00	13
	100 RB		5.12	5.14	5.04	13
16-QAM	1 RB	20M	4.18	4.03	4.10	13
	100 RB		6.02	6.06	6.06	13

Radiated Power:

WCDMA Mode

Frequency (MHz)	Receiver Reading (dBµV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (cm)	Polar (H/V)	Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
WCDMA Band V, Low Channel(ERP)										
826.4	88.23	31	200	H	23.37	0.63	-1.17	21.57	38.45	16.88
826.4	87.59	283	150	V	22.73	0.63	-1.17	20.93	38.45	17.52
WCDMA Band II, Low Channel(EIRP)										
1852.4	85.53	195	200	H	15.40	0.84	8.76	23.32	33.00	9.68
1852.4	84.37	69	150	V	14.24	0.84	8.76	22.16	33.00	10.84
WCDMA Band IV, Low Channel(EIRP)										
1712.4	85.27	279	200	H	12.68	0.84	8.57	20.41	30.00	9.59
1712.4	84.35	360	150	V	11.76	0.84	8.57	19.49	30.00	10.51

WCDMA Mode

Frequency (MHz)	Receiver Reading (dBµV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (cm)	Polar (H/V)	Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
WCDMA Band V, Middle Channel(ERP)										
836.6	88.65	199	200	H	23.79	0.63	-1.14	22.02	38.45	16.43
836.6	87.29	160	150	V	22.43	0.63	-1.14	20.66	38.45	17.79
WCDMA Band II, Middle Channel(EIRP)										
1880.0	85.15	184	200	H	15.02	0.85	8.81	22.98	33.00	10.02
1880.0	84.26	92	150	V	14.13	0.85	8.81	22.09	33.00	10.91
WCDMA Band IV, middle Channel(EIRP)										
1732.6	85.16	172	200	H	12.57	0.84	8.57	20.30	30.00	9.70
1732.6	84.56	315	150	V	11.97	0.84	8.57	19.70	30.00	10.30

WCDMA Mode

Frequency (MHz)	Receiver Reading (dBµV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (cm)	Polar (H/V)	Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
WCDMA Band V, High Channel(ERP)										
846.6	88.86	245	200	H	24.00	0.63	-1.11	22.26	38.45	16.19
846.6	87.34	292	150	V	22.48	0.63	-1.11	20.74	38.45	17.71
WCDMA Band II, High Channel(EIRP)										
1907.6	85.34	130	200	H	15.21	0.85	8.85	23.21	33.00	9.79
1907.6	84.61	43	150	V	14.48	0.85	8.85	22.48	33.00	10.52
WCDMA Band IV, High Channel(EIRP)										
1752.6	85.49	192	200	H	12.90	0.84	8.57	20.63	30.00	9.37
1752.6	84.36	330	150	V	11.77	0.84	8.57	19.50	30.00	10.50

ERP&EIRP:

LTE Band 2

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW Low Channel								
1850.7	H	88.98	15.73	0.84	8.76	23.65	33	9.35
1850.7	V	87.45	14.20	0.84	8.76	22.12	33	10.88
16-QAM 1.4M BW Low Channel								
1850.7	H	88.82	15.57	0.84	8.76	23.49	33	9.51
1850.7	V	87.91	14.66	0.84	8.76	22.58	33	10.42
QPSK 3M BW Low Channel								
1851.5	H	88.09	14.85	0.84	8.76	22.77	33	10.23
1851.5	V	87.06	13.82	0.84	8.76	21.74	33	11.26
16-QAM 3M BW Low Channel								
1851.5	H	88.19	14.95	0.84	8.76	22.87	33	10.13
1851.5	V	87.84	14.60	0.84	8.76	22.52	33	10.48
QPSK 5M BW Low Channel								
1852.5	H	88.39	15.16	0.84	8.76	23.08	33	9.92
1852.5	V	87.25	14.02	0.84	8.76	21.94	33	11.06
16-QAM 5M BW Low Channel								
1852.5	H	88.59	15.36	0.84	8.76	23.28	33	9.72
1852.5	V	87.62	14.39	0.84	8.76	22.31	33	10.69

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 10M BW Low Channel								
1855.0	H	88.65	15.44	0.84	8.77	23.37	33	9.63
1855.0	V	87.29	14.08	0.84	8.77	22.01	33	10.99
16-QAM 10M BW Low Channel								
1855	H	88.13	14.92	0.84	8.77	22.85	33	10.15
1855	V	87.51	14.30	0.84	8.77	22.23	33	10.77
QPSK 15M BW Low Channel								
1857.5	H	88.83	15.63	0.84	8.77	23.56	33	9.44
1857.5	V	87.05	13.85	0.84	8.77	21.78	33	11.22
16-QAM 15M BW Low Channel								
1857.5	H	88.35	15.15	0.84	8.77	23.08	33	9.92
1857.5	V	87.31	14.11	0.84	8.77	22.04	33	10.96
QPSK 20M BW Low Channel								
1860.0	H	88.99	15.81	0.84	8.78	23.75	33	9.25
1860.0	V	87.00	13.82	0.84	8.78	21.76	33	11.24
16-QAM 20M BW Low Channel								
1860.0	H	88.88	15.70	0.84	8.78	23.64	33	9.36
1860.0	V	87.42	14.24	0.84	8.78	22.18	33	10.82

LTE Band 2

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW Middle Channel								
1880.0	H	89.25	14.52	0.85	8.81	22.48	33	10.52
1880.0	V	86.85	12.12	0.85	8.81	20.08	33	12.92
16-QAM 1.4M BW Middle Channel								
1880.0	H	88.94	14.21	0.85	8.81	22.17	33	10.83
1880.0	V	87.23	12.50	0.85	8.81	20.46	33	12.54
QPSK 3M BW Middle Channel								
1880.0	H	89.34	14.61	0.85	8.81	22.57	33	10.43
1880.0	V	87.69	12.96	0.85	8.81	20.92	33	12.08
16-QAM 3M BW Middle Channel								
1880.0	H	88.68	13.95	0.85	8.81	21.91	33	11.09
1880.0	V	87.46	12.73	0.85	8.81	20.69	33	12.31
QPSK 5M BW Middle Channel								
1880.0	H	88.34	13.61	0.85	8.81	21.57	33	11.43
1880.0	V	87.58	12.85	0.85	8.81	20.81	33	12.19
16-QAM 5M BW Middle Channel								
1880.0	H	88.56	13.83	0.85	8.81	21.79	33	11.21
1880.0	V	87.34	12.61	0.85	8.81	20.57	33	12.43

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 10M BW Middle Channel								
1880.0	H	87.98	13.25	0.85	8.81	21.21	33	11.79
1880.0	V	86.78	12.05	0.85	8.81	20.01	33	12.99
16-QAM 10M BW Middle Channel								
1880.0	H	87.96	13.23	0.85	8.81	21.19	33	11.81
1880.0	V	86.84	12.11	0.85	8.81	20.07	33	12.93
QPSK 15M BW Middle Channel								
1880.0	H	88.16	13.43	0.85	8.81	21.39	33	11.61
1880.0	V	86.89	12.16	0.85	8.81	20.12	33	12.88
16-QAM 15M BW Middle Channel								
1880.0	H	88.46	13.73	0.85	8.81	21.69	33	11.31
1880.0	V	87.98	13.25	0.85	8.81	21.21	33	11.79
QPSK 20M BW Middle Channel								
1880.0	H	88.16	13.43	0.85	8.81	21.39	33	11.61
1880.0	V	86.95	12.22	0.85	8.81	20.18	33	12.82
16-QAM 20M BW Middle Channel								
1880.0	H	87.98	13.25	0.85	8.81	21.21	33	11.79
1880.0	V	87.23	12.50	0.85	8.81	20.46	33	12.54

LTE Band 2

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW High Channel								
1909.3	H	88.13	15.29	0.85	8.85	23.29	33	9.71
1909.3	V	87.73	14.89	0.85	8.85	22.89	33	10.11
16-QAM 1.4M BW High Channel								
1909.3	H	88.76	15.92	0.85	8.85	23.92	33	9.08
1909.3	V	87.83	14.99	0.85	8.85	22.99	33	10.01
QPSK 3M BW High Channel								
1908.5	H	88.50	15.65	0.85	8.85	23.65	33	9.35
1908.5	V	87.18	14.33	0.85	8.85	22.33	33	10.67
16-QAM 3M BW High Channel								
1908.5	H	88.11	15.26	0.85	8.85	23.26	33	9.74
1908.5	V	87.87	15.02	0.85	8.85	23.02	33	9.98
QPSK 5M BW High Channel								
1907.5	H	88.16	15.31	0.85	8.85	23.31	33	9.69
1907.5	V	87.92	15.07	0.85	8.85	23.07	33	9.93
16-QAM 5M BW High Channel								
1907.5	H	88.37	15.52	0.85	8.85	23.52	33	9.48
1907.5	V	87.17	14.32	0.85	8.85	22.32	33	10.68

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 10M BW High Channel								
1905.0	H	88.36	15.49	0.85	8.85	23.49	33	9.51
1905.0	V	87.54	14.67	0.85	8.85	22.67	33	10.33
16-QAM 10M BW High Channel								
1905.0	H	88.29	15.42	0.85	8.85	23.42	33	9.58
1905.0	V	87.51	14.64	0.85	8.85	22.64	33	10.36
QPSK 15M BW High Channel								
1902.5	H	88.47	15.58	0.85	8.84	23.57	33	9.43
1902.5	V	87.22	14.33	0.85	8.84	22.32	33	10.68
16-QAM 15M BW High Channel								
1902.5	H	88.02	15.13	0.85	8.84	23.12	33	9.88
1902.5	V	87.99	15.10	0.85	8.84	23.09	33	9.91
QPSK 20M BW High Channel								
1900.0	H	88.13	15.23	0.85	8.84	23.22	33	9.78
1900.0	V	87.35	14.45	0.85	8.84	22.44	33	10.56
16-QAM 20M BW High Channel								
1900.0	H	88.64	15.74	0.85	8.84	23.73	33	9.27
1900.0	V	87.79	14.89	0.85	8.84	22.88	33	10.12

LTE Band 4

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW Low Channel								
1710.7	H	88.16	13.94	0.84	8.54	21.64	30	8.36
1710.7	V	87.81	13.59	0.84	8.54	21.29	30	8.71
16-QAM 1.4M BW Low Channel								
1710.7	H	88.88	14.66	0.84	8.54	22.36	30	7.64
1710.7	V	87.00	12.78	0.84	8.54	20.48	30	9.52
QPSK 3M BW Low Channel								
1711.5	H	88.05	13.84	0.84	8.54	21.54	30	8.46
1711.5	V	87.96	13.75	0.84	8.54	21.45	30	8.55
16-QAM 3M BW Low Channel								
1711.5	H	88.9	14.69	0.84	8.54	22.39	30	7.61
1711.5	V	87.53	13.32	0.84	8.54	21.02	30	8.98
QPSK 5M BW Low Channel								
1712.5	H	88.24	14.04	0.84	8.54	21.74	30	8.26
1712.5	V	87.73	13.53	0.84	8.54	21.23	30	8.77
16-QAM 5M BW Low Channel								
1712.5	H	88.11	13.91	0.84	8.54	21.61	30	8.39
1712.5	V	87.87	13.67	0.84	8.54	21.37	30	8.63

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 10M BW Low Channel								
1715.0	H	88.89	14.71	0.84	8.54	22.41	30	7.59
1715.0	V	87.48	13.30	0.84	8.54	21.00	30	9.00
16-QAM 10M BW Low Channel								
1715.0	H	88.03	13.85	0.84	8.54	21.55	30	8.45
1715.0	V	87.20	13.02	0.84	8.54	20.72	30	9.28
QPSK 15M BW Low Channel								
1717.5	H	88.74	14.57	0.84	8.55	22.28	30	7.72
1717.5	V	87.42	13.25	0.84	8.55	20.96	30	9.04
16-QAM 15M BW Low Channel								
1717.5	H	88.47	14.30	0.84	8.55	22.01	30	7.99
1717.5	V	87.82	13.65	0.84	8.55	21.36	30	8.64
QPSK 20M BW Low Channel								
1720.0	H	88.88	14.73	0.84	8.55	22.44	30	7.56
1720.0	V	87.58	13.43	0.84	8.55	21.14	30	8.86
16-QAM 20M BW Low Channel								
1720.0	H	88.24	14.09	0.84	8.55	21.80	30	8.20
1720.0	V	87.80	13.65	0.84	8.55	21.36	30	8.64

LTE Band 4

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW Middle Channel								
1732.5	H	88.52	12.77	0.84	8.57	20.5	30	9.50
1732.5	V	87.91	12.16	0.84	8.57	19.89	30	10.11
16-QAM 1.4M BW Middle Channel								
1732.5	H	88.90	13.15	0.84	8.57	20.88	30	9.12
1732.5	V	87.55	11.8	0.84	8.57	19.53	30	10.47
QPSK 3M BW Middle Channel								
1732.5	H	88.36	12.61	0.84	8.57	20.34	30	9.66
1732.5	V	87.45	11.70	0.84	8.57	19.43	30	10.57
16-QAM 3M BW Middle Channel								
1732.5	H	89.00	13.25	0.84	8.57	20.98	30	9.02
1732.5	V	87.18	11.43	0.84	8.57	19.16	30	10.84
QPSK 5M BW Middle Channel								
1732.5	H	88.25	12.50	0.84	8.57	20.23	30	9.77
1732.5	V	87.49	11.74	0.84	8.57	19.47	30	10.53
16-QAM 5M BW Middle Channel								
1732.5	H	88.64	12.89	0.84	8.57	20.62	30	9.38
1732.5	V	87.82	12.07	0.84	8.57	19.80	30	10.20

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 10M BW Middle Channel								
1732.5	H	88.34	12.59	0.84	8.57	20.32	30	9.68
1732.5	V	87.64	11.89	0.84	8.57	19.62	30	10.38
16-QAM 10M BW Middle Channel								
1732.5	H	88.12	12.37	0.84	8.57	20.10	30	9.90
1732.5	V	87.88	12.13	0.84	8.57	19.86	30	10.14
QPSK 15M BW Middle Channel								
1732.5	H	88.85	13.10	0.84	8.57	20.83	30	9.17
1732.5	V	87.73	11.98	0.84	8.57	19.71	30	10.29
16-QAM 15M BW Middle Channel								
1732.5	H	88.27	12.52	0.84	8.57	20.25	30	9.75
1732.5	V	87.76	12.01	0.84	8.57	19.74	30	10.26
QPSK 20M BW Middle Channel								
1732.5	H	88.95	13.20	0.84	8.57	20.93	30	9.07
1732.5	V	87.30	11.55	0.84	8.57	19.28	30	10.72
16-QAM 20M BW Middle Channel								
1732.5	H	88.45	12.70	0.84	8.57	20.43	30	9.57
1732.5	V	87.13	11.38	0.84	8.57	19.11	30	10.89

LTE Band 4

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW High Channel								
1754.3	H	88.01	14.10	0.84	8.61	21.87	30	8.13
1754.3	V	87.14	13.23	0.84	8.61	21.00	30	9.00
16-QAM 1.4M BW High Channel								
1754.3	H	88.96	15.05	0.84	8.61	22.82	30	7.18
1754.3	V	87.71	13.80	0.84	8.61	21.57	30	8.43
QPSK 3M BW High Channel								
1753.5	H	88.00	14.08	0.84	8.6	21.84	30	8.16
1753.5	V	87.70	13.78	0.84	8.6	21.54	30	8.46
16-QAM 3M BW High Channel								
1753.5	H	88.66	14.74	0.84	8.6	22.50	30	7.50
1753.5	V	87.62	13.70	0.84	8.6	21.46	30	8.54
QPSK 5M BW High Channel								
1752.5	H	88.3	14.37	0.84	8.6	22.13	30	7.87
1752.5	V	87.8	13.87	0.84	8.6	21.63	30	8.37
16-QAM 5M BW High Channel								
1752.5	H	88.22	14.29	0.84	8.6	22.05	30	7.95
1752.5	V	87.81	13.88	0.84	8.6	21.64	30	8.36

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 10M BW High Channel								
1750.0	H	88.50	14.56	0.84	8.6	22.32	30	7.68
1750.0	V	87.12	13.18	0.84	8.6	20.94	30	9.06
16-QAM 10M BW High Channel								
1750.0	H	88.7	14.76	0.84	8.6	22.52	30	7.48
1750.0	V	87.04	13.10	0.84	8.6	20.86	30	9.14
QPSK 15M BW High Channel								
1747.5	H	88.10	14.14	0.84	8.6	21.90	30	8.10
1747.5	V	87.51	13.55	0.84	8.6	21.31	30	8.69
16-QAM 15M BW High Channel								
1747.5	H	88.59	14.63	0.84	8.6	22.39	30	7.61
1747.5	V	87.55	13.59	0.84	8.6	21.35	30	8.65
QPSK 20M BW High Channel								
1745.0	H	88.76	14.79	0.84	8.59	22.54	30	7.46
1745.0	V	87.36	13.39	0.84	8.59	21.14	30	8.86
16-QAM 20M BW High Channel								
1745.0	H	88.65	14.68	0.84	8.59	22.43	30	7.57
1745.0	V	87.74	13.77	0.84	8.59	21.52	30	8.48

LTE band 7

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK 5M BW Low Channel								
2502.50	H	89.02	13.13	0.89	10.10	22.34	33.00	10.66
2502.50	V	87.20	11.31	0.89	10.10	20.52	33.00	12.48
16-QAM 5M BW Low Channel								
2502.50	H	89.18	13.29	0.89	10.10	22.50	33.00	10.50
2502.50	V	87.19	11.30	0.89	10.10	20.51	33.00	12.49
QPSK 10M BW Low Channel								
2505.00	H	89.18	13.29	0.89	10.10	22.50	33.00	10.50
2505.00	V	87.17	11.28	0.89	10.10	20.49	33.00	12.51
16-QAM 10M BW Low Channel								
2505.00	H	89.04	13.15	0.89	10.10	22.36	33.00	10.64
2505.00	V	87.12	11.23	0.89	10.10	20.44	33.00	12.56
QPSK 15M BW Low Channel								
2507.50	H	89.09	13.20	0.89	10.10	22.41	33.00	10.59
2507.50	V	87.05	11.16	0.89	10.10	20.37	33.00	12.63
16-QAM 15M BW Low Channel								
2507.50	H	89.16	13.27	0.89	10.10	22.48	33.00	10.52
2507.50	V	87.06	11.17	0.89	10.10	20.38	33.00	12.62
QPSK 20M BW Low Channel								
2510.00	H	89.07	13.18	0.89	10.10	22.39	33.00	10.61
2510.00	V	87.08	11.19	0.89	10.10	20.40	33.00	12.60
16-QAM 20M BW Low Channel								
2510.00	H	89.06	13.17	0.89	10.10	22.38	33.00	10.62
2510.00	V	87.04	11.15	0.89	10.10	20.36	33.00	12.64

LTE band 7

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK 5M BW Middle Channel								
2535.00	H	89.09	13.20	0.89	10.05	22.36	33.00	10.64
2535.00	V	87.19	11.30	0.89	10.05	20.46	33.00	12.54
16-QAM 5M BW Middle Channel								
2535.00	H	89.07	13.18	0.89	10.05	22.34	33.00	10.66
2535.00	V	87.1	11.21	0.89	10.05	20.37	33.00	12.63
QPSK 10M BW Middle Channel								
2535.00	H	89	13.11	0.89	10.05	22.27	33.00	10.73
2535.00	V	87.15	11.26	0.89	10.05	20.42	33.00	12.58
16-QAM 10M BW Middle Channel								
2535.00	H	89.16	13.27	0.89	10.05	22.43	33.00	10.57
2535.00	V	87.1	11.21	0.89	10.05	20.37	33.00	12.63
QPSK 15M BW Middle Channel								
2535.00	H	89.08	13.19	0.89	10.05	22.35	33.00	10.65
2535.00	V	87.07	11.18	0.89	10.05	20.34	33.00	12.66
16-QAM 15M BW Middle Channel								
2535.00	H	89.13	13.24	0.89	10.05	22.40	33.00	10.60
2535.00	V	87.16	11.27	0.89	10.05	20.43	33.00	12.57
QPSK 20M BW Middle Channel								
2535.00	H	89.09	13.20	0.89	10.05	22.36	33.00	10.64
2535.00	V	87.18	11.29	0.89	10.05	20.45	33.00	12.55
16-QAM 20M BW Middle Channel								
2535.00	H	89.11	13.22	0.89	10.05	22.38	33.00	10.62
2535.00	V	87.04	11.15	0.89	10.05	20.31	33.00	12.69

LTE band 7

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK 5M BW High Channel								
2567.50	H	89.00	13.11	0.89	10.01	22.23	33.00	10.77
2567.50	V	87.10	11.21	0.89	10.01	20.33	33.00	12.67
16-QAM 5M BW High Channel								
2567.50	H	89.08	13.19	0.89	10.01	22.31	33.00	10.69
2567.50	V	87.12	11.23	0.89	10.01	20.35	33.00	12.65
QPSK 10M BW High Channel								
2565.00	H	89.00	13.11	0.89	10.01	22.23	33.00	10.77
2565.00	V	87.13	11.24	0.89	10.01	20.36	33.00	12.64
16-QAM 10M BW High Channel								
2565.00	H	89.14	13.25	0.89	10.01	22.37	33.00	10.63
2565.00	V	87.02	11.13	0.89	10.01	20.25	33.00	12.75
QPSK 15M BW High Channel								
2562.50	H	89.04	13.15	0.89	10.01	22.27	33.00	10.73
2562.50	V	87.07	11.18	0.89	10.01	20.30	33.00	12.70
16-QAM 15M BW High Channel								
2562.50	H	89.11	13.22	0.89	10.01	22.34	33.00	10.66
2562.50	V	87.01	11.12	0.89	10.01	20.24	33.00	12.76
QPSK 20M BW High Channel								
2560.00	H	89.07	13.18	0.89	10.01	22.30	33.00	10.70
2560.00	V	87.16	11.27	0.89	10.01	20.39	33.00	12.61
16-QAM 20M BW High Channel								
2560.00	H	89.04	13.15	0.89	10.01	22.27	33.00	10.73
2560.00	V	87.09	11.20	0.89	10.01	20.32	33.00	12.68

LTE Band 12

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW Low Channel								
699.7	H	88.17	24.77	0.62	-1.75	22.40	34.77	12.37
699.7	V	87.35	23.95	0.62	-1.75	21.58	34.77	13.19
16-QAM 1.4M BW Low Channel								
699.7	H	88.15	24.75	0.62	-1.75	22.38	34.77	12.39
699.7	V	87.74	24.34	0.62	-1.75	21.97	34.77	12.80
QPSK 3M BW Low Channel								
700.5	H	88.55	25.15	0.62	-1.75	22.78	34.77	11.99
700.5	V	87.51	24.11	0.62	-1.75	21.74	34.77	13.03
16-QAM 3M BW Low Channel								
700.5	H	88.56	25.16	0.62	-1.75	22.79	34.77	11.98
700.5	V	87.44	24.04	0.62	-1.75	21.67	34.77	13.10
QPSK 5M BW Low Channel								
701.5	H	88.42	25.02	0.62	-1.74	22.66	34.77	12.11
701.5	V	87.97	24.57	0.62	-1.74	22.21	34.77	12.56
16-QAM 5M BW Low Channel								
701.5	H	88.88	25.48	0.62	-1.74	23.12	34.77	11.65
701.5	V	87.60	24.2	0.62	-1.74	21.84	34.77	12.93
QPSK 10M BW Low Channel								
704.0	H	88.91	25.51	0.62	-1.73	23.16	34.77	11.61
704.0	V	87.69	24.29	0.62	-1.73	21.94	34.77	12.83
16-QAM 10M BW Low Channel								
704.0	H	88.97	25.57	0.62	-1.73	23.22	34.77	11.55
704.0	V	87.16	23.76	0.62	-1.73	21.41	34.77	13.36

LTE Band 12

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW Middle Channel								
707.5	H	88.16	24.67	0.62	-1.71	22.34	34.77	12.43
707.5	V	87.16	23.67	0.62	-1.71	21.34	34.77	13.43
16-QAM 1.4M BW Middle Channel								
707.5	H	88.21	24.72	0.62	-1.71	22.39	34.77	12.38
707.5	V	87.34	23.85	0.62	-1.71	21.52	34.77	13.25
QPSK 3M BW Middle Channel								
707.5	H	88.46	24.97	0.62	-1.71	22.64	34.77	12.13
707.5	V	87.36	23.87	0.62	-1.71	21.54	34.77	13.23
16-QAM 3M BW Middle Channel								
707.5	H	88.16	24.67	0.62	-1.71	22.34	34.77	12.43
707.5	V	87.46	23.97	0.62	-1.71	21.64	34.77	13.13
QPSK 5M BW Middle Channel								
707.5	H	88.46	24.97	0.62	-1.71	22.64	34.77	12.13
707.5	V	87.25	23.76	0.62	-1.71	21.43	34.77	13.34
16-QAM 5M BW Middle Channel								
707.5	H	88.19	24.70	0.62	-1.71	22.37	34.77	12.40
707.5	V	87.48	23.99	0.62	-1.71	21.66	34.77	13.11
QPSK 10M BW Middle Channel								
707.5	H	88.49	25.00	0.62	-1.71	22.67	34.77	12.10
707.5	V	87.05	23.56	0.62	-1.71	21.23	34.77	13.54
16-QAM 10M BW Middle Channel								
707.5	H	87.89	24.40	0.62	-1.71	22.07	34.77	12.70
707.5	V	86.30	22.81	0.62	-1.71	20.48	34.77	14.29

LTE Band 12

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW High Channel								
715.3	H	88.81	25.47	0.62	-1.67	23.18	34.77	11.59
715.3	V	87.09	23.75	0.62	-1.67	21.46	34.77	13.31
16-QAM 1.4M BW High Channel								
715.3	H	88.26	24.92	0.62	-1.67	22.63	34.77	12.14
715.3	V	87.85	24.51	0.62	-1.67	22.22	34.77	12.55
QPSK 3M BW High Channel								
714.5	H	88.18	24.84	0.62	-1.68	22.54	34.77	12.23
714.5	V	87.36	24.02	0.62	-1.68	21.72	34.77	13.05
16-QAM 3M BW High Channel								
714.5	H	88.21	24.87	0.62	-1.68	22.57	34.77	12.20
714.5	V	87.11	23.77	0.62	-1.68	21.47	34.77	13.30
QPSK 5M BW High Channel								
713.5	H	88.77	25.43	0.62	-1.68	23.13	34.77	11.64
713.5	V	87.32	23.98	0.62	-1.68	21.68	34.77	13.09
16-QAM 5M BW High Channel								
713.5	H	88.83	25.49	0.62	-1.68	23.19	34.77	11.58
713.5	V	87.10	23.76	0.62	-1.68	21.46	34.77	13.31
QPSK 10M BW High Channel								
711	H	88.30	24.96	0.62	-1.7	22.64	34.77	12.13
711	V	87.54	24.20	0.62	-1.7	21.88	34.77	12.89
16-QAM 10M BW High Channel								
711	H	88.49	25.15	0.62	-1.7	22.83	34.77	11.94
711	V	87.77	24.43	0.62	-1.7	22.11	34.77	12.66

LTE Band 13

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW Low Channel								
779.5	H	88.07	22.75	0.65	-1.35	20.75	34.77	14.02
779.5	V	87.98	22.66	0.65	-1.35	20.66	34.77	14.11
16-QAM 5M BW Low Channel								
779.5	H	88.75	23.43	0.65	-1.35	21.43	34.77	13.34
779.5	V	87.74	22.42	0.65	-1.35	20.42	34.77	14.35

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW Middle Channel								
782	H	88.79	26.50	0.65	-1.34	24.51	34.77	10.26
782	V	87.77	25.48	0.65	-1.34	23.49	34.77	11.28
16-QAM 5M BW Middle Channel								
782	H	88.88	26.59	0.65	-1.34	24.60	34.77	10.17
782	V	87.63	25.34	0.65	-1.34	23.35	34.77	11.42
QPSK 10M BW Middle Channel								
782	H	88.79	26.50	0.65	-1.34	24.51	34.77	10.26
782	V	87.74	25.45	0.65	-1.34	23.46	34.77	11.31
16-QAM 10M BW Middle Channel								
782	H	88.27	25.98	0.65	-1.34	23.99	34.77	10.78
782	V	87.37	25.08	0.65	-1.34	23.09	34.77	11.68

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW High Channel								
784.5	H	88.13	19.39	0.62	-1.63	17.14	34.77	17.63
784.5	V	87.96	19.22	0.62	-1.63	16.97	34.77	17.80
16-QAM 5M BW High Channel								
784.5	H	88.54	19.80	0.62	-1.63	17.55	34.77	17.22
784.5	V	87.08	18.34	0.62	-1.63	16.09	34.77	18.68

LTE Band 14

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW Low Channel								
790.5	H	86.23	24.45	0.62	-1.3	22.53	34.77	12.24
790.5	V	85.97	24.19	0.62	-1.3	22.27	34.77	12.50
16-QAM 5M BW Low Channel								
790.5	H	86.33	24.55	0.62	-1.3	22.63	34.77	12.14
790.5	V	85.37	23.59	0.62	-1.3	21.67	34.77	13.10

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW Middle Channel								
793.0	H	86.39	24.76	0.62	-1.29	22.85	34.77	11.92
793.0	V	85.22	23.59	0.62	-1.29	21.68	34.77	13.09
16-QAM 5M BW Middle Channel								
793.0	H	86.48	24.85	0.62	-1.29	22.94	34.77	11.83
793.0	V	85.09	23.46	0.62	-1.29	21.55	34.77	13.22
QPSK 10M BW Middle Channel								
793.0	H	86.47	24.84	0.62	-1.29	22.93	34.77	11.84
793.0	V	85.51	23.88	0.62	-1.29	21.97	34.77	12.80
16-QAM 10M BW Middle Channel								
793.0	H	86.59	24.96	0.62	-1.29	23.05	34.77	11.72
793.0	V	85.37	23.74	0.62	-1.29	21.83	34.77	12.94

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW High Channel								
795.5	H	86.66	25.18	0.62	-1.27	23.29	34.77	11.48
795.5	V	85.60	24.12	0.62	-1.27	22.23	34.77	12.54
16-QAM 5M BW High Channel								
795.5	H	86.94	25.46	0.62	-1.27	23.57	34.77	11.20
795.5	V	85.48	24.00	0.62	-1.27	22.11	34.77	12.66

LTE Band 17

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW Low Channel								
706.50	H	88.82	25.02	0.62	-1.72	22.68	34.77	12.09
706.50	V	87.47	23.67	0.62	-1.72	21.33	34.77	13.44
16-QAM 5M BW Low Channel								
706.50	H	88.35	24.55	0.62	-1.72	22.21	34.77	12.56
706.50	V	87.38	23.58	0.62	-1.72	21.24	34.77	13.53
QPSK 10M BW Low Channel								
709.00	H	88.35	24.55	0.62	-1.72	22.21	34.77	12.56
709.00	V	87.96	24.16	0.62	-1.72	21.82	34.77	12.95
16-QAM 10M BW Low Channel								
709.00	H	88.86	25.06	0.62	-1.72	22.72	34.77	12.05
709.00	V	87.90	24.10	0.62	-1.72	21.76	34.77	13.01

LTE Band 17

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW Middle Channel								
710.00	H	88.46	24.96	0.62	-1.70	22.64	34.77	12.13
710.00	V	87.23	23.73	0.62	-1.70	21.41	34.77	13.36
16-QAM 5M BW Middle Channel								
710.00	H	88.09	24.59	0.62	-1.70	22.27	34.77	12.50
710.00	V	87.59	24.09	0.62	-1.70	21.77	34.77	13.00
QPSK 10M BW Middle Channel								
710.00	H	88.77	25.27	0.62	-1.70	22.95	34.77	11.82
710.00	V	87.80	24.30	0.62	-1.70	21.98	34.77	12.79
16-QAM 10M BW Middle Channel								
710.00	H	88.53	25.03	0.62	-1.70	22.71	34.77	12.06
710.00	V	87.90	24.40	0.62	-1.70	22.08	34.77	12.69

LTE Band 17

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW High Channel								
713.50	H	88.98	25.48	0.62	-1.68	23.18	34.77	11.59
713.50	V	87.64	24.14	0.62	-1.68	21.84	34.77	12.93
16-QAM 5M BW High Channel								
713.50	H	88.48	24.98	0.62	-1.68	22.68	34.77	12.09
713.50	V	87.46	23.96	0.62	-1.68	21.66	34.77	13.11
QPSK 10M BW High Channel								
711.00	H	88.53	25.03	0.62	-1.68	22.73	34.77	12.04
711.00	V	87.23	23.73	0.62	-1.68	21.43	34.77	13.34
16-QAM 10M BW High Channel								
711.00	H	88.58	25.08	0.62	-1.68	22.78	34.77	11.99
711.00	V	87.39	23.89	0.62	-1.68	21.59	34.77	13.18

LTE Band 25

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW Low Channel								
1850.70	H	88.74	13.74	0.84	8.67	21.57	33.00	11.43
1850.70	V	87.21	12.21	0.84	8.67	20.04	33.00	12.96
16-QAM 1.4M BW Low Channel								
1850.70	H	88.51	13.51	0.84	8.67	21.34	33.00	11.66
1850.70	V	87.37	12.37	0.84	8.67	20.20	33.00	12.80
QPSK 3M BW Low Channel								
1851.50	H	88.73	13.73	0.84	8.67	21.56	33.00	11.44
1851.50	V	87.99	12.99	0.84	8.67	20.82	33.00	12.18
16-QAM 3M BW Low Channel								
1851.50	H	88.98	13.98	0.84	8.67	21.81	33.00	11.19
1851.50	V	87.07	12.07	0.84	8.67	19.90	33.00	13.10
QPSK 5M BW Low Channel								
1852.50	H	88.01	13.01	0.84	8.67	20.84	33.00	12.16
1852.50	V	87.64	12.64	0.84	8.67	20.47	33.00	12.53
16-QAM 5M BW Low Channel								
1852.50	H	88.41	13.41	0.84	8.67	21.24	33.00	11.76
1852.50	V	87.7	12.70	0.84	8.67	20.53	33.00	12.47

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 10M BW Low Channel								
1855.00	H	88.96	13.96	0.85	8.81	21.92	33.00	11.08
1855.00	V	87.26	12.26	0.85	8.81	20.22	33.00	12.78
16-QAM 10M BW Low Channel								
1855.00	H	88.96	13.96	0.84	8.67	21.79	33.00	11.21
1855.00	V	87.64	12.64	0.84	8.67	20.47	33.00	12.53
QPSK 15M BW Low Channel								
1857.50	H	88.73	13.73	0.84	8.67	21.56	33.00	11.44
1857.50	V	87.42	12.42	0.84	8.67	20.25	33.00	12.75
16-QAM 15M BW Low Channel								
1857.50	H	88.69	13.69	0.84	8.67	21.52	33.00	11.48
1857.50	V	87.78	12.78	0.84	8.67	20.61	33.00	12.39
QPSK 20M BW Low Channel								
1860.00	H	88.12	13.12	0.85	8.81	21.08	33.00	11.92
1860.00	V	87.21	12.21	0.85	8.81	20.17	33.00	12.83
16-QAM 20M BW Low Channel								
1860.00	H	88.09	13.09	0.85	8.81	21.05	33.00	11.95
1860.00	V	87.58	12.58	0.85	8.81	20.54	33.00	12.46

LTE Band 25

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW Middle Channel								
1882.50	H	88.74	13.74	0.85	8.81	21.70	33.00	11.30
1882.50	V	87.86	12.86	0.85	8.81	20.82	33.00	12.18
16-QAM 1.4M BW Middle Channel								
1882.50	H	88.71	13.71	0.85	8.81	21.67	33.00	11.33
1882.50	V	87.37	12.37	0.85	8.81	20.33	33.00	12.67
QPSK 3M BW Middle Channel								
1882.50	H	88.43	13.43	0.85	8.81	21.39	33.00	11.61
1882.50	V	87.88	12.88	0.85	8.81	20.84	33.00	12.16
16-QAM 3M BW Middle Channel								
1882.50	H	88.41	13.41	0.85	8.81	21.37	33.00	11.63
1882.50	V	87.74	12.74	0.85	8.81	20.70	33.00	12.30
QPSK 5M BW Middle Channel								
1882.50	H	88.62	13.62	0.85	8.81	21.58	33.00	11.42
1882.50	V	87.58	12.58	0.85	8.81	20.54	33.00	12.46
16-QAM 5M BW Middle Channel								
1882.50	H	88.43	13.43	0.85	8.81	21.39	33.00	11.61
1882.50	V	87.64	12.64	0.85	8.81	20.60	33.00	12.40

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 10M BW Middle Channel								
1882.50	H	88.43	13.43	0.85	8.81	21.39	33.00	11.61
1882.50	V	87.43	12.43	0.85	8.81	20.39	33.00	12.61
16-QAM 10M BW Middle Channel								
1882.50	H	88.45	13.45	0.85	8.81	21.41	33.00	11.59
1882.50	V	87.07	12.07	0.85	8.81	20.03	33.00	12.97
QPSK 15M BW Middle Channel								
1882.50	H	88.32	13.32	0.85	8.81	21.28	33.00	11.72
1882.50	V	87.19	12.19	0.85	8.81	20.15	33.00	12.85
16-QAM 15M BW Middle Channel								
1882.50	H	88.23	13.23	0.85	8.81	21.19	33.00	11.81
1882.50	V	87.88	12.88	0.85	8.81	20.84	33.00	12.16
QPSK 20M BW Middle Channel								
1882.50	H	88.92	13.92	0.85	8.81	21.88	33.00	11.12
1882.50	V	87.72	12.72	0.85	8.81	20.68	33.00	12.32
16-QAM 20M BW Middle Channel								
1882.50	H	88.86	13.86	0.85	8.81	21.82	33.00	11.18
1882.50	V	87.73	12.73	0.85	8.81	20.69	33.00	12.31

LTE Band 25

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW High Channel								
1914.30	H	88.00	13.00	0.85	8.86	21.01	33.00	11.99
1914.30	V	87.59	12.59	0.85	8.86	20.60	33.00	12.40
16-QAM 1.4M BW High Channel								
1914.30	H	88.19	13.19	0.85	8.86	21.20	33.00	11.80
1914.30	V	87.07	12.07	0.85	8.86	20.08	33.00	12.92
QPSK 3M BW High Channel								
1913.50	H	88.16	13.16	0.85	8.86	21.17	33.00	11.83
1913.50	V	87.20	12.20	0.85	8.86	20.21	33.00	12.79
16-QAM 3M BW High Channel								
1913.50	H	88.80	13.80	0.85	8.86	21.81	33.00	11.19
1913.50	V	87.59	12.59	0.85	8.86	20.60	33.00	12.40
QPSK 5M BW High Channel								
1912.50	H	88.18	13.18	0.85	8.86	21.19	33.00	11.81
1912.50	V	87.71	12.71	0.85	8.86	20.72	33.00	12.28
16-QAM 5M BW High Channel								
1912.50	H	88.42	13.42	0.85	8.86	21.43	33.00	11.57
1912.50	V	87.33	12.33	0.85	8.86	20.34	33.00	12.66

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 10M BW High Channel								
1910.00	H	88.29	13.29	0.85	8.86	21.30	33.00	11.70
1910.00	V	87.64	12.64	0.85	8.86	20.65	33.00	12.35
16-QAM 10M BW High Channel								
1910.00	H	88.87	13.87	0.85	8.86	21.88	33.00	11.12
1910.00	V	87.62	12.62	0.85	8.86	20.63	33.00	12.37
QPSK 15M BW High Channel								
1907.50	H	88.14	13.14	0.85	8.86	21.15	33.00	11.85
1907.50	V	87.00	12.00	0.85	8.86	20.01	33.00	12.99
16-QAM 15M BW High Channel								
1907.50	H	88.55	13.55	0.85	8.86	21.56	33.00	11.44
1907.50	V	87.30	12.30	0.85	8.86	20.31	33.00	12.69
QPSK 20M BW High Channel								
1905.00	H	88.92	13.92	0.85	8.86	21.93	33.00	11.07
1905.00	V	87.73	12.73	0.85	8.86	20.74	33.00	12.26
16-QAM 20M BW High Channel								
1905.00	H	88.58	13.58	0.85	8.86	21.59	33.00	11.41
1905.00	V	87.03	12.03	0.85	8.86	20.04	33.00	12.96

LTE Band 26

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW Low Channel								
814.70	H	88.23	24.53	0.62	-1.20	22.71	34.77	12.06
814.70	V	87.69	23.99	0.62	-1.20	22.17	34.77	12.60
16-QAM 1.4M BW Low Channel								
814.70	H	88.49	24.79	0.62	-1.20	22.97	34.77	11.80
814.70	V	87.87	24.17	0.62	-1.20	22.35	34.77	12.42
QPSK 3M BW Low Channel								
815.50	H	88.66	24.96	0.62	-1.20	23.14	34.77	11.63
815.50	V	87.79	24.09	0.62	-1.20	22.27	34.77	12.50
16-QAM 3M BW Low Channel								
815.50	H	88.98	25.28	0.62	-1.20	23.46	34.77	11.31
815.50	V	87.82	24.12	0.62	-1.20	22.30	34.77	12.47
QPSK 5M BW Low Channel								
816.50	H	88.87	25.17	0.62	-1.20	23.35	34.77	11.42
816.50	V	87.86	24.16	0.62	-1.20	22.34	34.77	12.43
16-QAM 5M BW Low Channel								
816.50	H	88.72	25.02	0.62	-1.20	23.20	34.77	46.25
816.50	V	87.87	24.17	0.62	-1.20	22.35	34.77	47.10

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 10M BW Low Channel								
819.00	H	88.26	24.56	0.62	-1.20	22.74	34.77	12.03
819.00	V	87.04	23.34	0.62	-1.20	21.52	34.77	13.25
16-QAM 10M BW Low Channel								
819.00	H	88.37	24.67	0.62	-1.19	22.86	34.77	46.59
819.00	V	87.47	23.77	0.62	-1.19	21.96	34.77	47.49
QPSK 15M BW Low Channel								
821.50	H	88.66	24.96	0.62	-1.20	23.14	34.77	11.63
821.50	V	87.09	23.39	0.62	-1.20	21.57	34.77	13.20
16-QAM 15M BW Low Channel								
821.50	H	88.89	25.19	0.62	-1.20	23.37	34.77	11.40
821.50	V	87.07	23.37	0.62	-1.20	21.55	34.77	13.22

LTE Band 26

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW Middle Channel								
831.50	H	88.42	24.42	0.63	-1.16	22.63	34.77	12.14
831.50	V	87.51	23.51	0.63	-1.16	21.72	34.77	13.05
16-QAM 1.4M BW Middle Channel								
831.50	H	88.73	24.73	0.63	-1.16	22.94	34.77	11.83
831.50	V	87.52	23.52	0.63	-1.16	21.73	34.77	13.04
QPSK 3M BW Middle Channel								
831.50	H	88.32	24.32	0.63	-1.16	22.53	34.77	12.24
831.50	V	87.20	23.20	0.63	-1.16	21.41	34.77	13.36
16-QAM 3M BW Middle Channel								
831.50	H	88.30	24.30	0.63	-1.16	22.51	34.77	12.26
831.50	V	87.74	23.74	0.63	-1.16	21.95	34.77	12.82
QPSK 5M BW Middle Channel								
831.50	H	88.21	24.21	0.63	-1.16	22.42	34.77	12.35
831.50	V	87.46	23.46	0.63	-1.16	21.67	34.77	13.10
16-QAM 5M BW Middle Channel								
831.50	H	88.63	24.63	0.63	-1.16	22.84	34.77	11.93
831.50	V	87.91	23.91	0.63	-1.16	22.12	34.77	12.65

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 10M BW Middle Channel								
831.50	H	88.46	24.46	0.63	-1.16	22.67	34.77	12.10
831.50	V	87.38	23.38	0.63	-1.16	21.59	34.77	13.18
16-QAM 10M BW Middle Channel								
831.50	H	88.72	24.72	0.63	-1.16	22.93	34.77	11.84
831.50	V	87.75	23.75	0.63	-1.16	21.96	34.77	12.81
QPSK 15M BW Middle Channel								
831.50	H	88.60	24.60	0.63	-1.16	22.81	34.77	11.96
831.50	V	87.33	23.33	0.63	-1.16	21.54	34.77	13.23
16-QAM 15M BW Middle Channel								
831.50	H	88.29	24.29	0.63	-1.16	22.50	34.77	12.27
831.50	V	87.22	23.22	0.63	-1.16	21.43	34.77	13.34

LTE Band 26

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW High Channel								
848.30	H	88.66	24.66	0.63	-1.11	22.92	34.77	11.85
848.30	V	87.62	23.62	0.63	-1.11	21.88	34.77	12.89
16-QAM 1.4M BW High Channel								
848.30	H	88.06	24.06	0.63	-1.11	22.32	34.77	12.45
848.30	V	87.00	23.00	0.63	-1.11	21.26	34.77	13.51
QPSK 3M BW High Channel								
847.50	H	88.48	24.48	0.63	-1.11	22.74	34.77	12.03
847.50	V	87.23	23.23	0.63	-1.11	21.49	34.77	13.28
16-QAM 3M BW High Channel								
847.50	H	88.83	24.83	0.63	-1.11	23.09	34.77	11.68
847.50	V	87.10	23.10	0.63	-1.11	21.36	34.77	13.41
QPSK 5M BW High Channel								
846.50	H	88.41	24.41	0.63	-1.11	22.67	34.77	12.10
846.50	V	87.86	23.86	0.63	-1.11	22.12	34.77	12.65
16-QAM 5M BW High Channel								
846.50	H	88.78	24.78	0.63	-1.11	23.04	34.77	11.73
846.50	V	87.18	23.18	0.63	-1.11	21.44	34.77	13.33

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 10M BW High Channel								
844.00	H	88.19	24.19	0.63	-1.11	22.45	34.77	12.32
844.00	V	87.08	23.08	0.63	-1.11	21.34	34.77	13.43
16-QAM 10M BW High Channel								
844.00	H	88.75	24.75	0.63	-1.11	23.01	34.77	11.76
844.00	V	87.75	23.75	0.63	-1.11	22.01	34.77	12.76
QPSK 15M BW High Channel								
841.50	H	88.87	24.87	0.63	-1.11	23.13	34.77	11.64
841.50	V	87.19	23.19	0.63	-1.11	21.45	34.77	13.32
16-QAM 15M BW High Channel								
841.50	H	88.78	24.78	0.63	-1.11	23.04	34.77	11.73
841.50	V	87.66	23.66	0.63	-1.11	21.92	34.77	12.85

LTE Band 41

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW Low Channel								
2557.50	H	84.25	11.94	0.89	10.02	21.07	33.00	11.93
2557.50	V	83.19	10.88	0.89	10.02	20.01	33.00	12.99
16-QAM 5M BW Low Channel								
2557.50	H	84.52	12.21	0.89	10.02	21.34	33.00	11.66
2557.50	V	83.21	10.90	0.89	10.02	20.03	33.00	12.97
QPSK 10M BW Low Channel								
2560.00	H	84.81	12.50	0.89	10.02	21.63	33.00	11.37
2560.00	V	83.61	11.30	0.89	10.02	20.43	33.00	12.57
16-QAM 10M BW Low Channel								
2560.00	H	84.49	12.18	0.89	10.02	21.31	33.00	11.69
2560.00	V	83.97	11.66	0.89	10.02	20.79	33.00	12.21
QPSK 15M BW Low Channel								
2562.50	H	84.23	11.92	0.89	10.02	21.05	33.00	11.95
2562.50	V	83.99	11.68	0.89	10.02	20.81	33.00	12.19
16-QAM 15M BW Low Channel								
2562.50	H	84.99	12.68	0.89	10.02	21.81	33.00	11.19
2562.50	V	83.99	11.68	0.89	10.02	20.81	33.00	12.19
QPSK 20M BW Low Channel								
2565.00	H	84.88	12.57	0.89	10.02	21.70	33.00	11.30
2565.00	V	83.52	11.21	0.89	10.02	20.34	33.00	12.66
16-QAM 20M BW Low Channel								
2565.00	H	85.10	12.79	0.89	10.02	21.92	33.00	11.08
2565.00	V	83.76	11.45	0.89	10.02	20.58	33.00	12.42

LTE Band 41

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW Middle Channel								
2605.00	H	85.00	12.79	0.9	9.97	21.86	33.00	11.14
2605.00	V	84.00	11.79	0.9	9.97	20.86	33.00	12.14
16-QAM 5M BW Middle Channel								
2605.00	H	84.98	12.77	0.9	9.97	21.84	33.00	11.16
2605.00	V	83.56	11.35	0.9	9.97	20.42	33.00	12.58
QPSK 10M BW Middle Channel								
2605.00	H	84.79	12.58	0.9	9.97	21.65	33.00	11.35
2605.00	V	83.88	11.67	0.9	9.97	20.74	33.00	12.26
16-QAM 10M BW Middle Channel								
2605.00	H	84.86	12.65	0.9	9.97	21.72	33.00	11.28
2605.00	V	83.77	11.56	0.9	9.97	20.63	33.00	12.37
QPSK 15M BW Middle Channel								
2605.00	H	85.13	12.92	0.9	9.97	21.99	33.00	11.01
2605.00	V	83.69	11.48	0.9	9.97	20.55	33.00	12.45
16-QAM 15M BW Middle Channel								
2605.00	H	85.08	12.87	0.9	9.97	21.94	33.00	11.06
2605.00	V	83.46	11.25	0.9	9.97	20.32	33.00	12.68
QPSK 20M BW Middle Channel								
2605.00	H	84.99	12.78	0.9	9.97	21.85	33.00	11.15
2605.00	V	84.02	11.81	0.9	9.97	20.88	33.00	12.12
16-QAM 20M BW Middle Channel								
2605.00	H	84.96	12.75	0.9	9.97	21.82	33.00	11.18
2605.00	V	83.66	11.45	0.9	9.97	20.52	33.00	12.48

LTE Band 41

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW High Channel								
2652.50	H	84.91	12.87	0.9	9.89	21.86	33.00	11.14
2652.50	V	83.92	11.88	0.9	9.89	20.87	33.00	12.13
16-QAM 5M BW High Channel								
2652.50	H	84.89	12.85	0.9	9.89	21.84	33.00	11.16
2652.50	V	83.58	11.54	0.9	9.89	20.53	33.00	12.47
QPSK 10M BW High Channel								
2650.00	H	84.79	12.75	0.9	9.89	21.74	33.00	11.26
2650.00	V	83.75	11.71	0.9	9.89	20.70	33.00	12.30
16-QAM 10M BW High Channel								
2650.00	H	84.09	12.05	0.9	9.89	21.04	33.00	11.96
2650.00	V	83.58	11.54	0.9	9.89	20.53	33.00	12.47
QPSK 15M BW High Channel								
2647.50	H	84.56	12.52	0.9	9.89	21.51	33.00	11.49
2647.50	V	83.78	11.74	0.9	9.89	20.73	33.00	12.27
16-QAM 15M BW High Channel								
2647.50	H	85.01	12.97	0.9	9.89	21.96	33.00	11.04
2647.50	V	83.61	11.57	0.9	9.89	20.56	33.00	12.44
QPSK 20M BW High Channel								
2645.00	H	84.86	12.82	0.9	9.89	21.81	33.00	11.19
2645.00	V	83.53	11.49	0.9	9.89	20.48	33.00	12.52
16-QAM 20M BW High Channel								
2645.00	H	84.09	12.05	0.9	9.89	21.04	33.00	11.96
2645.00	V	83.22	11.18	0.9	9.89	20.17	33.00	12.83

LTE Band 66

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW Low Channel								
1710.7	H	88.68	12.77	0.84	8.54	20.47	30.00	9.53
1710.7	V	87.27	11.36	0.84	8.54	19.06	30.00	10.94
16-QAM 1.4M BW Low Channel								
1710.7	H	88.87	12.96	0.84	8.54	20.66	30.00	9.34
1710.7	V	87.77	11.86	0.84	8.54	19.56	30.00	10.44
QPSK 3M BW Low Channel								
1711.5	H	88.59	12.69	0.84	8.54	20.39	30.00	9.61
1711.5	V	87.14	11.24	0.84	8.54	18.94	30.00	11.06
16-QAM 3M BW Low Channel								
1711.5	H	88.21	12.31	0.84	8.54	20.01	30.00	9.99
1711.5	V	87.25	11.35	0.84	8.54	19.05	30.00	10.95
QPSK 5M BW Low Channel								
1712.5	H	88.14	12.25	0.84	8.54	19.95	30.00	10.05
1712.5	V	87.32	11.43	0.84	8.54	19.13	30.00	10.87
16-QAM 5M BW Low Channel								
1712.5	H	88.03	12.14	0.84	8.54	19.84	30.00	10.16
1712.5	V	87.72	11.83	0.84	8.54	19.53	30.00	10.47

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 10M BW Low Channel								
1715.0	H	88.28	12.41	0.84	8.54	20.11	30.00	9.89
1715.0	V	87.79	11.92	0.84	8.54	19.62	30.00	10.38
16-QAM 10M BW Low Channel								
1715.0	H	88.77	12.90	0.84	8.54	20.60	30.00	9.40
1715.0	V	87.42	11.55	0.84	8.54	19.25	30.00	10.75
QPSK 15M BW Low Channel								
1717.5	H	88.53	12.67	0.84	8.55	20.38	30.00	9.62
1717.5	V	87.78	11.92	0.84	8.55	19.63	30.00	10.37
16-QAM 15M BW Low Channel								
1717.5	H	88.46	12.60	0.84	8.55	20.31	30.00	9.69
1717.5	V	87.39	11.53	0.84	8.55	19.24	30.00	10.76
QPSK 20M BW Low Channel								
1720.0	H	88.79	12.95	0.84	8.55	20.66	30.00	9.34
1720.0	V	87.14	11.30	0.84	8.55	19.01	30.00	10.99
16-QAM 20M BW Low Channel								
1720.0	H	88.37	12.53	0.84	8.55	20.24	30.00	9.76
1720.0	V	87.31	11.47	0.84	8.55	19.18	30.00	10.82

LTE Band 66

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW Middle Channel								
1745.0	H	88.99	13.33	0.84	8.59	21.08	30.00	8.92
1745.0	V	87.71	12.05	0.84	8.59	19.80	30.00	10.20
16-QAM 1.4M BW Middle Channel								
1745.0	H	88.27	12.61	0.84	8.59	20.36	30.00	9.64
1745.0	V	87.29	11.63	0.84	8.59	19.38	30.00	10.62
QPSK 3M BW Middle Channel								
1745.0	H	88.05	12.39	0.84	8.59	20.14	30.00	9.86
1745.0	V	87.78	12.12	0.84	8.59	19.87	30.00	10.13
16-QAM 3M BW Middle Channel								
1745.0	H	88.62	12.96	0.84	8.59	20.71	30.00	9.29
1745.0	V	87.04	11.38	0.84	8.59	19.13	30.00	10.87
QPSK 5M BW Middle Channel								
1745.0	H	88.73	13.07	0.84	8.59	20.82	30.00	9.18
1745.0	V	87.83	12.17	0.84	8.59	19.92	30.00	10.08
16-QAM 5M BW Middle Channel								
1745.0	H	88.06	12.40	0.84	8.59	20.15	30.00	9.85
1745.0	V	87.21	11.55	0.84	8.59	19.30	30.00	10.70

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 10M BW Middle Channel								
1745.0	H	88.27	12.61	0.84	8.59	20.36	30.00	9.64
1745.0	V	87.68	12.02	0.84	8.59	19.77	30.00	10.23
16-QAM 10M BW Middle Channel								
1745.0	H	89.00	13.34	0.84	8.59	21.09	30.00	8.91
1745.0	V	87.51	11.85	0.84	8.59	19.60	30.00	10.40
QPSK 15M BW Middle Channel								
1745.0	H	88.54	12.88	0.84	8.59	20.63	30.00	9.37
1745.0	V	87.66	12.00	0.84	8.59	19.75	30.00	10.25
16-QAM 15M BW Middle Channel								
1745.0	H	88.89	13.23	0.84	8.59	20.98	30.00	9.02
1745.0	V	87.68	12.02	0.84	8.59	19.77	30.00	10.23
QPSK 20M BW Middle Channel								
1745.0	H	88.62	12.96	0.84	8.59	20.71	30.00	9.29
1745.0	V	87.85	12.19	0.84	8.59	19.94	30.00	10.06
16-QAM 20M BW Middle Channel								
1745.0	H	88.15	12.49	0.84	8.59	20.24	30.00	9.76
1745.0	V	87.84	12.18	0.84	8.59	19.93	30.00	10.07

LTE Band 66

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW High Channel								
1779.3	H	88.45	13.02	0.84	8.65	20.83	30.00	9.17
1779.3	V	87.17	11.74	0.84	8.65	19.55	30.00	10.45
16-QAM 1.4M BW High Channel								
1779.3	H	88.32	12.89	0.84	8.65	20.70	30.00	9.30
1779.3	V	87.29	11.86	0.84	8.65	19.67	30.00	10.33
QPSK 3M BW High Channel								
1778.5	H	88.57	13.13	0.84	8.64	20.93	30.00	9.07
1778.5	V	87.13	11.69	0.84	8.64	19.49	30.00	10.51
16-QAM 3M BW High Channel								
1778.5	H	88.36	12.92	0.84	8.64	20.72	30.00	9.28
1778.5	V	87.03	11.59	0.84	8.64	19.39	30.00	10.61
QPSK 5M BW High Channel								
1777.5	H	88.06	12.62	0.84	8.64	20.42	30.00	9.58
1777.5	V	87.71	12.27	0.84	8.64	20.07	30.00	9.93
16-QAM 5M BW High Channel								
1777.5	H	88.97	13.53	0.84	8.64	21.33	30.00	8.67
1777.5	V	87.45	12.01	0.84	8.64	19.81	30.00	10.19

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 10M BW High Channel								
1775	H	88.43	12.97	0.84	8.64	20.77	30.00	9.23
1775	V	87.08	11.62	0.84	8.64	19.42	30.00	10.58
16-QAM 10M BW High Channel								
1775	H	88.53	13.07	0.84	8.64	20.87	30.00	9.13
1775	V	87.97	12.51	0.84	8.64	20.31	30.00	9.69
QPSK 15M BW High Channel								
1772.5	H	88.89	13.41	0.84	8.64	21.21	30.00	8.79
1772.5	V	87.80	12.32	0.84	8.64	20.12	30.00	9.88
16-QAM 15M BW High Channel								
1772.5	H	88.17	12.69	0.84	8.64	20.49	30.00	9.51
1772.5	V	87.14	11.66	0.84	8.64	19.46	30.00	10.54
QPSK 20M BW High Channel								
1770.0	H	88.92	13.43	0.84	8.63	21.22	30.00	8.78
1770.0	V	87.07	11.58	0.84	8.63	19.37	30.00	10.63
16-QAM 20M BW High Channel								
1770.0	H	88.52	13.03	0.84	8.63	20.82	30.00	9.18
1770.0	V	87.05	11.56	0.84	8.63	19.35	30.00	10.65

LTE Band 71

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW Low Channel								
665.5	H	86.21	26.35	0.61	-1.37	24.37	34.77	10.40
665.5	V	85.59	25.73	0.61	-1.37	23.75	34.77	11.02
16-QAM 5M BW Low Channel								
665.5	H	86.85	26.99	0.61	-1.37	25.01	34.77	9.76
665.5	V	85.59	25.73	0.61	-1.37	23.75	34.77	11.02
QPSK 10M BW Low Channel								
668.0	H	86.74	26.62	0.61	-1.4	24.61	34.77	10.16
668.0	V	85.48	25.36	0.61	-1.4	23.35	34.77	11.42
16-QAM 10M BW Low Channel								
668.0	H	86.64	26.52	0.61	-1.4	24.51	34.77	10.26
668.0	V	85.32	25.20	0.61	-1.4	23.19	34.77	11.58
QPSK 15M BW Low Channel								
670.5	H	86.61	26.24	0.61	-1.43	24.20	34.77	10.57
670.5	V	85.31	24.94	0.61	-1.43	22.90	34.77	11.87
16-QAM 15M BW Low Channel								
670.5	H	86.78	26.41	0.61	-1.43	24.37	34.77	10.40
670.5	V	85.35	24.98	0.61	-1.43	22.94	34.77	11.83
QPSK 20M BW Low Channel								
673.0	H	86.69	26.05	0.61	-1.45	23.99	34.77	10.78
673.0	V	85.63	24.99	0.61	-1.45	22.93	34.77	11.84
16-QAM 20M BW Low Channel								
673.0	H	86.08	25.44	0.61	-1.45	23.38	34.77	11.39
673.0	V	85.37	24.73	0.61	-1.45	22.67	34.77	12.10

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW Middle Channel								
680.5	H	86.44	25.05	0.61	-1.54	22.90	34.77	11.87
680.5	V	85.88	24.49	0.61	-1.54	22.34	34.77	12.43
16-QAM 5M BW Middle Channel								
680.5	H	86.15	24.76	0.61	-1.54	22.61	34.77	12.16
680.5	V	85.37	23.98	0.61	-1.54	21.83	34.77	12.94
QPSK 10M BW Middle Channel								
680.5	H	86.78	25.39	0.61	-1.54	23.24	34.77	11.53
680.5	V	85.94	24.55	0.61	-1.54	22.40	34.77	12.37
16-QAM 10M BW Middle Channel								
680.5	H	86.78	25.39	0.61	-1.54	23.24	34.77	11.53
680.5	V	85.82	24.43	0.61	-1.54	22.28	34.77	12.49
QPSK 15M BW Middle Channel								
680.5	H	86.66	25.27	0.61	-1.54	23.12	34.77	11.65
680.5	V	85.34	23.95	0.61	-1.54	21.80	34.77	12.97
16-QAM 15M BW Middle Channel								
680.5	H	86.25	24.86	0.61	-1.54	22.71	34.77	12.06
680.5	V	85.79	24.40	0.61	-1.54	22.25	34.77	12.52
QPSK 20M BW Middle Channel								
680.5	H	86.31	24.92	0.61	-1.54	22.77	34.77	12.00
680.5	V	85.62	24.23	0.61	-1.54	22.08	34.77	12.69
16-QAM 20M BW Middle Channel								
680.5	H	86.27	24.88	0.61	-1.54	22.73	34.77	12.04
680.5	V	85.86	24.47	0.61	-1.54	22.32	34.77	12.45

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW High Channel								
695.5	H	86.65	23.74	0.62	-1.7	21.42	34.77	13.35
695.5	V	85.95	23.04	0.62	-1.7	20.72	34.77	14.05
16-QAM 5M BW High Channel								
695.5	H	86.91	24.00	0.62	-1.7	21.68	34.77	13.09
695.5	V	85.92	23.01	0.62	-1.7	20.69	34.77	14.08
QPSK 10M BW High Channel								
693.0	H	86.48	23.82	0.62	-1.67	21.53	34.77	13.24
693.0	V	85.41	22.75	0.62	-1.67	20.46	34.77	14.31
16-QAM 10M BW High Channel								
693.0	H	86.56	23.90	0.62	-1.67	21.61	34.77	13.16
693.0	V	85.36	22.70	0.62	-1.67	20.41	34.77	14.36
QPSK 15M BW High Channel								
690.5	H	86.58	24.18	0.62	-1.65	21.91	34.77	12.86
690.5	V	85.59	23.19	0.62	-1.65	20.92	34.77	13.85
16-QAM 15M BW High Channel								
690.5	H	86.72	24.32	0.62	-1.65	22.05	34.77	12.72
690.5	V	85.74	23.34	0.62	-1.65	21.07	34.77	13.70
QPSK 20M BW High Channel								
688.0	H	86.95	24.80	0.62	-1.62	22.56	34.77	12.21
688.0	V	85.02	22.87	0.61	-1.62	20.64	34.77	14.13
16-QAM 20M BW High Channel								
688.0	H	86.13	23.98	0.62	-1.62	21.74	34.77	13.03
688.0	V	85.78	23.63	0.62	-1.62	21.39	34.77	13.38

Note:
All above data were tested without amplifier.
Absolute Level (dBm) = Submitted Level (dBm) - Cable loss (dB) + Antenna Gain (dBd/dBi)
Margin (dB) = Limit (dBm) - Absolute Level (dBm)

FCC §2.1049, §22.917, §22.905 &§24.238, §27.53, §90.209- OCCUPIED BANDWIDTH

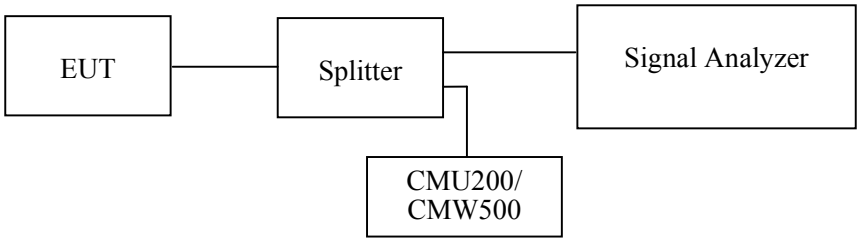
Applicable Standards

FCC 47 §2.1049, §22.917, §22.905; §24.238; §27.53; §90.209.

Test Procedure

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

The resolution bandwidth of the spectrum analyzer was set at 50 kHz (WCDMA) & 30 kHz/100 kHz/300 kHz (LTE), and the 26 dB & 99% bandwidth was recorded.



Test Data

Environmental Conditions

Temperature:	23.1-24.9 ℃
Relative Humidity:	45-50 %
ATM Pressure:	101.1-101.9 kPa

The testing was performed by Stone Zhang from 2020-08-23 to 2021-05-06.

EUT operation mode: Transmitting

Test Result: Compliant.

WCDMA Band V

Mode	Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
WCDMA (Rel 99)	Low	826.4	4.709	4.148
	Middle	836.6	4.709	4.148
	High	846.6	4.729	4.148
WCDMA (HSDPA)	Low	826.4	4.709	4.128
	Middle	836.6	4.709	4.128
	High	846.6	4.729	4.128
WCDMA (HSUPA)	Low	826.4	4.709	4.148
	Middle	836.6	4.689	4.148
	High	846.6	4.729	4.128
WCDMA (HSPA+)	Low	826.4	4.709	4.148
	Middle	836.6	4.689	4.148
	High	846.6	4.709	4.128

WCDMA Band II

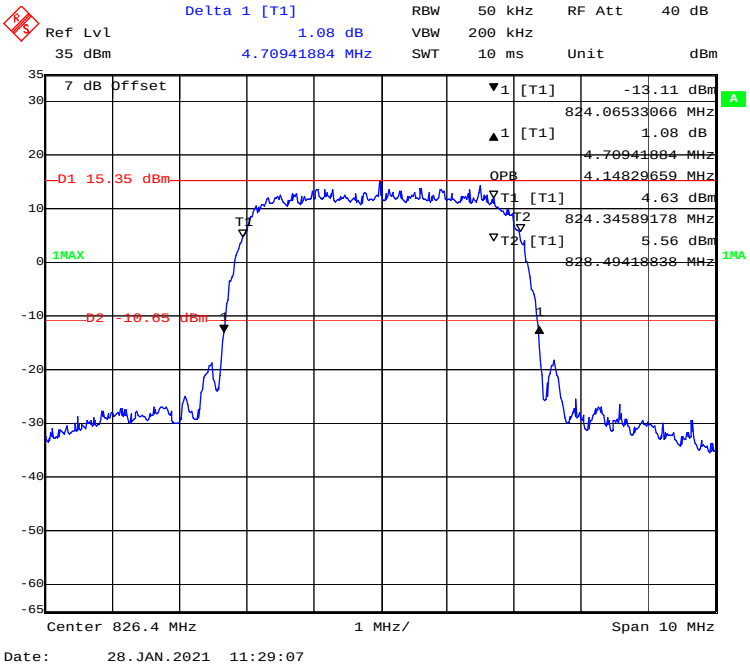
Mode	Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
WCDMA (Rel 99)	Low	1852.4	4.709	4.148
	Middle	1880.0	4.729	4.148
	High	1907.6	4.689	4.128
WCDMA (HSDPA)	Low	1852.4	4.729	4.128
	Middle	1880.0	4.749	4.148
	High	1907.6	4.689	4.128
WCDMA (HSUPA)	Low	1852.4	4.729	4.128
	Middle	1880.0	4.729	4.148
	High	1907.6	4.709	4.148
WCDMA (HSPA+)	Low	1852.4	4.709	4.108
	Middle	1880.0	4.729	4.128
	High	1907.6	4.729	4.148

WCDMA Band IV

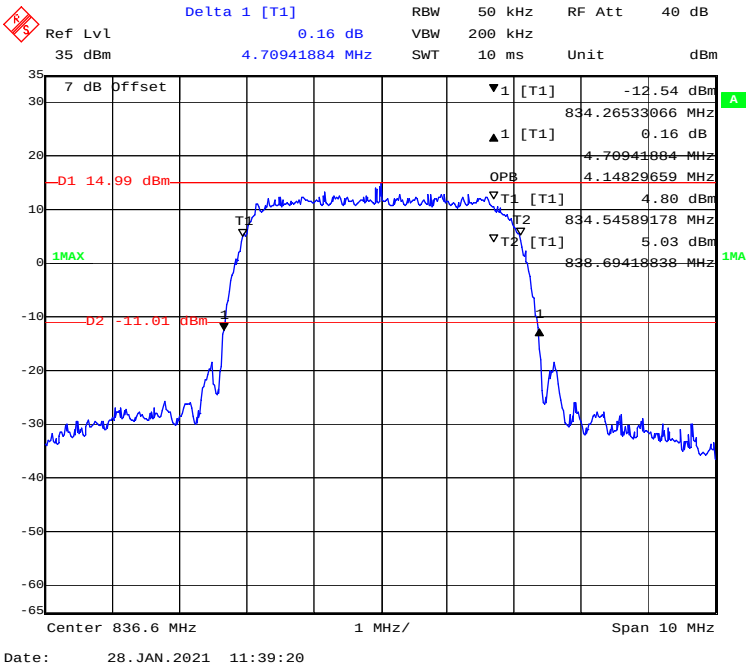
Mode	Channel	Frequency (MHz)	26 dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
WCDMA (Rel 99)	Low	1712.4	4.810	4.168
	Middle	1732.6	4.749	4.168
	High	1752.6	4.729	4.128
WCDMA (HSDPA)	Low	1712.4	4.770	4.148
	Middle	1732.6	4.770	4.148
	High	1752.6	4.729	4.148
WCDMA (HSUPA)	Low	1712.4	4.729	4.168
	Middle	1732.6	4.770	4.148
	High	1752.6	4.770	4.148
WCDMA (HSPA+)	Low	1712.4	4.749	4.168
	Middle	1732.6	4.770	4.168
	High	1752.6	4.770	4.168

WCDMA Band V

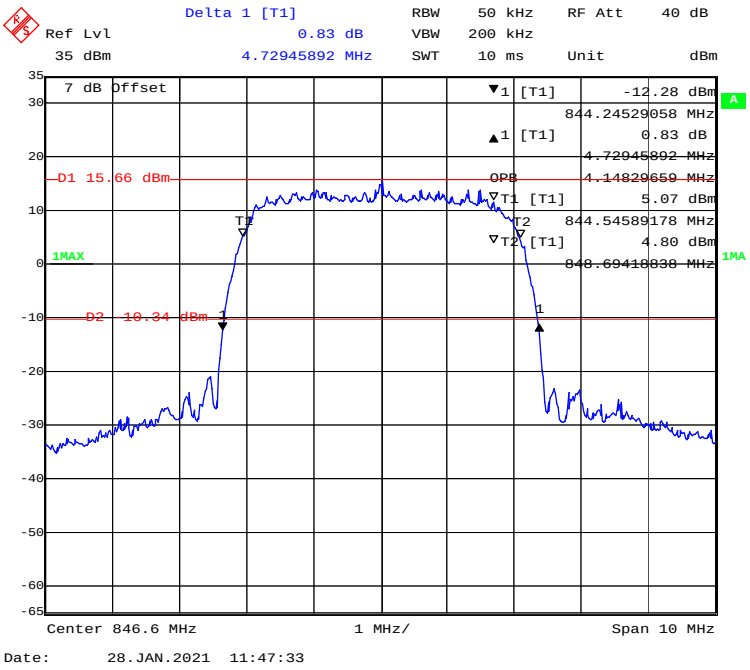
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) Low channel



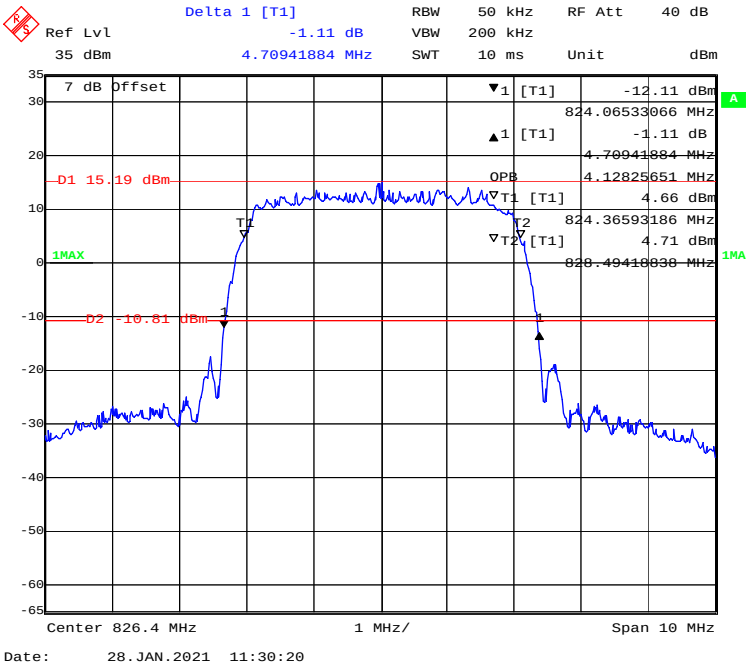
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) Middle channel



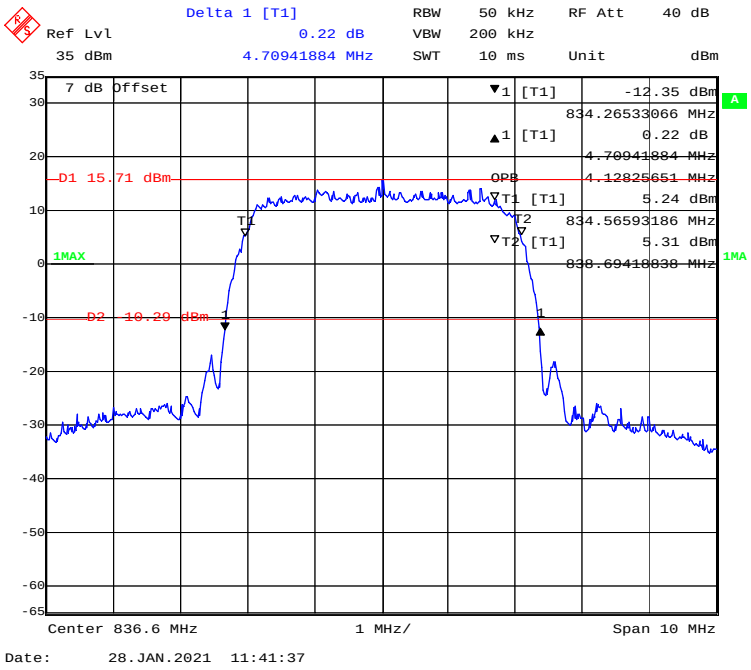
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) High channel



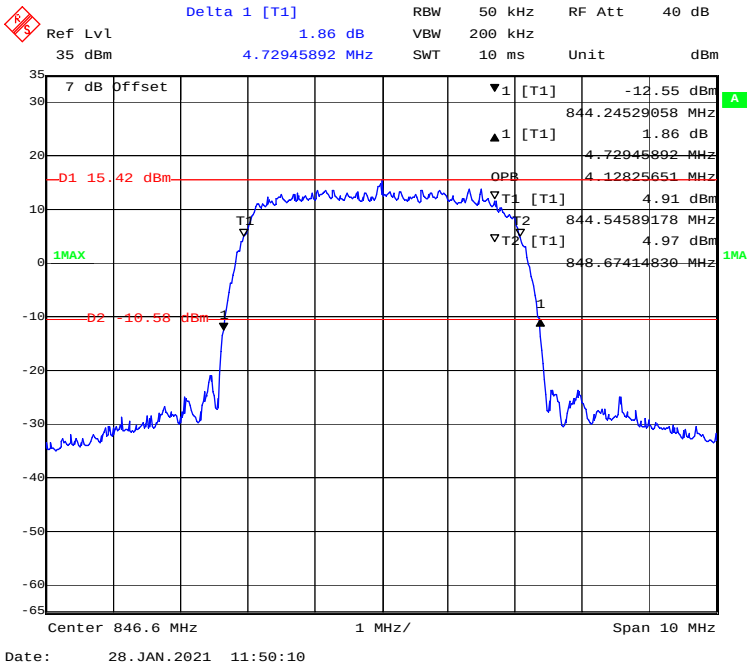
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) Low channel



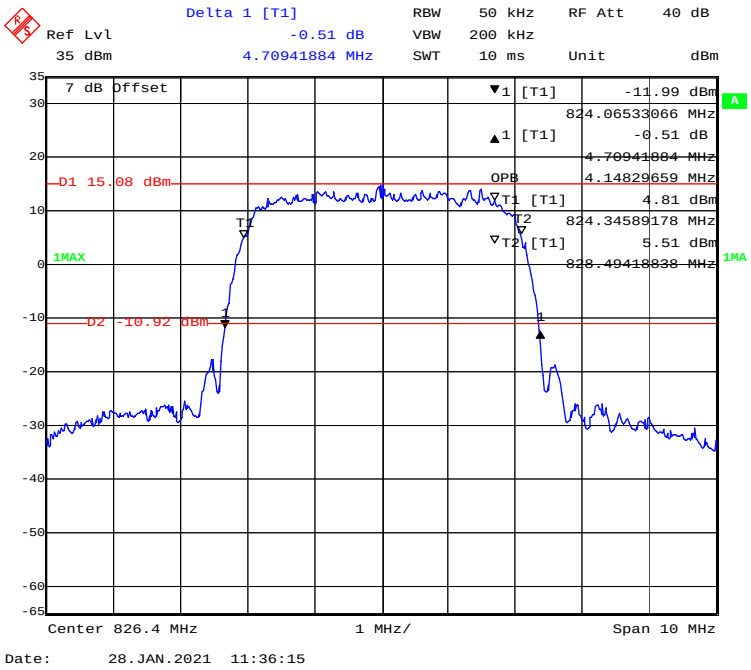
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) Middle channel



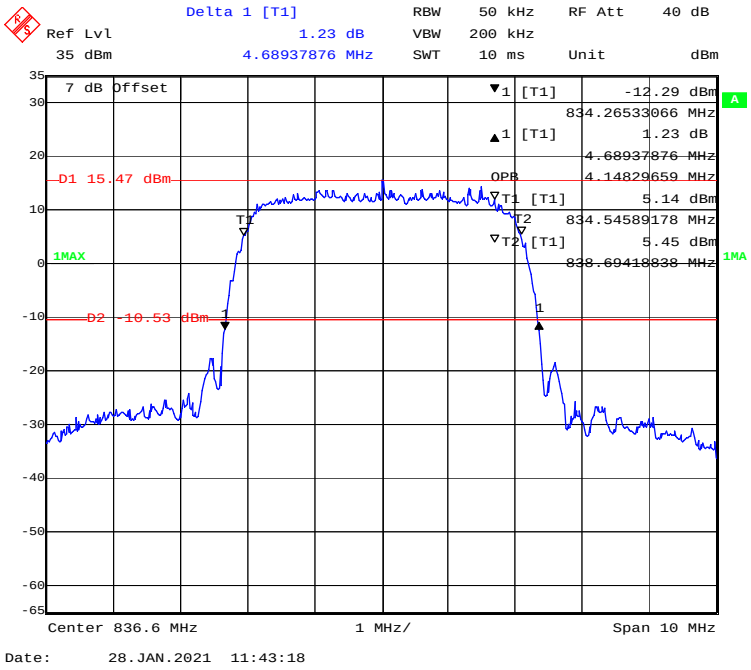
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) High channel



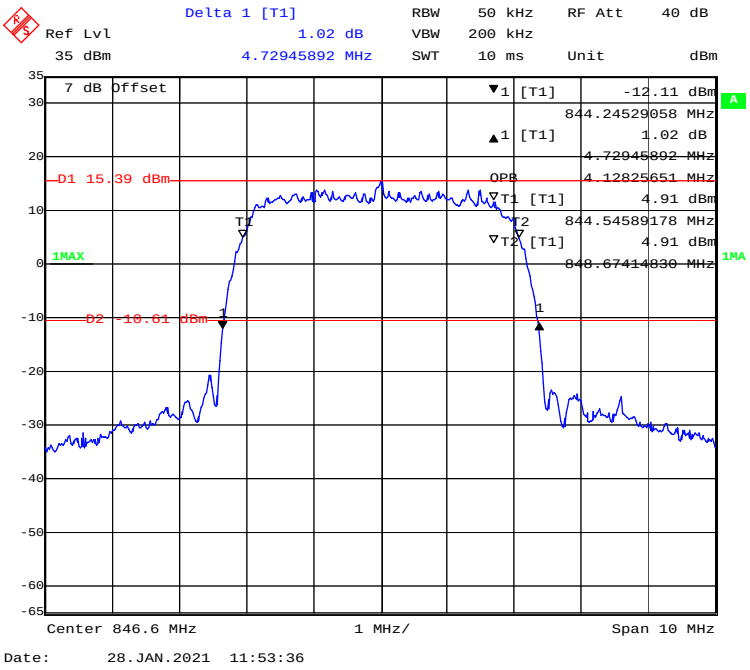
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) Low channel



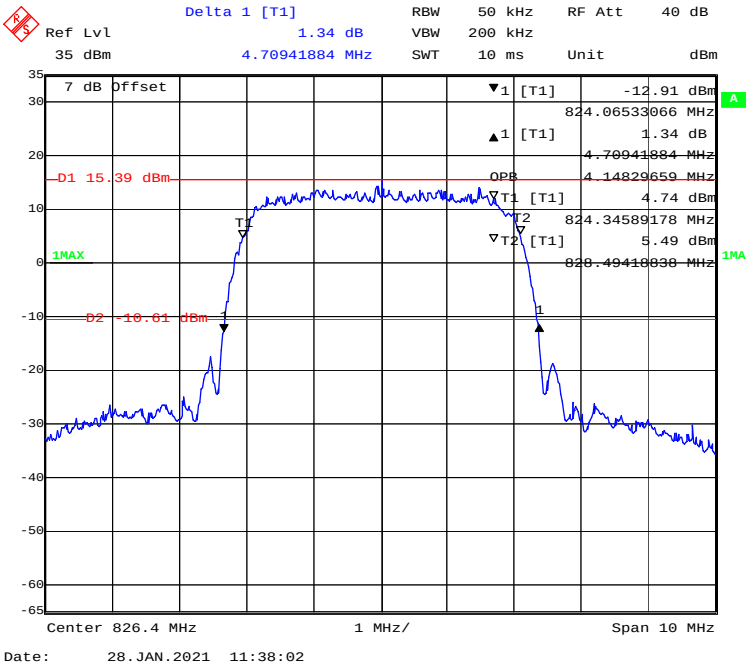
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) Middle channel



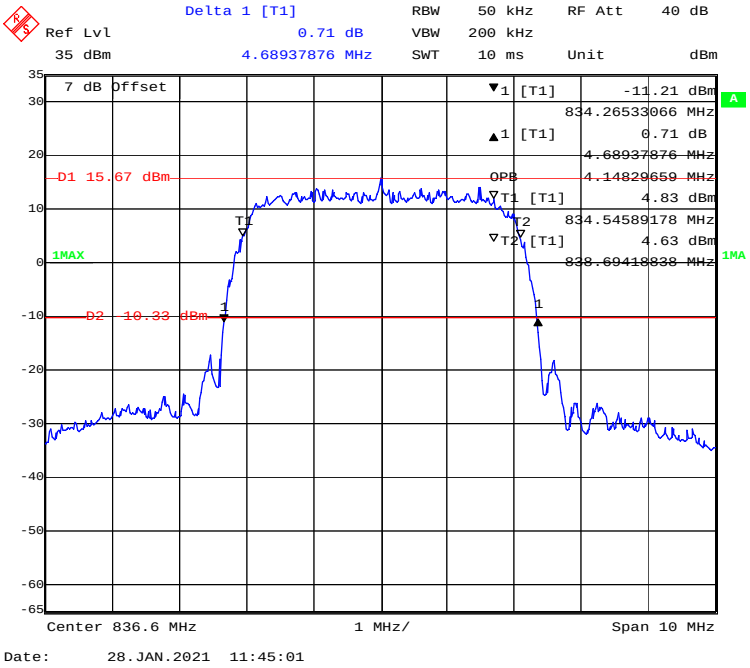
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) High channel



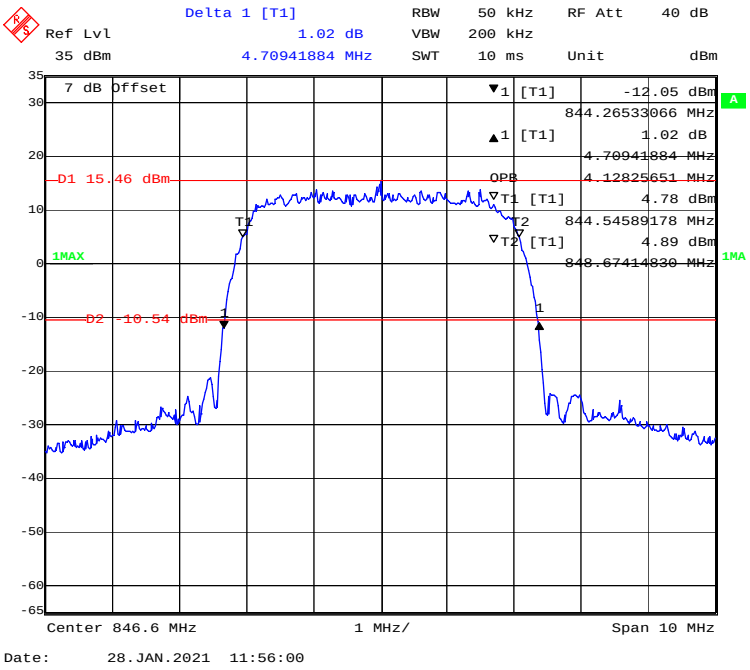
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSPA+) Low channel



99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSPA+) Middle channel

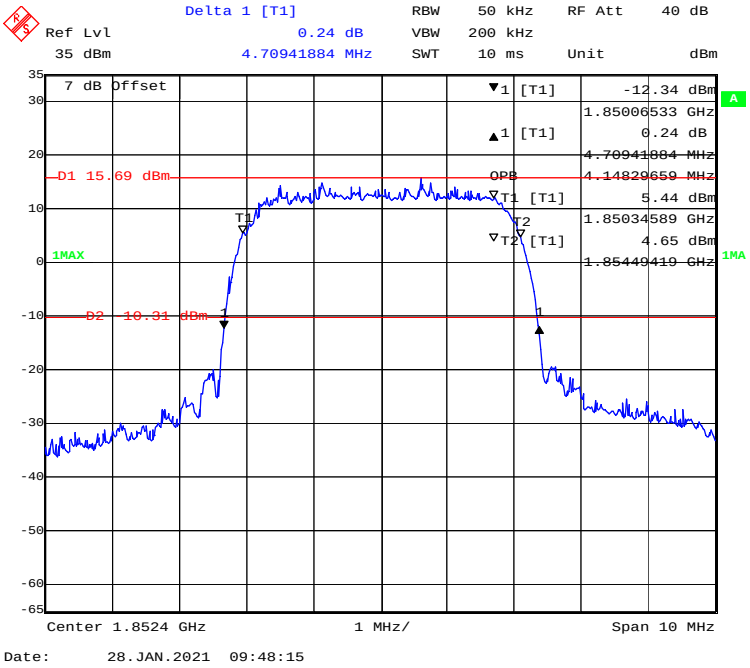


99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSPA+) High channel

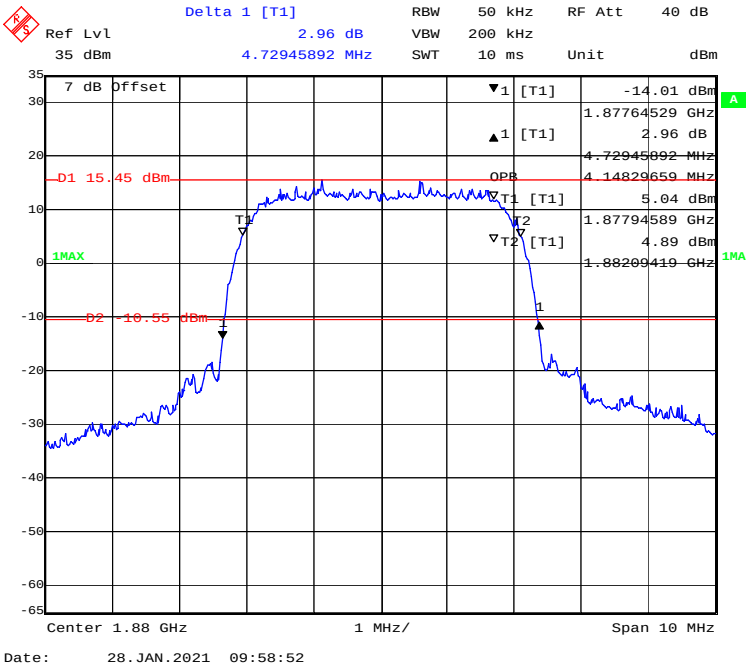


WCDMA Band II

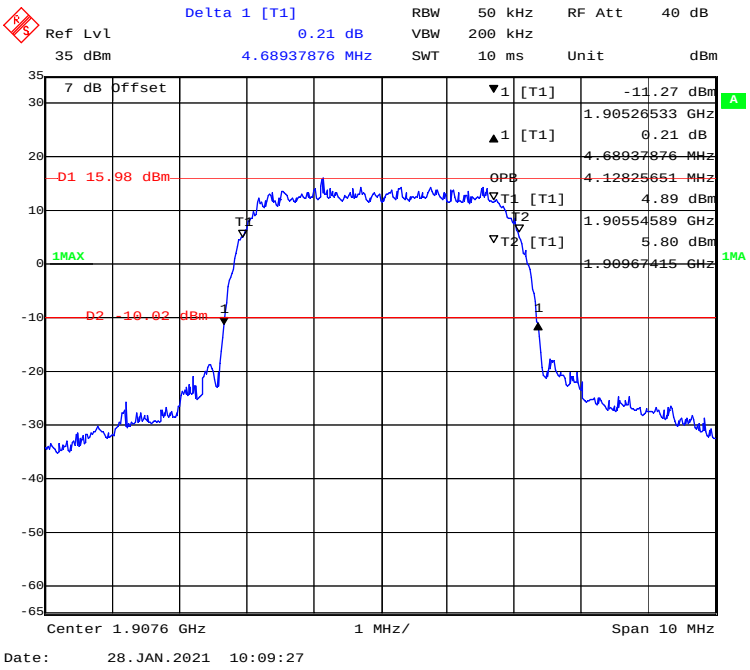
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) Low channel



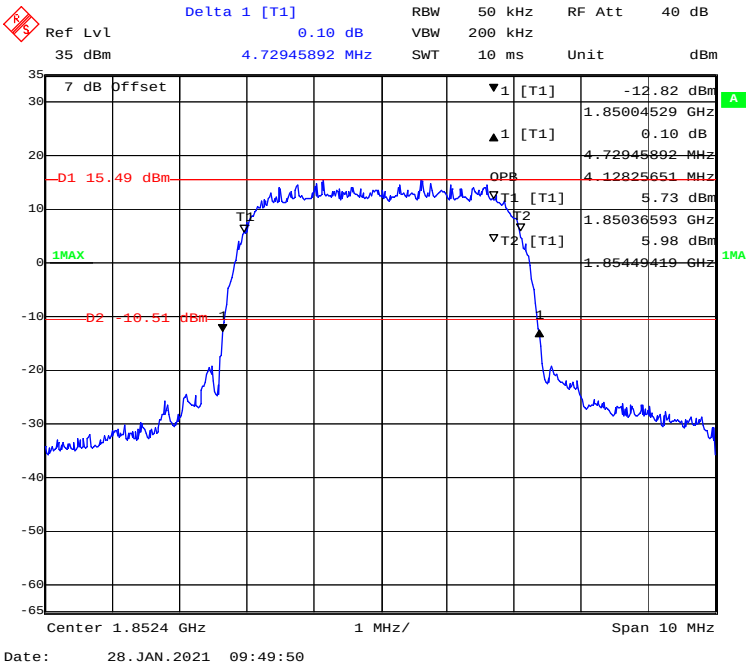
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) Middle channel



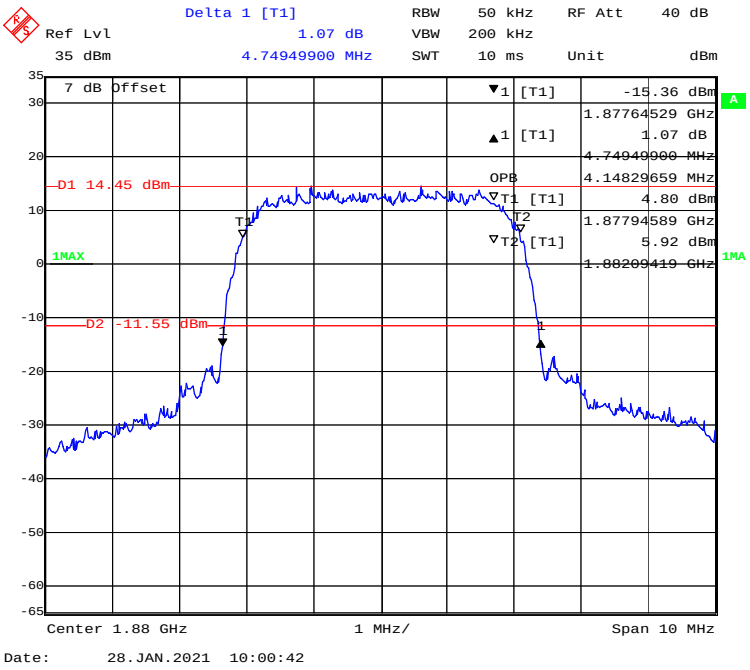
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) High channel



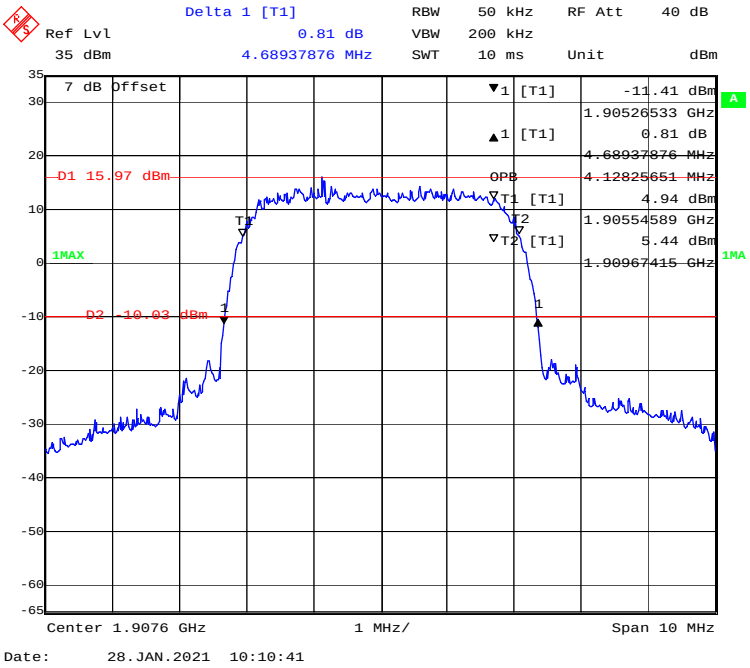
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) Low channel



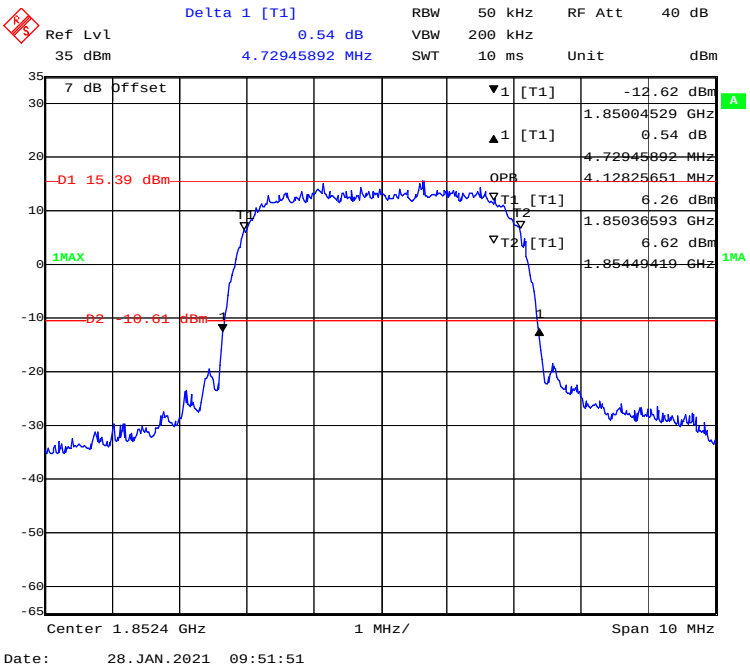
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) Middle channel



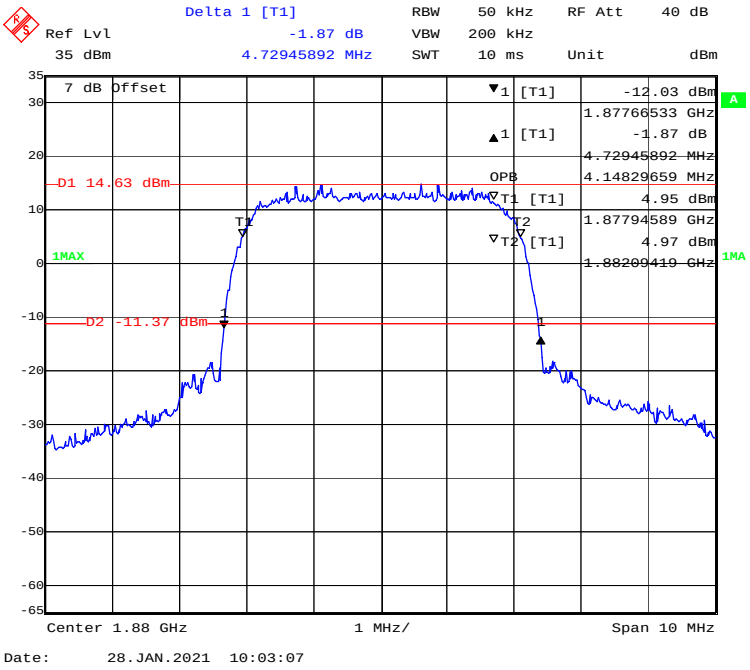
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) High channel



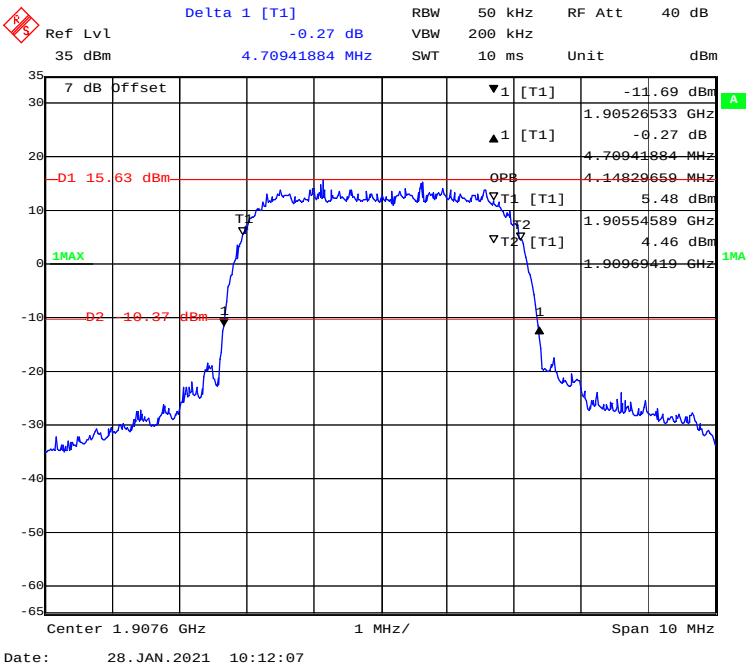
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) Low channel



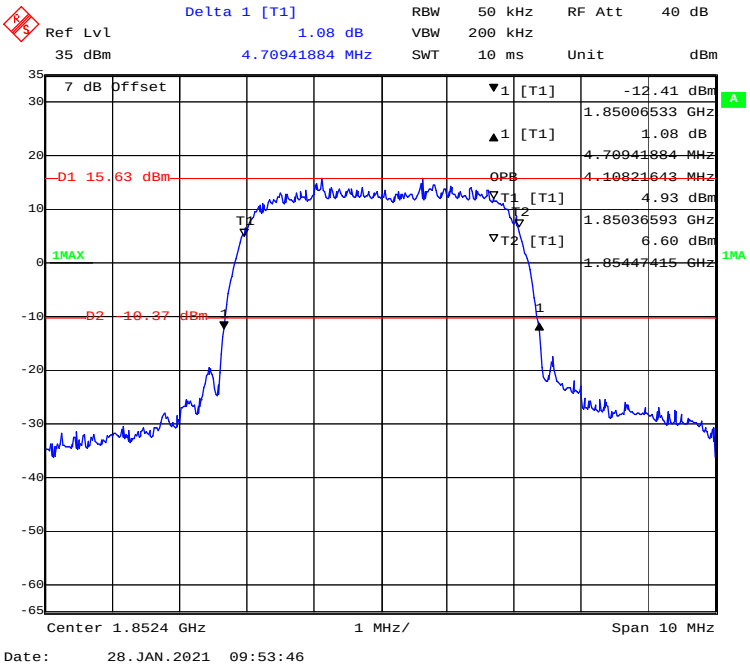
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) Middle channel



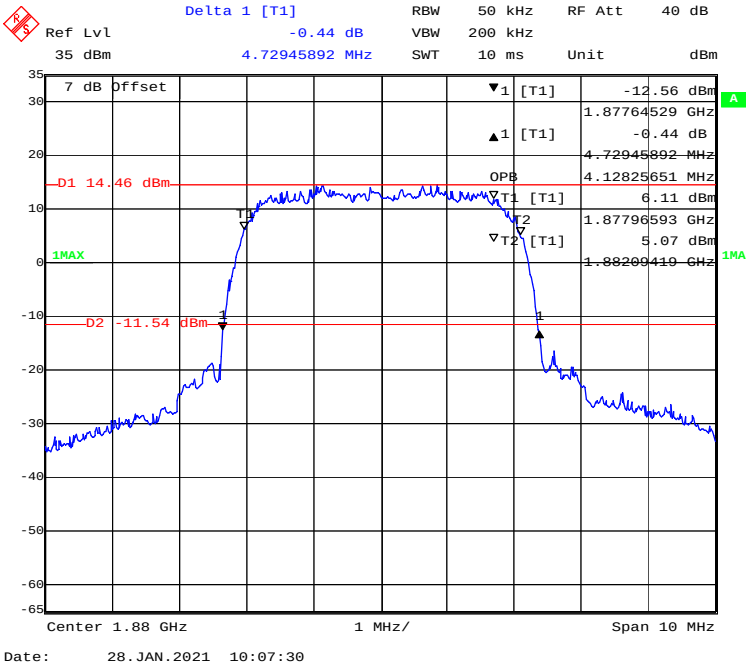
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) High channel



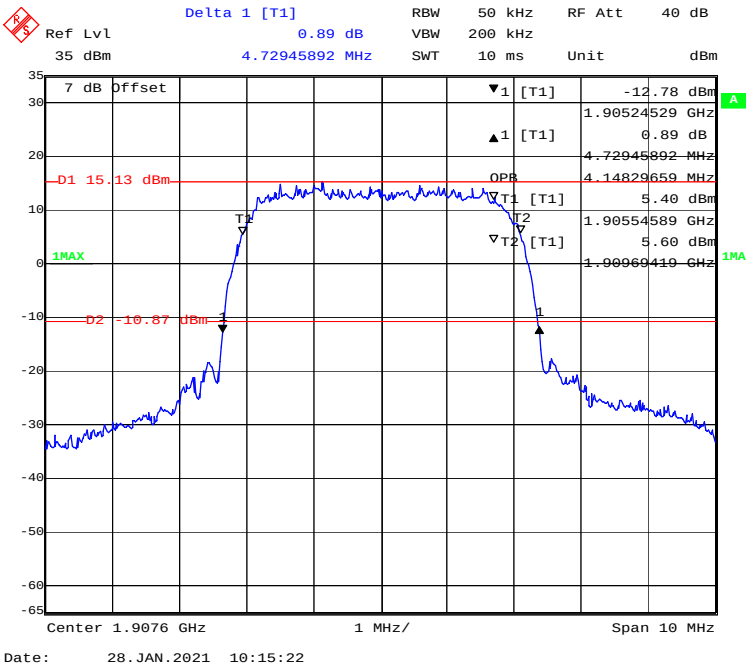
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSPA+) Low channel



99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSPA+) Middle channel

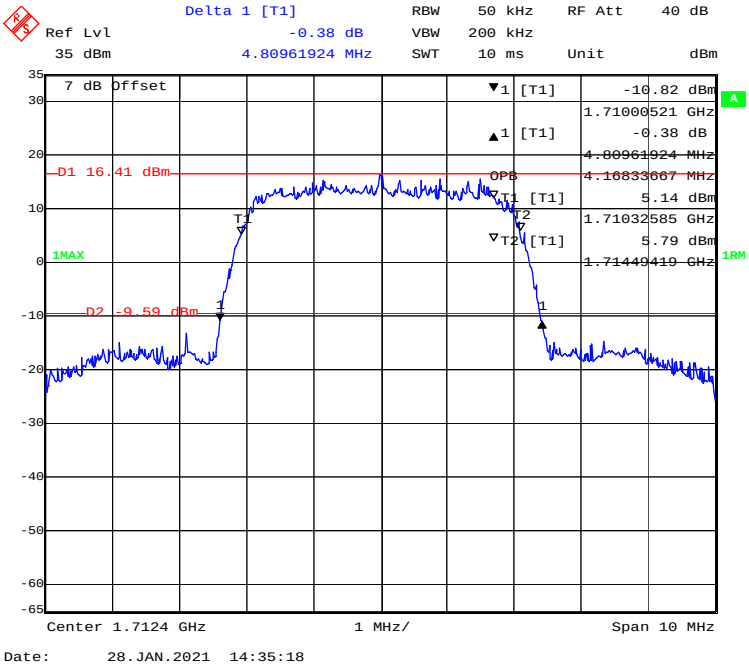


99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSPA+) High channel

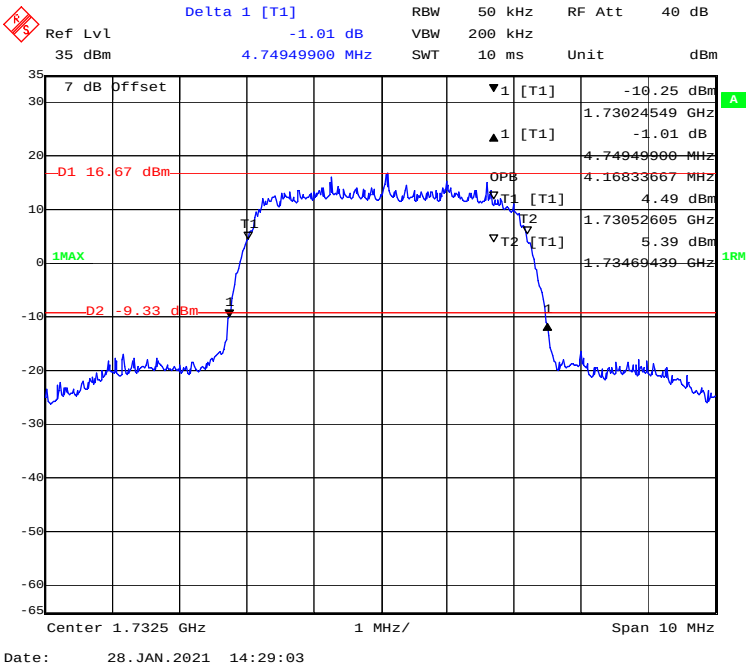


WCDMA Band IV

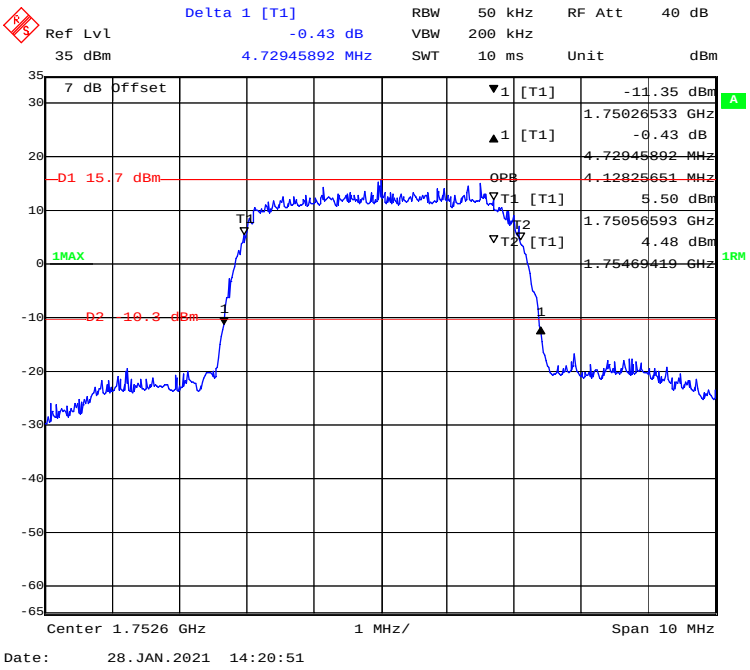
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) Low channel



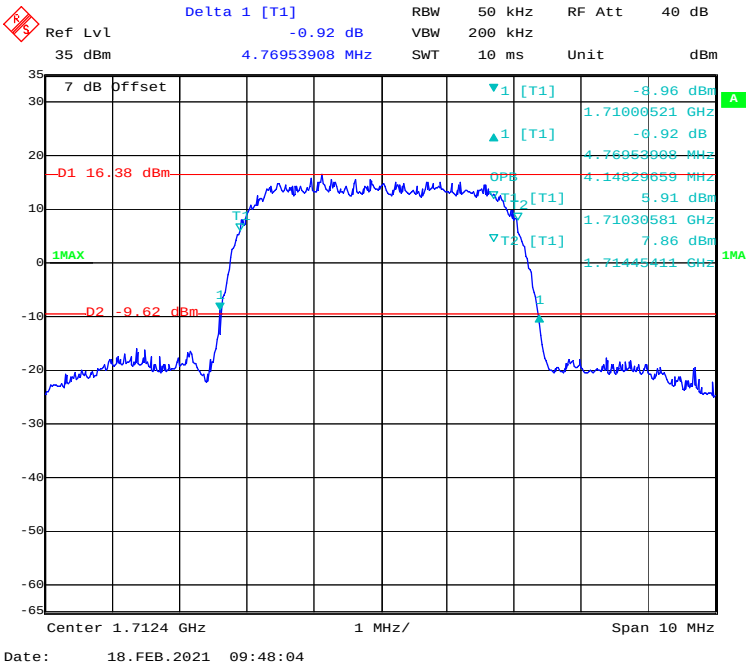
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) Middle channel



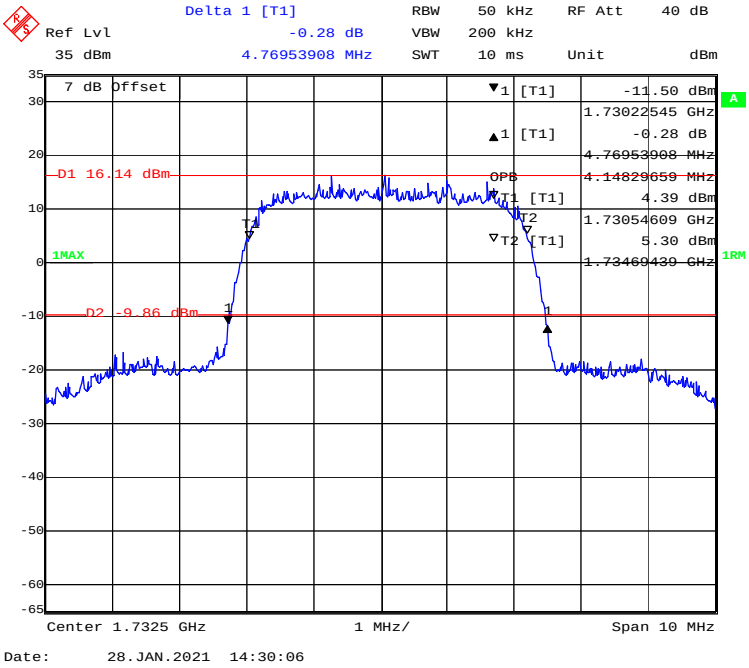
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) High channel



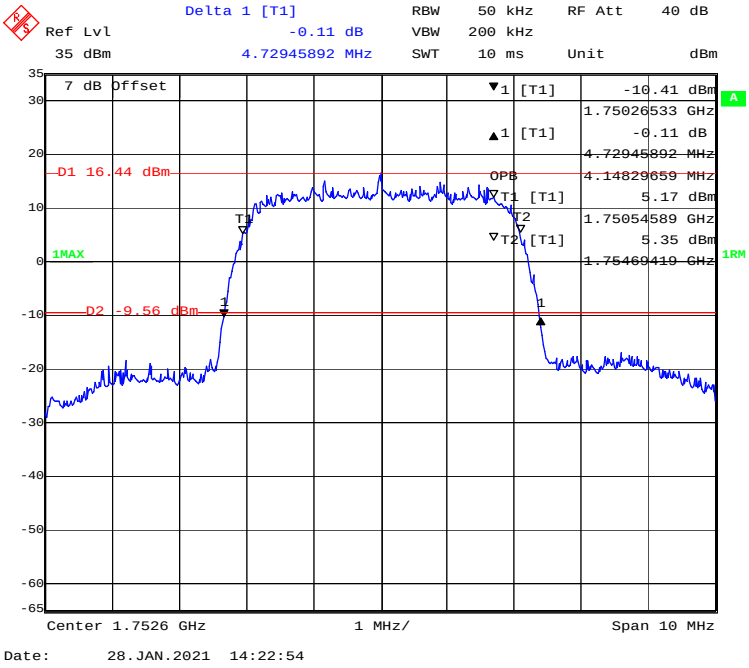
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) Low channel



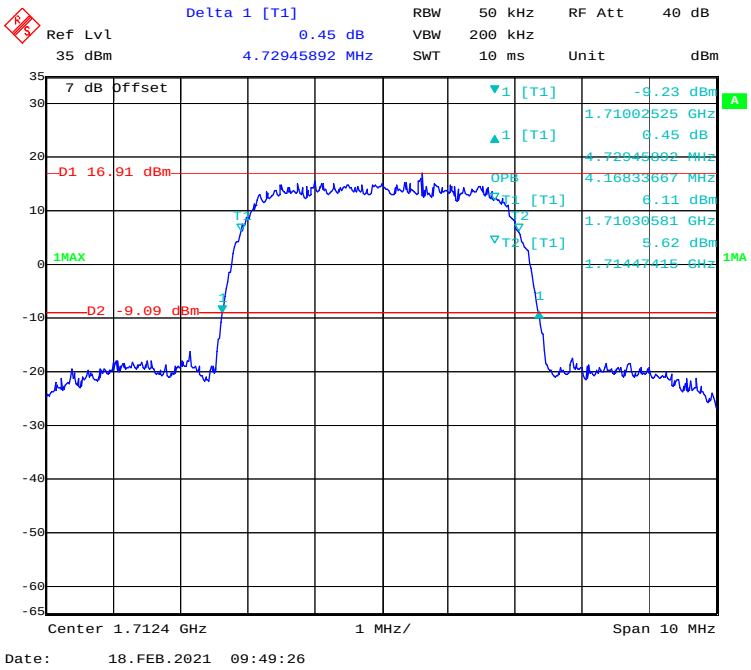
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) Middle channel



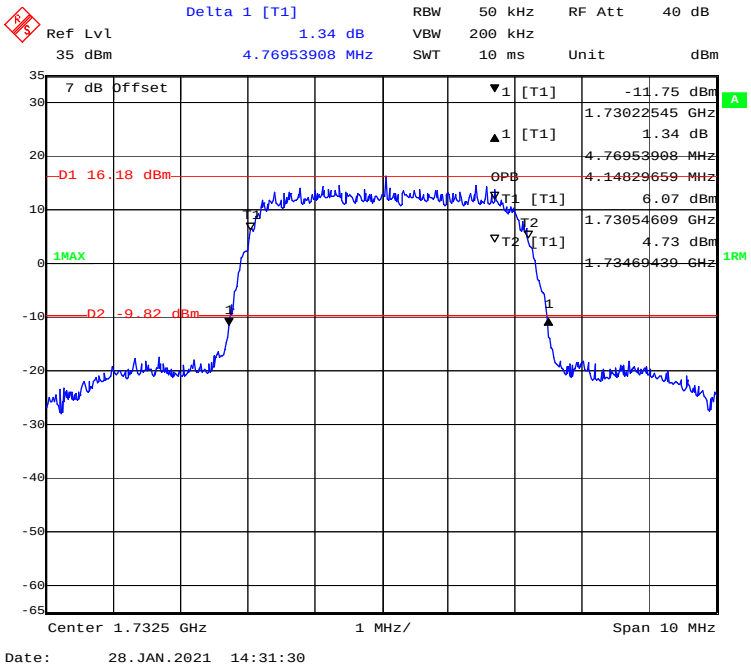
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) High channel



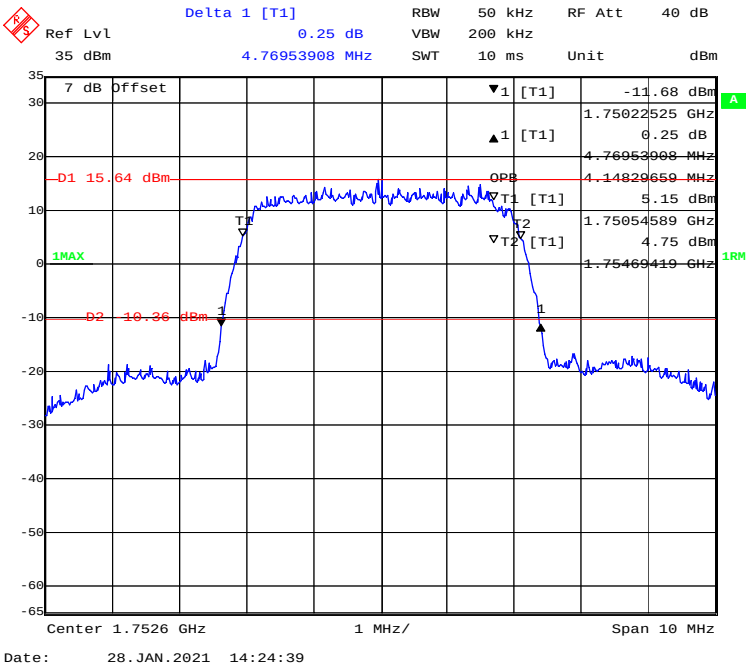
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) Low channel



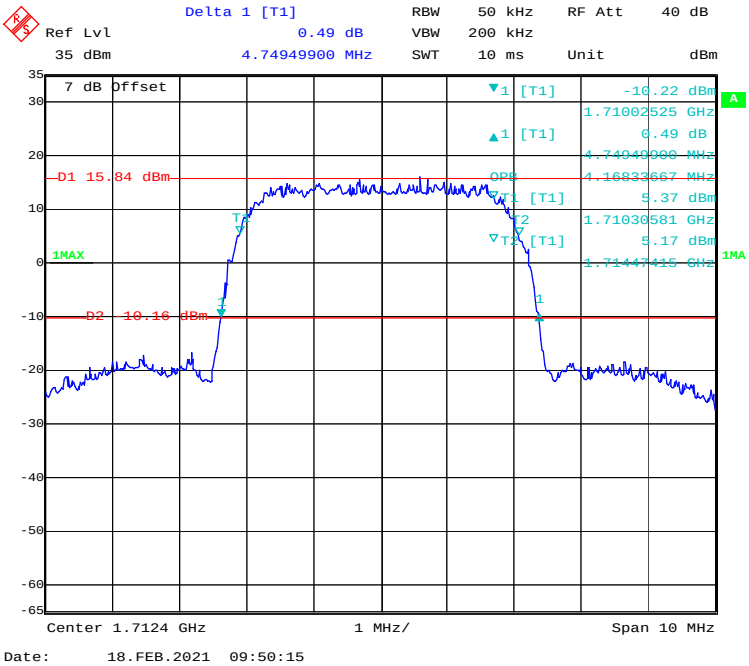
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) Middle channel



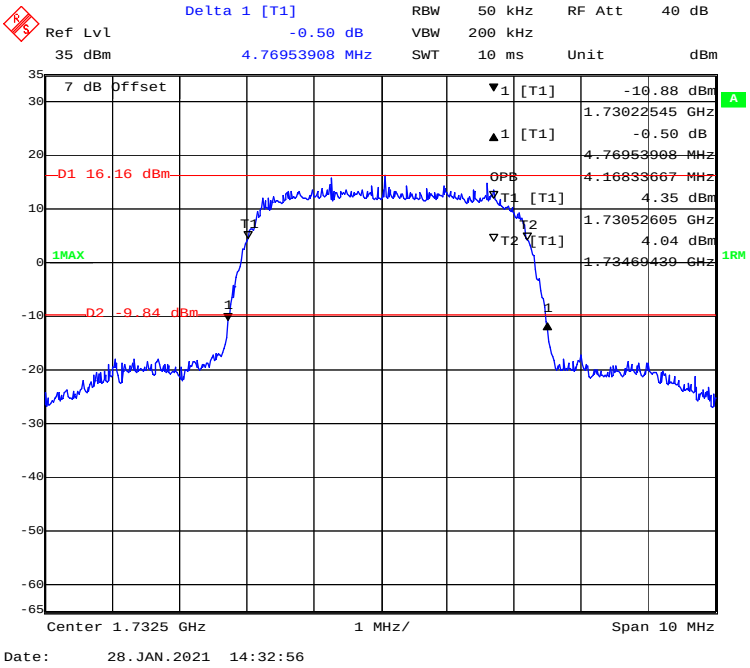
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) High channel



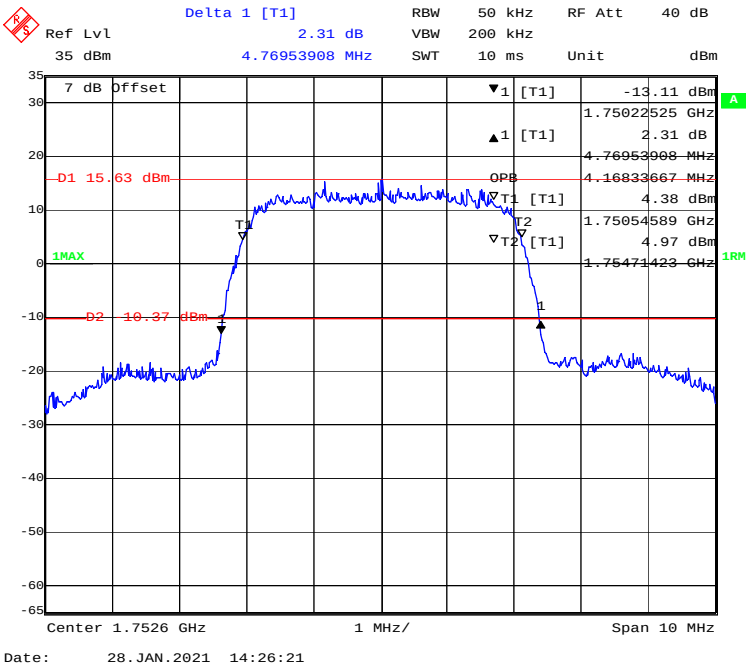
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSPA+) Low channel



99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSPA+) Middle channel



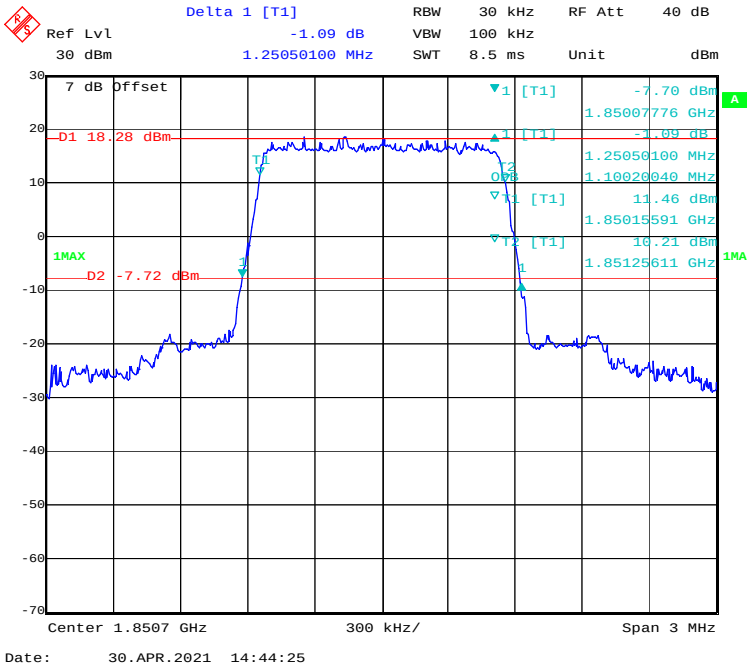
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSPA+) High channel



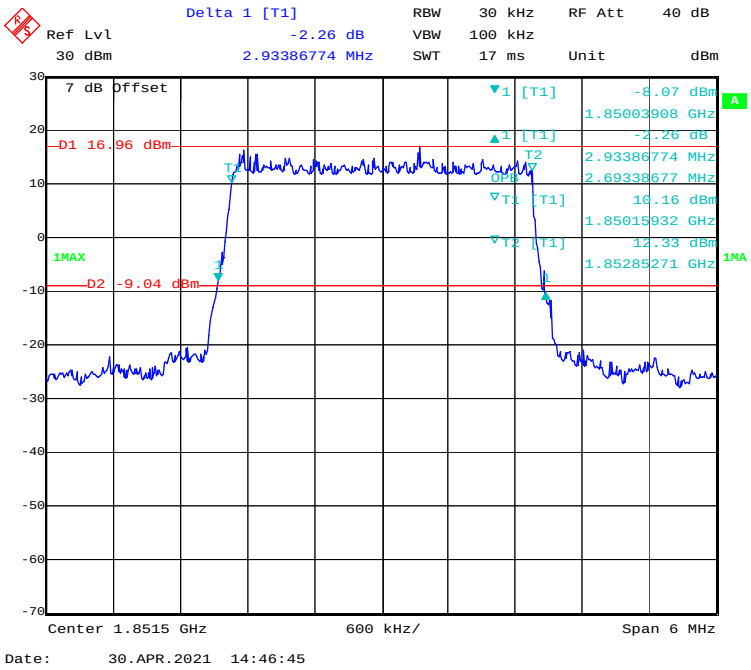
LTE Band 2:

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	1.4M	Low	1.251	1.100
	3M		2.934	2.693
	5M		5.010	4.549
	10M		9.699	9.018
	15M		14.729	13.527
	20M		19.399	18.036
	1.4M	Middle	1.251	1.106
	3M		2.970	2.693
	5M		5.030	4.529
	10M		9.659	8.978
	15M		14.729	13.527
	20M		19.479	18.036
	1.4M	High	1.251	1.088
	3M		2.946	2.693
	5M		4.990	4.529
	10M		9.619	8.978
	15M		14.850	13.467
	20M		19.158	17.876
16-QAM	1.4M	Low	1.232	1.088
	3M		2.982	2.693
	5M		4.950	4.529
	10M		9.699	8.978
	15M		14.850	13.587
	20M		19.399	17.956
	1.4M	Middle	1.238	1.100
	3M		2.946	2.693
	5M		5.030	4.529
	10M		9.579	8.978
	15M		14.790	13.527
	20M		19.479	18.036
	1.4M	High	1.238	1.094
	3M		2.958	2.693
	5M		5.010	4.529
	10M		9.659	8.978
	15M		14.790	13.527
	20M		19.319	17.876

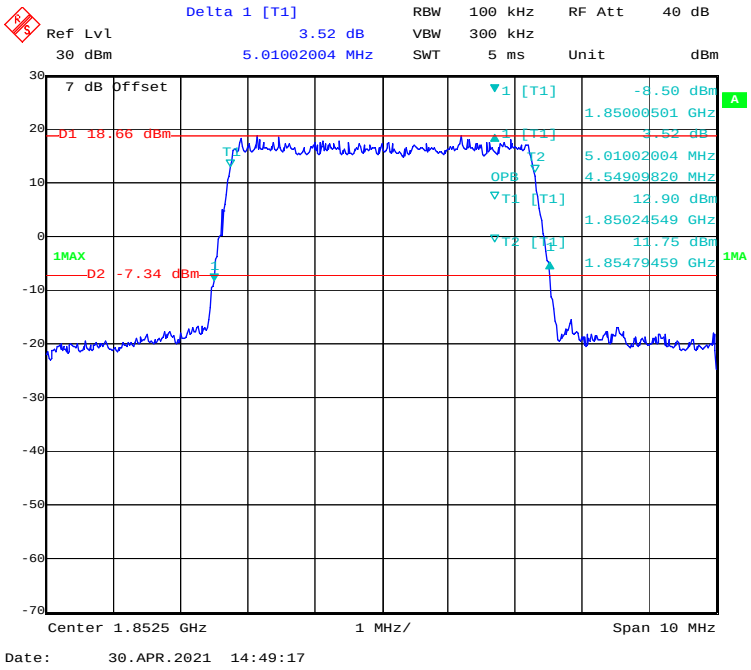
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



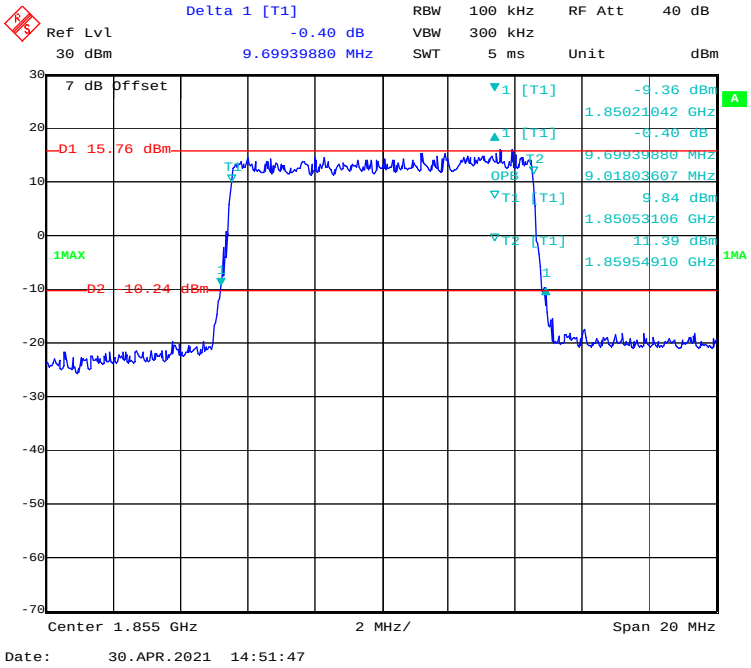
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



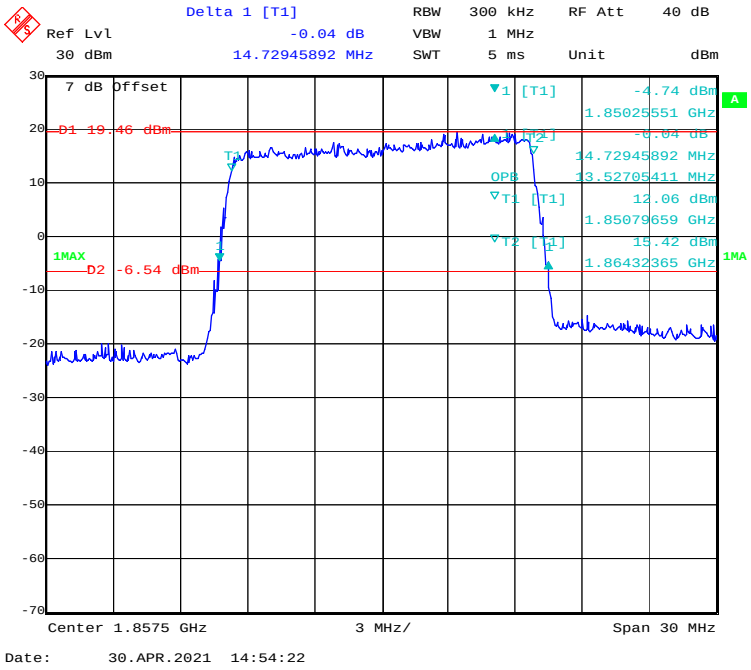
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



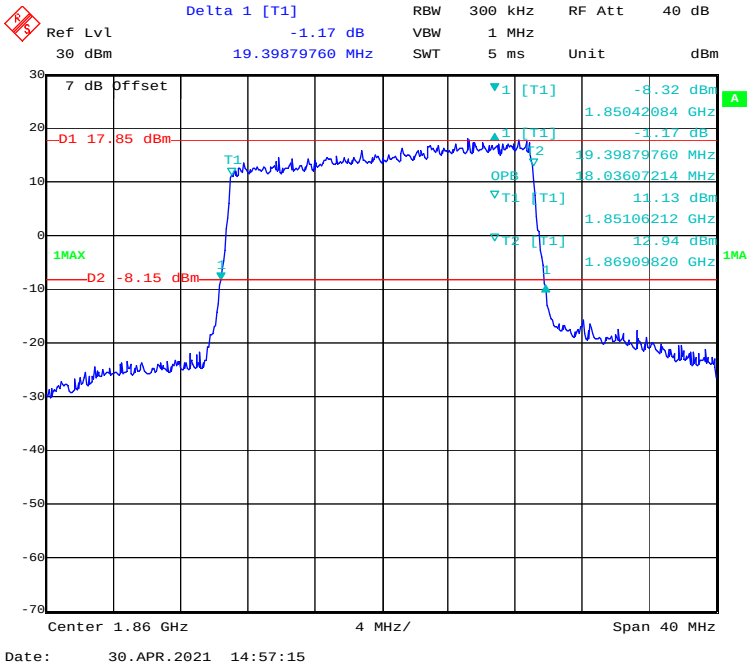
QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



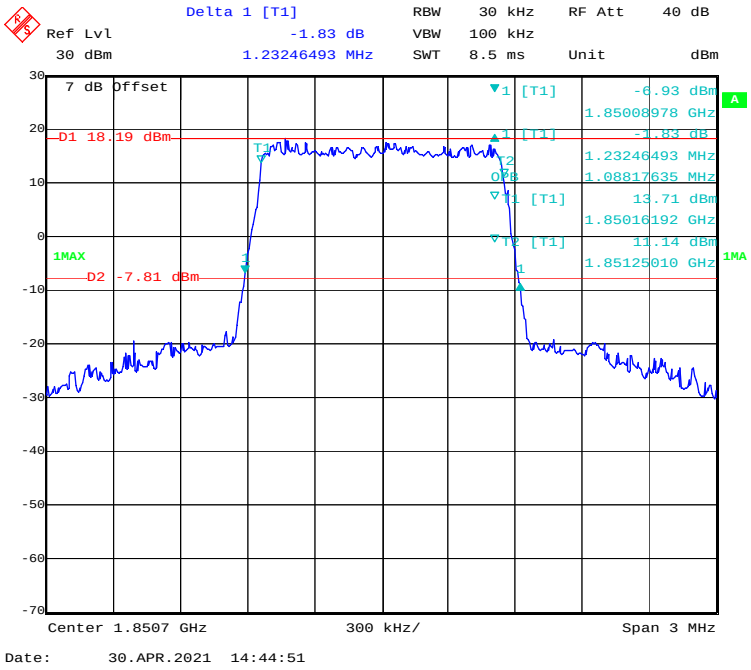
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



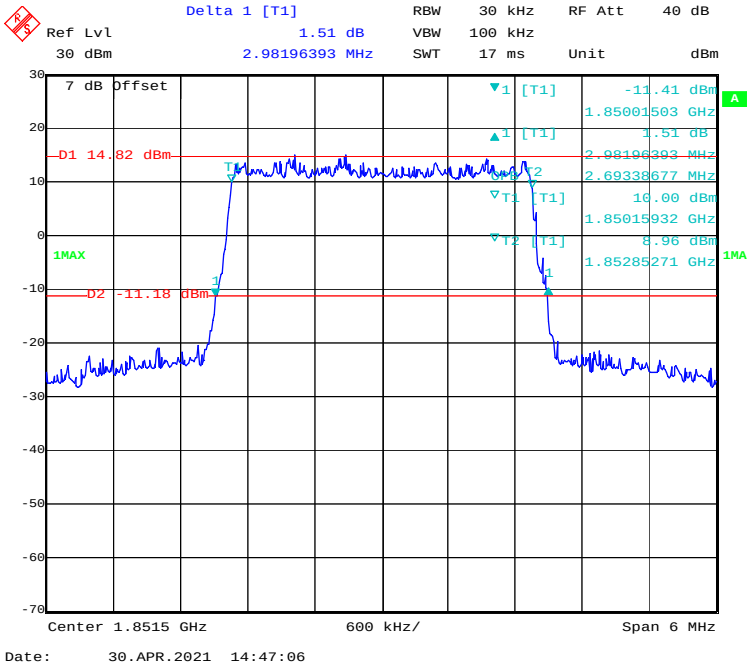
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



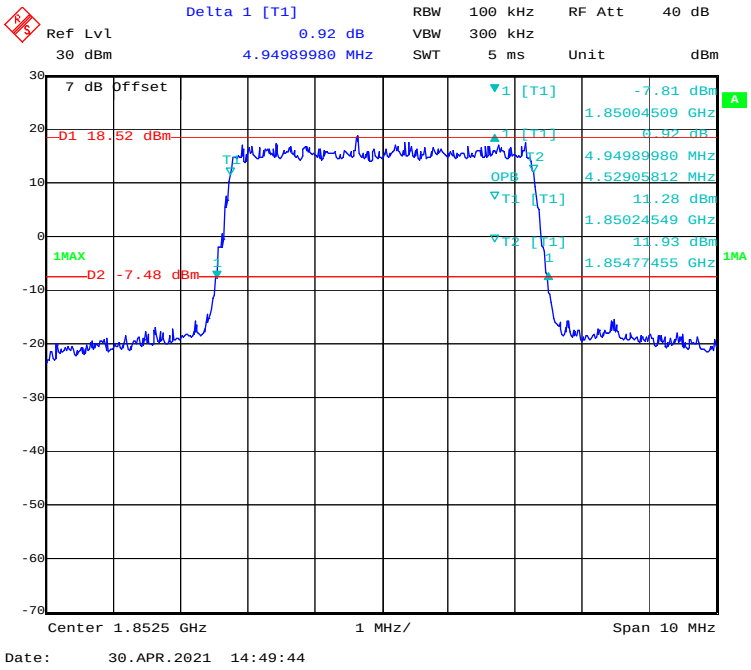
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



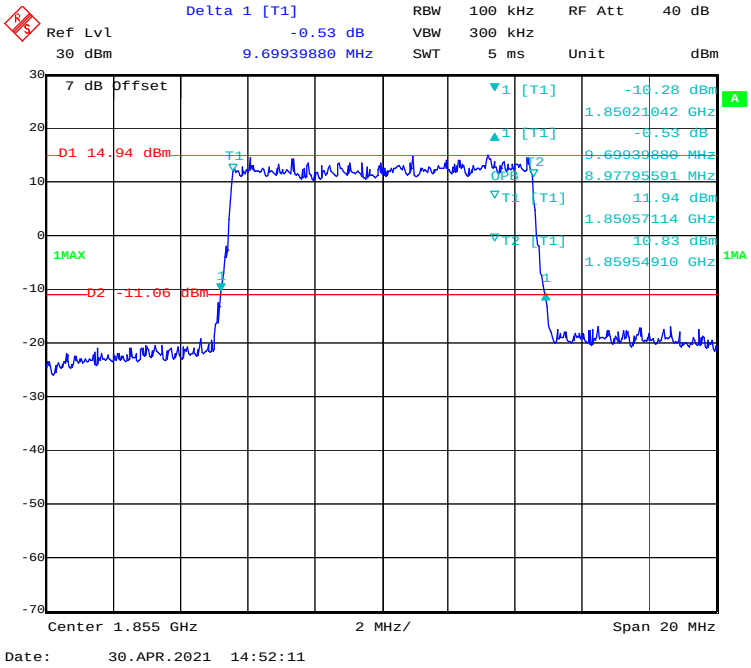
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



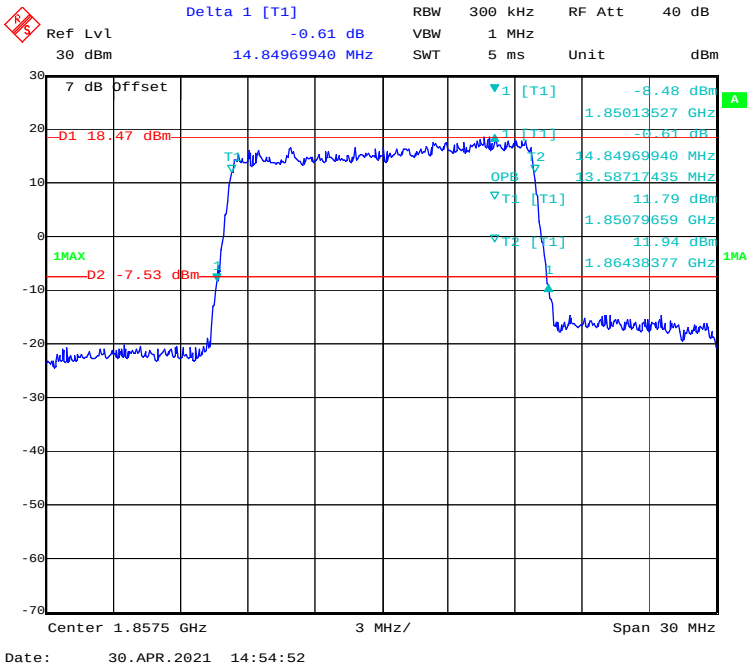
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



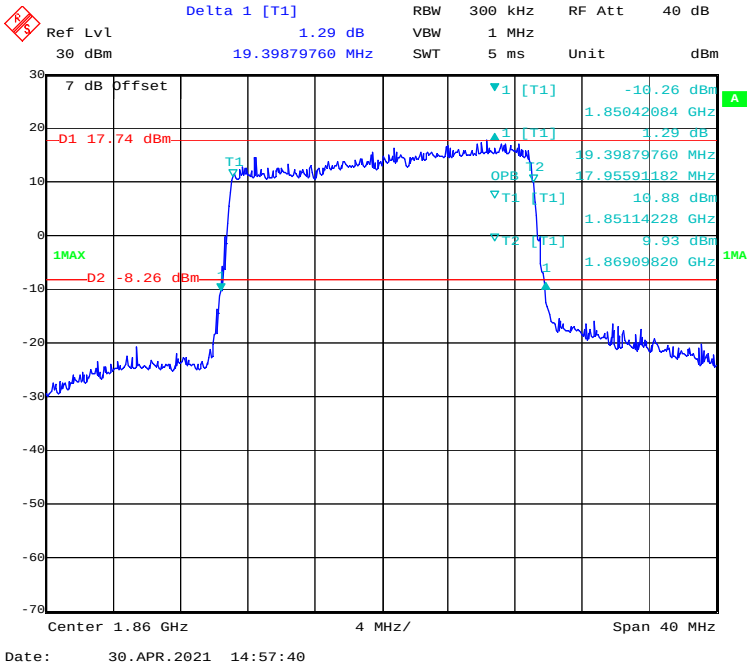
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



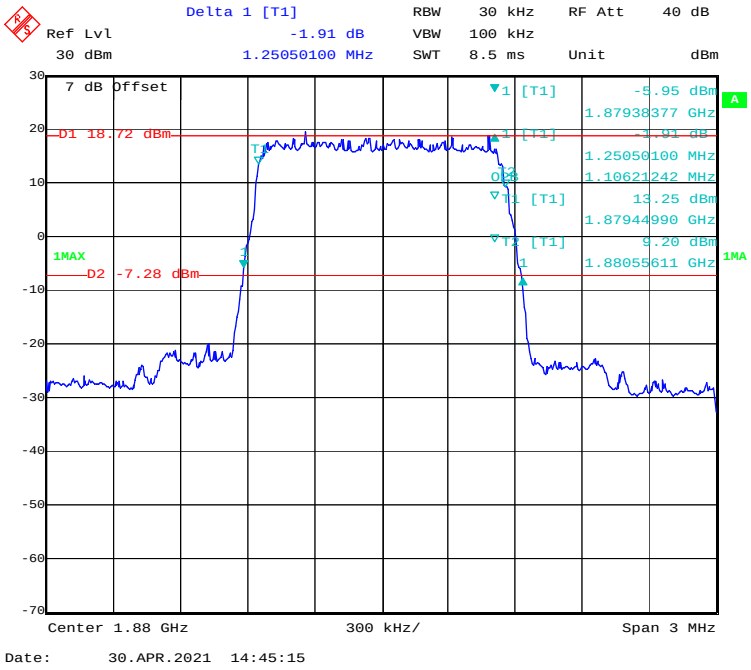
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



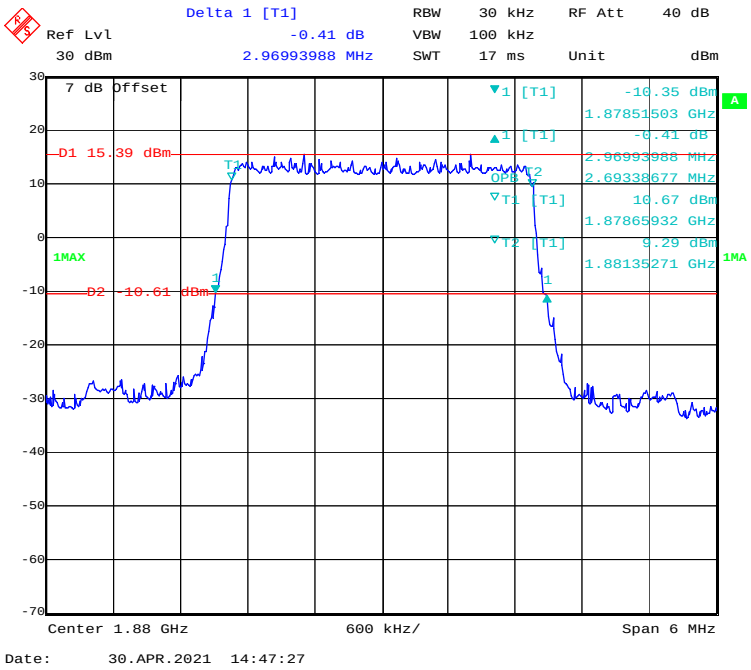
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



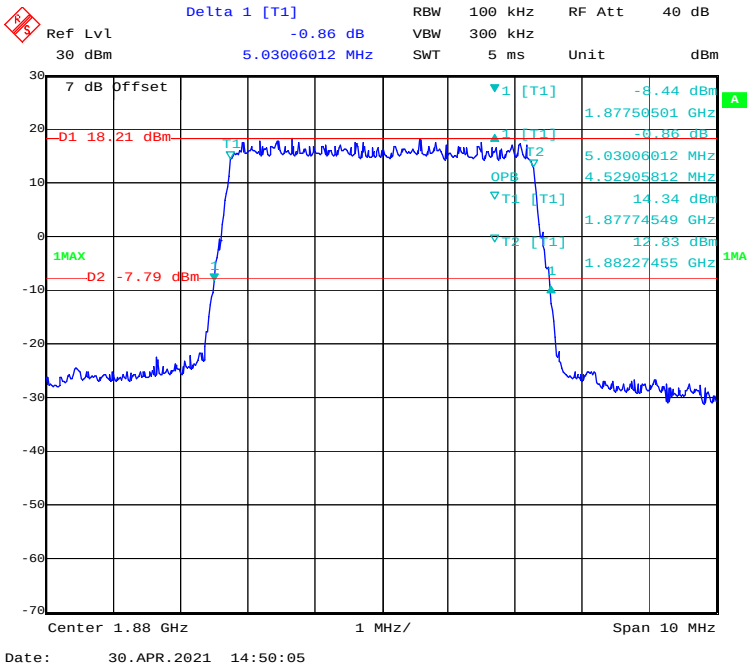
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



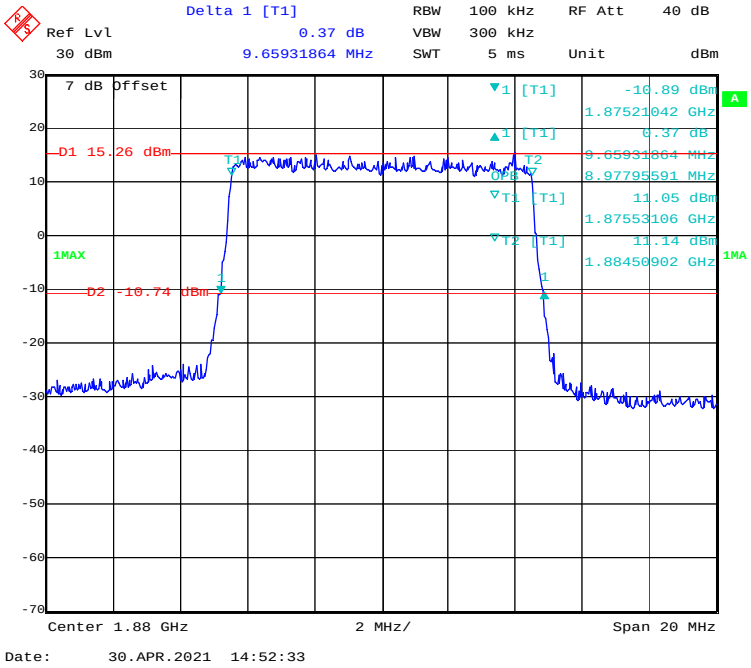
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



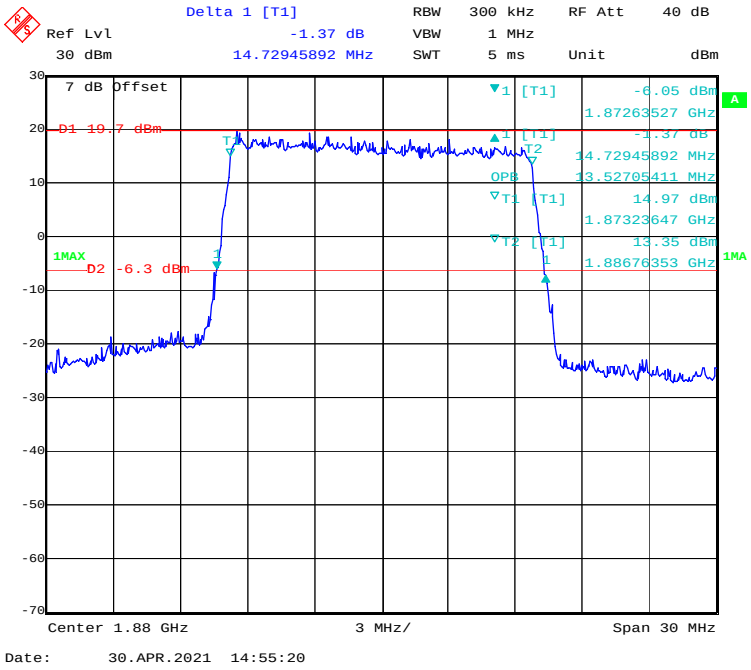
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



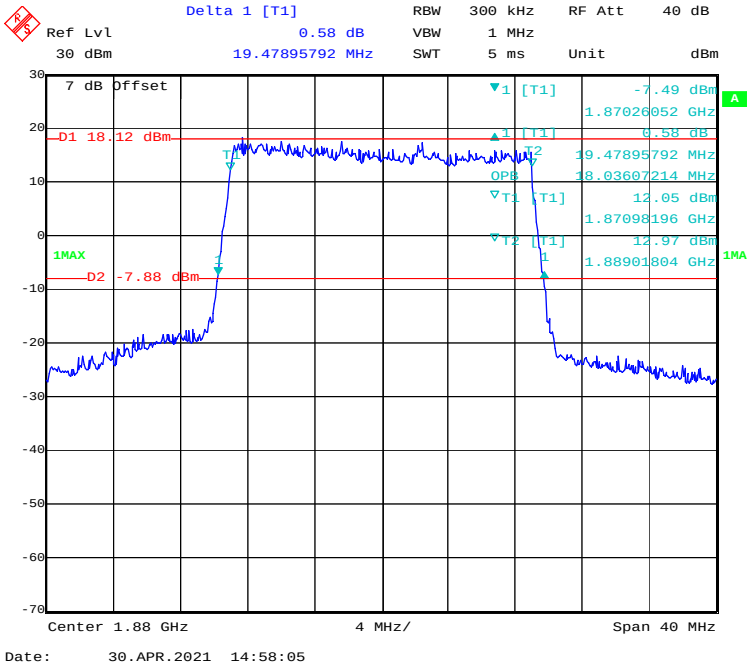
QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



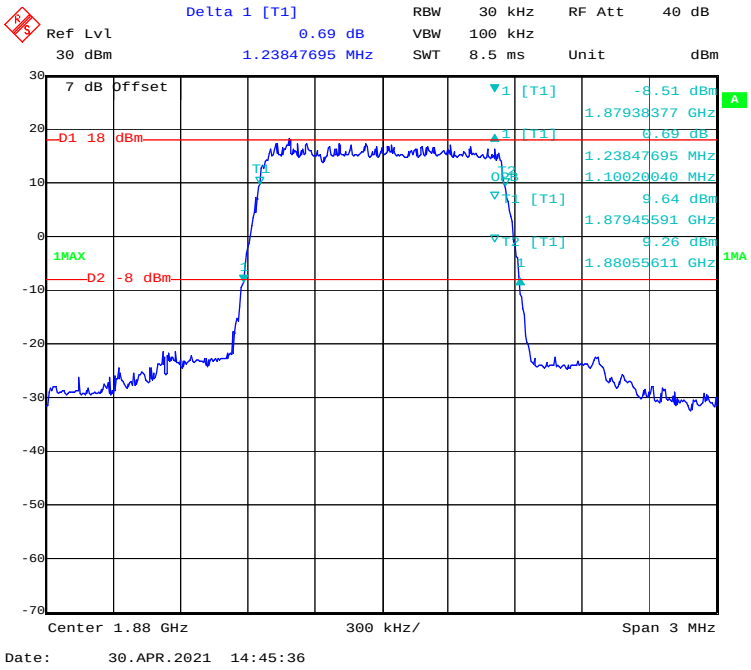
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



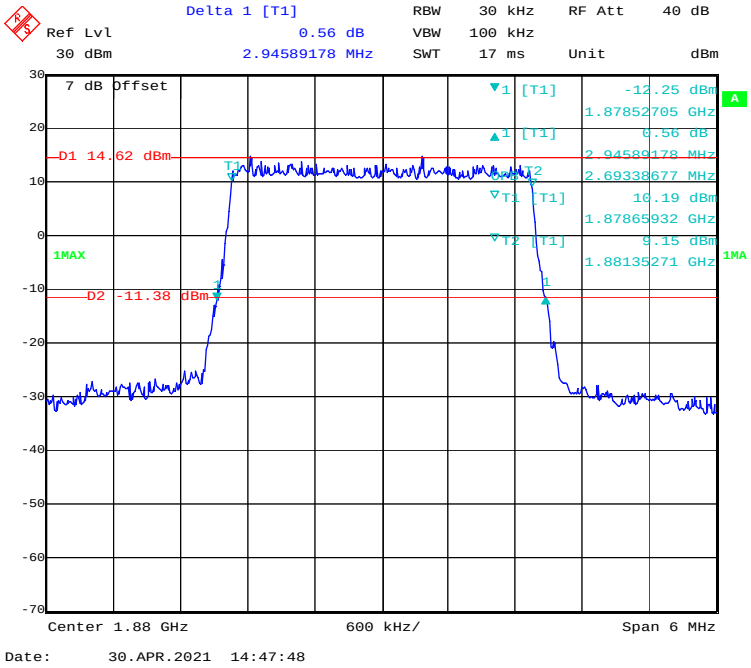
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



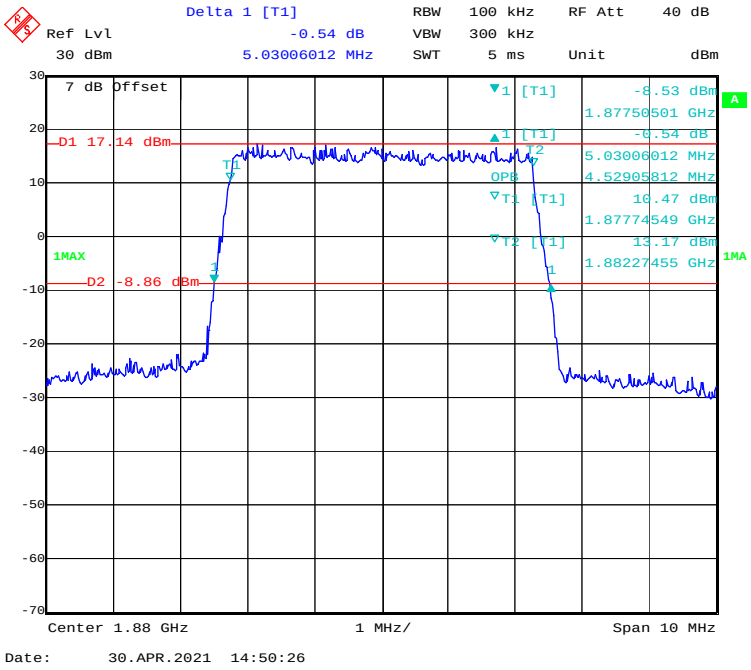
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



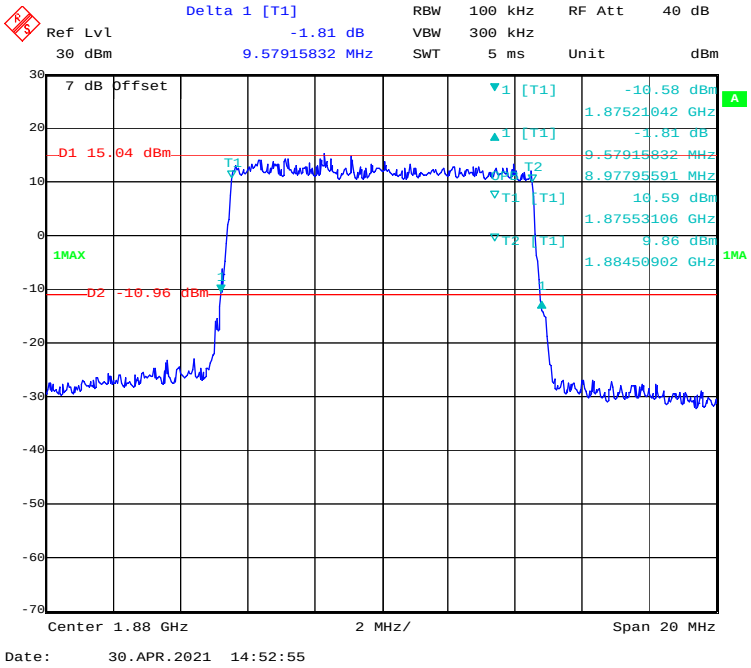
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



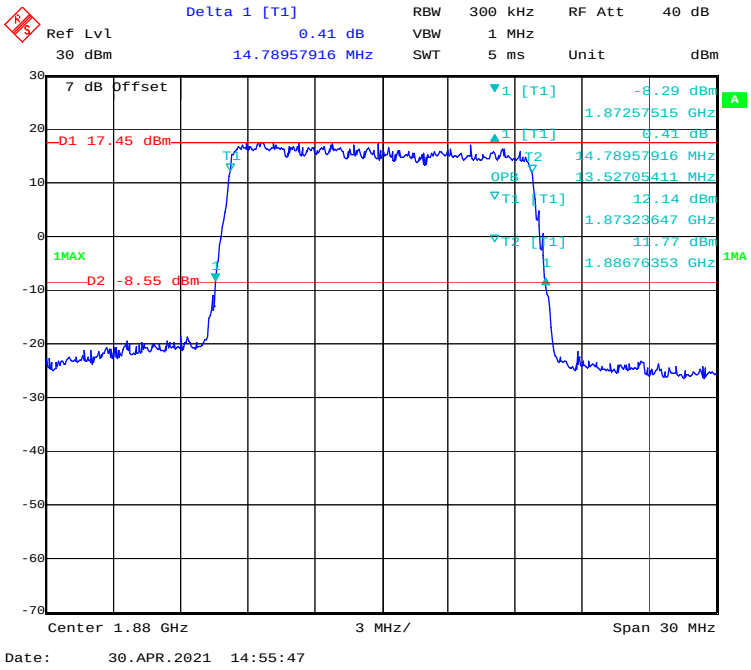
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



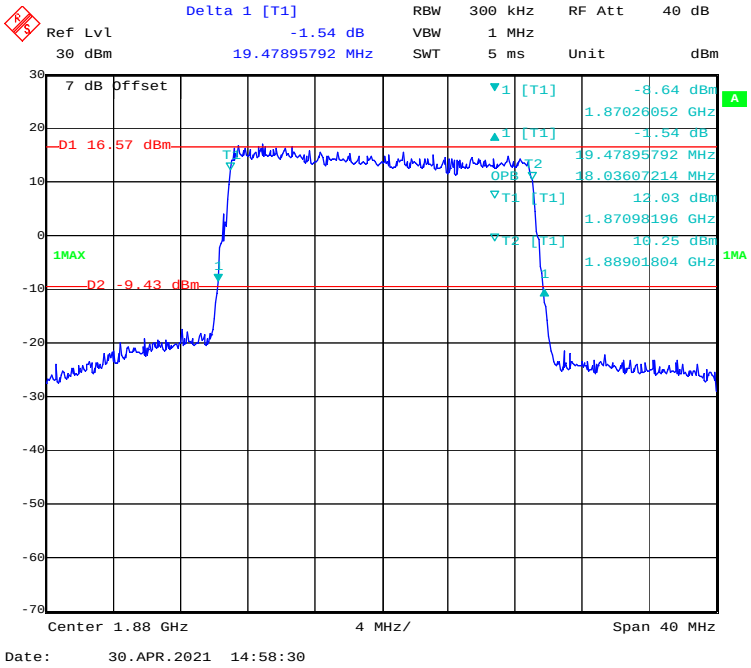
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



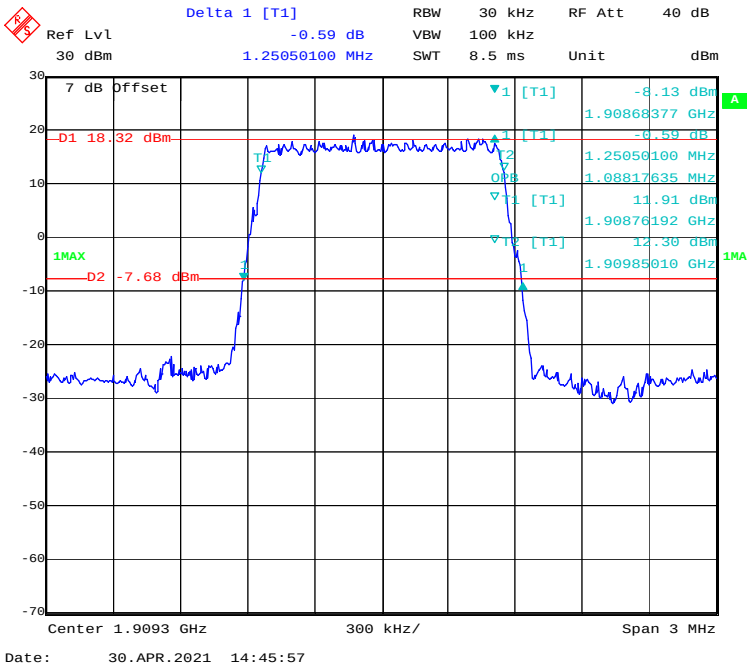
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



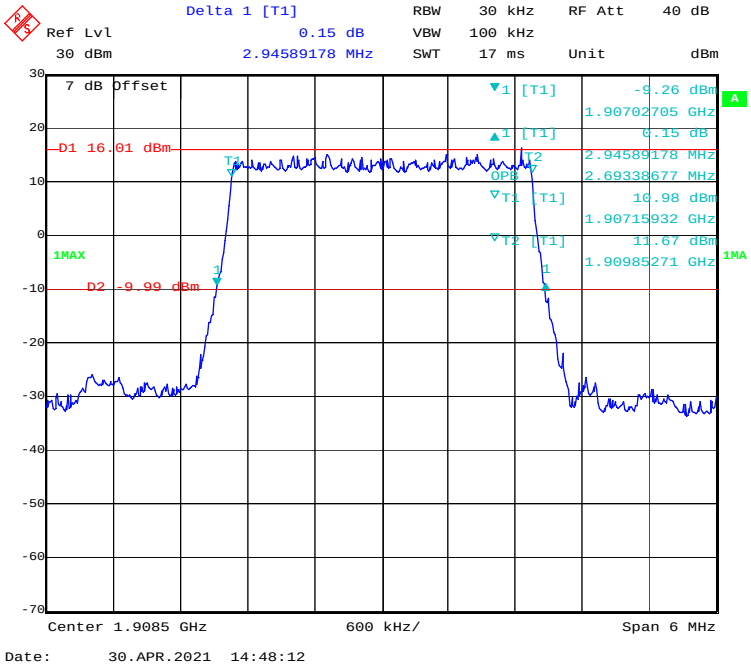
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



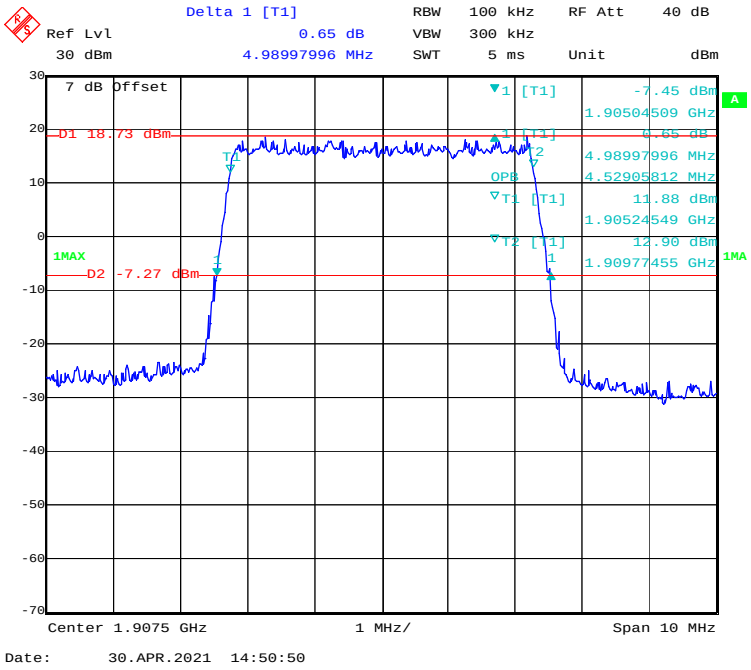
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



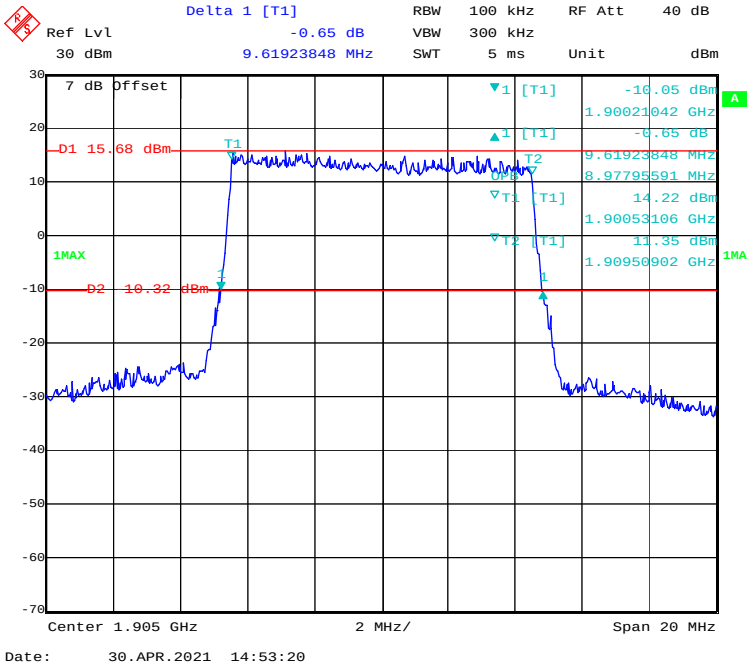
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



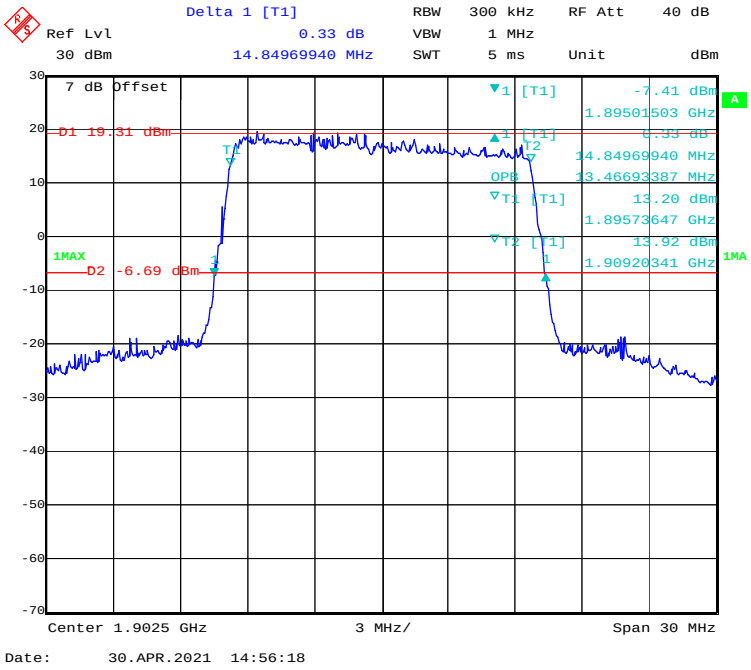
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



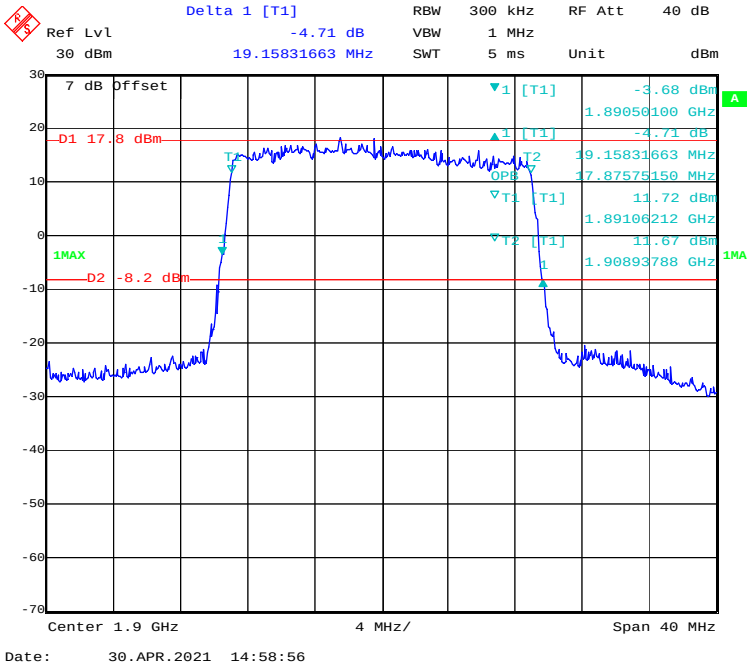
QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



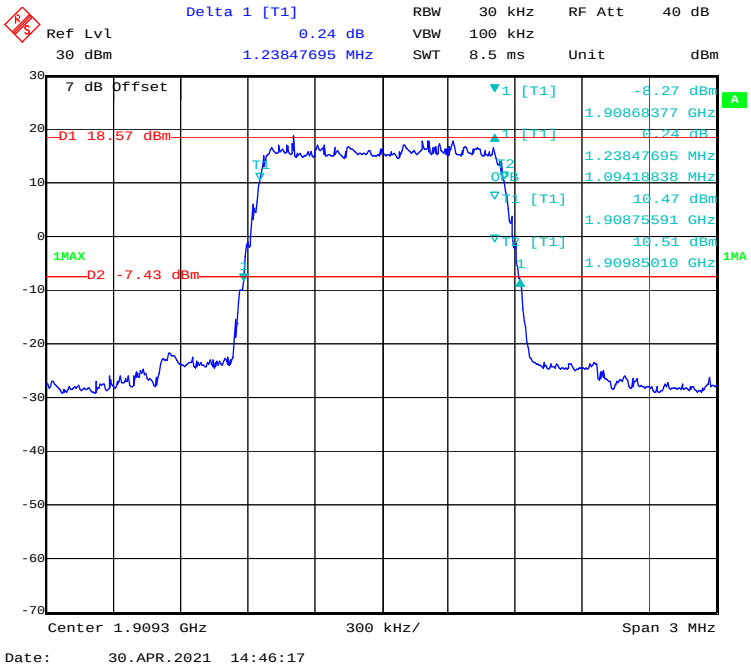
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



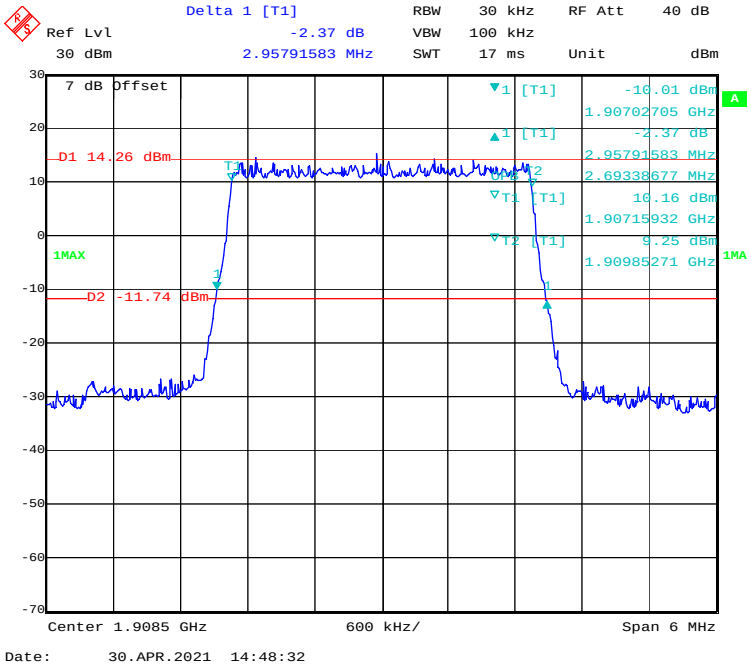
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



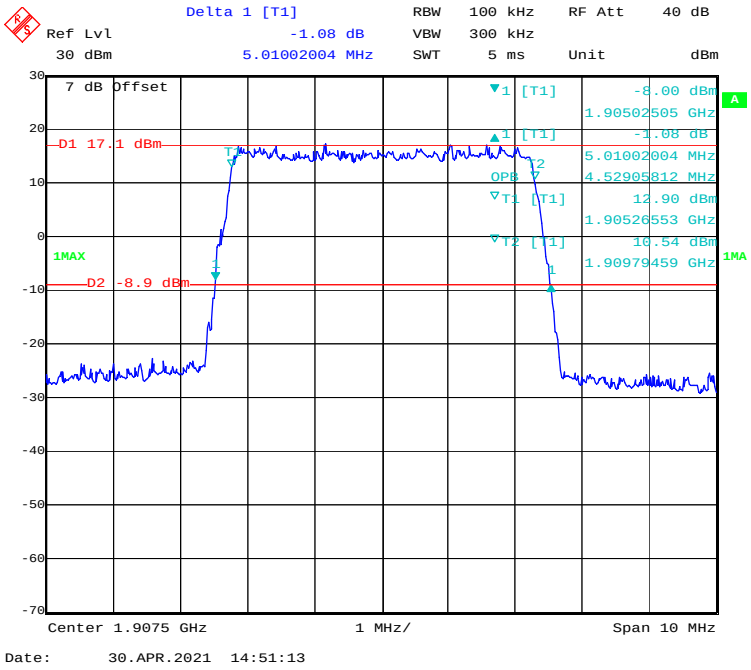
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



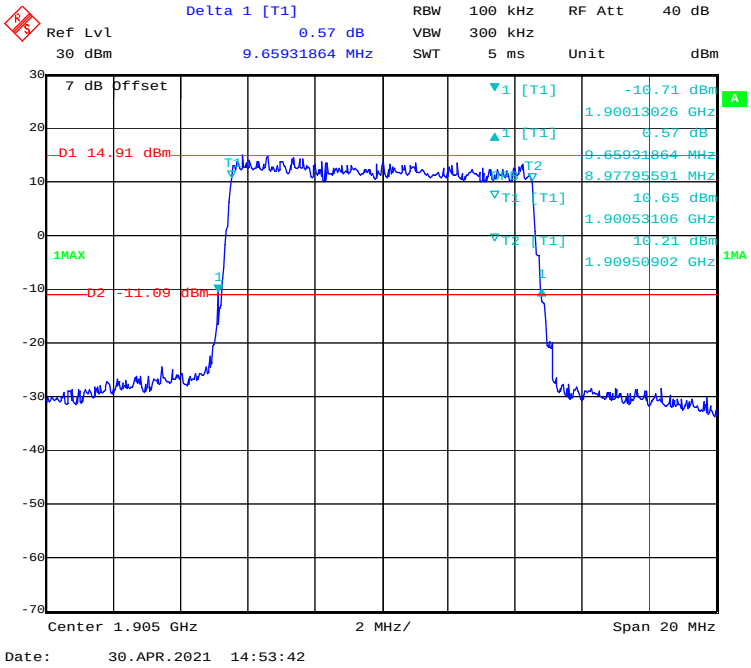
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



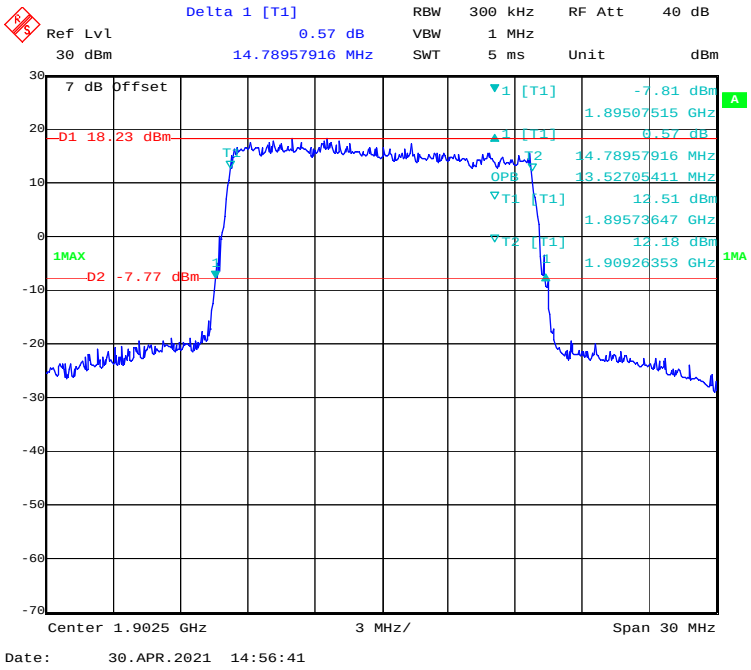
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



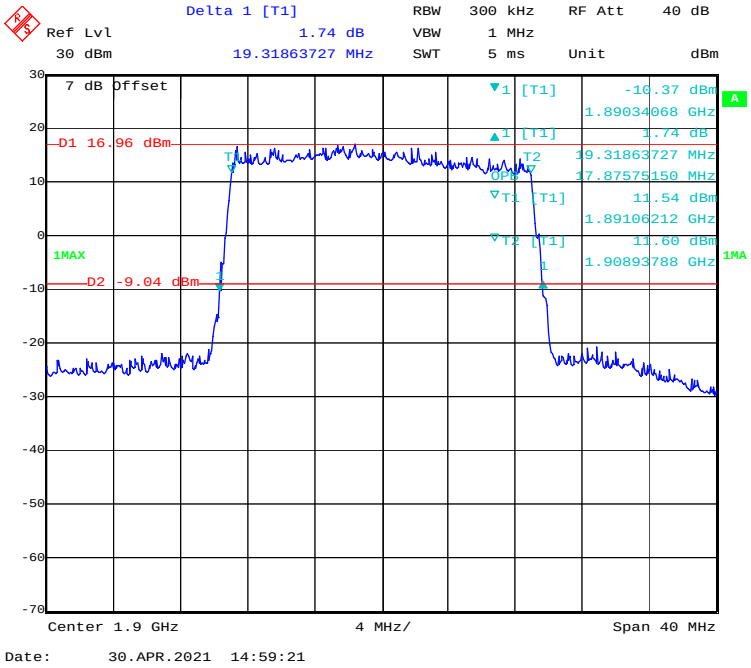
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



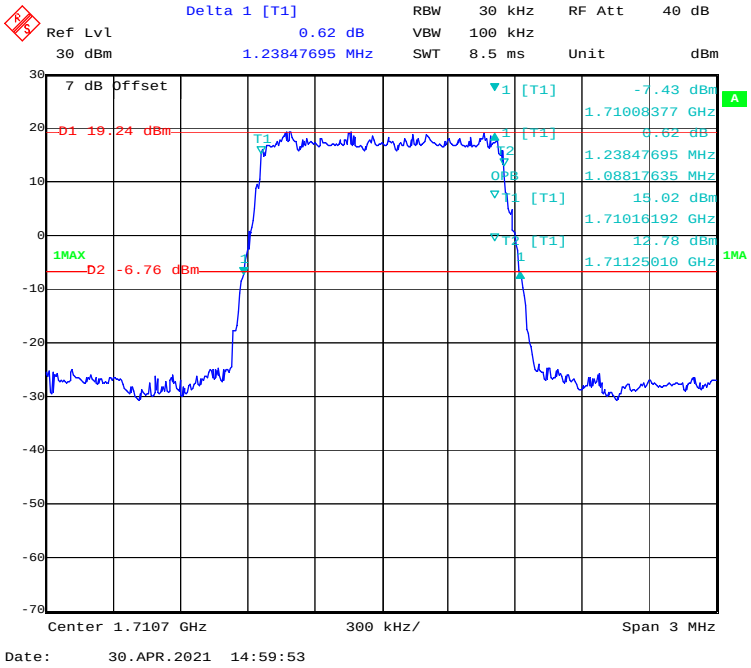
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



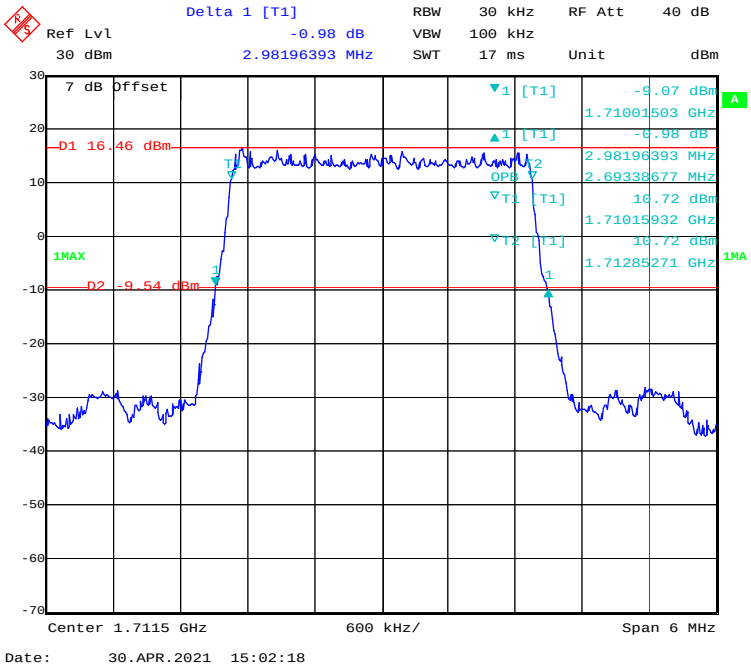
LTE Band 4:

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	1.4M	Low	1.238	1.088
	3M		2.982	2.693
	5M		5.010	4.529
	10M		9.780	8.978
	15M		14.910	13.587
	20M		19.399	17.956
	1.4M	Middle	1.238	1.100
	3M		2.946	2.693
	5M		5.030	4.529
	10M		9.699	8.938
	15M		14.729	13.527
	20M		19.238	18.036
	1.4M	High	1.251	1.094
	3M		2.970	2.693
	5M		4.970	4.529
	10M		9.699	8.978
	15M		14.850	13.527
	20M		19.399	17.876
16-QAM	1.4M	Low	1.280	1.094
	3M		2.970	2.693
	5M		5.010	4.529
	10M		9.659	8.978
	15M		14.729	13.527
	20M		19.479	17.956
	1.4M	Middle	1.232	1.094
	3M		2.958	2.693
	5M		4.990	4.549
	10M		9.619	8.938
	15M		14.669	13.527
	20M		19.399	17.876
	1.4M	High	1.244	1.094
	3M		2.958	2.693
	5M		5.010	4.529
	10M		9.699	8.978
	15M		14.669	13.527
	20M		19.238	17.956

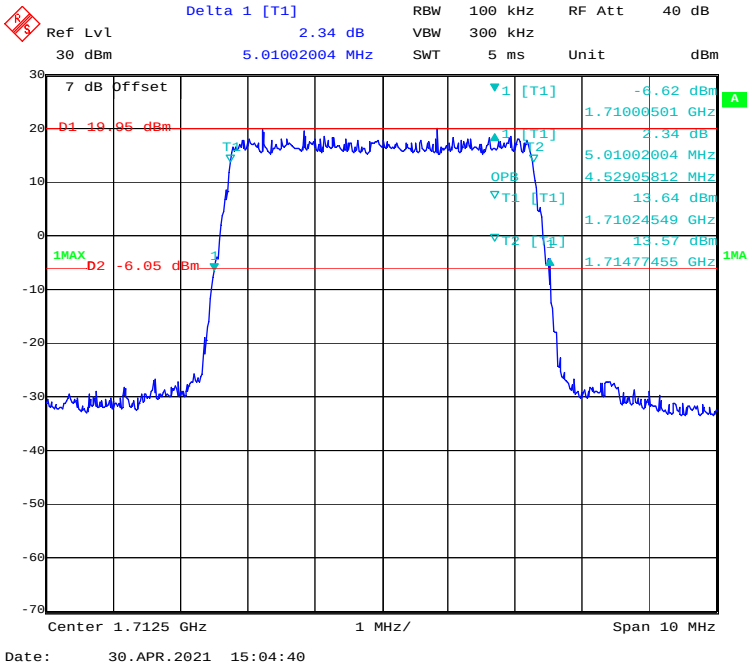
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



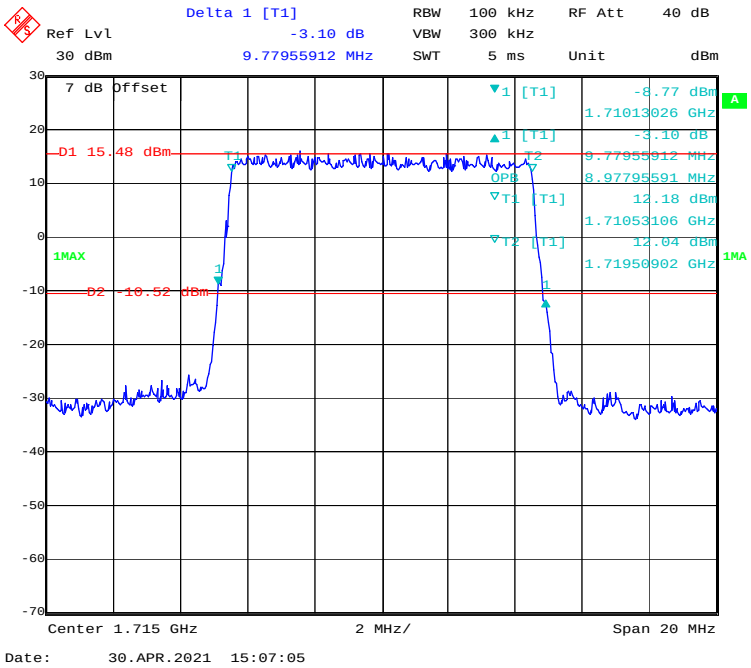
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



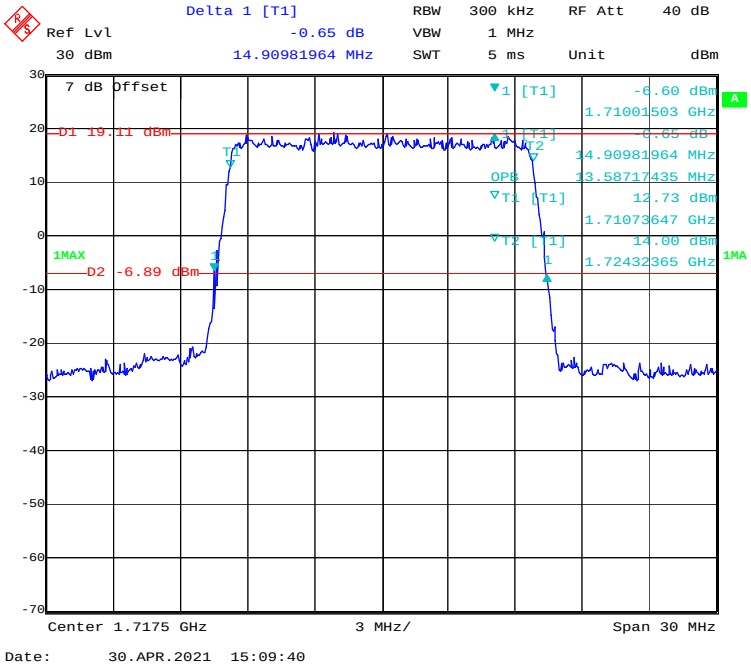
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



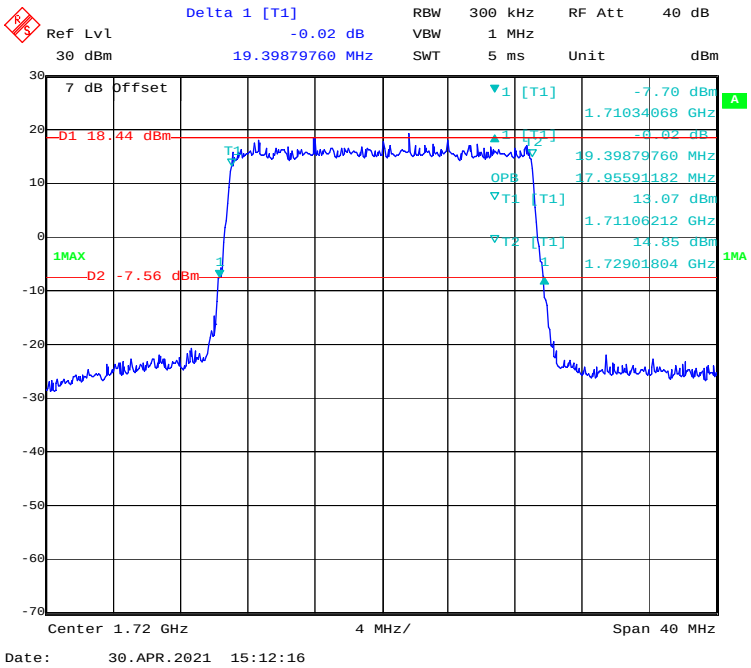
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



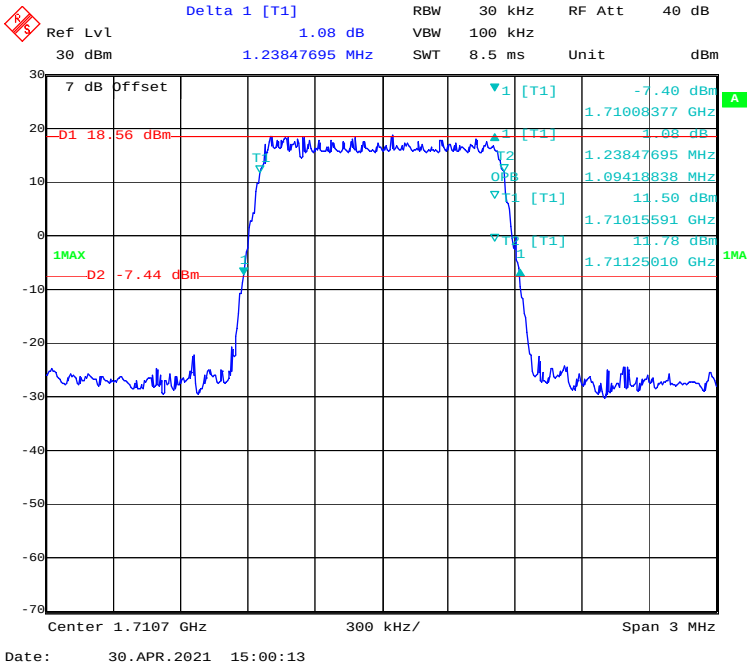
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



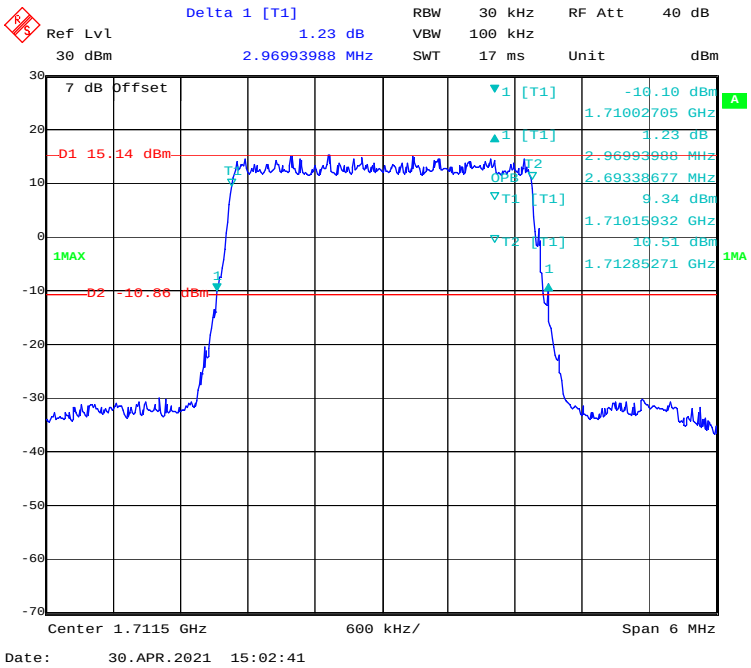
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



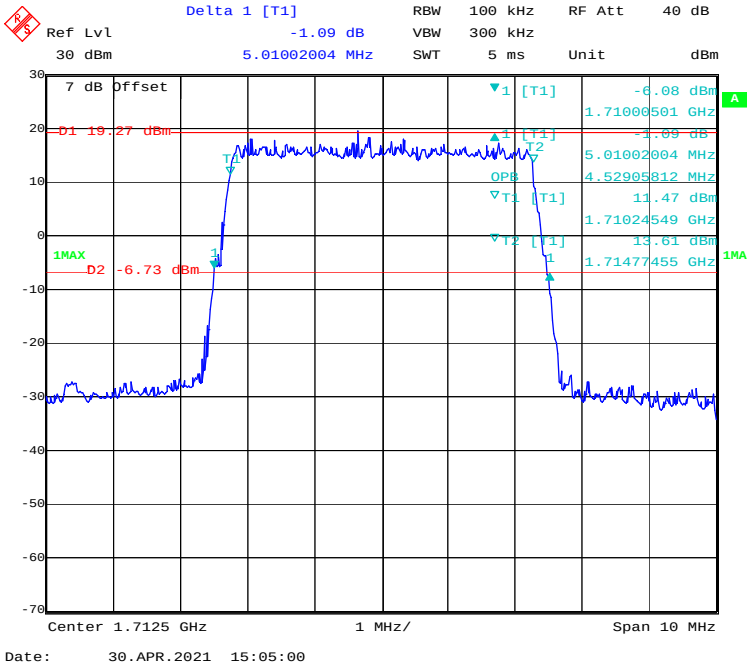
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



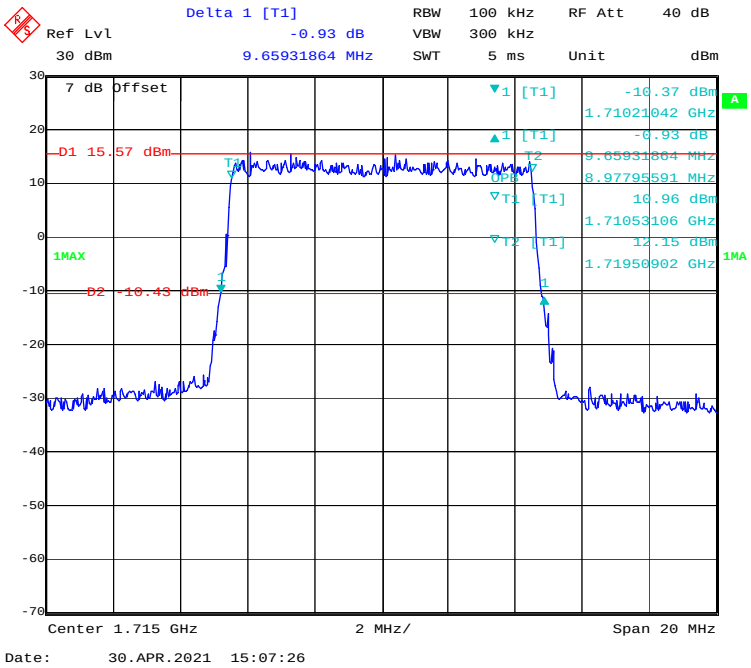
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



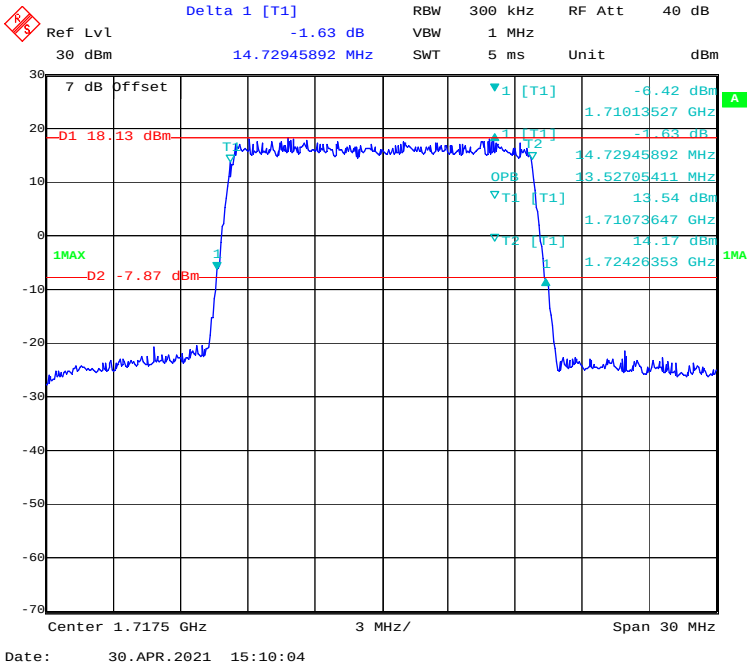
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



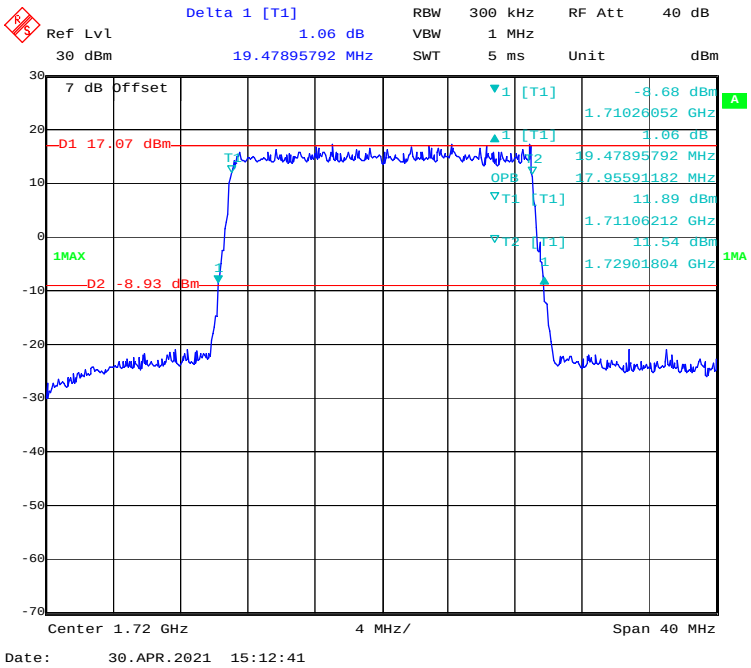
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



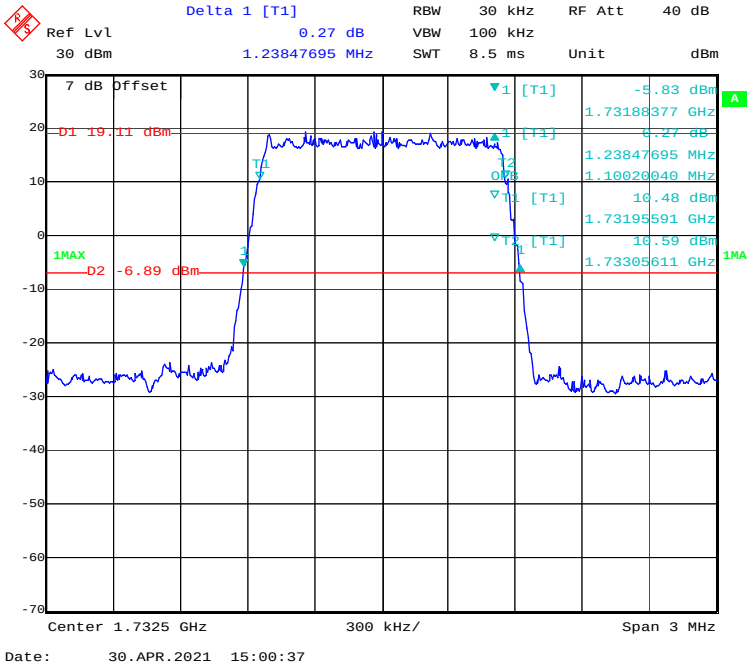
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



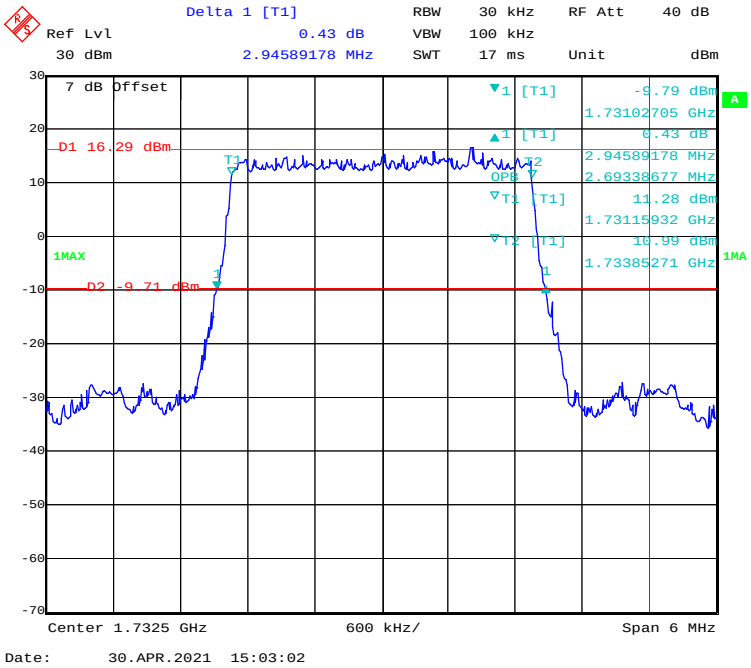
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



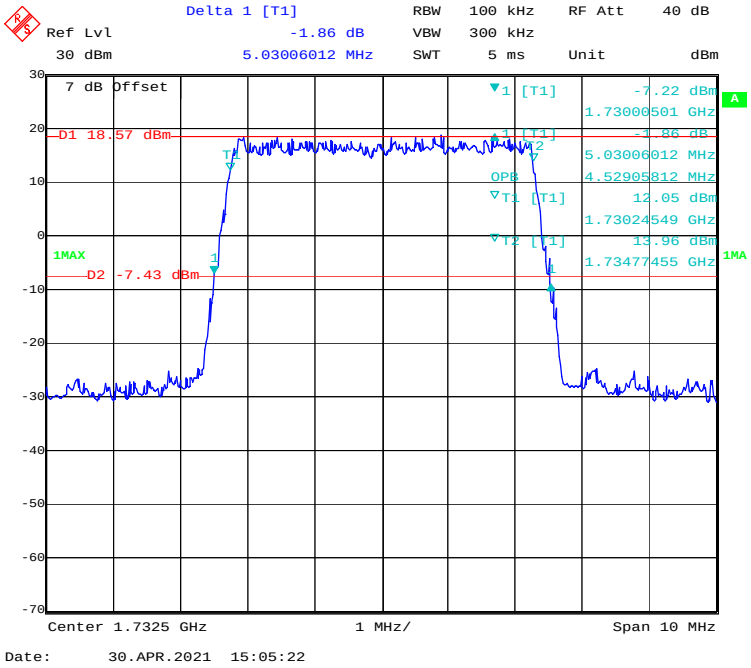
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



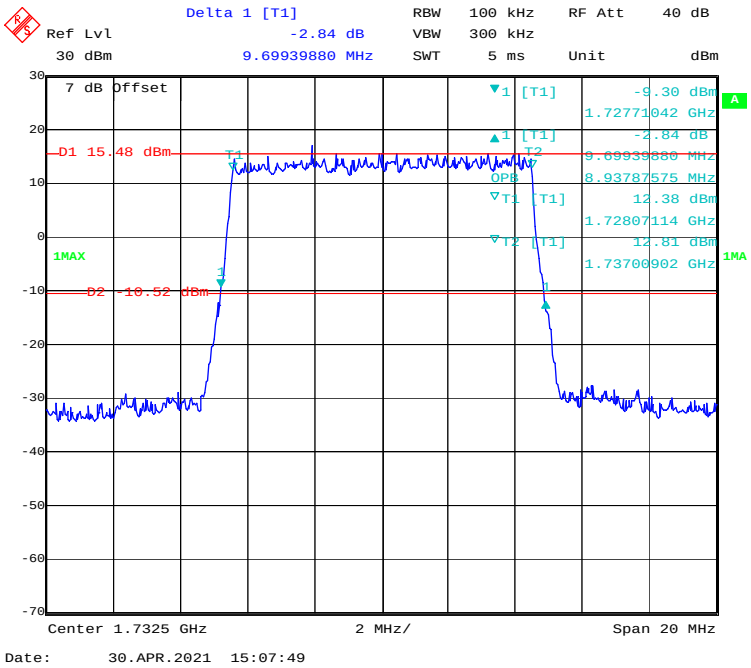
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



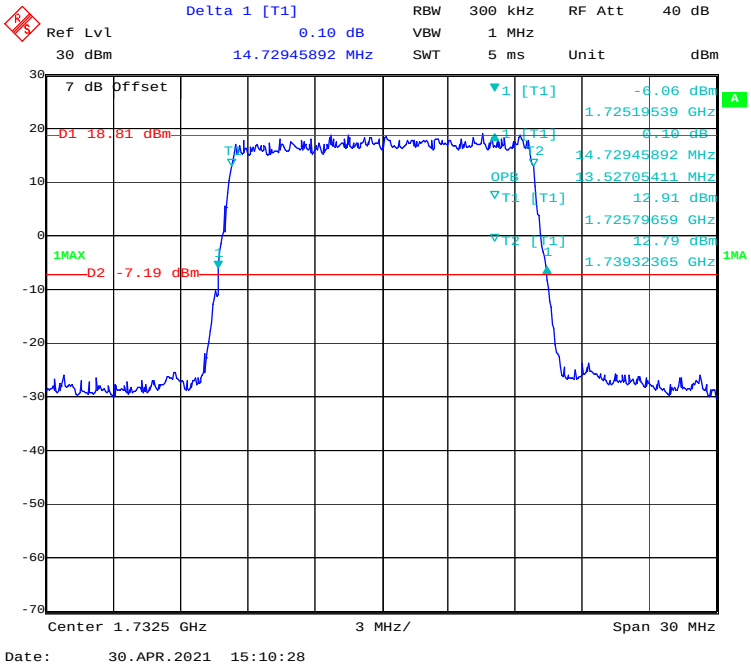
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



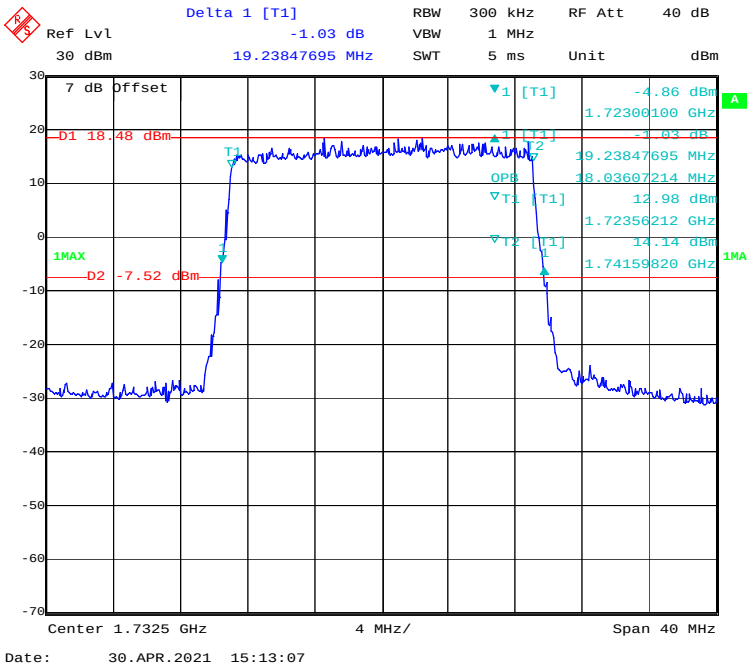
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



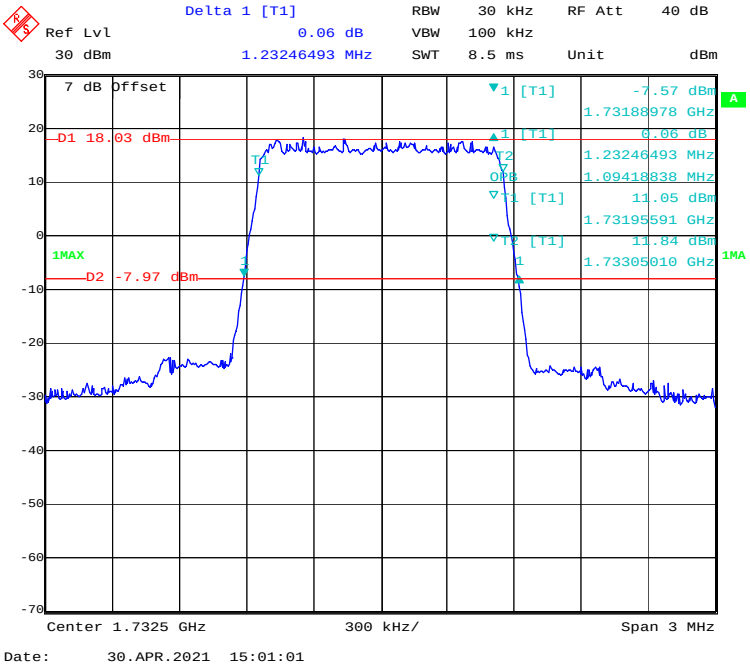
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



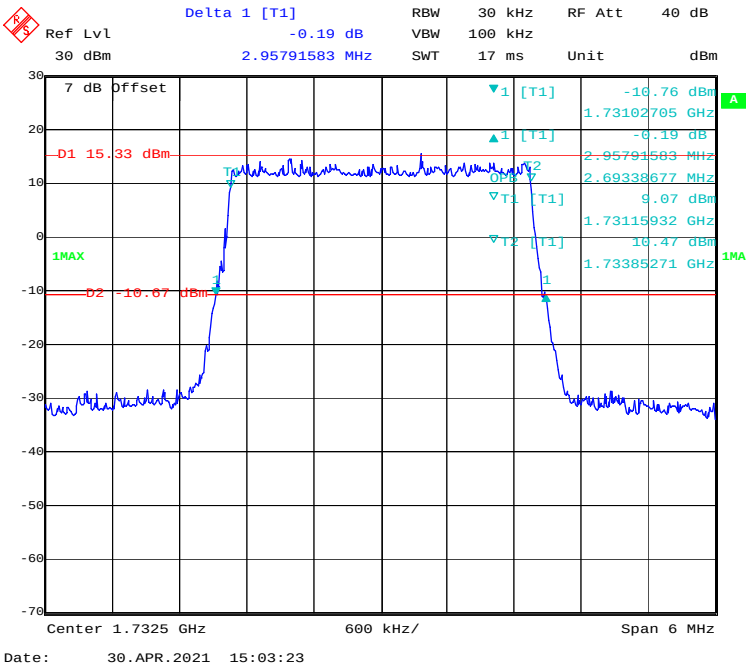
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



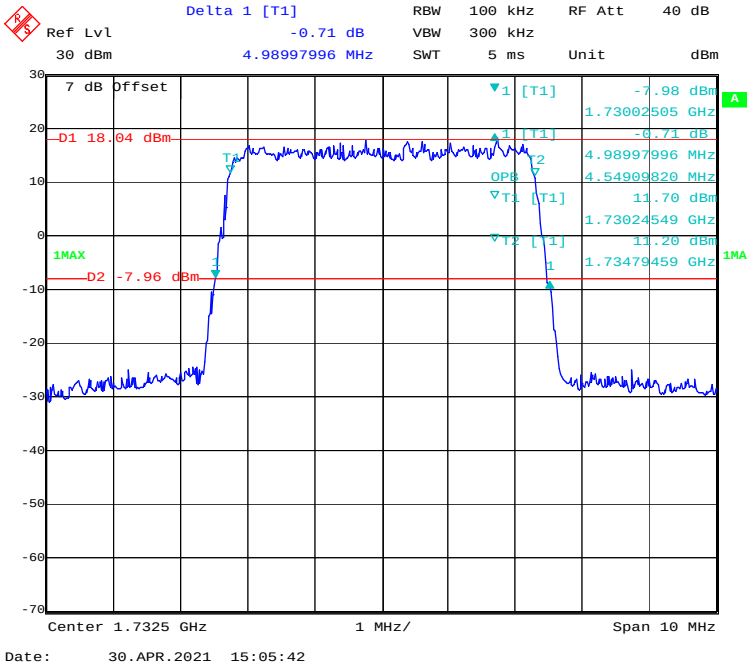
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



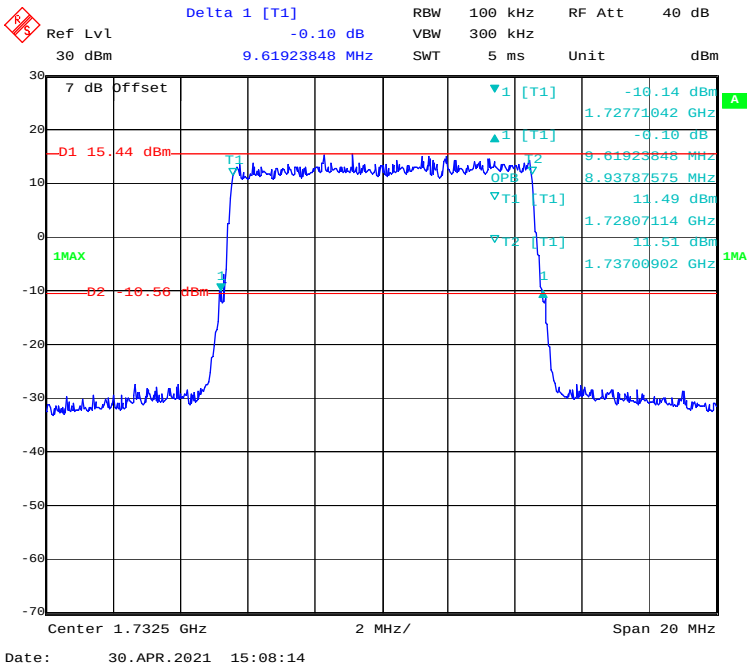
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



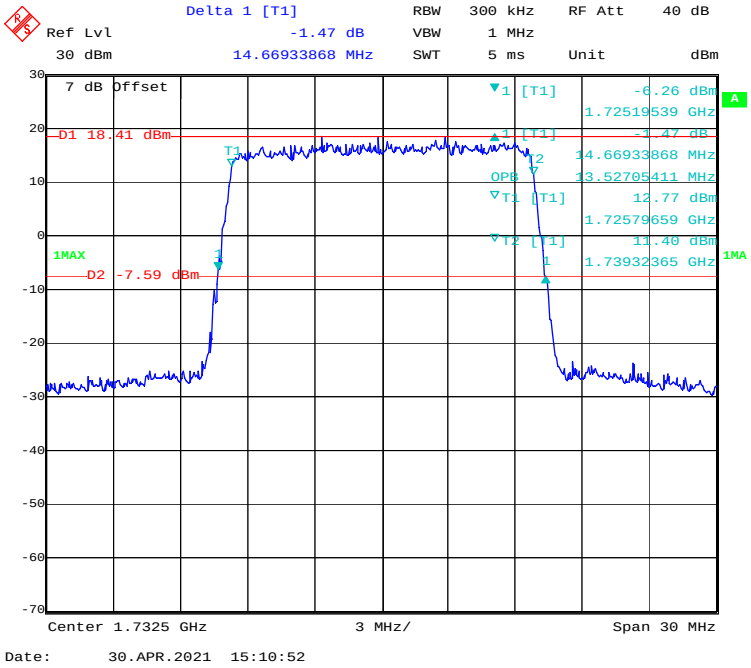
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



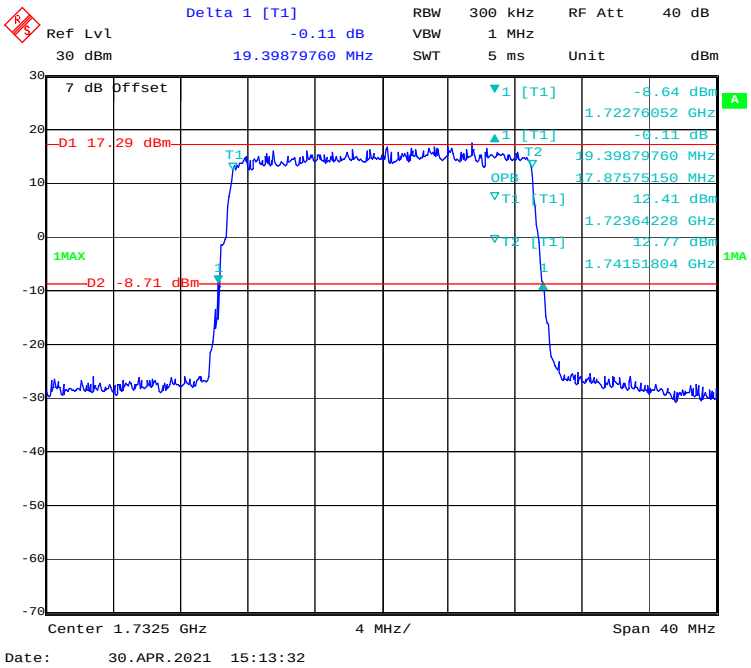
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



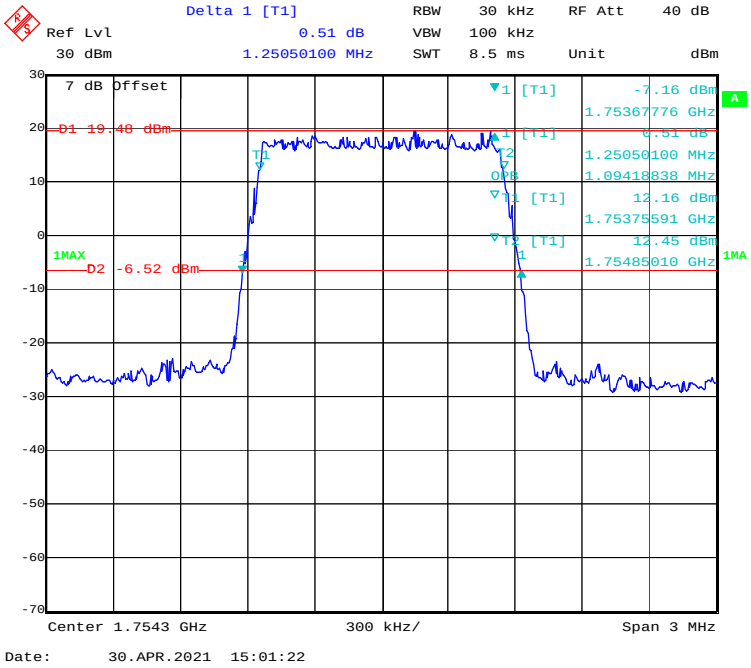
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



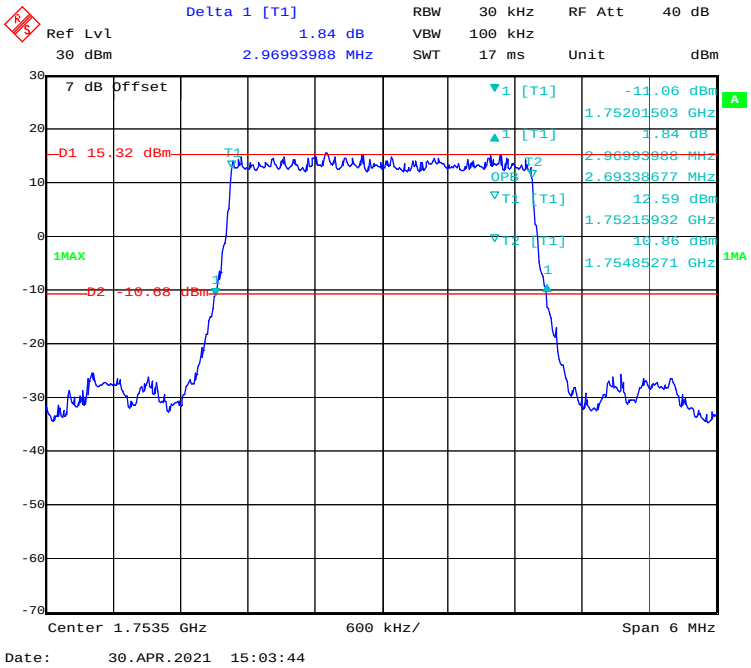
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



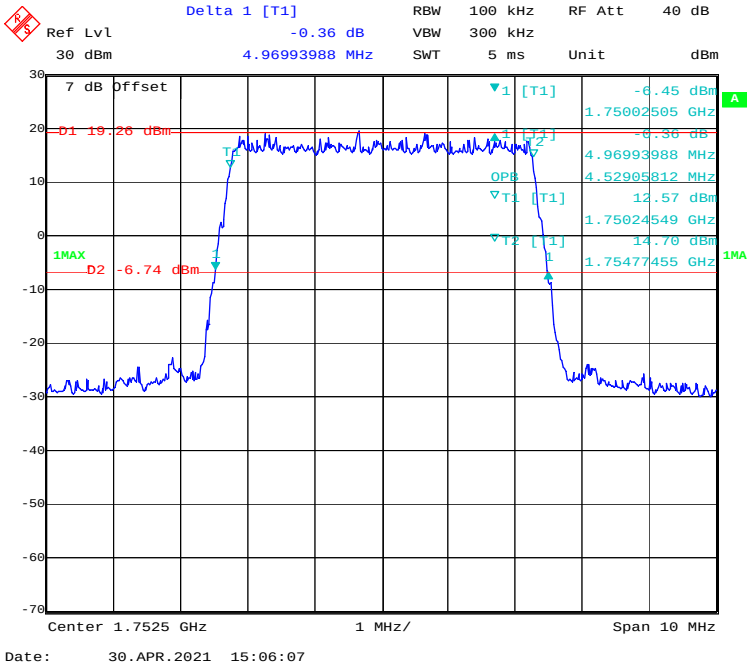
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



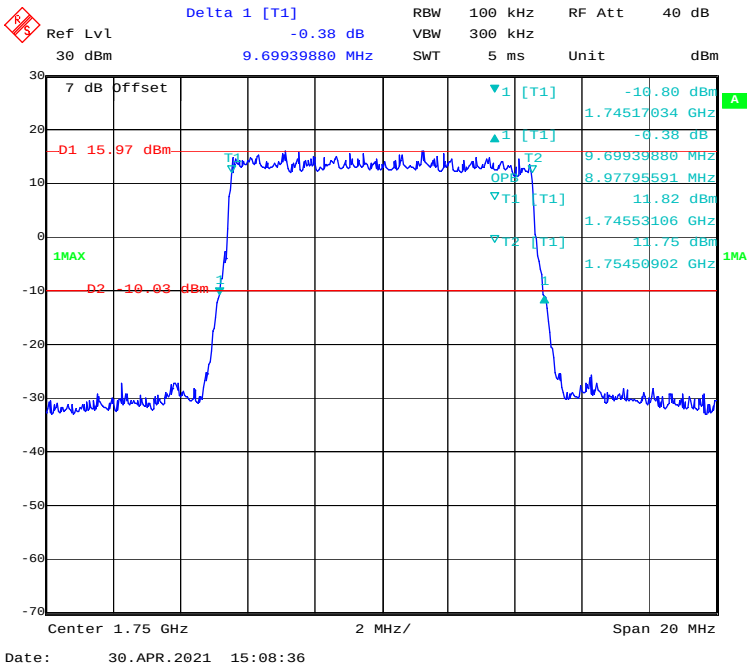
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



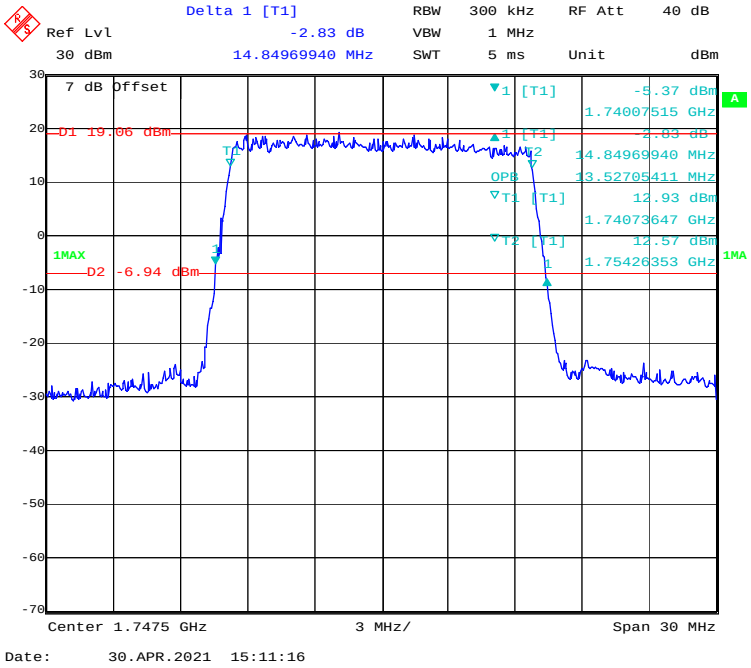
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



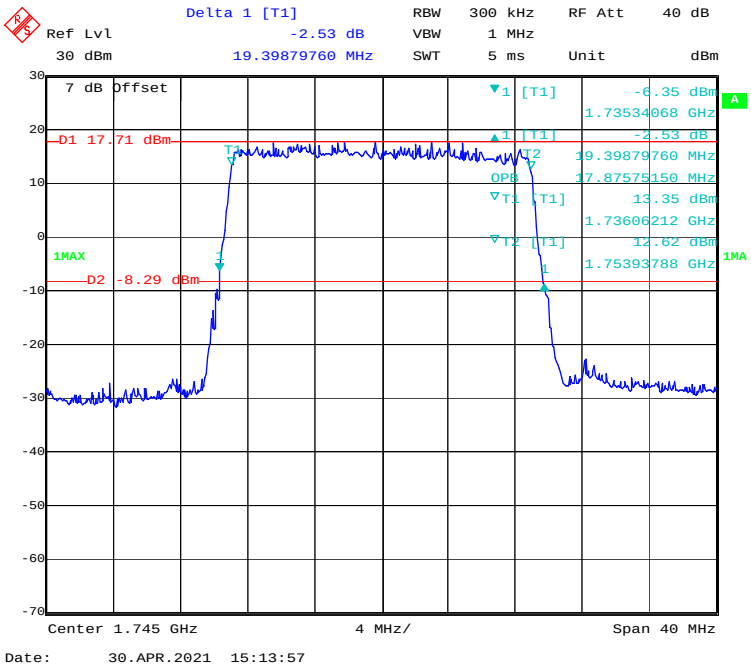
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



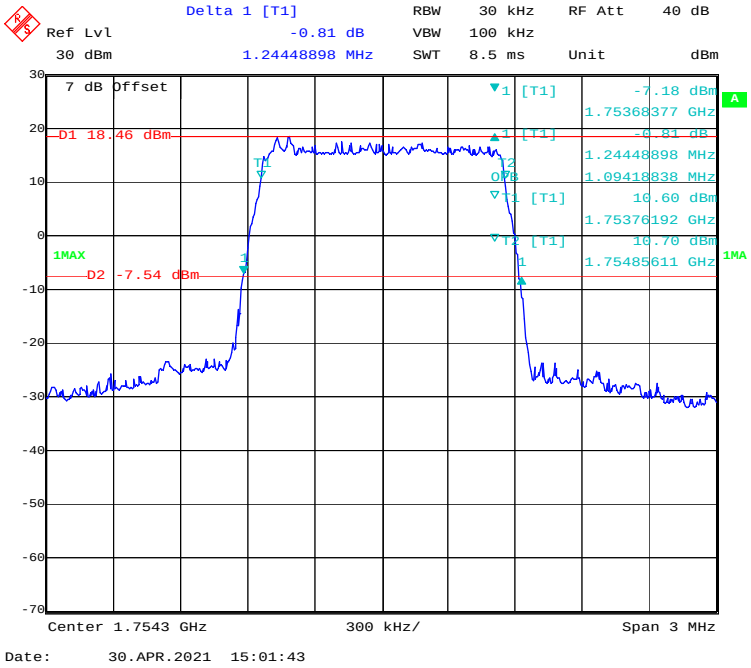
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



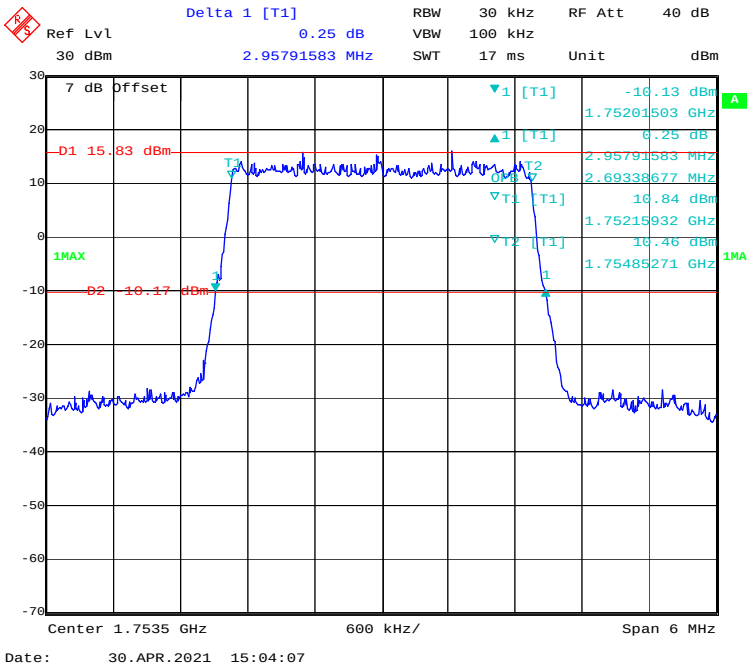
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



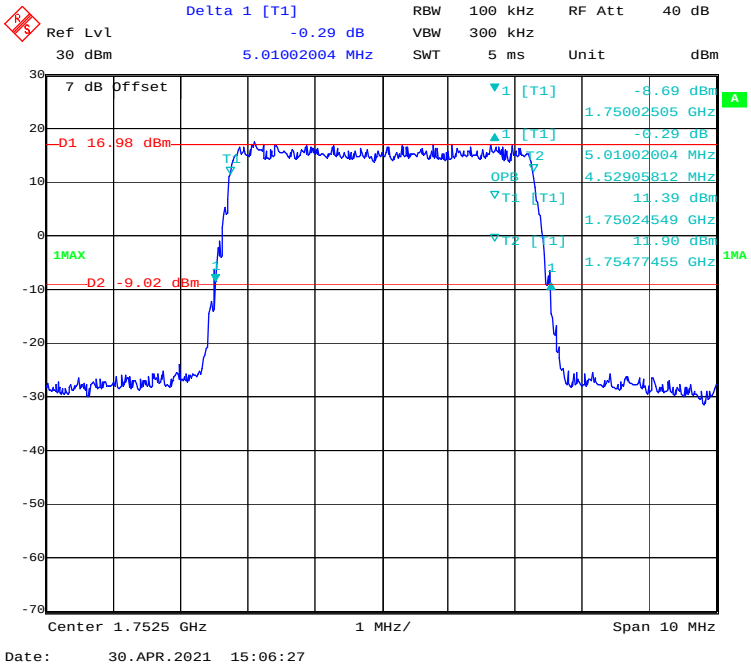
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



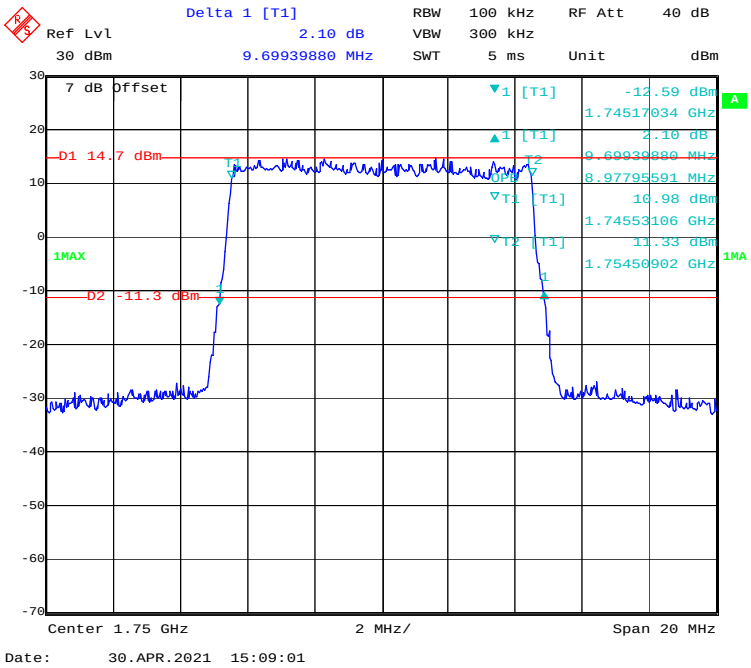
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



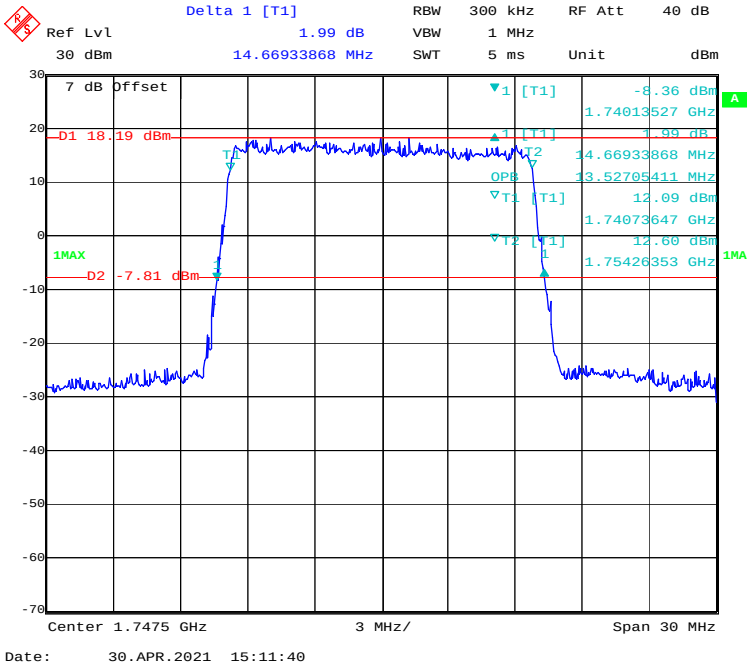
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



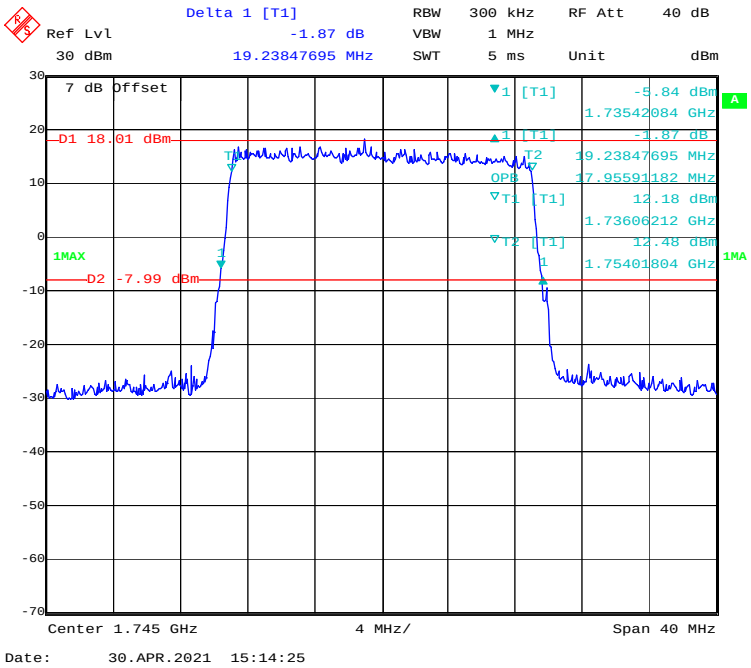
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



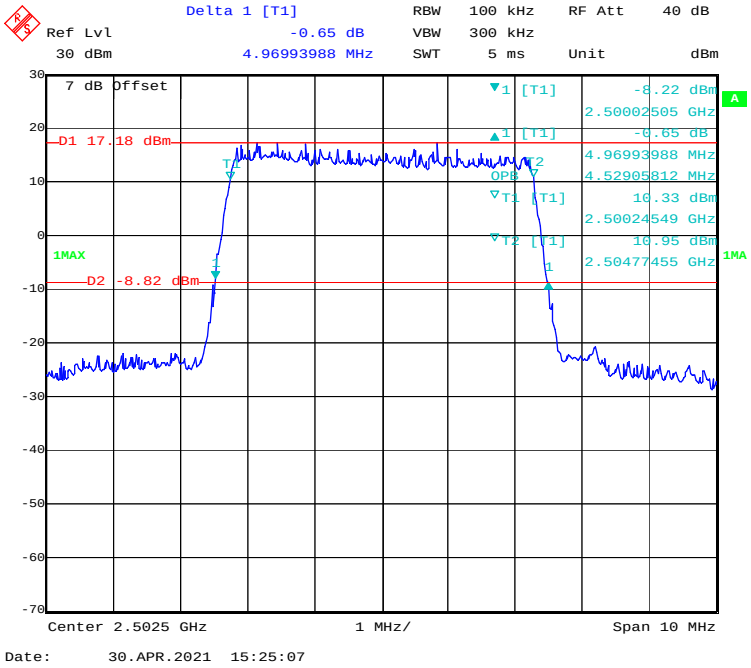
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



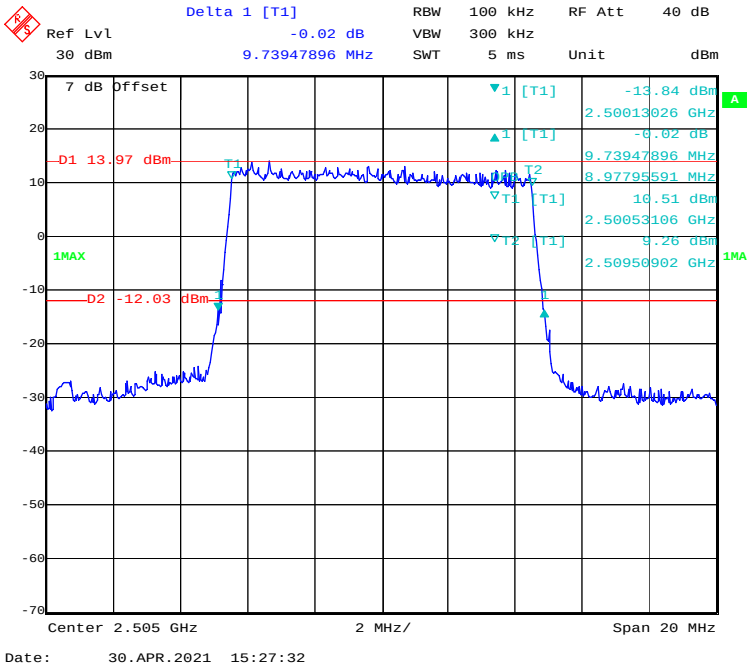
LTE Band 7:

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	5M	Low	4.970	4.529
	10M		9.739	8.978
	15M		14.910	13.527
	20M		19.319	17.956
	5M	Middle	5.050	4.529
	10M		9.659	8.978
	15M		14.669	13.467
	20M		19.319	17.876
	5M	High	4.970	4.509
	10M		9.780	8.938
	15M		14.910	13.527
	20M		19.559	17.956
16-QAM	5M	Low	4.950	4.549
	10M		9.659	8.978
	15M		14.910	13.527
	20M		19.559	18.036
	5M	Middle	4.990	4.549
	10M		9.699	8.978
	15M		14.790	13.527
	20M		19.319	17.876
	5M	High	4.990	4.529
	10M		9.619	8.938
	15M		14.669	13.527
	20M		19.239	18.036

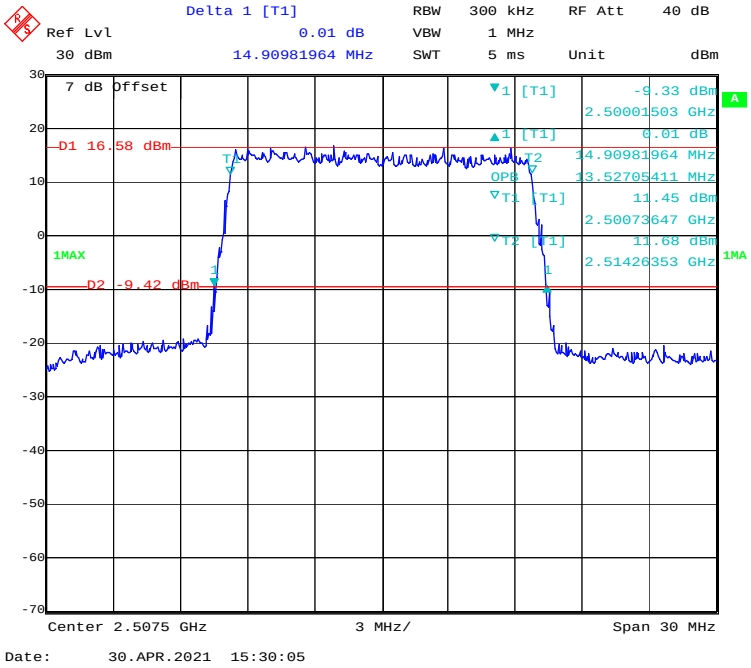
QPSK (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



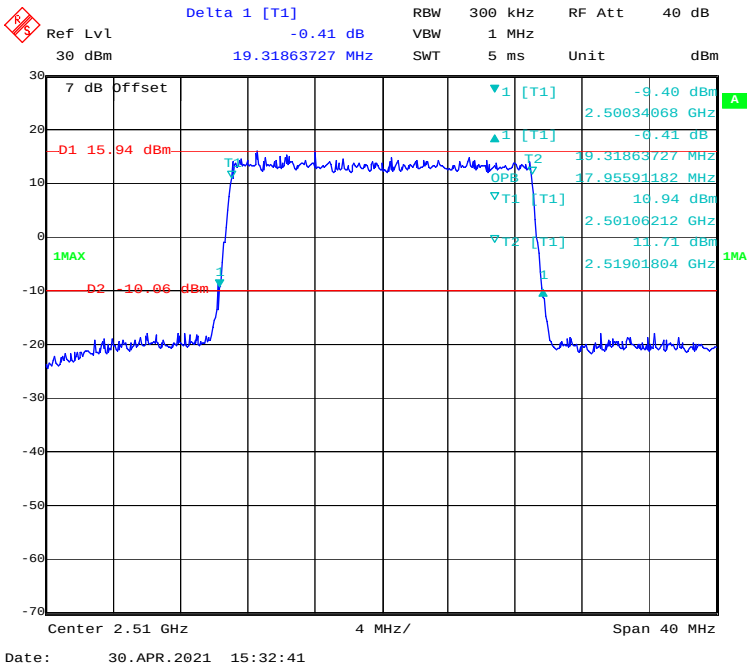
QPSK (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



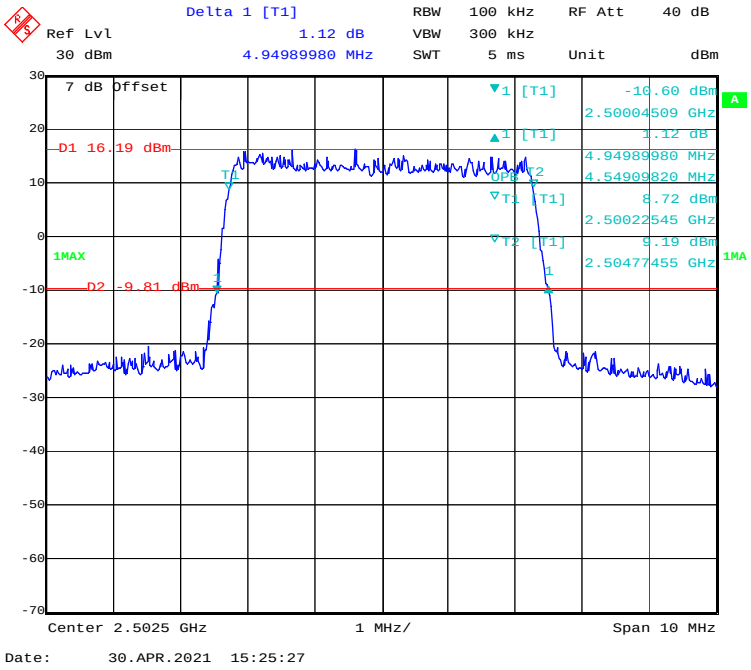
QPSK (15.0MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



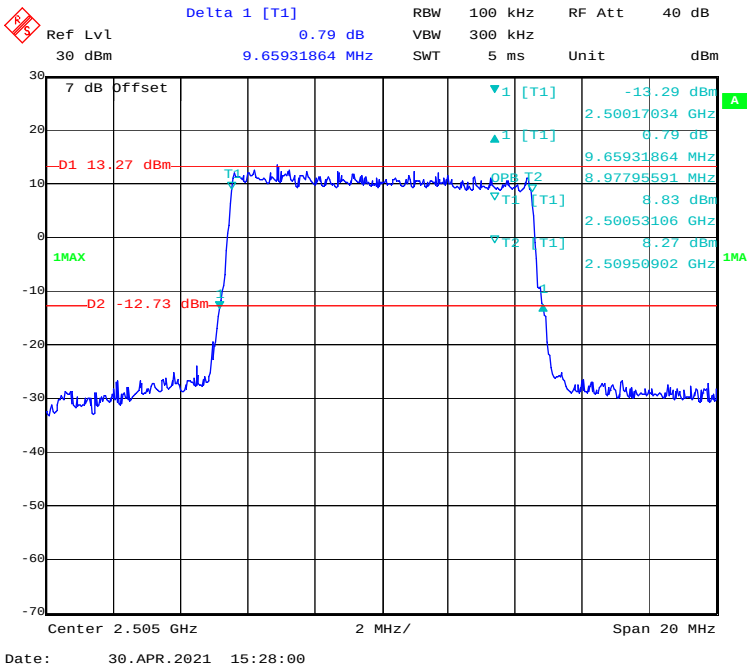
QPSK (20.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



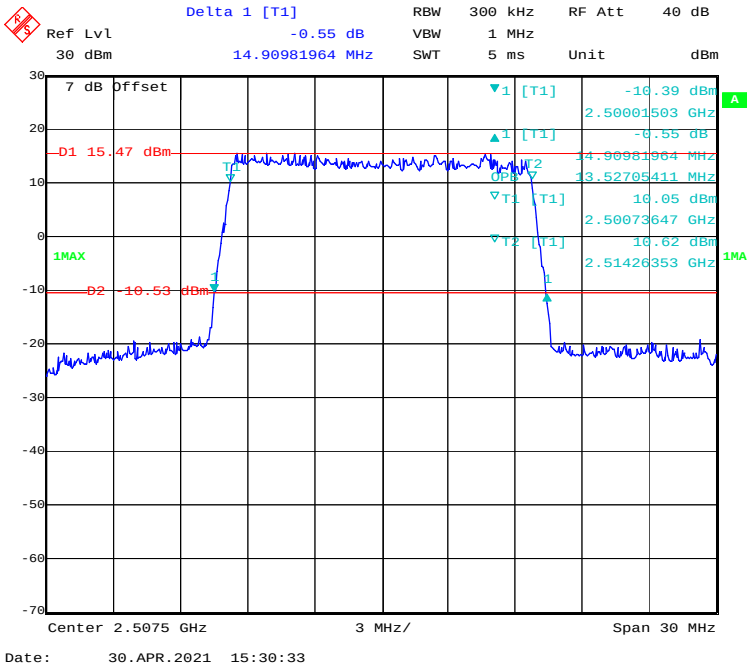
16-QAM (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



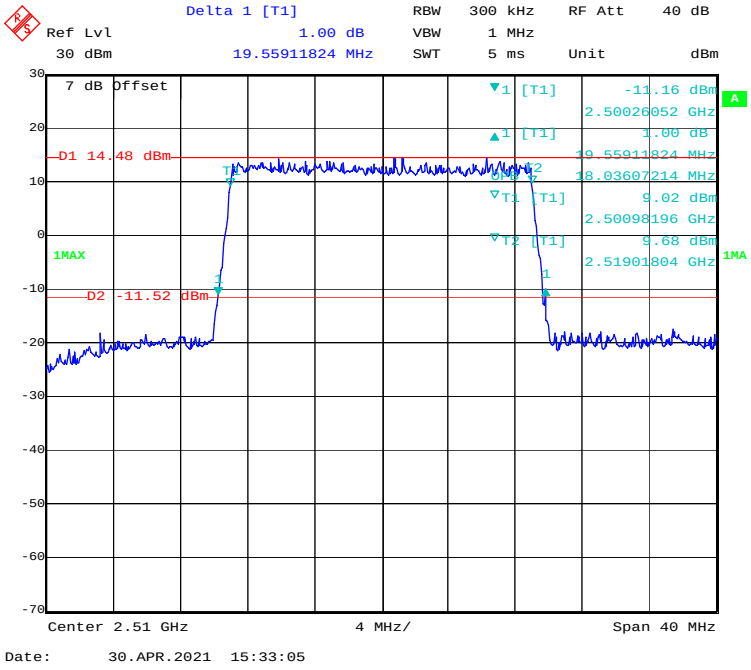
16-QAM (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



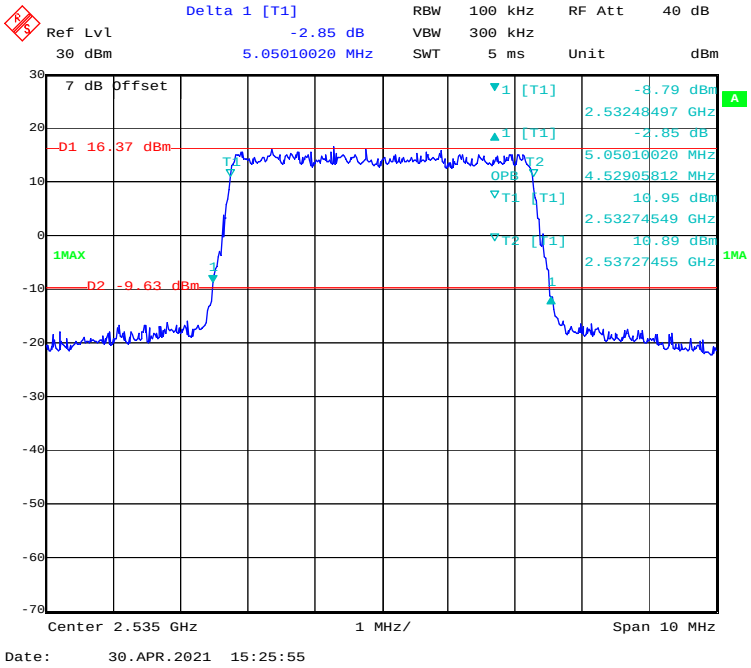
16-QAM (15.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



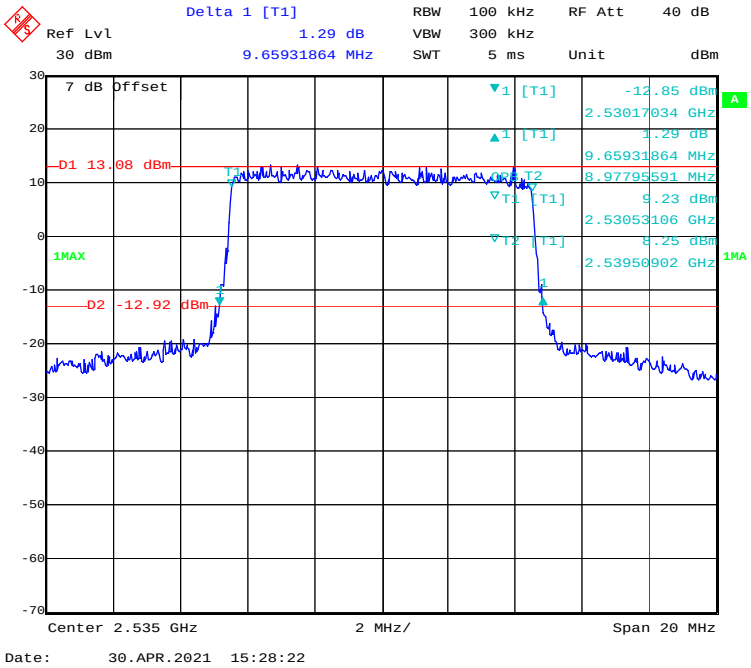
16-QAM (20.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



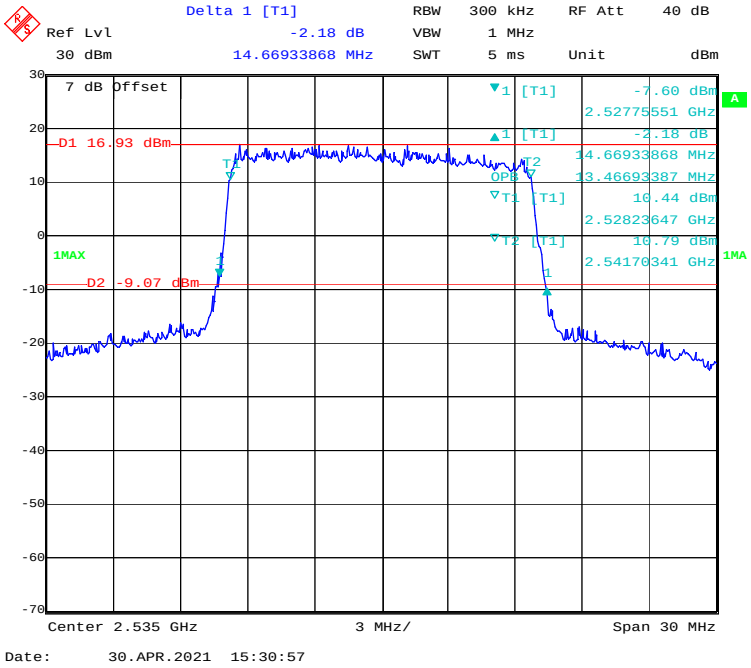
QPSK (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



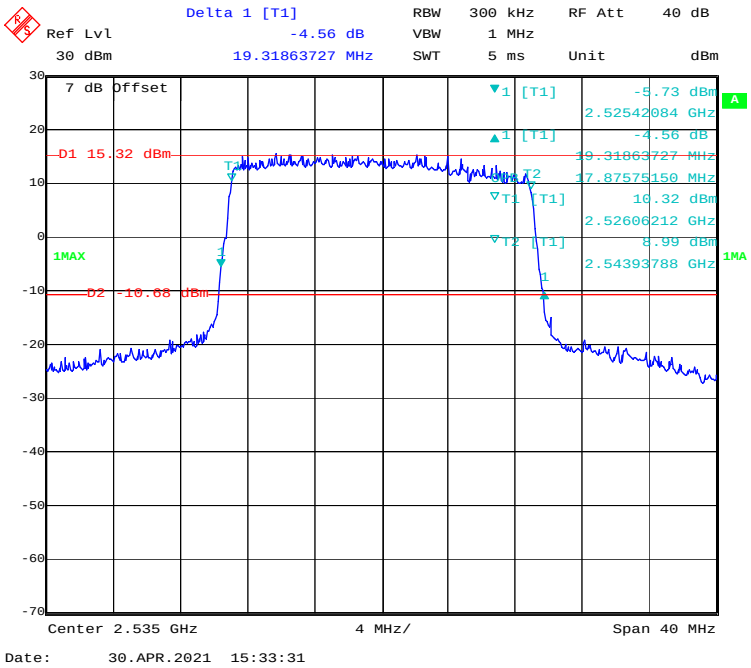
QPSK (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



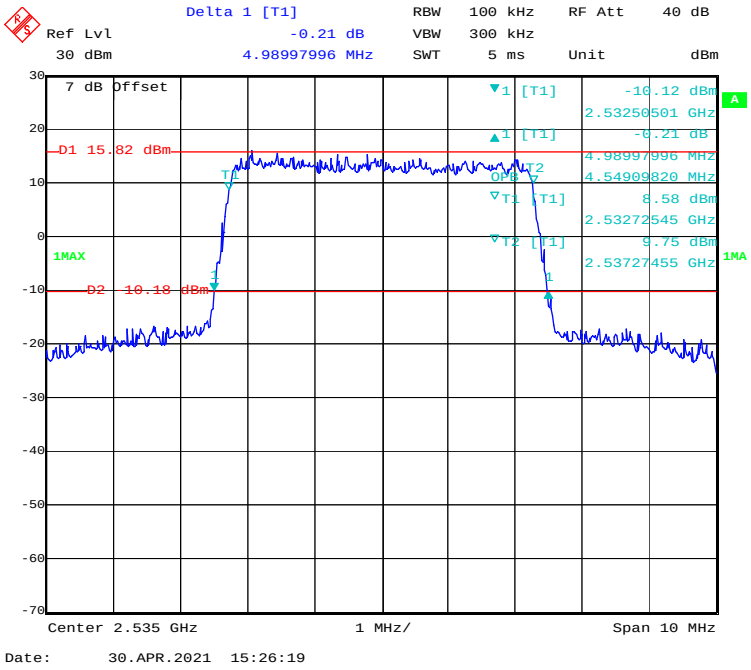
QPSK (15.0MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



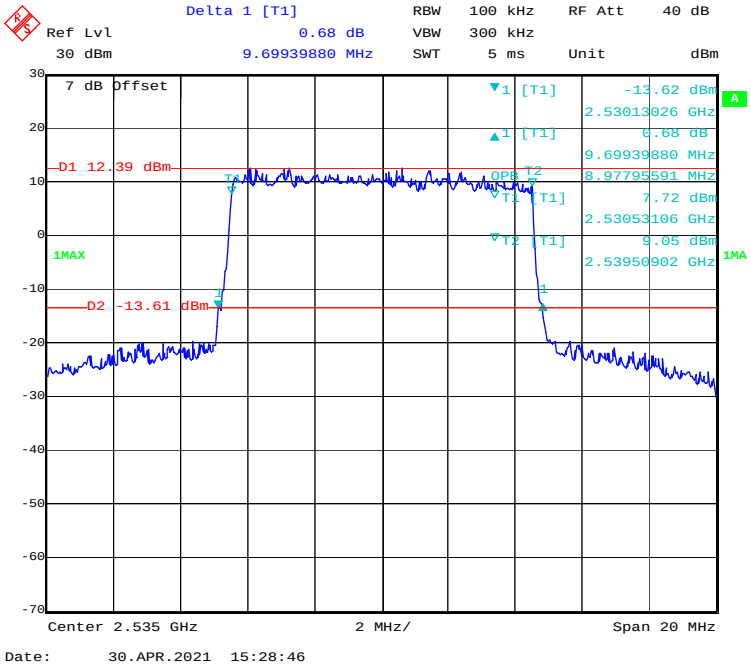
QPSK (20.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



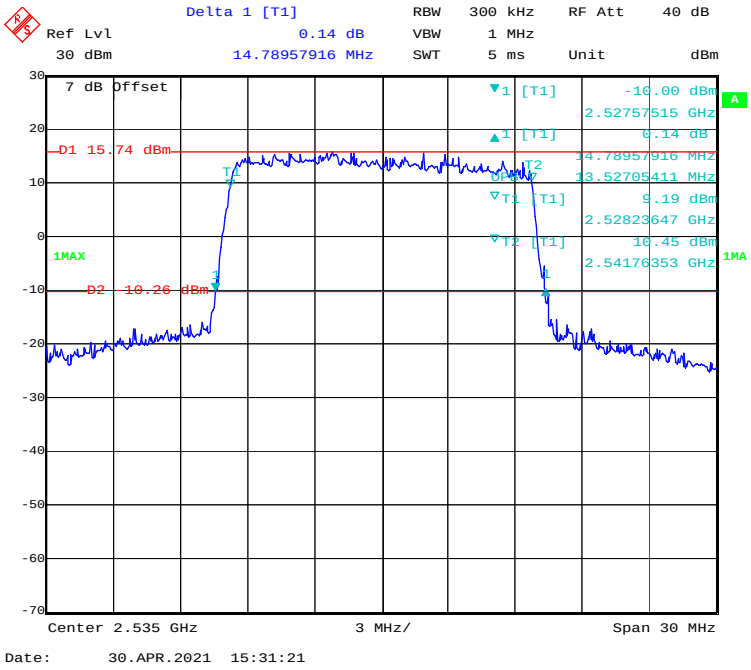
16-QAM (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



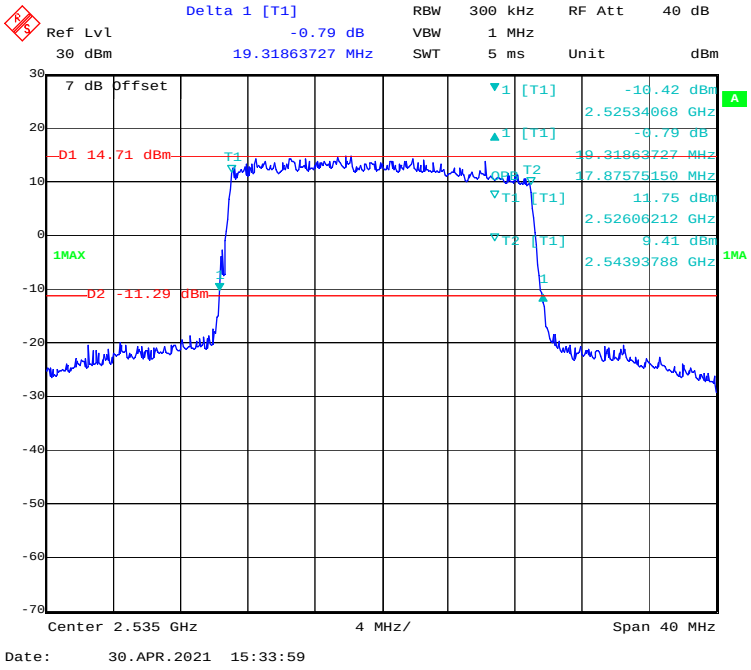
16-QAM (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



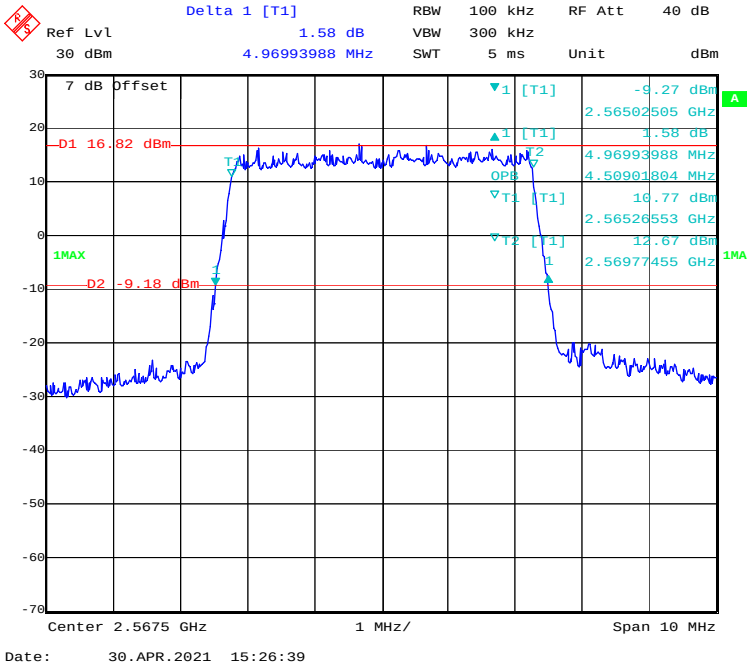
16-QAM (15.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



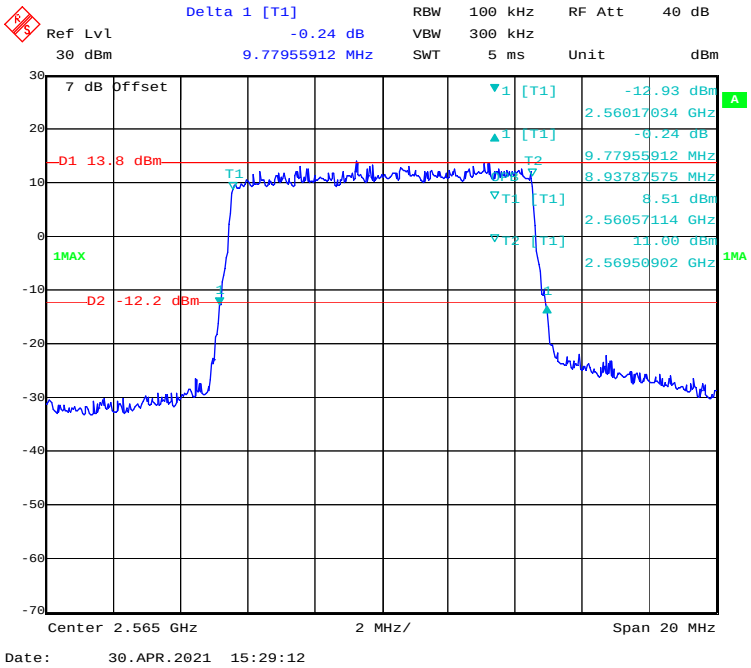
16-QAM (20.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



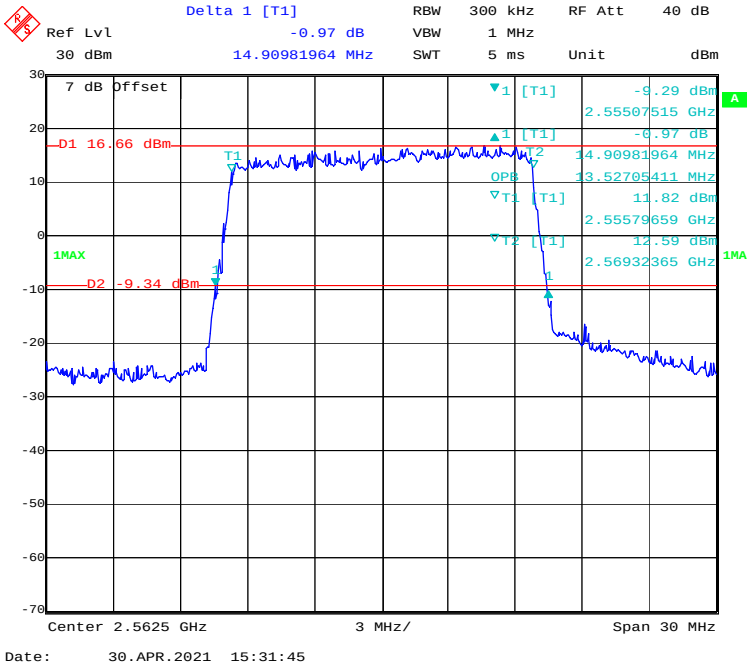
QPSK (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



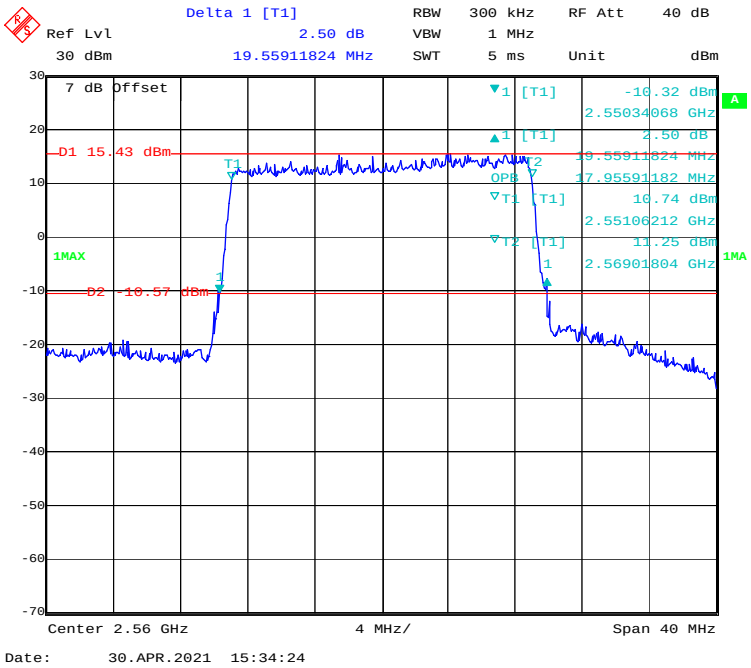
QPSK (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



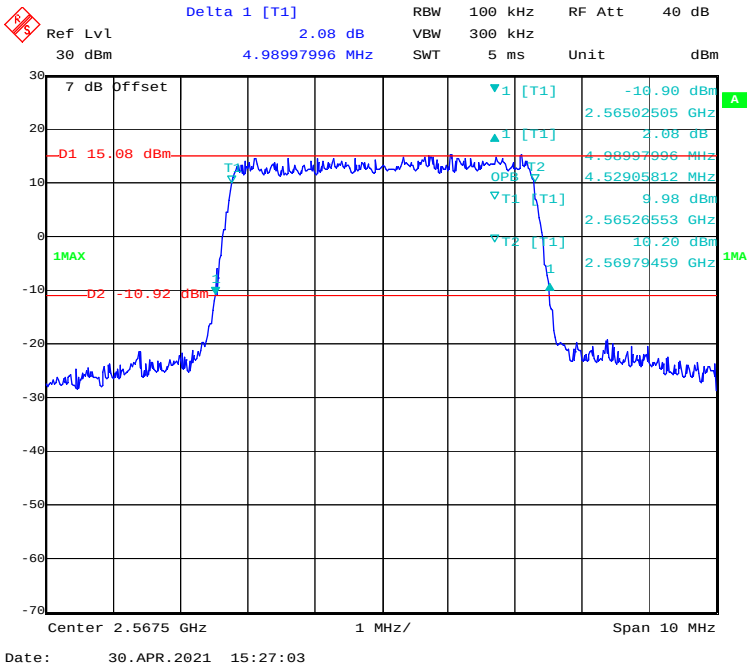
QPSK (15.0MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



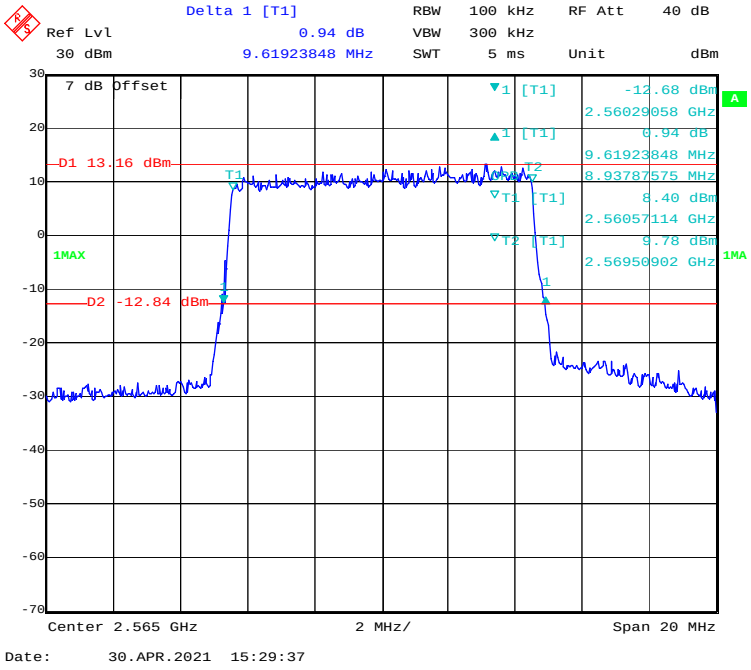
QPSK (20.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



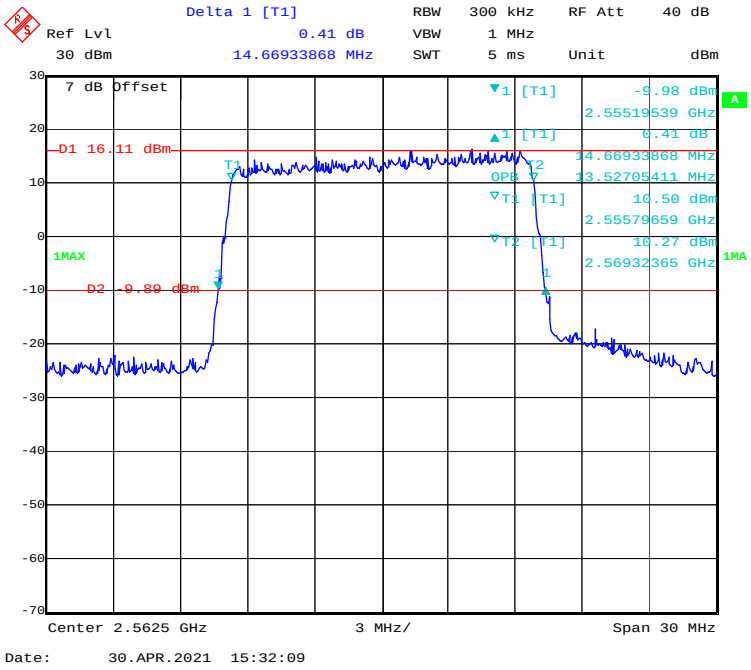
16-QAM (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



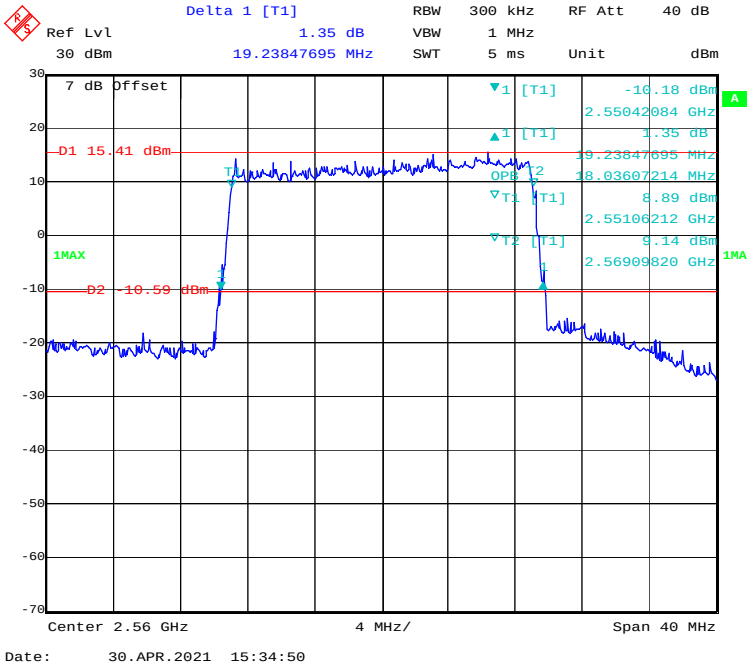
16-QAM (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



16-QAM (15.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



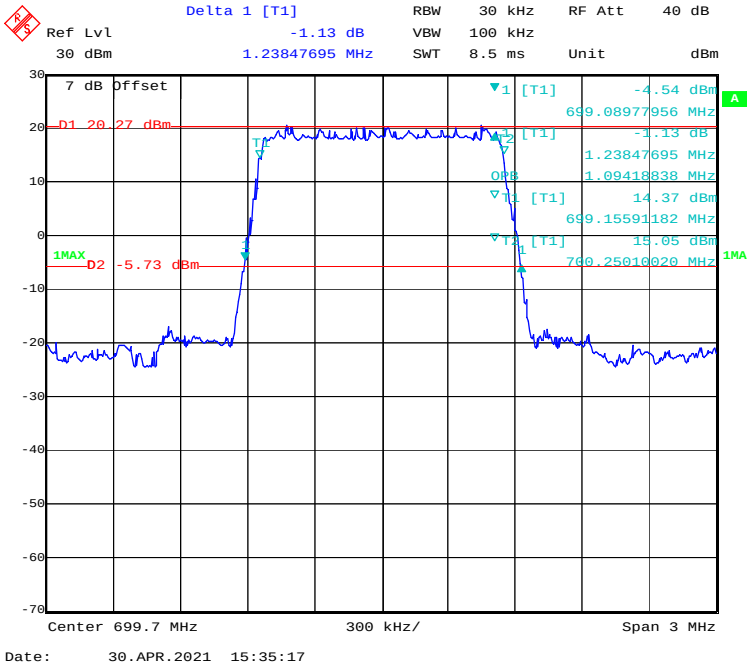
16-QAM (20.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



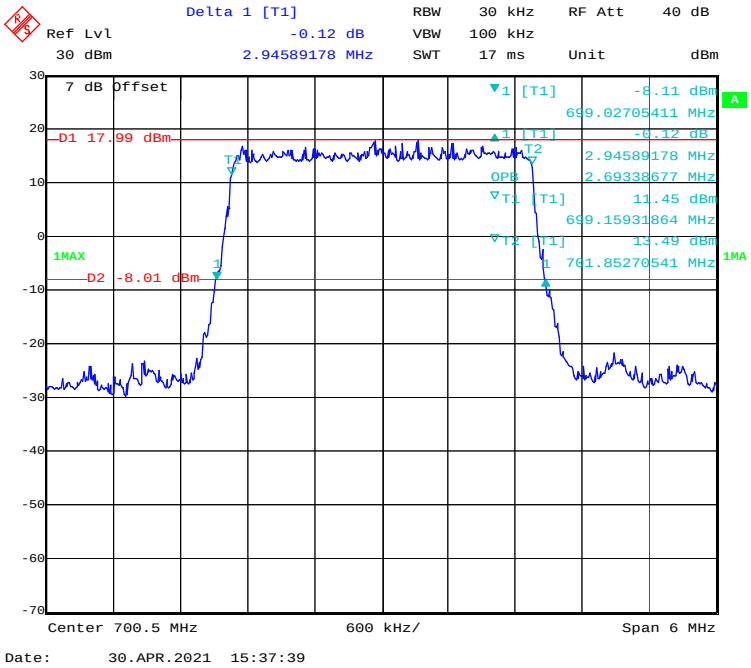
LTE Band 12:

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	1.4M	Low	1.238	1.094
	3M		2.946	2.693
	5M		5.010	4.509
	10M		9.699	8.978
	1.4M	Middle	0.232	1.094
	3M		2.946	2.693
	5M		4.950	4.529
	10M		9.780	8.938
	1.4M	High	1.244	1.106
	3M		2.970	2.693
	5M		5.010	4.529
	10M		9.619	8.978
16-QAM	1.4M	Low	1.251	1.100
	3M		2.958	2.681
	5M		4.970	4.509
	10M		9.659	8.938
	1.4M	Middle	1.232	1.094
	3M		2.958	2.693
	5M		4.990	4.529
	10M		9.659	9.018
	1.4M	High	1.251	1.094
	3M		2.946	2.681
	5M		5.030	4.529
	10M		9.699	8.978

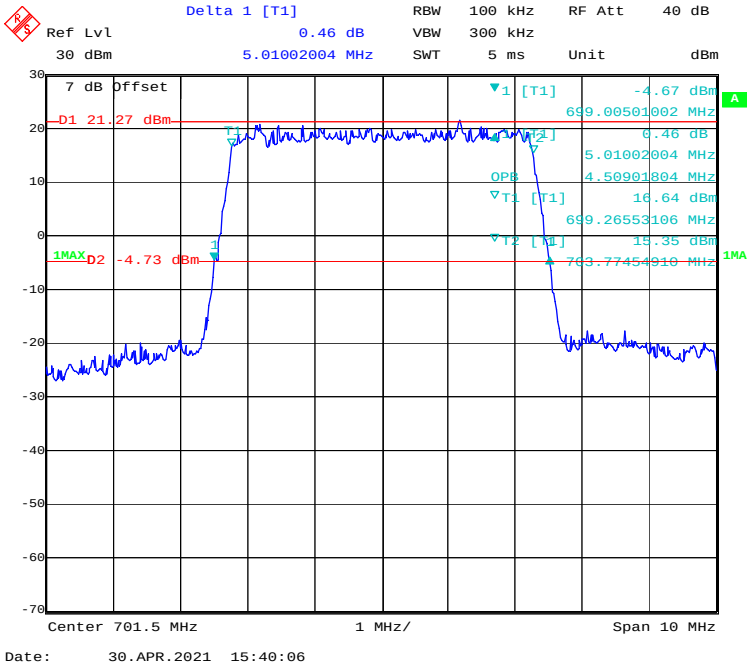
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



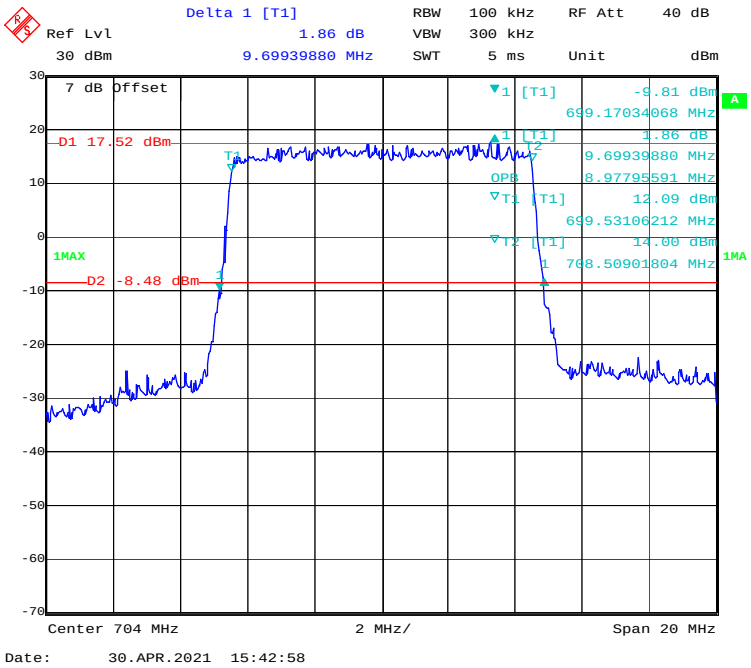
QPSK (3.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



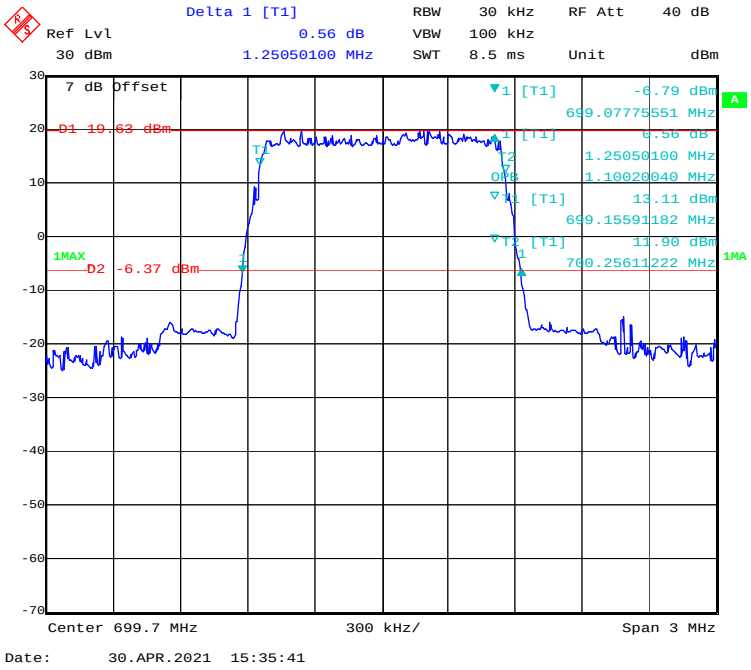
QPSK (5.0MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



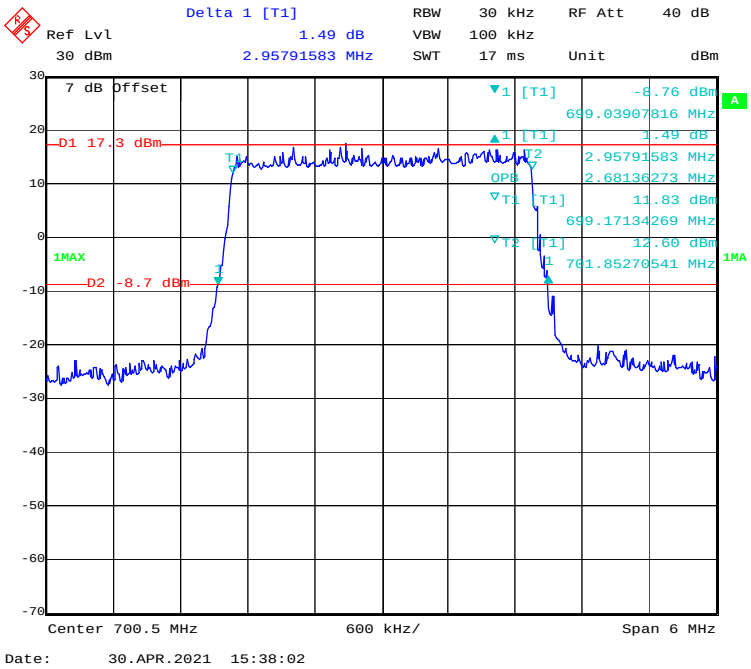
QPSK (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



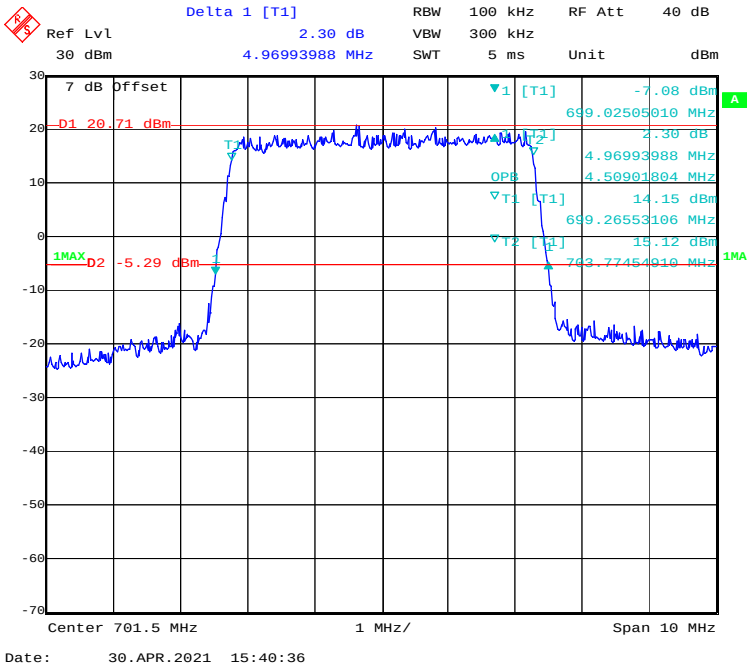
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



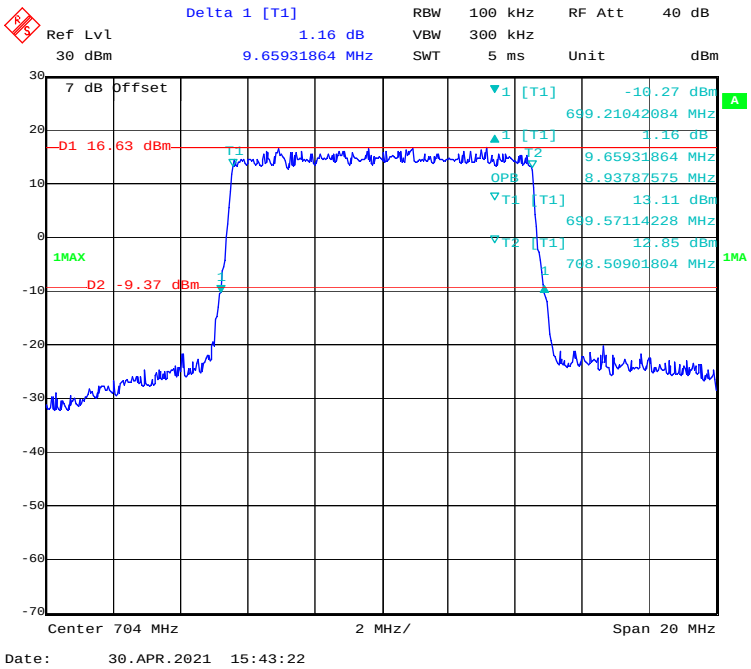
16-QAM (3.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



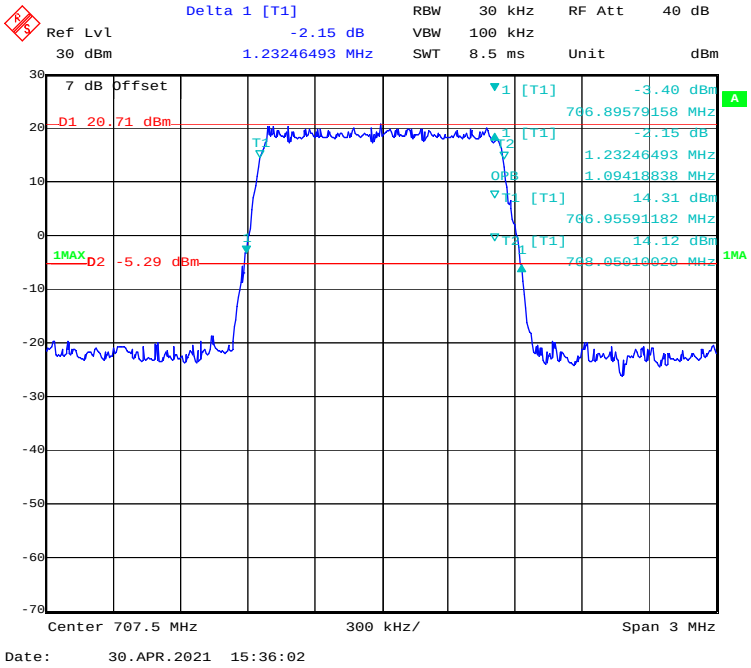
16-QAM (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



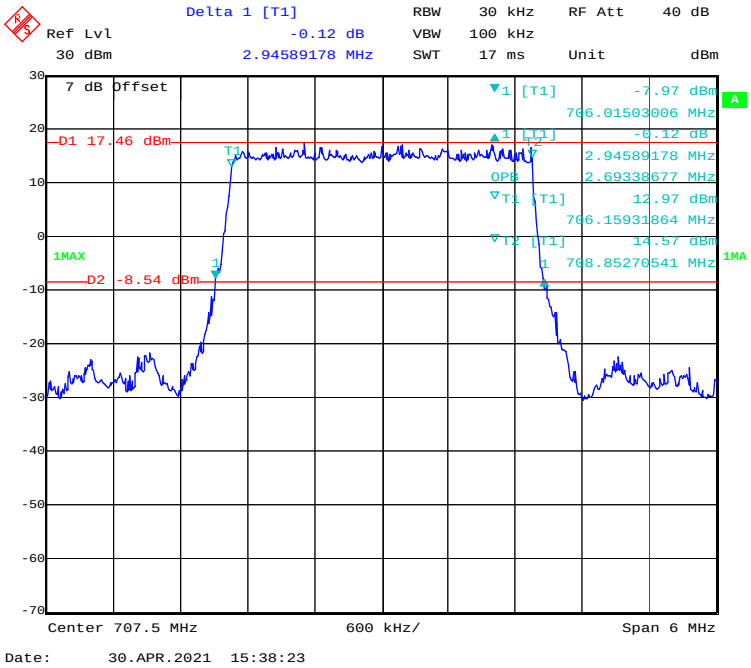
16-QAM (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



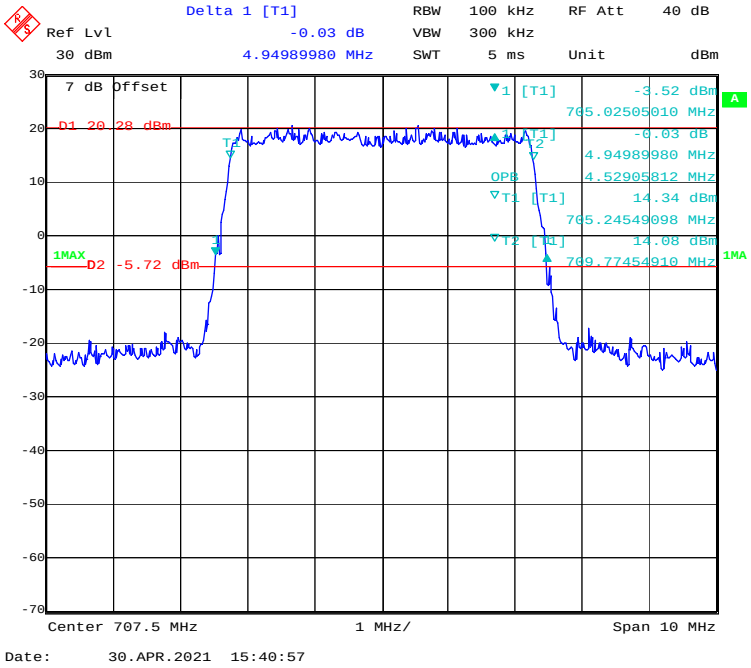
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



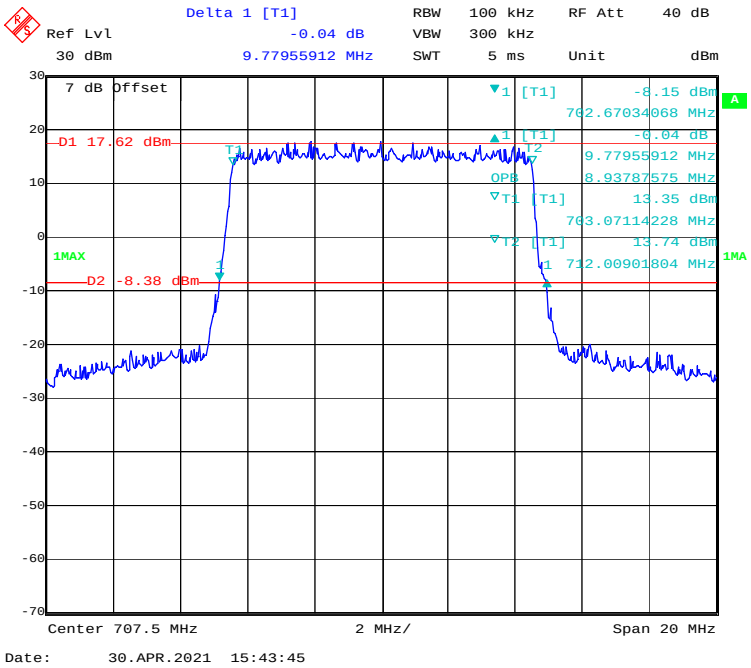
QPSK (3.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



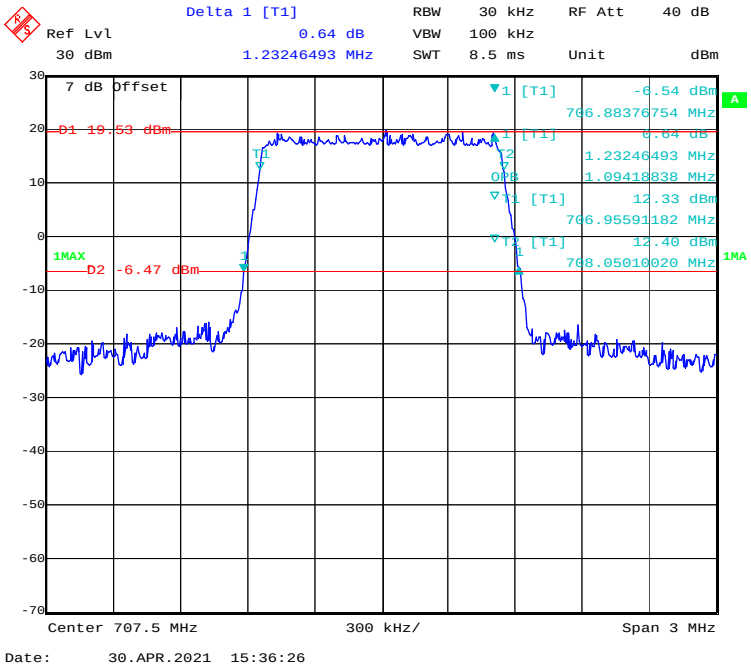
QPSK (5.0MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



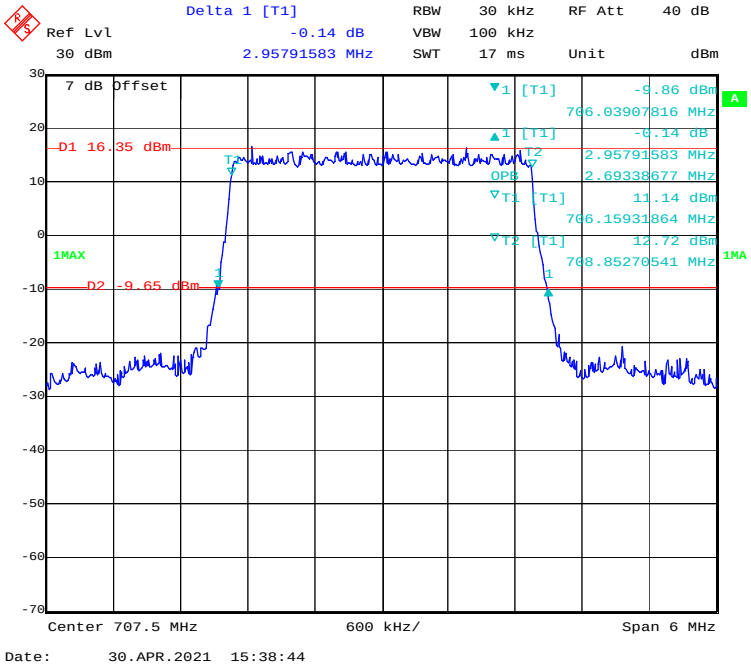
QPSK (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



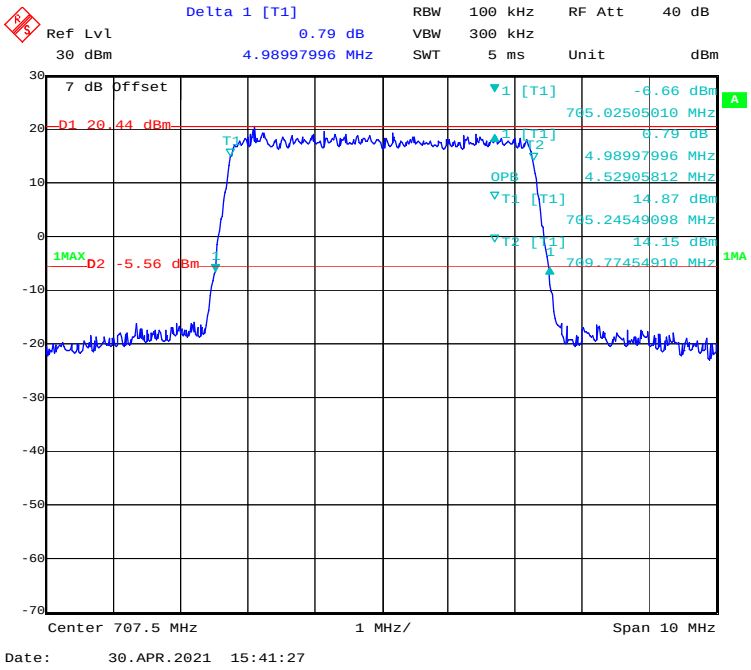
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



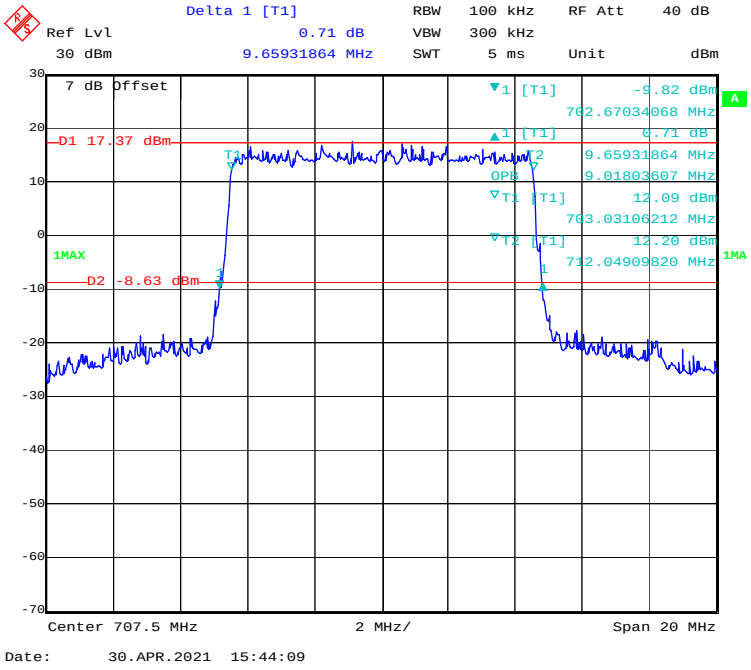
16-QAM (3.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



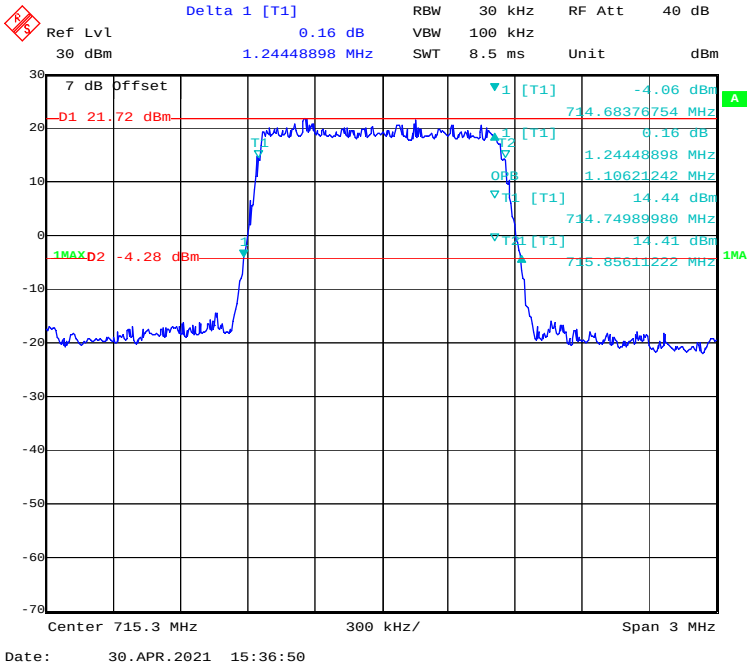
16-QAM (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



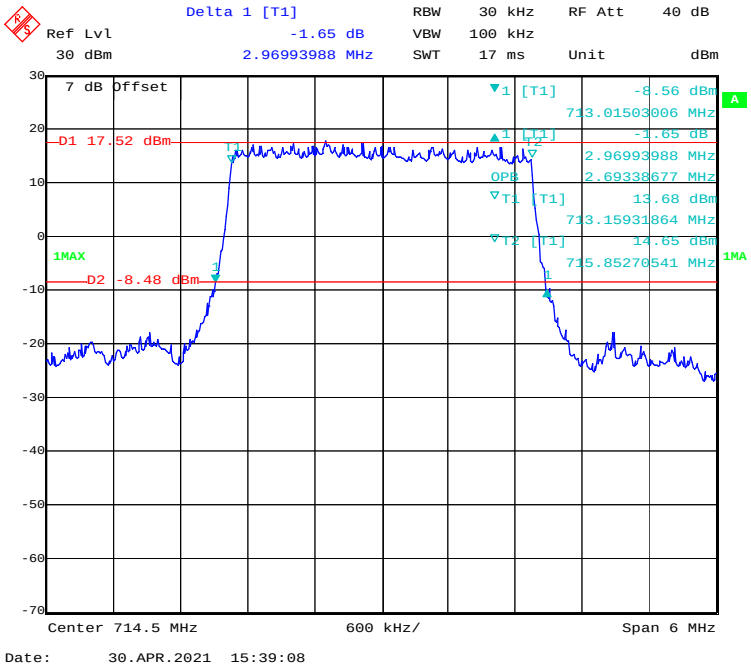
16-QAM (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



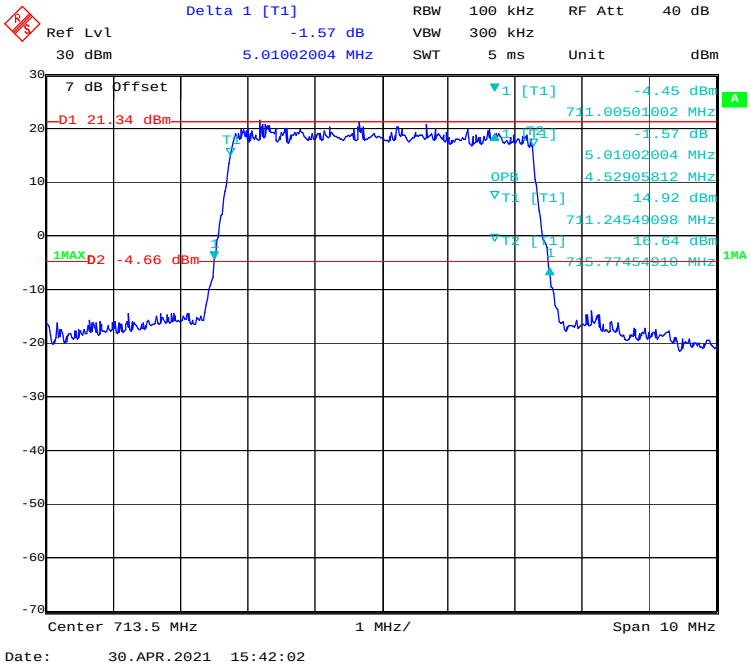
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



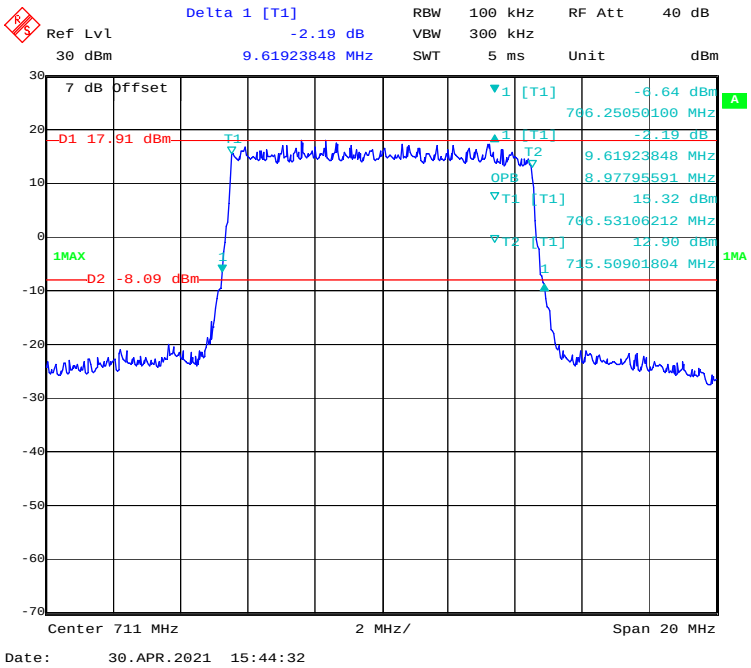
QPSK (3.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



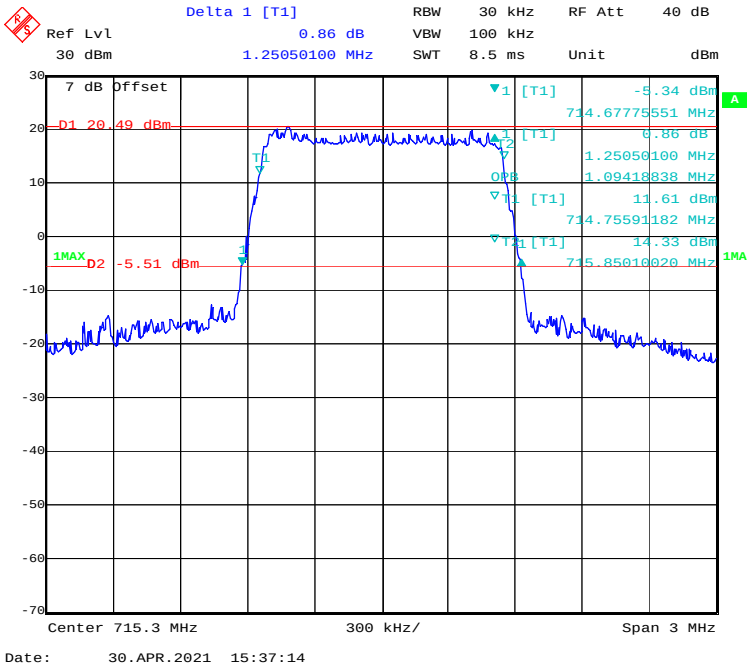
QPSK (5.0MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



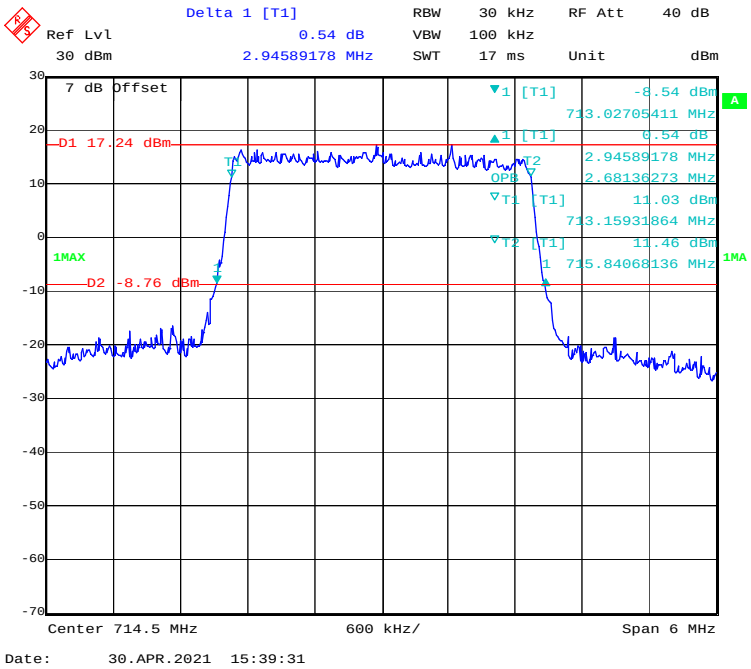
QPSK (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



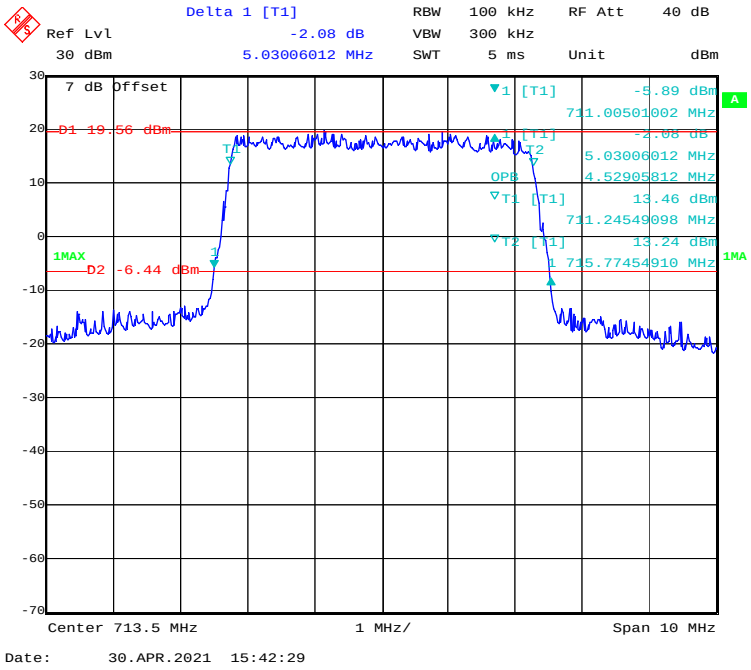
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



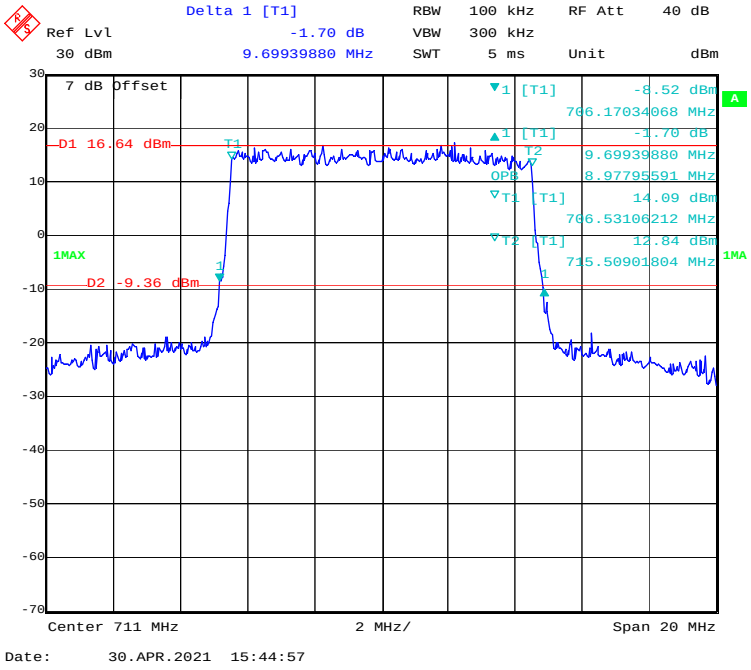
16-QAM (3.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



16-QAM (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



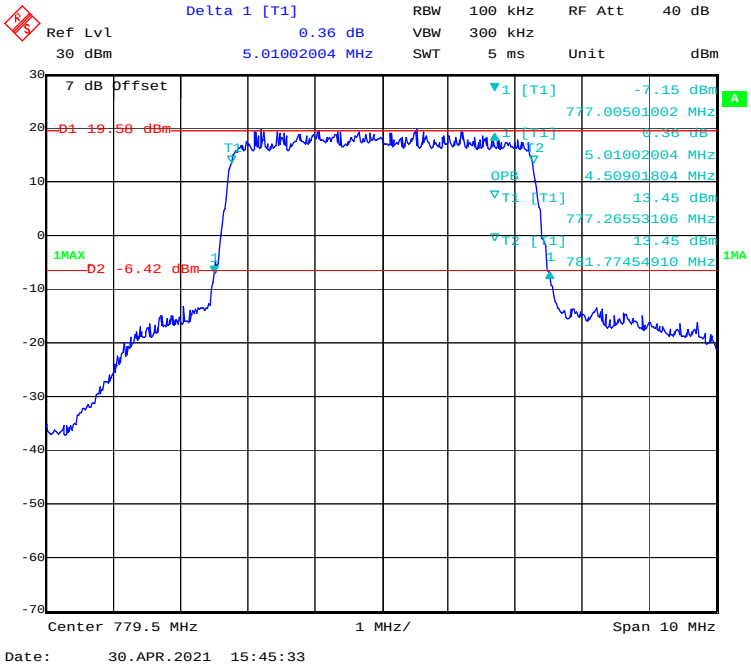
16-QAM (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



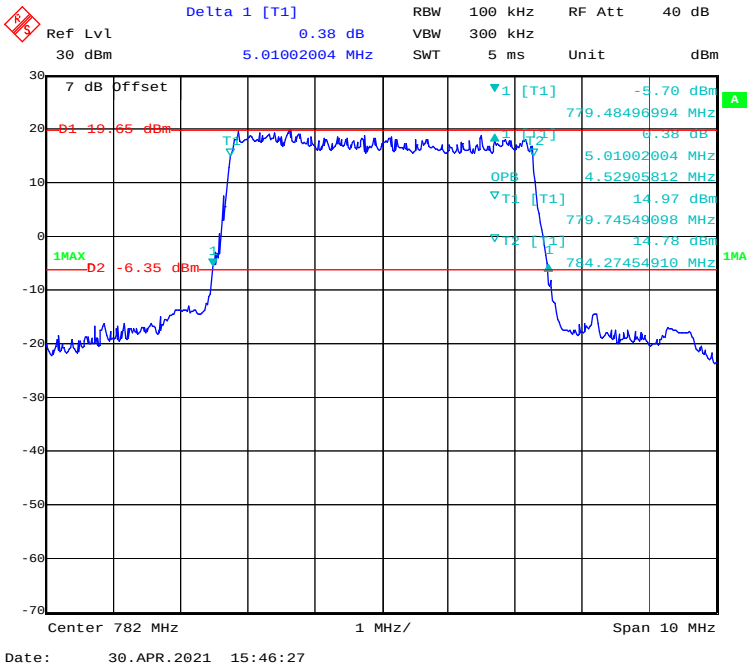
LTE Band 13:

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	5M	Low	5.010	4.509
	5M	Middle	5.010	4.529
	5M	High	5.030	4.529
	10M	/	9.739	9.018
16-QAM	5M	Low	4.970	4.509
	5M	Middle	5.010	4.569
	5M	High	5.010	4.549
	10M	/	9.499	8.938

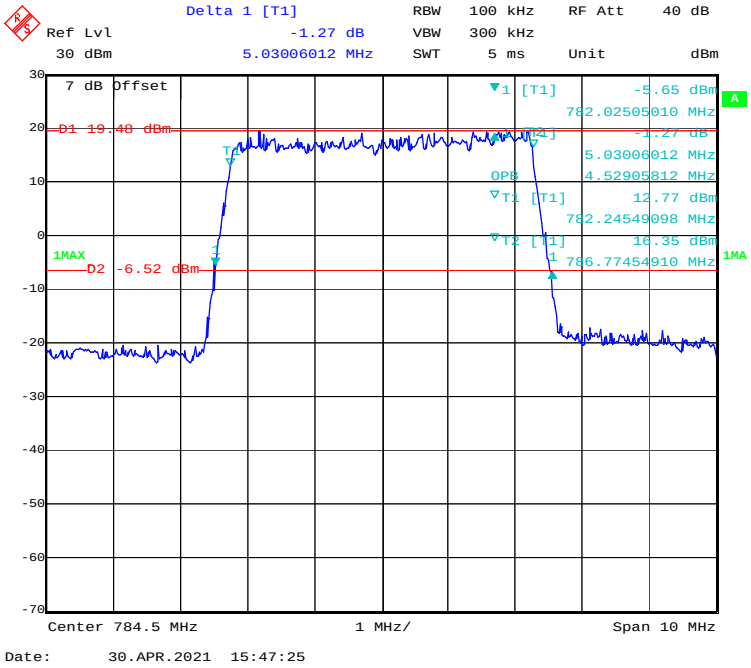
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



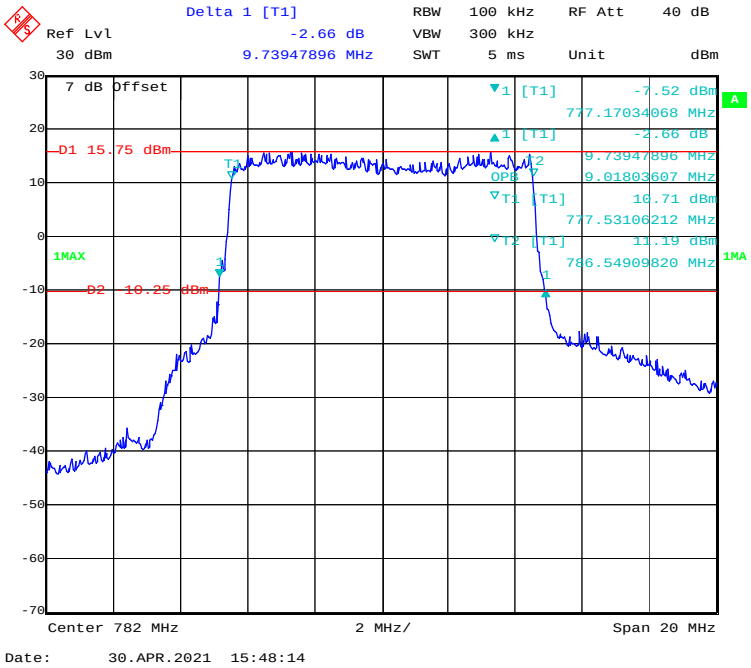
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



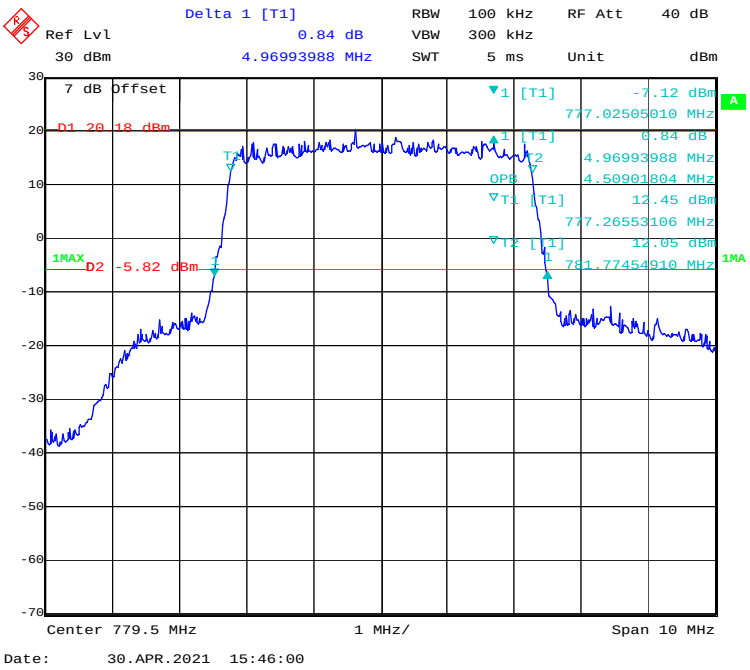
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



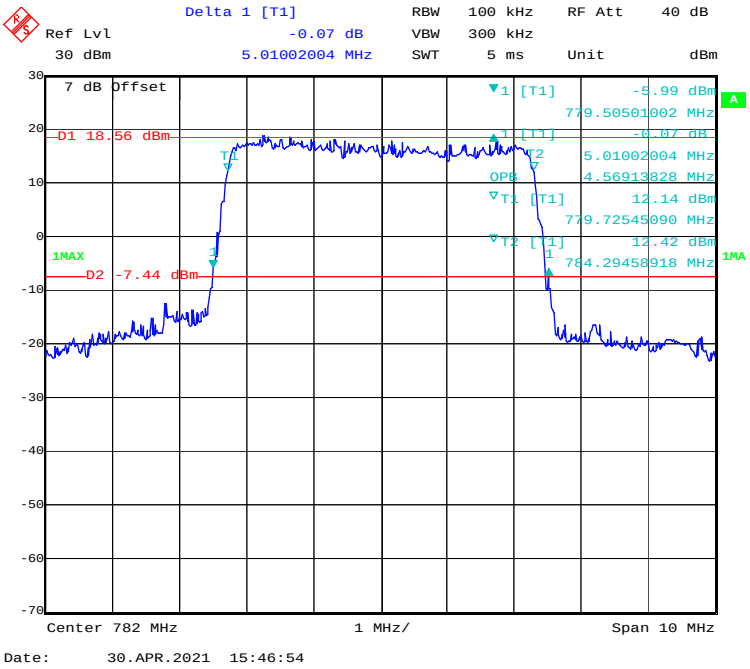
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth



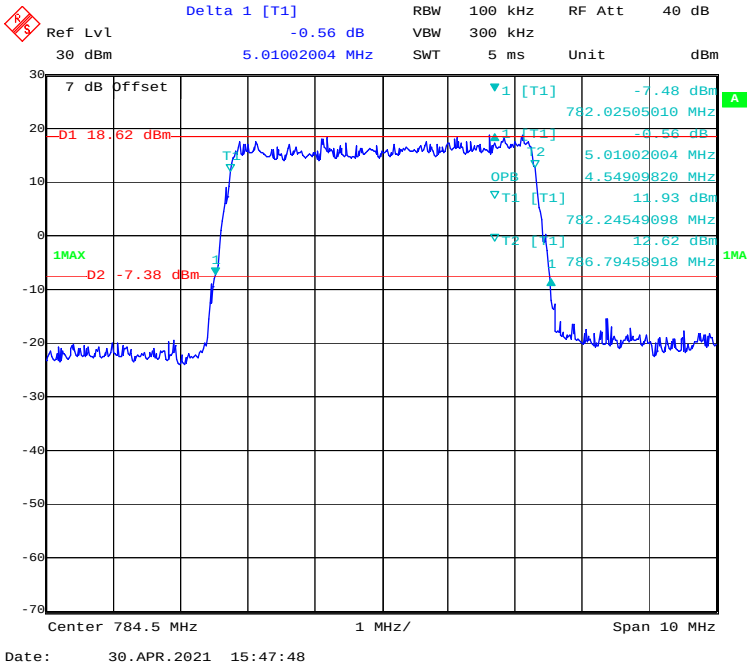
16-QAM (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



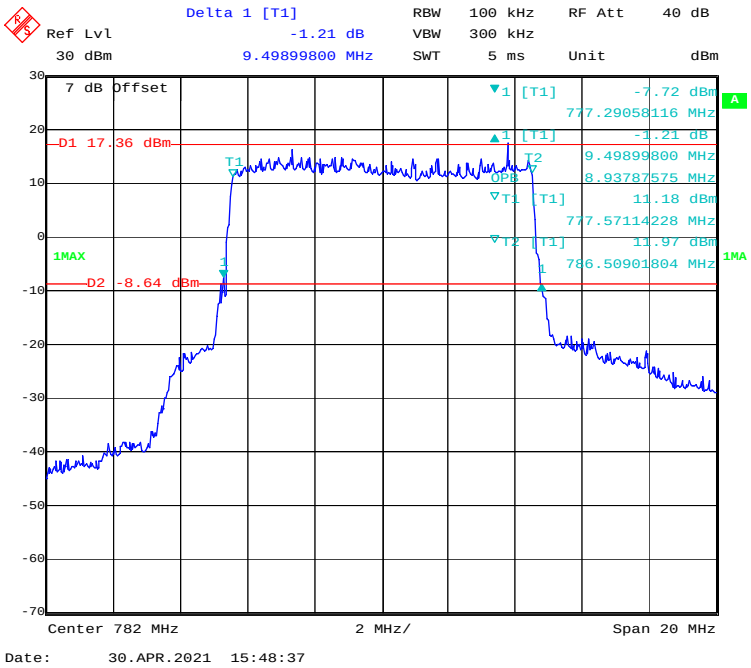
16-QAM (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



16-QAM (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



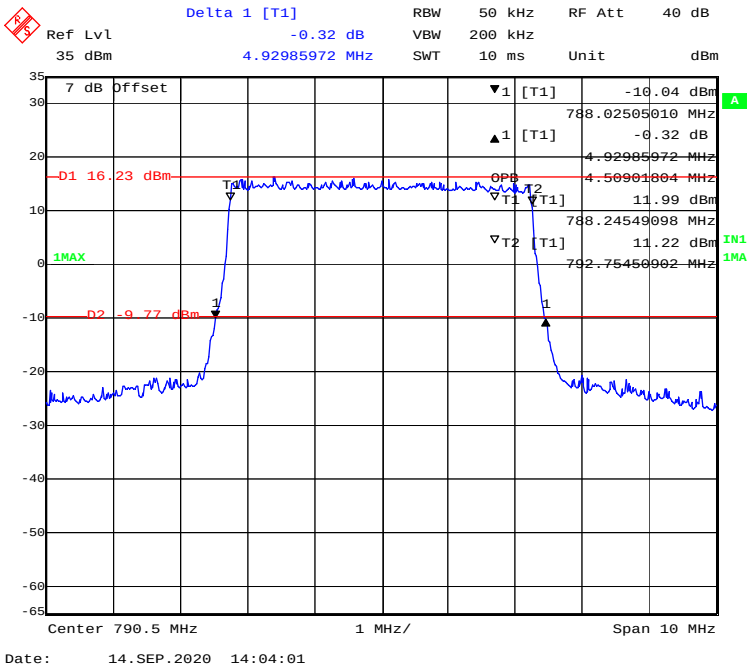
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth



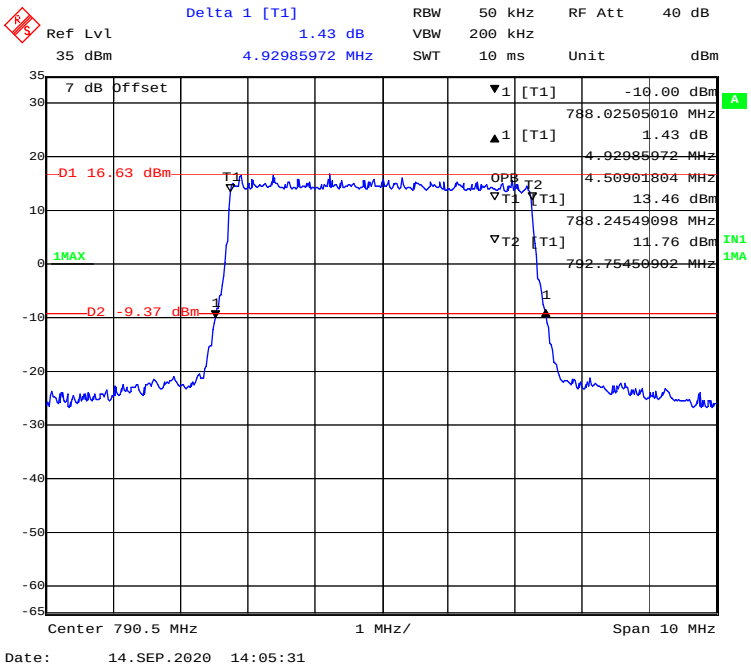
LTE Band 14:

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	5M	Low	4.930	4.509
	5M	Middle	4.950	4.489
	5M	High	4.890	4.489
	10M	Middle	9.659	8.978
16-QAM	5M	Low	4.930	4.509
	5M	Middle	4.970	4.489
	5M	High	4.890	4.469
	10M	Middle	9.739	8.978

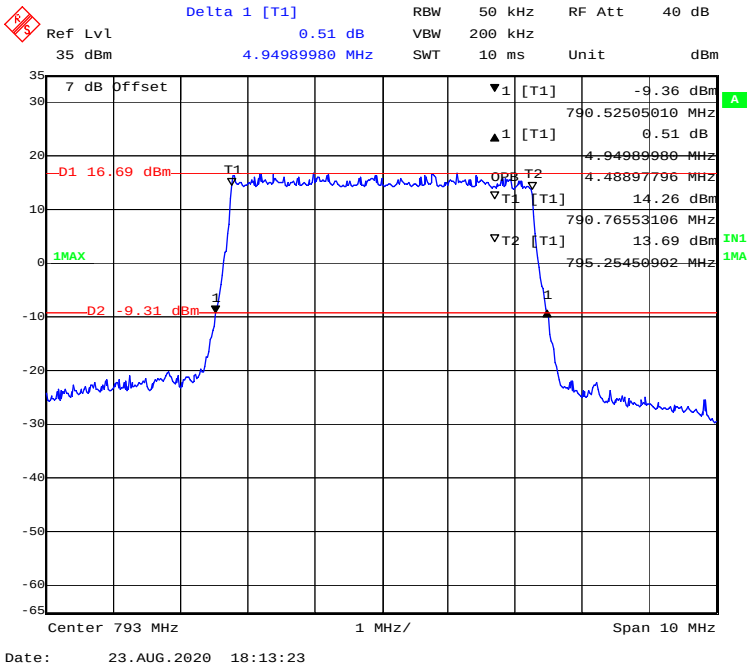
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



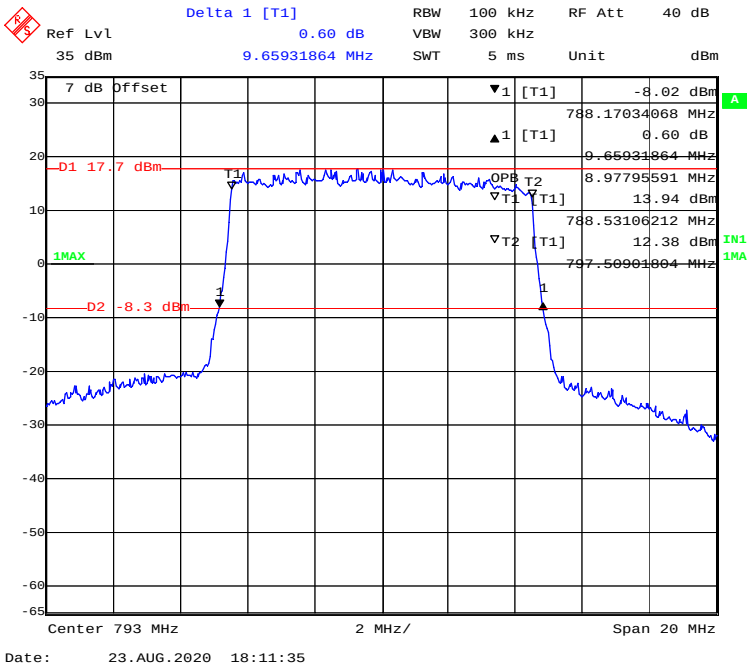
16-QAM (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



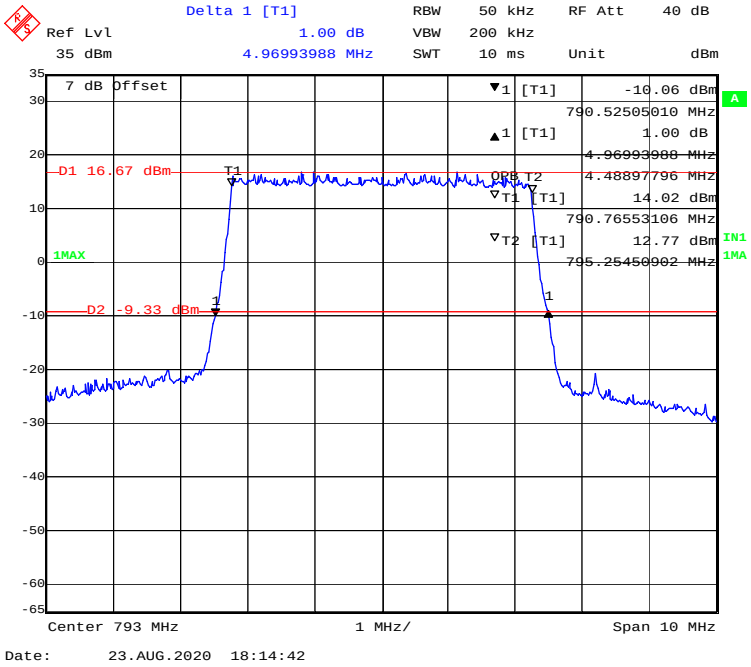
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



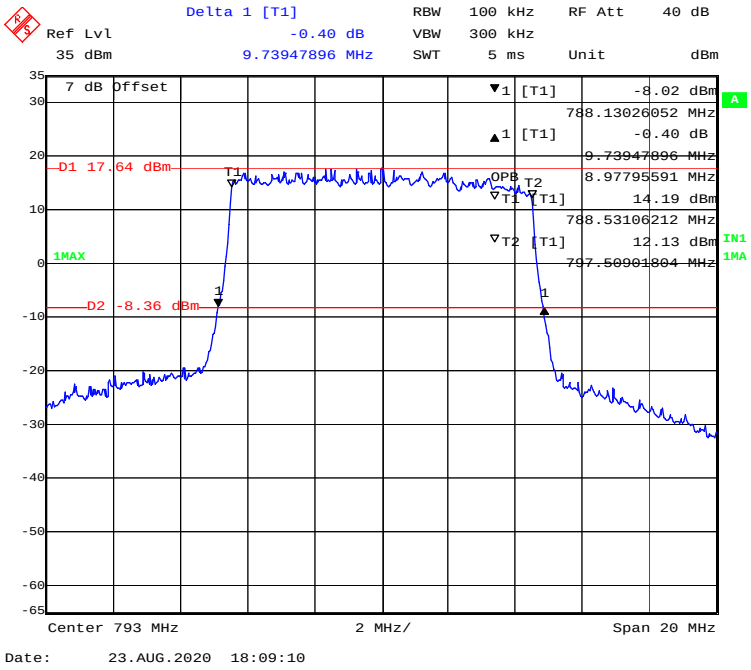
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



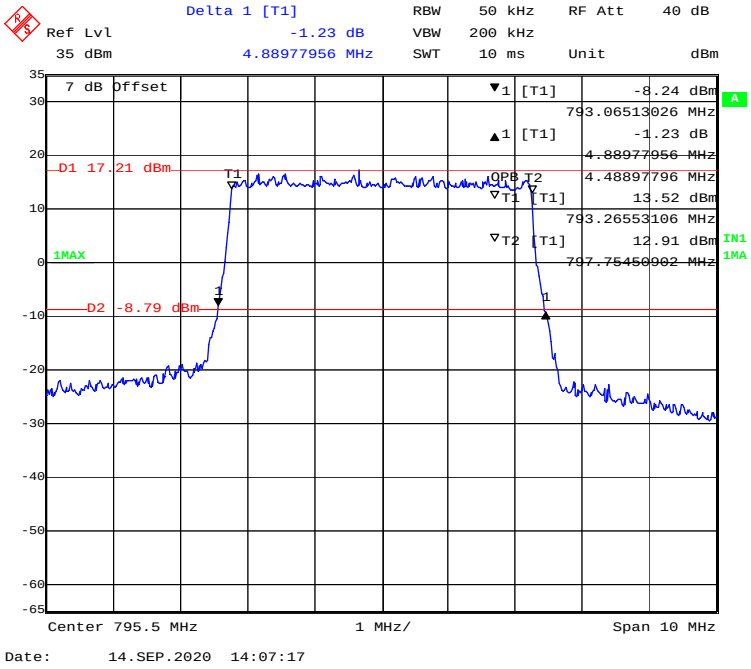
16-QAM (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



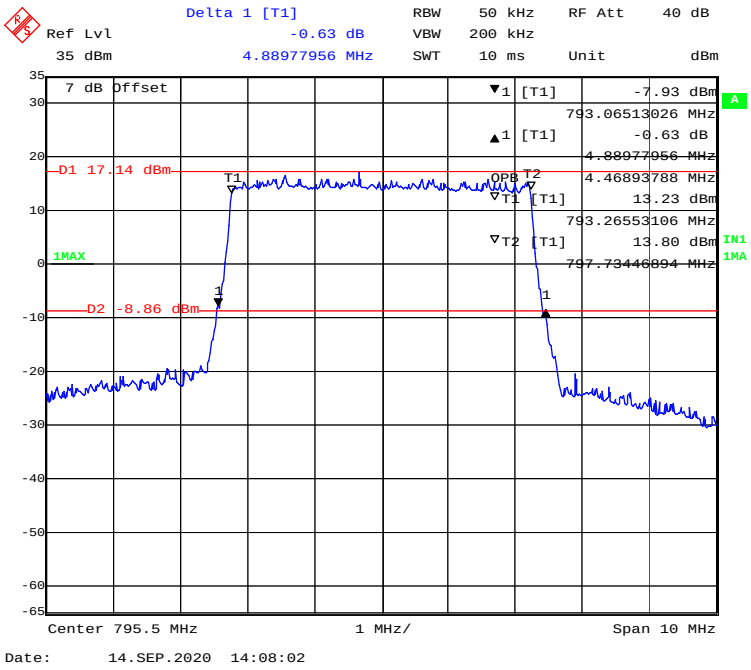
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



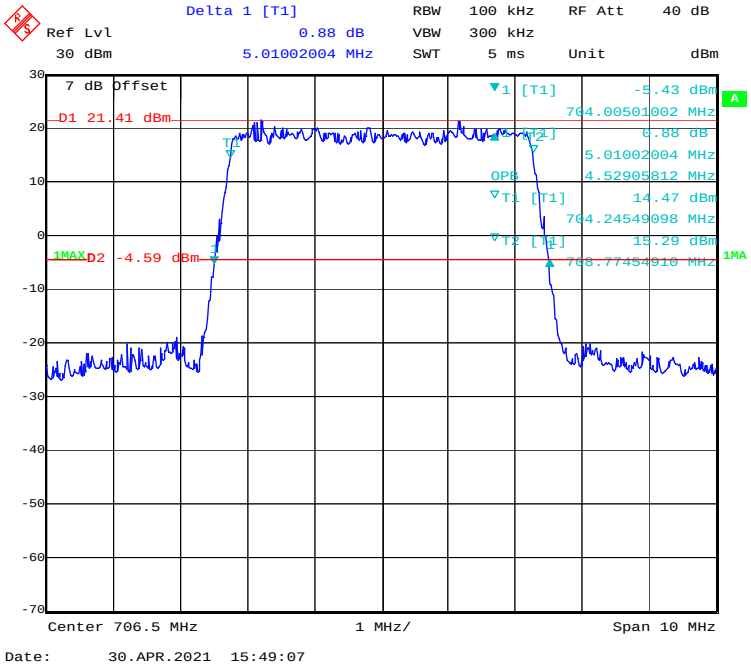
16-QAM (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



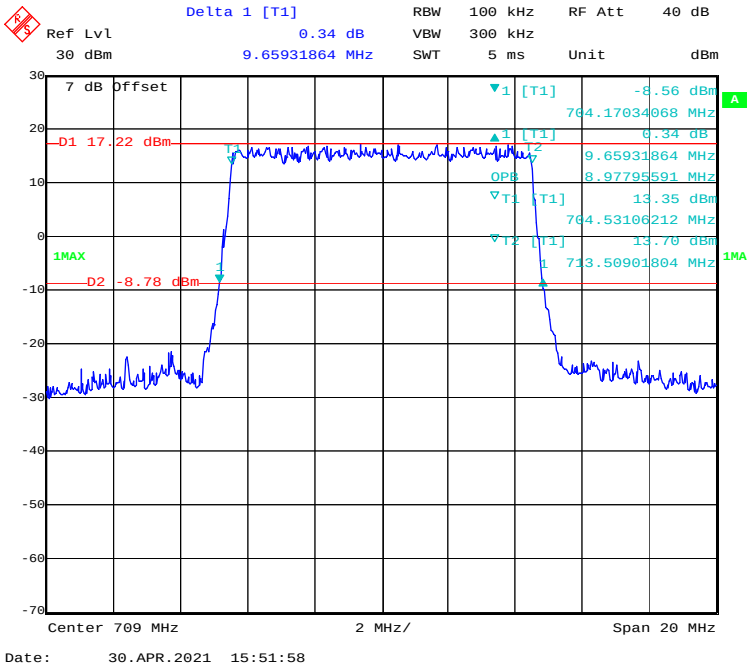
LTE Band 17:

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	5M	Low	5.010	4.529
	10M		9.659	8.978
	5M	Middle	5.010	4.529
	10M		9.659	8.978
	5M	High	5.010	4.529
	10M		9.619	8.978
16-QAM	5M	Low	4.970	4.509
	10M		9.659	8.938
	5M	Middle	5.010	4.549
	10M		9.619	8.978
	5M	High	4.990	4.529
	10M		9.619	8.978

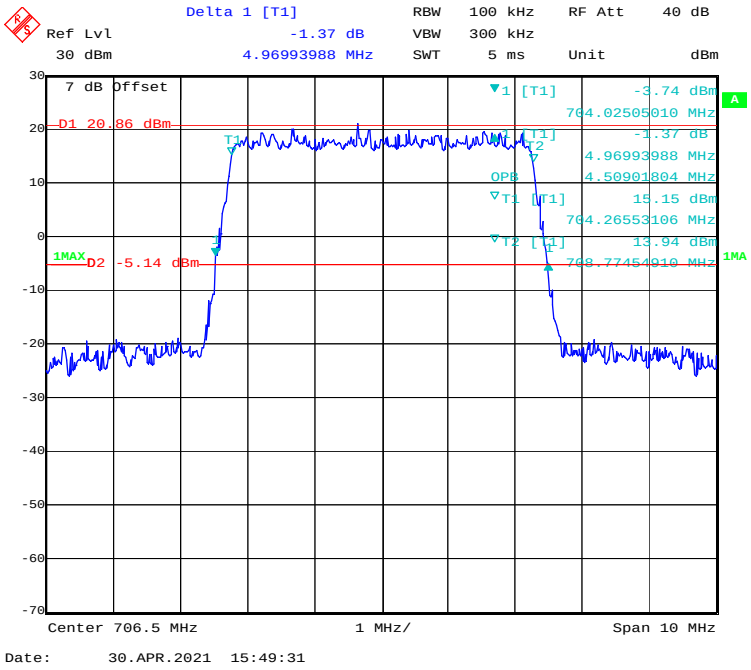
QPSK (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



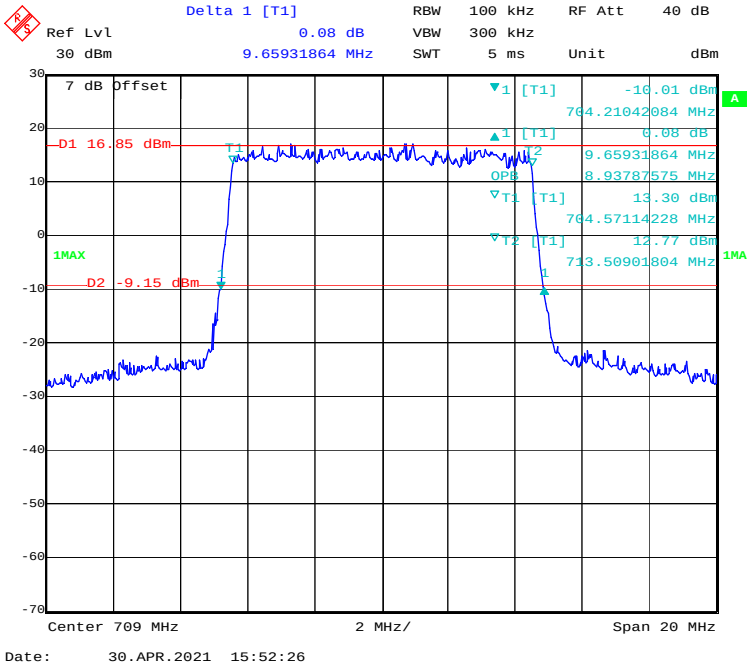
QPSK (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



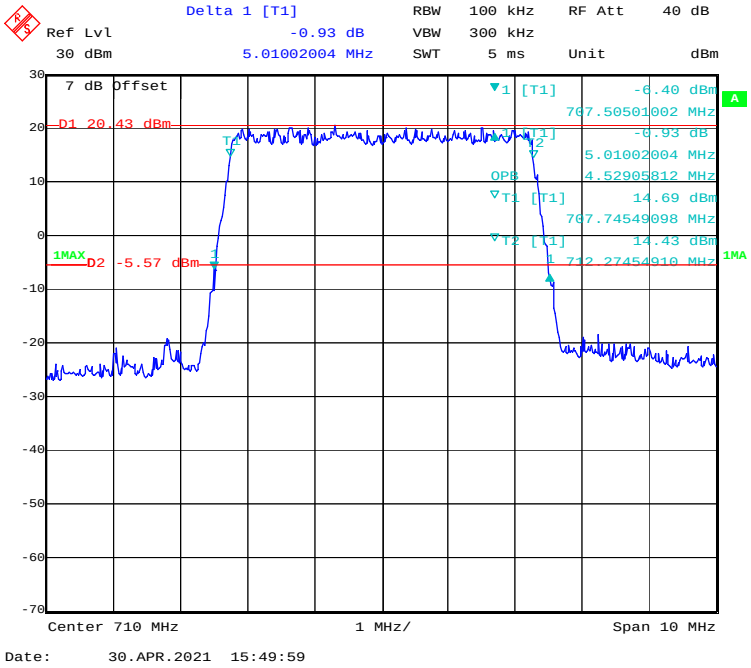
16-QAM (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



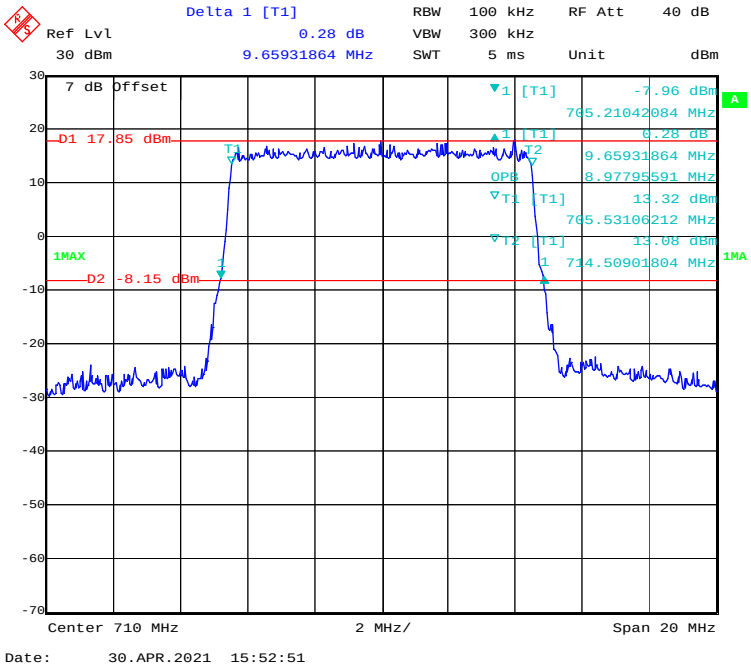
16-QAM (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



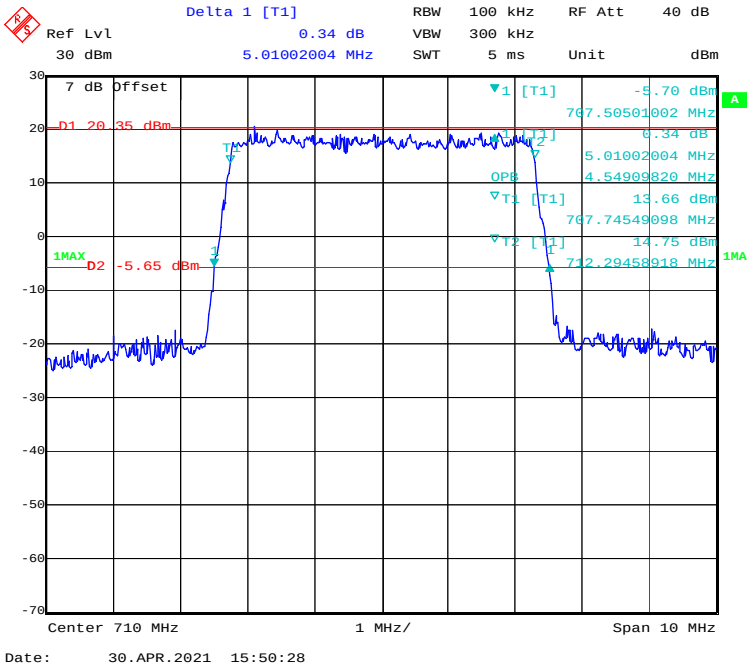
QPSK (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



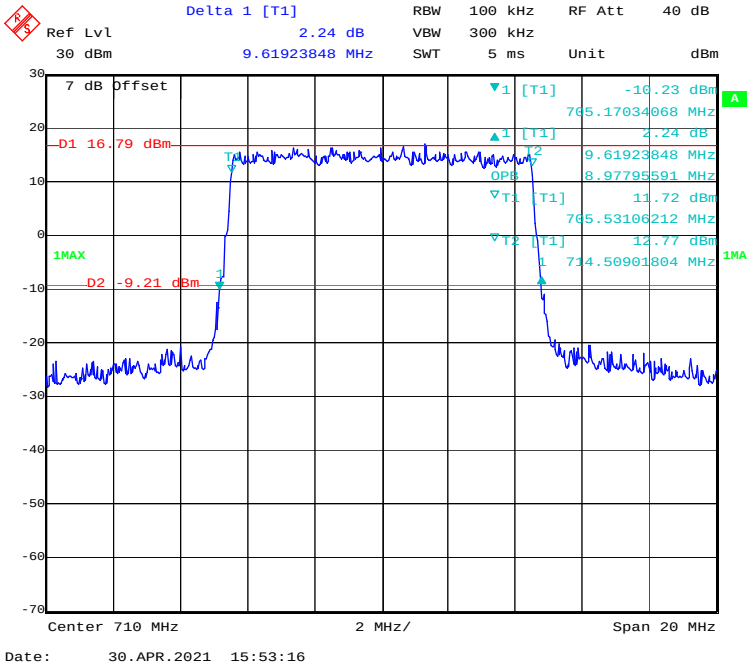
QPSK (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



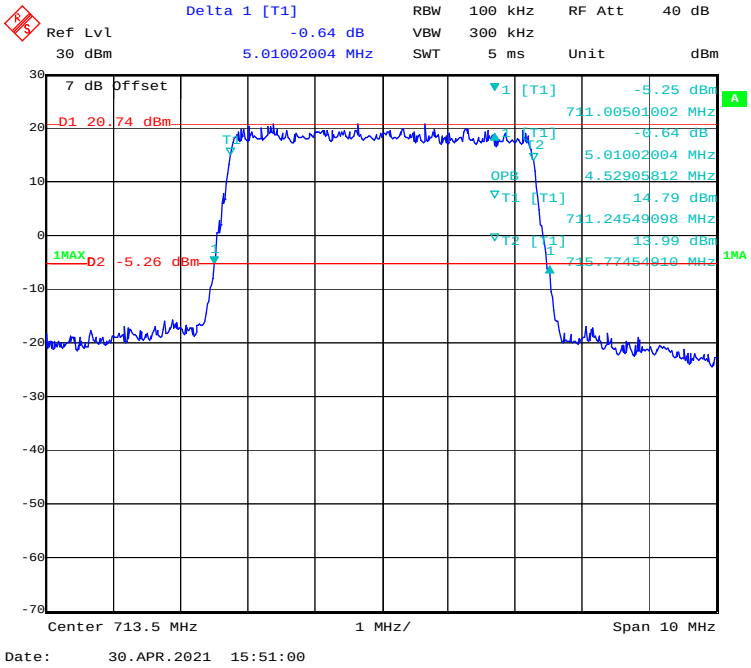
16-QAM (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



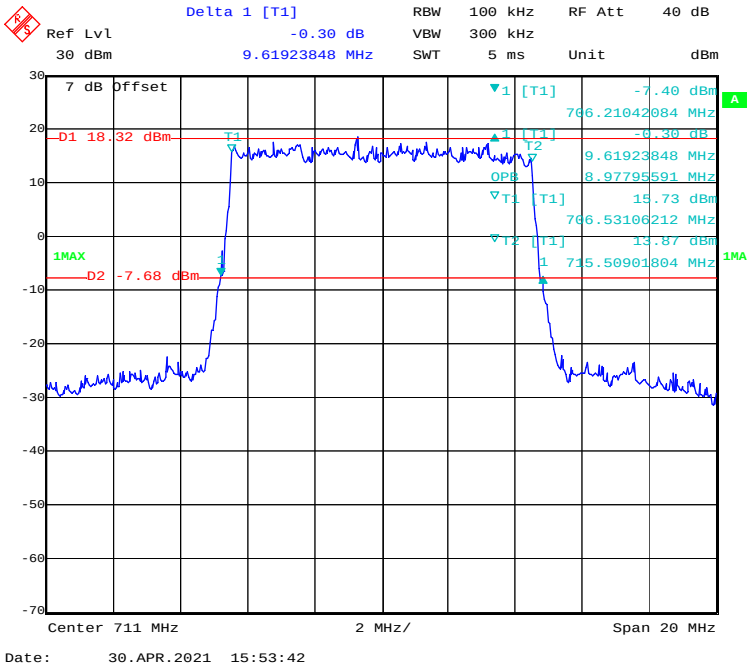
16-QAM (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



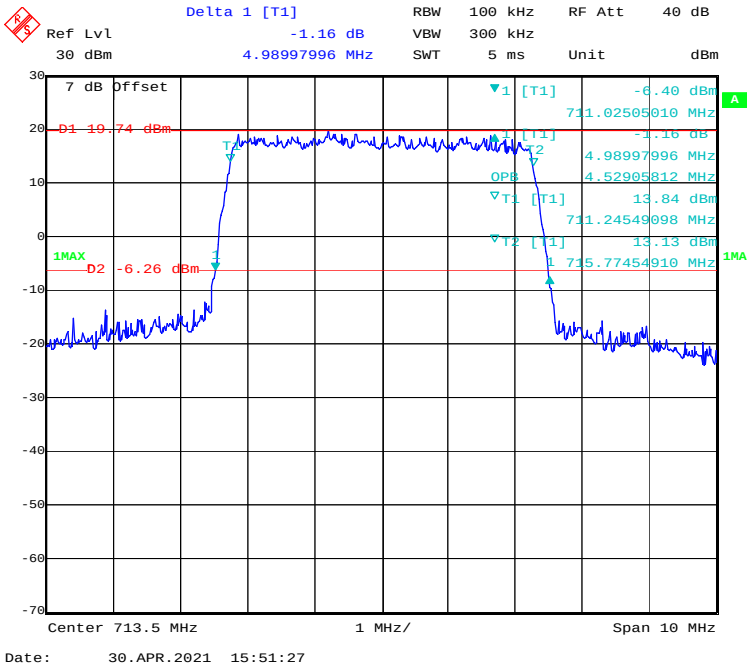
QPSK (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



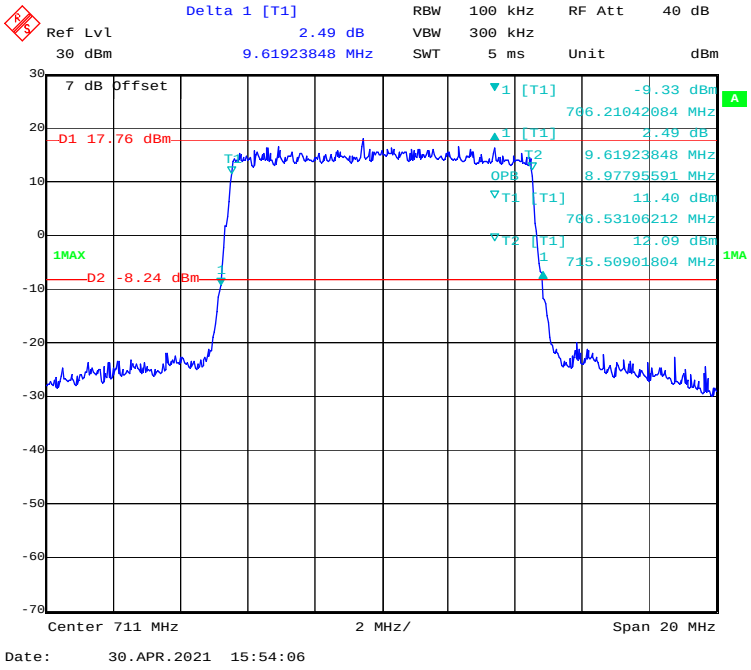
QPSK (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



16-QAM (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



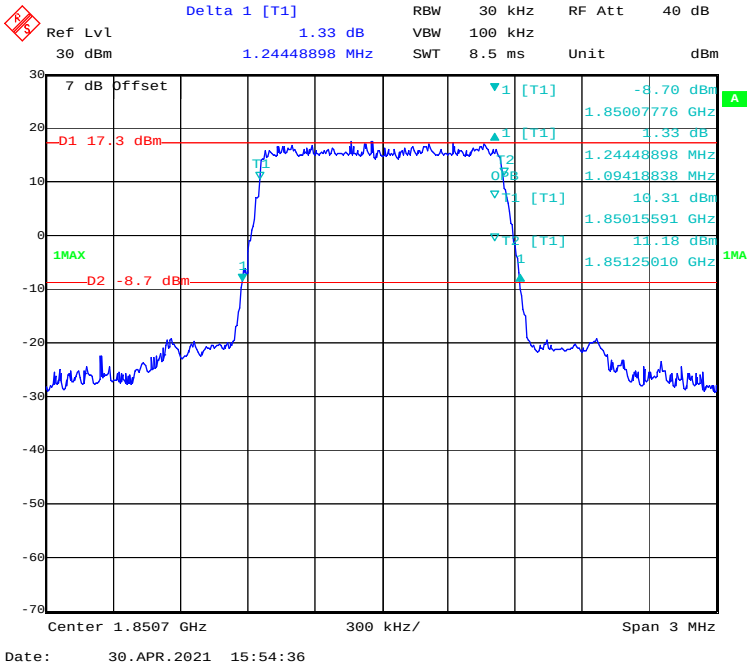
16-QAM (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



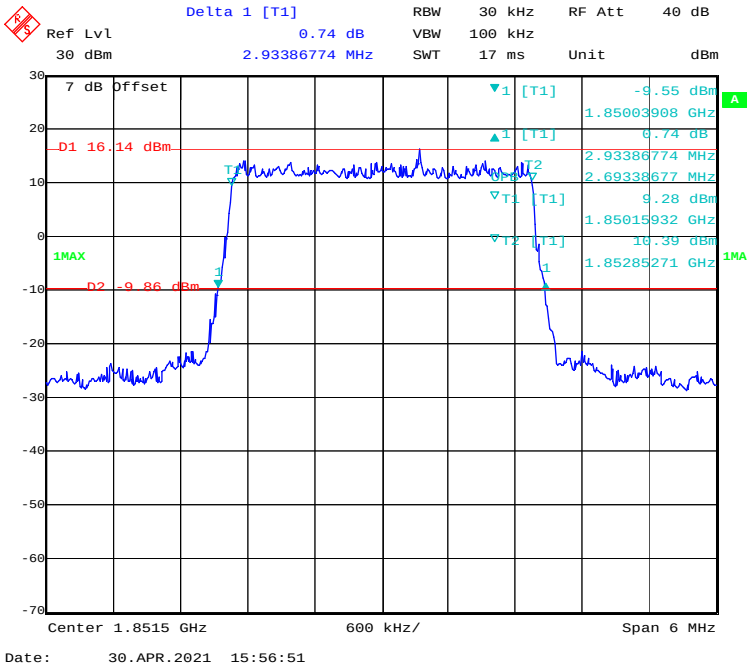
LTE Band 25:

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	1.4M	Low	1.244	1.094
	3M		2.934	2.693
	5M		4.990	4.529
	10M		9.659	9.018
	15M		14.790	13.587
	20M		19.319	17.956
	1.4M	Middle	1.244	1.094
	3M		2.958	2.693
	5M		5.010	4.529
	10M		9.699	8.978
	15M		14.910	13.527
	20M		19.559	18.036
	1.4M	High	1.244	1.112
	3M		3.018	2.693
	5M		4.990	4.529
	10M		9.579	8.978
	15M		14.850	13.527
	20M		19.639	18.036
16-QAM	1.4M	Low	1.251	1.094
	3M		2.970	2.693
	5M		4.970	4.529
	10M		9.619	9.018
	15M		14.790	13.527
	20M		19.238	17.956
	1.4M	Middle	1.232	1.088
	3M		2.958	2.693
	5M		5.030	4.529
	10M		9.659	8.978
	15M		14.850	13.587
	20M		19.479	18.036
	1.4M	High	1.257	1.100
	3M		2.958	2.693
	5M		5.010	4.549
	10M		9.699	8.938
	15M		14.790	13.527
	20M		19.319	18.036

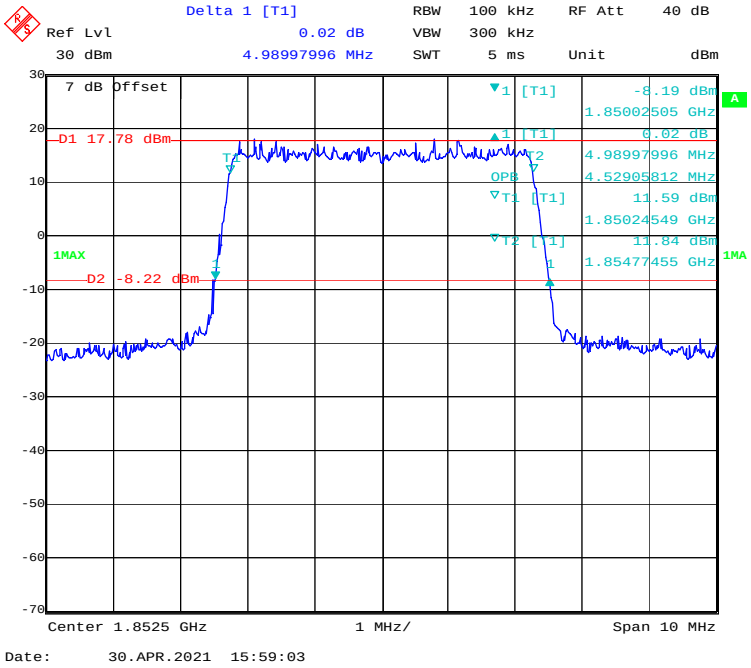
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



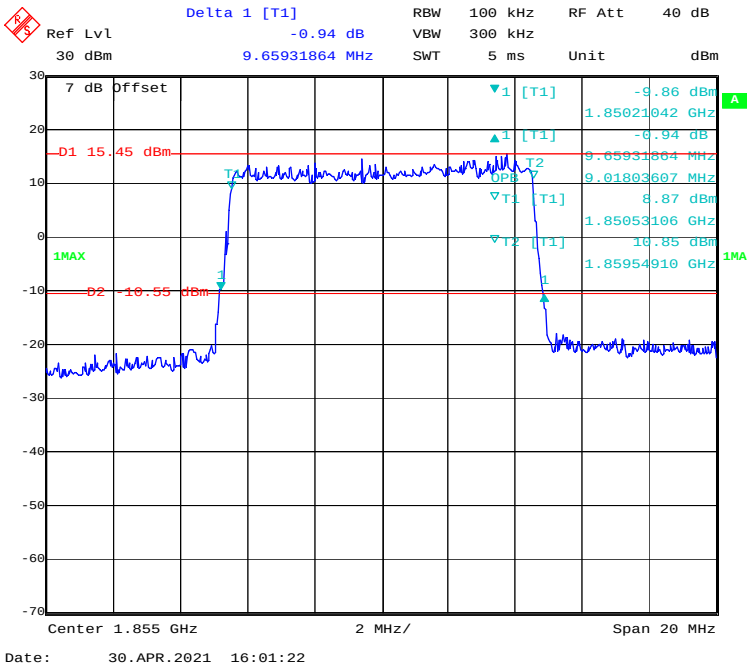
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



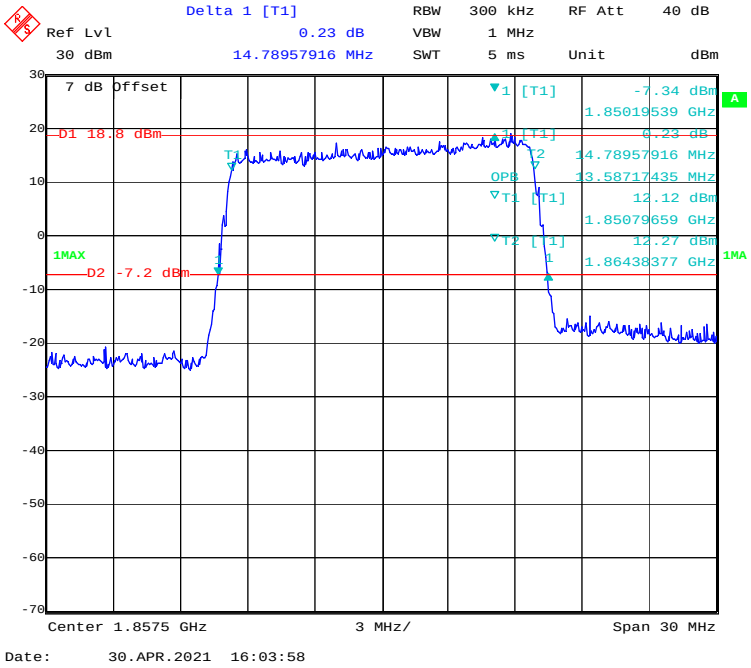
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



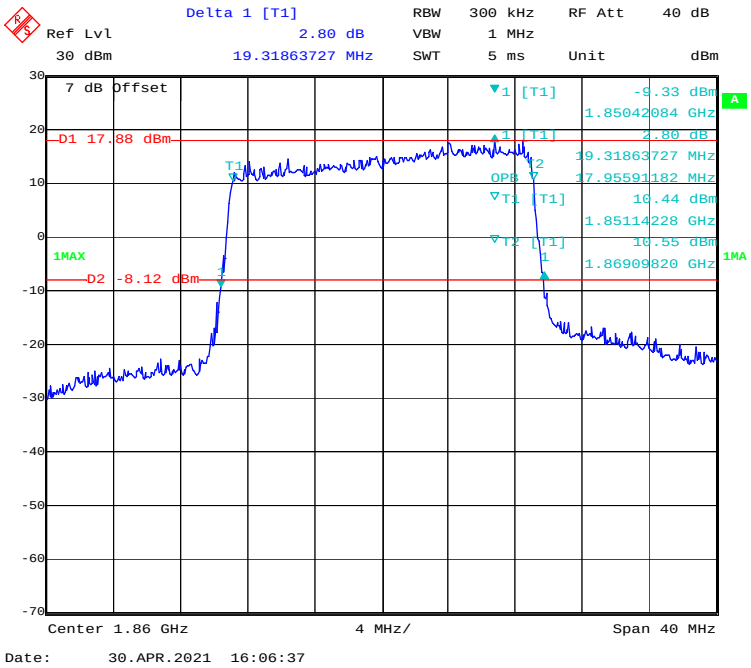
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



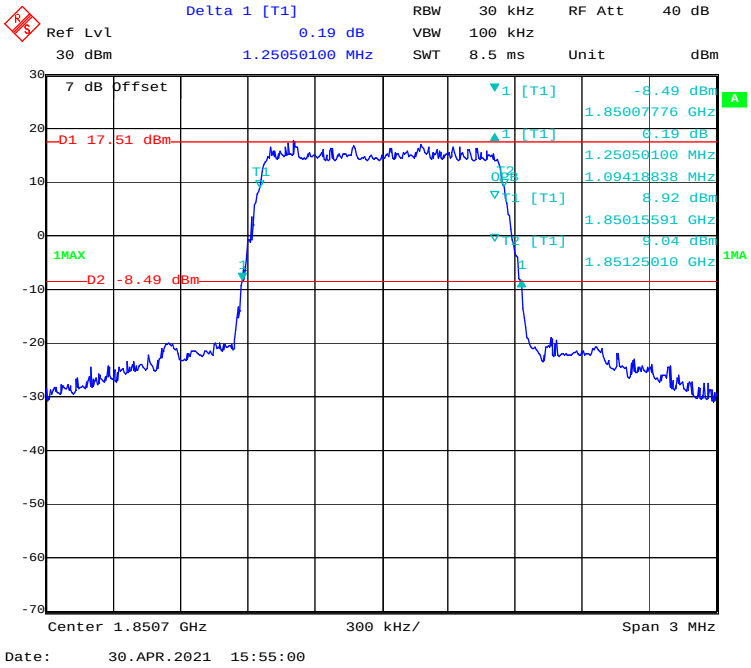
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



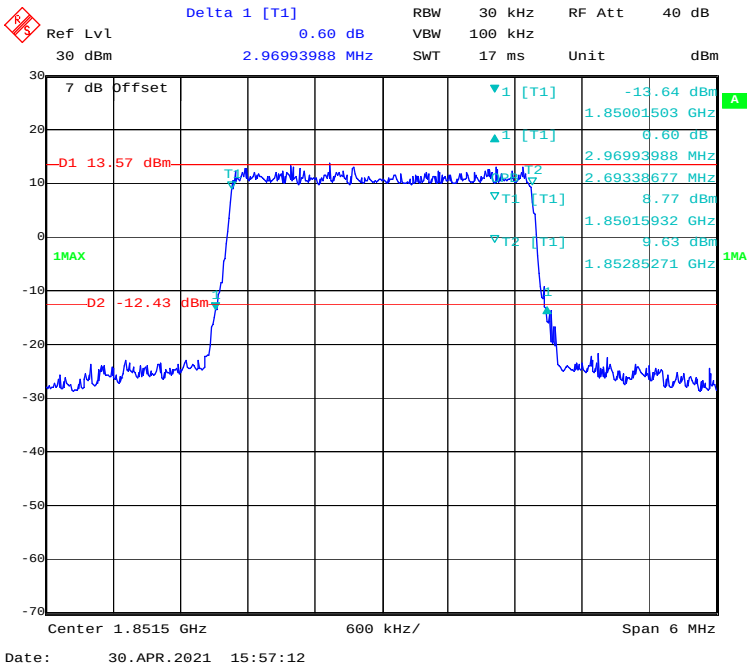
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



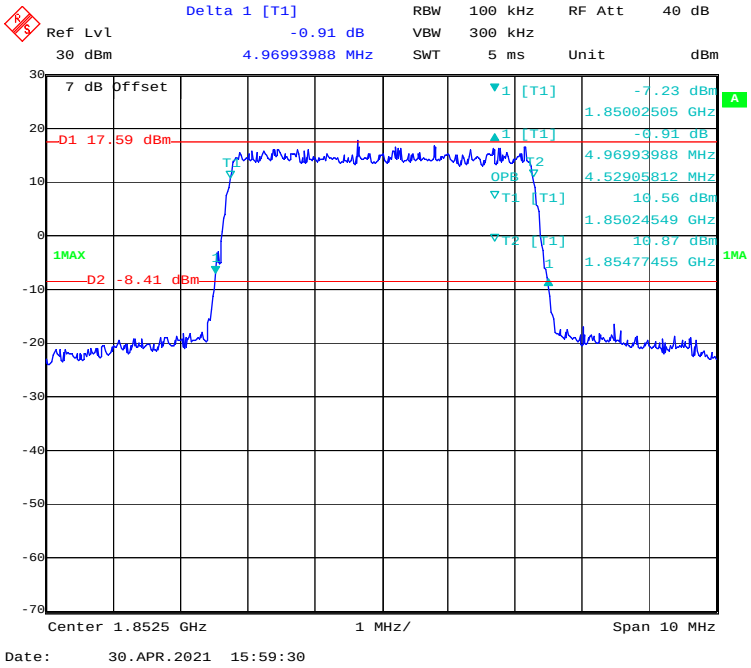
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



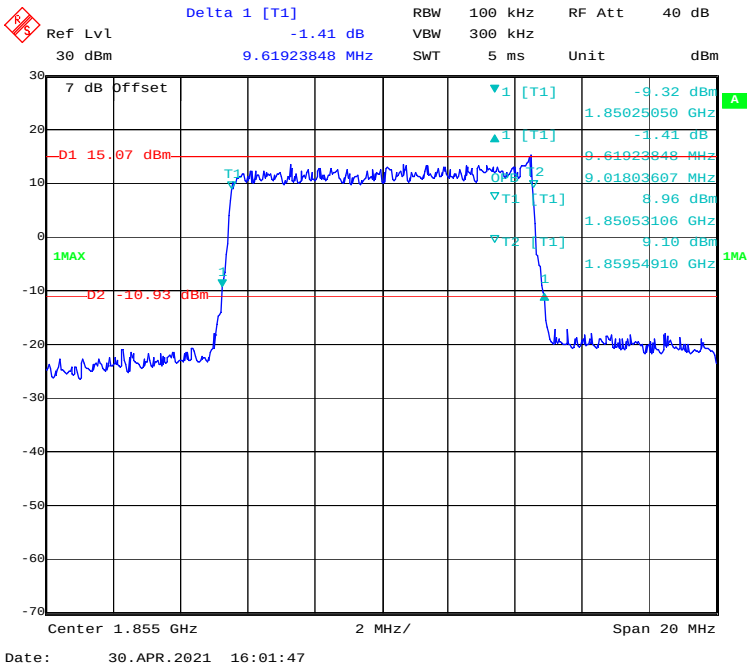
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



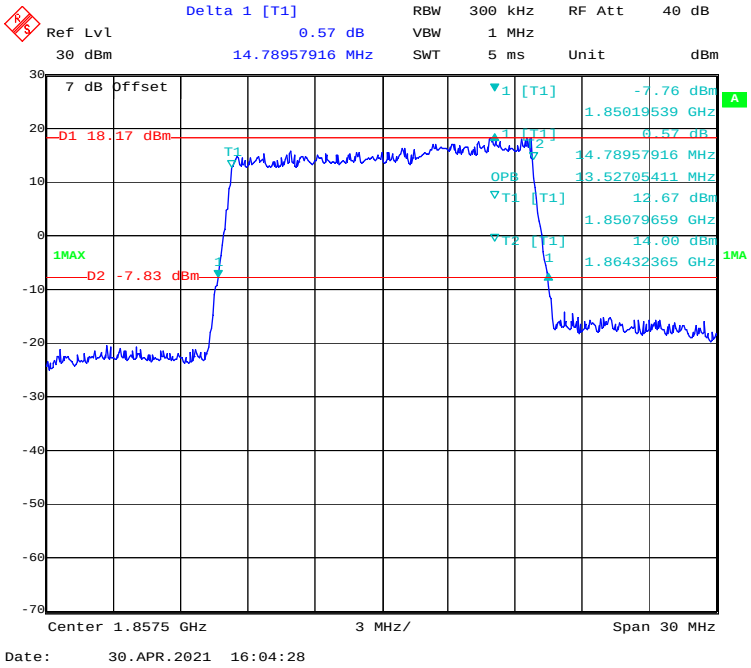
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



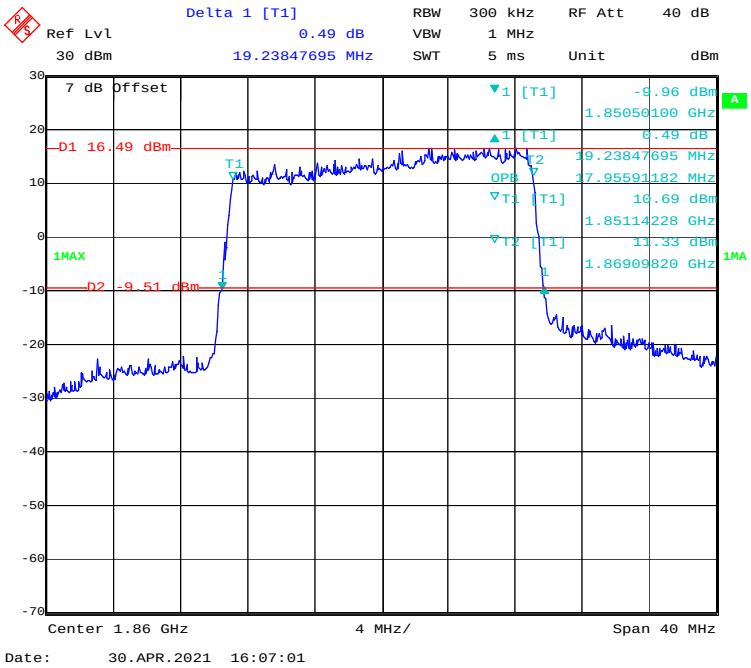
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



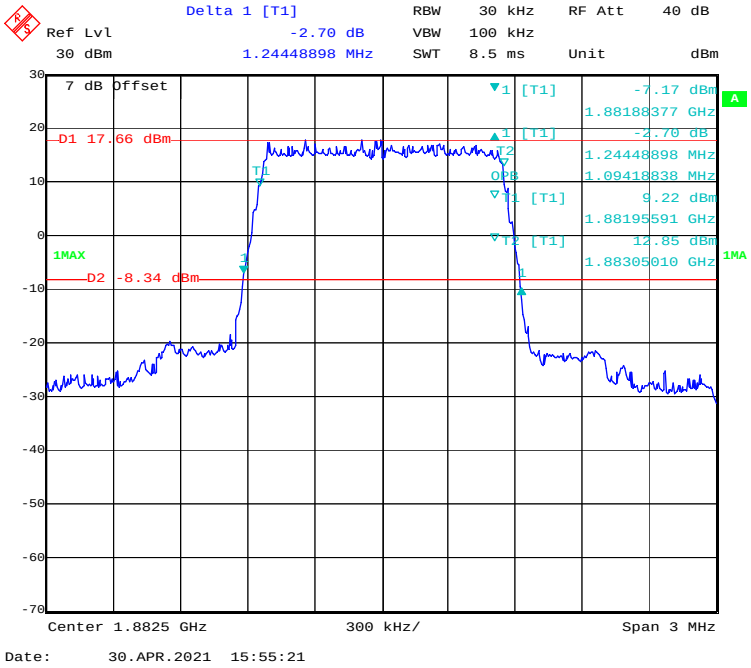
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



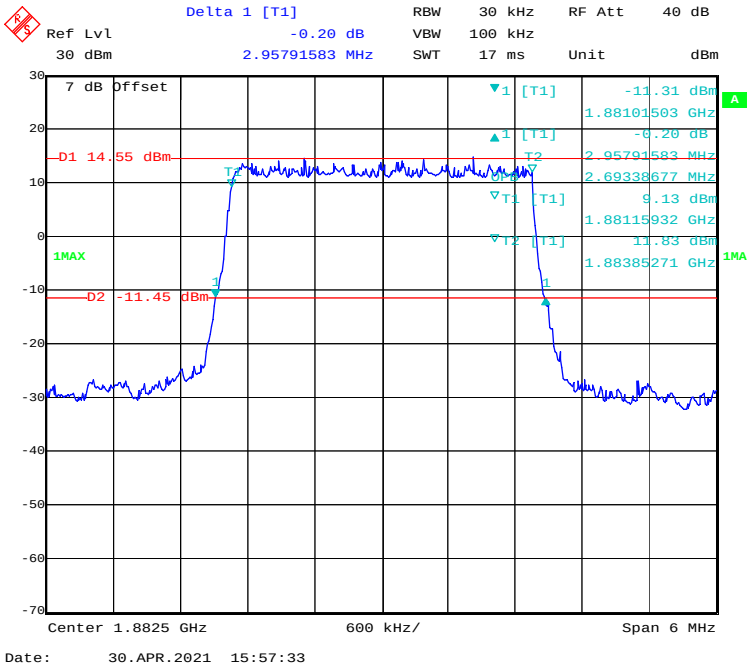
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



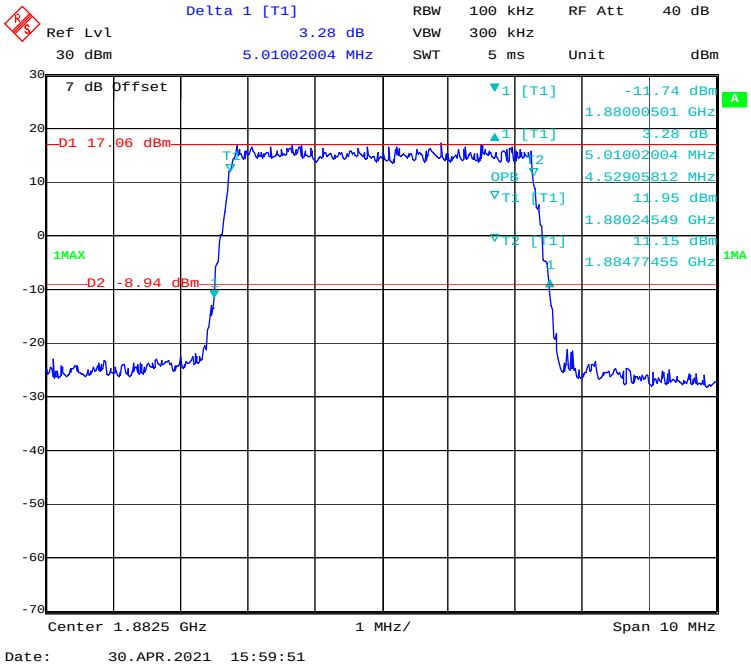
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



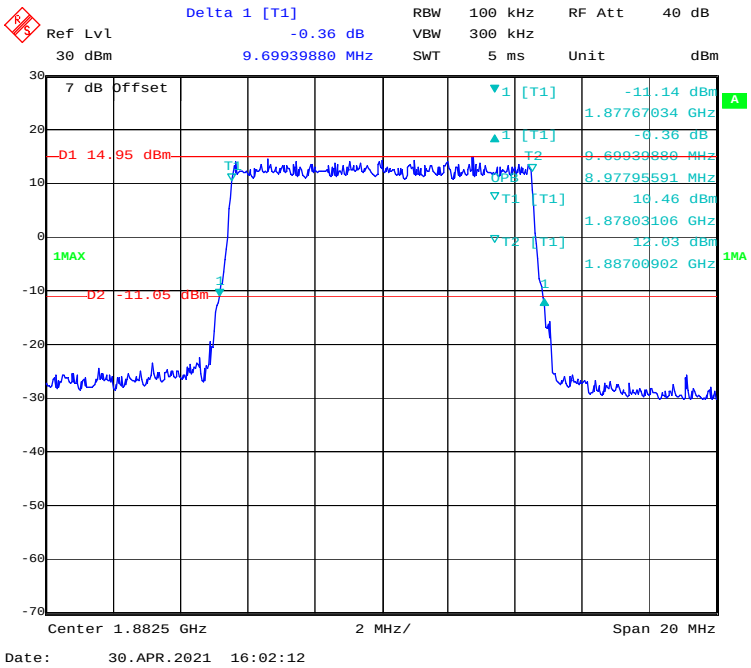
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



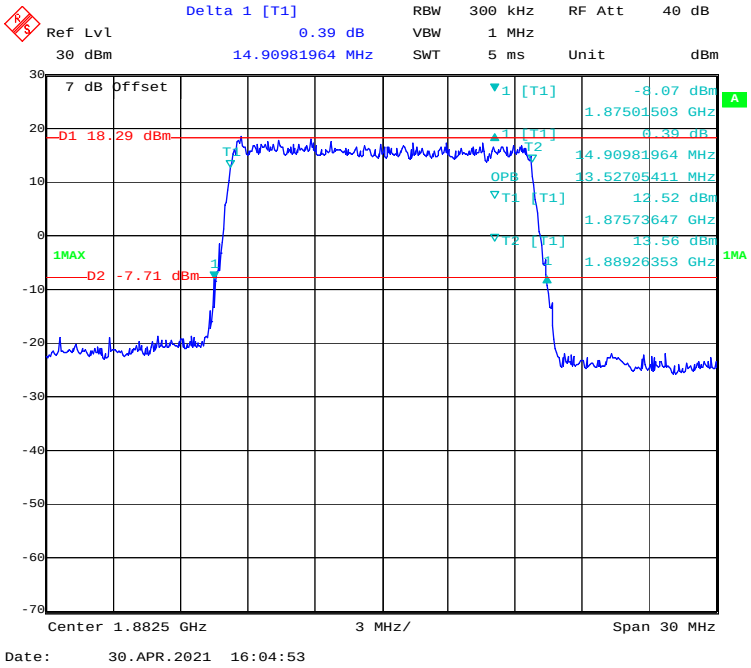
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



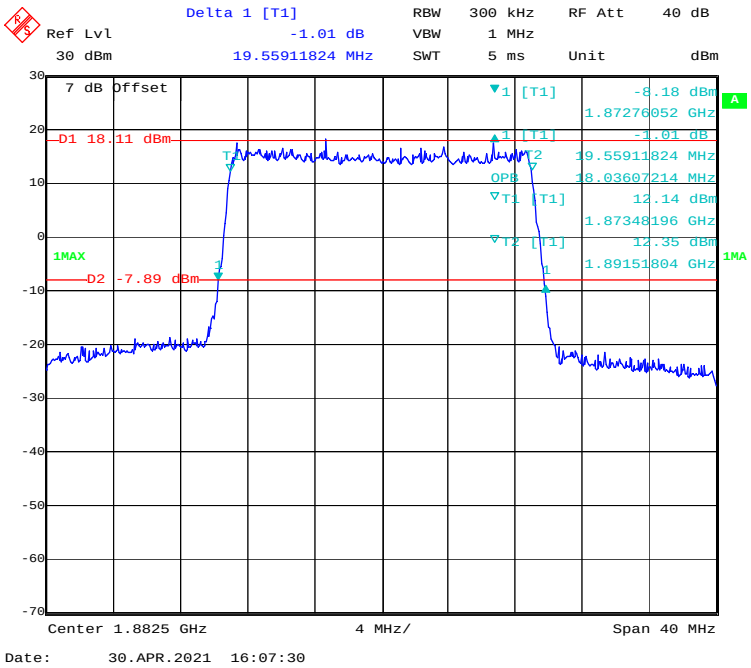
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



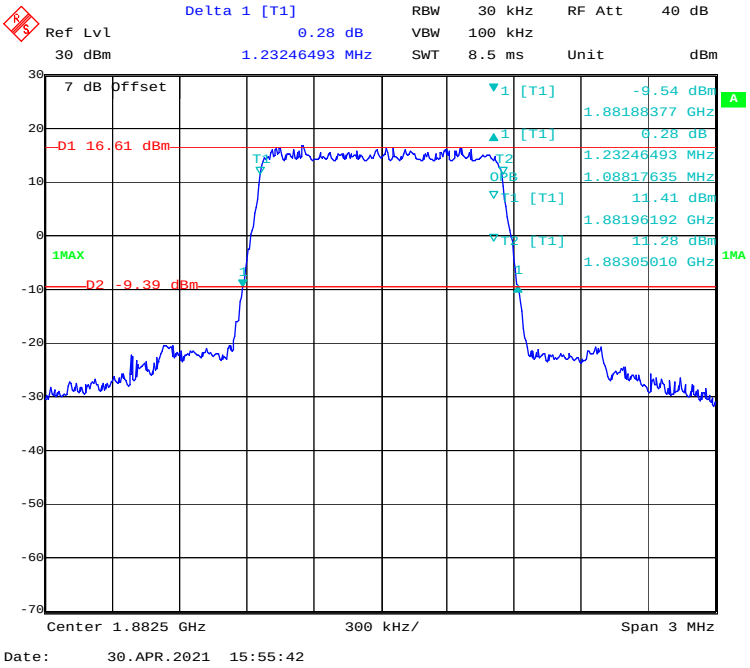
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



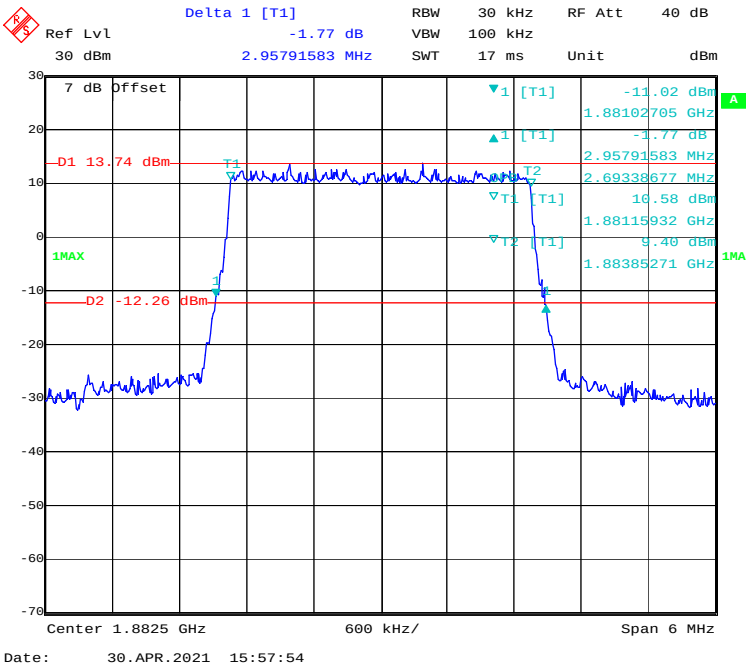
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



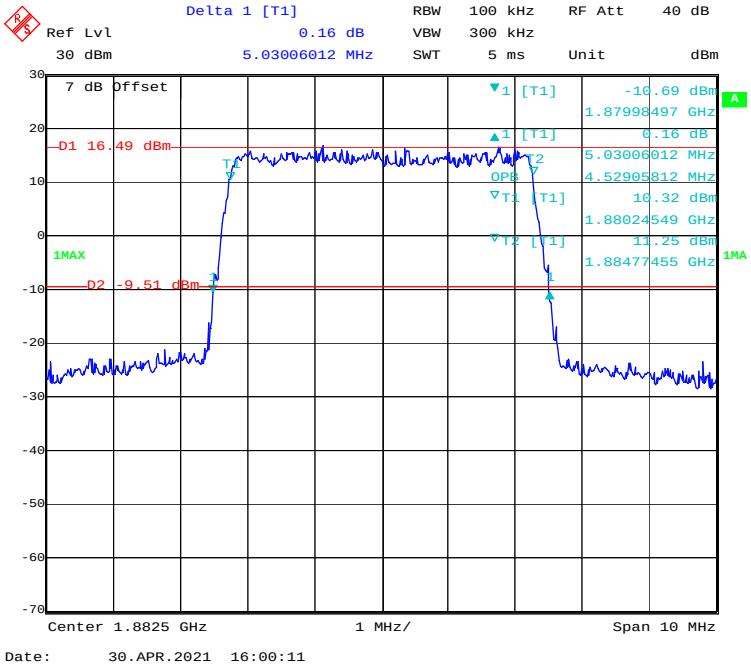
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



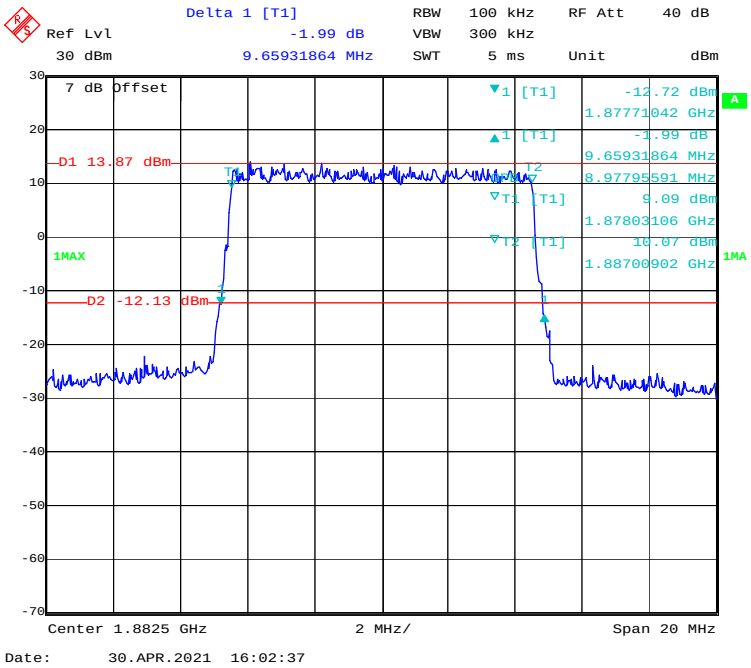
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



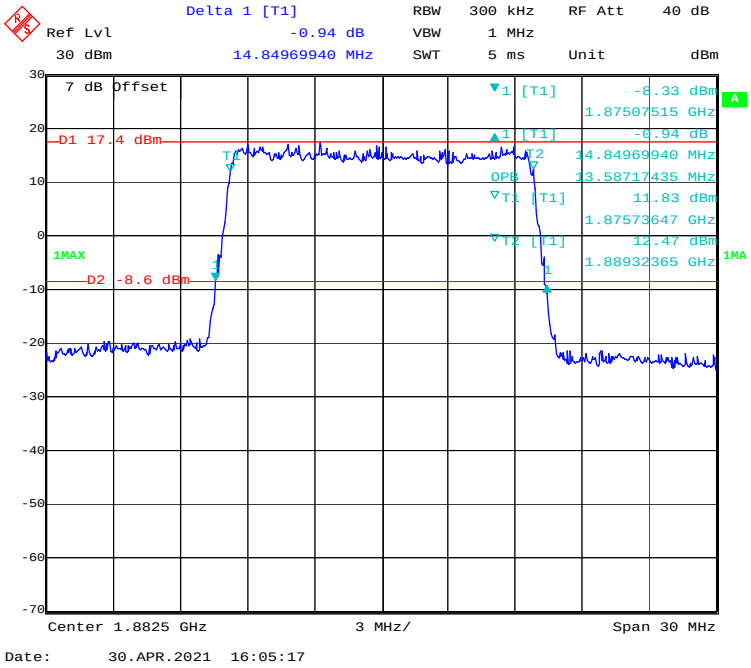
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



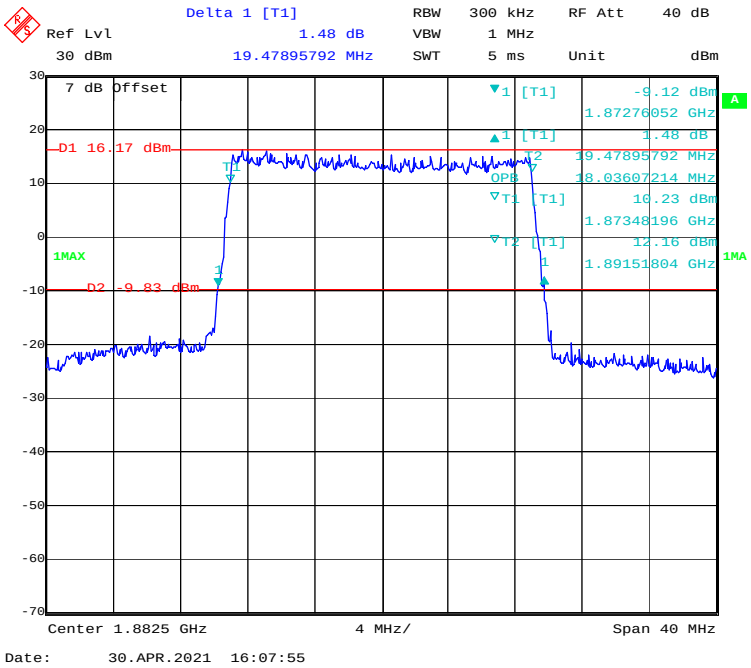
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



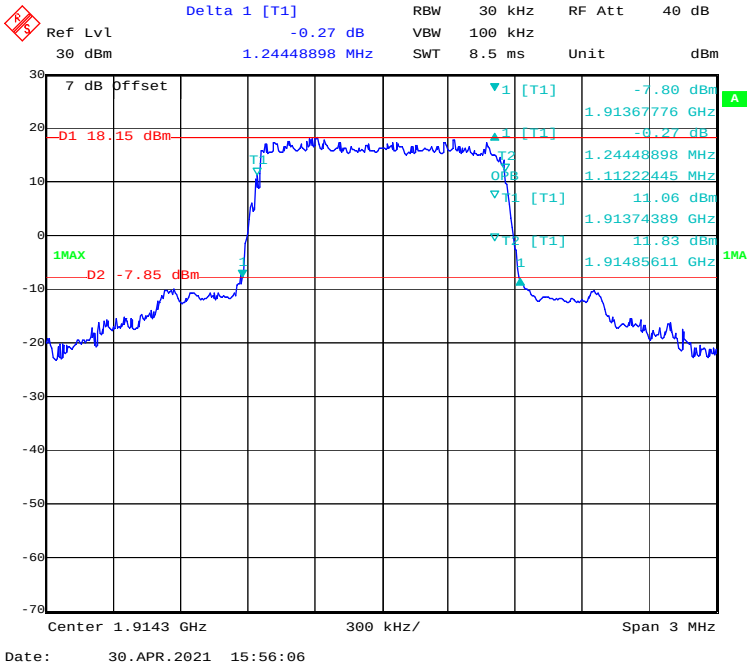
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



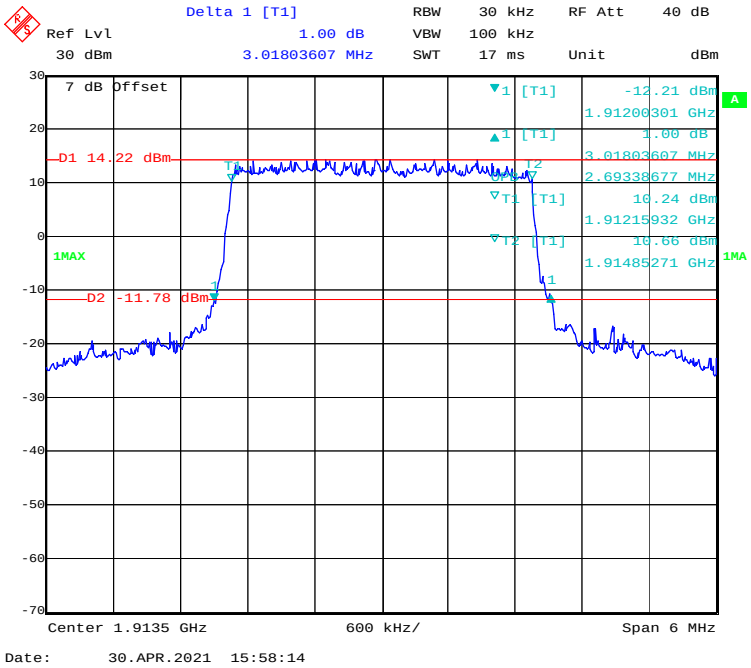
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



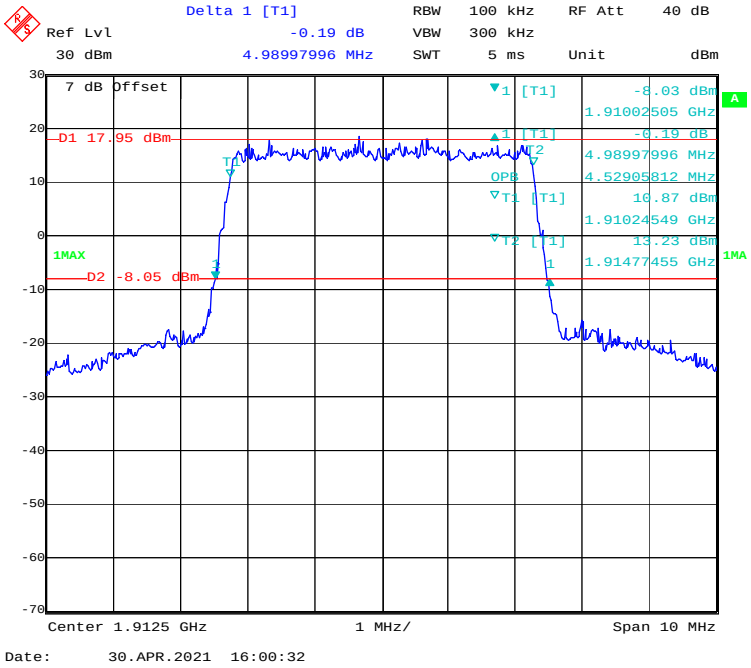
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



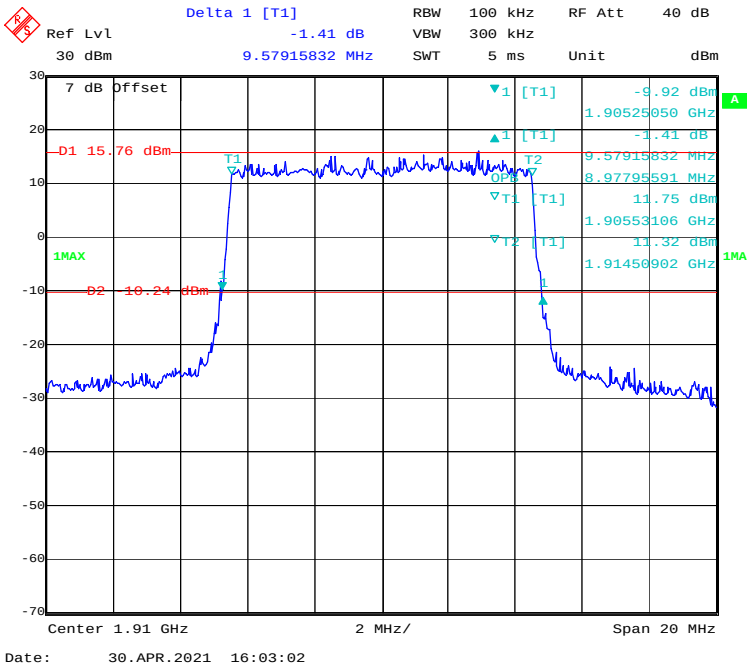
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



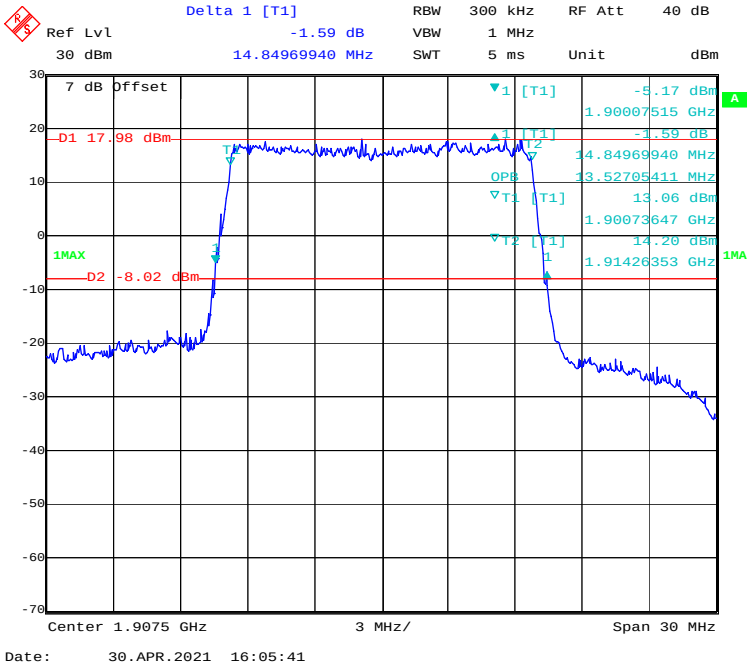
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



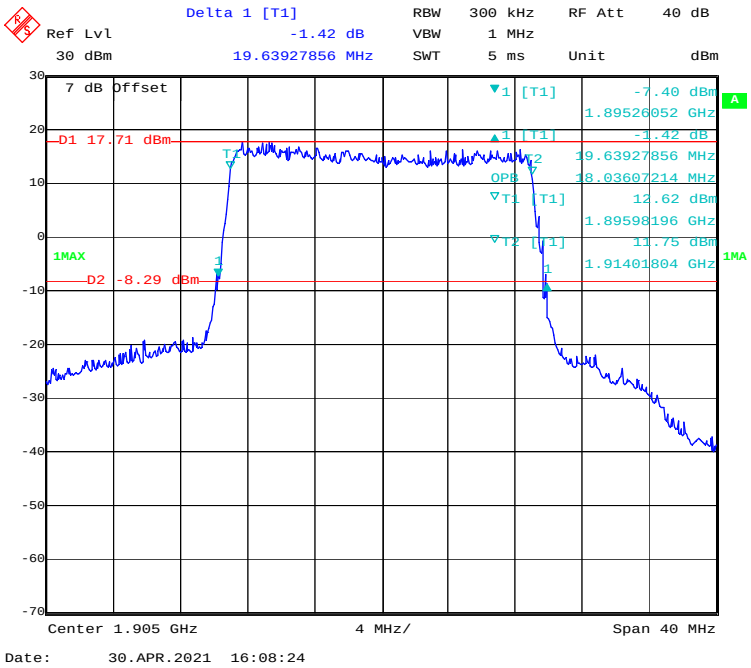
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



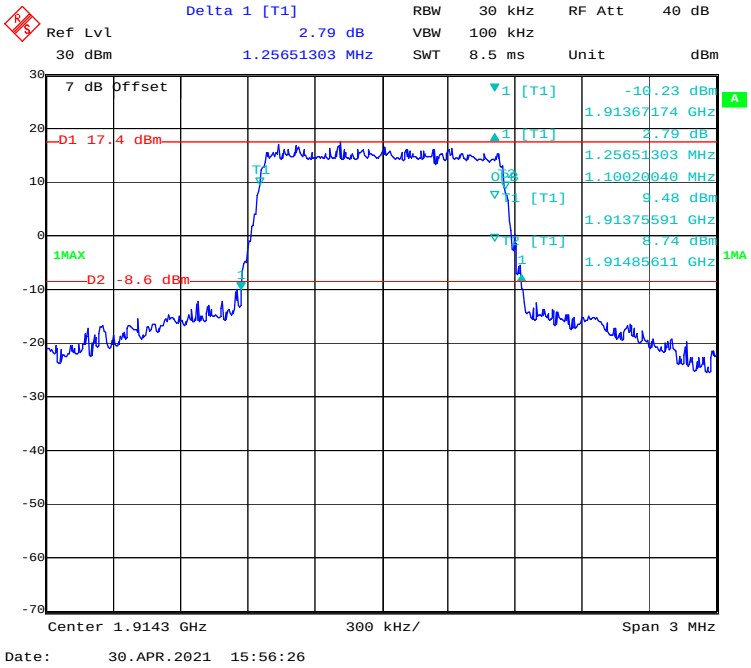
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



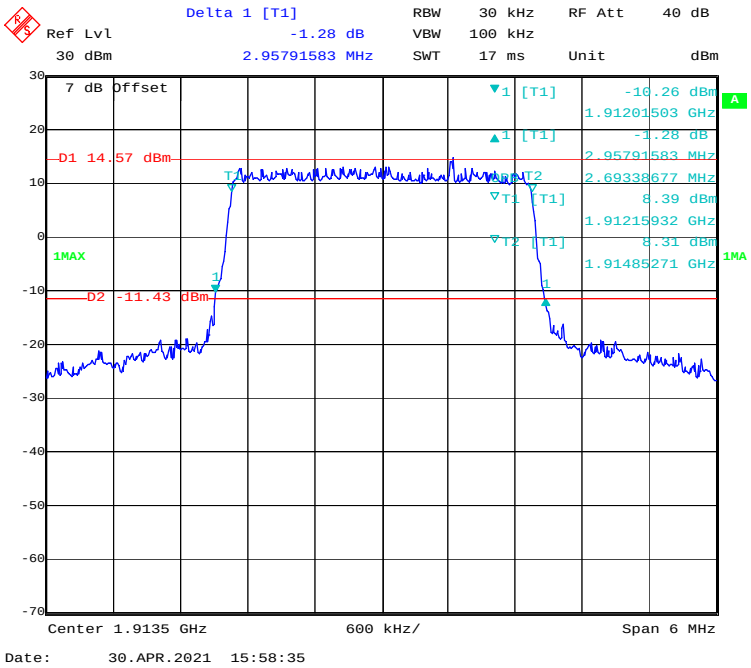
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



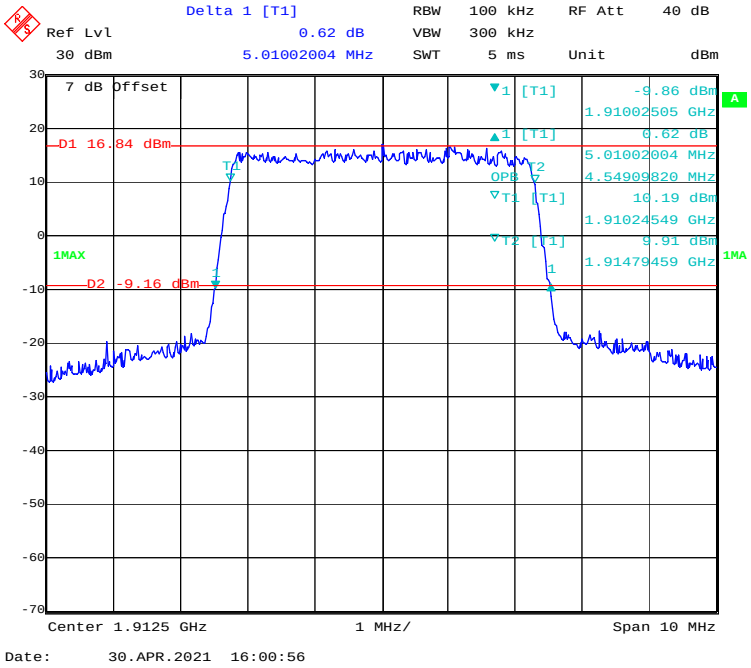
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



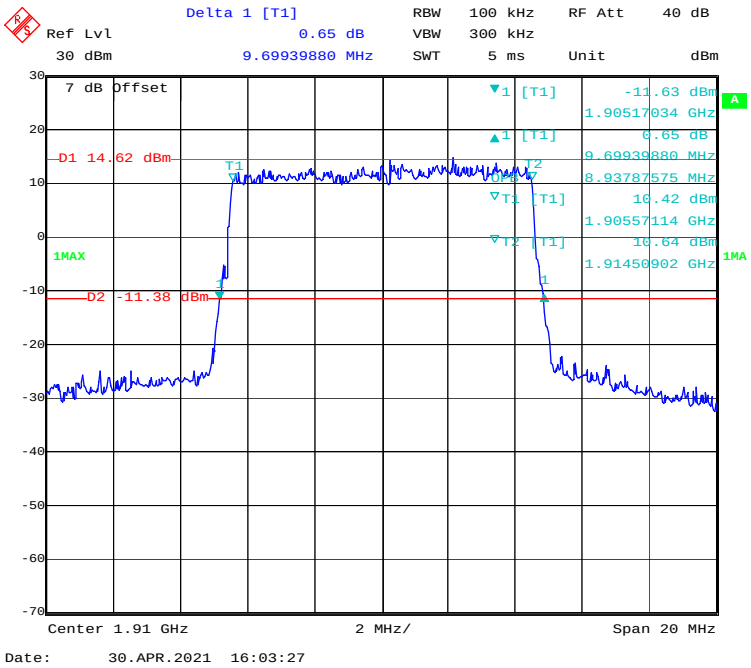
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



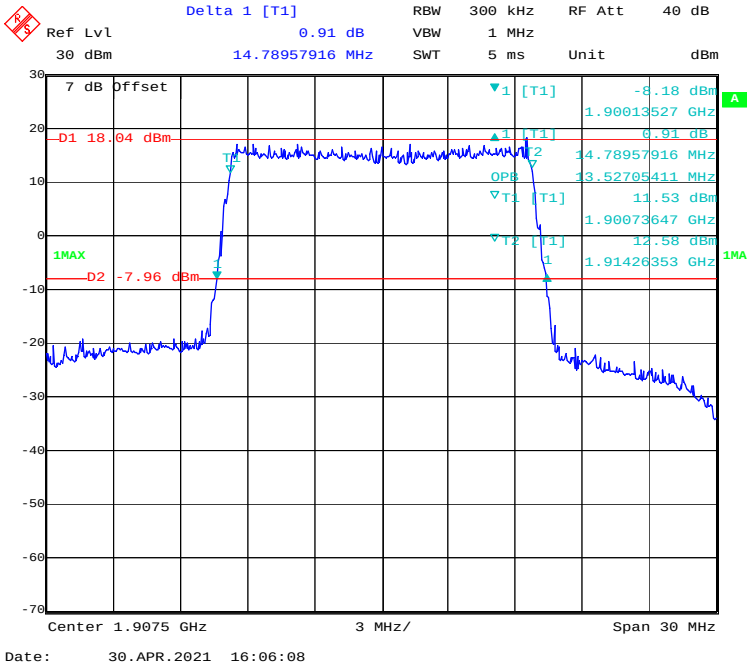
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



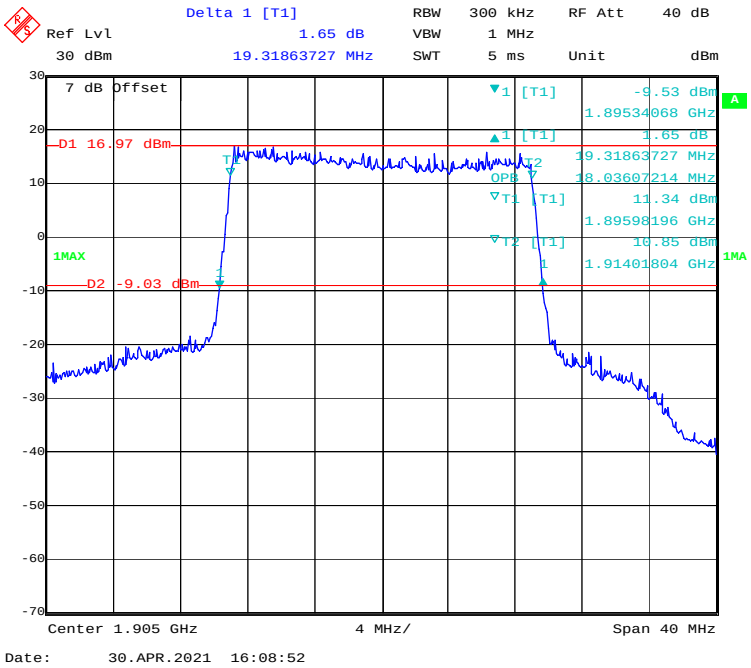
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



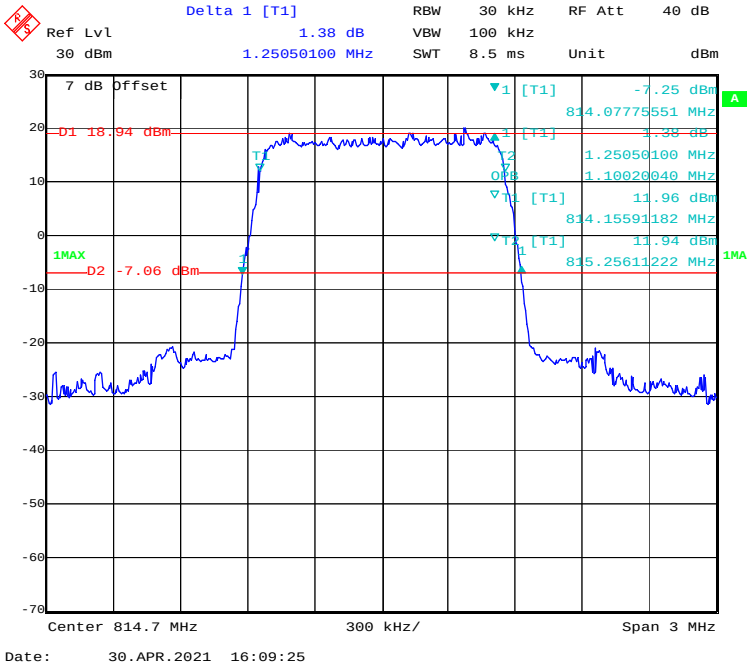
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



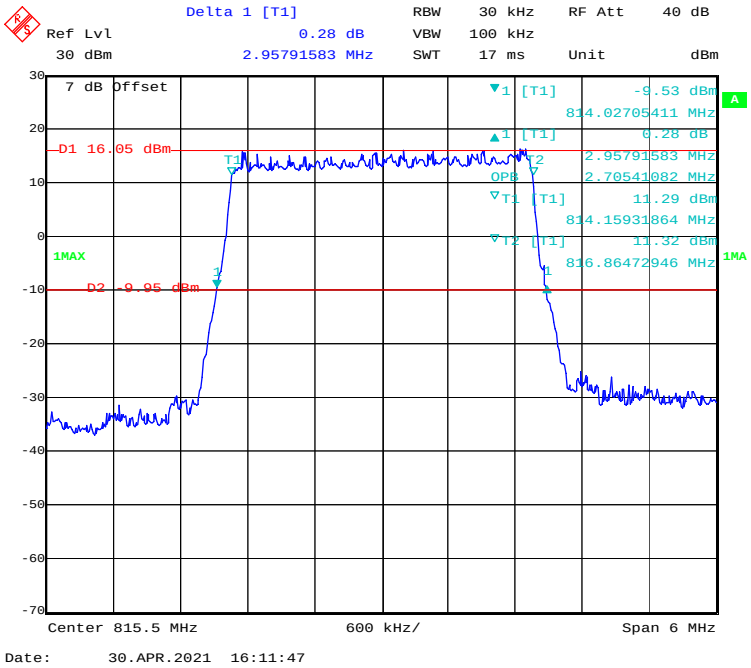
LTE Band 26:

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	1.4M	Low	1.251	1.100
	3M		2.958	2.705
	5M		5.030	4.529
	10M		9.619	8.978
	15M		14.790	13.467
	1.4M	Middle	1.244	1.094
	3M		2.934	2.693
	5M		5.030	4.529
	10M		9.579	8.938
	15M		14.790	13.467
	1.4M	High	1.244	1.106
	3M		2.970	2.693
	5M		4.990	4.529
	10M		9.579	8.978
	15M		14.729	13.527
16-QAM	1.4M	Low	1.238	1.100
	3M		2.910	2.681
	5M		4.970	4.529
	10M		9.619	8.938
	15M		14.729	13.467
	1.4M	Middle	1.244	1.100
	3M		2.946	2.693
	5M		5.010	4.529
	10M		9.579	8.978
	15M		14.85	13.527
	1.4M	High	1.257	1.100
	3M		2.970	2.693
	5M		5.010	4.529
	10M		9.739	8.978
	15M		14.790	13.527

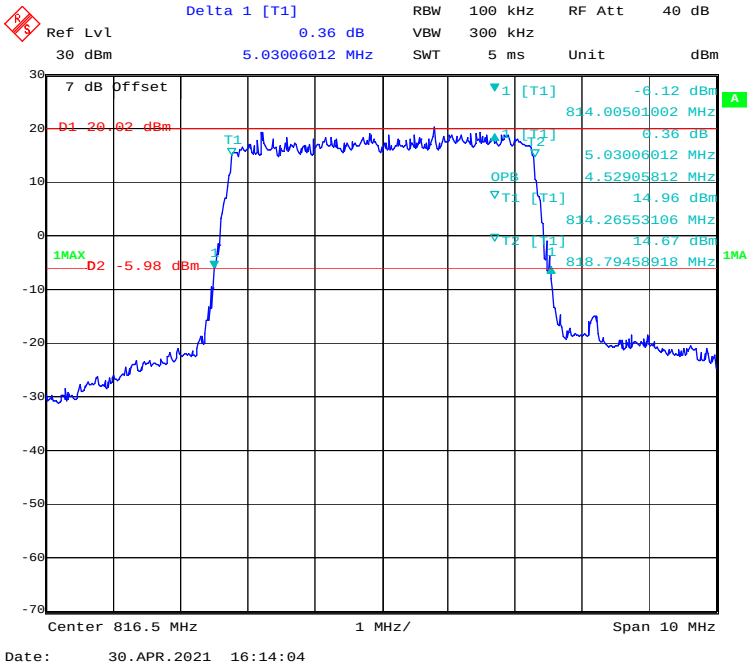
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



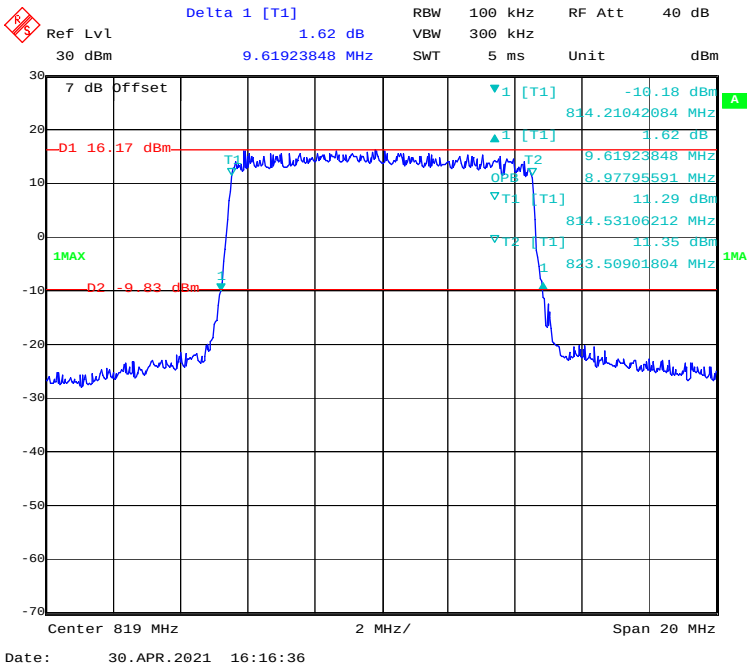
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



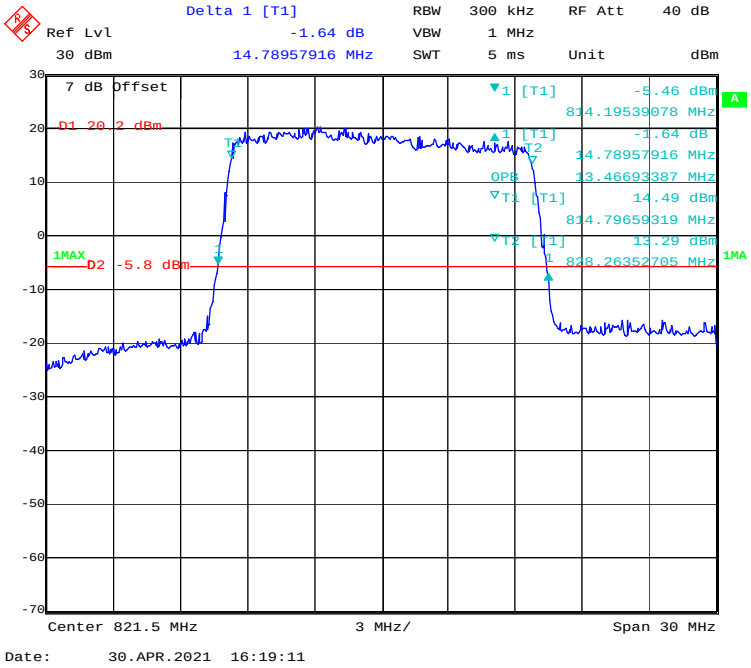
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



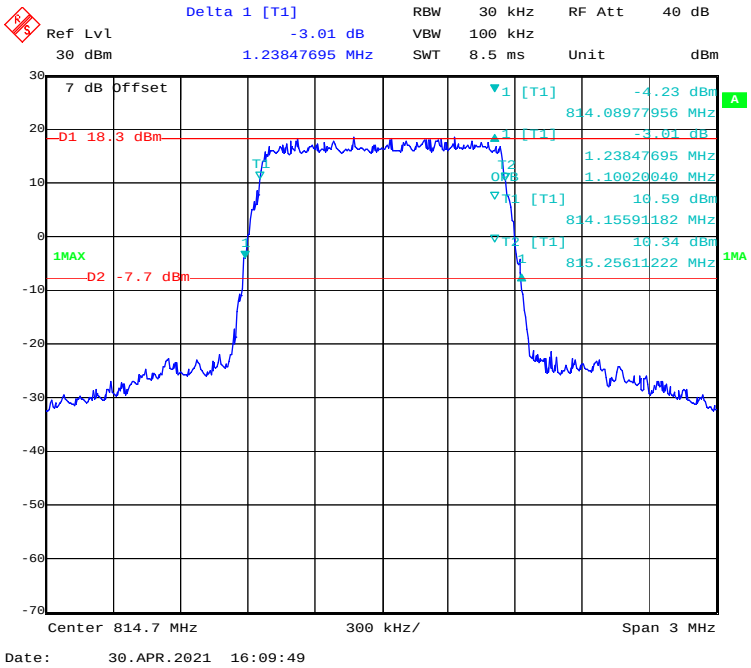
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



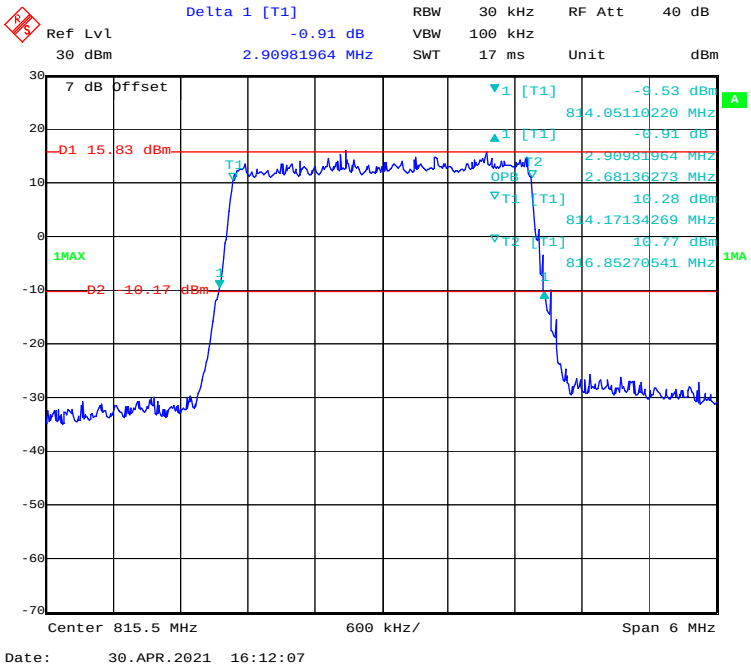
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



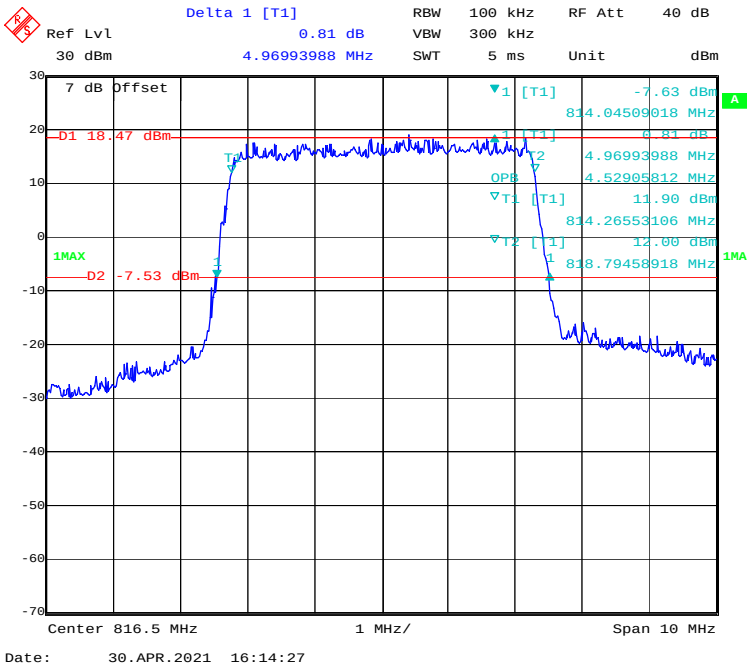
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



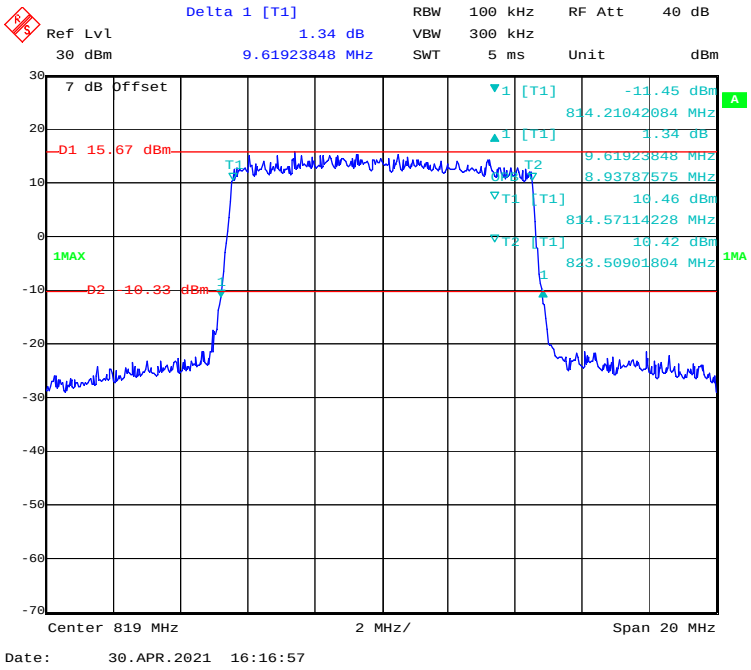
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



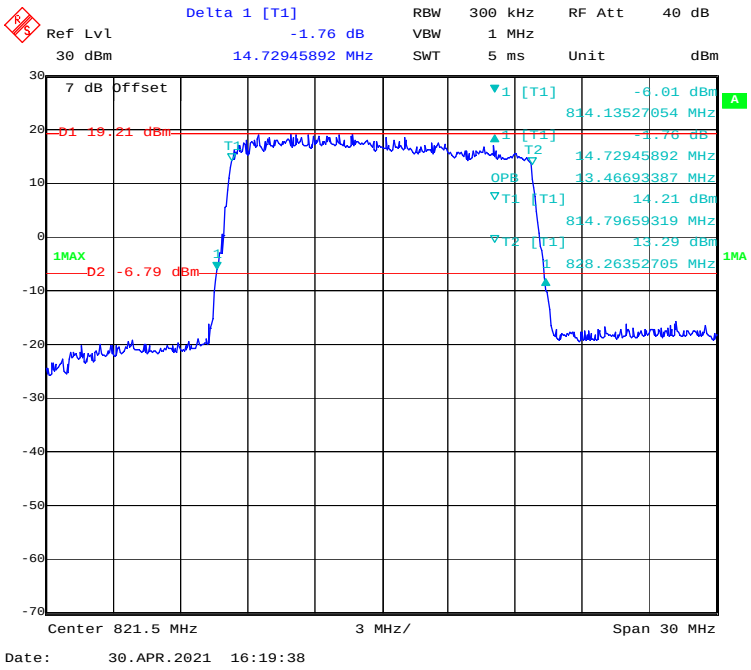
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



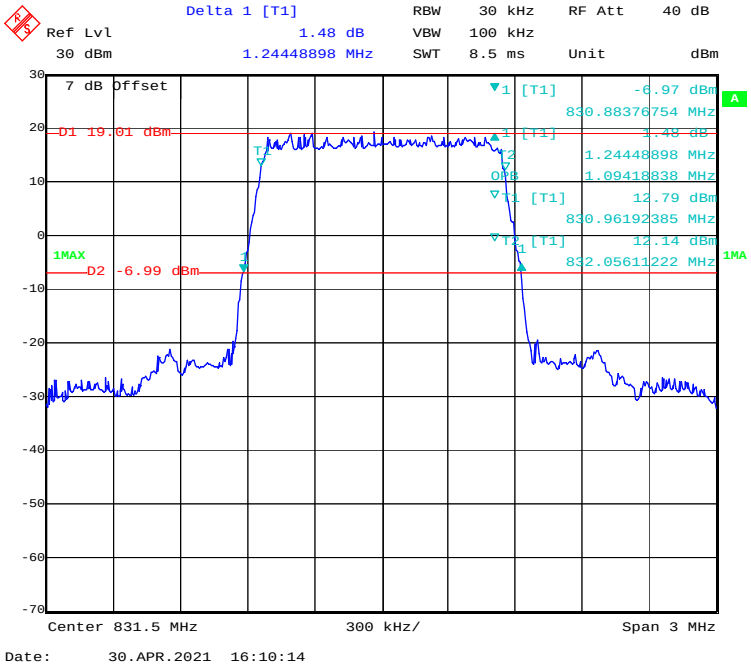
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



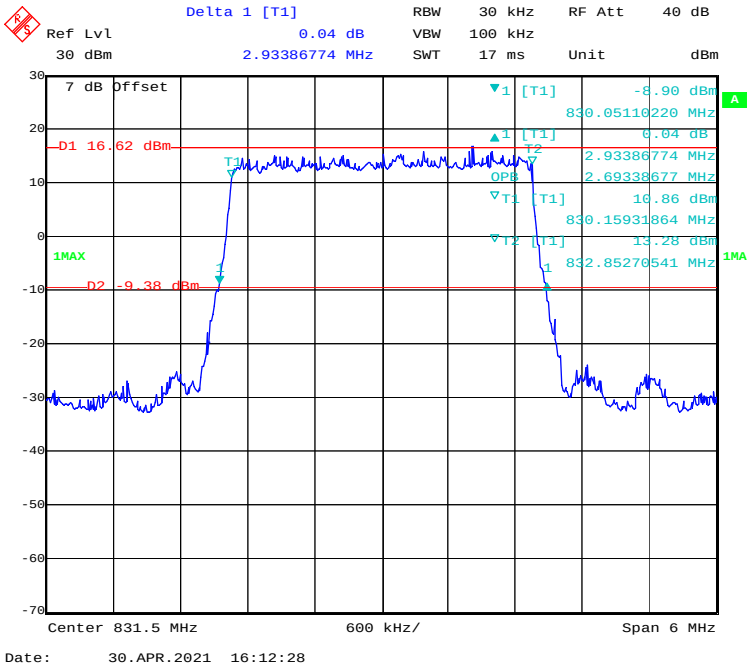
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



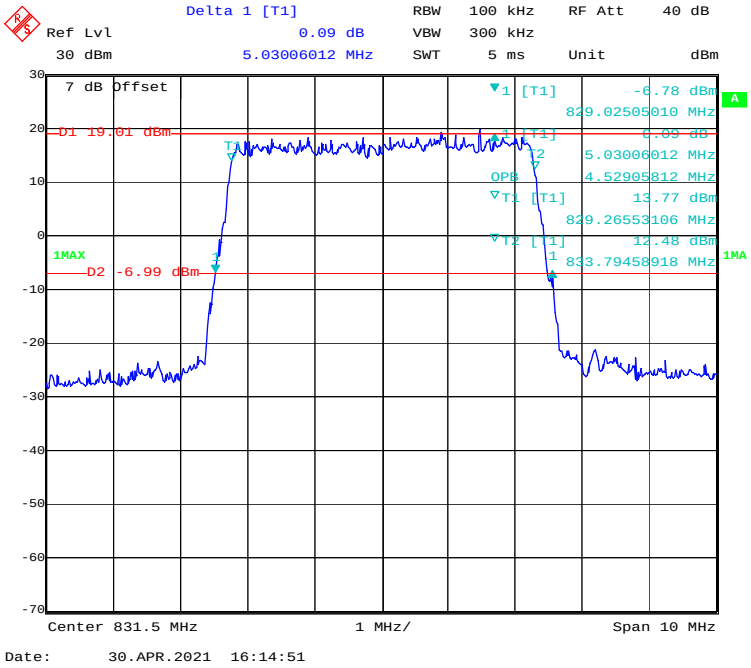
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



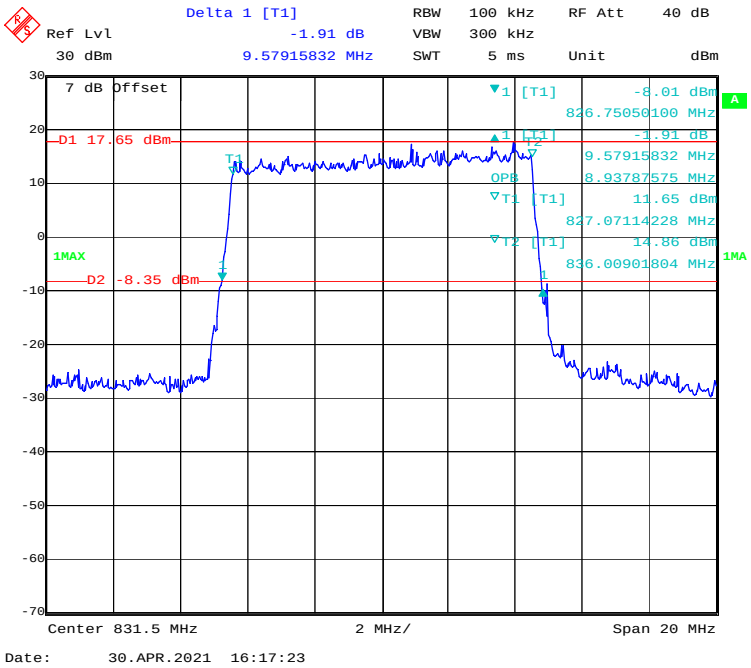
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



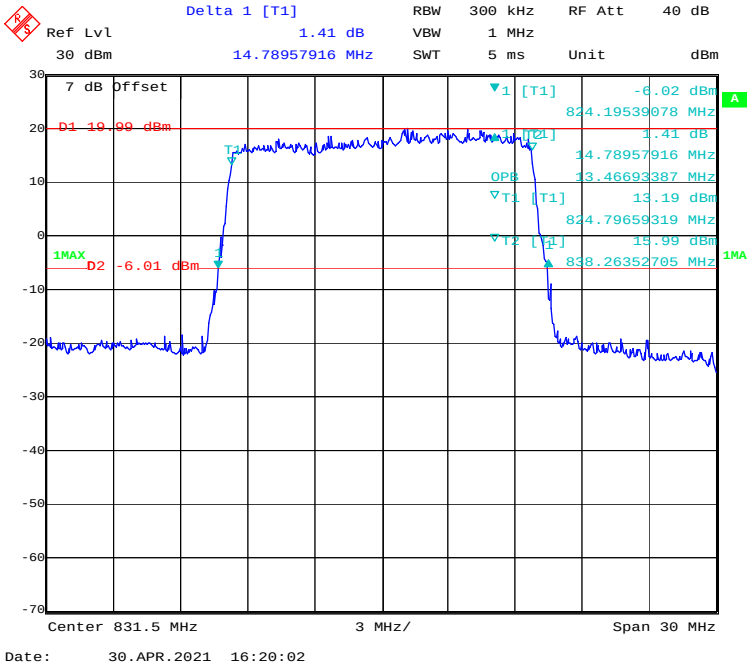
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



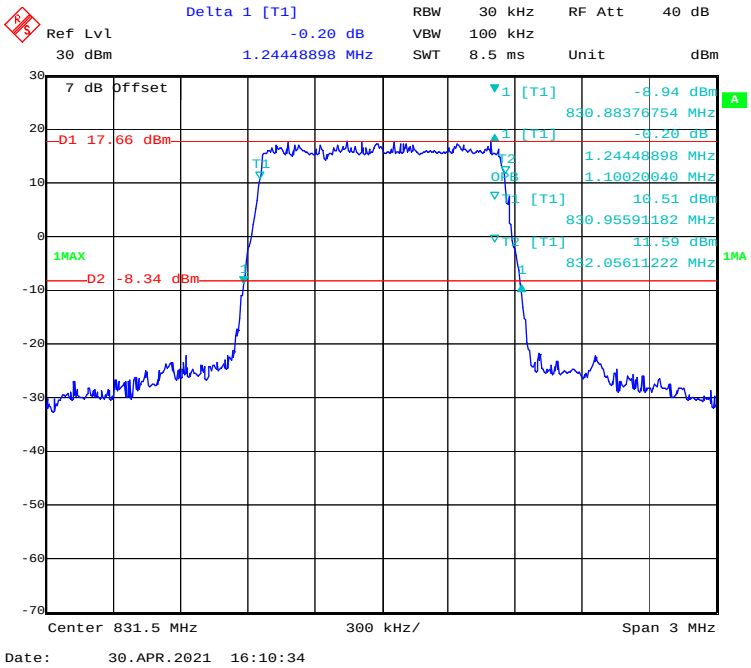
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



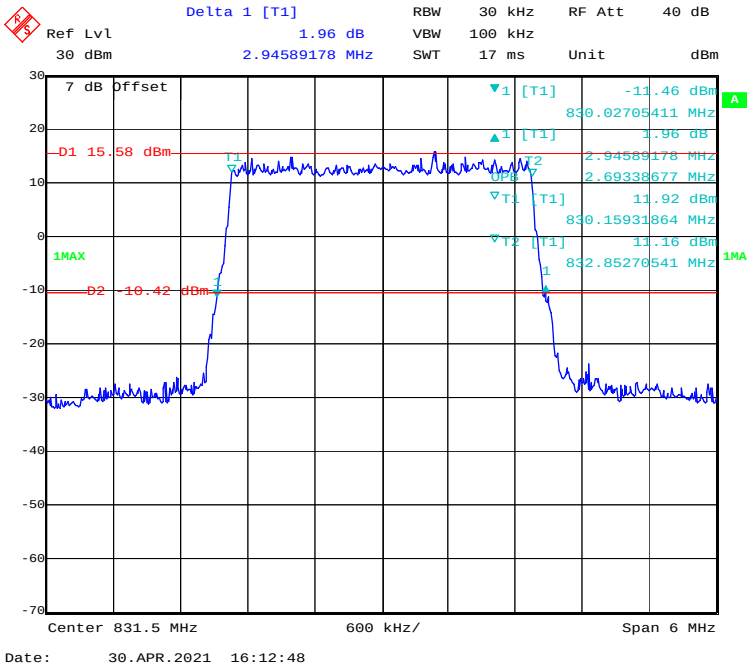
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



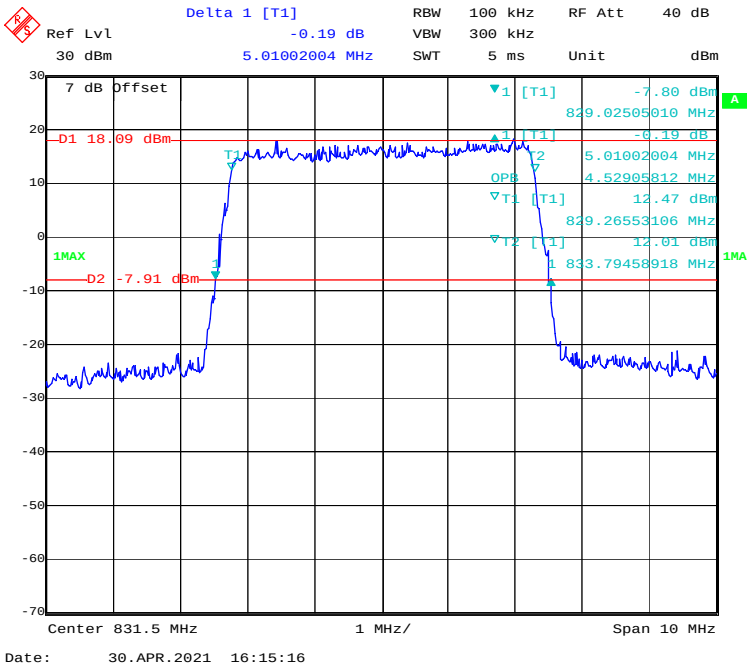
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



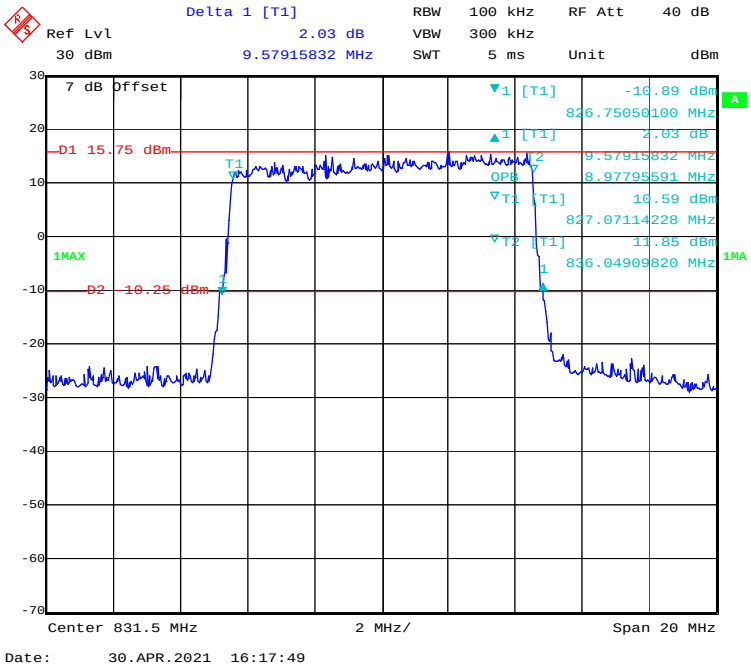
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



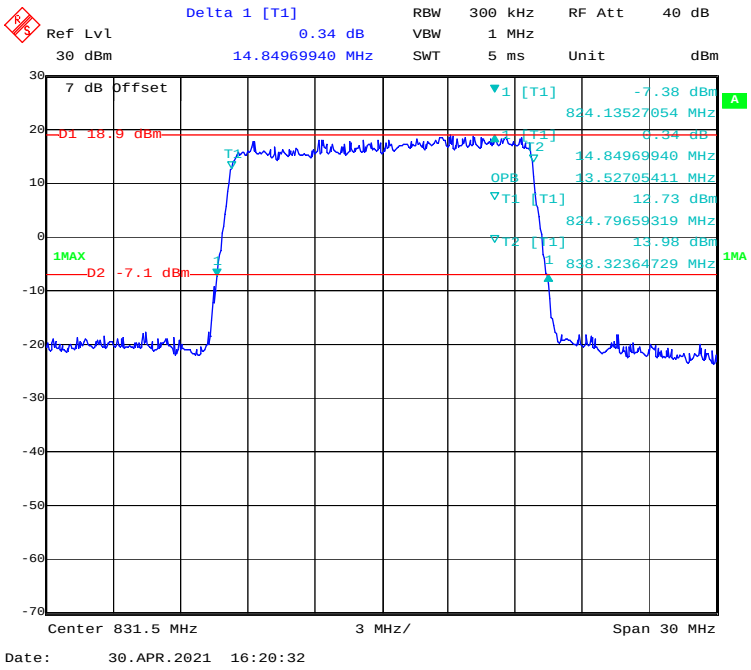
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



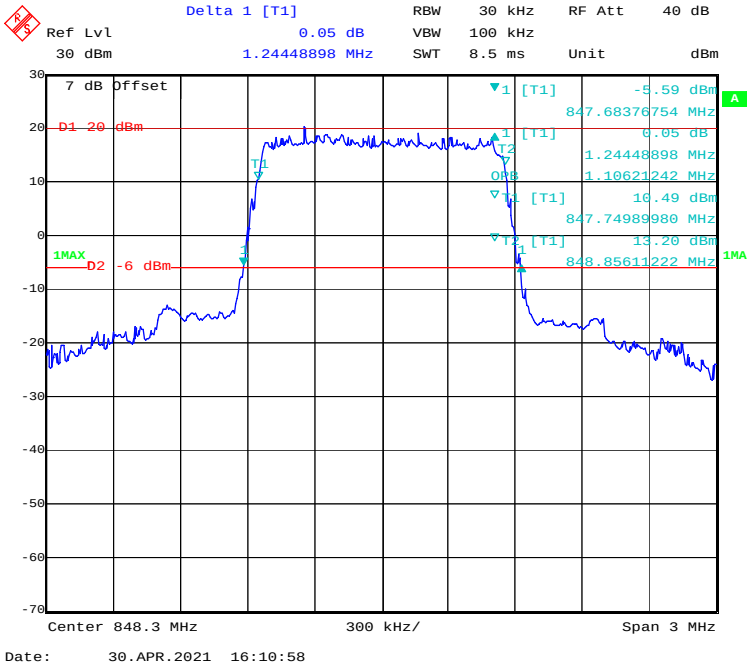
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



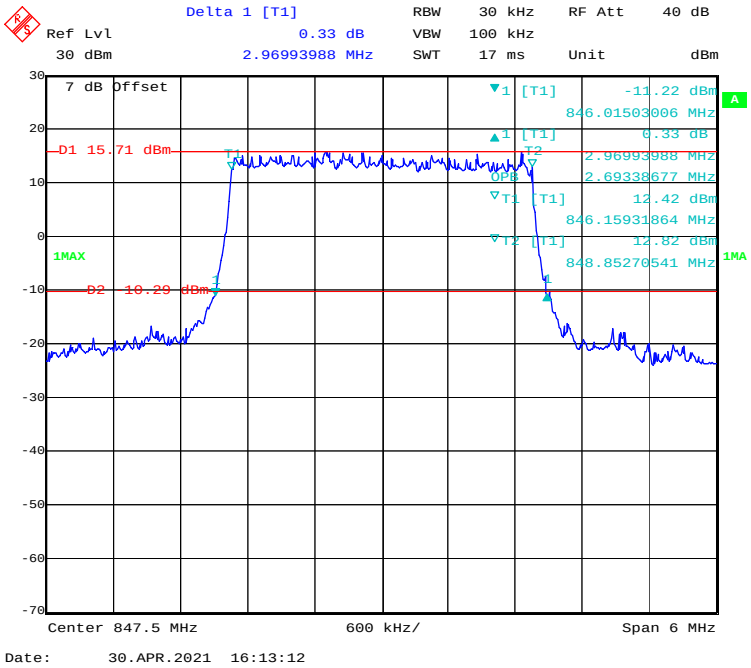
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



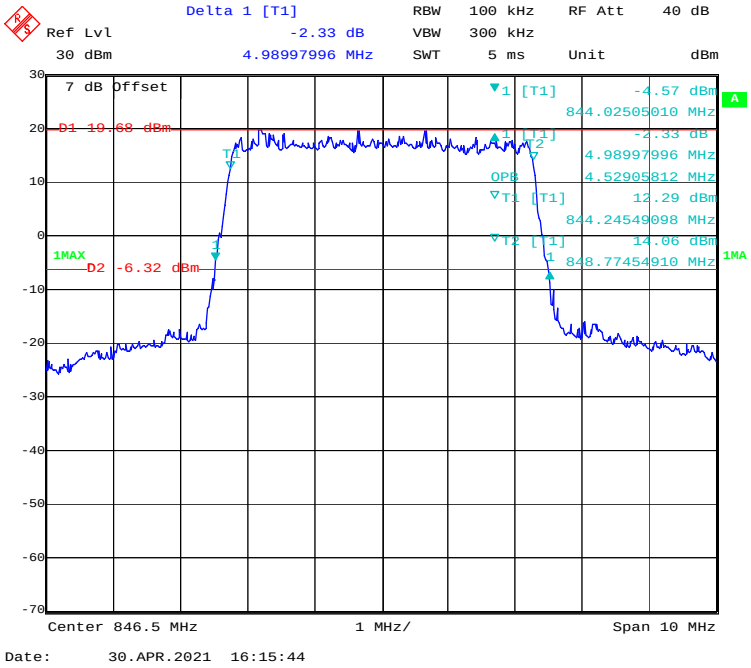
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



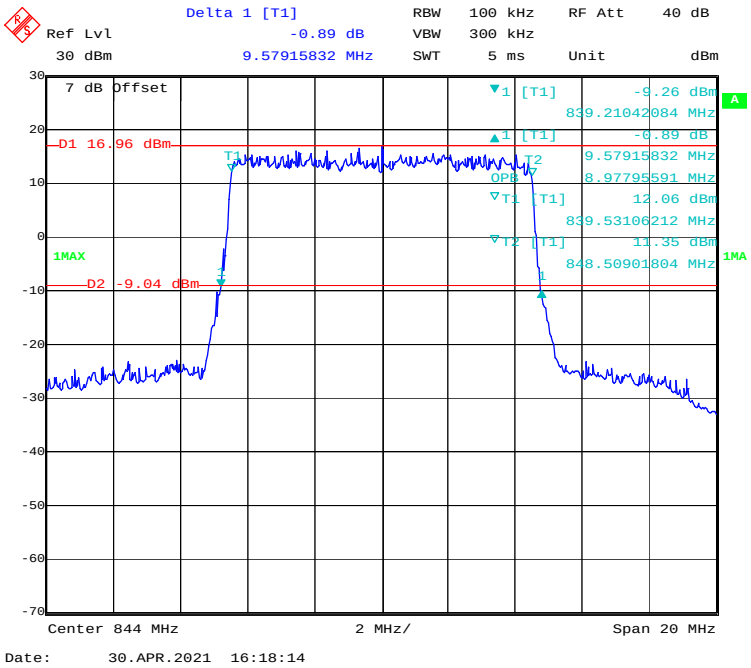
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



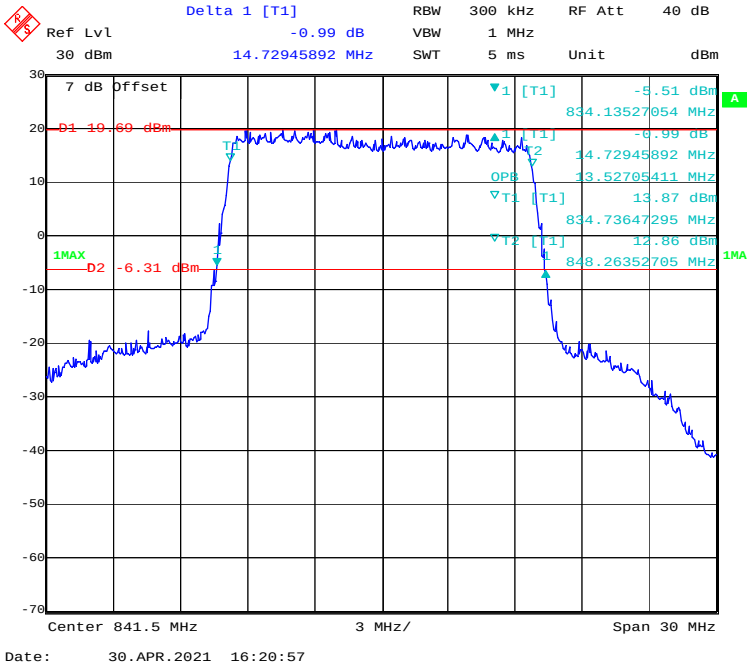
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



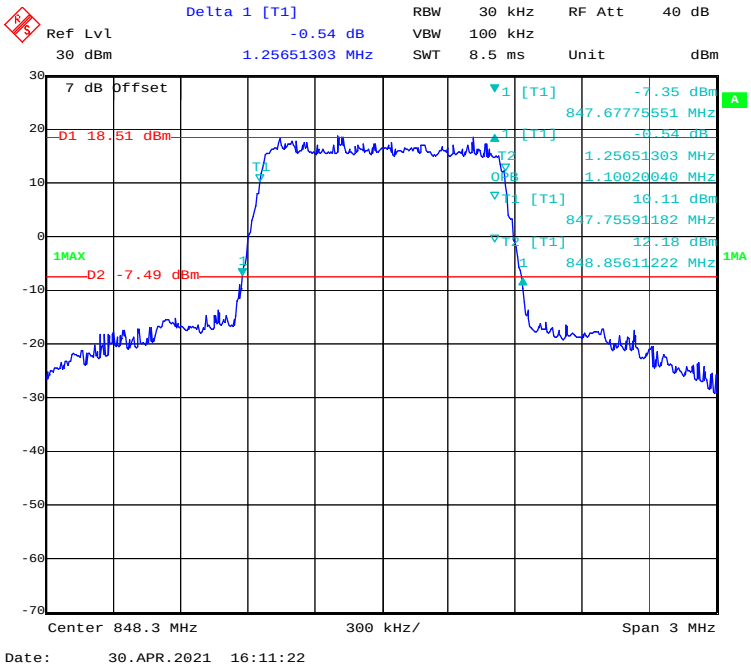
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



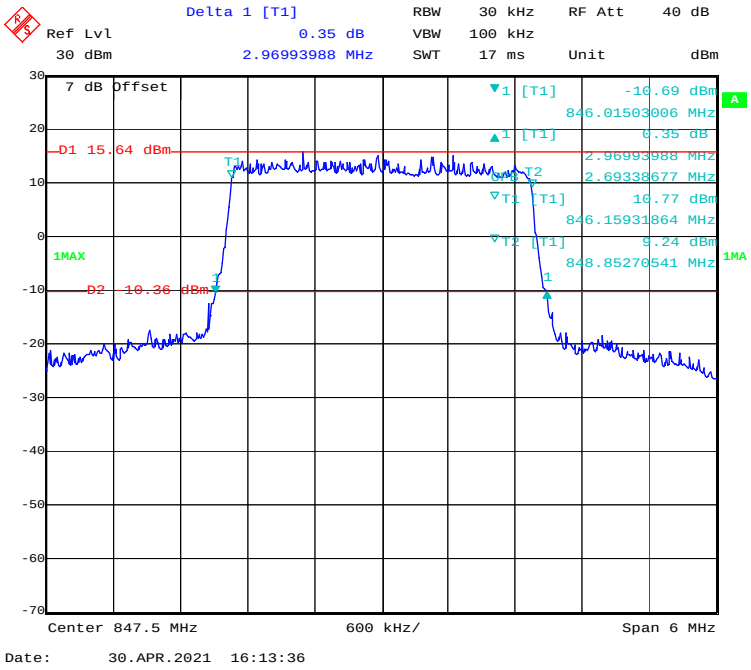
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



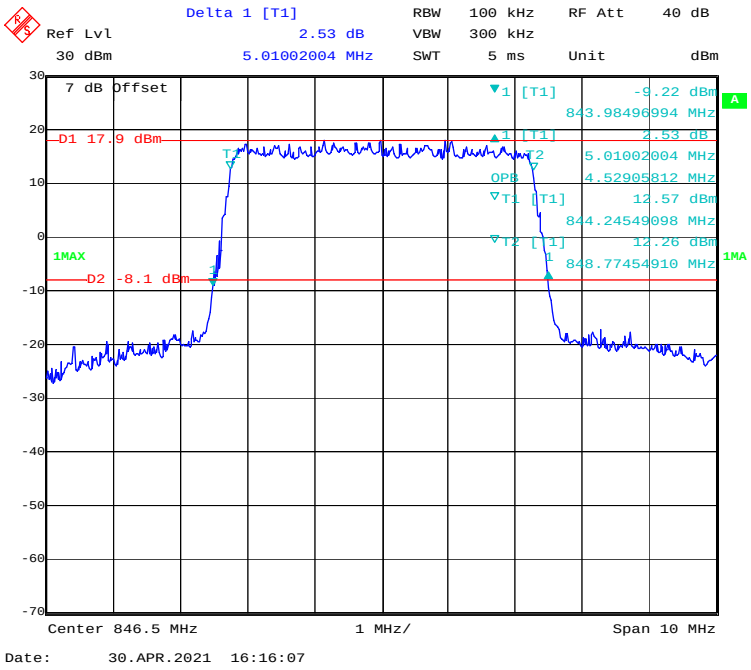
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



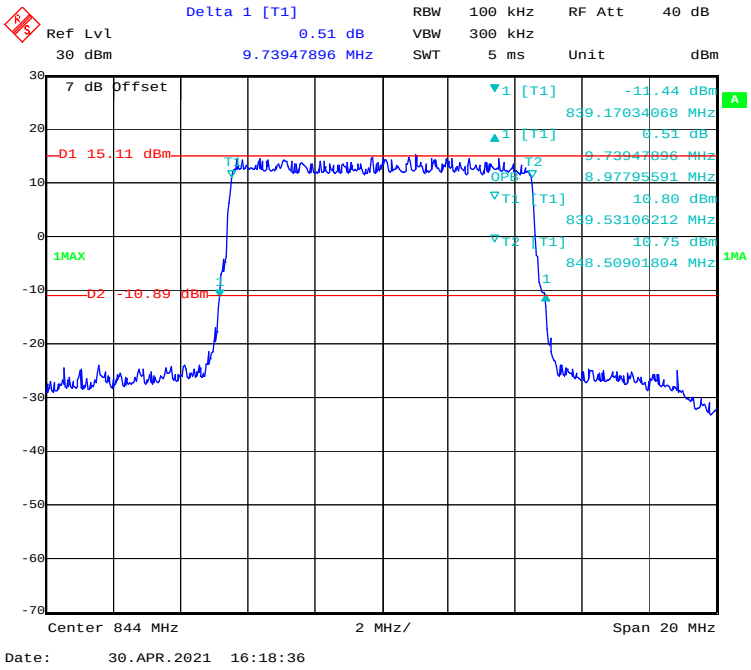
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



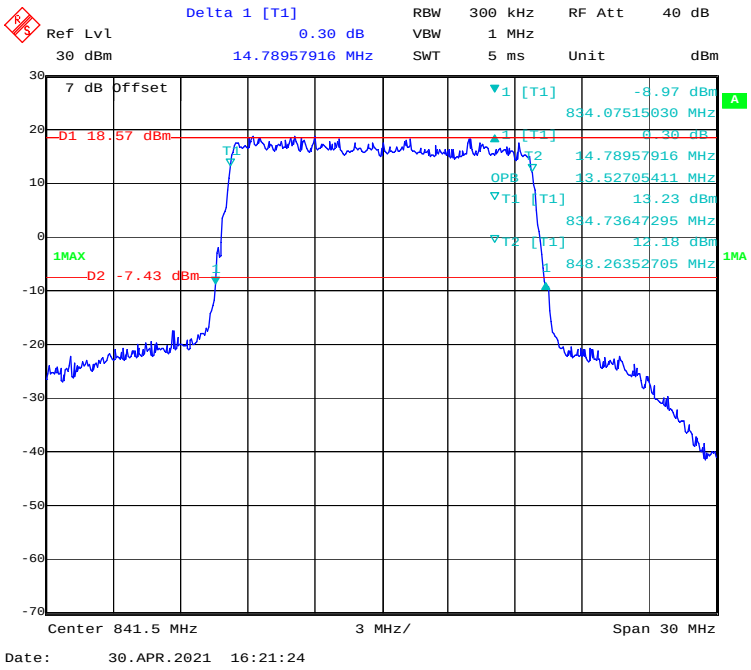
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



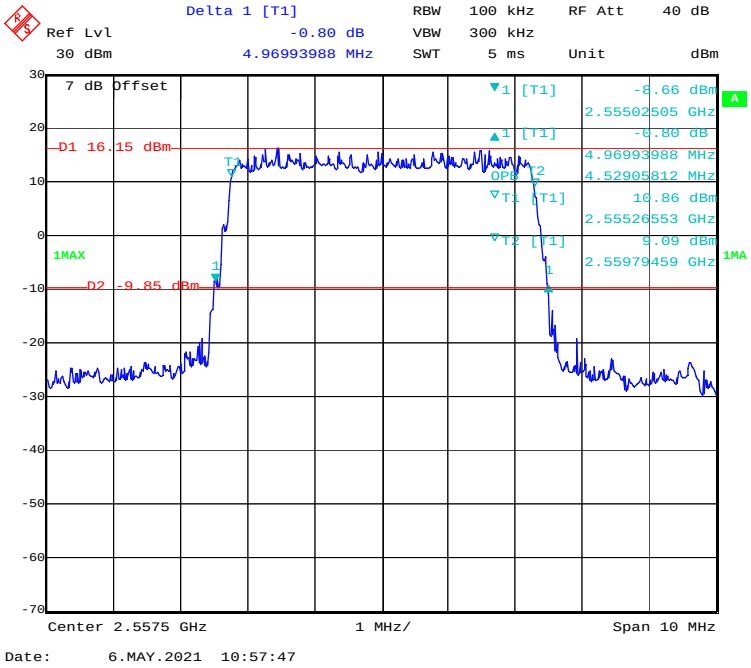
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



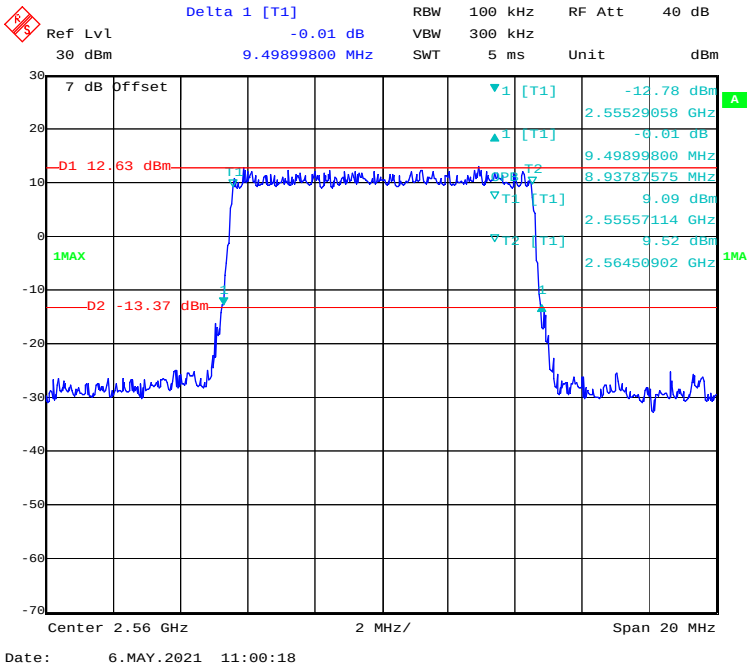
LTE Band 41:

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	5M	Low	4.970	4.529
	10M		9.499	8.938
	15M		14.79	13.527
	20M		19.238	17.956
	5M	Middle	4.950	4.509
	10M		9.579	8.978
	15M		14.729	13.527
	20M		19.319	17.956
	5M	High	4.950	4.529
	10M		9.459	8.938
	15M		14.850	13.467
	20M		19.399	17.956
16-QAM	5M	Low	4.930	4.509
	10M		9.659	8.978
	15M		14.729	13.467
	20M		19.238	17.876
	5M	Middle	4.970	4.509
	10M		9.459	8.938
	15M		14.549	13.527
	20M		19.238	17.876
	5M	High	4.990	4.529
	10M		9.659	8.978
	15M		14.790	13.467
	20M		19.238	17.956

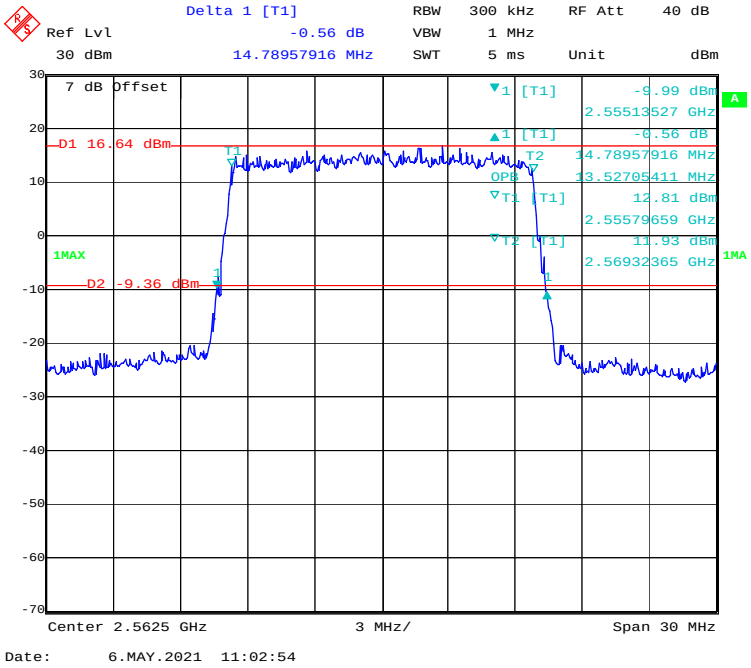
QPSK (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



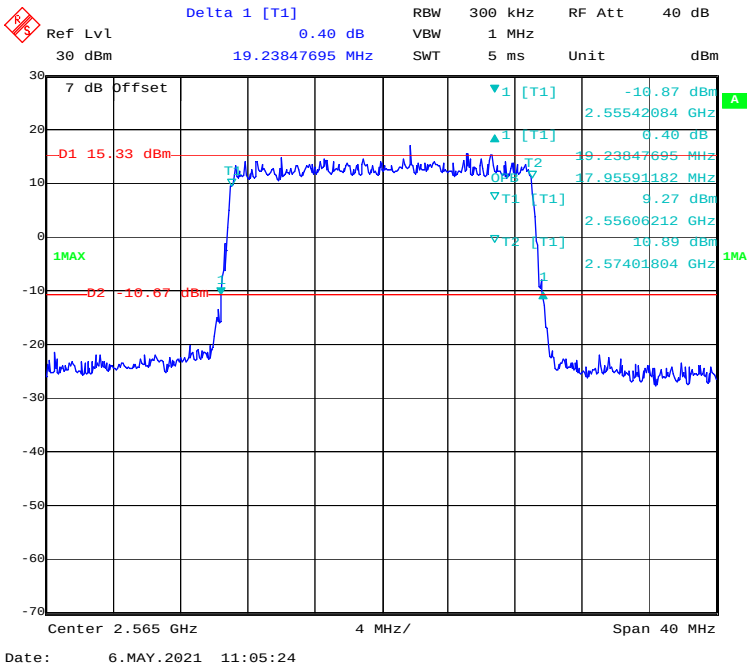
QPSK (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



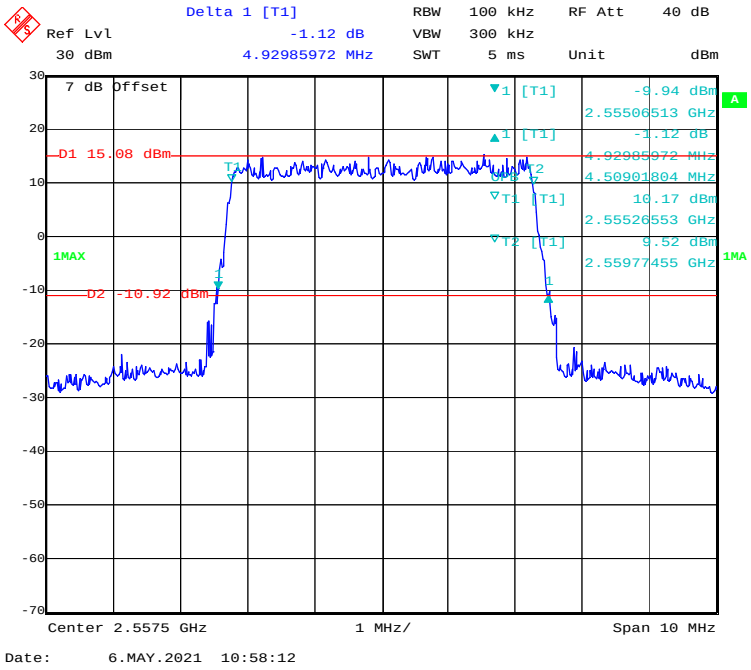
QPSK (15.0MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



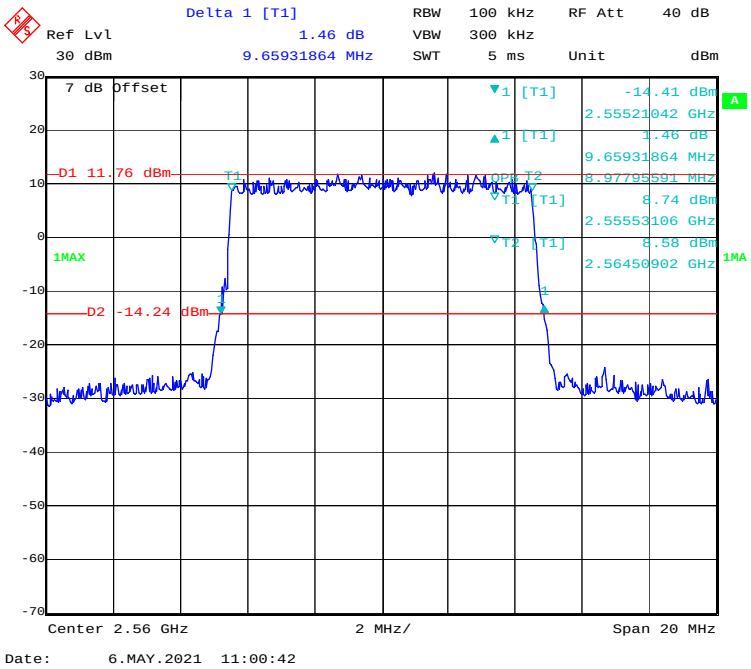
QPSK (20.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



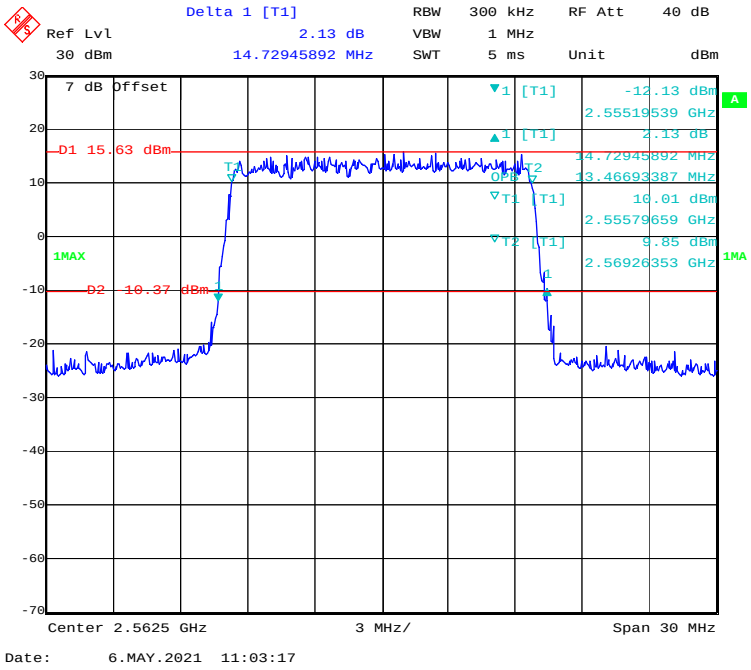
16-QAM (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



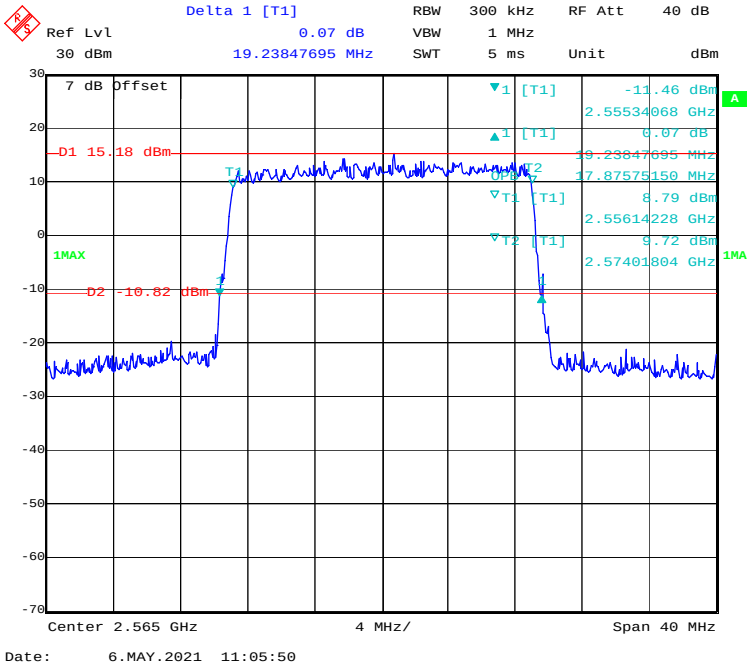
16-QAM (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



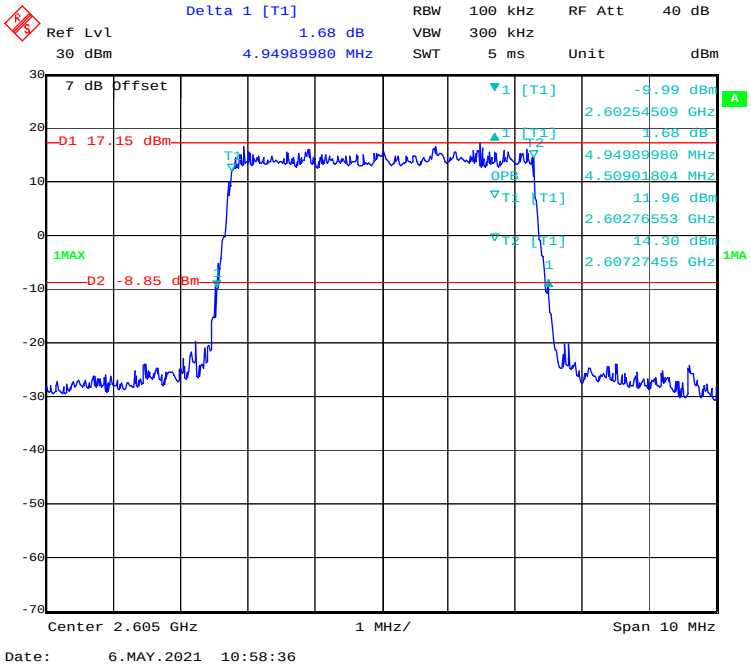
16-QAM (15.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



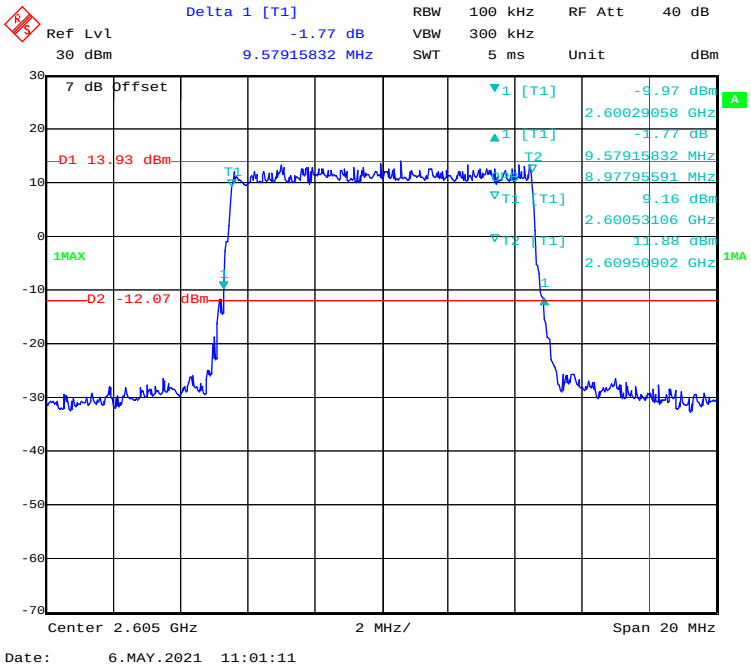
16-QAM (20.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



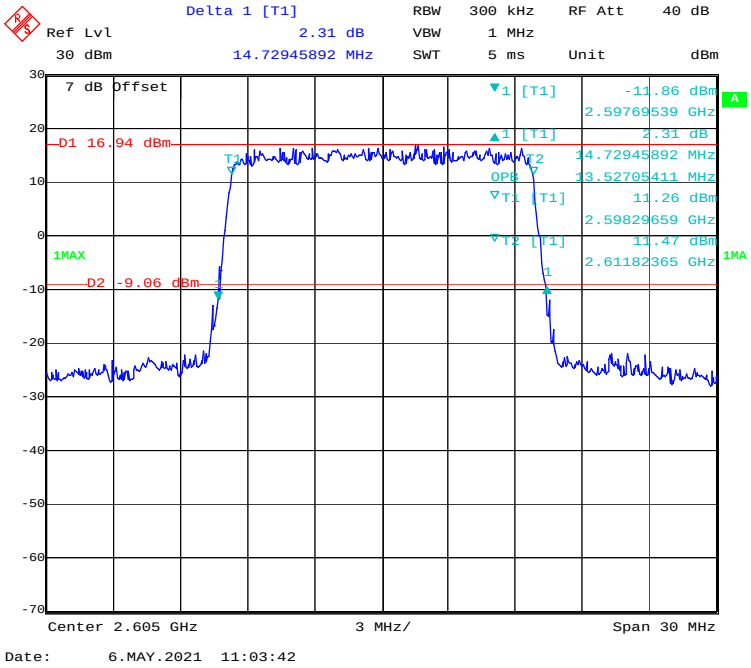
QPSK (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



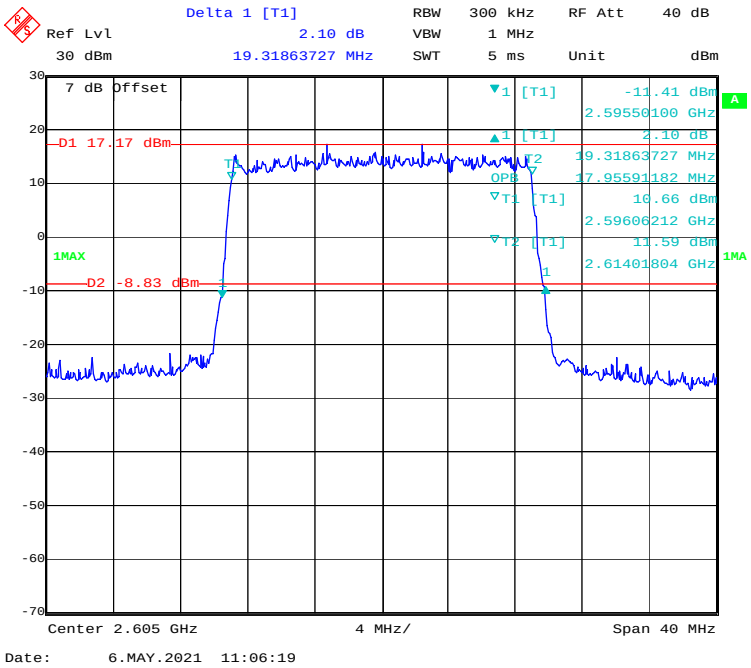
QPSK (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



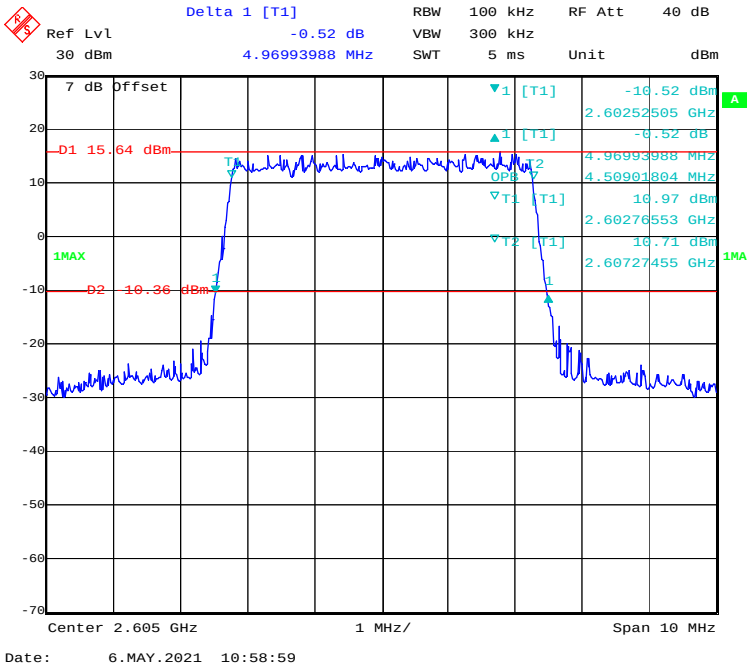
QPSK (15.0MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



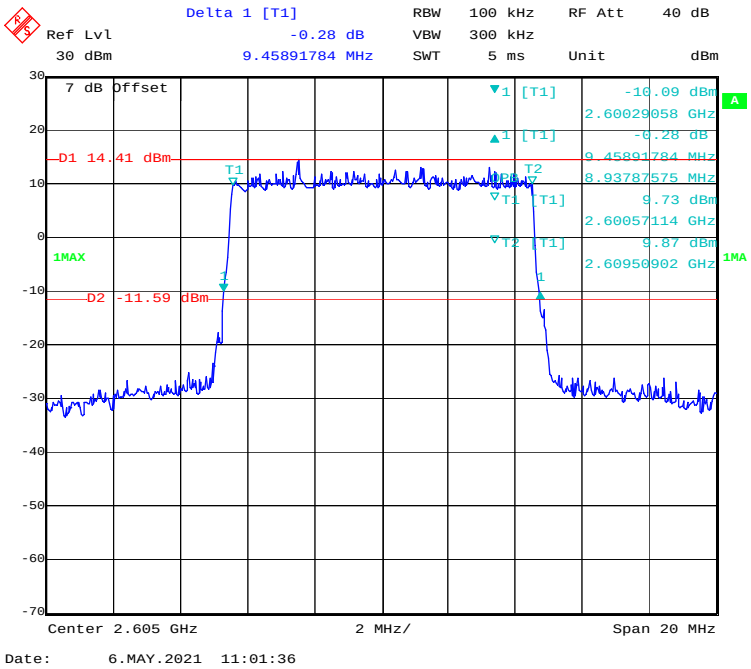
QPSK (20.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



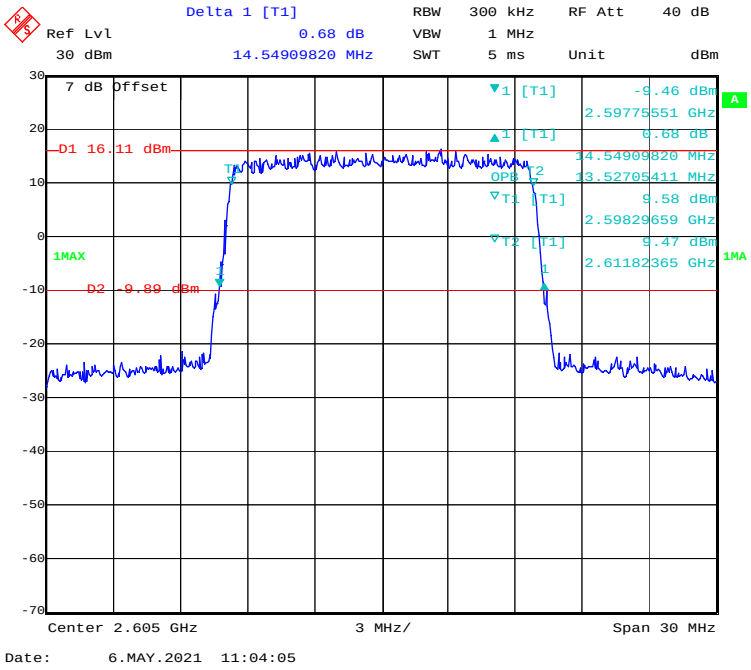
16-QAM (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



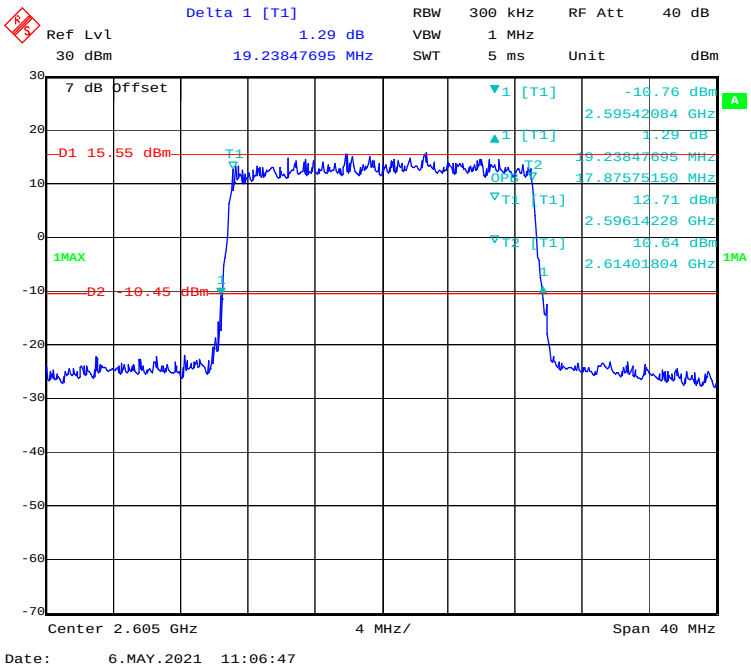
16-QAM (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



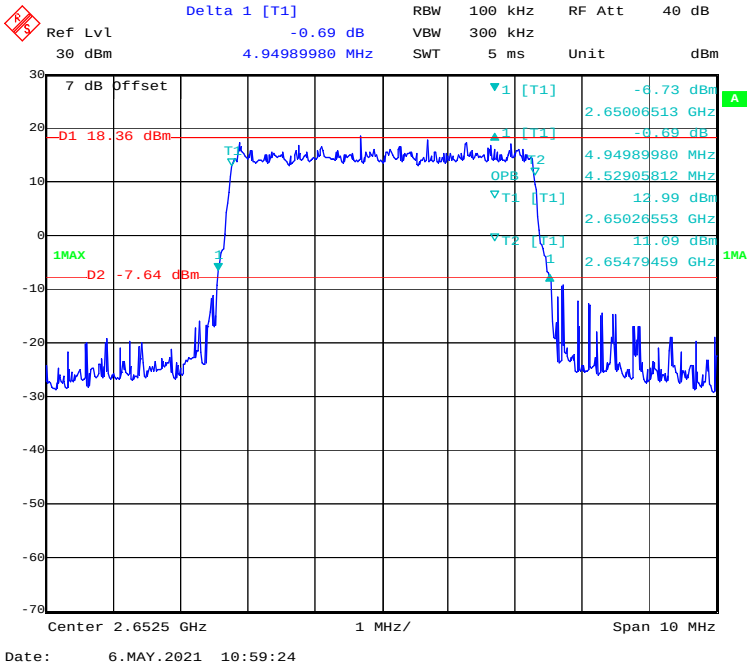
16-QAM (15.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



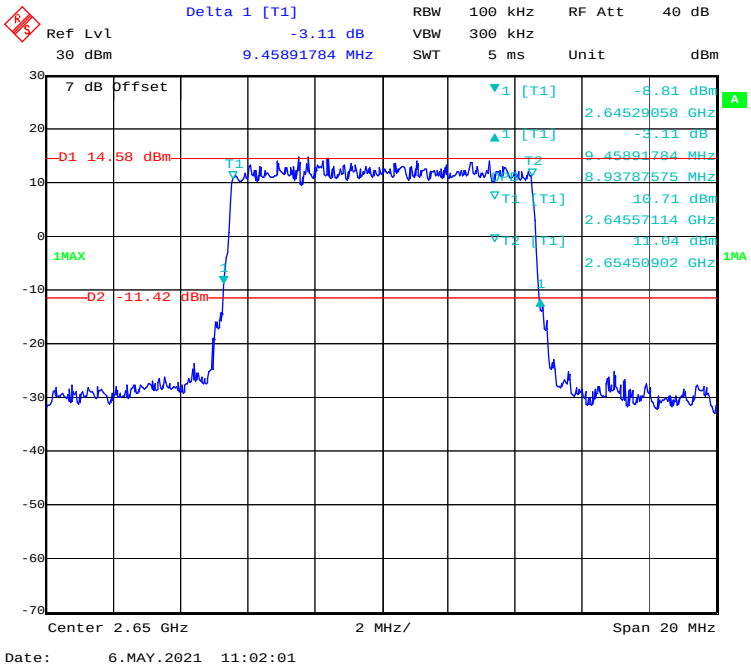
16-QAM (20.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



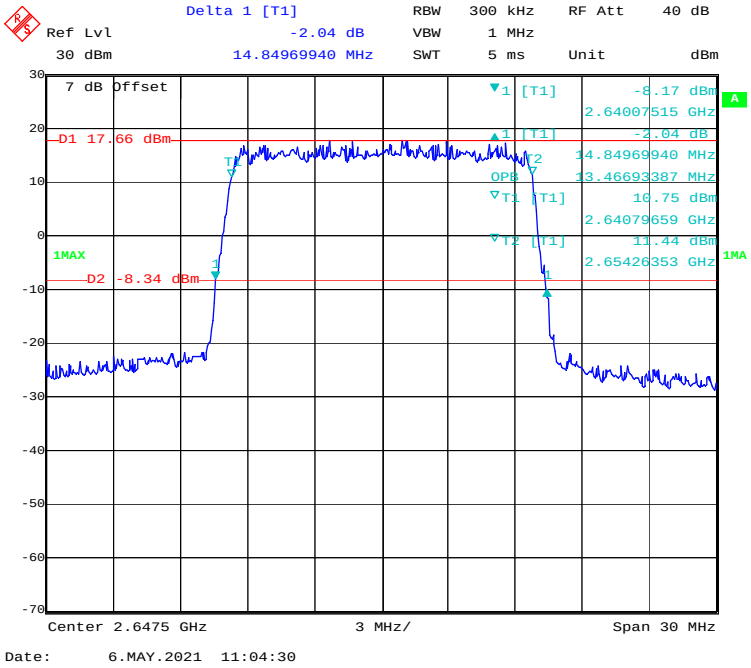
QPSK (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



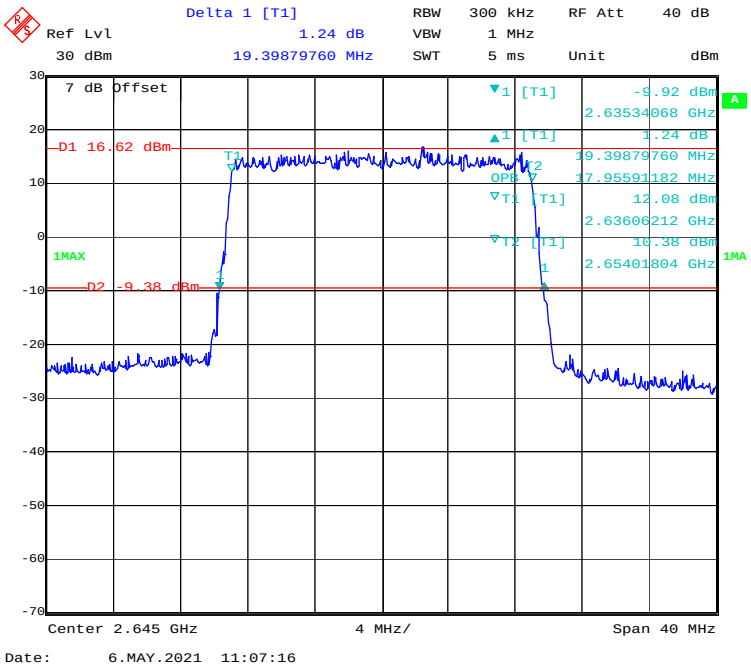
QPSK (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



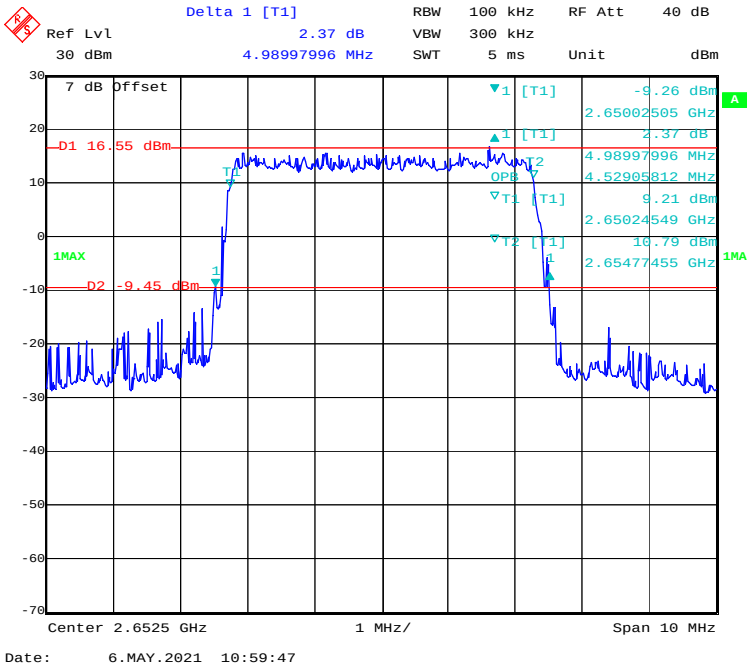
QPSK (15.0MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



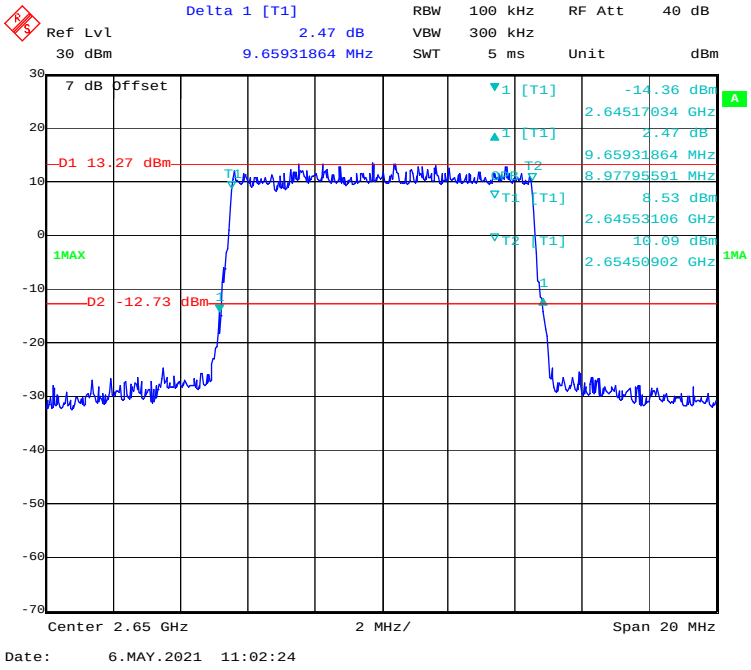
QPSK (20.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



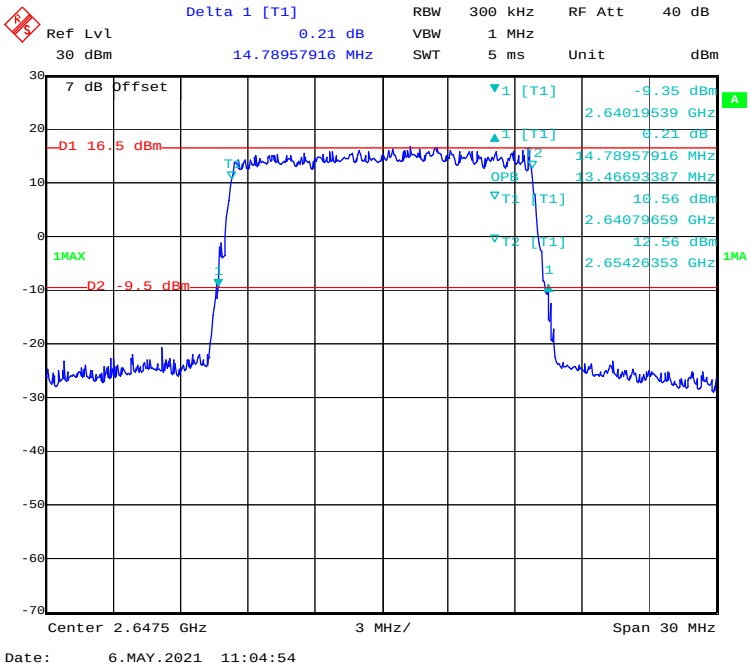
16-QAM (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



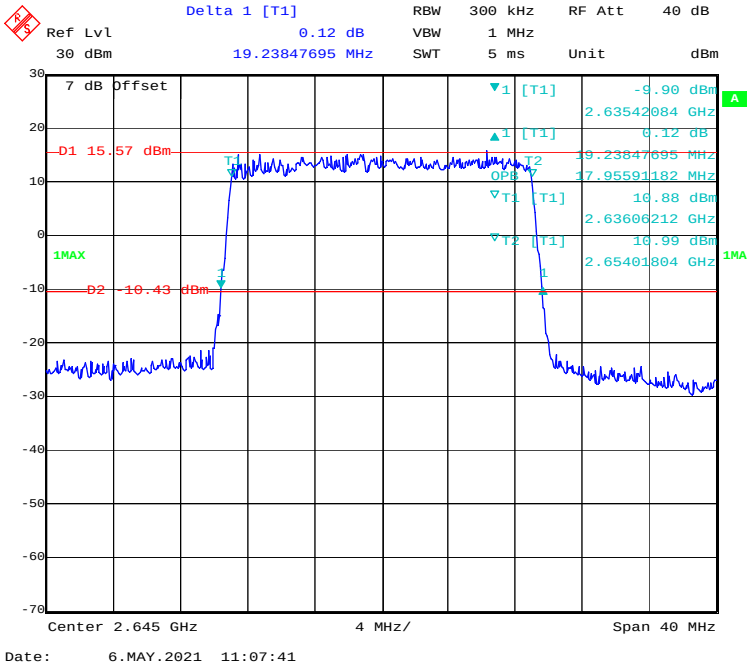
16-QAM (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



16-QAM (15.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



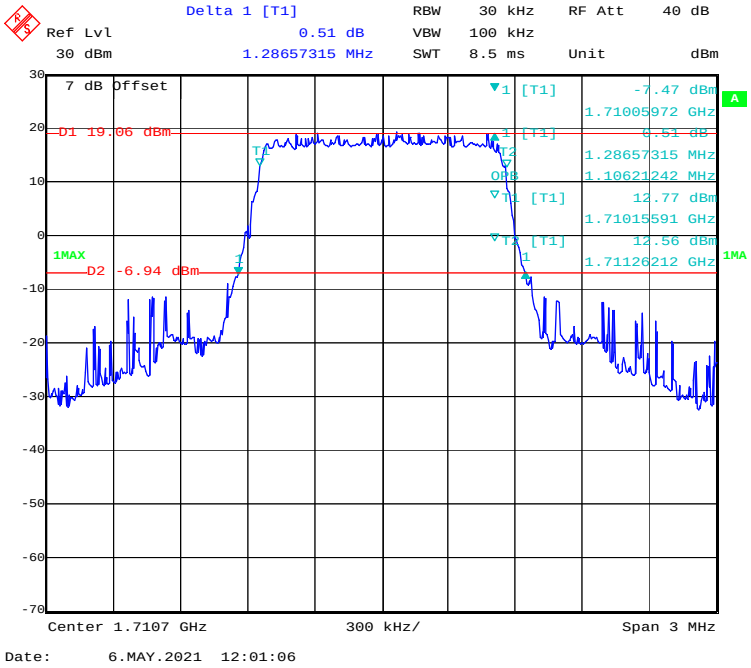
16-QAM (20.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



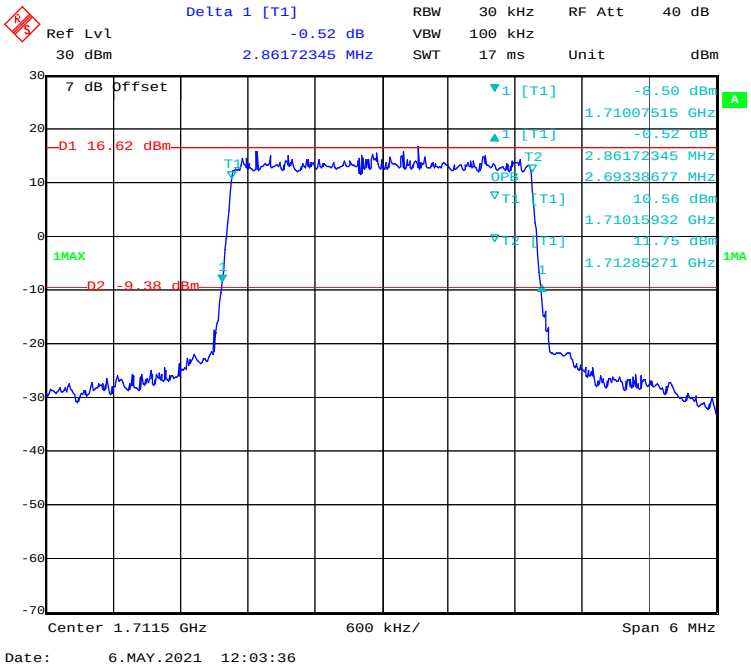
LTE Band 66:

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	1.4M	Low	1.287	1.106
	3M		2.862	2.693
	5M		5.190	4.549
	10M		9.820	8.978
	15M		14.910	13.587
	20M		19.559	17.956
	1.4M	Middle	1.299	1.100
	3M		2.898	2.693
	5M		5.210	4.529
	10M		9.860	8.978
	15M		16.293	13.527
	20M		19.479	17.956
	1.4M	High	1.305	1.094
	3M		2.886	2.693
	5M		5.130	4.529
	10M		9.860	8.978
	15M		15.331	13.527
	20M		19.719	17.956
16-QAM	1.4M	Low	1.293	1.100
	3M		2.874	2.693
	5M		5.230	4.549
	10M		9.739	9.018
	15M		15.150	13.527
	20M		19.719	17.956
	1.4M	Middle	1.311	1.106
	3M		2.874	2.693
	5M		5.431	4.529
	10M		9.900	8.978
	15M		15.030	13.527
	20M		19.719	18.036
	1.4M	High	1.293	1.094
	3M		2.874	2.681
	5M		5.251	4.549
	10M		9.780	8.978
	15M		15.090	13.587
	20M		19.719	17.956

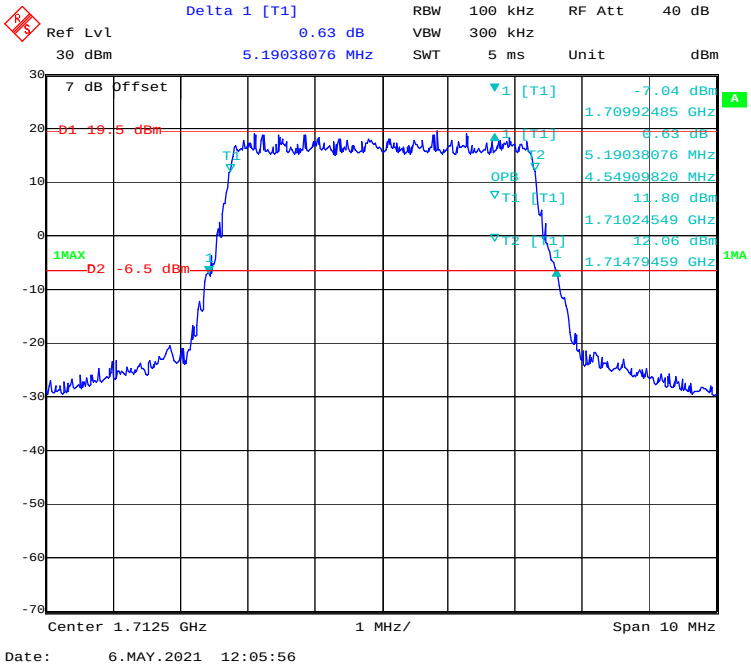
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



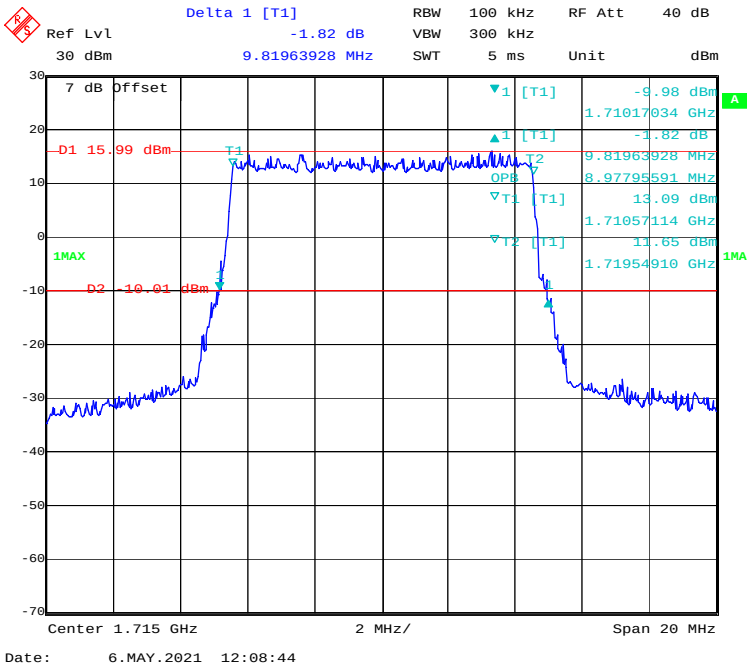
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



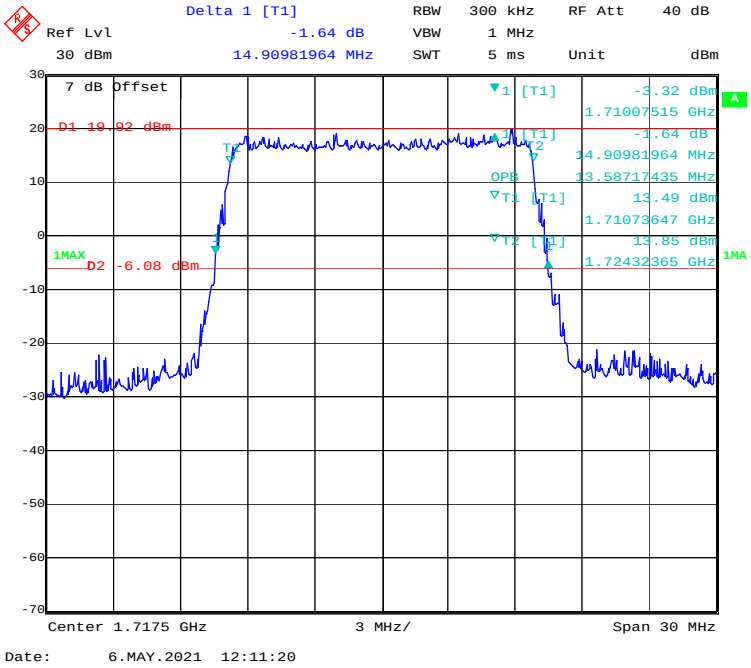
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



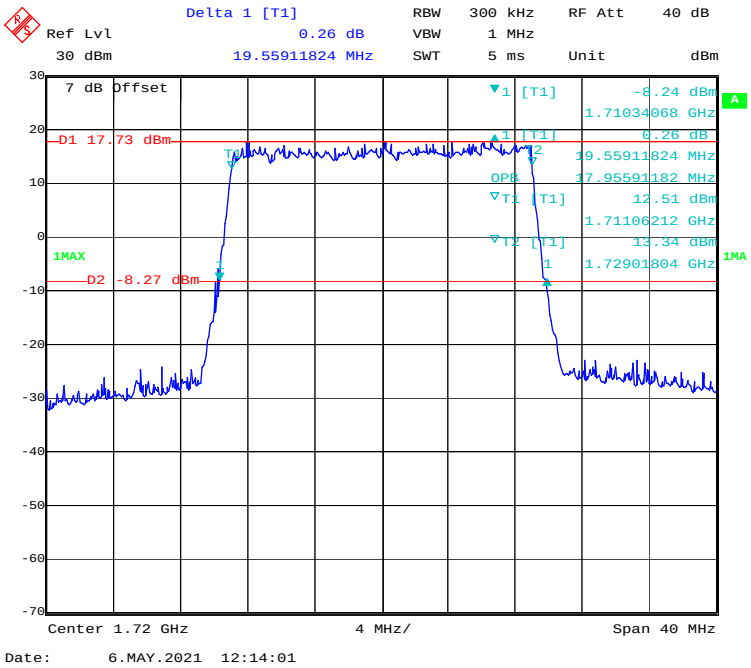
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



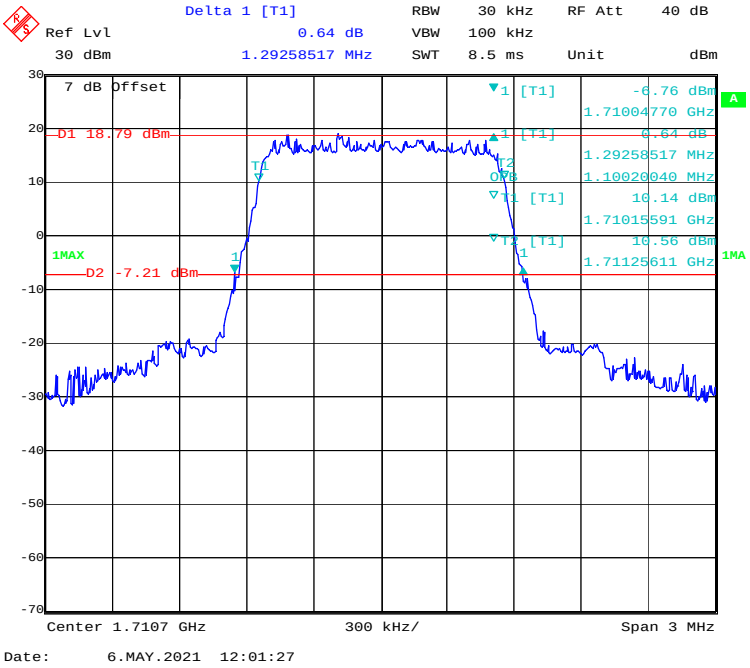
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



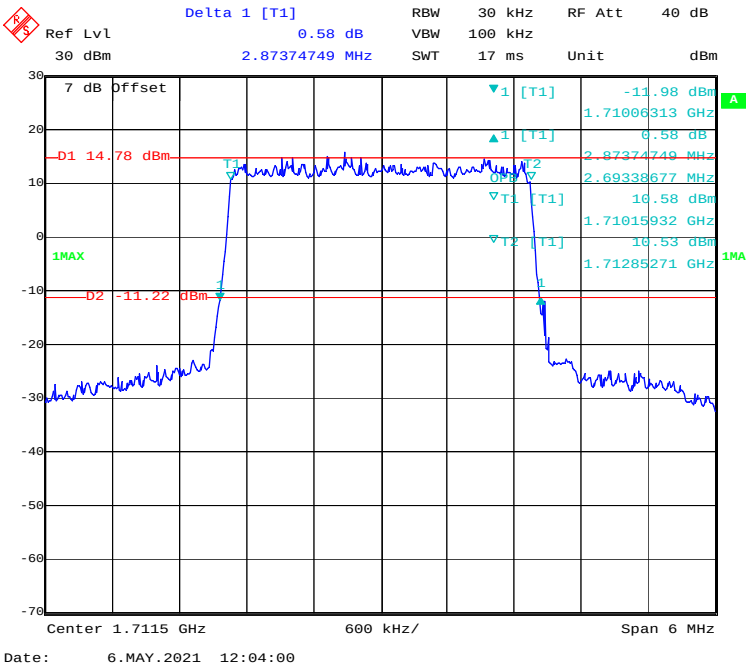
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



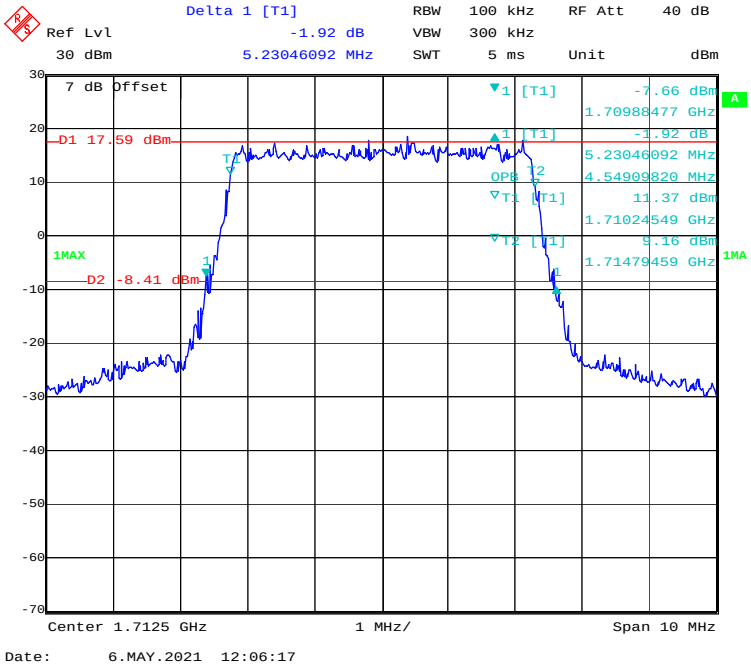
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



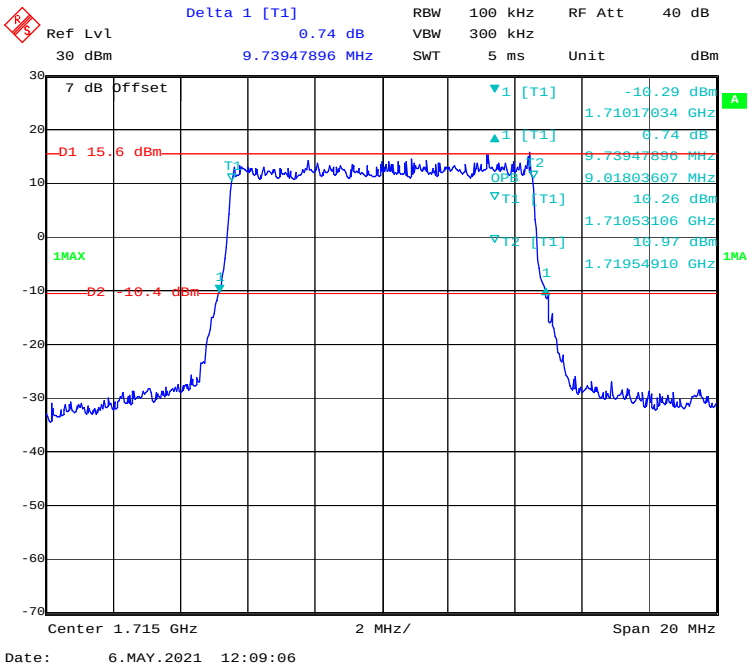
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



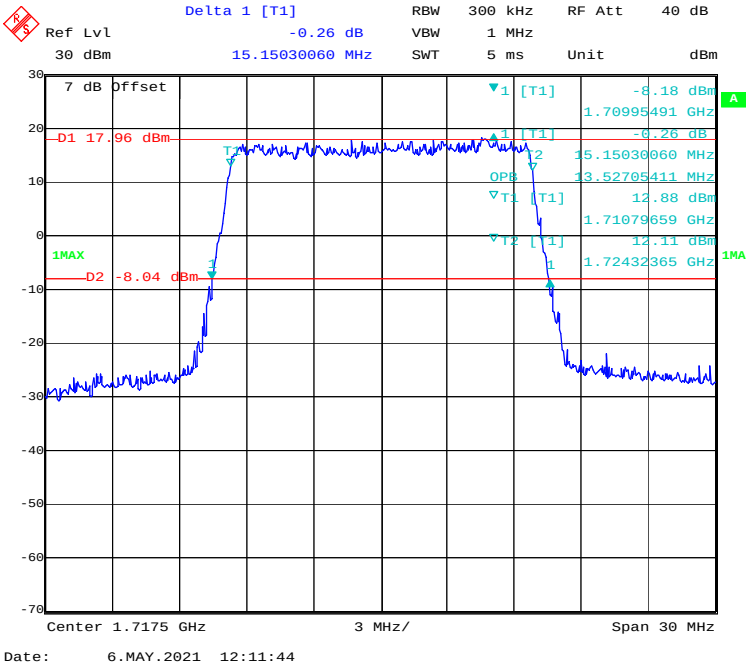
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



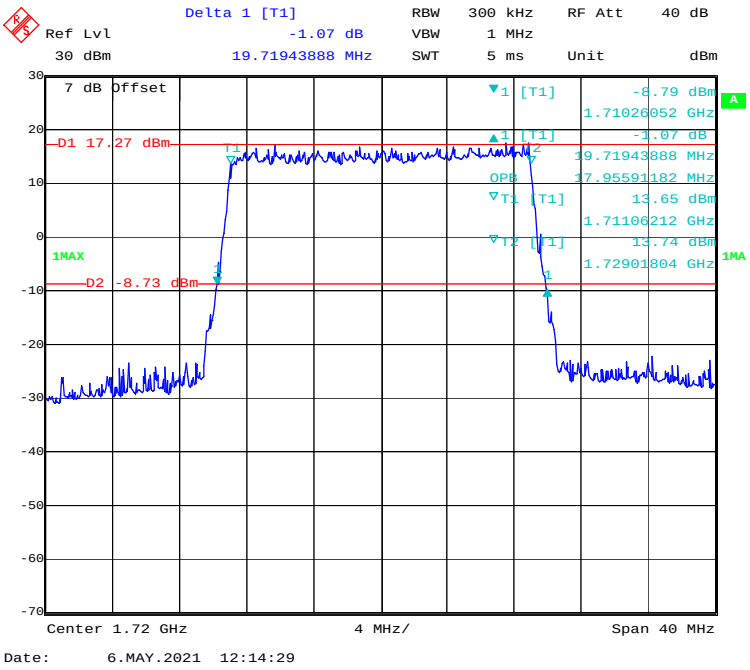
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



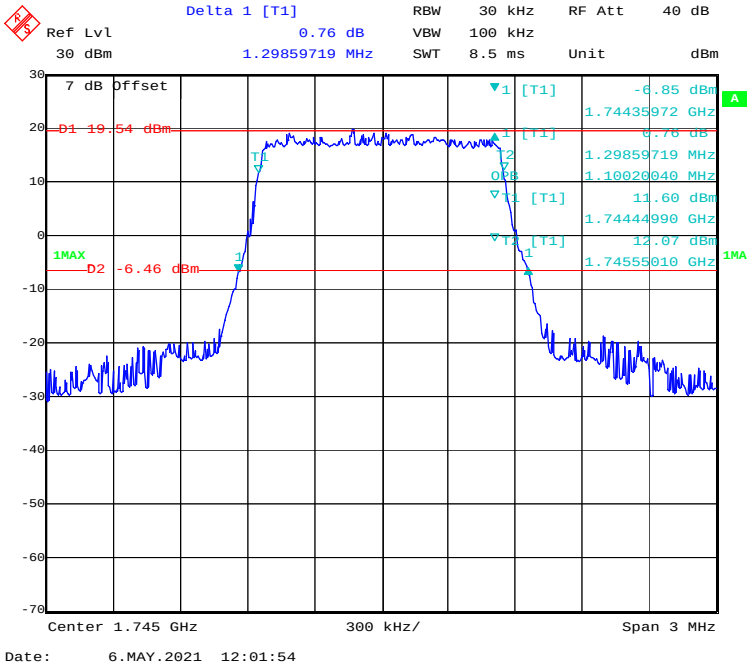
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



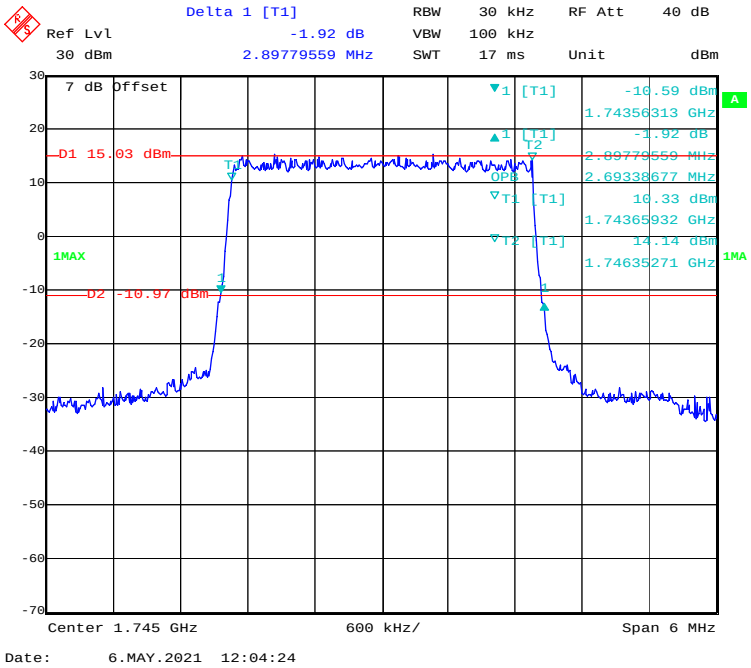
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



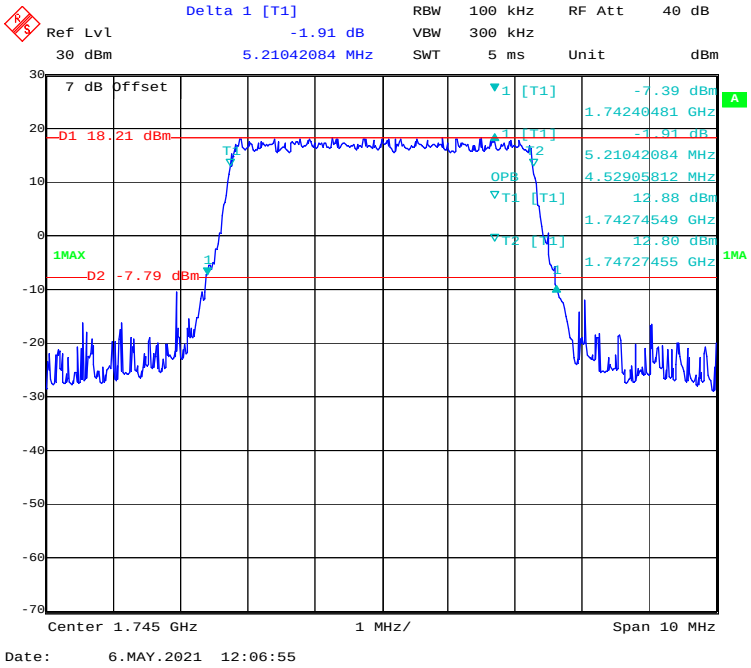
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



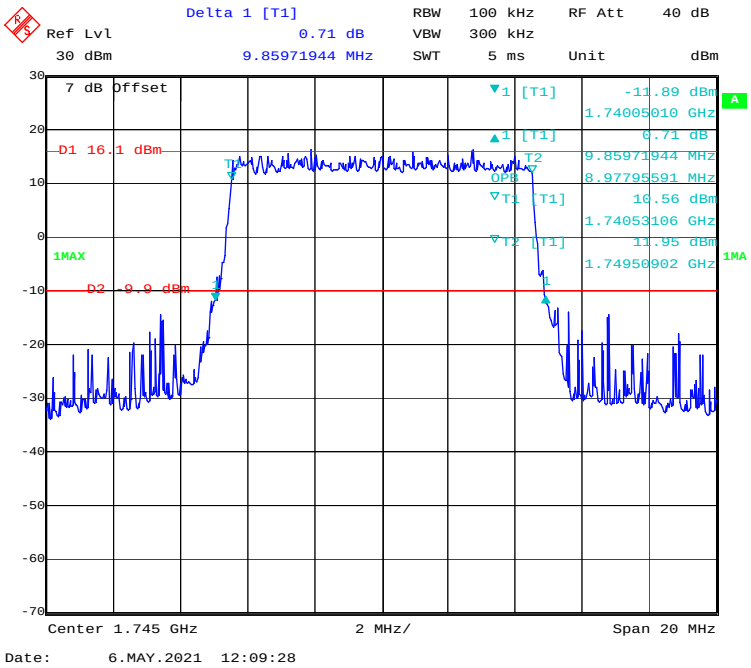
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



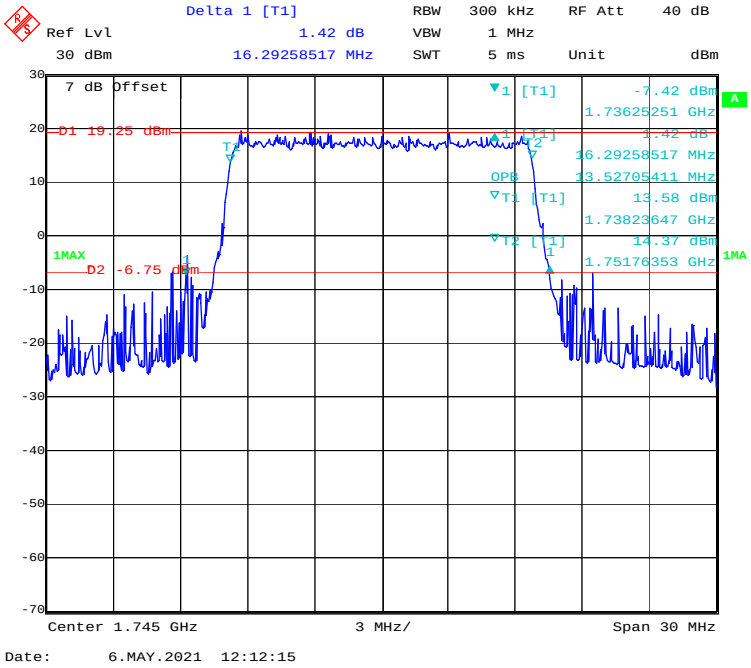
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



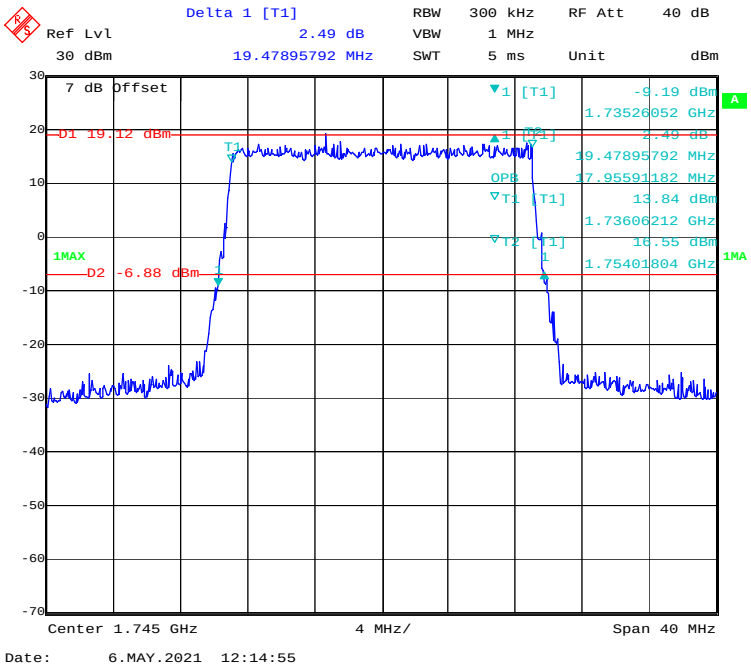
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



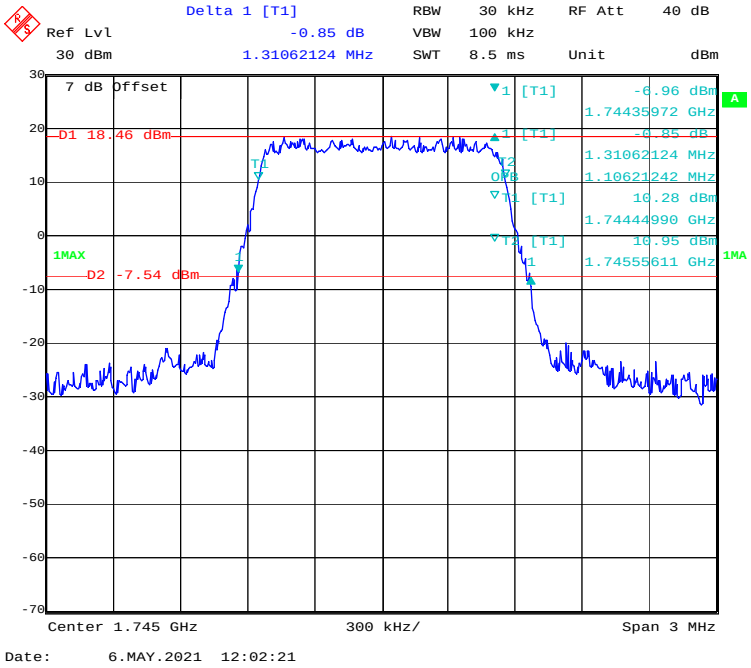
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



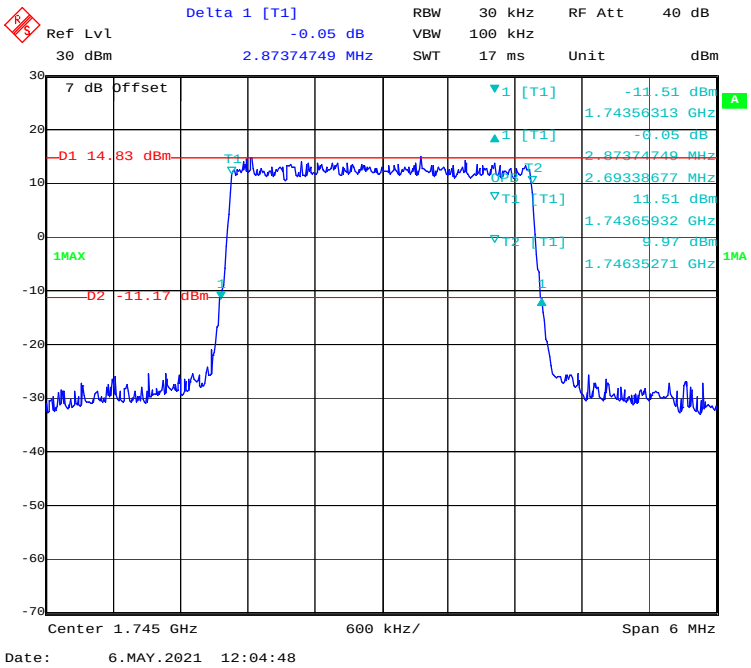
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



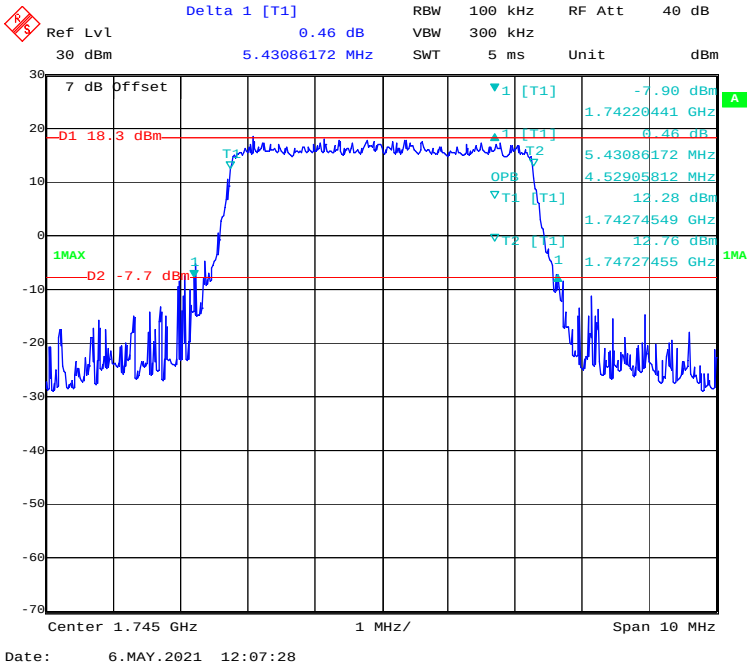
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



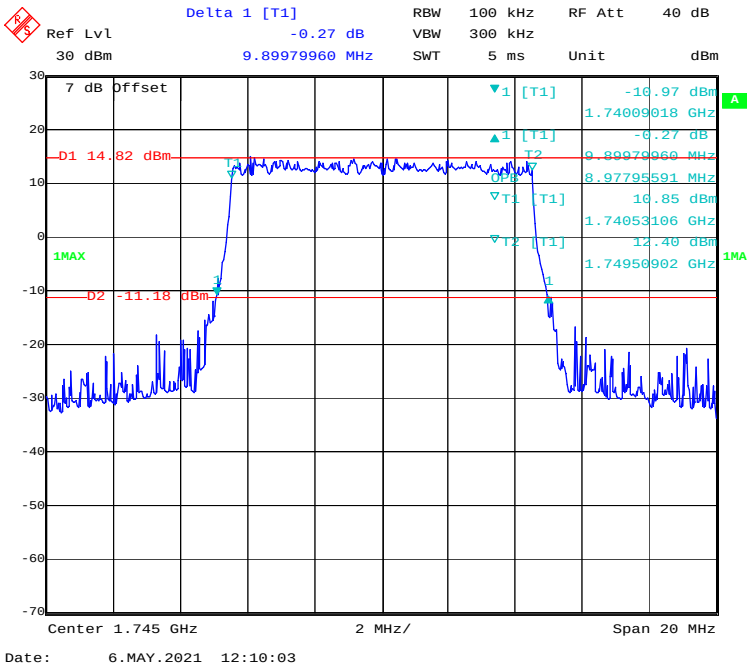
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



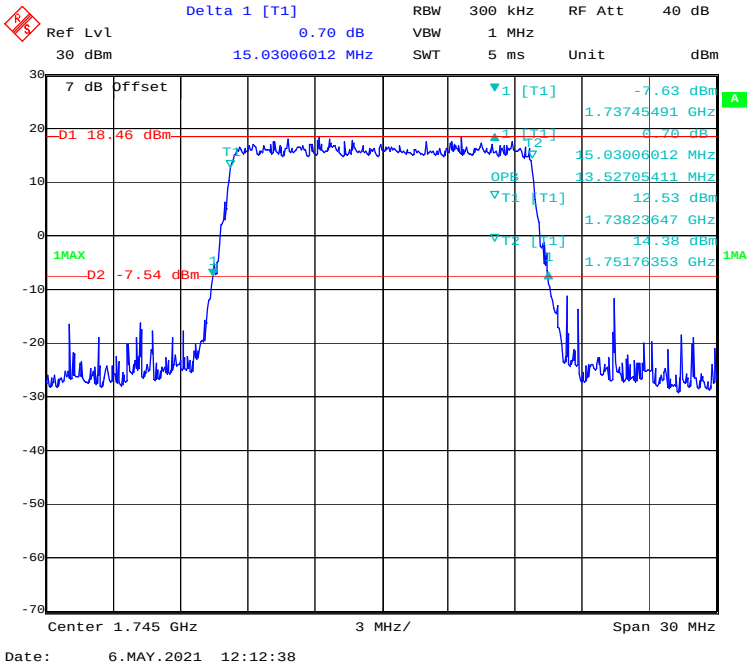
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



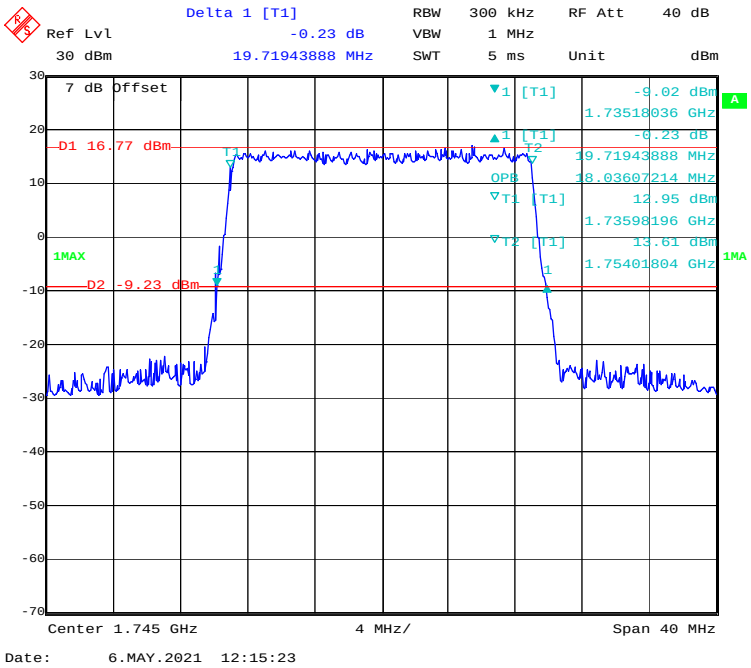
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



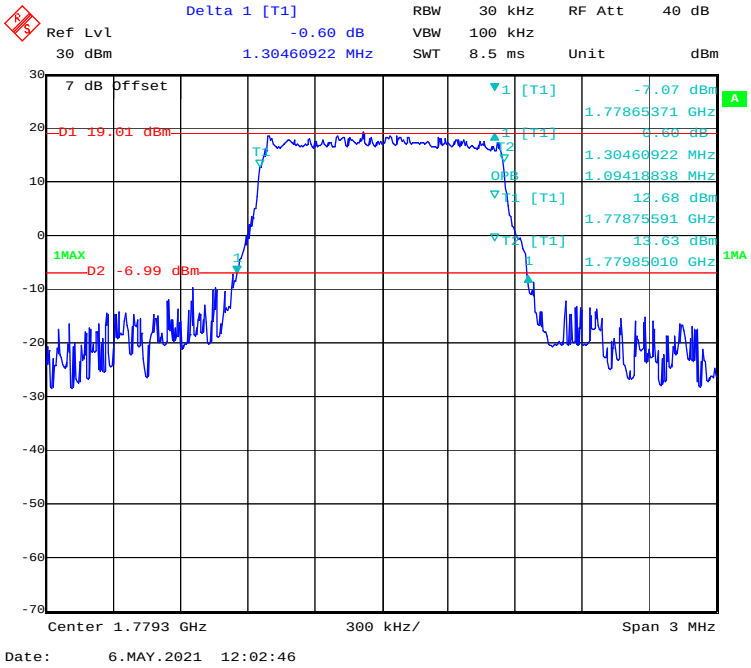
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



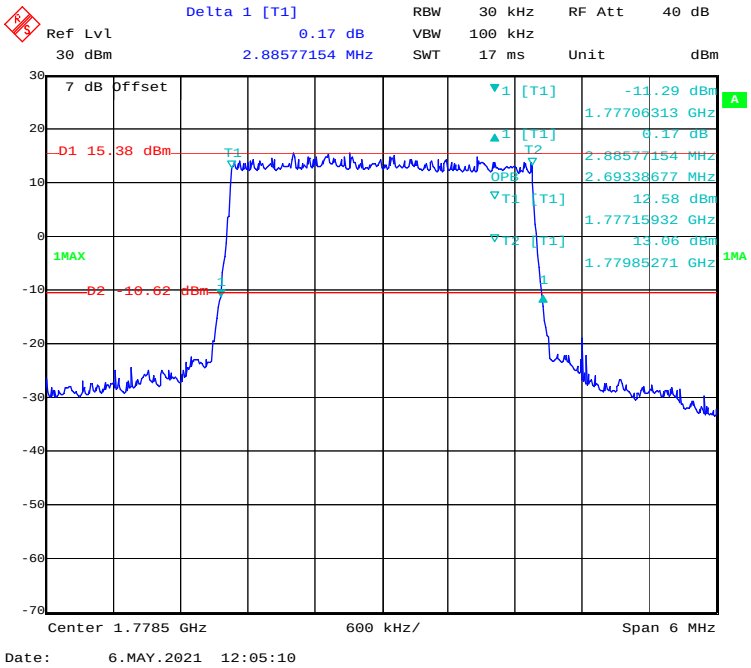
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



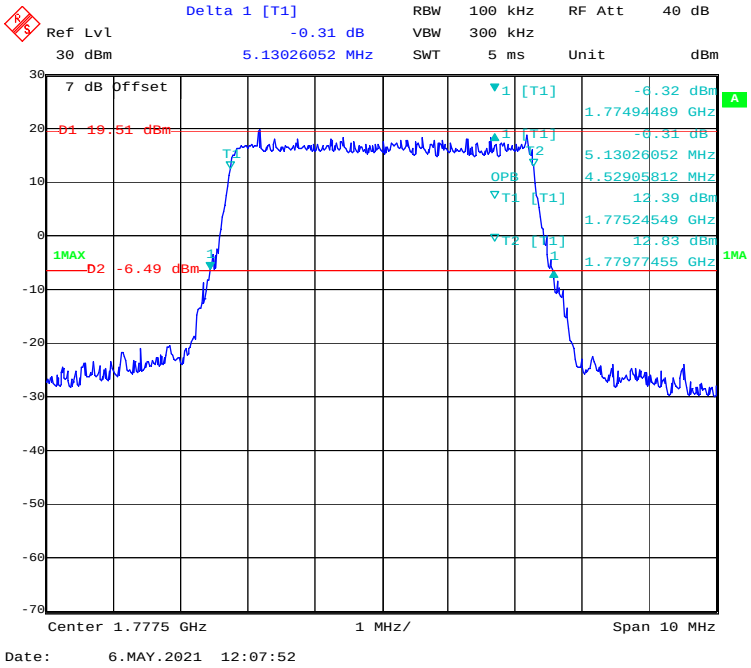
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



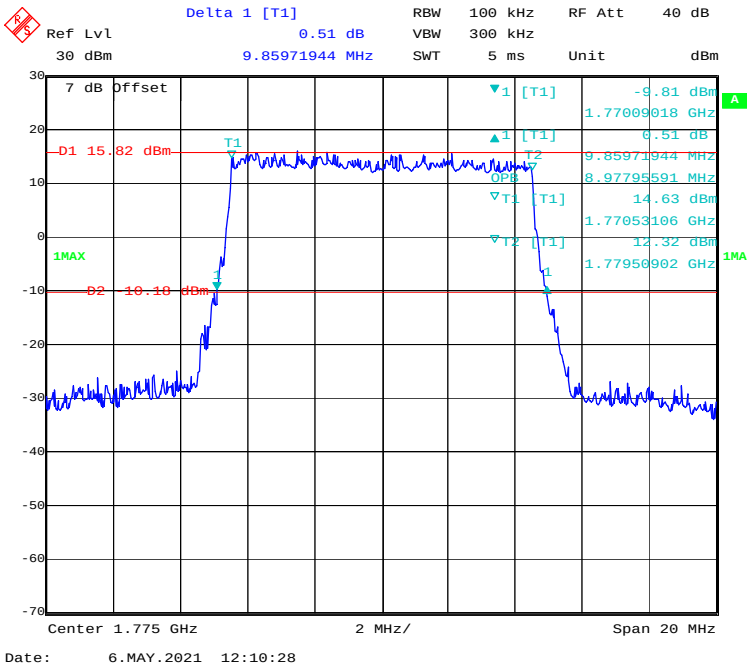
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



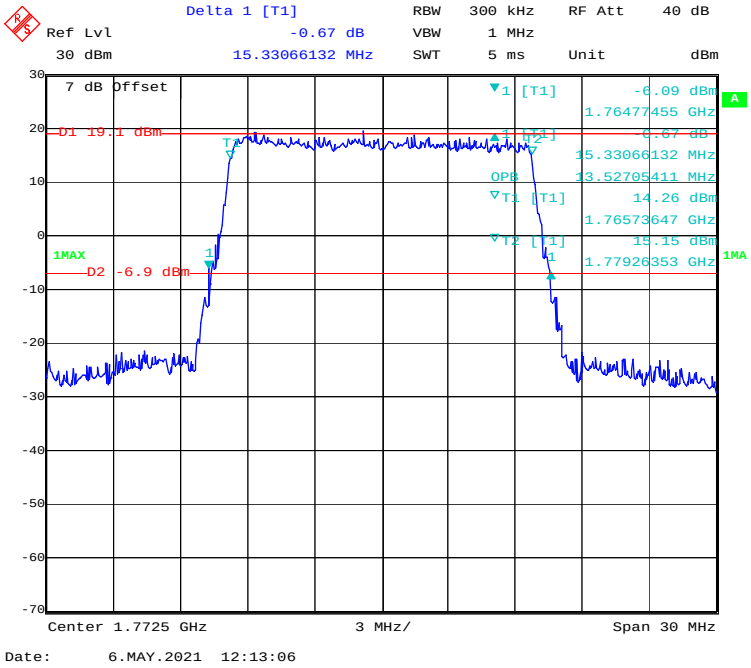
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



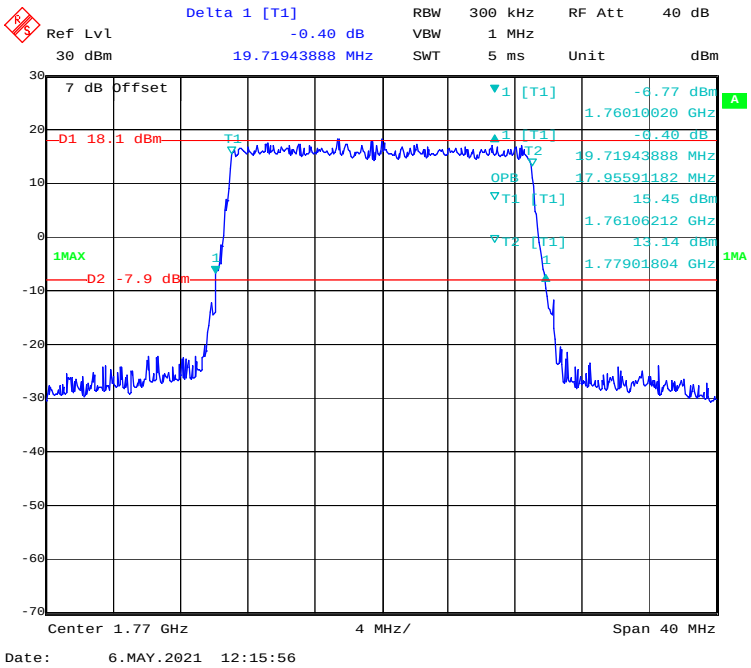
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



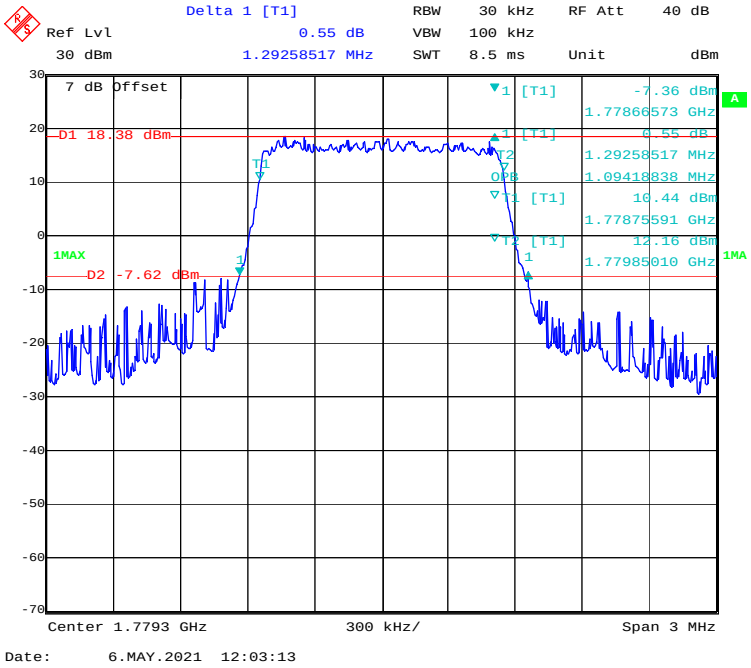
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



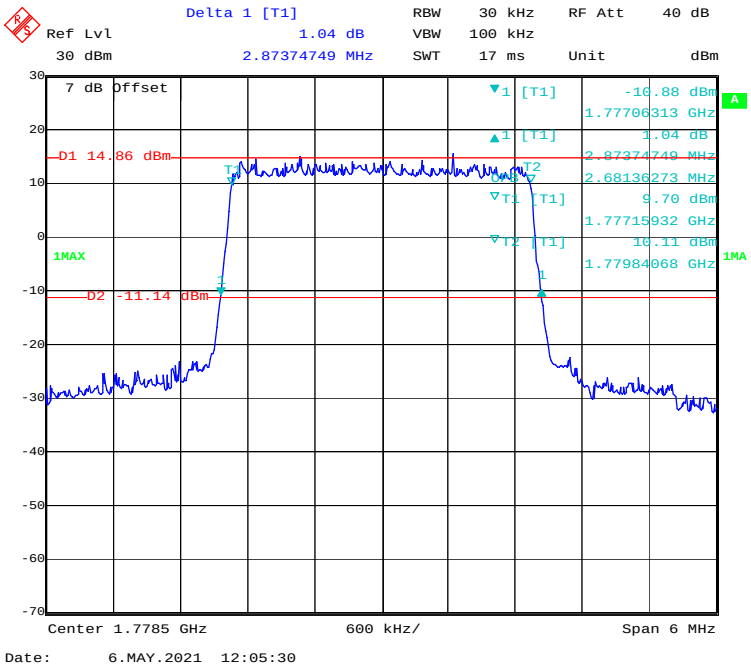
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



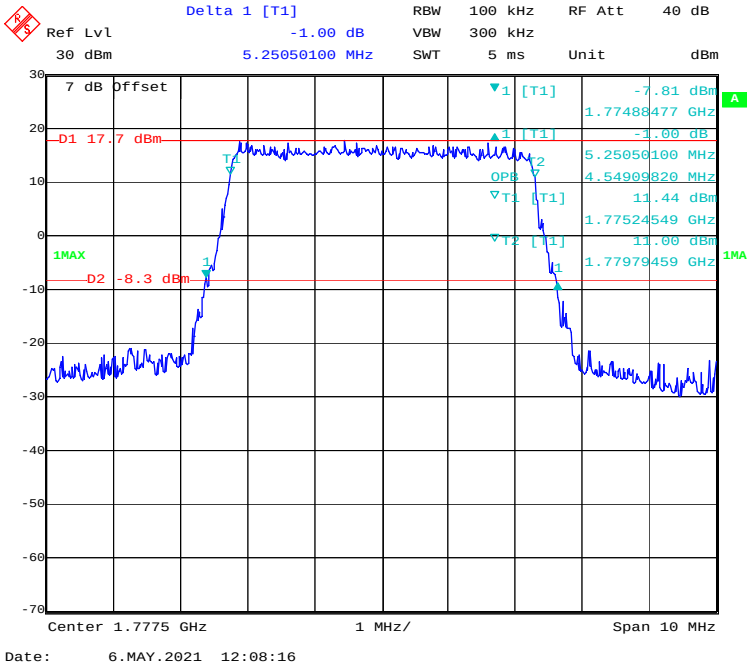
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



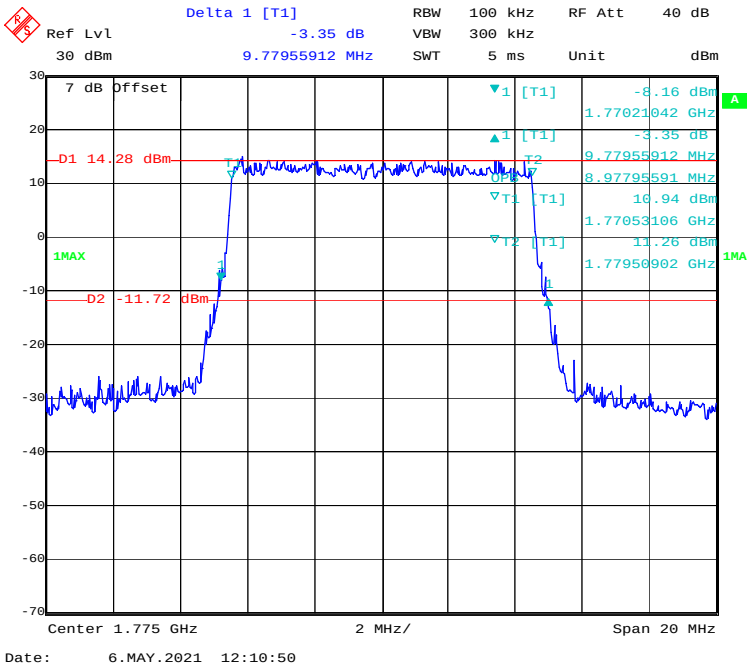
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



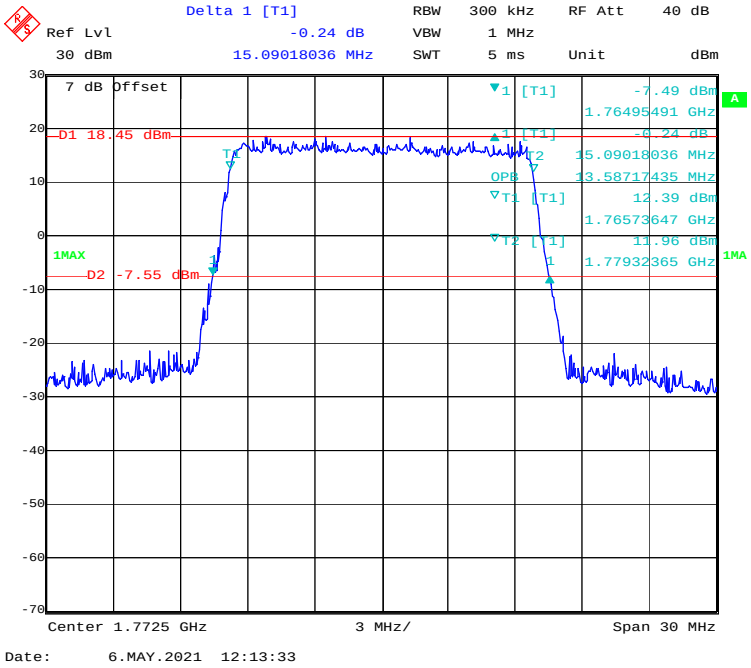
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



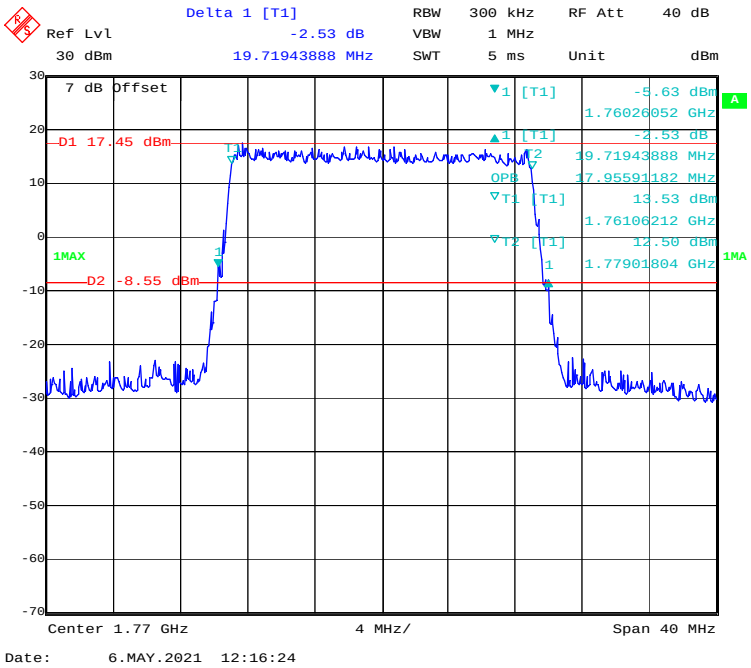
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



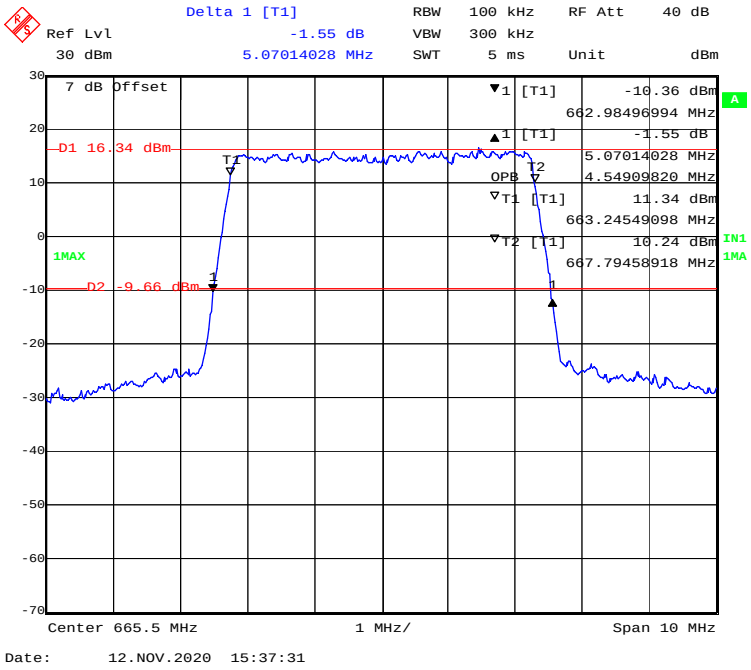
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



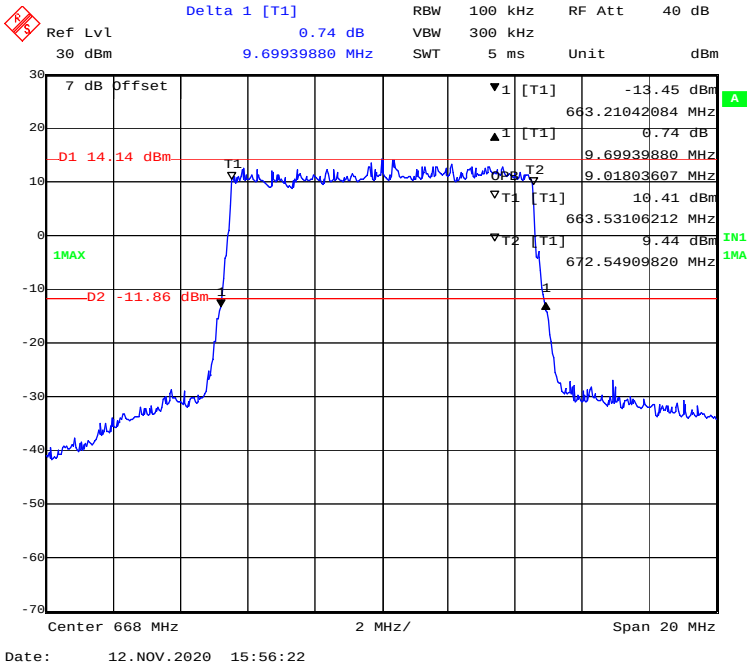
LTE Band 71:

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	5M	Low	5.070	4.549
	10M		9.699	9.018
	15M		14.910	13.527
	20M		19.639	17.956
	5M	Middle	5.030	4.549
	10M		9.820	8.978
	15M		15.030	13.587
	20M		19.559	17.956
	5M	High	5.030	4.529
	10M		9.780	8.978
	15M		14.850	13.467
	20M		19.479	17.876
16-QAM	5M	Low	5.070	4.549
	10M		9.739	8.978
	15M		14.910	13.527
	20M		19.639	17.956
	5M	Middle	5.010	4.549
	10M		9.780	8.978
	15M		15.030	13.587
	20M		19.639	17.956
	5M	High	5.030	4.509
	10M		9.820	8.978
	15M		14.850	13.527
	20M		19.399	17.956

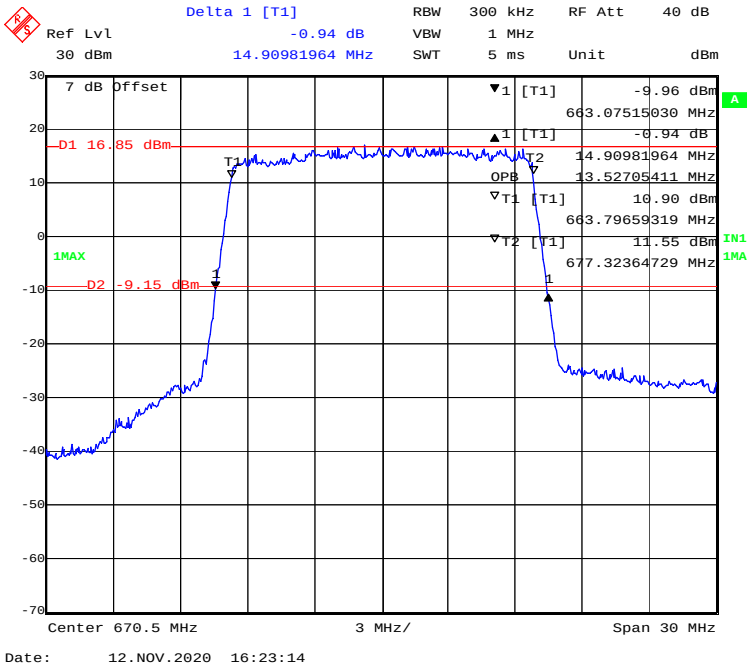
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



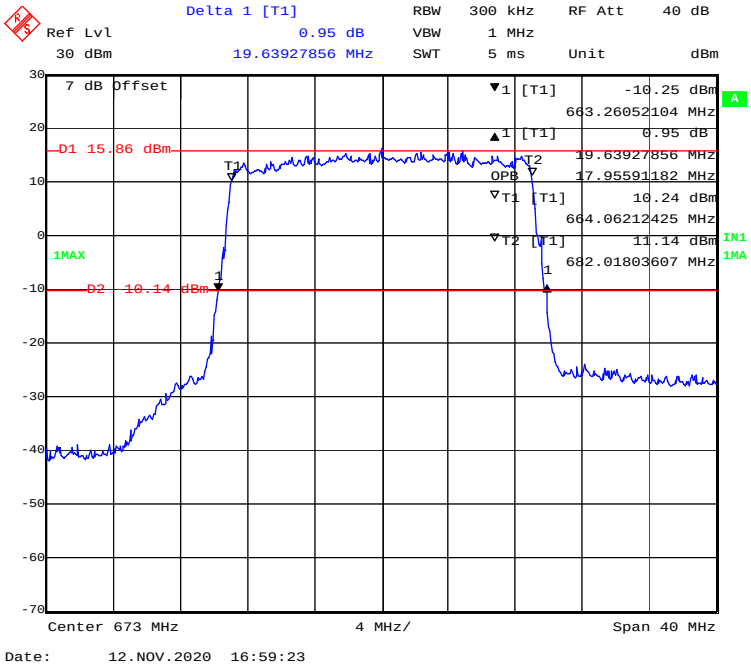
QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



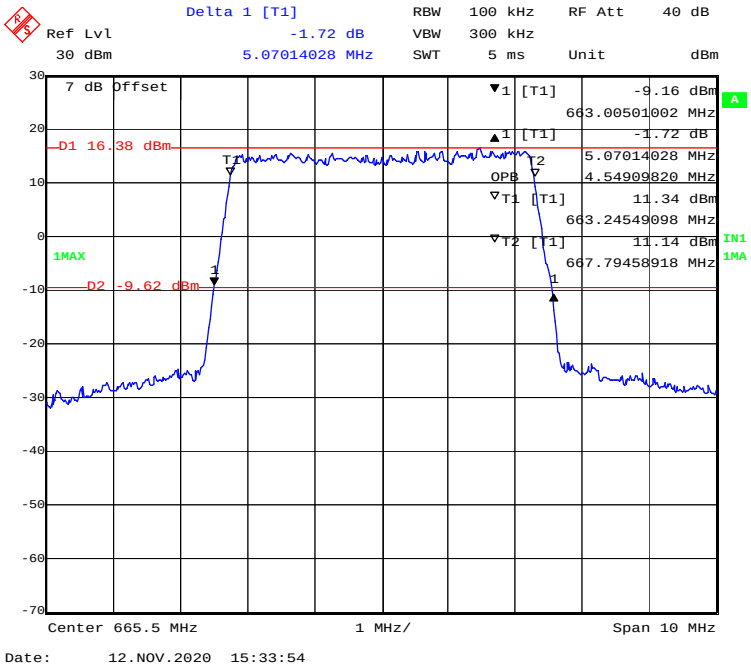
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



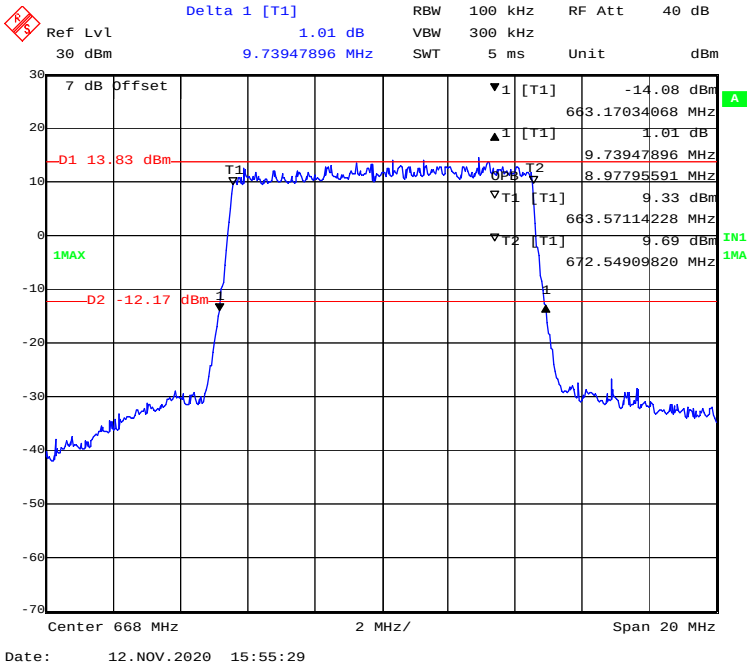
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



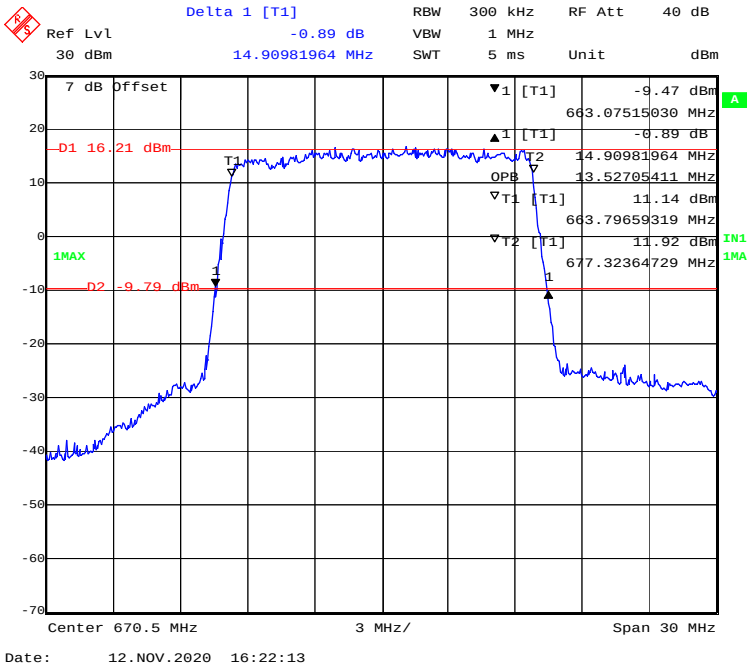
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



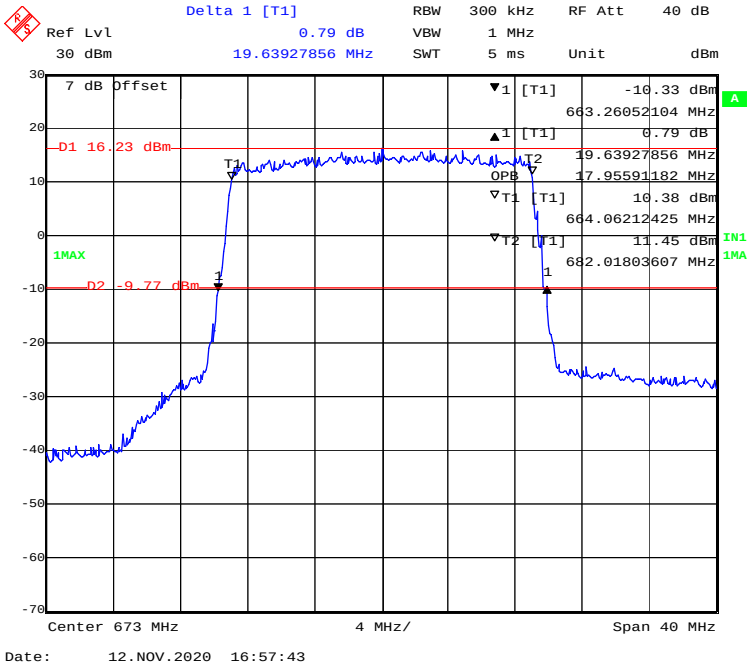
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



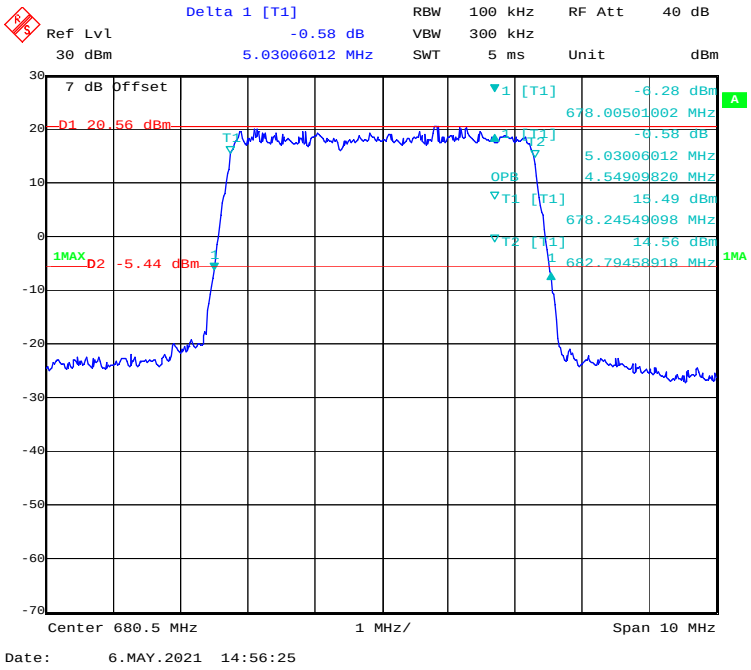
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



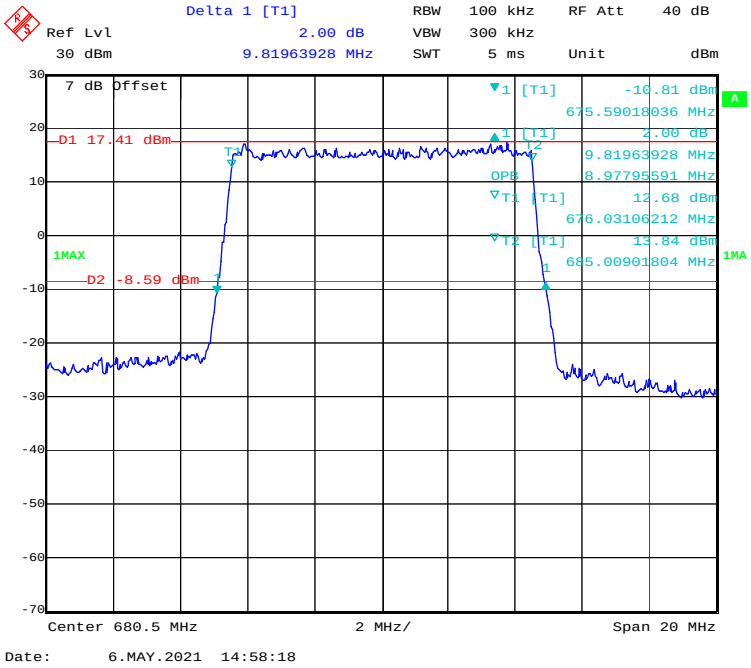
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



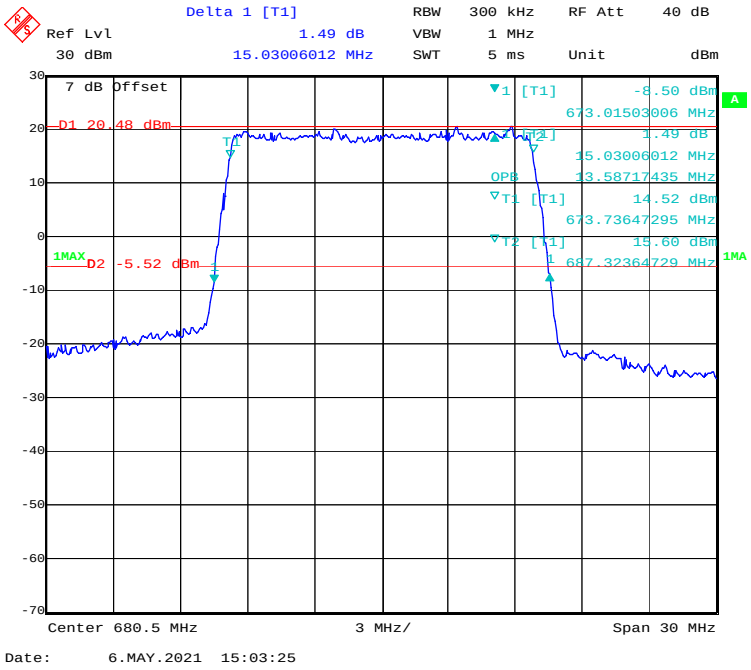
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



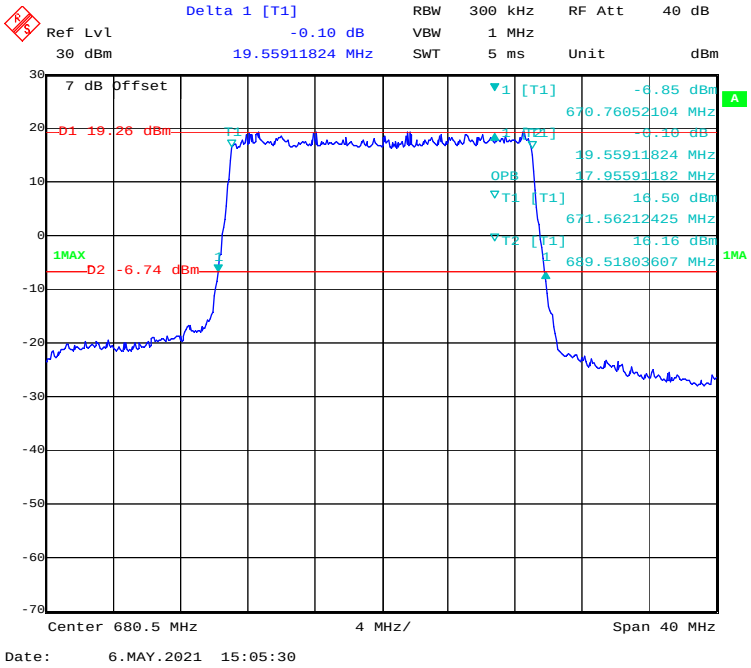
QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



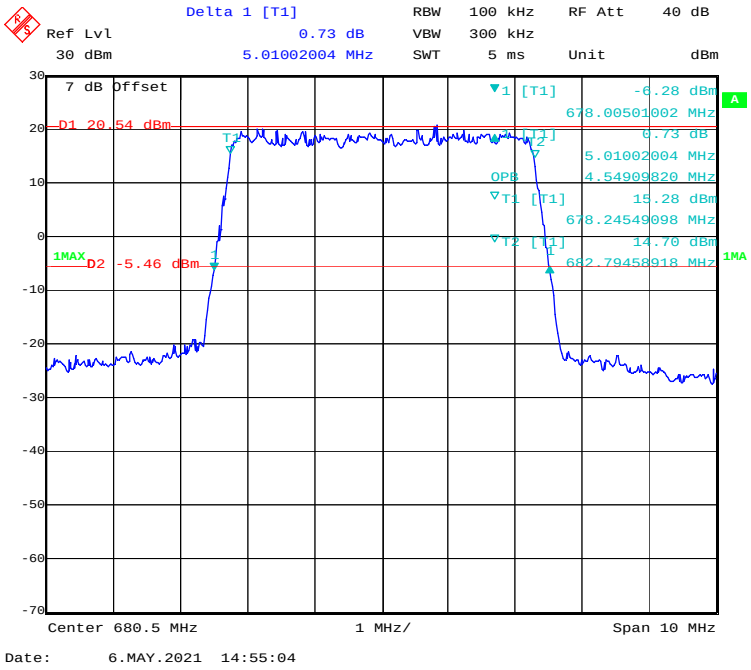
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



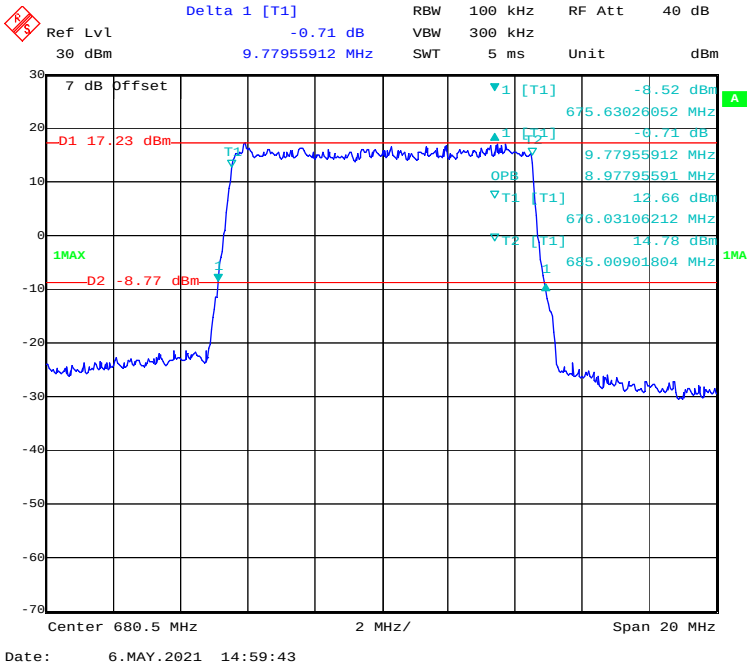
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



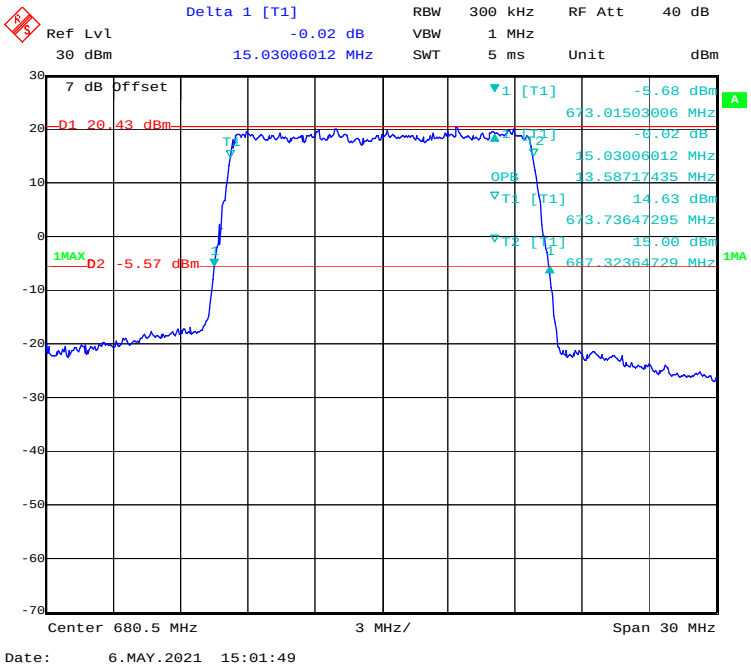
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



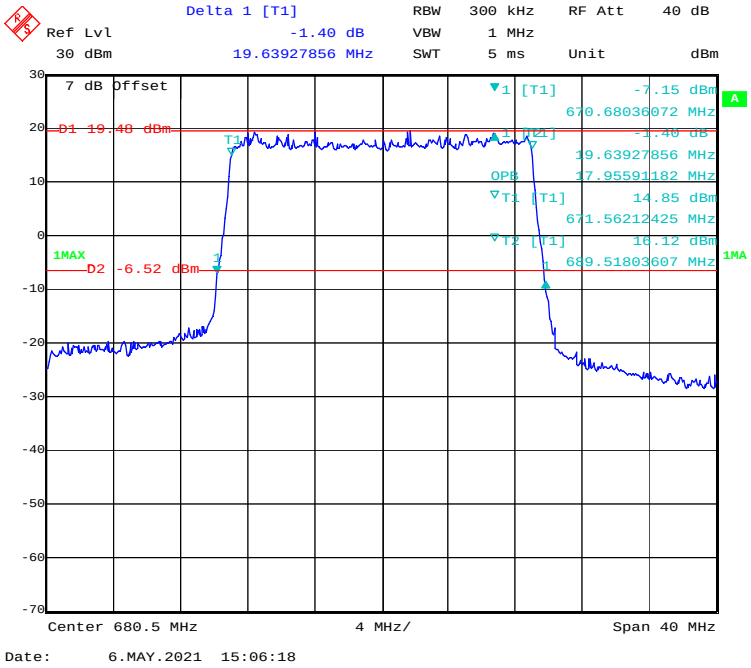
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



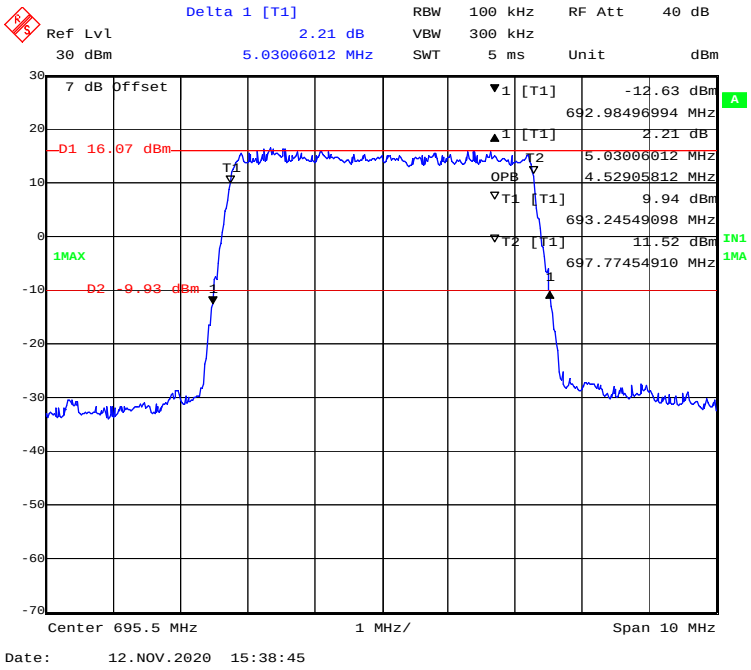
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



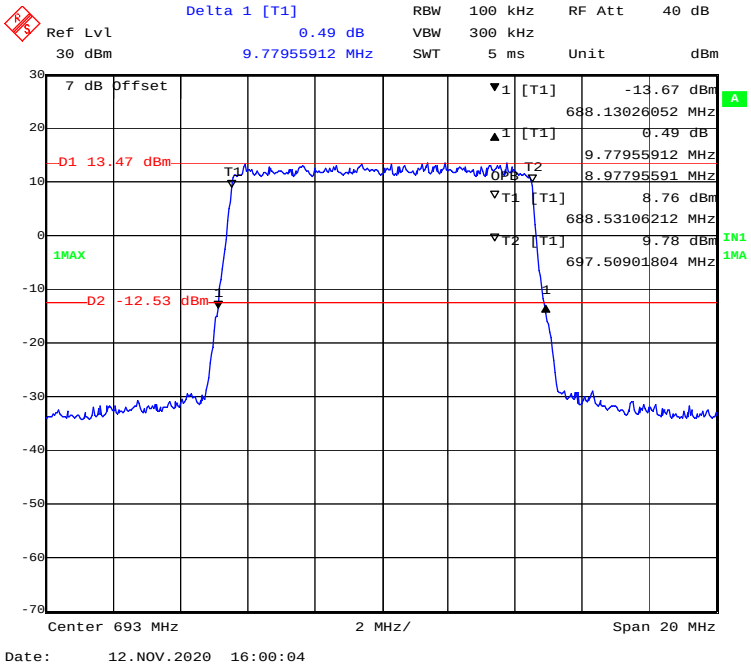
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



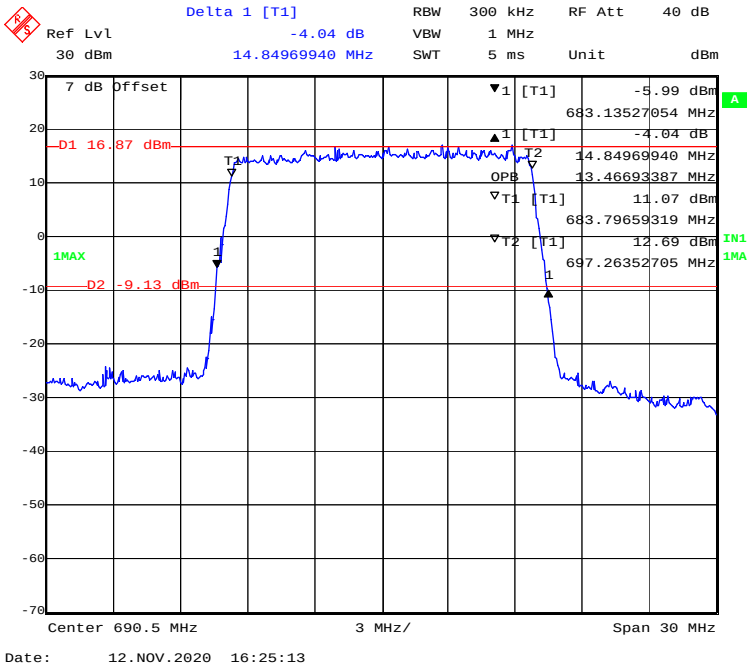
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



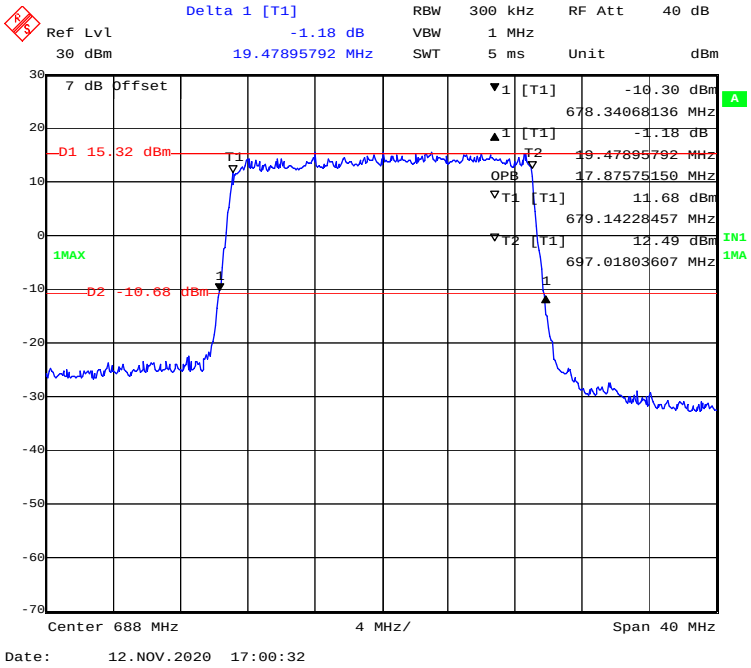
QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



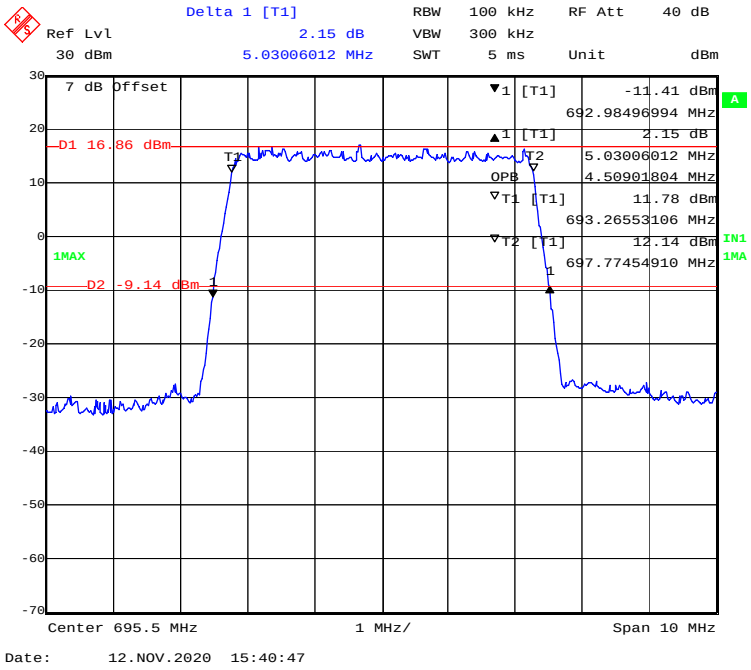
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



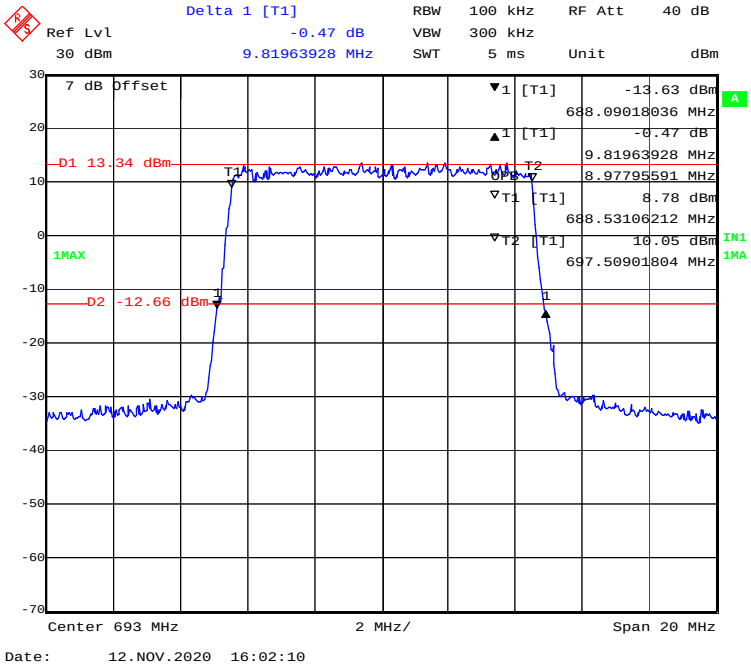
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



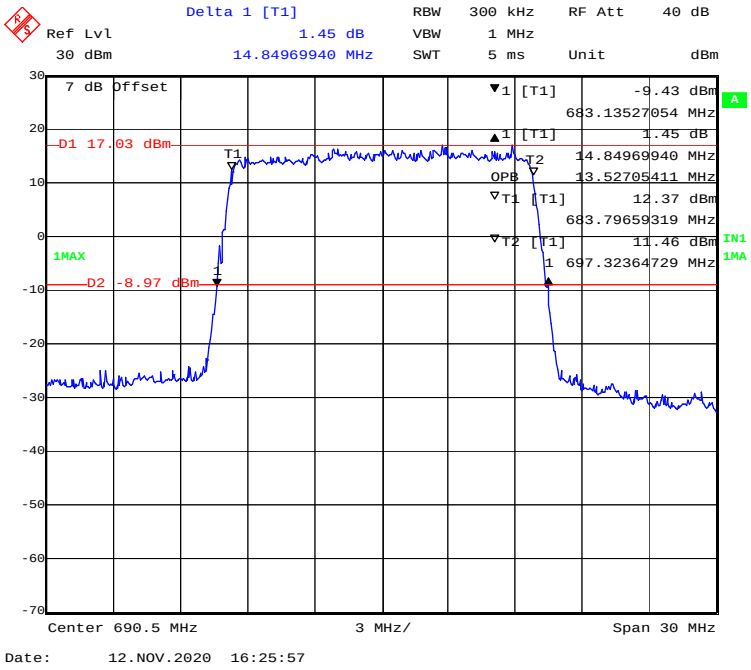
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



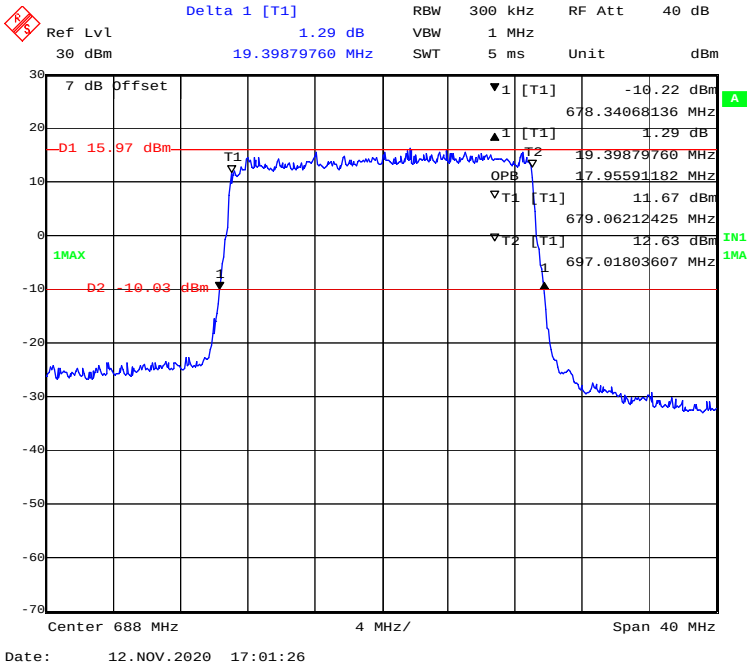
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



FCC § 2.1051; § 22.917 (a); § 24.238 (a); §27.53 (c) (f) (g) (h) (m); § 90.691; § 90.543 - SPURIOUS EMISSIONS AT ANTENNA TERMINALS

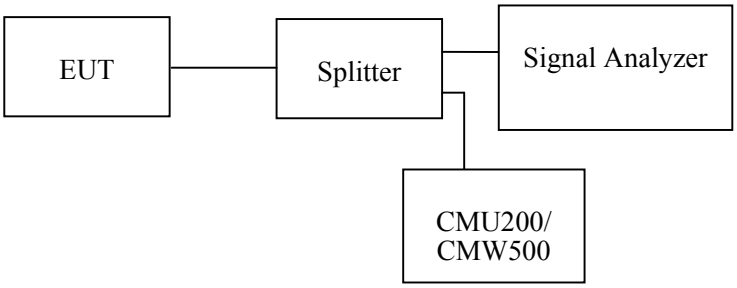
Applicable Standards

FCC § 2.1051, § 22.917(a), §24.238(a), § 27.53 (c) (f) (g) (h) (m), § 90.691 and § 90.543

The spectrum was to be investigated to the tenth harmonics of the highest fundamental frequency as specified in § 2.1051.

Test Procedure

The RF output of the transceiver was connected to a spectrum analyzer and simulator through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 100 kHz for below 1GHz & 1MHz for above 1GHz. sufficient scans were taken to show any out of band emissions up to 10th harmonic.



Test Data

Environmental Conditions

Temperature:	23.5~24.9 ℃
Relative Humidity:	50~52 %
ATM Pressure:	100.7~101.9 kPa

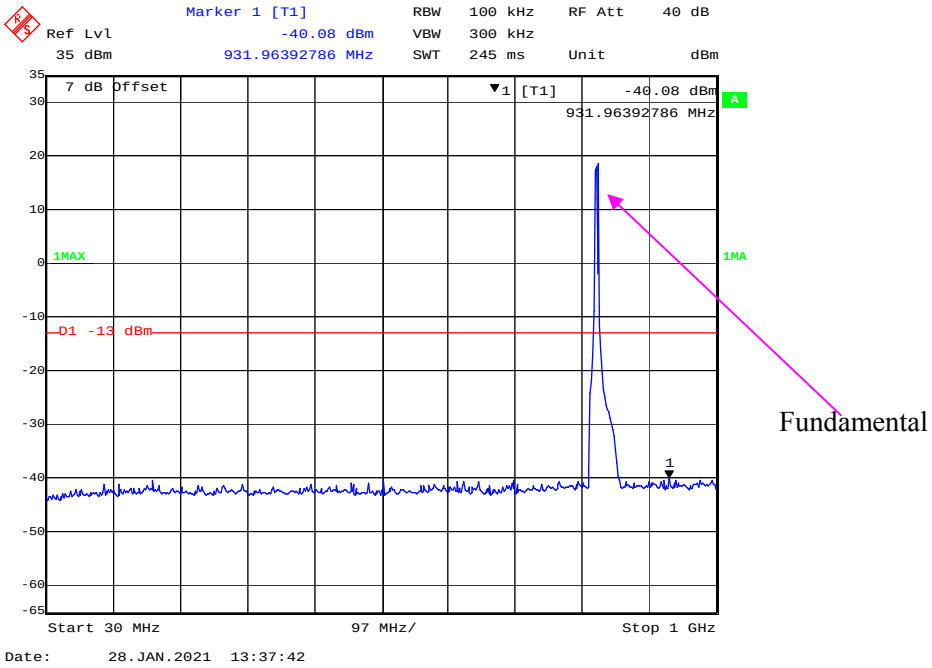
The testing was performed by Stone Zhang from 2020-08-23 to 2021-05-06.

EUT operation mode: Transmitting

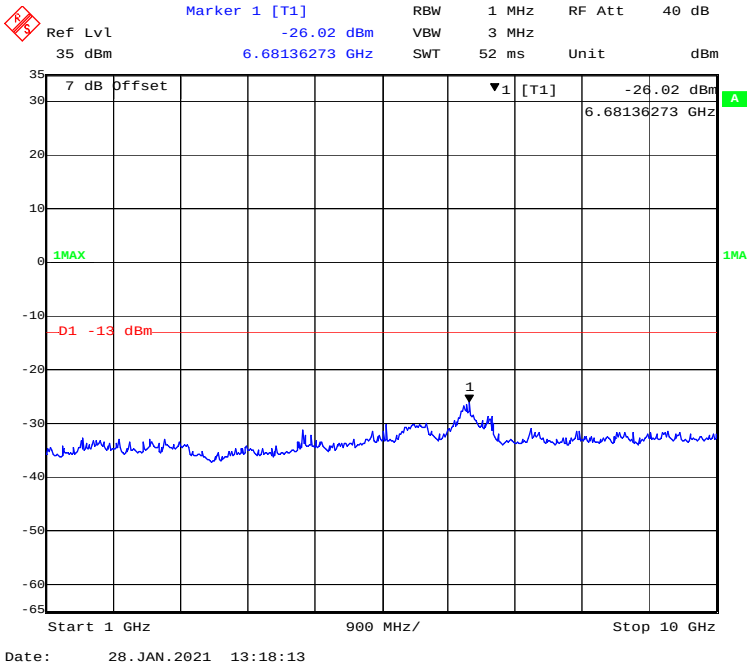
Test Result: Compliant.

WCDMA Band V:

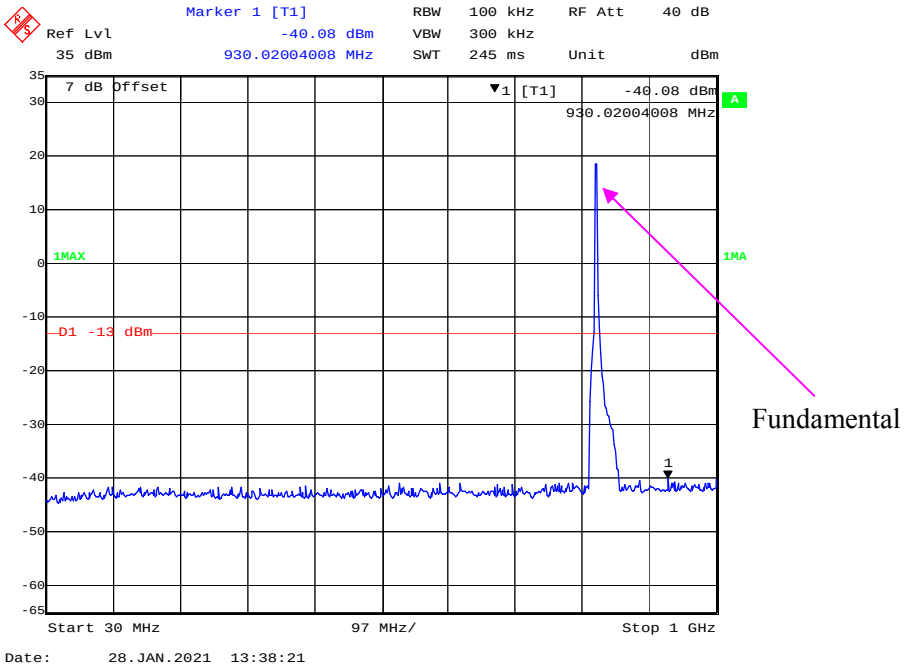
30 MHz – 1GHz WCDMA (Rel 99) Mode Low Channel



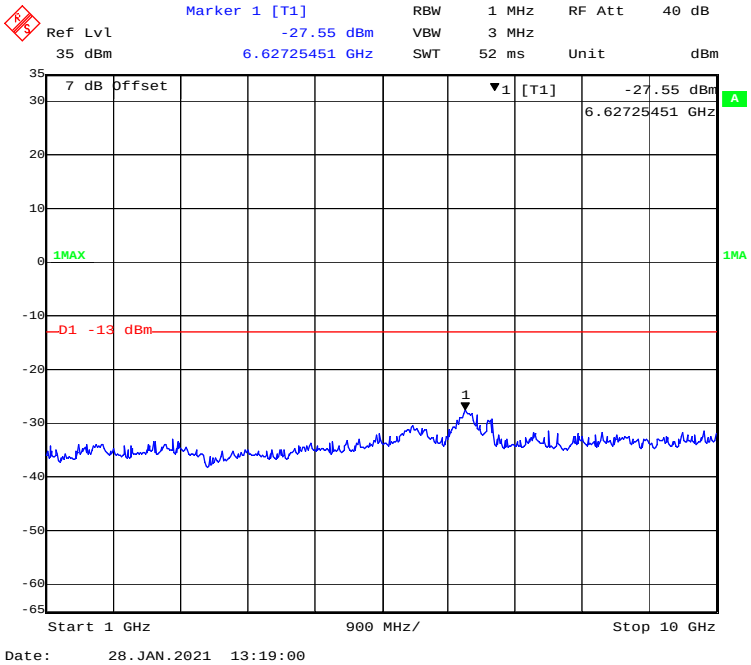
1 GHz – 10 GHz WCDMA (Rel 99) Mode Low Channel



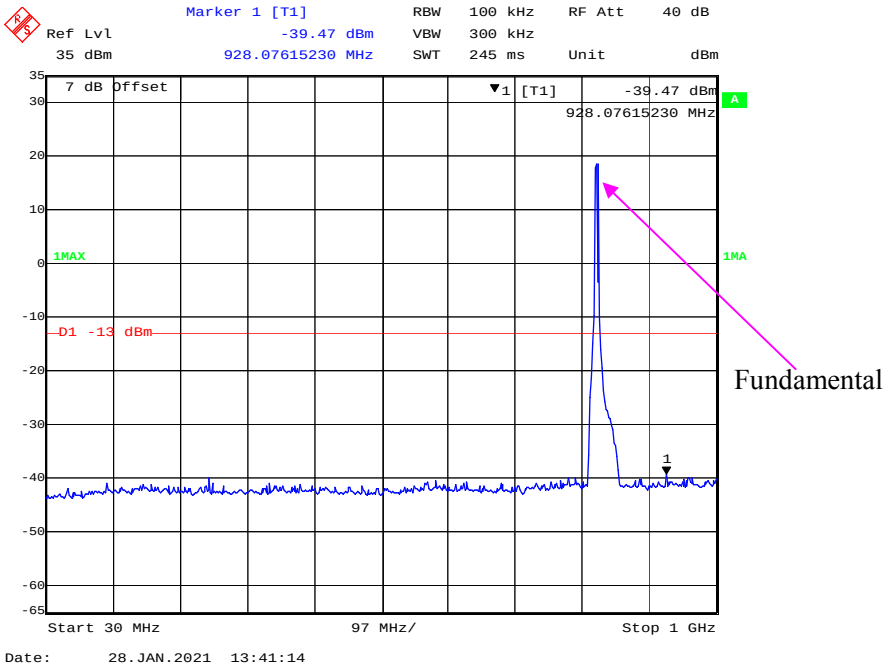
30 MHz – 1GHz WCDMA (HSDPA) Mode Low Channel



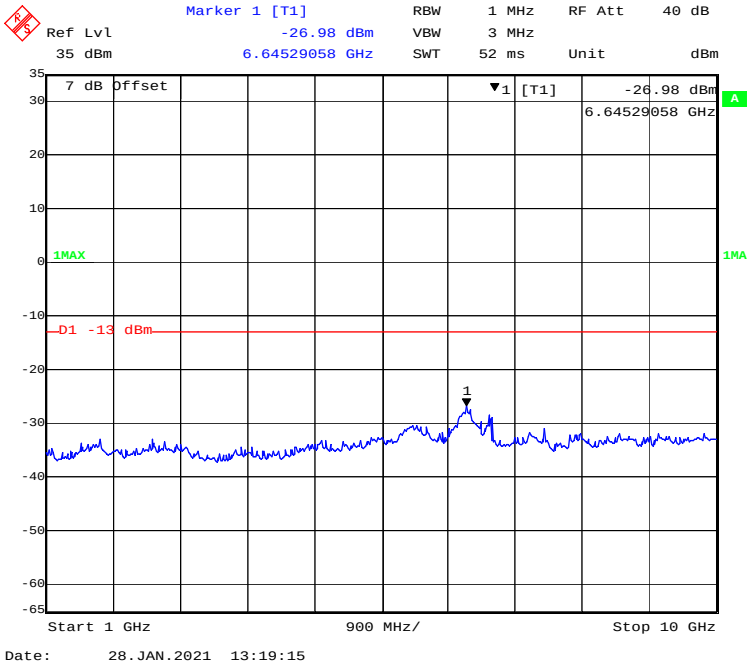
1 GHz – 10 GHz WCDMA (HSDPA) Mode Low Channel



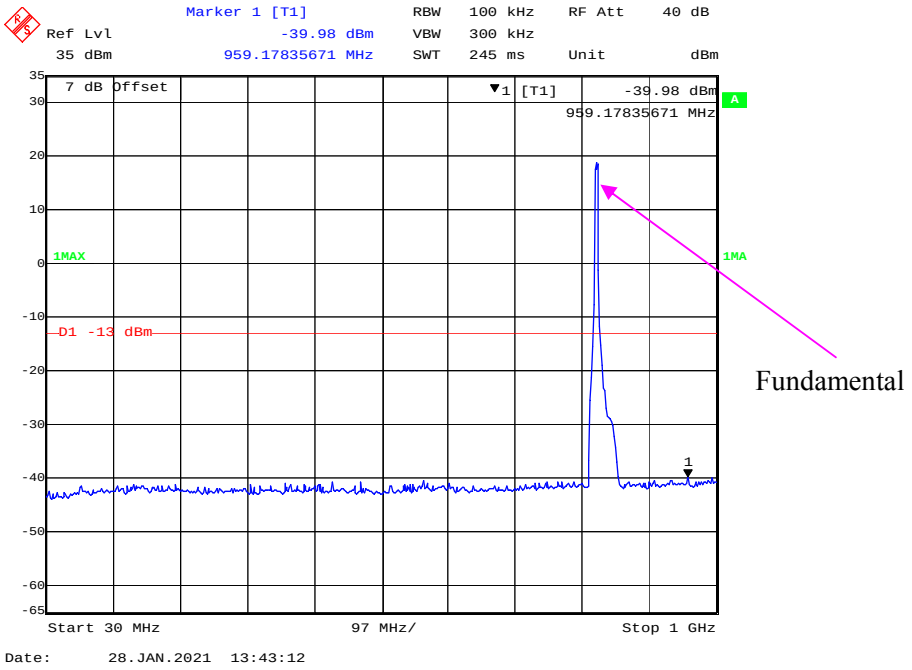
30 MHz – 1GHz WCDMA (HSUPA) Mode Low Channel



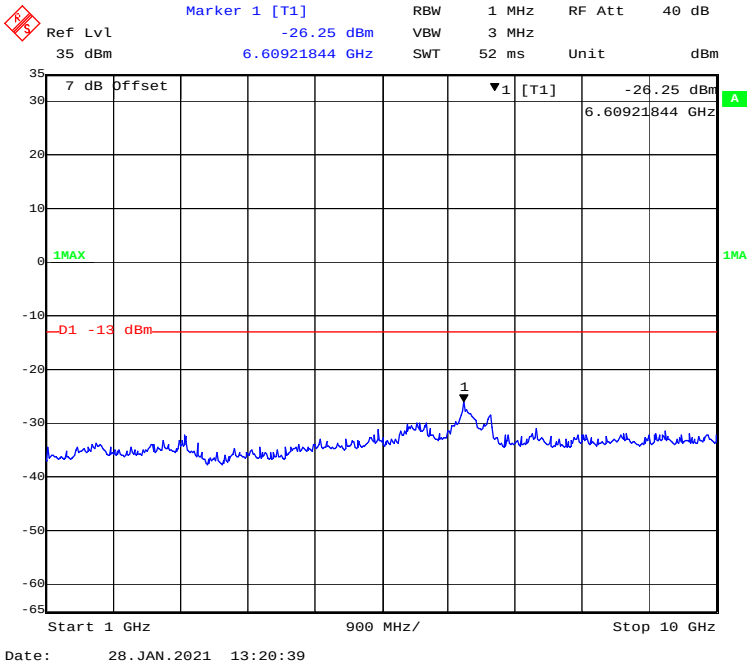
1 GHz – 10 GHz WCDMA (HSUPA) Mode Low Channel



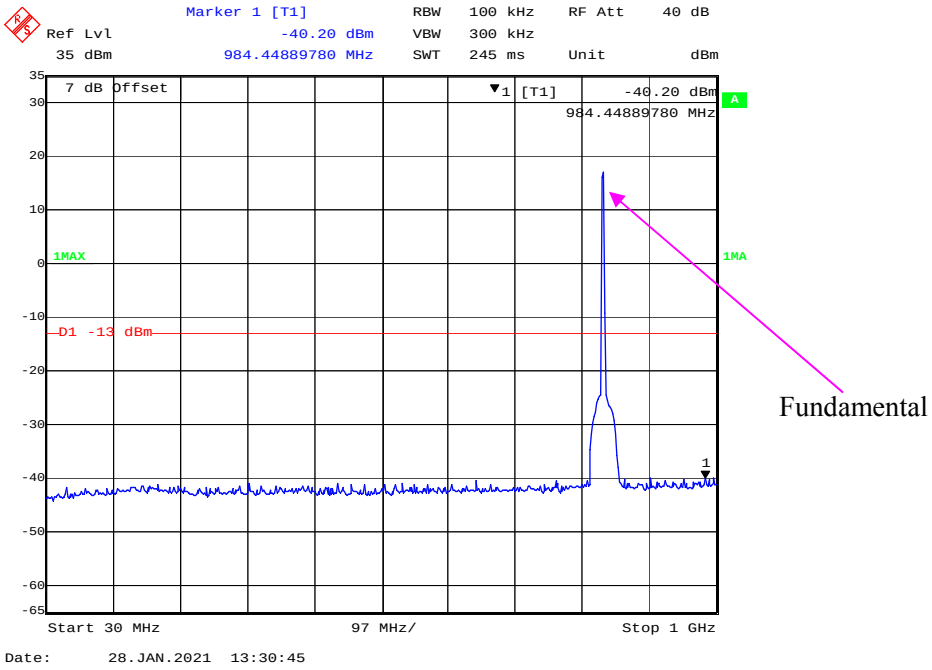
30 MHz – 1GHz WCDMA (HSPA+) Mode Low Channel



1 GHz – 10 GHz WCDMA (HSPA+) Mode Low Channel

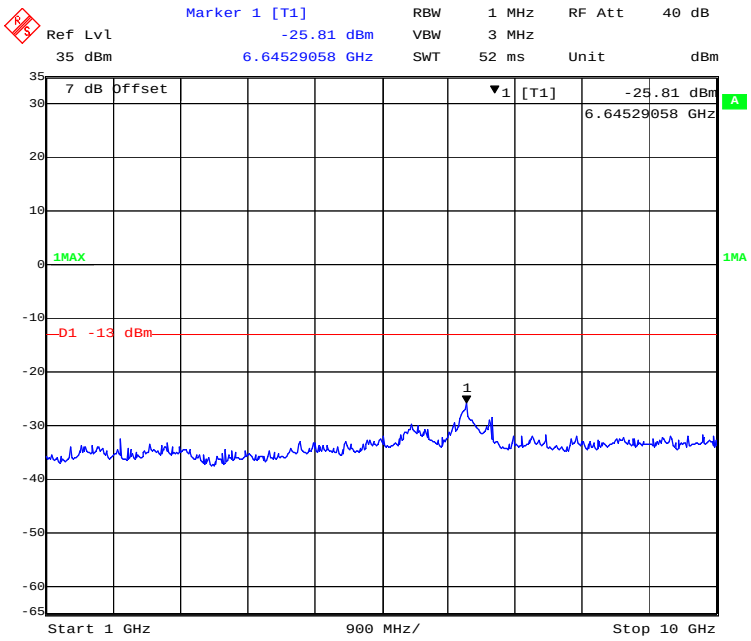


30 MHz – 1GHz WCDMA (Rel 99) Mode Middle Channel



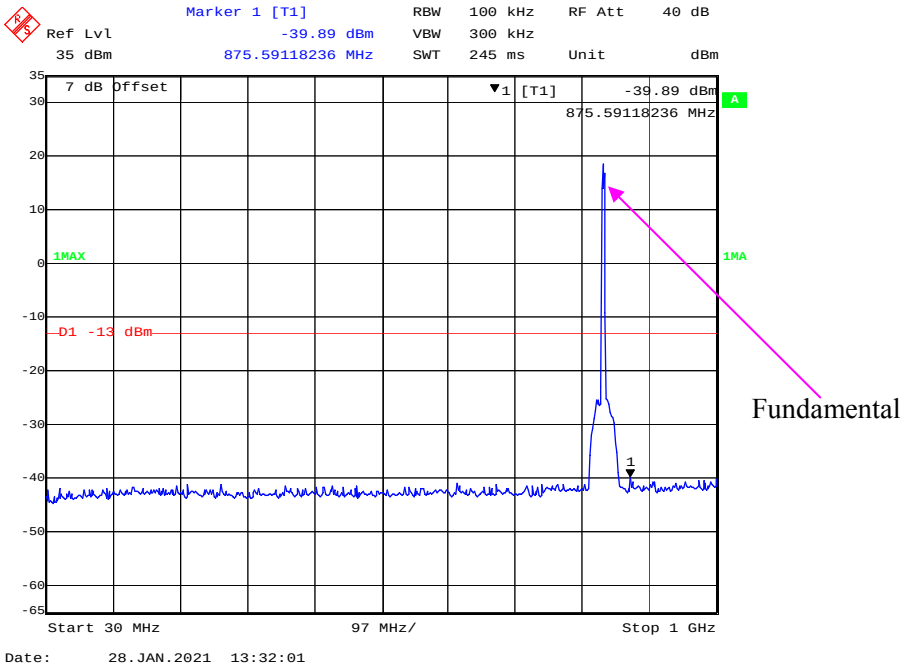
Date: 28.JAN.2021 13:30:45

1 GHz – 10 GHz WCDMA (Rel 99) Mode Middle Channel

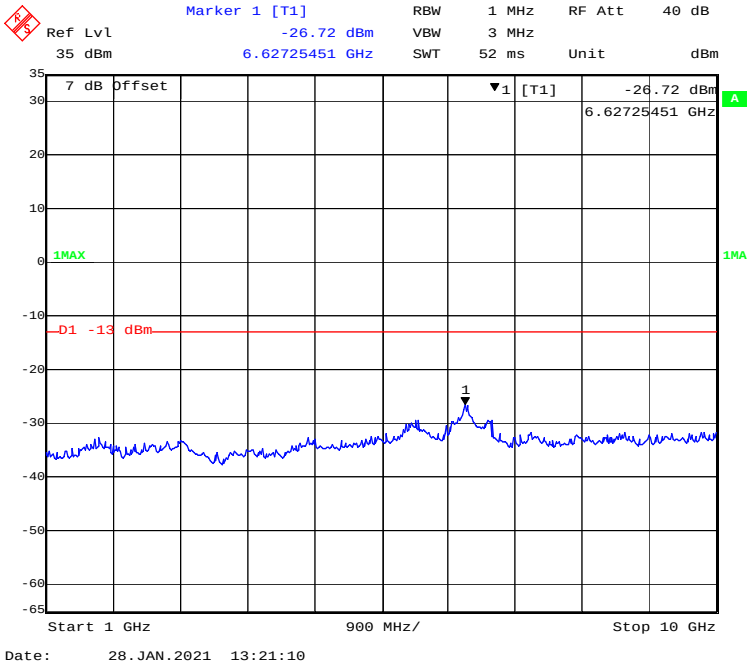


Date: 28.JAN.2021 13:20:53

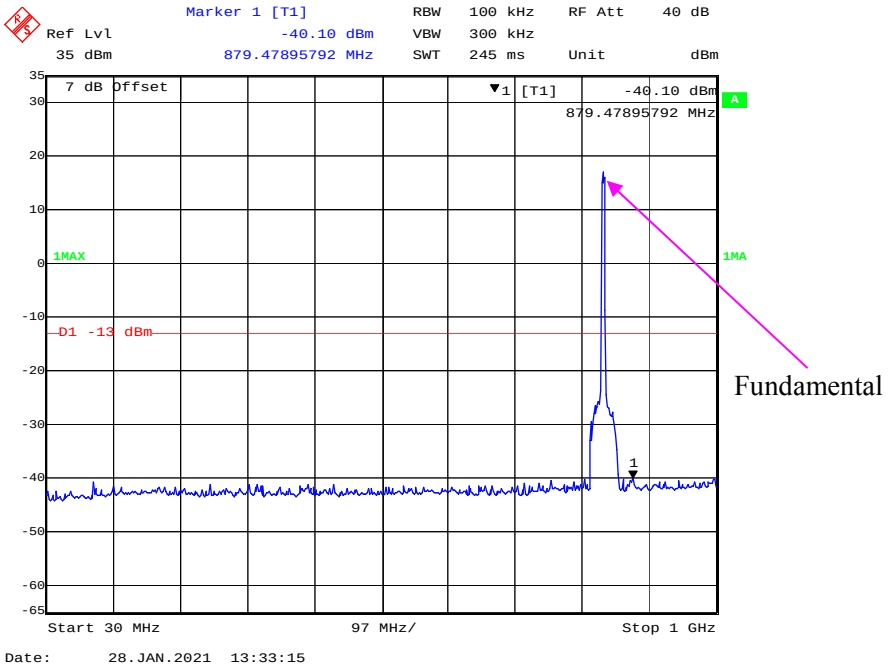
30 MHz – 1GHz WCDMA (HSDPA) Mode Middle Channel



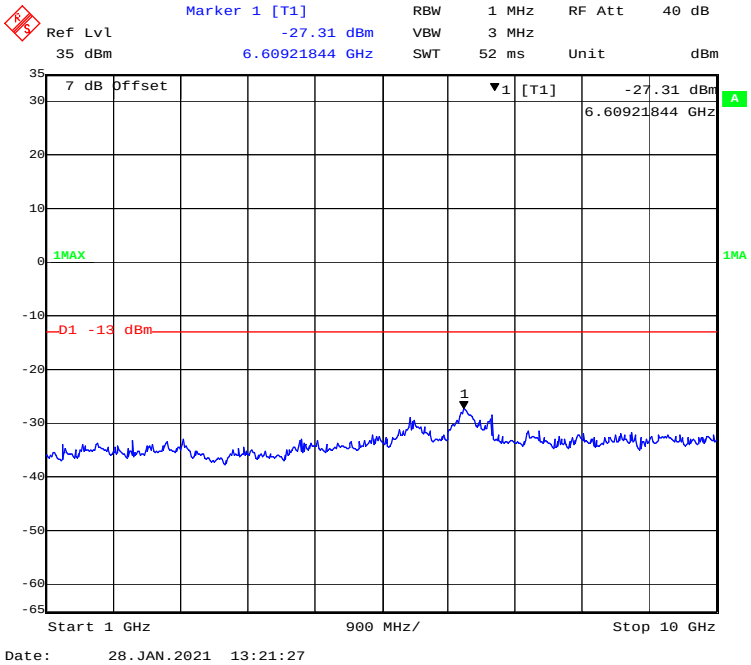
1 GHz – 10 GHz WCDMA (HSDPA) Mode Middle Channel



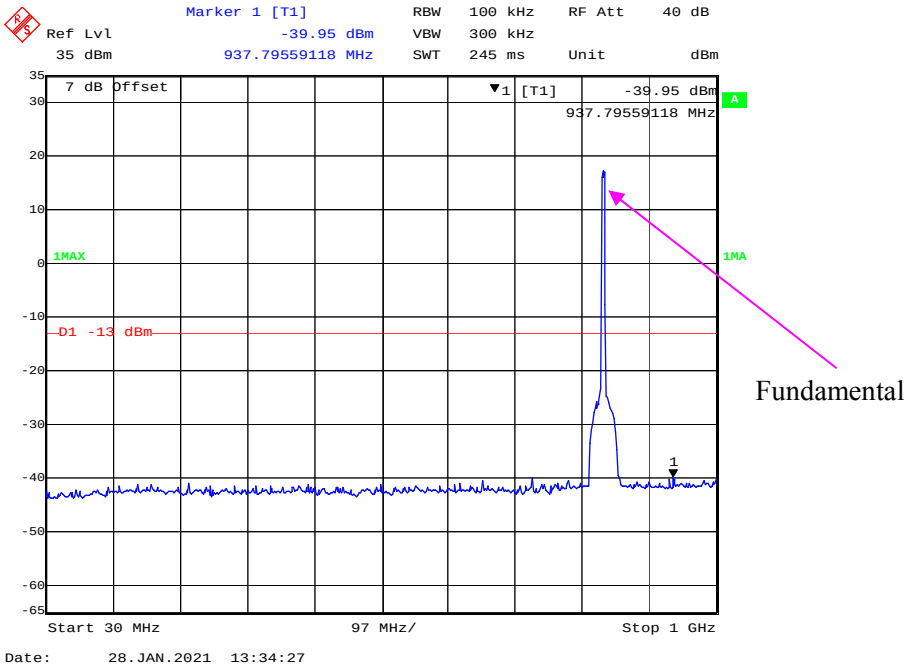
30 MHz – 1GHz WCDMA (HSUPA) Mode Middle Channel



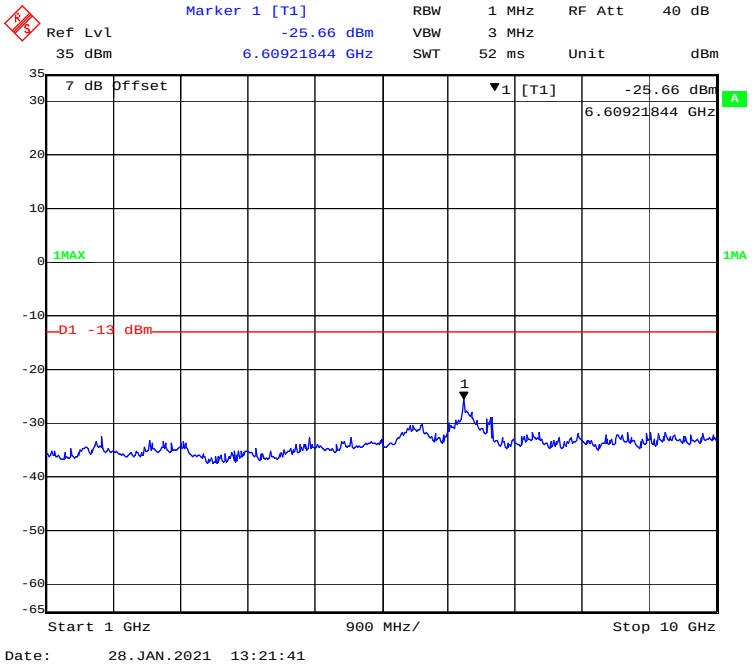
1 GHz – 10 GHz WCDMA (HSUPA) Mode Middle Channel



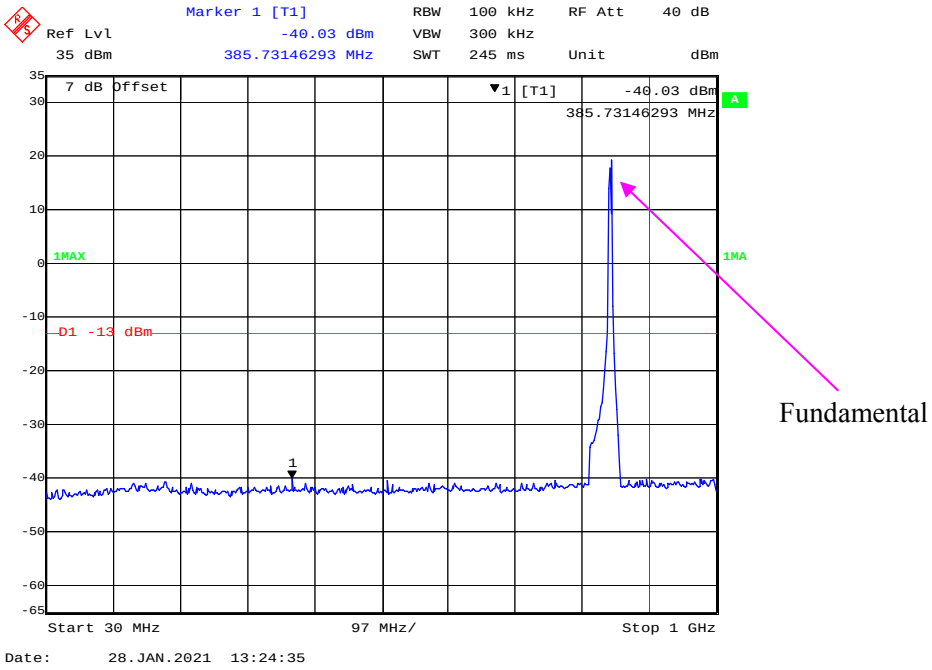
30 MHz – 1GHz WCDMA (HSPA+) Mode Middle Channel



1 GHz – 10 GHz WCDMA (HSPA+) Mode Middle Channel



30 MHz – 1GHz WCDMA (Rel 99) Mode High Channel



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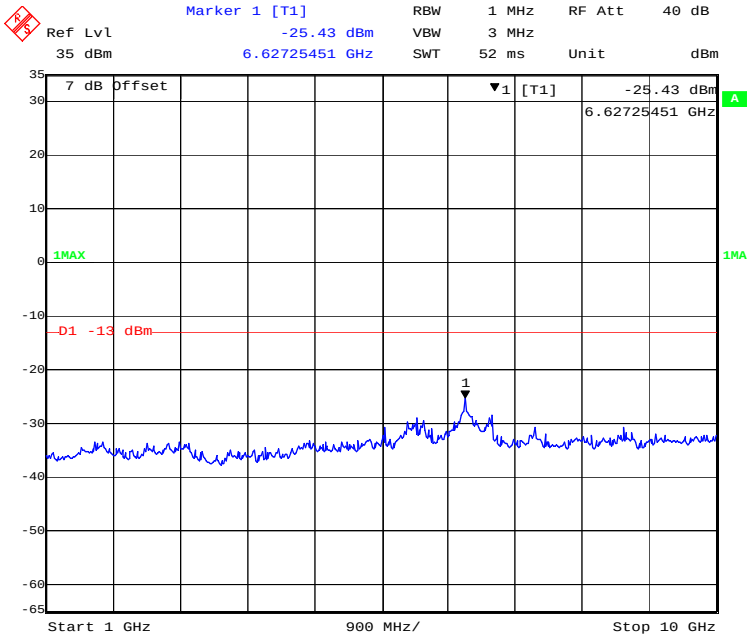
1 GHz – 10 GHz WCDMA (Rel 99) Mode High Channel



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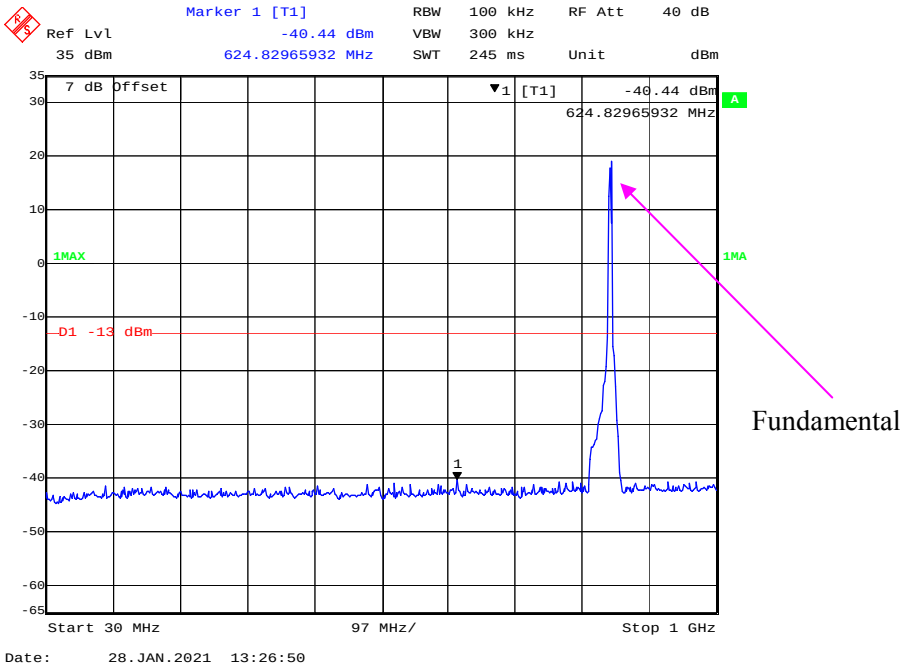
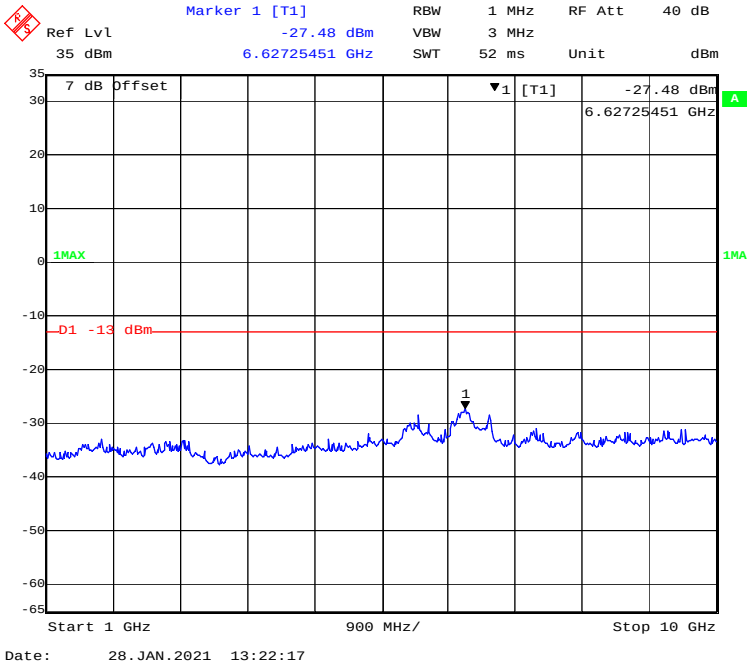
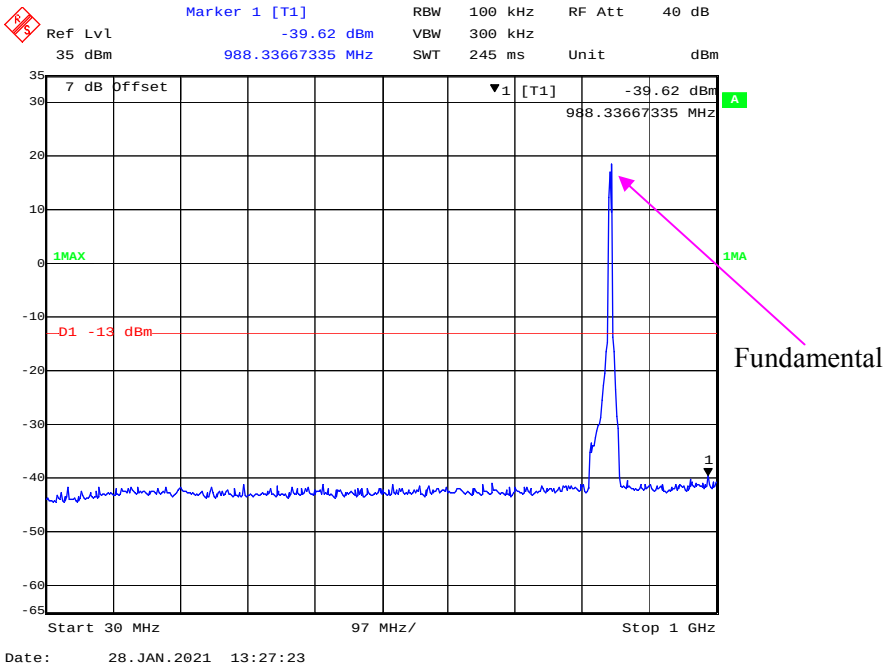
30 MHz – 1GHz WCDMA (HSDPA) Mode High Channel



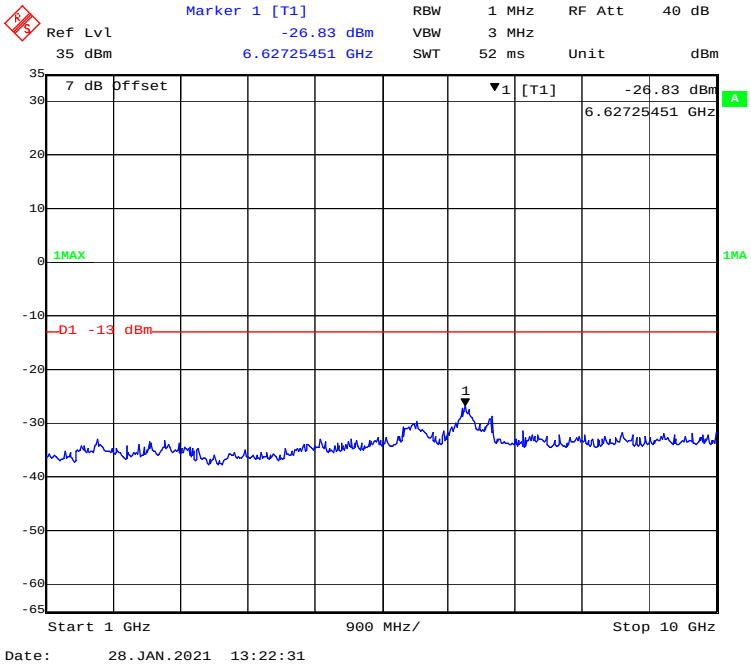
1 GHz – 10 GHz WCDMA (HSDPA) Mode High Channel



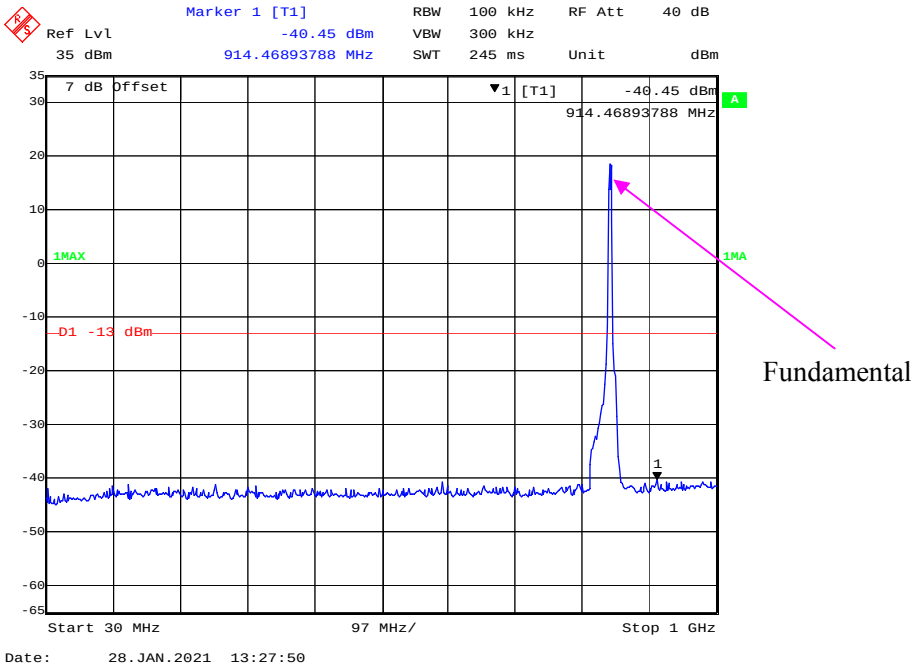
30 MHz – 1GHz WCDMA (HSUPA) Mode High Channel



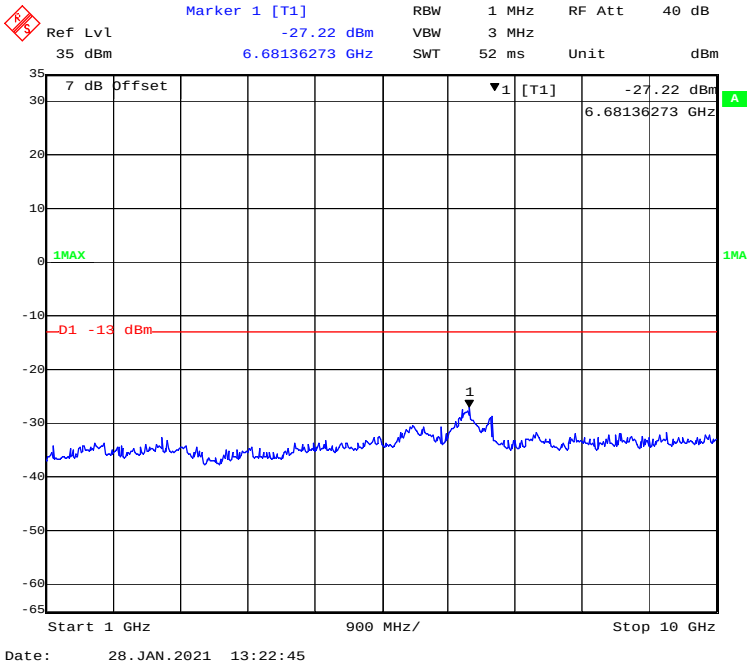
1 GHz – 10 GHz WCDMA (HSUPA) Mode High Channel



30 MHz – 1GHz WCDMA (HSPA+) Mode High Channel

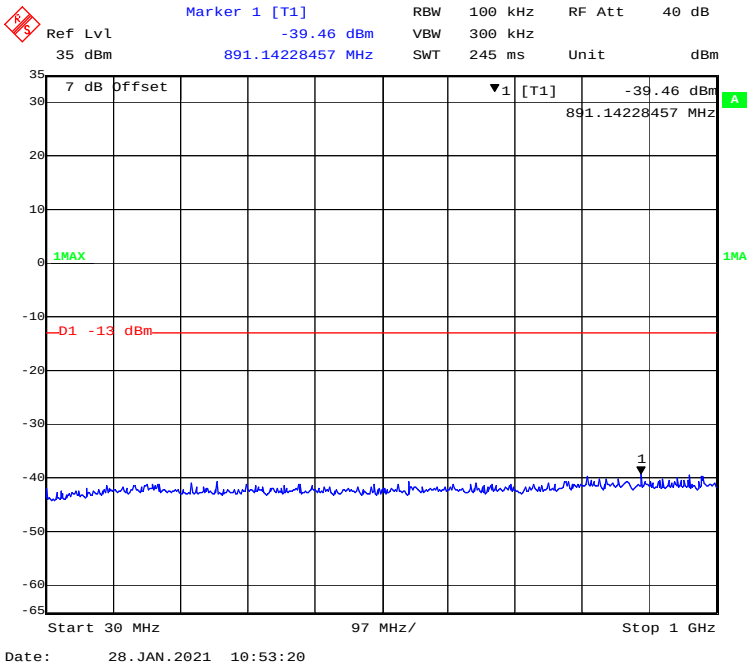


1 GHz – 10 GHz WCDMA (HSPA+) Mode High Channel

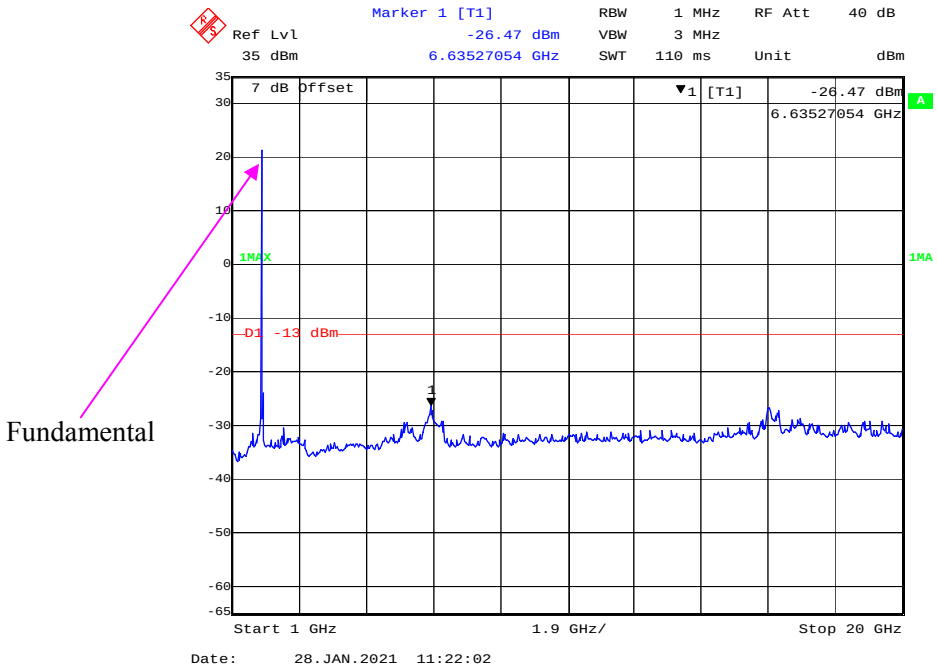


WCDMA Band II:

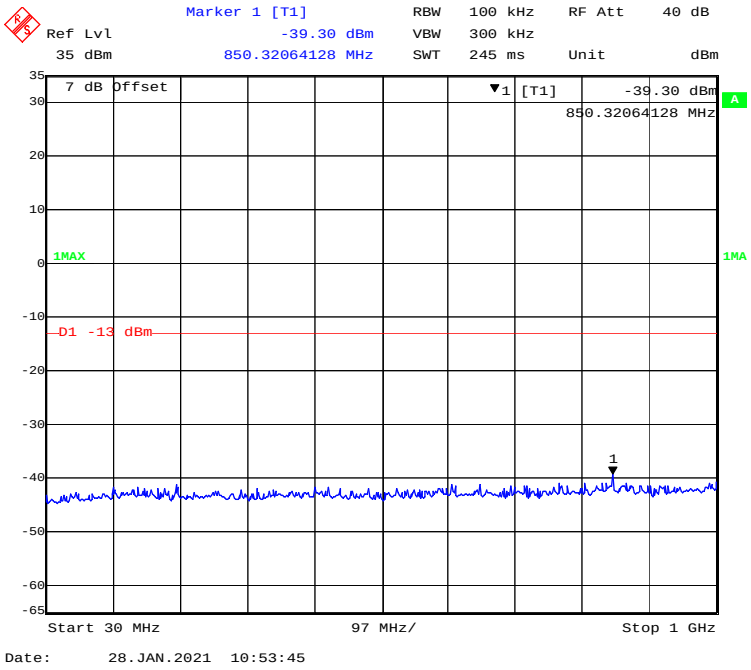
30 MHz – 1GHz WCDMA (Rel 99) Mode Low Channel



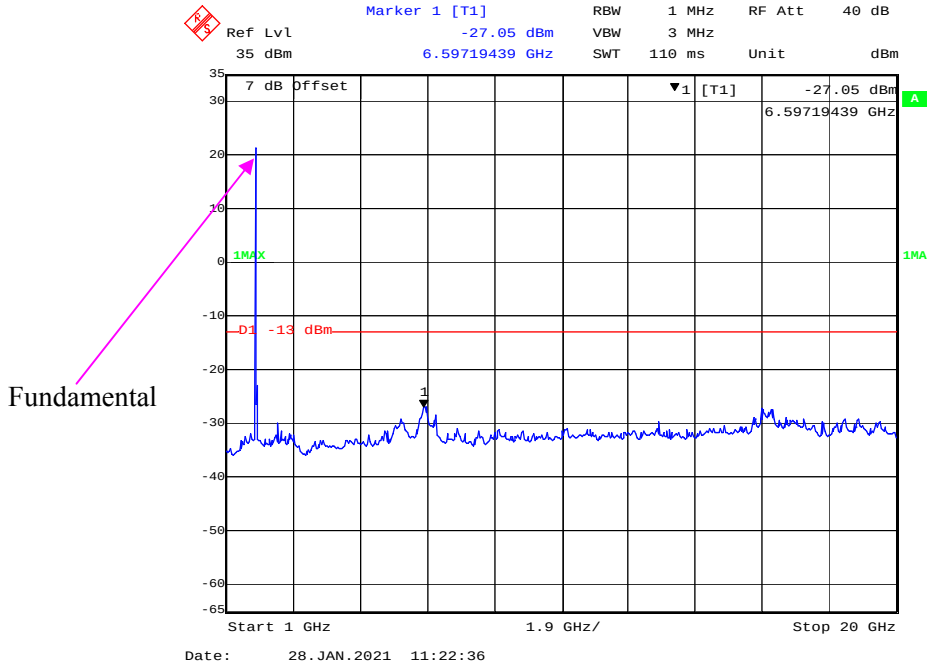
1 GHz – 20 GHz WCDMA (Rel 99) Mode Low Channel



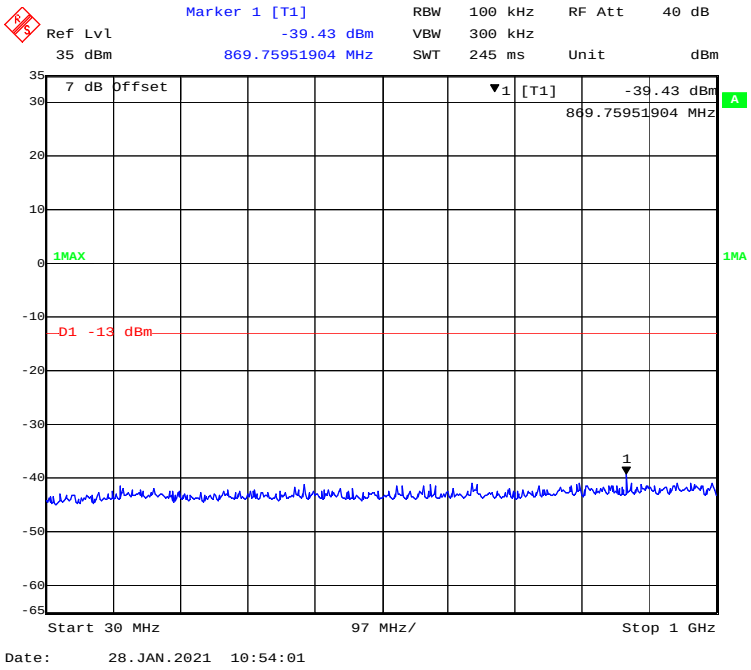
30 MHz – 1GHz WCDMA (HSDPA) Mode Low Channel



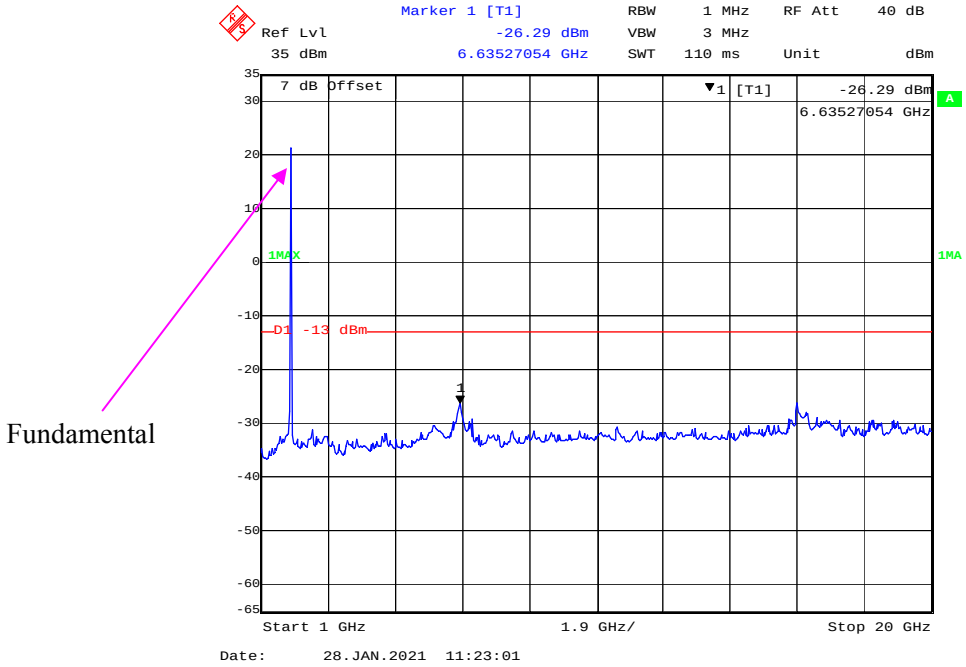
1 GHz – 20 GHz WCDMA (HSDPA) Mode Low Channel



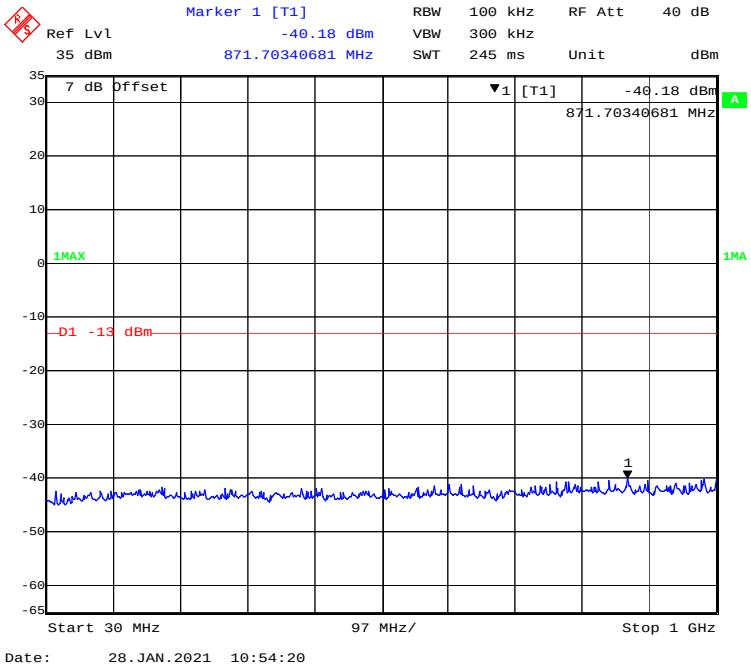
30 MHz – 1GHz WCDMA (HSUPA) Mode Low Channel



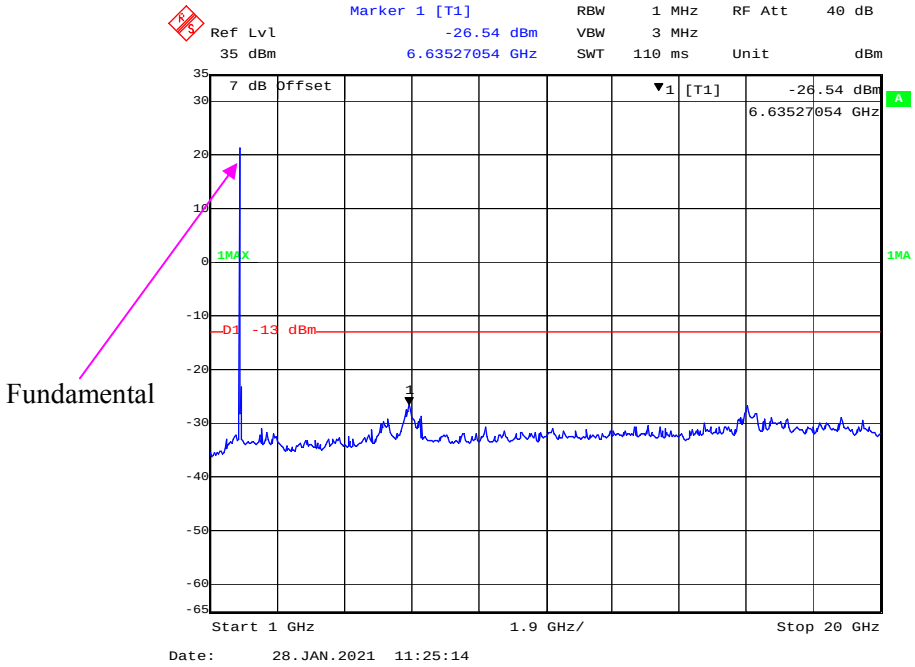
1 GHz – 20 GHz WCDMA (HSUPA) Mode Low Channel



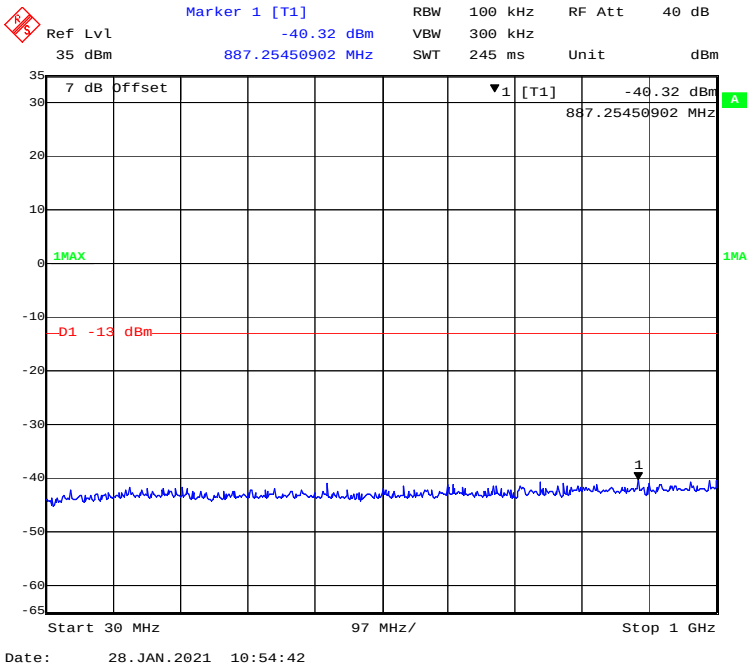
30 MHz – 1GHz WCDMA (HSPA+) Mode Low Channel



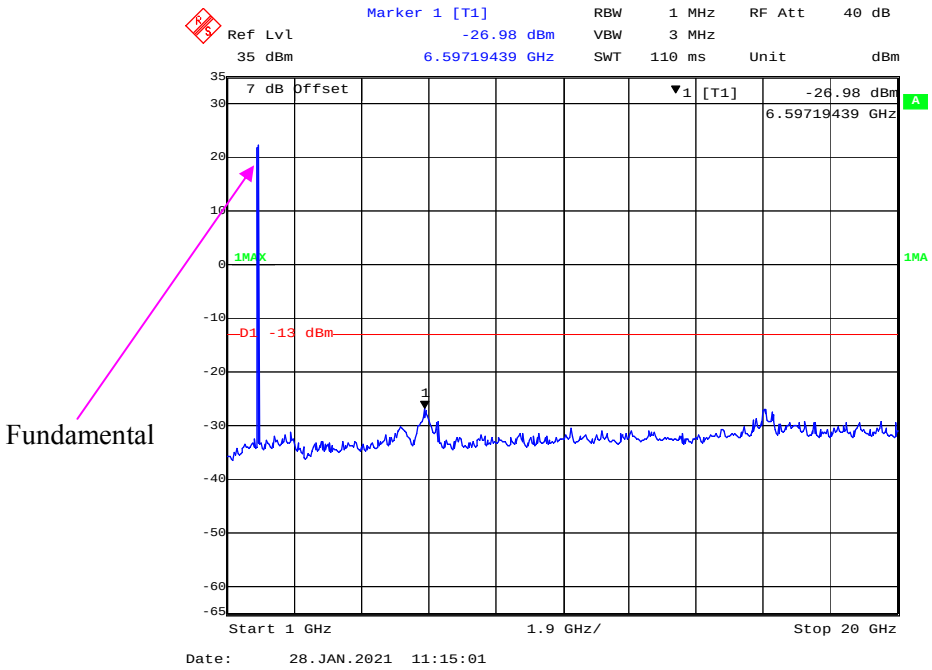
1 GHz – 20 GHz WCDMA (HSPA+) Mode Low Channel



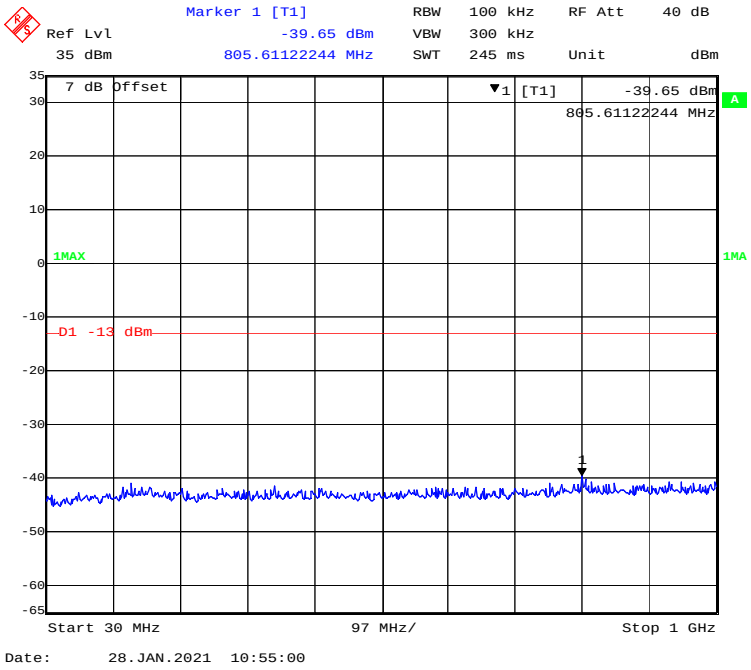
30 MHz – 1GHz WCDMA (Rel 99) Mode Middle Channel



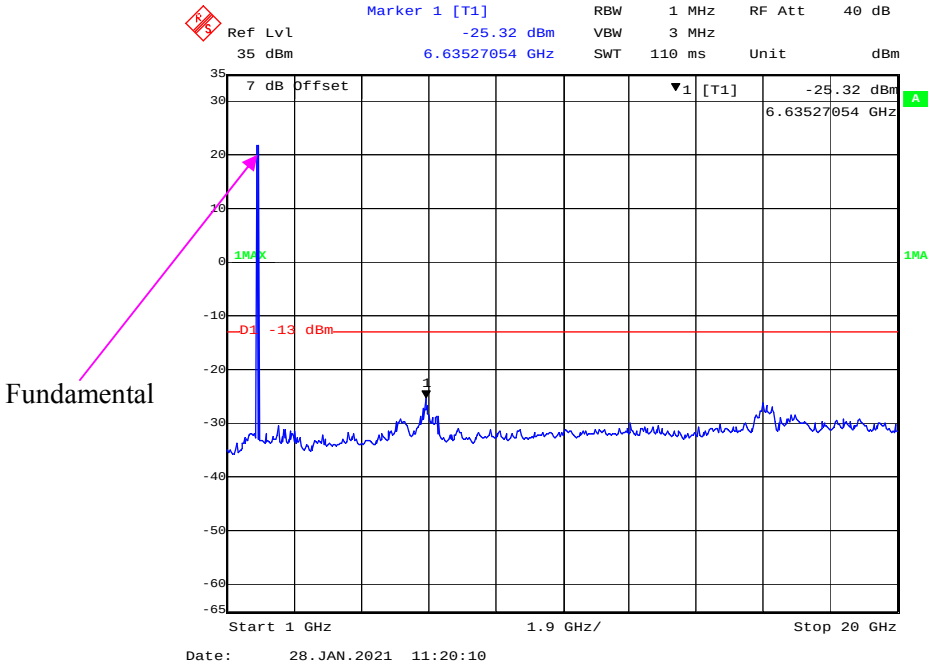
1 GHz – 20 GHz WCDMA (Rel 99) Mode Middle Channel



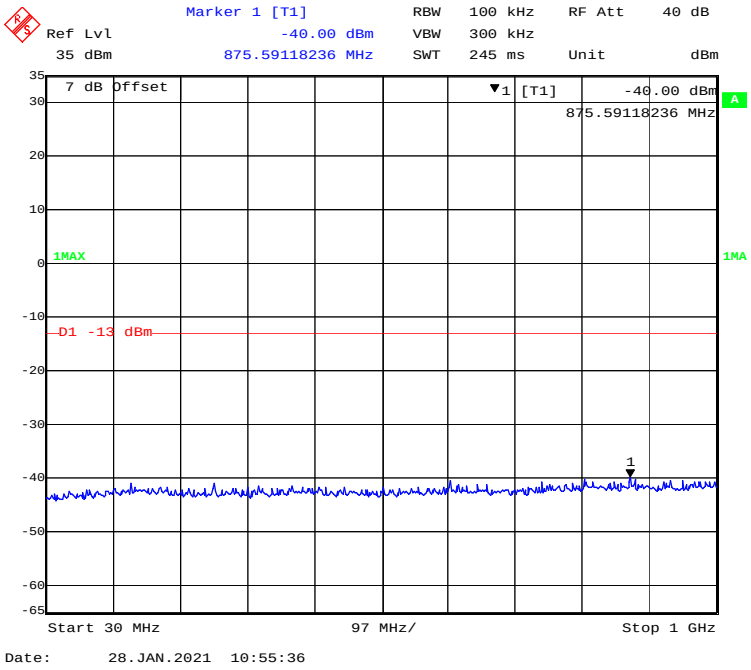
30 MHz – 1GHz WCDMA (HSDPA) Mode Middle Channel



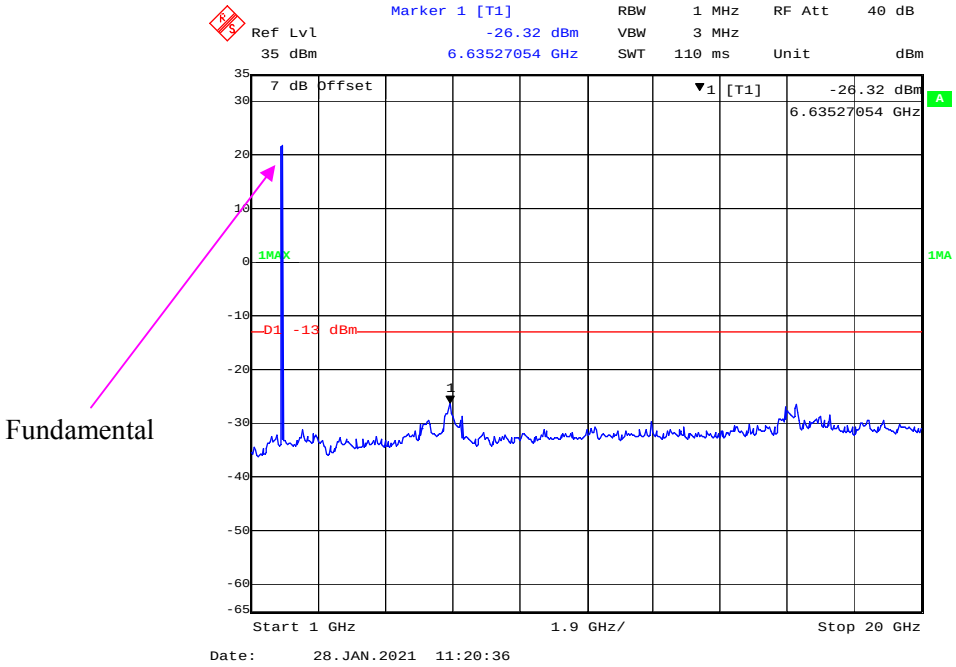
1 GHz – 20 GHz WCDMA (HSDPA) Mode Middle Channel



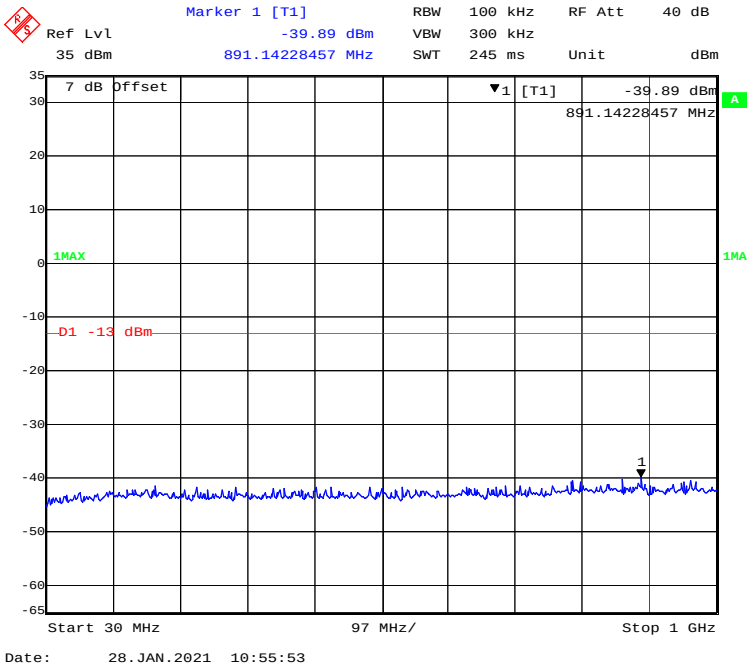
30 MHz – 1GHz WCDMA (HSUPA) Mode Middle Channel



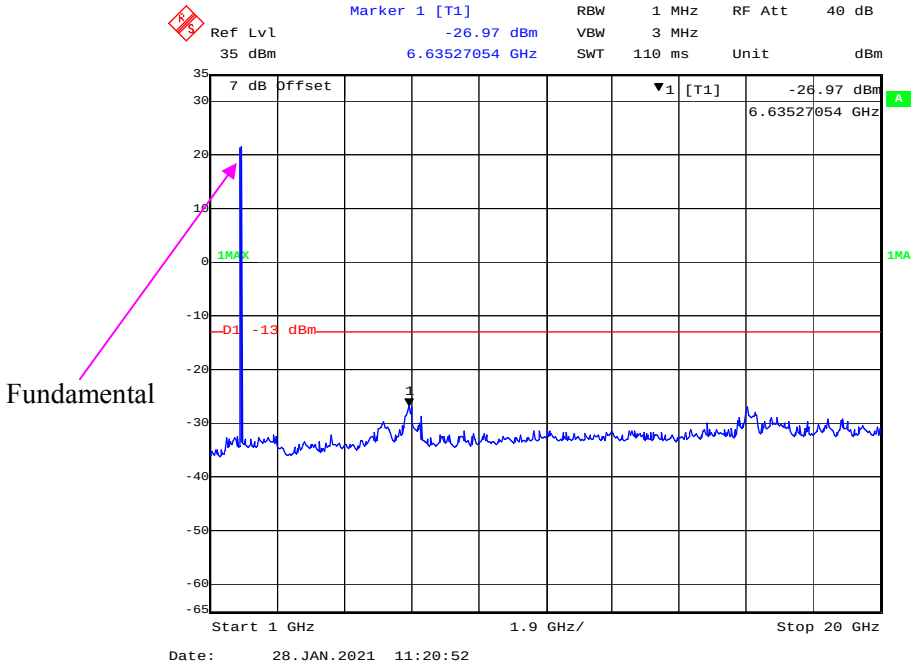
1 GHz – 20 GHz WCDMA (HSUPA) Mode Middle Channel



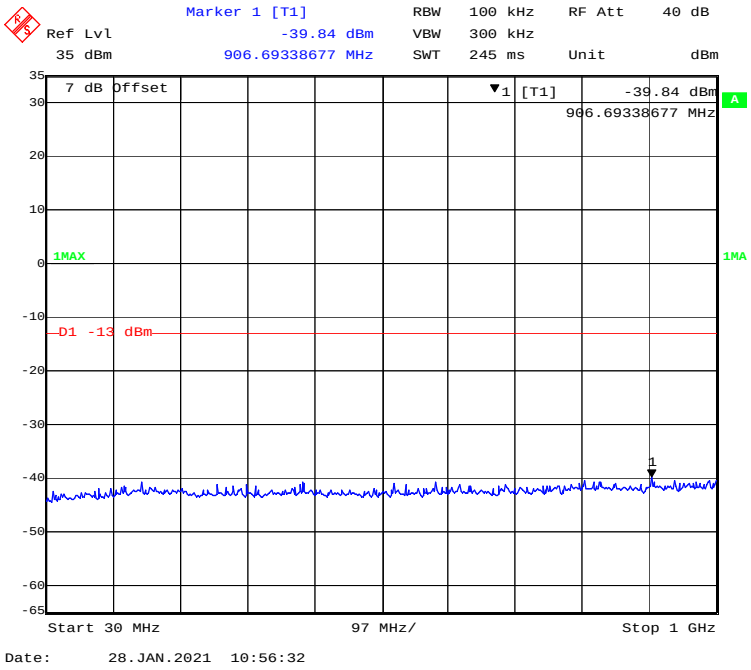
30 MHz – 1GHz WCDMA (HSPA+) Mode Middle Channel



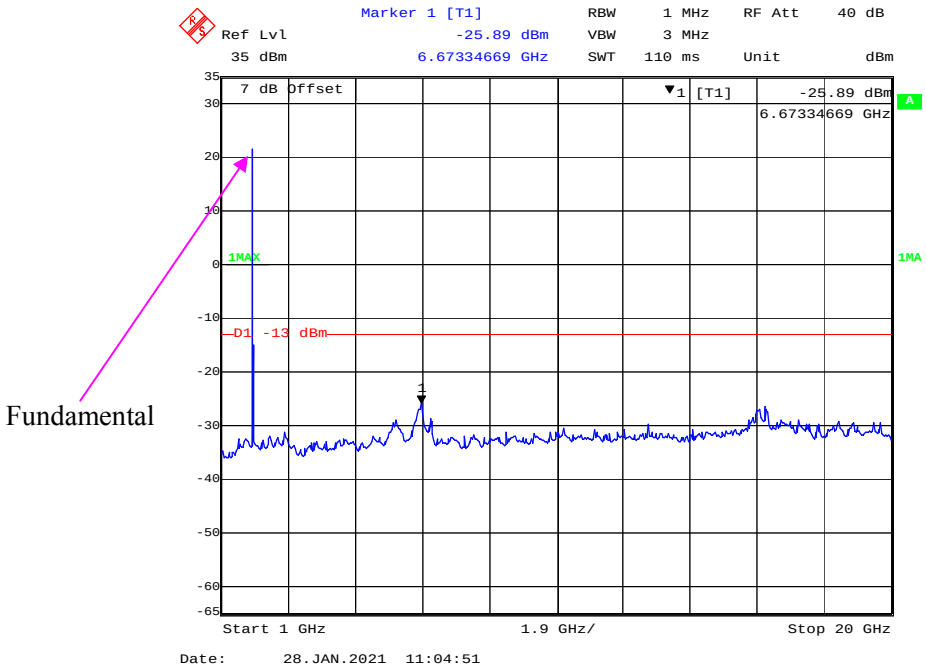
1 GHz – 20 GHz WCDMA (HSPA+) Mode Middle Channel



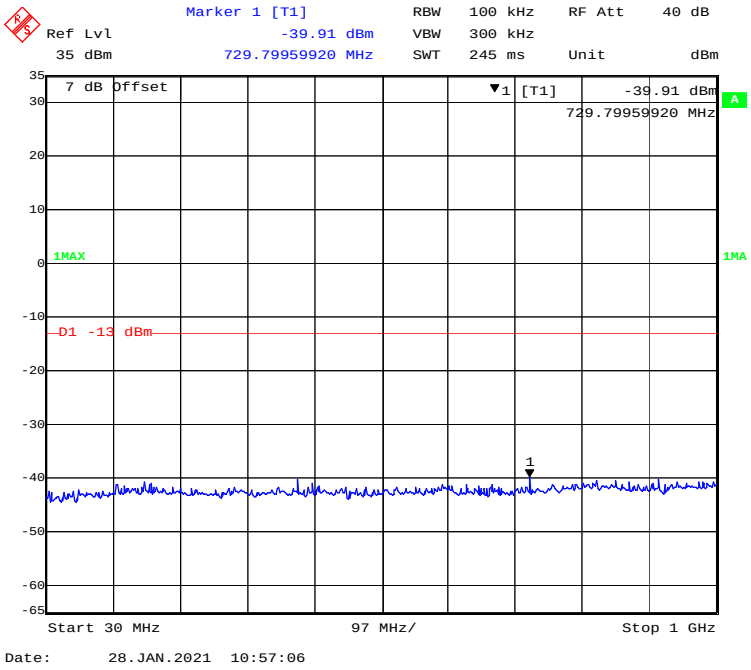
30 MHz – 1GHz WCDMA (Rel 99) Mode High Channel



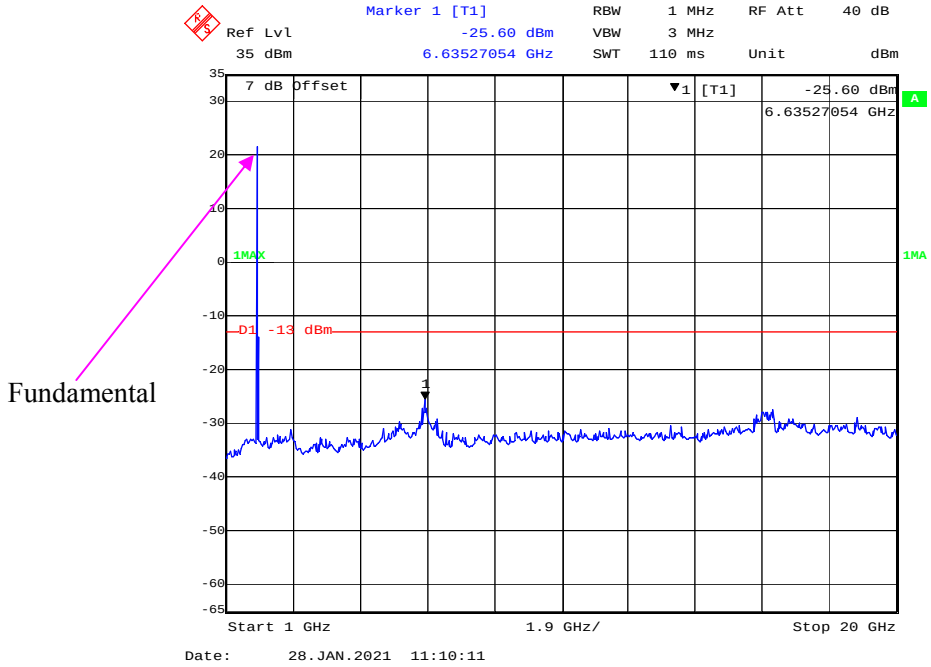
1 GHz – 20 GHz WCDMA (Rel 99) Mode High Channel



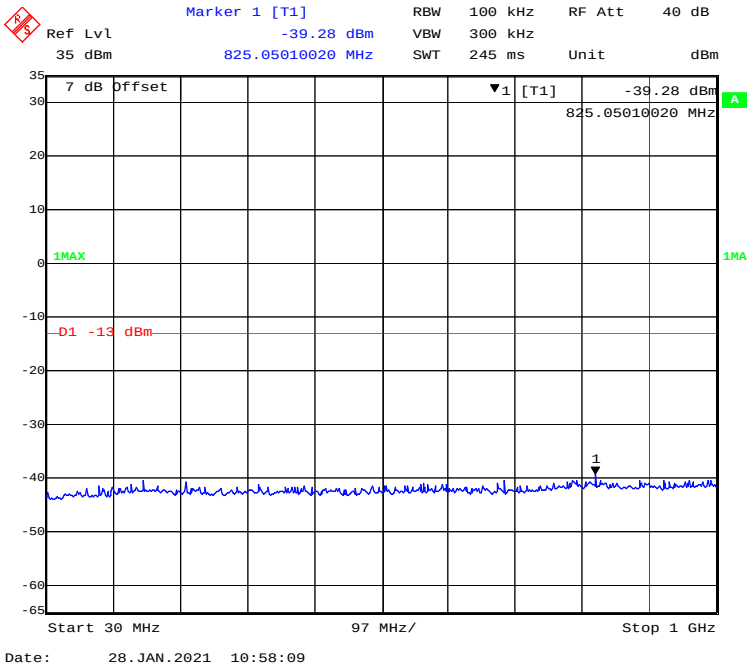
30 MHz – 1GHz WCDMA (HSDPA) Mode High Channel



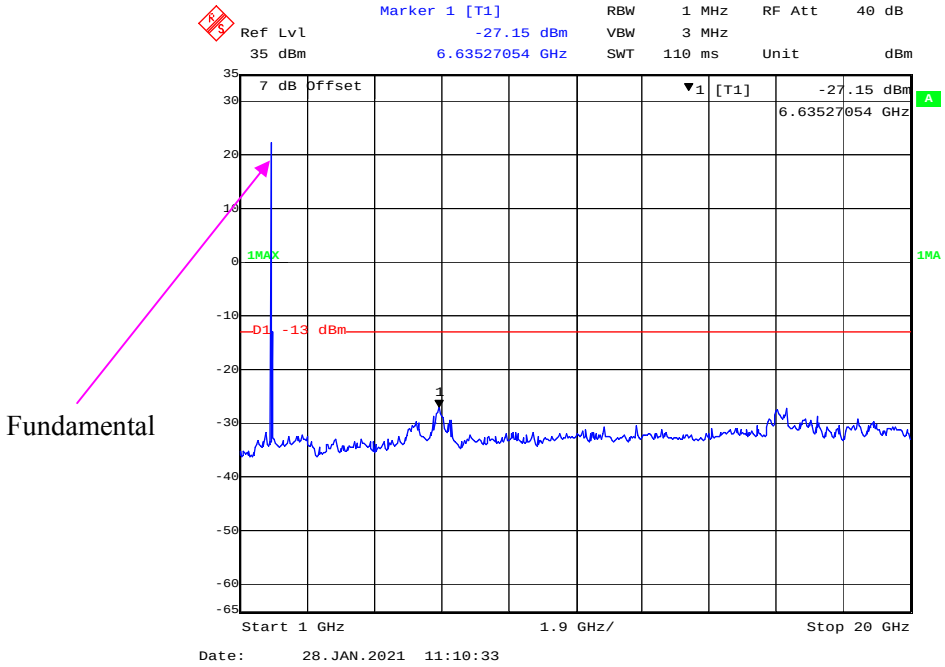
1 GHz – 20 GHz WCDMA (HSDPA) Mode High Channel



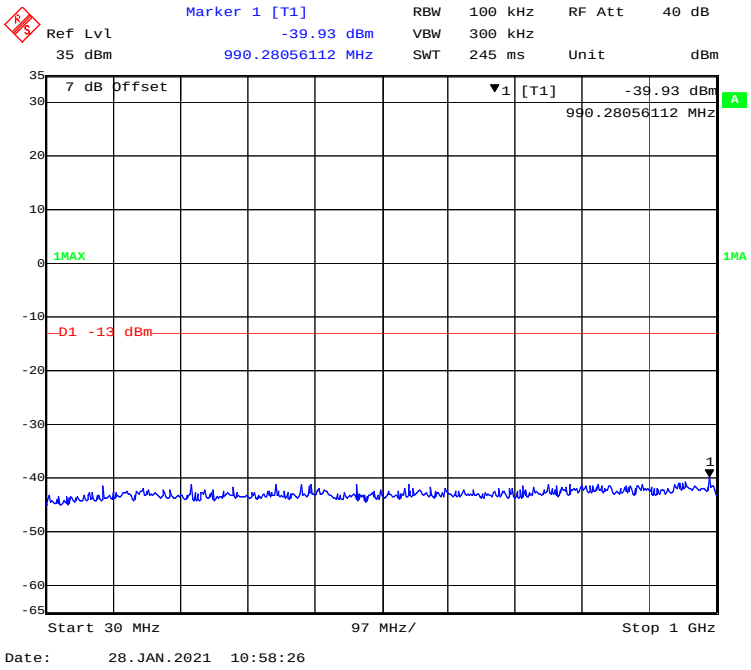
30 MHz – 1GHz WCDMA (HSUPA) Mode High Channel



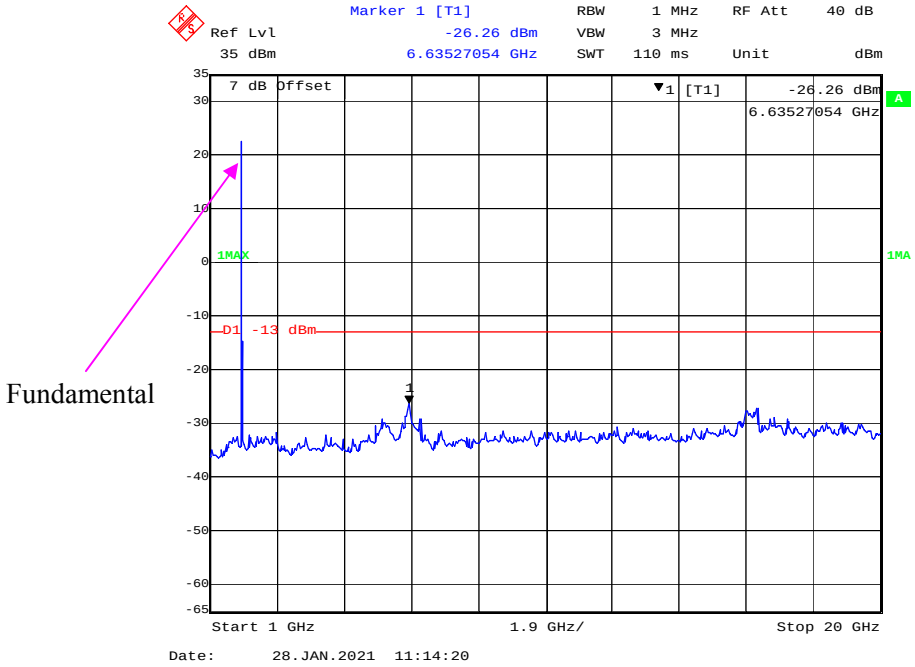
1 GHz – 20 GHz WCDMA (HSUPA) Mode High Channel



30 MHz – 1GHz WCDMA (HSPA+) Mode High Channel

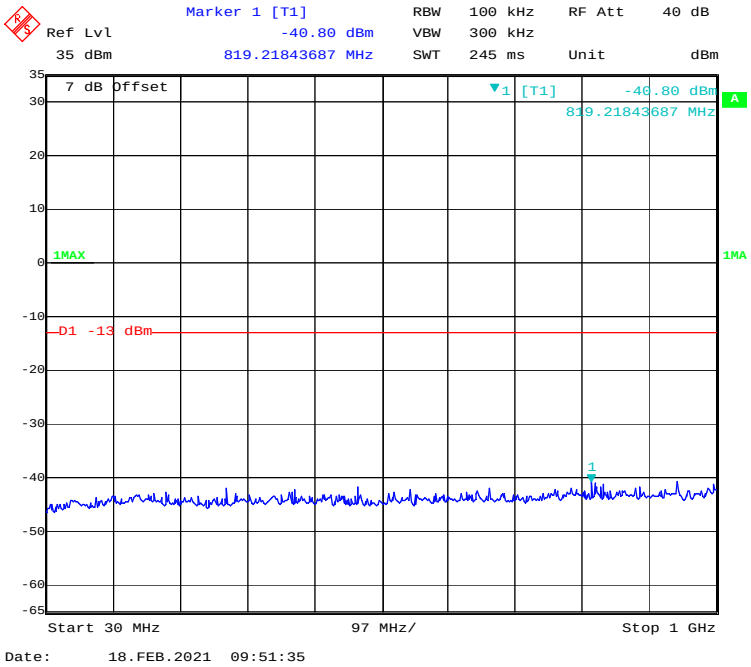


1 GHz – 20 GHz WCDMA (HSPA+) Mode High Channel

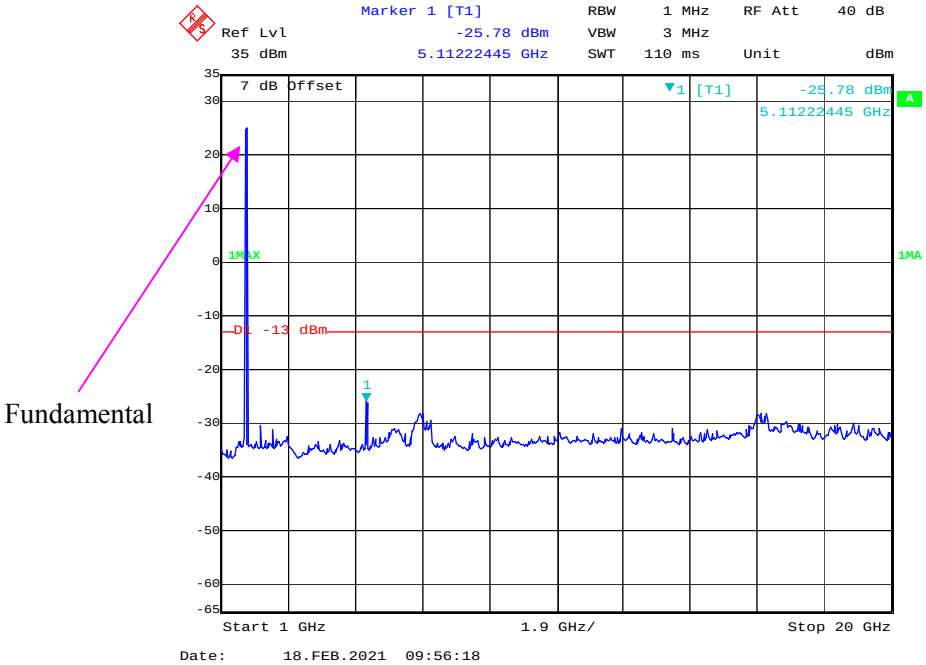


WCDMA Band IV:

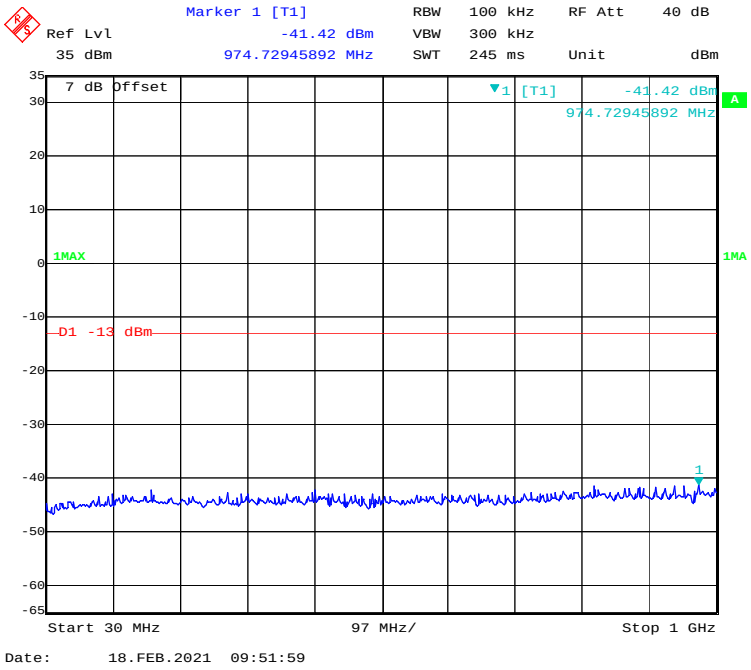
30 MHz – 1GHz WCDMA (Rel 99) Mode, Low channel



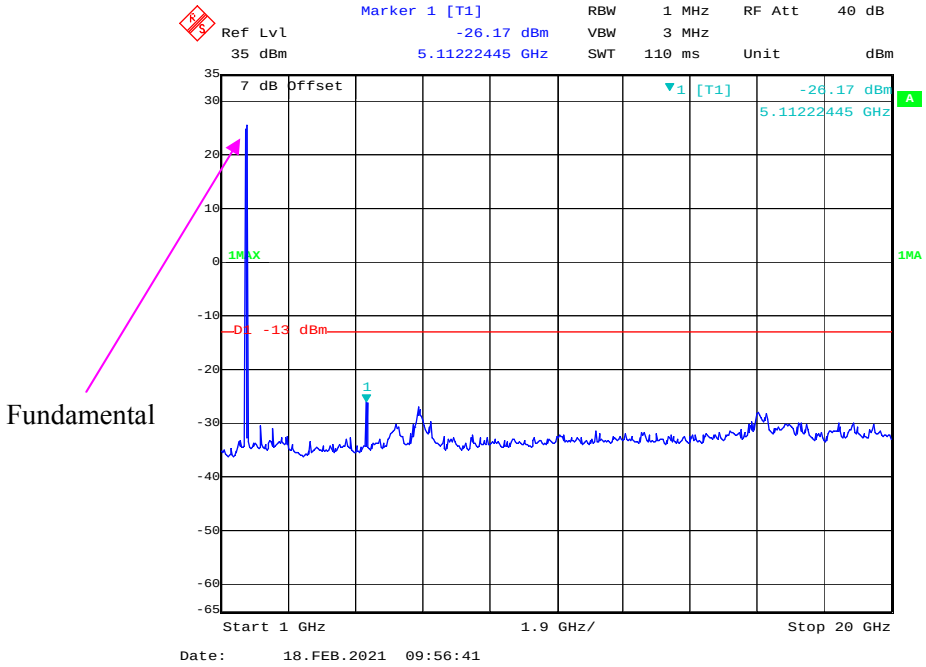
1 GHz – 20 GHz WCDMA (Rel 99) Mode, Low channel



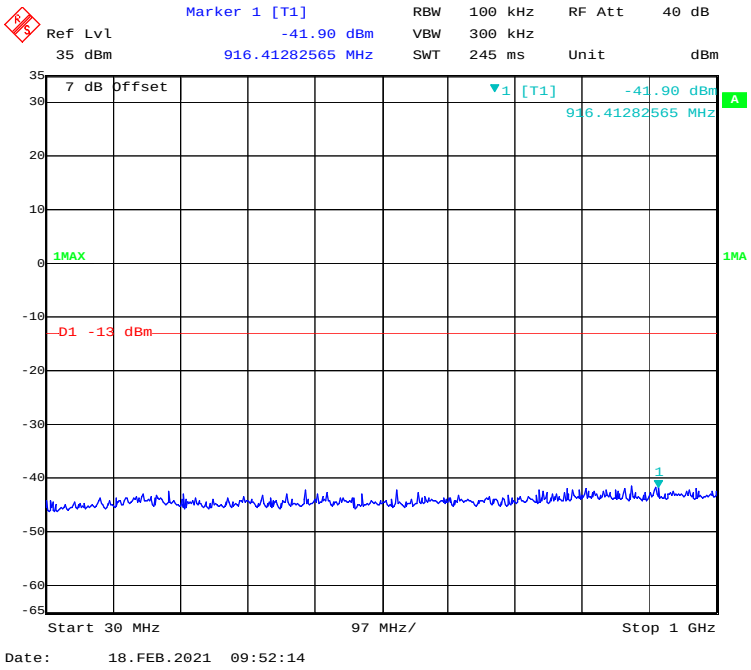
30 MHz – 1GHz WCDMA (HSDPA) Mode, Low channel



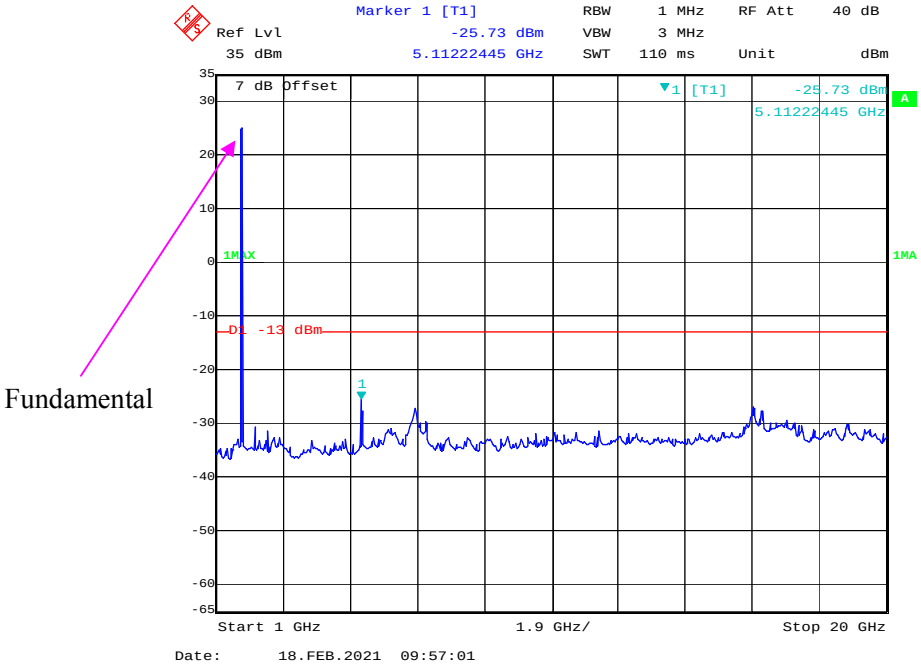
1 GHz – 20 GHz WCDMA (HSDPA) Mode, Low channel



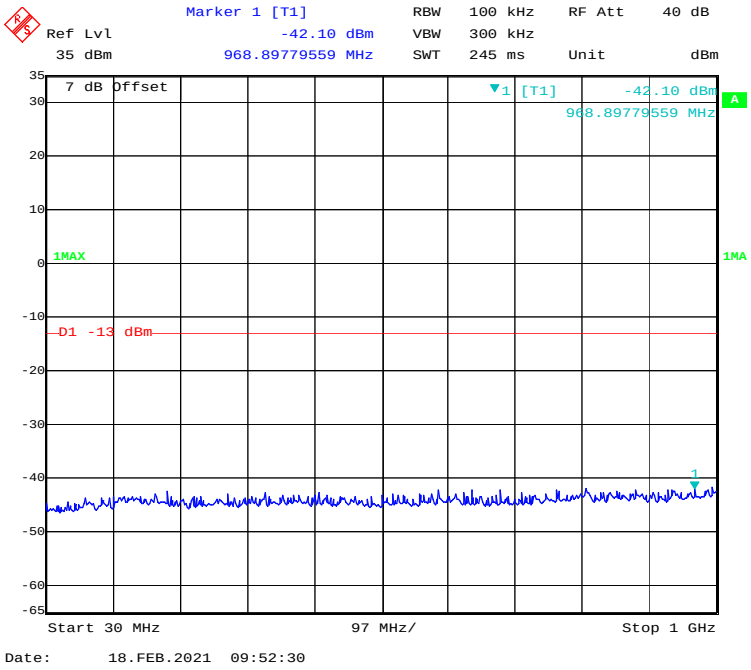
30 MHz – 1GHz WCDMA (HSUPA) Mode, Low channel



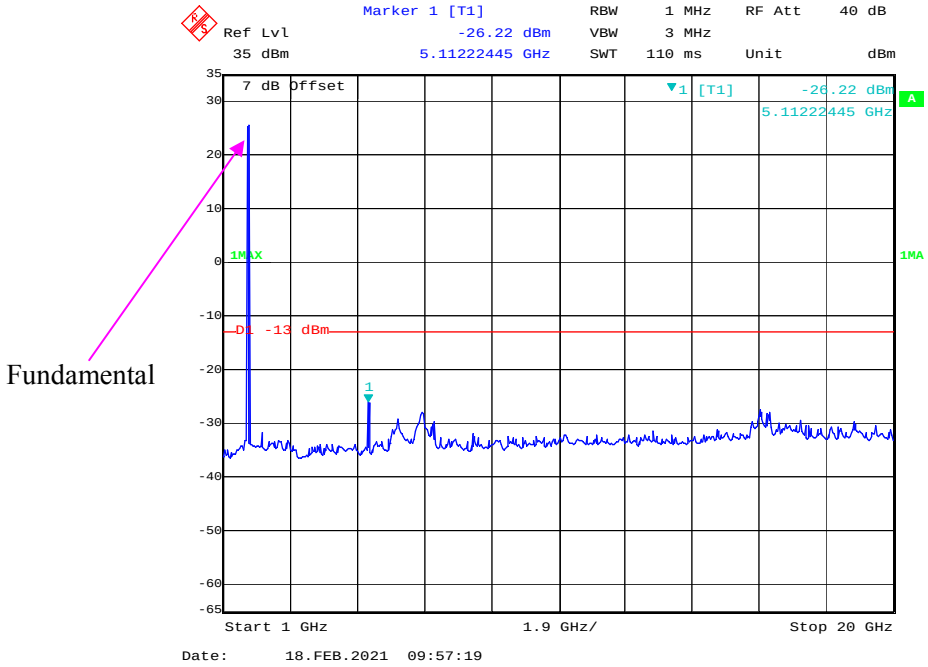
1 GHz – 20 GHz WCDMA (HSUPA) Mode, Low channel



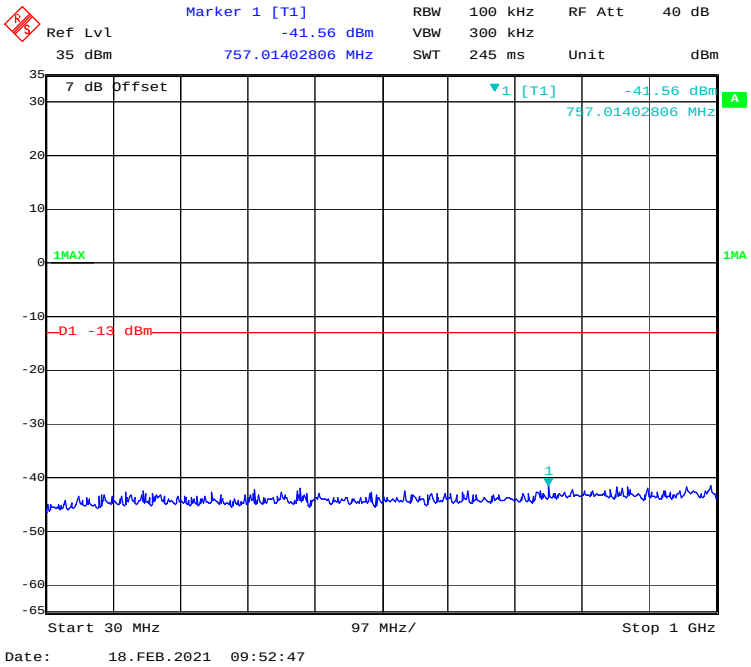
30 MHz – 1GHz WCDMA (HSPA+) Mode, Low channel



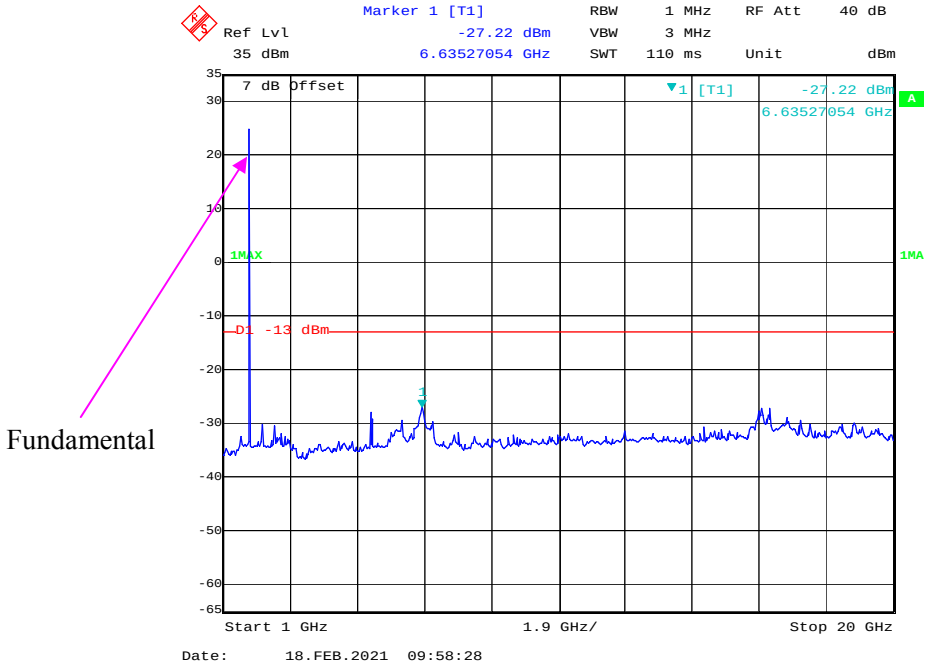
1 GHz – 20 GHz WCDMA (HSPA+) Mode, Low channel



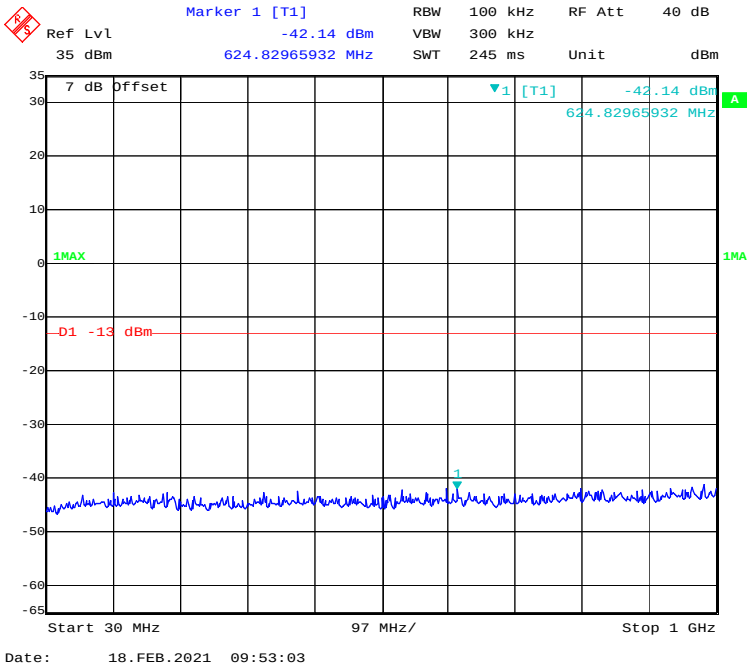
30 MHz – 1GHz WCDMA (Rel 99) Mode, Middle channel



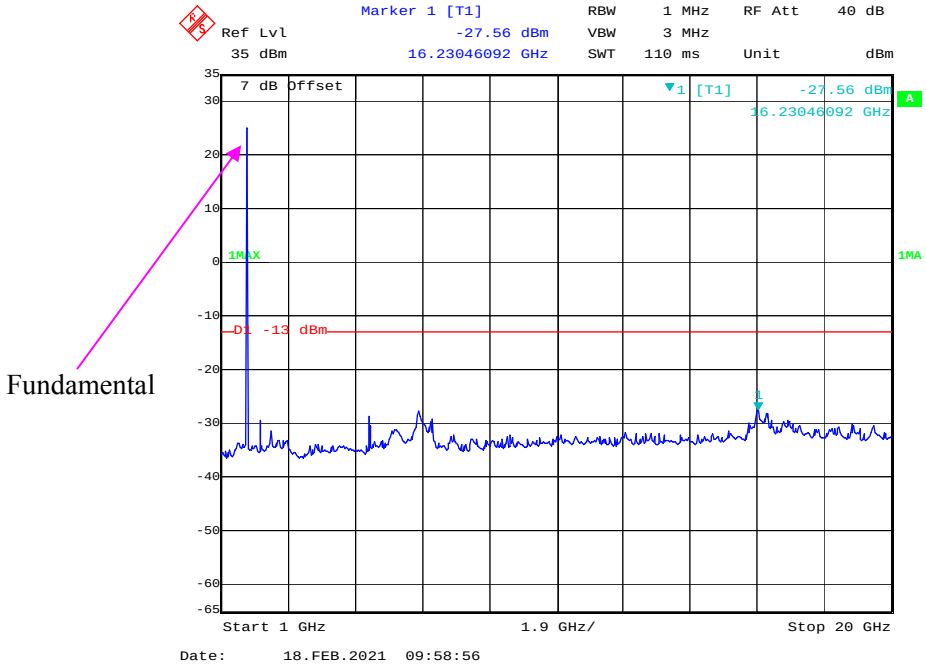
1 GHz – 20 GHz WCDMA (Rel 99) Mode, Middle channel



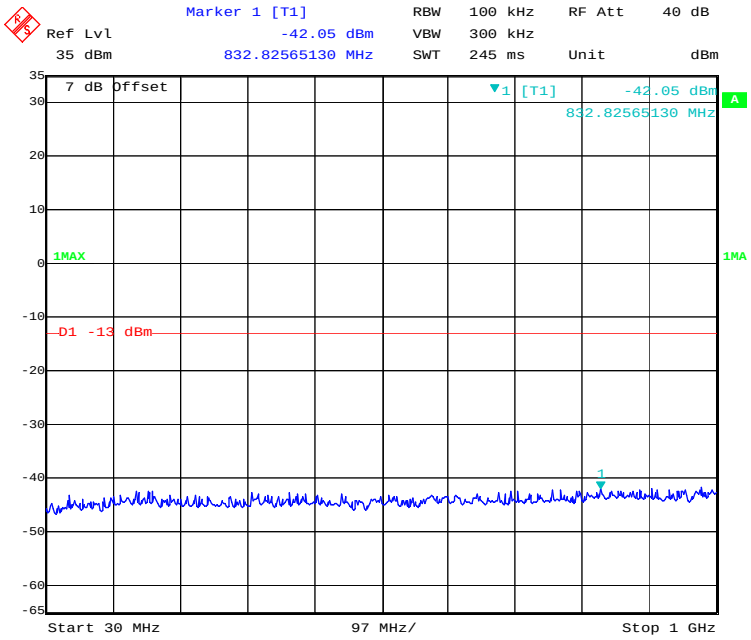
30 MHz – 1GHz WCDMA (HSDPA) Mode, Middle channel



1 GHz – 20 GHz WCDMA (HSDPA) Mode, Middle channel



30 MHz – 1GHz WCDMA (HSUPA) Mode, Middle channel



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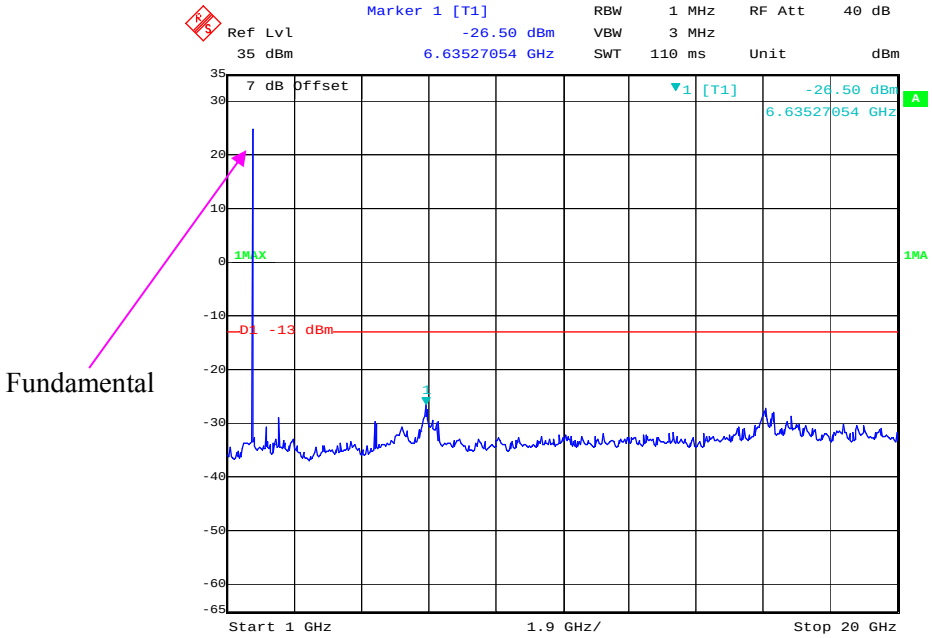
1 GHz – 20 GHz WCDMA (HSUPA) Mode, Middle channel



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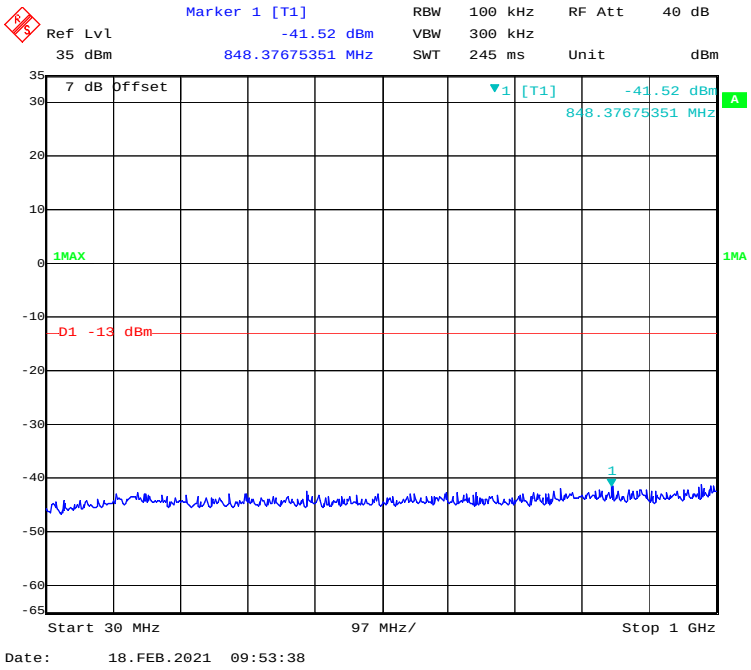
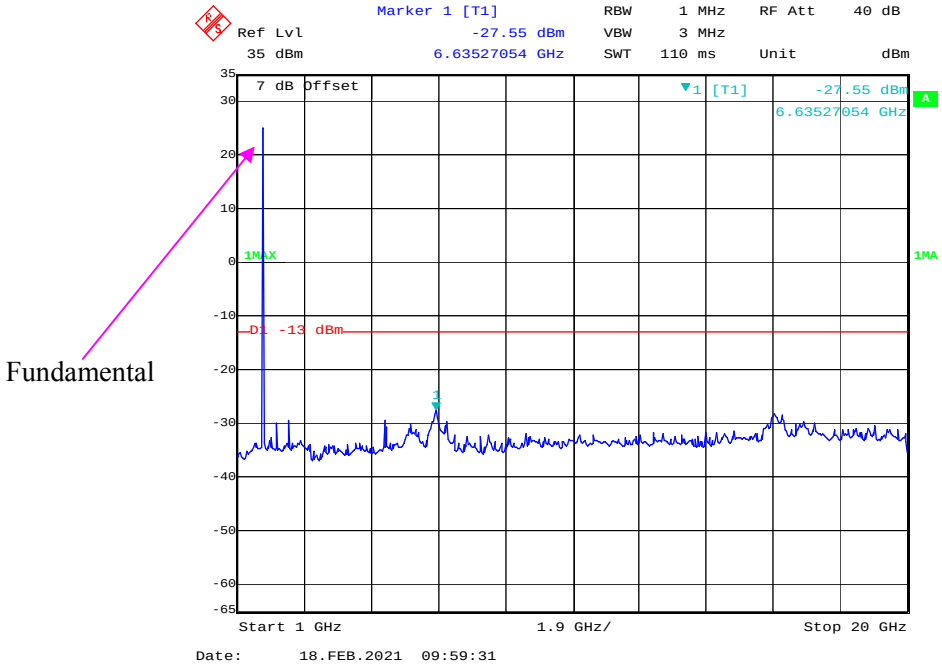
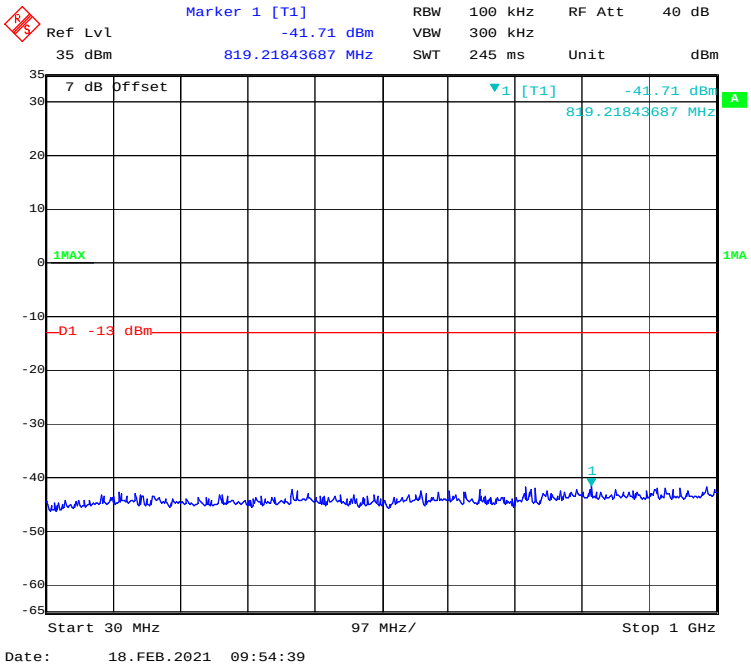
30 MHz – 1GHz WCDMA (HSPA+) Mode, Middle channel



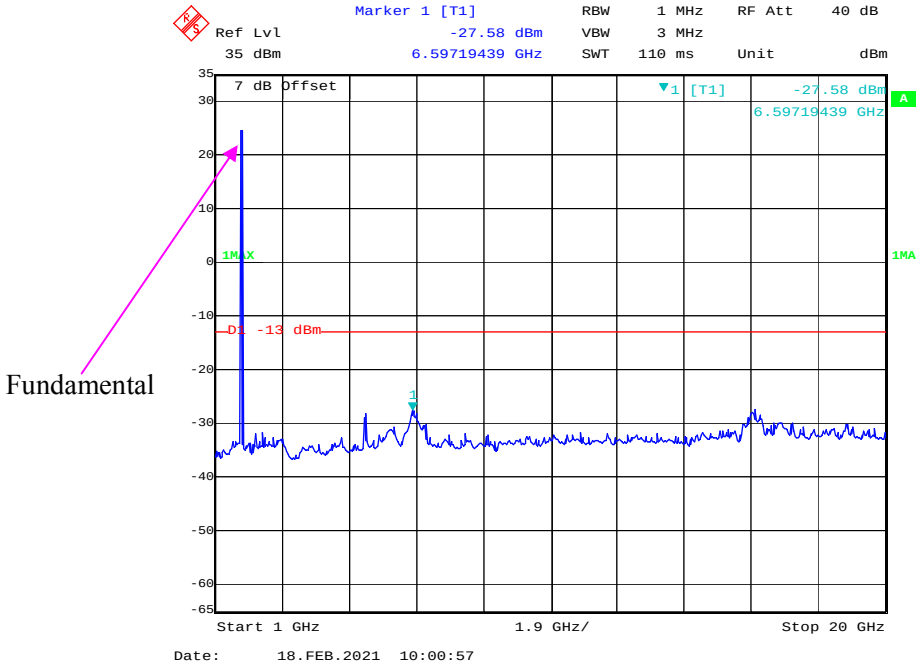
1 GHz – 20 GHz WCDMA (HSPA+) Mode, Middle channel



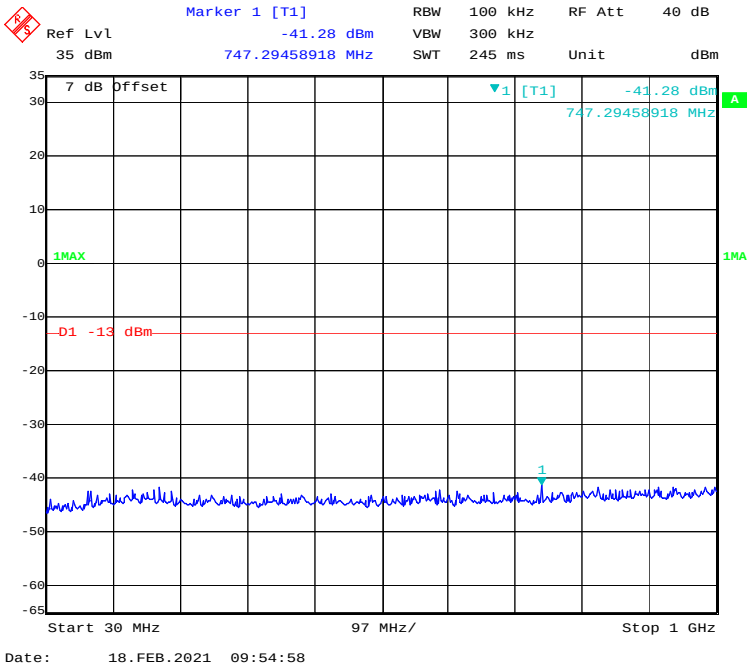
30 MHz – 1GHz WCDMA (Rel 99) Mode, High channel



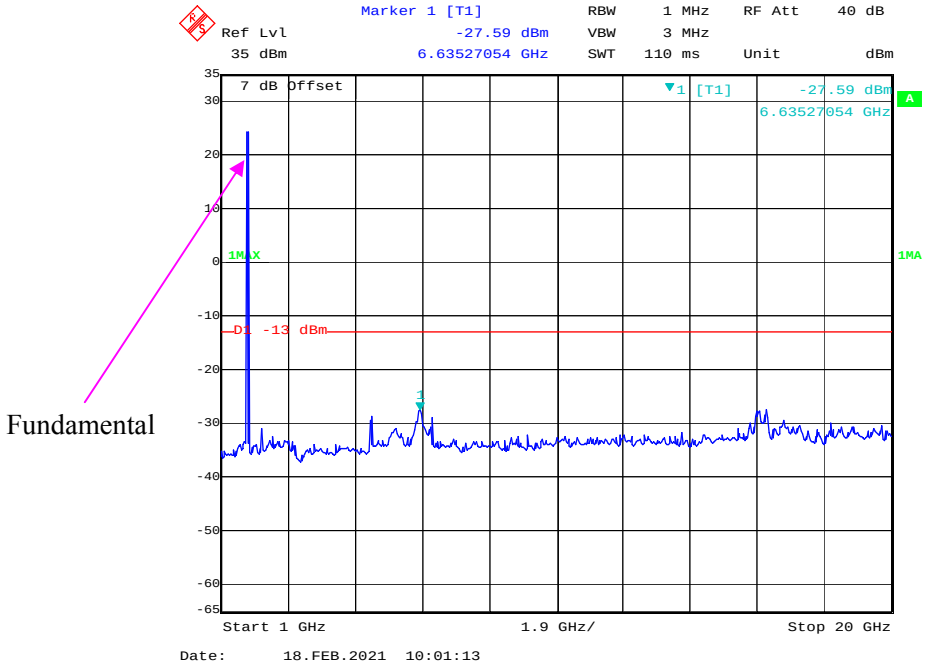
1 GHz – 20 GHz WCDMA (Rel 99) Mode, High channel



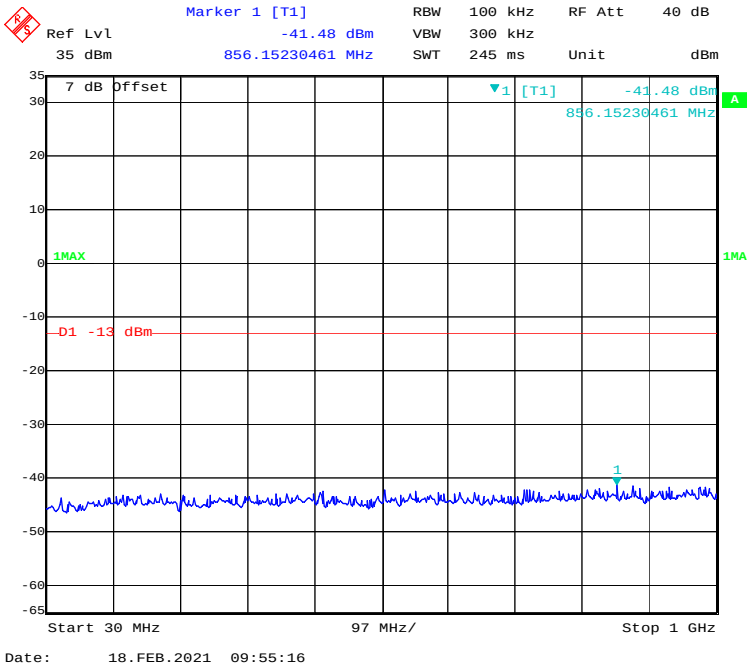
30 MHz – 1GHz WCDMA (HSDPA) Mode, High channel



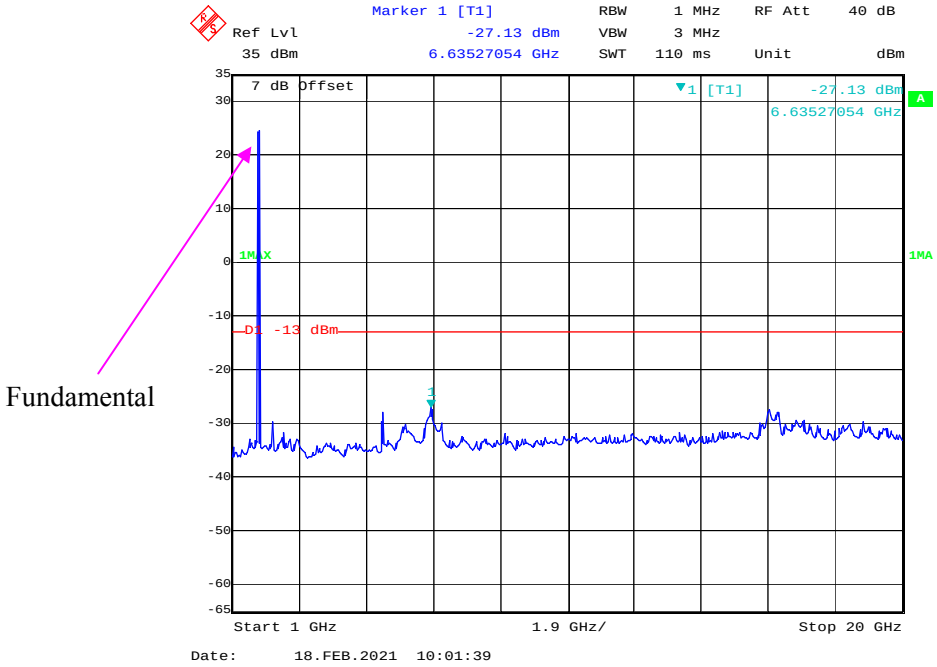
1 GHz – 20 GHz WCDMA (HSDPA) Mode, High channel



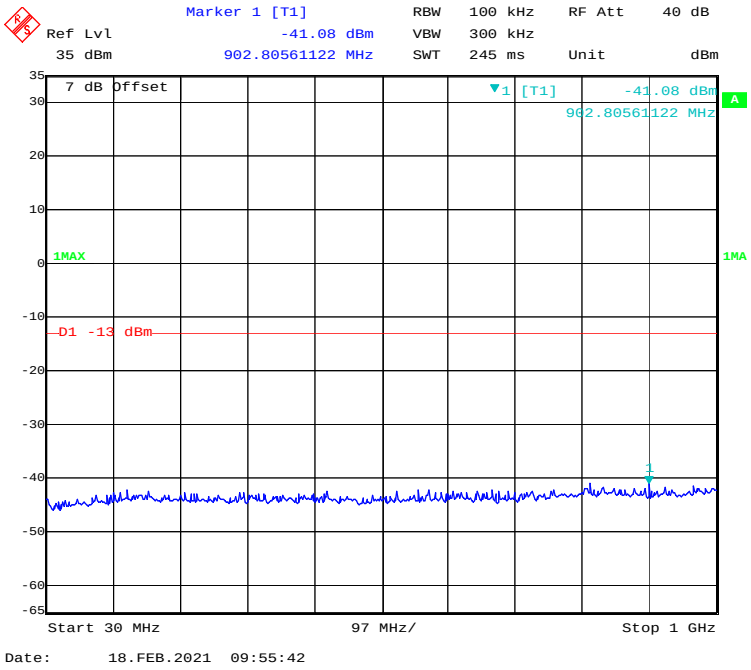
30 MHz – 1GHz WCDMA (HSUPA) Mode, High channel



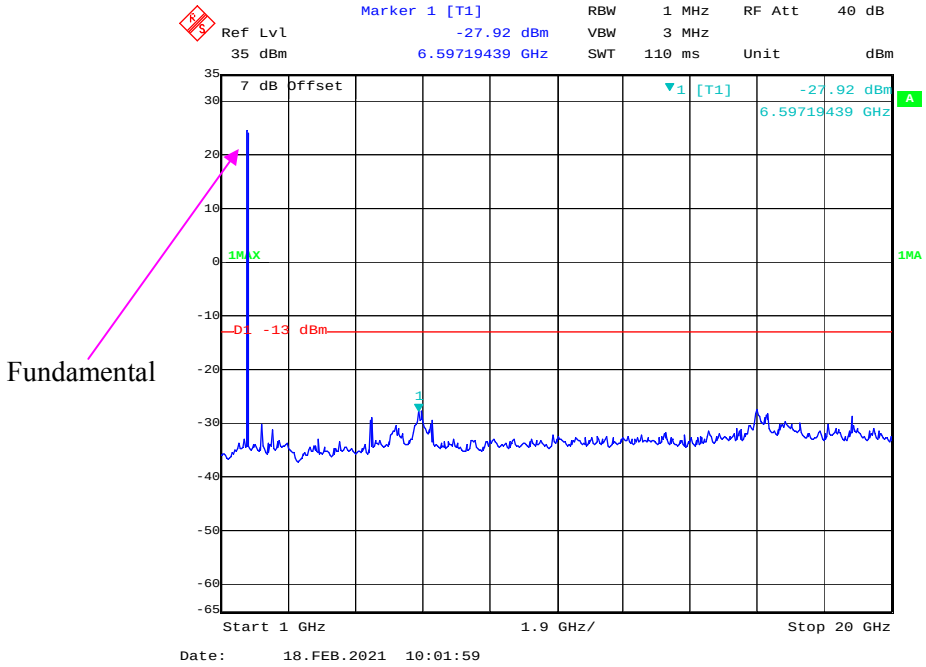
1 GHz – 20 GHz WCDMA (HSUPA) Mode, High channel



30 MHz – 1GHz WCDMA (HSPA+) Mode, High channel

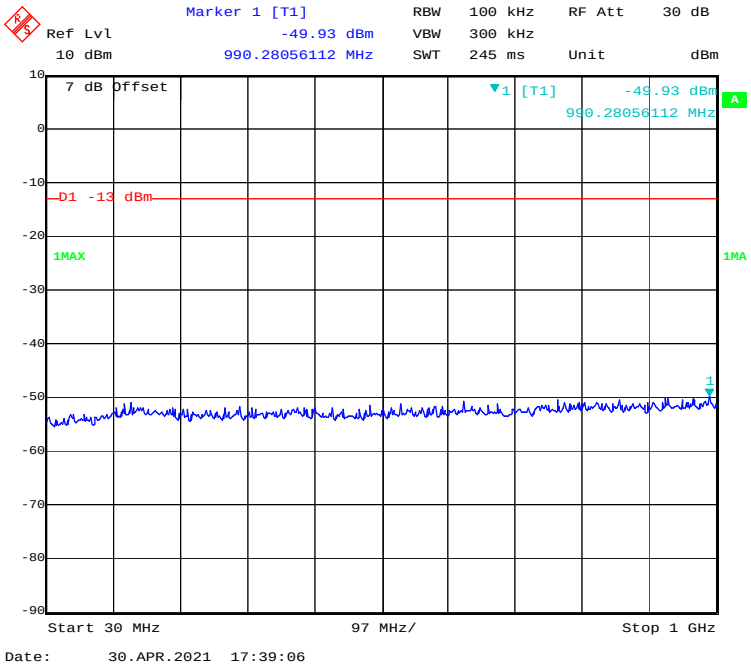


1 GHz – 20 GHz WCDMA (HSPA+) Mode, High channel

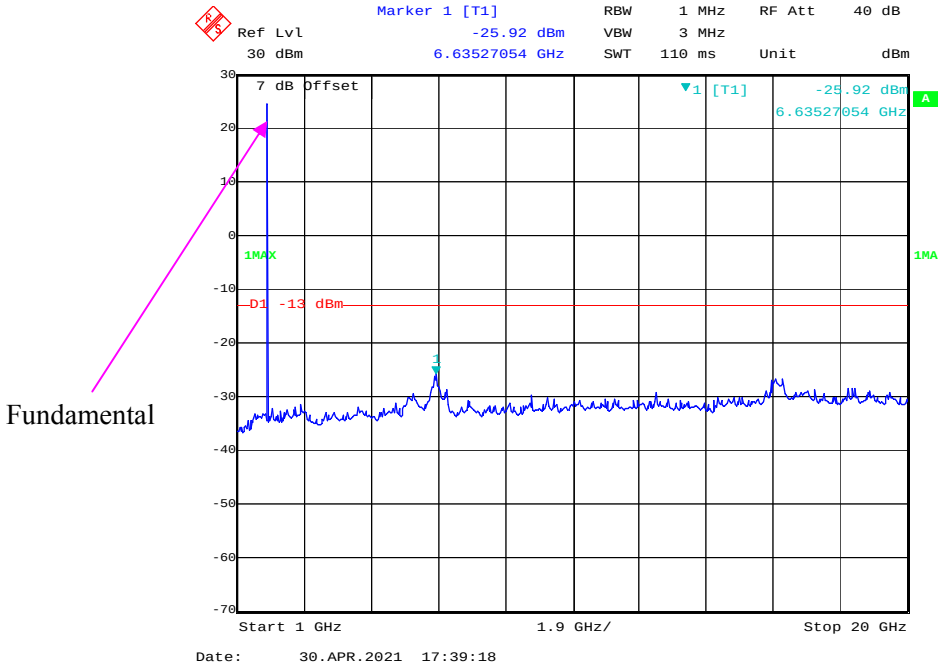


LTE Band 2:

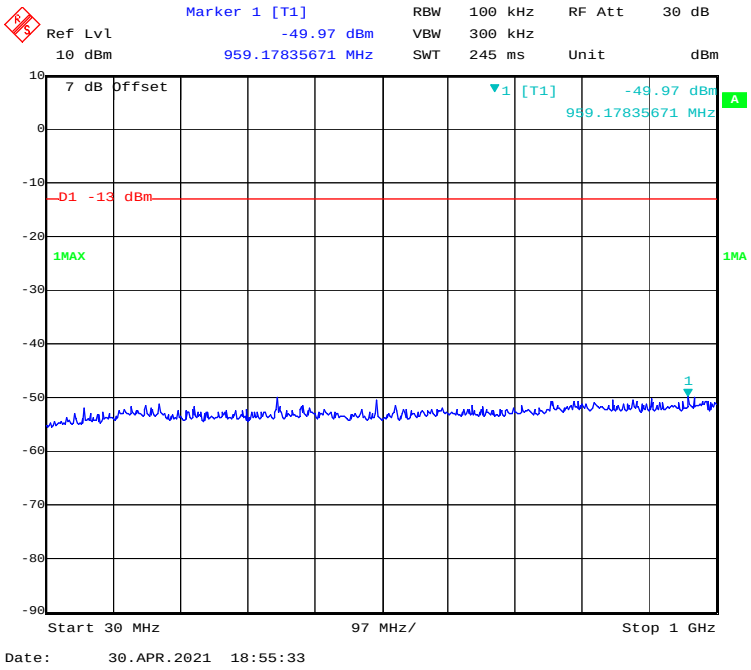
30 MHz – 1 GHz (1.4 MHz, QPSK, Low Channel)



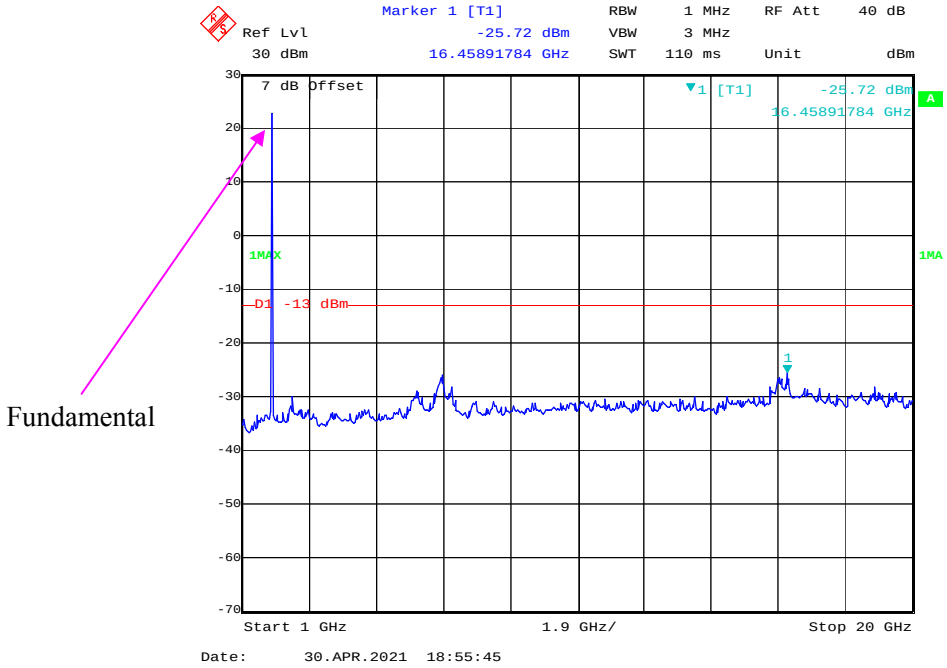
1 GHz – 20 GHz (1.4 MHz, QPSK, Low Channel)



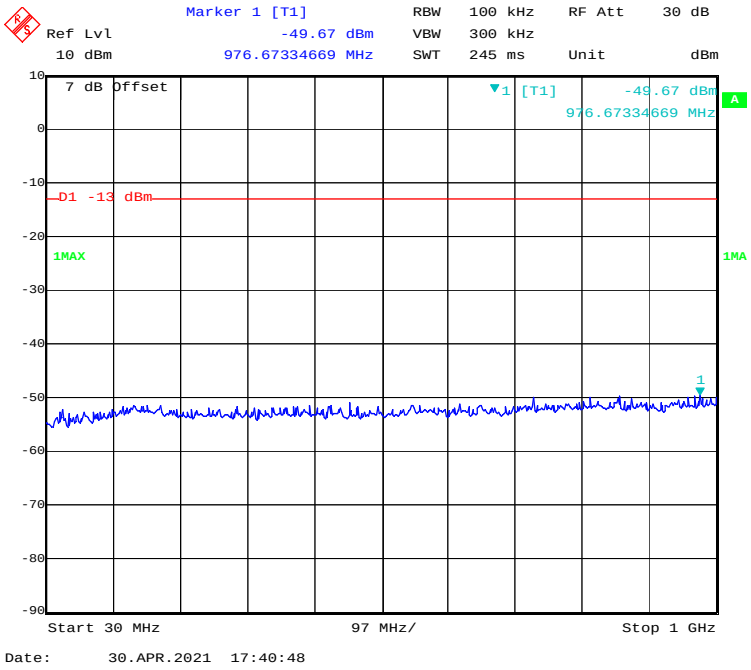
30 MHz – 1 GHz (1.4 MHz, 16-QAM, Low Channel)



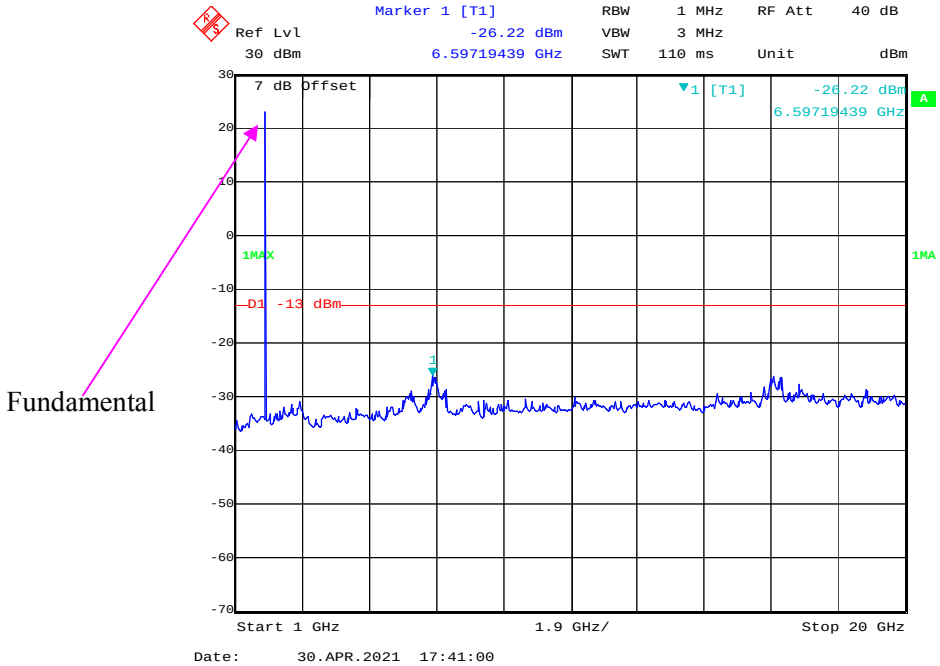
1 GHz – 20 GHz (1.4 MHz, 16-QAM, Low Channel)



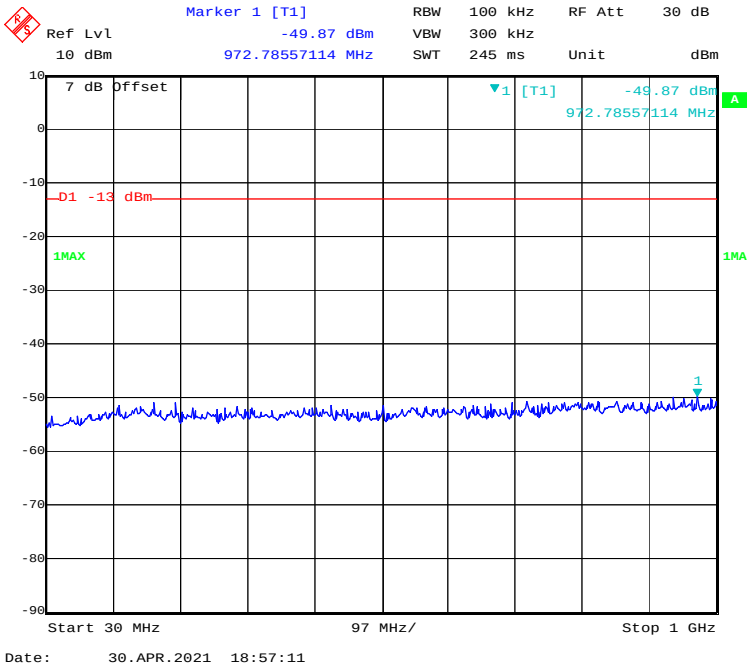
30 MHz – 1 GHz (3 MHz, QPSK, Low Channel)



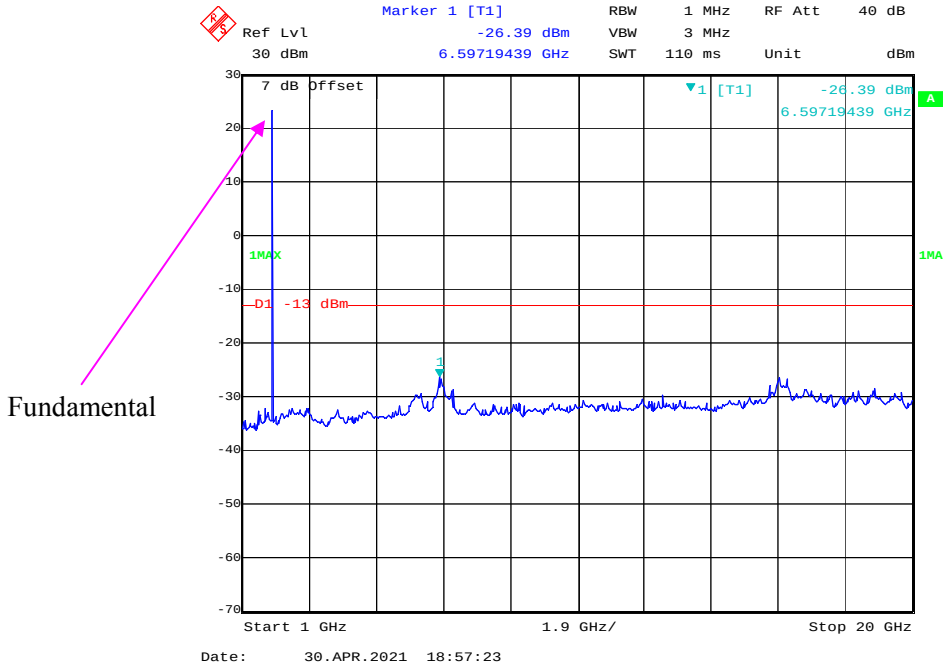
1 GHz – 20 GHz (3 MHz, QPSK, Low Channel)



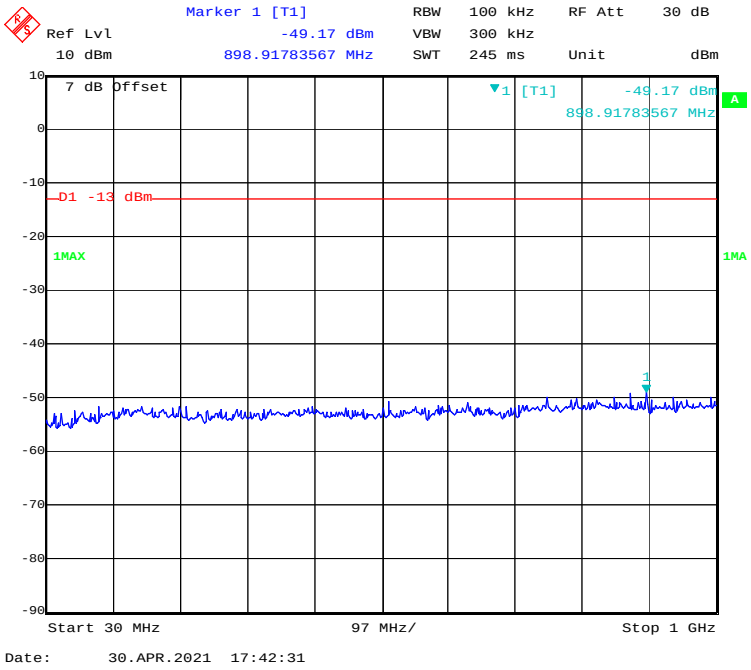
30 MHz – 1 GHz (3 MHz, 16-QAM, Low Channel)



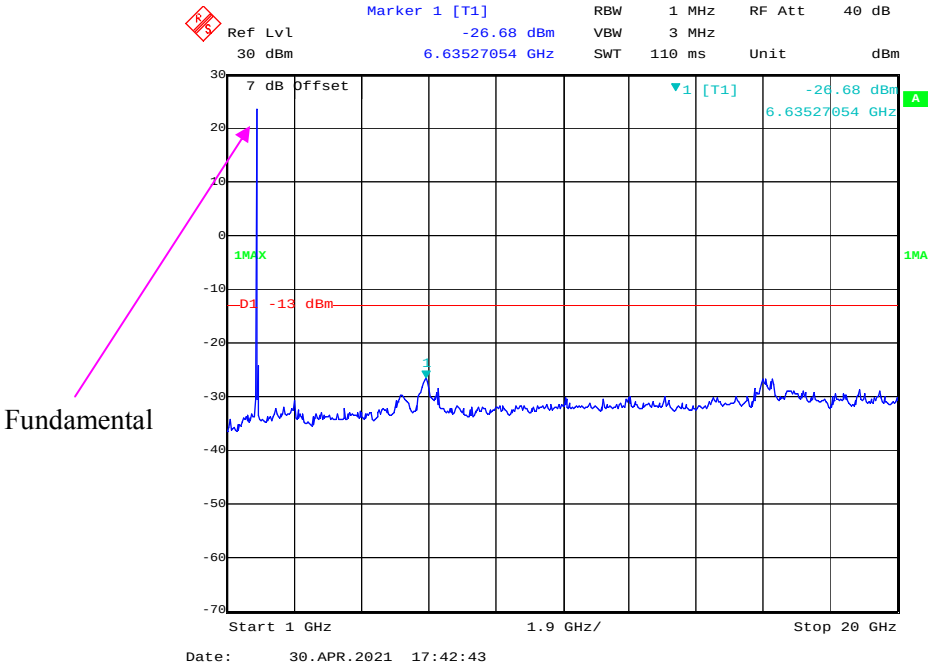
1 GHz – 20 GHz (3 MHz, 16-QAM, Low Channel)



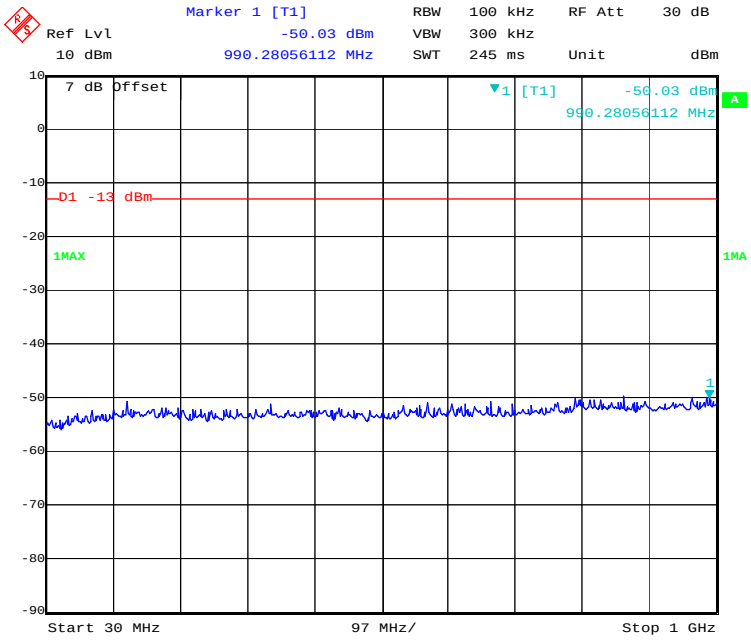
30 MHz – 1 GHz (5 MHz, QPSK, Low Channel)



1 GHz – 20 GHz (5 MHz, QPSK, Low Channel)



30 MHz – 1 GHz (5 MHz, 16-QAM, Low Channel)



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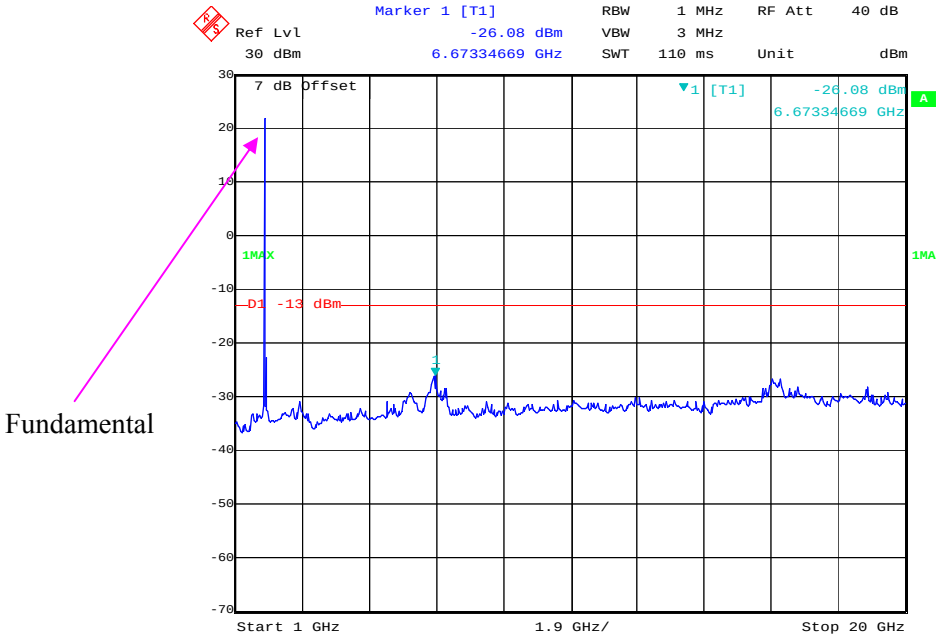
1 GHz – 20 GHz (5 MHz, 16-QAM, Low Channel)



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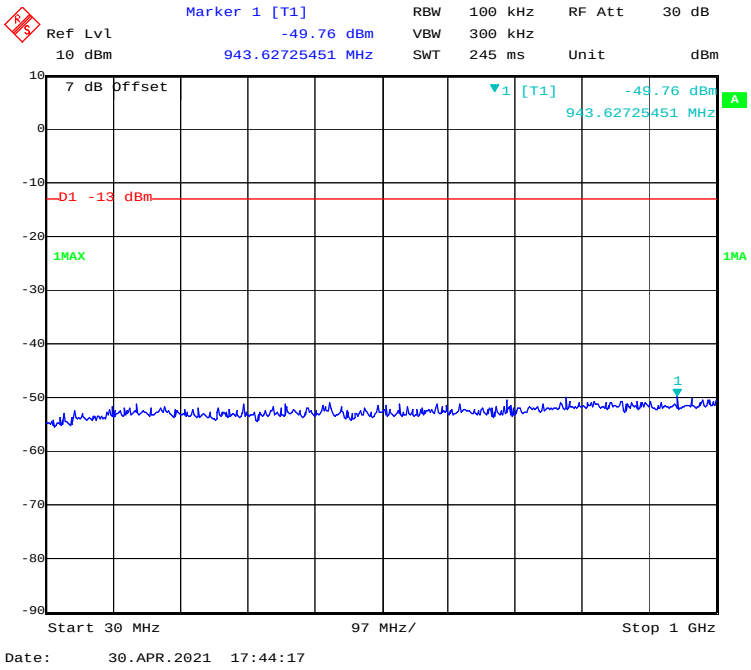
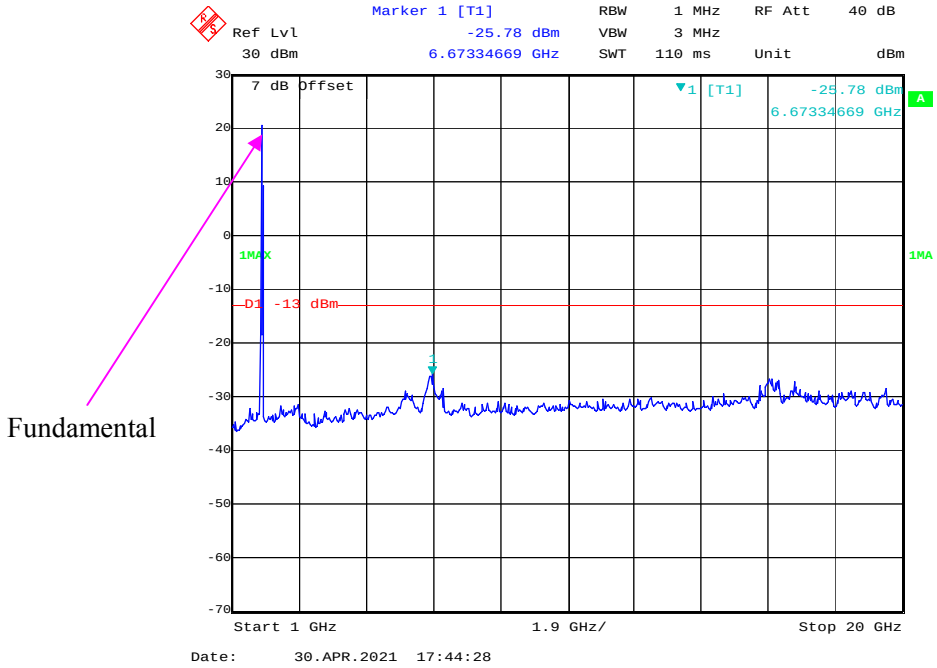
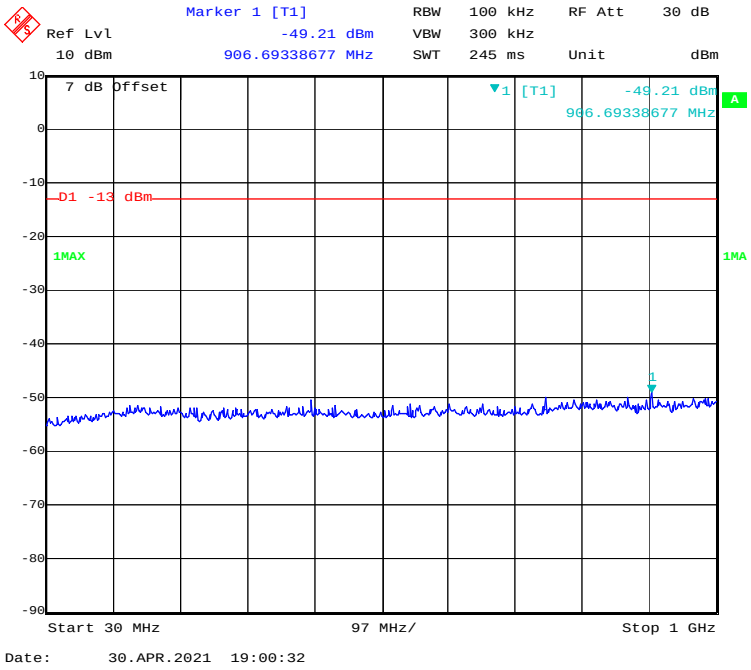
30 MHz – 1 GHz (10 MHz, QPSK, Low Channel)



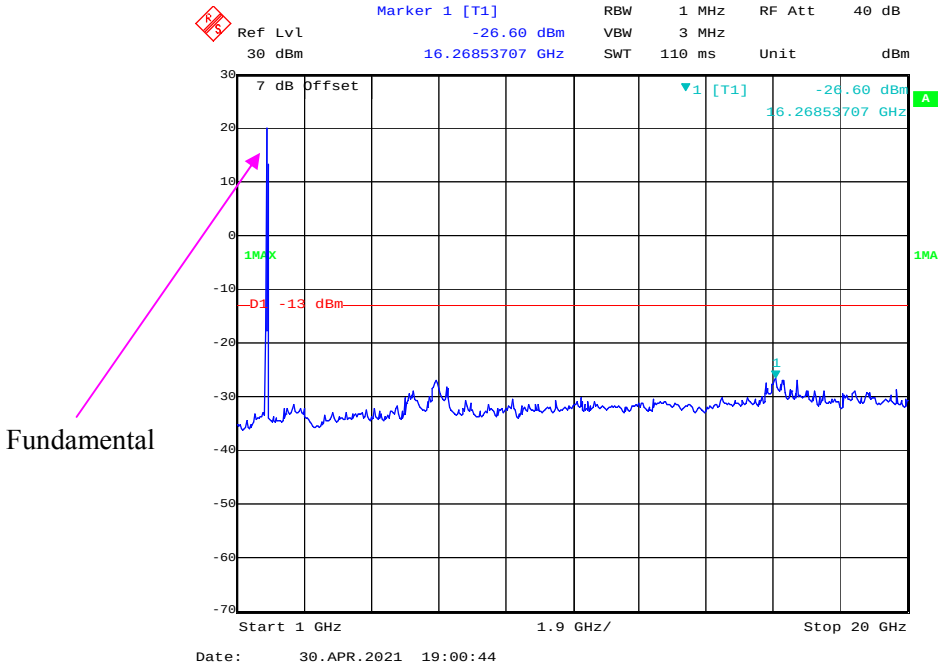
1 GHz – 20 GHz (10 MHz, QPSK, Low Channel)



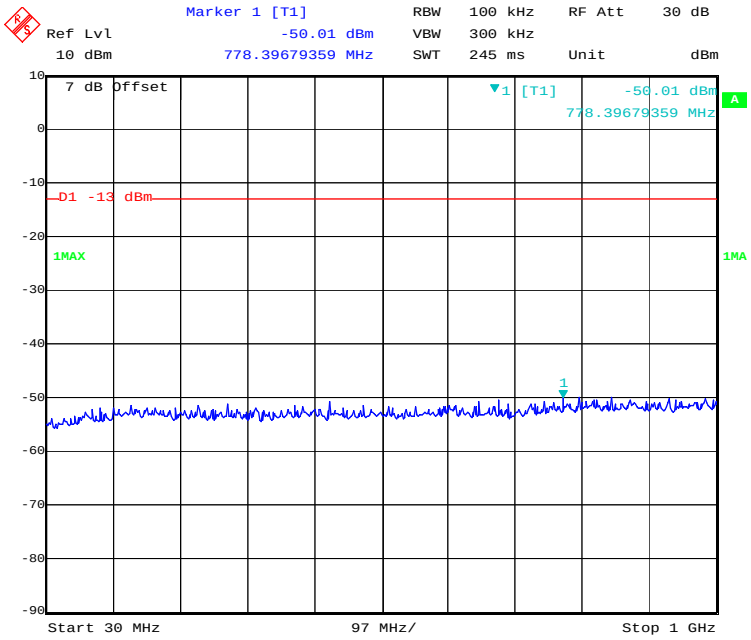
30 MHz – 1 GHz (10 MHz, 16-QAM, Low Channel)



1 GHz – 20 GHz (10 MHz, 16-QAM, Low Channel)



30 MHz – 1 GHz (15 MHz, QPSK, Low Channel)



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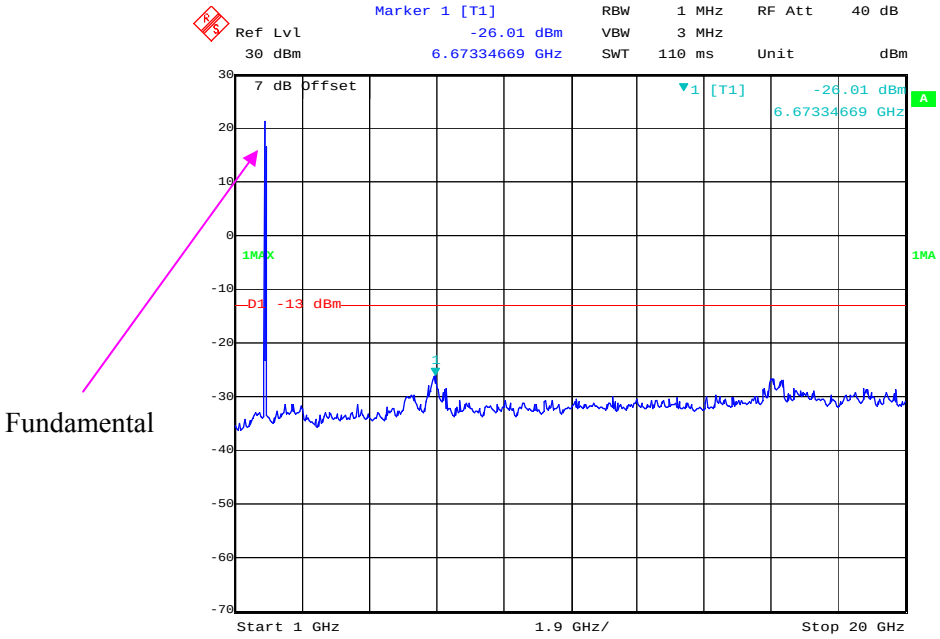
1 GHz – 20 GHz (15 MHz, QPSK, Low Channel)



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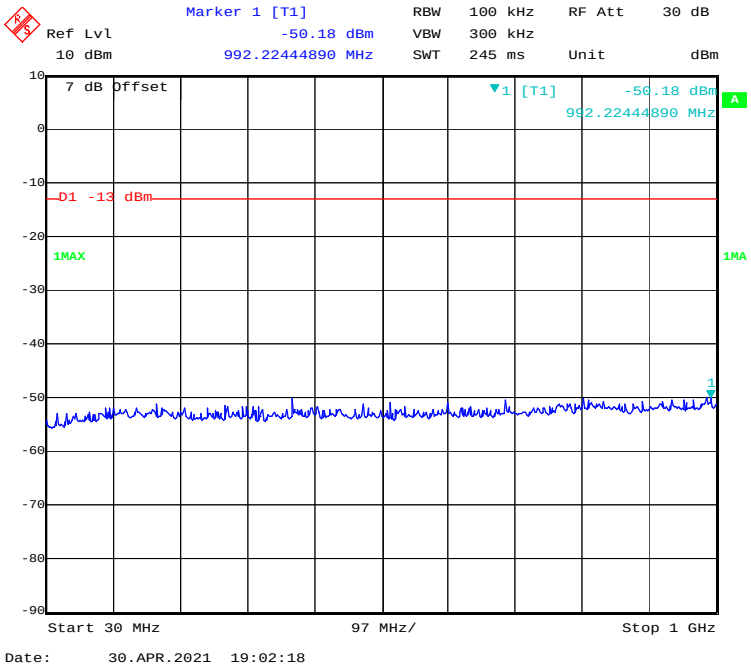
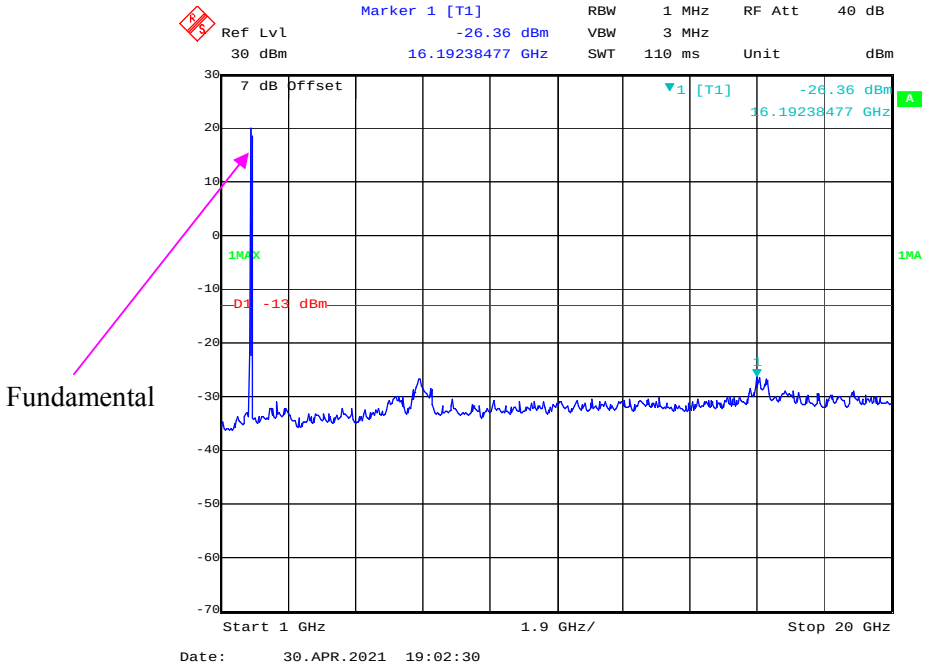
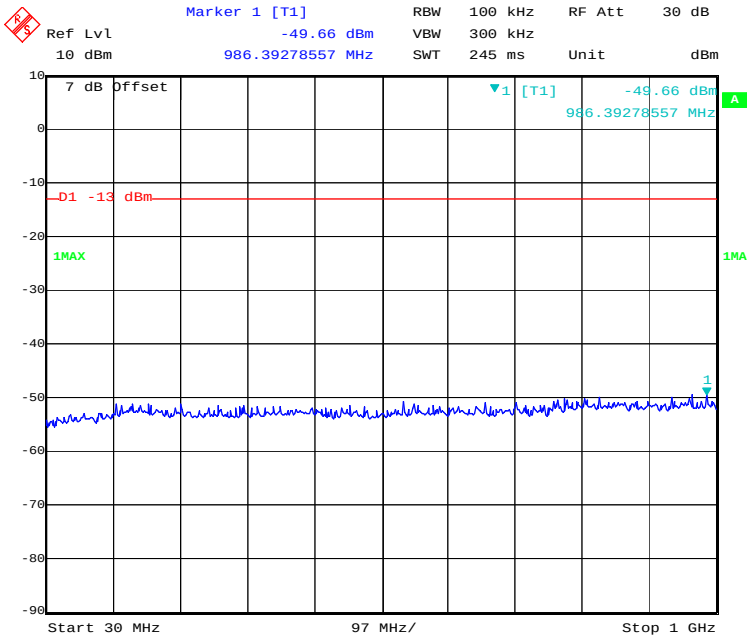
30 MHz – 1 GHz (15 MHz, 16-QAM, Low Channel)



1 GHz – 20 GHz (15 MHz, 16-QAM, Low Channel)



30 MHz – 1 GHz (20 MHz, QPSK, Low Channel)



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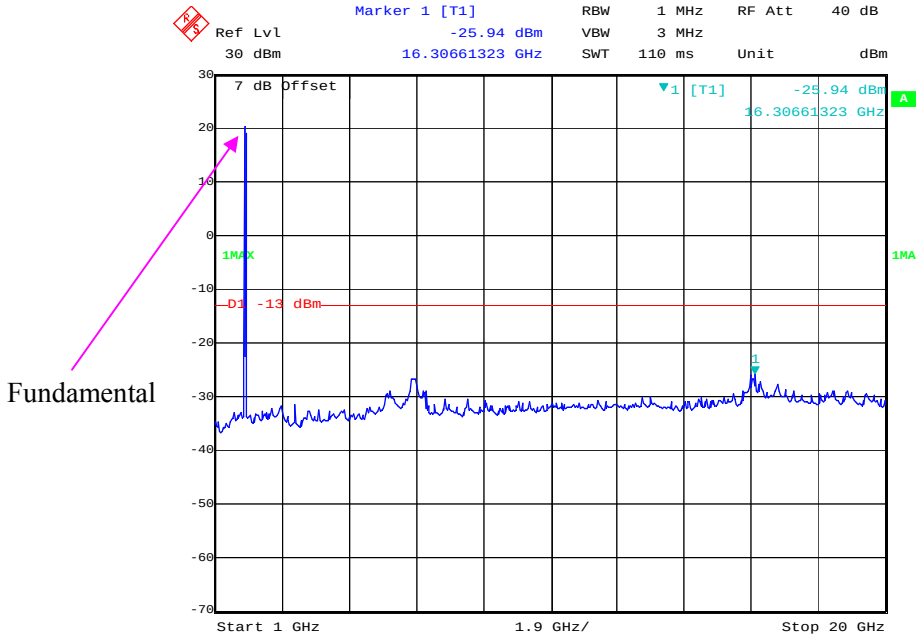
1 GHz – 20 GHz (20 MHz, QPSK, Low Channel)



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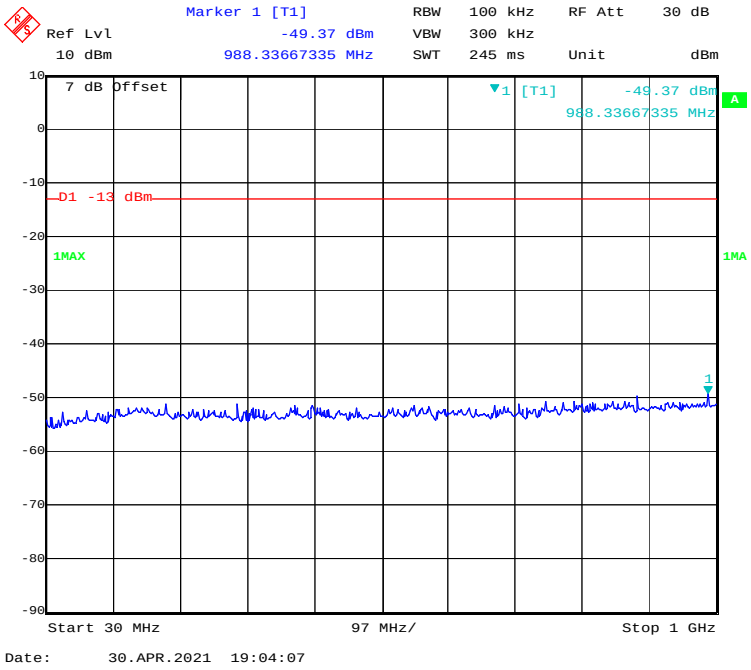
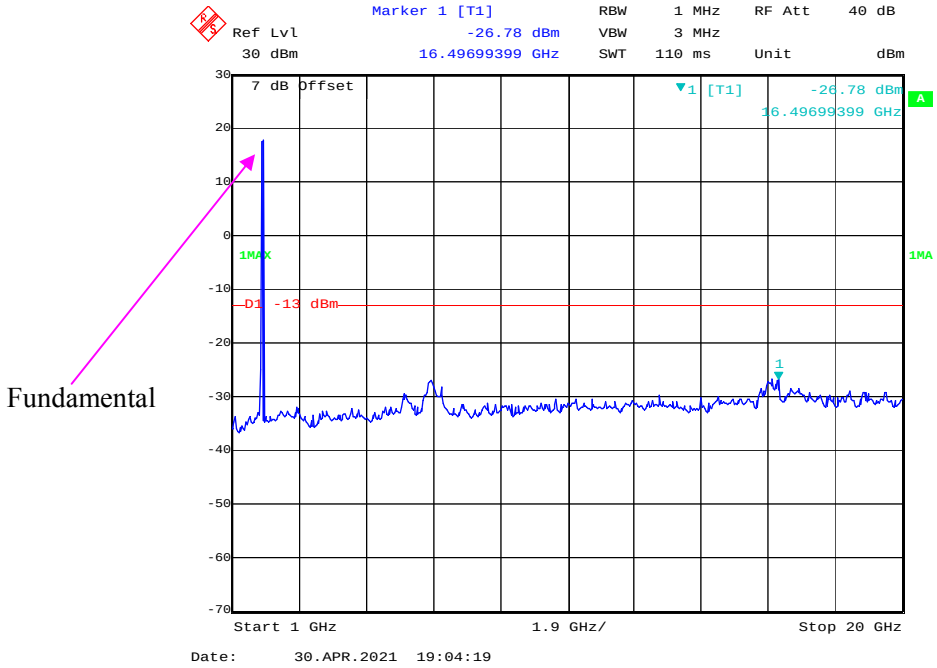
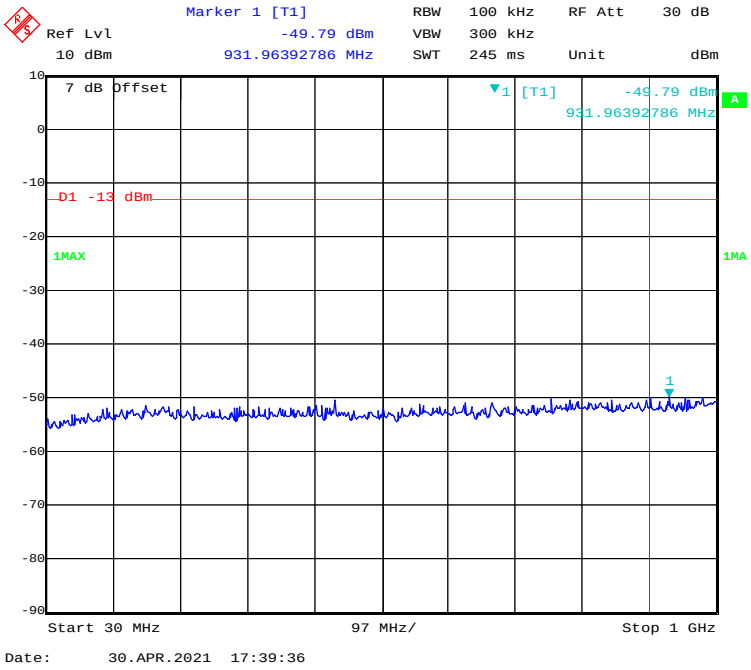
30 MHz – 1 GHz (20 MHz, 16-QAM, Low Channel)



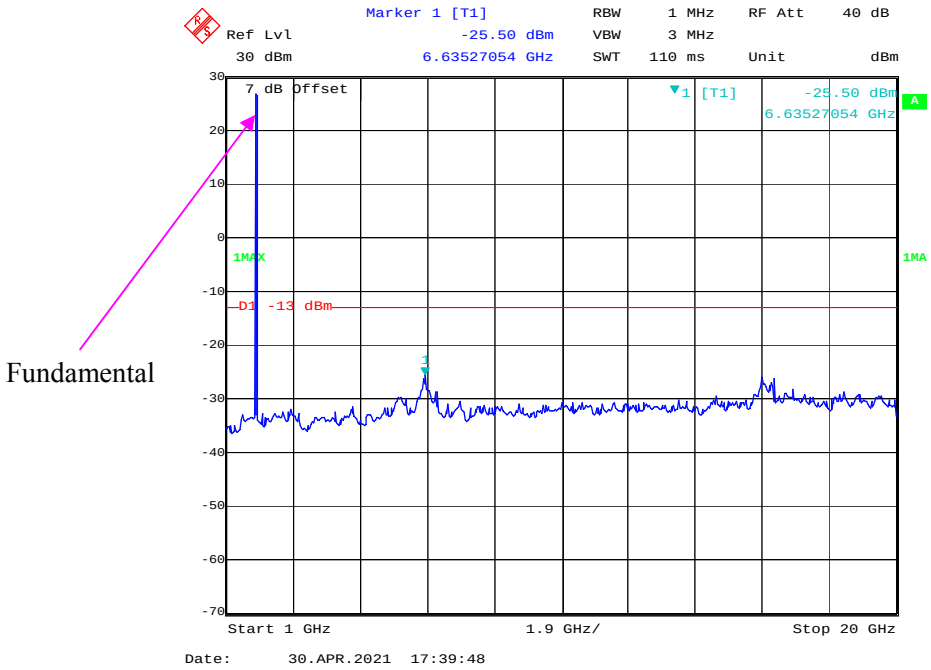
1 GHz – 20 GHz (20 MHz, 16-QAM, Low Channel)



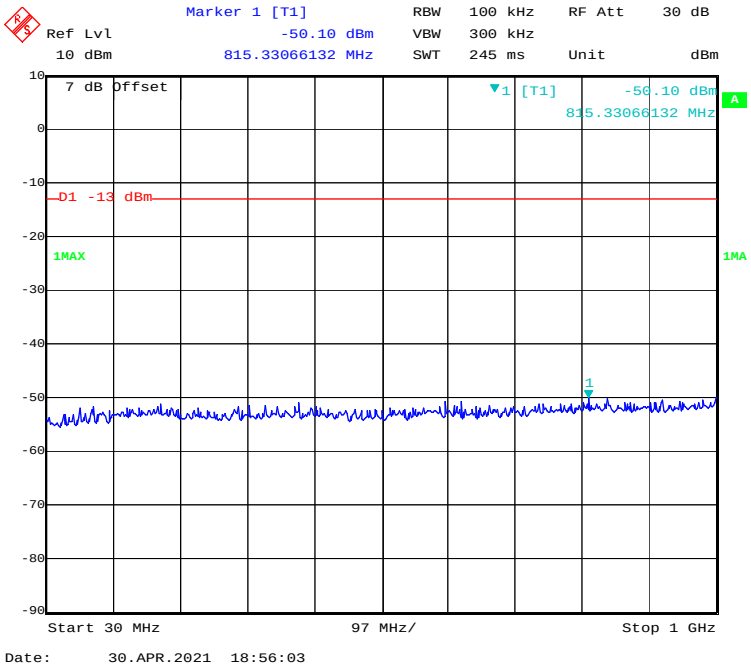
30 MHz – 1 GHz (1.4 MHz, QPSK, Middle Channel)



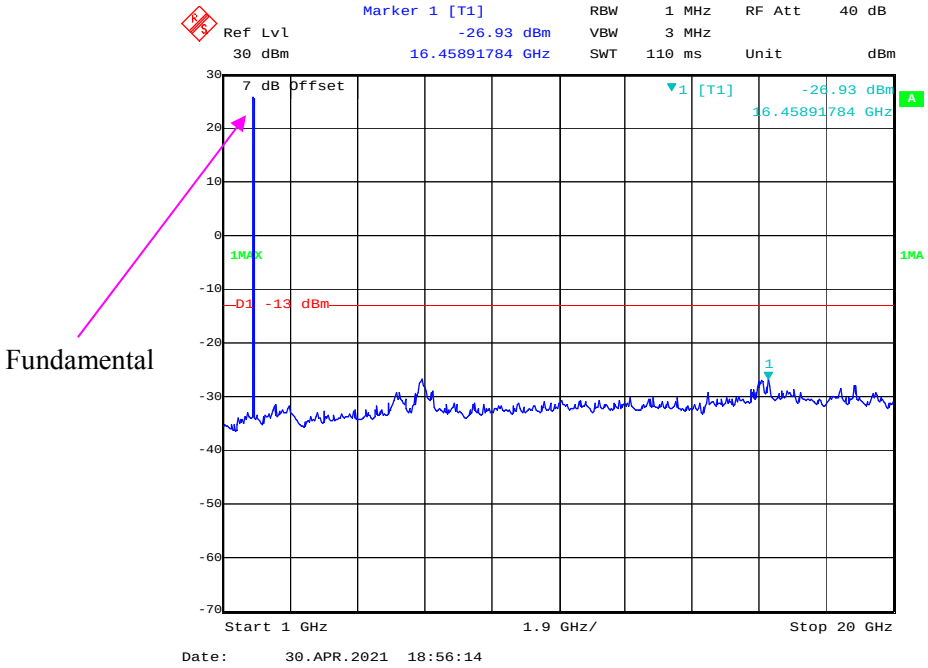
1 GHz – 20 GHz (1.4 MHz, QPSK, Middle Channel)



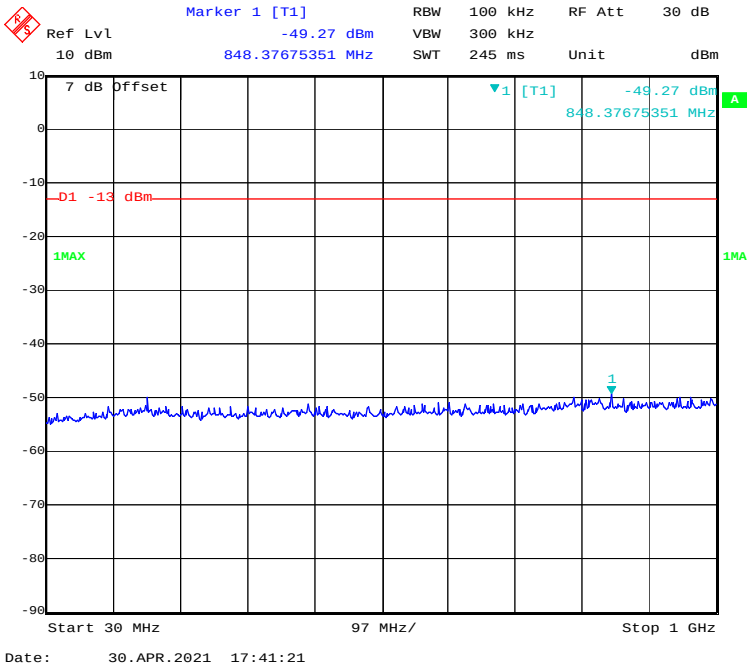
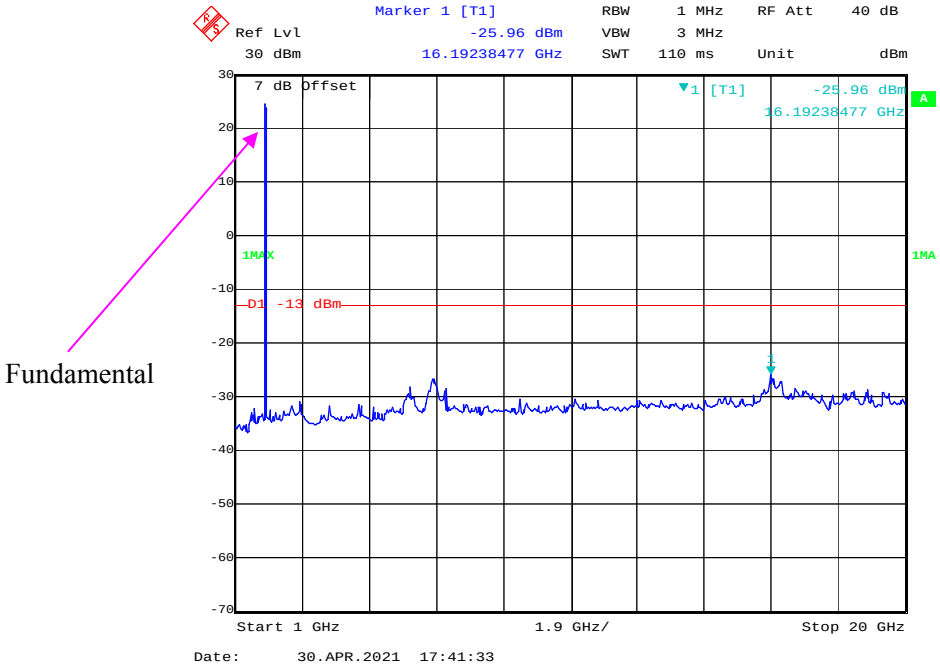
30 MHz – 1 GHz (1.4 MHz, 16-QAM, Middle Channel)



1 GHz – 20 GHz (1.4 MHz, 16-QAM, Middle Channel)



30 MHz – 1 GHz (3 MHz, QPSK, Middle Channel)



1 GHz – 20 GHz (3 MHz, QPSK, Middle Channel)