



TESTING LABORATORY
CERTIFICATE#4323.01



FCC PART 27
FCC PART 22H, PART 24E, PART 90
TEST REPORT

For

Shanghai Sunmi Technology Co.,Ltd.

Room 605, Block 7, KIC Plaza, No.388 Song Hu Road, Yang Pu District, Shanghai 200433 China

FCC ID: 2AH25TW010

Report Type: Original Report	Product Type: Wireless Router
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Report Number:	RKSA200818001-00D
Report Date:	2020-11-09
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	Shanghai Sunmi Technology Co.,Ltd.
Tested Model:	TW010
Product Type:	Wireless Router
Power Supply:	AC 100-240V
RF Function:	WCDMA; LTE
Operating Band/Frequency:	WCDMA Band II: 1850-1910 MHz(TX), 1930-1990 MHz(RX) WCDMA Band IV: 1710-1755MHz(TX), 2110-2155MHz(RX) WCDMA Band V: 824-849MHz(TX), 869-894MHz(RX) LTE Band 2: 1850-1910MHz(TX), 1930-1990 MHz(RX) LTE Band 4: 1710-1755MHz(TX), 2110-2155MHz(RX) LTE Band 12: 699-716MHz(TX), 729-746MHz(RX) LTE Band 13: 777-787MHz(TX), 746-756MHz(RX) LTE Band 14: 788-798MHz(TX), 758-768MHz(RX) LTE Band 66: 1710-1780MHz(TX), 2110-2200MHz(RX) LTE Band 71: 663-698MHz(TX), 617-652MHz(RX)
Power Class:	WCDMA & LTE: Class 3
Modulation Type:	WCDMA: BPSK,QPSK,16QAM LTE: QPSK,16QAM
Antenna Type:	WCDMA & LTE: FPC Antenna
*Maximum Antenna Gain:	WCDMA: Band II: 2.32 dBi; Band IV: 3.53 dBi; Band V: 2.61 dBi LTE: Band 2: 2.32dBi; Band 4/66:3.53dBi; Band 12: 1.34dBi; Band 13/14:2.25dBi; Band 71: 1.93dBi

Note: The antenna gain is provided by the applicant.

**All measurement and test data in this report was gathered from production sample serial number: 20200818001. (Assigned by the BACL. The EUT supplied by the applicant was received on 2020-08-18)*

Objective

This type approval report is prepared on behalf of *Shanghai Sunmi Technology Co.,Ltd.* in accordance with Part 2, Part 22-Subpart H, 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: 2AH25TW010
FCC Part 15.407 NII submissions with FCC ID: 2AH25TW010
FCC Part 15B JAB submissions with FCC ID: 2AH25TW010

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 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	/	/

Mode		Channel		Frequency (MHz)
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 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

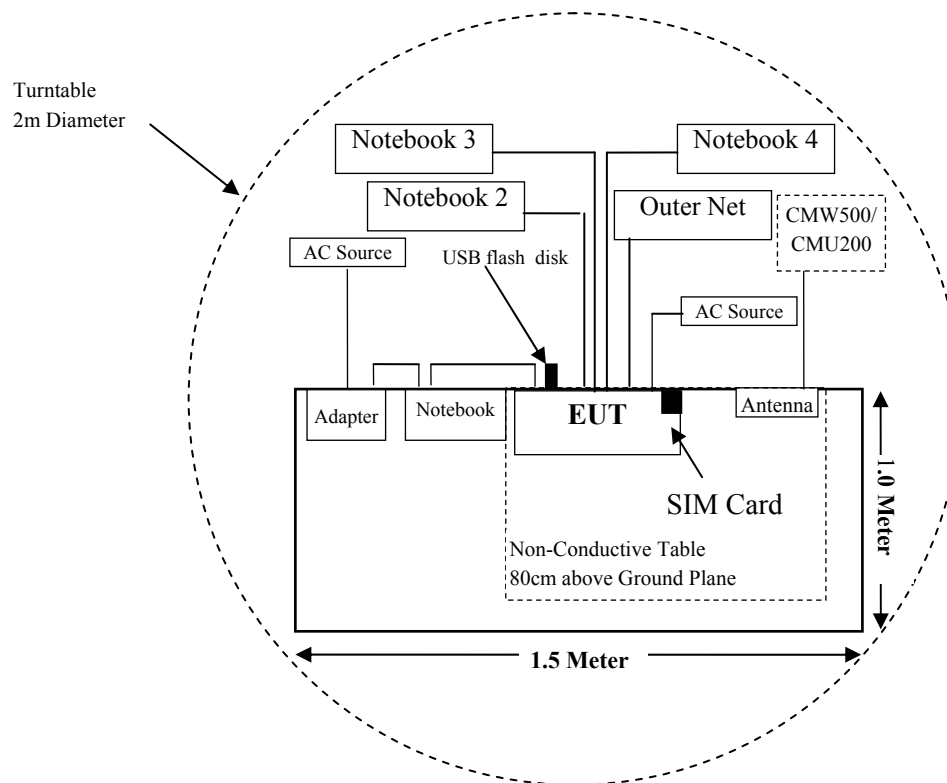
Manufacturer	Description	Model	Serial Number
DELL	Notebook 1	015K3N	00190-098-766-241
DELL	Notebook 2	0T7570	00045-644-426-785
DELL	Notebook 3	E6410	3094742521
DELL	Notebook 4	/	/
Guang Bao Technology Co.,Ltd	Adapter	SU10462	/
Sandisk	USB flash disk	/	/
/	SIM Card	/	/
Tersus Inc.	Antenna	/	/
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	104478
Rohde & Schwarz	UNIVERSAL RADIO COMMUNICATION TESTER	CMU200	110605

External I/O Cable

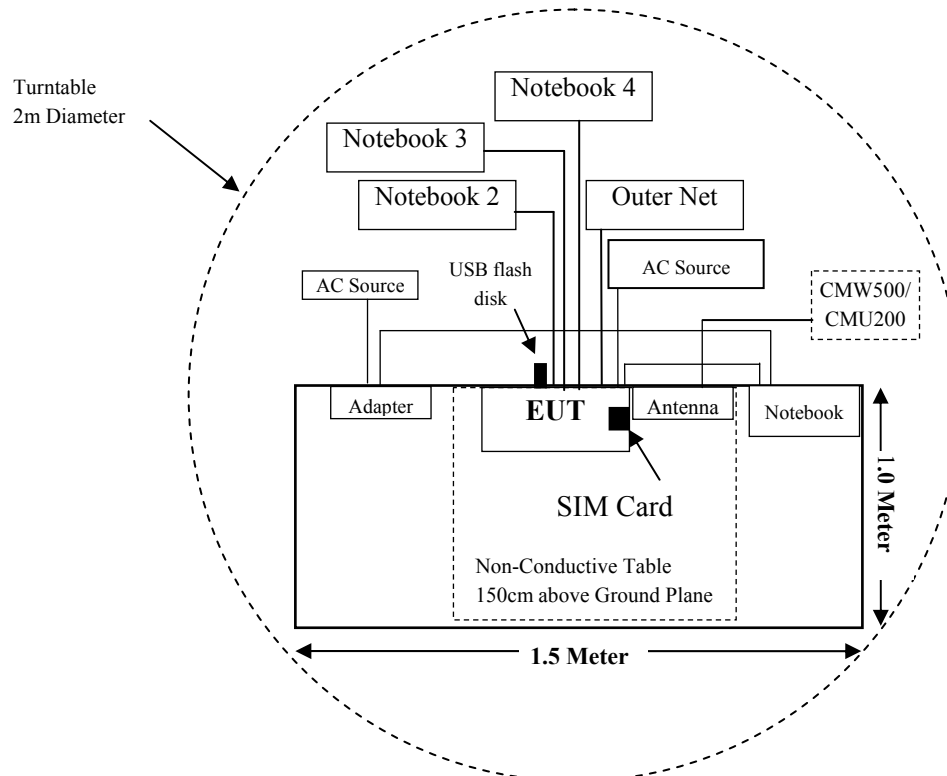
Cable Description	Shielding Type	Length (m)	From Port	To
RJ45 Cable	Un-shielding	15	EUT	Notebook2/3/4
RJ45 Cable	Un-shielding	1.5	EUT	Notebook1
Power Cable 1	Un-shielding	1.0	EUT	Adapter
Power Cable 2	Un-shielding	1.0	Adapter	AC Source

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 & §2.1091	Maximum Permissible Exposure (MPE)	Compliant
§2.1046; § 22.913 (a);§ 24.232 (c); § 27.50 (b)(c)(d);§27.50(h) (2); § 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); § 90.543	Spurious Emissions at Antenna Terminal	Compliant
§ 2.1053; § 22.917 (a); § 24.238 (a); §27.53 (c)(g)(h); § 90.543	Spurious Radiated Emissions	Compliant
§ 22.917 (a); § 24.238 (a); §27.53 (c)(g)(h); § 90.543	Band Edge	Compliant
§ 2.1055; § 22.355; § 24.235; §27.54; § 90.231	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	2019-12-14	2020-12-13
HP	Signal Generator	N5183A	MY51040755	2019-12-14	2020-12-13
Sunol Sciences	Broadband Antenna	JB3	A090413-1	2017-12-26	2020-12-25
Sunol Sciences	Broadband Antenna	JB3	A090314-2	2019-01-09	2022-01-08
Sonoma Instrument	Pre-amplifier	310N	171205	2020-08-14	2021-08-13
Rohde & Schwarz	Auto test Software	EMC32	100361	/	/
MICRO-COAX	Coaxial Cable	Cable-6	006	2020-08-15	2021-08-14
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
R & S	Wideband Radio Communication Tester	CMW500	104478	2020-08-05	2021-08-04
Rohde & Schwarz	UNIVERSAL RADIO COMMUNICATION TESTER	CMU200	110605	2020-04-01	2021-03-31
Radiated Emission Test (Chamber 2#)					
HP	Signal Generator	N5183A	MY51040755	2019-12-14	2020-12-13
Rohde & Schwarz	EMI Test Receiver	ESU40	100207	2020-04-01	2021-03-31
ETS-LINDGREN	Horn Antenna	3115	9207-3900	2020-07-15	2023-07-14
ETS-LINDGREN	Horn Antenna	3115	6229	2020-01-10	2023-01-09
ETS-LINDGREN	Horn Antenna	3116	00084159	2019-10-18	2022-10-17
ETS-LINDGREN	Horn Antenna	3116	2516	2020-01-17	2023-01-16
A.H.Systems,inc	Amplifier	PAM-0118P	512	2020-02-20	2021-02-19
EM Electronics Corporation	Amplifier	EM18G40G	060726	2020-03-22	2021-03-21
Rohde & Schwarz	Auto test Software	EMC32	100361	/	/
MICRO-COAX	Coaxial Cable	Cable-6	006	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-11	011	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-12	012	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-13	013	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-16	016	2020-08-15	2021-08-14
R & S	Wideband Radio Communication Tester	CMW500	104478	2020-08-05	2021-08-04
Rohde & Schwarz	UNIVERSAL RADIO COMMUNICATION TESTER	CMU200	110605	2020-04-01	2021-03-31

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde & Schwarz	Signal Analyzer	FSIQ26	836131/009	2019-12-14	2020-12-13
Narda	Attenuator	10dB	010	2020-08-15	2021-08-14
Rohde & Schwarz	UNIVERSAL RADIO COMMUNICATION TESTER	CMU200	110605	2020-04-01	2021-03-31
R & S	Wideband Radio Communication Tester	CMW500	104478	2020-08-05	2021-08-04
Mini-Circuits	Power splitter	ZFRSC-14-S+	SF019411452	2019-11-10	2020-11-09
BACL	Temperature & Humidity Chamber	BTH-150	30023	2019-12-20	2020-12-19
Sunmi	RF Cable	Sunmi C01	C01	Each Time	/

* **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 §1.1310 & §2.1091 –MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart §2.1091 and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary:

Predication of MPE limit at a given distance

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

Calculated Data:**2.4G WiFi:**

Mode	Frequency Range (MHz)	Maximum Antenna Gain		Tune-up Conducted Power		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
		(dBi)	(numeric)	(dBm)	(mW)			
802.11b	2412-2462	3.58	2.28	26.50	446.68	20	0.2026	1.0
802.11g		3.58	2.28	27.00	501.19	20	0.2273	1.0
802.11n-HT20		3.58	2.28	26.00	398.11	20	0.1806	1.0
802.11n-HT40	2422-2452	3.58	2.28	20.00	100.00	20	0.0454	1.0

5G Wi-Fi/WCDMA/LTE:

Mode	Frequency Range (MHz)	Antenna Gain		Tune-up Conducted Power		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
		(dBi)	(numeric)	(dBm)	(mW)			
802.11a	5150~5250	4.97	3.14	25.0	316.23	20	0.1975	1.0
	5725~5850	4.98	3.15	24.0	251.19	20	0.1573	1.0
802.11ac20	5150~5250	4.97	3.14	24.0	251.19	20	0.1569	1.0
	5725~5850	4.98	3.15	25.5	354.81	20	0.2222	1.0
802.11n20	5150~5250	4.97	3.14	22.0	158.49	20	0.0990	1.0
	5725~5850	4.98	3.15	25.5	354.81	20	0.2222	1.0
802.11ac40	5150~5250	4.97	3.14	24.5	281.84	20	0.1760	1.0
	5725~5850	4.98	3.15	26.0	398.11	20	0.2493	1.0
802.11n40	5150~5250	4.97	3.14	24.0	251.19	20	0.1569	1.0
	5725~5850	4.98	3.15	25.5	354.81	20	0.2222	1.0
802.11ac80	5210	4.97	3.14	21.0	125.89	20	0.0786	1.0
	5775	4.98	3.15	25.0	316.23	20	0.1980	1.0
WCDMA Band II	1850-1910	2.32	1.71	22.5	177.83	20	0.0603	1.0
WCDMA Band IV	1710-1755	3.53	2.25	22.5	177.83	20	0.0796	1.0
WCDMA Band V	824-849	2.61	1.82	22.5	177.83	20	0.0645	0.55
LTE Band 2	1850-1910	2.32	1.71	23.0	199.53	20	0.0679	1.0
LTE Band 4	1710-1755	3.53	2.25	22.5	177.83	20	0.0796	1.0
LTE Band 12	699-716	1.34	1.36	22.5	177.83	20	0.0482	0.47
LTE Band 13	777-787	2.25	1.68	22.5	177.83	20	0.0594	0.52
LTE Band 14	788-798	2.25	1.68	22.5	177.83	20	0.0594	0.53
LTE Band 66	1710-1780	3.53	2.25	23.0	199.53	20	0.0893	1.0
LTE Band 71	663-698	1.93	1.56	22.5	177.83	20	0.0552	0.44

Note:

1. For the above tune up power were declared by the manufacturer.
2. 2.4G Wi-Fi, 5G Wi-Fi and LTE can transmit simultaneously, The worst condition is 802.11g of 2.4G Wi-Fi, 802.11ac 40 of 5G Wi-Fi Band 4 & LTE Band 71, as below:

$$\sum_i \frac{S_i}{S_{Limit,i}} = 0.2273/1.00 + 0.2493/1.0 + 0.0552/0.44 = 0.6021 < 1.0$$

Result: The device meet FCC MPE at 20 cm distance.

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

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.

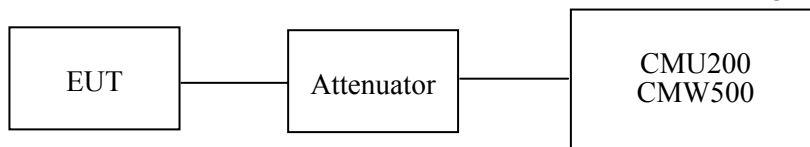
According to §90.542, control stations and mobile stations transmitting in the 758-768 MHz band and the 788-798 MHz band are limited to 30 watts ERP.

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 CMU200/CMW500 through sufficient attenuation.



Radiated Output Power:

The measurements procedures specified in ANSI C63.26-2015 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 360° 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.
 $\text{LOSS} = \text{Generator Output Power (dBm)} - \text{Analyzer reading (dBm)}$

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

$$\text{ERP (dBm)} = \text{LVL (dBm)} + \text{LOSS (dB)}$$

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:

$$\text{EIRP (dBm)} = \text{ERP (dBm)} + 2.15 \text{ (dB)}$$

Test Data

Environmental Conditions

Temperature:	23.2°C-23.5°C
Relative Humidity:	51 %-53%
ATM Pressure:	101.1kPa-103.3kPa

The testing was performed by CK Huang from 2020-08-23 to 2020-09-13.

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	22.46	22.35	22.16
		HSDPA	1	22.01	22.17	22.29
			2	21.97	22.09	22.10
			3	22.08	22.13	22.22
			4	22.02	22.01	22.27
		HSUPA	1	21.94	22.06	22.20
			2	22.09	22.05	22.21
			3	22.06	21.91	22.13
			4	22.18	22.16	22.10
			5	21.99	22.08	22.09
		HSPA+	1	22.06	22.05	22.20

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	22.46	22.15	22.32
		HSDPA	1	22.17	21.91	22.17
			2	22.32	22.02	22.18
			3	22.30	21.94	22.18
			4	22.27	21.96	22.10
		HSUPA	1	22.23	22.01	22.20
			2	22.26	21.99	22.04
			3	22.30	22.16	22.02
			4	22.17	22.05	22.10
			5	22.28	22.09	22.16
		HSPA+	1	22.17	22.03	22.09

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	22.26	22.16	22.41
		HSDPA	1	22.27	22.07	22.16
			2	22.31	22.10	22.17
			3	22.13	22.01	22.19
			4	22.26	21.96	22.05
		HSUPA	1	22.24	21.98	22.21
			2	22.37	22.04	22.06
			3	22.19	22.01	22.18
			4	22.26	22.01	22.22
			5	22.16	22.10	22.16
		HSPA+	1	22.24	22.11	22.21

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	21.68	22.00	21.96
		1#5	21.66	21.87	22.03
		3#0	21.72	21.86	22.08
		3#1	21.79	21.77	22.07
		3#3	21.79	21.78	22.17
		6#0	21.74	21.74	22.10
	16-QAM	1#0	21.88	21.75	22.10
		1#3	21.90	21.78	21.97
		1#5	21.94	21.73	22.00
		3#0	21.84	21.74	21.98
		3#1	21.75	21.71	21.96
		3#3	21.71	21.71	21.87
		6#0	21.62	21.62	21.85
3M	QPSK	1#0	21.72	21.65	21.92
		1#7	21.83	21.72	22.00
		1#14	21.85	21.86	21.90
		8#0	21.90	21.84	21.93
		8#4	21.95	21.81	21.98
		8#7	21.86	21.78	21.97
		15#0	21.84	21.77	22.05
	16-QAM	1#0	21.94	21.73	22.04
		1#7	21.97	21.61	22.02
		1#14	21.98	21.62	22.01
		8#0	22.00	21.56	22.06
		8#4	21.96	21.65	22.10
		8#7	22.07	21.56	22.11
		15#0	22.10	21.64	22.12

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	22.14	21.56	22.14
		1#12	22.10	21.62	22.11
		1#24	22.06	21.61	22.04
		12#0	22.18	21.62	22.08
		12#6	22.11	21.58	22.07
		12#11	22.01	21.48	22.12
		25#0	22.00	21.51	22.08
	16-QAM	1#0	21.99	21.52	21.98
		1#12	22.00	21.49	21.99
		1#24	22.03	21.46	21.88
		12#0	22.01	21.48	21.92
		12#6	21.94	21.43	21.93
		12#11	21.98	21.40	21.92
		25#0	22.03	21.32	21.91
10M	QPSK	1#0	22.07	21.36	21.99
		1#24	22.12	21.40	22.07
		1#49	22.24	21.45	22.12
		25#0	22.25	21.45	22.18
		25#12	22.22	21.38	22.13
		25#24	22.16	21.48	22.03
		50#0	22.17	21.49	22.07
	16-QAM	1#0	22.03	21.46	22.19
		1#24	22.05	21.42	22.32
		1#49	22.04	21.44	22.30
		25#0	21.93	21.37	22.33
		25#12	21.88	21.34	22.37
		25#24	21.91	21.36	22.31
		50#0	21.77	21.31	22.39

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	21.65	21.32	22.39
		1#37	21.74	21.21	22.36
		1#74	21.81	21.24	22.28
		36#0	21.75	21.31	22.37
		36#17	21.84	21.20	22.39
		36#35	21.94	21.12	22.44
		75#0	21.87	21.22	22.45
	16-QAM	1#0	21.90	21.08	22.35
		1#37	21.88	21.00	22.28
		1#74	21.87	21.00	22.20
		36#0	21.90	20.96	22.33
		36#17	21.83	20.92	22.36
		36#35	21.80	20.84	22.41
		75#0	21.74	20.88	22.53
20M	QPSK	1#0	21.85	20.96	22.55
		1#49	21.85	21.05	22.60
		1#99	21.79	21.19	22.57
		50#0	21.82	21.29	22.57
		50#24	21.82	21.32	22.55
		50#49	21.81	21.36	22.49
		100#0	21.83	21.46	22.42
	16-QAM	1#0	21.84	21.46	22.34
		1#49	21.84	21.46	22.36
		1#99	21.86	21.56	22.35
		50#0	21.97	21.49	22.45
		50#24	21.90	21.54	22.53
		50#49	21.91	21.51	22.59
		100#0	21.96	21.51	22.58

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	21.62	21.97	21.93
		1#5	21.66	21.95	22.02
		3#0	21.67	22.00	22.06
		3#1	21.67	21.87	22.04
		3#3	21.70	21.87	22.13
		6#0	21.63	21.98	22.16
	16-QAM	1#0	21.62	22.10	22.20
		1#3	21.59	22.17	22.15
		1#5	21.66	22.15	22.07
		3#0	21.62	22.13	22.01
		3#1	21.50	22.25	22.04
		3#3	21.62	22.24	22.06
		6#0	21.52	22.19	22.11
3M	QPSK	1#0	21.60	22.18	22.09
		1#7	21.51	22.24	22.08
		1#14	21.47	22.19	22.00
		8#0	21.41	22.15	22.02
		8#4	21.37	22.10	22.01
		8#7	21.39	22.03	21.90
		15#0	21.43	21.89	21.78
	16-QAM	1#0	21.47	21.90	21.90
		1#7	21.46	21.94	21.84
		1#14	21.43	22.04	21.87
		8#0	21.53	21.95	21.93
		8#4	21.46	21.93	21.99
		8#7	21.44	21.86	21.95
		15#0	21.39	21.85	21.97

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.43	21.89	21.94
		1#12	21.42	21.75	21.83
		1#24	21.34	21.78	21.85
		12#0	21.31	21.77	21.93
		12#6	21.27	21.86	21.92
		12#11	21.29	21.85	21.93
		25#0	21.34	21.77	22.01
	16-QAM	1#0	21.33	21.81	21.95
		1#12	21.38	21.72	21.91
		1#24	21.40	21.78	22.00
		12#0	21.40	21.86	22.00
		12#6	21.41	21.95	21.94
		12#11	21.47	21.96	21.96
		25#0	21.40	21.96	22.10
10M	QPSK	1#0	21.42	21.98	22.07
		1#24	21.44	21.98	22.06
		1#49	21.53	21.97	22.06
		25#0	21.67	22.02	22.11
		25#12	21.67	22.09	22.19
		25#24	21.74	22.07	22.19
		50#0	21.79	21.96	22.10
	16-QAM	1#0	21.69	21.97	22.20
		1#24	21.75	22.08	22.16
		1#49	21.64	22.12	22.11
		25#0	21.59	22.10	22.14
		25#12	21.61	22.02	22.09
		25#24	21.66	22.04	22.07
		50#0	21.62	22.15	22.17

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	21.70	22.11	22.16
		1#37	21.64	21.97	22.22
		1#74	21.60	21.95	22.25
		36#0	21.61	22.02	22.37
		36#17	21.65	21.96	22.36
		36#35	21.63	21.98	22.33
		75#0	21.60	21.95	22.34
	16-QAM	1#0	21.61	22.09	22.39
		1#37	21.61	22.07	22.33
		1#74	21.56	22.02	22.26
		36#0	21.59	22.07	22.16
		36#17	21.70	22.06	22.14
		36#35	21.82	21.91	22.19
		75#0	21.88	21.89	22.19
20M	QPSK	1#0	21.78	21.98	22.16
		1#49	21.78	22.05	22.14
		1#99	21.82	21.99	22.10
		50#0	21.79	21.99	22.07
		50#24	21.75	22.06	22.16
		50#49	21.73	22.13	22.18
		100#0	21.77	22.13	22.24
	16-QAM	1#0	21.79	22.11	22.37
		1#49	21.72	22.05	22.44
		1#99	21.67	22.02	22.32
		50#0	21.67	22.06	22.33
		50#24	21.69	21.97	22.21
		50#49	21.65	21.96	22.22
		100#0	21.60	21.98	22.21

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	21.75	21.85	21.76
		1#5	21.85	21.76	21.72
		3#0	21.87	21.85	21.72
		3#1	21.91	21.93	21.75
		3#3	21.95	21.81	21.78
		6#0	22.01	21.77	21.91
	16-QAM	1#0	22.07	21.76	21.87
		1#3	22.02	21.85	21.76
		1#5	22.03	21.83	21.75
		3#0	22.00	21.83	21.85
		3#1	21.87	21.76	21.86
		3#3	21.90	21.71	21.81
		6#0	22.01	21.70	21.83
3M	QPSK	1#0	21.91	21.73	21.78
		1#7	22.04	21.74	21.76
		1#14	22.13	21.75	21.79
		8#0	22.16	21.86	21.81
		8#4	22.24	21.86	21.87
		8#7	22.19	21.78	21.85
		15#0	22.31	21.76	21.86
	16-QAM	1#0	22.35	21.72	21.74
		1#7	22.34	21.67	21.71
		1#14	22.40	21.76	21.72
		8#0	22.33	21.81	21.71
		8#4	22.37	21.80	21.60
		8#7	22.31	21.90	21.56
		15#0	22.27	21.95	21.57

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	22.17	21.97	21.7
		1#12	22.15	21.98	21.71
		1#24	22.11	22.09	21.72
		12#0	22.19	22.14	21.74
		12#6	22.21	22.1	21.87
		12#11	22.12	22.16	21.90
		25#0	22.16	22.26	21.97
	16-QAM	1#0	22.14	22.32	22.03
		1#12	22.10	22.41	22.05
		1#24	22.01	22.47	22.12
		12#0	22.05	22.53	22.22
		12#6	22.1	22.6	22.18
		12#11	22.07	22.63	22.26
		25#0	22.13	22.53	22.23
10M	QPSK	1#0	22.08	22.41	22.23
		1#24	22.07	22.44	22.20
		1#49	22.05	22.41	22.32
		25#0	22.16	22.47	22.30
		25#12	22.16	22.44	22.34
		25#24	22.19	22.38	22.31
		50#0	22.18	22.42	22.29
	16-QAM	1#0	22.21	22.44	22.20
		1#24	22.13	22.42	22.30
		1#49	22.17	22.36	22.28
		25#0	22.17	22.39	22.32
		25#12	22.20	22.37	22.27
		25#24	22.11	22.36	22.23
		50#0	22.10	22.39	22.33

LTE Band 13

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.46	21.31	21.26
		1#12	22.24	21.76	21.02
		1#24	21.61	21.92	21.36
		12#0	21.26	21.22	21.41
		12#6	22.25	21.92	21.69
		12#11	21.31	22.05	21.70
		25#0	21.52	21.22	21.96
	16-QAM	1#0	22.14	21.52	21.85
		1#12	21.93	21.19	21.15
		1#24	21.36	21.52	21.11
		12#0	21.80	21.79	22.02
		12#6	21.63	21.20	21.09
		12#11	21.71	22.03	21.25
		25#0	21.51	22.07	21.99
10M	QPSK	1#0	/	21.20	/
		1#24	/	21.36	/
		1#49	/	21.57	/
		25#0	/	21.46	/
		25#12	/	21.57	/
		25#24	/	21.81	/
		50#0	/	21.17	/
	16-QAM	1#0	/	21.65	/
		1#24	/	22.05	/
		1#49	/	21.79	/
		25#0	/	21.46	/
		25#12	/	21.98	/
		25#24	/	21.71	/
		50#0	/	21.35	/

LTE Band 14

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.65	21.82	21.25
		1#12	21.50	21.92	21.36
		1#24	21.34	21.97	21.28
		12#0	21.83	21.83	21.52
		12#6	21.83	21.93	21.29
		12#11	22.23	21.52	21.80
		25#0	22.20	21.80	21.47
	16-QAM	1#0	21.29	21.24	21.48
		1#12	21.32	21.16	21.27
		1#24	21.33	21.14	21.64
		12#0	21.34	21.94	21.28
		12#6	21.88	21.37	21.03
		12#11	21.59	21.63	21.19
		25#0	21.52	21.33	21.04
10M	QPSK	1#0	/	22.05	/
		1#24	/	21.57	/
		1#49	/	21.57	/
		25#0	/	21.37	/
		25#12	/	22.09	/
		25#24	/	21.18	/
		50#0	/	22.01	/
	16-QAM	1#0	/	21.24	/
		1#24	/	22.07	/
		1#49	/	21.85	/
		25#0	/	21.56	/
		25#12	/	21.48	/
		25#24	/	21.56	/
		50#0	/	21.23	/

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	21.60	22.07	21.86
		1#5	21.53	22.07	21.79
		3#0	21.42	22.07	21.67
		3#1	21.56	22.02	21.59
		3#3	21.63	22.15	21.57
		6#0	21.57	22.08	21.52
	16-QAM	1#0	21.65	22.04	21.45
		1#3	21.66	22.05	21.43
		1#5	21.62	22.07	21.41
		3#0	21.52	22.10	21.38
		3#1	21.61	22.10	21.34
		3#3	21.65	22.05	21.27
		6#0	21.57	22.04	21.21
3M	QPSK	1#0	21.59	22.12	21.28
		1#7	21.70	22.15	21.27
		1#14	21.64	22.08	21.30
		8#0	21.58	22.07	21.21
		8#4	21.66	22.10	21.16
		8#7	21.67	22.23	21.17
		15#0	21.73	22.29	21.19
	16-QAM	1#0	21.66	22.33	21.31
		1#7	21.62	22.37	21.18
		1#14	21.57	22.27	21.09
		8#0	21.52	22.24	21.11
		8#4	21.49	22.27	21.14
		8#7	21.47	22.30	21.19
		15#0	21.53	22.25	21.25

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.50	22.36	21.15
		1#12	21.54	22.26	21.17
		1#24	21.65	22.31	21.29
		12#0	21.65	22.34	21.33
		12#6	21.60	22.33	21.32
		12#11	21.57	22.35	21.34
		25#0	21.57	22.32	21.32
	16-QAM	1#0	21.48	22.34	21.35
		1#12	21.35	22.36	21.35
		1#24	21.32	22.36	21.47
		12#0	21.30	22.32	21.35
		12#6	21.19	22.32	21.34
		12#11	21.24	22.37	21.44
		25#0	21.27	22.36	21.45
10M	QPSK	1#0	21.34	22.37	21.52
		1#24	21.47	22.29	21.43
		1#49	21.42	22.18	21.50
		25#0	21.37	22.16	21.47
		25#12	21.41	22.12	21.55
		25#24	21.36	22.07	21.52
		50#0	21.35	22.09	21.58
	16-QAM	1#0	21.41	21.96	21.62
		1#24	21.51	22.07	21.67
		1#49	21.54	22.20	21.66
		25#0	21.52	22.08	21.79
		25#12	21.51	22.08	21.82
		25#24	21.45	21.96	21.70
		50#0	21.50	22.01	21.61

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	21.43	21.96	21.74
		1#37	21.43	21.97	21.70
		1#74	21.46	22.02	21.79
		36#0	21.56	22.07	21.75
		36#17	21.54	22.14	21.66
		36#35	21.54	22.15	21.67
		75#0	21.54	22.15	21.73
	16-QAM	1#0	21.62	22.05	21.77
		1#37	21.62	22.11	21.66
		1#74	21.61	22.19	21.59
		36#0	21.48	22.22	21.56
		36#17	21.52	22.31	21.49
		36#35	21.44	22.40	21.47
		75#0	21.48	22.51	21.52
20M	QPSK	1#0	21.52	22.61	21.53
		1#49	21.52	22.67	21.52
		1#99	21.51	22.53	21.49
		50#0	21.46	22.57	21.48
		50#24	21.47	22.54	21.55
		50#49	21.46	22.49	21.51
		100#0	21.41	22.40	21.45
	16-QAM	1#0	21.40	22.45	21.46
		1#49	21.43	22.43	21.42
		1#99	21.37	22.46	21.37
		50#0	21.44	22.47	21.31
		50#24	21.44	22.35	21.31
		50#49	21.40	22.34	21.32
		100#0	21.43	22.36	21.34

LTE Band 71

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.44	21.47	21.21
		1#12	21.31	21.89	21.19
		1#24	22.25	21.28	21.22
		12#0	21.58	21.85	21.25
		12#6	22.04	21.62	21.65
		12#11	21.88	21.42	21.27
		25#0	21.44	21.26	21.11
	16-QAM	1#0	22.17	21.58	21.32
		1#12	21.66	21.96	21.49
		1#24	22.13	21.40	21.43
		12#0	21.30	21.55	21.76
		12#6	21.53	21.76	22.01
		12#11	21.35	21.70	21.15
		25#0	21.37	21.36	21.42
10M	QPSK	1#0	21.63	22.15	21.56
		1#24	21.61	21.86	21.47
		1#49	21.28	21.44	22.09
		25#0	21.56	21.71	21.70
		25#12	21.04	21.88	22.32
		25#24	22.00	21.51	22.26
		50#0	21.03	21.77	22.07
	16-QAM	1#0	21.98	21.88	22.04
		1#24	21.69	21.45	22.02
		1#49	21.15	22.13	21.39
		25#0	21.12	21.90	22.23
		25#12	21.32	21.81	21.91
		25#24	21.28	21.53	21.46
		50#0	21.12	21.38	21.58

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	20.76	21.45	21.92
		1#37	21.36	21.57	21.46
		1#74	20.75	21.46	22.04
		36#0	21.17	21.70	21.14
		36#17	21.46	21.77	21.18
		36#35	20.76	21.17	22.04
		75#0	21.16	21.58	21.57
	16-QAM	1#0	20.77	21.80	21.18
		1#37	21.14	21.96	21.42
		1#74	21.01	21.83	21.73
		36#0	20.81	21.18	21.52
		36#17	20.81	21.68	21.76
		36#35	20.82	21.90	21.99
		75#0	21.53	21.39	21.14
20M	QPSK	1#0	21.69	20.96	21.36
		1#49	21.22	21.62	21.07
		1#99	21.71	21.71	21.48
		50#0	21.06	21.59	21.61
		50#24	21.24	21.10	21.80
		50#49	21.39	20.97	21.17
		100#0	21.06	21.52	21.23
	16-QAM	1#0	21.43	21.28	21.24
		1#49	21.41	21.46	20.87
		1#99	21.77	21.05	21.11
		50#0	21.45	21.89	21.31
		50#24	21.23	21.22	21.71
		50#49	21.38	21.69	21.77
		100#0	21.51	21.54	21.43

Peak-to-average ratio (PAR):**WCDMA Band V:**

Mode	Channel	PAR (dB)	Limit (dB)
WCDMA (Rel99)	Low	2.22	≤ 13
	Middle	2.18	≤ 13
	High	2.04	≤ 13
WCDMA (HSDPA)	Low	2.18	≤ 13
	Middle	2.03	≤ 13
	High	2.15	≤ 13
WCDMA (HSUPA)	Low	2.01	≤ 13
	Middle	1.98	≤ 13
	High	2.06	≤ 13
WCDMA (HSPA+)	Low	2.11	≤ 13
	Middle	2.20	≤ 13
	High	1.98	≤ 13

WCDMA Band II

Mode	Channel	PAR (dB)	Limit (dB)
WCDMA (Rel99)	Low	2.20	≤ 13
	Middle	2.19	≤ 13
	High	2.19	≤ 13
WCDMA (HSDPA)	Low	2.16	≤ 13
	Middle	1.96	≤ 13
	High	2.12	≤ 13
WCDMA (HSUPA)	Low	2.14	≤ 13
	Middle	2.10	≤ 13
	High	2.25	≤ 13
WCDMA (HSPA+)	Low	2.07	≤ 13
	Middle	2.08	≤ 13
	High	2.07	≤ 13

WCDMA Band IV

Mode	Channel	PAR (dB)	Limit (dB)
WCDMA (Rel99)	Low	2.11	≤ 13
	Middle	2.24	≤ 13
	High	2.03	≤ 13
WCDMA (HSDPA)	Low	2.13	≤ 13
	Middle	2.13	≤ 13
	High	2.10	≤ 13
WCDMA (HSUPA)	Low	2.01	≤ 13
	Middle	2.04	≤ 13
	High	2.00	≤ 13
WCDMA (HSPA+)	Low	2.18	≤ 13
	Middle	2.11	≤ 13
	High	1.98	≤ 13

LTE Band 2

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit (dB)
QPSK	1 RB	20M	3.08	3.08	3.14	13
	100 RB		5.04	5.10	5.03	13
16-QAM	1 RB	20M	4.11	4.19	4.12	13
	100 RB		6.06	6.10	6.09	13

LTE Band 4

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	20M	3.02	3.19	3.10	13
	100 RB		5.06	5.03	5.07	13
16-QAM	1 RB	20M	4.01	4.03	4.14	13
	100 RB		6.08	6.15	6.09	13

LTE Band 12

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	10M	3.15	3.18	3.05	13
	50 RB		5.01	5.09	5.12	13
16-QAM	1 RB	10M	4.01	4.05	4.18	13
	50 RB		6.02	6.04	6.18	13

LTE Band 13

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	10M	/	3.04	/	13
	50 RB		/	5.02	/	13
16-QAM	1 RB	10M	/	4.17	/	13
	50 RB		/	6.12	/	13

LTE Band 14

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	10M	/	3.16	/	13
	50 RB		/	5.02	/	13
16-QAM	1 RB	10M	/	4.19	/	13
	50 RB		/	6.03	/	13

LTE Band 66

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	20M	3.09	3.07	3.14	13
	100 RB		5.04	5.12	5.03	13
16-QAM	1 RB	20M	4.14	4.01	4.07	13
	100 RB		6.03	6.03	6.13	13

LTE Band 71

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	20M	3.00	3.08	3.14	13
	100 RB		5.07	5.01	5.02	13
16-QAM	1 RB	20M	4.14	4.13	4.07	13
	100 RB		6.08	6.06	6.10	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	87.21	11	200	H	22.35	0.63	-1.17	20.55	38.45	17.9
826.4	88.09	268	150	V	23.23	0.63	-1.17	21.43	38.45	17.02
WCDMA Band II, Low Channel(EIRP)										
1852.4	86.02	38	200	H	15.89	0.84	8.76	23.81	33.00	9.19
1852.4	85.39	87	150	V	15.26	0.84	8.76	23.18	33.00	9.82
WCDMA Band IV, Low Channel(EIRP)										
1715.0	85.49	314	200	H	12.9	0.84	8.57	20.63	30.00	9.37
1715.0	85.01	96	150	V	12.42	0.84	8.57	20.15	30.00	9.85

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	87.35	101	200	H	22.49	0.63	-1.14	20.72	38.45	17.73
836.6	88.16	113	150	V	23.3	0.63	-1.14	21.53	38.45	16.92
WCDMA Band II, Middle Channel(EIRP)										
1880.0	85.15	90	200	H	15.02	0.85	8.81	22.98	33.00	10.02
1880.0	84.26	177	150	V	14.13	0.85	8.81	22.09	33.00	10.91
WCDMA Band IV, Middle Channel(EIRP)										
1732.6	85.16	146	200	H	12.57	0.84	8.57	20.3	30.00	9.70
1732.6	84.56	141	150	V	11.97	0.84	8.57	19.7	30.00	10.30

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	86.98	127	200	H	22.12	0.63	-1.11	20.38	38.45	18.07
846.6	87.79	285	150	V	22.93	0.63	-1.11	21.19	38.45	17.26
WCDMA Band II, High Channel(EIRP)										
1907.6	85.09	355	200	H	14.96	0.85	8.85	22.96	33.00	10.04
1907.6	84.79	117	150	V	14.66	0.85	8.85	22.66	33.00	10.34
WCDMA Band IV, High Channel(EIRP)										
1750.0	85.49	204	200	H	12.9	0.84	8.57	20.63	30.00	9.37
1750.0	84.78	292	150	V	12.19	0.84	8.57	19.92	30.00	10.08

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	88.38	15.13	0.84	8.76	23.05	33	9.95
1850.7	V	87.44	14.19	0.84	8.76	22.11	33	10.89
16-QAM 1.4M BW Low Channel								
1850.7	H	88.25	15.00	0.84	8.76	22.92	33	10.08
1850.7	V	87.73	14.48	0.84	8.76	22.40	33	10.60
QPSK 3M BW Low Channel								
1851.5	H	88.62	15.38	0.84	8.76	23.30	33	9.70
1851.5	V	87.07	13.83	0.84	8.76	21.75	33	11.25
16-QAM 3M BW Low Channel								
1851.5	H	88.84	15.60	0.84	8.76	23.52	33	9.48
1851.5	V	87.87	14.63	0.84	8.76	22.55	33	10.45
QPSK 5M BW Low Channel								
1852.5	H	88.56	15.33	0.84	8.76	23.25	33	9.75
1852.5	V	87.66	14.43	0.84	8.76	22.35	33	10.65
16-QAM 5M BW Low Channel								
1852.5	H	88.35	15.12	0.84	8.76	23.04	33	9.96
1852.5	V	87.89	14.66	0.84	8.76	22.58	33	10.42
QPSK 10M BW Low Channel								
1855.0	H	88.39	15.18	0.84	8.77	23.11	33	9.89
1855.0	V	87.3	14.09	0.84	8.77	22.02	33	10.98
16-QAM 10M BW Low Channel								
1855.0	H	88.64	15.43	0.84	8.77	23.36	33	9.64
1855.0	V	87.18	13.97	0.84	8.77	21.9	33	11.1
QPSK 15M BW Low Channel								
1857.5	H	88.17	14.97	0.84	8.77	22.90	33	10.10
1857.5	V	87.13	13.93	0.84	8.77	21.86	33	11.14
16-QAM 15M BW Low Channel								
1857.5	H	88.01	14.81	0.84	8.77	22.74	33	10.26
1857.5	V	87.78	14.58	0.84	8.77	22.51	33	10.49

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 20M BW Low Channel								
1860	H	88.68	15.50	0.84	8.78	23.44	33	9.56
1860	V	87.78	14.60	0.84	8.78	22.54	33	10.46
16-QAM 20M BW Low Channel								
1860	H	88.31	15.13	0.84	8.78	23.07	33	9.93
1860	V	87.11	13.93	0.84	8.78	21.87	33	11.13

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 1.4M BW Middle Channel								
1880	H	88.69	13.96	0.85	8.81	21.92	33	11.08
1880	V	88.01	13.28	0.85	8.81	21.24	33	11.76
16-QAM 1.4M BW Middle Channel								
1880	H	88.34	13.61	0.85	8.81	21.57	33	11.43
1880	V	88.16	13.43	0.85	8.81	21.39	33	11.61
QPSK 3M BW Middle Channel								
1880	H	88.49	13.76	0.85	8.81	21.72	33	11.28
1880	V	87.79	13.06	0.85	8.81	21.02	33	11.98
16-QAM 3M BW Middle Channel								
1880	H	88.68	13.95	0.85	8.81	21.91	33	11.09
1880	V	87.46	12.73	0.85	8.81	20.69	33	12.31
QPSK 5M BW Middle Channel								
1880	H	88.64	13.91	0.85	8.81	21.87	33	11.13
1880	V	87.46	12.73	0.85	8.81	20.69	33	12.31
16-QAM 5M BW Middle Channel								
1880	H	88.64	13.91	0.85	8.81	21.87	33	11.13
1880	V	87.94	13.21	0.85	8.81	21.17	33	11.83
QPSK 10M BW Middle Channel								
1880	H	88.76	14.03	0.85	8.81	21.99	33	11.01
1880	V	86.49	11.76	0.85	8.81	19.72	33	13.28
16-QAM 10M BW Middle Channel								
1880	H	87.96	13.23	0.85	8.81	21.19	33	11.81
1880	V	86.84	12.11	0.85	8.81	20.07	33	12.93
QPSK 15M BW Middle Channel								
1880	H	88.16	13.43	0.85	8.81	21.39	33	11.61
1880	V	87.49	12.76	0.85	8.81	20.72	33	12.28
16-QAM 15M BW Middle Channel								
1880	H	88.46	13.73	0.85	8.81	21.69	33	11.31
1880	V	87.98	13.25	0.85	8.81	21.21	33	11.79

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 20M BW Middle Channel								
1880	H	88.16	13.43	0.85	8.81	21.39	33	11.61
1880	V	87.46	12.73	0.85	8.81	20.69	33	12.31
16-QAM 20M BW Middle Channel								
1880	H	87.98	13.25	0.85	8.81	21.21	33	11.79
1880	V	87.06	12.33	0.85	8.81	20.29	33	12.71

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 1.4M BW High Channel								
1909.3	H	88.44	15.60	0.85	8.85	23.60	33	9.40
1909.3	V	87.54	14.70	0.85	8.85	22.70	33	10.30
16-QAM 1.4M BW High Channel								
1909.3	H	88.7	15.86	0.85	8.85	23.86	33	9.14
1909.3	V	87.06	14.22	0.85	8.85	22.22	33	10.78
QPSK 3M BW High Channel								
1908.5	H	88.19	15.34	0.85	8.85	23.34	33	9.66
1908.5	V	87.99	15.14	0.85	8.85	23.14	33	9.86
16-QAM 3M BW High Channel								
1908.5	H	88.56	15.71	0.85	8.85	23.71	33	9.29
1908.5	V	87.4	14.55	0.85	8.85	22.55	33	10.45
QPSK 5M BW High Channel								
1907.5	H	88.12	15.27	0.85	8.85	23.27	33	9.73
1907.5	V	87.1	14.25	0.85	8.85	22.25	33	10.75
16-QAM 5M BW High Channel								
1907.5	H	88.39	15.54	0.85	8.85	23.54	33	9.46
1907.5	V	87.08	14.23	0.85	8.85	22.23	33	10.77
QPSK 10M BW High Channel								
1905.0	H	88.7	15.83	0.85	8.85	23.83	33	9.17
1905.0	V	87.7	14.83	0.85	8.85	22.83	33	10.17
16-QAM 10M BW High Channel								
1905.0	H	88.39	15.52	0.85	8.85	23.52	33	9.48
1905.0	V	87.12	14.25	0.85	8.85	22.25	33	10.75
QPSK 15M BW High Channel								
1902.5	H	88.12	15.23	0.85	8.84	23.22	33	9.78
1902.5	V	87.93	15.04	0.85	8.84	23.03	33	9.97
16-QAM 15M BW High Channel								
1902.5	H	88.44	15.55	0.85	8.84	23.54	33	9.46
1902.5	V	87.78	14.89	0.85	8.84	22.88	33	10.12

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 20M BW High Channel								
1900.0	H	88.48	15.58	0.85	8.84	23.57	33	9.43
1900.0	V	87.45	14.55	0.85	8.84	22.54	33	10.46
16-QAM 20M BW High Channel								
1900.0	H	88.86	15.96	0.85	8.84	23.95	33	9.05
1900.0	V	87.84	14.94	0.85	8.84	22.93	33	10.07

EIRP:**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	88.77	14.55	0.84	8.54	22.25	30	7.75
1710.7	V	87.98	13.76	0.84	8.54	21.46	30	8.54
16-QAM 1.4M BW Low Channel								
1710.7	H	88.89	14.67	0.84	8.54	22.37	30	7.63
1710.7	V	87.12	12.90	0.84	8.54	20.60	30	9.40
QPSK 3M BW Low Channel								
1711.5	H	88.02	13.81	0.84	8.54	21.51	30	8.49
1711.5	V	87.75	13.54	0.84	8.54	21.24	30	8.76
16-QAM 3M BW Low Channel								
1711.5	H	88.59	14.38	0.84	8.54	22.08	30	7.92
1711.5	V	87.93	13.72	0.84	8.54	21.42	30	8.58
QPSK 5M BW Low Channel								
1712.5	H	88.64	14.44	0.84	8.54	22.14	30	7.86
1712.5	V	87.53	13.33	0.84	8.54	21.03	30	8.97
16-QAM 5M BW Low Channel								
1712.5	H	88.95	14.75	0.84	8.54	22.45	30	7.55
1712.5	V	87.01	12.81	0.84	8.54	20.51	30	9.49
QPSK 10M BW Low Channel								
1715.0	H	88.13	13.95	0.84	8.54	21.65	30	8.35
1715.0	V	87.73	13.55	0.84	8.54	21.25	30	8.75
16-QAM 10M BW Low Channel								
1715.0	H	88.58	14.40	0.84	8.54	22.10	30	7.90
1715.0	V	87.37	13.19	0.84	8.54	20.89	30	9.11
QPSK 15M BW Low Channel								
1717.5	H	88.03	13.86	0.84	8.55	21.57	30	8.43
1717.5	V	87.66	13.49	0.84	8.55	21.20	30	8.80
16-QAM 15M BW Low Channel								
1717.5	H	88.75	14.58	0.84	8.55	22.29	30	7.71
1717.5	V	87.01	12.84	0.84	8.55	20.55	30	9.45

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 20M BW Low Channel								
1720.0	H	88.72	14.57	0.84	8.55	22.28	30	7.72
1720.0	V	87.5	13.35	0.84	8.55	21.06	30	8.94
16-QAM 20M BW Low Channel								
1720.0	H	88.92	14.77	0.84	8.55	22.48	30	7.52
1720.0	V	87.24	13.09	0.84	8.55	20.80	30	9.20

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 1.4M BW Middle Channel								
1732.5	H	88.36	12.61	0.84	8.57	20.34	30	9.66
1732.5	V	88.06	12.31	0.84	8.57	20.04	30	9.96
16-QAM 1.4M BW Middle Channel								
1732.5	H	88.19	12.44	0.84	8.57	20.17	30	9.83
1732.5	V	87.68	11.93	0.84	8.57	19.66	30	10.34
QPSK 3M BW Middle Channel								
1732.5	H	88.46	12.71	0.84	8.57	20.44	30	9.56
1732.5	V	87.56	11.81	0.84	8.57	19.54	30	10.46
16-QAM 3M BW Middle Channel								
1732.5	H	88.49	12.74	0.84	8.57	20.47	30	9.53
1732.5	V	87.02	11.27	0.84	8.57	19	30	11
QPSK 5M BW Middle Channel								
1732.5	H	88.25	12.5	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	88.46	12.71	0.84	8.57	20.44	30	9.56
1732.5	V	87.67	11.92	0.84	8.57	19.65	30	10.35
QPSK 10M BW Middle Channel								
1732.5	H	88.06	12.31	0.84	8.57	20.04	30	9.96
1732.5	V	87.09	11.34	0.84	8.57	19.07	30	10.93
16-QAM 10M BW Middle Channel								
1732.5	H	87.49	11.74	0.84	8.57	19.47	30	10.53
1732.5	V	86.16	10.41	0.84	8.57	18.14	30	11.86
QPSK 15M BW Middle Channel								
1732.5	H	88.01	12.26	0.84	8.57	19.99	30	10.01
1732.5	V	87.49	11.74	0.84	8.57	19.47	30	10.53
16-QAM 15M BW Middle Channel								
1732.5	H	88.16	12.41	0.84	8.57	20.14	30	9.86
1732.5	V	87.67	11.92	0.84	8.57	19.65	30	10.35

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 20M BW Middle Channel								
1732.5	H	88.41	12.66	0.84	8.57	20.39	30	9.61
1732.5	V	87.49	11.74	0.84	8.57	19.47	30	10.53
16-QAM 20M BW Middle Channel								
1732.5	H	87.89	12.14	0.84	8.57	19.87	30	10.13
1732.5	V	86.46	10.71	0.84	8.57	18.44	30	11.56

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	88.78	14.87	0.84	8.61	22.64	30	7.36
1754.3	V	87.9	13.99	0.84	8.61	21.76	30	8.24
16-QAM 1.4M BW High Channel								
1754.3	H	88.69	14.78	0.84	8.61	22.55	30	7.45
1754.3	V	87.47	13.56	0.84	8.61	21.33	30	8.67
QPSK 3M BW High Channel								
1753.5	H	88	14.08	0.84	8.6	21.84	30	8.16
1753.5	V	87.44	13.52	0.84	8.6	21.28	30	8.72
16-QAM 3M BW High Channel								
1753.5	H	88.72	14.80	0.84	8.6	22.56	30	7.44
1753.5	V	87.19	13.27	0.84	8.6	21.03	30	8.97
QPSK 5M BW High Channel								
1752.5	H	88.43	14.50	0.84	8.6	22.26	30	7.74
1752.5	V	87.34	13.41	0.84	8.6	21.17	30	8.83
16-QAM 5M BW High Channel								
1752.5	H	88.05	14.12	0.84	8.6	21.88	30	8.12
1752.5	V	87.15	13.22	0.84	8.6	20.98	30	9.02
QPSK 10M BW High Channel								
1750.0	H	88.89	14.95	0.84	8.6	22.71	30	7.29
1750.0	V	87.54	13.60	0.84	8.6	21.36	30	8.64
16-QAM 10M BW High Channel								
1750.0	H	88.95	15.01	0.84	8.6	22.77	30	7.23
1750.0	V	87.77	13.83	0.84	8.6	21.59	30	8.41
QPSK 15M BW High Channel								
1747.5	H	88.06	14.10	0.84	8.6	21.86	30	8.14
1747.5	V	87.37	13.41	0.84	8.6	21.17	30	8.83
16-QAM 15M BW High Channel								
1747.5	H	88.55	14.59	0.84	8.6	22.35	30	7.65
1747.5	V	87.71	13.75	0.84	8.6	21.51	30	8.49

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 20M BW High Channel								
1745.0	H	88.73	14.76	0.84	8.59	22.51	30	7.49
1745.0	V	87.85	13.88	0.84	8.59	21.63	30	8.37
16-QAM 20M BW High Channel								
1745.0	H	88.37	14.40	0.84	8.59	22.15	30	7.85
1745.0	V	87.09	13.12	0.84	8.59	20.87	30	9.13

ERP:**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	88.32	18.68	0.62	-1.75	16.31	34.77	18.46
699.7	V	87.95	18.31	0.62	-1.75	15.94	34.77	18.83
16-QAM 1.4M BW Low Channel								
699.7	H	88.9	19.26	0.62	-1.75	16.89	34.77	17.88
699.7	V	87.29	17.65	0.62	-1.75	15.28	34.77	19.49
QPSK 3M BW Low Channel								
700.5	H	88.17	18.49	0.62	-1.75	16.12	34.77	18.65
700.5	V	87.89	18.21	0.62	-1.75	15.84	34.77	18.93
16-QAM 3M BW Low Channel								
700.5	H	88.09	18.41	0.62	-1.75	16.04	34.77	18.73
700.5	V	87.06	17.38	0.62	-1.75	15.01	34.77	19.76
QPSK 5M BW Low Channel								
701.5	H	88.52	18.83	0.62	-1.74	16.47	34.77	18.3
701.5	V	87.47	17.78	0.62	-1.74	15.42	34.77	19.35
16-QAM 5M BW Low Channel								
701.5	H	88.75	19.06	0.62	-1.74	16.7	34.77	18.07
701.5	V	87.62	17.93	0.62	-1.74	15.57	34.77	19.2
QPSK 10M BW Low Channel								
704.0	H	88.75	19.01	0.62	-1.73	16.66	34.77	18.11
704.0	V	87.94	18.2	0.62	-1.73	15.85	34.77	18.92
16-QAM 10M BW Low Channel								
704.0	H	88.39	18.65	0.62	-1.73	16.3	34.77	18.47
704.0	V	87.17	17.43	0.62	-1.73	15.08	34.77	19.69

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 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	24.7	0.62	-1.71	22.37	34.77	12.4
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	0.62	-1.71	22.67	34.77	12.1
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	24.4	0.62	-1.71	22.07	34.77	12.7
707.5	V	86.3	22.81	0.62	-1.71	20.48	34.77	14.29

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	88.71	18.79	0.62	-1.67	16.5	34.77	18.27
715.3	V	87.89	17.97	0.62	-1.67	15.68	34.77	19.09
16-QAM 1.4M BW High Channel								
715.3	H	88.92	19	0.62	-1.67	16.71	34.77	18.06
715.3	V	87.24	17.32	0.62	-1.67	15.03	34.77	19.74
QPSK 3M BW High Channel								
714.5	H	88.58	18.67	0.62	-1.68	16.37	34.77	18.4
714.5	V	87.94	18.03	0.62	-1.68	15.73	34.77	19.04
16-QAM 3M BW High Channel								
714.5	H	88.3	18.39	0.62	-1.68	16.09	34.77	18.68
714.5	V	87.95	18.04	0.62	-1.68	15.74	34.77	19.03
QPSK 5M BW High Channel								
713.5	H	88.17	18.28	0.62	-1.68	15.98	34.77	18.79
713.5	V	87.06	17.17	0.62	-1.68	14.87	34.77	19.9
16-QAM 5M BW High Channel								
713.5	H	88.94	19.05	0.62	-1.68	16.75	34.77	18.02
713.5	V	87.66	17.77	0.62	-1.68	15.47	34.77	19.3
QPSK 10M BW High Channel								
711.0	H	88.97	19.12	0.62	-1.7	16.8	34.77	17.97
711.0	V	87.73	17.88	0.62	-1.7	15.56	34.77	19.21
16-QAM 10M BW High Channel								
711.0	H	88.57	18.72	0.62	-1.7	16.4	34.77	18.37
711.0	V	87.11	17.26	0.62	-1.7	14.94	34.77	19.83

ERP:**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	88.9	20.16	0.65	-1.35	18.16	34.77	16.61
779.5	V	87.68	18.94	0.65	-1.35	16.94	34.77	17.83
16-QAM 5M BW Low Channel								
779.5	H	89	20.26	0.65	-1.35	18.26	34.77	16.51
779.5	V	87.59	18.85	0.65	-1.35	16.85	34.77	17.92

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	88.35	26.06	0.65	-1.34	24.07	34.77	10.70
782	V	87.81	25.52	0.65	-1.34	23.53	34.77	11.24
16-QAM 5M BW Middle Channel								
782	H	88.32	26.03	0.65	-1.34	24.04	34.77	10.73
782	V	87.27	24.98	0.65	-1.34	22.99	34.77	11.78
QPSK 10M BW Middle Channel								
782	H	88.88	26.59	0.65	-1.34	24.60	34.77	10.17
782	V	87.48	25.19	0.65	-1.34	23.20	34.77	11.57
16-QAM 10M BW Middle Channel								
782	H	88.17	25.88	0.65	-1.34	23.89	34.77	10.88
782	V	87.51	25.22	0.65	-1.34	23.23	34.77	11.54

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	88.59	20.15	0.62	-1.63	17.90	34.77	16.87
784.5	V	87.04	18.30	0.62	-1.63	16.05	34.77	18.72
16-QAM 5M BW High Channel								
784.5	H	88.38	19.64	0.62	-1.63	17.39	34.77	17.38
784.5	V	87.59	18.85	0.62	-1.63	16.60	34.77	18.17

ERP:**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	88.11	26.33	0.62	-1.3	24.41	34.77	10.36
790.5	V	87.89	26.11	0.62	-1.3	24.19	34.77	10.58
16-QAM 5M BW Low Channel								
790.5	H	88.18	26.40	0.62	-1.3	24.48	34.77	10.29
790.5	V	87.48	25.70	0.62	-1.3	23.78	34.77	10.99

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	H	88.74	27.11	0.62	-1.29	25.20	34.77	9.57
793	V	87.34	25.71	0.62	-1.29	23.80	34.77	10.97
16-QAM 5M BW Middle Channel								
793	H	88.36	26.73	0.62	-1.29	24.82	34.77	9.95
793	V	87.85	26.22	0.62	-1.29	24.31	34.77	10.46
QPSK 10M BW Middle Channel								
793	H	88.64	27.01	0.62	-1.29	25.10	34.77	9.67
793	V	87.34	25.71	0.62	-1.29	23.80	34.77	10.97
16-QAM 10M BW Middle Channel								
793	H	88.96	27.33	0.62	-1.29	25.42	34.77	9.35
793	V	87.29	25.66	0.62	-1.29	23.75	34.77	11.02

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	88.39	26.91	0.62	-1.27	25.02	34.77	9.75
795.5	V	87.69	26.21	0.62	-1.27	24.32	34.77	10.45
16-QAM 5M BW High Channel								
795.5	H	88.16	26.68	0.62	-1.27	24.79	34.77	9.98
795.5	V	87.43	25.95	0.62	-1.27	24.06	34.77	10.71

EIRP:**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	88.4	12.49	0.84	8.54	20.19	30	9.81
1710.7	V	87.44	11.53	0.84	8.54	19.23	30	10.77
16-QAM 1.4M BW Low Channel								
1710.7	H	88.59	12.68	0.84	8.54	20.38	30	9.62
1710.7	V	87.13	11.22	0.84	8.54	18.92	30	11.08
QPSK 3M BW Low Channel								
1711.5	H	88.24	12.34	0.84	8.54	20.04	30	9.96
1711.5	V	87.31	11.41	0.84	8.54	19.11	30	10.89
16-QAM 3M BW Low Channel								
1711.5	H	88.16	12.26	0.84	8.54	19.96	30	10.04
1711.5	V	87.2	11.30	0.84	8.54	19.00	30	11.00
QPSK 5M BW Low Channel								
1712.5	H	88.64	12.75	0.84	8.54	20.45	30	9.55
1712.5	V	87.86	11.97	0.84	8.54	19.67	30	10.33
16-QAM 5M BW Low Channel								
1712.5	H	88.56	12.67	0.84	8.54	20.37	30	9.63
1712.5	V	87.89	12.00	0.84	8.54	19.70	30	10.30
QPSK 10M BW Low Channel								
1715.0	H	88.35	12.48	0.84	8.54	20.18	30	9.82
1715.0	V	87.86	11.99	0.84	8.54	19.69	30	10.31
16-QAM 10M BW Low Channel								
1715.0	H	88.93	13.06	0.84	8.54	20.76	30	9.24
1715.0	V	87.06	11.19	0.84	8.54	18.89	30	11.11
QPSK 15M BW Low Channel								
1717.5	H	88.14	12.28	0.84	8.55	19.99	30	10.01
1717.5	V	87.47	11.61	0.84	8.55	19.32	30	10.68
16-QAM 15M BW Low Channel								
1717.5	H	88.86	13.00	0.84	8.55	20.71	30	9.29
1717.5	V	88	12.14	0.84	8.55	19.85	30	10.15

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 20M BW Low Channel								
1720.0	H	88.5	12.66	0.84	8.55	20.37	30	9.63
1720.0	V	87.49	11.65	0.84	8.55	19.36	30	10.64
16-QAM 20M BW Low Channel								
1720.0	H	88.72	12.88	0.84	8.55	20.59	30	9.41
1720.0	V	87.96	12.12	0.84	8.55	19.83	30	10.17

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 1.4M BW Middle Channel								
1745	H	88.56	12.90	0.84	8.59	20.65	30	9.35
1745	V	87.93	12.27	0.84	8.59	20.02	30	9.98
16-QAM 1.4M BW Middle Channel								
1745	H	88.4	12.74	0.84	8.59	20.49	30	9.51
1745	V	87.9	12.24	0.84	8.59	19.99	30	10.01
QPSK 3M BW Middle Channel								
1745	H	88.31	12.65	0.84	8.59	20.40	30	9.60
1745	V	87.77	12.11	0.84	8.59	19.86	30	10.14
16-QAM 3M BW Middle Channel								
1745	H	88.61	12.95	0.84	8.59	20.70	30	9.30
1745	V	87.44	11.78	0.84	8.59	19.53	30	10.47
QPSK 5M BW Middle Channel								
1745	H	88.67	13.01	0.84	8.59	20.76	30	9.24
1745	V	87.8	12.14	0.84	8.59	19.89	30	10.11
16-QAM 5M BW Middle Channel								
1745	H	88.97	13.31	0.84	8.59	21.06	30	8.94
1745	V	87.91	12.25	0.84	8.59	20.00	30	10.00
QPSK 10M BW Middle Channel								
1745	H	88.13	12.47	0.84	8.59	20.22	30	9.78
1745	V	87.4	11.74	0.84	8.59	19.49	30	10.51
16-QAM 10M BW Middle Channel								
1745	H	88.16	12.50	0.84	8.59	20.25	30	9.75
1745	V	87.9	12.24	0.84	8.59	19.99	30	10.01
QPSK 15M BW Middle Channel								
1745	H	88.5	12.84	0.84	8.59	20.59	30	9.41
1745	V	87.31	11.65	0.84	8.59	19.40	30	10.60
16-QAM 15M BW Middle Channel								
1745	H	88.61	12.95	0.84	8.59	20.70	30	9.30
1745	V	87.09	11.43	0.84	8.59	19.18	30	10.82

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 20M BW Middle Channel								
1745	H	88.9	13.24	0.84	8.59	20.99	30	9.01
1745	V	87.86	12.20	0.84	8.59	19.95	30	10.05
16-QAM 20M BW Middle Channel								
1745	H	88.41	12.75	0.84	8.59	20.50	30	9.50
1745	V	87.13	11.47	0.84	8.59	19.22	30	10.78

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	88.83	13.40	0.84	8.65	21.21	30	8.79
1779.3	V	87.32	11.89	0.84	8.65	19.70	30	10.30
16-QAM 1.4M BW High Channel								
1779.3	H	88.58	13.15	0.84	8.65	20.96	30	9.04
1779.3	V	87.61	12.18	0.84	8.65	19.99	30	10.01
QPSK 3M BW High Channel								
1778.5	H	88.05	12.61	0.84	8.64	20.41	30	9.59
1778.5	V	87.55	12.11	0.84	8.64	19.91	30	10.09
16-QAM 3M BW High Channel								
1778.5	H	88.81	13.37	0.84	8.64	21.17	30	8.83
1778.5	V	87.57	12.13	0.84	8.64	19.93	30	10.07
QPSK 5M BW High Channel								
1777.5	H	88.27	12.83	0.84	8.64	20.63	30	9.37
1777.5	V	87.31	11.87	0.84	8.64	19.67	30	10.33
16-QAM 5M BW High Channel								
1777.5	H	88.63	13.19	0.84	8.64	20.99	30	9.01
1777.5	V	87.28	11.84	0.84	8.64	19.64	30	10.36
QPSK 10M BW High Channel								
1775	H	88.89	13.43	0.84	8.64	21.23	30	8.77
1775	V	87.19	11.73	0.84	8.64	19.53	30	10.47
16-QAM 10M BW High Channel								
1775	H	88.69	13.23	0.84	8.64	21.03	30	8.97
1775	V	87.32	11.86	0.84	8.64	19.66	30	10.34
QPSK 15M BW High Channel								
1772.5	H	88.47	12.99	0.84	8.64	20.79	30	9.21
1772.5	V	87.46	11.98	0.84	8.64	19.78	30	10.22
16-QAM 15M BW High Channel								
1772.5	H	88.83	13.35	0.84	8.64	21.15	30	8.85
1772.5	V	87.68	12.20	0.84	8.64	20.00	30	10.00

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 20M BW High Channel								
1770	H	88.4	12.91	0.84	8.63	20.70	30	9.30
1770	V	87.31	11.82	0.84	8.63	19.61	30	10.39
16-QAM 20M BW High Channel								
1770	H	88.09	12.60	0.84	8.63	20.39	30	9.61
1770	V	87.16	11.67	0.84	8.63	19.46	30	10.54

ERP:**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	86.85	26.99	0.61	-1.37	25.01	34.77	9.76
665.5	V	85.62	25.76	0.61	-1.37	23.78	34.77	10.99
16-QAM 5M BW Low Channel								
665.5	H	86.41	26.55	0.61	-1.37	24.57	34.77	10.20
665.5	V	85.44	25.58	0.61	-1.37	23.60	34.77	11.17
QPSK 10M BW Low Channel								
668.0	H	86.91	26.79	0.61	-1.4	24.78	34.77	9.99
668.0	V	85.68	25.56	0.61	-1.4	23.55	34.77	11.22
16-QAM 10M BW Low Channel								
668.0	H	86.57	26.45	0.61	-1.4	24.44	34.77	10.33
668.0	V	85.68	25.56	0.61	-1.4	23.55	34.77	11.22
QPSK 15M BW Low Channel								
670.5	H	86.46	26.09	0.61	-1.43	24.05	34.77	10.72
670.5	V	85.32	24.95	0.61	-1.43	22.91	34.77	11.86
16-QAM 15M BW Low Channel								
670.5	H	86.45	26.08	0.61	-1.43	24.04	34.77	10.73
670.5	V	85.75	25.38	0.61	-1.43	23.34	34.77	11.43
QPSK 20M BW Low Channel								
673.0	H	86.58	25.94	0.61	-1.45	23.88	34.77	10.89
673.0	V	85.99	25.35	0.61	-1.45	23.29	34.77	11.48
16-QAM 20M BW Low Channel								
673.0	H	86.62	25.98	0.61	-1.45	23.92	34.77	10.85
673.0	V	85.05	24.41	0.61	-1.45	22.35	34.77	12.42

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	86.35	24.96	0.61	-1.54	22.81	34.77	11.96
680.5	V	85.83	24.44	0.61	-1.54	22.29	34.77	12.48
16-QAM 5M BW Middle Channel								
680.5	H	86.46	25.07	0.61	-1.54	22.92	34.77	11.85
680.5	V	85.56	24.17	0.61	-1.54	22.02	34.77	12.75
QPSK 10M BW Middle Channel								
680.5	H	86.66	25.27	0.61	-1.54	23.12	34.77	11.65
680.5	V	85.95	24.56	0.61	-1.54	22.41	34.77	12.36
16-QAM 10M BW Middle Channel								
680.5	H	86.88	25.49	0.61	-1.54	23.34	34.77	11.43
680.5	V	86	24.61	0.61	-1.54	22.46	34.77	12.31
QPSK 15M BW Middle Channel								
680.5	H	86.13	24.74	0.61	-1.54	22.59	34.77	12.18
680.5	V	85.72	24.33	0.61	-1.54	22.18	34.77	12.59
16-QAM 15M BW Middle Channel								
680.5	H	86.62	25.23	0.61	-1.54	23.08	34.77	11.69
680.5	V	85.49	24.10	0.61	-1.54	21.95	34.77	12.82
QPSK 20M BW Middle Channel								
680.5	H	86.46	25.07	0.61	-1.54	22.92	34.77	11.85
680.5	V	85.69	24.30	0.61	-1.54	22.15	34.77	12.62
16-QAM 20M BW Middle Channel								
680.5	H	86.12	24.73	0.61	-1.54	22.58	34.77	12.19
680.5	V	85.01	23.62	0.61	-1.54	21.47	34.77	13.30

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	86.93	24.02	0.62	-1.7	21.70	34.77	13.07
695.5	V	85.41	22.50	0.62	-1.7	20.18	34.77	14.59
16-QAM 5M BW High Channel								
695.5	H	86.7	23.79	0.62	-1.7	21.47	34.77	13.30
695.5	V	85.51	22.60	0.62	-1.7	20.28	34.77	14.49
QPSK 10M BW High Channel								
693.0	H	86.77	24.11	0.62	-1.67	21.82	34.77	12.95
693.0	V	85.46	22.80	0.62	-1.67	20.51	34.77	14.26
16-QAM 10M BW High Channel								
693.0	H	86.73	24.07	0.62	-1.67	21.78	34.77	12.99
693.0	V	85.39	22.73	0.62	-1.67	20.44	34.77	14.33
QPSK 15M BW High Channel								
690.5	H	86.89	24.49	0.62	-1.65	22.22	34.77	12.55
690.5	V	85.62	23.22	0.62	-1.65	20.95	34.77	13.82
16-QAM 15M BW High Channel								
690.5	H	86.71	24.31	0.62	-1.65	22.04	34.77	12.73
690.5	V	85.47	23.07	0.62	-1.65	20.80	34.77	13.97
QPSK 20M BW High Channel								
688.0	H	86.2	24.05	0.62	-1.62	21.81	34.77	12.96
688.0	V	85.38	23.23	0.61	-1.62	21.00	34.77	13.77
16-QAM 20M BW High Channel								
688.0	H	86.82	24.67	0.62	-1.62	22.43	34.77	12.34
688.0	V	85.43	23.28	0.62	-1.62	21.04	34.77	13.73

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

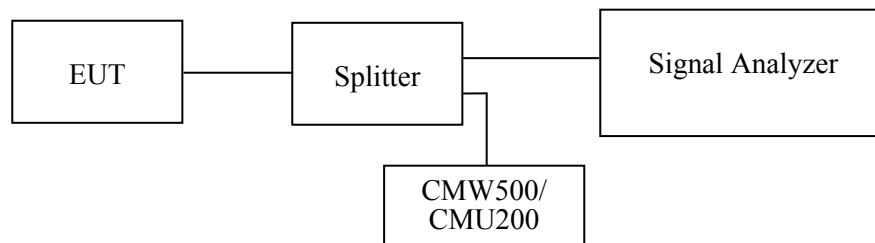
Applicable Standards

FCC 47 §2.1049, §22.917, §22.905 & §24.238, §90.209 and §27.53.

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 200 (WCDMA)&50/100/200/300/500kHz(LTE), and the 26 dB & 99% bandwidth was recorded.



Test Data

Environmental Conditions

Temperature:	23.2°C-23.5°C
Relative Humidity:	51 %-53%
ATM Pressure:	101.1kPa-103.3kPa

The testing was performed by CK Huang from 2020-08-23 to 2020-11-07.

EUT operation mode: Transmitting

Test Result: Compliance.

WCDMA Band V

Mode	26 dB Emission Bandwidth (MHz)			99% Occupied Bandwidth (MHz)		
	Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
WCDMA (Rel 99)	4.73	4.70	4.69	4.15	4.12	4.15
WCDMA (HSDPA)	4.73	4.70	4.71	4.15	4.14	4.15
WCDMA (HSUPA)	4.73	4.70	4.75	4.13	4.12	4.17
WCDMA (HSPA+)	4.73	4.72	4.73	4.15	4.12	4.15

WCDMA Band II

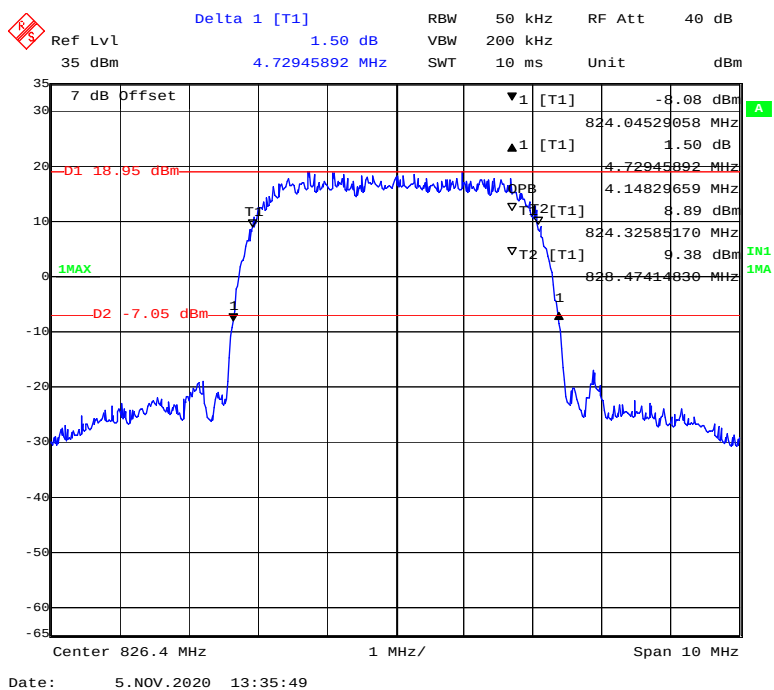
Mode	26 dB Emission Bandwidth (MHz)			99% Occupied Bandwidth (MHz)		
	Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
WCDMA (Rel 99)	4.67	4.71	4.69	4.15	4.13	4.17
WCDMA (HSDPA)	4.73	4.71	4.71	4.17	4.15	4.15
WCDMA (HSUPA)	4.71	4.71	4.69	4.13	4.15	4.15
WCDMA (HSPA+)	4.71	4.71	4.67	4.13	4.13	4.15

WCDMA Band IV

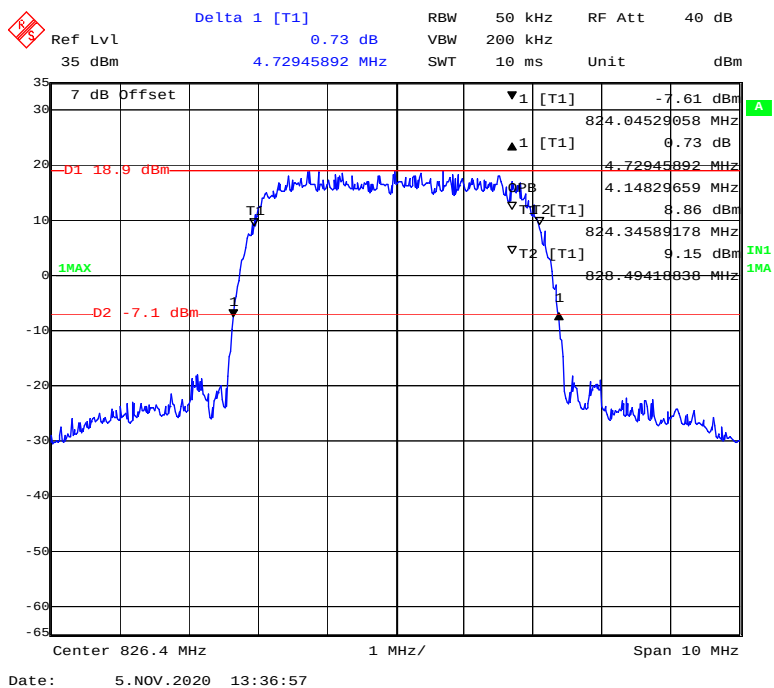
Mode	26 dB Emission Bandwidth (MHz)			99% Occupied Bandwidth (MHz)		
	Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
WCDMA (Rel 99)	4.73	4.70	4.71	4.15	4.14	4.15
WCDMA (HSDPA)	4.71	4.70	4.69	4.13	4.12	4.13
WCDMA (HSUPA)	4.73	4.70	4.71	4.15	4.14	4.13
WCDMA (HSPA+)	4.73	4.70	4.71	4.15	4.12	4.13

WCDMA Band V

99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) Mode, Low Channel



99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) Mode, Low Channel



[illegible]

Ref Lvl 35 dBm Delta 1 [T1] -0.41 dB RBW 50 kHz RF Att 40 dB

35 dBm 4.72945892 MHz SWT 10 ms Unit dBm

7 dB Offset

D1 19.22 dBm

1MAX

D2 -6.78 dBm

▼1 [T1] -7.79 dBm

▲1 [T1] -0.41 dB

824.04529058 MHz

4.72945892 MHz

4.14829659 MHz

9.79 dBm

824.32585170 MHz

8.85 dBm

826.47414030 MHz

Center 826.4 MHz 1 MHz/ Span 10 MHz

Date: 5.NOV.2020 13:39:32

Delta 1 [T1]

Ref Lvl 35 dBm

2.00 dB

4.69539078 MHz

RBW 50 kHz

RF Att 40 dB

VBW 200 kHz

SWT 11 ms

Unit dBm

7 dB Offset

D1 -19.63 dBm

D2 -6.37 dBm

1MAX

▼1 [T1] -7.57 dBm

▲1 [T1] 2.00 dB

OPB

▼T2 [T1] 10.06 dBm

▼T2 [T1] 10.56 dBm

1

Center 836.6 MHz

1.1 MHz/

Span 11 MHz

Date: 24.AUG.2020 13:57:32

[illegible]

Delta 1 [T1] -0.64 dB
 RBW 50 kHz RF Att 40 dB
 Ref Lvl 35 dBm VBW 200 kHz
 35 dBm 4.69539078 MHz SWT 11 ms Unit dBm

7 dB Offset
 D1 19.49 dBm
 1MAX
 D2 -6.51 dBm
 1
 T1
 OPB
 T2 [T1]
 T1 [T1]
 T2 [T1]
 1

-6.13 dBm
 834.27434870 MHz
 -0.64 dB
 4.69539078 MHz
 4.12224449 MHz
 9.62 dBm
 834.56092184 MHz
 9.42 dBm
 838.68316633 MHz

Center 836.6 MHz 1.1 MHz/ Span 11 MHz

Date: 24.AUG.2020 14:02:17

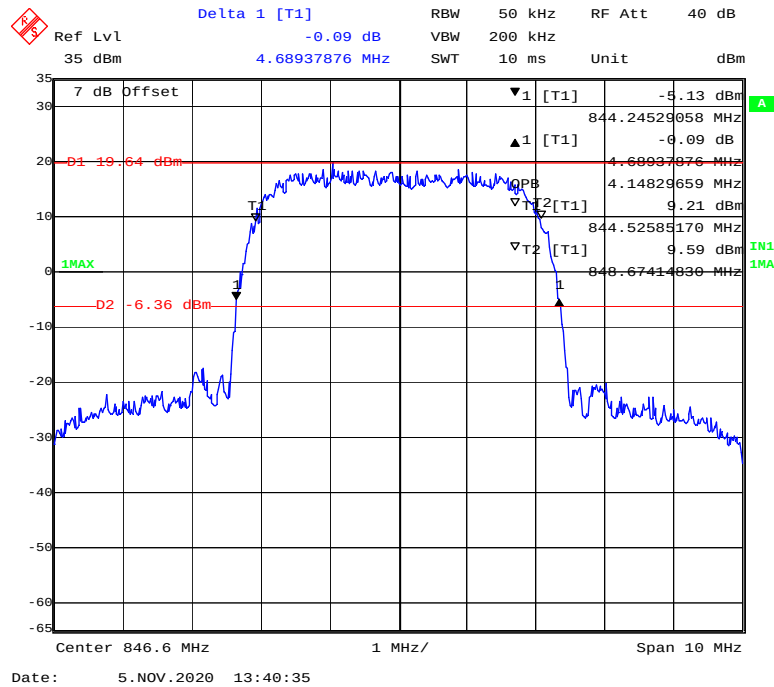
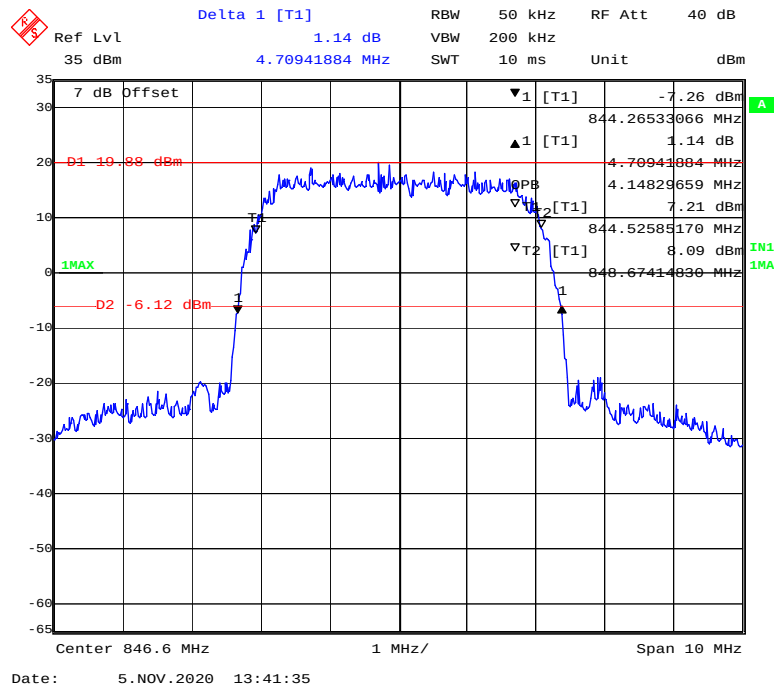
Delta 1 [T1] -0.12 dB
 Ref Lvl 35 dBm
 RBW 50 kHz
 VBW 200 kHz
 SWT 11 ms
 RF Att 40 dB
 Unit dBm

7 dB Offset
 19.63 dBm
 1MAX
 D2 -6.37 dBm
 1
 T1
 OPB
 T2 [T1]
 1
 2
 T2 [T1]

834.25236461 MHz
 -6.56 dBm
 -0.12 dB
 4.71743487 MHz
 4.12224449 MHz
 10.08 dBm
 834.56092184 MHz
 9.30 dBm
 836.68316633 MHz

Center 836.6 MHz
 1.1 MHz/
 Span 11 MHz

Date: 24.AUG.2020 14:05:52

99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) Mode, High Channel**99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) Mode, High Channel**

Ref Lvl 35 dBm
 Delta 1 [T1] 0.02 dB
 RBW 50 kHz
 VBW 200 kHz
 SWT 10 ms
 RF Att 40 dB
 Unit dBm

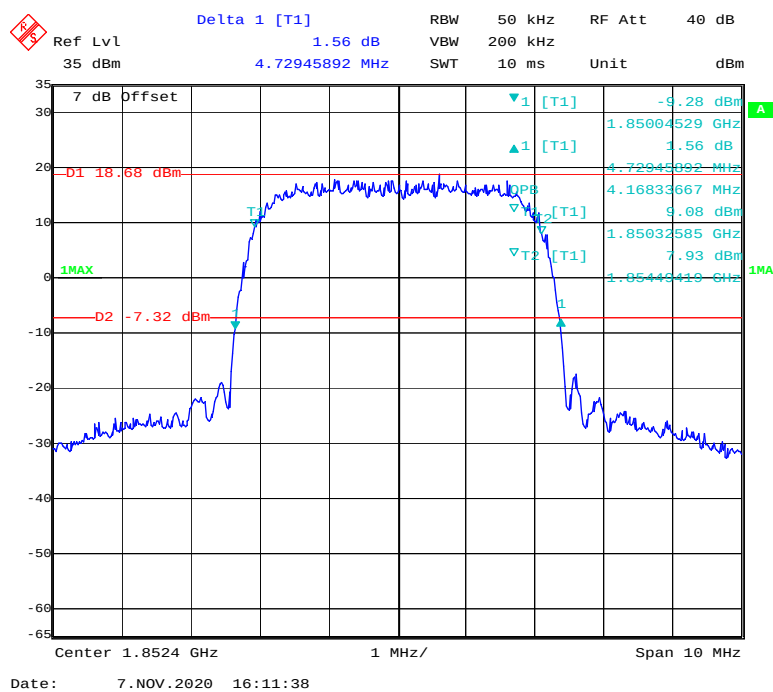
7 dB Offset
 D1 19.21 dBm
 1MAX
 D2 -6.79 dBm
 1

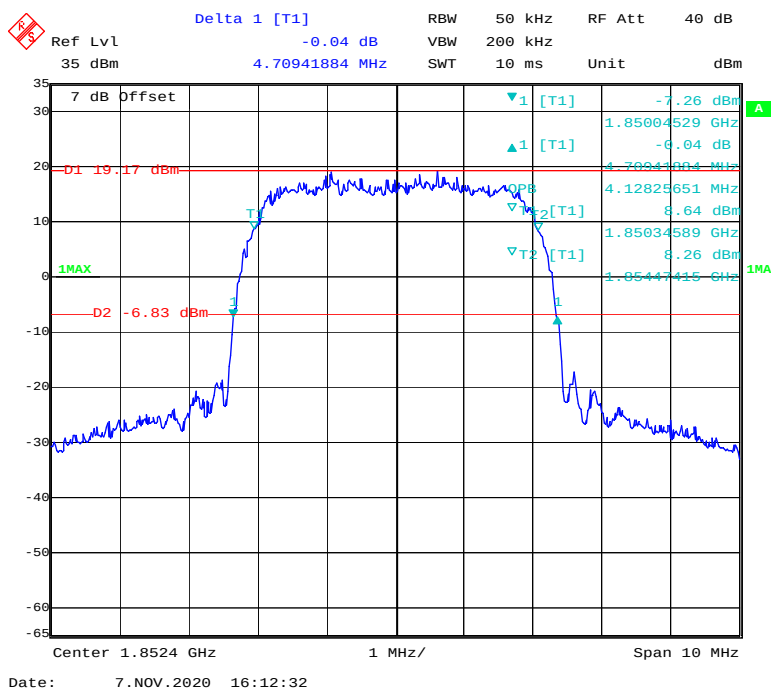
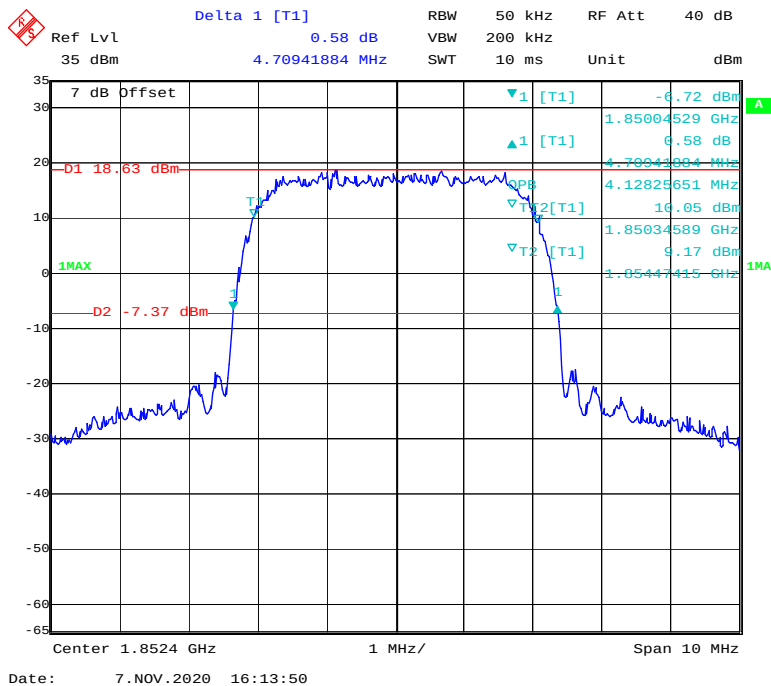
▼1 [T1] -6.37 dBm
 ▲1 [T1] 0.02 dB
 844.24529058 MHz
 4.72945892 MHz
 4.14829659 MHz
 9.82 dBm
 844.52585170 MHz
 9.77 dBm
 846.67414030 MHz
 1

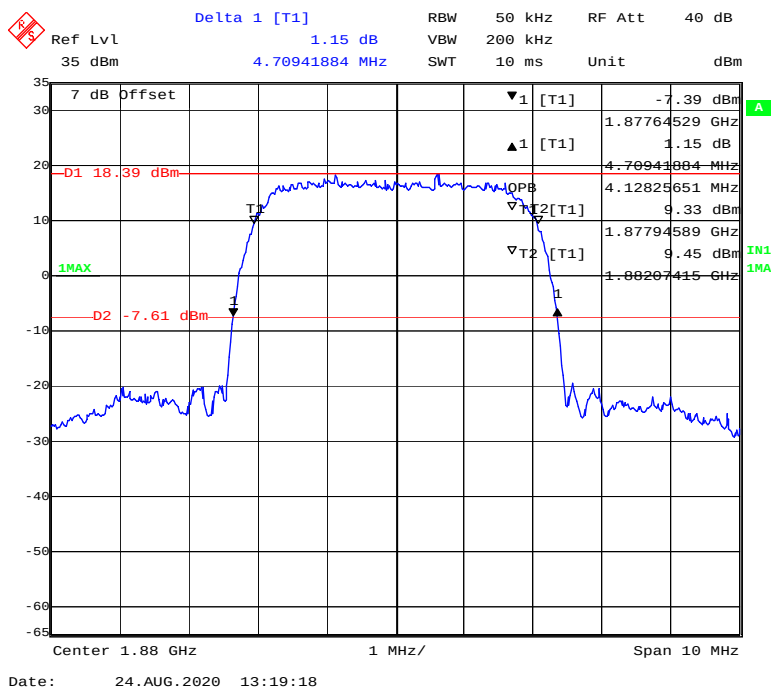
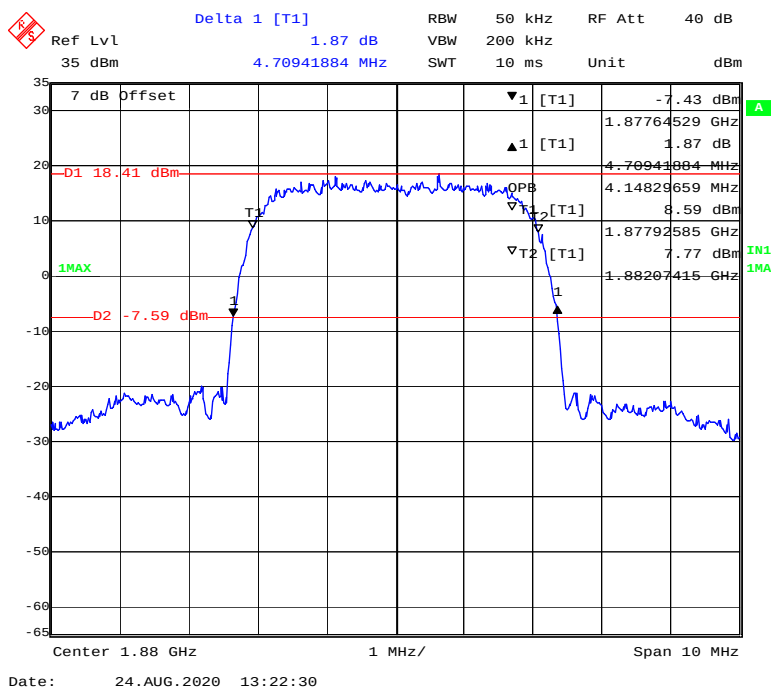
Center 846.6 MHz
 1 MHz/
 Span 10 MHz

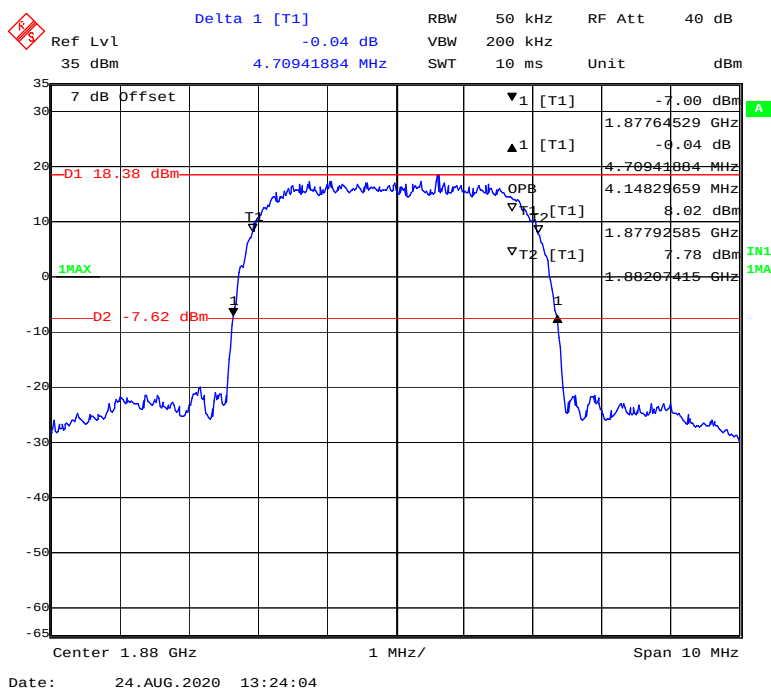
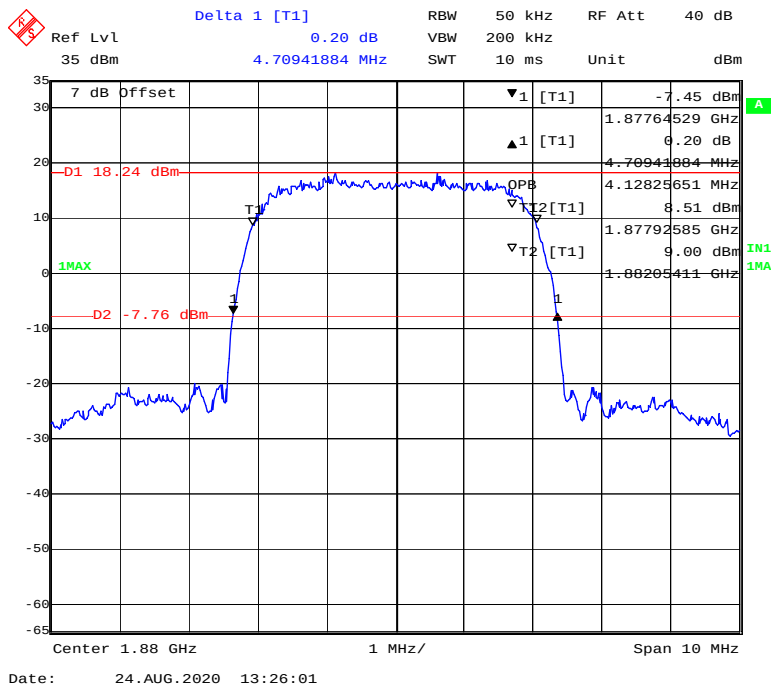
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99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) Mode, Low Channel



99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) Mode, Low Channel**99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSPA+) Mode, Low Channel**

99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) Mode, Middle Channel**99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) Mode, Middle Channel**

99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) Mode, Middle Channel**99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSPA+) Mode, Middle Channel**

Ref Lvl 35 dBm
 Delta 1 [T1] -3.23 dB
 4.68937876 MHz
 RBW 50 kHz
 VBW 200 kHz
 SWT 10 ms
 RF Att 40 dB
 Unit dBm

7 dB Offset
 D1 18.96 dBm
 1MAX
 D2 -7.04 dBm
 T1
 T2
 T3
 T4
 T5
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Ref Lvl 35 dBm Delta 1 [T1] 1.36 dB RBW 50 kHz RF Att 40 dB
 35 dBm 4.70941884 MHz VBW 200 kHz SWT 10 ms Unit dBm

7 dB Offset

D1 18.96 dBm

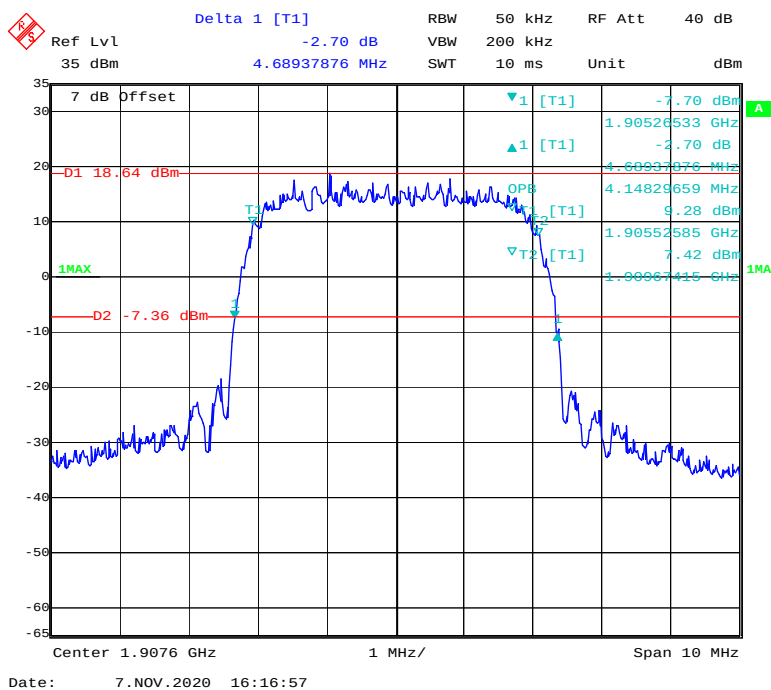
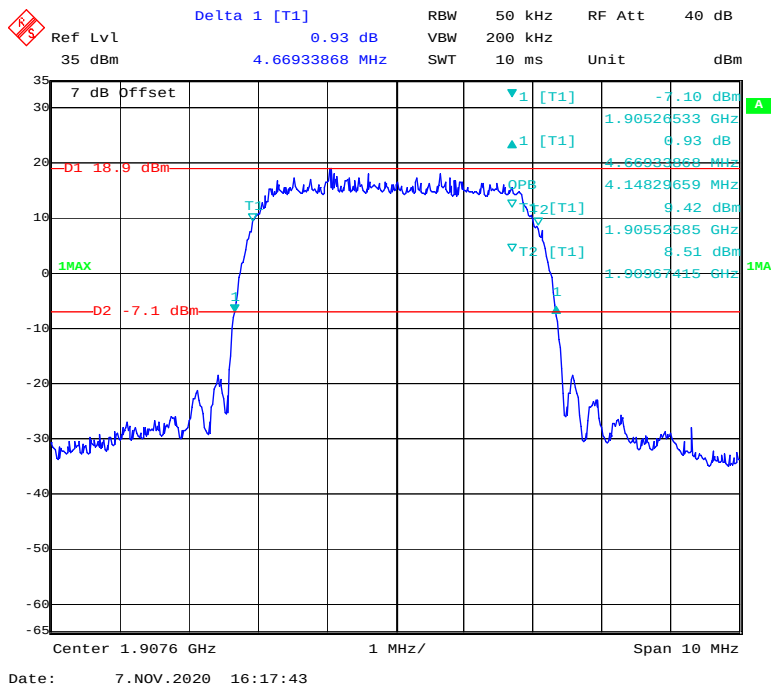
1MAX

D2 -7.04 dBm

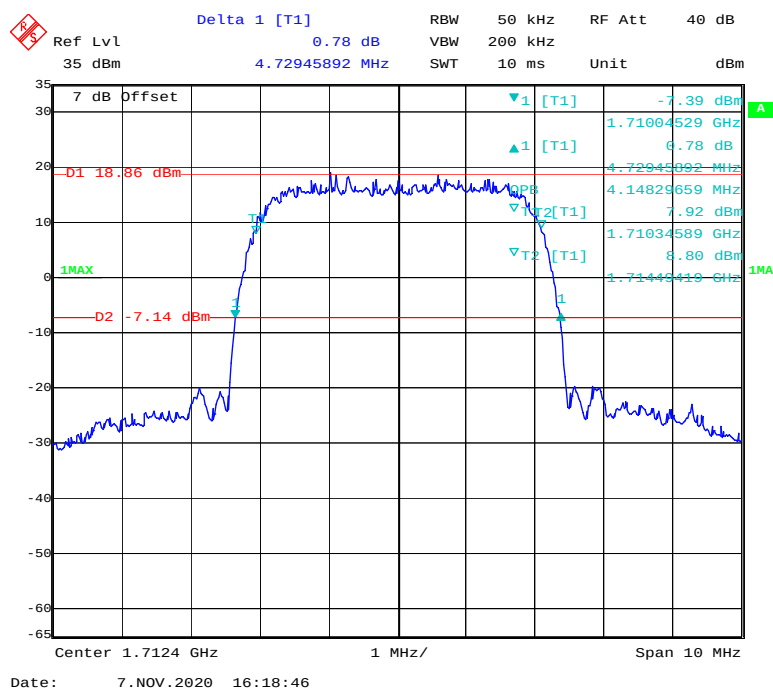
▼1 [T1] -6.44 dBm
 ▲1 [T1] 1.36 dB
 1.90524529 GHz
 4.70941884 MHz
 4.14829659 MHz
 7.27 dBm
 1.90552585 GHz
 8.23 dBm
 1.90067415 GHz

Center 1.9076 GHz 1 MHz/ Span 10 MHz

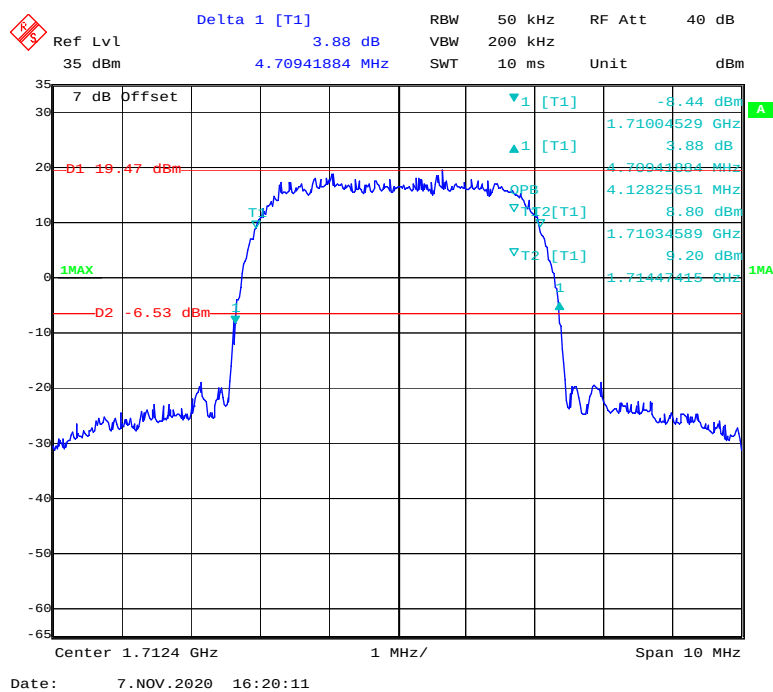
Date: 7.NOV.2020 16:16:19

99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) Mode, High Channel**99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSPA+) Mode, High Channel**

99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) Mode, Low Channel



99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) Mode, Low Channel



[illegible][illegible]

Ref Lvl 35 dBm Delta 1 [T1] 1.11 dB RBW 50 kHz RF Att 40 dB
 35 dBm 4.69539078 MHz SWT 11 ms Unit dBm

7 dB Offset

D1 19.18 dBm

1MAX

D2 -6.82 dBm

▼1 [T1] -7.13 dBm
 ▲1 [T1] 1.11 dB
 4.69539078 MHz
 OPB
 ▼T2 [T1] 9.94 dBm
 1.73053888 GHz
 9.52 dBm
 1.73466317 GHz

Center 1.7326 GHz 1.1 MHz/ Span 11 MHz

Date: 24.AUG.2020 13:38:58

Ref Lvl 35 dBm Delta 1 [T1] 0.26 dB RBW 50 kHz RF Att 40 dB
 35 dBm 4.69539078 MHz VBW 200 kHz SWT 11 ms Unit dBm

7 dB Offset

10 dBm

11 dBm

12 dBm

13 dBm

14 dBm

15 dBm

16 dBm

17 dBm

18 dBm

19 dBm

20 dBm

21 dBm

22 dBm

23 dBm

24 dBm

25 dBm

26 dBm

27 dBm

28 dBm

29 dBm

30 dBm

31 dBm

32 dBm

33 dBm

34 dBm

35 dBm

Center 1.7326 GHz 1.1 MHz/ Span 11 MHz

Date: 24.AUG.2020 13:41:31

Delta 1 [T1]

Ref Lvl 35 dBm

1.95 dB

VBW 200 kHz

SWT 11 ms

RBW 50 kHz

RF Att 40 dB

Unit dBm

7 dB Offset

D1 19.42 dBm

1MAX

D2 -6.58 dBm

▼1 [T1] -7.27 dBm

▲1 [T1] 1.95 dB

4.69539078 MHz

OPB

▼T2 [T1] 10.16 dBm

▼T2 [T1] 1.73053888 GHz

▼T2 [T1] 1.73468317 GHz

1

Center 1.7326 GHz

1.1 MHz/

Span 11 MHz

Date: 24.AUG.2020 13:43:18

Delta 1 [T1]

Parameter	Value
Ref Lvl	35 dBm
Delta 1 [T1]	1.52 dB
RBW	50 kHz
RF Att	40 dB
VBW	200 kHz
SWT	11 ms
Unit	dBm

7 dB Offset

D1 -19.51 dBm

D2 -6.49 dBm

T1

1MAX

Center 1.7326 GHz

Span 11 MHz

Date: 24.AUG.2020 13:45:23

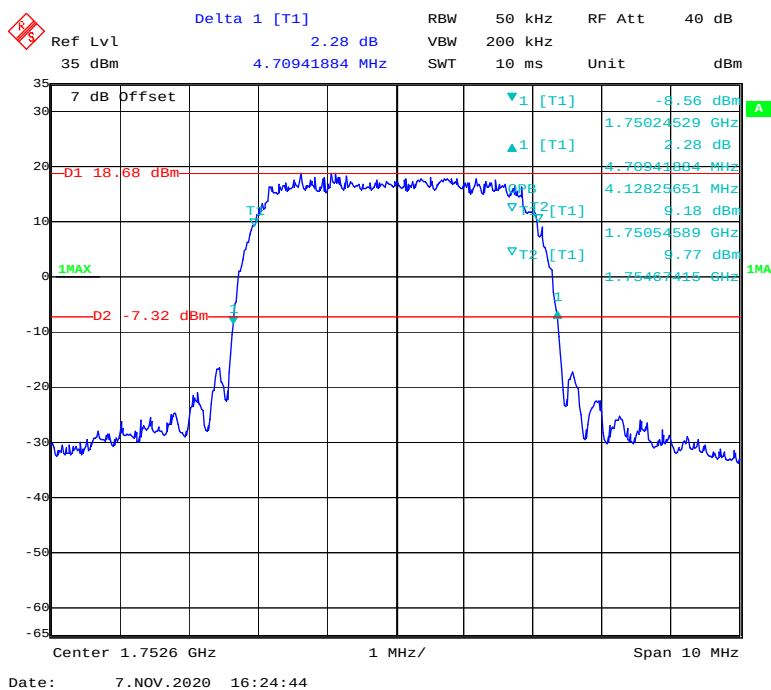
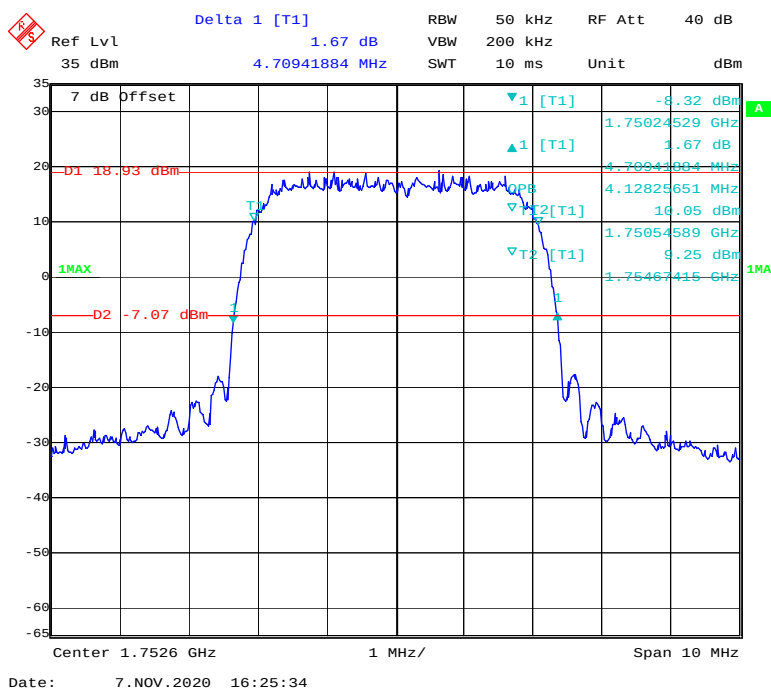
Delta 1 [T1] 1.17 dB
 4.70941884 MHz
 Ref Lvl 35 dBm
 RBW 50 kHz
 VBW 200 kHz
 RF Att 40 dB
 SWT 10 ms
 Unit dBm

7 dB Offset
 D1 19.21 dBm
 D2 -6.79 dBm
 1MAX
 T1
 T2
 T1 [T1] -7.46 dBm
 T2 [T1] 1.17 dBm
 T1 [T1] 4.70941884 MHz
 T2 [T1] 4.14829659 MHz
 T1 [T1] 1.75054589 GHz
 T2 [T1] 1.75054589 GHz
 T1 [T1] 1.75463419 GHz
 1MAX

Center 1.7526 GHz
 1 MHz/
 Span 10 MHz

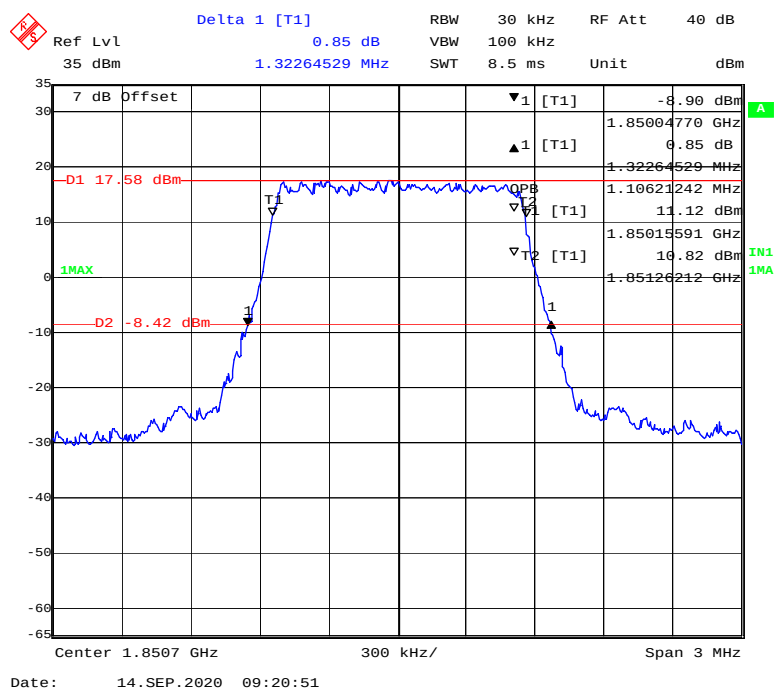
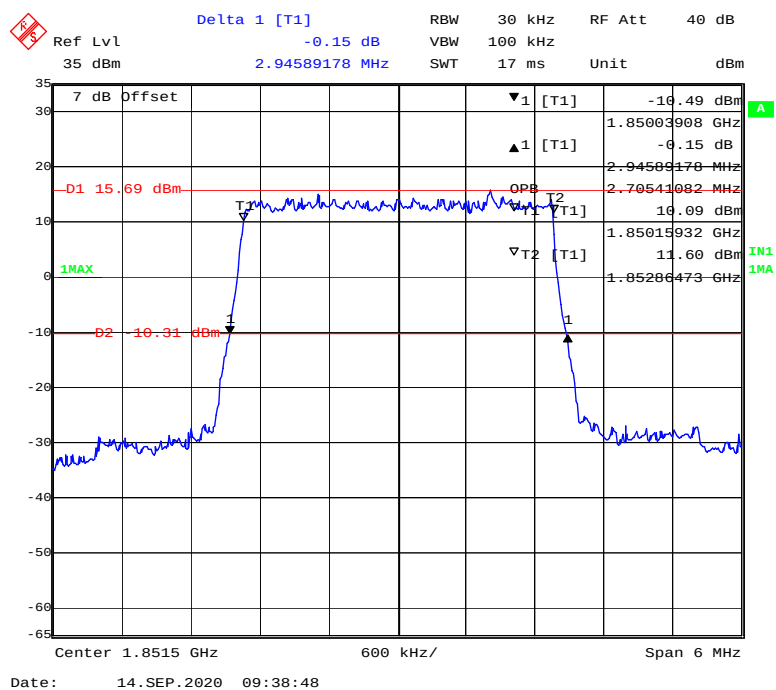
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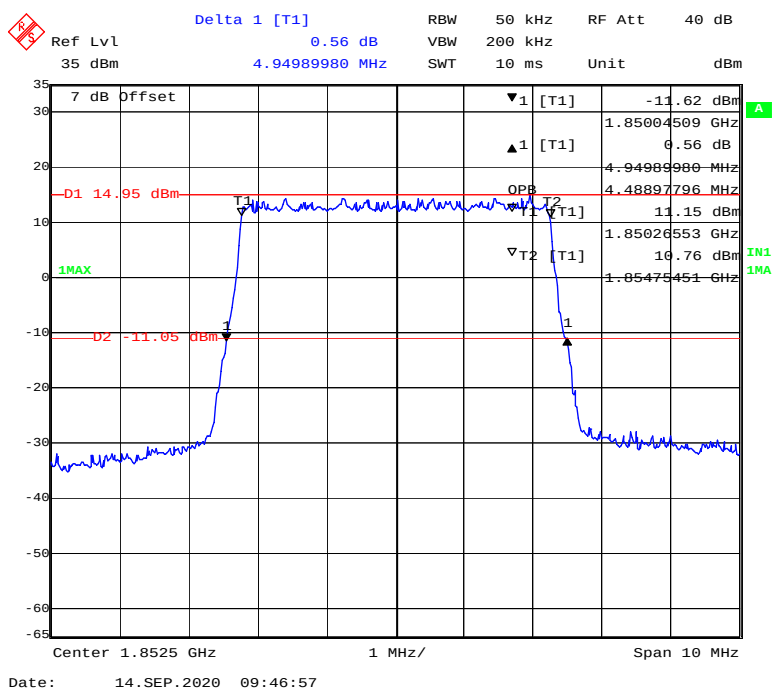
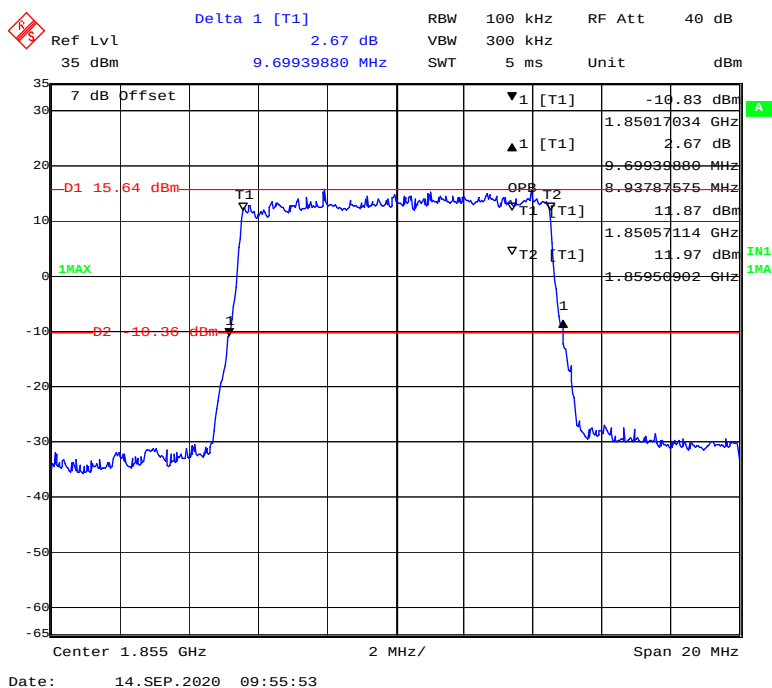
[illegible]

99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) Mode, High Channel**99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSPA+) Mode, High Channel**

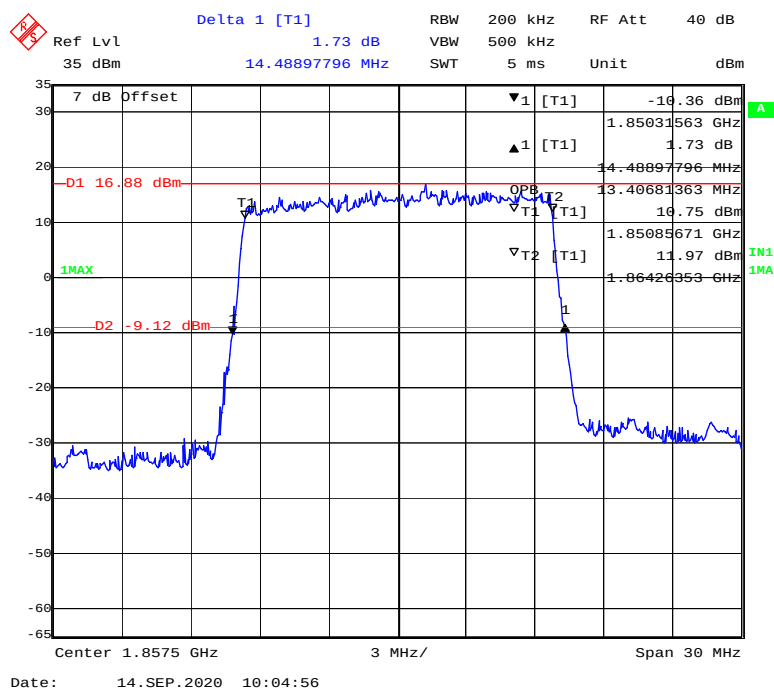
LTE Band 2:

Test Modulation	Test Bandwidth	26 dB Bandwidth MHz			99% Occupied Bandwidth MHz		
		Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
QPSK	1.4M	1.32	1.33	1.29	1.11	1.11	1.11
	3M	2.95	2.95	2.96	2.71	2.69	2.69
	5M	4.95	4.95	4.91	4.49	4.49	4.49
	10M	9.70	9.82	9.70	8.94	8.98	8.94
	15M	14.49	14.67	14.55	13.41	13.47	13.41
	20M	19.16	19.24	19.24	17.88	17.96	17.88
16-QAM	1.4M	1.32	1.32	1.29	1.11	1.11	1.11
	3M	2.95	2.95	2.96	2.69	2.69	2.69
	5M	4.95	4.97	4.91	4.49	4.49	4.49
	10M	9.74	9.82	9.58	8.94	8.98	8.94
	15M	14.49	14.67	14.61	13.47	13.47	13.41
	20M	19.16	19.16	19.32	17.88	17.96	17.88

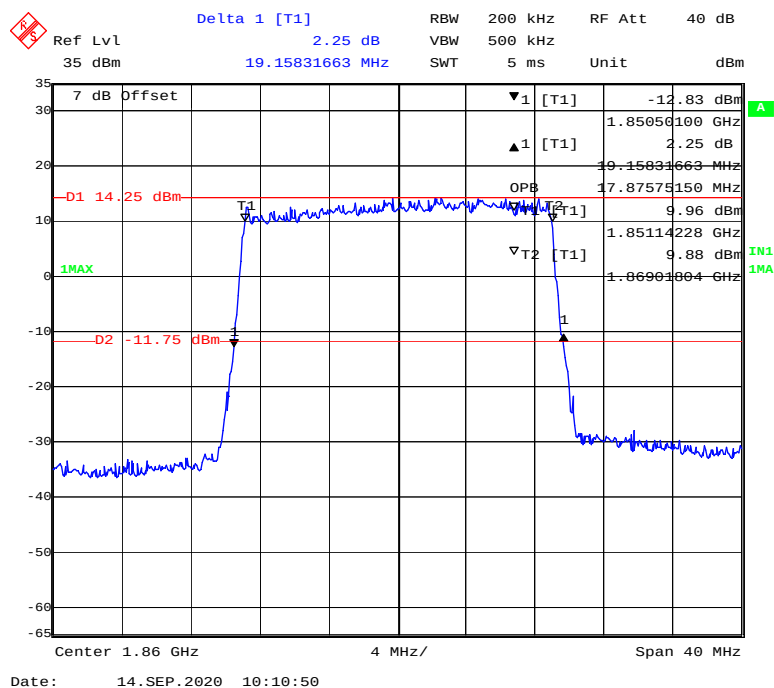
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel**QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel**

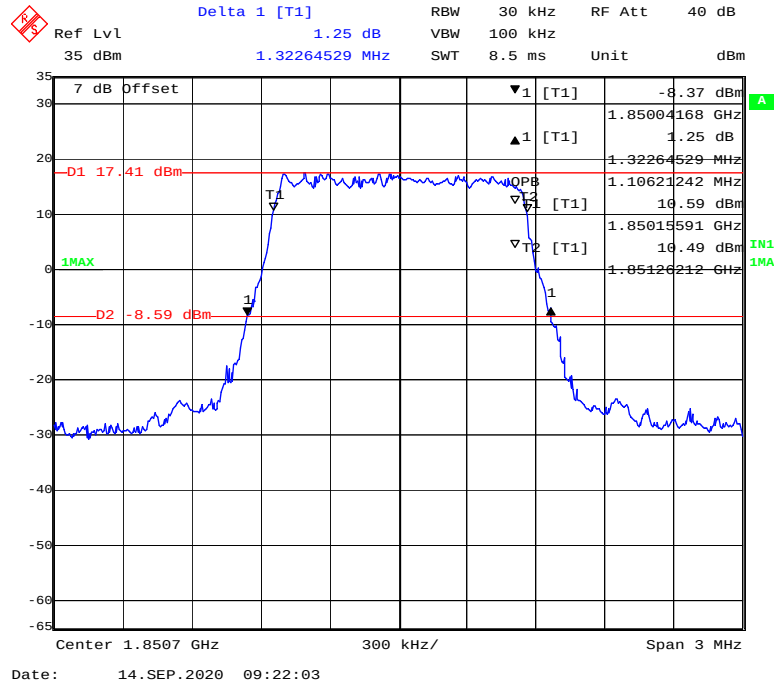
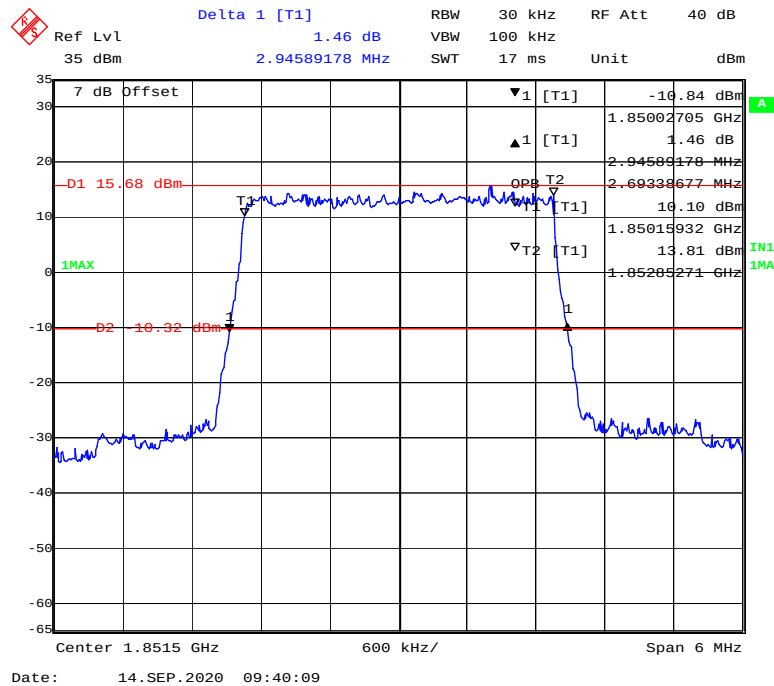
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel**QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel**

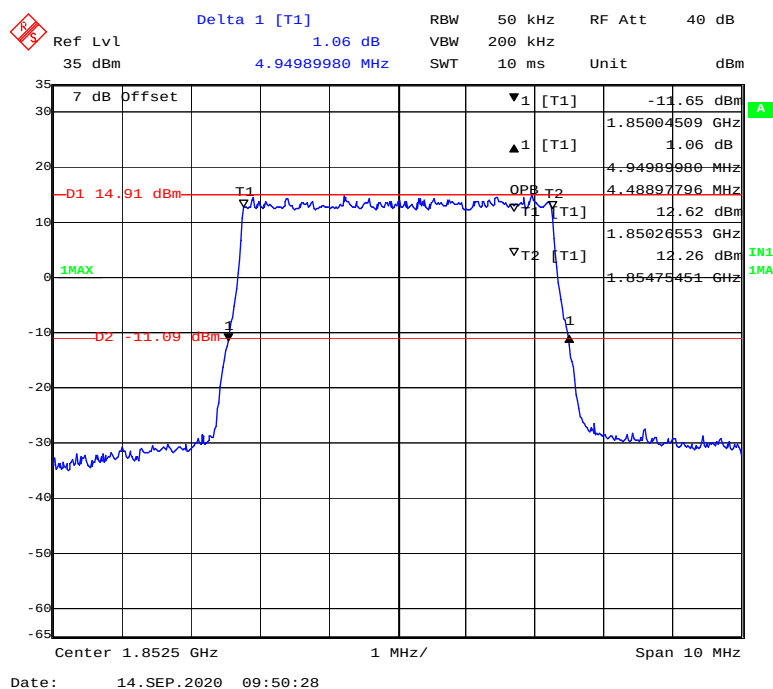
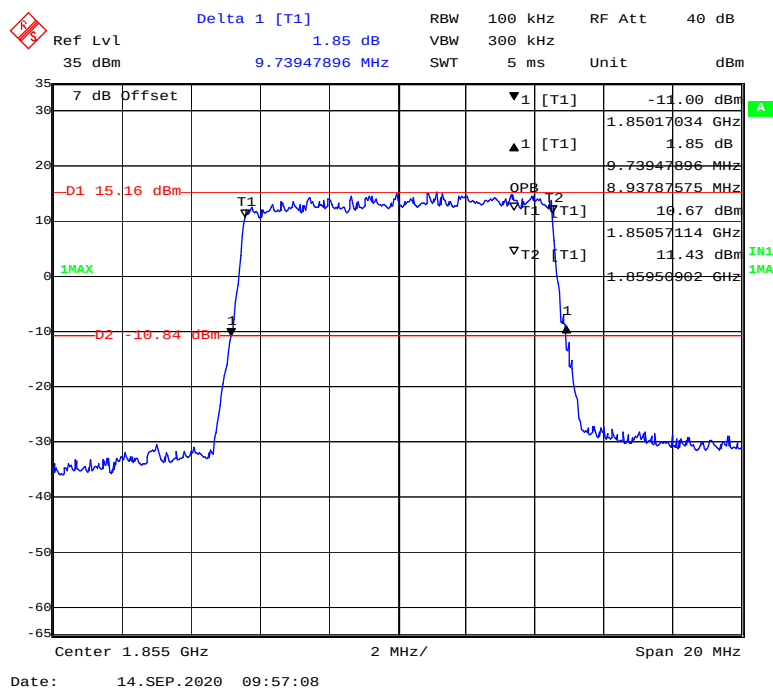
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel

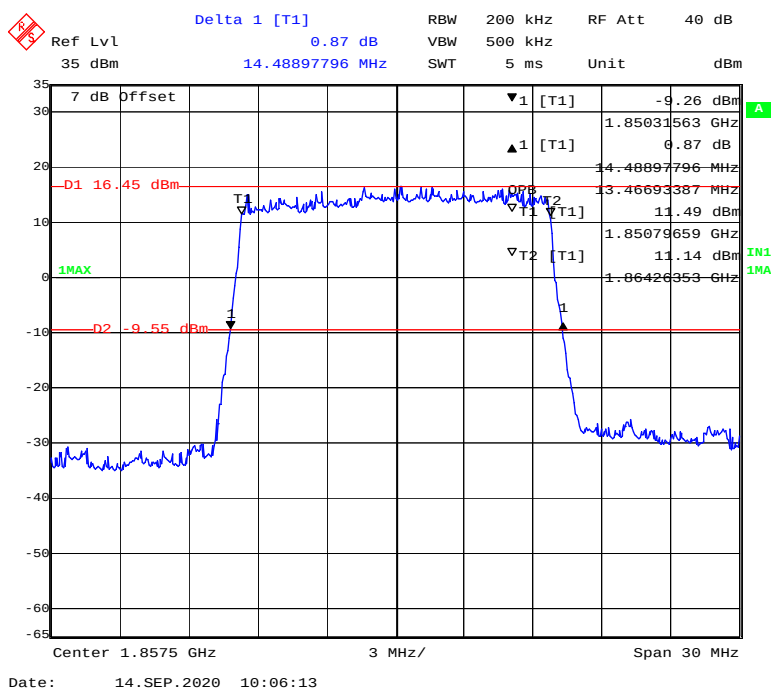
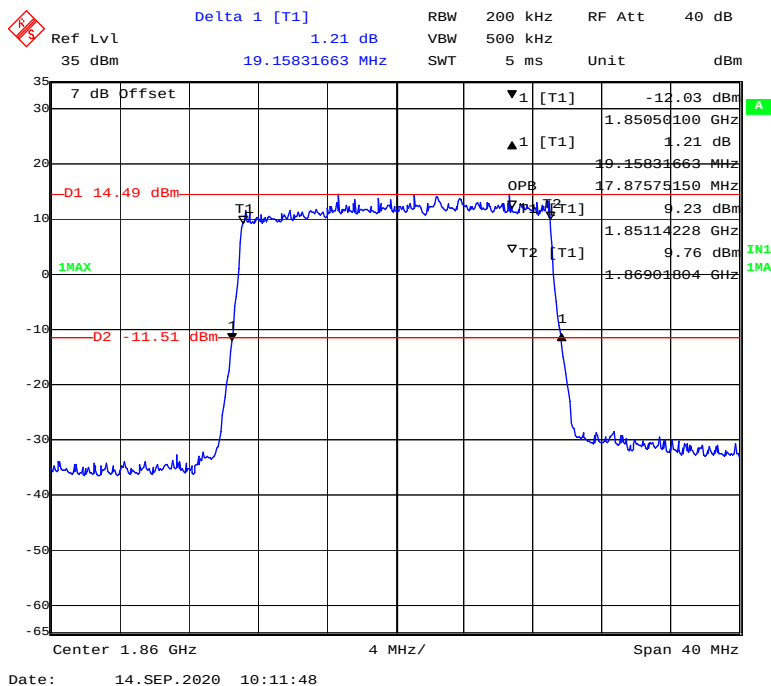


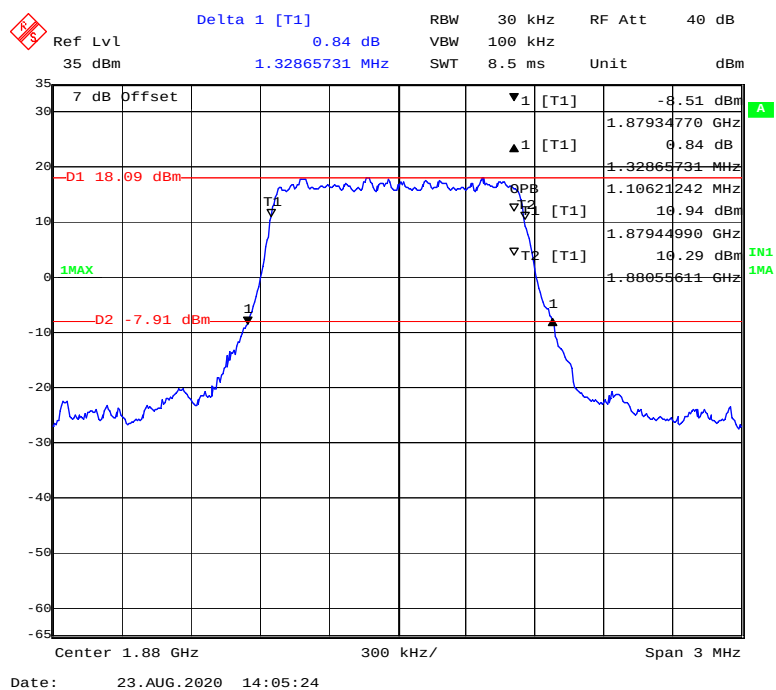
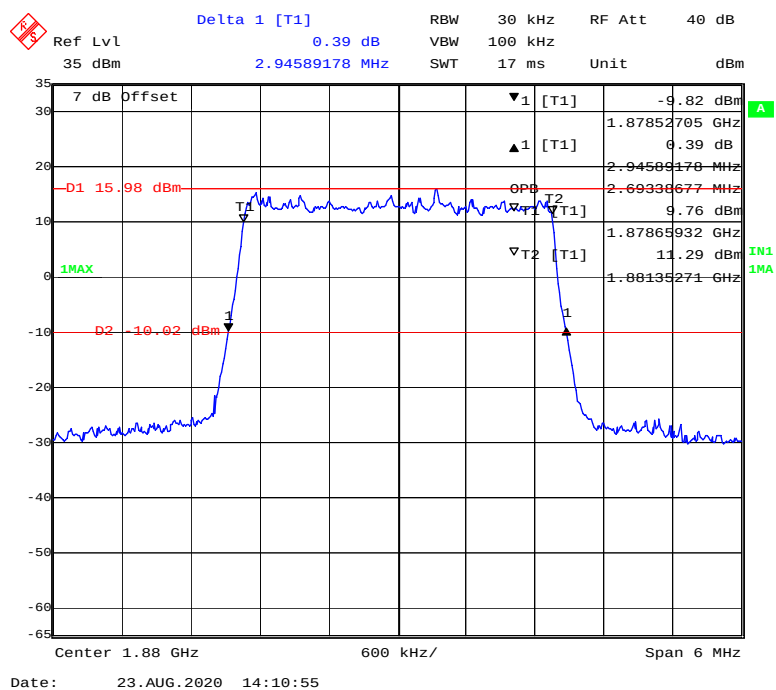
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel

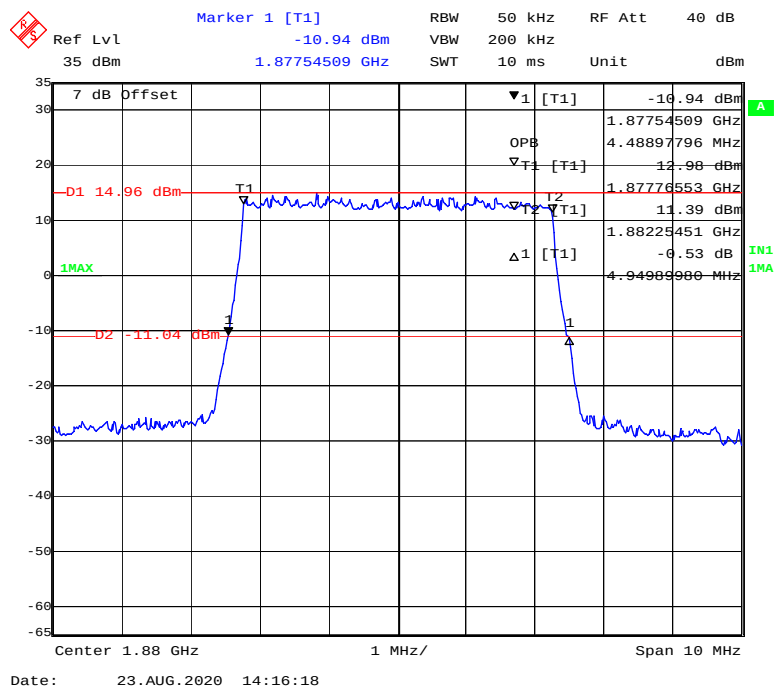
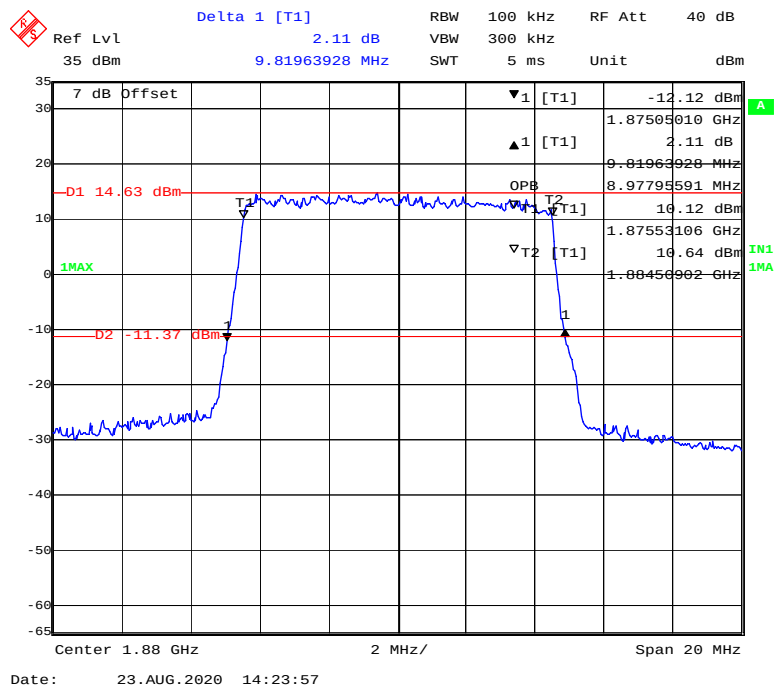


16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel**16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel**

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**

Ref Lvl 35 dBm Delta 1 [T1] 2.43 dB RBW 200 kHz RF Att 40 dB

35 dBm 14.66933868 MHz SWT 5 ms Unit dBm

7 dB Offset

▼1 [T1] -10.53 dBm

▲1 [T1] 2.43 dB

D1 16.43 dBm

OPB

T1 T2

1

1.87263527 GHz 13.46693387 MHz 12.39 dBm

1.87329659 GHz 11.52 dBm

1.88676353 GHz

1MAX

D2 -9.57 dBm

Center 1.88 GHz 3 MHz/ Span 30 MHz

Date: 23.AUG.2020 14:30:45

Delta 1 [T1] -0.29 dB

Ref Lvl 35 dBm

19.23847695 MHz

RBW 200 kHz

VBW 500 kHz

SWT 5 ms

RF Att 40 dB

Unit dBm

7 dB Offset

D1 14.17 dBm

1MAX

D2 -11.83 dBm

1

▼1 [T1] -11.71 dBm

▲1 [T1] -0.29 dB

OPB 17.9559182 MHz

▼T1 [T1] 10.56 dBm

▼T2 [T1] 10.37 dBm

1.87042084 GHz

1.87106212 GHz

1.88901004 GHz

IN1

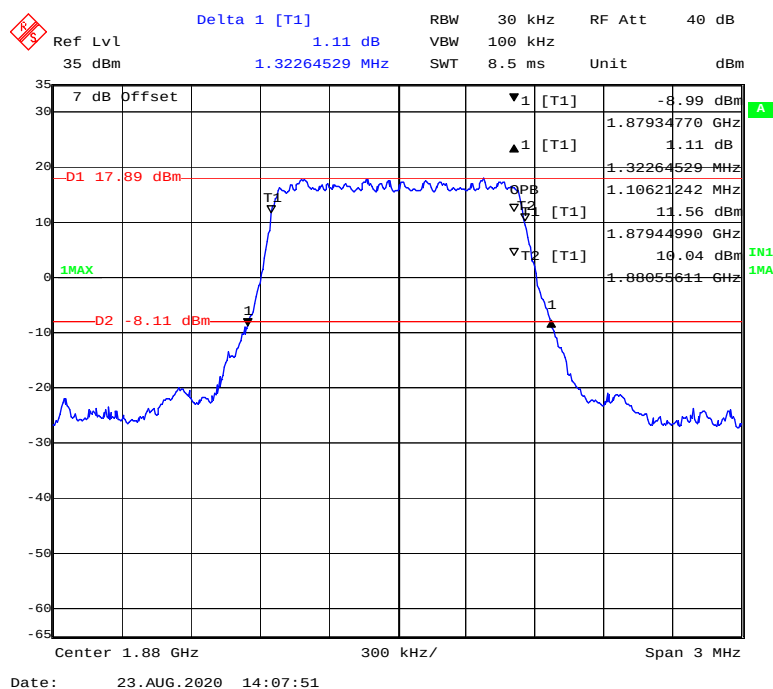
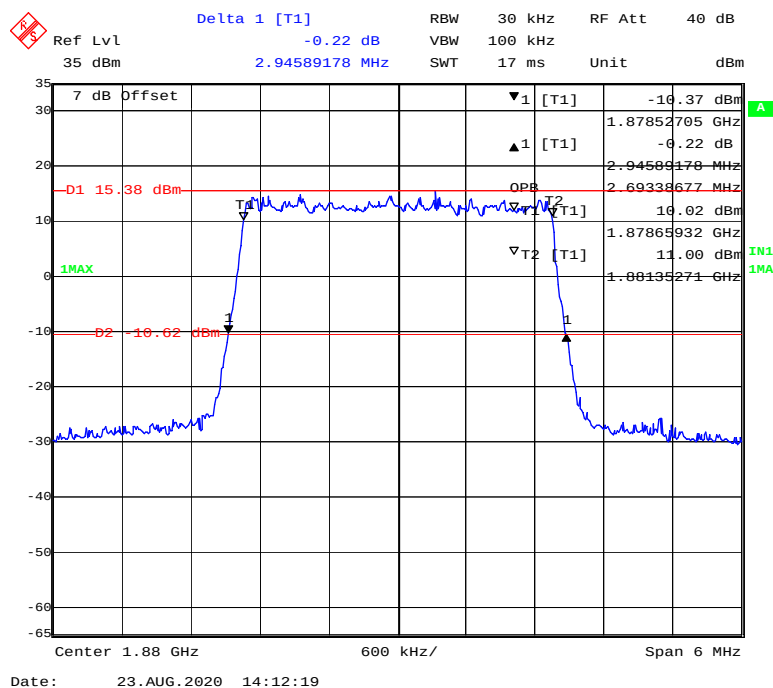
IN1MAX

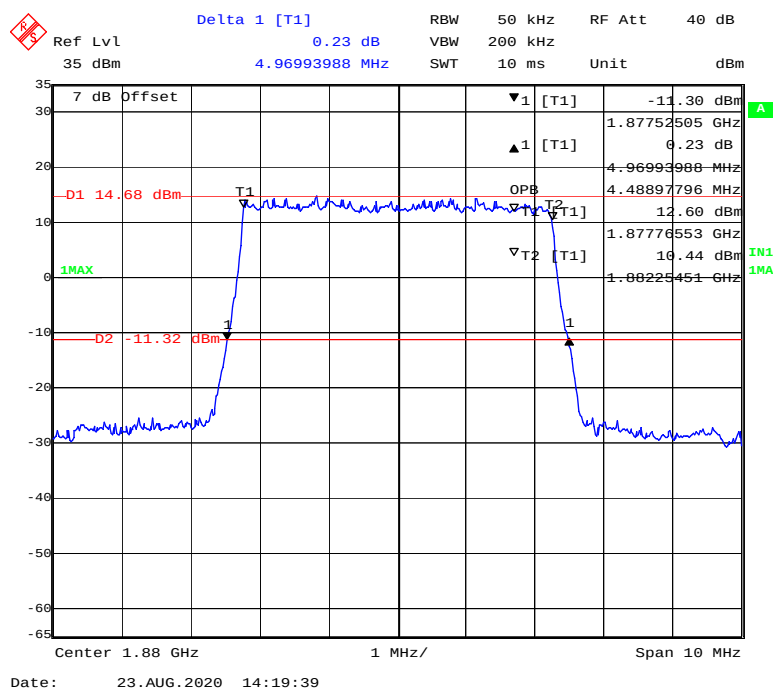
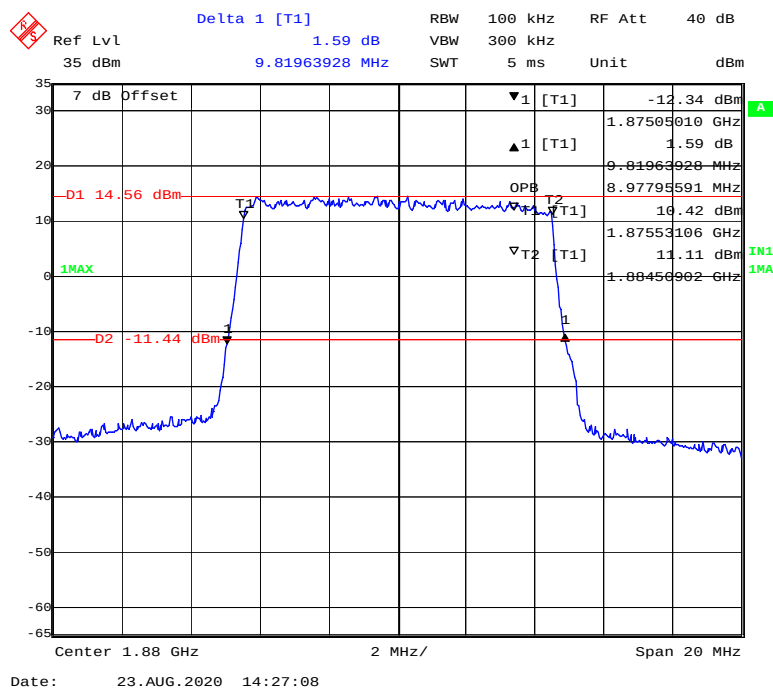
Center 1.88 GHz

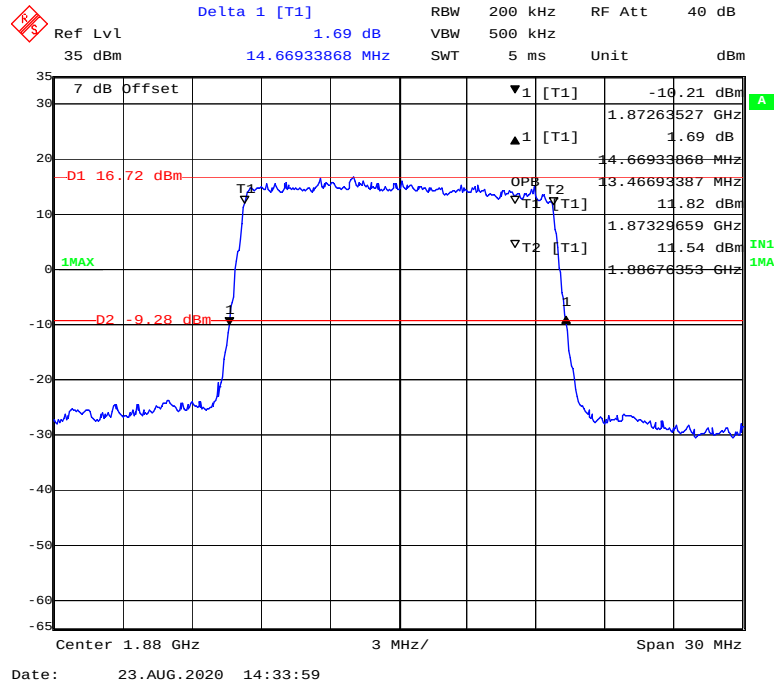
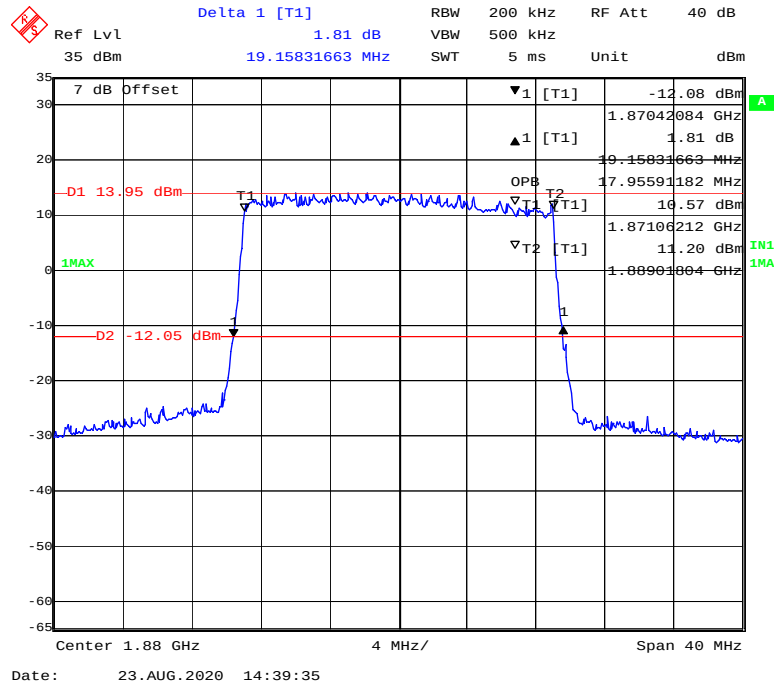
4 MHz/

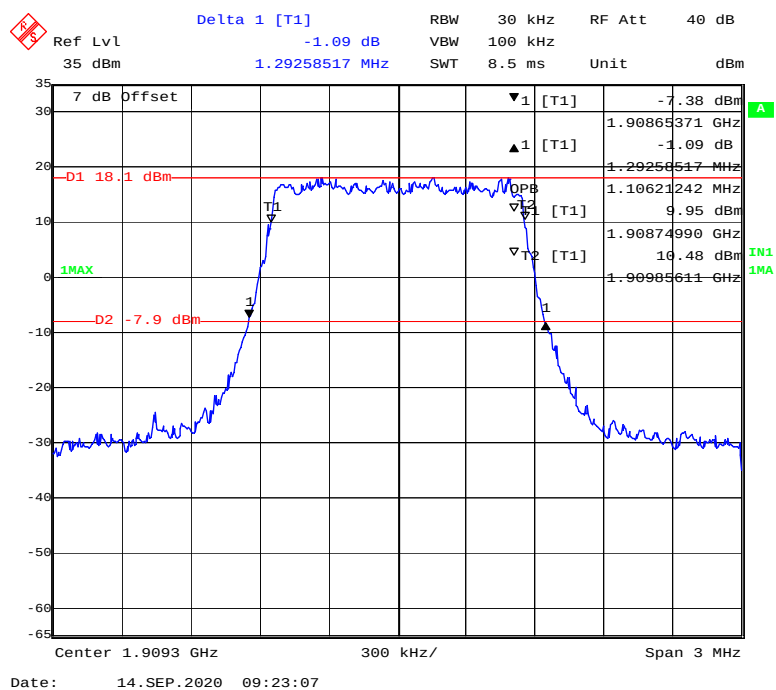
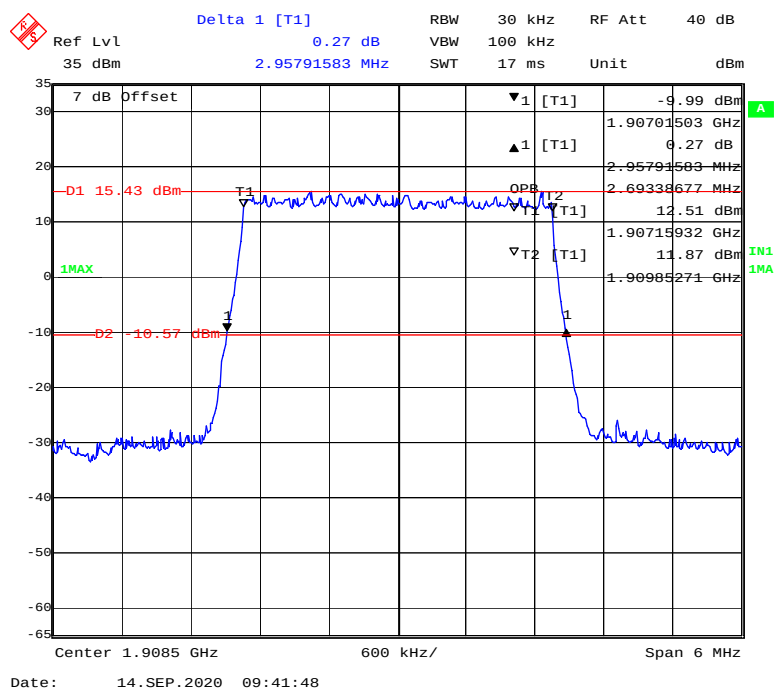
Span 40 MHz

Date: 23.AUG.2020 14:37:38

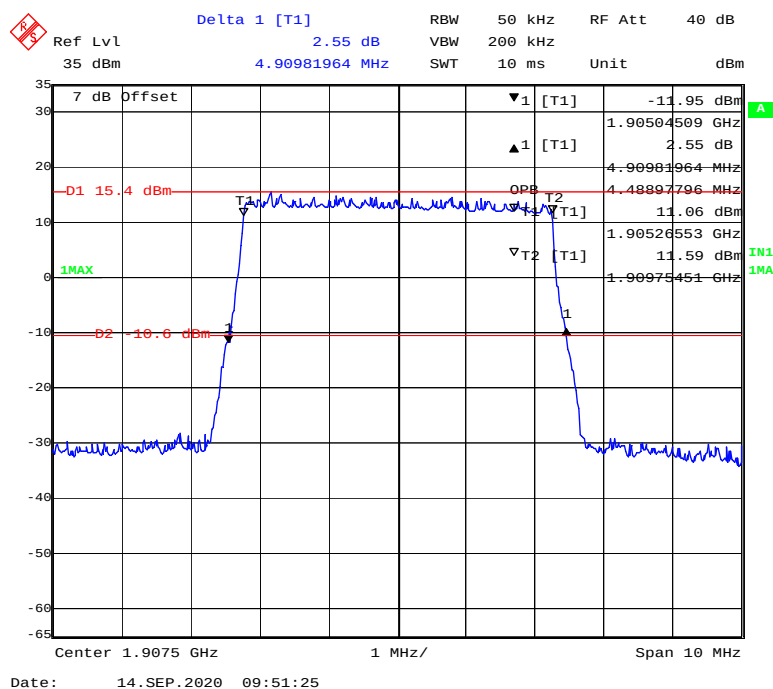
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**

16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**

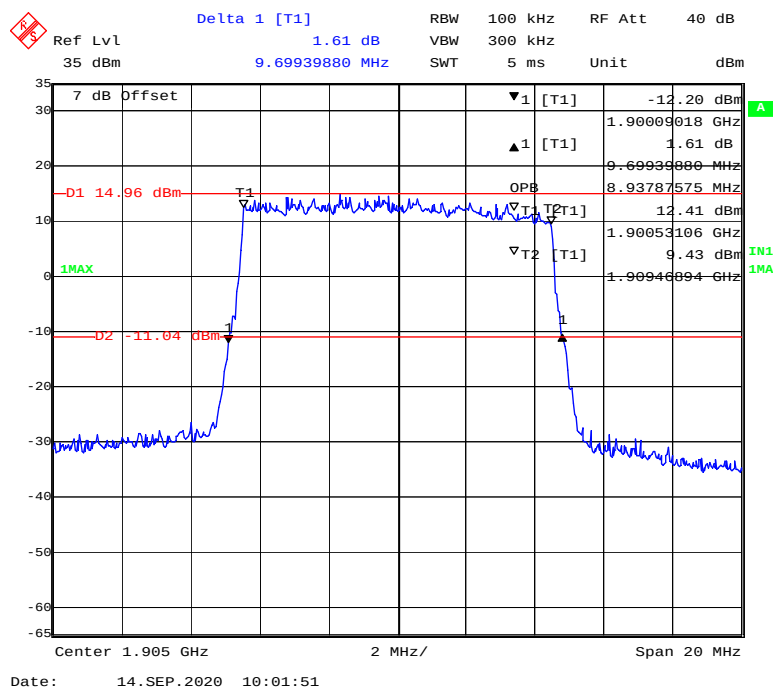
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**

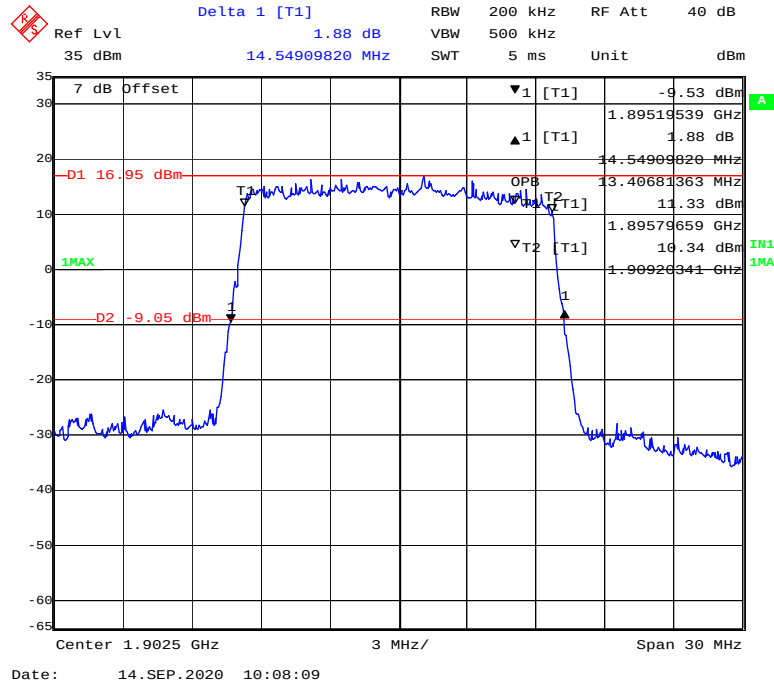
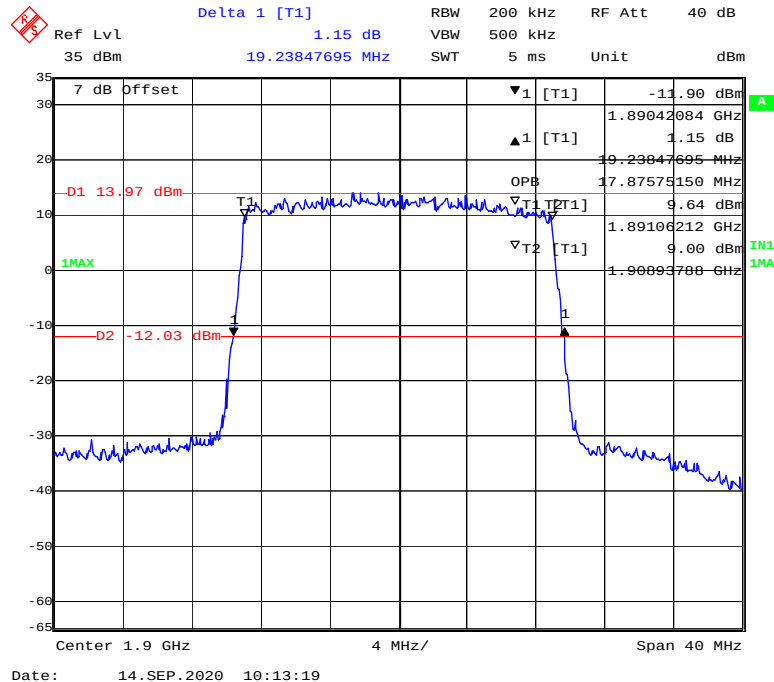
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel**QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel**

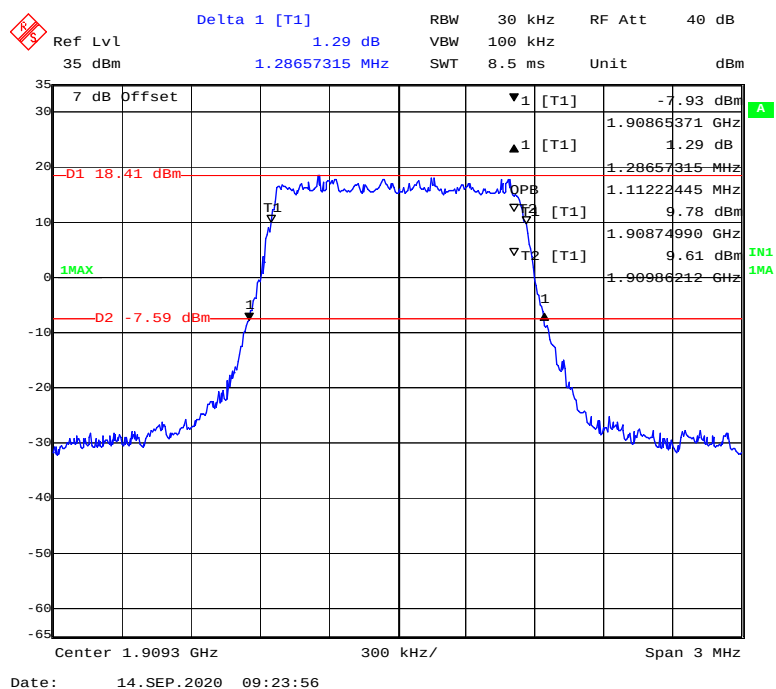
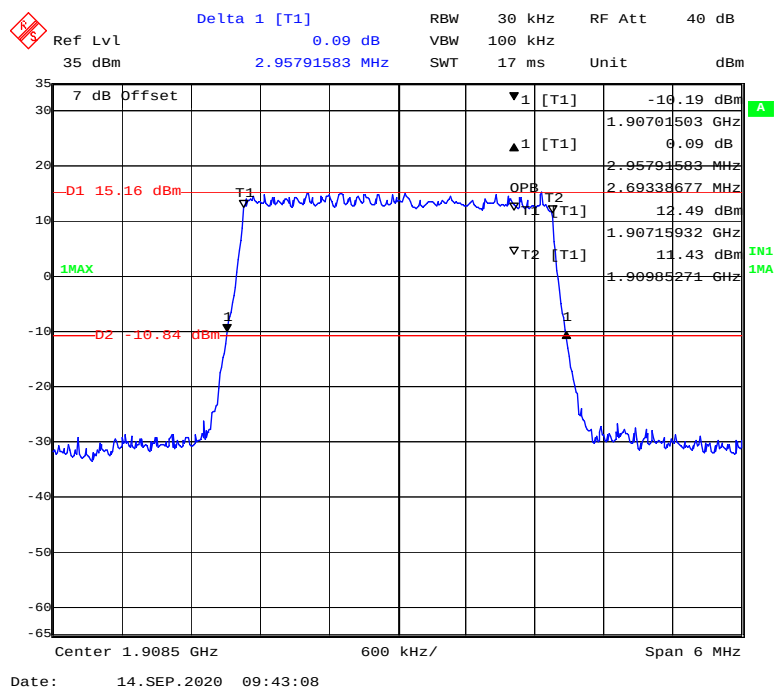
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel

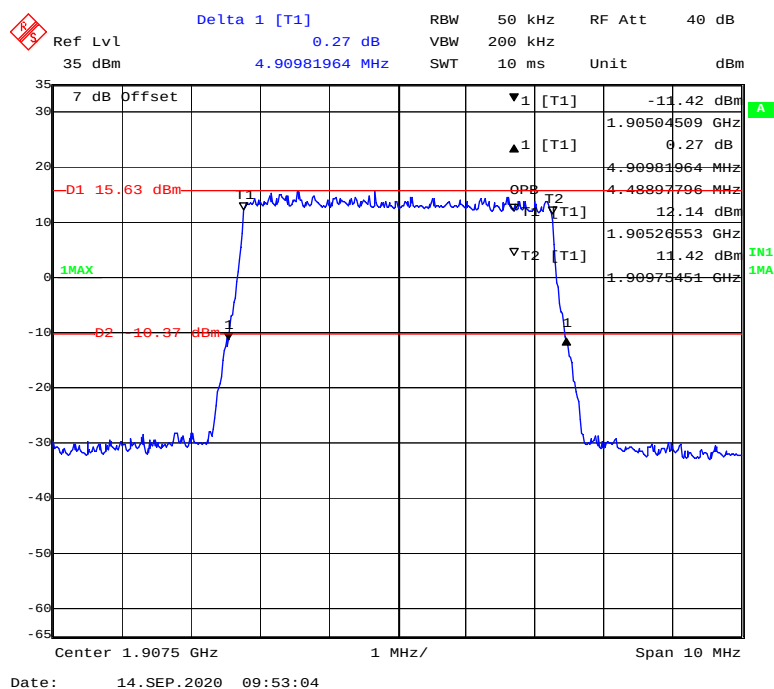
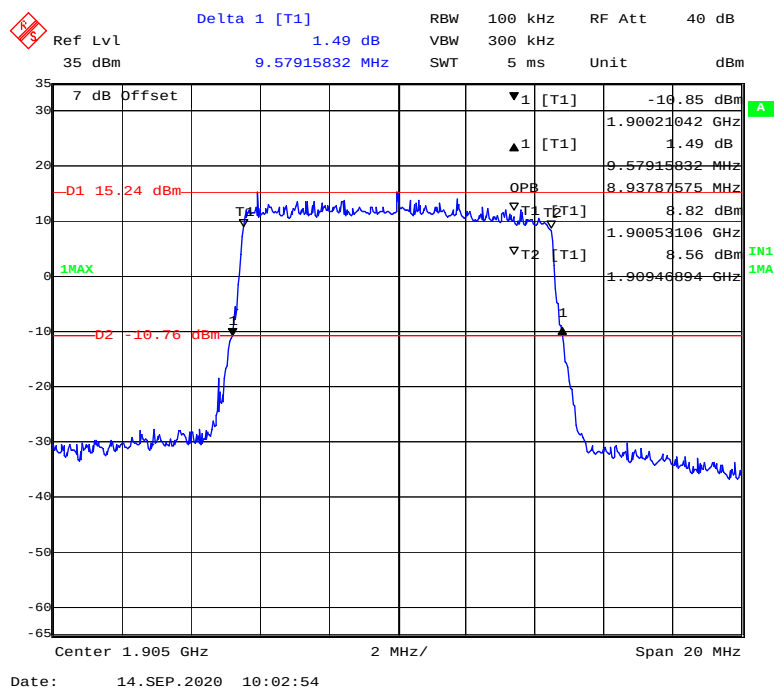


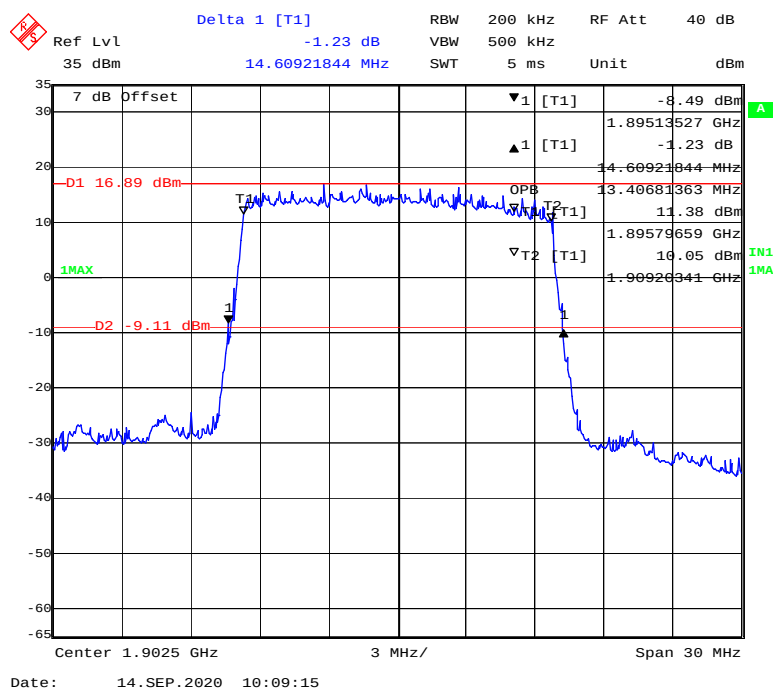
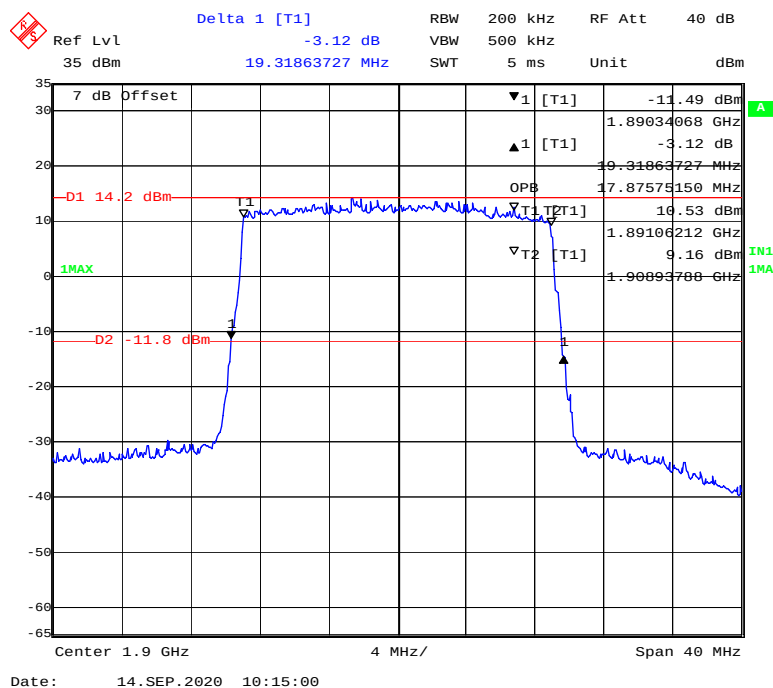
QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



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**

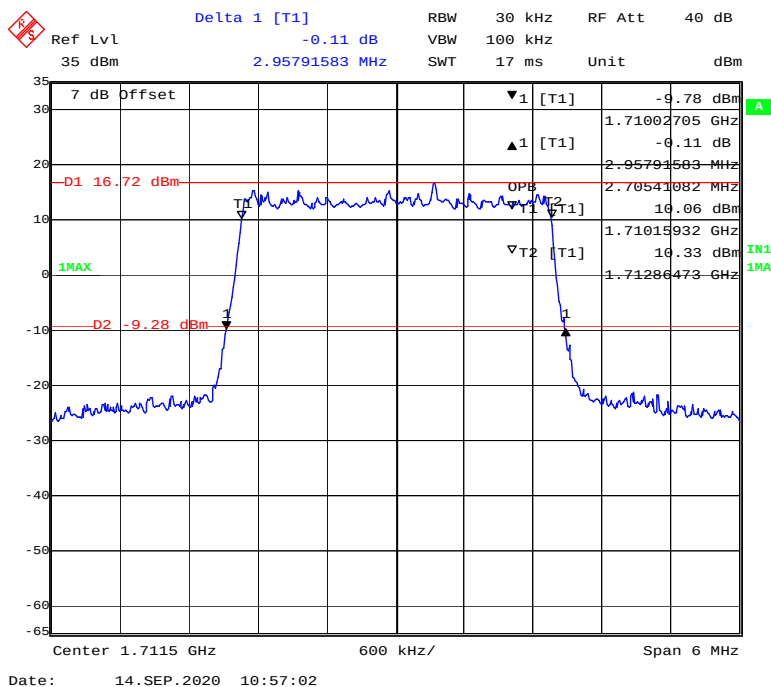
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel**16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel**

16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel**16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel**

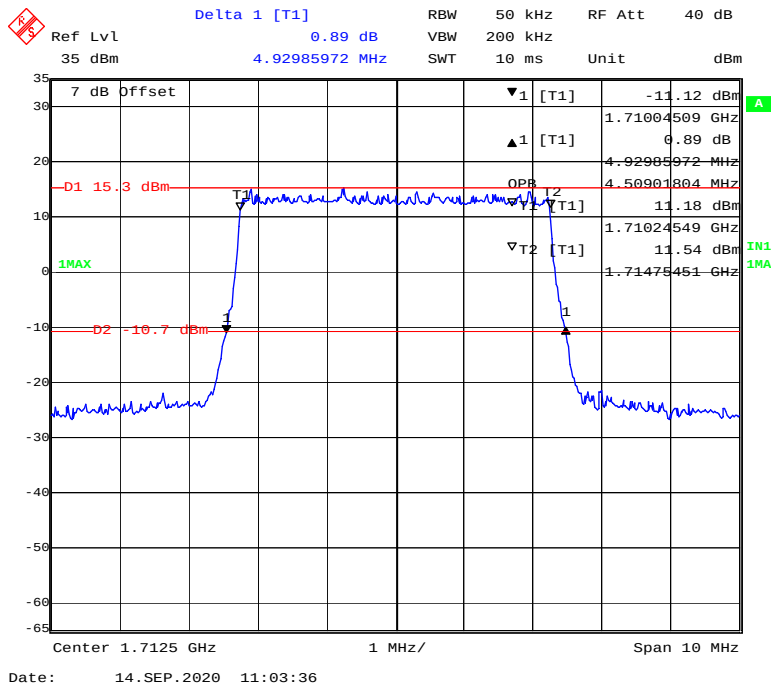
Test Modulation	Test Bandwidth	26 dB Bandwidth MHz			99% Occupied Bandwidth MHz		
		Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
QPSK	1.4M	1.34	1.32	1.33	1.11	1.11	1.11
	3M	2.96	2.95	2.96	2.71	2.71	2.71
	5M	4.93	4.93	4.95	4.51	4.49	4.49
	10M	9.66	9.90	9.74	8.94	8.98	8.98
	15M	14.55	14.73	14.61	13.41	13.47	13.47
	20M	19.08	19.32	19.16	17.96	17.96	17.80
16-QAM	1.4M	1.33	1.32	1.32	1.11	1.11	1.11
	3M	2.95	2.95	2.97	2.71	2.71	2.69
	5M	4.93	4.95	4.97	4.49	4.49	4.49
	10M	9.74	9.82	9.70	8.94	8.98	8.94
	15M	14.61	14.61	14.55	13.41	13.47	13.41
	20M	19.08	19.23	19.24	17.88	17.96	17.88

[illegible]

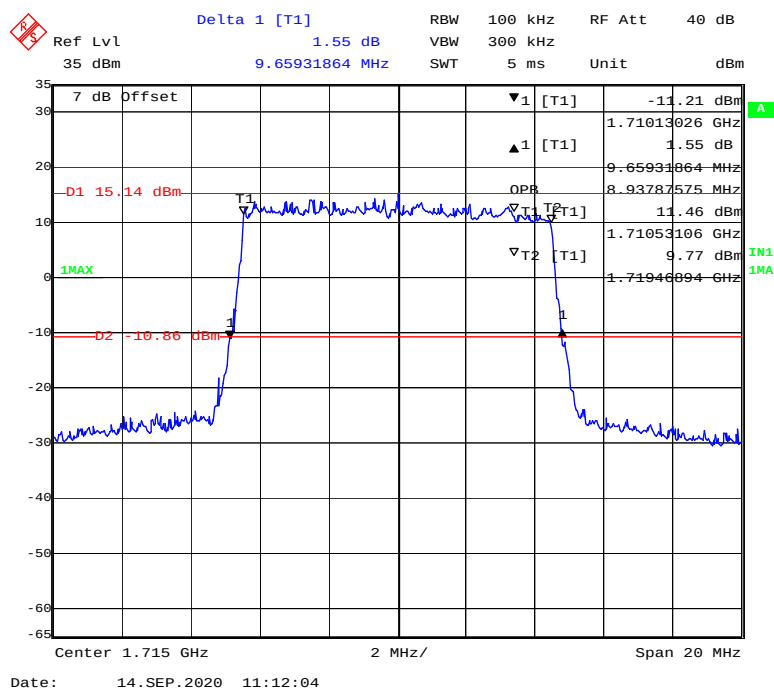
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



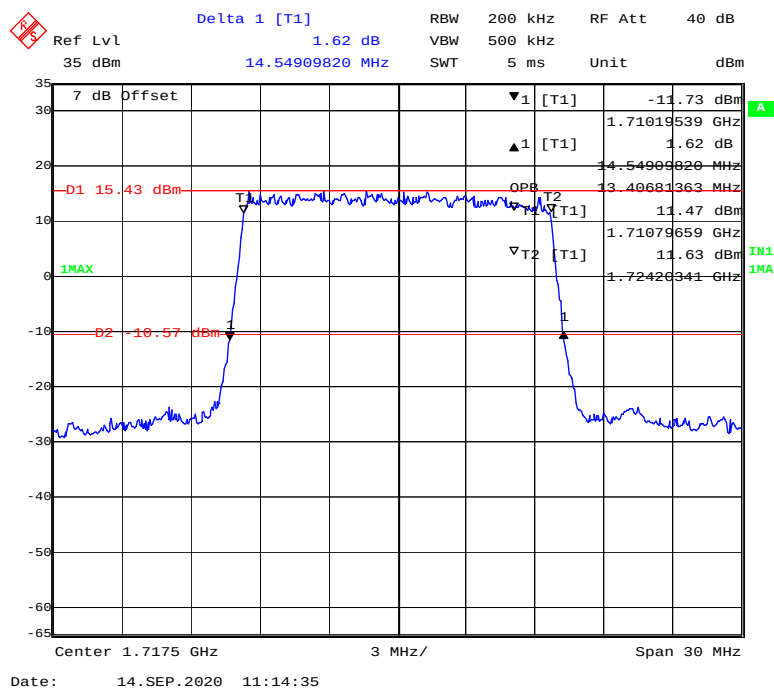
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



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



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



[illegible]

Delta 1 [T1]

Ref Lvl 35 dBm

0.05 dB

1.32865731 MHz

RBW 30 kHz

VBW 100 kHz

SWT 8.5 ms

RF Att 40 dB

Unit dBm

7 dB Offset

D1 18.21 dBm

1MAX

D2 -7.79 dBm

▼1 [T1]

▲1 [T1]

0.05 dB

1.32865731 MHz

1.71005371 GHz

1.11222445 MHz

11.77 dBm

1.71014990 GHz

9.62 dBm

1.71126212 GHz

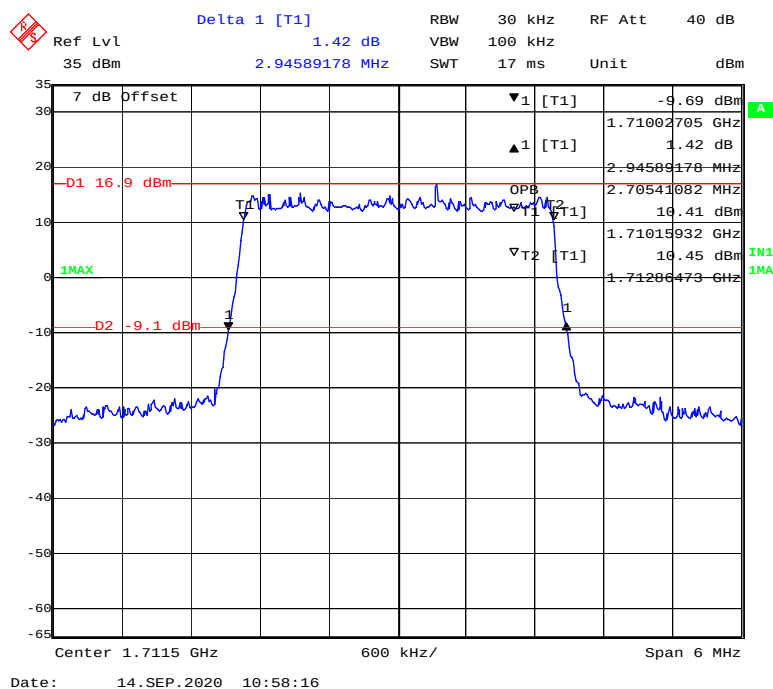
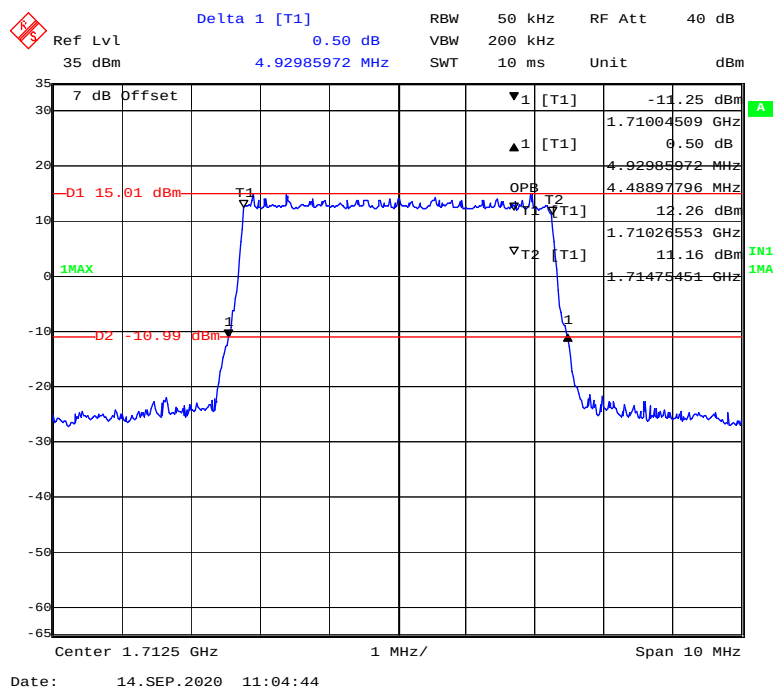
IN1 1MA

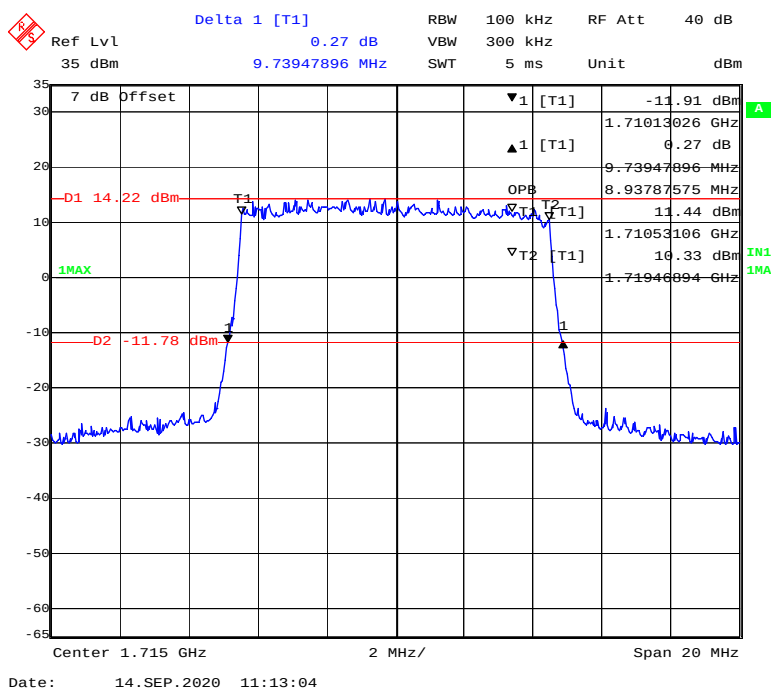
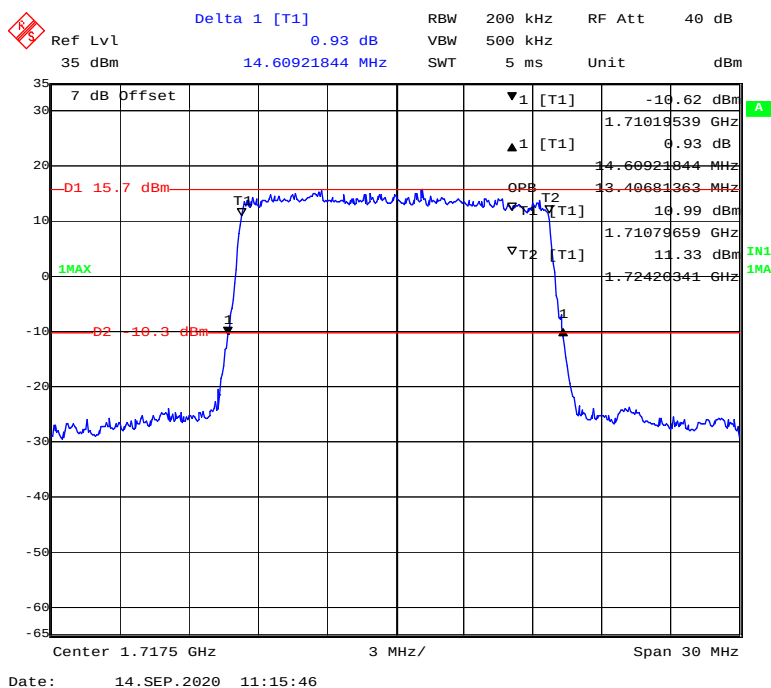
Center 1.7107 GHz

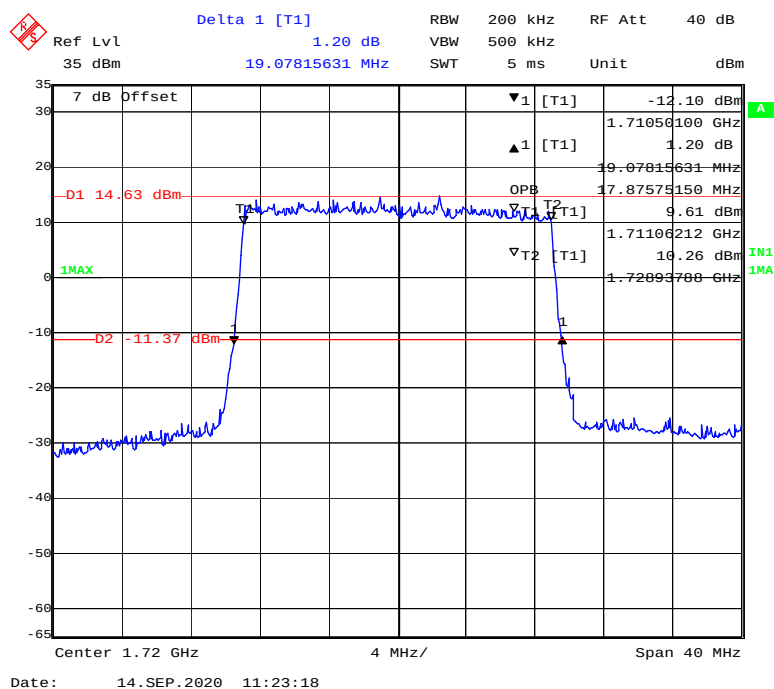
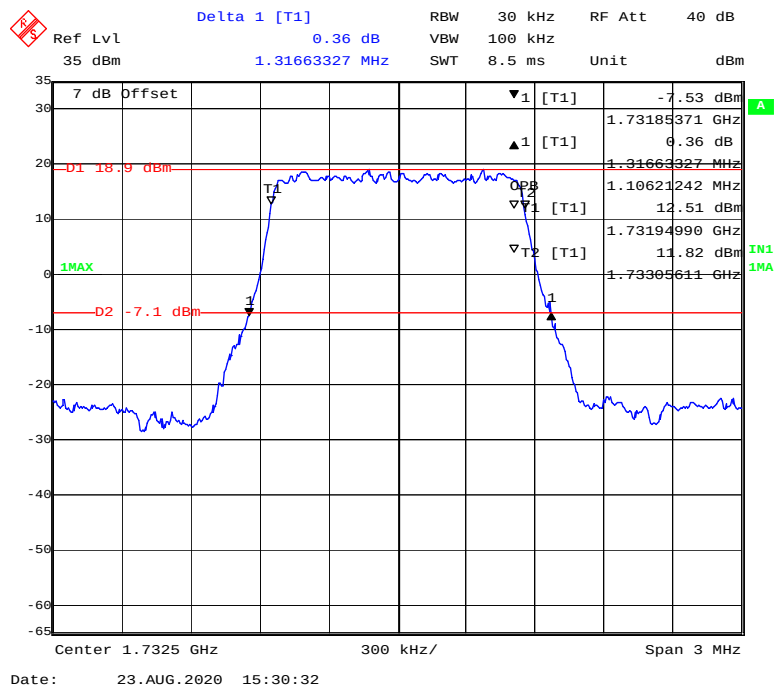
300 kHz/

Span 3 MHz

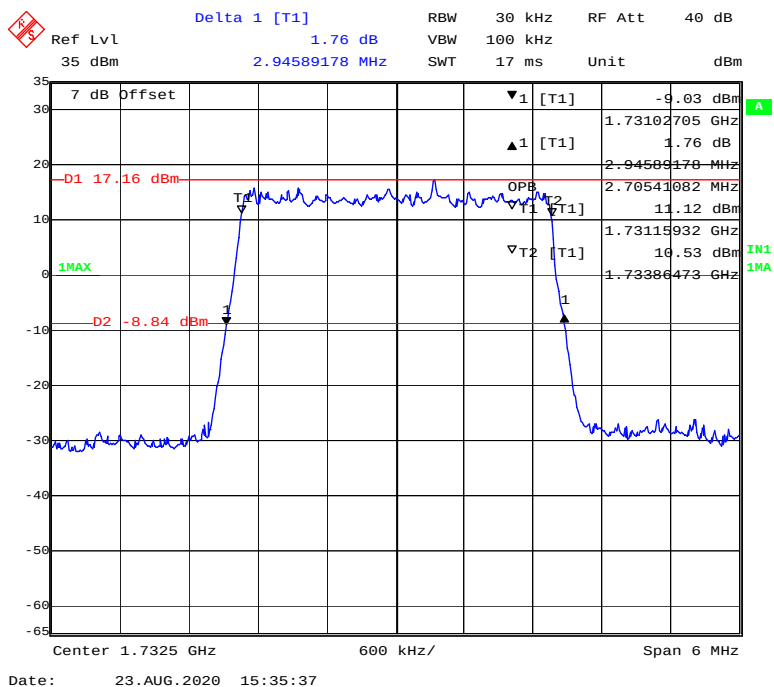
Date: 14.SEP.2020 10:49:02

16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel**16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel**

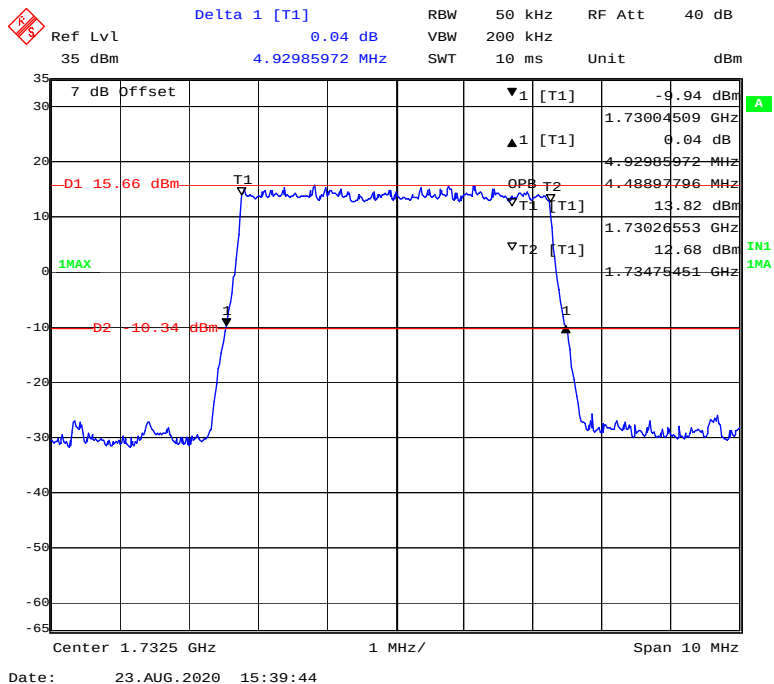
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel**16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel**

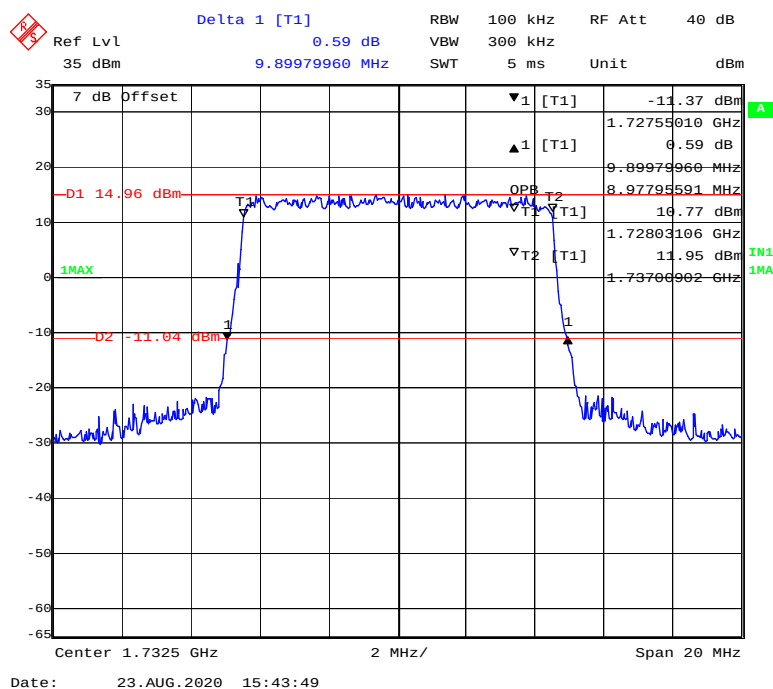
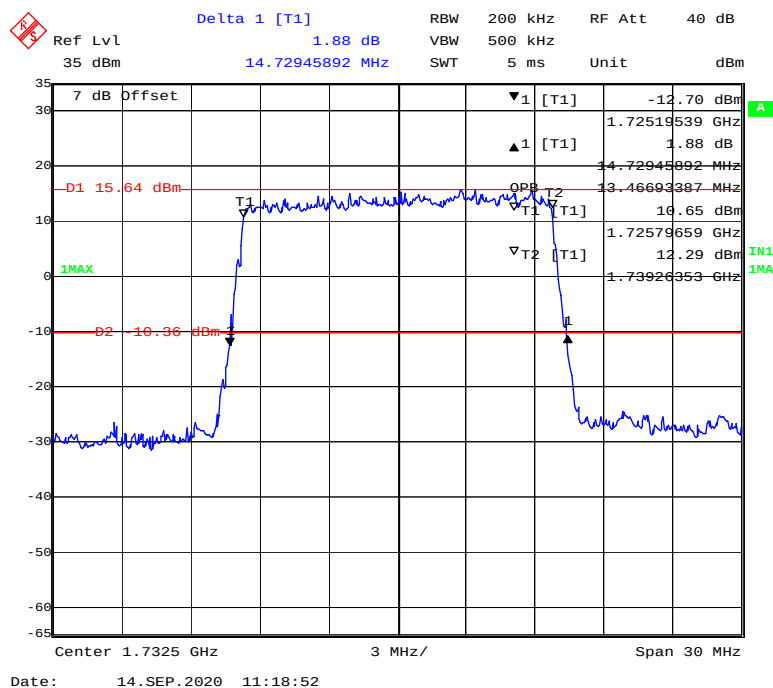
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel**QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**

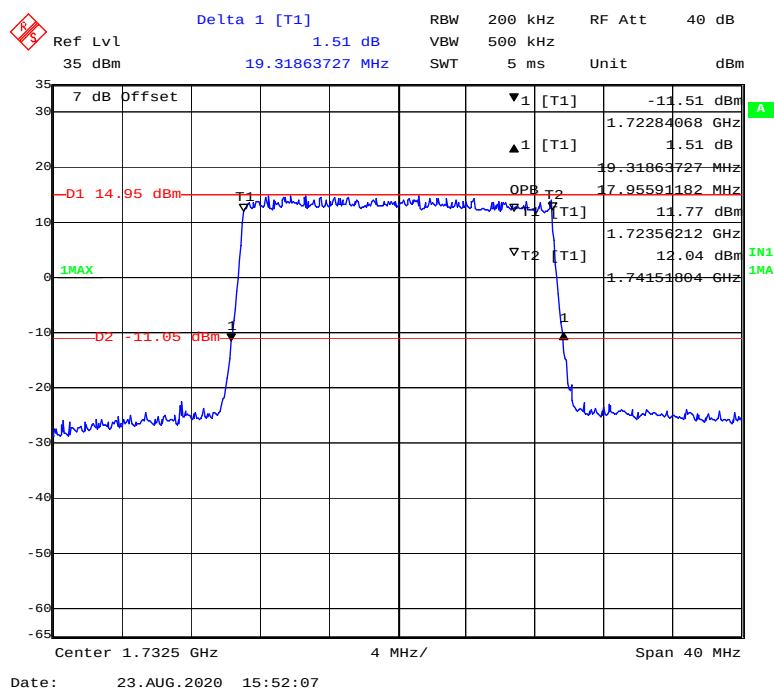
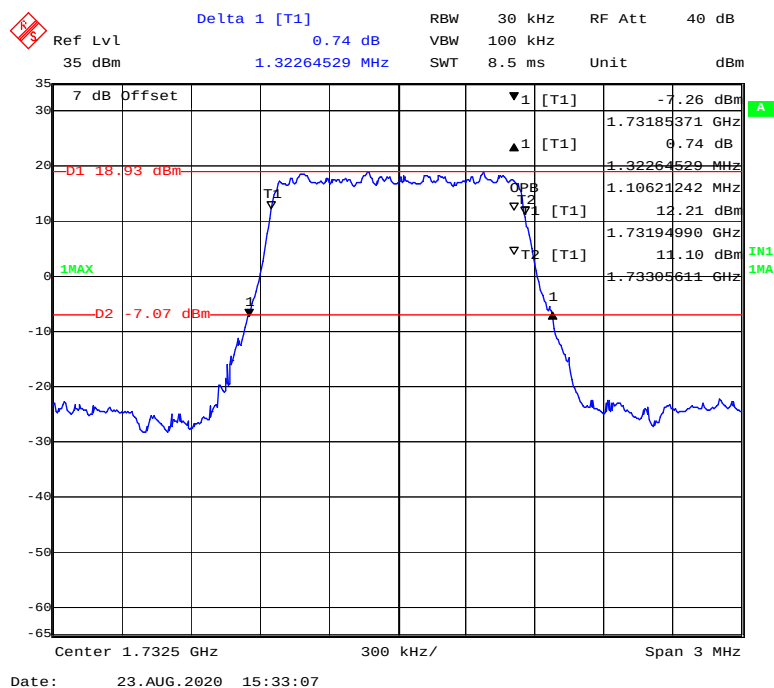
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel

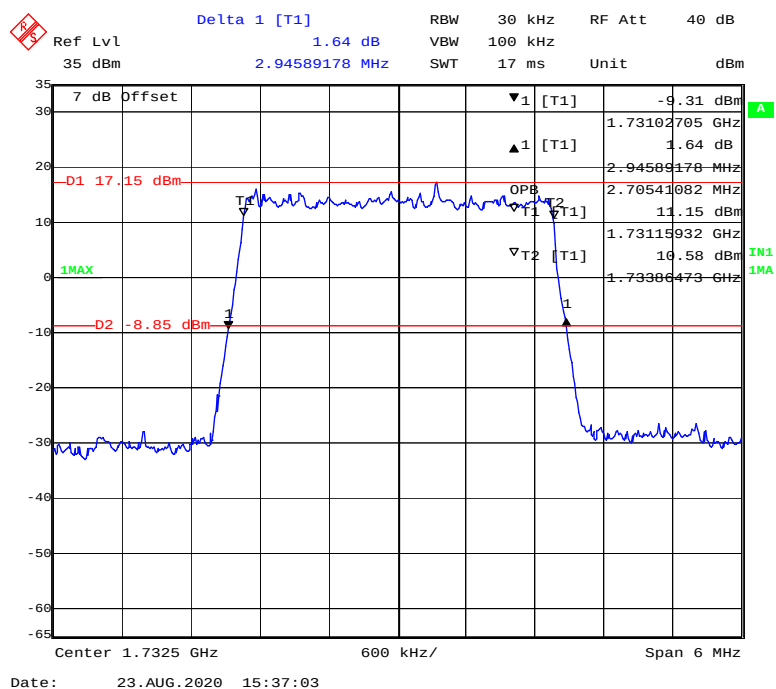
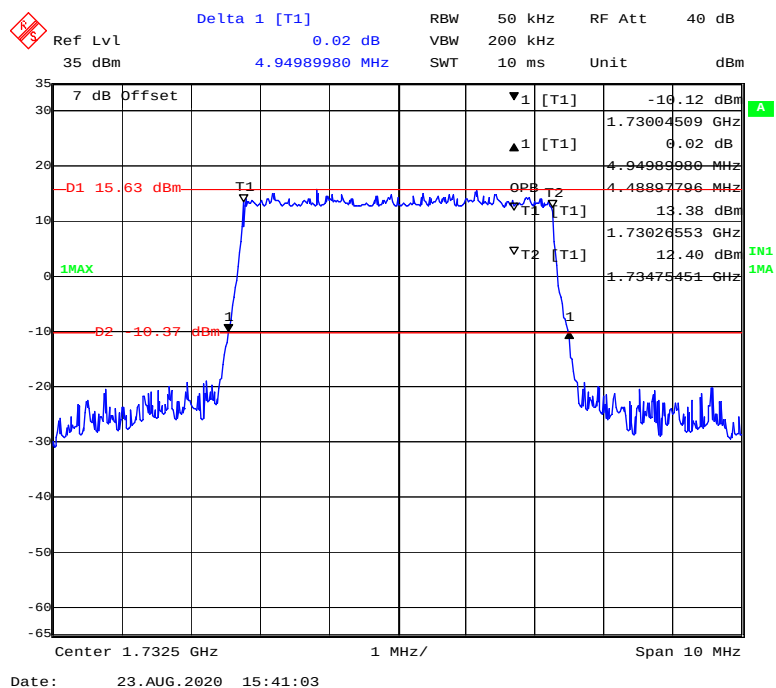


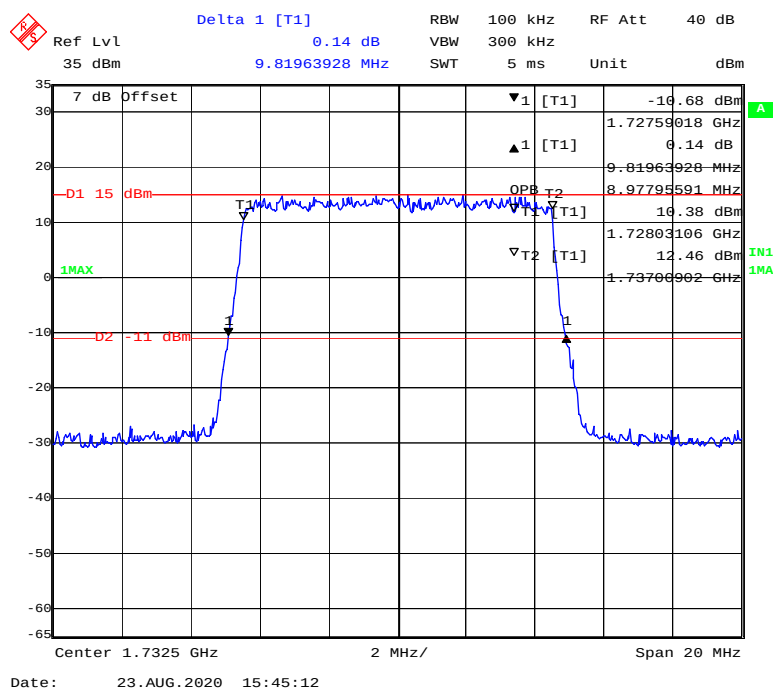
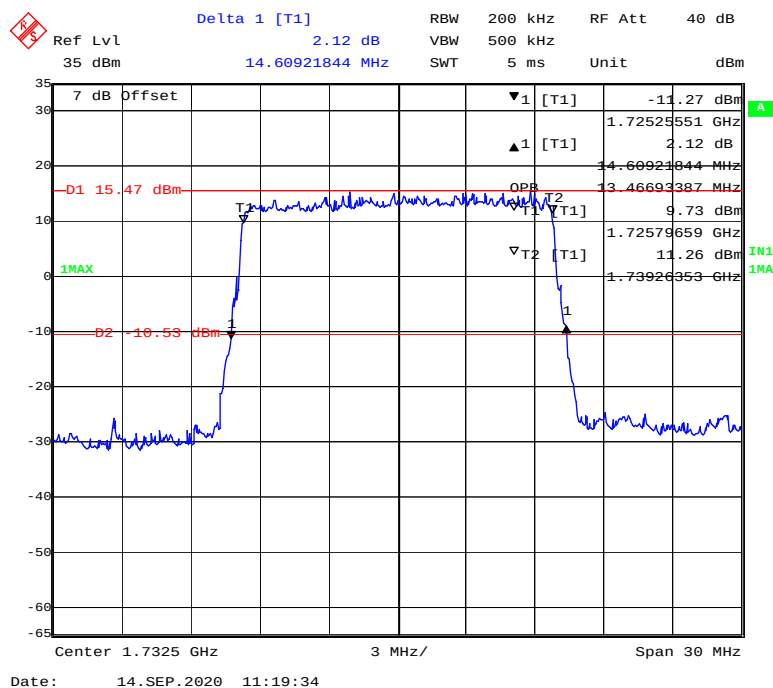
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel

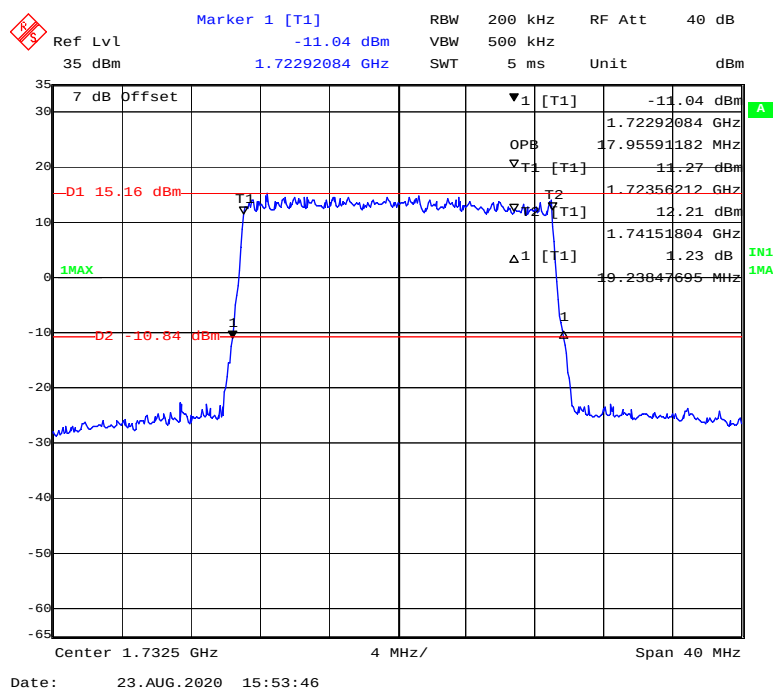
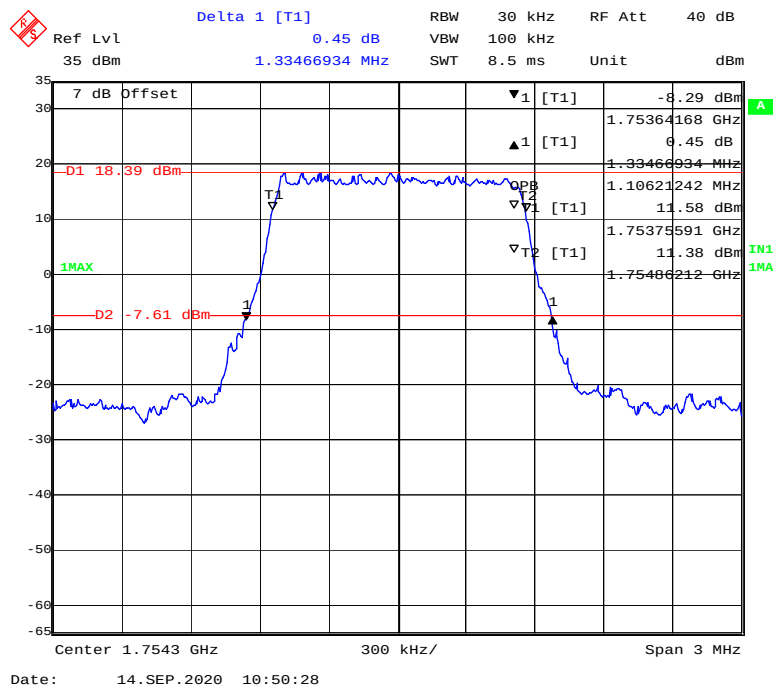


QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**

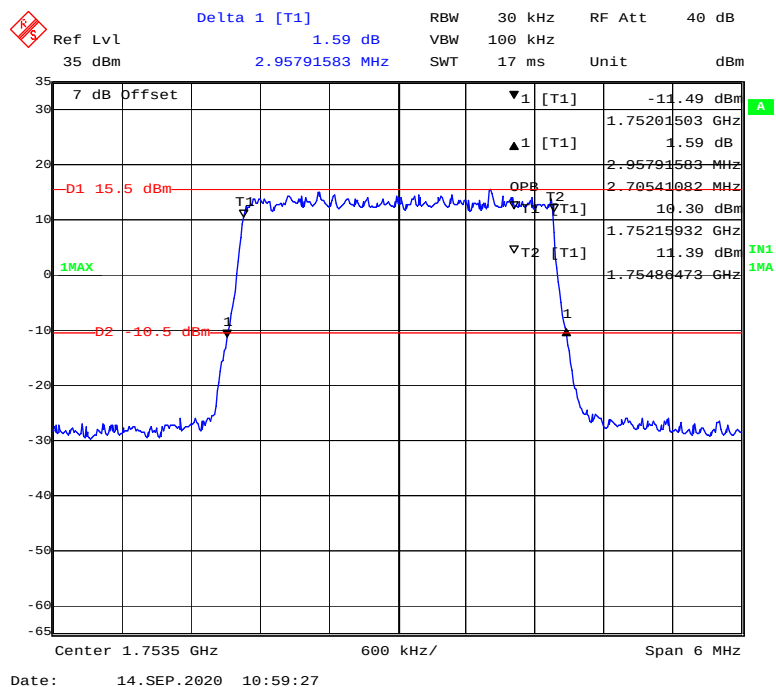
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**

16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**

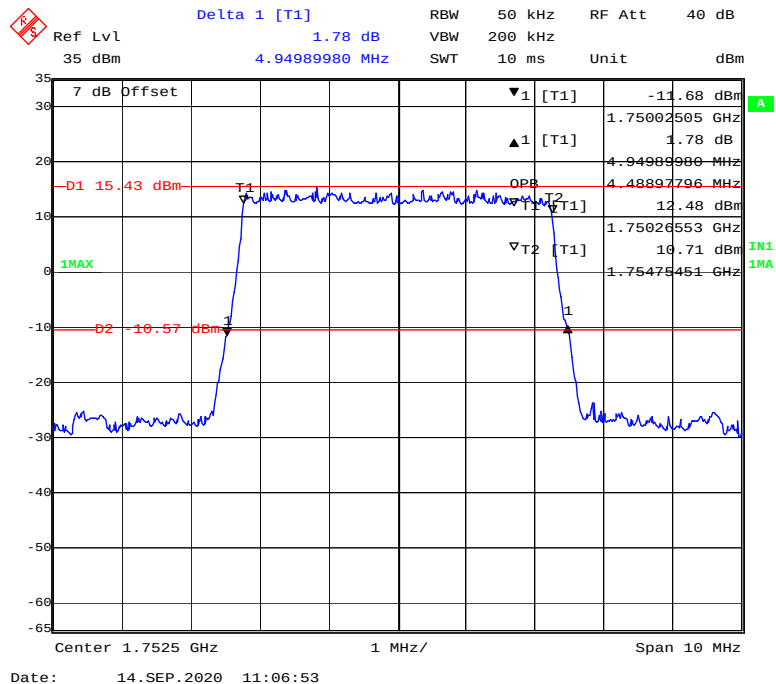
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**

16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel**

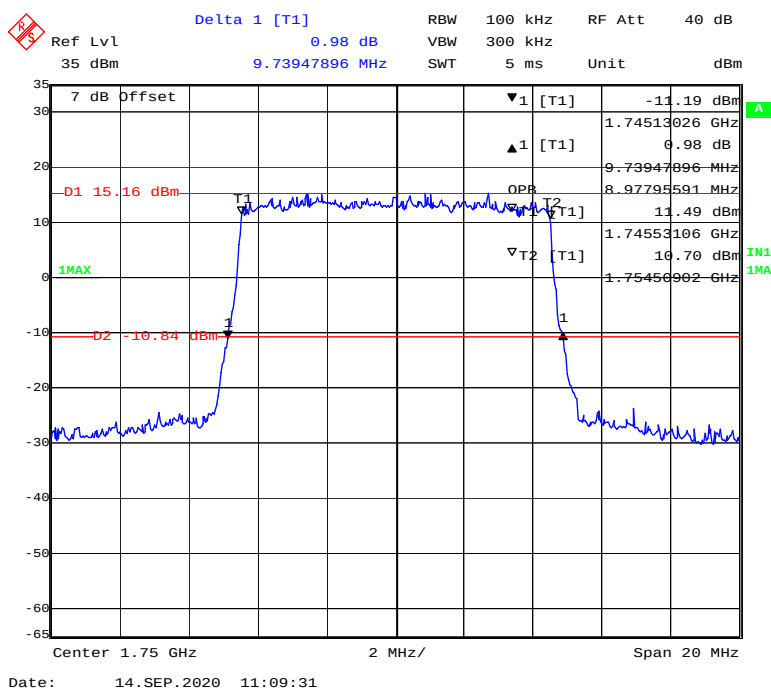
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



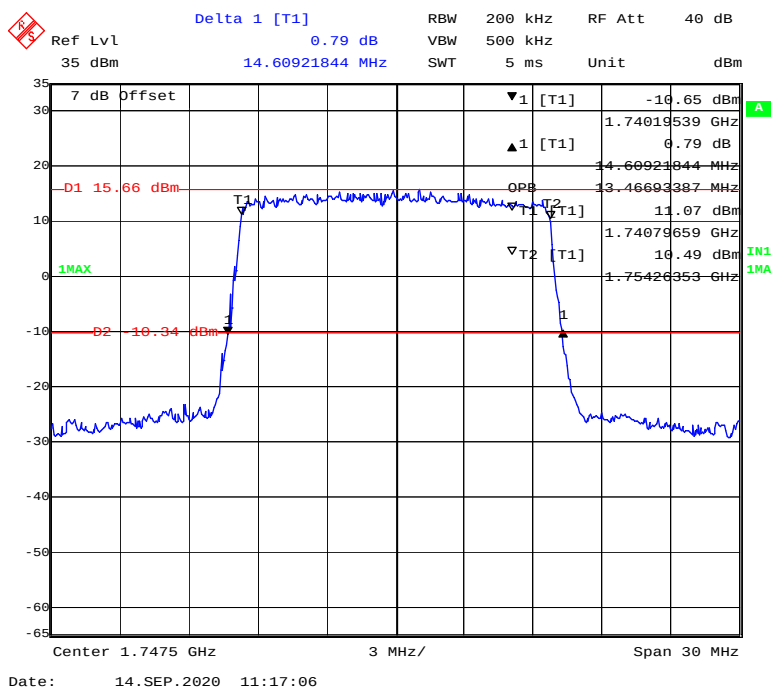
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel

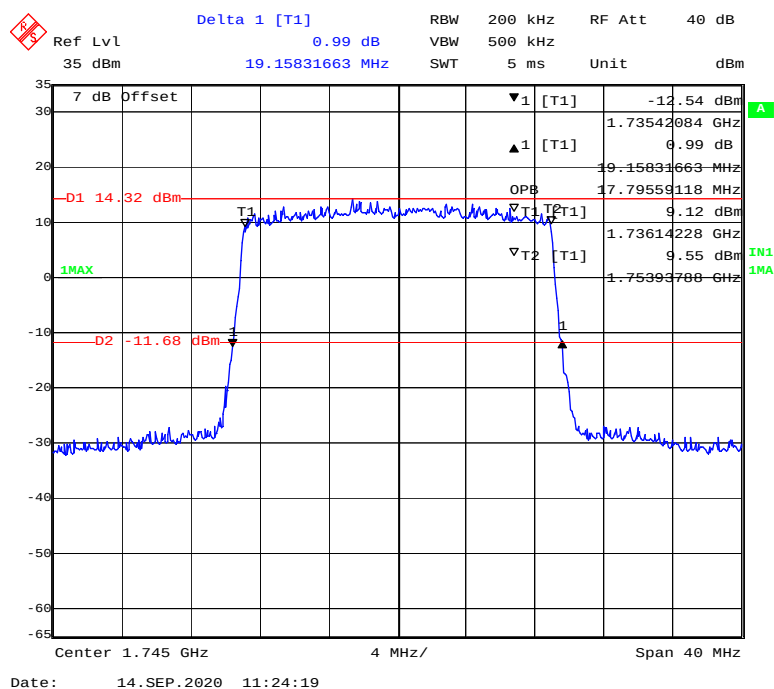
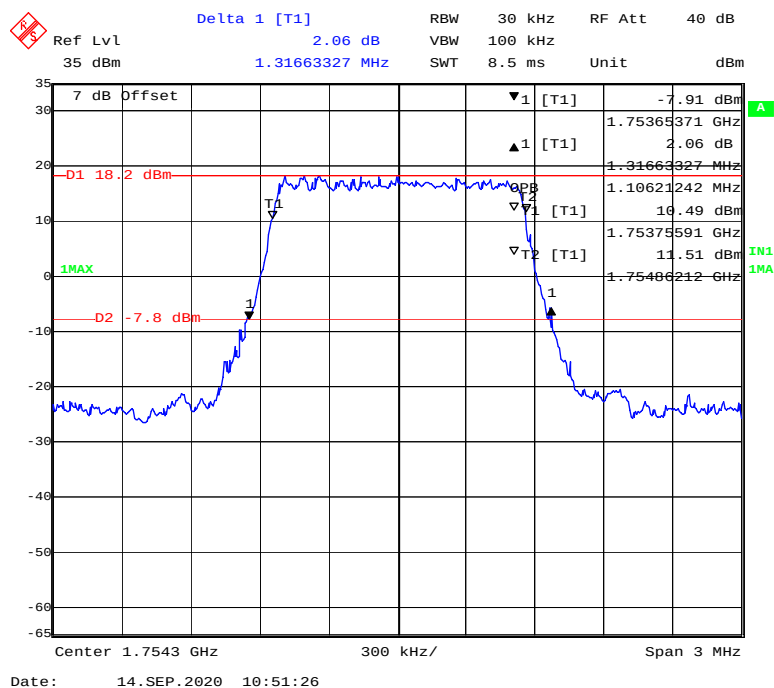


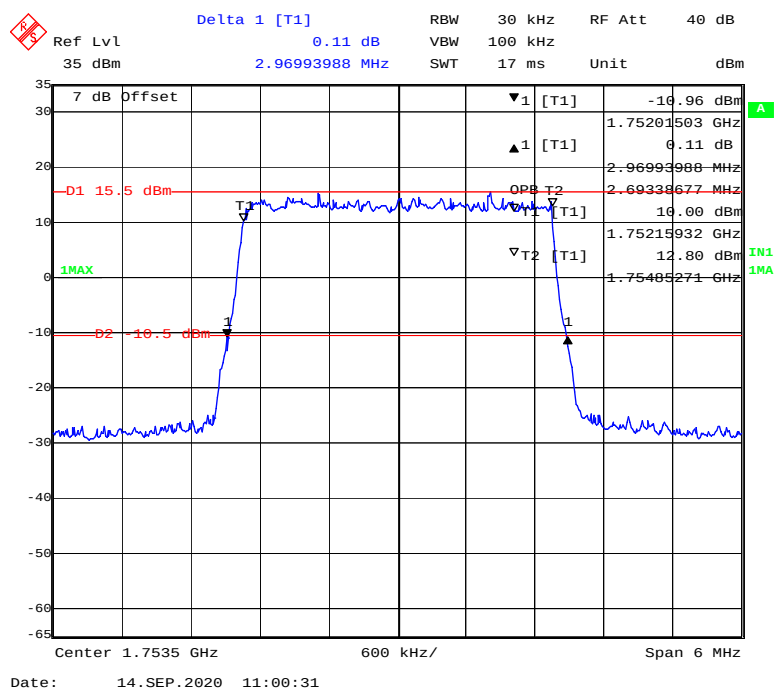
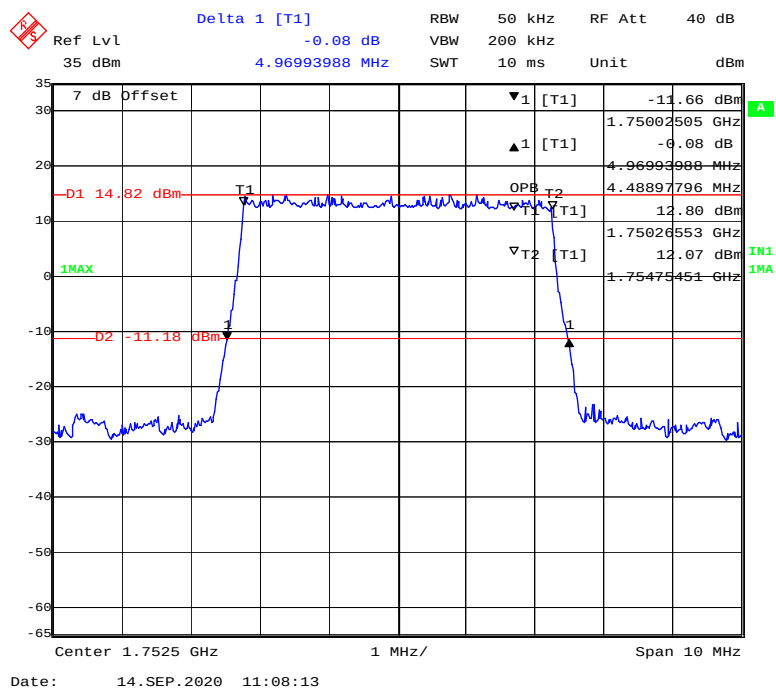
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel

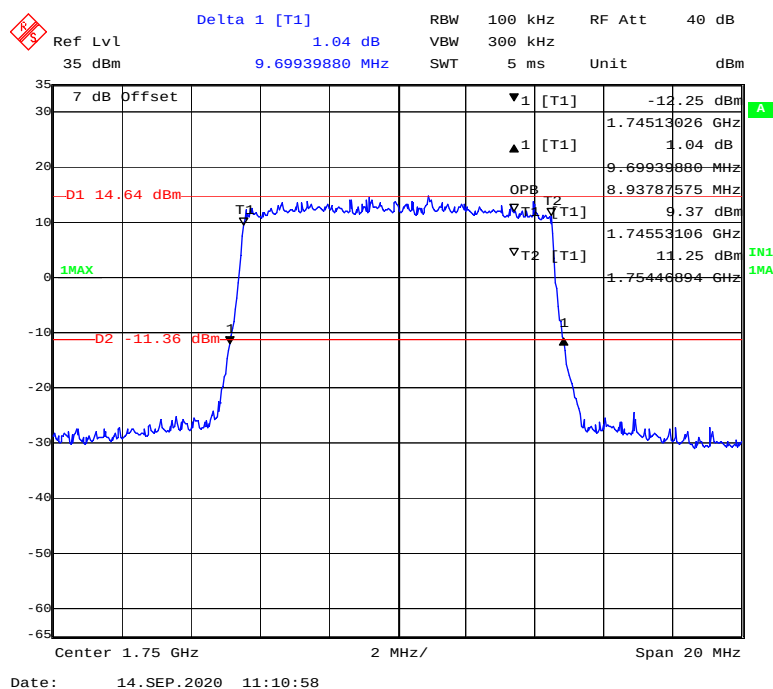
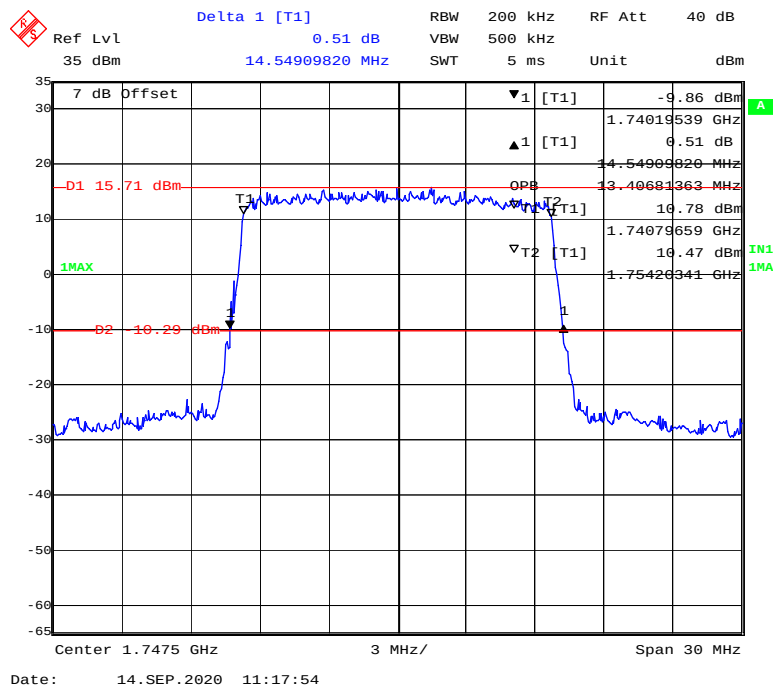


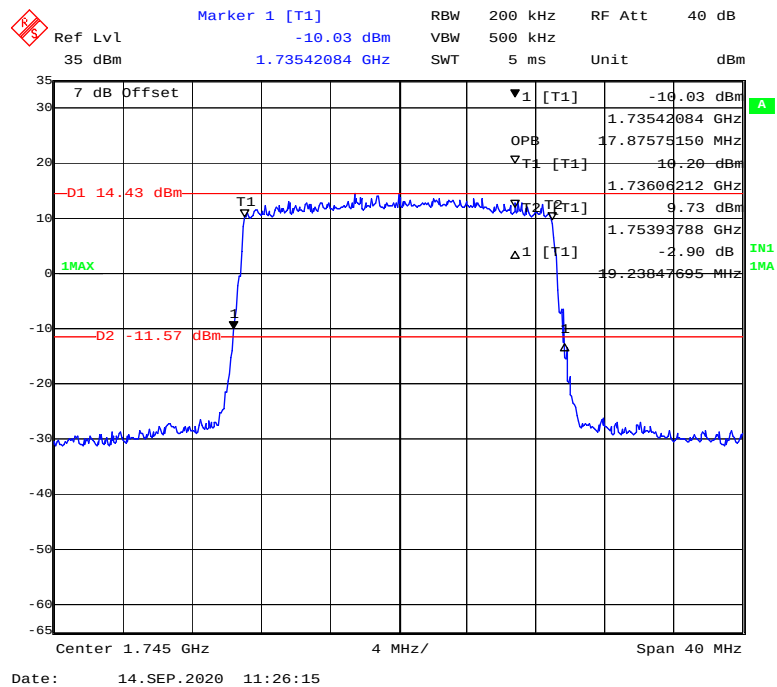
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel**16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel**

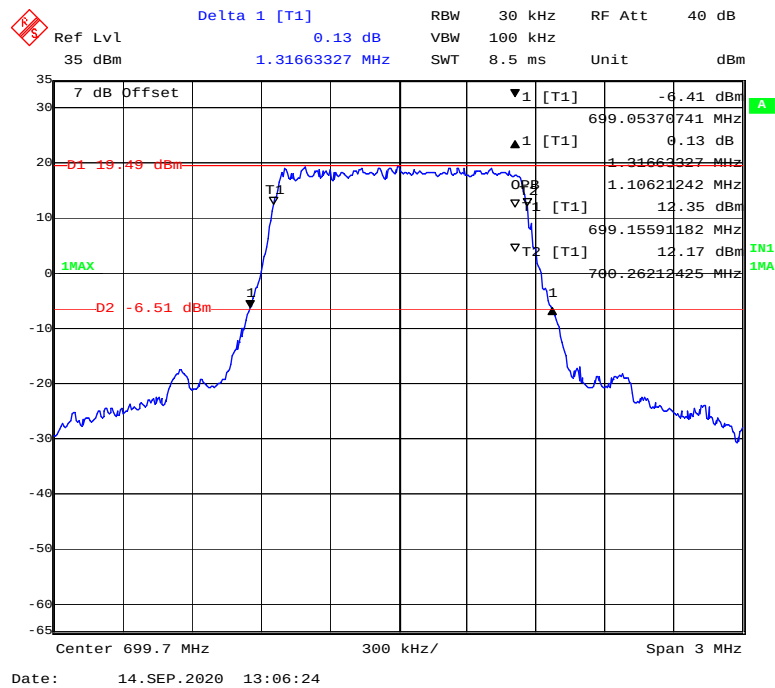
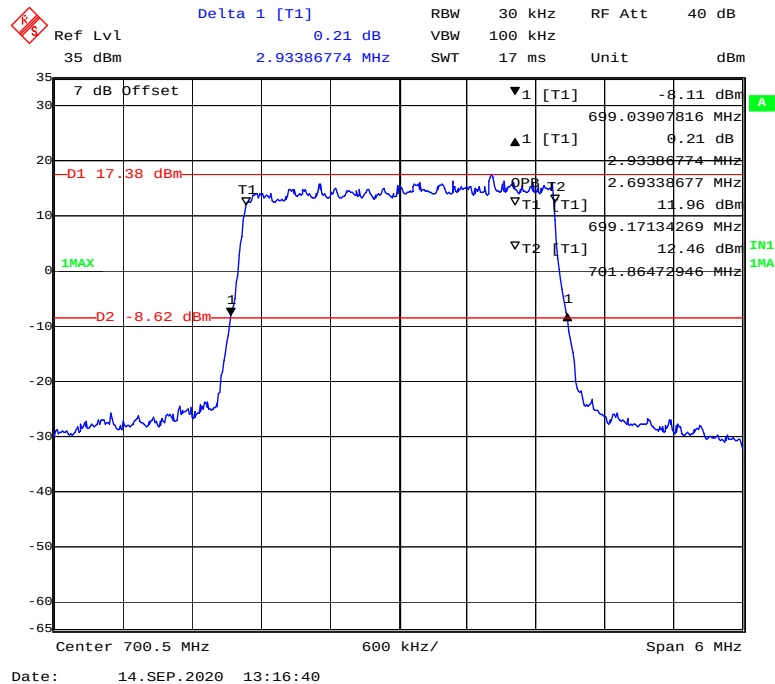
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel**16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel**

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 12:

Test Modulation	Test Bandwidth	26 dB Bandwidth MHz			99% Occupied Bandwidth MHz		
		Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
QPSK	1.4M	1.32	1.32	1.31	1.11	1.11	1.11
	3M	2.93	2.95	2.95	2.69	2.71	2.69
	5M	4.87	4.99	4.85	4.49	4.51	4.47
	10M	9.66	9.86	9.74	8.98	8.98	8.94
16-QAM	1.4M	1.32	1.32	1.21	1.11	1.11	1.11
	3M	2.92	2.95	2.93	2.70	2.71	2.69
	5M	4.91	4.97	4.89	4.49	4.51	4.49
	10M	9.58	9.02	9.66	8.94	8.98	8.94

QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel**QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel**

Delta 1 [T1]

Ref Lvl 35 dBm

RBW 50 kHz

RF Att 40 dB

VBW 200 kHz

SWT 10 ms

Unit dBm

7 dB Offset

D1 16.42 dBm

1MAX

D2 -9.58 dBm

1

▼1 [T1] -8.55 dBm

▲1 [T1] -0.58 dBm

4.86973948 MHz

699.08517034 MHz

4.48897796 MHz

13.15 dBm

699.26553106 MHz

13.50 dBm

703.75456902 MHz

Center 701.5 MHz

1 MHz/

Span 10 MHz

Date: 14.SEP.2020 13:19:44

Ref Lvl 35 dBm
Delta 1 [T1] -0.13 dB
RBW 100 kHz
RF Att 40 dB
VBW 300 kHz
SWT 5 ms
Unit dBm

7 dB Offset

D1 16.45 dBm

T1

D2 -9.55 dBm

1MAX

IN1 1MA

Center 704 MHz **2 MHz/** **Span 20 MHz**

Date: 14.SEP.2020 13:26:15

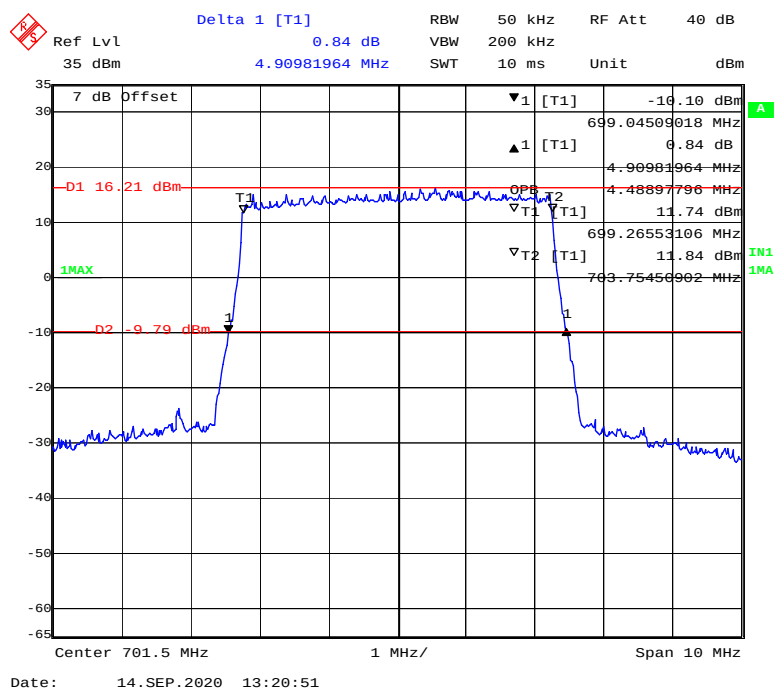
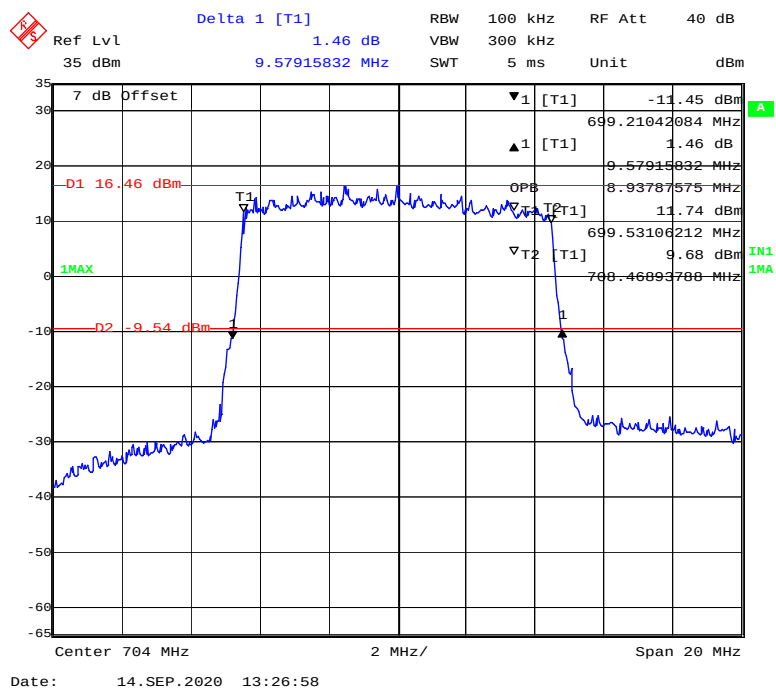
Delta [T1] -0.32 dB

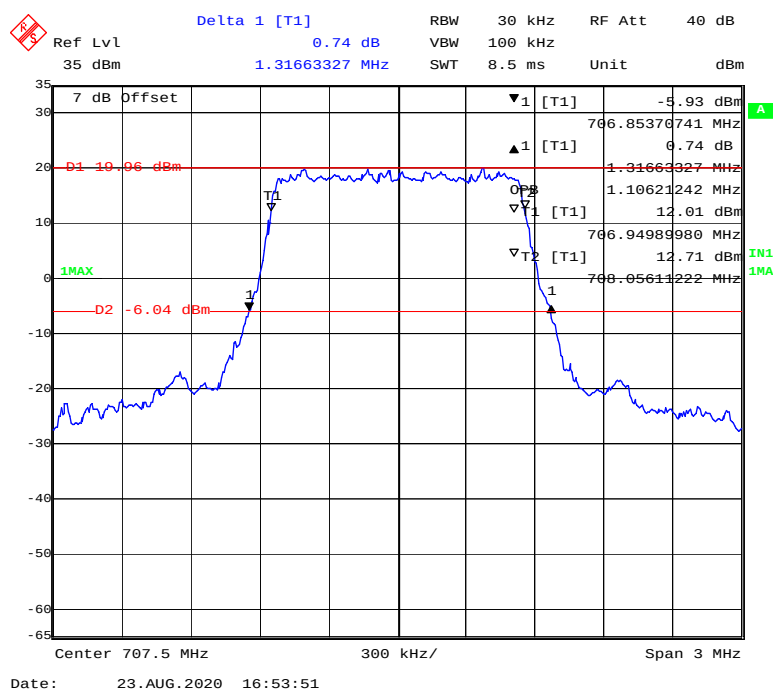
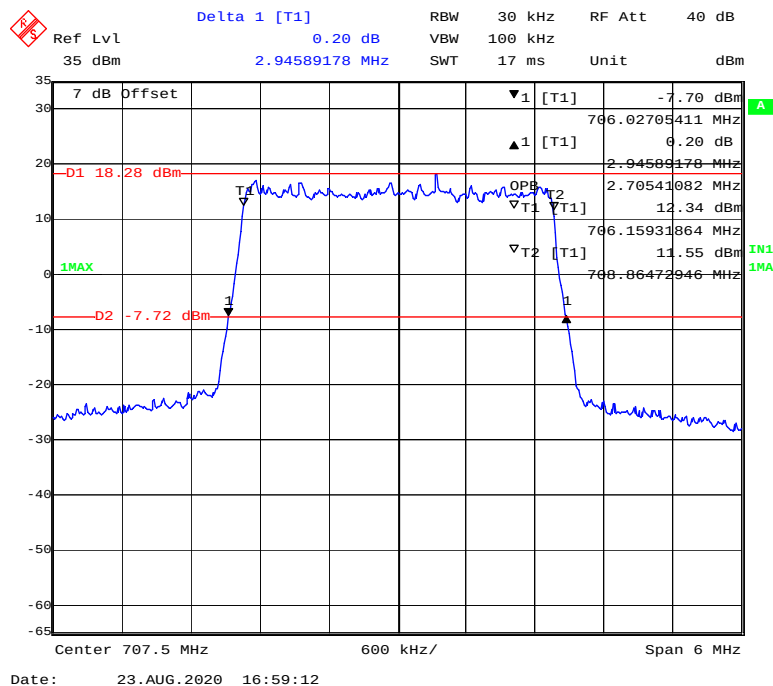
Ref Lvl	RBW	30 kHz	RF Att	40 dB
35 dBm	VBW	100 kHz		
	SWT	8.5 ms	Unit	dBm

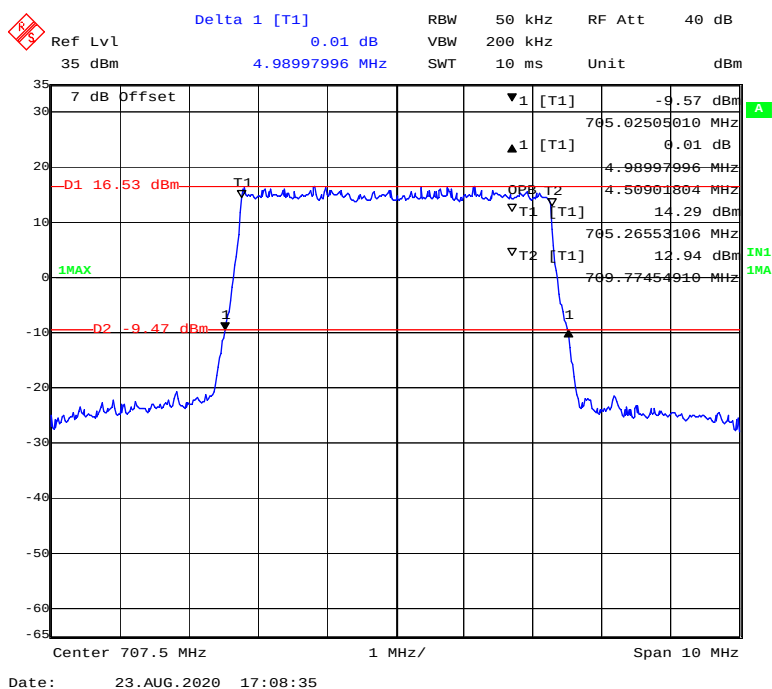
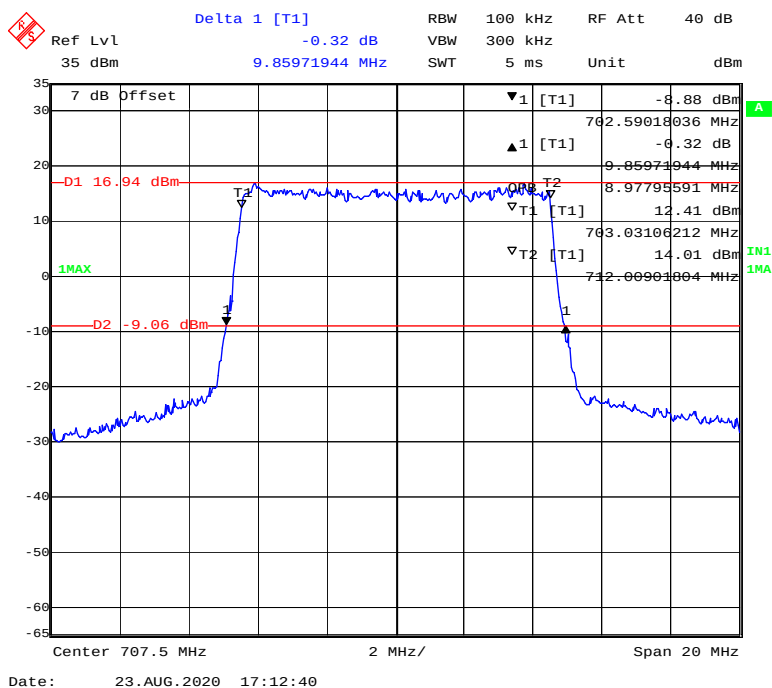
Center 699.7 MHz 300 kHz/ Span 3 MHz

Date: 14.SEP.2020 13:07:21

[illegible]

16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel**16-QAM (10 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**

Ref Lvl 35 dBm Delta 1 [T1] 0.67 dB RBW 30 kHz RF Att 40 dB

1.32264529 MHz VSWR 8.5 ms Unit dBm

7 dB Offset

D1 20 dBm

1MAX

D2 -6 dBm

▼1 [T1] -6.56 dBm

▲1 [T1] 0.67 dB

OPB

▽T1 [T1] 12.01 dBm

706.84769539 MHz

1.0621242 MHz

706.94989980 MHz

12.10 dBm

706.05611222 MHz

Center 707.5 MHz 300 kHz/ Span 3 MHz

Date: 23.AUG.2020 16:56:36

[illegible]

Ref Lvl 35 dBm Delta 1 [T1] 1.02 dB RBW 50 kHz RF Att 40 dB

35 dBm 7 dB Offset 1 13.57 dBm 16.81 dBm 1.02 dB 4.96993988 MHz 10 ms Unit dBm

Center 707.5 MHz 1 MHz/ Span 10 MHz

Date: 23.AUG.2020 17:10:30

Ref Lvl 35 dBm Marker 1 [T1] -8.24 dBm RBW 100 kHz VBW 300 kHz SWT 5 ms RF Att 40 dB

7 dB Offset

D1 17.15 dBm

1MAX

D2 -8.85 dBm

▼1 [T1] -8.24 dBm

OPB

▽T1 [T1] 702.59018036 MHz

▽T2 [T1] 8.97795591 MHz

▽T2 [T1] 12.68 dBm

▽T2 [T1] 703.03106212 MHz

Δ1 [T1] 13.66 dBm

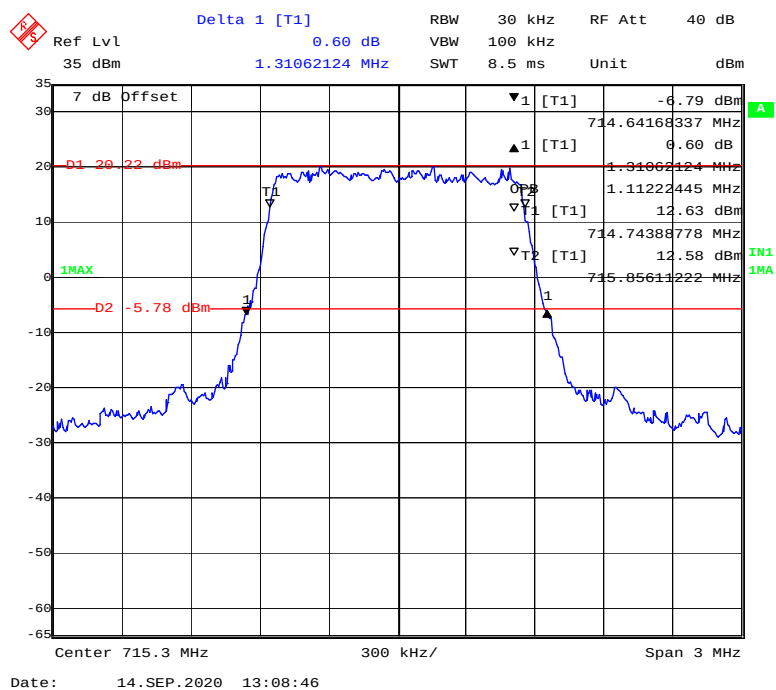
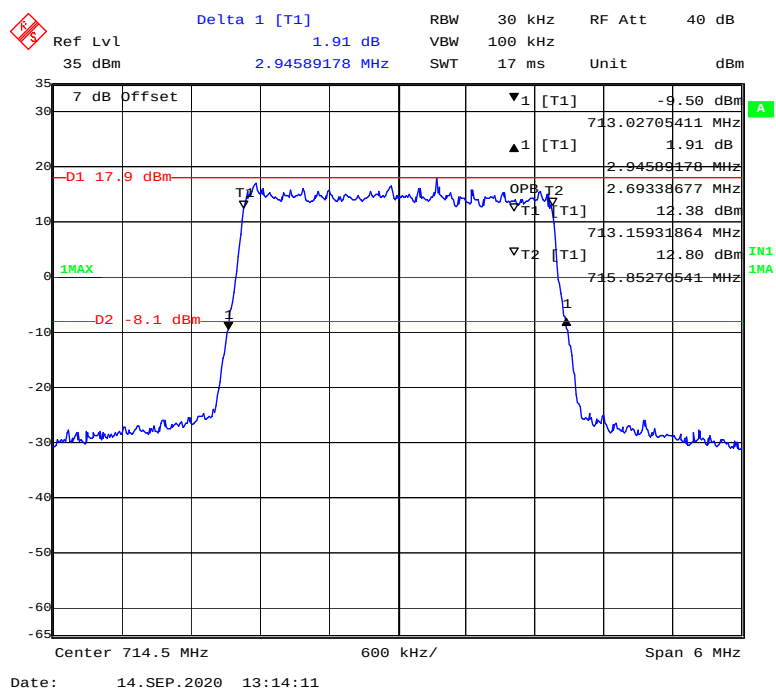
Δ1 [T1] 712.00901804 MHz

1

9.01963920 MHz

Center 707.5 MHz 2 MHz/ Span 20 MHz

Date: 23.AUG.2020 17:15:07

QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel**QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel**

Ref Lvl 35 dBm Delta 1 [T1] 1.11 dB RBW 50 kHz RF Att 40 dB
 35 dBm 4.84969940 MHz SWT 10 ms Unit dBm

7 dB Offset

D1 16.89 dBm

1MAX

D2 -9.11 dBm

▼1 [T1] -8.55 dBm

▲1 [T1] 1.11 dB

OPB

▼T1 [T1] 4.84969940 MHz

▼T2 [T1] 12.00 dBm

711.08517034 MHz

711.26553106 MHz

715.73446094 MHz

1

1IN1 1MA

Center 713.5 MHz 1 MHz/ Span 10 MHz

Date: 14.SEP.2020 13:21:59

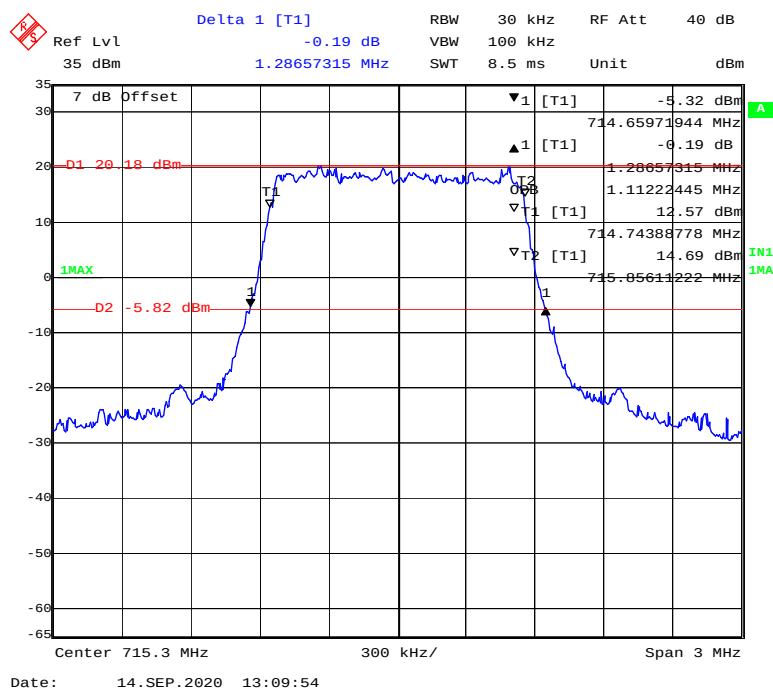
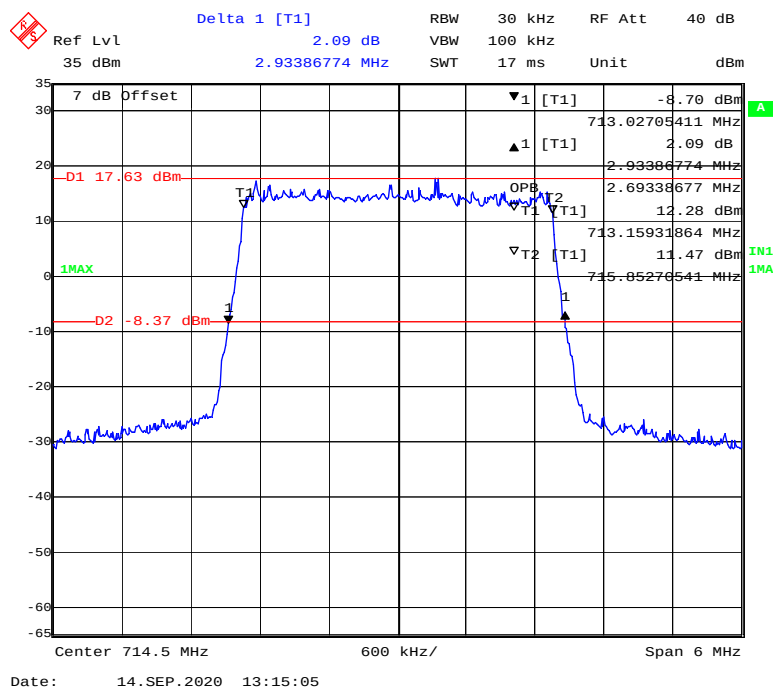
Ref Lvl 35 dBm
 Delta 1 [T1] 2.37 dB
 RBW 100 kHz
 VBW 300 kHz
 SWT 5 ms
 Unit dBm

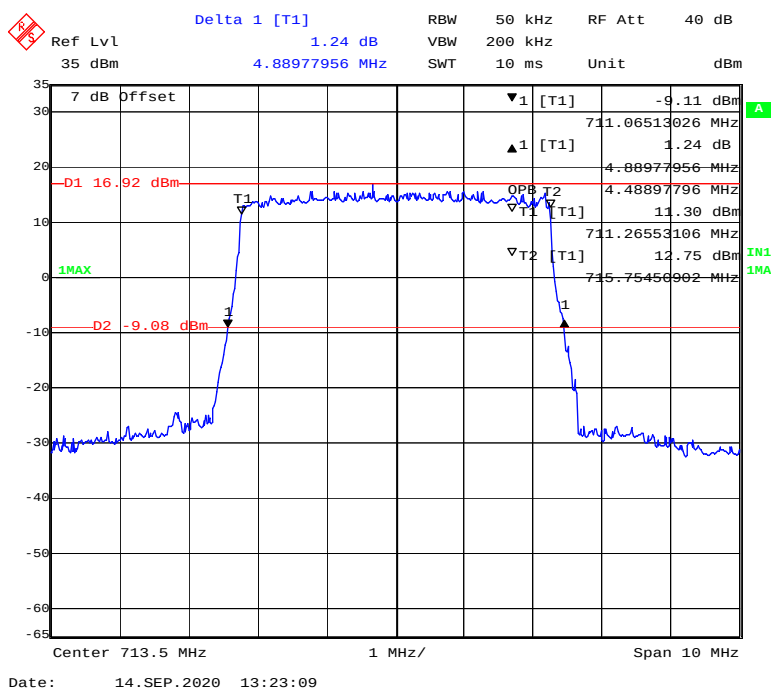
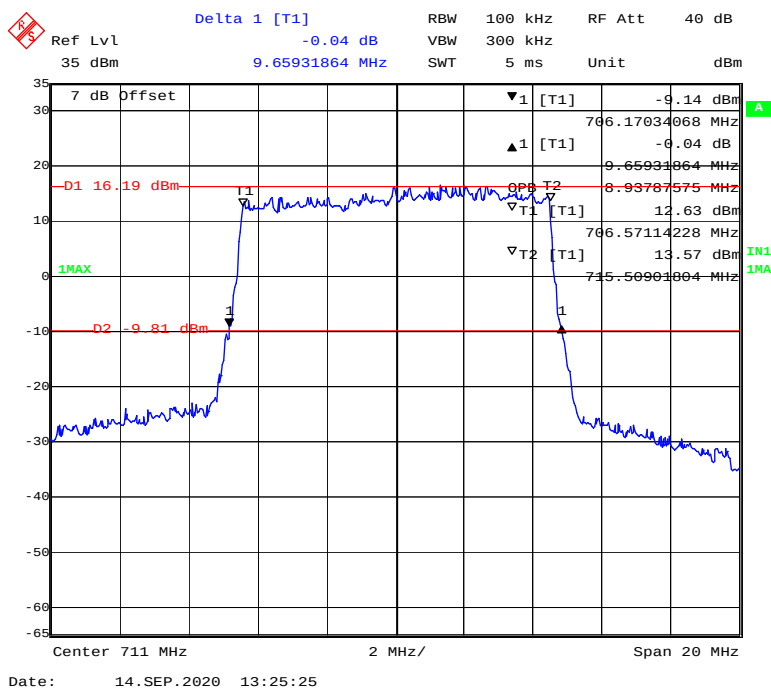
7 dB Offset
 D1 16.44 dBm
 D2 -9.56 dBm
 1MAX
 IN1 1MA

▼1 [T1] -9.68 dBm
 ▲1 [T1] 2.37 dB
 706.13026052 MHz
 9.73947896 MHz
 8.93787575 MHz
 12.45 dBm
 706.57114228 MHz
 11.75 dBm
 715.50901004 MHz

Center 711 MHz 2 MHz/ Span 20 MHz

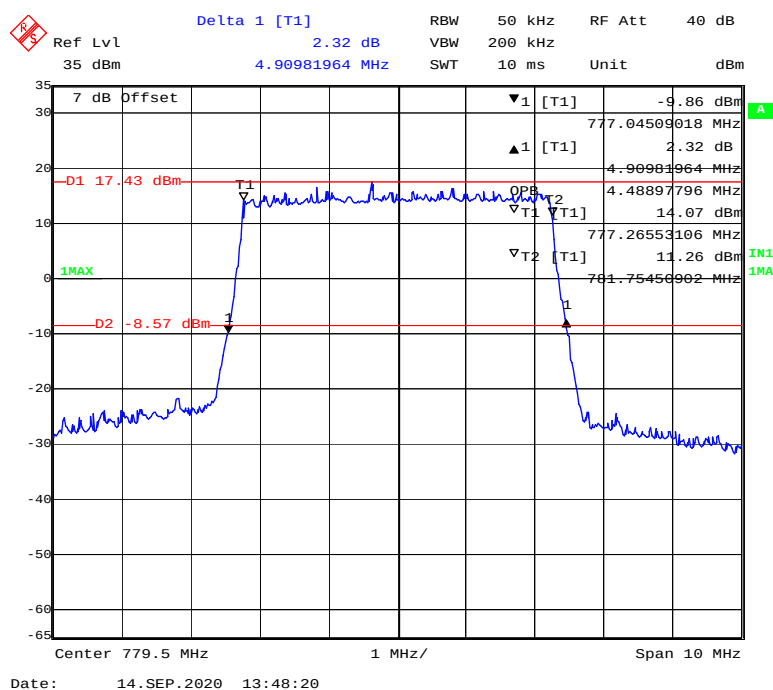
Date: 14.SEP.2020 13:24:36

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**

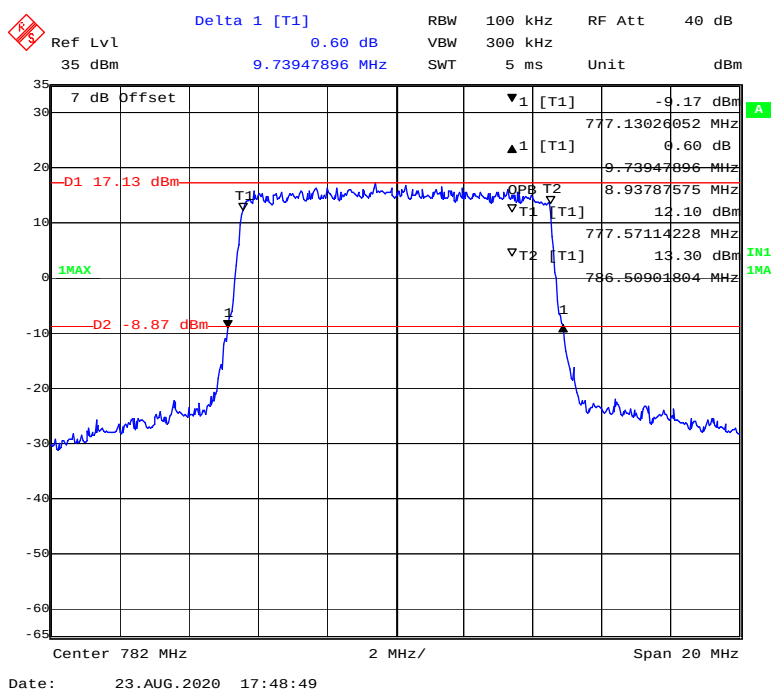
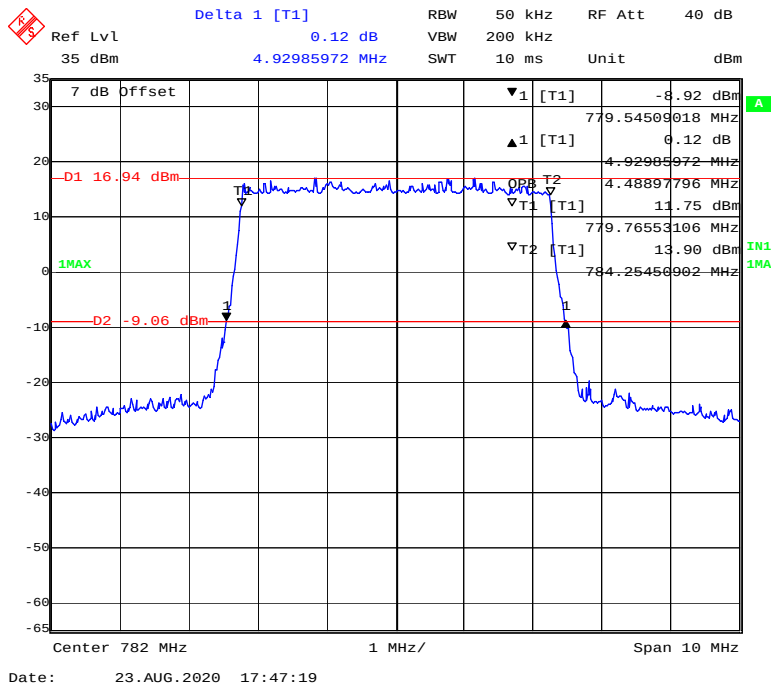
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel**16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel**

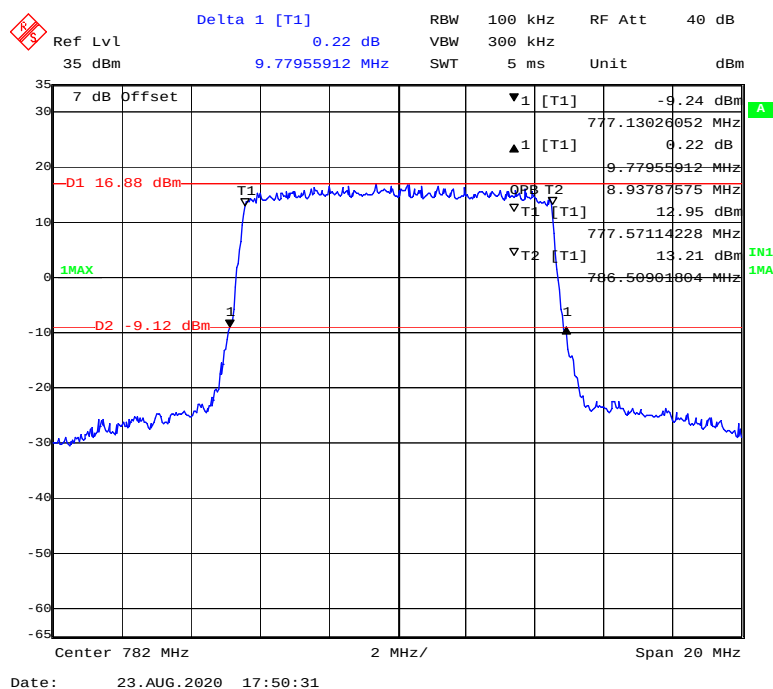
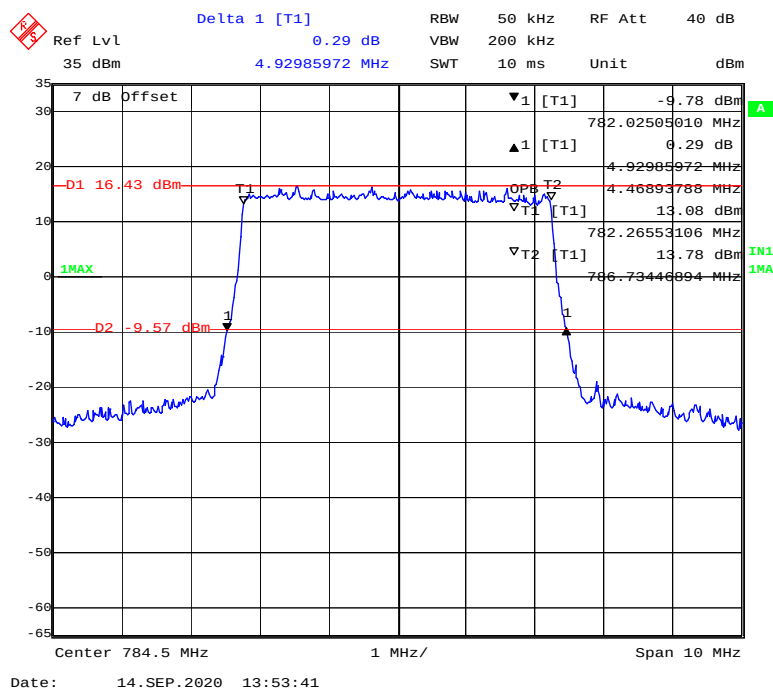
LTE Band 13:

Test Modulation	Test Bandwidth	26 dB Bandwidth MHz			99% Occupied Bandwidth MHz		
		Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
QPSK	5M	4.91	4.93	4.93	4.49	4.49	4.47
	10M	/	9.74	/	/	8.94	/
16-QAM	5M	4.93	4.93	4.91	4.49	4.49	4.47
	10M	/	9.78	/	/	8.94	/

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

[illegible]

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**

Ref Lvl 35 dBm Delta 1 [T1] 1.44 dB RBW 50 kHz RF Att 40 dB

35 dBm 4.90981964 MHz SWT 10 ms Unit dBm

7 dB Offset

D1 16.41 dBm

1MAX

D2 -9.59 dBm

▼1 [T1] -9.20 dBm

▲1 [T1] 1.44 dB

OPB T2 4.90981964 MHz

▽1 [T1] 4.46893788 MHz

▽T2 [T1] 12.59 dBm

782.02505010 MHz

782.26553106 MHz

786.73446894 MHz

12.31 dBm

1MA

Center 784.5 MHz 1 MHz/ Span 10 MHz

Date: 14.SEP.2020 13:54:52

Test Modulation	Test Bandwidth	26 dB Bandwidth MHz			99% Occupied Bandwidth MHz		
		Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
QPSK	5M	4.93	4.95	4.89	4.51	4.49	4.49
	10M	/	9.66	/	/	8.98	/
16-QAM	5M	4.93	4.97	4.89	4.51	4.49	4.47
	10M	/	9.74	/	/	8.98	/

Ref Lvl 35 dBm Delta 1 [T1] -0.32 dB RBW 50 kHz RF Att 40 dB

7 dB Offset 788.02505010 MHz 4.92985972 MHz 11.99 dBm 11.22 dBm 762.75456002 MHz

Center 790.5 MHz 1 MHz/ Span 10 MHz

Date: 14.SEP.2020 14:04:01

Ref Lvl 35 dBm Delta 1 [T1] 1.43 dB RBW 50 kHz RF Att 40 dB

35 dBm 4.92985972 MHz SWT 10 ms Unit dBm

7 dB Offset

▼1 [T1] -16.00 dBm

▲1 [T1] 1.43 dB

OPB T2 4.50901804 MHz

▽T1 [T1] 13.46 dBm

▽T2 [T1] 11.76 dBm

D1 16.63 dBm

1MAX

D2 -9.37 dBm

Center 790.5 MHz 1 MHz/ Span 10 MHz

Date: 14.SEP.2020 14:05:31

Ref Lvl 35 dBm Delta 1 [T1] 0.51 dB RBW 50 kHz RF Att 40 dB

35 dBm 4.94989980 MHz VBW 200 kHz Unit dBm

7 dB Offset

D1 16.69 dBm T1

1MAX

D2 -9.31 dBm

1

1 [T1] -9.36 dBm

1 [T1] 0.51 dB

4.94989980 MHz

4.48897796 MHz

14.26 dBm

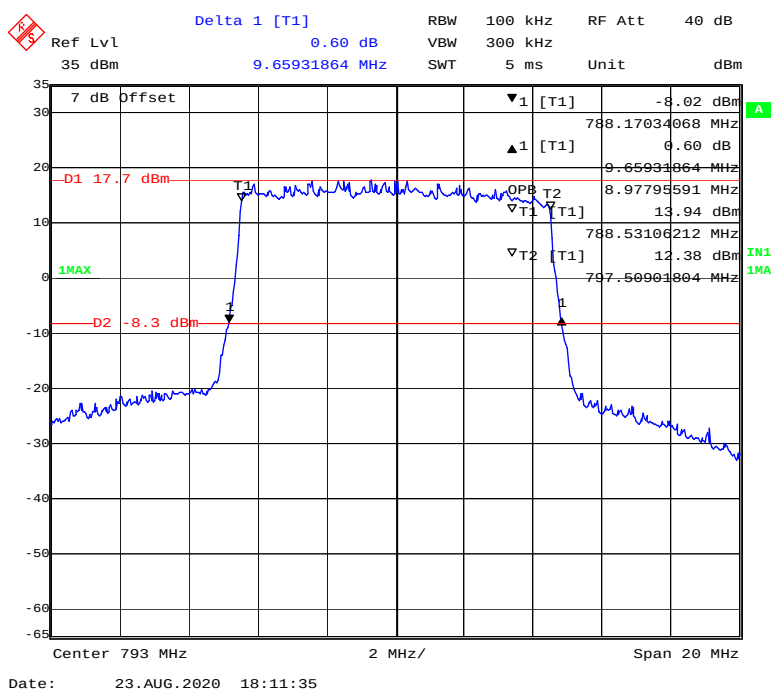
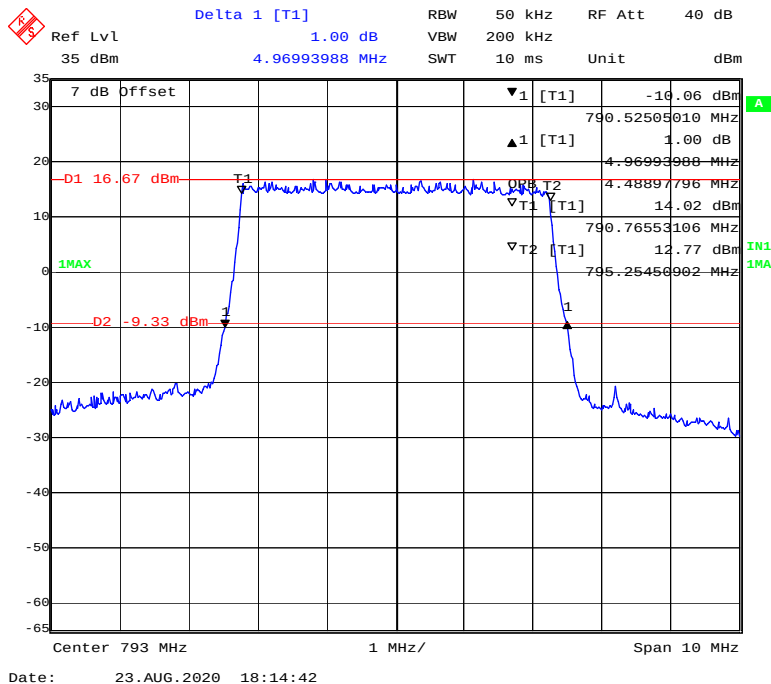
790.76553106 MHz

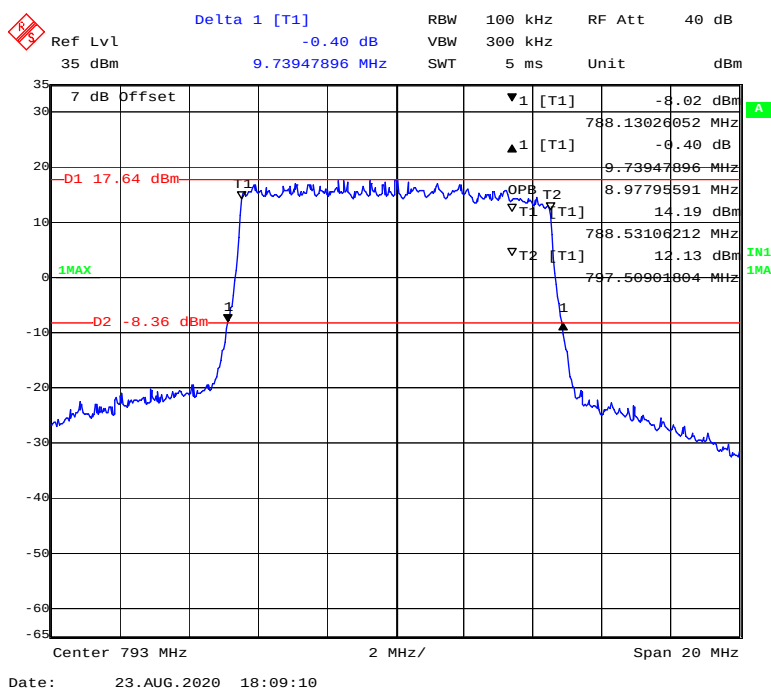
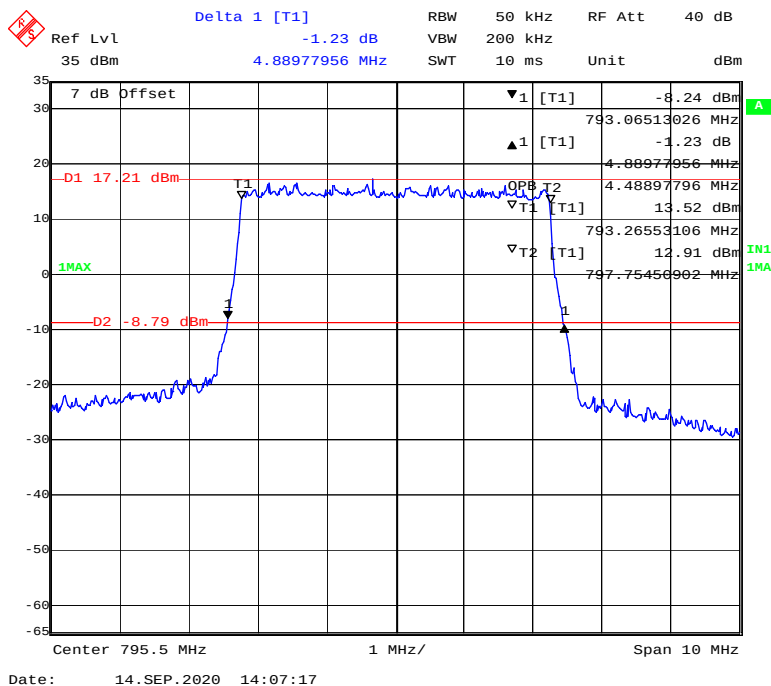
13.69 dBm

765.25456002 MHz

Center 793 MHz 1 MHz/ Span 10 MHz

Date: 23.AUG.2020 18:13:23

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**

Ref Lvl 35 dBm
 Delta 1 [T1] -0.63 dB
 RBW 50 kHz
 VBW 200 kHz
 SWT 10 ms
 RF Att 40 dB
 Unit dBm

7 dB Offset

D1 17.14 dBm

1MAX

D2 -8.86 dBm

Center 795.5 MHz

1 MHz/

Span 10 MHz

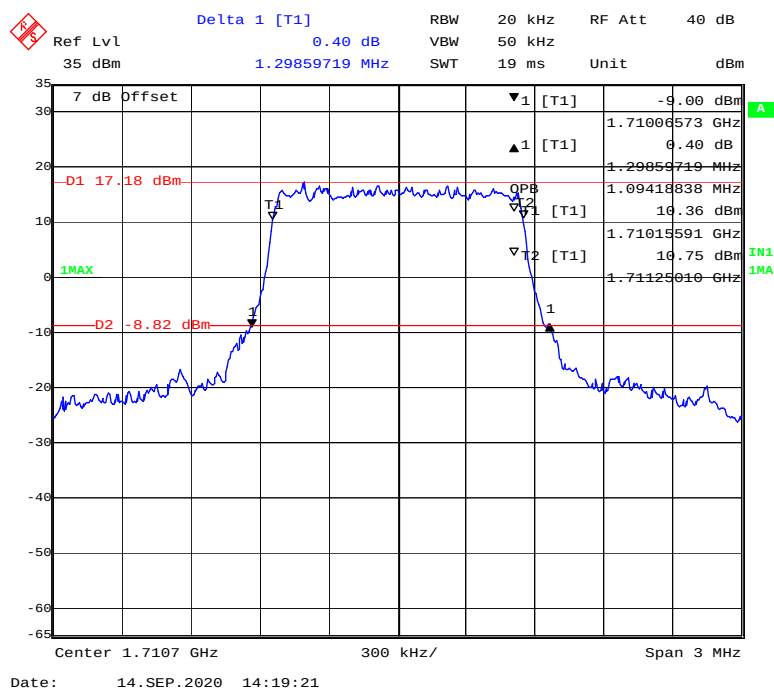
▼1 [T1] -7.93 dBm
 ▲1 [T1] -0.63 dBm
 793.06513026 MHz
 4.88977956 MHz
 4.46893788 MHz
 13.23 dBm
 793.26553106 MHz
 13.80 dBm
 797.73446804 MHz

IN1
 1MA

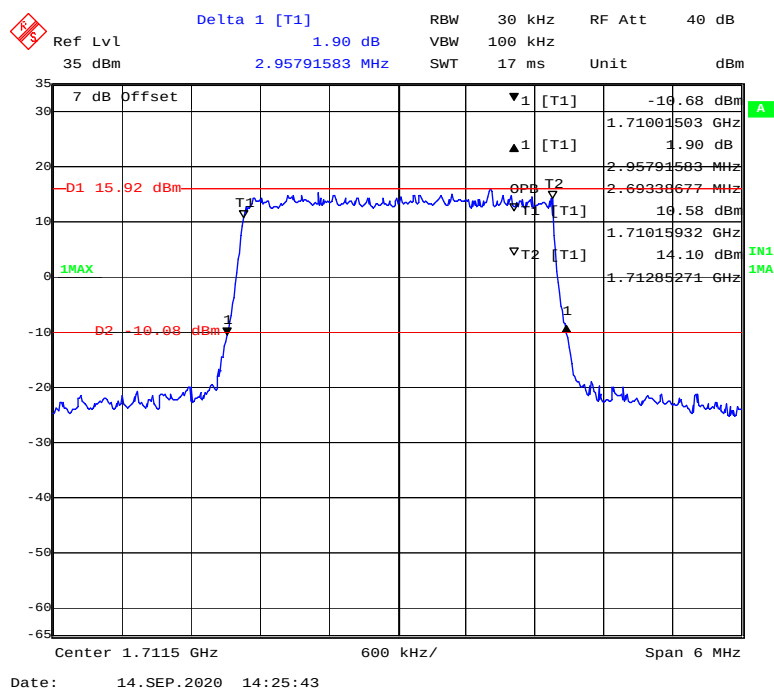
LTE Band 66:

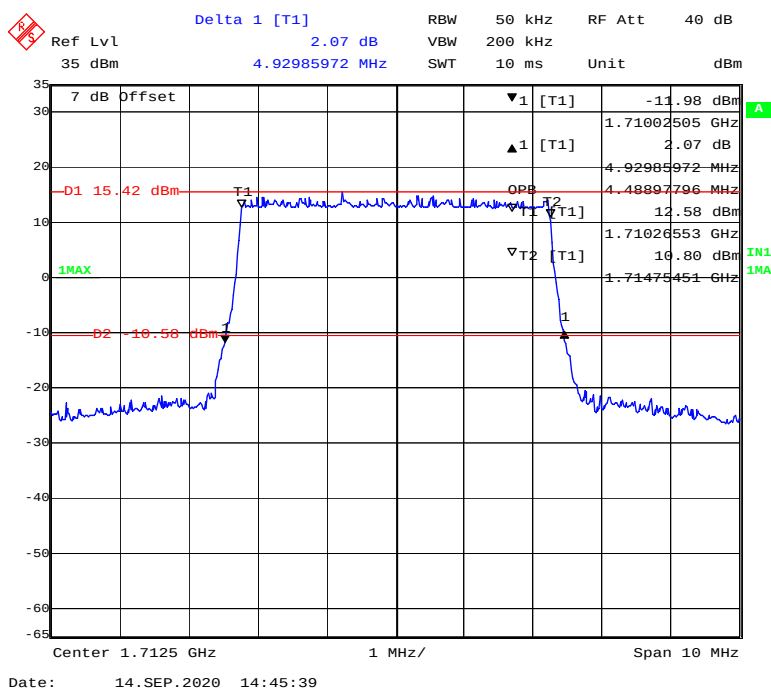
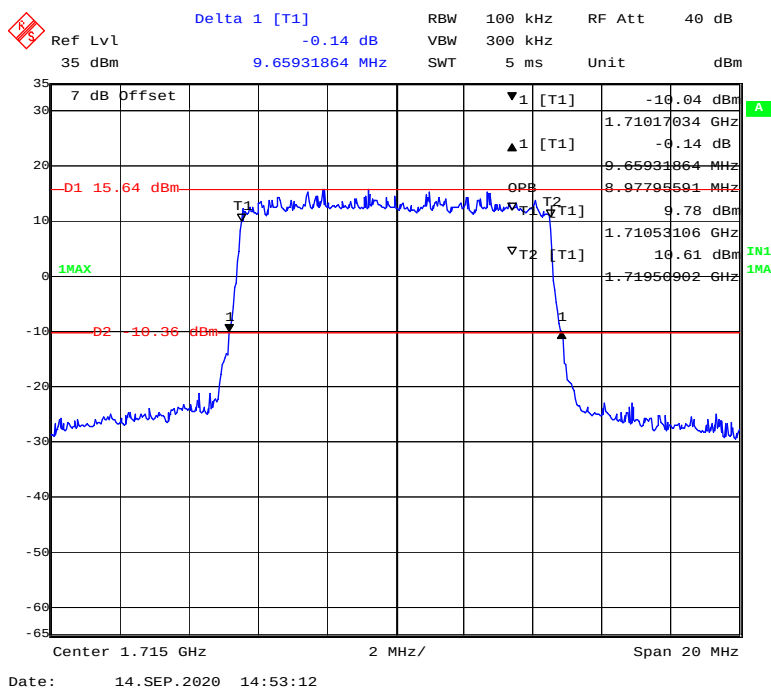
Test Modulation	Test Bandwidth	26 dB Bandwidth MHz			99% Occupied Bandwidth MHz		
		Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
QPSK	1.4M	1.30	1.29	1.31	1.09	1.10	1.10
	3M	2.96	2.95	2.96	2.69	2.69	2.69
	5M	4.93	4.93	4.93	4.49	4.51	4.47
	10M	9.66	9.82	9.62	8.98	8.94	8.98
	15M	14.61	14.67	14.49	13.41	13.53	13.41
	20M	19.00	19.24	19.16	17.96	17.88	17.88
16-QAM	1.4M	1.30	1.29	1.31	1.10	1.09	1.09
	3M	2.97	2.95	2.97	2.71	2.69	2.69
	5M	4.95	4.97	4.97	4.49	4.51	4.49
	10M	9.62	9.78	9.62	8.98	8.94	8.98
	15M	14.61	14.79	14.55	13.41	13.47	13.47
	20M	19.08	19.24	19.16	17.88	17.96	17.88

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

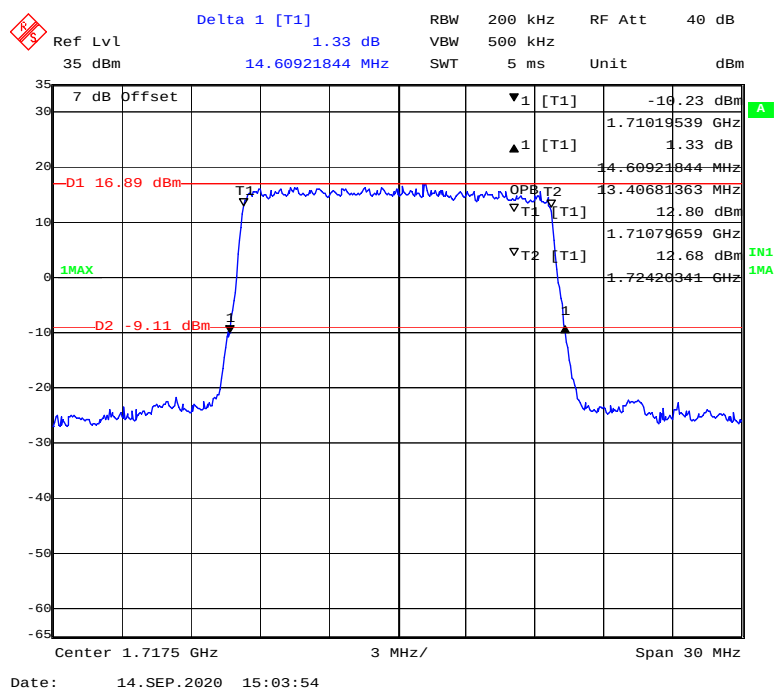


QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel

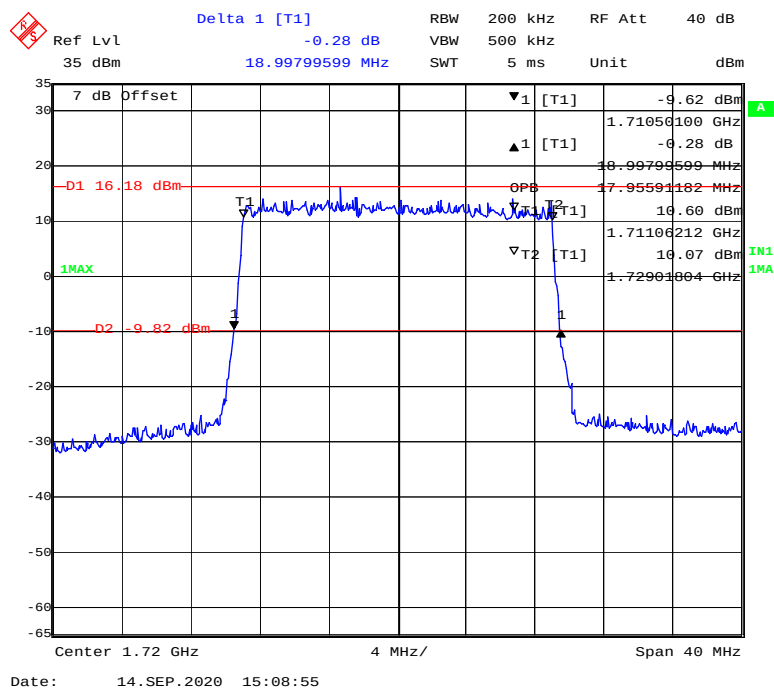


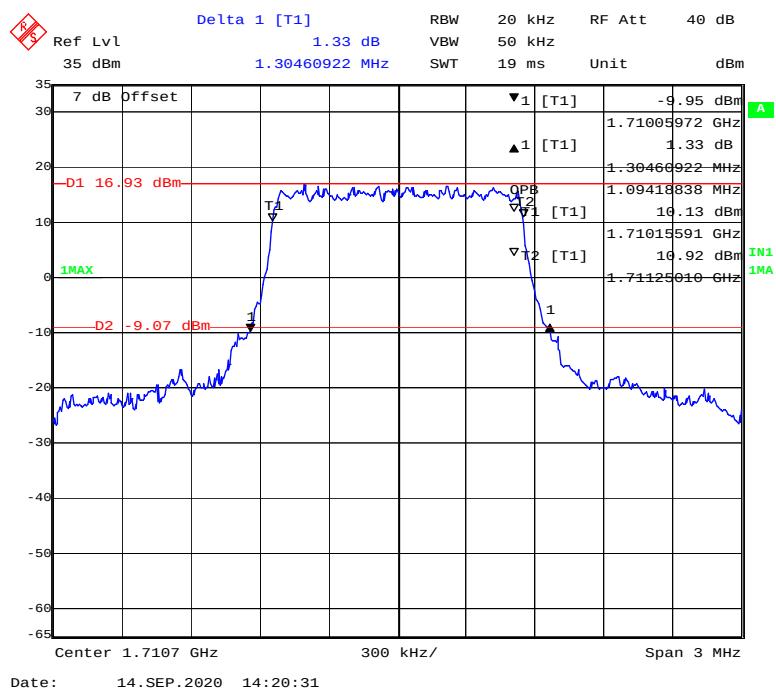
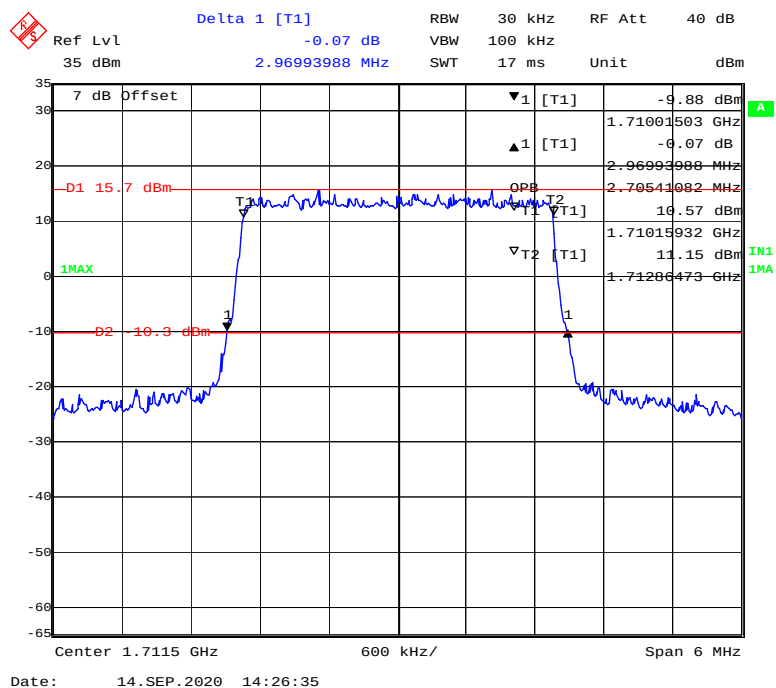
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel**QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel**

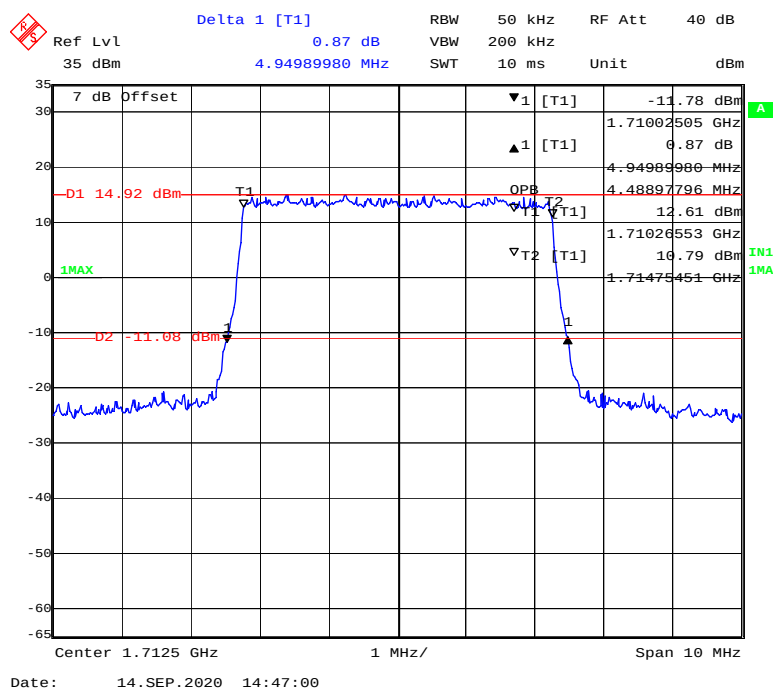
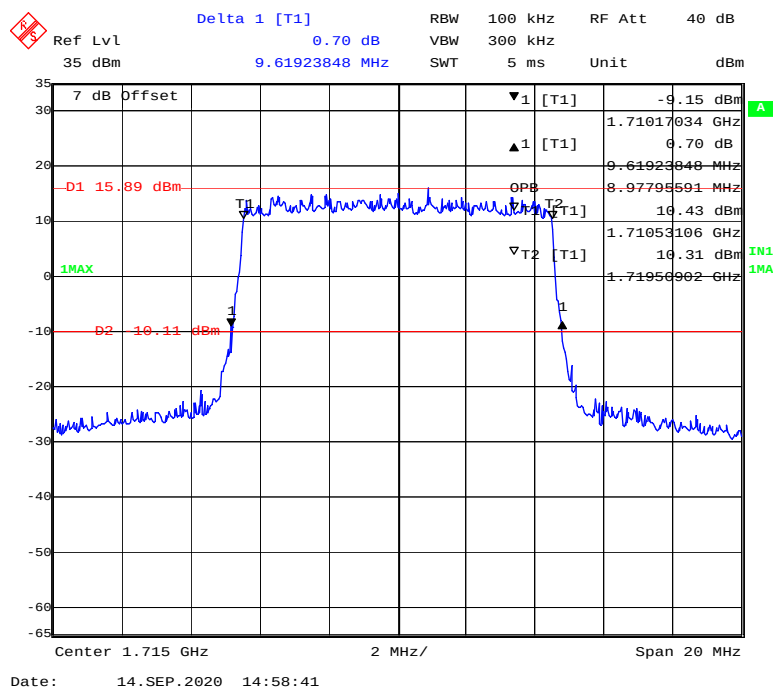
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



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**

[illegible]

Delta 1 [T1]

Ref Lvl 35 dBm

2.08 dB

19.07815631 MHz

RBW 200 kHz

RF Att 40 dB

SWT 5 ms

Unit dBm

7 dB Offset

▼1 [T1] -10.76 dBm

▲1 [T1] 2.08 dB

1.71056100 GHz

19.07815631 MHz

OPB T2 17.8755150 MHz

▼T2 [T1] 10.67 dBm

1.71106212 GHz

12.35 dBm

1.72093700 GHz

D1 15.89 dBm

1MAX

D2 10.11 dBm

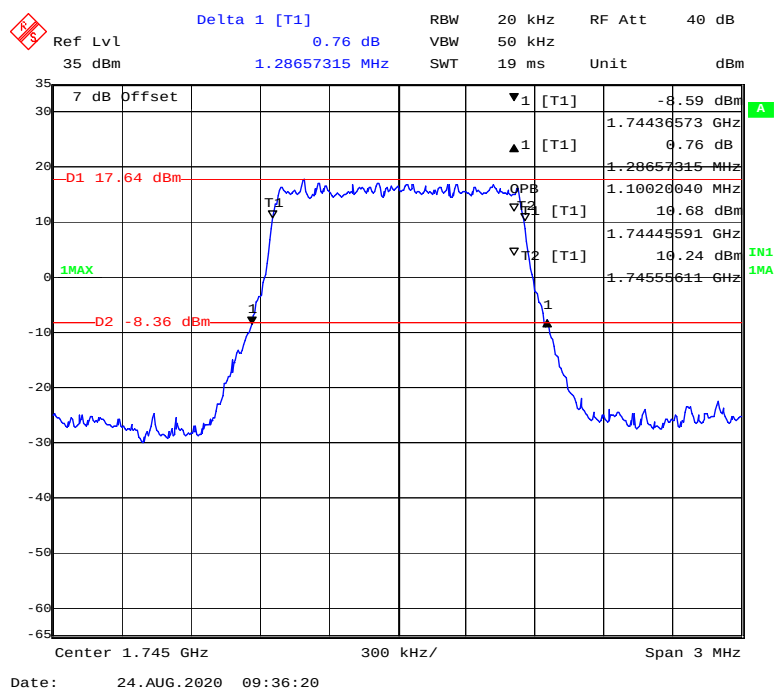
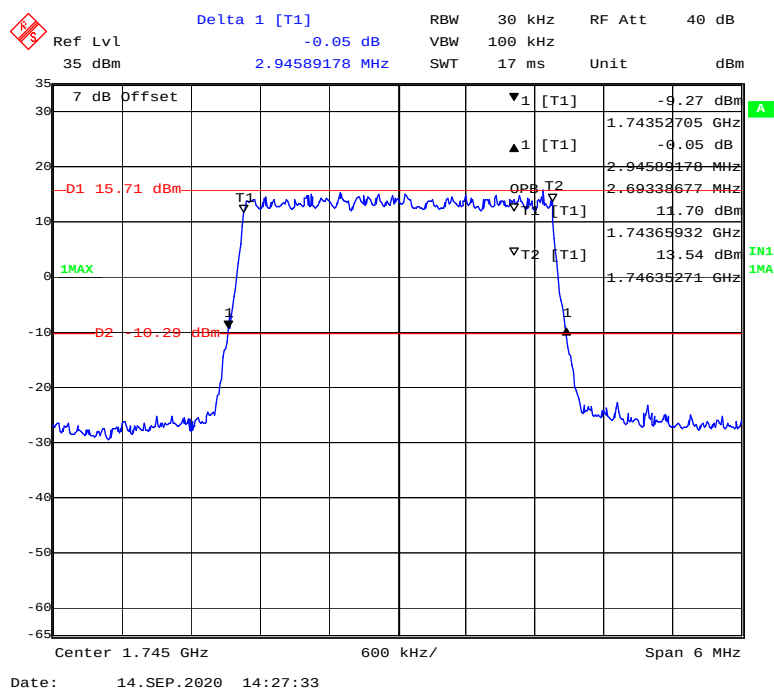
1

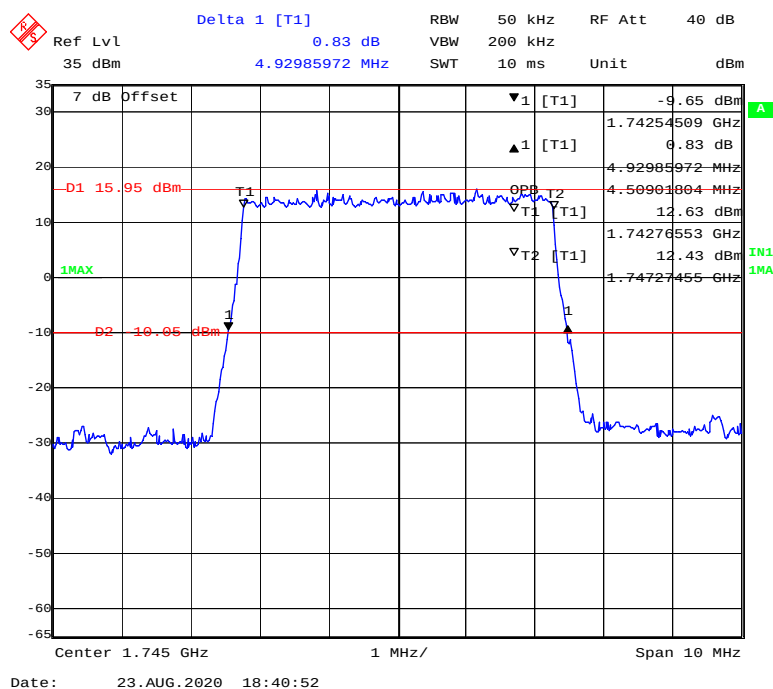
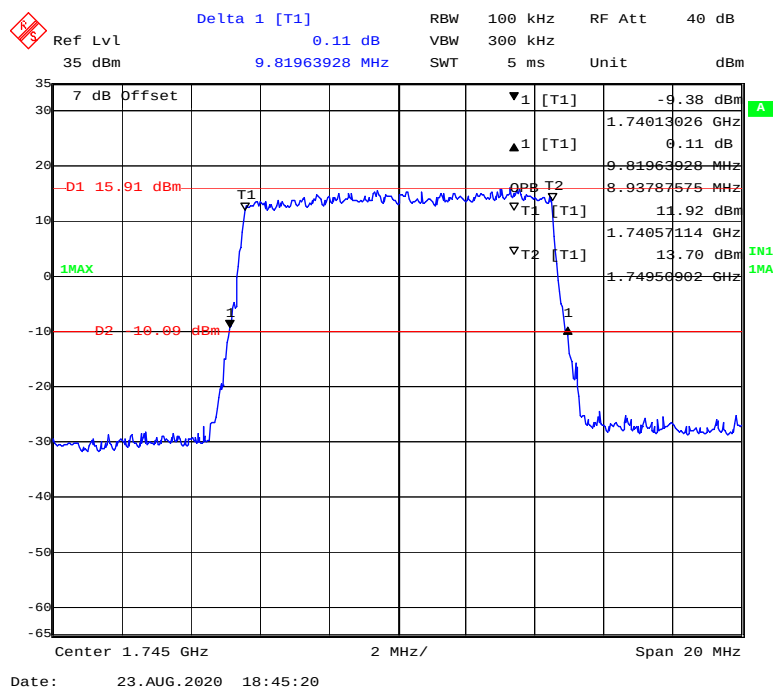
Center 1.72 GHz

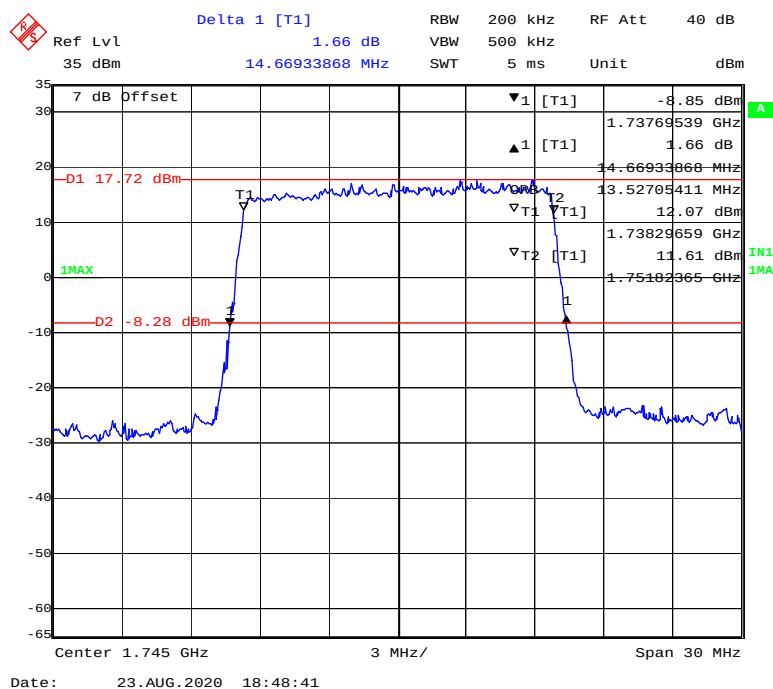
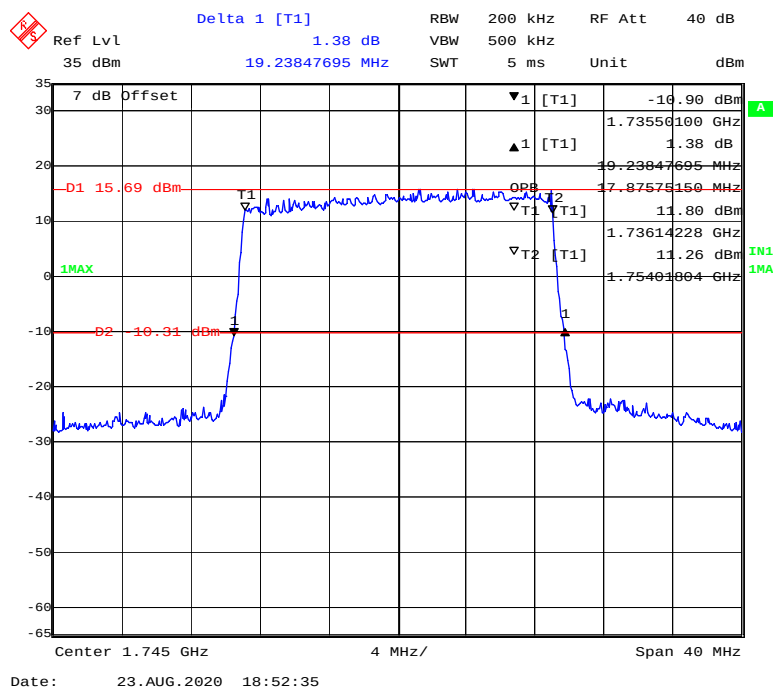
4 MHz/

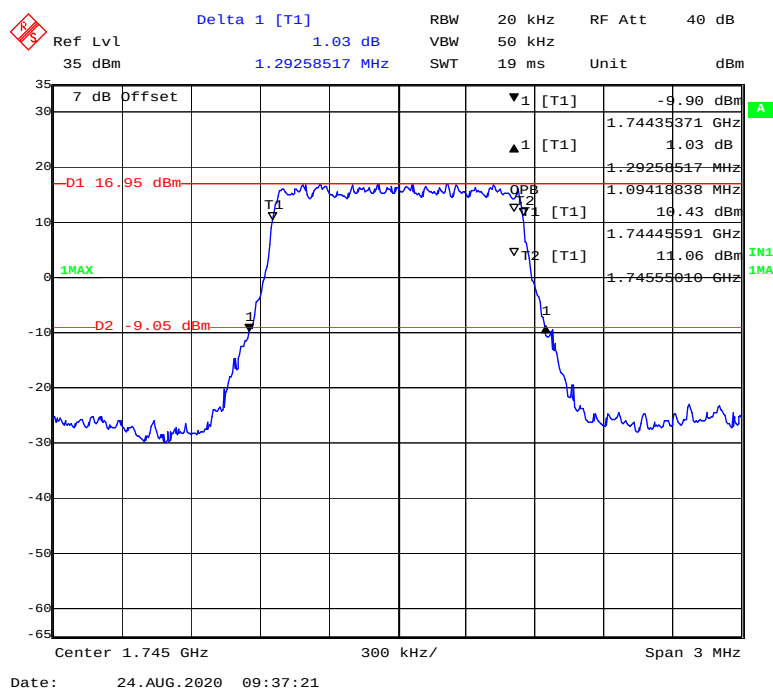
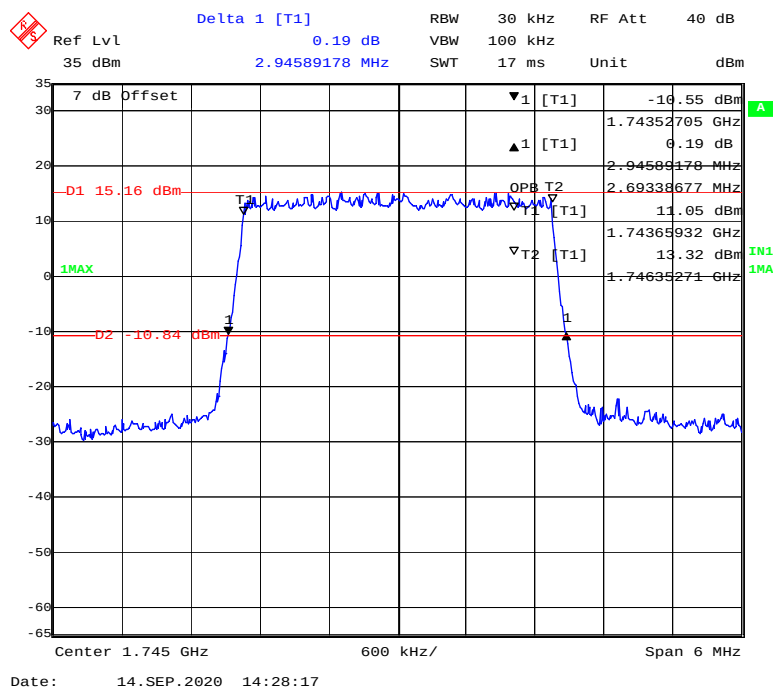
Span 40 MHz

Date: 14.SEP.2020 15:09:52

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**

Ref Lvl 35 dBm

Delta 1 [T1] 0.10 dB

RBW 50 kHz

RF Att 40 dB

VBW 200 kHz

SWT 10 ms

Unit dBm

7 dB Offset

D1 15.92 dBm

T1

13.10 dBm

D2 10.08 dBm

1

1.74254509 GHz

1.74276553 GHz

1.74272455 GHz

Center 1.745 GHz

1 MHz/

Span 10 MHz

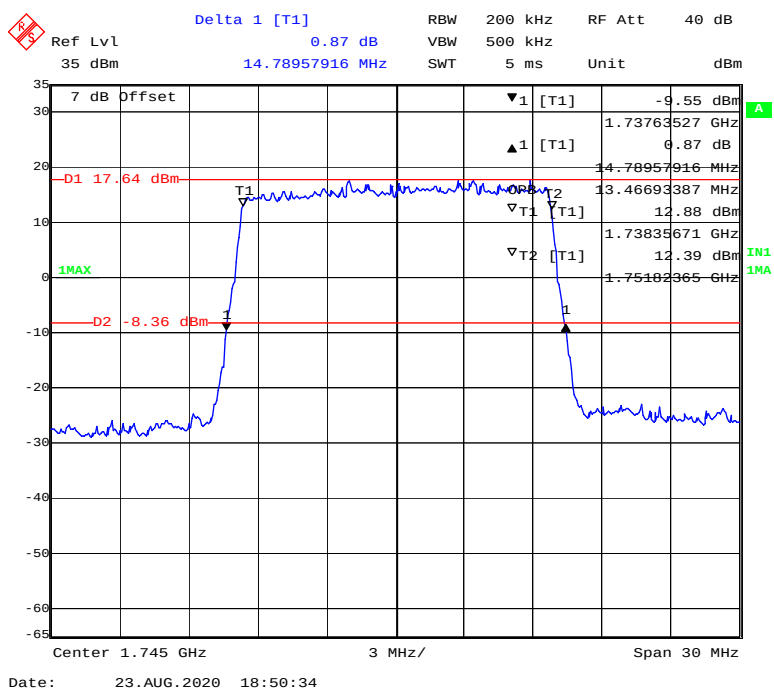
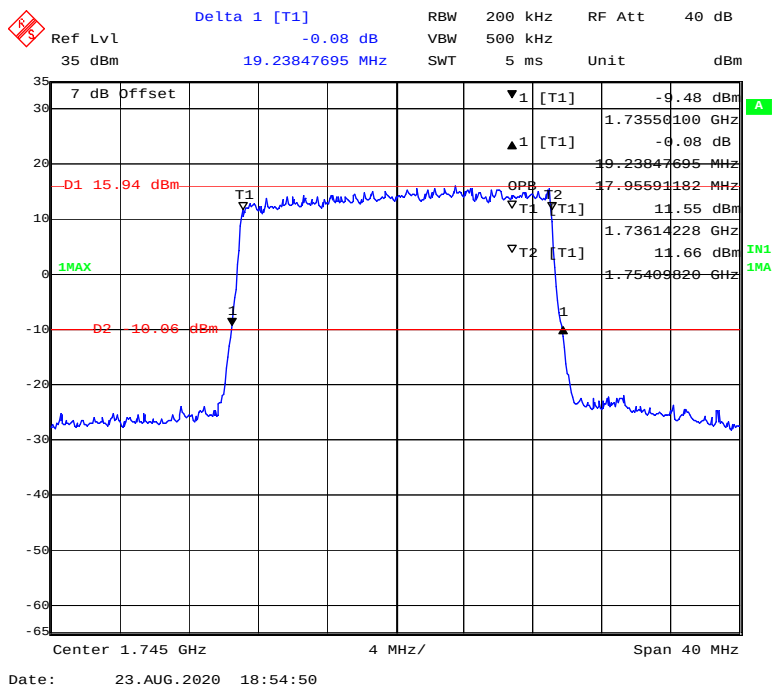
Date: 23.AUG.2020 18:43:48

Ref Lvl 35 dBm
 Delta 1 [T1] 0.89 dB
 RBW 100 kHz
 RF Att 40 dB
 VSWR 300 kHz
 SWT 5 ms
 Unit dBm

7 dB Offset
 D1 15.88 dBm
 D2 10.12 dBm
 T1
 T2
 T1 [T1]

Center 1.745 GHz
 2 MHz/
 Span 20 MHz

Date: 23.AUG.2020 18:46:52

16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel**

Delta 1 [T1]

Ref Lvl 0.51 dB

35 dBm 1.31062124 MHz

RBW 20 kHz RF Att 40 dB

VBW 50 kHz

SWT 19 ms Unit dBm

7 dB Offset

D1 17.2 dBm

1MAX

D2 -8.8 dBm

1MIN

Center 1.7793 GHz

300 kHz/

Span 3 MHz

Date: 14.SEP.2020 14:22:00

Ref Lvl 35 dBm Delta 1 [T1] 0.48 dB RBW 30 kHz RF Att 40 dB
 35 dBm 2.95791583 MHz VBW 100 kHz SWT 17 ms Unit dBm

7 dB Offset

D1 16.68 dBm

1MAX

D2 -9.32 dBm

▼1 [T1] -9.75 dBm

▲1 [T1] 0.48 dB

OPB

▼T2 [T1] 1.77702705 GHz

1.77715932 GHz

1.77905271 GHz

IN1 1MA

Center 1.7785 GHz 600 kHz/ Span 6 MHz

Date: 14.SEP.2020 14:29:15

[illegible]

Delta 1 [T1]

Ref Lvl 35 dBm

-0.45 dB

9.61923848 MHz

RBW 100 kHz

RF Att 40 dB

VBW 300 kHz

SWT 5 ms

Unit dBm

7 dB Offset

▼1 [T1] -10.01 dBm

▲1 [T1] -0.45 dB

D1 15.99 dBm

OPB 8.97795591 MHz

10.21 dBm

1.77053106 GHz

10.05 dBm

1.77956902 GHz

1MAX

IN1 1MA

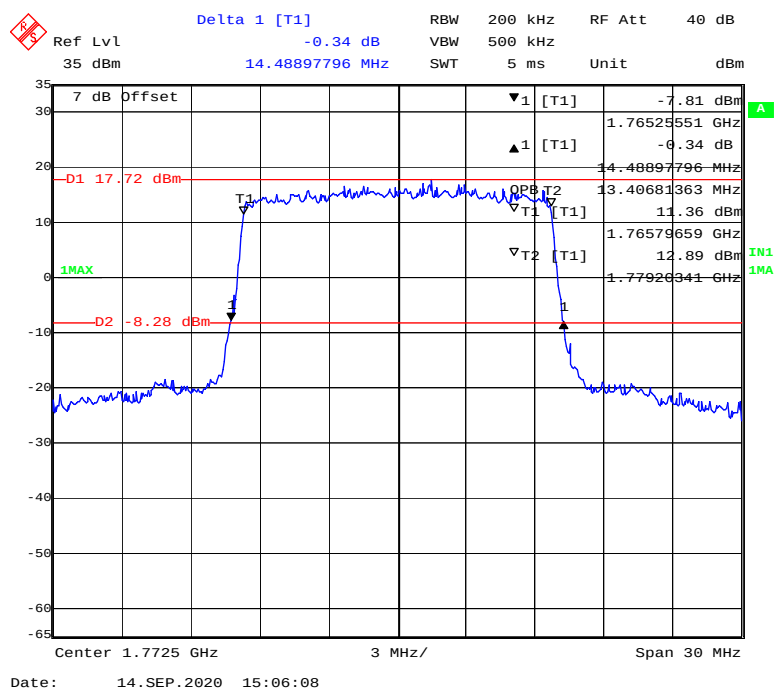
Center 1.775 GHz

2 MHz/

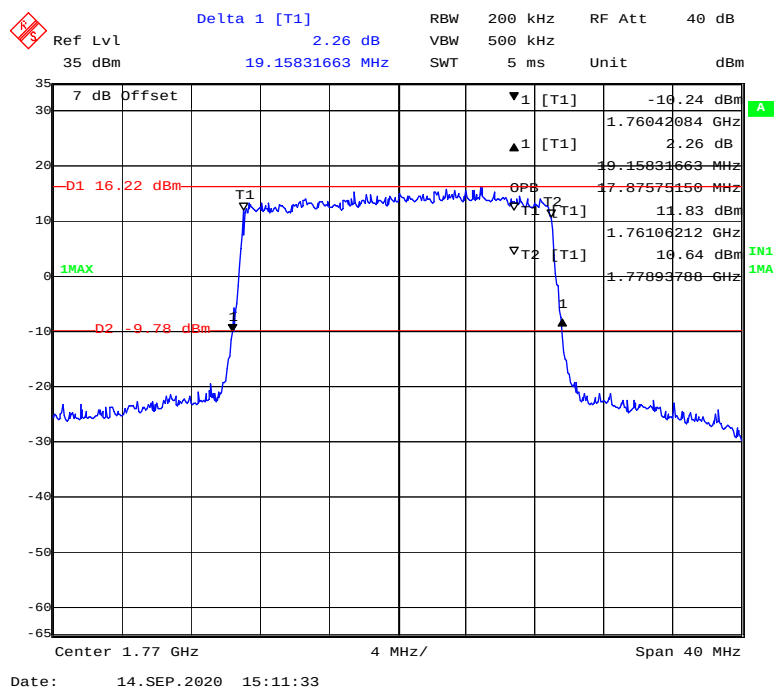
Span 20 MHz

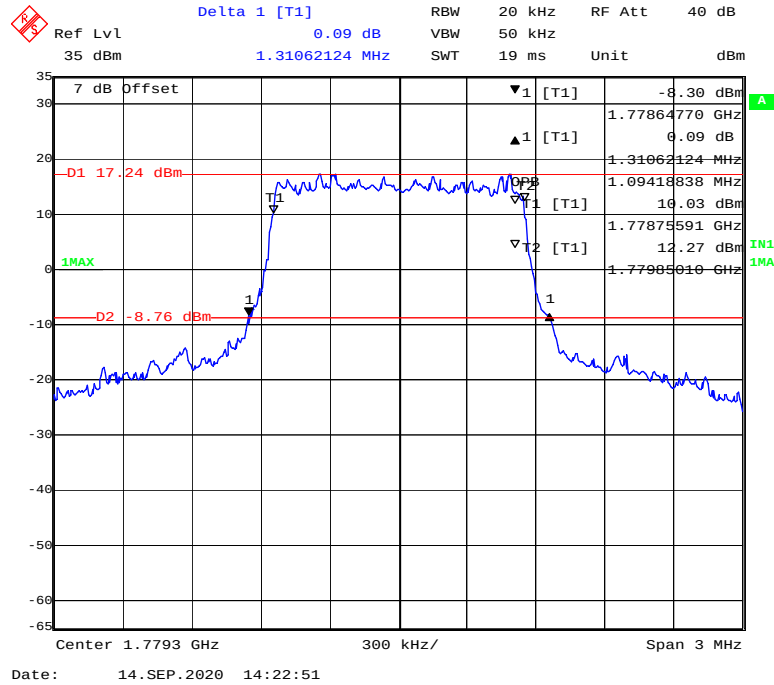
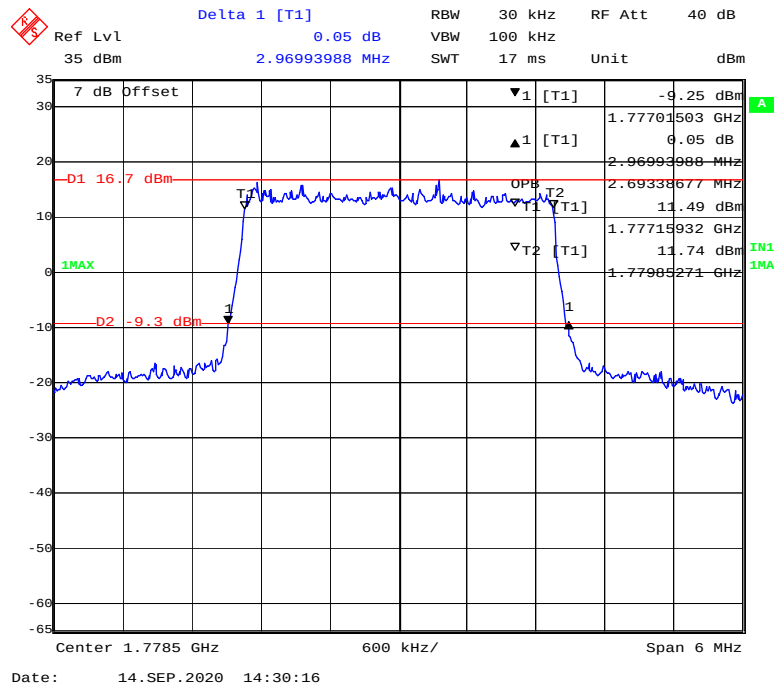
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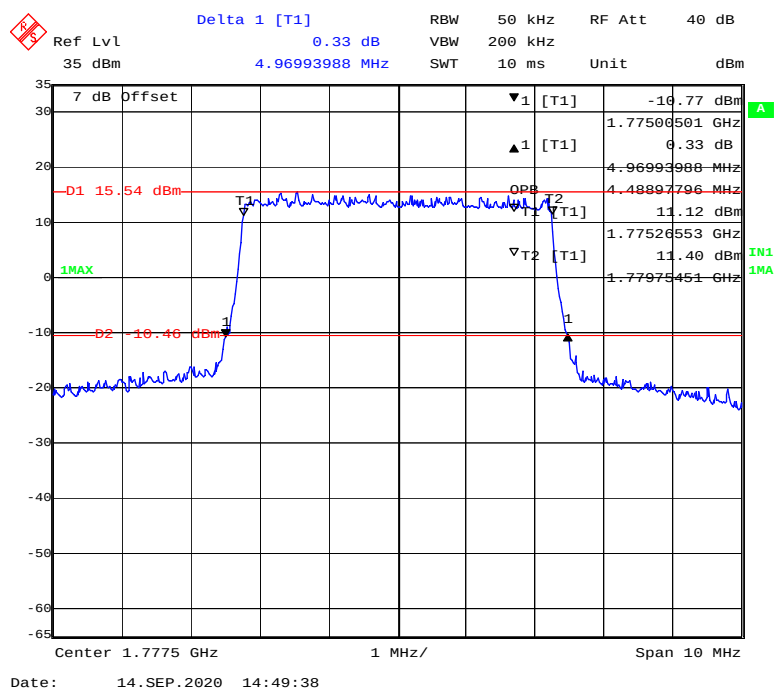
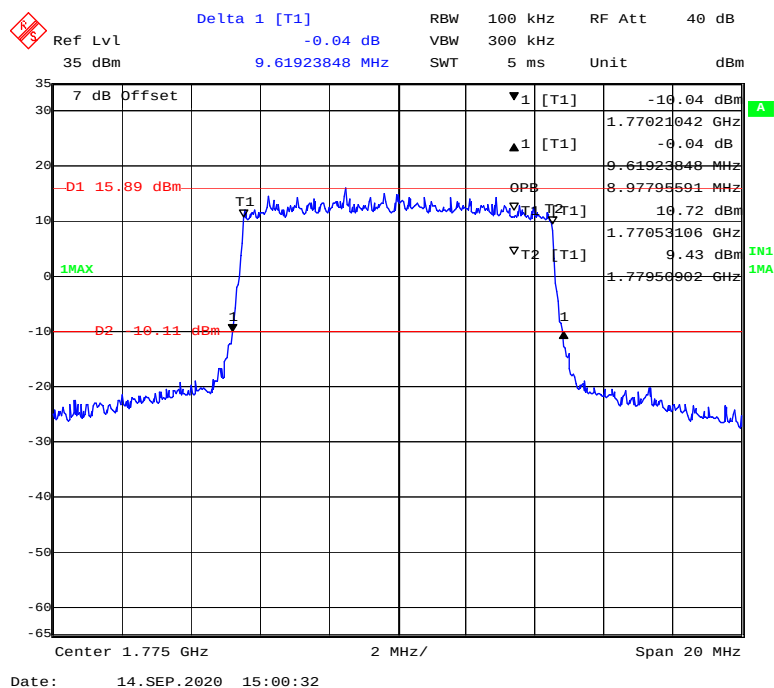
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



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**

Delta 1 [T1] 0.67 dB

Ref Lvl 35 dBm

14.54909820 MHz

RBW 200 kHz RF Att 40 dB

VBW 500 kHz

SWT 5 ms Unit dBm

7 dB Offset

▼1 [T1] -7.87 dBm

▲1 [T1] 0.67 dB

D1 17.44 dBm

OPB

T1 T2

1 1

1MAX

D2 -8.56 dBm

1.76519539 GHz

13.46693387 MHz

10.93 dBm

1.76579659 GHz

10.18 dBm

1.77926353 GHz

1MAX

Center 1.7725 GHz

3 MHz/

Span 30 MHz

Date: 14.SEP.2020 15:07:07

Ref Lvl 35 dBm Delta 1 [T1] 3.43 dB RBW 200 kHz RF Att 40 dB

35 dBm 19.15831663 MHz SWT 5 ms Unit dBm

7 dB Offset

▼1 [T1] -11.50 dBm

▲1 [T1] 3.43 dB

D1 15.65 dBm

OPB 17.87575150 MHz

1MAX

10.95 dBm

1

1.76042084 GHz

1.76106212 GHz

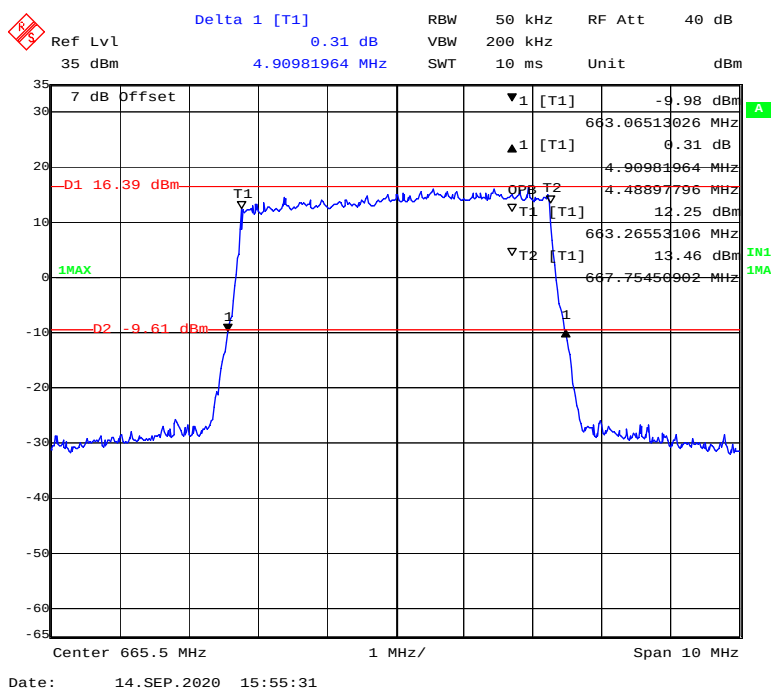
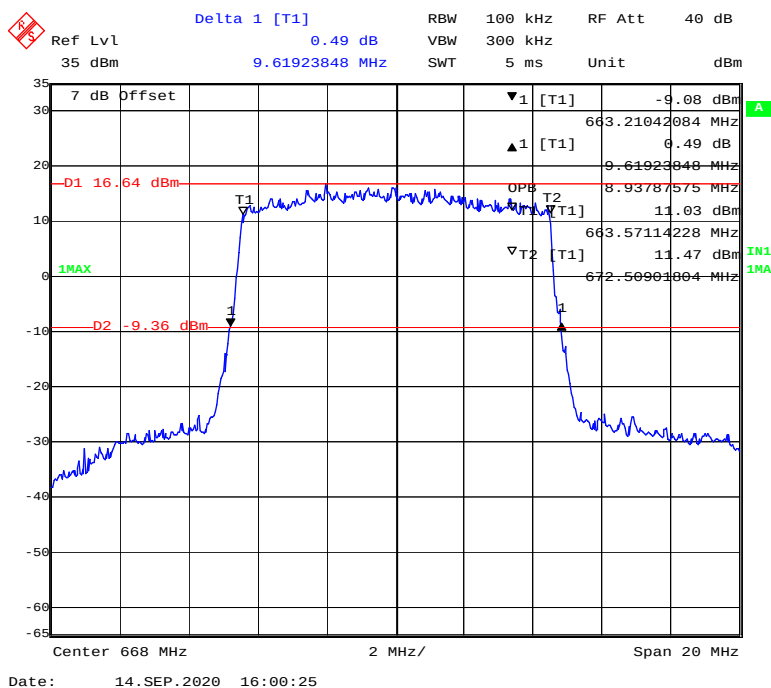
1.77093700 GHz

Center 1.77 GHz 4 MHz/ Span 40 MHz

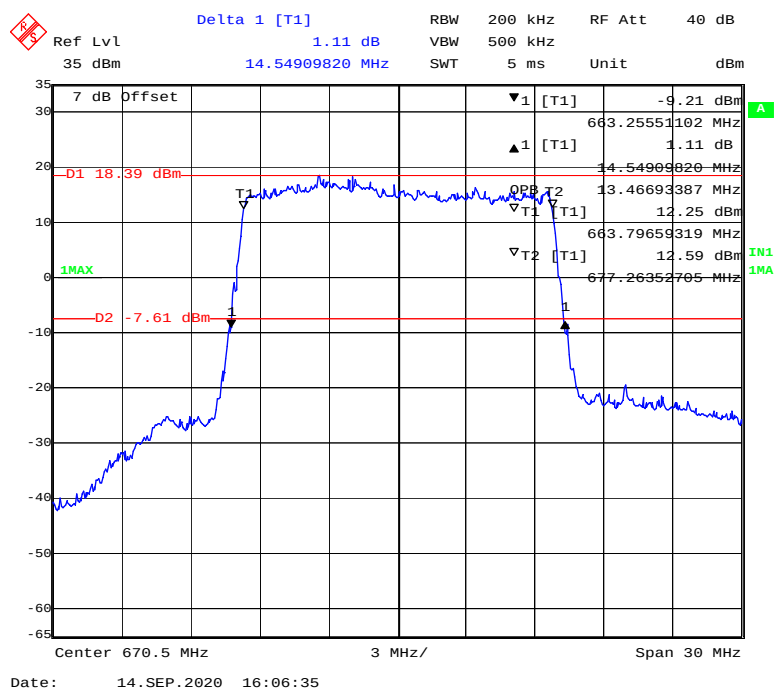
Date: 14. SEP. 2020 15:12:31

LTE Band 71:

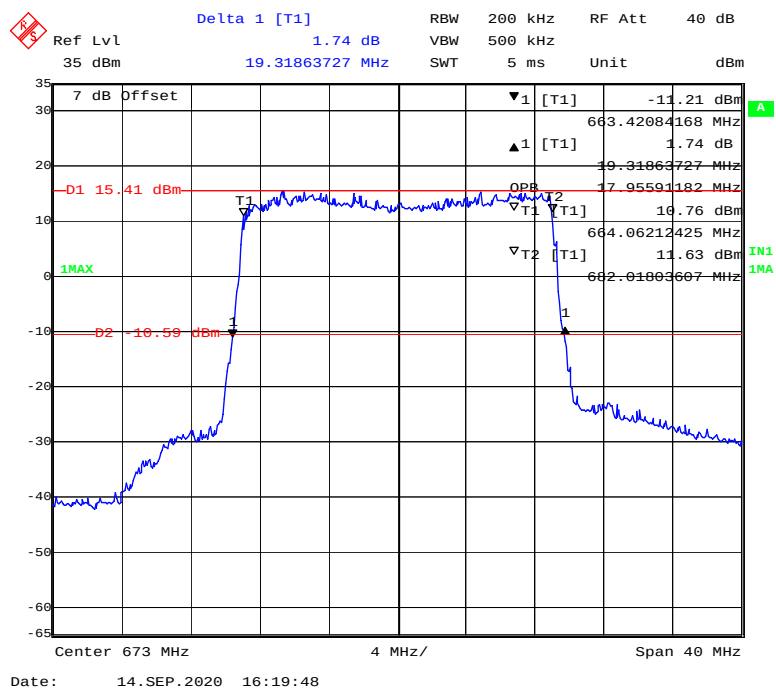
Test Modulation	Test Bandwidth	26 dB Bandwidth MHz			99% Occupied Bandwidth MHz		
		Low Channel	Middle Channel	High Channel	Low Channel	Middle Channel	High Channel
QPSK	5M	4.91	4.97	4.93	4.49	4.51	4.49
	10M	9.62	9.74	9.82	8.94	8.94	8.98
	15M	14.55	14.61	14.67	13.47	13.41	13.53
	20M	19.32	19.00	19.08	17.96	17.86	17.80
16-QAM	5M	4.87	4.97	4.89	4.49	4.49	4.49
	10M	9.54	9.82	9.74	8.90	8.94	8.98
	15M	14.61	14.67	14.67	13.47	13.41	13.53
	20M	19.32	19.08	19.16	17.88	17.88	17.88

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



Ref Lvl 35 dBm Delta 1 [T1] 0.12 dB RBW 50 kHz RF Att 40 dB

35 dBm 4.86973948 MHz SWT 10 ms Unit dBm

7 dB Offset

D1 15.94 dBm

1MAX

T1

D2 -10.06 dBm

▼1 [T1] -9.32 dBm

▲1 [T1] 0.12 dB

OFF T2 4.86973948 MHz

▼T1 [T1] 11.15 dBm

▼T2 [T1] 12.44 dBm

663.08517034 MHz

663.26553106 MHz

667.75456902 MHz

Center 665.5 MHz 1 MHz/ Span 10 MHz

Date: 14.SEP.2020 15:57:01

Delta 1 [T1] -0.29 dB

RBW 100 kHz RF Att 40 dB

35 dBm VBW 300 kHz

SWT 5 ms Unit dBm

7 dB Offset

D1 16.72 dBm

T1

1

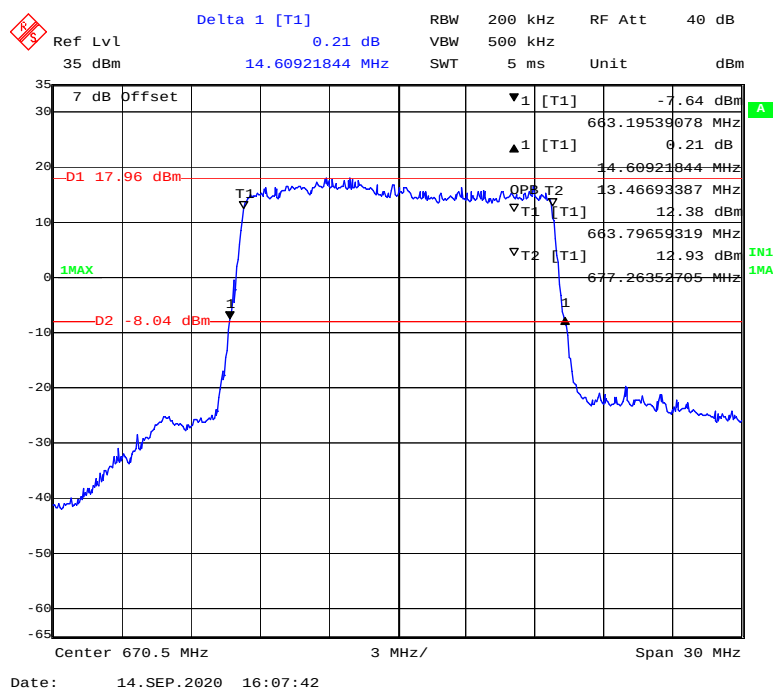
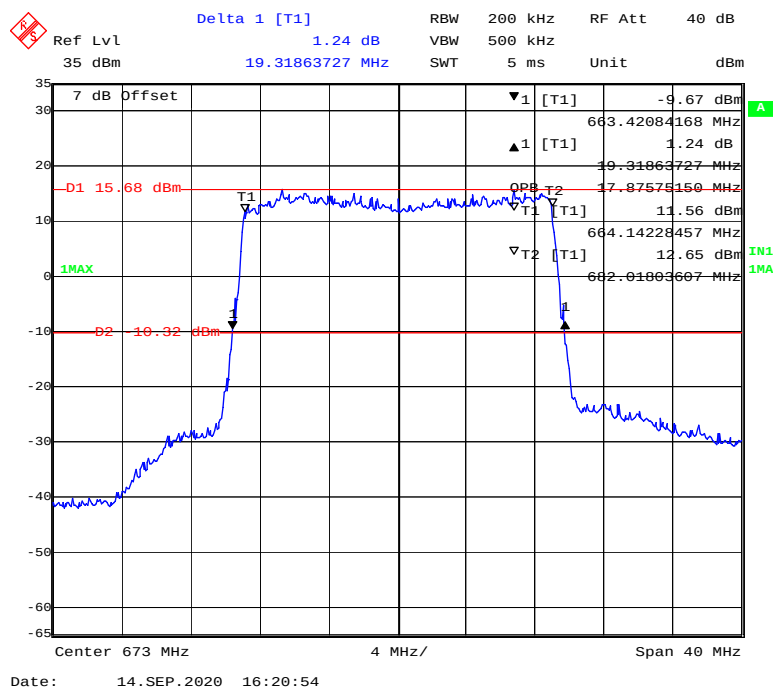
D2 -9.28 dBm

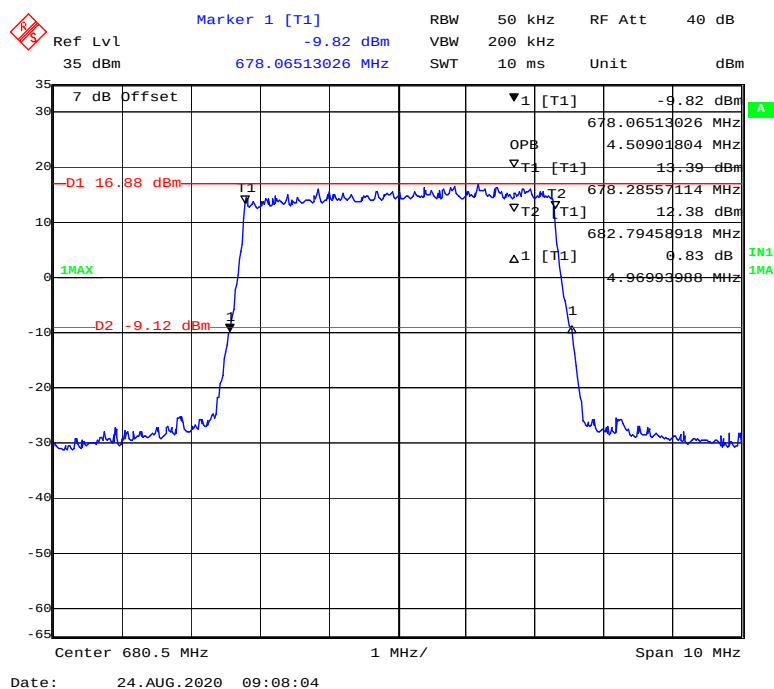
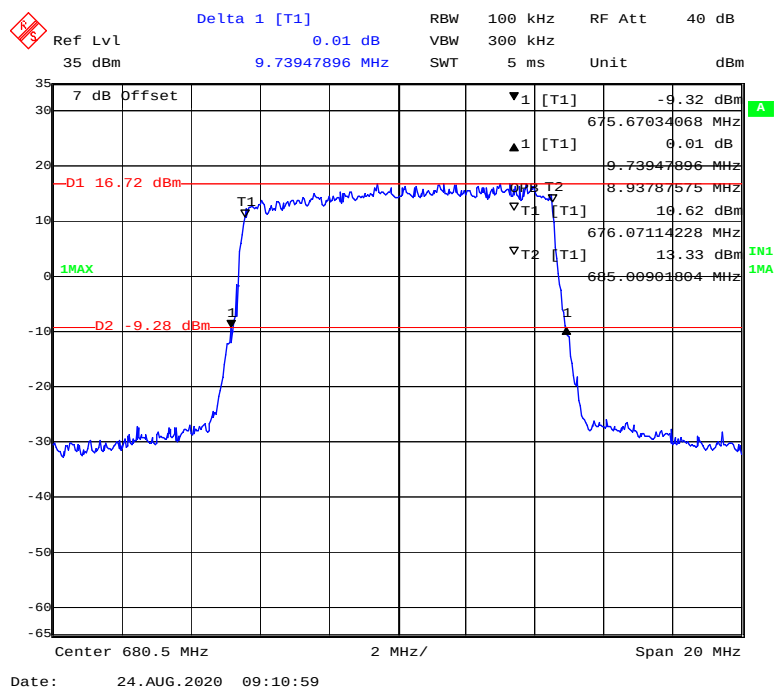
1MAX

1IN1 1MA

Center 668 MHz 2 MHz/ Span 20 MHz

Date: 14.SEP.2020 16:01:10

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**

Delta 1 [T1] -0.29 dB

Ref Lvl 35 dBm

RBW 200 kHz

VBW 500 kHz

RF Att 40 dB

14.60921844 MHz

SWT 5 ms

Unit dBm

7 dB Offset

D1 18.39 dBm

T1

1MAX

D2 -7.61 dBm

▼1 [T1] -7.10 dBm

▲1 [T1] -0.29 dB

673.2551102 MHz

673.85671343 MHz

13.40681363 MHz

13.64 dBm

667.26352705 MHz

Center 680.5 MHz

3 MHz/

Span 30 MHz

Date: 24.AUG.2020 09:13:38

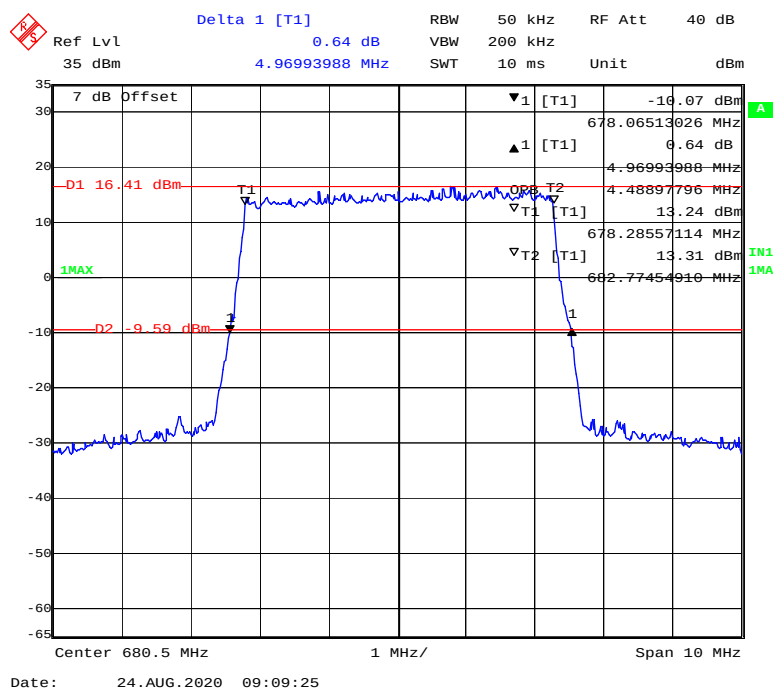
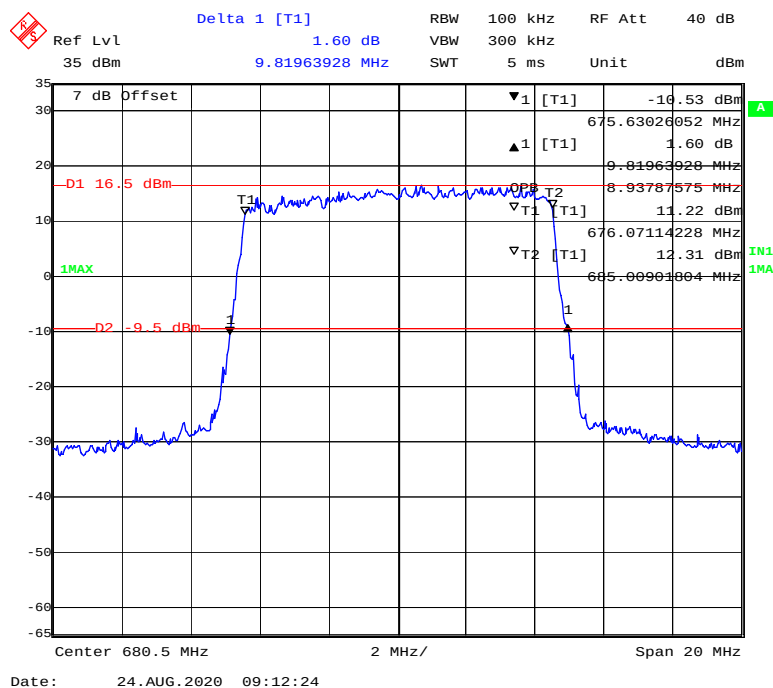
Ref Lvl 35 dBm
 Delta 1 [T1] 0.76 dB
 18.99799599 MHz
 RBW 200 kHz
 VBW 500 kHz
 SWT 5 ms
 RF Att 40 dB
 Unit dBm

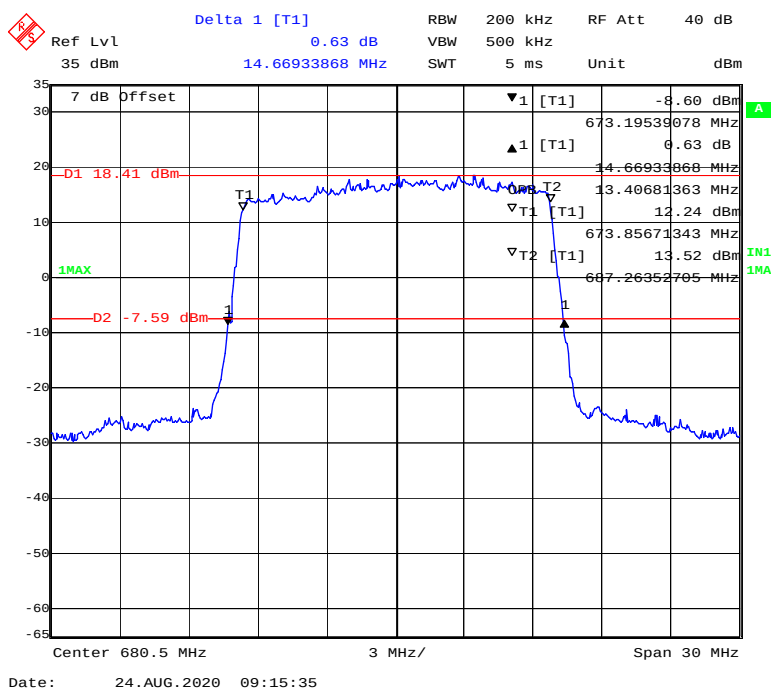
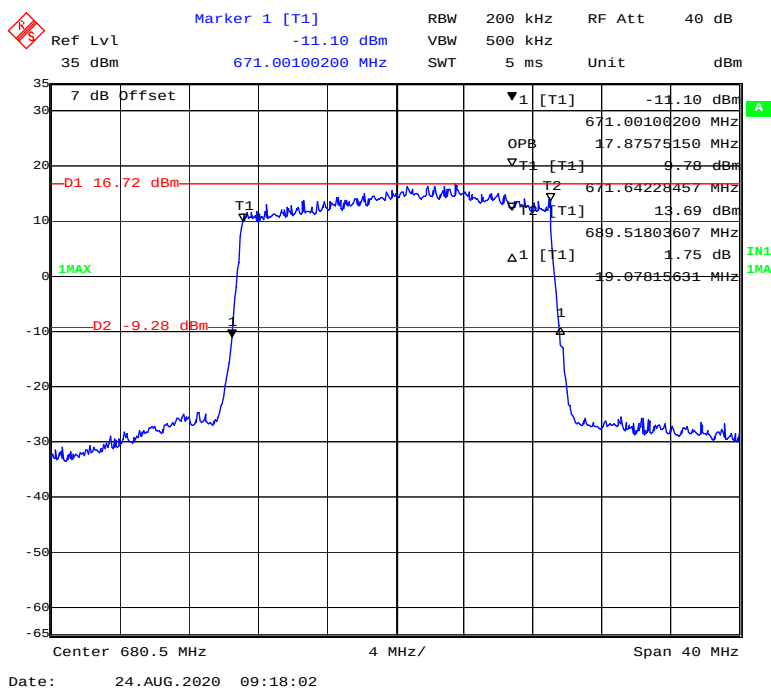
7 dB Offset
 D1 16.97 dBm
 D2 -9.03 dBm
 1MAX
 1MIN

▼1 [T1] -8.87 dBm
 ▲1 [T1] 0.76 dB
 17.08116232 MHz
 16.99799599 MHz
 OPB
 ▼T1 [T1] 10.35 dBm
 ▼T2 [T1] 9.91 dBm
 17.87575150 MHz
 671.64228457 MHz
 669.51003607 MHz

Center 680.5 MHz
 4 MHz/
 Span 40 MHz

Date: 24.AUG.2020 09:17:03

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**

[illegible][illegible]

Ref Lvl 35 dBm
Delta 1 [T1] -0.64 dB
RBW 200 kHz
VBW 5 ms
RF Att 40 dB
Unit dBm
14.66933868 MHz
7 dB Offset
D1 18.13 dBm
D2 -7.87 dBm
1MAX
IN1
INMA
Center 690.5 MHz
3 MHz/
Span 30 MHz
Date: 14.SEP.2020 16:09:32

[illegible]

Ref Lvl 35 dBm Delta 1 [T1] 1.35 dB RBW 50 kHz RF Att 40 dB
 35 dBm 4.88977956 MHz VSW 200 kHz Unit dBm

7 dB Offset

▼1 [T1] -10.92 dBm
 ▲1 [T1] 1.35 dB
 4.88977956 MHz
 4.8897796 MHz
 10.91 dBm
 693.26553106 MHz
 12.67 dBm
 697.75459902 MHz

D1 16.14 dBm
 1MAX
 D2 -9.86 dBm
 IN1
 1MA

Center 695.5 MHz 1 MHz/ Span 10 MHz

Date: 14.SEP.2020 15:59:00

Ref Lvl 35 dBm Delta 1 [T1] 0.27 dB RBW 100 kHz VSWR 300 kHz RF Att 40 dB Unit dBm

7 dB Offset

D1 = 16.21 dBm

1MAX

D2 = -9.79 dBm

1

11.80 dBm

688.17034068 MHz

9.73947896 MHz

8.97795591 MHz

688.53106212 MHz

12.37 dBm

667.50901004 MHz

Center 693 MHz 2 MHz/ Span 20 MHz

Date: 14.SEP.2020 16:04:30

[illegible][illegible]

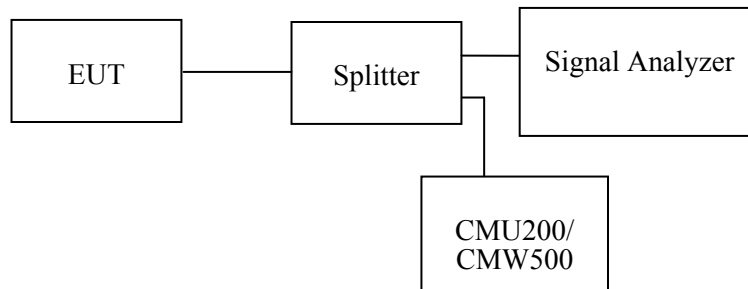
**FCC § 2.1051; § 22.917 (a); § 24.238 (a); §27.53(c) (f) (h) (g), § 90.543 -
SPURIOUS EMISSIONS AT ANTENNA TERMINALS****Applicable Standards**

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

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.

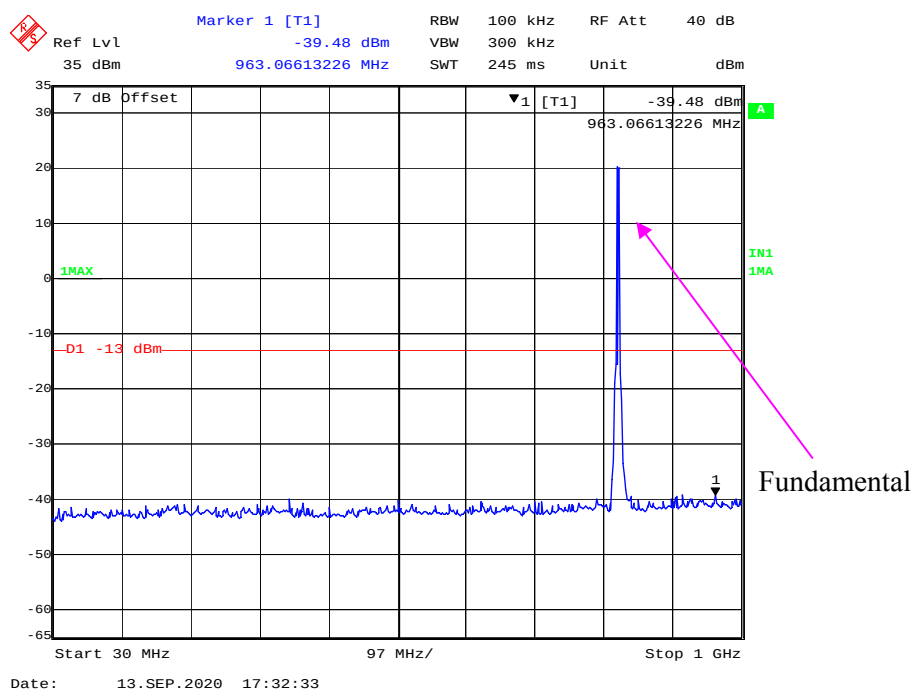
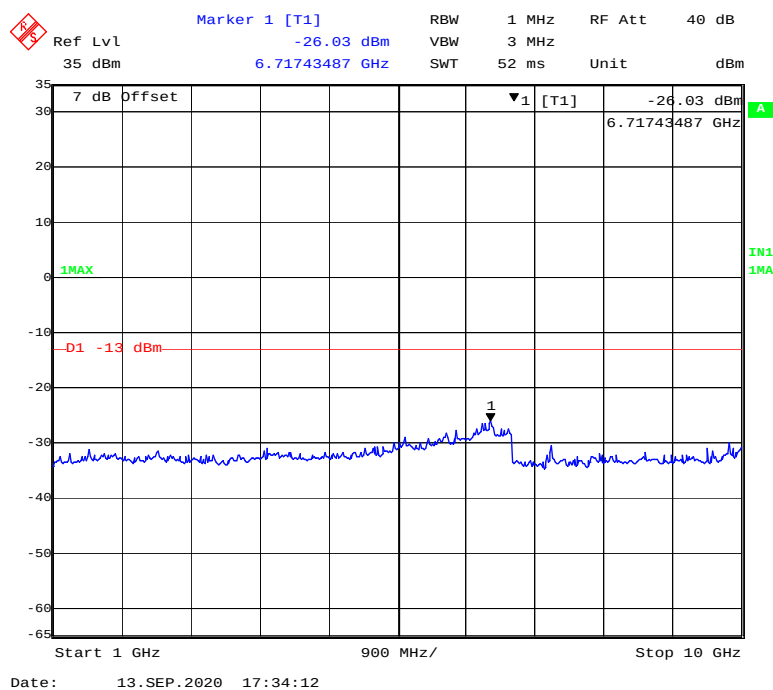
**Test Data****Environmental Conditions**

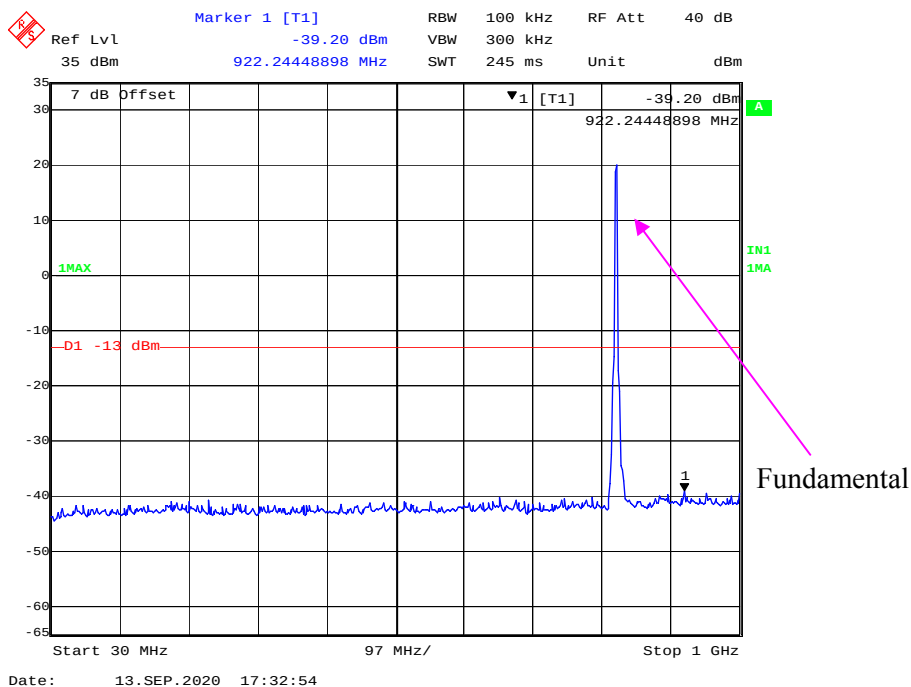
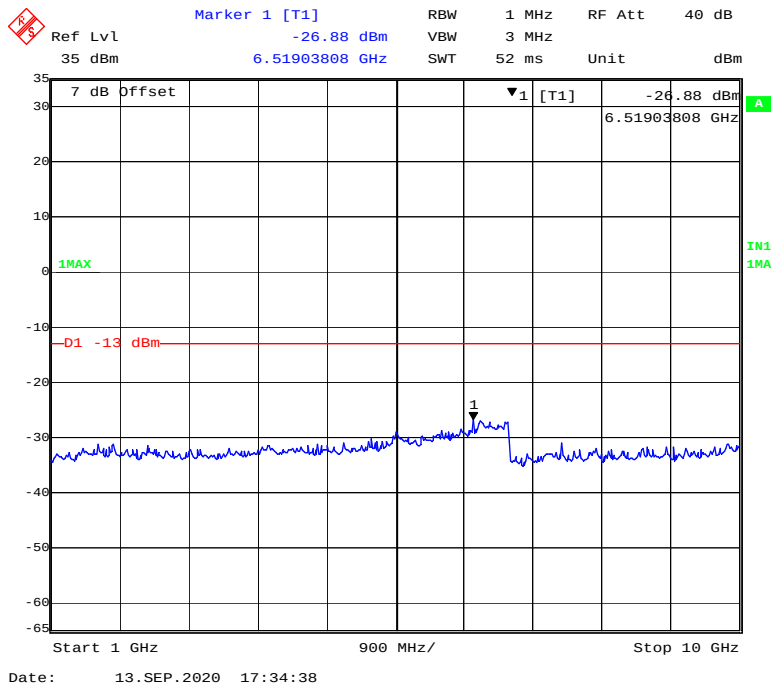
Temperature:	23.2°C-23.5°C
Relative Humidity:	51 %-23%
ATM Pressure:	101.1kPa-103.3kPa

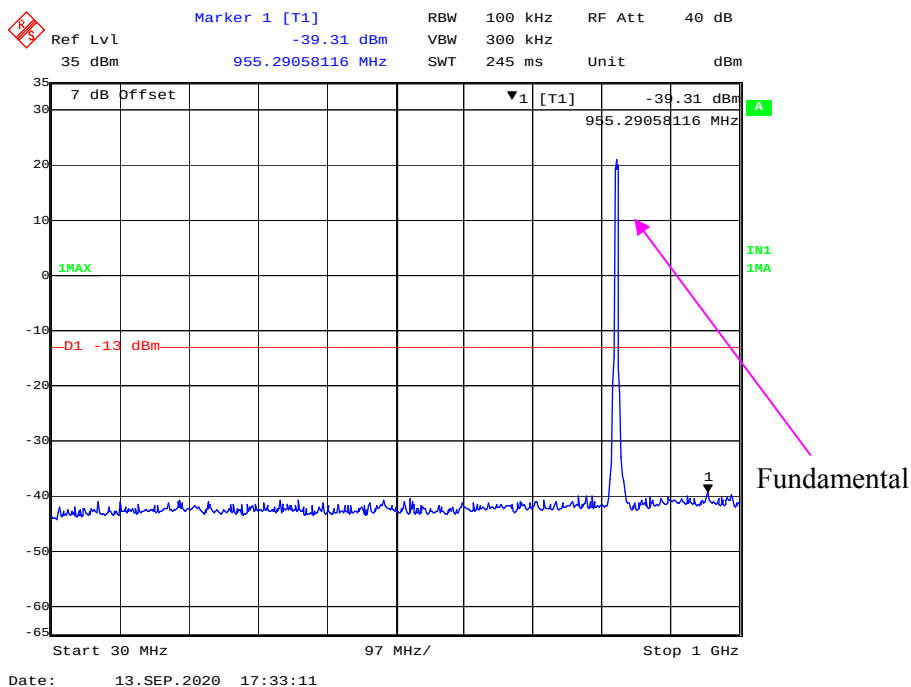
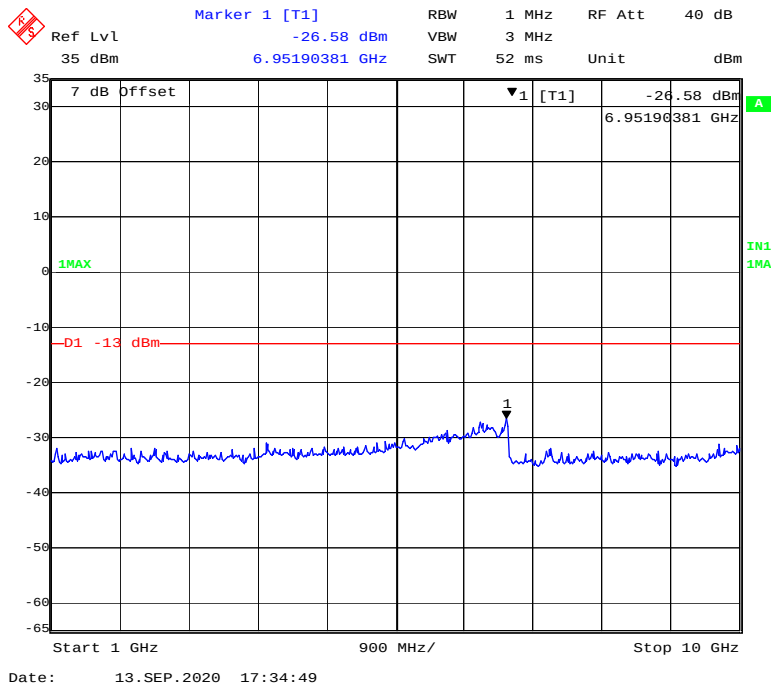
The testing was performed by CK Huang from 2020-08-23 to 2020-09-26.

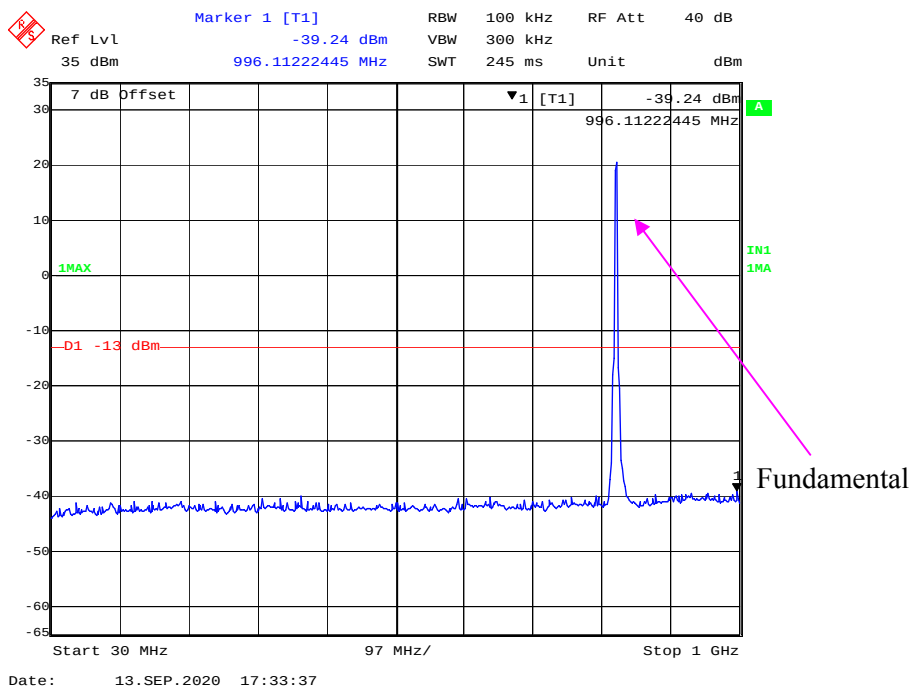
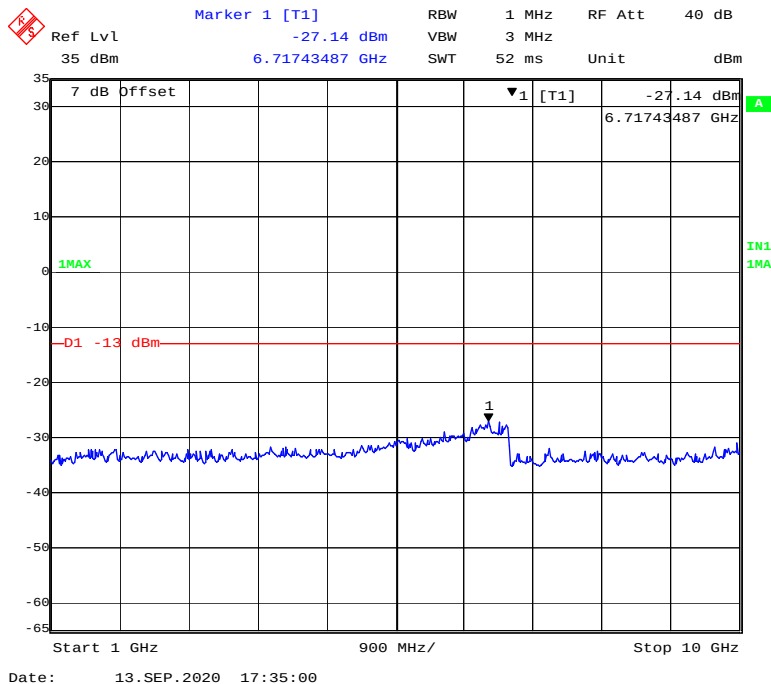
EUT operation mode: Transmitting

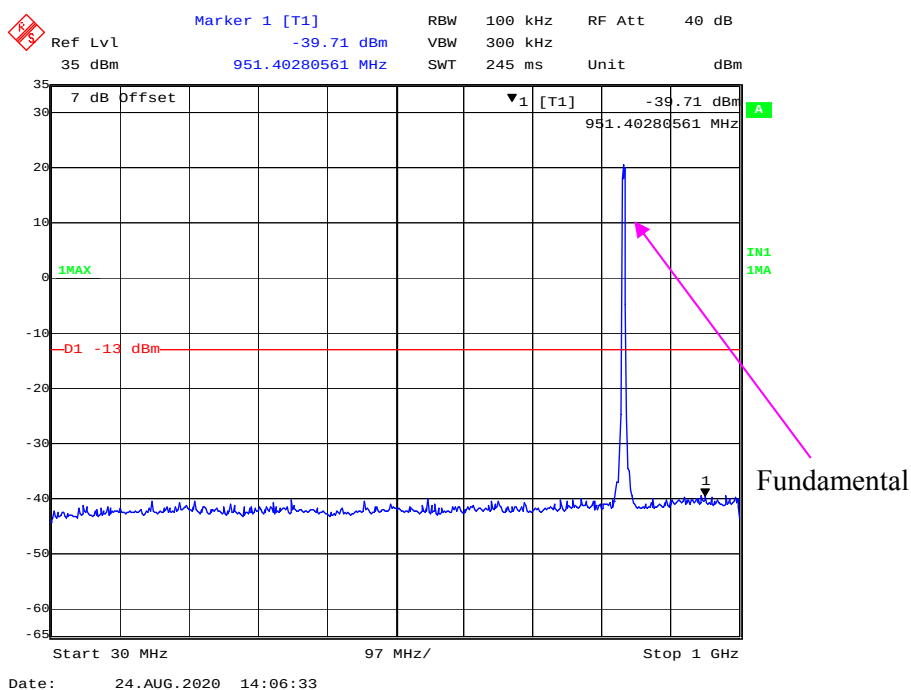
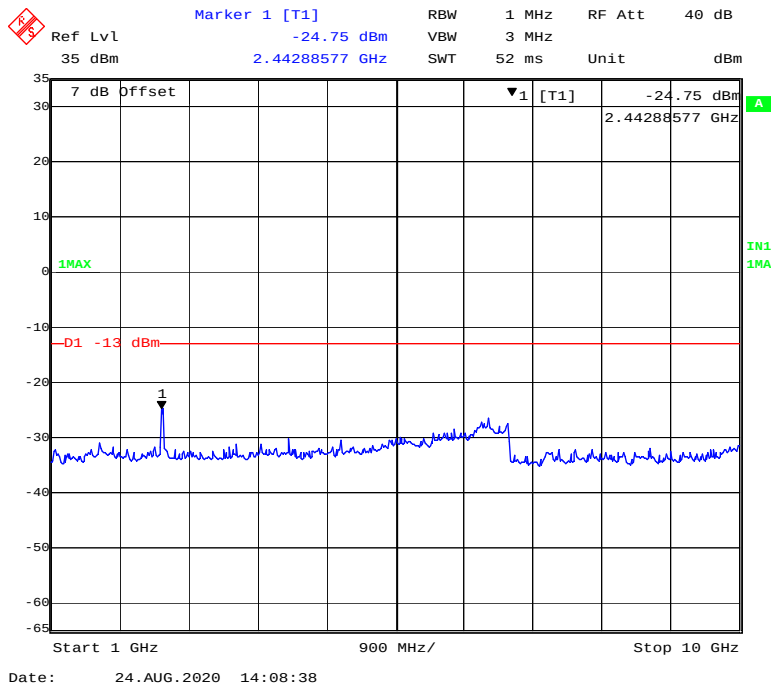
Test Result: Compliance.

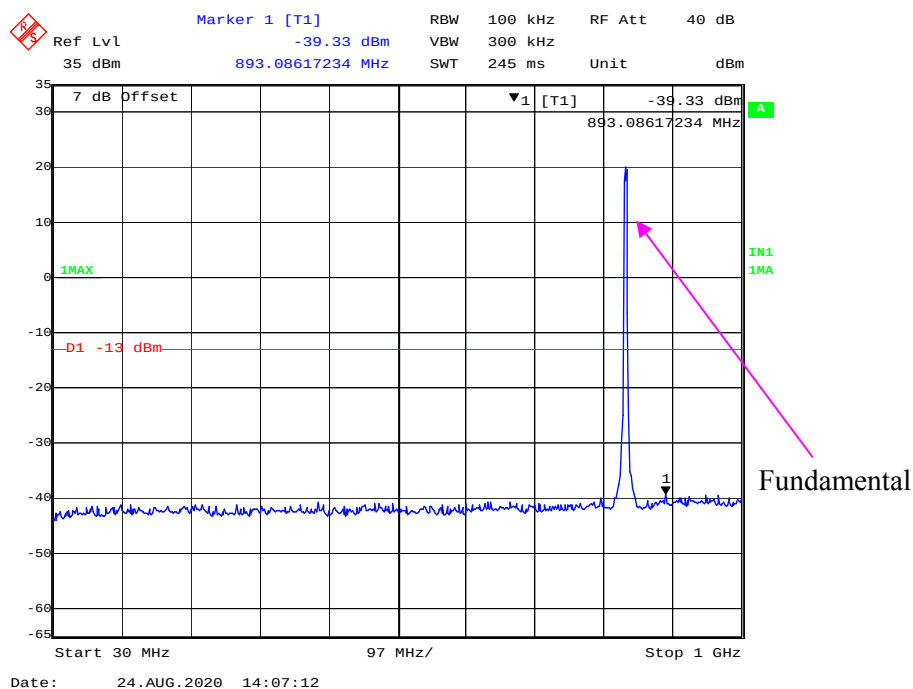
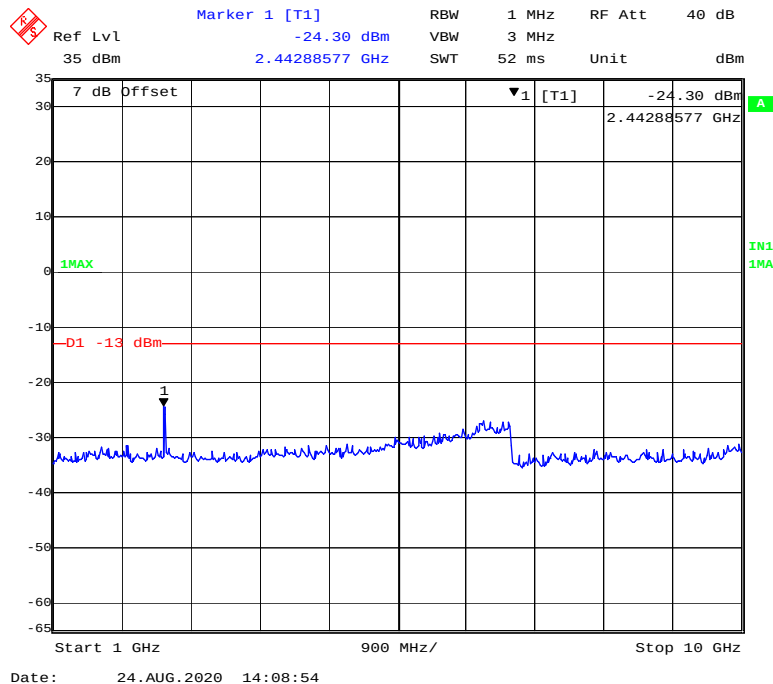
WCDMA Band V:**30 MHz – 1GHz WCDMA (Rel 99) Mode, Low channel****1 GHz – 10 GHz WCDMA (Rel 99) Mode, Low channel**

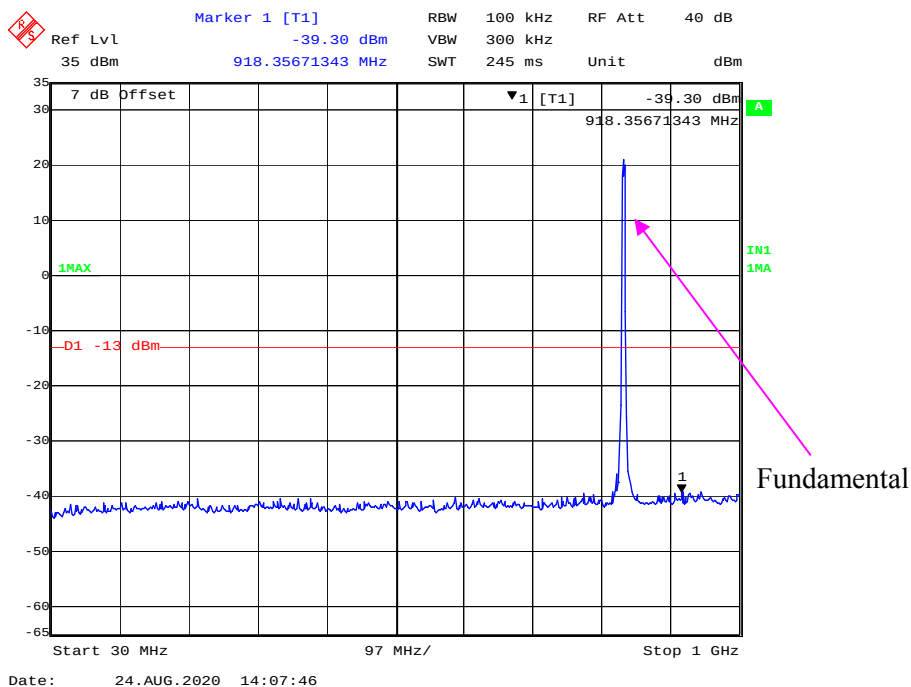
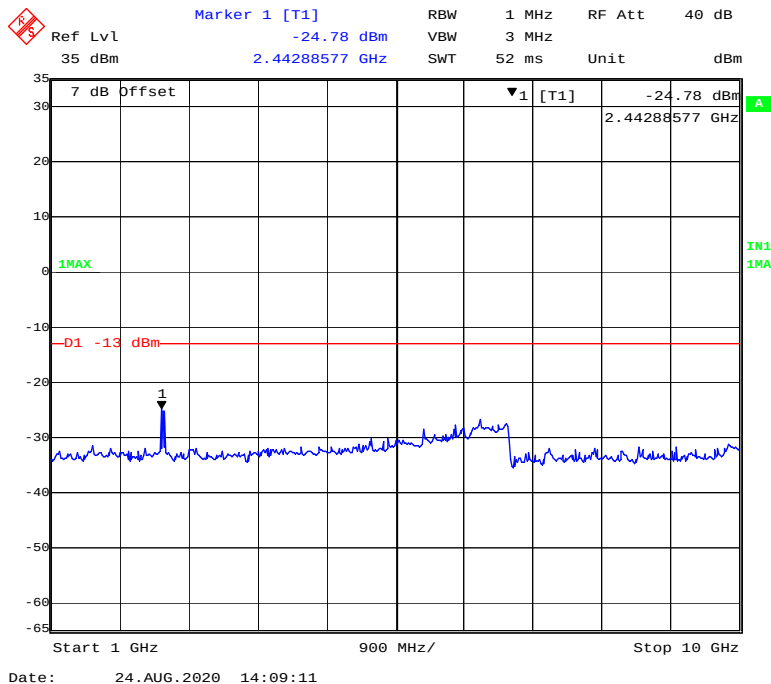
30 MHz – 1GHz WCDMA (HSDPA) Mode, Low channel**1 GHz – 10 GHz WCDMA (HSDPA) Mode, Low channel**

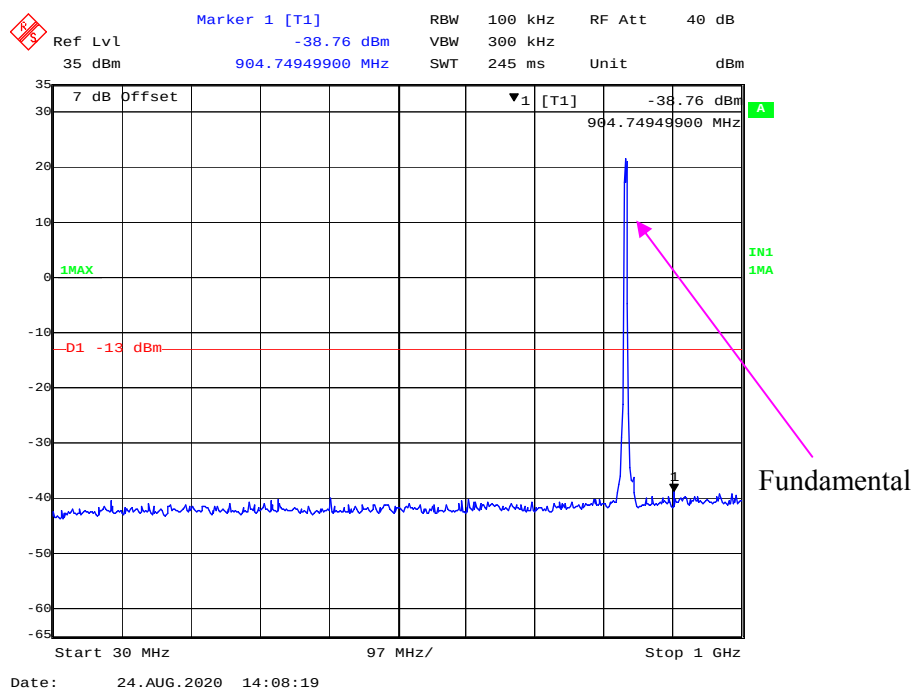
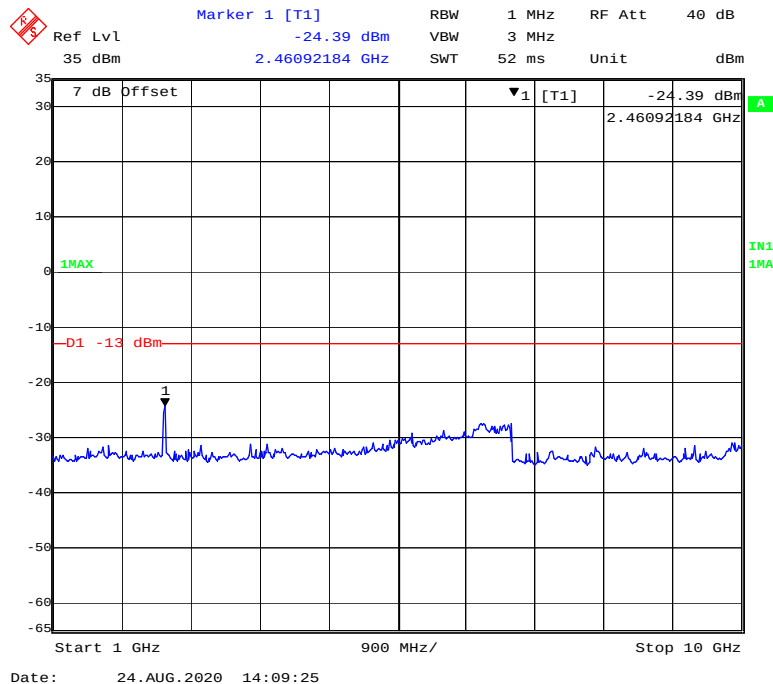
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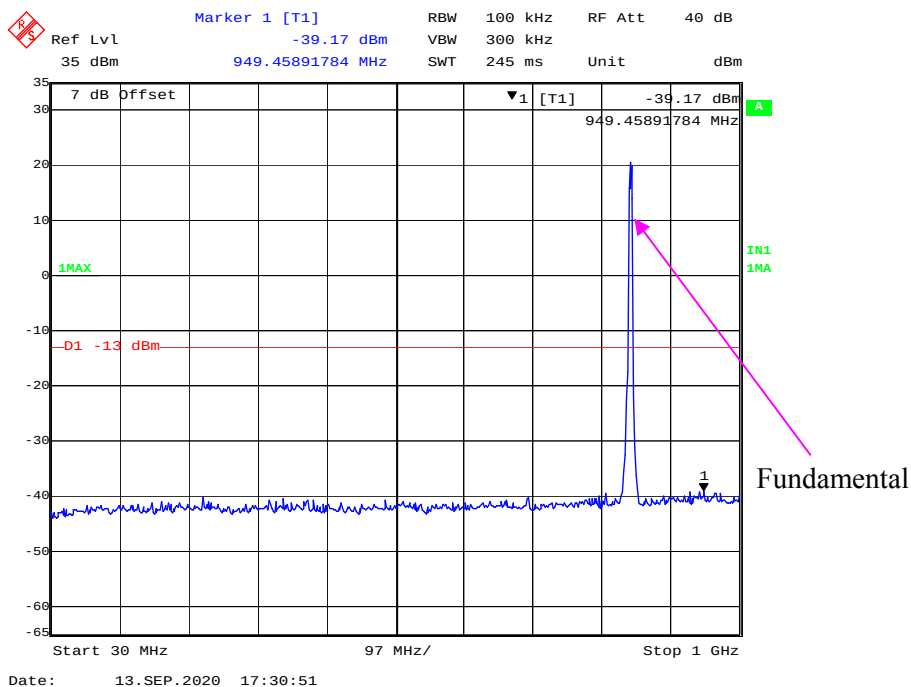
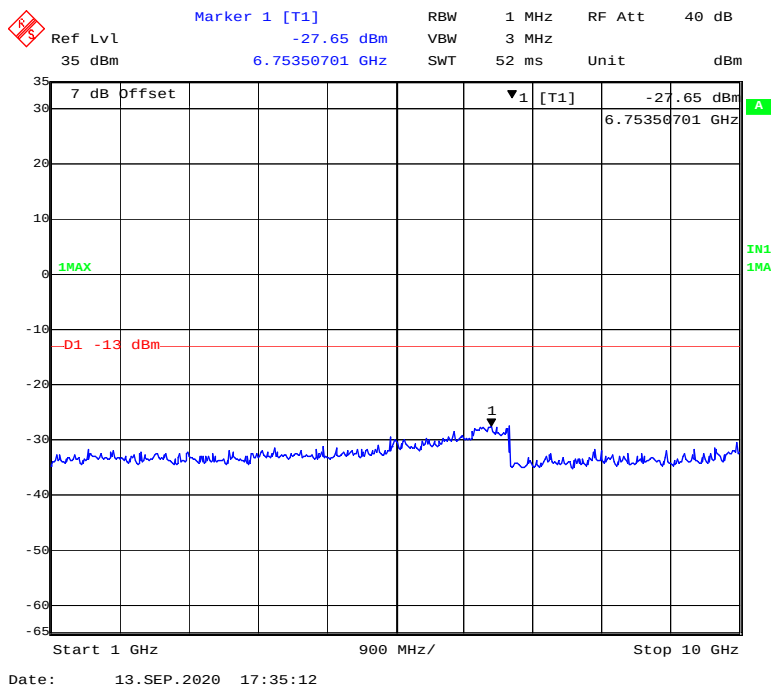
30 MHz – 1GHz WCDMA (HSPA+) Mode, Low channel**1 GHz – 10 GHz WCDMA (HSPA+) Mode, Low channel**

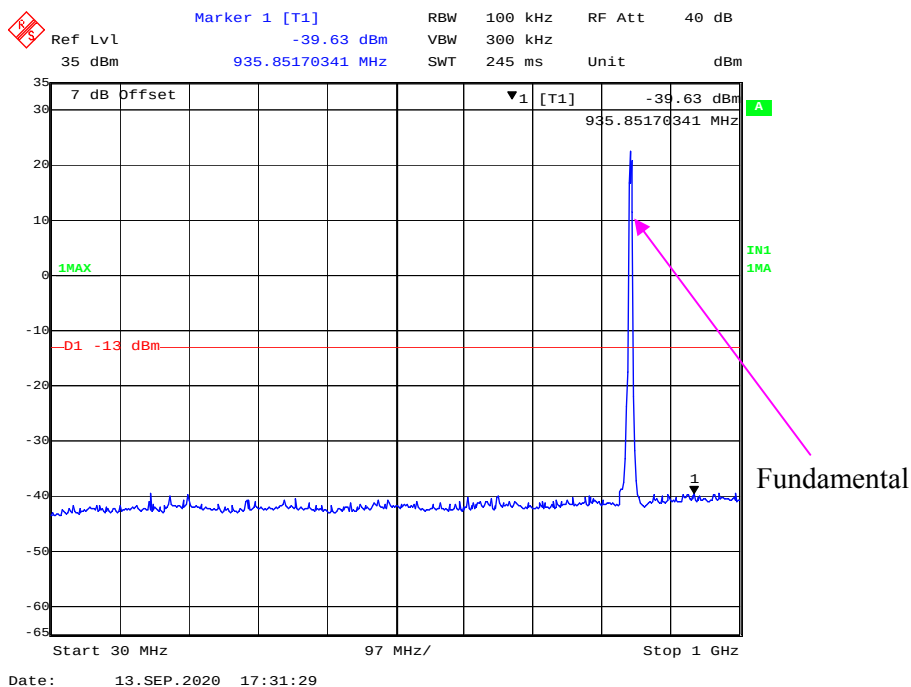
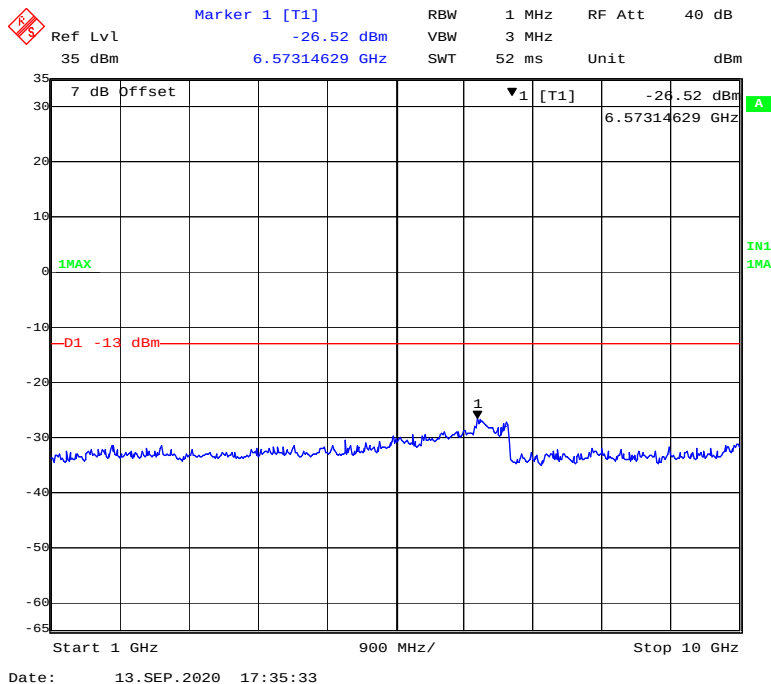
30 MHz – 1GHz WCDMA (Rel 99) Mode, Middle channel**1 GHz – 10 GHz WCDMA (Rel 99) Mode, Middle channel**

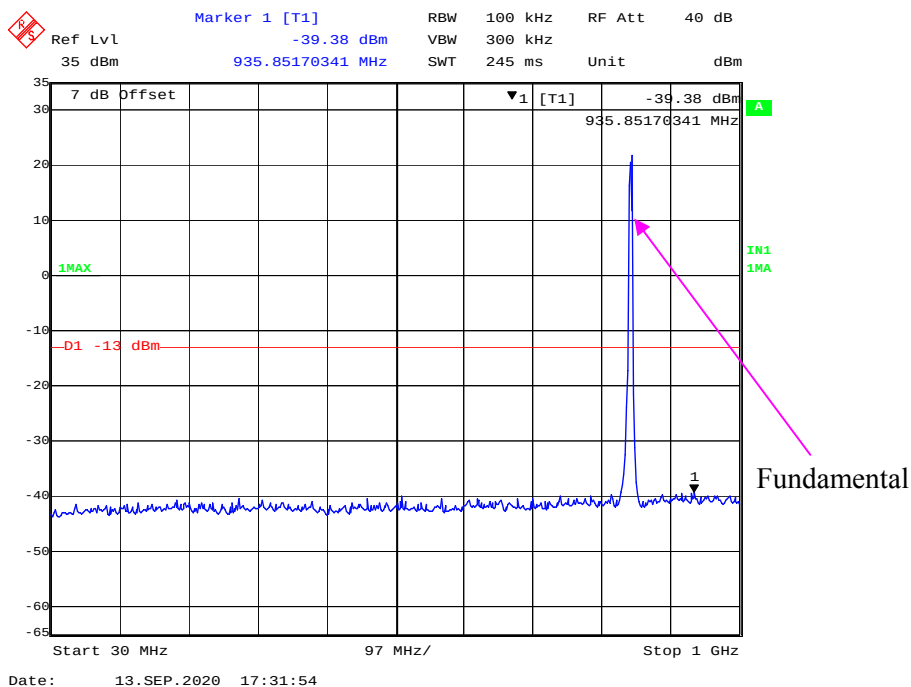
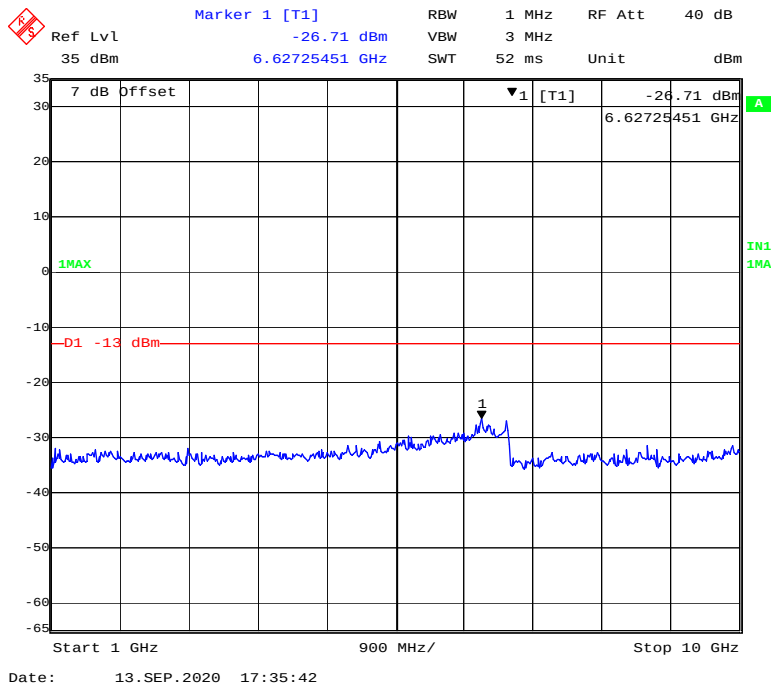
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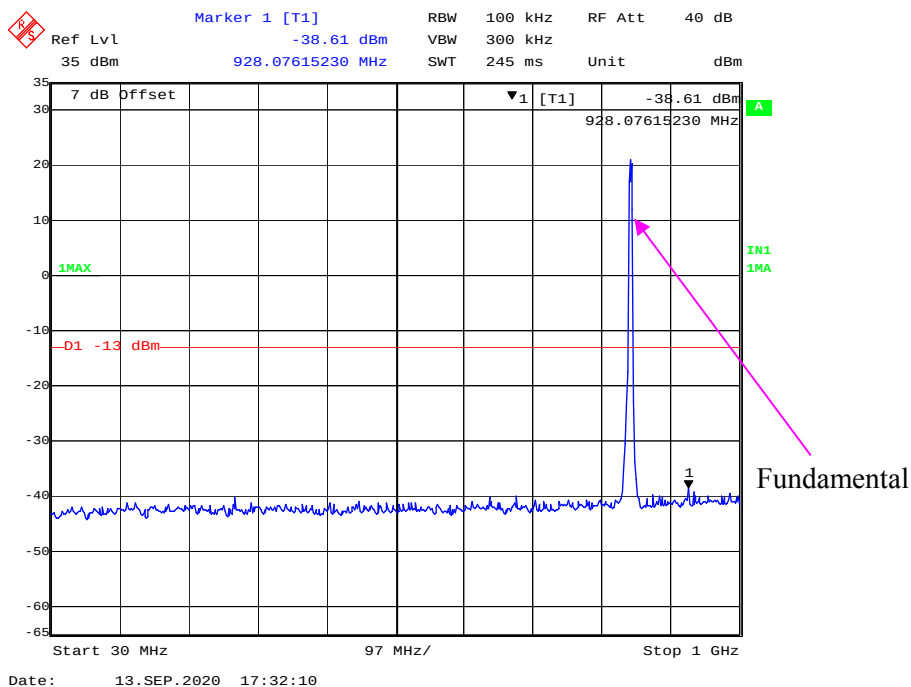
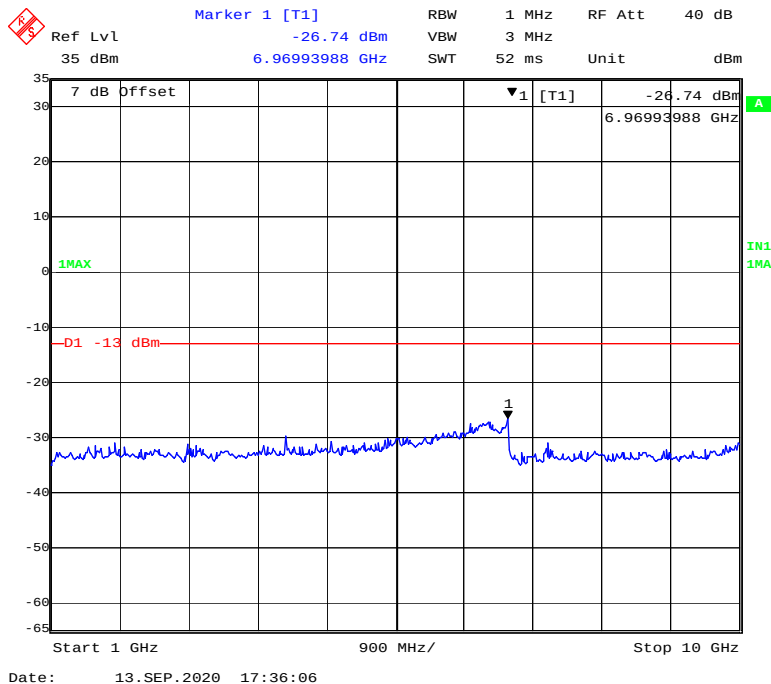
30 MHz – 1GHz WCDMA (HSUPA) Mode, Middle channel**1 GHz – 10 GHz WCDMA (HSUPA) Mode, Middle channel**

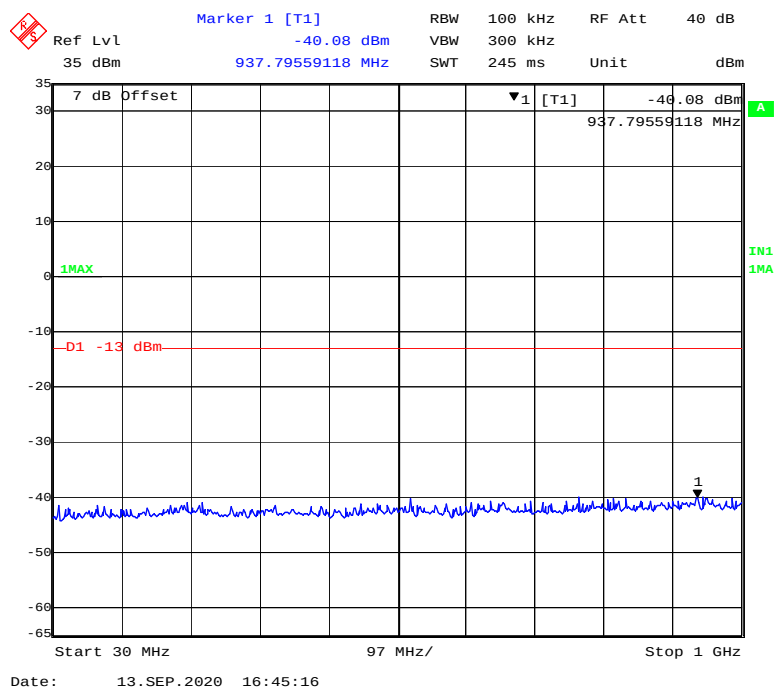
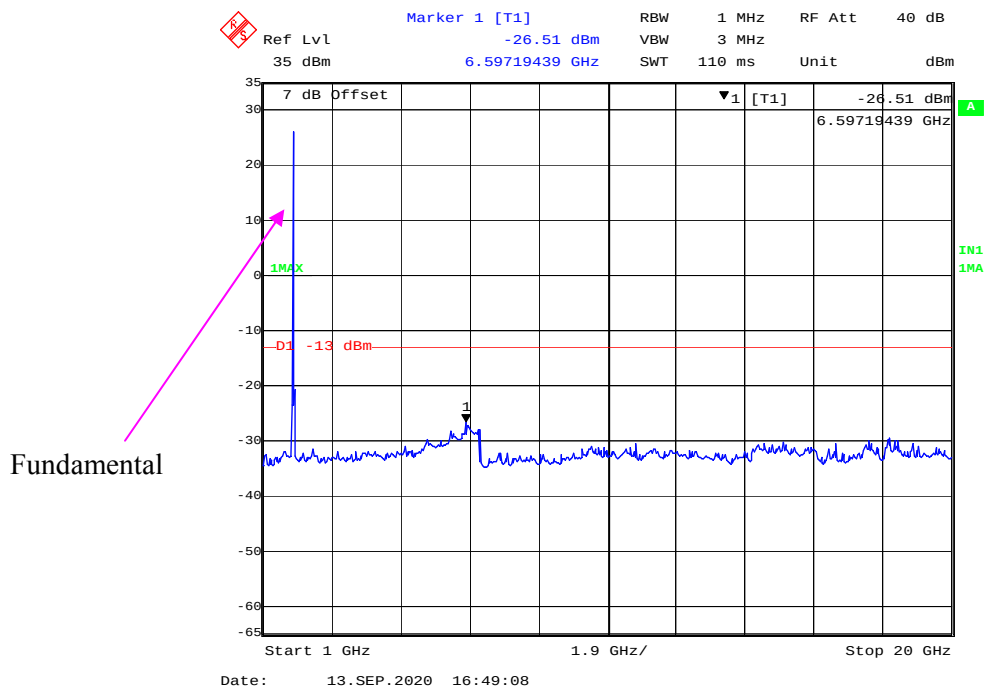
30 MHz – 1GHz WCDMA (HSPA+) Mode, Middle channel**1 GHz – 10 GHz WCDMA (HSPA+) Mode, Middle channel**

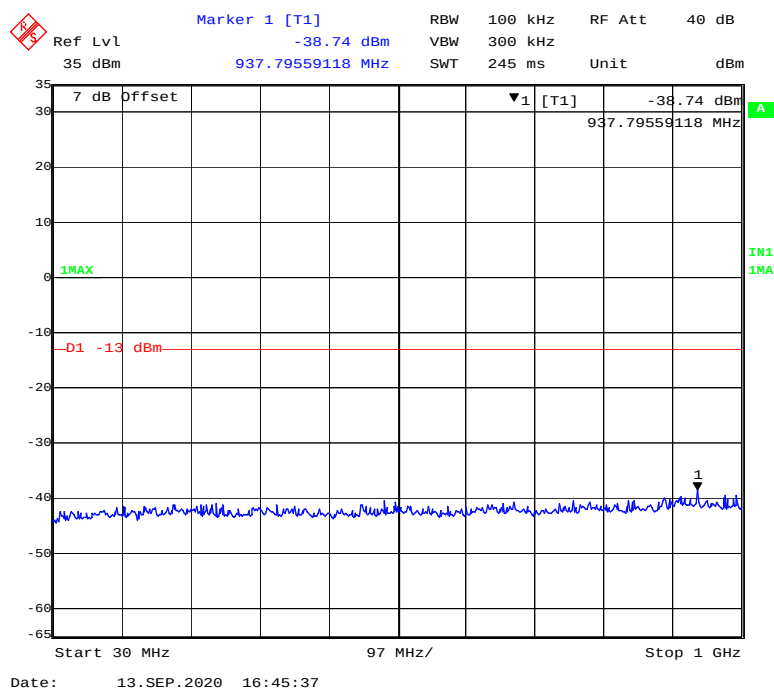
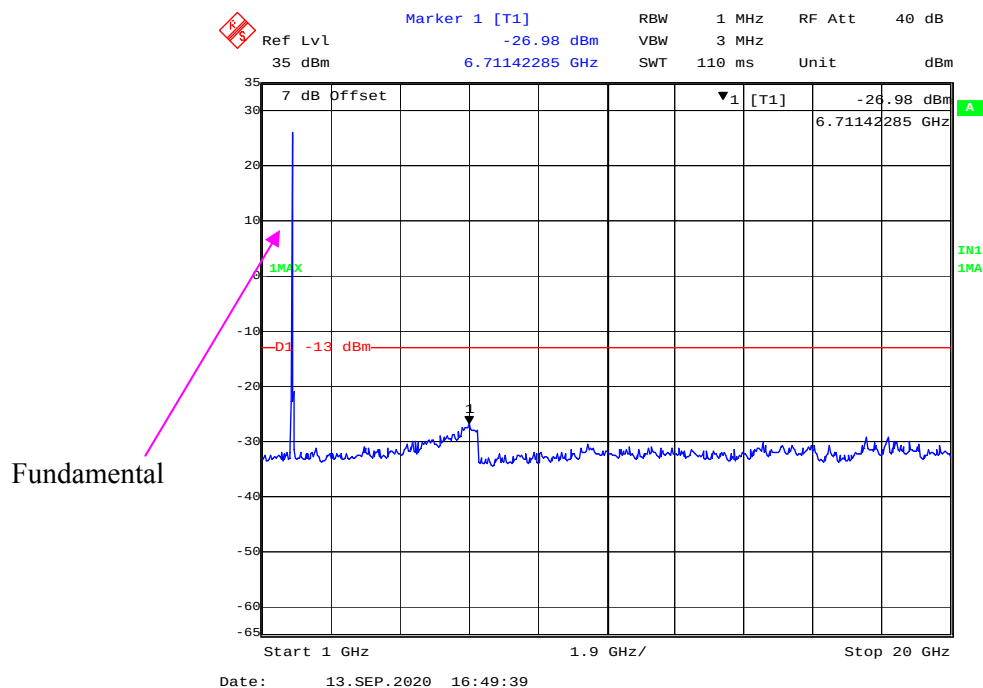
30 MHz – 1GHz WCDMA (Rel 99) Mode, High channel**1 GHz – 10 GHz WCDMA (Rel 99) Mode, High channel**

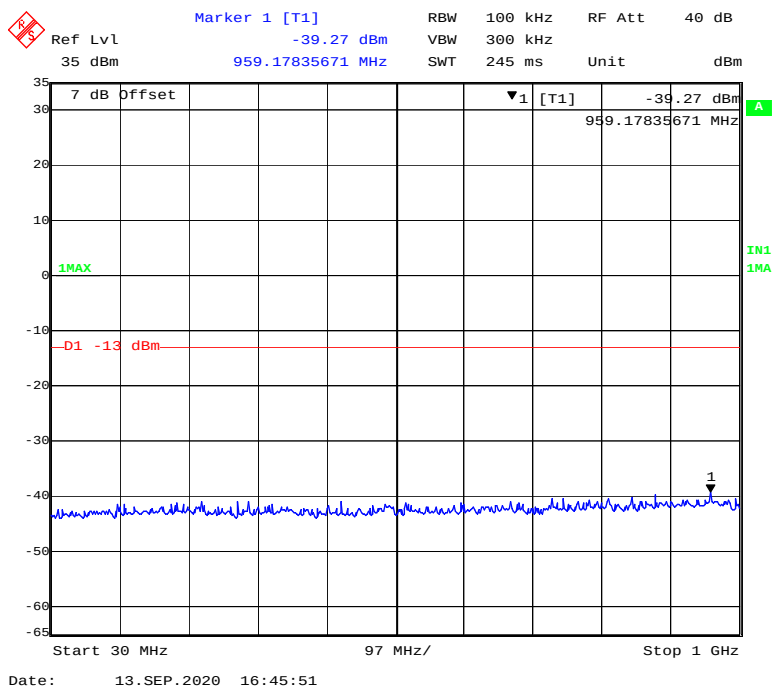
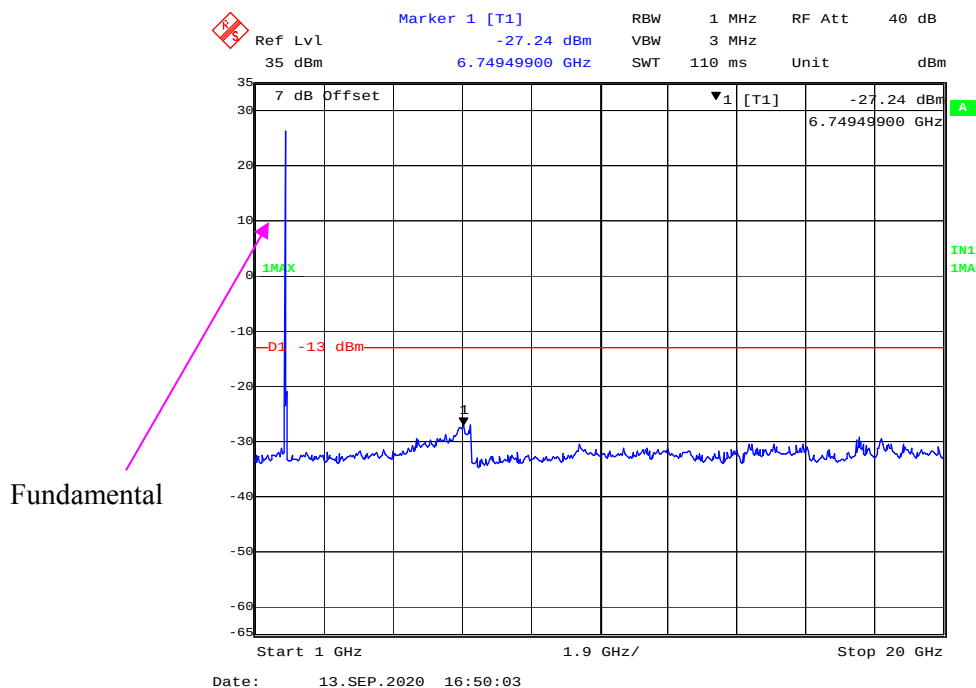
30 MHz – 1GHz WCDMA (HSDPA) Mode, High channel**1 GHz – 10 GHz WCDMA (HSDPA) Mode, High channel**

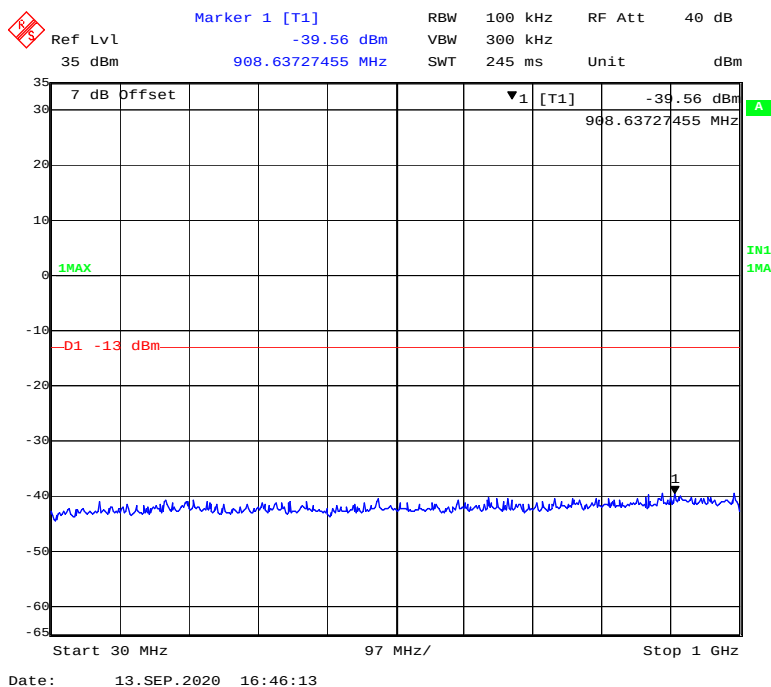
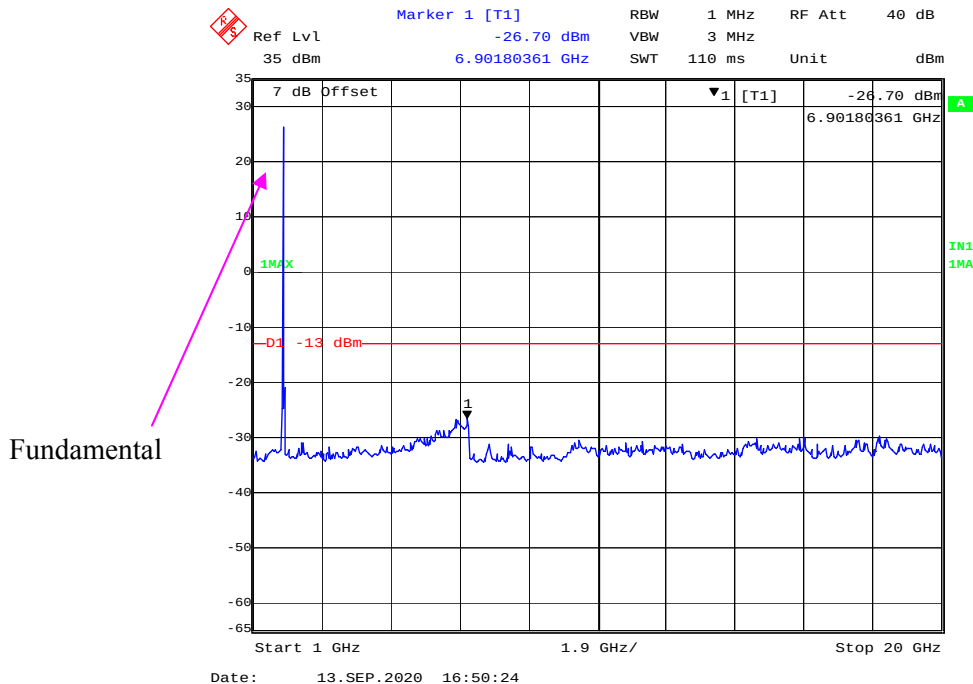
30 MHz – 1GHz WCDMA (HSUPA) Mode, High channel**1 GHz – 10 GHz WCDMA (HSUPA) Mode, High channel**

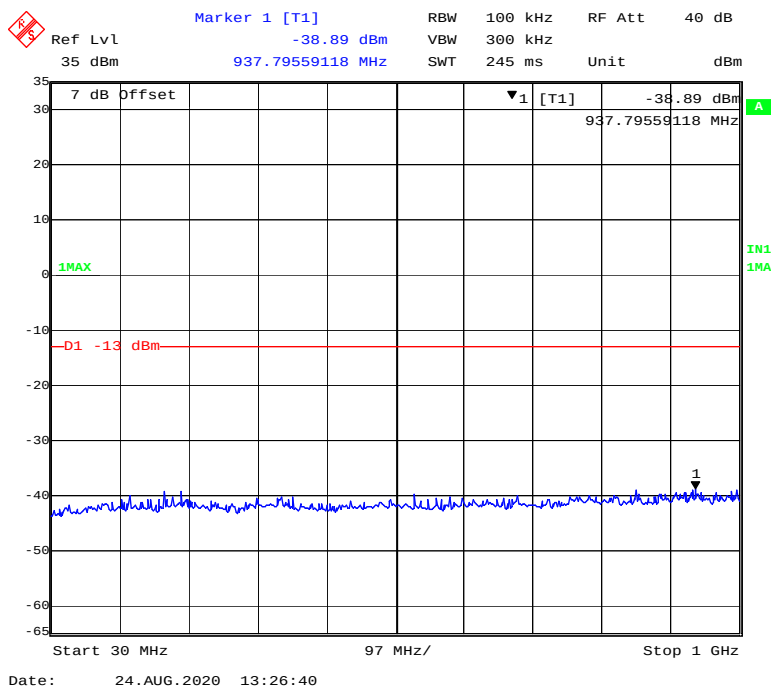
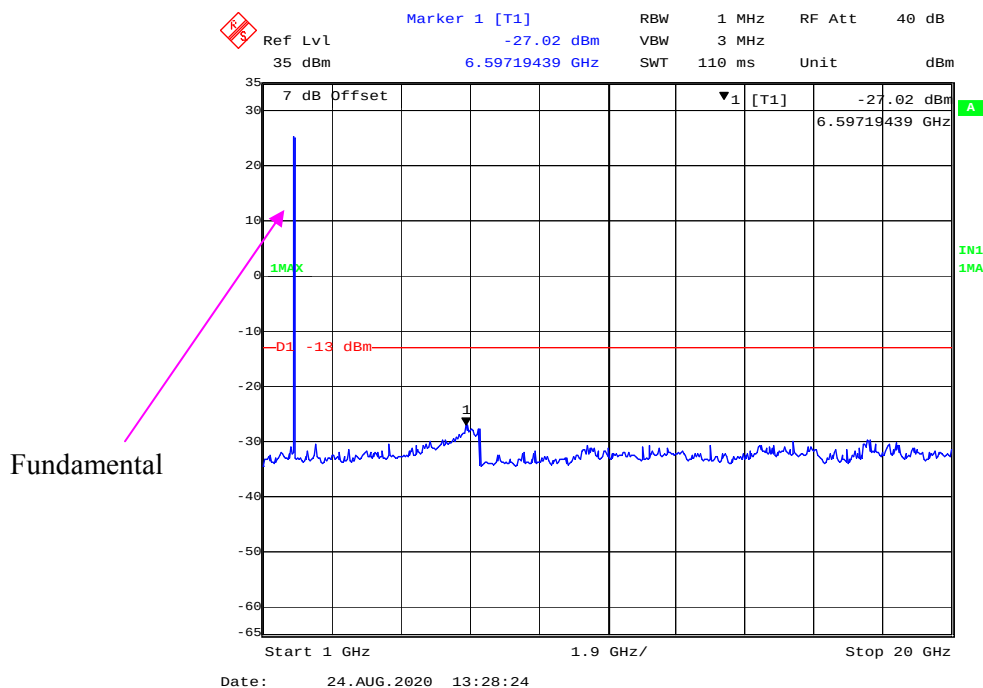
30 MHz – 1GHz WCDMA (HSPA+) Mode, High channel**1 GHz – 10 GHz WCDMA (HSPA+) Mode, High channel**

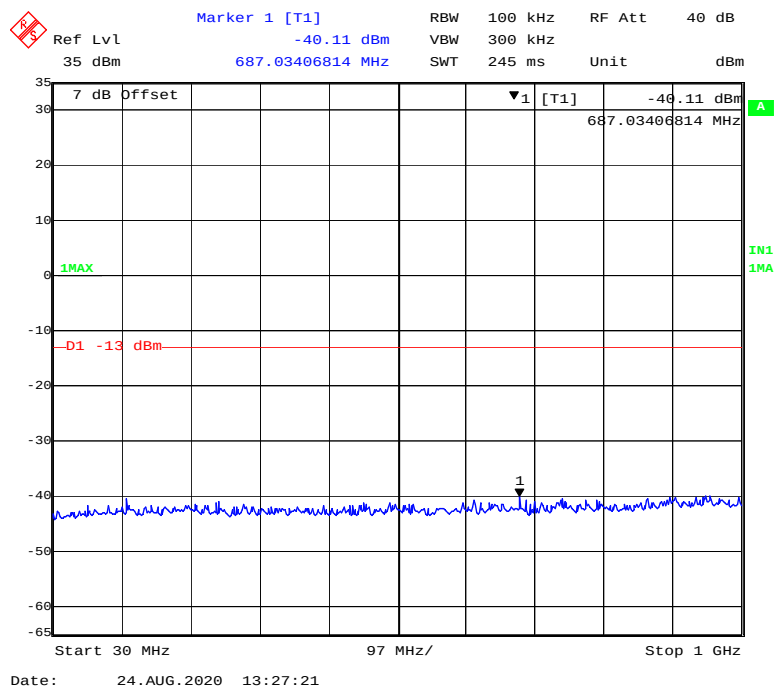
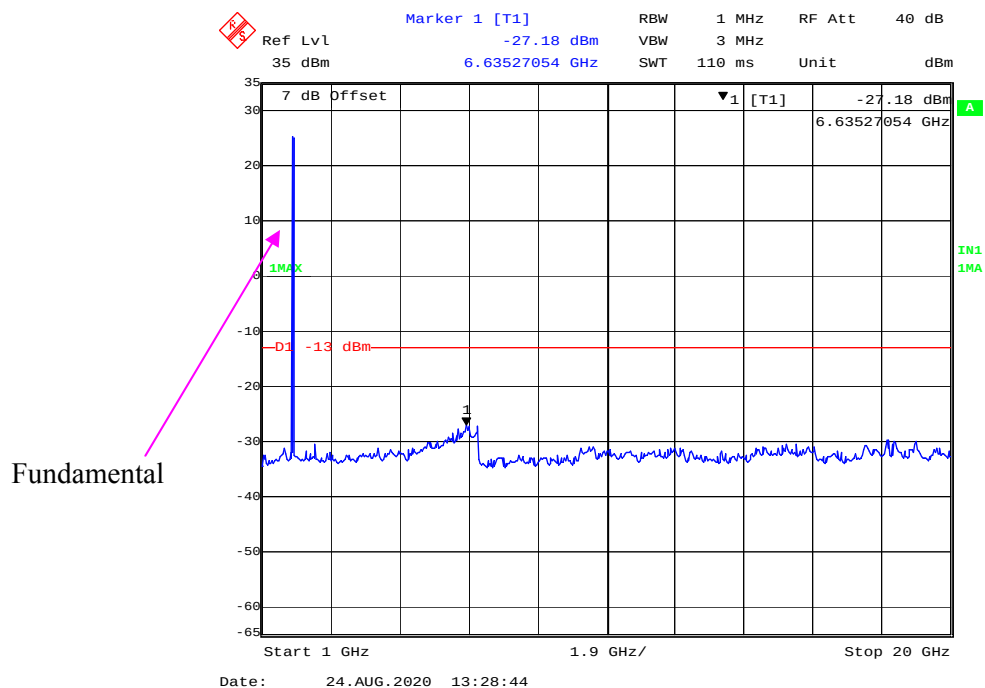
WCDMA Band II:**30 MHz – 1GHz WCDMA (Rel 99) Mode, Low channel****1 GHz – 20 GHz WCDMA (Rel 99) Mode, Low channel**

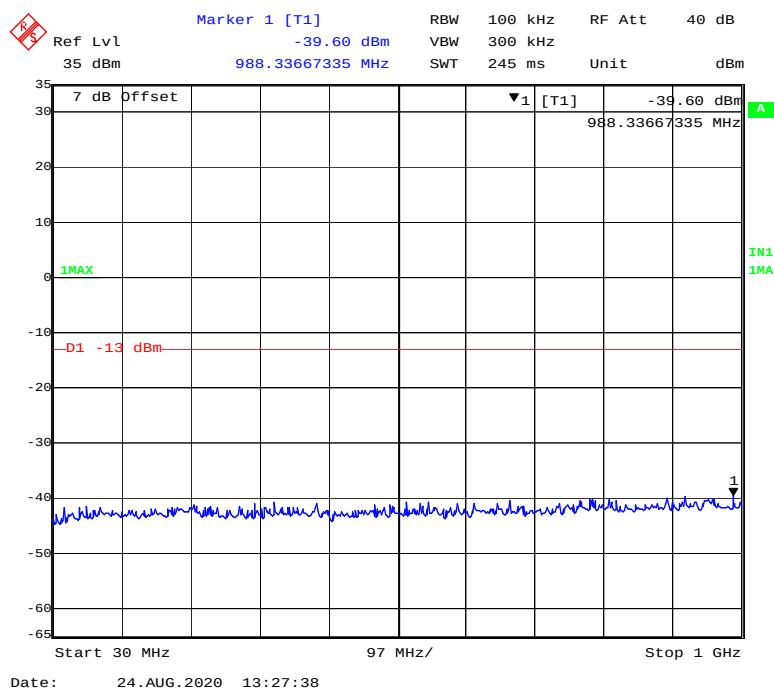
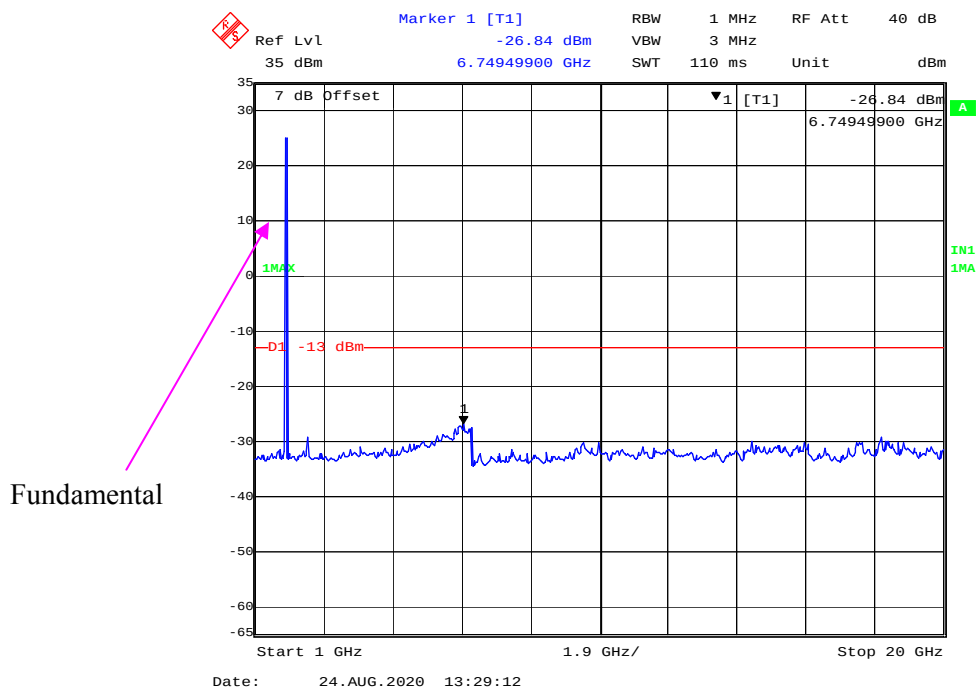
30 MHz – 1GHz WCDMA (HSDPA) Mode, Low channel**1 GHz – 20 GHz WCDMA (HSDPA) Mode, Low channel**

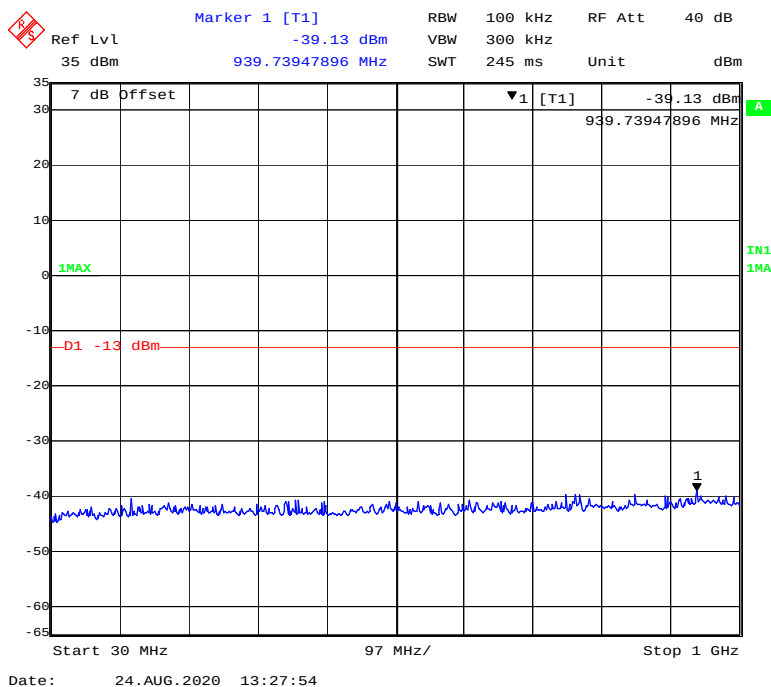
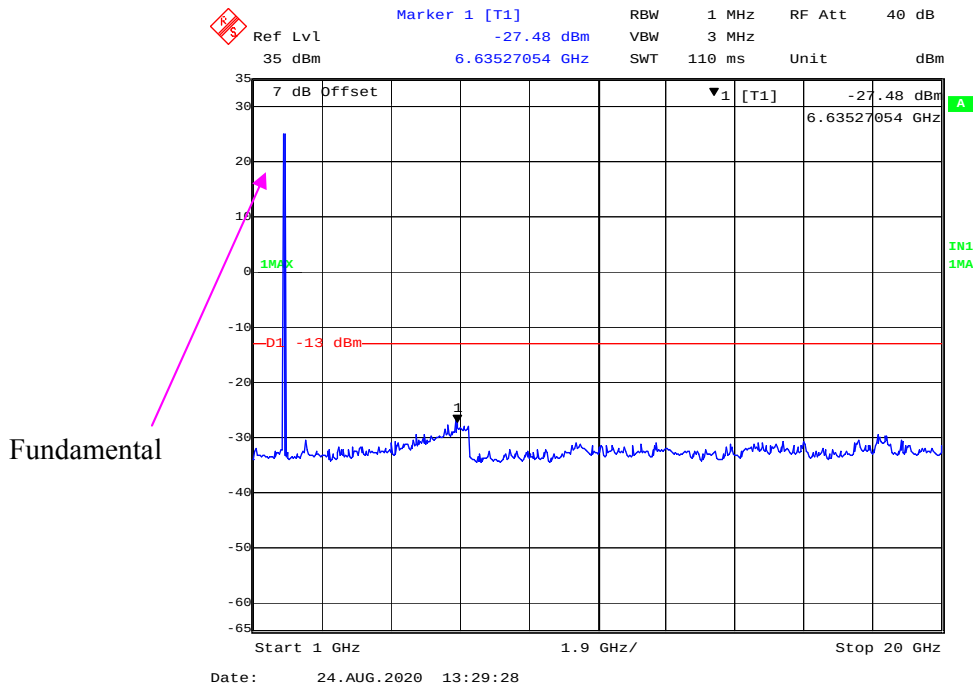
30 MHz – 1GHz WCDMA (HSUPA) Mode, Low channel**1 GHz – 20 GHz WCDMA (HSUPA) Mode, Low channel**

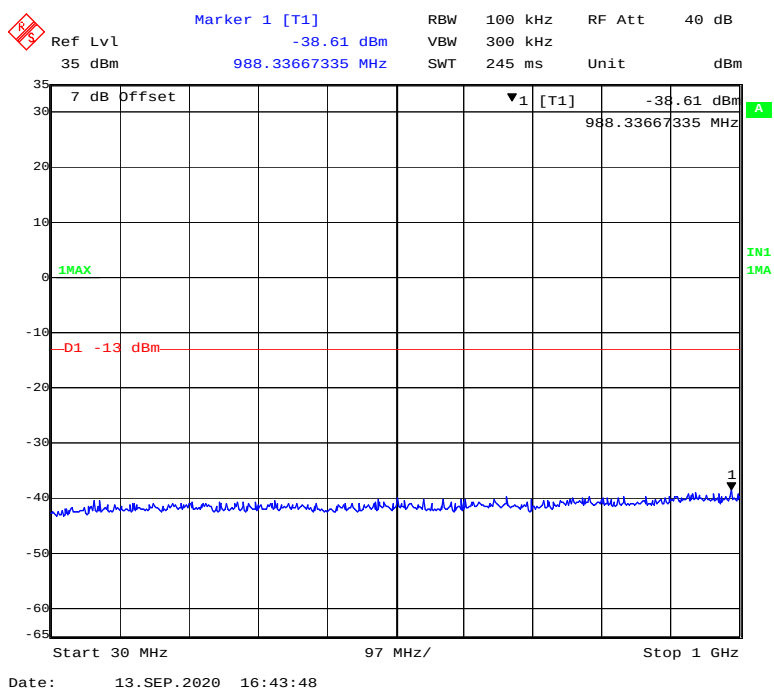
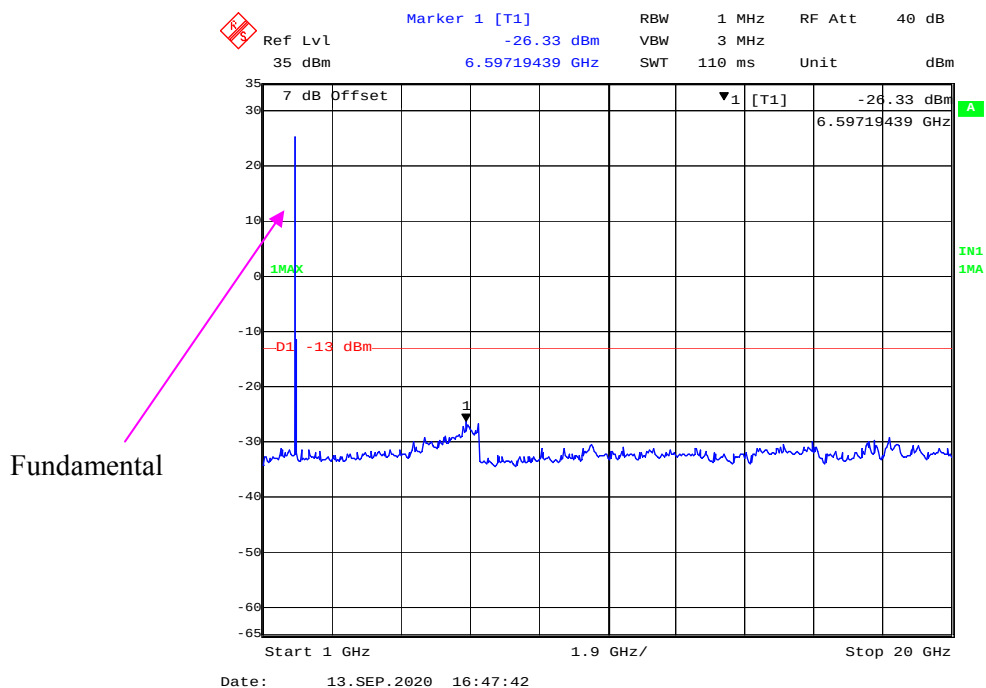
30 MHz – 1GHz WCDMA (HSPA+) Mode, Low channel**1 GHz – 20 GHz WCDMA (HSPA+) Mode, Low channel**

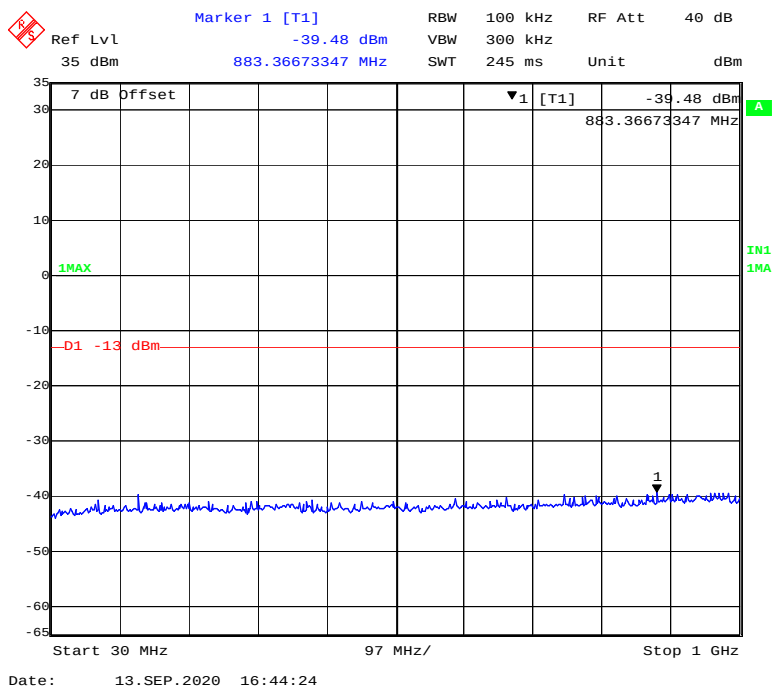
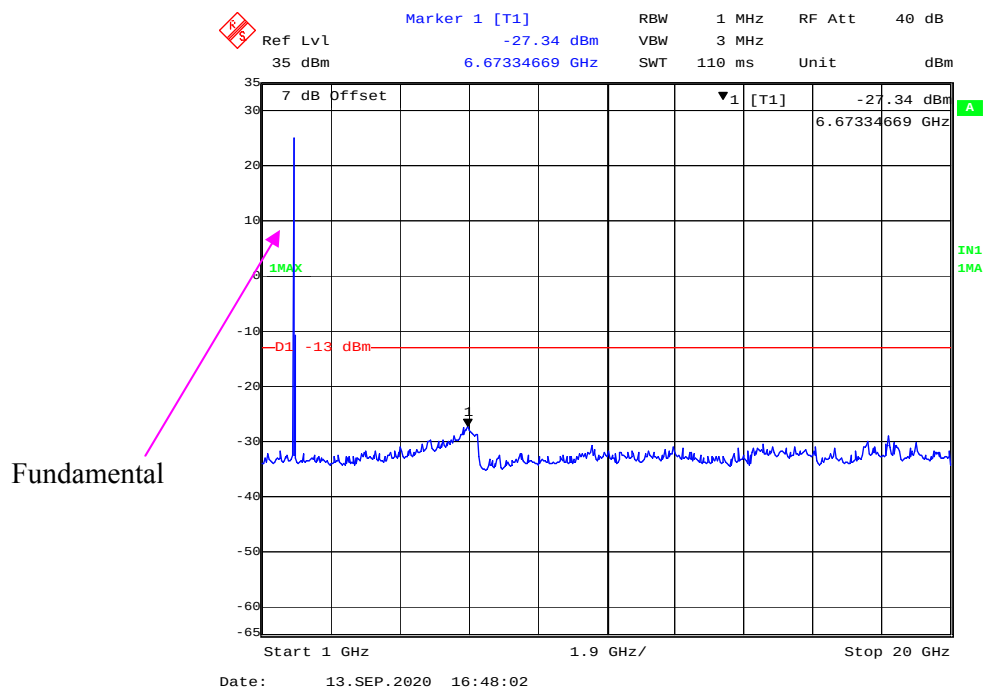
30 MHz – 1GHz WCDMA (Rel 99) Mode, Middle channel**1 GHz – 20 GHz WCDMA (Rel 99) Mode, Middle channel**

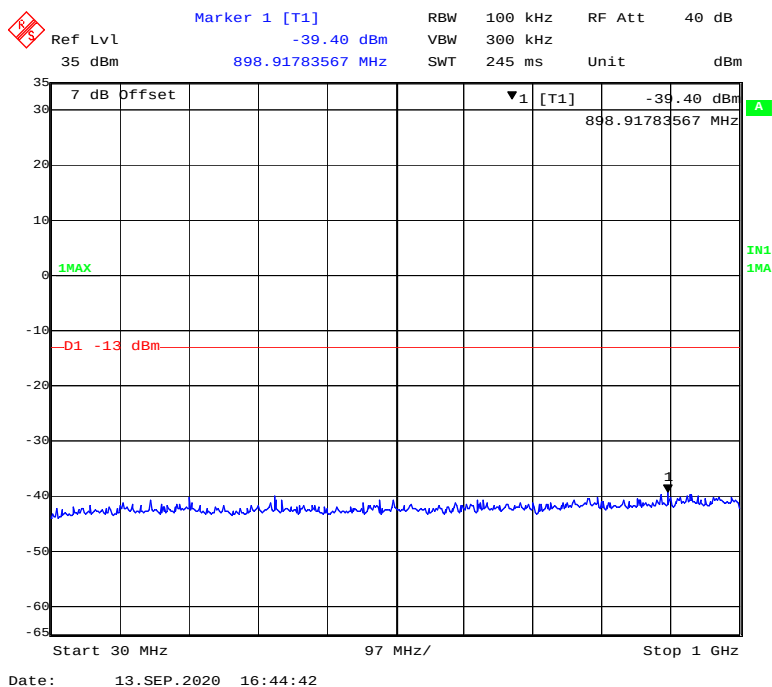
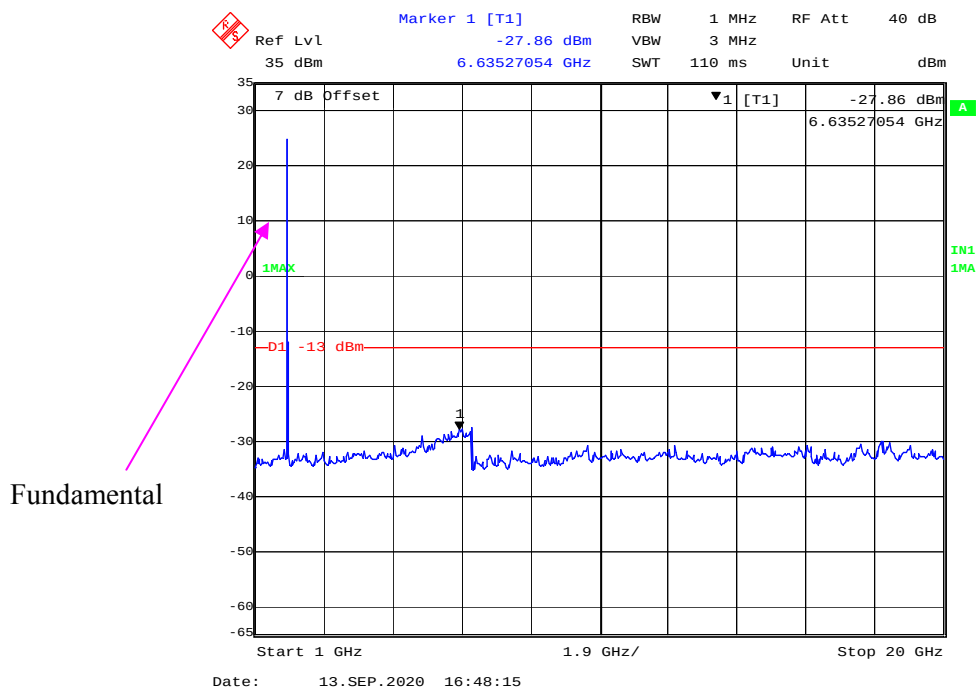
30 MHz – 1GHz WCDMA (HSDPA) Mode, Middle channel**1 GHz – 20 GHz WCDMA (HSDPA) Mode, Middle channel**

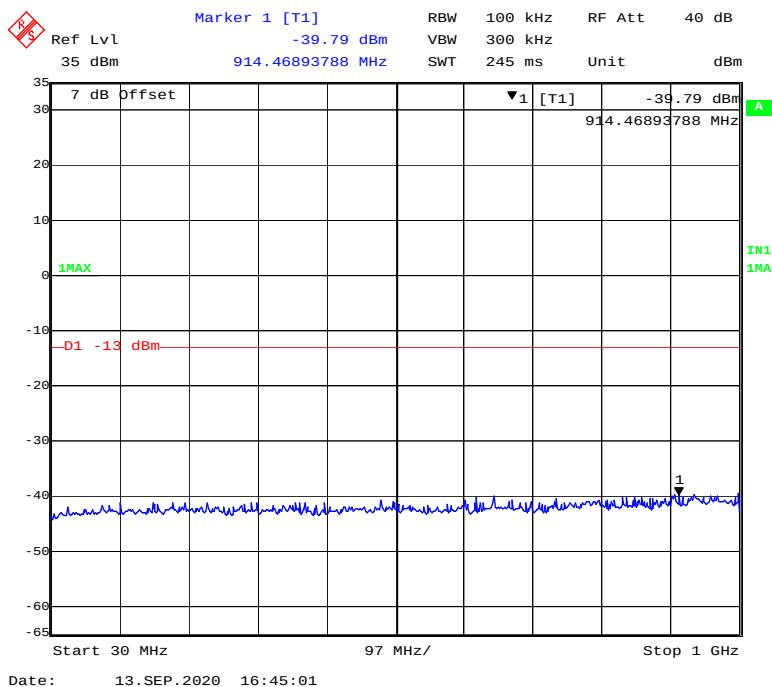
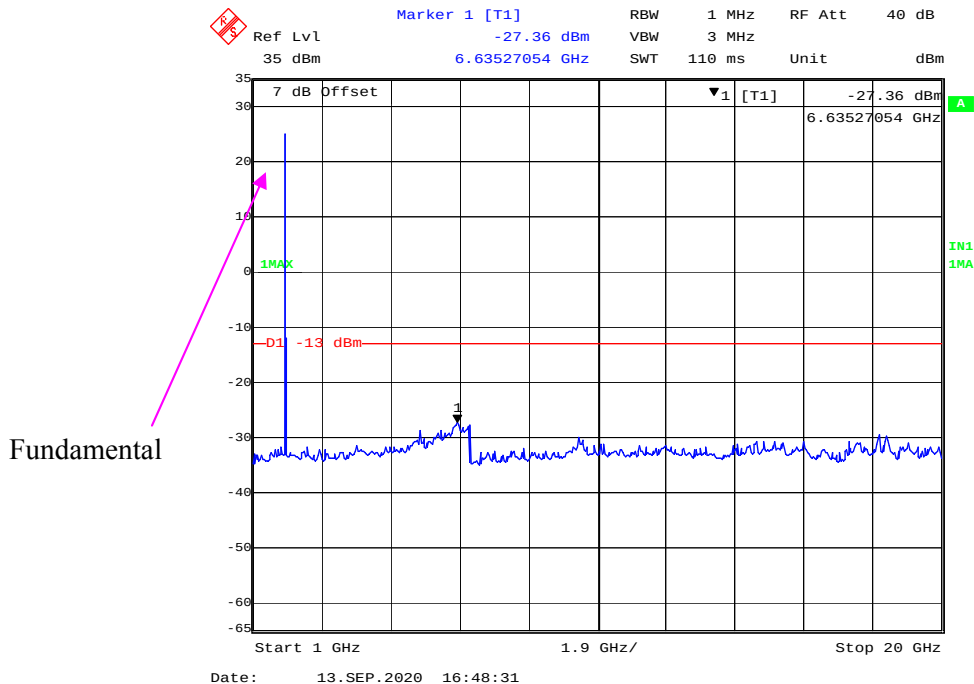
30 MHz – 1GHz WCDMA (HSUPA) Mode, Middle channel**1 GHz – 20 GHz WCDMA (HSUPA) Mode, Middle channel**

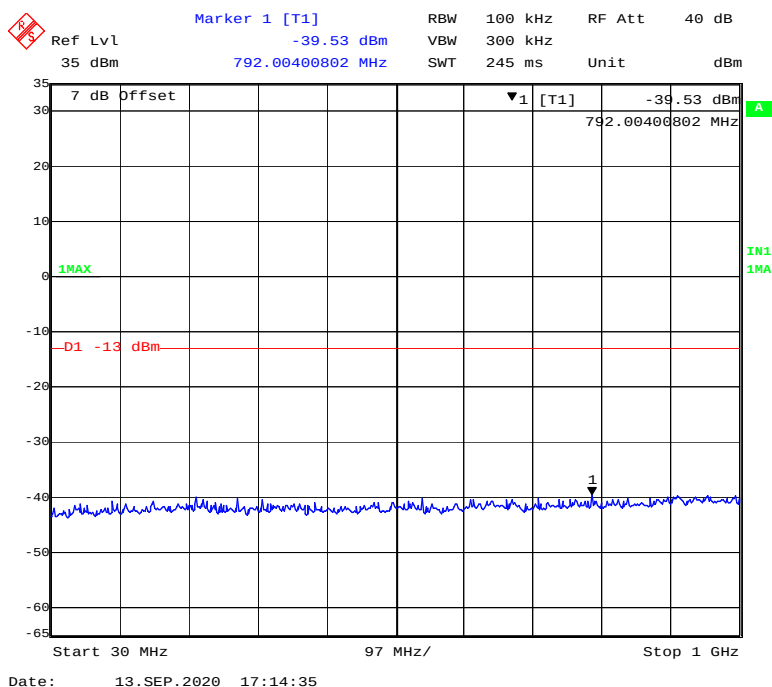
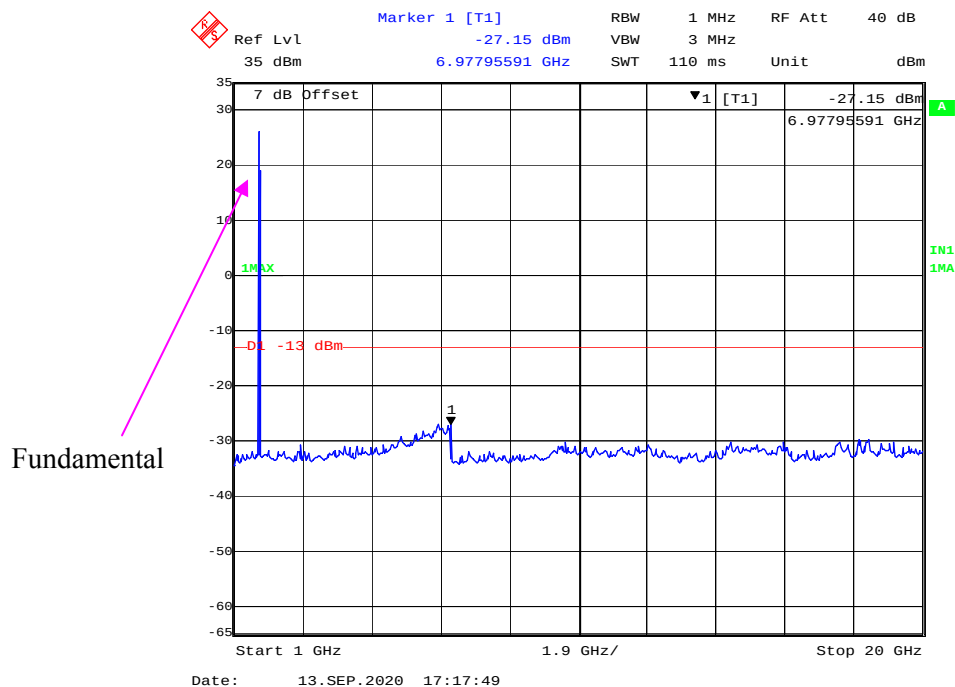
30 MHz – 1GHz WCDMA (HSPA+) Mode, Middle channel**1 GHz – 20 GHz WCDMA (HSPA+) Mode, Middle channel**

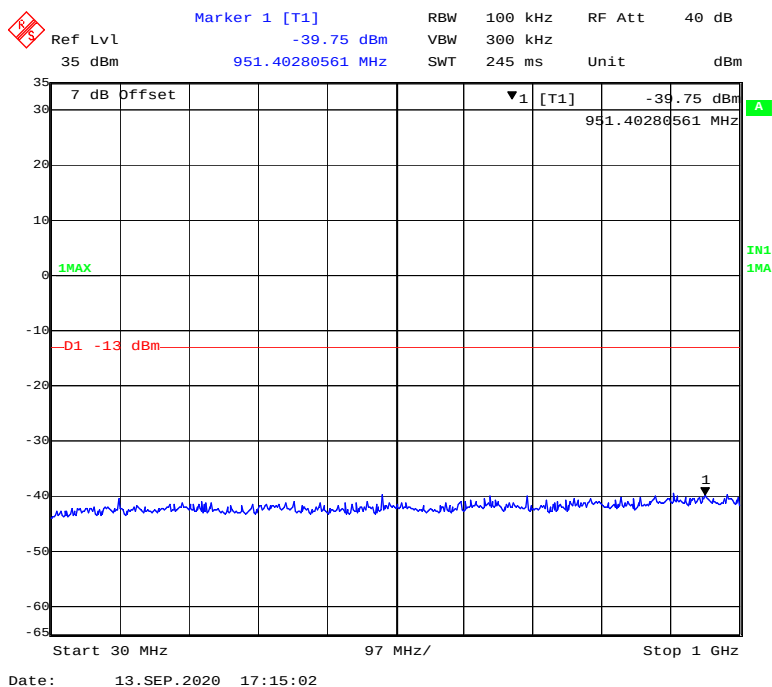
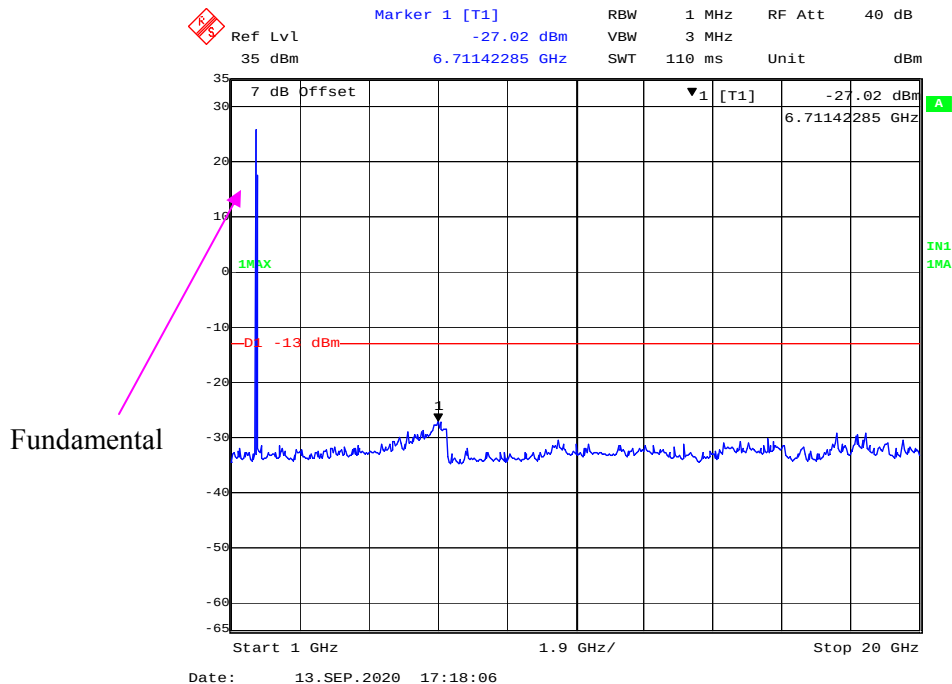
30 MHz – 1GHz WCDMA (Rel 99) Mode, High channel**1 GHz – 20 GHz WCDMA (Rel 99) Mode, High channel**

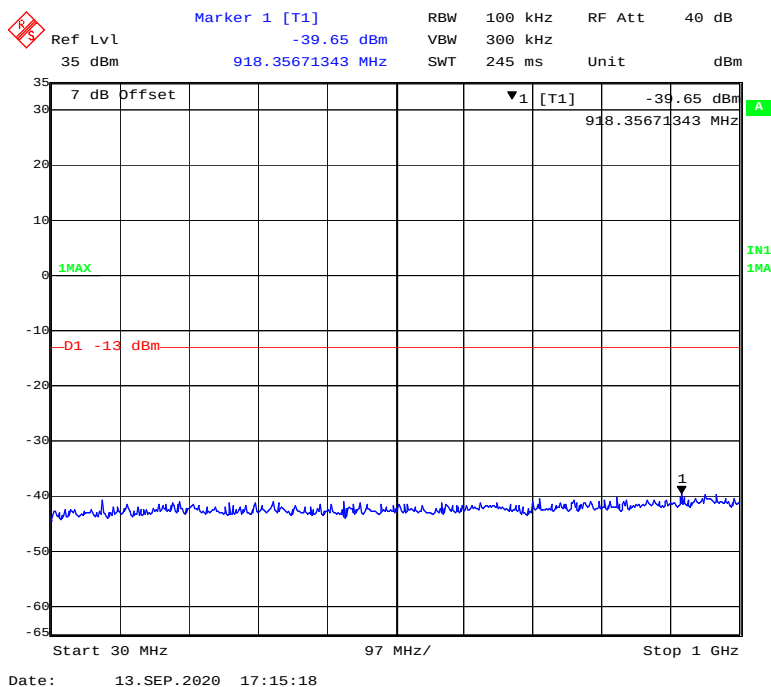
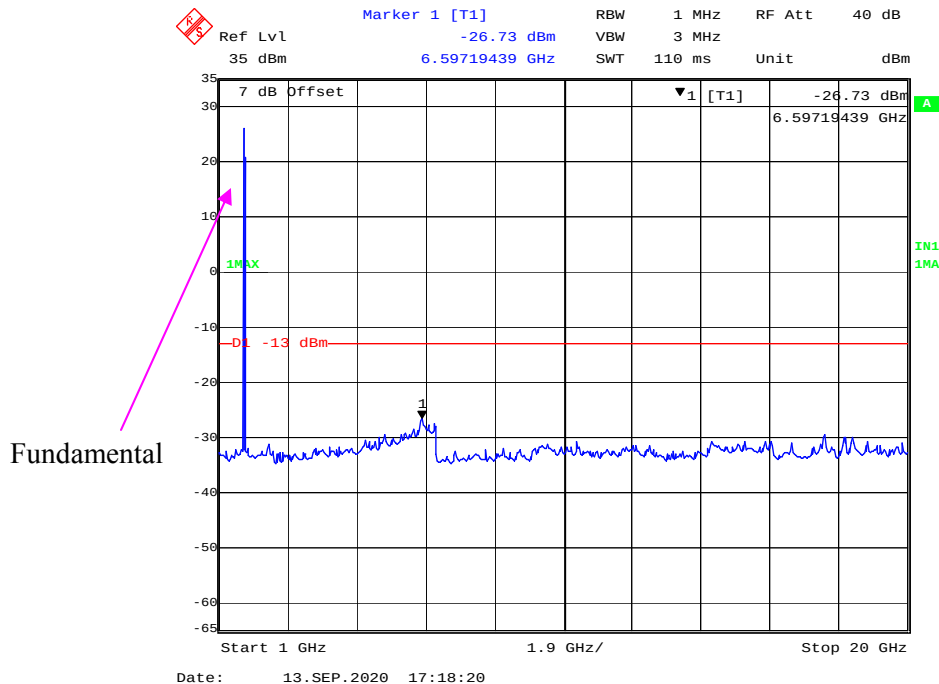
30 MHz – 1GHz WCDMA (HSDPA) Mode, High channel**1 GHz – 20 GHz WCDMA (HSDPA) Mode, High channel**

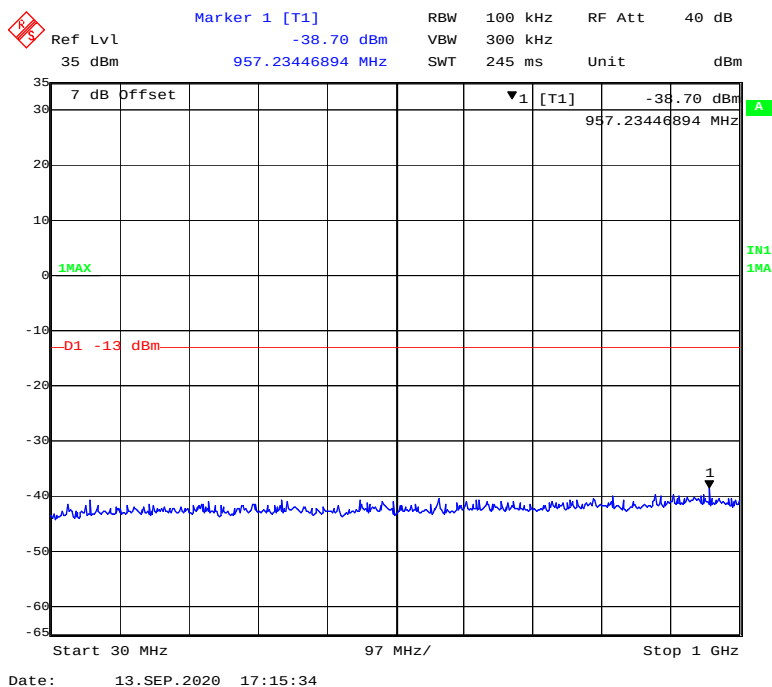
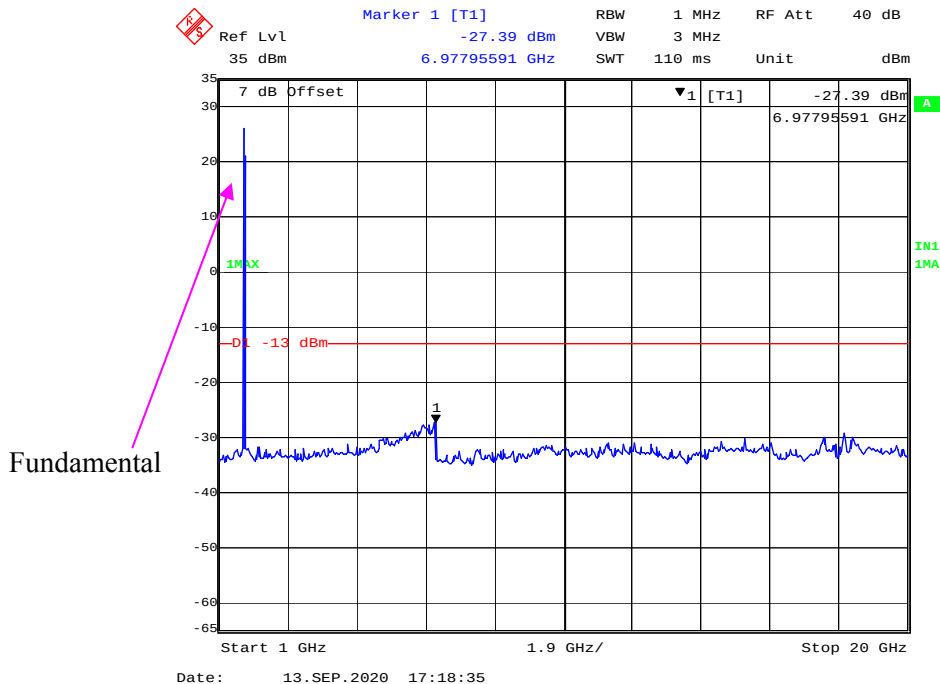
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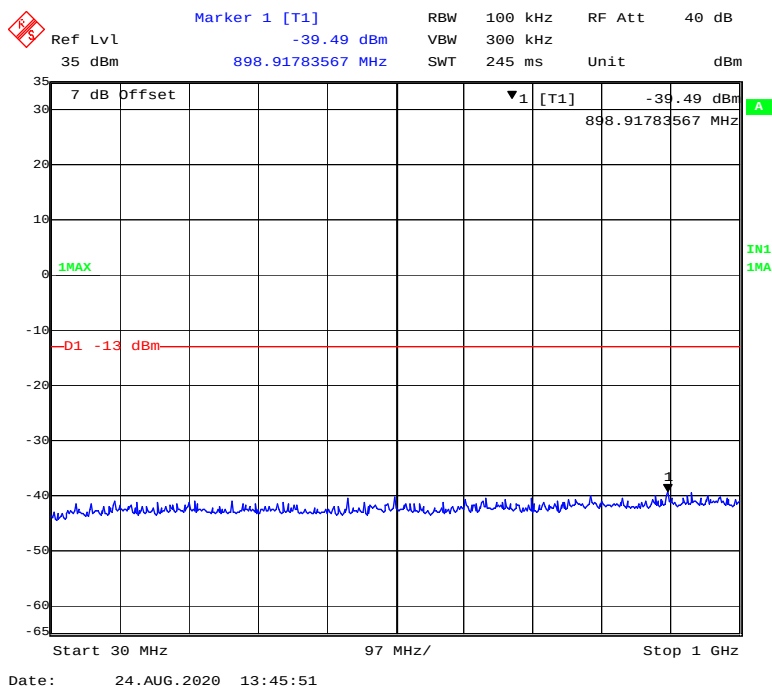
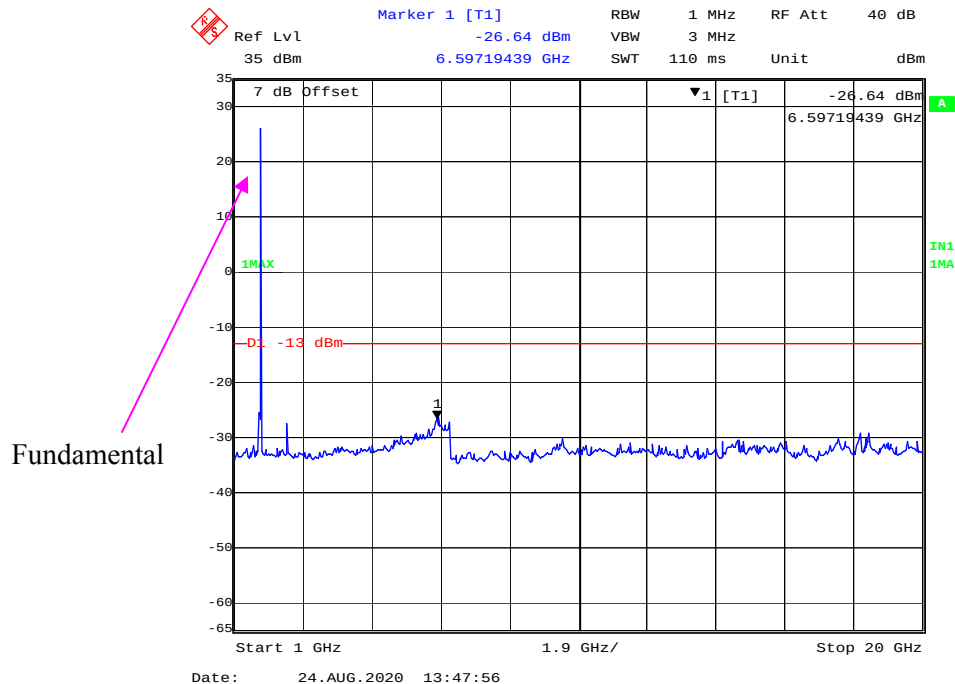
30 MHz – 1GHz WCDMA (HSPA+) Mode, High channel**1 GHz – 20 GHz WCDMA (HSPA+) Mode, High channel**

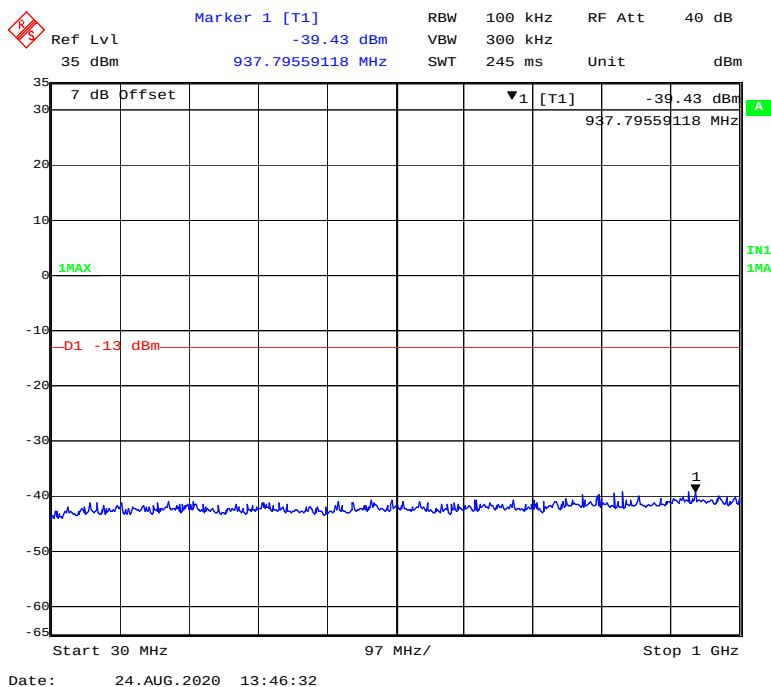
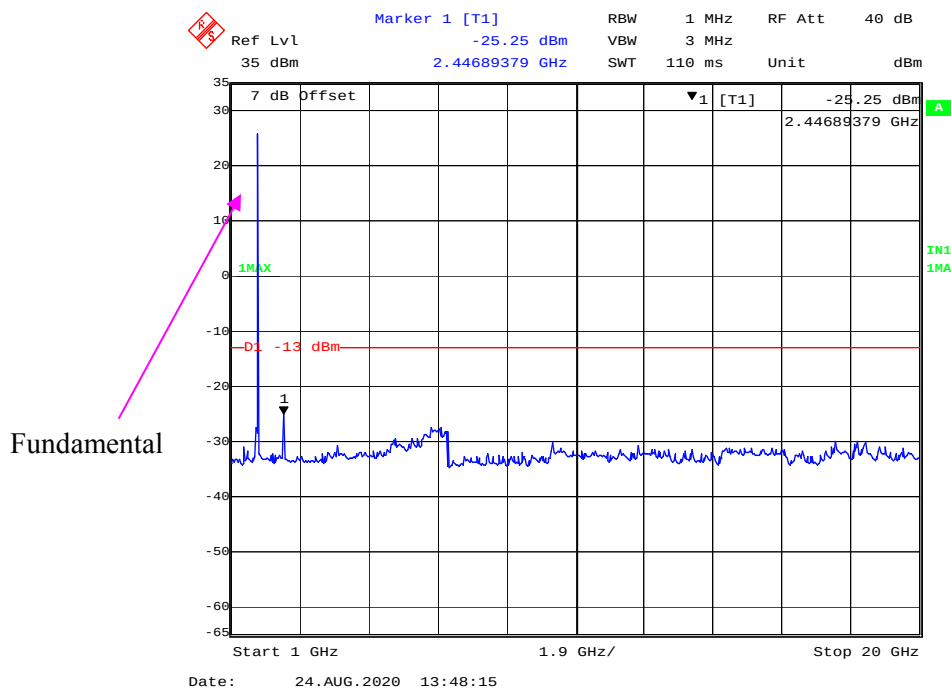
WCDMA Band IV:**30 MHz – 1GHz WCDMA (Rel 99) Mode, Low channel****1 GHz – 20 GHz WCDMA (Rel 99) Mode, Low channel**

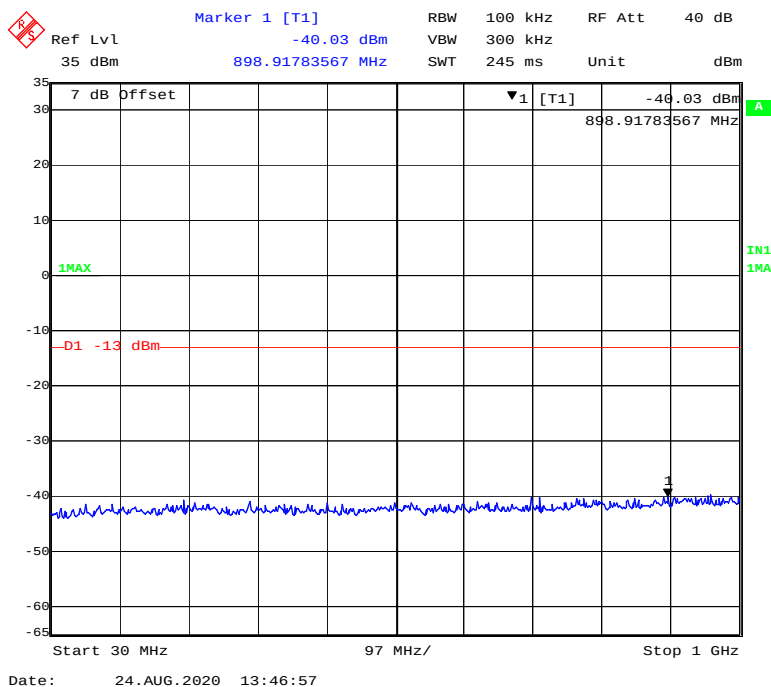
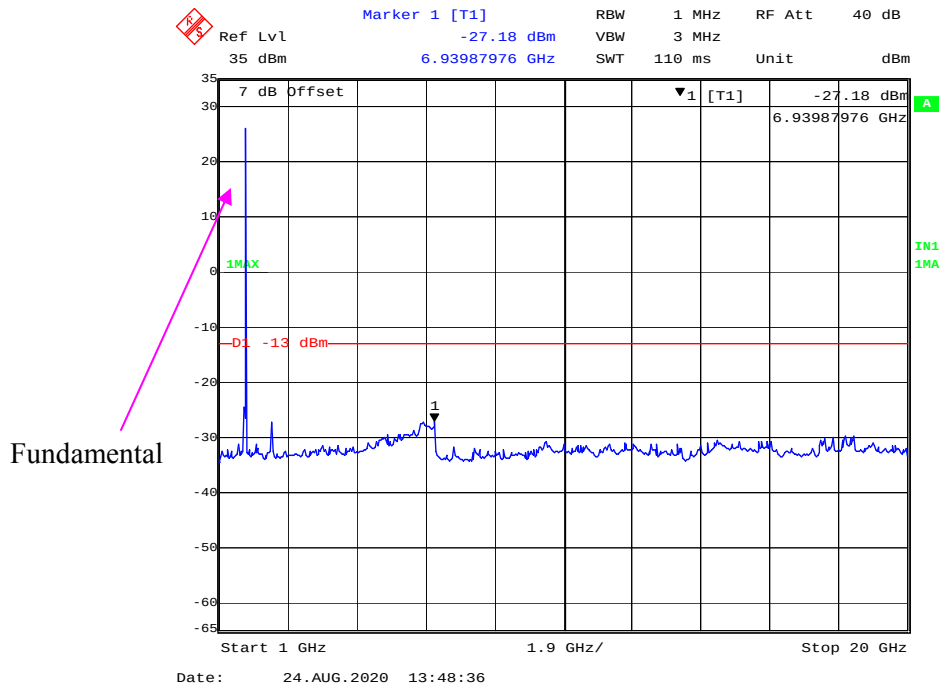
30 MHz – 1GHz WCDMA (HSDPA) Mode, Low channel**1 GHz – 20 GHz WCDMA (HSDPA) Mode, Low channel**

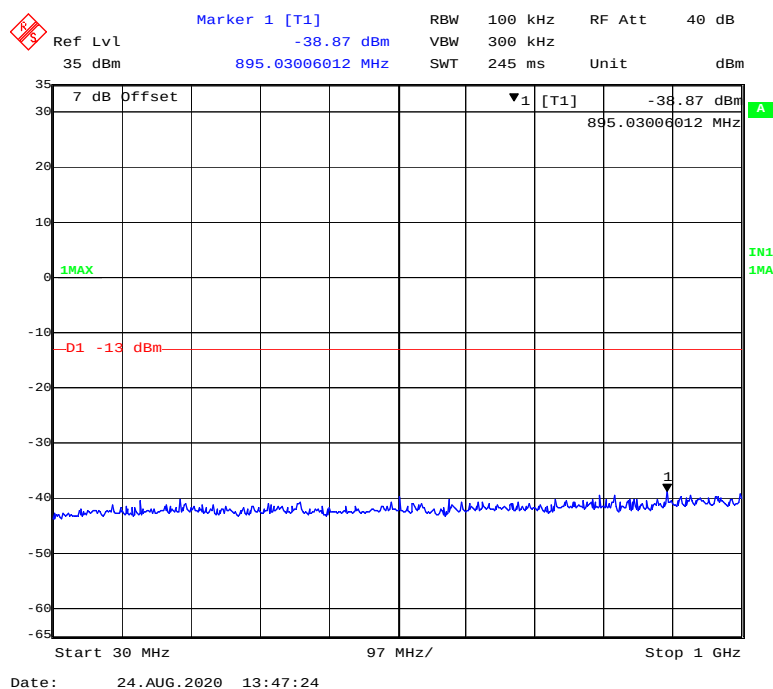
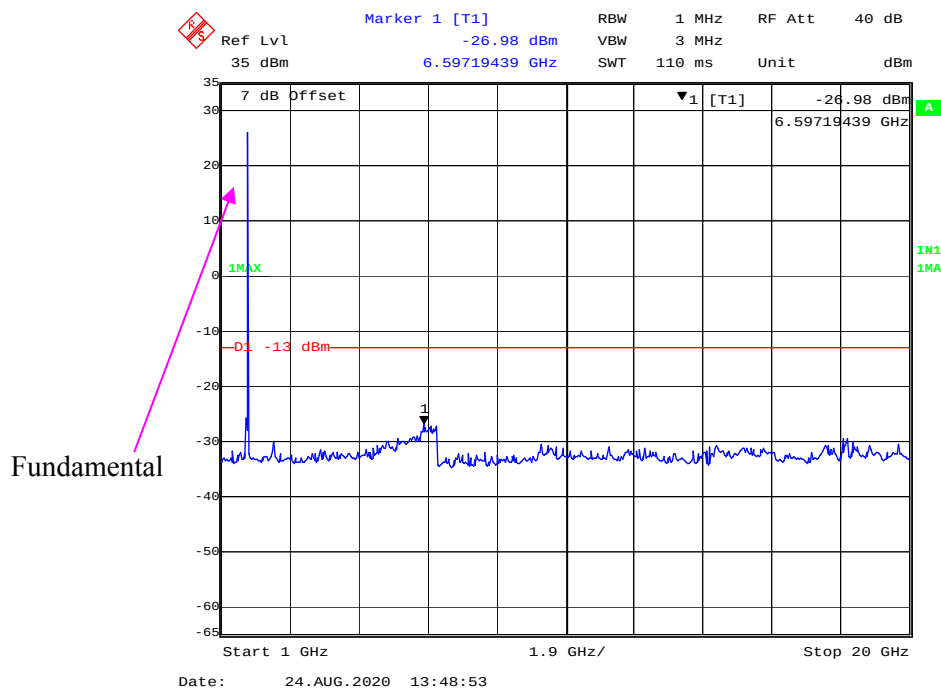
30 MHz – 1GHz WCDMA (HSUPA) Mode, Low channel**1 GHz – 20 GHz WCDMA (HSUPA) Mode, Low channel**

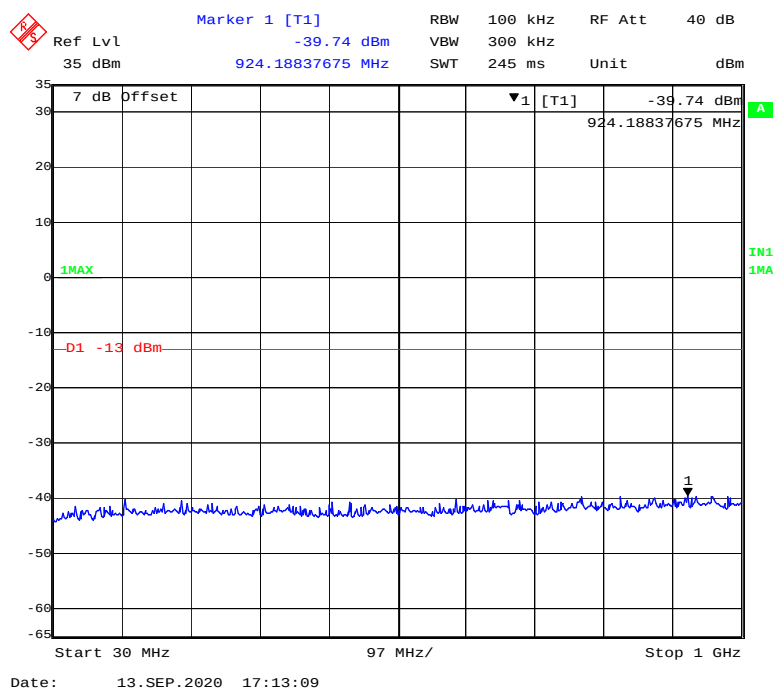
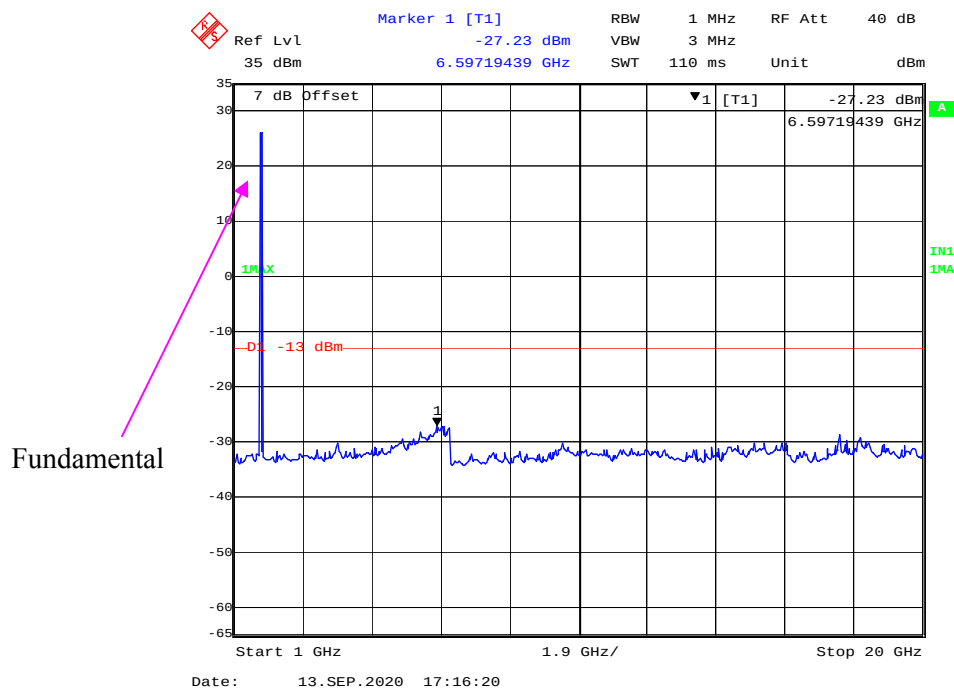
30 MHz – 1GHz WCDMA (HSPA+) Mode, Low channel**1 GHz – 20 GHz WCDMA (HSPA+) Mode, Low channel**

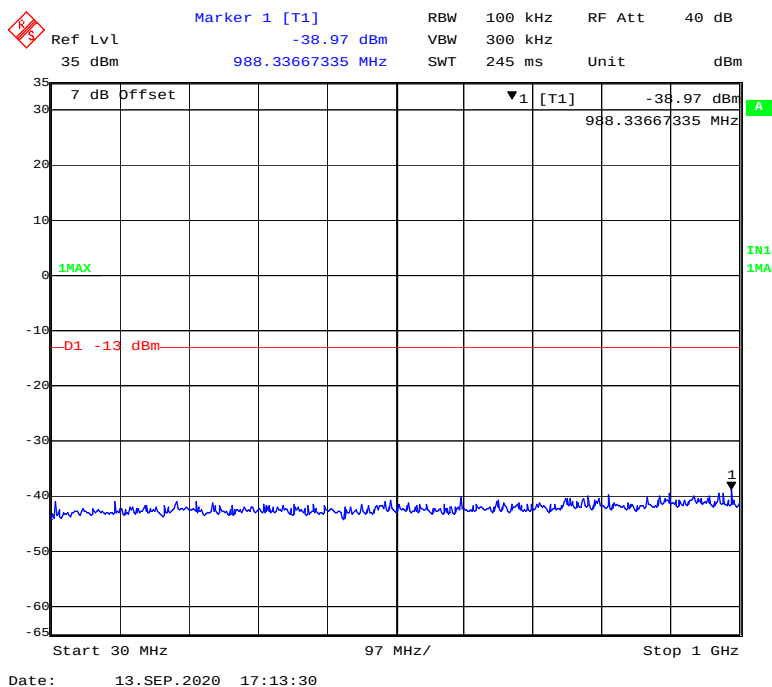
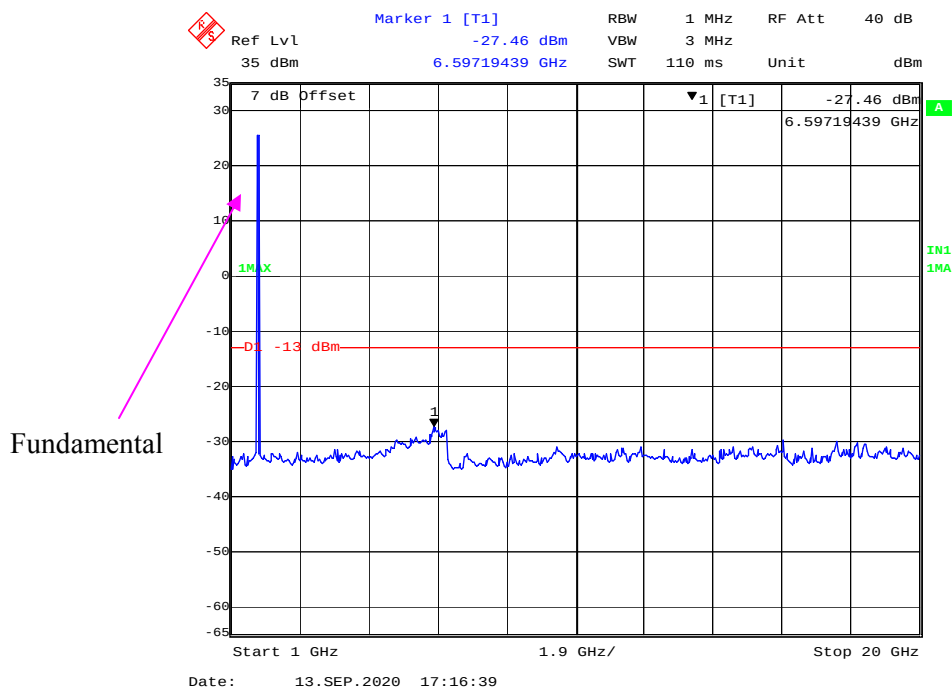
30 MHz – 1GHz WCDMA (Rel 99) Mode, Middle channel**1 GHz – 20 GHz WCDMA (Rel 99) Mode, Middle channel**

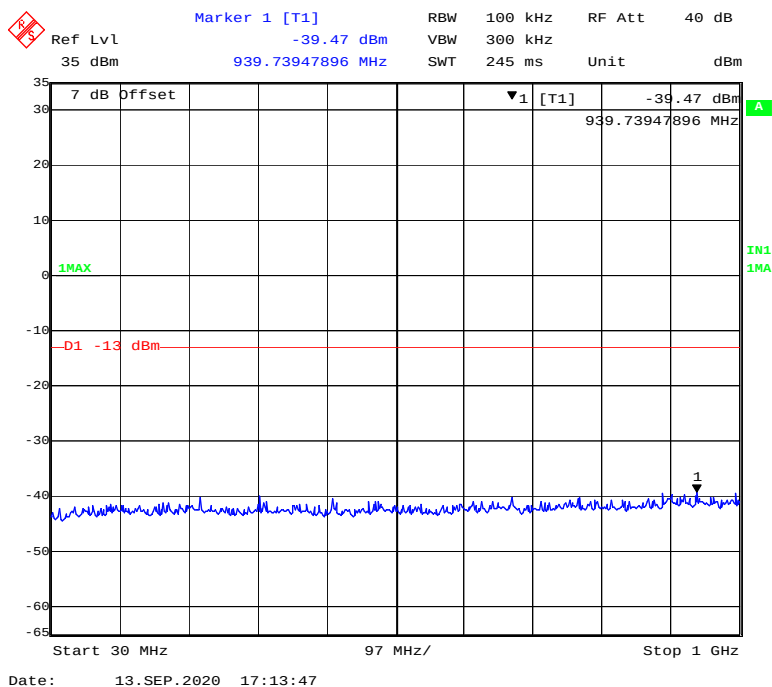
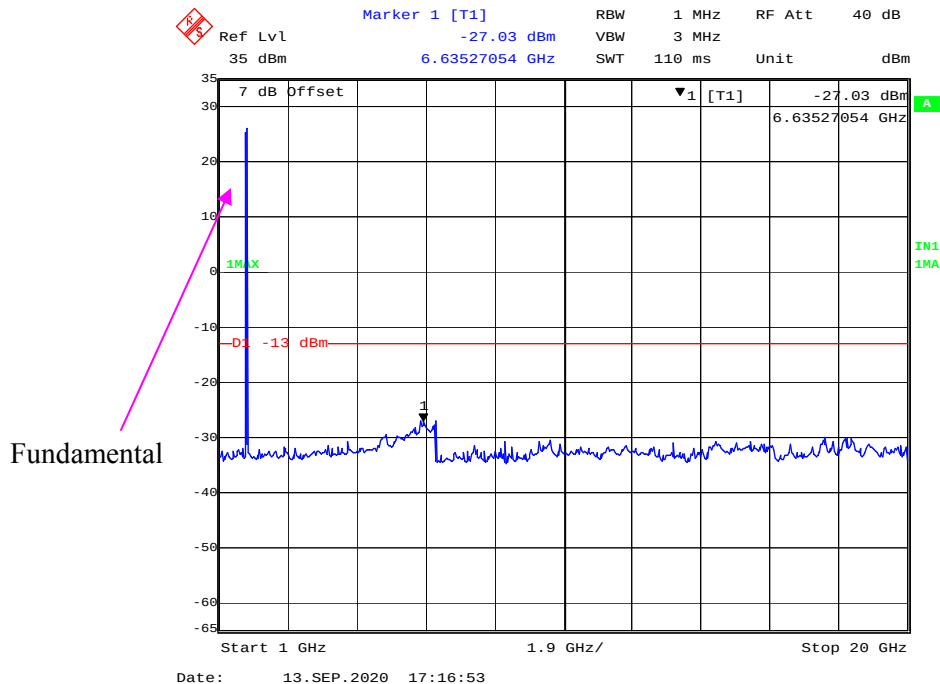
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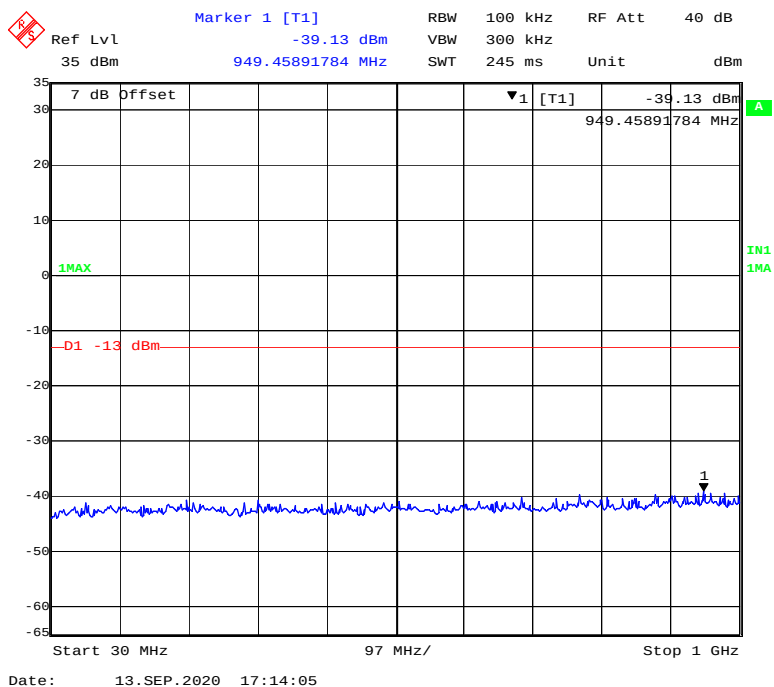
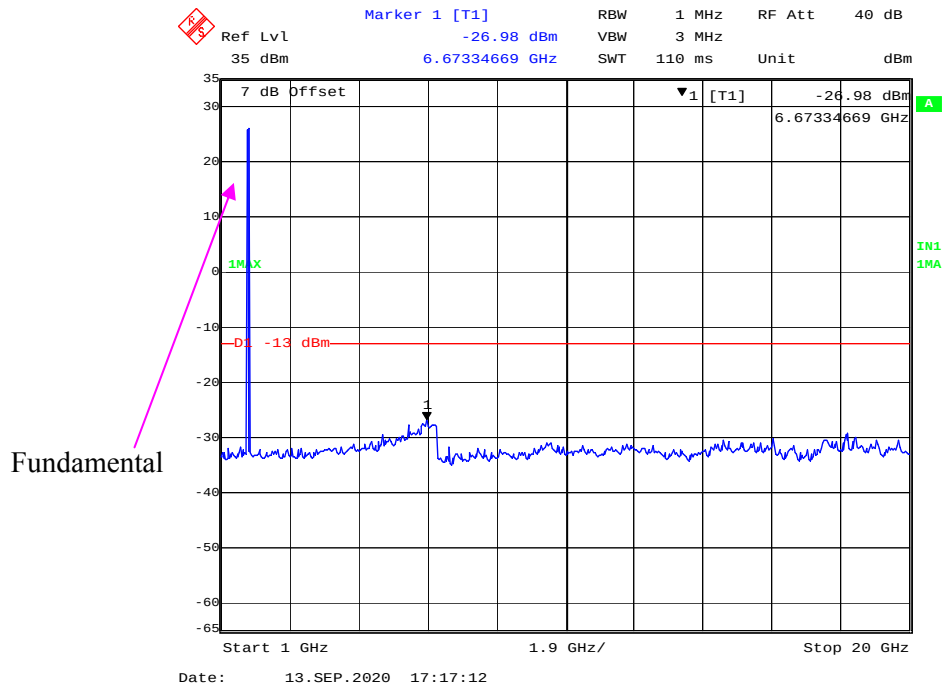
30 MHz – 1GHz WCDMA (HSUPA) Mode, Middle channel**1 GHz – 20 GHz WCDMA (HSUPA) Mode, Middle channel**

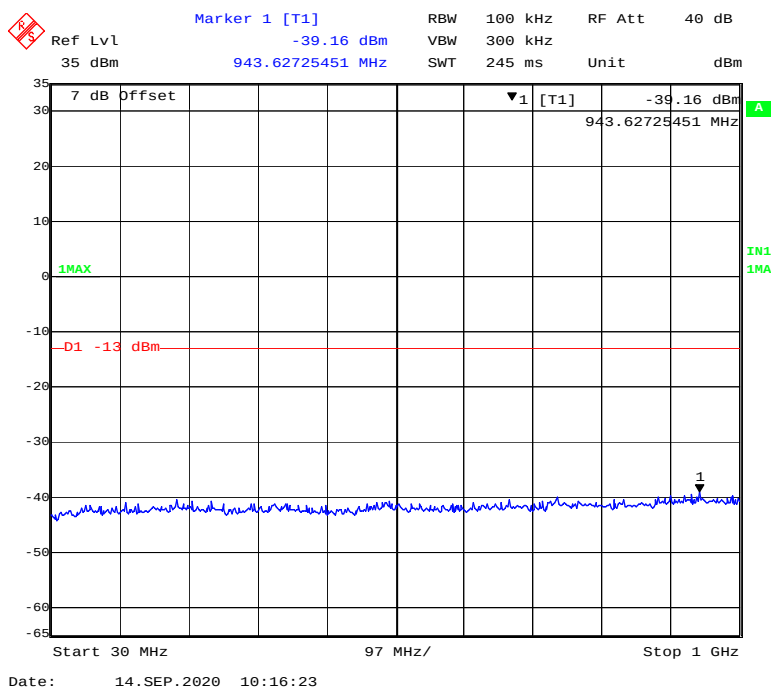
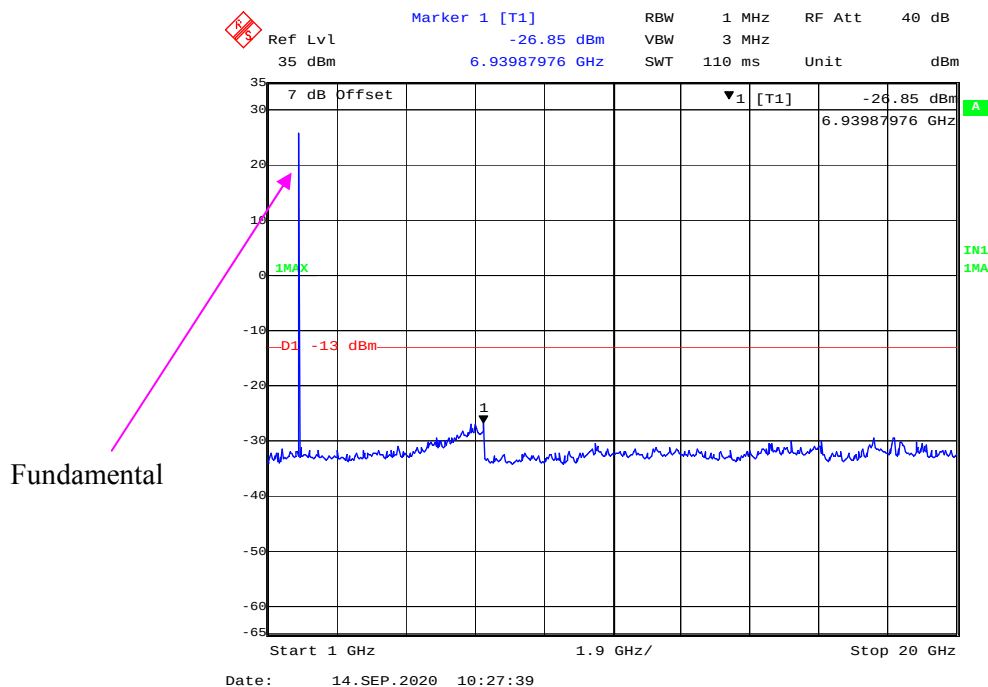
30 MHz – 1GHz WCDMA (HSPA+) Mode, Middle channel**1 GHz – 20 GHz WCDMA (HSPA+) Mode, Middle channel**

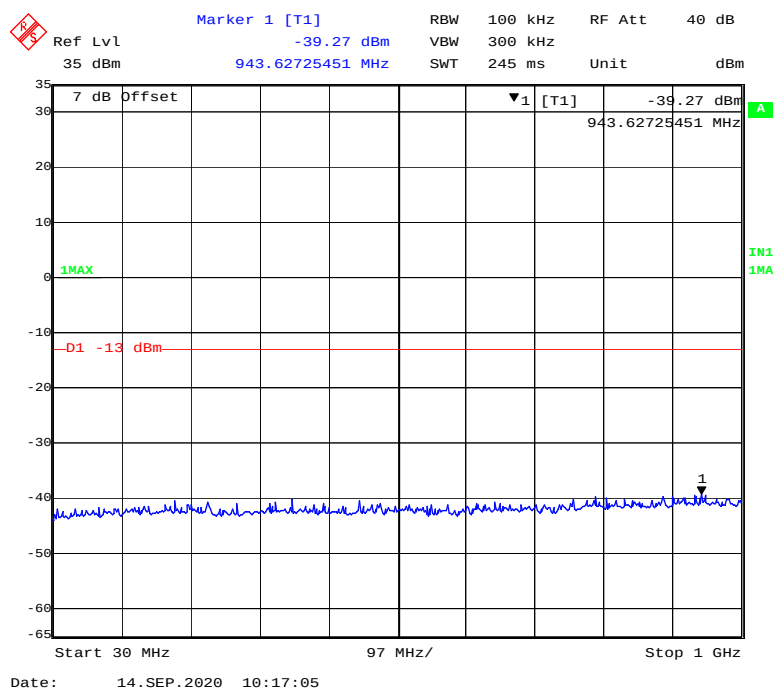
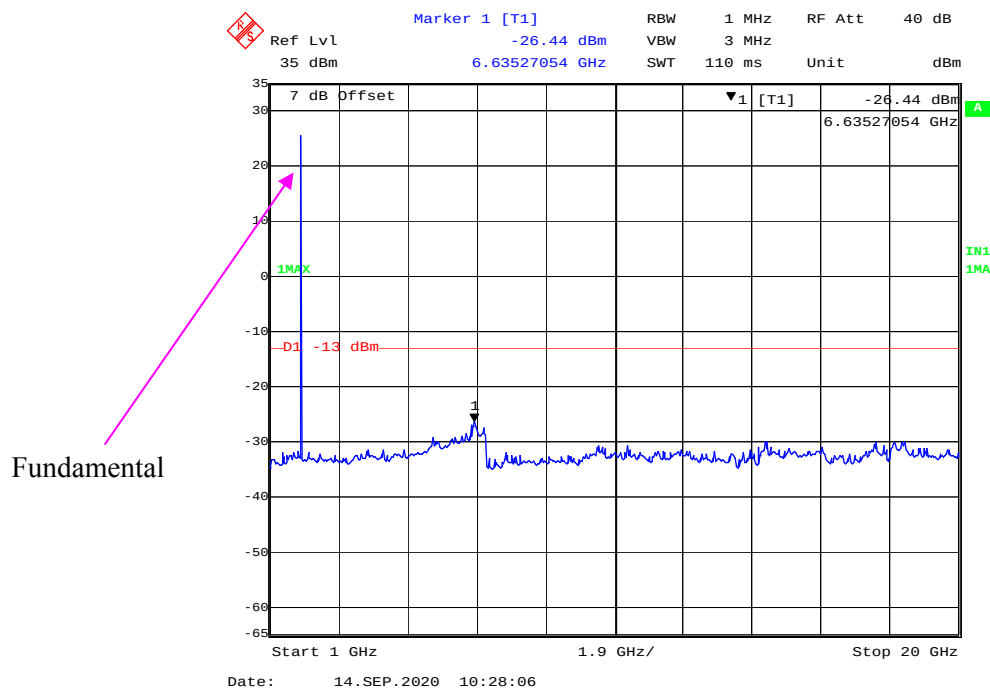
30 MHz – 1GHz WCDMA (Rel 99) Mode, High channel**1 GHz – 20 GHz WCDMA (Rel 99) Mode, High channel**

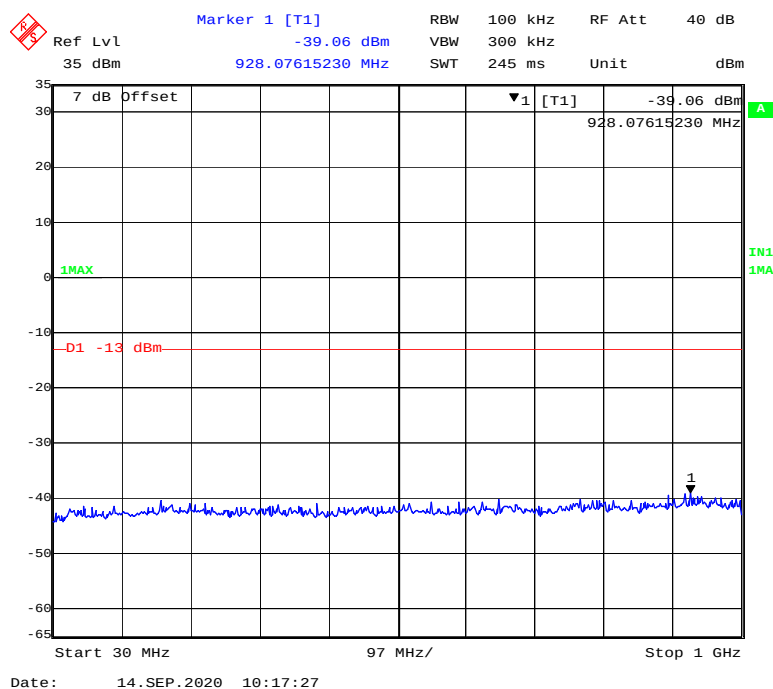
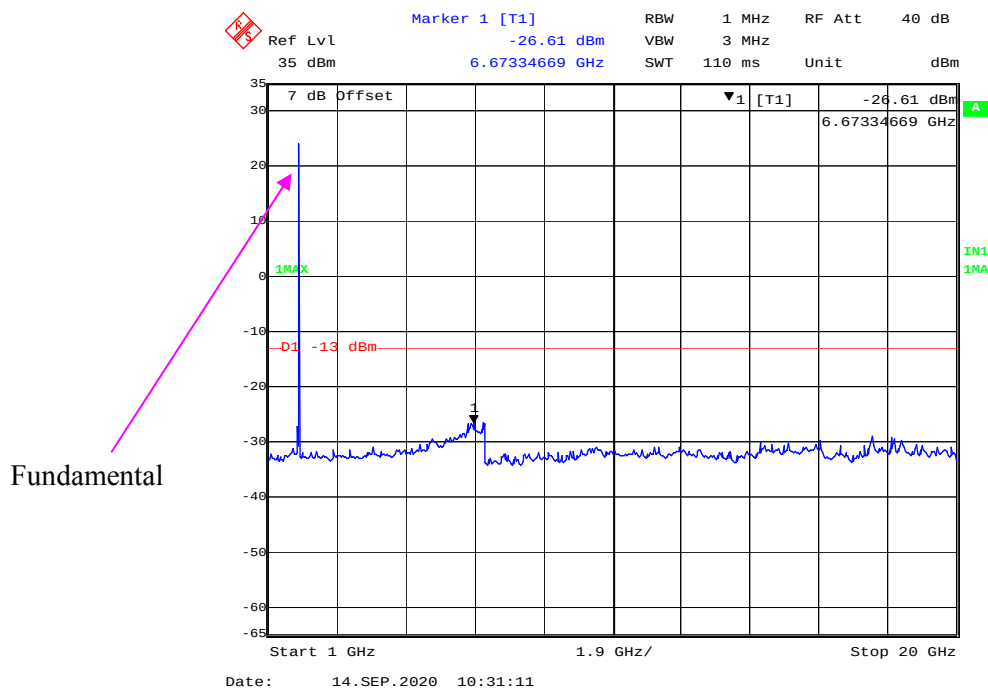
30 MHz – 1GHz WCDMA (HSDPA) Mode, High channel**1 GHz – 20 GHz WCDMA (HSDPA) Mode, High channel**

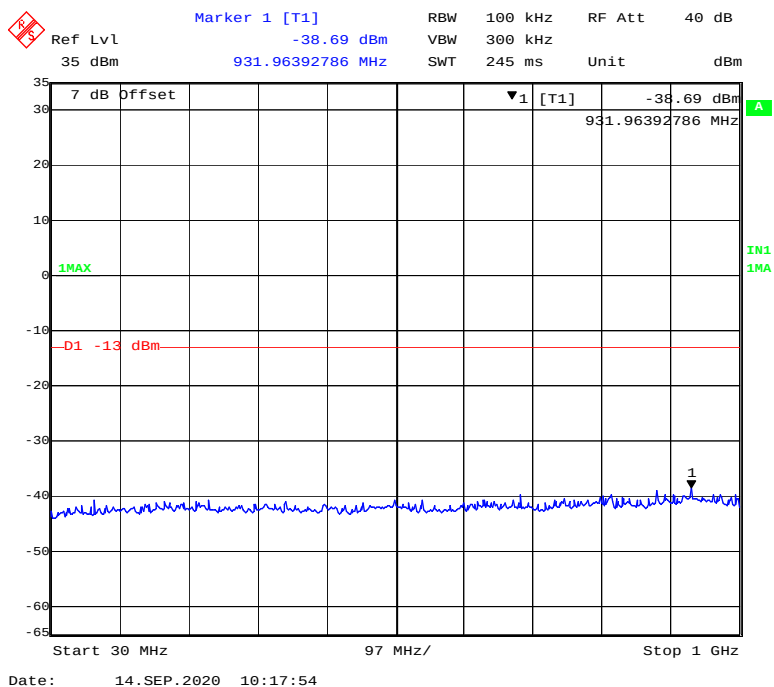
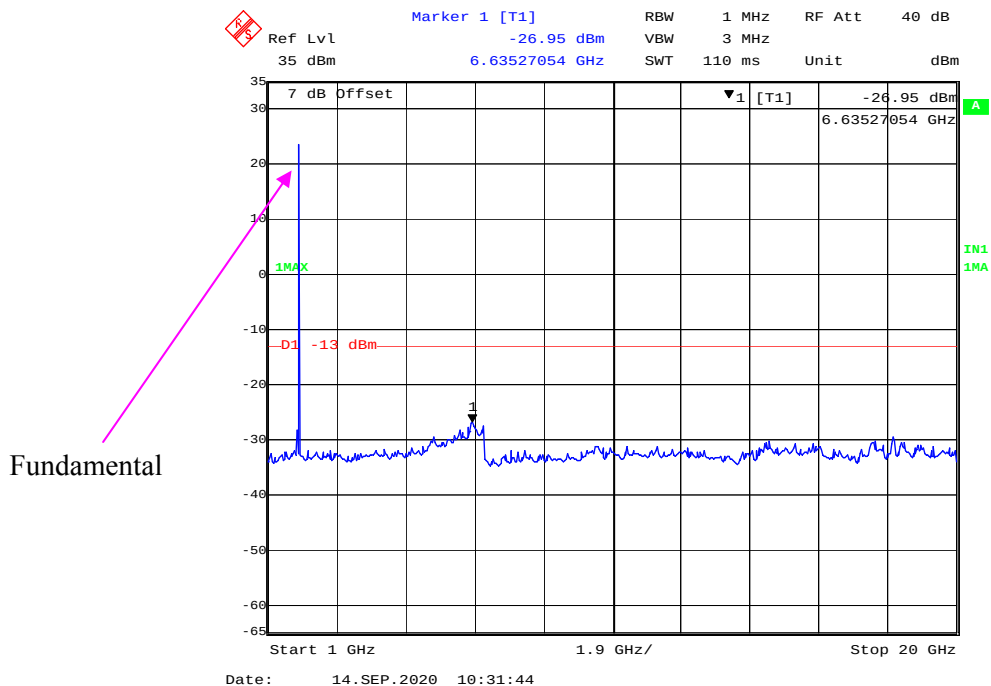
30 MHz – 1GHz WCDMA (HSUPA) Mode, High channel**1 GHz – 20 GHz WCDMA (HSUPA) Mode, High channel**

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

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)**

[illegible]

Ref Lvl 35 dBm

Marker 1 [T1] -26.57 dBm

RBW 1 MHz RF Att 40 dB

VBW 3 MHz

SWT 110 ms Unit dBm

7 dB Offset

▼1 [T1] -26.57 dBm

6.63527054 GHz

1MAX

-13 dBm

1

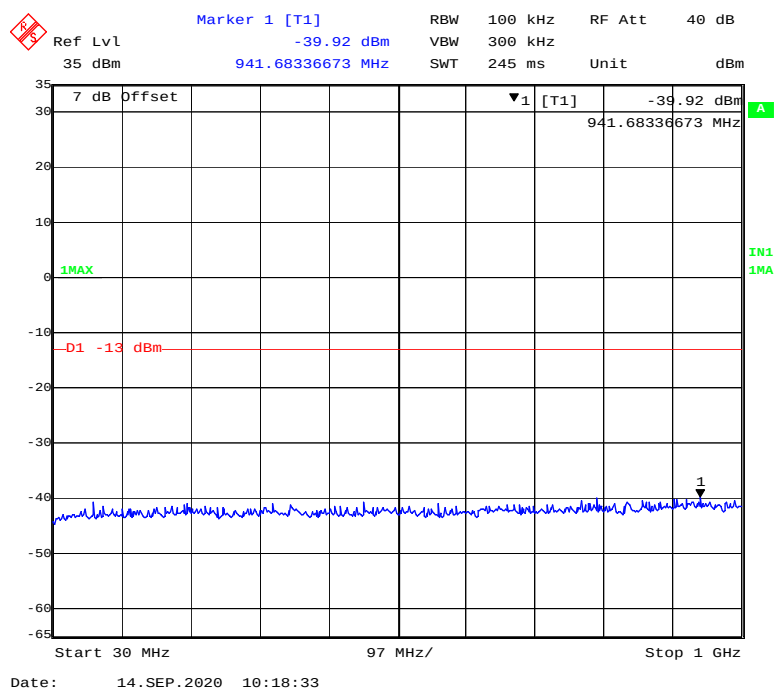
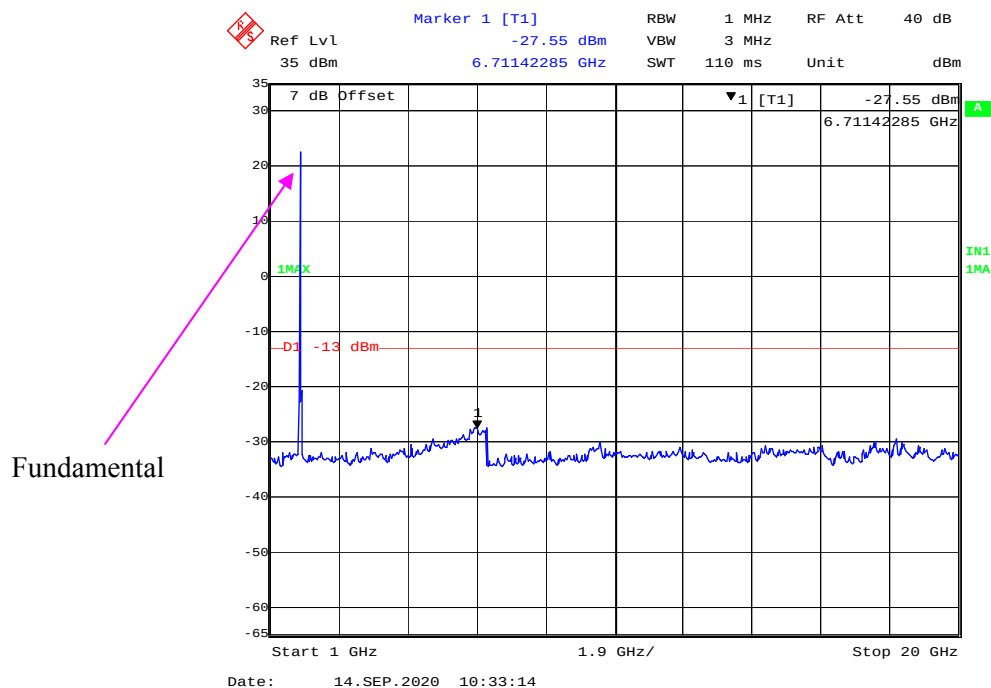
Start 1 GHz

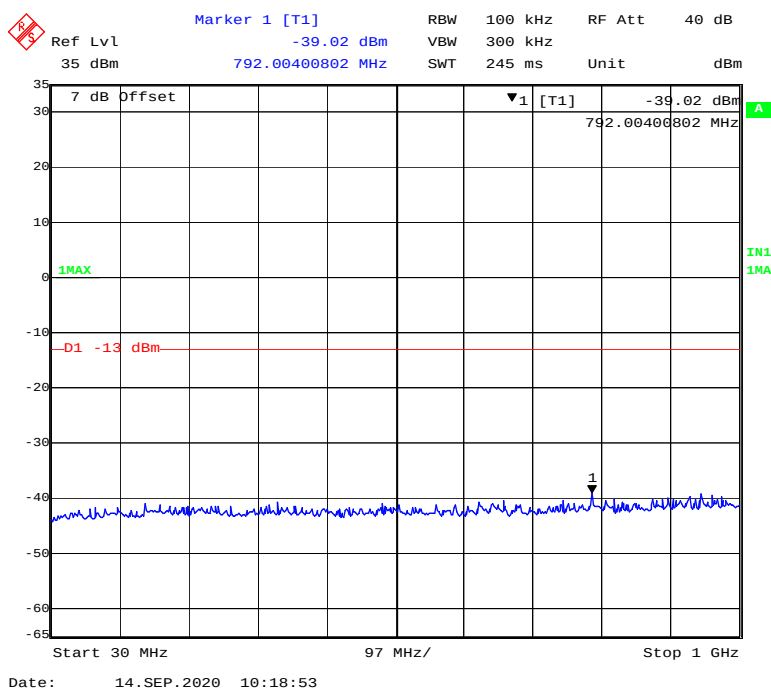
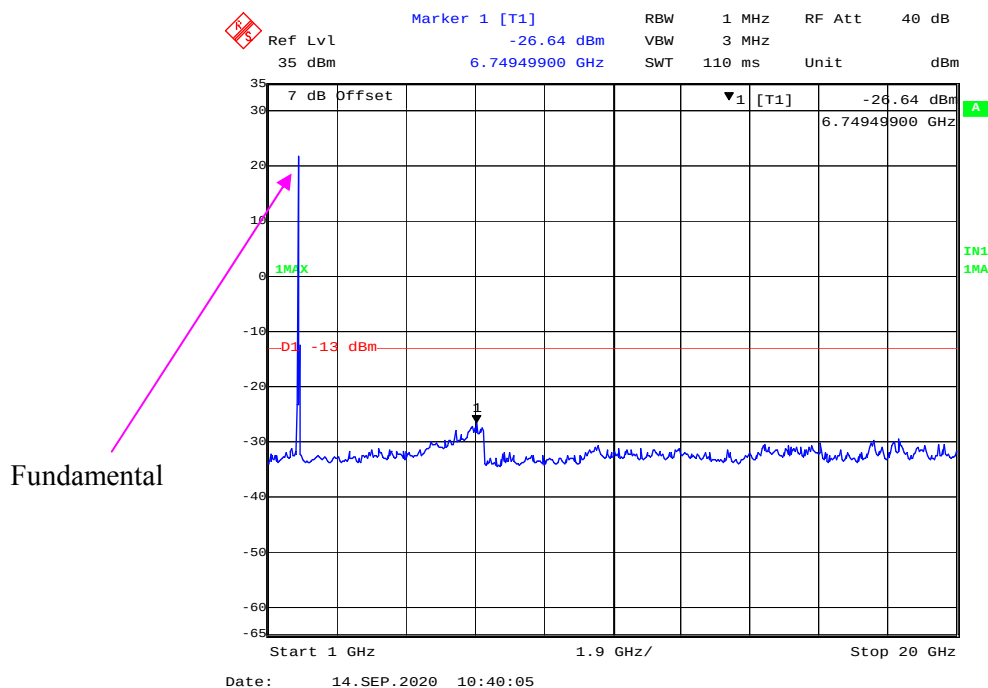
1.9 GHz/

Stop 20 GHz

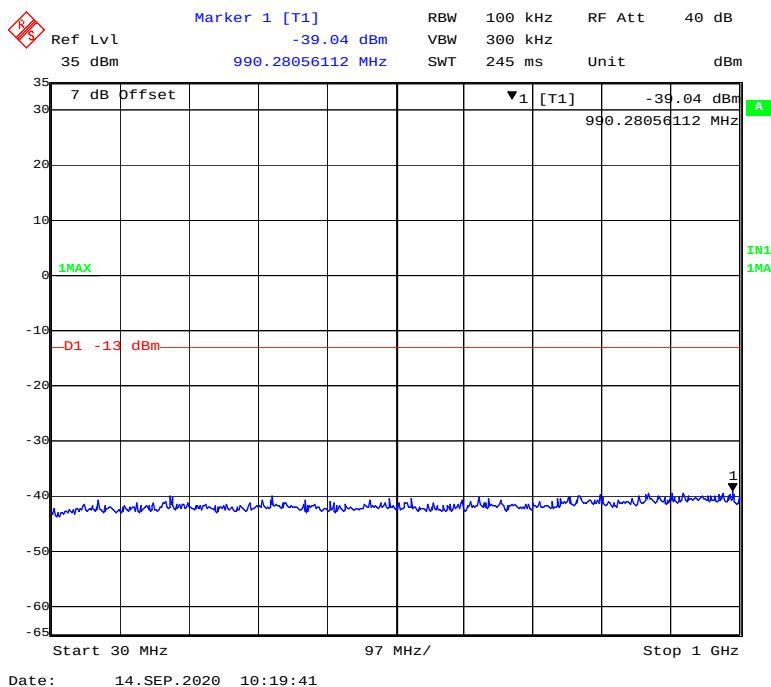
Date: 14.SEP.2020 10:32:48

Fundamental

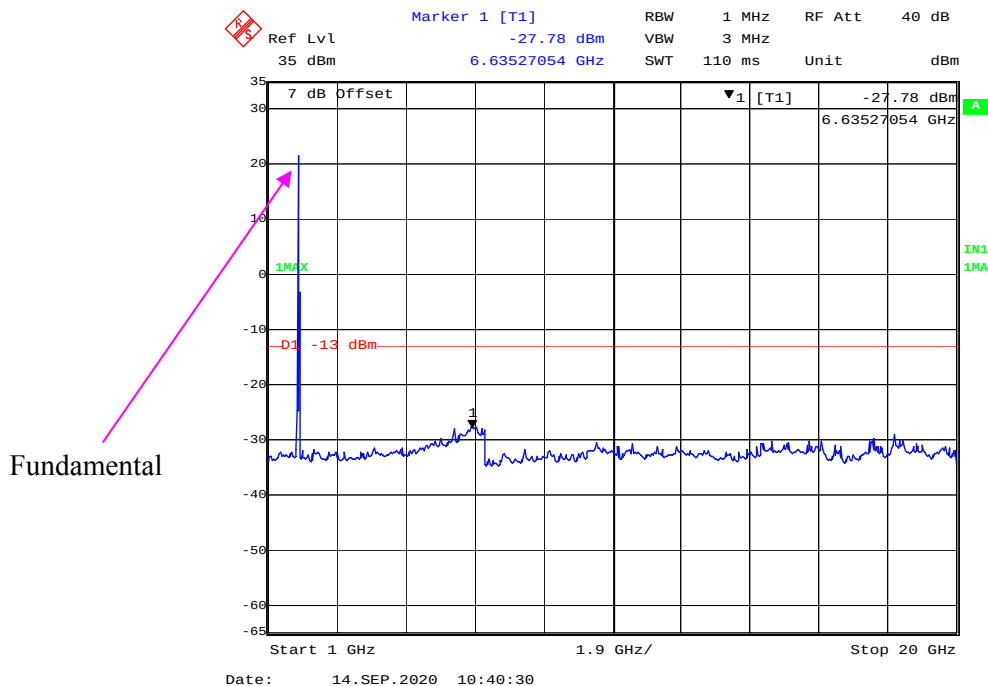
30 MHz - 1 GHz (5 MHz, 16-QAM, Low Channel)**1 GHz – 20 GHz (5 MHz, 16-QAM, Low Channel)**

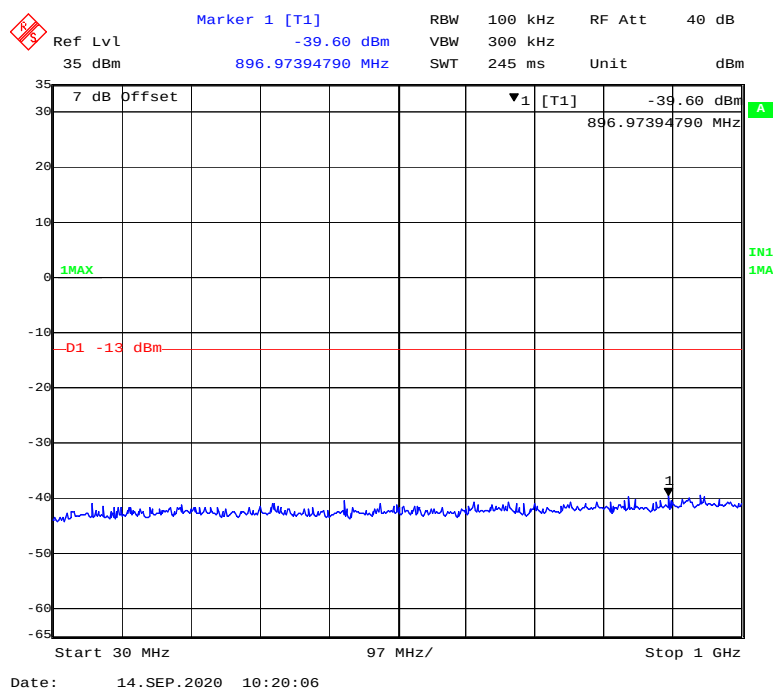
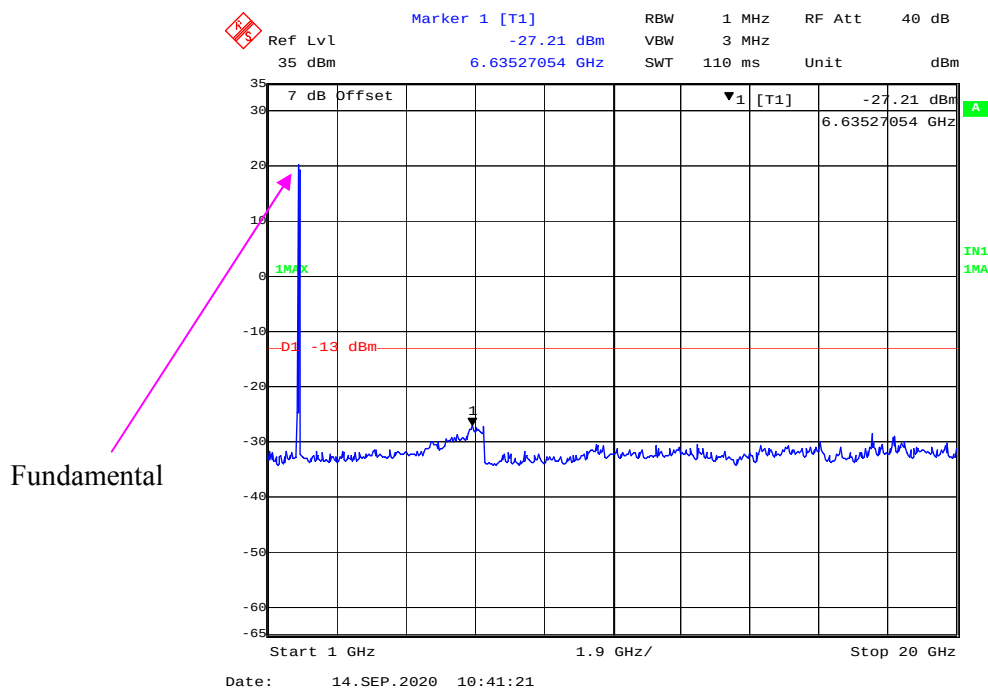
30 MHz - 1 GHz (10 MHz, QPSK, Low Channel)**1 GHz – 20 GHz (10 MHz, QPSK, Low Channel)**

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

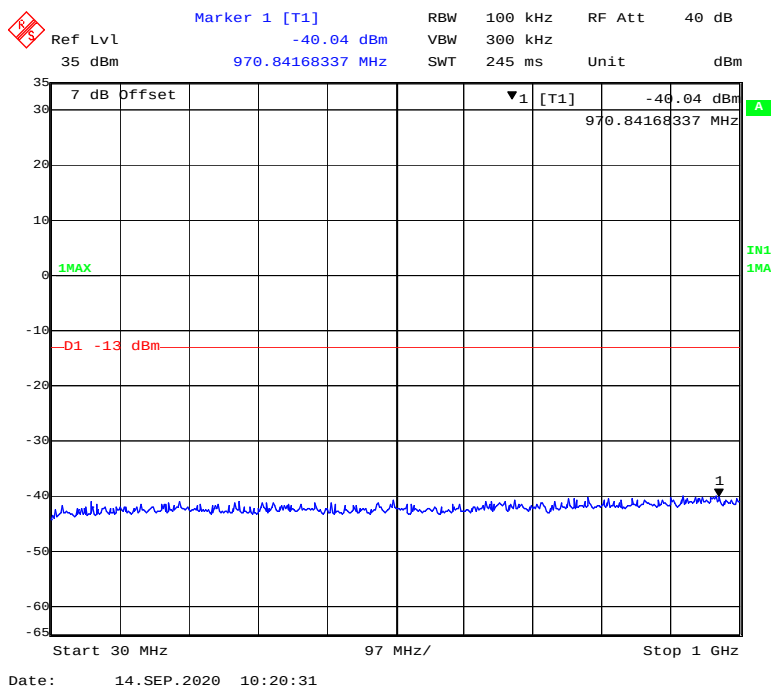


1 GHz – 20 GHz (10 MHz, 16-QAM, Low Channel)

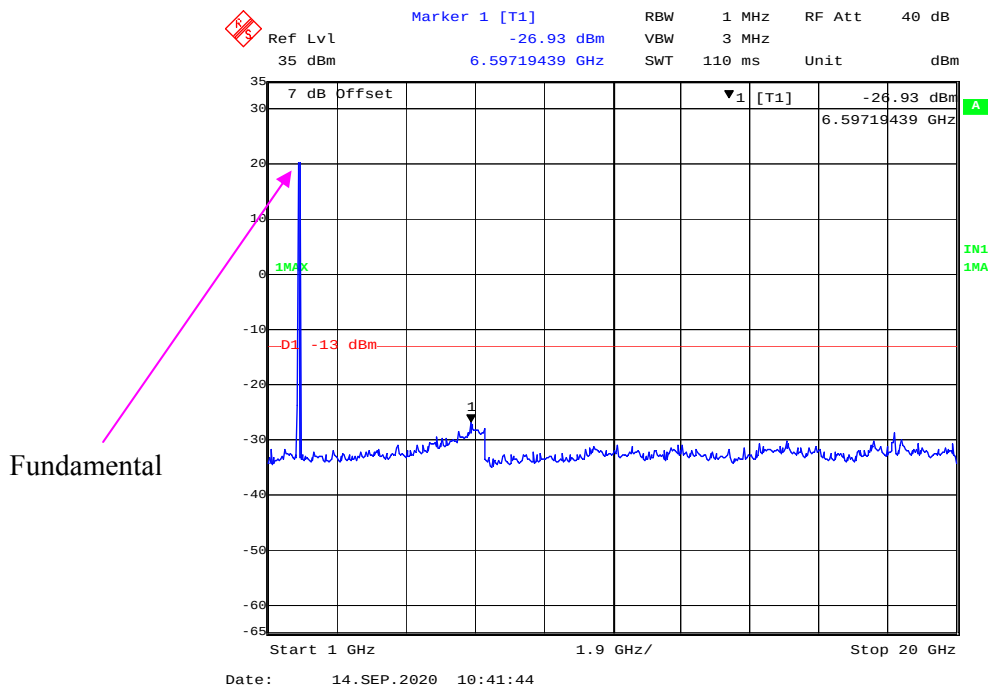


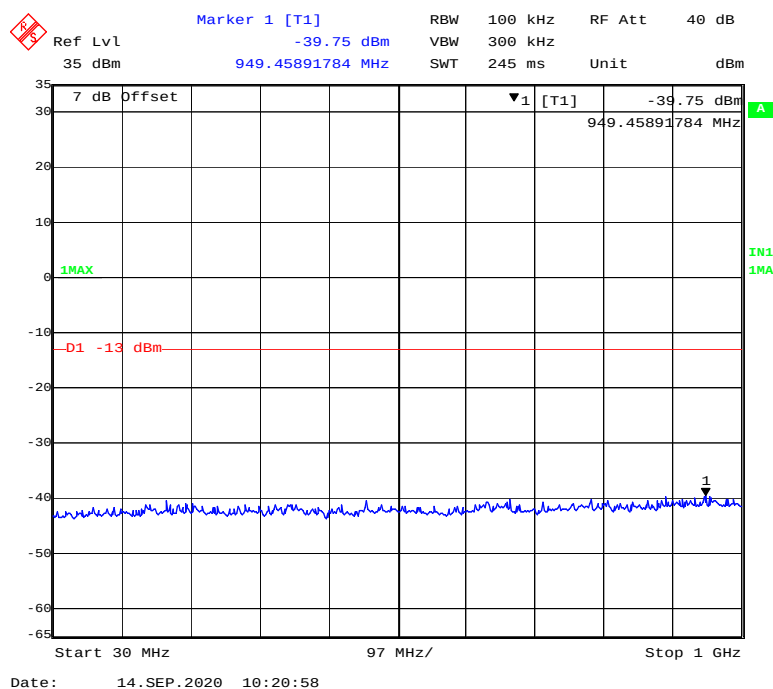
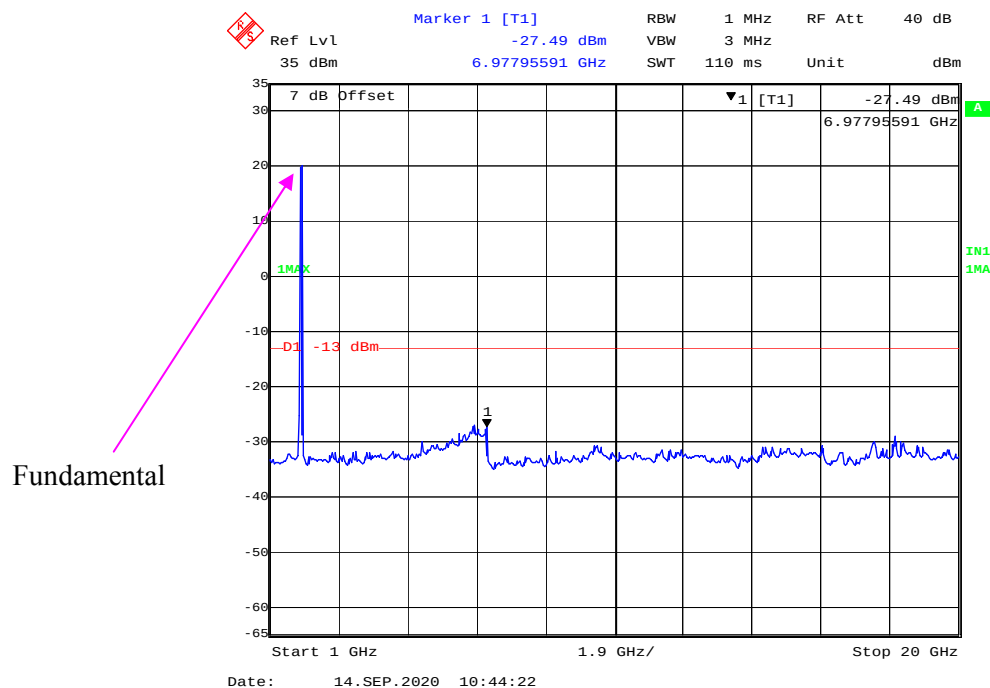
30 MHz - 1 GHz (15 MHz, QPSK, Low Channel)**1 GHz – 20 GHz (15 MHz, QPSK, Low Channel)**

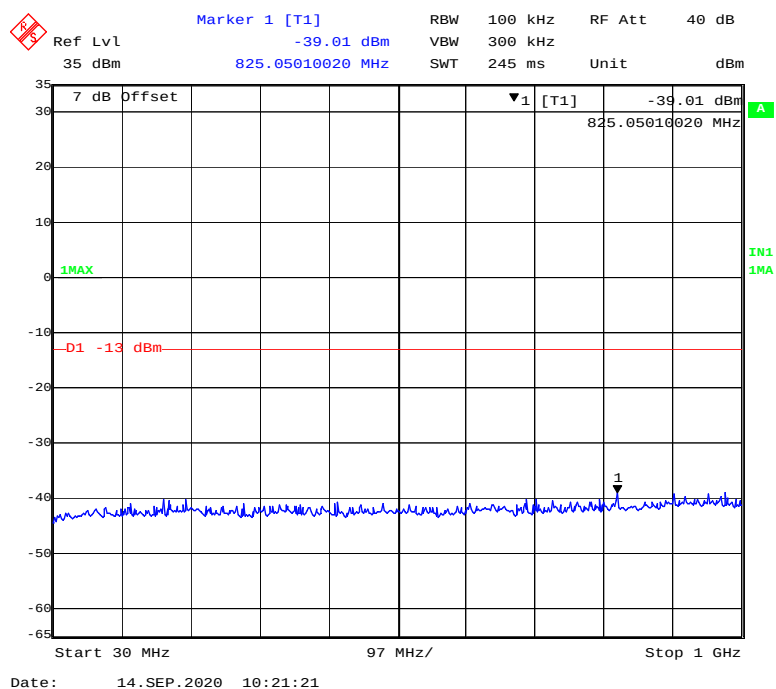
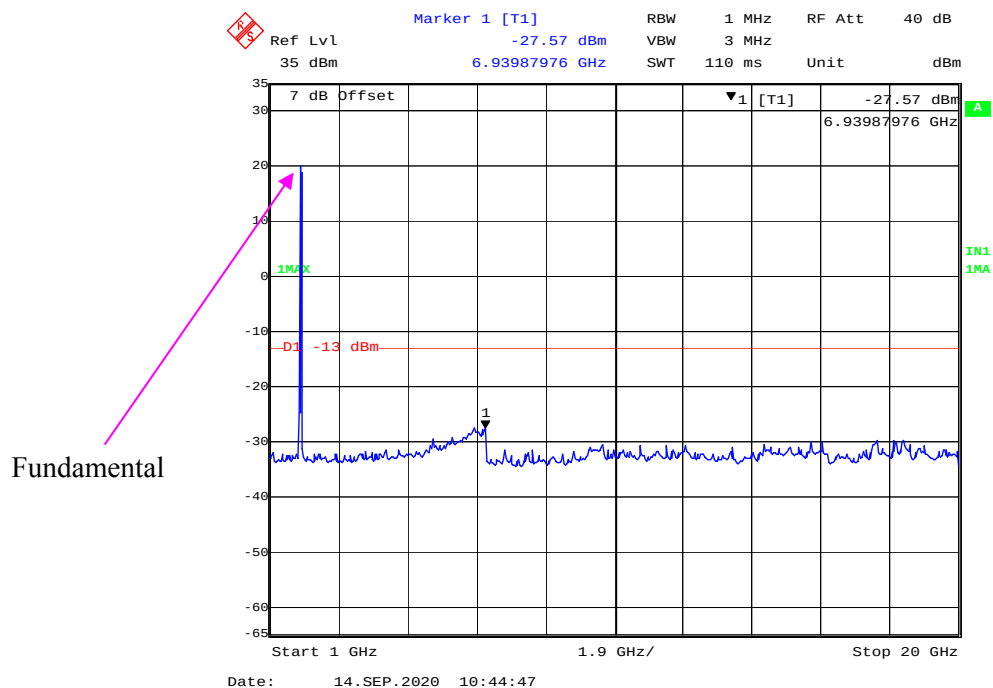
30 MHz - 1 GHz (15 MHz, 16-QAM, Low Channel)

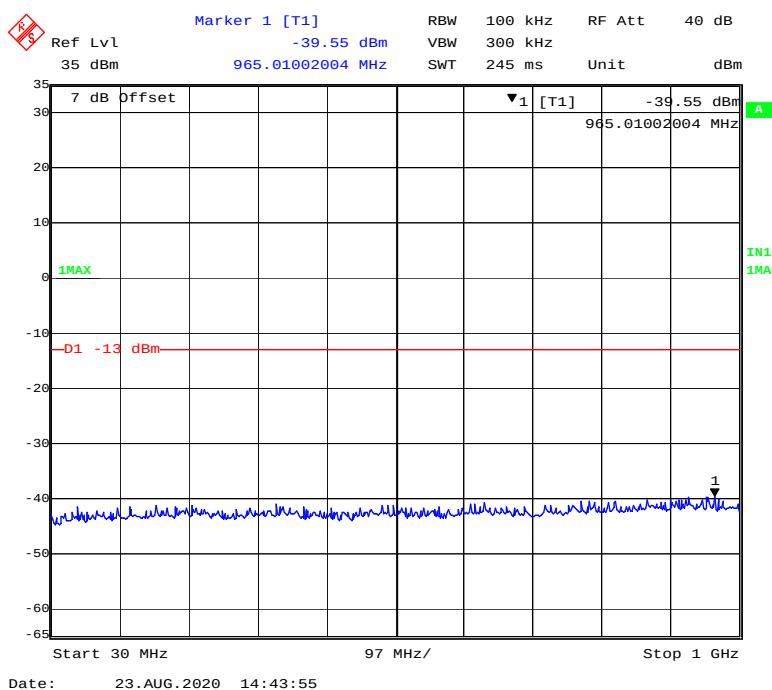
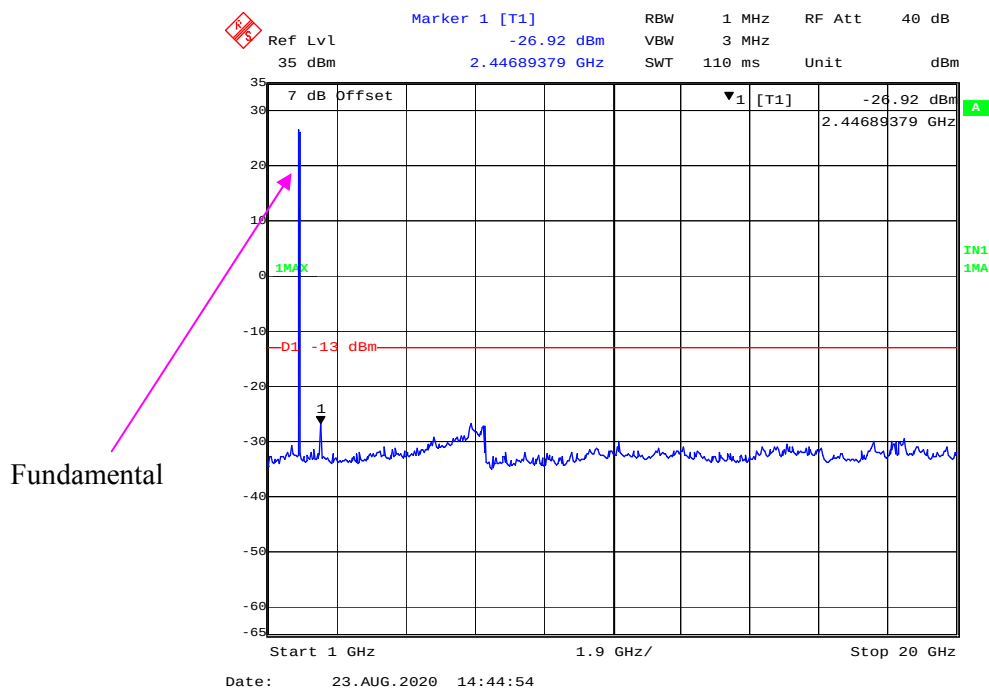


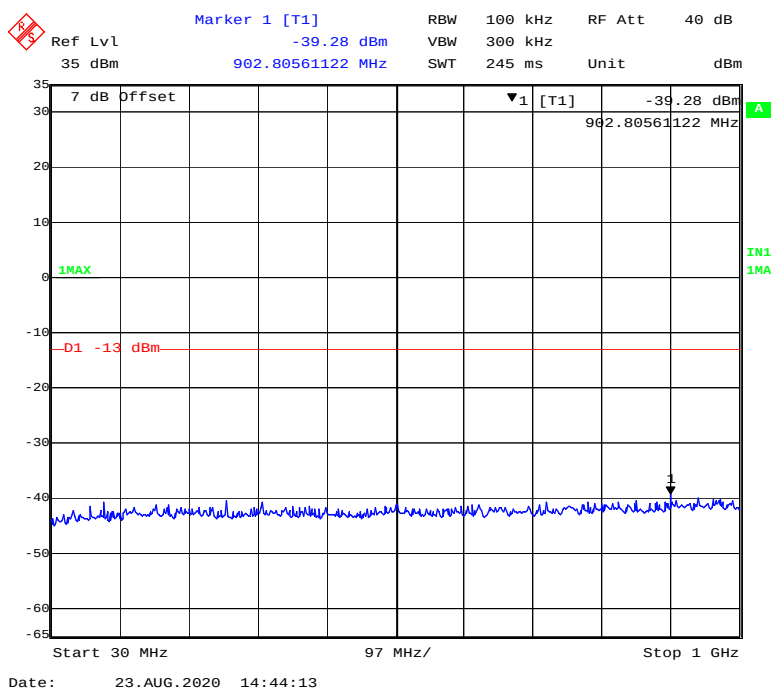
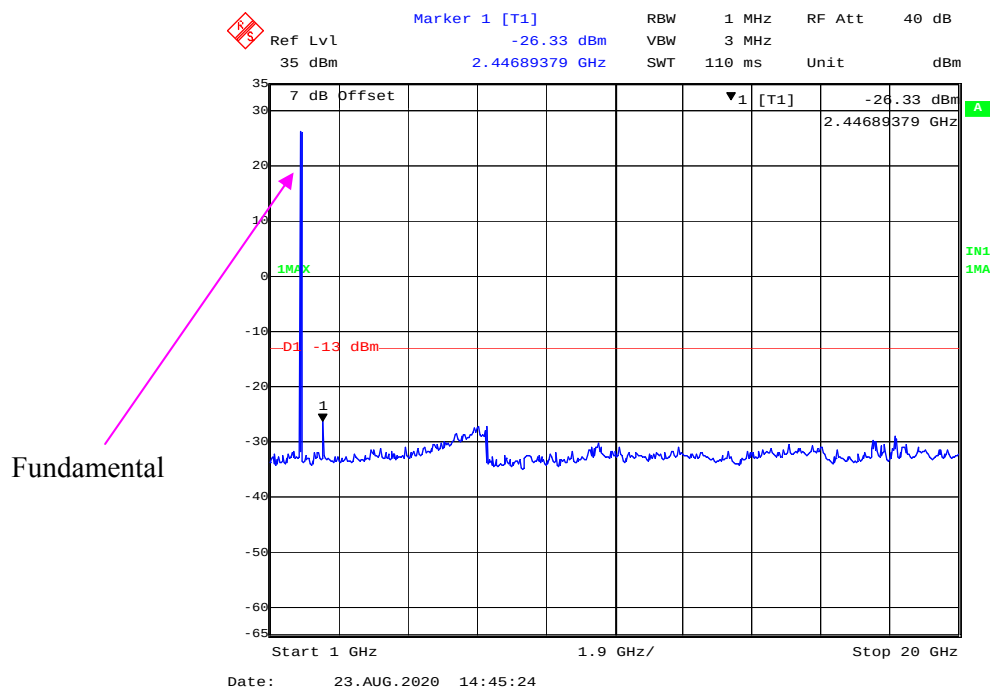
1 GHz – 20 GHz (15 MHz, 16-QAM, Low Channel)

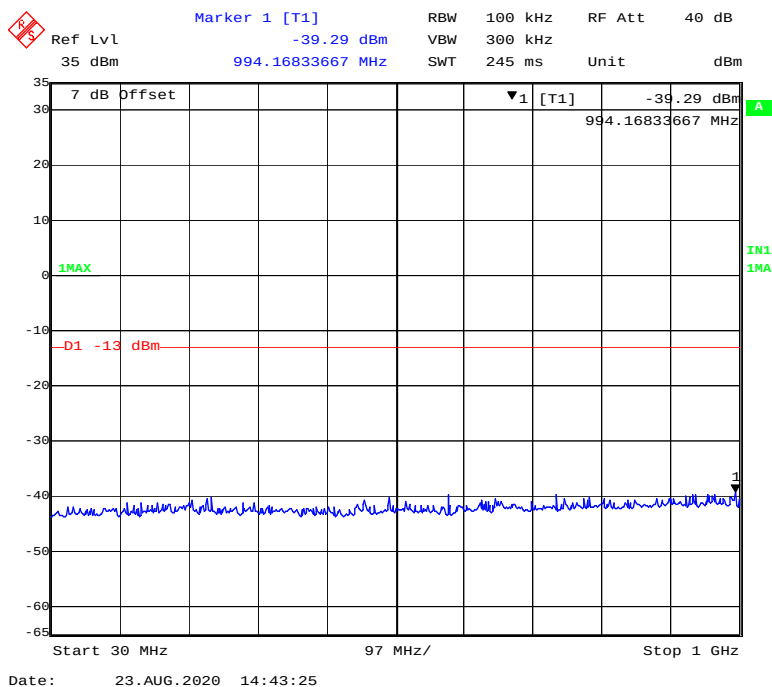
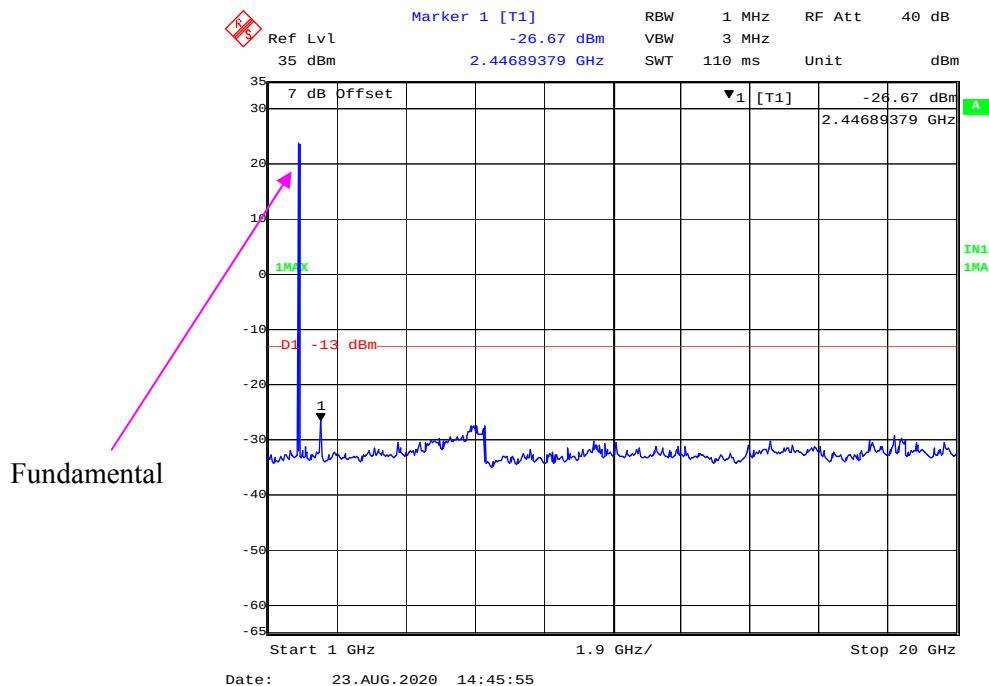


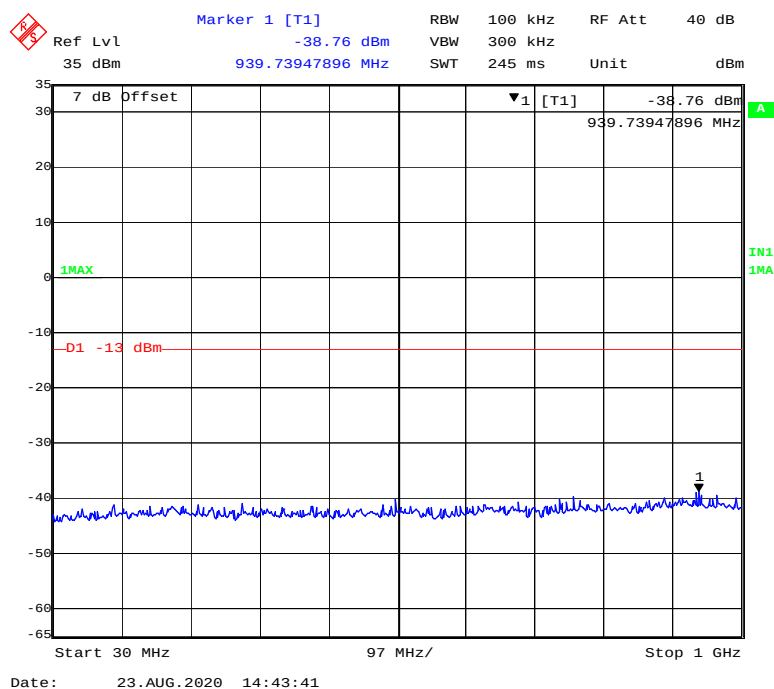
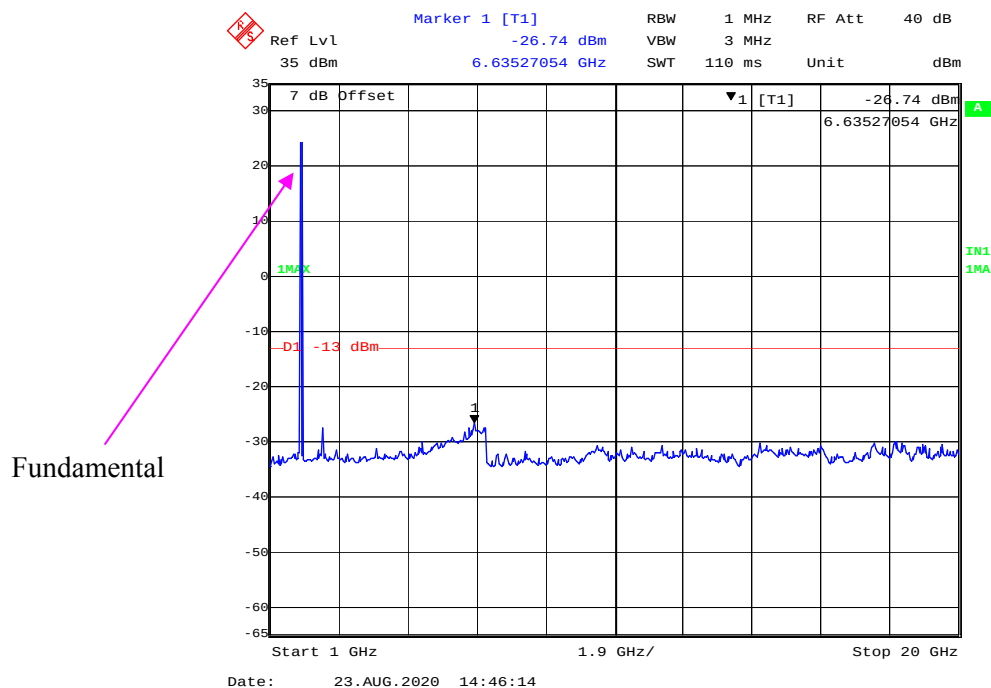
30 MHz - 1 GHz (20 MHz, QPSK, Low Channel)**1 GHz - 20 GHz (20 MHz, QPSK, Low Channel)**

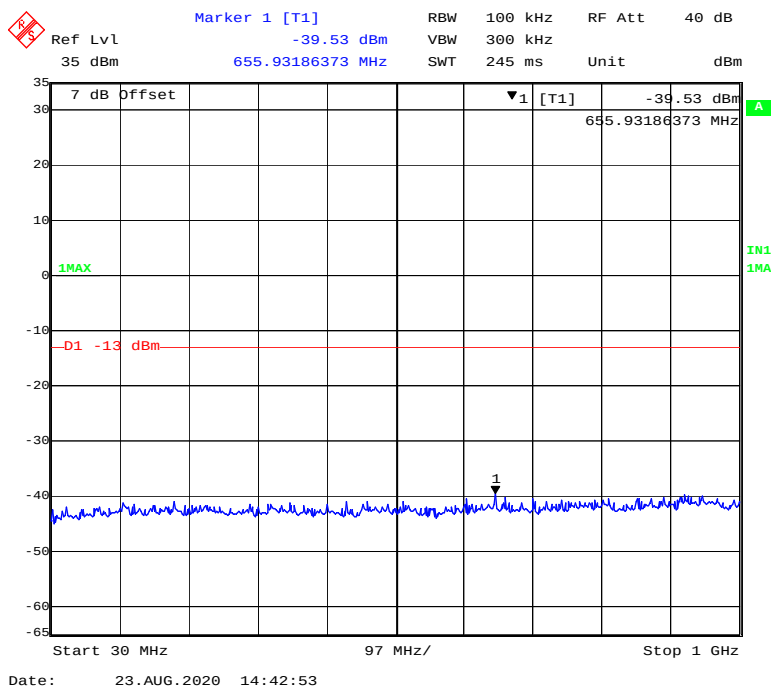
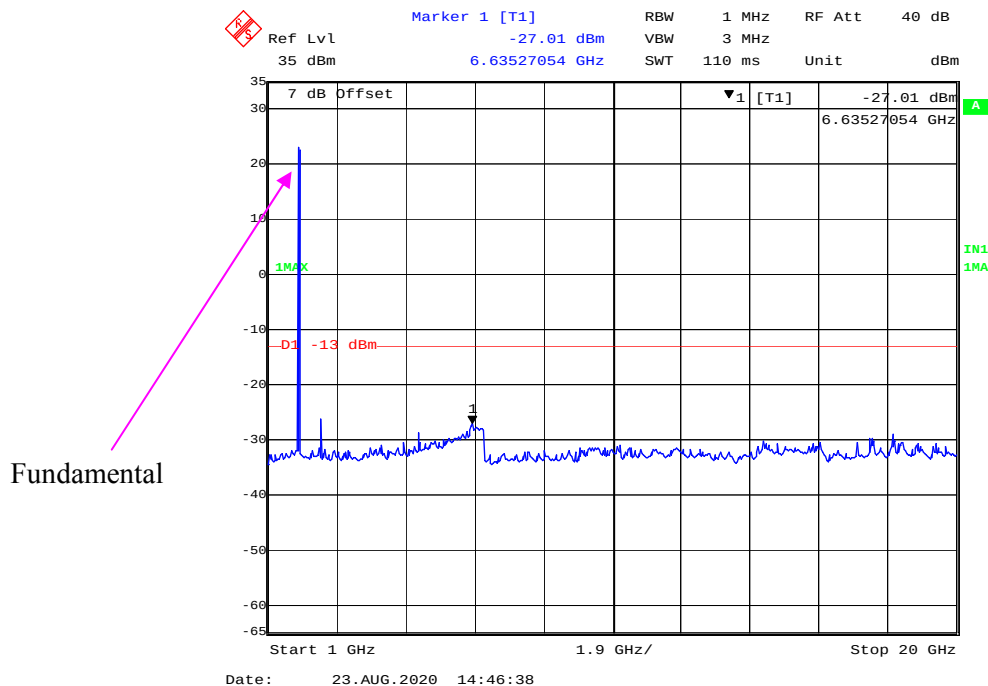
30 MHz - 1 GHz (20 MHz, 16-QAM, Low Channel)**1 GHz – 20 GHz (20 MHz, 16-QAM, Low Channel)**

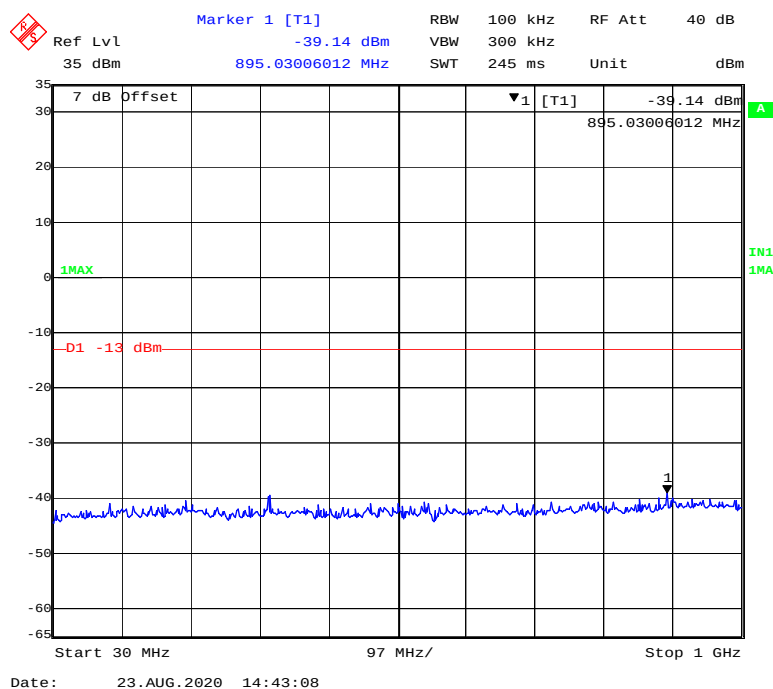
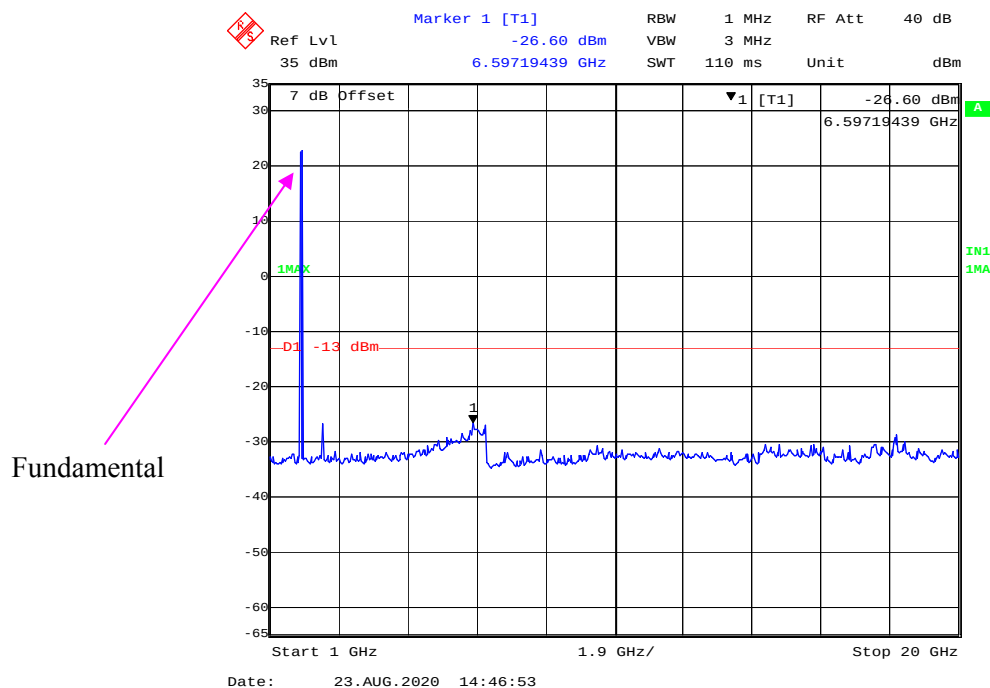
30 MHz - 1 GHz (1.4 MHz, QPSK, Middle Channel)**1 GHz – 20 GHz (1.4 MHz, QPSK, Middle Channel)**

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

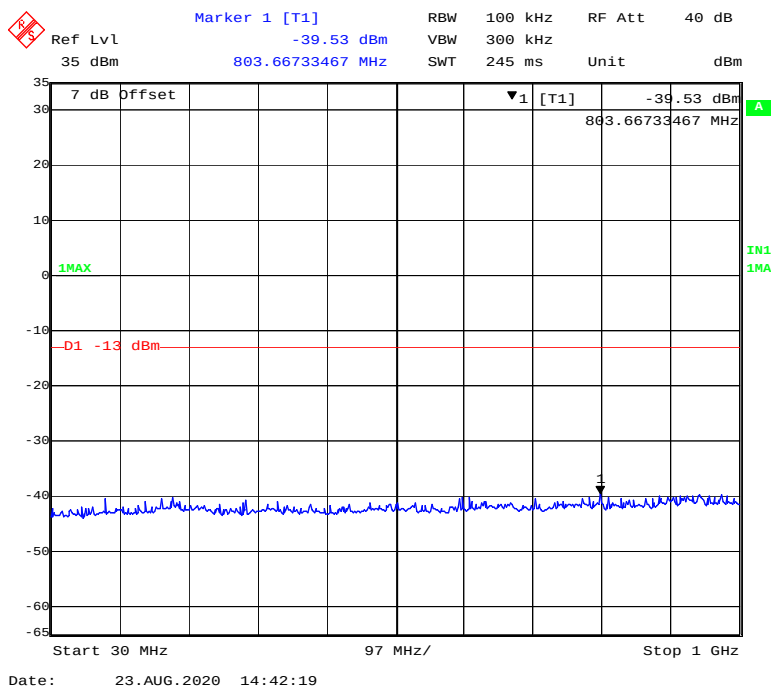
30 MHz - 1 GHz (3 MHz, QPSK, Middle Channel)**1 GHz – 20 GHz (3 MHz, QPSK, Middle Channel)**

30 MHz - 1 GHz (3 MHz, 16-QAM, Middle Channel)**1 GHz – 20 GHz (3 MHz, 16-QAM, Middle Channel)**

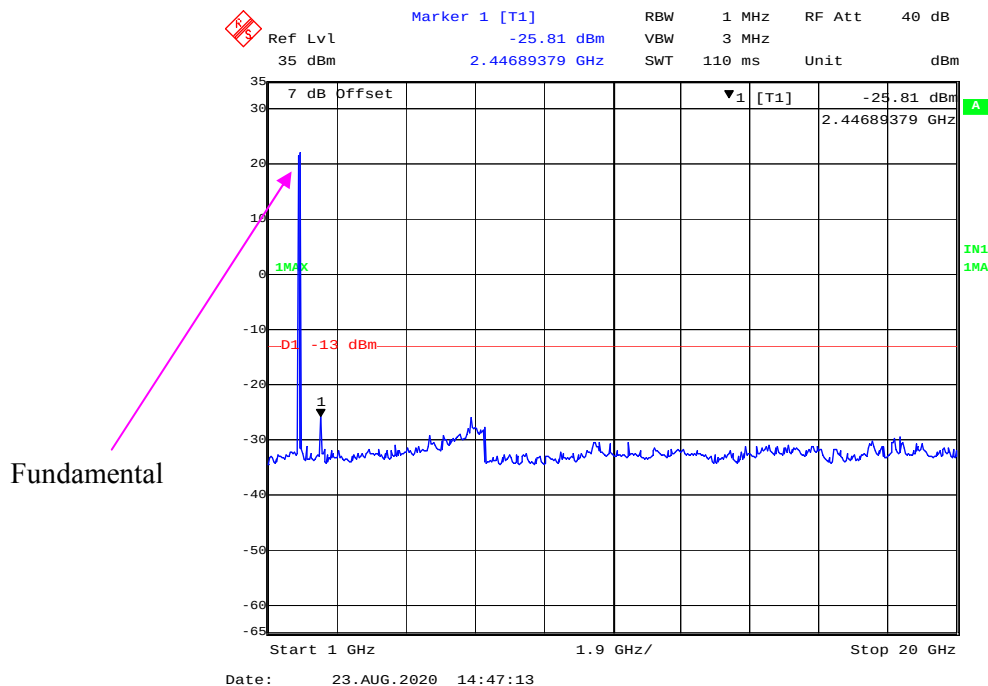
30 MHz - 1 GHz (5 MHz, QPSK, Middle Channel)**1 GHz – 20 GHz (5 MHz, QPSK, Middle Channel)**

30 MHz - 1 GHz (5 MHz, 16-QAM, Middle Channel)**1 GHz – 20 GHz (5 MHz, 16-QAM, Middle Channel)**

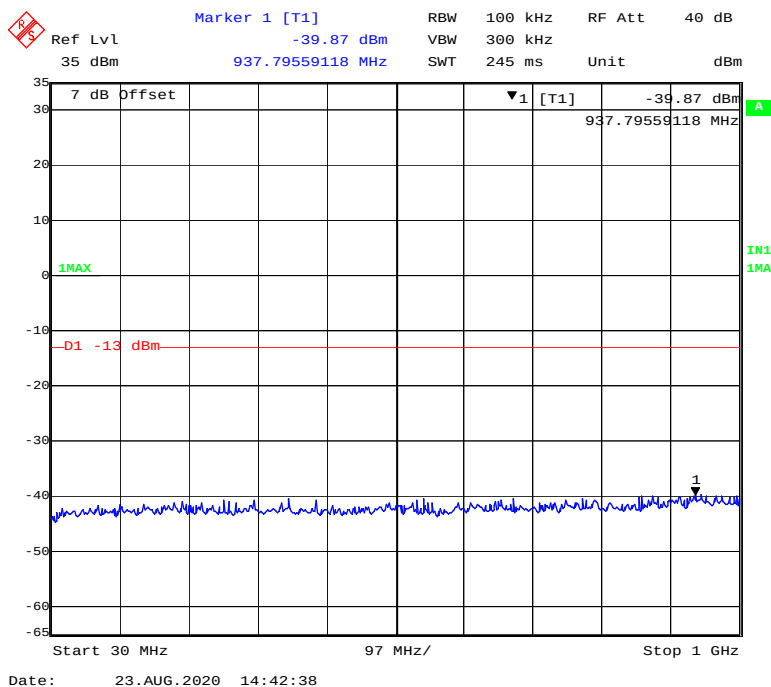
30 MHz - 1 GHz (10 MHz, QPSK, Middle Channel)



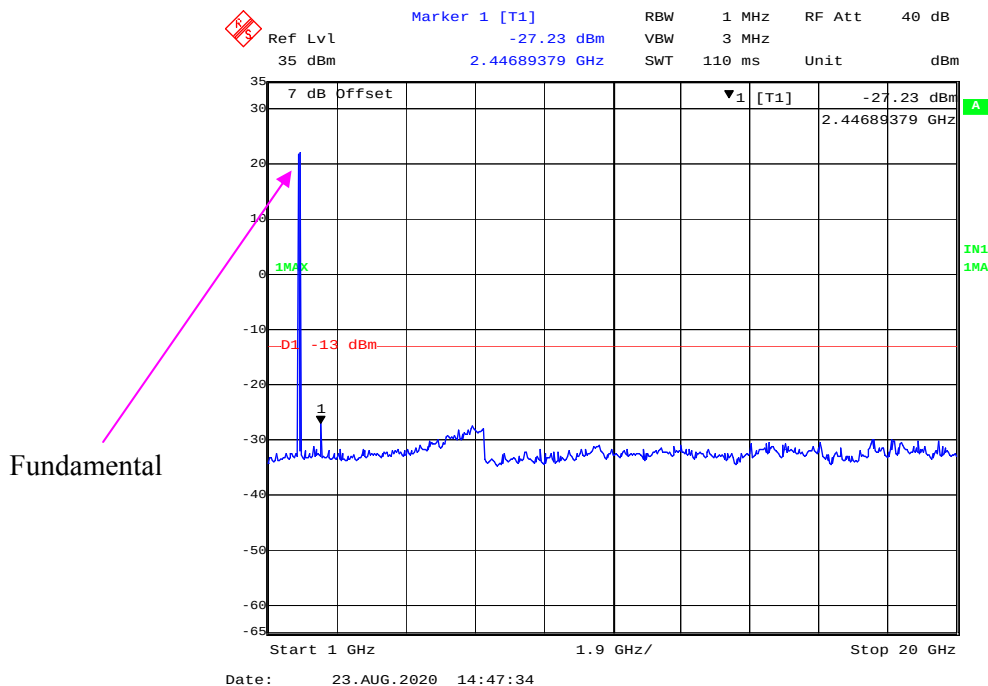
1 GHz – 20 GHz (10 MHz, QPSK, Middle Channel)

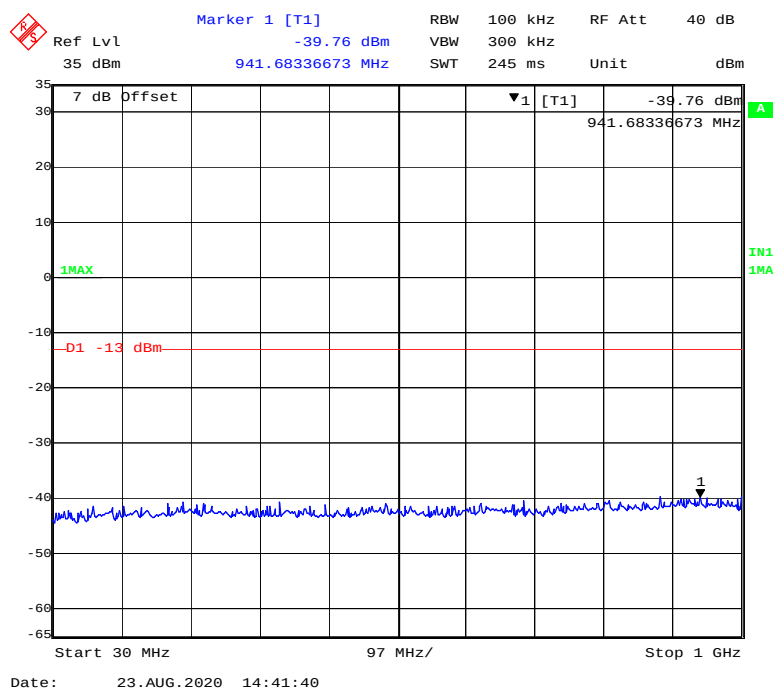
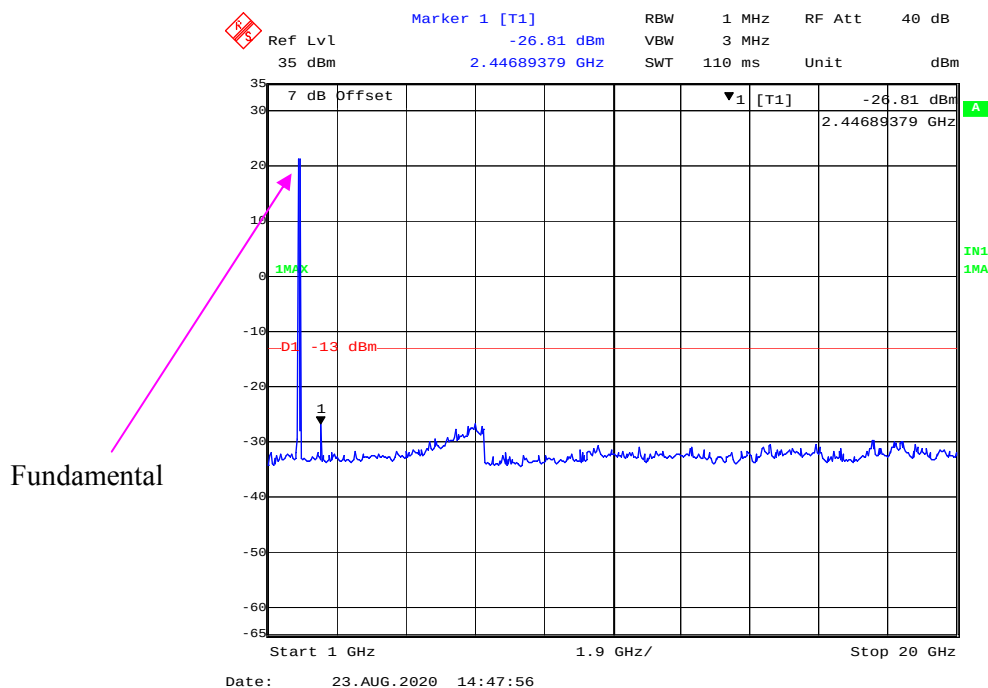


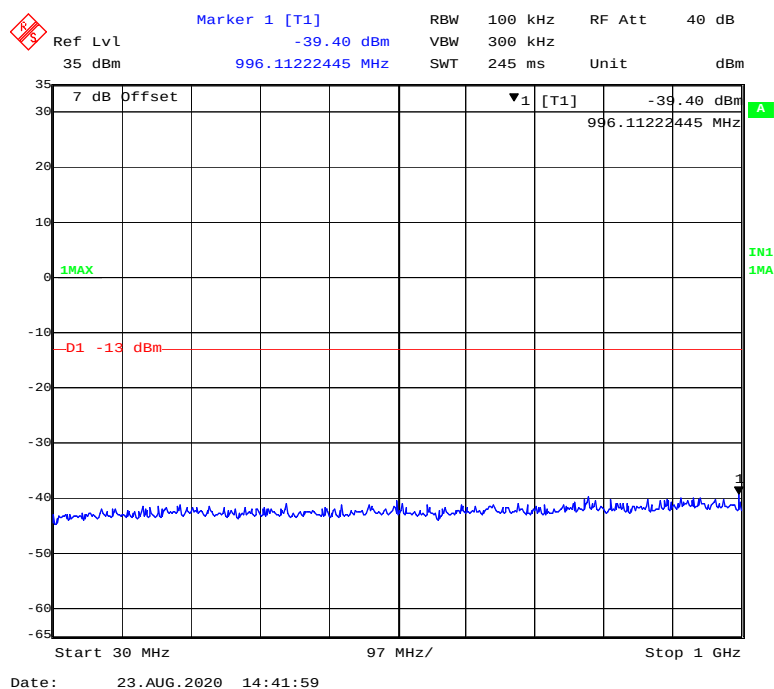
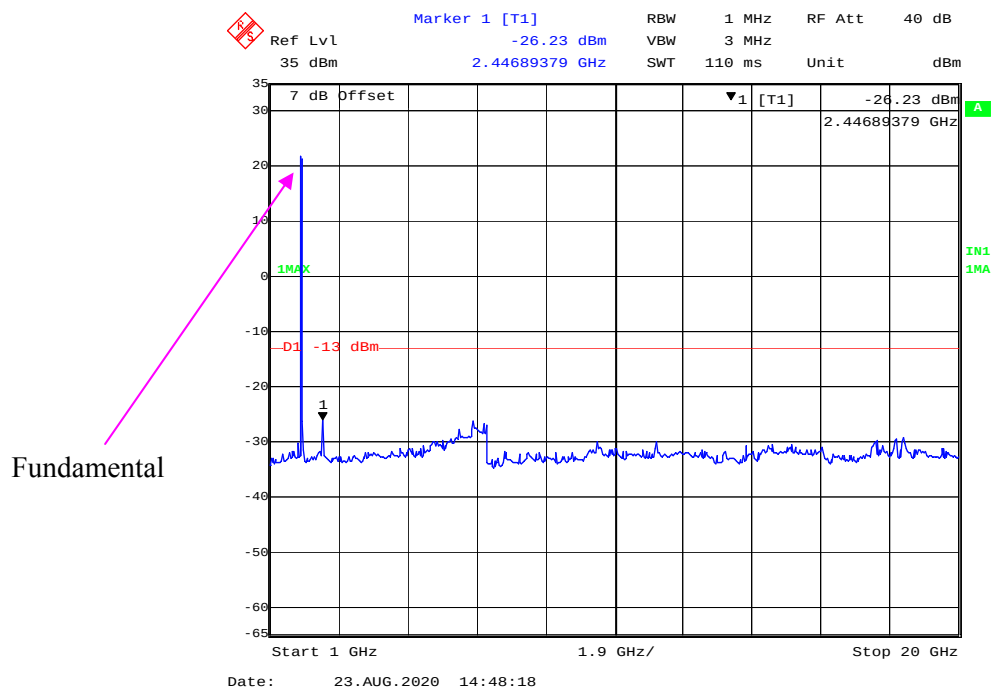
30 MHz - 1 GHz (10 MHz, 16-QAM, Middle Channel)



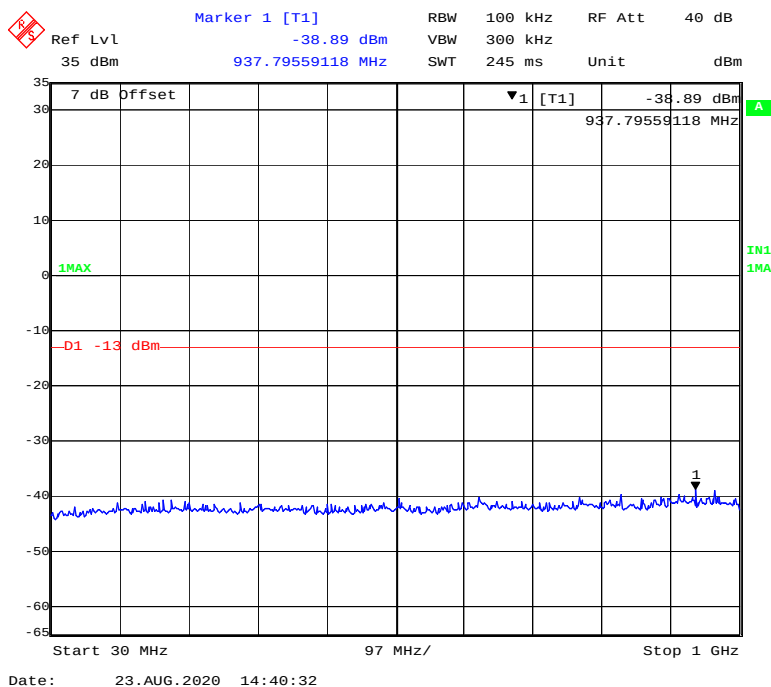
1 GHz – 20 GHz (10 MHz, 16-QAM, Middle Channel)



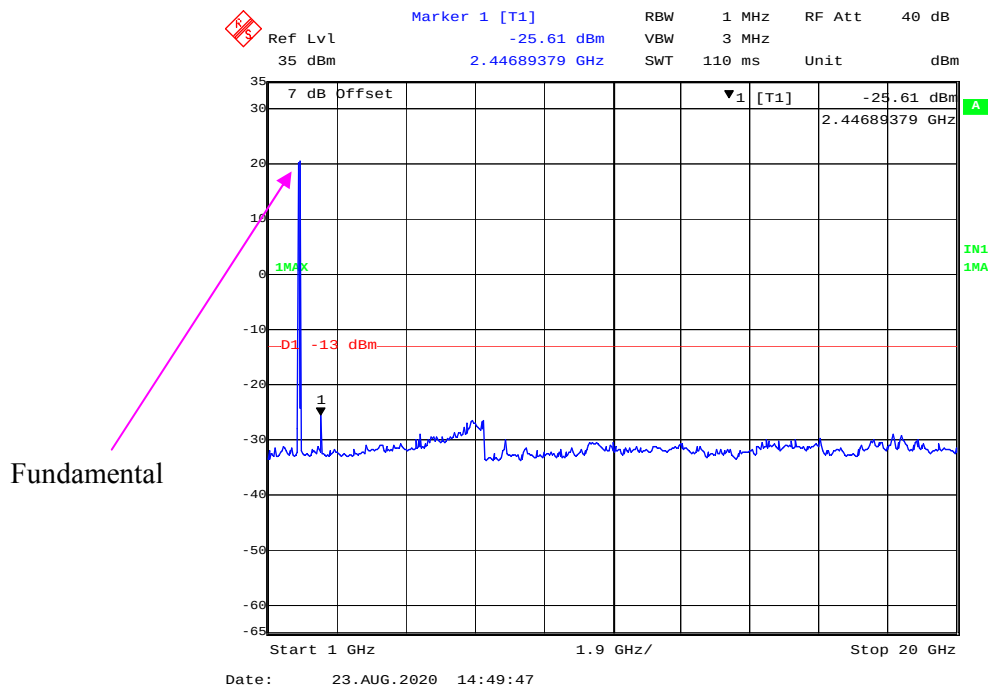
30 MHz - 1 GHz (15 MHz, QPSK, Middle Channel)**1 GHz – 20 GHz (15 MHz, QPSK, Middle Channel)**

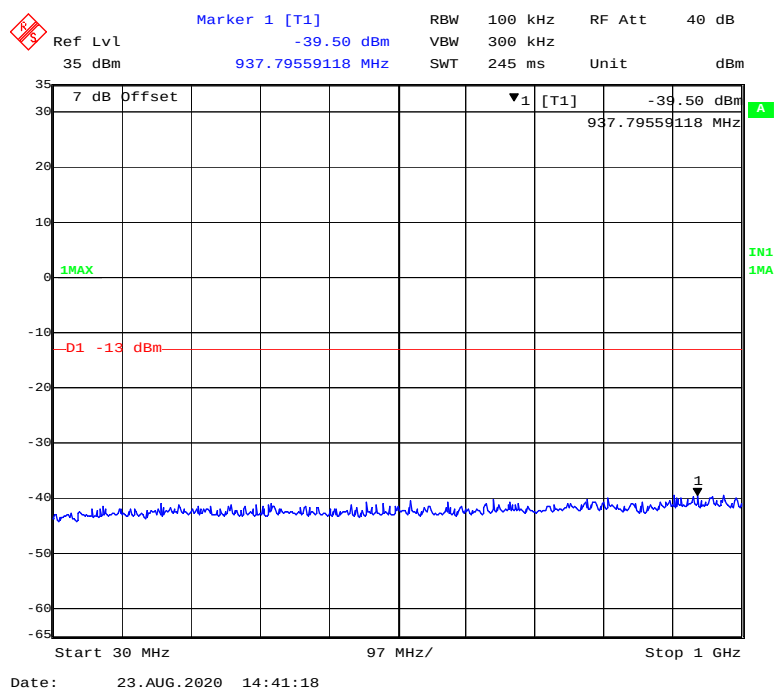
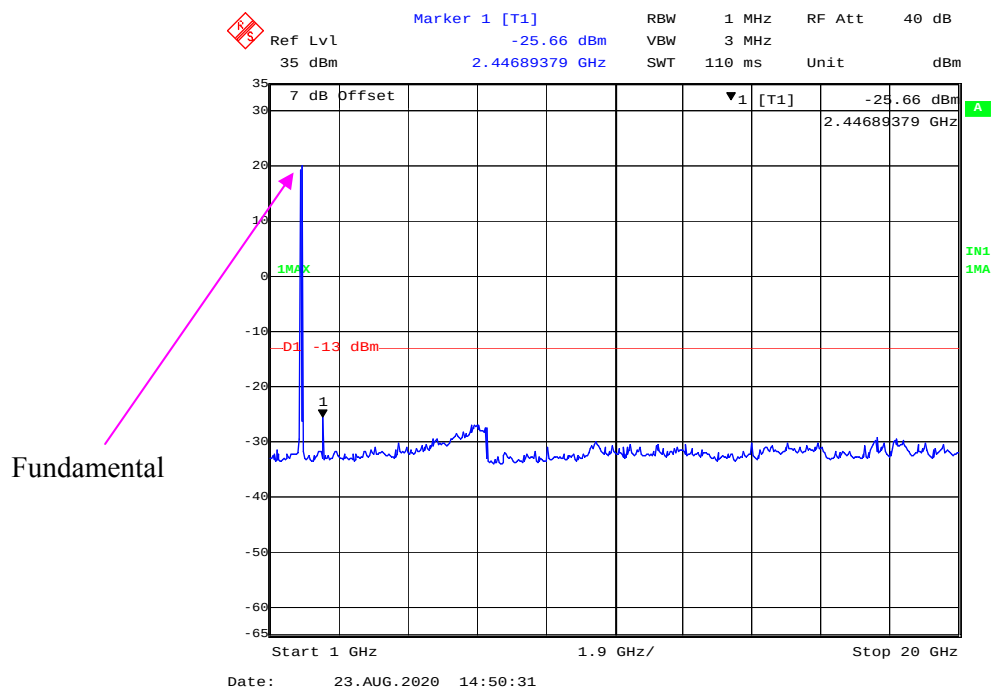
30 MHz - 1 GHz (15 MHz, 16-QAM, Middle Channel)**1 GHz – 20 GHz (15 MHz, 16-QAM, Middle Channel)**

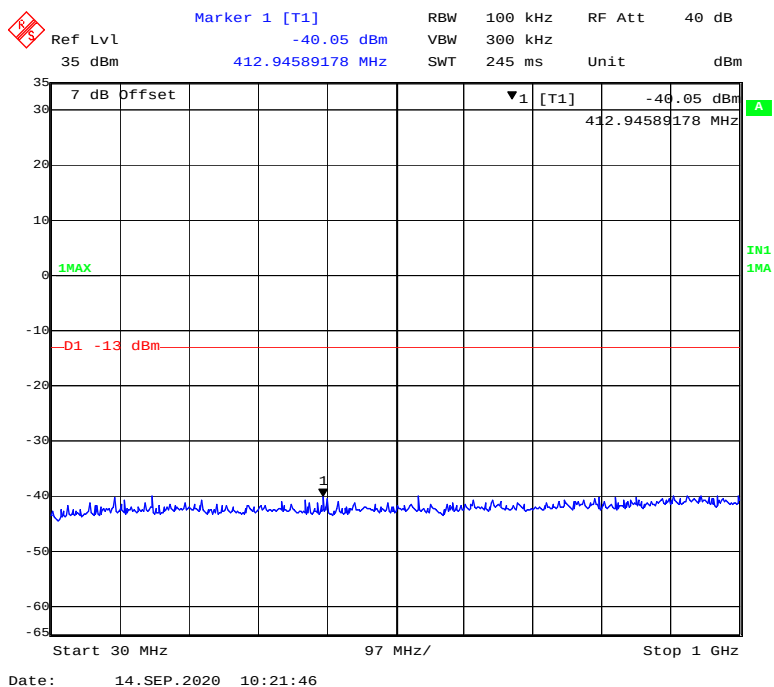
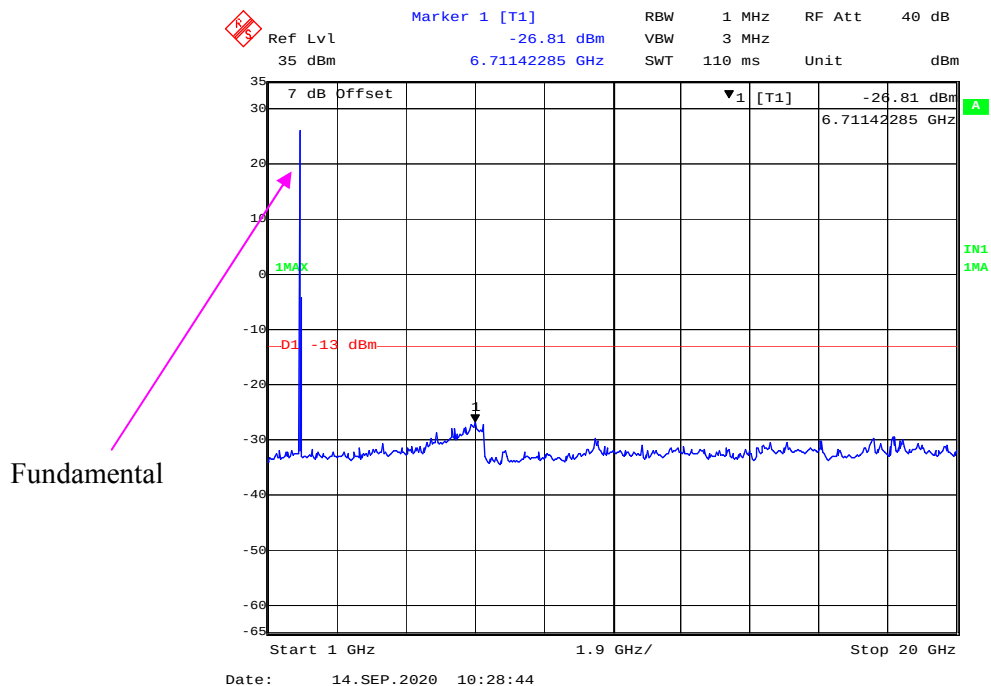
30 MHz - 1 GHz (20 MHz, QPSK, Middle Channel)

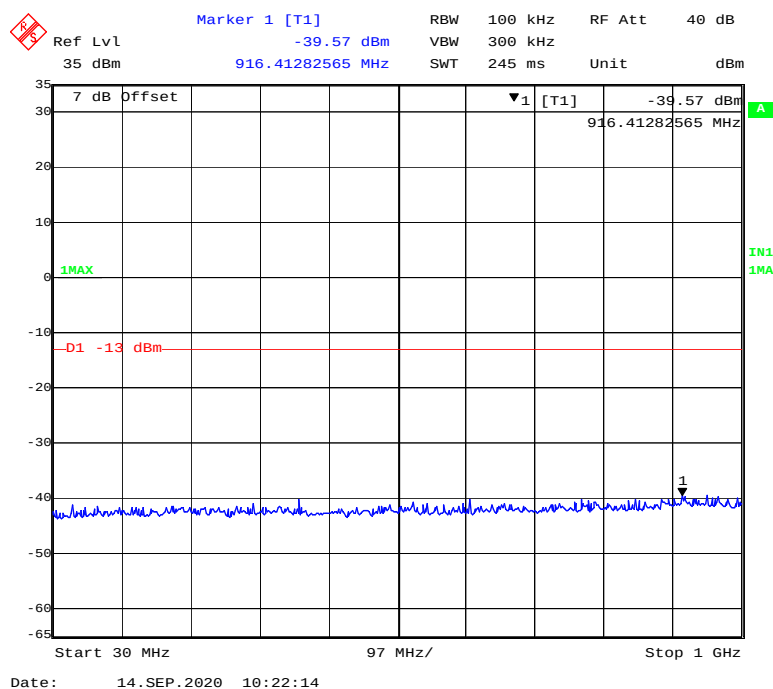
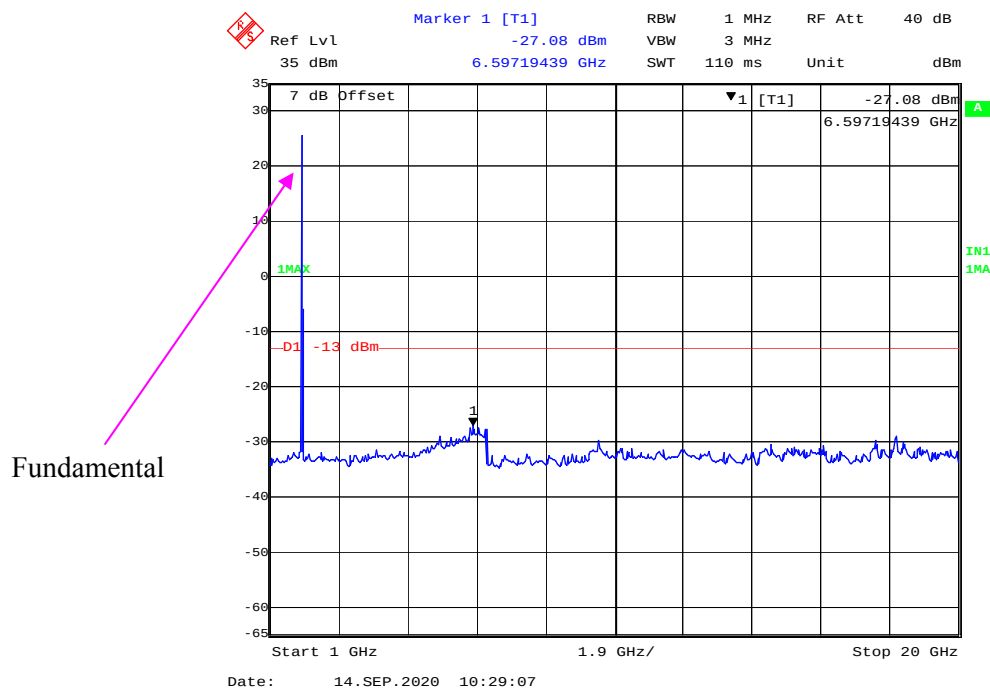


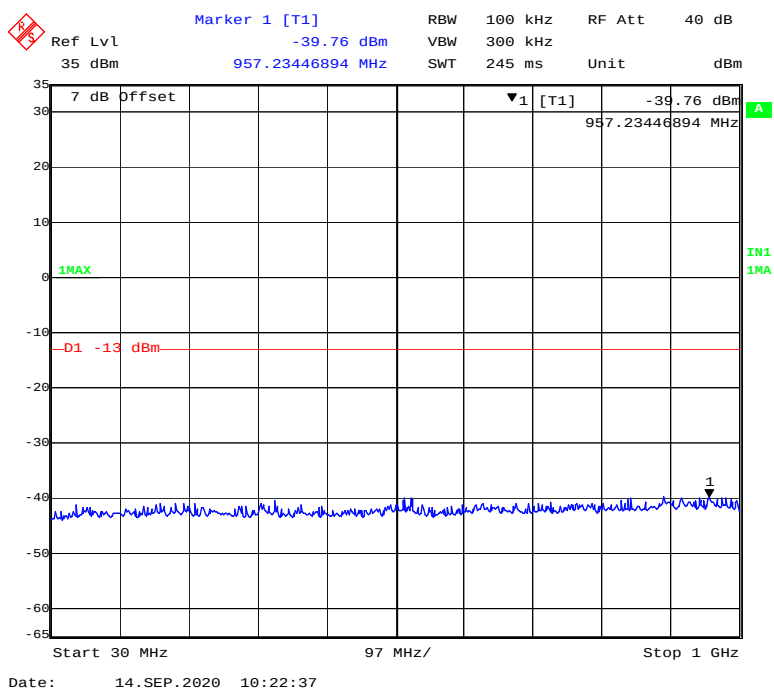
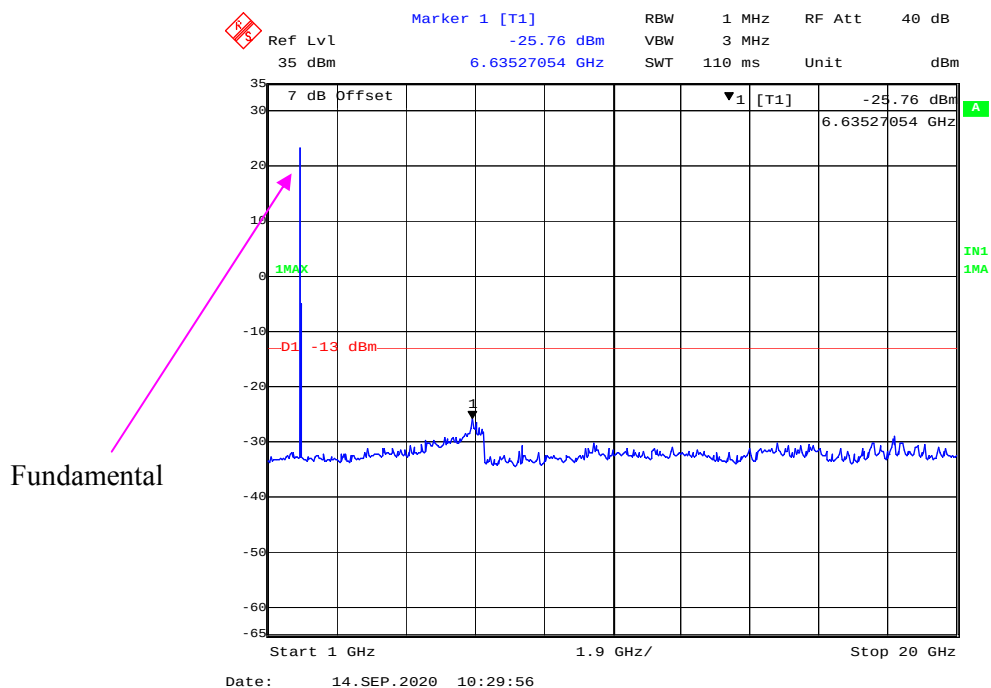
1 GHz – 20 GHz (20 MHz, QPSK, Middle Channel)

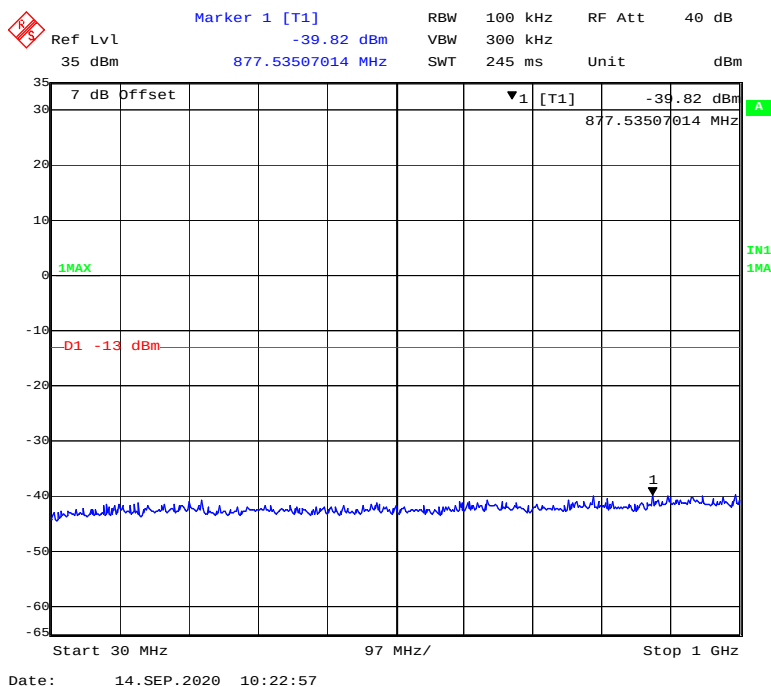
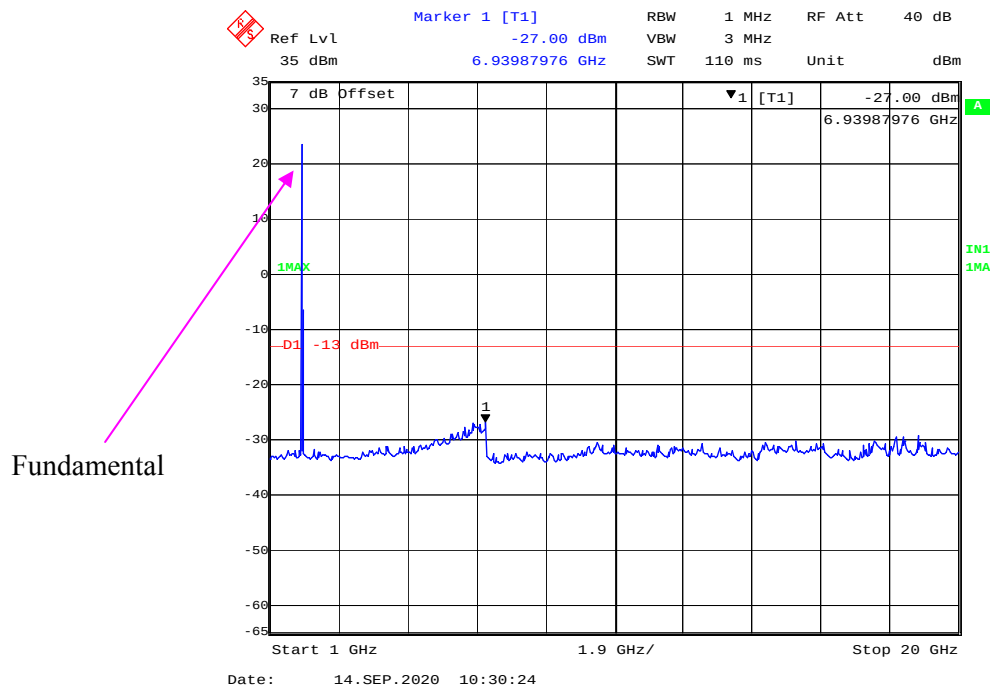


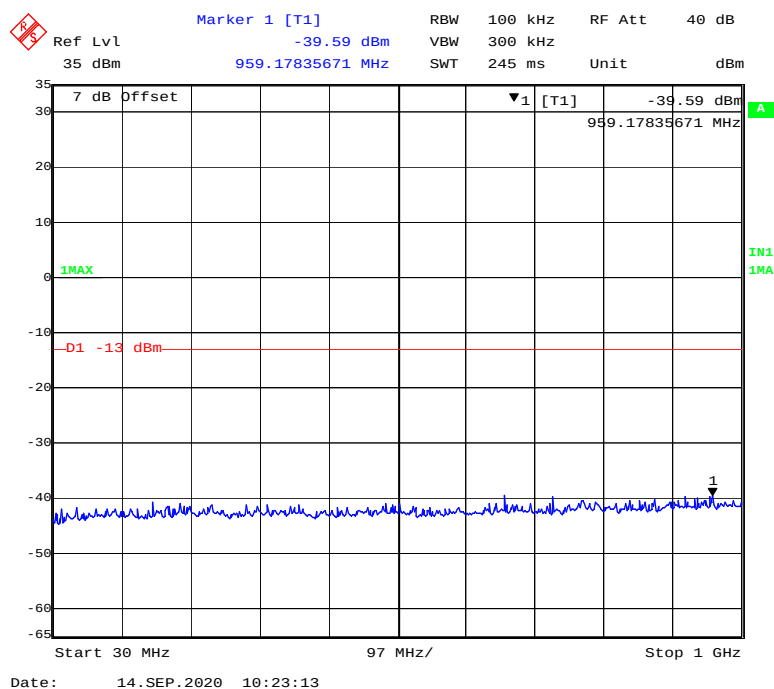
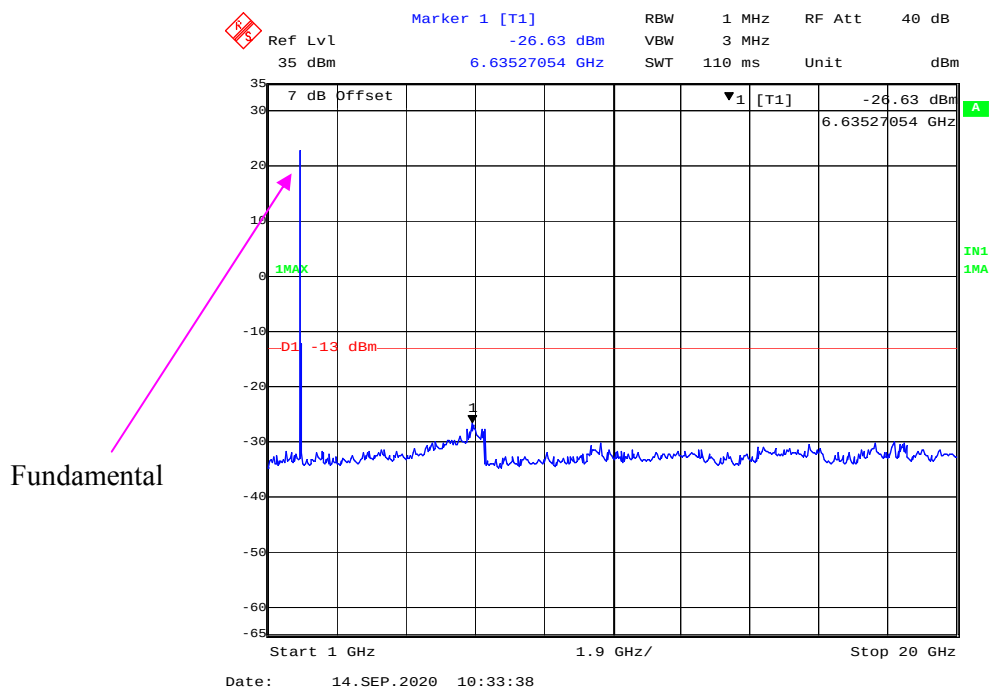
30 MHz - 1 GHz (20 MHz, 16-QAM, Middle Channel)**1 GHz – 20 GHz (20 MHz, 16-QAM, Middle Channel)**

30 MHz - 1 GHz (1.4 MHz, QPSK, High Channel)**1 GHz - 20 GHz (1.4 MHz, QPSK, High Channel)**

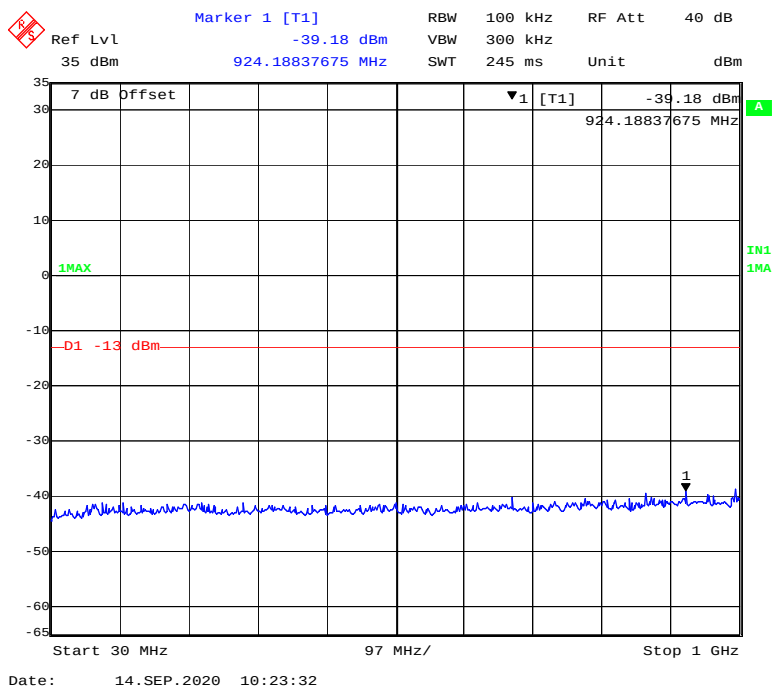
30 MHz - 1 GHz (1.4 MHz, 16-QAM, High Channel)**1 GHz - 20 GHz (1.4 MHz, 16-QAM, High Channel)**

30 MHz - 1 GHz (3 MHz, QPSK, High Channel)**1 GHz – 20 GHz (3 MHz, QPSK, High Channel)**

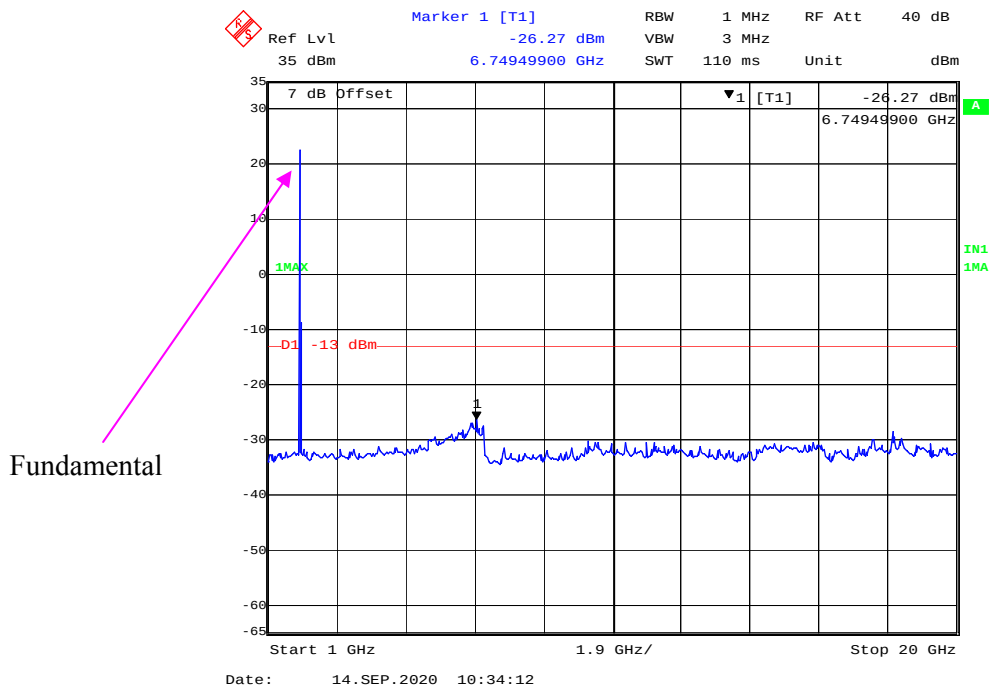
30 MHz - 1 GHz (3 MHz, 16-QAM, High Channel)**1 GHz – 20 GHz (3 MHz, 16-QAM, High Channel)**

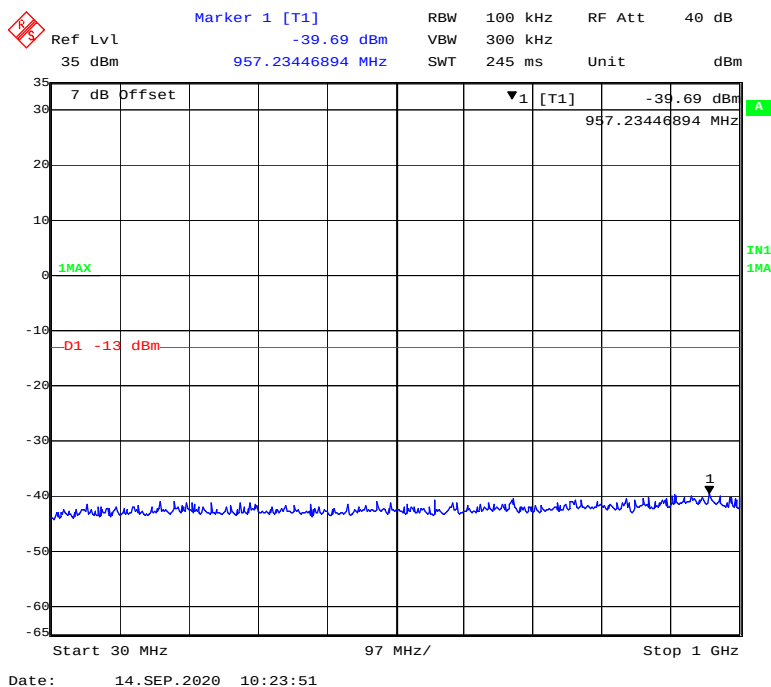
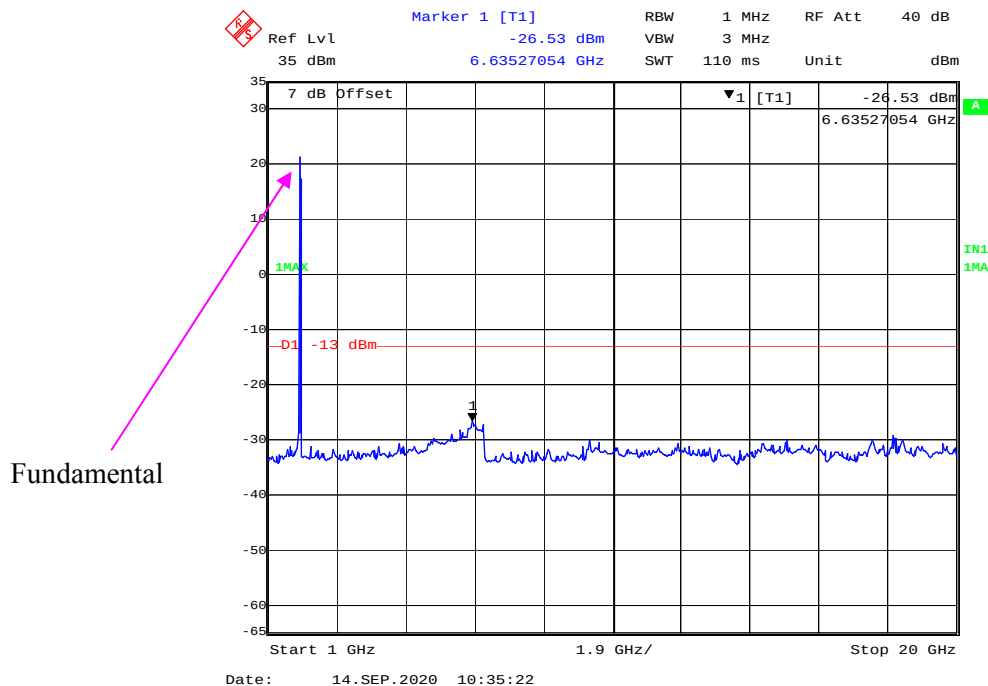
30 MHz - 1 GHz (5 MHz, QPSK, High Channel)**1 GHz – 20 GHz (5 MHz, QPSK, High Channel)**

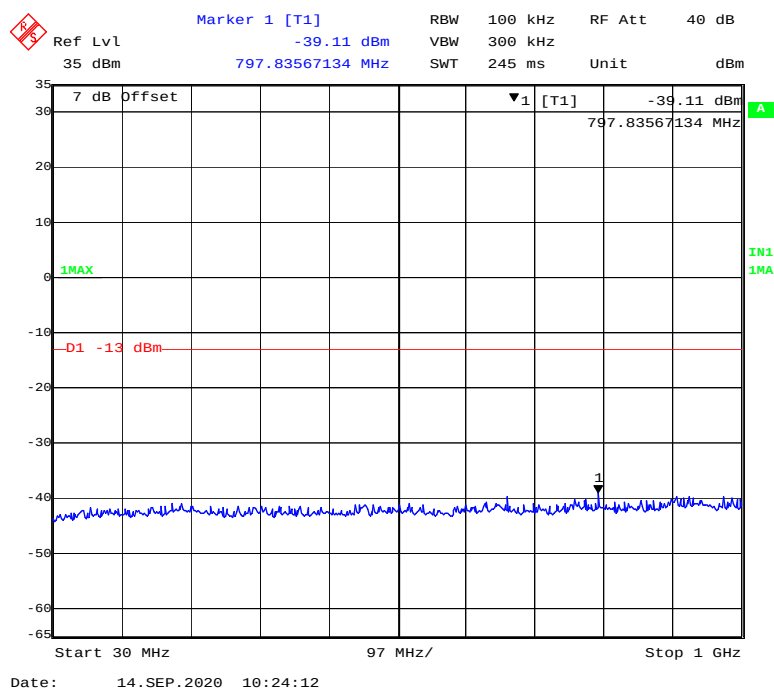
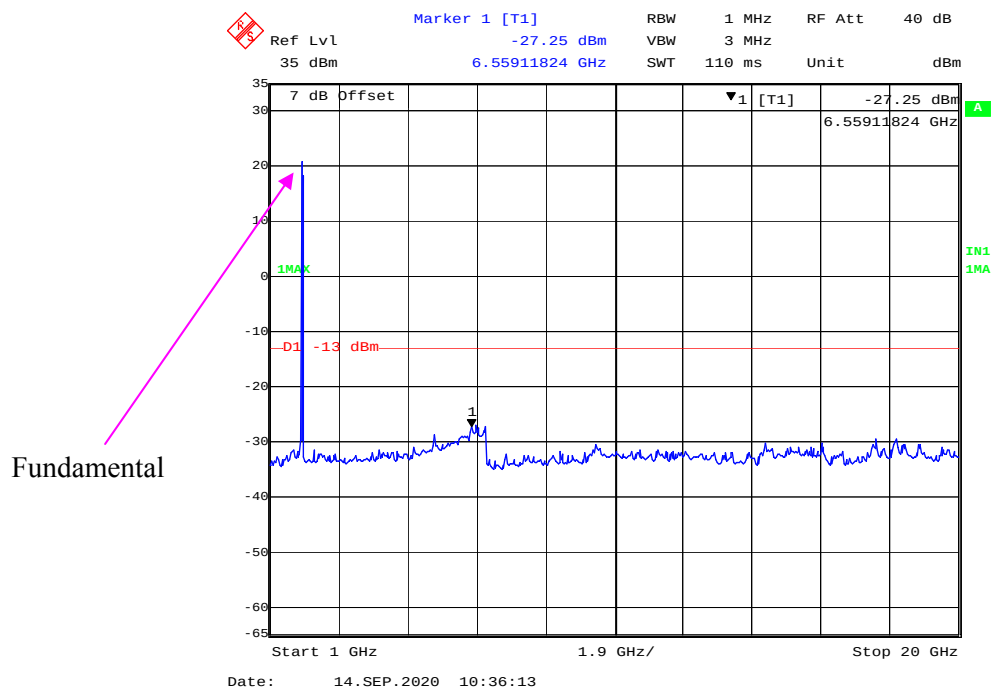
30 MHz - 1 GHz (5 MHz, 16-QAM, High Channel)

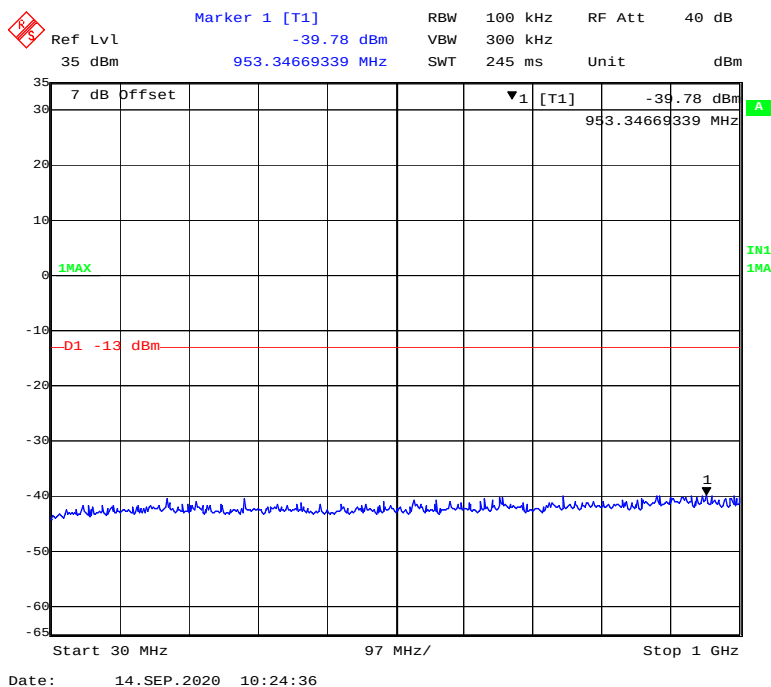
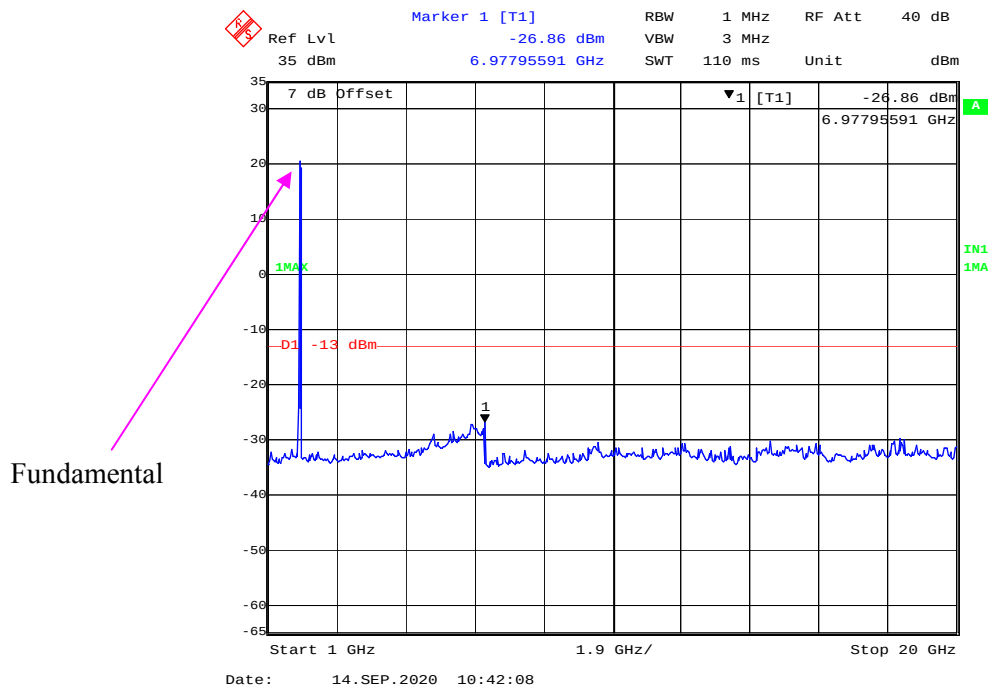


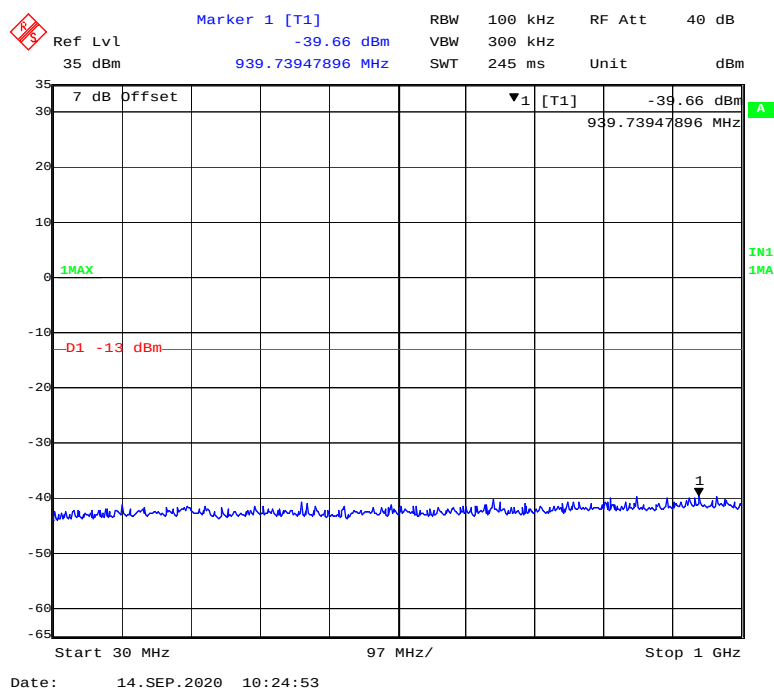
1 GHz – 20 GHz (5 MHz, 16-QAM, High Channel)



30 MHz - 1 GHz (10 MHz, QPSK, High Channel)**1 GHz – 20 GHz (10 MHz, QPSK, High Channel)**

30 MHz - 1 GHz (10 MHz, 16-QAM, High Channel)**1 GHz – 20 GHz (10 MHz, 16-QAM, High Channel)**

30 MHz - 1 GHz (15 MHz, QPSK, High Channel)**1 GHz - 20 GHz (15 MHz, QPSK, High Channel)**

30 MHz - 1 GHz (15 MHz, 16-QAM, High Channel)**1 GHz – 20 GHz (15 MHz, 16-QAM, High Channel)**