TESTING LABORATORY
CERTIFICATE#4323.01

FCC PART 27

FCC PART 22H, PART 24E

TEST REPORT

For

Quanzhou Tesunho Electronics Co., Ltd

2#, 5F E-19# Phase 2 Xunmei, Quanzhou, Fujian, China

FCC ID: 2AKS9TH510

Report Type:	**Product Type:**
Original Report	IP Trunking Radio

Project Engineer:	Miller Xie
Report Number:	RXM210428052-00B
Report Date:	2021-06-17
Reviewed By:	Oscar Ye EMC Manager
Prepared By:	Bay Area Compliance Laboratories Corp. (Kunshan) No.248 Chenghu Road, Kunshan, Jiangsu province, China Tel: +86-0512-86175000 Fax: +86-0512-88934268 www.baclcorp.com.cn

TABLE OF CONTENTS

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	Quanzhou Tesunho Electronics Co., Ltd
Tested Model:	TH-510
Series Model:	TH-511, TH-512
Product Type:	IP Trunking Radio
Power Supply:	DC 3.63V from battery; DC 5V charging by adapter
Maximum Conducted output power:	WCDMA Band II: 22.34dBm WCDMA Band V: 22.42dBm LTE Band 2: 22.25dBm LTE Band 4: 22.23dBm LTE Band 5: 22.23dBm LTE Band 12: 22.25dBm LTE Band 17: 22.23dBm
RF Function:	WCDMA, LTE
Operating Band/Frequency:	WCDMA Band II: 1850-1910 MHz(TX), 1930-1990 MHz(RX) WCDMA Band V: 824-849 MHz(TX), 869-894 MHz(RX) LTE Band 2: 1850-1910 MHz(TX), 1930MHz-1990 MHz(RX) LTE Band 4: 1710-1755 MHz(TX), 2110-2155 MHz(RX) LTE Band 5: 824-849 MHz(TX), 869-894 MHz(RX) LTE Band 12: 699-716 MHz(TX), 729-746 MHz(RX) LTE Band 17: 704-716 MHz(TX), 734-746 MHz(RX)
Power Class	WCDMA/LTE: Class 3
Modulation Type:	WCDMA/LTE: QPSK,16QAM
Antenna Type:	Monopole Antenna
*Maximum Antenna Gain:	3.0 dBi

Adapter Information:
Model: ZM-02A0520
Input: AC 100-240V~50/60Hz, 0.3A
Output: DC 5.0V, 2000mA

Note: The antenna gain was provided by the applicant.

Note: The difference between tested model and series model was explained in the attached declaration letter.

**All measurement and test data in this report was gathered from production sample serial number: RXM210428052-1 (Assigned by the BACL. The EUT supplied by the applicant was received on 2021-04-28)*

Objective

This type approval report is prepared on behalf of *Quanzhou Tesunho Electronics Co., Ltd* in accordance with Part 2, Part 22-Subpart H and Part 24-Subpart E, Part 27 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)

No related submittal(s).

Test Methodology

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

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

Applicable Standards: 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 Compliant 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 D01and 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 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 5	1.4M	Low	20407	824.7
		Middle	20525	836.5
		High	20643	848.3
	3M	Low	20415	825.5
		Middle	20525	836.5
		High	20635	847.5
	5M	Low	20425	826.5
		Middle	20525	836.5
		High	20625	846.5
	10M	Low	20450	829.0
		Middle	20525	836.5
		High	20600	844.0
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

Mode		Channel		Frequency (MHz)
LTE Band 17	5M	Low	23755	706.5
		Middle	23790	710.0
		High	23825	713.5
	10M	Low	23780	709.0
		Middle	23790	710.0
		High	23800	711.0

Equipment Modifications

No modifications were made to the EUT.

Support Equipment List and Details

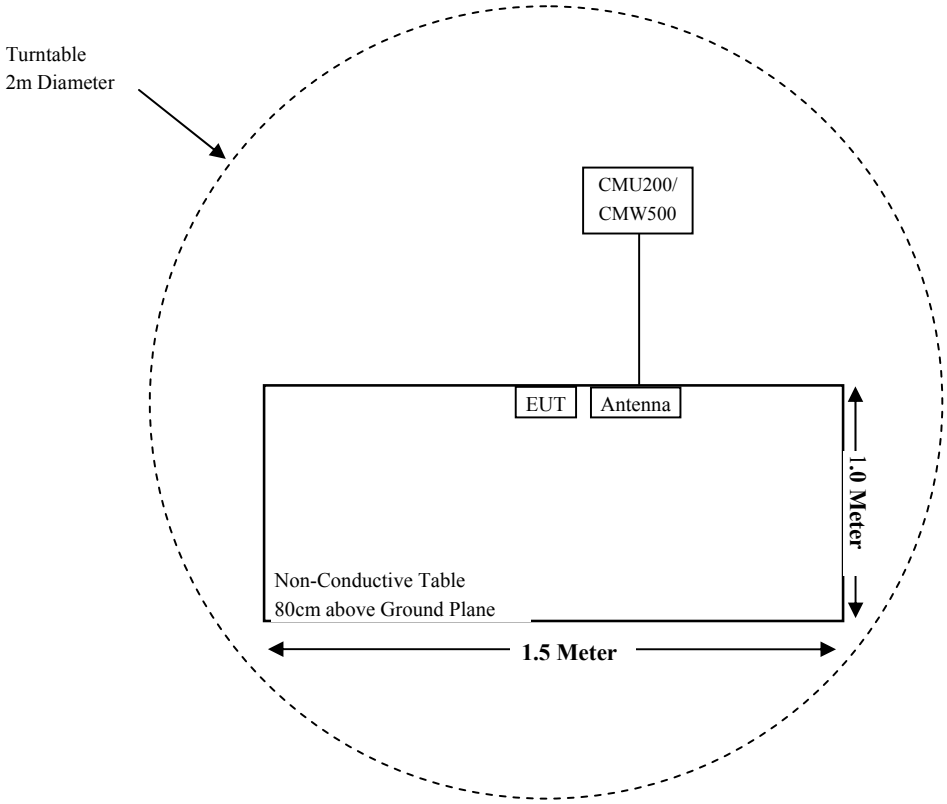
Manufacturer	Description	Model	Serial Number
Aihuaxin technology	Antenna	/	/
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	110605
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	104478

External I/O Cable

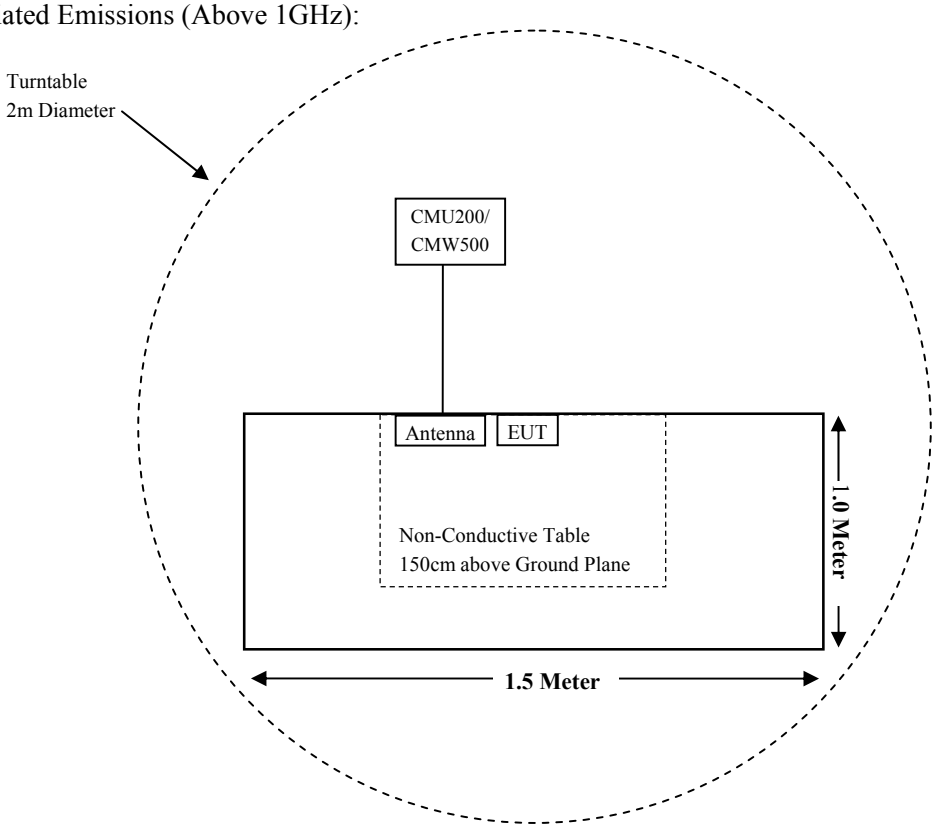
Cable Description	Length (m)	From Port	To
/	/	/	/

Block Diagram of Test Setup

For Radiated Emissions (Below 1GHz):



For Radiated Emissions (Above 1GHz):



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1307(b)(1)& §2.1093	RF Exposure Information	Compliant
§2.1046; § 22.913 (a); § 24.232 (c); § 27.50 (c) (d)	RF Output Power	Compliant
§ 2.1047	Modulation Characteristics	Not Applicable
§ 2.1049; § 22.905; § 22.917; § 24.238; §27.53	Occupied Bandwidth	Compliant
§ 2.1051; § 22.917 (a); § 24.238 (a); §27.53 (g) (h)	Spurious Emissions at Antenna Terminal	Compliant
§ 2.1053; § 22.917 (a); § 24.238 (a); §27.53 (g) (h)	Spurious Radiated Emissions	Compliant
§ 22.917 (a); § 24.238 (a); §27.53 (g) (h)	Band Edge	Compliant
§ 2.1055; § 22.355; § 24.235; §27.54	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	2020-11-27	2021-11-26
HP	Signal Generator	N5183A	MY51040755	2020-11-27	2021-11-26
Sunol Sciences	Broadband Antenna	JB3	A090314-1	2020-08-05	2023-08-04
Sunol Sciences	Broadband Antenna	JB3	A090314-2	2020-01-07	2023-01-06
Sonoma Instrunent	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
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	110605	2021-04-01	2022-03-31
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	104478	2020-07-28	2021-07-27
Radiated Emission Test（Chamber 2#）					
HP	Signal Generator	N5183A	MY51040755	2020-11-27	2021-11-26
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2021-04-01	2022-03-31
ETS-LINDGREN	Horn Antenna	3115	9311-4159	2020-07-15	2023-07-14
ETS-LINDGREN	Horn Antenna	3115	6229	2020-01-07	2023-01-06
ETS-LINDGREN	Horn Antenna	3116	84159	2019-12-12	2022-12-11
ETS-LINDGREN	Horn Antenna	3116	2516	2020-01-07	2023-01-06
A.H.Systems,inc	Amplifier	PAM-0118P	512	2020-08-14	2021-08-13
EM Electronics Corporation	Amplifier	EM18G40G	060726	2021-03-22	2022-03-21
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
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	110605	2021-04-01	2022-03-31
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	104478	2020-07-28	2021-07-27

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde & Schwarz	Signal Analyzer	FSIQ26	100048/027	2020-11-27	2021-11-26
Rohde & Schwarz	EMI Test Receiver	ESIB26	100146	2020-11-27	2021-11-26
Narda	Attenuator	10dB	010	2020-08-15	2021-08-14
Rohde & Schwarz	Universal Radio Communication Tester	CMU200	110605	2021-04-01	2022-03-31
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	104478	2020-07-28	2021-07-27
Mini-Ciruits	Power splitter	ZFRSC-14-S+	SF019411452	2020-11-10	2021-11-09
BACL	Temperature & Humidity Chamber	BTH-150	30023	2020-11-25	2021-11-24
EAST	Regulated DC Power Supply	MCH-303D-II	14070562	2020-10-10	2021-10-09
Quanzhou Tesunho	RF Cable	Quanzhou Tesunho 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 §1.1307(b) & §2.1093 - RF EXPOSURE INFORMATION

Applicable Standard

FCC§1.1307,§2.1093.

Test Result

Compliance, please refer to the SAR report: XMTN1210531-20281E-20

FCC §2.1047 - MODULATION CHARACTERISTIC

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

FCC §2.1046; § 22.913 (a); § 24.232 (c); §27.50 (c) (d) - 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(d), the maximum EIRP must not exceed 1Watts (30dBm) for 1710-1755MHz.

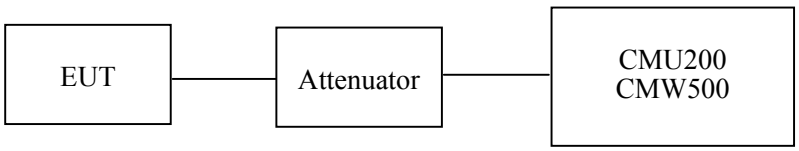
According to §27.50(c), Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

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

Test Procedure

Conducted method:

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



Radiated Output Power:

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

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

d) Connect the antenna to a signal generator with a known output power ,If a standard radiation test site is used, raise and lower the test antenna to obtain a maximum reading and adjustment signal generator level, make the value of the spectrum analyzer equal to the test value of step b (LVL), record this value as submitted Level (dBm).

ERP/ EIRP (dBm) = Submitted Level (dBm) –Cable loss(dB)+ Antenna Gain(dBd/dBi)

Test Data

Environmental Conditions

Temperature:	24.9 ℃
Relative Humidity:	53 %
ATM Pressure:	101.9 kPa

The testing was performed by Miller Xie on 2021-06-08.

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	22.42	22.16	22.23
		HSDPA	1	20.18	20.14	20.13
			2	20.17	20.10	20.07
			3	20.08	20.07	20.07
			4	20.04	20.09	20.24
		HSUPA	1	20.07	20.13	20.20
			2	20.09	20.31	20.14
			3	20.17	20.32	20.04
			4	20.18	20.32	20.12
			5	20.04	20.11	20.10
		HSPA+	1	20.02	20.39	20.06

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	22.34	22.12	22.32
		HSDPA	1	20.24	20.37	20.06
			2	20.14	20.35	20.22
			3	20.34	20.29	20.20
			4	20.30	20.03	20.20
		HSUPA	1	20.27	20.39	20.22
			2	20.24	20.14	20.17
			3	20.17	20.03	20.12
			4	20.27	20.00	20.19
			5	20.16	20.18	20.10
		HSPA+	1	20.32	20.12	20.19

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	21.53	21.89	21.27
		1#3	21.32	21.67	21.90
		1#5	22.09	22.09	21.54
		3#0	21.64	22.03	21.18
		3#1	22.21	21.83	21.80
		3#3	22.04	21.56	21.18
		6#0	22.15	21.69	21.97
	16-QAM	1#0	21.91	21.34	21.97
		1#3	21.84	21.57	21.29
		1#5	22.21	21.64	21.82
		3#0	21.70	21.73	21.94
		3#1	21.45	21.18	21.28
		3#3	21.32	22.03	21.86
		6#0	21.31	21.25	21.57
3M	QPSK	1#0	22.17	21.73	21.51
		1#7	22.25	21.72	21.05
		1#14	21.41	21.81	21.11
		8#0	22.13	21.35	21.51
		8#4	22.01	21.88	21.99
		8#7	21.76	21.89	21.74
		15#0	22.24	22.05	21.89
	16-QAM	1#0	22.04	21.17	21.17
		1#7	21.87	21.94	21.95
		1#14	21.47	21.21	21.07
		8#0	21.32	21.48	21.67
		8#4	21.86	21.59	21.63
		8#7	21.36	21.83	21.63
		15#0	21.71	21.66	21.53

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.85	21.34	21.95
		1#12	21.61	21.65	21.71
		1#24	21.45	21.31	21.27
		12#0	21.62	21.95	21.63
		12#6	21.93	22.11	21.58
		12#11	21.29	21.73	21.27
		25#0	21.27	21.75	21.60
	16-QAM	1#0	21.39	21.18	21.44
		1#12	21.59	22.09	21.34
		1#24	21.64	21.96	21.72
		12#0	21.49	21.65	21.42
		12#6	22.15	21.12	21.51
		12#11	21.37	21.71	21.27
		25#0	22.11	21.23	21.18
10M	QPSK	1#0	21.95	21.51	21.67
		1#24	22.11	21.83	21.70
		1#49	21.82	21.49	21.52
		25#0	21.31	21.88	21.56
		25#12	21.86	22.09	21.41
		25#24	21.32	21.22	21.68
		50#0	22.23	21.63	21.04
	16-QAM	1#0	22.23	21.53	21.18
		1#24	21.52	21.76	21.42
		1#49	21.79	21.19	21.09
		25#0	21.64	21.62	21.36
		25#12	21.62	21.75	21.93
		25#24	21.85	21.36	21.12
		50#0	21.41	21.61	21.20

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	21.61	21.82	21.45
		1#37	21.39	21.94	21.85
		1#74	22.14	21.41	21.38
		36#0	22.18	21.23	21.20
		36#17	21.39	21.91	21.18
		36#35	22.08	21.30	21.96
		75#0	21.44	21.19	21.12
	16-QAM	1#0	21.57	21.25	21.84
		1#37	21.35	21.55	21.32
		1#74	22.19	21.37	21.02
		36#0	22.13	21.22	21.98
		36#17	21.42	21.14	21.36
		36#35	21.76	21.86	21.03
		75#0	21.69	21.37	21.74
20M	QPSK	1#0	21.59	22.03	21.47
		1#49	21.34	22.07	21.10
		1#99	22.07	21.88	21.34
		50#0	22.17	21.18	21.53
		50#24	22.25	21.85	21.87
		50#49	21.92	21.33	21.80
		100#0	21.29	21.25	21.34
	16-QAM	1#0	22.01	21.92	21.39
		1#49	21.30	21.38	21.57
		1#99	21.90	21.47	21.88
		50#0	21.91	21.78	21.09
		50#24	21.49	21.56	21.95
		50#49	21.40	21.38	21.58
		100#0	22.07	21.21	21.86

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	21.32	22.08	21.11
		1#3	22.12	21.32	21.22
		1#5	22.01	21.64	21.33
		3#0	22.21	21.11	21.85
		3#1	21.98	21.31	21.02
		3#3	21.37	21.15	21.45
		6#0	21.43	22.02	21.56
	16-QAM	1#0	21.35	21.47	21.97
		1#3	21.85	21.69	21.49
		1#5	21.80	21.59	21.06
		3#0	21.61	21.22	21.13
		3#1	21.77	22.07	21.90
		3#3	22.18	21.64	22.00
		6#0	21.49	21.33	21.55
3M	QPSK	1#0	22.01	21.16	21.53
		1#7	21.43	21.23	21.96
		1#14	21.82	21.79	21.25
		8#0	21.33	21.70	21.67
		8#4	22.19	21.40	21.07
		8#7	22.14	21.39	21.14
		15#0	21.92	21.33	21.97
	16-QAM	1#0	21.46	21.49	21.14
		1#7	22.07	21.24	21.35
		1#14	21.44	21.44	21.07
		8#0	21.26	21.35	21.50
		8#4	21.31	21.35	21.93
		8#7	21.39	21.49	21.40
		15#0	22.23	21.25	21.30

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	22.14	21.84	21.06
		1#12	22.10	21.92	21.08
		1#24	21.57	21.18	21.88
		12#0	21.89	21.58	21.22
		12#6	21.81	21.26	21.56
		12#11	21.74	22.08	21.16
		25#0	22.16	21.38	21.17
	16-QAM	1#0	21.92	21.92	21.15
		1#12	22.07	21.59	21.99
		1#24	22.23	21.39	21.38
		12#0	21.95	21.36	21.53
		12#6	21.49	21.83	21.32
		12#11	22.12	21.78	21.86
		25#0	21.60	21.12	21.92
10M	QPSK	1#0	21.32	21.66	21.52
		1#24	21.30	22.00	21.22
		1#49	21.88	21.19	21.51
		25#0	22.00	21.76	21.42
		25#12	22.14	21.54	21.55
		25#24	22.09	21.49	21.35
		50#0	21.76	21.36	21.34
	16-QAM	1#0	21.55	21.41	21.99
		1#24	21.68	21.39	21.69
		1#49	22.02	21.94	21.31
		25#0	21.59	22.06	21.90
		25#12	21.91	21.75	21.17
		25#24	21.29	21.51	22.01
		50#0	21.70	21.45	21.06

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
15M	QPSK	1#0	21.26	21.45	21.31
		1#37	21.86	21.69	21.85
		1#74	21.66	22.05	21.51
		36#0	21.36	21.60	21.53
		36#17	22.19	21.28	21.30
		36#35	21.27	21.80	21.56
		75#0	21.50	22.09	21.50
	16-QAM	1#0	21.31	21.23	21.19
		1#37	21.72	21.60	21.09
		1#74	21.98	21.12	21.84
		36#0	21.66	21.27	21.54
		36#17	22.14	21.85	21.50
		36#35	21.95	21.32	21.23
		75#0	21.52	21.61	21.29
20M	QPSK	1#0	21.46	21.74	21.67
		1#49	21.87	21.43	21.04
		1#99	21.29	21.42	21.38
		50#0	21.48	21.58	21.45
		50#24	21.44	21.13	21.14
		50#49	21.37	21.21	21.82
		100#0	21.68	21.63	21.74
	16-QAM	1#0	21.87	22.08	21.27
		1#49	21.95	21.19	21.86
		1#99	21.33	21.48	21.90
		50#0	21.67	21.23	21.14
		50#24	21.81	21.65	21.16
		50#49	21.65	21.97	21.91
		100#0	22.08	22.00	21.46

LTE Band 5

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
1.4M	QPSK	1#0	21.97	21.22	21.94
		1#3	22.23	21.56	21.51
		1#5	21.56	22.01	21.33
		3#0	21.43	21.29	21.90
		3#1	21.51	21.91	21.90
		3#3	22.08	21.96	21.06
		6#0	21.37	21.49	21.46
	16-QAM	1#0	21.91	21.86	21.86
		1#3	22.15	21.12	21.59
		1#5	21.73	21.99	21.21
		3#0	21.43	21.67	21.32
		3#1	21.30	21.80	21.14
		3#3	21.38	21.68	21.73
		6#0	21.65	21.18	21.15
3M	QPSK	1#0	21.95	21.97	21.43
		1#7	22.17	22.02	21.45
		1#14	21.94	21.27	21.63
		8#0	21.51	21.63	21.98
		8#4	21.59	21.49	21.27
		8#7	21.46	21.57	21.13
		15#0	21.96	21.63	21.99
	16-QAM	1#0	22.19	21.15	21.28
		1#7	22.03	21.36	21.14
		1#14	21.59	21.72	21.45
		8#0	21.99	21.41	21.88
		8#4	21.72	21.90	21.77
		8#7	21.61	21.90	21.58
		15#0	21.72	21.71	21.04

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.90	21.64	21.65
		1#12	22.06	22.02	21.65
		1#24	21.50	21.38	21.15
		12#0	22.01	21.89	21.16
		12#6	21.45	21.97	21.37
		12#11	21.88	21.80	21.98
		25#0	21.62	21.29	21.28
	16-QAM	1#0	21.96	21.68	21.07
		1#12	21.71	21.90	21.49
		1#24	21.67	21.37	21.80
		12#0	22.05	21.37	21.38
		12#6	22.21	21.32	21.47
		12#11	21.66	21.52	21.46
		25#0	22.17	21.73	21.94
10M	QPSK	1#0	21.35	22.01	21.09
		1#24	21.62	21.48	21.87
		1#49	21.65	21.99	21.15
		25#0	21.57	21.47	21.82
		25#12	22.20	21.85	21.96
		25#24	22.17	21.84	21.28
		50#0	21.49	22.04	21.72
	16-QAM	1#0	21.62	21.86	21.75
		1#24	22.01	21.19	21.86
		1#49	22.08	21.79	21.23
		25#0	22.01	21.43	21.33
		25#12	21.56	21.26	21.39
		25#24	21.94	21.15	21.70
		50#0	22.21	21.62	21.84

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	21.72	21.40	21.88
		1#3	21.99	21.34	21.87
		1#5	21.43	21.15	21.86
		3#0	21.37	22.02	21.03
		3#1	21.29	22.00	21.79
		3#3	21.45	21.69	21.64
		6#0	21.41	21.79	21.47
	16-QAM	1#0	21.59	21.12	21.39
		1#3	22.14	21.17	21.52
		1#5	21.71	21.97	21.12
		3#0	21.99	21.51	21.39
		3#1	22.03	21.51	21.71
		3#3	21.64	21.42	21.38
		6#0	21.64	21.65	21.46
3M	QPSK	1#0	21.72	21.79	21.92
		1#7	21.66	22.01	21.52
		1#14	21.52	21.67	21.32
		8#0	22.19	21.45	21.24
		8#4	21.90	21.55	21.96
		8#7	22.03	22.05	21.95
		15#0	21.94	22.03	21.87
	16-QAM	1#0	22.25	21.14	21.53
		1#7	21.81	21.71	21.28
		1#14	21.50	21.78	21.15
		8#0	22.21	21.58	21.54
		8#4	21.63	21.19	21.98
		8#7	21.46	21.77	21.04
		15#0	21.94	21.29	21.95

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	21.70	21.76	21.10
		1#12	22.11	21.96	21.79
		1#24	21.81	21.32	21.83
		12#0	22.11	21.95	21.61
		12#6	22.25	22.01	21.20
		12#11	21.87	21.23	21.72
		25#0	21.60	21.59	21.73
	16-QAM	1#0	22.13	21.75	21.88
		1#12	21.99	21.32	21.88
		1#24	21.62	21.87	21.73
		12#0	21.93	21.61	21.99
		12#6	21.96	21.33	21.14
		12#11	21.66	21.46	21.32
		25#0	22.22	21.72	21.48
10M	QPSK	1#0	22.03	21.70	21.65
		1#24	21.43	21.70	21.05
		1#49	22.00	21.18	21.46
		25#0	21.50	21.94	21.35
		25#12	21.85	21.66	21.23
		25#24	21.68	22.10	21.77
		50#0	21.50	21.91	21.50
	16-QAM	1#0	21.31	21.13	21.05
		1#24	21.49	21.45	21.46
		1#49	21.34	21.40	21.37
		25#0	22.22	21.57	21.73
		25#12	22.02	21.34	21.28
		25#24	21.30	21.34	21.47
		50#0	21.31	21.22	21.99

LTE Band 17

Test Bandwidth	Test Modulation	Resource Block & RB offset	Low Channel (dBm)	Middle Channel (dBm)	High Channel (dBm)
5M	QPSK	1#0	22.06	21.91	22.01
		1#12	21.78	22.00	21.81
		1#24	21.91	22.02	21.38
		12#0	21.85	21.49	21.03
		12#6	21.99	21.43	21.29
		12#11	22.12	21.33	21.71
		25#0	21.54	21.44	21.74
	16-QAM	1#0	22.16	21.56	21.87
		1#12	21.97	21.83	21.78
		1#24	22.12	21.55	21.12
		12#0	22.16	21.27	21.69
		12#6	21.38	21.33	21.21
		12#11	21.67	21.88	21.59
		25#0	21.45	21.77	21.18
10M	QPSK	1#0	22.11	21.78	21.64
		1#24	22.18	21.86	21.23
		1#49	21.87	21.50	21.67
		25#0	21.85	21.35	21.60
		25#12	21.80	21.42	21.32
		25#24	21.68	21.24	21.81
		50#0	21.79	21.82	21.33
	16-QAM	1#0	21.99	21.11	21.03
		1#24	21.46	21.78	21.45
		1#49	21.98	21.71	21.76
		25#0	22.10	21.74	21.61
		25#12	22.04	21.69	21.18
		25#24	22.23	21.68	21.62
		50#0	21.42	21.74	21.27

Peak-to-average ratio (PAR):

WCDMA Band V

Mode	Channel	PAR (dB)	Limit (dB)
WCDMA (Rel99)	Low	2.15	≤ 13
	Middle	2.29	≤ 13
	High	2.16	≤ 13
WCDMA (HSDPA)	Low	2.14	≤ 13
	Middle	1.99	≤ 13
	High	2.07	≤ 13
WCDMA (HSUPA)	Low	2.05	≤ 13
	Middle	2.11	≤ 13
	High	2.20	≤ 13
WCDMA (HSPA+)	Low	2.18	≤ 13
	Middle	2.03	≤ 13
	High	2.14	≤ 13

WCDMA Band II

Mode	Channel	PAR (dB)	Limit (dB)
WCDMA (Rel99)	Low	2.00	≤ 13
	Middle	2.21	≤ 13
	High	2.04	≤ 13
WCDMA (HSDPA)	Low	2.07	≤ 13
	Middle	1.99	≤ 13
	High	2.22	≤ 13
WCDMA (HSUPA)	Low	2.05	≤ 13
	Middle	1.98	≤ 13
	High	1.95	≤ 13
WCDMA (HSPA+)	Low	2.24	≤ 13
	Middle	2.01	≤ 13
	High	1.99	≤ 13

LTE Band 2

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit (dB)
QPSK	1 RB	20M	3.01	3.10	3.05	13
	100 RB		5.19	5.05	5.07	13
16-QAM	1 RB	20M	4.06	4.16	4.03	13
	100 RB		6.12	6.19	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	3.04	3.06	3.16	13
	100 RB		5.06	5.20	5.04	13
16-QAM	1 RB	20M	4.03	4.03	4.06	13
	100 RB		6.04	6.14	6.10	13

LTE Band 5

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	10M	3.03	3.15	3.19	13
	50 RB		5.15	5.14	5.15	13
16-QAM	1 RB	10M	4.16	4.04	4.08	13
	50 RB		6.08	6.18	6.12	13

LTE Band 12

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	10M	3.10	3.00	3.12	13
	50 RB		5.15	5.07	5.17	13
16-QAM	1 RB	10M	4.15	4.04	4.15	13
	50 RB		6.06	6.07	6.00	13

LTE Band 17

Test Modulation		Test Bandwidth	Low Channel (dB)	Middle Channel (dB)	High Channel (dB)	Limit(dB)
QPSK	1 RB	10M	3.05	3.07	3.02	≤ 13
	50 RB		5.10	5.15	5.11	≤ 13
16-QAM	1 RB	10M	4.17	4.02	4.02	≤ 13
	50 RB		6.13	6.13	6.09	≤ 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)										
826.40	91.15	165	200	H	26.29	0.63	-1.17	24.49	38.45	13.96
826.40	91.24	278	150	V	26.38	0.63	-1.17	24.58	38.45	13.87
WCDMA Band II, Low Channel(EIRP)										
1852.40	87.09	170	200	H	16.96	0.84	8.76	24.88	33.00	8.12
1852.40	87.05	52	150	V	16.92	0.84	8.76	24.84	33.00	8.16

WCDMA Mode

Frequency (MHz)	Receiver Reading (dBμV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (cm)	Polar (H/V)	Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
WCDMA Band V, Middle Channel(ERP)										
836.60	91.33	250	200	H	26.47	0.63	-1.14	24.7	38.45	13.75
836.60	91.02	204	150	V	26.16	0.63	-1.14	24.39	38.45	14.06
WCDMA Band II, Middle Channel(EIRP)										
1880.00	87.11	335	200	H	16.98	0.85	8.81	24.94	33.00	8.06
1880.00	87.00	205	150	V	16.87	0.85	8.81	24.83	33.00	8.17

WCDMA Mode

Frequency (MHz)	Receiver Reading (dBμV)	Turntable Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (cm)	Polar (H/V)	Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
WCDMA Band V, High Channel(ERP)										
846.60	91.17	24	200	H	26.31	0.63	-1.11	24.57	38.45	13.88
846.60	91.41	312	150	V	26.55	0.63	-1.11	24.81	38.45	13.64
WCDMA Band II, High Channel(EIRP)										
1907.60	87.10	271	200	H	16.97	0.85	8.85	24.97	33.00	8.03
1907.60	87.07	292	150	V	16.94	0.85	8.85	24.94	33.00	8.06

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	V	91.23	16.5	0.84	8.76	24.42	33	8.58
1850.7	H	91.13	16.4	0.84	8.76	24.32	33	8.68
16-QAM 1.4M BW Low Channel								
1850.7	V	91.25	16.52	0.84	8.76	24.44	33	8.56
1850.7	H	91.62	16.89	0.84	8.76	24.81	33	8.19
QPSK 3M BW Low Channel								
1851.5	V	91.66	16.93	0.84	8.76	24.85	33	8.15
1851.5	H	91.41	16.68	0.84	8.76	24.60	33	8.40
16-QAM 3M BW Low Channel								
1851.5	V	91.10	16.37	0.84	8.76	24.29	33	8.71
1851.5	H	91.16	16.43	0.84	8.76	24.35	33	8.65
QPSK 5M BW Low Channel								
1852.5	V	91.14	16.41	0.84	8.76	24.33	33	8.67
1852.5	H	90.89	16.16	0.84	8.76	24.08	33	8.92
16-QAM 5M BW Low Channel								
1852.5	V	90.96	16.23	0.84	8.76	24.15	33	8.85
1852.5	H	90.86	16.13	0.84	8.76	24.05	33	8.95
QPSK 10M BW Low Channel								
1855.0	V	91.52	16.79	0.84	8.77	24.72	33	8.28
1855.0	H	91.42	16.69	0.84	8.77	24.62	33	8.38
16-QAM 10M BW Low Channel								
1855.0	V	91.53	16.8	0.84	8.77	24.73	33	8.27
1855.0	H	91.03	16.3	0.84	8.77	24.23	33	8.77
QPSK 15M BW Low Channel								
1857.5	V	90.88	16.15	0.84	8.77	24.08	33	8.92
1857.5	H	91.05	16.32	0.84	8.77	24.25	33	8.75
16-QAM 15M BW Low Channel								
1857.5	V	90.78	16.05	0.84	8.77	23.98	33	9.02
1857.5	H	91.14	16.41	0.84	8.77	24.34	33	8.66

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 20M BW Low Channel								
1860.0	V	90.86	16.13	0.84	8.78	24.07	33	8.93
1860.0	H	91.53	16.80	0.84	8.78	24.74	33	8.26
16-QAM 20M BW Low Channel								
1860.0	V	91.54	16.81	0.84	8.78	24.75	33	8.25
1860.0	H	91.28	16.55	0.84	8.78	24.49	33	8.51

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW Middle Channel								
1880.0	V	91.25	16.52	0.85	8.81	24.48	33	8.52
1880.0	H	91.12	16.39	0.85	8.81	24.35	33	8.65
16-QAM 1.4M BW Middle Channel								
1880.0	V	91.23	16.5	0.85	8.81	24.46	33	8.54
1880.0	H	91.65	16.92	0.85	8.81	24.88	33	8.12
QPSK 3M BW Middle Channel								
1880.0	V	91.32	16.59	0.85	8.81	24.55	33	8.45
1880.0	H	91.50	16.77	0.85	8.81	24.73	33	8.27
16-QAM 3M BW Middle Channel								
1880.0	V	91.25	16.52	0.85	8.81	24.48	33	8.52
1880.0	H	91.36	16.63	0.85	8.81	24.59	33	8.41
QPSK 5M BW Middle Channel								
1880.0	V	91.26	16.53	0.85	8.81	24.49	33	8.51
1880.0	H	91.14	16.41	0.85	8.81	24.37	33	8.63
16-QAM 5M BW Middle Channel								
1880.0	V	91.42	16.69	0.85	8.81	24.65	33	8.35
1880.0	H	91.23	16.5	0.85	8.81	24.46	33	8.54
QPSK 10M BW Middle Channel								
1880.0	V	91.15	16.42	0.85	8.81	24.38	33	8.62
1880.0	H	91.26	16.53	0.85	8.81	24.49	33	8.51
16-QAM 10M BW Middle Channel								
1880.0	V	91.39	16.66	0.85	8.81	24.62	33	8.38
1880.0	H	91.28	16.55	0.85	8.81	24.51	33	8.49
QPSK 15M BW Middle Channel								
1880.0	V	91.24	16.51	0.85	8.81	24.47	33	8.53
1880.0	H	91.41	16.68	0.85	8.81	24.64	33	8.36
16-QAM 15M BW Middle Channel								
1880.0	V	91.52	16.79	0.85	8.81	24.75	33	8.25
1880.0	H	91.22	16.49	0.85	8.81	24.45	33	8.55

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								
1880.0	V	90.89	16.16	0.85	8.81	24.12	33	8.88
1880.0	H	91.02	16.29	0.85	8.81	24.25	33	8.75
16-QAM 20M BW Middle Channel								
1880.0	V	90.95	16.22	0.85	8.81	24.18	33	8.82
1880.0	H	91.11	16.38	0.85	8.81	24.34	33	8.66

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW High Channel								
1909.3	V	90.86	16.13	0.85	8.85	24.13	33	8.87
1909.3	H	90.98	16.25	0.85	8.85	24.25	33	8.75
16-QAM 1.4M BW High Channel								
1909.3	V	91.23	16.50	0.85	8.85	24.50	33	8.50
1909.3	H	91.46	16.73	0.85	8.85	24.73	33	8.27
QPSK 3M BW High Channel								
1908.5	V	91.52	16.79	0.85	8.85	24.79	33	8.21
1908.5	H	91.23	16.50	0.85	8.85	24.50	33	8.50
16-QAM 3M BW Low Channel								
1908.5	V	91.53	16.80	0.85	8.85	24.80	33	8.20
1908.5	H	91.45	16.72	0.85	8.85	24.72	33	8.28
QPSK 5M BW High Channel								
1907.5	V	91.42	16.69	0.85	8.85	24.69	33	8.31
1907.5	H	91.13	16.40	0.85	8.85	24.40	33	8.60
16-QAM 5M BW High Channel								
1907.5	V	91.03	16.30	0.85	8.85	24.30	33	8.70
1907.5	H	91.11	16.38	0.85	8.85	24.38	33	8.62
QPSK 10M BW High Channel								
1905.0	V	91.26	16.53	0.85	8.85	24.53	33	8.47
1905.0	H	91.41	16.68	0.85	8.85	24.68	33	8.32
16-QAM 10M BW High Channel								
1905.0	V	91.41	16.68	0.85	8.85	24.68	33	8.32
1905.0	H	91.52	16.79	0.85	8.85	24.79	33	8.21
QPSK 15M BW High Channel								
1902.5	V	91.54	16.81	0.85	8.84	24.80	33	8.200
1902.5	H	90.88	16.15	0.85	8.84	24.14	33	8.86
16-QAM 15M BW High Channel								
1902.5	V	90.87	16.14	0.85	8.84	24.13	33	8.87
1902.5	H	91.23	16.50	0.85	8.84	24.49	33	8.51

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	V	90.86	16.13	0.85	8.84	24.12	33	8.88
1900.0	H	90.99	16.26	0.85	8.84	24.25	33	8.75
16-QAM 20M BW High Channel								
1900.0	V	91.18	16.45	0.85	8.84	24.44	33	8.56
1900.0	H	91.47	16.74	0.85	8.84	24.73	33	8.27

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	V	92.16	16.41	0.84	8.54	24.11	30	5.89
1710.7	H	92.85	17.10	0.84	8.54	24.80	30	5.20
16-QAM 1.4M BW Low Channel								
1710.7	V	92.45	16.7	0.84	8.54	24.40	30	5.60
1710.7	H	92.78	17.03	0.84	8.54	24.73	30	5.27
QPSK 3M BW Low Channel								
1711.5	V	92.16	16.41	0.84	8.54	24.11	30	5.89
1711.5	H	92.46	16.71	0.84	8.54	24.41	30	5.59
16-QAM 3M BW Low Channel								
1711.5	V	92.16	16.41	0.84	8.54	24.11	30	5.89
1711.5	H	92.83	17.08	0.84	8.54	24.78	30	5.22
QPSK 5M BW Low Channel								
1712.5	V	92.46	16.71	0.84	8.54	24.41	30	5.59
1712.5	H	92.15	16.40	0.84	8.54	24.10	30	5.90
16-QAM 5M BW Low Channel								
1712.5	V	92.16	16.41	0.84	8.54	24.11	30	5.89
1712.5	H	92.46	16.71	0.84	8.54	24.41	30	5.59
QPSK 10M BW Low Channel								
1715.0	V	92.87	17.12	0.84	8.54	24.82	30	5.18
1715.0	H	92.41	16.66	0.84	8.54	24.36	30	5.64
16-QAM 10M BW Low Channel								
1715.0	V	92.78	17.03	0.84	8.54	24.73	30	5.27
1715.0	H	93.01	17.26	0.84	8.54	24.96	30	5.04
QPSK 15M BW Low Channel								
1717.5	V	92.75	17.00	0.84	8.55	24.71	30	5.29
1717.5	H	92.45	16.70	0.84	8.55	24.41	30	5.59
16-QAM 15M BW Low Channel								
1717.5	V	92.16	16.41	0.84	8.55	24.12	30	5.88
1717.5	H	92.41	16.66	0.84	8.55	24.37	30	5.63

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 20M BW Low Channel								
1720.0	V	92.16	16.41	0.84	8.55	24.12	30	5.88
1720.0	H	92.43	16.68	0.84	8.55	24.39	30	5.61
16-QAM 20M BW Low Channel								
1720.0	V	92.16	16.41	0.84	8.55	24.12	30	5.88
1720.0	H	92.44	16.69	0.84	8.55	24.4	30	5.60

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	V	92.21	16.46	0.84	8.57	24.19	30	5.81
1732.5	H	92.63	16.88	0.84	8.57	24.61	30	5.39
16-QAM 1.4M BW Middle Channel								
1732.5	V	92.03	16.28	0.84	8.57	24.01	30	5.99
1732.5	H	93.01	17.26	0.84	8.57	24.99	30	5.01
QPSK 3M BW Middle Channel								
1732.5	V	92.56	16.81	0.84	8.57	24.54	30	5.46
1732.5	H	92.13	16.38	0.84	8.57	24.11	30	5.89
16-QAM 3M BW Middle Channel								
1732.5	V	92.15	16.40	0.84	8.57	24.13	30	5.87
1732.5	H	92.51	16.76	0.84	8.57	24.49	30	5.51
QPSK 5M BW Middle Channel								
1732.5	V	92.41	16.66	0.84	8.57	24.39	30	5.61
1732.5	H	92.16	16.41	0.84	8.57	24.14	30	5.86
16-QAM 5M BW Middle Channel								
1732.5	V	92.85	17.10	0.84	8.57	24.83	30	5.17
1732.5	H	92.16	16.41	0.84	8.57	24.14	30	5.86
QPSK 10M BW Middle Channel								
1732.5	V	92.69	16.94	0.84	8.57	24.67	30	5.33
1732.5	H	92.85	17.10	0.84	8.57	24.83	30	5.17
16-QAM 10M BW Middle Channel								
1732.5	V	92.58	16.83	0.84	8.57	24.56	30	5.44
1732.5	H	92.47	16.72	0.84	8.57	24.45	30	5.55
QPSK 15M BW Middle Channel								
1732.5	V	92.96	17.21	0.84	8.57	24.94	30	5.06
1732.5	H	92.85	17.10	0.84	8.57	24.83	30	5.17
16-QAM 15M BW Middle Channel								
1732.5	V	92.74	16.99	0.84	8.57	24.72	30	5.28
1732.5	H	92.85	17.10	0.84	8.57	24.83	30	5.17

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 20M BW Middle Channel								
1732.5	V	92.46	16.71	0.84	8.57	24.44	30	5.56
1732.5	H	92.15	16.40	0.84	8.57	24.13	30	5.87
16-QAM 20M BW Middle Channel								
1732.5	V	92.45	16.70	0.84	8.57	24.43	30	5.57
1732.5	H	92.16	16.41	0.84	8.57	24.14	30	5.86

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	V	92.16	16.41	0.84	8.61	24.18	30	5.82
1754.3	H	92.33	16.58	0.84	8.61	24.35	30	5.65
16-QAM 1.4M BW High Channel								
1754.3	V	92.45	16.7	0.84	8.61	24.47	30	5.53
1754.3	H	92.56	16.81	0.84	8.61	24.58	30	5.42
QPSK 3M BW High Channel								
1753.5	V	92.74	16.99	0.84	8.60	24.75	30	5.25
1753.5	H	92.38	16.63	0.84	8.60	24.39	30	5.61
16-QAM 3M BW High Channel								
1753.5	V	92.84	17.09	0.84	8.60	24.85	30	5.15
1753.5	H	92.63	16.88	0.84	8.60	24.64	30	5.36
QPSK 5M BW High Channel								
1752.5	V	92.16	16.41	0.84	8.60	24.17	30	5.83
1752.5	H	92.81	17.06	0.84	8.60	24.82	30	5.18
16-QAM 5M BW High Channel								
1752.5	V	92.52	16.77	0.84	8.60	24.53	30	5.47
1752.5	H	92.76	17.01	0.84	8.60	24.77	30	5.23
QPSK 10M BW High Channel								
1750.0	V	92.13	16.38	0.84	8.60	24.14	30	5.86
1750.0	H	92.16	16.41	0.84	8.60	24.17	30	5.83
16-QAM 10M BW High Channel								
1750.0	V	92.63	16.88	0.84	8.60	24.64	30	5.36
1750.0	H	92.55	16.8	0.84	8.60	24.56	30	5.44
QPSK 15M BW High Channel								
1747.5	V	92.18	16.43	0.84	8.60	24.19	30	5.81
1747.5	H	92.41	16.66	0.84	8.60	24.42	30	5.58
16-QAM 15M BW High Channel								
1747.5	V	92.71	16.96	0.84	8.60	24.72	30	5.28
1747.5	H	92.26	16.51	0.84	8.60	24.27	30	5.73

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	V	92.34	16.59	0.84	8.59	24.34	30	5.66
1745.0	H	92.51	16.76	0.84	8.59	24.51	30	5.49
16-QAM 20M High Channel								
1745.0	V	92.78	17.03	0.84	8.59	24.78	30	5.22
1745.0	H	92.40	16.65	0.84	8.59	24.4	30	5.60

LTE Band 5

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								
824.7	V	90.41	26.54	0.62	-1.18	24.74	38.45	13.71
824.7	H	90.26	26.39	0.62	-1.18	24.59	38.45	13.86
16-QAM 1.4M BW Low Channel								
824.7	V	90.15	26.28	0.62	-1.18	24.48	38.45	13.97
824.7	H	90.34	26.47	0.62	-1.18	24.67	38.45	13.78
QPSK 3M BW Low Channel								
825.5	V	90.42	26.55	0.63	-1.17	24.75	38.45	13.70
825.5	H	90.55	26.68	0.63	-1.17	24.88	38.45	13.57
16-QAM 3M BW Low Channel								
825.5	V	90.40	26.53	0.63	-1.17	24.73	38.45	13.72
825.5	H	89.78	25.91	0.63	-1.17	24.11	38.45	14.34
QPSK 5M BW Low Channel								
826.5	V	89.84	25.97	0.63	-1.17	24.17	38.45	14.28
826.5	H	90.33	26.46	0.63	-1.17	24.66	38.45	13.79
16-QAM 5M BW Low Channel								
826.5	V	89.95	26.08	0.63	-1.17	24.28	38.45	14.17
826.5	H	90.26	26.39	0.63	-1.17	24.59	38.45	13.86
QPSK 10M BW Low Channel								
829.0	V	89.79	25.92	0.63	-1.16	24.13	38.45	14.32
829.0	H	89.96	26.09	0.63	-1.16	24.30	38.45	14.15
16-QAM 10M BW Low Channel								
829.0	V	90.16	26.29	0.63	-1.16	24.50	38.45	13.95
829.0	H	90.35	26.48	0.63	-1.16	24.69	38.45	13.76

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								
836.5	V	90.23	26.36	0.63	-1.14	24.59	38.45	13.86
836.5	H	90.12	26.25	0.63	-1.14	24.48	38.45	13.97
16-QAM 1.4M BW Middle Channel								
836.5	V	89.96	26.09	0.63	-1.14	24.32	38.45	14.13
836.5	H	89.88	26.01	0.63	-1.14	24.24	38.45	14.21
QPSK 3M BW Middle Channel								
836.5	V	90.51	26.64	0.63	-1.14	24.87	38.45	13.58
836.5	H	90.13	26.26	0.63	-1.14	24.49	38.45	13.96
16-QAM 3M BW Middle Channel								
836.5	V	90.16	26.29	0.63	-1.14	24.52	38.45	13.93
836.5	H	90.39	26.52	0.63	-1.14	24.75	38.45	13.70
QPSK 5M BW Middle Channel								
836.5	V	90.78	26.91	0.63	-1.14	25.14	38.45	13.31
836.5	H	90.76	26.89	0.63	-1.14	25.12	38.45	13.33
16-QAM 5M BW Middle Channel								
836.5	V	90.26	26.39	0.63	-1.14	24.62	38.45	13.83
836.5	H	90.46	26.59	0.63	-1.14	24.82	38.45	13.63
QPSK 10M BW Middle Channel								
836.5	V	90.48	26.61	0.63	-1.14	24.84	38.45	13.61
836.5	H	90.56	26.69	0.63	-1.14	24.92	38.45	13.53
16-QAM 10M BW Middle Channel								
836.5	V	90.45	26.58	0.63	-1.14	24.81	38.45	13.64
836.5	H	89.99	26.12	0.63	-1.14	24.35	38.45	14.10

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW High Channel								
848.3	V	90.23	26.36	0.63	-1.11	24.62	38.45	13.83
848.3	H	90.17	26.3	0.63	-1.11	24.56	38.45	13.89
16-QAM 1.4M BW High Channel								
848.3	V	90.60	26.73	0.63	-1.11	24.99	38.45	13.46
848.3	H	90.41	26.54	0.63	-1.11	24.80	38.45	13.65
QPSK 3M BW High Channel								
847.5	V	90.52	26.65	0.63	-1.11	24.91	38.45	13.54
847.5	H	90.32	26.45	0.63	-1.11	24.71	38.45	13.74
16-QAM 3M BW High Channel								
847.5	V	89.96	26.09	0.63	-1.11	24.35	38.45	14.10
847.5	H	90.21	26.34	0.63	-1.11	24.60	38.45	13.85
QPSK 5M BW High Channel								
846.5	V	89.72	25.85	0.63	-1.11	24.11	38.45	14.34
846.5	H	90.03	26.16	0.63	-1.11	24.42	38.45	14.03
16-QAM 5M BW High Channel								
846.5	V	90.14	26.27	0.63	-1.11	24.53	38.45	13.92
846.5	H	90.56	26.69	0.63	-1.11	24.95	38.45	13.50
QPSK 10M BW High Channel								
844.0	V	89.76	25.89	0.63	-1.12	24.14	38.45	14.31
844.0	H	90.08	26.21	0.63	-1.12	24.46	38.45	13.99
16-QAM 10M BW High Channel								
844.0	V	89.84	25.97	0.63	-1.12	24.22	38.45	14.23
844.0	H	90.34	26.47	0.63	-1.12	24.72	38.45	13.73

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	V	90.43	26.79	0.62	-1.75	24.42	34.77	10.35
699.7	H	90.93	27.29	0.62	-1.75	24.92	34.77	9.85
16-QAM 1.4M BW Low Channel								
699.7	V	90.38	26.74	0.62	-1.75	24.37	34.77	10.40
699.7	H	90.17	26.53	0.62	-1.75	24.16	34.77	10.61
QPSK 3M BW Low Channel								
700.5	V	90.23	26.59	0.62	-1.75	24.22	34.77	10.55
700.5	H	90.18	26.54	0.62	-1.75	24.17	34.77	10.60
16-QAM 3M BW Low Channel								
700.5	V	90.16	26.52	0.62	-1.75	24.15	34.77	10.62
700.5	H	90.26	26.62	0.62	-1.75	24.25	34.77	10.52
QPSK 5M BW Low Channel								
701.5	V	90.13	26.49	0.62	-1.74	24.13	34.77	10.64
701.5	H	90.09	26.45	0.62	-1.74	24.09	34.77	10.68
16-QAM 5M BW Low Channel								
701.5	V	90.23	26.59	0.62	-1.74	24.23	34.77	10.54
701.5	H	90.39	26.75	0.62	-1.74	24.39	34.77	10.38
QPSK 10M BW Low Channel								
704.0	V	90.53	26.89	0.62	-1.73	24.54	34.77	10.23
704.0	H	90.12	26.48	0.62	-1.73	24.13	34.77	10.64
16-QAM 10M BW Low Channel								
704.0	V	89.99	26.35	0.62	-1.73	24.00	34.77	10.77
704.0	H	90.44	26.8	0.62	-1.73	24.45	34.77	10.32

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	V	90.23	26.74	0.62	-1.71	24.41	34.77	10.36
707.5	H	90.56	27.07	0.62	-1.71	24.74	34.77	10.03
16-QAM 1.4M BW Middle Channel								
707.5	V	90.78	27.29	0.62	-1.71	24.96	34.77	9.81
707.5	H	89.96	26.47	0.62	-1.71	24.14	34.77	10.63
QPSK 3M BW Middle Channel								
707.5	V	90.55	27.06	0.62	-1.71	24.73	34.77	10.04
707.5	H	90.24	26.75	0.62	-1.71	24.42	34.77	10.35
16-QAM 3M BW Middle Channel								
707.5	V	90.16	26.67	0.62	-1.71	24.34	34.77	10.43
707.5	H	90.43	26.94	0.62	-1.71	24.61	34.77	10.16
QPSK 5M BW Middle Channel								
707.5	V	90.18	26.69	0.62	-1.71	24.36	34.77	10.41
707.5	H	90.36	26.87	0.62	-1.71	24.54	34.77	10.23
16-QAM 5M BW Middle Channel								
707.5	V	89.85	26.36	0.62	-1.71	24.03	34.77	10.74
707.5	H	90.06	26.57	0.62	-1.71	24.24	34.77	10.53
QPSK 10M BW Middle Channel								
707.5	V	89.95	26.46	0.62	-1.71	24.13	34.77	10.64
707.5	H	90.13	26.64	0.62	-1.71	24.31	34.77	10.46
16-QAM 10M BW Middle Channel								
707.5	V	90.17	26.68	0.62	-1.71	24.35	34.77	10.42
707.5	H	90.33	26.84	0.62	-1.71	24.51	34.77	10.26

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 1.4M BW High Channel								
715.3	V	90.88	26.96	0.62	-1.67	24.67	34.77	10.10
715.3	H	90.46	26.54	0.62	-1.67	24.25	34.77	10.52
16-QAM 1.4M BW High Channel								
715.3	V	90.58	26.66	0.62	-1.67	24.37	34.77	10.40
715.3	H	90.41	26.49	0.62	-1.67	24.20	34.77	10.57
QPSK 3M BW High Channel								
714.5	V	90.56	26.64	0.62	-1.68	24.34	34.77	10.43
714.5	H	90.35	26.43	0.62	-1.68	24.13	34.77	10.64
16-QAM 3M BW High Channel								
714.5	V	90.78	26.86	0.62	-1.68	24.56	34.77	10.21
714.5	H	90.66	26.74	0.62	-1.68	24.44	34.77	10.33
QPSK 5M BW High Channel								
713.5	V	90.51	26.59	0.62	-1.68	24.29	34.77	10.48
713.5	H	90.83	26.91	0.62	-1.68	24.61	34.77	10.16
16-QAM 5M BW High Channel								
713.5	V	90.85	26.93	0.62	-1.68	24.63	34.77	10.14
713.5	H	90.41	26.49	0.62	-1.68	24.19	34.77	10.58
QPSK 10M BW High Channel								
711.0	V	90.74	26.82	0.62	-1.70	24.50	34.77	10.27
711.0	H	90.58	26.66	0.62	-1.70	24.34	34.77	10.43
16-QAM 10M BW High Channel								
711.0	V	90.93	27.01	0.62	-1.700	24.69	34.77	10.08
711.0	H	90.36	26.44	0.62	-1.7	24.12	34.77	10.65

ERP:

LTE Band 17

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW Low Channel								
706.5	V	90.91	26.46	0.62	-1.72	24.12	34.77	10.65
706.5	H	91.51	27.06	0.62	-1.72	24.72	34.77	10.05
16-QAM 5M BW Low Channel								
706.5	V	91.03	26.58	0.62	-1.72	24.24	34.77	10.53
706.5	H	91.41	26.96	0.62	-1.72	24.62	34.77	10.15
QPSK 10M BW Low Channel								
709.0	V	91.01	26.56	0.62	-1.71	24.23	34.77	10.54
709.0	H	91.40	26.95	0.62	-1.71	24.62	34.77	10.15
16-QAM 10M BW Low Channel								
709.0	V	91.24	26.79	0.62	-1.71	24.46	34.77	10.31
709.0	H	91.35	26.90	0.62	-1.71	24.57	34.77	10.20

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW Middle Channel								
710.0	V	91.23	26.95	0.62	-1.70	24.63	34.77	10.14
710.0	H	91.56	27.28	0.62	-1.70	24.96	34.77	9.81
16-QAM 5M BW Middle Channel								
710.0	V	91.12	26.84	0.62	-1.70	24.52	34.77	10.25
710.0	H	90.96	26.68	0.62	-1.70	24.36	34.77	10.41
QPSK 10M BW Middle Channel								
710.0	V	90.92	26.64	0.62	-1.70	24.32	34.77	10.45
710.0	H	91.37	27.09	0.62	-1.70	24.77	34.77	10.00
16-QAM 10M BW Middle Channel								
710.0	V	90.67	26.39	0.62	-1.70	24.07	34.77	10.70
710.0	H	91.30	27.02	0.62	-1.70	24.70	34.77	10.07

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Submitted Level (dBm)	Cable loss (dB)	Antenna Gain (dBd/dBi)			
QPSK 5M BW High Channel								
713.5	V	91.37	27.26	0.62	-1.68	24.96	34.77	9.81
713.5	H	91.16	27.05	0.62	-1.68	24.75	34.77	10.02
16-QAM 5M BW High Channel								
713.5	V	90.76	26.65	0.62	-1.68	24.35	34.77	10.42
713.5	H	90.76	26.65	0.62	-1.68	24.35	34.77	10.42
QPSK 10M BW High Channel								
711.0	V	90.88	26.77	0.62	-1.70	24.45	34.77	10.32
711.0	H	90.83	26.72	0.62	-1.70	24.40	34.77	10.37
16-QAM 10M BW High Channel								
711.0	V	91.29	27.18	0.62	-1.70	24.86	34.77	9.91
711.0	H	91.41	27.30	0.62	-1.70	24.98	34.77	9.79

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 - OCCUPIED BANDWIDTH

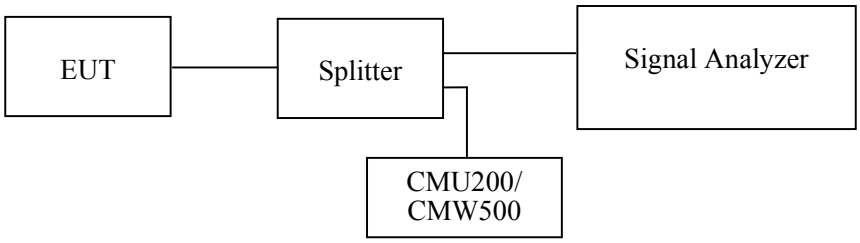
Applicable Standards

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

Test Procedure

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

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



Test Data

Environmental Conditions

Temperature:	24.9~25.3 ℃
Relative Humidity:	50~52 %
ATM Pressure:	100.7~102.9 kPa

The testing was performed by Miller Xie from 2021-05-13 to 2021-05-23.

EUT operation mode: Transmitting

Test Result: Compliance.

WCDMA Band V

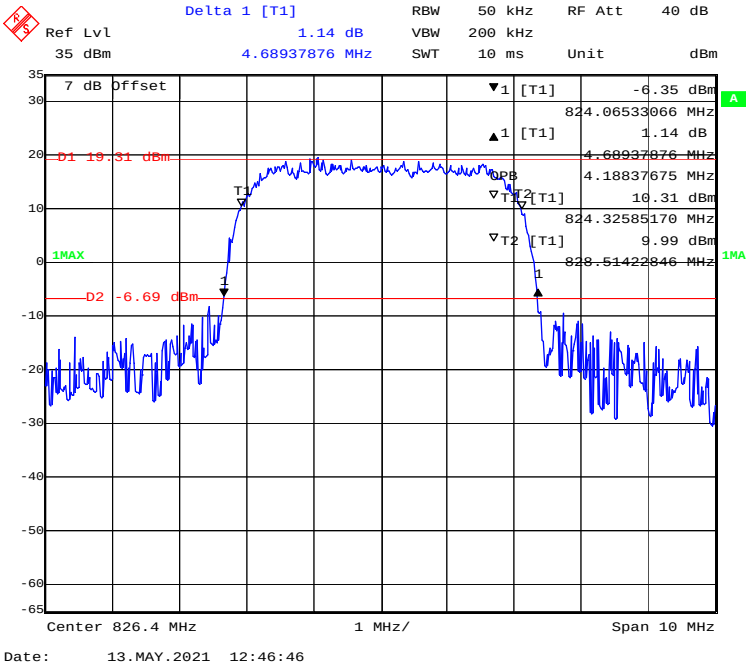
Mode	Frequency (MHz)	26 dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
WCDMA (Rel 99)	826.4	4.689	4.188
	836.6	4.669	4.168
	846.6	4.689	4.148
WCDMA (HSDPA)	826.4	4.689	4.168
	836.6	4.689	4.168
	846.6	4.689	4.148
WCDMA (HSUPA)	826.4	4.689	4.168
	836.6	4.689	4.188
	846.6	4.689	4.168
WCDMA (HSPA+)	826.4	4.689	4.168
	836.6	4.689	4.168
	846.6	4.709	4.168

WCDMA Band II

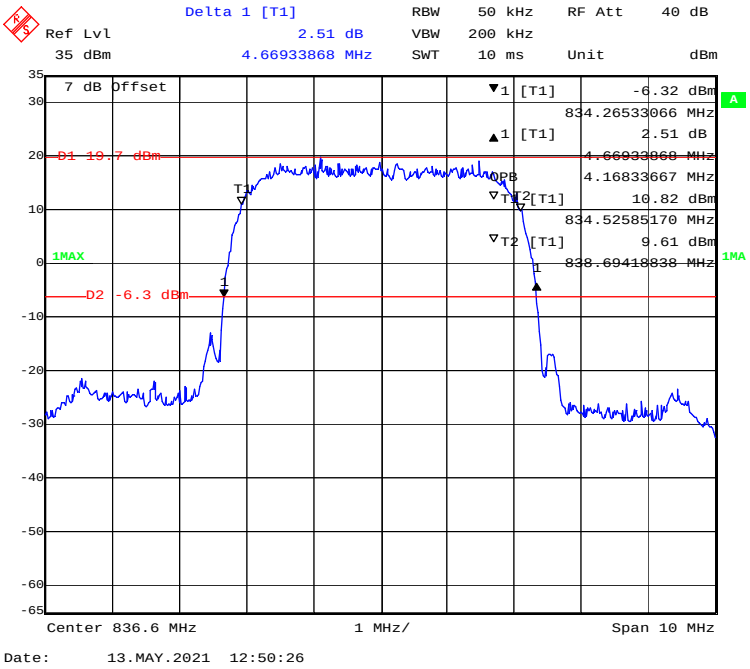
Mode	Frequency (MHz)	26 dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
WCDMA (Rel 99)	1852.4	4.669	4.148
	1880.0	4.689	4.128
	1907.6	4.689	4.128
WCDMA (HSDPA)	1852.4	4.669	4.128
	1880.0	4.689	4.128
	1907.6	4.689	4.148
WCDMA (HSUPA)	1852.4	4.709	4.128
	1880.0	4.709	4.128
	1907.6	4.669	4.148
WCDMA (HSPA+)	1852.4	4.709	4.128
	1880.0	4.689	4.128
	1907.6	4.689	4.128

WCDMA Band V

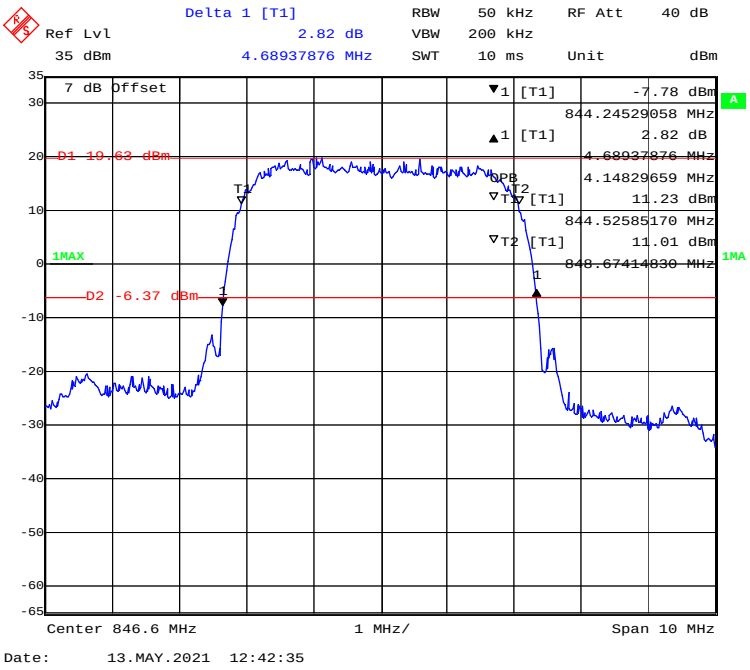
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) Low channel



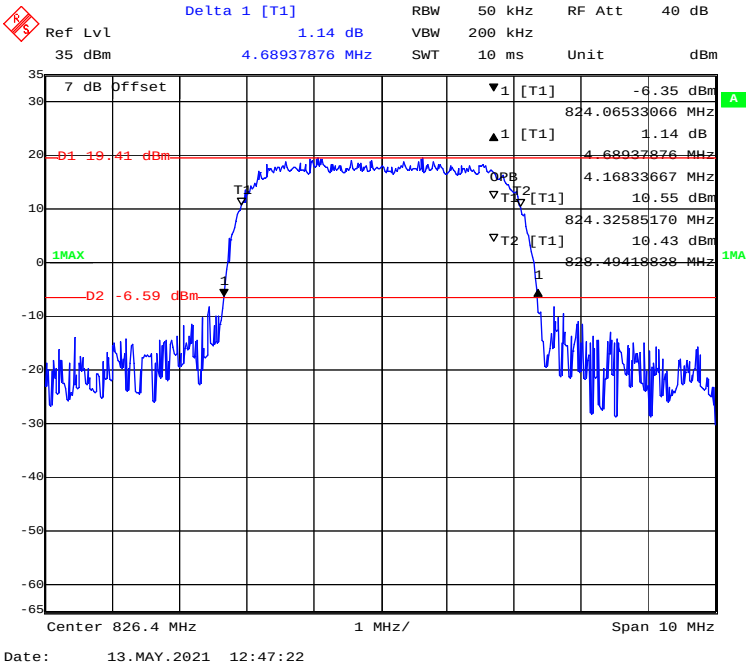
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) Middle channel



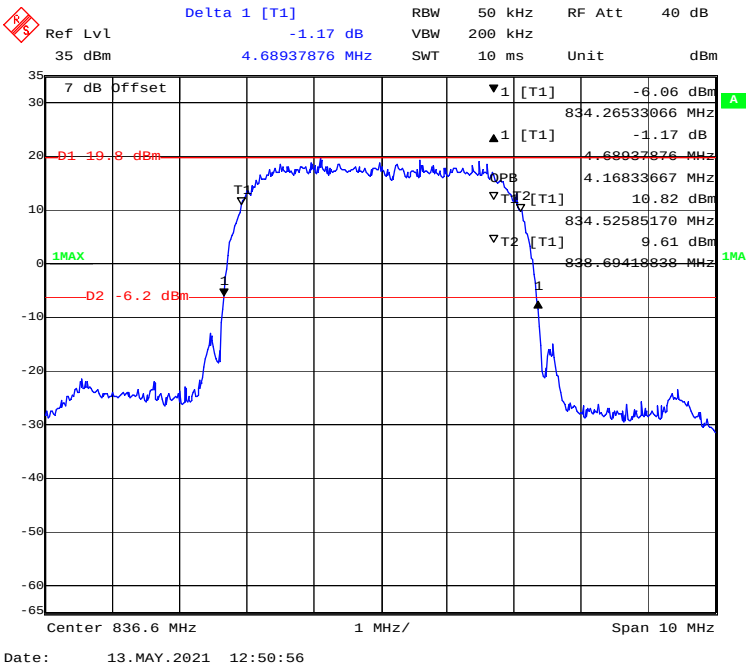
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) High channel



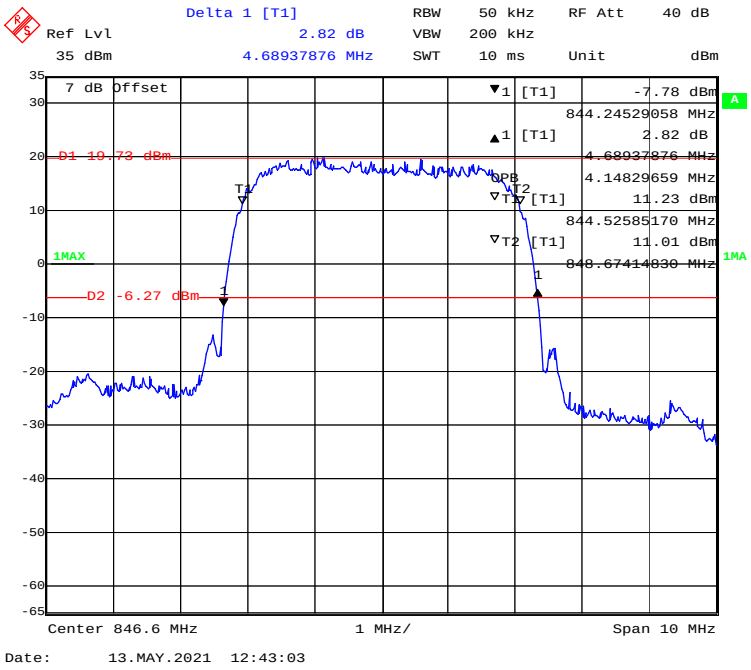
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) Low channel



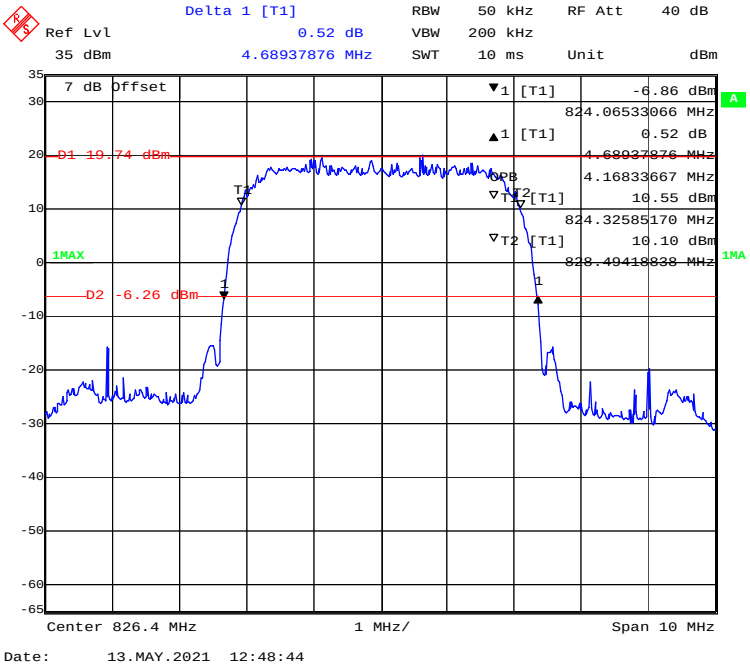
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) Middle channel



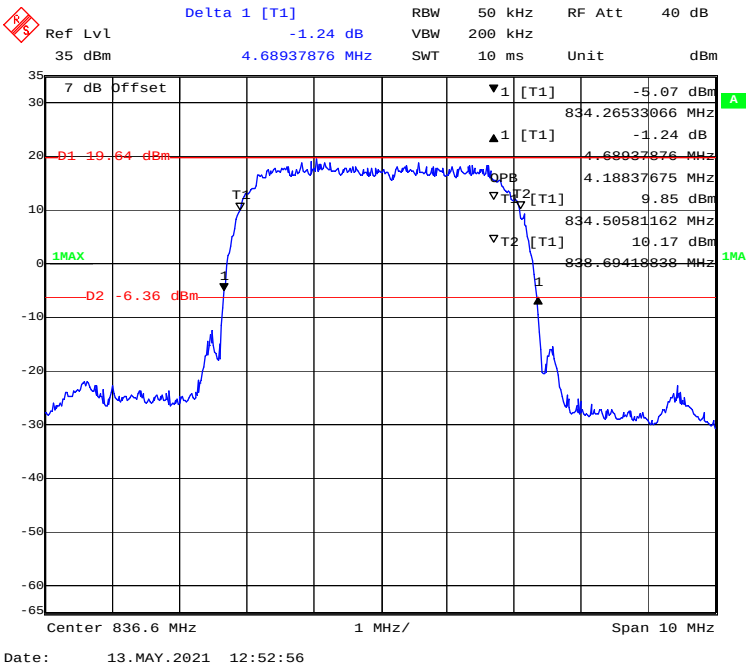
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) High channel



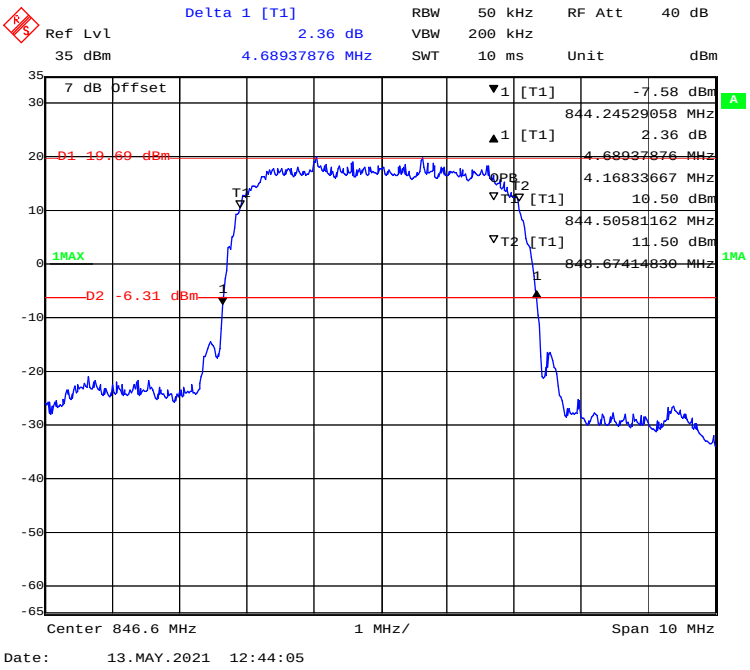
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) Low channel



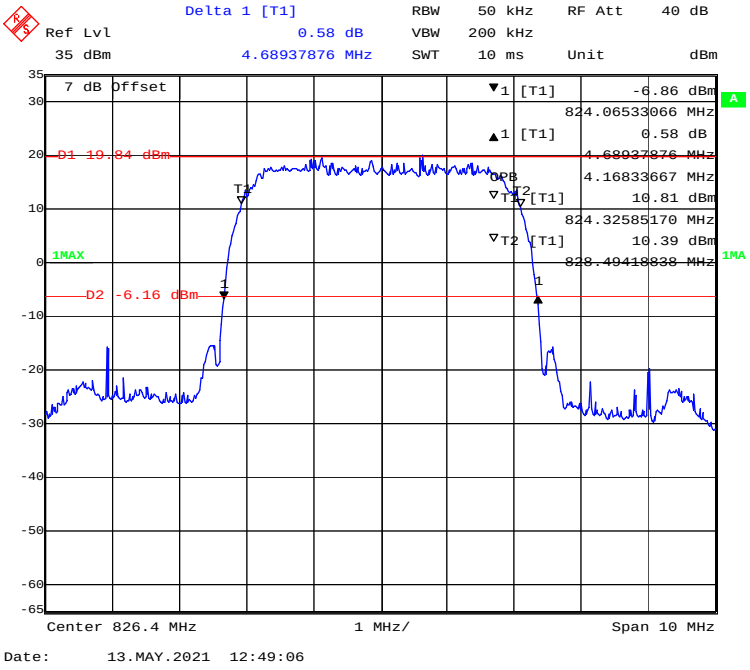
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) Middle channel



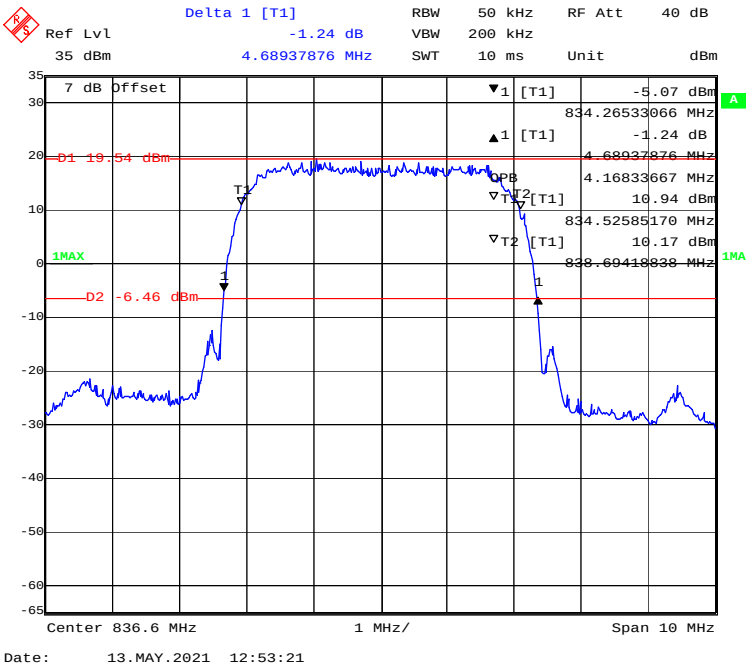
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) High channel



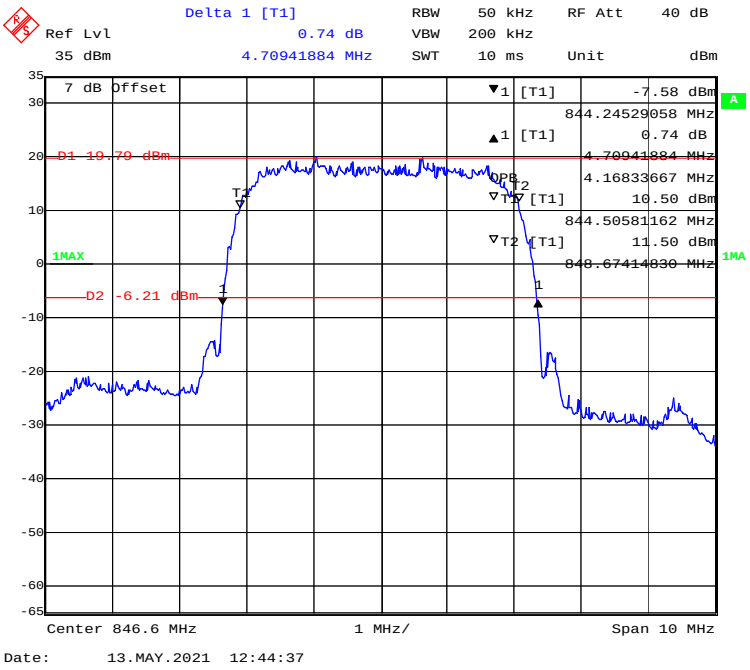
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSPA+) Low channel



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

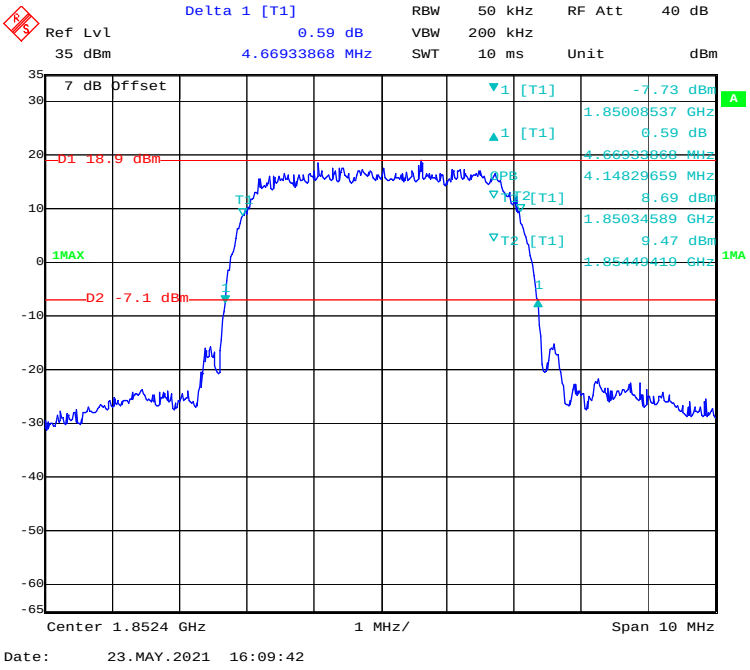


99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSPA+) High channel

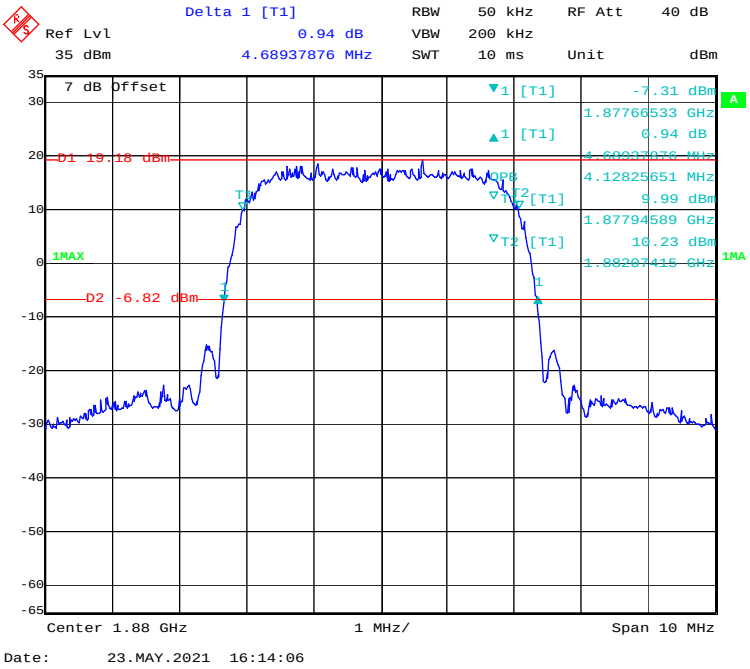


WCDMA Band II

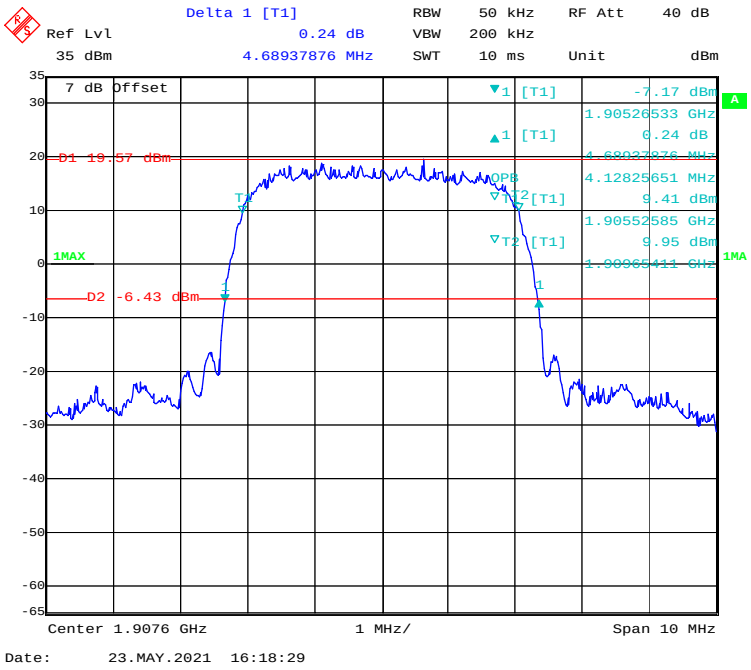
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) Low channel



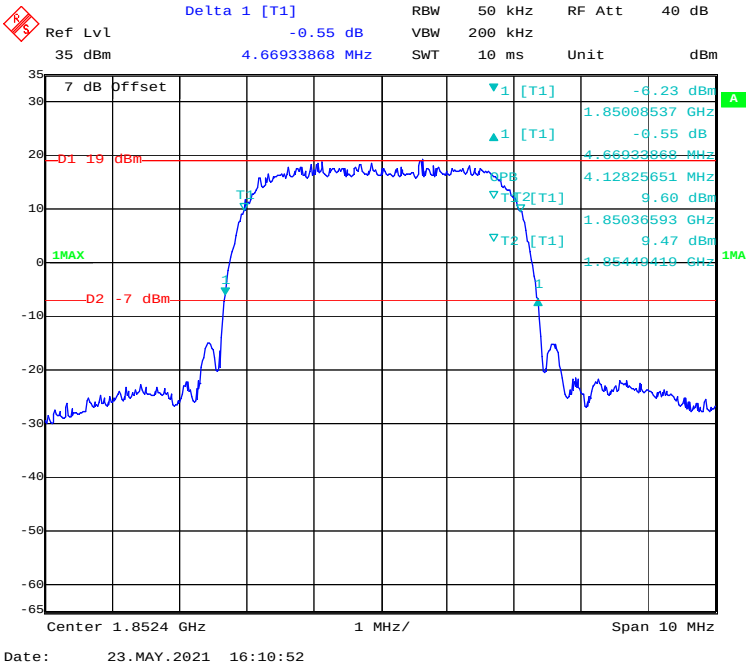
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) Middle channel



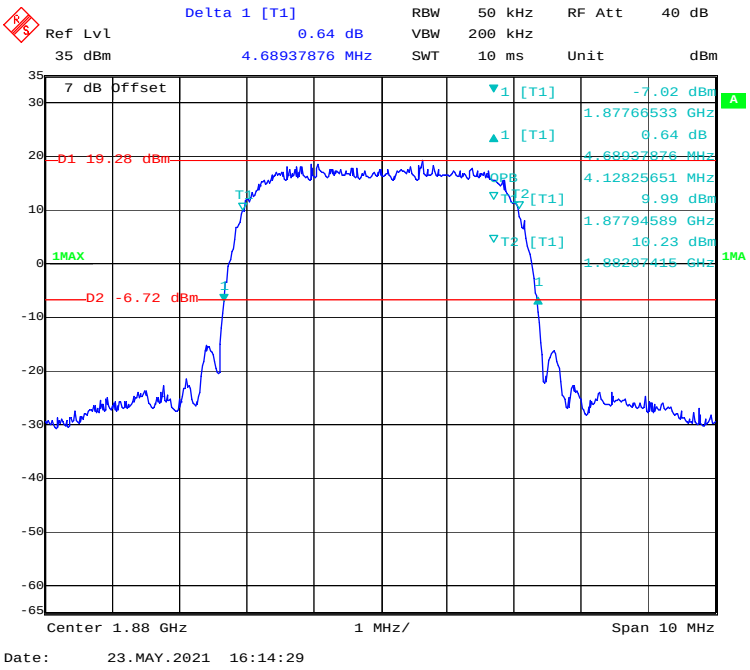
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (Rel 99) High channel



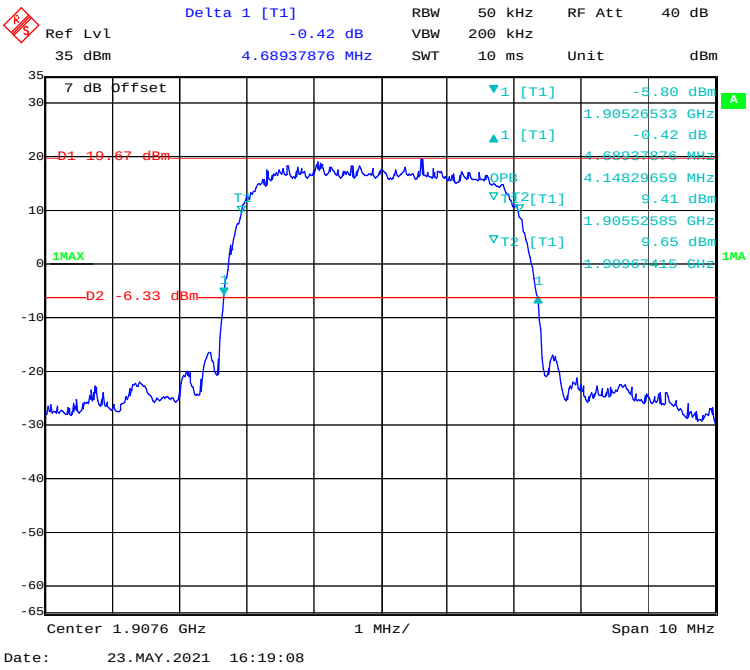
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) Low channel



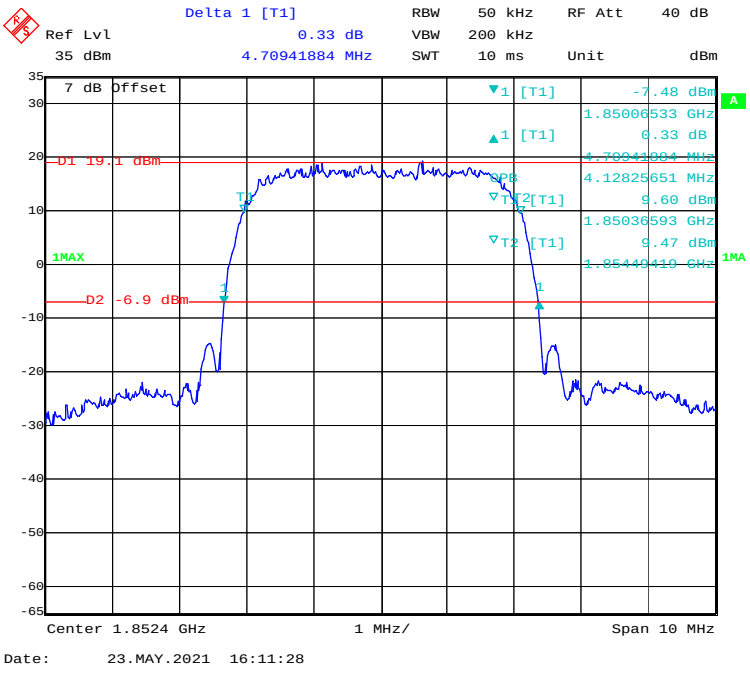
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) Middle channel



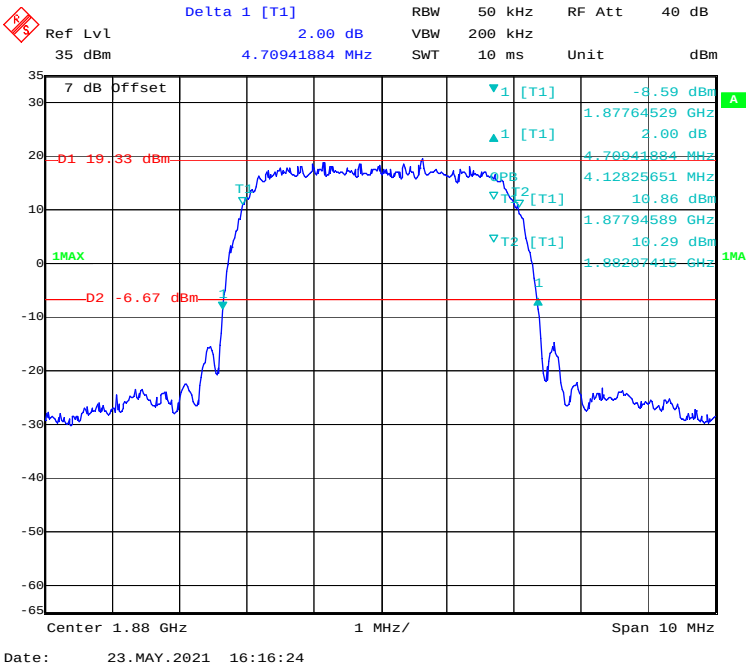
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSDPA) High channel



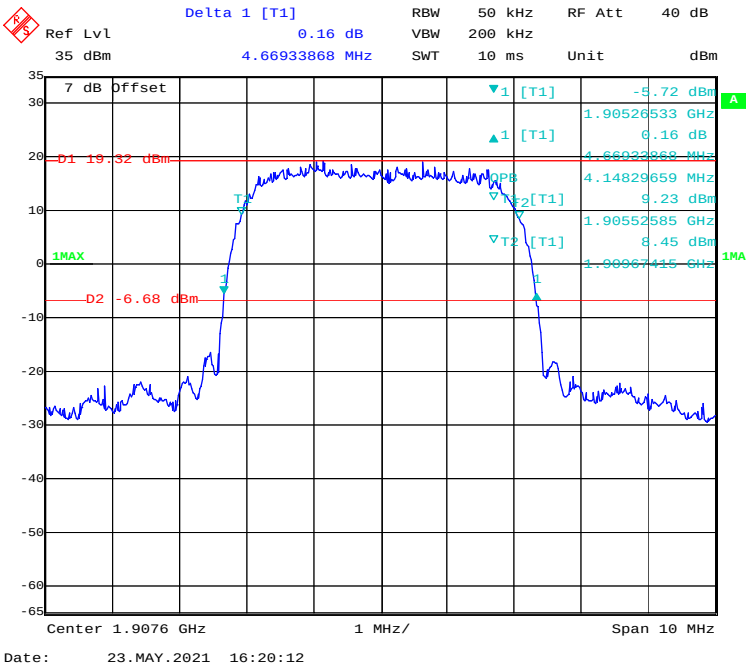
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) Low channel



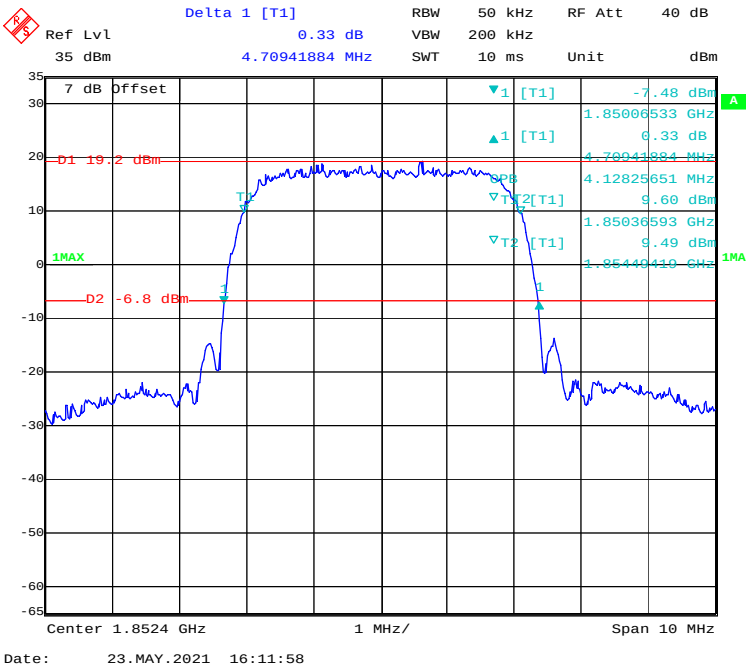
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) Middle channel



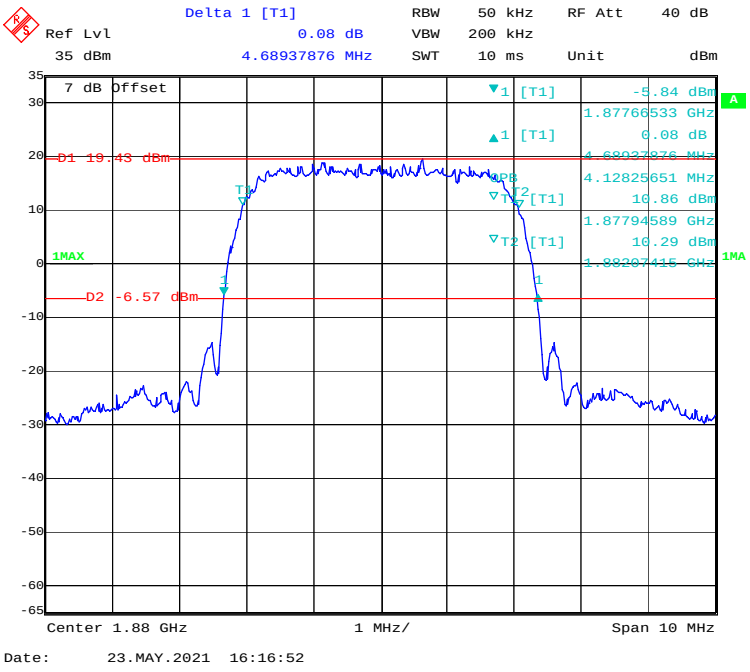
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSUPA) High channel



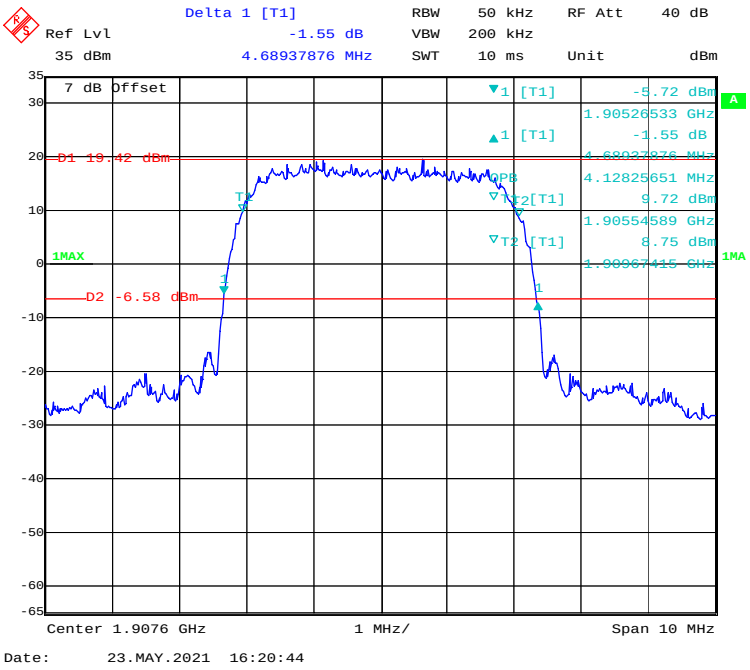
99% Occupied & 26 dB Emissions Bandwidth for WCDMA (HSPA+) Low channel



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



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

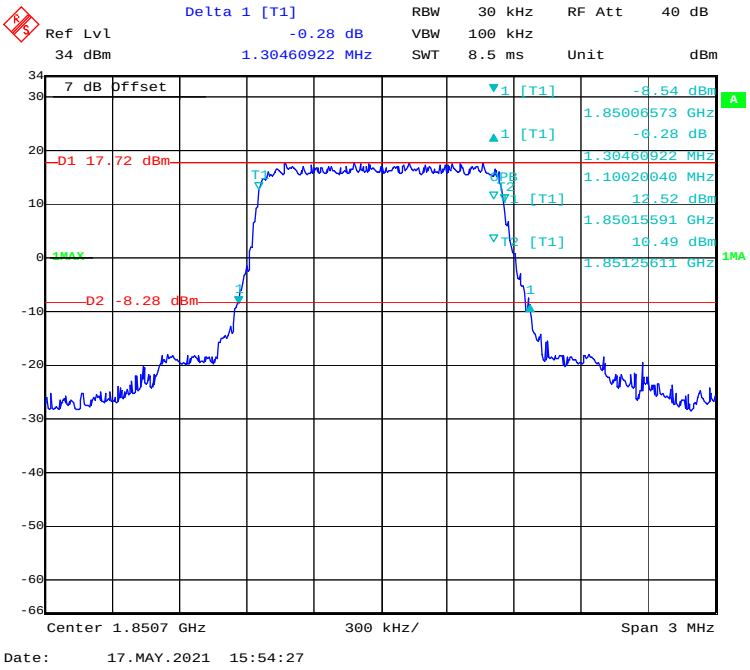


LTE Band 2:

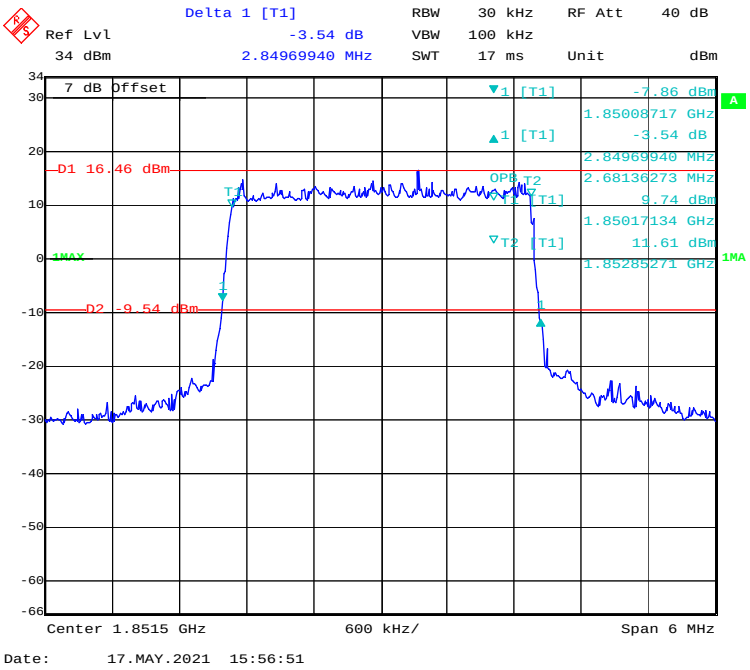
Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	1.4M	Low	1.305	1.100
	3M		2.850	2.681
	5M		4.970	4.529
	10M		9.579	8.938
	15M		14.669	13.527
	20M		19.238	17.956
	1.4M	Middle	1.293	1.100
	3M		2.874	2.693
	5M		4.970	4.529
	10M		9.619	8.978
	15M		14.729	13.527
	20M		19.319	17.956
	1.4M	High	1.287	1.106
	3M		2.874	2.693
	5M		4.950	4.529
	10M		9.619	8.978
	15M		14.850	13.527
	20M		19.238	17.956

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
16-QAM	1.4M	Low	1.299	1.106
	3M		2.862	2.681
	5M		4.950	4.509
	10M		9.579	8.938
	15M		14.669	13.527
	20M		19.319	17.956
	1.4M	Middle	1.287	1.094
	3M		2.874	2.681
	5M		4.970	4.529
	10M		9.659	8.978
	15M		14.790	13.467
	20M		19.399	17.956
	1.4M	High	1.293	1.100
	3M		2.874	2.681
	5M		4.970	4.529
	10M		9.579	8.978
	15M		14.729	13.527
	20M		19.238	17.956

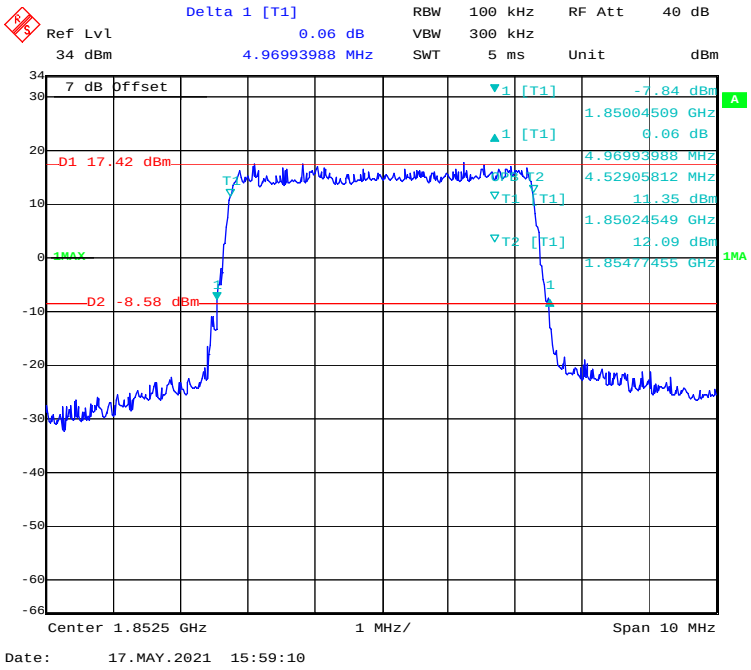
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



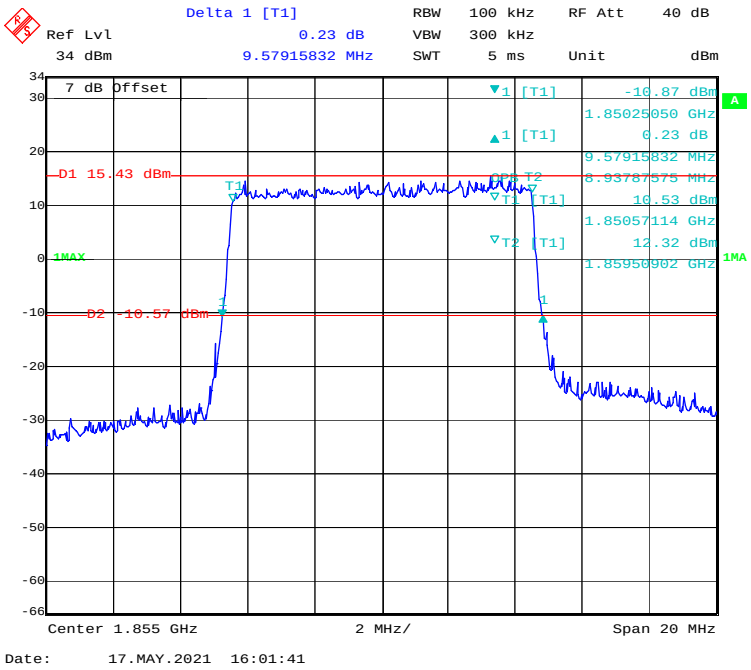
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



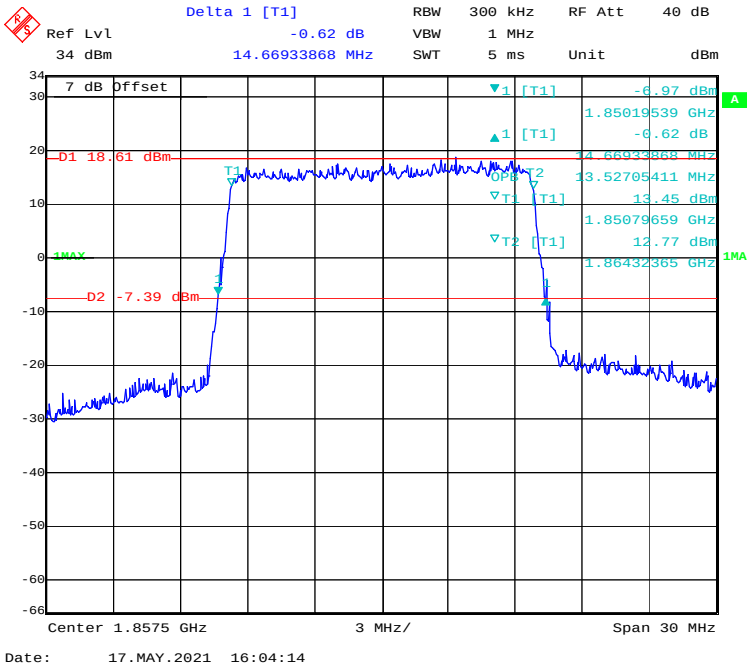
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



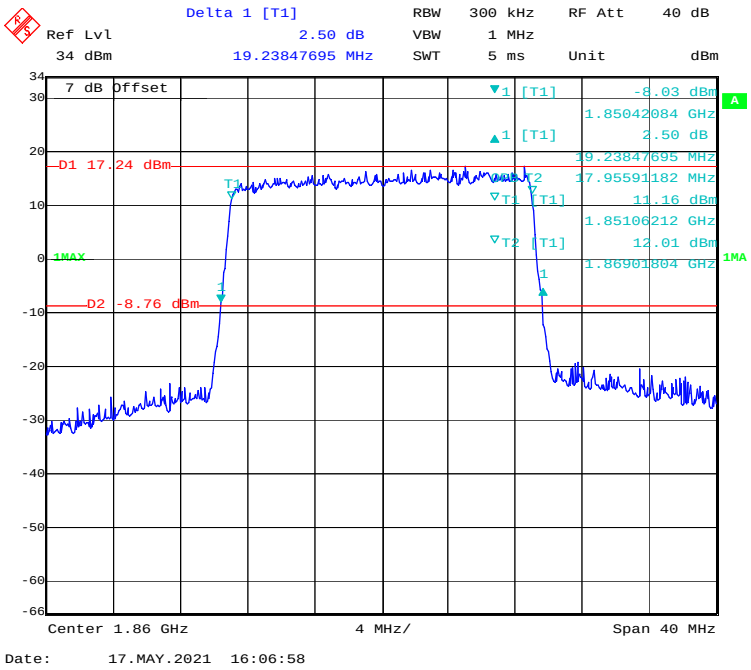
QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



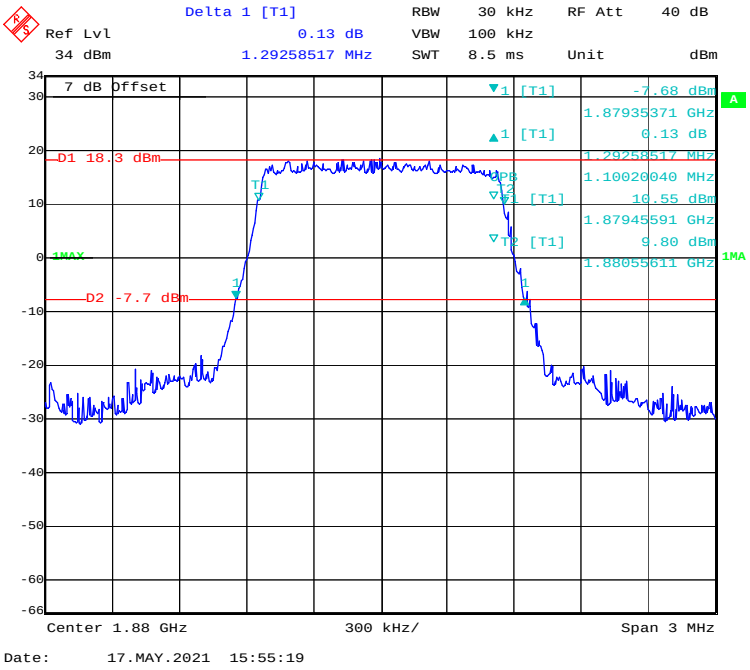
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



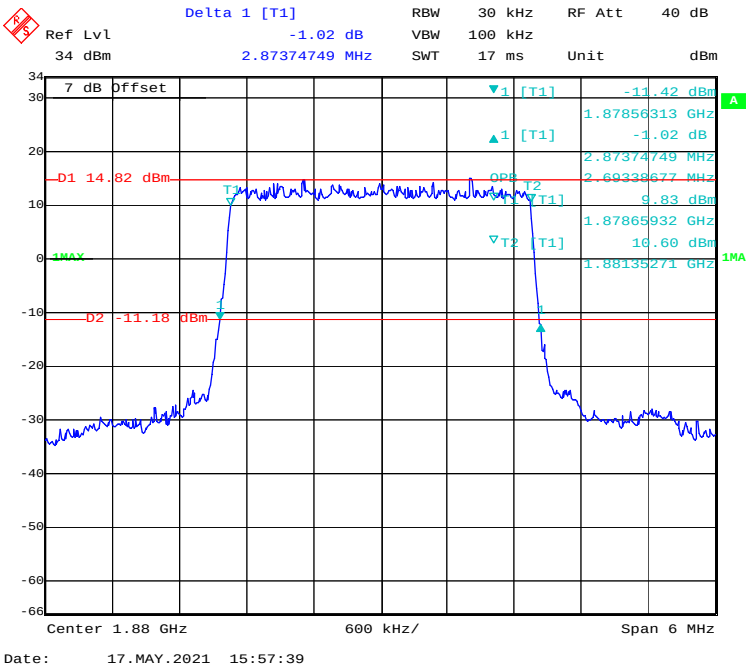
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



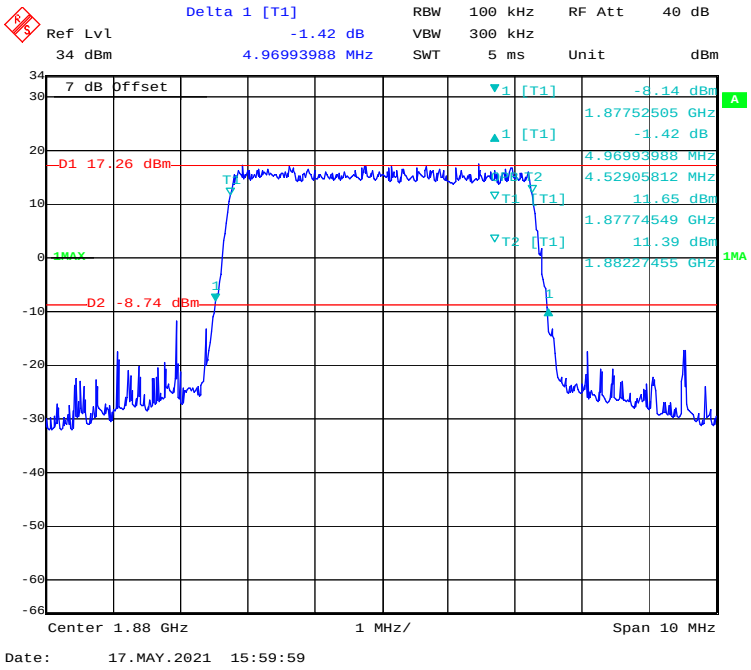
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



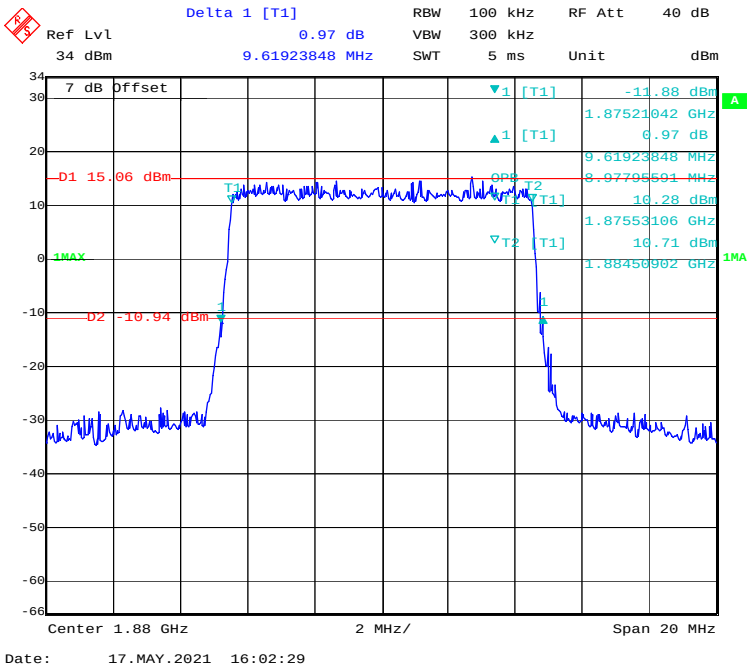
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



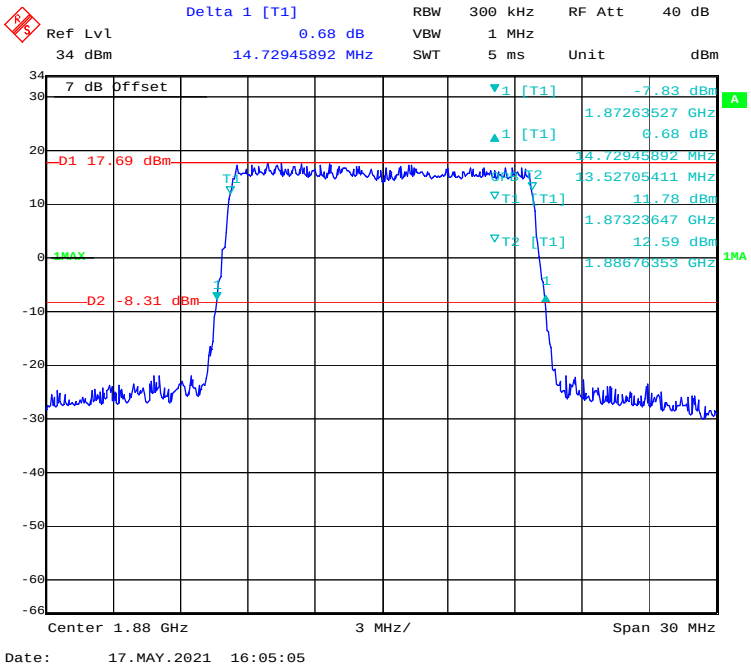
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



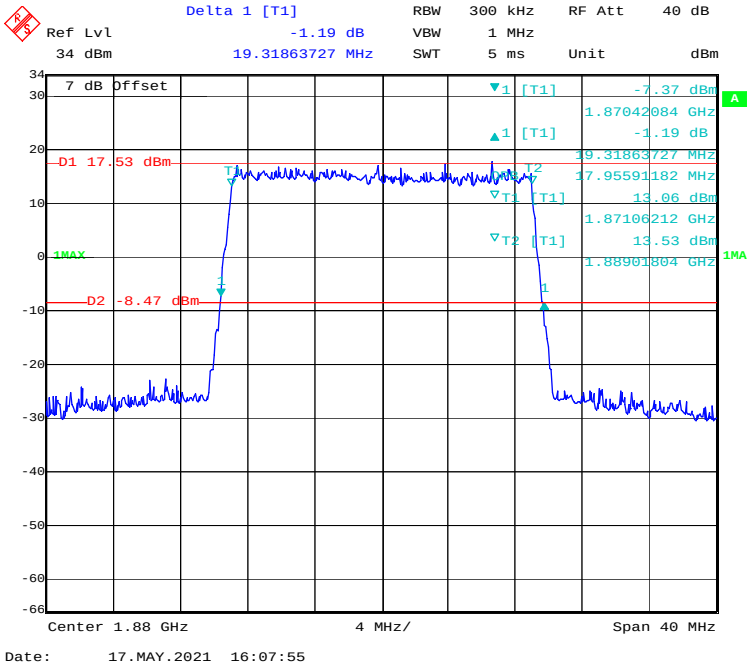
QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



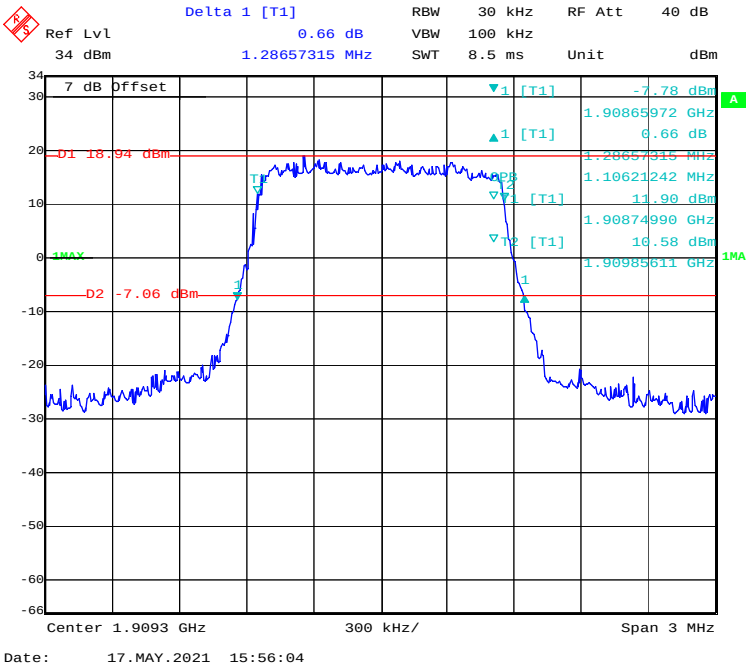
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



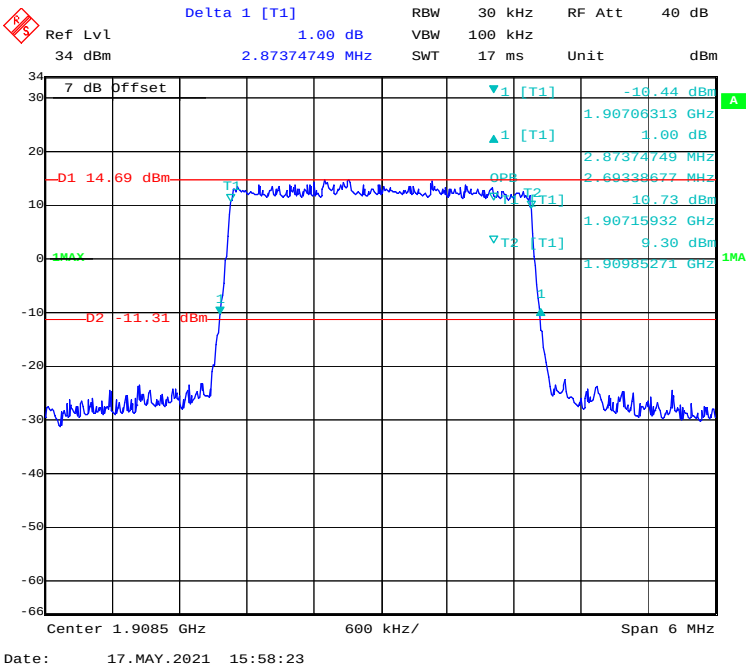
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



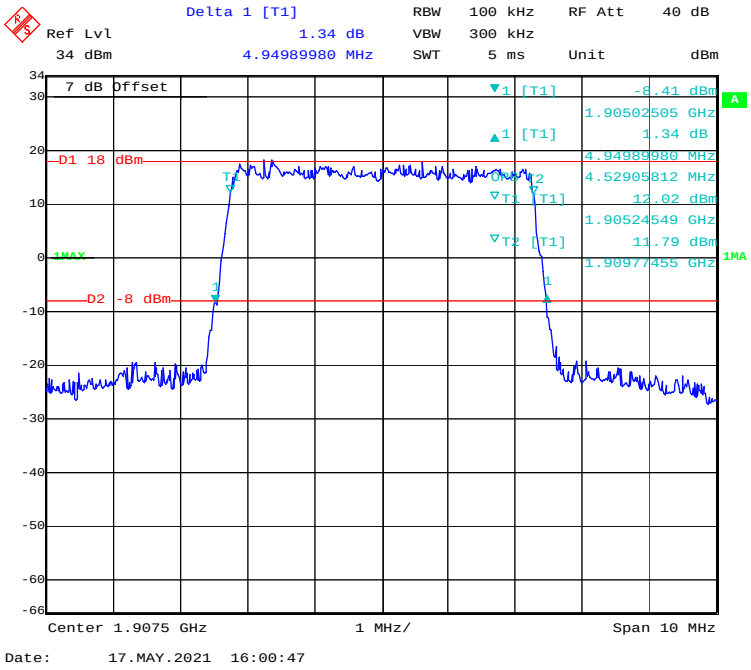
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



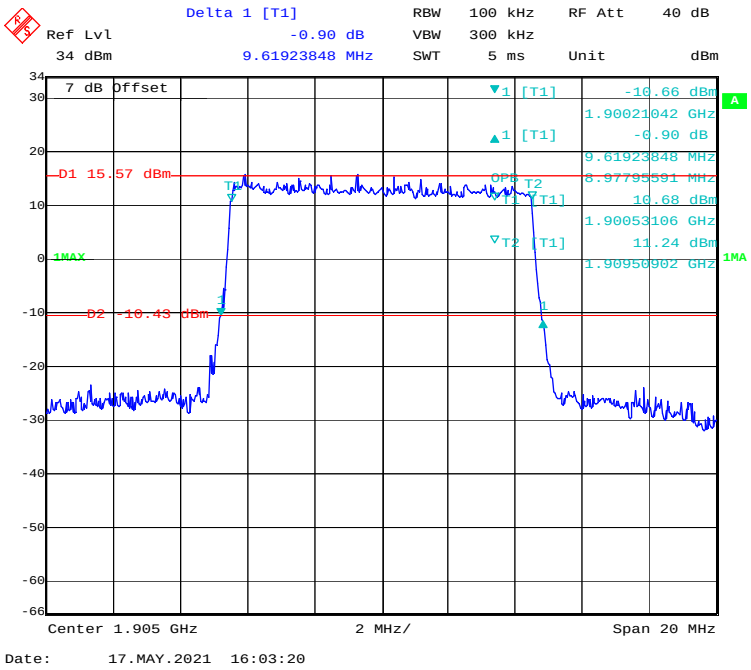
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



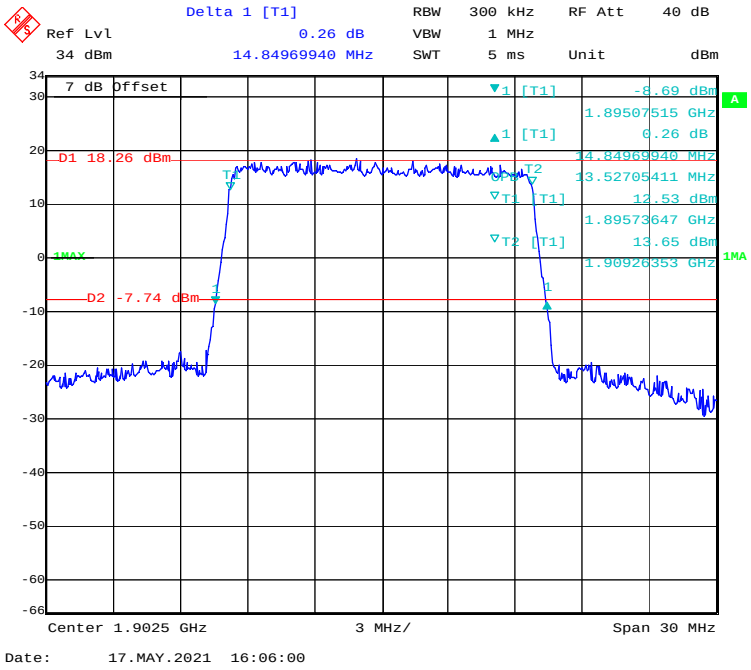
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



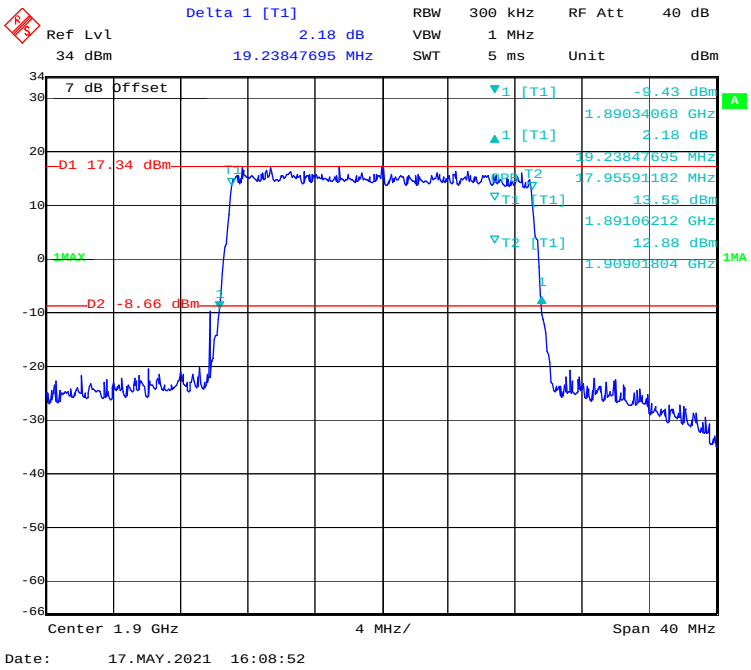
QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



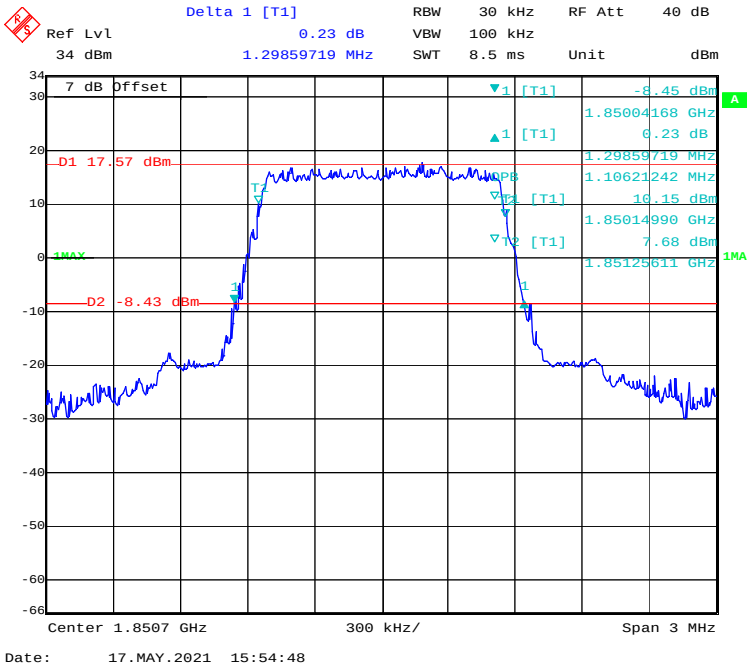
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



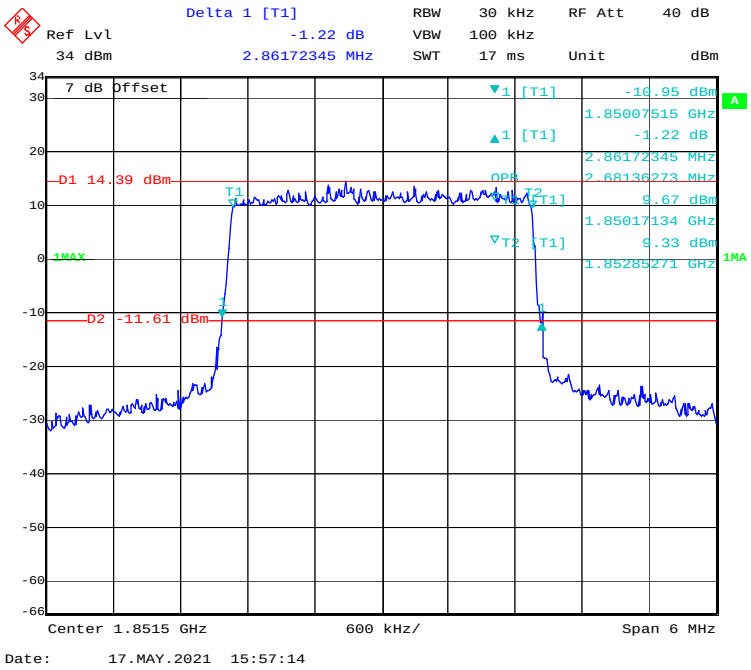
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



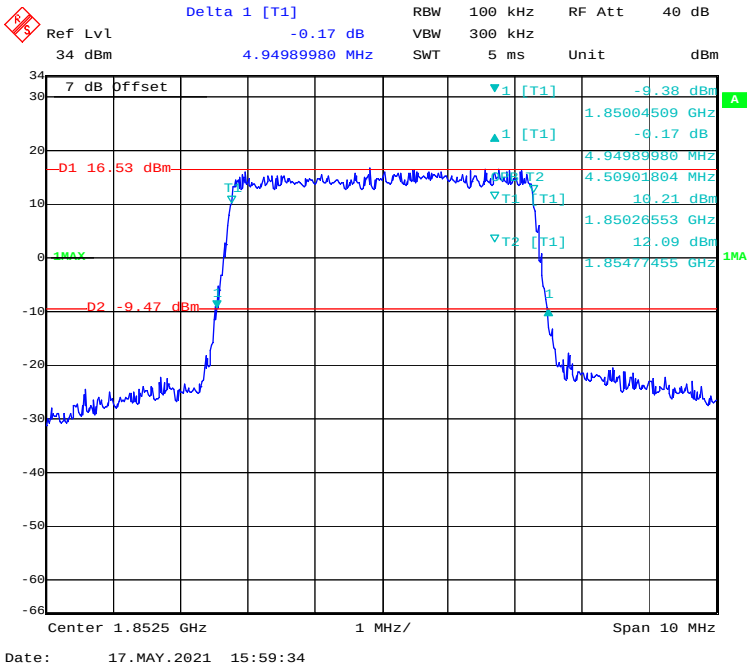
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



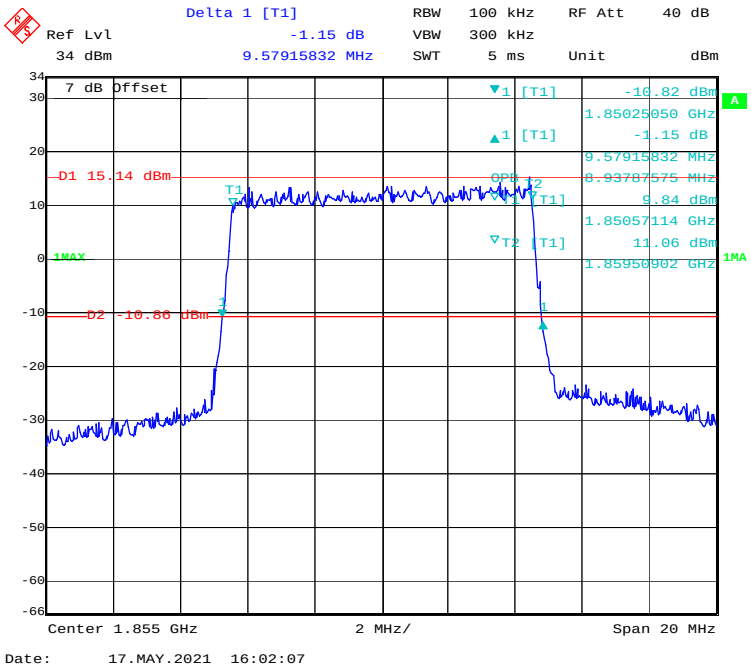
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



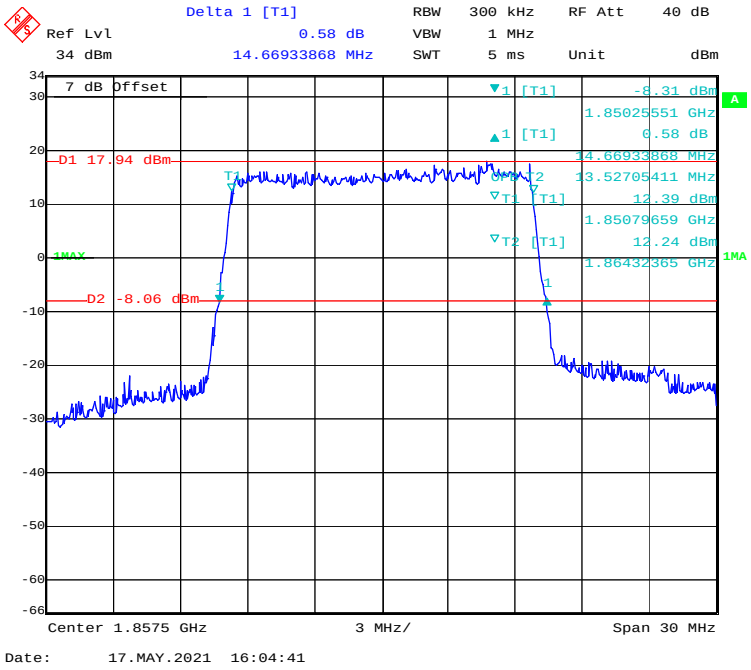
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



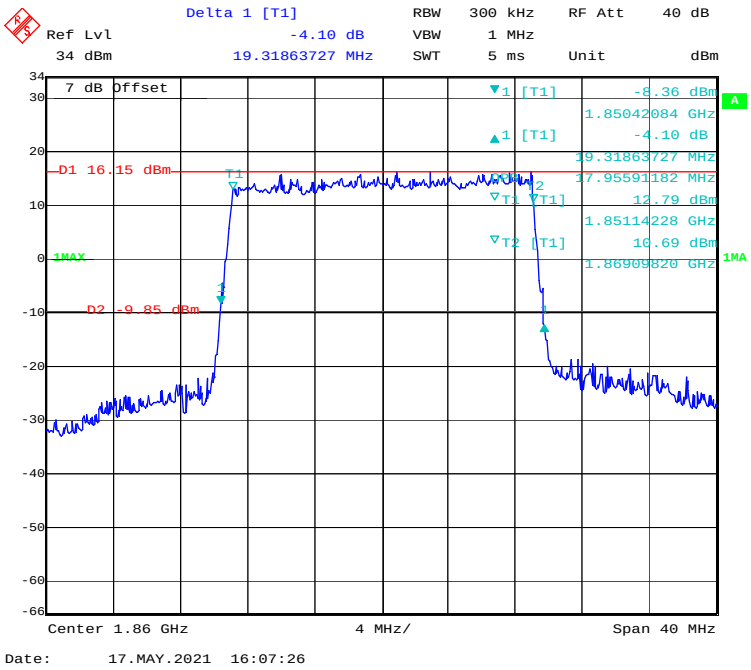
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



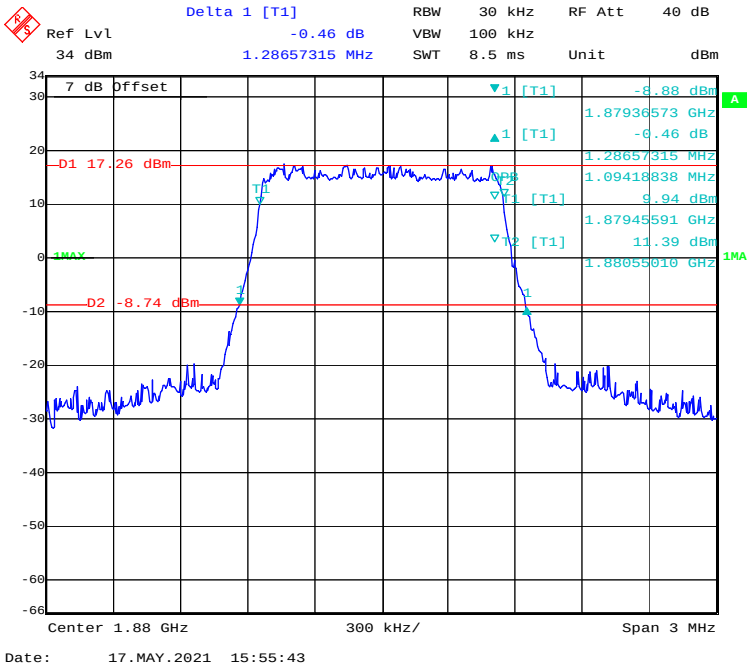
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



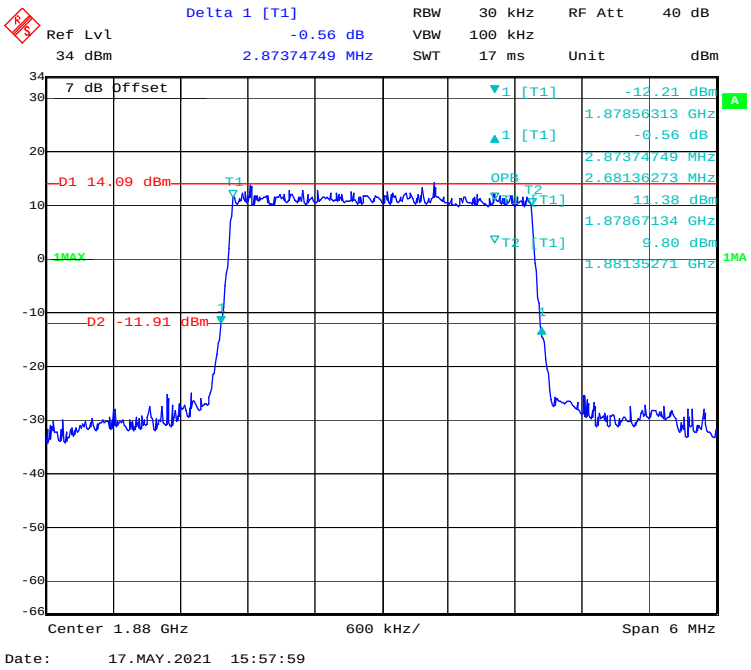
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



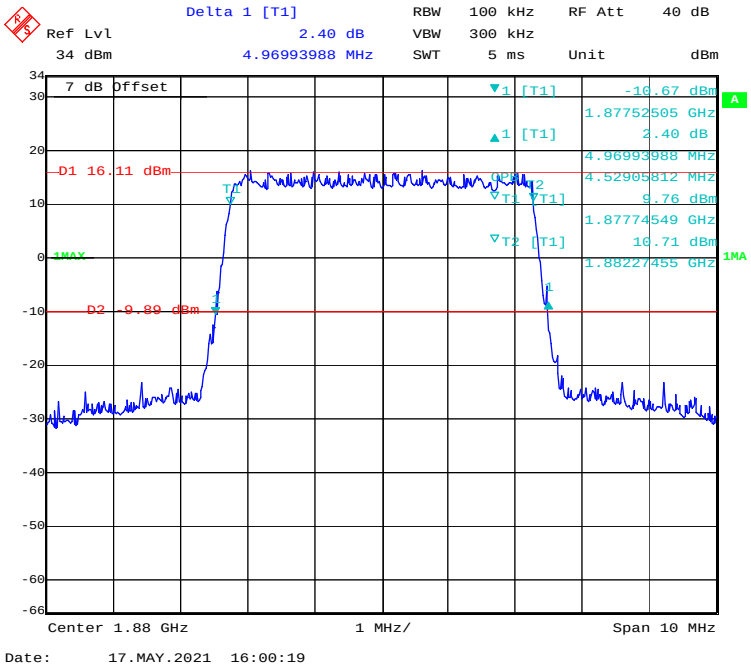
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



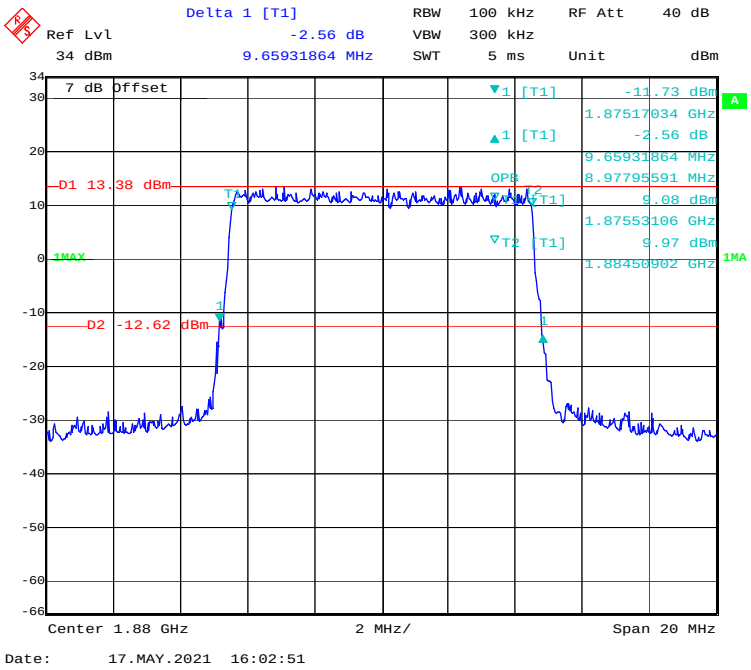
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



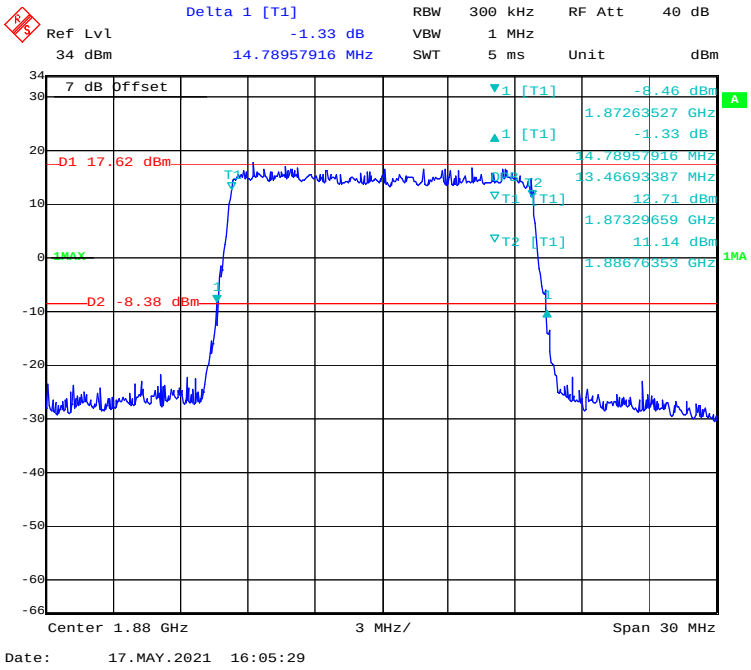
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



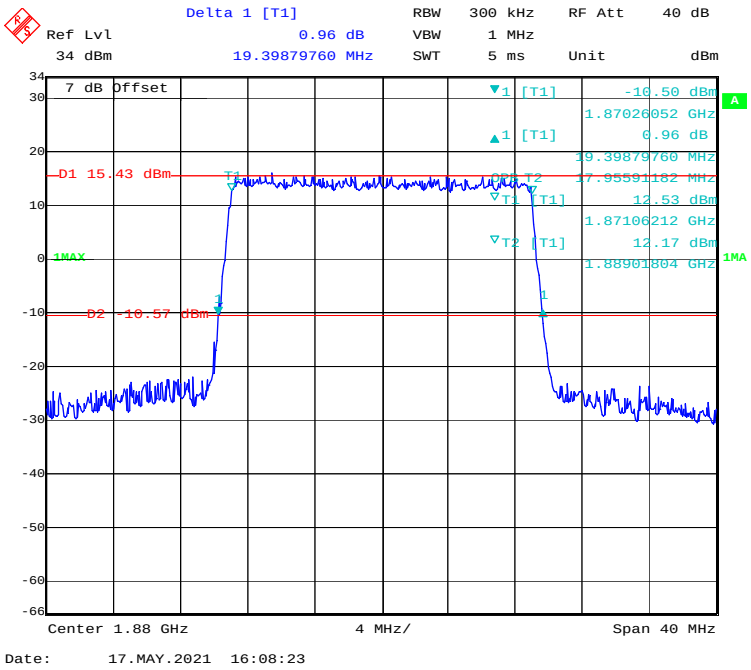
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



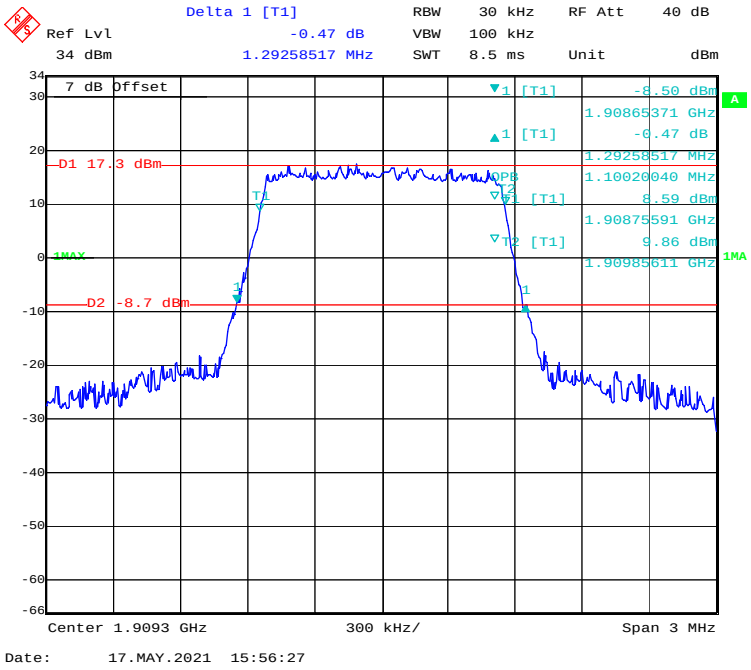
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



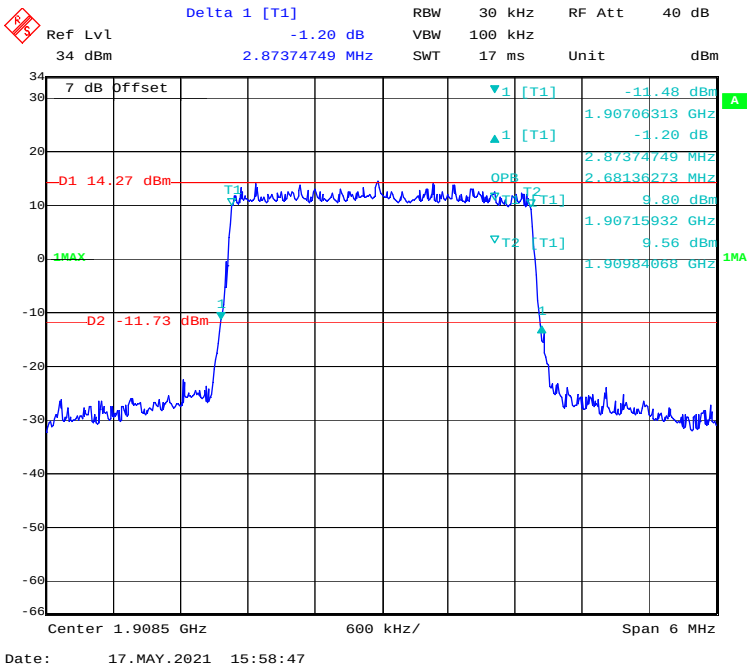
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



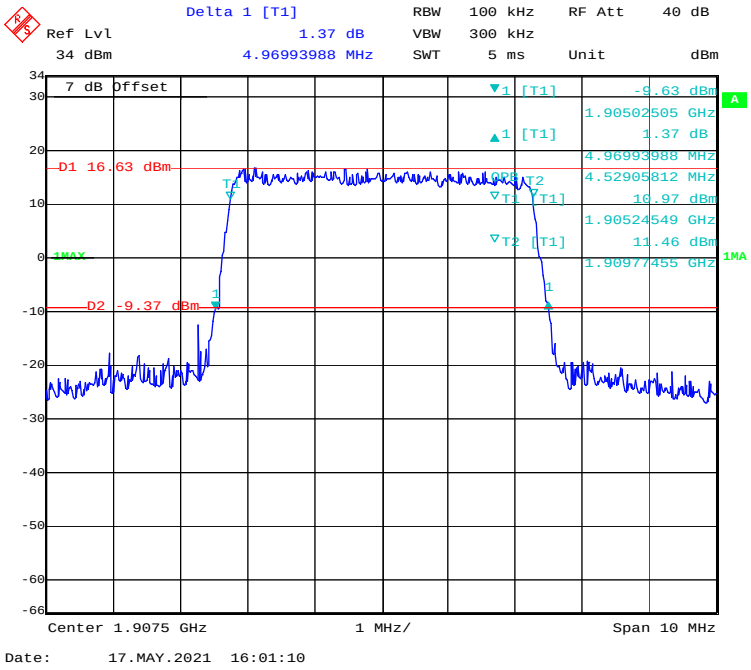
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



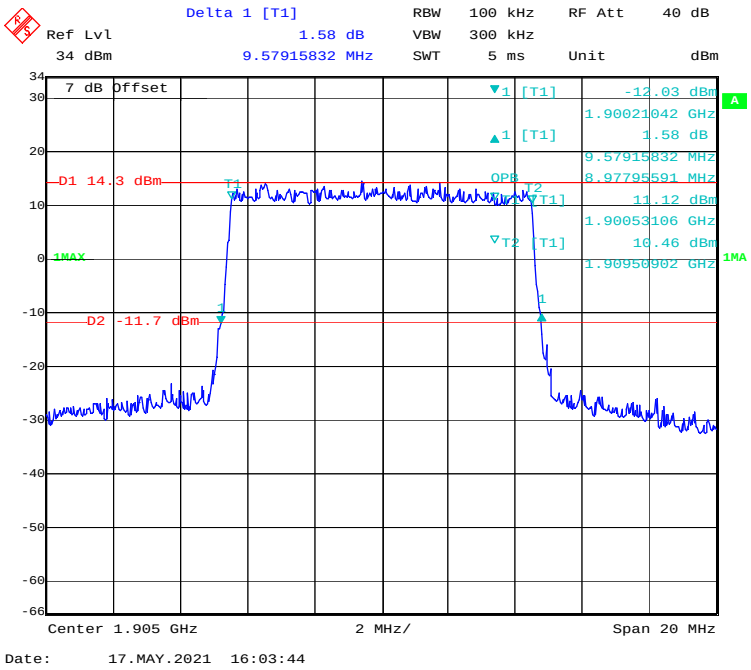
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



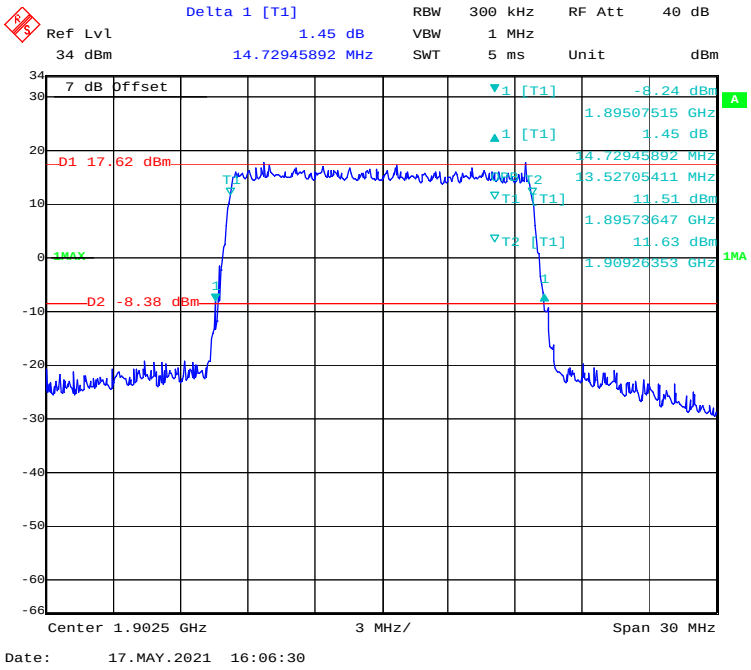
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



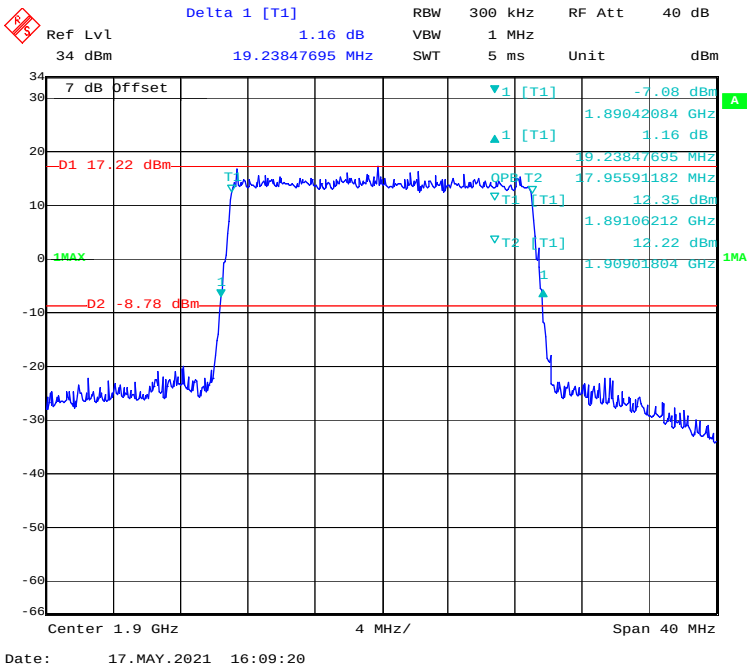
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



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



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

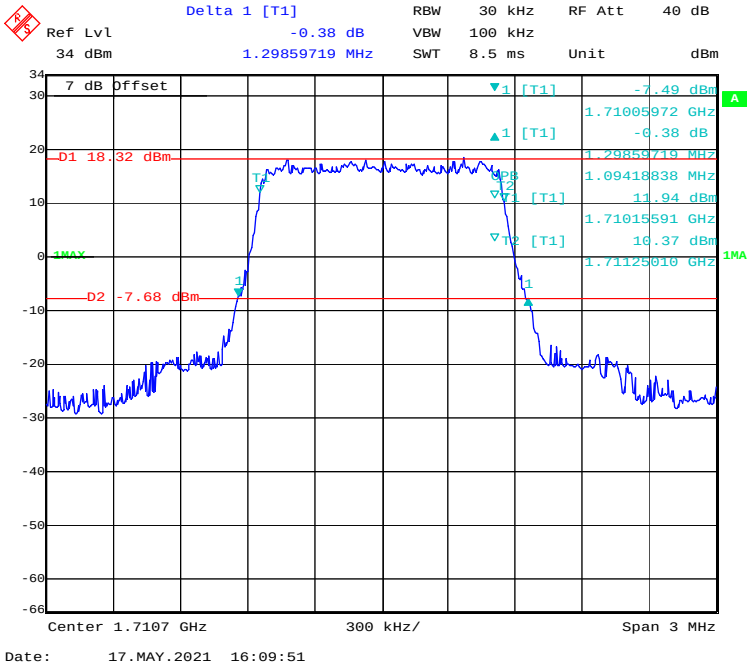


LTE Band 4:

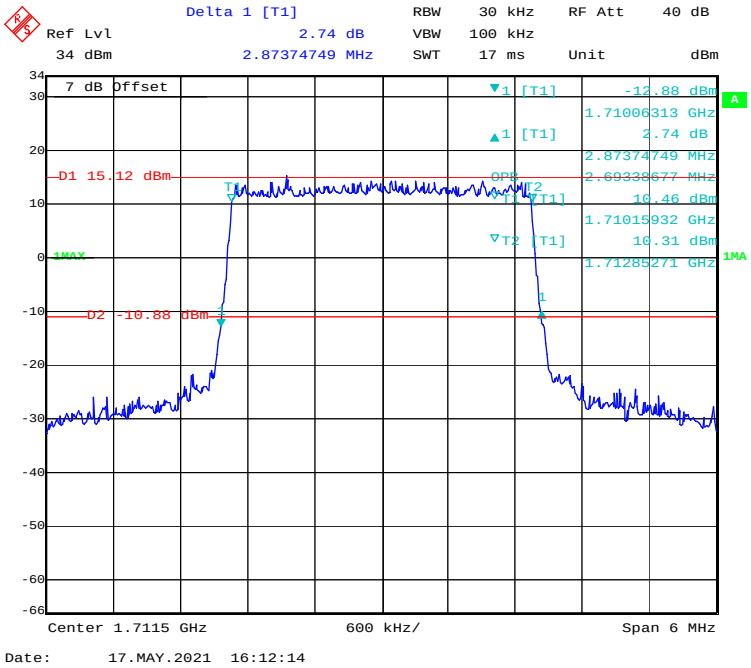
Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	1.4M	Low	1.299	1.094
	3M		2.874	2.693
	5M		4.970	4.529
	10M		9.659	8.978
	15M		14.790	13.587
	20M		19.238	17.956
	1.4M	Middle	1.311	1.094
	3M		2.874	2.681
	5M		4.970	4.509
	10M		9.539	8.978
	15M		14.729	13.527
	20M		19.399	17.956
	1.4M	High	1.287	1.106
	3M		2.886	2.693
	5M		4.950	4.529
	10M		9.539	8.978
	15M		14.790	13.527
	20M		19.319	17.956

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
16-QAM	1.4M	Low	1.305	1.106
	3M		2.874	2.681
	5M		4.950	4.509
	10M		9.499	8.978
	15M		14.669	13.467
	20M		19.238	17.956
	1.4M	Middle	1.281	1.100
	3M		2.862	2.693
	5M		4.930	4.529
	10M		9.619	8.978
	15M		14.669	13.467
	20M		19.238	17.956
	1.4M	High	1.287	1.100
	3M		2.862	2.693
	5M		4.950	4.529
	10M		9.579	8.978
	15M		14.850	13.527
	20M		19.319	17.956

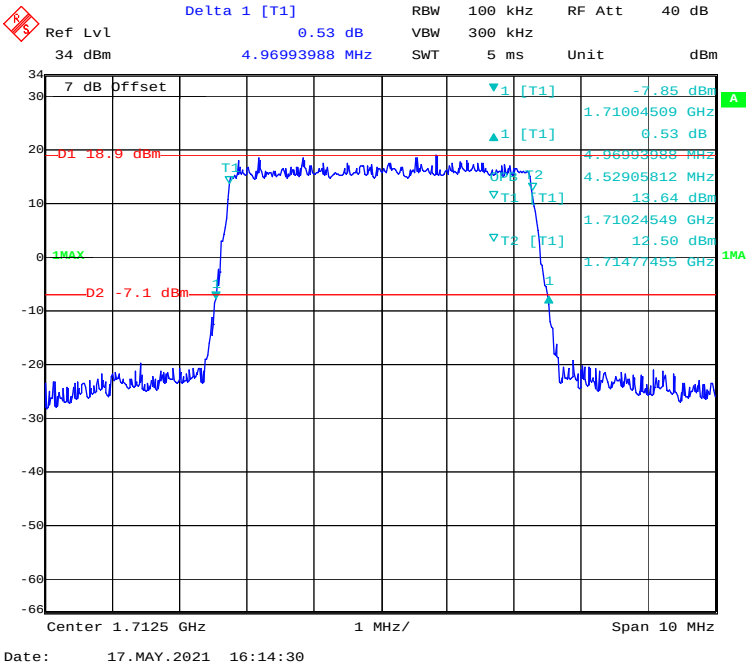
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



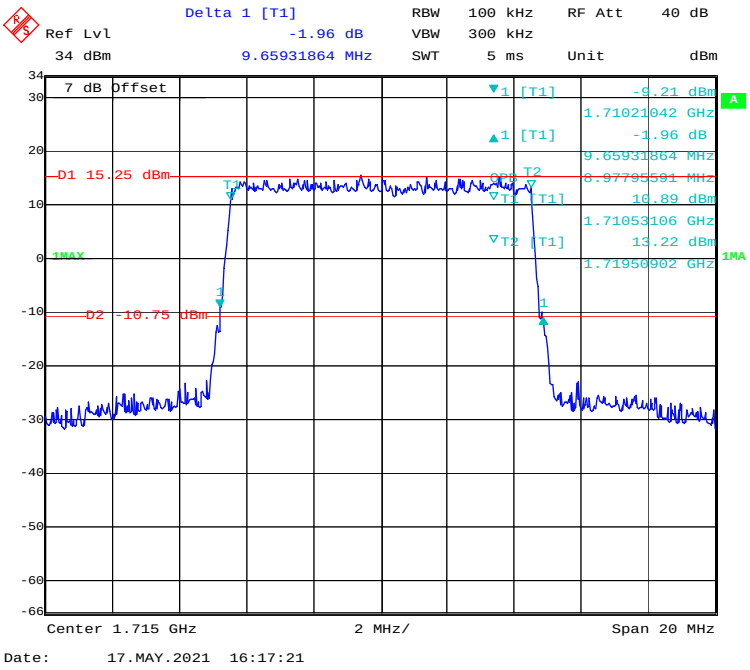
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



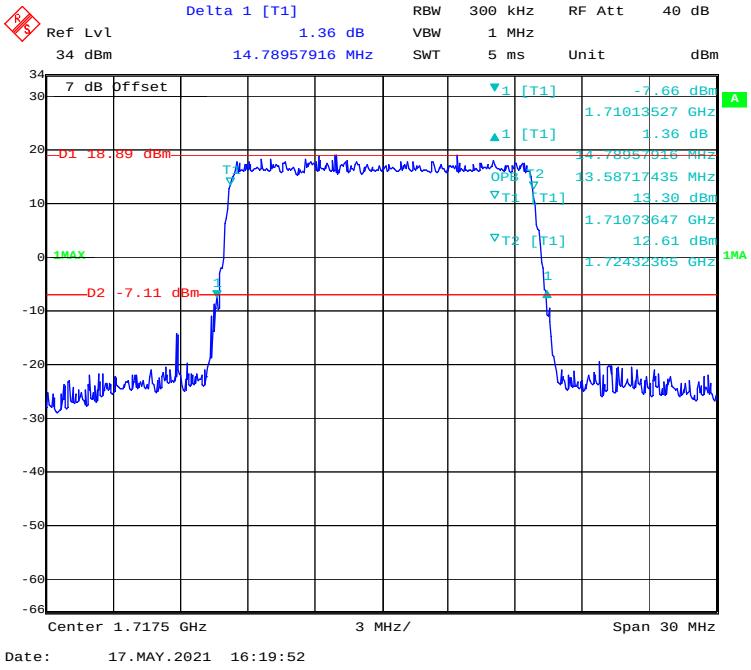
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



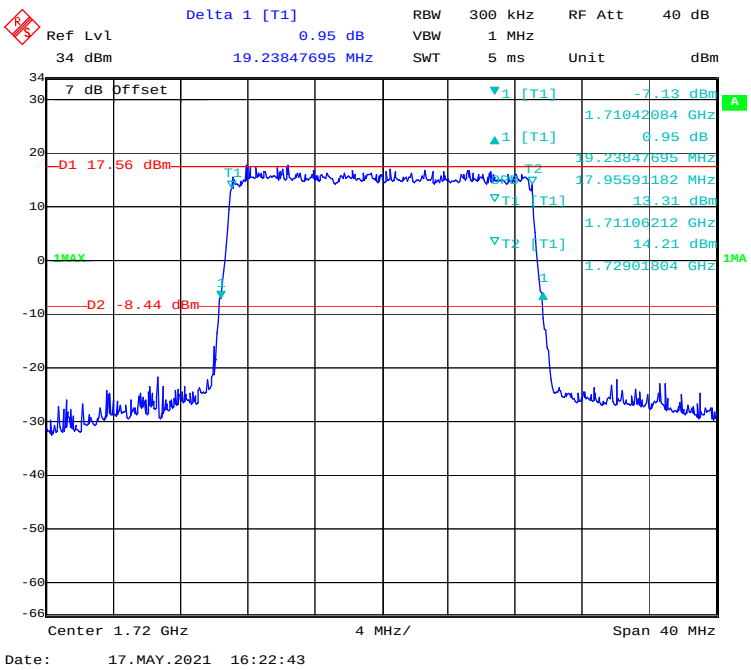
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



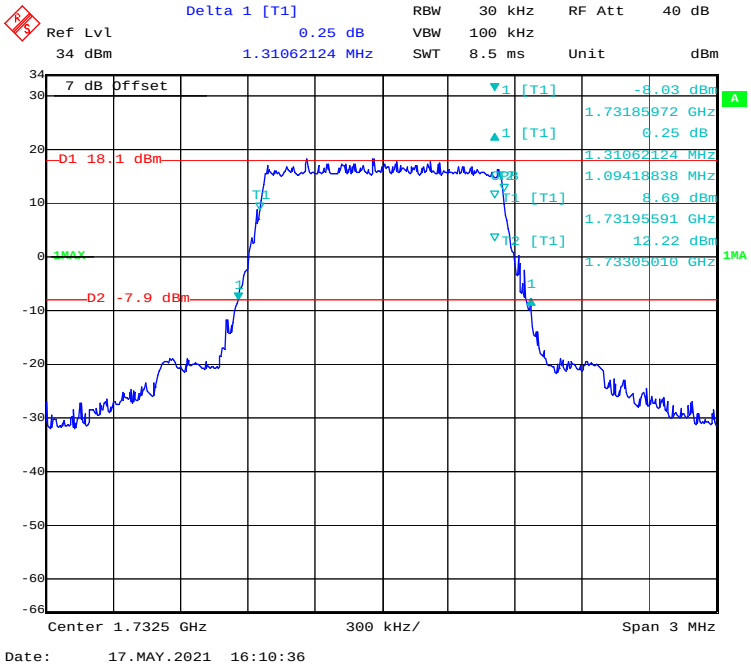
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



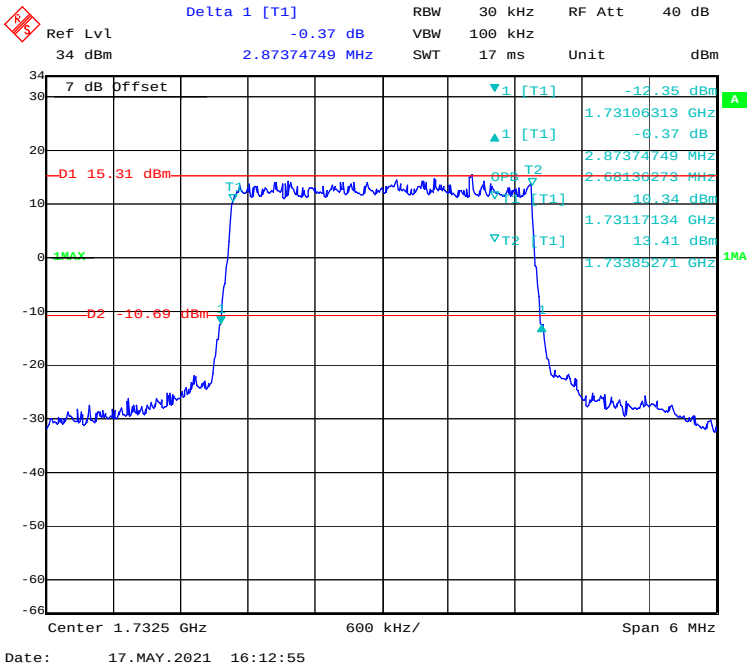
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



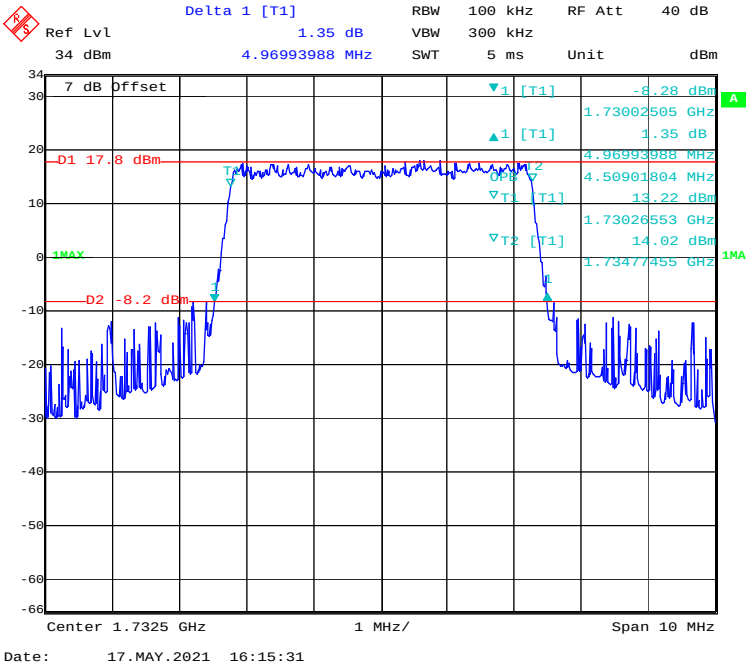
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



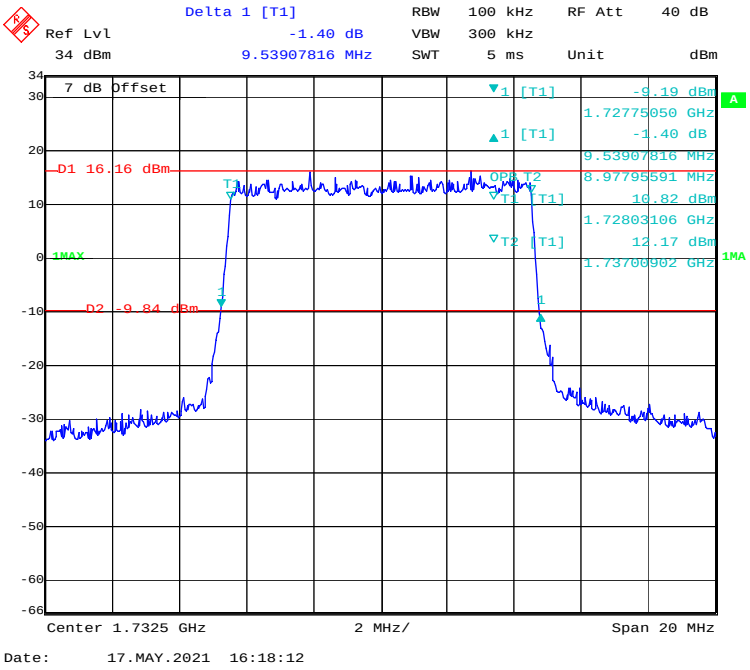
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



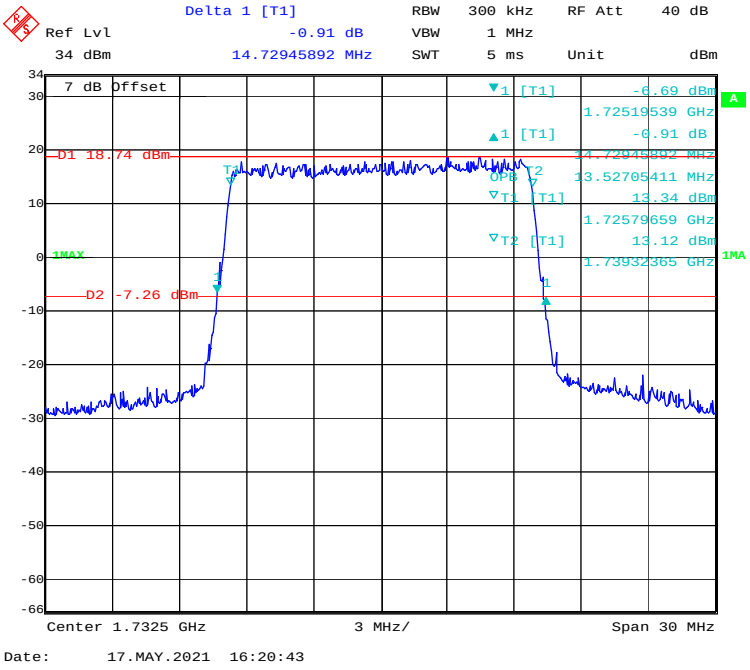
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



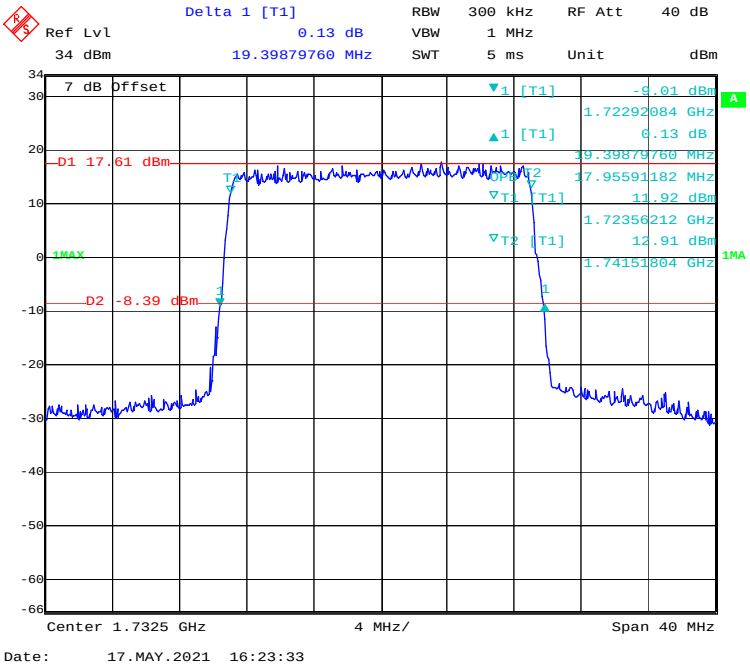
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



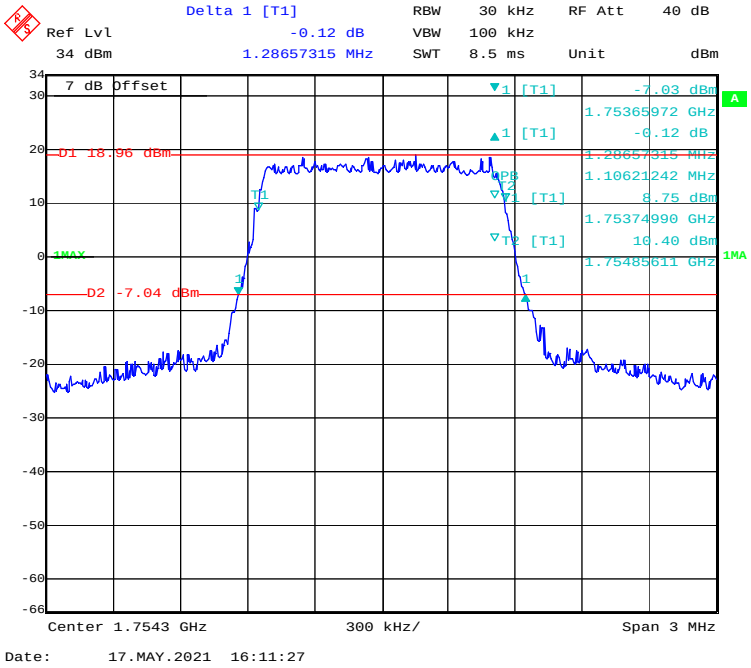
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



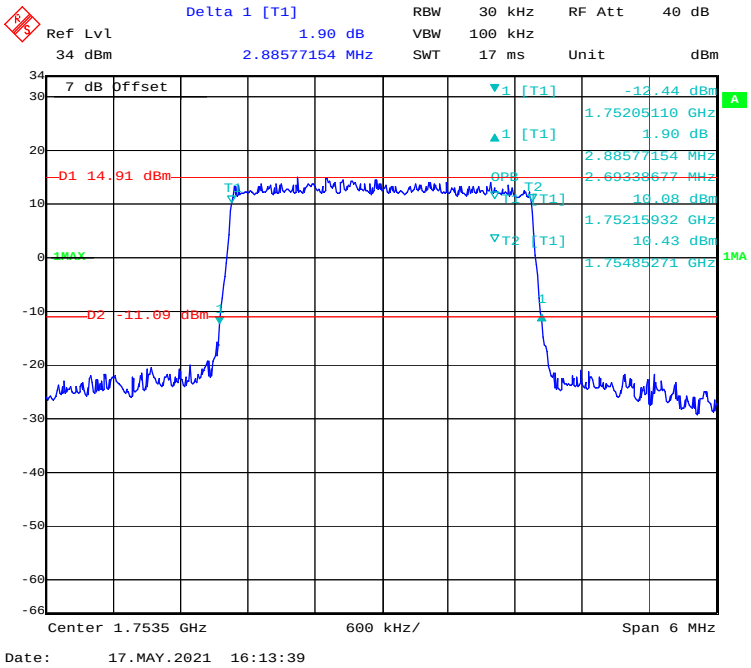
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



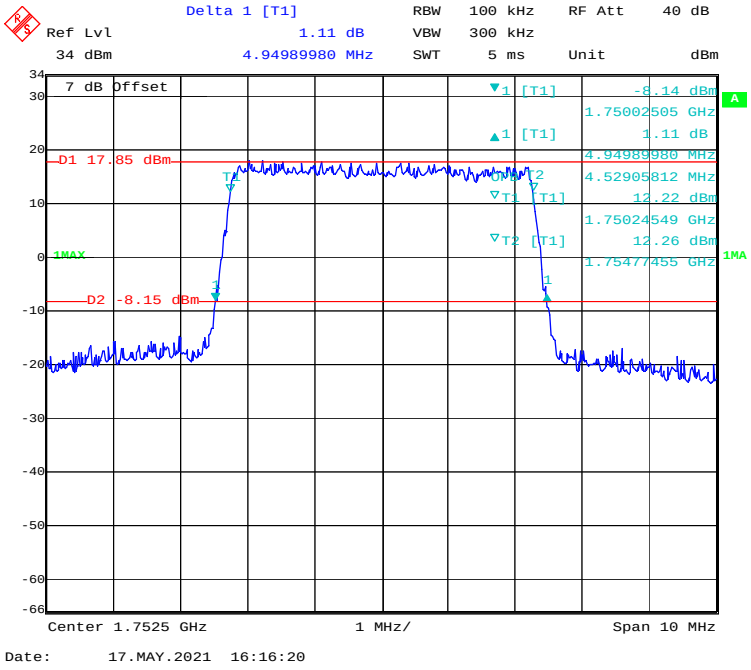
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



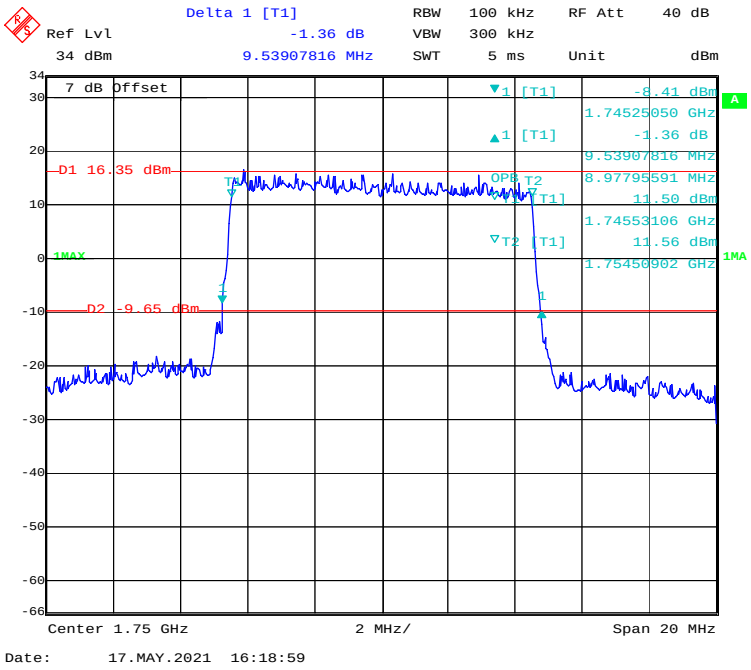
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



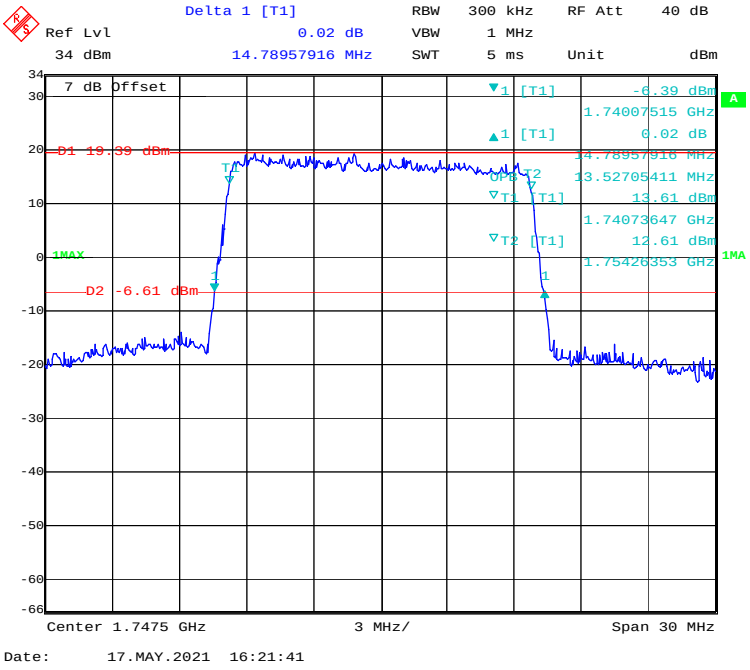
QPSK (5MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



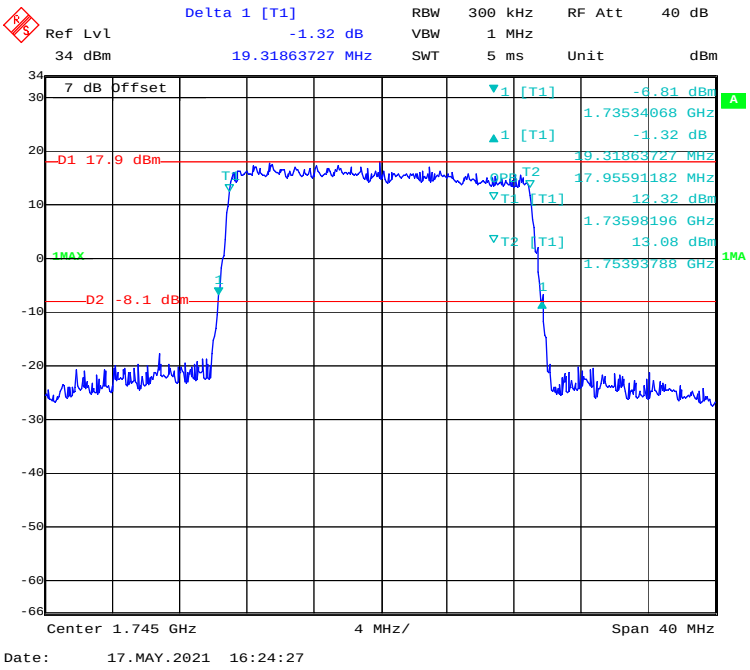
QPSK (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



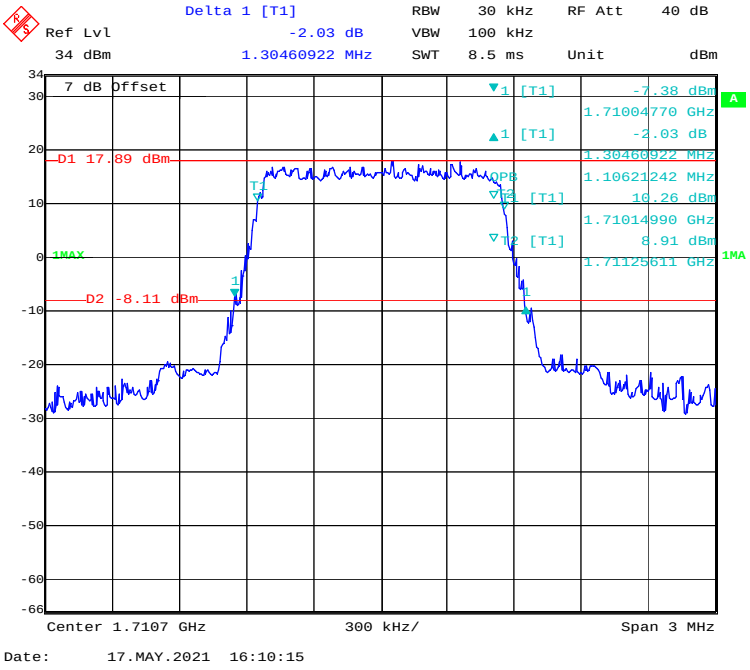
QPSK (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



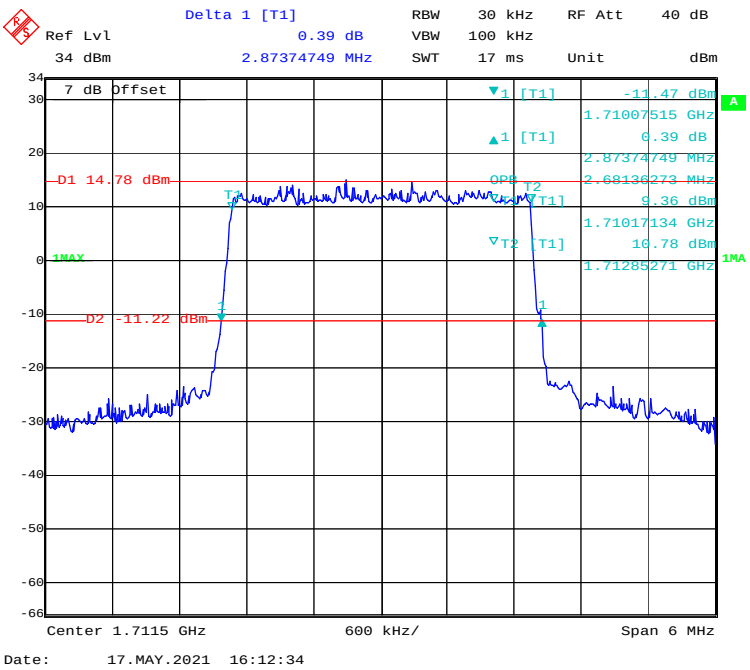
QPSK (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



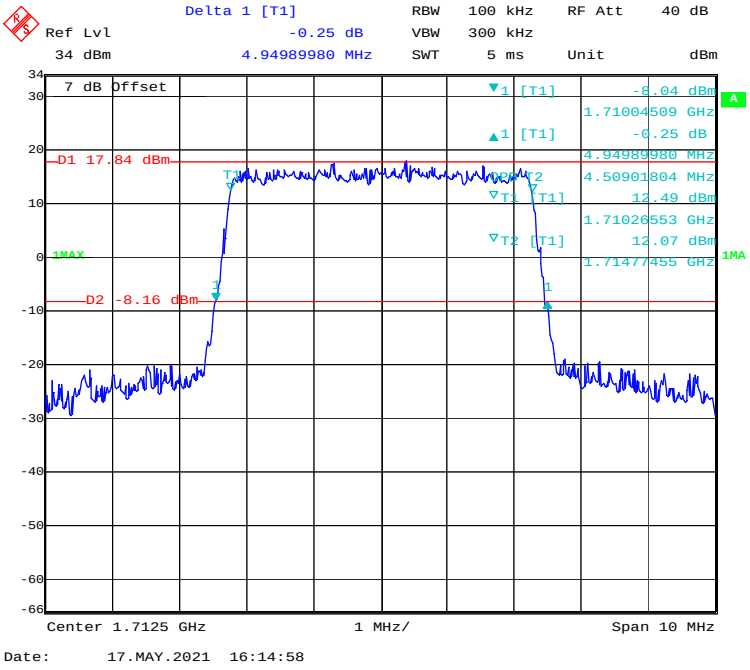
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



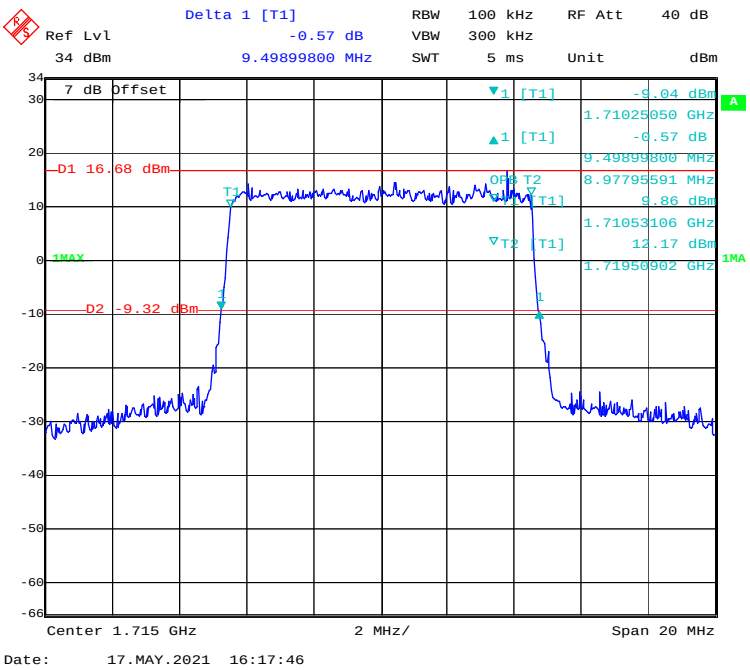
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



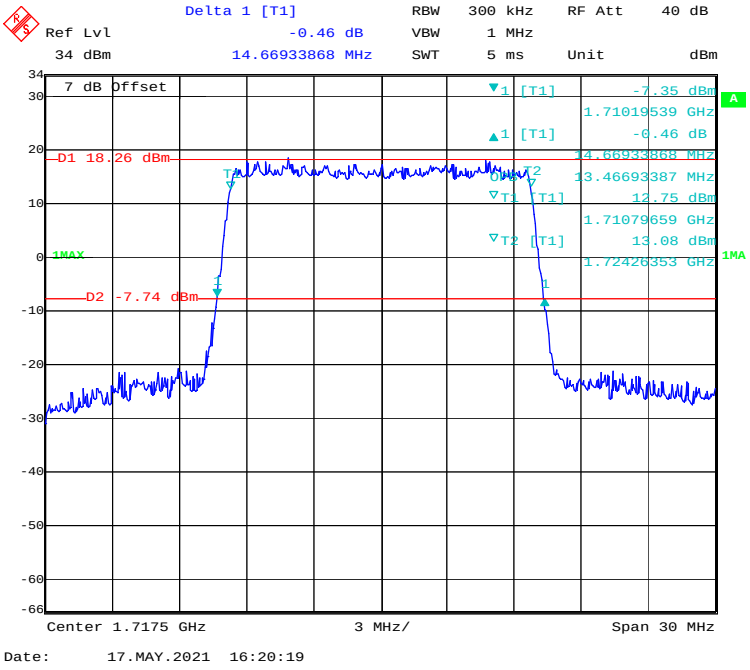
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



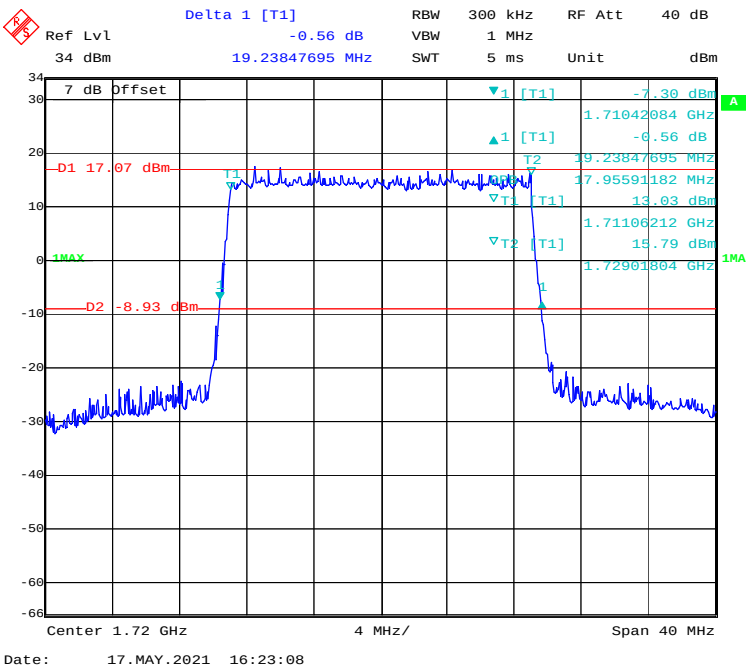
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



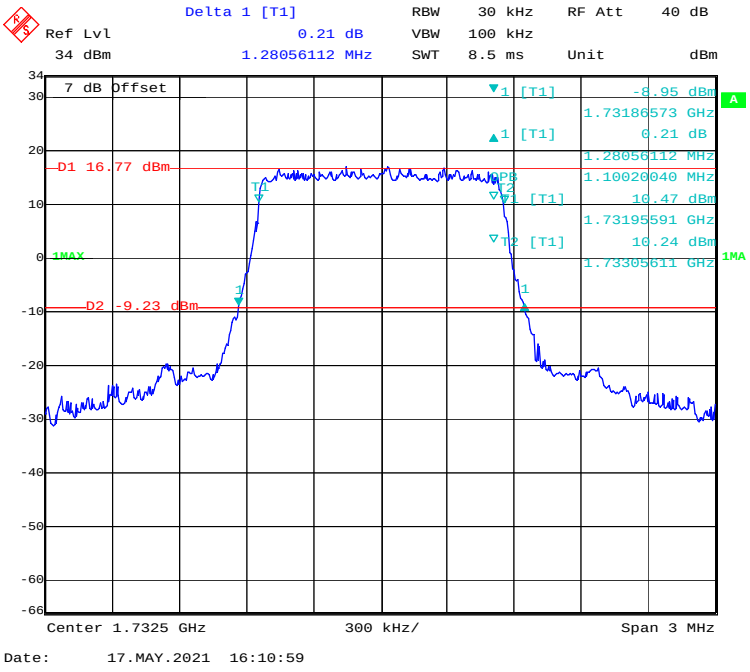
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



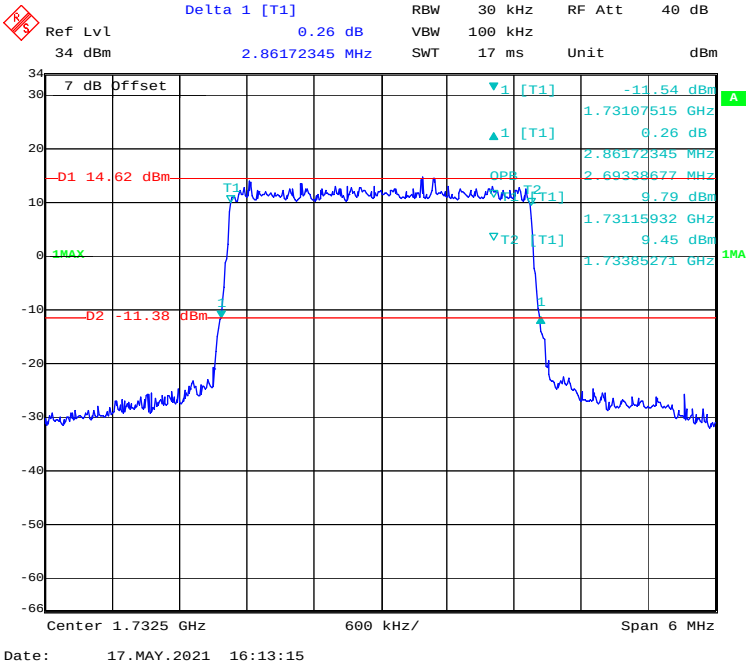
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



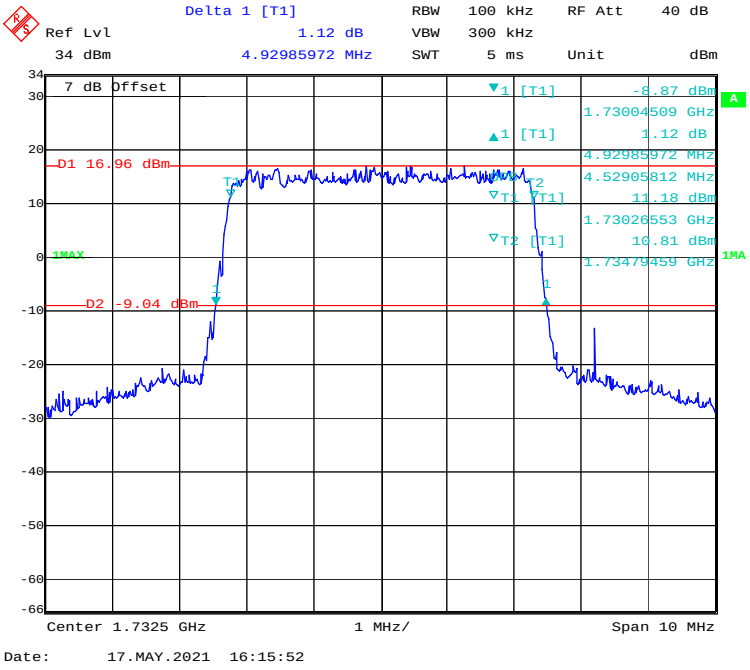
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



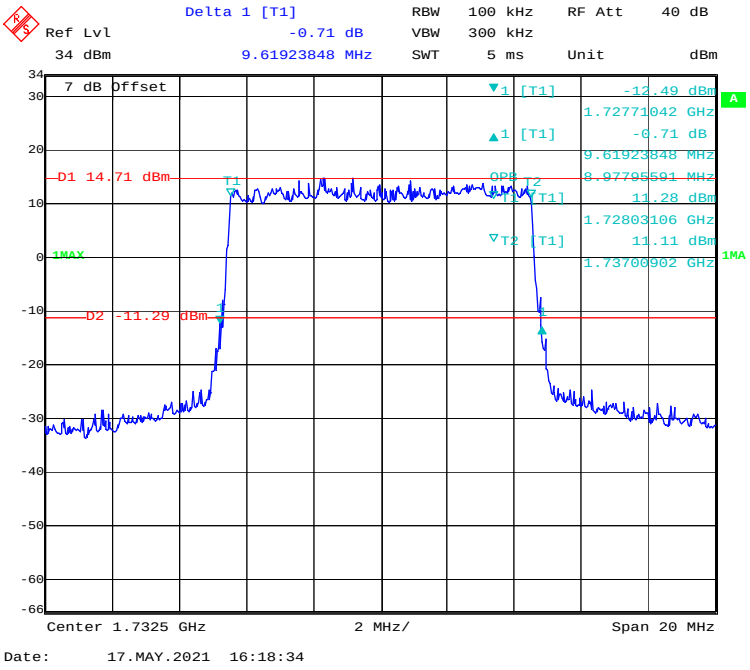
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



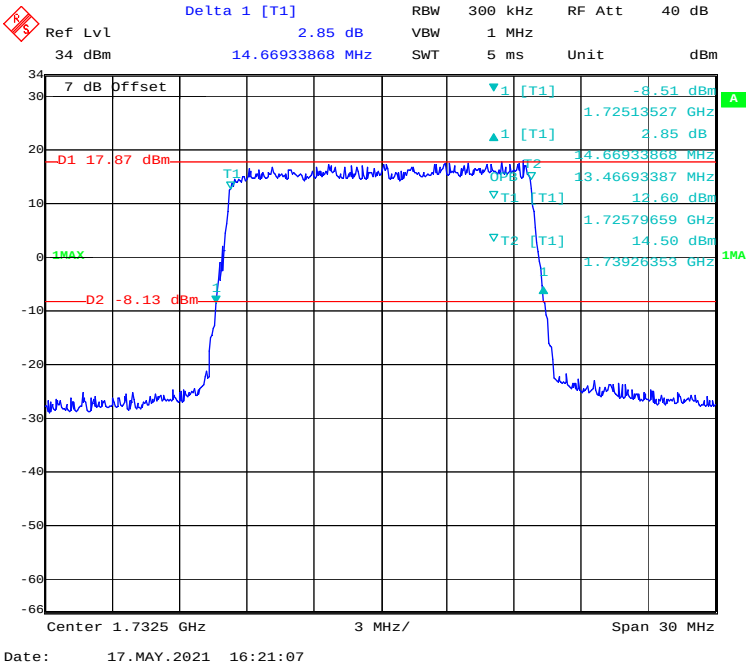
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



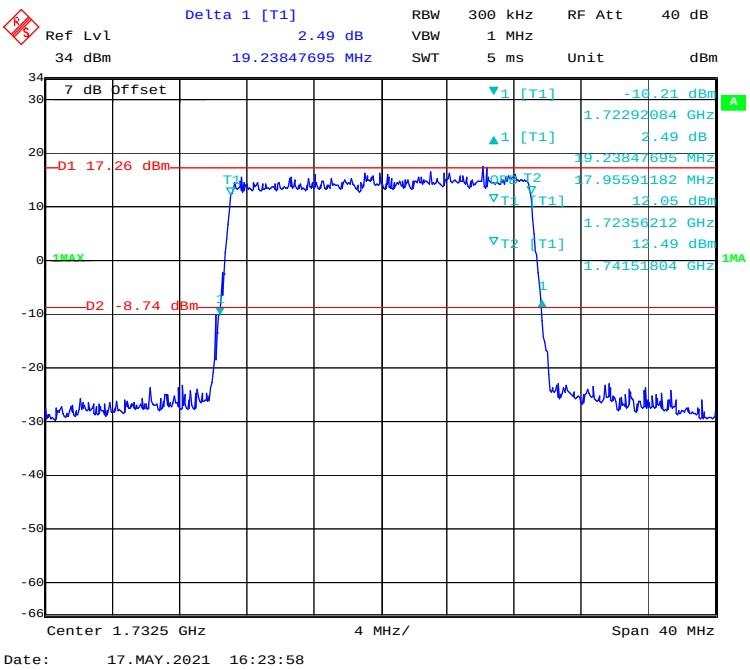
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



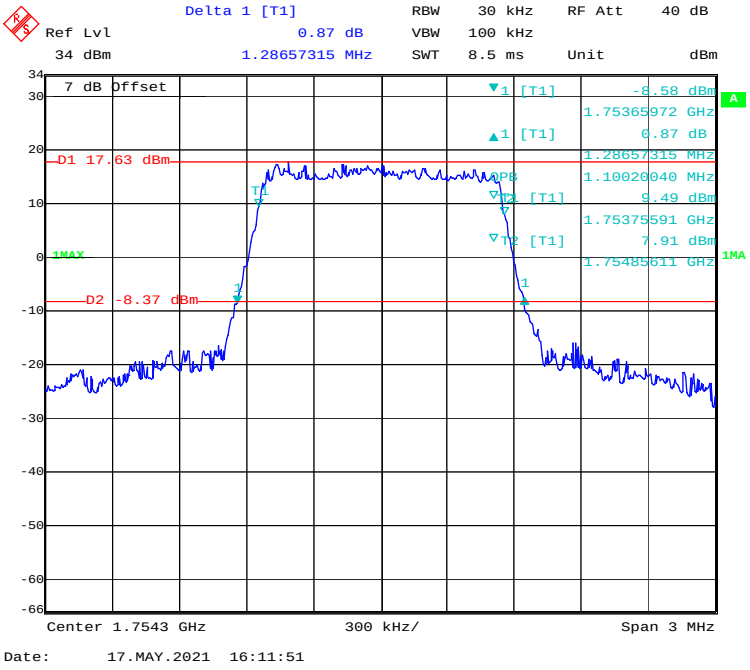
16-QAM (15 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



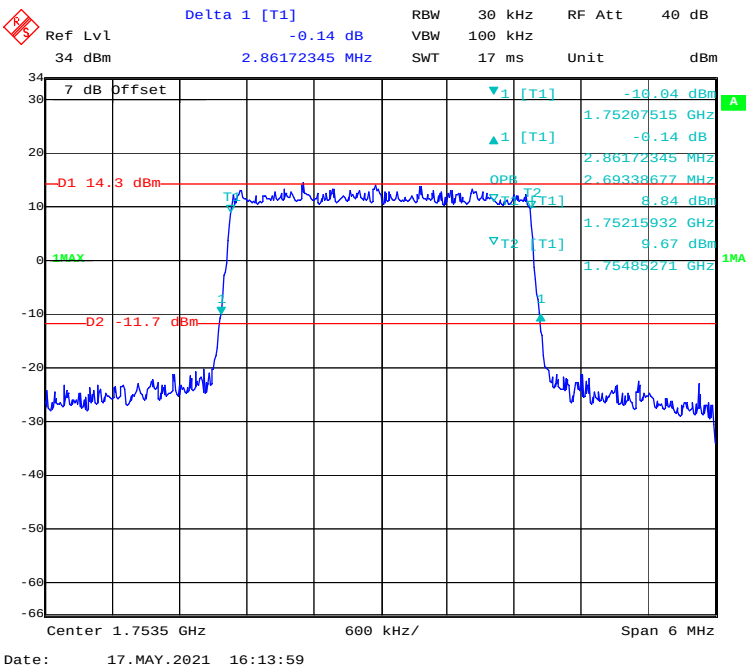
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



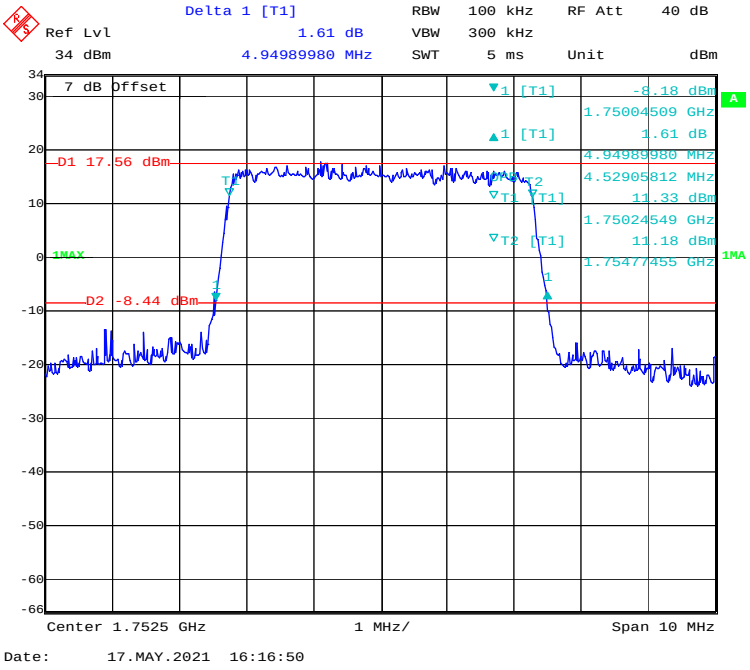
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



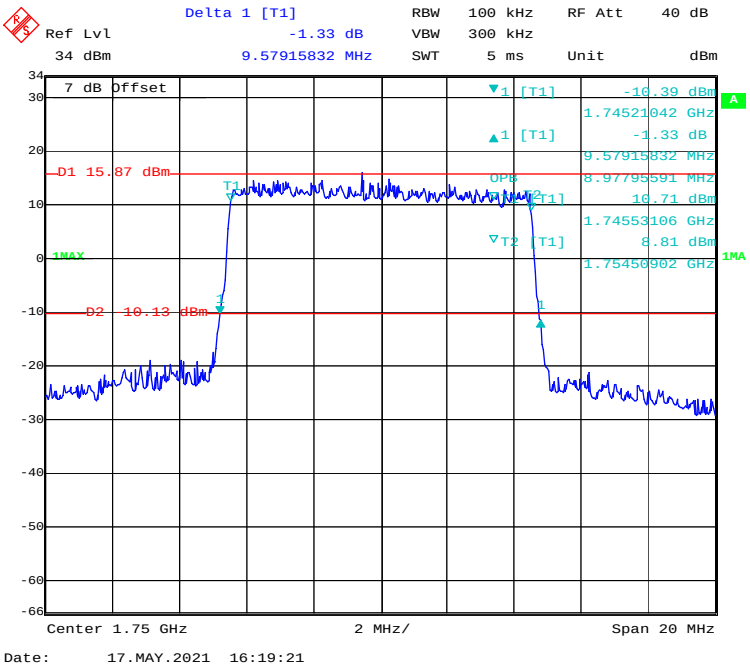
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



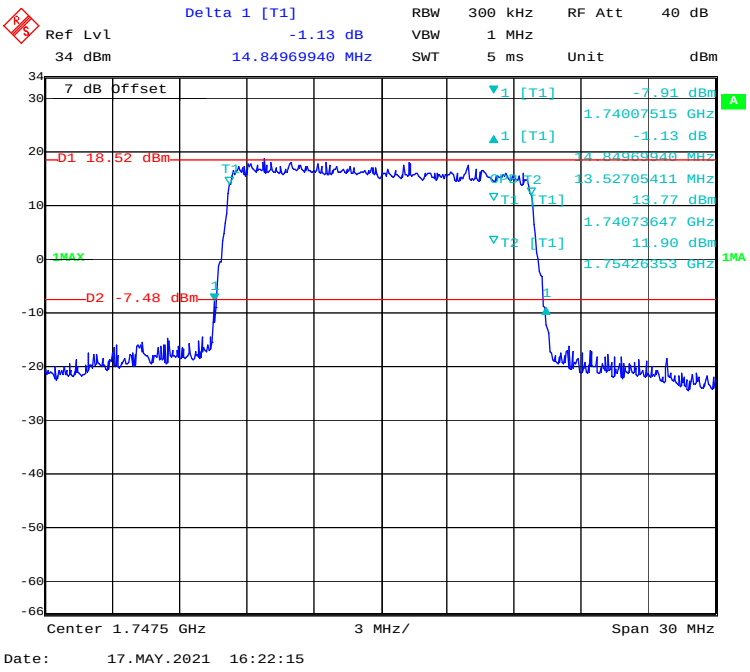
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



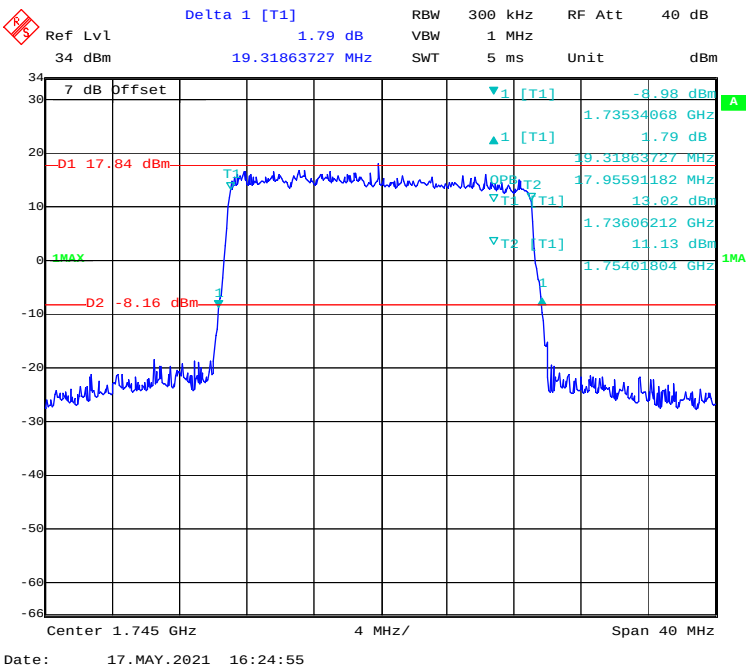
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



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



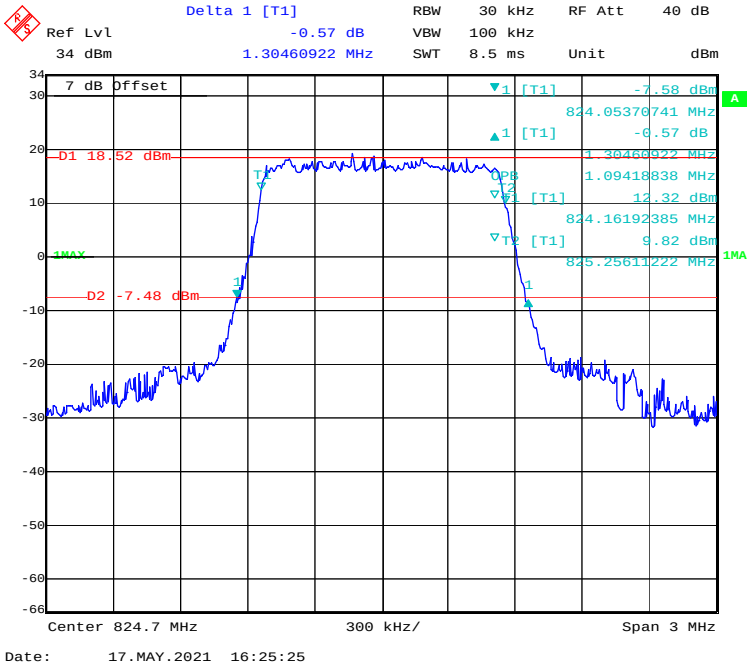
16-QAM (20 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



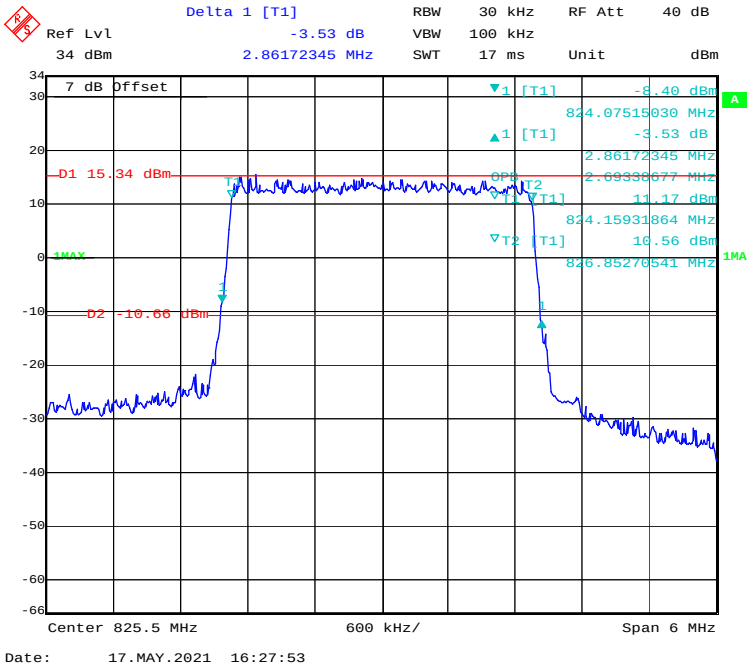
LTE Band 5:

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	1.4M	Low	1.305	1.094
	3M		2.862	2.693
	5M		4.950	4.509
	10M		9.619	8.978
	1.4M	Middle	1.281	1.100
	3M		2.874	2.693
	5M		4.970	4.509
	10M		9.539	8.978
	1.4M	High	1.238	1.088
	3M		2.886	2.669
	5M		4.910	4.509
	10M		9.739	8.978
16-QAM	1.4M	Low	1.281	1.106
	3M		2.886	2.669
	5M		4.950	4.509
	10M		9.579	8.978
	1.4M	Middle	1.275	1.094
	3M		2.886	2.669
	5M		4.970	4.509
	10M		9.579	8.978
	1.4M	High	1.299	1.100
	3M		2.862	2.681
	5M		4.990	4.509
	10M		9.579	8.978

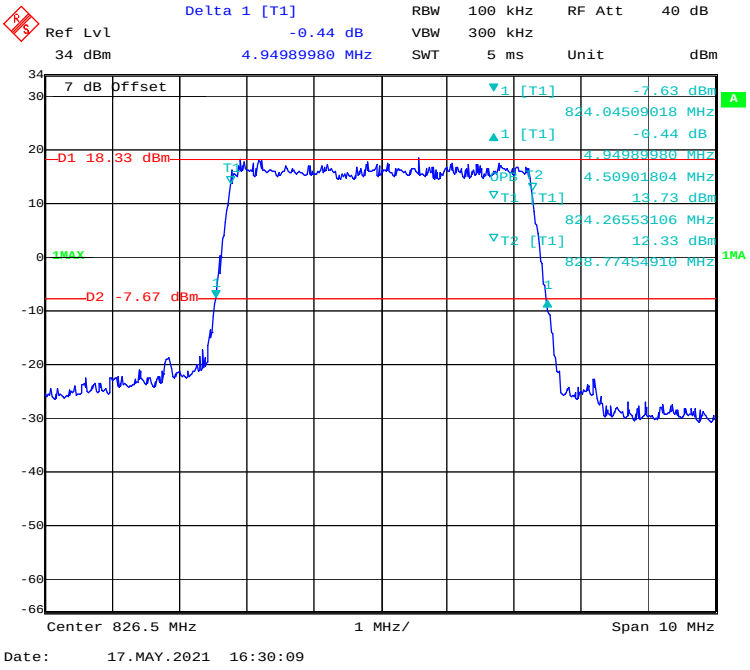
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



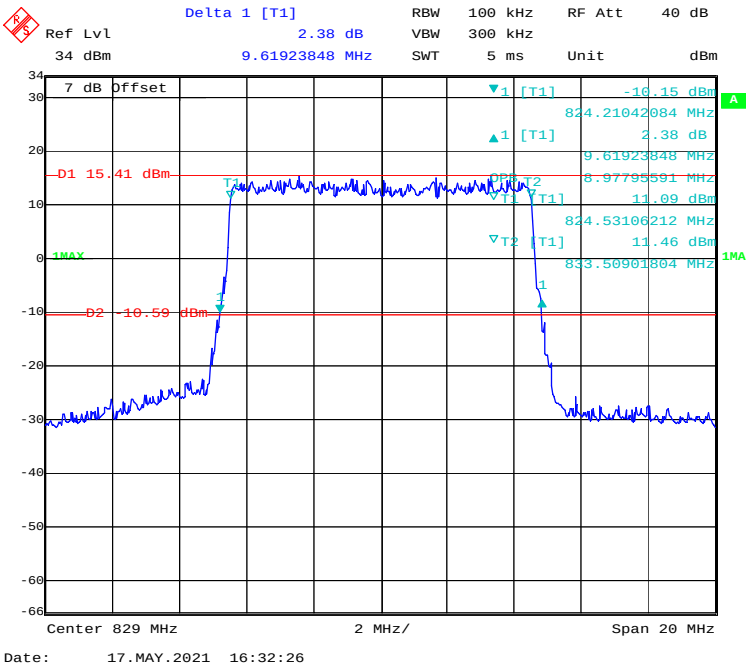
QPSK (3.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



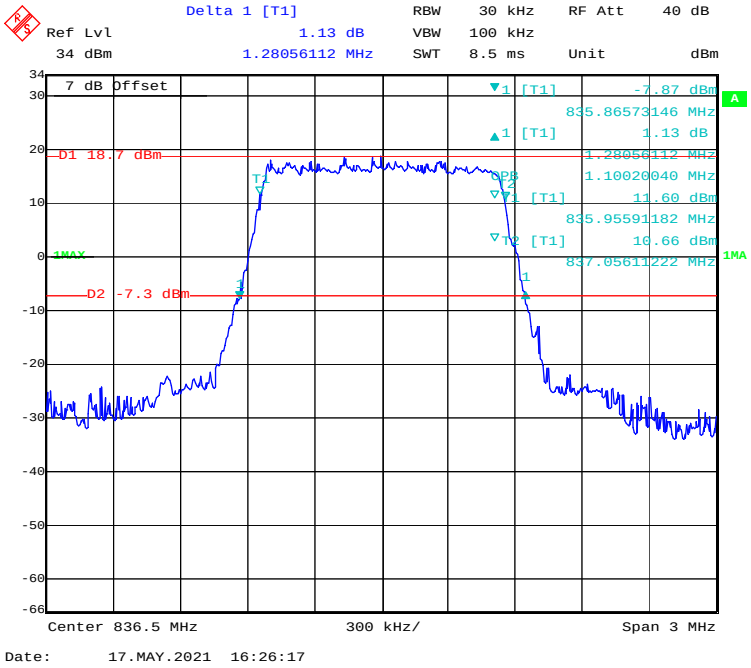
QPSK (5.0MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



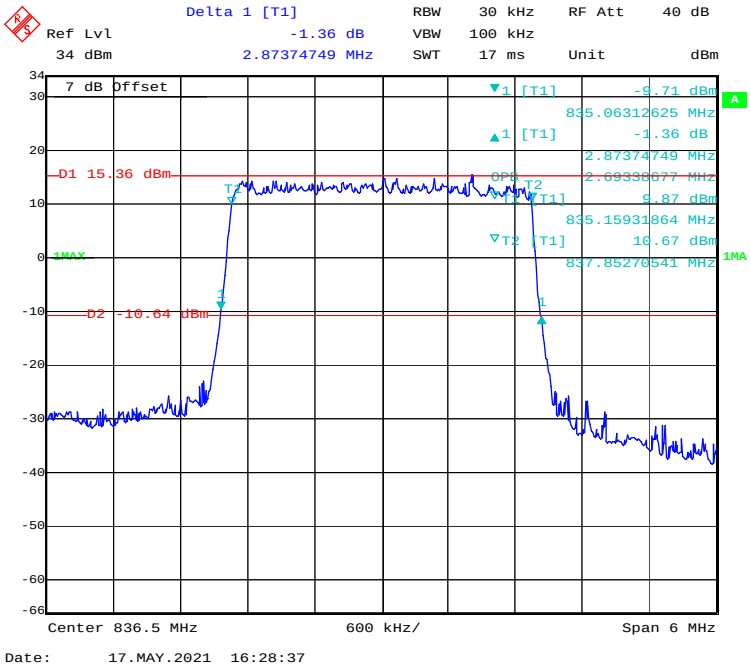
QPSK (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



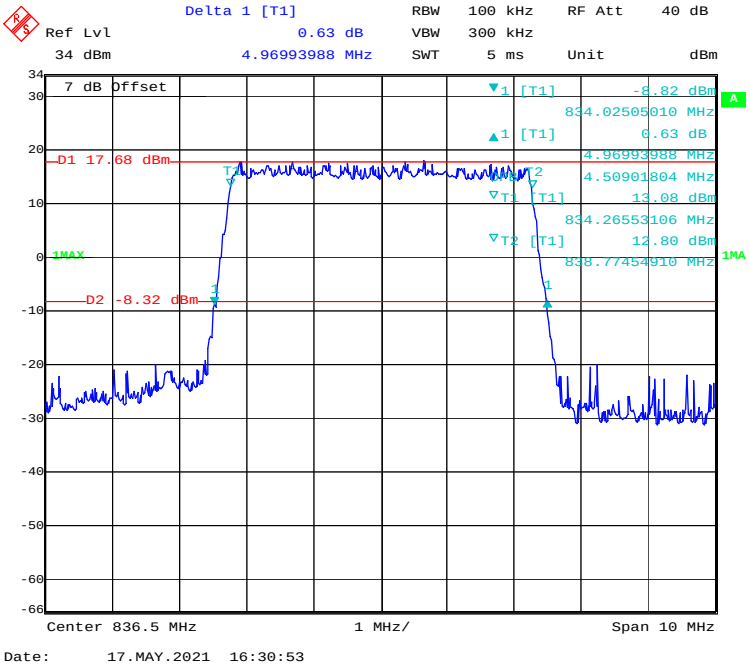
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



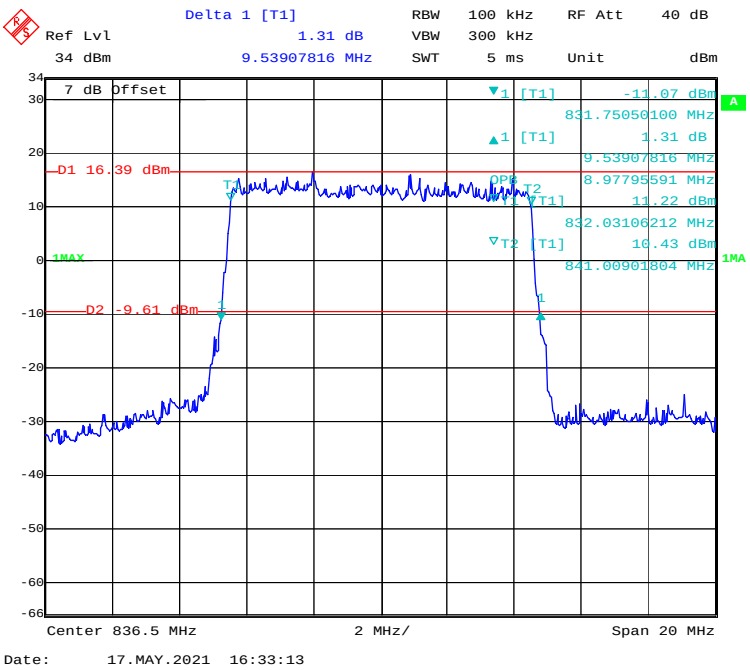
QPSK (3.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



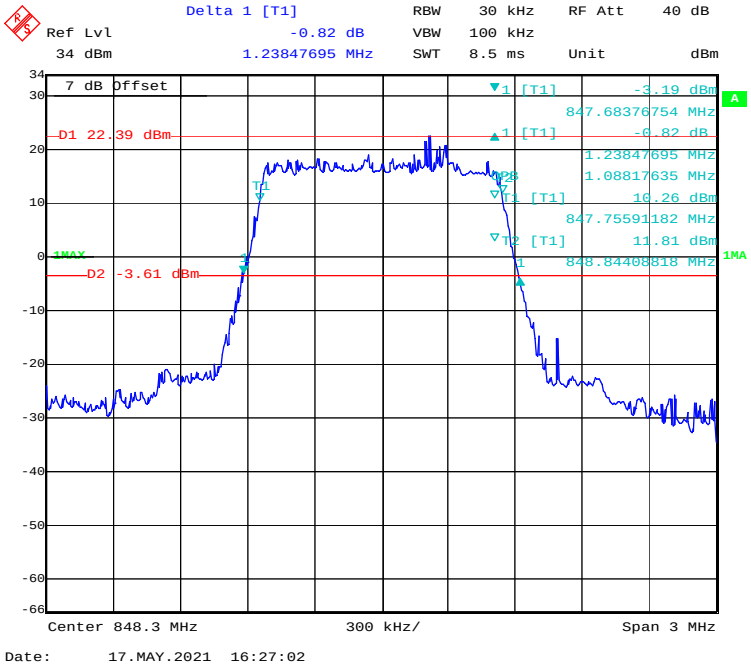
QPSK (5.0MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



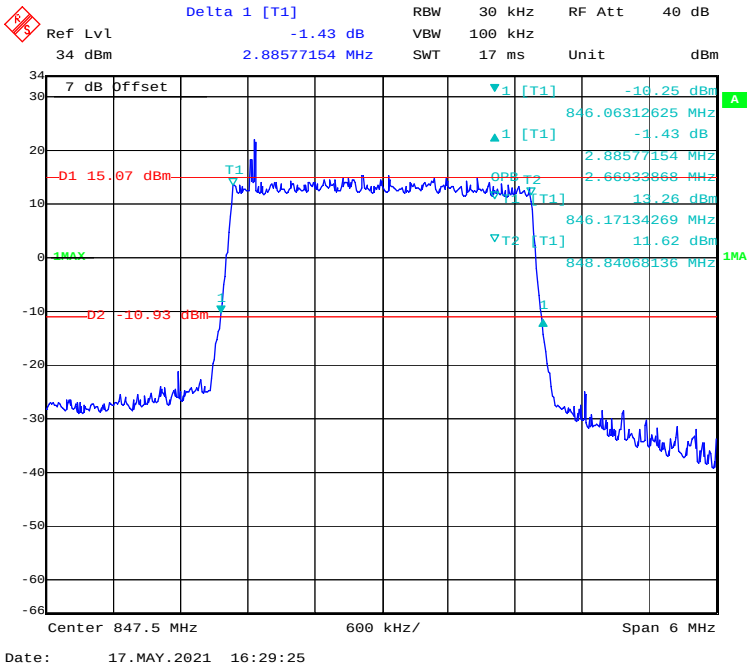
QPSK (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



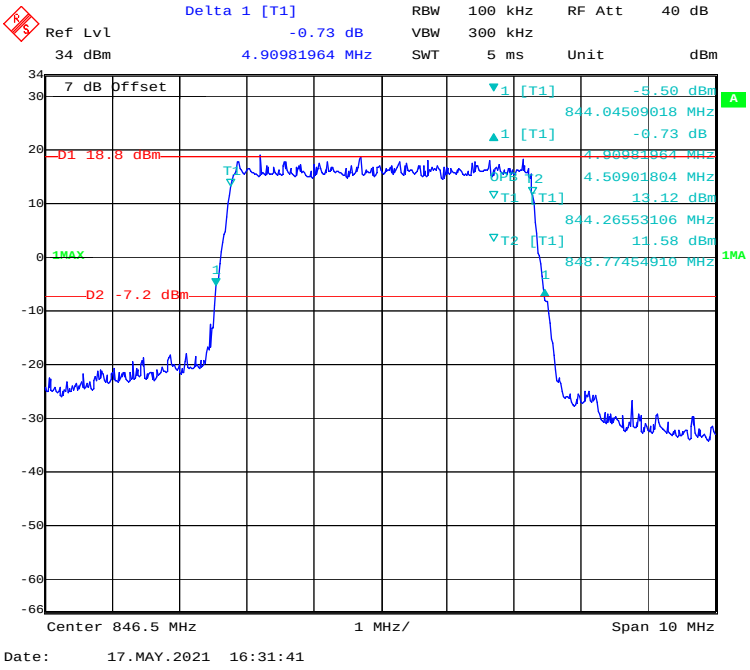
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



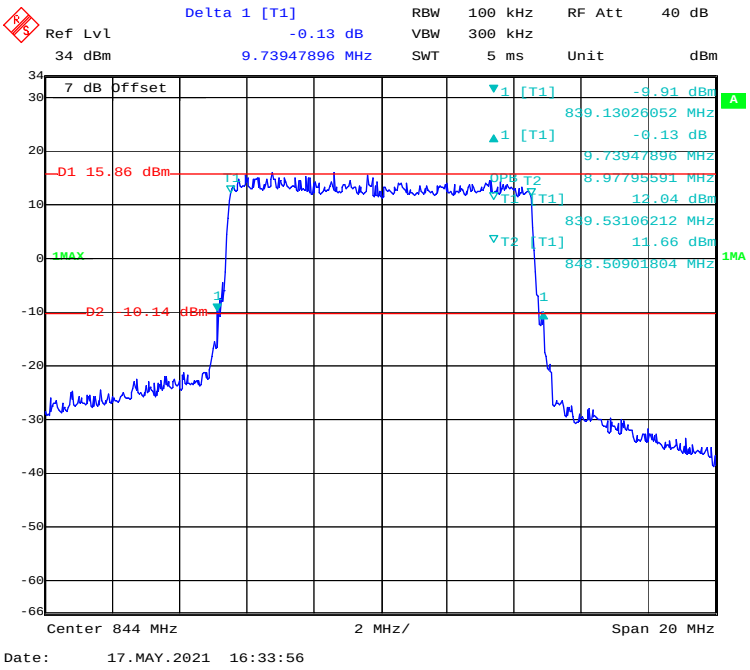
QPSK (3.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



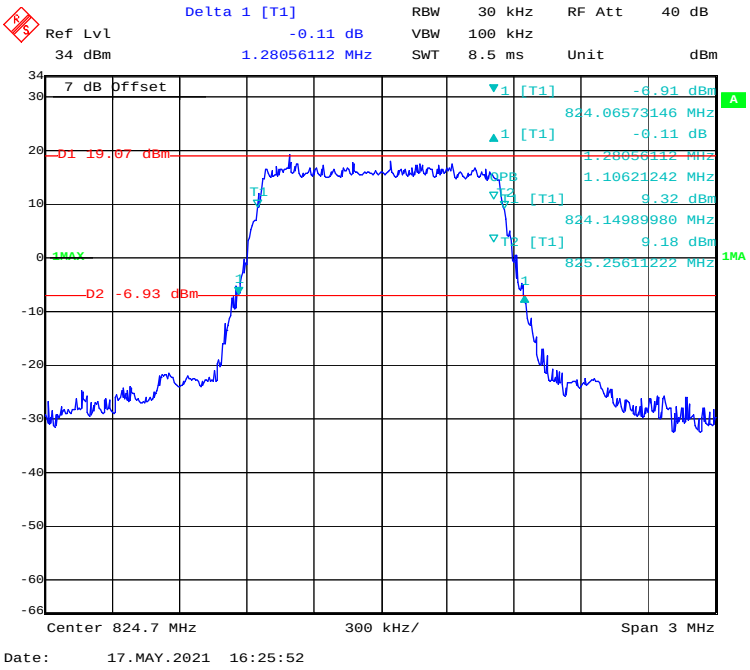
QPSK (5.0MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



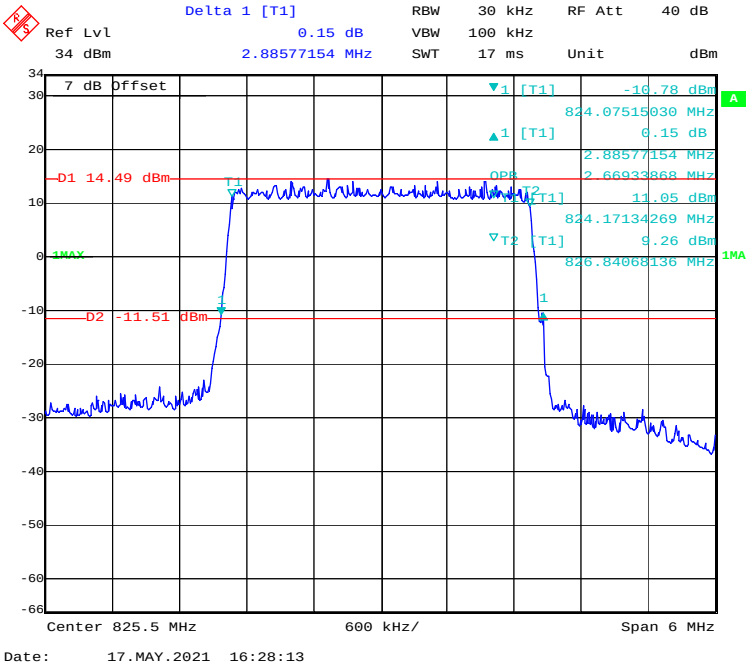
QPSK (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



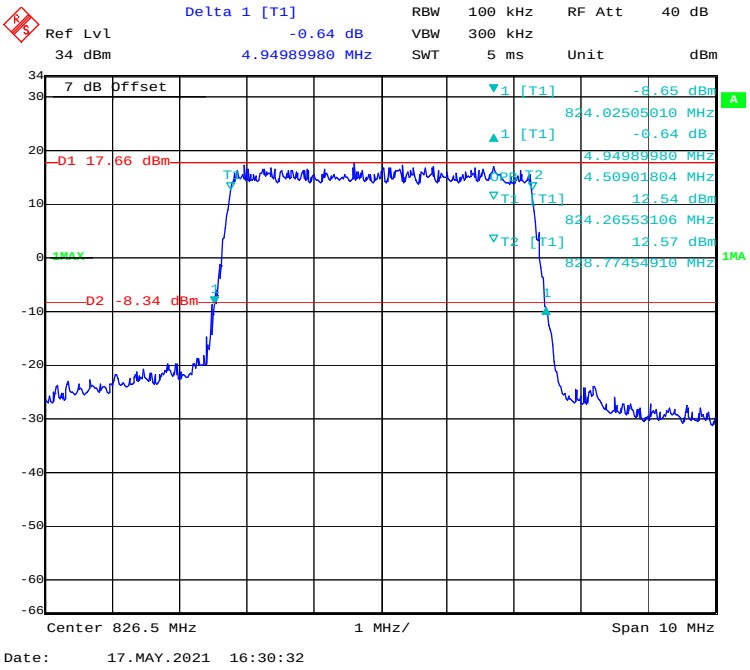
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



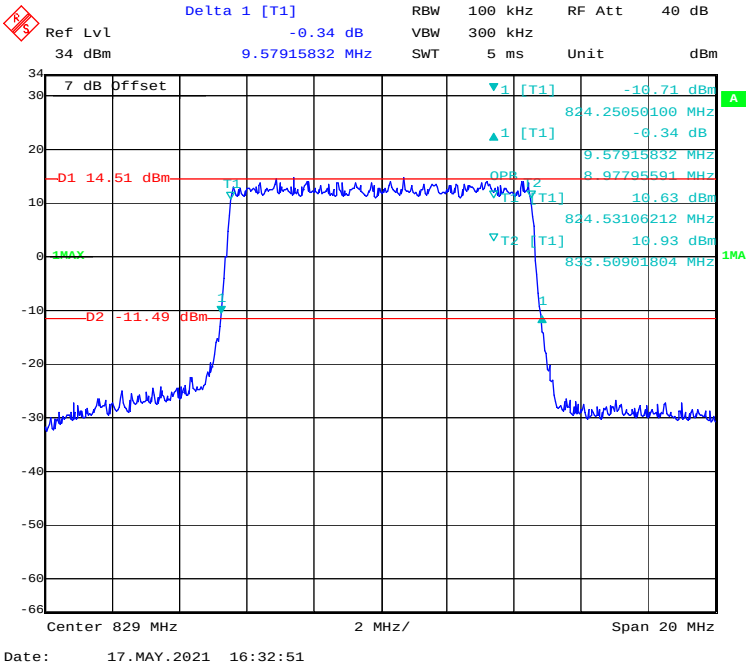
16-QAM (3.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



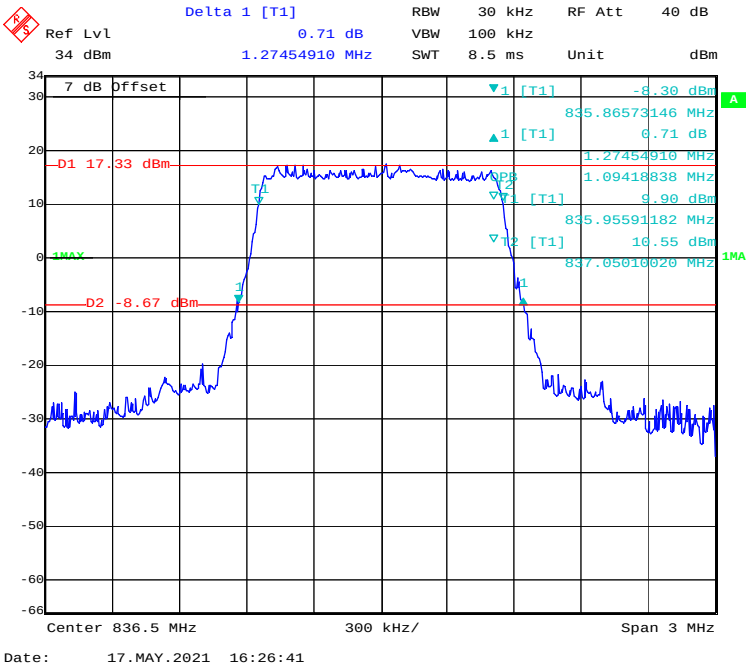
16-QAM (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



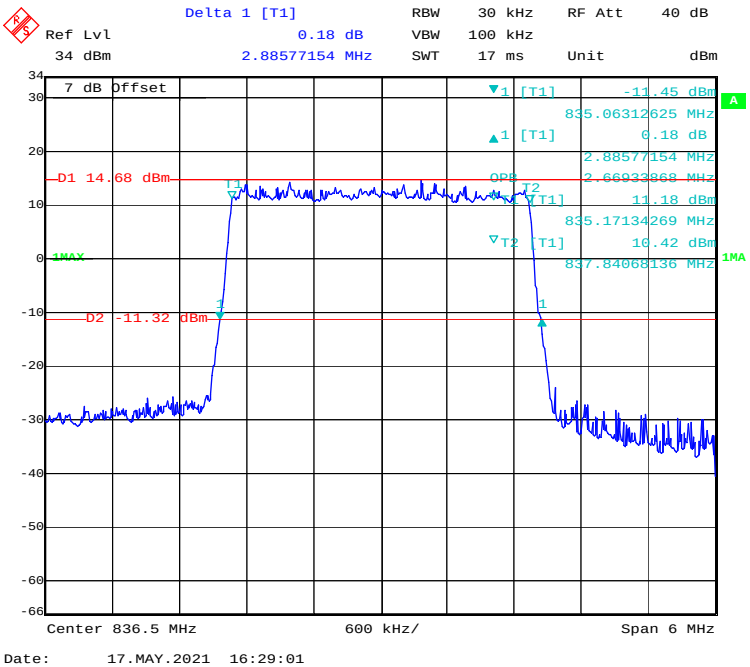
16-QAM (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



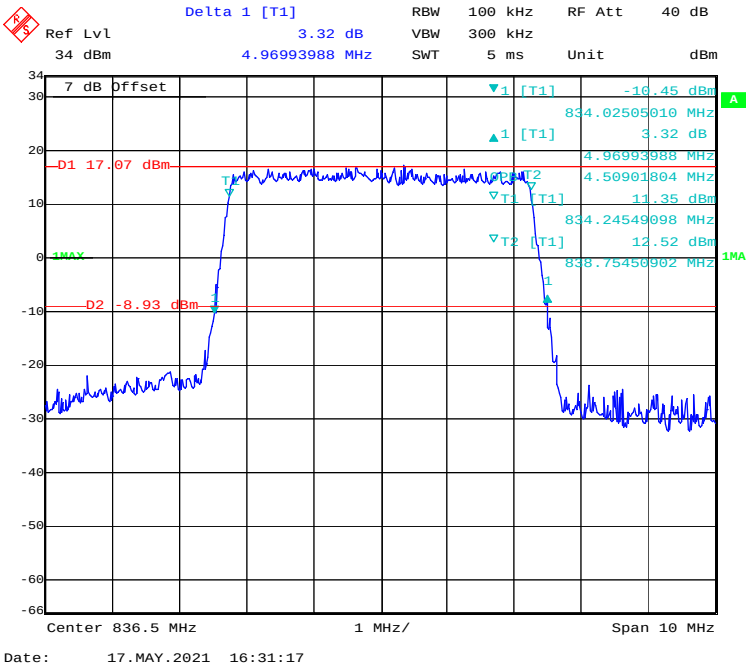
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



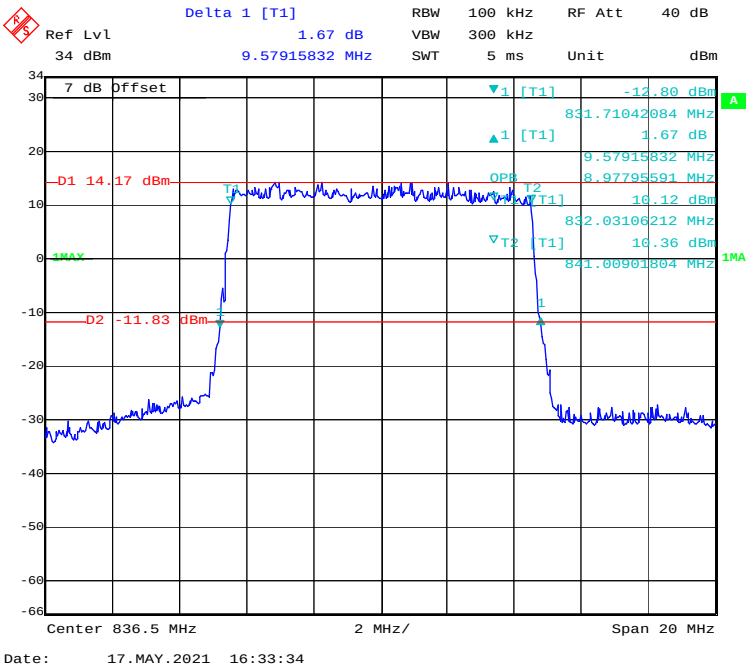
16-QAM (3.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



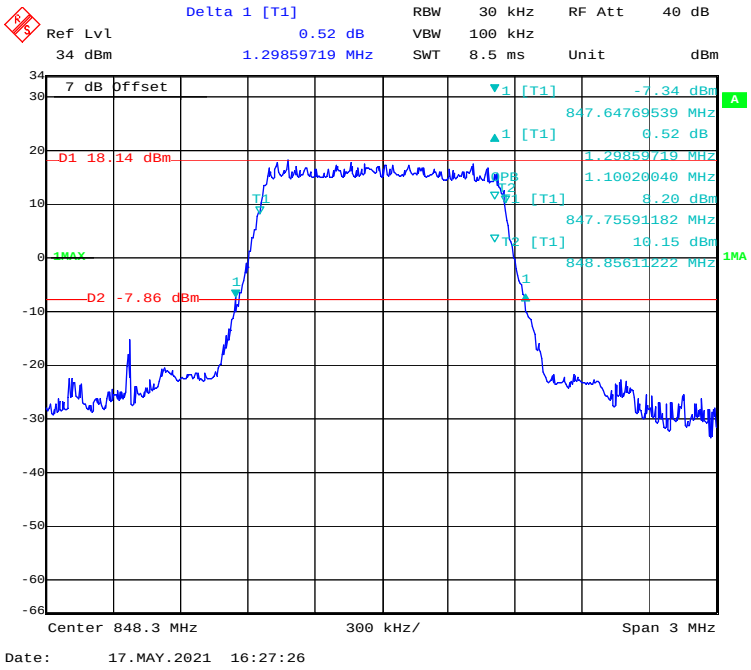
16-QAM (5.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



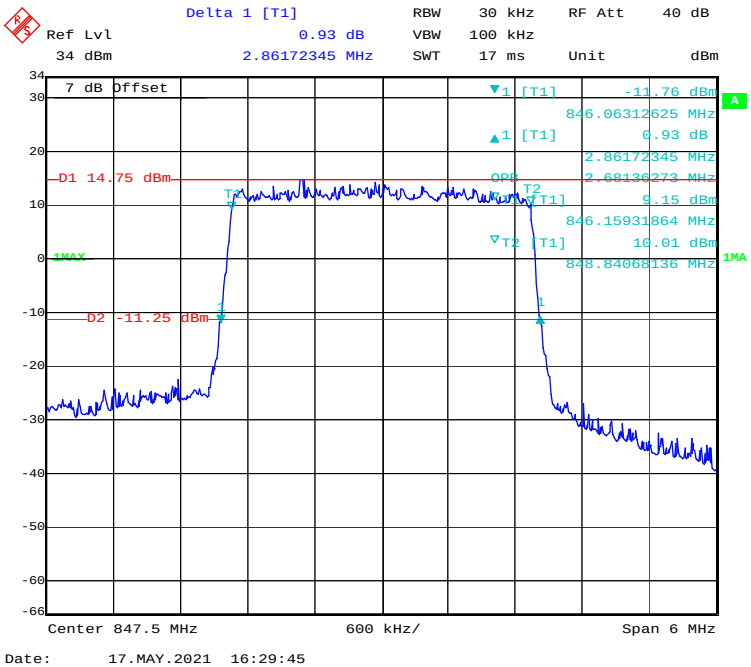
16-QAM (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



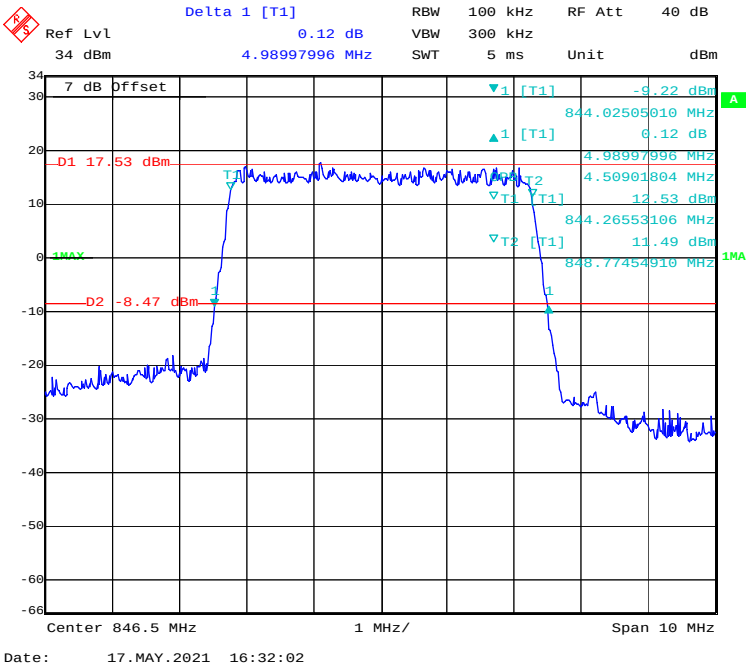
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



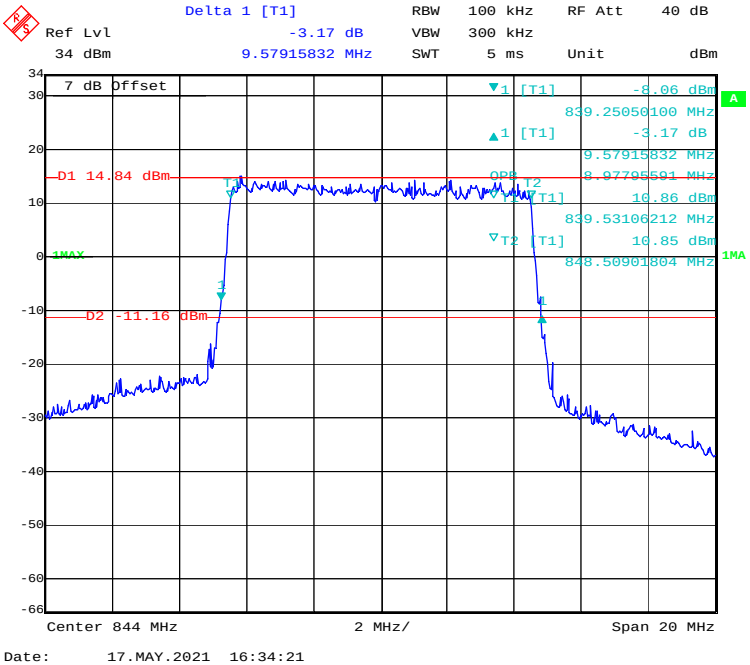
16-QAM (3.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



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



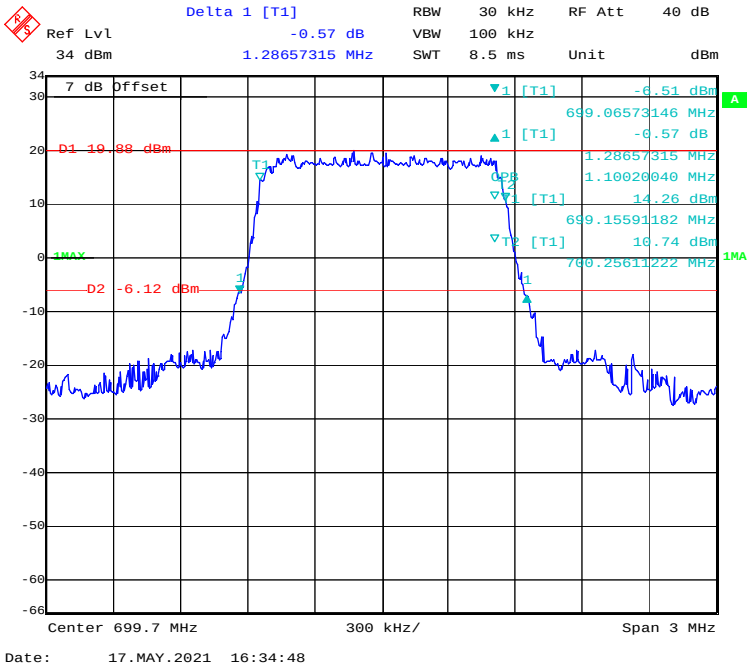
16-QAM (10.0 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



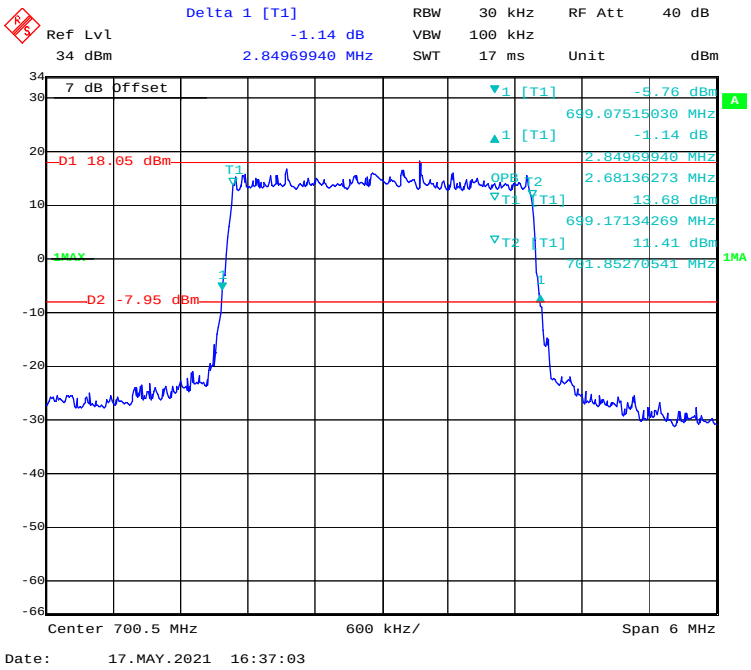
LTE Band 12:

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	1.4M	Low	1.287	1.100
	3M		2.850	2.681
	5M		5.190	4.529
	10M		10.02	9.018
	1.4M	Middle	1.293	1.100
	3M		2.862	2.681
	5M		5.150	4.529
	10M		9.860	8.978
	1.4M	High	1.281	1.112
	3M		2.886	2.693
	5M		5.130	4.529
	10M		9.780	8.978
16-QAM	1.4M	Low	1.299	1.106
	3M		2.874	2.669
	5M		5.110	4.529
	10M		9.820	8.978
	1.4M	Middle	1.275	1.094
	3M		2.862	2.681
	5M		5.17	4.549
	10M		9.780	8.978
	1.4M	High	1.293	1.100
	3M		2.874	2.681
	5M		5.230	4.569
	10M		9.780	8.938

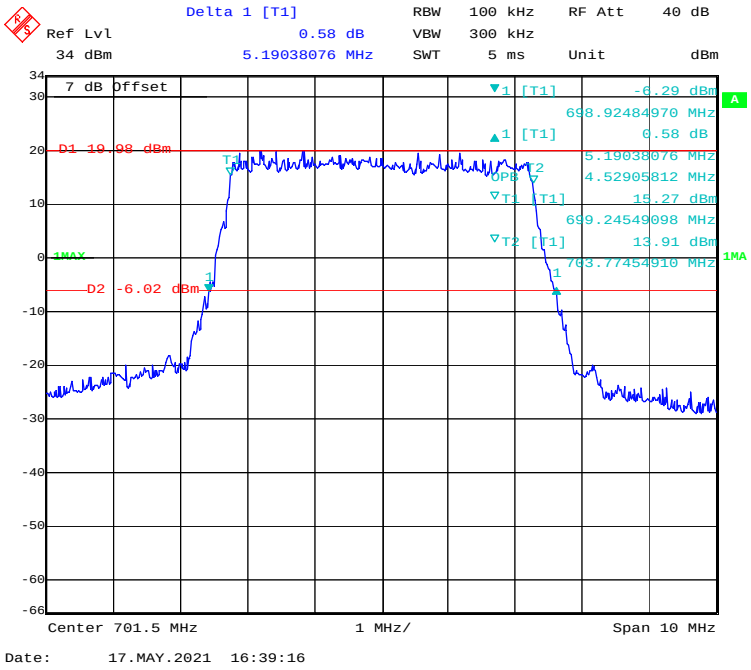
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



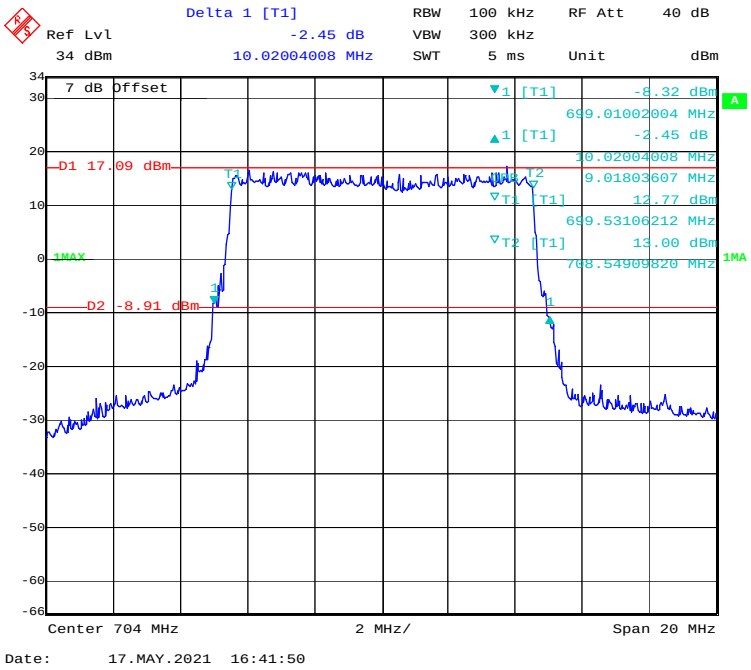
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



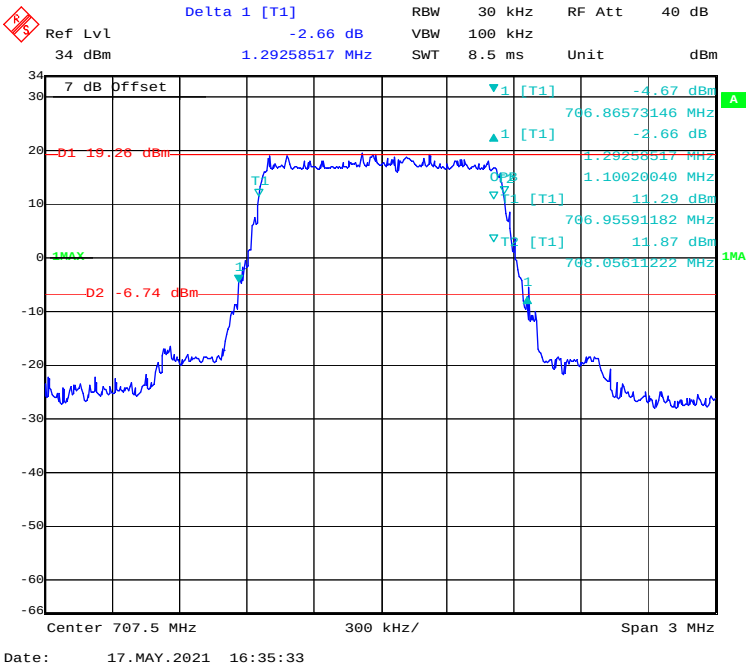
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



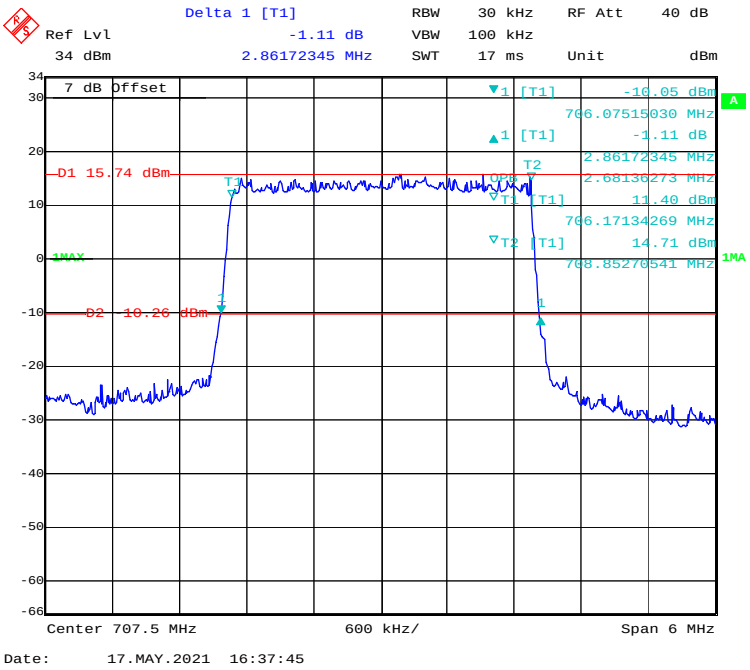
QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



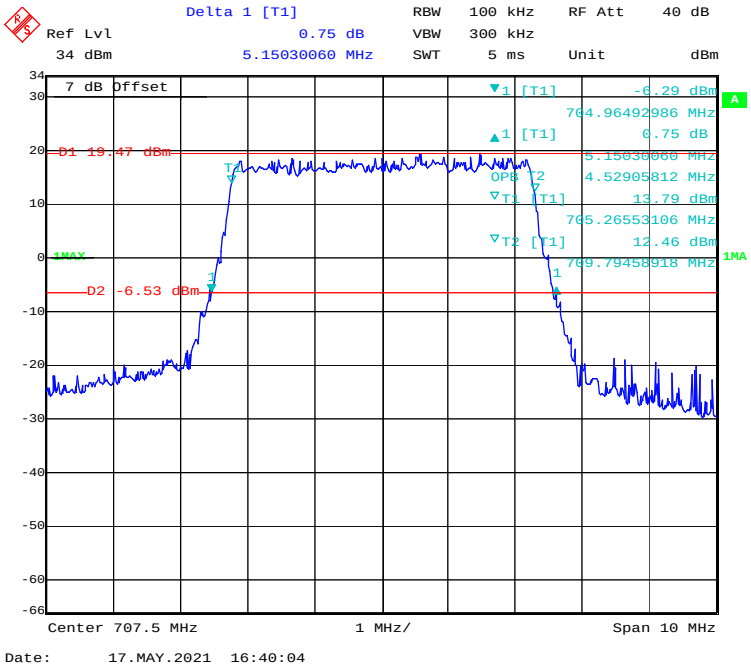
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



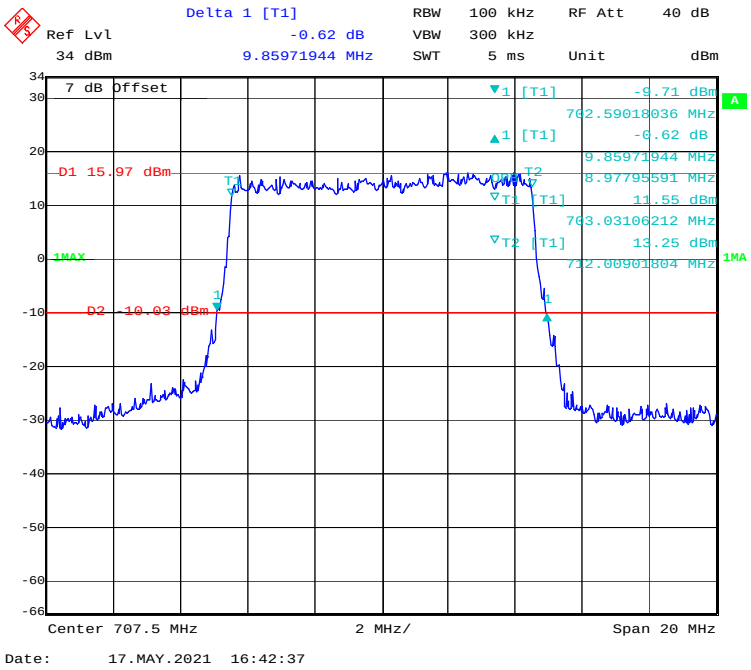
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



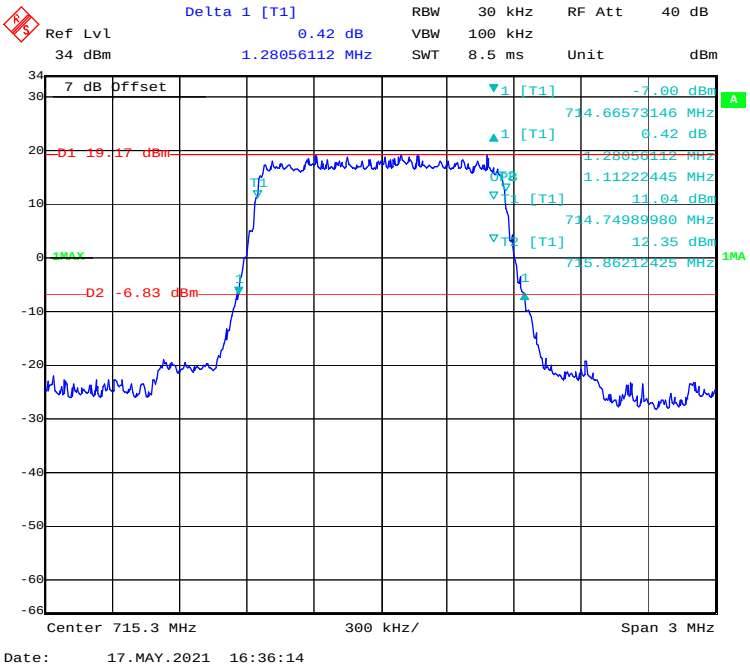
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



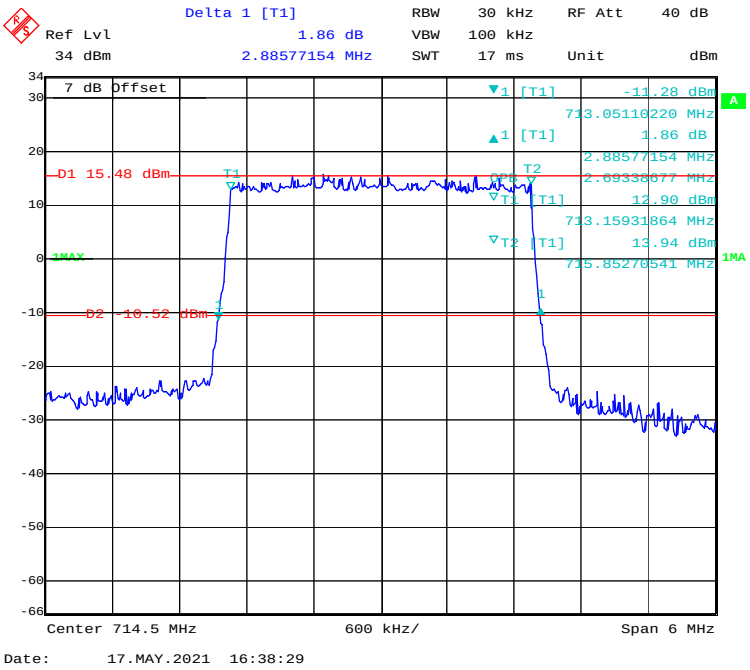
QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



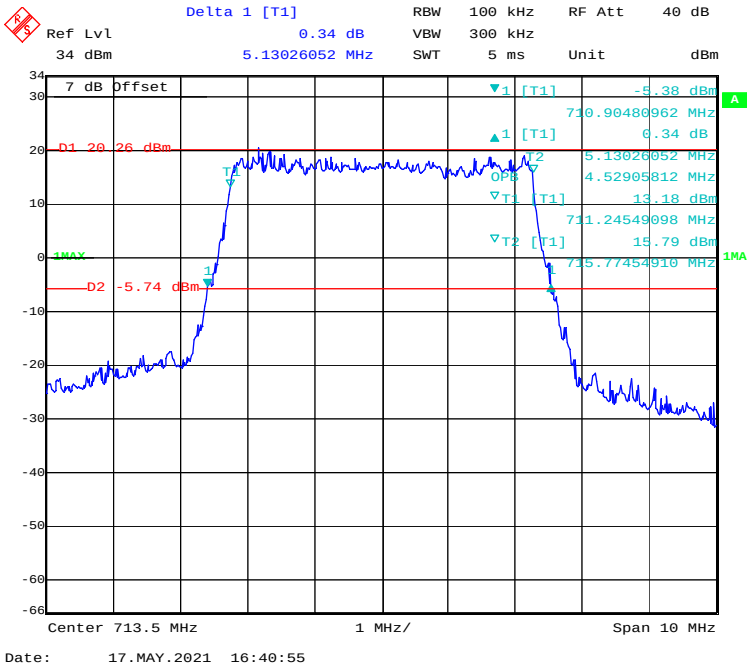
QPSK (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



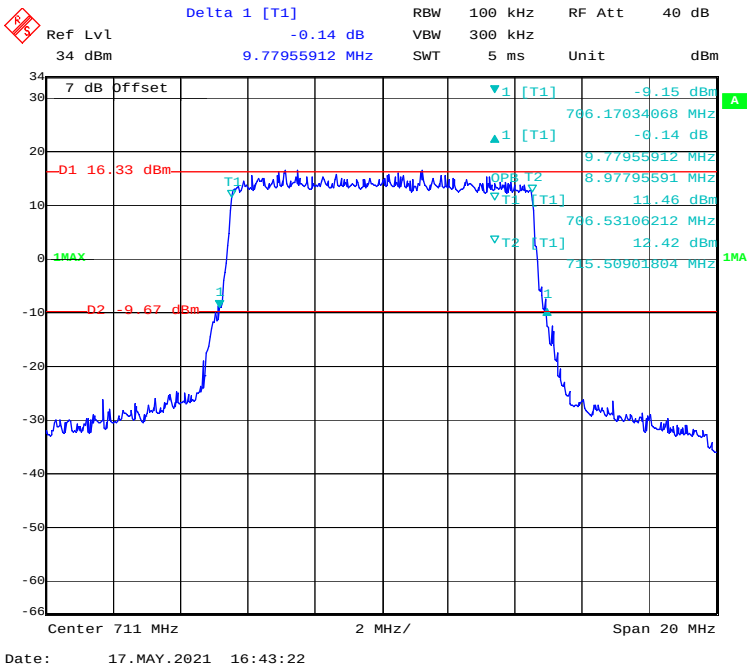
QPSK (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



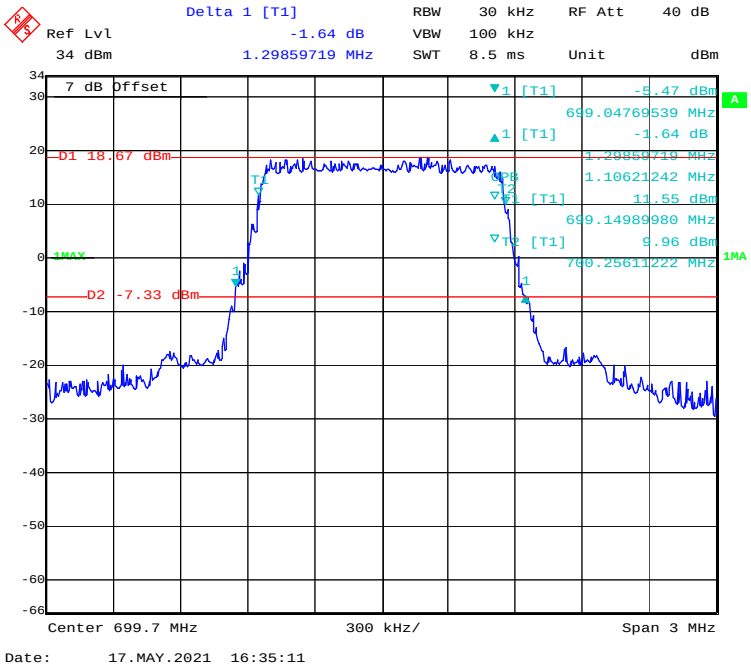
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



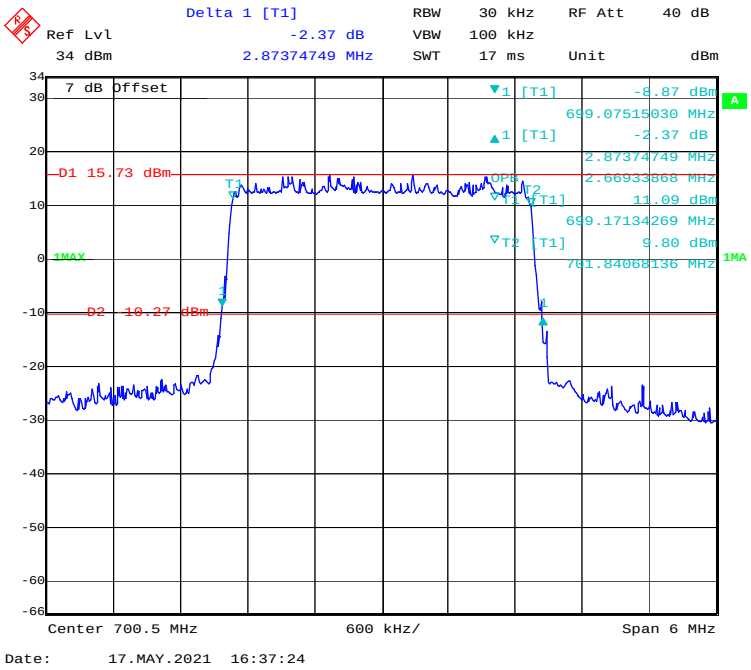
QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



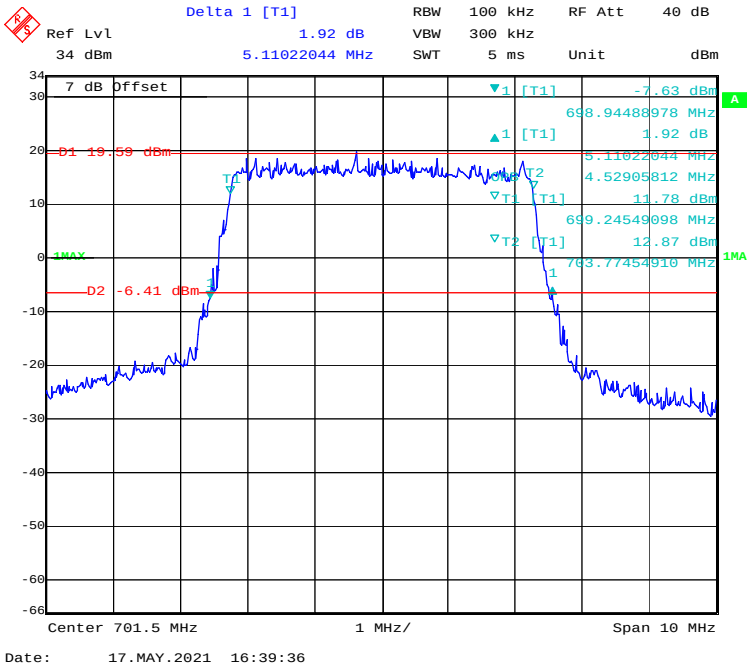
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



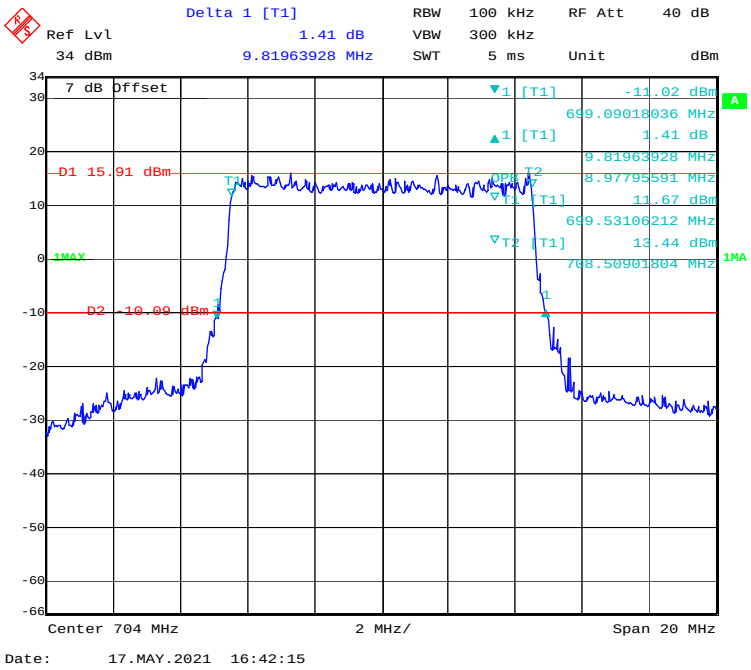
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



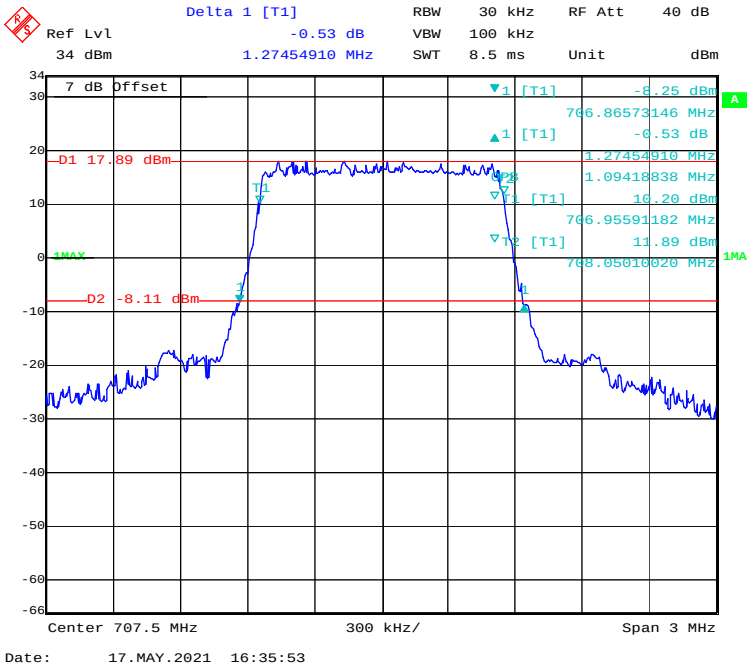
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



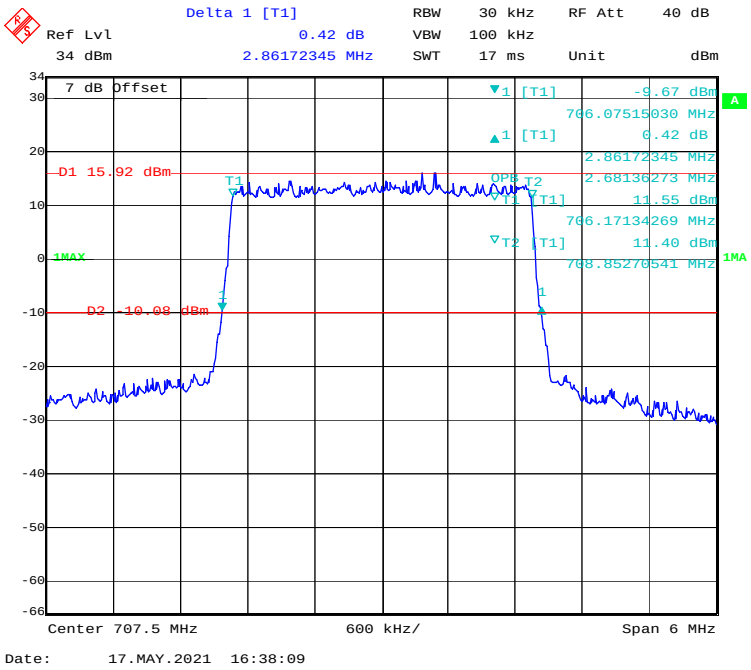
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



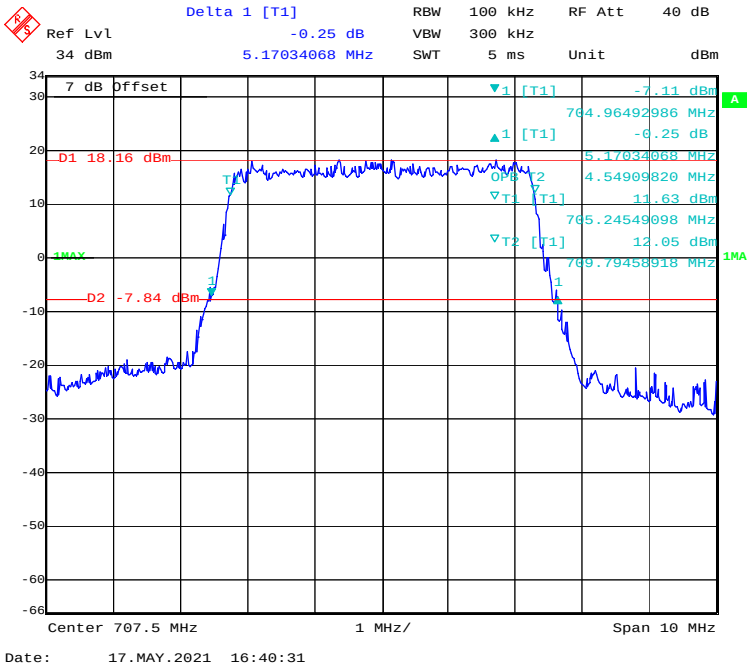
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



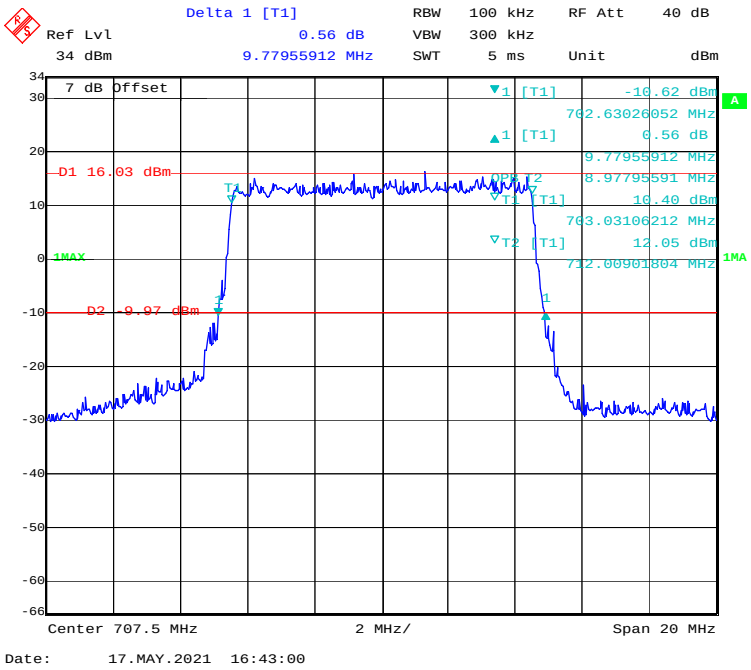
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



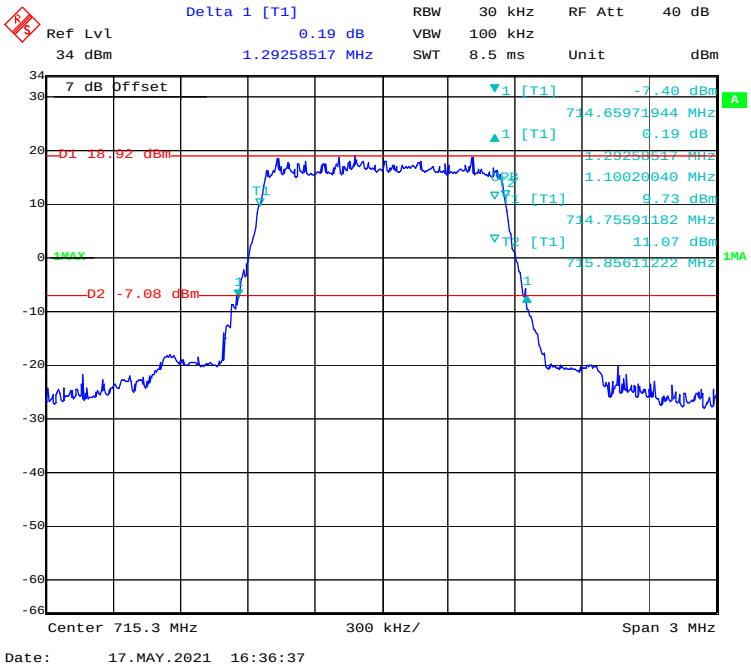
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



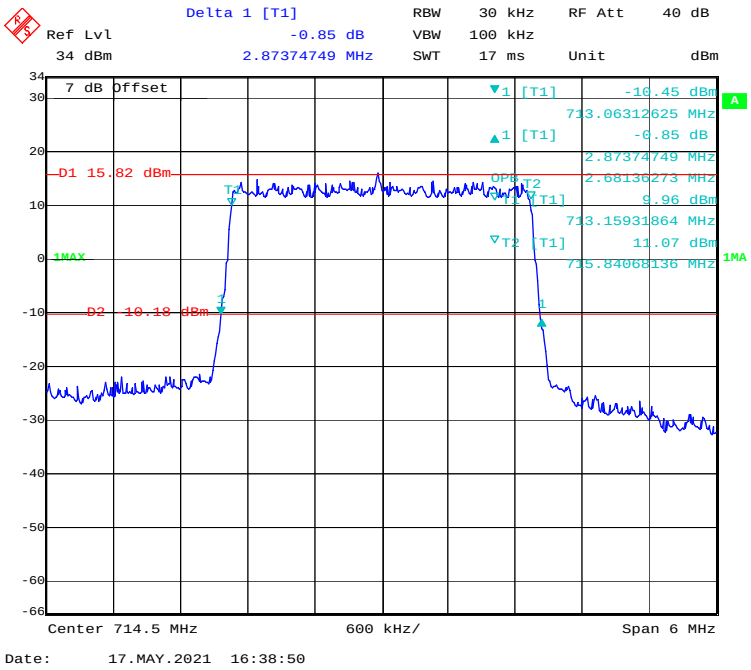
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



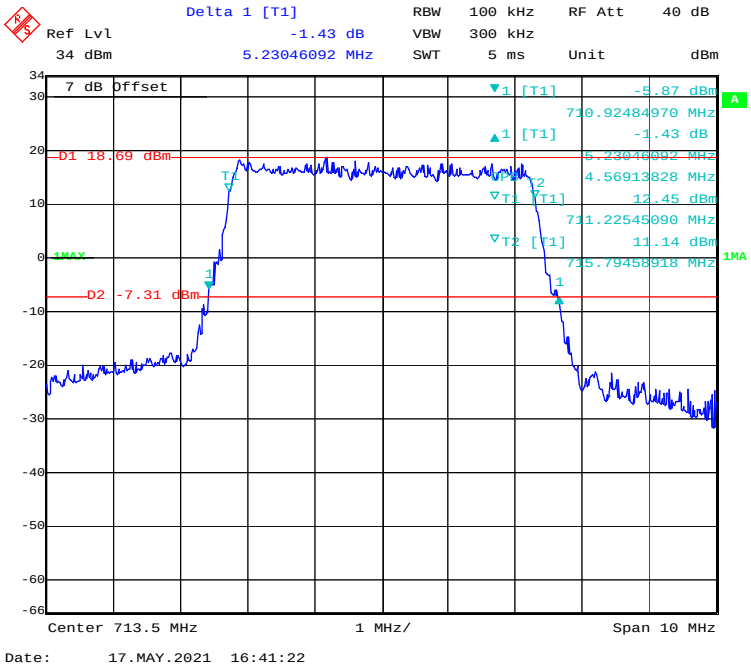
16-QAM (1.4 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



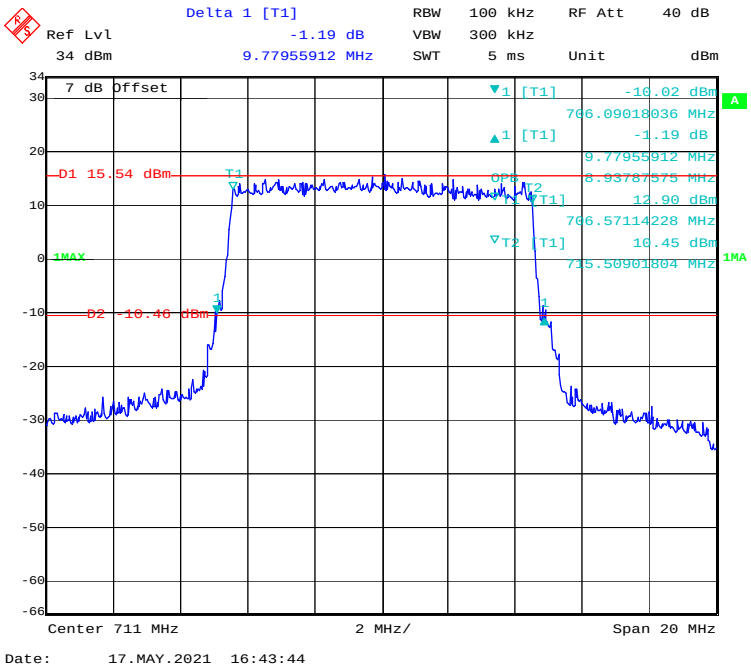
16-QAM (3 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



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



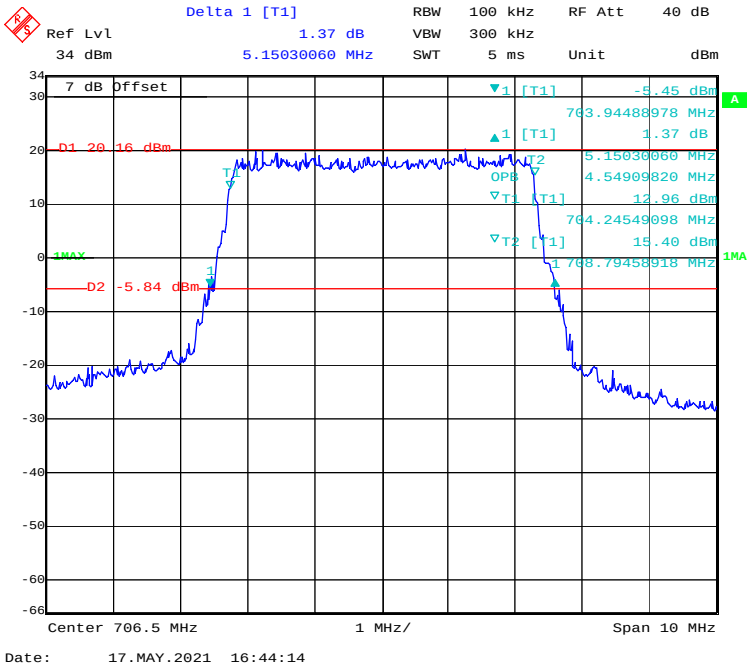
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



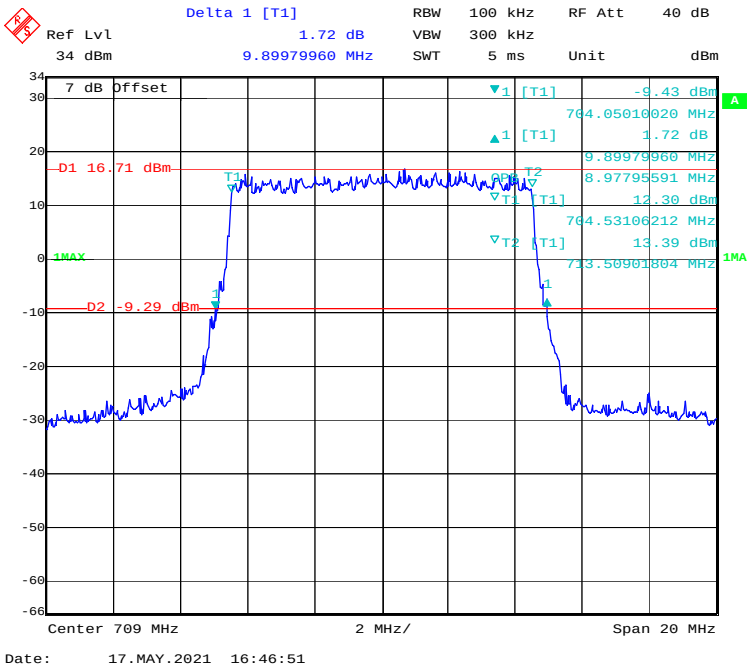
LTE Band 17:

Test Modulation	Test Bandwidth	Test Channel	26 dB Bandwidth	99% Occupied Bandwidth
			MHz	MHz
QPSK	5M	Low	5.150	4.549
	10M		9.900	8.978
	5M	Middle	5.130	4.529
	10M		9.739	8.938
	5M	High	5.170	4.529
	10M		9.780	8.978
16-QAM	5M	Low	5.150	4.549
	10M		9.780	8.978
	5M	Middle	5.150	4.549
	10M		9.739	8.978
	5M	High	5.230	4.569
	10M		9.860	8.978

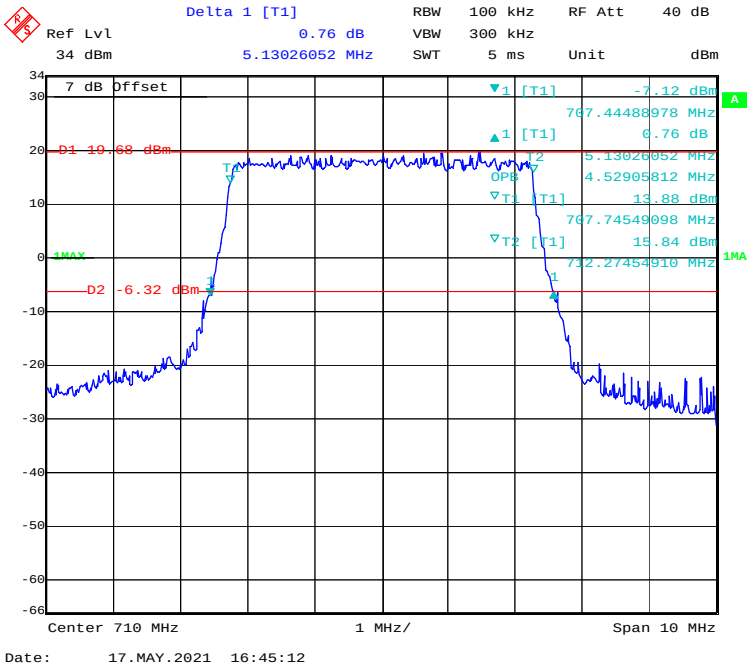
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



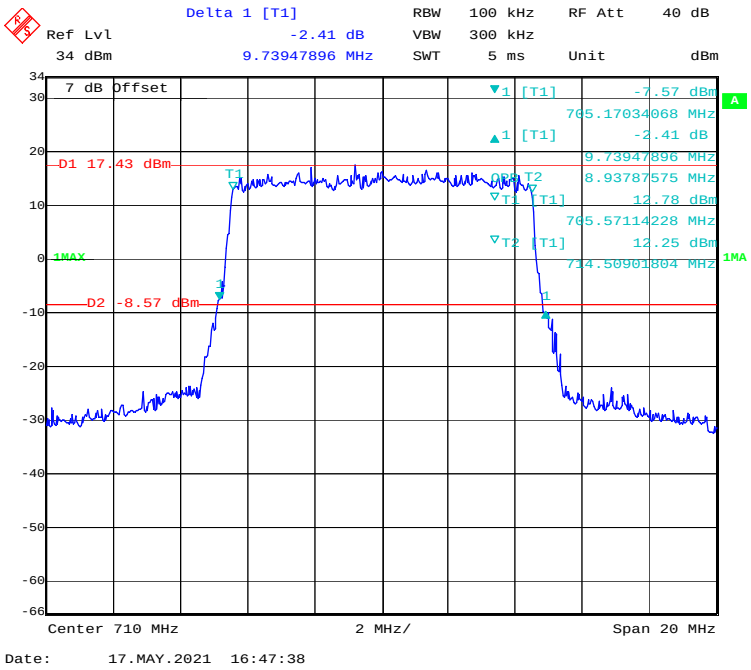
QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



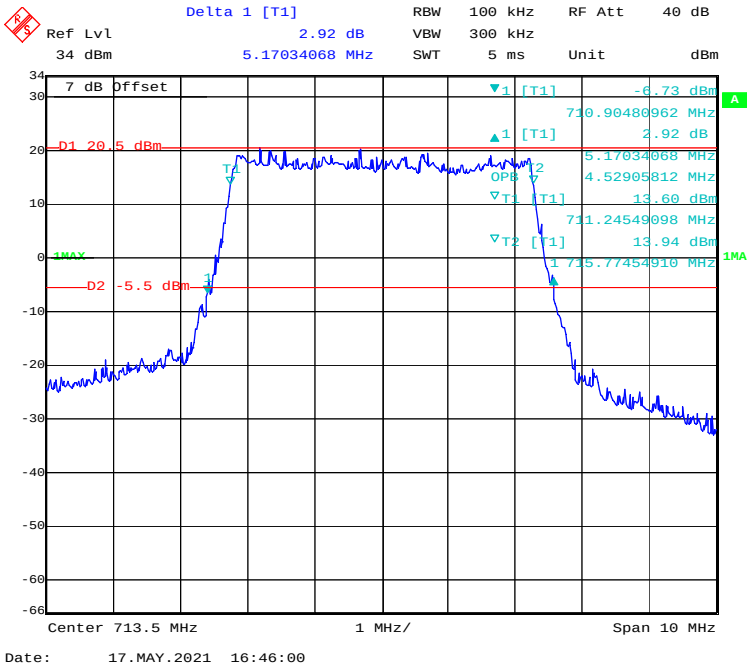
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



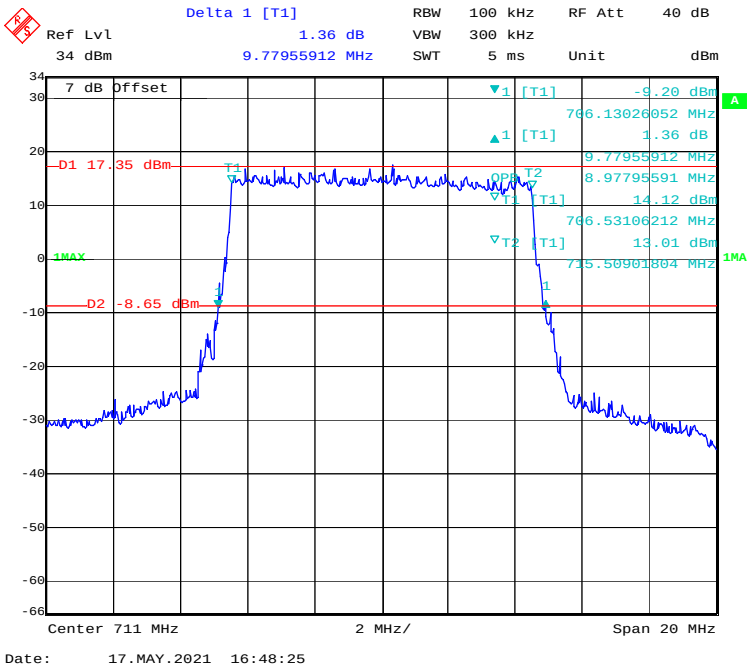
QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



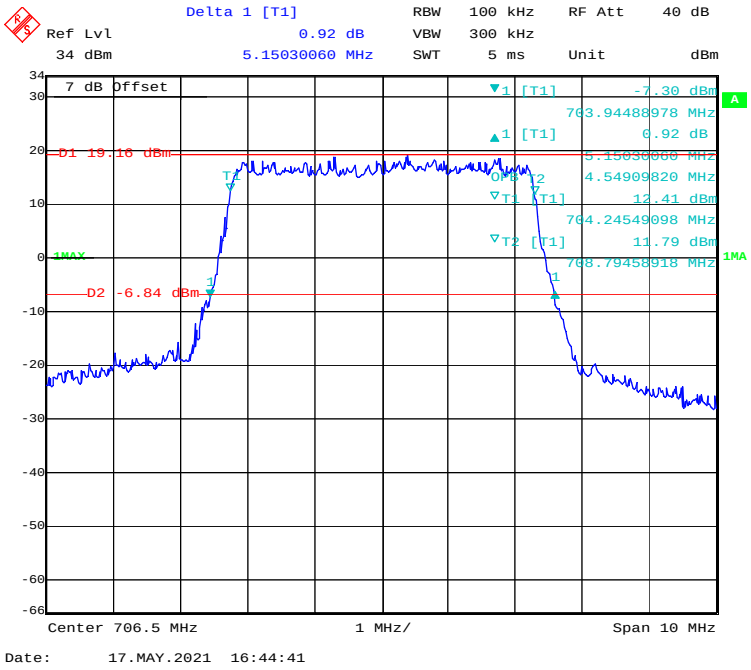
QPSK (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



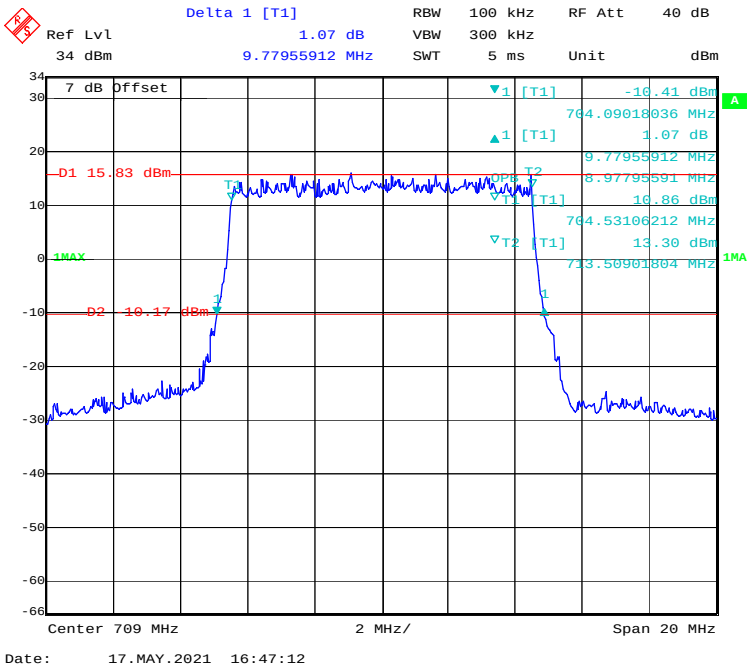
QPSK (10MHz) - 99% Occupied & 26 dB Emissions Bandwidth, High channel



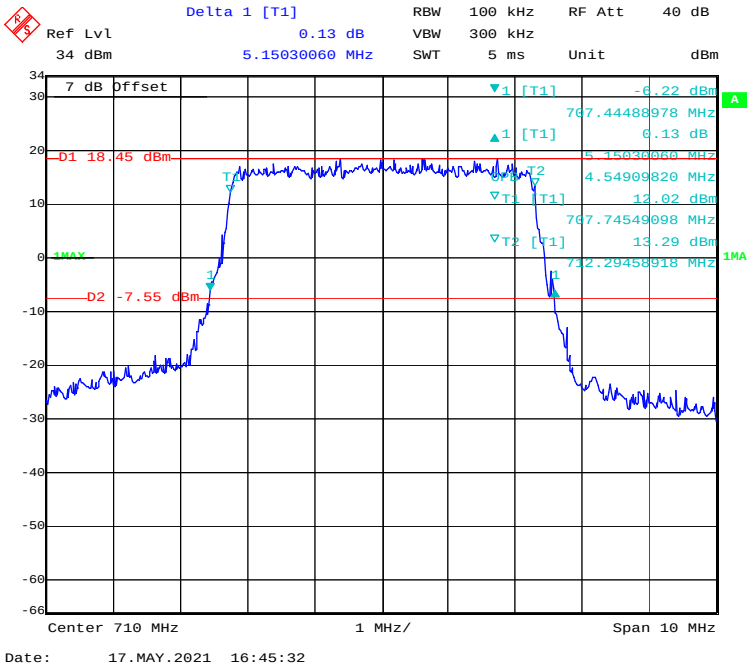
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



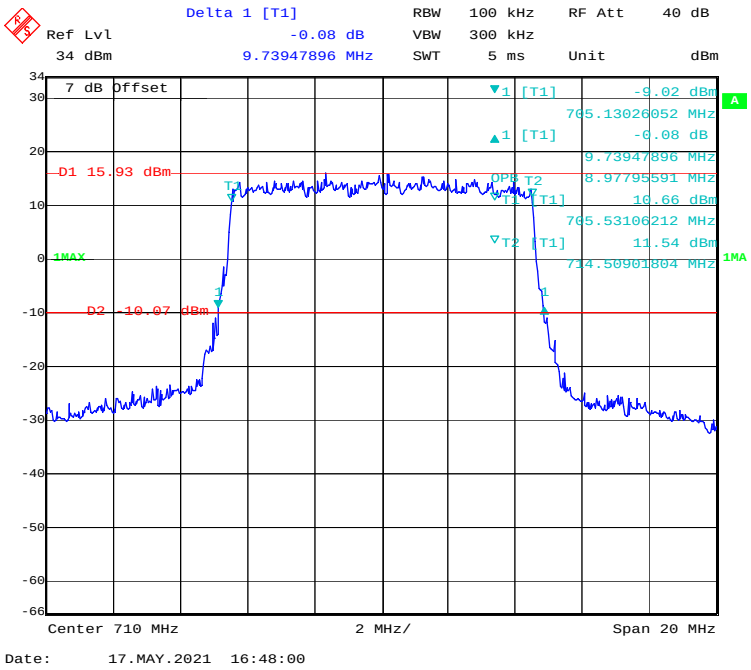
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Low channel



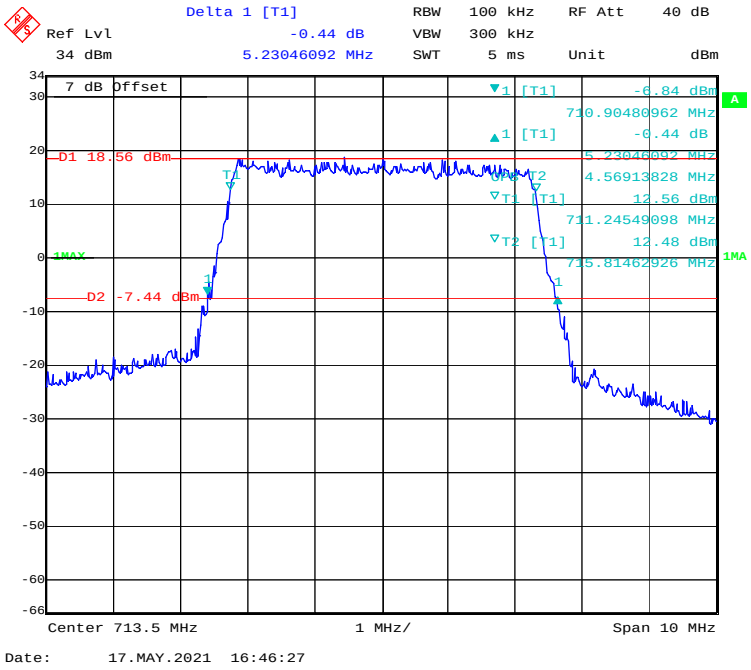
16-QAM (5 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



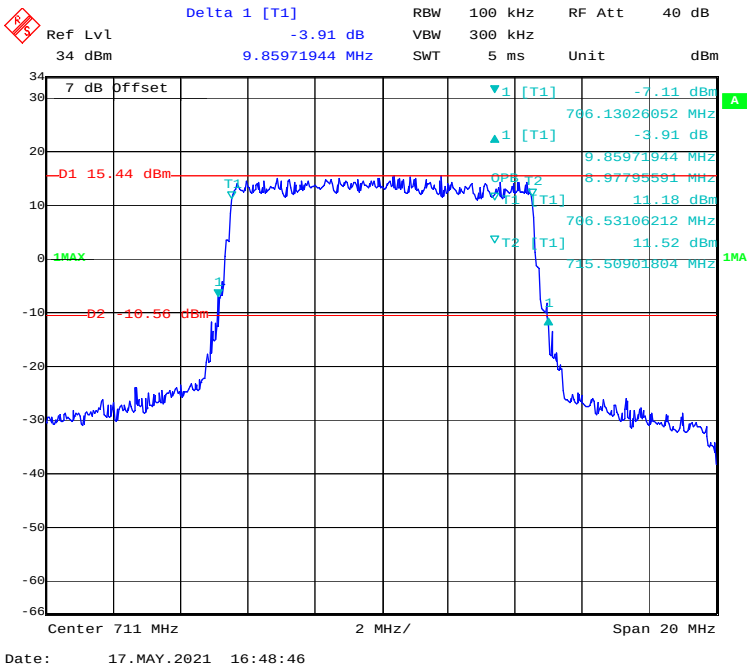
16-QAM (10 MHz) - 99% Occupied & 26 dB Emissions Bandwidth, Middle channel



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



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



FCC § 2.1051; § 22.917 (a); § 24.238 (a); §27.53 (g) (h) - SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Applicable Standards

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

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

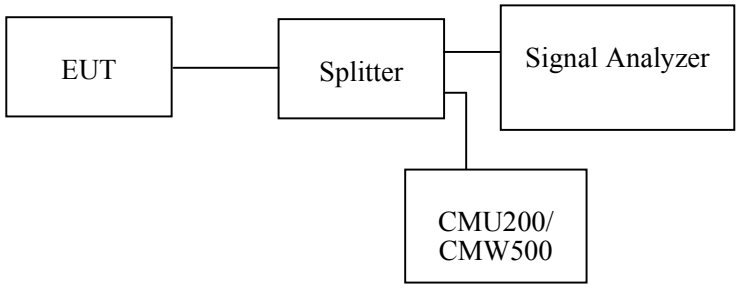
According to §22.917(a), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB.

(h) For operations in the 1710-1755 MHz, 1755-1780 MHz, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.

Test Procedure

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



Test Data

Environmental Conditions

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

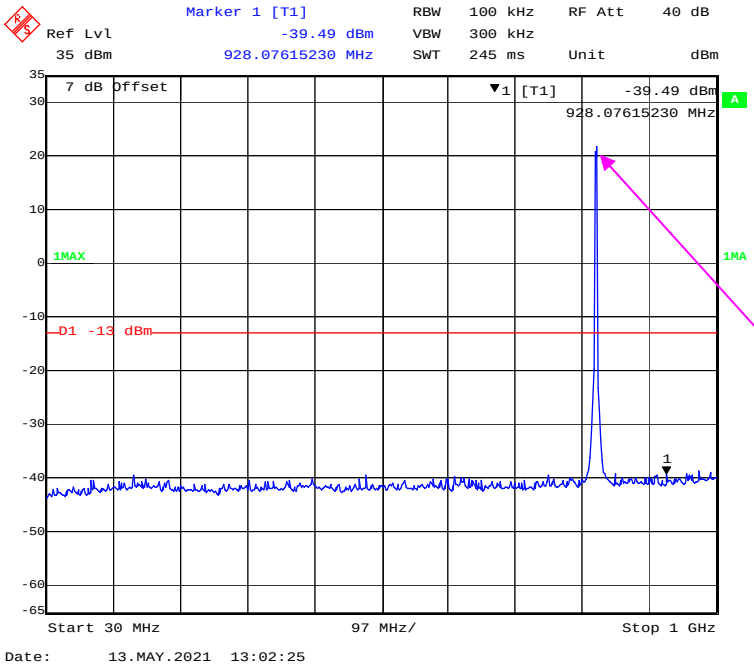
The testing was performed by Miller Xie from 2021-05-13 to 2021-05-23.

EUT operation mode: Transmitting

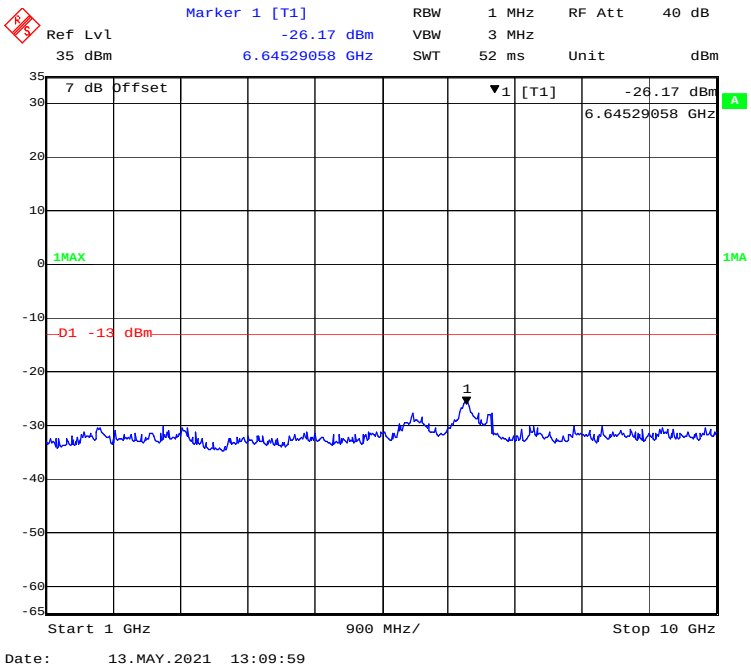
Test Result: Compliance.

WCDMA Band V:

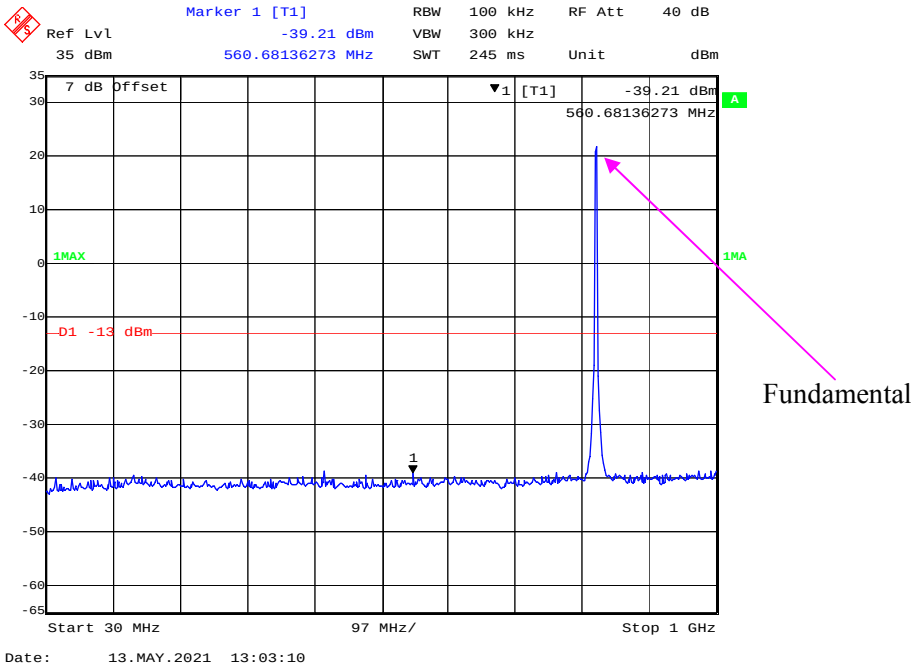
30 MHz – 1GHz WCDMA (Rel 99) Mode, Low channel



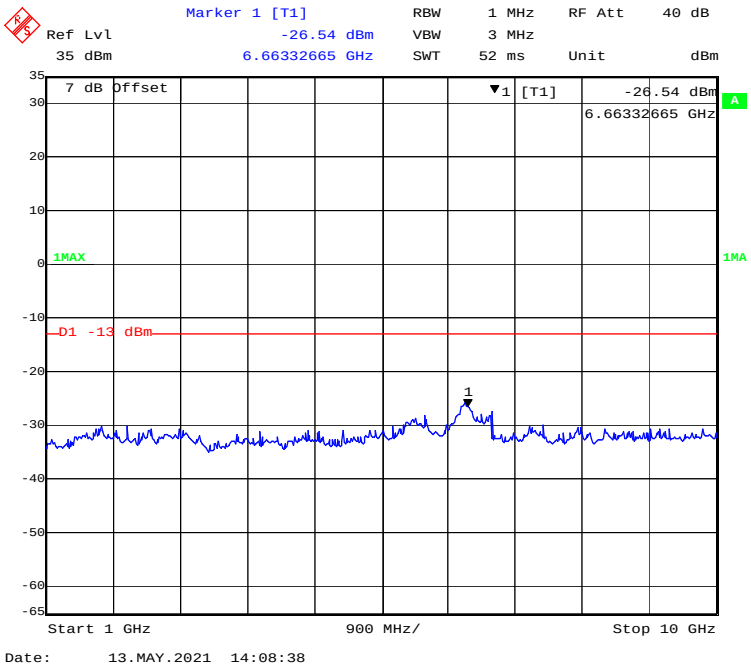
1 GHz – 10 GHz WCDMA (Rel 99) Mode, Low channel



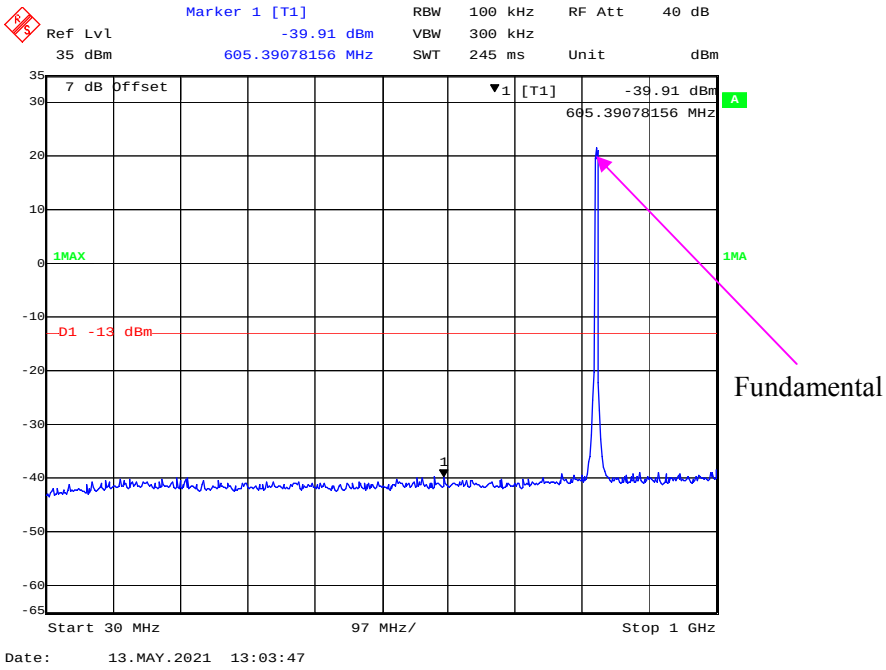
30 MHz – 1GHz WCDMA (HSDPA) Mode, Low channel



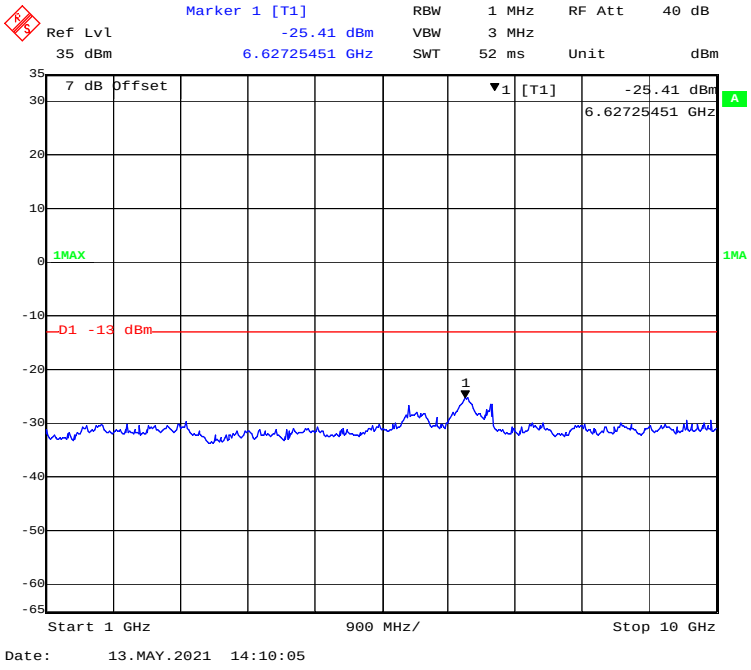
1 GHz – 10 GHz WCDMA (HSDPA) Mode, Low channel



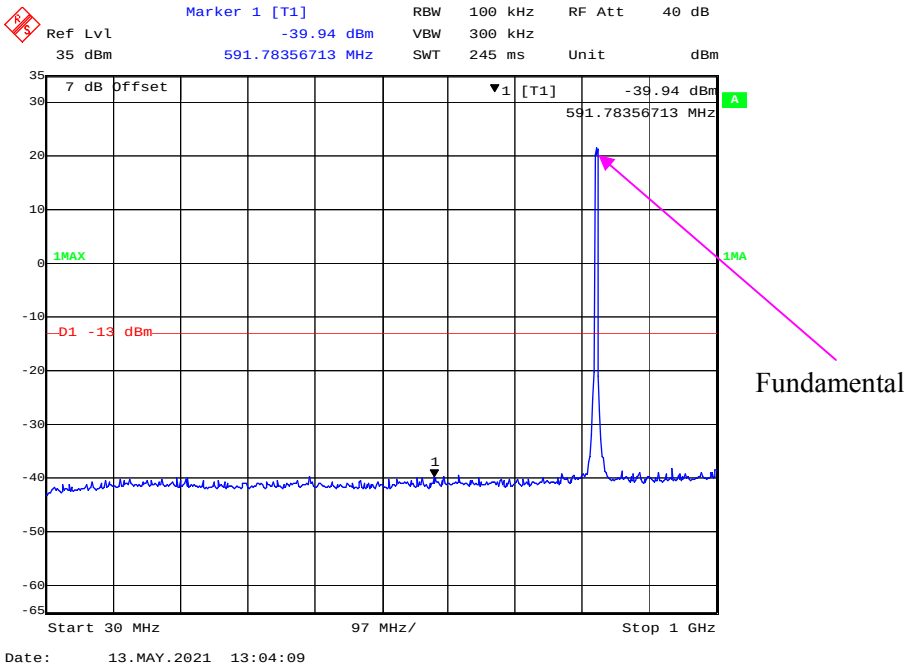
30 MHz – 1GHz WCDMA (HSUPA) Mode, Low channel



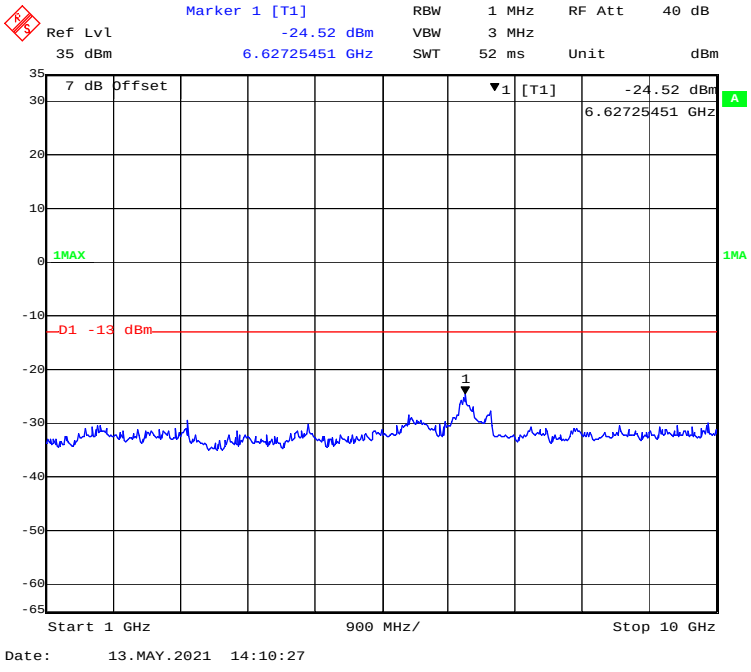
1 GHz – 10 GHz WCDMA (HSUPA) Mode, Low channel



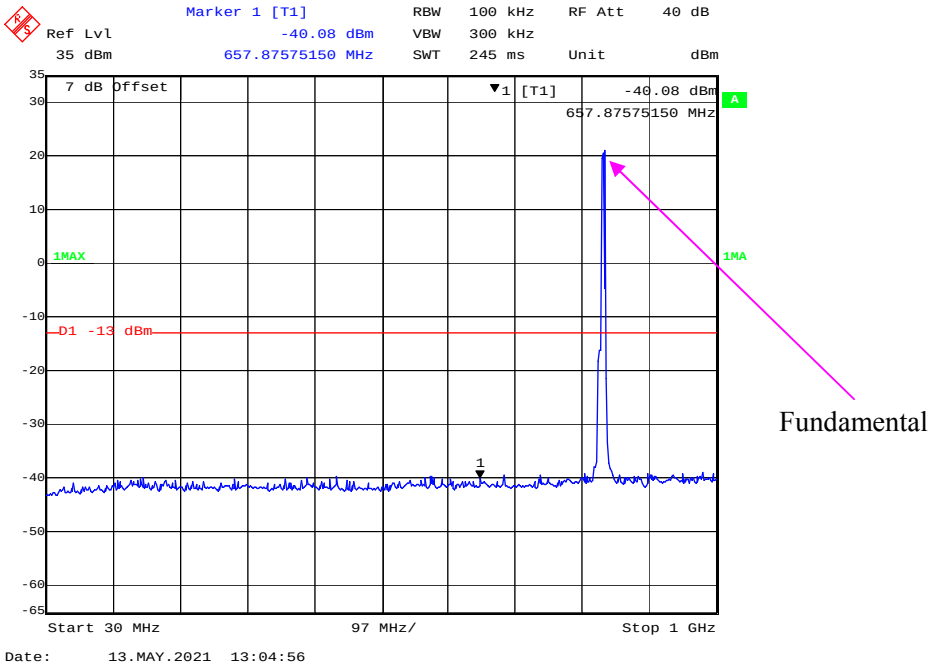
30 MHz – 1GHz WCDMA (HSPA+) Mode, Low channel



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

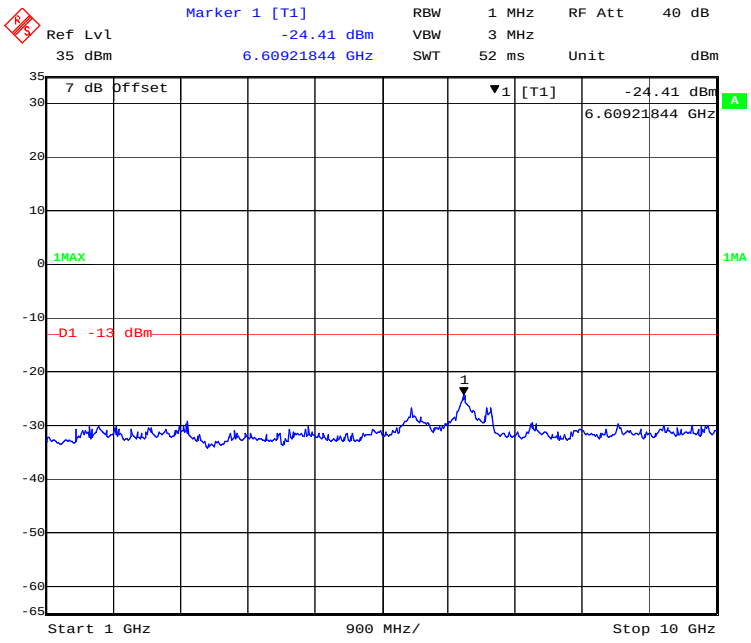


30 MHz – 1GHz WCDMA (Rel 99) Mode, Middle channel



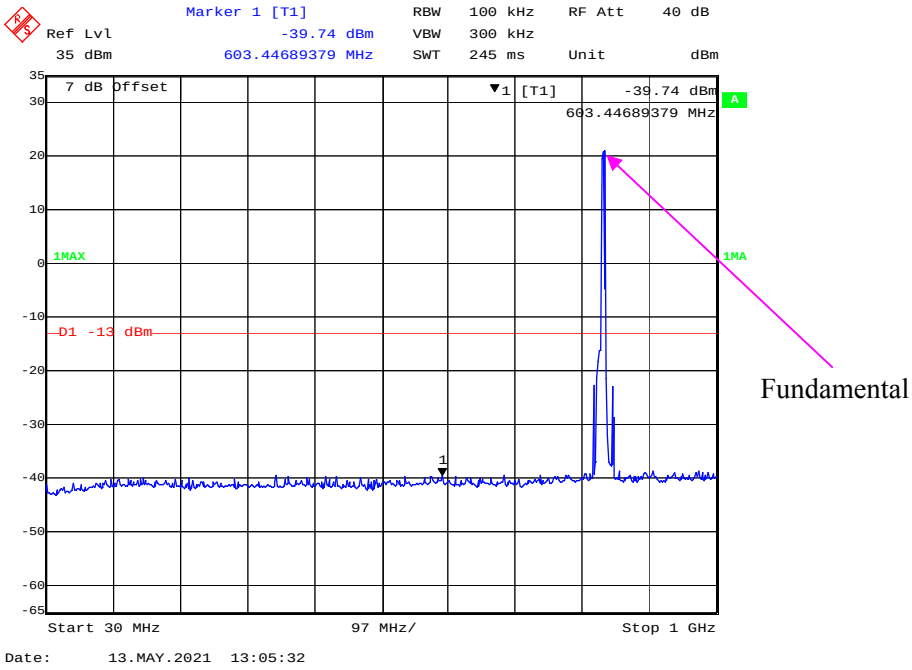
Date: 13.MAY.2021 13:04:56

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



Date: 13.MAY.2021 14:11:05

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



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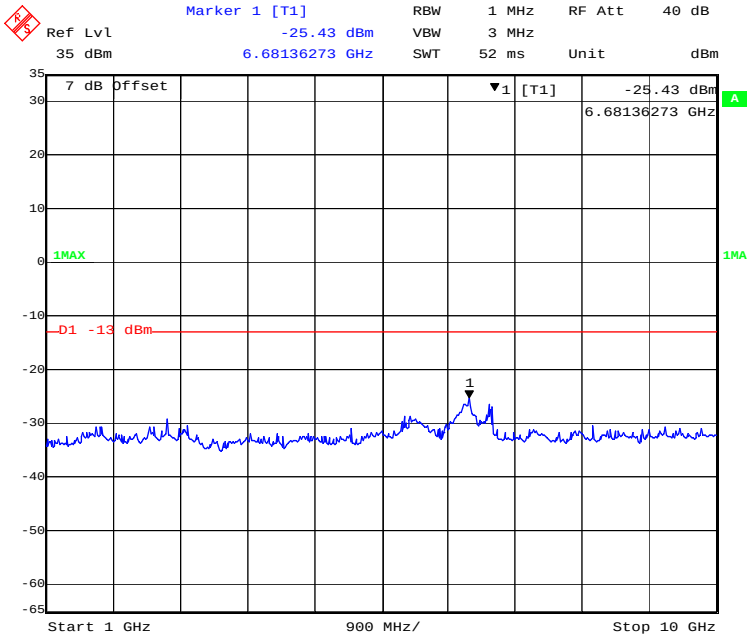
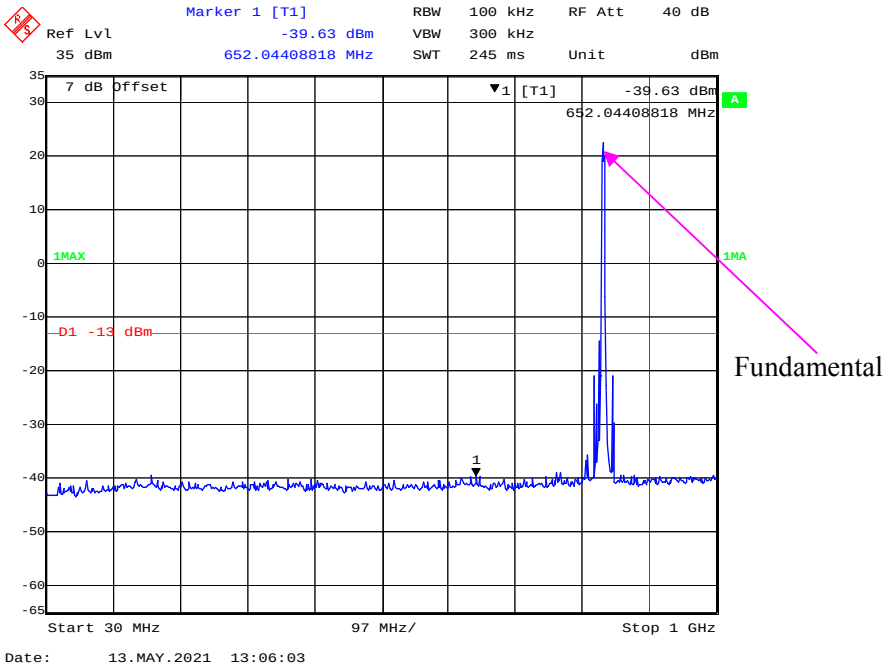
1 GHz – 10 GHz WCDMA (HSDPA) Mode, Middle channel

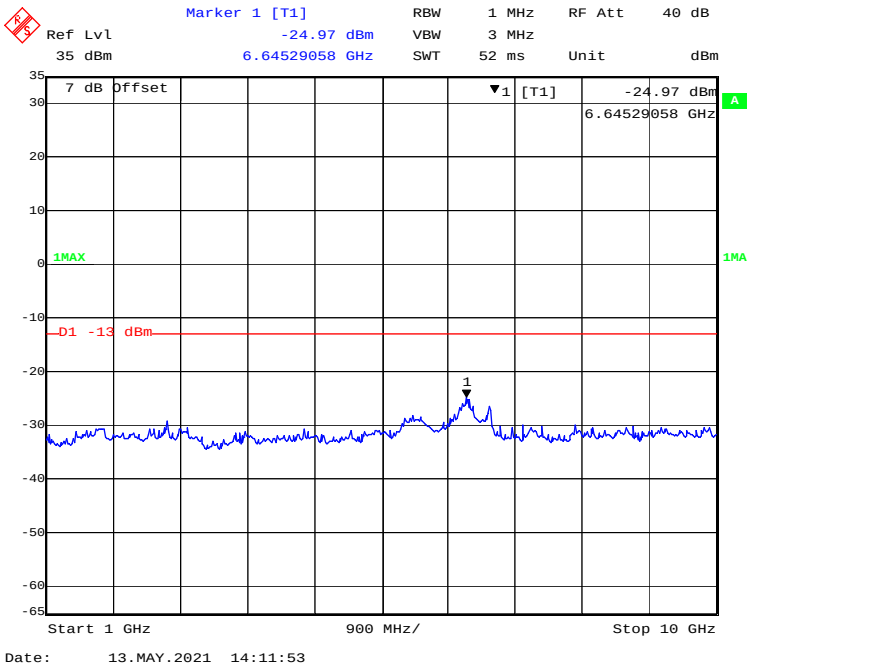


Date: 13.MAY.2021 14:11:34

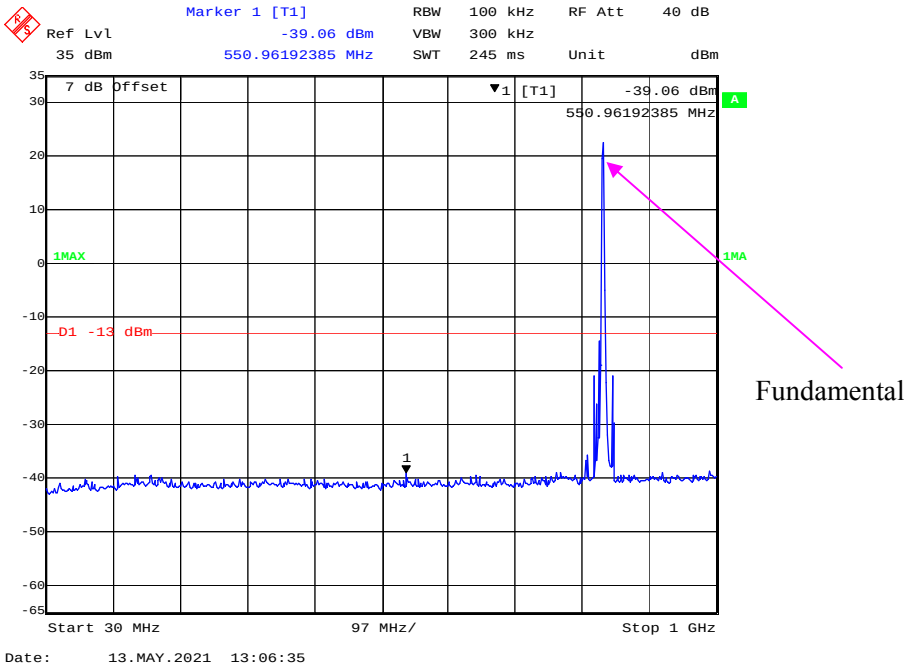
30 MHz – 1GHz WCDMA (HSUPA) Mode, Middle channel



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

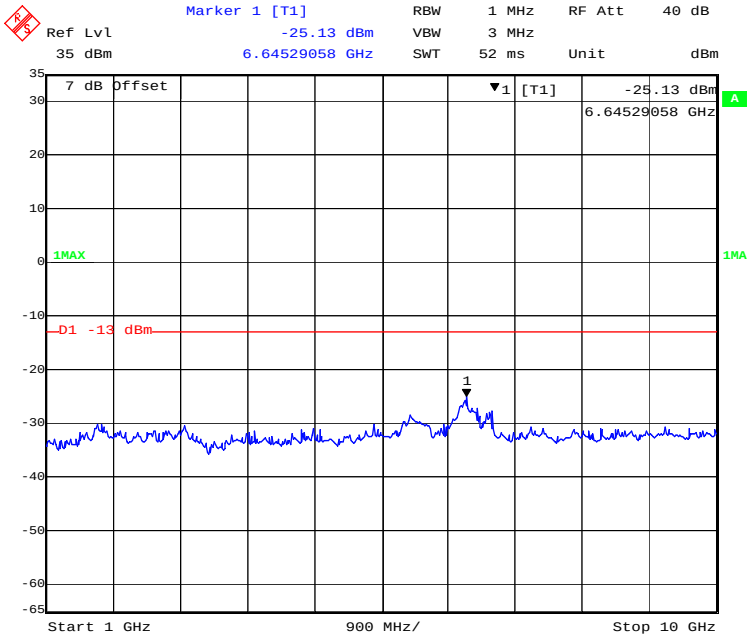


30 MHz – 1GHz WCDMA (HSPA+) Mode, Middle channel



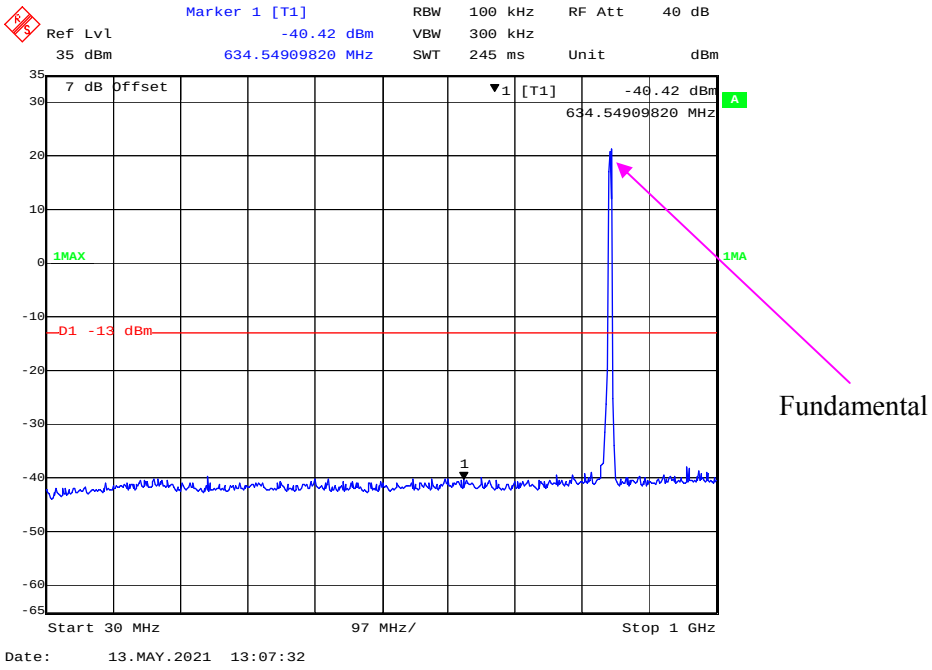
Date: 13.MAY.2021 13:06:35

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

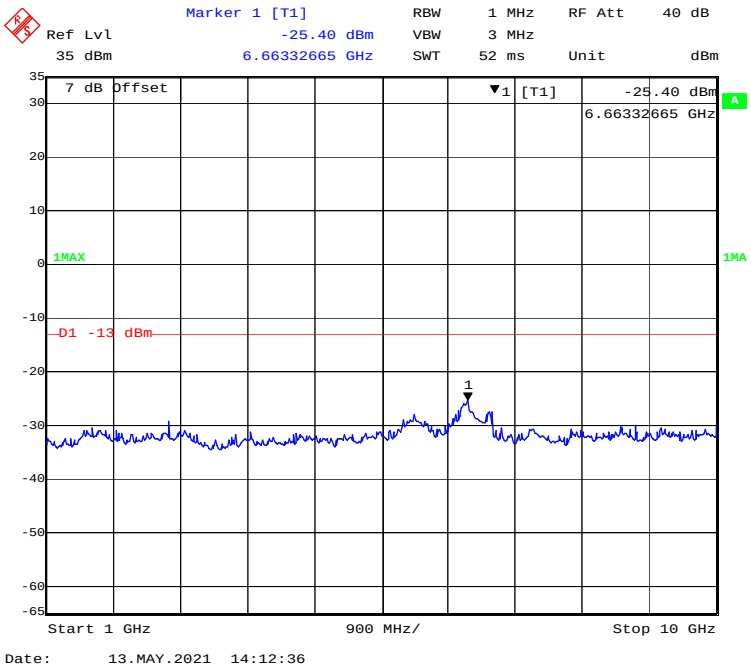


Date: 13.MAY.2021 14:12:09

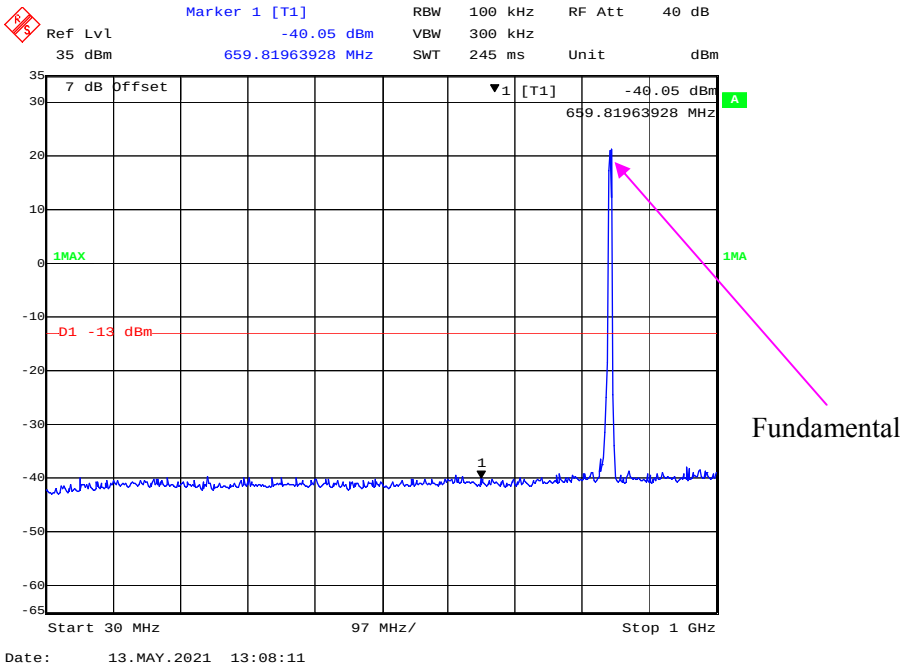
30 MHz – 1GHz WCDMA (Rel 99) Mode, High channel



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

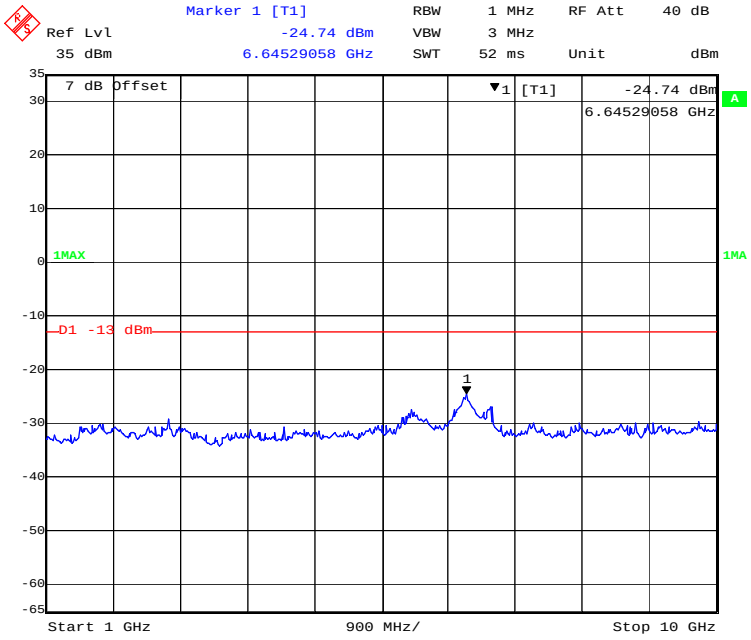


30 MHz – 1GHz WCDMA (HSDPA) Mode, High channel



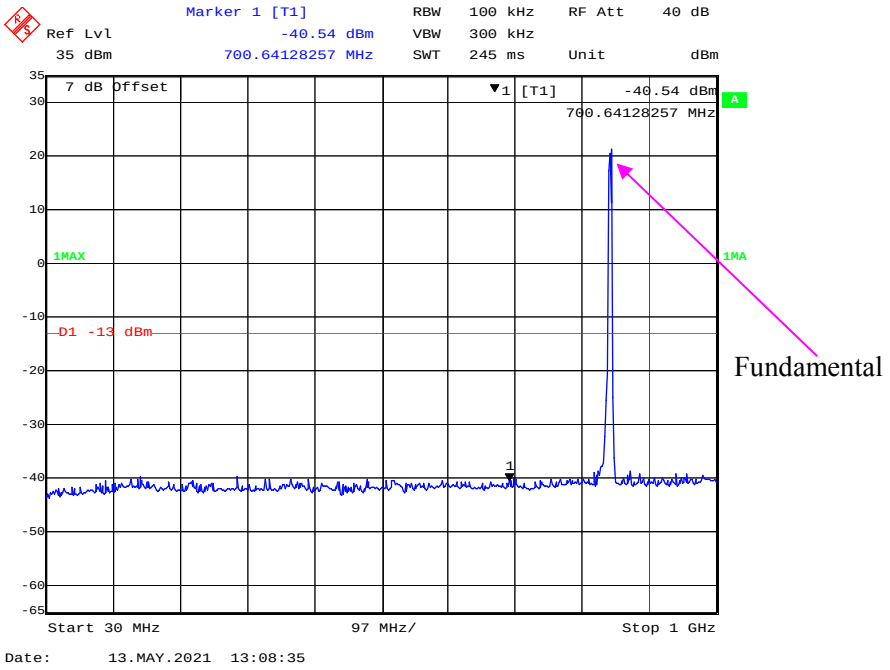
Date: 13.MAY.2021 13:08:11

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



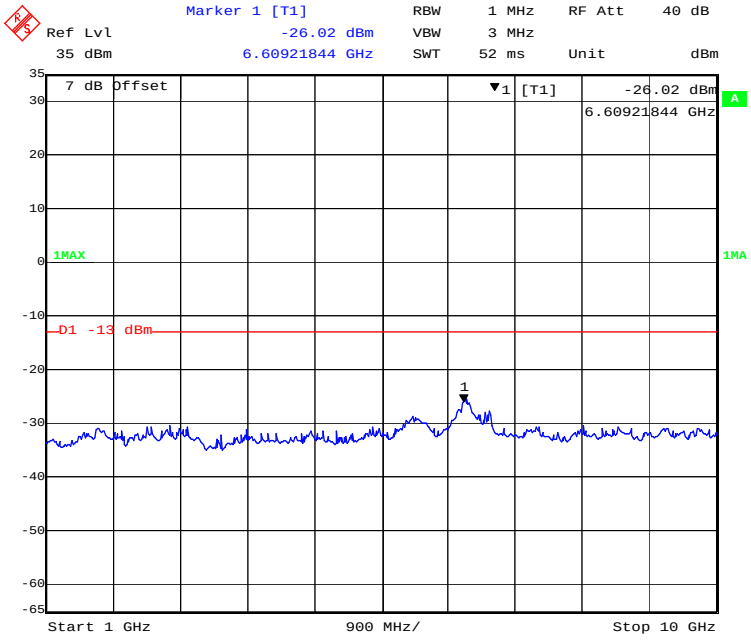
Date: 13.MAY.2021 14:13:02

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



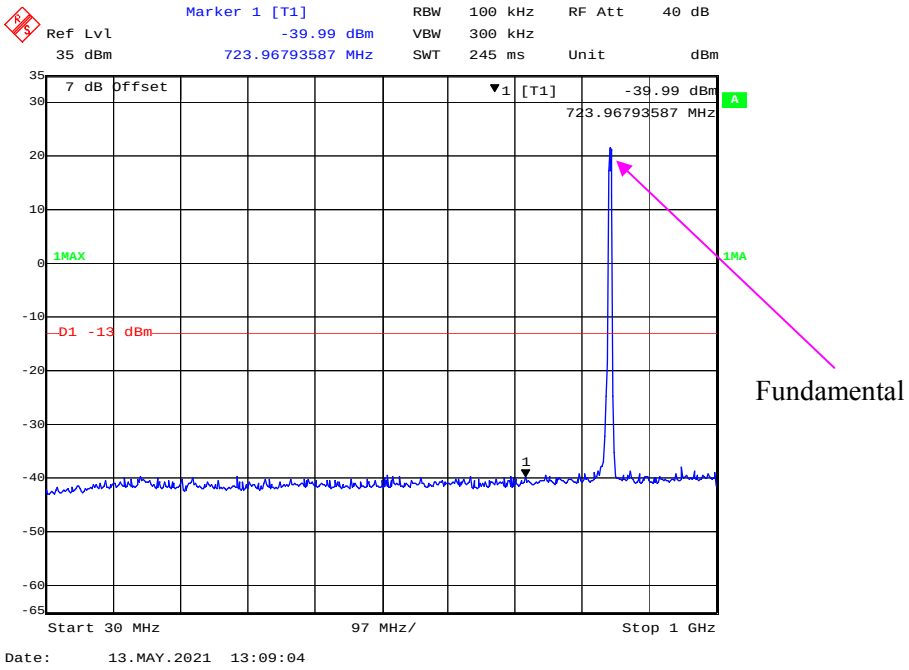
Date: 13.MAY.2021 13:08:35

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

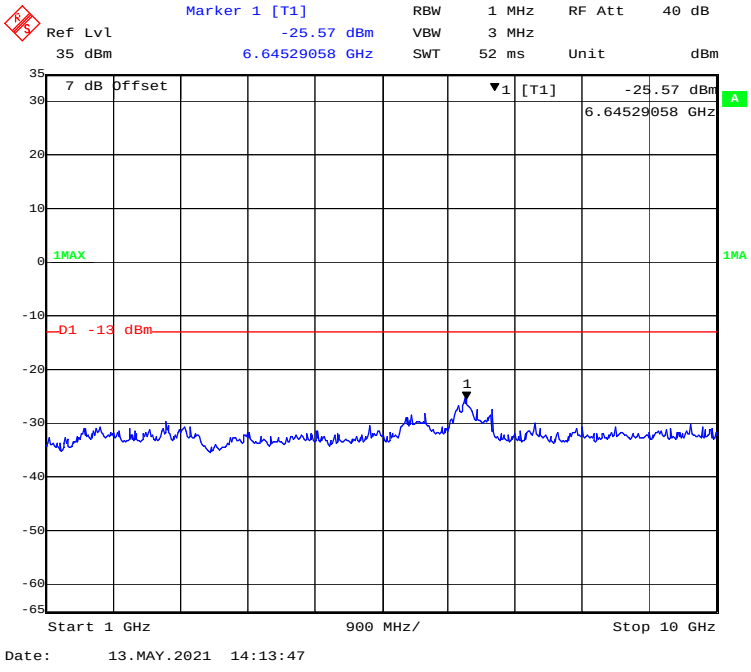


Date: 13.MAY.2021 14:13:27

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

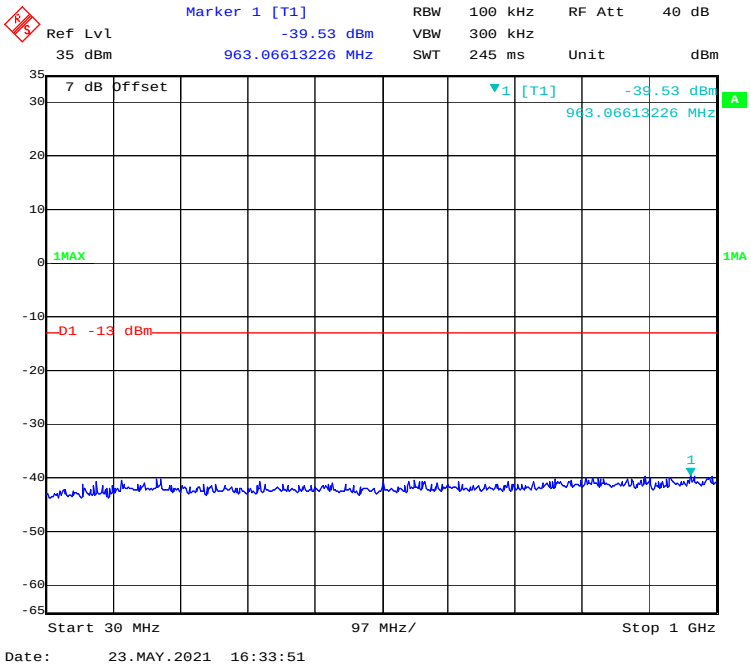


1 GHz – 10 GHz WCDMA (HSPA+) Mode, High channel

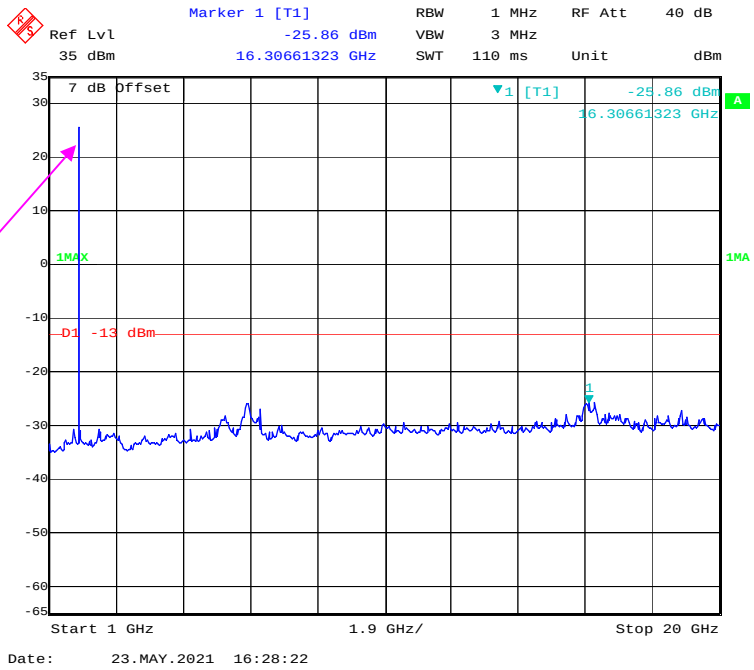


WCDMA Band II:

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

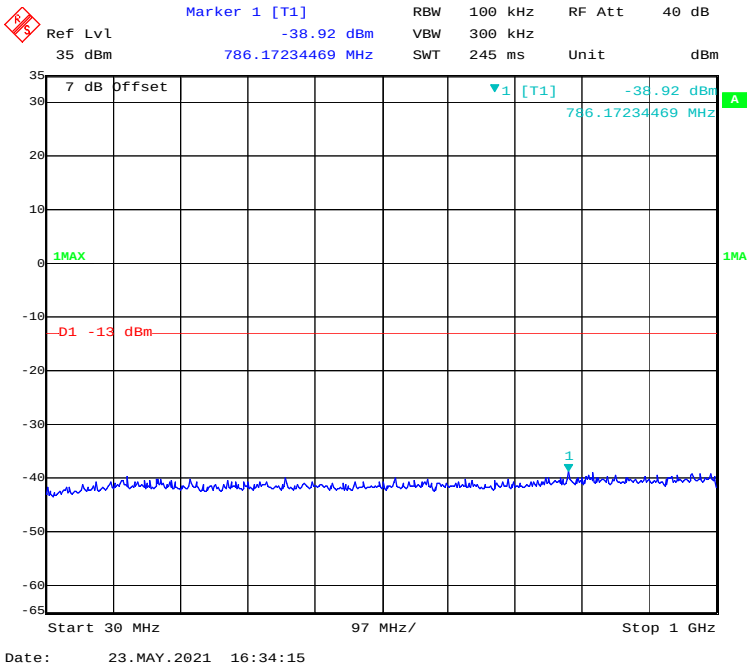


1 GHz – 20 GHz WCDMA (Rel 99) Mode , Low channel

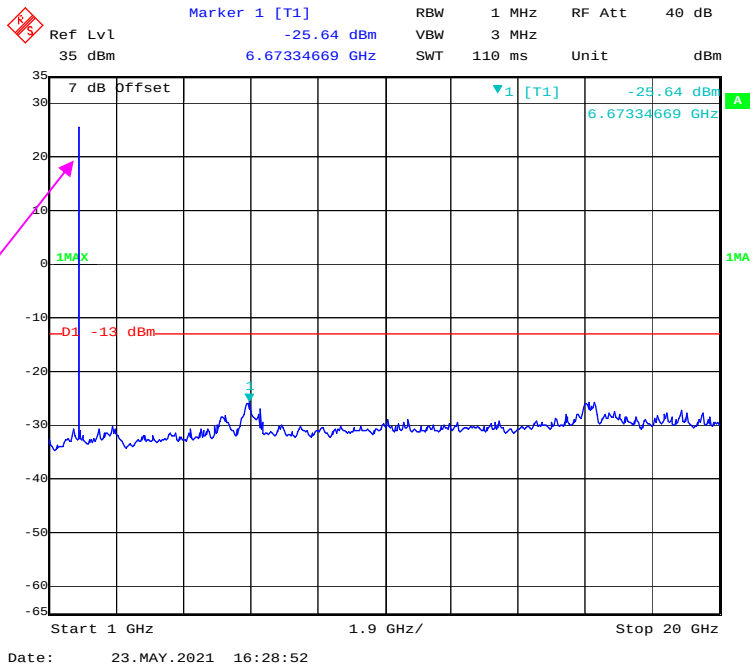


Fundamental

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

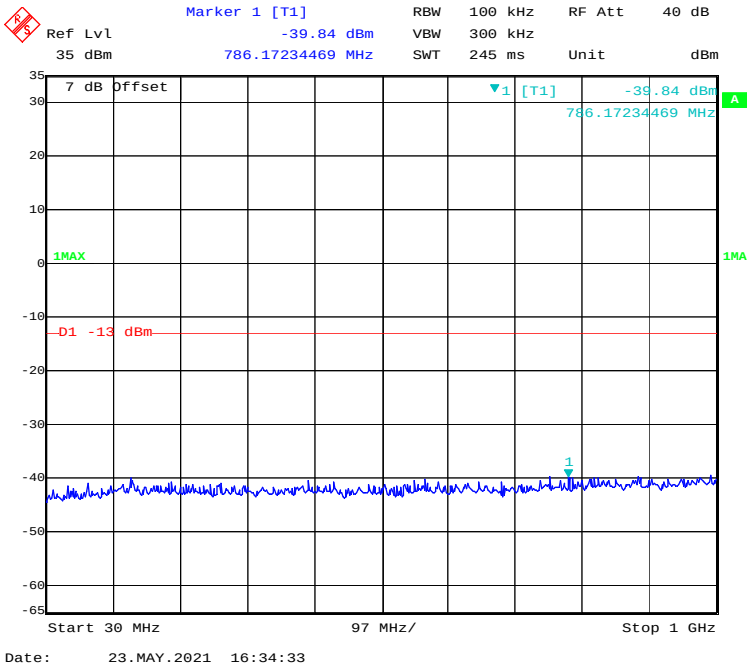


1 GHz – 20 GHz WCDMA (HSDPA) Mode , Low channel

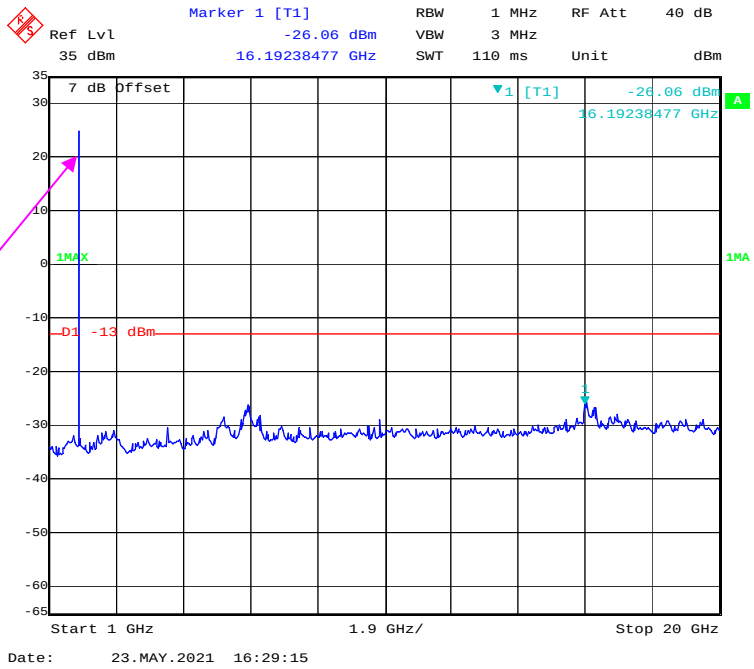


Fundamental

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

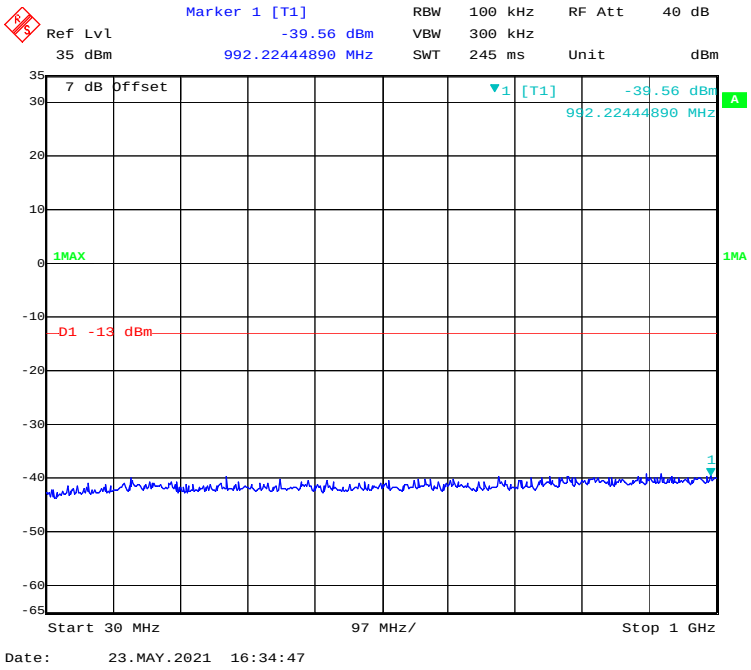


1 GHz – 20 GHz WCDMA (HSUPA) Mode , Low channel

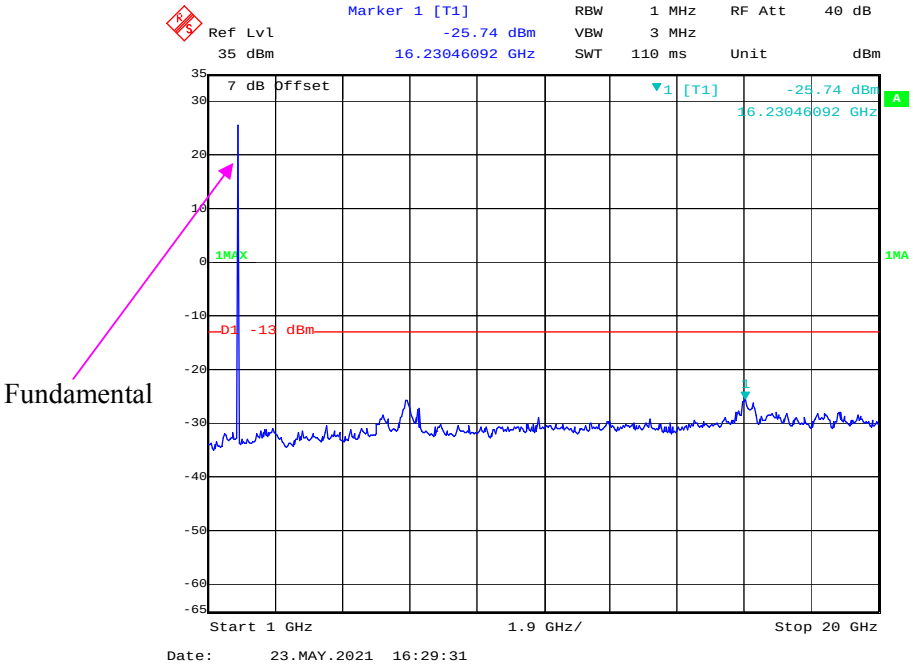


Fundamental

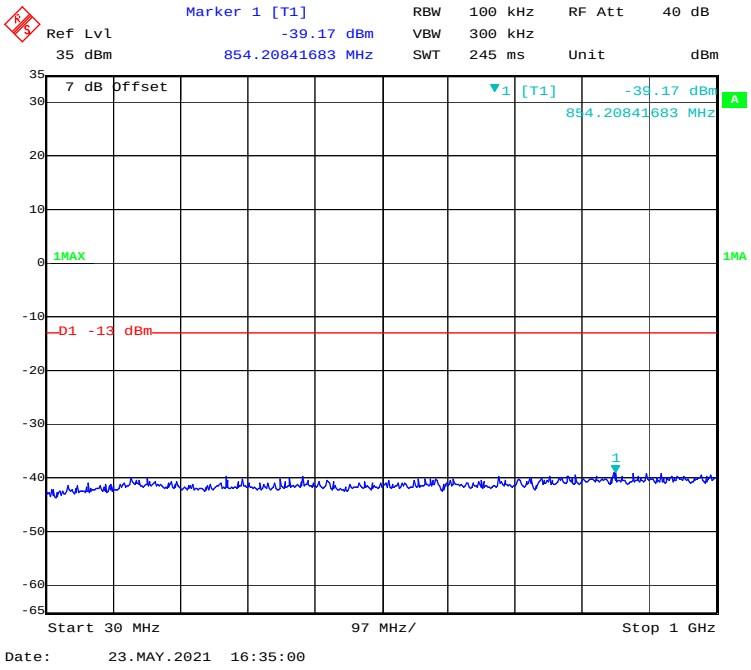
30 MHz – 1GHz WCDMA (HSPA+) Mode , Low channel



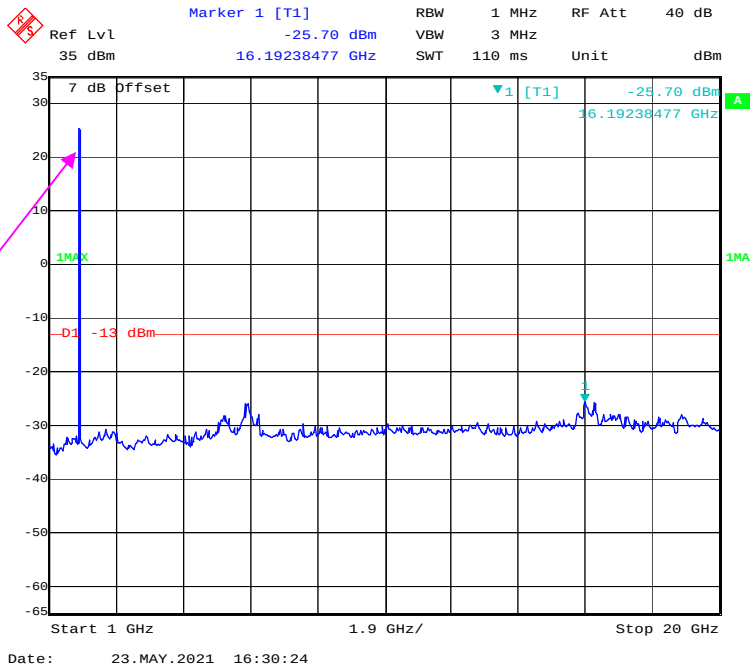
1 GHz – 20 GHz WCDMA (HSPA+) Mode , Low channel



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

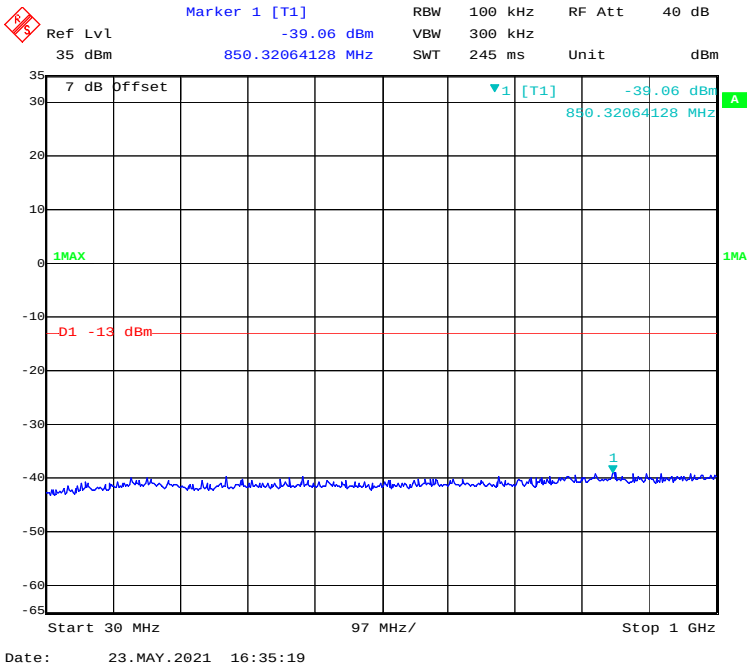


1 GHz – 20 GHz WCDMA (Rel 99) Mode , Middle channel

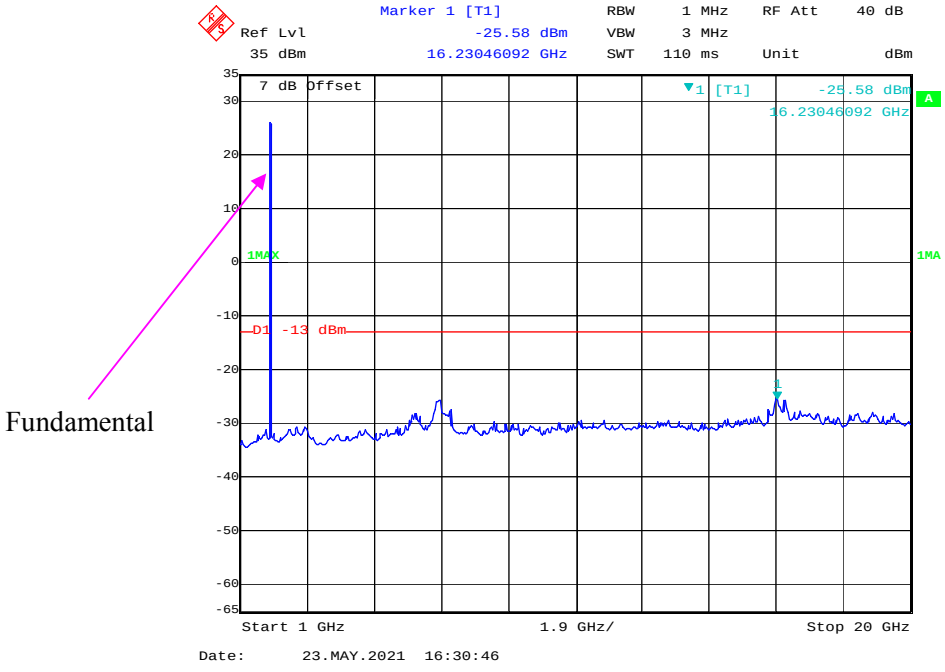


Fundamental

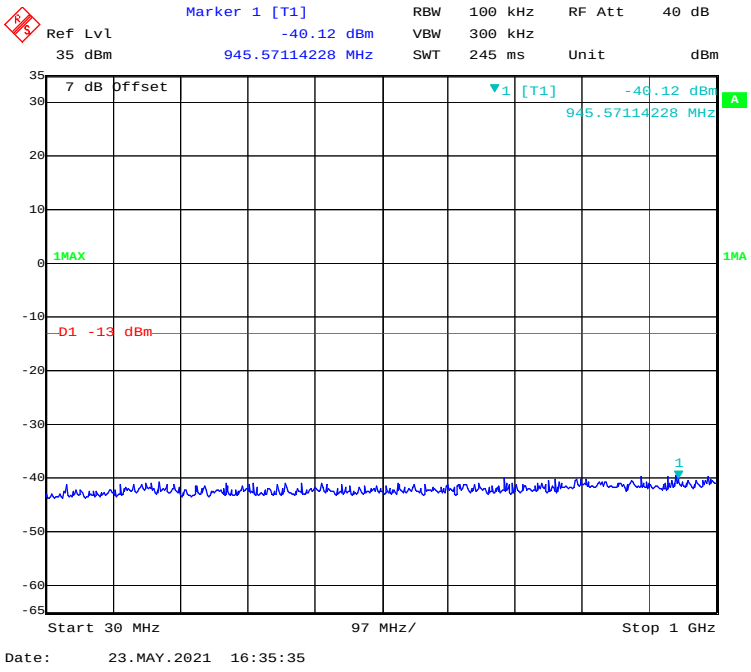
30 MHz – 1GHz WCDMA (HSDPA) Mode , Middle channel



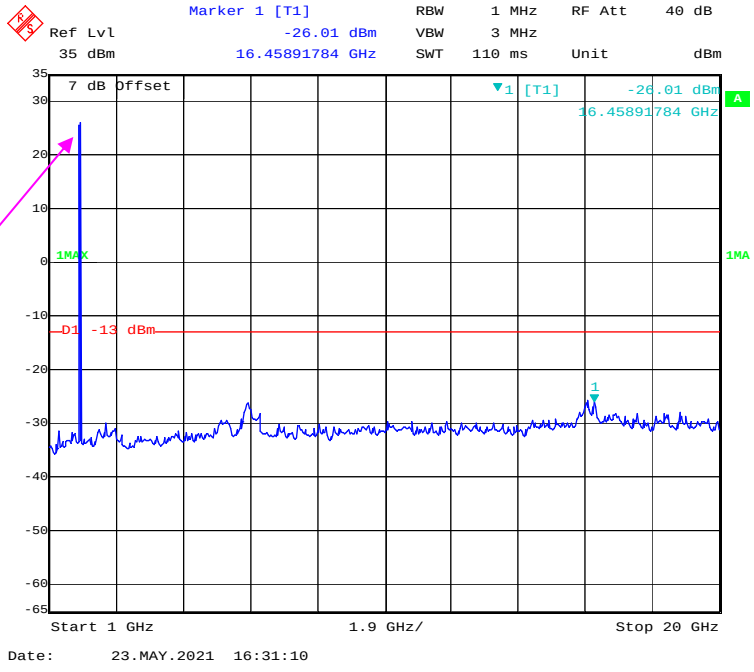
1 GHz – 20 GHz WCDMA (HSDPA) Mode , Middle channel



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

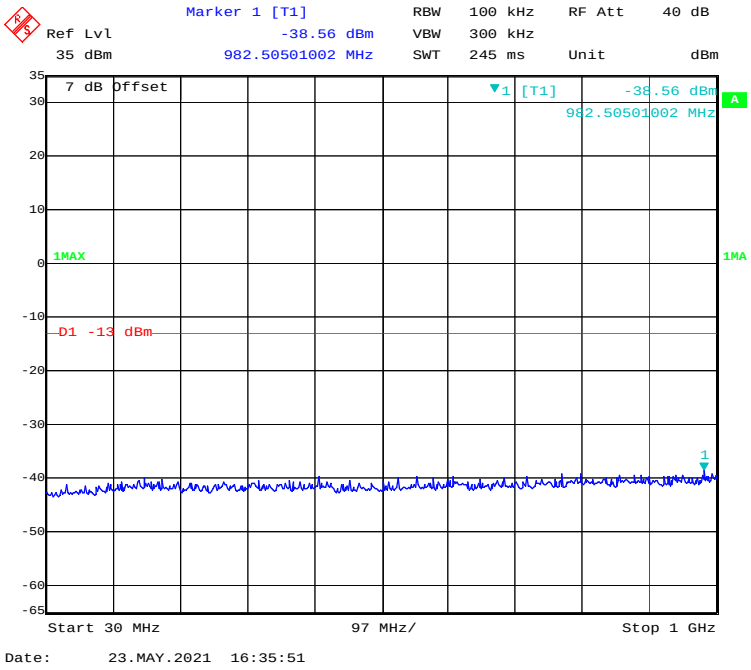


1 GHz – 20 GHz WCDMA (HSUPA) Mode , Middle channel

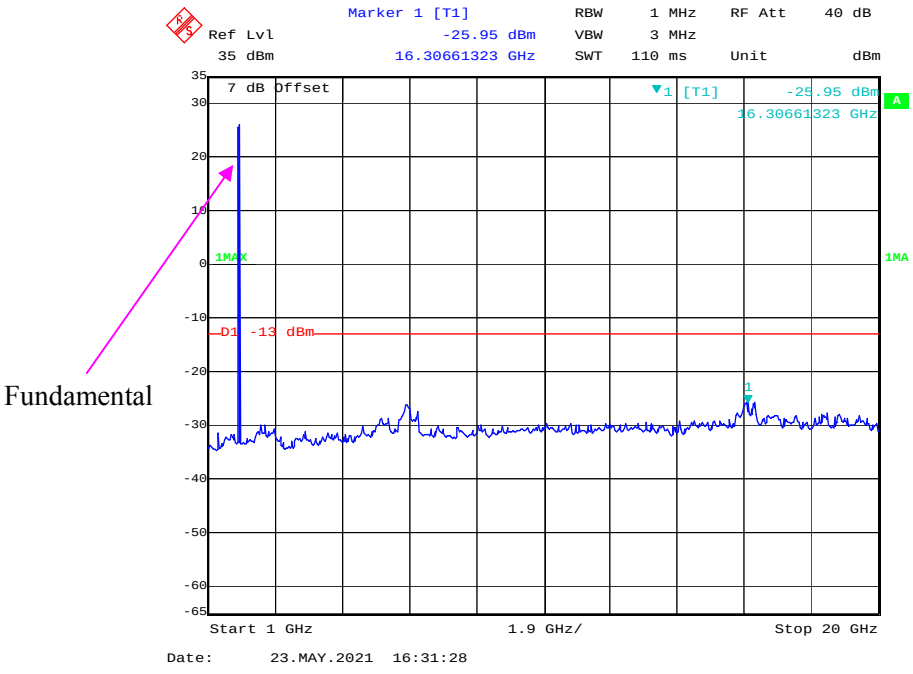


Fundamental

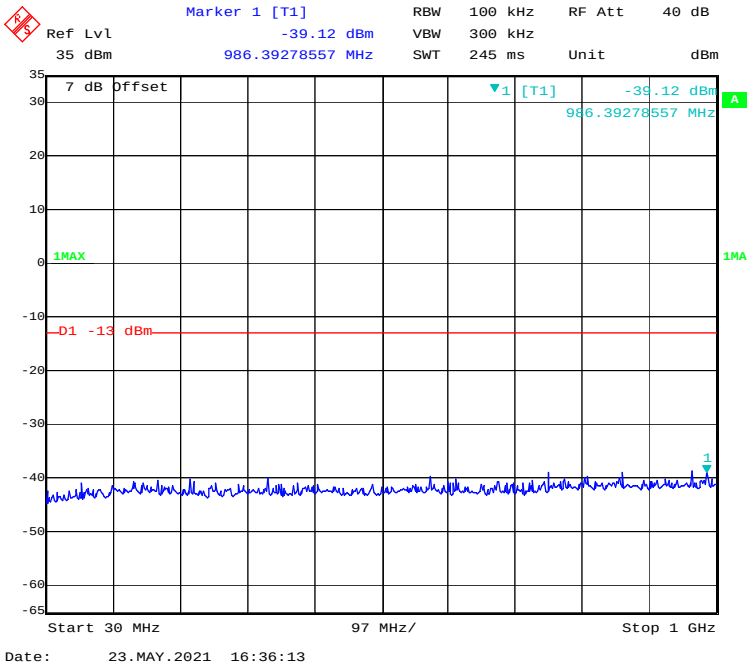
30 MHz – 1GHz WCDMA (HSPA+) Mode , Middle channel



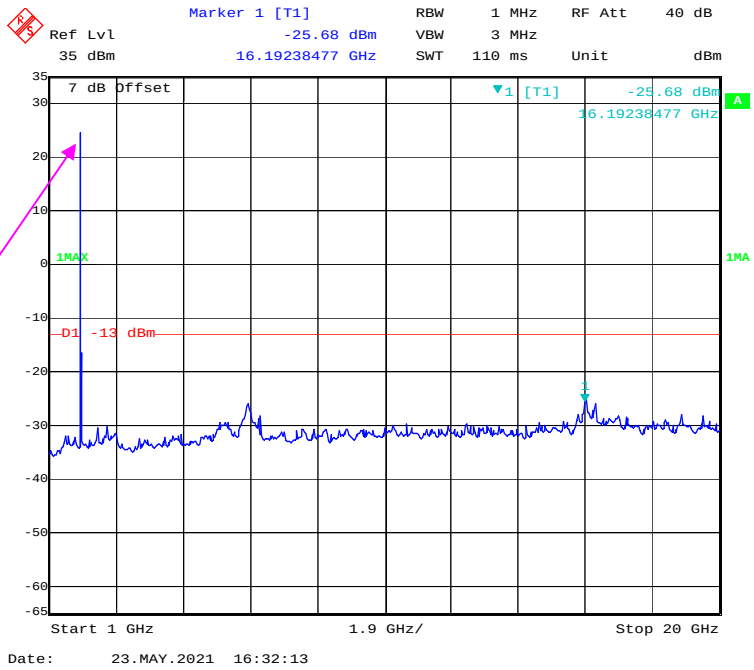
1 GHz – 20 GHz WCDMA (HSPA+) Mode , Middle channel



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

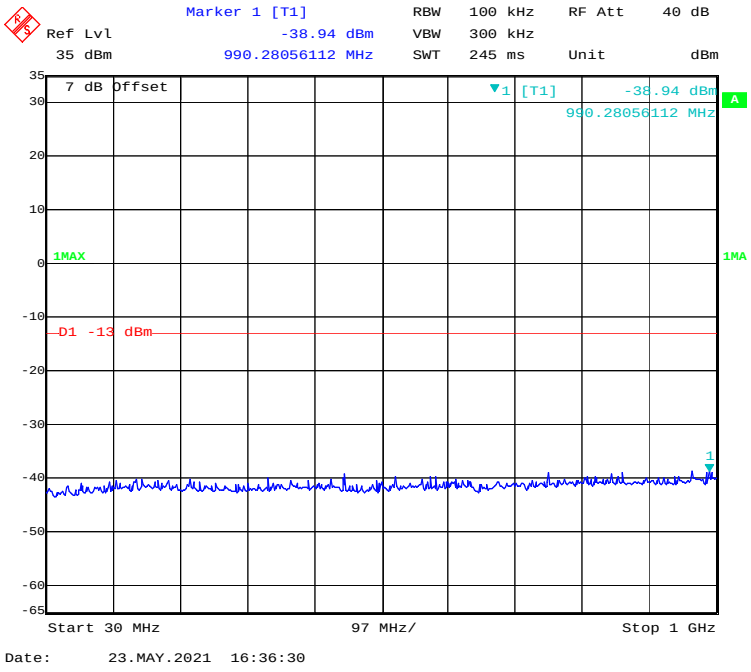


1 GHz – 20 GHz WCDMA (Rel 99) Mode , High channel

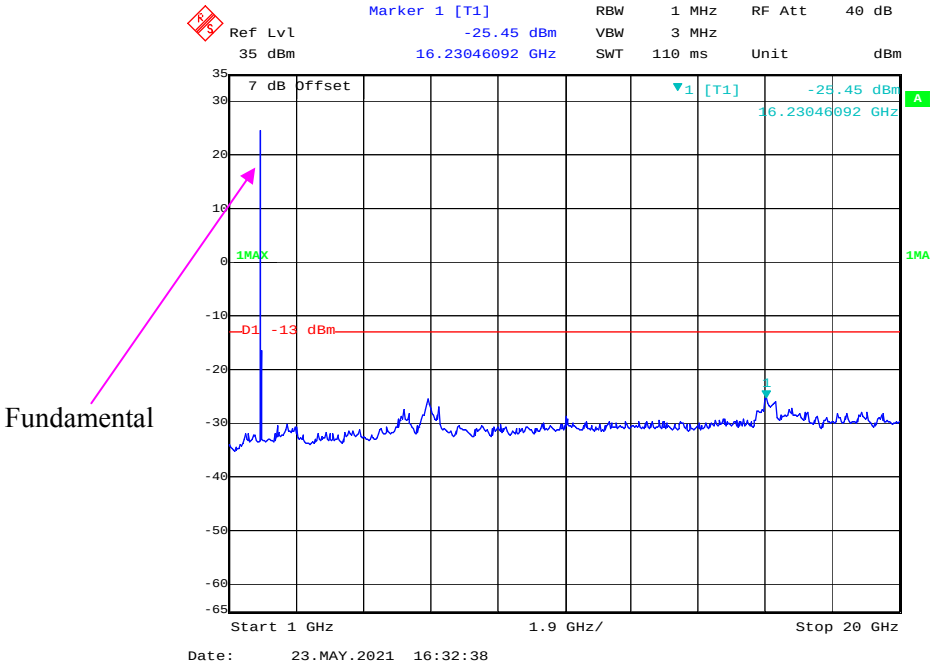


Fundamental

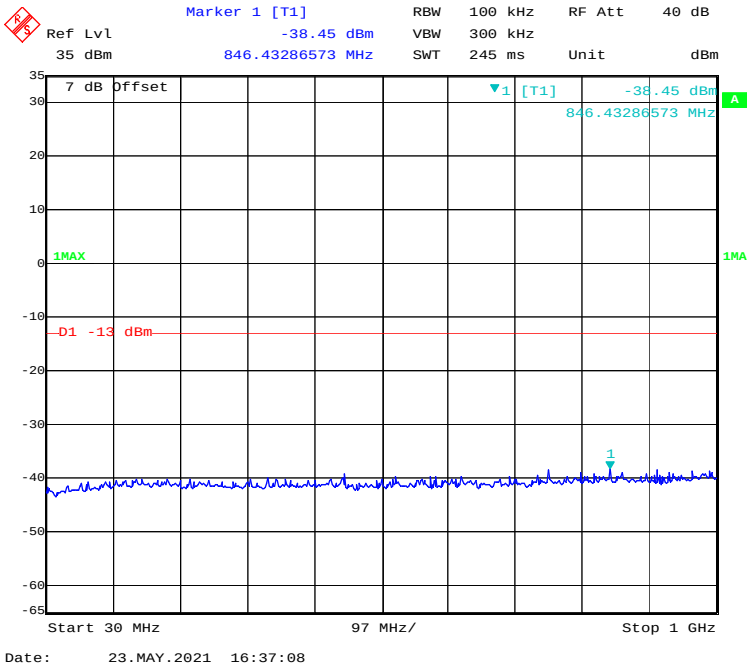
30 MHz – 1GHz WCDMA (HSDPA) Mode , High channel



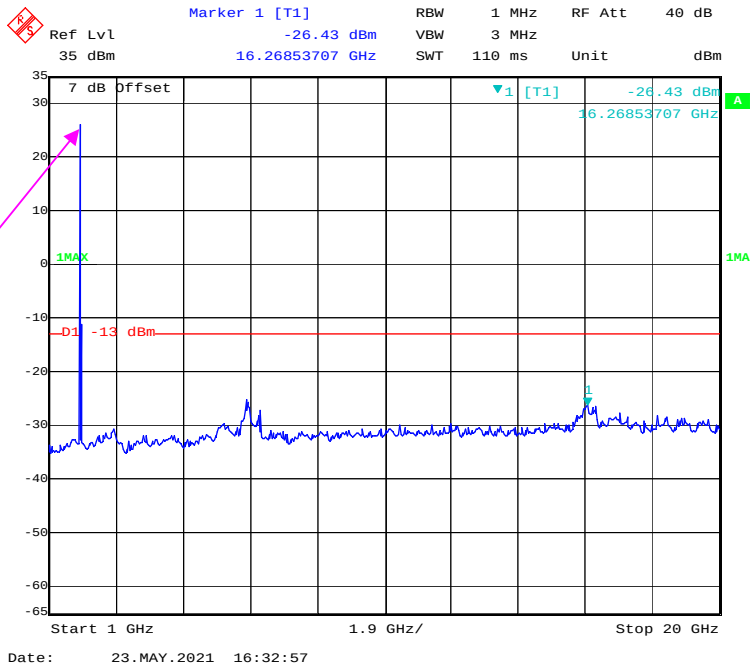
1 GHz – 20 GHz WCDMA (HSDPA) Mode , High channel



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

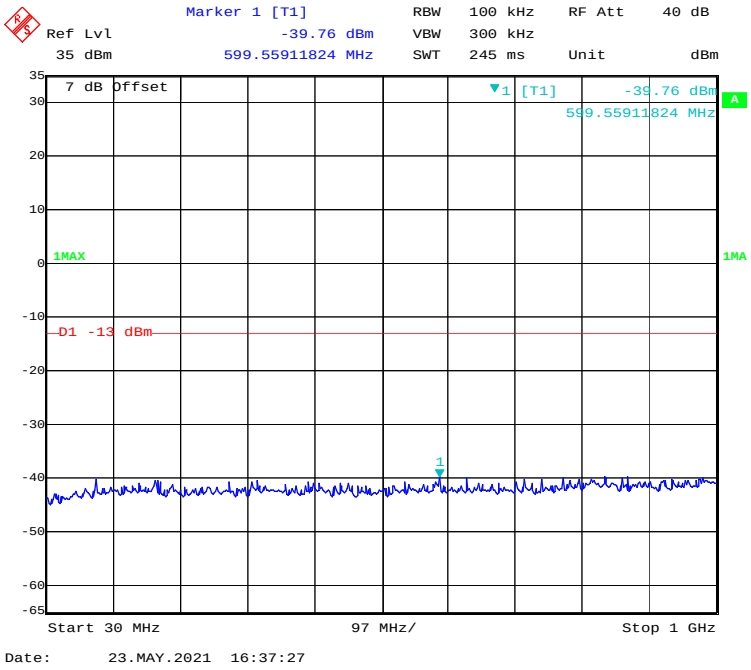


1 GHz – 20 GHz WCDMA (HSUPA) Mode , High channel

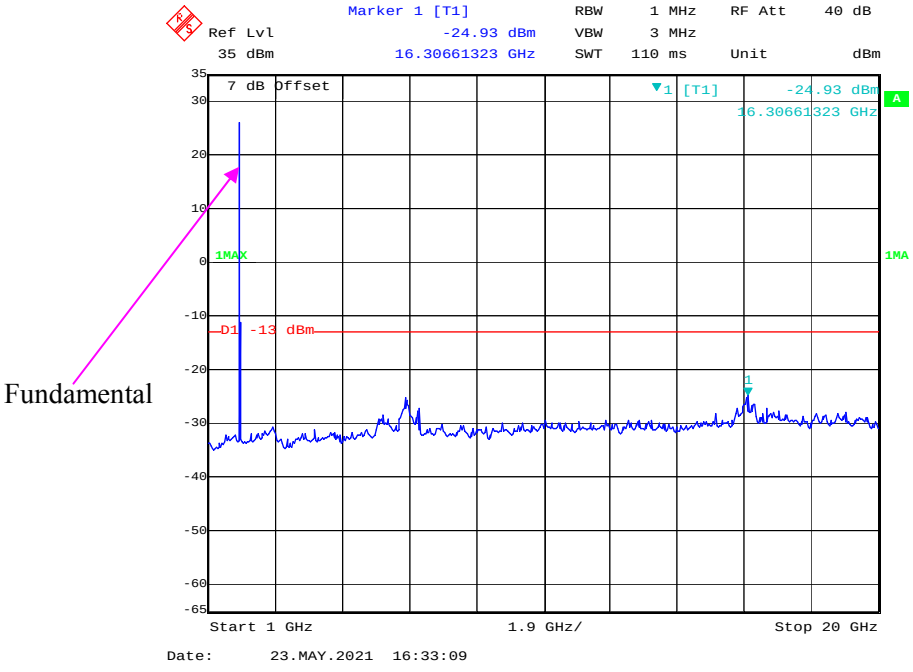


Fundamental

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

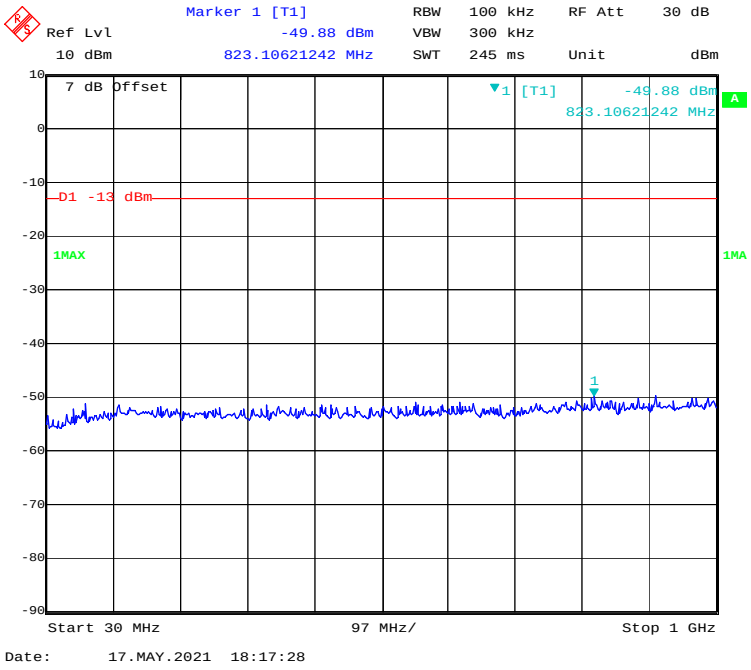


1 GHz – 20 GHz WCDMA (HSPA+) Mode , High channel

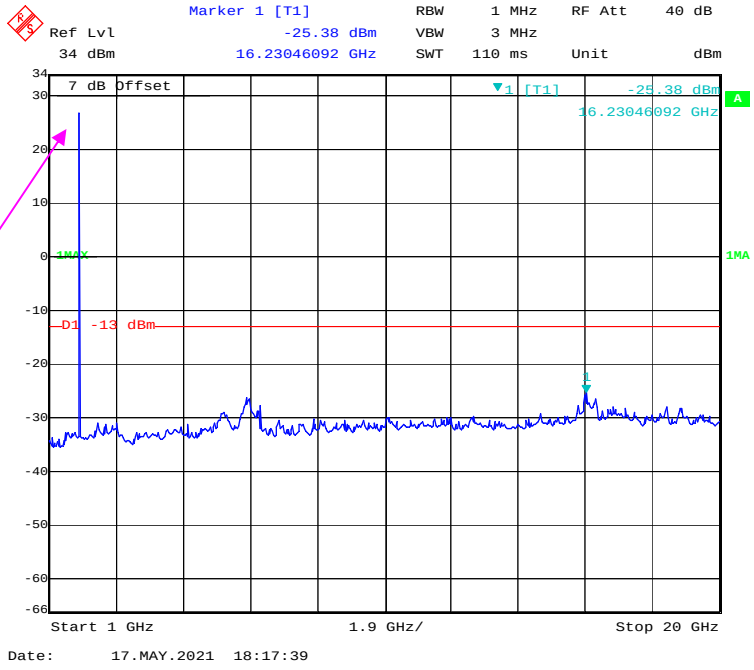


LTE Band 2:

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

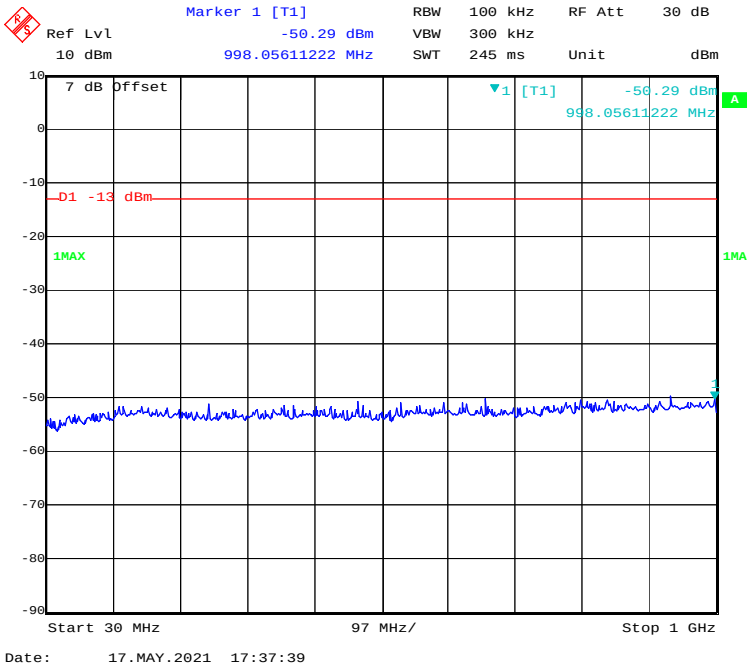


1 GHz – 20 GHz (1.4 MHz, QPSK, Low Channel)

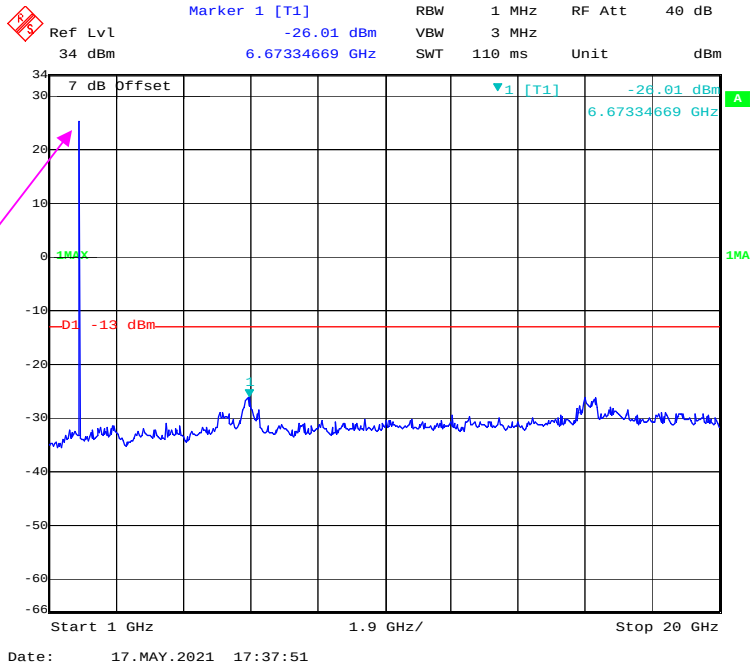


Fundamental

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

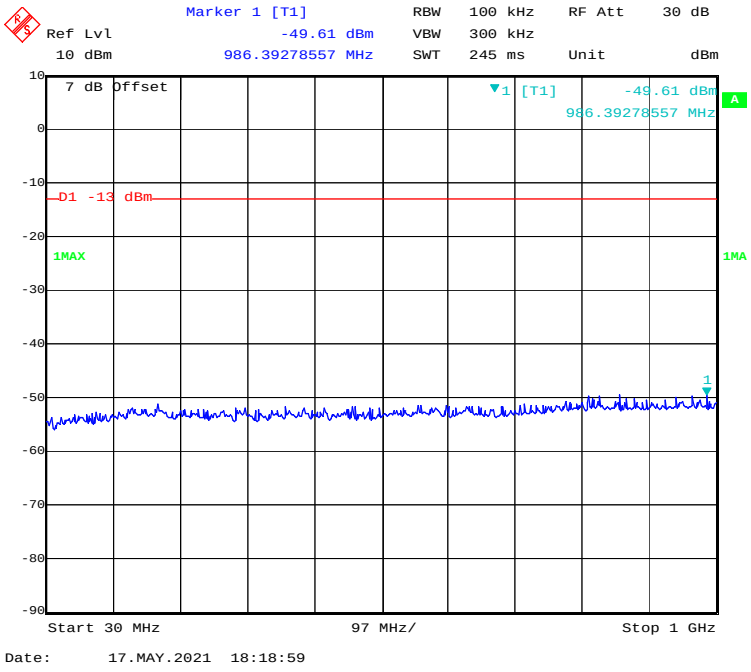


1 GHz – 20 GHz (1.4 MHz, 16-QAM, Low Channel)

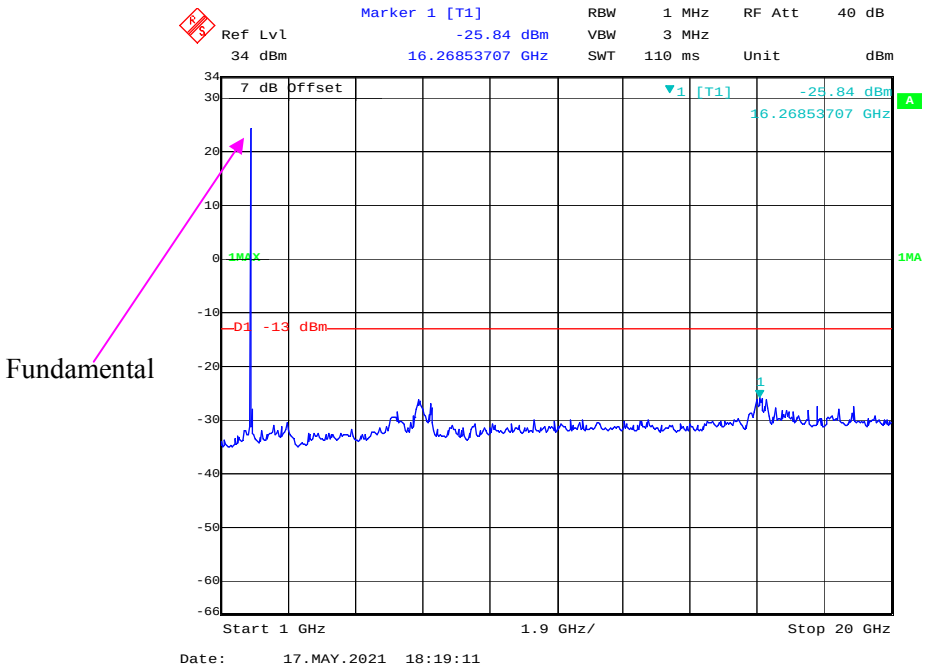


Fundamental

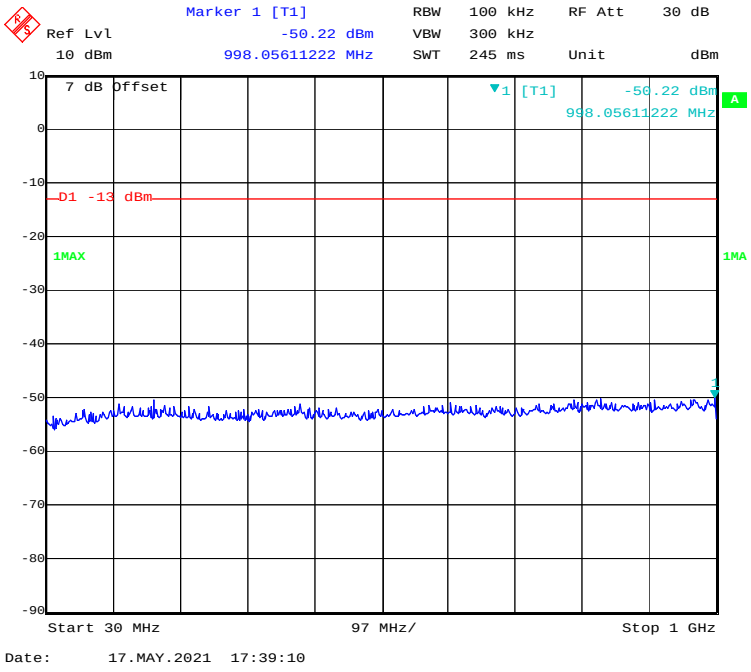
30 MHz - 1 GHz (3 MHz, QPSK, Low Channel)



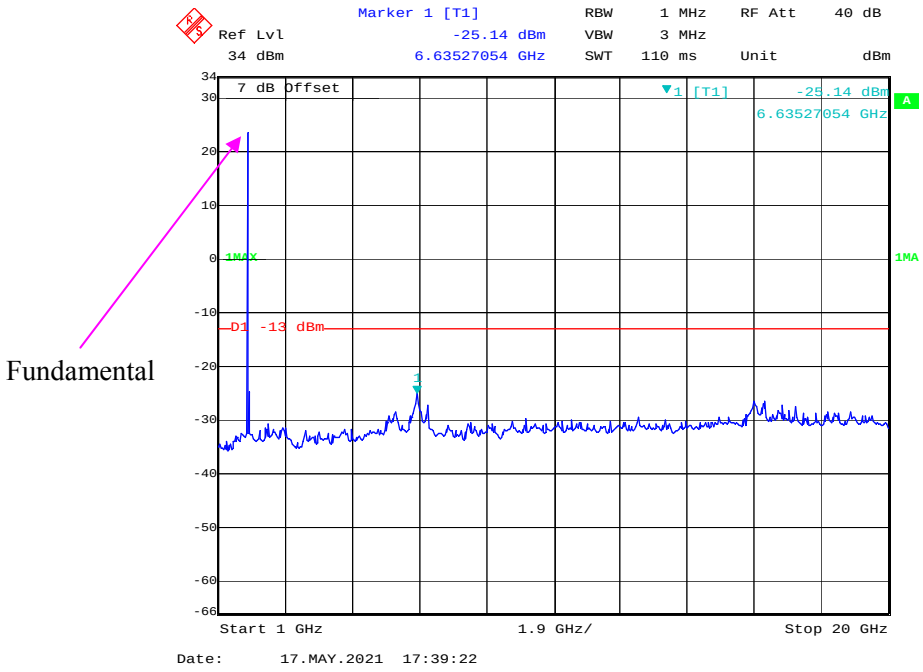
1 GHz – 20 GHz (3 MHz, QPSK, Low Channel)



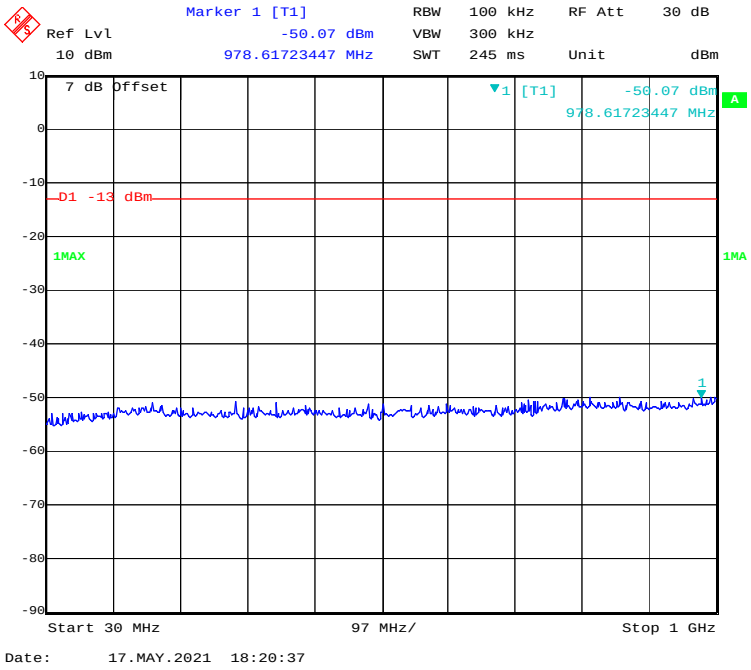
30 MHz - 1 GHz (3 MHz, 16-QAM, Low Channel)



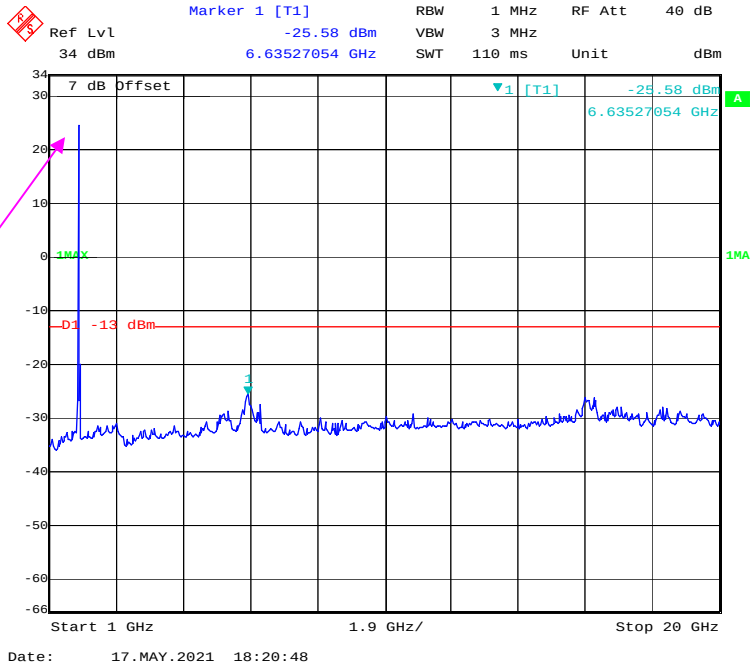
1 GHz – 20 GHz (3 MHz, 16-QAM, Low Channel)



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

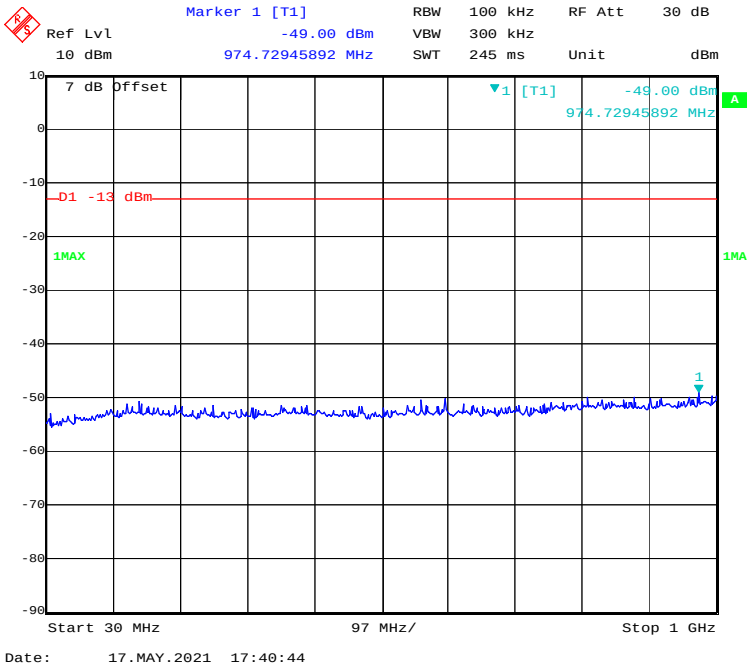


1 GHz – 20 GHz (5 MHz, QPSK, Low Channel)

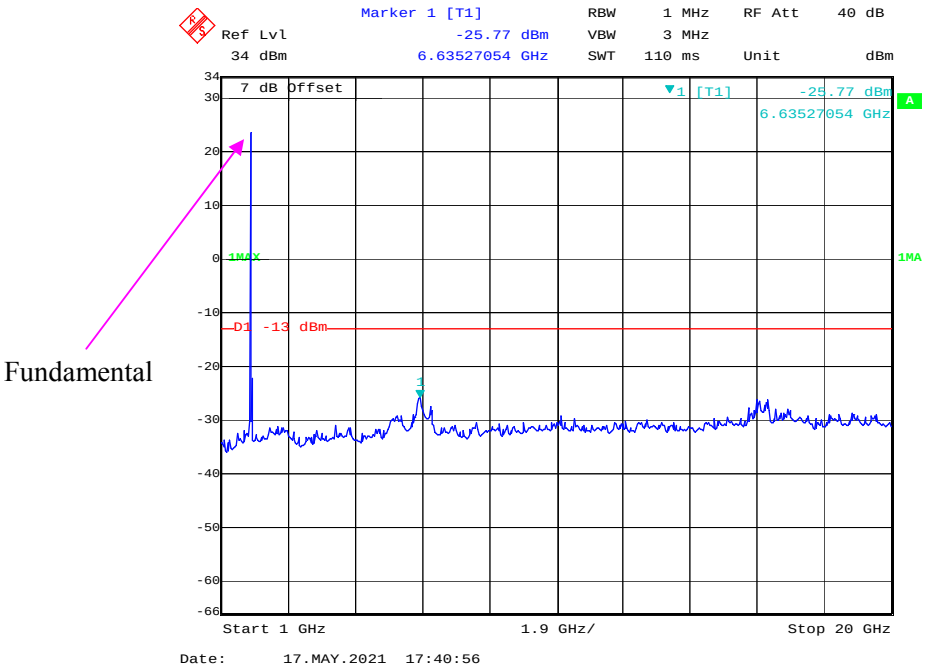


Fundamental

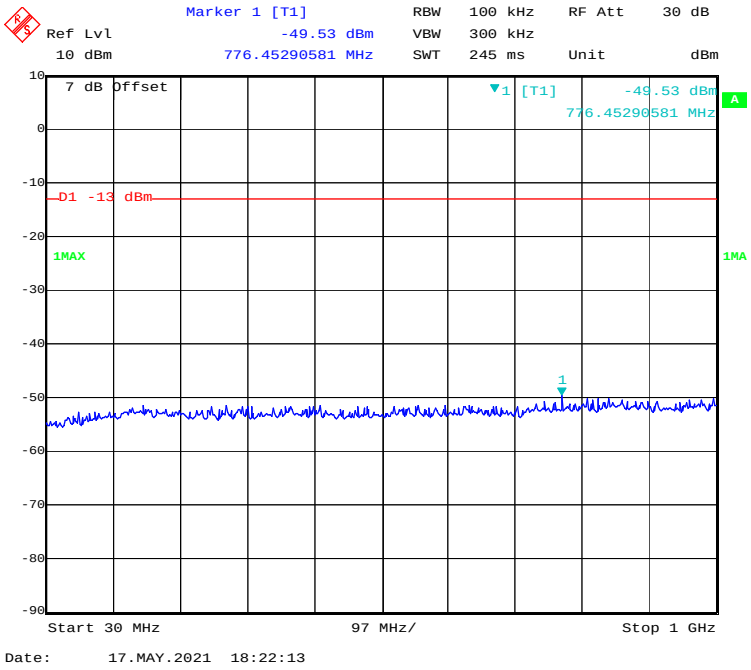
30 MHz - 1 GHz (5 MHz, 16-QAM, Low Channel)



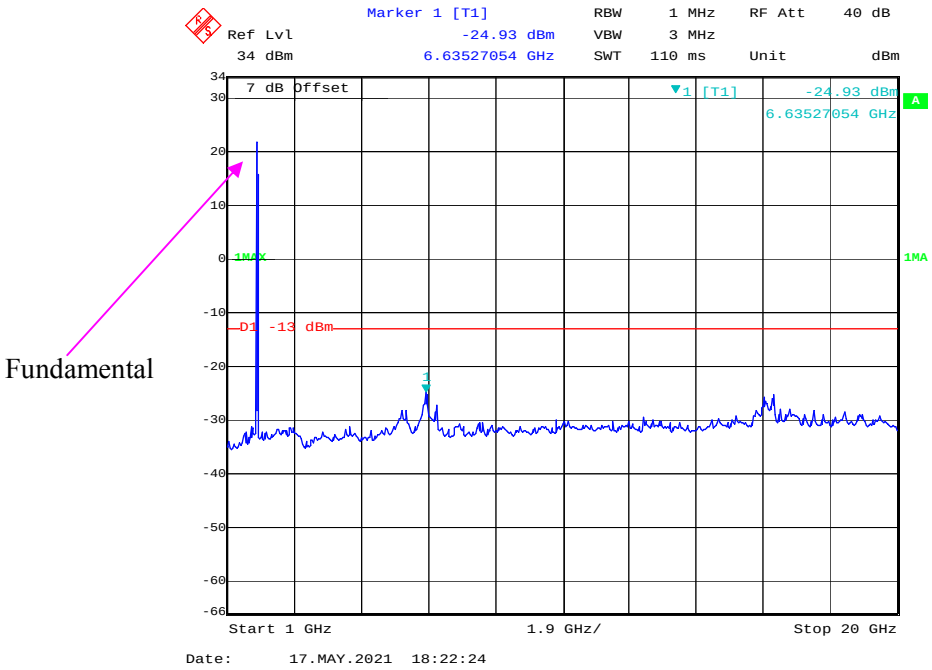
1 GHz – 20 GHz (5 MHz, 16-QAM, Low Channel)



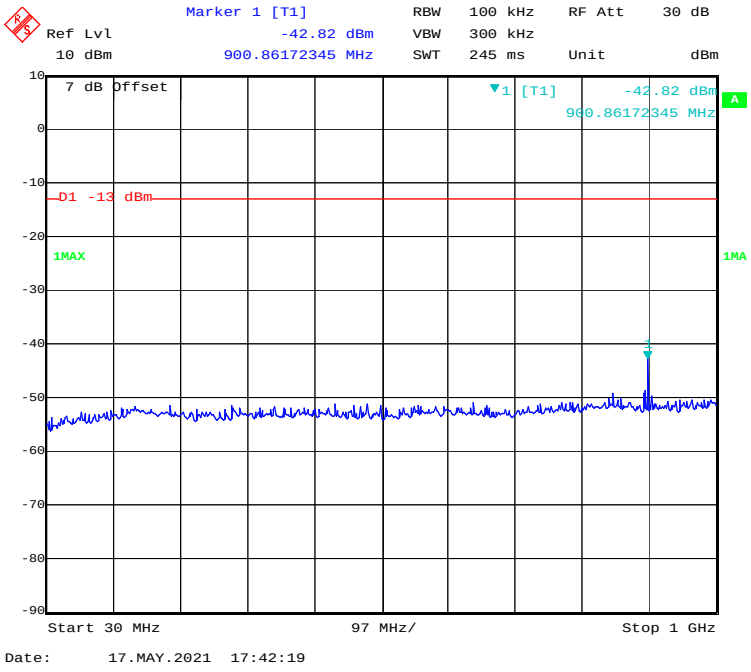
30 MHz - 1 GHz (10 MHz, QPSK, Low Channel)



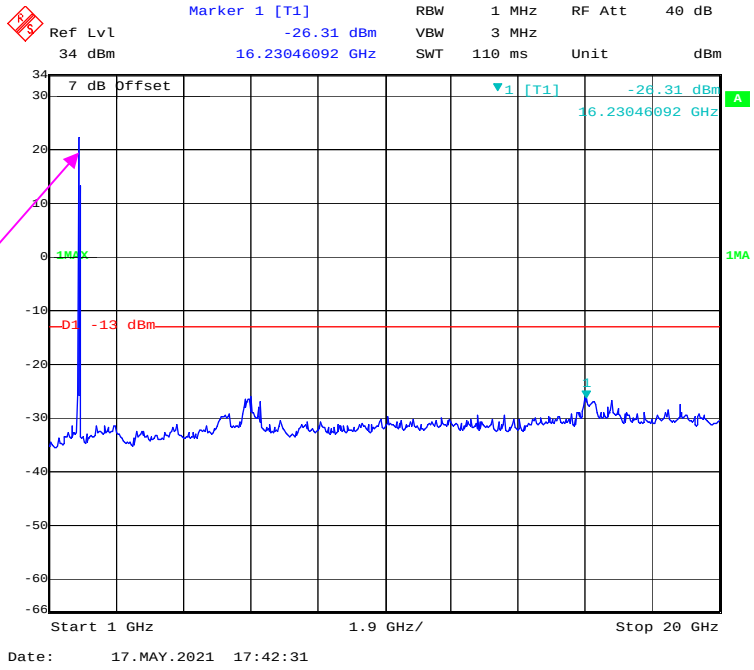
1 GHz – 20 GHz (10 MHz, QPSK, Low Channel)



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

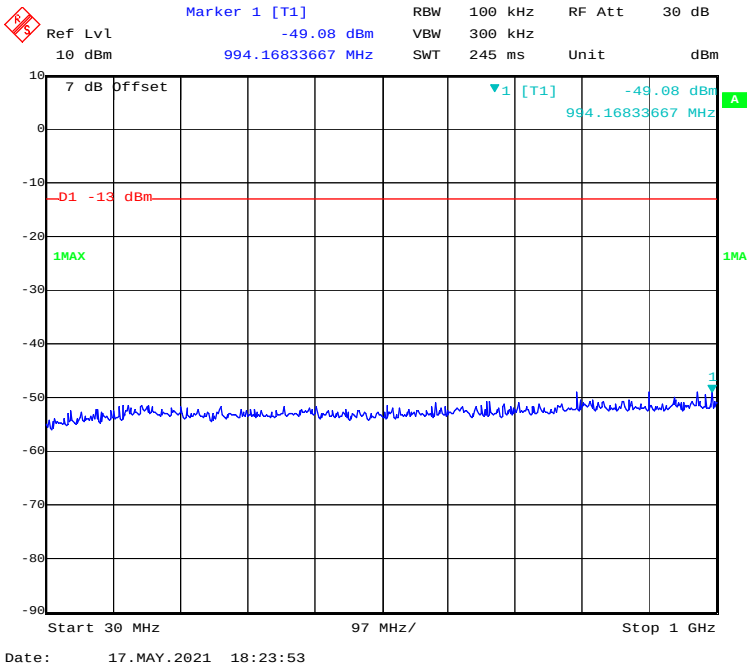


1 GHz – 20 GHz (10 MHz, 16-QAM, Low Channel)

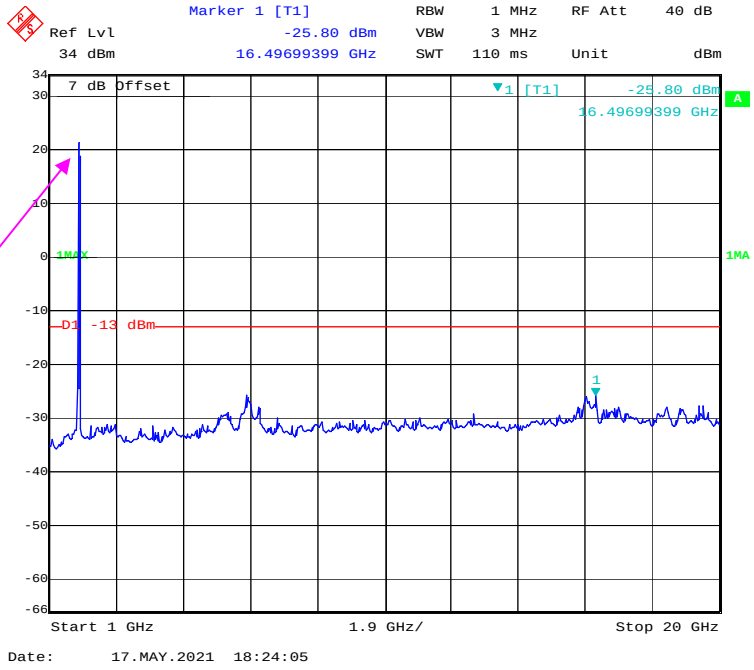


Fundamental

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

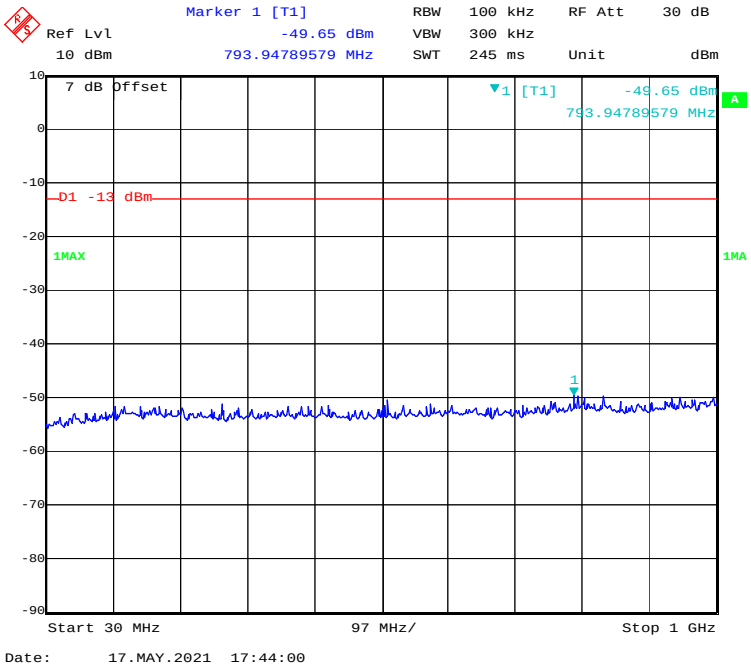


1 GHz – 20 GHz (15 MHz, QPSK, Low Channel)

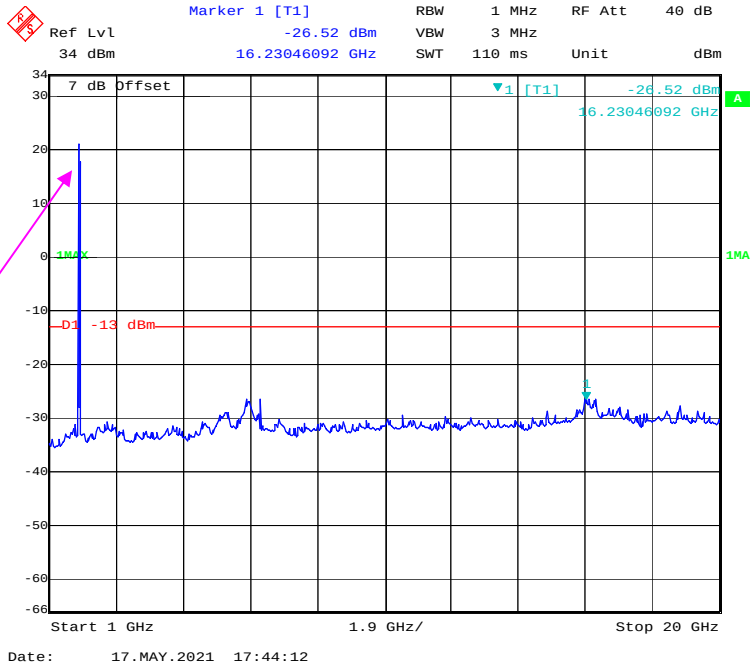


Fundamental

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

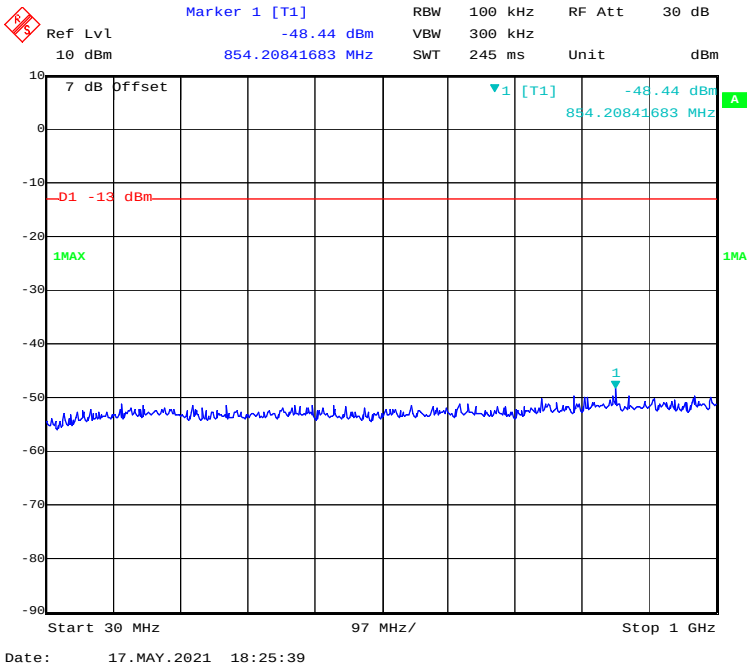


1 GHz – 20 GHz (15 MHz, 16-QAM, Low Channel)

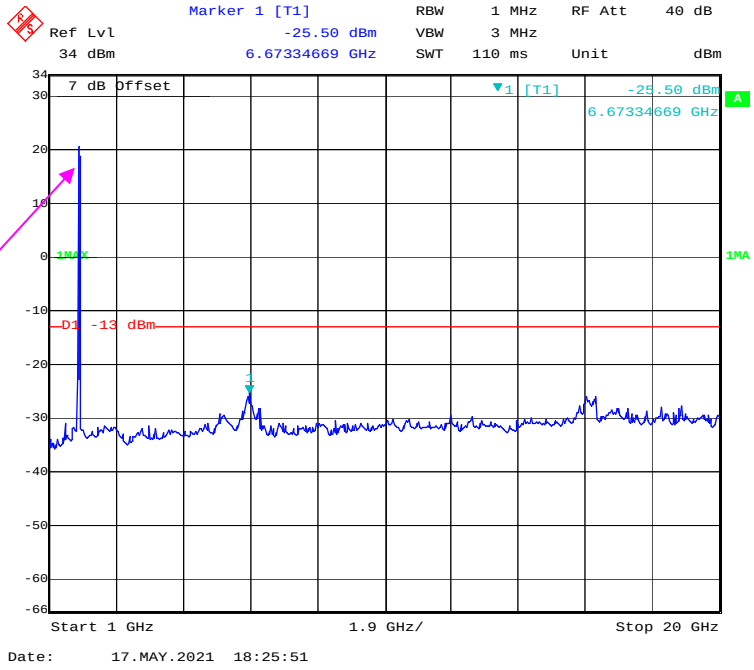


Fundamental

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

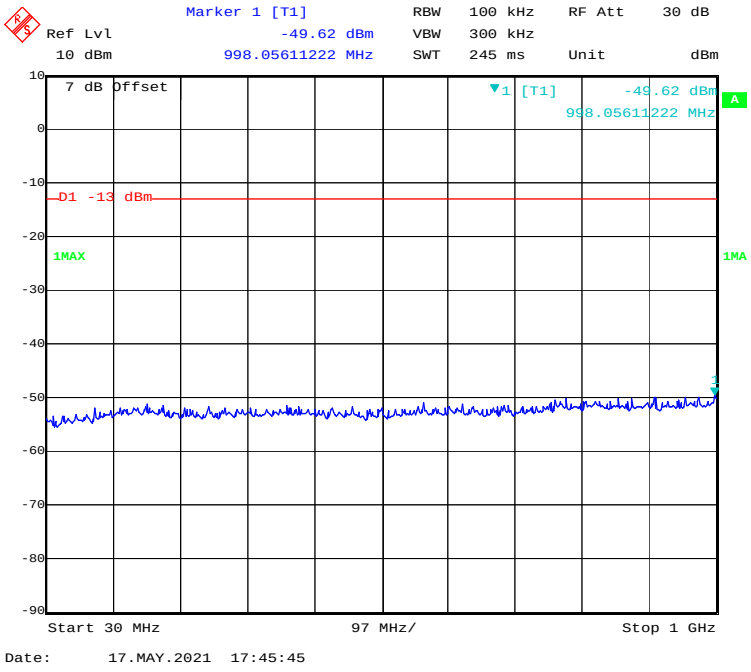


1 GHz – 20 GHz (20 MHz, QPSK, Low Channel)

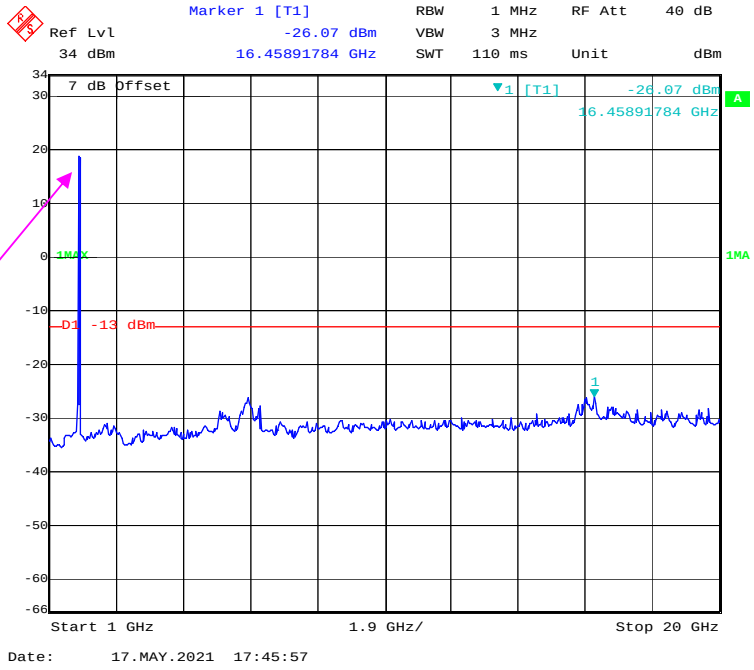


Fundamental

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

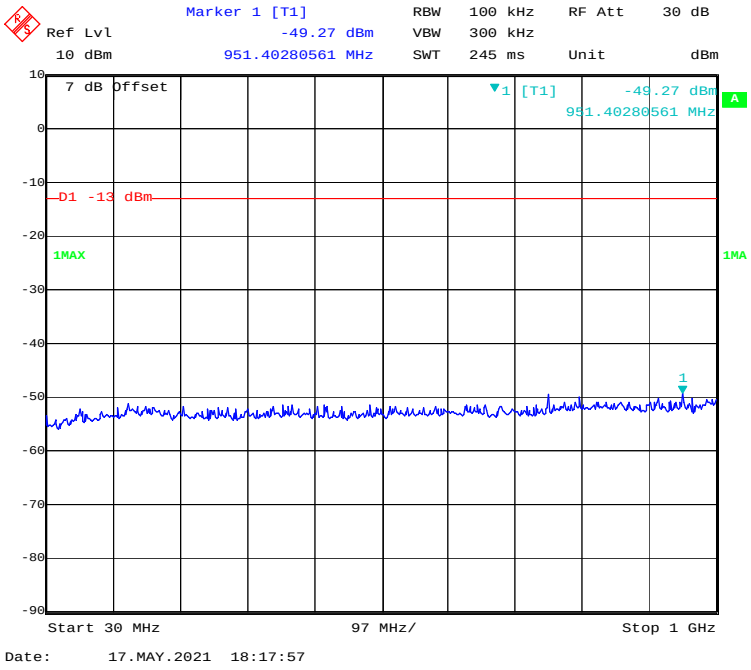


1 GHz – 20 GHz (20 MHz, 16-QAM, Low Channel)

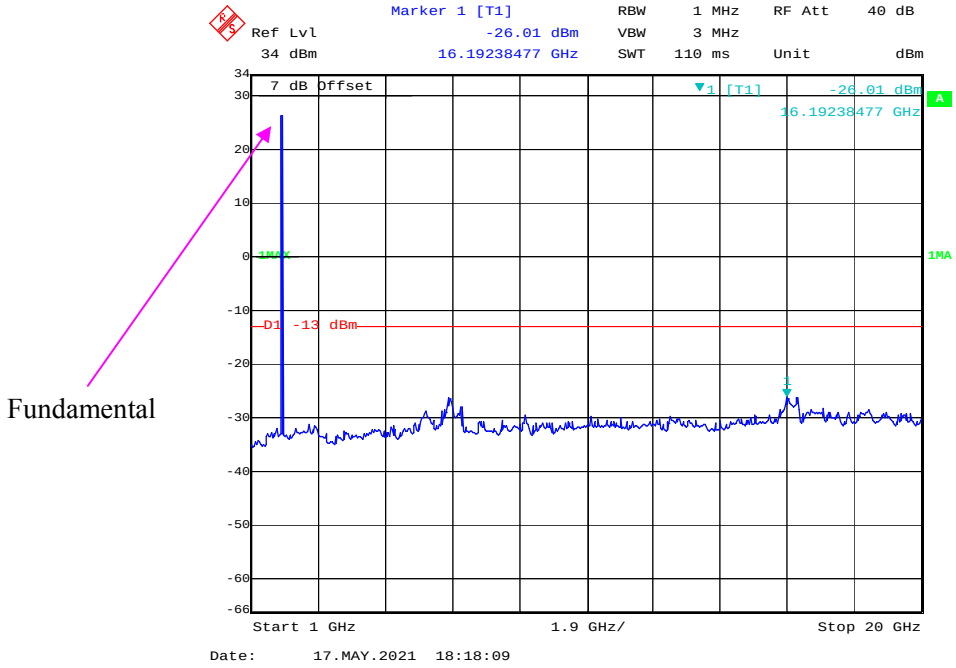


Fundamental

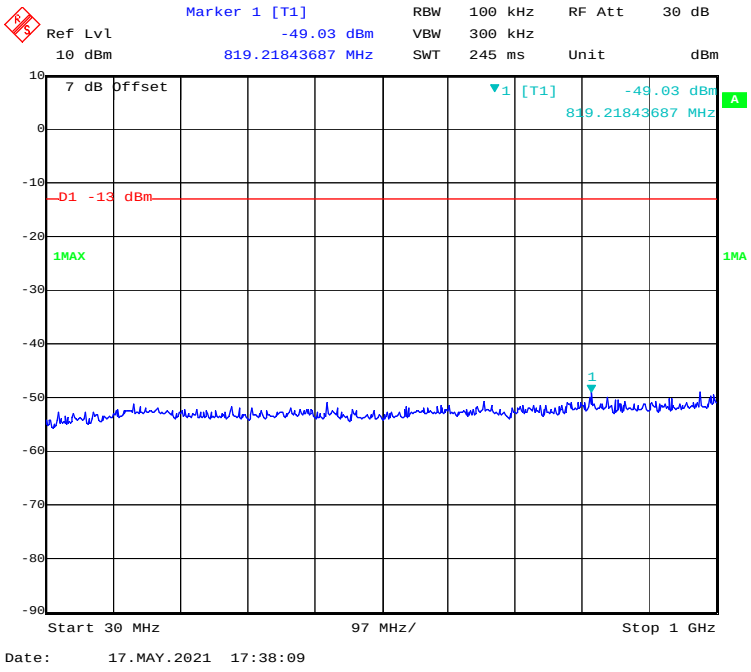
30 MHz - 1 GHz (1.4 MHz, QPSK, Middle Channel)



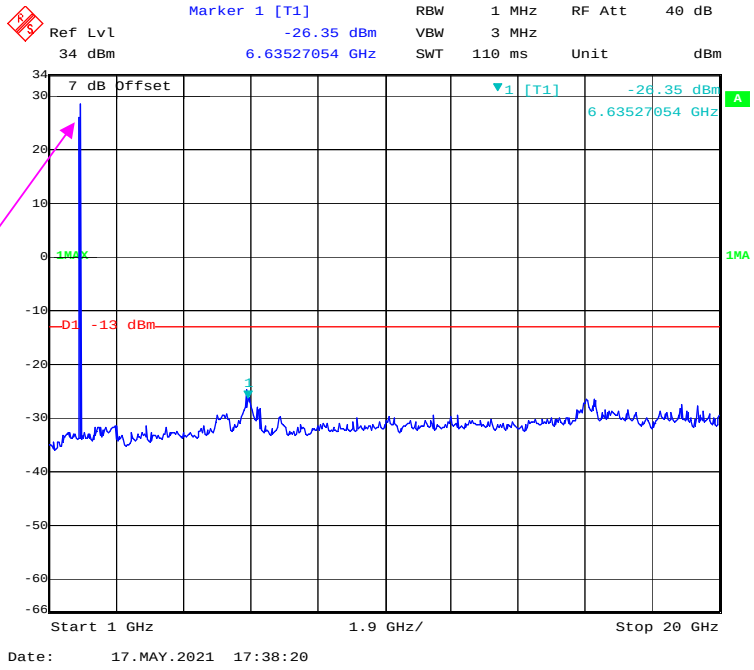
1 GHz – 20 GHz (1.4 MHz, QPSK, Middle Channel)



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

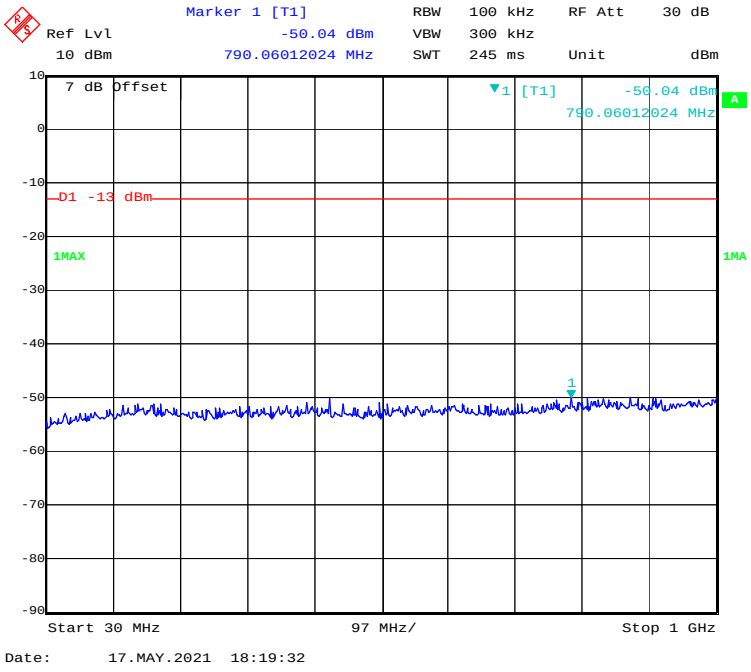


1 GHz – 20 GHz (1.4 MHz, 16-QAM, Middle Channel)

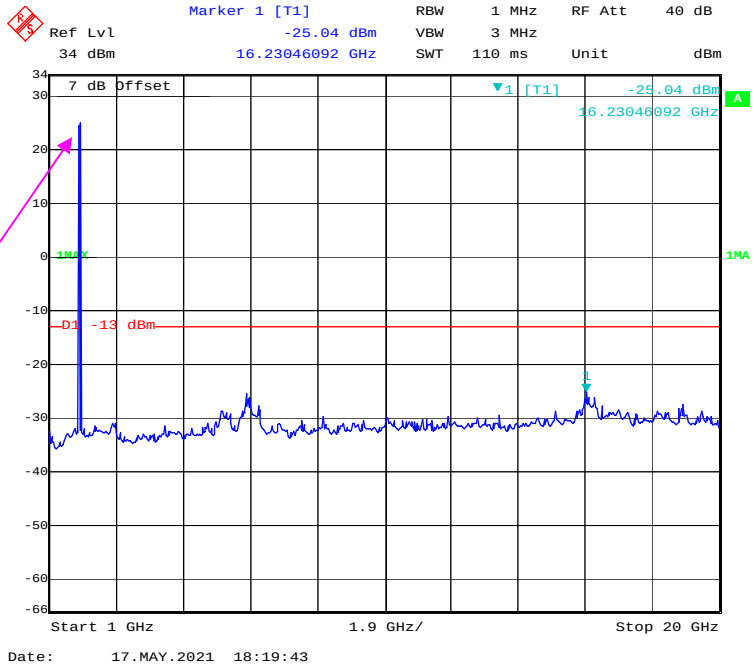


Fundamental

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

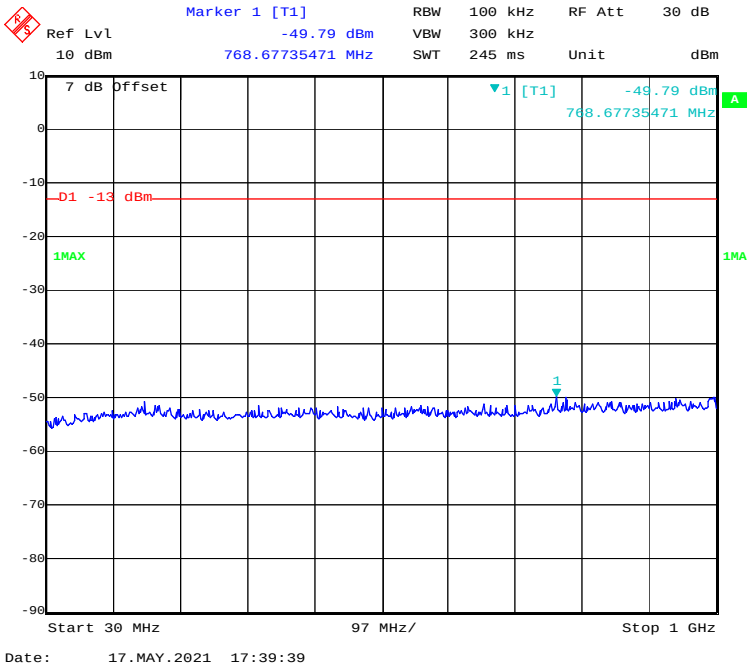


1 GHz – 20 GHz (3 MHz, QPSK, Middle Channel)

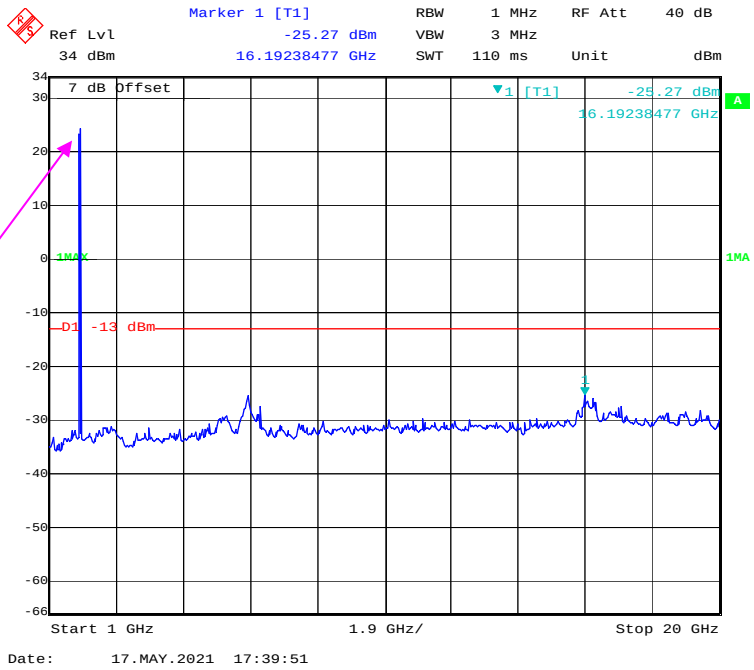


Fundamental

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

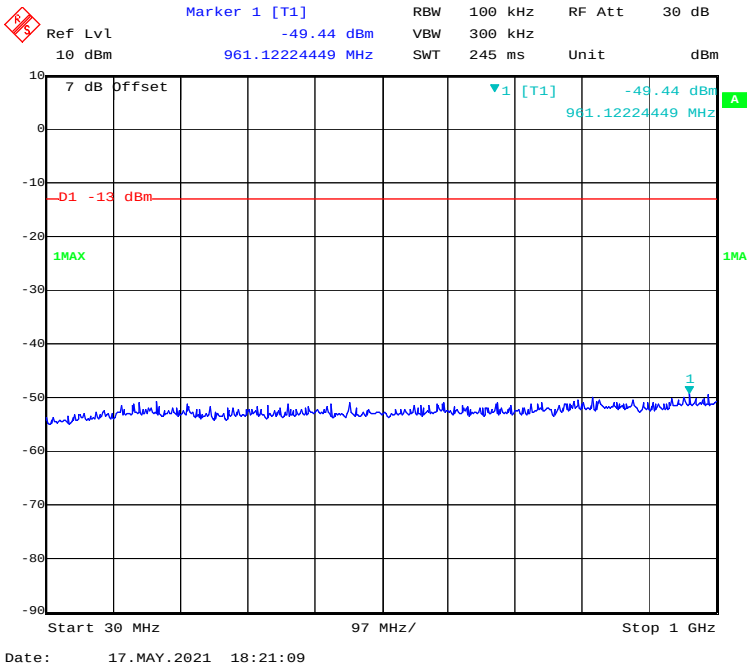


1 GHz – 20 GHz (3 MHz, 16-QAM, Middle Channel)

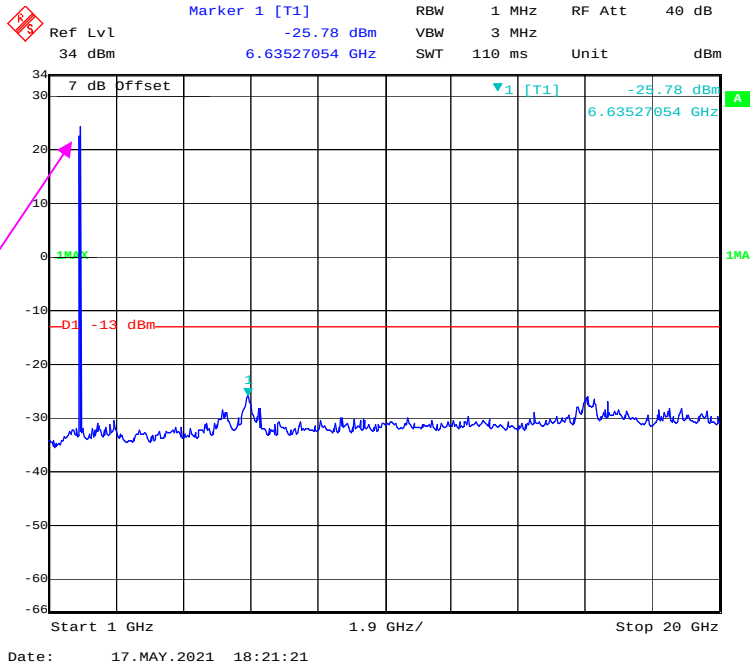


Fundamental

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

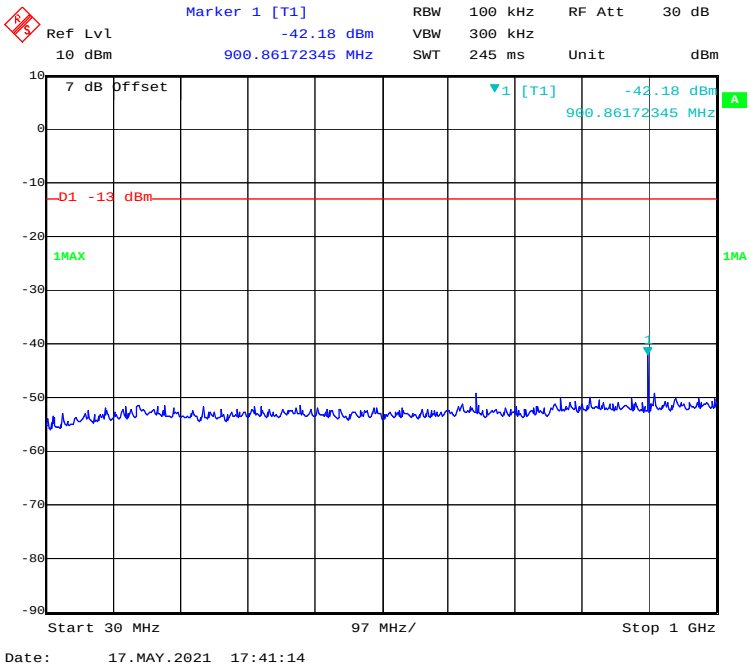


1 GHz – 20 GHz (5 MHz, QPSK, Middle Channel)

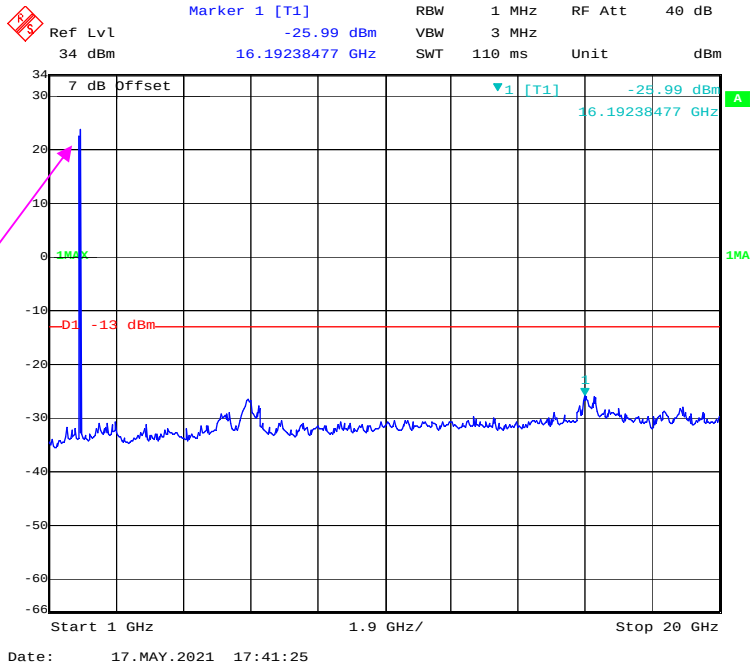


Fundamental

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

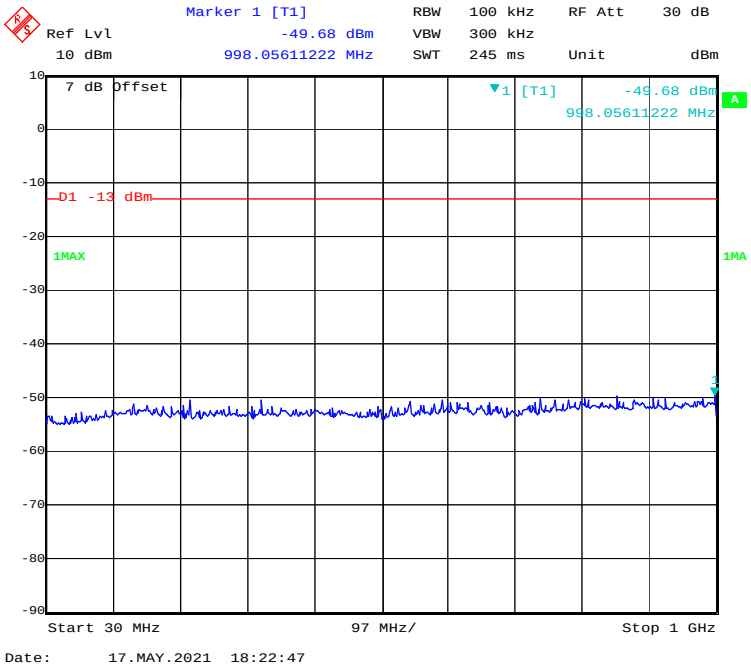


1 GHz – 20 GHz (5 MHz, 16-QAM, Middle Channel)

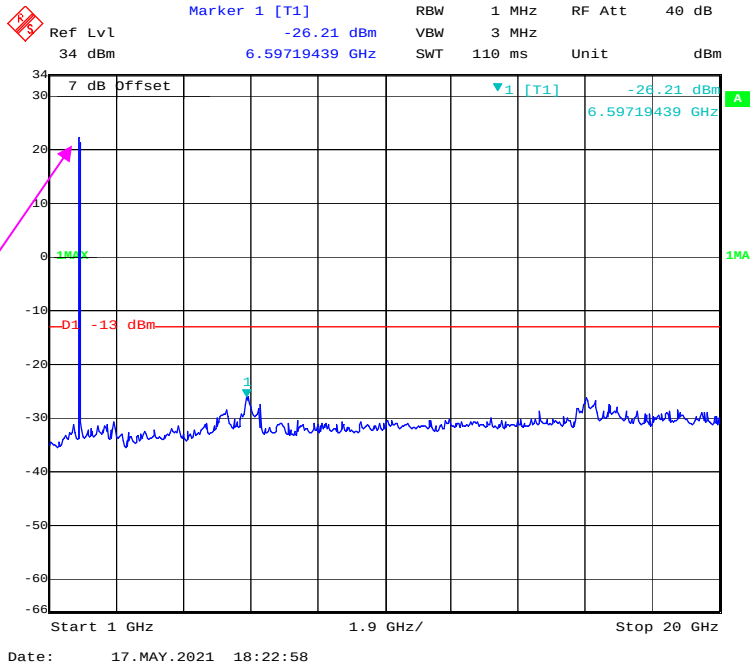


Fundamental

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

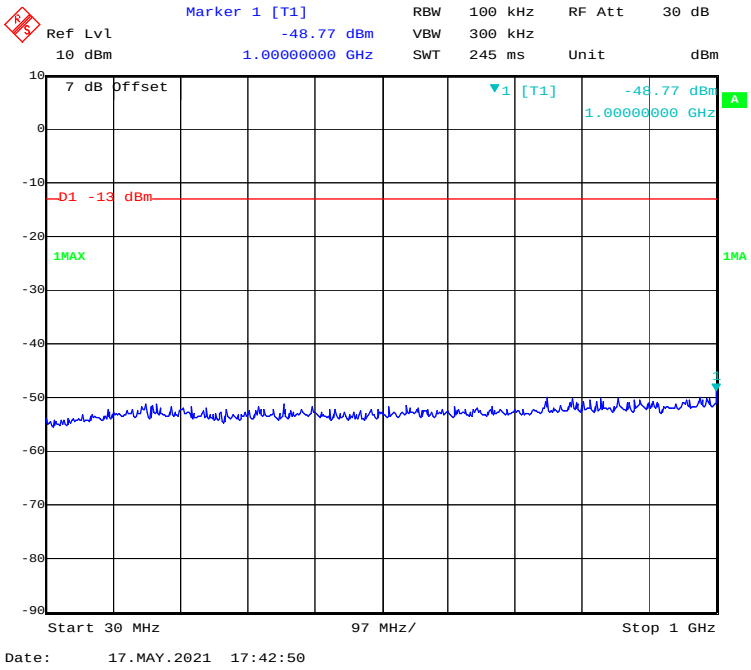


1 GHz – 20 GHz (10 MHz, QPSK, Middle Channel)

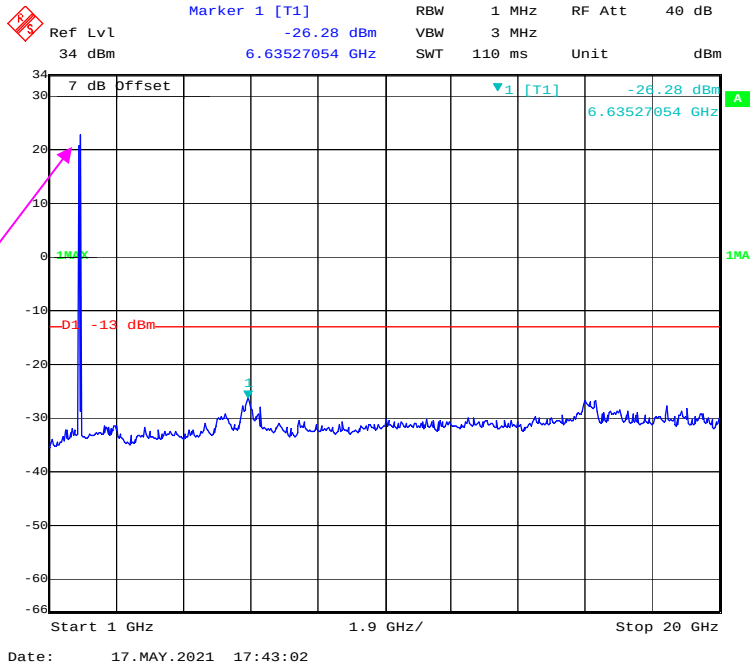


Fundamental

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

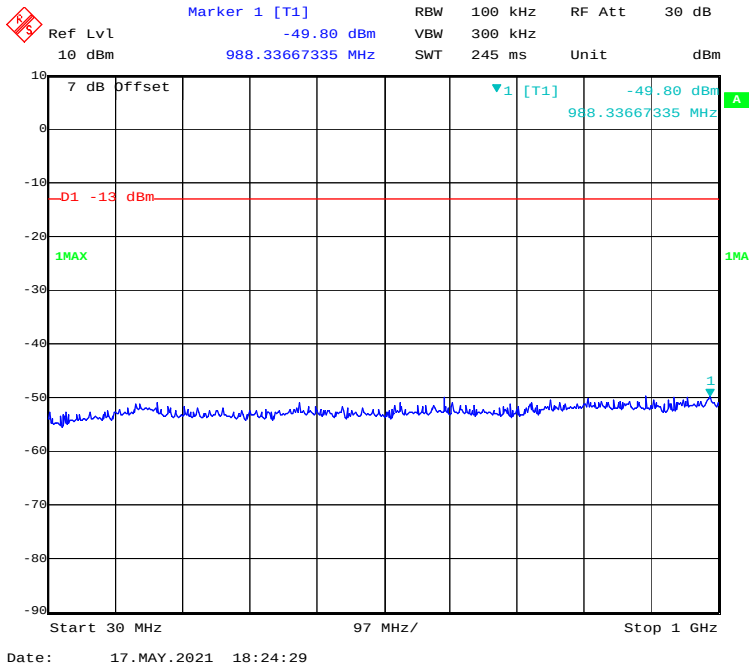


1 GHz – 20 GHz (10 MHz, 16-QAM, Middle Channel)

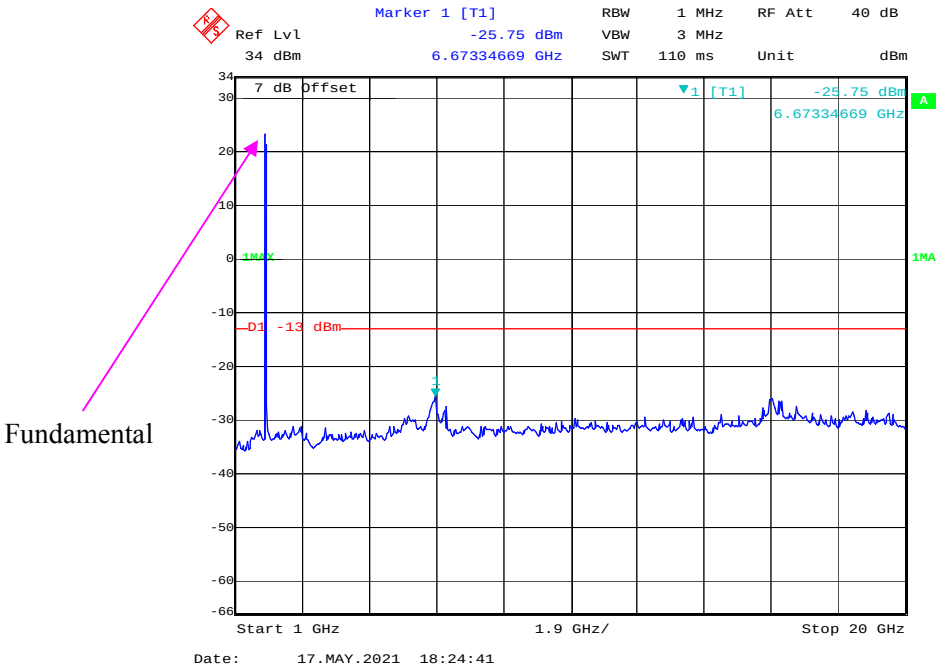


Fundamental

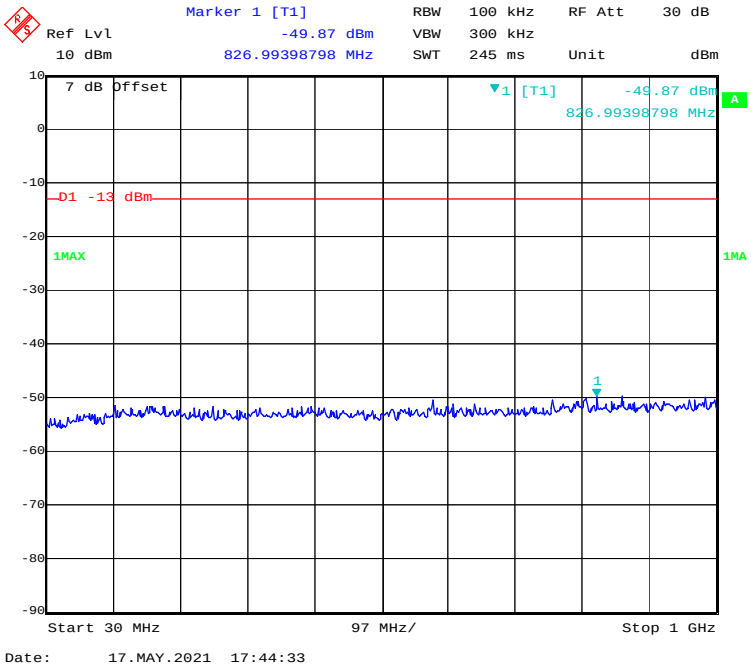
30 MHz - 1 GHz (15 MHz, QPSK, Middle Channel)



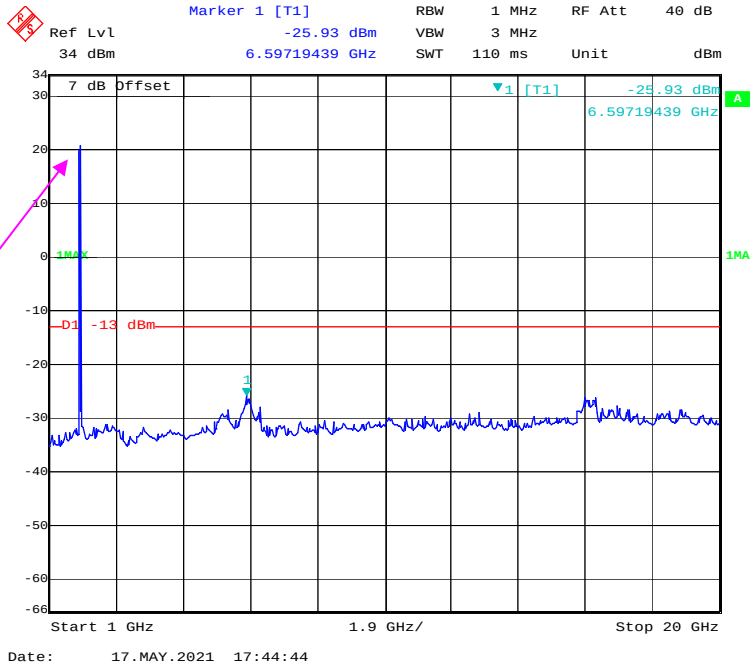
1 GHz – 20 GHz (15 MHz, QPSK, Middle Channel)



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

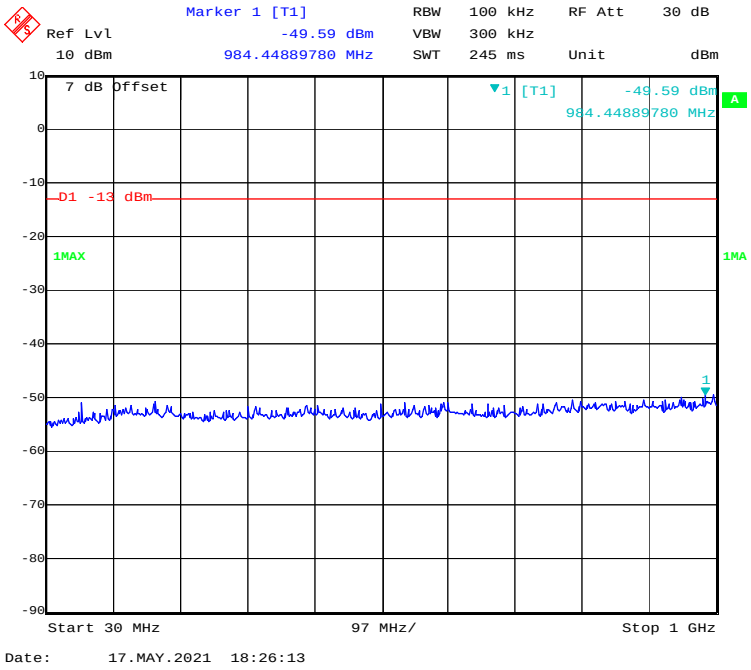


1 GHz – 20 GHz (15 MHz, 16-QAM, Middle Channel)

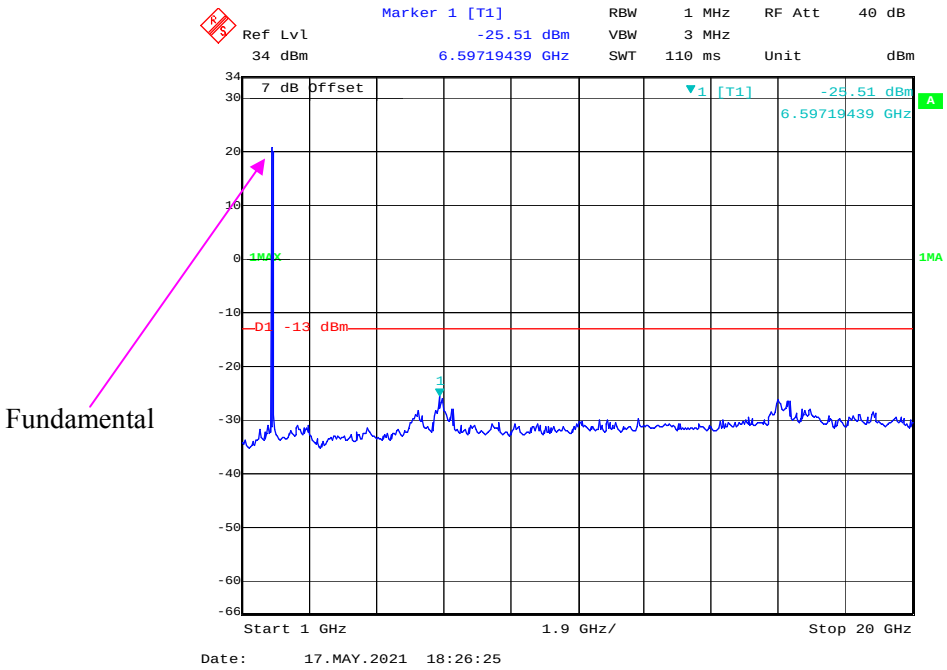


Fundamental

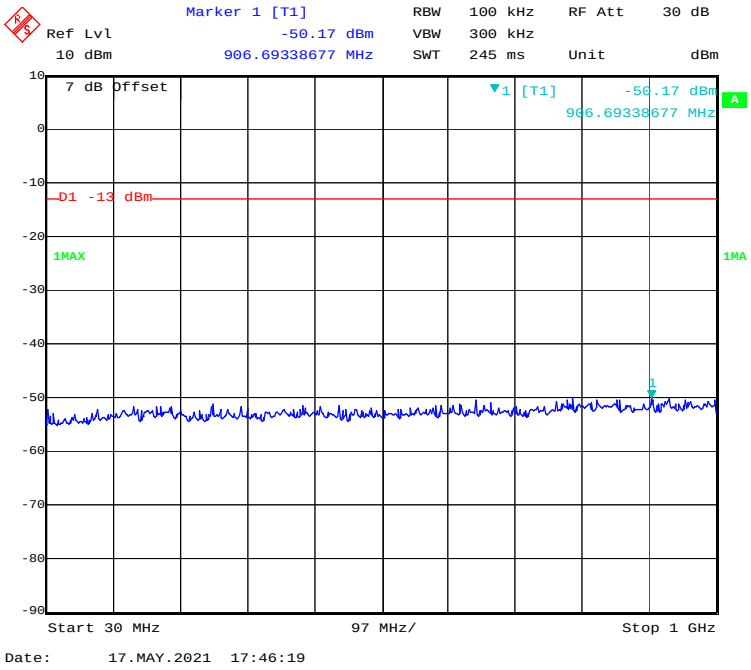
30 MHz - 1 GHz (20 MHz, QPSK, Middle Channel)



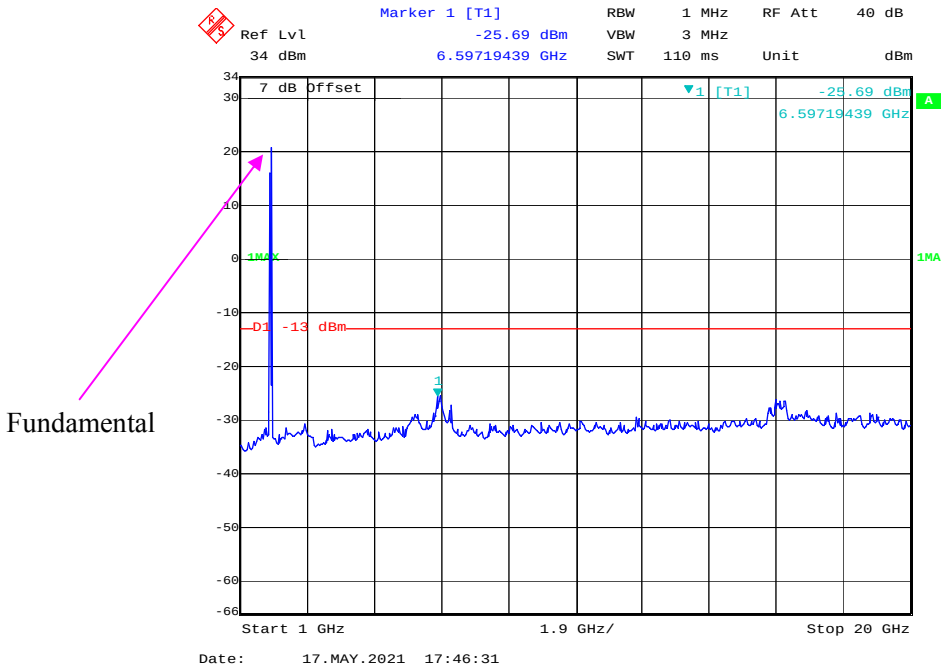
1 GHz – 20 GHz (20 MHz, QPSK, Middle Channel)



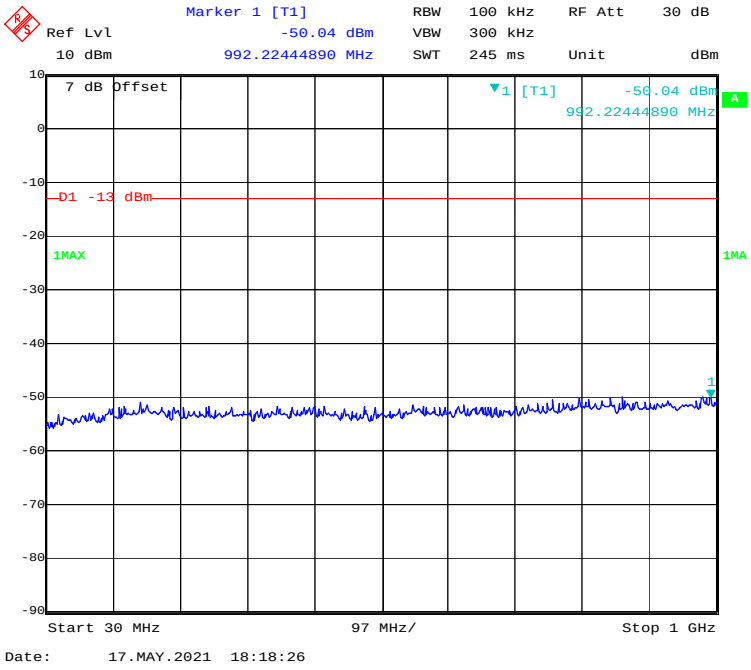
30 MHz - 1 GHz (20 MHz, 16-QAM, Middle Channel)



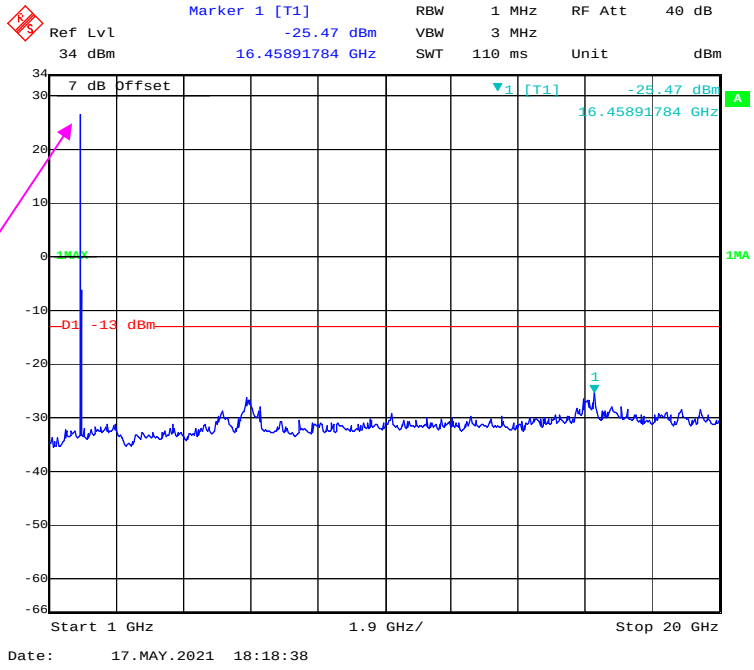
1 GHz – 20 GHz (20 MHz, 16-QAM, Middle Channel)



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

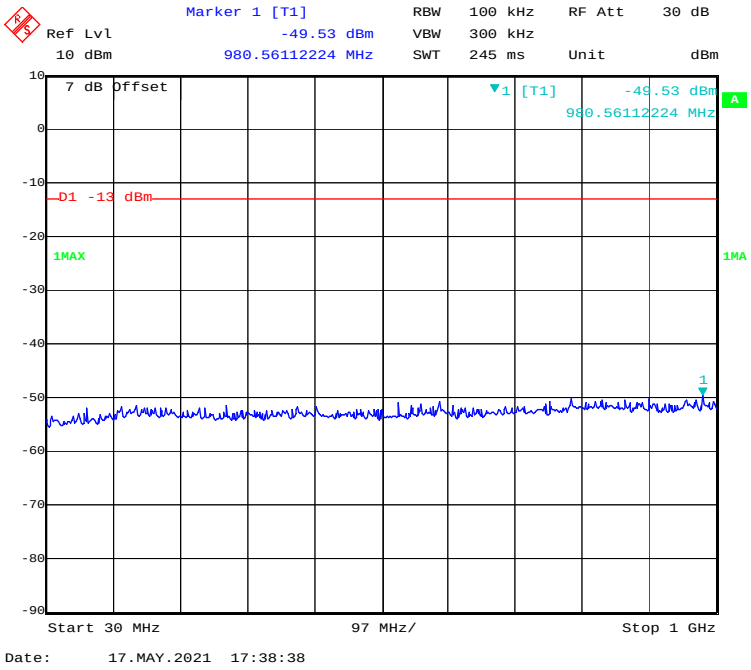


1 GHz – 20 GHz (1.4 MHz, QPSK, High Channel)

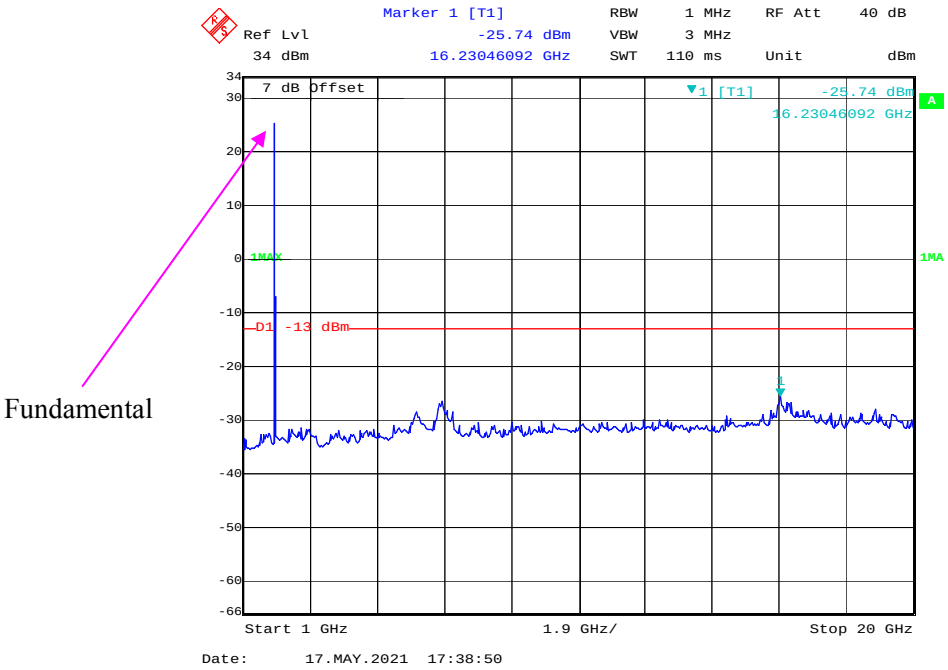


Fundamental

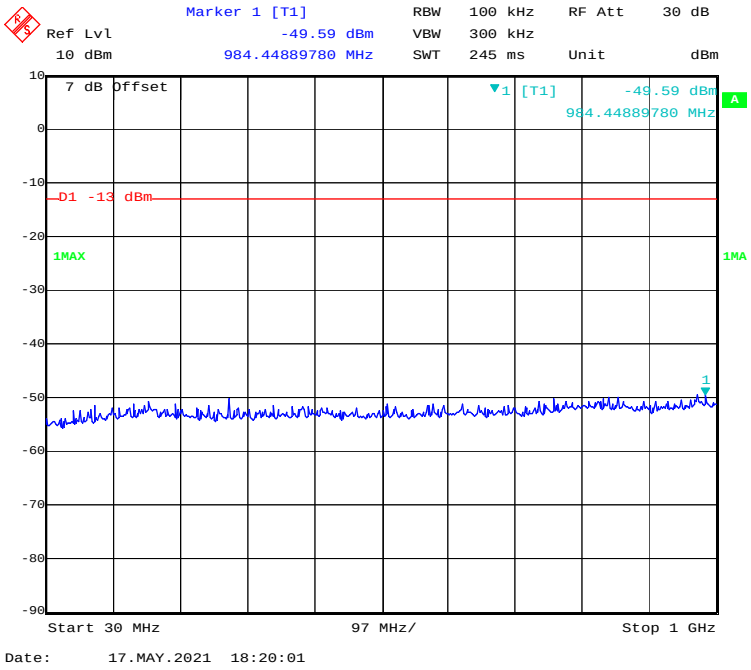
30 MHz - 1 GHz (1.4 MHz, 16-QAM, High Channel)



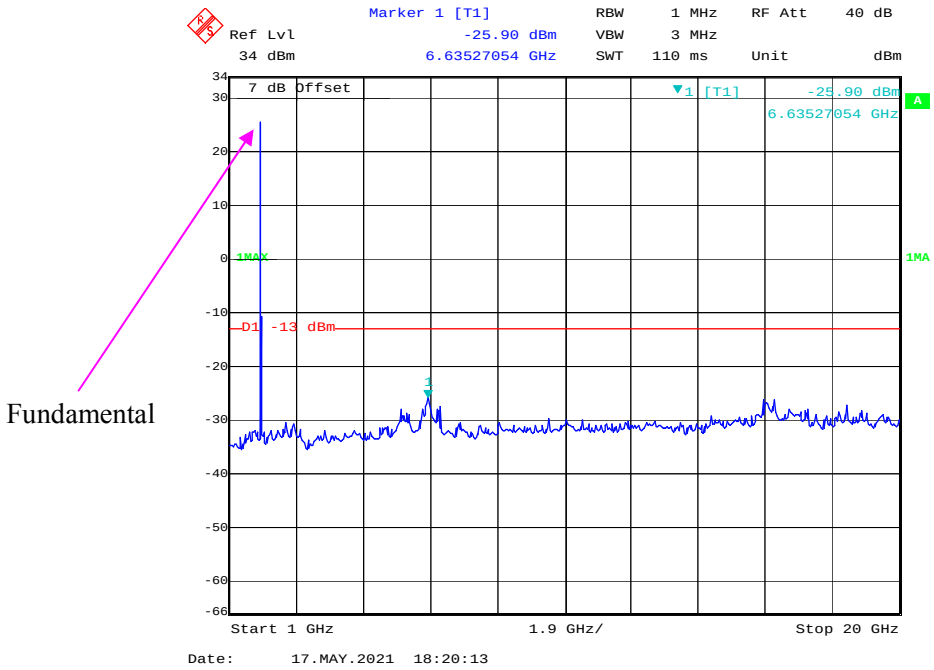
1 GHz – 20 GHz (1.4 MHz, 16-QAM, High Channel)



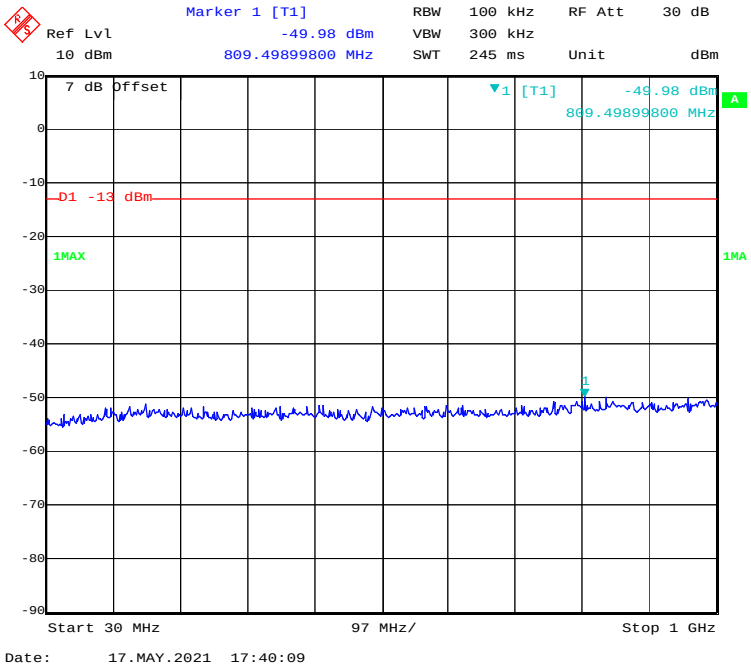
30 MHz - 1 GHz (3 MHz, QPSK, High Channel)



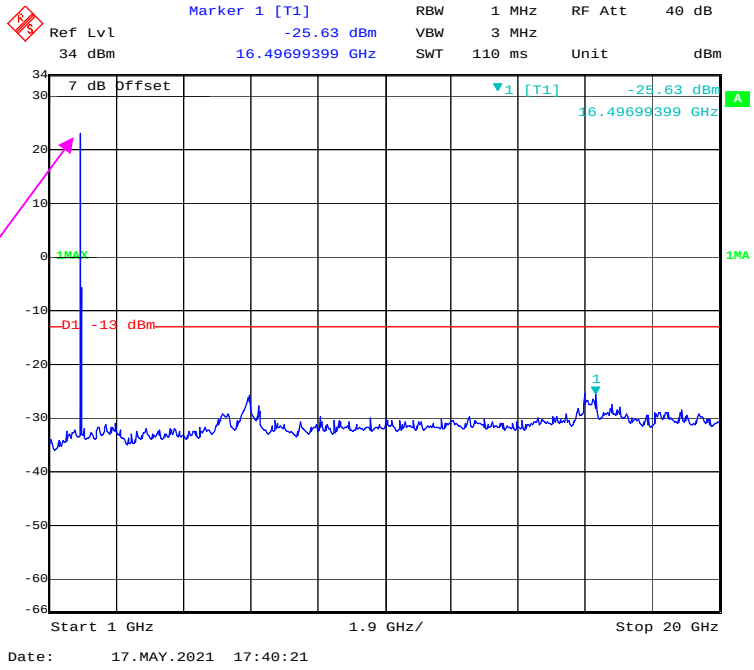
1 GHz – 20 GHz (3 MHz, QPSK, High Channel)



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

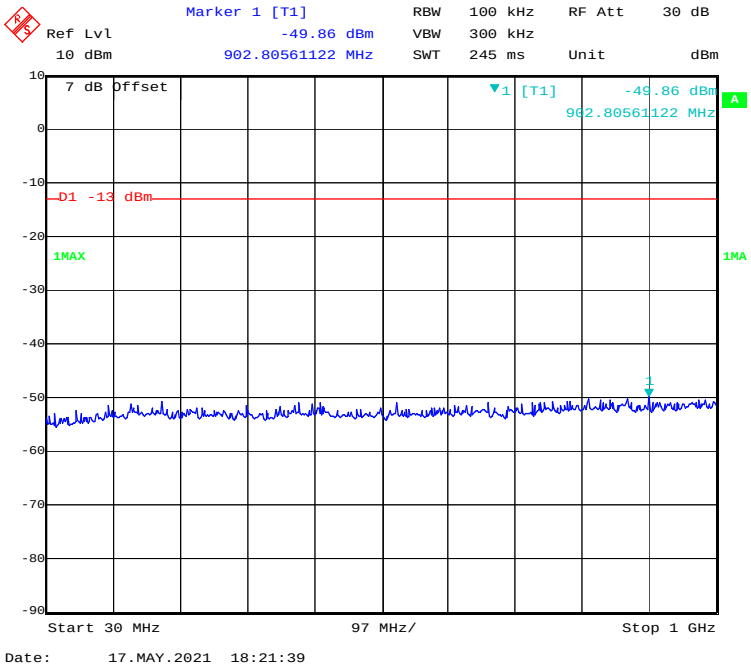


1 GHz – 20 GHz (3 MHz, 16-QAM, High Channel)

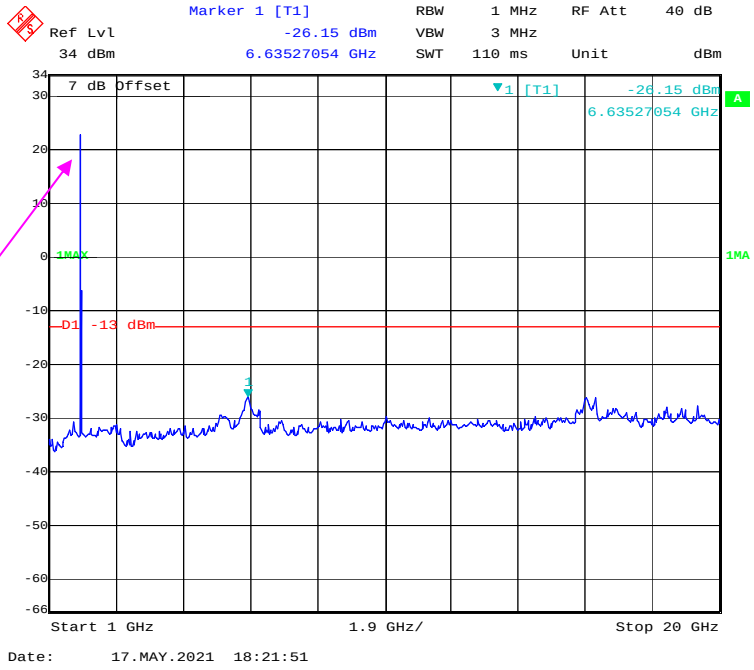


Fundamental

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

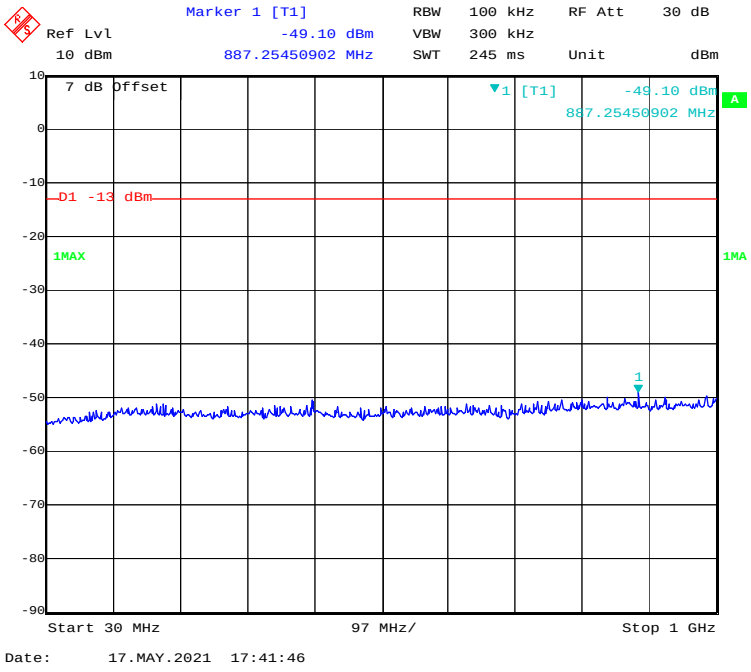


1 GHz – 20 GHz (5 MHz, QPSK, High Channel)

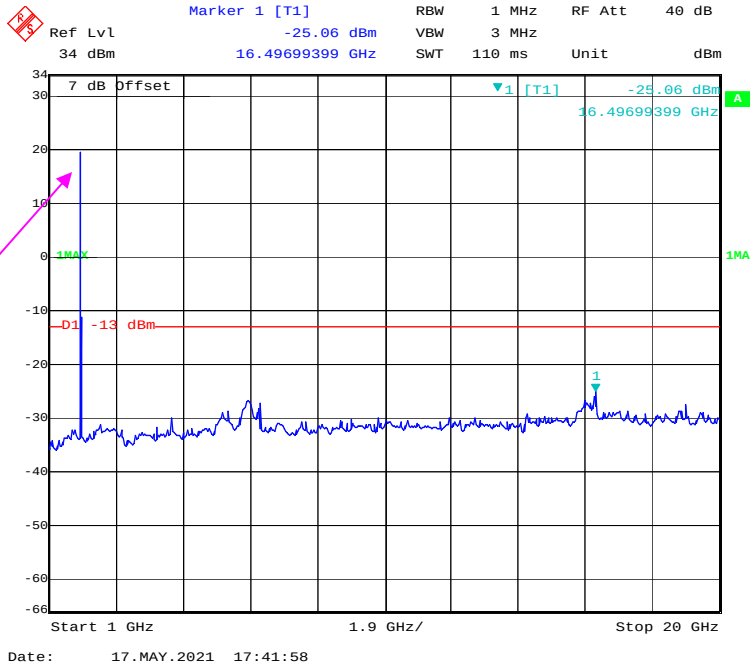


Fundamental

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

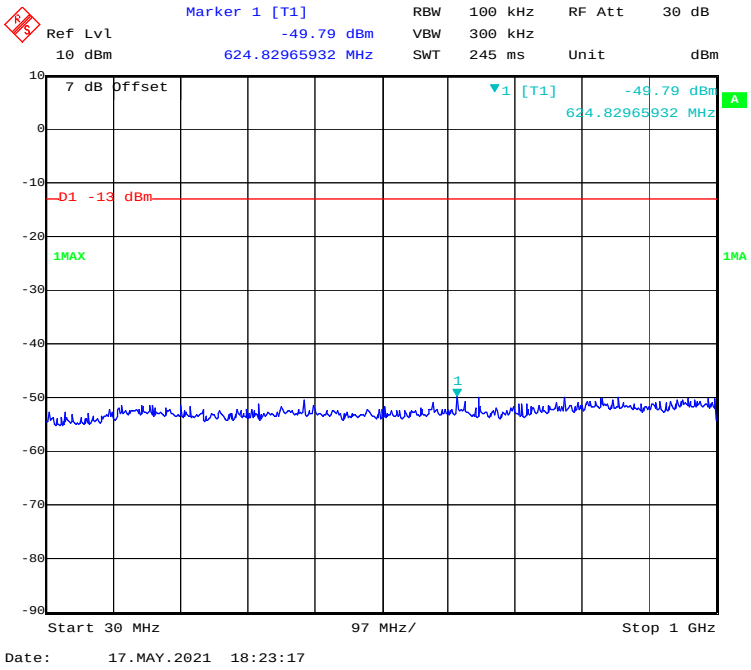


1 GHz – 20 GHz (5 MHz, 16-QAM, High Channel)

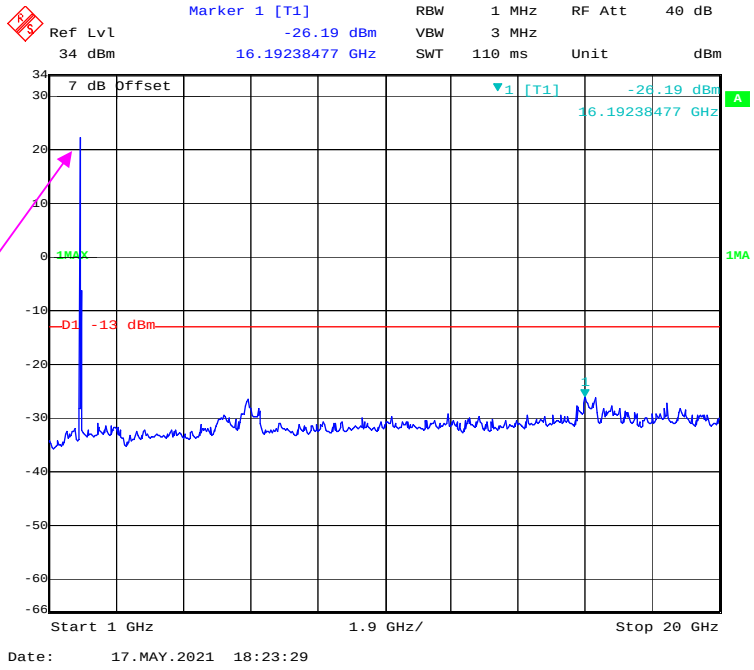


Fundamental

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

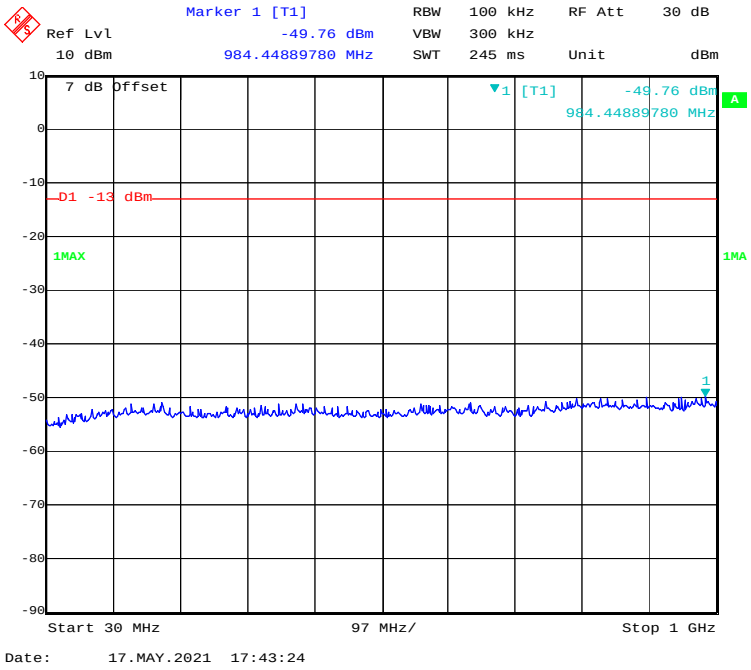


1 GHz – 20 GHz (10 MHz, QPSK, High Channel)

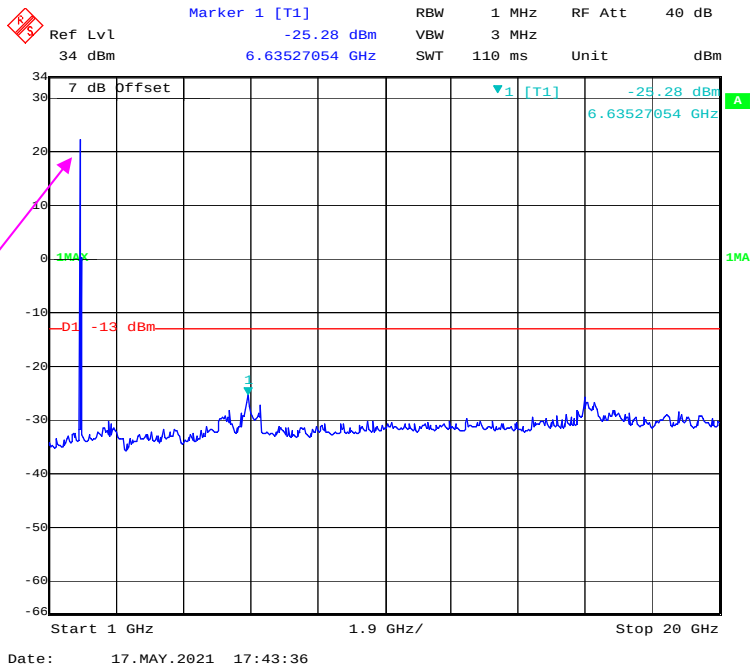


Fundamental

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

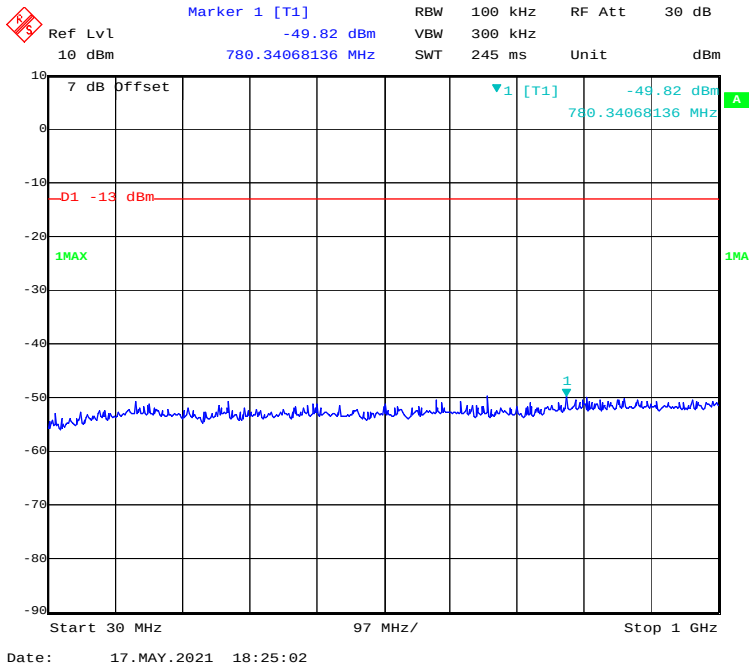


1 GHz – 20 GHz (10 MHz, 16-QAM, High Channel)

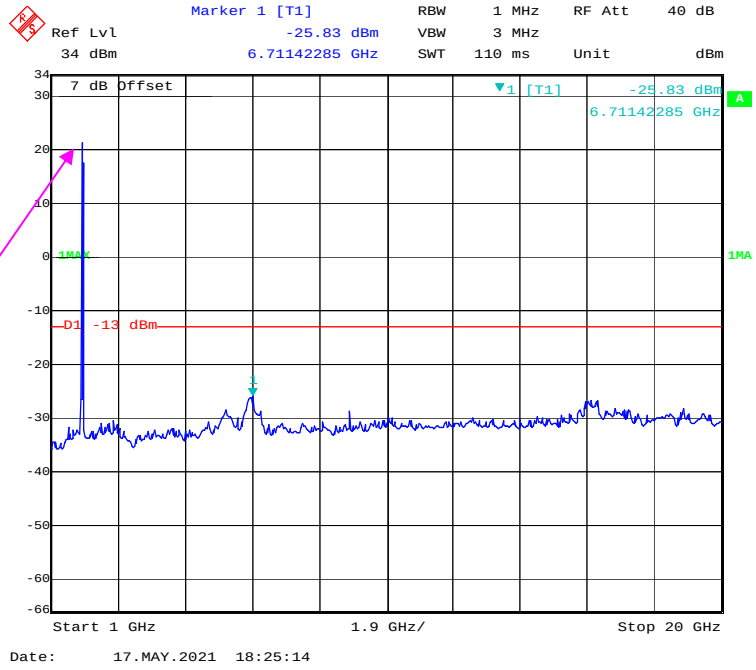


Fundamental

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

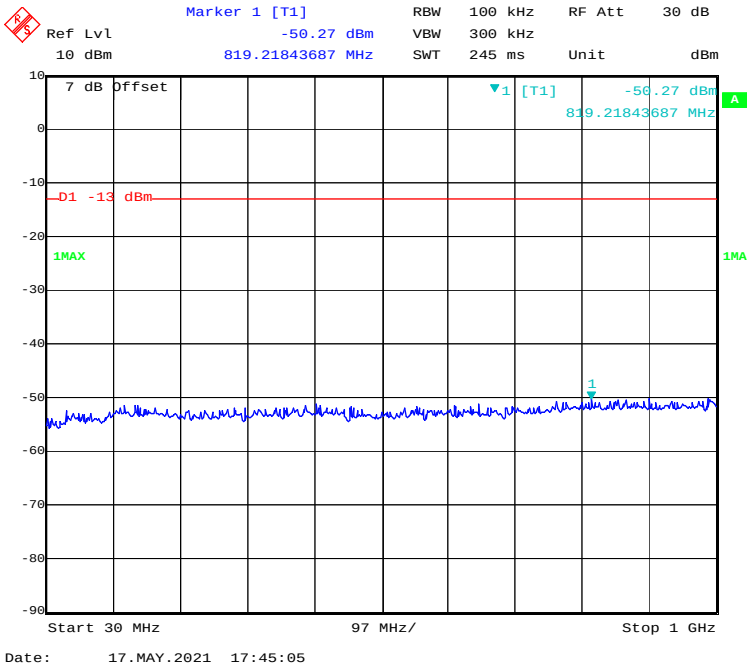


1 GHz – 20 GHz (15 MHz, QPSK, High Channel)

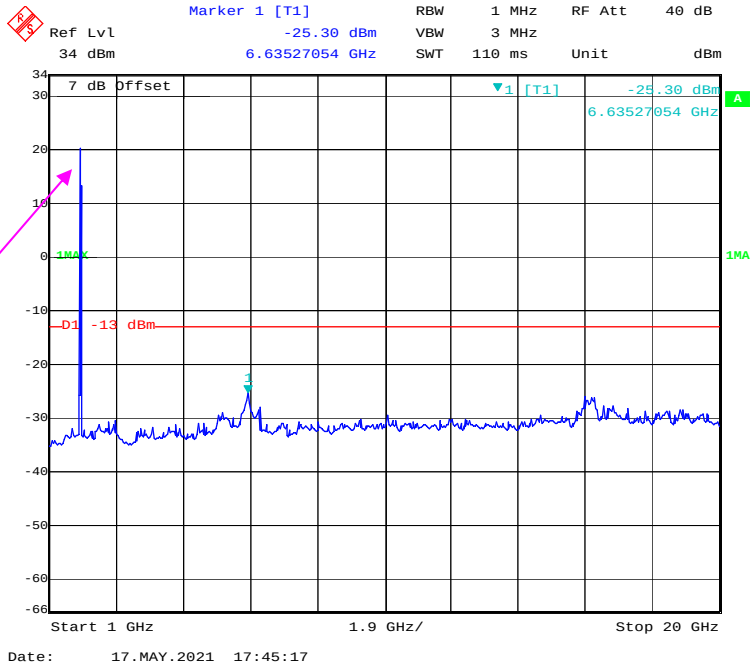


Fundamental

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

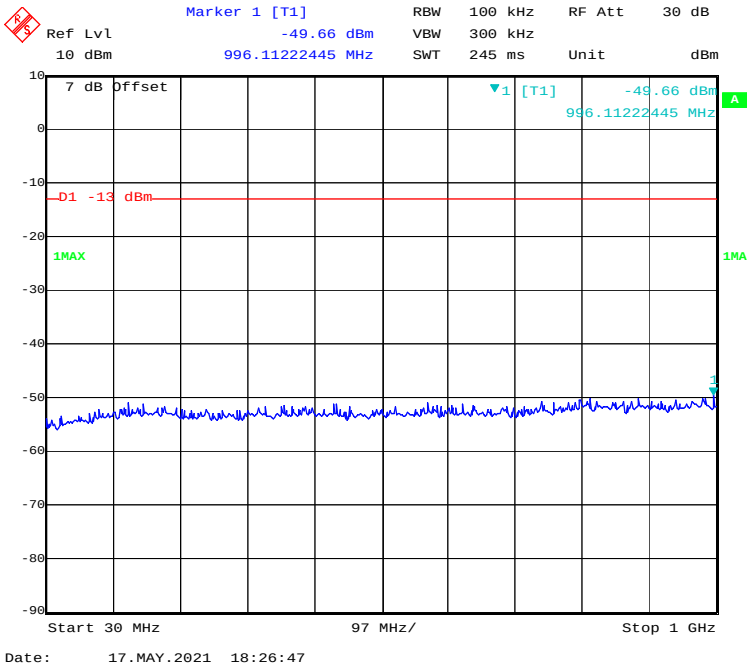


1 GHz – 20 GHz (15 MHz, 16-QAM, High Channel)

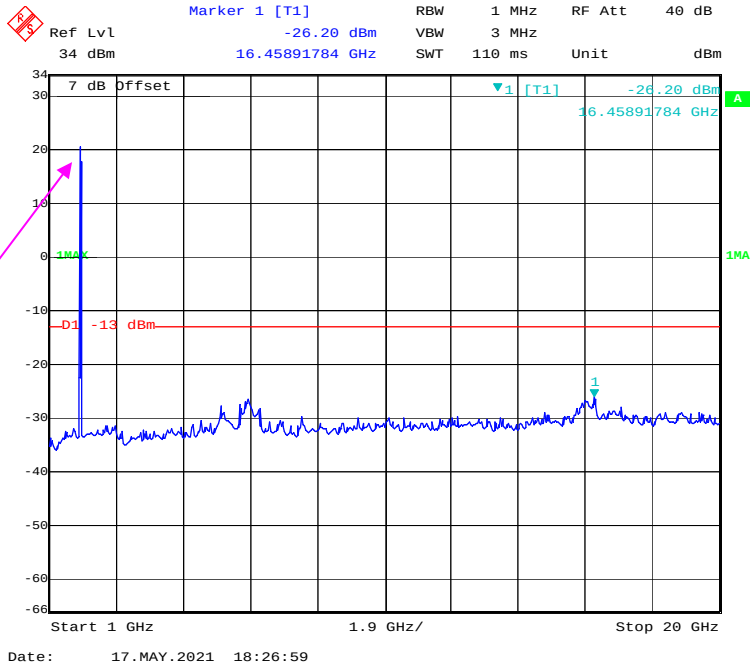


Fundamental

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

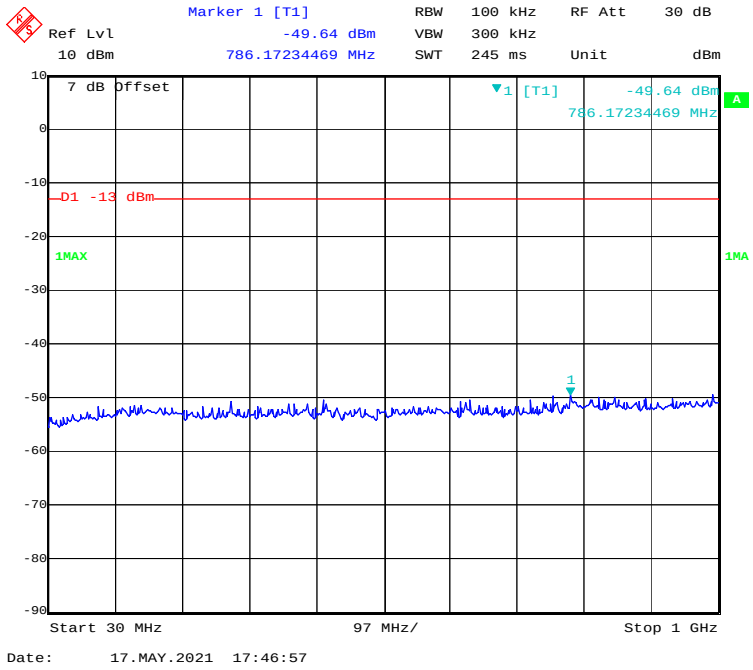


1 GHz – 20 GHz (20 MHz, QPSK, High Channel)

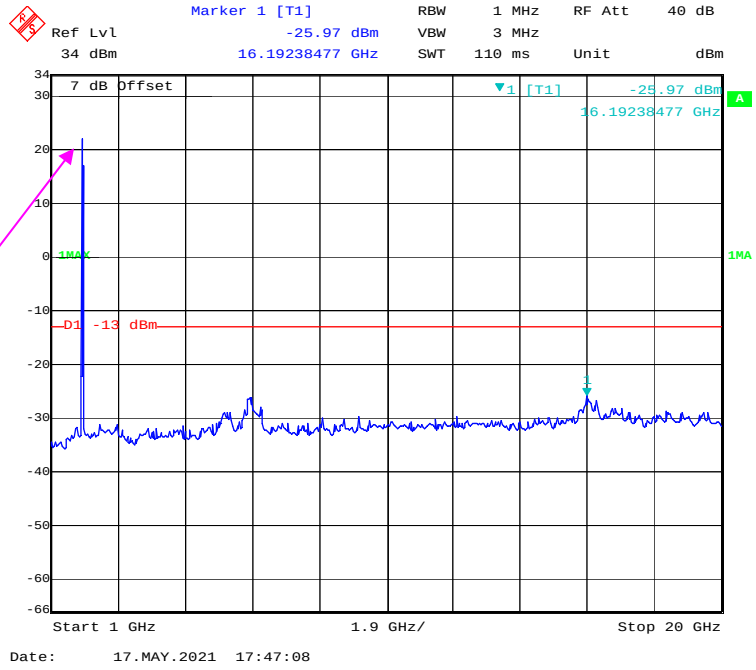


Fundamental

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



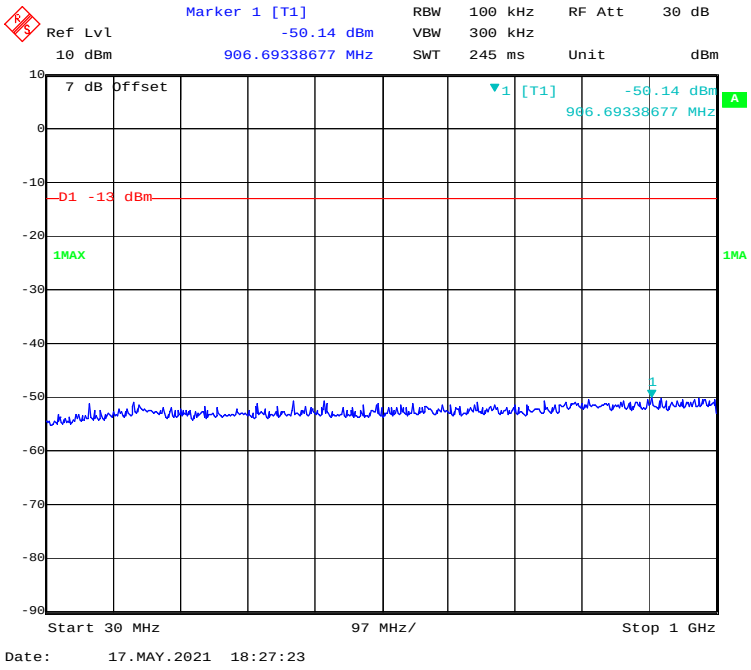
1 GHz – 20 GHz (20 MHz, 16-QAM, High Channel)



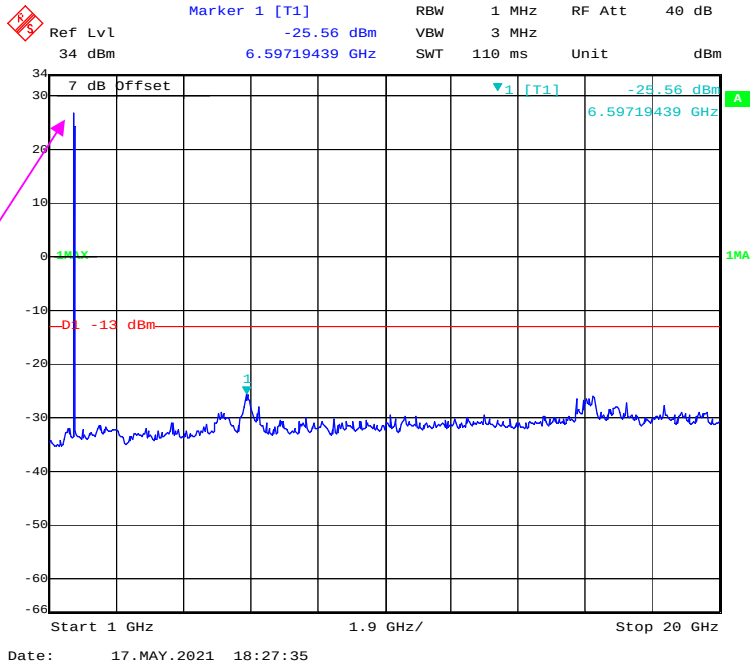
Fundamental

LTE Band 4:

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

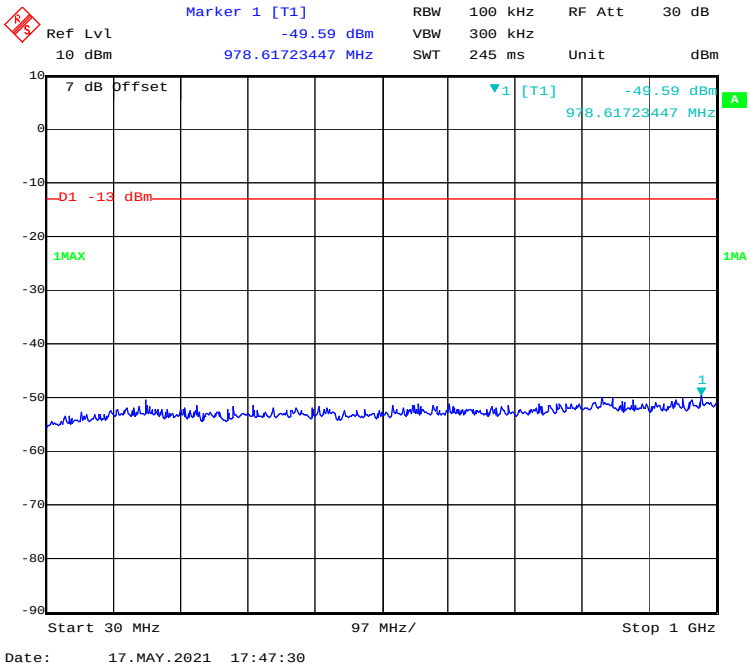


1 GHz – 20 GHz (1.4 MHz, QPSK, Low Channel)

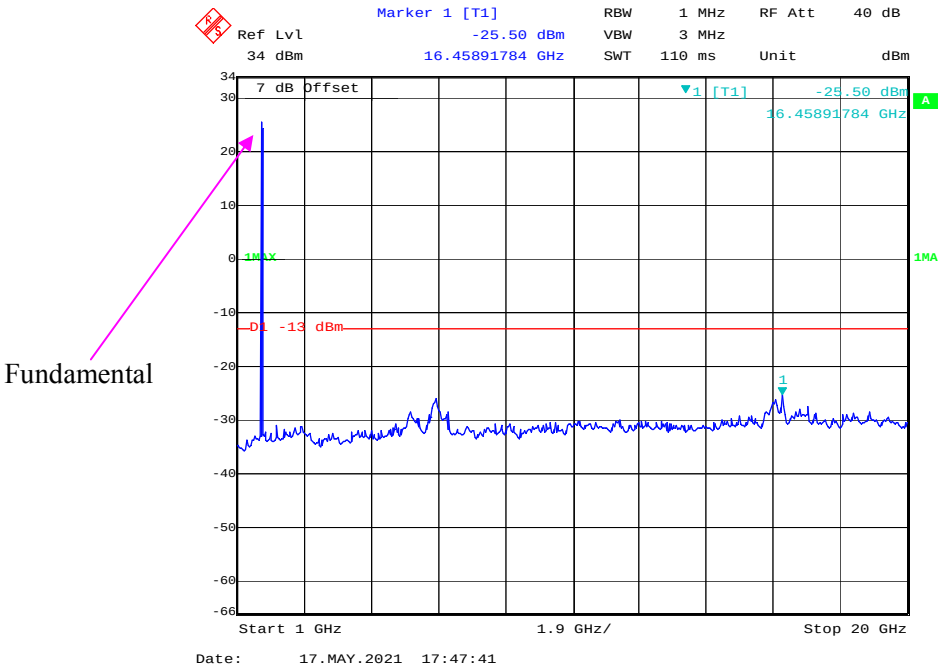


Fundamental

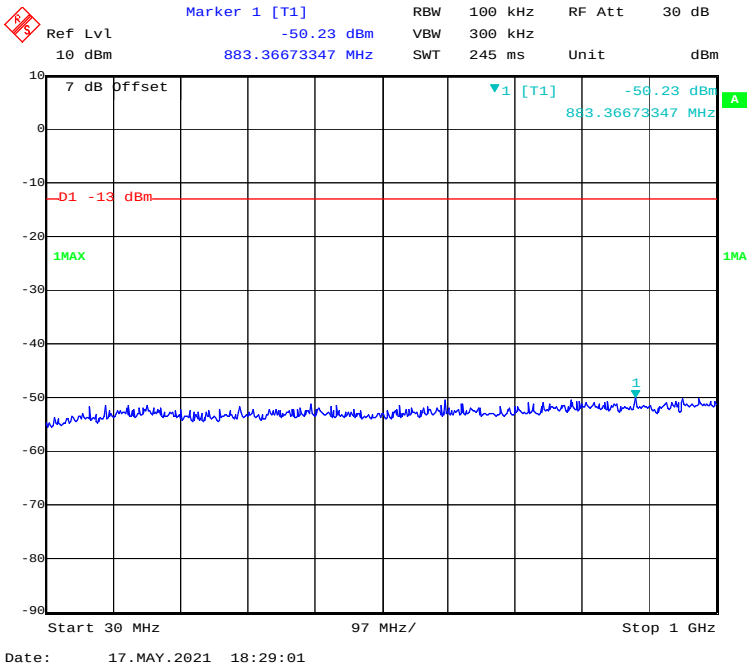
30 MHz - 1 GHz (1.4 MHz, 16-QAM, Low Channel)



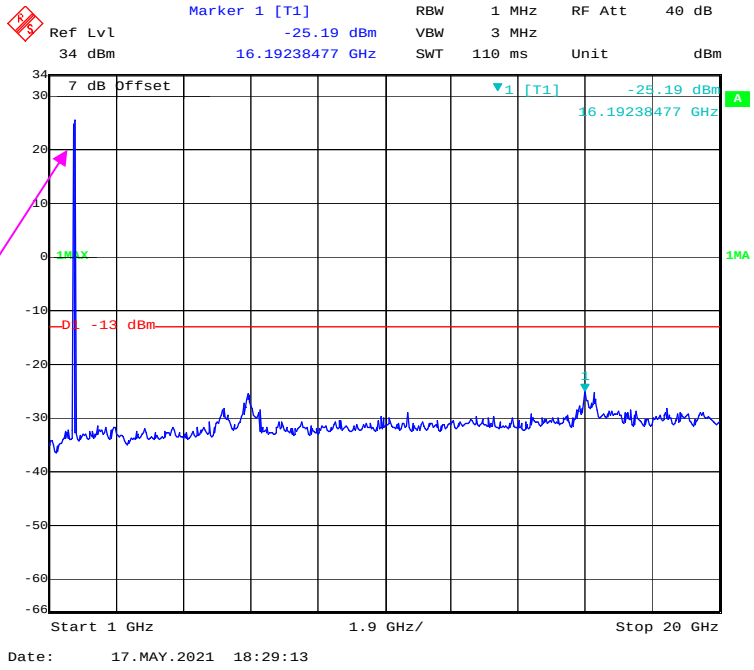
1 GHz – 20 GHz (1.4 MHz, 16-QAM, Low Channel)



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

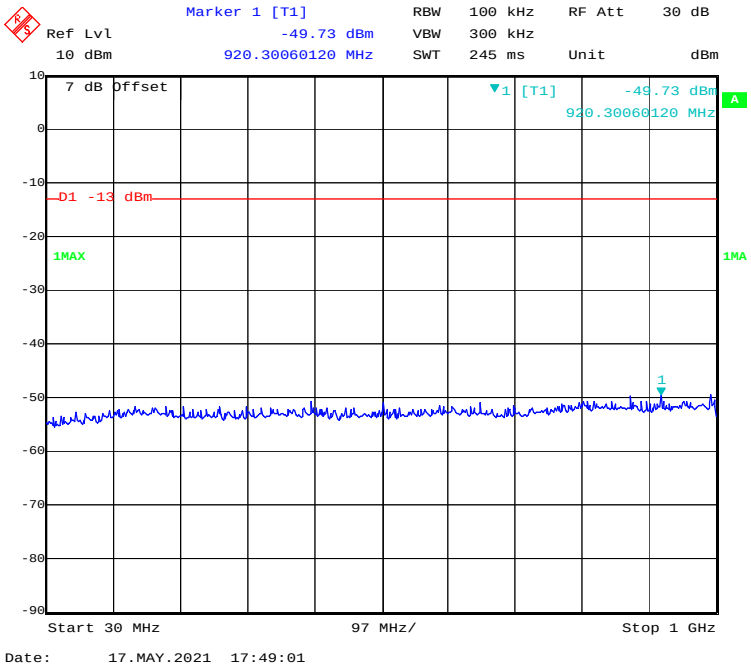


1 GHz – 20 GHz (3 MHz, QPSK, Low Channel)

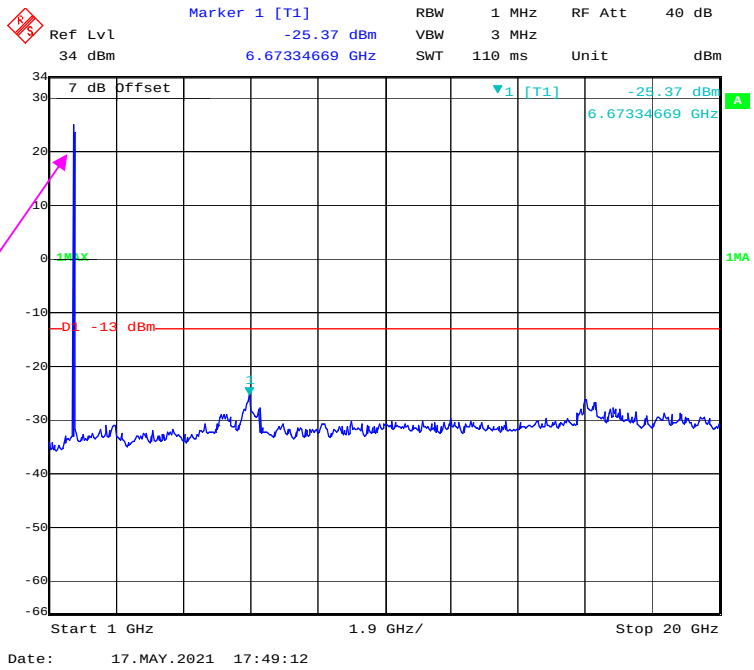


Fundamental

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

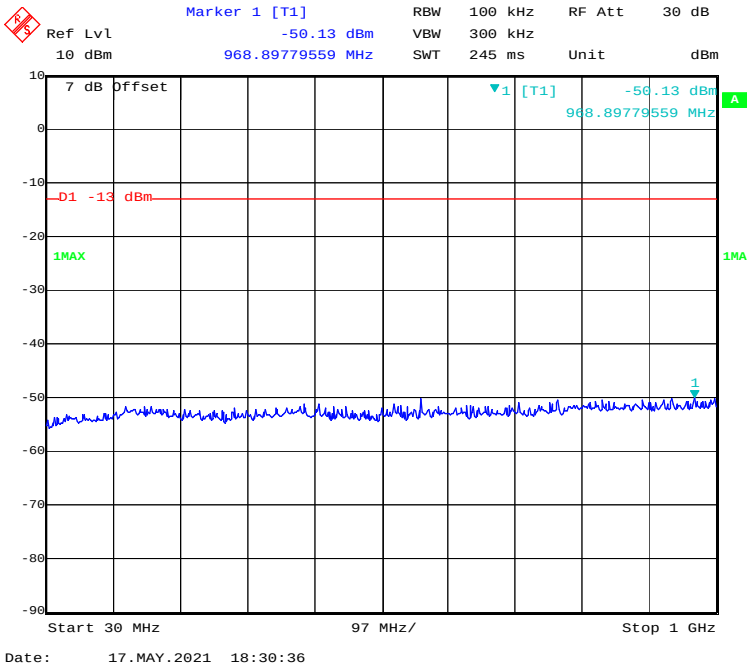


1 GHz – 20 GHz (3 MHz, 16-QAM, Low Channel)

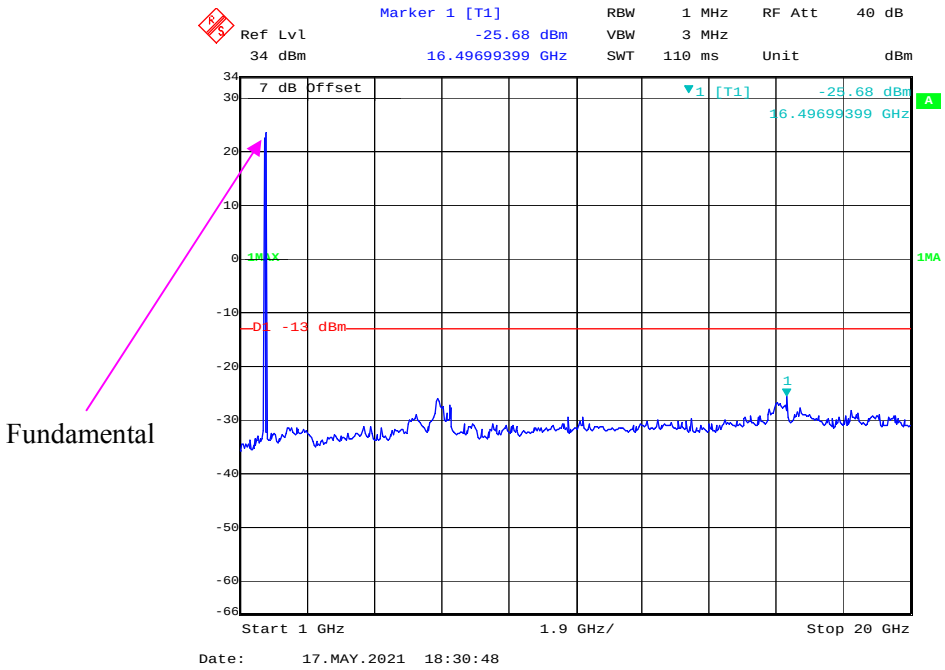


Fundamental

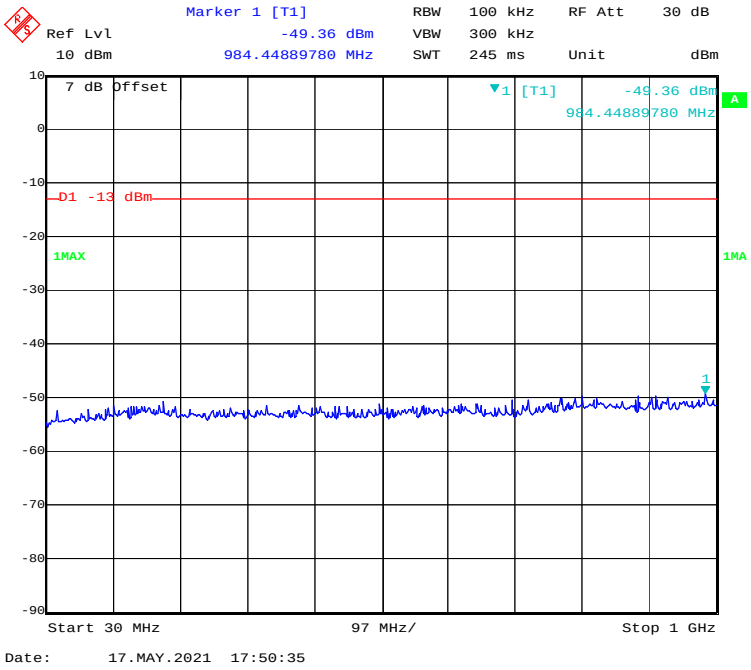
30 MHz - 1 GHz (5 MHz, QPSK, Low Channel)



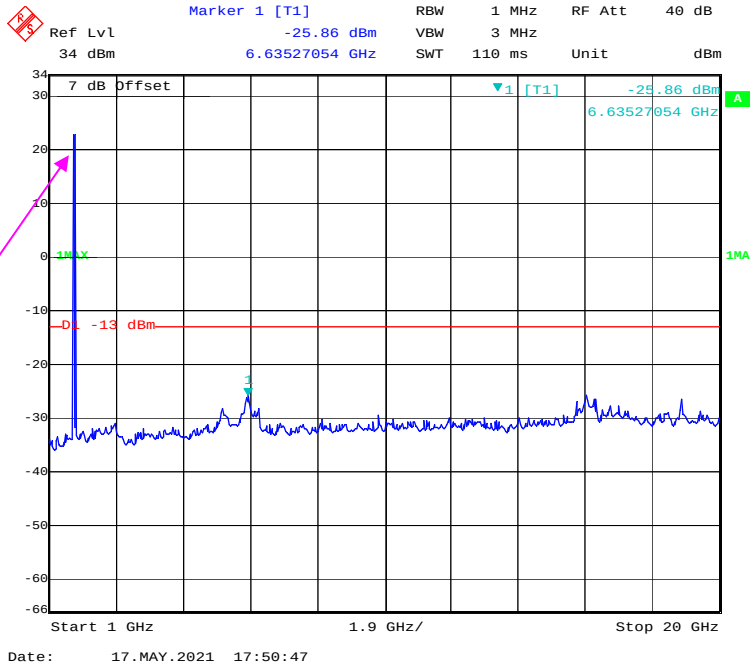
1 GHz – 20 GHz (5 MHz, QPSK, Low Channel)



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

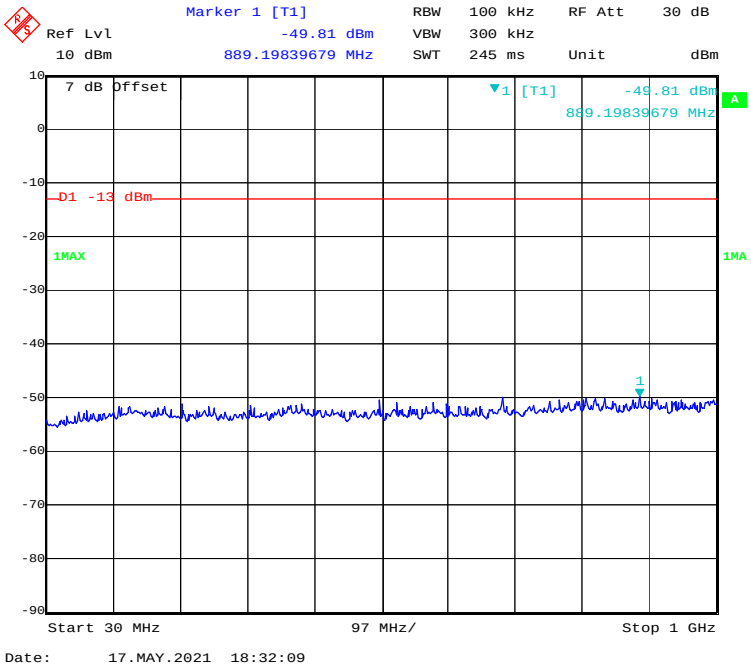


1 GHz – 20 GHz (5 MHz, 16-QAM, Low Channel)

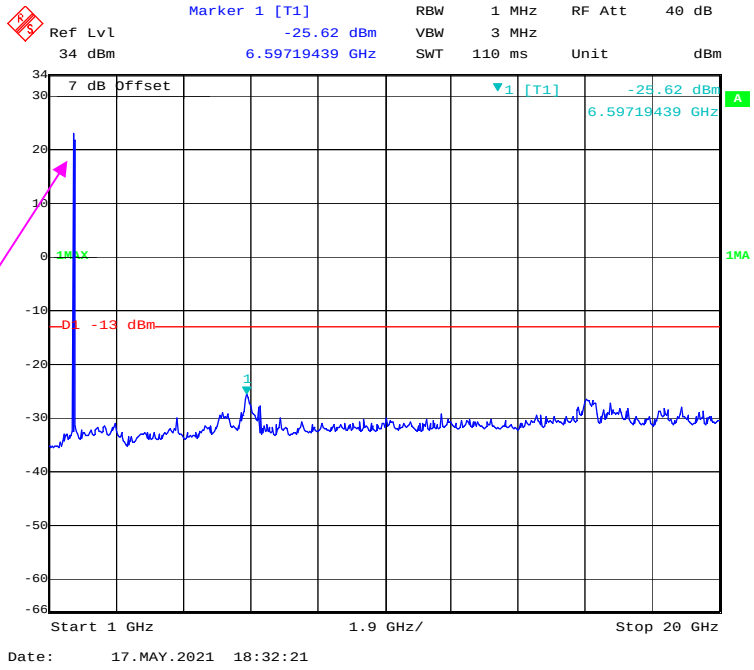


Fundamental

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

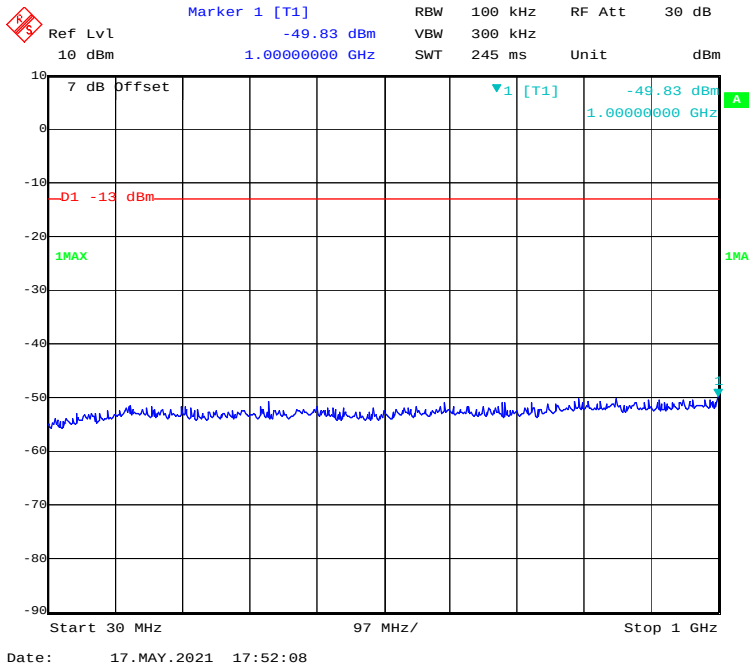


1 GHz – 20 GHz (10 MHz, QPSK, Low Channel)

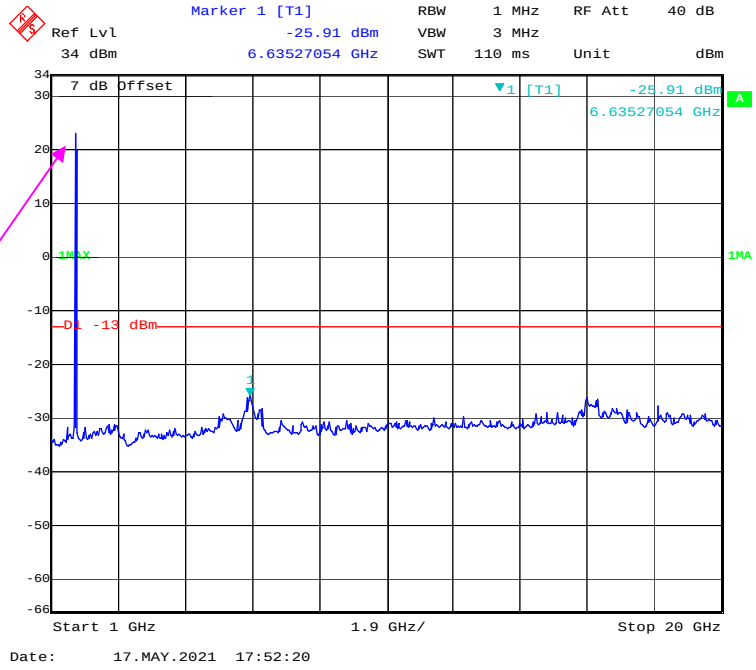


Fundamental

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

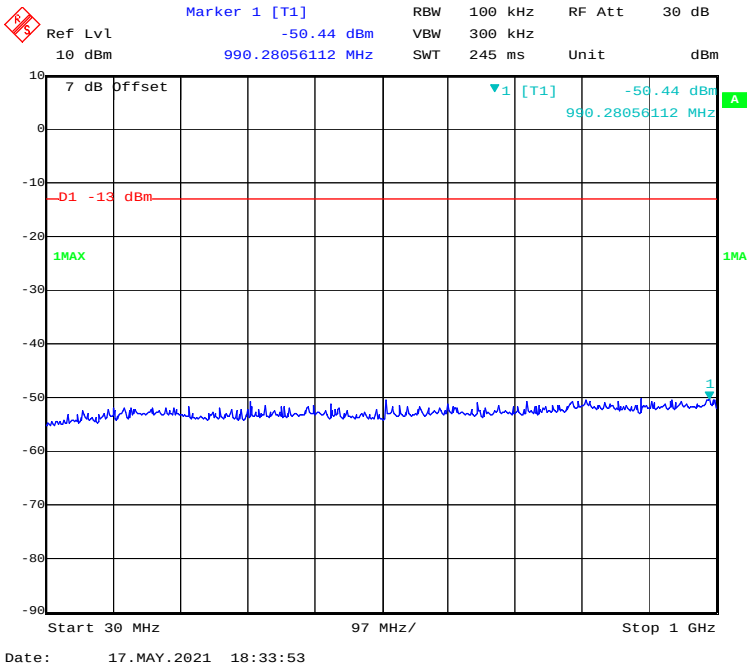


1 GHz – 20 GHz (10 MHz, 16-QAM, Low Channel)

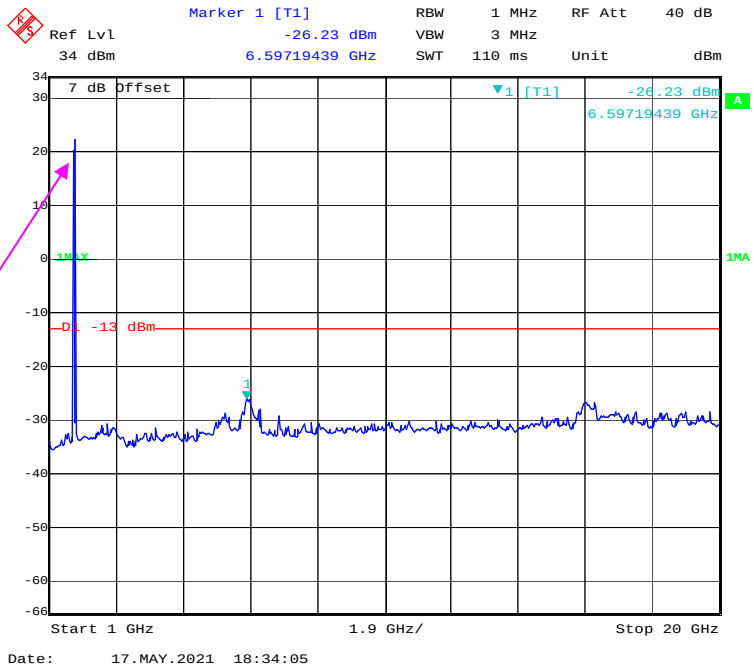


Fundamental

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

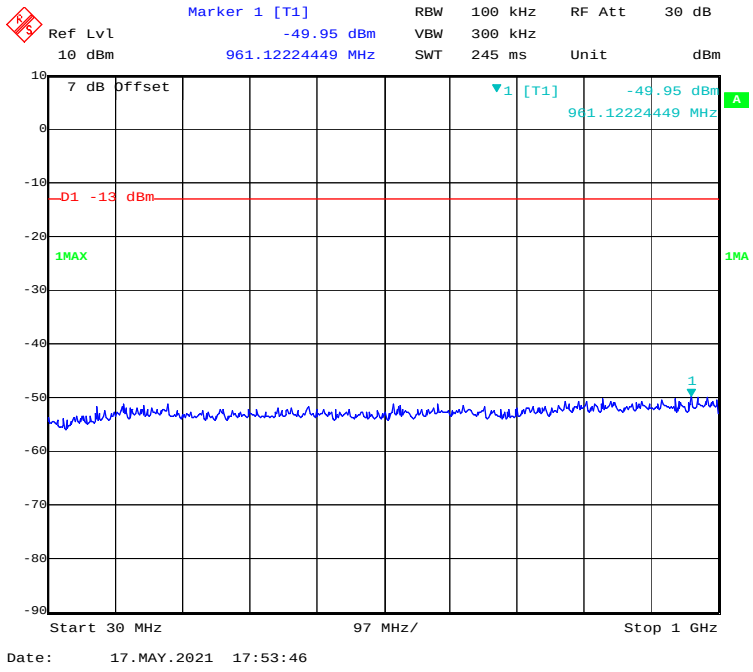


1 GHz – 20 GHz (15 MHz, QPSK, Low Channel)

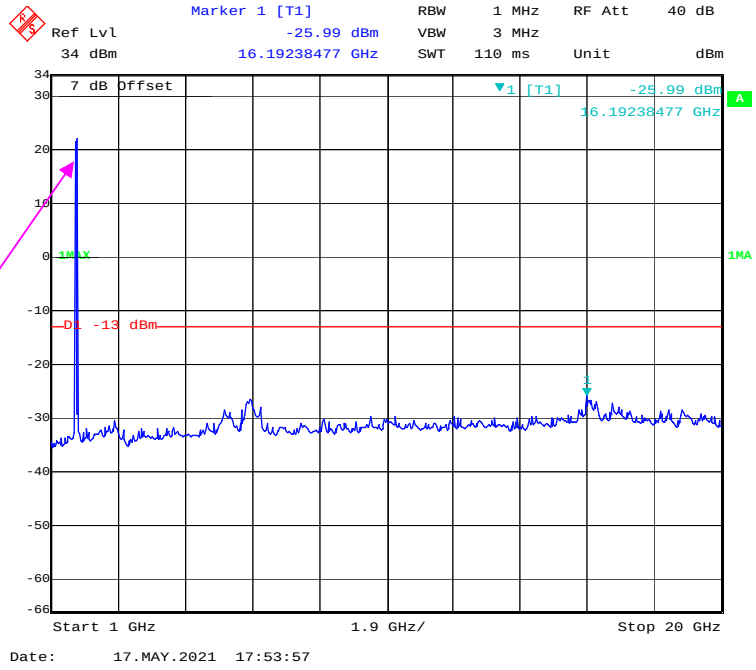


Fundamental

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

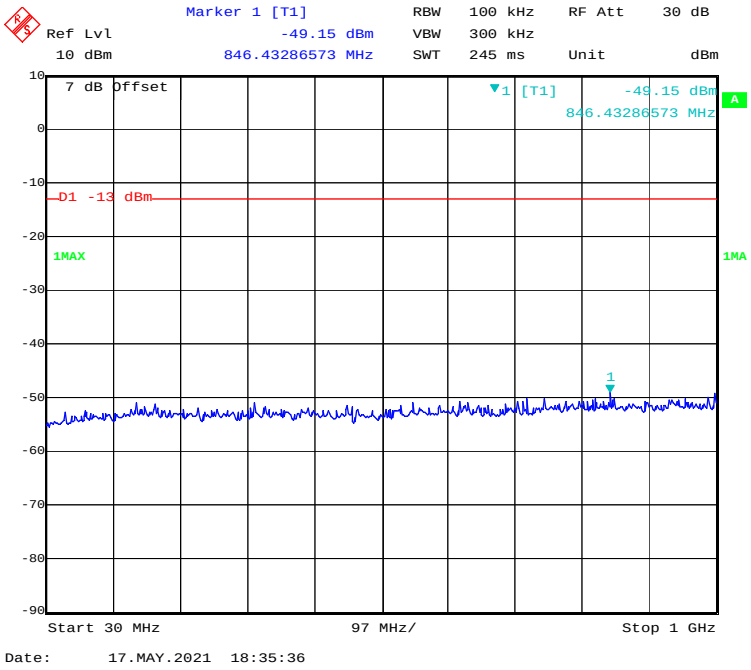


1 GHz – 20 GHz (15 MHz, 16-QAM, Low Channel)

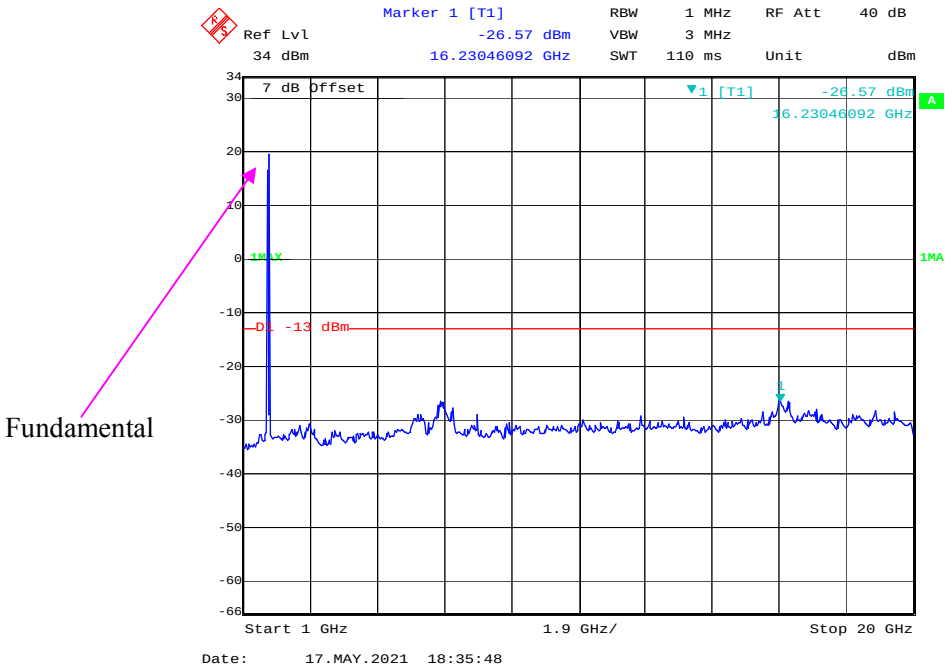


Fundamental

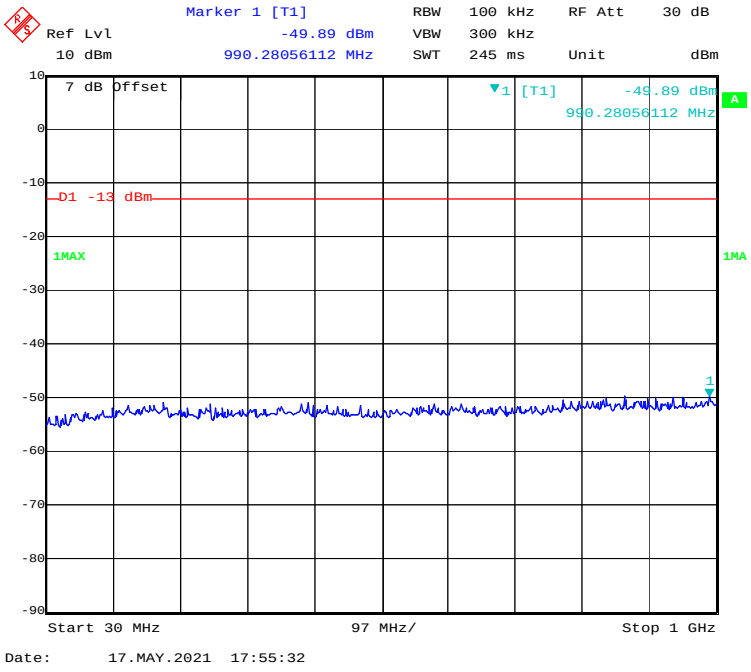
30 MHz - 1 GHz (20 MHz, QPSK, Low Channel)



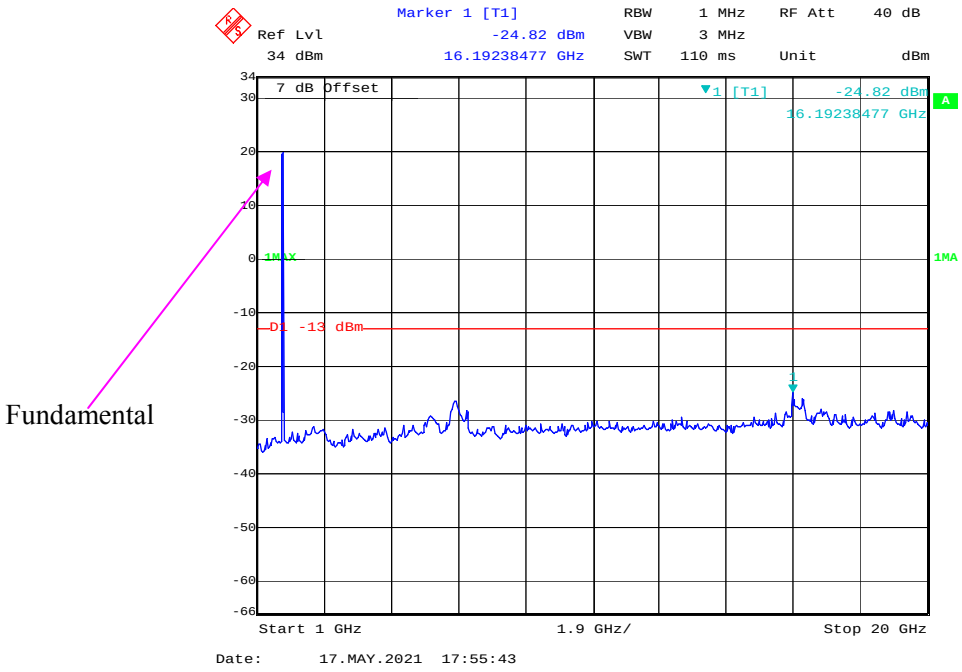
1 GHz – 20 GHz (20 MHz, QPSK, Low Channel)



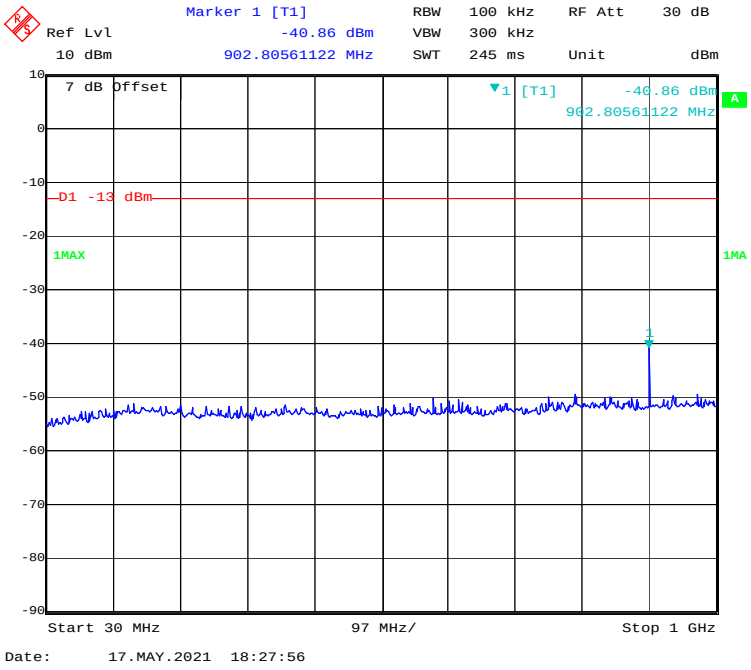
30 MHz - 1 GHz (20 MHz, 16-QAM, Low Channel)



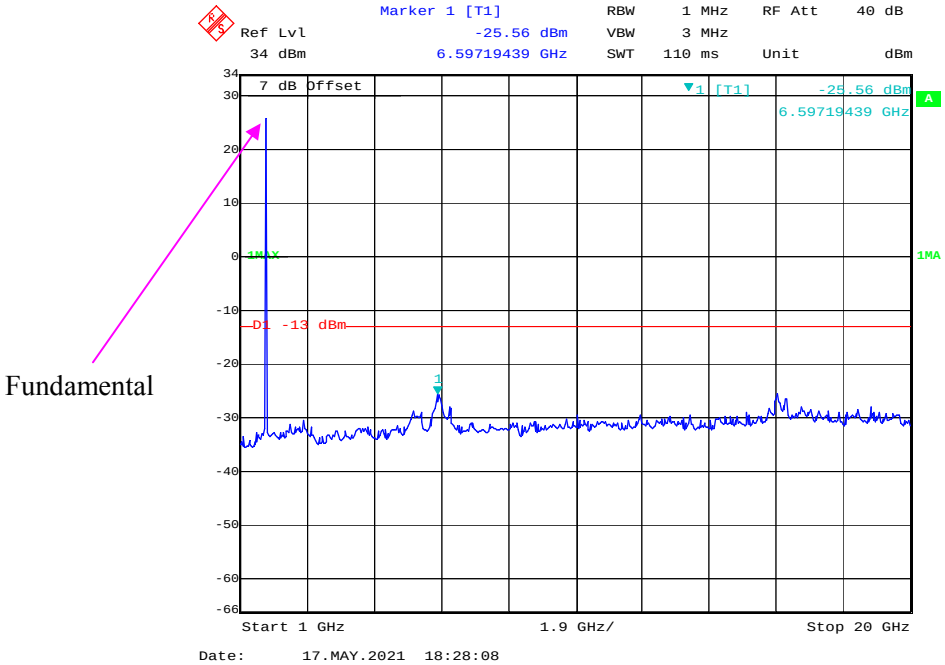
1 GHz – 20 GHz (20 MHz, 16-QAM, Low Channel)



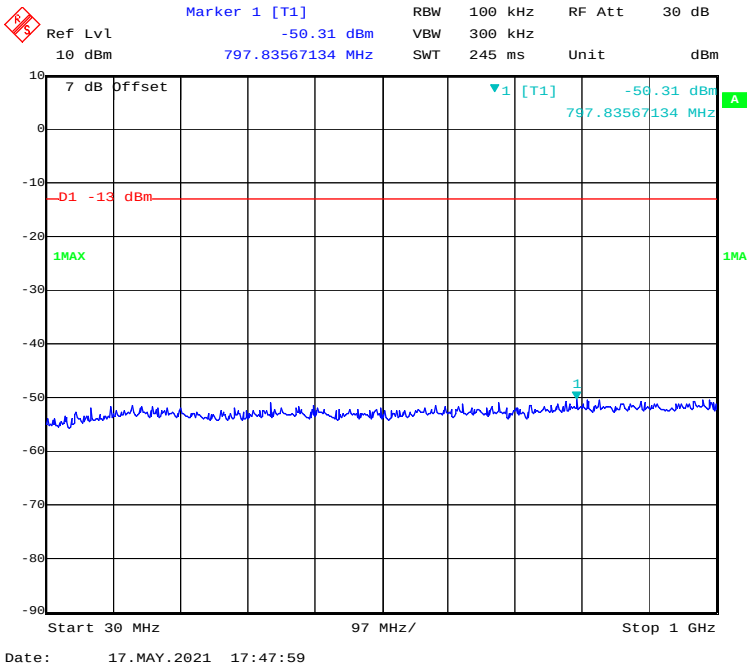
30 MHz - 1 GHz (1.4 MHz, QPSK, Middle Channel)



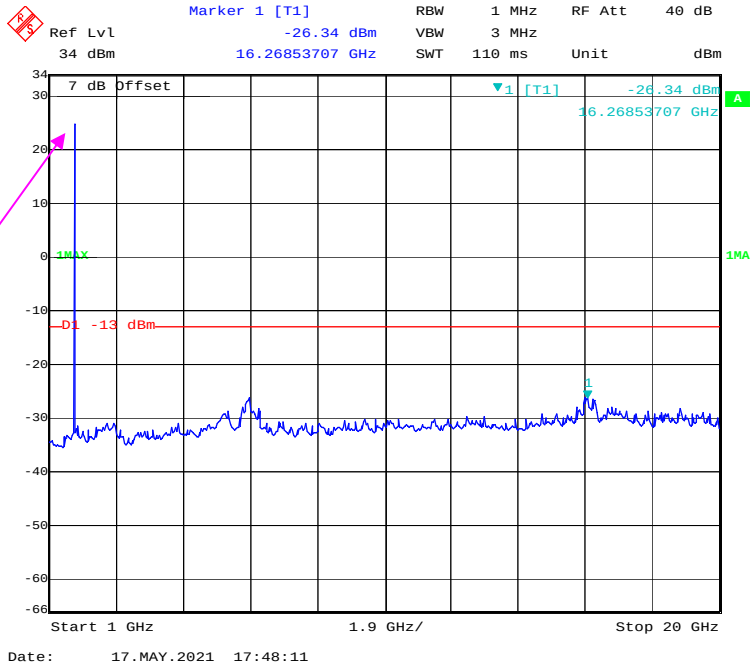
1 GHz – 20 GHz (1.4 MHz, QPSK, Middle Channel)



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

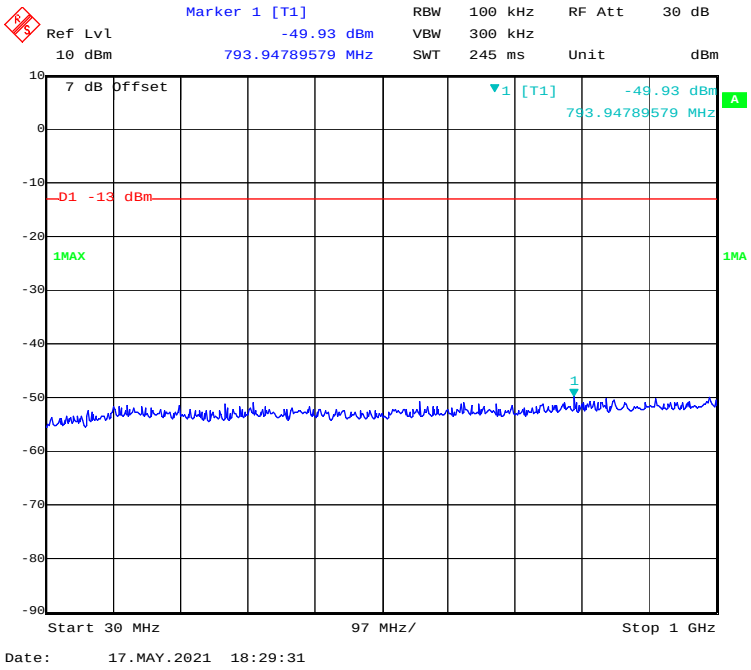


1 GHz – 20 GHz (1.4 MHz, 16-QAM, Middle Channel)

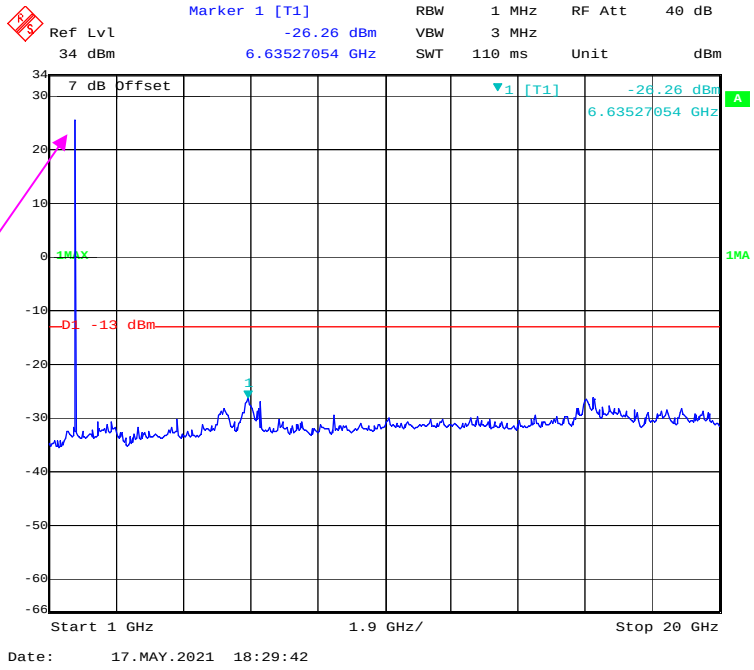


Fundamental

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

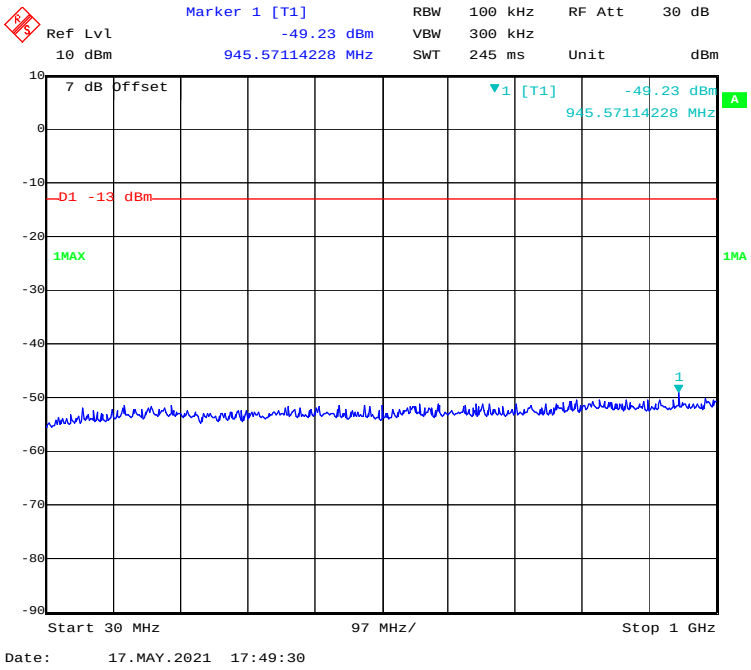


1 GHz – 20 GHz (3 MHz, QPSK, Middle Channel)

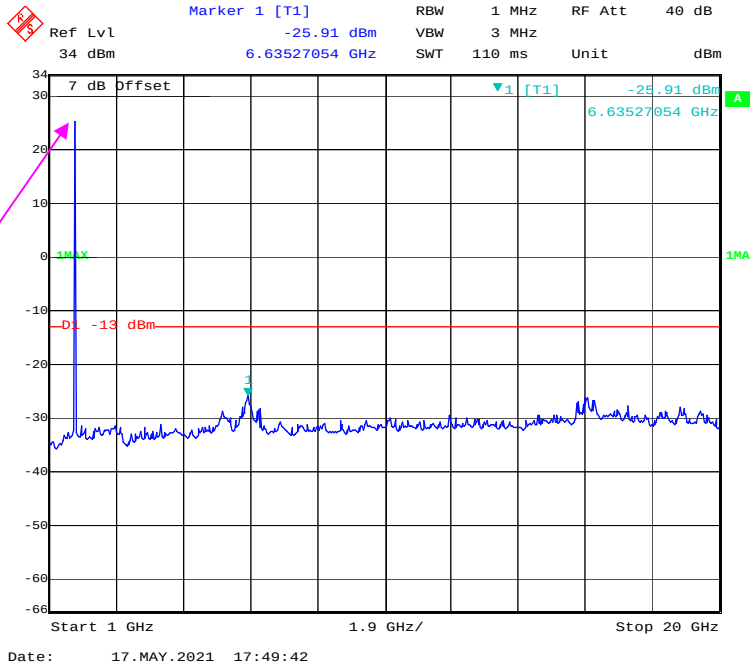


Fundamental

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

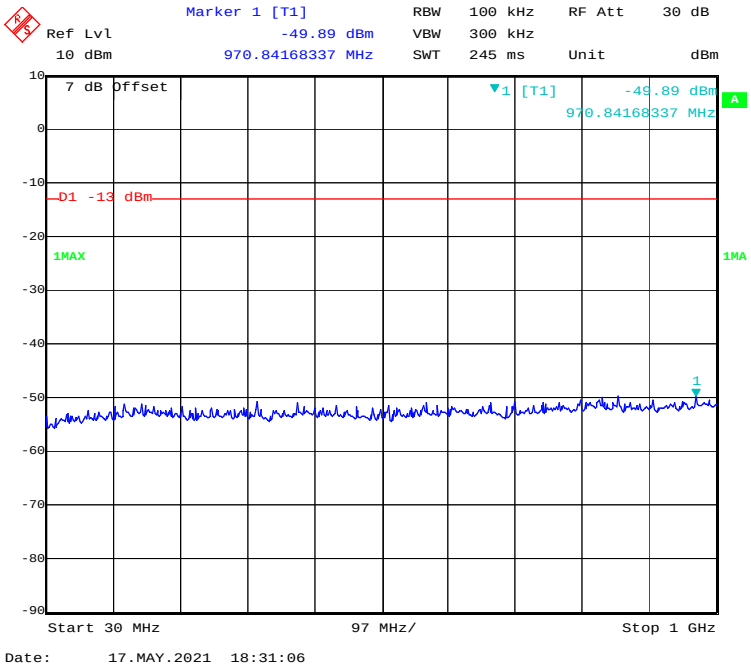


1 GHz – 20 GHz (3 MHz, 16-QAM, Middle Channel)

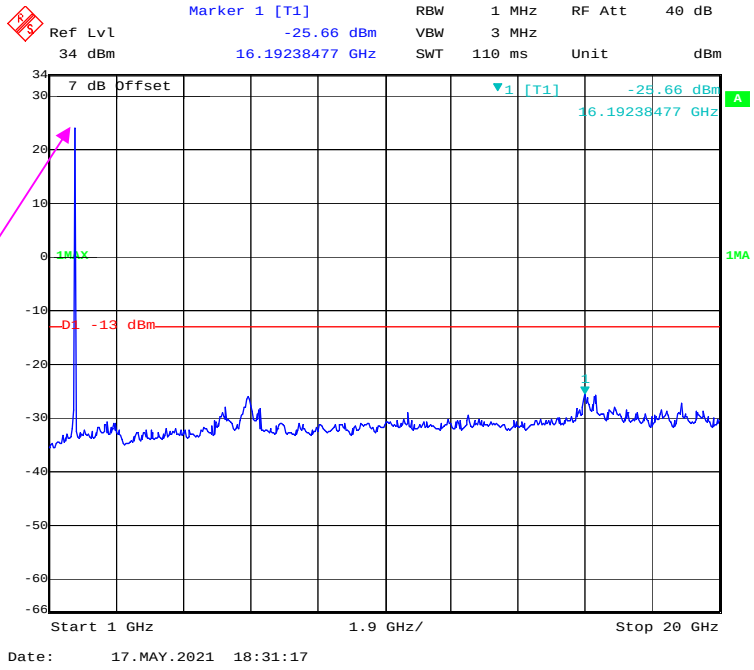


Fundamental

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

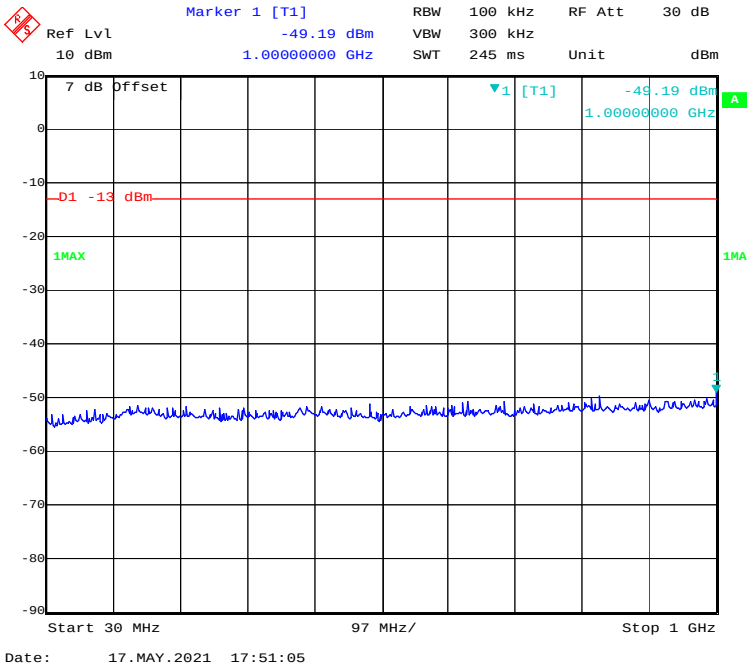


1 GHz – 20 GHz (5 MHz, QPSK, Middle Channel)

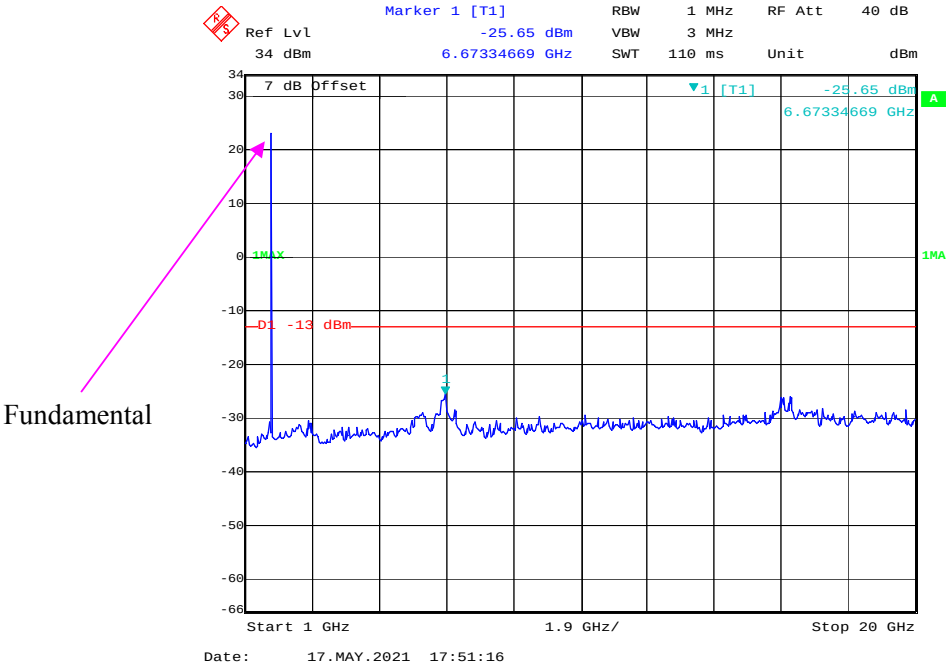


Fundamental

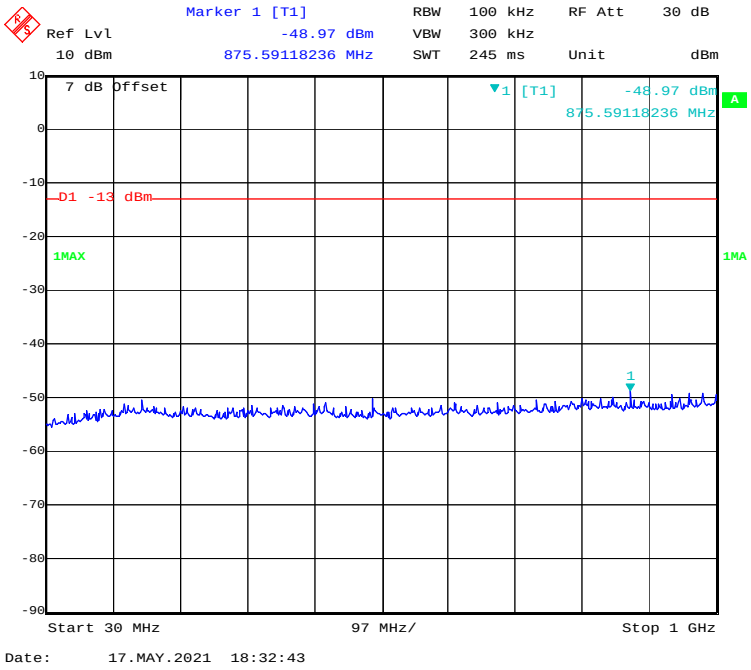
30 MHz - 1 GHz (5 MHz, 16-QAM, Middle Channel)



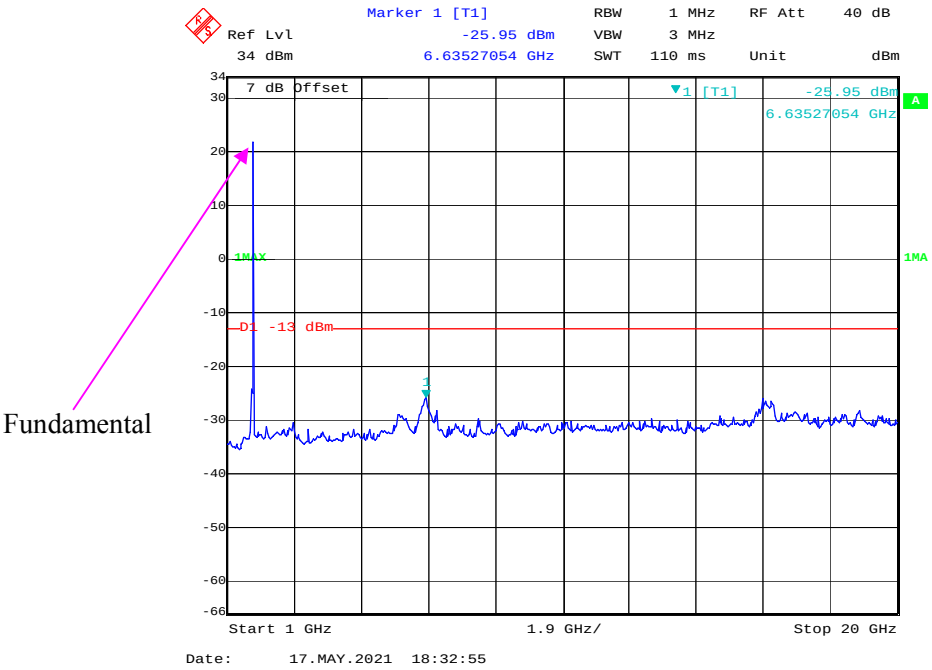
1 GHz – 20 GHz (5 MHz, 16-QAM, Middle Channel)



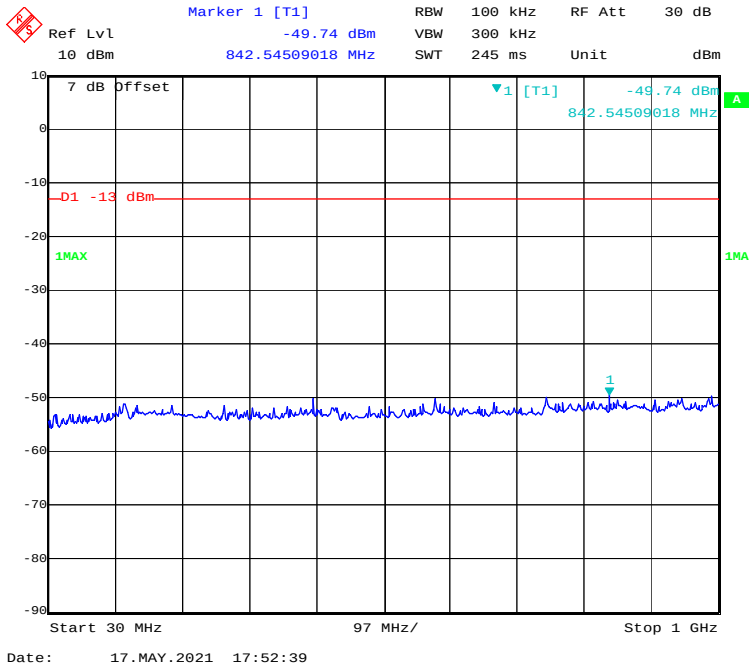
30 MHz - 1 GHz (10 MHz, QPSK, Middle Channel)



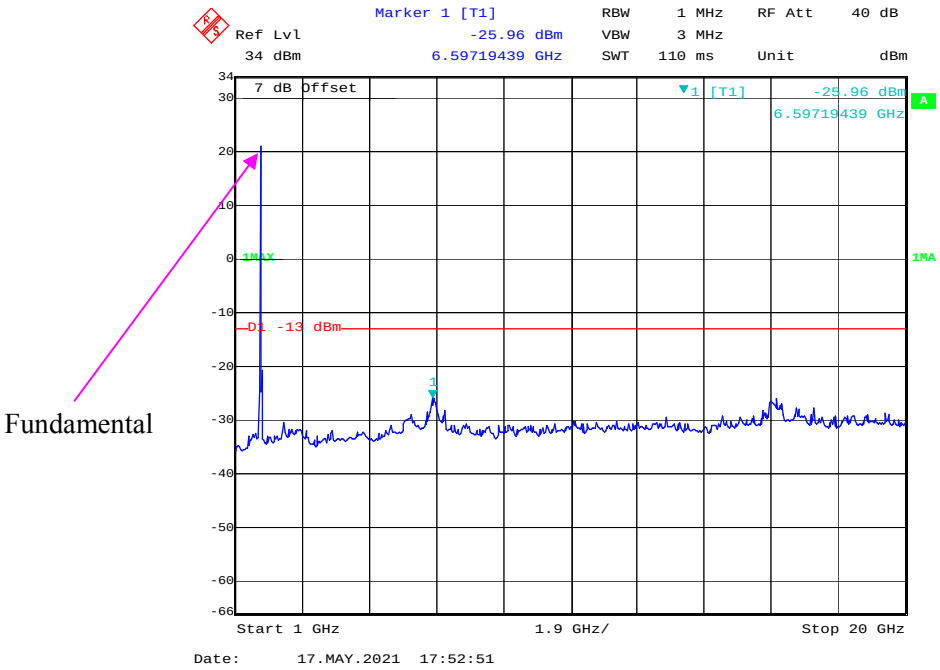
1 GHz – 20 GHz (10 MHz, QPSK, Middle Channel)



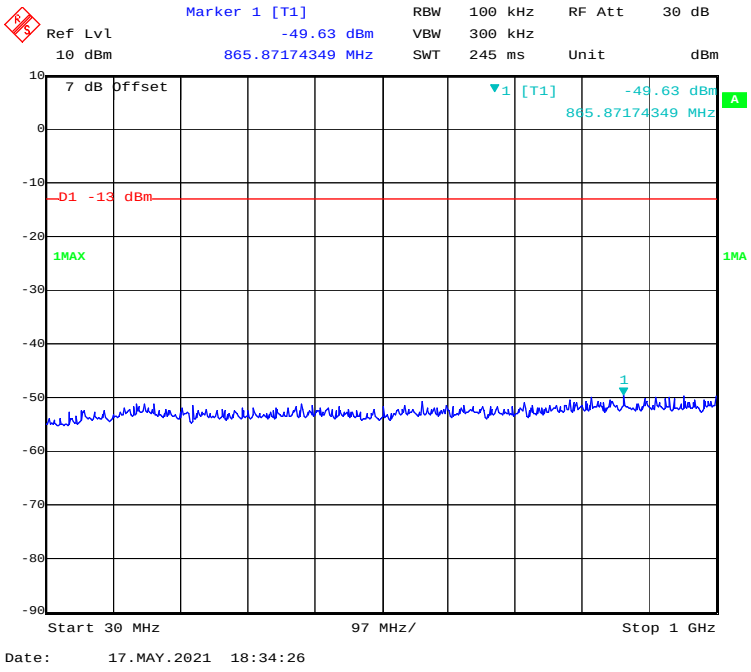
30 MHz - 1 GHz (10 MHz, 16-QAM, Middle Channel)



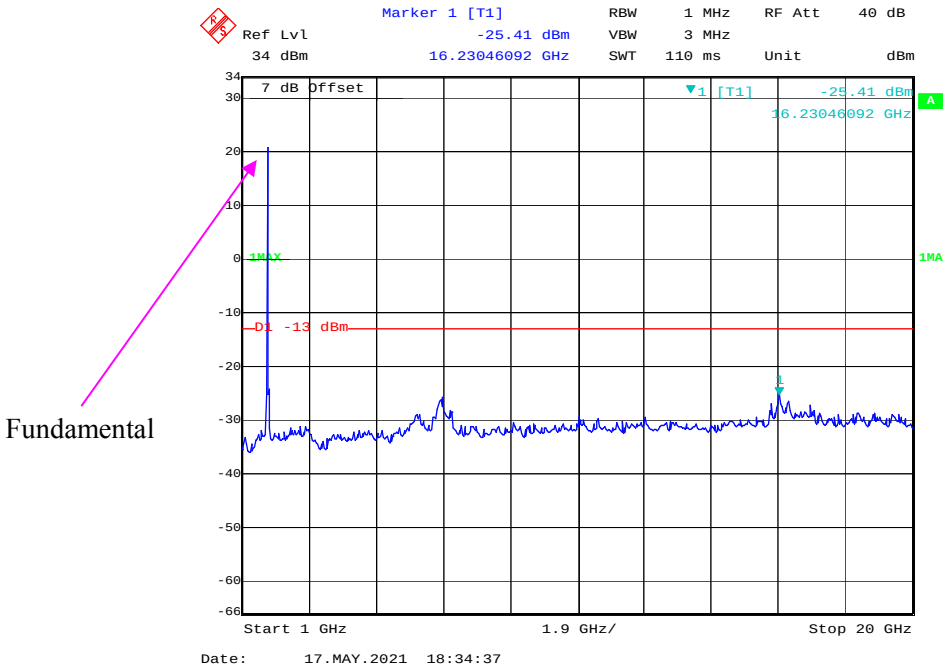
1 GHz – 20 GHz (10 MHz, 16-QAM, Middle Channel)



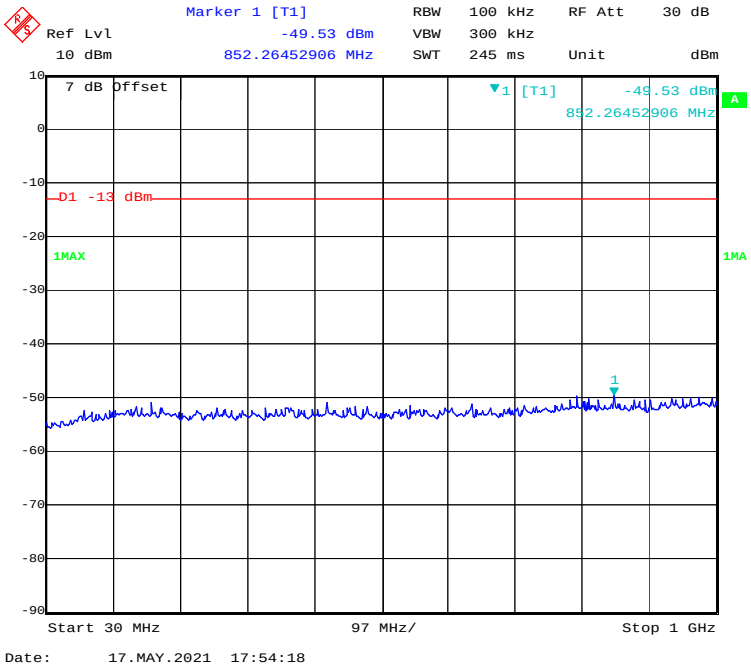
30 MHz - 1 GHz (15 MHz, QPSK, Middle Channel)



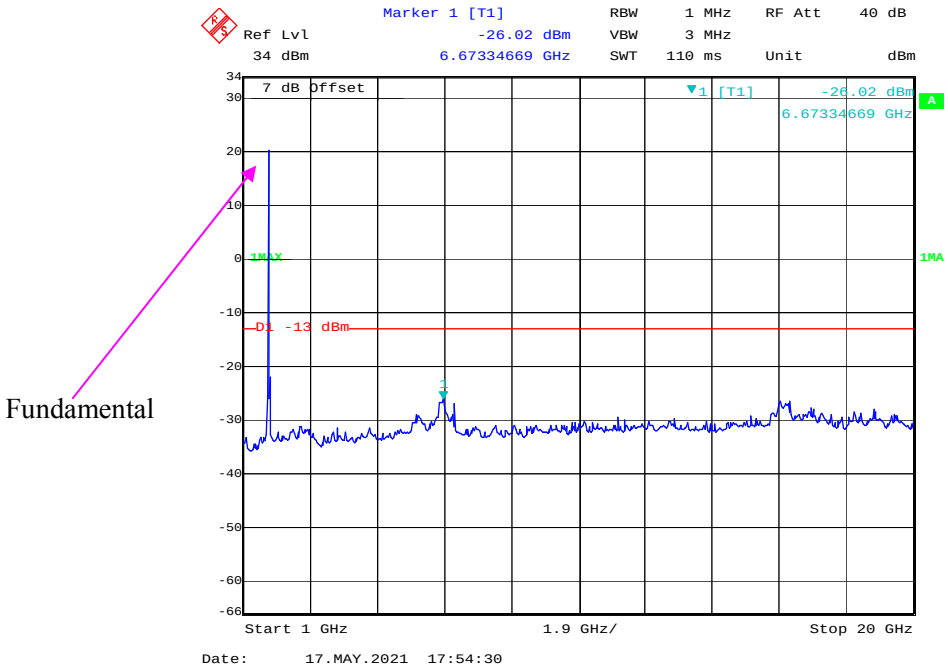
1 GHz – 20 GHz (15 MHz, QPSK, Middle Channel)



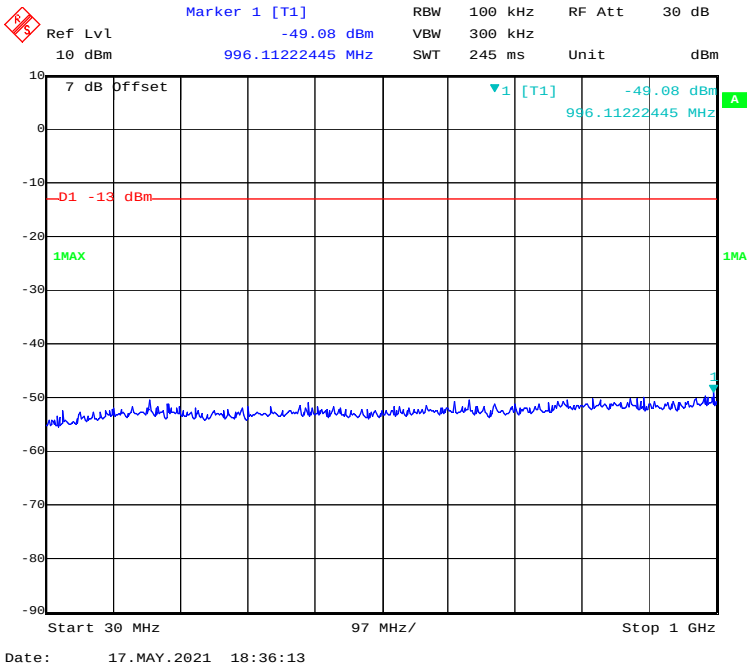
30 MHz - 1 GHz (15 MHz, 16-QAM, Middle Channel)



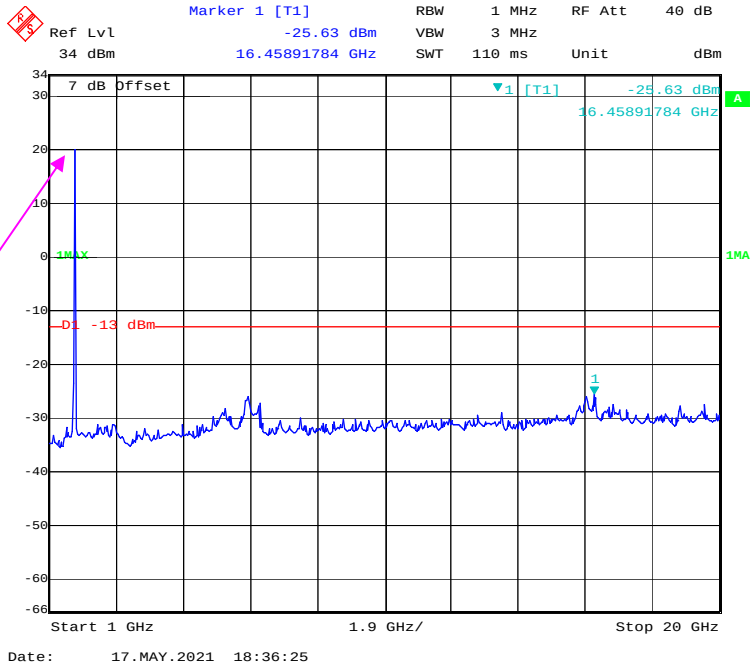
1 GHz – 20 GHz (15 MHz, 16-QAM, Middle Channel)



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

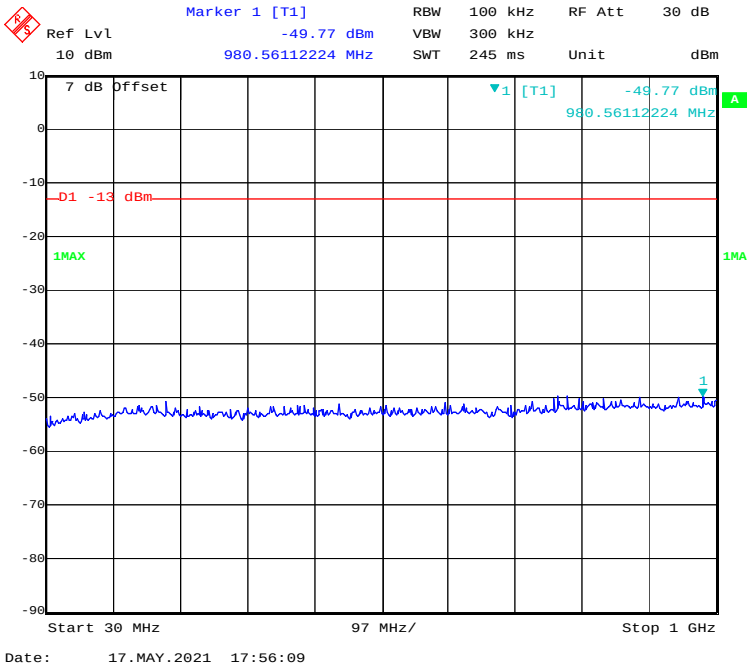


1 GHz – 20 GHz (20 MHz, QPSK, Middle Channel)

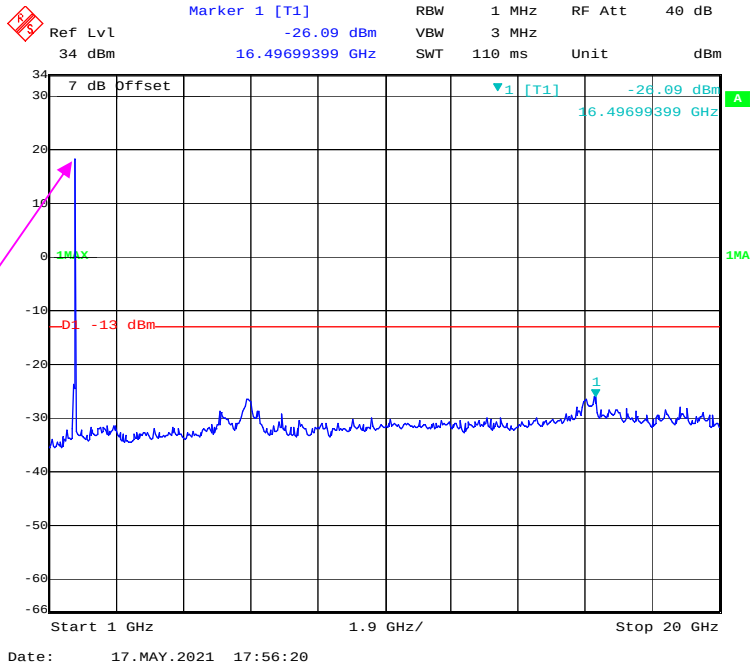


Fundamental

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

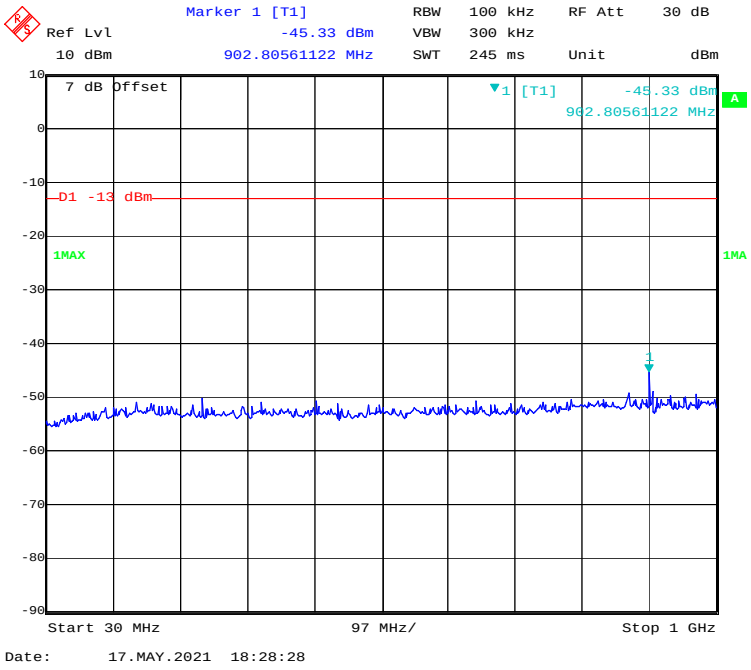


1 GHz – 20 GHz (20 MHz, 16-QAM, Middle Channel)

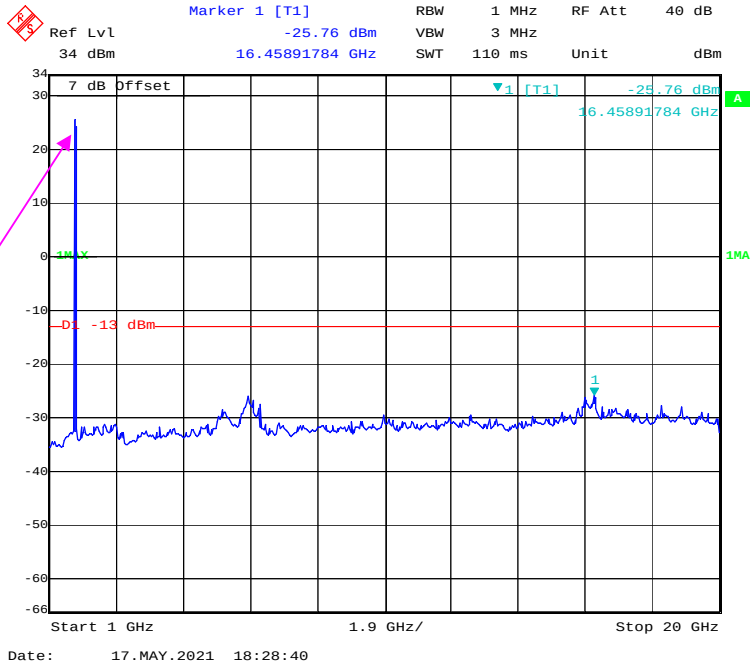


Fundamental

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

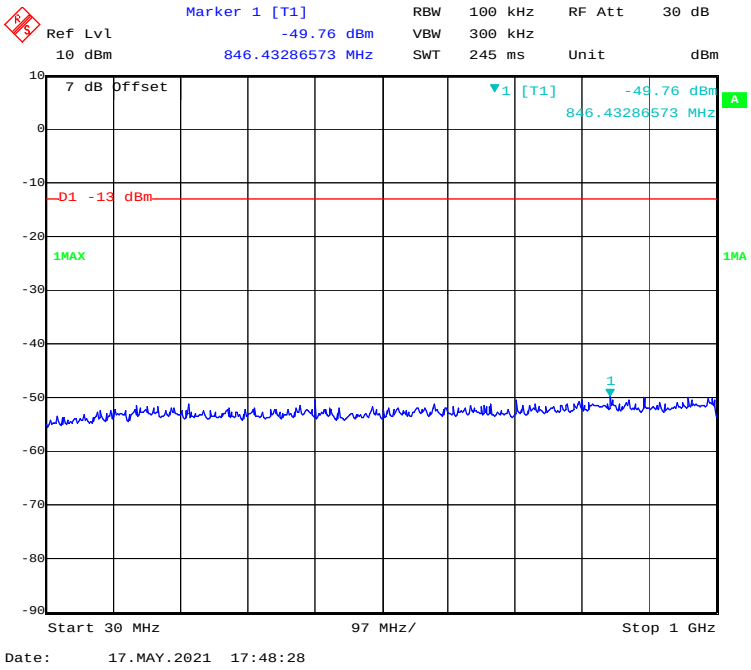


1 GHz – 20 GHz (1.4 MHz, QPSK, High Channel)

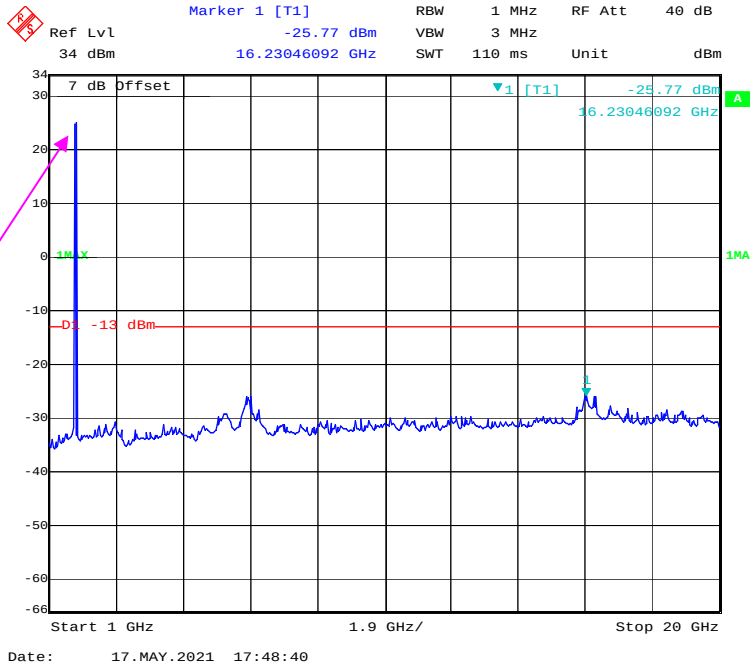


Fundamental

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

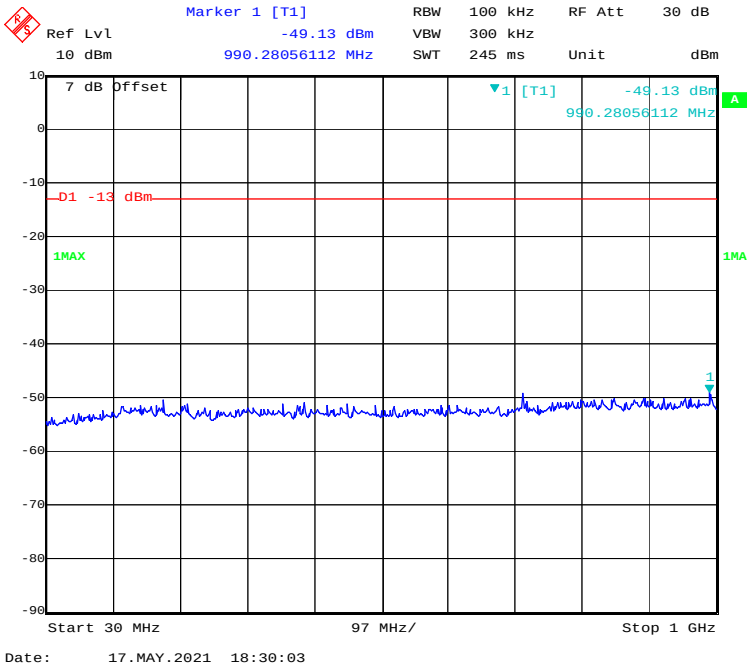


1 GHz – 20 GHz (1.4 MHz, 16-QAM, High Channel)

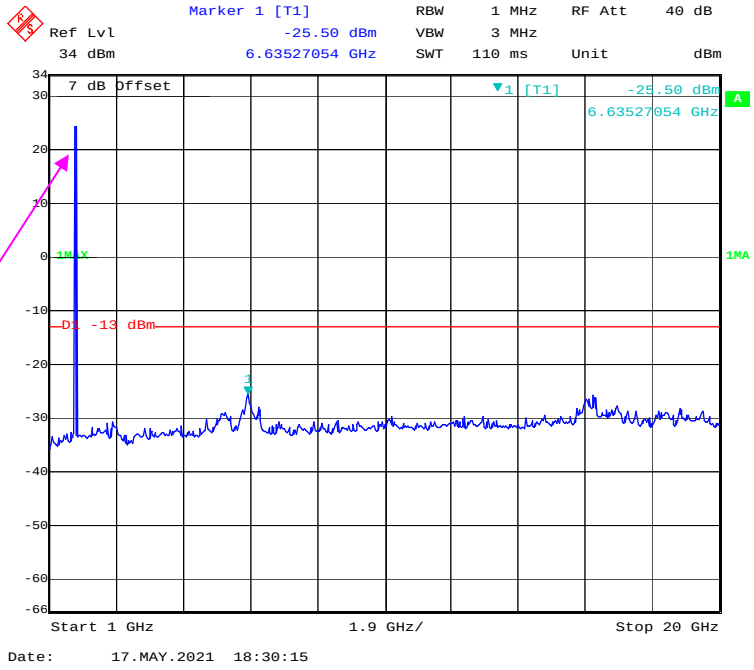


Fundamental

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

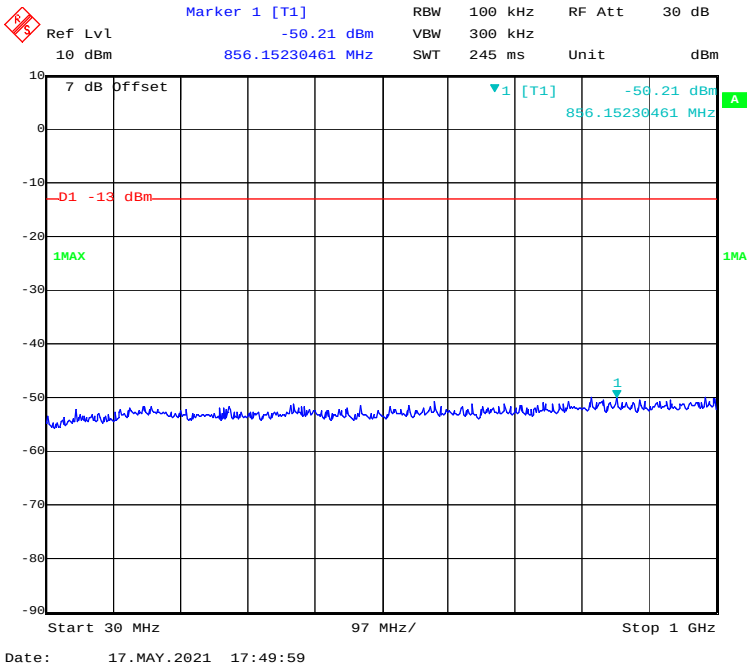


1 GHz – 20 GHz (3 MHz, QPSK, High Channel)

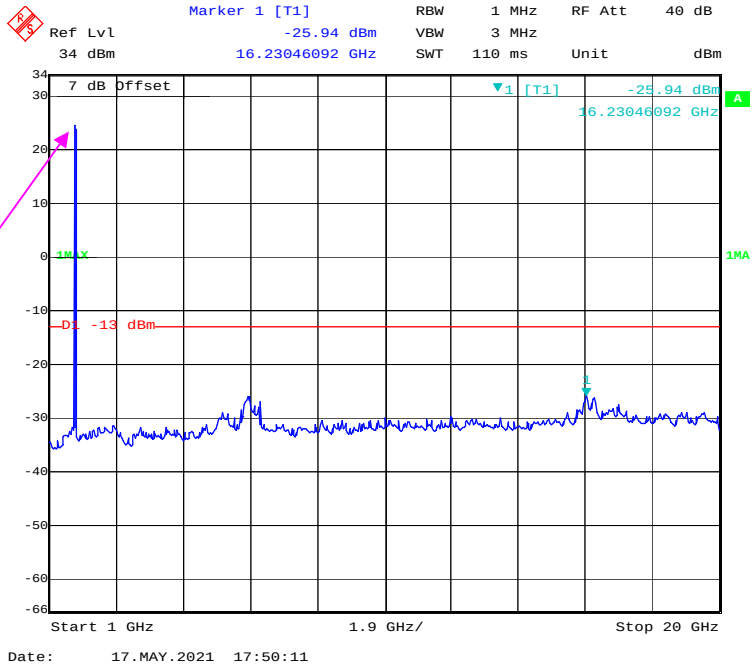


Fundamental

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

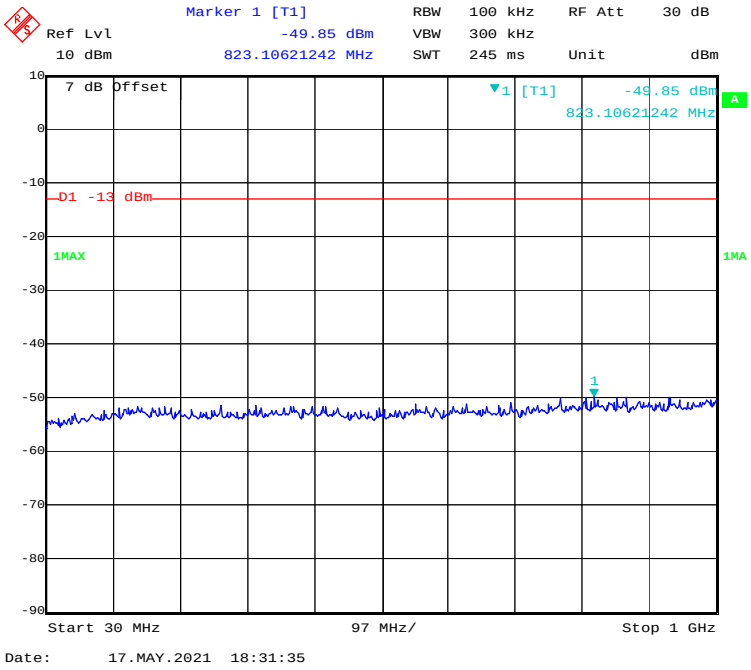


1 GHz – 20 GHz (3 MHz, 16-QAM, High Channel)

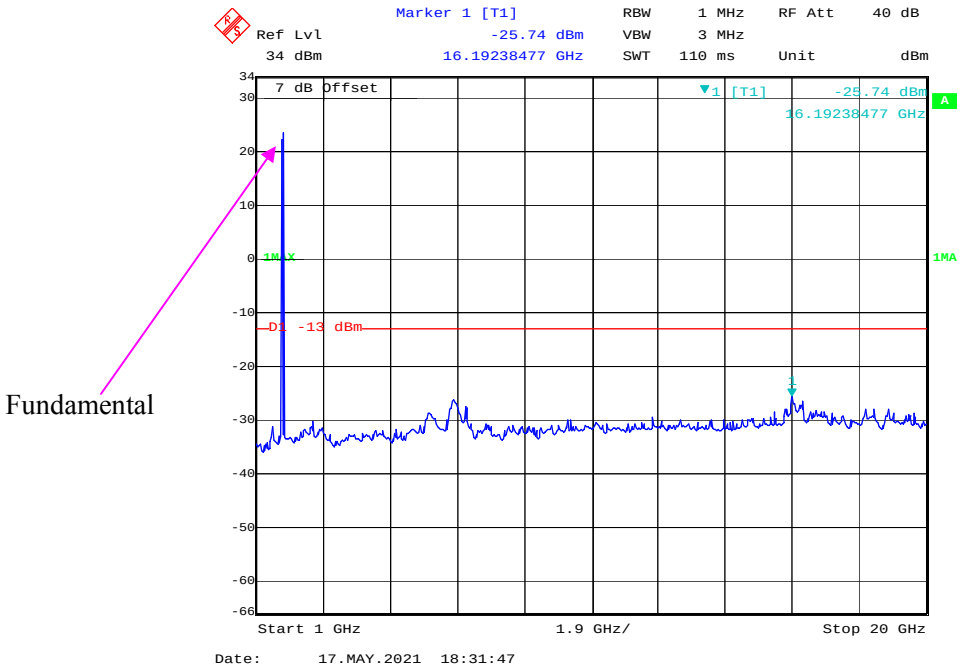


Fundamental

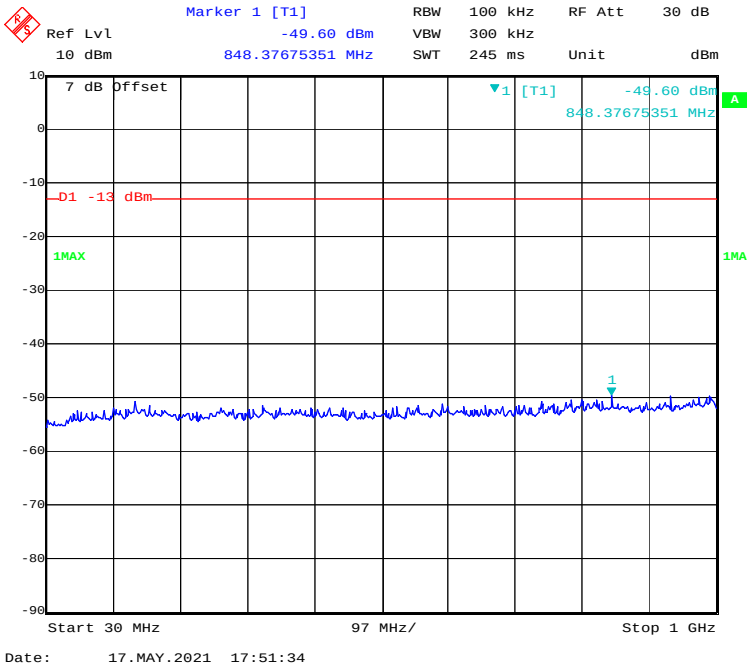
30 MHz - 1 GHz (5 MHz, QPSK, High Channel)



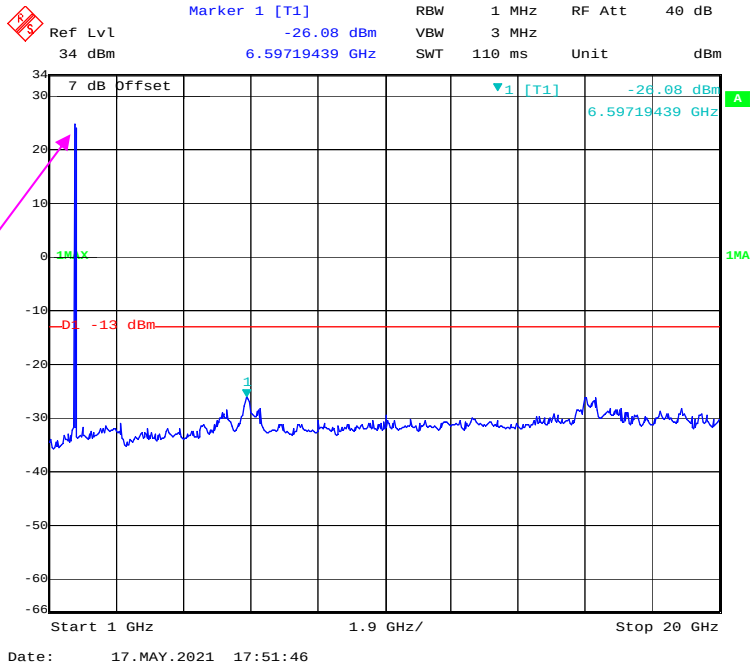
1 GHz – 20 GHz (5 MHz, QPSK, High Channel)



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

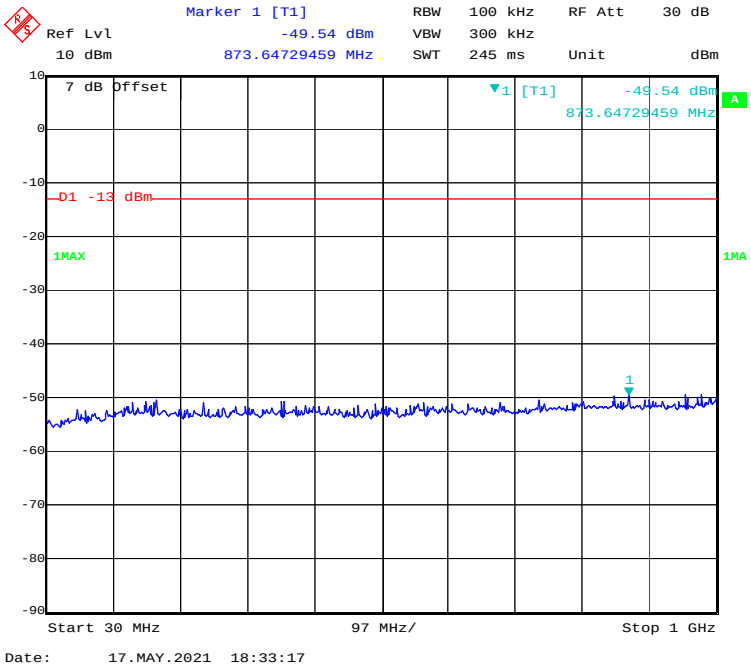


1 GHz – 20 GHz (5 MHz, 16-QAM, High Channel)

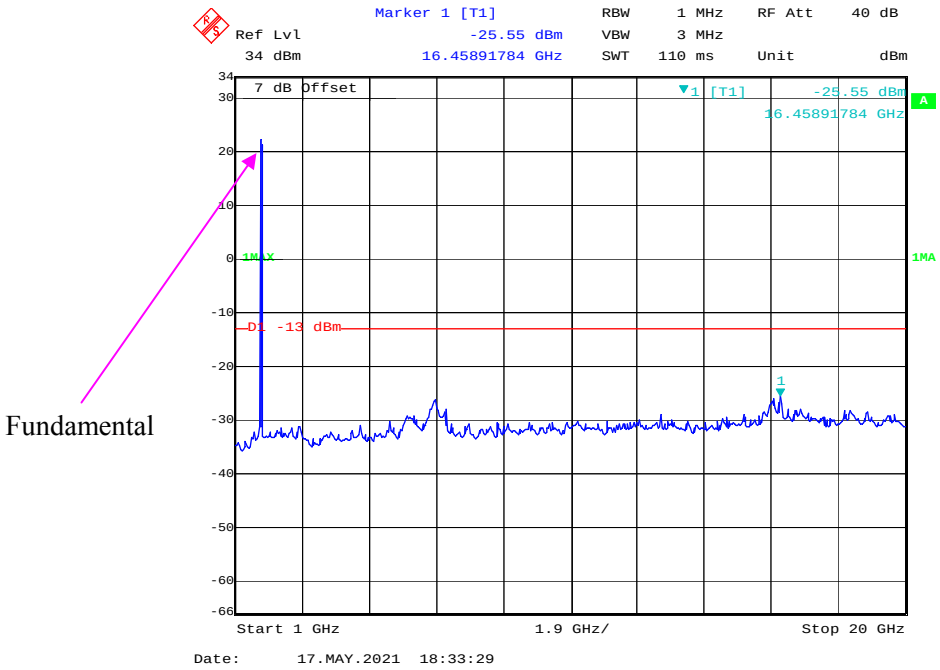


Fundamental

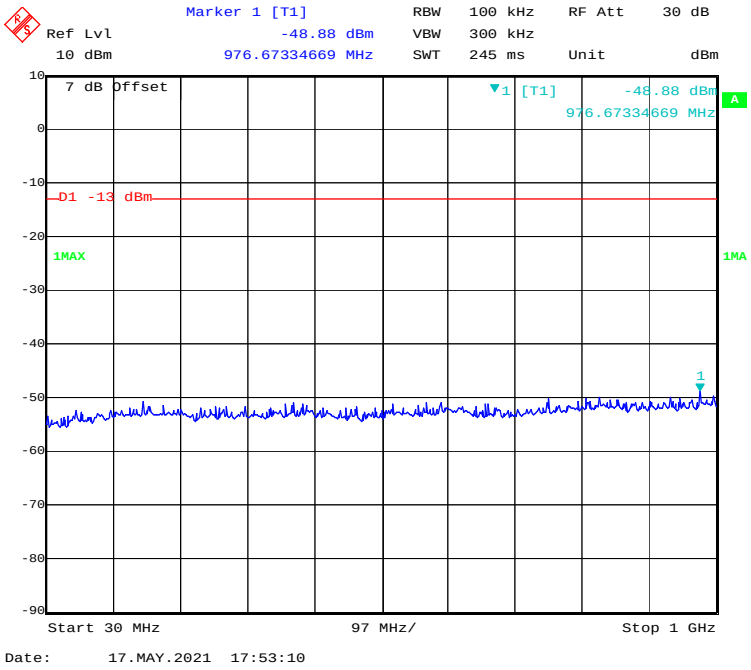
30 MHz - 1 GHz (10 MHz, QPSK, High Channel)



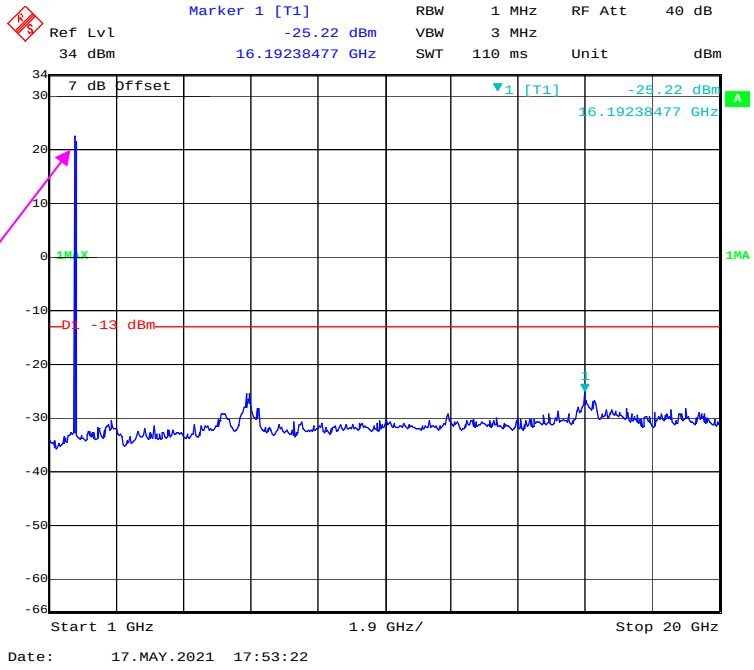
1 GHz – 20 GHz (10 MHz, QPSK, High Channel)



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

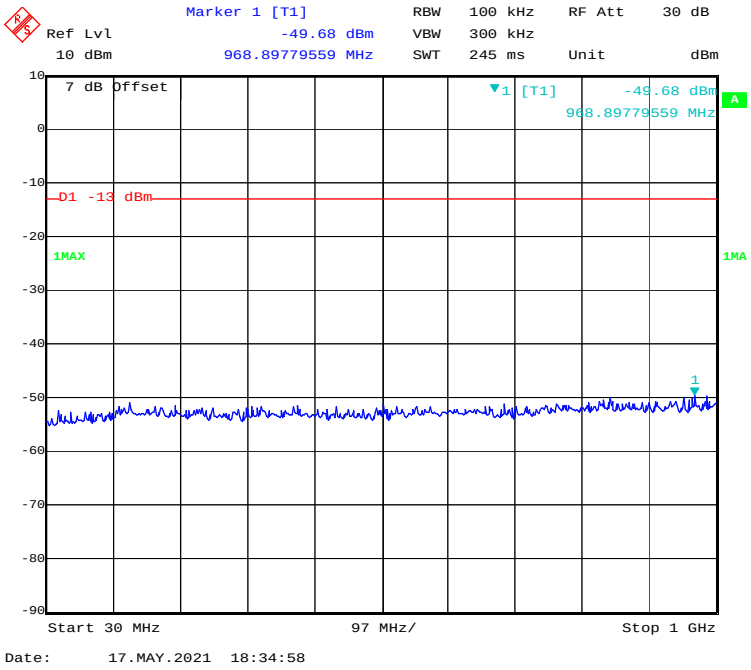


1 GHz – 20 GHz (10 MHz, 16-QAM, High Channel)

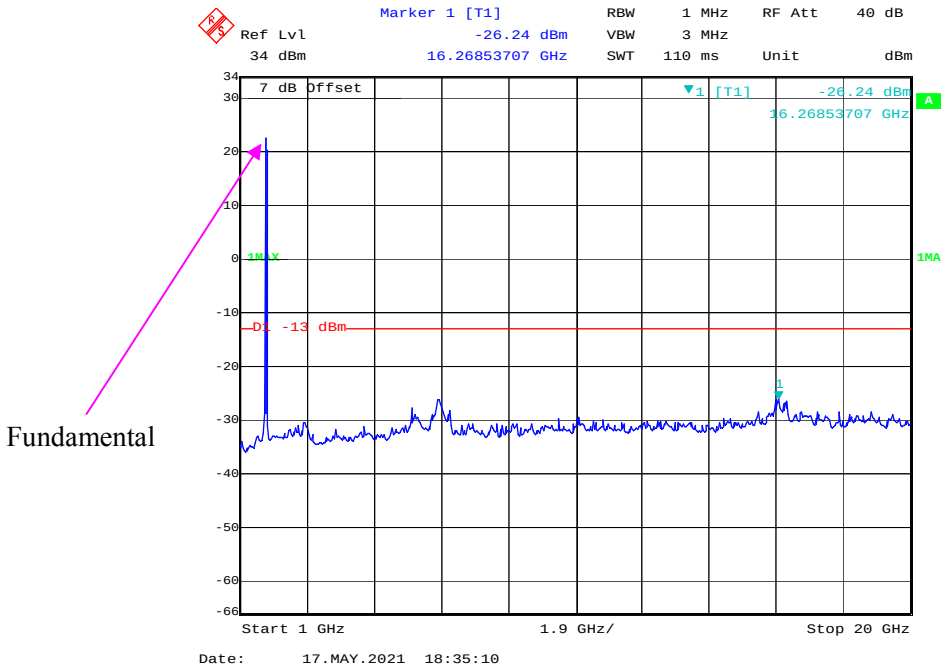


Fundamental

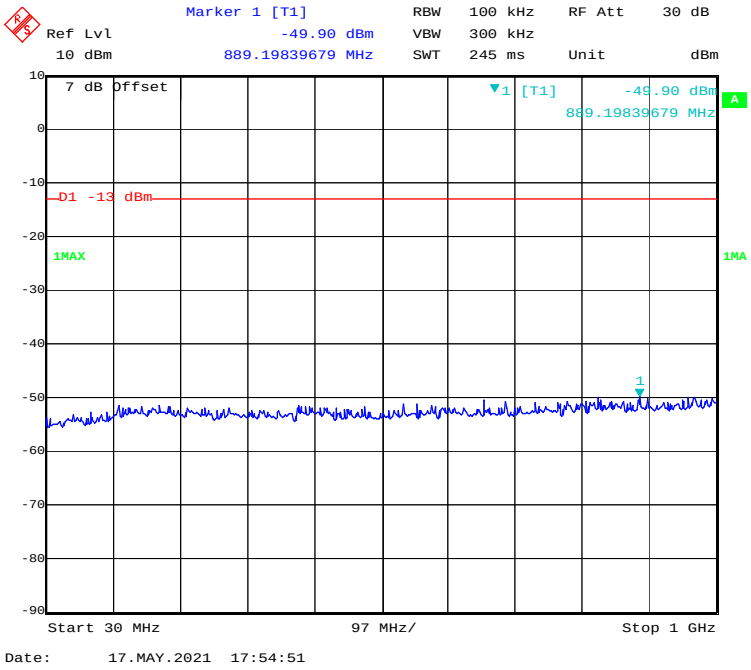
30 MHz - 1 GHz (15 MHz, QPSK, High Channel)



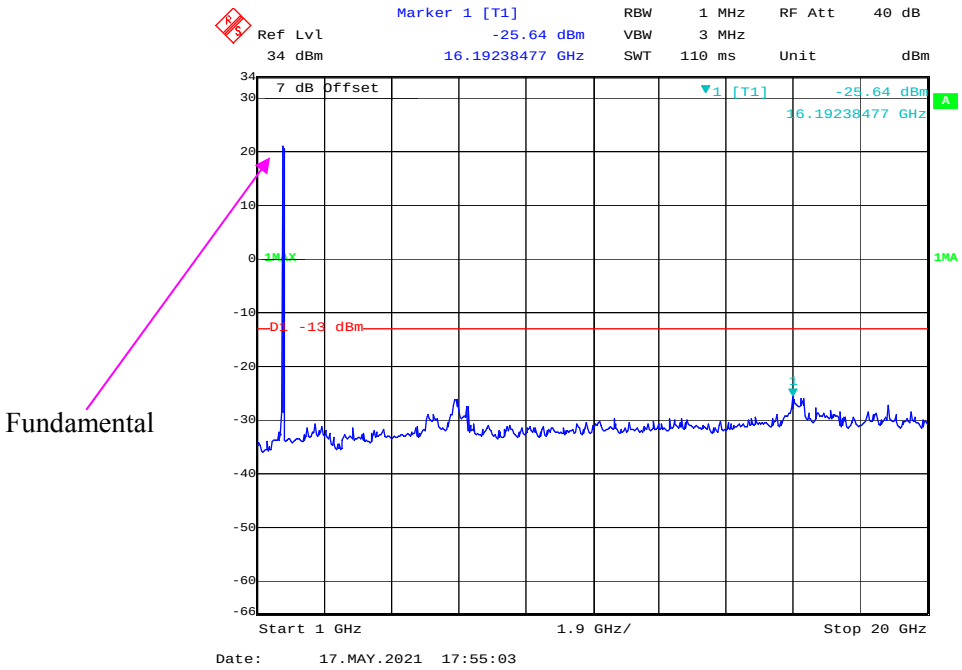
1 GHz – 20 GHz (15 MHz, QPSK, Middle Channel)



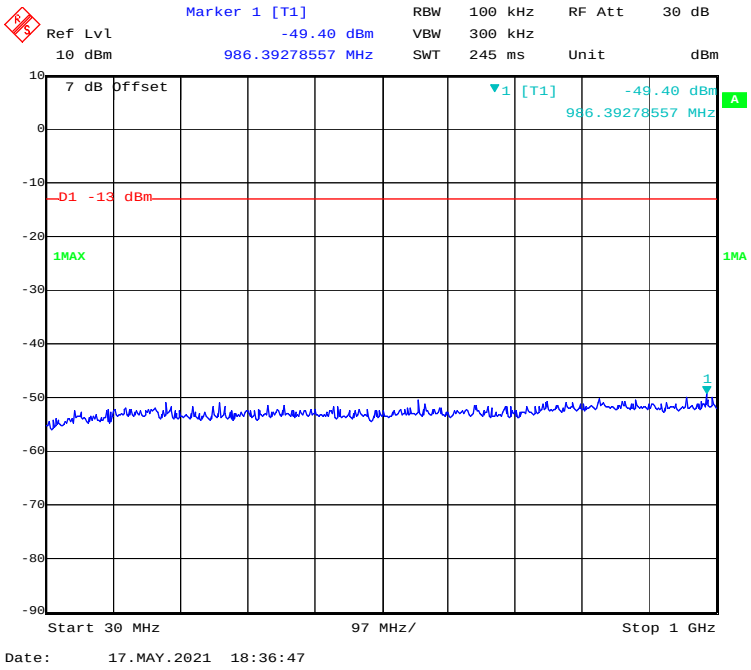
30 MHz - 1 GHz (15 MHz, 16-QAM, High Channel)



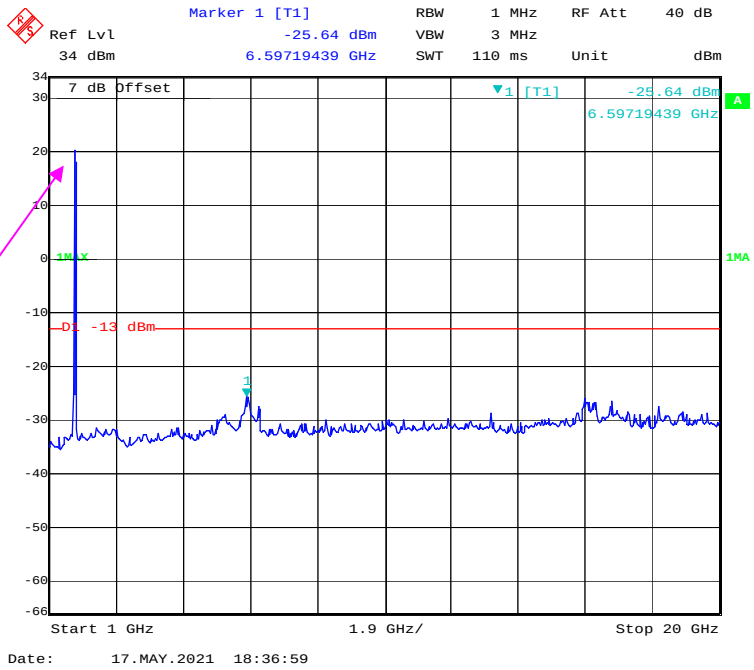
1 GHz – 20 GHz (15 MHz, 16-QAM, High Channel)



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

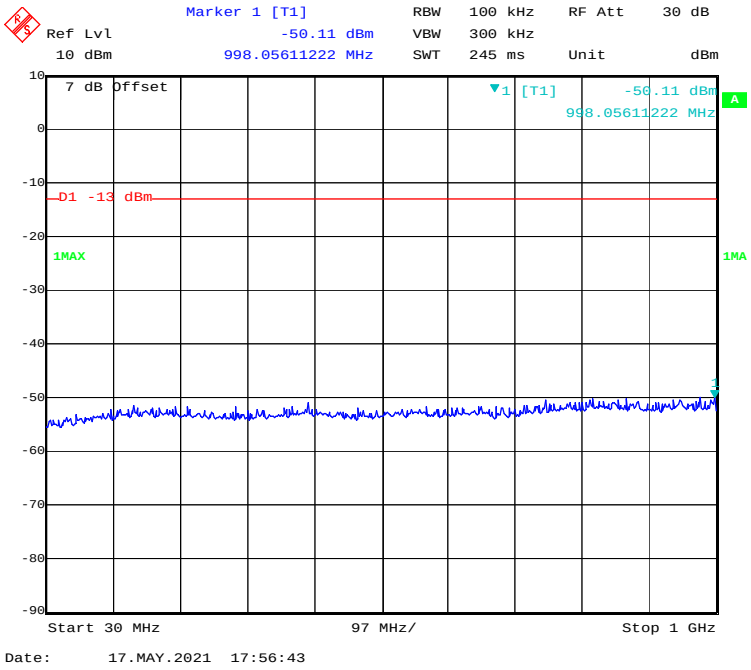


1 GHz – 20 GHz (20 MHz, QPSK, High Channel)

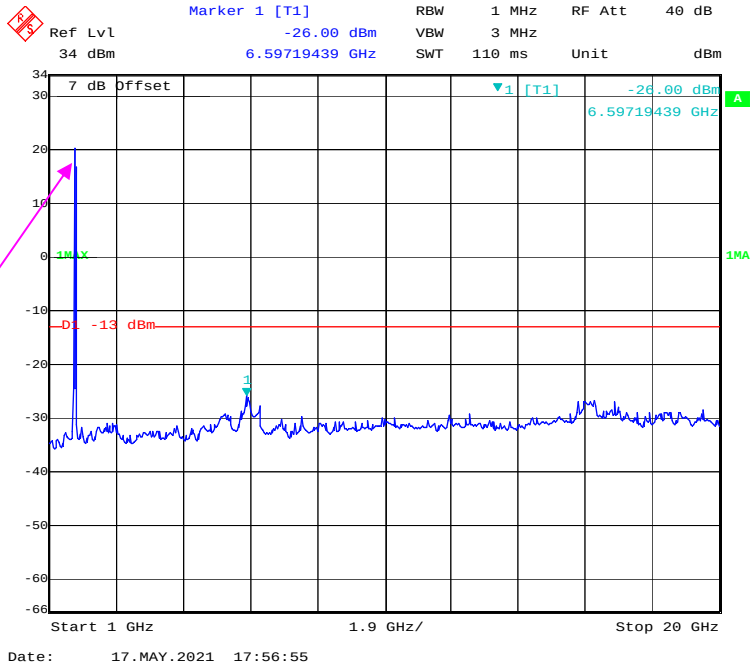


Fundamental

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



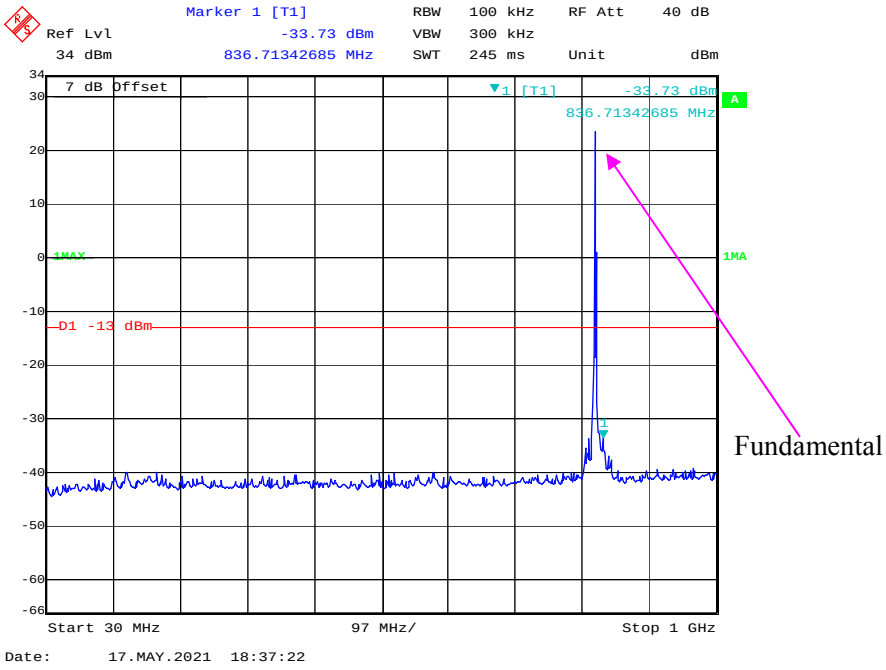
1 GHz – 20 GHz (20 MHz, 16-QAM, High Channel)



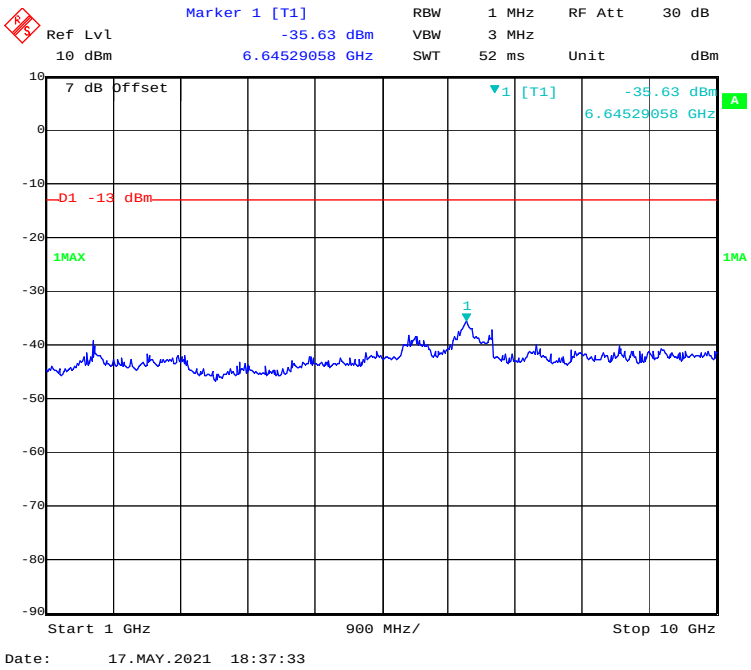
Fundamental

LTE Band 5:

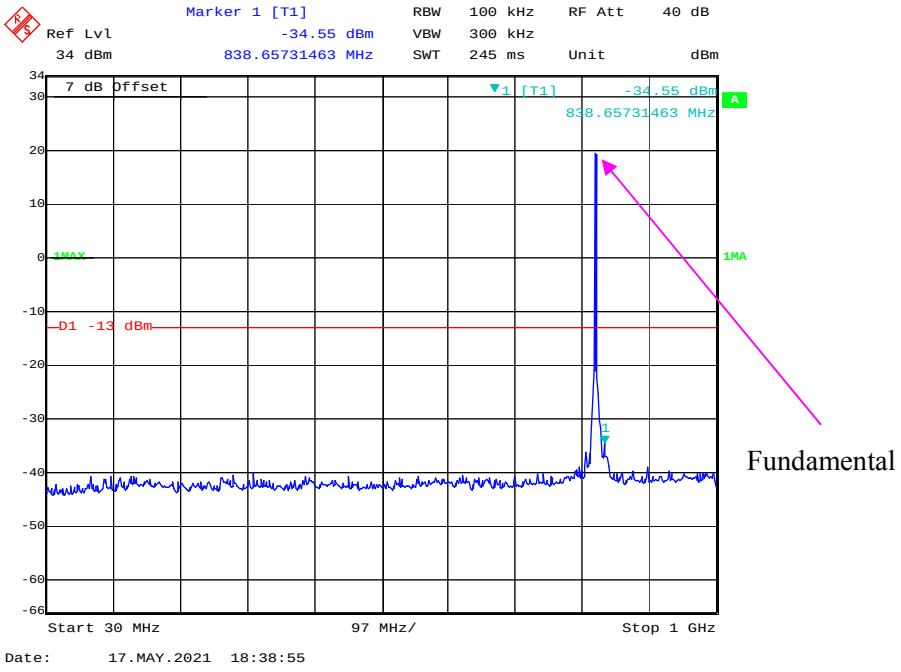
30 MHz - 1 GHz (QPSK, 1.4 MHz, Low Channel)



1 GHz – 10 GHz (QPSK, 1.4 MHz, Low Channel)

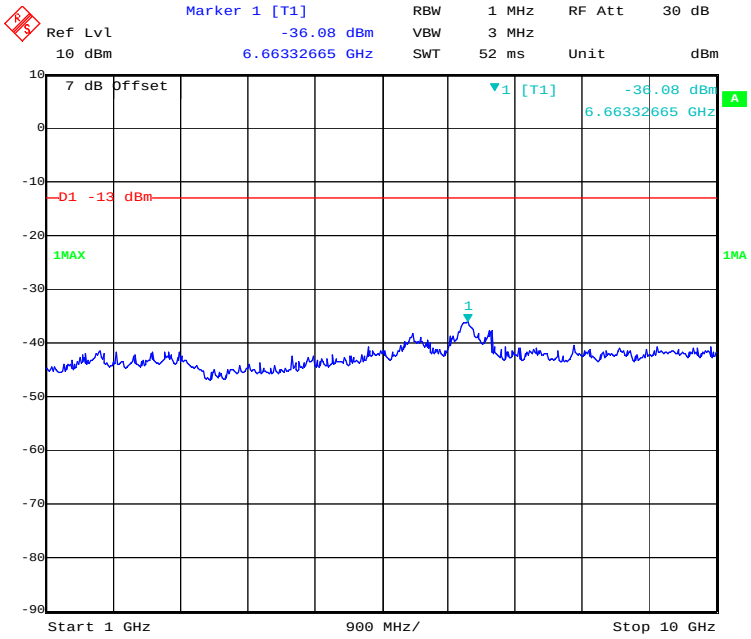


30 MHz - 1 GHz (QPSK, 3.0 MHz, Low Channel)



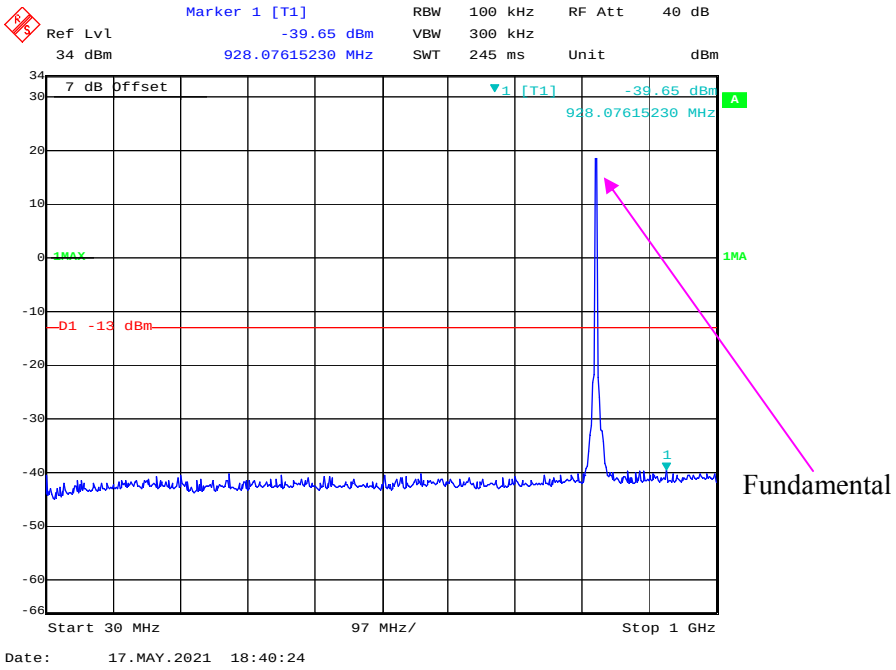
Date: 17.MAY.2021 18:38:55

1 GHz – 10 GHz (QPSK, 3.0 MHz, Low Channel)



Date: 17.MAY.2021 18:39:06

30 MHz - 1 GHz (QPSK, 5.0 MHz, Low Channel)

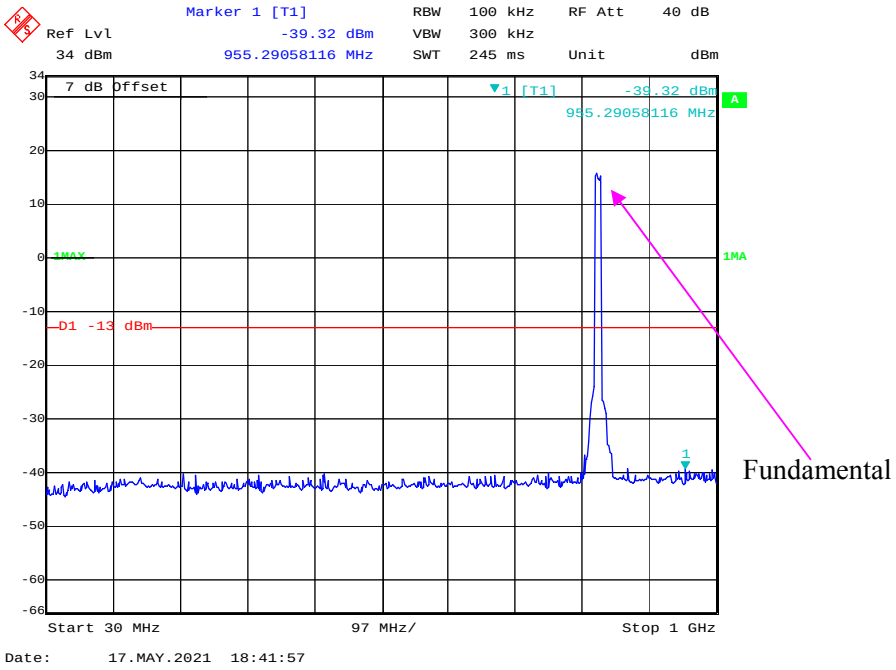


Date: 17.MAY.2021 18:40:24

1 GHz – 10 GHz (QPSK, 5.0MHz, Low Channel)

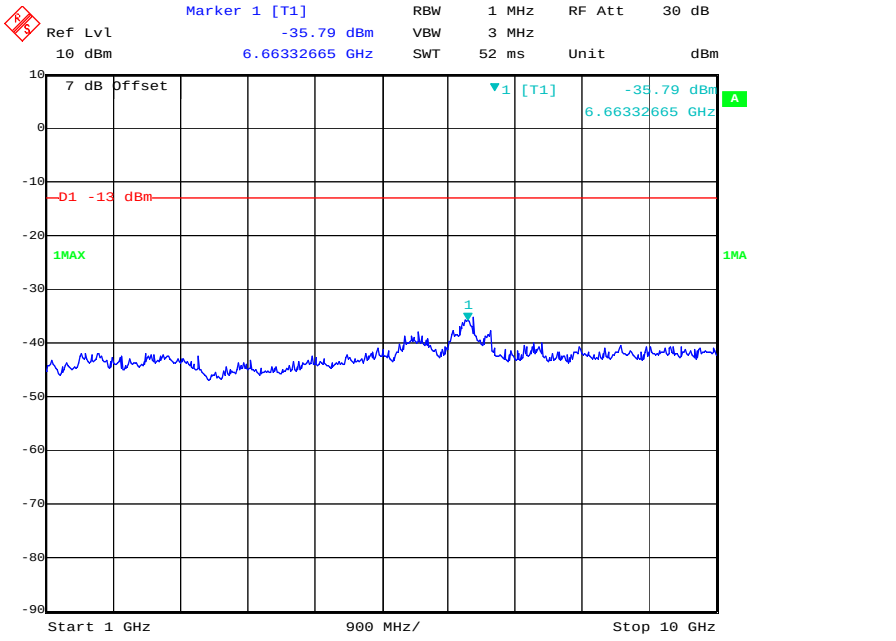
Date: 17.MAY.2021 18:40:35

30 MHz - 1 GHz (QPSK, 10.0 MHz, Low Channel)



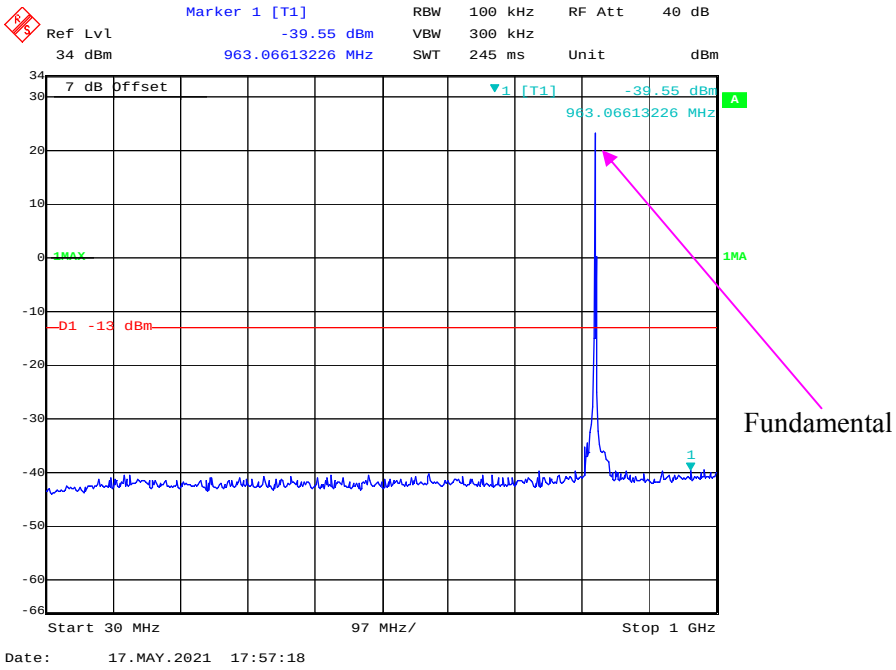
Date: 17.MAY.2021 18:41:57

1 GHz – 10 GHz (QPSK, 10.0 MHz, Low Channel)



Date: 17.MAY.2021 18:42:08

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

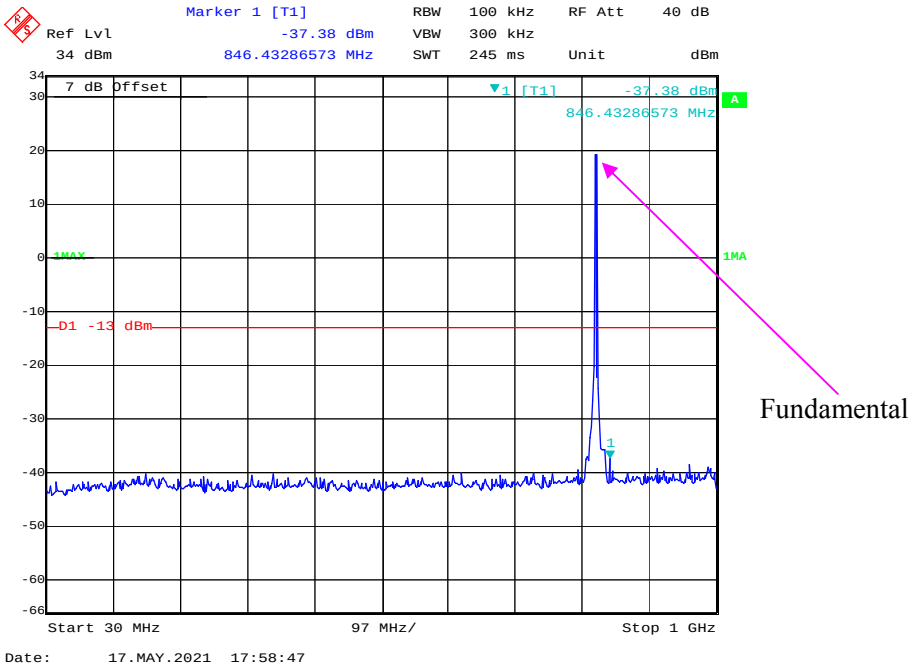


Date: 17.MAY.2021 17:57:18

1 GHz – 10 GHz (16QAM, 1.4 MHz, Low Channel)

Date: 17.MAY.2021 17:57:29

30 MHz - 1 GHz (16QAM, 3.0 MHz, Low Channel)

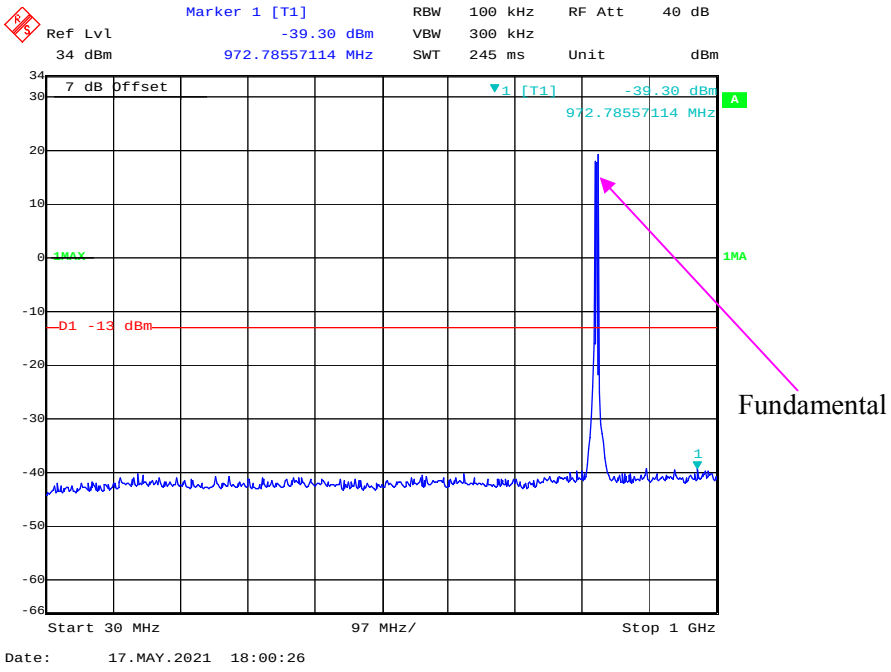


Date: 17.MAY.2021 17:58:47

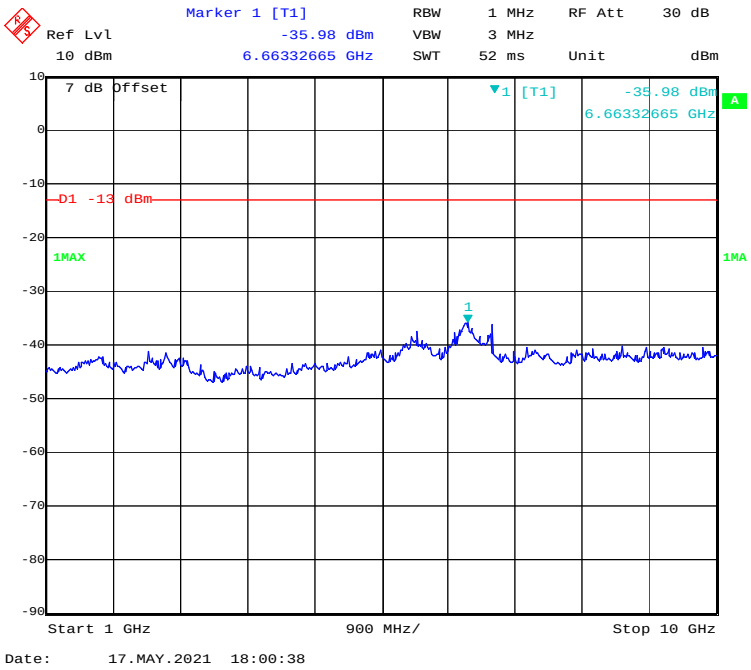
1 GHz – 10 GHz (16QAM, 3.0 MHz, Low Channel)

Date: 17.MAY.2021 17:58:58

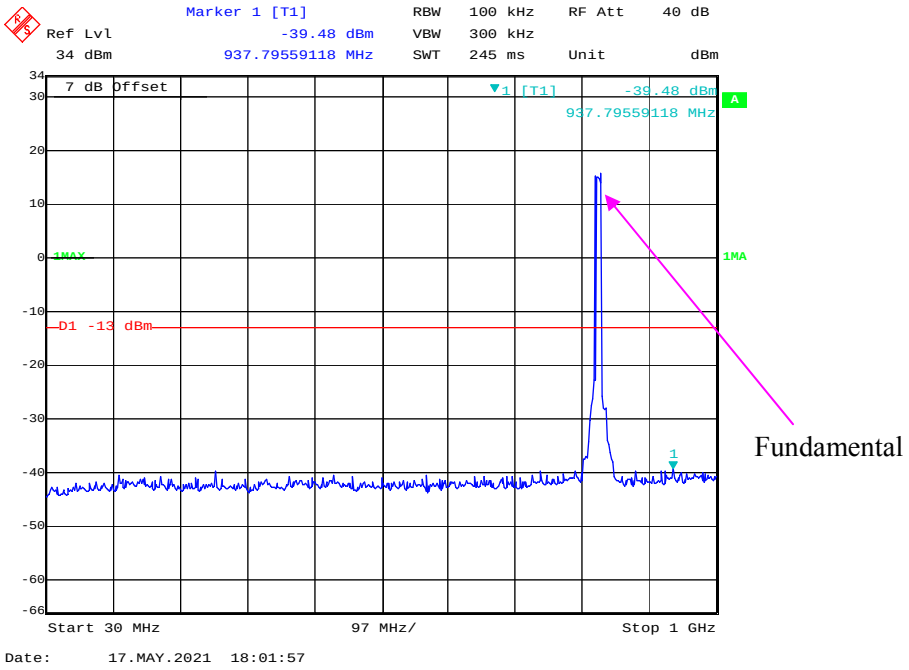
30 MHz - 1 GHz (16QAM, 5.0 MHz, Low Channel)



1 GHz – 10 GHz (16QAM, 5.0MHz, Low Channel)



30 MHz - 1 GHz (16QAM, 10.0 MHz, Low Channel)

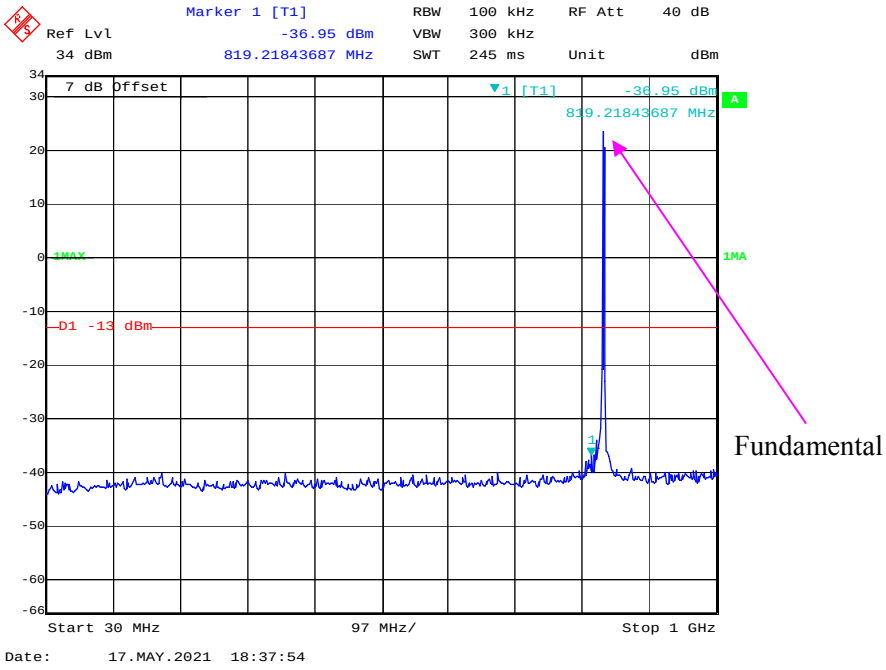


Date: 17.MAY.2021 18:01:57

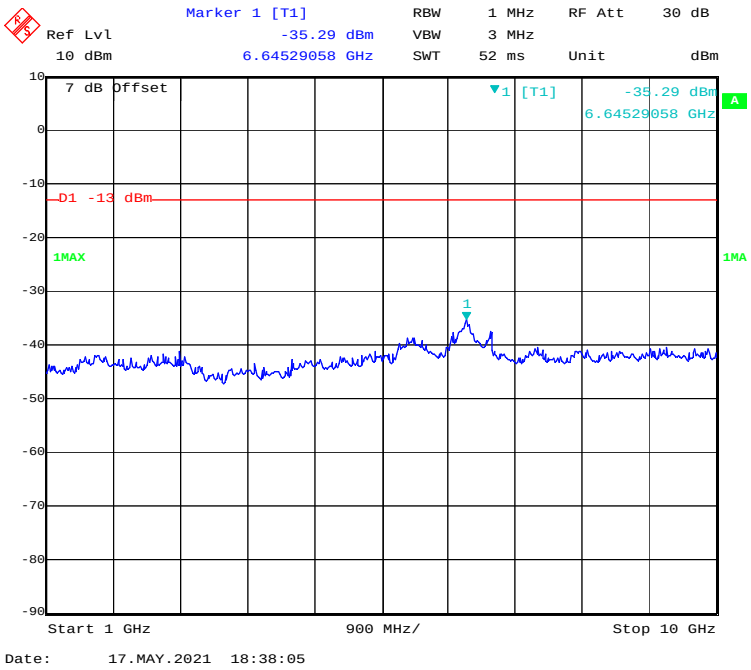
1 GHz – 10 GHz (16QAM, 10.0 MHz, Low Channel)

Date: 17.MAY.2021 18:02:08

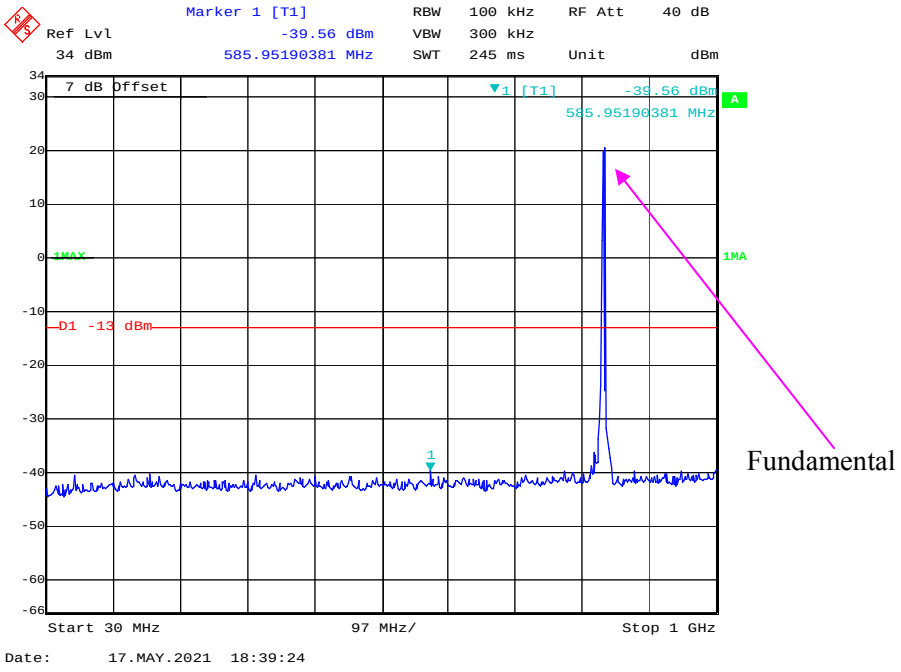
30 MHz - 1 GHz (QPSK, 1.4 MHz, Middle Channel)



1 GHz – 10 GHz (QPSK, 1.4 MHz, Middle Channel)

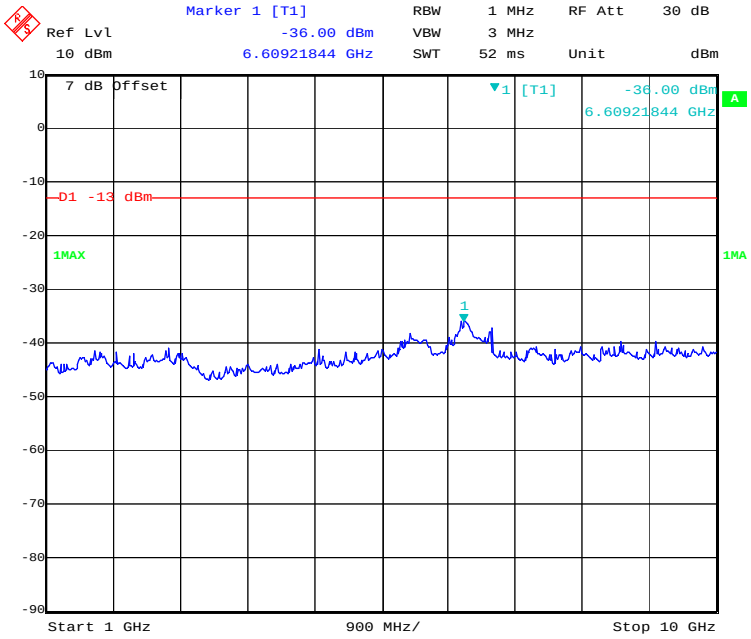


30 MHz - 1 GHz (QPSK, 3.0 MHz, Middle Channel)



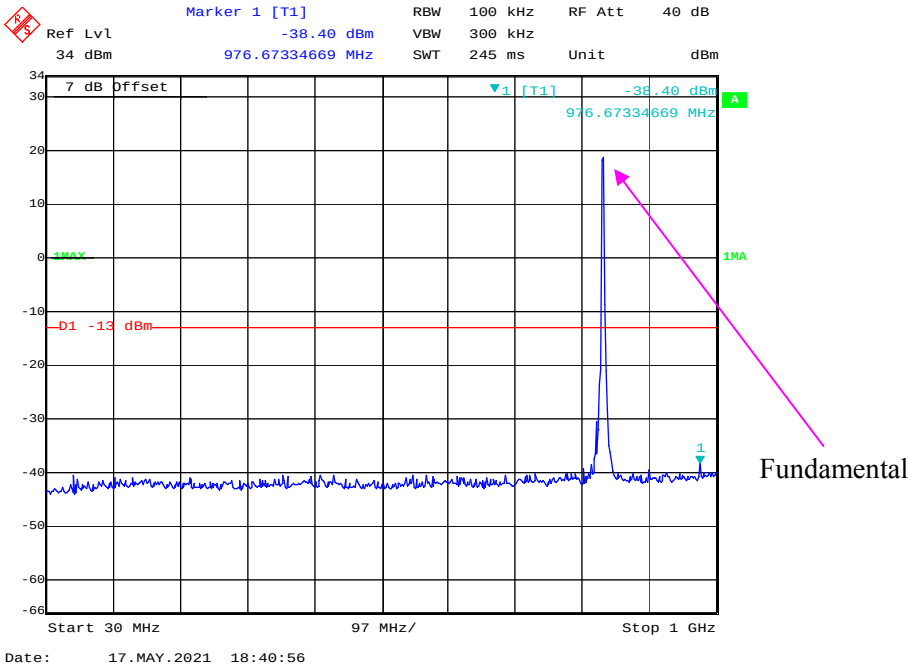
Date: 17.MAY.2021 18:39:24

1 GHz – 10 GHz (QPSK, 3.0 MHz, Middle Channel)



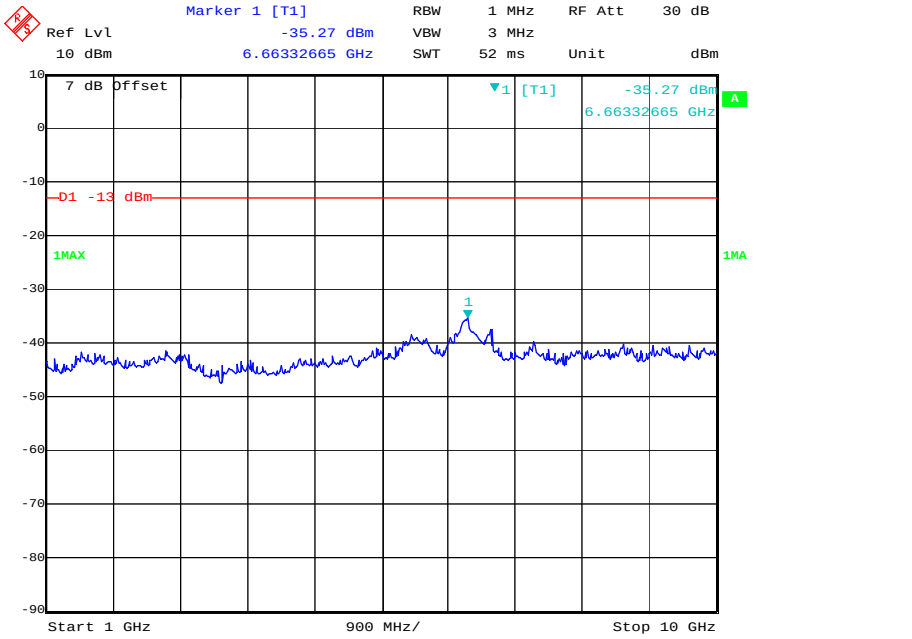
Date: 17.MAY.2021 18:39:35

30 MHz - 1 GHz (QPSK, 5.0 MHz, Middle Channel)



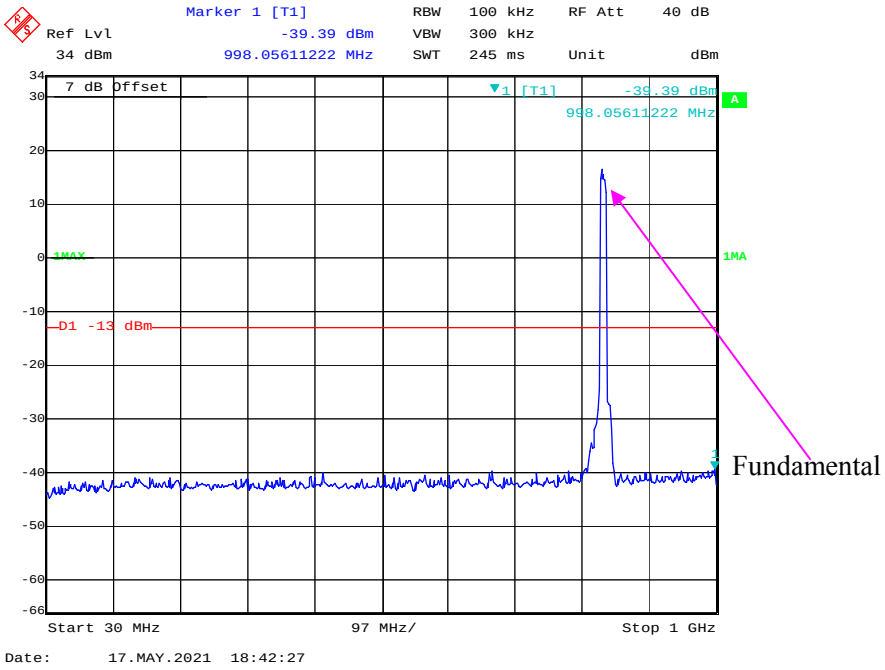
Date: 17.MAY.2021 18:40:56

1 GHz – 10 GHz (QPSK, 5.0MHz, Middle Channel)



Date: 17.MAY.2021 18:41:07

30 MHz - 1 GHz (QPSK, 10.0 MHz, Middle Channel)

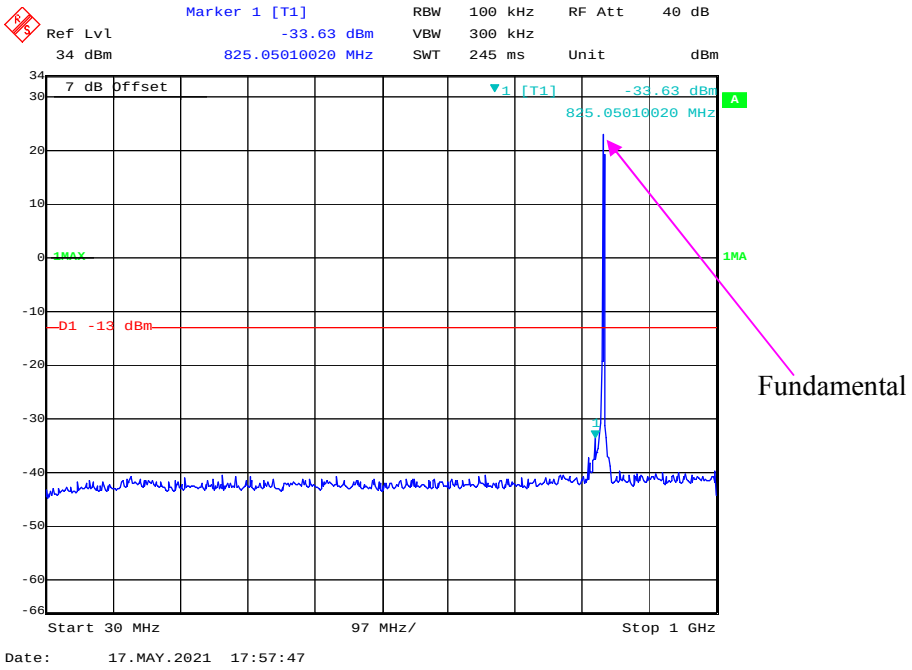


Date: 17.MAY.2021 18:42:27

1 GHz – 10 GHz (QPSK, 10.0 MHz, Middle Channel)

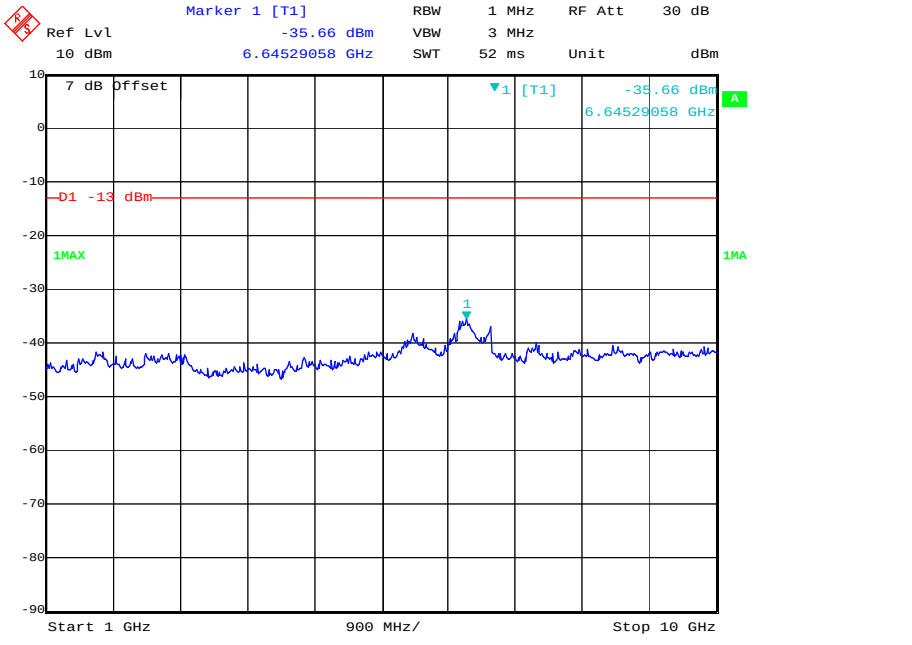
Date: 17.MAY.2021 18:42:38

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



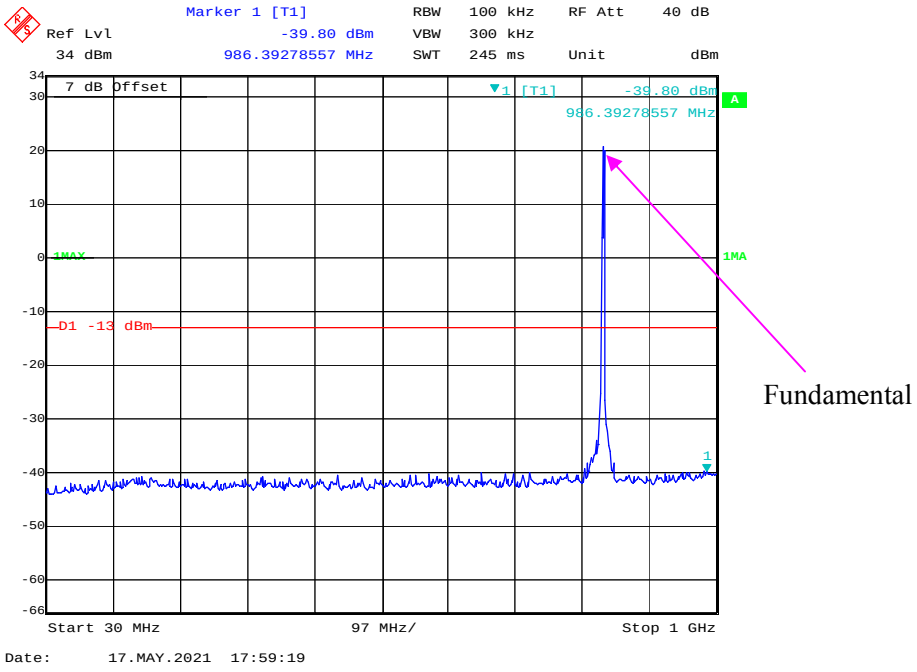
Date: 17.MAY.2021 17:57:47

1 GHz – 10 GHz (16QAM, 1.4 MHz, Middle Channel)



Date: 17.MAY.2021 17:57:58

30 MHz - 1 GHz (16QAM, 3.0 MHz, Middle Channel)

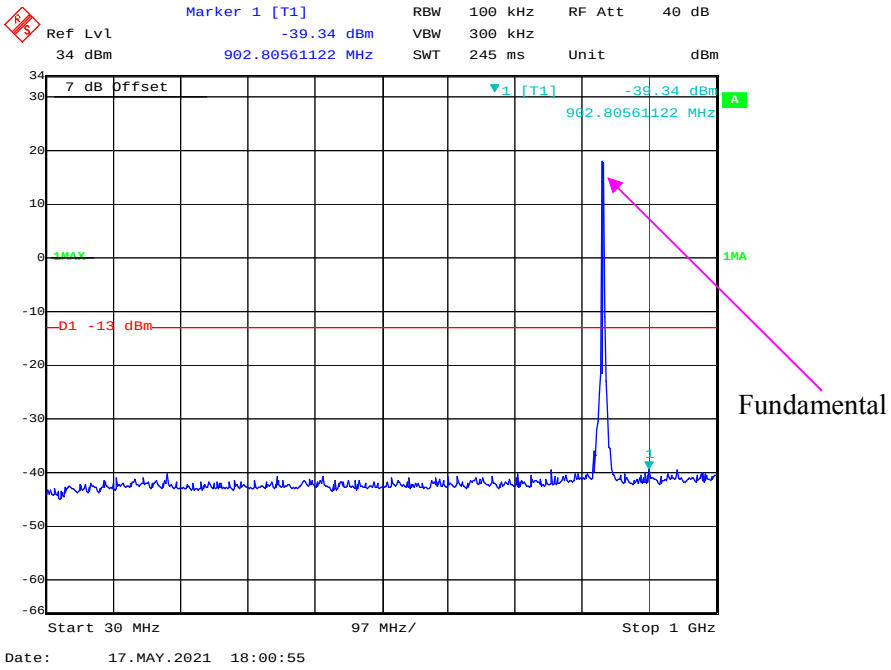


Date: 17.MAY.2021 17:59:19

1 GHz – 10 GHz (16QAM, 3.0 MHz, Middle Channel)

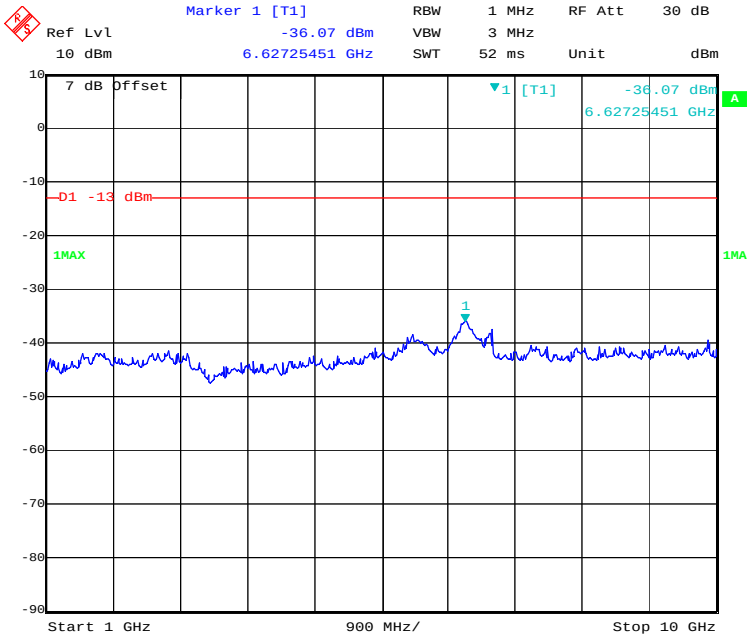
Date: 17.MAY.2021 17:59:30

30 MHz - 1 GHz (16QAM, 5.0 MHz, Middle Channel)



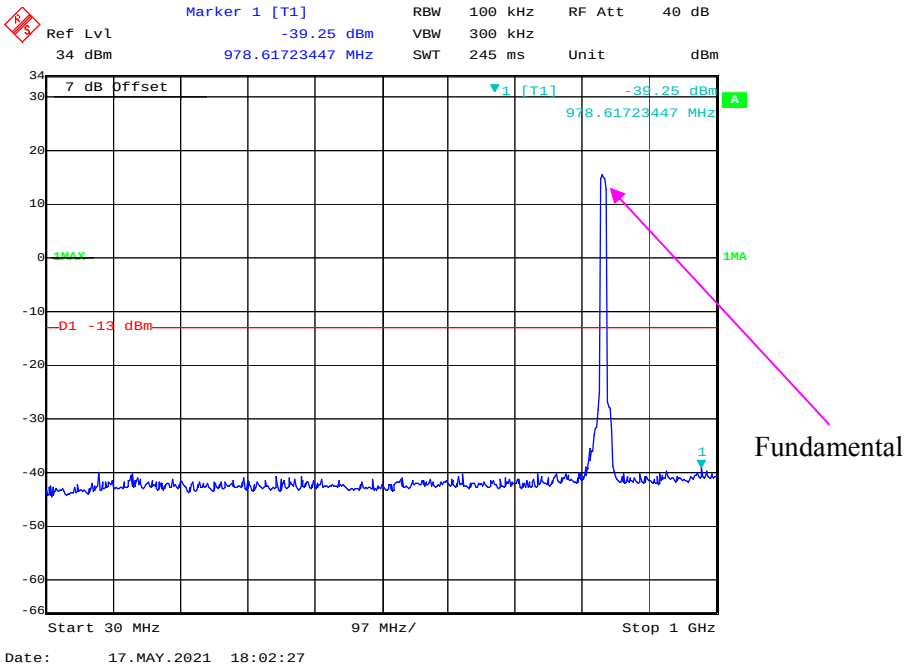
Date: 17.MAY.2021 18:00:55

1 GHz – 10 GHz (16QAM, 5.0MHz, Middle Channel)

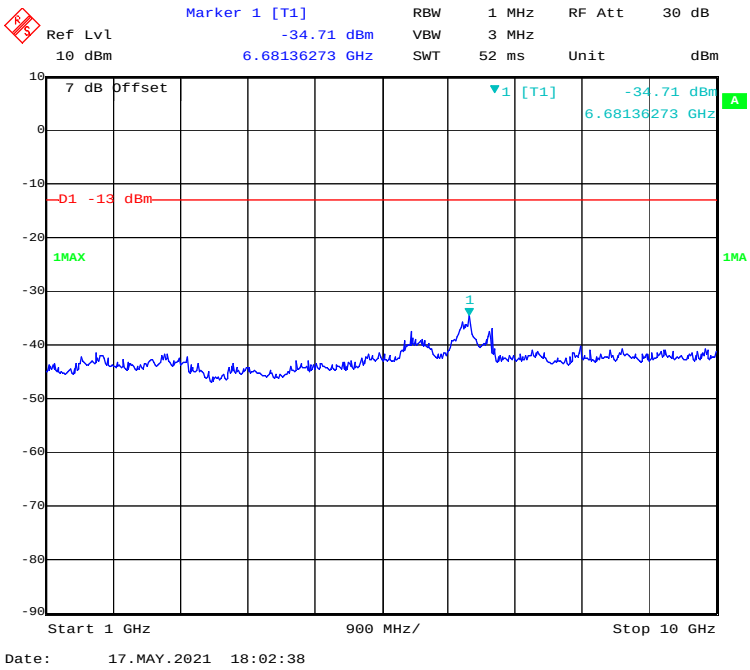


Date: 17.MAY.2021 18:01:07

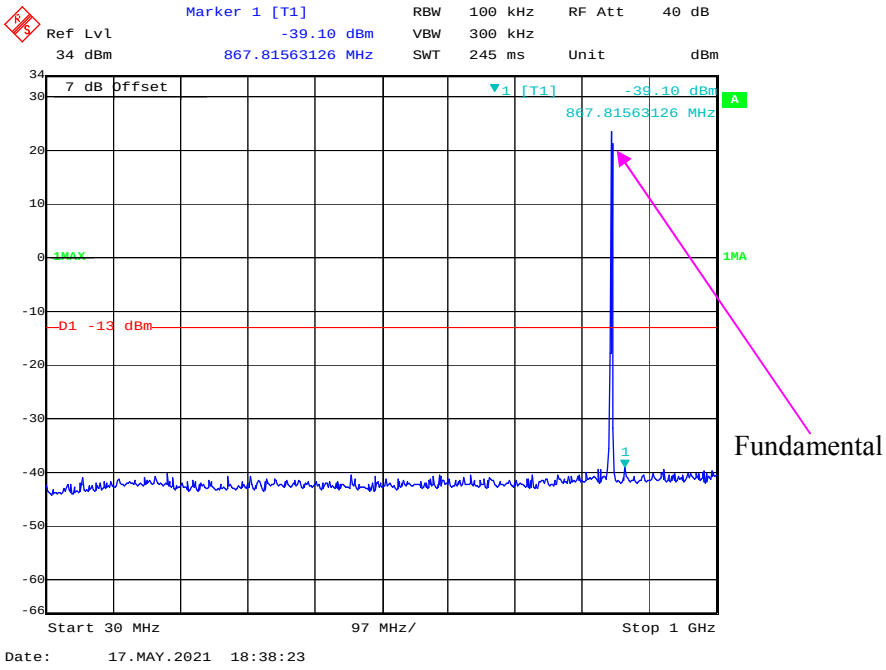
30 MHz - 1 GHz (16QAM, 10.0 MHz, Middle Channel)



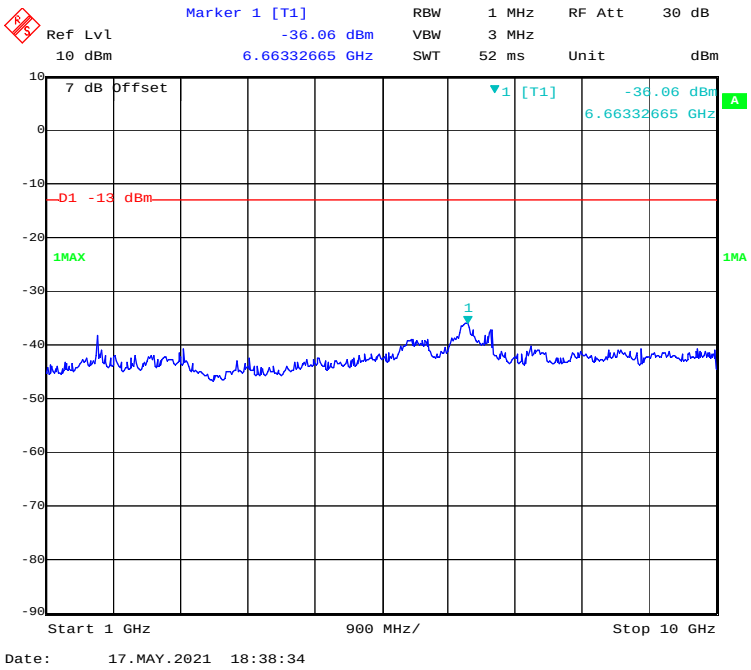
1 GHz – 10 GHz (16QAM, 10.0 MHz, Middle Channel)



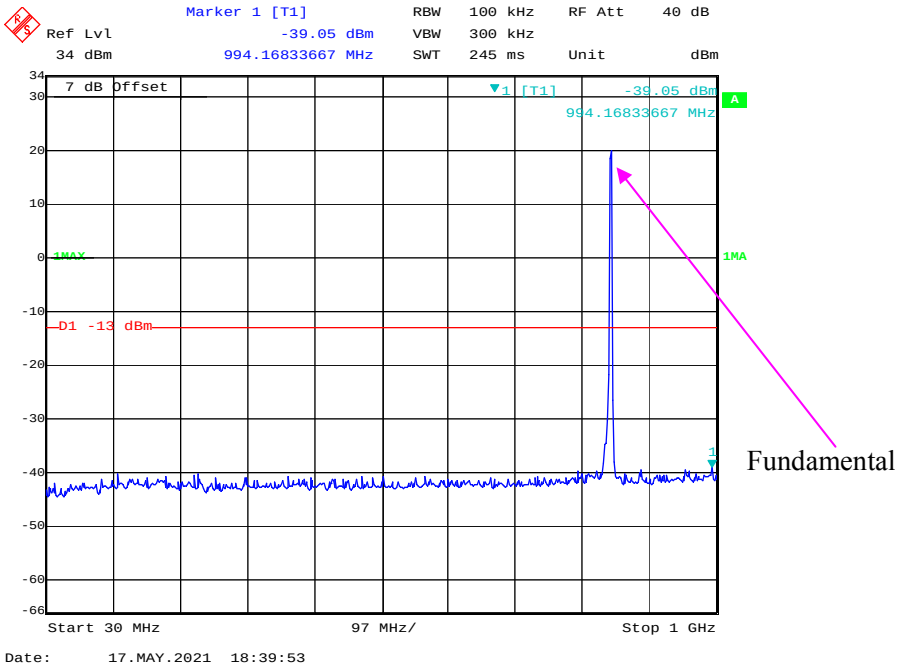
30 MHz - 1 GHz (QPSK, 1.4 MHz, High Channel)



1 GHz – 10 GHz (QPSK, 1.4 MHz, High Channel)



30 MHz - 1 GHz (QPSK, 3.0 MHz, High Channel)

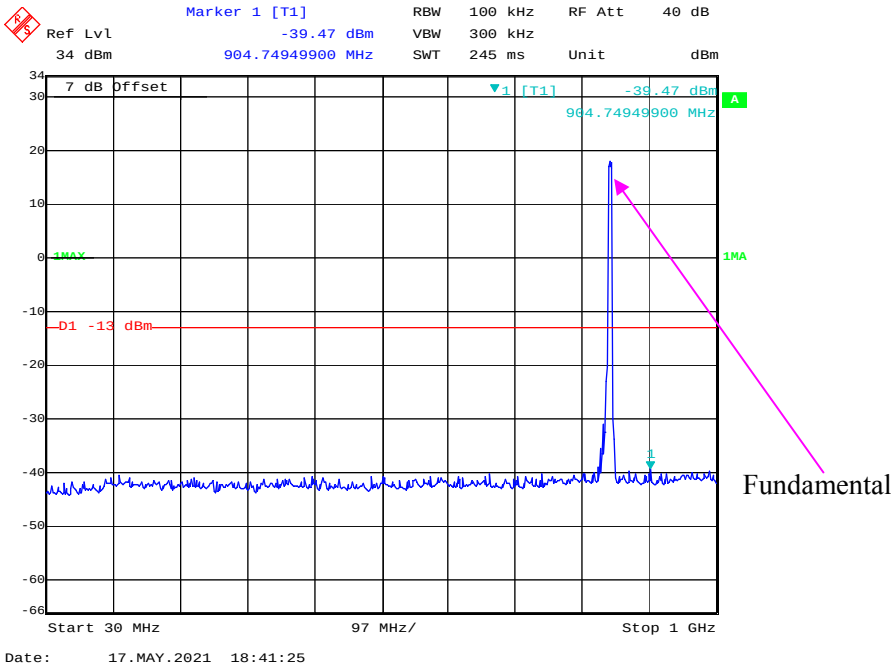


Date: 17.MAY.2021 18:39:53

1 GHz – 10 GHz (QPSK, 3.0 MHz, High Channel)

Date: 17.MAY.2021 18:40:04

30 MHz - 1 GHz (QPSK, 5.0 MHz, High Channel)

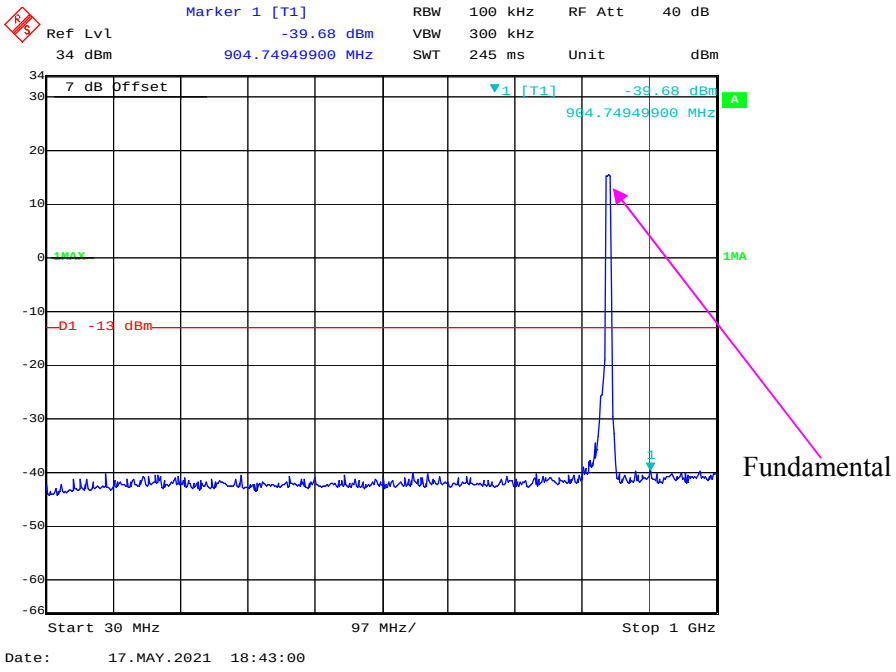


Date: 17.MAY.2021 18:41:25

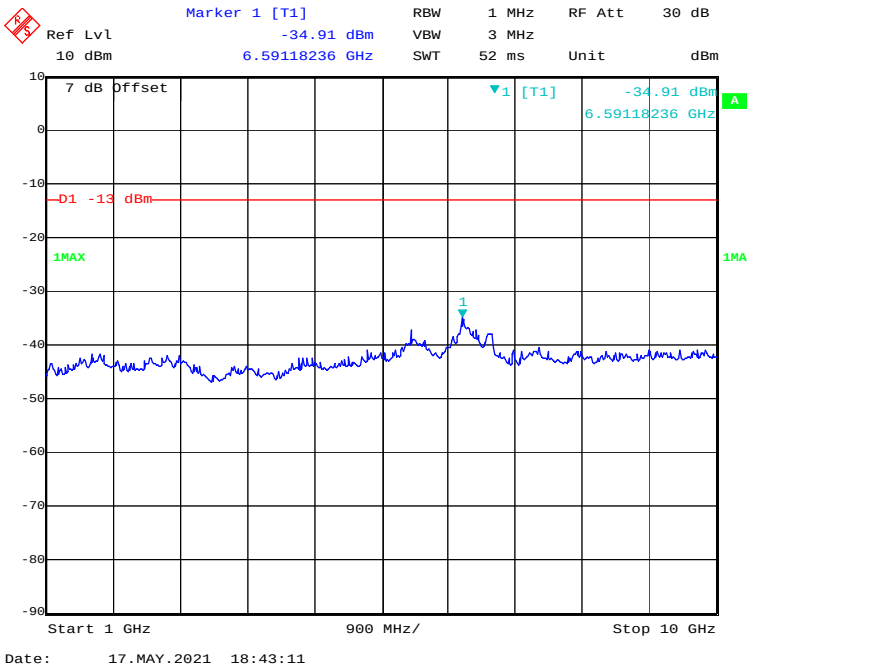
1 GHz – 10 GHz (QPSK, 5.0MHz, High Channel)

Date: 17.MAY.2021 18:41:36

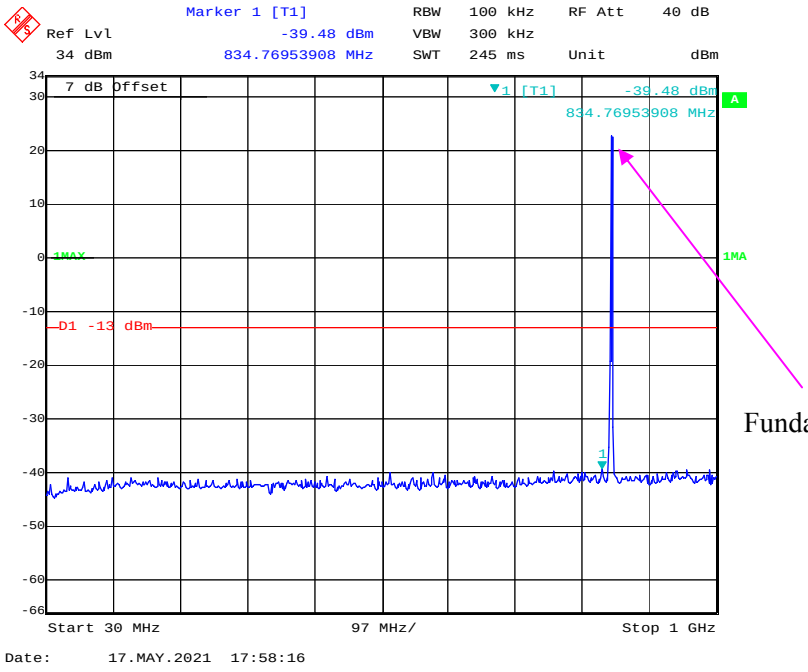
30 MHz - 1 GHz (QPSK, 10.0 MHz, High Channel)



1 GHz – 10 GHz (QPSK, 10.0 MHz, High Channel)



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

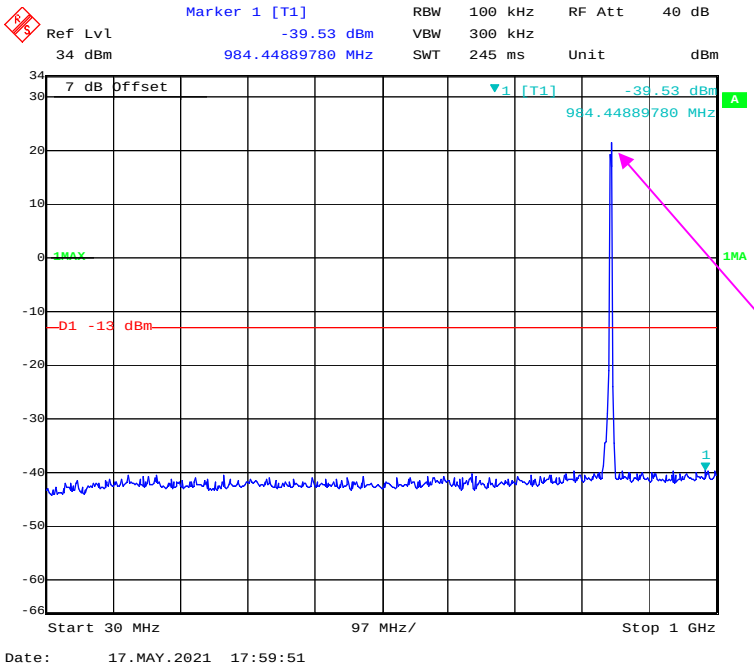


Date: 17.MAY.2021 17:58:16

1 GHz – 10 GHz (16QAM, 1.4 MHz, High Channel)

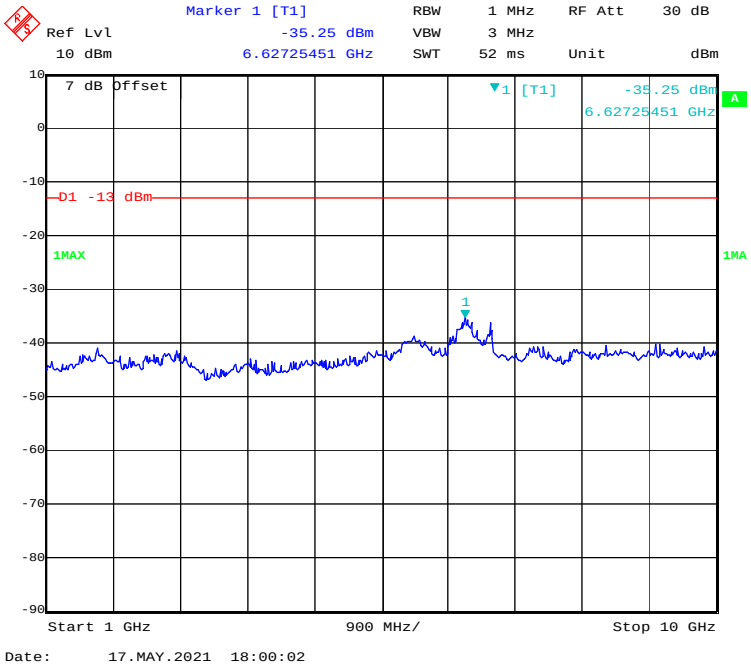
Date: 17.MAY.2021 17:58:27

30 MHz - 1 GHz (16QAM, 3.0 MHz, High Channel)

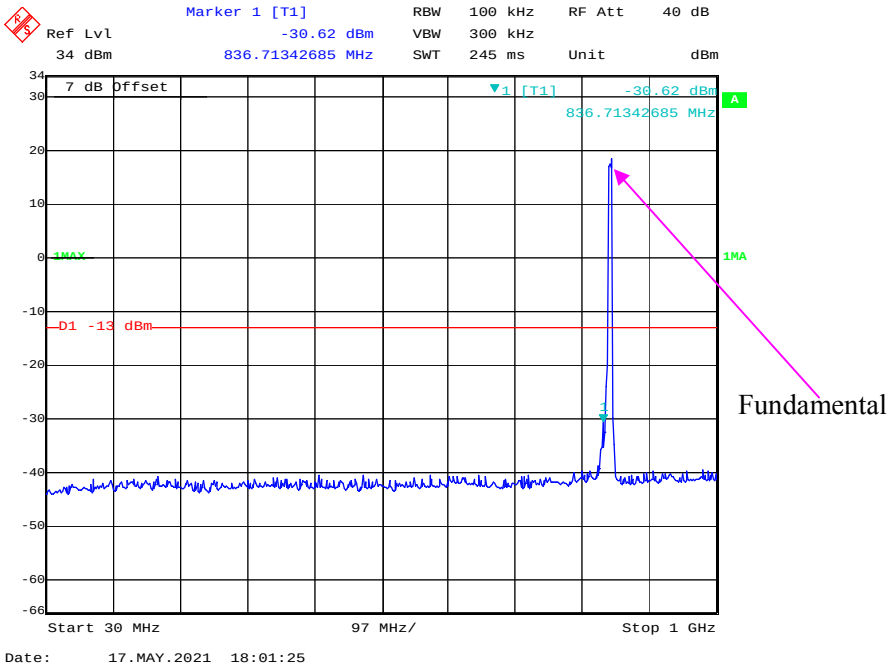


Fundamental

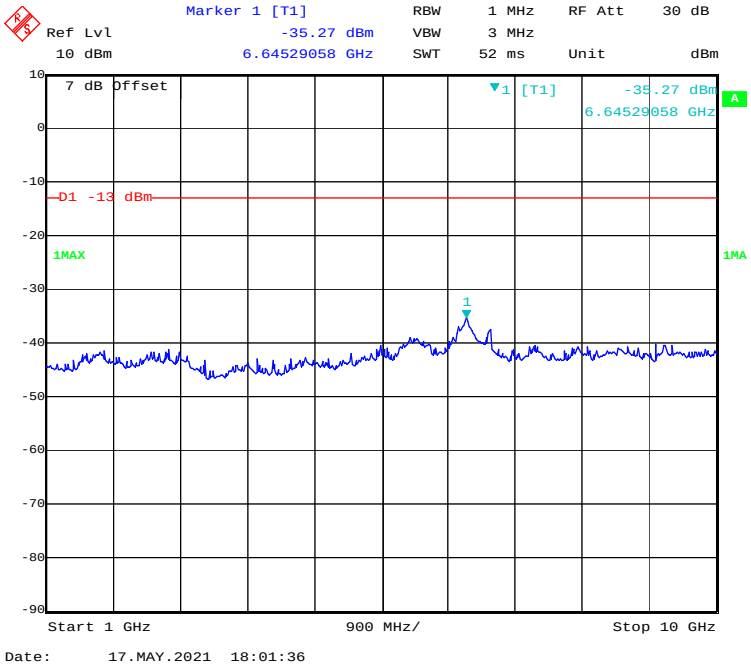
1 GHz – 10 GHz (16QAM, 3.0 MHz, High Channel)



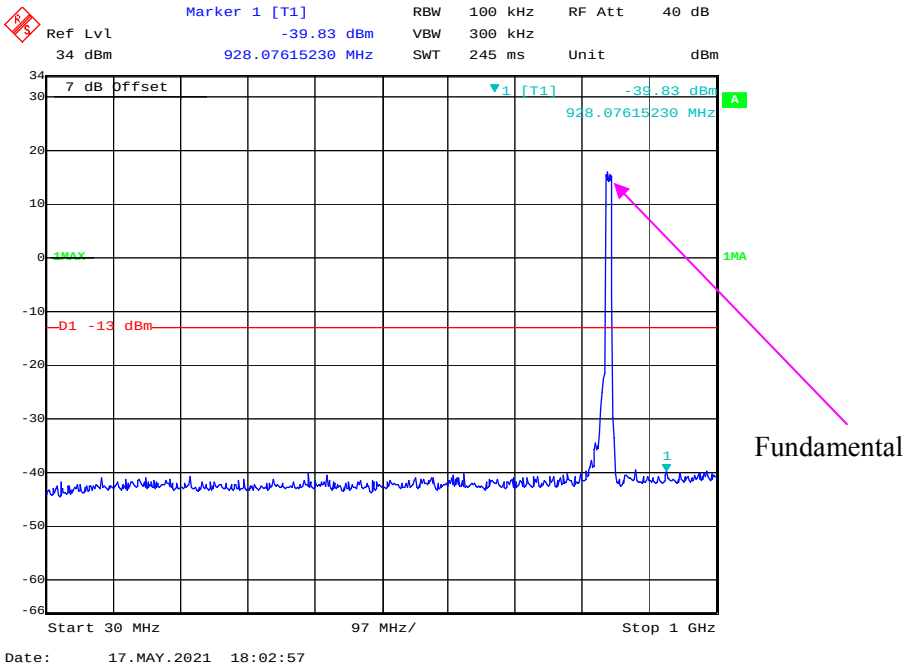
30 MHz - 1 GHz (16QAM, 5.0 MHz, High Channel)



1 GHz – 10 GHz (16QAM, 5.0MHz, High Channel)



30 MHz - 1 GHz (16QAM, 10.0 MHz, High Channel)



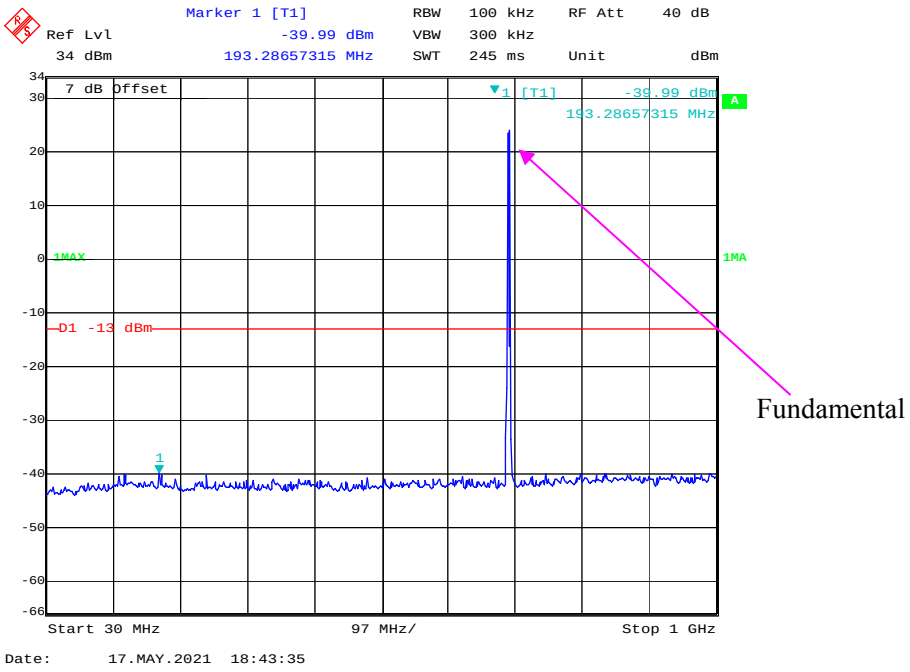
Date: 17.MAY.2021 18:02:57

1 GHz – 10 GHz (16QAM, 10.0 MHz, High Channel)

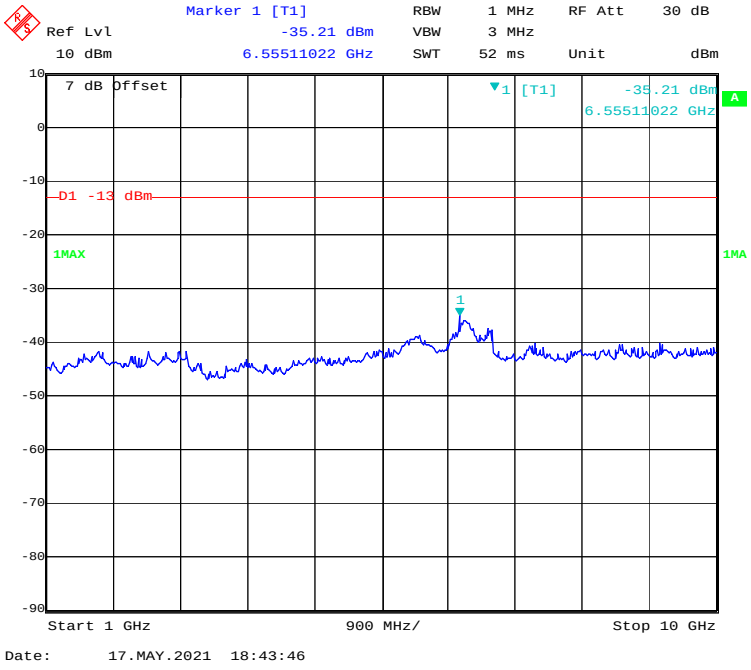
Date: 17.MAY.2021 18:03:08

LTE Band 12:

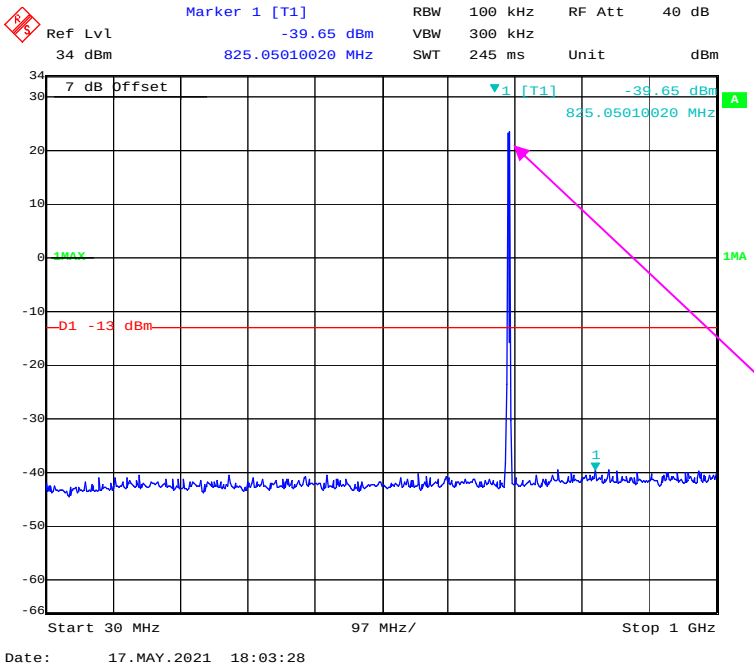
30 MHz - 1 GHz (1.4 MHz, QPSK, Low Channel)



1 GHz – 10 GHz (1.4 MHz, QPSK, Low Channel)



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

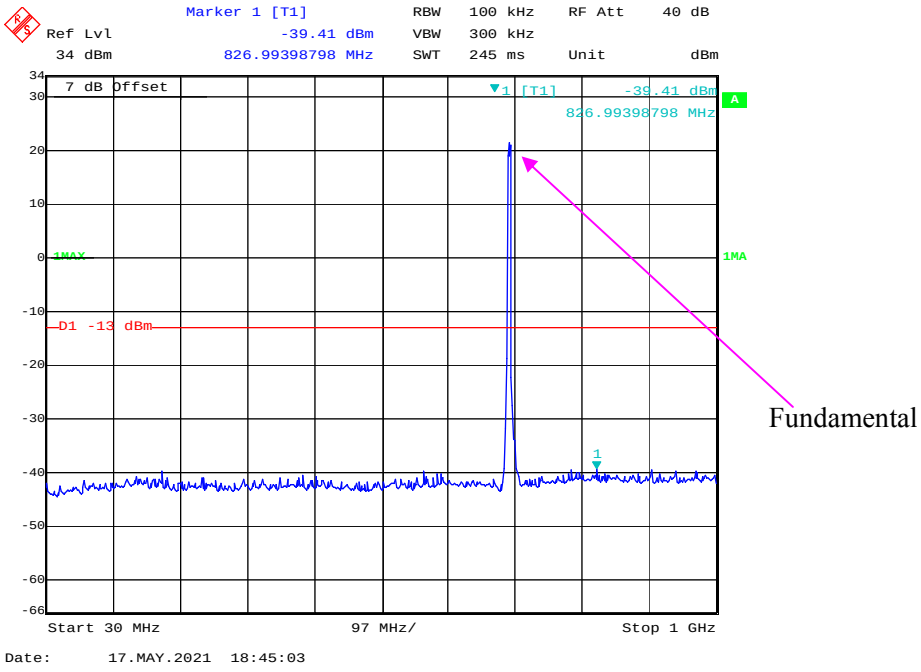


Date: 17.MAY.2021 18:03:28

1 GHz – 10 GHz (1.4 MHz, 16-QAM, Low Channel)

Date: 17.MAY.2021 18:03:39

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

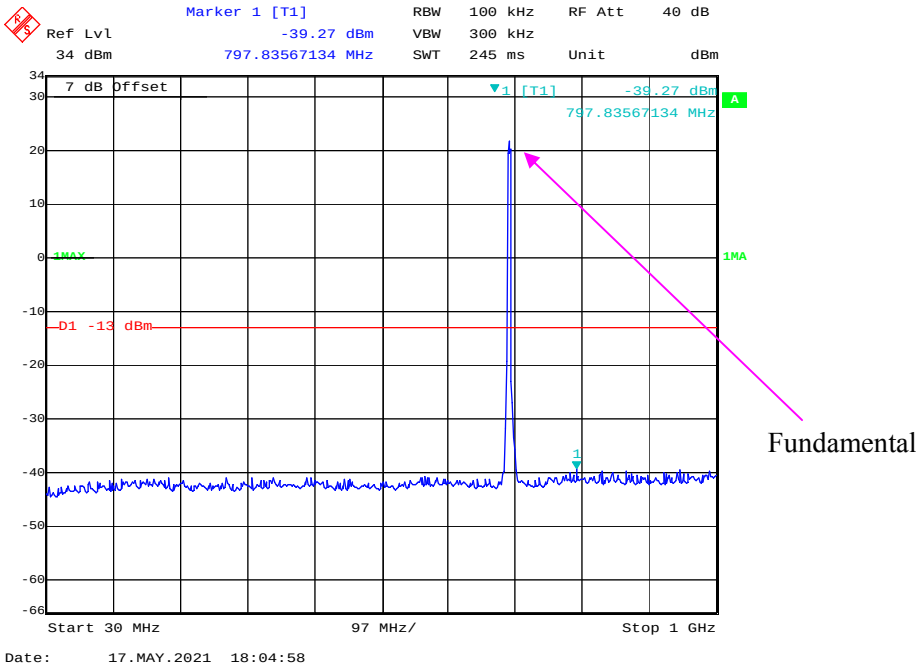


Date: 17.MAY.2021 18:45:03

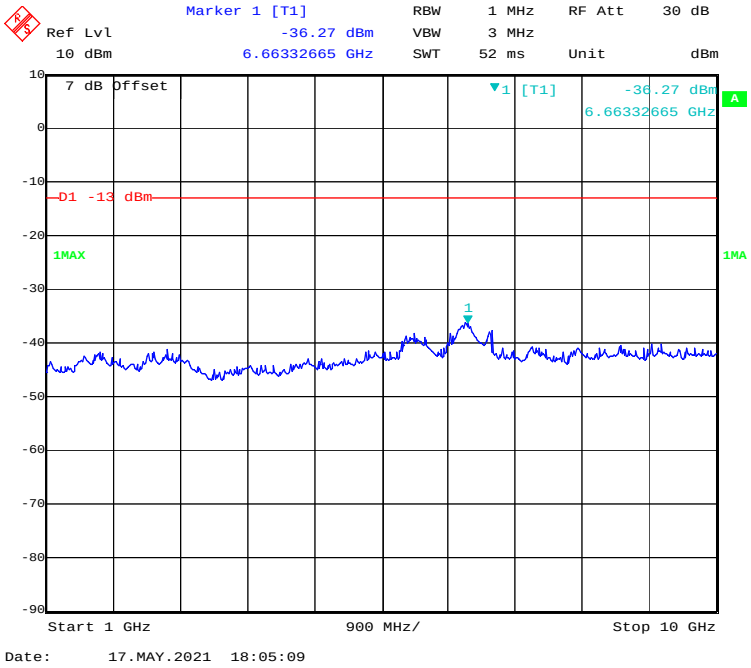
1 GHz – 10 GHz (3 MHz, QPSK, Low Channel)

Date: 17.MAY.2021 18:45:15

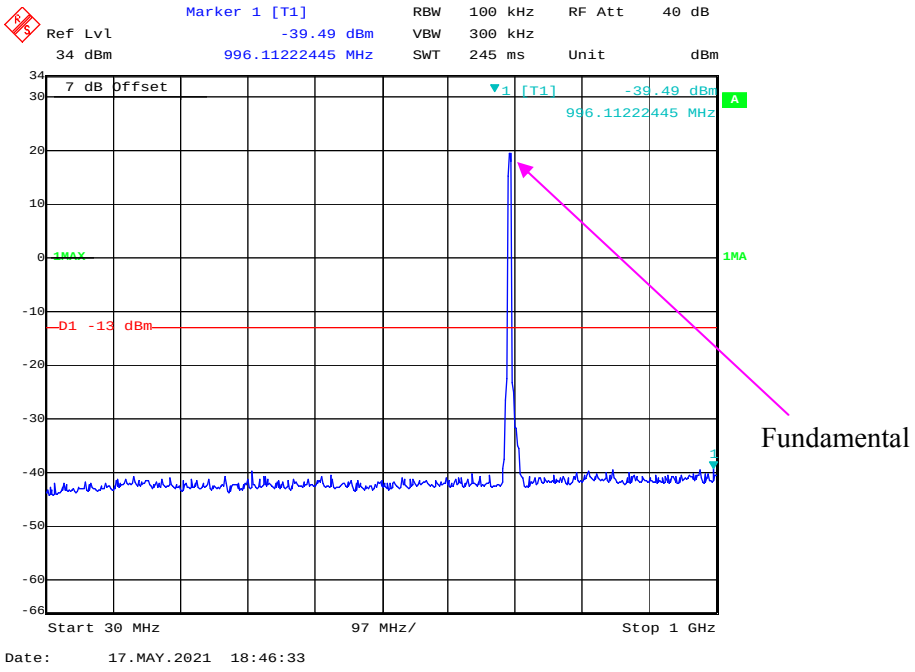
30 MHz - 1 GHz (3 MHz, 16-QAM, Low Channel)



1 GHz – 10 GHz (3 MHz, 16-QAM, Low Channel)

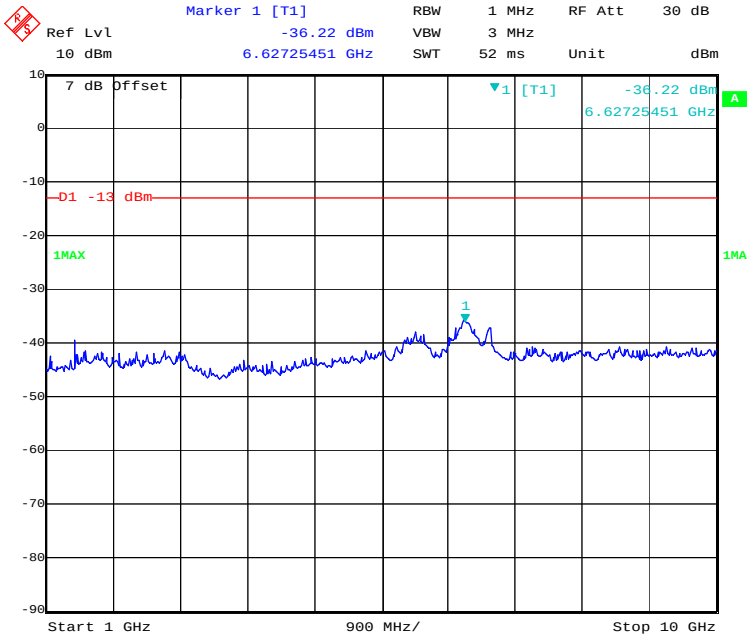


30 MHz - 1 GHz (5 MHz, QPSK, Low Channel)



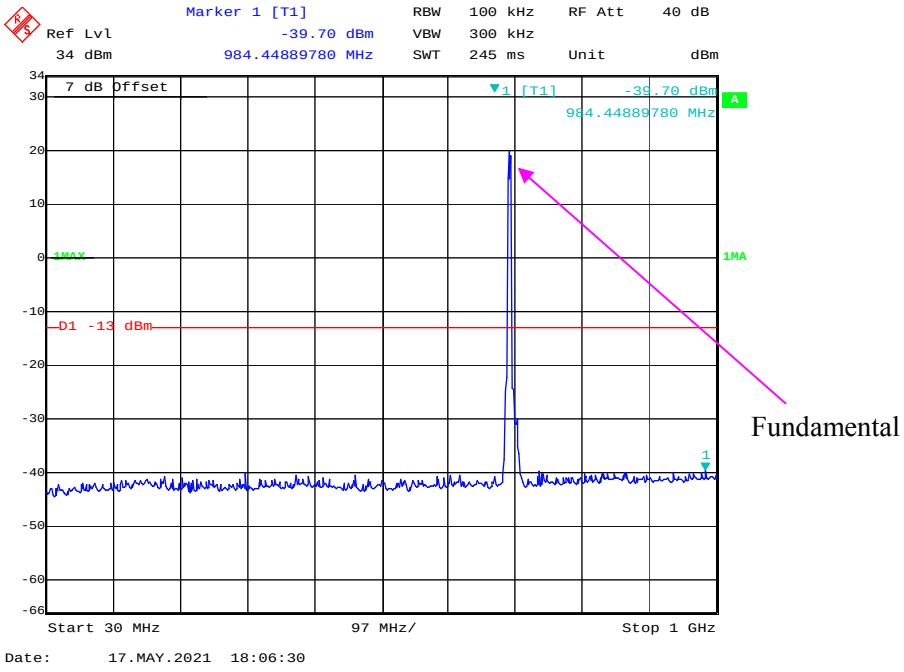
Date: 17.MAY.2021 18:46:33

1 GHz – 10 GHz (5 MHz, QPSK, Low Channel)



Date: 17.MAY.2021 18:46:44

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

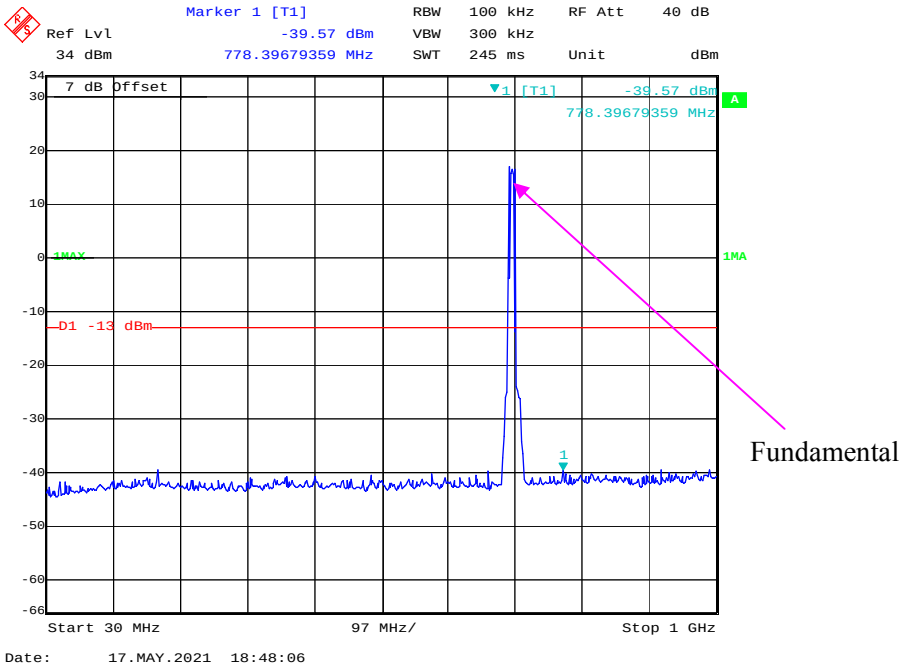


Date: 17.MAY.2021 18:06:30

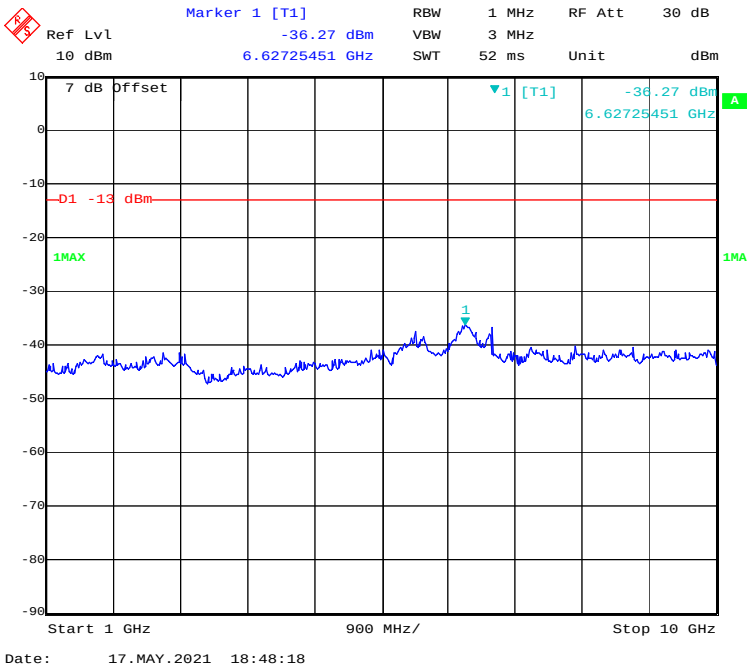
1 GHz – 10 GHz (5 MHz, 16-QAM, Low Channel)

Date: 17.MAY.2021 18:06:41

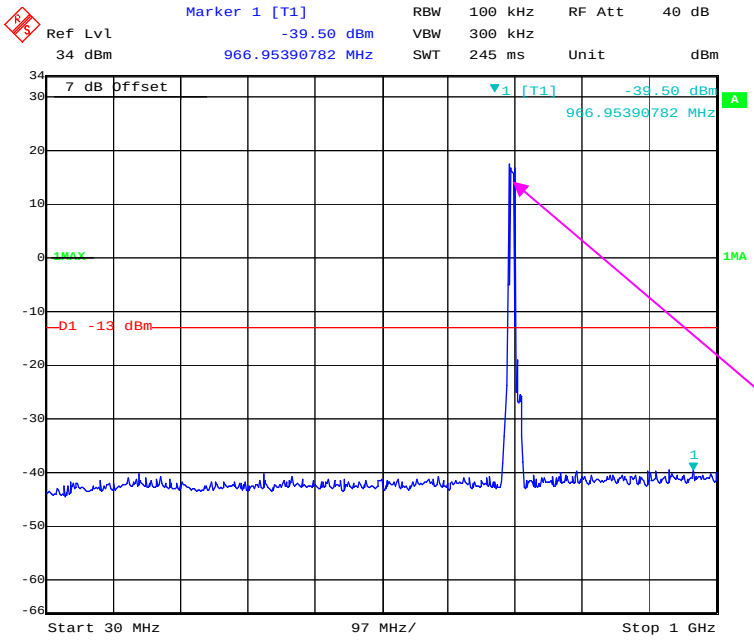
30 MHz - 1 GHz (10 MHz, QPSK, Low Channel)



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



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

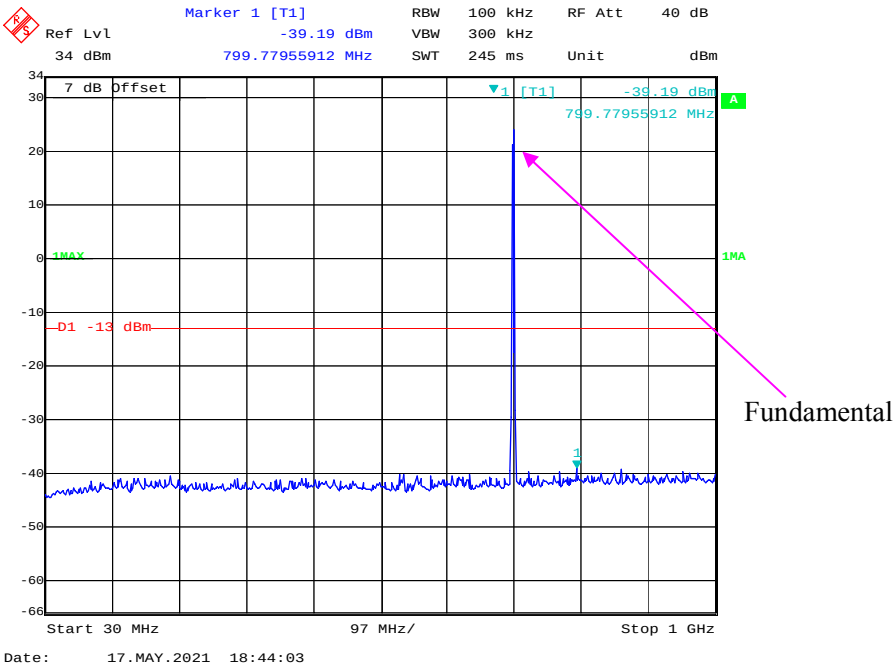


Date: 17.MAY.2021 18:08:00

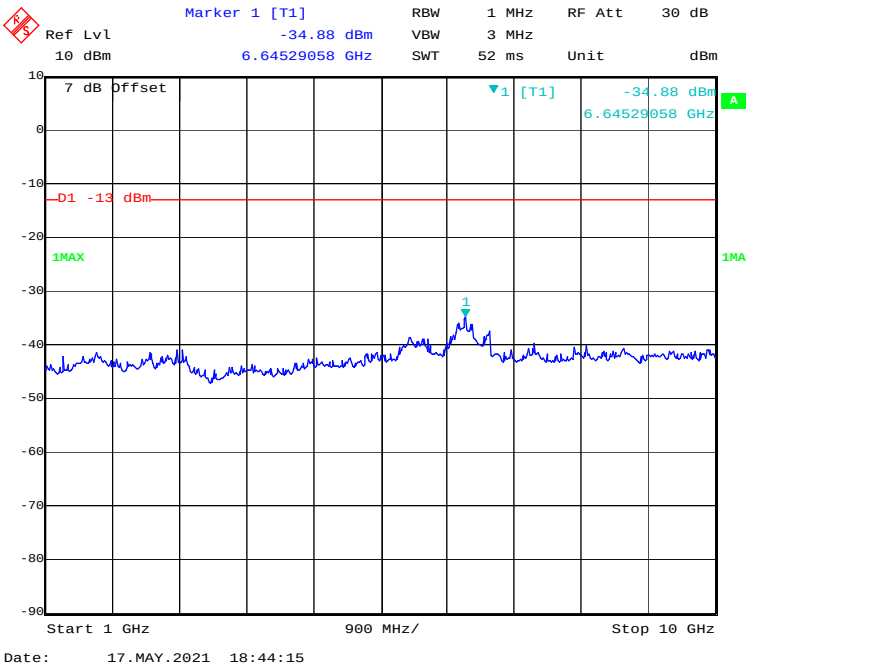
1 GHz – 10 GHz (10 MHz, 16-QAM, Low Channel)

Date: 17.MAY.2021 18:08:11

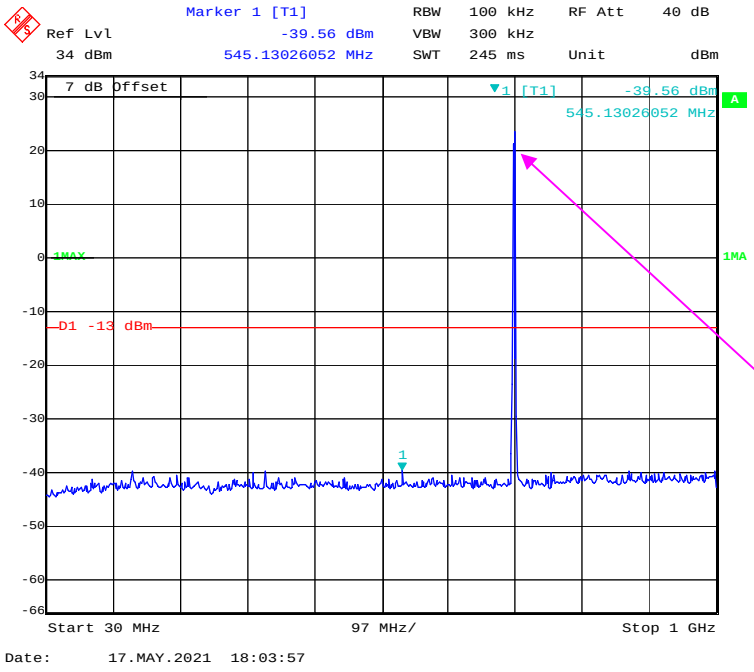
30 MHz - 1 GHz (1.4 MHz, QPSK, Middle Channel)



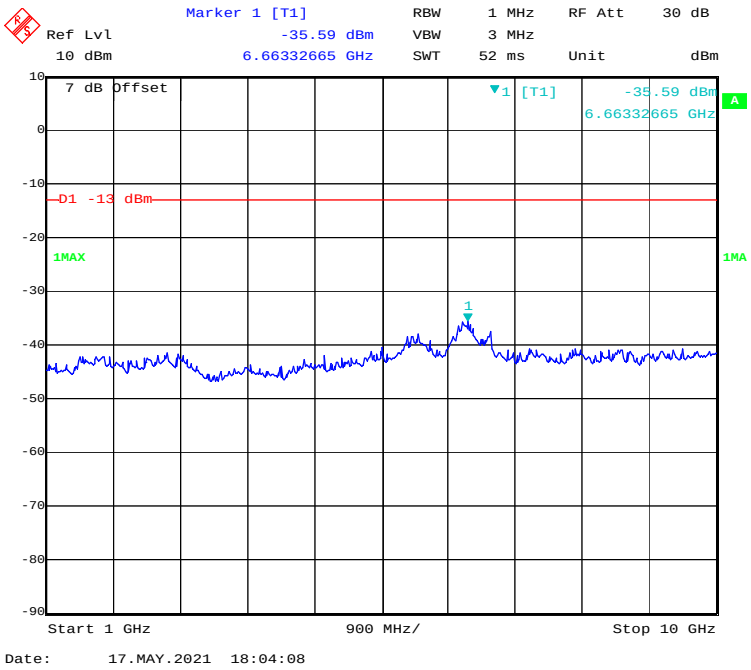
1 GHz – 10 GHz (1.4 MHz, QPSK, Middle Channel)



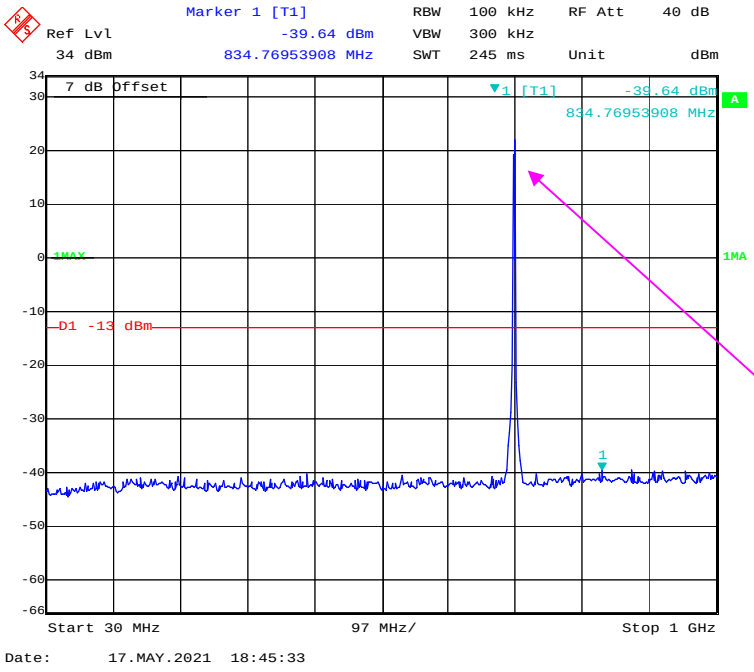
30 MHz - 1 GHz (1.4 MHz, 16-QAM, Middle Channel)



1 GHz – 10 GHz (1.4 MHz, 16-QAM, Middle Channel)

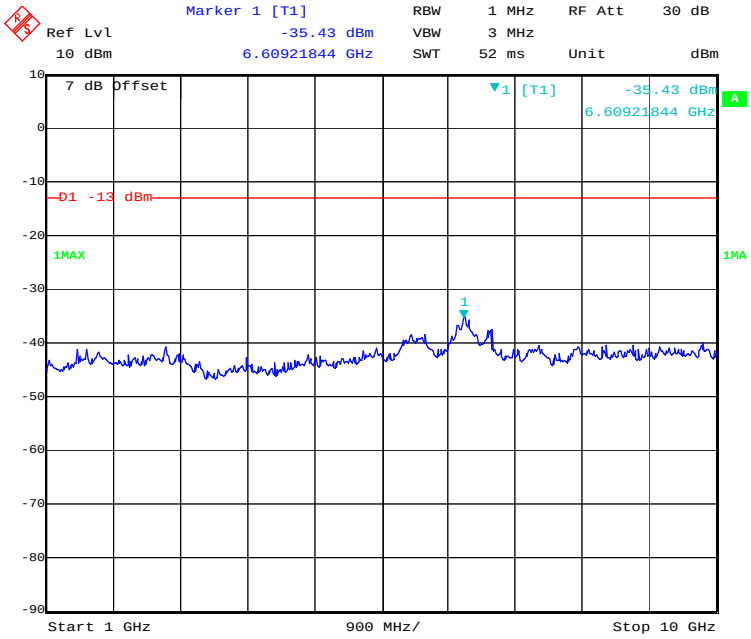


30 MHz - 1 GHz (3 MHz, QPSK, Middle Channel)



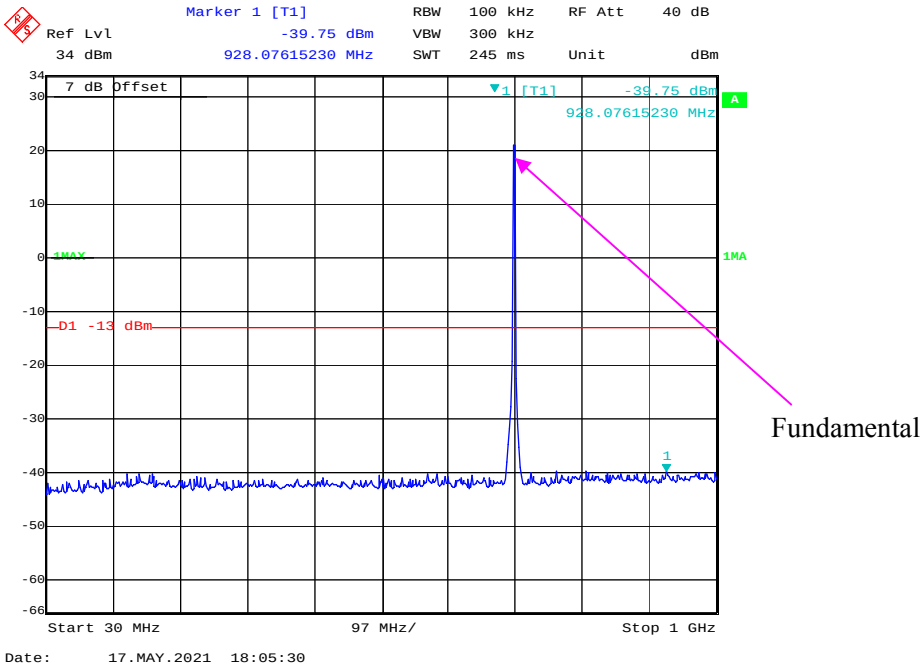
Date: 17.MAY.2021 18:45:33

1 GHz – 10 GHz (3 MHz, QPSK, Middle Channel)

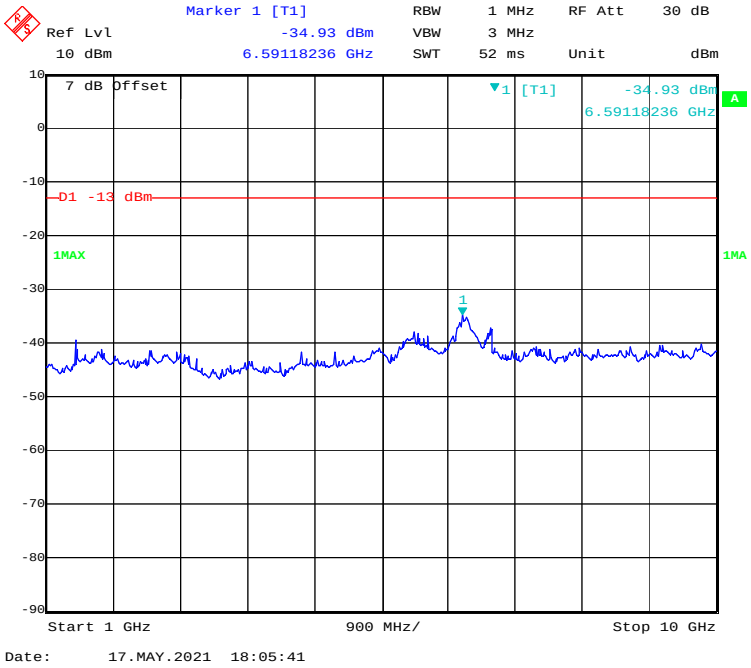


Date: 17.MAY.2021 18:45:44

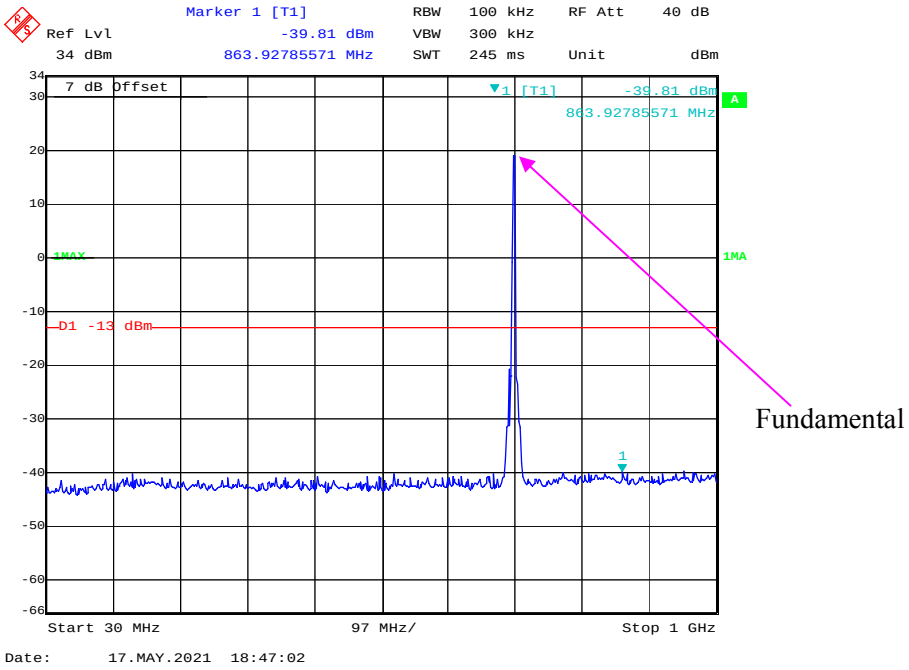
30 MHz - 1 GHz (3 MHz, 16-QAM, Middle Channel)



1 GHz – 10 GHz (3 MHz, 16-QAM, Middle Channel)



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

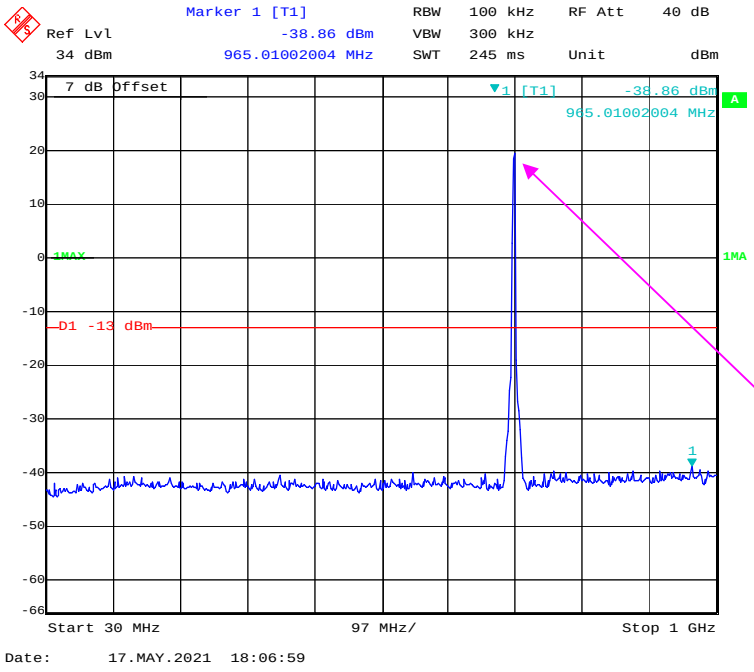


Date: 17.MAY.2021 18:47:02

1 GHz – 10 GHz (5 MHz, QPSK, Middle Channel)

Date: 17.MAY.2021 18:47:13

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

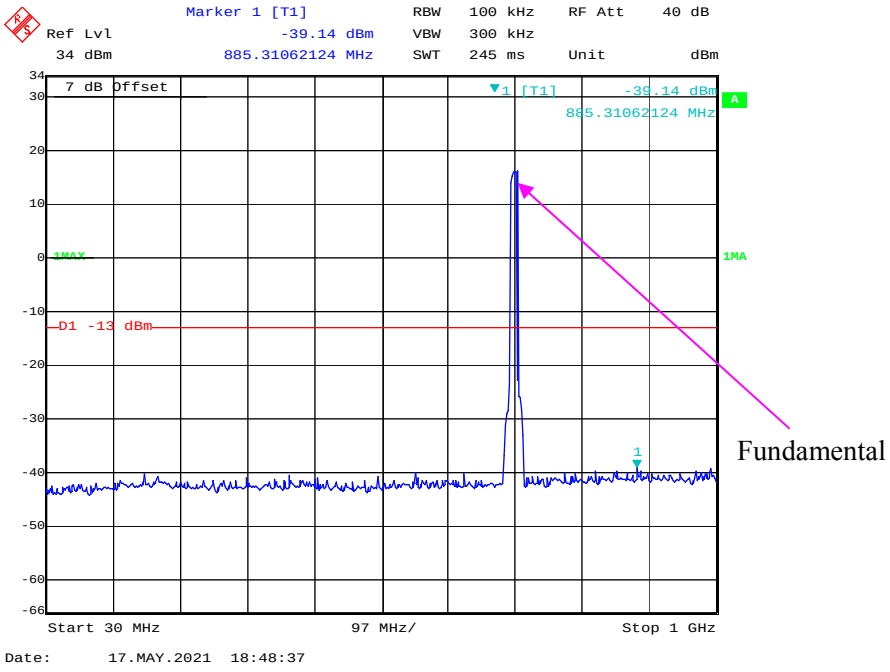


Date: 17.MAY.2021 18:06:59

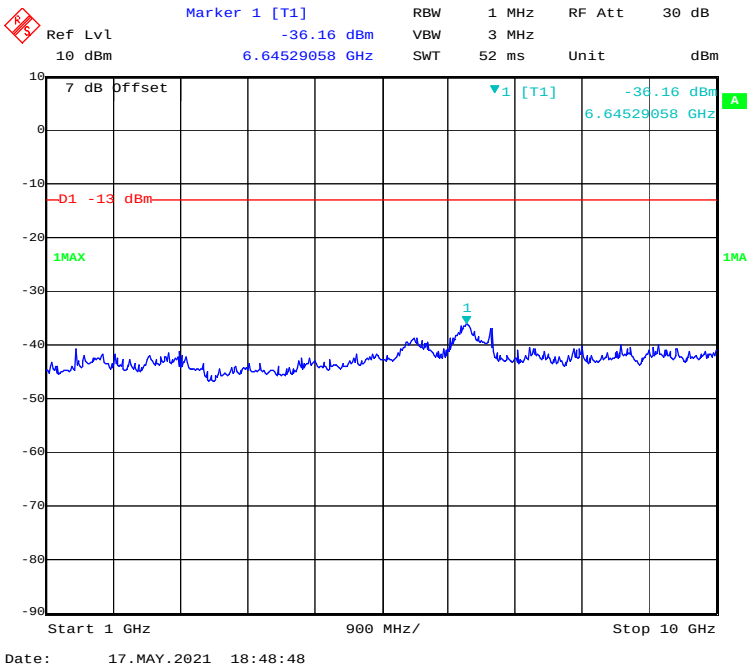
1 GHz – 10 GHz (5 MHz, 16-QAM, Middle Channel)

Date: 17.MAY.2021 18:07:10

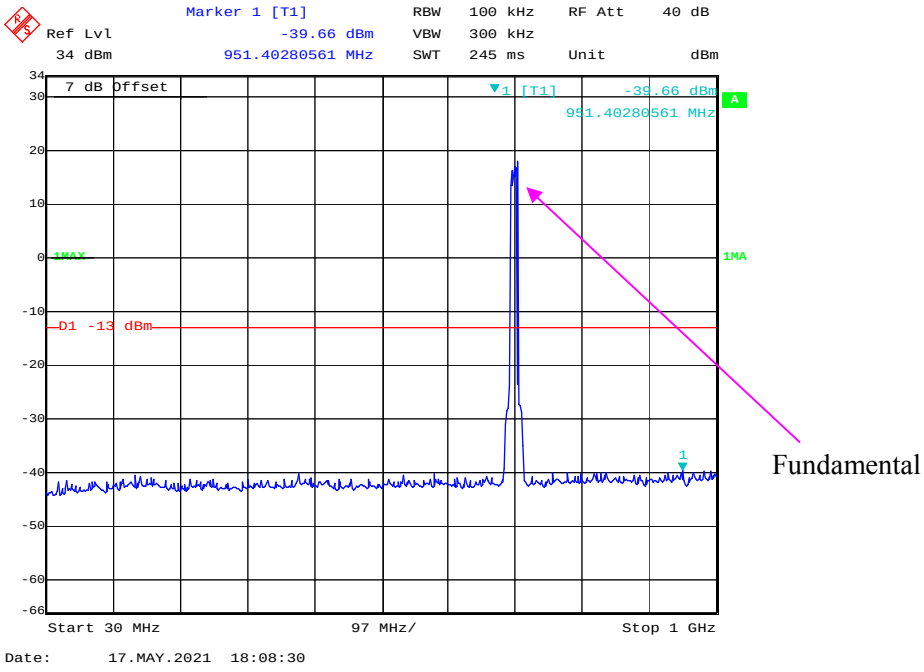
30 MHz - 1 GHz (10 MHz, QPSK, Middle Channel)



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



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

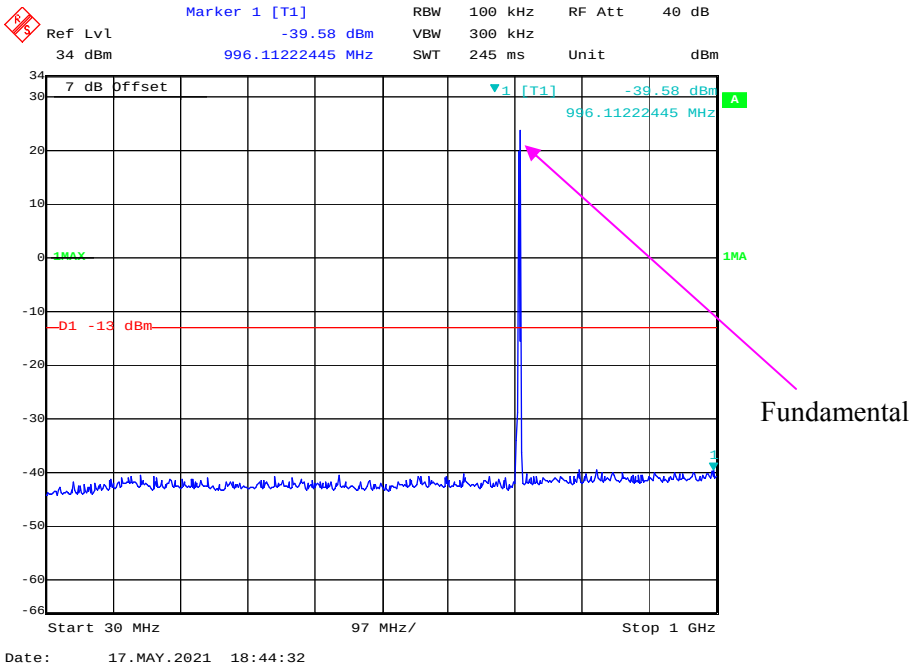


Date: 17.MAY.2021 18:08:30

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

Date: 17.MAY.2021 18:08:41

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

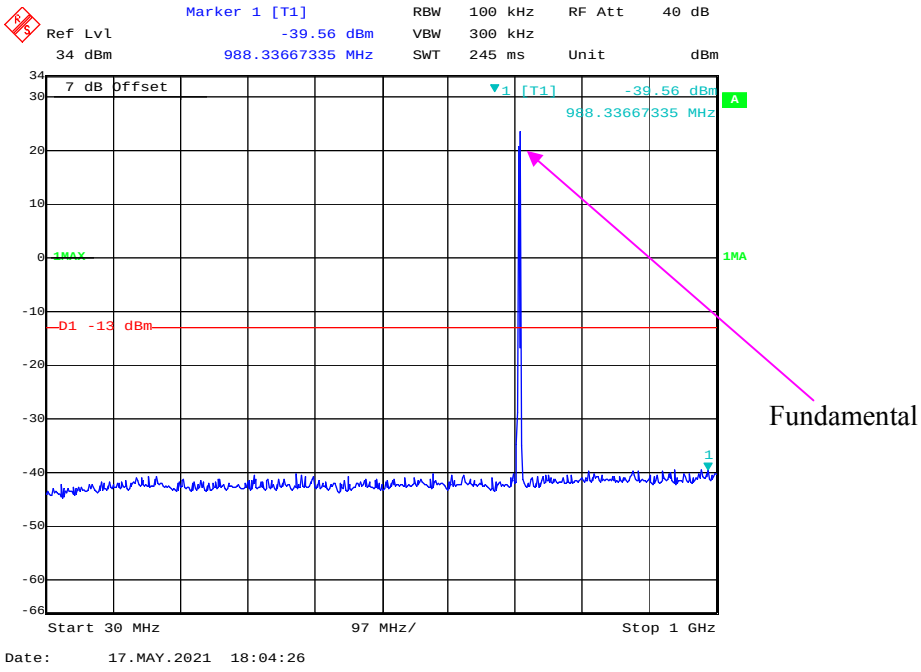


Date: 17.MAY.2021 18:44:32

1 GHz – 10 GHz (1.4 MHz, QPSK, High Channel)

Date: 17.MAY.2021 18:44:43

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

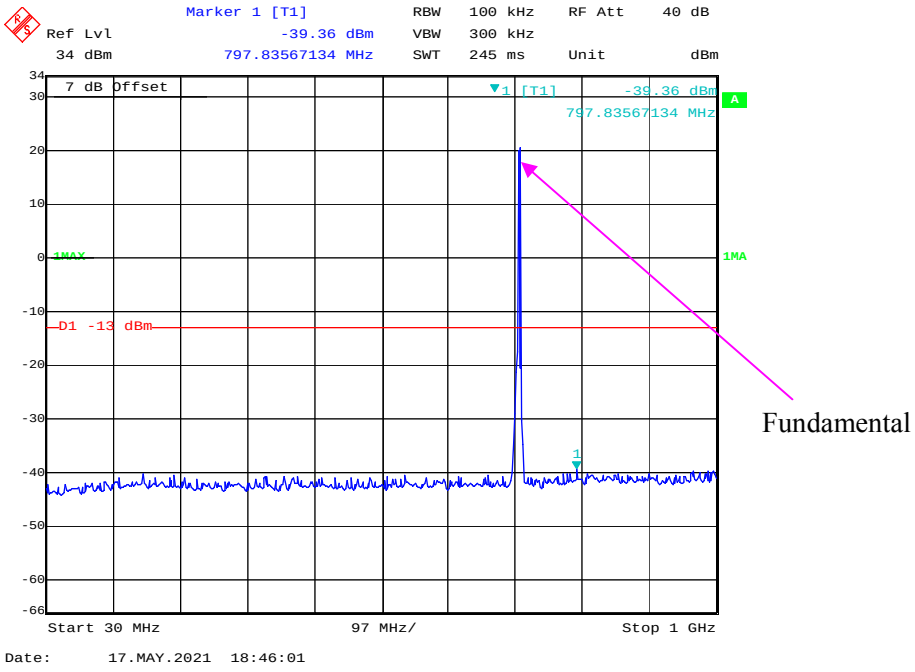


Date: 17.MAY.2021 18:04:26

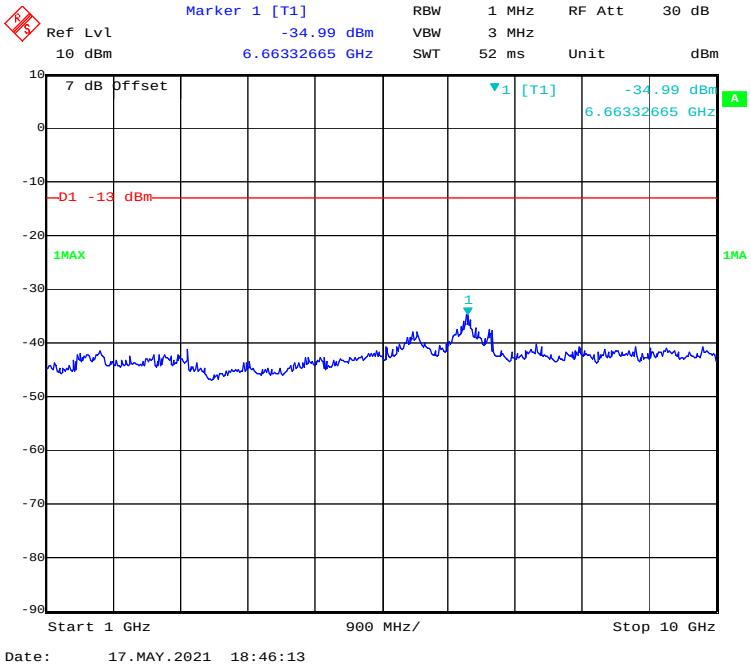
1 GHz – 10 GHz (1.4 MHz, 16-QAM, High Channel)

Date: 17.MAY.2021 18:04:38

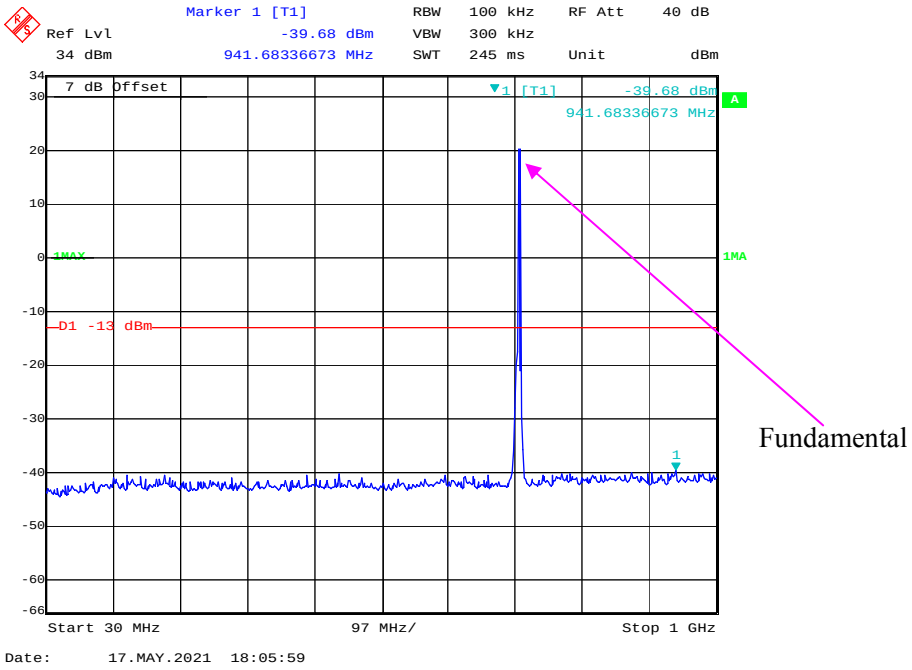
30 MHz - 1 GHz (3 MHz, QPSK, High Channel)



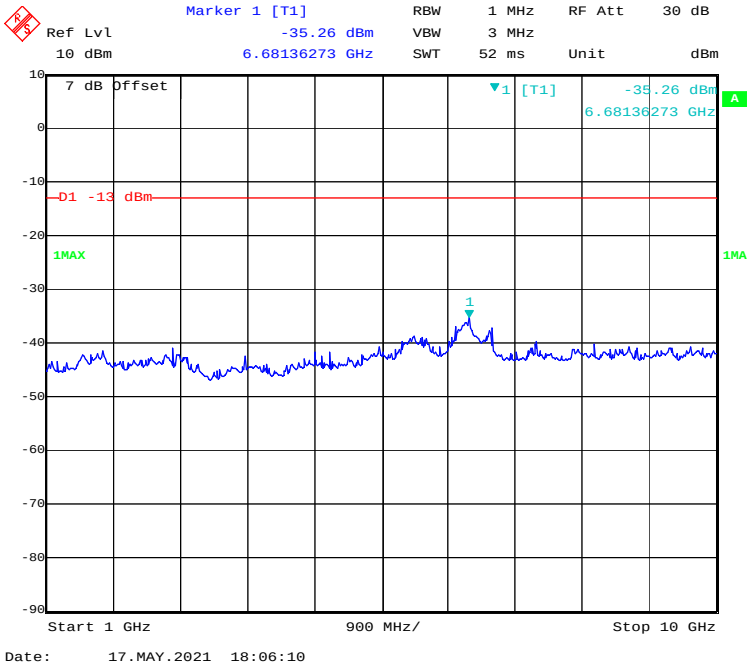
1 GHz – 10 GHz (3 MHz, QPSK, High Channel)



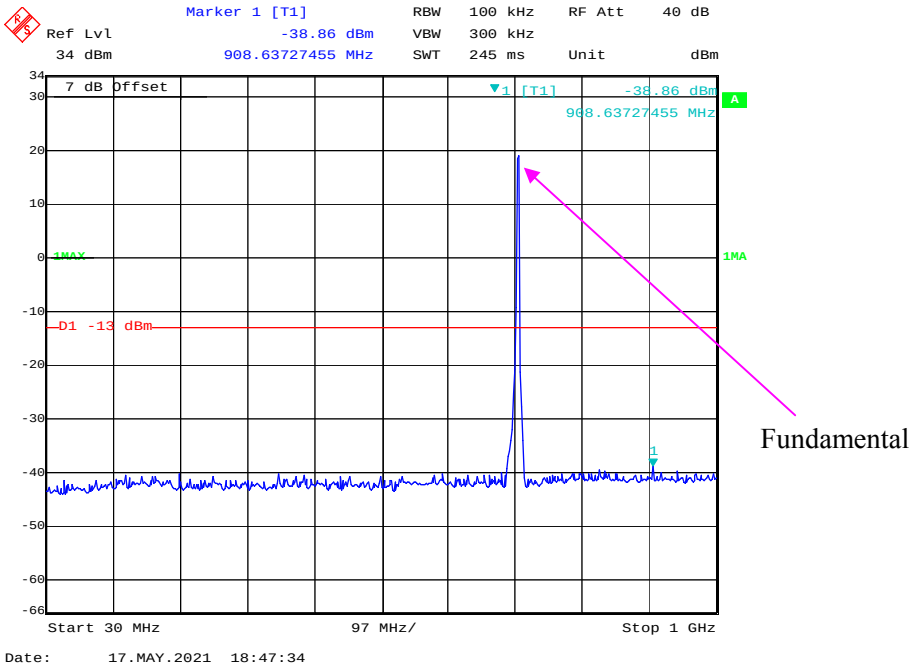
30 MHz - 1 GHz (3 MHz, 16-QAM, High Channel)



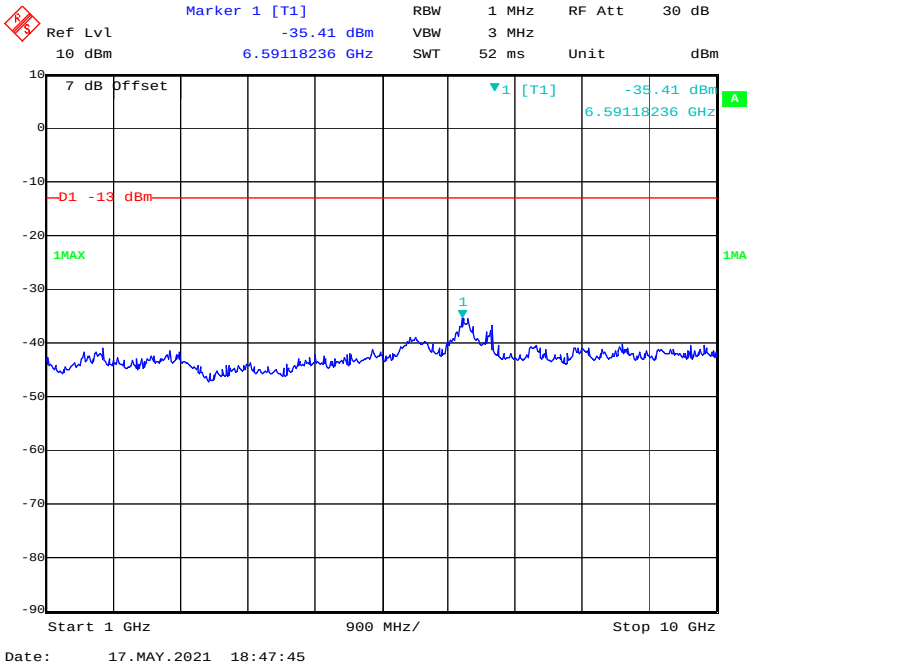
1 GHz – 10 GHz (3 MHz, 16-QAM, High Channel)



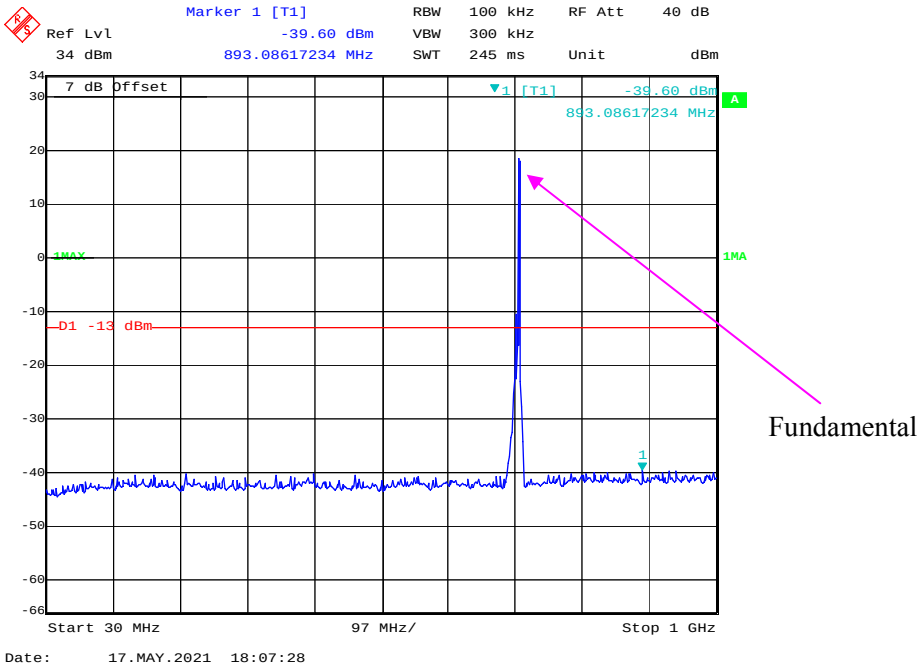
30 MHz - 1 GHz (5 MHz, QPSK, High Channel)



1 GHz – 10 GHz (5 MHz, QPSK, High Channel)

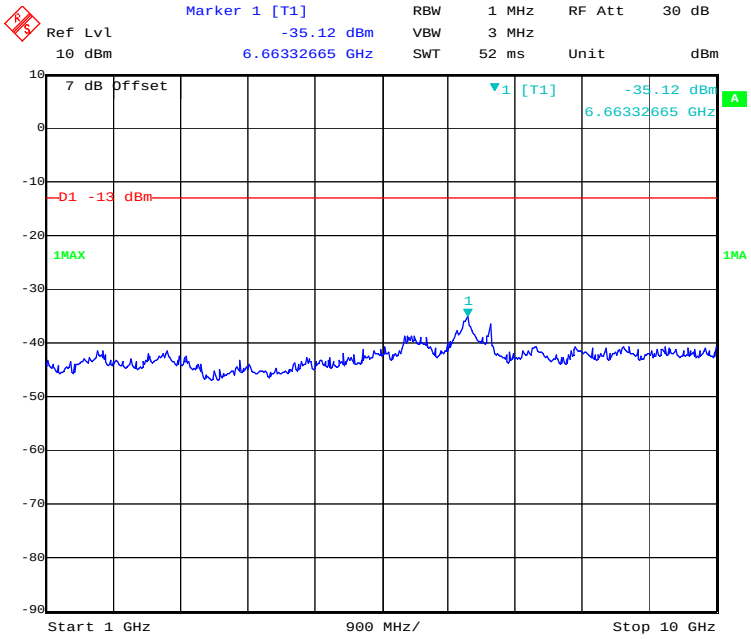


30 MHz - 1 GHz (5 MHz, 16-QAM, High Channel)



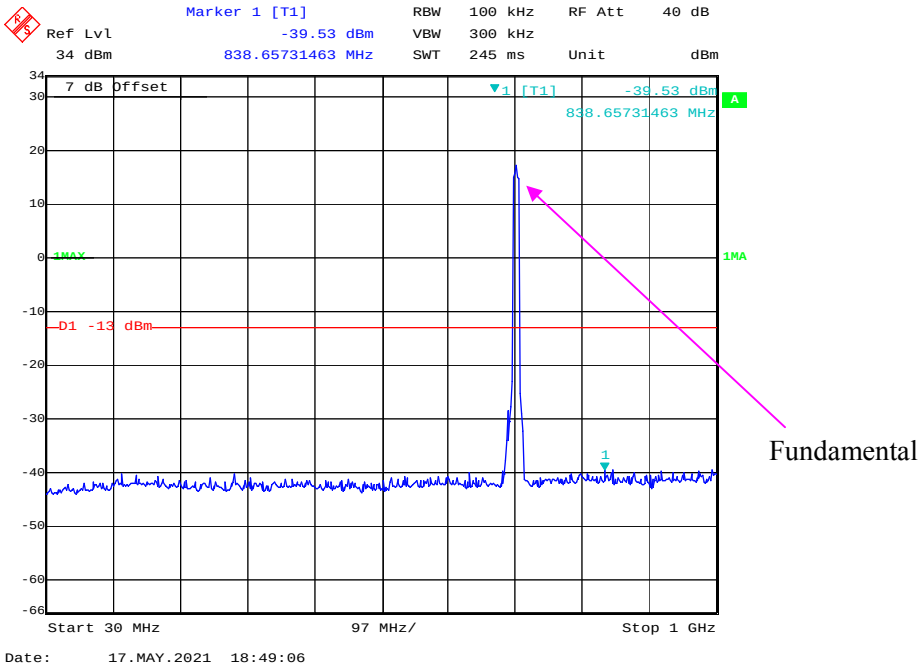
Date: 17.MAY.2021 18:07:28

1 GHz – 10 GHz (5 MHz, 16-QAM, High Channel)



Date: 17.MAY.2021 18:07:39

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

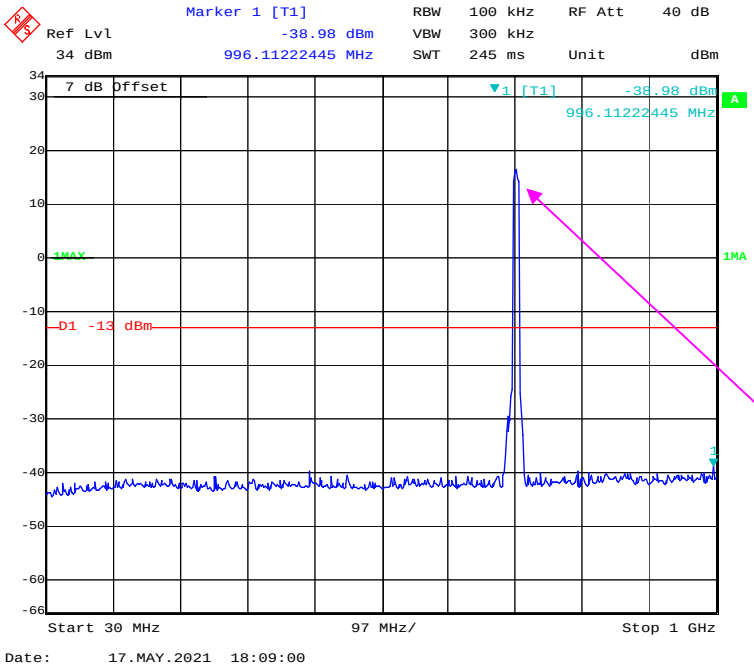


Date: 17.MAY.2021 18:49:06

1 GHz – 10 GHz (10 MHz, QPSK, High Channel)

Date: 17.MAY.2021 18:49:18

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



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