FCC PART 90

TEST REPORT

For

Baicells Technologies Co., Ltd.

3F, Hui Yuan Development Building, No.1 Shangdi Information Industry Base, Haidian Dist., Beijing, China

FCC ID: 2AG32EG7035E

Report Type:	**Product Type:**
Original Report	LTE Outdoor CPE

Report Number:	RSZ170227001-00A
Report Date:	2017-05-17
Reviewed By:	Oscar Ye RF Engineer
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

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Baicells Technologies Co., Ltd.*'s product, model number: *EG7035E (FCC ID: 2AG32EG7035E) in* this report is a *LTE Outdoor CPE*, which was measured approximately: 24.8 cm (L) * 24.8 cm (W) * 8.0 cm (H), rated with input voltage: DC24.0V from POE.

** All measurement and test data in this report was gathered from production sample serial number: 1700289 (Assigned by BACL, Kunshan). The EUT supplied by the applicant was received on 2017-02-27.*

Objective

This test report is prepared on behalf of *Baicells Technologies Co., Ltd.* in accordance with Part 2, and Part 90 of the Federal Communication Commissions rules.

Related Submittal(s)/Grant(s)

FCC Part 15.247 DTS submissions with FCC ID: 2AG32EG7035E.

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 Z as well as the following individual parts:

Part 90 – Wireless Broadband Services in the 3650-3700 MHz Band

Applicable Standards: TIA 603-D and ANSI 63.4-2014.

All emissions measurement was 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
RF conducted test with spectrum		±0.9dB
Radiated emission	30MHz~1GHz	±5.91dB
	Above 1G	±4.92dB
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.

Test site at Bay Area Compliance Laboratories Corp. (Kunshan) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on November 06, 2014. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2014.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 815570. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in a test mode which has been done in the factory.

Equipment Modifications

No modification was made to the EUT tested.

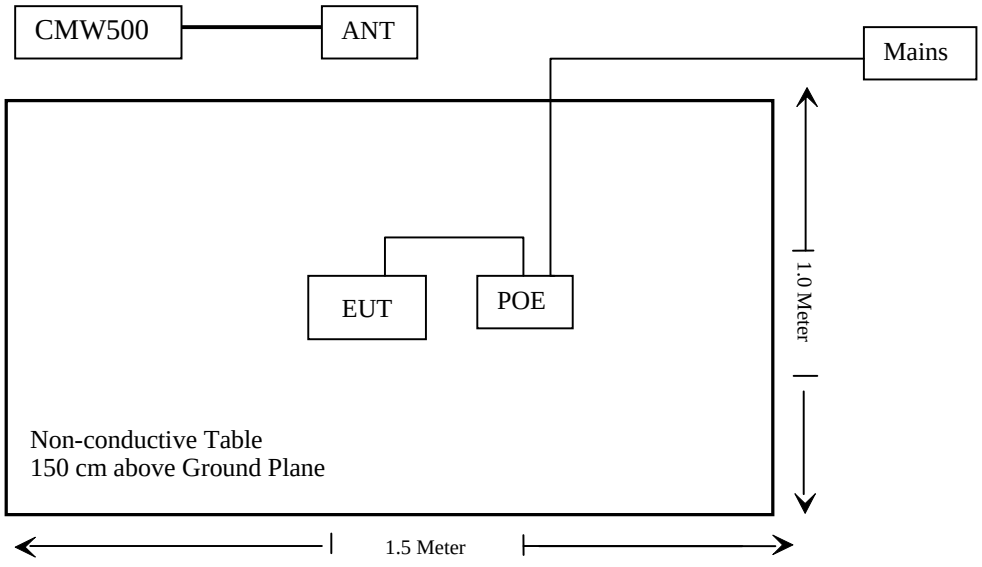
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Rohde & Schwarz	Wideband Radio Communication Tester	CMW500	1201.002K50-116218-UY

External I/O Cable

Cable Description	Length (m)	From Port	To
Un-shielding Un-detachable AC cable	1.0	POE	Mains
Un-shielding detachable RJ45 cable	1.5	POE	EUT

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Results
§1.1307 (b)(1), §2.1091	Maximum Permissible Exposure (MPE)	Compliance
§2.1046; §90.1321(a)	RF Output Power	Compliance
§90.1321(a)	Peak Power Spectral Density	Compliance
§2.1049; §90.209	Occupied Bandwidth	Compliance
§2.1051; §90.1323(a)	Spurious Emission at Antenna Terminal	Compliance
§2.1053	Spurious Radiated Emissions	Compliance
§2.1055; §90.213	Frequency Stability	Compliance

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test					
Sonoma Instrunent	Amplifier	330	171377	2016-12-12	2017-12-12
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2016-11-25	2017-11-25
Sunol Sciences	Broadband Antenna	JB3	A090314-2	2016-01-09	2019-01-08
Sunol Sciences	Broadband Antenna	JB3	A090314-1	2016-01-09	2019-01-08
Narda	Pre-amplifier	AFS42-00101800	2001270	2016-09-08	2017-09-08
EMCO	Horn Antenna	3116	00084159	2016-10-18	2019-10-17
Rohde & Schwarz	Signal Analyzer	FSIQ26	100048	2016-11-25	2017-11-25
ETS	Horn Antenna	3115	6229	2016-01-11	2017-01-10
ETS	Horn Antenna	3115	9311-4159	2016-01-11	2017-01-10
R&S	Auto test Software	EMC32	V 09.10.0	NCR	NCR
haojintech	Coaxial Cable	Cable-1	001	2016-12-12	2017-12-12
haojintech	Coaxial Cable	Cable-2	002	2016-12-12	2017-12-12
haojintech	Coaxial Cable	Cable-3	003	2016-12-12	2017-12-12
MICRO-COAX	Coaxial Cable	Cable-4	004	2016-12-12	2017-12-12
MICRO-COAX	Coaxial Cable	Cable-5	005	2016-12-12	2017-12-12
MICRO-COAX	Coaxial Cable	Cable-7	007	2016-12-12	2017-12-12
HP	Signal Generator	8341B	2624A00116	2016-08-29	2017-08-29
RF Conducted test					
BACL	TS 8997 Cable-01	T-KS-EMC086	T-KS-EMC086	2016-12-09	2017-12-08
BACL	RF cable	KS-LAB-012	KS-LAB-012	2016-12-15	2017-12-14
Rohde & Schwarz	Signal Analyzer	FSIQ26	836131/009	2016-09-21	2017-09-21
R&S	Wideband Radio Communication tester	CMW500	1201.002K50-116218-UY	2016-10-08	2017-10-08
HONOVA	Power Splitter	ZFRSC-14-S+	019411452	2016-06-12	2017-06-12
WEINSCHEL	3dB Attenuator	5326	N/A	2016-06-18	2017-06-18

*** 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) (1) & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart 1.1307 (b)(1), 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

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

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

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

Result

Calculated Formulary:

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

S = power density (in appropriate units, e.g. mW/cm2)
P = power input to the antenna (in appropriate units, e.g., mW).
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Frequency (MHz)	Antenna Gain		Max Tune-up Power		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
	(dBi)	(numeric)	(dBm)	(mW)			
3650-3700	19.5	89.13	17	50.12	30	0.395	1.0
2412-2462	2	1.58	15.0	31.62	30	0.004	1.0

$$\sum_i \frac{S_i}{S_{Limit,i}} = 0.395 + 0.004 = 0.399 < 1.0$$

Radiation Exposure Statement:

To comply with FCC RF exposure requirements, a minimum separation distance of 30cm is required between the antenna and all public persons.

FCC §2.1046, §90.1321(a) - RF OUTPUT POWER

Applicable Standard

FCC §2.1046 and §90.1321

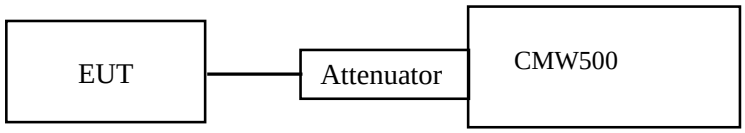
Limit

According to FCC §90.1321:

(a) Base and fixed stations are limited to 25 watts/25 MHz equivalent isotropically radiated power (EIRP). In any event, the peak EIRP power density shall not exceed 1 Watt in any one-megahertz slice of spectrum.

Test Procedure

The EUT was connected to a CMW500 through a attenuator,the EUT power was adjusted to produce maximum output power as specified in the owner's manual,measurements were performed at the low,mid and high channels for each of the EUT's bandwidths and modulations.



Test Data

Environmental Conditions

Temperature:	23 ℃
Relative Humidity:	50 %
ATM Pressure:	101.0 kPa

The testing was performed by Nefertari Xu on 2017-04-06.

Test Mode: Transmitting

Test Result: Compliance. Please refer to following table.

LTE Band: 3650-3700MHz-full RB

Modulation	Frequency (MHz)	Output Power (dBm)	Antenna gain (dBi)	EIRP (dBm)	Limited (dBm)
QPSK(5MHz)	3652.5	16.31	19.5	35.81	37.01
	3675	16.64	19.5	36.14	
	3697.5	16.87	19.5	36.37	
16QAM(5MHz)	3652.5	16.45	19.5	35.95	
	3675	16.71	19.5	36.21	
	3697.5	16.95	19.5	36.45	
QPSK(10MHz)	3655	16.29	19.5	35.79	40.02
	3675	16.60	19.5	36.1	
	3695	16.84	19.5	36.34	
16QAM(10MHz)	3655	16.35	19.5	35.85	
	3675	16.63	19.5	36.13	
	3695	16.84	19.5	36.34	
QPSK(15MHz)	3657.5	16.28	19.5	35.78	41.78
	3675	16.59	19.5	36.09	
	3692.5	16.72	19.5	36.22	
16QAM(15MHz)	3657.5	16.33	19.5	35.83	
	3675	16.62	19.5	36.12	
	3692.5	16.79	19.5	36.29	
QPSK(20MHz)	3660	16.30	19.5	35.80	43.03
	3675	16.39	19.5	35.89	
	3690	16.43	19.5	35.93	
16QAM(20MHz)	3660	16.34	19.5	35.84	
	3675	16.45	19.5	35.95	
	3690	16.58	19.5	36.08	

Note: limit = 44dBm + 10Log (Bandwidth/25)
Eg: For 10 MHz Bandwidth, the limit =44dBm + 10Log (10/25) = 40.02 dBm

FCC §90.1321 (a) - PEAK POWER SPECTRAL DENSITY

Applicable Standard

FCC §90.1321 (a);

Limit

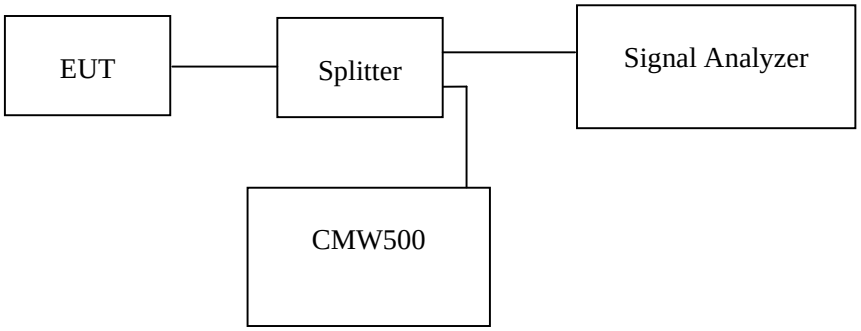
According to FCC §90.1321:

(a) Base and fixed stations are limited to 25 watts/25 MHz equivalent isotropically radiated power (EIRP). In any event, the peak EIRP power density shall not exceed 1 Watt in any one-megahertz slice of spectrum.

Test Procedure

The EUT was connected to a CMW500 & signal analyzer through a splitterr,the EUT power was adjusted to produce maximum output power as specified in the owner's manual,measurements were performed at the low,mid and high channels for each of the EUT's bandwidths and modulations.

The resolution bandwidth of the spectrum analyzer was set at 1MHz.



Test Data

Environmental Conditions

Temperature:	27℃
Relative Humidity:	55 %
ATM Pressure:	101.0 kPa

The testing was performed by Nefertari Xu on 2017-04-06.

Test Mode: Transmitting

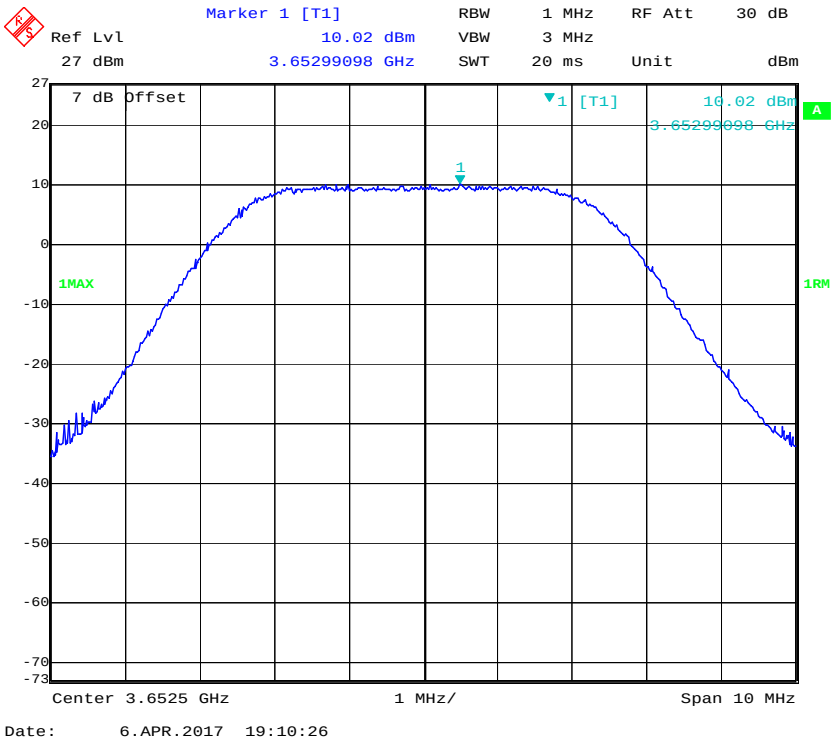
Result: Compliance.

LTE Band: 3650-3700MHz

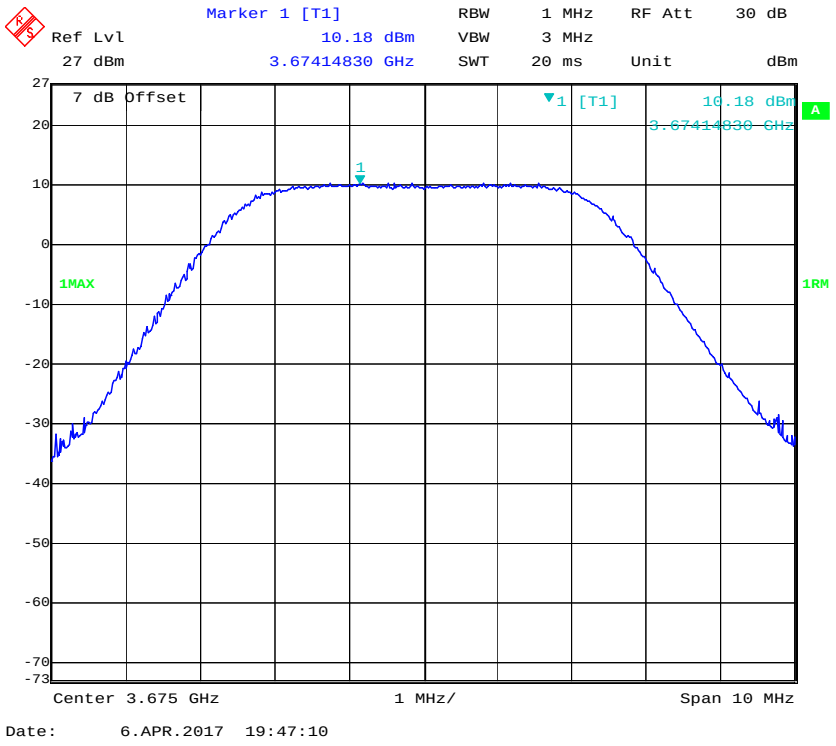
Modulation	Frequency (MHz)	Power Density (dBm/MHz)	Antenna Gain (dBi)	EIRP Power Density (dBm/MHz)	Limit (dBm/MHz)
QPSK(5MHz)	3652.5	10.02	19.5	29.52	30
	3675	10.18	19.5	29.68	
	3697.5	10.28	19.5	29.78	
16QAM(5MHz)	3652.5	10.06	19.5	29.56	
	3675	10.29	19.5	29.79	
	3697.5	10.15	19.5	29.65	
QPSK(10MHz)	3655	7.20	19.5	26.7	
	3675	7.99	19.5	27.49	
	3695	8.10	19.5	27.6	
16QAM(10MHz)	3655	7.66	19.5	27.16	
	3675	8.12	19.5	27.62	
	3695	8.00	19.5	27.50	
QPSK(15MHz)	3657.5	5.54	19.5	25.04	
	3675	5.79	19.5	25.29	
	3692.5	6.37	19.5	25.87	
16QAM(15MHz)	3657.5	5.31	19.5	24.81	
	3675	5.51	19.5	25.01	
	3692.5	6.31	19.5	25.81	
QPSK(20MHz)	3660	3.99	19.5	23.49	
	3675	4.19	19.5	23.69	
	3690	4.31	19.5	23.81	
16QAM(20MHz)	3660	3.57	19.5	23.07	
	3675	3.85	19.5	23.35	
	3690	4.26	19.5	23.76	

Please refer to the following plots

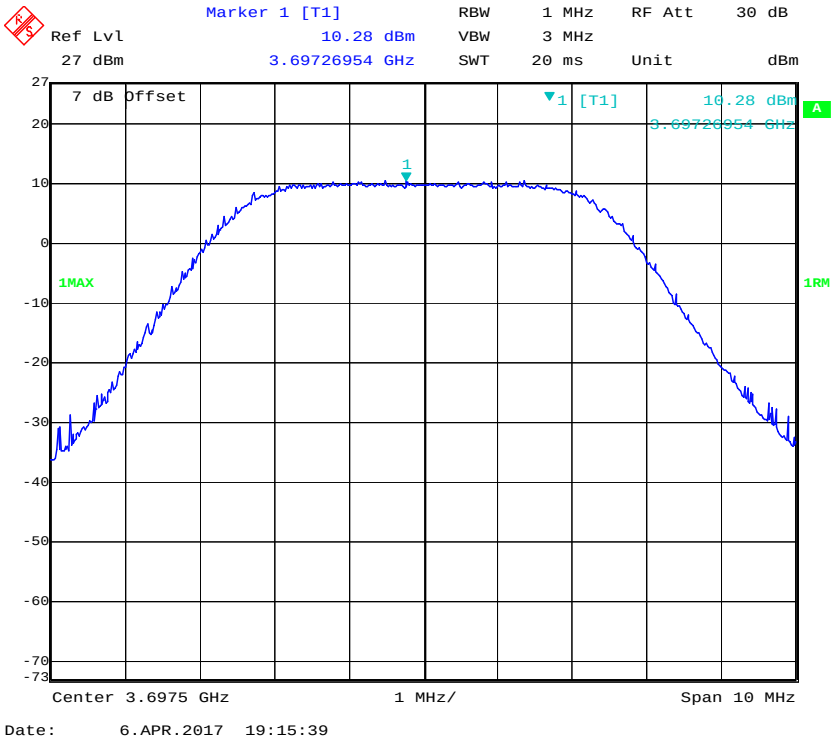
QPSK (5MHz), Low Channel



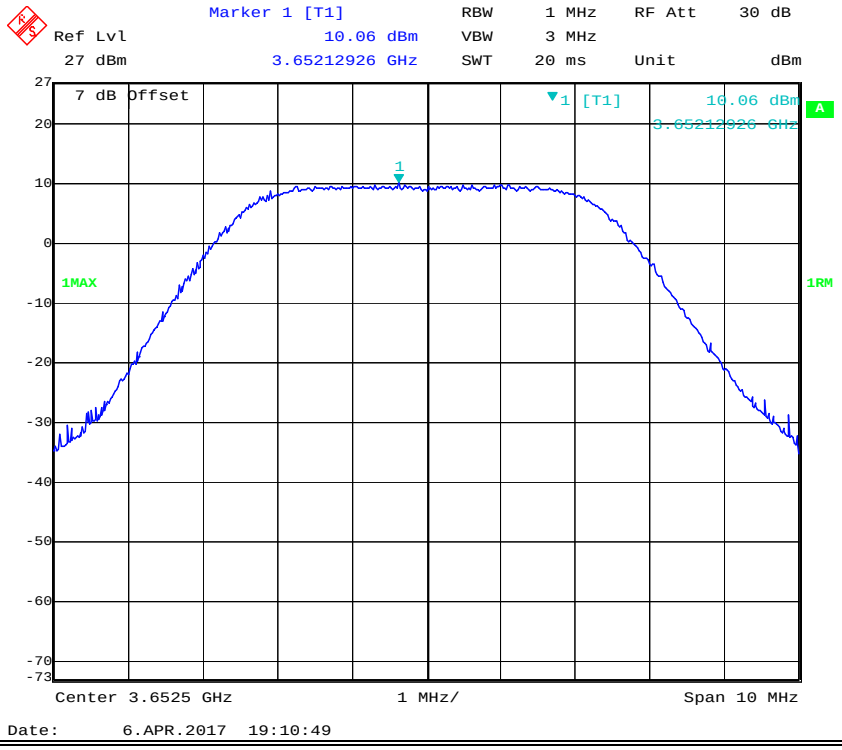
QPSK (5MHz), Middle Channel



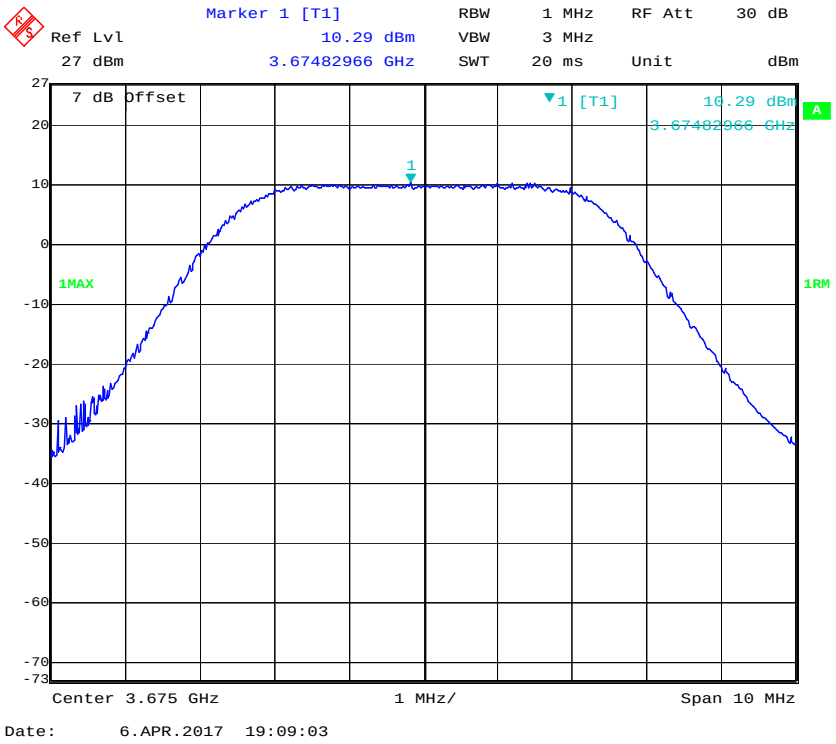
QPSK (5MHz), High Channel



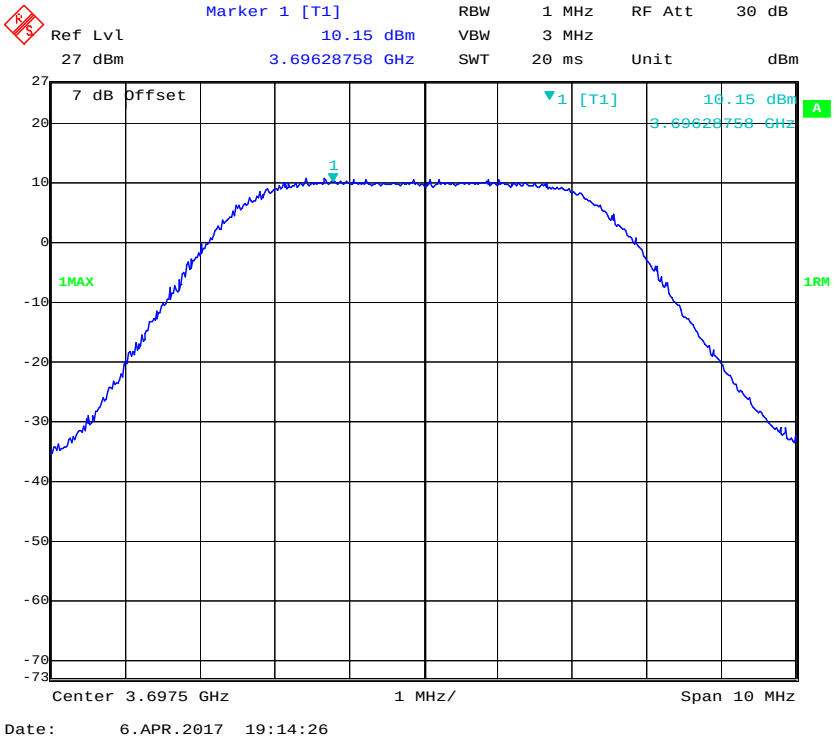
16QAM (5MHz), Low Channel



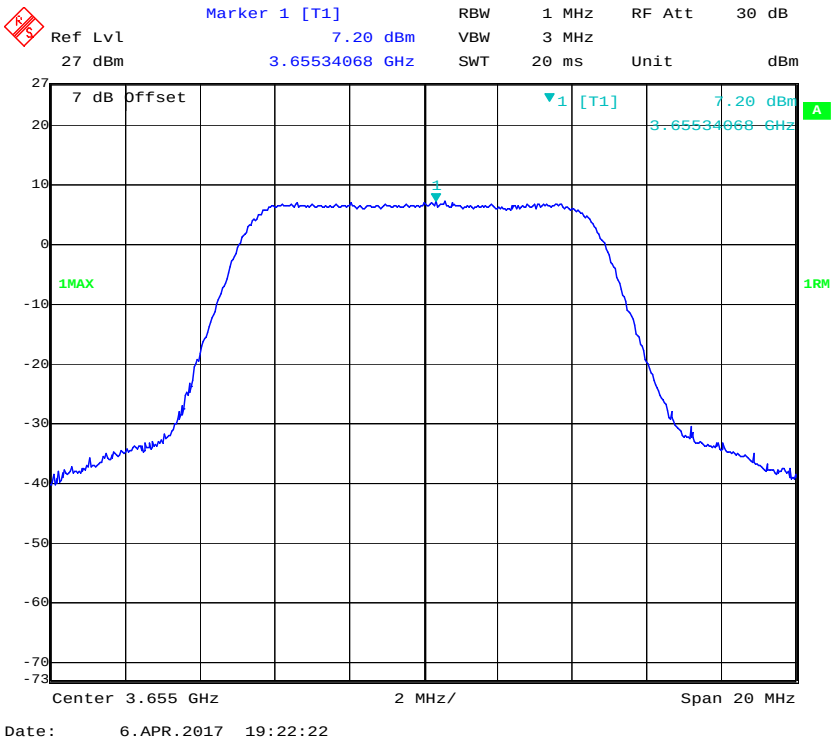
16QAM (5MHz), Middle Channel



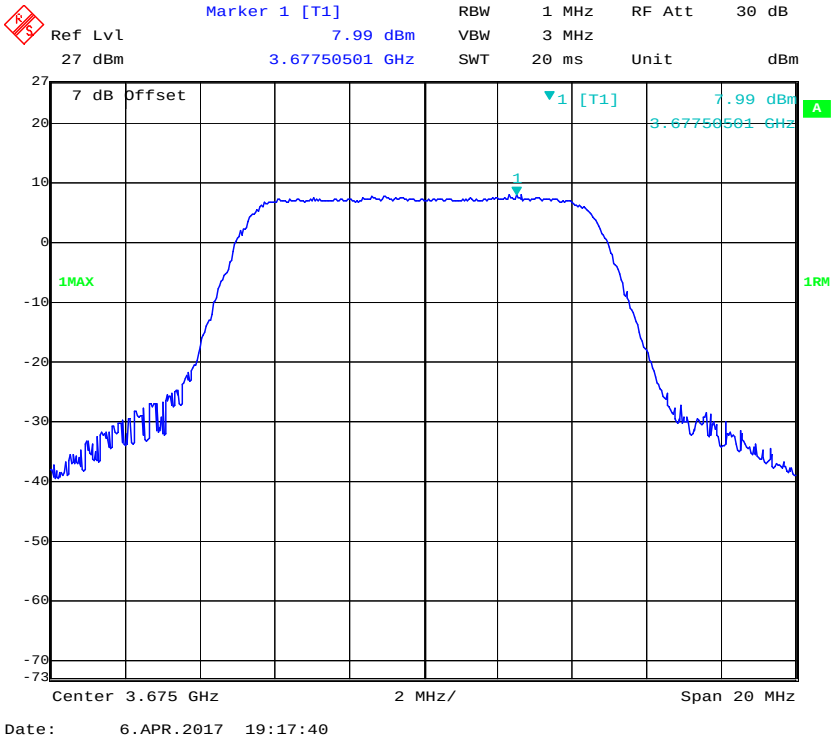
16QAM (5MHz), High Channel



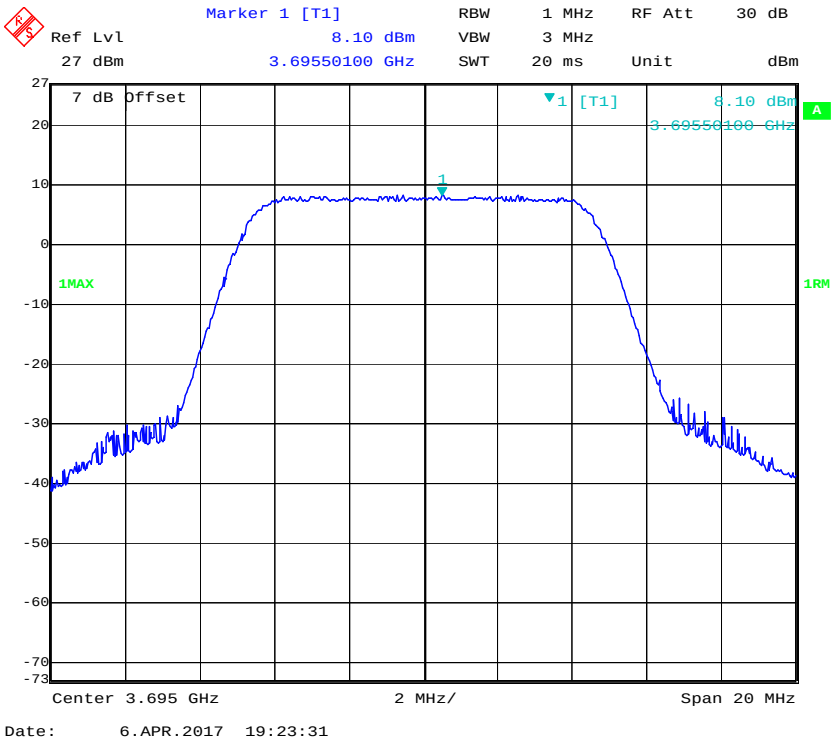
QPSK (10MHz), Low Channel



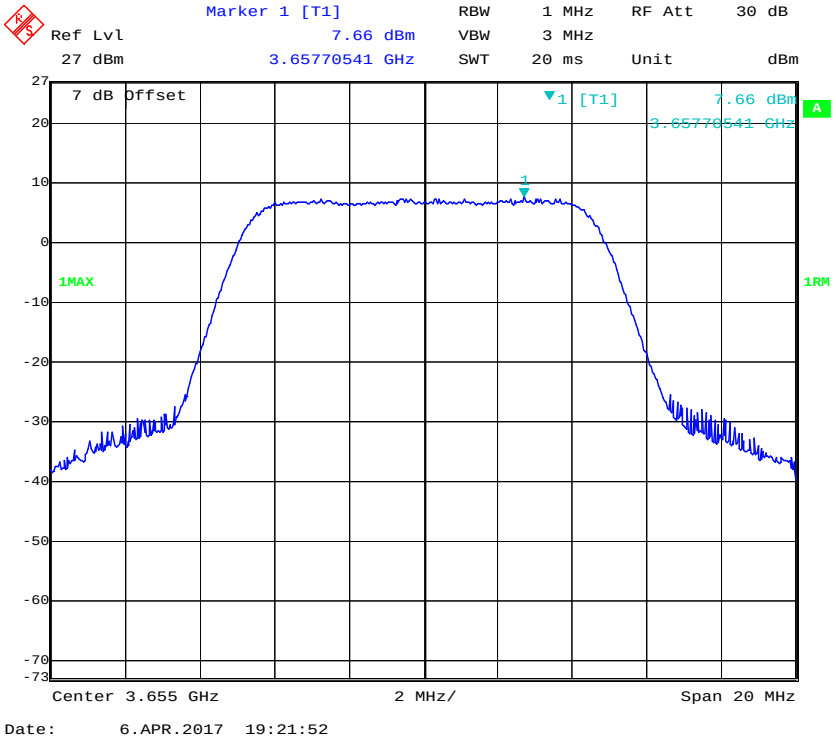
QPSK (10MHz), Middle Channel



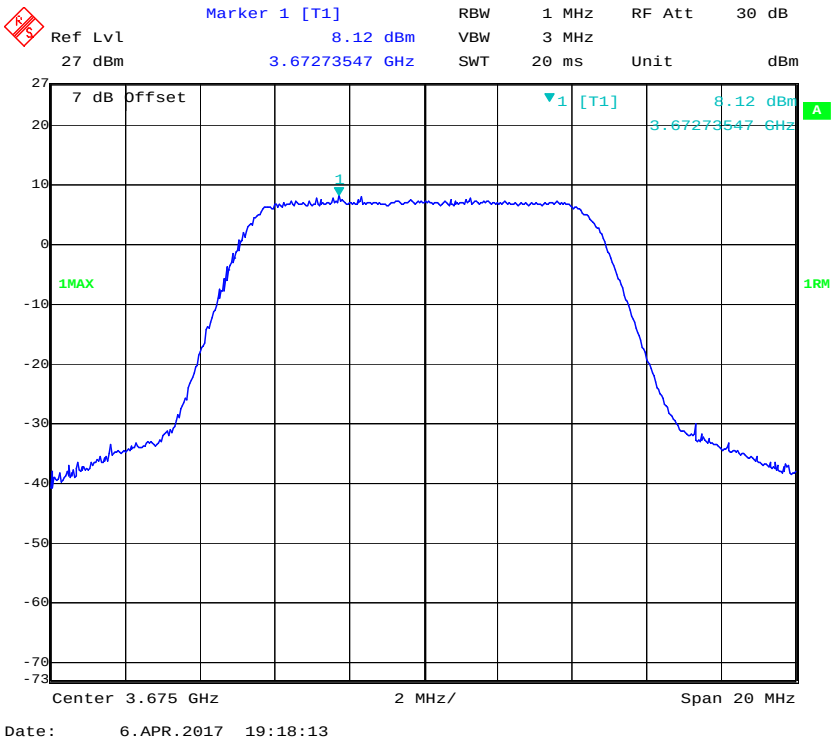
QPSK (10MHz), High Channel



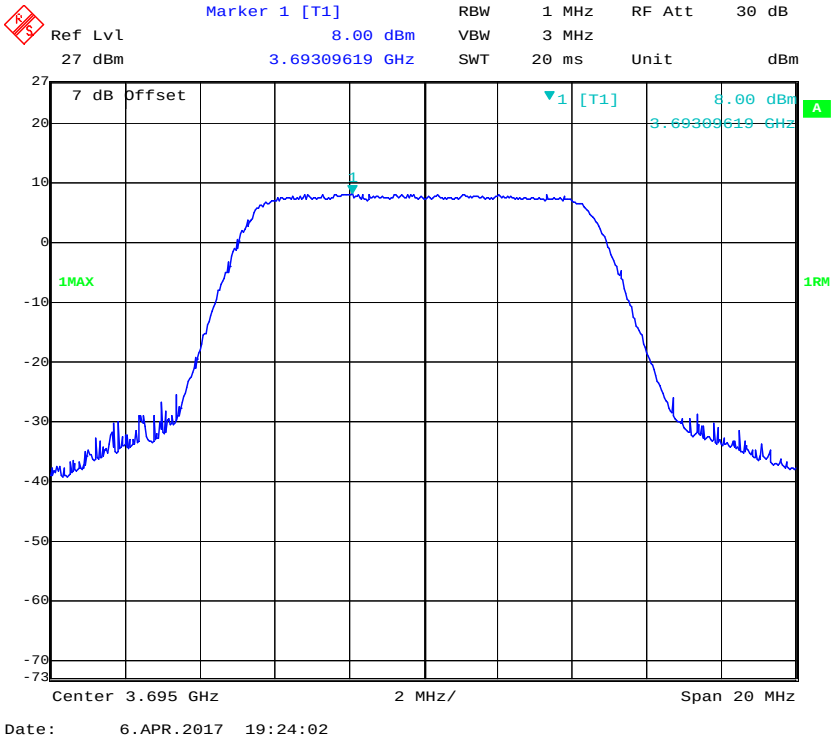
16QAM (10MHz), Low Channel



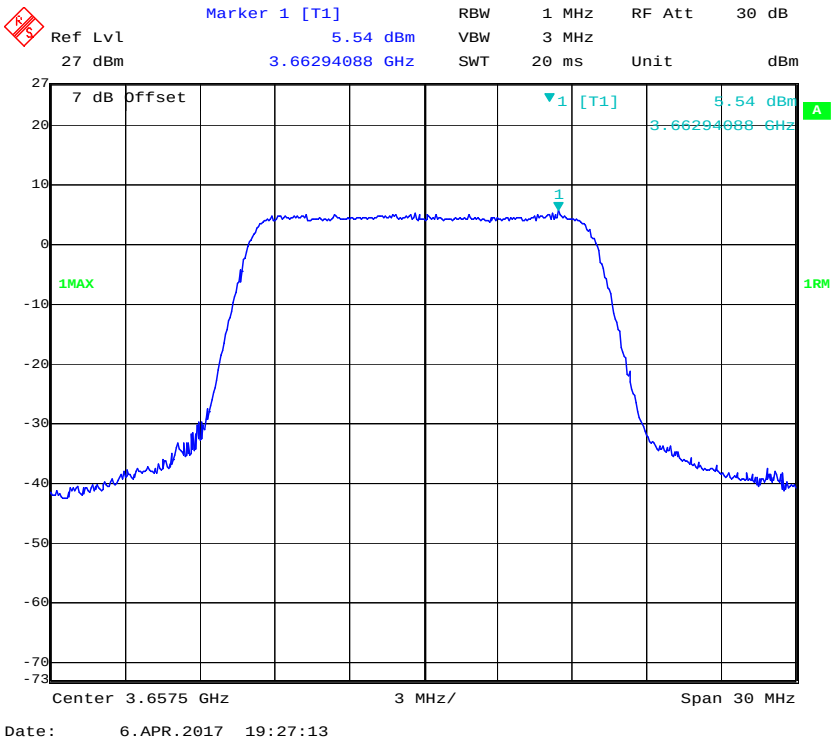
16QAM (10MHz), Middle Channel



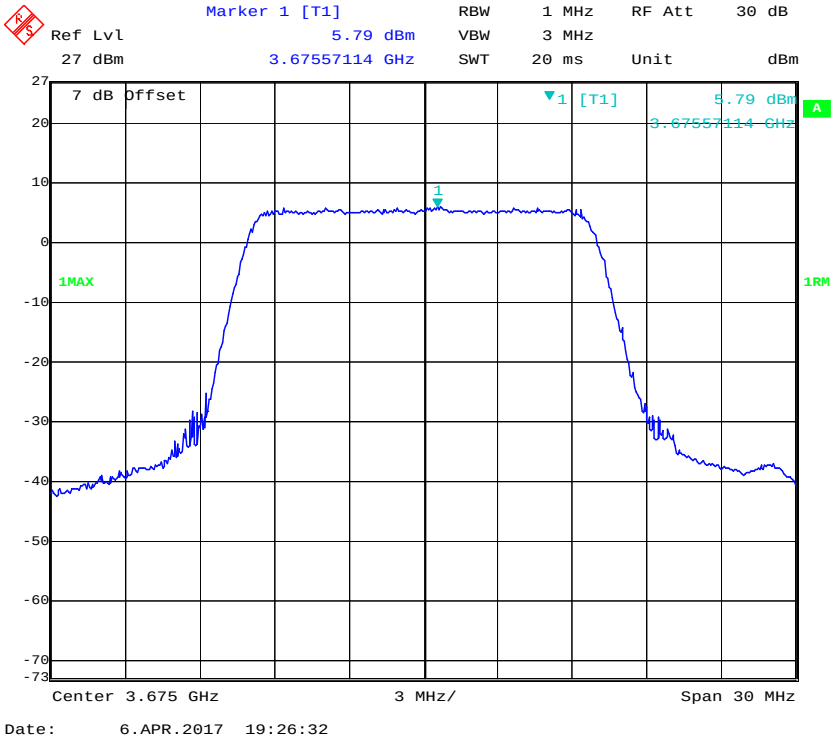
16QAM (10MHz), High Channel



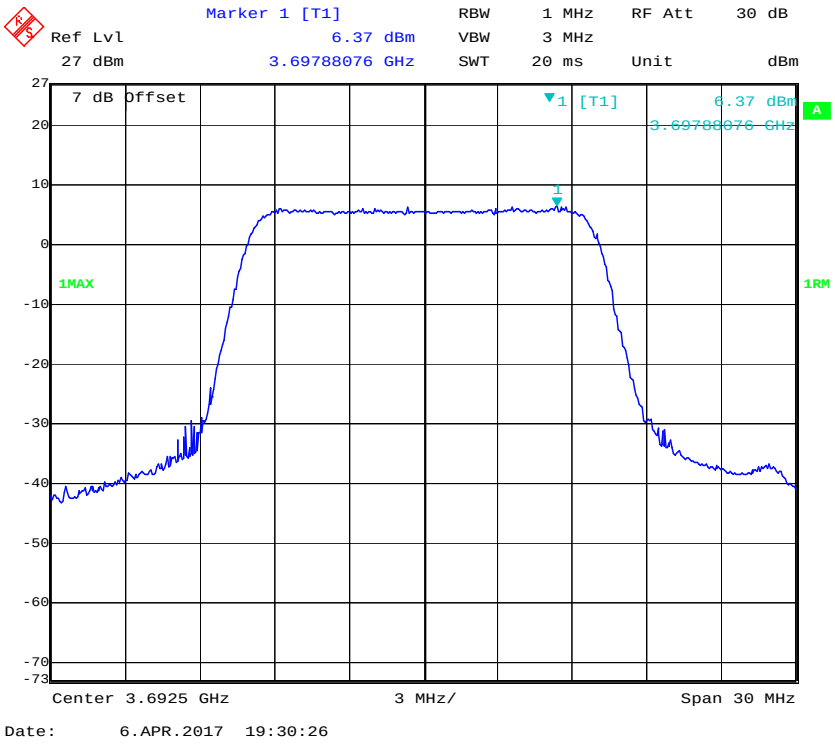
QPSK (15MHz), Low Channel



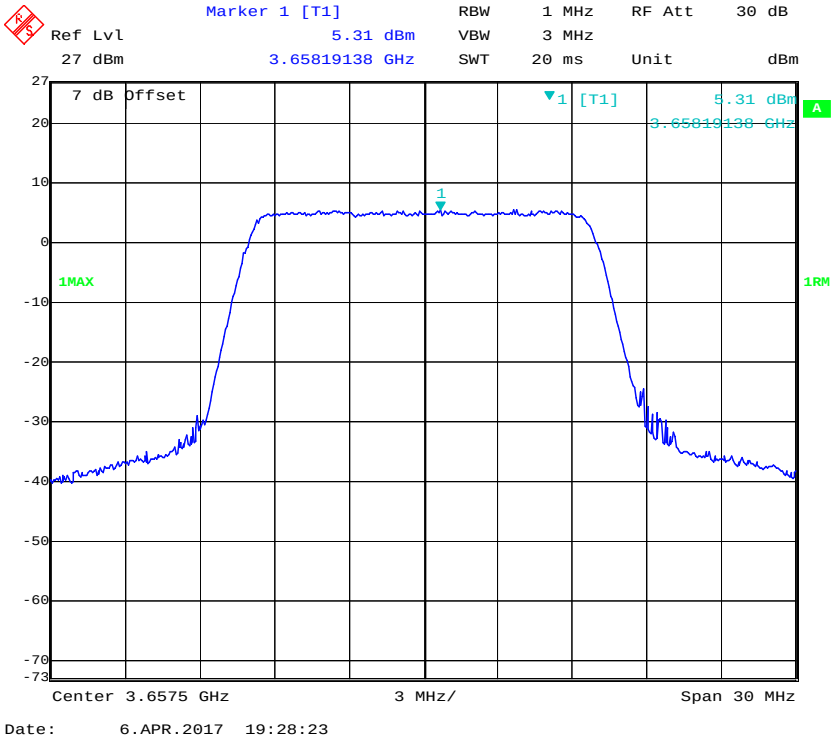
QPSK (15MHz), Middle Channel



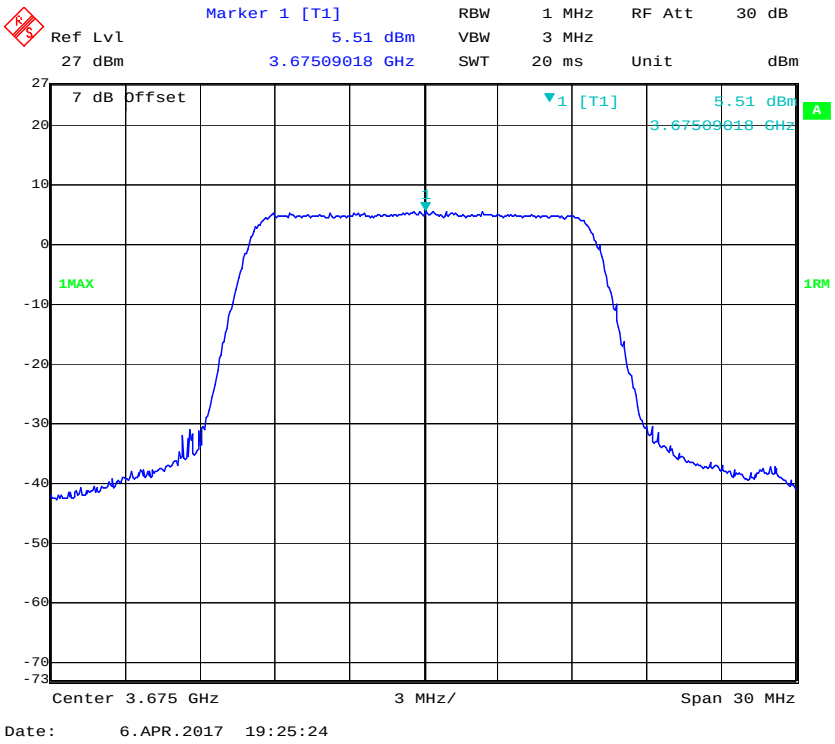
QPSK (15MHz), High Channel



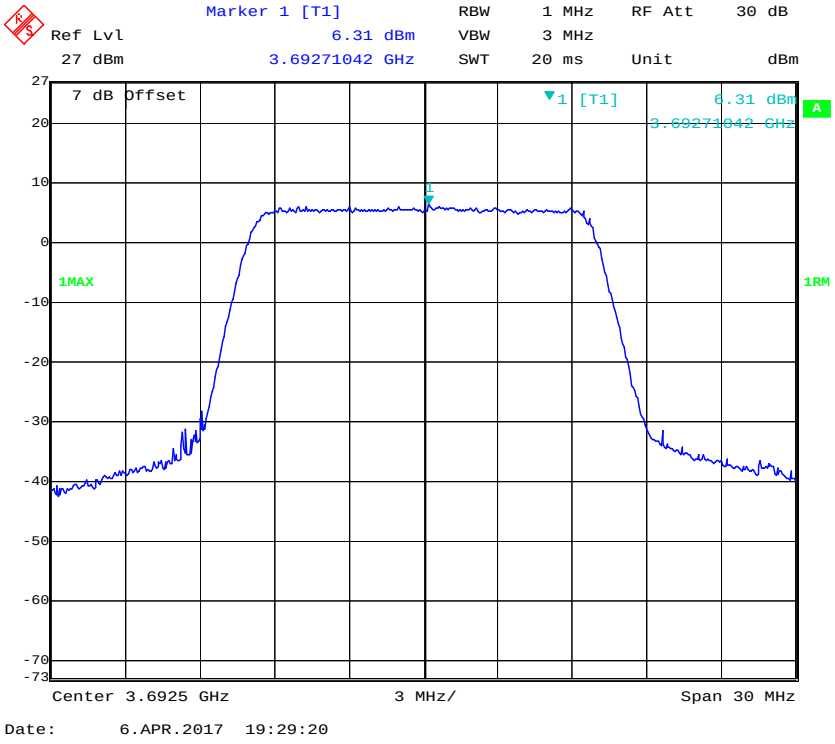
16QAM (15MHz), Low Channel



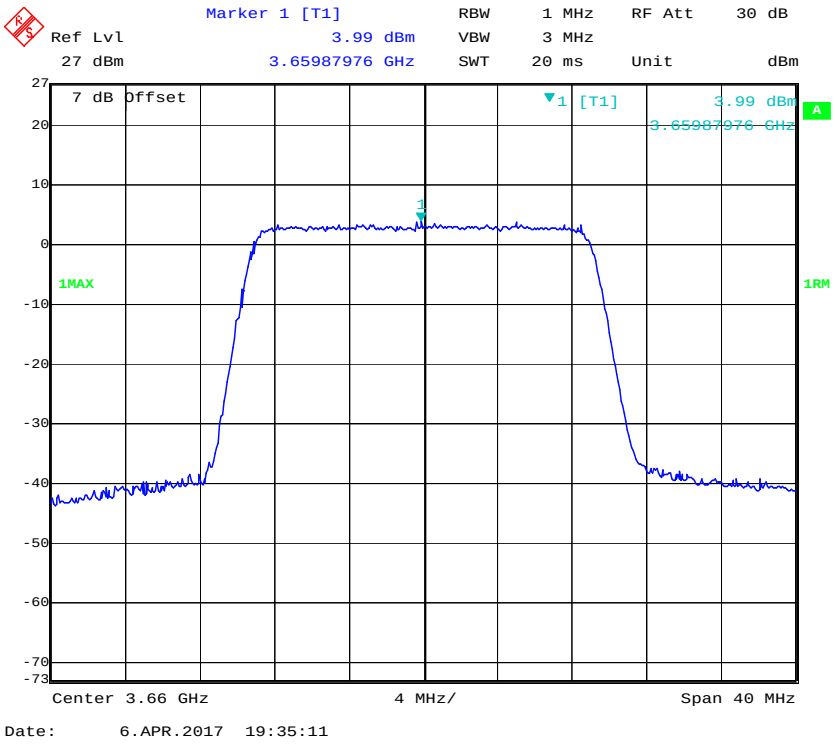
16QAM (15MHz), Middle Channel



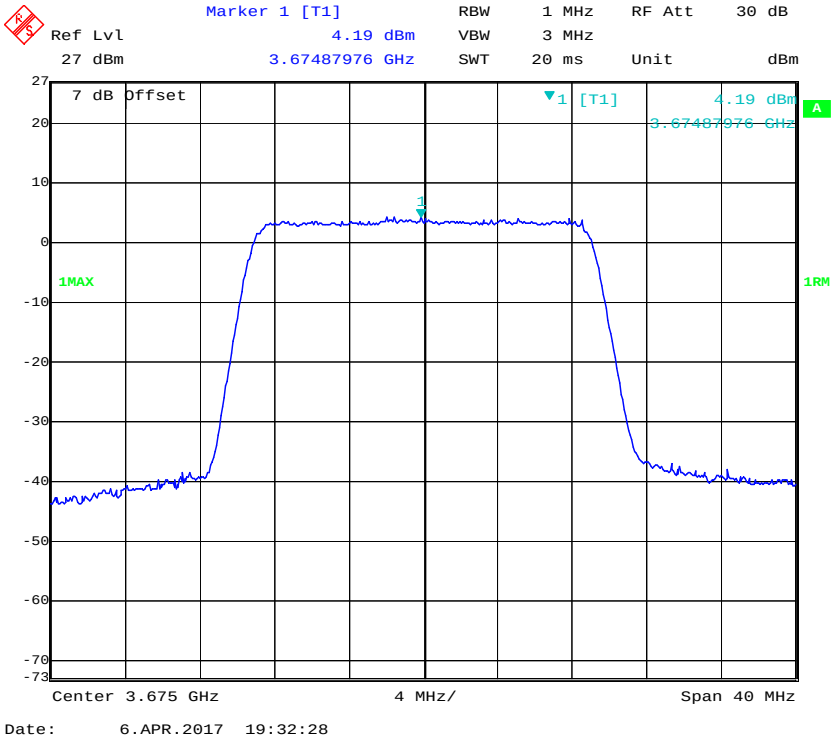
16QAM (15MHz), HighChannel



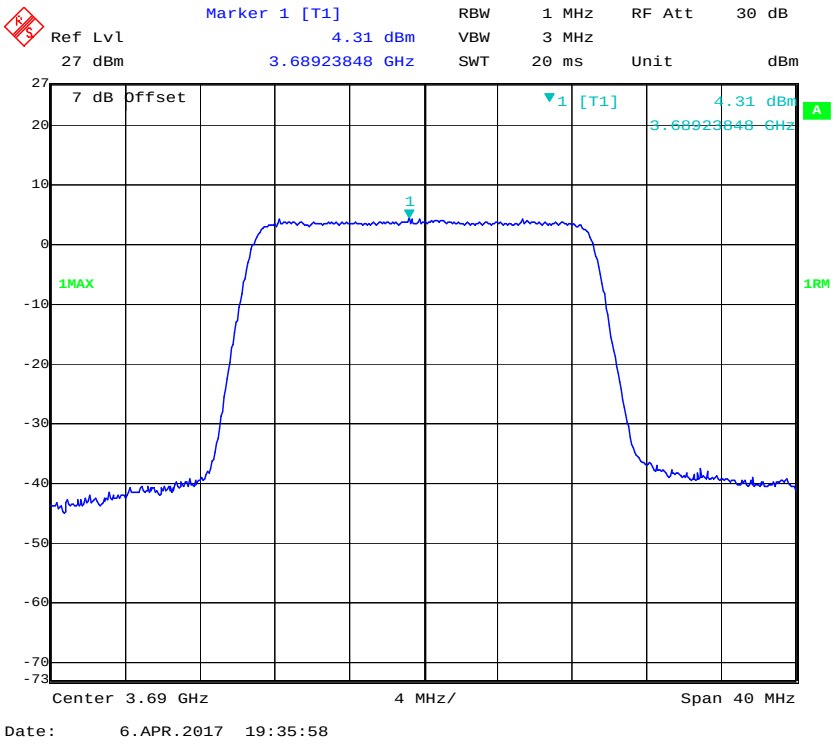
QPSK (20MHz), Low Channel



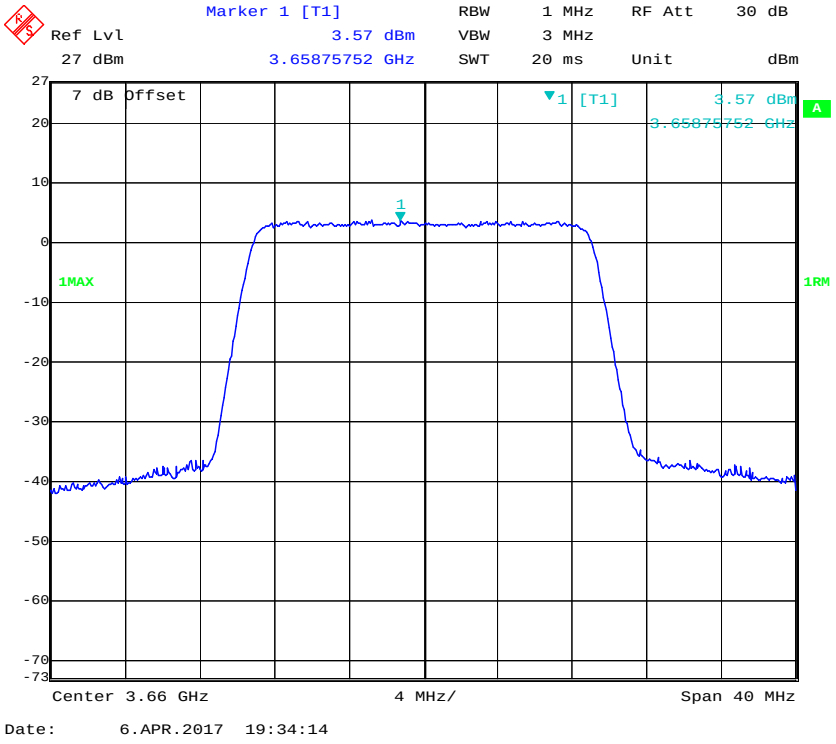
QPSK (20MHz), Middle Channel



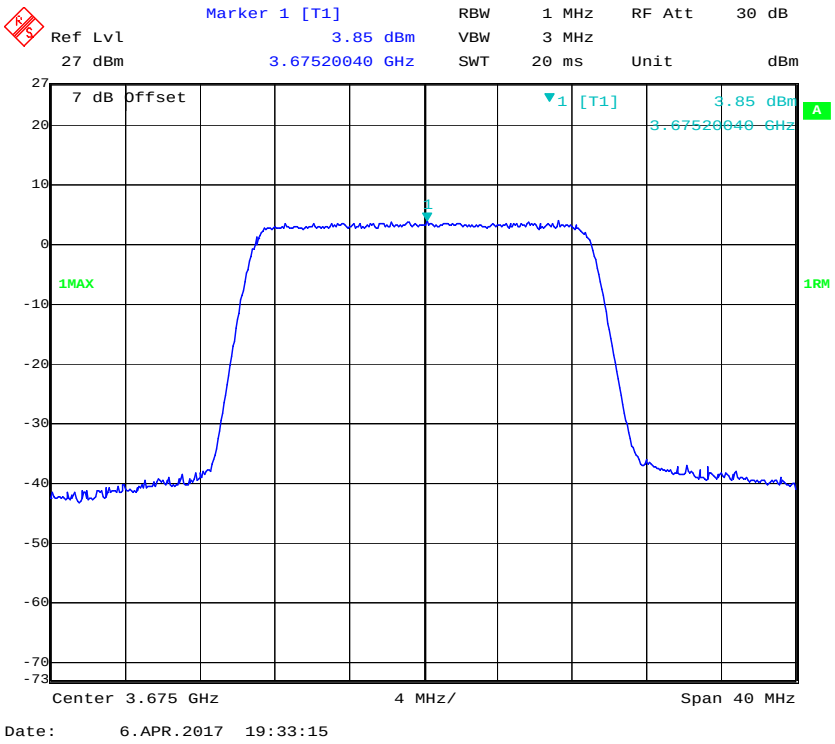
QPSK (20MHz), High Channel



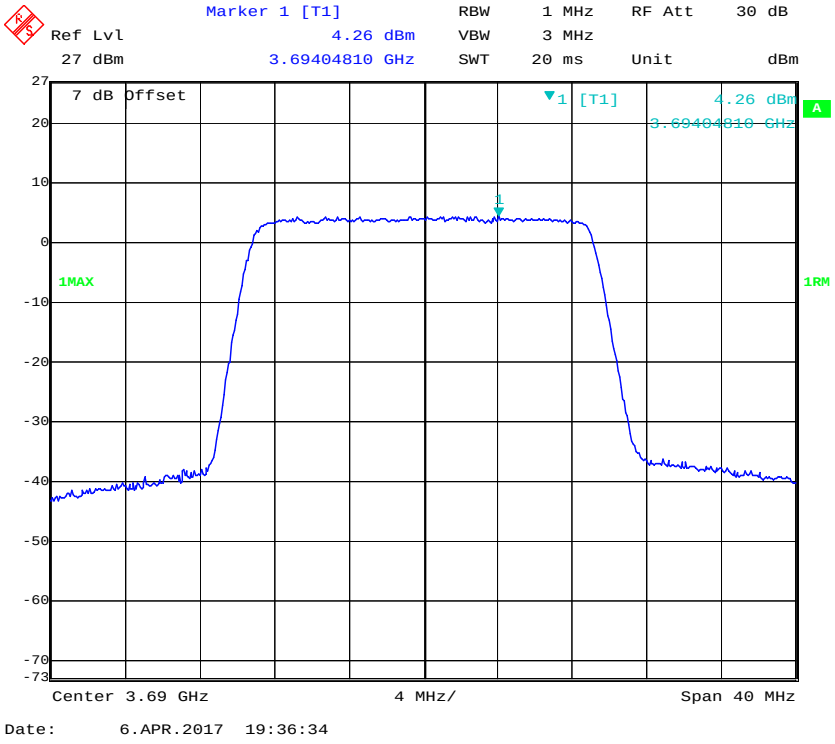
16QAM (20MHz), Low Channel



16QAM (20MHz), Middle Channel



16QAM (20MHz), High Channel



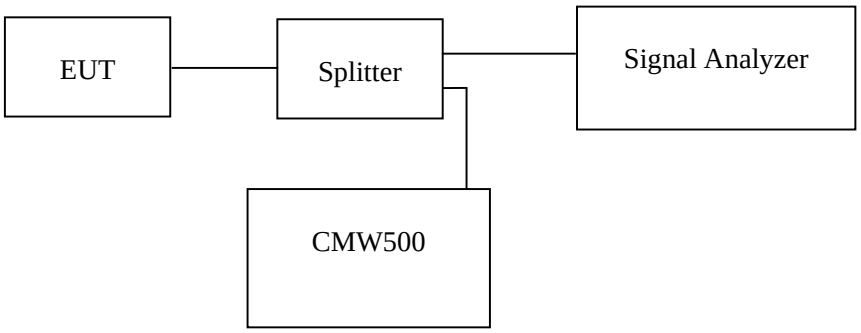
FCC §2.1049 & §90.209 – OCCUPIED BANDWIDTH

Applicable Standard

FCC §2.1049 and §90.209

Test Procedure

The EUT was connected to a CMW500 & signal analyzer through a splitterr,the EUT power was adjusted to produce maximum output power as specified in the owner's manual,measurements were performed at middle channel for each of the EUT's bandwidths and modulations.



Test Data

Environmental Conditions

Temperature:	25℃
Relative Humidity:	53 %
ATM Pressure:	101.0 kPa

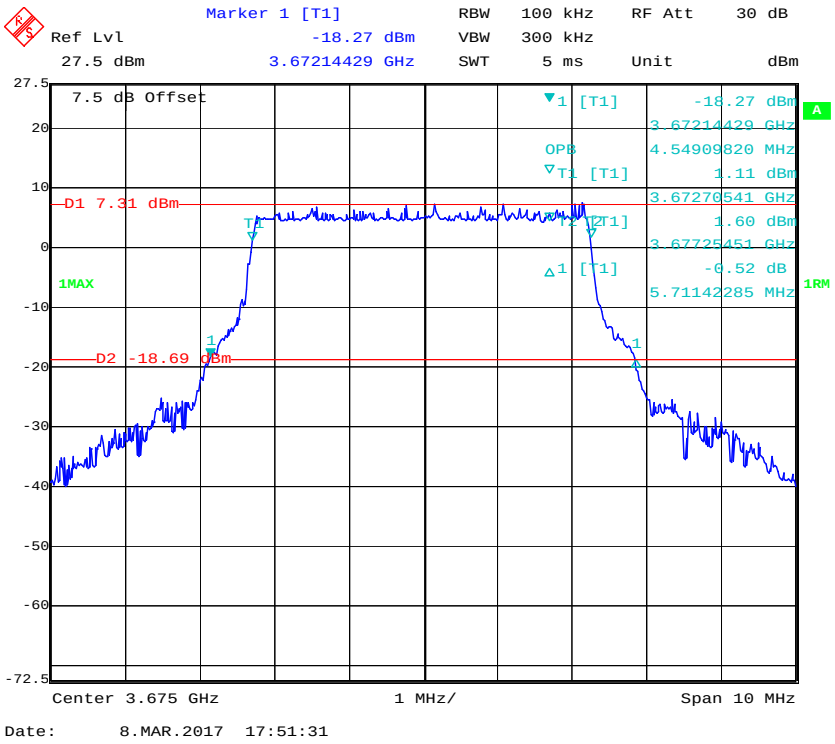
The testing was performed by Nefertari Xu on 2017-04-08.

LTE Band: 3650-3700MHz

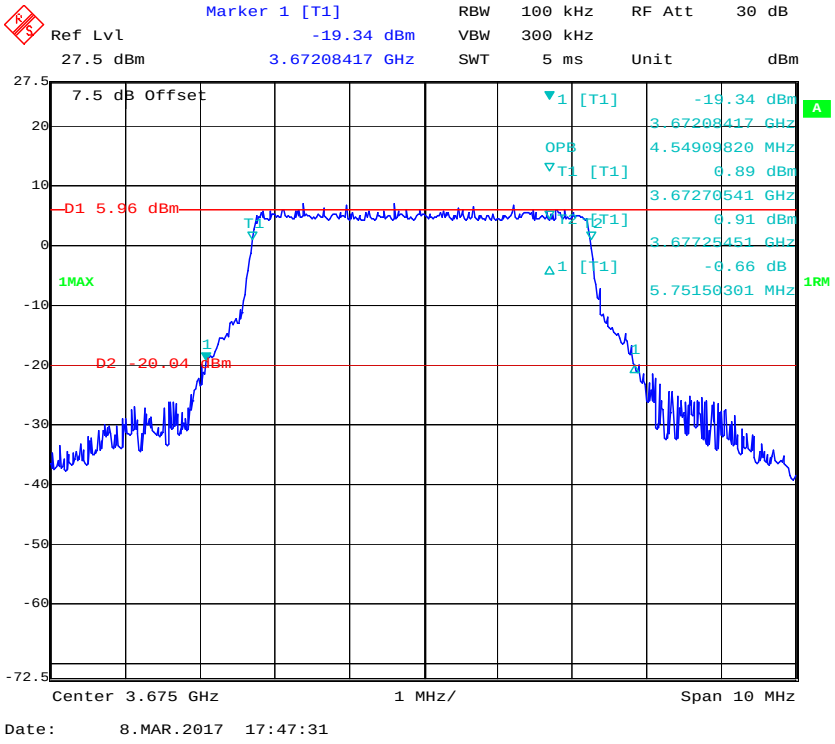
Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Emissions Bandwidth (MHz)
5M	QPSK	4.55	5.71
	16QAM	4.55	5.75
10M	QPSK	8.98	10.50
	16QAM	9.02	10.62
15M	QPSK	13.53	14.85
	16QAM	13.53	15.15
20M	QPSK	17.96	19.32
	16QAM	17.96	19.32

Please refer to the following plots:

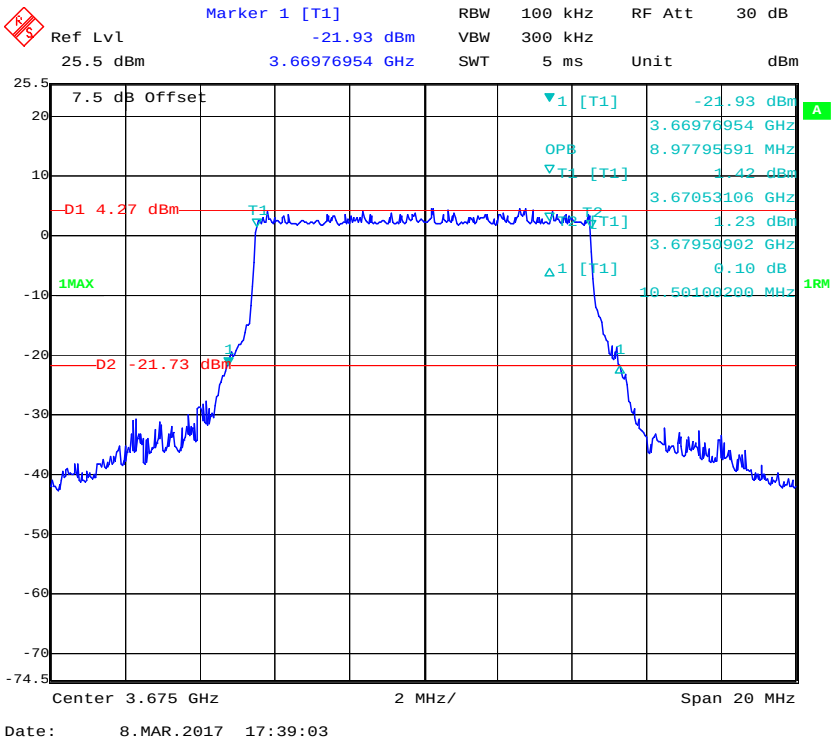
QPSK (5MHz), Middle Channel



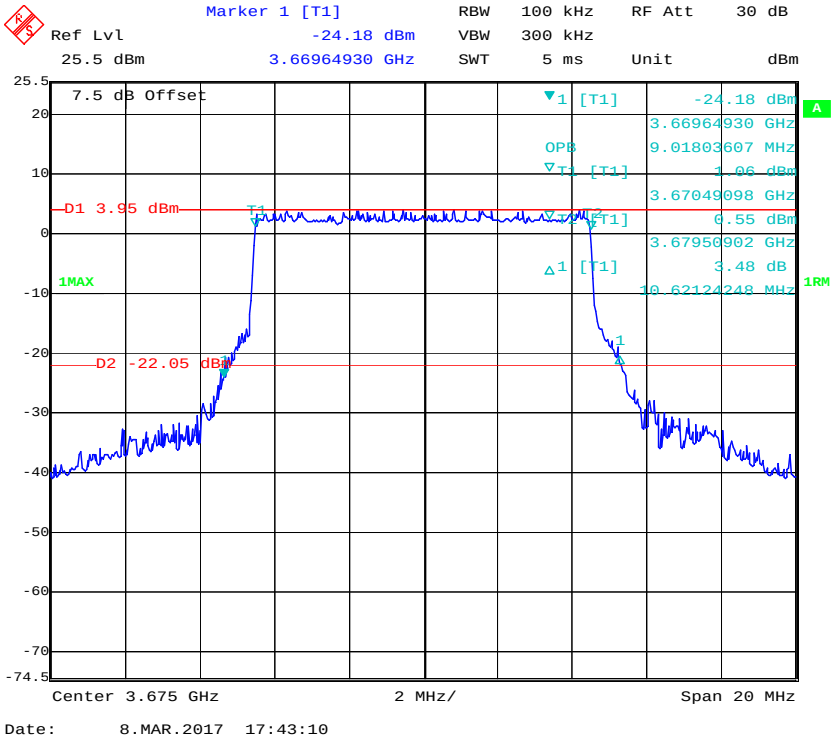
16QAM (5MHz), Middle Channel



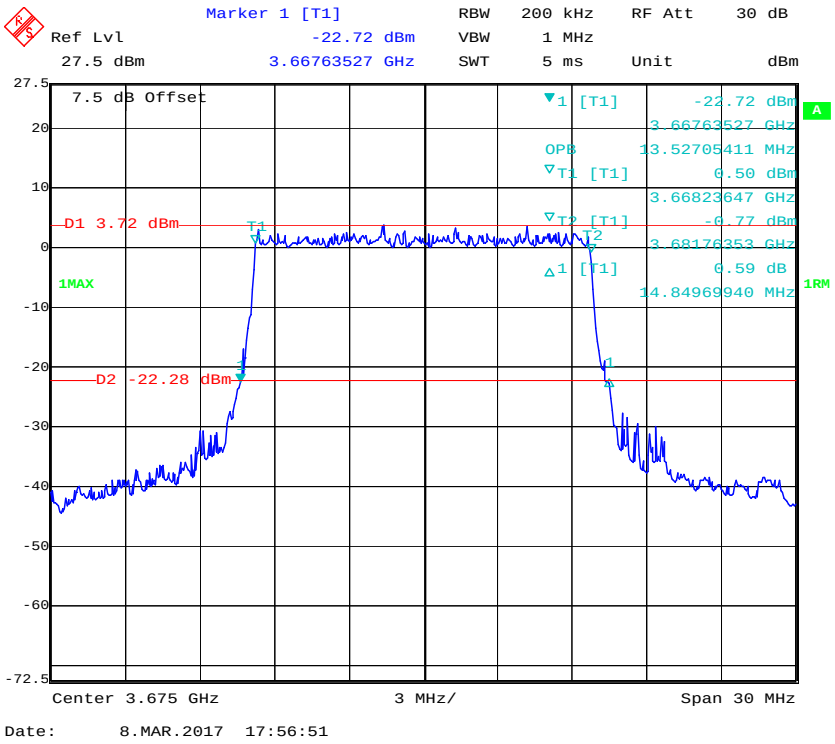
QPSK (10MHz), Middle Channel



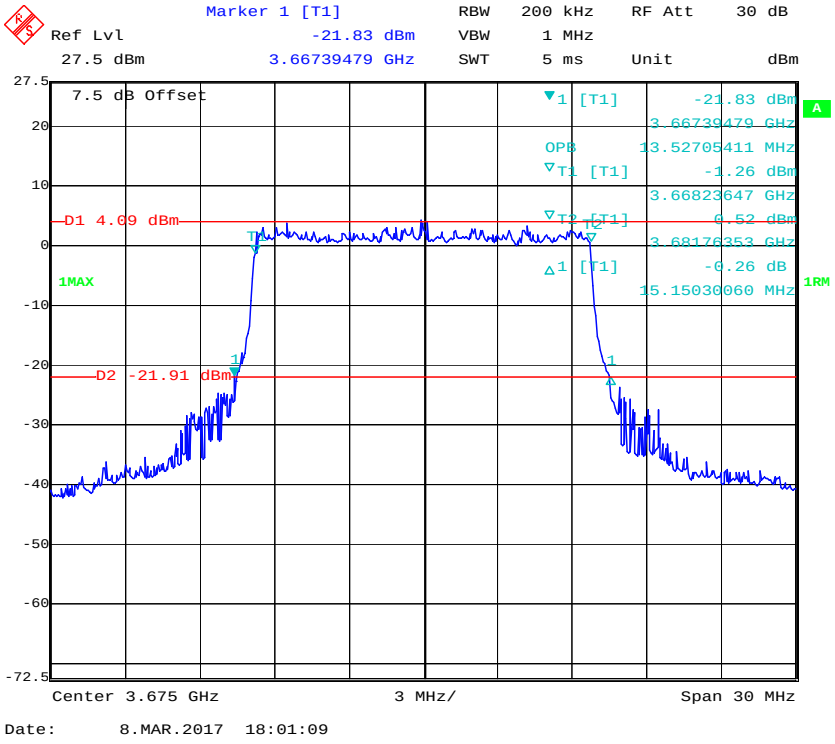
16QAM (10MHz), Middle Channel



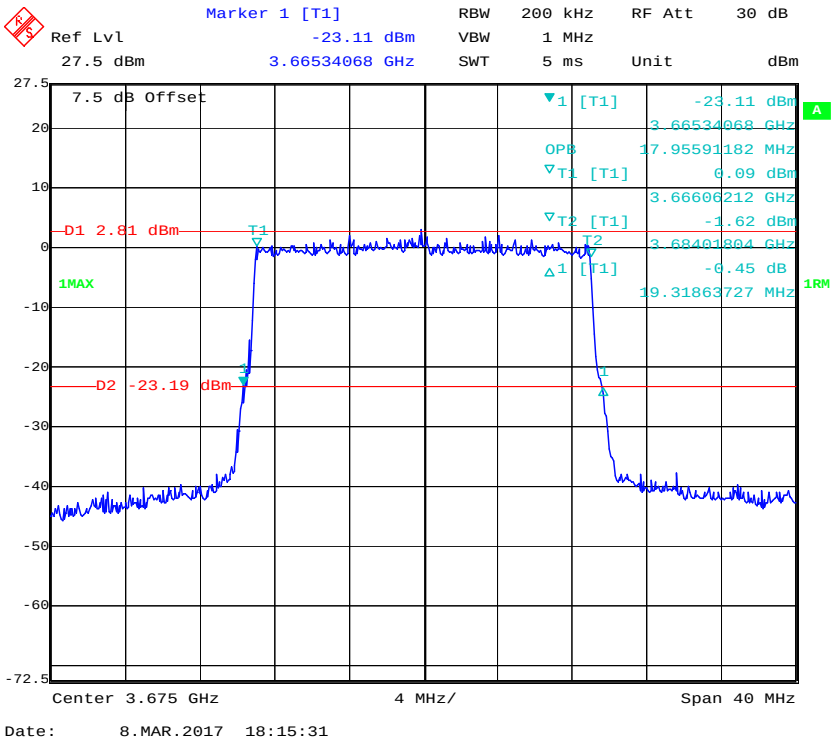
QPSK (15MHz), Middle Channel



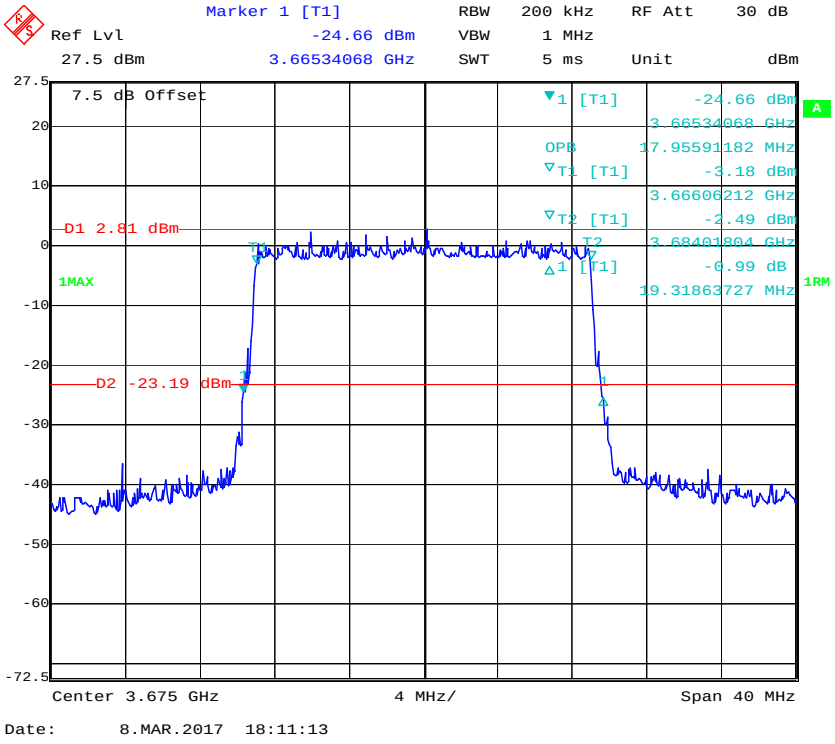
16QAM (15MHz), Middle Channel



QPSK (20MHz), Middle Channel



16QAM (20MHz), Middle Channel



FCC §2.1051 & §90.1323(a) - SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Applicable Standard

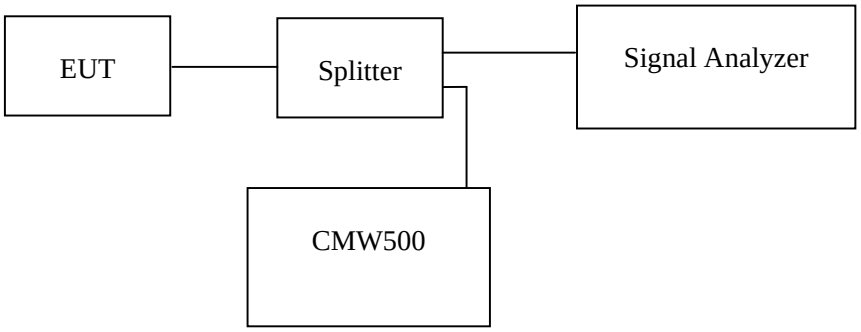
FCC §2.1051 and §90.1323(a)

Limit

According to FCC §90.1323(a), 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. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or less, but at least one percent of the emission bandwidth of the fundamental emission of the transmitter, provided the measured energy is integrated over a 1 MHz bandwidth.

Test Procedure

The EUT was connected to a CMW500 & signal analyzer through a splitterr,the EUT power was adjusted to produce maximum output power as specified in the owner's manual,measurements were performed at low,middle high channels for each of the EUT's bandwidths and modulations.



Test Data

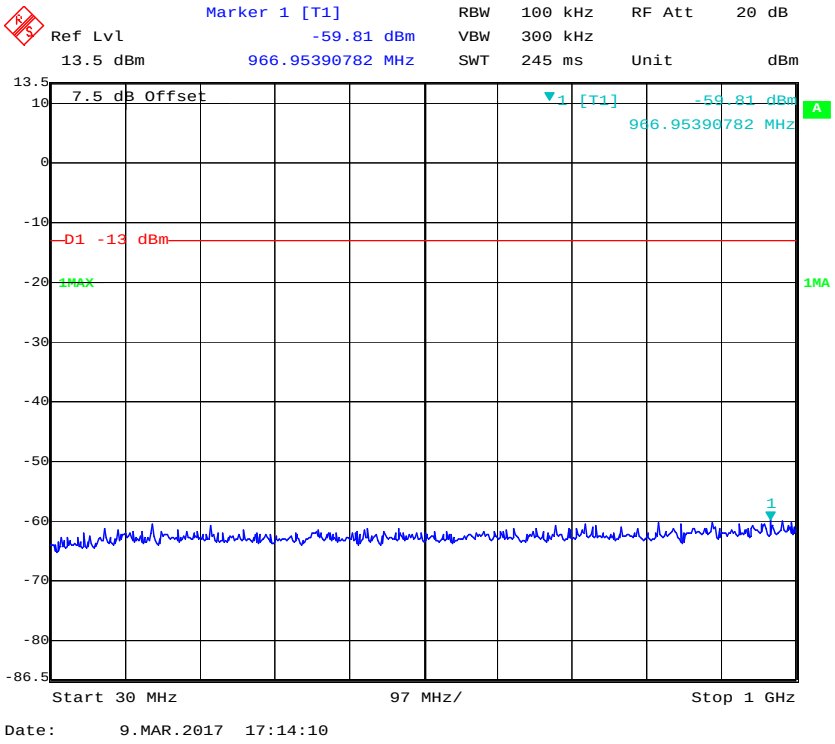
Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	53 %
ATM Pressure:	101.0 kPa

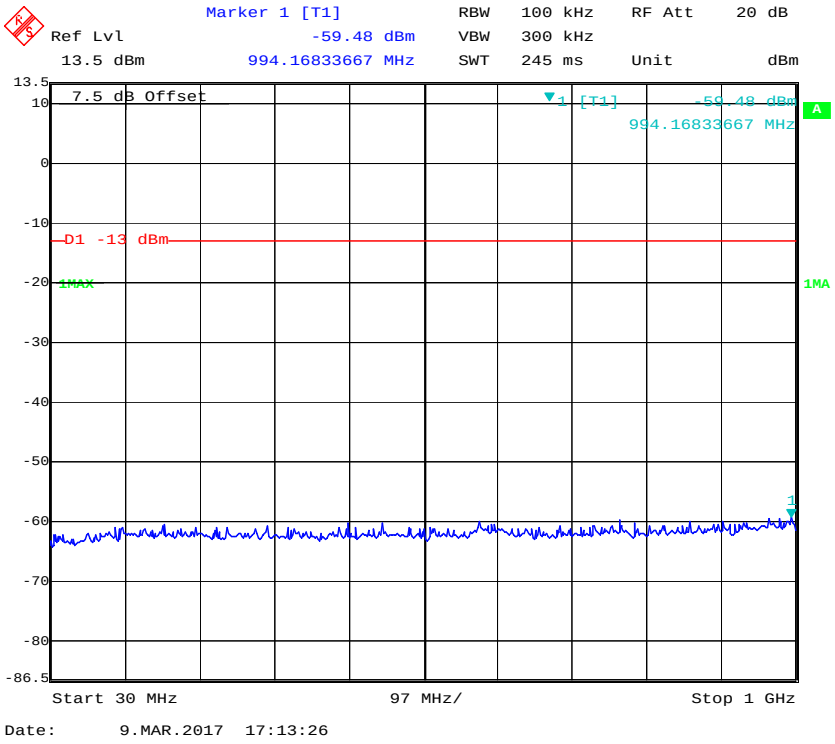
The testing was performed by Nefertari Xu on 2017-04-09.

Test Mode: Transmitting

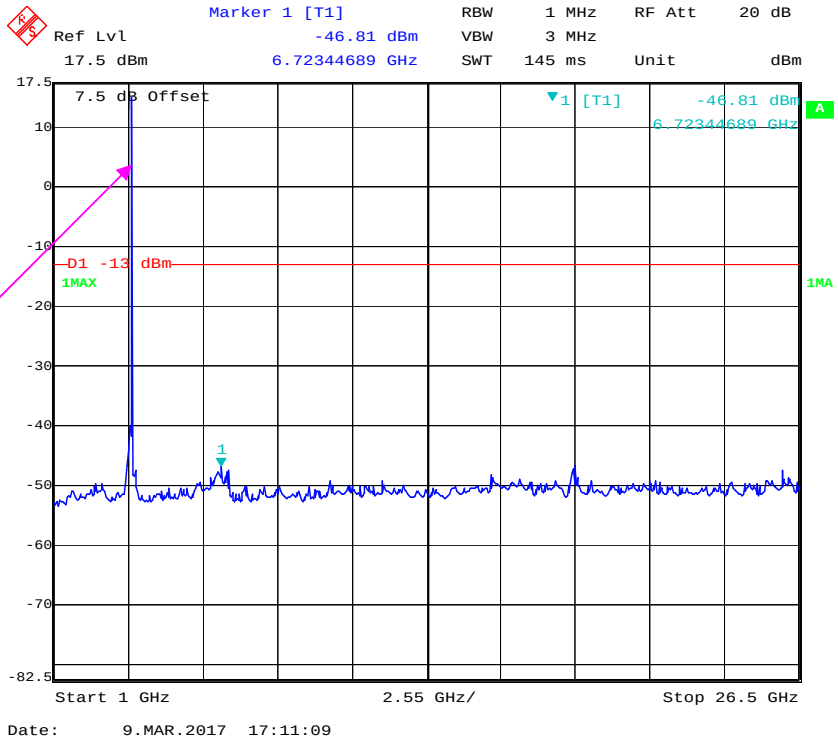
QPSK(5M)(Channel 30 MHz – 1 GHz)



16QAM(5M)(Channel 30 MHz – 1 GHz)

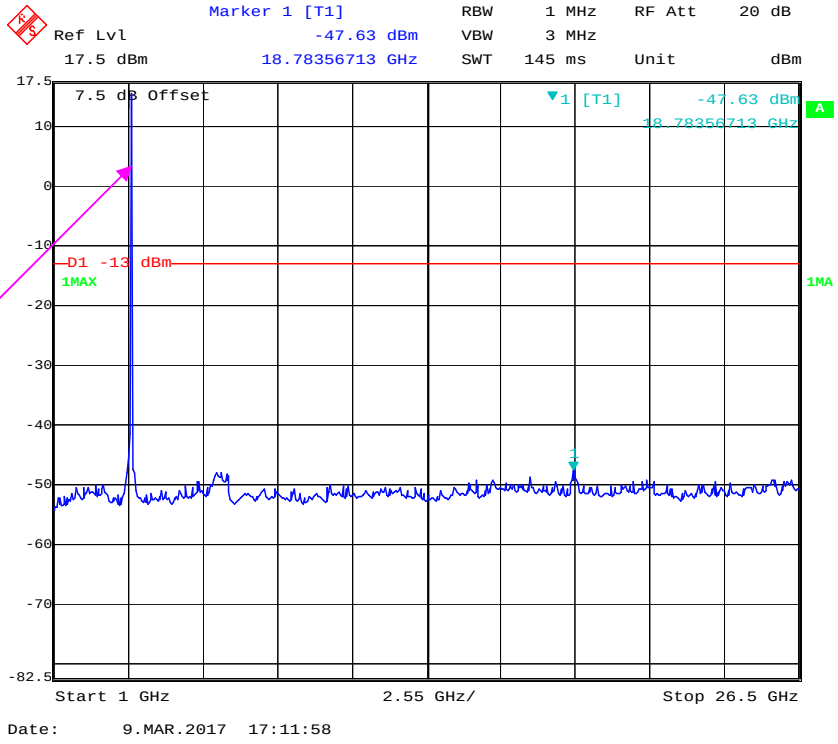


QPSK(5M)(Channel 1 GHz-26.5 GHz)



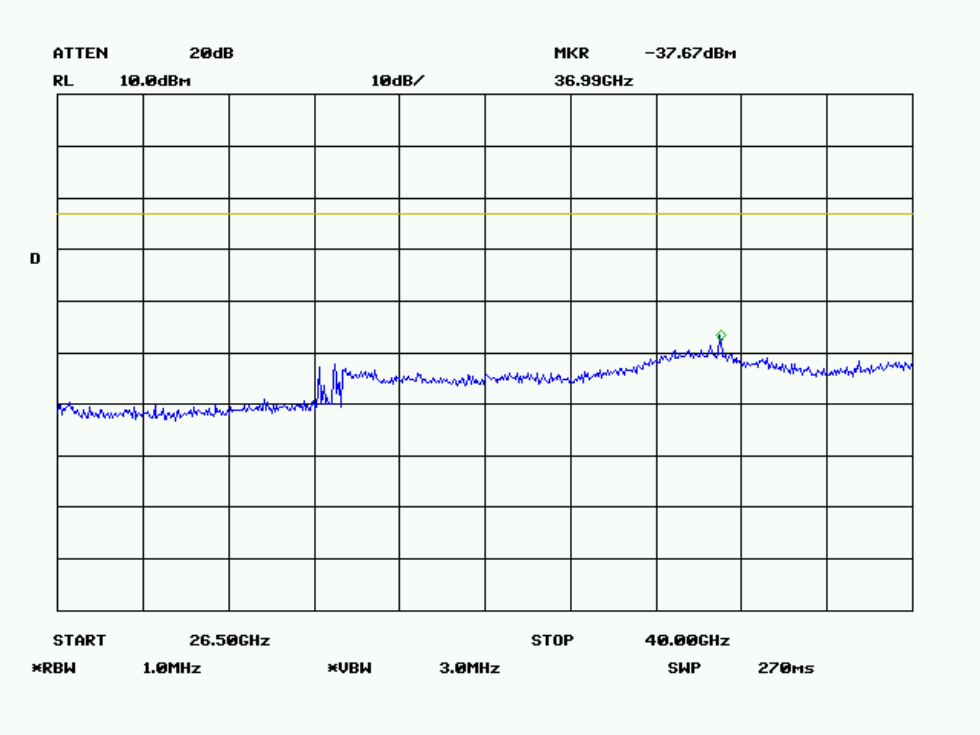
Fund.test

16QAM(5M)(Channel 1 GHz-26.5 GHz)

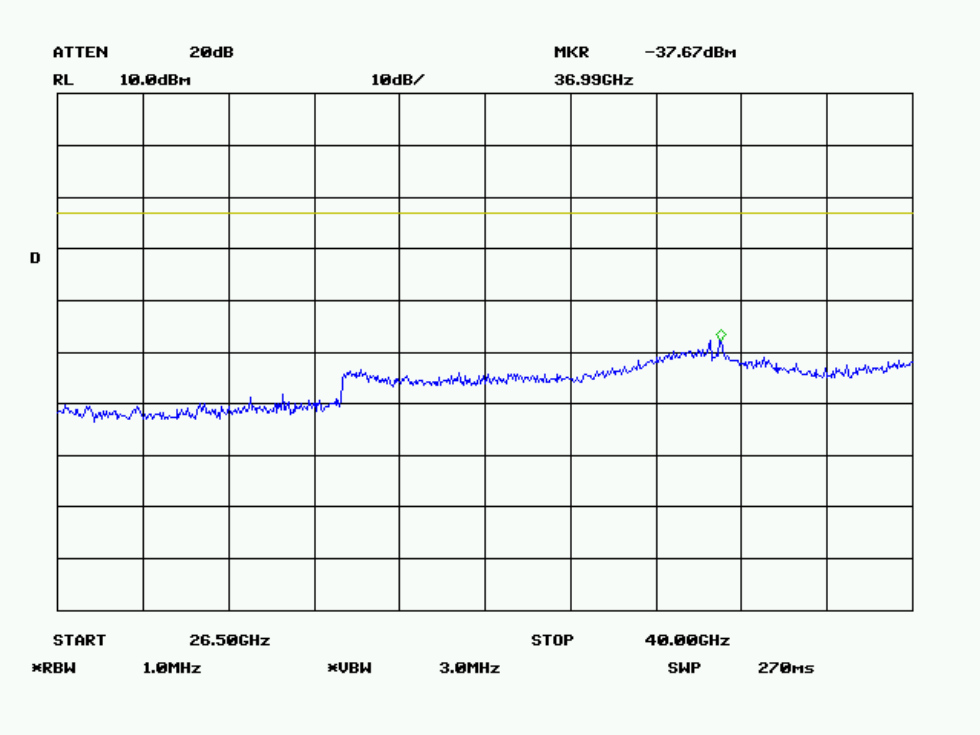


Fund.test

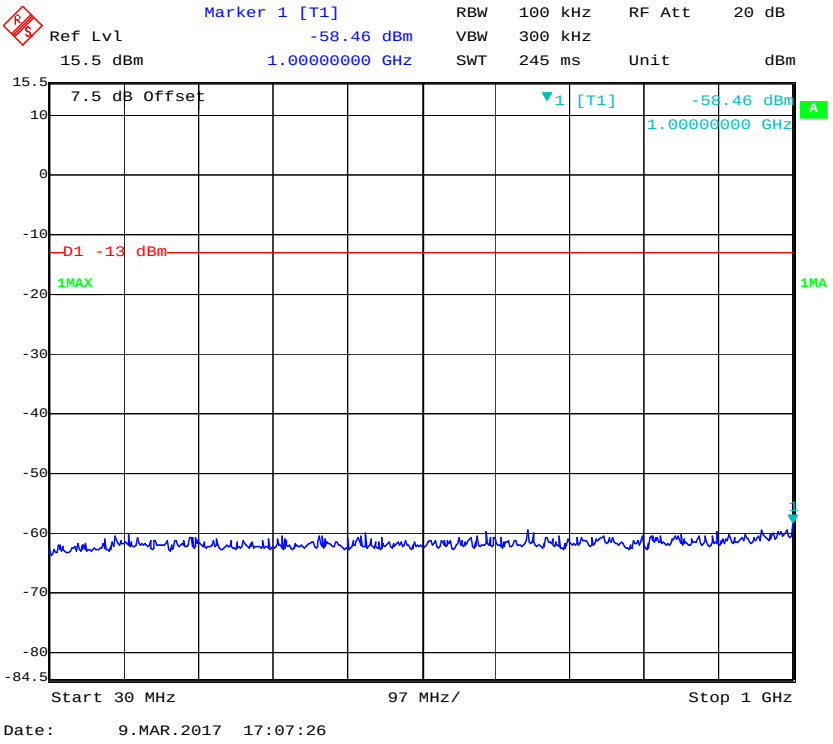
QPSK(5M)(Channel 26.5 GHz-40 GHz).



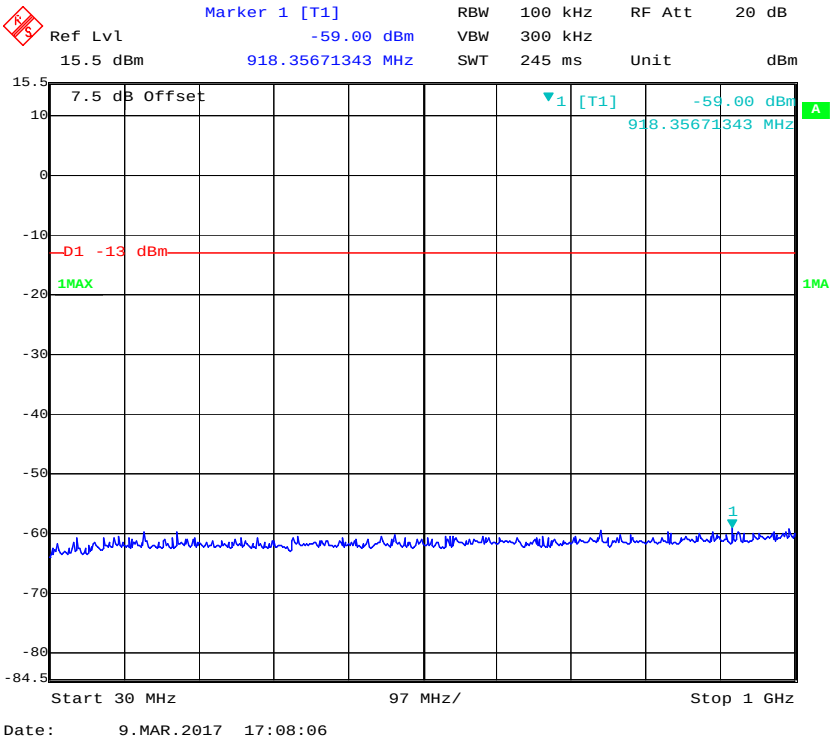
16QAM(5M)(Channel 26.5 GHz-40 GHz)



QPSK(10M)(Channel 30 MHz – 1 GHz)

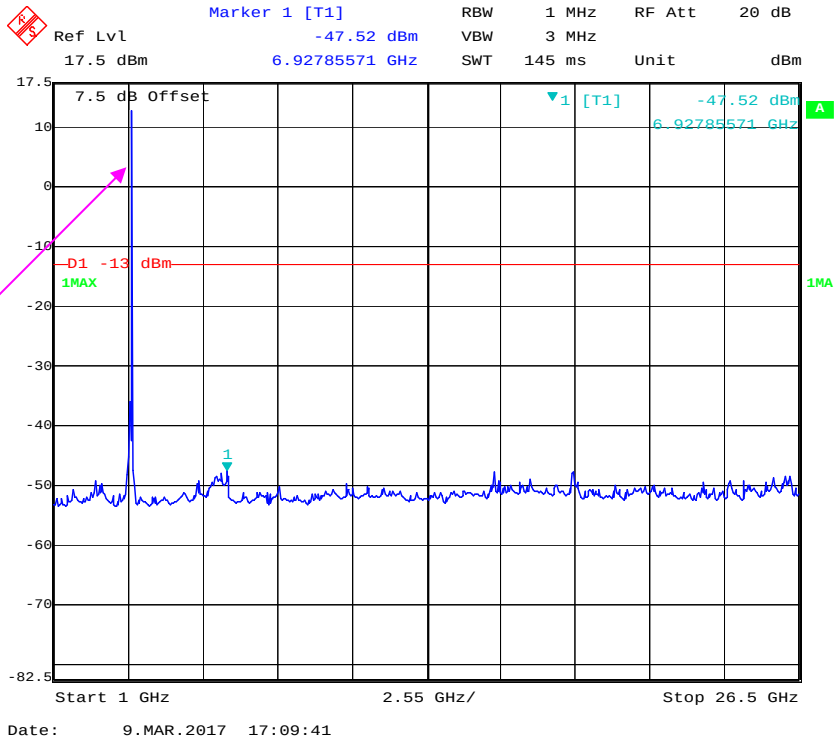


16QAM(10M)(Channel 30 MHz – 1 GHz)



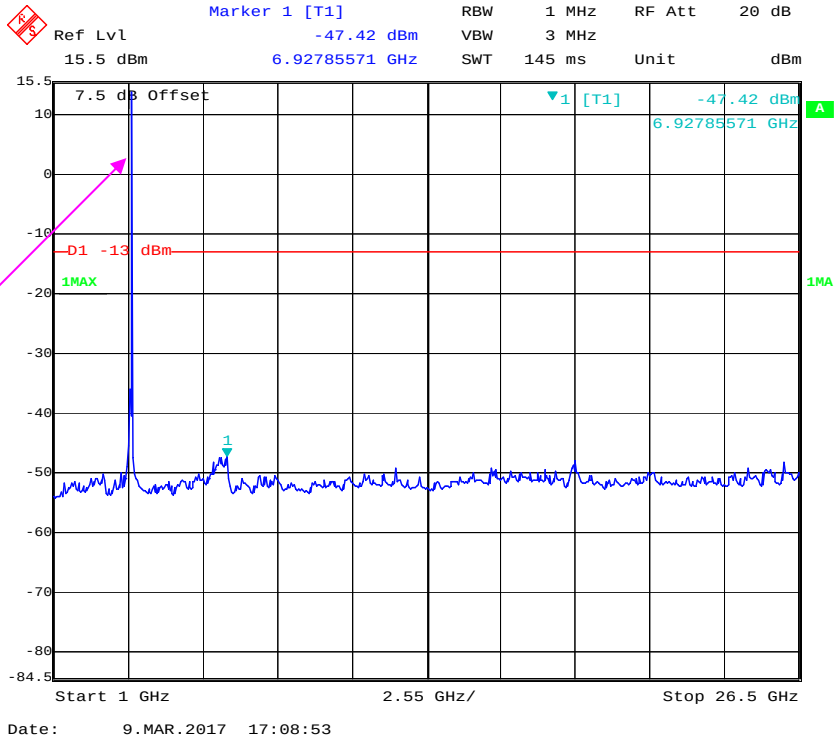
QPSK(10M)(Channel 1 GHz-26.5 GHz)

Fund.test

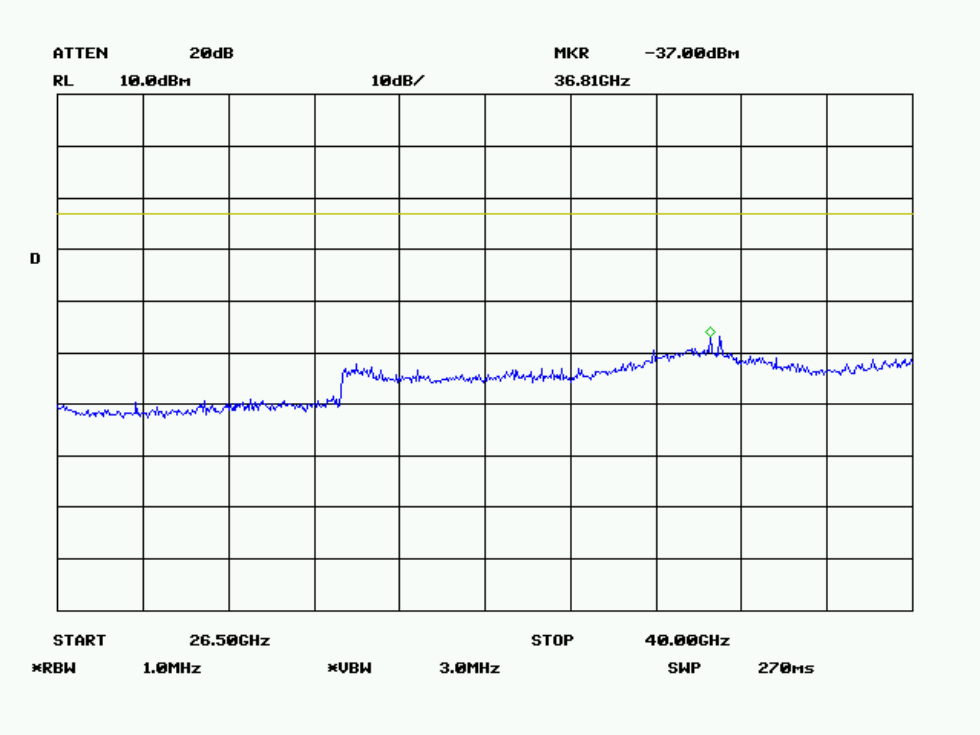


16QAM(10M)(Channel 1 GHz-26.5 GHz)

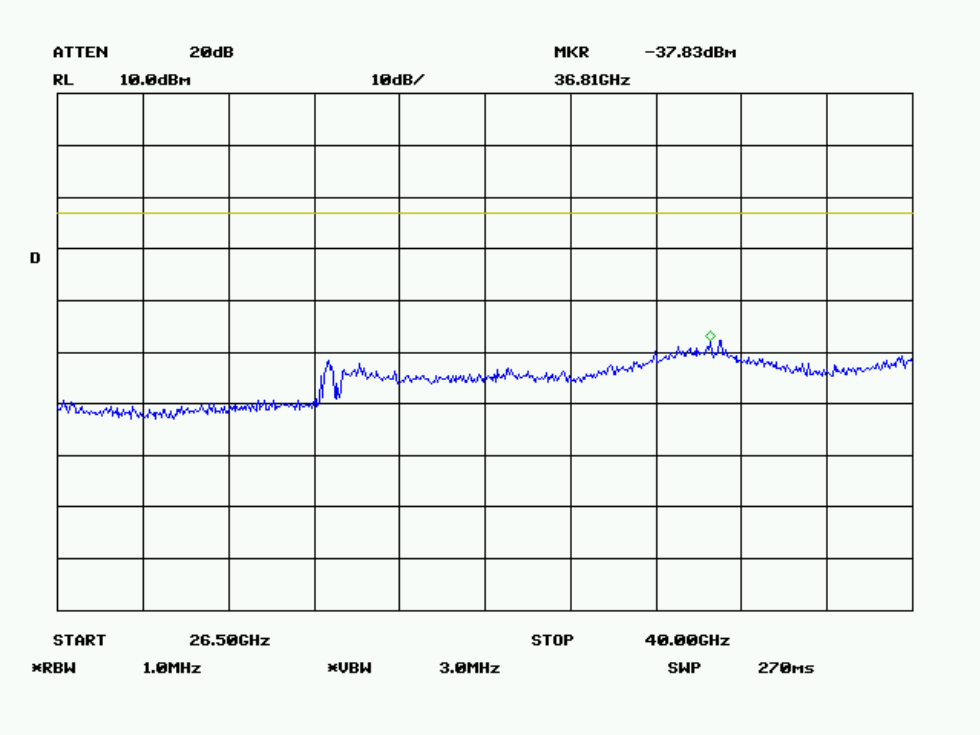
Fund.test



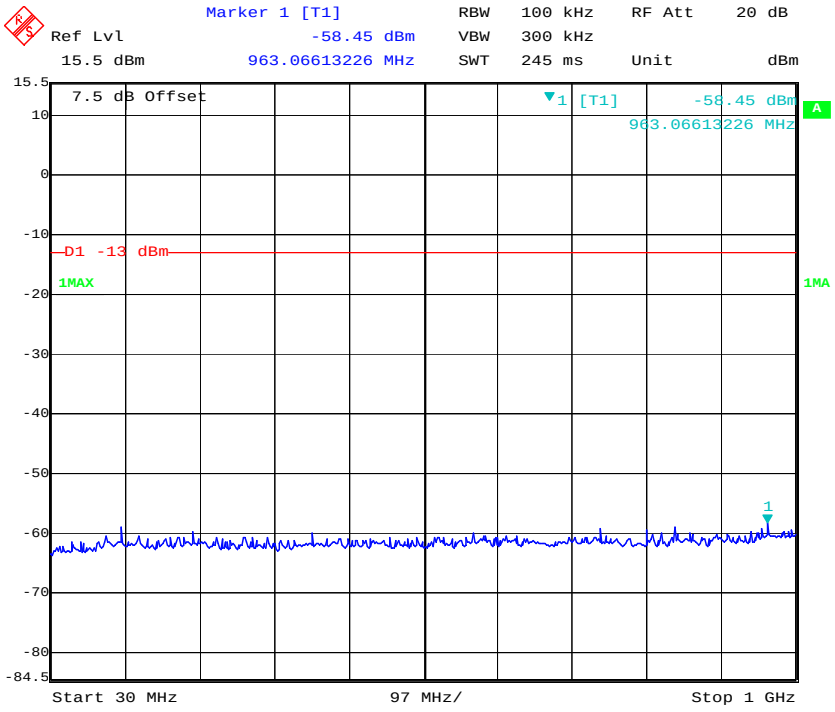
QPSK(10M)(Channel 26.5 GHz-40 GHz)



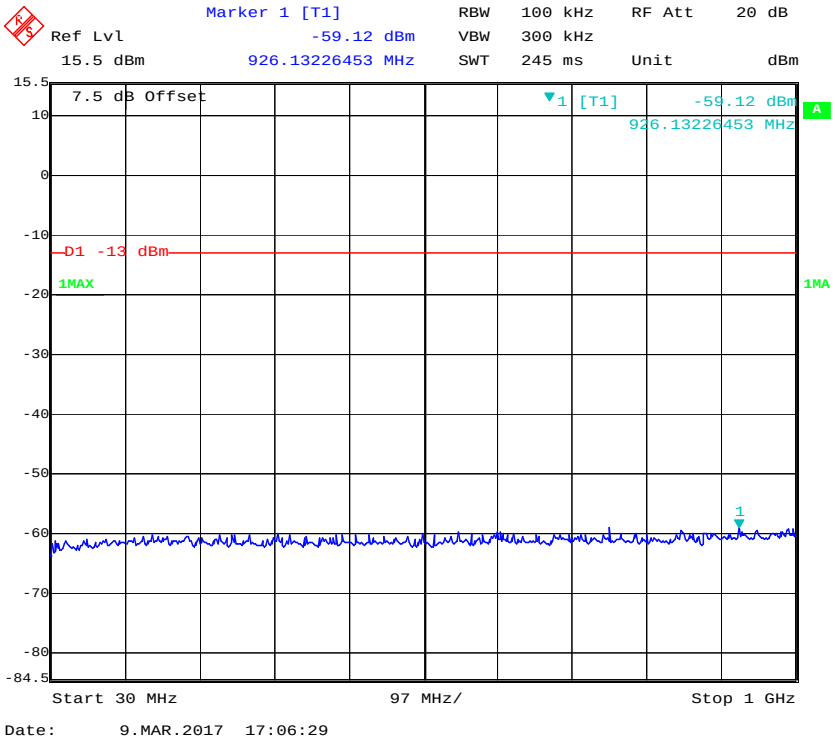
16QAM(10M)(Channel 26.5 GHz-40 GHz)



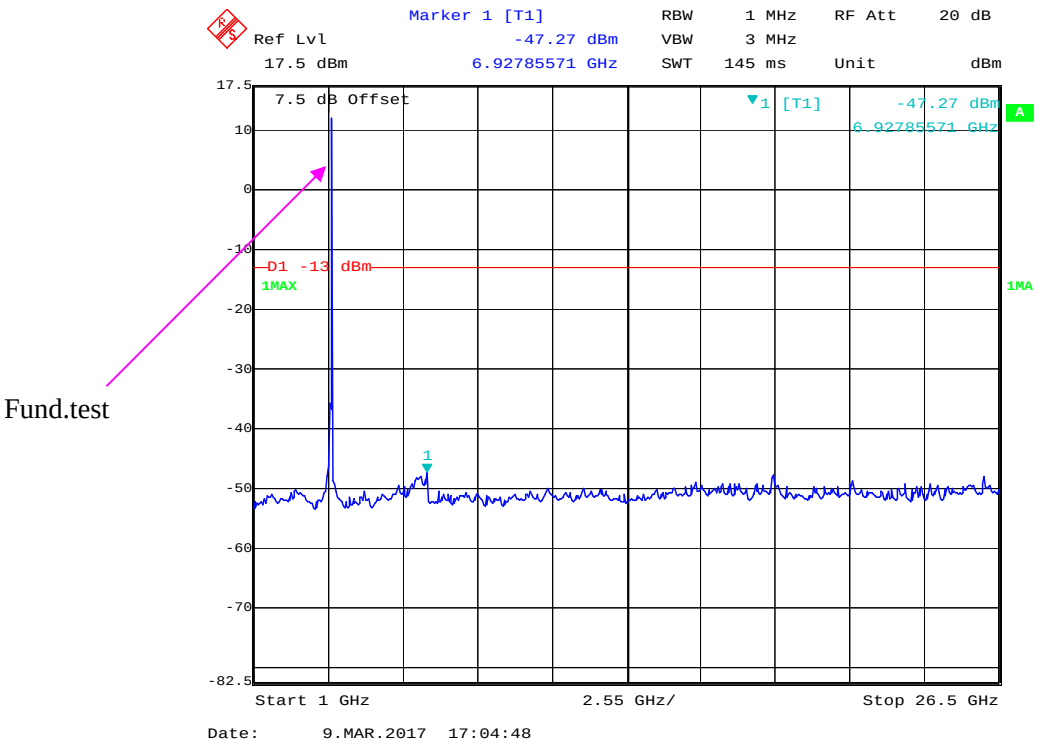
QPSK(15M)(Channel 30 MHz – 1 GHz)



16QAM(15M)(Channel 30 MHz – 1 GHz)

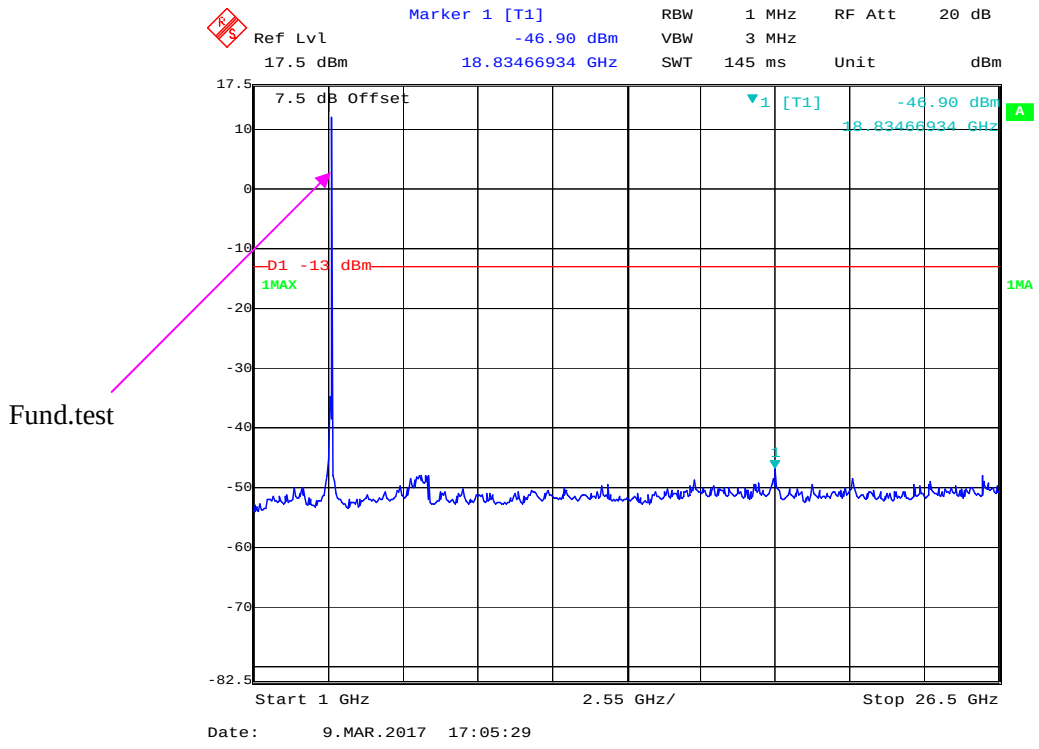


QPSK(15M)(Channel 1 GHz-26.5 GHz)



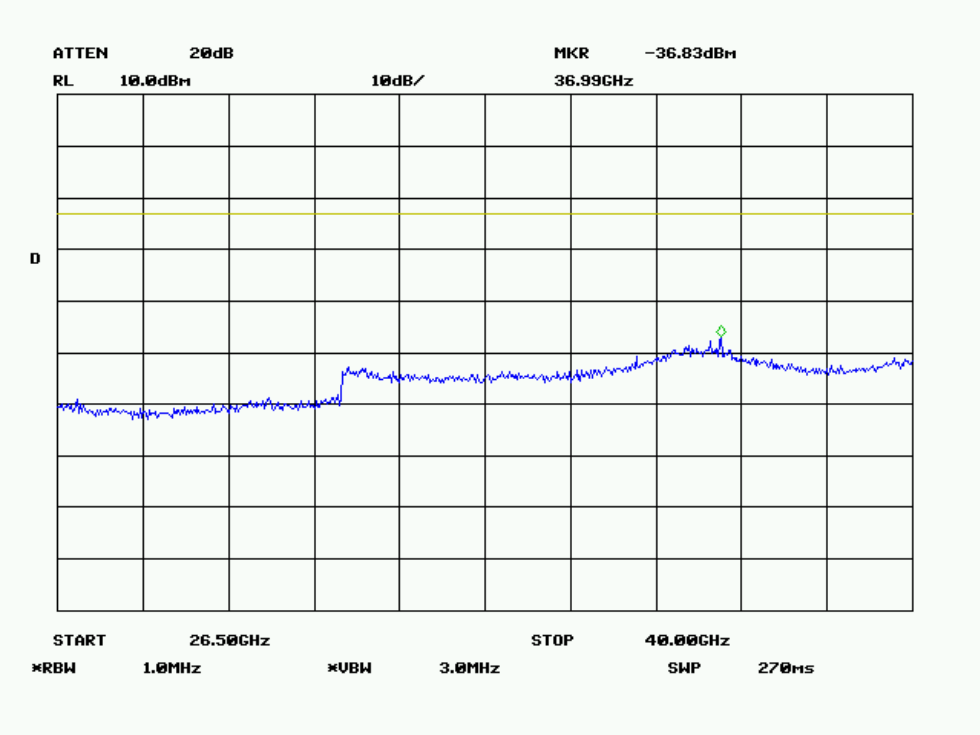
Fund.test

16QAM(15M)(Channel 1 GHz-26.5 GHz)

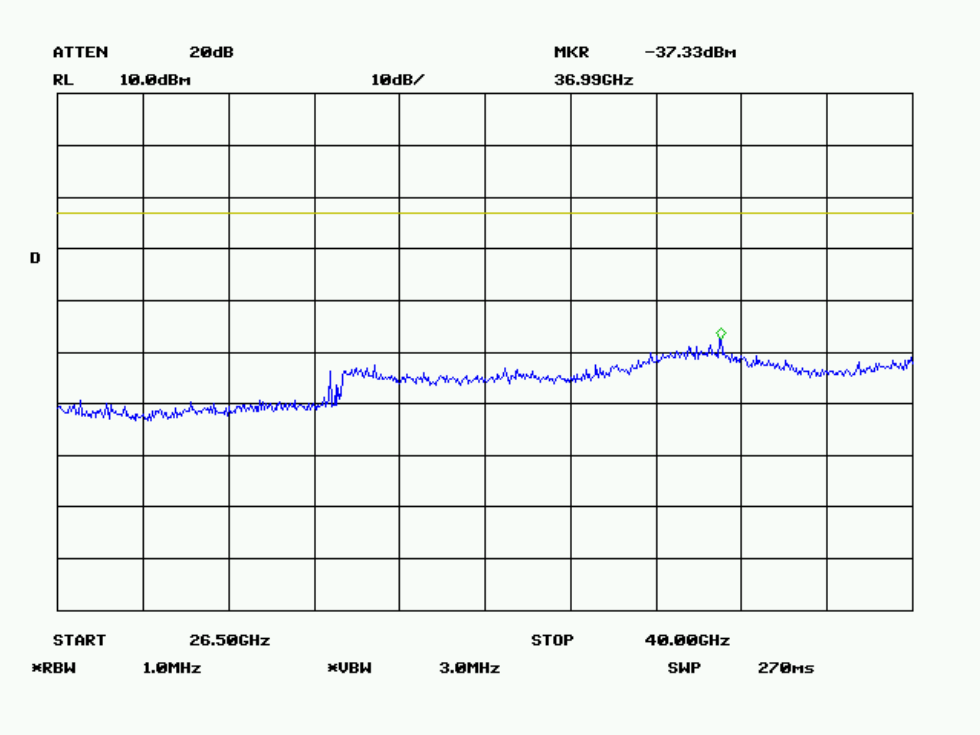


Fund.test

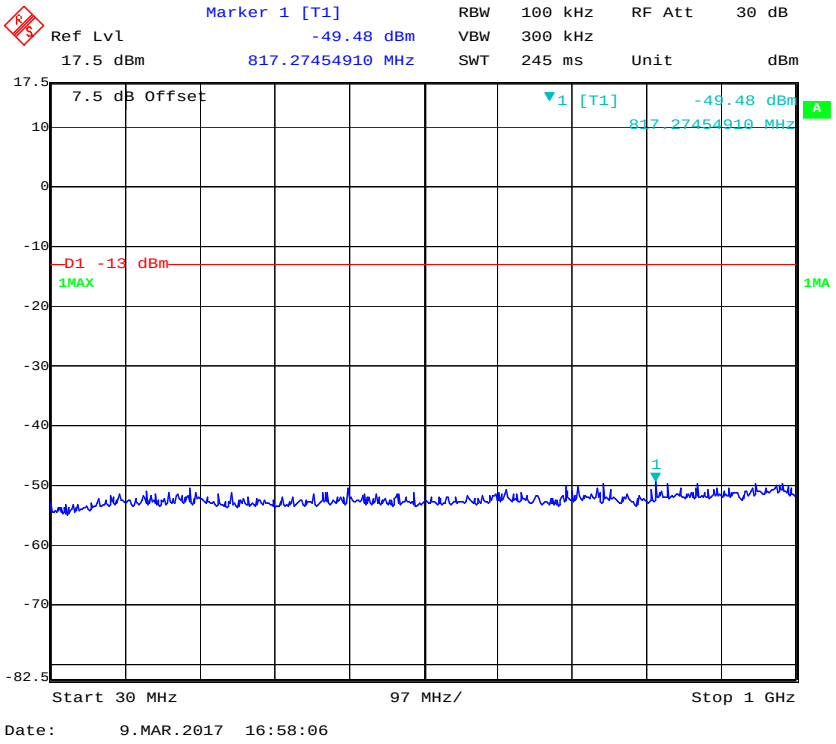
QPSK(15M)(Channel 26.5 GHz-40 GHz)



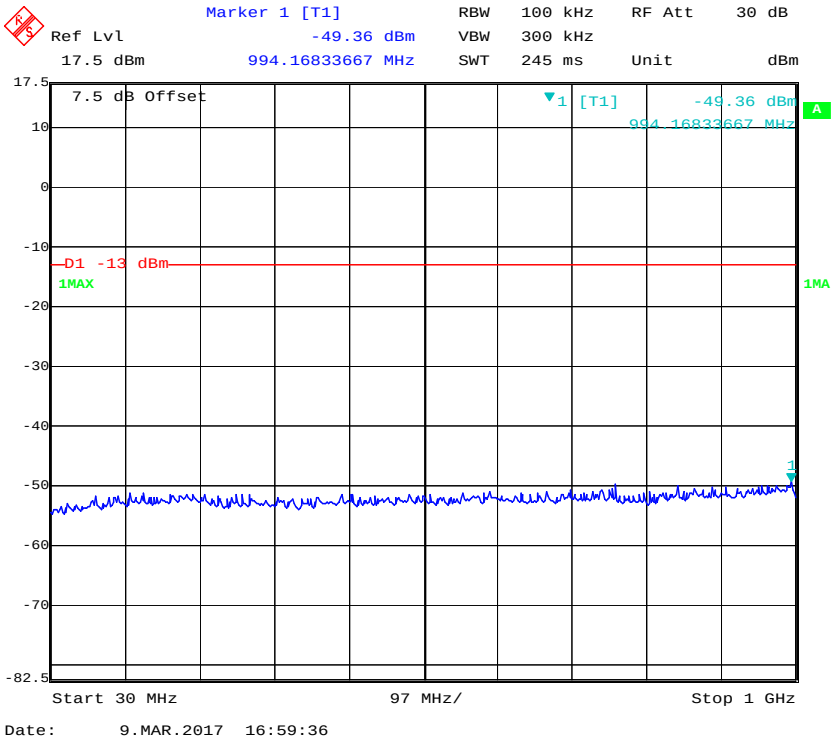
16QAM(15M)(Channel 26.5 GHz-40 GHz)



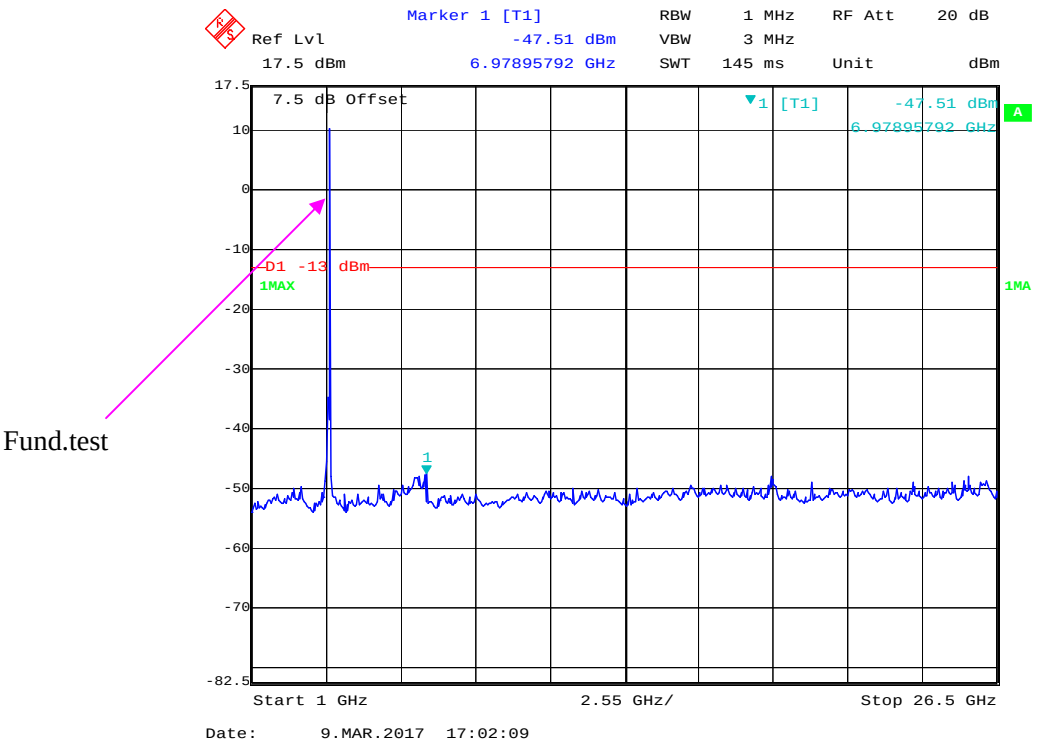
QPSK(20M)(Channel 30 MHz – 1 GHz)



16QAM(20M)(Channel 30 MHz – 1 GHz)

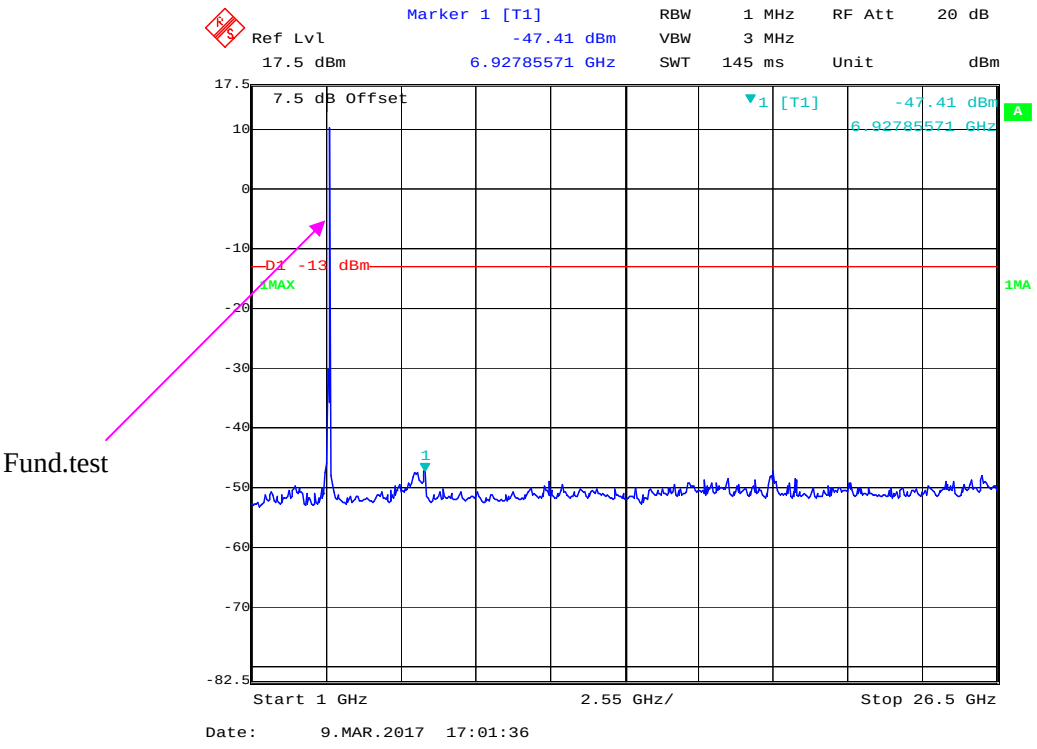


QPSK(20M)(Channel 1 GHz-26.5 GHz)



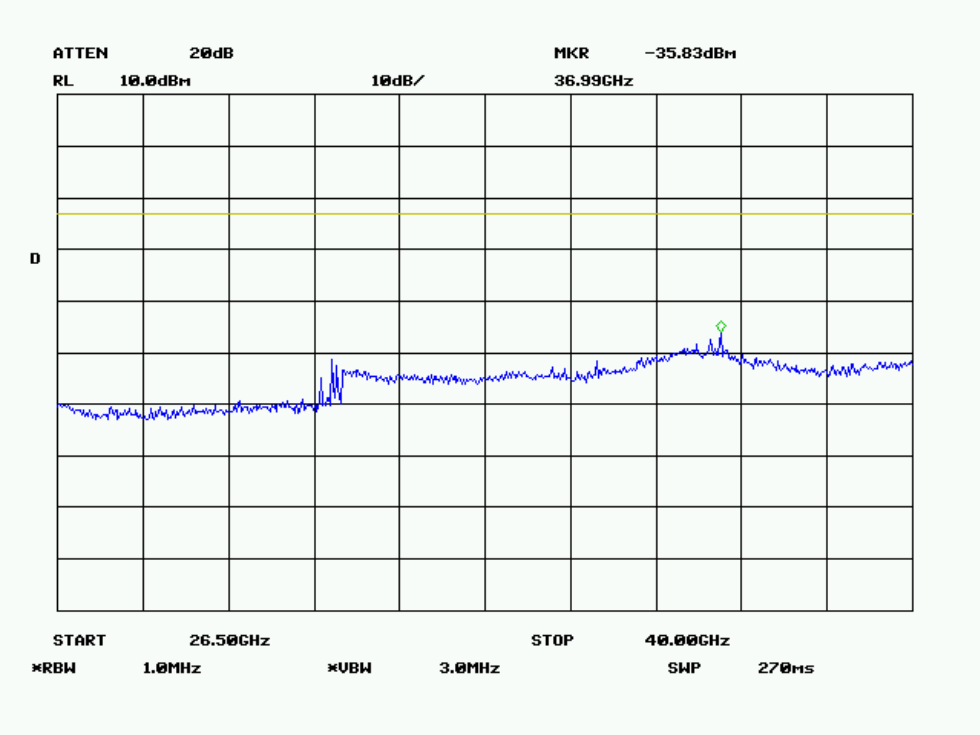
Fund.test

16QAM(20M)(Channel 1 GHz-26.5 GHz)

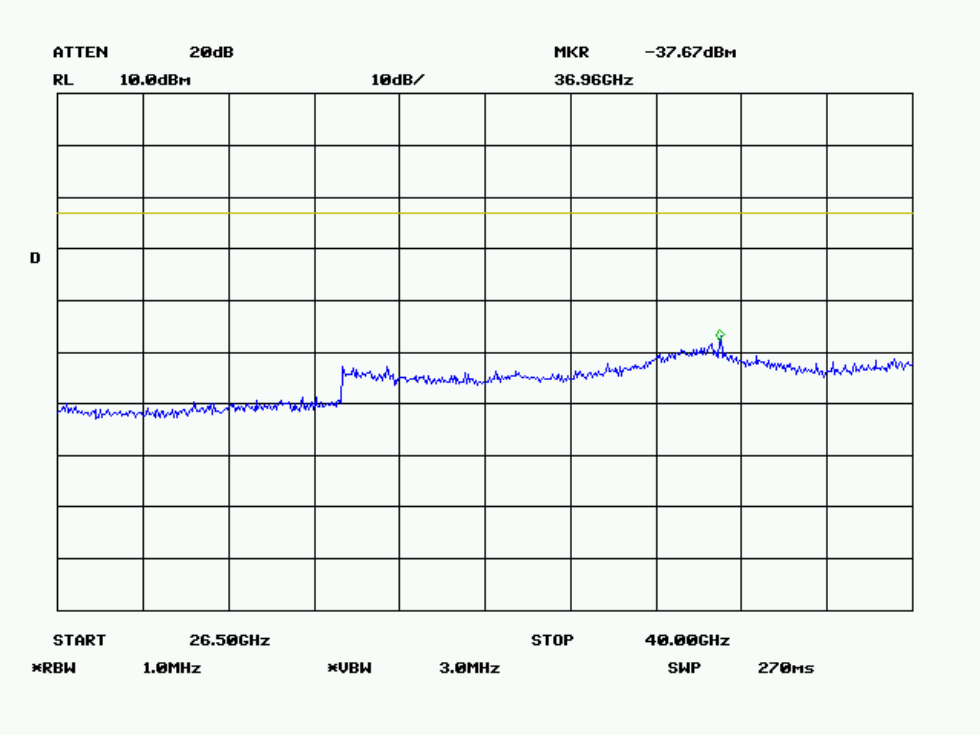


Fund.test

QPSK(20M)(Channel 26.5 GHz-40 GHz)

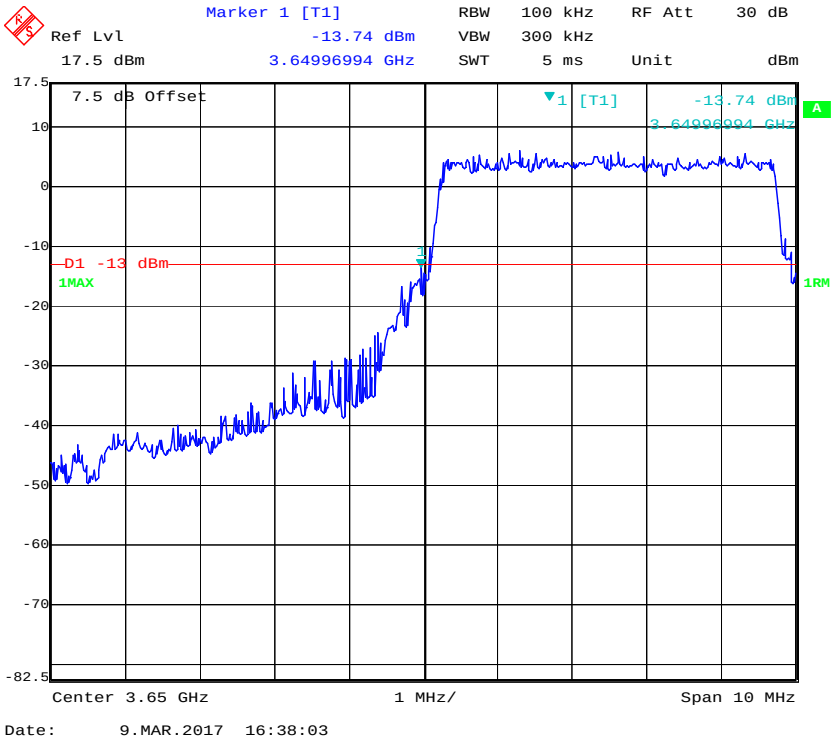


16QAM(20M)(Channel 26.5 GHz-40 GHz)

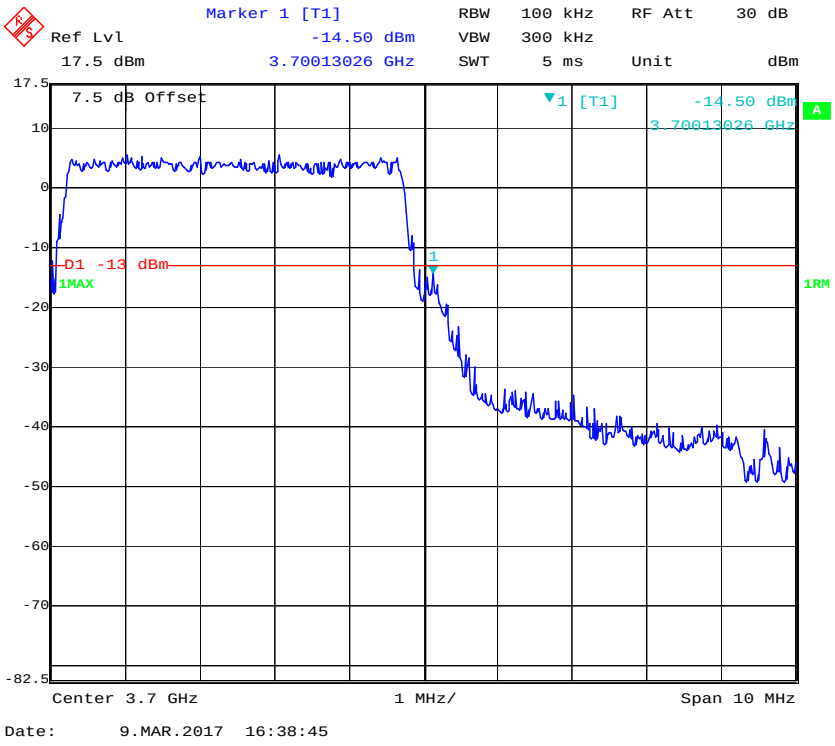


Bandage:

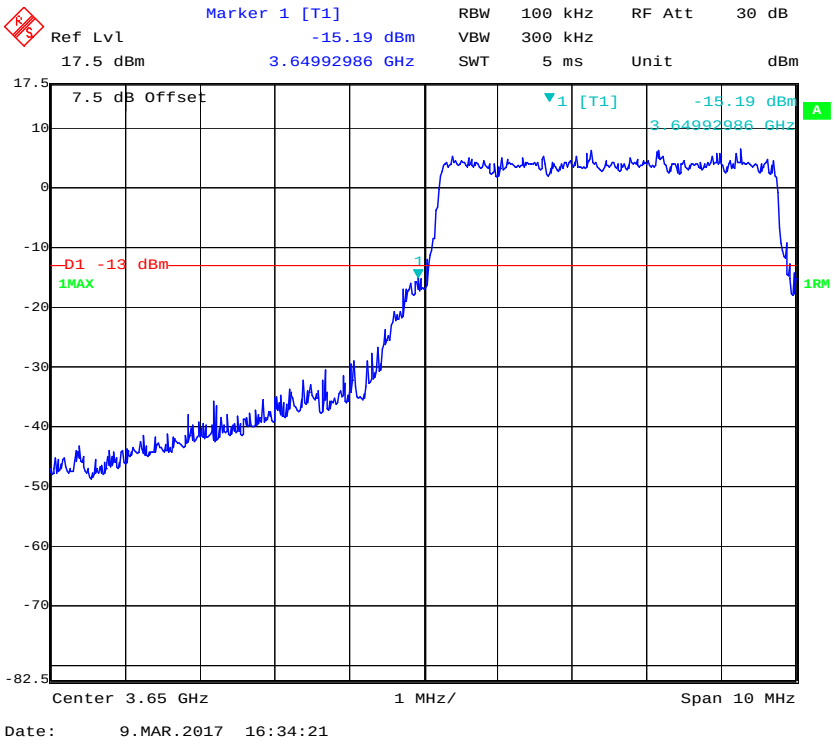
QPSK (5MHz), Left Side



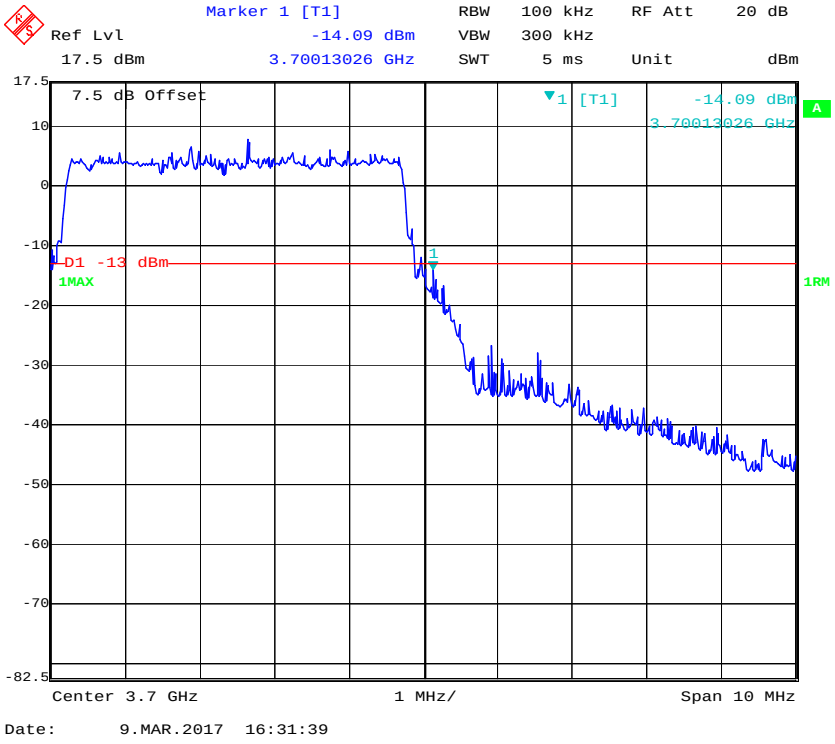
QPSK (5MHz), Right Side



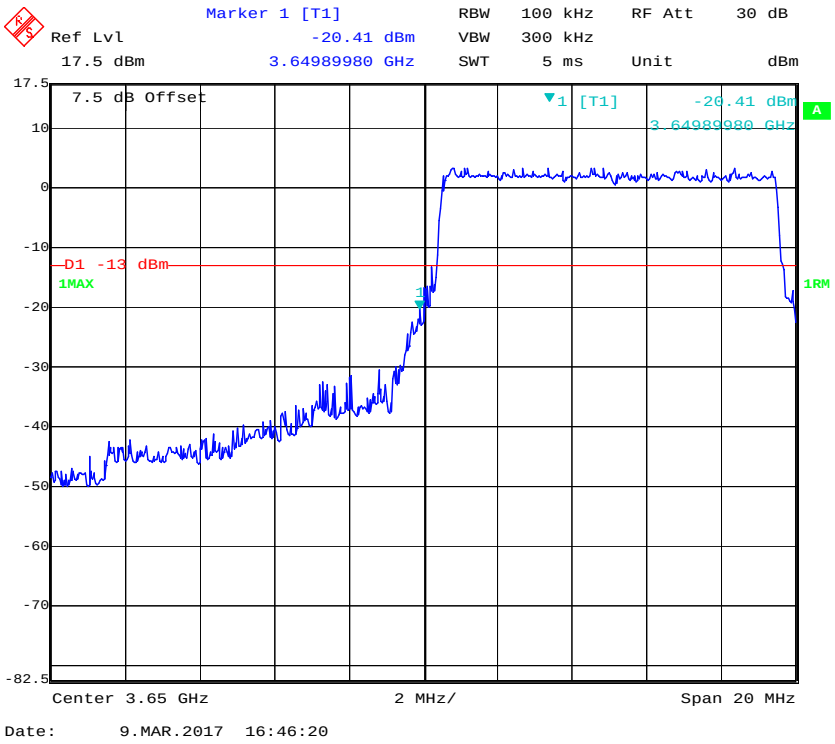
16QAM (5MHz), Left Side



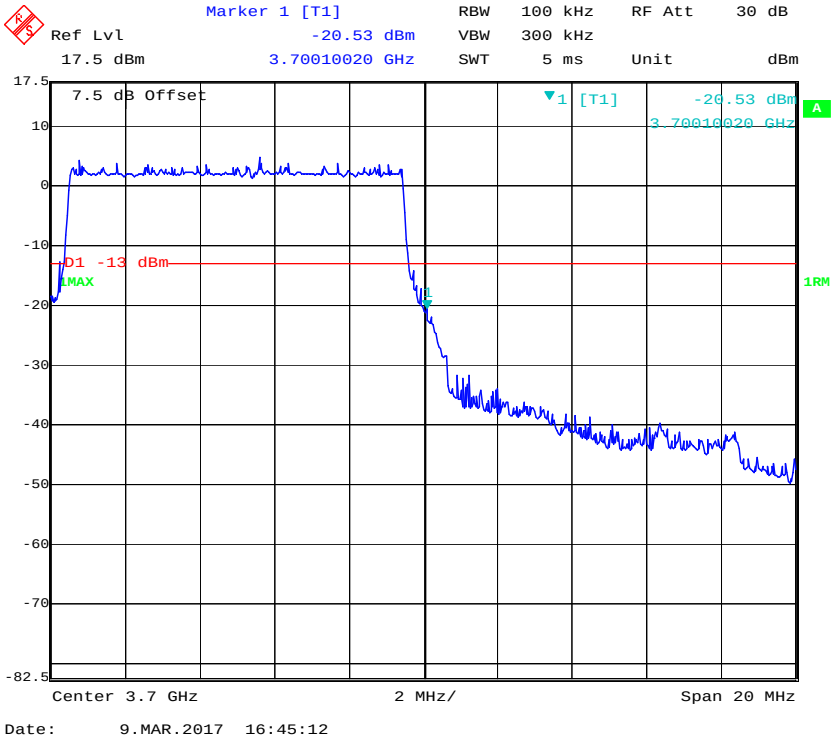
16QAM (5MHz), Right Side



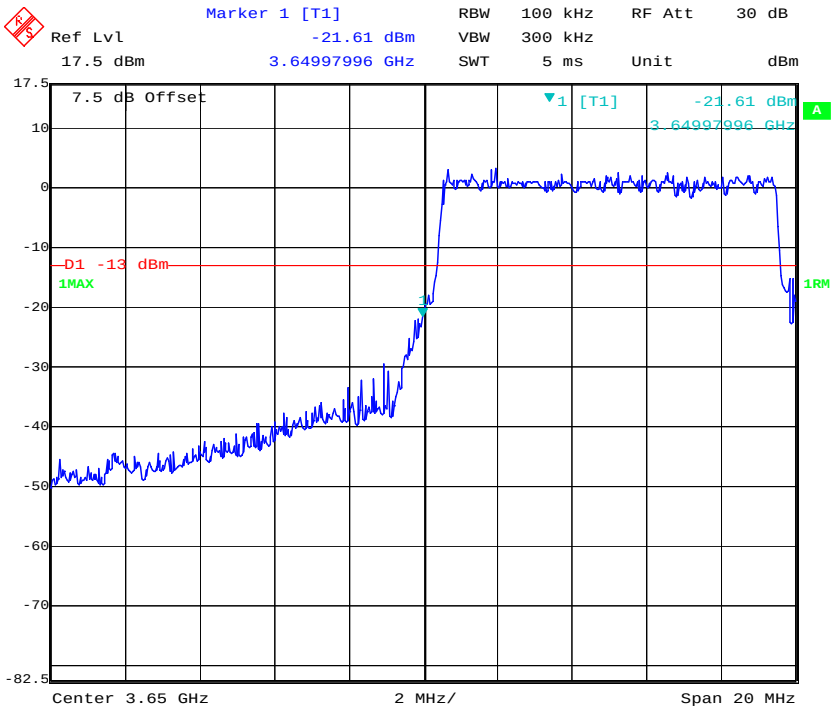
QPSK (10MHz), Left Side



QPSK (10MHz), Right Side

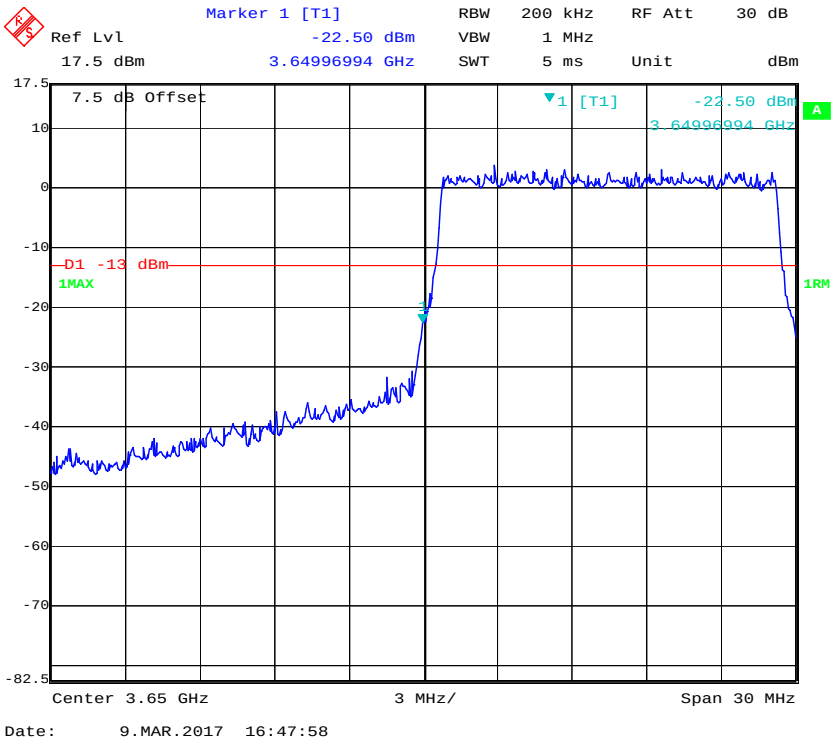


16QAM (10MHz), Left Side

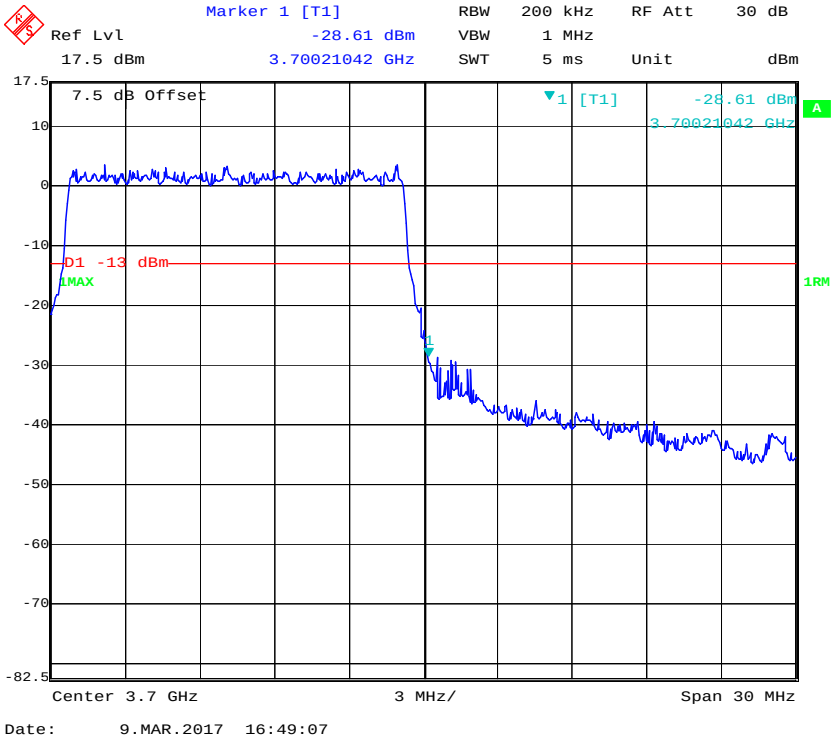


16QAM (10MHz), Right Side

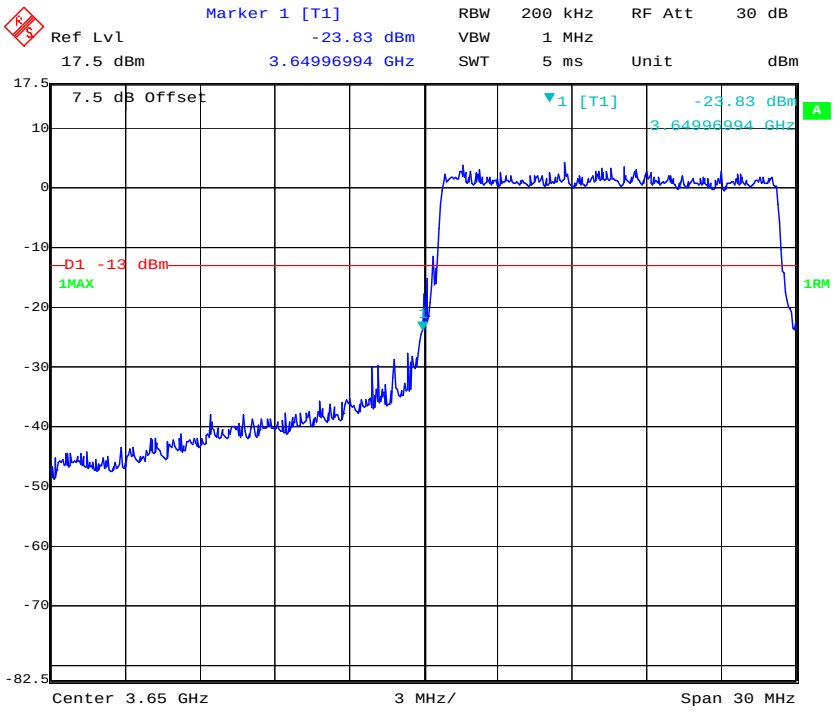
QPSK (15MHz), Left Side



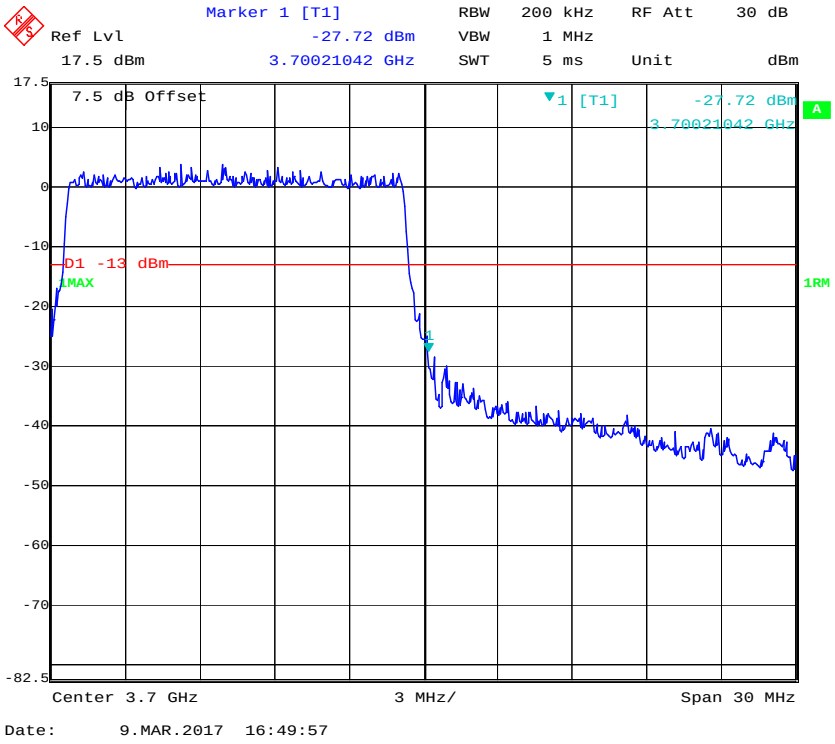
QPSK (15MHz), Right Side



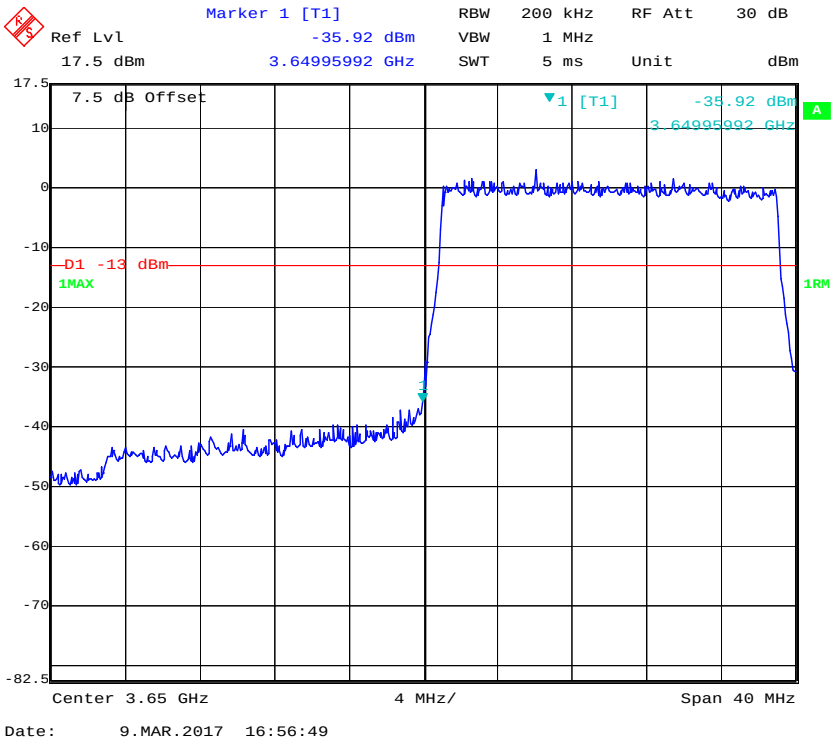
16QAM (15MHz), Left Side



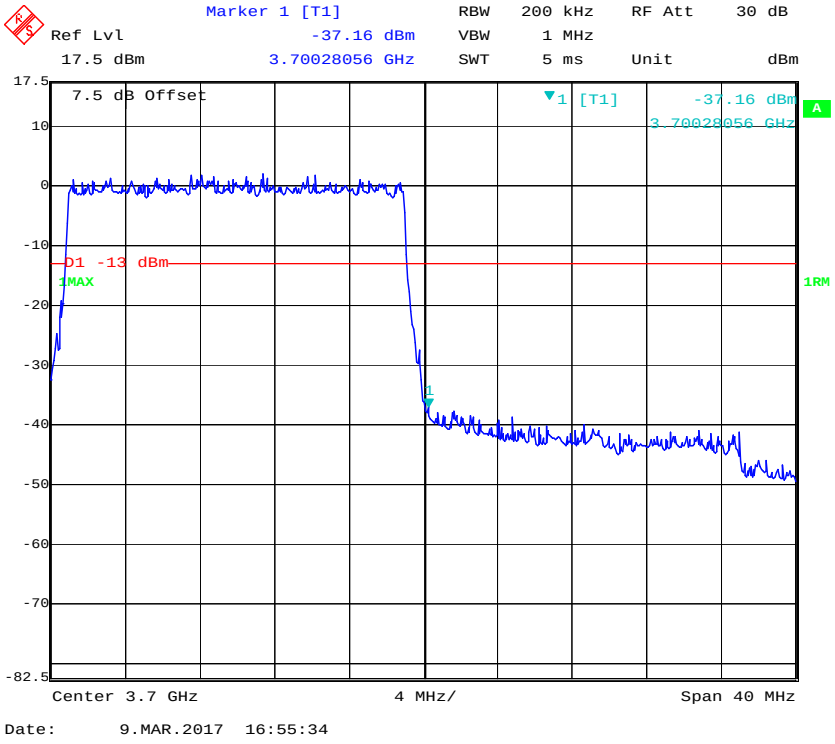
16QAM (15MHz), Right Side



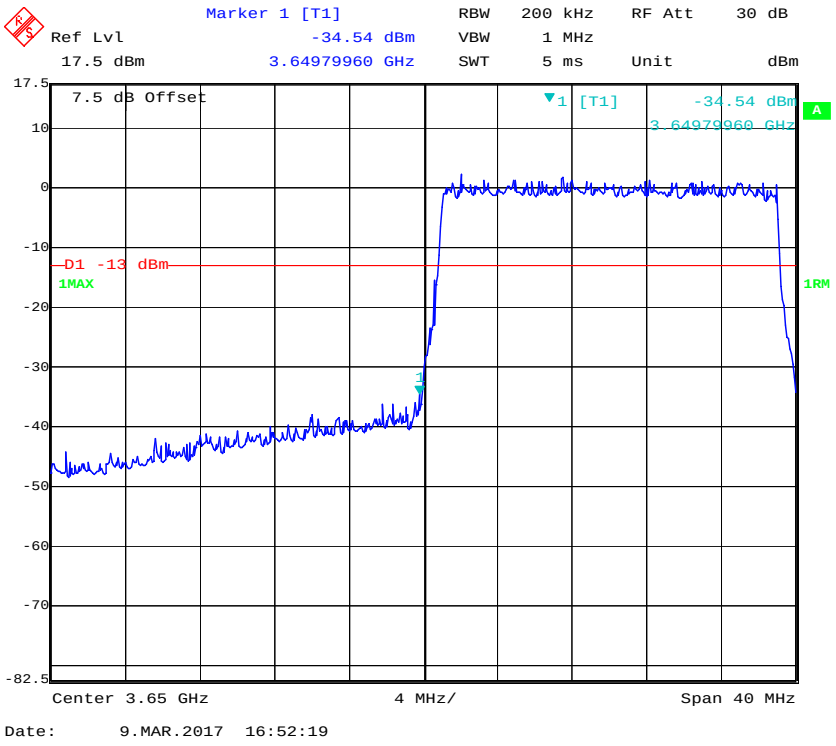
QPSK (20MHz), Left Side



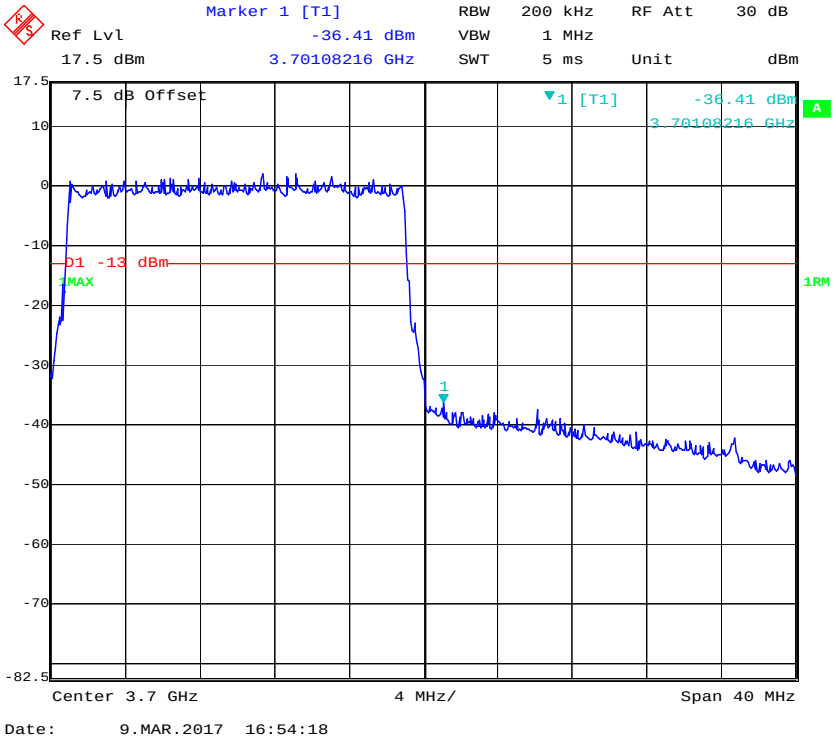
QPSK (20MHz), Right Side



16QAM (20MHz), Left Side



16QAM (20MHz), Right Side



FCC §2.1053 - RADIATED SPURIOUS EMISSIONS

Applicable Standard

FCC §2.1053

Test Procedure

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load, which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT .The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to teeth harmonic of the fundamental frequency was investigated.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious attenuation limit in dB =43+10 Log_{10} (power out in Watts)

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	53 %
ATM Pressure:	101.0 kPa

The testing was performed by Layne Li on 2017-04-07

Test Mode: Transmitting

30MHz - 40GHz (The worst case is QPSK):

Frequency (MHz)	Receiver Reading (dBμV)	Turn Table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	FCC Part 90	
			Height (m)	Polar (H/V)	SG Level (dBm)	Cable Loss (dB)	Antenna Gain (dB)		Limit (dBm)	Margin (dB)
QPSK(5MHz), Middle channel (3675MHz)										
321.6	44.29	20	1.2	H	-65.4	0.2	3.85	-61.75	-13	48.75
321.6	42.60	48	1.6	V	-64.5	0.2	3.85	-60.85	-13	47.85
7350.00	39.34	206	1.3	H	-47.8	0.83	10.18	-38.45	-13	25.45
7350.00	40.56	75	2.4	V	-48.6	0.85	10.16	-39.29	-13	26.29
QPSK(10MHz), Middle channel (3675MHz)										
321.6	44.59	34	1.3	H	-65.1	0.2	3.85	-61.45	-13	48.45
321.6	42.10	89	1.4	V	-65.0	0.2	3.85	-61.35	-13	48.35
7350.00	39.44	7	1.6	H	-47.7	0.83	10.18	-38.35	-13	25.35
7350.00	41.06	81	1.7	V	-48.1	0.85	10.16	-38.79	-13	25.79
QPSK(15MHz), Middle channel (3675MHz)										
321.6	44.49	160	1.4	H	-65.2	0.2	3.85	-61.55	-13	48.55
321.6	41.50	79	1.5	V	-65.6	0.2	3.85	-61.95	-13	48.95
7350.00	40.14	89	2.2	H	-47.0	0.83	10.18	-37.65	-13	24.65
7350.00	40.66	209	1.3	V	-48.5	0.85	10.16	-39.19	-13	26.19
QPSK(20MHz), Middle channel (3675MHz)										
321.6	43.89	50	1.1	H	-65.8	0.2	3.85	-62.15	-13	49.15
321.6	41.70	123	1.3	V	-65.4	0.2	3.85	-61.75	-13	48.75
7350.00	39.84	192	1.6	H	-47.3	0.83	10.18	-37.95	-13	24.95
7350.00	40.46	329	1.2	V	-48.7	0.85	10.16	-39.39	-13	26.39

Note:
Absolute Level = SG Level - Cable loss + Antenna Gain
Margin = Limit- Absolute Level

Test Mode: Transmitting(WIFI & LTE transmit simultaneously):

Frequency	Receiver		Turntable	Rx Antenna		Corrected Factor （dB）	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
(MHz)	Reading (dBμV)	Detector (PK/QP/AV)	Degree	Height (m)	Polar (H / V)				
38.05	41.53	QP	55	1.3	V	-9.14	32.39	40	7.61
48.88	49.51	QP	63	1.2	V	-15.25	34.26	40	5.74
46.19	44.29	QP	178	1.4	V	-13.32	30.97	40	9.03
106.63	47.11	QP	206	1.4	V	-16.66	30.45	43.5	13.05
135.61	43.89	QP	259	1.5	V	-13.34	30.55	43.5	12.95
536.11	43.64	QP	304	1.1	V	-5.36	38.28	46	7.72
1149.7	74.54	PK	142	1.2	H	-11.85	62.69	74	11.31
1149.7	60.63	Ave.	142	1.2	H	-11.85	48.78	54	5.22
1260.5	72.92	PK	224	1.0	H	-10.66	62.26	74	11.74
1260.5	59.20	Ave.	224	1.0	H	-10.66	48.54	54	5.46

Note:

1) Corrected Amplitude = Meter Reading + Correction Factor
2) Correction Factor = Antenna Factor + Cable Loss - Amplifier Gain
3) Margin = Limit – Corrected Amplitude

FCC §2.1055 & §90.213- FREQUENCY STABILITY

Applicable Standard

FCC §2.1055, §90.213

Test Procedure

Frequency Stability vs. Temperature: The equipment under test was connected to an external AC power supply and the RF output was connected to a frequency counter via feed-through attenuators. The EUT was placed inside the temperature chamber. The AC leads and RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from the counter.

Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	53 %
ATM Pressure:	101.0 kPa

The testing was performed by Nefertari Xu on 2017-04-07.

Test Mode: Transmitting

LTE band (3650-3700MHz) Middle Channel

Test Environment		Reference frequency (MHz)	Frequency Error (Hz)	Frequency Error (ppm)	Result
Power Supplied (V_{AC})	Temperature (℃)				
Frequency Stability versus Input Temperature					
120	55	3675	-12.82	-0.0035	Compliant
	45	3675	-10.86	-0.0030	Compliant
	35	3675	-10.28	-0.0028	Compliant
	25	3675	-10.39	-0.0028	Compliant
	15	3675	-10.30	-0.0028	Compliant
	5	3675	-10.19	-0.0028	Compliant
	-5	3675	-9.89	-0.0027	Compliant
	-15	3675	-11.36	-0.0031	Compliant
	-25	3675	-10.23	-0.0028	Compliant
	-40	3675	-10.59	-0.0029	Compliant
Frequency Stability versus Input Voltage					
108	25	3675	-10.23	-0.0028	Compliant
132	25	3675	-10.98	-0.0030	Compliant

******* END OF REPORT *******