TESTING LABORATORY
CERTIFICATE #4820.01

FCC PART 15.247

TEST REPORT

For

D2G Group LLC

81 Commerce Drive , Fall River , Massachusetts , America

FCC ID:2ASCB-DGSN71

Report Type:	**Product Name:**
Original Report	Floor Standing Digital Signage

Report Number:	RSH200323050-00A
Report Date:	2020-04-21
Reviewed By:	Ivan Cao Assistant Manager
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Dongguan) No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China Tel: +86-769-86858888 Fax: +86-769-86858891 www.baclcorp.com.cn

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

EUT Name:	Floor Standing Digital Signage
EUT Model:	DGSNFSTCH55
Multiple Models:	DGSNKTCH43WH, DGSNAFNT43, DGFSTCH43E, DGSNFSTCH43,DGFSTCH55E, DGFSTCH55WHE, DGSNFSTCH55WH, DGFSNT43E, DGSNFSNT43, DGFSNT55E, DGSNFSNT55, DGAFNT43E, DGKTCH43WHE, DGKTCH43BKE, DGSNKTCH43BK
Operation Frequency:	2402-2480MHz
Maximum Peak Output Power (Conducted):	-7.63 dBm
Modulation Type:	GFSK, π/4-DQPSK, 8DPSK
Rated Input Voltage:	AC 120V
Serial Number:	RSH200323050-RF-S1(Model: DGSNFSTCH55) RSH200323050-RF-S2(Model: DGSNFSTCH43) RSH200323050-RF-S3(Model: DGSNAFNT43) RSH200323050-RF-S4(Model: DGSNKTCH43BK)
EUT Received Date:	2020/3/25
EUT Received Status:	Good

Notes: Model DGSNFSTCH55 was selected for fully testing, and other 3 models only test AC Line Conducted Emission and Spurious Emissions below 1GHz. The detailed information about the difference between DGSNKTCH43WH, DGSNAFNT43, DGFSTCH43E,DGSNFSTCH43,DGFSTCH55E, DGFSTCH55WHE, DGSNFSTCH55WH, DGFSNT43E, DGSNFSNT43,DGFSNT55E, DGSNFSNT55, DGAFNT43E, DGKTCH43WHE, DGKTCH43BKE, DGSNKTCH43BK and model DGSNFSTCH55 can be referred to the declaration letter which was stated and guaranteed by the manufacturer.

Objective

This report is prepared on behalf of ***D2G Group LLC*** in accordance with Part 2, Subpart J, Part 15, Subparts A and C of the Federal Communications Commission's rules.

The tests were performed in order to determine the Bluetooth BDR and EDR mode of EUT compliance with FCC Rules Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

Related Submittal(s)/Grant(s)

FCC Part 15C DTS submissions with FCC ID: 2ASCB-DGSN71.

Test Methodology

All measurements detailed in this test report were performed in accordance with ANSI C63.10-2013 "American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices" and KDB 558074 D01 15.247 Meas Guidance v05r02.

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Dongguan).

Measurement Uncertainty

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Unwanted Emissions, radiated	30M~200MHz: 4.55 dB,200M~1GHz: 5.92 dB,1G~6GHz: 4.98 dB, 6G~18GHz: 5.89 dB,18G~26.5G:5.47 dB,26.5G~40G:5.63 dB
Unwanted Emissions, conducted	±1.5 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	3.12 dB (150 kHz to 30 MHz)

Note: Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 897218, the FCC Designation No. : CN1220.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier : CN0022.

Declarations

BACL is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "△ ". Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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This report may contain data that are not covered by the accreditation scope and shall be marked with an asterisk "★".

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in engineering mode, which was provided by manufacturer.

EUT Exercise Software

The software " engineering mode " was used for testing and the maximum power was configured as below:

Mode	Channel	Frequency (MHz)	Power Level Setting
GFSK	Low	2402	9
	Middle	2441	9
	High	2480	9
π/4-DQPSK	Low	2402	9
	Middle	2441	9
	High	2480	9
8DPSK	Low	2402	9
	Middle	2441	9
	High	2480	9

Equipment Modifications

No modification was made to the EUT.

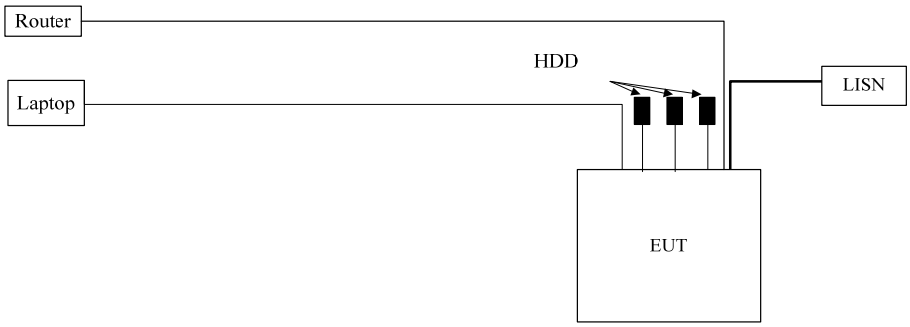
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
TOSKIBA	HDD	500G	HDD001
TOSKIBA	HDD	500G	HDD002
TOSKIBA	HDD	500G	HDD003
Lenovo	Laptop	ThinkPad E450	PF-0MR8KV 16/08
HUAWEI	Router	HG8245Q2	2102311RGB6RH1000053

Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
USB Cable	Yes	No	0.5	EUT	HDD
USB Cable	Yes	No	0.5	EUT	HDD
USB Cable	Yes	No	0.5	EUT	HDD
RJ45 Cable	Yes	No	10	EUT	Router
HDMI Cable	Yes	Yes	3.0	EUT	Laptop

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

Rules	Description of Test	Result
§15.247 (i) & §1.1310 & §2.1091	Maximum Permissible Exposure (MPE)	Compliance
FCC§15.203	Antenna Requirement	Compliance
FCC§15.207 (a)	AC Line Conducted Emissions	Compliance
FCC§15.205, §15.209, FCC §15.247(d)	Spurious Emissions	Compliance
FCC §15.247 (a)(1)	Emission Bandwidth	Compliance
FCC §15.247(a)(1)	Channel Separation Test	Compliance
FCC§15.247(a)(1)(iii)	Time of Occupancy (Dwell Time)	Compliance
FCC§15.247(a)(1)(iii)	Quantity of hopping channel Test	Compliance
FCC§15.247(b)(1)	Peak Output Power Measurement	Compliance
FCC§15.247(d)	Band Edges	Compliance

FCC §15.247 (i) & §1.1310 & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart 15.247(i)and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

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

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

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

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

Calculation formula:

Prediction of power density at the distance of the applicable MPE limit
$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm^2);
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);

Calculated Data:

Frequency (MHz)	**Antenna Gain**		**Conducted output power including Tune-up Tolerance**		**Evaluation Distance (cm)**	**Power Density (mW/cm^2)**	**MPE Limit (mW/cm^2)**
	(dBi)	**(numeric)**	**(dBm)**	**(mW)**			
2402-2480	2	1.58	-7	0.20	20.00	0.0001	1.0

Note: The Bluetooth and WIFI can`t transmit Simultaneously.

Result: The device meet FCC MPE at 20 cm distance

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

According to FCC§ 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

a. Antenna must be permanently attached to the unit.
b. Antenna must use a unique type of connector to attach to the EUT.
c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

Antenna Information And Connector Construction

The EUT has one External antenna arrangement, use a unique type of connector to attach to the EUT. fulfill the requirement of this section. Please refer to below information and the EUT photos:

Antenna Type	input impedance (Ohm)	Antenna Gain /Frequency Range
Dipole	50	2 dBi/2.4~2.5GHz

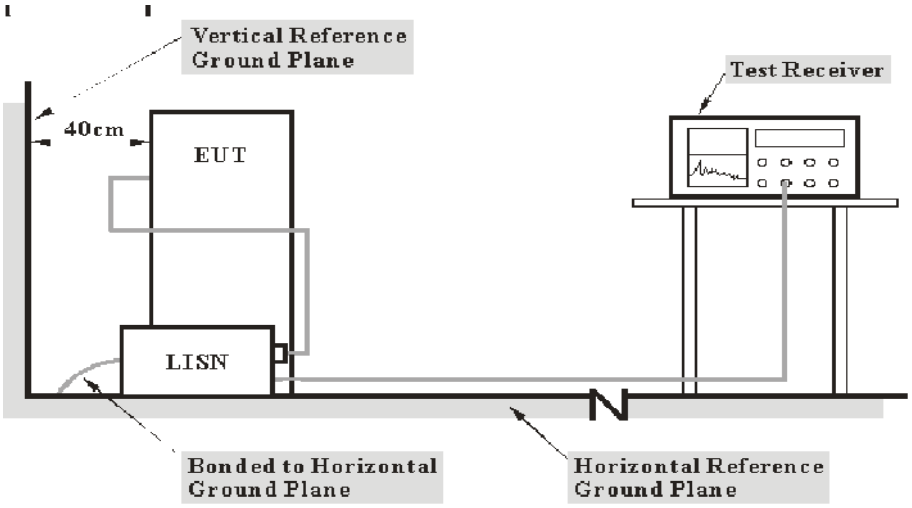
Result: Compliance.

FCC §15.207 (a)– AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC§15.207(a).

EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

The adapter was connected to the main LISN with a 120 V/60 Hz AC power source.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the first LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

Corrected Amplitude & Margin Calculation

The basic equation is as follows:

$V_C = V_R + A_C + VDF$

Herein,
V_C: corrected voltage amplitude
V_R: reading voltage amplitude
A_c: attenuation caused by cable loss
VDF: voltage division factor of AMN or ISN

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit – Corrected Amplitude

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Unknown	Coaxial Cable	C-NJNJ-50	C-0200-01	2019-09-05	2020-09-05
R&S	Test Software	EMC32	Version8.53.0	N/A	N/A
R&S	LISN	ENV 216	101614	2019-09-12	2020-09-12
R&S	EMI Test Receiver	ESCI	101121	2019-05-09	2020-05-09

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

Test Data

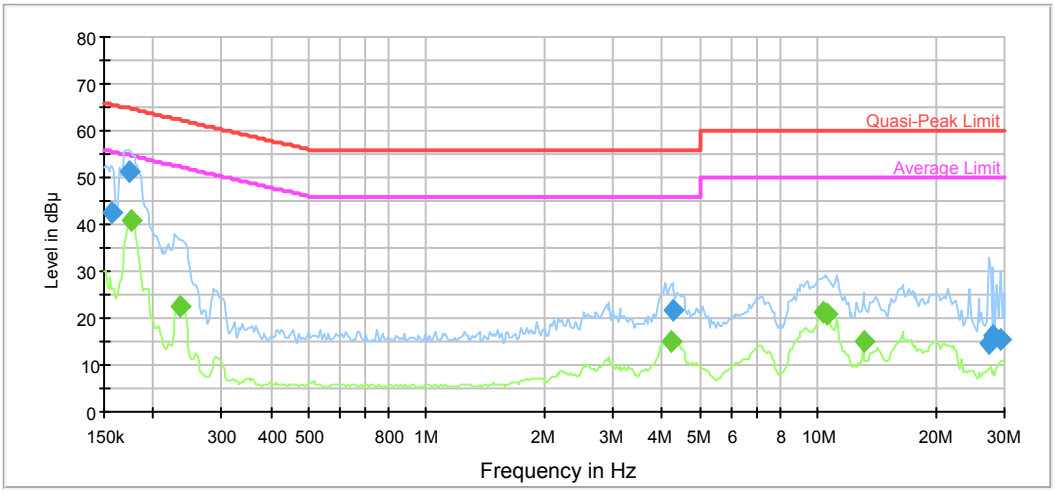
Environmental Conditions

Temperature:	22.7℃
Relative Humidity:	68%
ATM Pressure:	101.5kPa
Test by:	Sem Xiang
Test Date:	2020-04-03

Test Result: Compliance

Test Mode: *Transmitting*

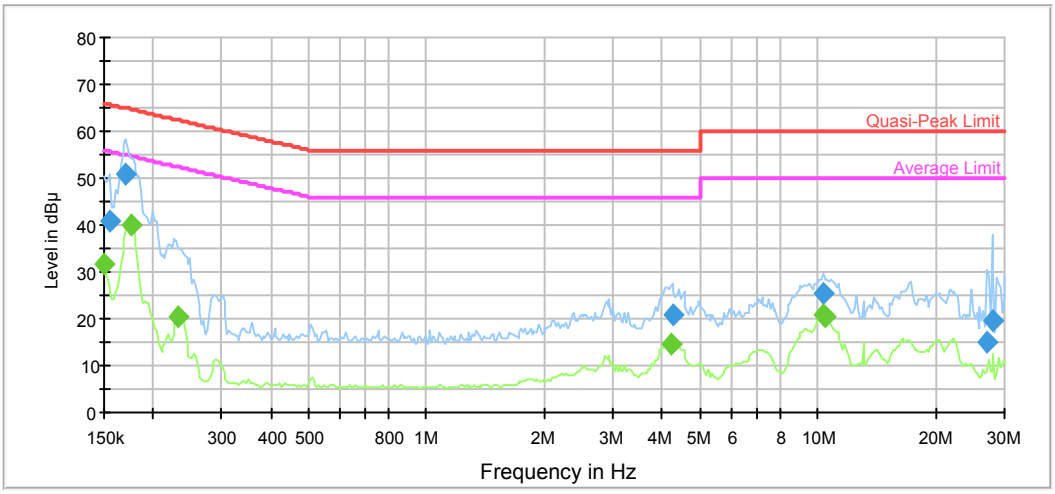
Model: DGSNFSTCH55
AC120V, 60 Hz, Line:



Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.157652	42.5	9.000	L1	9.7	23.1	65.6
0.174145	51.4	9.000	L1	9.7	13.4	64.8
4.246911	21.5	9.000	L1	9.8	34.5	56.0
27.300465	14.4	9.000	L1	10.2	45.6	60.0
28.127696	16.2	9.000	L1	10.2	43.8	60.0
29.269793	15.6	9.000	L1	10.2	44.4	60.0

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.175887	40.7	9.000	L1	9.7	14.0	54.7
0.234722	22.5	9.000	L1	9.7	29.8	52.3
4.204862	14.8	9.000	L1	9.8	31.2	46.0
10.296163	21.1	9.000	L1	10.0	28.9	50.0
10.608147	20.7	9.000	L1	10.0	29.3	50.0
13.073395	15.1	9.000	L1	10.2	34.9	50.0

AC120V, 60 Hz, Neutral:

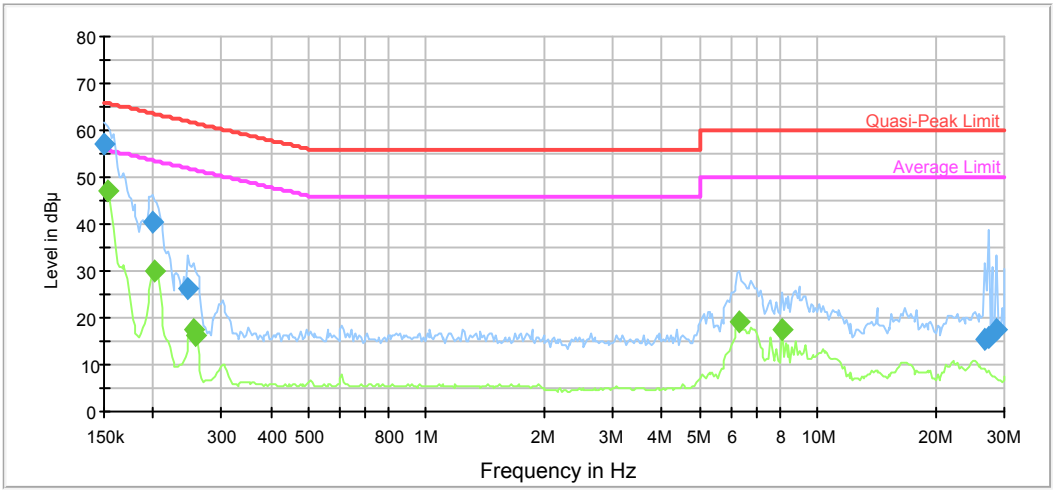


Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154545	40.8	9.000	N	9.7	25.0	65.8
0.170714	50.9	9.000	N	9.7	14.1	64.9
4.246911	20.7	9.000	N	9.7	35.3	56.0
10.296163	25.3	9.000	N	9.8	34.7	60.0
27.030163	15.1	9.000	N	10.0	44.9	60.0
27.849204	19.5	9.000	N	10.0	40.5	60.0

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	31.6	9.000	N	9.7	24.4	56.0
0.175887	39.8	9.000	N	9.7	14.9	54.7
0.232398	20.2	9.000	N	9.7	32.1	52.4
4.204862	14.7	9.000	N	9.7	31.3	46.0
10.296163	21.0	9.000	N	9.8	29.0	50.0
10.399125	20.3	9.000	N	9.8	29.7	50.0

Model: DGSNFSTCH43

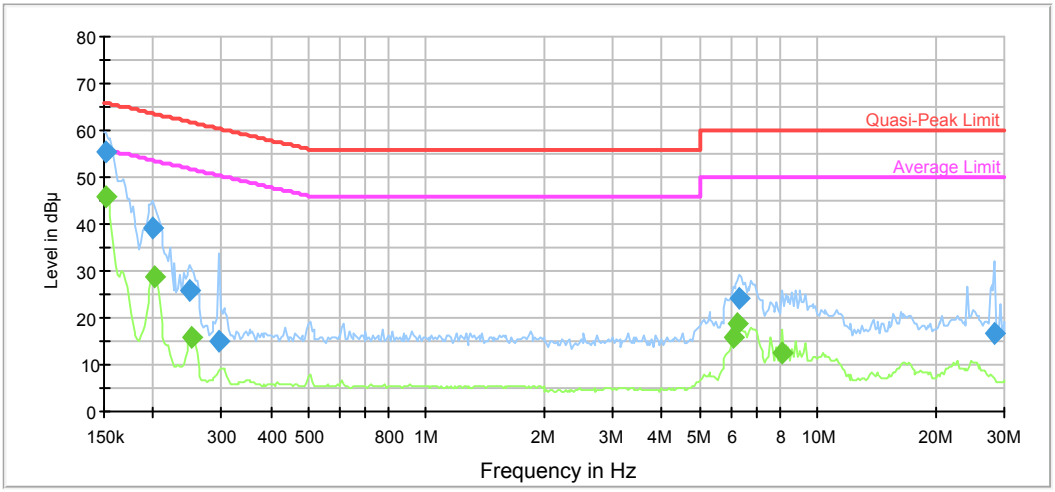
AC120V, 60 Hz, Line:



Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	57.2	9.000	L1	9.7	8.8	66.0
0.200176	40.5	9.000	L1	9.7	23.1	63.6
0.246695	26.4	9.000	L1	9.7	35.5	61.9
26.762538	15.4	9.000	L1	10.2	44.6	60.0
27.300465	15.7	9.000	L1	10.2	44.3	60.0
28.693063	17.4	9.000	L1	10.2	42.6	60.0

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.153015	47.2	9.000	L1	9.7	8.7	55.8
0.202177	29.8	9.000	L1	9.7	23.7	53.5
0.254170	17.5	9.000	L1	9.7	34.1	51.6
0.256712	16.2	9.000	L1	9.7	35.3	51.5
6.323071	19.0	9.000	L1	9.9	31.0	50.0
8.108909	17.7	9.000	L1	9.9	32.3	50.0

AC120V, 60 Hz, Neutral:

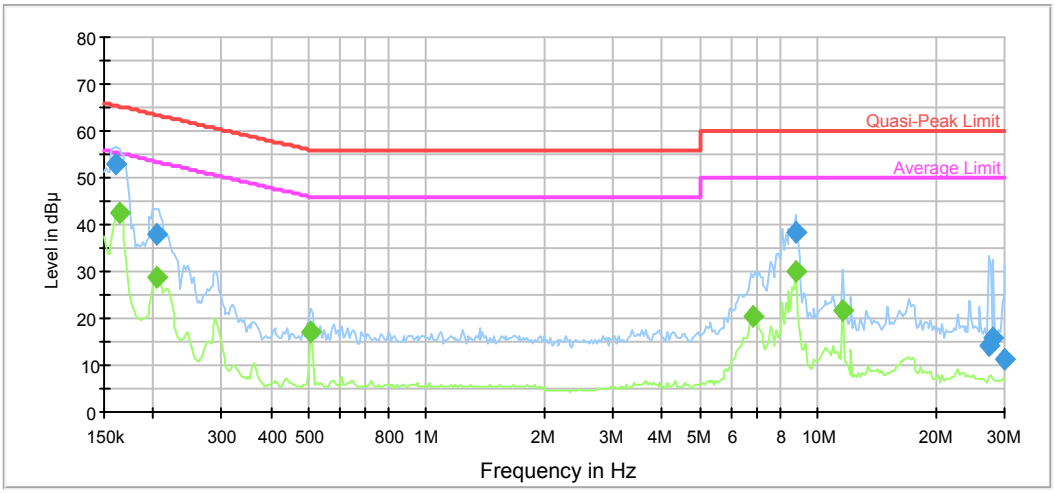


Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.151500	55.5	9.000	N	9.7	10.4	65.9
0.200176	39.2	9.000	N	9.7	24.4	63.6
0.249162	25.6	9.000	N	9.7	36.2	61.8
0.295084	15.0	9.000	N	9.7	45.4	60.4
6.323071	24.3	9.000	N	9.7	35.7	60.0
28.408973	16.7	9.000	N	10.0	43.3	60.0

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.151500	45.7	9.000	N	9.7	10.2	55.9
0.202177	28.7	9.000	N	9.7	24.9	53.5
0.251654	16.0	9.000	N	9.7	35.7	51.7
6.076347	15.7	9.000	N	9.7	34.3	50.0
6.260467	18.9	9.000	N	9.7	31.1	50.0
8.108909	12.6	9.000	N	9.7	37.4	50.0

MODEL: DGSNAFNT43

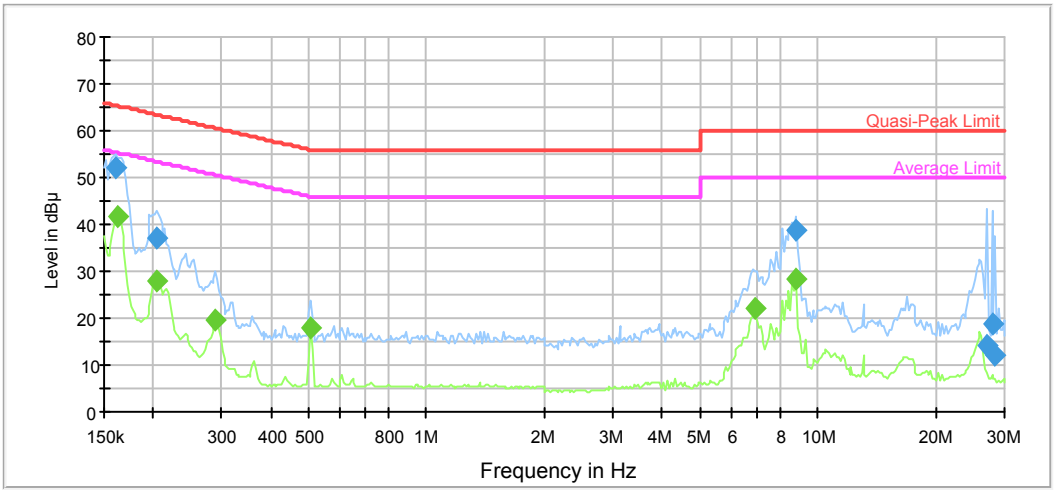
AC120V, 60 Hz, Line:



Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.160820	52.8	9.000	L1	9.7	12.6	65.4
0.204199	38.0	9.000	L1	9.7	25.4	63.4
8.780787	38.2	9.000	L1	9.9	21.8	60.0
27.300465	14.4	9.000	L1	10.2	45.6	60.0
28.127696	15.7	9.000	L1	10.2	44.3	60.0
30.000000	11.4	9.000	L1	10.3	48.6	60.0

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.164053	42.6	9.000	L1	9.7	12.7	55.3
0.204199	28.8	9.000	L1	9.7	24.6	53.4
0.505009	16.9	9.000	L1	9.7	29.1	46.0
6.846980	20.5	9.000	L1	9.9	29.5	50.0
8.780787	30.2	9.000	L1	9.9	19.8	50.0
11.601974	21.7	9.000	L1	10.1	28.3	50.0

AC120V, 60 Hz, Neutral:

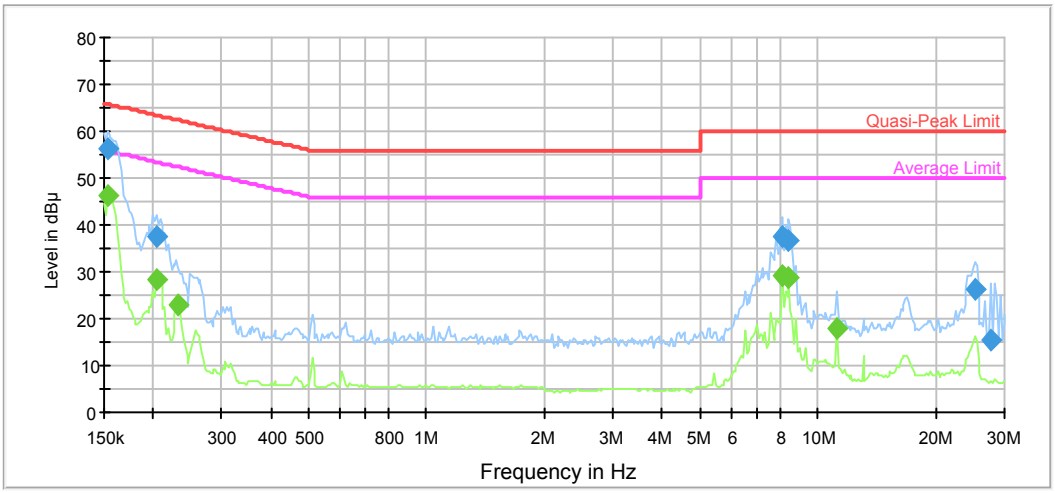


Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.160820	51.9	9.000	N	9.7	13.5	65.4
0.204199	36.9	9.000	N	9.7	26.5	63.4
8.780787	38.7	9.000	N	9.7	21.3	60.0
27.030163	14.0	9.000	N	10.0	46.0	60.0
27.849204	18.9	9.000	N	10.0	41.1	60.0
28.408973	12.0	9.000	N	10.0	48.0	60.0

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.162429	41.8	9.000	N	9.7	13.5	55.3
0.204199	28.1	9.000	N	9.7	25.3	53.4
0.289269	19.6	9.000	N	9.7	30.9	50.5
0.505009	18.0	9.000	N	9.6	28.0	46.0
6.915450	22.0	9.000	N	9.7	28.0	50.0
8.780787	28.4	9.000	N	9.7	21.6	50.0

MODEL: DGSNKTCH43BK

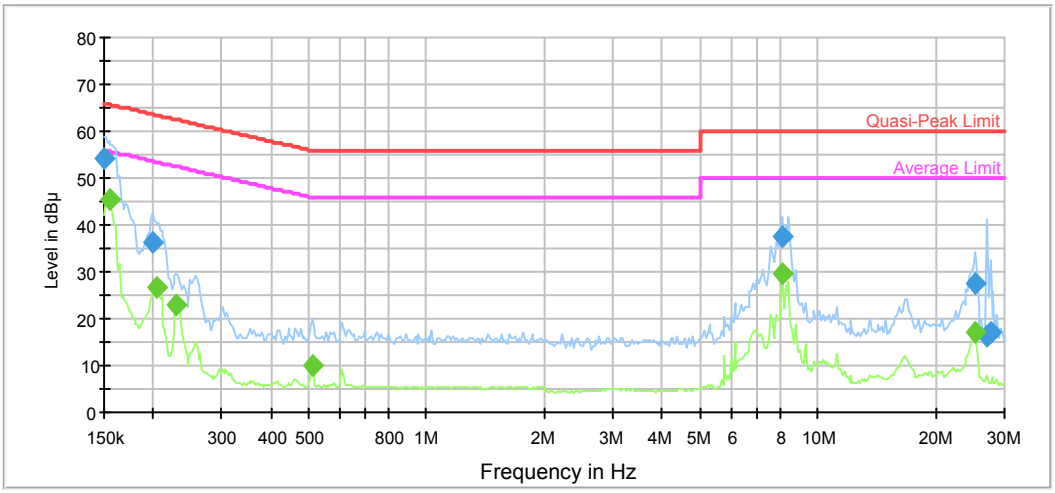
AC120V, 60 Hz, Line:



Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.153015	56.2	9.000	L1	9.7	9.6	65.8
0.204199	37.5	9.000	L1	9.7	25.9	63.4
8.108909	37.5	9.000	L1	9.9	22.5	60.0
8.438163	36.7	9.000	L1	9.9	23.3	60.0
25.211521	26.4	9.000	L1	10.2	33.6	60.0
27.573469	15.5	9.000	L1	10.2	44.5	60.0

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.153015	46.2	9.000	L1	9.7	9.6	55.8
0.204199	28.3	9.000	L1	9.7	25.1	53.4
0.232398	22.8	9.000	L1	9.7	29.6	52.4
8.108909	29.2	9.000	L1	9.9	20.8	50.0
8.438163	28.7	9.000	L1	9.9	21.3	50.0
11.149269	18.0	9.000	L1	10.0	32.0	50.0

AC120V, 60 Hz, Neutral:



Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	54.4	9.000	N	9.7	11.6	66.0
0.200176	36.2	9.000	N	9.7	27.4	63.6
8.108909	37.4	9.000	N	9.7	22.6	60.0
25.211521	27.6	9.000	N	10.0	32.4	60.0
27.030163	16.1	9.000	N	10.0	43.9	60.0
27.573469	17.0	9.000	N	10.0	43.0	60.0

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154545	45.4	9.000	N	9.7	10.4	55.8
0.204199	26.7	9.000	N	9.7	26.7	53.4
0.230097	23.0	9.000	N	9.7	29.4	52.4
0.510059	10.2	9.000	N	9.6	35.8	46.0
8.108909	29.5	9.000	N	9.7	20.5	50.0
25.211521	17.0	9.000	N	10.0	33.0	50.0

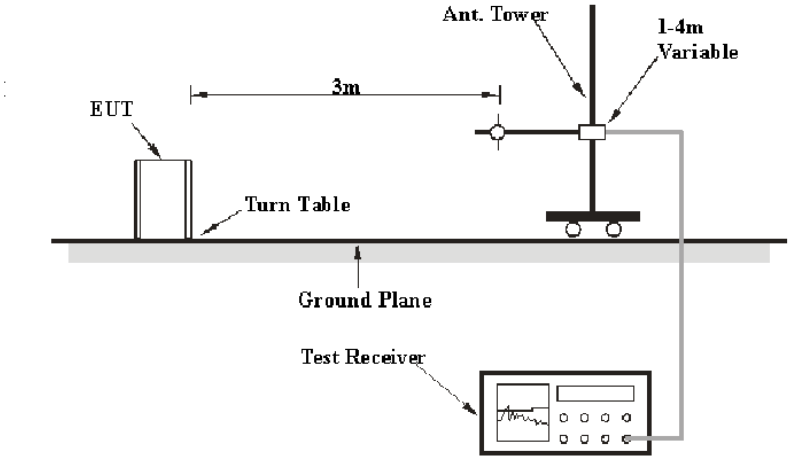
FCC §15.209, §15.205 & §15.247(D)- SPURIOUS EMISSIONS

Applicable Standard

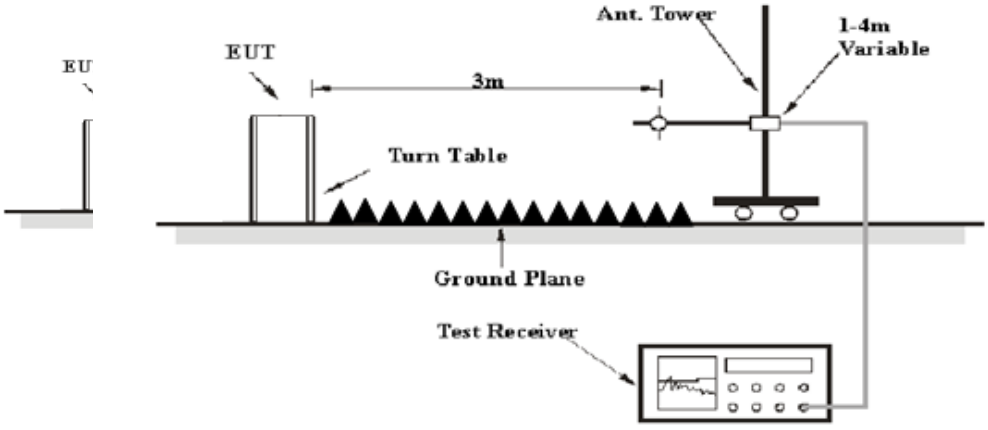
FCC §15.247 (d); §15.209; §15.205.

EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emission below 1GHz tests were performed in the 3 meters chamber test site A, above 1GHz tests were performed in the 3 meters chamber test site B, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.247 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	120 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1MHz	3 MHz	/	PK
	1MHz	10 Hz	/	AV

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz - 1 GHz, peak and average detection modes for frequencies above 1 GHz.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit – Corrected Amplitude

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiation Below 1GHz					
R&S	EMI Test Receiver	ESR3	102453	2019-09-12	2020-09-12
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A
Sunol Sciences	Antenna	JB3	A060611-1	2017-11-10	2020-11-10
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-01	2019-09-05	2020-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-0075-01	2019-09-05	2020-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-1400-01	2019-05-06	2020-05-06
HP	Amplifier	8447D	2727A05902	2019-09-05	2020-09-05
Radiation Above 1GHz					
Agilent	Spectrum Analyzer	E4440A	SG43360054	2019-05-09	2020-05-09
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A
TDK RF	Horn Antenna	HRN-0118	130 084	2018-10-12	2021-10-12
ETS-Lindgren	Horn Antenna	3115	000 527 35	2018-10-12	2021-10-12
Unknown	Coaxial Cable	C-SJSJ-50	C-0800-01	2019-09-05	2020-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-0200-02	2019-09-05	2020-09-05
Mini-Circuit	Amplifier	ZVA-213-S+	54201245	2019-09-05	2020-09-05
E-Microwave	Band-stop Filters	OBSF-2400-2483.5-S	OE01601525	2019-06-16	2020-06-16
Micro-tronics	High Pass Filter	HPM50111	S/N-G217	2019-06-16	2020-06-16

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

Test Data

Environmental Conditions

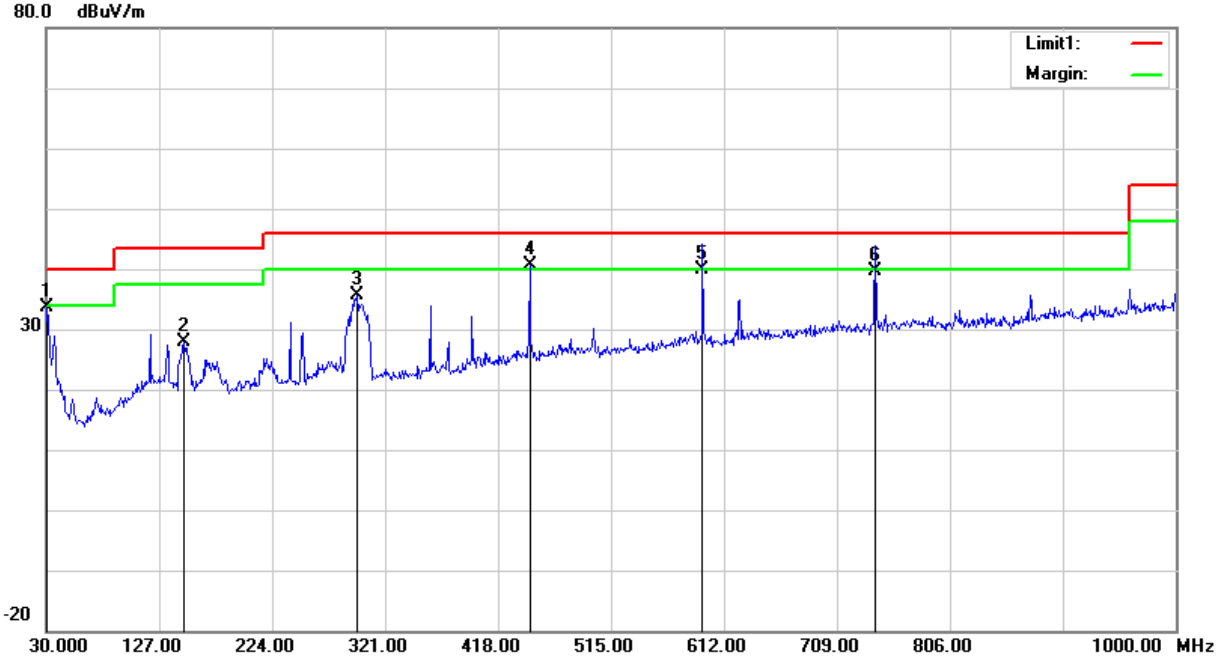
Test Items	Radiation Below 1GHz	Radiation Above 1GHz
Temperature:	23.7°C	21.2°C
Relative Humidity:	65%	63%
ATM Pressure:	100.9 kPa	101.4 kPa
Tester:	Jalon Liu	Bond Qin
Test Date:	2020-04-16	2020-04-08

Test Mode: Transmitting

Test Result: Compliance. Please refer to the following table and plots.

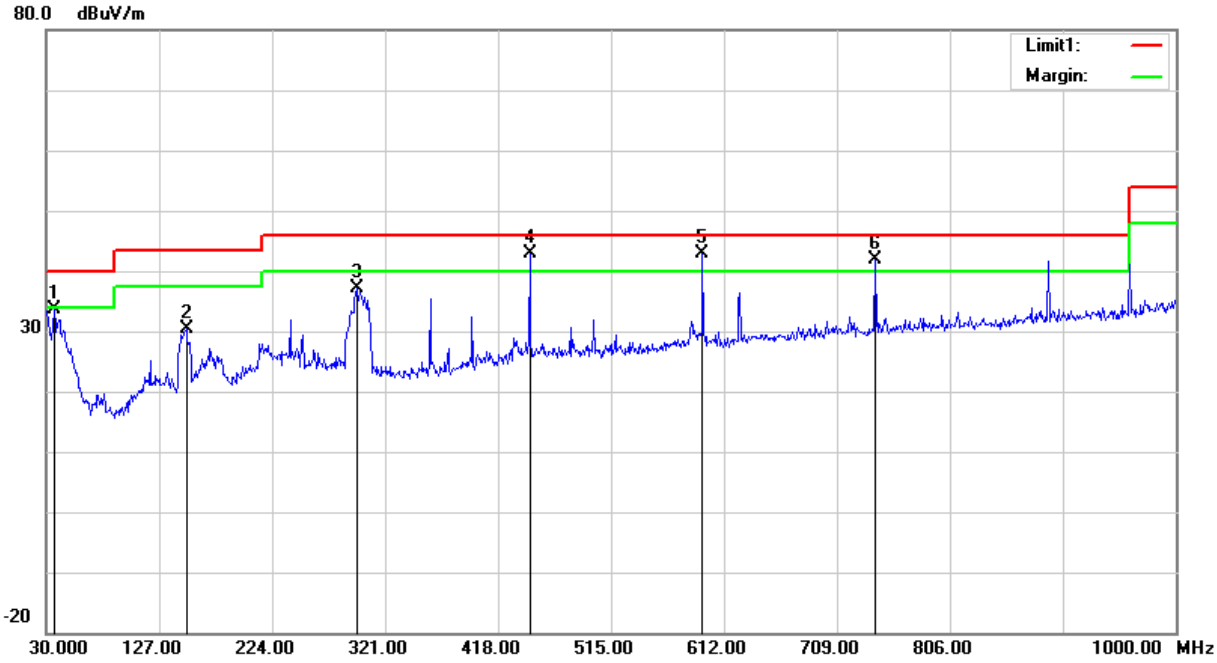
1) 30MHz-1GHz (GFSK high channel was the worst)

Model: DGSNFSTCH55:
Horizontal:



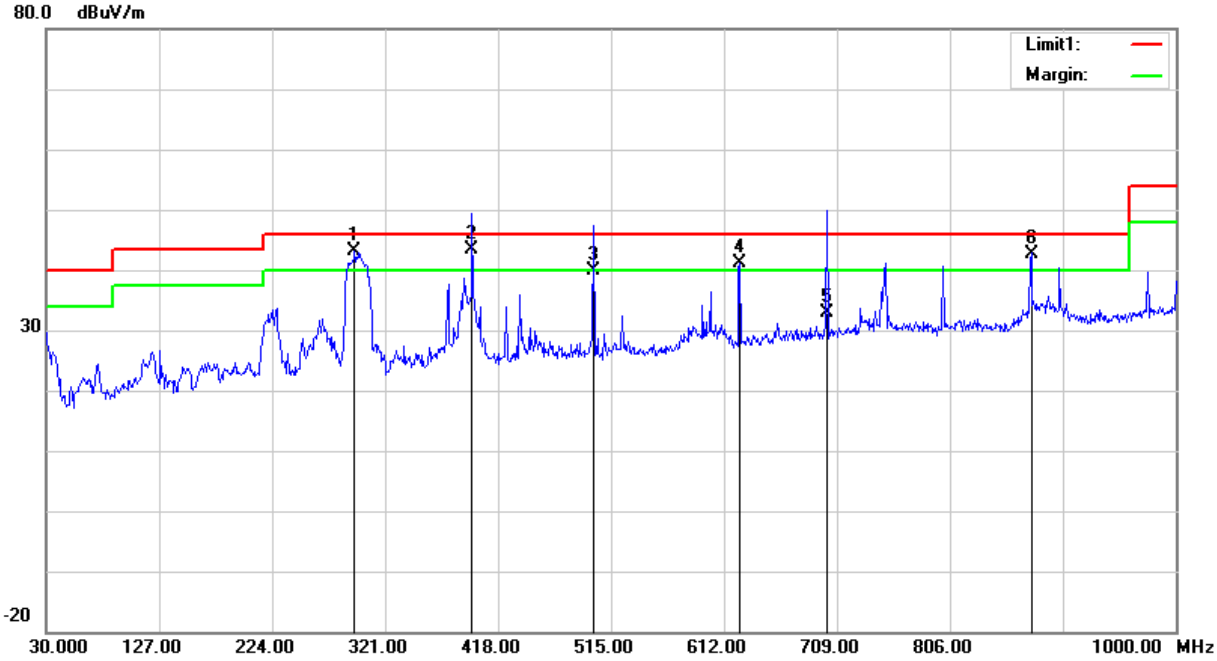
Frequency (MHz)	Receiver Reading (dBµV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)
30.0000	31.89	peak	1.72	33.61	40.00	6.39
148.3400	33.82	peak	-6.05	27.77	43.50	15.73
296.7500	39.57	peak	-3.90	35.67	46.00	10.33
445.1600	41.75	peak	-1.14	40.61	46.00	5.39
593.5700	39.10	QP	0.86	39.96	46.00	6.04
741.9800	36.10	QP	3.46	39.56	46.00	6.44

Vertical:



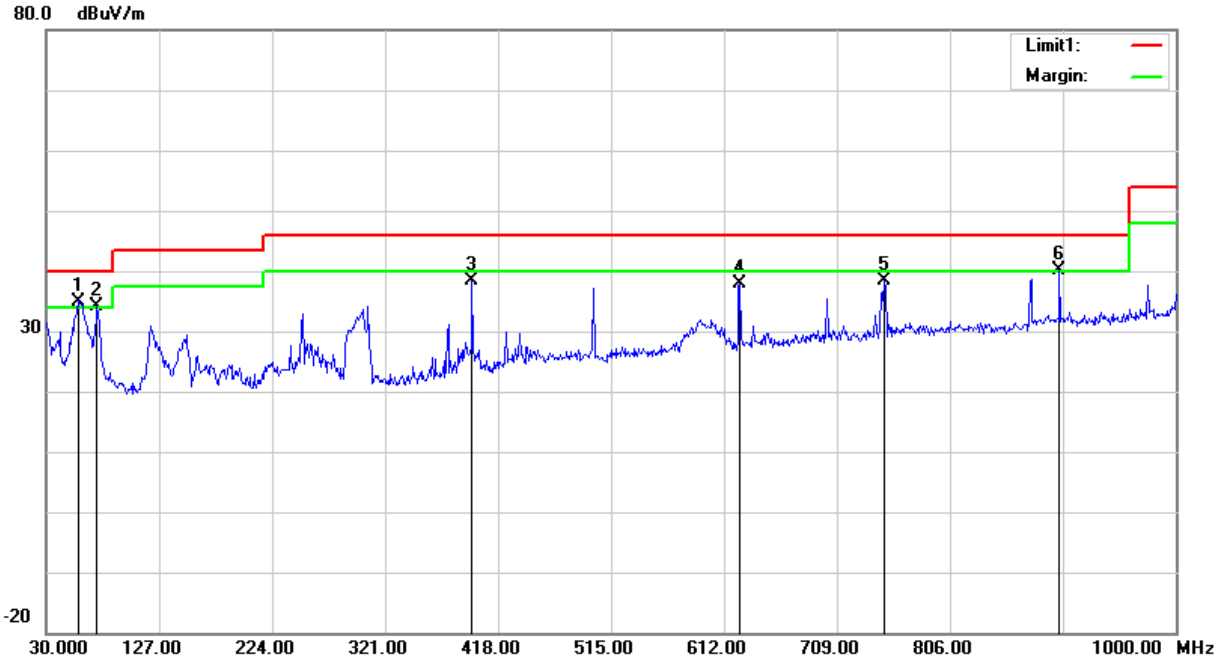
Frequency (MHz)	Receiver Reading (dBµV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)
36.7900	36.90	peak	-3.38	33.52	40.00	6.48
150.2800	36.45	peak	-5.97	30.48	43.50	13.02
296.7500	40.99	peak	-3.90	37.09	46.00	8.91
445.1600	44.04	peak	-1.14	42.90	46.00	3.10
593.5700	41.96	peak	0.86	42.82	46.00	3.18
741.9800	38.52	peak	3.46	41.98	46.00	4.02

Model: DGSNFSTCH43
Horizontal:



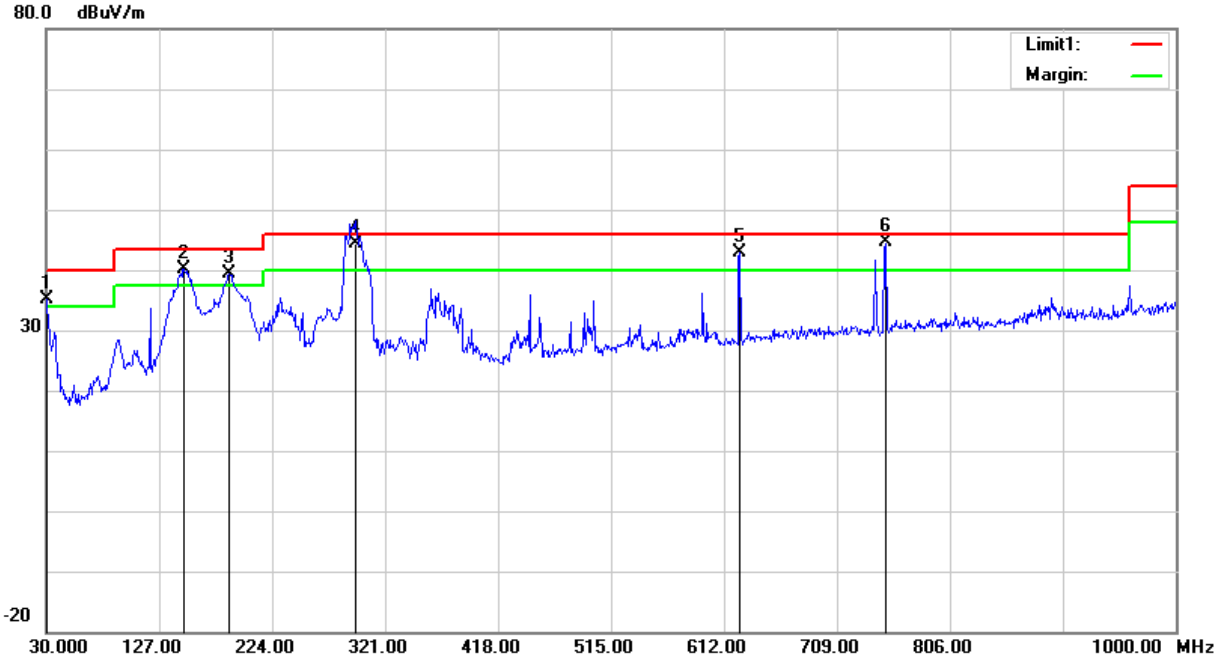
Frequency (MHz)	Receiver Reading (dBµV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)
294.8100	47.13	peak	-3.88	43.25	46.00	2.75
395.6900	45.50	QP	-2.07	43.43	46.00	2.57
500.4500	40.20	QP	-0.32	39.88	46.00	6.12
625.5800	39.44	peak	1.79	41.23	46.00	4.77
700.2700	30.00	QP	2.96	32.96	46.00	13.04
875.8400	43.35	peak	-0.60	42.75	46.00	3.25

Vertical:



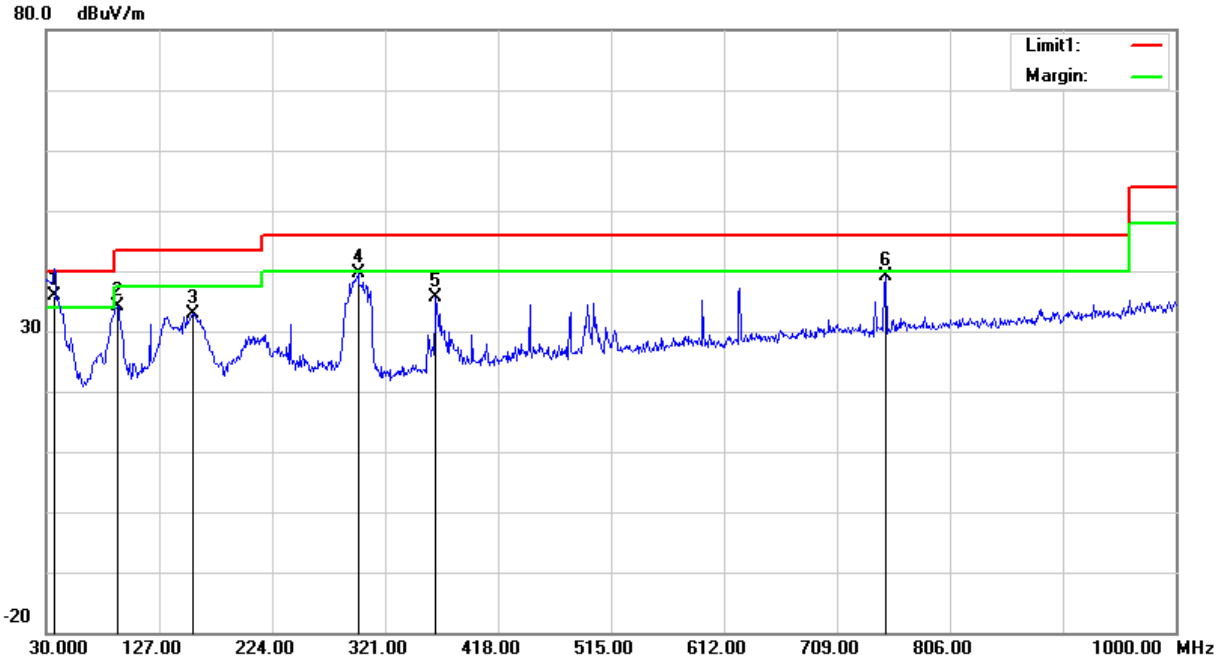
Frequency (MHz)	Receiver Reading (dBµV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)
57.1600	47.21	peak	-12.21	35.00	40.00	5.00
73.6500	45.10	peak	-11.02	34.08	40.00	5.92
395.6900	40.51	peak	-2.07	38.44	46.00	7.56
625.5800	36.12	peak	1.79	37.91	46.00	8.09
749.7400	34.77	peak	3.62	38.39	46.00	7.61
900.0900	39.93	peak	0.12	40.05	46.00	5.95

Model: DGSNAFNT43
Horizontal:



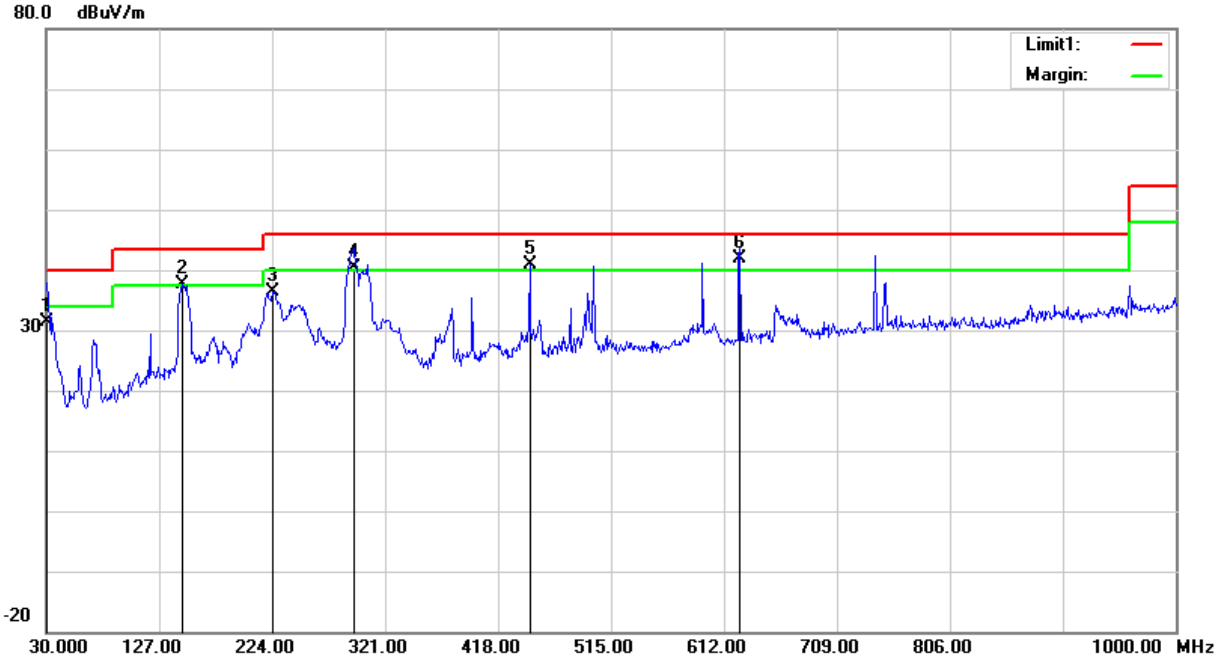
Frequency (MHz)	Receiver Reading (dBµV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)
30.0000	33.45	peak	1.72	35.17	40.00	4.83
148.3400	46.29	peak	-6.05	40.24	43.50	3.26
187.1400	46.63	peak	-7.29	39.34	43.50	4.16
295.7800	48.30	QP	-3.89	44.41	46.00	1.59
625.5800	41.09	peak	1.79	42.88	46.00	3.12
750.7100	40.90	QP	3.66	44.56	46.00	1.44

Vertical:



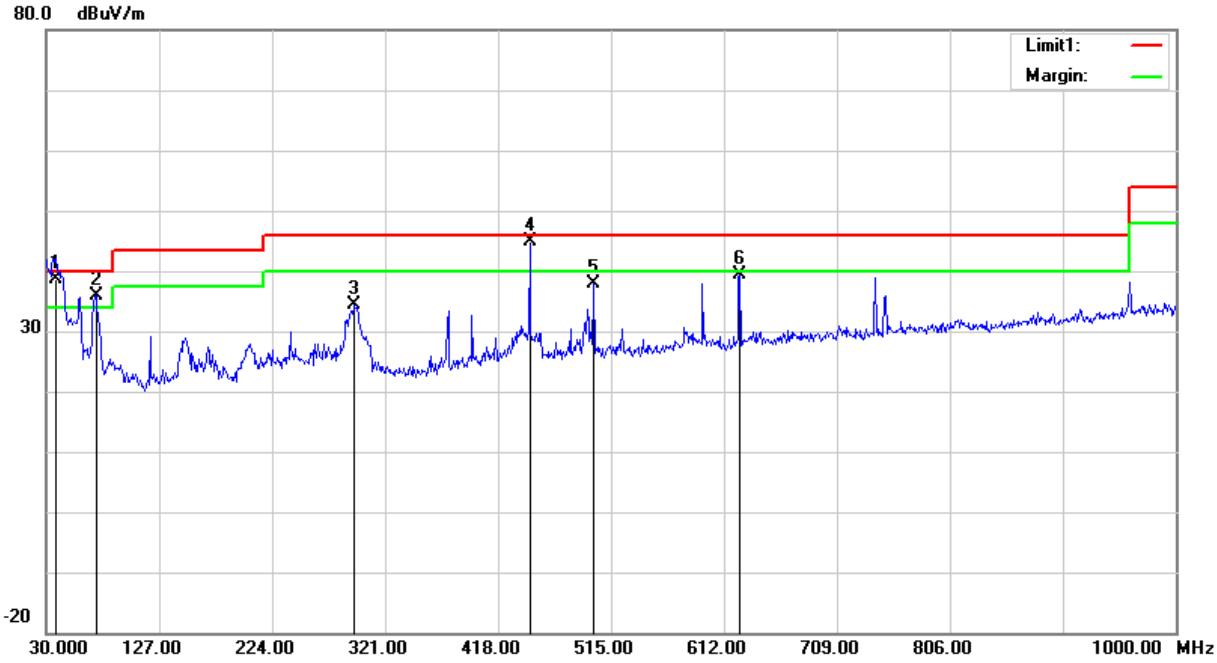
Frequency (MHz)	Receiver Reading (dBµV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)
36.7900	39.30	QP	-3.38	35.92	40.00	4.08
91.1100	45.13	peak	-11.09	34.04	43.50	9.46
156.1000	38.82	peak	-5.83	32.99	43.50	10.51
297.7200	43.50	peak	-3.92	39.58	46.00	6.42
364.6500	38.48	peak	-2.82	35.66	46.00	10.34
750.7100	35.44	peak	3.66	39.10	46.00	6.90

Model: DGSNKTCH43BK
Horizontal:



Frequency (MHz)	Receiver Reading (dBµV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)
30.0000	29.70	QP	1.72	31.42	40.00	8.58
146.4000	43.72	peak	-6.03	37.69	43.50	5.81
224.0000	43.17	peak	-6.79	36.38	46.00	9.62
293.8400	44.40	QP	-3.90	40.50	46.00	5.50
445.1600	42.10	peak	-1.14	40.96	46.00	5.04
625.5800	40.00	QP	1.79	41.79	46.00	4.21
30.0000	29.70	QP	1.72	31.42	40.00	8.58
146.4000	43.72	peak	-6.03	37.69	43.50	5.81

Vertical:



Frequency (MHz)	Receiver Reading (dBµV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)
37.7600	42.80	QP	-4.22	38.58	40.00	1.42
72.6800	46.99	peak	-11.04	35.95	40.00	4.05
294.8100	38.23	peak	-3.88	34.35	46.00	11.65
445.1600	46.10	QP	-1.14	44.96	46.00	1.04
500.4500	38.11	peak	-0.32	37.79	46.00	8.21
625.5800	37.47	peak	1.79	39.26	46.00	6.74

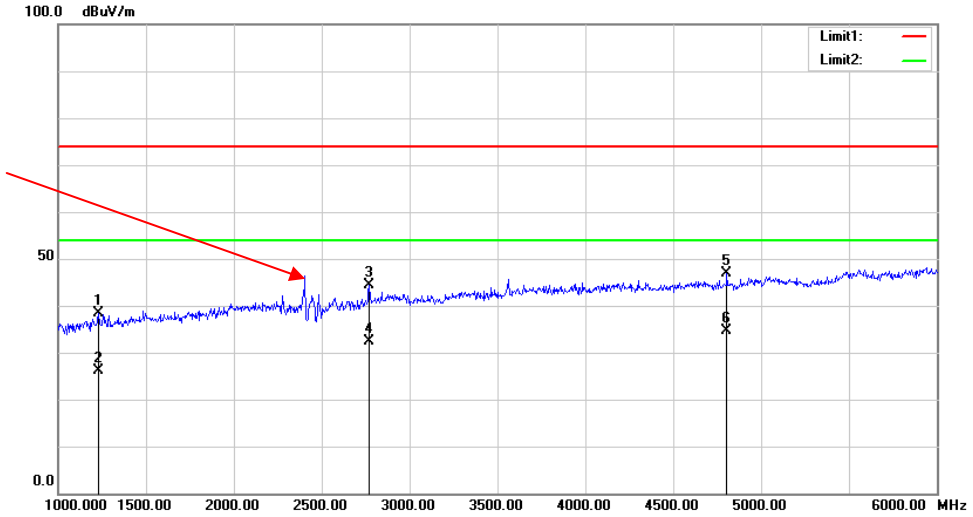
2) 1GHz-25GHz Model(DGSNFSTCH55 was tested):

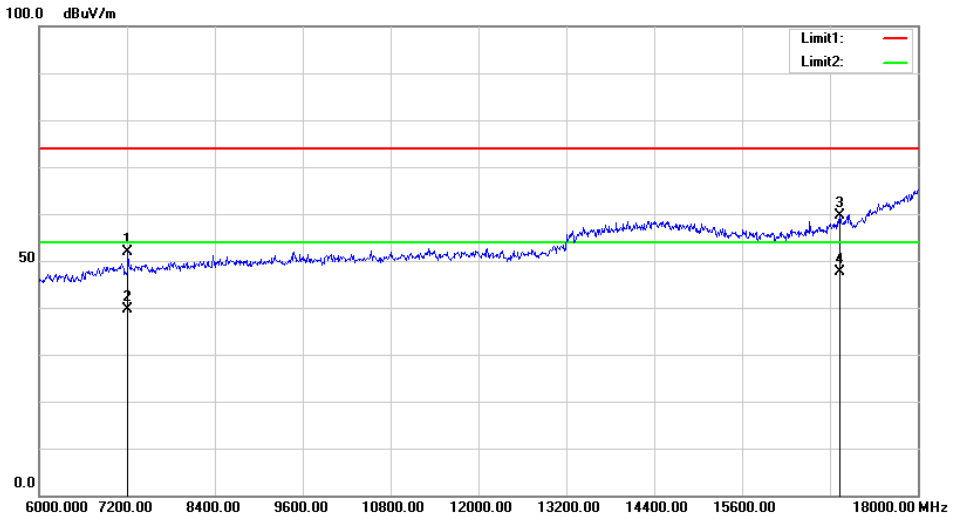
BDR Mode (GFSK) was the worst case:

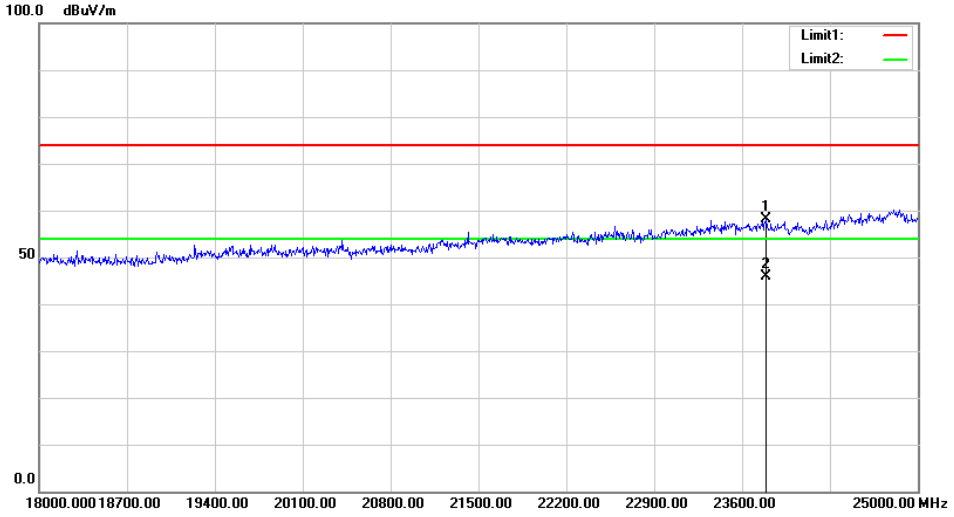
Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)					
Low Channel: 2402 MHz									
2390.00	26.95	PK	V	28.08	1.80	0.00	56.83	74.00	17.17
2390.00	13.34	AV	V	28.08	1.80	0.00	43.22	54.00	10.78
4804.00	35.85	PK	V	32.91	3.17	25.60	46.33	74.00	27.67
4804.00	23.20	AV	V	32.91	3.17	25.60	33.68	54.00	20.32
7206.00	35.05	PK	V	35.74	4.82	25.60	50.01	74.00	23.99
7206.00	22.65	AV	V	35.74	4.82	25.60	37.61	54.00	16.39
Middle Channel: 2441 MHz									
4882.00	35.22	PK	V	33.06	3.27	25.66	45.89	74.00	28.11
4882.00	22.63	AV	V	33.06	3.27	25.66	33.30	54.00	20.70
7323.00	35.66	PK	V	36.04	4.62	25.73	50.59	74.00	23.41
7323.00	23.56	AV	V	36.04	4.62	25.73	38.49	54.00	15.51
High Channel: 2480 MHz									
2483.50	26.47	PK	V	28.27	1.84	0.00	56.58	74.00	17.42
2483.50	13.84	AV	V	28.27	1.84	0.00	43.95	54.00	10.05
4960.00	35.61	PK	V	33.22	3.23	25.63	46.43	74.00	27.57
4960.00	23.19	AV	V	33.22	3.23	25.63	34.01	54.00	19.99
7440.00	34.82	PK	V	36.34	4.41	25.85	49.72	74.00	24.28
7440.00	22.51	AV	V	36.34	4.41	25.85	37.41	54.00	16.59

Worst plots(*GFSK Middle* channel)
Horizontal

Fundamental Test with Band Rejection Filter

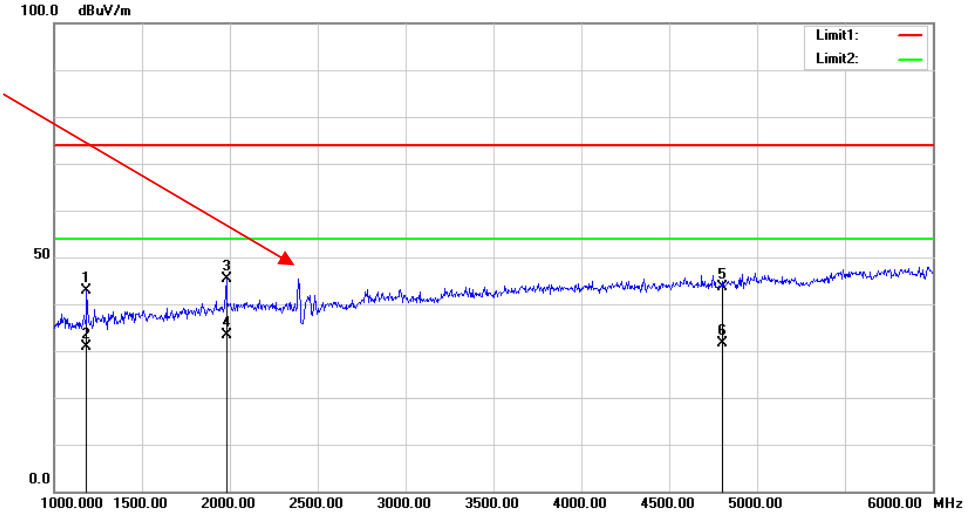


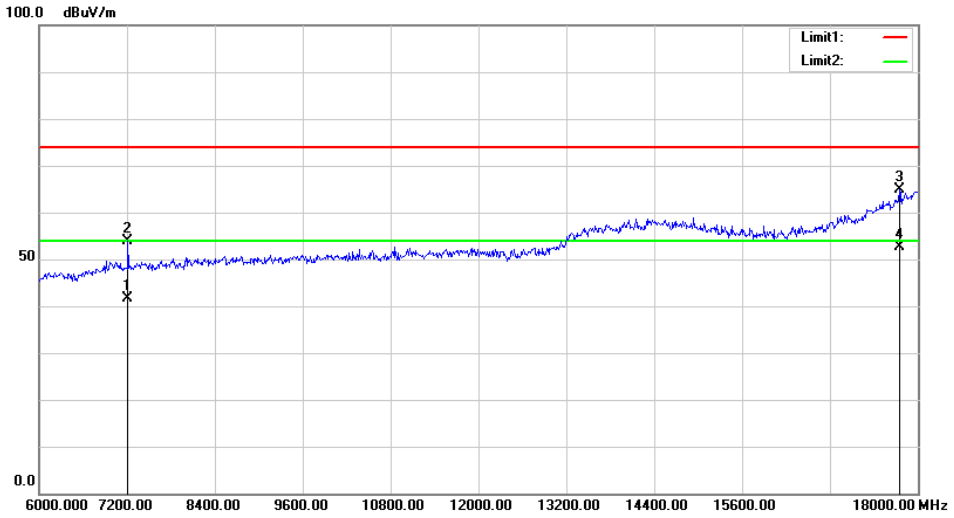


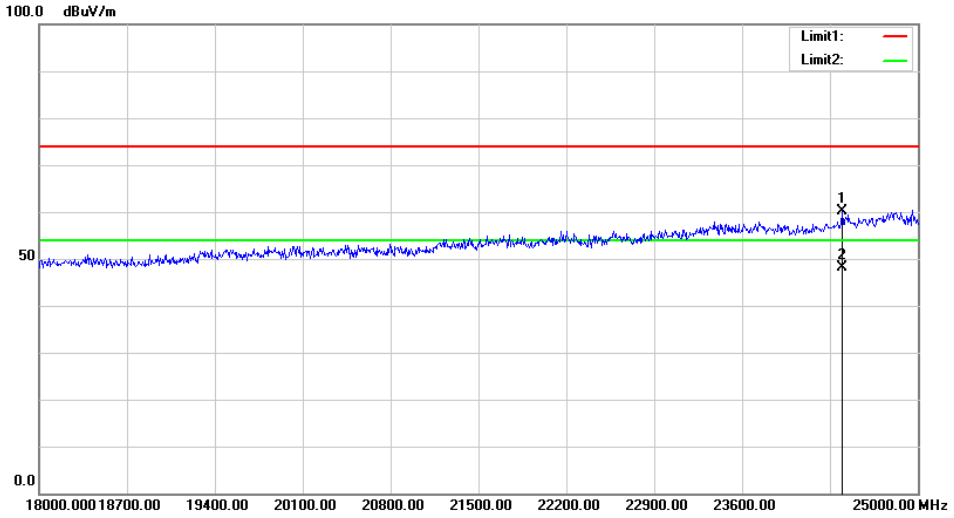


Vertical

Fundamental Test with Band Rejection Filter







FCC §15.247(A) (1) - CHANNEL SEPARATION TEST

Applicable Standard

According to FCC §15.247(a) (1).

Frequency hopping systems shall have hoping channel carrier frequencies separated by a minimum of 25 kHz or the 20dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.50 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20dB bandwidth of the hopping channel, whichever is greater provided the systems operate with an output power no greater than 125 mW.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU 26	200256	2019-05-09	2020-05-09
Unknown	Coaxial Cable	C-SJ00-0010	C0010/04	Each time	N/A

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

Test Procedure

1. Set the EUT in transmitting mode, spectrum Bandwidth was set at 30 kHz, maxhold the channel.
2. Set the adjacent channel of the EUT maxhold another trace.
3. Measure the channel separation.

Test Data

Environmental Conditions

Temperature:	24.9°C
Relative Humidity:	72%
ATM Pressure:	101.4 Pa
Tester:	Severn Zhu
Test Date:	2020-03-27

Test Result: Compliance.

Please refer to following tables and plots

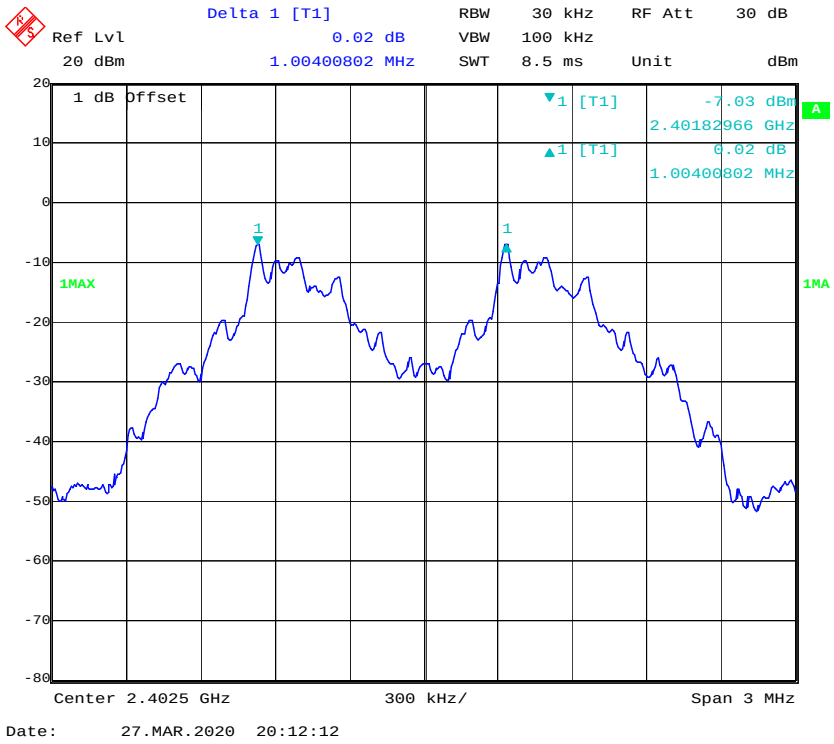
Test Mode: Transmitting

Mode	Channel	Frequency (MHz)	Channel Separation (MHz)	Limit (MHz)
BDR (GFSK)	Low	2402	1.004	0.69
	Middle	2441	1.004	0.7
	High	2480	0.998	0.7
EDR (π/4-DQPSK)	Low	2402	0.998	0.91
	Middle	2441	0.998	0.9
	High	2480	0.998	0.9
EDR (8DPSK)	Low	2402	1.004	0.89
	Middle	2441	0.998	0.89
	High	2480	1.004	0.88

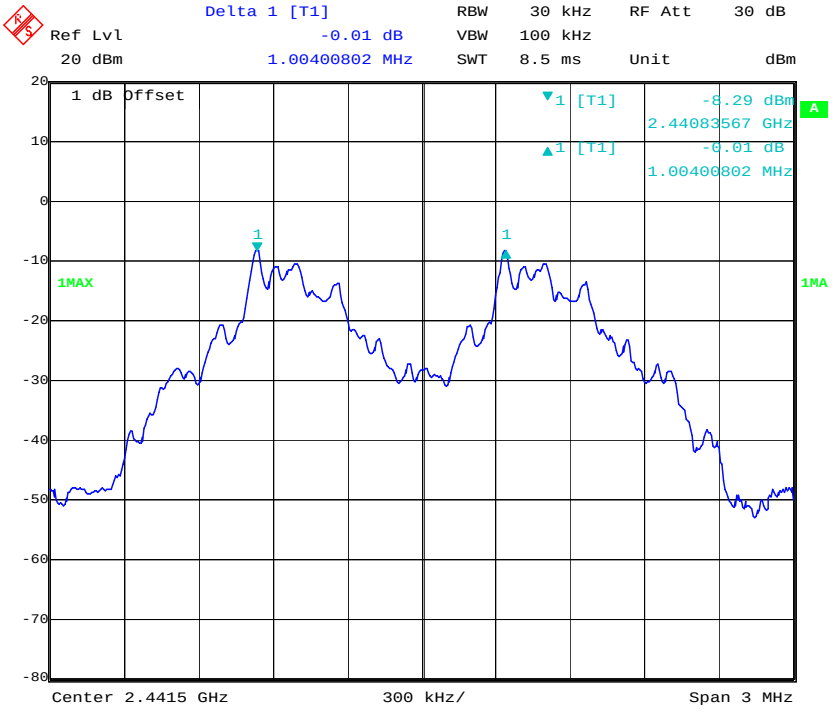
Note: Limit= (2/3) × 20dB bandwidth

BDR Mode (GFSK):

Low Channel

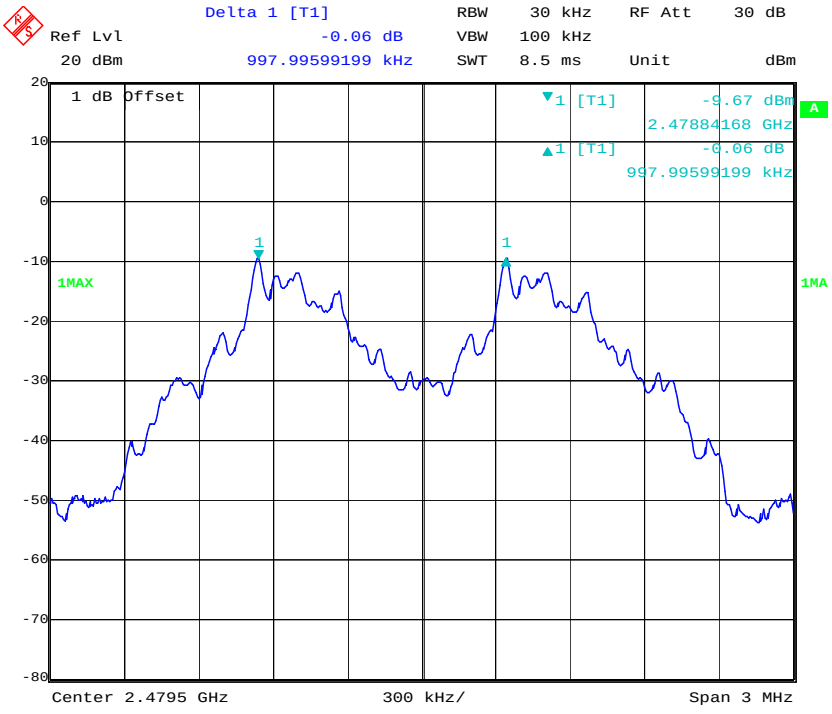


Middle Channel



Date: 27.MAR.2020 20:16:23

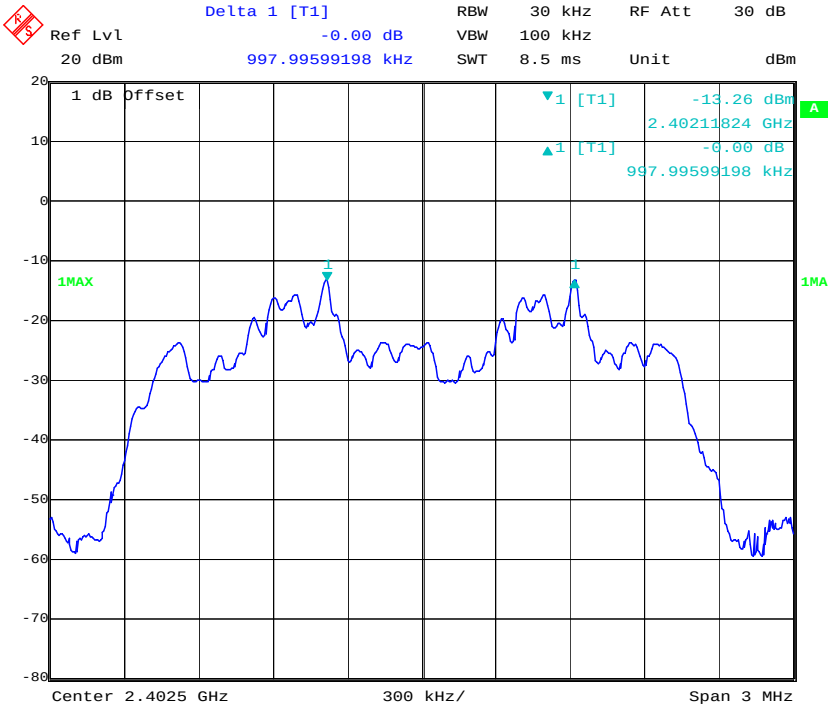
High Channel



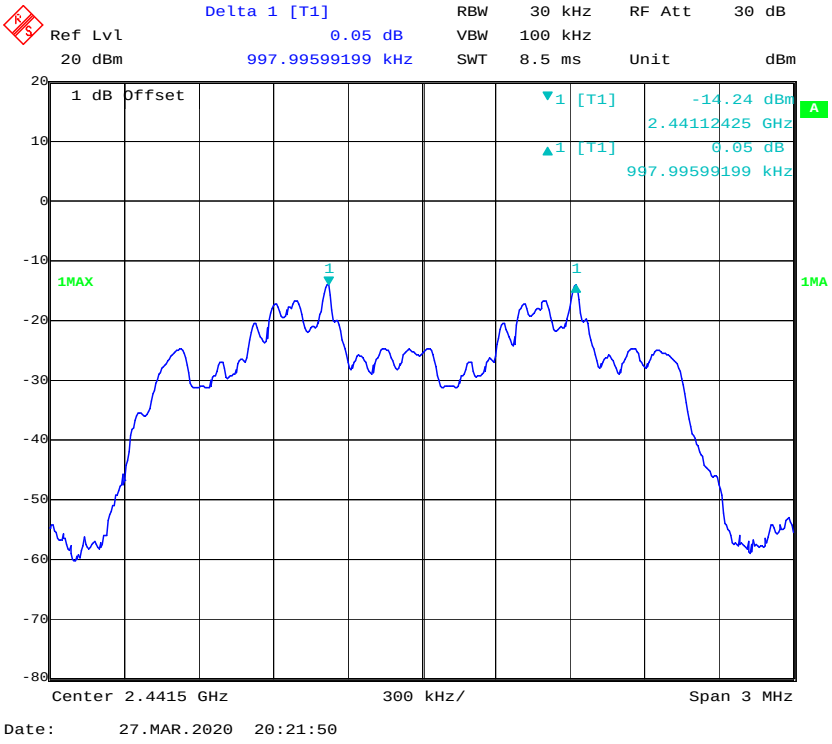
Date: 27.MAR.2020 20:17:25

EDR Mode (π/4-DQPSK):

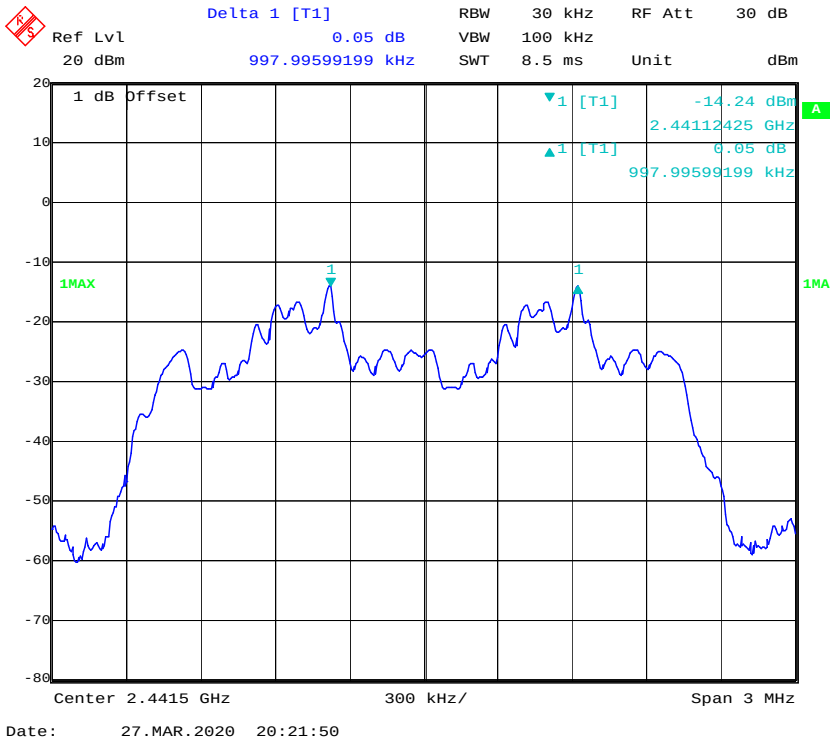
Low Channel



Middle Channel

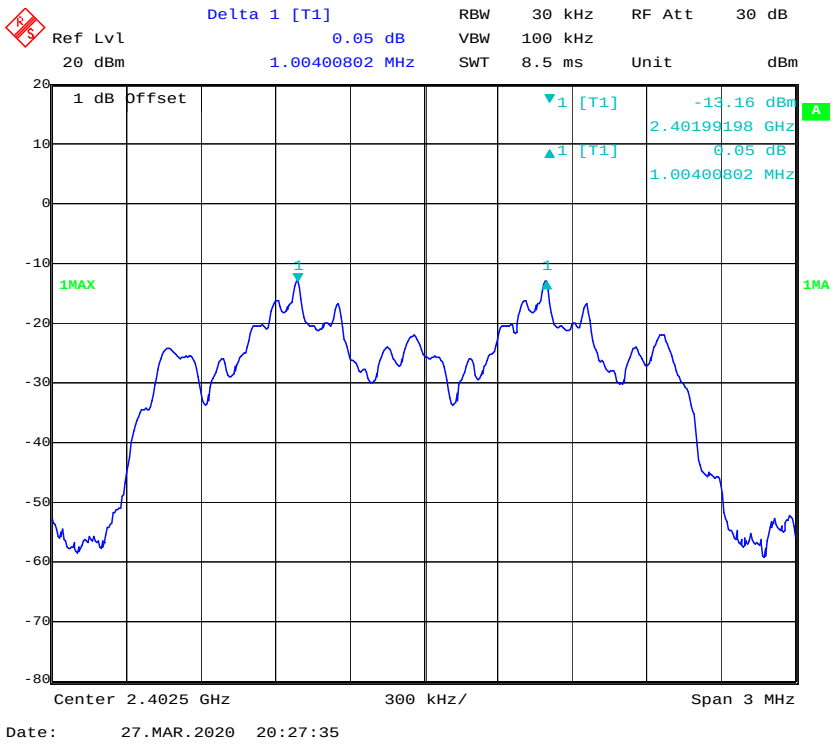


High Channel

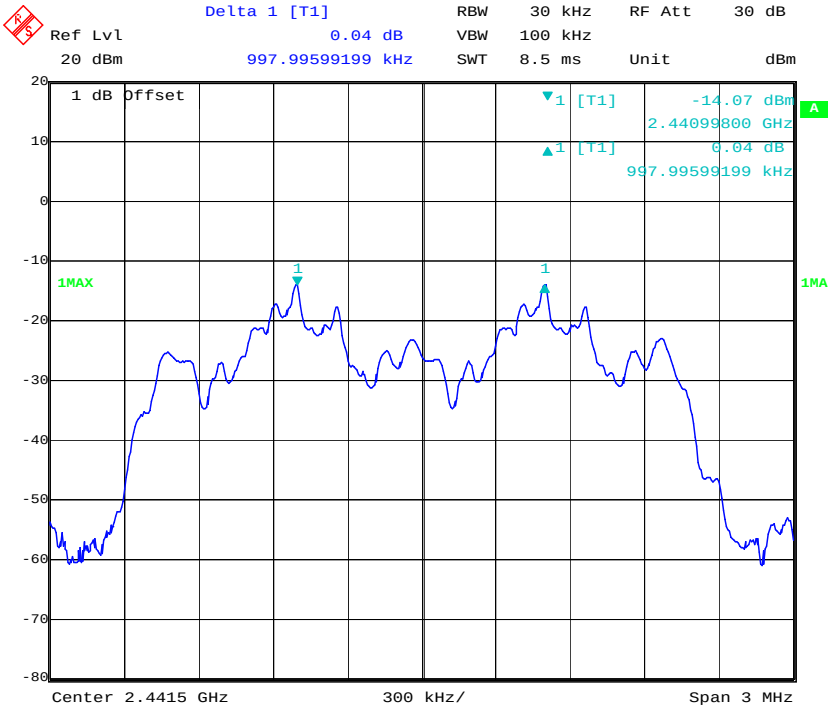


EDR Mode (8DPSK):

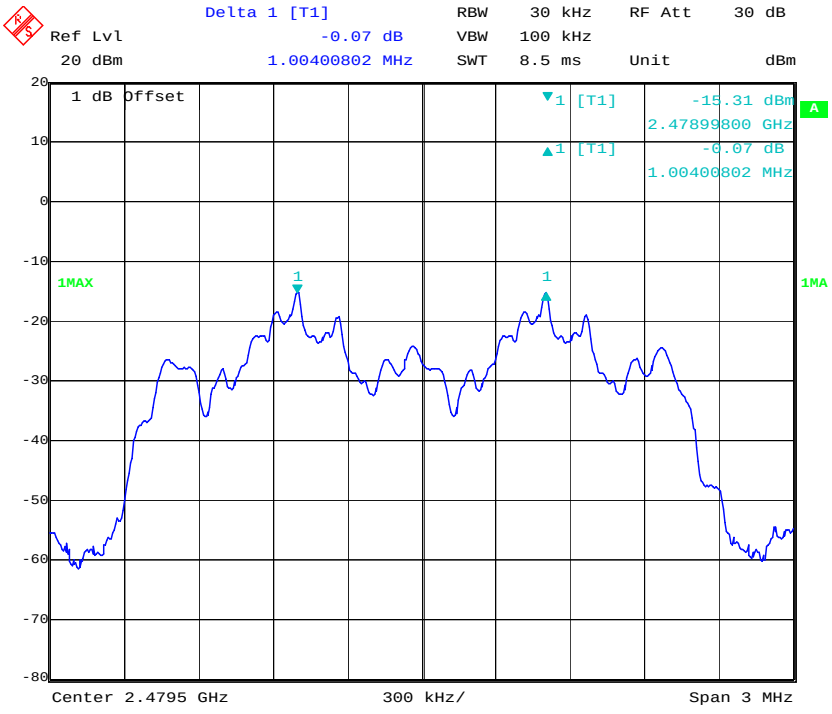
Low Channel



Middle Channel



High Channel



RSS-247 CLUASE 5.1– 20 dB BANDWIDTH TESTING

Applicable Standard

According to FCC §15.247(a) (1)

Alternatively, frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT on the test table without connection to measurement instrument. Turn on the EUT. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Use Occupied bandwidth test function, measure the 99% Occupied bandwidth.
5. Repeat above procedures until all frequencies measured were complete.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU 26	200256	2019-05-09	2020-05-09
Unknown	Coaxial Cable	C-SJ00-0010	C0010/04	Each time	N/A

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

Test Data

Environmental Conditions

Temperature:	24.4°C
Relative Humidity:	61%
ATM Pressure:	100.8 Pa
Tester:	Lucy Lu
Test Date:	2020-03-20

Test Result: Compliance.

Please refer to following tables and plots

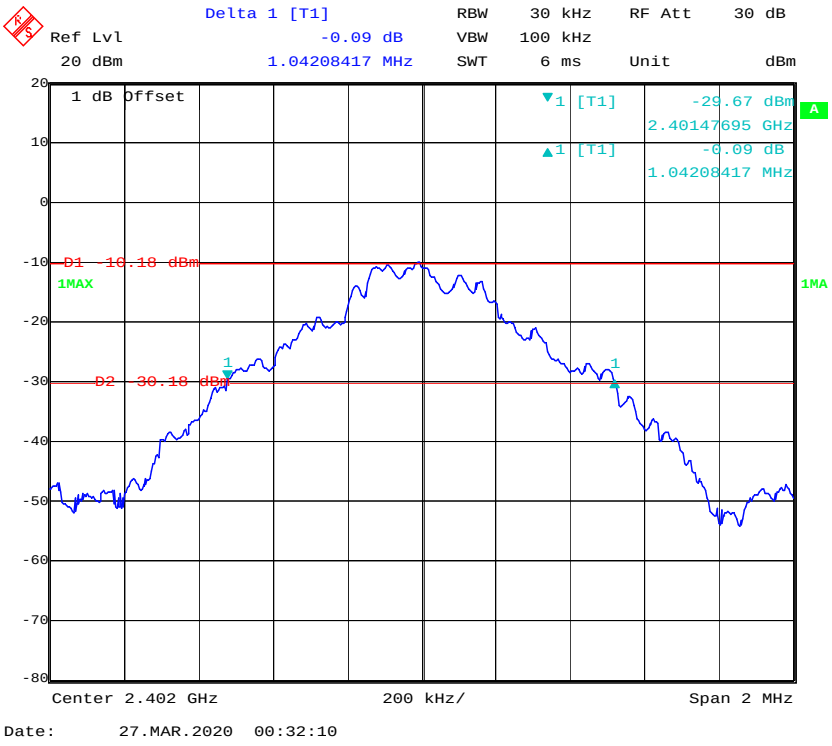
Test Mode: Transmitting

Mode	Channel	Frequency (MHz)	20 dB Bandwidth (MHz)
BDR Mode (GFSK)	Low	2402	1.042
	Middle	2441	1.046
	High	2480	1.050
2EDR Mode (π/4-DQPSK)	Low	2402	1.359
	Middle	2441	1.351
	High	2480	1.355
3EDR Mode (8DPSK)	Low	2402	1.331
	Middle	2441	1.331
	High	2480	1.323

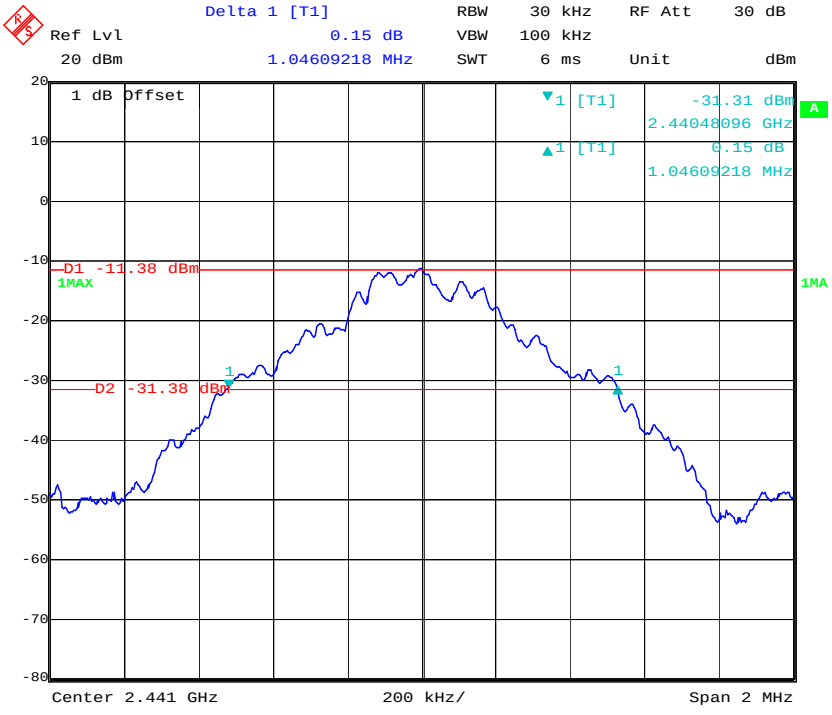
20dB Bandwidth:

BDR Mode (GFSK):

Low Channel

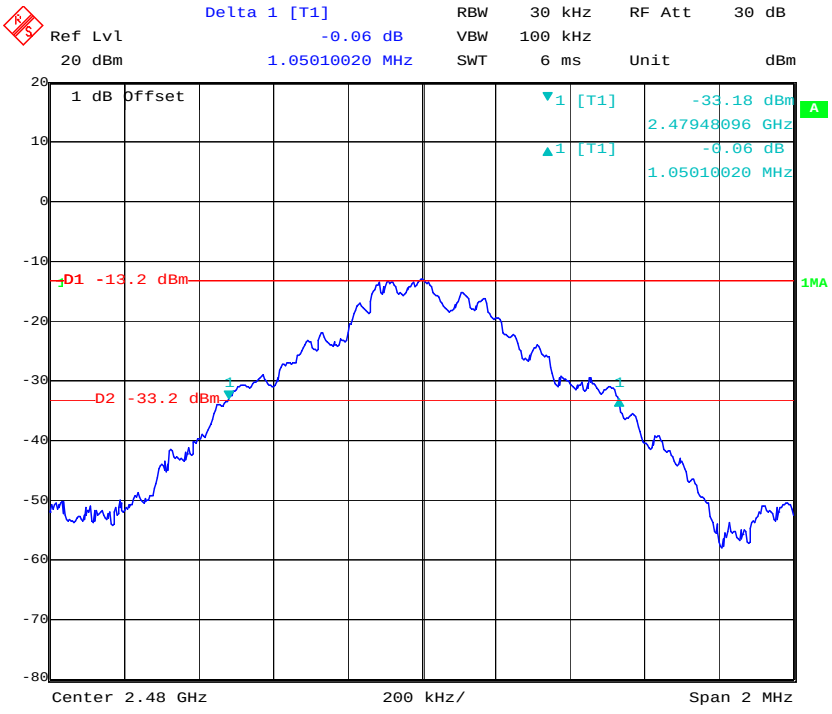


Middle Channel



Date: 27.MAR.2020 00:33:51

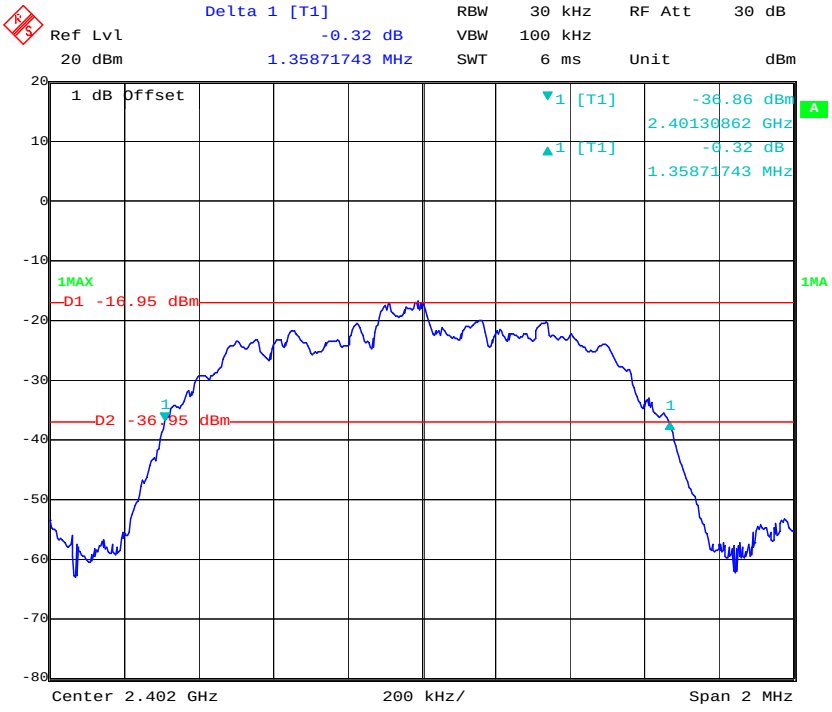
High Channel



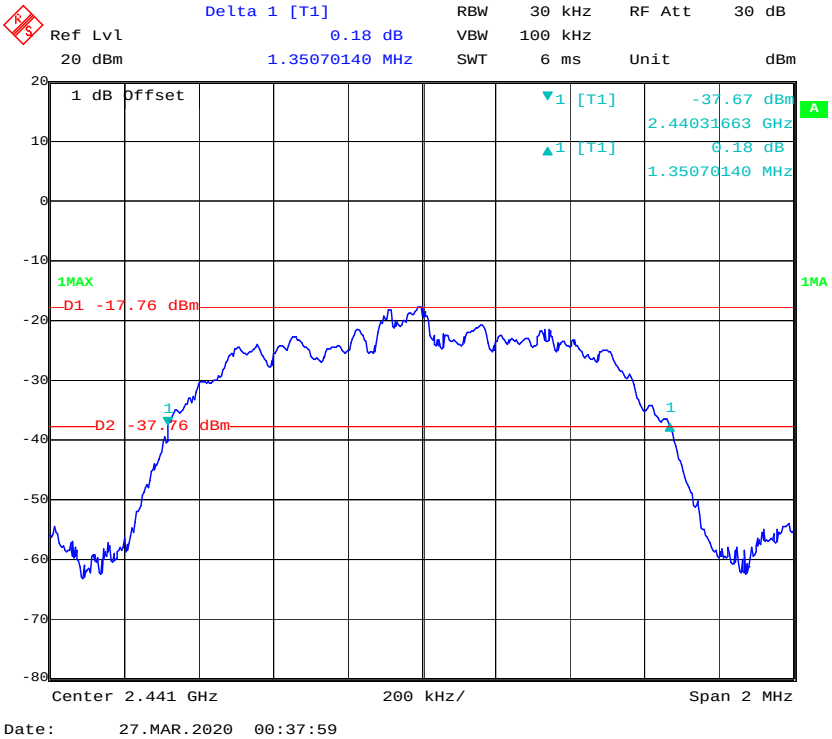
Date: 27.MAR.2020 00:35:20

EDR Mode (π/4-DQPSK):

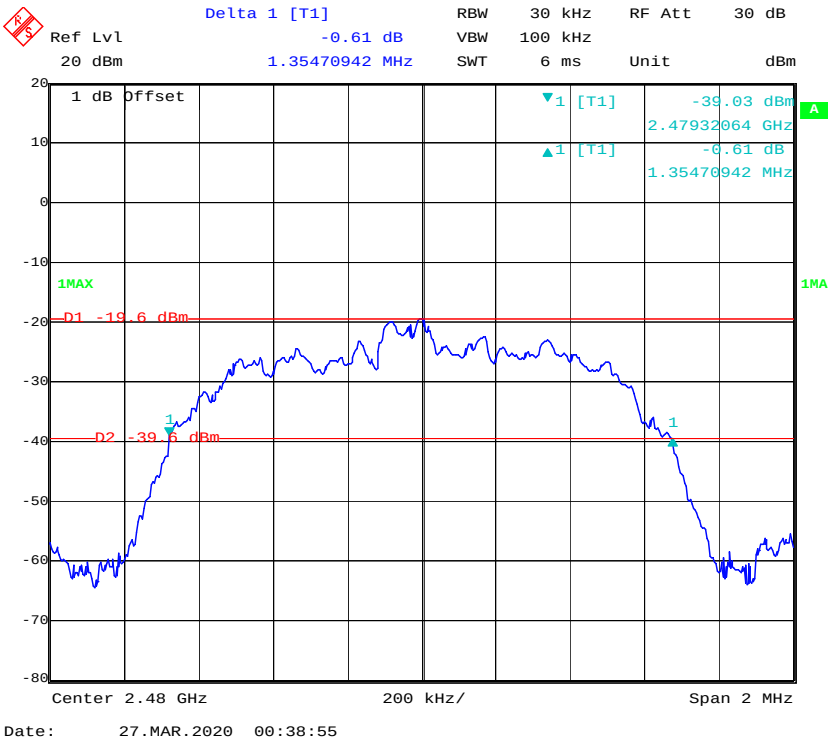
Low Channel



Middle Channel

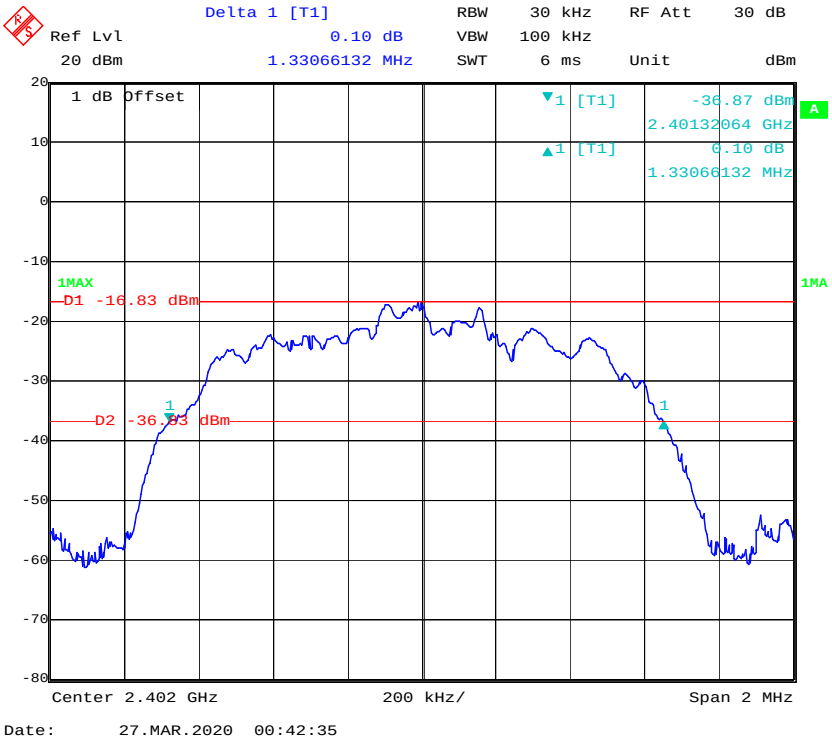


High Channel

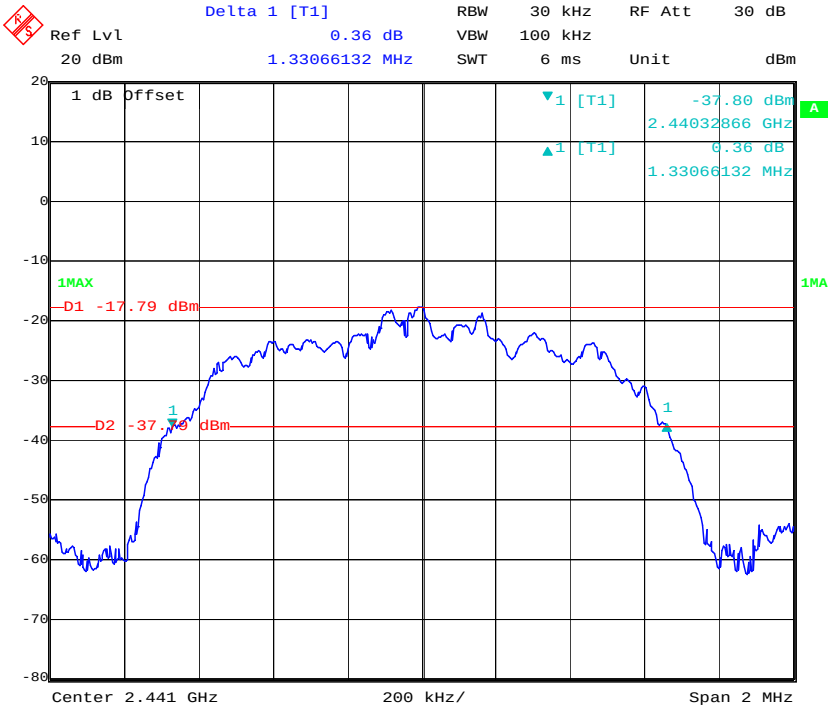


EDR Mode (8DPSK):

Low Channel

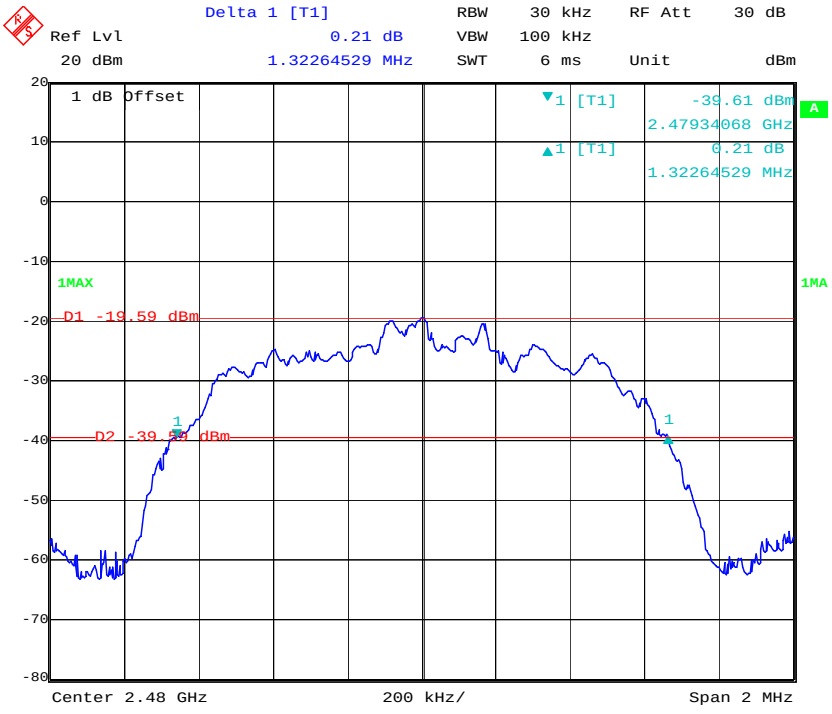


Middle Channel



Date: 27.MAR.2020 00:41:19

High Channel



Date: 27.MAR.2020 00:40:12

FCC §15.247(a) (1) (iii) - QUANTITY OF HOPPING CHANNEL TEST

Applicable Standard

According to FCC §15.247(a) (1) (iii).

Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

Test Procedure

1. Check the calibration of the measuring instrument (SA) using either an internal calibrator or a known signal from an external generator.

2. Set the EUT in hopping mode from first channel to last.

3. By using the Max-Hold function record the Quantity of the channel.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU 26	200256	2019-05-09	2020-05-09
Unknown	Coaxial Cable	C-SJ00-0010	C0010/04	Each time	N/A

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

Test Data

Environmental Conditions

Temperature:	24.9°C
Relative Humidity:	72%
ATM Pressure:	101.4 Pa
Tester:	Severn Zhu
Test Date:	2020-03-27

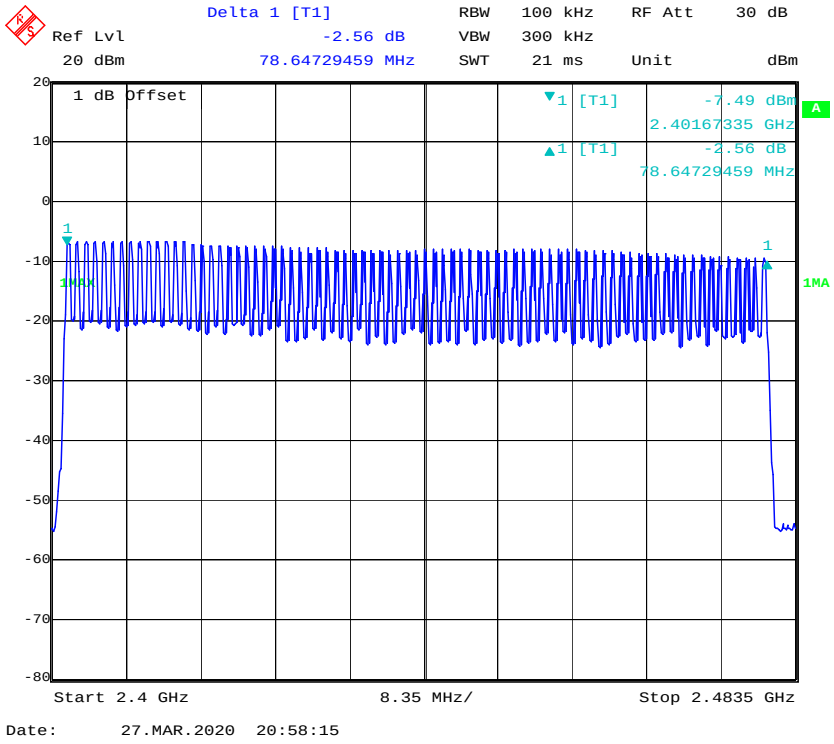
Test Result: Compliance.

Please refer to following tables and plots

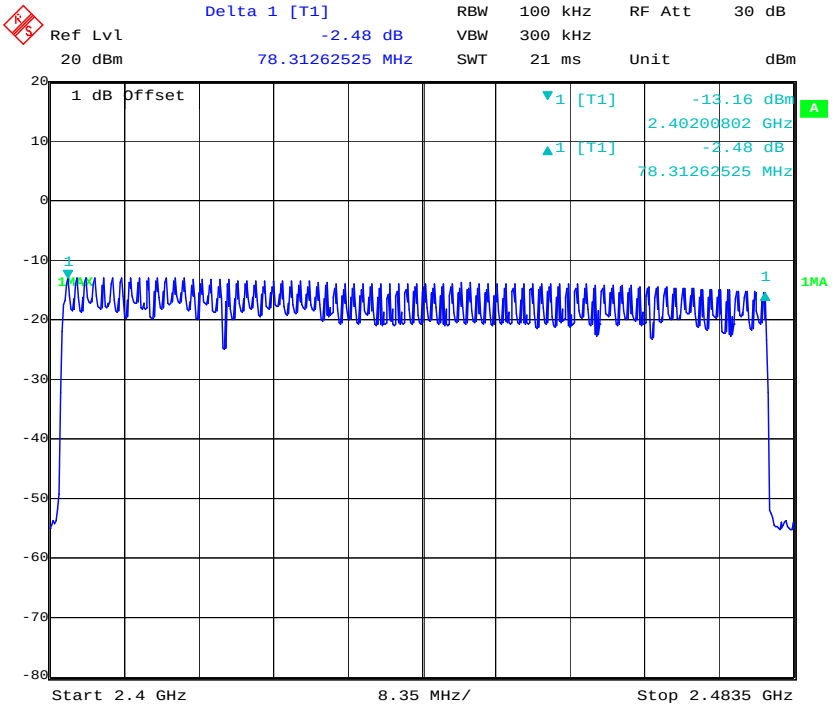
Test Mode: Transmitting

Test modes	Frequency Range (MHz)	Number of Hopping Channel	Limit
GFSK	2400-2483.5	79	≥15
π/4-DQPSK	2400-2483.5	79	≥15
8DPSK	2400-2483.5	79	≥15

GFSK

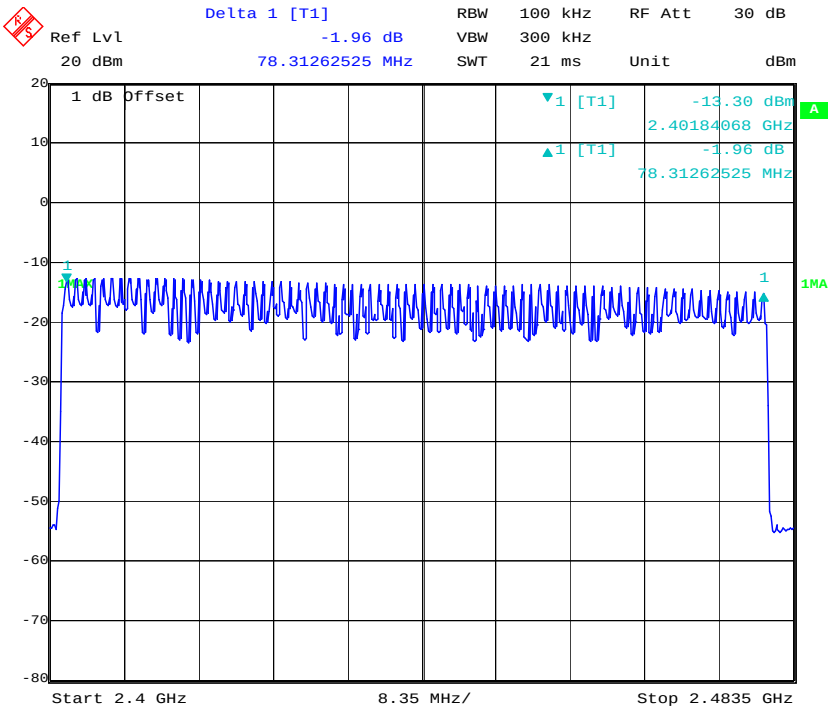


π/4-DQPSK



Date: 27.MAR.2020 21:03:26

8DPSK



Date: 27.MAR.2020 21:08:22

FCC §15.247(a) (1) (iii) - TIME OF OCCUPANCY (DWELL TIME)

Applicable Standard

According to FCC §15.247(a) (1) (iii).

Frequency hopping systems in the 2400-2483.5 MHz shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

Test Procedure

The EUT was worked in channel hopping; the time of single pulses was tested.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU 26	200256	2019-05-09	2020-05-09
Unknown	Coaxial Cable	C-SJ00-0010	C0010/04	Each time	N/A

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

Test Data

Environmental Conditions

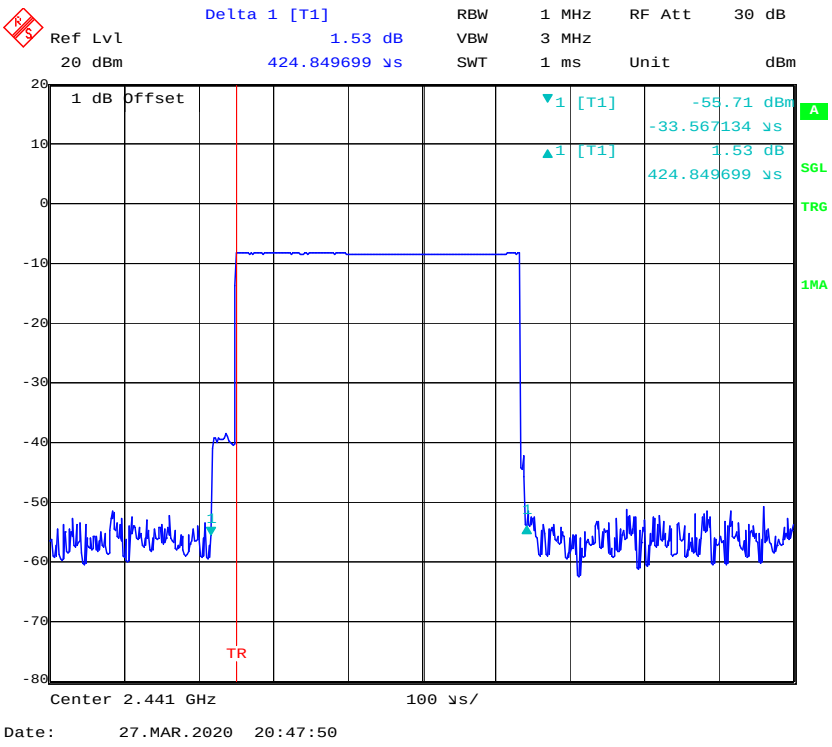
Temperature:	24.9°C
Relative Humidity:	72%
ATM Pressure:	101.4 Pa
Tester:	Severn Zhu
Test Date:	2020-03-27

Test Mode: Transmitting

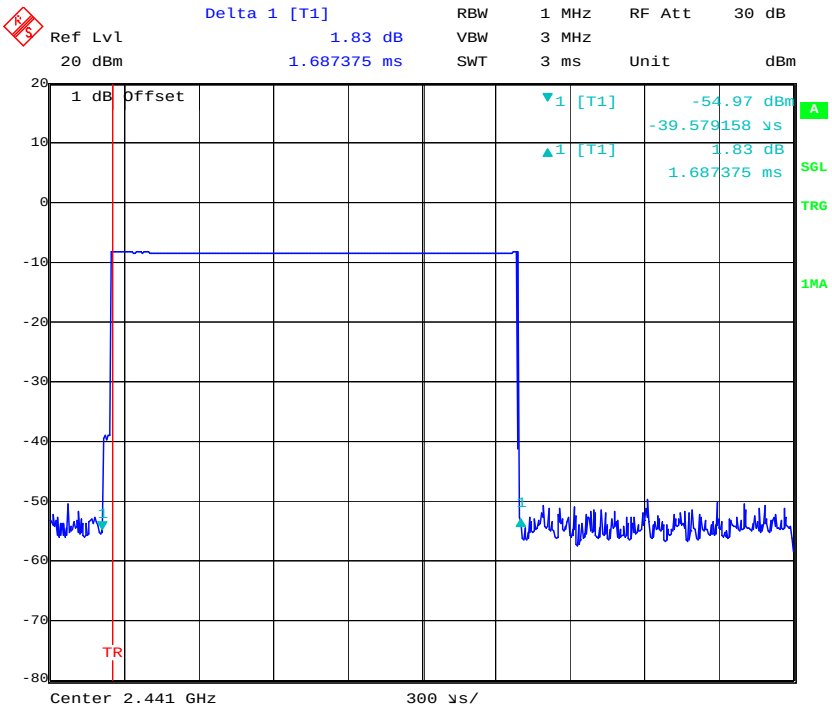
Mode	Packet type	Channel	Frequency (MHz)	Puse width (ms)	Result (s)	Limit (s)
GFSK	DH1	Middle	2441	0.425	0.136	0.4
	DH3	Middle	2441	1.687	0.270	
	DH5	Middle	2441	2.950	0.315	
π/4-DQPSK	2DH1	Middle	2441	0.430	0.138	
	2DH3	Middle	2441	1.687	0.270	
	2DH5	Middle	2441	2.970	0.317	
8DPSK	3DH1	Middle	2441	0.431	0.138	
	3DH3	Middle	2441	1.699	0.272	
	3DH5	Middle	2441	2.952	0.315	
Note: DH1:Dwell time=Pulse time (ms) × (1600/2/79) ×31.6 s DH3:Dwell time=Pulse time (ms) × (1600/4/79) ×31.6 s DH5:Dwell time=Pulse time (ms) × (1600/6/79) ×31.6 s						

BDR Mode (GFSK):

DH1: Middle Channel

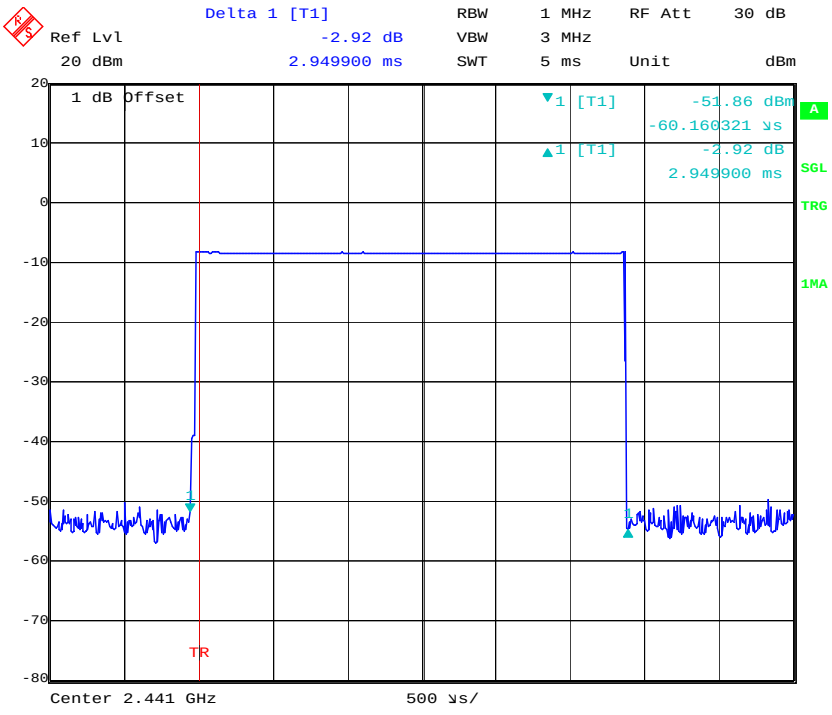


DH3: Middle Channel



Date: 27.MAR.2020 20:48:46

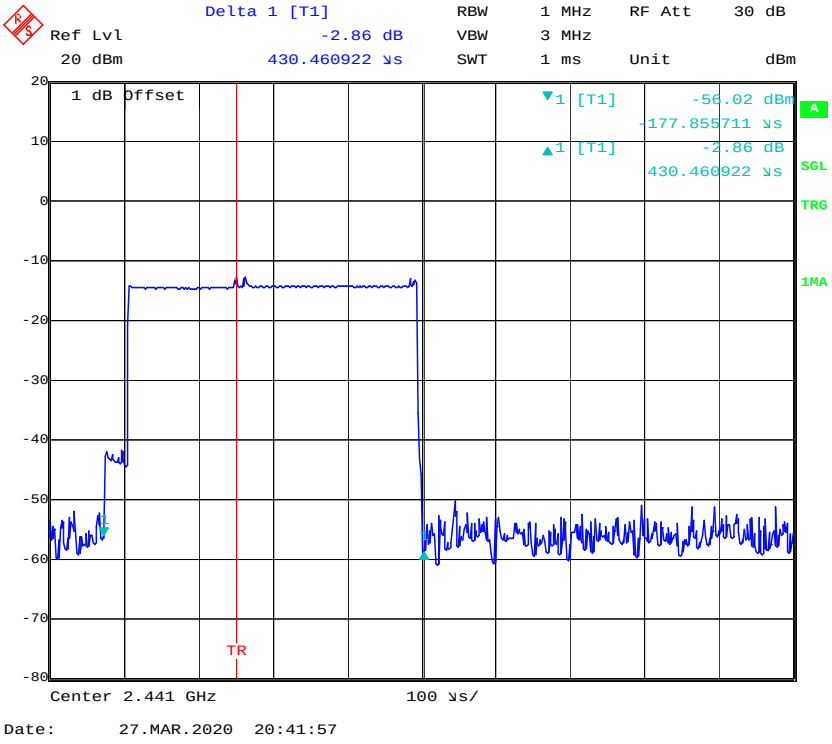
DH5: Middle Channel



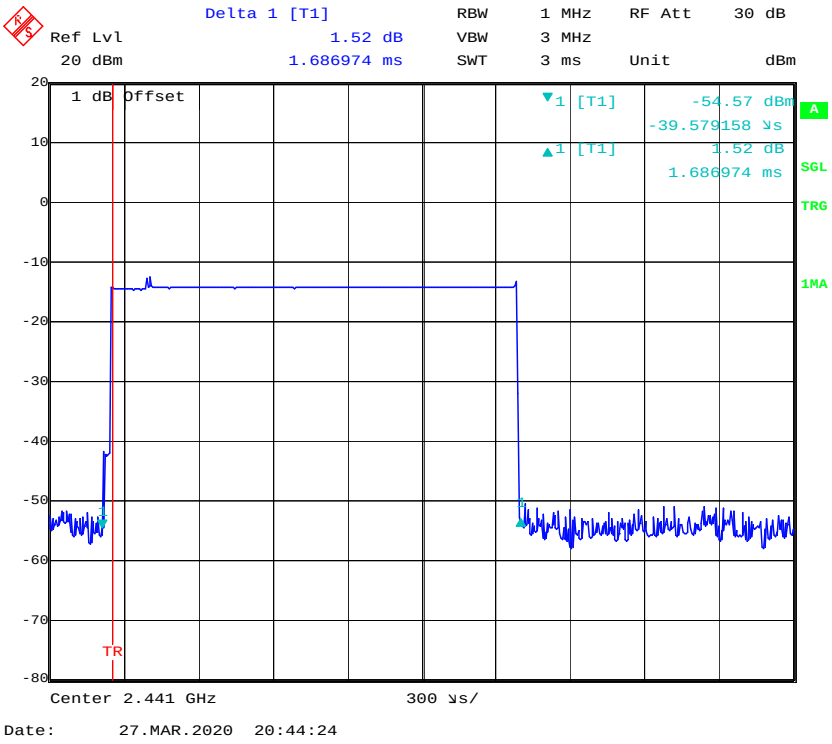
Date: 27.MAR.2020 20:51:06

EDR Mode (π/4-DQPSK):

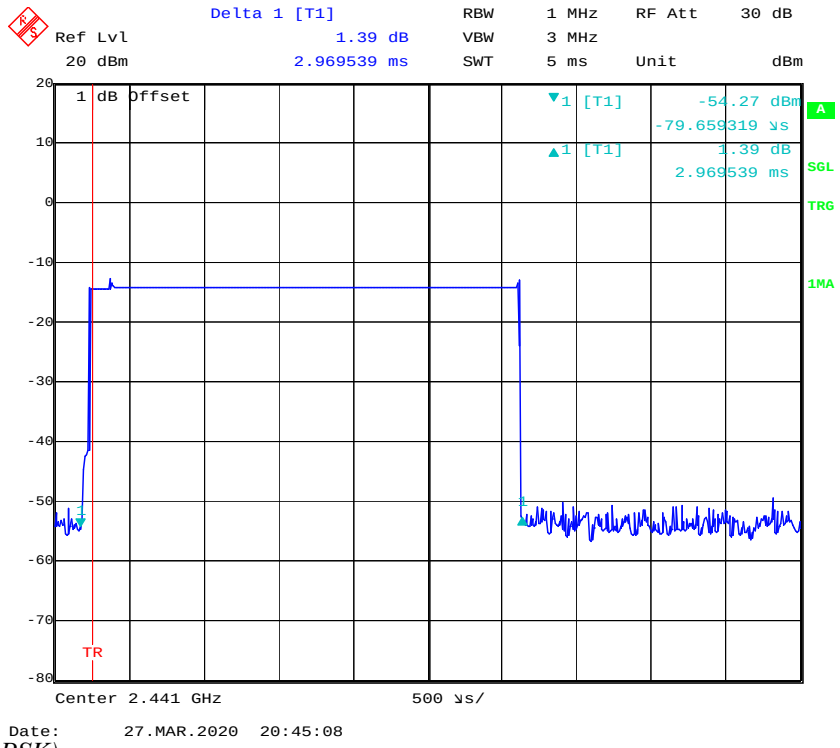
2DH1: Middle Channel



2DH3: Middle Channel

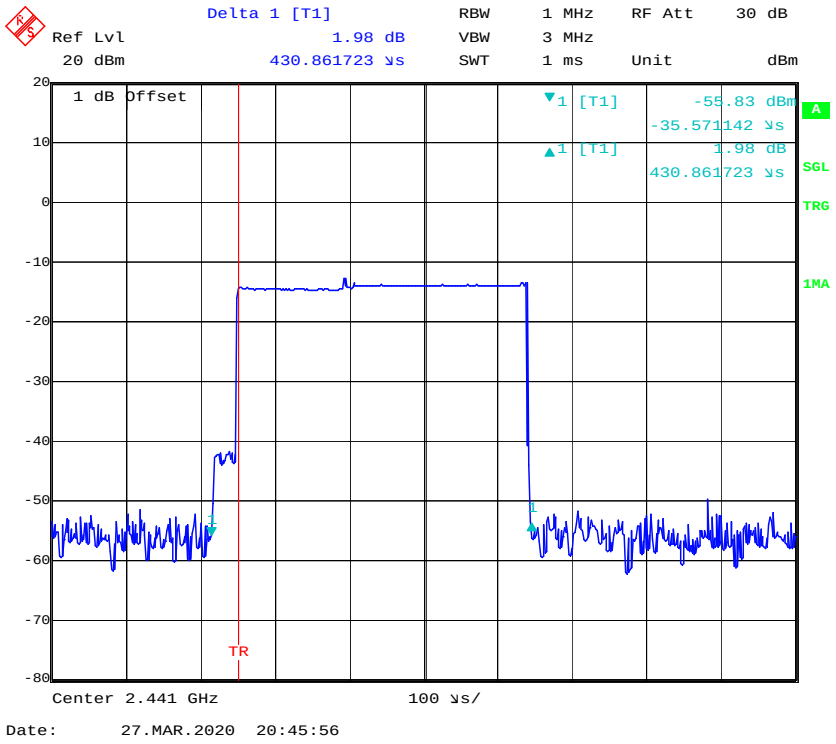


2DH5: Middle Channel

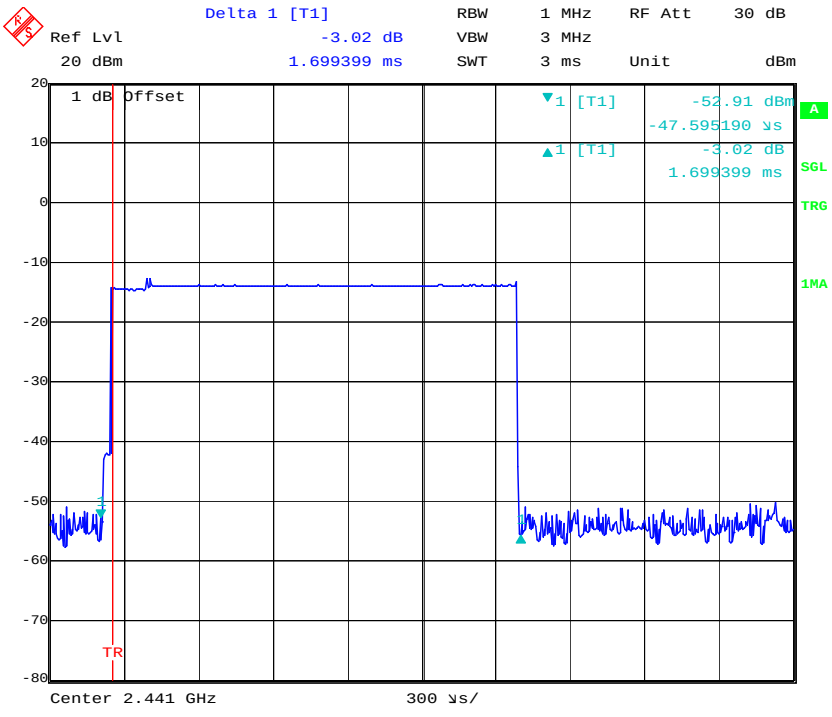


EDR Mode (8DPSK):

3DH1: Middle Channel



3DH3: Middle Channel



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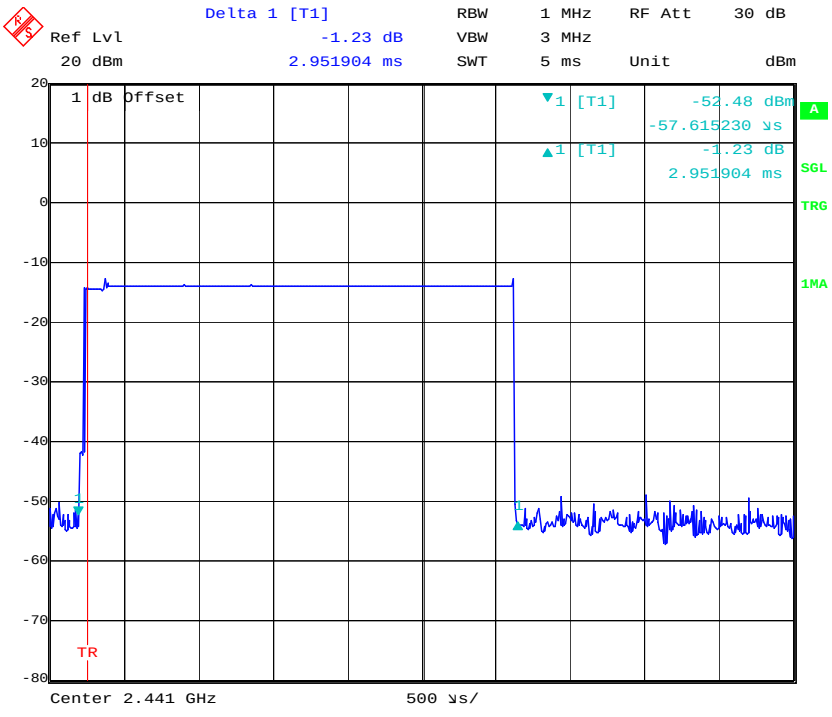
3DH5: Middle Channel



Date: 27.MAR.2020 20:47:19

FCC §15.247(b) (1) - PEAK OUTPUT POWER MEASUREMENT

Applicable Standard

According to FCC §15.247(b) (1)
For frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt.
For all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125 watts

Test Procedure

1. Place the EUT on a bench and set in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.
3. Add a correction factor to the display.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Unknown	Coaxial Cable	C-SJ00-0010	C0010/02	Each time	N/A
Agilent	USB Wideband Power Sensor	U2021XA	MY54080014	2019-05-09	2020-05-09

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

Test Data

Environmental Conditions

Temperature:	24.4°C
Relative Humidity:	61%
ATM Pressure:	100.8 Pa
Tester:	Lucy Lu
Test Date:	2020-03-20

Test Result: Compliance.

Test Mode: Transmitting

Mode	Frequency (MHz)	Peak Conducted Output power (dBm)	Limit (dBm)
BDR Mode (GFSK)	2402	-7.63	21
	2441	-9.07	21
	2480	-10.49	21
EDR Mode (π/4-DQPSK)	2402	-12.00	21
	2441	-12.89	21
	2480	-14.75	21
EDR Mode (8DPSK)	2402	-11.38	21
	2441	-12.25	21
	2480	-14.12	21

Note: The data above was tested in conducted mode, the antenna gain is 2.0 dBi.

FCC §15.247(d)- BAND EDGES TESTING

Applicable Standard

According to FCC §15.247(d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Remove the antenna from the EUT and then connect to a low loss RF cable from the antenna port to a EMI test receiver, then turn on the EUT and make it operate in transmitting mode. Then set it to Low Channel and High Channel within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW/ VBW of spectrum analyzer to 100/300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU 26	200256	2019-05-09	2020-05-09
Unknown	Coaxial Cable	C-SJ00-0010	C0010/04	Each time	N/A

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

Test Data

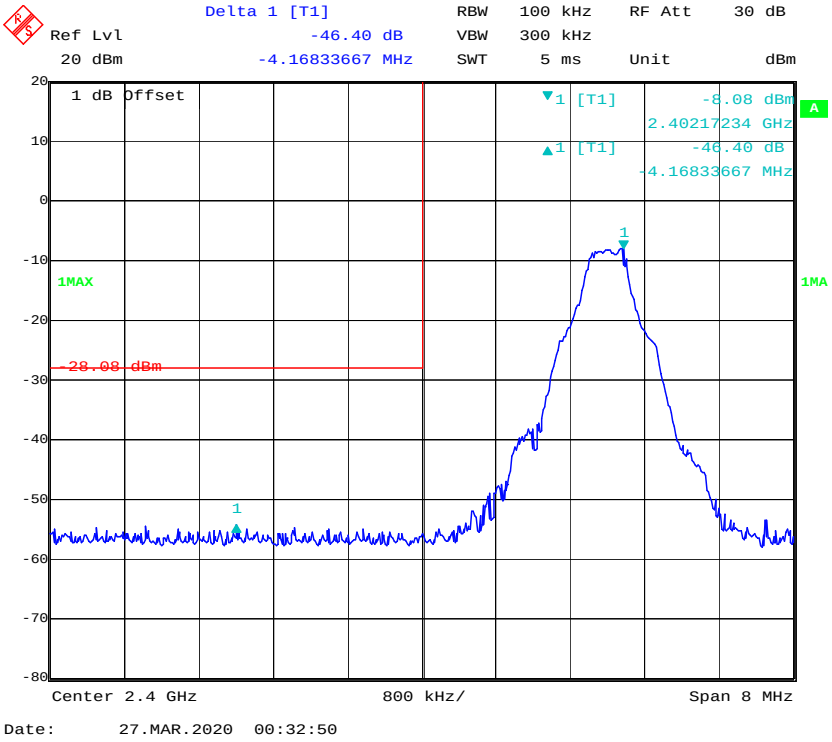
Environmental Conditions

Temperature:	24.9°C
Relative Humidity:	72%
ATM Pressure:	101.4 Pa
Tester:	Severn Zhu
Test Date:	2020-03-27

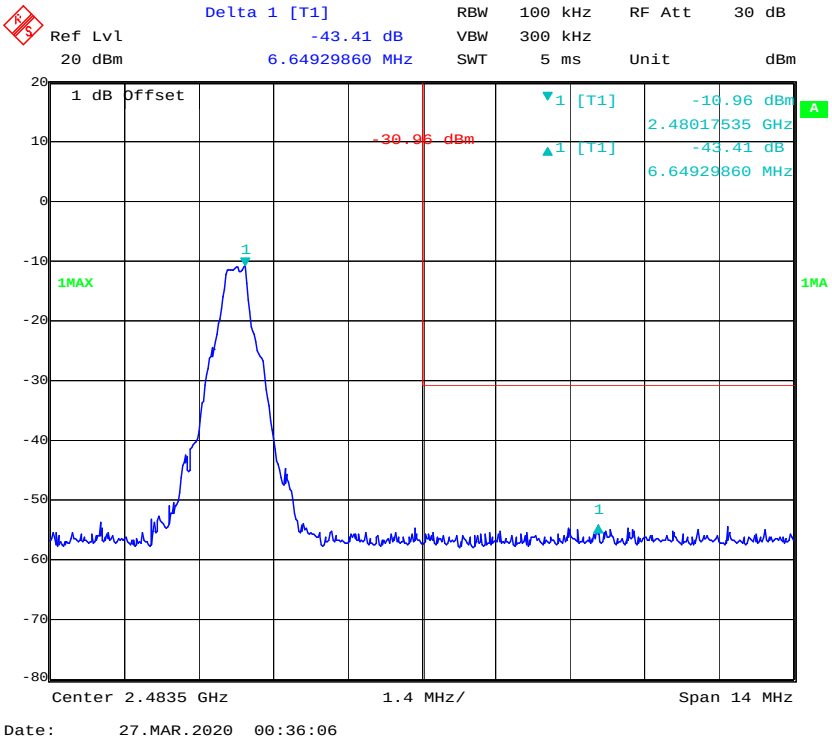
Test Result: Compliance

Single mode:
BDR Mode (GFSK):

Band Edge, Left Side

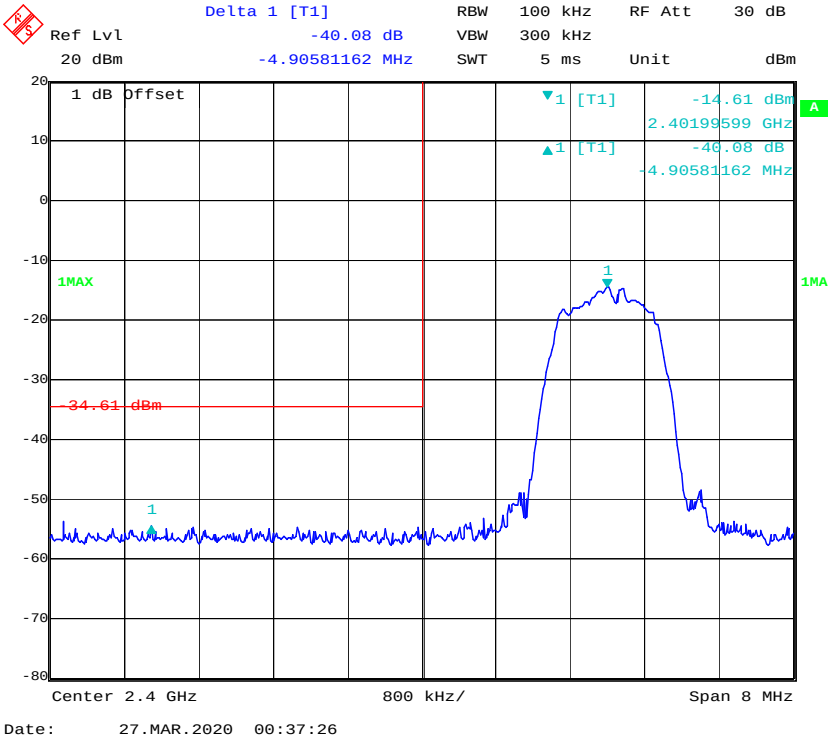


Band Edge, Right Side



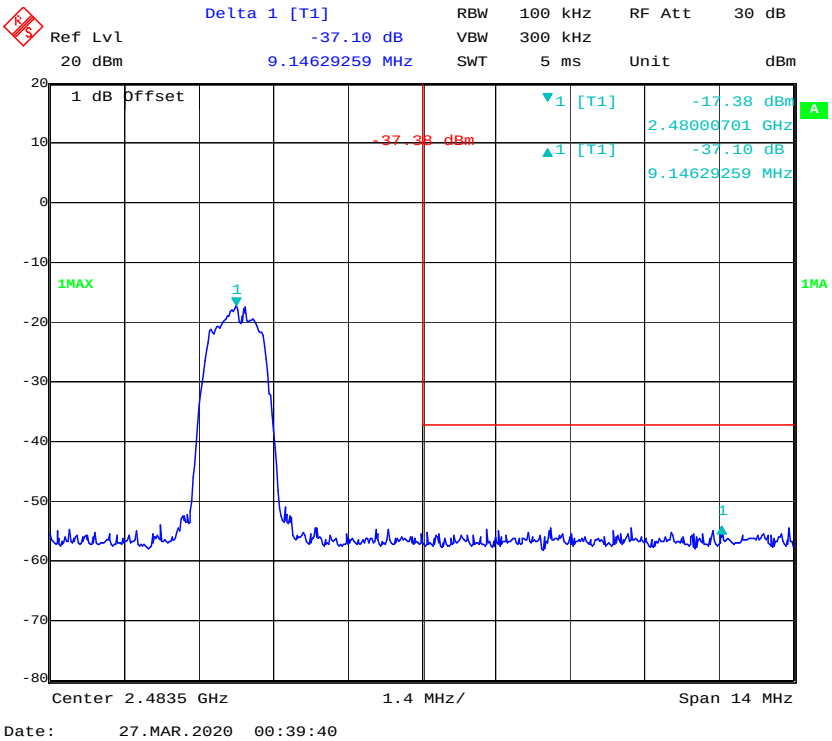
EDR Mode (π/4-DQPSK):

Band Edge, Left Side



Date: 27.MAR.2020 00:37:26

Band Edge, Right Side



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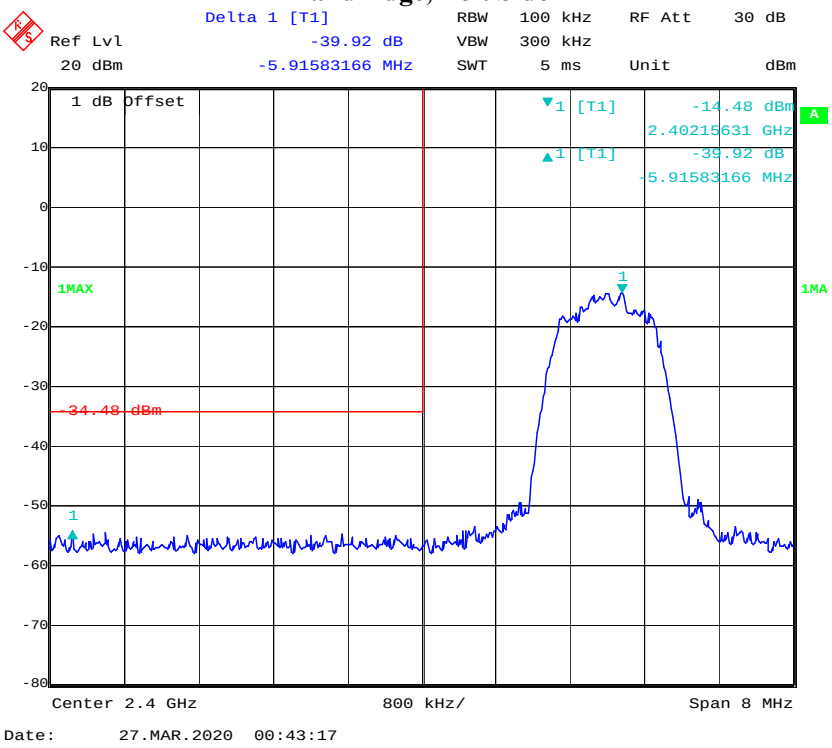
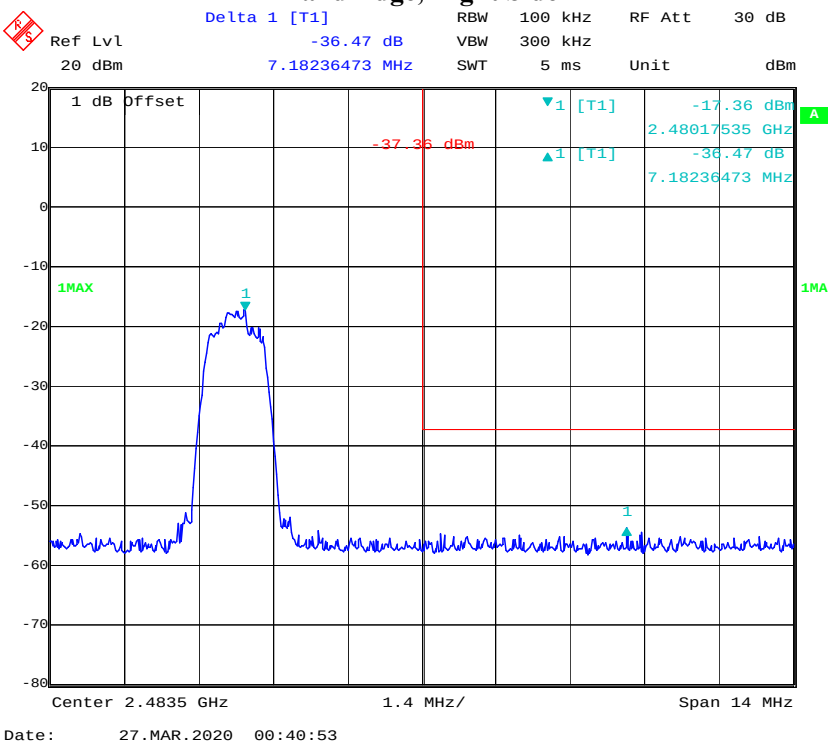
EDR Mode (8DPSK):

Band Edge, Left Side



Date: 27.MAR.2020 00:43:17

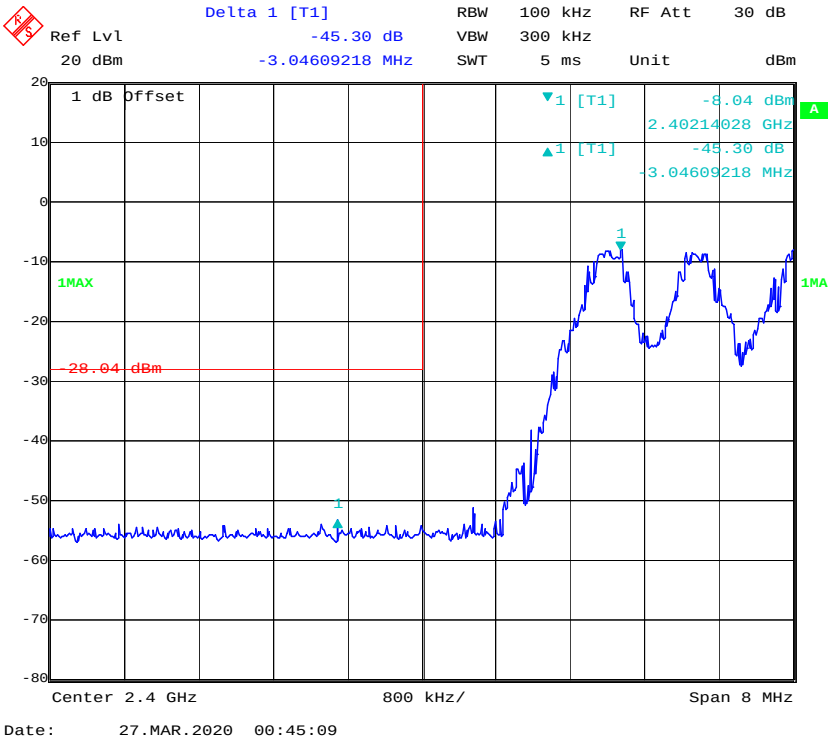
Band Edge, Right Side



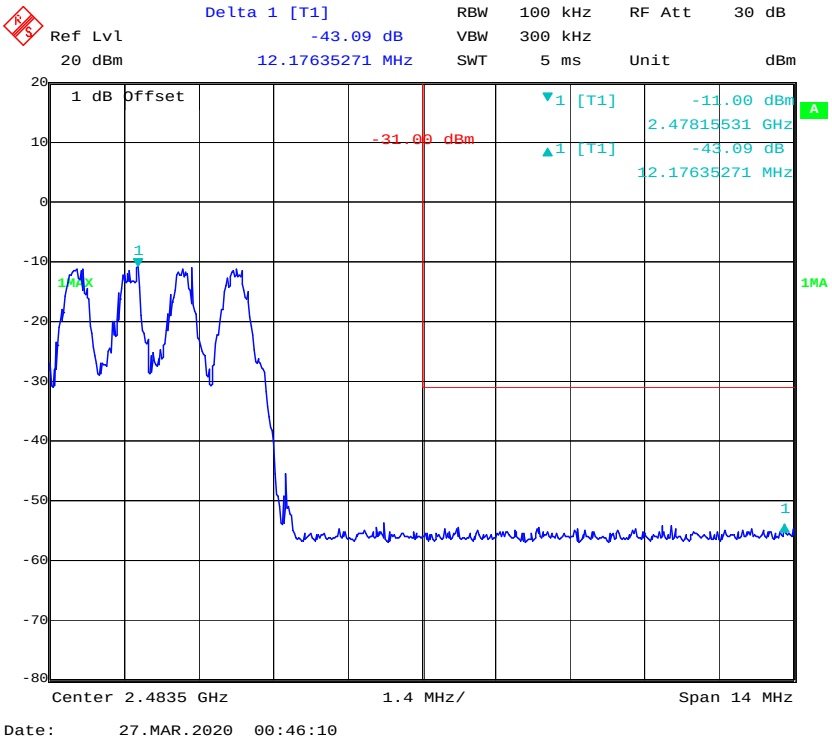
Date: 27.MAR.2020 00:40:53

Hopping mode:
BDR Mode (GFSK):

Band Edge, Left Side

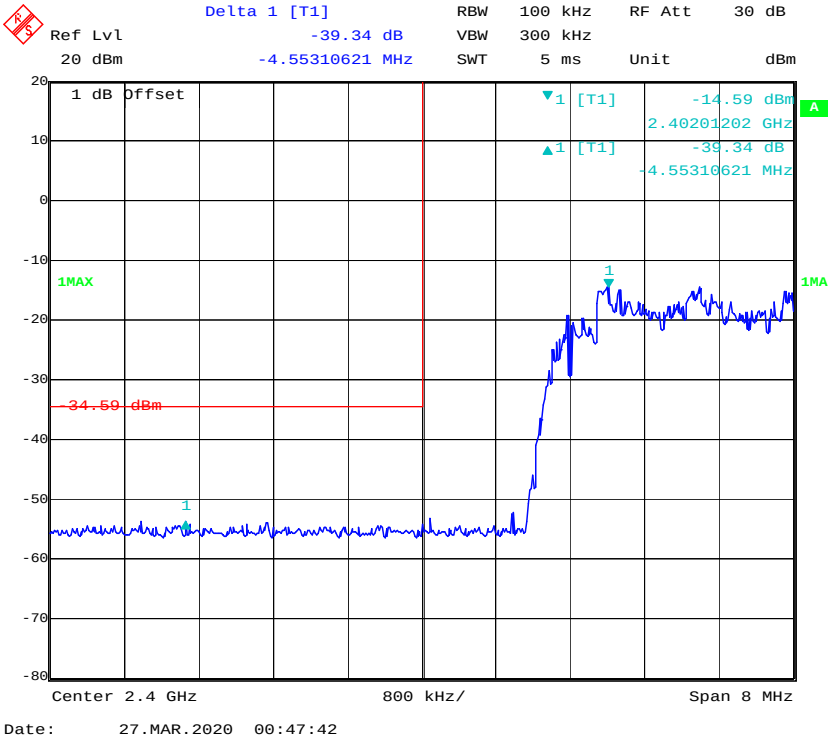


Band Edge, Right Side

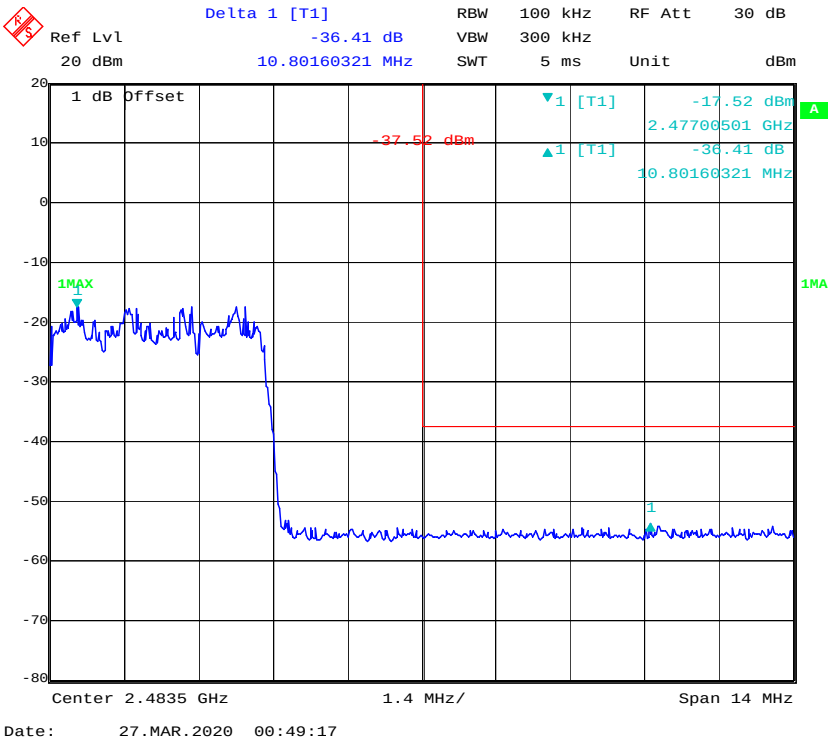


EDR Mode (π/4-DQPSK):

Band Edge, Left Side

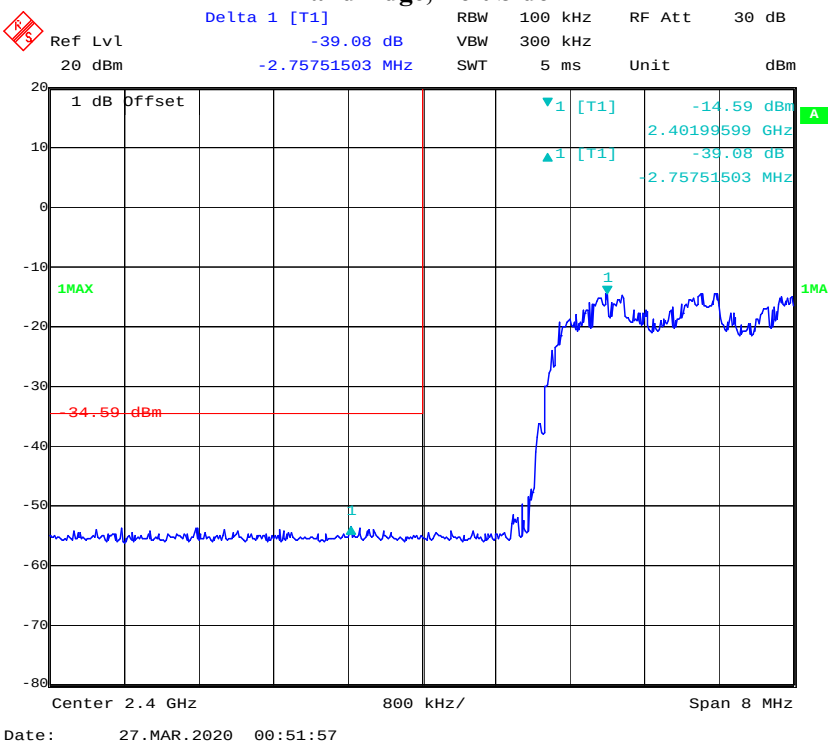


Band Edge, Right Side



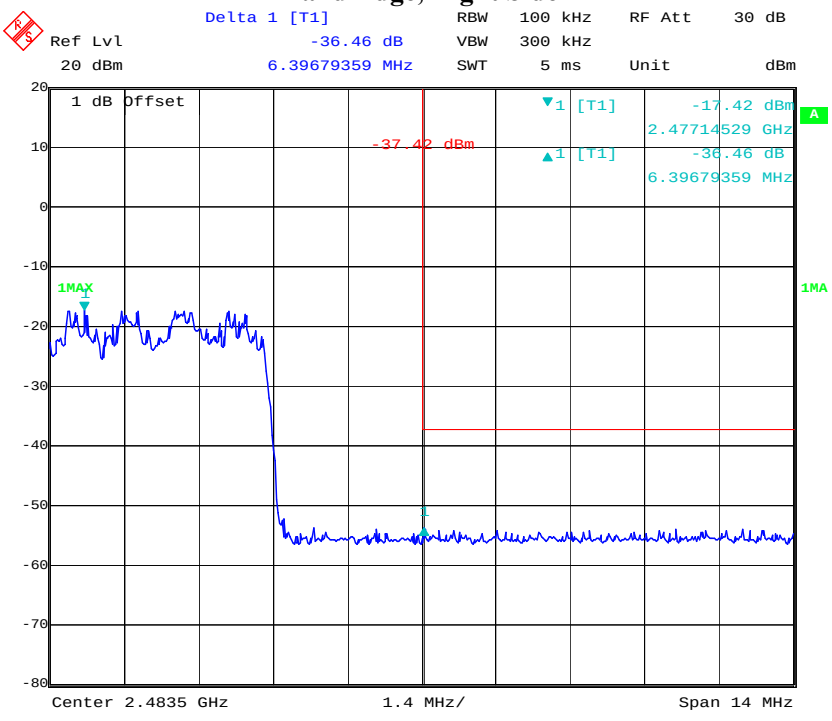
EDR Mode (8DPSK):

Band Edge, Left Side



Date: 27.MAR.2020 00:51:57

Band Edge, Right Side



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