TEST REPORT

Applicant Name :	Shenzhen Junge Yunchuang Technology Co., Ltd.
Address :	1204, Unit 3, Building C, Fu Gui Yuan, Fu Gui Road, Fu Hua Community, Xixiang Street, Baoan District, Shenzhen, China
Report Number :	SZNS220328-10922E-RF-00
FCC ID:	2A3FP-DG6RA2203

Test Standard (s)

FCC PART 15.247

Sample Description

Product Type:	REMOTE
Model No.:	DR-DG600C
Multiple Model(s) No.:	Please see the table on the page 4
Trade Mark:	N/A
Date Received:	2022/03/28
Report Date:	2022/07/18

Test Result:	Pass*

* In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

Roger Ling
EMC Engineer

Approved By:

Candy Li
EMC Engineer

Note: This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk "★ ".
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Multiple Model(s) No.:	DR-DG600B, DR-DG600D, DR-DG600F, DR-DG610C, DR-DG610D, DR-DG610F, DR-DG620C, DR-DG620D, DR-DG620F, DR-DG630C, DR-DG630D, DR-DG630F, DR-DG650C, DR-DG650D, DR-DG650F, DR-DG660C, DR-DG660D, DR-DG660F, DR-DG670C, DR-DG670D, DR-DG670F, DR-DG680C, DR-DG680D, DR-DG680F, DR-DG690C, DR-DG690D, DR-DG690F, DR-DG700C, DR-DG700D, DR-DG700F, DR-DG710C, DR-DG710D, DR-DG710F, DR-DG720C, DR-DG720D, DR-DG720F, DR-DG750C, DR-DG750D, DR-DG750F, DR-DG800C, DR-DG800D, DR-DG800F, DR-DG810C, DR-DG810D, DR-DG810F, DR-DG820C, DR-DG820D, DR-DG820F, DR-DG850C, DR-DG850D, DR-DG850F, DR-DG900C, DR-DG900D, DR-DG900F, DR-DG910B, DR-DG910C, DR-DG910D, DR-DG910F, DR-DG920B, DR-DG920C, DR-DG920D, DR-DG920F, DR-DG950C, DR-DG950D, DR-DG950F, DR-DF100B, DR-DF400B(Please refer to DOS for Model difference)
Frequency Range	2405~2475MHz
Maximum conducted Peak output power	14.66dBm
Modulation Technique	GFSK
Antenna Specification*	0 dBi (provided by the applicant)
Voltage Range	DC 3.7V from battery
Sample serial number	RF Conducted Test::SZNS220328-10922E-RF-S2 Radiated test: SZNS220328-10922E-RF-S1(Assigned by ATC)
Sample/EUT Status	Good condition

Objective

This test report is in accordance with Part 2-Subpart J, Part 15-Subparts A and C of the Federal Communication Commission rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, section 15.203, 15.205, 15.209 and 15.247 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

All emissions measurement was performed at Shenzhen Accurate Technology Co., Ltd. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Each test item follows test standards and with no deviation.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		5%
RF Frequency		$0.082*10^{-7}$
RF output power, conducted		0.73dB
Unwanted Emission, conducted		1.6dB
AC Power Lines Conducted Emissions		2.72dB
Audio Frequency Response		0.1dB
Low Pass Filter Response		1.2dB
Modulation Limiting		1%
Emissions, Radiated	9kHz - 30MHz	2.66dB
	30MHz - 1GHz	4.28dB
	1GHz - 18GHz	4.98dB
	18GHz - 26.5GHz	5.06dB
	26.5GHz - 40GHz	4.72dB
Temperature		1℃
Humidity		6%
Supply voltages		0.4%

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

Test Facility

The test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 708358, the FCC Designation No.: CN1189. Accredited by American Association for Laboratory Accreditation (A2LA) The Certificate Number is 429 7.01.

Listed by Innovation, Science and Economic Development Canada (ISEDC), the Registration Number is 5077A.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in an engineering mode.

Channel list

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	**2405**	24	2429	48	2453
1	2406	25	2430	49	2454
2	2407	26	2431	50	2455
3	2408	27	2432	51	2456
4	2409	28	2433	52	2457
5	2410	29	2434	53	2458
6	2411	30	2435	54	2459
7	2412	31	2436	55	2460
8	2413	32	2437	56	2461
9	2414	33	2438	57	2462
10	2415	34	2439	58	2463
11	2416	**35**	**2440**	59	2464
12	2417	36	2441	60	2465
13	2418	37	2442	61	2466
14	2419	38	2443	62	2467
15	2420	39	2444	63	2468
16	2421	40	2445	64	2469
17	2422	41	2446	65	2470
18	2423	42	2447	66	2471
19	2424	43	2448	67	2472
20	2425	44	2449	68	2473
21	2426	45	2450	69	2474
22	2427	46	2451	**70**	**2475**
23	2428	47	2452	/	/

EUT was tested in channel 0, 35, 70.

EUT Exercise Software

EUT was configured to testing mode by applicant and power level is default*.

Special Accessories

No special accessory.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

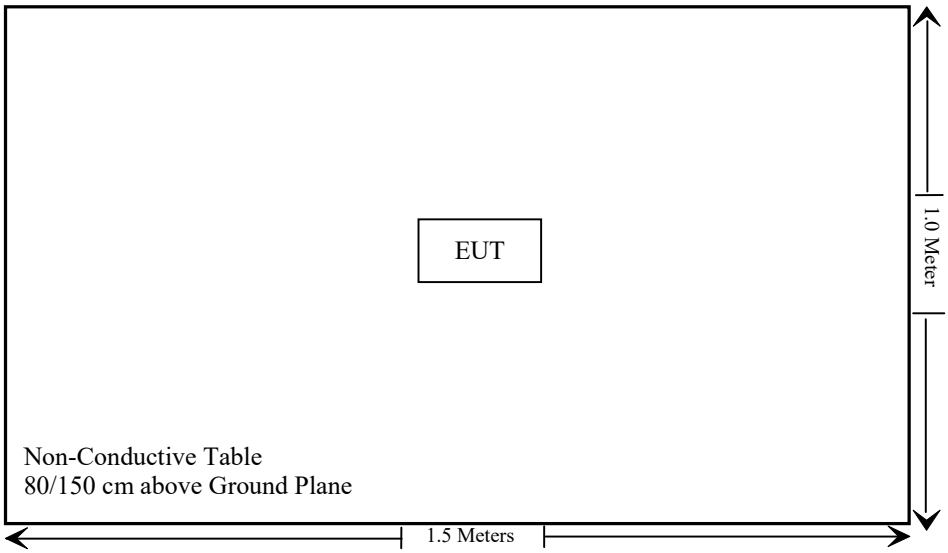
Manufacturer	Description	Model	Serial Number
/	/	/	/

External I/O Cable

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

Block Diagram of Test Setup

For Radiated Emission



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.247 (i), §1.1307 (b) (3) & §2.1093	RF Exposure	Compliant
§15.203	Antenna Requirement	Compliant
§15.207(a)	AC Line Conducted Emissions	Not Applicable
§15.205, §15.209 & §15.247(d)	Radiated Emissions	Compliant
§15.247(a)(1)	20 dB Emission Bandwidth & 99% Occupied Bandwidth	Compliant
§15.247(a)(1)	Channel Separation Test	Compliant
§15.247(a)(1)(iii)	Time of Occupancy (Dwell Time)	Compliant
§15.247(a)(1)(iii)	Quantity of hopping channel Test	Compliant
§15.247(b)(1)	Peak Output Power Measurement	Compliant
§15.247(d)	Band edges	Compliant

Not Applicable: EUT was powered by battery when use wireless function.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emissions Test					
Rohde& Schwarz	Test Receiver	ESR	102725	2021/12/13	2022/12/12
Rohde&Schwarz	Spectrum Analyzer	FSV40	101949	2021/12/13	2022/12/12
SONOMA INSTRUMENT	Amplifier	310 N	186131	2021/11/09	2022/11/08
A.H. Systems, inc.	Preamplifier	PAM-0118P	135	2021/11/09	2022/11/08
Quinstar	Amplifier	QLW-18405536-J0	15964001002	2021/11/11	2022/11/10
Schwarzbeck	Bilog Antenna	VULB9163	9163-323	2021/07/06	2024/07/05
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-1067	2020/01/05	2023/01/04
Schwarzbeck	HORN ANTENNA	BBHA9170	9170-359	2020/01/05	2023/01/04
Radiated Emission Test Software: e3 19821b (V9)					
Unknown	RF Coaxial Cable	No.10	N050	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.11	N1000	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.12	N040	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.13	N300	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.14	N800	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.15	N600	2021/12/14	2022/12/13
Unknown	RF Coaxial Cable	No.16	N650	2021/12/14	2022/12/13
Wainwright	High Pass Filter	WHKX3.6/18 G-10SS	5	2021/12/14	2022/12/13
RF Conducted Test					
SPECTRUM ANALYZER	Rohde & Schwarz	FSU26	200982	2021/07/06	2022/07/05
WEINSCHEL	10dB Attenuator	5324	AU 3842	2021/12/14	2022/12/13

*** Statement of Traceability:** Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC§15.247 (i), §1.1307 (b) (3) &§2.1093 – RF EXPOSURE

Applicable Standard

According to FCC §2.1093 and §1.1307(b) (3), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to KDB 447498 D04 Interim General RF Exposure Guidance

Measurement Result

Please refer to SAR test report: SZNS220328-10922E-SA

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 use of a standard antenna jack or electrical connector is prohibited.

Antenna Connector Construction

The EUT has one internal Antenna arrangement, which was permanently attached and the antenna gain is 0 dBi, fulfill the requirement of this section. Please refer to the EUT photos.

Result: Compliance.

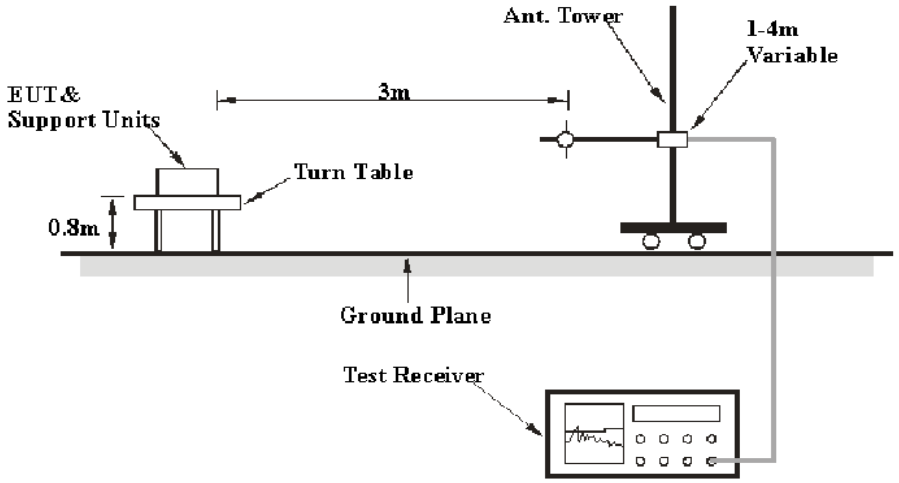
FCC §15.205, §15.209 & §15.247(d) – RADIATED EMISSIONS

Applicable Standard

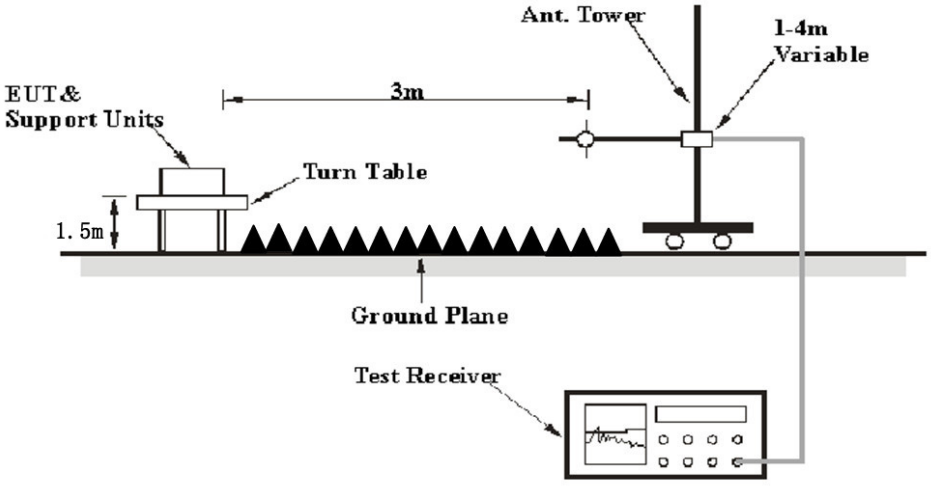
FCC §15.205; §15.209; §15.247(d)

EUT Setup

Below 1 GHz:



Above 1GHz:



The radiated emission tests were performed in the 3 meters, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209 and FCC 15.247 limits.

EMI Test Receiver & Spectrum Analyzer Setup

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	100 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	PK
	1 MHz	10 Hz	/	Average

Test Procedure

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

All final data was recorded in Quasi-peak detection mode for frequency range of 30 MHz -1 GHz and peak and Average detection modes for frequencies above 1 GHz.

Corrected Factor & Margin Calculation

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

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

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

Margin/Over Limit = Corrected Amplitude/Level-Limit
Corrected Amplitude/Level = Reading + Corrected Factor

Test Data

Environmental Conditions

Temperature:	25.8~29 ℃
Relative Humidity:	58~62 %
ATM Pressure:	101.0 kPa

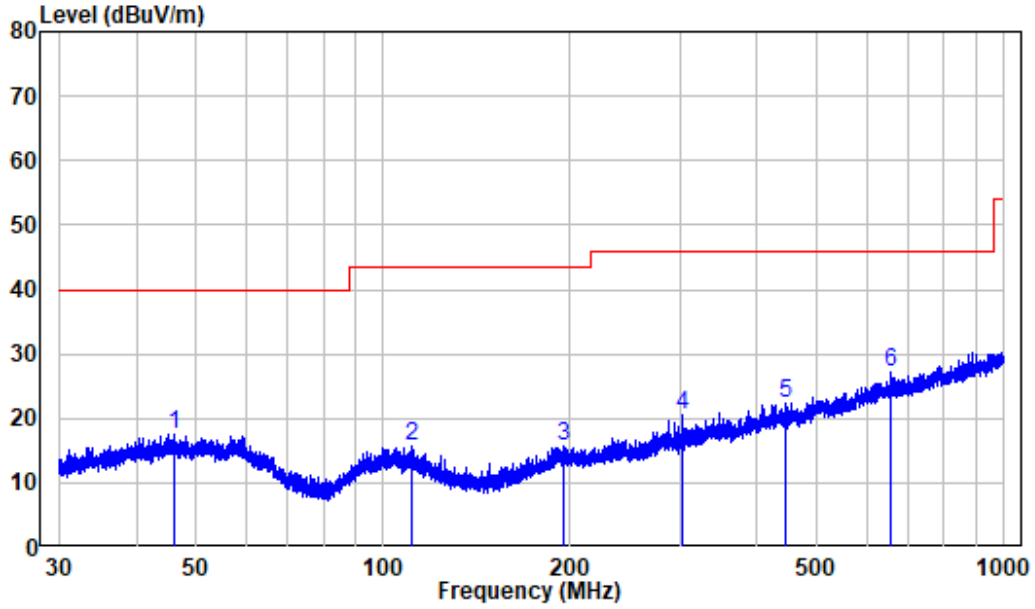
The testing was performed by Level on 2022-05-31 for below 1GHz, and Level Li on 2022-07-06 for above 1GHz.

EUT operation mode: Transmitting (Pre-scan in the X,Y and Z axes of orientation, the worst case X-axes orientation was recorded)

30MHz-1GHz:

Note: When the test result of Peak was less than the limit of QP, just the peak value was recorded.

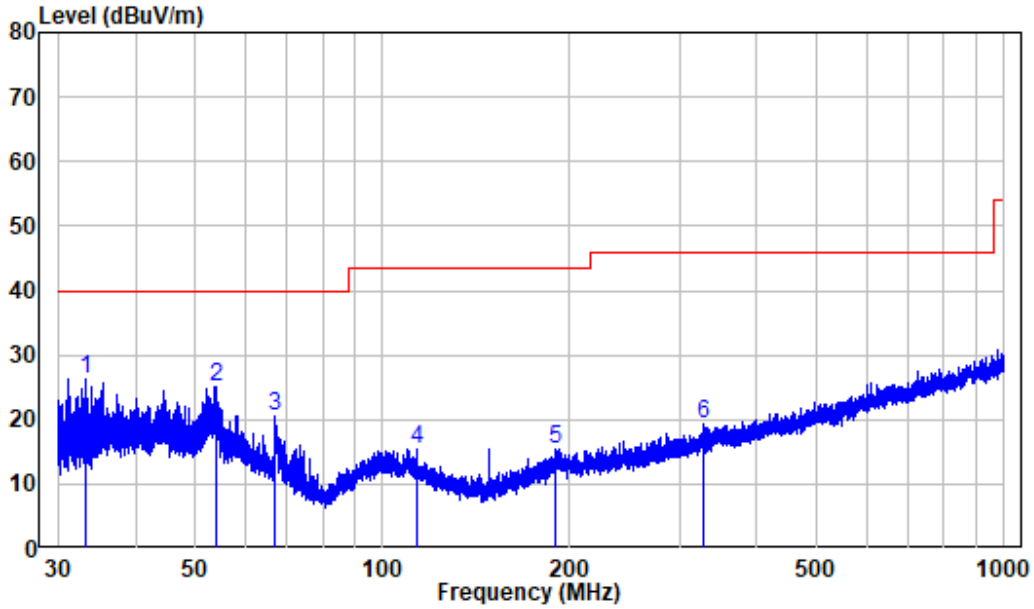
Horizontal:



Site : chamber
Condition: 3m HORIZONTAL
Job No. : SZNS220328-10922E-RF
Test Mode: Transmitting

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	45.896	-9.98	27.61	17.63	40.00	-22.37	Peak
2	110.763	-12.06	27.74	15.68	43.50	-27.82	Peak
3	195.565	-11.51	27.13	15.62	43.50	-27.88	Peak
4	302.879	-9.13	29.74	20.61	46.00	-25.39	Peak
5	443.100	-5.64	28.02	22.38	46.00	-23.62	Peak
6	654.806	-1.58	28.64	27.06	46.00	-18.94	Peak

Vertical



Site : chamber
Condition: 3m VERTICAL
Job No. : SZNS220328-10922E-RF
Test Mode: Transmitting

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	33.240	-11.97	38.09	26.12	40.00	-13.88	Peak
2	53.787	-10.31	35.43	25.12	40.00	-14.88	Peak
3	67.202	-13.45	34.08	20.63	40.00	-19.37	Peak
4	113.167	-12.45	27.96	15.51	43.50	-27.99	Peak
5	189.655	-11.63	27.11	15.48	43.50	-28.02	Peak
6	327.313	-8.14	27.34	19.20	46.00	-26.80	Peak

Above 1GHz:

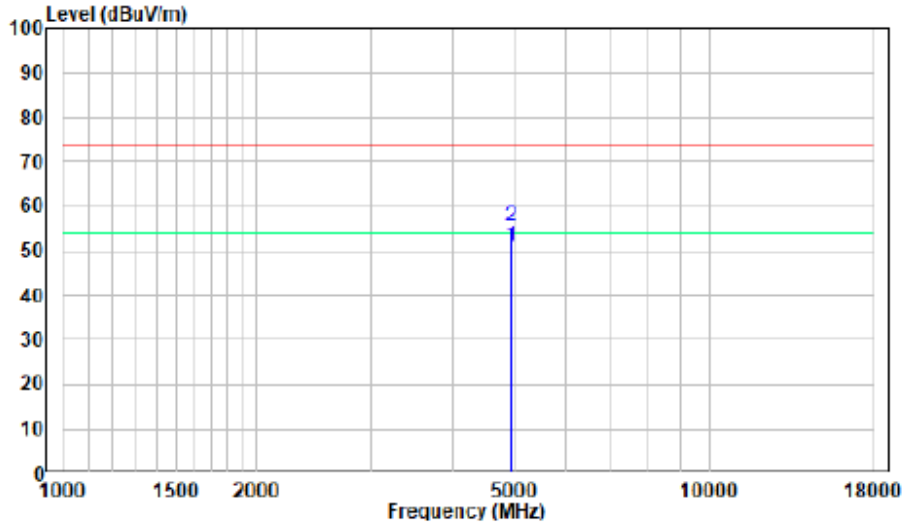
Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
Low Channel(2405MHz)									
2310	68.41	PK	335	2	H	-7.24	61.17	74	-12.83
2310	53.40	AV	335	2	H	-7.24	46.16	54	-7.84
2310	68.49	PK	203	2.5	V	-7.24	61.25	74	-12.75
2310	53.42	AV	203	2.5	V	-7.24	46.18	54	-7.82
2390	80.58	PK	128	1.2	H	-7.22	73.36	74	-0.64
2390	56.65	AV	128	1.2	H	-7.22	49.43	54	-4.57
2390	80.02	PK	168	1.7	V	-7.22	72.80	74	-1.20
2390	56.58	AV	168	1.7	V	-7.22	49.36	54	-4.64
4810	55.90	PK	318	1.9	H	-3.52	52.38	74	-21.62
4810	53.98	PK	346	1.9	V	-3.52	50.46	74	-23.54
Middle Channel(2440MHz)									
4880	56.73	PK	338	1.4	H	-3.38	53.35	74	-20.65
4880	54.52	PK	154	1.4	V	-3.38	51.14	74	-22.86
High Channel(2475 MHz)									
2483.5	80.68	PK	21	1.9	H	-7.20	73.48	74	-0.52
2483.5	56.61	AV	21	1.9	H	-7.20	49.41	54	-4.59
2483.5	79.87	PK	127	1.9	V	-7.20	72.67	74	-1.33
2483.5	56.34	AV	127	1.9	V	-7.20	49.14	54	-4.86
2500	69.04	PK	146	2.3	H	-7.18	61.86	74	-12.14
2500	54.77	AV	146	2.3	H	-7.18	47.59	54	-6.41
2500	69.16	PK	156	2.3	V	-7.18	61.98	74	-12.02
2500	54.88	AV	156	2.3	V	-7.18	47.7	54	-6.30
4950	58.50	PK	49	1.7	H	-3.04	55.46	74	-18.54
4950	53.85	AV	49	1.7	H	-3.04	50.81	54	-3.19
4950	53.64	PK	195	1.7	V	-3.04	50.60	74	-23.40

Note:
Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
Corrected Amplitude = Corrected Factor + Reading
Margin = Corrected. Amplitude - Limit
The other spurious emission which is 20dB to the limit or in noise floor was not recorded.
The test result of peak was less than the limit of average, so just peak value were recorded.

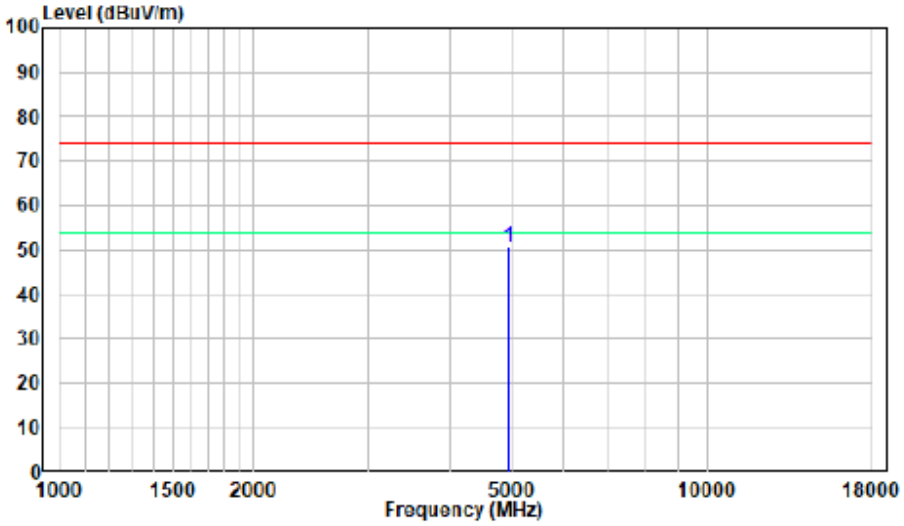
1-18GHz

Pre-scan for High Channel

Horizontal:



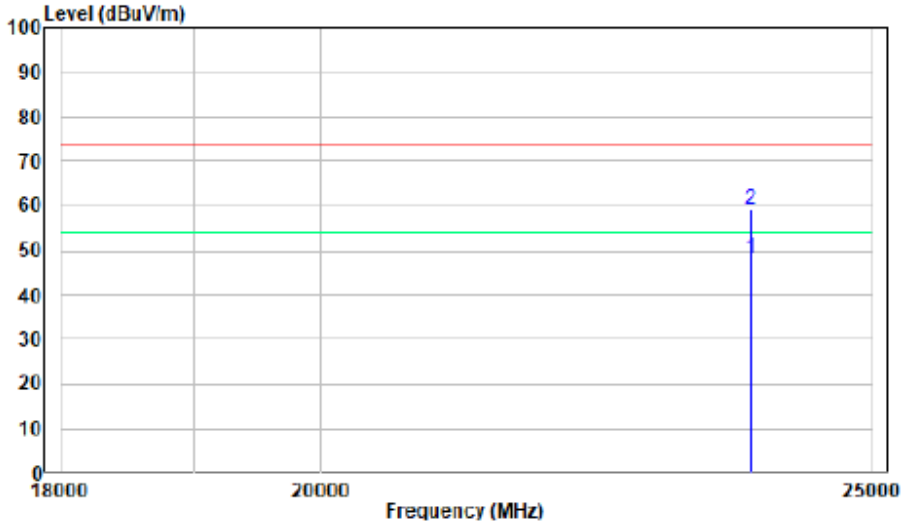
Vertical:



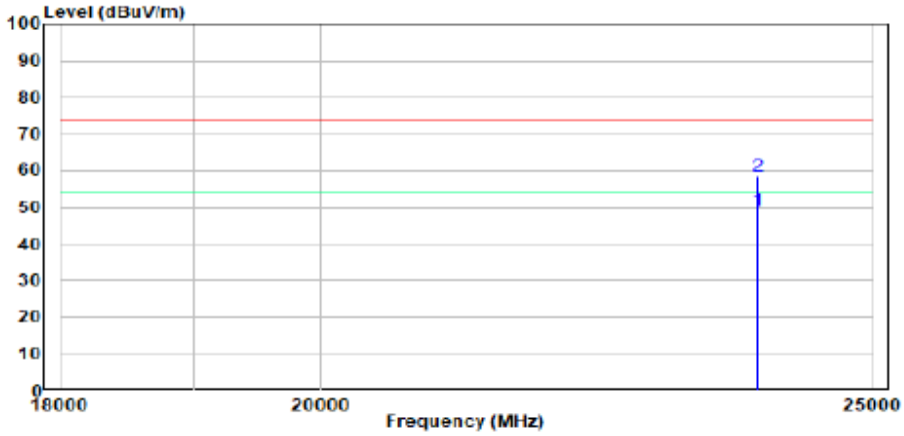
18-25GHz

Pre-scan for High Channel

Horizontal:



Vertical:



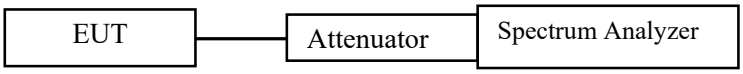
FCC §15.247(a) (1)-CHANNEL SEPARATION TEST

Applicable Standard

Frequency hopping systems shall have hoping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. 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. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

Test Procedure

1. Set the EUT in transmitting mode, maxhold the channel.
2. Set the adjacent channel of the EUT and maxhold another trace.
3. Measure the channel separation.



Test Data

Environmental Conditions

Temperature:	28.1 ℃
Relative Humidity:	54 %
ATM Pressure:	101.0 kPa

The testing was performed by Roger Ling on 2022-07-03.

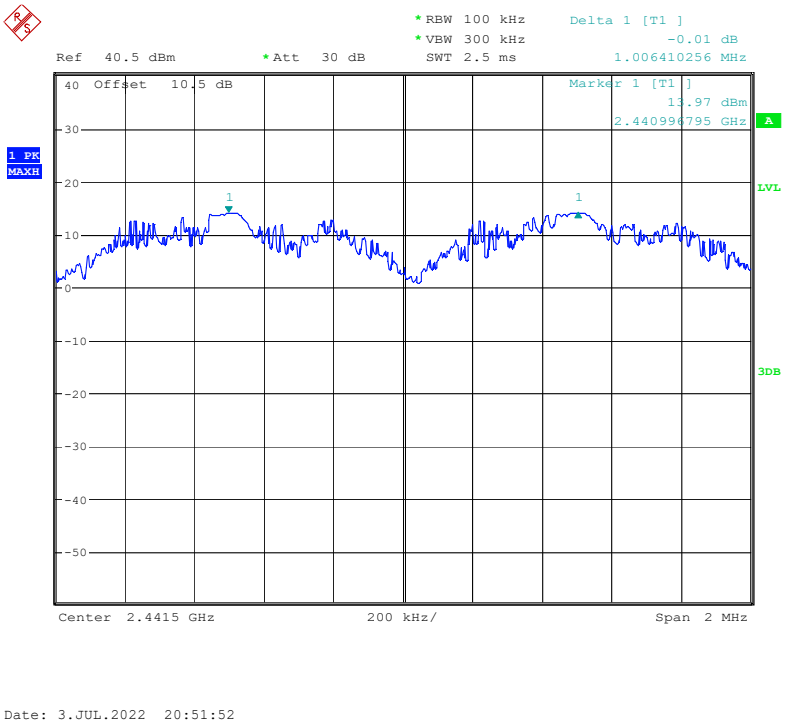
EUT operation mode: Transmitting

Test Result: Compliant.

Test Mode	Channel Separation (MHz)	20 dBc BW (MHz)	Two-thirds of the 20 dB bandwidth (MHz)	Channel Separation Limit	Result
GFSK					
Hopping	1.006	1.322	0.881	> two-thirds of the 20 dB bandwidth	Pass

Note: The limit > two-thirds of the 20 dB bandwidth

Please refer to the below plots:



FCC §15.247(a) (1) – 20 dB EMISSION BANDWIDTH & 99% OCCUPIED BANDWIDTH

Applicable Standard

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

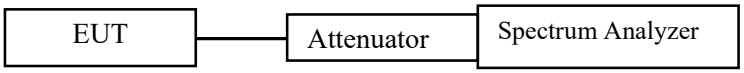
The following conditions shall be observed for measuring the occupied bandwidth and 20 dB bandwidth:
• The transmitter shall be operated at its maximum carrier power measured under normal test conditions.

• The span of the spectrum analyzer shall be set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency, but small enough to avoid having other emissions (e.g. on adjacent channels) within the span.

• The detector of the spectrum analyzer shall be set to “Sample”. However, a peak, or peak hold, may be used in place of the sampling detector since this usually produces a wider bandwidth than the actual bandwidth (worst-case measurement). Use of a peak hold (or “Max Hold”) may be necessary to determine the occupied / 20 dB bandwidth if the device is not transmitting continuously.

• The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / 20 dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value. Video averaging is not permitted.

Note: It may be necessary to repeat the measurement a few times until the RBW and VBW are in compliance with the above requirement.
For the 99% emission bandwidth, the trace data points are recovered and directly summed in linear power level terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached, and that frequency recorded. The process is repeated for the highest frequency data points (starting at the highest frequency, at the right side of the span, and going down in frequency). This frequency is then recorded. The difference between the two recorded frequencies is the occupied bandwidth (or the 99% emission bandwidth).



Test Data

Environmental Conditions

Temperature:	28.1 ℃
Relative Humidity:	54 %
ATM Pressure:	101.0 kPa

The testing was performed by Roger Ling on 2022-07-03.

EUT operation mode: Transmitting

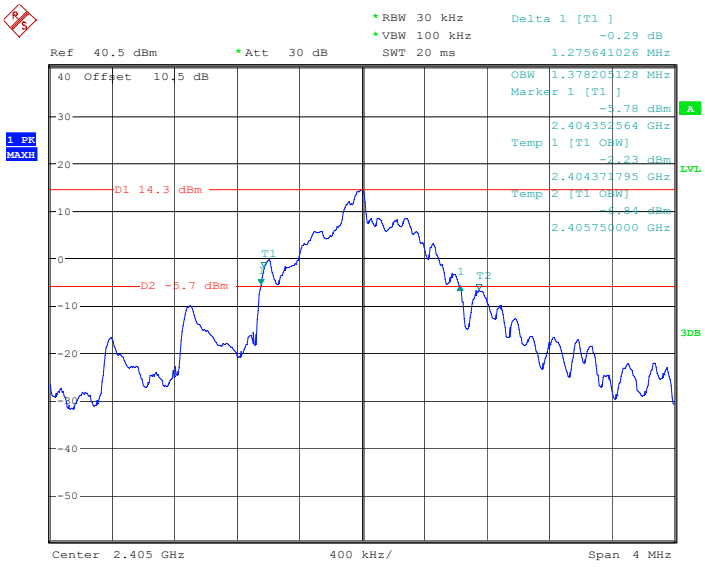
Test Result: Compliant.

Mode	Channel	Frequency (MHz)	20 dB Emission Bandwidth (MHz)	OBW (MHz)
GFSK	Low	2405	1.276	1.378
	Middle	2440	1.322	1.442
	High	2475	1.285	1.308

Please refer to the below plots:

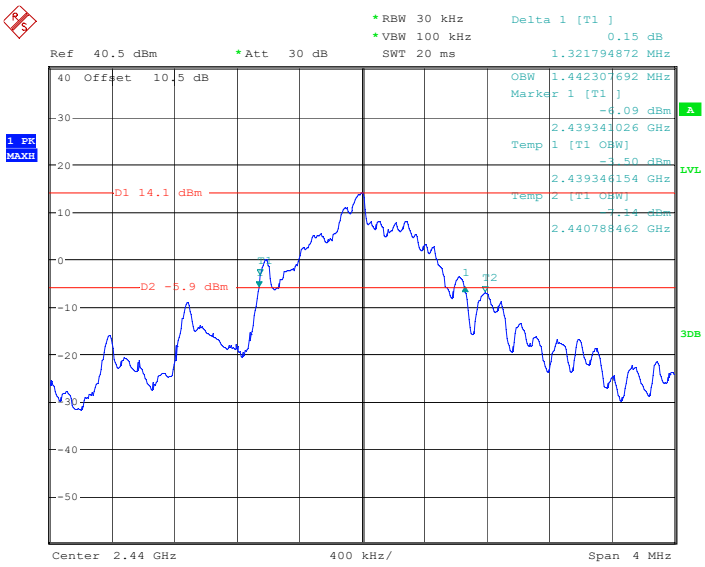
20 dB EMISSION BANDWIDTH&99% EMISSION BANDWIDTH:

2405MHz



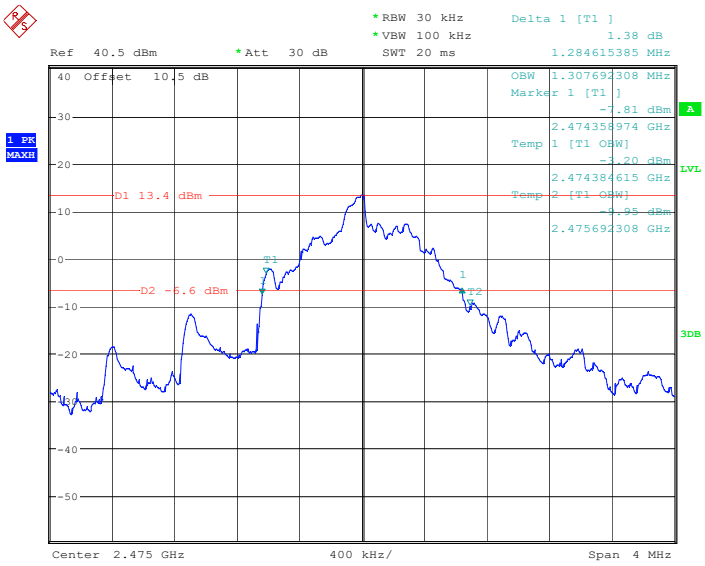
Date: 3.JUL.2022 20:27:09

2440MHz



Date: 3.JUL.2022 20:30:00

2475MHz



Date: 3.JUL.2022 20:28:49

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

Applicable Standard

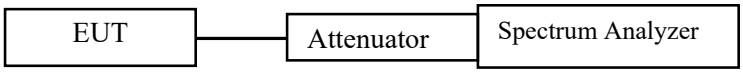
Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress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

Environmental Conditions

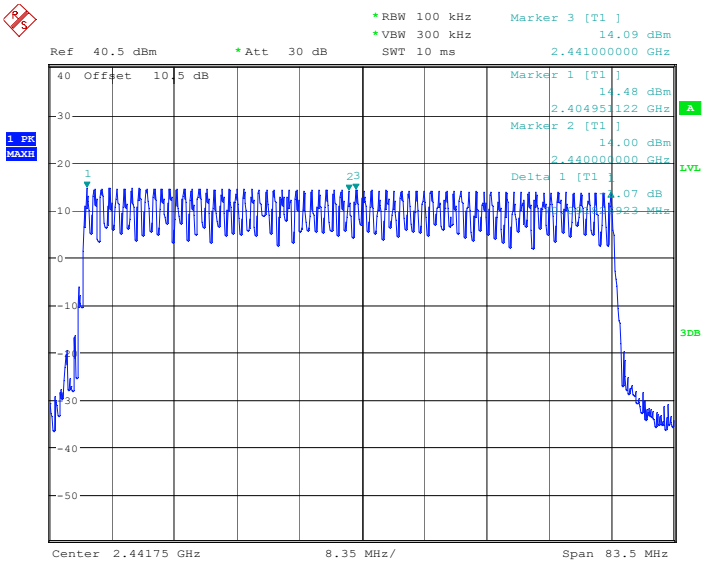
Temperature:	28.1 ℃
Relative Humidity:	54 %
ATM Pressure:	101.0 kPa

The testing was performed by Roger Ling on 2022-07-03.

EUT operation mode: Transmitting

Test Result: Compliant.

Mode	Frequency Range (MHz)	Number of Hopping Channel (CH)	Limit (CH)
GFSK	2400-2483.5	71	≥15



Date: 3.JUL.2022 20:48:25

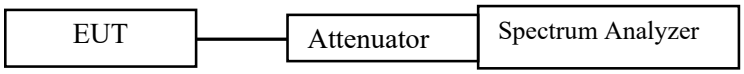
FCC §15.247(a) (1) (iii) - TIME OF OCCUPANCY (DWELL TIME)

Applicable Standard

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

1. The EUT was worked in channel hopping.
2. Set the RBW to: 1MHz.
3. Set the VBW ≥ 3×RBW.
4. Set the span to 0Hz.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Recorded the time of single pulses



Test Data

Environmental Conditions

Temperature:	28.1 ℃
Relative Humidity:	54 %
ATM Pressure:	101.0 kPa

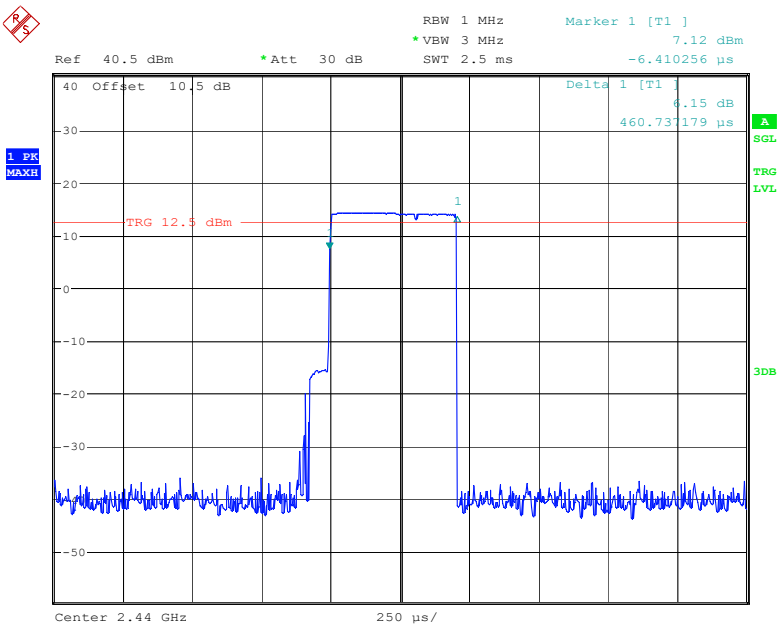
The testing was performed by Roger Ling on 2022-07-03.

EUT operation mode: Transmitting

Test Result: Compliant.

Test Mode	Channel	Pulse Time [ms]	Total Hops [Num]	Result[s]	Limit[s]	Verdict
GFSK	Hop	0.461	100	0.046	<=0.4	PASS

Note: A period time=0.4*71=28.4(s), Result= Pulse Time *Total hops



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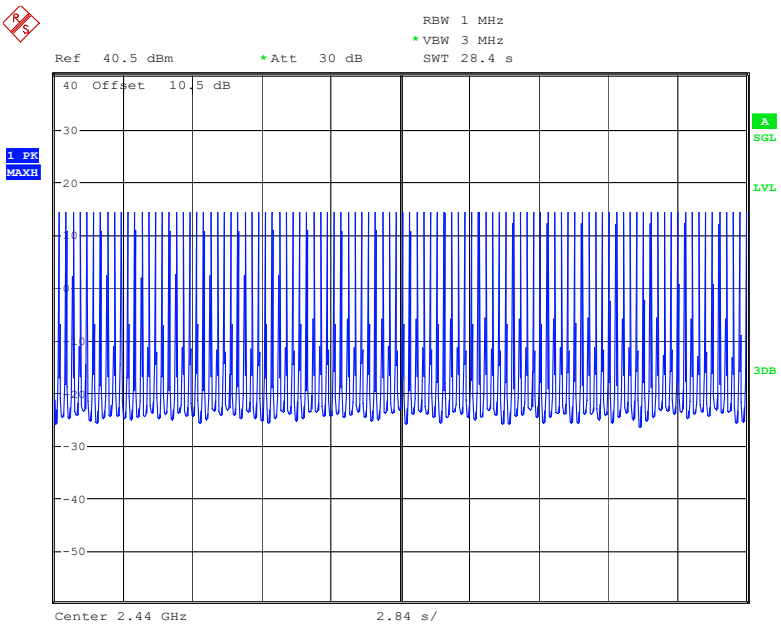

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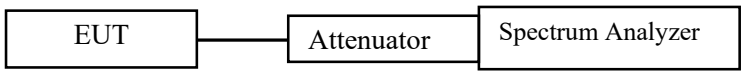
FCC §15.247(b) (1) - PEAK OUTPUT POWER MEASUREMENT

Applicable Standard

According to §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. And 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 Data

Environmental Conditions

Temperature:	28.1 ℃
Relative Humidity:	54 %
ATM Pressure:	101.0 kPa

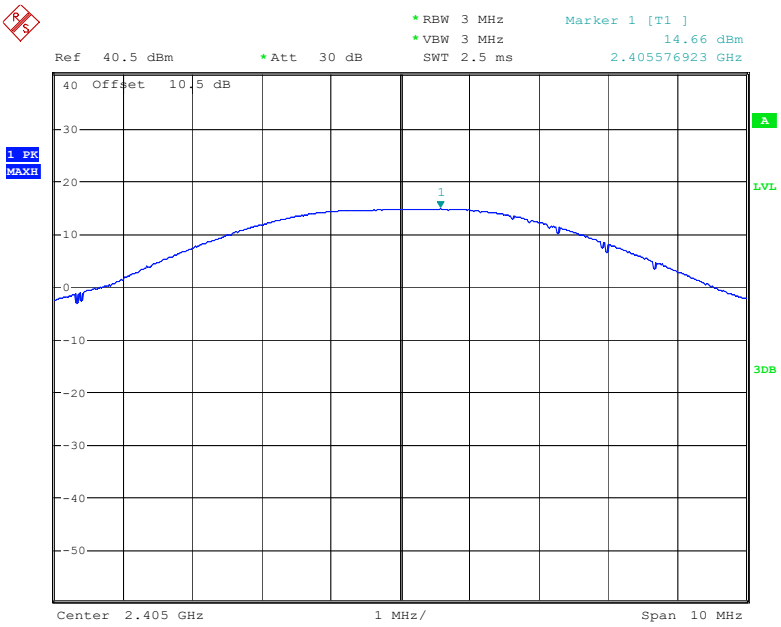
The testing was performed by Roger Ling on 2022-07-03.

EUT operation mode: Transmitting

Test Result: Compliant.

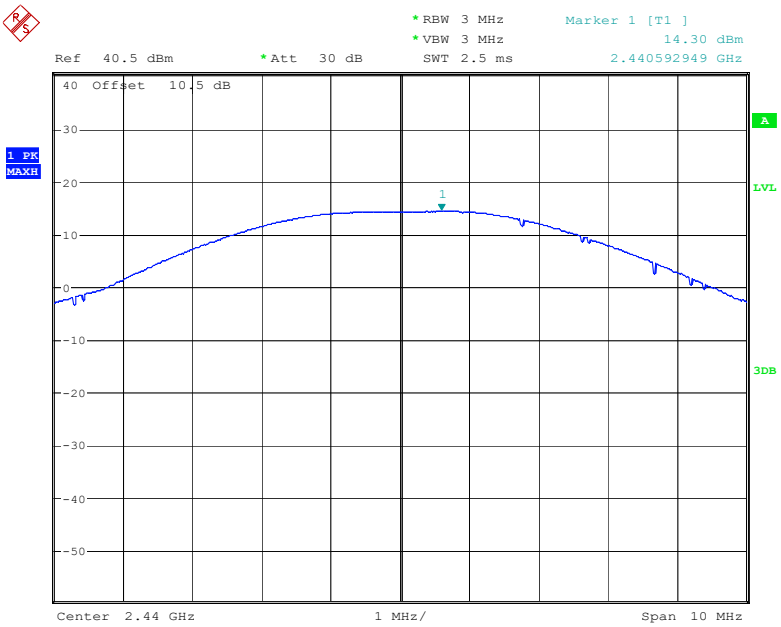
Mode	Channel	Frequency (MHz)	Peak Output Power (dBm)	Limit (dBm)
GFSK	Low	2405	14.66	21
	Middle	2440	14.30	21
	High	2475	13.68	21

2405MHz



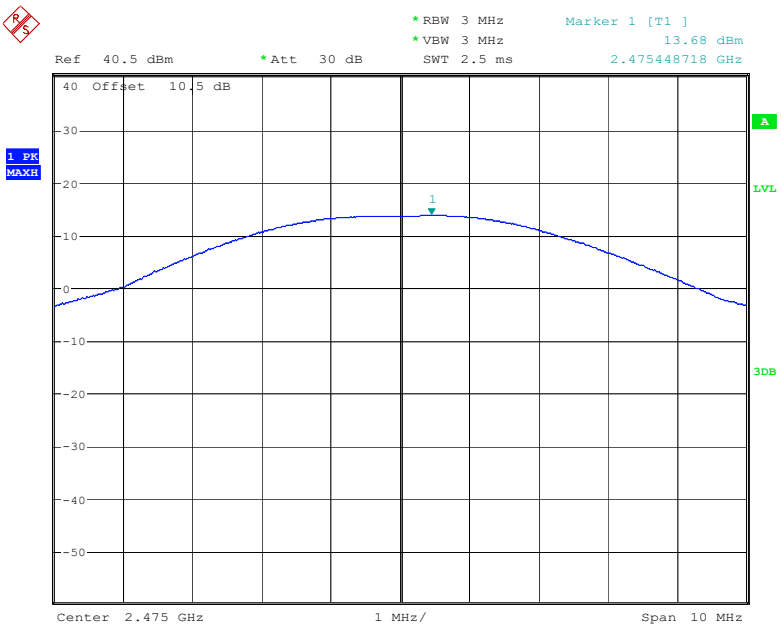
Date: 3.JUL.2022 20:25:13

2440MHz



Date: 3.JUL.2022 20:24:14

2475MHz



Date: 3.JUL.2022 20:23:08

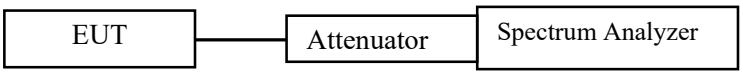
FCC §15.247(d) - BAND EDGES TESTING

Applicable Standard

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 of spectrum analyzer to 100 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 Data

Environmental Conditions

Temperature:	28.1 ℃
Relative Humidity:	54 %
ATM Pressure:	101.0 kPa

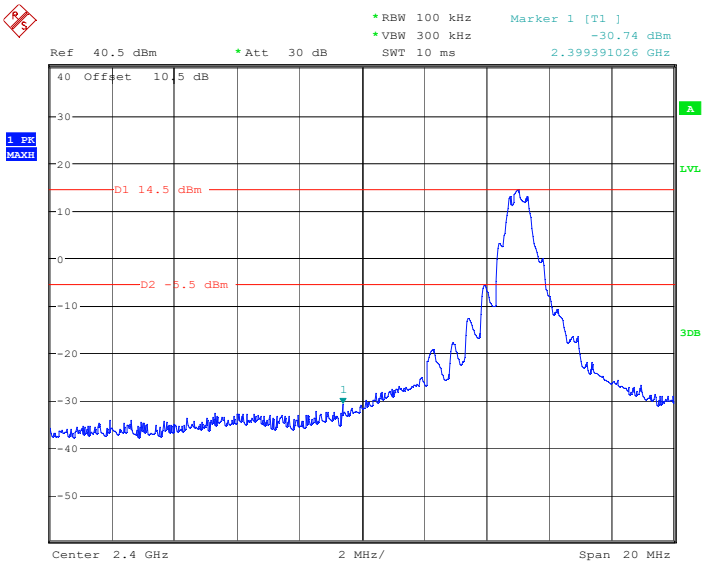
The testing was performed by Roger Ling on 2022-07-03.

EUT operation mode: Transmitting

Test Result: Compliant.

Conducted Band Edge Result:

Left Side



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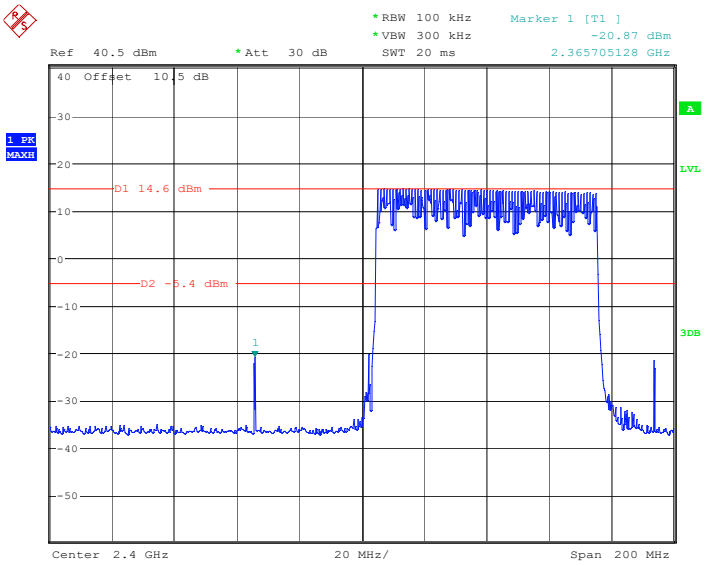
Left Side Hopping



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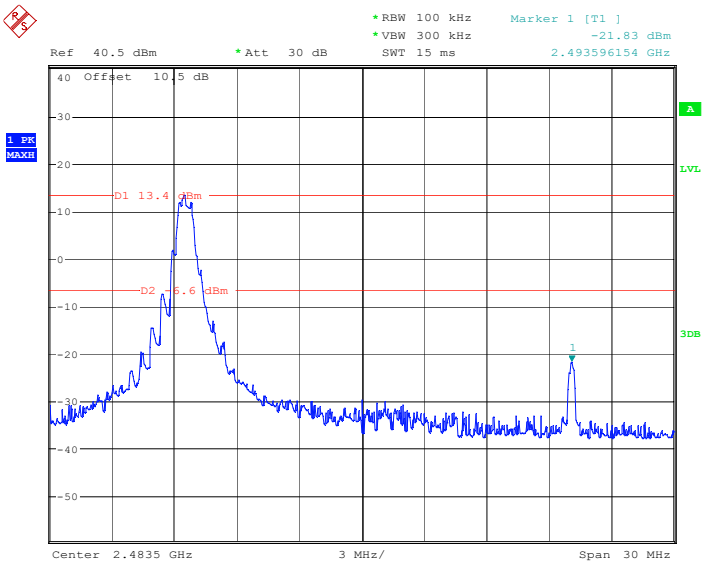
Right Side



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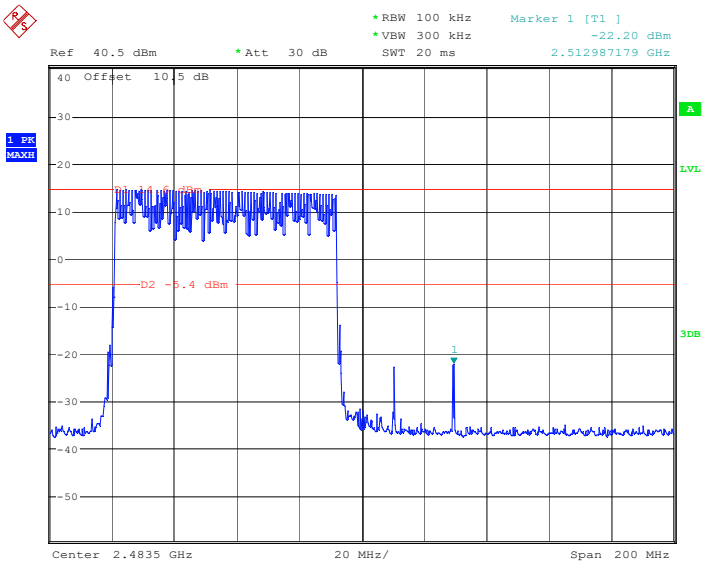
Right Side Hopping



Date: 3.JUL.2022 20:37:50

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