



TEST REPORT

Applicant Name : Address : Zeeva International Limited Suite 1007B, 10th Floor, Exchange Tower, 33 Wang Chiu Road, Kowloon Bay, Hong Kong RA221130-57991E-RF 2ADM5-HP-0729B

Report Number : FCC ID:

Test Standard (s) FCC PART 15.247

Sample Description

Product Type: Test Model: Trade Mark:

Date Received:

Date of Test:

Report Date:

BT LED ICON HP2 HP-0729B **5** BASS JANX 2022-11-30 2022-12-06

Test Result:

Pass*

2022-12-10

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

Prepared and Checked By:

vion

Jeff Jiang 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 " \star ".

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Shenzhen Accurate Technology Co., Ltd.

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GENERAL INFORMATION

Product	BT LED ICON HP2
Tested Model	HP-0729B
SKU	BLACK-7435099; PURPLE – 7435100; GREEN - 7435102
UPC	BLACK-1922343801535; PURPLE - 1922343801542 GREEN - 1922343801566
Frequency Range	2402~2480MHz
Maximum conducted Peak output power	0.79dBm
Modulation Technique	BDR(GFSK)/EDR(1/4-DQPSK)/EDR(8DPSK)
Antenna Specification*	Internal on board Antenna: -0.58dBi(It is provided by the applicant)
Voltage Range	DC 3.7V from battery or DC 5.0V from USB port
Sample number	RA221130-57991E-RF-S1(RF Radiated Test) RA221130-57991E-RF-S2(RF Conducted Test) (Assigned by ATC, Shenzhen)
Sample/EUT Status	Good condition

Product Description for Equipment under Test (EUT)

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, 15.207, 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.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Cha	nnel Bandwidth	5%
RF Fre	equency	$0.082*10^{-7}$
RF output por	wer, conducted	0.73dB
Unwanted Emission, conducted		1.6dB
AC Power Lines Conducted Emissions		2.72dB
	30MHz - 1GHz	4.28dB
Emissions, Radiated	1GHz - 18GHz	4.98dB
Radiated	18GHz - 26.5GHz	5.06dB
Temperature		1 °C
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.

EUT Exercise Software

Software "fcc assist1022"* was used during testing and the power level was Default Power level 10*.

Special Accessories

N/A.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

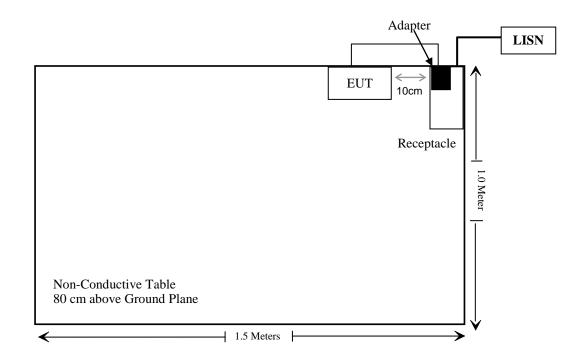
Manufacturer	Description	Model	Serial Number
MEIZU	Adapter	CS3018	76X2602SF12

External I/O Cable

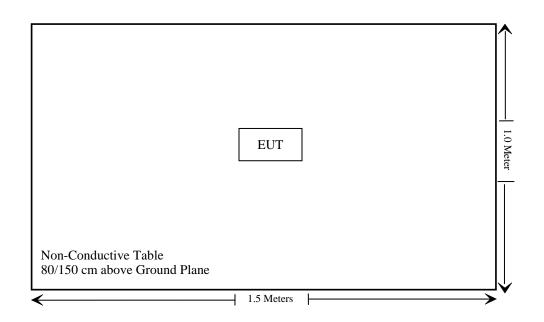
Cable Description	Length (m)	From/Port	То
Un-shielding Detachable USB Cable	0.2	EUT	Adapter

Block Diagram of Test Setup

For Conducted Emission



For Radiated Emissions



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§ 15.247 (i), §1.1307 (b)	RF Exposure	Compliant
§15.203	Antenna Requirement	Compliant
§15.207(a)	AC Line Conducted Emissions	Compliant
§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

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date		
	Conducted Emissions Test						
Rohde& Schwarz	EMI Test Receiver	ESCI	100784	2021/12/13	2022/12/12		
Rohde & Schwarz	L.I.S.N.	ENV216	101314	2021/12/13	2022/12/12		
Anritsu Corp	50 Coaxial Switch	MP59B	6100237248	2021/12/13	2022/12/12		
Unknown	RF Coaxial Cable	No.17	N0350	2021/12/14	2022/12/13		
			ware: e3 19821b (V9)			
		Radiated Emissi			1		
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	2022/11/08	2023/11/07		
A.H. Systems, inc.	Preamplifier	PAM-0118P	135	2022/11/08	2023/11/07		
Quinstar	Amplifier	QLW-184055 36-J0	15964001002	2022/11/08	2023/11/07		
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		
Wainwright	High Pass Filter	WHKX3.6/18 G-10SS	5	2021/12/14	2022/12/13		
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		
	Radiated En		ware: e3 19821b (V	/9)			
		RF Conducte					
Rohde & Schwarz	Spectrum Analyzer	FSV-40	101495	2021/12/13	2022/12/12		
Rohde & Schwarz	Open Switch and Control Unit	OSP120 + OSP-B157	101244 + 100866	2021/12/13	2022/12/12		
WEINSCHEL	10dB Attenuator	5324	AU 3842	2021/12/14	2022/12/13		
Unknown	RF Coaxial Cable	No.33	RF-03	Each	time		

* **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).

Version 11: 2021-11-09

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

Applicable Standard

According to FCC §2.1093 and §1.1307(b), 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 v01, clause 2.1.3.1-SAR-Based Exemption:

A more comprehensive exemption, considering a variable power threshold that depends on both the separation distance and power, is provided in § 1.1307(b)(3)(i)(B). This exemption is applicable to the frequency range between 300 MHz and 6 GHz, with test separation distances between 0.5 cm and 40 cm, and for all RF sources in fixed, mobile, and portable device exposure conditions.

Accordingly, a RF source is considered an RF exempt device if its available maximum time-averaged (matched conducted) power or its effective radiated power (ERP), whichever is greater, are below a specified threshold. This exemption threshold was derived based on general population 1-g SAR requirements and is detailed in Appendix C.

Test Result

For worst case:

Mode	Frequency	Maximum Tune-up Conducted Power	Antenna Gain		ERP	ERP _{20cm}	Distance	Excl	Based usion shold	SAR-Based Exclusion
	(MHz)	(dBm)	(dBi)	(dBd)	(dBm)	(mW)	(mm)	(mW)	(dBm)	
BDR/EDR	2402-2480	1	-0.58	-2.73	-1.73	3060	5	2.717	4.34	Yes

Note 1: The tune-up power was declared by the applicant. Note 2: 0dBd=2.15dBi.

Result: Compliant.

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 -0.58 dBi, fulfill the requirement of this section. Please refer to the EUT photos.

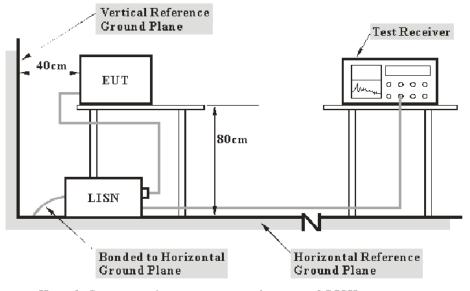
Result: Compliant.

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 measurement procedure of EUT setup is according with ANSI C63.10-2013. The related limit was specified in FCC Part 15.207.

The spacing between the peripherals was 10 cm.

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 LISN.

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

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

Factor & Margin Calculation

The factor is calculated by adding LISN VDF (Voltage Division Factor) and Cable Loss. The basic equation is as follows:

Factor = LISN VDF + Cable Loss

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

Over Limit = Level – Limit Level = Read Level + Factor

Test Data

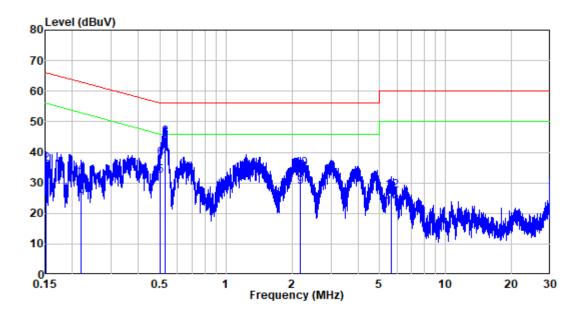
Environmental Conditions

Temperature:	25 °C
Relative Humidity:	47 %
ATM Pressure:	101.0 kPa

The testing was performed by Lipa Wu on 2022-12-06.

EUT operation mode: Charging

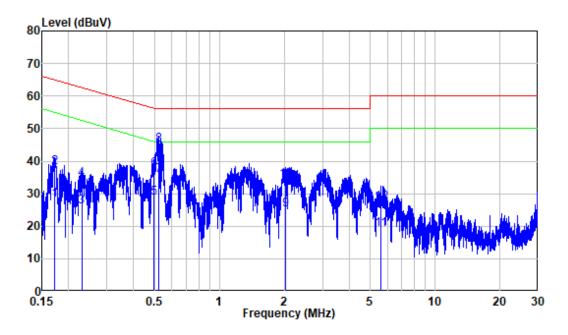
AC 120V/60 Hz, Line



Site	:	Shielding Room
Condition	:	Line
Job No.	:	RA221130-57991E-RF
Mode	:	Charging
Power	:	AC 120V 60Hz

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.151	9.80	15.94	25.74	55.94	-30.20	Average
2	0.151	9.80	26.44	36.24	65.94	-29.70	QP
3	0.219	9.80	15.91	25.71	52.85	-27.14	Average
4	0.219	9.80	23.01	32.81	62.85	-30.04	QP
5	0.500	9.80	22.64	32.44	46.00	-13.56	Average
6	0.500	9.80	28.28	38.08	56.00	-17.92	QP
7	0.527	9.81	28.84	38.65	46.00	-7.35	Average
8	0.527	9.81	35.06	44.87	56.00	-11.13	QP
9	2.170	9.82	18.95	28.77	46.00	-17.23	Average
10	2.170	9.82	24.84	34.66	56.00	-21.34	QP
11	5.638	9.86	12.15	22.01	50.00	-27.99	Average
12	5.638	9.86	17.62	27.48	60.00	-32.52	QP

AC 120V/60 Hz, Neutral



Site :	Shielding Room
Condition:	Neutral
Job No. :	RA221130-57991E-RF
Mode :	Charging
Power :	AC 120V 60Hz

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dBuV	dBuV	dB	
1	0.172	9.80	18.33	28.13	54.84	-26.71	Average
2	0.172	9.80	28.25	38.05	64.84	-26.79	QP
3	0.229	9.80	16.21	26.01	52.47	-26.46	Average
4	0.229	9.80	24.55	34.35	62.47	-28.12	QP
5	0.495	9.80	18.77	28.57	46.08	-17.51	Average
6	0.495	9.80	27.57	37.37	56.08	-18.71	QP
7	0.524	9.81	25.83	35.64	46.00	-10.36	Average
8	0.524	9.81	35.17	44.98	56.00	-11.02	QP
9	2.033	9.82	15.22	25.04	46.00	-20.96	Average
10	2.033	9.82	24.20	34.02	56.00	-21.98	QP
11	5.605	9.92	9.19	19.11	50.00	-30.89	Average
12	5.605	9.92	17.30	27.22	60.00	-32.78	QP

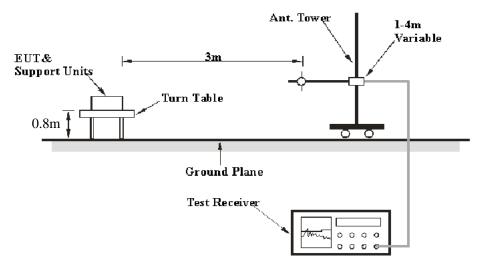
FCC §15.205, §15.209 & §15.247(d) - RADIATED EMISSIONS

Applicable Standard

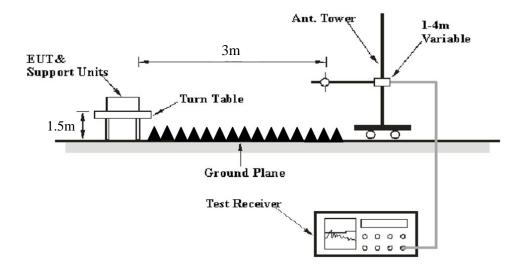
FCC §15.205; §15.209; §15.247(d)

EUT Setup

Below 1 GHz:



Above 1GHz:



The radiated emission performed in the 3 meters, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, 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	/	РК

For average measurement:

Use the duty cycle factor correction factor method per 15.35(c). Duty cycle=On time/100milliseconds, On time=N1*L1+N2*L2+...Nn-1*Ln-1+Nn*Ln, Where N1 is number of type 1 pulses, L1 is length of type 1 pulse, etc. Average Emission Level=Peak Emission Level+20*log(Duty cycle)

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.

If the maximized peak measured value complies with the limit, then it is unnecessary to perform QP/Average measurement.

Factor & Margin Calculation

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

Factor = Antenna Factor + Cable Loss - Amplifier Gain

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

Over Limit/Margin = Level / Corrected Amplitude – Limit Level / Corrected Amplitude = Read Level + Factor

Test Data

Environmental Conditions

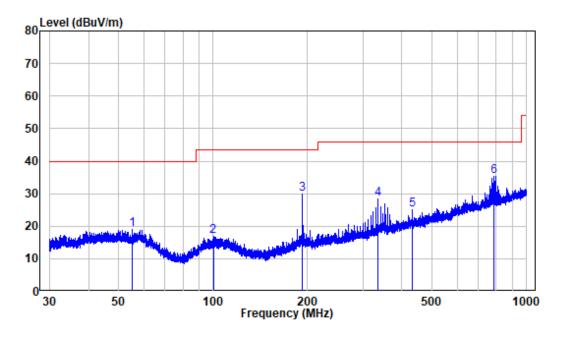
Temperature:	24 °C		
Relative Humidity:	55 %		
ATM Pressure:	101.0 kPa		

The testing was performed by Jimi Zheng on 2022-12-06.

EUT operation mode: BT Transmitting

(Scan with GFSK, $\pi/4$ -DQPSK, 8DPSK mode at X axis, Y axis, Z axis, the worst case is 8DPSK Mode at X axis)

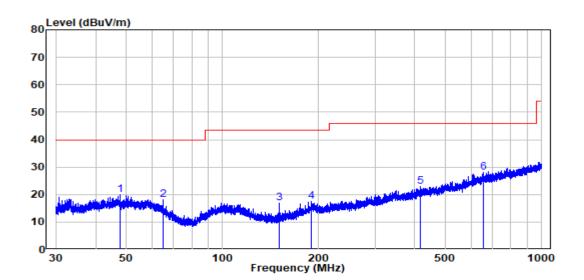
Below 1GHz: 8DPSK Low Channel



Horizontal

Site :	chamber
Condition:	3m HORIZONTAL
Job No. :	RA221130-57991E-RF
Test Mode:	BT Transmitting

	Freq	Factor			Limit Line		Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	55.100	-10.28	29.21	18.93	40.00	-21.07	Peak
2	100.053	-11.79	28.80	17.01	43.50	-26.49	Peak
3	191.997	-11.25	41.08	29.83	43.50	-13.67	Peak
4	336.035	-7.58	36.08	28.50	46.00	-17.50	Peak
5	431.977	-5.75	30.80	25.05	46.00	-20.95	Peak
6	786.127	-0.05	35.52	35.47	46.00	-10.53	Peak



Vertical

Site : chamber Condition: 3m VERTICAL Job No. : RA221130-57991E-RF Test Mode: BT Transmitting

	Freq	Factor			Limit Line		Remark
-	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	47.826	-10.00	29.91	19.91	40.00	-20.09	Peak
2	65.086	-12.54	30.68	18.14	40.00	-21.86	Peak
3	150.011	-15.27	32.10	16.83	43.50	-26.67	Peak
4	190.238	-11.54	29.08	17.54	43.50	-25.96	Peak
5	416.727	-6.20	29.20	23.00	46.00	-23.00	Peak
6	657.970	-1.62	29.71	28.09	46.00	-17.91	Peak

Above 1GHz (worst case for 8DPSK):

Frequency	Receiver		Turntable Angle	Rx An	tenna	Factor	Absolute Level	Limit	Margin	
(MHz)	Reading	PK/AV	Degree	Height	Polar	(dB / m)	(dBuV/m)	(dBuV/m)	(dB)	
	(dBuV)	I N/A V	Degree	(m)	(H/V)		Ň Ź			
	Low Channel									
2310	46.41	РК	63	1.2	Н	-7.23	39.18	74	-34.82	
2310	46.81	PK	335	1.6	V	-7.23	39.58	74	-34.42	
2390	56.9	PK	191	1.7	Н	-7.21	49.69	74	-24.31	
2390	53.01	PK	357	2.0	V	-7.21	45.8	74	-28.2	
4804	54.03	PK	151	1.3	Н	-3.52	50.51	74	-23.49	
4804	49.49	РК	302	1.0	V	-3.52	45.97	74	-28.03	
				Middle C	hannel					
4882	52.87	РК	74	1.3	Н	-3.37	49.5	74	-24.5	
4882	49.28	PK	153	1.7	V	-3.37	45.91	74	-28.09	
				High Ch	annel					
2483.5	64.08	РК	94	2.0	Н	-7.2	56.88	74	-17.12	
2483.5	54.8	РК	40	1.4	V	-7.2	47.6	74	-26.4	
2500	58.52	РК	66	1.7	Н	-7.18	51.34	74	-22.66	
2500	51.44	РК	64	1.6	V	-7.18	44.26	74	-29.74	
4960	51.2	РК	51	2.1	Н	-3.01	48.19	74	-25.81	
4960	48.62	PK	124	1.2	V	-3.01	45.61	74	-28.39	

Note:

Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor

Absolute Level (Corrected Amplitude) = Factor + Reading

Margin = Absolute Level – Limit

The other spurious emission which is in the noise floor level was not recorded.

For above 1GHz, the test result of peak was 20dB below to the limit of peak, which can be compliant to the average limit, so just peak value was recorded.

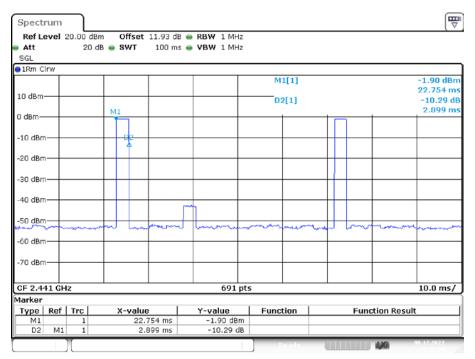
	Field Strength of Average										
Frequency	Peak Measurement	Polar	Duty Cycle Correction	Corrected	FCC Part 15.247						
(MHz)	@3m (dBµV/m)	(H/V)	Factor (dB)	Ampitude (dBµV/m)	Limit (dBµV/m)	Margin (dB)					
High Channel											
2483.5	56.88	Н	-24.73	32.15	54	-21.85					

Note:

Average level= Peak level+ Duty Cycle Corrected Factor Margin = Absolute Level (Corrected Amplitude) – Limit

The worst case duty cycle as below:

Duty cycle = Ton/100ms = (2.899*2)/100=0.05798 Duty Cycle Corrected Factor = 20*lg (Duty cycle) = 20*lg(0.05798) = -24.73



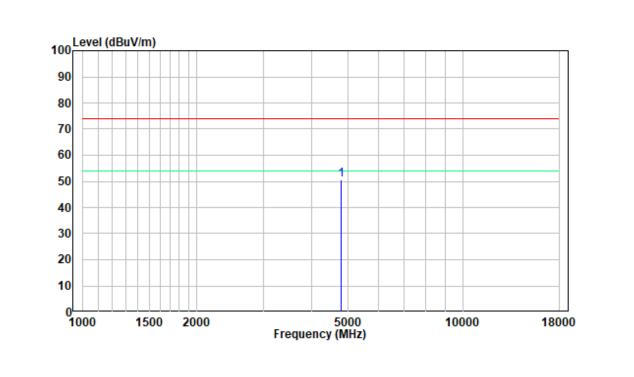
Date: 6.DEC.2022 16:28:31

Shenzhen Accurate Technology Co., Ltd.

Report No.: RA221130-57991E-RF

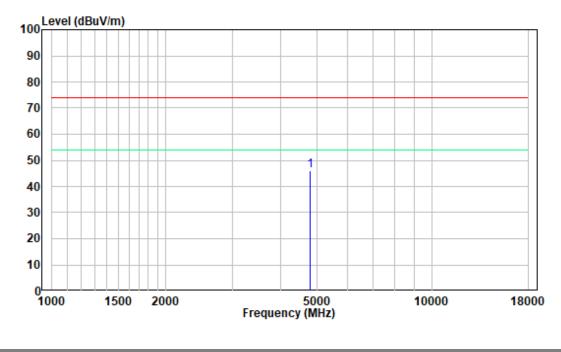
1 GHz - 18 GHz: (Pre-Scan plots)

Worst case for 8DPSK Low Channel:



Horizontal

Vertical



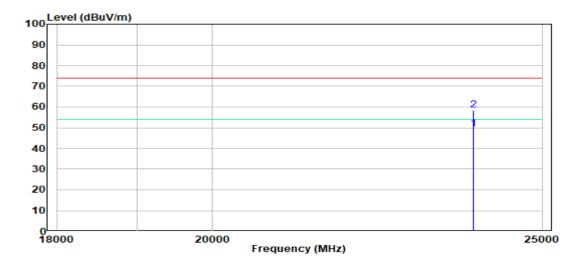
Version 11: 2021-11-09

Shenzhen Accurate Technology Co., Ltd.

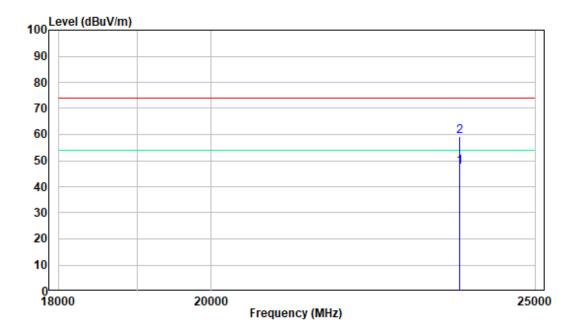
18-25GHz: (Pre-Scan plots)

Worst case for 8DPSK Low Channel:

Horizontal



Vertical



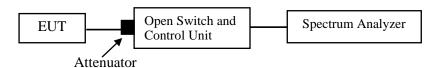
FCC §15.247(a) (1)-CHANNEL SEPARATION TEST

Applicable Standard

Frequency hopping systems shall have hopping 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:	24 °C		
Relative Humidity:	48 %		
ATM Pressure:	101.0 kPa		

The testing was performed by Glenn Jiang on 2022-12-06.

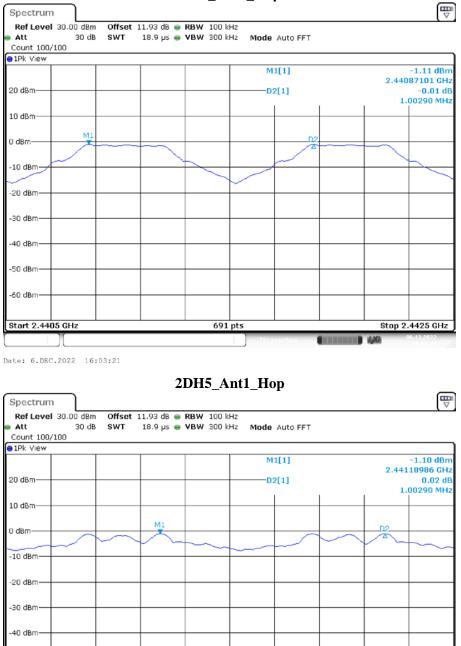
EUT operation mode: Transmitting

Test Result: Compliant.

Test Mode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Нор	1.003	>=0.716	PASS
2DH5	Ant1	Нор	1.003	>=0.904	PASS
3DH5	Ant1	Нор	1.003	>=0.881	PASS

Note: The limit = (2/3) * 20dB bandwidth

Please refer to the below plots:



DH5_Ant1_Hop

Date: 6.DEC.2022 16:08:34

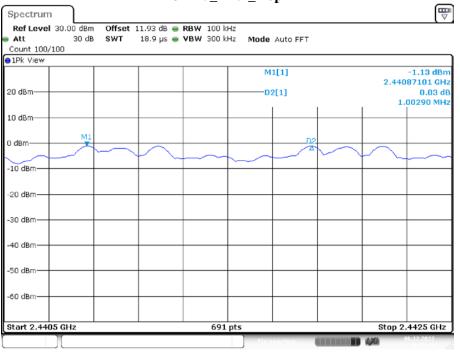
Start 2.4405 GHz

-50 dBm

691 pts

Stop 2.4425 GHz

Shenzhen Accurate Technology Co., Ltd.



3DH5_Ant1_Hop

Date: 6.DEC.2022 16:16:47

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.

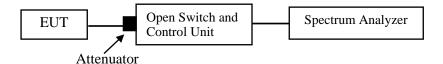
• The span of the spectrum analyzer shall be set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency, but small enough to avoid having other emissions (e.g. on adjacent channels) within the span.

• 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:	24 °C
Relative Humidity:	48 %
ATM Pressure:	101.0 kPa

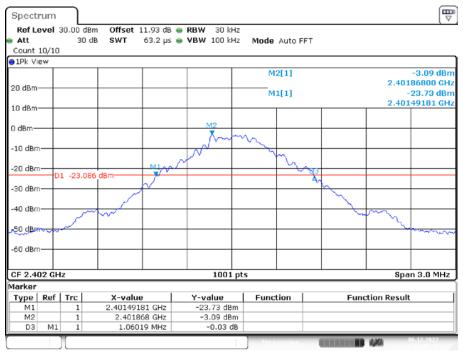
The testing was performed by Glenn Jiang on 2022-12-06.

EUT operation mode: Transmitting

Test Result: Compliant.

Test Mode	Antenna	Channel	20db EBW[MHz]	99% OCCUPIED BANDWIDTH[MHz]	Verdict
DH5	Ant1	2402	1.060	0.947	PASS
		2441	1.074	0.971	PASS
		2480	1.065	0.983	PASS
2DH5	Ant1	2402	1.338	1.22	PASS
		2441	1.356	1.241	PASS
		2480	1.347	1.256	PASS
3DH5	Ant1	2402	1.308	1.22	PASS
		2441	1.322	1.235	PASS
		2480	1.313	1.238	PASS

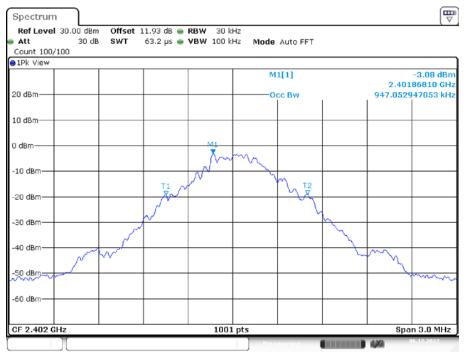
Please refer to the below plots:



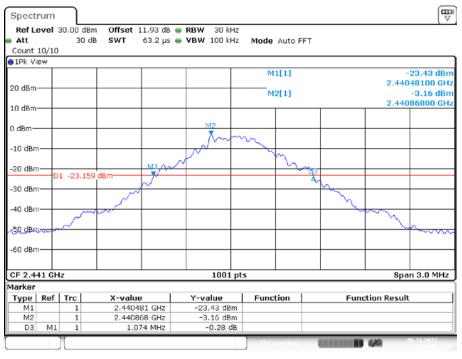
20 dB EMISSION BANDWIDTH_DH5_Ant1_2402

Date: 6.DEC.2022 15:48:18





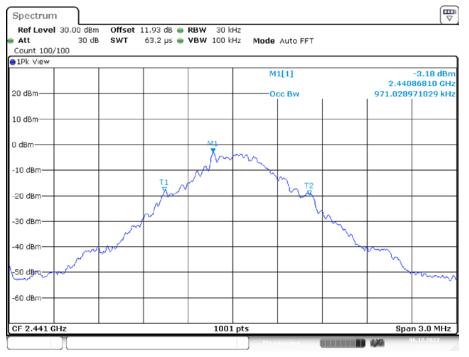
Date: 6.DEC.2022 15:48:35



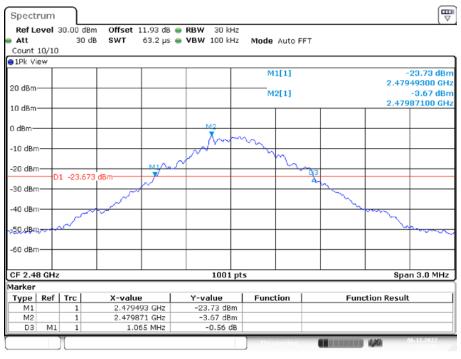
20 dB EMISSION BANDWIDTH_DH5 _Ant1_2441

Date: 6.DEC.2022 15:50:03





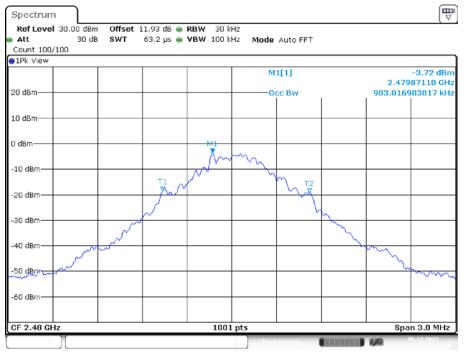
Date: 6.DEC.2022 15:50:20



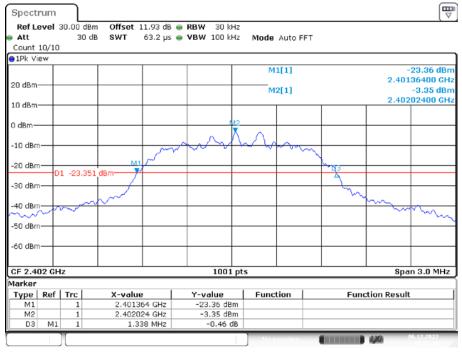
20 dB EMISSION BANDWIDTH_DH5 _Ant1_2480

Date: 6.DEC.2022 15:50:55





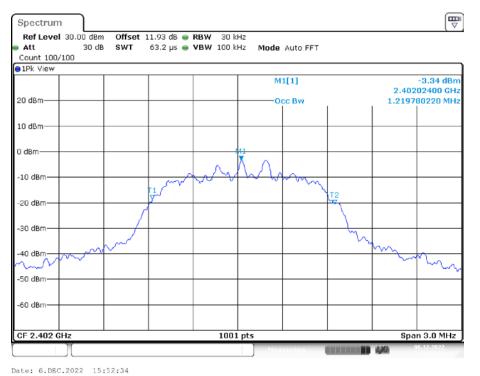
Date: 6.DEC.2022 15:51:12

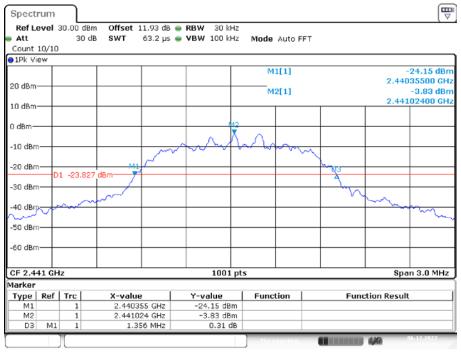


20 dB EMISSION BANDWIDTH_2DH5 _Ant1_2402

Date: 6.DEC.2022 15:52:17







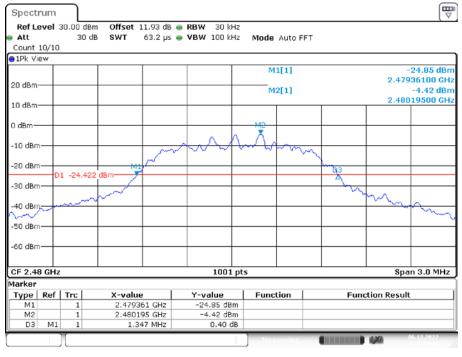
20 dB EMISSION BANDWIDTH_2DH5 _Ant1_2441

Date: 6.DEC.2022 15:53:27





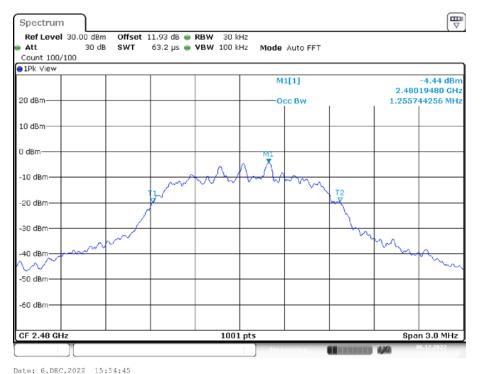
Version 11: 2021-11-09



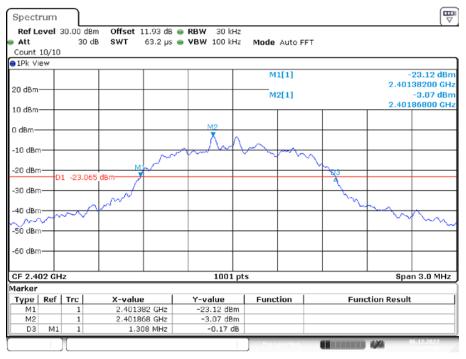
20 dB EMISSION BANDWIDTH _2DH5_Ant1_2480

Date: 6.DEC.2022 15:54:29





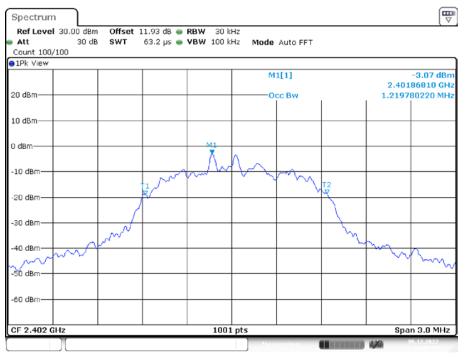
Version 11: 2021-11-09



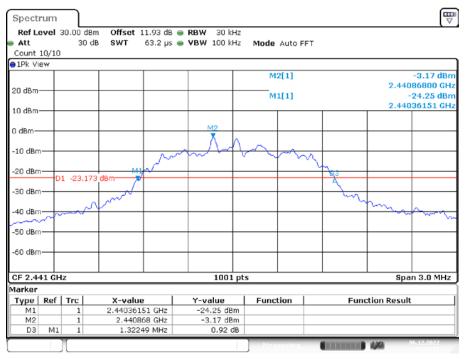
20 dB EMISSION BANDWIDTH_3DH5_Ant1_2402

Date: 6.DEC.2022 15:55:41





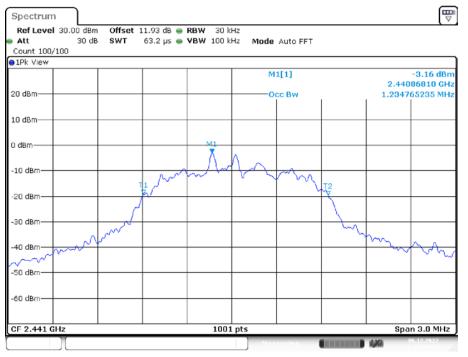
Date: 6.DEC.2022 15:55:58



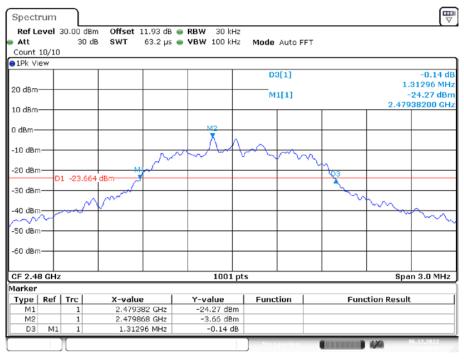
20 dB EMISSION BANDWIDTH_3DH5_Ant1_2441

Date: 6.DEC.2022 15:58:36





Date: 6.DEC.2022 15:58:53



20 dB EMISSION BANDWIDTH_3DH5_Ant1_2480

Date: 6.DEC.2022 16:00:36





Date: 6.DEC.2022 16:00:53

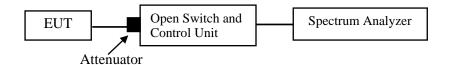
FCC §15.247(a) (1) (iii)-QUANTITY OF HOPPING CHANNEL TEST

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:	24 °C
Relative Humidity:	48 %
ATM Pressure:	101.0 kPa

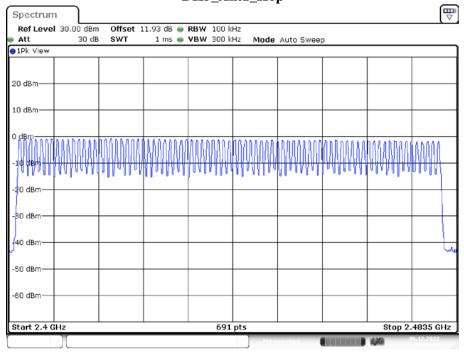
The testing was performed by Glenn Jiang on 2022-12-06.

EUT operation mode: Transmitting

Test Result: Compliant.

Test Mode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	>=15	PASS
2DH5	Ant1	Hop	79	>=15	PASS
3DH5	Ant1	Нор	79	>=15	PASS

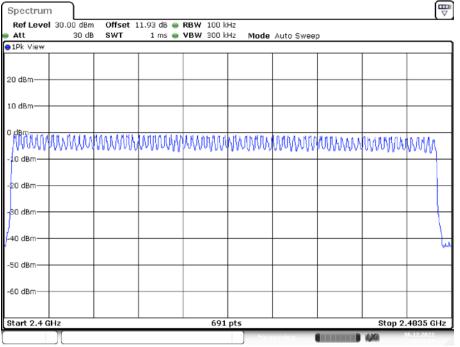
Please refer to the below plots:



DH5_Ant1_Hop

Date: 6.DEC.2022 16:03:51

2DH5_Ant1_Hop



Date: 6.DEC.2022 16:09:35

			5	DII3_A		γP			Ē
Spectrur	n								
	1 30.00 dBm 30 dB		11.93 dB 👄						
Att 1Pk View	30 08	8 SWT	ı ms 🖷	VBW 300	mode	Auto Swee	p		
JIFK VIEW									
20 dBm									
10 dBm									
^o dem MUU	mm	www	www	unm	mmu	, JIM M	www	hnum	mm
-10 dBm—									
-20 dBm—									
-90 dBm									
-50 dBm-									
-60 dBm									
Start 2.4 (GHz			691	pts			Stop 2	2.4835 GHz
					Mex	suring		4.464	06.12.2022

3DH5_Ant1_Hop

Date: 6.DEC.2022 16:17:56

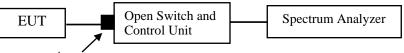
FCC §15.247(a) (1) (iii) - TIME OF OCCUPANCY (DWELL TIME)

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 \geq 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



Attenuator

Test Data

Environmental Conditions

Temperature:	24 °C
Relative Humidity:	48 %
ATM Pressure:	101.0 kPa

The testing was performed by Glenn Jiang on 2022-12-06.

EUT operation mode: Transmitting

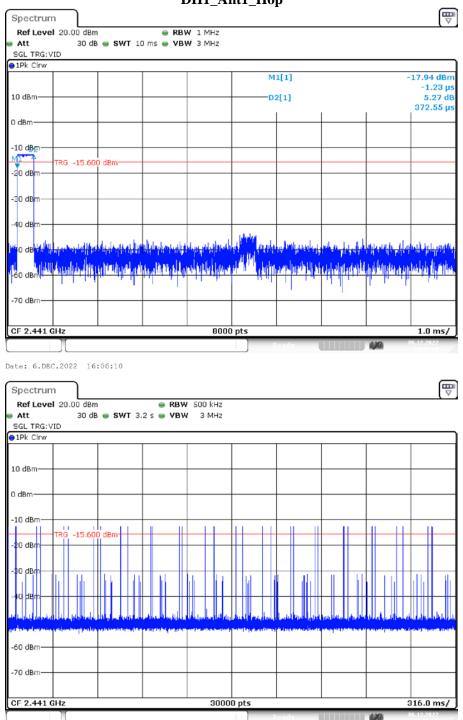
Test Result: Compliant.

Test Mode	Antenna	Channel	Burst Width [ms]	Total Hops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Нор	0.37	320	0.118	<=0.4	PASS
DH3	Ant1	Нор	1.62	180	0.292	<=0.4	PASS
DH5	Ant1	Нор	2.86	130	0.372	<=0.4	PASS
2DH1	Ant1	Нор	0.38	320	0.122	<=0.4	PASS
2DH3	Ant1	Нор	1.63	180	0.293	<=0.4	PASS
2DH5	Ant1	Нор	2.87	130	0.373	<=0.4	PASS
3DH1	Ant1	Нор	0.38	320	0.122	<=0.4	PASS
3DH3	Ant1	Нор	1.63	170	0.277	<=0.4	PASS
3DH5	Ant1	Нор	2.87	110	0.316	<=0.4	PASS

Note 1: A period time=0.4*79=31.6(s), Result=Burst Width*Total Hops

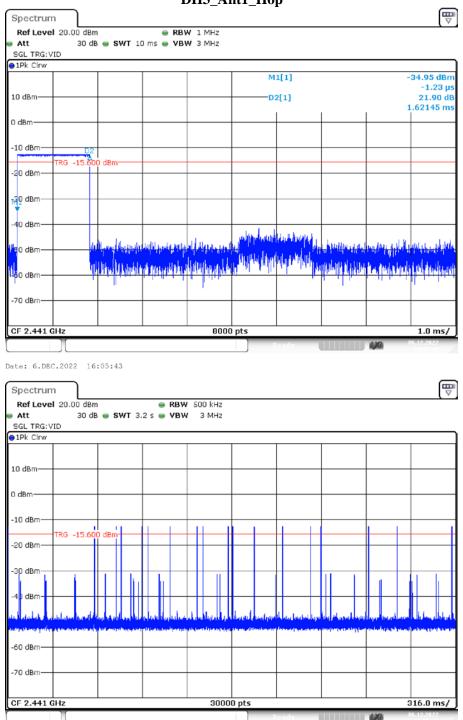
Note 2: Total Hops =Hopping Number in 3.16s*10

Note 3: Hoping Number in 3.16s=Total of highest signals in 3.16s (Second high signals were other channel)



DH1_Ant1_Hop

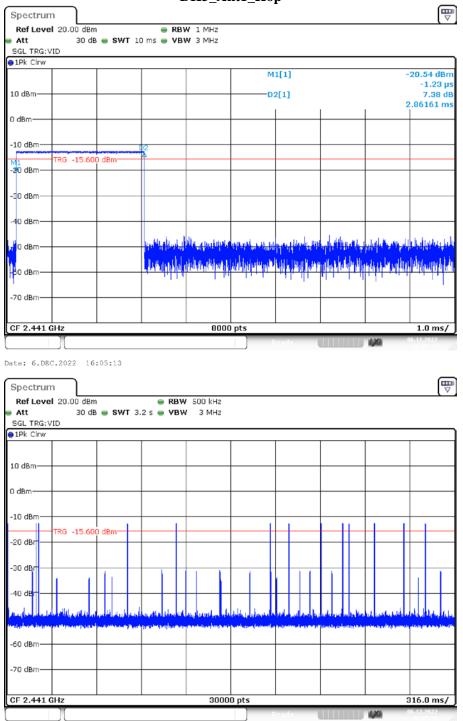
Date: 6.DEC.2022 16:06:16



DH3_Ant1_Hop

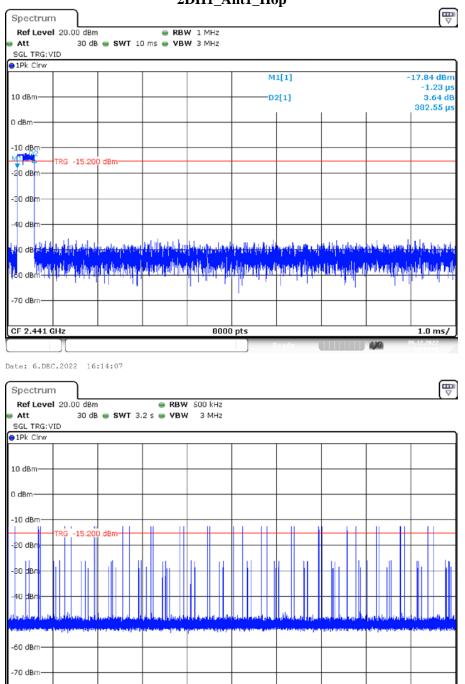
Date: 6.DEC.2022 16:05:49

Version 11: 2021-11-09



DH5_Ant1_Hop

Date: 6.DEC.2022 16:05:19



2DH1_Ant1_Hop

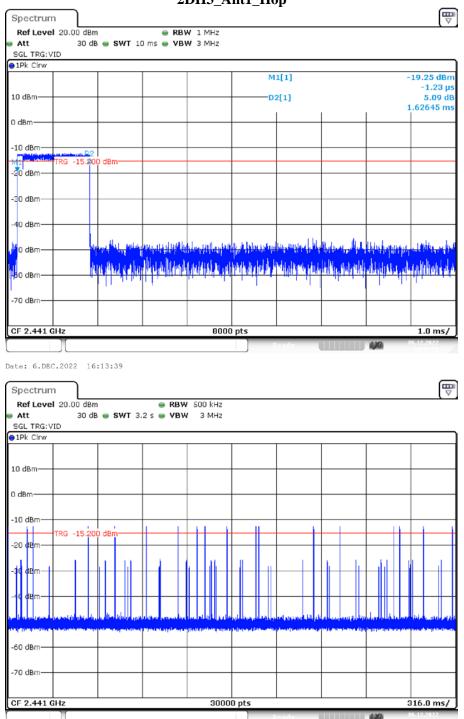
Date: 6.DEC.2022 16:14:12

CF 2.441 GHz

30000 pts

316.0 ms/

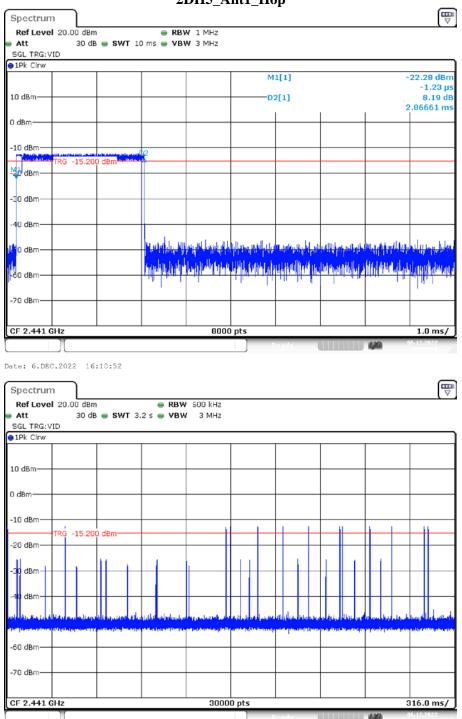
42



2DH3_Ant1_Hop

Date: 6.DEC.2022 16:13:45

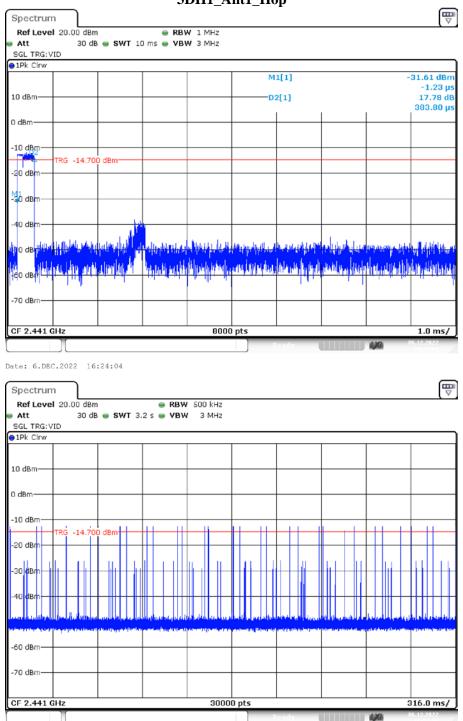
Version 11: 2021-11-09



2DH5_Ant1_Hop

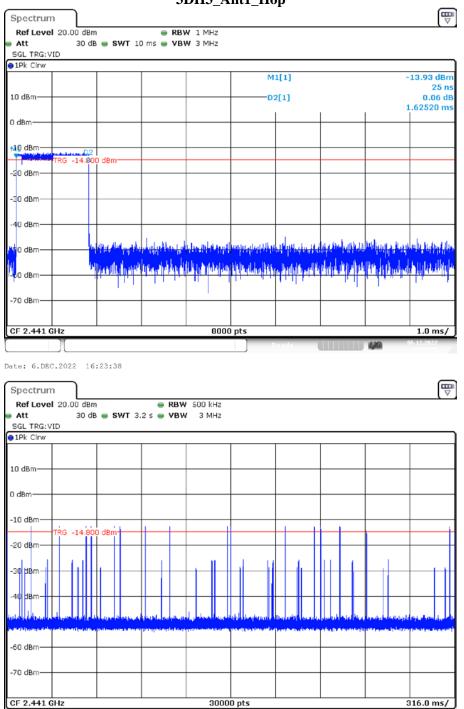
Date: 6.DEC.2022 16:10:57

Version 11: 2021-11-09



3DH1_Ant1_Hop

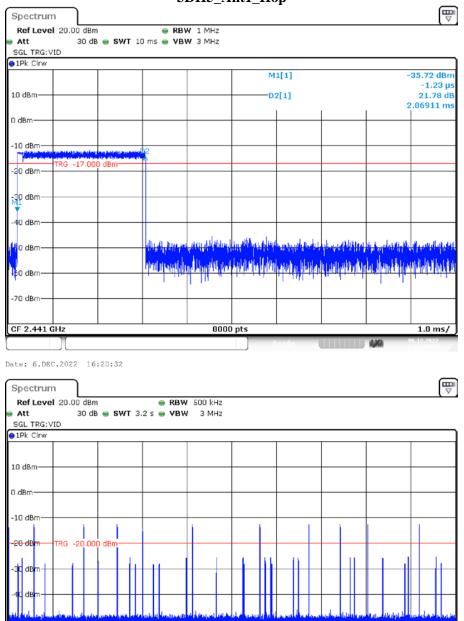
Date: 6.DEC.2022 16:24:09



3DH3_Ant1_Hop

Date: 6.DEC.2022 16:23:44

42



3DH5_Ant1_Hop

Date: 6.DEC.2022 16:20:37

-60 dBm-

CF 2.441 GHz

30000 pts

316.0 ms/

42

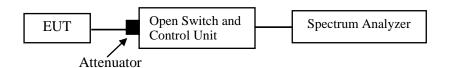
FCC §15.247(b) (1) - PEAK OUTPUT POWER MEASUREMENT

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:	24 °C
Relative Humidity:	48 %
ATM Pressure:	101.0 kPa

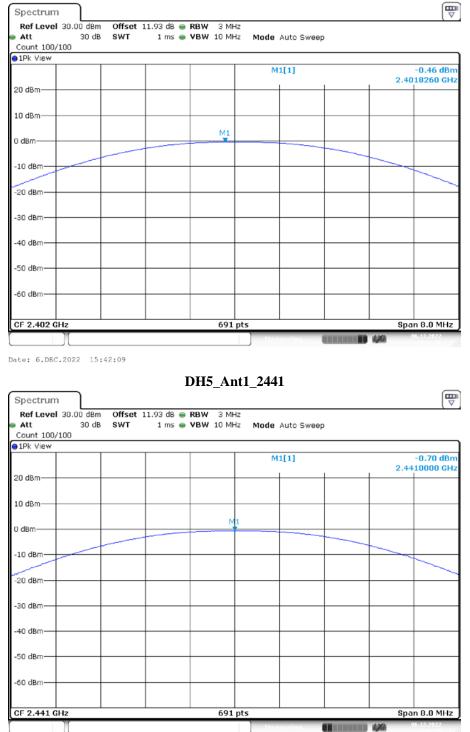
The testing was performed by Glenn Jiang on 2022-12-06.

EUT operation mode: Transmitting

Test Result: Compliant.

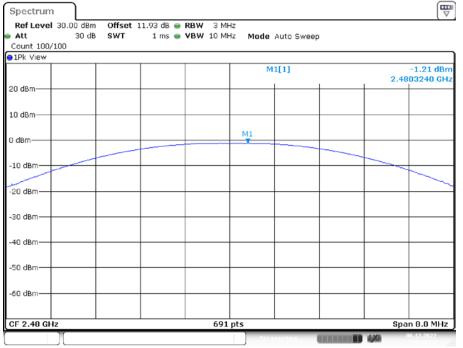
Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
		2402	-0.46	<=20.97	PASS
DH5	Ant1	2441	-0.7	<=20.97	PASS
		2480	-1.21	<=20.97	PASS
	Ant1	2402	0.36	<=20.97	PASS
2DH5		2441	0.06	<=20.97	PASS
		2480	-0.42	<=20.97	PASS
	Ant1	2402	0.79	<=20.97	PASS
3DH5		2441	0.54	<=20.97	PASS
		2480	-0.01	<=20.97	PASS

Please refer to the below plots:



DH5_Ant1_2402

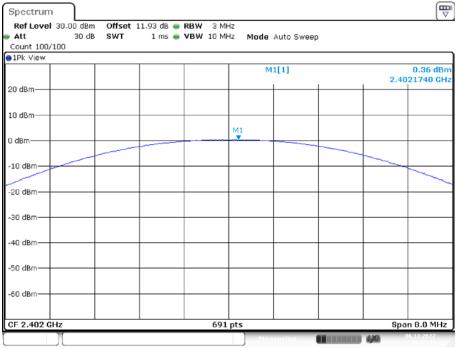
Date: 6.DEC.2022 15:42:31



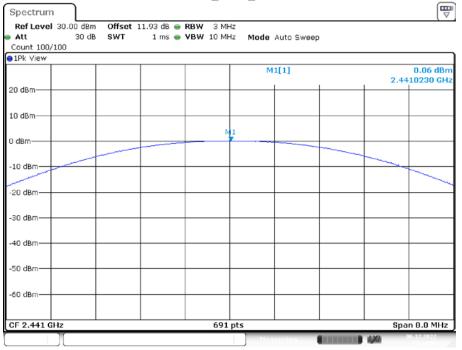
DH5_Ant1_2480

Date: 6.DEC.2022 15:42:54

2DH5_Ant1_2402



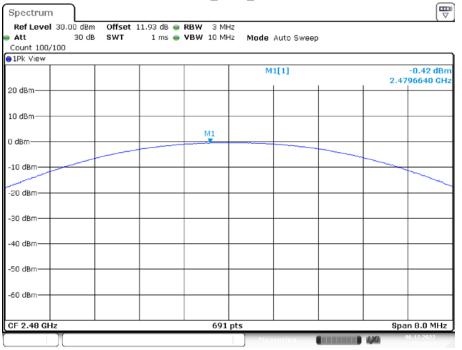
Date: 6.DEC.2022 15:43:49



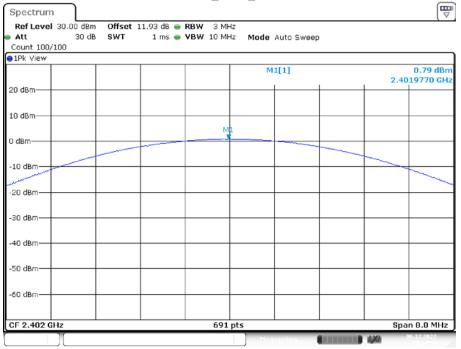
2DH5_Ant1_2441

Date: 6.DEC.2022 15:44:09

2DH5_Ant1_2480



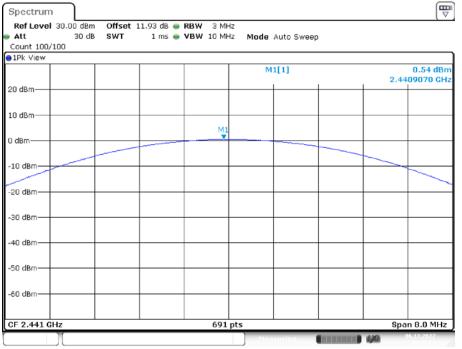
Date: 6.DEC.2022 15:44:26



3DH5_Ant1_2402

Date: 6.DEC.2022 15:44:55

3DH5_Ant1_2441



Date: 6.DEC.2022 15:45:23

			_	Ē
Spectrum				۳) ۲
Ref Level 30.00 dBm				
Att 30 dB	SWT 1 ms 🖷	VBW 10 MHz M	1ode Auto Sweep	
Count 100/100				
1Pk View				
			M1[1]	-0.01 dBi
20 dBm			1 1	2.4798610 GH
20 dBm				
10 dBm				
		M1		
0 dBm		_		
-10 dBm				
-20 dBm				
-30 dBm				
-30 UBIII				
-40 dBm				
-50 dBm				
-60 dBm				
CF 2.48 GHz		691 pts		Span 8.0 MHz
		051 pts		
			Measuring	

3DH5_Ant1_2480

Date: 6.DEC.2022 15:45:44

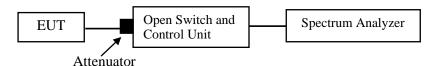
FCC §15.247(d) - BAND EDGES TESTING

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:	24 °C
Relative Humidity:	48 %
ATM Pressure:	101.0 kPa

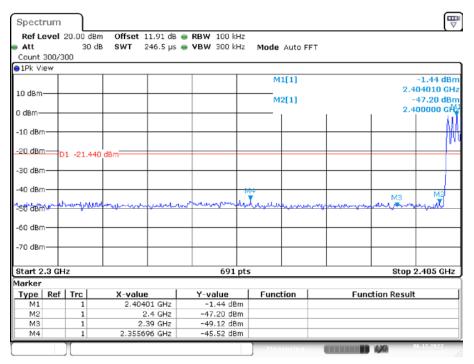
The testing was performed by Glenn Jiang on 2022-12-06.

EUT operation mode: Transmitting

Test Result: Compliant

Please refer to the below plots:

DH5: Band Edge-Left Side Hopping



Date: 6.DEC.2022 16:01:47

Single

	evel	20.00 dBi	m Offset 11.93 dB (RBW 100 kHz			
Att		30 d	B SWT 246.5 µs	• VBW 300 kHz	Mode Auto F	FFT	
Count	300/3	00					
1Pk Vi	ew						
					M1[1]		-1.08 dBr
							2.402040 GH
10 dBm					M2[1]		-48.12 dBr
0 dBm-							2.400000
u asm-							
-10 dBn							ß
10 001	· T						
20 dBo		1 -21.08	0 dD m				
	70	1 -21.08	U dBm				
30 dBn	∩						
40 dBn	י ⊢ ר	M4					
	.			A state of the sta			мз ма
ep.aeu	5 -		hally and a company	manual	Anter Aurelia	matherson	
			hans and a consider	marand and the second	Ayahanana Awalin.	alathaire to make	
			khole, was about a company	An Andrew Martine Con	rychangen feesten,	settet konstanten torrada set	
60 dBn	-		kontesso de la como de		Nychansen Skotten,	ontantelon de la construcción de la	
60 dBn	-		hina an a	v herring and a starter as	Pychiastan (specifica)	onteethouto an ann an an ann an an ann an an ann an a	
60 dBn 70 dBn	1	ad and a second	<u>kana ana ana ana ana</u> ang			ntistland, son tomby st	her and the second and the second
-60 dBn -70 dBn	1	ad and a second	hanna a cara	691 pt:		untestilizza da eterandaga d	
-60 dBn -70 dBn -70 dBn Start 2 larker	1	ad and a second				ostatikani, wa kambu di	her and the second and the second
-60 dBn -70 dBn Start 2	.3 GH	iz	X-value				her and the second and the second
-60 dBn -70 dBn Start 2 Iarker	.3 GH	iz		691 pt:	5		Stop 2.405 GHz
60 dBn 70 dBn Start 2 Iarker Type	.3 GH	IZ	X-value	691 pt: Y-value	5		Stop 2.405 GHz
-60 dBn -70 dBn Start 2 Iarker Type M1	.3 GH	IZ	X-value 2.40204 GHz	691 pt: Y-value -1.08 dBm	5		Stop 2.405 GHz

Date: 6.DEC.2022 15:48:50

			mohh	ig		
Spectrum						Ē
Ref Level	20.00 dB	m Offset 11.93 dB	BBW 100 kHz			(·
Att	30 0		VBW 300 kHz	Mode Auto S	weep	
Count 300/3	300					
1Pk View						
				M1[1]		-1.67 dBm
10 dBm						2.471910 GHz
				M2[1]		-44.04 dBm
				<u> </u>		2.483500 GHz
660688866	1.8					
HIQ XBH HID						
	-					
-20 dBm-	01 -21.67	0 dBm				
-30 dBm						
-30 08.						
-40 dBm	<u>M2</u>	M		P	14	
I	Ward	mansummerchand	and the transfer of the	-loom when we	mound	addent of the second and the second
-50 dBm						
-60 dBm						
-60 aBm						
-70 dBm						
/ 0 0.0						
Start 2.47 0	2117		691 pts			Stop 2.55 GHz
darker			051 pts			0000 2100 0112
	Trc	X-value	Y-value	Function	Eun	ction Result
M1	1	2.47191 GHz	-1.67 dBm	. unotion	7 411	
M2	1	2.4835 GHz	-44.04 dBm			
M3	1	2.5 GHz	-44.00 dBm			
M4	1	2.523101 GHz	-41.71 dBm			
	1			Measuring		06.12.2022
						1081035

DH5: Band Edge- Right Side Hopping

Date: 6.DEC.2022 16:06:35

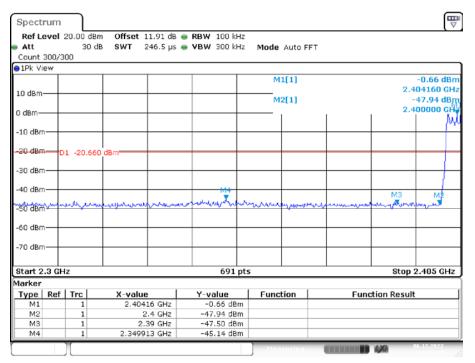
Ref Lo	evel 2	0.00 dBr	n Offset 11.93	dB 👄	RBW 100 kHz					· · · · ·
Att		30 d	B SWT 1.1	ms 👄	VBW 300 kHz	Mode	Auto S	weep		
Count	300/30	00								
1Pk Vi	ew									
						M	1[1]			-1.70 dBn
10 dBm·									2	.480010 GH
LO UBIII						M	2[1]			-43.99 dBn
) dBm—	N	11							2	.483500 GH
, april		ħ .								
-10 dBm		4								
-20 dBm		-21.700) dBm					_	_	
	- 11	1								
30 dBm										
-40 dBrr		M2		M2						M4
alger a		milan	monormal	with	mound	W. Marine	hour	eastherman	monor	mound
-50 dBm	-									
60 dBm	+									
-70 dBm										
Start 2	.47 Gł	lz			691 pt	5			Ste	op 2.55 GHz
1arker										
Type	Ref	Trc	X-value		Y-value	Func	tion	F	unction Resu	ılt
M1		1	2.48001 GH		-1.70 dBm					
M2		1	2.4835 GH		-43.99 dBm					
M3 M4		1	2.5 GH	_	-44.24 dBm					
1/14		1	2.548609 GH	2	-41.46 dBm					

Single

Date: 6.DEC.2022 15:51:27

Version 11: 2021-11-09

2DH5: Band Edge-Left Side Hopping



Date: 6.DEC.2022 16:07:31

Single

Ref Le	evel	20.00 dB	m Offset 11.93 dB	🖷 RBW 100 kHz			(,
Att		30 d		• VBW 300 kHz	Mode Auto F	FFT	
Count :	300/3				Hous Autor	• •	
1Pk Vie							
					M1[1]		-0.71 dBr
					number 1		2.402190 GH
10 dBm-	-				M2[1]		-48.62 dBr
					THE FL		2.400000 GF
) dBm—							
-10 dBm							
TO UBII							
20 dBm		1 -20.71	0 dBm				
	٣	1 -20.71	u abm				
30 dBm	-						
-40 dBm	-			M4			
	. I.						мз мр
So abri	Are to	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	and the hand and a state of the	where the second	Arrent of the second	myonithe	and and and
60 dBm							
70 dBm							
Start 2	.3 GH	z		691 pt	s		Stop 2.405 GHz
larker							
Type	Ref	Trc	X-value	Y-value	Function	Fun	ction Result
M1		1	2.40219 GHz	-0.71 dBm			
M2		1	2.4 GHz	-48.62 dBm			
M3		1	2.39 GHz	-49.79 dBm			
110		1	2.348696 GHz	-46.47 dBm			

Date: 6.DEC.2022 15:52:49

2DH5: Band Edge- Right Side Hopping

Spectru Ref Lev			m Offcot 11	na de la	RBW 100 kHz				∇
Att	er 2	0.00 as 30 i			VBW 300 kHz	Mode Au	C.uses		
Count 30	0/20			. I IIIS 🛑	VDW SUUKH2	Mode Aut	to Sweep		
1Pk Viev	· ·	0							
IFK VIET	<u> </u>					M1[1]	1		-1.63 dBn
			1 1			mili'	1	2	.472260 GH
LO dBm—	+		+ +			M2[1]	1	2	-42.25 dBn
M1) (Bm)			1 1			THE P		2	483500 GH
WWW	14						1		
10 dBm-	Ver	1							
re abiii		l I							
20 dBm-		-21.63							
		1	O UBIII						
30 dBm—	+	-	+						
		M2	1 1	МЗ	M4				
40 dBm-	+	hom	monum	montes	en martine	unungru	month	uman	monum
50 dBm-									
SU UDIII									
60 dBm-	+		-						_
			1 1						
70 dBm—	+								
			1 1						
Start 2.4	7 GF	Iz			691 pt	s		Ste	p 2.55 GHz
larker									
Type F	tef	Trc	X-value	1	Y-value	Function	1	Function Resu	lt
M1		1	2.47226	GHz	-1.63 dBm				
M2		1	2.4835		-42.25 dBm				
M3		1	2.5		-42.28 dBm				
M4		1	2.508145	GHz	-41.26 dBm				

Date: 6.DEC.2022 16:15:07

Ref Level			93 dB 😑	RBW 10	0 kHz					
Att	30 di	3 SWT 1	.1 ms 😑	VBW 30	0 kHz	Mode	Auto S	Sweep		
Count 300/3	300									
1Pk View										
						M	1[1]			-1.74 dBn
10 dBm									2	480250 GH
	M1					M	2[1]			-43.63 dBr
0 dBm	MI								2.	483500 GH
I	Λ									
-10 dBm —	1									
	11									
-20 dBm	01 -21.740	dBm			_					-
	11									
-30 dBm										
-40 dBm	M2	M4	M3							
man	herm	warkermou	menton to	mun	wanter	shermant	Hermon	where have a series	man	manne
-50 dBm										
I										
-60 dBm					_					+
I										
-70 dBm										
I										
Start 2.47 (GHz			. 6	91 pts				Sto	p 2.55 GHz
/larker										
Type Ref	Trc	X-value	1	Y-valu	e l	Func	tion	E E	unction Resu	lt
M1	1	2.48025	GHz	-1.74						
M2	1	2.4835	GHz	-43.63	dBm					
M3	1	2.5	GHz	-43.84	dBm					
M4	1	2.488783	GHz	-41.39	dBm					

Single

Date: 6.DEC.2022 15:55:00

3DH5: Band Edge-Left Side Hopping

D-61						
Ref Level Att	20.00 dB 30 d		IB 👄 RBW 100 kHz IS 👄 VBW 300 kHz	Mode Auto F	FT	
Count 300/3		15 3WI 240.5µ	IS 🖶 VEW 300 KH2	MODE AUTO P	FI	
1Pk View	500					
				M1[1]		-0.66 dBr
o						2.403860 GH
.0 dBm				M2[1]		-46.62 dBr
dBm						2.400000 GH
						1 M
10 dBm —						
I						
20 dBm [D1 -20.66	0 dBm				
30 dBm —						
40 dBm			107.4			
						M3 M2
50 dBm	mentres	M. M. March March	when the state when t	where we wanted	www.www.n	mound and mark
50 dBm —						
70 dBm						
						Oten 0 40E CUIz
tart 2.2.0	Ja.		601 nt			
start 2.3 Gi	Hz		691 pt	s		Stop 2.405 GHz
arker					5	•
arker Type Ref	Trc	X-value	Y-value	s Function	Fur	nction Result
arker Type Ref M1	Trc 1	2.40386 GHz	Y-value -0.66 dBm		Fu	•
arker Type Ref	Trc		Y-value -0.66 dBm -46.62 dBm		Fu	•

Date: 6.DEC.2022 16:15:58

Single

Att		20.00 dB 30 d		B 👄 RBW 100 kHz s 👄 VBW 300 kHz	Mode Auto I	FT	
Count		00					
IPK VI					M1[1]		-1.62 dBr
							2.401880 GH
10 dBm					M2[1]		-49.01 dBr
) dBm—							2.400000 ¹
J UBIII-							
10 dBm	¬—–						
20 dBm		1 -21.62	0 dBm				
		1 1101					
30 dBr	−ך-						
40 dBm							
40 abri			MI4				M3 M2
SC dBo	aler al	ويتعاويه والمعاد	us had some thread	mydencom	morenander	Alleson march	mond Transmont
60 dBrr	∩——						
70 dBri	∩———						
Start 2	.3 GH	z		691 pt	s		Stop 2.405 GHz
larker							
Type	Ref	Trc	X-value	Y-value	Function	Eun Fun	ction Result
		1	2.40188 GHz				
M1		1	2.4 GHz	-49.01 dBm			
M1 M2			2.39 GHz	-48.84 dBm			
		1	2.39 GHZ	-40.04 UBIII			

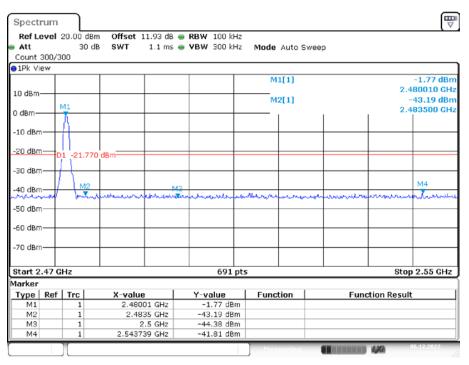
Date: 6.DEC.2022 15:56:13

3DH5: Band Edge- Right Side Hopping

				- 1, 1,	8			G
Spectrun	n							
Ref Leve				RBW 100 kHz				
Att) dB SWT 1	.1 ms 🖷	VBW 300 kHz	Mode Auto	o Sweep		
Count 300/	/300							
1Pk View								
					M1[1]			-1.62 dBn
10 dBm		_						472030 GH
M1					M2[1]			-43.34 dBn
0 % Bm							2.	483500 GH:
mu	WA -							
-10 dBm								
00 d0m								
-20 dBm	D1 -21.	620 dBm						
-30 dBm								
oo abiii			мз		M4			
-40 dBm	M	2	M3		monthere			munder
		Comments and the second se	an a	and the second s			and the second s	
-50 dBm								+
60 d0								
-60 dBm								
-70 dBm—								
yo abiii								
Start 2.47	CH3			691 pt:	-		Pto	p 2.55 GHz
Marker	0112			091 pt	•		3(0	p 2.00 GH2
	f Trc	X-value	1	Y-value	Function	1	Function Resu	t
M1	1	2.47203	GHz	-1.62 dBm	. anotion			
M2	1	2.4835		-43.34 dBm				
M3	1	2.5	GHz	-41.89 dBm				
M4	1	2.517304	GHz	-38.30 dBm				
	T				Measurin	CONTRACTOR	100	06.12.2022

Date: 6.DEC.2022 16:24:50

Single



Date: 6.DEC.2022 16:01:08

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

Version 11: 2021-11-09