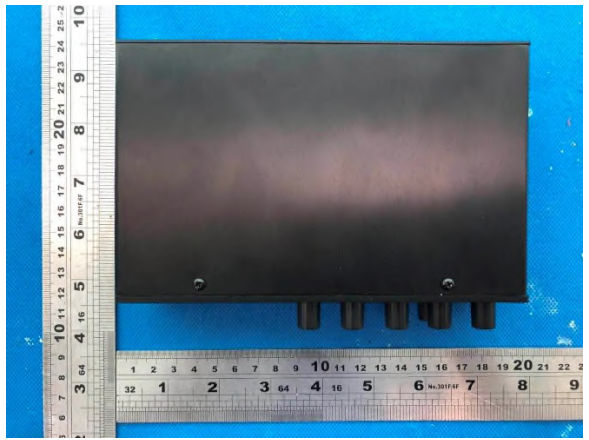


Prüfbericht-Nr.: <i>Test Report No.:</i>	50264149 001	Auftrags-Nr.: <i>Order No.:</i>	174091930	Seite 1 von 29 <i>Page 1 of 29</i>
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	352690	Auftragsdatum: <i>Order date:</i>	14.05.2019	
Auftraggeber: <i>Client:</i>	Seikaku Technical Group Limited Offshore Chambers, P.O. Box 217 Apia, Samoa			
Prüfgegenstand: <i>Test item:</i>	AMPLIFIER			
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	PA-20B, PA-20HB PA-40B, PA-40HB			
Auftrags-Inhalt: <i>Order content:</i>	RED approval			
Prüfgrundlage: <i>Test specification:</i>	EN 300 328 V2.1.1:2016 EN 62479:2010			
Wareneingangsdatum: <i>Date of receipt:</i>	14.05.2019			
Prüfmuster-Nr.: <i>Test sample No.:</i>	174091930-001~004			
Prüfzeitraum: <i>Testing period:</i>	Refer to test report			
Ort der Prüfung: <i>Place of testing:</i>	Refer to section 2.1			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Guangdong) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von / tested by:		kontrolliert von / reviewed by:		
 17.07.2019 Arthur Liu/ Project Manager		 17.07.2019 Storm Shu/ Technical Certifier		
Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>
Sonstiges / Other:				
This report is for Radio Spectrum and Health requirements only. Refer to TÜV Rheinland report 50271946 001 for details of Electrical Safety requirements. Refer to TÜV Rheinland reports 50264153 001 & 50264155 001 for details of EMC requirements.				
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged:</i>		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n)		4 = ausreichend 5 = mangelhaft N/A = nicht anwendbar N/T = nicht getestet		
Legend: 1 = very good 2 = good 3 = satisfactory P(ass) = passed a.m. test specifications(s) F(ail) = failed a.m. test specifications(s)		4 = sufficient 5 = poor N/A = not applicable N/T = not tested		
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

Test Summary

5.1.1 RF OUTPUT POWER*RESULT: Pass***5.1.2 POWER SPECTRAL DENSITY***RESULT: Pass***5.1.3 DUTY CYCLE, TX-SEQUENCE, TX-GAP***RESULT: Not applicable***5.1.4 ACCUMULATED TRANSMIT TIME, FREQUENCY OCCUPATION AND HOPPING SEQUENCE***RESULT: Pass***5.1.5 HOPPING FREQUENCY SEPARATION***RESULT: Pass***5.1.6 MEDIUM UTILISATION (MU) FACTOR***RESULT: N/A****5.1.7 ADAPTIVITY***RESULT: N/A****5.1.8 OCCUPIED CHANNEL BANDWIDTH***RESULT: Pass***5.1.9 TRANSMITTER UNWANTED EMISSIONS IN THE OUT-OF-BAND DOMAIN***RESULT: Pass***5.1.10 TRANSMITTER UNWANTED EMISSIONS IN THE SPURIOUS DOMAIN***RESULT: Pass***5.2.1 RECEIVER SPURIOUS EMISSIONS***RESULT: Pass***5.2.2 RECEIVER BLOCKING***RESULT: Pass***5.2.3 GEO-LOCATION CAPABILITY***RESULT: Not applicable***6.1.1 ELECTROMAGNETIC FIELDS***RESULT: Pass*

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix 1: Test Results of Article 3.2 Radio Spectrum Requirements for PA-40HB and List of Test and measurement Instruments.

Appendix 2: Test Results of Article 3.2 Radio Spectrum Requirements for PA-40B, PA-20B and PA-20HB.

2 Test Sites

2.1 Test Facilities

Shenzhen STS Test Services Co., Ltd.

1/F., Building B, Zhuoke Science Park, No.190, Chongqing Road, Fuyong Street, Bao'an District, Shenzhen, Guangdong, China

CNAS Registration No.: L7649

The tests at the test sites have been conducted under the supervision of a TÜV engineer.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Refer to attached Appendix 3.

2.3 Uncertainty of Measurement

Table 2: Measurement Uncertainty

Parameter	Uncertainty
Occupied Channel Bandwidth	±0.18 %
RF output power, conducted	±0.71dB
Power Spectral Density, conducted	±0.71dB
Unwanted Emissions, conducted	±0.63dB
All emissions, radiated	±2.25dB
Time	±1.0%
Duty Cycle	±0.45%
Temperature	±0.30°C
Humidity	±1.10%
Conduction disturbance(150kHz~30MHz)	±2.67dB
Radiated Emission(30MHz~1GHz)	±3.97dB
Radiated Emission(1GHz~6GHz)	±4.89dB

3 General Product Information

3.1 Product Function and Intended Use

The new submitted samples are Amplifiers for professional use, which used 2.4GHz wireless technology for indoor use only.

Model difference:

Four models have same bluetooth module and similar electric construction, the differences among them are function modules and rated power, details refer to following table;

Model name	Bluetooth function	MP3 Function	Audio output transformer	Rated power	Weight (kg)	Size (L x W x H) Unit (mm)
PA-20B	Yes	No	No	30	0.85	168x105x44mm
PA-20HB	Yes	No	Yes			
PA-40B	Yes	No	No	60	0.49	
PA-40HB	Yes	No	Yes			

According to the above information, all applicable tests have been performed on PA-40HB. Additional spurious emissions tests were performed on PA-40B, PA-20B and PA-20HB.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment	Amplifiers
Type Designation	PA-20B, PA-20HB, PA-40B, PA-40HB
Type of Device	Adaptive Frequency Hopping (non-LBT based)
Classification of Receiver	Category 2
Operating Temperature Range	-20 °C ~ +35 °C
Operating Voltage	100-240V~; 50/60Hz Powered by Adapter; XinSPower: A361-1502000E(2A, for PA-20B, PA-20HB) A361-1504000E(4A, for PA-40B, PA-40HB)
Testing Voltage	AC 230V 50Hz
Technical Specification of Bluetooth 4.0 Smart(dual mode)	
Operating Frequency	2402 - 2480 MHz
Type of Modulation	GFSK, ($\pi/4$)DQPSK, 8DPSK, DSSS
Equipment types	FHSS with Adaptive (LBT based DAA) DSSS with Adaptive (LBT based DAA) Only one adaptive mode is implemented and could not operate in a non-adaptive mode
Channel Number	79 Channels(for FHSS) 40 Channels(for DSSS)
Channel Spacing	1 MHz (for FHSS) 2 MHz (for DSSS)
Antenna Type	PCB Layout Antenna
Antenna Gain	0 dBi

Table 4: RF Channel and Frequency of General 2.4GHz Wireless
For FHSS mode:

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
1.	2402	2.	2403	3.	2404
4.	2405	5.	2406	6.	2407
7.	2408	8.	2409	9.	2410
10.	2411	11.	2412	12.	2413
13.	2414	14.	2415	15.	2416
16.	2417	17.	2418	18.	2419
19.	2420	20.	2421	21.	2422
22.	2423	23.	2424	24.	2425
25.	2426	26.	2427	27.	2428
28.	2429	29.	2430	30.	2431
31.	2432	32.	2433	33.	2434
34.	2435	35.	2436	36.	2437
37.	2438	38.	2439	39.	2440
40.	2441	41.	2442	42.	2443
43.	2444	44.	2445	45.	2446
46.	2447	47.	2448	48.	2449
49.	2450	50.	2451	51.	2452
52.	2453	53.	2454	54.	2455
55.	2456	56.	2457	57.	2458
58.	2459	59.	2460	60.	2461
61.	2462	62.	2463	63.	2464
64.	2465	65.	2466	66.	2467
67.	2468	68.	2469	69.	2470
70.	2471	71.	2472	72.	2473
73.	2474	74.	2475	75.	2476
76.	2477	77.	2478	78.	2479
79.	2480				

For DSSS mode:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	39	2480

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, General 2.4GHz wireless
 - 1. Transmitting mode
 - a. Low channel
 - b. Middle channel
 - c. High channel
 - 2. Receiving mode
 - a. Low channel
 - b. High channel
- B. On, Operating on hopping mode
- C. On, Operating on normal mode
- D. Off

3.4 Noise Generating and Noise Suppressing Parts

For details refer to the Circuit Diagram.

3.5 Submitted Documents

- | | |
|----------------|---------------|
| - Parts List | - Schematics |
| - Rating Label | - User Manual |

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5 and chapter 7.

4.3 Special Accessories and Auxiliary Equipment

Table 5: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N	Rating
Notebook	HP	TPN-I119	5CG6230MYY	N/A

4.4 Countermeasures to Achieve EMC Compliance

No additional measures were employed to achieve compliance.

5 Test Results ERM

5.1 Transmitter Requirement & Test Suites

5.1.1 RF Output Power

RESULT:**Pass****Test Specification**

Test standard	: EN 300 328 V2.1.1:2016
Test requirement	: EN 300 328 V2.1.1:2016, Clause 4.3.1.2
Limit	: EN 300 328 V2.1.1:2016, Clause 4.3.1.2.3
Test suites	: EN 300 328 V2.1.1:2016, Clause 5.4.2

Test Setup

Date of testing	: 22.10.2018
Test voltage	: AC 230V
Test environment	: Normal temperature
Operation mode	: A.1
Ambient temperature	: 24°C
Relative humidity	: 53 %
Atmospheric pressure	: 101 kPa

Table 6: Test Result of RF Output Power
FHSS

Modulation	Frequency (MHz)	RF Output Power (dBm)	Limit(s) (dBm)	Result
GFSK	hopping	5.15	≤ 20.0	Pass
($\pi/4$)DQPSK	hopping	1.47		Pass
8DPSK	hopping	1.39		Pass
Maximum Measured Value		5.15		Pass

BLE

Modulation	Frequency (MHz)	RF Output Power (dBm)	Limit(s) (dBm)	Result
DSSS	L(2402)	5.80	≤20.0	Pass
	M(2440)	5.09		Pass
	H(2480)	2.73		Pass
Maximum Measured Value		5.80		Pass

NOTE:

- The cable loss is taken into account in results.
- The RF Output Power (P) should be calculated using the formula below:
The RF Output Power (P)= $A_{(RMS \text{ power})} + G + Y$
Antenna gain(G): 0 dBi

5.1.2 Power Spectral Density

RESULT:
Pass
Test Specification

Test standard	: EN 300 328 V2.1.1:2016
Test requirement	: EN 300 328 V2.1.1:2016, Clause 4.3.2.3
Limit	: EN 300 328 V2.1.1:2016, Clause 4.3.2.2.3
Test suites	: EN 300 328 V2.1.1:2016, Clause 5.4.2

Test Setup

Date of testing	: 22.10.2018
Test voltage	: AC 230V
Test environment	: Normal temperature
Operation mode	: A.1
Ambient temperature	: 24°C
Relative humidity	: 53 %
Atmospheric pressure	: 101 kPa

Table 7: Test Result of Power Spectral Density

Modulation	Frequency (MHz)	RF Output Power (dBm)	Limit(s) (dBm)	Result
DSSS	L(2402)	5.09	≤10dBm/MHz	Pass
	M(2440)	3.74		Pass
	H(2480)	2.21		Pass
Maximum Measured Value		5.09		Pass

NOTE:

- The cable loss is taken into account in results.
- The Power Spectral Density (PSD) should be calculated using the formula below:

$$\text{PSD} = D + G + Y + 10 \times \log(1/DC) \text{ (dBm/MHz)}$$
Antenna gain(G): 0 dBi

5.1.3 Duty Cycle, TX-sequence, TX-gap

RESULT:**Not applicable****Test Specification**

Test standard : EN 300 328 V2.1.1:2016

Test requirement : EN 300 328 V2.1.1:2016, Clause 4.3.1.3

Note:

The output power of this device is below 10 dBm. Tx-Gap measurement is not required.

5.1.4 Accumulated Transmit Time, Frequency Occupation and Hopping Sequence

RESULT:**Pass****Test Specification**

Test standard	: EN 300 328 V2.1.1:2016
Test requirement	: EN 300 328 V2.1.1:2016, Clause 4.3.1.4
Limit	: EN 300 328 V2.1.1:2016, Clause 4.3.1.4.3
Test suites	: EN 300 328 V2.1.1:2016, Clause 5.4.4

Test Setup

Date of testing	: 22.10.2018
Test voltage	: AC 230V
Test environment	: Normal temperature
Operation mode	: A.1
Ambient temperature	: 24°C
Relative humidity	: 53 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix 1 & 2.

5.1.5 Hopping Frequency Separation

RESULT:**Pass****Test Specification**

Test standard	: EN 300 328 V2.1.1:2016
Test requirement	: EN 300 328 V2.1.1:2016, Clause 4.3.1.5
Limit	: EN 300 328 V2.1.1:2016, Clause 4.3.1.5.3
Test suites	: EN 300 328 V2.1.1:2016, Clause 5.4.5

Test Setup

Date of testing	: 22.10.2018
Test voltage	: AC 230V
Test environment	: Normal temperature
Operation mode	: A.1
Ambient temperature	: 24°C
Relative humidity	: 53 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix 1 & 2.

5.1.6 Medium Utilisation (MU) Factor

RESULT:**N/A*****Test Specification**

Test standard : EN 300 328 V2.1.1:2016

Test requirement : EN 300 328 V2.1.1:2016, Clause 4.3.1.6

*Remark: not applicable. Refer to the EN 300 328 clause 4.3.2.5 section for the details.

This requirement does not apply to adaptive equipment unless operating in a non-adaptive mode.

In addition, this requirement does not apply for equipment with a maximum declared RF Output power level of less than 10 dBm e.i.r.p. or for equipment when operating in a mode where the RF Output power is less than 10 dBm e.i.r.p.

As the EUT about RF Output power level is less than 10 dBm e.i.r.p, so the test is not applicable and skipped.

5.1.7 Adaptivity

RESULT:**N/A*****Test Specification**

Test standard	: EN 300 328 V2.1.1:2016
Test requirement	: EN 300 328 V2.1.1:2016, Clause 4.3.1.7.3
Limit	: EN 300 328 V2.1.1:2016, Clause 4.3.1.7.3.2
Test suites	: EN 300 328 V2.1.1:2016, Clause 5.4.6

*Remark: not applicable. Refer to the EN 300 328 clause 4.3.2.6 section for the details.

This requirement does not apply to non-adaptive equipment or adaptive equipment operating in a non-adaptive mode providing the equipment complies with the requirements and/or restrictions applicable to non-adaptive equipment.

In addition, this requirement does not apply for equipment with a maximum declared RF Output power level of less than 10 dBm e.i.r.p. or for equipment when operating in a mode where the RF Output power is less than 10 dBm e.i.r.p.

As the EUT about RF Output power level is less than 10 dBm e.i.r.p, so the test is not applicable and skipped.

5.1.8 Occupied Channel Bandwidth

RESULT:**Pass****Test Specification**

Test standard	: EN 300 328 V2.1.1:2016
Test requirement	: EN 300 328 V2.1.1:2016, Clause 4.3.1.8
Limit	: EN 300 328 V2.1.1:2016, Clause 4.3.1.8.3
Test suites	: EN 300 328 V2.1.1:2016, Clause 5.4.7

Test Setup

Date of testing	: 22.10.2018
Test voltage	: AC 230V
Test environment	: Normal temperature
Operation mode	: A.1
Ambient temperature	: 24°C
Relative humidity	: 53 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix 1 & 2.

5.1.9 Transmitter Unwanted Emissions in the Out-of-band Domain

RESULT:**Pass****Test Specification**

Test standard	: EN 300 328 V2.1.1:2016
Test requirement	: EN 300 328 V2.1.1:2016, Clause 4.3.1.9
Limit	: EN 300 328 V2.1.1:2016, Clause 4.3.1.9.3
Test suites	: EN 300 328 V2.1.1:2016, Clause 5.4.7

Test Setup

Date of testing	: 22.10.2018
Test voltage	: AC 230V
Test environment	: Normal temperature
Operation mode	: A.1
Ambient temperature	: 24°C
Relative humidity	: 53 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix 1 & 2.

5.1.10 Transmitter Unwanted Emissions in the Spurious Domain**RESULT:****Pass****Test Specification**

Test standard	: EN 300 328 V2.1.1:2016
Test requirement	: EN 300 328 V2.1.1:2016, Clause 4.3.1.10
Limit	: EN 300 328 V2.1.1:2016, Clause 4.3.1.10.3
Test suites	: EN 300 328 V2.1.1:2016, Clause 5.4.9

Test Setup

Date of testing	: 22.10.2018
Test voltage	: AC 230V
Test environment	: Normal temperature
Operation mode	: A.1
Ambient temperature	: Refer to test results
Relative humidity	: Refer to test results
Atmospheric pressure	: Refer to test results

For the measurement records, refer to the appendix 1 & 2.

5.2 Receiver Requirement & Test Suites

5.2.1 Receiver Spurious Emissions

RESULT:**Pass****Test Specification**

Test standard	: EN 300 328 V2.1.1:2016
Test requirement	: EN 300 328 V2.1.1:2016, Clause 4.3.1.11
Limit	: EN 300 328 V2.1.1:2016, Clause 4.3.1.11.3
Test suites	: EN 300 328 V2.1.1:2016, Clause 5.4.10

Test Setup

Date of testing	: 22.10.2018
Test voltage	: AC 230V
Test environment	: Normal temperature
Operation mode	: A.2
Ambient temperature	: Refer to test results
Relative humidity	: Refer to test results
Atmospheric pressure	: Refer to test results

For the measurement records, refer to the appendix 1 & 2.

5.2.2 Receiver Blocking

RESULT:**Pass****Test Specification**

Test standard	: EN 300 328 V2.1.1:2016
Test requirement	: EN 300 328 V2.1.1:2016, Clause 4.3.1.12
Limit	: EN 300 328 V2.1.1:2016, Clause 4.3.1.12.4
Test suites	: EN 300 328 V2.1.1:2016, Clause 5.4.11

Test Setup

Date of testing	: 22.10.2018
Test voltage	: AC 230V
Test environment	: Normal temperature
Operation mode	: C
Ambient temperature	: 25°C
Relative humidity	: 65 %
Atmospheric pressure	: 101 kPa

The EUT belongs to receiver category 2 equipment.

For the measurement records, refer to the appendix 1 & 2.

5.2.3 Geo-location Capability

RESULT:**Not applicable****Test Specification**

Test standard : EN 300 328 V2.1.1:2016

Test requirement : EN 300 328 V2.1.1:2016, Clause 4.3.1.13

Exemption Conditions:

This requirement only applies to equipment with geo-location capability as defined in clause 4.3.1.13.1.

Conclusion:

The EUT is adaptive equipment and does not support geo-location capability, hence this requirement is not applicable.

6 Safety Human Exposure

6.1 Human Exposure to Electromagnetic Fields 10MHz-300GHz

6.1.1 Electromagnetic Fields

RESULT:

Pass

Test Specification

Test standard : EN 62479:2010

Maximum available Power:

For FHSS mode

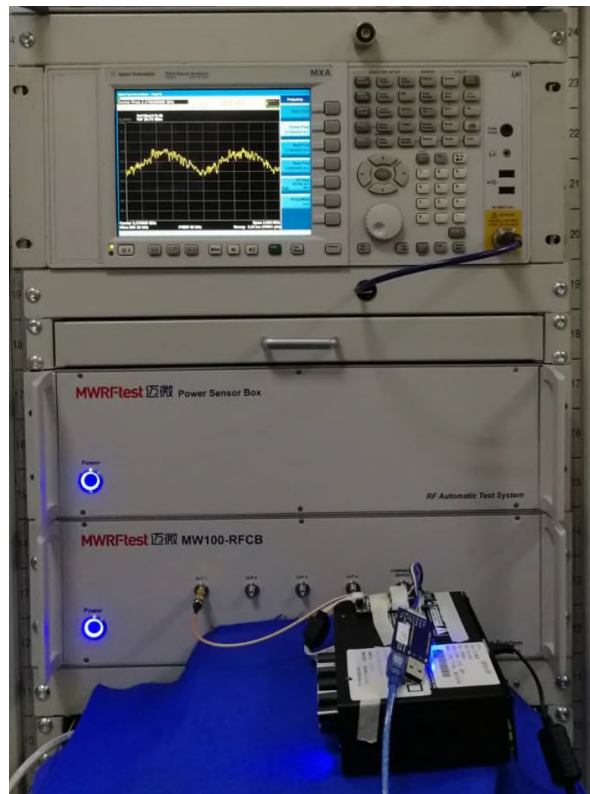
Max Power (dBm)	Power (mW)	Head and Body Power Limit in (mW)	Pass/Fail
5.15	3.27	20	PASS

For DSSS mode

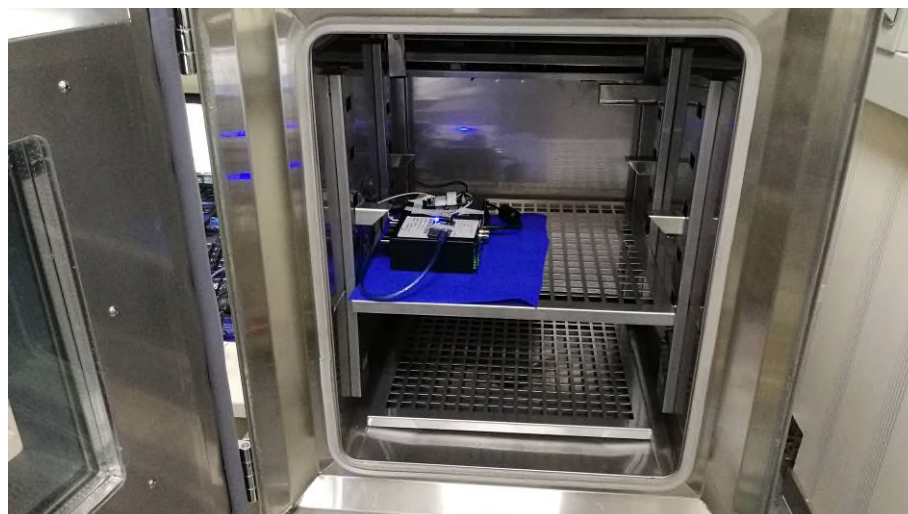
Max Power (dBm)	Power (mW)	Head and Body Power Limit in (mW)	Pass/Fail
5.8	3.80	20	PASS

7 Photographs of the Test Set-Up

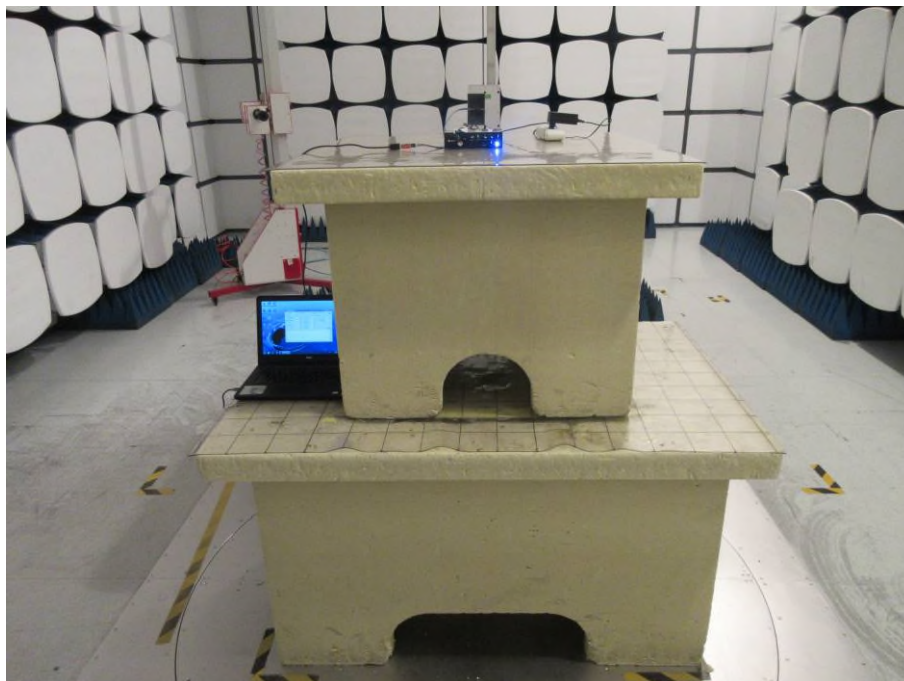
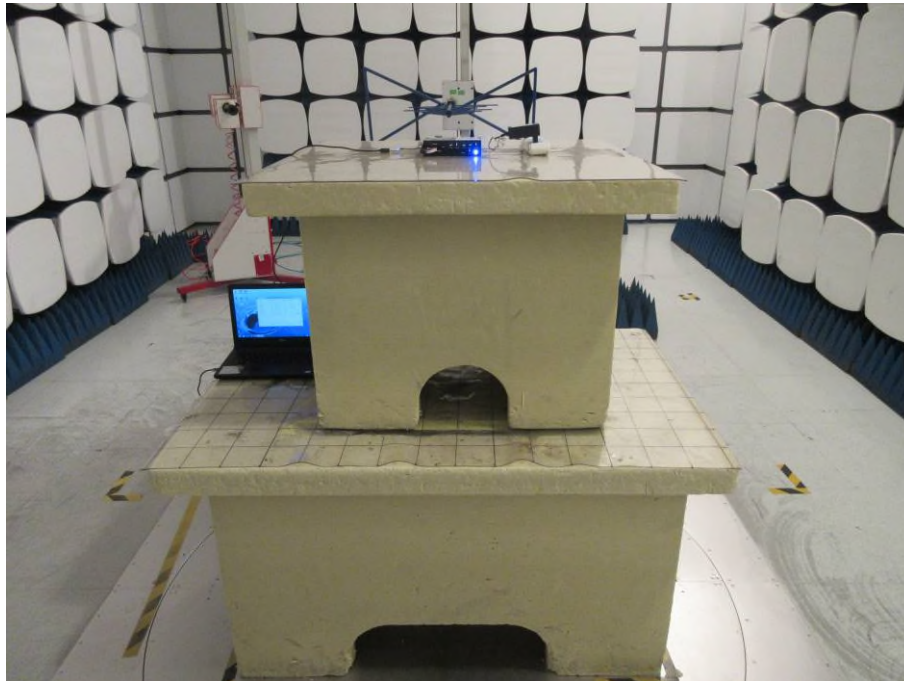
Photograph 1: Set-up for Radio Spectrum Testing, Normal Condition



Photograph 2: Set-up for Radio Spectrum Testing, Extreme Condition



Photograph 3: Set-up for Transmitter & Receiver Spurious Emissions



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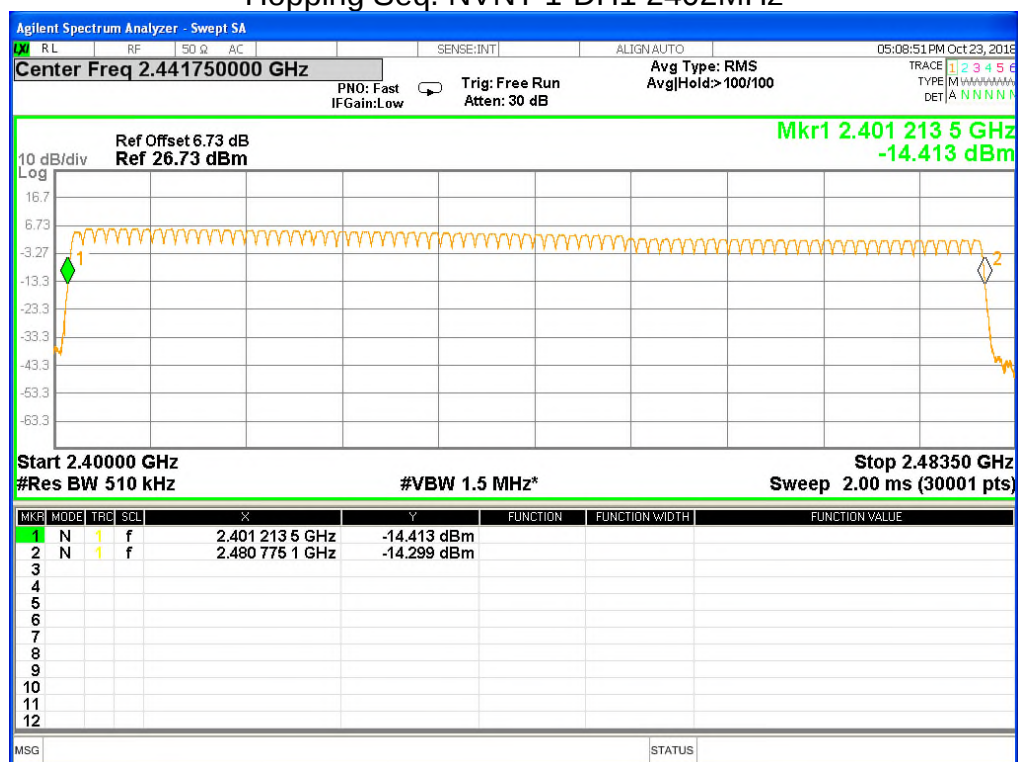
Shenzhen STS Test Services Co., Ltd.

Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
Bilog Antenna	TESEQ	CBL6111D	34678	2020.03.24
Horn Antenna	Schwarzbeck	BBHA 9120D (1201)	9120D-1343	2020.03.06
USB RF power sensor	DARE	RPR3006W	15I00041SNO03	2019.10.14
Pre-mpplier (0.1M-3GHz)	EM	EM330	60538	2020.03.12
PreAmplifier (1G- 26.5GHz)	Agilent	8449B	60538	2019.10.14
Temperature&Humidity test chamber	GZGONGWEN	GDS-250	080821	2019.10.14
Signal Generator	Agilent	N5182A	MY46240556	2019.10.14
Signal Analyzer	Agilent	N9020A	MY49100060	2020.03.11
Universal Radio communication tester	R&S	CMU200	11764	2019.10.14
Attenuator	HP	8494B	DC-18G	2019.10.14
programmable power supply	Agilent	3642A	STS-S095	N.C.R
AC Power Source	APC	KDF- 11010G	F214050035	N.C.R
trun table	EM	SC100_1	60531	N/A
Antnna mast	EM	SC100	N/A	N/A

Hopping Sequence

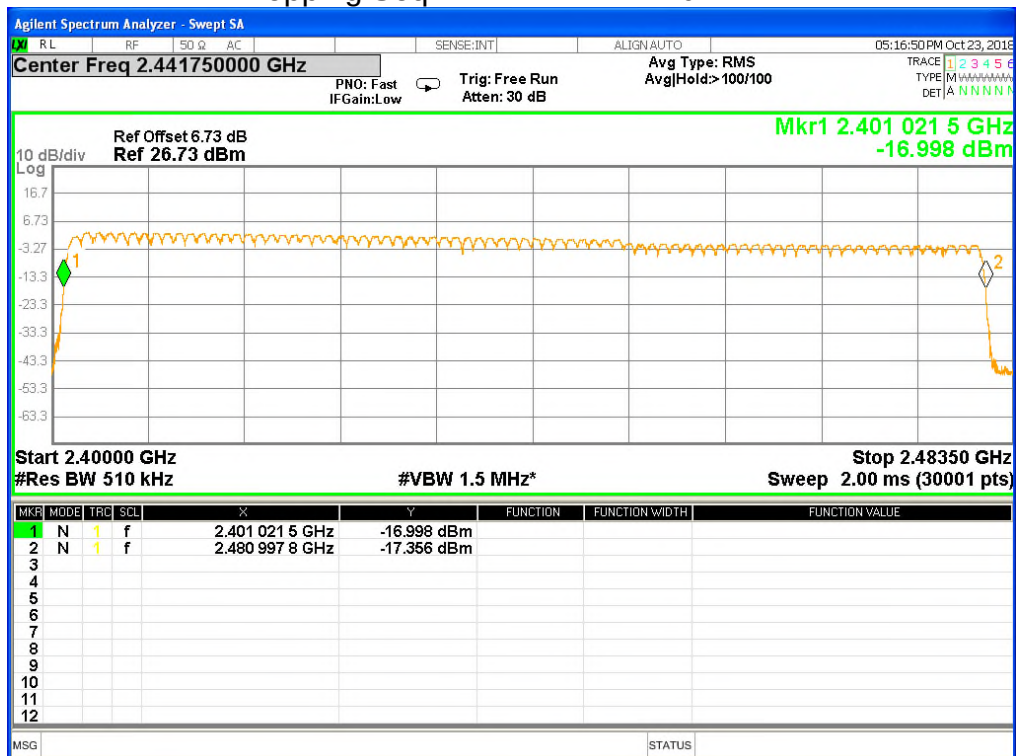
Condition	Mode	Hopping Number	Limit	Band Allocation (%)	Limit Band Allocation (%)	Verdict
NVNT	1-DH1	79	15	95.28	70	Pass
NVNT	2-DH1	79	15	95.77	70	Pass
NVNT	3-DH1	79	15	95.73	70	Pass

Hopping Seq. NVNT 1-DH1 2402MHz

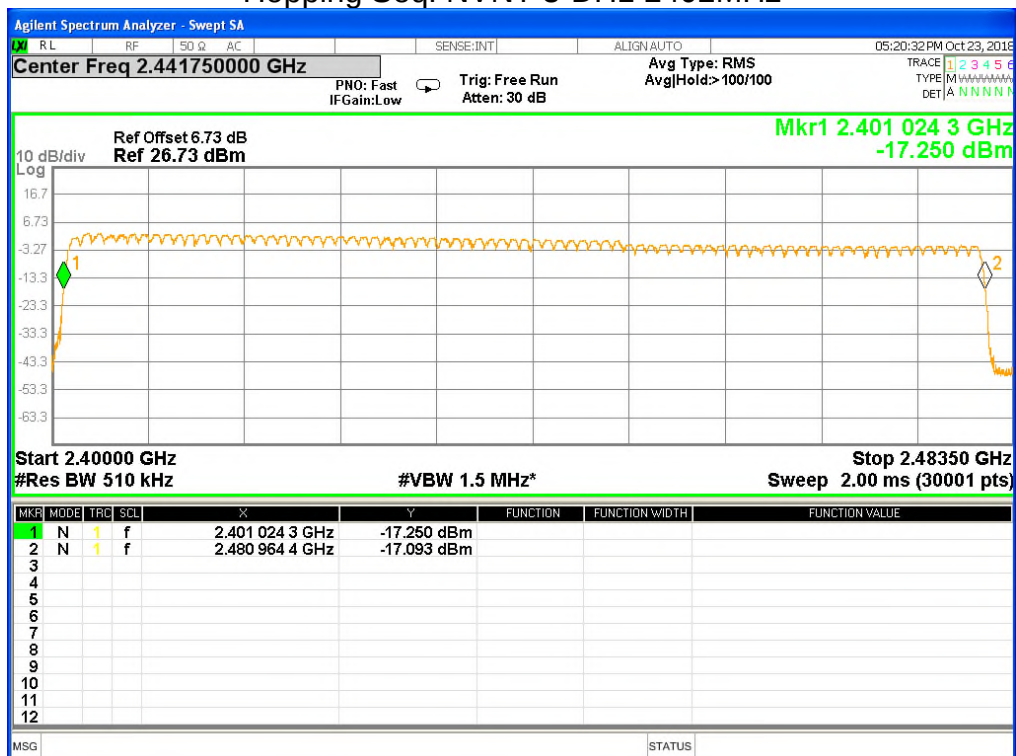


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Hopping Seq. NVNT 2-DH1 2402MHz



Hopping Seq. NVNT 3-DH1 2402MHz



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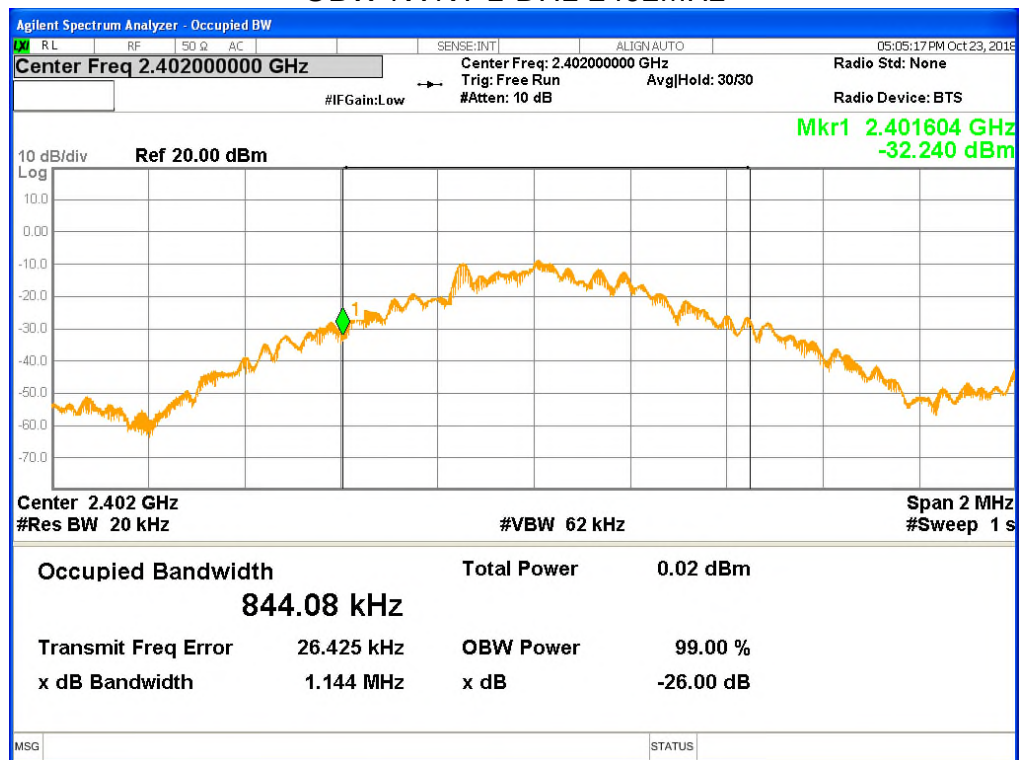
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Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Center Frequency (MHz)	OBW (MHz)	Lower Edge (MHz)	Upper Edge (MHz)	Limit OBW (MHz)	Verdict
NVNT	1-DH1	2402	2402.026	0.844	2401.604	2402.448	2400 - 2483.5MHz	Pass
NVNT	1-DH1	2480	2480.012	0.854	2479.585	2480.439	2400 - 2483.5MHz	Pass
NVNT	2-DH1	2402	2402.012	1.145	2401.439	2402.584	2400 - 2483.5MHz	Pass
NVNT	2-DH1	2480	2480.002	1.151	2479.427	2480.578	2400 - 2483.5MHz	Pass
NVNT	3-DH1	2402	2402.031	1.146	2401.458	2402.604	2400 - 2483.5MHz	Pass
NVNT	3-DH1	2480	2480.020	1.140	2479.45	2480.59	2400 - 2483.5MHz	Pass

OBW NVNT 1-DH1 2402MHz

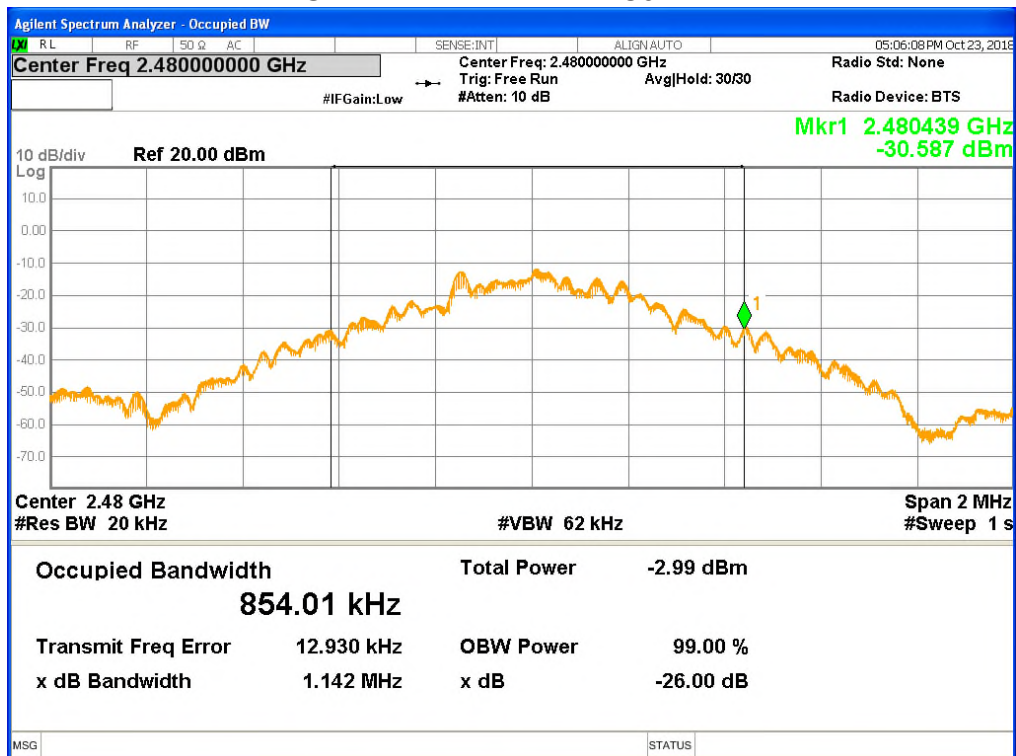


Prüfbericht - Nr.:
Test Report No.

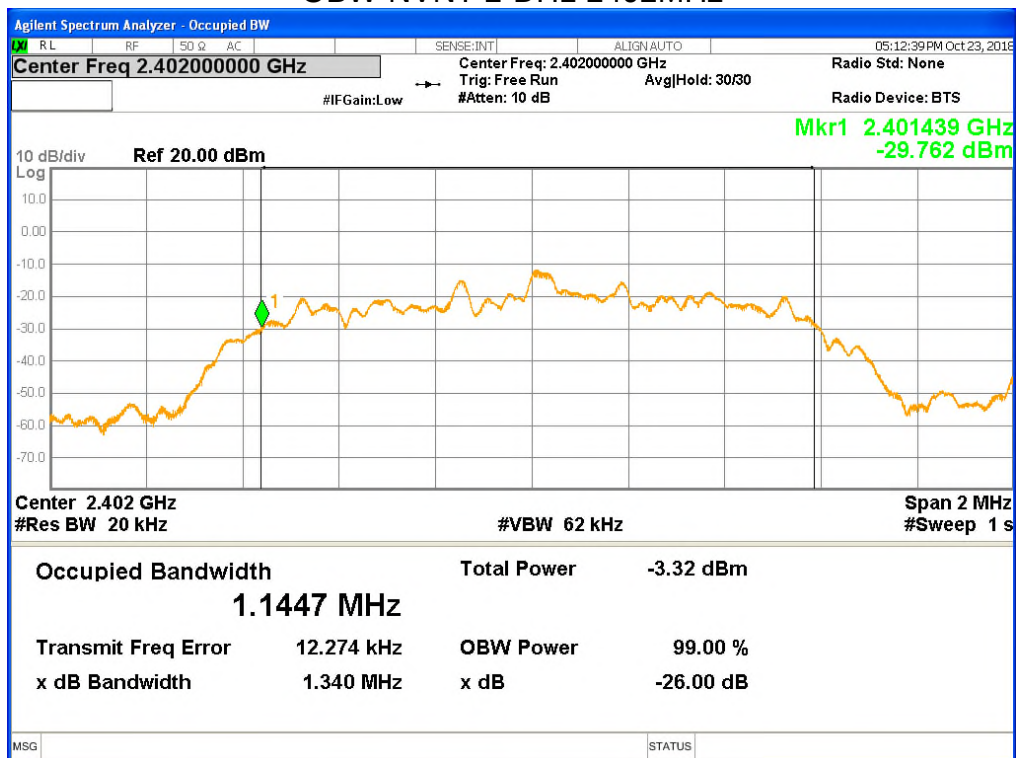
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OBW NVNT 1-DH1 2480MHz



OBW NVNT 2-DH1 2402MHz

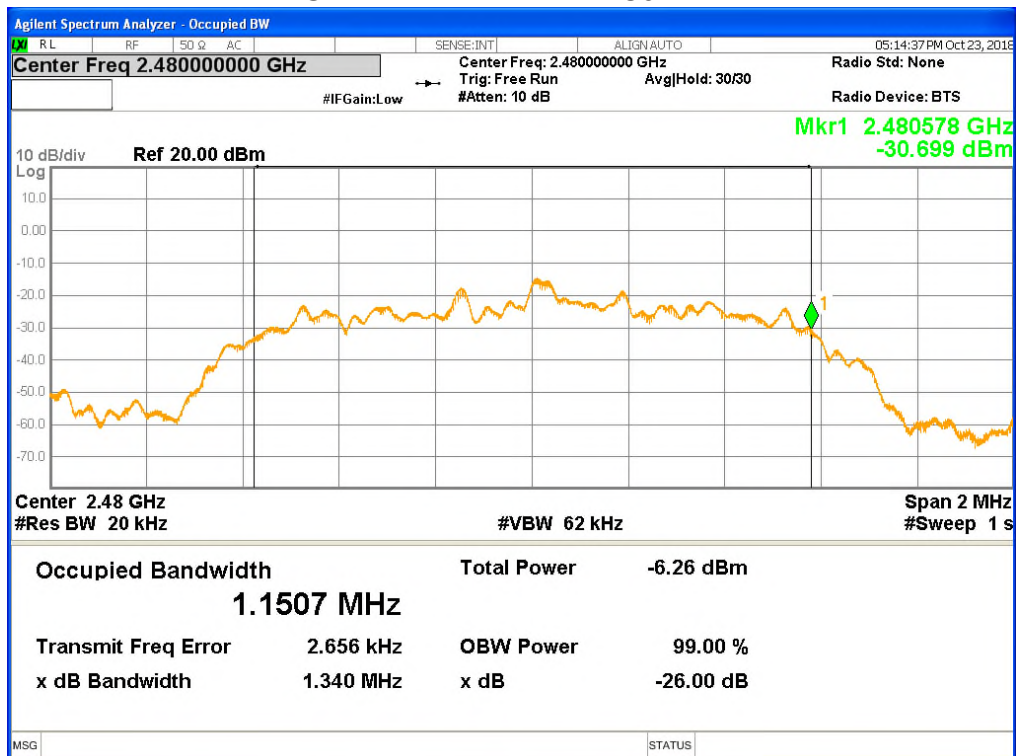


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Test Report No.

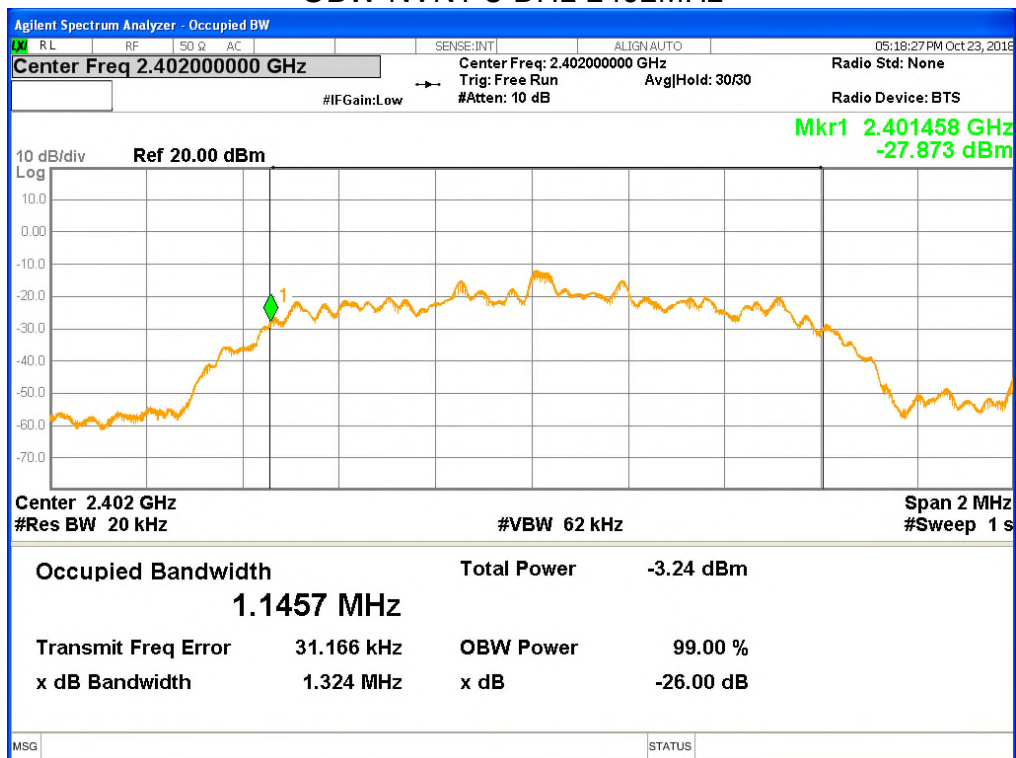
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OBW NVNT 2-DH1 2480MHz



OBW NVNT 3-DH1 2402MHz

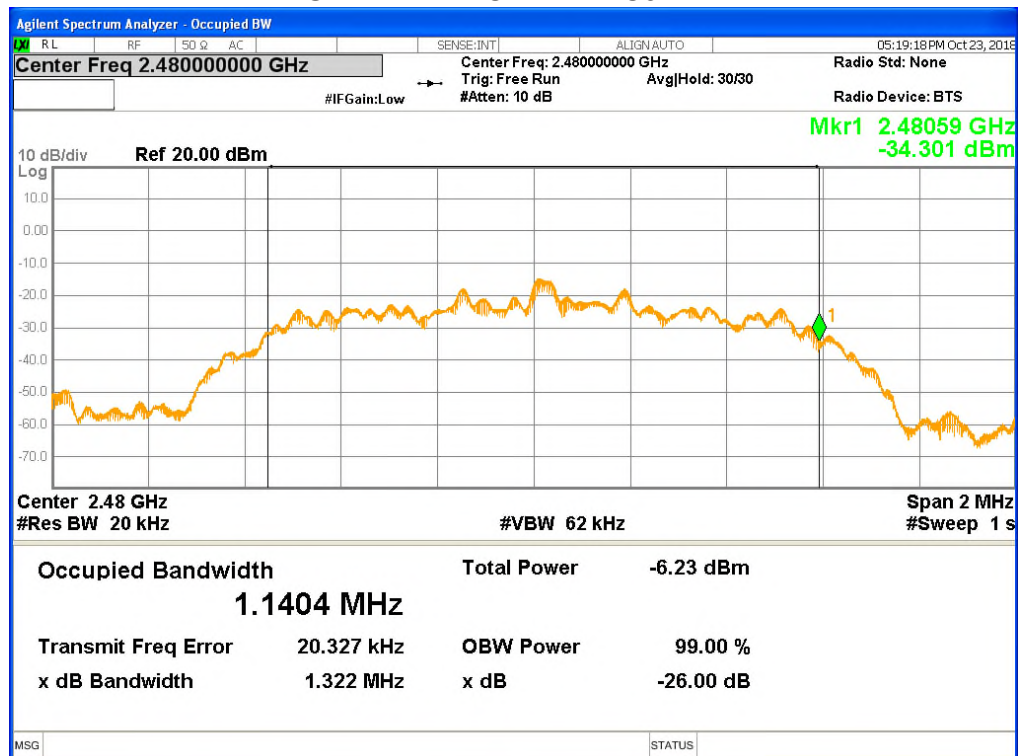


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Test Report No.

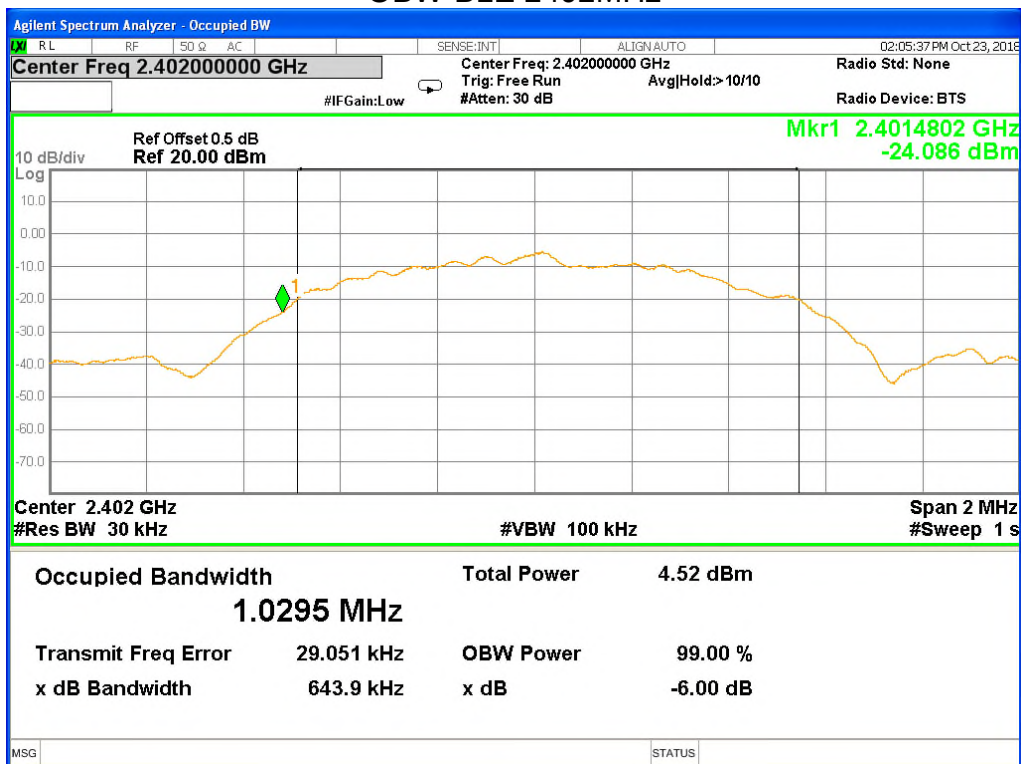
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OBW NVNT 3-DH1 2480MHz



OBW BLE 2402MHz



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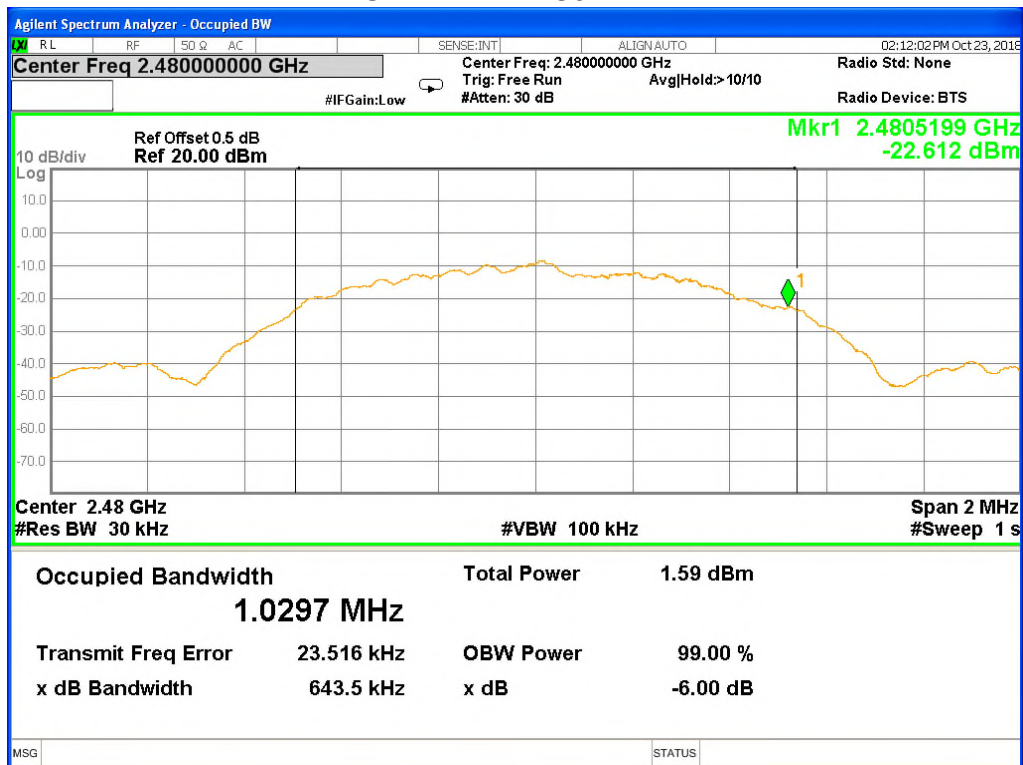
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OBW BLE 2480MHz



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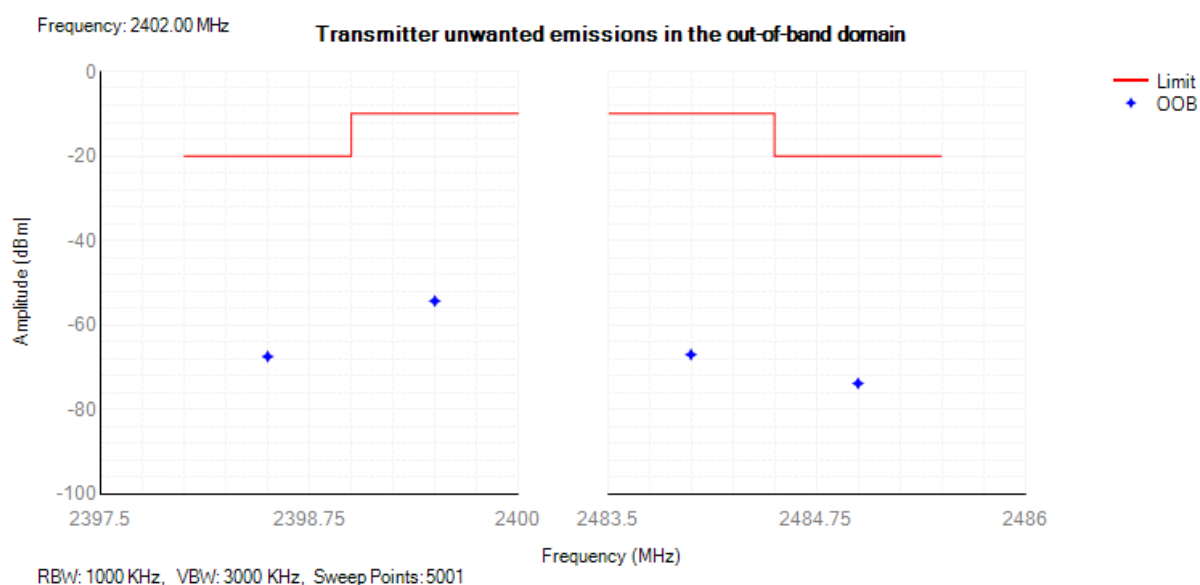
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Transmitter unwanted emissions in the out-of-band domain

Condition	Mode	Frequency (MHz)	OOB Frequency (MHz)	Level (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	1-DH1	hopping	2399.500	-54.31	-10	Pass
NVNT	1-DH1	hopping	2398.500	-67.45	-20	Pass
NVNT	1-DH1	hopping	2484.000	-66.99	-10	Pass
NVNT	1-DH1	hopping	2485.000	-73.81	-20	Pass
NVNT	2-DH1	hopping	2399.500	-60.39	-10	Pass
NVNT	2-DH1	hopping	2399.356	-61.53	-10	Pass
NVNT	2-DH1	hopping	2398.356	-69.04	-20	Pass
NVNT	2-DH1	hopping	2398.212	-72.19	-20	Pass
NVNT	2-DH1	hopping	2484.000	-74.02	-10	Pass
NVNT	2-DH1	hopping	2484.150	-73.93	-10	Pass
NVNT	2-DH1	hopping	2485.150	-73.91	-20	Pass
NVNT	2-DH1	hopping	2485.300	-73.32	-20	Pass
NVNT	3-DH1	hopping	2399.500	-60.6	-10	Pass
NVNT	3-DH1	hopping	2399.355	-61.2	-10	Pass
NVNT	3-DH1	hopping	2398.355	-71.3	-20	Pass
NVNT	3-DH1	hopping	2398.210	-73.69	-20	Pass
NVNT	3-DH1	hopping	2484.000	-73.91	-10	Pass
NVNT	3-DH1	hopping	2484.140	-73.76	-10	Pass
NVNT	3-DH1	hopping	2485.140	-73.83	-20	Pass
NVNT	3-DH1	hopping	2485.280	-73.79	-20	Pass

Tx. Emissions OOB NVNT 1-DH1 2402MHz



Prüfbericht - Nr.:

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Test Report No.

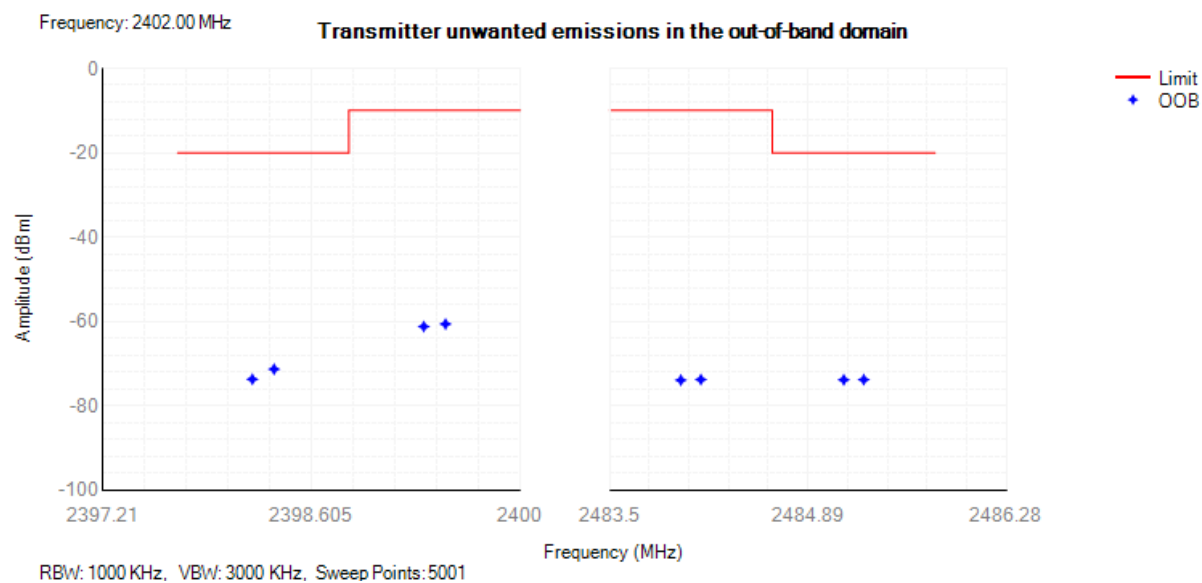
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Tx. Emissions OOB NVNT 2-DH1 2402MHz



Tx. Emissions OOB NVNT 3-DH1 2402MHz

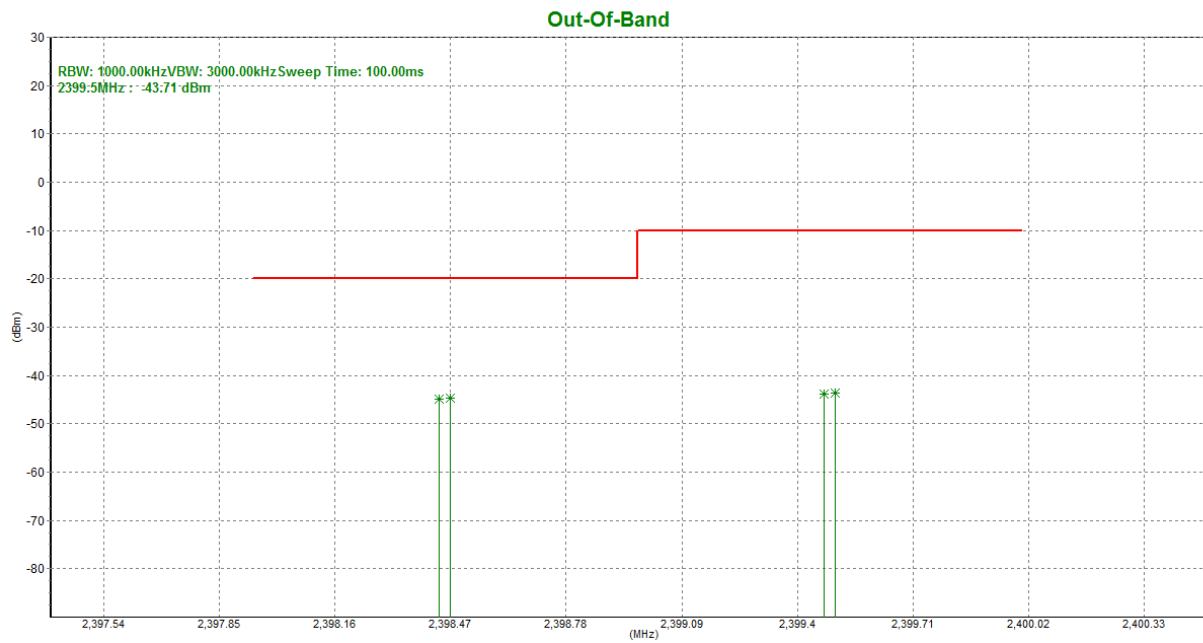


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Test Report No.

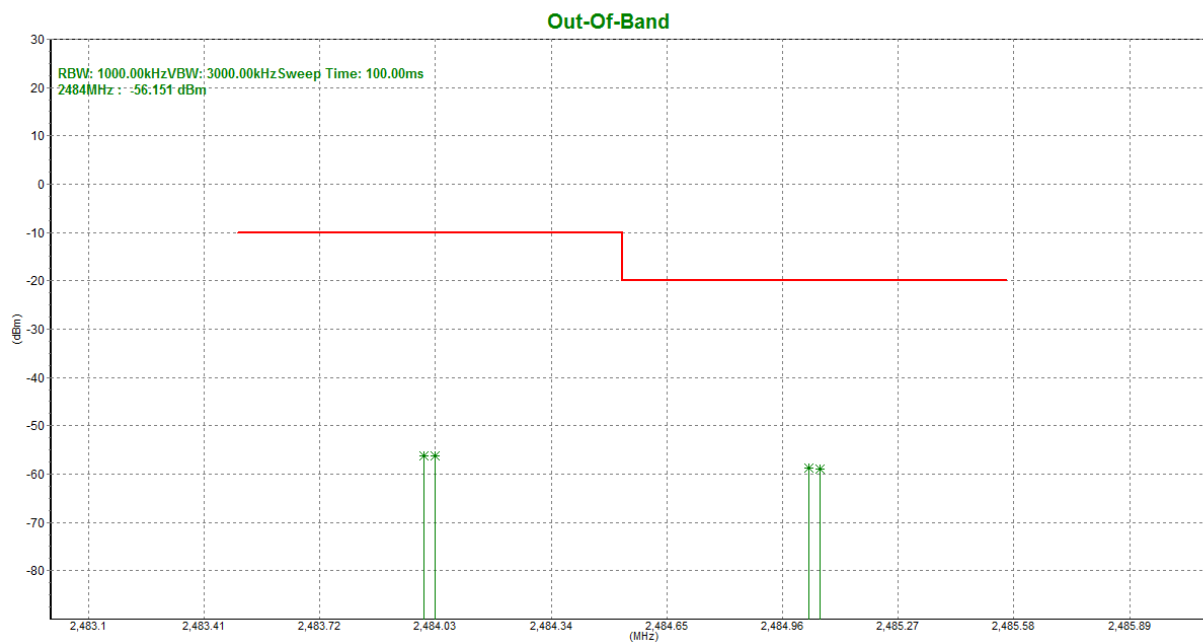
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Tx. Emissions OOB BLE 2402MHz



Tx. Emissions OOB BLE 2480MHz



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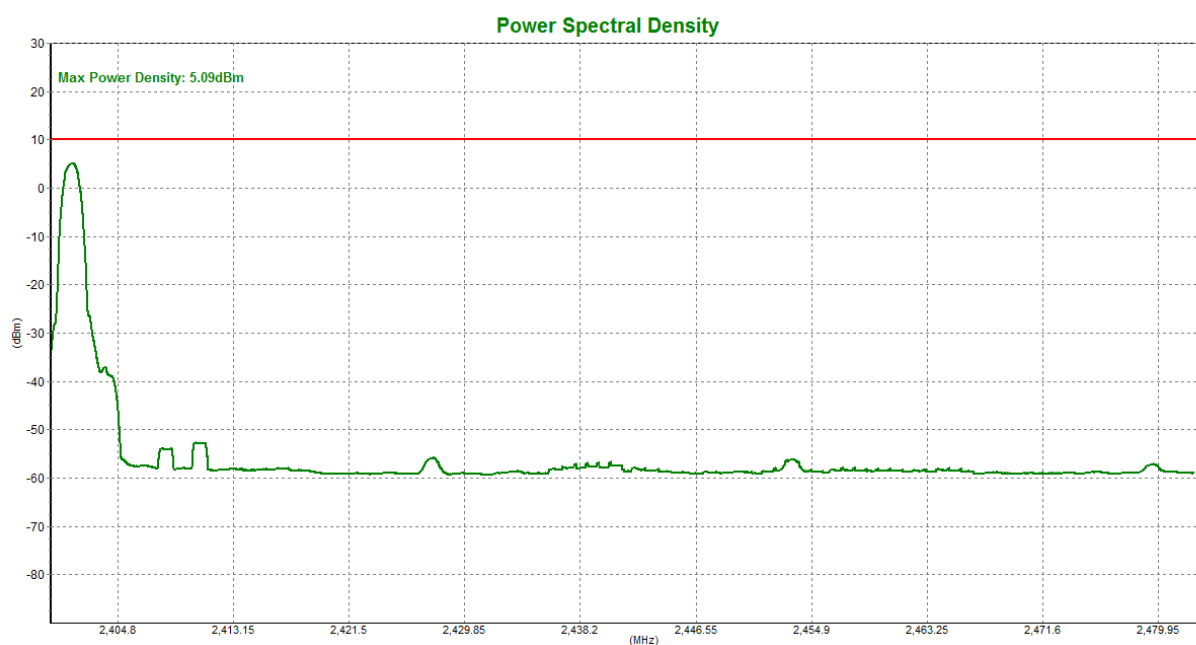
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Power Spectral Density

Modulation	Test conditions	Maximum spectral power density (dBm)		
		Low Channel	Middle Channel	High Channel
BLE	Normal	5.09	3.74	2.21
Limit		$\leq 10\text{dBm/MHz}$		

Power Spectral Density 2402MHz

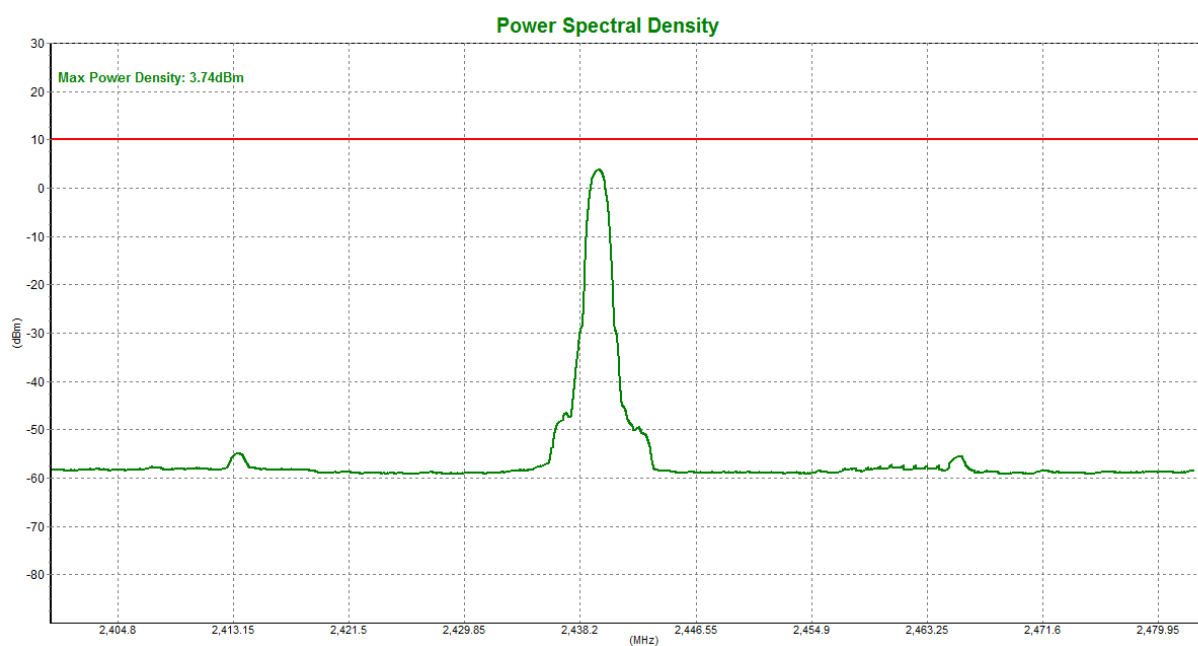


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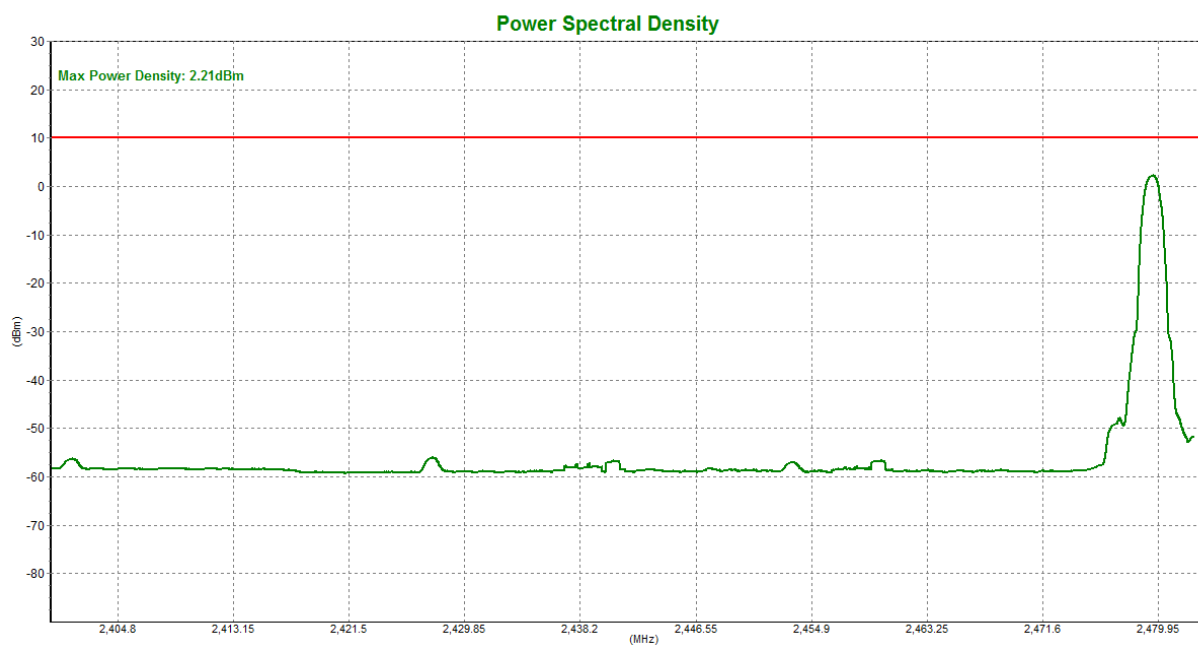
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Power Spectral Density 2441MHz



Power Spectral Density 2480MHz



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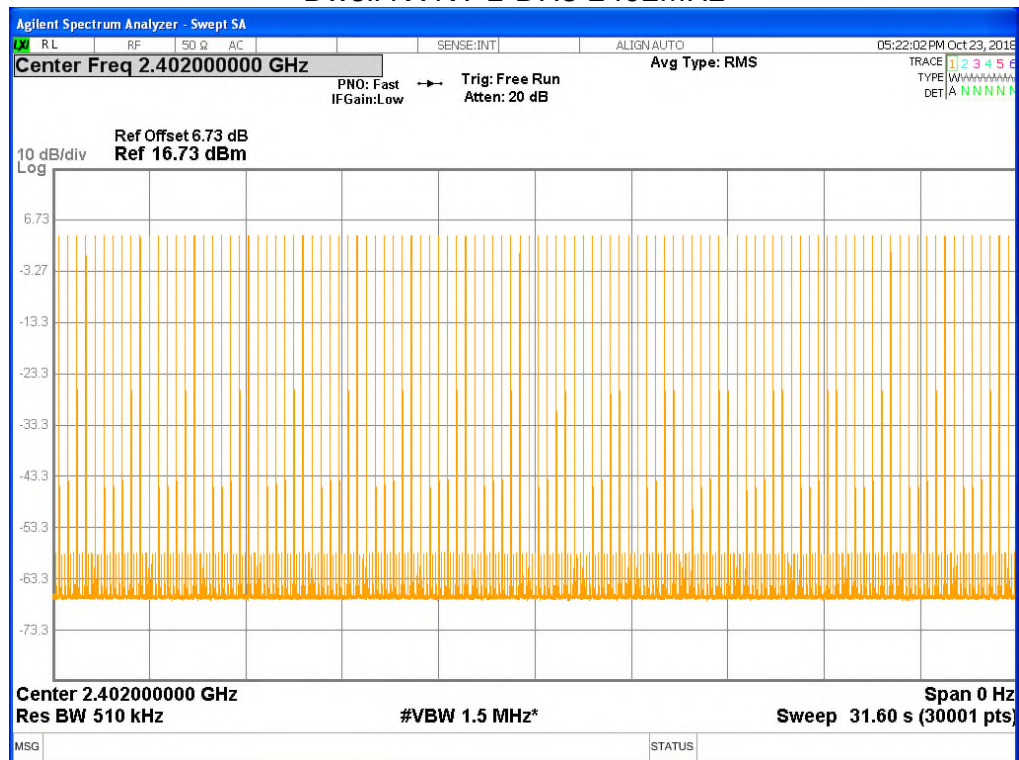
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Accumulated Transmit Time

Condition	Mode	Frequency (MHz)	Accumulated Transmit Time (ms)	Limit (ms)	Sweep Time (ms)	Burst Number	Verdict
NVNT	1-DH5	2402	310.086	400	31600	107	Pass
NVNT	1-DH5	2480	308.802	400	31600	107	Pass
NVNT	3-DH5	2402	311.156	400	31600	107	Pass
NVNT	3-DH5	2480	304.538	400	31600	106	Pass

Dwell NVNT 1-DH5 2402MHz

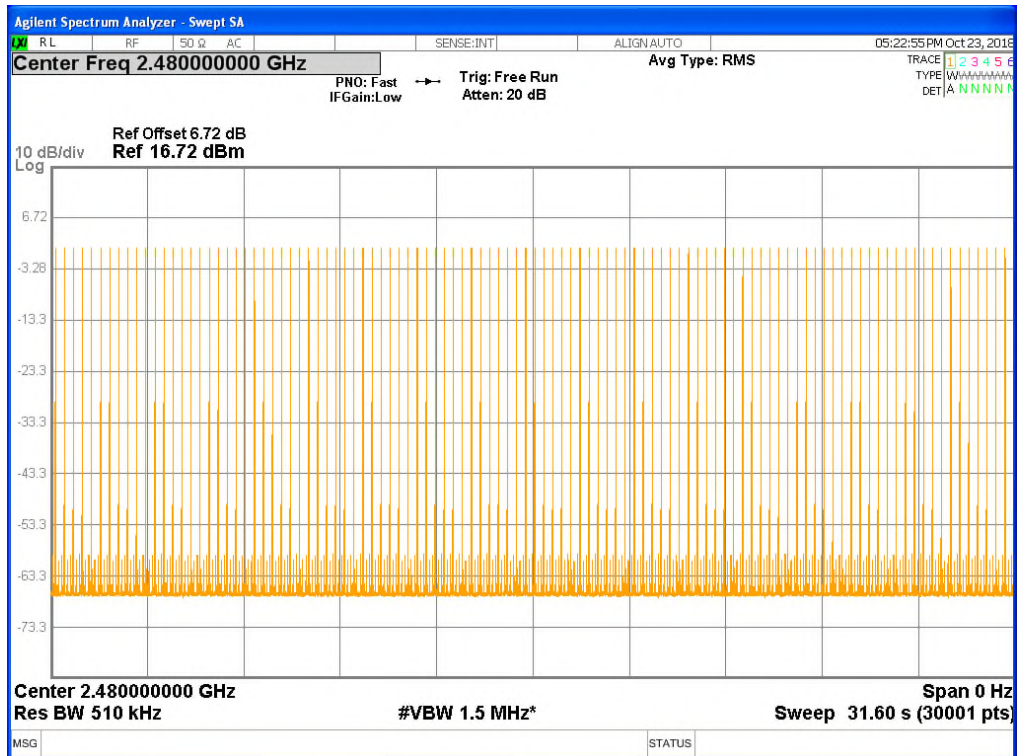


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Test Report No.

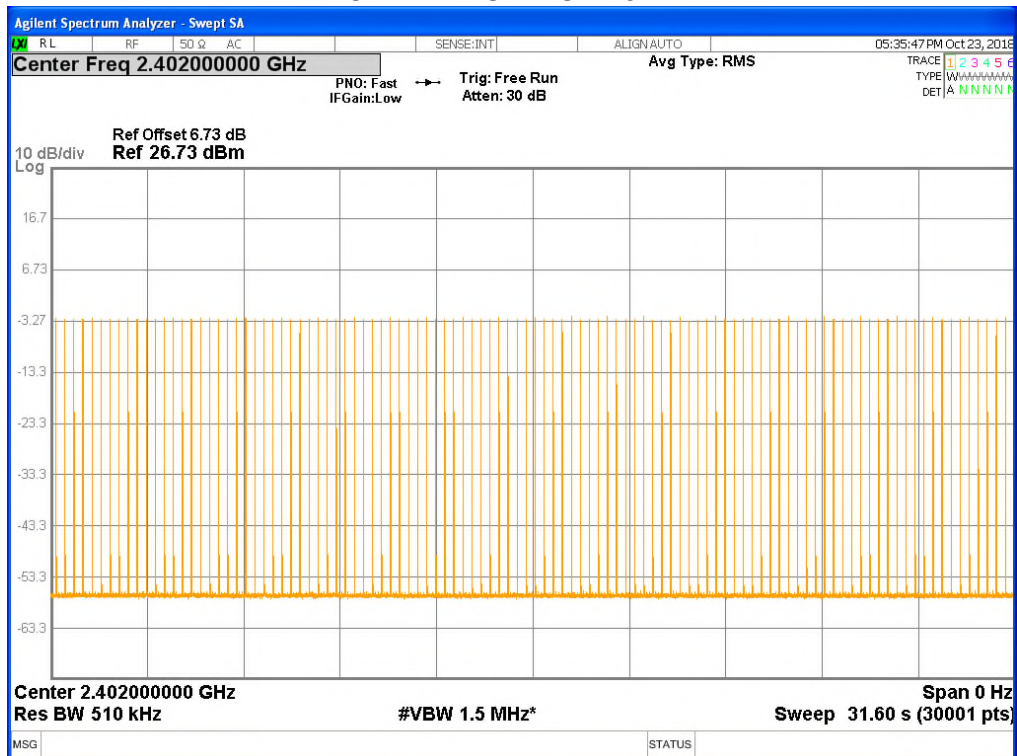
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Dwell NVNT 1-DH5 2480MHz



Dwell NVNT 3-DH5 2402MHz



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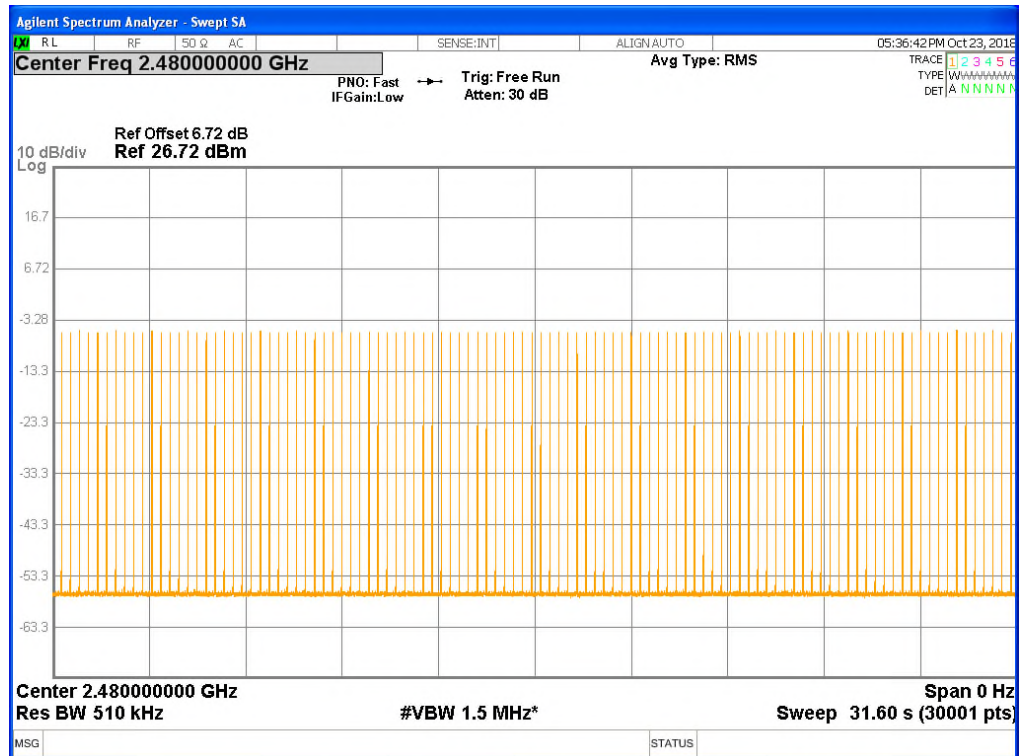
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Dwell NVNT 3-DH5 2480MHz



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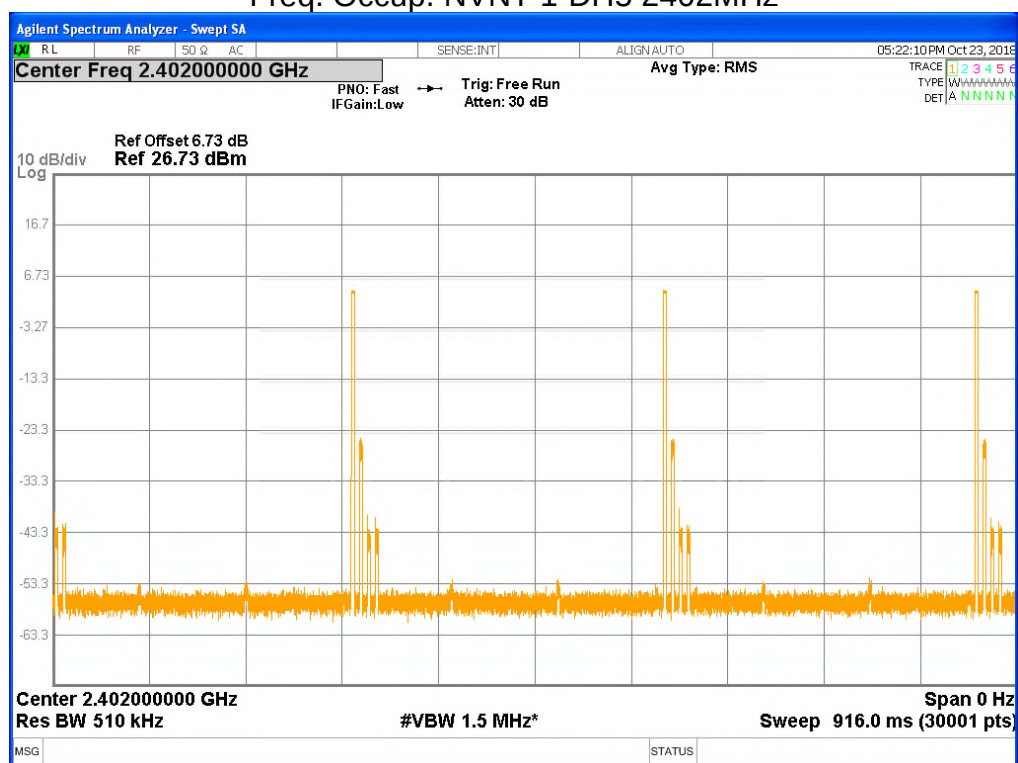
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Frequency Occupation

Condition	Mode	Frequency (MHz)	Frequency Occupation (ms)	Sweep Time (ms)	Burst Number	Limit	Verdict
NVNT	1-DH5	2402	8.694	915.768	3	≥1	Pass
NVNT	1-DH5	2480	8.658	911.976	3	≥1	Pass
NVNT	3-DH5	2402	11.632	918.928	4	≥1	Pass
NVNT	3-DH5	2480	8.619	907.868	3	≥1	Pass

Freq. Occup. NVNT 1-DH5 2402MHz

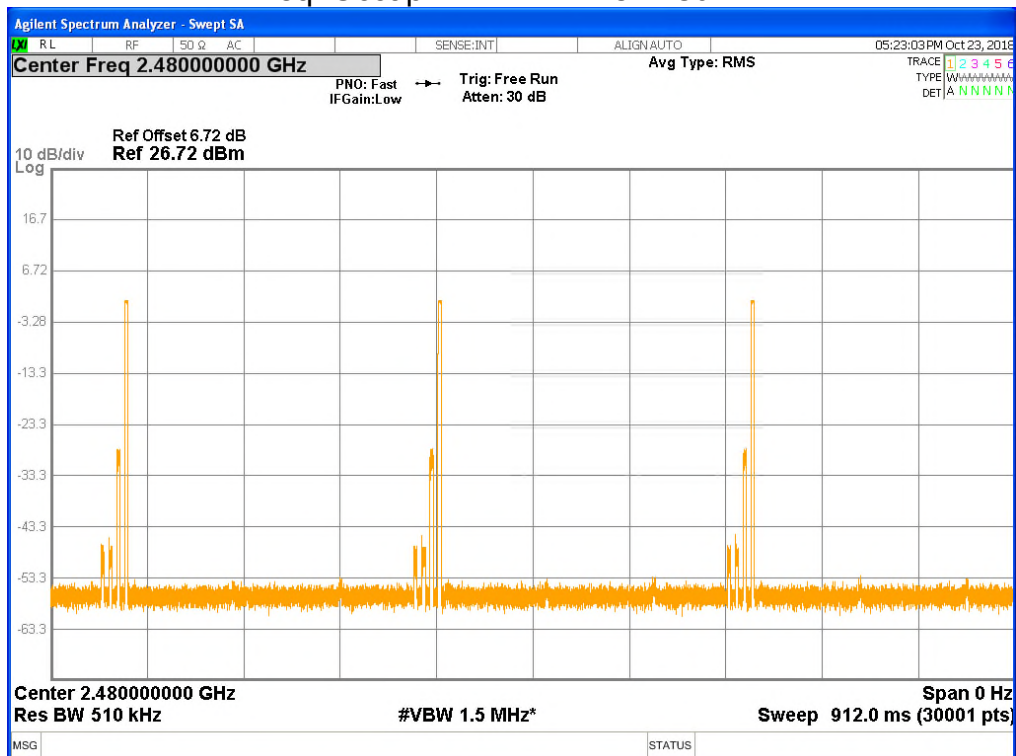


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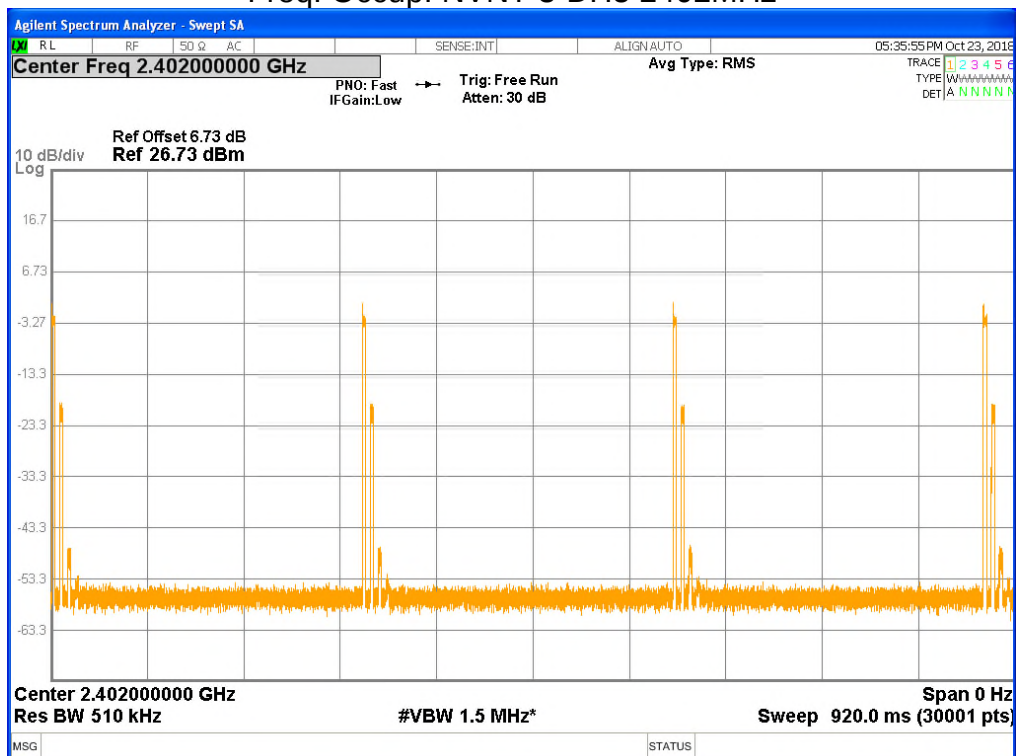
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Freq. Occup. NVNT 1-DH5 2480MHz



Freq. Occup. NVNT 3-DH5 2402MHz

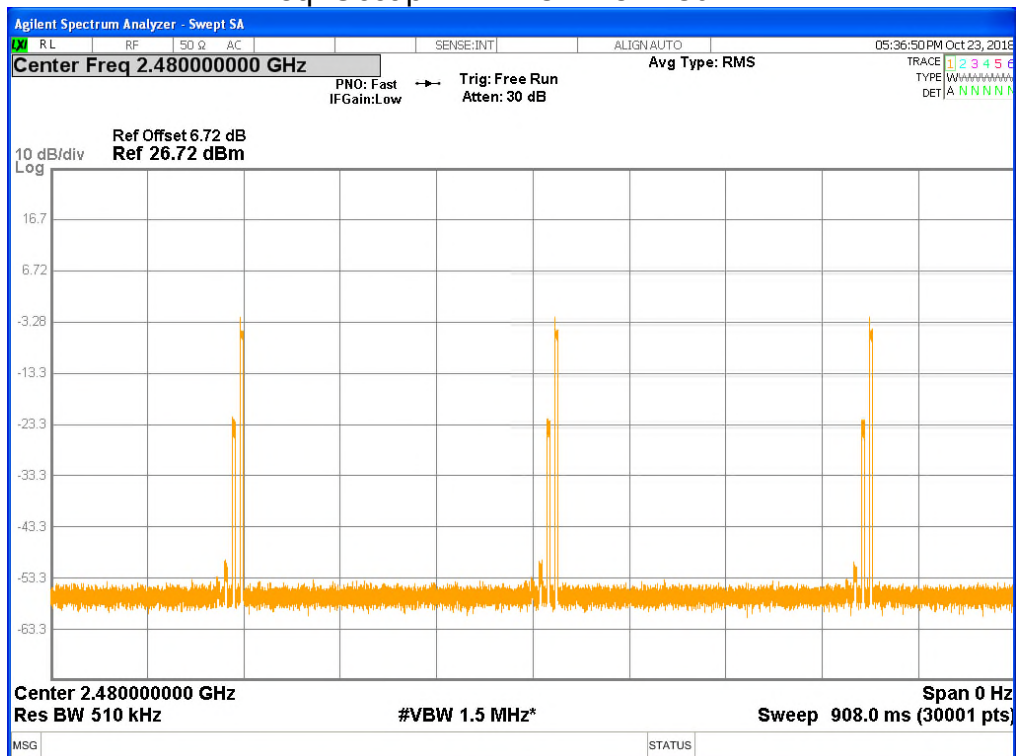


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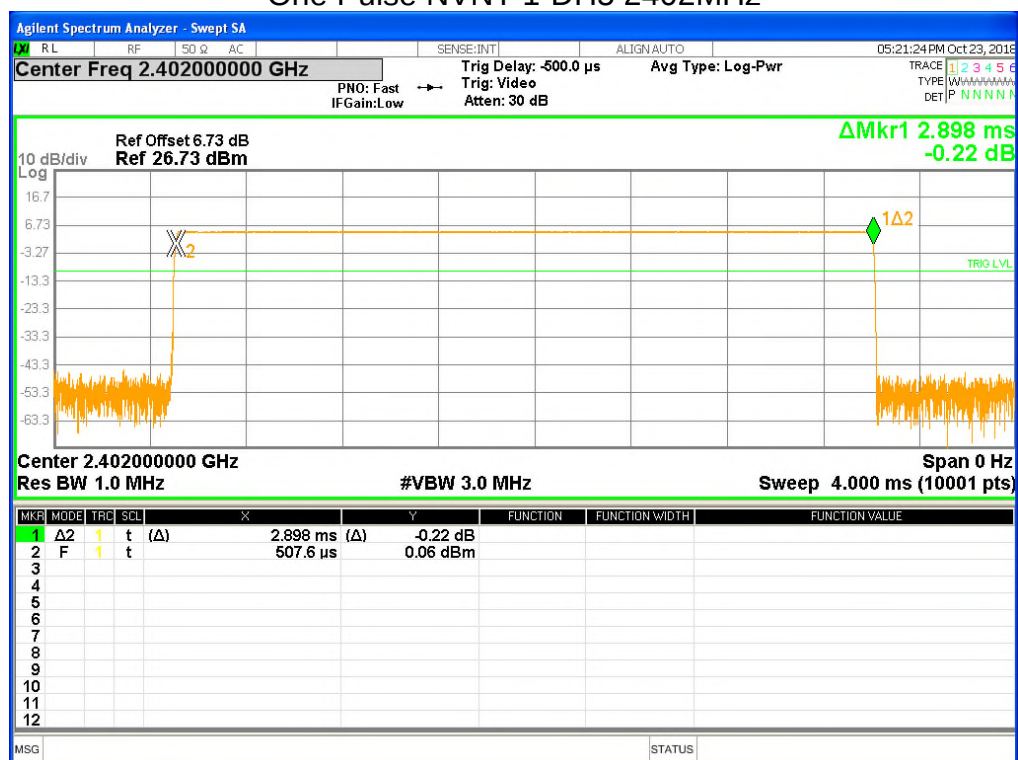
Freq. Occup. NVNT 3-DH5 2480MHz



One Pulse Dwell Time

Condition	Mode	Frequency (MHz)	Pulse Time (ms)
NVNT	1-DH5	2402	2.898
NVNT	1-DH5	2480	2.886
NVNT	3-DH5	2402	2.908
NVNT	3-DH5	2480	2.873

One Pulse NVNT 1-DH5 2402MHz



One Pulse NVNT 1-DH5 2480MHz

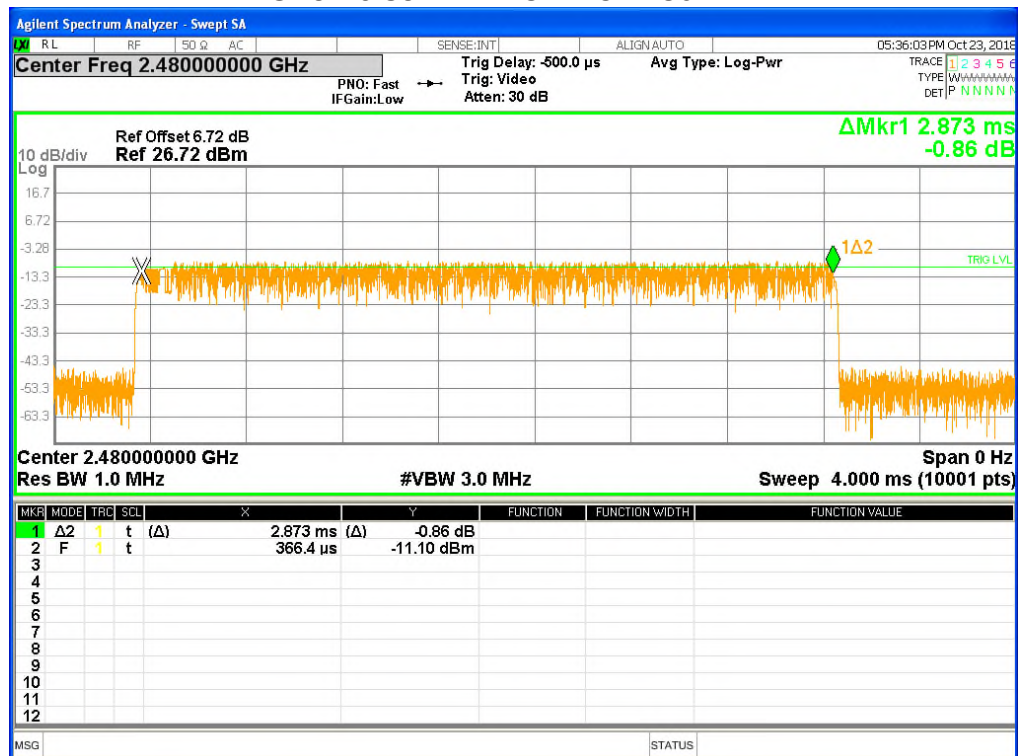


One Pulse NVNT 3-DH5 2402MHz



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One Pulse NVNT 3-DH5 2480MHz



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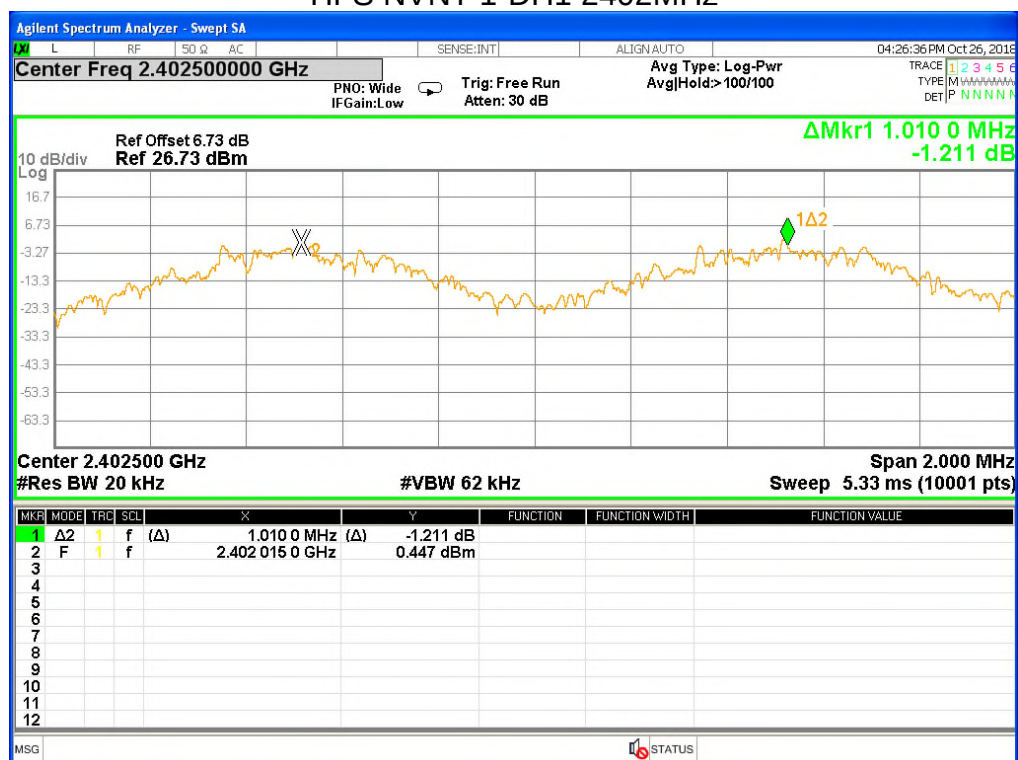
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Hopping Frequency Separation

Condition	Mode	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	2402.0150	2403.0260	1.01	0.1	Pass
NVNT	1-DH1	2479.0310	2480.0317	1.01	0.1	Pass
NVNT	3-DH1	2402.0155	2403.0663	1.05	0.1	Pass
NVNT	3-DH1	2479.0182	2480.0348	1.01	0.1	Pass

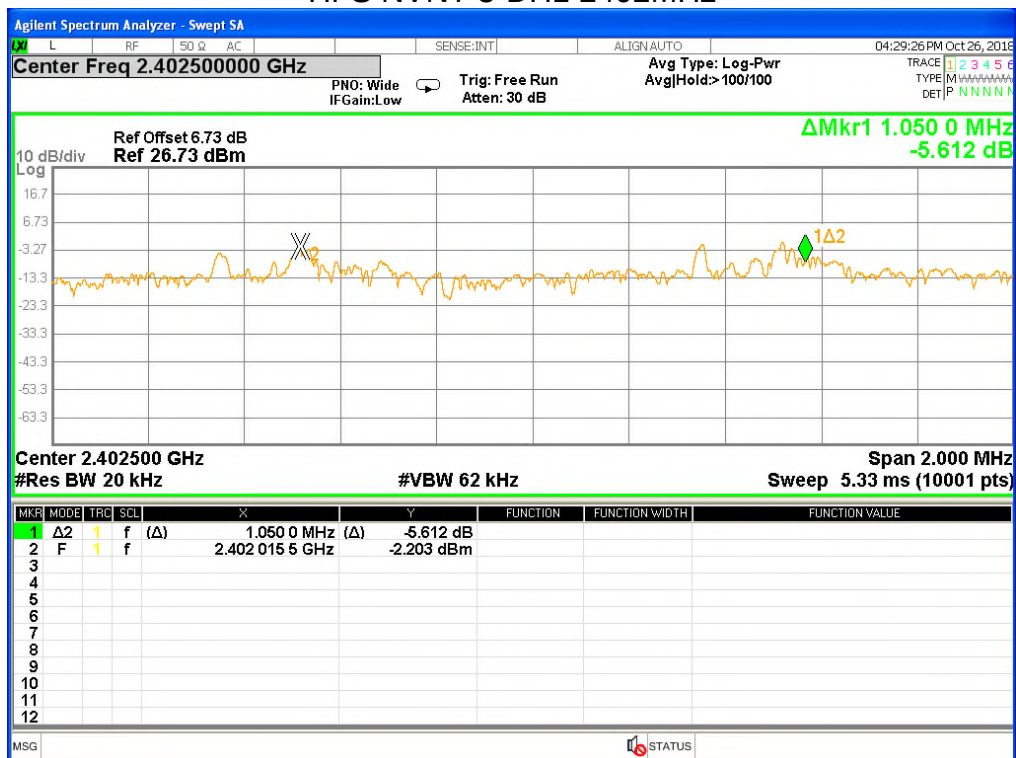
HFS NVNT 1-DH1 2402MHz



HFS NVNT 1-DH1 2480MHz



HFS NVNT 3-DH1 2402MHz



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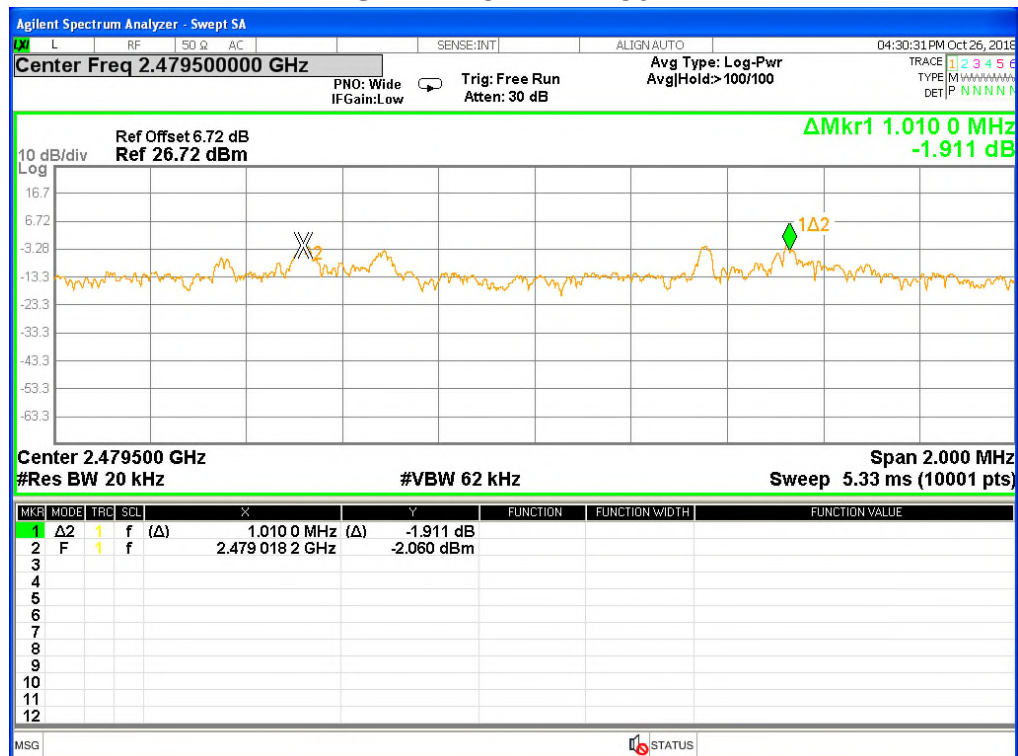
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HFS NVNT 3-DH1 2480MHz



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Transmitter Unwanted Emissions in the Spurious Domain

Test in channel lowest: 2402MHz (GFSK)

Vertical

Frequency (MHz)	Peak (dBm)	Factor (dBm)	PK Limit (dBm)	Over Limit (dBm)	Verdict
30.000	-59.03	-5.34	-36.0	-23.03	Pass
34.850	-63.39	-8.65	-36.0	-27.39	Pass
101.780	-63.91	-8.39	-54.0	-9.91	Pass
159.980	-66.52	-9.21	-36.0	-30.52	Pass
327.790	-70.77	-8.47	-36.0	-34.77	Pass
530.520	-66.84	-7.20	-54.0	-12.84	Pass
1284.000	-55.76	11.41	-30.0	-25.76	Pass
1752.000	-48.25	9.30	-30.0	-18.25	Pass
2462.000	-51.84	13.65	-30.0	-21.84	Pass
8120.000	-57.18	22.26	-30.0	-27.18	Pass
10540.000	-53.21	28.00	-30.0	-23.21	Pass
12960.000	-50.54	27.95	-30.0	-20.54	Pass

RSE-EN RX-TX TEST Case_EN300328_EN300 328-TX_30M-12.75G_V



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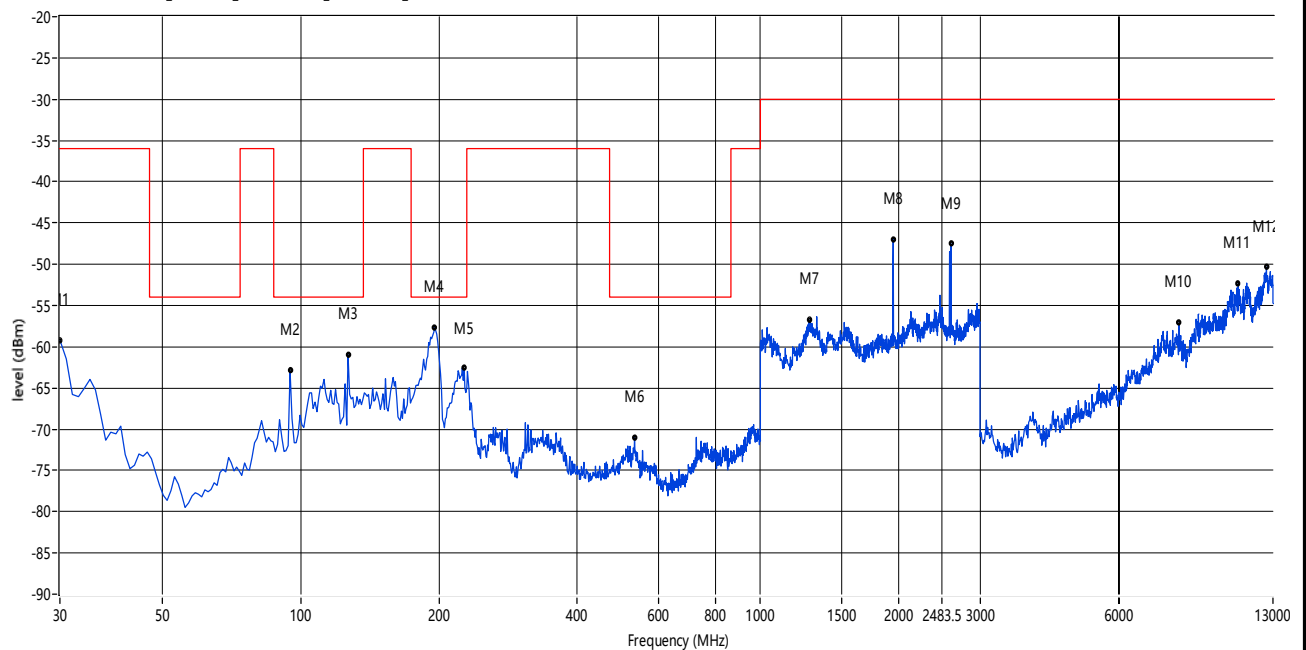
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Horizontal

Frequency (MHz)	Peak (dBm)	Factor (dBm)	PK Limit (dBm)	Over Limit (dBm)	Verdict
30.000	-59.20	-5.34	-36.0	-23.20	Pass
94.990	-62.92	-11.50	-54.0	-8.92	Pass
127.000	-60.98	-7.94	-54.0	-6.98	Pass
195.870	-57.67	-12.61	-54.0	-3.67	Pass
226.910	-62.59	-12.46	-54.0	-8.59	Pass
532.460	-70.99	-7.10	-54.0	-16.99	Pass
1282.000	-56.74	11.50	-30.0	-26.74	Pass
1944.000	-46.98	10.35	-30.0	-16.98	Pass
2594.000	-47.53	12.72	-30.0	-17.53	Pass
8130.000	-57.09	22.19	-30.0	-27.09	Pass
10930.000	-52.31	26.70	-30.0	-22.31	Pass
12590.000	-50.35	28.62	-30.0	-20.35	Pass

RSE-EN RX-TX TEST Case_EN300328_EN300 328-TX_30M-12.75G_H



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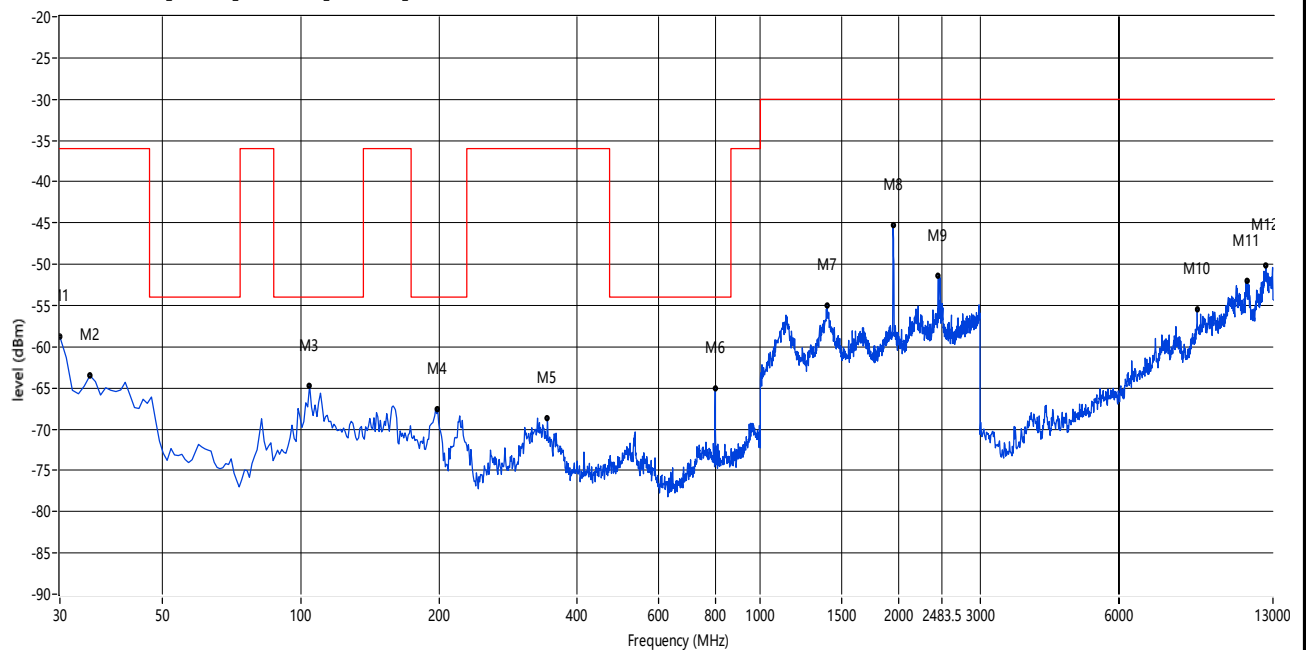
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Test in channel highest: 2480MHz (GFSK)

Vertical

Frequency (MHz)	Peak (dBm)	Factor (dBm)	PK Limit (dBm)	Over Limit (dBm)	Verdict
30.000	-58.82	-5.34	-36.0	-22.82	Pass
34.850	-63.51	-8.65	-36.0	-27.51	Pass
104.690	-64.69	-5.84	-54.0	-10.69	Pass
198.780	-67.61	-13.37	-54.0	-13.61	Pass
344.280	-68.65	-8.47	-36.0	-32.65	Pass
797.270	-65.09	-6.63	-54.0	-11.09	Pass
1396.000	-54.97	12.43	-30.0	-24.97	Pass
1942.000	-45.25	11.07	-30.0	-15.25	Pass
2436.000	-51.32	14.38	-30.0	-21.32	Pass
8900.000	-55.45	24.45	-30.0	-25.45	Pass
11440.000	-51.99	28.23	-30.0	-21.99	Pass
12550.000	-50.19	28.68	-30.0	-20.19	Pass

RSE-EN RX-TX TEST Case_EN300328_EN300 328-TX_30M-12.75G_V



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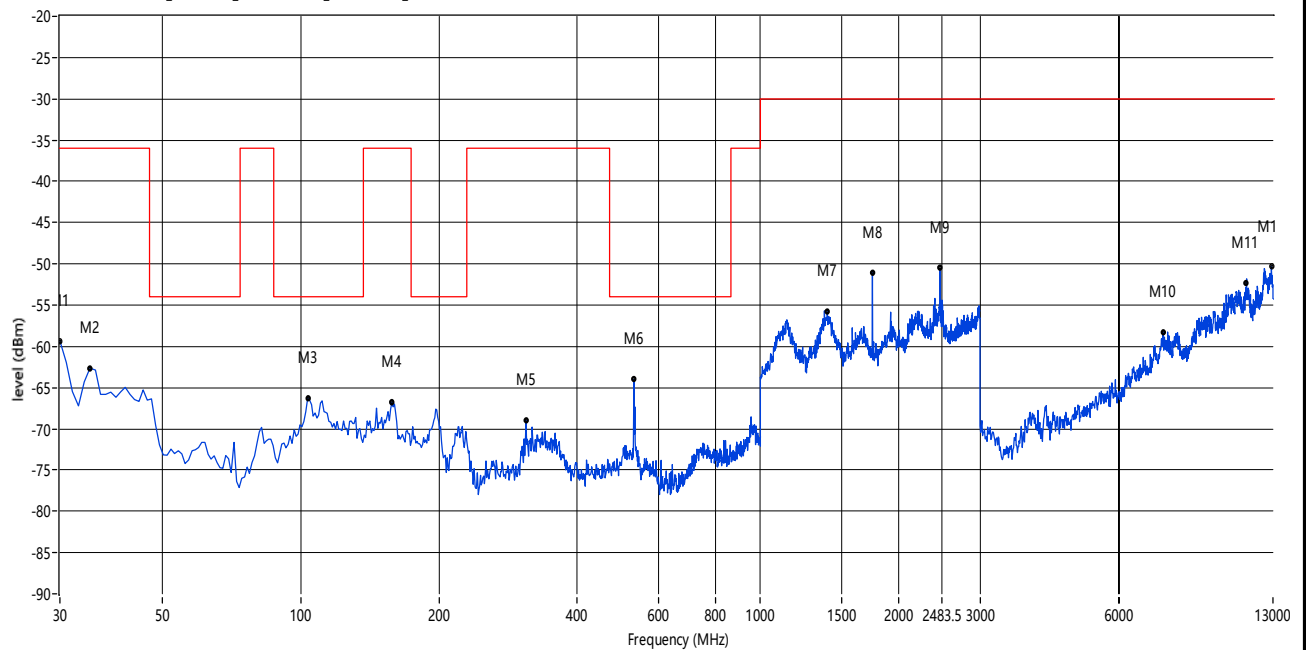
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Horizontal

Frequency (MHz)	Peak (dBm)	Factor (dBm)	PK Limit (dBm)	Over Limit (dBm)	Verdict
30.000	-59.33	-5.34	-36.0	-23.33	Pass
34.850	-62.66	-8.65	-36.0	-26.66	Pass
103.720	-66.26	-6.24	-54.0	-12.26	Pass
158.040	-66.81	-9.34	-36.0	-30.81	Pass
309.360	-68.96	-10.08	-36.0	-32.96	Pass
530.520	-63.99	-7.20	-54.0	-9.99	Pass
1398.000	-55.77	12.47	-30.0	-25.77	Pass
1752.000	-51.04	8.53	-30.0	-21.04	Pass
2458.000	-50.53	14.40	-30.0	-20.53	Pass
7510.000	-58.29	22.62	-30.0	-28.29	Pass
11390.000	-52.32	28.05	-30.0	-22.32	Pass
12900.000	-50.36	28.38	-30.0	-20.36	Pass

RSE-EN RX-TX TEST Case_EN300328_EN300 328-TX_30M-12.75G_H



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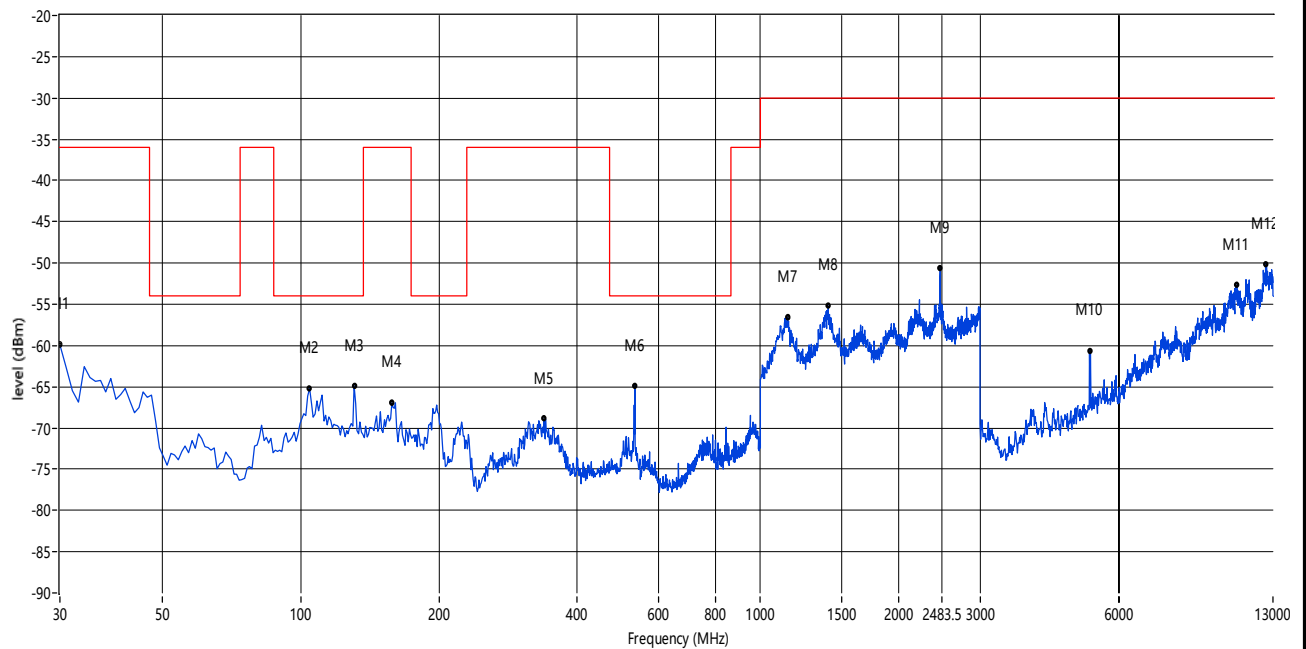
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Test in channel lowest: 2402MHz (BLE)

Vertical

Frequency (MHz)	Peak (dBm)	Factor (dBm)	PK Limit (dBm)	Over Limit (dBm)	Verdict
30.000	-59.91	-5.34	-36.0	-23.91	Pass
104.690	-65.19	-5.84	-54.0	-11.19	Pass
130.880	-64.89	-8.29	-54.0	-10.89	Pass
158.040	-66.93	-9.34	-36.0	-30.93	Pass
338.460	-68.89	-8.32	-36.0	-32.89	Pass
533.430	-64.83	-6.98	-54.0	-10.83	Pass
1146.000	-56.61	11.79	-30.0	-26.61	Pass
1404.000	-55.20	12.31	-30.0	-25.20	Pass
2460.000	-50.53	14.39	-30.0	-20.53	Pass
5190.000	-60.64	14.12	-30.0	-30.64	Pass
10860.000	-52.59	27.56	-30.0	-22.59	Pass
12540.000	-50.06	29.02	-30.0	-20.06	Pass

RSE-EN RX-TX TEST Case_EN300328_EN300 328-TX_30M-12.75G_V



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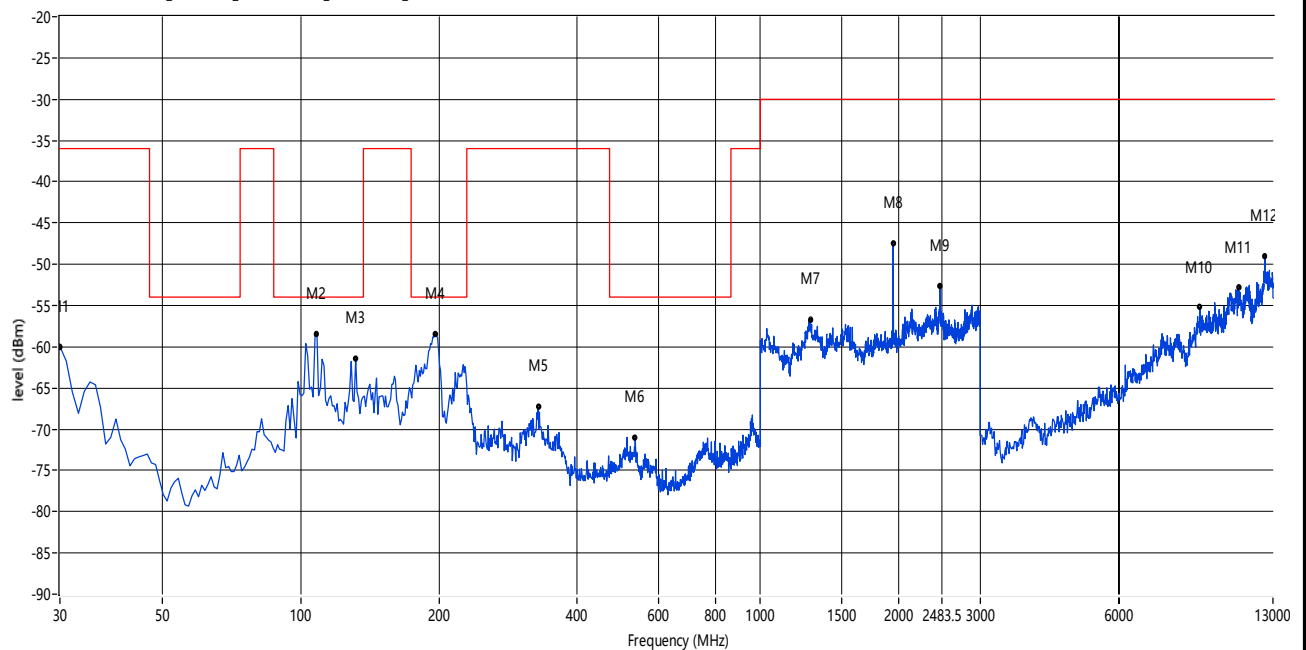
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Horizontal

Frequency (MHz)	Peak (dBm)	Factor (dBm)	PK Limit (dBm)	Over Limit (dBm)	Verdict
30.000	-59.97	-5.34	-36.0	-23.97	Pass
108.570	-58.47	-7.18	-54.0	-4.47	Pass
131.850	-61.43	-8.80	-54.0	-7.43	Pass
196.840	-58.42	-12.77	-54.0	-4.42	Pass
328.760	-67.29	-8.43	-36.0	-31.29	Pass
534.400	-70.94	-6.87	-54.0	-16.94	Pass
1284.000	-56.71	11.41	-30.0	-26.71	Pass
1942.000	-47.49	10.28	-30.0	-17.49	Pass
2458.000	-52.58	13.63	-30.0	-22.58	Pass
9020.000	-55.22	23.36	-30.0	-25.22	Pass
10940.000	-52.88	27.30	-30.0	-22.88	Pass
12490.000	-49.04	29.02	-30.0	-19.04	Pass

RSE-EN RX-TX TEST Case_EN300328_EN300 328-TX_30M-12.75G_H



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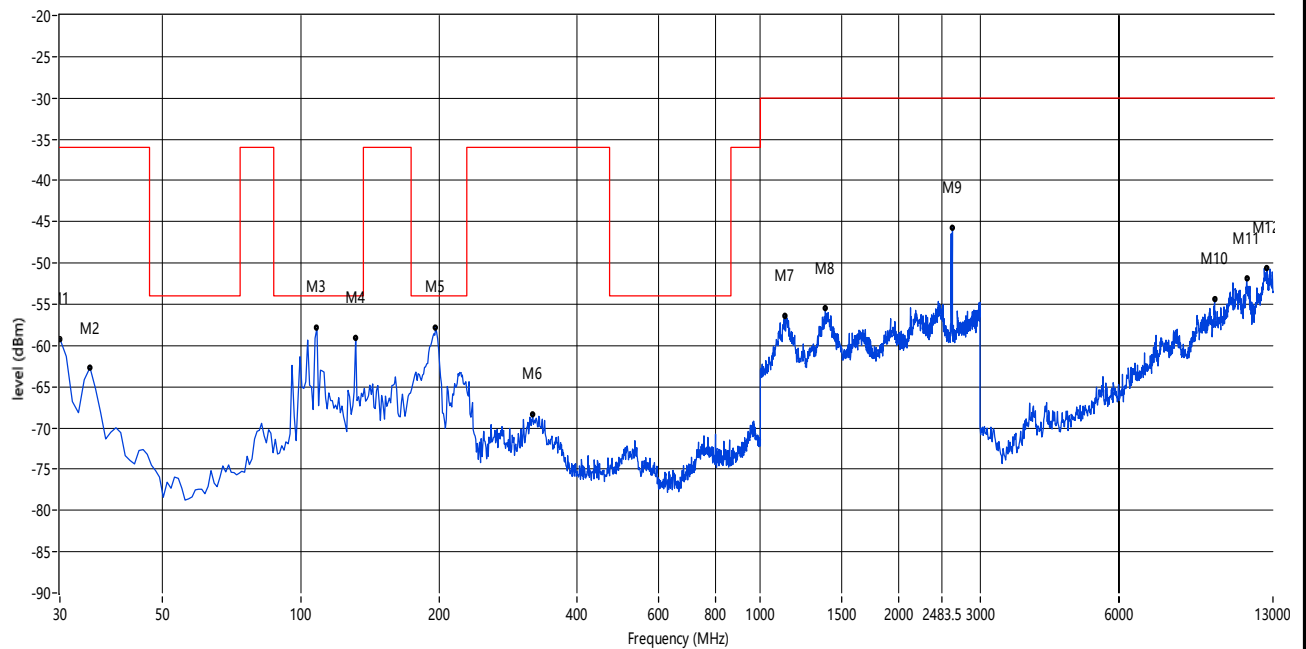
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Test in channel highest: 2480MHz (BLE)

Vertical

Frequency (MHz)	Peak (dBm)	Factor (dBm)	PK Limit (dBm)	Over Limit (dBm)	Verdict
30.000	-59.17	-5.34	-36.0	-23.17	Pass
34.850	-62.68	-8.65	-36.0	-26.68	Pass
108.570	-57.86	-7.18	-54.0	-3.86	Pass
131.850	-59.12	-8.80	-54.0	-5.12	Pass
196.840	-57.85	-12.77	-54.0	-3.85	Pass
320.030	-68.34	-8.86	-36.0	-32.34	Pass
1130.000	-56.36	11.48	-30.0	-26.36	Pass
1384.000	-55.54	12.29	-30.0	-25.54	Pass
2614.000	-45.76	12.30	-30.0	-15.76	Pass
9710.000	-54.39	25.39	-30.0	-24.39	Pass
11399.999	-51.92	28.76	-30.0	-21.92	Pass
12620.000	-50.56	28.43	-30.0	-20.56	Pass

RSE-EN RX-TX TEST Case_EN300328_EN300 328-TX_30M-12.75G_V



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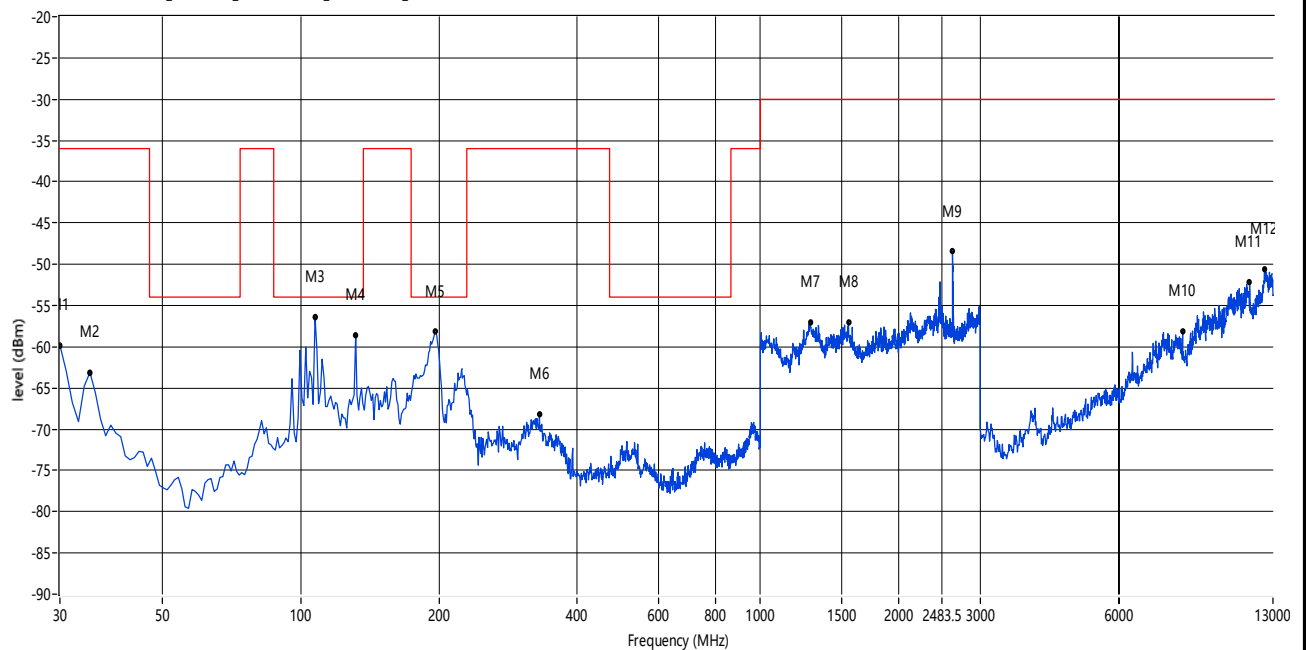
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Horizontal

Frequency (MHz)	Peak (dBm)	Factor (dBm)	PK Limit (dBm)	Over Limit (dBm)	Verdict
30.000	-59.82	-5.34	-36.0	-23.82	Pass
34.850	-63.12	-8.65	-36.0	-27.12	Pass
107.600	-56.42	-7.44	-54.0	-2.42	Pass
131.850	-58.56	-8.80	-54.0	-4.56	Pass
196.840	-58.20	-12.77	-54.0	-4.20	Pass
330.700	-68.12	-8.33	-36.0	-32.12	Pass
1284.000	-56.97	11.41	-30.0	-26.97	Pass
1554.000	-57.07	10.58	-30.0	-27.07	Pass
2616.000	-48.47	12.70	-30.0	-18.47	Pass
8270.000	-58.11	20.99	-30.0	-28.11	Pass
11570.000	-52.19	26.89	-30.0	-22.19	Pass
12470.000	-50.53	29.03	-30.0	-20.53	Pass

RSE-EN RX-TX TEST Case_EN300328_EN300 328-TX_30M-12.75G_H



Receiver Spurious Emissions

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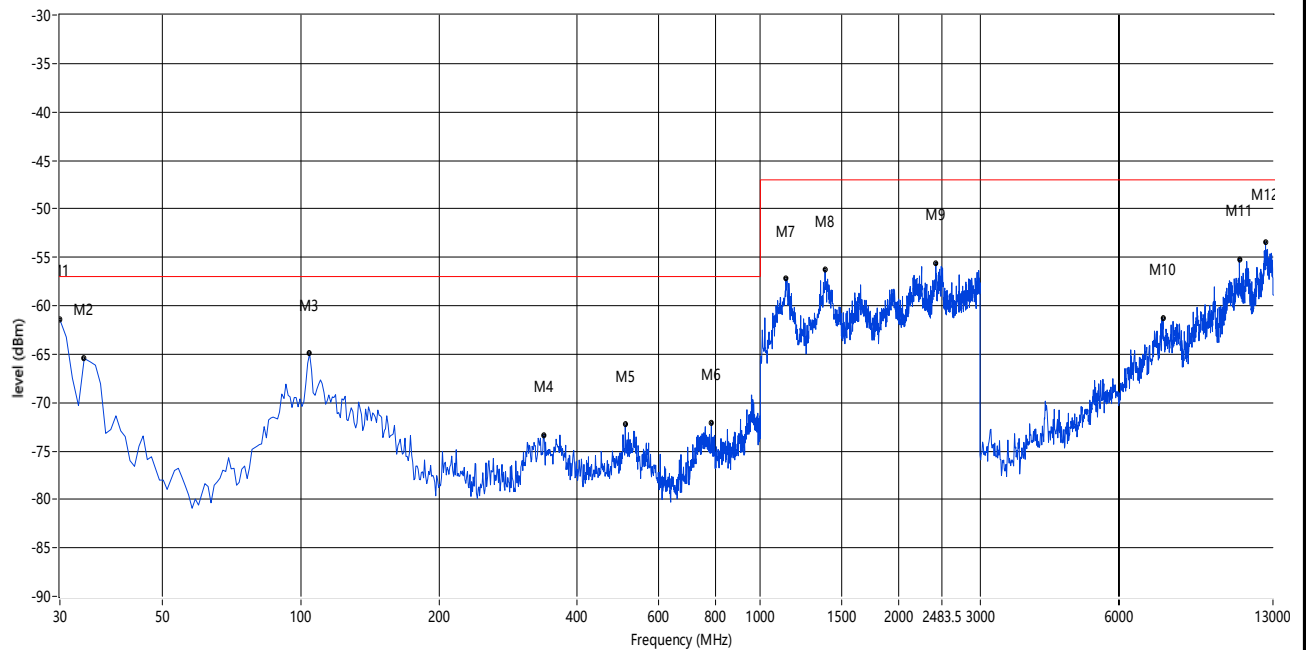
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Test in channel lowest: 2402MHz (GFSK)

Vertical

Frequency (MHz)	Peak (dBm)	Factor (dBm)	PK Limit (dBm)	Over Limit (dBm)	Verdict
30.000	-61.45	-5.34	-57.0	-4.45	Pass
33.880	-65.45	-8.80	-57.0	-8.45	Pass
104.690	-64.95	-5.84	-57.0	-7.95	Pass
338.460	-73.33	-8.32	-57.0	-16.33	Pass
508.210	-72.30	-7.51	-57.0	-15.30	Pass
781.750	-72.12	-6.21	-57.0	-15.12	Pass
1136.000	-57.21	12.03	-47.0	-10.21	Pass
1382.000	-56.30	12.27	-47.0	-9.30	Pass
2406.000	-55.57	14.08	-47.0	-8.57	Pass
7500.000	-61.31	22.93	-47.0	-14.31	Pass
11000.001	-55.24	27.98	-47.0	-8.24	Pass
12530.000	-53.49	28.77	-47.0	-6.49	Pass

RSE-EN RX-TX TEST Case_EN300328_EN300 328-RX_30M-12.75G_V



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Test Report No.

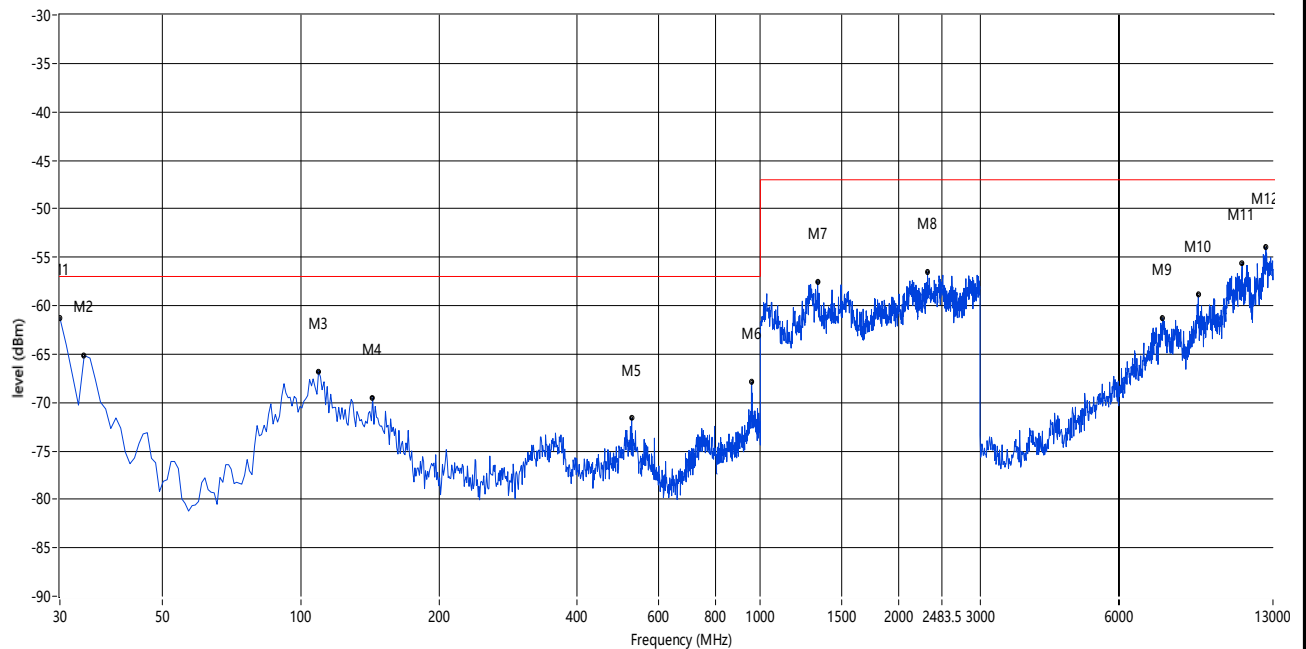
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Horizontal

Frequency (MHz)	Peak (dBm)	Factor (dBm)	PK Limit (dBm)	Over Limit (dBm)	Verdict
30.000	-61.28	-5.34	-57.0	-4.28	Pass
33.880	-65.15	-8.80	-57.0	-8.15	Pass
109.540	-66.81	-6.61	-57.0	-9.81	Pass
143.490	-69.51	-8.38	-57.0	-12.51	Pass
524.700	-71.64	-7.54	-57.0	-14.64	Pass
957.320	-67.91	-1.74	-57.0	-10.91	Pass
1332.000	-57.49	10.45	-47.0	-10.49	Pass
2308.000	-56.53	13.03	-47.0	-9.53	Pass
7490.000	-61.26	22.85	-47.0	-14.26	Pass
8950.000	-58.90	23.87	-47.0	-11.90	Pass
11140.000	-55.64	26.82	-47.0	-8.64	Pass
12550.000	-53.97	28.68	-47.0	-6.97	Pass

RSE-EN RX-TX TEST Case_EN300328_EN300 328-RX_30M-12.75G_H



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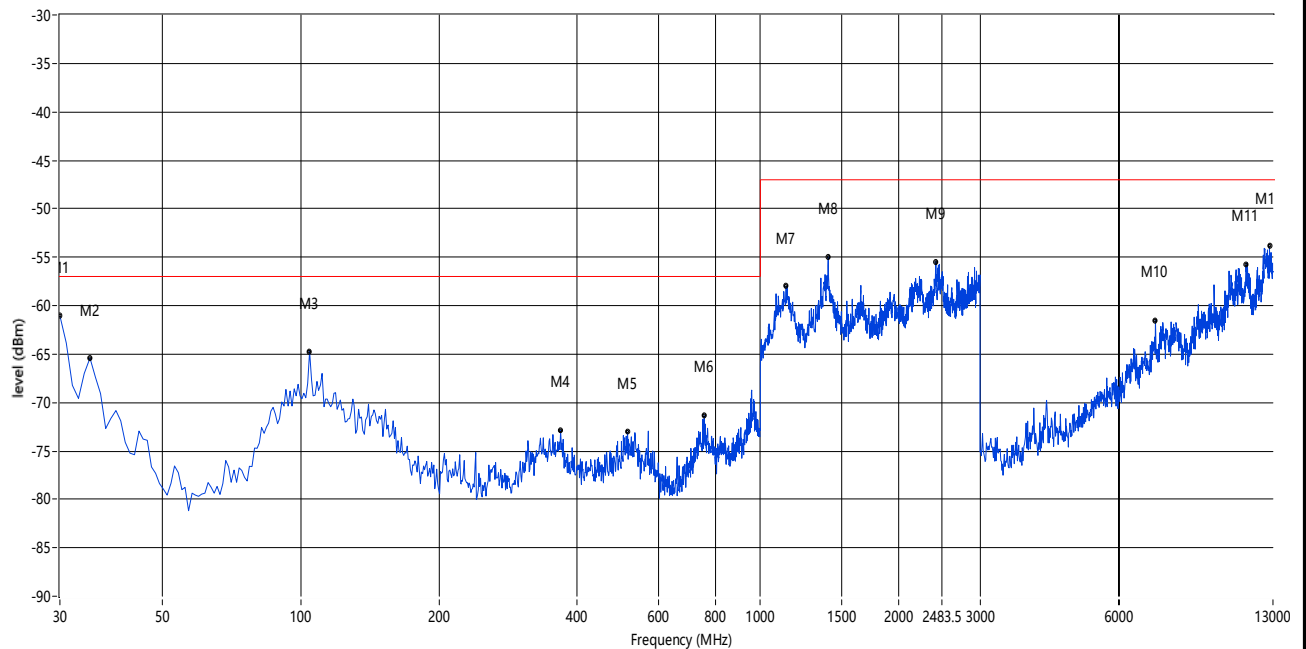
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Test in channel highest: 2480MHz (GFSK)

Vertical

Frequency (MHz)	Peak (dBm)	Factor (dBm)	PK Limit (dBm)	Over Limit (dBm)	Verdict
30.000	-61.06	-5.34	-57.0	-4.06	Pass
34.850	-65.41	-8.65	-57.0	-8.41	Pass
104.690	-64.73	-5.84	-57.0	-7.73	Pass
367.560	-72.88	-8.00	-57.0	-15.88	Pass
514.030	-73.04	-7.35	-57.0	-16.04	Pass
754.590	-71.37	-5.45	-57.0	-14.37	Pass
1136.000	-57.99	12.03	-47.0	-10.99	Pass
1404.000	-54.97	12.31	-47.0	-7.97	Pass
2406.000	-55.47	14.08	-47.0	-8.47	Pass
7220.000	-61.51	21.00	-47.0	-14.51	Pass
11380.000	-55.71	27.34	-47.0	-8.71	Pass
12780.000	-53.88	28.07	-47.0	-6.88	Pass

RSE-EN RX-TX TEST Case_EN300328_EN300 328-RX_30M-12.75G_V



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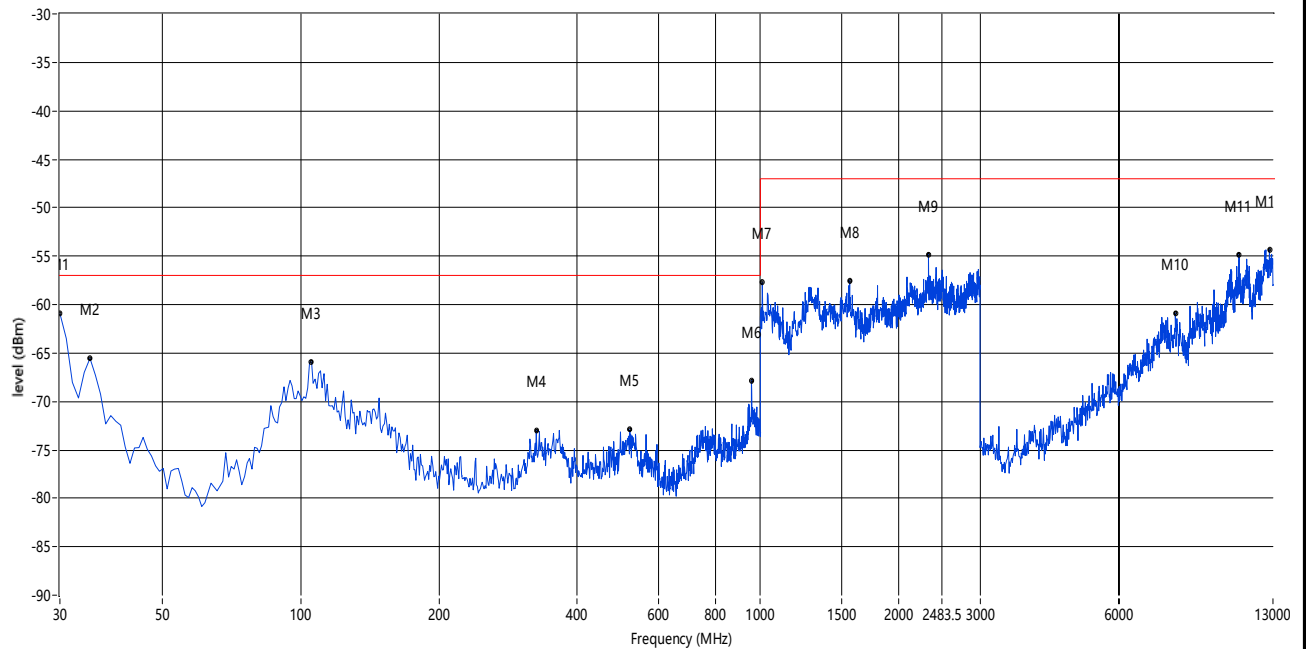
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Horizontal

Frequency (MHz)	Peak (dBm)	Factor (dBm)	PK Limit (dBm)	Over Limit (dBm)	Verdict
30.000	-60.92	-5.34	-57.0	-3.92	Pass
34.850	-65.53	-8.65	-57.0	-8.53	Pass
105.660	-65.90	-6.46	-57.0	-8.90	Pass
325.850	-72.94	-8.57	-57.0	-15.94	Pass
519.850	-72.91	-7.31	-57.0	-15.91	Pass
956.350	-67.84	-1.76	-57.0	-10.84	Pass
1010.000	-57.71	8.92	-47.0	-10.71	Pass
1564.000	-57.52	10.41	-47.0	-10.52	Pass
2320.000	-54.82	13.36	-47.0	-7.82	Pass
7980.000	-60.93	22.56	-47.0	-13.93	Pass
10970.000	-54.79	27.14	-47.0	-7.79	Pass
12770.000	-54.29	27.59	-47.0	-7.29	Pass

RSE-EN RX-TX TEST Case_EN300328_EN300 328-RX_30M-12.75G_H



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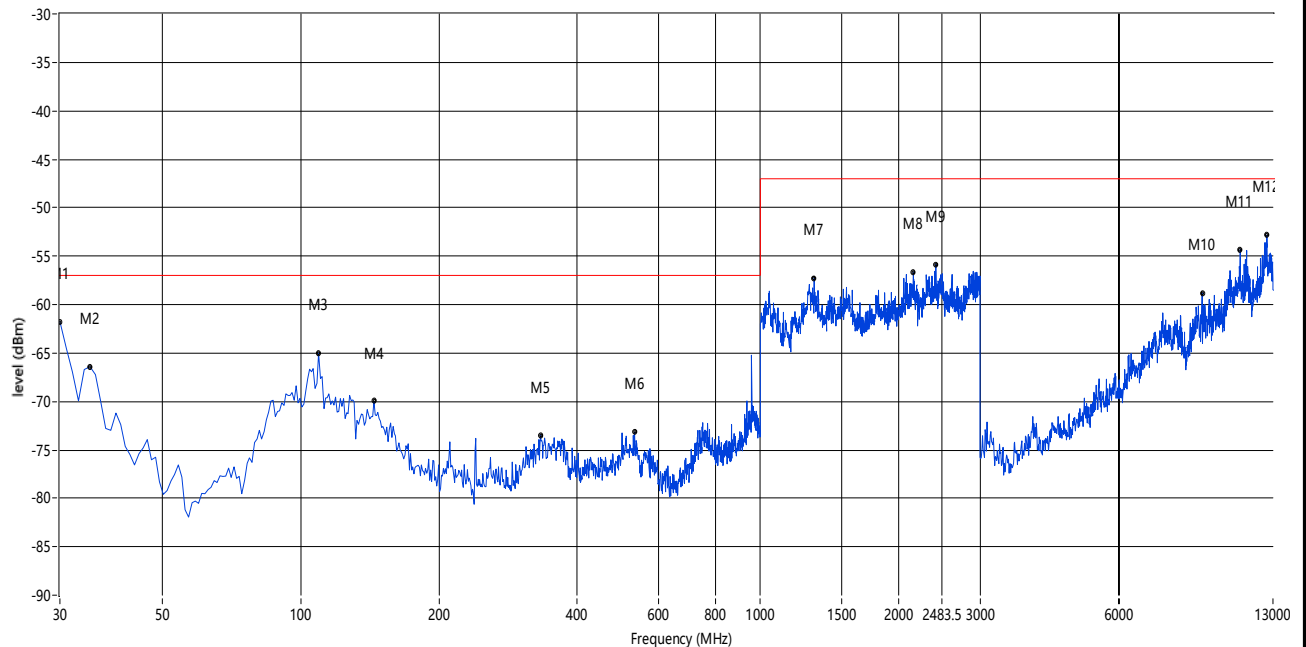
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Test in channel lowest: 2402MHz (BLE)

Vertical

Frequency (MHz)	Peak (dBm)	Factor (dBm)	PK Limit (dBm)	Over Limit (dBm)	Verdict
30.000	-61.75	-5.34	-57.0	-4.75	Pass
34.850	-66.41	-8.65	-57.0	-9.41	Pass
109.540	-65.00	-6.61	-57.0	-8.00	Pass
144.460	-69.97	-8.53	-57.0	-12.97	Pass
332.640	-73.46	-8.30	-57.0	-16.46	Pass
532.460	-73.16	-7.10	-57.0	-16.16	Pass
1308.000	-57.26	10.56	-47.0	-10.26	Pass
2150.000	-56.69	12.52	-47.0	-9.69	Pass
2406.000	-55.82	13.65	-47.0	-8.82	Pass
9120.000	-58.81	24.42	-47.0	-11.81	Pass
11040.000	-54.31	27.60	-47.0	-7.31	Pass
12620.000	-52.82	28.43	-47.0	-5.82	Pass

RSE-EN RX-TX TEST Case_EN300328_EN300 328-RX_30M-12.75G_V



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Test Report No.

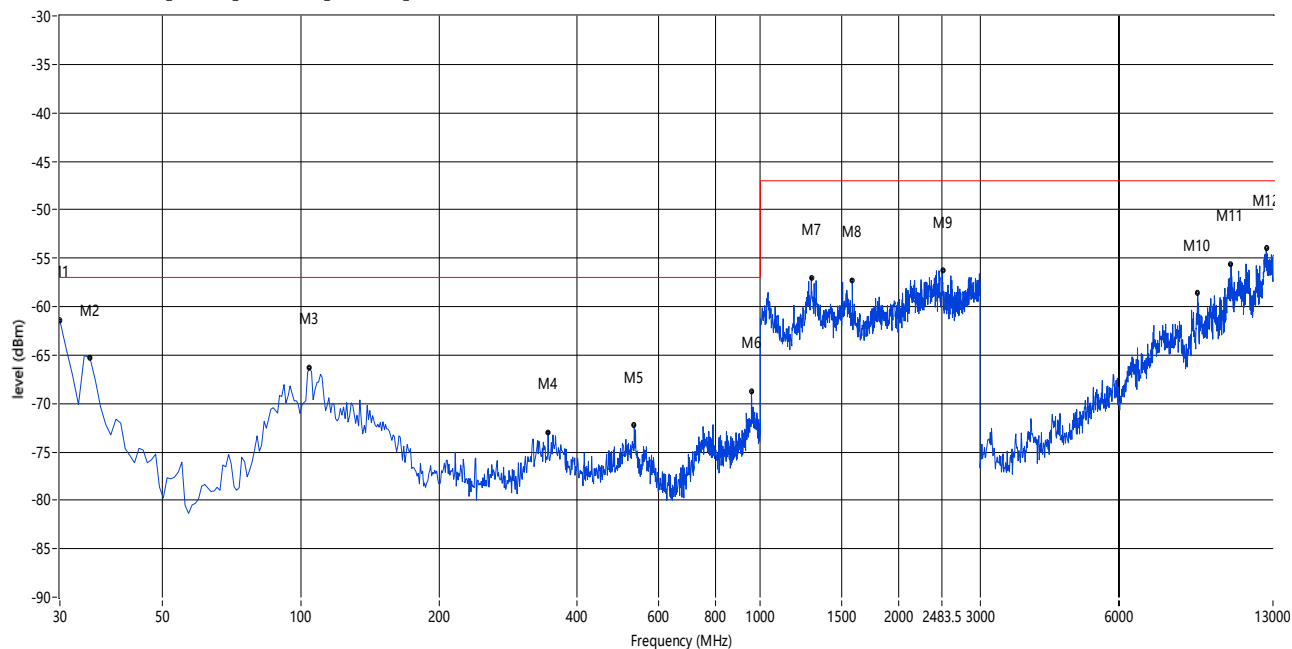
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Horizontal

Frequency (MHz)	Peak (dBm)	Factor (dBm)	PK Limit (dBm)	Over Limit (dBm)	Verdict
30.000	-61.44	-5.34	-57.0	-4.44	Pass
34.850	-65.28	-8.65	-57.0	-8.28	Pass
104.690	-66.36	-5.84	-57.0	-9.36	Pass
345.250	-72.97	-8.40	-57.0	-15.97	Pass
531.490	-72.29	-7.17	-57.0	-15.29	Pass
956.350	-68.79	-1.76	-57.0	-11.79	Pass
1290.000	-56.98	11.03	-47.0	-9.98	Pass
1584.000	-57.31	9.65	-47.0	-10.31	Pass
2488.000	-56.25	13.74	-47.0	-9.25	Pass
8930.000	-58.64	23.90	-47.0	-11.64	Pass
10540.000	-55.63	28.00	-47.0	-8.63	Pass
12580.000	-54.00	28.53	-47.0	-7.00	Pass

RSE-EN RX-TX TEST Case_EN300328_EN300 328-RX_30M-12.75G_H



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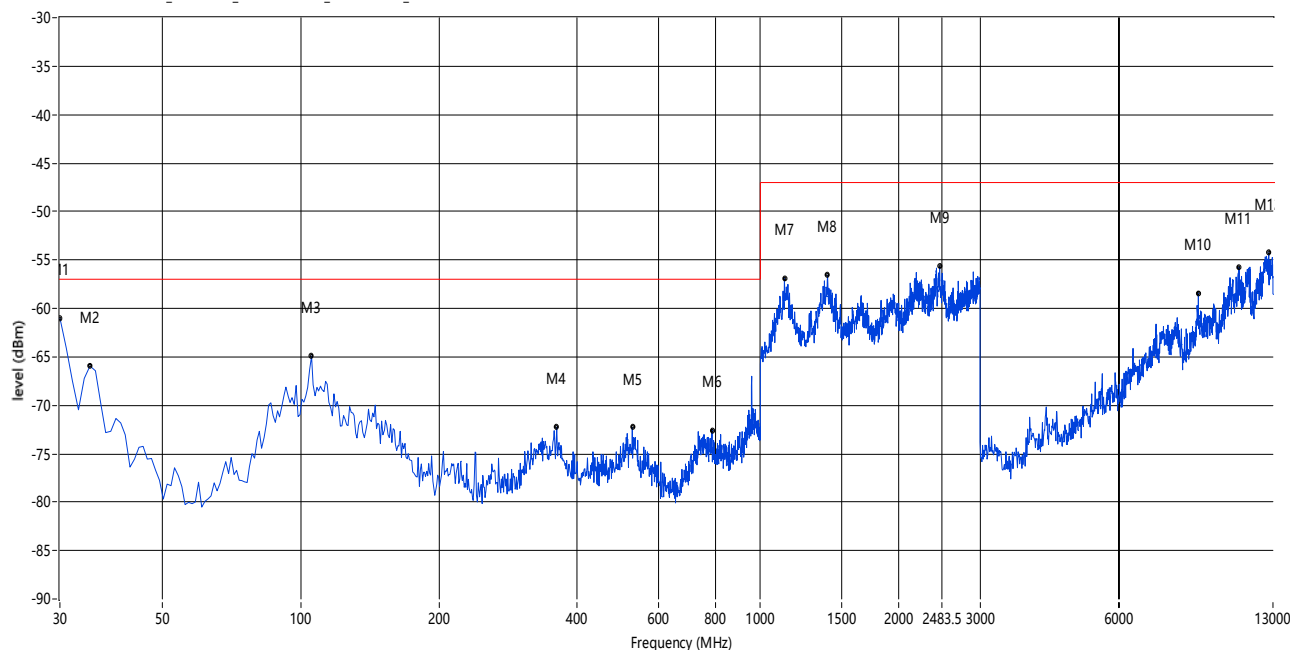
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Test in channel highest: 2480MHz (BLE)

Vertical

Frequency (MHz)	Peak (dBm)	Factor (dBm)	PK Limit (dBm)	Over Limit (dBm)	Verdict
30.000	-60.98	-5.34	-57.0	-3.98	Pass
34.850	-65.94	-8.65	-57.0	-8.94	Pass
105.660	-64.92	-6.46	-57.0	-7.92	Pass
360.770	-72.24	-8.08	-57.0	-15.24	Pass
526.640	-72.29	-7.39	-57.0	-15.29	Pass
784.660	-72.57	-6.17	-57.0	-15.57	Pass
1128.000	-56.94	11.29	-47.0	-9.94	Pass
1400.000	-56.56	12.52	-47.0	-9.56	Pass
2454.000	-55.65	14.41	-47.0	-8.65	Pass
8950.000	-58.46	23.70	-47.0	-11.46	Pass
10960.000	-55.77	27.03	-47.0	-8.77	Pass
12730.000	-54.26	27.32	-47.0	-7.26	Pass

RSE-EN RX-TX TEST Case_EN300328_EN300 328-RX_30M-12.75G_V



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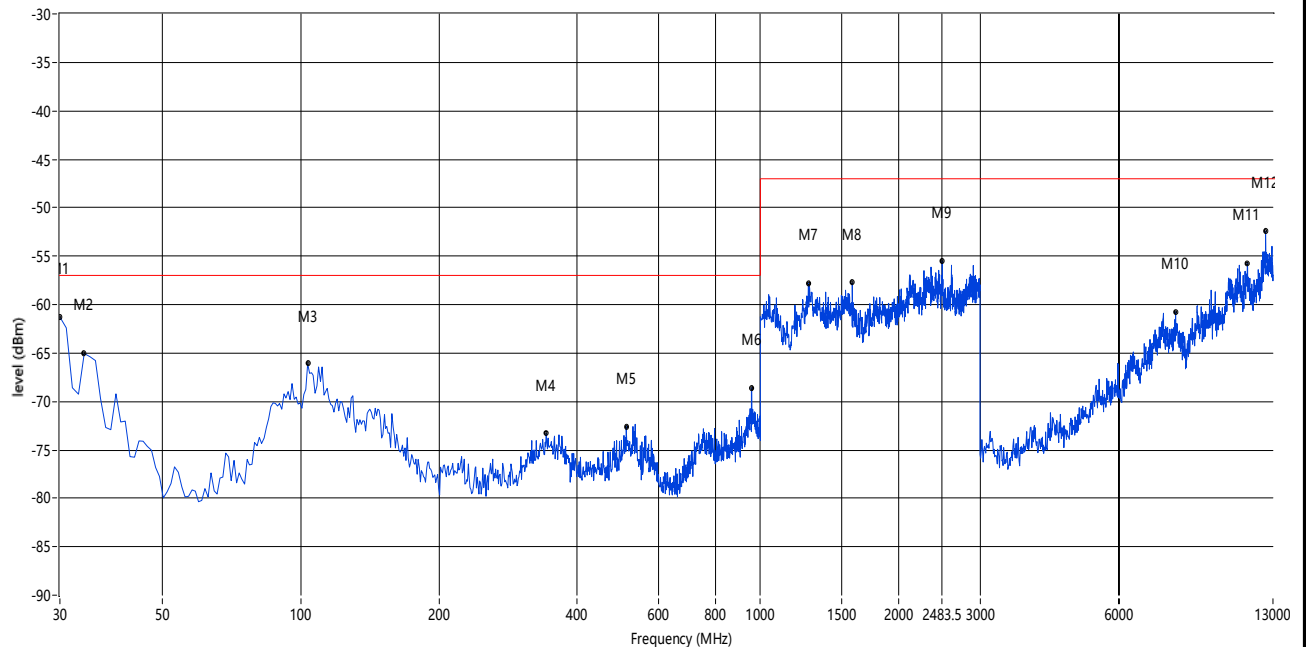
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Horizontal

Frequency (MHz)	Peak (dBm)	Factor (dBm)	PK Limit (dBm)	Over Limit (dBm)	Verdict
30.000	-61.30	-5.34	-57.0	-4.30	Pass
33.880	-65.05	-8.80	-57.0	-8.05	Pass
103.720	-66.11	-6.24	-57.0	-9.11	Pass
342.340	-73.32	-8.40	-57.0	-16.32	Pass
511.120	-72.61	-7.22	-57.0	-15.61	Pass
957.320	-68.60	-1.74	-57.0	-11.60	Pass
1272.000	-57.79	11.10	-47.0	-10.79	Pass
1584.000	-57.74	9.65	-47.0	-10.74	Pass
2486.000	-55.50	13.70	-47.0	-8.50	Pass
7990.000	-60.76	22.68	-47.0	-13.76	Pass
11440.000	-55.72	28.15	-47.0	-8.72	Pass
12540.000	-52.42	29.02	-47.0	-5.42	Pass

RSE-EN RX-TX TEST Case_EN300328_EN300 328-RX_30M-12.75G_H



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Receiver Blocking

GFSK mode

Hopping channel					
Wanted signal meanpower from companion device (dBm)	Blocking signal frequency (MHz)	Blocking signal power(dBm) CW	PER	Limit	Results
-64	2 380	-57	0.58%	≤10%	PASS
	2 503,5		0.28%		
	2 300	-47	0.32%		
	2 583,5		0.43%		

NOTE:

(1)The minimum performance criterion shall be a PER less than or equal to 10 %. The manufacturer may declare alternative performance criteria as long as that is appropriate for the intended use of the equipment (see clause 5.4.1.t)).

(2) Pmin=-70dBm

($\pi/4$)DQPSK

Hopping channel					
Wanted signal meanpower from companion device (dBm)	Blocking signal frequency (MHz)	Blocking signal power(dBm) CW	PER	Limit	Results
-64	2 380	-57	0.35%	≤10%	PASS
	2 503,5		0.39%		
	2 300	-47	0.17%		
	2 583,5		0.39%		

NOTE:

(1)The minimum performance criterion shall be a PER less than or equal to 10 %. The manufacturer may declare alternative performance criteria as long as that is appropriate for the intended use of the equipment (see clause 5.4.1.t)).

(2) Pmin=-70dBm

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BLE- Low channel

Hopping channel					
Wanted signal meanpower from companion device (dBm)	Blocking signal frequency (MHz)	Blocking signal power(dBm) CW	PER	Limit	Results
-59	2 380	-57	0.32%	≤10%	PASS
	2 503,5		0.49%		
	2 300	-47	0.36%		
	2 583,5		0.49%		

NOTE:

(1)The minimum performance criterion shall be a PER less than or equal to 10 %. The manufacturer may declare alternative performance criteria as long as that is appropriate for the intended use of the equipment (see clause 5.4.1.t)).

(2) Pmin=-71dBm

BLE- High channel

Hopping channel					
Wanted signal meanpower from companion device (dBm)	Blocking signal frequency (MHz)	Blocking signal power(dBm) CW	PER	Limit	Results
-59	2 380	-57	0.40%	≤10%	PASS
	2 503,5		0.42%		
	2 300	-47	0.40%		
	2 583,5		0.44%		

NOTE:

(1)The minimum performance criterion shall be a PER less than or equal to 10 %. The manufacturer may declare alternative performance criteria as long as that is appropriate for the intended use of the equipment (see clause 5.4.1.t)).

(2) Pmin=-71dBm

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德普华检测中心 Shenzhen STS Test Services C., Ltd.
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-27_09.51.58

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: TX-BT-G-H

Test Standard: EN 300328

Model: PA-20B

Work Addition: Normal

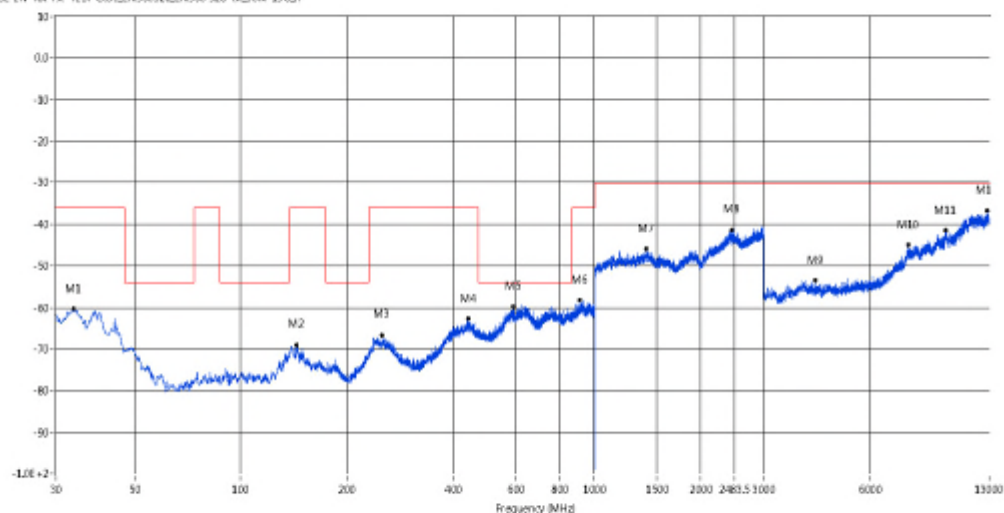
Temp.(oC): 22.2

Load:

Hum.: 55%

Remark:

RSE-EN RX-TX TEST Case_EN300328,EN300 328-TX_10M-33G,H



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
33.638	-60.28	-4.77	-36.0	-24.28	231.40	Horizontal	V	Pass
143.732	-68.99	-7.57	-36.0	-32.99	353.40	Horizontal	V	Pass
251.160	-66.61	-3.34	-36.0	-30.61	259.20	Horizontal	V	Pass
439.825	-62.67	2.07	-36.0	-26.67	237.60	Horizontal	V	Pass
587.508	-59.99	5.01	-54.0	-5.99	170.90	Horizontal	V	Pass
908.820	-58.21	8.51	-36.0	-22.21	167.80	Horizontal	V	Pass
1400.500	-45.99	11.02	-30.0	-15.99	173.70	Horizontal	V	Pass
2446.500	-41.58	16.85	-30.0	-11.58	269.00	Horizontal	V	Pass
4220.000	-53.61	6.67	-30.0	-23.61	36.90	Horizontal	V	Pass
7690.000	-44.93	16.10	-30.0	-14.93	145.60	Horizontal	V	Pass
9840.000	-41.51	19.04	-30.0	-11.51	180.20	Horizontal	V	Pass
12845.000	-36.63	23.73	-30.0	-6.63	221.20	Horizontal	V	Pass

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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-27_09.46.14

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: TX-BT-G-H

Test Standard: EN 300328

Model: PA-20B

Work Addition: Normal

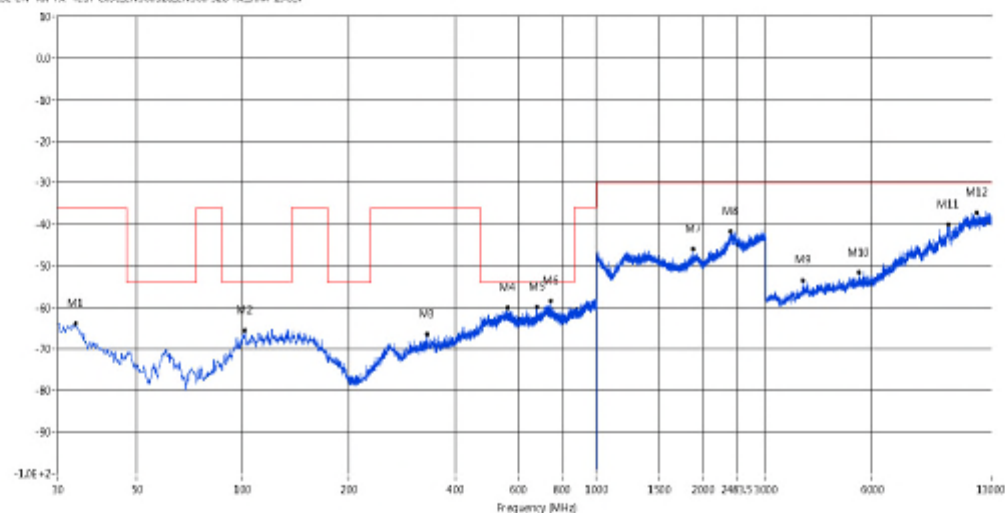
Temp.(°C): 22.2

Load:

Hum.: 55%

Remark:

RSE-EN RX-TX TEST Case:EN300328,EN300 328-TX,31M-EG,V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
33.638	-63.99	-8.89	-36.0	-27.99	354.30	Vertical	V	Pass
101.537	-65.62	-5.47	-54.0	-11.62	21.70	Vertical	V	Pass
331.427	-66.51	-3.35	-36.0	-30.51	128.30	Vertical	V	Pass
561.560	-60.21	4.92	-54.0	-6.21	356.30	Vertical	V	Pass
677.475	-59.84	4.92	-54.0	-5.84	45.80	Vertical	V	Pass
742.708	-58.48	6.62	-54.0	-4.48	168.10	Vertical	V	Pass
1878.000	-45.95	11.00	-30.0	-15.95	61.90	Vertical	V	Pass
2388.500	-41.79	16.53	-30.0	-11.79	111.00	Vertical	V	Pass
3817.500	-53.38	5.37	-30.0	-23.38	90.30	Vertical	V	Pass
5507.500	-51.69	8.49	-30.0	-21.69	25.40	Vertical	V	Pass
9850.000	-40.08	20.07	-30.0	-10.08	59.10	Vertical	V	Pass
11877.500	-37.31	23.52	-30.0	-7.31	162.20	Vertical	V	Pass

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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-27_09.37.57

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: TX-BT-G-L

Test Standard: EN 300328

Model: PA-20B

Work Addition: Normal

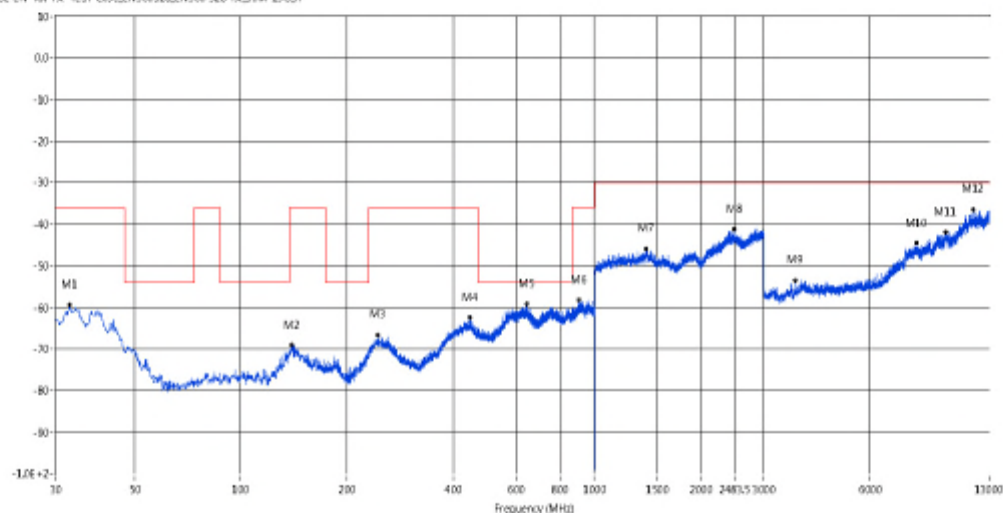
Temp.(°C): 22.2

Load:

Hum.: 55%

Remark:

RSE-EN RX-TX TEST Case:EN300328,EN300 328-TX,31M-EG,H



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
32.182	-60.84	-4.83	-36.0	-24.84	53.20	Horizontal	V	Pass
139.367	-69.09	-7.07	-36.0	-33.09	192.80	Horizontal	V	Pass
243.642	-66.62	-3.12	-36.0	-30.62	360.00	Horizontal	V	Pass
442.978	-62.57	1.82	-36.0	-26.57	22.00	Horizontal	V	Pass
642.555	-59.24	5.80	-54.0	-5.24	84.10	Horizontal	V	Pass
903.000	-58.27	8.27	-36.0	-22.27	90.30	Horizontal	V	Pass
1398.500	-45.86	11.01	-30.0	-15.86	118.40	Horizontal	V	Pass
2484.000	-41.33	16.66	-30.0	-11.33	347.80	Horizontal	V	Pass
3697.500	-53.39	5.50	-30.0	-23.39	109.50	Horizontal	V	Pass
8127.500	-44.64	16.92	-30.0	-14.64	56.30	Horizontal	V	Pass
9795.000	-41.95	19.05	-30.0	-11.95	115.30	Horizontal	V	Pass
11737.500	-36.41	23.38	-30.0	-6.41	227.40	Horizontal	V	Pass

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Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-27_09.43.26

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: TX-BT-G-L

Test Standard: EN 300328

Model: PA-20B

Work Addition: Normal

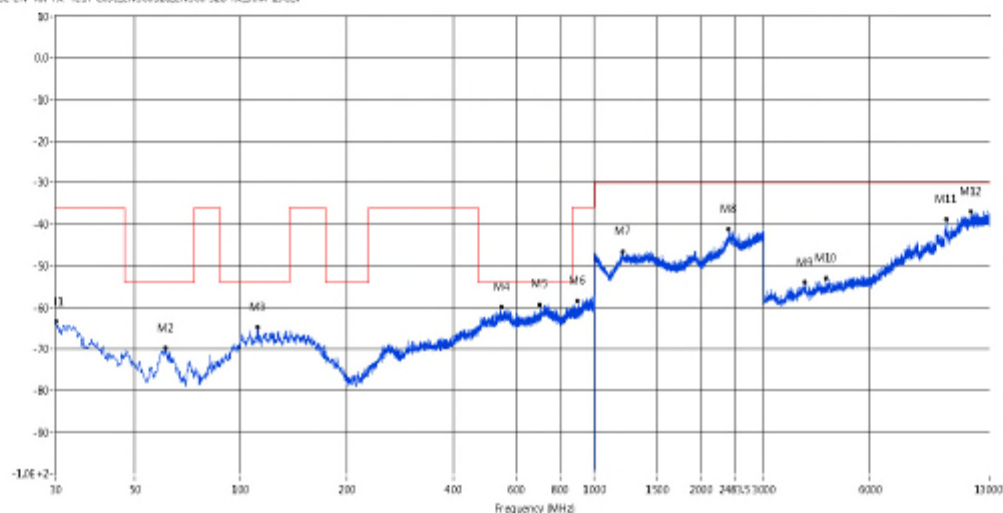
Temp.(°C): 22.2

Load:

Hum.: 55%

Remark:

RSE-EN RX-TX TEST Case:EN300328,EN300 328-TX,31M-EG,V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
30.000	-63.44	-6.69	-36.0	-27.44	23.00	Vertical	V	Pass
61.282	-69.72	-23.92	-54.0	-15.72	355.70	Vertical	V	Pass
111.238	-64.86	-4.92	-54.0	-10.86	344.80	Vertical	V	Pass
544.343	-59.85	4.74	-54.0	-5.85	268.20	Vertical	V	Pass
700.513	-59.30	5.61	-54.0	-5.30	1.00	Vertical	V	Pass
894.998	-58.49	7.48	-36.0	-22.49	167.20	Vertical	V	Pass
1198.500	-46.55	10.66	-30.0	-16.55	286.30	Vertical	V	Pass
2391.500	-41.22	16.65	-30.0	-11.22	152.10	Vertical	V	Pass
3920.000	-54.00	5.51	-30.0	-24.00	191.30	Vertical	V	Pass
4500.000	-53.01	6.56	-30.0	-23.01	138.20	Vertical	V	Pass
9852.500	-38.96	20.06	-30.0	-8.96	269.10	Vertical	V	Pass
11547.500	-37.00	23.86	-30.0	-7.00	38.40	Vertical	V	Pass

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Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-28_08.50.20

EUT Name: Bluetooth receiver

Mode: BLE-H

Model: PA-20B

Temp.(°C): 22.6

Hum.: 58%

Test Engineer: Lion

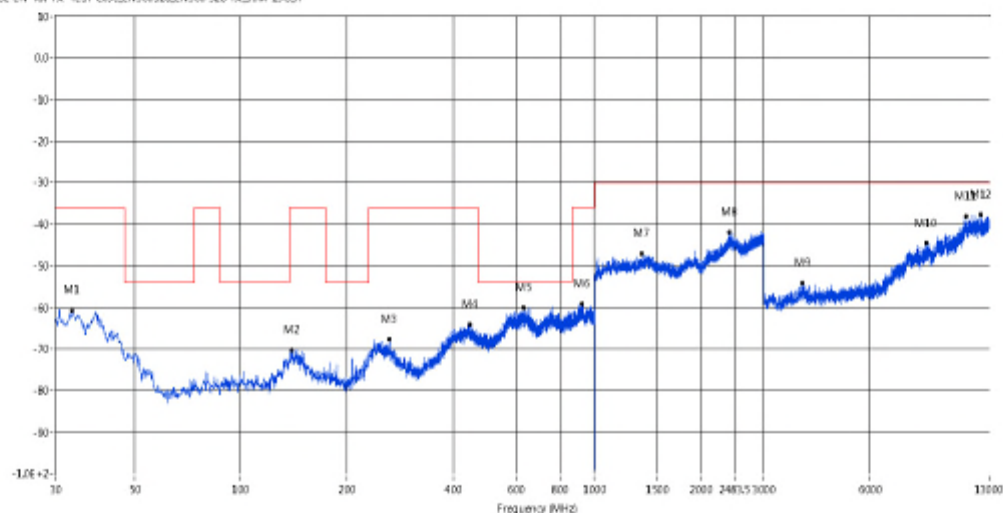
Test Standard: EN 300328

Work Addition: Normal

Load:

Remark:

RSE-EN RX-TX TEST Case:EN300328,EN300 328-TX,31M-EG,H



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
33.395	-60.70	-4.78	-36.0	-24.70	5.00	Horizontal	V	Pass
139.367	-70.21	-7.07	-36.0	-34.21	6.00	Horizontal	V	Pass
263.043	-67.64	-4.04	-36.0	-31.64	1.00	Horizontal	V	Pass
442.978	-64.07	1.82	-36.0	-28.07	1.00	Horizontal	V	Pass
628.490	-60.20	6.00	-54.0	-6.20	7.00	Horizontal	V	Pass
920.703	-59.24	8.93	-36.0	-23.24	2.00	Horizontal	V	Pass
1358.500	-47.02	10.60	-30.0	-17.02	4.00	Horizontal	V	Pass
2401.000	-41.89	16.83	-30.0	-11.89	9.00	Horizontal	V	Pass
3870.000	-54.12	6.44	-30.0	-24.12	10.00	Horizontal	V	Pass
8640.000	-44.59	17.25	-30.0	-14.59	1.00	Horizontal	V	Pass
11230.000	-38.15	22.73	-30.0	-8.15	5.00	Horizontal	V	Pass
12359.999	-37.63	22.87	-30.0	-7.63	5.00	Horizontal	V	Pass

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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-28_08:51:52

EUT Name: Bluetooth receiver

Mode: BLE-H

Model: PA-20B

Temp.(°C): 22.6

Hum.: 58%

Test Engineer: Lion

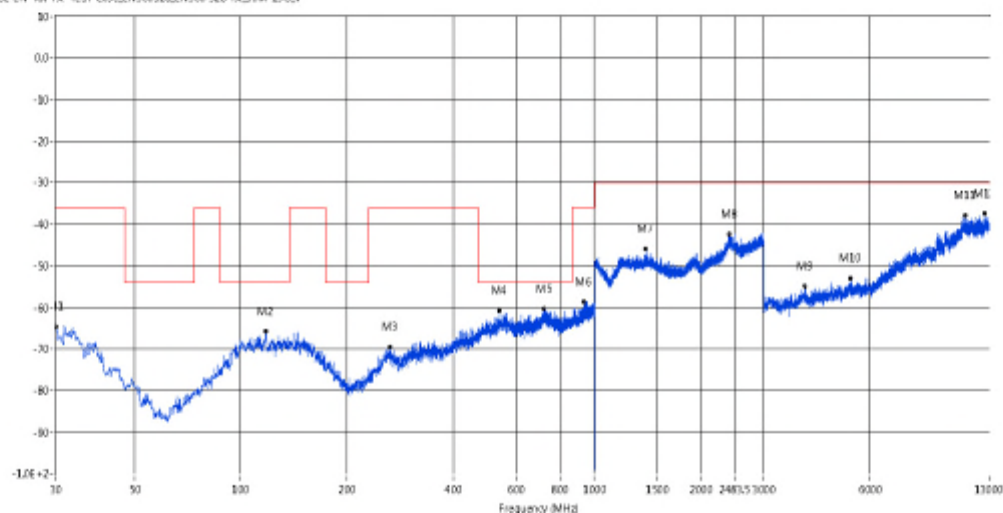
Test Standard: EN 300328

Work Addition: Normal

Load:

Remark:

RSE-EN RX-TX TEST Case:EN300328,EN300 328-TX,31M-EG,V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
30.000	-64.67	-6.69	-36.0	-28.67	3.00	Vertical	V	Pass
117.543	-65.74	-4.56	-54.0	-11.74	4.00	Vertical	V	Pass
263.528	-69.59	-4.61	-36.0	-33.59	6.00	Vertical	V	Pass
537.310	-60.79	4.45	-54.0	-6.79	1.00	Vertical	V	Pass
720.155	-60.39	7.04	-54.0	-6.39	7.00	Vertical	V	Pass
933.555	-58.69	9.14	-36.0	-22.69	6.00	Vertical	V	Pass
1394.000	-46.04	10.67	-30.0	-16.04	6.00	Vertical	V	Pass
2405.500	-42.33	16.92	-30.0	-12.33	9.00	Vertical	V	Pass
3937.500	-54.95	5.42	-30.0	-24.95	2.00	Vertical	V	Pass
5292.500	-53.07	8.31	-30.0	-23.07	3.00	Vertical	V	Pass
11170.000	-37.93	23.21	-30.0	-7.93	4.00	Vertical	V	Pass
12632.500	-37.41	23.91	-30.0	-7.41	10.00	Vertical	V	Pass

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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-28_08:54:22

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: BLE-L

Test Standard: EN 300328

Model: PA-20B

Work Addition: Normal

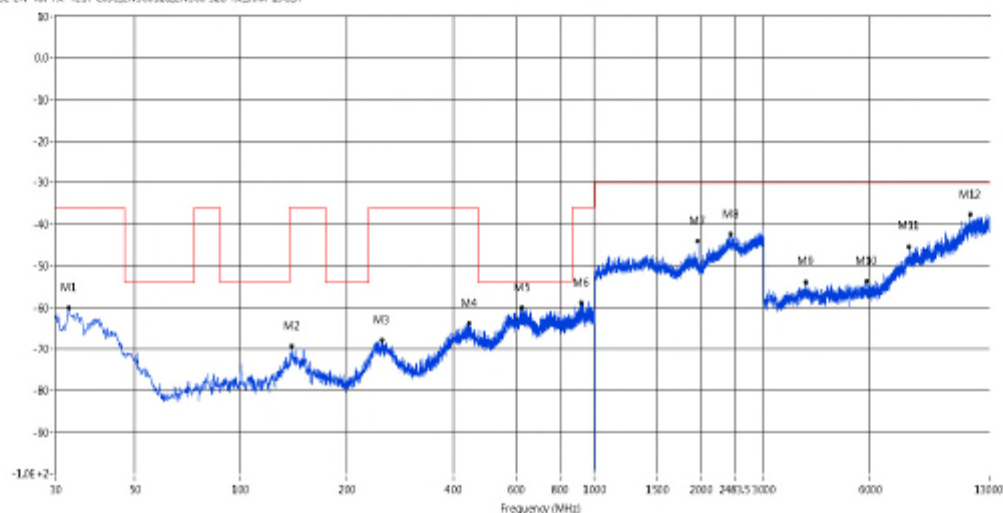
Temp.(°C): 22.6

Load:

Hum.: 58%

Remark:

RSE-EN RX-TX TEST Case:EN300328,EN300 328-TX,31M-EDG,H



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
32.425	-62.00	-4.82	-36.0	-26.00	6.00	Horizontal	V	Pass
139.125	-69.26	-7.16	-36.0	-33.26	10.00	Horizontal	V	Pass
250.432	-67.94	-3.32	-36.0	-31.94	10.00	Horizontal	V	Pass
441.038	-64.00	1.99	-36.0	-28.00	10.00	Horizontal	V	Pass
623.882	-60.07	6.02	-54.0	-6.07	1.00	Horizontal	V	Pass
915.852	-58.87	8.81	-36.0	-22.87	3.00	Horizontal	V	Pass
1957.500	-44.01	10.67	-30.0	-14.01	6.00	Horizontal	V	Pass
2430.500	-42.51	16.84	-30.0	-12.51	6.00	Horizontal	V	Pass
3947.500	-53.87	6.31	-30.0	-23.87	6.00	Horizontal	V	Pass
5867.500	-53.79	8.00	-30.0	-23.79	3.00	Horizontal	V	Pass
7750.000	-45.36	15.88	-30.0	-15.36	10.00	Horizontal	V	Pass
11497.500	-37.62	23.65	-30.0	-7.62	9.00	Horizontal	V	Pass

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Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-28 08:53:04

EUT Name: Bluetooth receiver

Mode: BLE-L

Model: PA-20B

Temp.(°C): 22.6

Hum.: 58%

Test Engineer: Lion

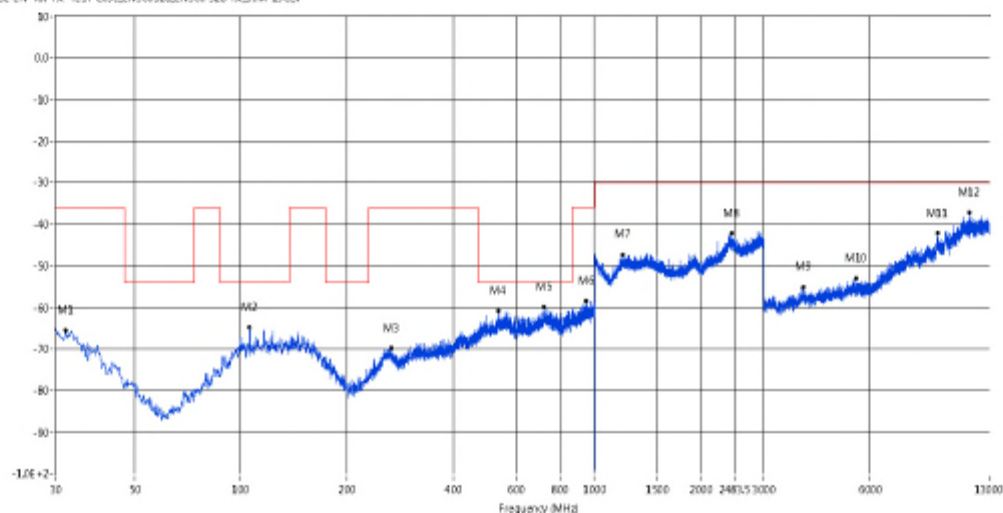
Test Standard: EN 300328

Work Addition: Normal

Load:

Remark:

RSE-EN RX-TX TEST Case:EN300328,EN300 328-TX,31M-EDG,V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
31.940	-65.46	-7.86	-36.0	-29.46	4.00	Vertical	V	Pass
105.902	-64.82	-5.22	-54.0	-10.82	3.00	Vertical	V	Pass
266.438	-69.78	-4.94	-36.0	-33.78	10.00	Vertical	V	Pass
535.612	-60.88	4.31	-54.0	-6.88	9.00	Vertical	V	Pass
719.912	-59.96	7.03	-54.0	-5.96	2.00	Vertical	V	Pass
943.982	-58.46	9.51	-36.0	-22.46	6.00	Vertical	V	Pass
1198.500	-47.24	10.66	-30.0	-17.24	5.00	Vertical	V	Pass
2435.000	-42.27	16.64	-30.0	-12.27	10.00	Vertical	V	Pass
3895.000	-55.06	5.59	-30.0	-25.06	4.00	Vertical	V	Pass
5485.000	-53.10	8.40	-30.0	-23.10	5.00	Vertical	V	Pass
9330.000	-42.11	19.18	-30.0	-12.11	8.00	Vertical	V	Pass
11452.500	-37.15	23.47	-30.0	-7.15	1.00	Vertical	V	Pass

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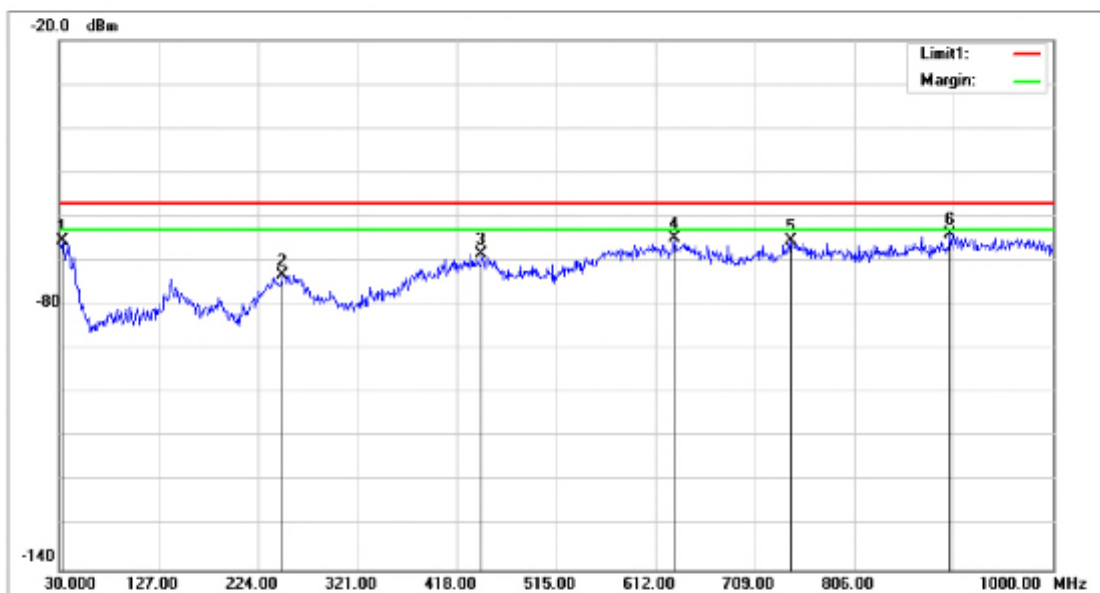
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德普华检测中心 Shenzhen STS Test Services C., Ltd. 晓
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 http://www.stsapp.com

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:	2019/5/27
Test item:	Radiated Emission	Time:	13:42:20
Company:	Bluetooth receiver	Temp.(C):	24(C)
Model:	PA-20B	Hum. (%RH):	65%RH
Mode:	BT-G-II	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	33.0070	-60.56	-4.80	-65.36	-57.00	-8.36			peak
2	248.9290	-69.90	-3.28	-73.18	-57.00	-16.18			peak
3	443.1230	-70.25	1.81	-68.44	-57.00	-11.44			peak
4	630.8180	-70.70	5.99	-64.71	-57.00	-7.71			peak
5	744.4050	-71.71	6.12	-65.59	-57.00	-8.59			peak
6	899.1200	-71.93	8.10	-63.83	-57.00	-6.83			peak

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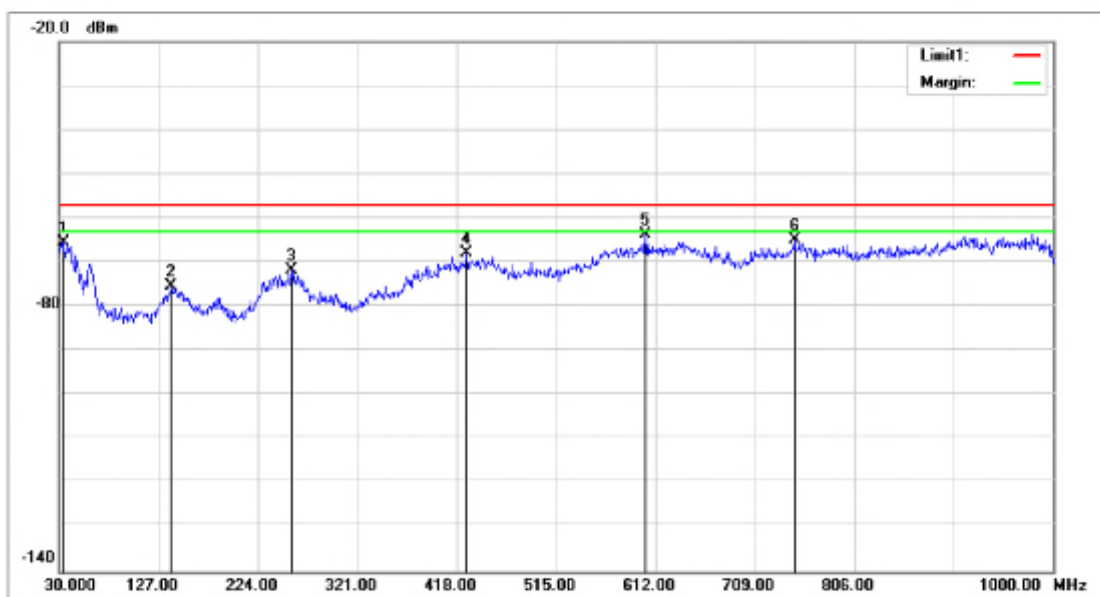
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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/27
Test item:	Radiated Emission	Time:	13:38:02
Company:	Bluetooth receiver	Temp.(C):	24(C)
Model:	PA-20B	Hum.(%RH):	65%RH
Mode:	BT-G-H	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	34.3650	-56.13	-9.34	-65.47	-57.00	-8.47			peak
2	140.4830	-71.64	-3.60	-75.24	-57.00	-18.24			peak
3	257.4650	-66.90	-4.74	-71.64	-57.00	-14.64			peak
4	427.8940	-67.72	-0.19	-67.91	-57.00	-10.91			peak
5	602.5910	-67.15	3.47	-63.68	-57.00	-6.68			peak
6	747.9940	-71.25	6.47	-64.78	-57.00	-7.78			peak

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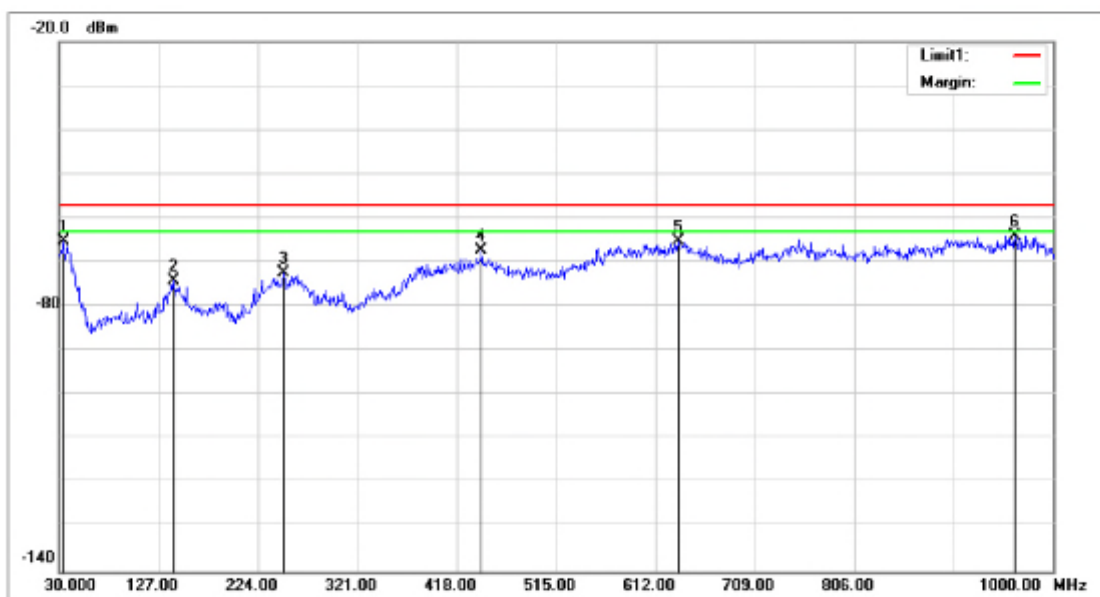
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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:	2019/5/27
Test item:	Radiated Emission	Time:	13:30:30
Company:	Bluetooth receiver	Temp.(C):	24(C)
Model:	PA-20B	Hum.(%RH):	65%RH
Mode:	BT-G-L	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	33.8800	-60.32	-4.76	-65.08	-57.00	-8.08			peak
2	141.7440	-67.00	-7.17	-74.17	-57.00	-17.17			peak
3	249.5110	-69.07	-3.30	-72.37	-57.00	-15.37			peak
4	442.5410	-69.05	1.86	-67.19	-57.00	-10.19			peak
5	634.6980	-71.25	5.98	-65.27	-57.00	-8.27			peak
6	963.4310	-72.83	8.97	-63.86	-57.00	-6.86			peak

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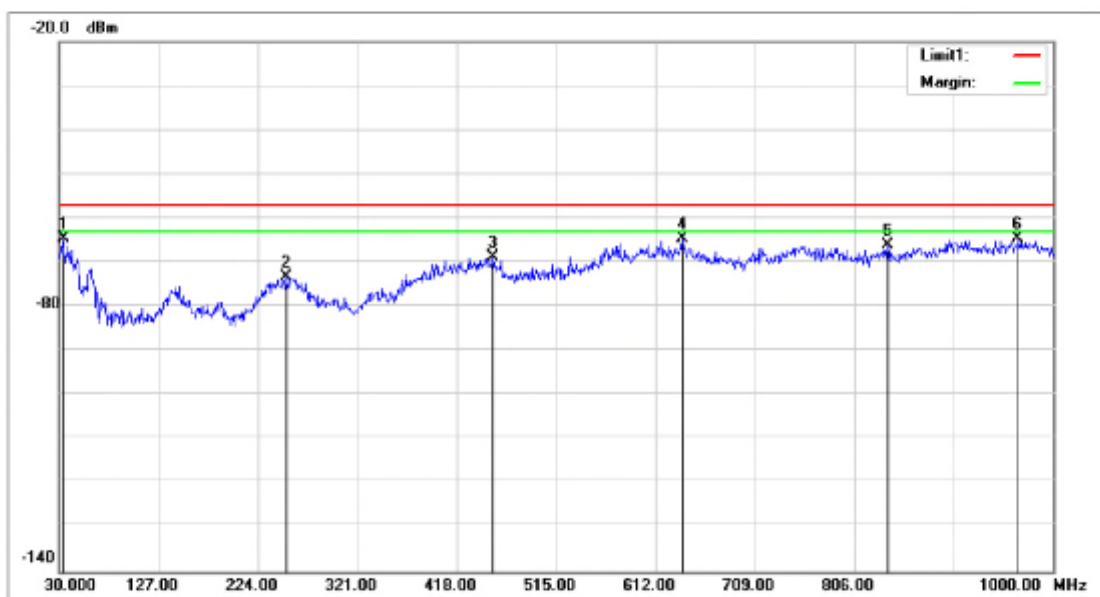
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Zhoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/27
Test item:	Radiated Emission	Time:	13:34:49
Company:	Bluetooth receiver	Temp.(C):	24(C)
Model:	PA-20B	Hum.(%RH):	65%RH
Mode:	BT-G-L	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	33.9770	-55.37	-9.10	-64.47	-57.00	-7.47			peak
2	252.8090	-67.58	-5.71	-73.29	-57.00	-16.29			peak
3	453.8900	-69.20	0.33	-68.87	-57.00	-11.87			peak
4	638.5780	-68.31	3.86	-64.45	-57.00	-7.45			peak
5	839.4650	-72.64	6.71	-65.93	-57.00	-8.93			peak
6	966.8260	-74.20	9.58	-64.62	-57.00	-7.62			peak

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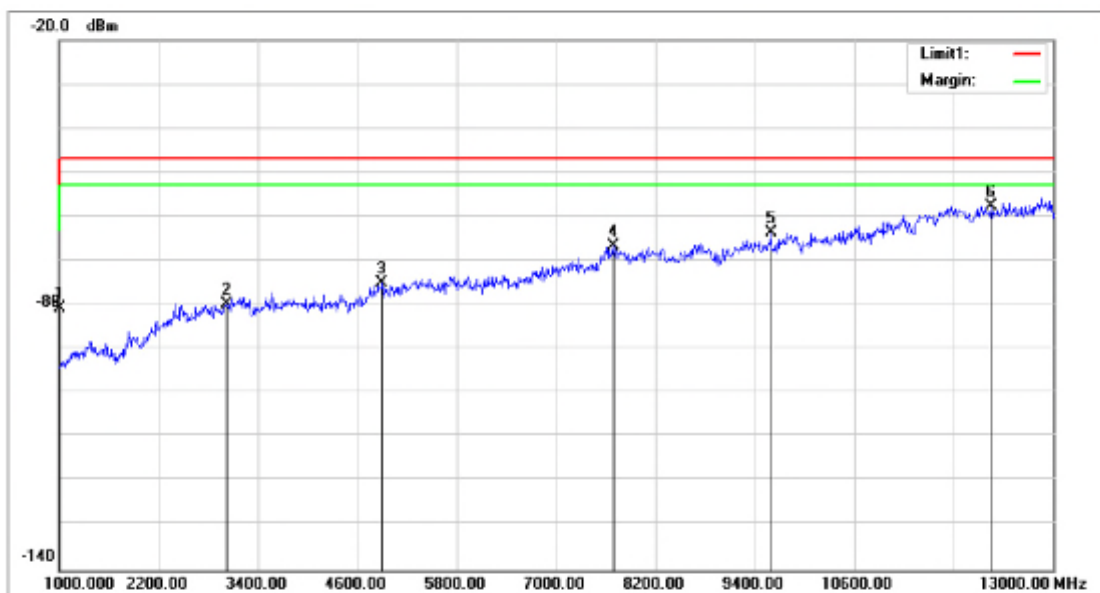
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德普华检测中心 Shenzhen STS Test Services C., Ltd. 晓
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:	2019/5/27
Test item:	Radiated Emission	Time:	16:07:27
Company:	Bluetooth receiver	Temp.(C):	24(C)
Model:	PA-20B	Hum. (%RH):	65%RH
Mode:	BT-G-H	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1000.0000	-89.04	8.18	-80.86	-57.00	-23.86			peak
2	3028.000	-83.79	3.95	-79.84	-47.00	-32.84			peak
3	4910.800	-83.41	8.40	-75.01	-47.00	-28.01			peak
4	7696.000	-83.22	16.59	-66.63	-47.00	-19.63			peak
5	9601.600	-82.67	19.13	-63.54	-47.00	-16.54			peak
6	12257.200	-81.82	24.16	-57.66	-47.00	-10.66			peak

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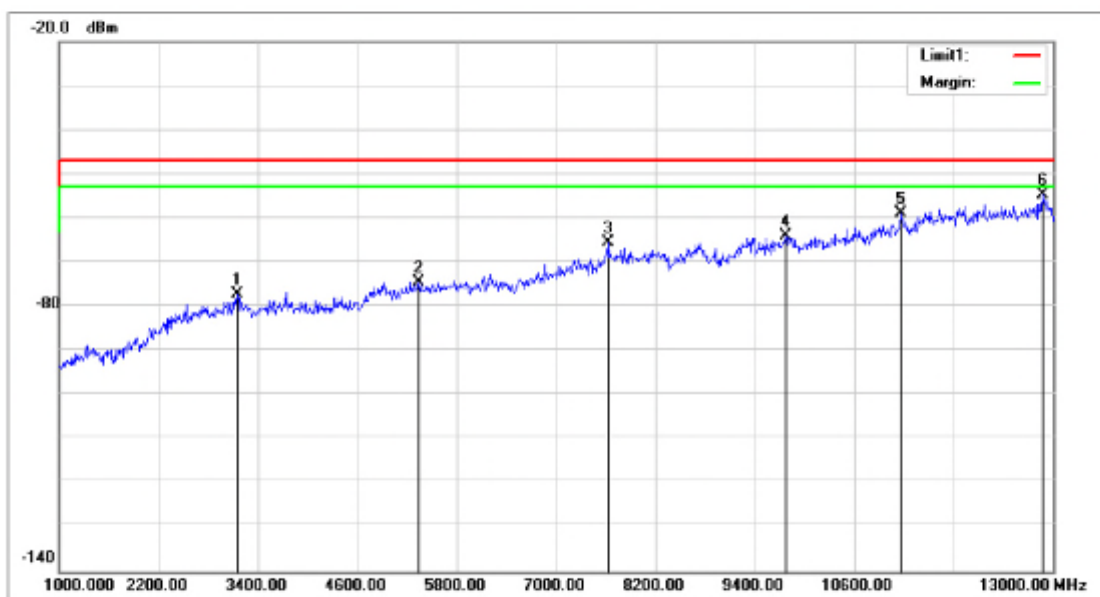
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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/27
Test item:	Radiated Emission	Time:	16:03:22
Company:	Bluetooth receiver	Temp.(C):	24(C)
Model:	PA-20B	Hum.(%RH):	65%RH
Mode:	BT-G-H	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	3157.600	-81.96	4.76	-77.20	-47.00	-30.20			peak
2	5352.400	-83.46	9.10	-74.36	-47.00	-27.36			peak
3	7630.000	-82.10	16.51	-65.59	-47.00	-18.59			peak
4	9782.800	-83.79	19.72	-64.07	-47.00	-17.07			peak
5	11173.600	-82.62	23.74	-58.88	-47.00	-11.88			peak
6	12886.000	-80.22	25.48	-54.74	-47.00	-7.74			peak

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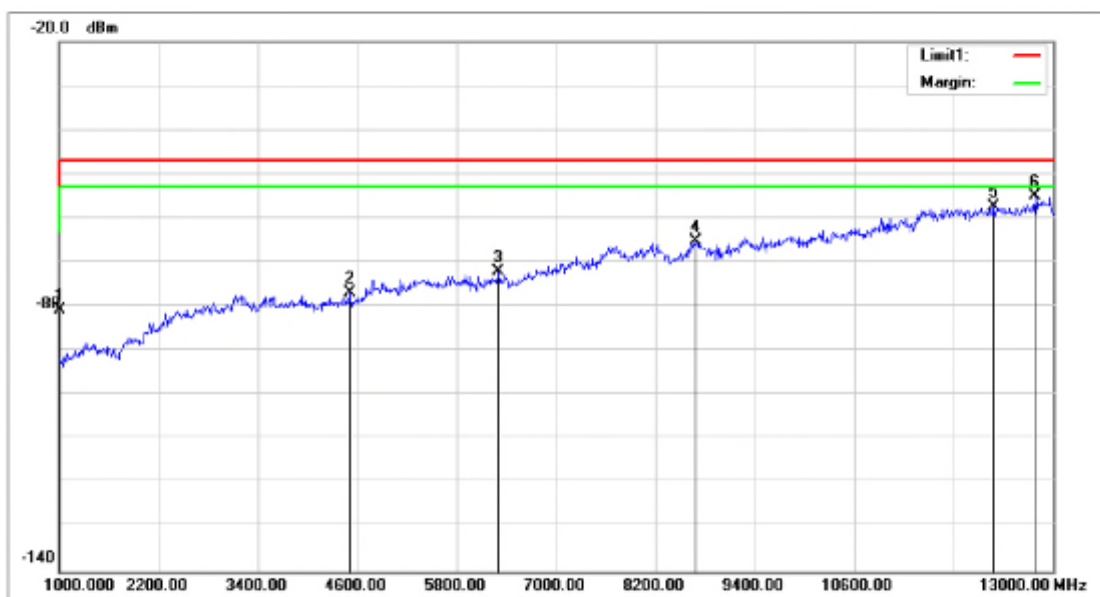
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Zhoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:	2019/5/27
Test item:	Radiated Emission	Time:	15:54:58
Company:	Bluetooth receiver	Temp.(C):	24(C)
Model:	PA-20B	Hum.(%RH):	65%RH
Mode:	BT-G-L	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1000.0000	-89.01	8.18	-80.83	-57.00	-23.83			peak
2	4506.400	-83.99	7.02	-76.97	-47.00	-29.97			peak
3	6314.800	-81.48	9.48	-72.00	-47.00	-25.00			peak
4	8702.800	-83.45	18.30	-65.15	-47.00	-18.15			peak
5	12301.600	-81.09	23.80	-57.29	-47.00	-10.29			peak
6	12790.000	-79.60	24.77	-54.83	-47.00	-7.83			peak

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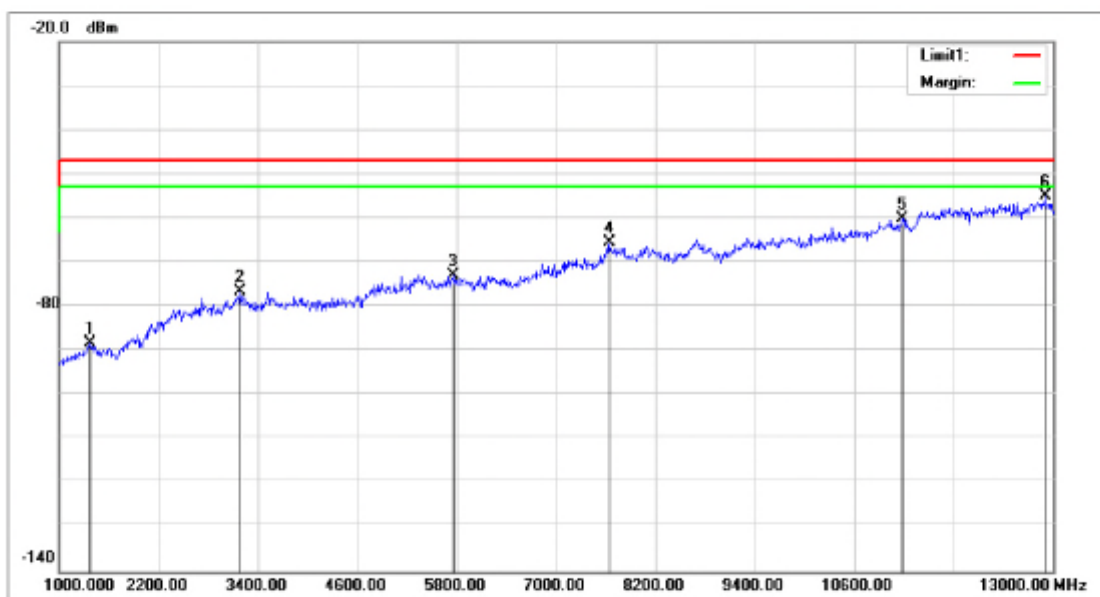
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德普华检测中心 Shenzhen STS Test Services C., Ltd. 瑞
Zhoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/27
Test item:	Radiated Emission	Time:	15:59:17
Company:	Bluetooth receiver	Temp.(C):	24(C)
Model:	PA-20B	Hum.(%RH):	65%RH
Mode:	BT-G-L	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1380.400	-85.65	-2.72	-88.37	-47.00	-41.37			peak
2	3188.800	-81.58	5.04	-76.54	-47.00	-29.54			peak
3	5758.000	-81.96	8.99	-72.97	-47.00	-25.97			peak
4	7651.600	-81.98	16.54	-65.44	-47.00	-18.44			peak
5	11188.000	-83.88	23.98	-59.90	-47.00	-12.90			peak
6	12904.000	-80.45	25.56	-54.89	-47.00	-7.89			peak

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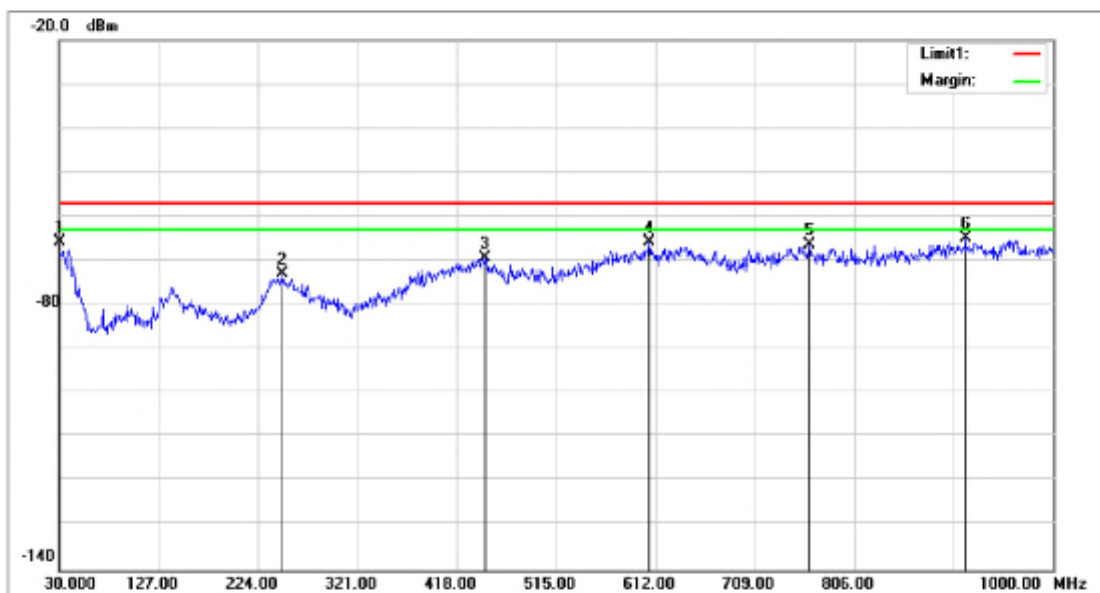
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德普华检测中心 Shenzhen STS Test Services C., Ltd. 晓
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 http://www.stsapp.com

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:	2019/5/28 Time: 8:43:18
Test item:	Radiated Emission	Temp.(C):	22.6(C)
Company:	Bluetooth receiver	Hum. (%RH):	72%RH
Model:	PA-20B	Power:	AC 230V/50Hz
Mode:	BLE-H	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	30.0000	-60.89	-4.92	-65.81	-57.00	-8.81			peak
2	248.2500	-69.83	-3.26	-73.09	-57.00	-16.09			peak
3	446.1300	-70.80	1.54	-69.26	-57.00	-12.26			peak
4	606.1800	-70.99	5.10	-65.89	-57.00	-8.89			peak
5	762.3500	-72.51	6.24	-66.27	-57.00	-9.27			peak
6	914.6400	-73.70	8.75	-64.95	-57.00	-7.95			peak

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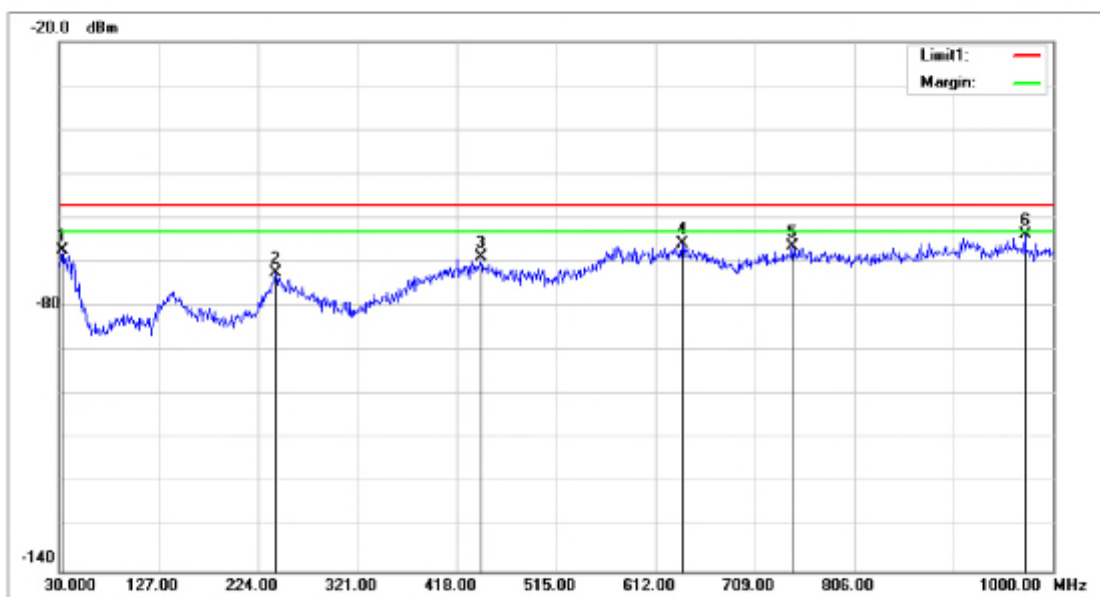
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Zhoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/28
Test item:	Radiated Emission	Time:	8:39:08
Company:	Bluetooth receiver	Temp.(C):	22.6(C)
Model:	PA-20B	Hum.(%RH):	72%RH
Mode:	BLE-H	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	32.9100	-62.45	-4.80	-67.25	-57.00	-10.25			peak
2	241.4600	-69.35	-3.05	-72.40	-57.00	-15.40			peak
3	442.2500	-70.65	1.88	-68.77	-57.00	-11.77			peak
4	638.1900	-71.78	5.97	-65.81	-57.00	-8.81			peak
5	745.8600	-72.34	6.14	-66.20	-57.00	-9.20			peak
6	972.8400	-72.28	8.64	-63.64	-57.00	-6.64			peak

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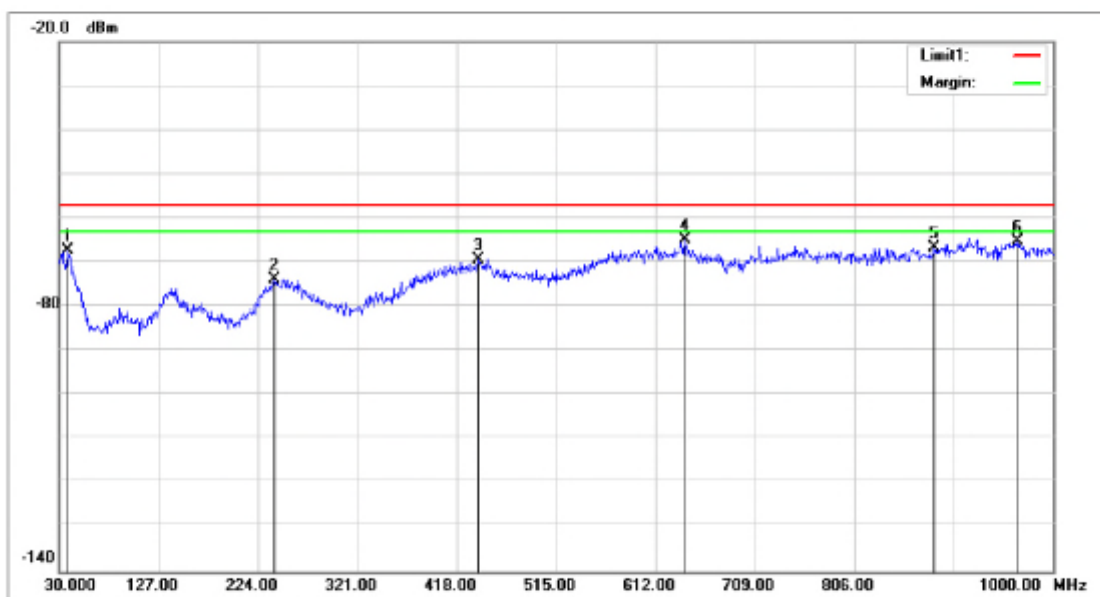
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Zhoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:	2019/5/28 Time: 8:30:59
Test item:	Radiated Emission	Temp.(C):	22.6(C)
Company:	Bluetooth receiver	Hum. (%RH):	72%RH
Model:	PA-20B	Power:	AC 230V/50Hz
Mode:	BLE-L	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	38.7300	-62.82	-4.55	-67.37	-57.00	-10.37			peak
2	239.5200	-70.61	-3.17	-73.78	-57.00	-16.78			peak
3	439.3400	-71.27	2.04	-69.23	-57.00	-12.23			peak
4	641.1000	-70.88	5.89	-64.99	-57.00	-7.99			peak
5	884.5700	-74.22	7.44	-66.78	-57.00	-9.78			peak
6	966.0500	-73.97	8.88	-65.09	-57.00	-8.09			peak

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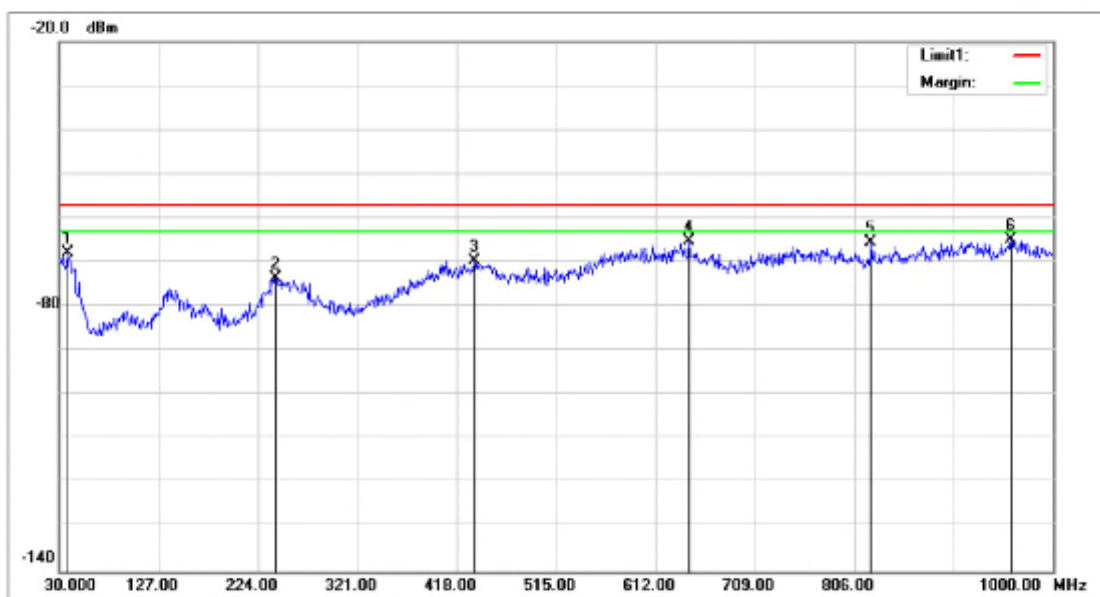
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德普华检测中心 Shenzhen STS Test Services C., Ltd. 瑞
Zhoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/28
Test item:	Radiated Emission	Time:	8:35:03
Company:	Bluetooth receiver	Temp.(C):	22.6(C)
Model:	PA-20B	Hum.(%RH):	72%RH
Mode:	BLE-L	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	38.7300	-63.38	-4.55	-67.93	-57.00	-10.93			peak
2	241.4600	-70.53	-3.05	-73.58	-57.00	-16.58			peak
3	435.4600	-71.36	1.81	-69.55	-57.00	-12.55			peak
4	644.9800	-70.82	5.65	-65.17	-57.00	-8.17			peak
5	822.4900	-70.82	5.48	-65.34	-57.00	-8.34			peak
6	959.2600	-73.73	9.03	-64.70	-57.00	-7.70			peak

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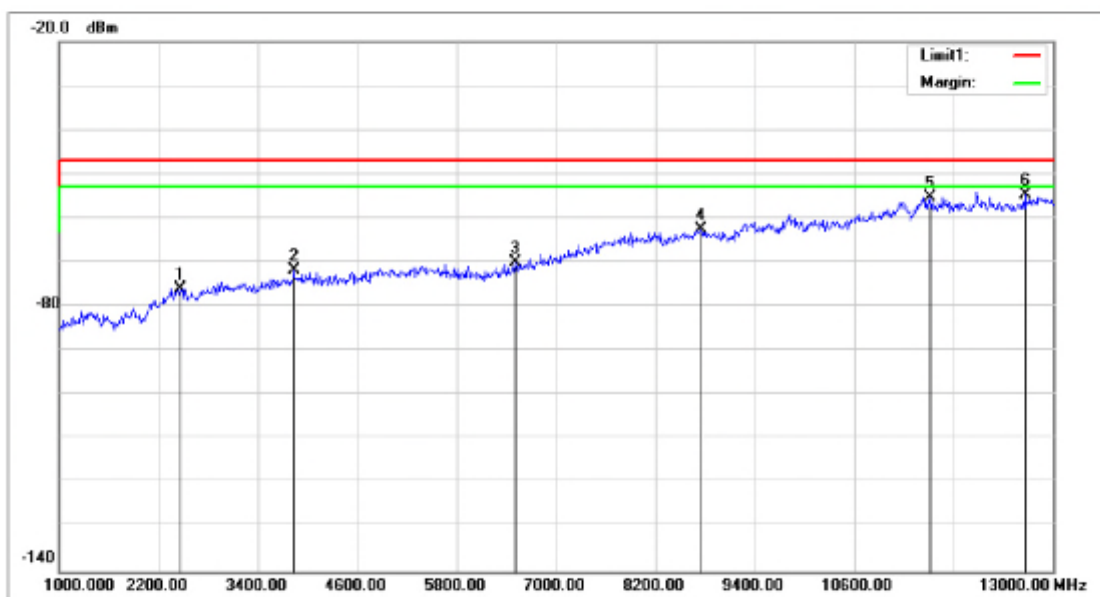
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德普华检测中心 Shenzhen STS Test Services C., Ltd. 瑞
Zhoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:	2019/5/28
Test item:	Radiated Emission	Time:	9:31:10
Company:	Bluetooth receiver	Temp.(C):	22.6(C)
Model:	PA-20B	Hum.(%RH):	72%RH
Mode:	BLE-H	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2474.800	-78.47	2.59	-75.88	-47.00	-28.88			peak
2	3839.200	-78.51	6.64	-71.87	-47.00	-24.87			peak
3	6517.600	-80.06	10.02	-70.04	-47.00	-23.04			peak
4	8753.200	-80.58	18.16	-62.42	-47.00	-15.42			peak
5	11527.600	-79.94	24.70	-55.24	-47.00	-8.24			peak
6	12674.800	-79.06	24.38	-54.68	-47.00	-7.68			peak

Prüfbericht - Nr.:

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Test Report No.

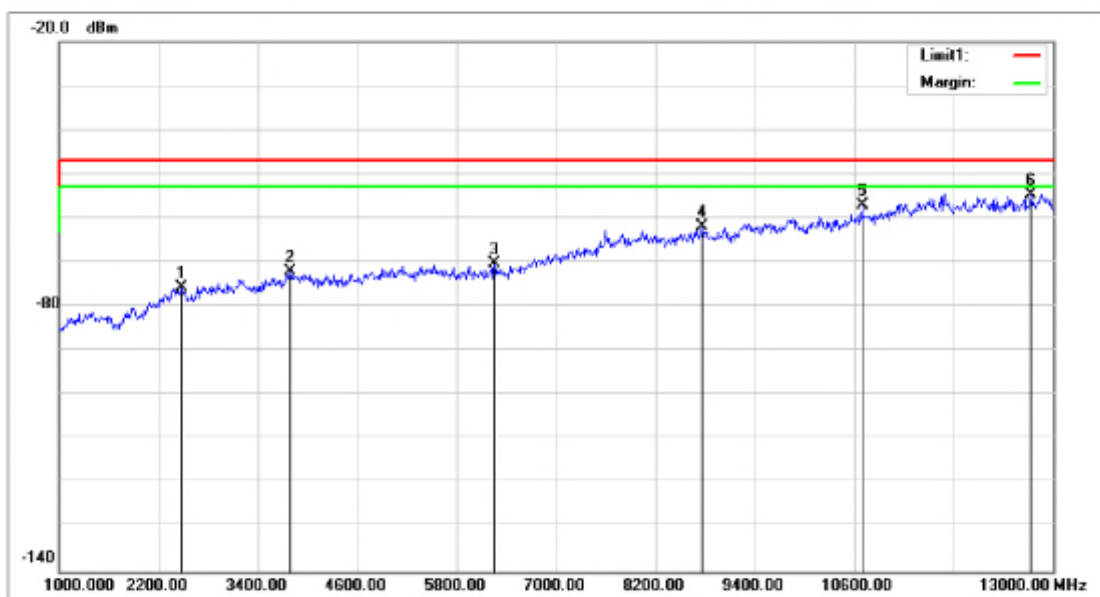
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德普华检测中心 Shenzhen STS Test Services Co., Ltd. 瑞
Zhoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 http://www.stsapp.com

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/28
Test item:	Radiated Emission	Time:	9:27:06
Company:	Bluetooth receiver	Temp.(C):	22.6(C)
Model:	PA-20B	Hum.(%RH):	72%RH
Mode:	BLE-H	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2482.000	-78.31	2.54	-75.77	-47.00	-28.77			peak
2	3797.200	-78.49	6.54	-71.95	-47.00	-24.95			peak
3	6264.400	-79.49	9.36	-70.13	-47.00	-23.13			peak
4	8766.400	-80.10	18.12	-61.98	-47.00	-14.98			peak
5	10696.000	-77.67	20.63	-57.04	-47.00	-10.04			peak
6	12738.400	-79.31	24.67	-54.64	-47.00	-7.64			peak

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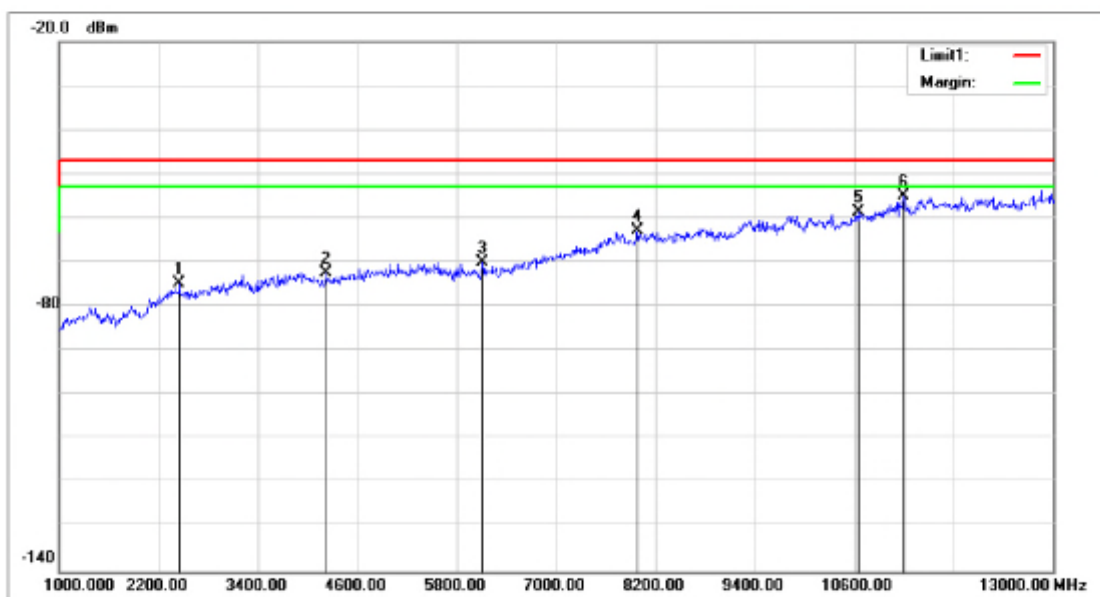
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德普华检测中心 Shenzhen STS Test Services C., Ltd. 瑞
Zhoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:	2019/5/28
Test item:	Radiated Emission	Time:	9:18:57
Company:	Bluetooth receiver	Temp.(C):	22.6(C)
Model:	PA-20B	Hum.(%RH):	72%RH
Mode:	BLE-L	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2462.800	-77.30	2.66	-74.64	-47.00	-27.64			peak
2	4229.200	-79.12	6.81	-72.31	-47.00	-25.31			peak
3	6112.000	-78.81	9.00	-69.81	-47.00	-22.81			peak
4	7992.400	-80.00	17.27	-62.73	-47.00	-15.73			peak
5	10658.800	-79.34	20.82	-58.52	-47.00	-11.52			peak
6	11206.000	-79.08	24.04	-55.04	-47.00	-8.04			peak

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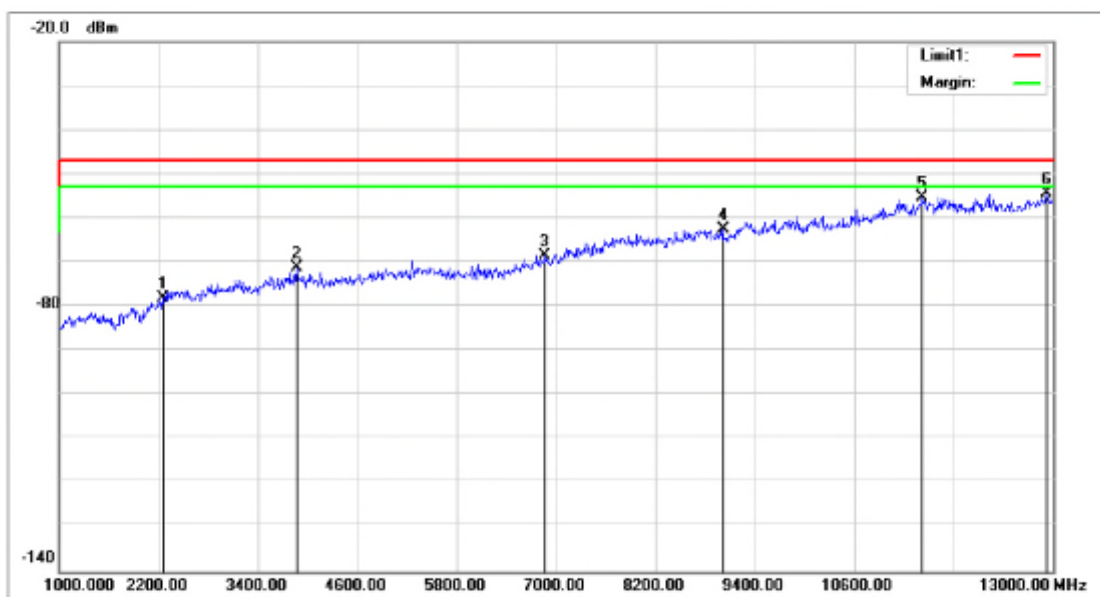
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德普华检测中心 Shenzhen STS Test Services C., Ltd. 瑞
Zhoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/28
Test item:	Radiated Emission	Time:	9:23:01
Company:	Bluetooth receiver	Temp.(C):	22.6(C)
Model:	PA-20B	Hum.(%RH):	72%RH
Mode:	BLE-L	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2257.600	-78.53	0.61	-77.92	-47.00	-30.92			peak
2	3868.000	-77.85	6.70	-71.15	-47.00	-24.15			peak
3	6874.000	-80.58	12.13	-68.45	-47.00	-21.45			peak
4	9019.600	-79.62	17.06	-62.56	-47.00	-15.56			peak
5	11431.600	-79.92	24.75	-55.17	-47.00	-8.17			peak
6	12934.000	-79.67	25.32	-54.35	-47.00	-7.35			peak

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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-27_10.56.44

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: TX-BT-G-H

Test Standard: EN 300328

Model: PA-20HB

Work Addition: Normal

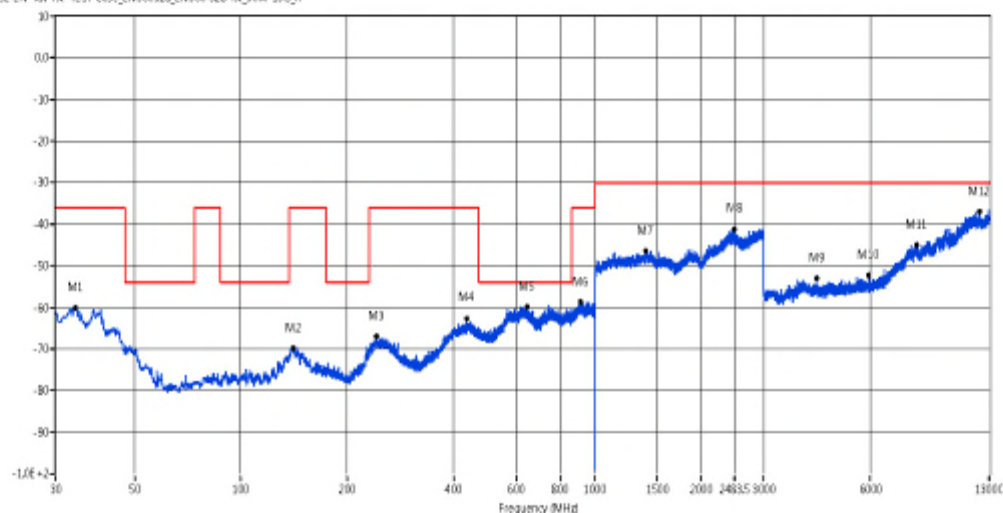
Temp.(oC): 22.2

Load:

Hum.: 55%

Remark:

RSE-EN RX-TX TEST Case_EN300328_EN300 328-TX_31M-31G_H



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
34.123	-60.17	-4.75	-36.0	-24.17	240.70	Horizontal	V	Pass
141.065	-69.81	-7.04	-36.0	-33.81	228.60	Horizontal	V	Pass
241.945	-67.04	-3.07	-36.0	-31.04	243.80	Horizontal	V	Pass
434.005	-62.62	1.72	-36.0	-26.62	124.60	Horizontal	V	Pass
642.070	-59.94	5.83	-54.0	-5.94	216.60	Horizontal	V	Pass
909.547	-58.70	8.54	-36.0	-22.70	298.40	Horizontal	V	Pass
1395.000	-48.35	10.98	-30.0	-18.35	355.70	Horizontal	V	Pass
2480.000	-41.11	16.86	-30.0	-11.11	351.20	Horizontal	V	Pass
4222.500	-53.01	6.67	-30.0	-23.01	330.20	Horizontal	V	Pass
5940.000	-52.41	8.00	-30.0	-22.41	87.50	Horizontal	V	Pass
8097.500	-45.00	17.19	-30.0	-15.00	1.10	Horizontal	V	Pass
12210.000	-37.03	23.54	-30.0	-7.03	47.70	Horizontal	V	Pass

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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-27_10.52.22

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: TX-BT-G-H

Test Standard: EN 300328

Model: PA-20HB

Work Addition: Normal

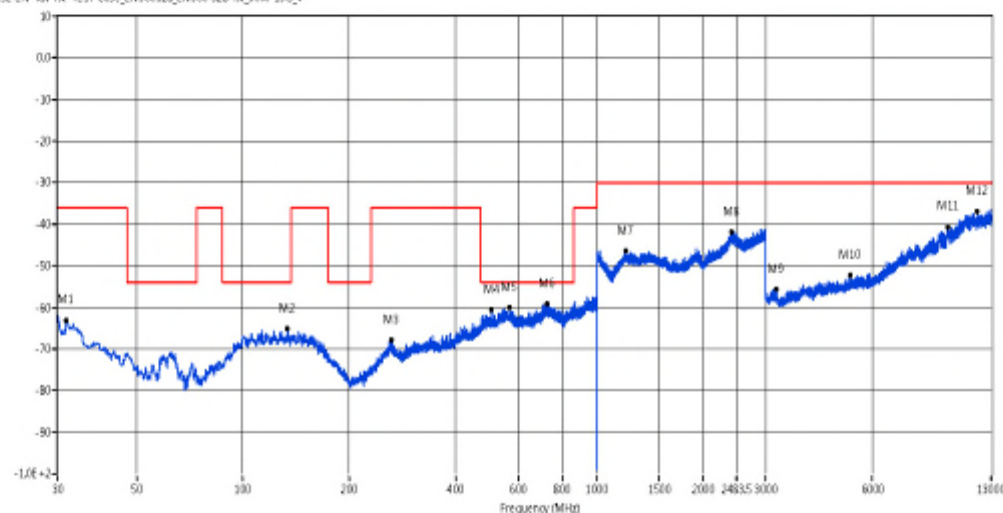
Temp.(oC): 22.2

Load:

Hum.: 55%

Remark:

RSE-EN RX-TX TEST Case_EN300328_EN300328-TX_30M-30G_V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
30.970	-66.47	-7.27	-36.0	-30.47	250.20	Vertical	V	Pass
133.790	-64.99	-3.84	-54.0	-10.99	355.50	Vertical	V	Pass
262.557	-67.95	-4.51	-36.0	-31.95	247.20	Vertical	V	Pass
504.573	-60.59	3.09	-54.0	-6.59	311.10	Vertical	V	Pass
567.623	-60.17	4.63	-54.0	-6.17	113.10	Vertical	V	Pass
721.367	-59.18	7.02	-54.0	-5.18	110.00	Vertical	V	Pass
1206.000	-46.36	10.69	-30.0	-16.36	0.30	Vertical	V	Pass
2404.500	-41.97	16.93	-30.0	-11.97	158.70	Vertical	V	Pass
3220.000	-55.68	3.80	-30.0	-25.68	309.60	Vertical	V	Pass
5192.500	-52.31	8.12	-30.0	-22.31	91.30	Vertical	V	Pass
9805.000	-40.63	20.28	-30.0	-10.63	166.90	Vertical	V	Pass
11907.500	-36.87	23.67	-30.0	-6.87	359.70	Vertical	V	Pass

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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-27_11.04.09

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: TX-BT-G-L

Test Standard: EN 300328

Model: PA-20HB

Work Addition: Normal

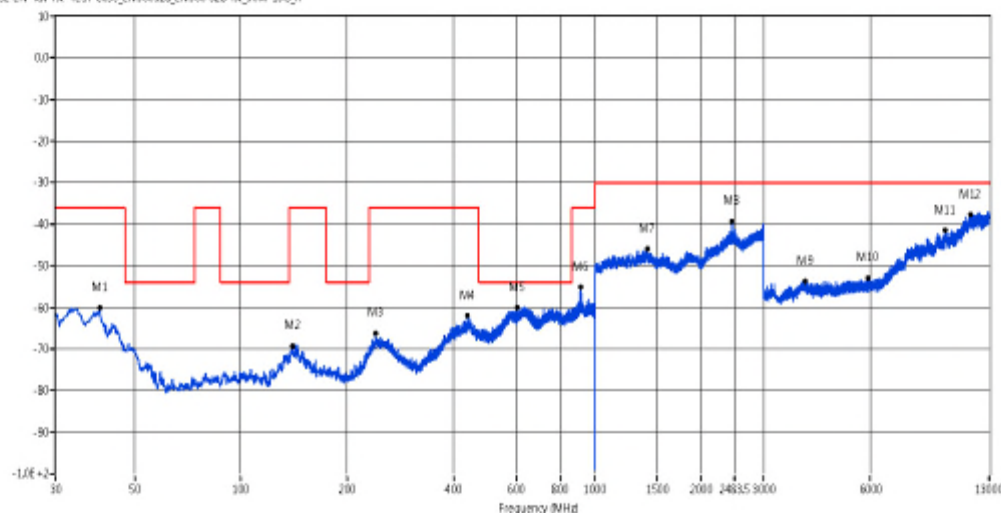
Temp.(oC): 22.2

Load:

Hum.: 55%

Remark:

RSE-EN RX-TX TEST Case_EN300328_EN300 328-TX_30M-30G_H



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
39.943	-60.22	-4.50	-36.0	-24.22	8.40	Horizontal	V	Pass
139.852	-69.22	-6.89	-36.0	-33.22	265.10	Horizontal	V	Pass
239.762	-66.15	-3.09	-36.0	-30.15	253.40	Horizontal	V	Pass
435.945	-62.03	1.84	-36.0	-26.03	94.90	Horizontal	V	Pass
603.028	-60.10	4.88	-54.0	-6.10	155.80	Horizontal	V	Pass
910.760	-45.17	8.59	-36.0	-9.17	23.90	Horizontal	V	Pass
1407.500	-48.05	10.93	-30.0	-16.05	246.20	Horizontal	V	Pass
2443.500	-39.24	16.85	-30.0	-9.24	307.30	Horizontal	V	Pass
3922.500	-53.76	6.41	-30.0	-23.76	22.90	Horizontal	V	Pass
5892.500	-52.91	8.02	-30.0	-22.91	169.90	Horizontal	V	Pass
9790.000	-41.50	18.98	-30.0	-11.50	110.30	Horizontal	V	Pass
11512.500	-37.79	23.62	-30.0	-7.79	179.20	Horizontal	V	Pass

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Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-27_10.49.34

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: TX-BT-G-L

Test Standard: EN 300328

Model: PA-20HB

Work Addition: Normal

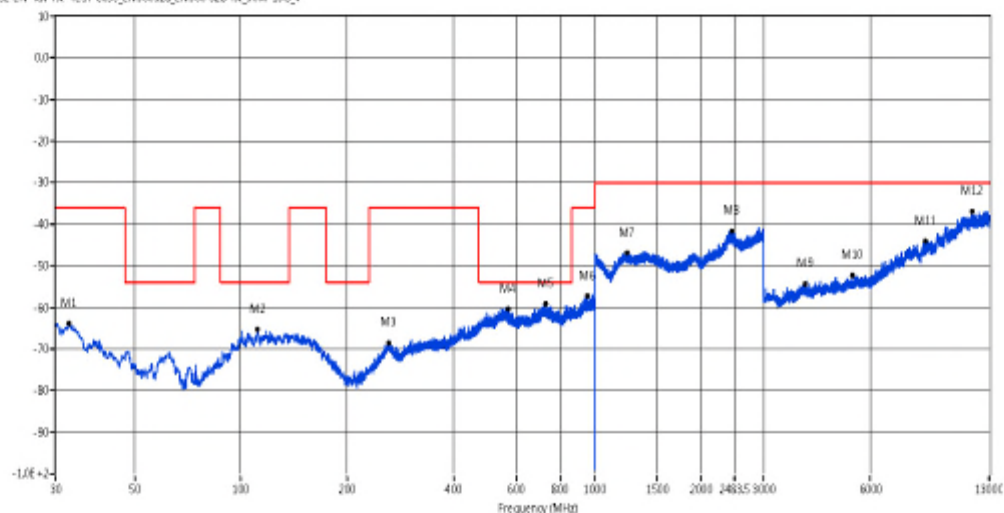
Temp.(°C): 22.2

Load:

Hum.: 55%

Remark:

RSE-EN RX-TX TEST Case_EN300328_EN300328-TX_30M-30G_V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
32.667	-63.95	-8.31	-36.0	-27.95	172.70	Vertical	V	Pass
111.723	-65.30	-4.89	-54.0	-11.30	255.70	Vertical	V	Pass
261.103	-68.53	-4.34	-36.0	-32.53	157.60	Vertical	V	Pass
568.350	-60.40	4.59	-54.0	-6.40	105.70	Vertical	V	Pass
725.490	-59.26	6.95	-54.0	-5.26	359.90	Vertical	V	Pass
949.602	-57.30	9.50	-36.0	-21.30	313.80	Vertical	V	Pass
1231.000	-48.98	10.52	-30.0	-16.98	106.60	Vertical	V	Pass
2445.000	-41.61	16.54	-30.0	-11.61	167.80	Vertical	V	Pass
3937.500	-54.33	5.42	-30.0	-24.33	19.30	Vertical	V	Pass
5335.000	-52.32	8.20	-30.0	-22.32	12.80	Vertical	V	Pass
8620.000	-44.09	17.03	-30.0	-14.09	60.70	Vertical	V	Pass
11627.500	-36.98	23.94	-30.0	-6.98	321.10	Vertical	V	Pass

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Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-28_08.48.02

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: BLE-H

Test Standard: EN 300328

Model: PA-20HB

Work Addition: Normal

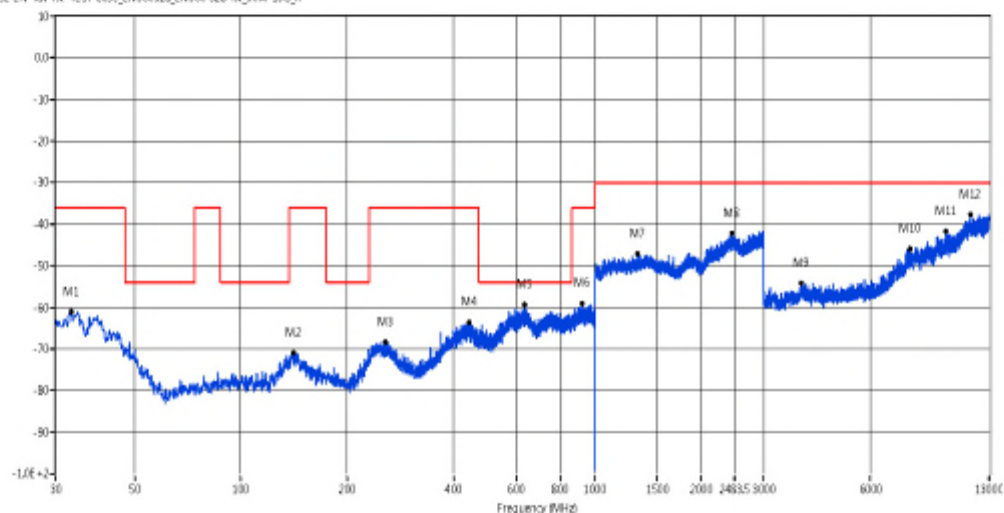
Temp.(oC): 22.6

Load:

Hum.: 58%

Remark:

RSE-EN RX-TX TEST Case_EN300328_EN300 328-TX_30M-30G_H



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
33.153	-61.16	-4.79	-36.0	-25.16	6.00	Horizontal	V	Pass
140.580	-71.08	-6.94	-36.0	-35.08	7.00	Horizontal	V	Pass
256.010	-68.37	-3.49	-36.0	-32.37	2.00	Horizontal	V	Pass
440.552	-63.54	2.03	-36.0	-27.54	9.00	Horizontal	V	Pass
631.642	-59.50	5.99	-54.0	-5.50	5.00	Horizontal	V	Pass
919.732	-59.09	8.97	-36.0	-23.09	5.00	Horizontal	V	Pass
1317.500	-47.21	10.11	-30.0	-17.21	3.00	Horizontal	V	Pass
2445.500	-42.12	16.85	-30.0	-12.12	10.00	Horizontal	V	Pass
3827.500	-54.15	6.36	-30.0	-24.15	6.00	Horizontal	V	Pass
7787.500	-45.94	15.72	-30.0	-15.94	4.00	Horizontal	V	Pass
9820.000	-41.73	19.08	-30.0	-11.73	2.00	Horizontal	V	Pass
11502.500	-37.70	23.64	-30.0	-7.70	10.00	Horizontal	V	Pass

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Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-28_08.46.24

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: BLE-H

Test Standard: EN 300328

Model: PA-20HB

Work Addition: Normal

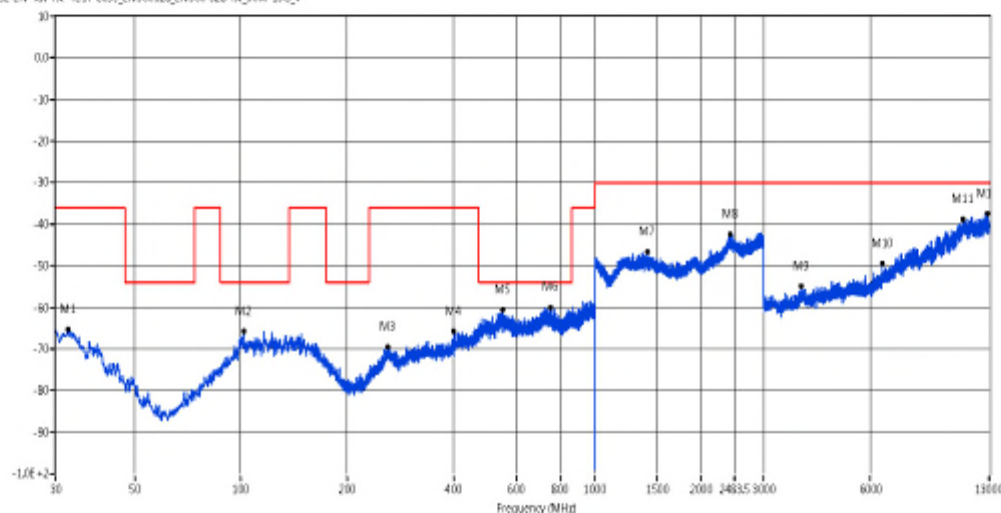
Temp.(oC): 22.6

Load:

Hum.: 58%

Remark:

RSE-EN RX-TX TEST Case_EN300328_EN300328-TX_30M-20G_V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
32.425	-65.29	-8.16	-36.0	-29.29	7.00	Vertical	V	Pass
101.780	-65.73	-5.46	-54.0	-11.73	4.00	Vertical	V	Pass
259.647	-69.61	-4.29	-36.0	-33.61	4.00	Vertical	V	Pass
399.085	-65.89	-1.87	-36.0	-29.89	3.00	Vertical	V	Pass
548.465	-60.54	4.81	-54.0	-6.54	3.00	Vertical	V	Pass
749.255	-59.99	6.44	-54.0	-5.99	2.00	Vertical	V	Pass
1408.500	-48.74	10.64	-30.0	-16.74	1.00	Vertical	V	Pass
2409.000	-42.43	16.89	-30.0	-12.43	7.00	Vertical	V	Pass
3827.500	-54.92	5.40	-30.0	-24.92	9.00	Vertical	V	Pass
6492.500	-49.51	11.34	-30.0	-19.51	4.00	Vertical	V	Pass
10947.500	-38.88	23.09	-30.0	-8.88	7.00	Vertical	V	Pass
12842.500	-37.54	23.84	-30.0	-7.54	1.00	Vertical	V	Pass

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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-28_08.42.06

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: BLE-L

Test Standard: EN 300328

Model: PA-20HB

Work Addition: Normal

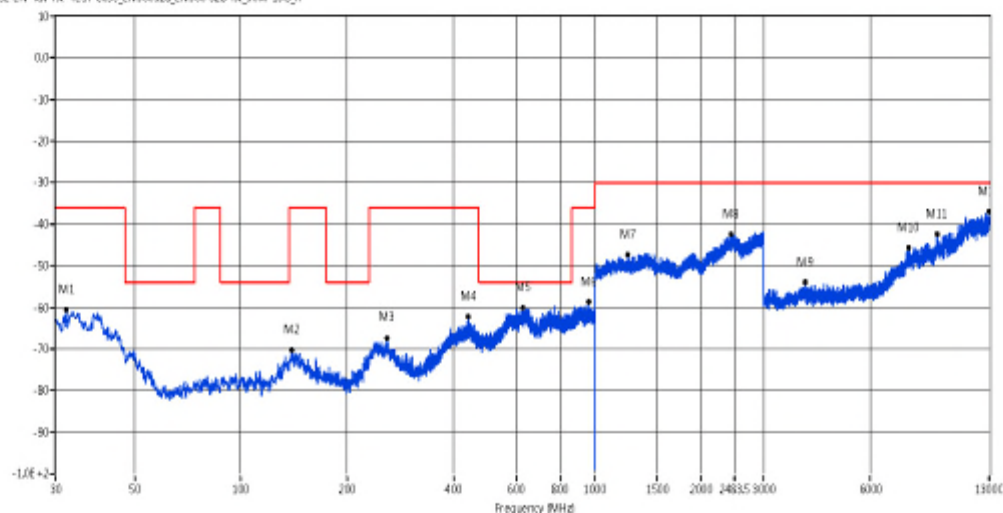
Temp.(°C): 22.6

Load:

Hum.: 58%

Remark:

RSE-EN RX-TX TEST Case_EN300328_EN300328-TX_30M-30G_H



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
31.698	-62.17	-4.85	-36.0	-26.17	2.00	Horizontal	V	Pass
139.367	-70.22	-7.07	-36.0	-34.22	4.00	Horizontal	V	Pass
258.435	-67.35	-3.56	-36.0	-31.35	10.00	Horizontal	V	Pass
438.612	-62.20	2.00	-36.0	-26.20	7.00	Horizontal	V	Pass
627.035	-60.05	6.01	-54.0	-6.05	4.00	Horizontal	V	Pass
960.230	-58.71	9.08	-36.0	-22.71	5.00	Horizontal	V	Pass
1240.000	-47.44	9.81	-30.0	-17.44	10.00	Horizontal	V	Pass
2431.500	-42.36	16.84	-30.0	-12.36	10.00	Horizontal	V	Pass
3930.000	-53.97	6.38	-30.0	-23.97	4.00	Horizontal	V	Pass
7710.000	-45.73	16.06	-30.0	-15.73	3.00	Horizontal	V	Pass
9257.500	-42.36	18.19	-30.0	-12.36	6.00	Horizontal	V	Pass
12985.000	-37.02	23.86	-30.0	-7.02	5.00	Horizontal	V	Pass

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Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-28_08.44.17

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: BLE-L

Test Standard: EN 300328

Model: PA-20HB

Work Addition: Normal

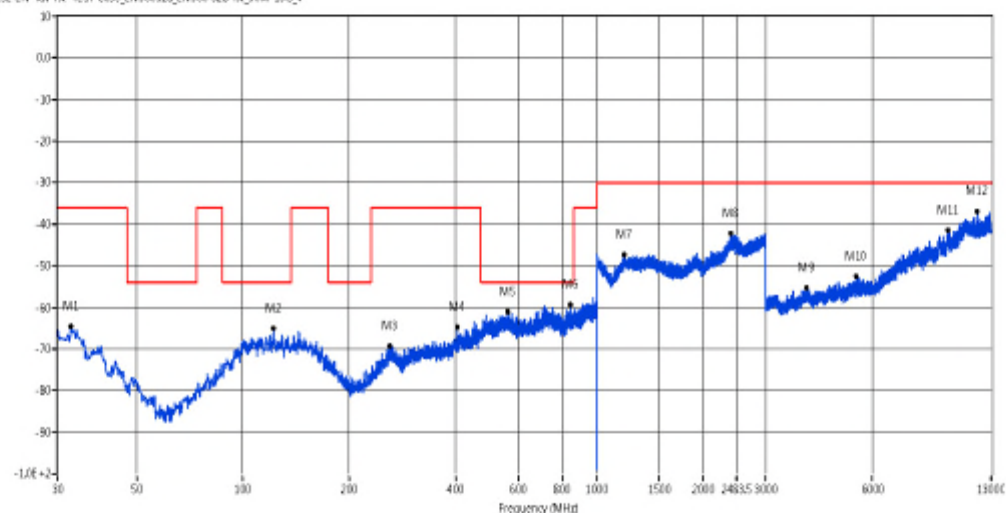
Temp.(oC): 22.6

Load:

Hum.: 58%

Remark:

RSE-EN RX-TX TEST Case_EN300328_EN300 328-TX_31M-31G_V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
32.667	-64.69	-8.31	-36.0	-28.69	10.00	Vertical	V	Pass
121.908	-65.09	-4.34	-54.0	-11.09	5.00	Vertical	V	Pass
259.647	-69.32	-4.29	-36.0	-33.32	9.00	Vertical	V	Pass
403.207	-64.89	-1.53	-36.0	-28.89	5.00	Vertical	V	Pass
559.377	-61.14	4.98	-54.0	-7.14	3.00	Vertical	V	Pass
842.617	-59.45	6.78	-54.0	-5.45	7.00	Vertical	V	Pass
1197.500	-47.45	10.61	-30.0	-17.45	5.00	Vertical	V	Pass
2392.500	-42.19	16.69	-30.0	-12.19	1.00	Vertical	V	Pass
3917.500	-55.40	5.52	-30.0	-25.40	9.00	Vertical	V	Pass
5402.500	-52.58	7.97	-30.0	-22.58	4.00	Vertical	V	Pass
9795.000	-41.44	20.20	-30.0	-11.44	4.00	Vertical	V	Pass
11895.000	-36.90	23.71	-30.0	-6.90	3.00	Vertical	V	Pass

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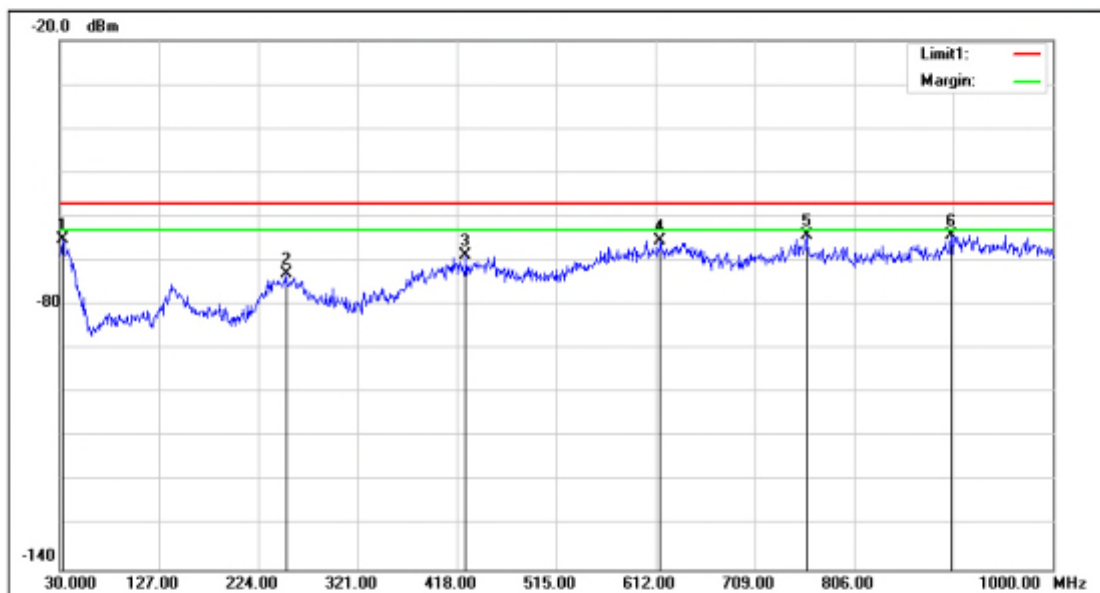
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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:2019/5/27	Time:14:30:34
Test item:	Radiated Emission	Temp.(C):	24(C)
Company:	Bluetooth receiver	Hum. (%RH):	65% RH
Model:	PA-20HB	Power:	AC 230V/50Hz
Mode:	BT-G-H	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	33.0070	-60.28	-4.80	-65.08	-57.00	-8.08			peak
2	251.5480	-69.66	-3.36	-73.02	-57.00	-16.02			peak
3	427.3120	-69.95	1.33	-68.62	-57.00	-11.62			peak
4	617.7230	-71.25	5.88	-65.37	-57.00	-8.37			peak
5	759.8280	-70.58	6.27	-64.31	-57.00	-7.31			peak
6	901.7390	-72.32	8.21	-64.11	-57.00	-7.11			peak

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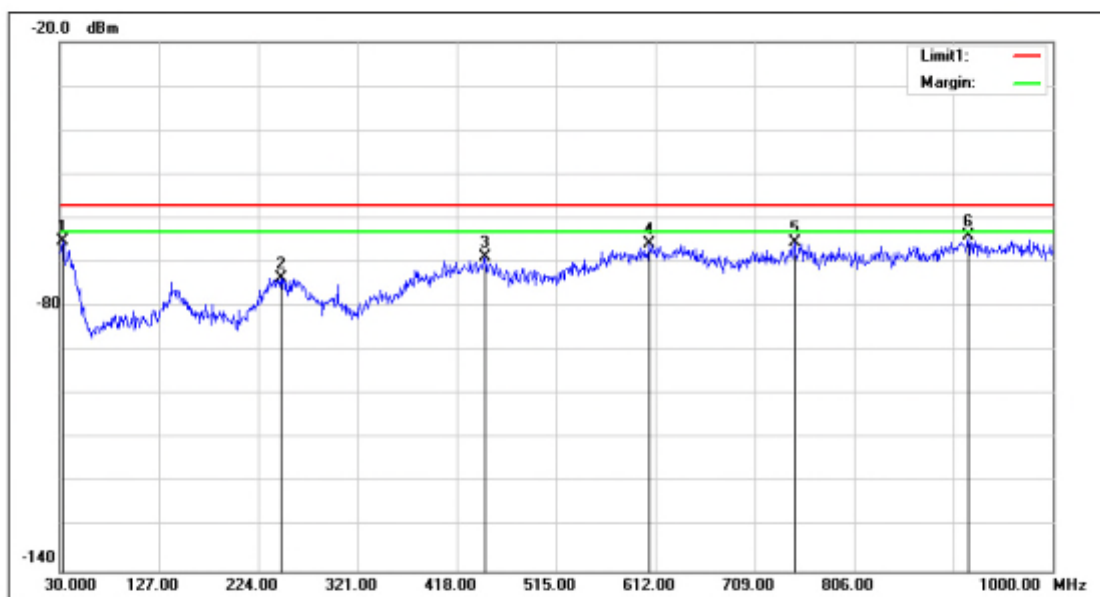
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德普华检测中心 Shenzhen STS Test Services Co., Ltd. 院
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:2019/5/27	Time:14:26:30
Test item:	Radiated Emission	Temp.(C):	24(C)
Company:	Bluetooth receiver	Hum. (%RH):	65% RH
Model:	PA-20HB	Power:	AC 230V/50Hz
Mode:	BT-G-H	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	33.7830	-60.42	-4.76	-65.18	-57.00	-8.18			peak
2	246.6980	-70.28	-3.21	-73.49	-57.00	-16.49			peak
3	446.2270	-70.27	1.53	-68.74	-57.00	-11.74			peak
4	606.9560	-70.78	5.15	-65.63	-57.00	-8.63			peak
5	747.8000	-71.70	6.15	-65.55	-57.00	-8.55			peak
6	917.6470	-72.98	8.88	-64.10	-57.00	-7.10			peak

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Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:2019/5/27	Time:14:18:08
Test item:	Radiated Emission	Temp.(C):	24(C)
Company:	Bluetooth receiver	Hum. (%RH):	65% RH
Model:	PA-20HB	Power:	AC 230V/50Hz
Mode:	BT-G-L	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	34.2680	-59.74	-4.74	-64.48	-57.00	-7.48			peak
2	238.4530	-70.90	-3.53	-74.43	-57.00	-17.43			peak
3	442.0560	-70.09	1.90	-68.19	-57.00	-11.19			peak
4	639.0630	-70.87	5.96	-64.91	-57.00	-7.91			peak
5	747.6060	-71.15	6.15	-65.00	-57.00	-8.00			peak
6	902.4180	-72.56	8.24	-64.32	-57.00	-7.32			peak

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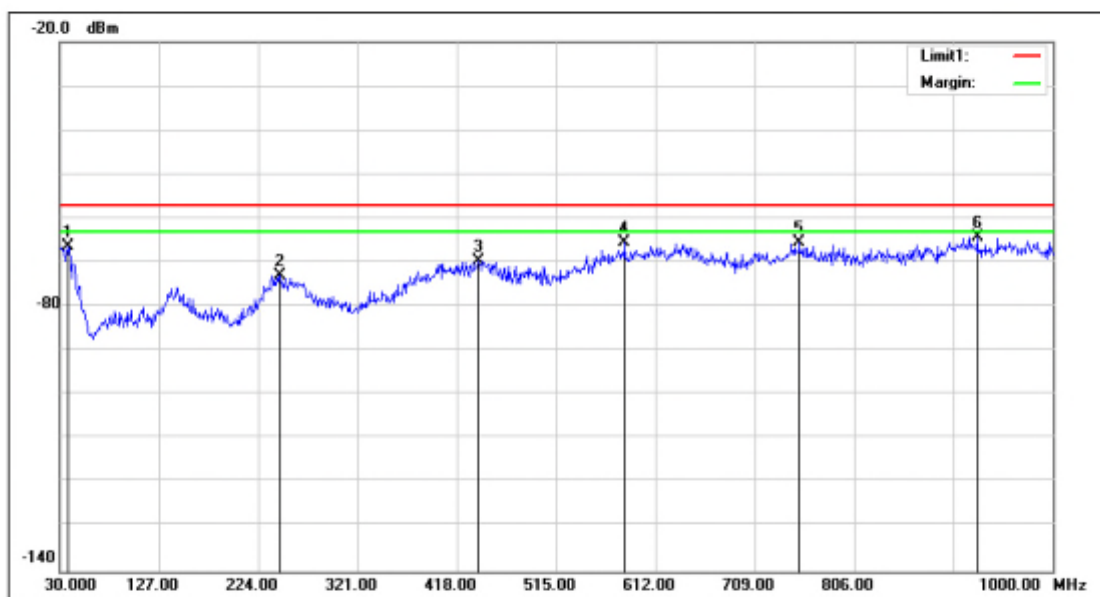
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Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:2019/5/27	Time:14:22:25
Test item:	Radiated Emission	Temp.(C):	24(C)
Company:	Bluetooth receiver	Hum. (%RH):	65% RH
Model:	PA-20HB	Power:	AC 230V/50Hz
Mode:	BT-G-L	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	38.7300	-61.79	-4.55	-66.34	-57.00	-9.34			peak
2	245.9220	-69.70	-3.19	-72.89	-57.00	-15.89			peak
3	439.7280	-71.69	2.06	-69.63	-57.00	-12.63			peak
4	582.5120	-70.74	5.14	-65.60	-57.00	-8.60			peak
5	753.0380	-71.76	6.20	-65.56	-57.00	-8.56			peak
6	926.9590	-72.79	8.48	-64.31	-57.00	-7.31			peak

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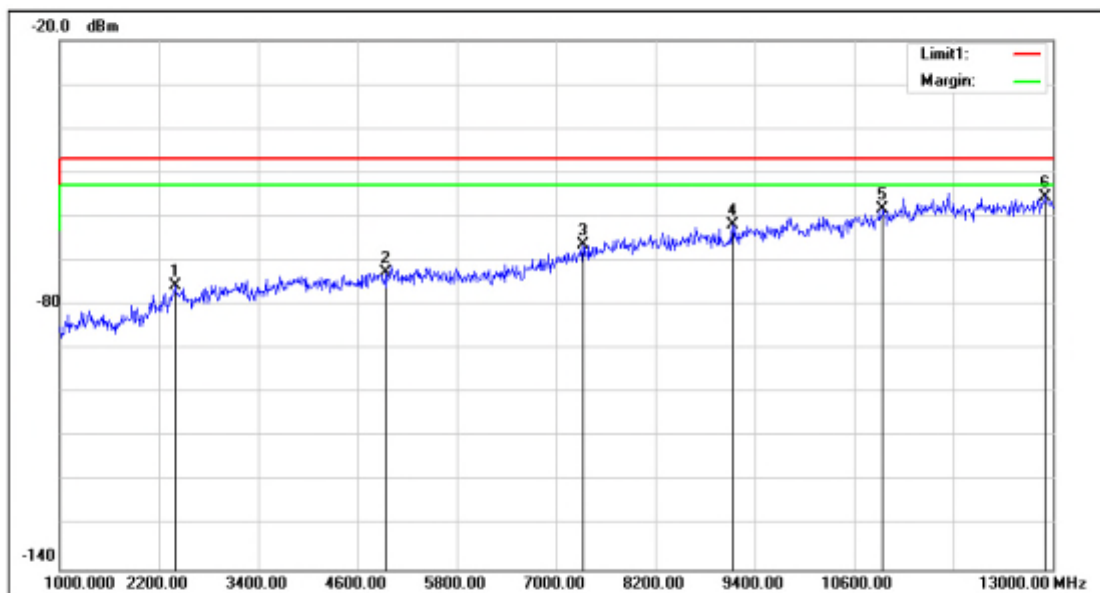
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Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:2019/5/27	Time:16:55:21
Test item:	Radiated Emission	Temp.(C):	24(C)
Company:	Bluetooth receiver	Hum. (%RH):	65% RH
Model:	PA-20HB	Power:	AC 230V/50Hz
Mode:	BT-G-H	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2399.200	-78.60	3.00	-75.60	-47.00	-28.60			peak
2	4954.000	-81.09	8.54	-72.55	-47.00	-25.55			peak
3	7327.600	-80.42	14.04	-66.38	-47.00	-19.38			peak
4	9142.000	-79.49	17.62	-61.87	-47.00	-14.87			peak
5	10956.400	-80.53	22.28	-58.25	-47.00	-11.25			peak
6	12905.200	-80.95	25.55	-55.40	-47.00	-8.40			peak

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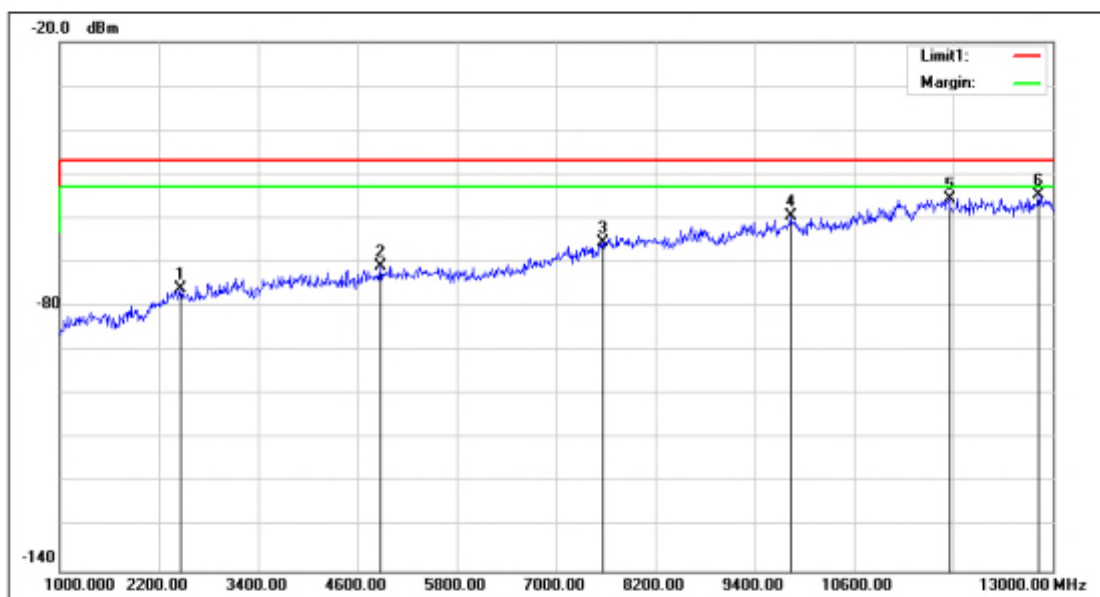
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德普华检测中心 Shenzhen STS Test Services Co., Ltd. 院
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/27
Test item:	Radiated Emission	Time:	16:51:17
Company:	Bluetooth receiver	Temp.(C):	24(C)
Model:	PA-20HB	Hum.(%RH):	65% RH
Mode:	BT-G-H	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2471.200	-78.57	2.61	-75.96	-47.00	-28.96			peak
2	4878.400	-79.17	8.29	-70.88	-47.00	-23.88			peak
3	7564.000	-81.21	15.82	-65.39	-47.00	-18.39			peak
4	9841.600	-79.29	19.89	-59.40	-47.00	-12.40			peak
5	11755.600	-79.79	24.11	-55.68	-47.00	-8.68			peak
6	12836.800	-79.71	25.08	-54.63	-47.00	-7.63			peak

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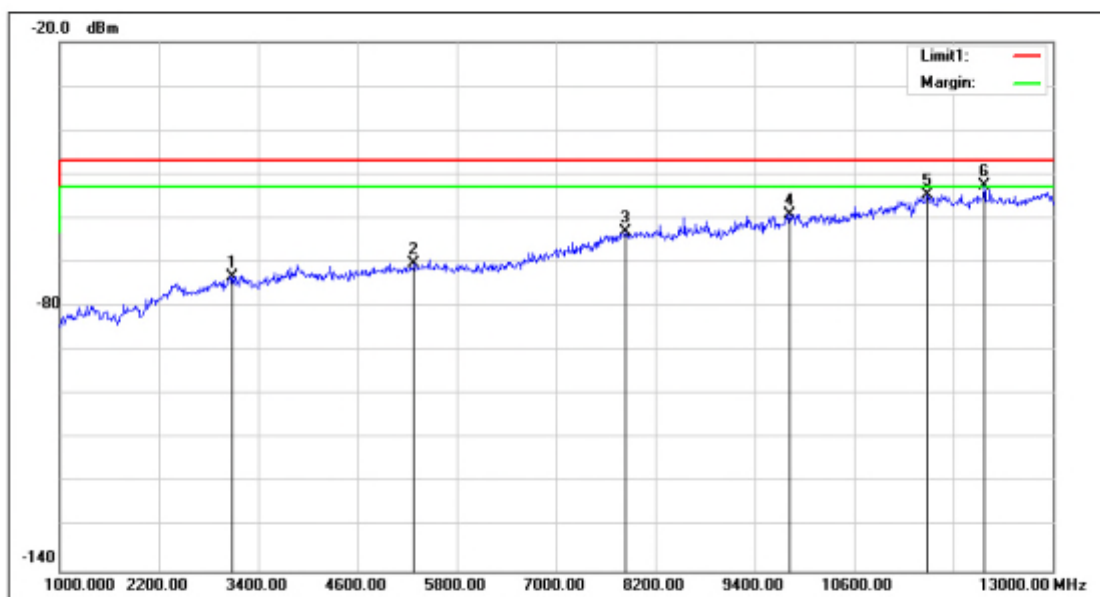
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Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:	2019/5/27
Test item:	Radiated Emission	Time:	16:43:07
Company:	Bluetooth receiver	Temp.(C):	24(C)
Model:	PA-20HB	Hum.(%RH):	65% RH
Mode:	BT-G-L	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	3091.600	-77.41	4.21	-73.20	-47.00	-26.20			peak
2	5286.400	-79.27	9.03	-70.24	-47.00	-23.24			peak
3	7847.200	-79.56	16.44	-63.12	-47.00	-16.12			peak
4	9827.200	-78.99	19.93	-59.06	-47.00	-12.06			peak
5	11494.000	-79.57	24.80	-54.77	-47.00	-7.77			peak
6	12174.400	-77.35	24.68	-52.67	-47.00	-5.67			peak

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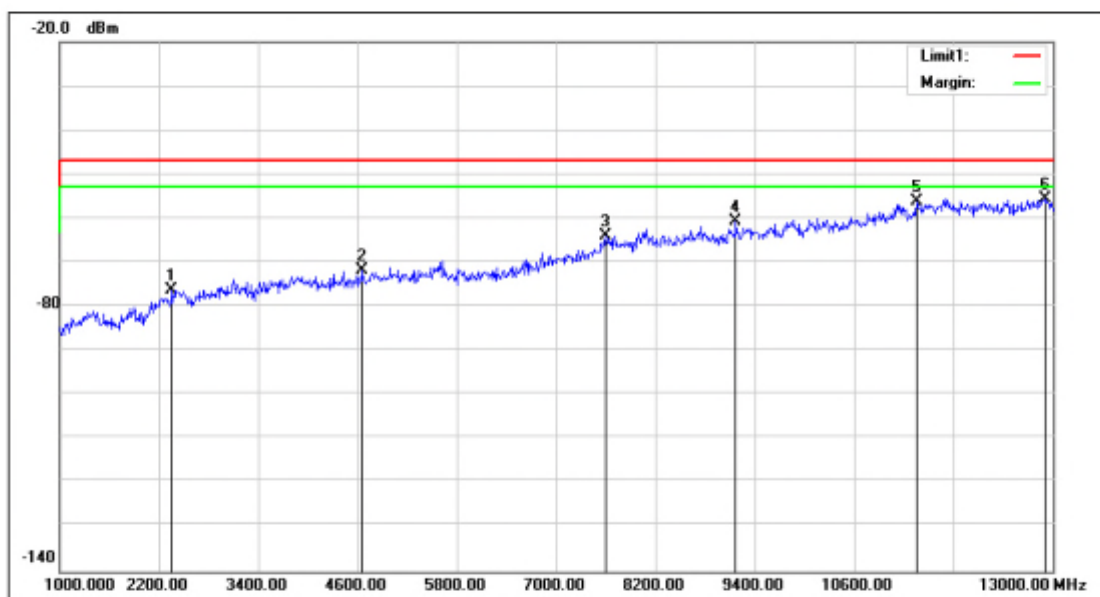
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Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/27
Test item:	Radiated Emission	Time:	16:47:11
Company:	Bluetooth receiver	Temp.(C):	24(C)
Model:	PA-20HB	Hum.(%RH):	65%RH
Mode:	BT-G-L	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2366.800	-78.56	2.39	-76.17	-47.00	-29.17			peak
2	4670.800	-79.27	7.58	-71.69	-47.00	-24.69			peak
3	7603.600	-80.50	16.47	-64.03	-47.00	-17.03			peak
4	9174.400	-78.54	17.77	-60.77	-47.00	-13.77			peak
5	11366.800	-79.83	23.78	-56.05	-47.00	-9.05			peak
6	12913.600	-81.12	25.48	-55.64	-47.00	-8.64			peak

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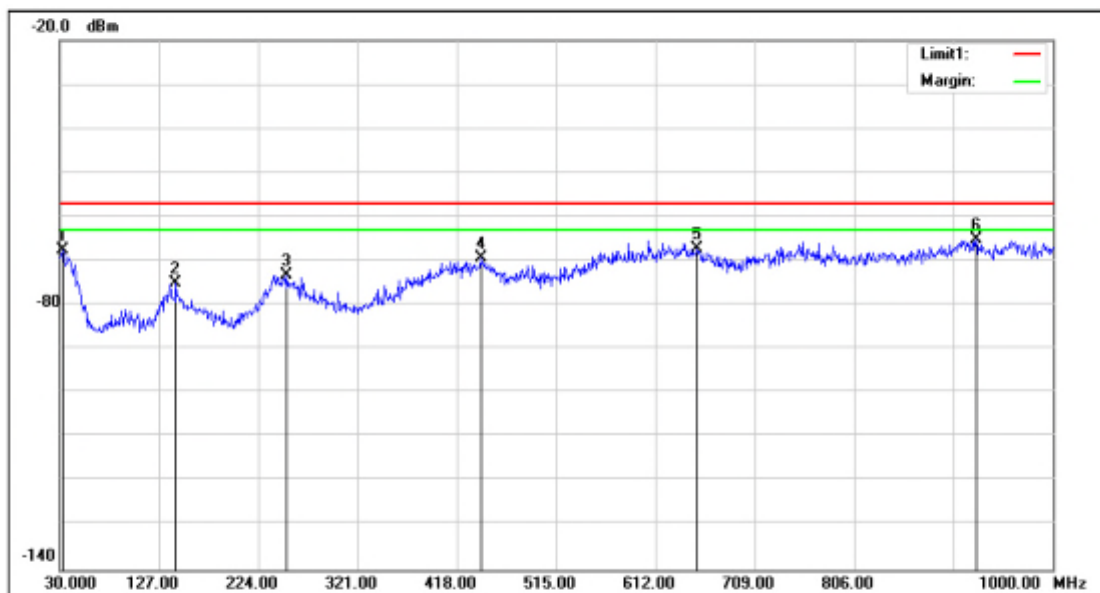
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Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:2019/5/28	Time:8:59:35
Test item:	Radiated Emission	Temp.(C):	22.6(C)
Company:	Bluetooth receiver	Hum. (%RH):	72%RH
Model:	PA-20HB	Power:	AC 230V/50Hz
Mode:	BLE-H	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	32.9100	-62.88	-4.80	-67.68	-57.00	-10.68			peak
2	143.4900	-67.40	-7.52	-74.92	-57.00	-17.92			peak
3	252.1300	-69.91	-3.37	-73.28	-57.00	-16.28			peak
4	441.2800	-71.27	1.97	-69.30	-57.00	-12.30			peak
5	652.7400	-72.45	5.16	-67.29	-57.00	-10.29			peak
6	925.3100	-73.82	8.60	-65.22	-57.00	-8.22			peak

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Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/28
Test item:	Radiated Emission	Time:	8:55:31
Company:	Bluetooth receiver	Temp.(C):	22.6(C)
Model:	PA-20HB	Hum.(%RH):	72%RH
Mode:	BLE-H	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	34.8500	-62.28	-4.72	-67.00	-57.00	-10.00			peak
2	243.4000	-69.69	-3.11	-72.80	-57.00	-15.80			peak
3	448.0700	-69.96	1.37	-68.59	-57.00	-11.59			peak
4	631.4000	-72.71	5.99	-66.72	-57.00	-9.72			peak
5	741.9800	-71.93	6.10	-65.83	-57.00	-8.83			peak
6	962.1700	-73.55	9.01	-64.54	-57.00	-7.54			peak

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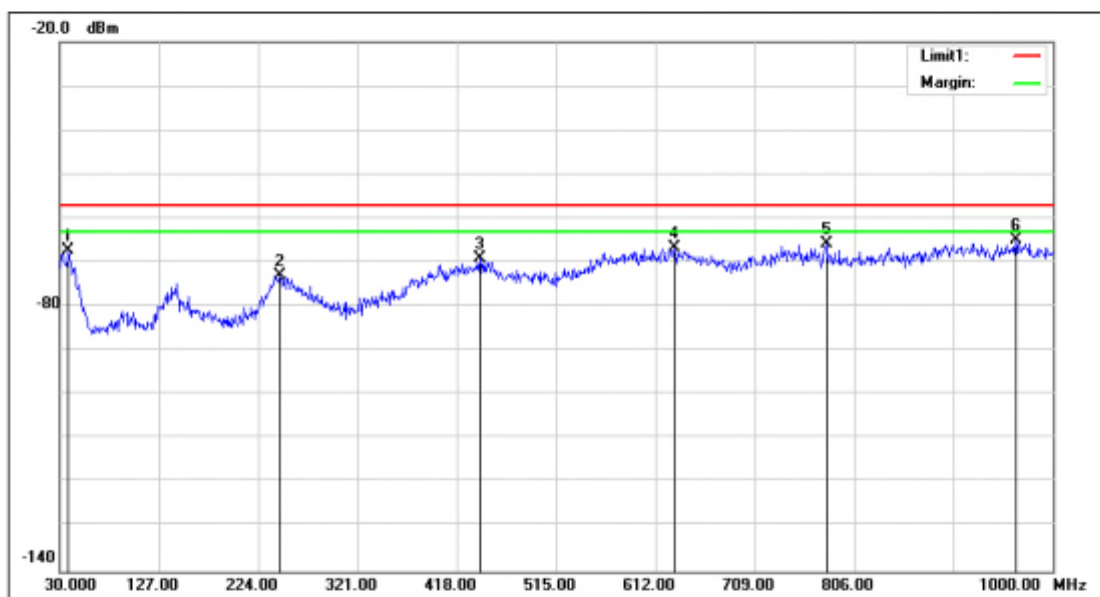
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德普华检测中心 Shenzhen STS Test Services Co., Ltd. 院
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:2019/5/28	Time:8:47:22
Test item:	Radiated Emission	Temp.(C):	22.6(C)
Company:	Bluetooth receiver	Hum. (%RH):	72%RH
Model:	PA-20HB	Power:	AC 230V/50Hz
Mode:	BLE-L	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	38.7300	-62.78	-4.55	-67.33	-57.00	-10.33			peak
2	245.3400	-69.67	-3.17	-72.84	-57.00	-15.84			peak
3	440.3100	-71.07	2.05	-69.02	-57.00	-12.02			peak
4	630.4300	-72.73	5.99	-66.74	-57.00	-9.74			peak
5	778.8400	-71.82	6.03	-65.79	-57.00	-8.79			peak
6	964.1100	-73.88	8.95	-64.93	-57.00	-7.93			peak

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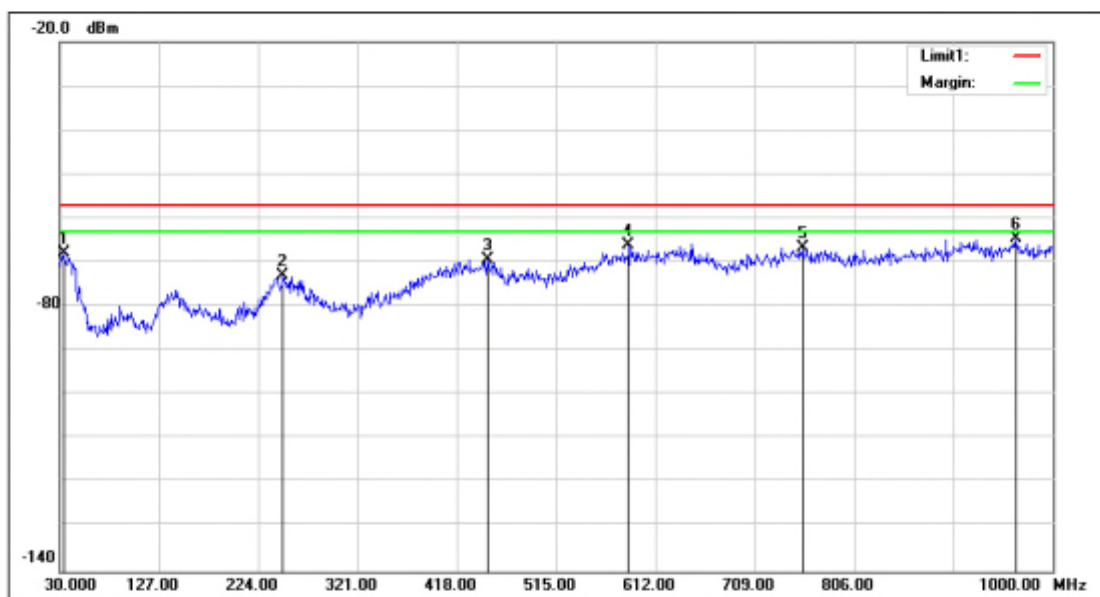
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德普华检测中心 Shenzhen STS Test Services Co., Ltd. 院
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:2019/5/28	Time:8:51:27
Test item:	Radiated Emission	Temp.(C):	22.6(C)
Company:	Bluetooth receiver	Hum. (%RH):	72%RH
Model:	PA-20HB	Power:	AC 230V/50Hz
Mode:	BLE-L	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	33.8800	-63.21	-4.76	-67.97	-57.00	-10.97			peak
2	248.2500	-69.83	-3.26	-73.09	-57.00	-16.09			peak
3	448.0700	-70.62	1.37	-69.25	-57.00	-12.25			peak
4	585.8100	-70.99	5.06	-65.93	-57.00	-8.93			peak
5	755.5600	-72.84	6.23	-66.61	-57.00	-9.61			peak
6	964.1100	-73.64	8.95	-64.69	-57.00	-7.69			peak

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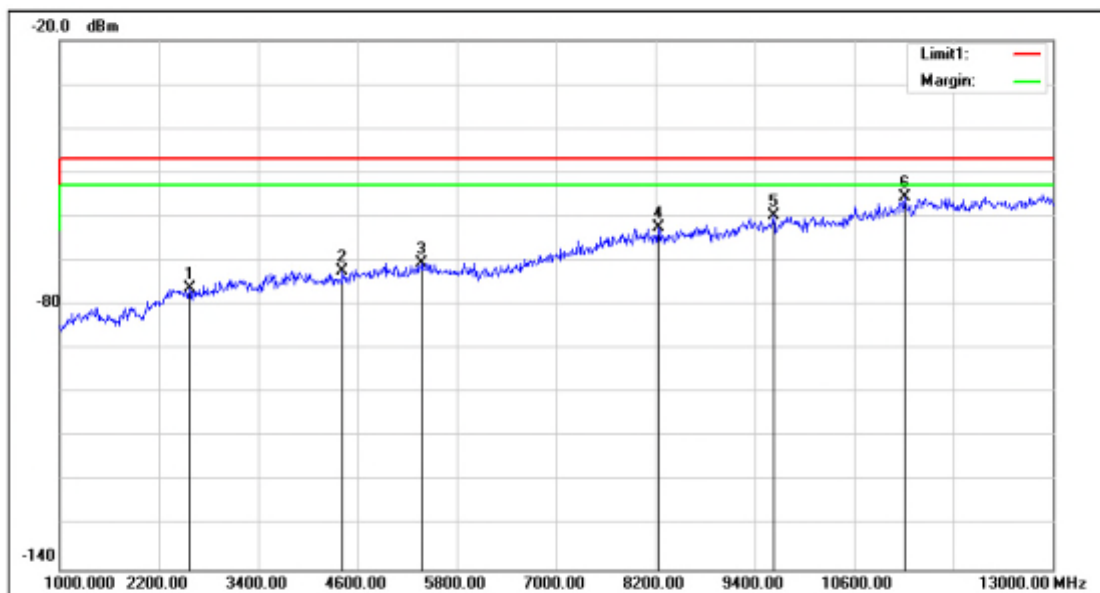
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德普华检测中心 Shenzhen STS Test Services C., Ltd.
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:	2019/5/28 Time: 9:47:28
Test item:	Radiated Emission	Temp.(C):	22.6(C)
Company:	Bluetooth receiver	Hum. (%RH):	72%RH
Model:	PA-20HB	Power:	AC 230V/50Hz
Mode:	BLE-H	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2582.800	-78.19	1.83	-76.36	-47.00	-29.36			peak
2	4421.200	-79.16	6.94	-72.22	-47.00	-25.22			peak
3	5380.000	-79.71	9.13	-70.58	-47.00	-23.58			peak
4	8238.400	-79.27	16.77	-62.50	-47.00	-15.50			peak
5	9635.200	-78.60	18.88	-59.72	-47.00	-12.72			peak
6	11221.600	-79.12	23.69	-55.43	-47.00	-8.43			peak

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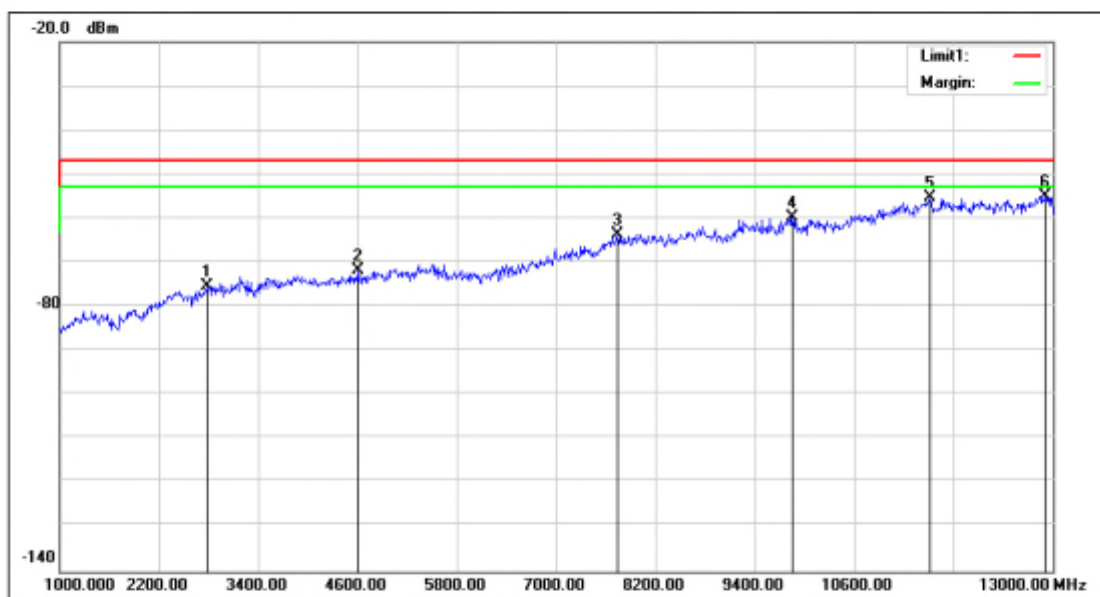
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德普华检测中心 Shenzhen STS Test Services Co., Ltd. 院
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/28 Time: 9:43:23
Test item:	Radiated Emission	Temp.(C):	22.6(C)
Company:	Bluetooth receiver	Hum. (%RH):	72%RH
Model:	PA-20HB	Power:	AC 230V/50Hz
Mode:	BLE-H	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2784.400	-78.51	3.27	-75.24	-47.00	-28.24			peak
2	4607.200	-79.00	7.36	-71.64	-47.00	-24.64			peak
3	7746.400	-80.08	16.53	-63.55	-47.00	-16.55			peak
4	9864.400	-79.55	19.83	-59.72	-47.00	-12.72			peak
5	11532.400	-79.85	24.68	-55.17	-47.00	-8.17			peak
6	12908.800	-80.45	25.52	-54.93	-47.00	-7.93			peak

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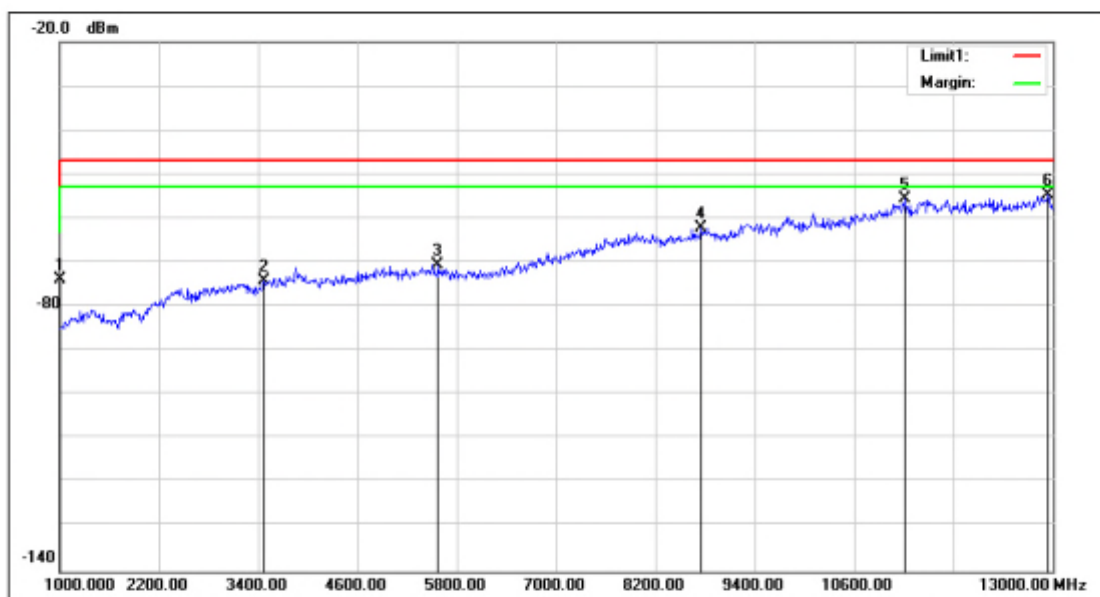
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Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:	2019/5/28 Time: 9:35:14
Test item:	Radiated Emission	Temp.(C):	22.6(C)
Company:	Bluetooth receiver	Hum. (%RH):	72%RH
Model:	PA-20HB	Power:	AC 230V/50Hz
Mode:	BLE-L	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1000.0000	-81.90	8.18	-73.72	-57.00	-16.72			peak
2	3482.800	-79.11	5.02	-74.09	-47.00	-27.09			peak
3	5573.200	-79.77	9.19	-70.58	-47.00	-23.58			peak
4	8759.200	-80.20	18.14	-62.06	-47.00	-15.06			peak
5	11219.200	-79.40	23.74	-55.66	-47.00	-8.66			peak
6	12940.000	-79.95	25.27	-54.68	-47.00	-7.68			peak

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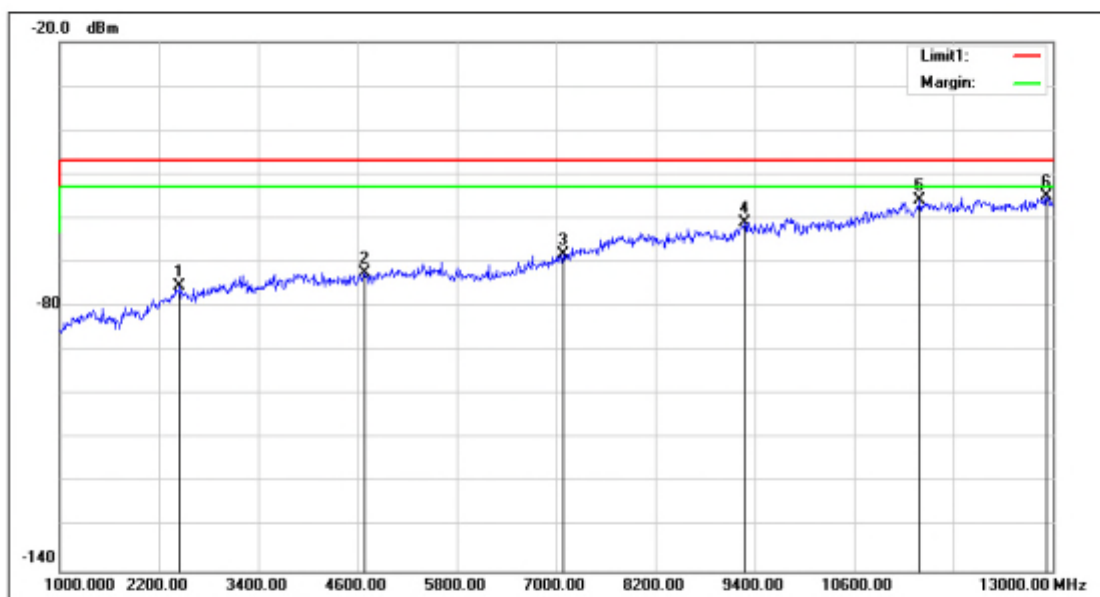
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德普华检测中心 Shenzhen STS Test Services Co., Ltd. 院
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/28 Time: 9:39:19
Test item:	Radiated Emission	Temp.(C):	22.6(C)
Company:	Bluetooth receiver	Hum.(%RH):	72%RH
Model:	PA-20HB	Power:	AC 230V/50Hz
Mode:	BLE-L	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2452.000	-78.19	2.72	-75.47	-47.00	-28.47			peak
2	4687.600	-79.89	7.64	-72.25	-47.00	-25.25			peak
3	7084.000	-81.26	13.17	-68.09	-47.00	-21.09			peak
4	9280.000	-80.13	19.28	-60.85	-47.00	-13.85			peak
5	11395.600	-80.55	24.60	-55.95	-47.00	-8.95			peak
6	12930.400	-80.21	25.35	-54.86	-47.00	-7.86			peak

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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
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Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-27_11.43.06

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: TX-BT-G-H

Test Standard: EN 300328

Model: PA-40B

Work Addition: Normal

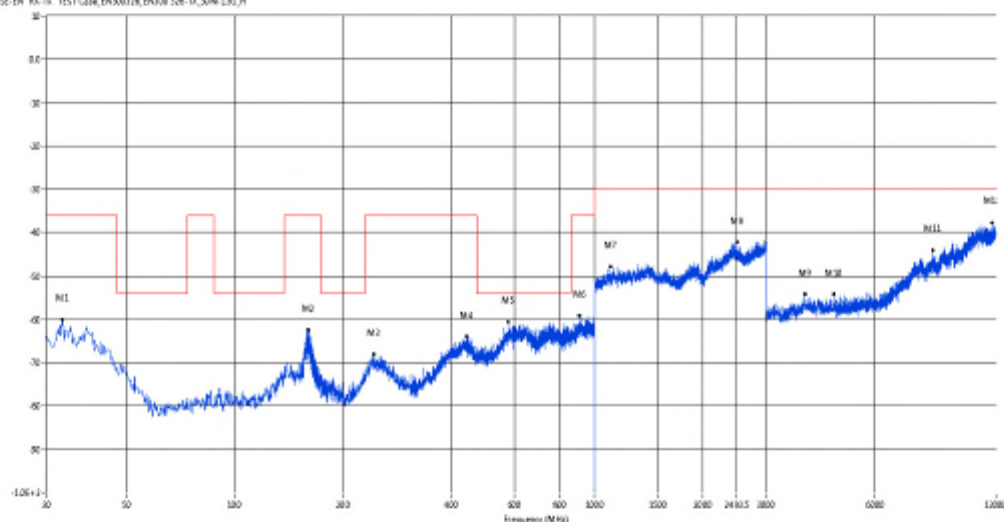
Temp.(°C): 22.2

Load:

Hum.: 55%

Remark:

902 EN 300328 TEST Case: EN300328, EN300328-20, 20M, 120, H



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
33.153	-60.07	-4.79	-36.0	-24.07	6.00	Horizontal	V	Pass
160.465	-62.36	-10.78	-36.0	-26.36	5.00	Horizontal	V	Pass
243.400	-68.13	-3.11	-36.0	-32.13	4.00	Horizontal	V	Pass
441.522	-63.91	1.95	-36.0	-27.91	7.00	Horizontal	V	Pass
576.352	-60.49	4.92	-54.0	-6.49	1.00	Horizontal	V	Pass
908.620	-59.11	8.51	-36.0	-23.11	10.00	Horizontal	V	Pass
1108.500	-47.81	9.43	-30.0	-17.81	1.00	Horizontal	V	Pass
2482.000	-42.15	16.86	-30.0	-12.15	5.00	Horizontal	V	Pass
3835.000	-54.13	6.37	-30.0	-24.13	9.00	Horizontal	V	Pass
4630.000	-54.21	6.52	-30.0	-24.21	8.00	Horizontal	V	Pass
8710.000	-44.10	17.87	-30.0	-14.10	4.00	Horizontal	V	Pass
12735.000	-37.63	23.62	-30.0	-7.63	1.00	Horizontal	V	Pass

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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-27_11.41.49

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: TX-BT-G-H

Test Standard: EN 300328

Model: PA-40B

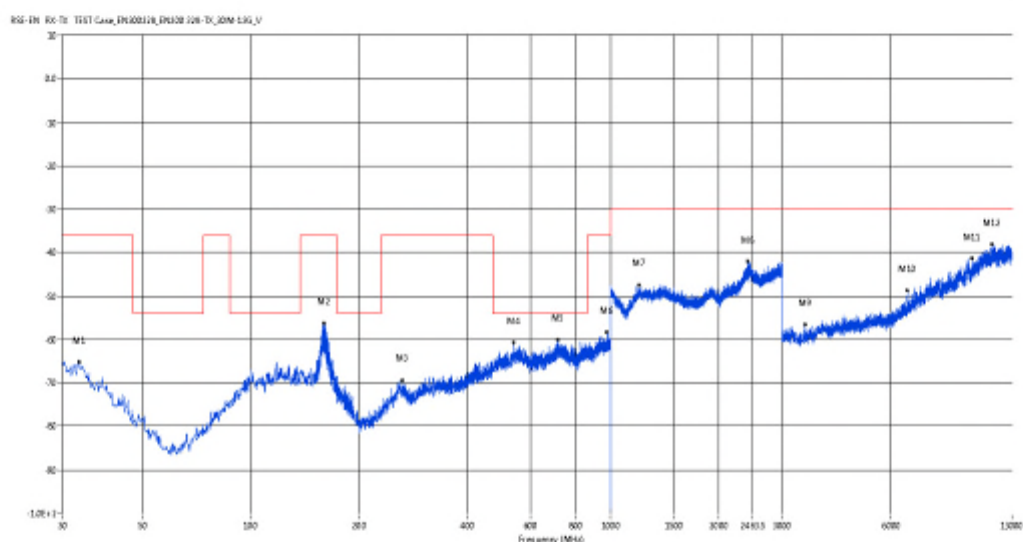
Work Addition: Normal

Temp.(oC): 22.2

Load:

Hum.: 55%

Remark:



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
33.395	-65.12	-8.75	-36.0	-29.12	10.00	Vertical	V	Pass
159.738	-56.26	-4.52	-36.0	-20.26	7.00	Vertical	V	Pass
264.013	-69.39	-4.67	-36.0	-33.39	5.00	Vertical	V	Pass
538.038	-60.68	4.51	-54.0	-6.68	7.00	Vertical	V	Pass
713.607	-59.99	6.57	-54.0	-5.99	10.00	Vertical	V	Pass
975.508	-58.32	9.71	-36.0	-22.32	2.00	Vertical	V	Pass
1197.500	-47.41	10.61	-30.0	-17.41	10.00	Vertical	V	Pass
2406.500	-42.08	16.91	-30.0	-12.08	9.00	Vertical	V	Pass
3465.000	-56.59	3.87	-30.0	-26.59	3.00	Vertical	V	Pass
6680.000	-48.75	11.74	-30.0	-18.75	4.00	Vertical	V	Pass
10110.000	-41.38	19.73	-30.0	-11.38	2.00	Vertical	V	Pass
11472.500	-38.06	23.51	-30.0	-8.06	9.00	Vertical	V	Pass

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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-27_11.39.10

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: TX-BT-G-L

Test Standard: EN 300328

Model: PA-40B

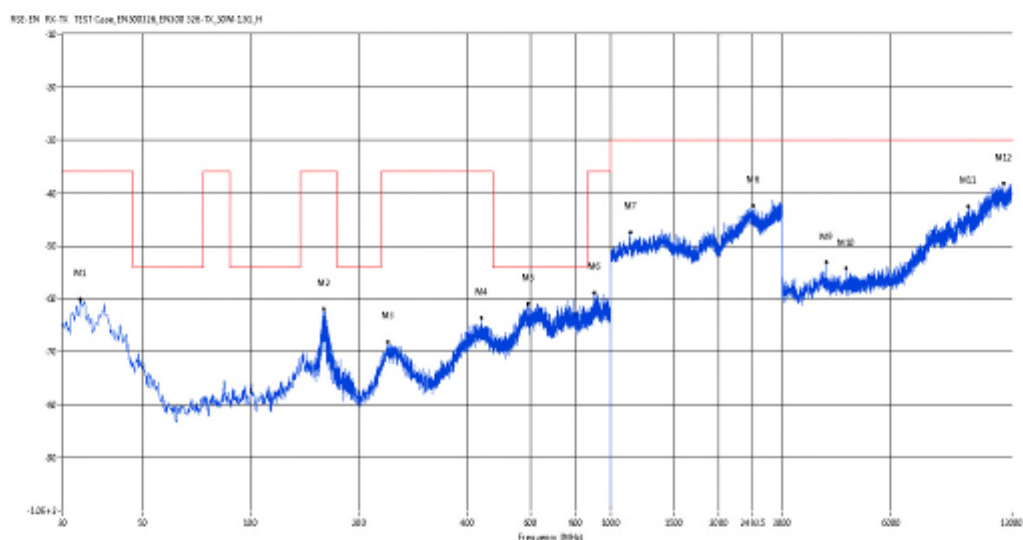
Work Addition: Normal

Temp.(oC): 22.2

Load:

Hum.: 55%

Remark:



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
33.638	-60.11	-4.77	-36.0	-24.11	1.00	Horizontal	V	Pass
159.738	-61.95	-10.72	-36.0	-25.95	1.00	Horizontal	V	Pass
240.005	-68.13	-3.01	-36.0	-32.13	8.00	Horizontal	V	Pass
438.127	-63.62	1.97	-36.0	-27.62	1.00	Horizontal	V	Pass
591.145	-60.92	4.91	-54.0	-6.92	6.00	Horizontal	V	Pass
899.605	-58.92	8.12	-36.0	-22.92	5.00	Horizontal	V	Pass
1136.000	-47.49	9.59	-30.0	-17.49	4.00	Horizontal	V	Pass
2484.000	-42.44	16.86	-30.0	-12.44	6.00	Horizontal	V	Pass
3960.000	-53.15	6.18	-30.0	-23.15	8.00	Horizontal	V	Pass
4517.500	-54.29	6.41	-30.0	-24.29	7.00	Horizontal	V	Pass
9845.000	-42.52	19.03	-30.0	-12.52	6.00	Horizontal	V	Pass
12342.500	-38.24	22.84	-30.0	-8.24	8.00	Horizontal	V	Pass

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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-27_11.40.42

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: TX-BT-G-L

Test Standard: EN 300328

Model: PA-40B

Work Addition: Normal

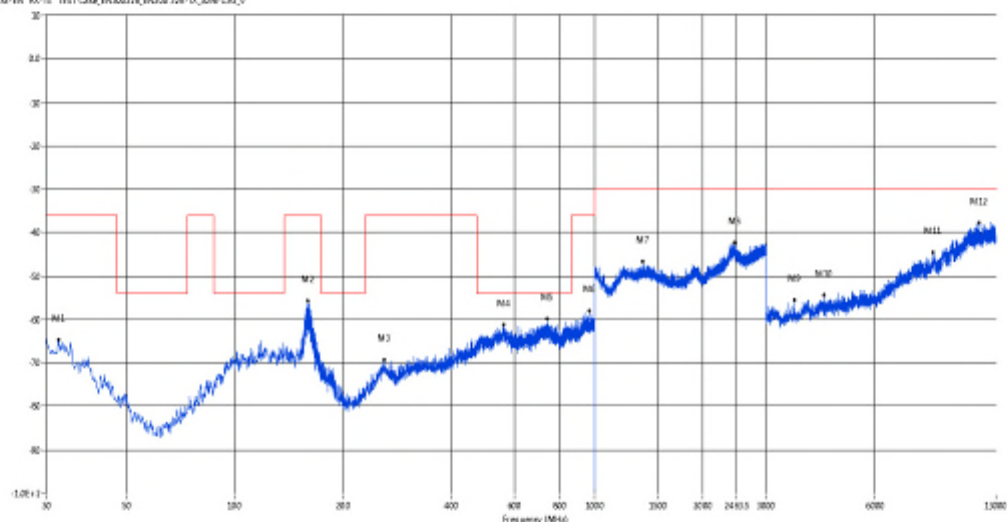
Temp.(oC): 22.2

Load:

Hum.: 55%

Remark:

RG-TN RG-TD TEST Case: EN300328, EN300 328-TD, 20M 13G, V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
32.425	-64.67	-8.16	-36.0	-28.67	5.00	Vertical	V	Pass
159.738	-55.79	-4.52	-36.0	-19.79	8.00	Vertical	V	Pass
259.890	-69.30	-4.24	-36.0	-33.30	10.00	Vertical	V	Pass
559.135	-61.21	4.98	-54.0	-7.21	7.00	Vertical	V	Pass
739.070	-59.88	6.72	-54.0	-5.88	2.00	Vertical	V	Pass
966.778	-58.03	9.58	-36.0	-22.03	8.00	Vertical	V	Pass
1362.000	-48.71	10.49	-30.0	-16.71	4.00	Vertical	V	Pass
2443.500	-42.35	16.55	-30.0	-12.35	4.00	Vertical	V	Pass
3587.500	-55.61	4.36	-30.0	-25.61	2.00	Vertical	V	Pass
4332.500	-54.30	6.50	-30.0	-24.30	7.00	Vertical	V	Pass
8710.000	-44.65	18.03	-30.0	-14.65	5.00	Vertical	V	Pass
11677.500	-37.72	23.48	-30.0	-7.72	5.00	Vertical	V	Pass

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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-28_08.34.35

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: BLE-H

Test Standard: EN 300328

Model: PA-40B

Work Addition: Normal

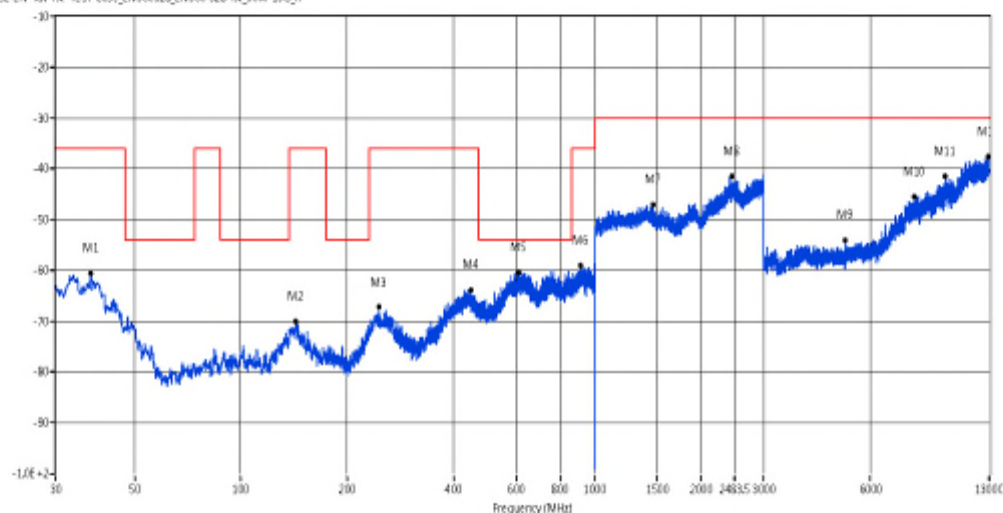
Temp.(°C): 22.2

Load:

Hum.: 55%

Remark:

RSE-EN RX-TX TEST Case_EN300328_EN300328-TX_30M-20G_H



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
37.760	-60.53	-4.60	-36.0	-24.53	3.00	Horizontal	V	Pass
142.762	-70.09	-7.37	-36.0	-34.09	1.00	Horizontal	V	Pass
245.583	-67.26	-3.18	-36.0	-31.26	7.00	Horizontal	V	Pass
445.160	-63.92	1.63	-36.0	-27.92	1.00	Horizontal	V	Pass
610.060	-60.33	5.36	-54.0	-6.33	1.00	Horizontal	V	Pass
912.458	-58.97	8.66	-36.0	-22.97	3.00	Horizontal	V	Pass
1459.500	-47.09	10.19	-30.0	-17.09	4.00	Horizontal	V	Pass
2441.000	-41.46	16.85	-30.0	-11.46	7.00	Horizontal	V	Pass
5092.500	-54.11	7.00	-30.0	-24.11	7.00	Horizontal	V	Pass
8002.500	-45.58	16.68	-30.0	-15.58	1.00	Horizontal	V	Pass
9790.000	-41.42	18.98	-30.0	-11.42	4.00	Horizontal	V	Pass
12942.500	-37.67	23.97	-30.0	-7.67	10.00	Horizontal	V	Pass

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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-28_08.36.23

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: BLE-H

Test Standard: EN 300328

Model: PA-40B

Work Addition: Normal

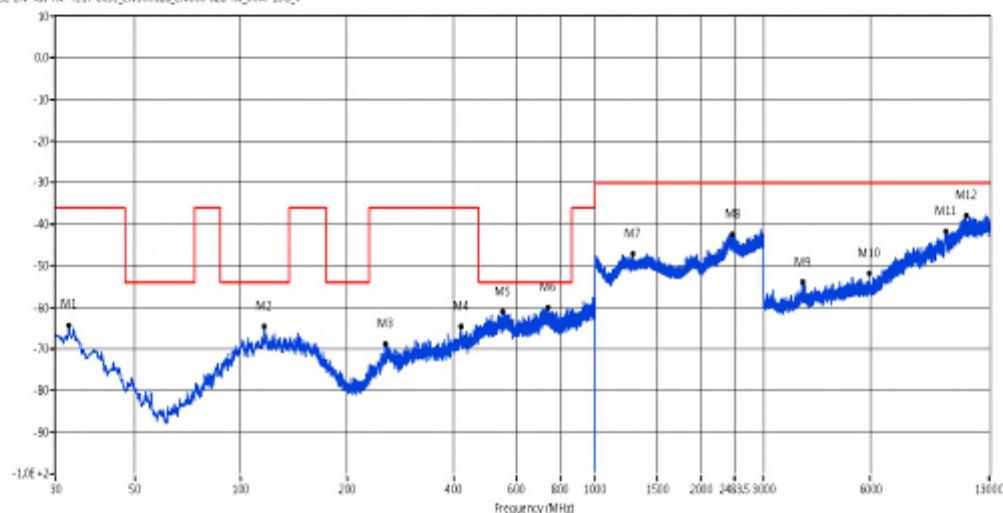
Temp.(oC): 22.2

Load:

Hum.: 55%

Remark:

RSE-EN RX-TX TEST Case_EN300328_EN300328-TX_30M-30G_V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
32.425	-67.70	-8.16	-36.0	-31.70	3.00	Vertical	V	Pass
116.573	-64.61	-4.62	-54.0	-10.61	8.00	Vertical	V	Pass
255.525	-68.88	-5.15	-36.0	-32.88	5.00	Vertical	V	Pass
418.000	-64.69	-0.24	-36.0	-28.69	3.00	Vertical	V	Pass
549.920	-61.01	4.83	-54.0	-7.01	6.00	Vertical	V	Pass
739.555	-60.19	6.71	-54.0	-6.19	3.00	Vertical	V	Pass
1276.500	-47.12	10.21	-30.0	-17.12	10.00	Vertical	V	Pass
2454.000	-42.47	16.45	-30.0	-12.47	4.00	Vertical	V	Pass
3865.000	-54.08	5.50	-30.0	-24.08	5.00	Vertical	V	Pass
5985.000	-51.85	8.89	-30.0	-21.85	2.00	Vertical	V	Pass
9810.000	-41.62	20.25	-30.0	-11.62	2.00	Vertical	V	Pass
11210.000	-37.93	23.19	-30.0	-7.93	5.00	Vertical	V	Pass

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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-28_08.38.49

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: BLE-L

Test Standard: EN 300328

Model: PA-40B

Work Addition: Normal

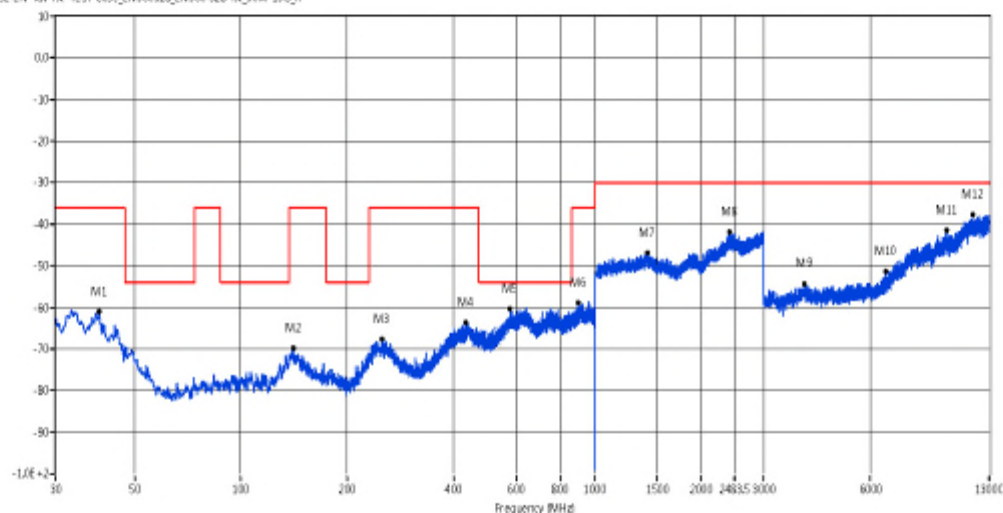
Temp.(oC): 22.2

Load:

Hum.: 55%

Remark:

RSE-EN RX-TX TEST Case_EN300328_EN300328-TX_30M-30G_H



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
39.700	-61.06	-4.51	-36.0	-25.06	4.00	Horizontal	V	Pass
140.822	-69.89	-6.99	-36.0	-33.89	10.00	Horizontal	V	Pass
250.190	-67.68	-3.32	-36.0	-31.68	4.00	Horizontal	V	Pass
432.550	-63.67	1.64	-36.0	-27.67	1.00	Horizontal	V	Pass
576.595	-60.44	4.94	-54.0	-6.44	3.00	Horizontal	V	Pass
896.453	-58.93	7.98	-36.0	-22.93	10.00	Horizontal	V	Pass
1404.000	-48.87	10.98	-30.0	-16.87	8.00	Horizontal	V	Pass
2401.500	-41.86	16.83	-30.0	-11.86	7.00	Horizontal	V	Pass
3902.500	-54.33	6.49	-30.0	-24.33	5.00	Horizontal	V	Pass
6622.500	-51.40	9.63	-30.0	-21.40	7.00	Horizontal	V	Pass
9882.500	-41.51	18.96	-30.0	-11.51	9.00	Horizontal	V	Pass
11670.000	-37.73	23.66	-30.0	-7.73	2.00	Horizontal	V	Pass

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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhuoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Test result

Project Number: STS1810144

Test Time: 2019-05-28_08.37.33

EUT Name: Bluetooth receiver

Test Engineer: Lion

Mode: BLE-L

Test Standard: EN 300328

Model: PA-40B

Work Addition: Normal

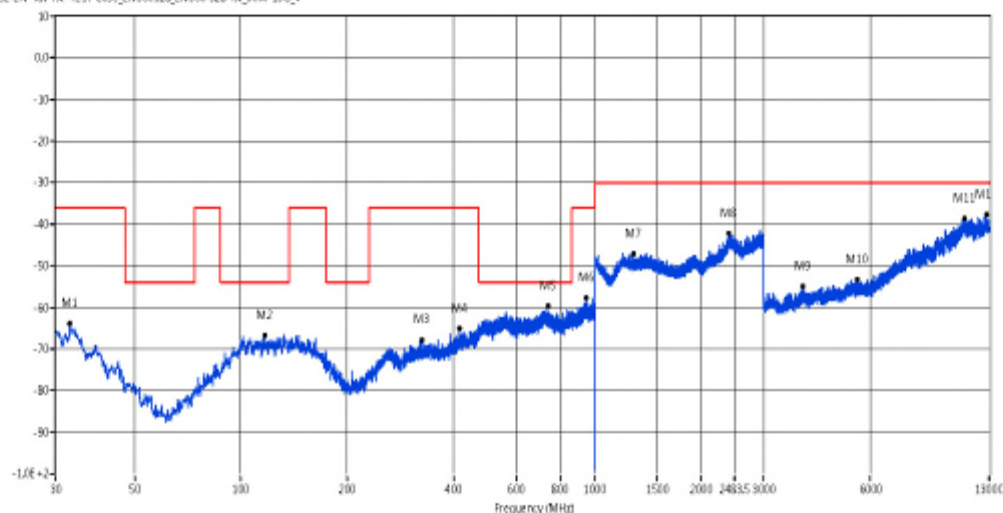
Temp.(oC): 22.2

Load:

Hum.: 55%

Remark:

RSE-EN RX-TX TEST Case_EN300328_EN300 328-TX_31M-31G_V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
32.910	-63.99	-8.45	-36.0	-27.99	6.00	Vertical	V	Pass
116.815	-66.77	-4.60	-54.0	-12.77	6.00	Vertical	V	Pass
324.153	-67.82	-3.42	-36.0	-31.82	7.00	Vertical	V	Pass
414.120	-65.07	-0.58	-36.0	-29.07	7.00	Vertical	V	Pass
735.918	-59.73	6.77	-54.0	-5.73	8.00	Vertical	V	Pass
945.195	-57.79	9.51	-36.0	-21.79	1.00	Vertical	V	Pass
1263.500	-47.20	10.17	-30.0	-17.20	2.00	Vertical	V	Pass
2392.500	-42.19	16.69	-30.0	-12.19	9.00	Vertical	V	Pass
3877.500	-54.97	5.54	-30.0	-24.97	5.00	Vertical	V	Pass
5525.000	-53.24	8.50	-30.0	-23.24	6.00	Vertical	V	Pass
11090.000	-38.68	23.07	-30.0	-8.68	8.00	Vertical	V	Pass
12767.500	-37.75	23.95	-30.0	-7.75	9.00	Vertical	V	Pass

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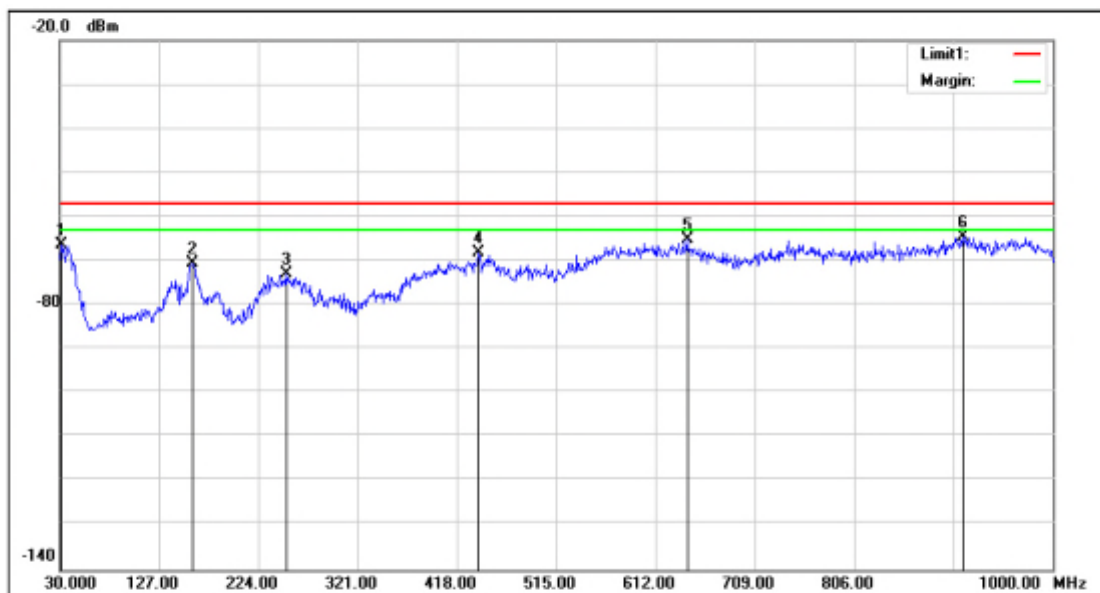
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德普华检测中心 Shenzhen STS Test Services C., Ltd. 晓
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:2019/5/27	Time:15:17:44
Test item:	Radiated Emission	Temp.(C):	24(C)
Company:	Bluetooth receiver	Hum. (%RH):	65% RH
Model:	PA-40B	Power:	AC 230V/50Hz
Mode:	BT-G-H	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	32.7160	-61.51	-4.81	-66.32	-57.00	-9.32			peak
2	160.5620	-59.88	-10.79	-70.67	-57.00	-13.67			peak
3	251.2570	-69.54	-3.35	-72.89	-57.00	-15.89			peak
4	439.6310	-70.20	2.06	-68.14	-57.00	-11.14			peak
5	643.7190	-70.87	5.73	-65.14	-57.00	-8.14			peak
6	913.4760	-73.15	8.71	-64.44	-57.00	-7.44			peak

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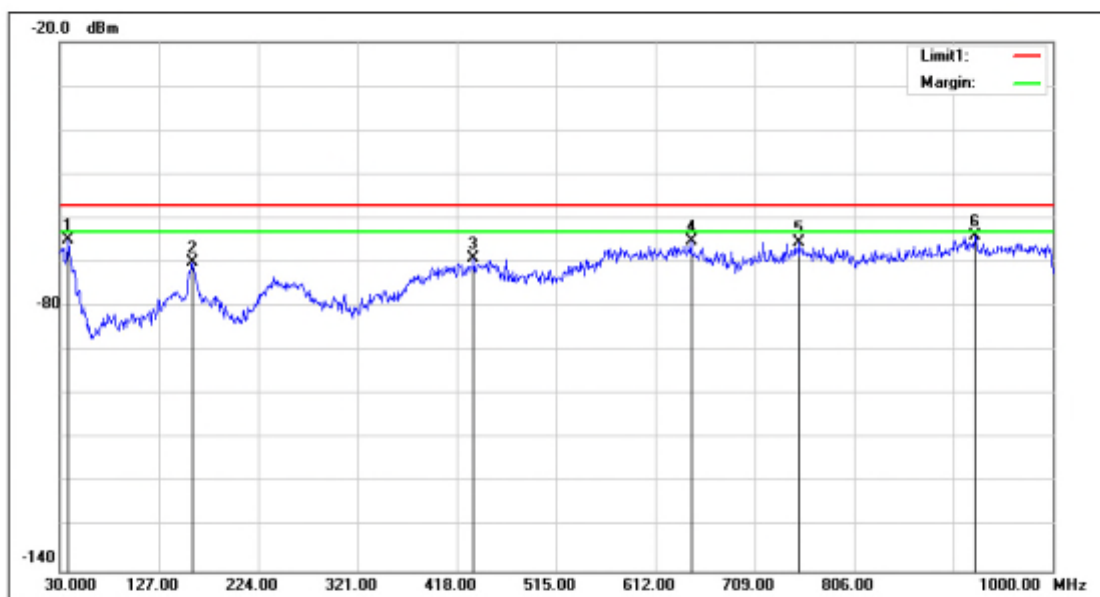
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德普华检测中心 Shenzhen STS Test Services Co., Ltd.
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:2019/5/27	Time:15:13:39
Test item:	Radiated Emission	Temp.(C):	24(C)
Company:	Bluetooth receiver	Hum. (%RH):	65% RH
Model:	PA-40B	Power:	AC 230V/50Hz
Mode:	BT-G-H	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	38.9240	-60.36	-4.55	-64.91	-57.00	-7.91			peak
2	160.6590	-59.08	-10.79	-69.87	-57.00	-12.87			peak
3	434.5870	-70.95	1.76	-69.19	-57.00	-12.19			peak
4	647.4050	-70.75	5.50	-65.25	-57.00	-8.25			peak
5	752.4560	-71.71	6.20	-65.51	-57.00	-8.51			peak
6	925.2130	-72.55	8.60	-63.95	-57.00	-6.95			peak

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德普华检测中心 Shenzhen STS Test Services Co., Ltd. 院
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:2019/5/27	Time:15:05:26
Test item:	Radiated Emission	Temp.(C):	24(C)
Company:	Bluetooth receiver	Hum. (%RH):	65% RH
Model:	PA-40B	Power:	AC 230V/50Hz
Mode:	BT-G-L	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	38.3420	-60.56	-4.57	-65.13	-57.00	-8.13			peak
2	159.2040	-58.48	-10.61	-69.09	-57.00	-12.09			peak
3	439.3400	-70.37	2.04	-68.33	-57.00	-11.33			peak
4	636.1530	-70.68	5.97	-64.71	-57.00	-7.71			peak
5	752.1650	-71.63	6.20	-65.43	-57.00	-8.43			peak
6	905.4250	-72.25	8.37	-63.88	-57.00	-6.88			peak

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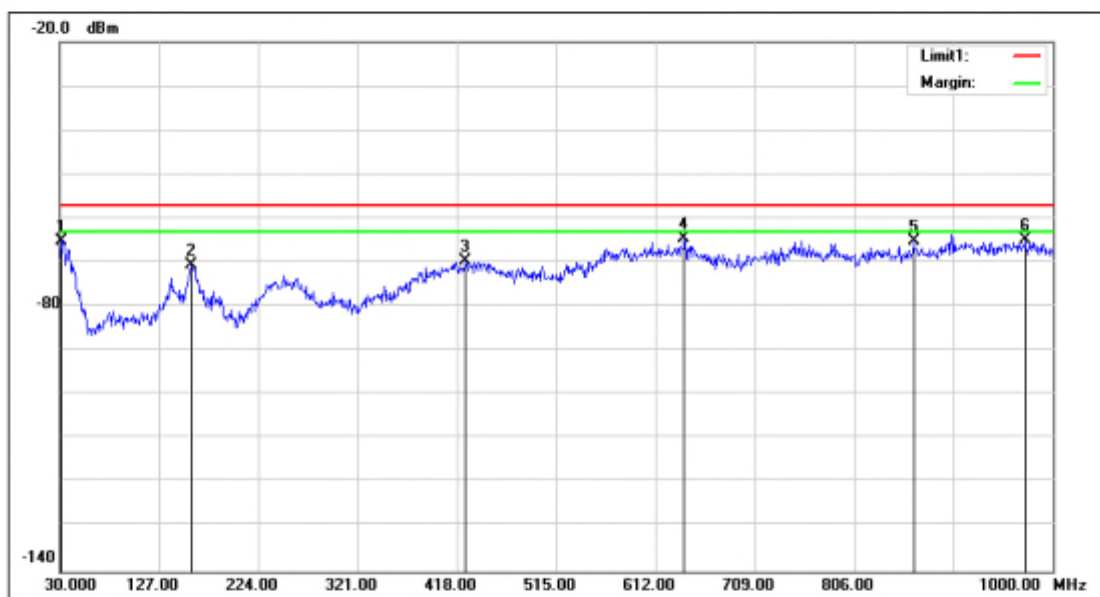
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德普华检测中心 Shenzhen STS Test Services Co., Ltd. 院
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/27
Test item:	Radiated Emission	Time:	15:09:34
Company:	Bluetooth receiver	Temp.(C):	24(C)
Model:	PA-40B	Hum.(%RH):	65% RH
Mode:	BT-G-L	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	32.5220	-60.36	-4.82	-65.18	-57.00	-8.18			peak
2	159.8830	-59.80	-10.75	-70.55	-57.00	-13.55			peak
3	426.8270	-71.07	1.30	-69.77	-57.00	-12.77			peak
4	640.8090	-70.54	5.91	-64.63	-57.00	-7.63			peak
5	864.2000	-71.36	6.35	-65.01	-57.00	-8.01			peak
6	973.2280	-73.40	8.63	-64.77	-57.00	-7.77			peak

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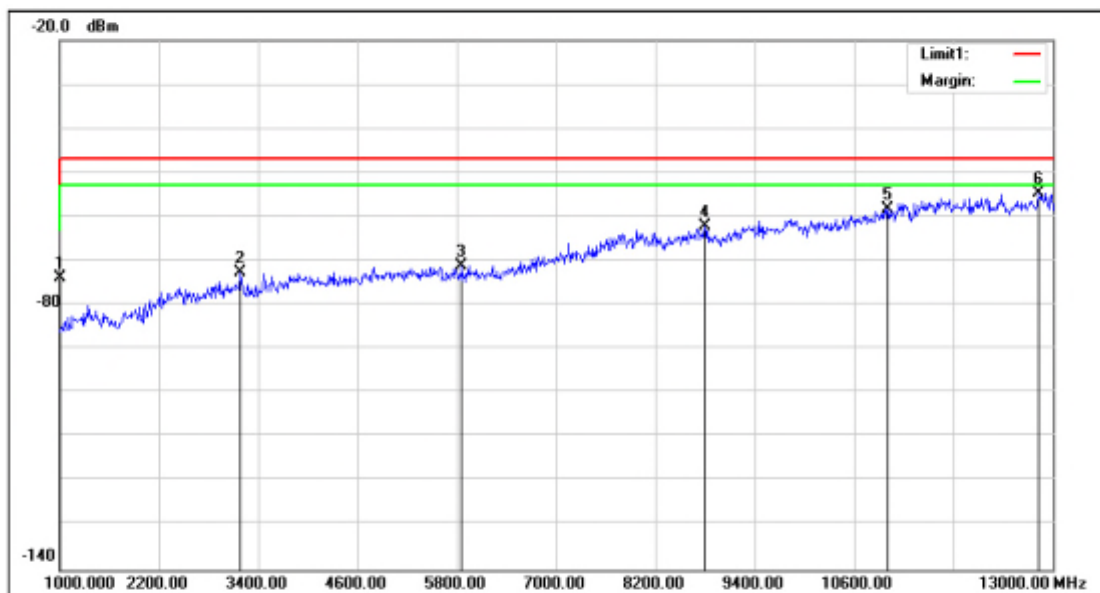
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德普华检测中心 Shenzhen STS Test Services C., Ltd. 曉
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 http://www.stsapp.com

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:2019/5/27	Time:16:43:38
Test item:	Radiated Emission	Temp.(C):	24(C)
Company:	Bluetooth receiver	Hum. (%RH):	65% RH
Model:	PA-40B	Power:	AC 230V/50Hz
Mode:	BT-G-H	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1000.0000	-82.00	8.18	-73.82	-57.00	-16.82			peak
2	3194.800	-77.86	5.09	-72.77	-47.00	-25.77			peak
3	5866.000	-79.94	8.87	-71.07	-47.00	-24.07			peak
4	8806.000	-80.22	17.99	-62.23	-47.00	-15.23			peak
5	11008.000	-80.55	22.38	-58.17	-47.00	-11.17			peak
6	12836.800	-79.74	25.08	-54.66	-47.00	-7.66			peak

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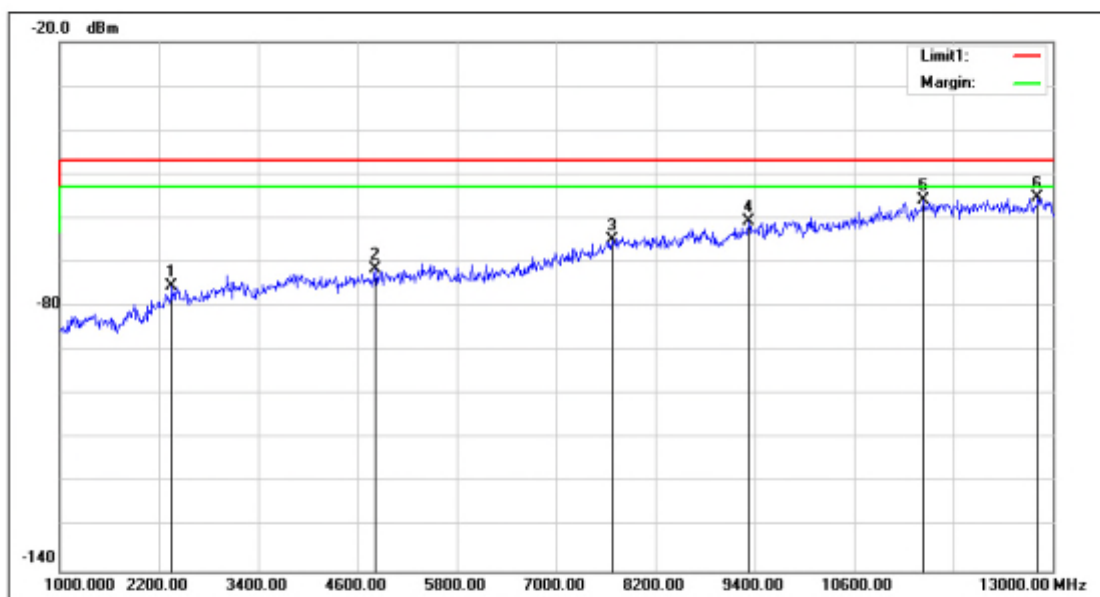
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德普华检测中心 Shenzhen STS Test Services Co., Ltd. 院
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/27
Test item:	Radiated Emission	Time:	16:39:33
Company:	Bluetooth receiver	Temp.(C):	24(C)
Model:	PA-40B	Hum.(%RH):	65% RH
Mode:	BT-G-H	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2364.400	-77.54	2.34	-75.20	-47.00	-28.20			peak
2	4826.800	-79.65	8.11	-71.54	-47.00	-24.54			peak
3	7675.600	-81.40	16.57	-64.83	-47.00	-17.83			peak
4	9329.200	-80.02	19.34	-60.68	-47.00	-13.68			peak
5	11444.800	-80.59	24.76	-55.83	-47.00	-8.83			peak
6	12820.000	-80.12	24.95	-55.17	-47.00	-8.17			peak

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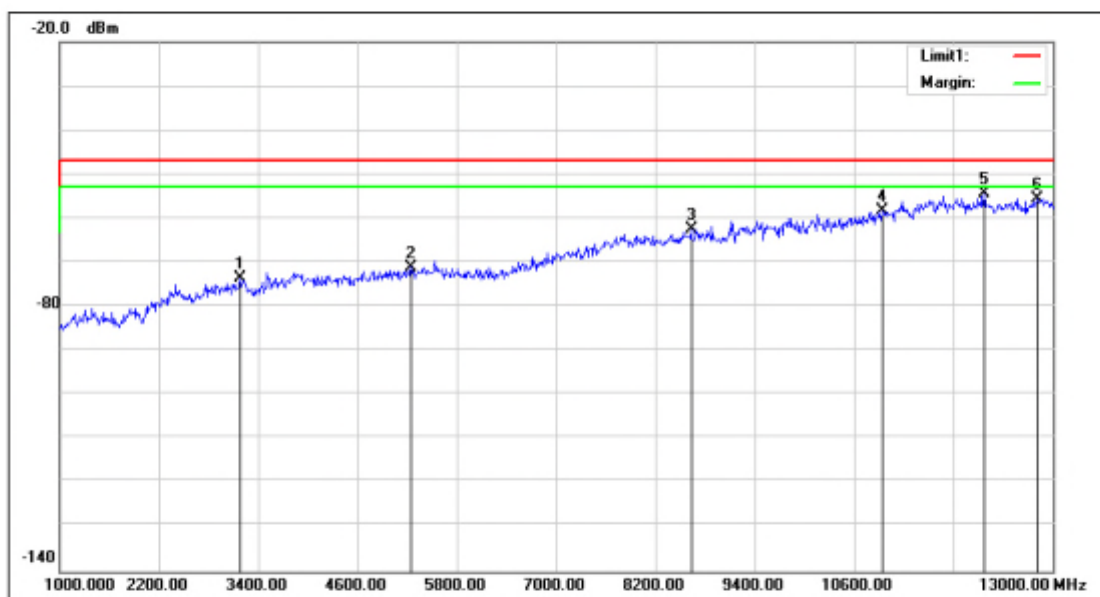
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德普华检测中心 Shenzhen STS Test Services Co., Ltd. 院
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:2019/5/27	Time:16:31:23
Test item:	Radiated Emission	Temp.(C):	24(C)
Company:	Bluetooth receiver	Hum. (%RH):	65% RH
Model:	PA-40B	Power:	AC 230V/50Hz
Mode:	BT-G-L	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	3191.200	-78.48	5.06	-73.42	-47.00	-26.42			peak
2	5255.200	-79.99	8.99	-71.00	-47.00	-24.00			peak
3	8641.600	-80.36	17.80	-62.56	-47.00	-15.56			peak
4	10956.400	-80.48	22.28	-58.20	-47.00	-11.20			peak
5	12176.800	-78.98	24.68	-54.30	-47.00	-7.30			peak
6	12830.800	-80.48	25.04	-55.44	-47.00	-8.44			peak

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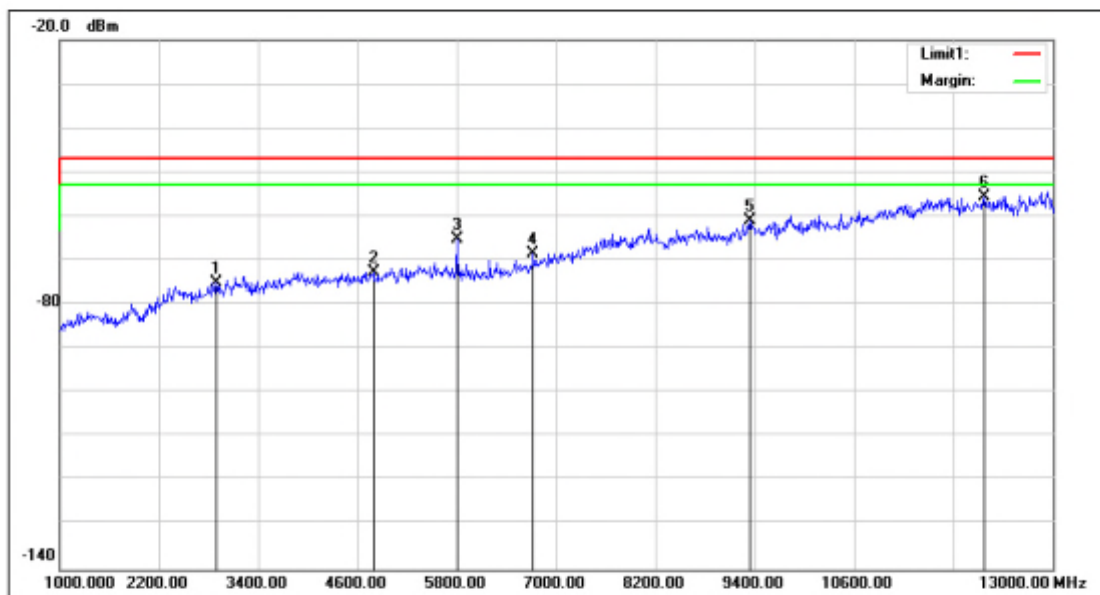
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Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/27
Test item:	Radiated Emission	Time:	16:35:29
Company:	Bluetooth receiver	Temp.(C):	24(C)
Model:	PA-40B	Hum. (%RH):	65% RH
Mode:	BT-G-L	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2905.600	-78.68	3.74	-74.94	-47.00	-27.94			peak
2	4799.200	-80.58	8.02	-72.56	-47.00	-25.56			peak
3	5804.800	-74.19	8.94	-65.25	-47.00	-18.25			peak
4	6731.200	-79.59	11.28	-68.31	-47.00	-21.31			peak
5	9350.800	-79.96	19.12	-60.84	-47.00	-13.84			peak
6	12180.400	-80.19	24.67	-55.52	-47.00	-8.52			peak

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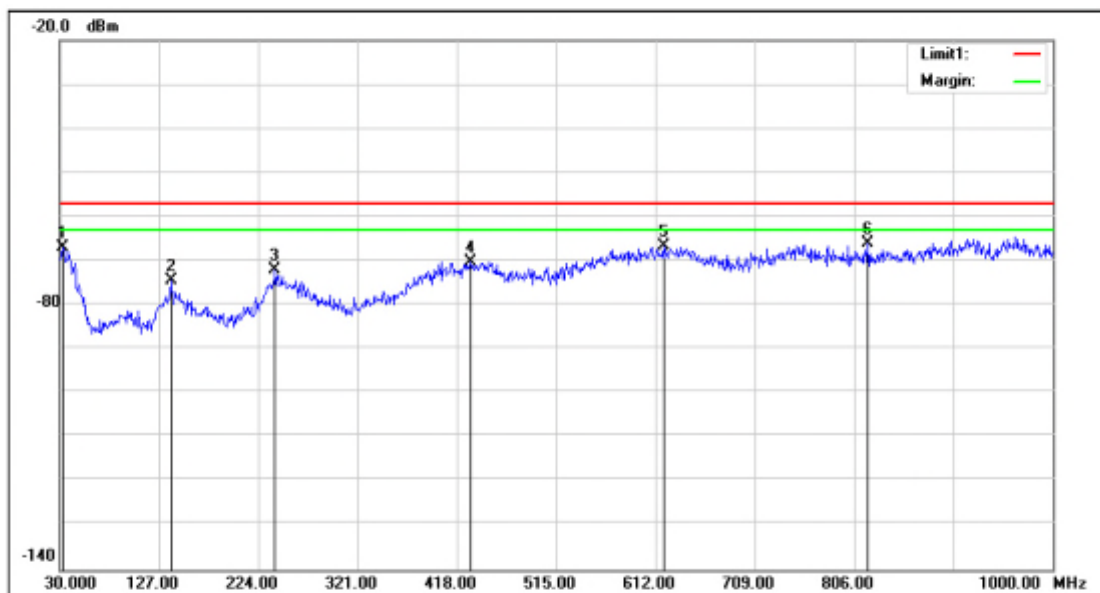
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Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:	2019/5/28 Time: 9:14:54
Test item:	Radiated Emission	Temp.(C):	22.6(C)
Company:	Bluetooth receiver	Hum. (%RH):	72%RH
Model:	PA-40B	Power:	AC 230V/50Hz
Mode:	BLE-H	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	32.9100	-62.04	-4.80	-66.84	-57.00	-9.84			peak
2	138.6400	-67.18	-7.34	-74.52	-57.00	-17.52			peak
3	240.4900	-69.15	-3.02	-72.17	-57.00	-15.17			peak
4	431.5800	-71.86	1.58	-70.28	-57.00	-13.28			peak
5	619.7600	-72.74	6.01	-66.73	-57.00	-9.73			peak
6	819.5800	-71.50	5.35	-66.15	-57.00	-9.15			peak

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Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/28
Test item:	Radiated Emission	Time:	9:10:50
Company:	Bluetooth receiver	Temp.(C):	22.6(C)
Model:	PA-40B	Hum.(%RH):	72%RH
Mode:	BLE-H	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	32.9100	-62.32	-4.80	-67.12	-57.00	-10.12			peak
2	242.4300	-70.35	-3.08	-73.43	-57.00	-16.43			peak
3	448.0700	-71.07	1.37	-69.70	-57.00	-12.70			peak
4	640.1300	-72.54	5.95	-66.59	-57.00	-9.59			peak
5	789.5100	-72.42	5.64	-66.78	-57.00	-9.78			peak
6	910.7600	-72.93	8.59	-64.34	-57.00	-7.34			peak

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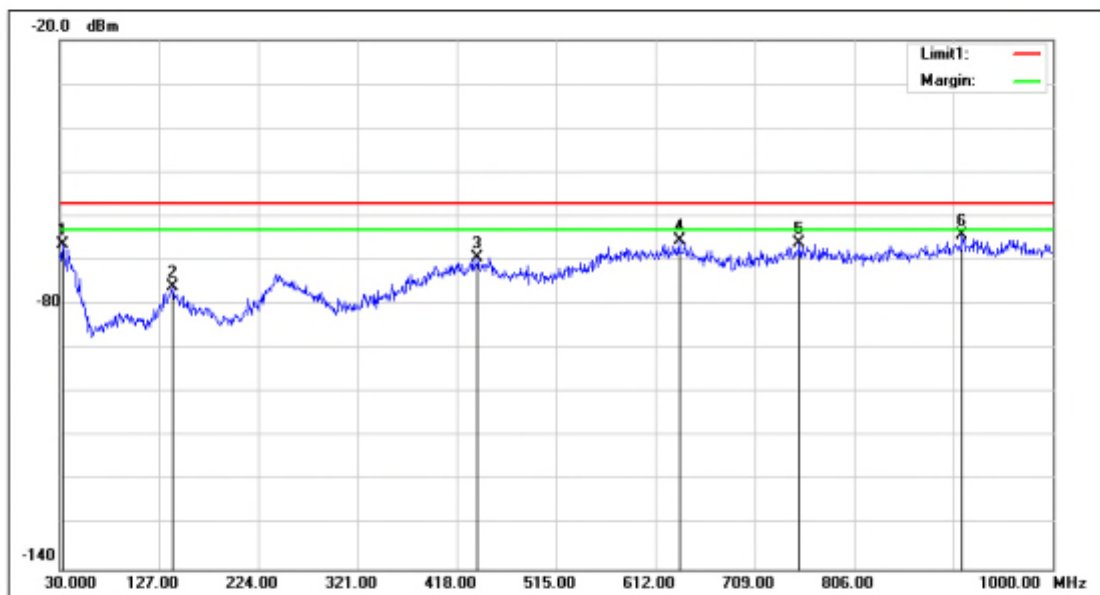
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Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:2019/5/28	Time:9:03:40
Test item:	Radiated Emission	Temp.(C):	22.6(C)
Company:	Bluetooth receiver	Hum. (%RH):	72%RH
Model:	PA-40B	Power:	AC 230V/50Hz
Mode:	BLE-L	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	32.9100	-61.60	-4.80	-66.40	-57.00	-9.40			peak
2	140.5800	-69.02	-6.94	-75.96	-57.00	-18.96			peak
3	438.3700	-71.32	1.98	-69.34	-57.00	-12.34			peak
4	635.2800	-71.57	5.98	-65.59	-57.00	-8.59			peak
5	752.6500	-72.37	6.20	-66.17	-57.00	-9.17			peak
6	911.7300	-72.90	8.63	-64.27	-57.00	-7.27			peak

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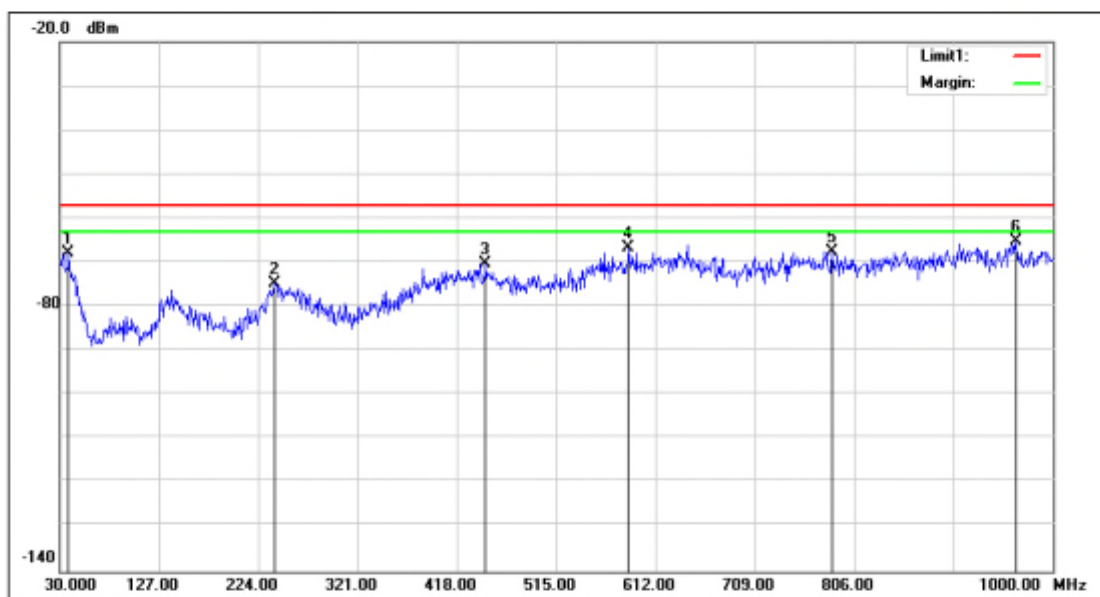
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Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:2019/5/28	Time:9:07:43
Test item:	Radiated Emission	Temp.(C):	22.6(C)
Company:	Bluetooth receiver	Hum. (%RH):	72%RH
Model:	PA-40B	Power:	AC 230V/50Hz
Mode:	BLE-L	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	38.7300	-63.16	-4.55	-67.71	-57.00	-10.71			peak
2	239.5200	-71.54	-3.17	-74.71	-57.00	-17.71			peak
3	446.1300	-71.74	1.54	-70.20	-57.00	-13.20			peak
4	585.8100	-71.80	5.06	-66.74	-57.00	-9.74			peak
5	784.6600	-73.34	5.83	-67.51	-57.00	-10.51			peak
6	964.1100	-74.17	8.95	-65.22	-57.00	-8.22			peak

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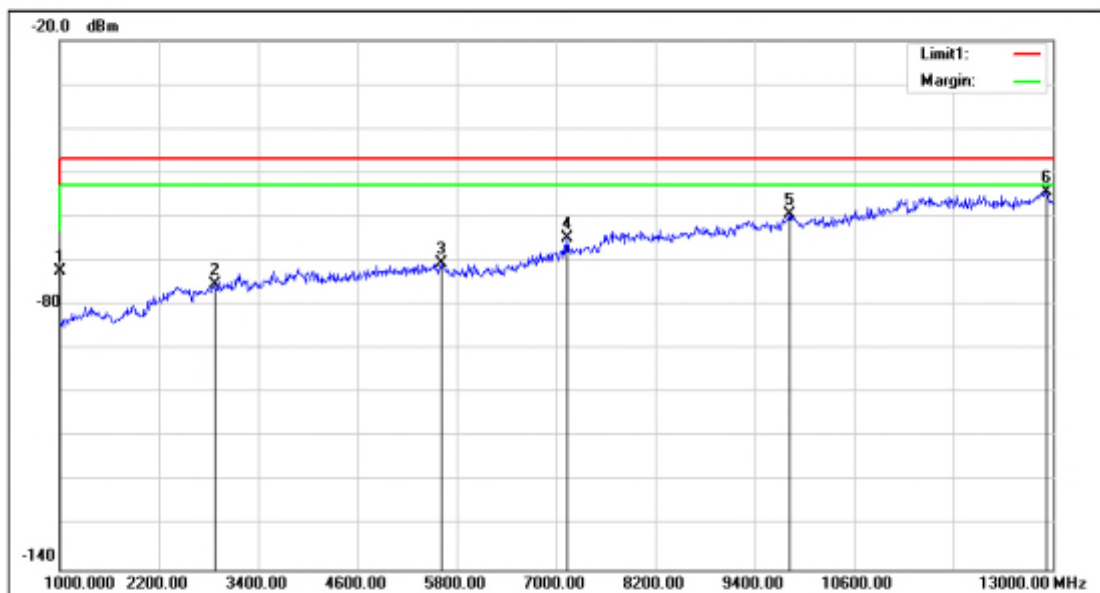
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德普华检测中心 Shenzhen STS Test Services C., Ltd. 曉
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:	2019/5/28
Test item:	Radiated Emission	Time:	10:03:49
Company:	Bluetooth receiver	Temp.(C):	22.6(C)
Model:	PA-40B	Hum. (%RH):	72% RH
Mode:	BLE-H	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1000.0000	-80.63	8.18	-72.45	-57.00	-15.45			peak
2	2881.600	-78.92	3.67	-75.25	-47.00	-28.25			peak
3	5612.800	-79.73	9.15	-70.58	-47.00	-23.58			peak
4	7134.400	-78.28	13.35	-64.93	-47.00	-17.93			peak
5	9823.600	-79.43	19.94	-59.49	-47.00	-12.49			peak
6	12934.000	-79.60	25.32	-54.28	-47.00	-7.28			peak

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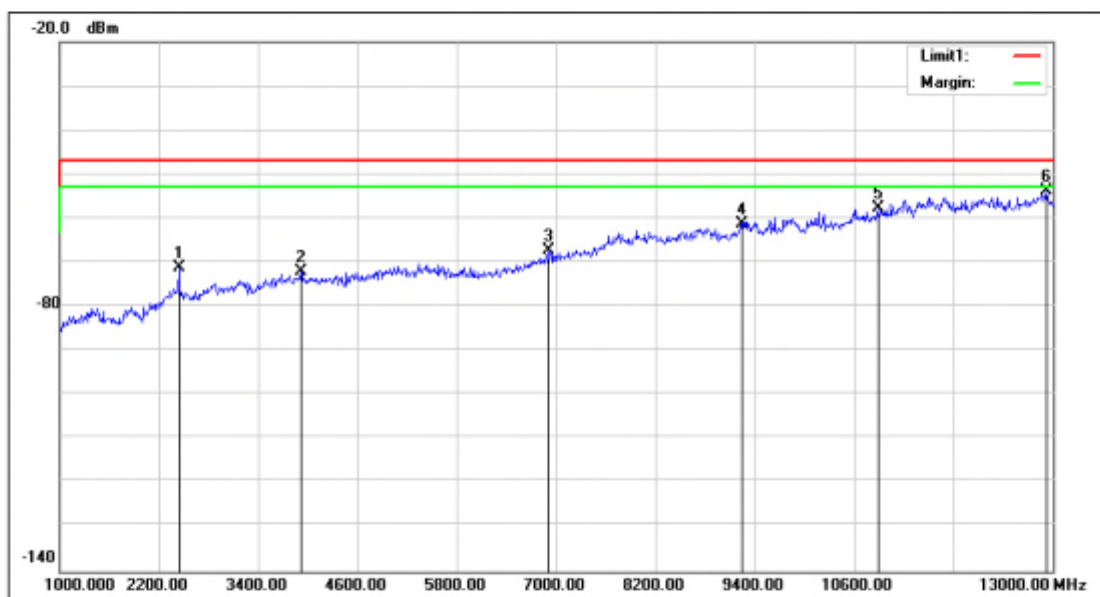
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德普华检测中心 Shenzhen STS Test Services Co., Ltd. 院
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/28
Test item:	Radiated Emission	Time:	9:59:43
Company:	Bluetooth receiver	Temp.(C):	22.6(C)
Model:	PA-40B	Hum.(%RH):	72%RH
Mode:	BLE-H	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2446.000	-73.91	2.75	-71.16	-47.00	-24.16			peak
2	3922.000	-78.67	6.74	-71.93	-47.00	-24.93			peak
3	6923.200	-79.76	12.42	-67.34	-47.00	-20.34			peak
4	9248.800	-79.84	18.74	-61.10	-47.00	-14.10			peak
5	10891.600	-79.72	22.08	-57.64	-47.00	-10.64			peak
6	12929.200	-78.97	25.36	-53.61	-47.00	-6.61			peak

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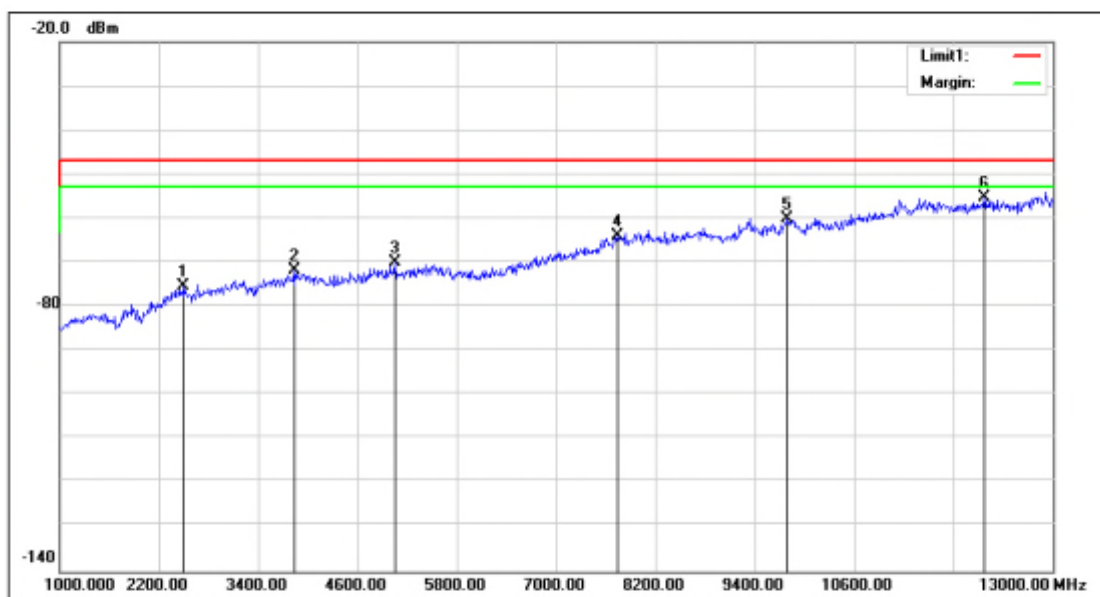
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德普华检测中心 Shenzhen STS Test Services Co., Ltd. 院
Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Horizontal
Standard:	EN 300328	Date:	2019/5/28 Time: 9:51:33
Test item:	Radiated Emission	Temp.(C):	22.6(C)
Company:	Bluetooth receiver	Hum. (%RH):	72%RH
Model:	PA-40B	Power:	AC 230V/50Hz
Mode:	BLE-L	Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2506.000	-77.87	2.40	-75.47	-47.00	-28.47			peak
2	3833.200	-78.40	6.63	-71.77	-47.00	-24.77			peak
3	5060.800	-78.84	8.77	-70.07	-47.00	-23.07			peak
4	7747.600	-80.45	16.52	-63.93	-47.00	-16.93			peak
5	9802.000	-79.92	19.99	-59.93	-47.00	-12.93			peak
6	12175.600	-79.84	24.68	-55.16	-47.00	-8.16			peak

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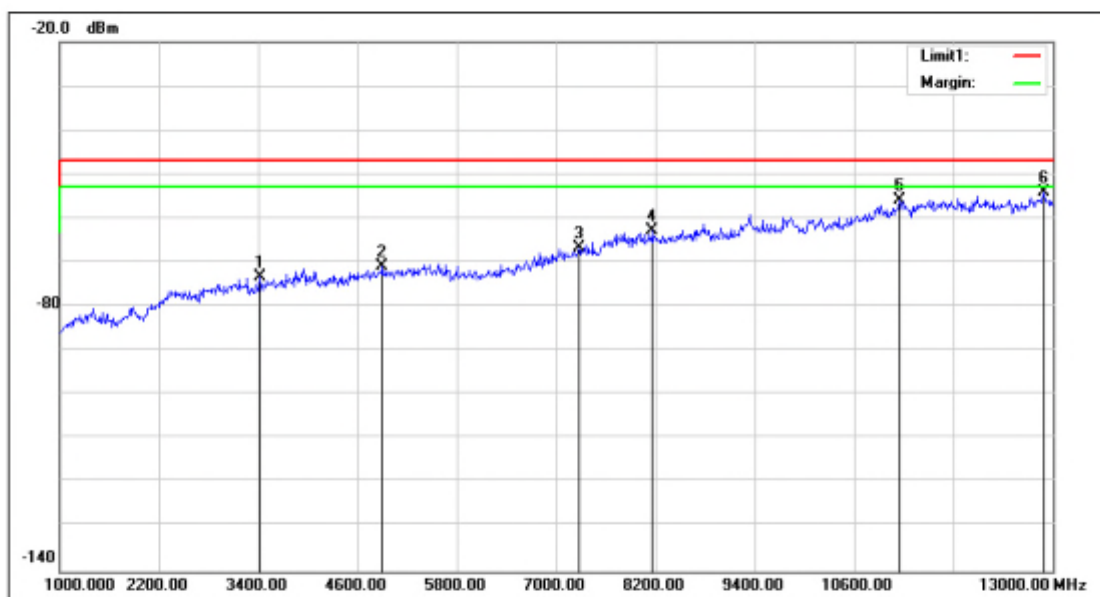
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Zhaoke Science Park, Chongqing Road, Fuyong, Baoan District, Shenzhen, China
Tel: (86)-0755-36886288 FAX: (86)-0755-36886277 <http://www.stsapp.com>

Job No.:	STS1810144	Ant.Polar.:	Vertical
Standard:	EN 300328	Date:	2019/5/28
Test item:	Radiated Emission	Time:	9:55:38
Company:	Bluetooth receiver	Temp.(C):	22.6(C)
Model:	PA-40B	Hum.(%RH):	72%RH
Mode:	BLE-L	Power:	AC 230V/50Hz
		Test By:	BULUN
Description:			



No.	Frequency (MHz)	Reading (dBm)	Correct Factor(dB)	Result (dBm)	Limit (dBm)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	3424.000	-77.67	4.35	-73.32	-47.00	-26.32			peak
2	4908.400	-79.18	8.39	-70.79	-47.00	-23.79			peak
3	7277.200	-80.51	13.86	-66.65	-47.00	-19.65			peak
4	8171.200	-79.73	17.10	-62.63	-47.00	-15.63			peak
5	11153.200	-79.25	23.40	-55.85	-47.00	-8.85			peak
6	12901.600	-79.74	25.58	-54.16	-47.00	-7.16			peak