

# **RADIO TEST REPORT**

## Report No.:STS2208010W03

Issued for

## GODOX PHOTO EQUIPMENT CO.LTD

1st to 4th Floor, Building 2/1st to 4th Floor, Building 4, Yaochuan Industrial Zone, Tangwei Community, Fuhai Street, Baoan District, Shenzhen 518103, China

Product Name:	TTL Wireless Flash Trigger			
Brand Name:	Godox			
Model Name:	XPROII L			
Series Model:	XPROII C, XPROII N, XPROII S, XPROII O, XPROII F, XPROII P			
FCC ID:	2ABYN060			
Test Standard:	FCC Part 15.247			

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APPROVA

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## **TEST RESULT CERTIFICATION**

Applicant's Name	GODOX PHOTO EQUIPMENT CO.LTD		
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Address	4th Floor of Building 1, 1st to 4th Floor of Building 2, 4th Floor of Building 3, 1st to 4th Floor of Building 4, Yaochuan Industrial Zone, Tangwei Community, Fuhai Street, Bao'an District, Shenzhen 518103, China		
Product Description			
Product Name:	TTL Wireless Flash Trigger		
Brand Name:	Godox		
Model Name:	XPROII L		
Series Model:	XPROII C, XPROII N, XPROII S, XPROII O, XPROII F, XPROII P		
Test Standards	FCC Part15.247		
Test Procedure:	ANSI C63.10-2013		

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test .....

Date of receipt of test item ..... 12 Aug. 2022

Date (s) of performance of tests ..... 12 Aug. 2022 ~ 25 Aug. 2022

Date of Issue ..... 25 Aug. 2022

Test Result..... Pass

Testing Engineer

(Chris Chen)

Technical Manager

(Sean she)

APPRO

Authorized Signatory :

## (Bovey Yang)

Shenzhen STS Test Services Co., Ltd.

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## **Revision History**

Rev.	Issue Date	Report NO.	Effect Page	Contents	
00	25 Aug. 2022	STS2208010W03	ALL	Initial Issue	



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## 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards: KDB 558074 D01 15.247 Meas Guidance v05r02.

FCC Part 15.247,Subpart C						
Standard Section	Last Itam					
15.207	Conducted Emission	N/A				
15.247 (a)(2)	6dB Bandwidth	6dB Bandwidth PASS				
15.247 (b)(3)	Output Power	PASS				
15.209	Radiated Spurious Emission PASS					
15.247 (d)	Conducted Spurious & Band Edge PASS -					
15.247 (e)	Power Spectral Density	PASS				
15.205	Restricted bands of operation	PASS				
Part 15.247(d)/ Part 15.209(a)	Band Edge Emission PASS					
15.203	Antenna Requirement	PASS				

NOTE:

(1) 'N/A' denotes test is not applicable in this Test Report.

(2) All tests are according to ANSI C63.10-2013.

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## 1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD Add. : A 1/F, Building B, Zhuoke Science Park, No.190 Chongqing Road, HepingShequ, Fuyong Sub-District, Bao'an District, Shenzhen, Guang Dong, China FCC test Firm Registration Number: 625569 IC test Firm Registration Number: 12108A A2LA Certificate No.: 4338.01

### **1.2 MEASUREMENT UNCERTAINTY**

The reported uncertainty of measurement  $y \pm U$ , where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	RF output power, conducted	±0.87dB
2	Unwanted Emissions, conducted	±2.895dB
3	All emissions, radiated 9K-30MHz	±3.80dB
4	All emissions, radiated 30M-1GHz	±4.09dB
5	All emissions, radiated 1G-6GHz	±4.92dB
6	All emissions, radiated>6G	±5.49dB
7	Conducted Emission (9KHz-30MHz)	±2.73dB



## 2. GENERAL INFORMATION

## 2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	TTL Wireless Flash Trigger			
Trade Name	Godox			
Model Name	XPROII L			
Series Model	XPROII C, XPROII XPROII O, XPROII			
Model Difference	,	ot shoe are different , others are the		
	The EUT is a TTL V	Vireless Flash Trigger		
	Operation Frequency:	2402~2480 MHz		
	Modulation Type:	GFSK		
	Radio Technology:	BLE		
Product Description	Bluetooth	LE (Support 1M PHY)		
	Configuration:			
	Number Of Channel:	40		
	Antenna Designation:	Please refer to the Note 3.		
	Antenna Gain (dBi) 0.54dBi			
Channel List	Please refer to the I	Note 2.		
Rating	Input: DC 3V(AA Battery*2)			
Hardware version number	20211231C01			
Software version number	V1.0			
Connecting I/O Port(s)	Please refer to the I	Note 1.		

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.





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<u> </u>								
	Channel List							
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequenc y (MHz)		
	00	2402	10	2422	20	2442	30	2462
	01	2404	11	2424	21	2444	31	2464
	02	2406	12	2426	22	2446	32	2466
	03	2408	13	2428	23	2448	33	2468
	04	2410	14	2430	24	2450	34	2470
	05	2412	15	2432	25	2452	35	2472
	06	2414	16	2434	26	2454	36	2474
	07	2416	17	2436	27	2456	37	2476
	08	2418	18	2438	28	2458	38	2478
	09	2420	19	2440	29	2460	39	2480

3.

Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	Linkiing	LK8353	РСВ	N/A	0.54dBi	BLE ANT

Note: The antenna information refer the manufacturer provide report, applicable only to the tested sample identified in the report. Due to the incorrect antenna information, a series of problems such as the accuracy of the test results will be borne by the customer.







## 2.2 DESCRIPTION OF THE TEST MODES

For conducted test items and radiated spurious emissions

Each of these EUT operation mode(s) or test configuration mode(s) mentioned below was evaluated respectively.

Worst Mode	Description	Data/Modulation
Mode 1	TX CH00(2402MHz)	1 Mbps/GFSK
Mode 2	TX CH19(2440MHz)	1 Mbps/GFSK
Mode 3	TX CH39(2480MHz)	1 Mbps/GFSK

Note:

(1) We tested for all available U.S. voltage and frequencies (For 120V, 50/60Hz and 240V, 50/60Hz) for which the device is capable of operation, and the worst case of 120V/ 60Hz is shown in the report.

(2) The battery is fully-charged during the radiated and RF conducted test.

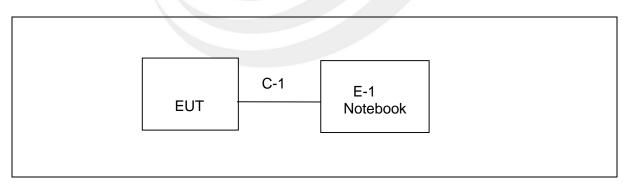
#### 2.3 TEST SOFTWARE AND POWER LEVEL

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

RF Function	Туре	Mode Or Modulation type	ANT Gain(dBi)	Power Class	Software For Testing
BLE	BLE	GFSK	0.54	Default	sscom5.13.1

## 2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

## Radiated Spurious Emission Test







## 2.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

	Necessary accessories					
Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note	
N/A	N/A	N/A	N/A	N/A	N/A	

#### Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
E-1	Notebook	LENOVO	Think Pad E470	N/A	N/A
C-1	USB Cable	N/A	N/A	150cm	NO

Note:

- (1) For detachable type I/O cable should be specified the length in cm in <sup>r</sup> Length <sup>a</sup> column.
- (2) "YES" is means "with core"; "NO" is means "without core".



## 2.6 EQUIPMENTS LIST

#### Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2021.09.30	2022.09.29
Signal Analyzer	R&S	FSV 40-N	101823	2021.09.30	2022.09.29
Active loop Antenna	ZHINAN	ZN30900C	16035	2021.04.11	2023.04.10
Bilog Antenna	TESEQ	CBL6111D	34678	2020.10.12	2022.10.11
Horn Antenna	SCHWARZBECK	BBHA 9120D	02014	2021.10.11	2023.10.10
SHF-EHF Horn Antenna (18G-40GHz)	A-INFO	LB-180400-KF	J211020657	2020.10.12	2022.10.11
Pre-Amplifier (0.1M-3GHz)	EM	EM330	060665	2021.10.08	2022.10.07
Pre-Amplifier (1G-18GHz)	SKET	LNPA-01018G-45	SK2018080901	2021.09.30	2022.09.29
Pre-Amplifier (18G-40GHz)	SKET	LNPA-1840-50	SK2018101801	2021.09.28	2022.09.27
Temperature & Humidity	HH660	Mieo	N/A	2021.10.09	2022.10.08
Turn table	EM	SC100_1	60531	N/A	N/A
Antenna mast	EM	SC100	N/A	N/A	N/A
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 RE)			

## Conduction Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2021.09.30	2022.09.29
LISN	R&S	ENV216	101242	2021.09.30	2022.09.29
LISN	EMCO	3810/2NM	23625	2021.09.30	2022.09.29
Temperature & Humidity	HH660	Mieo	N/A	2021.10.09	2022.10.08
Test SW	FARAD		EZ-EMC(Ver.ST	TSLAB-03A1 CE)	

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## **RF** Connected Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
		U2021XA	MY55520005	2021.09.30	2022.09.29
Power Sensor	Keysight		MY55520006	2021.09.30	2022.09.29
Fower Sensor			MY56120038	2021.09.30	2022.09.29
			MY56280002	2021.09.30	2022.09.29
Signal Analyzer	Agilent	N9020A	MY51110105	2022.03.01	2023.02.28
Temperature & Humidity	HH660	Mieo	N/A	2021.10.09	2022.10.08
Test SW	FARAD	EZ-EMC(Ver.STSLAB-03A1 RE)			



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## 3. EMC EMISSION TEST

## 3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table.

	Conducted Emission limit (dBuV)		
FREQUENCY (MHz)	Quasi-peak	Average	
0.15 -0.5	66 - 56 *	56 - 46 *	
0.50 -5.0	56.00	46.00	
5.0 -30.0	60.00	50.00	

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

#### The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz



## 3.2 TEST PROCEDURE

- a. The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN is at least 80 cm from the nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item -EUT Test Photos.

## Vertical Reference Ground Plane EUT 40cm EUT 80cm N Horizontal Reference Ground Plane

## 3.3 TEST SETUP

Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes support units.

### 3.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



## 3.5 TEST RESULTS

Temperature:	(C)	Relative Humidity:	%RH
Test Voltage:	N/A	Phase:	L/N
Test Mode:	N/A		

Note: EUT is only power by Battery, So it is not applicable for this test.



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## 4. RADIATED EMISSION MEASUREMENT

## 4.1 RADIATED EMISSION LIMITS

In any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the Restricted band specified on Part15.205(a)&209(a) limit in the table and according to ANSI C63.10-2013 below has to be followed.

### LIMITS OF RADIATED EMISSION MEASUREMENT (Frequency Range 9kHz-1000MHz)

Frequencies	Field Strength	Measurement Distance
(MHz)	(micorvolts/meter)	(meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

	(dBuV/m) (at 3M)		
FREQUENCY (MHz)	PEAK	AVERAGE	
Above 1000	74	54	

Notes:

(1) The limit for radiated test was performed according to FCC PART 15C.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

## LIMITS OF RESTRICTED FREQUENCY BANDS

FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (GHz)
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

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For Radiated Emission

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/QP/AV
Start Frequency	9 KHz/150KHz(Peak/QP/AV)
Stop Frequency	150KHz/30MHz(Peak/QP/AV)
	200Hz (From 9kHz to 0.15MHz)/
RB / VB (emission in restricted	9KHz (From 0.15MHz to 30MHz);
band)	200Hz (From 9kHz to 0.15MHz)/
	9KHz (From 0.15MHz to 30MHz)

Spectrum Parameter	Setting		
Attenuation	Auto		
Detector	Peak/QP		
Start Frequency	30 MHz(Peak/QP)		
Stop Frequency	1000 MHz (Peak/QP)		
RB / VB (emission in restricted band)	120 KHz / 300 KHz		

Spectrum Parameter	Setting		
Attenuation	Auto		
Detector	Peak/AV		
Start Frequency	1000 MHz(Peak/AV)		
Stop Frequency	10th carrier hamonic(Peak/AV)		
RB / VB (emission in restricted	1 MHz / 3 MHz(Peak)		
band)	1 MHz/1/T MHz(AVG)		

For Restricted band

Spectrum Parameter	Setting			
Detector	Peak/AV			
Start/Stan Fraguanay	Lower Band Edge: 2310 to 2410 MHz			
Start/Stop Frequency	Upper Band Edge: 2475 to 2500 MHz			
	1 MHz / 3 MHz(Peak)			
RB / VB	1 MHz/1/T MHz(AVG)			

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Receiver Parameter	Setting
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	90kHz~110kHz / RB 200Hz for QP
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	490kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

## 4.2 TEST PROCEDURE

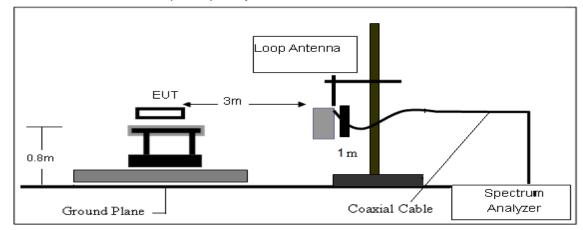
- a. The measuring distance at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
- b. The EUT was placed on the top of a rotating table 0.8 m (above 1GHz is 1.5 m) above the ground at a 3 m anechoic chamber test site. The table was rotated 360 degree to determine the position of the highest radiation.
- c. The height of the equipment shall be 0.8 m (above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. Horizontal and vertical polarization of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and QuasiPeak detector mode will be re-measured.
- e. If the Peak Mode measured value is compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and no additional QP Mode measurement was performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos. Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

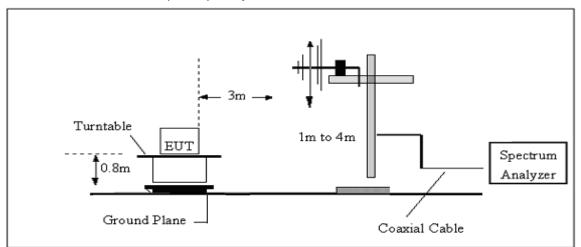


## 4.3 TEST SETUP

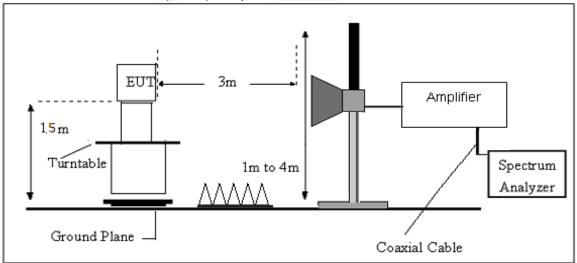
(A) Radiated Emission Test-Up Frequency Below 30MHz



## (B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



## 4.4 EUT OPERATING CONDITIONS Please refer to section 3.4 of this report.



## 4.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CL - AGWhere FS = Field Strength CL = Cable Attenuation Factor (Cable Loss) RA = Reading Amplitude AG = Amplifier Gain AF = Antenna Factor

For example

Frequency	FS	RA	AF	CL	AG	Factor
(MHz)	(dBµV/m)	(dBµV/m)	(dB)	(dB)	(dB)	(dB)
300	40	58.1	12.2	1.6	31.9	-18.1

Factor=AF+CL-AG





## 4.6 TEST RESULTS

#### (Between 9KHz - 30 MHz)

Temperature:	23.1(C)	Relative Humidtity:	60%RH
Test Voltage:	DC 3V	Polarization:	
Test Mode:	TX Mode		

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
				PASS
				PASS

#### Note:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor =40 log (specific distance/test distance)(dB); Limit line = specific limits(dBuv) + distance extrapolation factor.





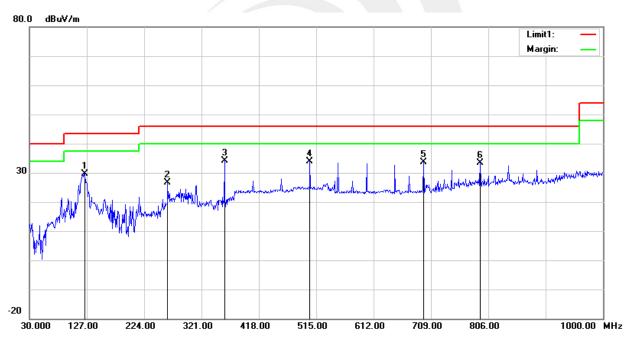
(30MHz -1000MHz)

Temperature:	23.1(C)	Relative Humidity:	60%RH			
Test Voltage:	DC 3V	Phase:	Horizontal			
Test Mode:	Mode 1/2/3 (Mode 3 worst mode)					

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/ m)	(dBuV/m)	(dBuV/m)	(dB)	
1	124.0900	47.85	-18.24	29.61	43.50	-13.89	peak
2	263.7700	41.28	-14.75	26.53	46.00	-19.47	peak
3	359.8000	46.98	-12.87	34.11	46.00	-11.89	peak
4	504.3300	41.94	-7.98	33.96	46.00	-12.04	peak
5	696.3900	37.74	-4.23	33.51	46.00	-12.49	peak
6	792.4200	35.37	-1.99	33.38	46.00	-12.62	peak

Remark:

- 1. Margin = Result (Result = Reading + Factor )-Limit
- 2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain





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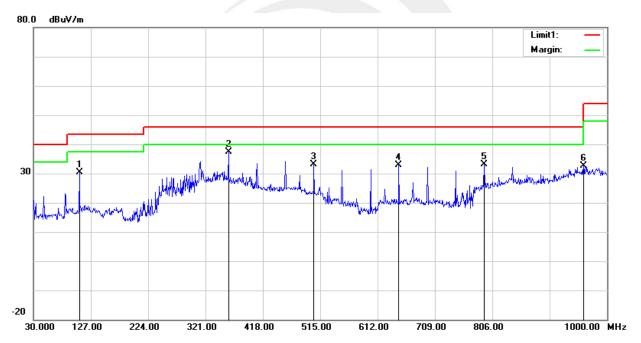
Temperature:	23.1(C)	Relative Humidity:	60%RH			
Test Voltage:	DC 3V	Phase:	Vertical			
Test Mode:	Mode 1/2/3 (Mode 3 worst mode)					

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/ m)	(dBuV/m)	(dBuV/m)	(dB)	
1	107.6000	49.60	-19.32	30.28	43.50	-13.22	peak
2	359.8000	50.14	-12.87	37.27	46.00	-8.73	peak
3	504.3300	41.02	-7.98	33.04	46.00	-12.96	peak
4	647.8900	37.69	-4.88	32.81	46.00	-13.19	peak
5	792.4200	35.03	-1.99	33.04	46.00	-12.96	peak
6	960.2300	30.78	1.76	32.54	54.00	-21.46	peak

Remark:

1. Margin = Result (Result = Reading + Factor )-Limit

2. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain





## (1GHz-25GHz) Spurious emission Requirements

GFSK

Frequency	Meter Reading	Amplifier	Loss	Antenna Factor	Corrected Factor	Emission Level	Limits	Margin	Detector	Comment
(MHz)	(dBµV)	(dB)	(dB)	(dB/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре	
	•			Low Cł	nannel (GFSK/2	2402 MHz)	•			
3264.77	60.93	44.70	6.70	28.20	-9.80	51.13	74.00	-22.87	PK	Vertical
3264.77	49.88	44.70	6.70	28.20	-9.80	40.08	54.00	-13.92	AV	Vertical
3264.66	61.91	44.70	6.70	28.20	-9.80	52.11	74.00	-21.89	PK	Horizontal
3264.66	49.95	44.70	6.70	28.20	-9.80	40.15	54.00	-13.85	AV	Horizontal
4804.32	58.34	44.20	9.04	31.60	-3.56	54.78	74.00	-19.22	PK	Vertical
4804.32	49.76	44.20	9.04	31.60	-3.56	46.20	54.00	-7.80	AV	Vertical
4804.34	59.03	44.20	9.04	31.60	-3.56	55.47	74.00	-18.53	PK	Horizontal
4804.34	50.21	44.20	9.04	31.60	-3.56	46.65	54.00	-7.35	AV	Horizontal
5359.62	48.13	44.20	9.86	32.00	-2.34	45.79	74.00	-28.21	PK	Vertical
5359.62	40.21	44.20	9.86	32.00	-2.34	37.87	54.00	-16.13	AV	Vertical
5359.81	48.46	44.20	9.86	32.00	-2.34	46.12	74.00	-27.88	PK	Horizontal
5359.81	39.05	44.20	9.86	32.00	-2.34	36.70	54.00	-17.30	AV	Horizontal
7205.75	54.71	43.50	11.40	35.50	3.40	58.11	74.00	-15.89	PK	Vertical
7205.75	44.50	43.50	11.40	35.50	3.40	47.90	54.00	-6.10	AV	Vertical
7205.73	54.25	43.50	11.40	35.50	3.40	57.65	74.00	-16.35	PK	Horizontal
7205.73	44.48	43.50	11.40	35.50	3.40	47.88	54.00	-6.12	AV	Horizontal
	•			Middle C	Channel (GFSK	/2440 MHz)				
3263.22	61.07	44.70	6.70	28.20	-9.80	51.27	74.00	-22.73	PK	Vertical
3263.22	51.34	44.70	6.70	28.20	-9.80	41.54	54.00	-12.46	AV	Vertical
3263.03	61.18	44.70	6.70	28.20	-9.80	51.38	74.00	-22.62	PK	Horizontal
3263.03	51.06	44.70	6.70	28.20	-9.80	41.26	54.00	-12.74	AV	Horizontal
4880.13	58.11	44.20	9.04	31.60	-3.56	54.55	74.00	-19.45	PK	Vertical
4880.13	50.40	44.20	9.04	31.60	-3.56	46.84	54.00	-7.16	AV	Vertical
4880.05	58.31	44.20	9.04	31.60	-3.56	54.75	74.00	-19.25	PK	Horizontal
4880.05	50.11	44.20	9.04	31.60	-3.56	46.55	54.00	-7.45	AV	Horizontal
5357.20	48.12	44.20	9.86	32.00	-2.34	45.78	74.00	-28.22	PK	Vertical
5357.20	39.75	44.20	9.86	32.00	-2.34	37.41	54.00	-16.59	AV	Vertical
5357.39	47.37	44.20	9.86	32.00	-2.34	45.02	74.00	-28.98	PK	Horizontal
5357.15	38.46	44.20	9.86	32.00	-2.34	36.11	54.00	-17.89	AV	Horizontal
7320.85	53.95	43.50	11.40	35.50	3.40	57.35	74.00	-16.65	PK	Vertical
7320.85	44.03	43.50	11.40	35.50	3.40	47.43	54.00	-6.57	AV	Vertical
7320.29	54.15	43.50	11.40	35.50	3.40	57.55	74.00	-16.45	PK	Horizontal
7320.29	44.81	43.50	11.40	35.50	3.40	48.21	54.00	-5.79	AV	Horizontal

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				High Char	nnel (GFSK/	2480 MHz)				
3264.79	61.89	44.70	6.70	28.20	-9.80	52.09	74.00	-21.91	PK	Vertical
3264.79	51.64	44.70	6.70	28.20	-9.80	41.84	54.00	-12.16	AV	Vertical
3264.73	61.79	44.70	6.70	28.20	-9.80	51.99	74.00	-22.01	PK	Horizontal
3264.73	50.81	44.70	6.70	28.20	-9.80	41.01	54.00	-12.99	AV	Horizontal
4960.42	58.74	44.20	9.04	31.60	-3.56	55.18	74.00	-18.82	PK	Vertical
4960.42	49.84	44.20	9.04	31.60	-3.56	46.28	54.00	-7.72	AV	Vertical
4960.56	59.28	44.20	9.04	31.60	-3.56	55.72	74.00	-18.28	PK	Horizontal
4960.56	50.41	44.20	9.04	31.60	-3.56	46.85	54.00	-7.15	AV	Horizontal
5359.68	48.75	44.20	9.86	32.00	-2.34	46.41	74.00	-27.59	PK	Vertical
5359.68	39.69	44.20	9.86	32.00	-2.34	37.35	54.00	-16.65	AV	Vertical
5359.63	47.97	44.20	9.86	32.00	-2.34	45.63	74.00	-28.37	PK	Horizontal
5359.63	38.98	44.20	9.86	32.00	-2.34	36.64	54.00	-17.36	AV	Horizontal
7439.73	53.83	43.50	11.40	35.50	3.40	57.23	74.00	-16.77	PK	Vertical
7439.73	44.44	43.50	11.40	35.50	3.40	47.84	54.00	-6.16	AV	Vertical
7439.91	53.71	43.50	11.40	35.50	3.40	57.11	74.00	-16.89	PK	Horizontal
7439.91	43.84	43.50	11.40	35.50	3.40	47.24	54.00	-6.76	AV	Horizontal

## Note:

1) Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Emission Level = Reading + Factor

2) The frequency emission of peak points that did not show above the forms are at least 20dB below the limit, the frequency emission is mainly from the environment noise.

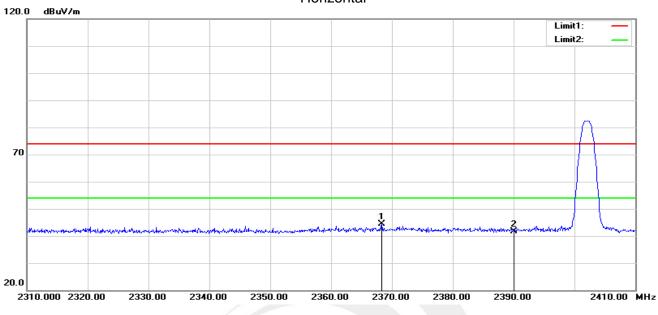




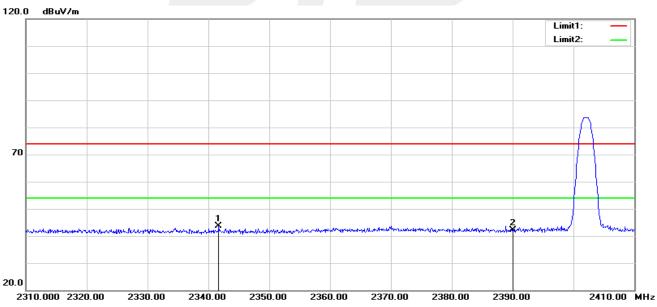
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## 4.6 TEST RESULTS (Restricted Bands Requirements)

**GFSK-Low** Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2368.300	40.25	4.01	44.26	74.00	-29.74	peak
2	2390.000	37.32	4.34	41.66	74.00	-32.34	peak



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2341.700	39.98	3.69	43.67	74.00	-30.33	peak
2	2390.000	37.80	4.34	42.14	74.00	-31.86	peak

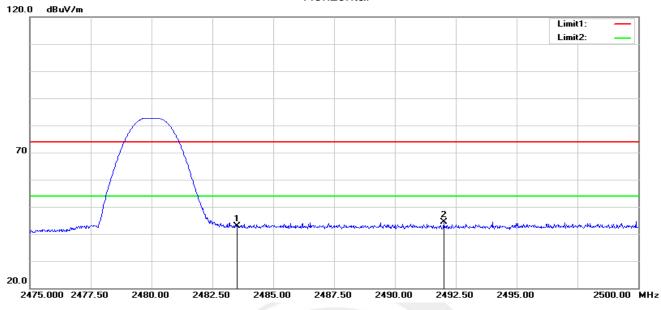
Vertical



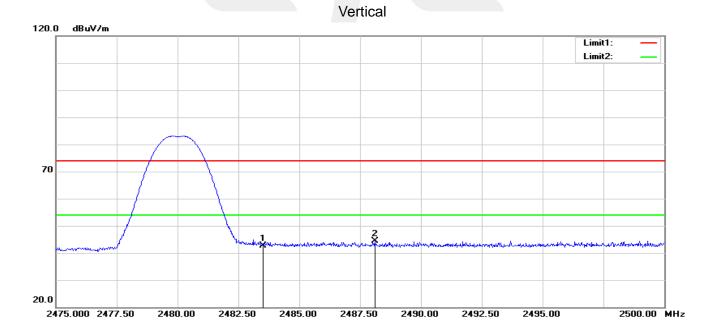
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## **GFSK-High** Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	38.27	4.60	42.87	74.00	-31.13	peak
2	2492.000	39.78	4.63	44.41	74.00	-29.59	peak



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	38.12	4.60	42.72	74.00	-31.28	peak
2	2488.100	39.73	4.62	44.35	74.00	-29.65	peak



## 5. CONDUCTED SPURIOUS & BAND EDGE EMISSION

## 5.1 LIMIT

According to FCC section 15.247(d), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

## 5.2 TEST PROCEDURE

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	30 MHz to 10th carrier harmonic
RB / VB (emission in restricted band)	100 KHz/300 KHz
Trace-Mode:	Max hold
For Band edge	
Spectrum Parameter	Setting
Spectrum Parameter           Detector	Setting Peak
Detector	
	Peak
Detector	Peak Lower Band Edge: 2300 – 2407 MHz

### 5.3 TEST SETUP



The EUT is connected to the Spectrum Analyzer; the RF load attached to the EUT antenna termina is 50 Ohm; the path loss as the factor is calibrated to correct the reading. Make the measurement with the spectrum analyzer's resolution bandwidth(RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW.

5.4 EUT OPERATION CONDITIONS Please refer to section 3.4 of this report.

5.5 TEST RESULTS

Note: The test data please refer to APPENDIX 1.



## 6. POWER SPECTRAL DENSITY TEST

## 6.1 LIMIT

	FCC Pa	art 15.247,Subpart C		
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(e)	Power Spectral Density	≤8 dBm (RBW≥3KHz)	2400-2483.5	PASS

## 6.2 TEST PROCEDURE

- 1. Set analyzer center frequency to DTS channel center frequency.
- 2. Set the span to 1.5 times the DTS channel bandwidth.
- 3. Set the RBW to: 100 kHz  $\geq$  RBW  $\geq$  3 kHz.
- 4. Set the VBW  $\geq$  3 x RBW.
- 5. Detector = peak.
- 6. Sweep time = auto couple.
- 7. Trace mode = max hold.
- 8. Allow trace to fully stabilize.
- 9. Use the peak marker function to determine the maximum amplitude level.
- 10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

## 6.3 TEST SETUP

Specturm Analyzer		EUT
----------------------	--	-----

6.4 EUT OPERATION CONDITIONS Please refer to section 3.4 of this report.

6.5 TEST RESULTS

Note: The test data please refer to APPENDIX 1.



## 7. BANDWIDTH TEST

7.1 LIMIT

	F	CC Part 15.247,Subpa	irt C	
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	>= 500KHz (6dB bandwidth)	2400-2483.5	PASS

## 7.2 TEST PROCEDURE

The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described above (i.e., RBW = 100 kHz, VBW $\geq$ 3RBW, peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be $\geq$ 6 dB.

## 7.3 TEST SETUP



## 7.4 EUT OPERATION CONDITIONS Please refer to section 3.4 of this report.

## 7.5 TEST RESULTS

Note: The test data please refer to APPENDIX 1.



## 8. PEAK OUTPUT POWER TEST

## 8.1 LIMIT

	F	CC Part 15.247,Subpa	rt C	
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Output Power	1 watt or 30dBm	2400-2483.5	PASS

### 8.2 TEST PROCEDURE

One of the following procedures may be used to determine the maximum peak conducted output power of a DTS EUT.

 $RBW \ge DTS$  bandwidth

The following procedure shall be used when an instrument with a resolution bandwidth that is greater than the DTS bandwidth is available to perform the measurement:

a) Set the RBW  $\geq$  DTS bandwidth.

b) Set VBW  $\geq$  [3 × RBW].

c) Set span  $\geq$  [3 × RBW].

d) Sweep time = auto couple.

e) Detector = peak.

f) Trace mode = max hold.

g) Allow trace to fully stabilize.

h) Use peak marker function to determine the peak amplitude level.

Integrated band power method:

The following procedure can be used when the maximum available RBW of the instrument is less than the

DTS bandwidth:

a) Set the RBW = 1 MHz.

b) Set the VBW  $\geq$  [3  $\times$  RBW].

c) Set the span  $\geq$  [1.5 × DTS bandwidth].

d) Detector = peak.

e) Sweep time = auto couple.

f) Trace mode = max hold.

g) Allow trace to fully stabilize.

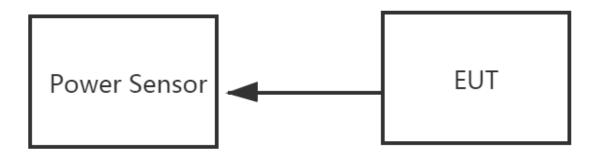
h) Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges (for some instruments, this may require a manual override to select the peak detector). If the instrument does not have a band power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the DTS channel bandwidth.

PKPM1 Peak power meter method:

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast-responding diode detector.



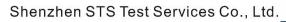




**8.4 EUT OPERATION CONDITIONS** Please refer to section 3.4 of this report.

8.5 TEST RESULTS

Note: The test data please refer to APPENDIX 1.





## 9. ANTENNA REQUIREMENT

## 9.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

## 9.2 EUT ANTENNA

The EUT antenna is PCB Antenna. It comply with the standard requirement.



Shenzhen STS Test Services Co., Ltd.



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## APPENDIX 1-TEST DATA

## 1. Duty Cycle

Condition	Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	100	0	0
NVNT	BLE 1M	2440	100	0	0
NVNT	BLE 1M	2480	100	0	0



Shenzhen STS Test Services Co., Ltd.



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RL	Analyzer - Swept SA RF 50 Ω AC		SEN	SE:PULSE	ALIGN /		03:1	L6:07 PM Aug 12, 202
enter Frec	2.402000000	P	PNO: Fast ↔ Gain:Low	Trig: Free Ru #Atten: 30 dB	n	Avg Type: Log-Pwr		TRACE 1 2 3 4 5 TYPE WWWWWW DET P N N N N
0 dB/div 🛛 🛛 🤁	ef Offset 0.5 dB ef 20.50 dBm						Mkı	1 50.00 m -0.23 dBr
og 10.5				1				
500 <b></b> 9.50 <b></b>								
19.5								
29.5								
49.5								
59.5								
69.5								
enter 2.402 les BW 1.0	2000000 GHz MHz		#VBV	V 3.0 MHz		Swe	eep 100.0 n	Span 0 H ns (10001 pts
ikr mode trc s <mark>1</mark> N 1 1		50.00 ms	Y -0.23 c	FUNCTIO	DN FUNCTION		FUNCTION VALU	
2	t	50.00 ms	-0.23 (	авті				
3 4								
5								
6 7								
8								
9								
10								
10 11								
10						STATUS		
10		Duty	Cvcle N				_	
10 11 56	Analyzer - Swept SA	Duty	Cycle N			status 440MHz		
IO I1 SG gilent Spectrum / RL	RF   50 Ω AC			IVNT BL	.E 1M 24	440MHz	03:1	19:19PM Aug 12, 202
IO I1 SG gilent Spectrum / RL		GHz	SEN:	SE:PULSE	E 1M 24	440MHz	03:1	19:19PM Aug 12, 202
ilo gilent Spectrum / RL	RF   50 Ω AC	GHz			E 1M 24	440MHz	03:1	19:19PM Aug 12, 202
ilent Spectrum / RL enter Frec	RF 50 Ω AC   2.4400000000 ef Offset 0.5 dB	GHz	SEN: NO: Fast ↔	SE:PULSE	E 1M 24	440MHz		19:19PM Aug 12, 202 TRACE 12 3 4 5 TYPE WWWWWW DET P N N N N 1 50.00 m
10 11 13 13 14 15 15 16 17 17 17 17 17 17 17 17 17 17	rf 50 Ω AC <b>2.440000000</b>	GHz	SEN: NO: Fast ↔	SE:PULSE	E 1M 24	440MHz		19:19PM Aug 12, 202 TRACE 12 3 4 5 TYPE WWWWWW DET P N N N N 1 50.00 m
10 11 13 13 14 15 15 16 17 17 17 17 17 17 17 17 17 17	RF 50 Ω AC   2.4400000000 ef Offset 0.5 dB	GHz	SEN: NO: Fast ↔	SE:PULSE	E 1M 24	440MHz		19:19PM Aug 12, 202 TRACE 12 3 4 5 TYPE WWWWWW DET P N N N N 1 50.00 m
ilent Spectrum / RL enter Frec glient R RL RL RL RL RL RL RL RL RL R	RF 50 Ω AC   2.4400000000 ef Offset 0.5 dB	GHz	SEN: NO: Fast ↔	SE:PULSE	E 1M 24	440MHz		19:19PM Aug 12, 202 TRACE 12 3 4 5 TYPE WWWWWW DET P N N N N 1 50.00 m
10 11 13 36 37 38 38 38 38 38 38 38 38 38 38 38 38 38	RF 50 Ω AC   2.4400000000 ef Offset 0.5 dB	GHz	SEN: NO: Fast ↔	SE:PULSE	E 1M 24	440MHz		19:19PM Aug 12, 202 TRACE 112 3 4 5 TYPE WWWWWW DET P N N N 1 50.00 m
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RF 50 Ω AC   2.4400000000 ef Offset 0.5 dB	GHz	SEN: NO: Fast ↔	SE:PULSE	E 1M 24	440MHz		19:19PM Aug 12, 202 TRACE 12 3 4 5 TYPE WWWWWW DET P N N N N 1 50.00 m
0         0           36	RF 50 Ω AC   2.4400000000 ef Offset 0.5 dB	GHz	SEN: NO: Fast ↔	SE:PULSE	E 1M 24	440MHz		19:19PM Aug 12, 202 TRACE 112 3 4 5 TYPE WWWWWW DET P N N N 1 50.00 m
10         10           11         11           36         36           RL         20           200         20           100         20	RF 50 Ω AC   2.4400000000 ef Offset 0.5 dB	GHz	SEN: NO: Fast ↔	SE:PULSE	E 1M 24	440MHz		19:19PM Aug 12,202 TRACE [12:345 TYPE] P NNNN 15:00 ms -0.02 dBn
10 11 11 12 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	RF 50 Ω AC   2.4400000000 ef Offset 0.5 dB	GHz	SEN: NO: Fast ↔	SE:PULSE	E 1M 24	440MHz		19:19PM Aug 12, 202 TRACE 112 3 4 5 TYPE WWWWWW DET P N N N 1 50.00 m
10         11           11         11           36         36           RL         36           Center Freco         30           100         100           100	ef Offset 0.5 dB ef 30.00 dBm	GHz	SEN NO: Fast ↔ Gain:Low	SE:PULSE Trig: Free Ru Atten: 40 dB	E 1M 24	AUTO AUTO Avg Type: Log-Pwr		19:19PM Aug 12, 202 TRACE 12:3 + 5 TYPE [WWMWW oet  P NNNN -0.02 dBn -0.02 dBn
10         11           11         11           365         365           RL         12           Center Freq         12           20.0         10.0           0.00	ef Offset 0.5 dB ef 30.00 dBm	GHz	SEN NO: Fast ↔ Gain:Low	SE:PULSE Trig: Free Ru Atten: 40 dB	E 1M 2	440MHz	Mkr	19:19PM Aug 12,202 TRACE 12:345 TYPE WWWWWW oer IP INNIN -0.02 dBn -0.02 dBn
0         0           11         0           3G         0           RL         0           Content Frequence         0	RF         SO Ω         AC           2.440000000         4         4           ef Offset 0.5 dB         6         5           ef 30.00 dBm         4         4           0 <td>GHz</td> <td>SEN NO: Fast ↔ Gain:Low</td> <td>SE:PULSE Trig: Free Ru Atten: 40 dB</td> <td>E 1M 2</td> <td>440MHz</td> <td></td> <td>19:19PM Aug 12,202 TRACE 12:345 TYPE WWWWWW oer IP INNIN -0.02 dBn -0.02 dBn</td>	GHz	SEN NO: Fast ↔ Gain:Low	SE:PULSE Trig: Free Ru Atten: 40 dB	E 1M 2	440MHz		19:19PM Aug 12,202 TRACE 12:345 TYPE WWWWWW oer IP INNIN -0.02 dBn -0.02 dBn
10         10           36	RF         SO Ω         AC           2.440000000         4         4           ef Offset 0.5 dB         6         5           ef 30.00 dBm         4         4           0 <td>GHz</td> <td>SEN NO: Fast Gain:Low</td> <td>SE:PULSE Trig: Free Ru Atten: 40 dB</td> <td>E 1M 2</td> <td>440MHz</td> <td>Mkr</td> <td>19:19PM Aug 12,202 TRACE 12:345 TYPE WWWWWW oer IP INNIN -0.02 dBn -0.02 dBn</td>	GHz	SEN NO: Fast Gain:Low	SE:PULSE Trig: Free Ru Atten: 40 dB	E 1M 2	440MHz	Mkr	19:19PM Aug 12,202 TRACE 12:345 TYPE WWWWWW oer IP INNIN -0.02 dBn -0.02 dBn
0         0           11         0           3G         RL           enter Frec         0           0         <	RF         SO Ω         AC           2.440000000         4         4           ef Offset 0.5 dB         6         5           ef 30.00 dBm         4         4           0 <td>GHz</td> <td>SEN NO: Fast Gain:Low</td> <td>SE:PULSE Trig: Free Ru Atten: 40 dB</td> <td>E 1M 2</td> <td>440MHz</td> <td>Mkr</td> <td>19:19PM Aug 12, 202 TRACE 12:345 TYPE WWWWWW oer IP INNIN -0.02 dBr -0.02 dBr</td>	GHz	SEN NO: Fast Gain:Low	SE:PULSE Trig: Free Ru Atten: 40 dB	E 1M 2	440MHz	Mkr	19:19PM Aug 12, 202 TRACE 12:345 TYPE WWWWWW oer IP INNIN -0.02 dBr -0.02 dBr
10         10           11         11           36         11           37         RL           1         1           1         1           1         1           20         1	RF         SO Ω         AC           2.440000000         4         4           ef Offset 0.5 dB         6         5           ef 30.00 dBm         4         4           0 <td>GHz</td> <td>SEN NO: Fast Gain:Low</td> <td>SE:PULSE Trig: Free Ru Atten: 40 dB</td> <td>E 1M 2</td> <td>440MHz</td> <td>Mkr</td> <td>19:19PM Aug 12,202 TRACE 12:345 TYPE WWWWWW oer IP INNIN -0.02 dBn -0.02 dBn</td>	GHz	SEN NO: Fast Gain:Low	SE:PULSE Trig: Free Ru Atten: 40 dB	E 1M 2	440MHz	Mkr	19:19PM Aug 12,202 TRACE 12:345 TYPE WWWWWW oer IP INNIN -0.02 dBn -0.02 dBn
10         10           11         11           36         RL           Rt         200           200         200           100         200           200         200           200         200           300         200           300         200           300         300           40.0         500           500         500           600         200           300         40.0           50.0         50.0           50.0         50.0           50.0         50.0           50.0         50.0           50.0         50.0           50.0         50.0           50.0         50.0           50.0         50.0           50.0         50.0           50.0         50.0           50.0         50.0           50.0         50.0           50.0         50.0           50.0         50.0           50.0         50.0           50.0         50.0           50.0         50.0           50.0         50.0	RF         SO Ω         AC           2.440000000         4         4           ef Offset 0.5 dB         6         5           ef 30.00 dBm         4         4           0 <td>GHz</td> <td>SEN NO: Fast Gain:Low</td> <td>SE:PULSE Trig: Free Ru Atten: 40 dB</td> <td>E 1M 2</td> <td>440MHz</td> <td>Mkr</td> <td>19:19PM Aug 12,202 TRACE 12:345 TYPE WWWWWW oer IP INNIN -0.02 dBn -0.02 dBn</td>	GHz	SEN NO: Fast Gain:Low	SE:PULSE Trig: Free Ru Atten: 40 dB	E 1M 2	440MHz	Mkr	19:19PM Aug 12,202 TRACE 12:345 TYPE WWWWWW oer IP INNIN -0.02 dBn -0.02 dBn



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### Duty Cycle NVNT BLE 1M 2480MHz

Ref Offset 0.5 dB         Mkr1 50.0.15           0 dB/div         Ref 0.5 dB         0.15           0 dB/div         Ref 2.480000000 GHz         0.15           0 dB/div         Ref 2.50 dBm         0.15           0 dB/div         Ref 2.60 dBm         0.15		Analyzer - Swept SA							
PRO: Fast         #Atten: 30 dB         Der/line           0 dB/div         Ref Offset 0.5 dB         0.15           0 dB/div         Ref 20.50 dBm         0.15           0 dB/div         0.15         0.15 </th <th></th> <th>RF 50 Ω AC</th> <th></th> <th></th> <th></th> <th>ALIGNAUTO Avg Typ</th> <th>e: Log-Pwr</th> <th></th> <th>1 PM Aug 12, 202 RACE 1 2 3 4 5</th>		RF 50 Ω AC				ALIGNAUTO Avg Typ	e: Log-Pwr		1 PM Aug 12, 202 RACE 1 2 3 4 5
Ref 20.50 dBm       0.15         0 dB/div       Ref 20.50 dBm       0.15         0 dB/div       1       1       1         0 dB/div       1       1       1       1         0 dB/div       1       1       1       1       1         0 dB/div       1       1       1       1       1       1         0 dB/div       1					s:Free Run ten: 30 dB				
0 g     0 d <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>									
1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       1     1     1     1     1     1     1       2     1     1     1     1     1     1       1     1     1     1     1     1     1       2     1     1     1     1     1     1       3     1     1     1     1     1     1       3     1     1     1     1     1     1       3     1     1     1     1     1     1       3     1     1     1     1     1     1       3     1     1     1     1     1     1       4     1     1     1     1     1     1       3     1     1     1     1     1     1 <t< th=""><th>) dB/div R</th><th>tef 20.50 dBm</th><th></th><th></th><th></th><th></th><th></th><th></th><th>0.15 dBr</th></t<>	) dB/div R	tef 20.50 dBm							0.15 dBr
1     1 <td>-</td> <td></td> <td></td> <td></td> <td><u> </u></td> <td></td> <td></td> <td></td> <td></td>	-				<u> </u>				
9.5 9.5 9.5 9.5 9.5 9.5 9.5 9.5	500				<b>?</b> `				
Mark     Mark     Mark     Mark       1005     1     1     1     1       1015     1     1     1     1 <t< td=""><td>.50</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	.50								
19.5     Image: state	9.5								
Image: second	9.5								
N9.5     Image: Constraint of the second secon	9.5								
Bit No.5     Y     FUNCTION WIDTH     FUNCTION WIDTH     FUNCTION WALLE       SRI MODE     X     Y     FUNCTION WIDTH     FUNCTION WALLE       SRI MODE     TO     S0.00 ms     0.15 dBm       1     N     1     t     50.00 ms     0.15 dBm       2	9.5								
Enter 2.480000000 GHz         #VBW 3.0 MHz         Space           es BW 1.0 MHz         #VBW 3.0 MHz         Sweep 100.0 ms (100           KR MODE TRC SEL         X         Y         FUNCTION WIDTH         FUNCTION WALUE           1 N 1         t         50.00 ms         0.15 dBm         1         1         FUNCTION WALUE           2	9.5								
es BW 1.0 MHz #VBW 3.0 MHz Sweep 100.0 ms (100 KG MODE TRC SCL X Y FUNCTION WIDTH FUNCTION VALUE 1 N 1 t 50.00 ms 0.15 dBm 3 4 4 5 6 6 7 8 9	9.5								
es BW 1.0 MHz #VBW 3.0 MHz Sweep 100.0 ms (100 KG MODE TRC SCL X Y FUNCTION WIDTH FUNCTION VALUE 1 N 1 t 50.00 ms 0.15 dBm 3 4 4 5 6 6 7 8 9									
KR MODE         TRC         SCL         X         Y         FUNCTION         FUNCTION WIDTH         FUNCTION VALUE           1         N         1         t         50.00 ms         0.15 dBm				#VBW 3.0	MHz		Sween	100.0 ms	Span 0 H (10001 pt)
1         1         50.00 ms         0.15 dBm           2         0         0         0           3         0         0         0           4         0         0         0           5         0         0         0           6         0         0         0           7         0         0         0           8         0         0         0				# <b>U D H U</b>					(10001 pc
3     4       4     5       5     6       7     6       8     9			50.00 ms	0.15 dBm	FUNCTION	FUNCTION WIDTH	F	UNCTION VALUE	
4 5 5 6 7 7 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7									
6 7 8 9	4								
9	6								
9	8								
0	9								
g status									>



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# 2. Maximum Average Conducted Output Power

Condition	Mode	Frequency (MHz)	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	-0.23	0	-0.23	<=30	Pass
NVNT	BLE 1M	2440	0	0	0	<=30	Pass
NVNT	BLE 1M	2480	0.13	0	0.13	<=30	Pass



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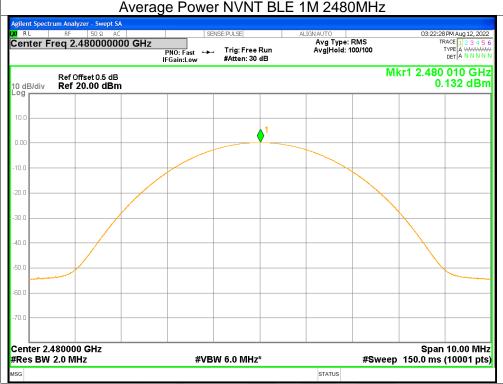


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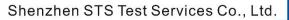


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# 3. Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	-0.08	<=30	Pass
NVNT	BLE 1M	2440	0.16	<=30	Pass
NVNT	BLE 1M	2480	0.29	<=30	Pass



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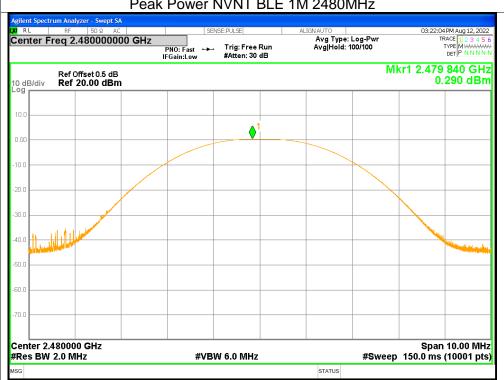


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	Deal	k Power	Test Graphs	M 2402MHz	
ilent Spectrum Analyzer -		k Fuwel	INVINI DLE I		
RL RF 5	ΩΩ AC	SE	ENSE:PULSE	ALIGNAUTO Avg Type: Log-Pwr	03:16:38 PM Aug 12, 20
enter Freq 2.402	GHZ	PNO: Fast ++	<ul> <li>Trig: Free Run #Atten: 30 dB</li> </ul>	Avg Hold: 100/100	TRACE 1 2 3 4 5 TYPE MWAWAW DET P N N N
Ref Offset	0.5 dB	iroani.L0₩	JARCAL OF ND	MI	(r1 2.402 005 GH
dB/div Ref 20.5					-0.082 dBi
0.5					
500					
50					
9.5					
9.5	/				
9.5					
9.5					
9.5					
9.5					
enter 2.402000 Gl	+z				Span 10.00 MH
		#VB	W 6.0 MHz	_	150.0 ms (10001 pt
	Pool			STATUS	150.0 ms (10001 pt
G				_	150.0 ms (10001 pt
G ilent Spectrum Analyzer - RL RF 5	Swept SA 0 Ω AC	k Power		status IM 2440MHz Alignauto	03:19:42 PM Aug 12, 20;
G ilent Spectrum Analyzer - RL RF 5	Swept SA 0 Ω AC		NVNT BLE 1	status M 2440MHz	03:19:42 PM Aug 12, 20 TRACE 12 3 4 5 TYPE IM WHITE
s Ilent Spectrum Analyzer RL RF 5 enter Freq 2.440	Swept SA 0 Ω AC   0000000 GHz	k Power	NVNT BLE 1	STATUS IM 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	03:19:42 PM Aug 12, 20 TRACE 1 2 3 4 5 TYPE M WWWW DET P N NN N Kr1 2,439 970 GH
G RL RF S enter Freq 2.440 Ref Offset d dB/div Ref 20.5	Swept SA           Ω Ω         AC           0000000         GHz           0000000         GHz		NVNT BLE 1	STATUS IM 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	03:19:42 PM Aug 12, 20 TRACE 1 2 3 4 5 TYPE M WWWW DET P N NN N Kr1 2,439 970 GH
a RL RF S enter Freq 2.440 Ref Offset dB/div Ref 20.5	Swept SA           Ω Ω         AC           0000000         GHz           0000000         GHz		NVNT BLE 1	STATUS IM 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	03:19:42 PM Aug 12, 20 TRACE 1 2 3 4 5 TYPE M WWWW DET P N NN N Kr1 2,439 970 GH
s RL RF S enter Freq 2.440 Ref Offset dB/div Ref 20.5	Swept SA           Ω Ω         AC           0000000         GHz           0000000         GHz		NVNT BLE 1	STATUS IM 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	03:19:42 PM Aug 12, 20 TRACE 1 2 3 4 5 TYPE M WWWW DET P N NN N Kr1 2,439 970 GH
a Ilent Spectrum Analyzer - RL RF S enter Freq 2.440 Ref Offset dB/div Ref 20.5	Swept SA           Ω Ω         AC           0000000         GHz           0000000         GHz		NVNT BLE 1	STATUS IM 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	03:19:42 PM Aug 12, 20 TRACE 1 2 3 4 5 TYPE M WWWW DET P N NN N Kr1 2,439 970 GH
a ilent Spectrum Analyzer - RL RF 5 enter Freq 2.440 Ref Offset dB/div Ref 20.5 9 0.5	Swept SA           Ω Ω         AC           0000000         GHz           0000000         GHz		NVNT BLE 1	STATUS IM 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	03:19:42PM Aug 12, 20 TRACE 12:3:4:5 TYPE MMWWW DET P NNNN Kr1 2.439 970 GH
a ilent Spectrum Analyzer - RL RF 5 enter Freq 2.440 Ref Offset dB/div Ref 20.5 9 0.5	Swept SA           Ω Ω         AC           0000000         GHz           0000000         GHz		NVNT BLE 1	STATUS IM 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	03:19:42PM Aug 12, 20 TRACE 12:3:4:5 TYPE MMWWW DET P NNNN Kr1 2.439 970 GH
a ilent Spectrum Analyzer - RL RF S enter Freq 2.440 Ref Offset dB/div Ref 20.5 9 0.5 00 50	Swept SA           Ω Ω         AC           0000000         GHz           0000000         GHz		NVNT BLE 1	STATUS IM 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	03:19:42PM Aug 12, 20 TRACE 12:3:4:5 TYPE MMWWW DET P NNNN Kr1 2.439 970 GH
a Ilent Spectrum Analyzer - RL RF 5 enter Freq 2.440 rdB/div Ref 20.5	Swept SA           Ω Ω         AC           0000000         GHz           0000000         GHz		NVNT BLE 1	STATUS IM 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	03:19:42PM Aug 12, 20 TRACE 12:3:4:5 TYPE MMWWW DET P NNNN Kr1 2.439 970 GH
a Ilent Spectrum Analyzer - RL RF 5 enter Freq 2.440 rdB/div Ref 20.5	Swept SA           Ω Ω         AC           0000000         GHz           0000000         GHz		NVNT BLE 1	STATUS IM 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	150.0 ms (10001 pt 03:19:42PM Aug 12,200 TRACE 12:34:5 TYPE MMMMM sr1 2.439 970 GH 0.162 dBr
a lient Spectrum Analyzer - RL RF S enter Freq 2.440	Swept SA           Ω Ω         AC           0000000         GHz           0000000         GHz		NVNT BLE 1	STATUS IM 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	03:19:42PM Aug 12, 202 TRACE 12:345 TYPE MWWWW DET P NNN (r1 2.439 970 GH 0.162 dBr
a Ilent Spectrum Analyzer - RL RF S enter Freq 2.440 B dB/div Ref Offset Ref Offset Ref 0 8 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9	Swept SA           Ω Ω         AC           0000000         GHz           0000000         GHz		NVNT BLE 1	STATUS IM 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	03:19:42PM Aug 12, 20 TRACE 12:3:4:5 TYPE MMWWW DET P NNNN Kr1 2.439 970 GH
a Ilent Spectrum Analyzer - RL RF S enter Freq 2.440 B dB/div Ref Offset Ref Offset Ref 0 8 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9	Swept SA           Ω Ω         AC           0000000         GHz           0000000         GHz		NVNT BLE 1	STATUS IM 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	03:19:42PM Aug 12, 202 TRACE 12:345 TYPE MWWWW DET P NNN (r1 2.439 970 GH 0.162 dBr
Ref Offset           0 dB/div         Ref 20.5           0 dB/div         Ref 20.5           0.5	Swept SA           Ω Ω         AC           0000000         GHz           0000000         GHz		NVNT BLE 1	STATUS IM 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	03:19:42PM Aug 12, 202 TRACE 12:345 TYPE MWWWW DET P NNN (r1 2.439 970 GH 0.162 dBr
a ilent Spectrum Analyzer - RL RF S enter Freq 2.440 dB/div Ref Offset g dB/div Ref 20.5 g 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	Swept SA           Ω Ω         AC           0000000         GHz           0000000         GHz		NVNT BLE 1	STATUS IM 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	03:19:42PM Aug 12, 202 TRACE 12:345 TYPE MWWWW DET P NNN (r1 2.439 970 GH 0.162 dBr
s	Swept SA           Ω Ω         AC           0000000         GHz           0000000         GHz		NVNT BLE 1	STATUS IM 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	03:19:42PM Aug 12, 20 TRACE 12.3.4 TYPE M WWW OET P NNN (r1 2.439 970 GH 0.162 dBr
s	Swept SA 0.2 AC 0000000 GHz 0.5 dB 0 dBm	k Power	NVNT BLE 1	STATUS	03:19:42PM Aug 12, 20 TRACE 12.3.4 TYPE M WWW OET P NNN (r1 2.439 970 GH 0.162 dBr



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#### Peak Power NVNT BLE 1M 2480MHz



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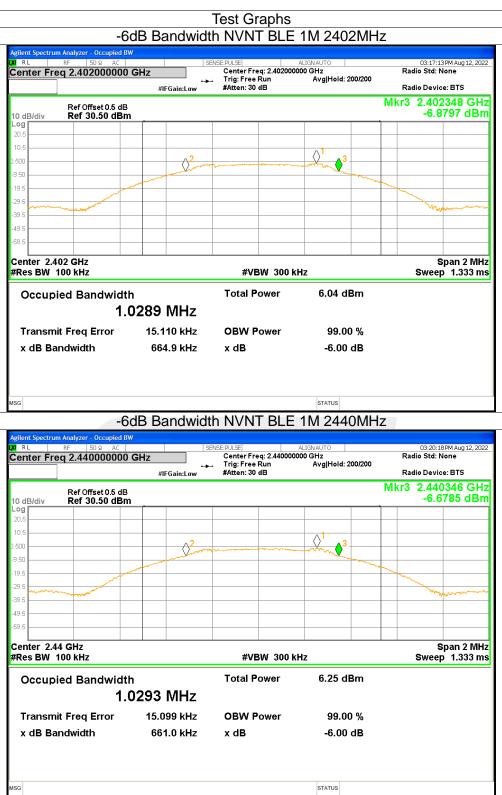
# 4. -6dB Bandwidth

Condition	Mode	Frequency (MHz)	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	0.66	>=0.5	Pass
NVNT	BLE 1M	2440	0.66	>=0.5	Pass
NVNT	BLE 1M	2480	0.66	>=0.5	Pass



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#### -6dB Bandwidth NVNT BLE 1M 2480MHz

	Analyzer - Occupied BV					
	RF 50 Ω AC		ENSE:PULSE Center Freq: 2.480000		Rad	03:22:39 PM Aug 12, 2022 lio Std: None
		#IEGain:Low	Trig: Free Run #Atten: 30 dB	Avg Hold: 200/200	Rad	lio Device: BTS
10 dB/div	Ref Offset 0.5 dB Ref 30.50 dBm				Mkr3	2.480345 GHz -6.6734 dBm
Log						
20.5						
0.500		2				
-9.50				- man l		
-19.5						
-29.5						What was a second of
-39.5	and grant and a second s					The second se
-49.5						
-59.5						
Center 2.48 #Res BW 1			#VBW 300 k	Hz		Span 2 MHz Sweep   1.333 ms
Occupi	ed Bandwidth	า	Total Power	6.46 dBm		
	1.0	0293 MHz				
Transmit	t Freq Error	14.557 kHz	OBW Power	99.00 %		
x dB Bar	ndwidth	660.7 kHz	x dB	-6.00 dB		
MSG				STATUS		



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# 5. Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	BLE 1M	2402	-15.46	<=8	Pass
NVNT	BLE 1M	2440	-15.18	<=8	Pass
NVNT	BLE 1M	2480	-15.04	<=8	Pass



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#### Report No.: STS2208010W03

ilent Spectrum Analyzer - Swept SA	PSD NVI	Test Graphs NT BLE 1M 2	2402MHz	
RL RF 50Ω AC		ENSE:PULSE	ALIGNAUTO Avg Type: Log-Pwr	03:17:25 PM Aug 12, 202
enter Freq 2.402000000 GH	Z PNO: Wide ++ IFGain:Low	. Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold: 20/20	TRACE 1 2 3 4 5 TYPE MWWWW DET P N N N N
Ref Offset 0.5 dB 0 dB/div Ref 20.00 dBm			Mkr	1 2.402 029 70 GH -15.456 dBn
0.0				
.00				
0.0				
0.0 Andrew March Mary	Manual	A want of a sea to the	when when a start when the second start when	a many and and
0.0 Araman				a my hortown
0.0				
0.0				
0.0				
0.0				
	#VP	W 10 kHz	Swe	
enter 2.4020000 GHz Res BW 3.0 kHz	#VE	SW 10 kHz	Swe	
Res BW 3.0 kHz		W 10 KHZ NT BLE 1M 2	STATUS	
Res BW 3.0 kHz <sup>IG</sup> glent Spectrum Analyzer - Swept SA	PSD NVI	NT BLE 1M 2	status 2440MHz	ep 104.4 ms (1001 pts
Res BW 3.0 kHz <sup>IG</sup>	PSD NVI	NT BLE 1M 2	STATUS	ep 104.4 ms (1001 pts 03:20:31 PM Aug 12, 202 IRACE [1:3 4 5 TYPE [M WWWW
Res BW 3.0 kHz g g ilent Spectrum Analyzer - Swept SA RL RF 50 Ω AC enter Freq 2.440000000 GH		NT BLE 1M 2	STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 50/50	ep 104.4 ms (1001 pts 03:20:31PM Aug 12,202 TRACE 12 3 4 5 TYPE [M WWWW DET [P NN NN
Res BW 3.0 kHz g g g g g g g g g g g g g	PSD NVI	NT BLE 1M 2	STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 50/50	ep 104.4 ms (1001 pts 03:20:31PM Aug 12, 202 TRACE 12 2 3 4 5 TYPE [ DET P N N N DET P N N N 1 2.440 028 71 GH
Res BW 3.0 kHz g g g g g g g g g g g g g	PSD NVI	NT BLE 1M 2	STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 50/50	ep 104.4 ms (1001 pts 03:20:31PM Aug 12, 202 TRACE 12 2 3 4 5 TYPE [ DET P N N N DET P N N N 1 2.440 028 71 GH
Res BW 3.0 kHz g glent Spectrum Analyzer - Swept SA RL RF 50 Ω AC enter Freq 2.440000000 GH Ref Offset 0.5 dB	PSD NVI	NT BLE 1M 2	STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 50/50	ep 104.4 ms (1001 pts 03:20:31PM Aug 12, 202 TRACE 12 3 4 5 TYPE [M NN N DET P NN NN 1 2.440 028 71 GH
Res BW 3.0 kHz <sup>IG</sup> <sup>IG</sup> <u>RL</u> RF 50 Ω AC enter Freq 2.440000000 GH Od Ref Offset 0.5 dB Ref 20.00 dBm	PSD NVI	NT BLE 1M 2	STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 50/50	ep 104.4 ms (1001 pts 03:20:31PM Aug 12, 202 TRACE 12 3 4 5 TYPE [M NN N DET P NN NN 1 2.440 028 71 GH
Res BW 3.0 kHz  IG  IG  IG  IG  IG  IG  IG  IG  IG  I	PSD NVI	NT BLE 1M 2	STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 50/50	Span 990.0 kH ep 104.4 ms (1001 pts 03:20:31PM Aug 12,202 TRACE [] 2 3 4 5 TYPE [ Det P N N N 0 ET P N N N 1 2.440 028 71 GH -15.184 dBn
Res BW 3.0 kHz           g           illent Spectrum Analyzer - Swept SA           RL         RF           S0 Ω         AC           enter Freq 2.440000000 GH           0 dB/div         Ref 20.00 dBm           0         0.0           0.0         0.0	PSD NVI	NT BLE 1M 2	STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg[Hold: 50/50 Mkr	ep 104.4 ms (1001 pts 03:20:31PM Aug 12, 202 TRACE [1 2 3 4 5 TYPE [MWN DET P NNNN 1 2.440 028 71 GH -15.184 dBr
Res BW 3.0 kHz  IG  IG  IG  IG  IG  IG  IG  IG  IG  I	PSD NVI	NT BLE 1M 2	STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 50/50	ep 104.4 ms (1001 pts 03:20:31PM Aug 12,202 TRACE [] 2:34:5 TYPE [MWNNN 1 2:440 028 71 GH: -15.184 dBm
Res BW 3.0 kHz  glent Spectrum Analyzer - Swept SA  RL RF 50 2 AC  enter Freq 2.440000000 GH  G dB/div Ref 20.00 dBm  G dB/div Ref 20.00 dBm	PSD NVI	NT BLE 1M 2	STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg[Hold: 50/50 Mkr	ep 104.4 ms (1001 pts 03:20:31PM Aug 12, 202 TRACE 12 3 4 5 TYPE [M NN N DET P NN NN 1 2.440 028 71 GH
Res BW 3.0 kHz  IG  IG  IG  IG  IG  IG  IG  IG  IG  I	PSD NVI	NT BLE 1M 2	STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg[Hold: 50/50 Mkr	ep 104.4 ms (1001 pts 03:20:31PM Aug 12,202 TRACE [] 2 3 4 5 TYPE [ DET P NNNN 1 2.440 028 71 GH -15.184 dBr
Res BW 3.0 kHz           International system           International system           Ref Offset 0.5 dB           Ref 20.00 dBm           OdB/div         Ref 20.00 dBm           0.0 <td< td=""><td>PSD NVI</td><td>NT BLE 1M 2</td><td>STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg[Hold: 50/50 Mkr</td><td>ep 104.4 ms (1001 pts 03:20:31PM Aug 12,202 TRACE [] 2:34:5 TYPE [MWNNN 1 2:440 028 71 GH: -15.184 dBm</td></td<>	PSD NVI	NT BLE 1M 2	STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg[Hold: 50/50 Mkr	ep 104.4 ms (1001 pts 03:20:31PM Aug 12,202 TRACE [] 2:34:5 TYPE [MWNNN 1 2:440 028 71 GH: -15.184 dBm
Res BW 3.0 kHz           Image: Sectrum Analyzer - Swept SA           RL         RF         50 g AC           enter Freq 2.440000000 GH           0 dB/div         Ref Offset 0.5 dB           0 dB/div         Ref 20.00 dBm	PSD NVI	NT BLE 1M 2	STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg[Hold: 50/50 Mkr	ep 104.4 ms (1001 pts 03:20:31PM Aug 12,202 TRACE [] 2 3 4 5 TYPE [ DET P NNNN 1 2.440 028 71 GH -15.184 dBr
Res BW 3.0 kHz           International system           International system           Ref Offset 0.5 dB           Ref 20.00 dBm           OdB/div         Ref 20.00 dBm           0.0 <td< td=""><td>PSD NVI</td><td>NT BLE 1M 2</td><td>STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg[Hold: 50/50 Mkr</td><td>ep 104.4 ms (1001 pts 03:20:31PM Aug 12,202 TRACE [] 2 3 4 5 TYPE [ DET P NNNN 1 2.440 028 71 GH -15.184 dBr</td></td<>	PSD NVI	NT BLE 1M 2	STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg[Hold: 50/50 Mkr	ep 104.4 ms (1001 pts 03:20:31PM Aug 12,202 TRACE [] 2 3 4 5 TYPE [ DET P NNNN 1 2.440 028 71 GH -15.184 dBr
Res BW 3.0 kHz           g           illent Spectrum Analyzer - Swept SA           RL         RF           son AC           enter Freq 2.440000000 GH           0 dB/div         Ref Offset 0.5 dB           0 dB/div         Ref 20.00 dBm           0.0	PSD NVI	NT BLE 1M 2	STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg[Hold: 50/50 Mkr	ep 104.4 ms (1001 pts 03:20:31PM Aug 12, 202 TRACE [1 2 3 4 5 TYPE [MWN DET P NNNN 1 2.440 028 71 GH -15.184 dBr
Res         BW 3.0 kHz           g	PSD NVI	NT BLE 1M 2	STATUS 2440MHz ALIGNAUTO Avg Type: Log-Pwr Avg[Hold: 50/50 Mkr	ep 104.4 ms (1001 pts 03:20:31PM Aug 12,202 TRACE [] 2 3 4 5 TYPE [ DET P NNNN 1 2.440 028 71 GH -15.184 dBr



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### PSD NVNT BLE 1M 2480MHz

U RL	RF 50 Ω AC	SENSE:PULSE	ALIGNAUTO	03:22:49 PM Aug 12, 202
Center F	req 2.480000000 GH	IZ PNO: Wide ↔ Trig: Free F IFGain:Low #Atten: 30 d		TRACE 1 2 3 4 5 TYPE M WWWWW DET P N N N N
I0 dB/div	Ref Offset 0.5 dB Ref 20.00 dBm		Mkr	1 2.480 028 71 GH -15.044 dBr
10.0				
0.00				
10.0			1	
20.0		Warner and the second	Minnyhan	www.www.
	when when when	Mirwa. An		Mary Mary Mary
30.0 Arr				
40.0				
50.0				
50.0				
70.0				
enter 2.4 Res BW	4800000 GHz 3 0 kHz	#VBW 10 kHz	Swe	Span 990.0 kH ep 104.4 ms (1001 pts
1000 000	0.0 1012		346	



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# 6. Band Edge

Conditio	n Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	-51.74	<=-20	Pass
NVNT	BLE 1M	2480	-55.21	<=-20	Pass



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ilent Spectrum Analyze		omeon				DM luc 10.00
RL RF enter Freq 2.4	F	SENSE: PNO: Wide ↔→ FGain:Low	:PULSE Trig: Free Run #Atten: 30 dB	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 100/100	TF	PM Aug 12, 20 ACE 1 2 3 4 5 IVPE M WWW DET P N N N
	set 0.5 dB .50 dBm	100207			Mkr1 2.402 -0.	248 GH 968 dB
	.30 0.011					
0.5						
500			1			
.50						
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9.5				- hy -		
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9.5 Myserry able my	wridd <sup>hwer</sup> Yv					Marillanderhade
9.5						
		1				
enter 2.402000 Res BW 100 kHz			300 kHz	STATUS	veep 100.0 ms	
enter 2.402000 Res BW 100 kHz	Band Edg	e NVNT E	3LE 1M 24	status 02MHz Emiss	veep 100.0 ms	: (1001 pt
enter 2.402000 Res BW 100 kHz g glent Spectrum Analyzz RL RF	: Band Edg r - Swept SA 50 Ω AC 56000000 GHz		BLE 1M 24	STATUS	veep 100.0 ms ion 03:17:56	PM Aug 12, 20
enter 2.402000 Res BW 100 kH; G RL RF enter Freq 2.3	2 Band Edg r - Swept SA 50 Ω AC 56000000 GHz		BLE 1M 24	STATUS 02MHz Emiss ALIGNAUTO Avg Type: Log-Pwr	veep 100.0 ms ion 03:17:56	PM Aug 12, 20 ACE 1 2 3 4 3 TYPE MWWW DET P N N N
enter 2.402000 Res BW 100 kHz G RL PF enter Freq 2.3 Ref Off	Band Edg r - Swept SA  50 Ω AC   56000000 GHz		BLE 1M 24	STATUS 02MHz Emiss ALIGNAUTO Avg Type: Log-Pwr	veep 100.0 ms sion 03:17:56 Tr Mkr1 2.44	PM Aug 12, 20 ACE 12 3 4 9 PVPE P N N N DET P N N N
enter 2.402000 Res BW 100 kH; a ilent Spectrum Analyze RL RF enter Freq 2.3	2 Band Edg r - Swept SA 50 Ω AC 5 56000000 GHz		BLE 1M 24	STATUS 02MHz Emiss ALIGNAUTO Avg Type: Log-Pwr	veep 100.0 ms sion 03:17:56 Tr Mkr1 2.44	PM Aug 12, 20 ACE 12 3 4 9 PVPE P N N N DET P N N N
enter 2.402000 Res BW 100 kH; a s s enter Freq 2.3 C dB/div Ref 20	2 Band Edg r - Swept SA 50 Ω AC 5 56000000 GHz		BLE 1M 24	STATUS 02MHz Emiss ALIGNAUTO Avg Type: Log-Pwr	veep 100.0 ms sion 03:17:56 Tr Mkr1 2.44	PMAug 12, 20 ACE 12 3 4 4 YYPE MWWWW DOT P N N N 1 D2 3 GH 985 dB1
enter 2.402000 Res BW 100 kH; a ilent Spectrum Analyze RL RF enter Freq 2.3 Control Control Cont	2 Band Edg r - Swept SA 50 Ω AC 5 56000000 GHz		BLE 1M 24	STATUS 02MHz Emiss ALIGNAUTO Avg Type: Log-Pwr	veep 100.0 ms sion 03:17:56 Tr Mkr1 2.44	PMAug 12, 20 ACCE 12 3 4 5 VYPE M WWWW DET P N N N 1 D2 3 GH 985 dB1
enter 2.402000 Res BW 100 kH; a ilent Spectrum Analyze RL RF enter Freq 2.3 0 dB/div Ref Off 0 dB/div Ref 20 9 9 9 5	2 Band Edg r - Swept SA 50 Ω AC 5 56000000 GHz		BLE 1M 24	STATUS 02MHz Emiss ALIGNAUTO Avg Type: Log-Pwr	veep 100.0 ms sion 03:17:56 Tr Mkr1 2.44	PMAug 12, 20 ACCE 12 3 4 5 VYPE M WWWW DET P N N N 1 D2 3 GH 985 dB1
enter 2.402000 Res BW 100 kH; a ilent Spectrum Analyze RL RF enter Freq 2.3 0 dB/div Ref 20 0 g 0 dB/div Ref 20 0	2 Band Edg r - Swept SA 50 Ω AC 5 56000000 GHz		BLE 1M 24	STATUS 02MHz Emiss ALIGNAUTO Avg Type: Log-Pwr	veep 100.0 ms sion 03:17:56 Tr Mkr1 2.44	PM Aug 12, 200 ACE   1 2 3 4 5 TYPE   M WWWW DET   P N N N D2 3 GH 985 dBr 1 1
enter 2.402000 Res BW 100 kH; a ilent Spectrum Analyze RL RF enter Freq 2.3 0 dB/div Ref Off 0 dB/div Ref 20 9 9 9 5	2 Band Edg r - Swept SA 50 Ω AC 5 56000000 GHz		BLE 1M 24	STATUS 02MHz Emiss ALIGNAUTO Avg Type: Log-Pwr	veep 100.0 ms sion 03:17:56 Tr Mkr1 2.44	PM Aug 12, 20 ACE 1 2 3 4 YYPE M WWWW DET P N N N T 22 3 GH 985 dBi
enter 2.402000 Res BW 100 kH; a ilent Spectrum Analyza RL RF enter Freq 2.3 C G G G G G G G G G G G G G G G G G G G	2 Band Edg 500 AC 56000000 GHz 10 56000000 GHz 10 10 10 10 10 10 10 10 10 10	e NVNT E	BLE 1M 24	STATUS O2MHz Emiss ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	veep 100.0 ms	PMAug 12, 20 ACE   2 3 4 PMAug 12, 20 ACE   2 3 ACE   3 3 ACE
enter 2.402000 Res BW 100 kHz 6 ilent Spectrum Analyze RL RF enter Freq 2.3 C dB/div Ref 20 0 dB/div Ref 20 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0	2 Band Edg 500 AC 56000000 GHz 10 56000000 GHz 10 10 10 10 10 10 10 10 10 10	e NVNT E	BLE 1M 24	STATUS O2MHz Emiss ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	veep 100.0 ms	PMAug 12, 20 ACE   2 3 4 PMAug 12, 20 ACE   2 3 ACE   3 3 ACE
enter 2.402000 Res BW 100 kH; a ilent Spectrum Analyze RL RF enter Freq 2.3 0 dB/div Ref 20 0 d 0 dB/div Ref 20 0 dB/d	2 So 2 AC 56000000 GHz 56000000 GHz 10 10 10 10 10 10 10 10 10 10	e NVNT E	BLE 1M 24	STATUS O2MHz Emiss ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	veep 100.0 ms	PMAug 12, 20 ACE   2 3 4 PMAug 12, 20 ACE   2 3 ACE   3 3 ACE
enter 2.402000 Res BW 100 kH; a ilent Spectrum Analyze RL RF enter Freq 2.3 0 dB/div Ref 20 0 d 0 dB/div Ref 20 0 dB/d	2 Band Edg r - Swept SA S0 2 AC S6000000 GHz u set 0.5 dB .50 dBm .50 dBm	e NVNT E	BLE 1M 24	STATUS O2MHz Emiss ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	veep 100.0 ms	PMAug 12, 20 ACE   2 3 4 PMAug 12, 20 ACE   2 3 ACE   3 3 ACE
enter 2.402000 Res BW 100 kH; g ilent Spectrum Analyzz RL RF enter Freq 2.3 0 dB/div Ref Off 0 dB/div Ref 2( 0 d 0 d 0 d 0 d 0 d 0 d 0 d 0 d	2 Second Edg r-Swept SA S0 2 AC S6000000 GHz I set 0.5 dB 50 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1	e NVNT E	BLE 1M 24	STATUS O2MHz Emiss ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 100/100	veep 100.0 ms	PMAug 12, 20 ACE   2 3 4 PMAug 12, 20 ACE   2 3 ACE   3 3 ACE

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gilent Spectrum Analyzer - Swe						
RL RF 50 Ω Center Freq 2.48000	0000 GHz P	NO: Wide ++ Ti Gain:Low #4	rig: Free Run Atten: 30 dB	ALIGN AUTO Avg Type: I Avg Hold: 1	Log-Pwr 00/100	03:23:07 PM Aug 12, 202 TRACE 1 2 3 4 5 TYPE MWWWW DET P N N N N
Ref Offset 0.5 0 dB/div Ref 20.50 d					Mkr1	2.480 248 GH -0.598 dBr
og						
10.5						
500						
9.50						
19.5						
9.5						
9.5		N		la		
39.5						
9.5	1. Al Manhard Market	MMM <sup>MM</sup>		WV Ur	many apprentice	
19.5	when we are a					horadampater londamakahara
39.5						
9.5						
enter 2.480000 GHz						Span 8.000 MH
Res BW 100 kHz		#VBW 3	00 KHZ	STATUS	#Sweep	100.0 ms (1001 pt
	Pand Eda				mingion	
L						
				480MHz E	mission	
<mark>gilent Spectrum Analyzer - Swe</mark> RL RF 50 Ω	ept SA AC	SENSE:PL	JLSE	ALIGNAUTO Avg Type: I	Log-Pwr	TRACE 1 2 3 4 5
<mark>gilent Spectrum Analyzer - Swe</mark> RL RF 50 Ω	ept SA AC 00000 GHz	SENSE:PU		ALIGNAUTO	Log-Pwr 00/100	TRACE 1 2 3 4 5 TYPE M WWW DET P N N N N
glent Spectrum Analyzer - Swe           RL         RF         50 Ω           enter Freq 2.52600           Ref Offset 0.5           0 dB/div         Ref 20.50 c	AC A	SENSE:PU NO: Fast ↔ Tu	JLSE	ALIGNAUTO Avg Type: I	Log-Pwr 00/100	TRACE 1 2 3 4 5 TYPE MWWWW DET P N N N N (r1 2.480 3 GH
RL         RF         50 Q           enter Freq 2.52600         Ref Offset 0.5           0 dB/div         Ref 20.50 c	AC A	SENSE:PU NO: Fast ↔ Tu	JLSE	ALIGNAUTO Avg Type: I	Log-Pwr 00/100	TRACE 1 2 3 4 5 TYPE MWWWW DET P N N N N (r1 2.480 3 GH
RL         RF         50 Q           enter Freq 2.52600           Ref Offset 0.5           0 dB/div         Ref 20.50 c           9           1	AC A	SENSE:PU NO: Fast ↔ Tu	JLSE	ALIGNAUTO Avg Type: I	Log-Pwr 00/100	
RL         RF         50 m           enter Freq 2.52600         Ref Offset 0.5           0 dB/div         Ref 20.50 c           9         1           10.5         0	AC A	SENSE:PU NO: Fast ↔ Tu	JLSE	ALIGNAUTO Avg Type: I	Log-Pwr 00/100	rrace [] 2 3 4 TYPE [] 0ET [] NNNN (r1 2.480 3 GH -0.606 dBr
RL         RF         50 Q           enter Freq 2.52600         Ref Offset 0.5           0 dB/div         Ref 20.50 c           9         1           10.5         1           0.6         1           0.7         1           0.6         1	AC A	SENSE:PU NO: Fast ↔ Tu	JLSE	ALIGNAUTO Avg Type: I	Log-Pwr 00/100	rrace [] 23 45 TYPE [] 23 45 TYPE [] 23 45 OET [] NNNN (r1 2.480 3 GH -0.606 dBr
RL         RF         50 @           Center Freq 2.52600         Senter Freq 2.52600           0 dB/div         Ref Offset 0.5           0 dB/div         Ref 20.50 c           9 g         1           0 dB/div         Ref 20.50 c           9 g         1           19.5         1           19.5         1           39.5         1	AC A	SENSE:PU NO: Fast ↔ Tu	JLSE	ALIGNAUTO Avg Type: I	Log-Pwr 00/100	rrac 12345 TYPE 12345 MMMMM er[PNNNN cr1 2.480 3 GH -0.606 dBn
gilent Spectrum Analyzer - Swe RL RF 50 Ω Center Freq 2.52600 Ref Offset 0.5	AC A	SENSE:PU NO: Fast ↔ Tu	JLSE	ALIGNAUTO Avg Type: I	Log-Pwr 00/100	rrac 12345 TYPE 12345 MMMMM er[PNNNN cr1 2.480 3 GH -0.606 dBn
Bilent Spectrum Analyzer - Swe           RL         RF         50 Q           center Freq 2.52600           O dB/div         Ref Offset 0.5           0 dB/div         Ref 20.50 c           90         1           910         1           920         1           930         2           930         2           940         2           950         2           960         2           970	pt SA AC 00000 GHz F F F F F F	SENSE:PU NO: Fast ↔ Tu	JLSE	ALIGNAUTO Avg Type: I	Log-Pwr 00/100	rrace [] 23 45 TYPE [] 23 45 TYPE [] 23 45 OET [] NNNN (r1 2.480 3 GH -0.606 dBr
RL         RF         50 @           Center Freq 2.52600         Senter Freq 2.52600           0 dB/div         Ref Offset 0.5           0 dB/div         Ref 20.50 c           0 g         1           0.5         1	pt SA AC 00000 GHz F F F F F F	SENSE:PU NO: Fast ↔ Tu	ig: Free Run htten: 30 dB	ALIGNAUTO Avg Type: I	Log-Pwr 00/100	rrace [] 23 45 TVPE [] 23 45 TVPE [] NNNN (r1 2.480 3 GH -0.606 dBr -20.80 dE -20.80 dE
sitent Spectrum Analyzer - Swe           RL         RF         50 0           Center Freq 2.52600         Sector         Sector           O dB/div         Ref Offset 0.5         Sector         Sector           0 dB/div         Ref 20.50 c         Sector	pt SA AC DOUOO GHZ F F B B B B B A A A A A A A A A A A A A	SENSE:PU NO: Fast TI Gain:Low TI 	DLSE	ALIGNAUTO Avg Type: I	Log-Pwr 00/100	03:23:20 PM Aug 12,202 TRACE 1 2:34 5 TYPE M WWWW DET P NNNN (r1 2.480 3 GH -0.606 dBn -0.606 dBn -
sitent Spectrum Analyzer - Swe           RL         RF         50 0           Center Freq 2.52600         Sector         Sector           0 dB/div         Ref Offset 0.5         Sector           10.5         Sector         Ref 20.50 c           10.5         Sector         Sector           10.5         Sector         Sector           10.5         Sector         Sector           11.5         Sector         Sector           12.5         Sector         Sector           13.5         Sector         Sector           14.5         Sector         Sector           15.5         Sector         Sector           16.5         Sector         Sector           17.5         N         1           17.5         N         1	AC         P           AC         P           B         P           B         P           IB         P           2.480 3 GHz         2.483 5 GHz	SENSE:PI NO: Fast → Tr Gain:Low → #/	1.5E	ALIGNAUTO Avg Type: 1 Avg Hold: 1	Log-Pwr 00/100	rrace 1.23.45 Typer M WHWWW Der P NNNN cr1 2.480 3 GH -0.606 dBn -20.80 # -20.80 # Stop 2.57600 GH 100.0 ms (1001 pts
silent Spectrum Analyzer - Swe           RL         RF         90 0           Ref Offset 0.5         0         0           Colspan="2">Ref Offset 0.5           O dB/div         Ref 20.50 c           O dB/div         Ref 20.50 c           9.50         1         1           9.50         1         1 </td <td>Pt SA AC AC F F F F F AC AC AC AC AC AC AC AC AC AC</td> <td>SENSE:PI NO: Fast → TI Gain:Low ↓ ↓ 4/2000 #VBW 30 #VBW 30</td> <td>1.5E</td> <td>ALIGNAUTO Avg Type: 1 Avg Hold: 1</td> <td>Log-Pwr 00/100</td> <td>rrace 12 3 4 5 Type Mywaw Der P NNN cr1 2.480 3 GH -0.606 dBr -20.60 dB -20.60 dB -20.</td>	Pt SA AC AC F F F F F AC AC AC AC AC AC AC AC AC AC	SENSE:PI NO: Fast → TI Gain:Low ↓ ↓ 4/2000 #VBW 30 #VBW 30	1.5E	ALIGNAUTO Avg Type: 1 Avg Hold: 1	Log-Pwr 00/100	rrace 12 3 4 5 Type Mywaw Der P NNN cr1 2.480 3 GH -0.606 dBr -20.60 dB -20.60 dB -20.
sitent Spectrum Analyzer - Swe           RL         RF         50 0           Ref Offset 0.5         0 0           Conter Freq 2.52600         Ref Offset 0.5           O dB/div         Ref 20.50 c           So 0         1           So 0 <th1< th="">           So 0</th1<>	Pt SA AC AC BC F F F F F F F F AC F F F F F F F F F F F F F	SENSE:PI NO: Fast → TI Gain:Low → #/ #/ #/ #/ #/ #/ #/ #/ #/ #/	1.5E	ALIGNAUTO Avg Type: 1 Avg Hold: 1	Log-Pwr 00/100	rrace 12 3 4 5 Type Mywaw Der P NNN cr1 2.480 3 GH -0.606 dBr -20.60 dB -20.60 dB -20.
sitent Spectrum Analyzer - Swe           RL         RF         90 0           center Freq 2.52600         Sector         Sector           0 dB/div         Ref Offset 0.5         Sector           0.0         B/div         Ref 20.50 c         Sector           0.1         1         1         1           1         1         1         1         1           19.5         20.5         20.5         20.5         20.5         20.5         20.5         20.5         20.5         20.5         20.5         20.5	Pt SA AC AC BC F F F F F F F F AC F F F F F F F F F F F F F	SENSE:PI NO: Fast → TI Gain:Low → #/ #/ #/ #/ #/ #/ #/ #/ #/ #/	1.5E	ALIGNAUTO Avg Type: 1 Avg Hold: 1	Log-Pwr 00/100	rrace 12 3 4 5 Type Mywaw Der P NNN cr1 2.480 3 GH -0.606 dBr -20.60 dB -20.60 dB -20.
silent Spectrum Analyzer - Swe           RL         RF         90 2           Ref Offset 0.5           Ref Offset 0.5           0 dB/div         Ref 20.50 c           10.5         0         0           10.5         0         0           10.5         0         0           10.5         0         0           10.5         0         0           10.5         0         0           10.5         0         0           10.5         0         0           10.5         0         0           10.5         0         0           10.5         0         0           10.5         0         0           10.5         0         0           10.5         0         0           10.7         1         1           10.7         1         1           2         N         1         1           2         N         1         1           3         1         1         1           4         N         1         1	Pt SA AC AC BC F F F F F F F F AC F F F F F F F F F F F F F	SENSE:PI NO: Fast → TI Gain:Low → #/ #/ #/ #/ #/ #/ #/ #/ #/ #/	1.5E	ALIGNAUTO Avg Type: 1 Avg Hold: 1	Log-Pwr 00/100	rrace 1.23.45 Typer M WHWWW Der P NNNN cr1 2.480 3 GH -0.606 dBn -20.80 # -20.80 # Stop 2.57600 GH 100.0 ms (1001 pts

### Band Edge NVNT BLE 1M 2480MHz Ref



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# 7. Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	-35.05	<=-20	Pass
NVNT	BLE 1M	2440	-44.5	<=-20	Pass
NVNT	BLE 1M	2480	-36.14	<=-20	Pass



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<mark>ilent Spectrum Analyzer -</mark> RL RF 5	Swept SA D Ω AC	SENSE	PULSE	ALIGNAUTO	03:18:15 PM Aug 12, 202
enter Freq 2.402	000000 GHz P		Trig: Free Run Atten: 40 dB	Avg Type: Log-Pwr Avg Hold: 100/100	TRACE 12345 TYPE MWWWW DET P N N N
Ref Offset dB/div Ref 30.0				Mk	r1 2.402 249 0 GH -0.981 dBr
pg					
0.0					
0.0					
.00					
0.0					
0.0					
0.0					
0.0					
0.0					
optor 2 4020000 C	•Ш¬				Cnon 1 500 Mil
enter 2.4020000 G Res BW 100 kHz	iHz	#VBW	300 kHz	#Swee	
Res BW 100 kHz				STATUS	ep 100.0 ms (1001 pt
Res BW 100 kHz	Tx. Spuriou				ep 100.0 ms (1001 pt
G G Ilent Spectrum Analyzer - RL RF 51	Tx. Spuriou	us NVNT		status 402MHz Emissio alignauto	ep 100.0 ms (1001 pt: ON 03:18:25PM Aug 12, 202 TRACE 12 23 4 5
Res BW 100 kHz G ilent Spectrum Analyzer -	Tx. Spuriou           Swept SA           D Q         AC           50000000 GHz	JS NVNT	BLE 1M 2	status 402MHz Emissi	ep 100.0 ms (1001 pt: ON 03:18:25PM Aug 12, 202 TRACE 12 3 4 4 5 TYPE IV 44 4 5
Res BW 100 kHz G ilent Spectrum Analyzer - RL RF ISI enter Freq 13.26 Ref Offset	Tx. Spuriou		BLE 1M 2	STATUS 402MHz Emissio Alignauto Avg Type: Log-Pwr	ep 100.0 ms (1001 pt ON 03:18:25PM Aug 12, 202 TRACE [1 2 3 4 5 TYPE [ DET P. N.N.N Mkr1 2.402 6 GH
Res BW 100 kHz G Ilent Spectrum Analyzer - RL RF S enter Freq 13.26	Tx. Spuriou		BLE 1M 2	STATUS 402MHz Emissio Alignauto Avg Type: Log-Pwr	ep 100.0 ms (1001 pt ON 03:18:25PM Aug 12, 202 TRACE [1 2 3 4 5 TYPE [ DET P. N.N.N Mkr1 2.402 6 GH
Res BW 100 kHz G ilent Spectrum Analyzer - RL RF Si enter Freq 13.26 Ref Offset 0 dB/div Ref 30.0 0 0	Tx. Spuriou		BLE 1M 2	STATUS 402MHz Emissio Alignauto Avg Type: Log-Pwr	ep 100.0 ms (1001 pt ON 03:18:25PM Aug 12, 202 TRACE [1 2 3 4 5 TYPE [ DET P. N.N.N Mkr1 2.402 6 GH
Res BW 100 kHz G Ilent Spectrum Analyzer - RL RF SI enter Freq 13.26 Ref Offset 0 dB/div Ref 30.0 99 0.0	Tx. Spuriou		BLE 1M 2	STATUS 402MHz Emissio Alignauto Avg Type: Log-Pwr	Span 1.500 MH ep 100.0 ms (1001 pts 001 03:18:25 PM Aug 12,202 TRACE [12:3:45 TYPE [MWWWW DET [P NNNN Mkr1 2.402 6 GH -7.461 dBr
Res BW 100 kHz G Ilent Spectrum Analyzer R R F G G R F G G G G G G G G G G G G G	Tx. Spuriou		BLE 1M 2	STATUS 402MHz Emissio Alignauto Avg Type: Log-Pwr	ep 100.0 ms (1001 pt: ON 03:18:25PM Aug 12,200 TRACE [12:34:5 TYPE [MMWMM 0et [P INNN Mkr1 2.402 6 GH -7.461 dBr
Res BW 100 kHz G Ilent Spectrum Analyzer R R R F S enter Freq 13.26 R f OdB/div R ef Offset 0 dB/div R ef 30.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tx. Spuriou		BLE 1M 2	ALIGN AUTO AVIG TYPE: Log-Pwr AvigHold: 10/10	ep 100.0 ms (1001 pt: ON 03:18:25PM Aug 12,202 TRACE [1 2 3 4 5 TYPE [M MWW Mkr1 2.402 6 GH -7.461 dBr
Res BW 100 kHz           g           illent Spectrum Analyzer - RL           RL         RF           enter Freq 13.26           OdB/div           Ref Offset           0.0 <t< td=""><td>Tx. Spuriou Swept SA S000000 GHz 0.5 dB 0 dBm ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓</td><td>JS NVNT SENSE PNO: Fast Gain:Low</td><td>BLE 1M 2</td><td>ALIGN AUTO AVIG TYPE: Log-Pwr AvigHold: 10/10</td><td>ep 100.0 ms (1001 pt: ON 03:18:25PM Aug 12,202 TRACE 12 2 4 5 TYPE [ Mkr1 2.402 6 GH -7.461 dBn -20.99 db -20.99 db</td></t<>	Tx. Spuriou Swept SA S000000 GHz 0.5 dB 0 dBm ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	JS NVNT SENSE PNO: Fast Gain:Low	BLE 1M 2	ALIGN AUTO AVIG TYPE: Log-Pwr AvigHold: 10/10	ep 100.0 ms (1001 pt: ON 03:18:25PM Aug 12,202 TRACE 12 2 4 5 TYPE [ Mkr1 2.402 6 GH -7.461 dBn -20.99 db -20.99 db
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Res BW 100 kHz           g           illent Spectrum Analyzer - RL           RL         RF           enter Freq 13.26           OdB/div           Ref Offset           0.0 <t< td=""><td>Tx. Spuriou Swept SA S000000 GHz 0.5 dB 0 dBm ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓</td><td>JS NVNT</td><td>BLE 1M 2</td><td>ALIGNAUTO AUGNAUTO Avg Type: Log-Pwr Avg Hold: 10/10</td><td>ep 100.0 ms (1001 pt: ON 03:18:25 PM Aug 12, 202 TRACE 12 2 3 4 5 TYPE [ Mkr1 2.402 6 GH -7.461 dBn -20 99 dB -20 90 dB -20</td></t<>	Tx. Spuriou Swept SA S000000 GHz 0.5 dB 0 dBm ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	JS NVNT	BLE 1M 2	ALIGNAUTO AUGNAUTO Avg Type: Log-Pwr Avg Hold: 10/10	ep 100.0 ms (1001 pt: ON 03:18:25 PM Aug 12, 202 TRACE 12 2 3 4 5 TYPE [ Mkr1 2.402 6 GH -7.461 dBn -20 99 dB -20 90 dB -20
Res BW 100 kHz  G  ilent Spectrum Analyzer RL RF Senter Freq 13.26  Ref Offset OdB/div Ref 30.0  G  G  G  G  G  G  G  G  G  G  G  G  G	Tx. Spuriou	JS NVNT SENSE PRO: Fast Gain:Low	BLE 1M 2	STATUS 402MHz Emissie Aug Type: Log-Pwr Avg Type: Log-Pwr Avg Type: Log-Pwr aug type: Log-Pwr aug type: Log-Pwr Avg Type	ep 100.0 ms (1001 pt: ON 03:18:25PM Aug 12,202 TRACE [1 2 3 4 5 TYPE [M MWW Mkr1 2.402 6 GH -7.461 dBr
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Res BW 100 kHz           s           ilent Spectrum Analyzer -           RL         RF           RL         RF           enter Freq 13.26           0 dB/div         Ref Offset           0 dB/div         Ref 00           0 dB/div         Ref 01	Tx. Spuriou           Swept SA           0 Q AC           5000000 GHz           Image: Solution of the second se	JS NVNT SENSE PNO: Fast →→ Gain:Low 5 5 101, 1, 2, 4 101, 101, 101, 101, 101, 101, 101, 101,	BLE 1M 2 PULSE Trig: Free Run Atten: 40 dB	STATUS 402MHz Emissie Aug Type: Log-Pwr Avg Type: Log-Pwr Avg Type: Log-Pwr aug type: Log-Pwr aug type: Log-Pwr Avg Type	ep 100.0 ms (1001 pt: ON 03:18:25 PM Aug 12, 202 TRACE [1 2 3 4 5 TYPE [ PNNN Mkr1 2.402 6 GH -7.461 dBn -20.98 dB -20.98 d
Res BW 100 kHz         Ret         Ret         Ret         Sectrum Analyzer         Ret         Sector         Ret         Sector         Sect	Tx. Spuriou	JS NVNT SENSE PNO: Fast →→ Gain:Low 5 5 101, 1, 2, 4 101, 101, 101, 101, 101, 101, 101, 101,	BLE 1M 2 PULSE Trig: Free Run Atten: 40 dB	STATUS 402MHz Emissie Aug Type: Log-Pwr Avg Type: Log-Pwr Avg Type: Log-Pwr aug type: Log-Pwr aug type: Log-Pwr Avg Type	ep 100.0 ms (1001 pt: ON 03:18:25 PM Aug 12, 202 TRACE [1 2 3 4 5 TYPE [ PNNN Mkr1 2.402 6 GH -7.461 dBn -20.98 dB -20.98 d



		Tx. Spu	rious N∖	/NT BLE	1M 2	440MF	Iz Ref		
XI RL	:trum Analyzer - Swi RF 50 Ω Freq 2.44000	AC 00000 GHz P	SEN NO: Wide ↔ Gain:Low	5E:PULSE Trig: Free Run #Atten: 30 dB		GNAUTO Avg Type: Avg Hold: 1	00/100	Т	DPM Aug 12, 2022 RACE 1 2 3 4 5 6 TYPE M WWWWW DET P N N N N N
Ref Offset 0.5 dB Mkr1 2.440 250 5 GHz 10 dB/div Ref 20.50 dBm -0.721 dBm									
10.5									
0.500									
-9.50									
-19.5									
29.5									
39.5									
-49.5									
-59.5									
.69.5									
enter 2	2.4400000 GHz	z						Spar	1.500 MH
Res BV	V 100 kHz		#VBV	V 300 kHz		STATUS	#Swee	ep 100.0 m	s (1001 pts
	Т	x. Spuriou	IS NVN	BLE 1	1 2440	OMHz	Emissi	on	
	c <mark>trum Analyzer - Sw</mark> a	ept SA		SE:PULSE		SN AUTO			DDM 100 10, 2022
	Freq 13.2650	000000 GHz	PNO: Fast +++ Gain:Low	Trig: Free Run #Atten: 30 dB		Avg Type: Avg Hold: 1	Log-Pwr 10/10	U3.21.U T	DPM Aug 12, 202 RACE 1 2 3 4 5 TYPE M WWWW DET P N N N N
10 dB/div	Ref Offset 0.9 Ref 20.50 (							Mkr1 2.4 -3.	40 5 GH: 848 dBn
10.5									
9.50	<b> </b> '								
19.5									-20.72 dB
39.5									<mark>2</mark>
49.5			5	والمروم والمرور	L. algorithme	a an		in and spectrum types to	line in the second second
69.5	A DE LA D	ng palan <sup>da</sup> n dalah kanti balah	fatalayan atau kata kata kata ka	the same back of the same station	en, skildet foldet er f	and the second			
Start 30	MHz V 100 kHz		#\/B)/	V 300 kHz			#Cursor	Stop 0 100.0 ms	26.50 GH:
MKR MODE	TRC SCL	×	Y	FUNCTION	I FUNCTIO	DN WIDTH		FUNCTION VALUE	(30001 pts
1 N 2 N 3 N	1 f 1 f 1 f	2.440 5 GHz 25.623 0 GHz 4.880 2 GHz	-45.220 c	IBm					
4 N 5 N	1 f 1 f	7.500 7 GHz 9.676 6 GHz	-56.254 c -57.401 c	IBm					
6 7 8									
9 10 11									
< ISG						STATUS 🙏	Meas Uncal		
							0		

# Tx. Spurious NVNT BLE 1M 2440MHz Ref



		Tx. Sp	ourious	NVNT B	SLE 1M	2480M	Hz Ref		
XI RL		Swept SA Ω AC   DOOOOO GHZ	PNO: Wide IFGain:Low	SENSE:PULSE → Trig: Fre Atten: 4		ALIGN AUTO Avg Type: Avg Hold:		03:23:39 TR	PM Aug 12, 2022 ACE 1 2 3 4 5 6 IYPE M WWWWW DET P N N N N
Ref Offset 0.5 dB Mkr1 2.480 249 0 GHz 10 dB/div Ref 30.00 dBm -0.655 dBm									
20.0									
10.0									
0.00						<b>\</b>			
10.0									
20.0									
30.0									
40.0									
50.0									
60.0									
	.4800000 GI 100 kHz	Hz	#	VBW 300 kH	7		#Swee	Span p 100.0 ms	1.500 MH
sg	100 1012		"		-	STATUS	<i></i>	p 100.0 m	(1001 ptc
	-	Tx. Spur	ious N∖	'NT BLE	1M 24	80MHz	Emissio	on	
U RL	t <mark>rum Analyzer - S</mark> RF 50	Ω AC		SENSE:PULSE		ALIGN AUTO Avg Type:	Log Pur	03:23:50	PM Aug 12, 202
enterr	req 15.20	5000000 GH	PNO: Fast IFGain:Low	⊶ Trig: Fre Atten: 4		Avg Hold:	10/10		ACE 1 2 3 4 5 TYPE MWWWW DET P N N N N
0 dB/div	Ref Offset							Mkr1 2.48	30 2 GH 554 dBr
20.0									
10.0	<b>1</b>								
10.0									
20.0									-20.66 dB
40.0			$\langle $	5	المراقع ومرود والمسألين أرور	terre de l'édance d'étaise	n - Million - John Charles	a an <sup>th</sup> ara agus agus agus agus (r. Bairdh ann ad a dha abhli	
50.0 <b>- 10.0</b> 60.0 - 10.0	notalalitetti ittidava ja	los et al platiciente	At the Specifican file	and table states in the life	per sallis licestati <sup>inte</sup>	and a second			
Start 30	MHz / 100 kHz						<b>#O</b> :	Stop 100.0 ms (	26.50 GH
MKR MODE	TRC SCL	×				NCTION WIDTH	-	UNCTION VALUE	,30001 pts
1 N 2 N 3 N	1 f 1 f 1 f	2.480 2 25.589 4 4.960 5	GHz -36.	554 dBm 793 dBm 172 dBm					
4 N 5 N	1 f 1 f	7.588 9	GHz -47.	559 dBm 889 dBm					
6 7 8									
9 10 11									
sg						STATUS 🧍	Meas Uncal		
							-		

# Tx. Spurious NVNT BLE 1M 2480MHz Ref



### APPENDIX 2- EUT TEST PHOTO

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

\* \* \* \* \* END OF THE REPORT \* \* \* \*



Shenzhen STS Test Services Co., Ltd.