

Shenzhen Toby Technology Co., Ltd.

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FCC Radio Test Report FCC ID: 2APD3TS11N

Original Grant

Report No.	:	TB-FCC174593
Applicant	:	SHEN ZHEN TOMSTAR TECHNOLOGY CO., LTD
Equipment Under Test	: (E	EUT)
EUT Name		Smart Watch
Model No.	:	TS11N
Series Model No.	(TS11,VS2,SW9341
Brand Name	:	N/A
Sample ID	1	TBBJ-20200724-16-1#
Receipt Date		2020-08-03
Test Date		2020-08-03 to 2020-08-06
Issue Date	-	2020-08-06
Standards	-	FCC Part 15, Subpart C 15.247
Test Method		ANSI C63.10: 2013
Conclusions		PASS

In the configuration tested, the EUT complied with the standards specified above,



Engineer Manager

Engineer Supervisor

Test/Witness Engineer

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

TB-RF-074-1.0



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Revision History

Report No.	Version	Description	Issued Date
TB-FCC174593	Rev.01	Initial issue of report	2020-08-06
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1. General Information about EUT

1.1 Client Information

Applicant	SHEN ZHEN TOMSTAR TECHNOLOGY CO., LTD
Address	 Room2110-2116,huafeng international building ,No.4018 BaoAn Blvd,Shenzhen, China.
Manufacturer	Tomstar Industrial Limited
Address	Room 2110-2116, Huafeng International Commercial Building, Xixiang, BaoAn district, Shenzhen, China

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	Smart Watch		
Model(s) No.	:	TS11N,TS11,VS2,SW9341		
Model Different	5.		All these models are identical in the same PCB, layout and electrical circuit, the only difference is Software version.	
		Operation Frequency:	Bluetooth 4.2(BLE): 2402MHz~2480MHz	
		Number of Channel:	Bluetooth 4.2(BLE): 40 channels see note(3)	
Product		RF Output Power:	-1.604dBm (Max)	
Description		Antenna Gain:	0dBi Internal Antenna	
		Modulation Type:	GFSK	
		Bit Rate of Transmitter:	1Mbps	
Power Rating	:	Input:DC 5V DC 3.7V by 180mAh Li-ion battery		
Software Version	:	V.01		
Hardware Version	:	MOY.M10101.01		
Connecting I/O Port(S)	:	Please refer to the User's Manual		

Note:

This Test Report is FCC Part 15.247 for Bluetooth, the test procedure follows the FCC KDB 558074 D01 DTS Means Guidance v05.

- (1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- (2) Antenna information provided by the applicant.

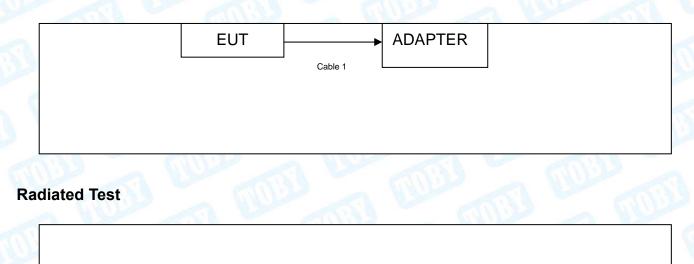


(3) Channel List:

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

1.3 Block Diagram Showing the Configuration of System Tested

Conducted Test



E	U	Т	



1.4 Description of Support Units

	Equipment Information					
Name	Mod	Model FCC ID/VOC		Manufacturer	Used "√"	
ADAPTE	R			BSY	\checkmark	
	Cable Information					
Numbe	r Shielded	Type Feri	rite Core	Length	Note	
	·	MB -				

1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

For Conducted Test				
Final Test Mode Description				
Mode 1	USB Charging+TX Mode			
For Radiated Test				
Final Test Mode Description				
Mode 1	TX Mode(Channel 00)			
Mode 2	TX Mode (Channel 00/20/39)			
Note : The antenna gain prov	vided by the applicant, the adapter and verified for the RF			

Note : The antenna gain provided by the applicant, the adapter and verified for t conduction test provided by TOBY test lab

Note:

(1) For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate.

According to ANSI C63.10 standards, the measurements are performed at the highest, middle, lowest available channels, and the worst case data rate as follows:

BLE Mode: GFSK Modulation Transmitting mode.

- (2) During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.
- (3) The EUT is considered a portable unit; in normal use it was positioned on X-plane. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.



1.6 Description of Test Software Setting

During testing channel& Power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of RF setting.

Test Software Version	Nrfgo.exe		
Frequency	2402 MHz	2442MHz	2480 MHz
BLE GFSK	DEF	DEF	DEF

1.7 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 %.

Test Item	Parameters	Expanded Uncertainty (U _{Lab})
Conducted Emission	Level Accuracy: 9kHz~150kHz 150kHz to 30MHz	±3.50 dB ±3.10 dB
Radiated Emission	Level Accuracy: 9kHz to 30 MHz	±4.60 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	±4.50 dB
Radiated Emission	Level Accuracy: Above 1000MHz	±4.20 dB



1.8 Test Facility

The testing was performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at:1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, Guangdong, China.

At the time of testing, the following bodies accredited the Laboratory:

CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

A2LA Certificate No.: 4750.01

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01. FCC Accredited Test Site Number: 854351.

IC Registration No.: (11950A)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A.

TOBY

2. Test Summary

FCC Part 15 Subpart C(15.247)/RSS 247 Issue 2					
Standard Section		Trackler	Test Complete)		Remark
FCC	IC	Test Item Test Sample(s)		Judgment	
15.203	2	Antenna Requirement	TBBJ-20200724-16-1#	PASS	N/A
15.207(a)	RSS-GEN 7.2.4	Conducted Emission	TBBJ-20200724-16-1#	PASS	N/A
15.205&15.247(d)	RSS-GEN 7.2.2	Band-Edge & Unwanted Emissions into Restricted Frequency	TBBJ-20200724-16-1#	PASS	N/A
15.247(a)(2)	RSS 247 5.2 (1)	6dB Bandwidth	TBBJ-20200724-16-1#	PASS	N/A
15.247(b)(3)	RSS 247 5.4 (4)	Conducted Max Output Power	TBBJ-20200724-16-1#	PASS	N/A
15.247(e)	RSS 247 5.2 (2)	Power Spectral Density	TBBJ-20200724-16-1#	PASS	N/A
15.205, 15.209&15.247(d)	RSS 247 5.5	Transmitter Radiated Spurious &Unwanted Emissions into Restricted Frequency	TBBJ-20200724-16-1#	PASS	N/A

Note: N/A is an abbreviation for Not Applicable.

3. Test Software

Test Item	Test Software	Manufacturer	Version No.
Conducted Emission	EZ-EMC	EZ	CDI-03A2
Radiation Emission	EZ-EMC	EZ	FA-03A2RE
RF Conducted Measurement	MTS-8310	MWRFtest	V2.0.0.0



4. Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jul. 12, 2020	Jul. 11, 2021
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jul. 12, 2020	Jul. 11, 2021
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jul. 12, 2020	Jul. 11, 2021
LISN	Rohde & Schwarz	ENV216	101131	Jul. 12, 2020	Jul. 11, 2021
Radiation Emissio	on Test			÷	
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 12, 2020	Jul. 11, 2021
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jul. 12, 2020	Jul. 11, 2021
Spectrum Analyzer	Rohde & Schwarz	FSVR	1311.006K40-10094 5-DH	Feb. 09, 2020	Feb. 08, 2021
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar. 07, 2020	Mar. 06, 2021
Bilog Antenna	ETS-LINDGREN	3142E	00117542	Mar.03, 2020	Mar. 02, 2021
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar. 07, 2020	Mar. 06, 2021
Horn Antenna	ETS-LINDGREN	3117	00143209	Mar.03, 2020	Mar. 02, 2021
Horn Antenna	ETS-LINDGREN	BBHA 9170	BBHA9170582	Mar. 07, 2020	Mar. 06, 2021
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Mar.02, 2020	Mar. 01, 2021
Pre-amplifier	Sonoma	310N	185903	Jul. 26, 2020	Jul. 25, 2021
Pre-amplifier	HP	8449B	3008A00849	Mar.02, 2020	Mar. 01, 2021
Pre-amplifier	EMCI	EMC02325	980217	Feb. 09, 2020	Feb. 08, 2021
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar. 07, 2020	Mar. 06, 2021
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A

Antenna Conducted Emission

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 12, 2020	Jul. 11, 2021
Spectrum Analyzer	Rohde & Schwarz	ESCI	100010/007	Jul. 12, 2020	Jul. 11, 2021
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Sep. 16, 2019	Sep. 15, 2020
Vector Signal Generator	Agilent	N5182A	MY50141294	Sep. 16, 2019	Sep. 15, 2020
Analog Signal Generator	Agilent	N5181A	MY50141953	Sep. 16, 2019	Sep. 15, 2020
an B	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO26	Sep. 16, 2019	Sep. 15, 2020
	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO29	Sep. 16, 2019	Sep. 15, 2020
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO31	Sep. 16, 2019	Sep. 15, 2020
	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO33	Sep. 16, 2019	Sep. 15, 2020



6. Conducted Emission Test

- 5.1 Test Standard and Limit
 - 5.1.1Test Standard FCC Part 15.207
 - 5.1.2 Test Limit

Frequency	Maximum RF Line Voltage (dBμV)		
Frequency	Quasi-peak Level	Average Level	
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *	
500kHz~5MHz	56	46	
5MHz~30MHz	60	50	

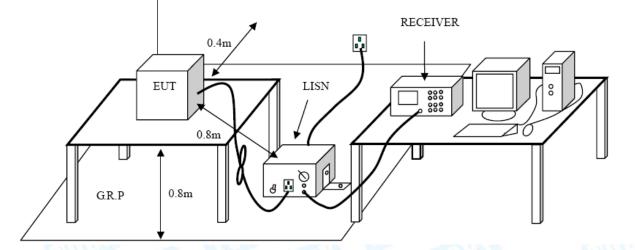
Notes:

(1) *Decreasing linearly with logarithm of the frequency.

(2) The lower limit shall apply at the transition frequencies.

(3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

5.2 Test Setup





5.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

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.

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.

LISN at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9 kHz, and the test frequency band is from 0.15MHz to 30MHz.

5.4 Deviation From Test Standard

No deviation

5.5 EUT Operating Mode

Please refer to the description of test mode.

5.6 Test Data

Please refer to the Attachment A.



7. Radiated Emission Test

- 6.1 Test Standard and Limit
 - 6.1.1 Test Standard
 - FCC Part 15.247(d)
 - 6.1.2 Test Limit

Radiated Emission Limits (9kHz~1000MHz)

Frequency (MHz	Field Strength (microvolt/meter)	Measurement Distance (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

Radiated Emission Limit (Above 1000MHz)

Frequency	Distance Meters(at 3m)		
(MHz)	Peak (dBuV/m)	Average (dBuV/m)	
Above 1000	74	54	

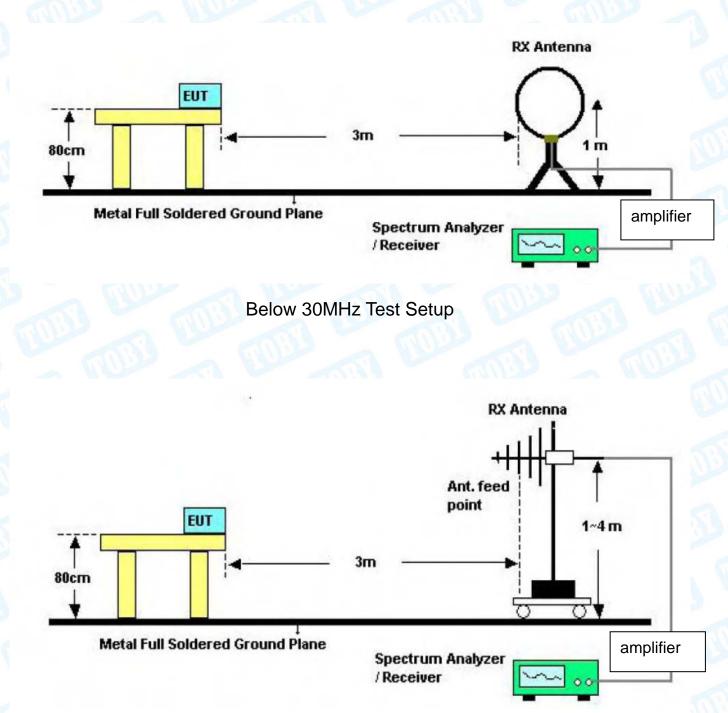
Note:

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

(2) Emission Level (dBuV/m)=20log Emission Level (uV/m)

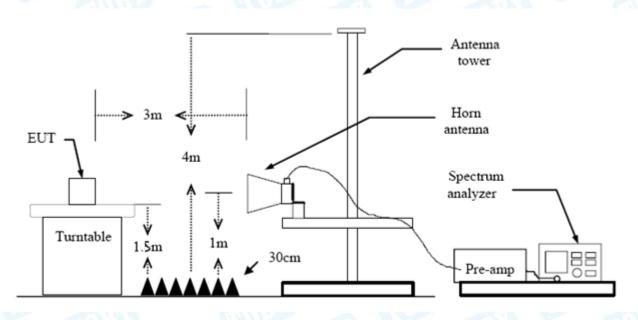


6.2 Test Setup



Below 1000MHz Test Setup





Above 1GHz Test Setup

6.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (4) 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 then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.



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6.4 Deviation From Test Standard

No deviation

6.5 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

6.6 Test Data

Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values. Please refer to the Attachment B.

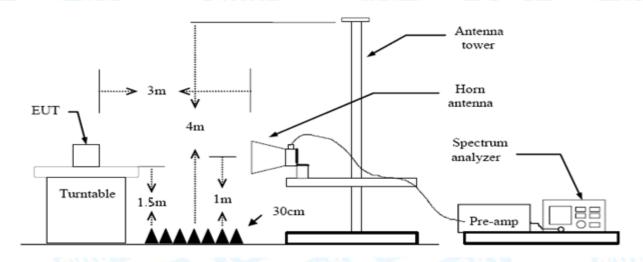


8. Restricted Bands Requirement

- 7.1 Test Standard and Limit
 - 7.1.1 Test Standard FCC Part 15.247(d) FCC Part 15.205
 - 7.1.2 Test Limit

Restricted Frequency	Distance Meters(at 3m)		
Band (MHz)	Peak (dBuV/m)	Average (dBuV/m)	
2310 ~2390	74	54	
2483.5 ~2500	74	54	

7.2 Test Setup



7.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.



- (4) 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 then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.
- 7.4 Deviation From Test Standard

No deviation

7.5 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

7.6 Test Data

Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values. Please refer to the Attachment C.

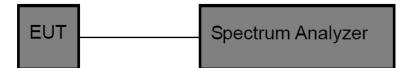


9. Bandwidth Test

- 8.1 Test Standard and Limit
 - 8.1.1 Test Standard
 - FCC Part 15.247 (a)(2)
 - 8.1.2 Test Limit

FCC	FCC Part 15 Subpart C(15.247)/RSS-247			
Test Item	Limit	Frequency Range(MHz)		
Bandwidth	>=500 KHz (6dB bandwidth)	2400~2483.5		

8.2 Test Setup



8.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) The bandwidth is measured at an amplitude level reduced 6dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst –case (i.e the widest) bandwidth.
- (3)Measure the channel separation the spectrum analyzer was set to Resolution Bandwidth:100 kHz, and Video Bandwidth:300 kHz, Detector: Peak, Sweep Time set auto.

8.4 Deviation From Test Standard

No deviation

8.5 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, middle and high channel for the test.

8.6 Test Data

Please refer to the Attachment D.

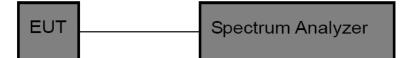


10. Peak Output Power Test

- 9.1 Test Standard and Limit
 - 9.1.1 Test Standard
 - FCC Part 15.247 (b)(3)
 - 9.1.2 Test Limit

FCC Part 15 Subpart C(15.247)/RSS-247			
Test Item Limit Frequency Range(MHz)			
Peak Output Power	1 Watt or 30 dBm	2400~2483.5	

9.2 Test Setup



9.3 Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement is according to section 9.1.1 of KDB 558074 D01 DTS Meas Guidance v05.

- (1) Set the RBW≥DTS Bandwidth
- (2) Set VBW≥3*RBW
- (3) Set Span≥3*RBW
- (4) Sweep time=auto
- (5) Detector= peak
- (6) Trace mode= maxhold.
- (7) Allow trace to fully stabilize, and then use peak marker function to determine the peak amplitude level.

9.4 Deviation From Test Standard

No deviation

9.5 EUT Operating Condition

The EUT was set to continuously transmitting in the max power during the test.

9.6 Test Data

Please refer to the Attachment E.

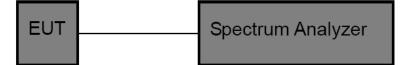


11. Power Spectral Density Test

- 10.1 Test Standard and Limit
 - 10.1.1 Test Standard FCC Part 15.247 (e)
 - 1 CC Fait 15.247
 - 10.1.2 Test Limit

FCC Part 15 Subpart C(15.247)			
Test Item Limit Frequency Range(MHz)			
Power Spectral Density 8dBm(in any 3 kHz) 2400~2483.5			

10.2 Test Setup



10.3 Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v05.

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Set analyser centre frequency to DTS channel centre frequency.
- (3) Set the span to 1.5 times the DTS bandwidth.
- (4) Set the RBW to: 3 kHz
- (5) Set the VBW to: 10 kHz
- (6) Detector: peak
- (7) Sweep time: auto
- (8) Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

10.4 Deviation From Test Standard

No deviation

10.5 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

10.6 Test Data

Please refer to the Attachment F.



12. Antenna Requirement

11.1 Standard Requirement

10.1.1 Standard

FCC Part 15.203

10.1.2 Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

11.2 Deviation From Test Standard

No deviation

11.3 Antenna Connected Construction

The gains of the antenna used for transmitting is 0 dBi, and the antenna de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

11.4 Result

The EUT antenna is a Internal Antenna. It complies with the standard requirement.

Antenna Type						
Permanent attached antenna	3					
Unique connector antenna	L W					
Professional installation antenna	1					

Attachment A-- Conducted Emission Test Data

TOBY

empe	rature:	25 ℃	CON	Re	lative Humidi	ty: 5	5%	
est Vo	oltage:	AC 120	0V 60Hz	-		1000	132	
ermin	al:	Line		anor	-	CV -		
est M	ode:	Mode '	1		(1)) ×			
Remar	k:	Only w	orse case is	reported				
90.0 dB	u∀			1			QP:	
40	with w		Millioner milliontering				X X	
0.150	www	0.5	1000-00-00-00-00-00-00-00-00-00-00-00-00	(MHz)	5	dente de la construcción	and a second	30.000
			Reading	Correct	Measure-			
No.	Mk.	Freq.	Level	Factor	ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detecto
1	C	0.1500	22.84	9.75	32.59	65.99	-33.40	QP
2	C	0.1500	10.51	9.75	20.26	55.99	-35.73	AVG
3	0	0.1700	21.14	9.79	30.93	64.96	-34.03	QP
4	C	0.1700	9.22	9.79	19.01	54.96	-35.95	AV
5	C	0.2700	14.07	9.82	23.89	61.12	-37.23	QP
6	C	0.2700	6.39	9.82	16.21	51.12	-34.91	AV
7	C	0.4780	16.74	9.93	26.67	56.37	-29.70	QP
8	* 0	0.4780	8.39	9.93	18.32	46.37	-28.05	AV
	C	0.6740	11.19	9.84	21.03	56.00	-34.97	QP
9	-				15.39	46.00	-30.61	AV
9 10		0.6740	5.55	9.84	15.55	10.00	00.01	
	C	0.6740 2.9500	5.55 12.41	9.84	22.23		-37.77	QP

LISN Factor (dB) + Cable Loss (dB) 2. Margin (dB) =QuasiPeak/Average (dBuV)-Limit (dBuV)



Temperature:	25 ℃	R	elative Humidity:	55%			
Test Voltage:	AC 120V 60Hz		MUDO				
Terminal:	Neutral			133			
Test Mode:	Mode 1	A RECE					
Remark:	Only worse cas	Only worse case is reported					
				QP: AVG:			
-10 0.150	0.5	(MHz)	5	30.000			

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1500	23.34	9.60	32.94	65.99	-33.05	QP
2		0.1500	10.66	9.60	20.26	55.99	-35.73	AVG
3		0.1740	20.71	9.61	30.32	64.76	-34.44	QP
4		0.1740	9.57	9.61	19.18	54.76	-35.58	AVG
5		0.2860	13.90	9.70	23.60	60.64	-37.04	QP
6		0.2860	8.96	9.70	18.66	50.64	-31.98	AVG
7		0.4900	14.94	9.78	24.72	56.17	-31.45	QP
8	*	0.4900	9.27	9.78	19.05	46.17	-27.12	AVG
9		0.6620	10.10	9.77	19.87	56.00	-36.13	QP
10		0.6620	5.22	9.77	14.99	46.00	-31.01	AVG
11		1.0900	9.91	9.62	19.53	56.00	-36.47	QP
12		1.0900	5.31	9.62	14.93	46.00	-31.07	AVG

Remark: 1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB) 2. Margin (dB) =QuasiPeak/Average (dBuV)-Limit (dBuV)



Attachment B-- Radiated Emission Test Data

9 KHz~30 MHz

From 9 KHz to 30 MHz: Conclusion: PASS

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

30MHz~1GHz

Temperature:	25℃	Relative Humidity:	55%
Test Voltage:	DC 5V		ALL P
Ant. Pol.	Horizontal		
Test Mode:	Mode 1		
Remark:	Only worse case is rep	ported	GULLE
80.0 dBu∀/m			
30 1 2 3 X X X		hur work hand hand	15C 3M Radiation Margin -6 dB
-20 30.000 40 50	0 60 70	(MHz) 300 400 5	500 600 700 1000.00

Ν	No. M	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		31.0706	35.27	-13.74	21.53	40.00	-18.47	QP
2		37.5479	38.40	-17.85	20.55	40.00	-19.45	QP
3		46.9948	42.30	-22.07	20.23	40.00	-19.77	QP
4		72.0843	39.40	-23.20	16.20	40.00	-23.80	QP
5		528.2458	38.41	-9.60	28.81	46.00	-17.19	QP
6	*	744.8661	39.15	-6.62	32.53	46.00	-13.47	QP

*:Maximum data x:Over limit !:over margin

Remark:

1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB) 2. QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)

- 3. Margin (dB) = QuasiPeak (dBµV/m)-Limit QPK(dBµV/m)



Temperature:	25℃	Relative	Humidity:	55%	
Fest Voltage:	DC 5V		TOPS		Charles and the
Ant. Pol.	Vertical		6		-
lest Mode:	Mode 1			2	
Remark:	Only worse	e case is reported			
80.0 dBu¥/m					
30 1 2 X		5		C 15C 3M Radiatio Margin -1	6 dB
20 30.000 40 50	60 70	(MHz)	300 400	500 600 700	

	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
_			MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
	1		31.0706	41.98	-13.74	28.24	40.00	-11.76	QP
_	2		37.2855	46.13	-17.74	28.39	40.00	-11.61	QP
_	3	*	47.9940	53.33	-22.40	30.93	40.00	-9.07	QP
	4		72.0843	53.56	-23.20	30.36	40.00	-9.64	QP
_	5		119.4361	45.02	-22.17	22.85	43.50	-20.65	QP
_	6		210.7860	44.01	-19.36	24.65	43.50	-18.85	QP

*:Maximum data x:Over limit !:over margin

- Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = QuasiPeak (dBµV/m)-Limit QPK(dBµV/m)

Above 1GHz

Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	DC 3.7V	a				
Ant. Pol.	Horizontal					
Test Mode:	BLE Mode TX 2402 MHz					
Remark:	No report for the emission which more than 20 dB below the					
	prescribed limit.					

No	. Mk	. Freq.			Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4805.278	48.63	13.03	61.66	74.00	-12.34	peak
2	*	4805.278	34.08	13.03	47.11	54.00	-6.89	AVG

Remark:

Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)

3. Margin (dB) = Peak/AVG (dBµV/m)-Limit PK/AVG(dBµV/m)

Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	DC 3.7V					
Ant. Pol.	Vertical		The second			
Test Mode:	BLE Mode TX 2402 MHz					
Remark:	No report for the emission which more than 20 dB below the					
	prescribed limit.		CU195			

No.	Mk	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4803.172	48.14	13.00	61.14	74.00	-12.86	peak
2	*	4803.910	34.14	13.01	47.15	54.00	-6.85	AVG

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB) 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dBµV/m)-Limit PK/AVG(dBµV/m)



Te	empe	ratur	e:	25° ℃	22		Relative Hu	midity:	55%	
Te	est Vo	oltage	e:	DC 3	.7V					114
A	nt. Po	ol.		Horiz	ontal	-		11.5	132	-
Test Mode: BLE			Mode TX 24	42 MHz						
R	emar	k:			port for the cribed limit.	emission w	hich more that	an 20 dB k	below the	5
-	No.	Mk.	Fr	eq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
-			М	Hz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
-	1		4884	.312	48.48	13.61	62.09	74.00	-11.91	peak
-	2	*	4884	.348	33.74	13.61	47.35	54.00	-6.65	AVG
-										

Remark:

- Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dBµV/m)-Limit PK/AVG(dBµV/m)

Temperature:	25℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V	TUP -	The second
Ant. Pol.	Vertical		1000
Test Mode:	BLE Mode TX 2442 MHz		
Remark:	No report for the emission w	which more than 20 dB	below the
	prescribed limit.		and s

No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4883.004	47.88	13.59	61.47	74.00	-12.53	peak
2	*	4883.004	33.69	13.59	47.28	54.00	-6.72	AVG

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB) 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dBµV/m)-Limit PK/AVG(dBµV/m)



Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V	TUU	
Ant. Pol.	Horizontal		132
Test Mode:	BLE Mode TX 2480 MHz		
Remark:	No report for the emission	which more than 20 dB	below the
	prescribed limit.		

No	b. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4961.254	49.03	14.16	63.19	74.00	-10.81	peak
2	*	4961.254	34.30	14.16	48.46	54.00	-5.54	AVG

Remark:

- Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dBµV/m)-Limit PK/AVG(dBµV/m)

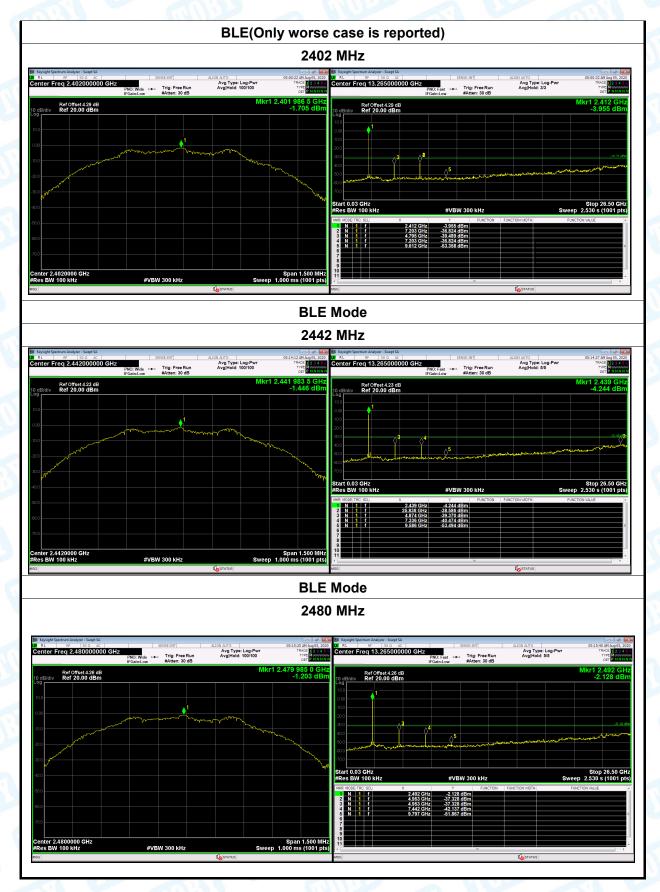
Temperature:	25℃	Relative Humidity:	55%
Test Voltage:	DC 3.7V		
Ant. Pol.	Vertical	an us	
Test Mode:	BLE Mode TX 2480 MHz		
Remark:	No report for the emission prescribed limit.	which more than 20 dB	below the
	prescribed inflit.		

No	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4959.634	48.65	14.15	62.80	74.00	-11.20	peak
2	*	4959.634	33.49	14.15	47.64	54.00	-6.36	AVG

- Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
 Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dBµV/m)-Limit PK/AVG(dBµV/m)



Conducted Emission Test Data



Attachment C-- Restricted Bands Requirement and Band

Edge Test Data

(1) Radiation Test

emp	perature:	25℃	2			Relative H	lumidity:	55%	
est	Voltage:	DC	3.7V	110		2 13		120	1 series
nt.	Pol.	Hori	zontal		dan.	2	× 610	100	-
est	Mode:	BLE	Mode 7	TX 2402	MHz	- OB	5	10	10
ema	ark:	N/A	19	10	-			A V	5
100.0	dBuV/m								
									3 X4
									Å
							(RF) FC	C PART 15C (PEAK)
							(RF) F	CC PART 15C	(AVG)
50								1 X 2	$ \setminus$
								_×	
0.0									

No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	43.92	1.28	45.20	74.00	-28.80	peak
2		2390.000	33.24	1.28	34.52	54.00	-19.48	AVG
3	Х	2402.600	90.56	1.33	91.89	Fundamental	Frequency	peak
4	*	2403.000	86.59	1.33	87.92	Fundamental	Frequency	AVG

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB) 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dBµV/m)-Limit PK/AVG(dBµV/m)



emperature:	25 ℃	R	elative Humidity:	55%	
est Voltage:	DC 3.7V		THUR A		
nt. Pol.	Vertical			20182	
est Mode:	BLE Mode T	TX 2402 MHz			
emark:	N/A	R	C (1) (1)		100
100.0 dBuV/m					
				CC PART 15C (PEAK)	
50				1 X	Ħ
				2 X	4
0.0					

No.	Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	45.11	1.28	46.39	74.00	-27.61	peak
2		2390.000	33.07	1.28	34.35	54.00	-19.65	AVG
3	Х	2402.600	83.48	1.33	84.81	Fundamenta	I Frequency	peak
4	*	2402.800	81.24	1.33	82.57	Fundamenta	Frequency	AVG

- Remark: 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB) 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dBµV/m)-Limit PK/AVG(dBµV/m)



mpera	ature:	25 ℃	Relative Humidity: 55%	5
st Volt	tage:	DC 3.7V		
nt. Pol. est Mode: emark: 100.0 dBuV/m		Horizontal		
st Mo	de:	BLE Mode TX 2480) MHz	
mark		N/A		-
100.0 dBu¥/m				_
	1 21 X			
	Д		(RF) FCC PART 15C (PEAK)	
	\uparrow			
	3		(RF) FCC PART 15C (AVG)	_
50	×			
50	\			
0.0				

No. Mk.		. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	Х	2479.800	83.84	1.85	85.69	- Fundamental Frequency		peak
2	*	2480.000	79.99	1.85	81.84	Fundamental I	Frequency	AVG
3		2483.500	50.01	1.88	51.89	74.00	-22.11	peak
4		2483.500	39.94	1.88	41.82	54.00	-12.18	AVG

- Remark: 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB) 2. Peak/AVG (dBµV/m)= Corr. (dB/m)+ Read Level (dBµV/m)
- 3. Margin (dB) = Peak/AVG (dBµV/m)-Limit PK/AVG(dBµV/m)



mperature:	25 ℃	Relative Humidity:	55%					
est Voltage:	DC 3.7V	ALL TOUR						
nt. Pol.	Vertical	Vertical BLE Mode TX 2480 MHz						
est Mode:	BLE Mode TX 248							
emark:	N/A							
100.0 dBuV/m								
1 Ž								
X		(RF	F) FCC PART 15C (PEAK)					
			RF) FCC PART 15C (AVG)					
50 3 ×								
X								
0.0								

No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	Х	2479.800	78.84	1.85	80.69	Fundamental F	requency	peak
2	*	2480.000	74.04	1.85	75.89	- Fundamental I	requency	AVG
3		2483.500	44.76	1.88	46.64	74.00	-27.36	peak
4		2483.500	35.81	1.88	37.69	54.00	-16.31	AVG

- Remark: 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB) 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
- 3. Margin (dB) = Peak/AVG (dBµV/m)-Limit PK/AVG(dBµV/m)



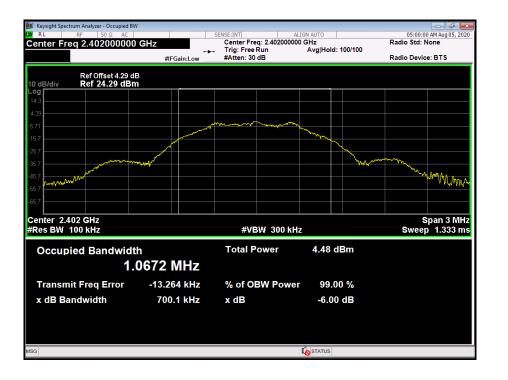
(2) Conducted Test

perature:	25 ℃	111	Relative Humidity	r: 55%		
Voltage:	DC 3.7V					
Mode:	BLE Mode T>	(2402MHz /	BLE Mode TX 2480	MHz		
ark:	The EUT is programmed in continuously transmitting mode					
🚺 Keysight Spectrum A	nalyzer - Swept SA 50 Ω AC	SENSE:INT	ALIGN AUTO	05:00:16 AM Aug 05, 2020		
Center Freq 2	2.356000000 GHz PN IFG	0: Fast ↔→ Trig: Free F ain:Low #Atten: 30 o		TRACE 1 2 3 4 5 6 TYPE M WWWW DET P NNNN		
10 dB/div Ref	Offset 4.29 dB 20.00 dBm			Mkr1 2.402 0 GHz -1.634 dBm		
Log 10.0				1		
-10.0						
-20.0						
-40.0						
-60.0 -60.0	mtmaht reaction to the	Moummenneme	whereason and the second and the second second	Januar Martin Martin		
-70.0 Start 2.30600 0	2H7			Stop 2.40600 GHz		
#Res BW 100		#VBW 300 kHz		p 9.600 ms (1001 pts)		
1 N 1 f 2 N 1 f 3 N 1 f	2.402 0 GHz 2.400 0 GHz 2.390 0 GHz	-1.634 dBm -49.186 dBm -57.445 dBm				
4 N 1 f 5 6	2.313 3 GHz	-50.389 dBm		E		
7 8 9						
10 11						
				,		
MSG			STATUS			
💓 Keysight Spectrum A		CENCEANT		05:15:20 AM Aug 05: 2020		
iii Keysight Spectrum A LXI RL RF	50 Ω AC 2.526000000 GHz PN	SENSE:INT O: Fast -→- Trig: Free F	ALIGN AUTO Avg Type: Log-Pwr tun Avg[Hold: 100/100	05:15:20 AM Aug 05, 2020 TRACE 1 2 3 4 5 6		
Keysight Spectrum A Mark RF Center Freq 2 Ref	50 Ω AC 2.526000000 GHz PN IFG Offset 4.26 dB		ALIGN AUTO Avg Type: Log-Pwr tun Avg[Hold: 100/100	05:15:20 AM Aug 05, 2020 TRACE 2 2 3 4 5 6 TYPE M DET P NNNN Mkr1 2.480 0 GHz		
Keysight Spectrum A Keysight Spectrum A Keysight Spectrum A Keysight Spectrum A For Center Freq 2	50 Ω AC 2.526000000 GHz PN IFG	0: Fast 🛶 Trig: Free F	ALIGN AUTO Avg Type: Log-Pwr tun Avg[Hold: 100/100	05:15:20 AM Aug 05, 2020 TRACE 1 2 3 4 5 6 TYPE MWWWW DET P N N N N N		
Center Freq 2	50 Ω AC 2.526000000 GHz PN IFG Offset 4.26 dB	0: Fast 🛶 Trig: Free F	ALIGN AUTO Avg Type: Log-Pwr tun Avg[Hold: 100/100	05:15:20 AM Aug 05, 2020 TRACE 2 2 3 4 5 6 TYPE M DET P NNNN Mkr1 2.480 0 GHz		
Center Freq 2	50 Ω AC 2.526000000 GHz PN IFG Offset 4.26 dB	0: Fast 🛶 Trig: Free F	ALIGN AUTO Avg Type: Log-Pwr tun Avg[Hold: 100/100	05:15:20 AM Aug 05, 2020 TRACE 2 2 3 4 5 6 TYPE M DET P NNNN Mkr1 2.480 0 GHz		
Center Freq 2	50.0 AC PN 526000000 GHz PN IFG 0ffset 4.26 dB 20.00 dBm	0: Fast 🛶 Trig: Free F	ALIGN AUTO Avg Type: Log-Pwr tun Avg[Hold: 100/100	05:15:20 AM wp 05, 2020 TRACE 12 24 4 5 6 TYPE MANNAWAY GET PHANA N N Mkr1 2.480 0 GHz -1.239 dBm		
Image: Section of the sectio	500 AC 526000000 GHz PN IFG 0ffset 4.26 dB 20.00 dBm	0: Fast → Trig: Free F ain:Low #Atten: 30 (ALIGN AUTO Avg Type: Log-Pwr tun Avg[Hold: 100/100	05:15:20 AM Mup 05, 2020 TRACE 12 24 5 G TYPE MANAWAY DET PINININ Mkr1 2.480 0 GHz -1.239 dBm :21.11 dBn		
Center Freq 2	50.0 AC 2.526000000 GHz PN IFG Offset 4.26 dB 20.00 dBm	0: Fast → Trig: Free F ain:Low #Atten: 30 (ALIGN AUTO Avg Type: Log-Pwr Avg Hoid: 100/100 B	05:15:20 AM Mup 05, 2020 TRACE 12 24 5 G TYPE MANAWAY DET PINININ Mkr1 2.480 0 GHz -1.239 dBm :21.11 dBn		
Image: Section of the sectio	50.0 AC	0: Fast → Trig: Free F ain:Low #Atten: 30 (ALIGN AUTO Avg Type: Log-Pwr tun Avg Hold: 100/100 BB	05:15:20 AM Mup 05, 2020 TRACE 12 24 5 G TYPE MANAWAY DET PINININ Mkr1 2.480 0 GHz -1.239 dBm :21.11 dBn		
Image: Second	50.0 AC .526000000 GHz PN IFG Offset 4.26 dB 20.00 dBm 	C: Fast → Trig: Free F #Atten: 30 o #Atten: 30 o #VBW 300 kHz Y FUNC 1.230 of Bm	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 100/100	05:15:20 AM wp 05, 2020 TRACE 10 24 4 5 TYPE MINININ Mkr1 2.480 0 GHz -1.239 dBm -21:11 dBg		
Image: Section of the sectio	500 AC 500 AC 50000000 GHz PN IFG Offset 4.26 dB 20.00 dBm 300 dBm	O: Fast Trig: Free F #Atten: 30 of Atten: 30 of Atten: 4 of Atten	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 100/100	05:15:20 AM up 05, 2020 TRACE 10 2 4 4 5 TYPE 10 4 4 5 OFT P HINNE Mkr1 2.480 0 GHz -1.239 dBm -21:11 dfg -21:11 dfg -21:11 dfg Stop 2.57600 GHz p 9.600 ms (1001 pts)		
Image: Section of the sectio	500 AC 500 AC 50000000 GHz PN IFG Offset 4.26 dB 20.00 dBm 300 dBm	C: Fast → Trig: Free F #Atten: 30 o #Atten: 30 o #VBW 300 kHz Y FUNC 1.230 of Bm	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 100/100	05:15:20 AM up 05, 2020 TRACE 10 2 4 4 5 TYPE 10 4 4 5 OFT P HINNE Mkr1 2.480 0 GHz -1.239 dBm -21:11 dfg -21:11 dfg -21:11 dfg Stop 2.57600 GHz p 9.600 ms (1001 pts)		
Image: second	500 AC 500 AC 50000000 GHz PN IFG Offset 4.26 dB 20.00 dBm 300 dBm	C: Fast → Trig: Free F #Atten: 30 o #Atten: 30 o #VBW 300 kHz Y FUNC 1.230 of Bm	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 100/100	05:15:20 AM up 05, 2020 TRACE 10 2 4 4 5 TYPE 10 4 4 5 OFT P HINNE Mkr1 2.480 0 GHz -1.239 dBm -21:11 dfg -21:11 dfg -21:11 dfg Stop 2.57600 GHz p 9.600 ms (1001 pts)		

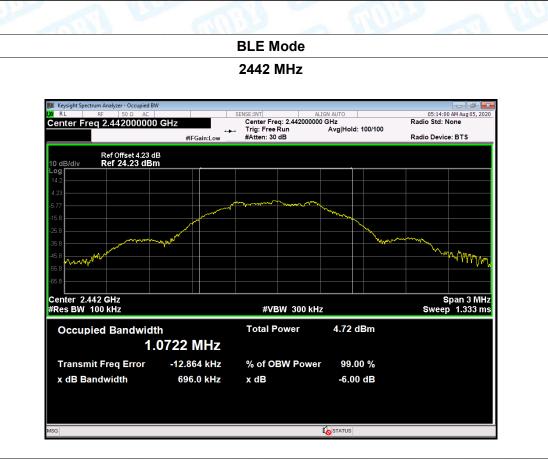


Attachment D-- Bandwidth Test Data

Temperature:	25°C Relative Humidity:		55%		
Test Voltage:	DC 3.7\	/	182		
Test Mode:	BLE TX	Mode			
Channel frequ	iency	6dB B	Limit		
(MHz)	(MHz)		(kHz)		
2402	2402		700.1		
2442		6	>=500		
2480		6			
		BLE M	ode		
		2402	ИНz		

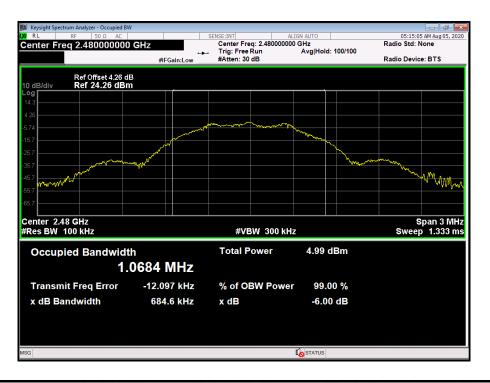






BLE Mode

2480 MHz





Attachment E-- Peak Output Power Test Data

Temperature:	25℃ Relative Humidity		idity: 55%
Test Voltage:	DC 3.7V		CORD -
Test Mode:	BLE TX N	lode	
Channel frequency (MHz)		Test Result (dBm)	Limit (dBm)
2402		-1.604	
2442		-1.359	30
2480		-1.121	
		BLE Mode	
		2402 MHz	

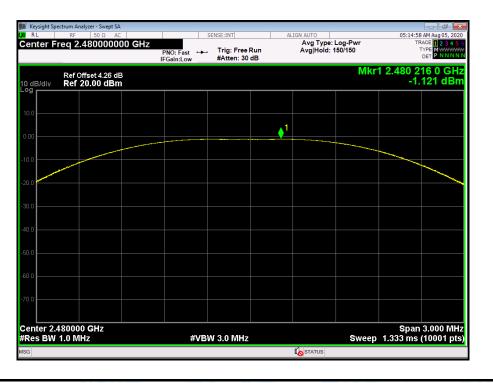






BLE Mode







Attachment F-- Power Spectral Density Test Data

Temperature:	25 ℃		Relative Humidity:		55%		
Test Voltage:	DC 3.7V	DC 3.7V					
Test Mode:	BLE TX N	Node		A V			
Channel Frequency		Power Density		Lim	Limit		
(MHz)		(dBm/3kHz)		(dBm/3	(dBm/3kHz)		
2402		-17.1	56				
2442		-16.9	03	8	8 PAS		
2480		-16.606					
		BLE M	ode				

2402 MHz







BLE Mode 2480 MHz

