

Report Seal

Report No.: EED32Q81374701 Page 1 of 43

## **TEST REPORT**

**Product** : ECG Blood Pressure Monitor

Trade mark : N/A

Model/Type reference : DBP-6679B, DBP-6673B

Serial Number : N/A

Report Number : EED32Q81374701

FCC ID : 2AQVU0015

Date of Issue : Dec. 12, 2024

Test Standards : 47 CFR Part 15 Subpart C

Test result : PASS

Prepared for:

JOYTECH HEALTHCARE CO., LTD.
No.365, Wuzhou Road, Hangzhou City, 311100 Zhejiang, China

Prepared by:

Centre Testing International Group Co., Ltd. Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China

TEL: +86-755-3368 3668 FAX: +86-755-3368 3385

Compiled by:

Keven Tan

Keven Tan

Date:

Dec. 12, 2024

Check No.: 3453030924



Report No.: EED32Q81374701 Page 2 of 43

## Content

1 CONTENT	
2 VERSION	
3 TEST SUMMARY	4
4 GENERAL INFORMATION	5
4.1 CLIENT INFORMATION  4.2 GENERAL DESCRIPTION OF EUT  4.3 TEST CONFIGURATION  4.4 TEST ENVIRONMENT  4.5 DESCRIPTION OF SUPPORT UNITS  4.6 TEST LOCATION  4.7 MEASUREMENT UNCERTAINTY (95% CONFIDENCE LEVELS, K=2)	
5 EQUIPMENT LIST	9
6 TEST RESULTS AND MEASUREMENT DATA	12
6.1 ANTENNA REQUIREMENT	
7 APPENDIX BLUETOOTH LE	32
8 PHOTOGRAPHS OF TEST SETUP	33
9 PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS	35





























#### Report No.: EED32Q81374701 Page 3 of 43

## 2 Version

Version No.	Date	Description			
00	Dec. 12, 2024		Original		
	°				
- (	(2)	(35)	(5)	(0,7)	











































































Report No. : EED32Q81374701 Page 4 of 43

3 Test Summary

Tool Item	Tool Dominament	Deculé	
Test Item	Test Requirement	Result	
Antenna Requirement	47 CFR Part 15 Subpart C Section 15.203/15.247 (c)	PASS	
AC Power Line Conducted Emission	47 CFR Part 15 Subpart C Section 15.207	N/A	
DTS Bandwidth	47 CFR Part 15 Subpart C Section 15.247 (a)(2)	PASS	
Maximum Conducted Output Power	47 CFR Part 15 Subpart C Section 15.247 (b)(3)	PASS	
Maximum Power Spectral Density	47 CFR Part 15 Subpart C Section 15.247 (e)	PASS	
Band Edge Measurements	47 CFR Part 15 Subpart C Section 15.247(d)	PASS	
Conducted Spurious Emissions	47 CFR Part 15 Subpart C Section 15.247(d)	PASS	
Radiated Spurious Emission & Restricted bands	47 CFR Part 15 Subpart C Section 15.205/15.209	PASS	
		12.8.1	

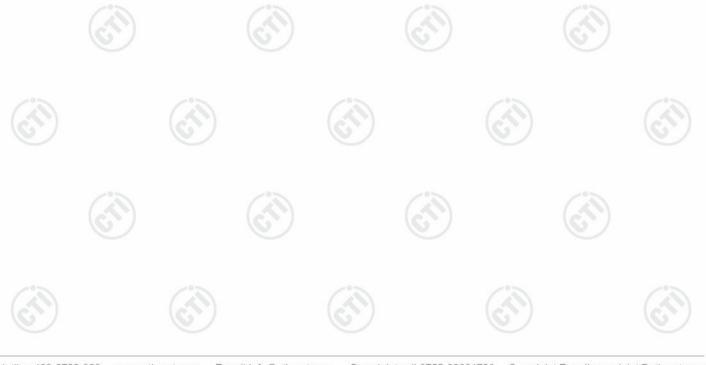
### Remark:

N/A: The product is powered by battery.

Company Name and Address shown on Report, the sample(s) and sample Information were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

Model No.: DBP-6679B, DBP-6673B

Only the model DBP-6679B was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above models, with difference being screen size, pack and model name.





Report No. : EED32Q81374701 Page 5 of 43

## 4 General Information

## 4.1 Client Information

Applicant:	JOYTECH HEALTHCARE CO., LTD.	
Address of Applicant:	No.365, Wuzhou Road, Hangzhou City, 311100 Zhejiang, China	
Manufacturer:	JOYTECH HEALTHCARE CO., LTD.	/°N
Address of Manufacturer:	No.365, Wuzhou Road, Hangzhou City, 311100 Zhejiang, China	(2)

# 4.2 General Description of EUT

Product Name:	ECG Blood	Pressure Monitor			
Model No.:	DBP-6679B	B, DBP-6673B			
Test Model No.:	DBP-6679B				
Trade mark:	N/A				
Product Type:	☐ Mobile	□ Portable □ Fix Location			
Operation Frequency:	2402MHz~2	2480MHz			
Modulation Type:	GFSK				
Transfer Rate:	⊠1Mbps ⊠2Mbps				
Number of Channel:	40				
Antenna Type:	PCB antenn	na			
Antenna Gain:	-1.376dBi				
Power Supply:	Battery:	4.5V(3 * AAA batteries)			
Test Voltage:	DC 4.5V				
Sample Received Date:	Sep. 11, 202	024			
Sample tested Date:	Sep. 11, 202	024 to Sep. 20, 2024			





Report No. : EED32Q81374701 Page 6 of 43

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

#### Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Channel	Frequency
The lowest channel (CH0)	2402MHz
The middle channel (CH19)	2440MHz
The highest channel (CH39)	2480MHz

# 4.3 Test Configuration

<b>EUT Test Software</b>	Settings:					
Test Software:	PhyPlusk	(it.exe	(7)	(25)		
EUT Power Grade:	Default (F selected)	Default (Power level is built-in set parameters and cannot be changed and selected)				
Use test software to transmitting of the E	set the lowest frequenUT.	ncy, the middle freque	ncy and the highest f	requency keep		
Test Mode	Modulation	Rate	Channel	Frequency(MHz)		
Mode a	GFSK	1Mbps	CH0	2402		
Mode b	GFSK	1Mbps	CH19	2440		
Mode c	GFSK	1Mbps	CH39	2480		
Mode d	GFSK	2Mbps	CH0	2402		
Mode e	GFSK	2Mbps	CH19	2440		
Mode f	GFSK	2Mbps	CH39	2480		



Report No.: EED32Q81374701 Page 7 of 43

### 4.4 Test Environment

Oper	rating Environment	:					
Radi	ated Spurious Emi	ssions:					
Temp	perature:	22~25.0 °C	(21)		(41)		(41)
Humi	idity:	50~55 % RH	(0)		(0)		6
Atmo	spheric Pressure:	1010mbar					
Cond	ducted Emissions:						
Temp	perature:	22~25.0 °C		(2)		(30)	
Humi	idity:	50~55 % RH		(0,)		(0,)	
Atmo	spheric Pressure:	1010mbar					
RF C	onducted:						
Temp	perature:	22~25.0 °C	<b></b>		(3)		
Humi	idity:	50~55 % RH	(6.2)		(6,7,2)		(6,2)
Atmo	spheric Pressure:	1010mbar					

## 4.5 Description of Support Units

The EUT has been tested with associated equipment below.

1) support equipment

Description	Manufacturer	Model No.	Certification	Supplied by
Netbook	Dell	P77F	FCC&CE	СТІ

### 4.6 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385

No tests were sub-contracted. FCC Designation No.: CN1164

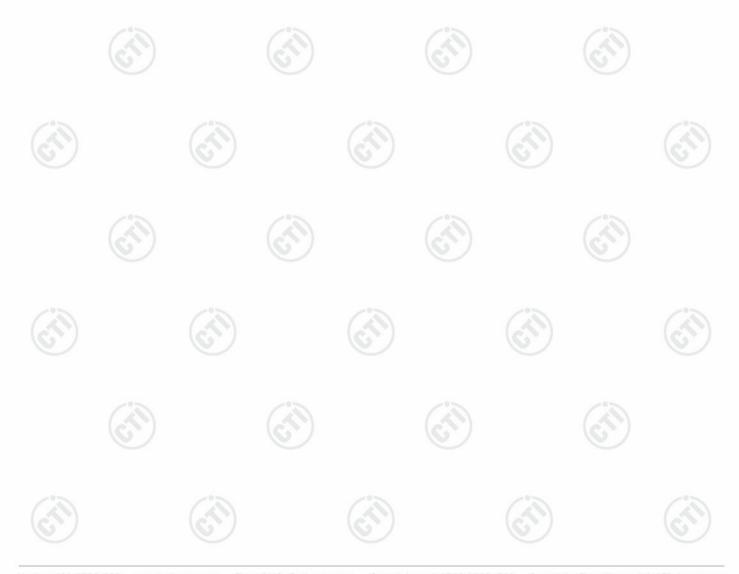






# 4.7 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Radio Frequency	7.9 x 10 <sup>-8</sup>
2	DE nover conducted	0.46dB (30MHz-1GHz)
2	RF power, conducted	0.55dB (1GHz-40GHz)
	6	3.3dB (9kHz-30MHz)
,	Radiated Spurious emission test	4.3dB (30MHz-1GHz)
3		4.5dB (1GHz-18GHz)
10%		3.4dB (18GHz-40GHz)
37	Conduction emission	3.5dB (9kHz to 150kHz)
4	Conduction emission	3.1dB (150kHz to 30MHz)
5	Temperature test	0.64°C
6	Humidity test	3.8%
7	DC power voltages	0.026%





Report No. : EED32Q81374701 Page 9 of 43

# 5 Equipment List

		RF test	system		
Equipment	Manufacturer	Model No.	Serial Number	Cal. Date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
Spectrum Analyzer	Keysight	N9010A	MY54510339	12-14-2023	12-13-2024
Signal Generator	Keysight	N5182B	MY53051549	12-11-2023	12-10-2024
DC Power	Keysight	E3642A	MY56376072	12-11-2023	12-10-2024
Communication test	R&S	CMW500	169004	03-08-2024	03-07-2025
RF control unit(power unit)	JS Tonscend	JS0806-2	22G8060592	07-22-2024	07-21-2025
Wi-Fi 7GHz Band Extendder	JS Tonscend	TS-WF7U2	2206200002	05-31-2024	05-30-2025
High-low temperature test chamber	Dong Guang Qin Zhuo	LK-80GA	QZ20150611879	12-11-2023	12-10-2024
Temperature/ Humidity Indicator	biaozhi	HM10	1804186	05-29-2024	05-28-2025
BT&WI-FI Automatic test software	JS Tonscend	JS1120-3	V3.3.20		<u> </u>
Spectrum Analyzer	R&S	FSV3044	101509	01-17-2024	01-16-2025





Report No.: EED32Q81374701 Page 10 of 43

			100		100	
310	Semi-anechoic	Chamber (2)- Rad	diated distu	rbance Test		
Equipment	Manufacturer	Model No.	Serial Number	Cal. date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)	
3M Chamber & Accessory  Equipment	TDK	SAC-3		05/22/2022	05/21/2025	
Receiver	R&S	ESCI7	100938-	09/07/2024	09/06/2025	
Spectrum Analyzer	R&S	FSV40	101200	07/18/2024	07/17/2025	
TRILOG Broadband Antenna	schwarzbeck	VULB 9163	9163-618	05/22/2022	05/21/2025	
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-076	04/16/2024	04/15/2025	
Microwave Preamplifier	Tonscend	EMC051845SE	980380	12/14/2023	12/13/2024	
Horn Antenna	A.H.SYSTEMS	SAS-574	374	07/02/2023	07/01/2026	
Horn Antenna	ETS-LINGREN	BBHA 9120D	9120D- 1869	04/16/2024	04/15/2025	
Preamplifier	Agilent	11909A	12-1	03/22/2024	03/21/2025	
Preamplifier	CD	PAP-1840-60	6041.6042	06/19/2024	06/18/2025	
Test software	Fara	EZ-EMC	EMEC- 3A1-Pre		_ @	
Cable line	Fulai(7M)	SF106	5219/6A			
Cable line	Fulai(6M)	SF106	5220/6A	(	<u> </u>	
Cable line	Fulai(3M)	SF106	5216/6A			
Cable line	Fulai(3M)	SF106	5217/6A	(in	(%	













Report No. : EED32Q81374701 Page 11 of 43

		3M full-anechoi	c Chamber		
Equipment	Manufacturer	Model No.	Serial Number	Cal. Date (mm-dd-yyyy)	Cal. Due date (mm-dd-yyyy)
Fully Anechoic Chamber	TDK	FAC-3		01-09-2024	01-08-2027
Receiver	Keysight	N9038A	MY57290136	01-09-2024	01-08-2025
Spectrum Analyzer	Keysight	N9020B	MY57111112	01-29-2024	01-28-2025
Spectrum Analyzer	Keysight	N9030B	MY57140871	01-23-2024	01-22-2025
TRILOG Broadband Antenna	Schwarzbeck	VULB 9163	9163-1148	04-28-2024	04-27-2025
Horn Antenna	Schwarzbeck	BBHA 9170	9170-832	04-16-2024	04-15-2025
Horn Antenna	ETS-LINDGREN	3117	57407	07-03-2024	07-02-2025
Preamplifier	EMCI	EMC001330	980563	03-08-2024	03-07-2025
Preamplifier	Tonscend	TAP-011858	AP21B806112	07-18-2024	07-17-2025
Preamplifier	Tonscend	EMC051845SE	980380	12-14-2023	12-13-2024
Communication test set	R&S	CMW500	102898	12-14-2023	12-13-2024
Temperature/ Humidity Indicator	biaozhi	GM1360	EE1186631	04-07-2024	04-06-2025
RSE Automatic test software	JS Tonscend	JS36-RSE	V4.0.0.0	(C))	
Cable line	Times	SFT205-NMSM-2.50M	394812-0001		
Cable line	Times	SFT205-NMSM-2.50M	394812-0002	(	<u></u>
Cable line	Times	SFT205-NMSM-2.50M	394812-0003		
Cable line	Times	SFT205-NMSM-2.50M	393495-0001		
Cable line	Times	EMC104-NMNM-1000	SN160710		(6)
Cable line	Times	SFT205-NMSM-3.00M	394813-0001		
Cable line	Times	SFT205-NMNM-1.50M	381964-0001		
Cable line	Times	SFT205-NMSM-7.00M	394815-0001	(	(1)
Cable line	Times	HF160-KMKM-3.00M	393493-0001		

错误!未找到引用源。错误!未找到引用源。错误!未找到引用源。



Report No.: EED32Q81374701 Page 12 of 43

### 6 Test results and Measurement Data

### 6.1 Antenna Requirement

Standard requirement: 47 CFR Part 15C Section 15.203 /247(c)

15.203 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, 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.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

**EUT Antenna:** Please see Internal photos

The antenna is PCB antenna. The best case gain of the antenna is -1.376dBi.







# 6.2 Maximum Conducted Output Power

10.9	1047	
Test Requirement:	47 CFR Part 15C Section 15.247 (b)(3)	
Test Method:	ANSI C63.10 2013	
Test Setup:		
	Control Compulss Power Supply Antenna Power Supply Table  Table  RF test System System Instrument	
	Remark: Offset=Cable loss+ attenuation factor.	
Test Procedure:	<ul> <li>a) Set the RBW ≥ DTS bandwidth.</li> <li>b) Set VBW ≥ 3 × RBW.</li> <li>c) Set span ≥ 3 x RBW</li> <li>d) Sweep time = auto couple.</li> <li>e) Detector = peak.</li> <li>f) Trace mode = max hold.</li> <li>g) Allow trace to fully stabilize.</li> <li>h) Use peak marker function to determine the peak amplitude level.</li> </ul>	(C)
Limit:	30dBm	/*>
Test Mode:	Refer to clause 5.3	(4)
Test Results:	Refer to Appendix Bluetooth LE	





Report No.: EED32Q81374701 Page 14 of 43

# 6.3 DTS Bandwidth

3 10. 10	
Test Requirement:	47 CFR Part 15C Section 15.247 (a)(2)
Test Method:	ANSI C63.10 2013
Test Setup:	
	Control Computer Power Supply  Power Supply  Table  RF test System  System  Instrument
	Remark: Offset=Cable loss+ attenuation factor.
Test Procedure:	<ul> <li>a) Set RBW = 100 kHz.</li> <li>b) Set the VBW ≥[3 × RBW].</li> <li>c) Detector = peak.</li> <li>d) Trace mode = max hold.</li> <li>e) Sweep = auto couple.</li> <li>f) Allow the trace to stabilize.</li> <li>g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.</li> </ul>
Limit:	≥ 500 kHz
Test Mode:	Refer to clause 5.3
Test Results:	Refer to Appendix Bluetooth LE







# 6.4 Maximum Power Spectral Density

	100	
	Test Requirement:	47 CFR Part 15C Section 15.247 (e)
	Test Method:	ANSI C63.10 2013
	Test Setup:	
		Control Computer  Control Computer  Power ports  Power port  Table  RF test  System  Instrument  Instrument
a A		Remark: Offset=Cable loss+ attenuation factor.
	Test Procedure:	<ul> <li>a) Set analyzer center frequency to DTS channel center frequency.</li> <li>b) Set the span to 1.5 times the DTS bandwidth.</li> <li>c) Set the RBW to 3 kHz ≤ RBW ≤ 100 kHz.</li> <li>d) Set the VBW ≥ [3 × RBW].</li> <li>e) Detector = peak.</li> <li>f) Sweep time = auto couple.</li> <li>g) Trace mode = max hold.</li> <li>h) Allow trace to fully stabilize.</li> <li>i) Use the peak marker function to determine the maximum amplitude lev within the RBW.</li> <li>j) If measured value exceeds requirement, then reduce RBW (but no lest than 3 kHz) and repeat.</li> </ul>
	Limit:	≤8.00dBm/3kHz
	Test Mode:	Refer to clause 5.3
	Test Results:	Refer to Appendix Bluetooth LE

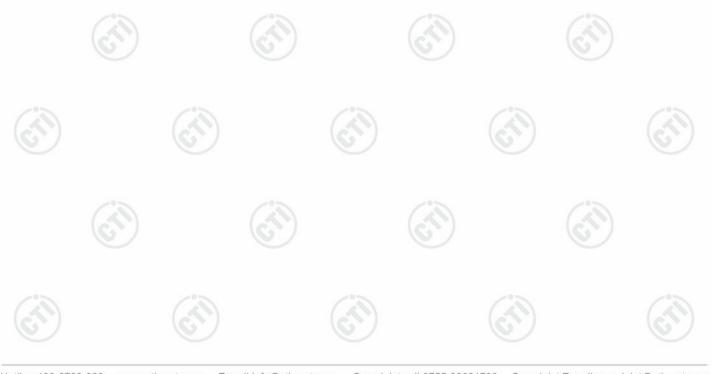






# 6.5 Band Edge measurements and Conducted Spurious Emission

Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10 2013
Test Setup:	Control Control Power Supply  Power Supply  Table  RF test System  Instrument  RF test  System  Instrument
	Remark: Offset=Cable loss+ attenuation factor.
Test Procedure:	a) Set RBW =100KHz. b) Set VBW = 300KHz. c) Sweep time = auto couple. d) Detector = peak. e) Trace mode = max hold. f) Allow trace to fully stabilize. g) Use peak marker function to determine the peak amplitude level.
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test Mode:	Refer to clause 5.3
Test Results:	Refer to Appendix Bluetooth LE

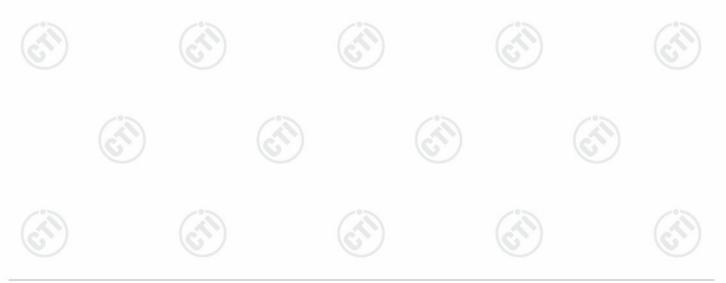






## 6.6 Radiated Spurious Emission & Restricted bands

Test Requirement:	47 CFR Part 15C Sec	tion 1	5.209 and 1	15.205		6	/			
Test Method:	ANSI C63.10 2013									
Test Site:	Measurement Distance: 3m (Semi-Anechoic Chamber)									
Receiver Setup:	Frequency	103	Detector	r RB	W	VBW	Remark			
	0.009MHz-0.090M	Hz	Peak	10k	Hz	30kHz	Peak			
	0.009MHz-0.090M	Hz	Average	) 10k	Hz	30kHz	Average			
	0.090MHz-0.110M	Hz	Quasi-pea	ak 10k	Hz	30kHz	Quasi-peak			
	0.110MHz-0.490M	Hz	Peak	10k	Hz	30kHz	Peak			
	0.110MHz-0.490M	Hz	Average	10k	Hz	30kHz	Average			
	0.490MHz -30MH	lz	Quasi-pea	ak 10k	Hz	30kHz	Quasi-peak			
	30MHz-1GHz		Quasi-pea	ak 100	kHz	300kHz	Quasi-peak			
	Above 1GHz		Peak	1M	Hz	3MHz	Peak			
			Peak	1M	Hz	10kHz	Average			
Limit:	II Fradilancy		d strength ovolt/meter)	Limit (dBuV/m	R	emark	Measurement distance (m)			
	0.009MHz-0.490MHz	240	00/F(kHz)	-	-		300			
	0.490MHz-1.705MHz	240	00/F(kHz)	-		- (8	30			
	1.705MHz-30MHz		30	-	- 16		30			
	30MHz-88MHz	100		40.0	Quasi-peak		3			
	88MHz-216MHz		150	43.5	Quasi-peak		3			
	216MHz-960MHz		200	46.0	Qua	asi-peak	3			
	960MHz-1GHz		500	54.0	Quasi-peak		3			
	Above 1GHz		500	54.0	A۱	verage	3			
	Note: 15.35(b), frequency emissions limit applicable to the peak emission level ra	dB above the oment under	e maximu r test. This	m pe	rmitted av	erage emissio				





Report No.: EED32Q81374701 Page 18 of 43

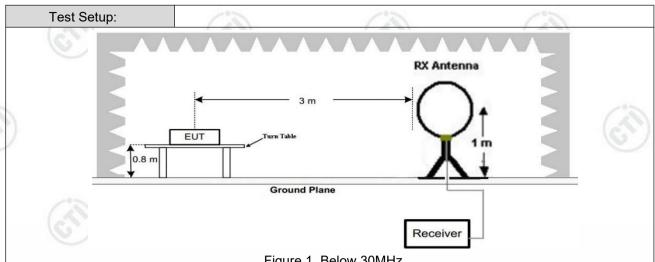
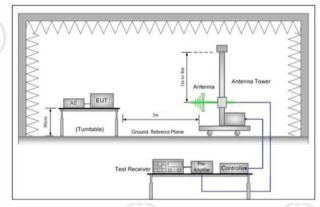


Figure 1. Below 30MHz



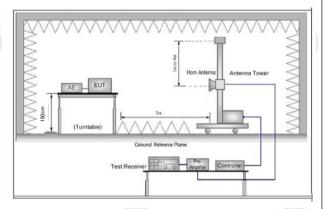


Figure 2. 30MHz to 1GHz

Figure 3. Above 1 GHz

#### Test Procedure:

- 1) Below 1G: The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest
  - 2) Above 1G: The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.

Note: For the radiated emission test above 1GHz:

Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both



Report No. : EED32Q81374701 Page 19 of 43

Test Results:	Pass
Test Mode:	Refer to clause 5.3
	i. Repeat above procedures until all frequencies measured was complete.
	h. The radiation measurements are performed in X, Y, Z axis positionin for Transmitting mode, and found the X axis positioning which it is th worst case.
	g. Test the EUT in the lowest channel (2402MHz),the middle channel (2440MHz),the Highest channel (2480MHz)
	f. If the emission level of the EUT in peak mode was 10dB lower than th limit specified, then testing could be stopped and the peak values of th EUT would be reported. Otherwise the emissions that did not have 10dl margin would be re-tested one by one using peak, quasi-peak of average method as specified and then reported in a data sheet.
	e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
	d. For each suspected emission, the EUT was arranged to its worst cas and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights meter) and the rotatable table was turned from 0 degrees to 36 degrees to find the maximum reading.
	horizontal and vertical polarizations of the antenna are set to make the measurement.



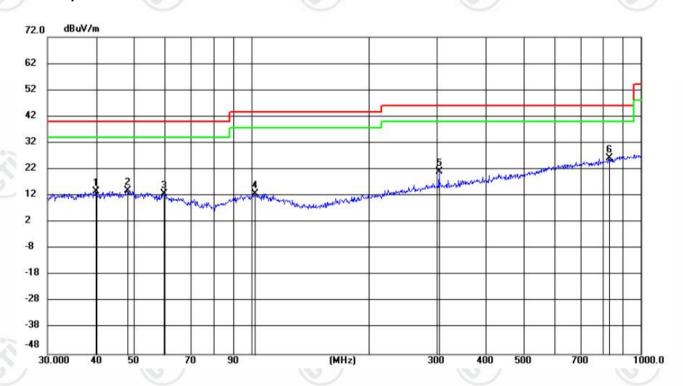


Page 20 of 43 Report No.: EED32Q81374701

### Radiated Spurious Emission below 1GHz:

During the test, the Radiates Emission from 30MHz to 1GHz was performed in all modes, only the worst case highest channel of GFSK 2M was recorded in the report.

Horizontal:



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	4	Antenna Height	Table Degree	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	39.9591	0.03	13.62	13.65	40.00	-26.35	QP	199	352	
2	48.0108	0.44	13.56	14.00	40.00	-26.00	QP	199	352	
3	59.5970	-0.26	12.97	12.71	40.00	-27.29	QP	100	118	
4	102.0371	-0.41	13.12	12.71	43.50	-30.79	QP	100	251	
5	304.2363	4.89	16.23	21.12	46.00	-24.88	QP	100	360	
6 *	830.2545	1.37	24.93	26.30	46.00	-19.70	QP	199	311	







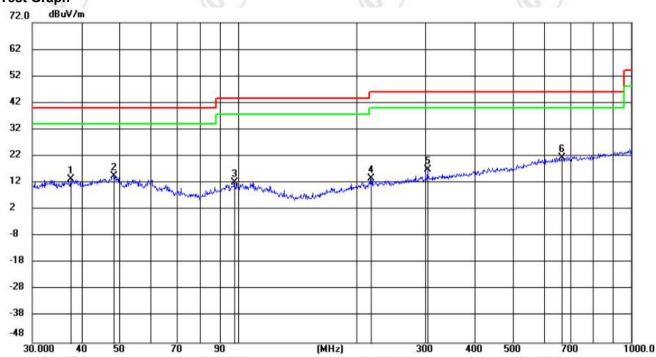




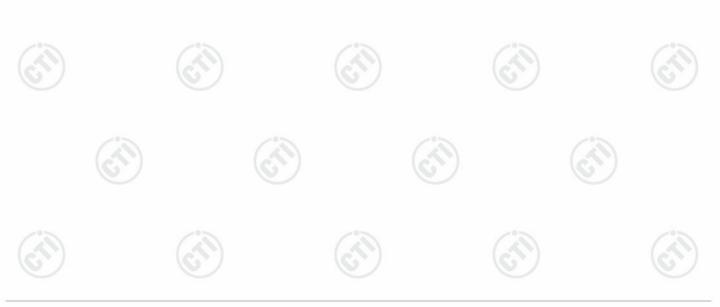


Report No.: EED32Q81374701 Page 21 of 43

Vertical:



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		Antenna Height	Table Degree	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	37.6072	0.45	12.89	13.34	40.00	-26.66	QP	200	229	
2	48.2133	1.60	13.04	14.64	40.00	-25.36	QP	100	240	
3	97.8840	0.44	11.80	12.24	43.50	-31.26	QP	100	312	
4	217.9643	2.23	11.49	13.72	46.00	-32.28	QP	100	46	
5	304.2363	2.63	14.27	16.90	46.00	-29.10	QP	200	188	
6 *	667.4398	1.54	19.94	21.48	46.00	-24.52	QP	200	320	





Report No.: EED32Q81374701 Page 22 of 43

## Radiated Spurious Emission above 1GHz:

During the test, the Radiated Spurious Emission from above 1GHz was performed in all modes, only the worst case BLE 1M was recorded in the report.

Mode:			Bluetooth LE G	FSK Transmit	ting	Channel:		2402 MHz	
NO	Freq. [MHz]	Factor [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity	Remark
1	1139.614	7.40	38.16	45.56	74.00	28.44	Pass	Н	PK
2	1929.0929	11.75	36.56	48.31	74.00	25.69	Pass	Н	PK
3	3200.0133	-18.43	56.43	38.00	74.00	36.00	Pass	Н	PK
4	4804.1203	-12.74	51.13	38.39	74.00	35.61	Pass	Н	PK
5	8755.3837	0.17	45.20	45.37	74.00	28.63	Pass	Н	PK
6	13268.6846	8.89	42.20	51.09	74.00	22.91	Pass	Н	PK
7	1452.2452	8.31	37.16	45.47	74.00	28.53	Pass	V	PK
8	1924.4924	11.62	36.67	48.29	74.00	25.71	Pass	V	PK
9	3366.0244	-16.77	53.74	36.97	74.00	37.03	Pass	V	PK
10	5405.1603	-10.44	48.70	38.26	74.00	35.74	Pass	V	PK
11	9765.451	3.57	44.33	47.90	74.00	26.10	Pass	V	PK
12	13258.6839	9.61	42.07	51.68	74.00	22.32	Pass	V	PK

Mode	:	В	luetooth LE G	FSK Transmi	tting	Channel:		2440 MHz	
NO	Freq. [MHz]	Factor [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity	Remark
1	1297.2297	7.08	38.44	45.52	74.00	28.48	Pass	Н	PK
2	1956.0956	12.02	36.85	48.87	74.00	25.13	Pass	Н	PK
3	3097.0065	-17.74	56.33	38.59	74.00	35.41	Pass	Н	PK
4	4880.1253	-11.96	50.93	38.97	74.00	35.03	Pass	Н	PK
5	7832.3222	-1.71	45.99	44.28	74.00	29.72	Pass	Н	PK
6	15249.8167	13.78	37.34	51.12	74.00	22.88	Pass	Н	PK
7	1154.0154	7.60	37.59	45.19	74.00	28.81	Pass	V	PK
8	1806.8807	9.96	36.51	46.47	74.00	27.53	Pass	V	PK
9	4292.0861	-12.85	50.51	37.66	74.00	36.34	Pass	V	PK
10	6401.2267	-6.32	46.87	40.55	74.00	33.45	Pass	V	PK
11	10269.4846	4.61	44.32	48.93	74.00	25.07	Pass	V	PK
12	16407.8939	9.96	41.08	51.04	74.00	22.96	Pass	V	PK











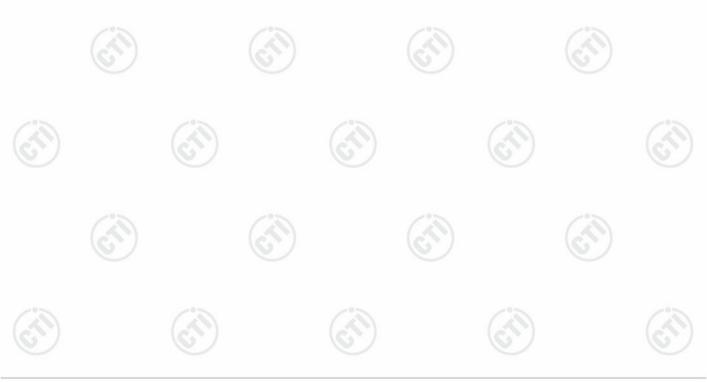


Report No.: EED32Q81374701 Page 23 of 43

_		10-		20%		20%		20-			
	Mode:		E	Bluetooth LE G	FSK Transmi	tting	Channel:		2480 MHz		
	NO	Freq. [MHz]	Factor [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity	Remark	
	1	1405.8406	8.41	37.50	45.91	74.00	28.09	Pass	Н	PK	
3	2	1955.0955	12.08	36.30	48.38	74.00	25.62	Pass	Н	PK	
	3	3153.0102	-18.88	55.70	36.82	74.00	37.18	Pass	Н	PK	
	4	5079.1386	-11.18	49.31	38.13	74.00	35.87	Pass	Н	PK	
	5	6881.2588	-4.41	46.71	42.30	74.00	31.70	Pass	Н	PK	
	6	11963.5976	6.23	43.61	49.84	74.00	24.16	Pass	Н	PK	
	7	1153.6154	7.62	37.39	45.01	74.00	28.99	Pass	V	PK	
	8	1944.4944	12.22	36.79	49.01	74.00	24.99	Pass	V	PK	
	9	3791.0527	-15.54	51.81	36.27	74.00	37.73	Pass	V	PK	
	10	5854.1903	-9.21	48.70	39.49	74.00	34.51	Pass	V	PK	
	11	8562.3708	-0.30	45.56	45.26	74.00	28.74	Pass	V	PK	
6	12	12473.6316	4.99	45.31	50.30	74.00	23.70	Pass	V	PK	

#### Remark:

- 1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
  - Final Test Level =Receiver Reading + Antenna Factor + Cable Factor Preamplifier Factor
- 2) Scan from 9kHz to 25GHz, the disturbance above 10GHz and below 30MHz was very low. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. So, only the peak measurements were shown in the report.

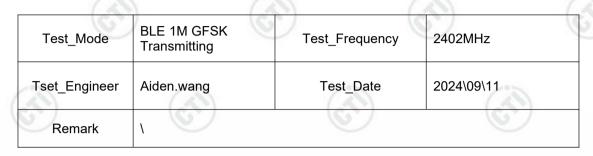


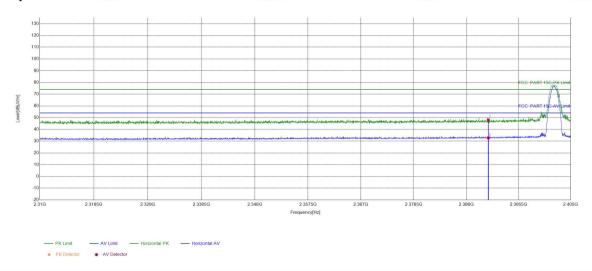




### **Restricted bands:**

### Test plot as follows:





Suspecte	d List								
NO	Freq. [MHz]	Factor [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity	Remark
1	2390	11.29	36.90	48.19	74.00	25.81	PASS	Horizontal	PK
2	2390	11.29	21.45	32.74	54.00	21.26	PASS	Horizontal	AV









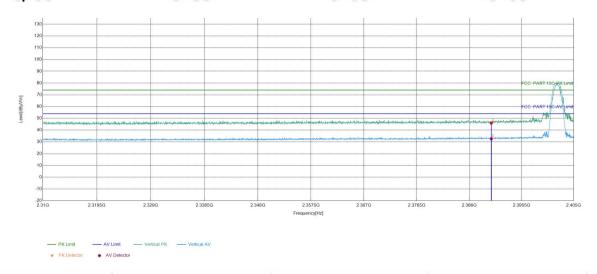




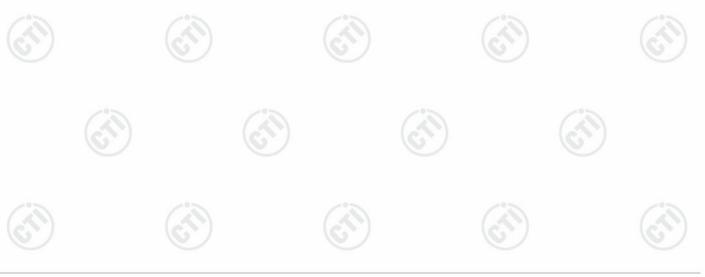


Page 25 of 43 Report No.: EED32Q81374701

651	(0.5)	(0.7)	1637
Test_Mode	BLE 1M GFSK Transmitting	Test_Frequency	2402MHz
Tset_Engineer	Aiden.wang	Test_Date	2024\09\12
Remark	1		



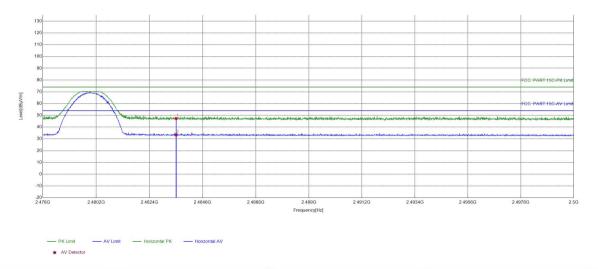
Suspected List										
	NO	Freq. [MHz]	Factor [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity	Remark
ĺ	1	2390	11.29	34.74	46.03	74.00	27.97	PASS	Vertical	PK
	2	2390	11.29	21.33	32.62	54.00	21.38	PASS	Vertical	AV



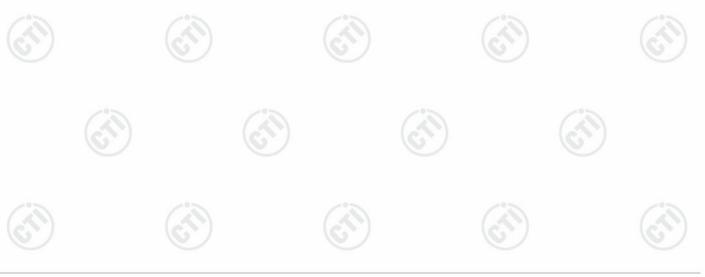


Page 26 of 43 Report No.: EED32Q81374701

0.7	10.	10.	162
Test_Mode	BLE 1M GFSK Transmitting	Test_Frequency	2480MHz
Tset_Engineer	Aiden.wang	Test_Date	2024\09\12
Remark	1		



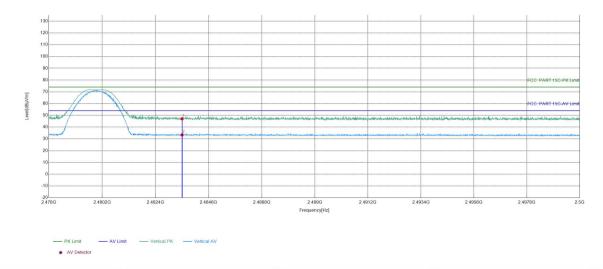
Suspected List										
	NO	Freq. [MHz]	Factor [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity	Remark
	1	2483.5	11.32	36.00	47.32	74.00	26.68	PASS	Horizontal	PK
	2	2483.5	11.32	22.10	33.42	54.00	20.58	PASS	Horizontal	AV



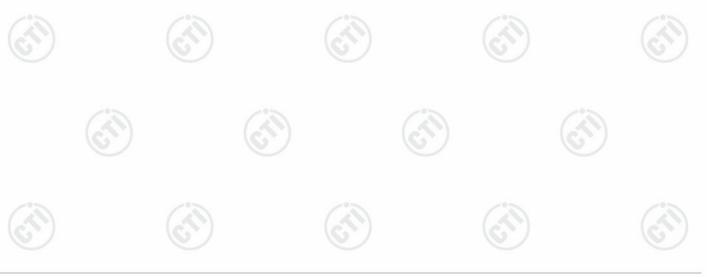


Page 27 of 43 Report No.: EED32Q81374701

651	(6.5)	(0.7)	162
Test_Mode	BLE 1M GFSK Transmitting	Test_Frequency	2480MHz
Tset_Engineer	Aiden.wang	Test_Date	2024\09\12
Remark	1		



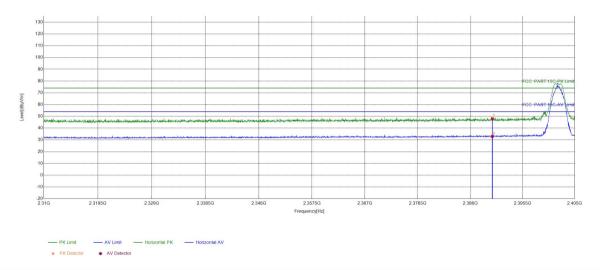
Suspecte	d List								
NO	Freq. [MHz]	Factor [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity	Remark
1	2483.5	11.32	35.77	47.09	74.00	26.91	PASS	Vertical	PK
2	2483.5	11.32	22.09	33.41	54.00	20.59	PASS	Vertical	AV



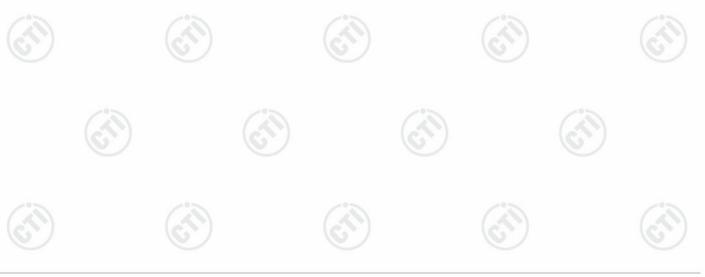




C. T. J.	10.	10.	162
Test_Mode	BLE 2M GFSK Transmitting	Test_Frequency	2402MHz
Tset_Engineer	Aiden.wang	Test_Date	2024\09\12
Remark	1		



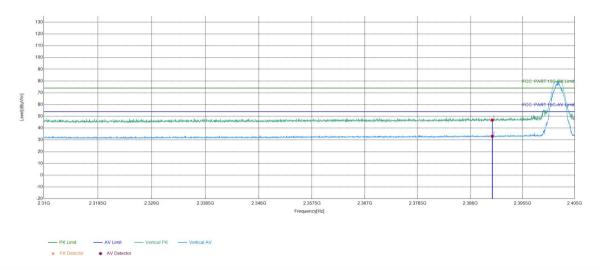
Sı	uspecte	d List								
	NO	Freq. [MHz]	Factor [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity	Remark
	1	2390	11.29	36.77	48.06	74.00	25.94	PASS	Horizontal	PK
	2	2390	11.29	21.64	32.93	54.00	21.07	PASS	Horizontal	AV



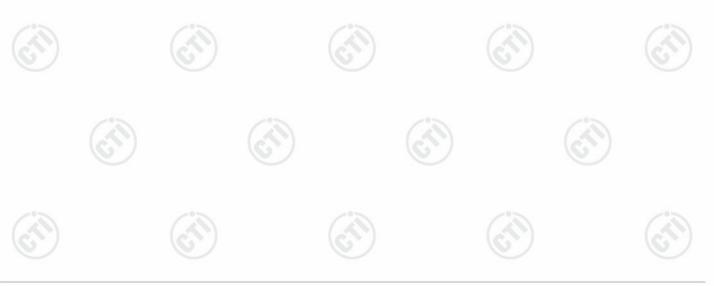


Page 29 of 43 Report No.: EED32Q81374701

C	10.5	(6.7)	16.5
Test_Mode	BLE 2M GFSK Transmitting	Test_Frequency	2402MHz
Tset_Engineer	Aiden.wang	Test_Date	2024\09\12
Remark	1		



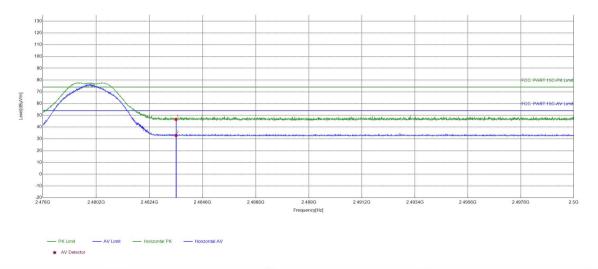
Suspecte	d List								
NO	Freq. [MHz]	Factor [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity	Remark
1	2390	11.29	35.59	46.88	74.00	27.12	PASS	Vertical	PK
2	2390	11.29	21.76	33.05	54.00	20.95	PASS	Vertical	AV



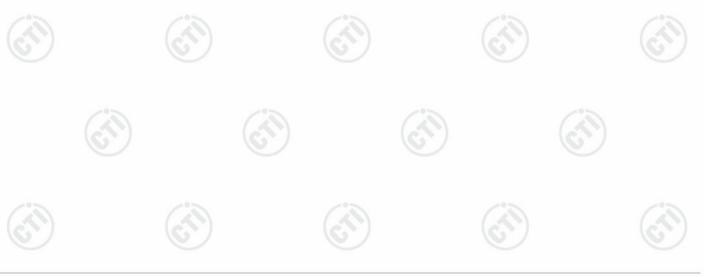


Page 30 of 43 Report No.: EED32Q81374701

651	(0.5)	(0.7-)	1627
Test_Mode	BLE 2M GFSK Transmitting	Test_Frequency	2480MHz
Tset_Engineer	Aiden.wang	Test_Date	2024\09\12
Remark	1		



Suspected List									
NO	Freq. [MHz]	Factor [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity	Remark
1	2483.5	11.32	35.29	46.61	74.00	27.39	PASS	Horizontal	PK
2	2483.5	11.32	21.64	32.96	54.00	21.04	PASS	Horizontal	AV

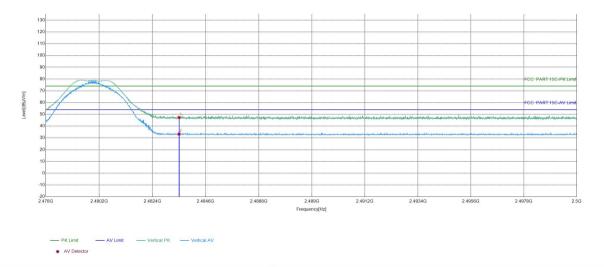




Page 31 of 43 Report No.: EED32Q81374701

651	(0.5)	(0.7-)	1627
Test_Mode	BLE 2M GFSK Transmitting	Test_Frequency	2480MHz
Tset_Engineer	Aiden.wang	Test_Date	2024\09\12
Remark	1		

### Test Graph



Suspected List									
NO	Freq. [MHz]	Factor [dB]	Reading [dBµV]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Result	Polarity	Remark
1	2483.5	11.32	36.07	47.39	74.00	26.61	PASS	Vertical	PK
2	2483.5	11.32	21.92	33.24	54.00	20.76	PASS	Vertical	AV

#### Note:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading -Correct Factor

Correct Factor = Preamplifier Factor - Antenna Factor - Cable Factor





















# **Appendix Bluetooth LE**





Refer to Appendix: Bluetooth LE of EED32Q81374701

















































































