



Report No.: TW2012274E File reference No.: 2021-01-04

Applicant: Shenzhen Aukeyhi Technology Co., Ltd.

Product: Smart Bracelet

Model No.: SB01,SB02,SB03,SB04,SB05,SB06,SB07,SB08,SB09,SB10

Trademark: AFAC

Test Standards: FCC Part 15.247

Test result:

It is herewith confirmed and found to comply with the

requirements set up by ANSI C63.10, FCC Part 15.247 for the

evaluation of electromagnetic compatibility

Approved By

Jack Chung

Jack Chung

Manager

Dated: January 04, 2021

Results appearing herein relate only to the sample tested The technical reports is issued errors and omissions exempt and is subject to withdrawal at

SHENZHEN TIMEWAY TESTING LABORATORIES

Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China

Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timeway-lab.com

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Special Statement:

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAL. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

CNAL-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAL/AC01:2002 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of testing Laboratories.

FCC-Registration No.: 744189

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 744189.

Industry Canada (IC) — Registration No.:5205A

The EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 5205A.

A2LA (Certification Number:5013.01)

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (A2LA). Certification Number:5013.01

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Test Report Conclusion

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1.0 General Details

1.1 Test Lab Details

Name: SHENZHEN TIMEWAY TESTING LABORATORIES.

Address: Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le

Village, Nanshan District, Shenzhen, China

Telephone: (755) 83448688 Fax: (755) 83442996

Site Listed with Federal Communications commission (FCC)

Registration Number: 744189 For 3m Anechoic Chamber

Site Listed with Industry Canada of Ottawa, Canada

Registration Number: IC: 5205A For 3m Anechoic Chamber

1.2 Applicant Details

Applicant: Shenzhen Aukeyhi Technology Co., Ltd.

Address: Room 201, Block A, Qianwan 1st Road, Qianhai Shenzhen & Hongkong Corperative

District, Shenzhen, P.R. China

Telephone: 13428436560

Fax: --

1.3 Description of EUT

Product: Smart Bracelet

Manufacturer: Shenzhen Aukeyhi Technology Co., Ltd.

Address: Room 201, Block A, Qianwan 1st Road, Qianhai Shenzhen & Hongkong

Corperative District, Shenzhen, P.R. China

Brand Name: AFAC Additional Brand Name: N/A

Model Number: SB01,SB02,SB03,SB04,SB05,SB06,SB07,SB08,SB09,SB10

Test Model No.: SB01

Remark: These models are identical in interior structure, electrical circuits and components, different model

names for the marketing requirement.

Hardware Version: S17 Software Version: S17 Serial No.: S17GAV00374

Type of Modulation GFSK (Bluetooth BLE)

Frequency range 2402-2480MHz Frequency Selection By software

The report refers only to the sample tested and does not apply to the bulk.

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Channel Number 40 Input Voltage: DC5V

Battery: DC3.7V, 0.333Wh,90mAh Li-ion battery

1.4 Submitted Sample: 1 Samples

1.5 Test Duration

2020-12-22 to 2021-01-04

1.6 Test Uncertainty

Conducted Emissions Uncertainty = 3.6dB

Radiated Emissions below 1GHz Uncertainty =4.7dB

Radiated Emissions above 1GHz Uncertainty =6.0dB

Conducted Power Uncertainty = 6.0dB

Occupied Channel Bandwidth Uncertainty =5%

Note: The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

1.7 Test Engineer

The sample tested by

Print Name: Andy Xing

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2.0 Test Equipment					
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	R&S	ESPI 3	100379	2020-06-23	2021-06-22
TWO Line-V-NETW	R&S	EZH3-Z5	100294	2020-06-23	2021-06-22
TWO Line-V-NETW	R&S	EZH3-Z5	100253	2020-06-23	2021-06-22
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2020-06-23	2021-06-22
Loop Antenna	EMCO	6507	00078608	2020-06-23	2021-06-22
Spectrum	R&S	FSIQ26	100292	2020-06-23	2021-06-22
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2020-06-23	2021-06-22
Horn Antenna	R&S	BBHA 9120D	9120D-631	2018-07-09	2021-07-08
Power meter	Anritsu	ML2487A	6K00003613	2020-06-23	2021-06-22
Power sensor	Anritsu	MA2491A	32263	2020-06-23	2021-06-22
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2018-07-04	2021-07-03
9*6*6 Anechoic			N/A	2018-02-07	2021-02-06
EMI Test Receiver	RS	ESVB	826156/011	2020-06-23	2021-06-22
EMI Test Receiver	RS	ESH3	860904/006	2020-06-23	2021-06-22
Spectrum	HP/Agilent	ESA-L1500A	US37451154	2020-06-23	2021-06-22
Spectrum	HP/Agilent	E4407B	MY50441392	2020-06-23	2021-06-22
Spectrum	RS	FSP	1164.4391.38	2020-01-18	2021-01-17
RF Cable	Zhengdi	ZT26-NJ-NJ-8M/FA		2020-06-23	2021-06-22
RF Cable	Zhengdi	7m		2020-06-23	2021-06-22
RF Switch	EM	EMSW18	060391	2020-06-23	2021-06-22
Pre-Amplifier	Schwarebeck	BBV9743	#218	2020-06-23	2021-06-22
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2020-06-23	2021-06-22
LISN	SCHAFFNER	NNB42	00012	2020-01-07	2021-01-06

2.2 Automation Test Software

For Conducted Emission Test

Name	Version
EZ-EMC	Ver.EMC-CON 3A1.1

For Radiated Emissions

Name	Version
EMI Test Software BL410-EV18.91	V18.905
EMI Test Software BL410-EV18.806 High Frequency	V18.06

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3.0 **Technical Details**

3.1 **Summary of test results**

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.107 & 15.207	Conducted Emission Test	PASS	Complies
FCC Part 15 Subpart C Paragraph 15.247(a)(2) Limit	Spectrum bandwidth of a Orthogonal Frequency Division Multiplex System Limit: 6dB bandwidth>500kHz	PASS	Complies
FCC Part 15, Paragraph 15.247(b)	Maximum peak output power Limit: max. 30dBm	PASS	Complies
FCC Part 15, Paragraph 15.109,15.205 & 15.209	Transmitter Radiated Emission Limit: Table 15.209	PASS	Complies
FCC Part 15, Paragraph 15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Complies
FCC Part 15, Paragraph 15.247(d)	Out of Band Emission and Restricted Band Radiation Limit: 20dB less than peak value of fundamental frequency Restricted band limit: Table 15.209	PASS	Complies

3.2 **Test Standards**

FCC Part 15 Subpart & Subpart C, Paragraph 15.247

EUT Modification 4.0

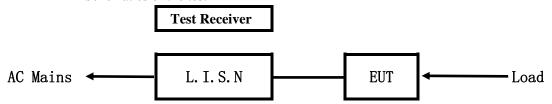
No modification by SHENZHEN TIMEWAY TESTING LABORATORIES.

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5.Power Line Conducted Emission Test

5.1 Schematics of the test

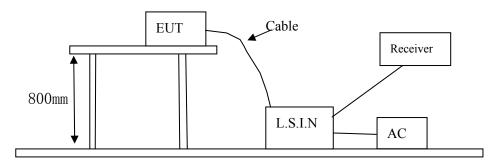


EUT: Equipment Under Test

5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2013. The Frequency spectrum From 0.15 MHz to 30MHz was investigated. The LISN used was 500hm/50uH as specified by section 5.1 of ANSI C63.10 –2013.

Test Voltage: 120V~, 60Hz Block diagram of Test setup



5.3 Configuration of The EUT

The EUT was configured according to ANSI C63.10-2013. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

A. EUT

Device	Manufacturer		Model	FCC ID
Court Donath		Shenzhen Aukeyhi	SB01,SB02,SB03,SB04,SB05,	2AYA4-SB01
Smart Brac	eiei	Technology Co., Ltd.	SB06,SB07,SB08,SB09,SB10	2A1A4-3B01

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B. Internal Device

Device	Manufacturer	Model	Rating

C. Peripherals

Device	Manufacturer	Model	Rating
Power Supply	KEYU	KA23-0502000DEU	Input: 100-240V~, 50/60Hz, 0.35A;
			Output: DC5V, 2A

5.4 EUT Operating Condition

Operating condition is according to ANSI C63.10-2013.

- A Setup the EUT and simulators as shown on follow
- B Enable AF signal and confirm EUT active to normal condition

5.5 Power line conducted Emission Limit according to Paragraph 15.207

Frequency	Class B Lim	nits (dB µ V)
(MHz)	Quasi-peak Level	Average Level
0.15 ~ 0.50	66.0~56.0*	56.0~46.0*
0.50 ~ 5.00	56.0	46.0
5.00 ~ 30.00	60.0	50.0

Notes:

- 1. *Decreasing linearly with logarithm of frequency.
- 2. The tighter limit shall apply at the transition frequencies

5.6 Test Results

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

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A: Conducted Emission on Live Terminal (150kHz to 30MHz)

EUT Operating Environment

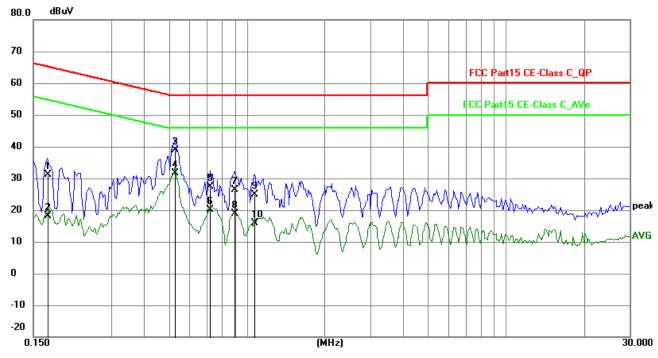
Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 KPa

EUT set Condition: Keep Bluetooth Transmitting

Equipment Level: Class B

Results: PASS

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1695	21.45	9.77	31.22	64.98	-33.76	QP	Р
2	0.1695	8.25	9.77	18.02	54.98	-36.96	AVG	Р
3	0.5283	29.22	9.77	38.99	56.00	-17.01	QP	Р
4	0.5283	21.96	9.77	31.73	46.00	-14.27	AVG	Р
5	0.7233	17.54	9.78	27.32	56.00	-28.68	QP	Р
6	0.7233	10.24	9.78	20.02	46.00	-25.98	AVG	Р
7	0.8988	16.68	9.79	26.47	56.00	-29.53	QP	Р
8	0.8988	9.05	9.79	18.84	46.00	-27.16	AVG	Р
9	1.0704	15.04	9.79	24.83	56.00	-31.17	QP	Р
10	1.0704	6.12	9.79	15.91	46.00	-30.09	AVG	Р

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B: Conducted Emission on Neutral Terminal (150kHz to 30MHz)

EUT Operating Environment

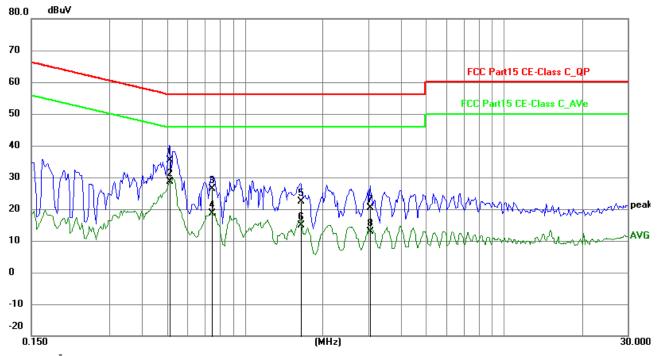
Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 KPa

EUT set Condition: Keep Bluetooth Transmitting

Equipment Level: Class B

Results: Pass

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.5127	25.57	9.77	35.34	56.00	-20.66	QP	Р
2	0.5127	18.77	9.77	28.54	46.00	-17.46	AVG	Р
3	0.7467	16.52	9.78	26.30	56.00	-29.70	QP	Р
4	0.7467	8.95	9.78	18.73	46.00	-27.27	AVG	Р
5	1.6437	12.60	9.80	22.40	56.00	-33.60	QP	Р
6	1.6437	5.13	9.80	14.93	46.00	-31.07	AVG	Р
7	3.0429	10.60	9.85	20.45	56.00	-35.55	QP	Р
8	3.0429	3.14	9.85	12.99	46.00	-33.01	AVG	Р

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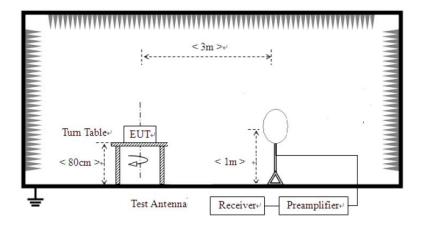


6 Radiated Emission Test

- 6.1 Test Method and test Procedure:
- (1) The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No.744189
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10-2013.
- (3) The frequency spectrum from 30 MHz to 25 GHz was investigated. All readings from 30 MHz to 1 GHz are Quasi-peak values with a resolution bandwidth of 120 kHz. For measurement above 1GHz, peak values with RBW=1MHz VBW=3MHz and PK detector. AV value with RBW=1MHz, VBW=3MHz and RMS detector. Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "QP" in the data table.
- (6) The antenna polarization: Vertical polarization and Horizontal polarization.

Block diagram of Test setup

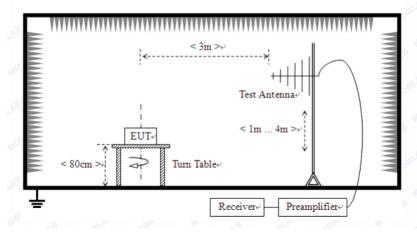
For radiated emissions from 9kHz to 30MHz



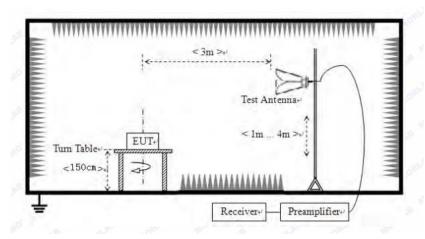
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For radiated emissions from 30MHz to1GHz



For radiated emissions above 1GHz



6.2 Configuration of The EUT Same as section 5.3 of this report

6.3 EUT Operating Condition Same as section 5.4 of this report.

6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

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Frequencies in restricted band are complied to limit on Paragraph 15.209 and 15.109

Frequency Range (MHz)	Distance (m)	Field strength (dB μ V/m)
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

Note:

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- 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
- 2. In the Above Table, the higher limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT
- 4. This is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position.
- 5. Battery full charged during tests.

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Test result

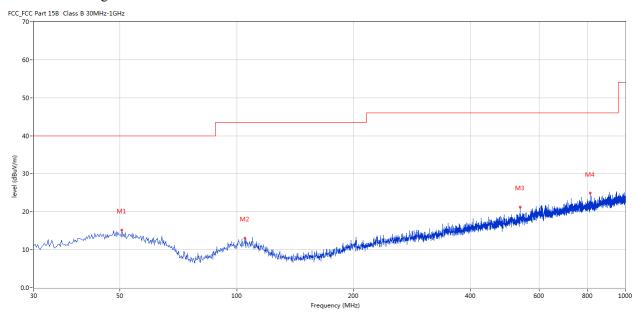
General Radiated Emission Data and Harmonics Radiated Emission Data

Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Bluetooth Transmitting

Results: Pass

Test Figure:



No.	Frequency	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit			(cm)		
					(dB)					
1	50.607	15.10	-11.39	40.0	-24.90	Peak	185.00	100	Horizontal	Pass
2	104.914	13.11	-13.23	43.5	-30.39	Peak	0.00	100	Horizontal	Pass
3	535.729	21.21	-6.43	46.0	-24.79	Peak	19.00	100	Horizontal	Pass
4	812.594	24.86	-2.94	46.0	-21.14	Peak	241.00	100	Horizontal	Pass

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Test result

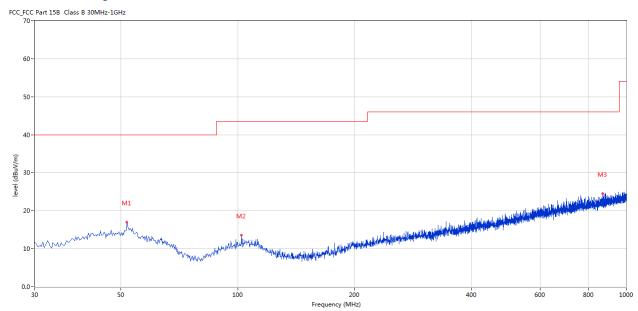
General Radiated Emission Data and Harmonics Radiated Emission Data

Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: **Keep Transmitting**

Results: Pass

Test Figure:



No.	Frequency	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit			(cm)		
					(dB)					
1	51.820	16.95	-11.42	40.0	-23.05	Peak	29.00	100	Vertical	Pass
2	102.247	13.52	-13.42	43.5	-29.98	Peak	101.00	100	Vertical	Pass
3	869.810	24.53	-2.05	46.0	-21.47	Peak	86.00	100	Vertical	Pass

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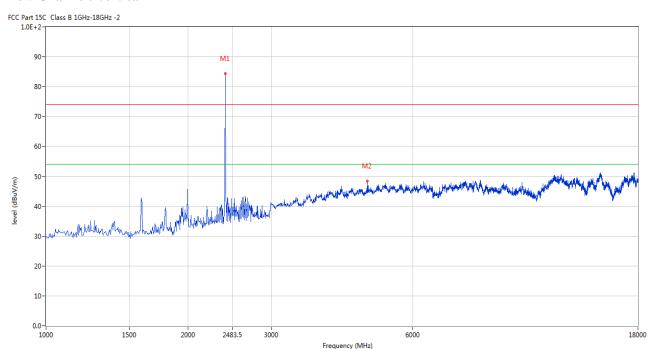
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Please refer to the following test plots for details:

Low Channel: Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2402.500	84.42	-3.57	74.0	10.42	Peak	214.00	100	Vertical	N/A
2	4803.750	48.45	3.13	74.0	-25.55	Peak	204.00	100	Vertical	Pass

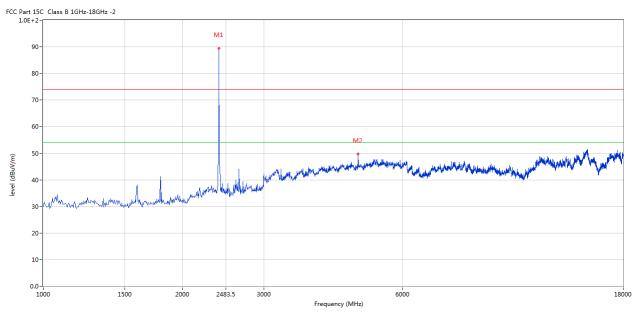
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Low Channel: Horizontal



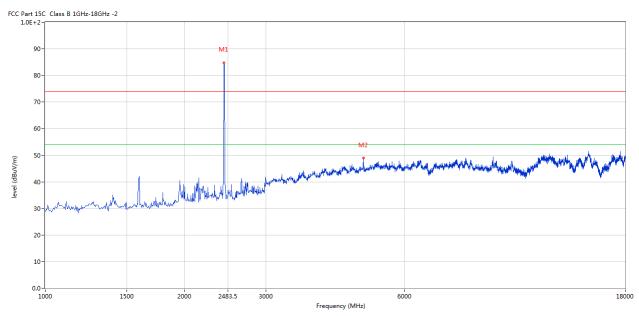
No.	Frequency	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)			(cm)		
1	2402.500	89.54	-3.57	74.0	15.54	Peak	274.00	100	Horizontal	N/A
2	4803.750	49.81	3.13	74.0	-24.19	Peak	342.00	100	Horizontal	Pass

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Middle Channel: Vertical



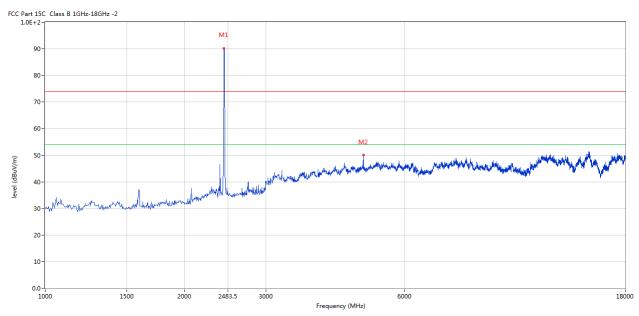
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2436.500	84.78	-3.57	74.0	10.78	Peak	208.00	100	Vertical	N/A
2	4880.250	48.93	3.20	74.0	-25.07	Peak	213.00	100	Vertical	Pass

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Middle Channel: Horizontal



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2436.500	90.30	-3.57	74.0	16.30	Peak	234.00	100	Horizontal	N/A
2	4880.250	50.04	3.20	74.0	-23.96	Peak	221.00	100	Horizontal	Pass

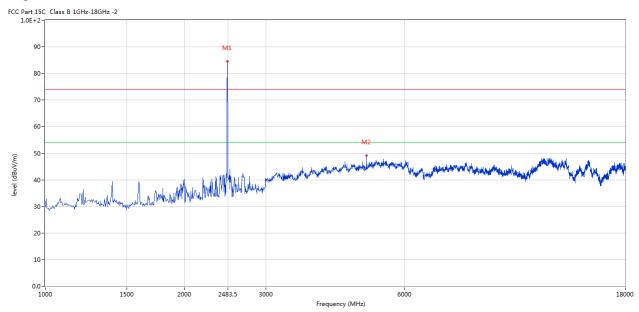
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High Channel: Vertical



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2479.000	84.62	-3.57	74.0	10.62	Peak	209.00	100	Vertical	N/A
2	4956.750	49.09	3.35	74.0	-24.91	Peak	7.00	100	Vertical	Pass

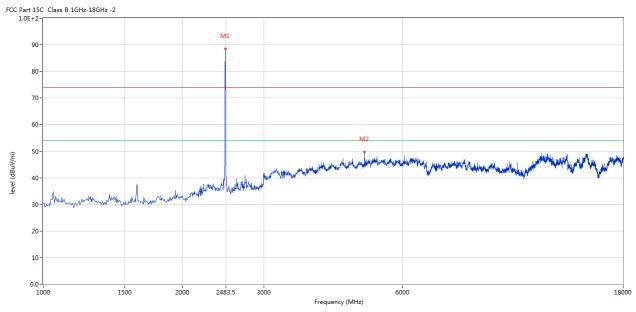
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High Channel: Horizontal



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	2479.000	88.42	-3.57	74.0	14.42	Peak	223.00	100	Horizontal	N/A
2	4961.000	49.70	3.36	74.0	-24.30	Peak	345.00	100	Horizontal	Pass

Note: 1. Result Level = Reading + Factor

- 2. Factor= AF + Cable Loss- Preamp
- 3. Margin = Result– Limit
- 4. For radiated Emissions from 18-25GHz and below 30MHz, it is only the floor noise.
- 5. The peak value less than the AV limit, no necessary to take down the AV measurement result.

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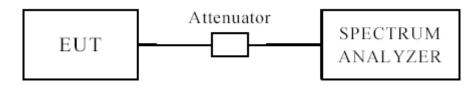
Date: 2021-01-04

Report No.: TW2012274E



7.0 6dB Bandwidth Measurement

7.1 Test Setup



7.2 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is >500 kHz

7.3 Test Procedure

- 1. Set resolution bandwidth (RBW) = 100 kHz
- 2. Set the video bandwidth (VBW) \geq 3 x RBW.
- 3. Detector = Peak.
- 4. Trace mode = \max hold.
- 5. Sweep = auto couple.
- 6. Allow the trace to stabilize.
- 7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

7.4 Test Result

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6dB BW

ub b i i								
EUT		Smart	Bracelet	Mod	lel		SB01	
Mode		Keep Tr	ansmitting	g Test Volt		Test Voltage DC3.7V		DC3.7V
Temperati	ure	24 d	leg. C,	Humi	dity		56% RH	
Channel	Channel Frequency (MHz)		6 dB Bandwidth (kHz)			num Limit MHz)	Pass/ Fail	
Low		2402	739 0.5		0.5		Pass	
Middle		2440	739		0.5		Pass	
High	•	2480 739				0.5	Pass	

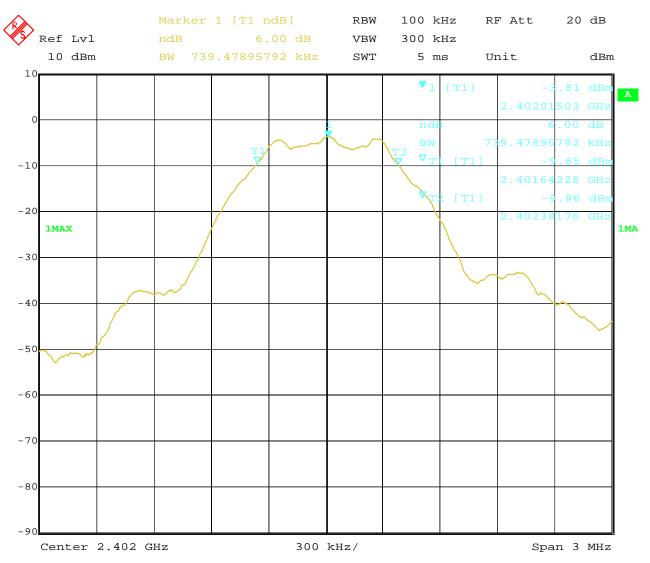
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Test Figure:

1. Condition: Low Channel



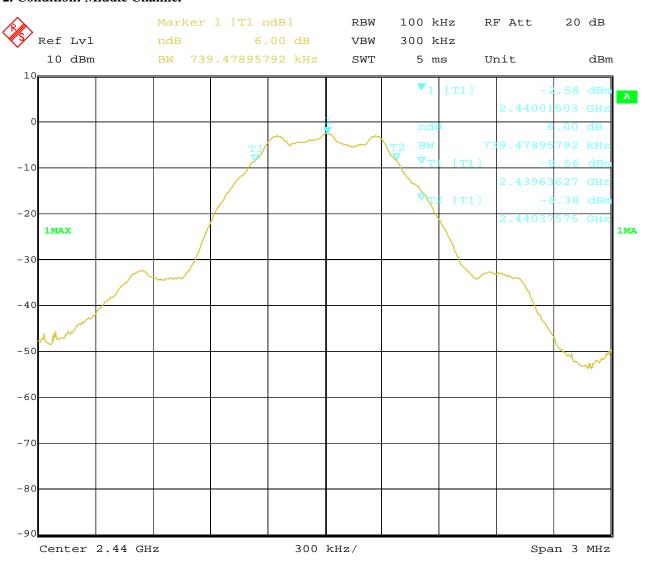
Date: 24.DEC.2020 13:59:07

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2. Condition: Middle Channel



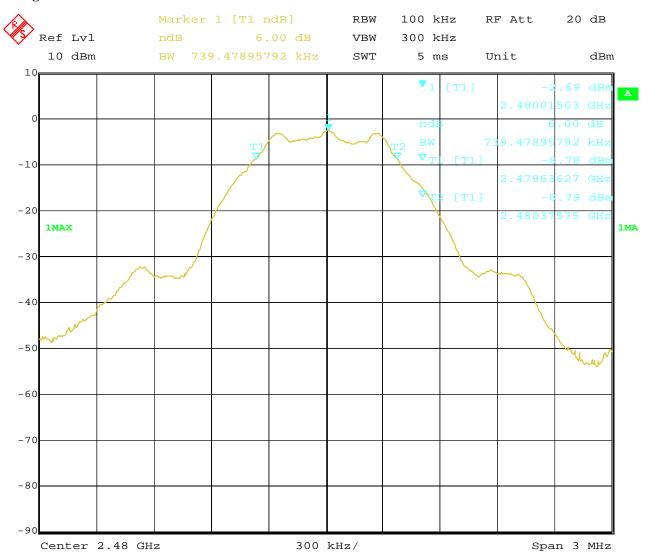
Date: 24.DEC.2020 13:59:56

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3. High Channel



Date: 24.DEC.2020 14:00:35

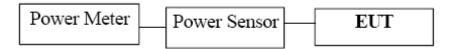
Date: 2021-01-04



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8. Maximum Output Power

8.1 Test Setup



8.2 Limits of Maximum Output Power

The Maximum Output Power Measurement is 30dBm.

8.3 Test Procedure

The RF power output was measured with a Power meter connected to the RF Antenna connector (conducted measurement) while EUT was operating in transmit mode at the appropriate centre frequency.

Note: the Peak power were measured.

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8.4Test Results

EUT		Smart	Bracelet	Model	SI	301	
Mode		Keep Tı	ransmitting	Test Voltage	DC3.7V		
Temperatu	re	24 deg. C, Humidity		56% RH			
Channel	Channel Frequency		Max. Power O	Output (dBm)	Peak Power Limit	Pass/ Fail	
Chamier		(MHz)	Pea	ık	(dBm)		
Low		2402	-3.1	11	30	Pass	
Middle		2440	-1.8	35	30	Pass	
High		2480	-1.9	99	30	Pass	

Note: 1. the result basic equation calculation as follow:

Max. Power Output = Power Reading + Cable loss + Attenuator

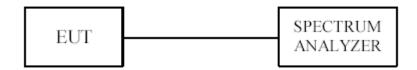
Date: 2021-01-04



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9. Power Spectral Density Measurement

9.1 Test Setup



9.2 Limits of Power Spectral Density Measurement

The Maximum Power Spectral Density Measurement is 8dBm/3kHz.

9.3 Test Procedure

- 1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.
- 2. Set the RBW = 3 kHz.
- 3. Set the VBW \geq 10 kHz.
- 4. Set the span to 1.5 times the DTS channel bandwidth.
- 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.
- 11. The resulting peak PSD level must be $\leq 8 \text{ dBm/3kHz}$.

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9.4Test Result

EUT			Smart Brace	let	Mod	el		SB01
Mode		K	eep Transmit	tting	Test Vol	ltage		DC3.7V
Temperat	ure		24 deg. C,		Humic	lity		56% RH
Channel	Re	Power ading	Cable Loss (dB) Final Power Spectro Density (dBm/3kH:		-	Maxir Lim (dBm/3	nit	Pass/ Fail
Low	-1	9.25	0.2	-19	9.05	8		Pass
Middle	-1	-18.08 0.2		-1	7.88	8		Pass
High	-1	8.12	0.2	-17.92		8		Pass

Note: The result basic equation calculation as follow:

Peak Power Output = Peak Power Reading + Cable loss

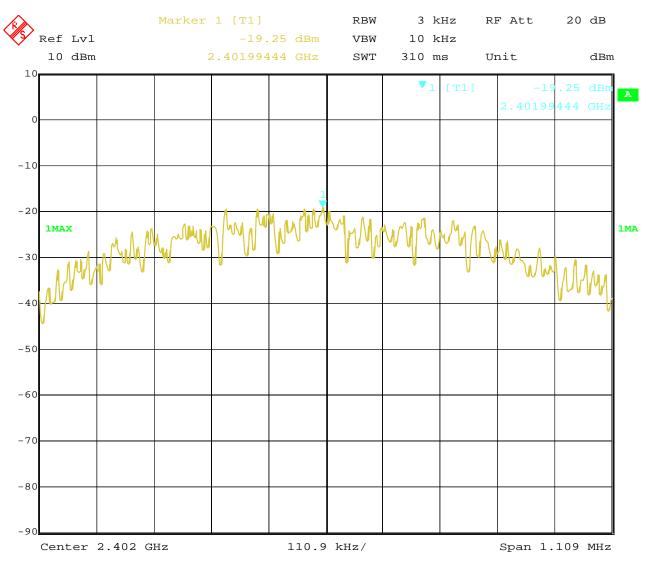
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Test Figure:

1. Condition: Low Channel



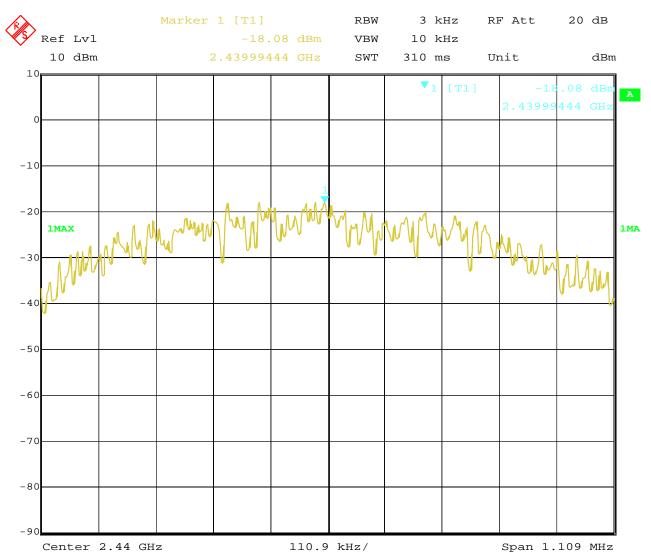
Date: 24.DEC.2020 14:03:51

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2. Condition: Middle Channel



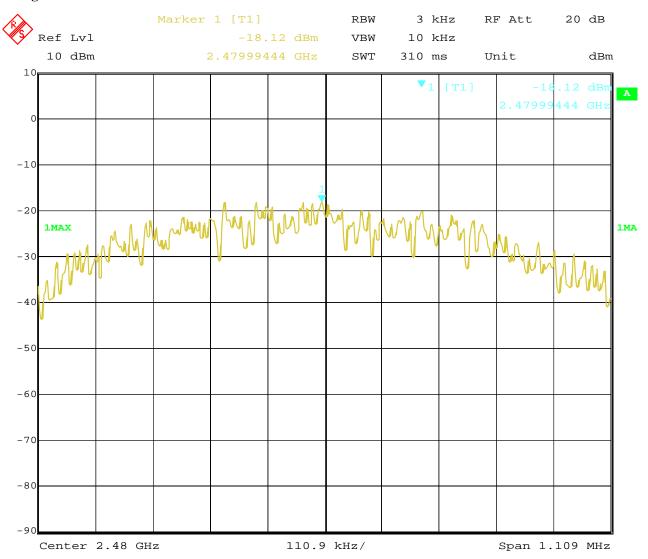
Date: 24.DEC.2020 14:03:04

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3. High Channel



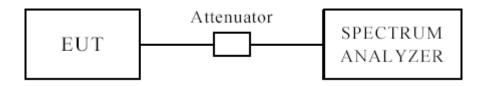
Date: 24.DEC.2020 14:02:09

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10 Out of Band Measurement 10.1 Test Setup for band edge



The restricted band requirement based on radiated emission test; please see the clause 6 for the test setup

10.2 Limits of Out of Band Emissions Measurement

- 1. Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).
- 2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

10.3 Test Procedure

For signals in the restricted bands above and below the 2.4-2.483GHz allocated band a measurement was made of Radiated emission test. (Peak values with RBW=1MHz, VBW=3MHz and PK detector. AV value with RBW=1MHz, VBW=3MHz and RMS detector)

For bandage test, the spectrum set as follows: RBW=100 kHz, VBW=300 kHz. A conducted measurement used

10.4 Test Result

Please see next pages

Note: 1. For band-edge measurement, the frequency from 30MHz-25GHz was tested. And It met the FCC rule.

2.This is a handhold device. The restricted band test should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position.

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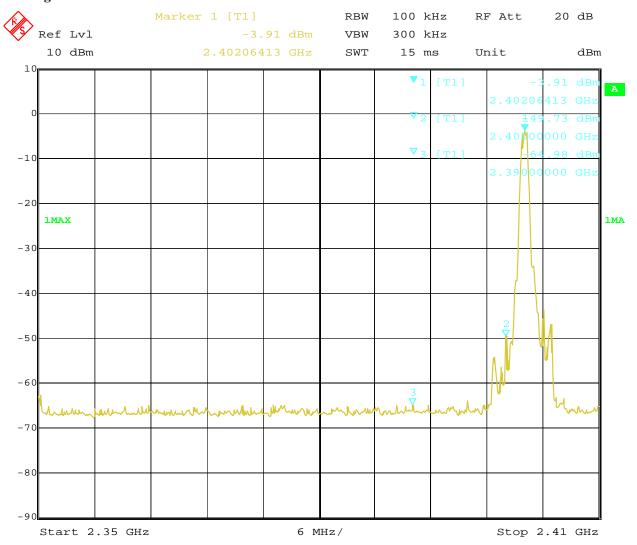
Date: 2021-01-04



10.4 Band-edge Measurement

EUT	Smart Bracelet	Model	SB01
Mode	Keep Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



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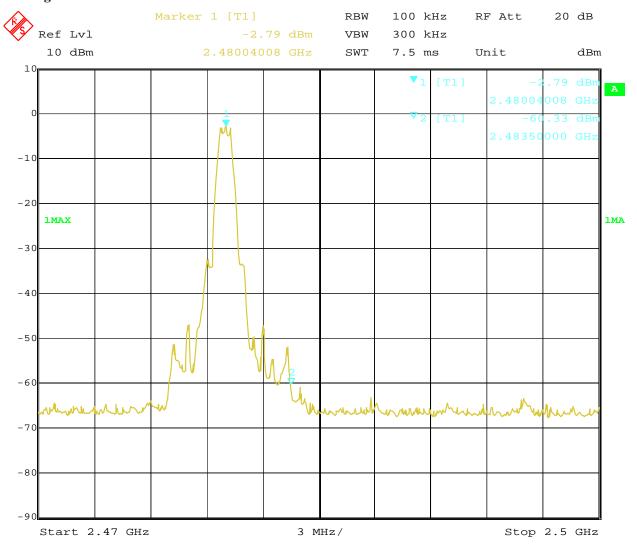
Date: 2021-01-04



10.4 Band-edge Measurement

EUT	Smart Bracelet	Model	SB01
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



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10.4 Restrict Band Measurement

	EUT	S	mart Bra	celet		Model			SB01	
	Mode	Ke	ep Transı	mitting		Test Volta	ge		DC3.7V	:
Te	Temperature Test Pagult:		24 deg. C,			Humidity		56% RH		
Те	est Result:		Pass							
C Part 1 1.0E+	.5C Class B 1GHz-18GHz -2 2-									
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9	0-									
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7	0-									
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1 0.	0-0-0-2350				Frequency (M	Hz)			ANT	2410
3 2 1	Frequency	Results	Factor	Limit	Frequency (M		Table (o)	Height	ANT	2410
3 2 1	0-0-0-2350				Frequency (M Over Limit	Hz)			ANT	2410
3 2 1 0. No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Frequency (M Over Limit (dB)	Hz) Detector	Table (o)	Height (cm)		2410 Verdict
3 2 1 0. No.	Frequency (MHz)	Results (dBuV/m) 87.04	Factor (dB)	Limit (dBuV/m)	Over Limit (dB) 13.04	Detector Peak	Table (o) 321.00	Height (cm)	Horizontal	2410 Verdict
3 2 2 1 1 0 No. 1 1 2 2	Frequency (MHz) 2402.260 2400.025	Results (dBuV/m) 87.04 65.93	Factor (dB) -3.57 -3.57	Limit (dBuV/m) 74.0 74.0	Frequency (M Over Limit (dB) 13.04 -8.07	Detector Peak Peak	Table (o) 321.00 321.00	Height (cm)	Horizontal Horizontal	Verdict N/A Pass
3 2 1 0. No.	Frequency (MHz)	Results (dBuV/m) 87.04	Factor (dB)	Limit (dBuV/m)	Over Limit (dB) 13.04	Detector Peak	Table (o) 321.00	Height (cm)	Horizontal	2410 Verdict

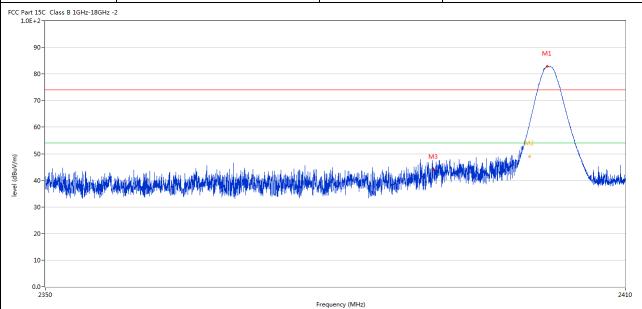
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10.4 Restrict Band Measurement

EUT	Smart Bracelet	Model	SB01
Mode	Keep Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass		



No.	Frequency	Results	Factor	Limit	Over	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit			(cm)		
					(dB)					
1	2401.855	82.85	-3.57	74.0	8.85	Peak	165.00	100	Vertical	N/A
2	2400.025	61.69	-3.57	74.0	-12.31	Peak	165.00	100	Vertical	Pass
2**	2400.025	48.98	-3.57	54.0	-5.02	AV	165.00	100	Vertical	Pass
3	2390.005	43.41	-3.53	74.0	-30.59	Peak	10.00	100	Vertical	Pass

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10.4 Restrict Band Measurement

E	EUT		Smart B	racelet		Model			SB01	
N	/lode	K	eep Tran	smitting		Test Volta	ige		DC3.7	V
Temp	perature		24 deg	g. C,		Humidit	ty		56% RI	Н
Test	Result:		Pas	SS						
CC Part 15C	Class B 1GHz-18GHz	-2								
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80-										
70-										
			1							
60-			_/							
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(EL/N90) 40-10-10-10-10-10-10-10-10-10-10-10-10-10	Frequency	Results			2483.5 Frequency (MF	tz)			ANT Horizontal	

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10.4 Restrict Band Measurement

EU	UT	S	mart Bra	icelet		Model			SB01	
Mo	ode	Ke	ep Transı	mitting		Test Volta	ge		DC3.7V	7
Tempe	erature		24 deg.	C,		Humidity	7		56% RH	I
Test F	Result:		Pass							
C Part 15C Cla 1.0E+2-	ass B 1GHz-18GHz -2									
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30- 20-	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit	Frequency (MH	tz) Detector	Table (o)	Height (cm)	ANT	2500 Verdict
30- 20- 10- 2470	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	1	Over Limit	1	Table (o)	Height (cm)	ANT	T
30- 20- 10- 2470				Limit	Over	1	Table (o)	_	ANT	T

Note: The peak value less than the AV limit, no necessary to take down the AV measurement result.

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11.0 Antenna Requirement

11.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 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.

And according to FCC 47 CFR Section 15.247 (b), if transmitter antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the mount in dB that the directional gain of the antenna exceeds 6 dBi.

11.2 Antenna Connected construction

PCB antennas used. The gain of the antennas is 2.15dBi. (get from the antenna specification provided the applicant)

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12.0 FCC ID Label

FCC ID: 2AYA4-SB01

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Mark Location:



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13.0 Photo of testing

Conducted Emission Test Setup:



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Radiated Emission Test Setup:





Date: 2021-01-04



Photographs - EUT

Outside View





The report refers only to the sample tested and does not apply to the bulk.

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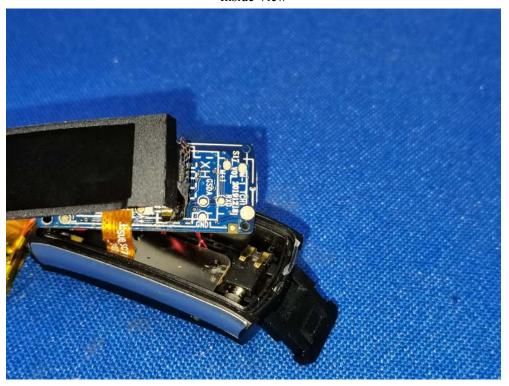
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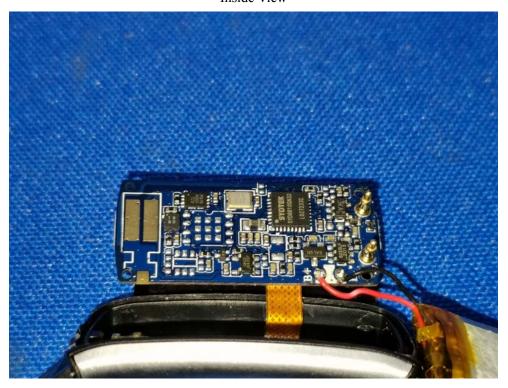
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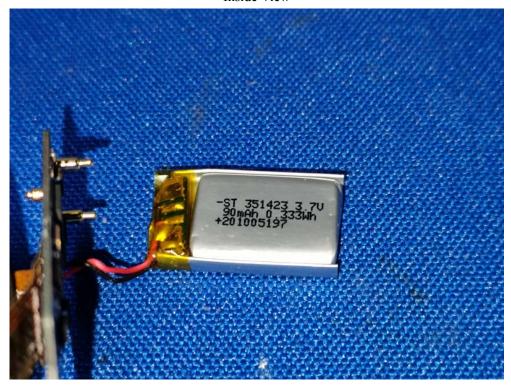
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Inside View



End of the report