

JianYan Testing Group Shenzhen Co., Ltd.

Report No: JYTSZB-R01-2100688

FCC REPORT

Applicant: Shenzhen United Time technology co., ltd

Address of Applicant: 702, 5-A Building, Software Industrial Base, No.11 Haitian 1st

Road, Nanshan District, Shenzhen, China

Equipment Under Test (EUT)

Product Name: Smart Watch

Model No.: UT001

Trade mark: Idondrdo

FCC ID: ZXTUT001

Applicable standards: FCC CFR Title 47 Part 15 Subpart B

Date of sample receipt: 15 Oct., 2021

Date of Test: 16 Oct., to 02 Nov., 2021

Date of report issued: 10 Nov., 2021

Test Result: PASS *

Authorized Signature:



Bruce Zhang Laboratory Manager

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 and does not permit the use of the JYT product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

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^{*} In the configuration tested, the EUT complied with the standards specified above.





Version

Version No.	Date	Description
00	03 Nov., 2021	Original
01	10 Nov., 2021	Update the address of the applicant manufacturer.

Tested by:	Janet	-	Date:	10 Nov., 2021	
	Test Engii	neer			

Winner Thang
Project Engineer Reviewed by: 10 Nov., 2021 Date:





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4 Test Summary

Test Item	Section in CFR 47	Result
Conducted Emission	Part 15.107	Pass
Radiated Emission	Part 15.109	Pass

Remark:

- 1. Pass: The EUT complies with the essential requirements in the standard.
- 2. N/A: The EUT not applicable of the test item.

Test Method: ANSI C63.4:2014

Telephone: +86 (0) 755 23118282 Fax: +86 (0) 755 23116366



5 General Information

5.1 Client Information

Applicant:	Shenzhen United Time technology co., ltd	
Address:	702, 5-A Building, Software Industrial Base, No.11 Haitian 1st Road, Nanshan District, Shenzhen, China	
Manufacturer:	Shenzhen United Time technology co., ltd	
Address:	702, 5-A Building, Software Industrial Base, No.11 Haitian 1st Road, Nanshan District, Shenzhen, China	

5.2 General Description of E.U.T.

Product Name:	Smart Watch
Model No.: UT001	
Power supply:	Rechargeable Li-ion Battery DC3.8V
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

5.3 Test Mode and test samples plans

Operating mode	Detail description
PC mode Keep the EUT in Downloading mode(Worst case)	
Charging+Recording mode	Keep the EUT in Charging+Recording mode
Charging+Playing mode	Keep the EUT in Charging+Playing mode
FM mode	Keep the EUT in FM receiver mode
GPS mode	Keep the EUT in GPS receiver mode

The sample was placed 0.8m above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.

5.4 Measurement Uncertainty

Parameter	Expanded Uncertainty (Confidence of 95%)
Conducted Emission (9kHz ~ 150KHz) for V-AMN	3.11 dB
Conducted Emission (150kHz ~ 30MHz) for V-AMN	2.62 dB
Conducted Emission (150kHz ~ 30MHz) for AAN	3.54 dB
Radiated Emission (9kHz ~ 30MHz electric field) for 3m SAC	3.13 dB
Radiated Emission (9kHz ~ 30MHz magnetic field) for 3m SAC	3.13 dB
Radiated Emission (30MHz ~ 1GHz) for 3m SAC	4.45 dB
Radiated Emission (1GHz ~ 18GHz) for 3m SAC	5.34 dB
Radiated Emission (18GHz ~ 40GHz) for 3m SAC	5.34 dB
Radiated Emission (30MHz ~ 1GHz) for 10m SAC	4.32 dB

5.5 Description of Support Units

	• •			
Manufacturer	Description	Model	Serial Number	FCC ID/DoC
DELL	PC	OPTIPLEX7070	2J8XSZ2	DoC
DELL	MONITOR	SE2018HR	3M7QPY2	DoC



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DELL	KEYBOARD	KB216d	N/A	DoC
DELL	MOUSE	MS116t1	N/A	DoC
HP	Printer	HP LaserJet P1007	VNFP409729	DoC

5.6 Related Submittal(s) / Grant (s)

This is an original grant, no related submittals and grants.

5.7 Description of Cable Used

Cable Type Description		Length From		То	
Detached USB Cable	unshielding	1.0m	EUT	PC/Adapter	

5.8 Additions to, deviations, or exclusions from the method

No

5.9 Laboratory Facility

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

• FCC - Designation No.: CN1211

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

• ISED - CAB identifier.: CN0021

The 3m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

A2LA - Registration No.: 4346.01

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

5.10 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.

Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

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Email: info-JYTee@lets.com, Website: http://www.ccis-cb.com

JianYan Testing Group Shenzhen Co., Ltd.

No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.





5.11 Test Instruments list

Radiated Emission:					
Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
3m SAC	ETS	RFD-100	Q1984	04-14-2021	04-13-2024
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-044	03-07-2021	03-06-2022
BiConiLog Antenna	SCHWARZBECK	VULB9163	9163-1246	03-07-2021	03-06-2022
Biconical Antenna	SCHWARZBECK	VUBA 9117	9117#359	06-17-2021	06-17-2022
Horn Antenna	SCHWARZBECK	BBHA9120D	912D-916	03-07-2021	03-06-2022
Broad-Band Horn Antenna	SCHWARZBECK	BBHA9170	1067	04-02-2021	04-01-2022
Broad-Band Horn Antenna	SCHWARZBECK	BBHA9170	1068	04-02-2021	04-01-2022
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-03-2021	03-02-2022
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-03-2021	03-02-2022
Spectrum analyzer	Keysight	N9010B	MY60240202	11-27-2020	11-26-2021
Simulated Station	Anritsu	MT8820C	6201026545	03-03-2021	03-02-2022
Low Pre-amplifier	SCHWARZBECK	BBV9743B	00305	03-07-2021	03-06-2022
High Pre-amplifier	SKET	LNPA_0118G-50	MF280208233	03-07-2021	03-06-2022
Cable	Qualwave	JYT3M-1G-NN-8M	JYT3M-1	03-07-2021	03-06-2022
Cable	Qualwave	JYT3M-18G-NN-8M	JYT3M-2	03-07-2021	03-06-2022
Cable	Qualwave	JYT3M-1G-BB-5M	JYT3M-3	03-07-2021	03-06-2022
Cable	Bost	JYT3M-40G-SS-8M	JYT3M-4	04-02-2021	04-01-2022
EMI Test Software	Tonscend	TS+		Version:3.0.0.1	
10m SAC	ETS	RFSD-100-F/A	Q2005	04-28-2021	04-27-2024
BiConiLog Antenna	SCHWARZBECK	VULB 9168	1249	04-02-2021	04-01-2022
BiConiLog Antenna	SCHWARZBECK	VULB 9168	1250	04-02-2021	04-01-2022
EMI Test Receiver	R&S	ESR 3	102800	04-08-2021	04-07-2022
EMI Test Receiver	R&S	ESR 3	102802	04-08-2021	04-07-2022
Low Pre-amplifier	Bost	LNA 0920N	2016	04-06-2021	04-05-2022
Low Pre-amplifier	Bost	LNA 0920N	2019	04-06-2021	04-05-2022
Cable	Bost	JYT10M-1G-NN-10M	JYT10M-1	04-02-2021	04-01-2022
Cable	Bost	JYT10M-1G-NN-10M	JYT10M-2	04-02-2021	04-01-2022
Test Software	R&S	EMC32	Version: 10.50.40		

Conducted Emission:										
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)					
EMI Test Receiver	Rohde & Schwarz	ESCI 3	101189	03-03-2021	03-02-2022					
LISN	Rohde & Schwarz	ENV432	101602	04-06-2021	04-05-2022					
LISN	Rohde & Schwarz	ESH3-Z5	843862/010	06-18-2020	06-17-2022					
ISN	Schwarzbeck	CAT3 8158	#96	03-03-2021	03-02-2022					
ISN	Schwarzbeck	CAT5 8158	#166	03-03-2021	03-02-2022					
ISN	Schwarzbeck	NTFM 8158	#126	03-03-2021	03-02-2022					
RF Switch	TOP PRECISION	RSU0301	N/A	03-03-2021	03-02-2022					
Cable	Bost	JYTCE-1G-NN-2M	JYTCE-1	03-03-2021	03-02-2022					
Cable	Bost	JYTCE-1G-BN-3M	JYTCE-2	03-03-2021	03-02-2022					
EMI Test Software	AUDIX	E3	Version: 6.110919b							





Test results and Measurement Data

6.1 Conducted Emission

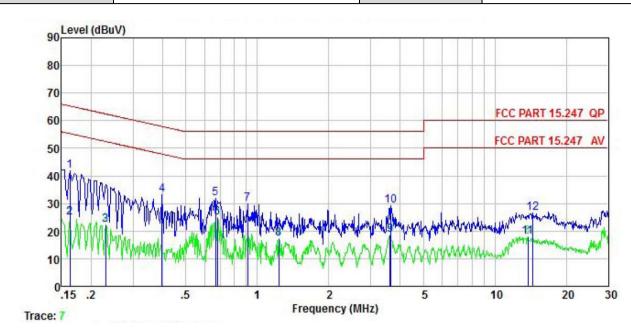
Test Requirement:	FCC Part 15 B Section 15.107							
Test Frequency Range:	150kHz to 30MHz							
Class / Severity:	Class B							
Receiver setup:	RBW=9kHz, VBW=30kHz							
Limit:	Limit (dRu\/)							
	Frequency range (MHz)	Quasi-peak	Average					
	0.15-0.5	66 to 56*	56 to 46*					
	0.5-5	56	46					
	0.5-30	60	50					
	* Decreases with the logarithm	of the frequency.						
Test setup:	Reference Plane							
Toot procedure	Test table/Insulation plane Remark E.U.T. Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m	Filter — AC power						
Test procedure	 The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs). Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4(latest version) on conducted measurement. 							
Test Instruments:	Refer to section 5.11 for details							
Test mode:	Refer to section 5.3 for details							
Test results:	Pass							





Measurement data:

Product name:	Smart Watch	Product model:	UT001
Test by:	Janet	Test mode:	PC mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Line
Test voltage:	AC 120 V/60 Hz	Environment:	Temp: 22.5℃ Huni: 55%



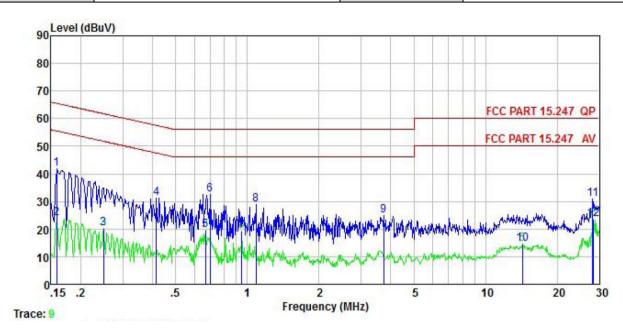
	Freq	Read Level	LISN Factor	Aux Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBu₹	<u>dB</u>	<u>d</u> B		dBu₹	dBu√	<u>dB</u>	
1	0.162	31.61	10.22	-0.08	0.01	41.76	65.34	-23.58	QP
2	0.162	14.65	10.22	-0.08	0.01	24.80	55.34	-30.54	Average
3	0.230	12.36	10.24	-0.20	0.02	22.42	52.44	-30.02	Average
4	0.398	22.55	10.28	0.40	0.04	33.27	57.90	-24.63	QP
1 2 3 4 5 6 7 8	0.668	22.09	10.30	-0.39	0.03	32.03	56.00	-23.97	QP
6	0.679	15.08	10.30	-0.40	0.03	25.01	46.00	-20.99	Average
7	0.909	19.25	10.31	0.23	0.04	29.83	56.00	-26.17	QP
8	1.229	6.56	10.32	0.23	0.10	17.21	46.00	-28.79	Average
9	3.623	8.09	10.38	-0.10	0.08	18.45	46.00	-27.55	Average
10	3.661	18.87	10.38	-0.09	0.08	29.24	56.00	-26.76	QP
11	13.768	3.72	10.73	3.24	0.12	17.81	50.00	-32.19	Average
12	14.440	12.35	10.75	3.44	0.13	26.67		-33.33	

Notes

- 1. An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3. Final Level =Receiver Read level + LISN Factor + Cable Loss.



Product name:	Smart Watch	Product model:	UT001
Test by:	Janet	Test mode:	PC mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Neutral
Test voltage:	AC 120 V/60 Hz	Environment:	Temp: 22.5℃ Huni: 55%



	Freq	Read Level		Aux Factor	Cable Loss		Limit Line	Over Limit	Remark
	MHz	dBu∀	<u>dB</u>	<u>d</u> B	dB	dBu₹	dBu∀	<u>d</u> B	
1	0.158	31.70	10.20	0.01	0.01	41.92		-23.64	
2	0.158	13.58	10.20	0.01	0.01	23.80	55.56	-31.76	Average
3	0.249	10.13	10.24	0.01	0.01	20.39	51.78	-31.39	Average
4	0.415	21.02	10.27	-0.05	0.04	31.28	57.55	-26.27	QP
5	0.668	9.37	10.30	0.04	0.03	19.74	46.00	-26.26	Average
6	0.697	22.24	10.30	0.04	0.03	32.61	56.00	-23.39	QP
6 7	0.948	8.86	10.31	0.07	0.05	19.29	46.00	-26.71	Average
8	1.088	18.31	10.31	0.09	0.07	28.78	56.00	-27.22	QP
8 9	3.740	13.86	10.37	0.46	0.08	24.77	56.00	-31.23	QP
10	14.288	0.77	10.71	2.91	0.13	14.52	50.00	-35.48	Average
11	28.152	18.90	10.91	0.99	0.19	30.99		-29.01	
12	28.452	11.48	10.91	1.00	0.20	23.59		-26.41	Average

Notes

- 1. An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3. Final Level =Receiver Read level + LISN Factor + Cable Loss.





6.2 Radiated Emission

Test Requirement:	FCC Part 15 B Se	ection 15.10	09					
Test Frequency Range:	30MHz to 6000M	30MHz to 6000MHz						
Test site:	Measurement Dis		or 10	m (Semi-And	echoic Ch	amber)		
	Frequency	Detecto		RBW	VBW	Remark		
Receiver setup:	30MHz-1GHz	Quasi-pe		120kHz	300kHz	Quasi-peak Value		
		Poak		1MHz	3MHz	Peak Value		
	1 Above 1(=H7		3MHz	Average Value				
Limit:	Frequenc		Lim	it (dBuV/m @		Remark		
	30MHz-88MHz 30.0 Quasi-peak							
	88MHz-216			33.5		Quasi-peak Value		
	216MHz-960			36.0		Quasi-peak Value		
	960MHz-10			44.0		Quasi-peak Value		
	Frequenc	У	Lim	nit (dBuV/m	@3m)	Remark		
	Above 1G	Hz		54.0		Average Value		
Test setup:				74.0		Peak Value		
	Ground Plane Above 1GHz	EUT	3m	Pra	Search Antenna RF Test Receiver Antenna Tower			
Test Procedure:	ground at a 1 1GHz). The 1 the highest r 2. The EUT wa	10 meter chable was roadiation.	ambe otated eters(er (below 1G d 360 degree below 1GHz	Hz)or 3 mes to deter	0.8 meters above the neter chamber (above mine the position of ters (above 1GHz) the 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 horizontal and vertical polarizations of the antenna are set to make the measurement.
	4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
	The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
	6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
Test Instruments:	Refer to section 5.11 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed
Remark:	All of the observed value above 6GHz ware the niose floor , which were no recorded

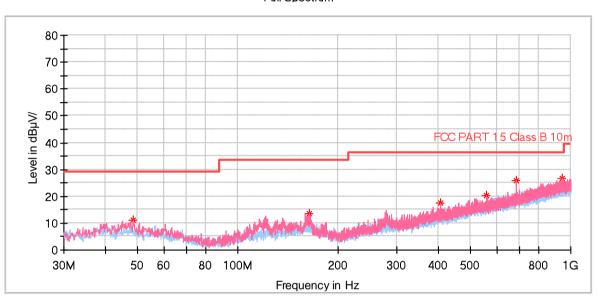


Measurement Data:

Below 1GHz:

Product Name:	Smart Watch	Product Model:	UT001
Test By:	Janet	Test mode:	PC mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Vertical & Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%

Full Spectrum



•	Frequency↓	MaxPeak↓	Limit↓	Margin↓	Height↓	Pol₽	Azimuth↓	Corr.↓
	(MHz)₽	(dB µ V/m)∂	(dBµV/m)∂	(dB)∂	(cm) <i>₽</i>		(deg)∂	(dB/m)∂
•	163.763000₽	13.62₽	33.50₽	19.88₽	100.0₽	V₽	47.0₽	-15.7∂
•	407.524000	17.34₽	36.40₽	19.06₽	100.0₽	V₽	76.0₽	-10.8₽
•	48.430000∂	11.27₽	29.00₽	17.73₽	100.0₽	V₽	173.0₽	-15.8₽
•	560.008000₽	20.37₽	36.40₽	16.03₽	100.0₽	V₽	258.0₽	-7.5₽
•	944.807000∂	26.59₽	36.40₽	9.81₽	100.0₽	V₽	308.0₽	-0.1∂
•	687.563000₽	26.05₽	36.40₽	10.35₽	100.0₽	V₽	354.0₽	-5.1₽

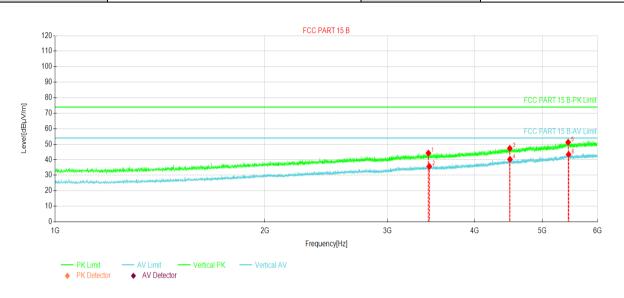
Remark:

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 3. The Aux Factor is a notch filter switch box loss, this item is not used.



Above 1GHz:

Product Name:	Smart Watch	Product Model:	UT001
Test By:	Janet	Test mode:	PC mode
Test Frequency:	1 GHz ~ 6 GHz	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



NO.∂	Freq [MHz].	Reading⊮ [dBµV/m]⊬	Level⊬ [dBµV/m]∉	Factor⊬ [dB]⊬	Limit⊬ [dBµV/m]⊮	Margin⊬ [dB]⊮	Trace	Polarity
1₽	3432.24	59.93₽	44.28₽	-15.65₽	74.00₽	29.72₽	PK₽	Vertical∉
2₊□	3442.24	51.35₽	35.73₽	-15.62₽	54.00₽	18.27₽	AV₽	Vertical₽
3₽	4490.84	58.60₽	47.35₽	-11.25₽	74.00₽	26.65₽	PK₽	Vertical₽
4 ₽	4493.34	51.52₽	40.28₽	-11.24₽	54.00₽	13.72₽	AV₄	Vertical₽
5₽	5445.94	57.87₽	51.27₽	-6.60₽	74.00₽	22.73₽	PK₽	Vertical₽
6₽	5453.94	49.97₽	43.38₽	-6.59₽	54.00₽	10.62₽	AV₄	Vertical₽

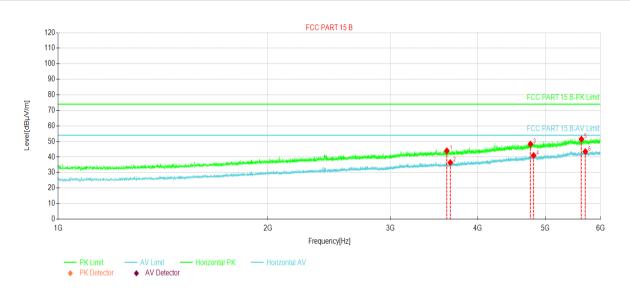
Remark:

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- The emission levels of other frequencies are very lower than the limit and not show in test report.

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Product Name:	Smart Watch	Product Model:	UT001
Test By:	Janet	Test mode:	PC mode
Test Frequency:	1 GHz ~ 6 GHz	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



NO.∂	Freq.⊬ [MHz]∂	Reading⊮ [dBµV/m]⊬	Level⊬ [dBµV/m]⊬	Factor⊬ [dB]⊬	Limit⊬ [dBµV/m]⊬	Margin⊭ [dB]⊮	Trace∂	Polarity∂
1₽	3611.26	59.32₽	43.98₽	-15.34	74.00₽	30.02₽	PK₽	Horizontal₽
2₊∍	3653.26	51.59₽	36.39₽	-15.20₽	54.00₽	17.61₽	AV₽	Horizontal₽
3₽	4760.87	58.55₽	48.30₽	-10.25₽	74.00₽	25.70₽	PK₽	Horizontal₽
4 ₽	4809.88	51.02₽	40.98₽	-10.04	54.00₽	13.02₽	AV₄	Horizontal₽
5₽	5633.46	57.88₽	51.46₽	-6. 42 ₽	74.00₽	22.54	PK₽	Horizontal₽
6₽	5707.47	49.46₽	43.46₽	-6.00₽	54.00₽	10.54₽	AV₽	Horizontal₽

Remark:

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- The emission levels of other frequencies are very lower than the limit and not show in test report.

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