

Prüfbericht-Nr.: Test report no.:	CN22MGNP 004	Auftrags-Nr.: Order no.:	168368592	Seite 1 von 13 Page 1 of 13
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2022-04-21	
Auftraggeber: Client:	Shenzhen Finicare Co., Ltd. 201, No.50, the 3rd Industrial Park, Houting Community, Shajing Street, Bao'an District, Shenzhen 518104, China			
Prüfgegenstand: Test item:	Wrist Electronic Blood Pressure Monitor			
Bezeichnung / Typ-Nr.: Identification / Type no.:	FC-BP220			
Auftrags-Inhalt: Order content:	Test Report			
Prüfgrundlage: Test specification:	CFR47 FCC Part 18: Subpart C Section 18.305			
Wareneingangsdatum: Date of sample receipt:	2022-09-02			
Prüfmuster-Nr.: Test sample no.:	A003321455-001~006			
Prüfzeitraum: Testing period:	2022-10-10			
Ort der Prüfung: Place of testing:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:	 Signed by: Chris Chen		genehmigt von: authorized by:	 Signed by: Lin Lin
Datum: Date:	2022-11-08		Ausstellungsdatum: Issue date:	2022-11-08
Stellung / Position:	Section Manager		Stellung / Position:	Reviewer
Sonstiges / Other:				
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:		Prüfmuster vollständig und unbeschädigt Test item complete and undamaged		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet * Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

Prüfbericht - Nr.: CN22MGNP 004
Test Report No.:

Seite 2 von 13
Page 2 of 13

Test Summary

5.1.1 RADIATED EMISSIONS
RESULT: Pass

Table of Contents

1	GENERAL REMARKS	4
1.1	COMPLEMENTARY MATERIALS	4
2	TEST SITES	5
2.1	TEST FACILITIES	5
2.2	LIST OF TEST AND MEASUREMENT INSTRUMENTS.....	5
2.3	TRACEABILITY	5
2.4	CALIBRATION	5
2.5	MEASUREMENT UNCERTAINTY.....	6
2.6	LOCATION OF ORIGINAL DATA.....	6
2.7	STATUS OF FACILITY USED FOR TESTING.....	6
3	GENERAL PRODUCT INFORMATION	7
3.1	PRODUCT FUNCTION AND INTENDED USE.....	7
3.2	RATINGS AND SYSTEM DETAILS	7
3.3	INDEPENDENT OPERATION MODES	7
3.4	NOISE GENERATING AND NOISE SUPPRESSING PARTS	7
3.5	SUBMITTED DOCUMENTS.....	7
4	TEST SET-UP AND OPERATION MODES	8
4.1	PRINCIPLE OF CONFIGURATION SELECTION	8
4.2	TEST OPERATION AND TEST SOFTWARE	8
4.3	SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT	8
4.4	COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE	8
4.5	TEST SETUP DIAGRAM	9
5	TEST RESULTS	10
5.1.1	Radiated Emissions.....	10
6	PHOTOGRAPHS OF THE TEST SET-UP	13
7	LIST OF TABLES.....	13

Prüfbericht - Nr.: CN22MGNP 004
Test Report No.:

Seite 4 von 13
Page 4 of 13

1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Photographs of the Test Set-up

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

362 Huanguan Road Middle Longhua District, Shenzhen 518110 People's Republic of China

FCC Accreditation Designation No.: CN1260

ISED wireless device testing laboratory: 25069

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radiated Emission (3m chamber)				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
3m SAC	ETS-Lindgren	SAC3	CT001632-Q1362	2024-04-26
EMI Test Receiver	R&S	ESR7	102111	2022-12-01
Horn Antenna	R&S	HF907	102706	2023-08-08
Preamplifier (1-18GHz)	FIT	SCU-18F	180077	2023-08-01
Trilog-Broadband antenna	SCHWARZBECK	VULB9168	0945	2023-08-08
EMC32 test software	R&S	EMC32(Ver.10.50.00)	N/A	N/A

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Parameter	Uncertainty
Radiated Emission, 30MHz to 1000MHz	± 4.52 dB
Radiated Emission, above 1000MHz	± 4.37 dB

2.6 Location of Original Data

The original copies of all test data taken during actual testing in this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) Co., Ltd. file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 362 Huanguan Road Middle Longhua District, Shenzhen 518110 People's Republic of China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The **EUT** (Equipment Under Test) is a **Wrist Electronic Blood Pressure Monitor** which supports Bluetooth Low Energy wireless technology.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment:	Wrist Electronic Blood Pressure Monitor
Type Designation:	FC-BP220
Operating Voltage:	Battery operated (3Vdc, 2*AAA alkaline batteries)
Operating Temperature Range:	10 °C ~ 40 °C

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Normal Operation
- B. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- Application Form
- Schematics
- PCB Layout
- User Manual
- Operation Description
- Block Diagram
- ID Label and Location Info

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All tests were performed according to the procedures in ANSI C63.4: 2014.

According to clause 3.1, all tests were performed on model FC-BP220 in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 3: Auxiliary Equipment Used during Test

Description	Manufacturer	Model	S/N
Mobile phone	HUAWEI	STK-AL00	7PRNW20721000279

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

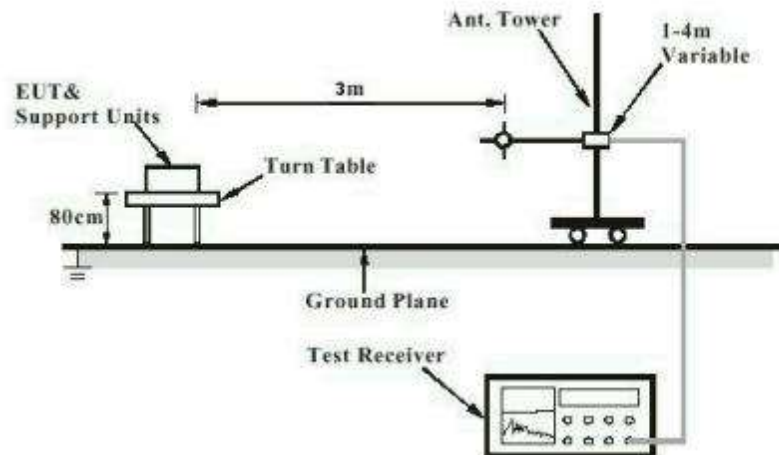
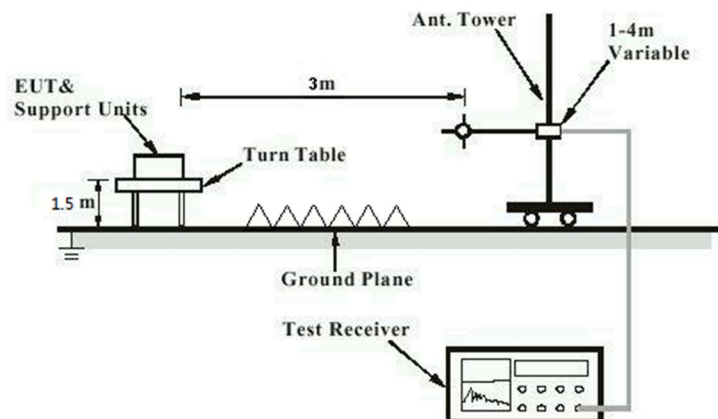


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)



5 Test Results

5.1.1 Radiated Emissions

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 18.305 (b)
Basic standard	: ANSI C63.4:2014
Frequency range	: 30MHz – 1GHz *
Classification	: Class B
Limits	: FCC Part 18.305 (b)
Kind of test site	: 3m Semi-anechoic Chamber

Test Setup

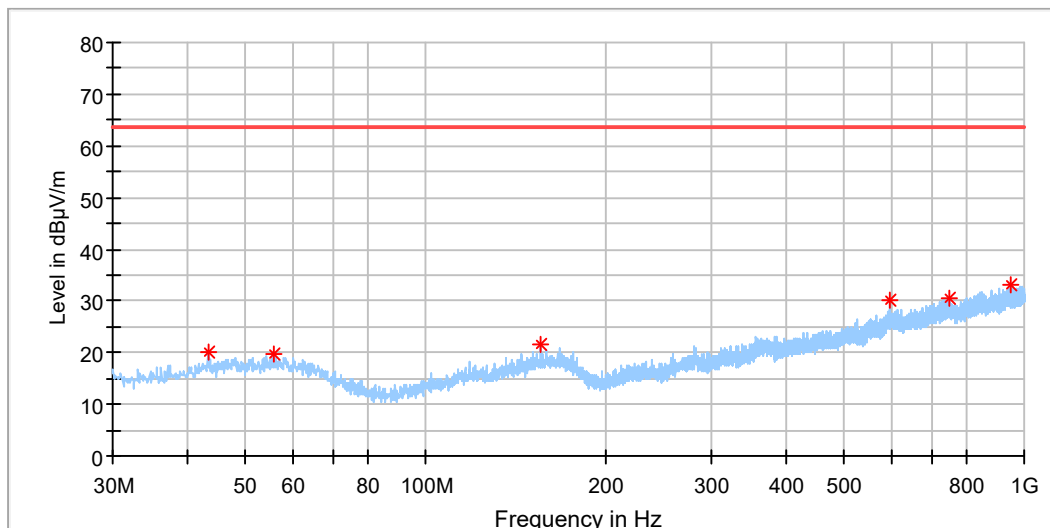
Date of testing	: 2022-10-10
Input voltage	: Battery operated
Operation mode	: A
Ambient temperature	: 24.2 °C
Relative humidity	: 52.3 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the following test plots.

*Remark: The highest frequency of internal sources of EUT is less than 108MHz, the measurement shall only be made up to 1GHz.

EUT Information

EUT Name: Wrist Electronic Blood Pressure Monitor
Order No: 168368592 80
Model: FC-BP220
Test Mode: Normal Operation
Test Voltage: Battery
Test Standard: FCC Part 18
Test By:/Review By: Shower Dai / Gary Chen
Tem./Hum./Pressure: 24.2°C/52.3%/101kPa
Remark: 3m chamber

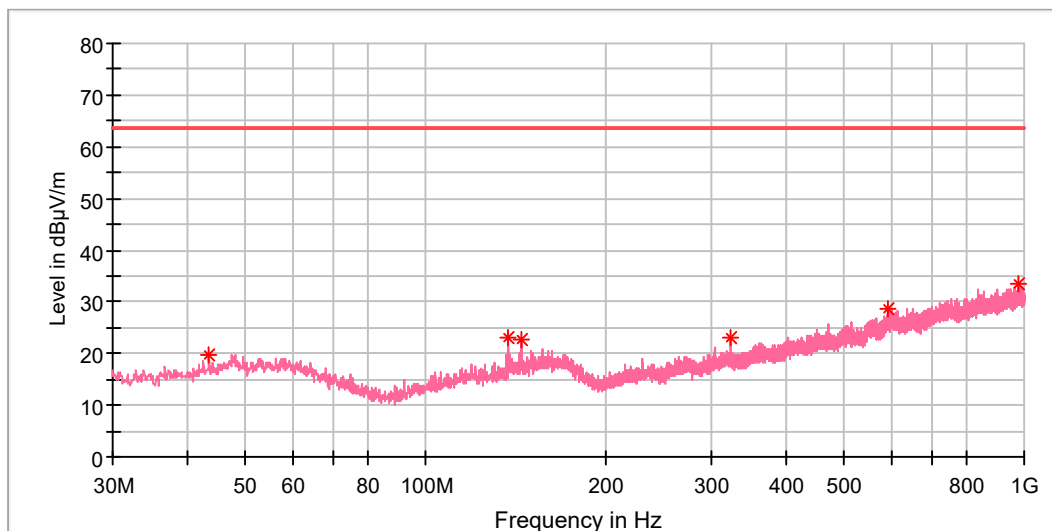


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
43.289000	20.13	63.50	43.37	200.0	H	0.0	20.3
55.608000	19.62	63.50	43.88	200.0	H	219.0	21.1
155.518000	21.43	63.50	42.07	200.0	H	0.0	21.5
598.129000	30.20	63.50	33.30	200.0	H	194.0	27.9
751.777000	30.62	63.50	32.88	100.0	H	148.0	30.4
950.530000	32.96	63.50	30.54	200.0	H	280.0	32.0

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 Test Mode: Normal Operation
 Test Voltage: Battery
 Test Standard: FCC Part 18
 Test By:/Review By: Shower Dai / Gary Chen
 Tem./Hum./Pressure: 24.2°C/52.3%/101kPa
 Remark: 3m chamber



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
43.483000	19.66	63.50	43.84	200.0	V	173.0	20.4
137.767000	22.88	63.50	40.62	100.0	V	237.0	20.0
144.460000	22.57	63.50	40.93	100.0	V	232.0	20.2
322.261000	23.12	63.50	40.38	200.0	V	42.0	21.8
590.369000	28.65	63.50	34.85	100.0	V	35.0	27.3
975.653000	33.39	63.50	30.11	200.0	V	215.0	32.4

6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix A.

7 List of Tables

Table 1: List of Test and Measurement Equipment.....	5
Table 2: Technical Specification of EUT	7
Table 3: Auxiliary Equipment Used during Test	8

Appendix A: Photographs of the Test Set-Up

APPENDIX A: PHOTOGRAPHS OF THE TEST SET-UP	1
PHOTOGRAPH 1: SET-UP PHOTO FOR RADIATED EMISSION, BELOW 1GHz	2

Photograph 1: Set-up photo for Radiated Emission, Below 1GHz

