

RF Test Report

For

Applicant name: Shenzhen Evview GPS Technology
Address: Rm 201, building 1-A, Nankechuang Yuangu, Dalang, Longhua District, Shenzhen, China
EUT name: Personal Safety Watch
Brand name: N/A
Model number: EV-W101-V
Series model number: EV-W101
FCC ID: 2AUMJEV-W101-V

Issued By

Company name: BTF Testing Lab (Shenzhen) Co., Ltd.
Address: 101/201/301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Subdistrict, Bao'an District, Shenzhen, China
Report number: BTF251103R00303
Test standards: FCC CFR Title 47 Part 2
FCC CFR Title 47 Part22
FCC CFR Title 47 Part24
FCC CFR Title 47 Part27
Test conclusion: Pass
Date of sample receipt: 2025-11-03
Test date: 2025-11-03 to 2025-11-10
Date of issue: 2025-12-29
Test by: Sean.He
Sean.He

Prepared by: Chris.Liu
Chris.Liu / Project engineer

Approved by: 
Ryan C./EMC manager

Note: All the test results in this report only related to the testing samples. Which can be duplicated completely for the legal use with approval of applicant; it shall not be reproduced except in full without the written approval of BTF Testing Lab (Shenzhen) Co., Ltd., All the objections should be raised within thirty days from the date of issue. To validate the report, you can contact us.

Revision History		
Version	Issue date	Revisions content
R_V0	2025-12-29	Original
<i>Note:</i> <i>Once the revision has been made, then previous versions reports are invalid.</i>		

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1 Introduction

1.1 Laboratory Location

Test location:	BTF Testing Lab (Shenzhen) Co., Ltd.
Address:	101/201/301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Subdistrict, Bao'an District, Shenzhen, China
Phone number:	+86-0755-23146130
Fax number:	+86-0755-23146130

1.2 Laboratory Facility

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

- **FCC - Designation No.: CN1409**
BTF Testing Lab (Shenzhen) Co., Ltd. has been accredited as a testing laboratory by FCC (Federal Communications Commission). The test firm Registration No. is 695374.
- **CNAS - Registration No.: CNAS L17568**
BTF Testing Lab (Shenzhen) Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L17568.
- **A2LA - Registration No.: 6660.01**
BTF Testing Lab (Shenzhen) Co., Ltd. is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories.

1.3 Announcement

- (1) The test report reference to the report template version v0.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing, reviewing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) This document may not be altered or revised in any way unless done so by BTF and all revisions are duly noted in the revisions section.
- (5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- (6) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.
- (7) All entrusted information in this report is provided by the client and has been confirmed through consultation with the client; The testing items for this report have been discussed and confirmed with the client, and our company is only responsible for the content reflected in the report.

2 Product Information

2.1 Application Information

Company name:	Shenzhen Eview GPS Technology
Address:	Rm 201, building 1-A, Nankechuang Yuangu, Dalang, Longhua District, Shenzhen, China

2.2 Manufacturer Information

Company name:	Shenzhen Eview GPS Technology
Address:	Rm 201, building 1-A, Nankechuang Yuangu, Dalang, Longhua District, Shenzhen, China

2.3 Factory Information

Company name:	Shenzhen Eview GPS Technology
Address:	Rm 201, building 1-A, Nankechuang Yuangu, Dalang, Longhua District, Shenzhen, China

2.4 General Description of Equipment under Test (EUT)

EUT name	Personal Safety Watch
Under test model name	EV-W101-V
Series model name	EV-W101
Description of model name differentiation	Only the model name is different, everything else is the same.
Hardware Version	EV-W101-A_V1.2
Software Version	N/A
Rating:	Adapter: Model: A187-050100U-US1 INPUT: 100-240V~ 50/60Hz 200mA OUPUT: 5V $\overline{\text{---}}$ 1A Battery: INPUT: DC 3.84V 520mAh 1.997Wh

2.5 Technical Information

Operation frequency:	FDD LTE Band 2: 1850.7 MHz ~ 1909.3 MHz FDD LTE Band 4: 1710.7 MHz ~ 1754.3 MHz FDD LTE Band 13: 779.5 MHz ~ 784.5 MHz	
Modulation Type:	LTE	QPSK
		16QAM
Antenna type:	LDS Antenna	

Antenna gain:	FDD LTE Band 2: -0.64 dBi FDD LTE Band 4: -2.56 dBi FDD LTE Band 13: -5.54 dBi (declare by Applicant)
Power Class	FDD LTE Band 2: 3 FDD LTE Band 4: 3 FDD LTE Band 13: 3
Maximum conducted power	LTE Band 2: 23.22dBm LTE Band 4: 23.17dBm FDD LTE Band 13: 23.07dBm

3 Test Information

3.1 Test Standards

Identity	Document Title
FCC CFR Title 47 Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
FCC CFR Title 47 Part 22 Subpart H	Cellular Radiotelephone Service
FCC CFR Title 47 Part 24 Subpart E	Broadband PCS
FCC CFR Title 47 Part 27 Subpart H	Competitive Bidding Procedures for the 698-746 MHz Band
FCC CFR Title 47 Part 27 Subpart L	1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 2110-2155MHz, 2155-2180 MHz, 2180-2200 MHz Bands
FCC CFR Title 47 Part 27 Subpart M	Broadband Radio Service and Educational Broadband Service
ANSI C63.26-2015	American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services
ANSI/TIA-603-E-2016	Land Mobile FM or PM Communications Equipment Measurement and Performance Standards

3.2 Summary of Test

Clauses	Test Items	Result
§ 2.1046 § 22.913(a)(5) § 24.232(c) § 27.50(c)(10) § 27.50(d)(4) § 27.50(h)(2) § 90.635(b)	RF Output Power	Pass
§ 24.232(d) § 27.50(d)(5)	Peak-to-Average Power Ratio	Pass
§ 2.1047	Modulation Characteristics	Pass
§ 2.1049	26dB Emission Bandwidth 99% Occupied Bandwidth	Pass
§ 2.1051 § 22.917(a) § 24.238(a) § 27.53(g) § 27.53(h) § 27.53(m)(4) § 90.691(a)	Out of Band Emission at Antenna Terminals	Pass
§ 2.1053 § 22.917(a) § 24.238(a) § 27.53(g) § 27.53(h)	Field Strength of Spurious Radiation	Pass

§ 27.53(m)(4) § 90.691(a)		
§ 2.1055 § 22.355 § 24.235 § 27.54 § 90.213	Frequency Stability	Pass
Remark: 1. Pass: met the requirements. 2. N/A: not applicable.		

3.3 Uncertainty of Test

Measurement	Value
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±1.5 dB
Power Spectral Density, conducted	±3.0 dB
Unwanted Emissions, conducted	±3.0 dB
Supply voltages	±3 %
Time	±5 %
Conducted Emission for LISN (9kHz ~ 150kHz)	±2.97 dB
Conducted Emission for LISN (150kHz ~ 30MHz)	±2.45 dB
Radiated Emission (30MHz ~ 1000MHz)	±4.80 dB
Radiated Emission (1GHz ~ 18GHz)	±4.82 dB

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3.4 Additions to, deviations, or exclusions from the method

None

3.5 Test Auxiliary Equipment

Description	Manufacturer	Model	Serial No.	Length	Description
/	/	/	/	/	/

3.6 Test Equipment List

Radiated test method					
Test Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
EMI Receiver	Rohde & Schwarz	ESCI7	101032	2025-10-17	2026-10-16
Signal Analyzer	Rohde & Schwarz	FSQ40	100010	2025-10-17	2026-10-16
Log periodic antenna	Schwarzbeck	VULB 9168	01328	2025-10-18	2026-10-17
Preamplifier (30MHz ~ 1GHz)	Schwarzbeck	BBV9744	00246	2025-05-26	2026-05-25
Horn Antenna	Schwarzbeck	BBHA9120D	2597	2025-10-18	2026-10-17
Preamplifier (1GHz ~ 18GHz)	Schwarzbeck	BBV9718D	00008	2025-10-18	2026-10-17
Test Software	Frad	EZ EMC	Version: FA-03A2 RE+		

Conducted test method					
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	Keysight	N9020A	MY50410020	2025-10-17	2026-10-16
ESG Vector	Agilent	E4438C	MY45094854	2025-10-17	2026-10-16

Signal Generator					
MXG Vector Signal Generator	Agilent	N5182A	MY46240163	2025-10-17	2026-10-16
Wideband Radio Communication Tester	Rohde&Schwarz	CMW500	61997	2025-10-17	2026-10-16
Temperature Humidity Chamber	ZZCKONG	ZZ-K02A	20210928007	2025-10-17	2026-10-16
DC Power Supply	Tongmen	etm-6050c	20211026123	2025-10-17	2026-10-16
RF Control Unit	Techy	TR1029-1	/	2025-10-17	2026-10-16
RF Sensor Unit	Techy	TR1029-2	/	2025-10-17	2026-10-16
Test Software	TST Pass	/	Version: 2.0		

4 Test Configuration

4.1 Environment Condition

Selected Values During Tests		
Temperature	Relative Humidity	Ambient Pressure
Normal: +15°C to +35°C Extreme: -30°C to +50°C	20% to 75%	86 kPa to 106 kPa

4.2 Test mode

QPSK mode:	Keep the EUT communication with simulated station in QPSK mode
16QAM mode:	Keep the EUT communication with simulated station in 16QAM mode
64QAM mode:	Keep the EUT communication with simulated station in 64QAM mode
Remark: Per-scan all kind of data rate, and report only reflects the test data of worst data rate mode.	

4.3 Test Channel of EUT

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:

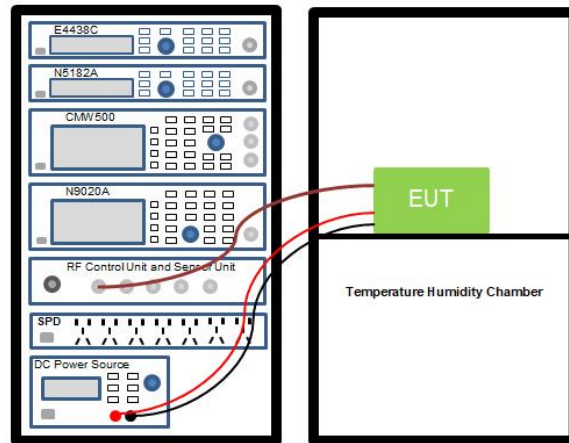
LTE Band 2					
Channels	Channel No.	Frequency (MHz)	Channels	Channel No.	Frequency (MHz)
1.4 MHz			3 MHz		
Lowest	18607	1850.7	Lowest	18915	1851.5
Middle	18900	1880.0	Middle	18900	1880.0
Highest	19193	1909.3	Highest	19185	1908.5
5 MHz			10 MHz		
Lowest	18625	1852.5	Lowest	18650	1855.0
Middle	18900	1880.0	Middle	18900	1880.0
Highest	19175	1907.5	Highest	19150	1905.0
15 MHz			20 MHz		
Lowest	18675	1857.5	Lowest	18700	1860.0
Middle	18900	1880.0	Middle	18900	1880.0
Highest	19125	1902.5	Highest	19100	1900.0
LTE Band 4					
Channels	Channel No.	Frequency (MHz)	Channels	Channel No.	Frequency (MHz)
1.4 MHz			3 MHz		
Lowest	19957	1710.7	Lowest	19965	1711.5
Middle	20175	1732.5	Middle	20175	1732.5
Highest	20393	1754.3	Highest	20385	1753.5
5 MHz			10 MHz		
Lowest	19975	1712.5	Lowest	20000	1715.0
Middle	20175	1732.5	Middle	20175	1732.5
Highest	20375	1752.5	Highest	20350	1750.0
15 MHz			20 MHz		
Lowest	20025	1717.5	Lowest	20050	1720.0
Middle	20175	1732.5	Middle	20175	1732.5
Highest	20325	1747.5	Highest	20300	1745.0
LTE Band 13					
Channels	Channel No.	Frequency (MHz)	Channels	Channel No.	Frequency (MHz)
5MHz			10MHz		
Lowest	23205	779.5	Lowest	/	/
Middle	23230	782	Middle	23230	782
Highest	23255	784.5	Highest	/	/

4.4 Test procedure

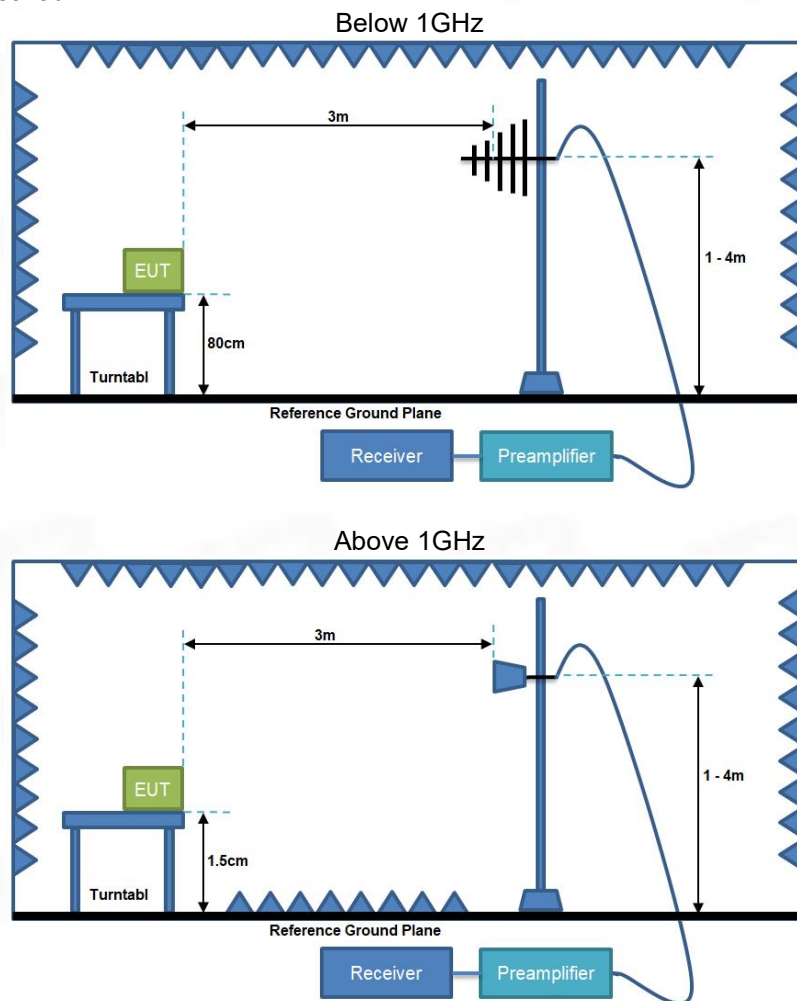
Radiated test method
For below 1GHz: 1. The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 3 m. 2. EUT works in each mode of operation that needs to be tested. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations. 3. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data. For above 1GHz: 1. The EUT was placed on the tabletop of a rotating table 1.5 m the ground at a 3 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 3 m. 2. EUT works in each mode of operation that needs to be tested. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations. 3. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data.
Conducted test method
1. The WCDMA/LTE antenna port of EUT was connected to the test port of the test system through an RF cable. 2. The EUT is keeping in continuous transmission mode and tested in all modulation modes. 3. Open the test software, prepare a test plan, and control the system through the software. After the test is completed, the test report is exported through the test software.

4.5 Test Setup Block

1) Conducted test method:



2) Radiated test method:



5 Technical requirements specification

5.1 Summary of Test Result

Test Items	Limit	Test data	Verdict
RF Output Power	LTE Band 2: 2W EIRP; LTE Band 4: 1W EIRP LTE Band 13: 3W ERP;	See Appendix-LTE	Pass
Peak-to-Average Power Ratio	The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.	See Appendix-LTE	Pass
Modulation Characteristics	N/A	See Appendix-LTE	Pass
26dB Emission Bandwidth 99% Occupied Bandwidth	N/A	See Appendix-LTE	Pass
Out of Band Emission at Antenna Terminals Field Strength of Spurious Radiation	LTE Band 2/4/13: -13dBm;	Conducted: See Appendix-LTE Radiated: See Section 5.2	Pass
Frequency Stability	LTE Band 2/4/13: The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.	See Appendix-LTE	Pass

5.2 Field Strength of Spurious Radiation

Note: For all bandwidths of LTE frequency band, modulation types and RB configurations were pretested, and it was found that minimum bandwidths, QPSK modulation and 1RB0 were the worst modes, and only the worst modes were reflected in the report.

Temperature	22.5℃	Humidity	56%
Test voltage	DC 3.84V	Test Engineer	Sean.He

LTE Band 2, 1.4MHz Bandwidth						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3722.60	-15.91	-37.12	-53.03	-13.00	-40.03	Vertical
5558.50	-13.02	-34.19	-47.21	-13.00	-34.21	Horizontal
7446.50	-10.48	-36.24	-46.72	-13.00	-33.72	Vertical
3722.60	-16.54	-37.12	-53.66	-13.00	-40.66	Horizontal
5558.50	-14.02	-34.19	-48.21	-13.00	-35.21	Vertical
7446.50	-11.24	-36.24	-47.48	-13.00	-34.48	Horizontal
Middle channel						
3761.80	-16.77	-37.01	-53.78	-13.00	-40.78	Vertical
5642.50	-13.88	-34.08	-47.96	-13.00	-34.96	Horizontal
7522.90	-11.34	-36.13	-47.47	-13.00	-34.47	Vertical
3761.80	-16.12	-37.01	-53.13	-13.00	-40.13	Horizontal
5642.50	-13.60	-34.08	-47.68	-13.00	-34.68	Vertical
7522.90	-10.82	-36.13	-46.95	-13.00	-33.95	Horizontal
Highest channel						
3805.70	-17.42	-36.90	-54.32	-13.00	-42.78	Vertical
5703.60	-14.53	-33.97	-48.50	-13.00	-36.96	Horizontal
7604.80	-11.99	-36.02	-48.01	-13.00	-36.47	Vertical
3805.70	-15.44	-36.90	-52.34	-13.00	-40.80	Horizontal
5703.60	-12.92	-33.97	-46.89	-13.00	-35.35	Vertical
7604.80	-10.14	-36.02	-46.16	-13.00	-34.62	Horizontal
Remark:						
1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

LTE Band 4, 1.4MHz Bandwidth						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
3439.20	-18.55	-37.30	-55.85	-13.00	-42.85	Vertical
5164.50	-13.80	-35.01	-48.81	-13.00	-35.81	Horizontal
6881.30	-10.52	-36.13	-46.65	-13.00	-33.65	Vertical
3439.20	-19.18	-37.30	-56.48	-13.00	-43.48	Horizontal
5164.50	-14.80	-35.01	-49.81	-13.00	-36.81	Vertical
6881.30	-11.28	-36.13	-47.41	-13.00	-34.41	Horizontal
Middle channel						
3466.40	-19.41	-37.19	-56.60	-13.00	-43.60	Vertical
5198.00	-14.66	-34.90	-49.56	-13.00	-36.56	Horizontal
6929.50	-11.38	-36.02	-47.40	-13.00	-34.40	Vertical
3466.40	-18.76	-37.19	-55.95	-13.00	-42.95	Horizontal
5198.00	-14.38	-34.90	-49.28	-13.00	-36.28	Vertical
6929.50	-10.86	-36.02	-46.88	-13.00	-33.88	Horizontal
Highest channel						
3491.40	-20.06	-37.08	-57.14	-13.00	-44.14	Vertical
5231.50	-15.31	-34.79	-50.10	-13.00	-37.10	Horizontal
6982.20	-12.03	-35.91	-47.94	-13.00	-34.94	Vertical
3491.40	-18.08	-37.08	-55.16	-13.00	-42.16	Horizontal
5231.50	-13.70	-34.79	-48.49	-13.00	-35.49	Vertical
6982.20	-10.18	-35.91	-46.09	-13.00	-33.09	Horizontal
Remark: 1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

LTE Band 13, 5MHz Bandwidth						
Lowest channel						
Frequency (MHz)	Reading Level (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Polarization
1561.40	-17.87	-38.12	-55.99	-40.00	-15.99	Vertical
2340.30	-20.50	-37.40	-57.90	-13.00	-44.90	Horizontal
3119.10	-21.26	-36.81	-58.07	-13.00	-45.07	Vertical
1561.40	-8.43	-38.12	-46.55	-40.00	-6.55	Horizontal
2340.30	-15.19	-37.40	-52.59	-13.00	-39.59	Vertical
3119.10	-14.26	-36.81	-51.07	-13.00	-38.07	Horizontal
Middle channel						
1565.90	-18.82	-38.02	-56.84	-40.00	-16.84	Vertical
2347.20	-21.45	-37.30	-58.75	-13.00	-45.75	Horizontal
3130.40	-22.21	-36.71	-58.92	-13.00	-45.92	Vertical
1565.90	-8.94	-38.02	-46.96	-40.00	-6.96	Horizontal
2347.20	-15.70	-37.30	-53.00	-13.00	-40.00	Vertical
3130.40	-14.77	-36.71	-51.48	-13.00	-38.48	Horizontal
Highest channel						
1570.40	-19.07	-37.92	-56.99	-40.00	-16.99	Vertical
2355.00	-21.70	-37.20	-58.90	-13.00	-45.90	Horizontal
3139.80	-22.46	-36.61	-59.07	-13.00	-46.07	Vertical
1570.40	-9.29	-37.92	-47.21	-40.00	-7.21	Horizontal
2355.00	-16.05	-37.20	-53.25	-13.00	-40.25	Vertical
3139.80	-15.12	-36.61	-51.73	-13.00	-38.73	Horizontal
Remark: 1. The emission levels of below 1 GHz are lower than the limit 10dB, so not show in test report.						

6 Test Setup Photos

Please refer to the Appendix I Test Setup Photos

7 EUT Constructional Details (EUT Photos)

Please refer to the Appendix II External Photos & Appendix III External Photos



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Bao'an District, Shenzhen, China

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--END OF REPORT--