



SPORTON LAB.

Certificate No: FD3O0919

CERTIFICATE OF COMPLIANCE

Authorized under Declaration of Conformity
according to
47 CFR, Part 2 and Part 15 of the FCC Rules



EQUIPMENT : Wireless Pedometer/Tracker

MODEL NO. : M903

APPLICANT : ASE Group

4F, No 133, Sec 4, Mingsheng E Rd, Songshan Dist, Taipei, Taiwan



I HEREBY

CERTIFY THAT:

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4-2009** and all tests are performed according to **47 CFR FCC Part 15 Subpart B**. Testing was carried out on **Oct. 24, 2013** at SPORTON International Inc. LAB.

Wayne Hsu
Assistant Manager

FCC Test Report

Equipment : Wireless Pedometer/Tracker
Brand Name : ASE Group
Model No. : M903
Standard : 47 CFR FCC Part 15B
Device Class : Class B
Applicant : ASE Group
Manufacturer : 4F,No 133, Sec 4, Mingsheng E Rd,
Songshan Dist, Taipei, Taiwan

The product sample received on Oct. 09, 2013 and completely tested on Oct. 24, 2013. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.4-2009 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by:



Wayne Hsu / Assistant Manager





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Summary of Test Result

Conformance Test Specifications					
Report Clause	Ref. Std. Clause	Description	Measured	Limit	Result
3.1	15.107	AC Power-line Conducted Emissions	Power by battery	15.107	N/A
3.2	15.109	Radiated Emissions	[dBuV/m at 3m]: 985.60MHz 30.61 (Margin 6.39dB) - PK	15.109	Complied

1 General Description

1.1 Information

1.1.1 Equipment Authorization Category

FCC Equipment Authorization of Unintentional Radiators Category	
<input checked="" type="checkbox"/>	Class B personal computers and peripherals: Declaration of Conformity or Certification
<input type="checkbox"/>	Class A personal computers and peripherals: Verification
<input checked="" type="checkbox"/>	Receivers operation above 960 MHz or below 30 MHz, except for radar detectors and CB receivers, do not require equipment authorization (verification, Declaration of Conformity, or certification)
<input type="checkbox"/>	Receivers operation within 30 MHz to 960 MHz, except for radar detectors and CB receivers, require equipment authorization (Declaration of Conformity)

1.1.2 RF General Information

RF General Information	
Frequency Range (MHz)	Evaluation Mode
2400-2483.5	2.4GHz Bluetooth

1.1.3 Antenna Information

Antenna Category	
<input checked="" type="checkbox"/>	Integral antenna (antenna permanently attached)
<input type="checkbox"/>	External antenna (dedicated antennas)

1.1.4 Type of EUT

Identify EUT	
EUT Serial Number	NA
Presentation of Equipment	<input checked="" type="checkbox"/> Production ; <input type="checkbox"/> Pre-Production ; <input type="checkbox"/> Prototype
Type of EUT	
<input checked="" type="checkbox"/>	Stand-alone
<input type="checkbox"/>	Combined (EUT where the radio part is fully integrated within another device) Combined Equipment - Brand Name / Model No.:
<input type="checkbox"/>	Plug-in radio (EUT intended for a variety of host systems) Host System - Brand Name / Model No.:
<input type="checkbox"/>	Other:

1.1.5 EUT Operational Condition

Supply Voltage	<input type="checkbox"/> AC mains	<input checked="" type="checkbox"/> DC	
Type of DC Source	<input type="checkbox"/> Internal DC supply	<input type="checkbox"/> External DC adapter	<input checked="" type="checkbox"/> Battery

1.2 Product Details

The equipment is Wireless Pedometer. There are two samples of EUT. The only difference is the outward appearances. For more detailed features description, please refer to the specifications or user's manual.

1.3 Support Equipment

Accessories			
No.	Equipment	Brand Name	Model Name
1	iPad Mini (Remote Workstation)	Apple	A1455

1.4 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 15B
- ♦ ANSI C63.4-2009

1.5 Testing Location Information

Testing Location			
<input checked="" type="checkbox"/>	HWA YA	ADD : No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.	
		TEL : 886-3-327-3456	TEL : 886-3-327-3456
Test Condition	Test Site No.	Test Engineer	Test Environment
Radiated Emission (Below 1GHz)	10CH01-HY	Nigel	19°C / 58%
Radiated Emission (Above 1GHz)	03CH04-HY	Kevin	21°C / 54%

1.6 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

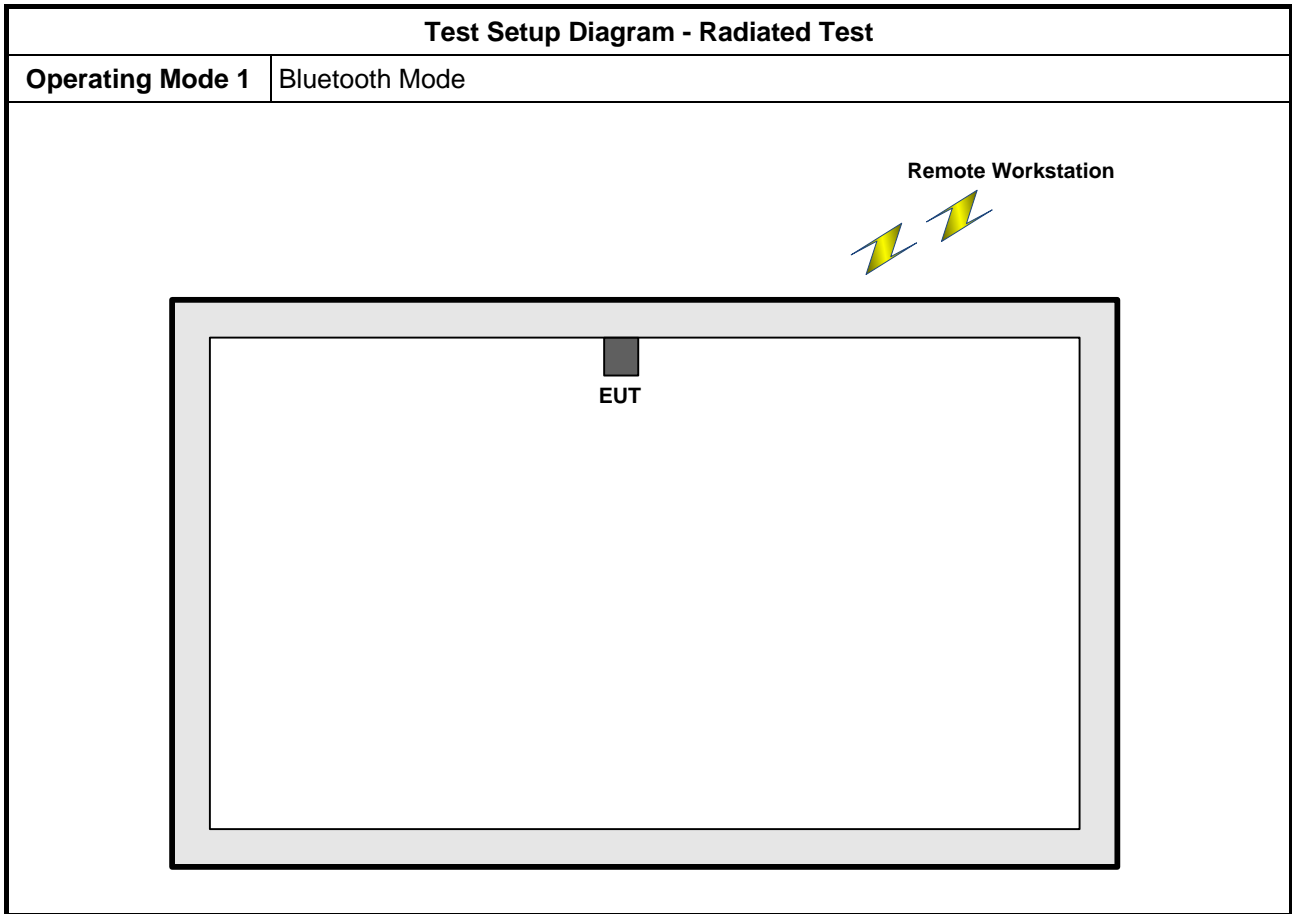
Measurement Uncertainty			
Test Item		Uncertainty	Limit
AC power-line conducted emissions		±2.26 dB	N/A
All emissions, radiated	30 – 1000 MHz	±2.56 dB	N/A
	1 – 18 GHz	±3.59 dB	N/A
	18 – 40 GHz	±3.82 dB	N/A
	40 – 200 GHz	N/A	N/A

2 Test Configuration of EUT

2.1 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests		
Tests Item	Radiated Emissions	
Test Condition	Radiated measurement	
Search Range	Highest Frequency Generated or Used in Device	Upper Frequency of Radiated Measurement
	Below 1.705MHz	No radiated testing required
	1.705MHz-108MHz	1GHz
	108MHz-500MHz	2GHz
	500MHz-1GHz	5GHz
	Above 1GHz	5 th harmonic of the highest frequency or 40 GHz, whichever is lower.
User Position	<input checked="" type="checkbox"/> EUT will be placed in fixed position.	
	<input type="checkbox"/> EUT will be placed in mobile position and operating multiple positions. EUT shall be performed two orthogonal planes.	
	<input type="checkbox"/> EUT will be a hand-held or body-worn battery-powered devices and operating multiple positions. EUT shall be performed two or three orthogonal planes.	
Operating Mode	Operating Mode Description	
1	Bluetooth Mode	

2.2 Test Setup Diagram



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit (Class B)		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: * Decreases with the logarithm of the frequency.

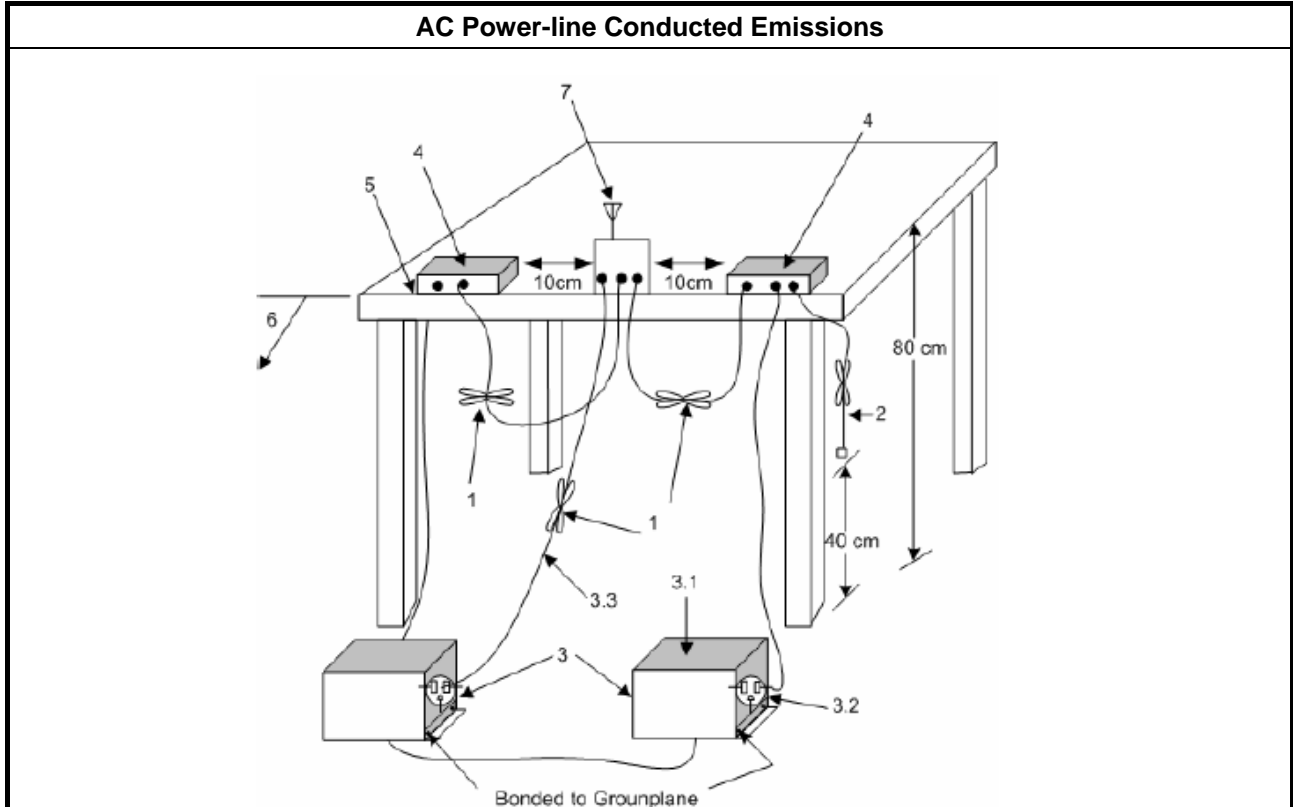
3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
<input checked="" type="checkbox"/> Refer as ANSI C63.4, clause 7.3 for AC power-line conducted emissions.

3.1.4 Test Setup



3.1.5 Test Result of AC Power-line Conducted Emissions

The EUT is battery powered; there is no need to do this testing.

3.2 Radiated Spurious Emissions

3.2.1 Radiated Spurious Emissions Limit

CISPR 22 Limits for radiated disturbance of class B ITE at a measuring distance of 10 m	
Frequency range (MHz)	Quasi-peak limits (dBµV/m)
30 to 230	30
230 to 1000	37

Note 1: The lower limit shall apply at the transition frequency.
 Note 2: Additional provisions may be required for cases where interference occurs.

CISPR 22 Limits for radiated disturbance of Class B ITE at a measurement distance of 3 m		
Frequency range (GHz)	Average limit (dBµV/m)	Peak limit (dBµV/m)
1 to 3	50	70
3 to 6	54	74

Note 1: The lower limit applies at the transition frequency.

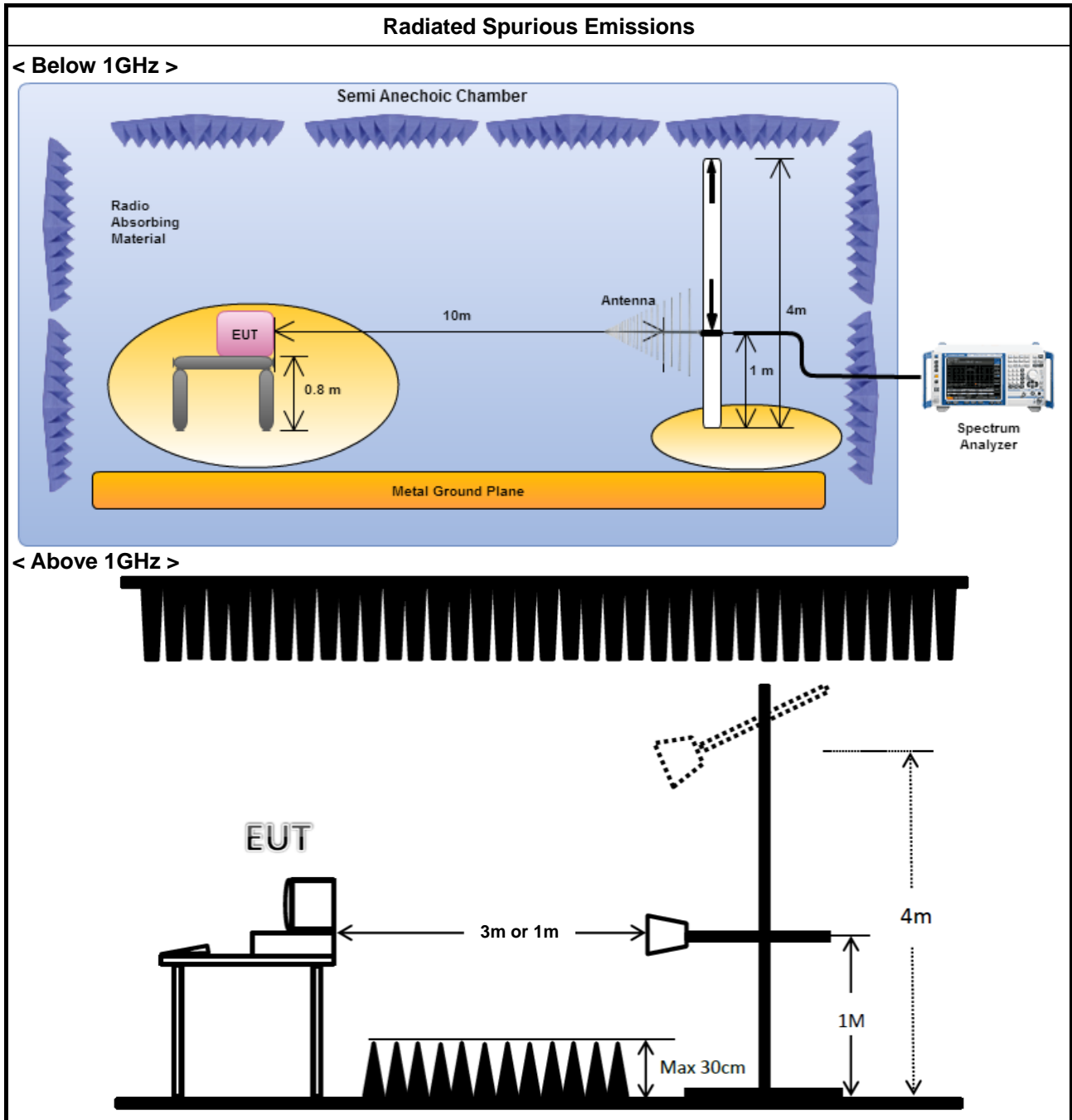
3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method – General Information	
<input checked="" type="checkbox"/>	The search for spurious emissions shall be from the lowest frequency internally generated or used in the receiver (e.g. local oscillator, intermediate or carrier frequency), or 30 MHz, whichever is higher, to at least 5 times the highest tunable or local oscillator frequency, whichever is higher, without exceeding 40 GHz.
<input checked="" type="checkbox"/>	Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).
<input checked="" type="checkbox"/>	Measurements in the frequency range 10 GHz - 40GHz are typically made at a closer distance 1m, because the instrumentation noise floor is typically close to the radiated emission limit.
<input checked="" type="checkbox"/>	For radiated measurement.
<input type="checkbox"/>	Refer as ANSI C63.4, clause 8.3.1.1 and 8.3.2.2 for radiated emissions from below 30 MHz.
<input checked="" type="checkbox"/>	Refer as ANSI C63.4, clause 8.3.1.1 and 8.3.2.2 for radiated emissions from 30 MHz-1 GHz. For the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the QP-Limit so that the QP level does not need to be reported in addition.
<input checked="" type="checkbox"/>	Refer as ANSI C63.4, clause 8.3.2.1 and 8.3.2 for radiated emissions from above 1 GHz. For the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

3.2.4 Test Setup

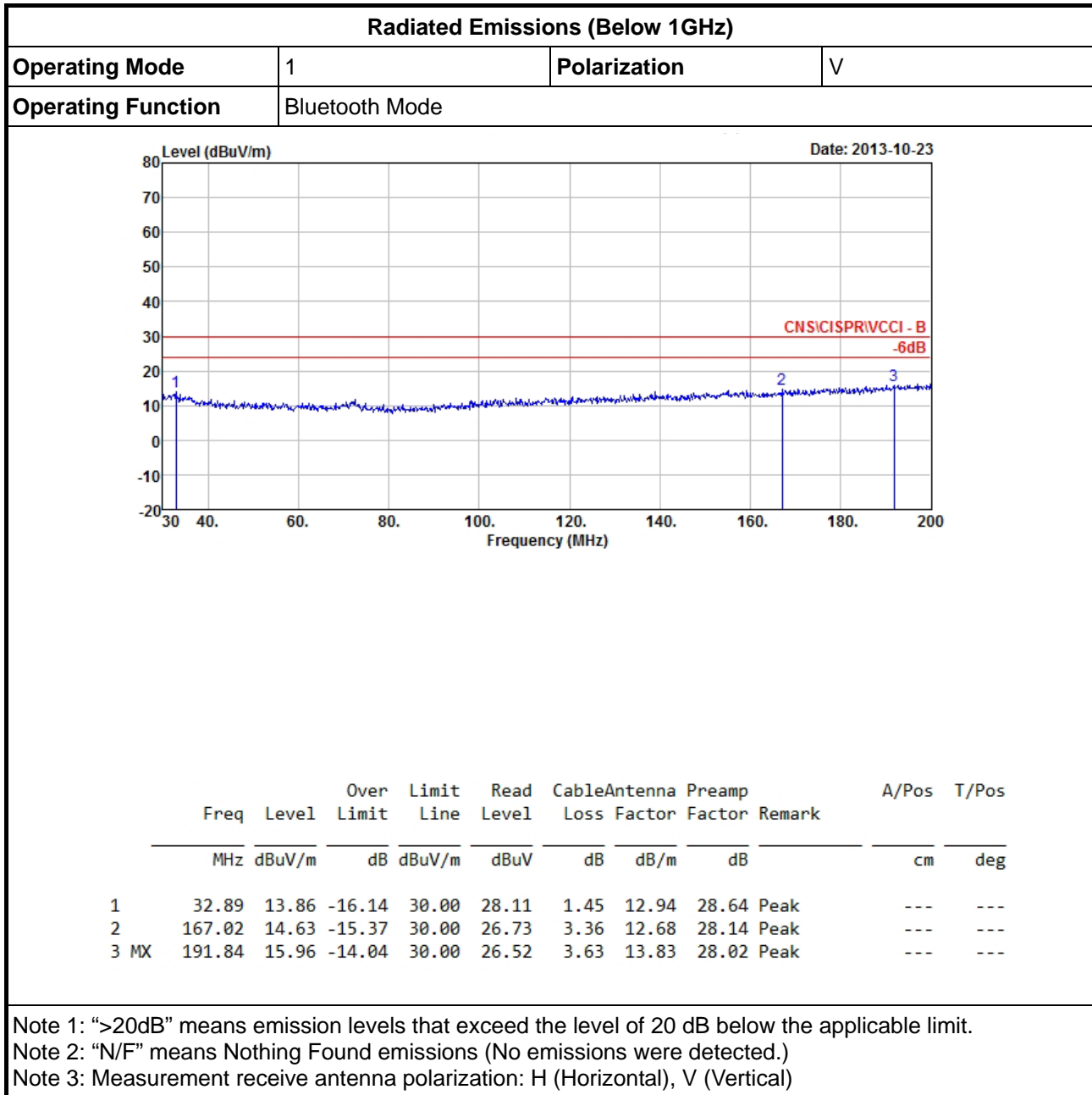


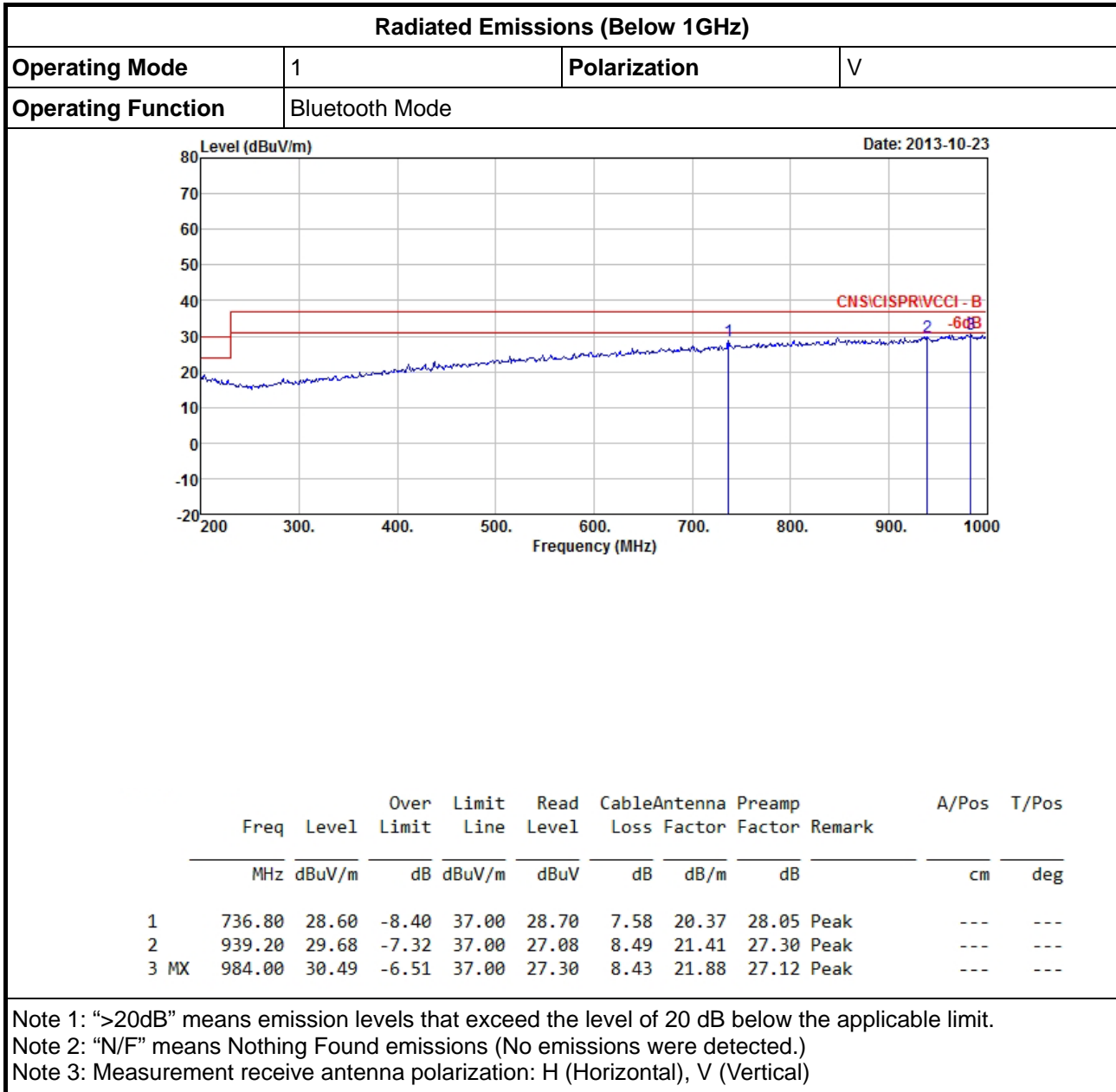
For radiated emissions 30 MHz to 1 GHz, test distance is 10m.

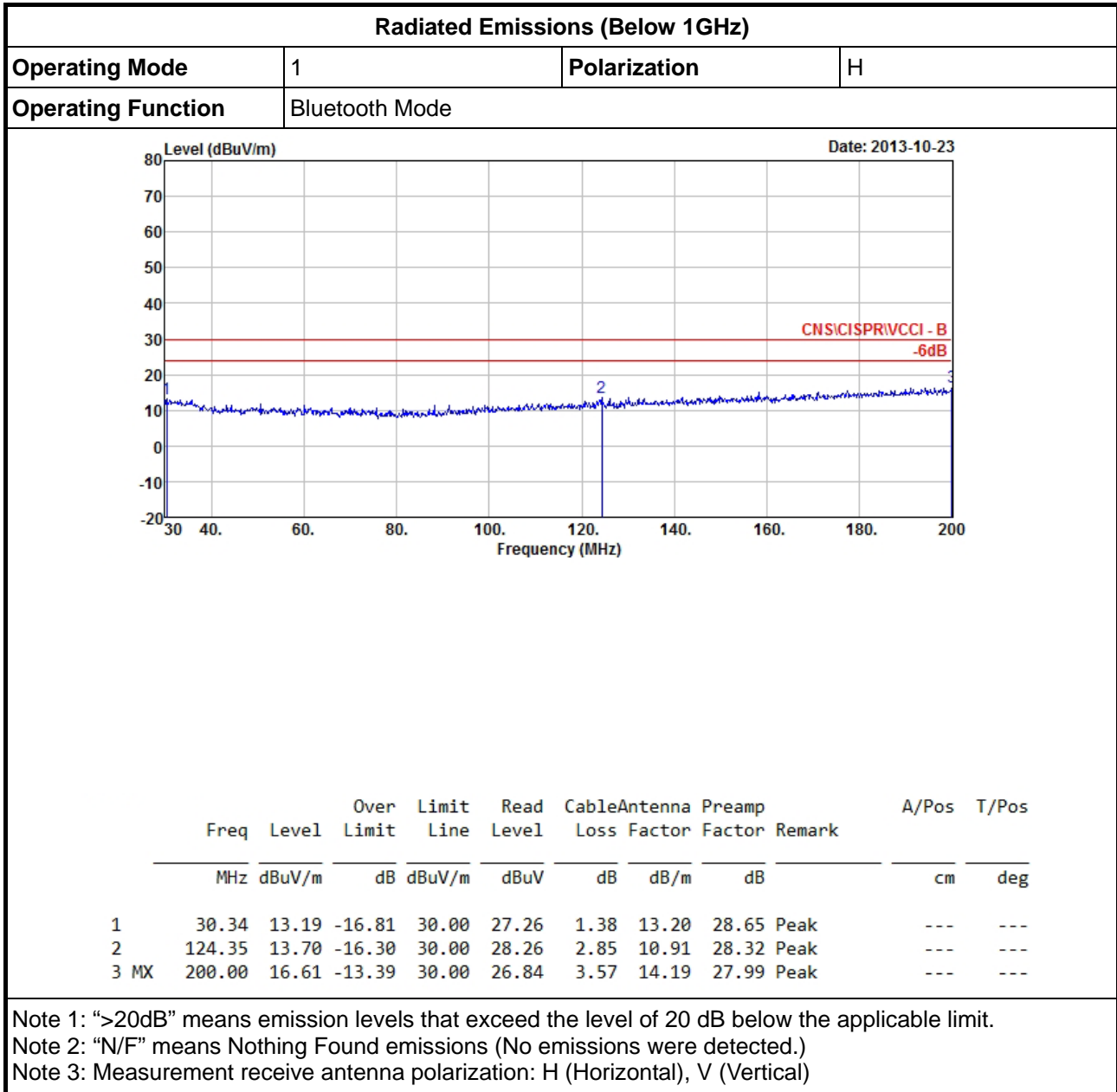
For radiated emissions 1 GHz to 5 GHz, test distance is 3m.

For radiated emissions above 5GHz, test distance is 1m.

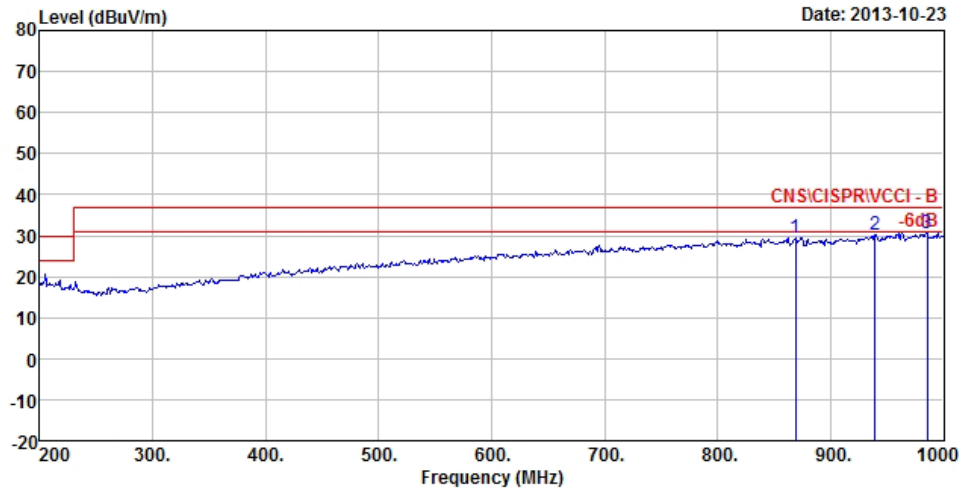
3.2.5 Radiated Emissions (Below 1GHz)







Radiated Emissions (Below 1GHz)			
Operating Mode	1	Polarization	H
Operating Function	Bluetooth Mode		



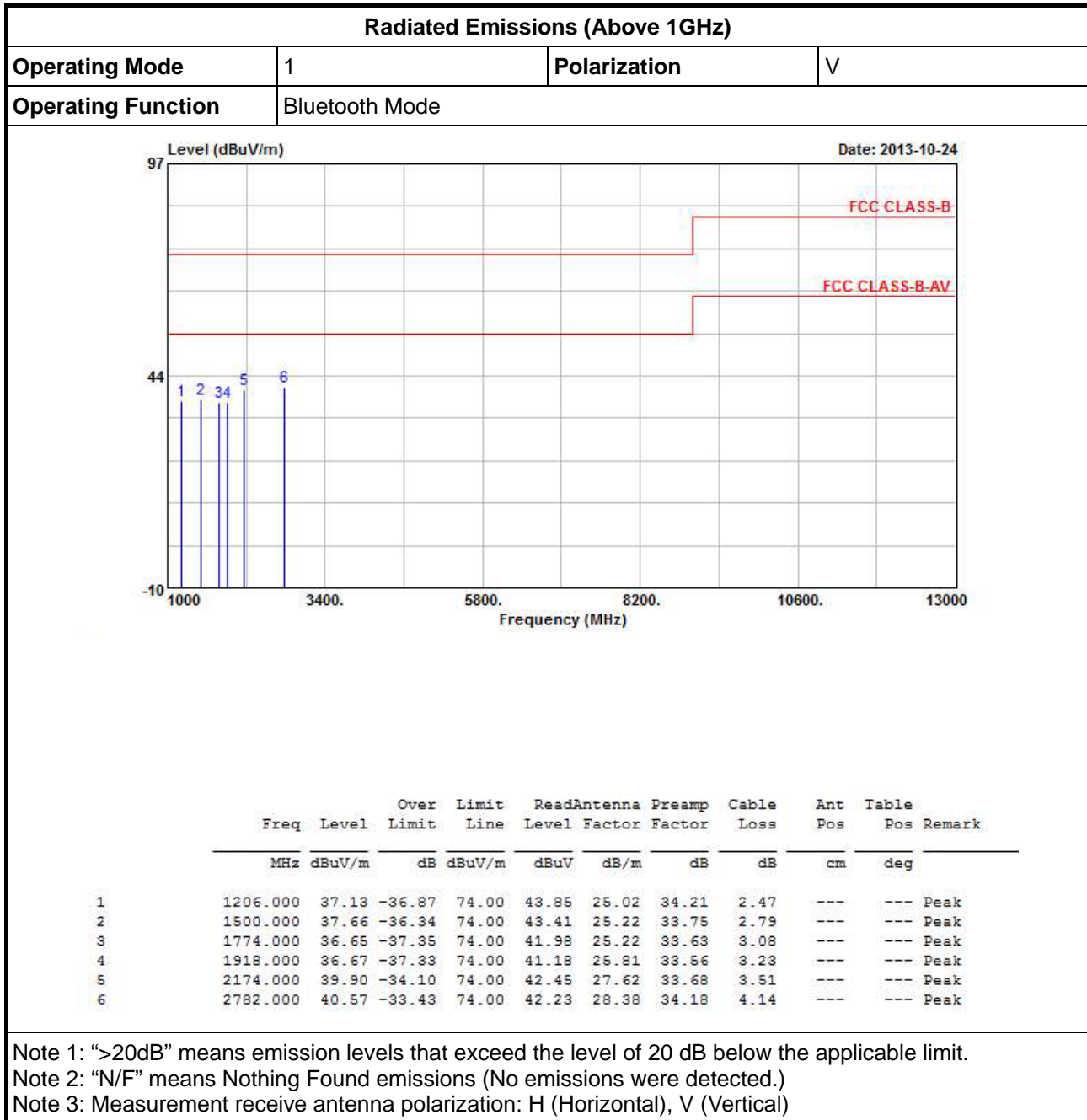
	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB/m	dB		cm	deg
1	868.80	29.42	-7.58	37.00	27.74	8.30	20.97	27.59	Peak	---	---
2	939.20	30.24	-6.76	37.00	27.64	8.49	21.41	27.30	Peak	---	---
3 MX	985.60	30.61	-6.39	37.00	27.41	8.43	21.89	27.12	Peak	100	240

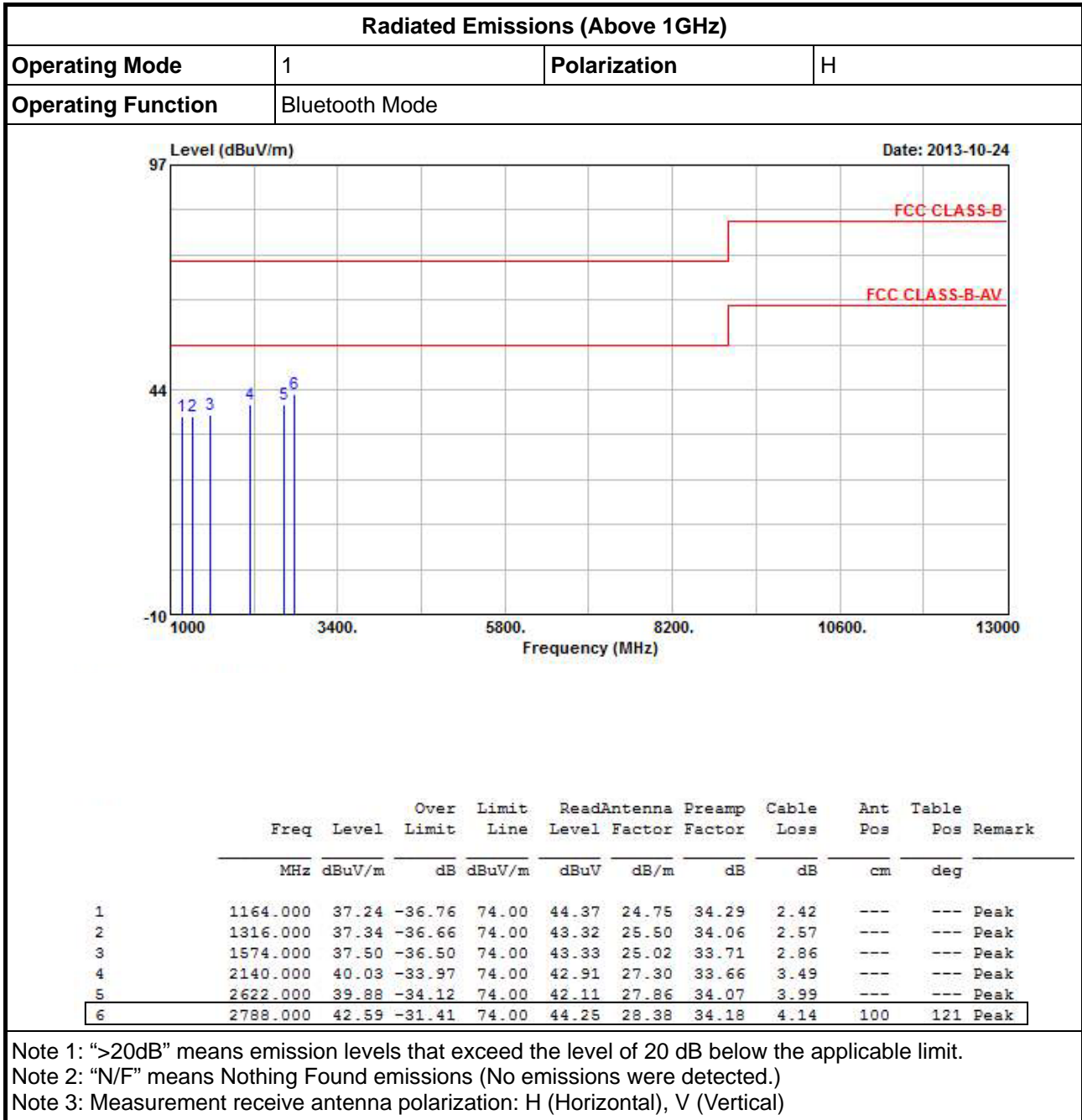
Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

3.2.6 Radiated Emissions (Above 1GHz)





4 Test Equipment and Calibration Data

< Radiated Spurious Emissions Below 1GHz>

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
10m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-10M	10CH01-HY	30MHz ~ 1GHz 10m/3m	Jun. 10, 2013	Radiation (10CH01-HY)
Spectrum Analyzer	R&S	FSP7	838858/013	9kHz ~ 7GHz	Feb. 21, 2013	Radiation (10CH01-HY)
Receiver	R&S	ESI7	838496/009	20Hz ~ 7GHz	Jul. 23, 2013	Radiation (10CH01-HY)
Amplifier	Agilent	8447D	2944A10825	100kHz ~ 1.3GHz	Apr. 19, 2013	Radiation (10CH01-HY)
Amplifier	Agilent	8447D	2944A10826	100kHz ~ 1.3GHz	Apr. 12, 2013	Radiation (10CH01-HY)
Biconical Antenna	Schwarz beck	VHBB 9124	286	30MHz ~ 200MHz	Aug. 02, 2013	Radiation (10CH01-HY)
Log Antenna	Schwarz beck	VUSLP 9111	206	200MHz ~ 1GHz	Aug. 02, 2013	Radiation (10CH01-HY)
Turn Table	HD	DT 60 RPS	1513/004/00	0 ~ 360 degree	N/A	Radiation (10CH01-HY)
Antenna Mast	HD	MA240	240/556/00	1 ~ 4 m	N/A	Radiation (10CH01-HY)
Antenna Mast	HD	MA240	240/559/00	1 ~ 4 m	N/A	Radiation (10CH01-HY)
RF Cable-R10m	BELDEN	RG8/U	CB023-INSIDE	30MHz ~ 1GHz	Nov. 15, 2012	Radiation (10CH01-HY)
RF Cable-R10m	Suhner Switzerland + Rosenberger	RG223/U + UAA220A-0	CB022-DOOR	30MHz ~ 1GHz	Nov. 15, 2012	Radiation (10CH01-HY)

Note: Calibration Interval of instruments listed above is one year. NCR: Non-Calibration required.

< Radiated Spurious Emissions Above 1GHz>

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH04-HY	1 GHz ~ 6 GHz 3m	May. 17, 2013	Radiation (03CH04-HY)
Spectrum Analyzer	R&S	FSP40	100004	9 kHz ~ 40 GHz	Mar. 11, 2013	Radiation (03CH04-HY)
Amplifier	Agilent	8449B	3008A02326	1 GHz ~ 26.5 GHz	May. 17, 2013	Radiation (03CH04-HY)
Horn Antenna	SCHWARZBECK	BBHA9120	BBHA9120D1130	1 GHz ~ 18 GHz	Sep.10, 2013	Radiation (03CH04-HY)
Turn Table	Chaintek	3000	-	0 ~ 360 degree	NCR	Radiation (03CH04-HY)
Antenna Mast	Chaintek	-	-	1 m ~ 4 m	NCR	Radiation (03CH04-HY)
RF Cable-HIGH	SUHNER	SUCOFLEX 106	CB063-HF	1 GHz ~ 40 GHz	Nov. 21, 2012	Radiation (03CH04-HY)

Note: Calibration Interval of instruments listed above is one year.



Appendix A. Test Photos

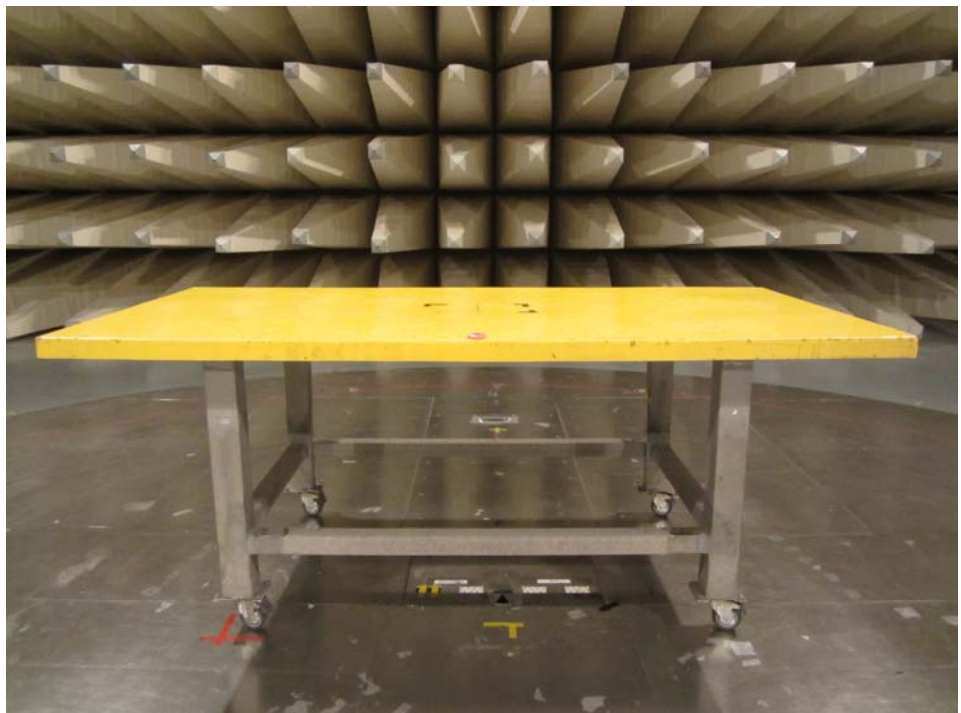
1 Photographs of Radiated Emissions Test Configuration

For radiated emissions 30MHz~1GHz

FRONT VIEW

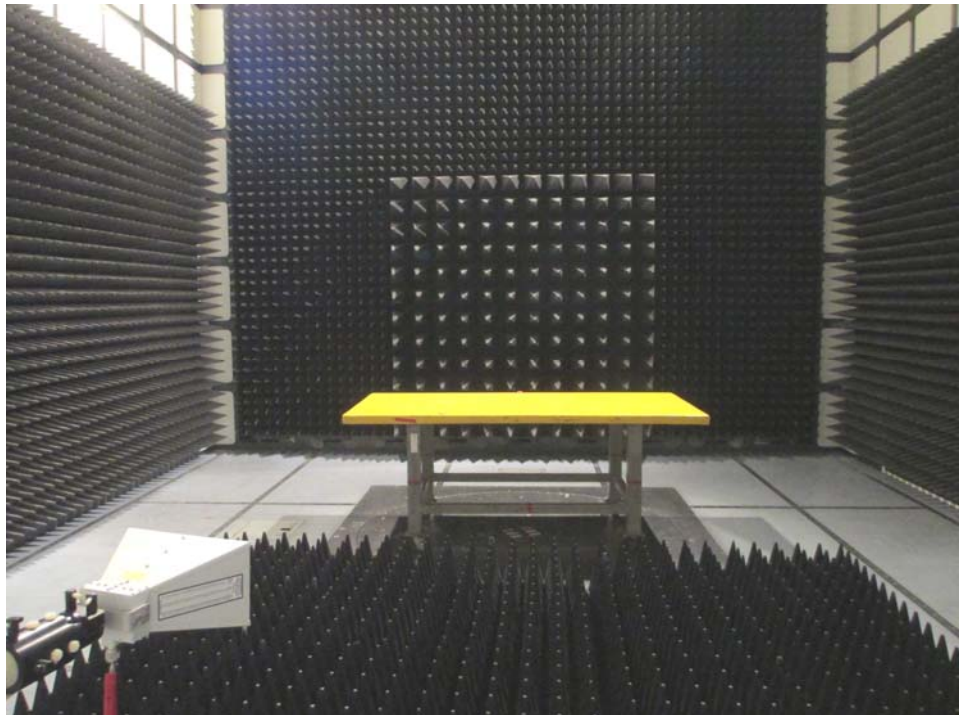


REAR VIEW

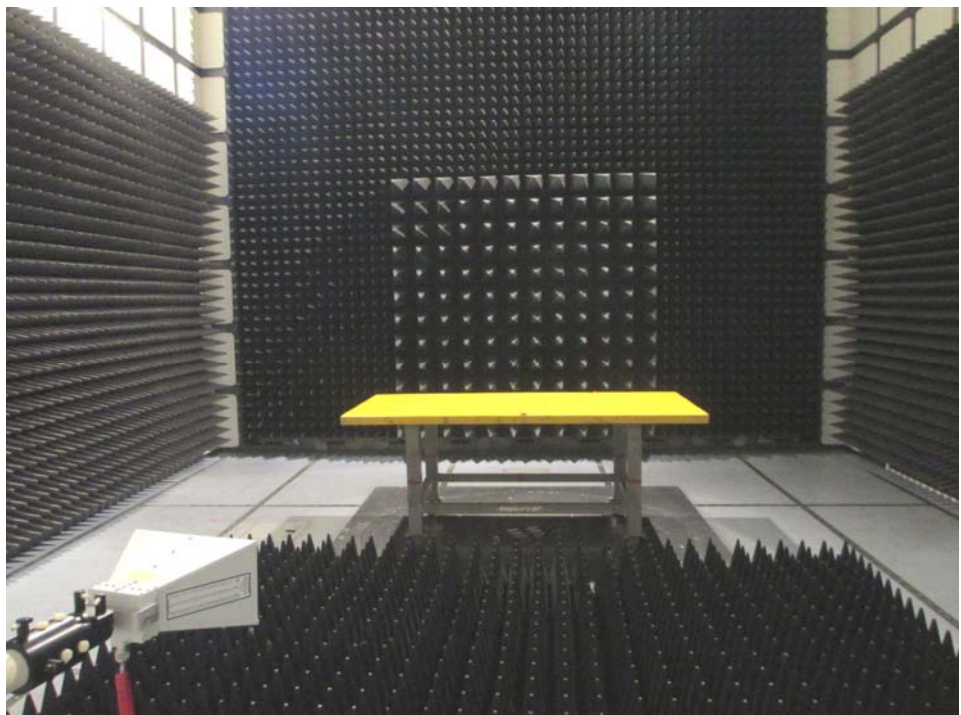


For radiated emissions above 1GHz

FRONT VIEW



REAR VIEW



APPENDIX B. Photographs of EUT

