

FCC Test Report

Product Name	<p>MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch</p>
Model No.	<p>MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map</p>

	GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch
FCC ID.	2AD4S-LEZYNE-GPS07

Applicant	Lezyne USA, Incorporated
Address	645 Tank Farm Road Unit F San Luis Obispo Califorina 93401 United States

Date of Receipt	Jul. 26, 2016
Issued Date	Dec. 28, 2016
Report No.	1680004R-RFUSP25V00
Report Version	V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

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Test Report

Issued Date: Dec. 28, 2016

Report No.: 1680004R-RFUSP25V00



Product Name	MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch
Applicant	Lezyne USA, Incorporated
Address	645 Tank Farm Road Unit F San Luis Obispo Califorina 93401 United States
Manufacturer	Lezyne USA, Incorporated
Model No.	MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL

	GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch, HECTO GPS, HECTO GPS Watch, HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS, HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS, HECTO Map XL GPS, HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS, HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch, MICRO GPS, MICRO GPS WATCH, MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL, MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS, MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS, MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch, MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS, MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS, MINI Map GPS, MINI Map XL GPS, MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS, MINI Touch Color GPS, MINI Touch Color GPS Watch, MINI Depth Watch
FCC ID.	2AD4S-LEZYNE-GPS07
EUT Rated Voltage	DC 3.7V (Power by Battery)
EUT Test Voltage	DC 3.7V (Power by Battery)
Trade Name	LEZYNE
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2015 ANSI C63.4: 2014, ANSI C63.10: 2013 KDB 558074 D01 DTS Meas Guidance v03r05
Test Result	Complied

Documented By :

Jinn Chen

(Senior Adm. Specialist / Jinn Chen)

Tested By :

Nova chu

(Engineer / Nova Chu)

Approved By :



(Director / Vincent Lin)

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch
Trade Name	LEZYNE
Model No.	MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch
FCC ID.	2AD4S-LEZYNE-GPS07

Frequency Range	2403-2480MHz
Channel Number	78 CH
Type of Modulation	GFSK(1Mbps)
Antenna Type	PIFA Antenna
Channel Control	Auto
Antenna Gain	Refer to the table “Antenna List”
USB Cable	Shielded, 2m

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	LEZYNE	N/A	PIFA Antenna	-2.4dBi for 2.4 GHz

Note: The antenna of EUT is conforming to FCC 15.203.

ANT+ Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 00:	2403 MHz	Channel 01:	2404 MHz	Channel 02:	2405 MHz	Channel 03:	2406 MHz
Channel 04:	2407 MHz	Channel 05:	2408 MHz	Channel 06:	2409 MHz	Channel 07:	2410 MHz
Channel 08:	2411 MHz	Channel 09:	2412 MHz	Channel 10:	2413 MHz	Channel 11:	2414 MHz
Channel 12:	2415 MHz	Channel 13:	2416 MHz	Channel 14:	2417 MHz	Channel 15:	2418 MHz
Channel 16:	2419 MHz	Channel 17:	2420 MHz	Channel 18:	2421 MHz	Channel 19:	2422 MHz
Channel 20:	2423 MHz	Channel 21:	2424 MHz	Channel 22:	2425 MHz	Channel 23:	2426 MHz
Channel 24:	2427 MHz	Channel 25:	2428 MHz	Channel 26:	2429 MHz	Channel 27:	2430 MHz
Channel 28:	2431 MHz	Channel 29:	2432 MHz	Channel 30:	2433 MHz	Channel 31:	2434 MHz
Channel 32:	2435 MHz	Channel 33:	2436 MHz	Channel 34:	2437 MHz	Channel 35:	2438 MHz
Channel 36:	2439 MHz	Channel 37:	2440 MHz	Channel 38:	2441 MHz	Channel 39:	2442 MHz
Channel 40:	2443 MHz	Channel 41:	2444 MHz	Channel 42:	2445 MHz	Channel 43:	2446 MHz
Channel 44:	2447 MHz	Channel 45:	2448 MHz	Channel 46:	2449 MHz	Channel 47:	2450 MHz
Channel 48:	2451 MHz	Channel 49:	2452 MHz	Channel 50:	2453 MHz	Channel 51:	2454 MHz
Channel 52:	2455 MHz	Channel 53:	2456 MHz	Channel 54:	2457 MHz	Channel 55:	2458 MHz
Channel 56:	2459 MHz	Channel 57:	2460 MHz	Channel 58:	2461 MHz	Channel 59:	2462 MHz
Channel 60:	2463 MHz	Channel 61:	2464 MHz	Channel 62:	2465 MHz	Channel 63:	2466 MHz
Channel 64:	2467 MHz	Channel 65:	2468 MHz	Channel 66:	2469 MHz	Channel 67:	2470 MHz
Channel 68:	2471 MHz	Channel 69:	2472 MHz	Channel 70:	2473 MHz	Channel 71:	2474 MHz
Channel 72:	2475 MHz	Channel 73:	2476 MHz	Channel 74:	2477 MHz	Channel 75:	2478 MHz
Channel 76:	2479 MHz	Channel 77:	2480 MHz				

Note:

- The EUT is a MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C

GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL, MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS, MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS, MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch, MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS, MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS, MINI Map GPS, MINI Map XL GPS, MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS, MINI Touch Color GPS, MINI Touch Color GPS Watch, MINI Depth Watch with a built-in GPS, ANT+ and Bluetooth V4.0 transceiver, this report for ANT+ transceiver.

2. The different of each model is shown as below

- MICRO COLOR GPS-ANT+ / Accelerator / barometer / Bluetooth
- FEMTO GPS - GPS only/Bluetooth
- FEMTO GPS Watch - Wrist mount/Bluetooth
- FEMTO COLOR GPS - ANT+/Bluetooth
- FEMTO COLOR GPS Watch - ANT+ / Wrist mount/Bluetooth
- FEMTO Enhanced GPS - GLONASS/Bluetooth
- FEMTO GPS XL - + battery capacity/Bluetooth
- FEMTO GPS XL Watch - + battery capacity / Wrist mount/Bluetooth
- FEMTO GPS XXL - + battery capacity / Higher memory/Bluetooth
- FEMTO Track GPS - Live Tracking/Bluetooth
- FEMTO Map GPS - Navigation/Bluetooth
- FEMTO Map XL GPS - Navigation / + battery capacity/Bluetooth
- FEMTO Over Drive GPS - Higher memory/Bluetooth
- FEMTO Touch GPS - Fitness Tracking/Bluetooth
- FEMTO Touch GPS Watch - Fitness Tracking / Wrist mount/Bluetooth
- FEMTO Touch XL GPS - Fitness Tracking / + battery capacity/Bluetooth
- FEMTO Touch Color GPS - Fitness Tracking / ANT+/Bluetooth
- FEMTO Touch Color GPS Watch - Fitness Tracking / ANT+ / wrist mount/Bluetooth
- FEMTO Depth Watch - waterproof wrist mount/Bluetooth
- HECTO GPS - GPS only/Accelerator / Bluetooth
- HECTO GPS Watch - Wrist mount/Accelerator / Bluetooth
- HECTO COLOR GPS - ANT+/Accelerator / Bluetooth
- HECTO COLOR GPS Watch - ANT+ / Wrist mount/Accelerator / Bluetooth
- HECTO Enhanced GPS - GLONASS/Accelerator / Bluetooth
- HECTO GPS XL - + battery capacity/Accelerator / Bluetooth
- HECTO GPS XL Watch - + battery capacity / Wrist mount/Accelerator / Bluetooth
- HECTO GPS XXL - + battery capacity / Higher memory/Accelerator / Bluetooth
- HECTO Track GPS - Live Tracking/Accelerator / Bluetooth
- HECTO Map GPS - Navigation/Accelerator / Bluetooth
- HECTO Map XL GPS - Navigation / + battery capacity/Accelerator / Bluetooth
- HECTO Over Drive GPS - Higher memory/Accelerator / Bluetooth
- HECTO Touch GPS - Fitness Tracking/Accelerator / Bluetooth

- HECTO Touch GPS Watch - Fitness Tracking / Wrist mount/Accelerator / Bluetooth
- HECTO Touch XL GPS - Fitness Tracking / + battery capacity/Accelerator / Bluetooth
- HECTO Touch Color GPS - Fitness Tracking / ANT+/Accelerator / Bluetooth
- HECTO Touch Color GPS Watch - Fitness Tracking / ANT+ / wrist mount/Accelerator / Bluetooth
- HECTO Depth Watch - waterproof wrist mount/Accelerator / Bluetooth
- MICRO GPS - GPS only/Accelerator / barometer / Bluetooth
- MICRO GPS WATCH - Wrist mount/Accelerator / barometer / Bluetooth
- MICRO C GPS WATCH - ANT+ / Wrist mount/Accelerator / barometer / Bluetooth
- MICRO Enhanced GPS - GLONASS/Accelerator / barometer / Bluetooth
- MICRO GPS XL - + battery capacity/Accelerator / barometer / Bluetooth
- MICRO GPS XL Watch - + battery capacity / Wrist mount/Accelerator / barometer / Bluetooth
- MICRO GPS XXL - + battery capacity / Higher memory/Accelerator / barometer / Bluetooth
- MICRO Track GPS - Live Tracking/Accelerator / barometer / Bluetooth
- MICRO Map GPS - Navigation/Accelerator / barometer / Bluetooth
- MICRO Map XL GPS - Navigation / + battery capacity/Accelerator / barometer / Bluetooth
- MICRO Over Drive GPS - Higher memory/Accelerator / barometer / Bluetooth
- MICRO Touch GPS - Fitness Tracking/Accelerator / barometer / Bluetooth
- MICRO Touch GPS Watch - Fitness Tracking / Wrist mount/Accelerator / barometer / Bluetooth
- MICRO Touch XL GPS - Fitness Tracking / + battery capacity/Accelerator / barometer / Bluetooth
- MICRO Touch Color GPS - Fitness Tracking / ANT+/Accelerator / barometer / Bluetooth
- MICRO Touch Color GPS Watch - Fitness Tracking / ANT+ / wrist mount/Accelerator / barometer / Bluetooth
- MICRO Depth Watch - waterproof wrist mount/Accelerator / barometer / Bluetooth
- MINI GPS - GPS only/barometer / Bluetooth
- MINI GPS Watch - Wrist mount/barometer / Bluetooth
- MINI COLOR GPS - ANT+/barometer / Bluetooth
- MINI COLOR GPS Watch - ANT+ / Wrist mount/barometer / Bluetooth
- MINI Enhanced GPS - GLONASS/barometer / Bluetooth
- MINI GPS XL - + battery capacity/barometer / Bluetooth
- MINI GPS XL Watch - + battery capacity / Wrist mount/barometer / Bluetooth
- MINI GPS XXL - + battery capacity / Higher memory/barometer / Bluetooth
- MINI Track GPS - Live Tracking/barometer / Bluetooth
- MINI Map GPS - Navigation/barometer / Bluetooth
- MINI Map XL GPS - Navigation / + battery capacity/barometer / Bluetooth
- MINI Over Drive GPS - Higher memory/barometer / Bluetooth
- MINI Touch GPS - Fitness Tracking/barometer / Bluetooth
- MINI Touch GPS Watch - Fitness Tracking / Wrist mount/barometer / Bluetooth
- MINI Touch XL GPS - Fitness Tracking / + battery capacity/barometer / Bluetooth
- MINI Touch Color GPS - Fitness Tracking / ANT+/barometer / Bluetooth
- MINI Touch Color GPS Watch - Fitness Tracking / ANT+ / wrist mount/barometer / Bluetooth
- MINI Depth Watch - waterproof wrist mount/barometer / Bluetooth

3. These tests were conducted on a sample for the purpose of demonstrating compliance of Bluetooth transmitter with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
4. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
5. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

Test Mode	Mode 1: Transmit - ANT+
-----------	-------------------------

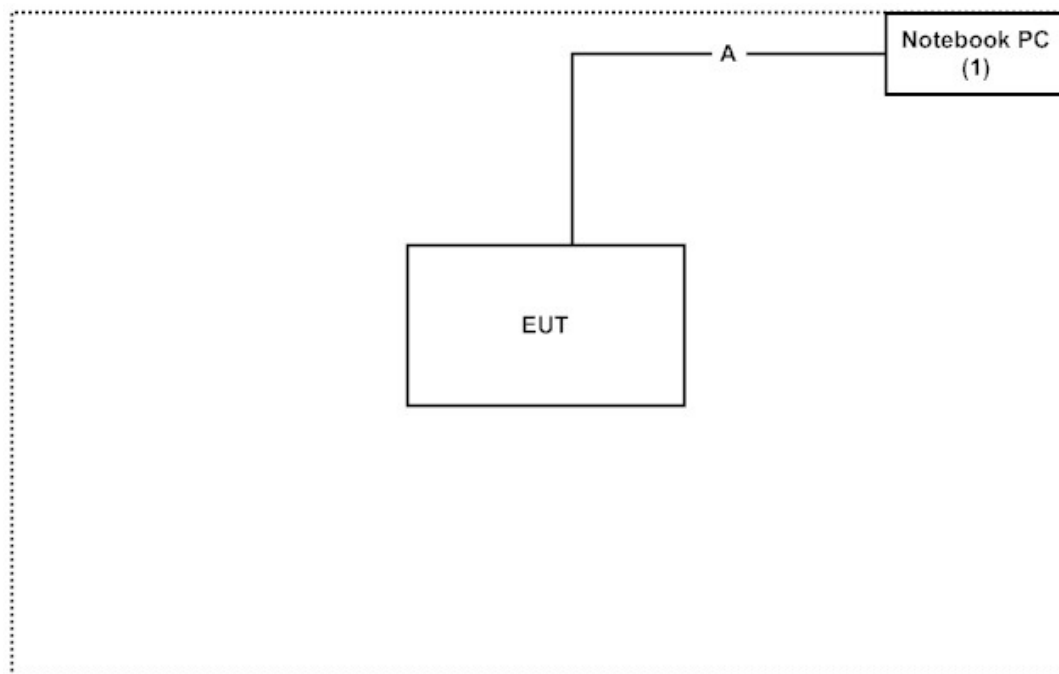
1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook PC	Lenovo	R400	L3AAF9A	Non-shielded, 0.8m

Signal Cable Type		Signal cable Description
A	USB Cable	Shielded, 1m

1.4. Configuration of Tested System



1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute software "Putty v0.63" on the Notebook PC.
3. Configure the test mode, the test channel, and the data rate.
4. Press "OK" to start the continuous Transmit.
5. Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	30-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from DEKRA Testing and Certification Co., Ltd. Web Site:

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E-Mail : info.tw@dekra.com

FCC Accreditation Number: TW1014

1.7. List of Test Equipment

For Conducted measurements /CB3/SR8

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Spectrum Analyzer	Agilent	N9010A	MY48030495	2016/7/22	2017/7/21
X	Power Meter	Anritsu	ML2495A	6K00003357	2016/6/23	2017/6/22
X	EMI Test Receiver	R&S	ESCS 30	100369	2016/10/13	2017/10/12
X	LISN	R&S	ESH3-Z5	836679/017	2016/1/7	2017/1/6
X	LISN	R&S	ENV216	100097	2016/1/7	2017/1/6
X	Coaxial Cable	QTK(Arnist)	RG 400	LC018-RG	2016/6/25	2017/6/24

For Radiated measurements /Site3/CB8

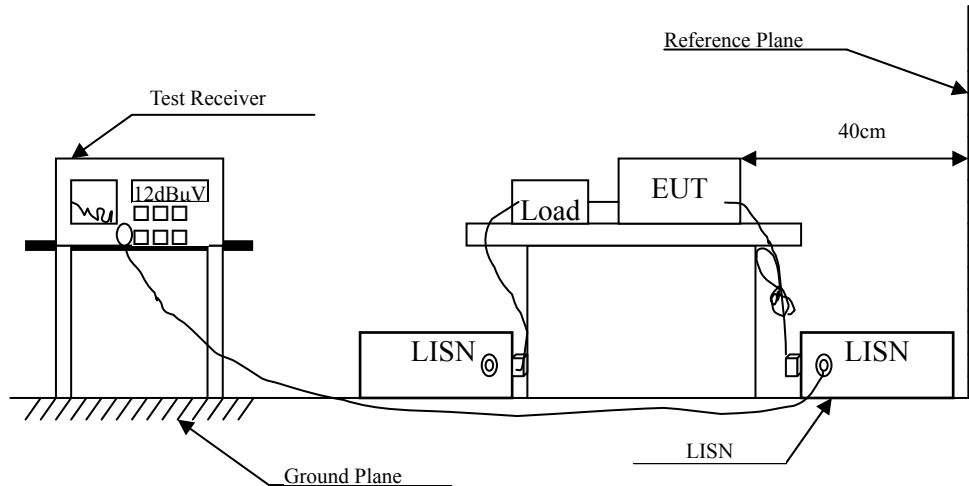
	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Spectrum Analyzer	R&S	FSP40	100170	2016/1/5	2017/1/4
X	Bi-Log Antenna	Schaffner Chase	CBL6112B	2707	2016/9/10	2017/9/9
X	Horn Antenna	ETS-Lindgren	3117	00135205	2016/4/6	2017/4/5
	Horn Antenna	Schwarzbeck	BBHA9170	9170430	2016/1/11	2017/1/10
X	Pre-Amplifier	QTK	AP/0100A	CHM/0901069	2016/6/28	2017/6/27
X	Pre-Amplifier	EMCI	EMC012630SE	980210	2016/1/27	2017/1/26
	Pre-Amplifier	NARDA WE	DBL-1840N506	013	2016/9/30	2017/9/29
X	Filter	MicroTRON	BRM50701	019	2016/11/2	2017/11/1
	Filter	Microwave Circuits	N0257881	36681	2015/12/7	2016/12/6
X	EMI Test Receiver	R&S	ESR26	101385	2016/9/29	2017/9/28
X	Coaxial Cable	QTK(Arnist)	SUCOFLEX 106	L1606-015C	2016/6/25	2017/6/24
X	EMI Test Receiver	R&S	ESCS 30	838251/001	2016/7/21	2017/7/20
X	Coaxial Cable	QTK(Arnist)	RG 214	LC003-RG	2016/6/21	2017/6/20
X	Coaxial signal switch	Anritsu	MP59B	6201415889	2016/6/16	2017/6/15

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version : QuieTek EMI 2.0 V2.1.113

2. Conducted Emission

2.1. Test Setup



2.2. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBμV) Limit		
Frequency MHz	Limits	
	QP	AV
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

Remarks: In the above table, the tighter limit applies at the band edges.

2.3. Test Procedure

The EUT and Peripherals are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /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 refer 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 the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

The EUT was setup to ANSI C63.4, 2014; tested to DTS test procedure of FCC KDB-558074 for compliance to FCC 47CFR Subpart C requirements.

2.4. Uncertainty

± 2.26 dB

2.5. Test Result of Conducted Emission

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

Test Item : Conducted Emission Test

Power Line : Line 1

Test date : 2016/12/26

Test Mode : Mode 1: Transmit - ANT+ (2441MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV	Margin dB	Limit dBμV
LINE 1					
Quasi-Peak					
0.159	10.012	39.768	49.779	-15.964	65.743
0.483	10.033	26.815	36.848	-19.638	56.486
0.805	9.968	24.522	34.489	-21.511	56.000
3.687	9.931	23.124	33.055	-22.945	56.000
9.820	10.035	27.412	37.447	-22.553	60.000
24.576	10.241	17.042	27.283	-32.717	60.000
Average					
0.159	10.012	26.521	36.533	-19.210	55.743
0.483	10.033	16.864	26.897	-19.589	46.486
0.805	9.968	15.915	25.883	-20.117	46.000
3.687	9.931	14.119	24.050	-21.950	46.000
9.820	10.035	22.010	32.045	-17.955	50.000
24.576	10.241	15.609	25.850	-24.150	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

Test Item : Conducted Emission Test

Power Line : Line 2

Test date : 2016/12/26

Test Mode : Mode 1: Transmit - ANT+ (2441MHz)

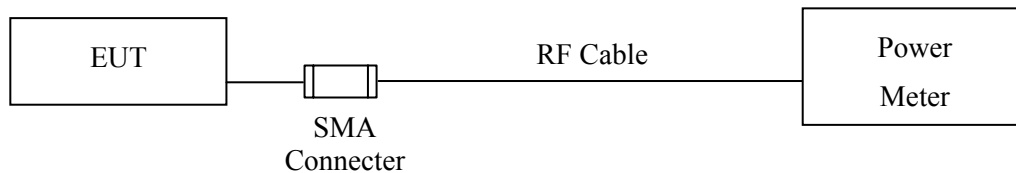
Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level	dB	dBμV
	dB	dBμV	dBμV		
LINE 2					
Quasi-Peak					
0.152	10.800	39.885	50.685	-15.258	65.943
0.805	9.964	23.937	33.901	-22.099	56.000
3.451	9.935	24.165	34.100	-21.900	56.000
9.962	10.036	21.376	31.412	-28.588	60.000
19.828	10.200	13.004	23.204	-36.796	60.000
24.576	10.270	16.271	26.541	-33.459	60.000
Average					
0.152	10.800	25.798	36.598	-19.345	55.943
0.805	9.964	15.626	25.590	-20.410	46.000
3.451	9.935	15.190	25.125	-20.875	46.000
9.962	10.036	15.456	25.492	-24.508	50.000
19.828	10.200	7.162	17.362	-32.638	50.000
24.576	10.270	13.826	24.096	-25.904	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

3. Peak Power Output

3.1. Test Setup



3.2. Limit

The maximum peak power shall be less 1Watt.

3.3. Test Procedure

Tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements. The maximum peak conducted output power using KDB 558074 section 9.1.3 PKPM1 Peak power meter method.

3.4. Uncertainty

± 1.19 dB

3.5. Test Result of Peak Power Output

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

Test Item : Peak Power Output

Test Site : No.3 OATS

Test date : 2016/12/21

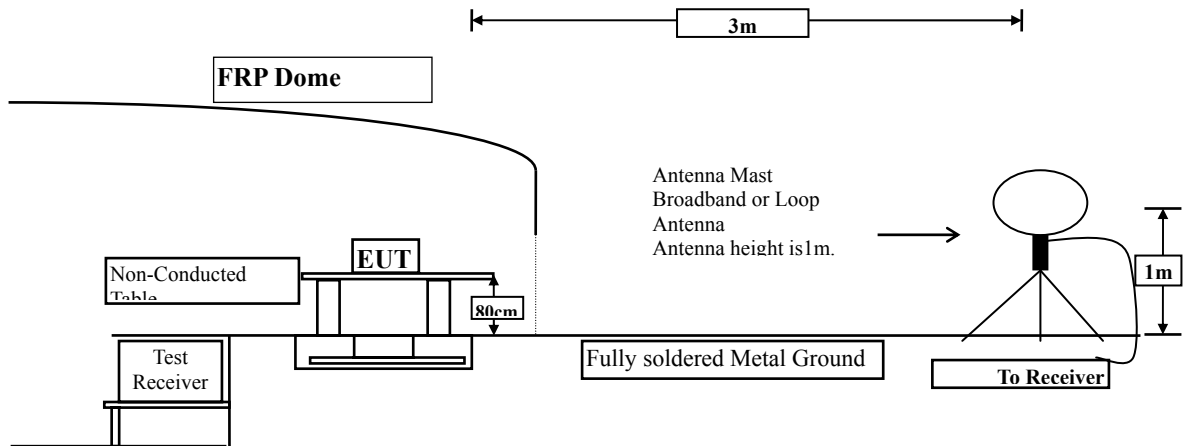
Test Mode : Mode 1: Transmit - ANT+

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2403.00	3.88	1 Watt= 30 dBm	Pass
Channel 38	2441.00	3.85	1 Watt= 30 dBm	Pass
Channel 77	2480.00	3.80	1 Watt= 30 dBm	Pass

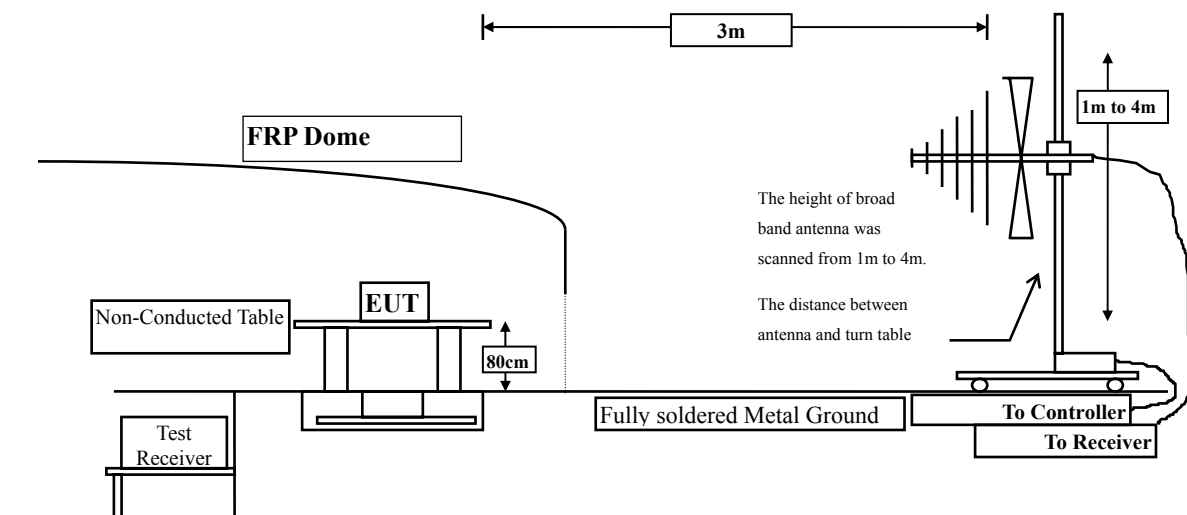
4. Radiated Emission

4.1. Test Setup

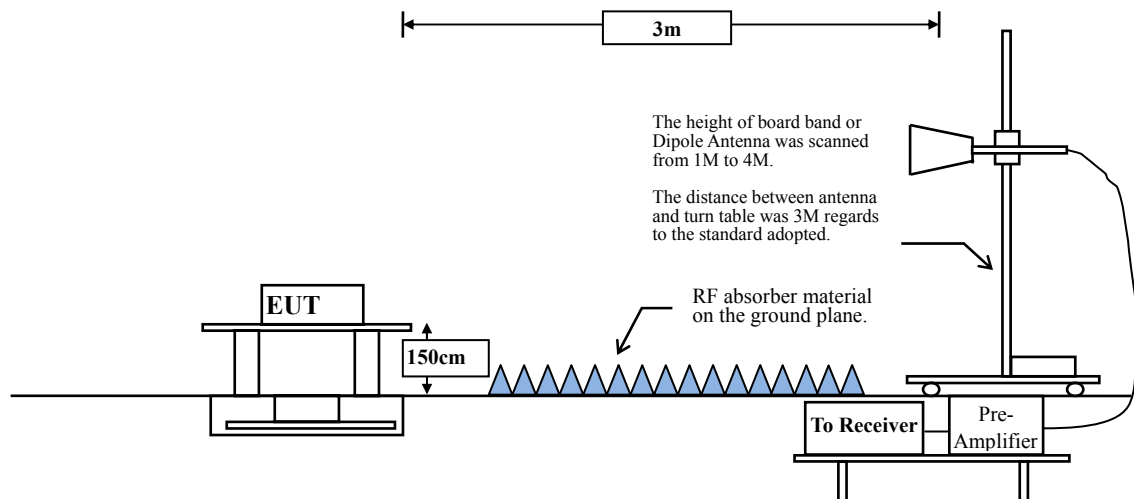
Radiated Emission Under 30MHz



Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



4.2. Limits

➤ General Radiated Emission Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	Field strength (microvolts/meter)	Measurement distance (meter)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

- Remarks:
1. RF Voltage (dB μ V) = 20 log RF Voltage (uV)
 2. In the Above Table, the tighter limit applies at the band edges.
 3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

4.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground, when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

The measurement frequency range from 9kHz - 10th Harmonic of fundamental was investigated.

4.4. Uncertainty

± 4.08 dB above 1GHz

± 4.22 dB below 1GHz

4.5. Test Result of Radiated Emission

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS

Test date : 2016/12/19

Test Mode : Mode 1: Transmit - ANT+(2402MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
4806.000	-3.770	45.460	41.689	-32.311	74.000
7209.000	-0.781	43.730	42.949	-31.051	74.000
9612.000	1.074	43.500	44.574	-29.426	74.000
Average Detector:					
Vertical					
Peak Detector:					
4806.000	-3.770	45.120	41.349	-32.651	74.000
7209.000	-0.781	44.120	43.339	-30.661	74.000
9612.000	1.074	44.960	46.034	-27.966	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS

Test date : 2016/12/19

Test Mode : Mode 1: Transmit - ANT+ (2441MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4882.000	-3.770	45.920	42.150	-31.850	4882.000
7323.000	-0.712	45.160	44.448	-29.552	7323.000
9764.000	1.371	43.960	45.332	-28.668	9764.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4882.000	-3.770	45.810	42.040	-31.960	74.000
7323.000	-0.712	43.700	42.988	-31.012	74.000
9764.000	1.371	43.470	44.842	-29.158	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS

Test date : 2016/12/19

Test Mode : Mode 1: Transmit - ANT+ (2480MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dBμV	dBμV/m	dB	dBμV/m
Horizontal					
Peak Detector:					
4960.000	-3.732	45.160	41.428	-32.572	74.000
7440.000	-0.646	45.290	44.643	-29.357	74.000
9920.000	1.687	43.480	45.167	-28.833	74.000
Average Detector:					
Vertical					
Peak Detector:					
4960.000	-3.732	45.380	41.648	-32.352	74.000
7440.000	-0.646	43.960	43.313	-30.687	74.000
9920.000	1.687	44.850	46.537	-27.463	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

Test Item : General Radiated Emission

Test Site : No.3 OATS

Test date : 2016/12/21

Test Mode : Mode 1: Transmit - ANT+ (2441MHz)

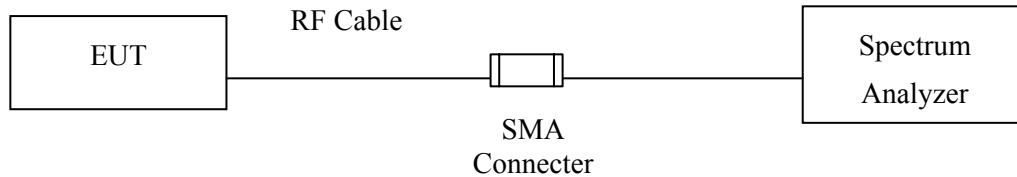
Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
34.217	-11.929	43.992	32.063	-7.937	40.000
157.928	-10.731	45.244	34.514	-8.986	43.500
336.464	-9.302	45.754	36.452	-9.548	46.000
559.986	-4.671	41.279	36.608	-9.392	46.000
652.768	-3.182	39.141	35.959	-10.041	46.000
935.333	0.820	35.435	36.255	-9.745	46.000
Vertical					
48.275	-10.871	41.767	30.895	-9.105	40.000
142.464	-11.207	46.270	35.063	-8.437	43.500
292.884	-10.403	45.071	34.668	-11.332	46.000
538.899	-5.139	38.546	33.407	-12.593	46.000
808.812	-0.919	36.751	35.832	-10.168	46.000
926.899	0.729	35.909	36.638	-9.362	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

5. RF Antenna Conducted Test

5.1. Test Setup



5.2. Limits

According to FCC Section 15.247(d). In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

5.3. Test Procedure

The EUT was tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

5.4. Uncertainty

$\pm 1.20\text{dB}$

5.5. Test Result of RF Antenna Conducted Test

Product	:	MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch
Test Item	:	RF Antenna Conducted Test
Test Site	:	No.3 OATS
Test date	:	2016/12/15
Test Mode	:	Mode 1: Transmit - ANT+

Figure Channel 00:

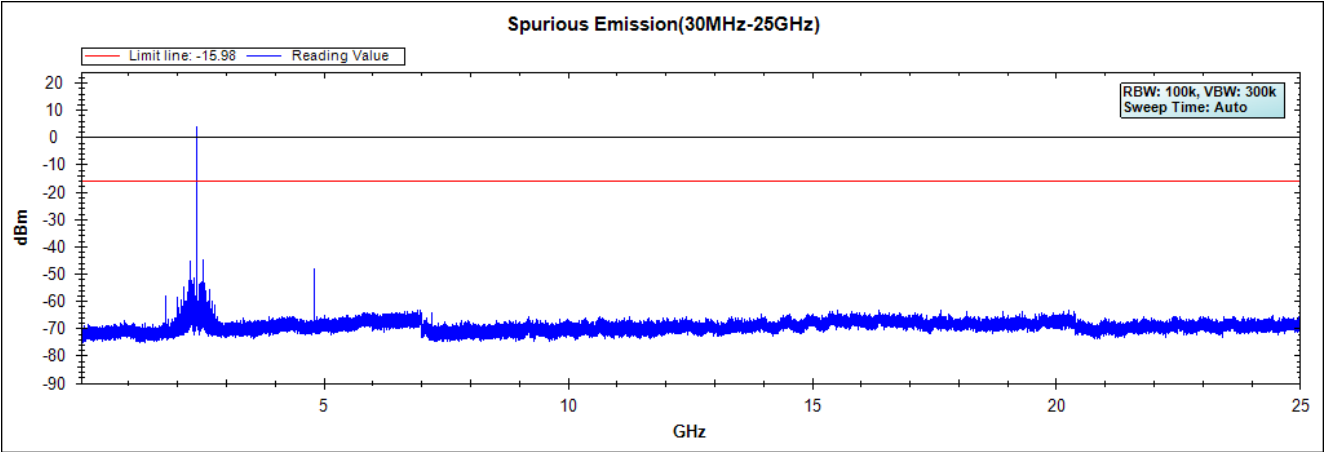


Figure Channel 38:

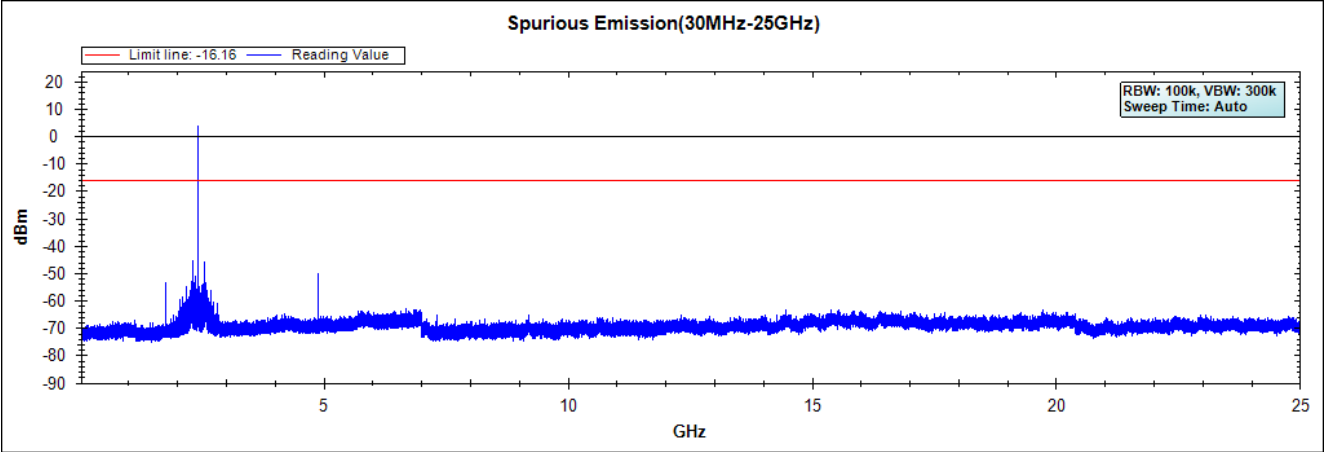
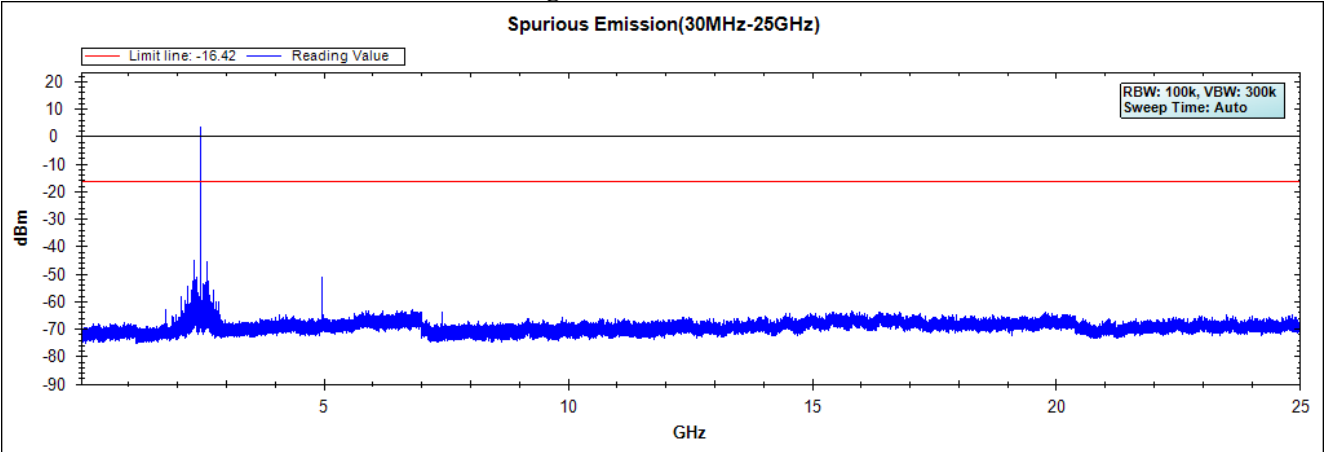


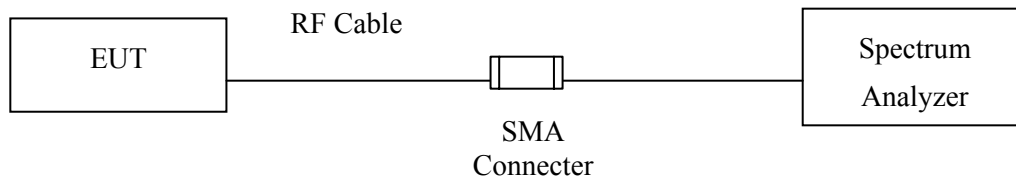
Figure Channel 77:



6. Band Edge

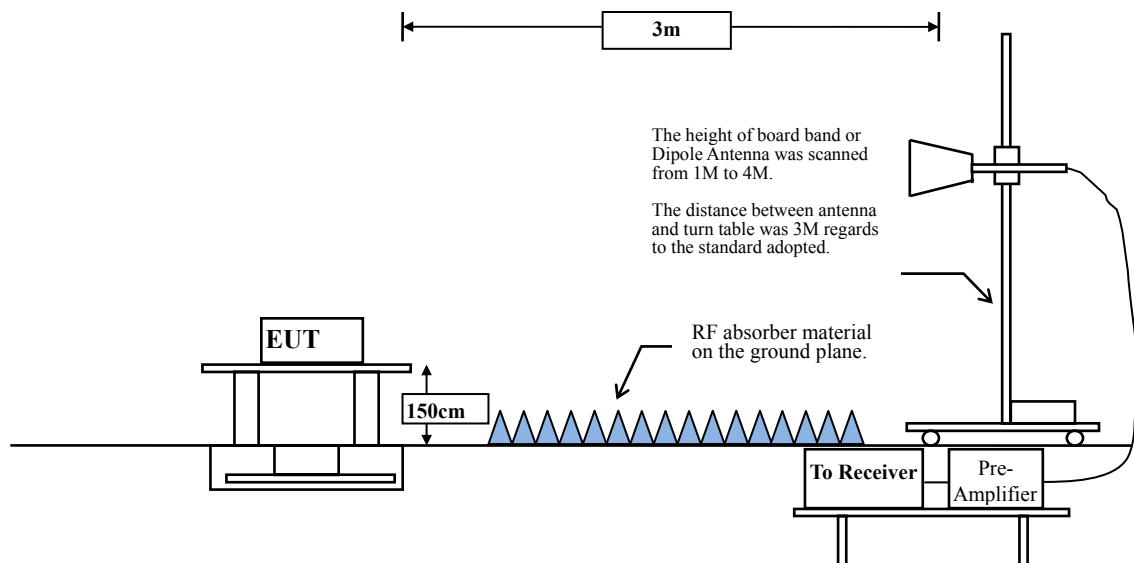
6.1. Test Setup

RF Conducted Measurement



RF Radiated Measurement:

Above 1GHz



6.2. Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

6.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.

6.4. Uncertainty

± 4.08 dB above 1GHz

± 4.22 dB below 1GHz

6.5. Test Result of Band Edge

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

Test Item : Band Edge

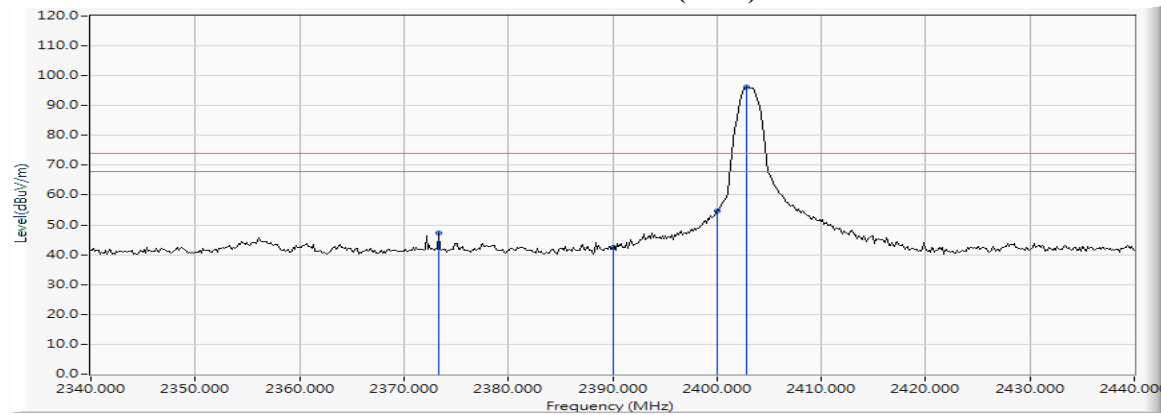
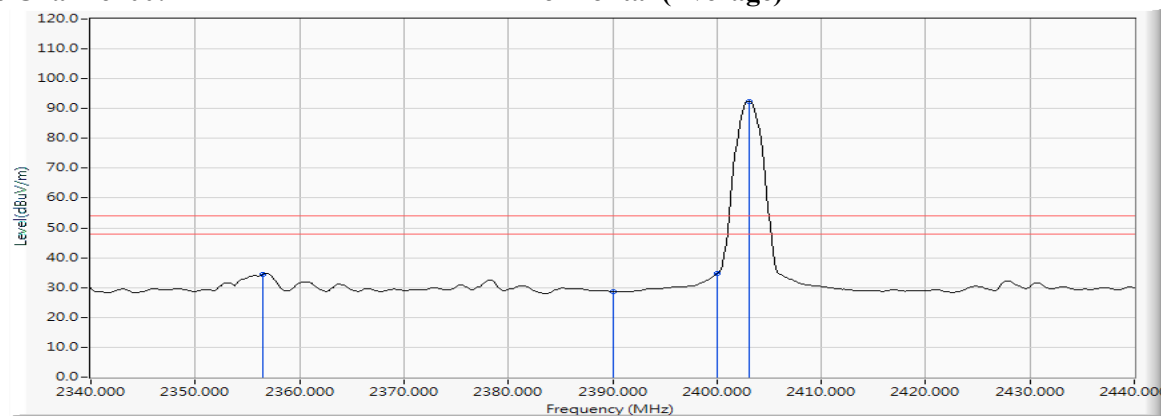
Test Site : No.3 OATS

Test date : 2016/12/19

Test Mode : Mode 1: Transmit - ANT+

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
00 (Peak)	2373.333	11.506	35.884	47.390	74.00	54.00	Pass
00 (Peak)	2390.000	11.556	30.858	42.414	74.00	54.00	Pass
00 (Peak)	2400.000	11.579	43.237	54.816	--	--	--
00 (Peak)	2402.899	11.586	84.466	96.052	--	--	--
00 (Average)	2356.522	11.450	22.985	34.435	74.00	54.00	Pass
00 (Average)	2390.000	11.556	16.955	28.511	74.00	54.00	Pass
00 (Average)	2400.000	11.579	23.025	34.604	--	--	--
00 (Average)	2403.043	11.586	80.741	92.327	--	--	--

Figure Channel 00:**Horizontal (Peak)****Figure Channel 00:****Horizontal (Average)**

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

Test Item : Band Edge

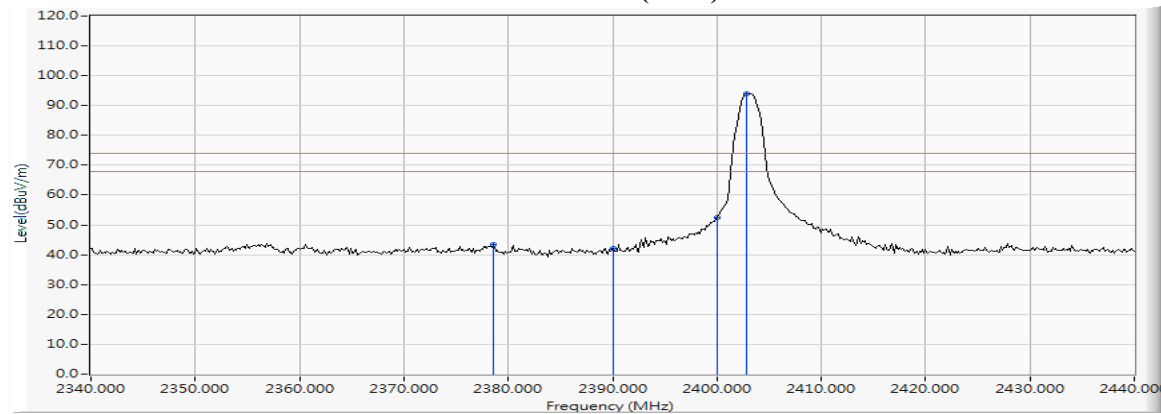
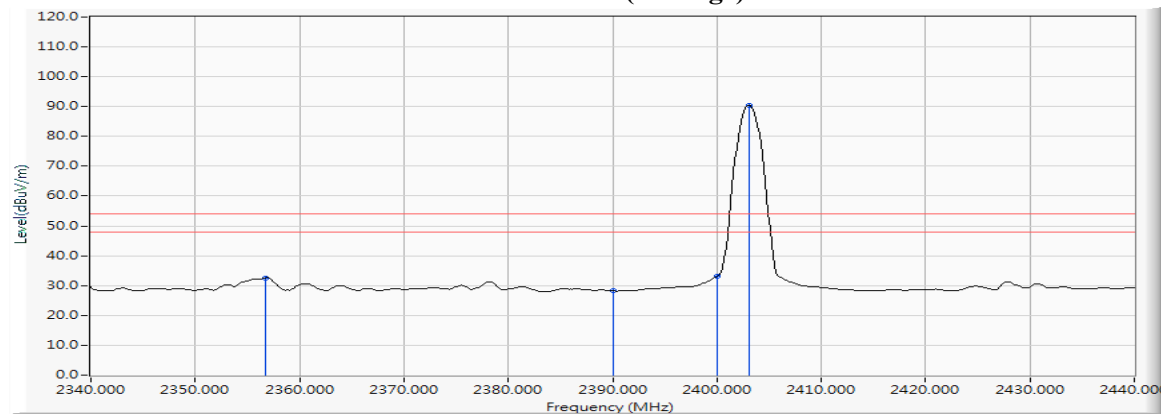
Test Site : No.3 OATS

Test date : 2016/12/19

Test Mode : Mode 1: Transmit - ANT+

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB μ V)	Emission Level (dB μ V/m)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)	Result
00 (Peak)	2378.551	11.524	31.748	43.272	74.00	54.00	Pass
00 (Peak)	2390.000	11.556	30.573	42.129	74.00	54.00	Pass
00 (Peak)	2400.000	11.579	40.763	52.342	--	--	--
00 (Peak)	2402.899	11.586	82.355	93.941	--	--	--
00 (Average)	2356.667	11.450	21.164	32.615	74.00	54.00	Pass
00 (Average)	2390.000	11.556	16.595	28.151	74.00	54.00	Pass
00 (Average)	2400.000	11.579	21.635	33.214	--	--	--
00 (Average)	2403.043	11.586	78.724	90.310	--	--	--

Figure Channel 00:**Vertical (Peak)****Figure Channel 00:****Vertical (Average)**

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

Test Item : Band Edge

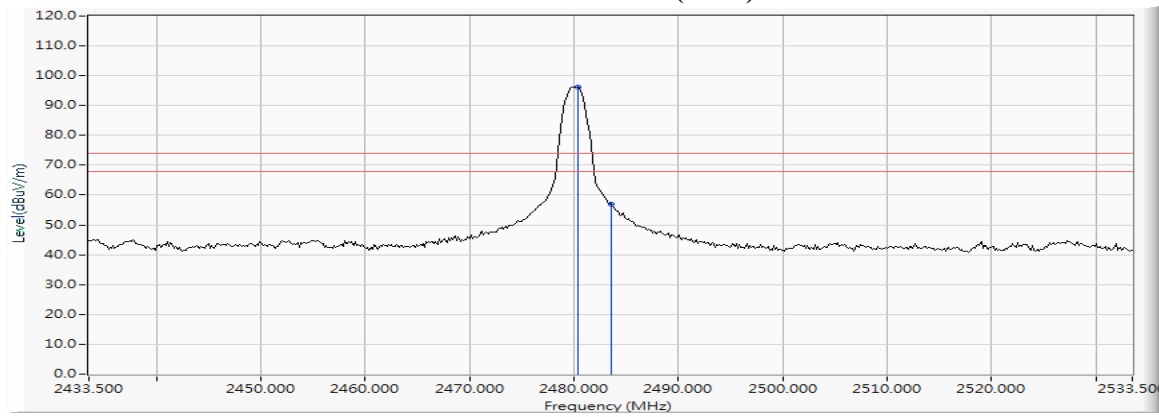
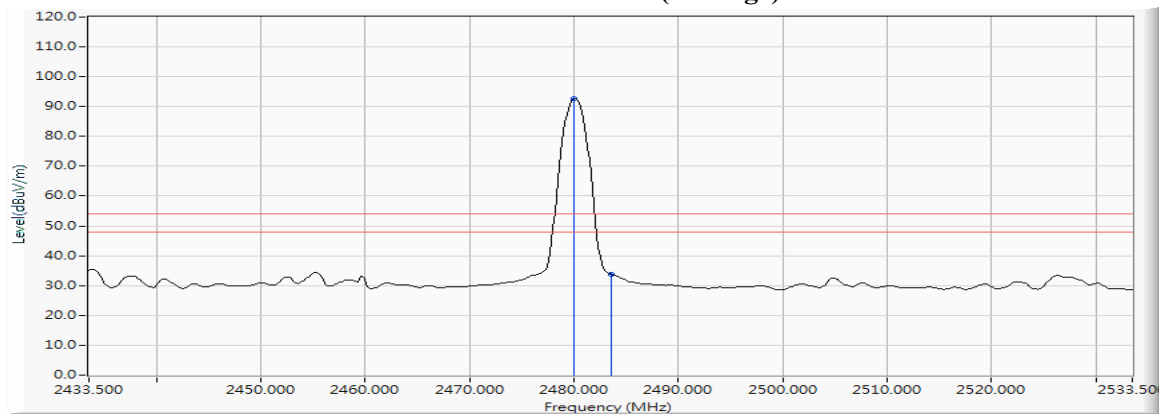
Test Site : No.3 OATS

Test date : 2016/12/19

Test Mode : Mode 1: Transmit - ANT+

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB μ V)	Emission Level (dB μ V/m)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)	Result
39 (Peak)	2480.312	11.792	84.468	96.260	--	--	--
39 (Peak)	2483.500	11.800	45.056	56.856	74.00	54.00	Pass
39 (Average)	2480.022	11.791	80.753	92.544	--	--	--
39 (Average)	2483.500	11.800	22.028	33.828	74.00	54.00	Pass

Figure Channel 77:**Horizontal (Peak)****Figure Channel 77:****Horizontal (Average)**

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

Test Item : Band Edge

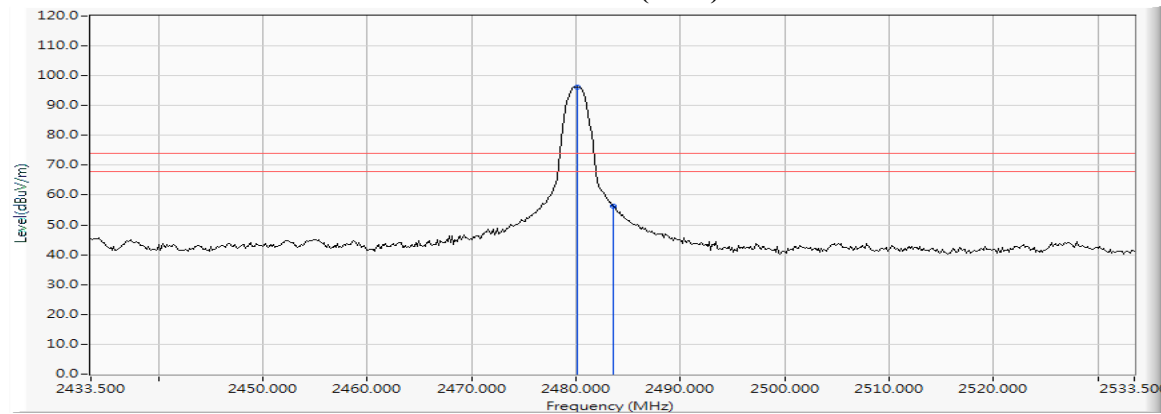
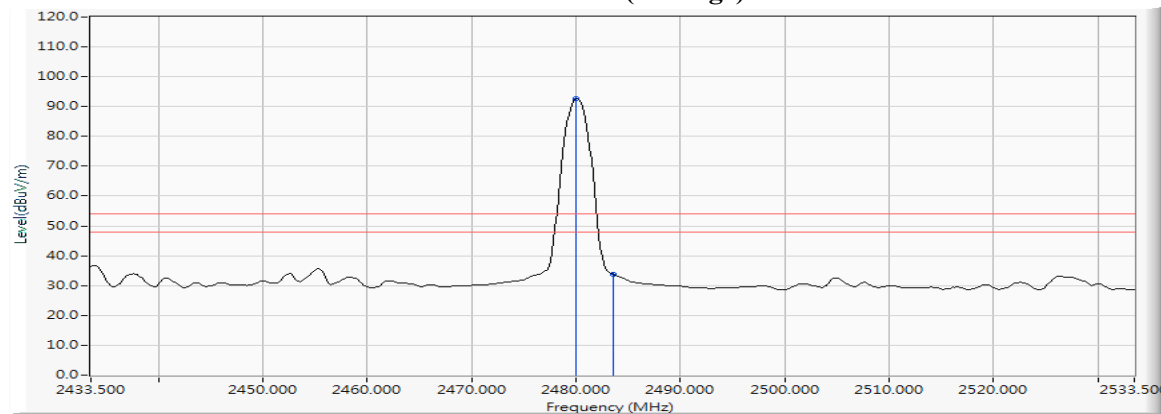
Test Site : No.3 OATS

Test date : 2016/12/19

Test Mode : Mode 1: Transmit - ANT+

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dB μ V)	Emission Level (dB μ V/m)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)	Result
39 (Peak)	2480.167	11.792	84.475	96.267	--	--	--
39 (Peak)	2483.500	11.800	44.644	56.444	74.00	54.00	Pass
39 (Average)	2480.022	11.791	80.769	92.560	--	--	--
39 (Average)	2483.500	11.800	21.969	33.769	74.00	54.00	Pass

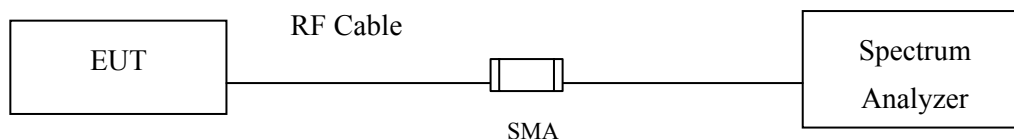
Figure Channel 77:**Vertical (Peak)****Figure Channel 77:****Vertical (Average)**

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. 6dB Bandwidth

7.1. Test Setup



7.2. Limits

The minimum bandwidth shall be at least 500 kHz.

7.3. Test Procedure

The EUT was setup according to ANSI C63.10 2013; tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 1-5% of the emission bandwidth, $VBW \geq 3 \cdot RBW$

7.4. Uncertainty

$\pm 283\text{Hz}$

7.5. Test Result of 6dB Bandwidth

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

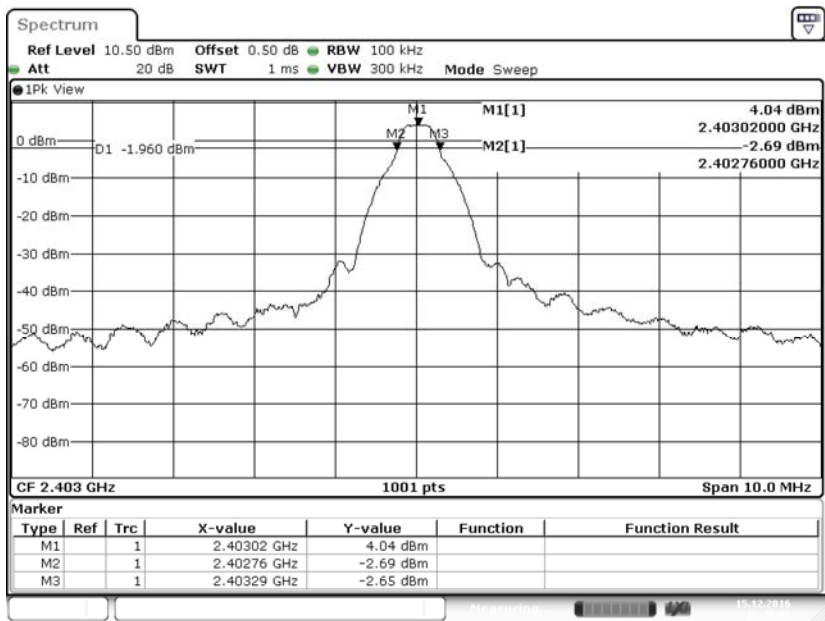
Test Item : 6dB Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmit - ANT+ (2402MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	530	>500	Pass

Figure Channel 00:



Date: 15.DEC.2016 16:47:07

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

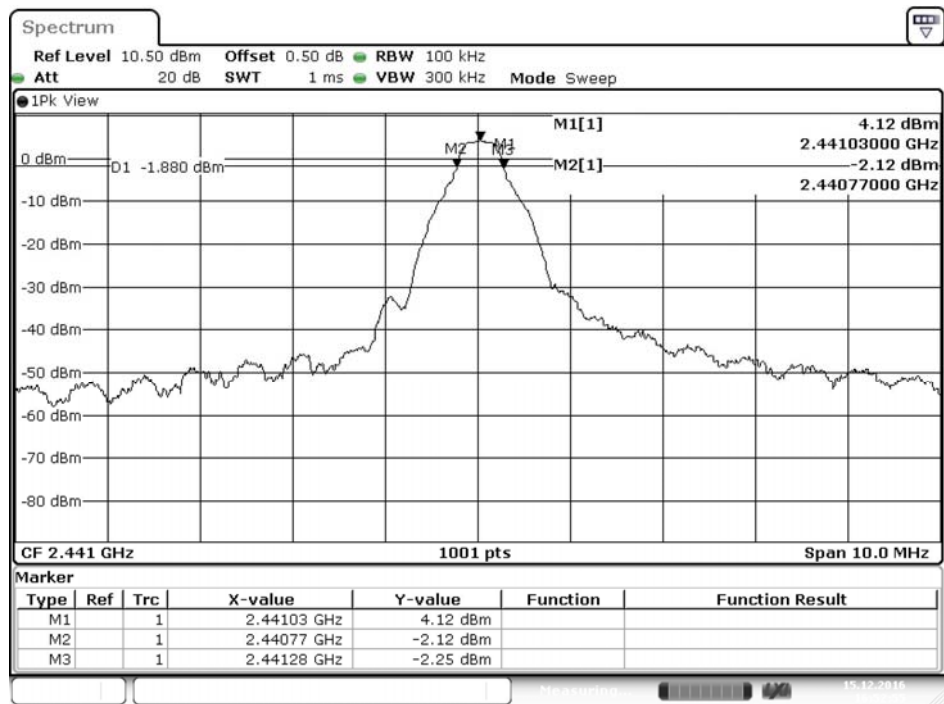
Test Item : 6dB Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmit - ANT+ (2441MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
19	2441	510	>500	Pass

Figure Channel 38:



Date: 15.DEC.2016 16:52:56

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

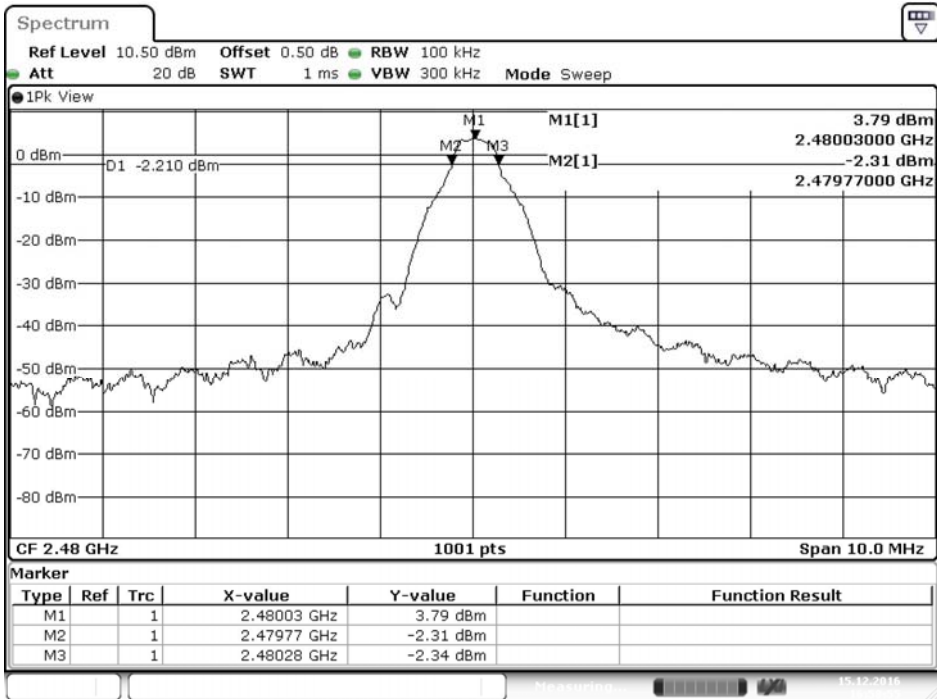
Test Item : 6dB Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmit - ANT+ (2480MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
39	2480	510	>500	Pass

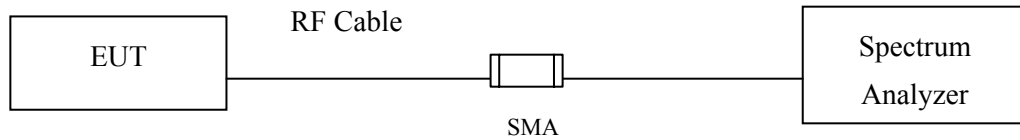
Figure Channel 77:



Date: 15.DEC.2016 16:58:55

8. Power Density

8.1. Test Setup



8.2. Limits

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

8.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013, the maximum power spectral density using KDB 558074 section 10.2 PKPSD (peak PSD) method.

8.4. Uncertainty

± 1.20 dB

8.5. Test Result of Power Density

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

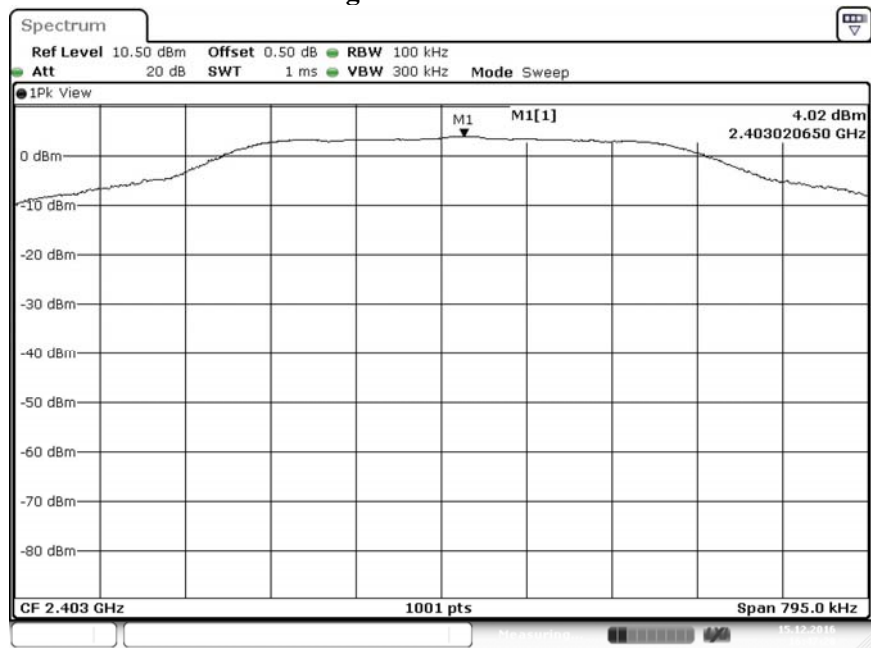
Test Item : Power Density Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmit - ANT+ (2402MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
00	2402	4.020	$\leq 8\text{dBm}$	Pass

Figure Channel 00:



Date: 15.DEC.2016 16:47:28

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

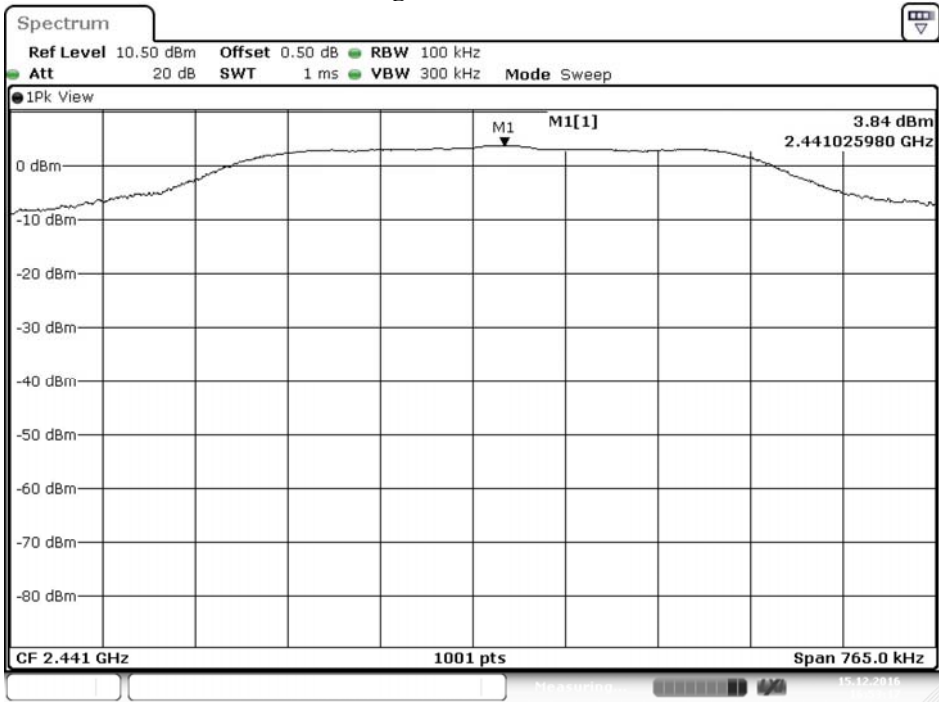
Test Item : Power Density Data

Test Site : No.3OATS

Test Mode : Mode 1: Transmit - ANT+ (2441MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
19	2441	3.840	$\leq 8\text{dBm}$	Pass

Figure Channel 38:



Date: 15.DEC.2016 16:53:17

Product : MICRO COLOR GPS,FEMTO GPS, FEMTO GPS Watch,FEMTO COLOR GPS,FEMTO COLOR GPS Watch,FEMTO Enhanced GPS, FEMTO GPS XL, FEMTO GPS XL Watch, FEMTO GPS XXL,FEMTO Track GPS,FEMTO Map GPS, FEMTO Map XL GPS,FEMTO Over Drive GPS,FEMTO Touch GPS, FEMTO Touch GPS Watch,FEMTO Touch XL GPS, FEMTO Touch Color GPS, FEMTO Touch Color GPS Watch, FEMTO Depth Watch,HECTO GPS,HECTO GPS Watch,HECTO COLOR GPS, HECTO COLOR GPS Watch, HECTO Enhanced GPS,HECTO GPS XL, HECTO GPS XL Watch, HECTO GPS XXL, HECTO Track GPS, HECTO Map GPS,HECTO Map XL GPS,HECTO Over Drive GPS, HECTO Touch GPS, HECTO Touch GPS Watch, HECTO Touch XL GPS,HECTO Touch Color GPS, HECTO Touch Color GPS Watch, HECTO Depth Watch,MICRO GPS, MICRO GPS WATCH,MICRO C GPS WATCH, MICRO Enhanced GPS, MICRO GPS XL,MICRO GPS XL Watch, MICRO GPS XXL, MICRO Track GPS, MICRO Map GPS, MICRO Map XL GPS,MICRO Over Drive GPS, MICRO Touch GPS, MICRO Touch GPS Watch, MICRO Touch XL GPS,MICRO Touch Color GPS, MICRO Touch Color GPS Watch, MICRO Depth Watch,MINI GPS, MINI GPS Watch, MINI COLOR GPS, MINI COLOR GPS Watch, MINI Enhanced GPS,MINI GPS XL, MINI GPS XL Watch, MINI GPS XXL, MINI Track GPS,MINI Map GPS,MINI Map XL GPS,MINI Over Drive GPS, MINI Touch GPS, MINI Touch GPS Watch, MINI Touch XL GPS,MINI Touch Color GPS,MINI Touch Color GPS Watch, MINI Depth Watch

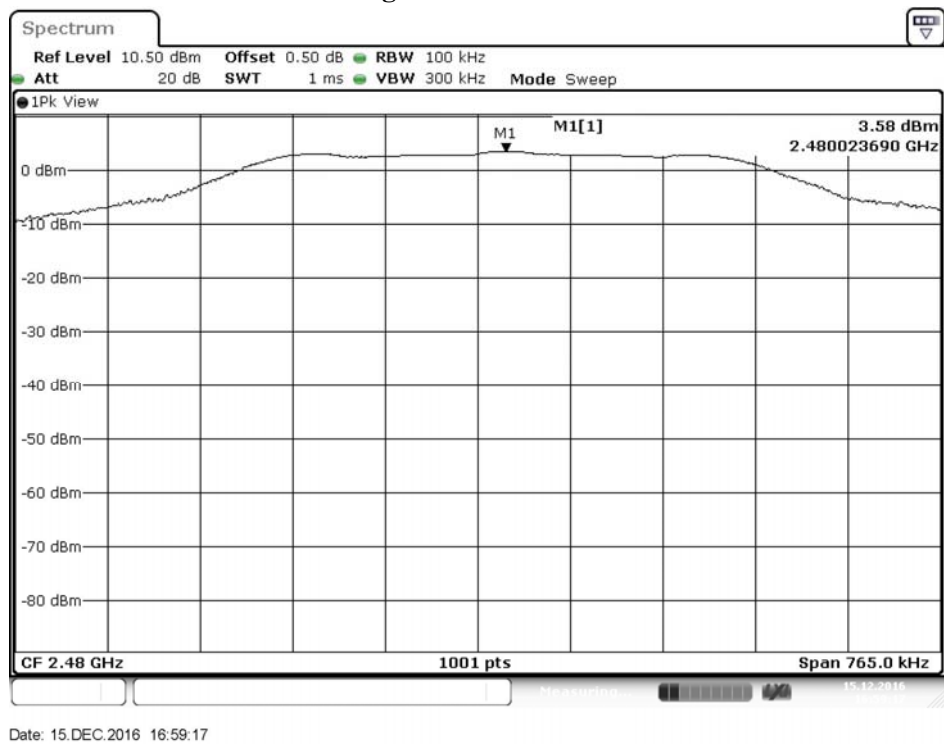
Test Item : Power Density Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmit - ANT+ (2480MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
39	2480	3.580	$\leq 8\text{dBm}$	Pass

Figure Channel 77:



9. EMI Reduction Method During Compliance Testing

No modification was made during testing.