FCC TEST REPORT
for
Low Power Radio Solutions Ltd

eRA-LORA
Model No.: eRA-LORA

Prepared for	:	Low Power Radio Solutions Ltd
Address	:	Two Rivers Ind Est, Station Lane, Witney, OX28 4BH, United Kingdom

Prepared By	:	Shenzhen Anbotek Compliance Laboratory Limited
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Report Number	:	R011605845I
Date of Test	:	Jul. 01~ Aug. 30, 2016
Date of Report	:	Aug. 30, 2016

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TEST REPORT

Applicant	:	Low Power Radio Solutions Ltd
Manufacturer	:	Low Power Radio Solutions Ltd
EUT	:	eRA-LORA
Model No.	:	eRA-LORA
Serial No.	:	N.A.
Trade Mark	:	N.A.
Rating	:	DC 2.5-6.0V

Measurement Procedure Used:
FCC Part15 Subpart C 2015, Paragraph 15.247

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC Part 15 Subpart C requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Test : Jul. 01~ Aug. 30, 2016

Prepared by : (Tested Engineer / Baron Wen)

Reviewer : (Project Manager / Dolly Mo)

Approved & Authorized Signer : (Manager / Tom Chen)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	:	eRA-LORA
Model Number	:	eRA-LORA
Test Power Supply	:	DC 3.7V Battery
Frequency	:	903-927MHz
Modulation	:	CCS
Channel Spacing	:	1MHz
Number of Channels	:	25
Antenna Type	:	External Antenna
Antenna Gain	:	3dBi
Applicant	:	Low Power Radio Solutions Ltd
Address	:	Two Rivers Ind Est, Station Lane, Witney, OX28 4BH, United Kingdom
Manufacturer	:	Low Power Radio Solutions Ltd
Address	:	Two Rivers Ind Est, Station Lane, Witney, OX28 4BH, United Kingdom
Factory	:	Low Power Radio Solutions Ltd
Address	:	Two Rivers Ind Est, Station Lane, Witney, OX28 4BH, United Kingdom
Date of receipt	:	Jul. 01, 2016
Date of Test	:	Jul. 01~ Aug. 30, 2016

1.2. Auxiliary Equipment Used during Test

Notebook	:	Manufacturer: LIFE BOOK Model: LH531 CE, FCC DOC

1.3. Description of Test Facility

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

FCC-Registration No.: 752021
Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registed and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 752021, July 06, 2016.

IC-Registration No.: 8058A-1
Shenzhen Anbotek Compliance Laboratory Limited., EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada. The acceptance letter from the IC is maintained in our files. Registration 8058A, June 13, 2016.

Test Location
All Emissions tests were performed at
Shenzhen Anbotek Compliance Laboratory Limited. at 1/F., Building 1, SEC Industrial Park, No.0409 Qianhai Road, Nanshan District, Shenzhen, Guangdong, China

1.4. Measurement Uncertainty

Radiation Uncertainty	:	Ur = 4.1 dB (Horizontal) Ur = 4.3 dB (Vertical)
Conduction Uncertainty	:	Uc = 3.4dB

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10: 2013 and FCC Part 15, Paragraph 15.247.

2.1. Summary of Test Results

The EUT has been tested according to the following specifications:

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.107, 15.207	Conducted Emission Test	-	N/A
FCC Part 15, Paragraph 15.247(b)(1)	Peak Output Power	PASS	Complies
FCC Part 15, Paragraph 15.247(a)(2)	6dB Bandwidth	PASS	Complies
FCC Part 15, Paragraph 15.247(c)	100kHz Bandwidth of Frequency Band Edges	PASS	Complies
FCC Part 15, Paragraph 15.209(a)(f)	Spurious Emission	PASS	Complies
FCC Part 15, Paragraph 15.247(a)(1)	Frequency Separation	-	N/A
FCC Part 15, Paragraph 15.247(a)(1)(iii)	Number of Hopping Frequency	-	N/A
FCC Part 15, Paragraph 15.247(a)(1)(iii)	Time of Occupancy	-	N/A
FCC Part 15, Paragraph 15.247(c)	Peak Power Density	PASS	Complies
FCC Part 15.203/15.247(c)	Antenna Requirement	PASS	Complies

2.2. Description of Test Modes

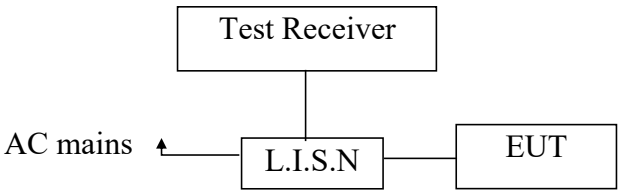
The EUT has been tested under operating condition.
Software used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

Channel Low(903MHz), Channel Middle(915MHz) and Channel High(927MHz) are chosen for the final testing.

3. Conducted Emission Test

3.1. Block Diagram of Test Setup

3.1.1. Block diagram of connection between the EUT and simulators



3.2. Power Line Conducted Emission Measurement Limits (15.207)

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

3.3. Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

3.4. Operating Condition of EUT

3.4.1. Setup the EUT and simulator as shown as Section 3.1.

3.4.2. Turn on the power of all equipment.

3.4.3. Let the EUT work in test mode (ON) and measure it.

3.5. Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC ANSI C63.10-2013 on Conducted Emission Measurement.

The bandwidth of test receiver (ESCI) set at 9KHz.

The frequency range from 150KHz to 30MHz is checked.

The test results are reported on Section 3.6.

3.6. Test equipment

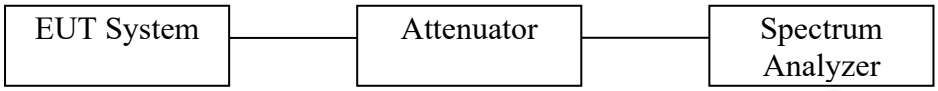
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Two-Line V-network	Rohde & Schwarz	ENV216	100055	Apr. 17, 2016	1 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Apr. 17, 2016	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Apr. 17, 2016	1 Year

3.7. Power Line Conducted Emission Measurement Results

Not Applicable.
The EUT is powered by battery, so there is no need to conduct this test.

4. FCC Part 15.247 Requirements for DSSS & OFDM Modulation

4.1 Test Setup



4.2 6dB Bandwidth

a. Limit

For the direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz.

b. Test Procedure

1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as:
   RBW = 100kHz, VBW≥3*RBW =300kHz,
   Detector= Peak
   Trace mode= Max hold.
   Sweep- auto couple.
4. Mark the peak frequency and –6dB (upper and lower) frequency.
5. Repeat until all the rest channels are investigated.

c. Test Setup See 4.1

d. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analysis	Agilent	E4407B	US39390582	Apr. 17, 2016	1 Year
2.	Preamplifier	Instruments corporation	EMC011830	980100	Apr. 17, 2016	1 Year
3.	EMI Test Receiver	Rohde & Schwarz	ESPI	101604	Apr. 17, 2016	1 Year
4.	Double Ridged Horn Antenna	Instruments corporation	GTH-0118	351600	Apr. 20, 2016	1 Year
5.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	Apr. 20, 2016	1 Year
6.	Pre-amplifier	SONOMA	310N	186860	Apr. 17, 2016	1 Year
7.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A
8	Power Sensor	DAER	RPR3006W	15I00041SN046	Jun 30, 2016	1 Year
9	MXA Spectrum Analysis	Agilent	N9020A	MY51170037	Jun 30, 2016	1 Year
10	MXG RF Vector Signal Generator	Agilent	N5182A	MY48180656	Jun 30, 2016	1 Year
11	Signal Generator	Agilent	E4421B	MY41000743	Jun 30, 2016	1 Year
12	DC Power supply	IV	IV-8080	YQSB0096	Jun 30, 2016	1 Year
13	TEMP&HUMI PROGRAMMABLE CHAMBER	Bell Group	BE-THK-150M8	SE-0137	Mar 16, 2016	1 Year

e. Test Results

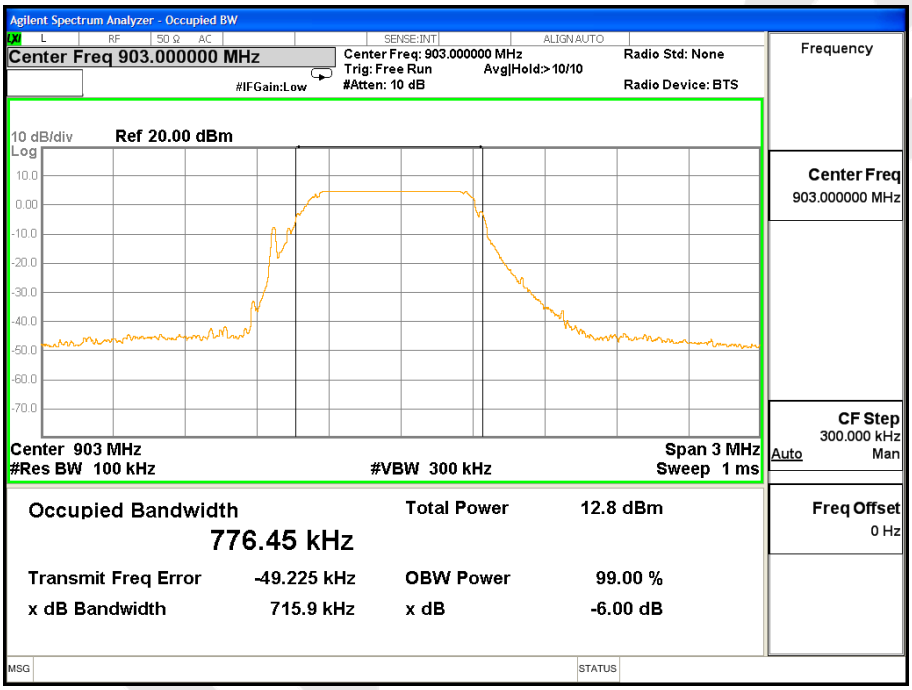
Pass.

f. Test Data

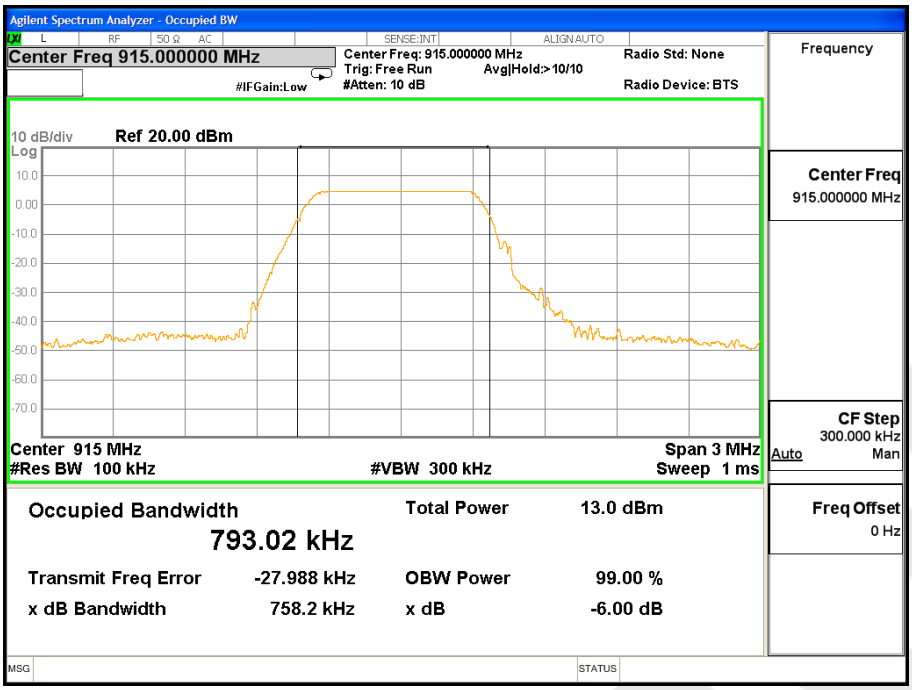
Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Results
Low	903	715.9		Pass
Mid	915	758.2	>500	Pass
High	927	756.2		Pass

Test Plots See the following page.

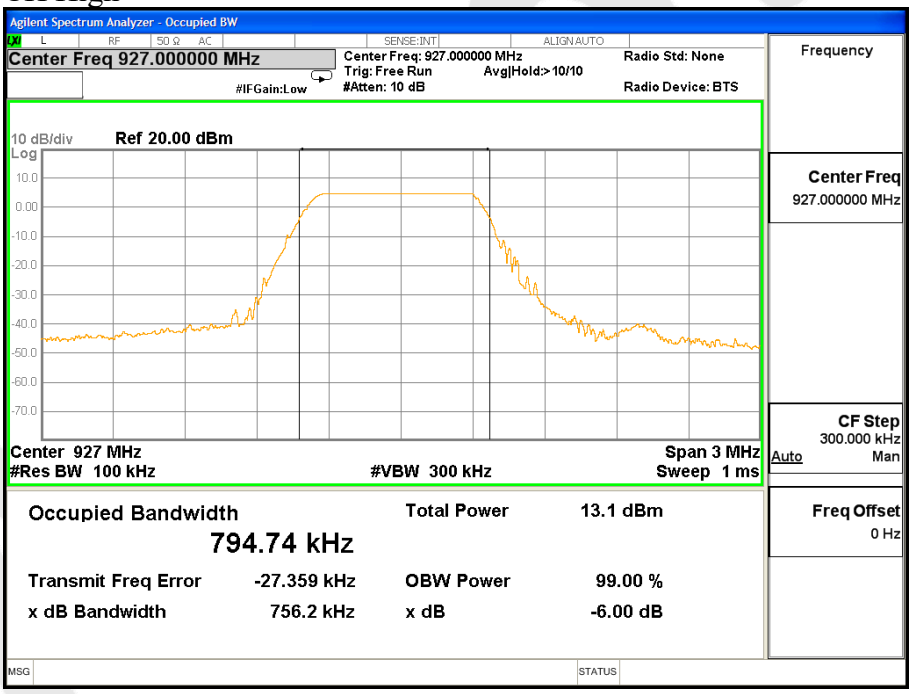
CH Low



CH Mid



CH High

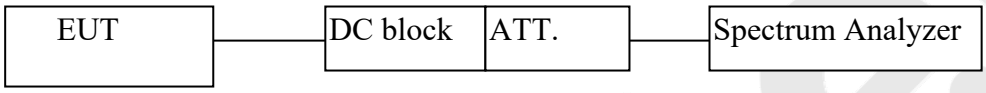


4.3. Maximum Peak output power test

a. Limit

The maximum peak output power of the intentional radiator shall not exceed the following:
1. For systems using digital modulation in the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz: 1 watt (30dBm).
2. Except as shown in paragraphs (b)(3) (i), (ii) and (iii) of this section, if transmitting antenna of directional gain greater than 6 dBi are used the peak output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1) or (b)(2) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

b. Configuration of Measurement



c. Test Procedure

This test was according the kDB 558074 D01 DTS Meas Guidance v03r05 9.1.1:
1. This procedure shall be used when the measurement instrument has available a resolution bandwidth that is greater than the DTS bandwidth.
2. Set the RBW ≥DTS bandwidth.
3. Set the VBW≥3*RBW.
4. Set the span≥ 3*RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use peak marker function to determine the peak amplitude level.

d. Test Equipment

Same as the equipment listed in 4.2.

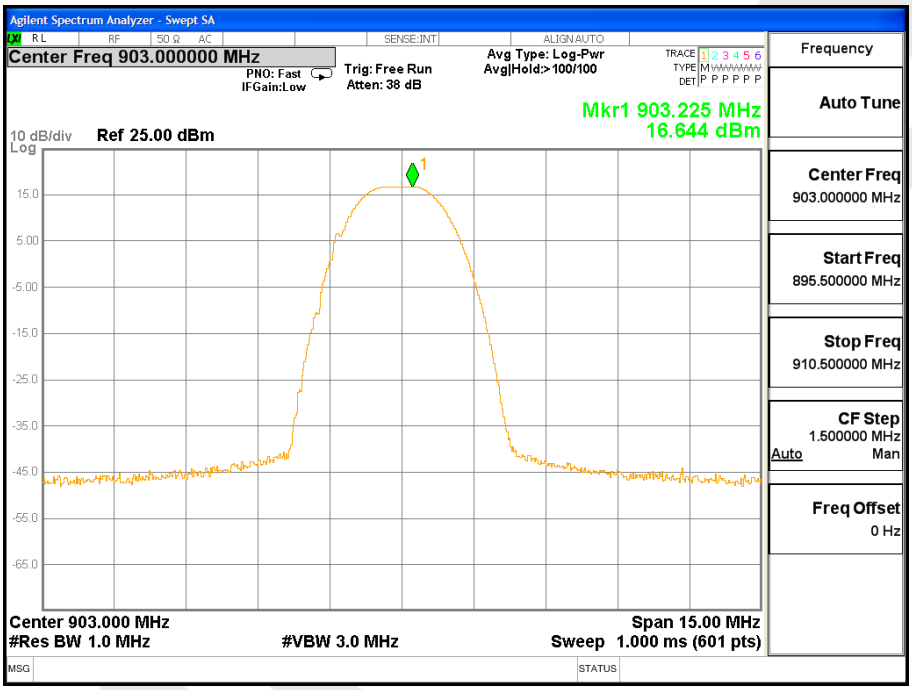
e. Test Results

Pass.

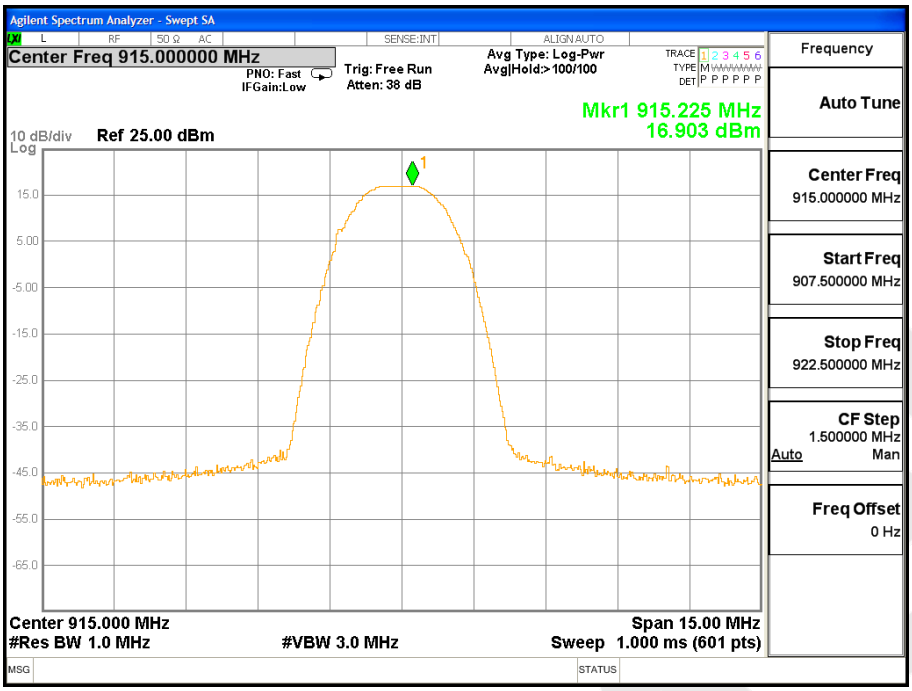
g. Test Data

Channel	Frequency (MHz)	Maximum transmit power (dBm)	Limit		Result
			(dBm)	(watts)	
Low	903	16.644	30	1	Pass
Mid	915	16.903			Pass
High	927	16.802			Pass

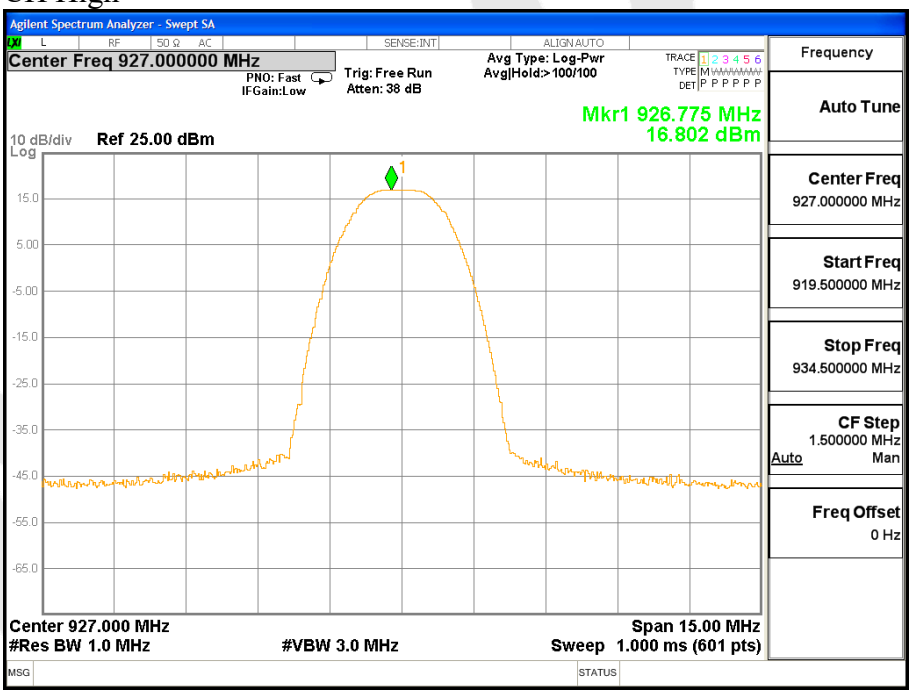
CH Low



CH Mid



CH High

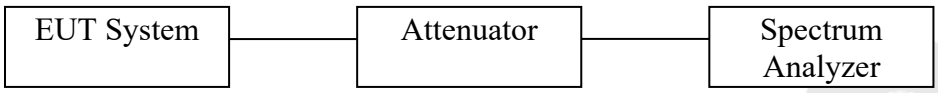


4.4. Band Edges Measurement

a. Limit

According to §15.247(d), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in15.209(a).

b. Test Setup



c. Test Procedure

1. Conducted Method:
1) Set RBW=100KHz, VBW=300KHz
2) Detector=peak
3) Sweep time= auto
4) Trace mode=max hold.

d. Test Equipment

Same as the equipment listed in 4.2.

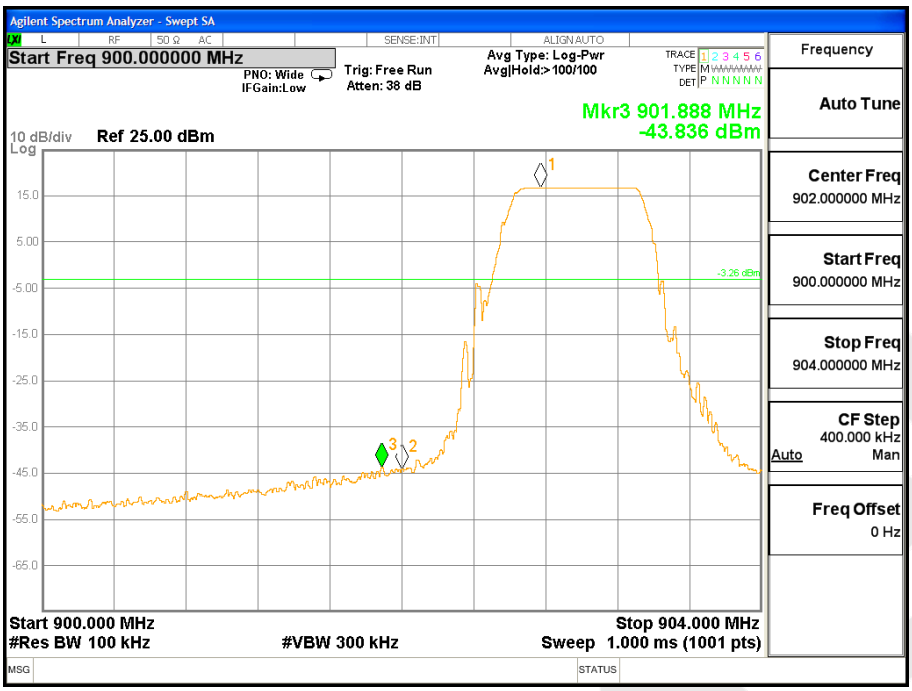
e. Test Results

Pass.

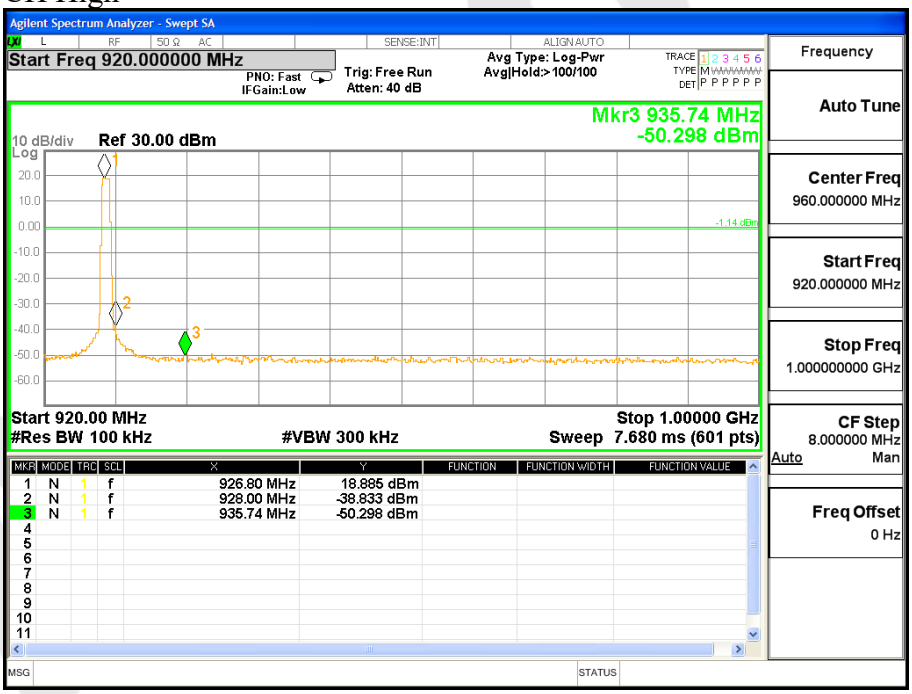
f. Test Plots

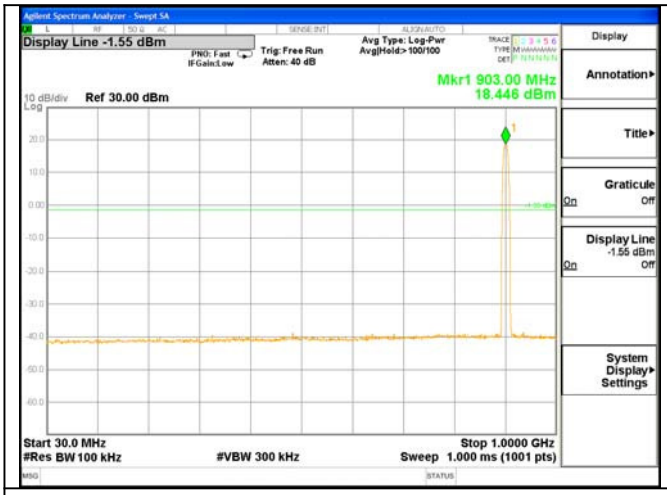
See the following page.

CH Low



CH High



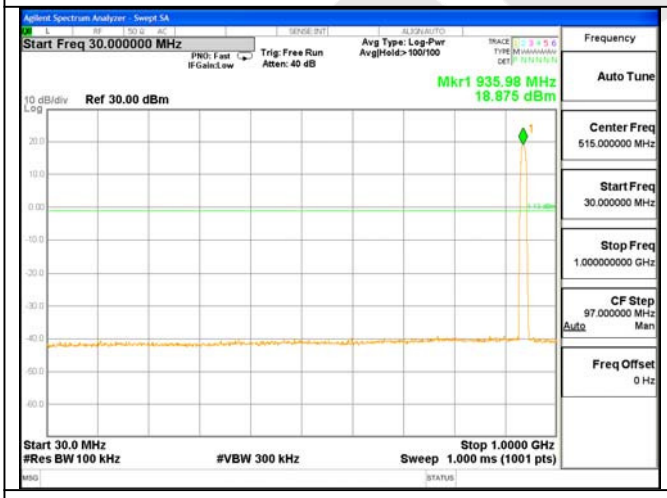


Test Mode: 903MHz---Low

Test Mode: 903MHz---Low

Test Mode: 915MHz---Mid

Test Mode: 915MHz---Mid



Test Mode: 927MHz---High

Test Mode: 927MHz---High

4.5. Peak Power Spectral Density

a. Limit

1. For direct sequence systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.
2. The direct sequence operating of the hybrid system, with the frequency hopping operation turned off, shall comply with the power density requirements of paragraph (d) of this section.

b. Test Procedure

1. Place the EUT on the table and set it in transmitting mode. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set the spectrum analyzer as RBW = 3kHz, VBW = 10kHz, Span = 1.5xDTS BW
3. Record the max. reading.
4. Repeat the above procedure until the measurements for all frequencies are completed.

c. Test Equipment

Same as the equipment listed in 4.2.

d. Test Setup

See 3.1

e. Test Results

Pass

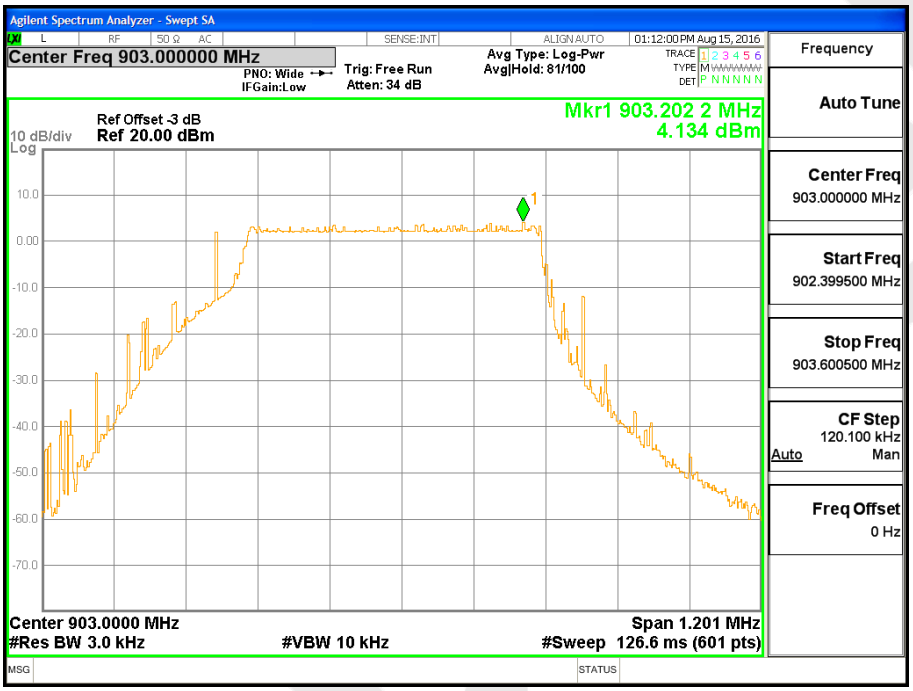
f. Test Data

Please refer to the following data.

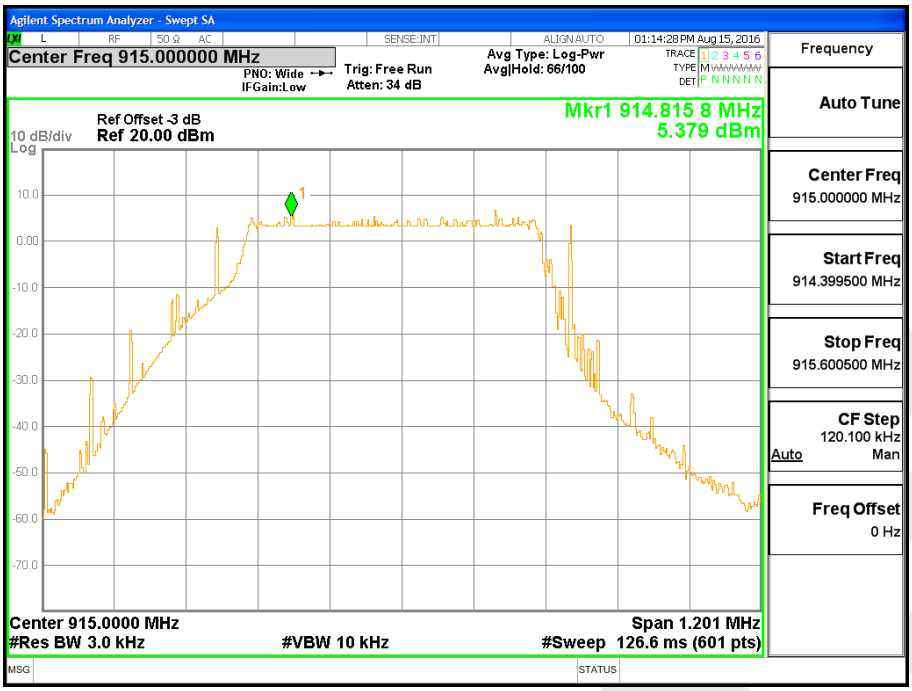
g. Test Plot See the following pages

Channel	Frequency (MHz)	PPSD (dBm/3KHz)	∑PPSD (dBm/3KHz)	Limit (dBm)	Result
Low	903	4.134	-	8.00	Pass
Mid	915	5.379	-	8.00	Pass
High	927	5.499	-	8.00	Pass

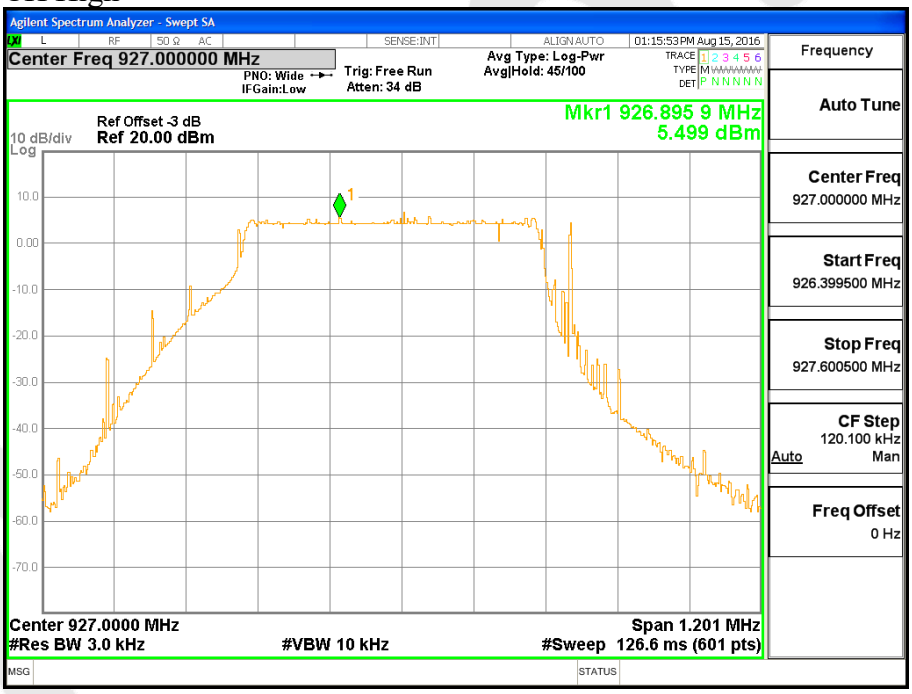
CH Low



CH Mid



CH High



4.6. Radiated Emissions

4.6.1.1. Test Limits (< 30 MHZ)

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
1.705-30.0	30	30

4.6.1.2. Test Limits (≥ 30 MHZ)

FIELD STRENGTH of Fundamental: @3M	FIELD STRENGTH of Harmonics	S15.209	
902-928 MHZ		88 - 216 MHz	43.5
2.4-2.4835 GHz		216 - 960 MHz	46
94 dBμV/m @3m	54 dBμV/m @3m	ABOVE 960 MHz	54dBuV/m

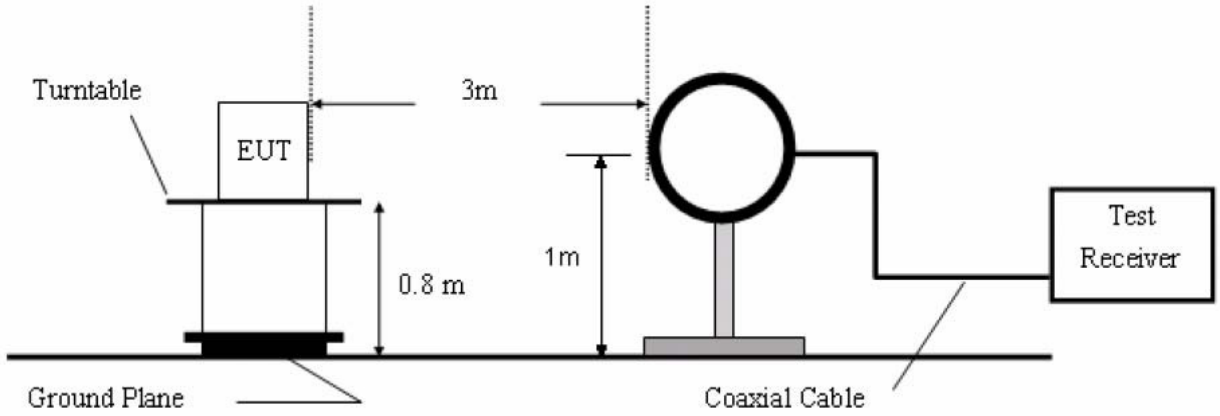
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or 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)).

Test Equipment

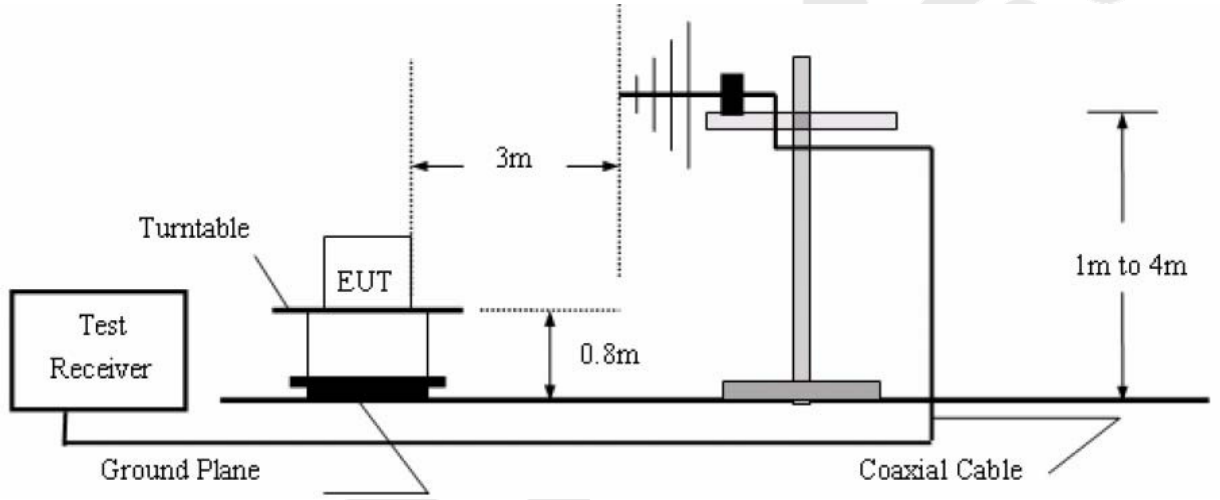
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analysis	Agilent	E4407B	US39390582	Apr. 17, 2016	1 Year
2.	Preamplifier	Instruments corporation	EMC011830	980100	Apr. 17, 2016	1 Year
3.	EMI Test Receiver	Rohde & Schwarz	ESPI	101604	Apr. 17, 2016	1 Year
4.	Double Ridged Horn Antenna	Instruments corporation	GTH-0118	351600	Apr. 20, 2016	1 Year
5.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	Apr. 20, 2016	1 Year
6.	Pre-amplifier	SONOMA	310N	186860	Apr. 17, 2016	1 Year
7.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A
8	Power Sensor	DAER	RPR3006W	15I00041SN046	Jun 30, 2016	1 Year
9	MXA Spectrum Analysis	Agilent	N9020A	MY51170037	Jun 30, 2016	1 Year
10	MXG RF Vector Signal Generator	Agilent	N5182A	MY48180656	Jun 30, 2016	1 Year
11	Signal Generator	Agilent	E4421B	MY41000743	Jun 30, 2016	1 Year
12	DC Power supply	IV	IV-8080	YQSB0096	Jun 30, 2016	1 Year
13	TEMP&HUMI PROGRAMMABLE CHAMBER	Bell Group	BE-THK-150M8	SE-0137	Mar 16, 2016	1 Year

4.6.2. Test Configuration:

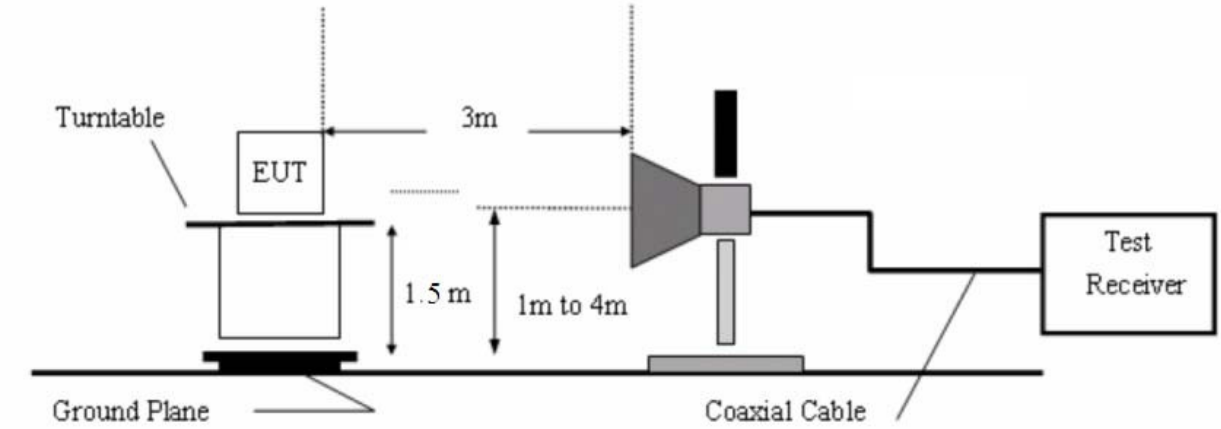
4.6.2.1. 9k to 30MHz emissions:



4.6.2.2. 30M to 1G emissions:



4.6.2.3. 1G to 40G emissions:



4.6.3. Test Procedure

For below 1GHz: The EUT is placed on a turntable, which is 0.8m above the ground plane.
For above 1GHz: The EUT is placed on a turntable, which is 1.5m above the ground plane.
The turn table can rotate 360 degrees to determine the position of the maximum emission level.
The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower.
The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

Measurements are made on 9KHz to 30MHz and 30MHz to 26GHz range with the transmitter set to the lowest, middle, and highest channels.

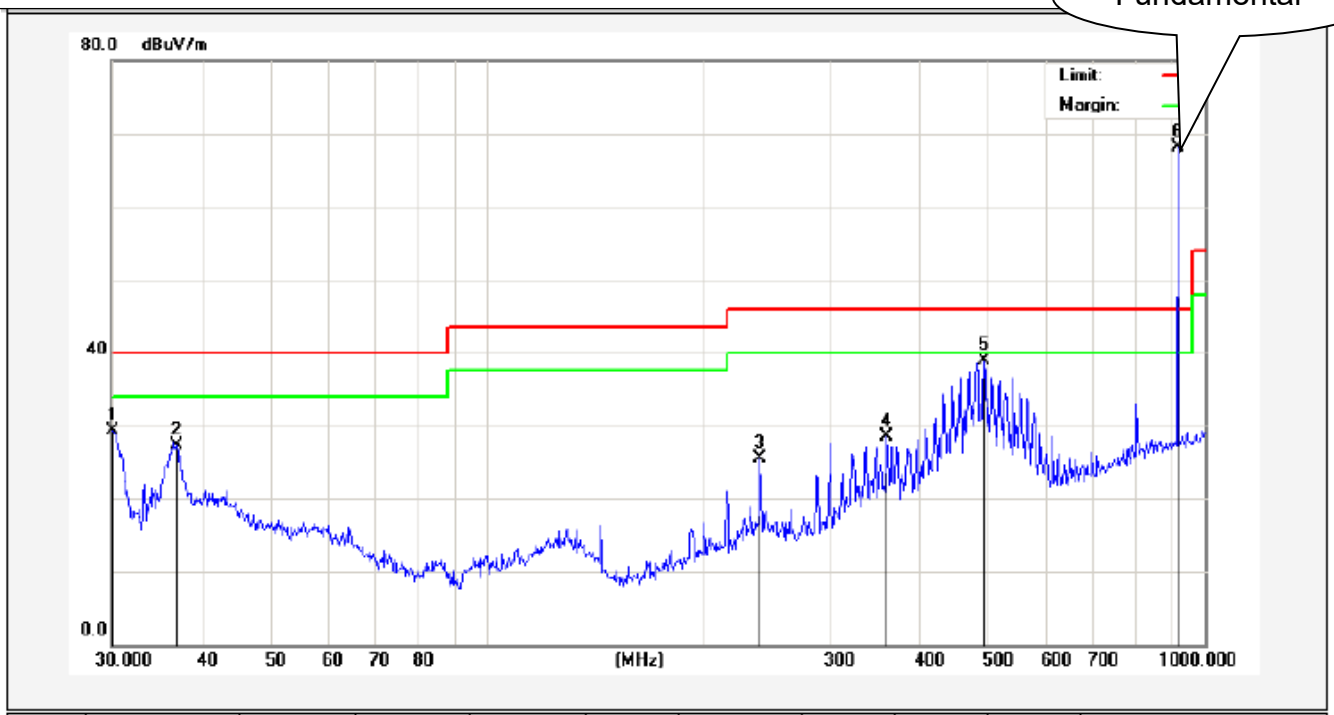
All readings from 30MHz to 1GHz are quasi-peak values with a resolution bandwidth of 120kHz. All reading are above 1GHz, peak & average values with a resolution bandwidth of 1MHz.
The EUT is tested in 9*6*6 Chamber. The device is evaluated in xyz orientation.

The test results are listed in Section 4.6.4.

4.6.4. Test Results

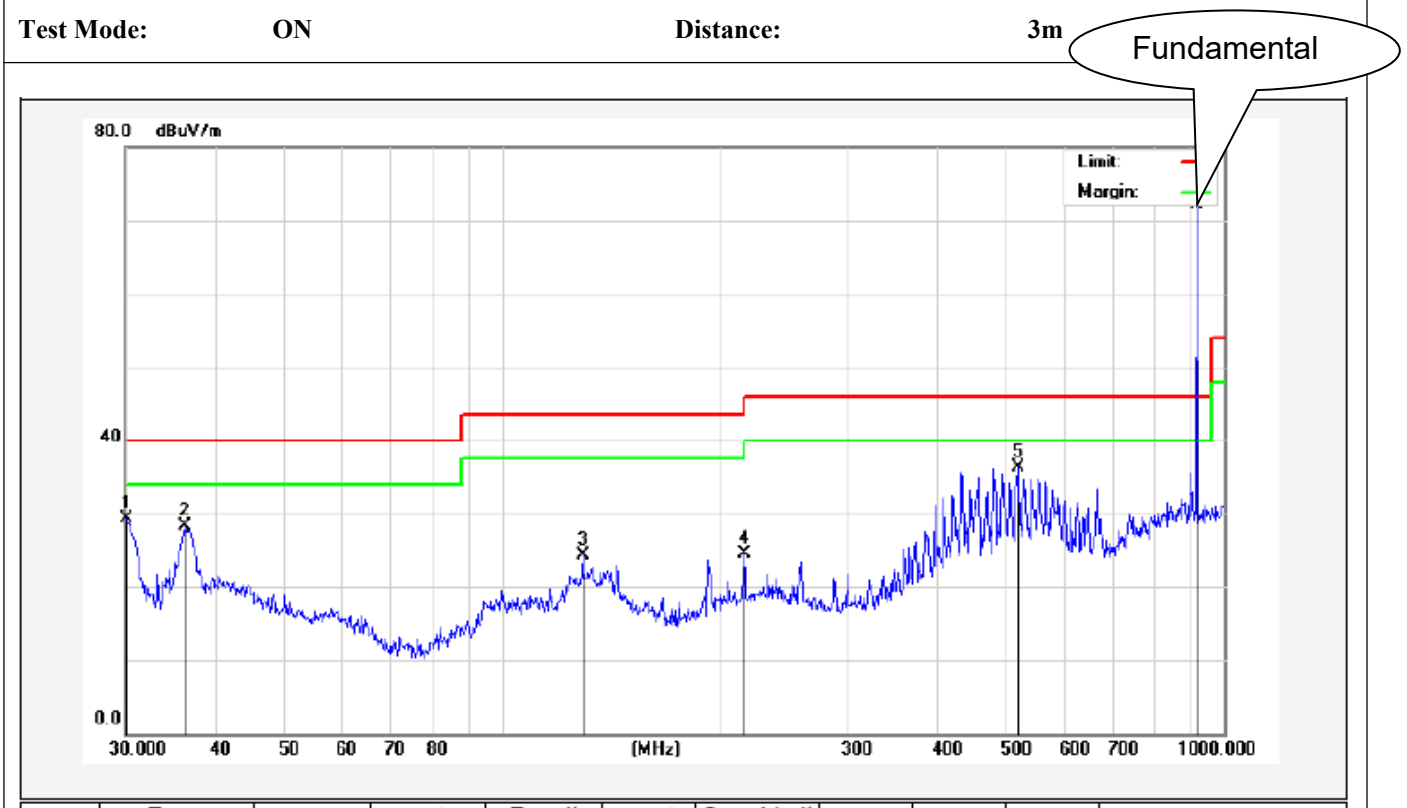
PASS.
Please refer to the following pages.
Only the worst case (x orientation).

Job No.:	**011605845I**	**Plarization:**	**Horizontal**
Standard:	**(RE)FCC PART15 C _3m**	**Power Source:**	**DC 5V Via USB Port**
Test item:	**Radiation Test**	**Temp.(C)/Hum.(%RH):**	**24.4(C)/50%RH**
Test Mode:	**ON**	**Distance:**	**3m**



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	30.1054	46.17	-16.90	29.27	40.00	-10.73	peak			
2	36.8953	40.02	-12.79	27.23	40.00	-12.77	peak			
3	239.9874	43.52	-18.09	25.43	46.00	-20.57	peak			
4	360.4476	42.17	-13.65	28.52	46.00	-17.48	peak			
5	492.4685	50.01	-11.17	38.84	46.00	-7.16	peak			

Job No.:	**011605845I**	**Plarization:**	**Vertical**
Standard:	**(RE)FCC PART15 C _3m**	**Power Source:**	**DC 5V Via USB Port**
Test item:	**Radiation Test**	**Temp.(C)/Hum.(%RH):**	**24.4(C)/50%RH**
Test Mode:	**ON**	**Distance:**	**3m**



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	30.0000	46.27	-16.95	29.32	40.00	-10.68	peak			
2	36.2541	41.54	-13.31	28.23	40.00	-11.77	peak			
3	129.0146	41.90	-17.67	24.23	43.50	-19.27	peak			
4	216.0240	39.68	-15.27	24.41	46.00	-21.59	peak			
5	517.2480	46.91	-10.66	36.25	46.00	-9.75	peak			

Data: (Frequency=903MHz)

Horizontal

Frequency MHz	Cable Loss dB	Ant Factor dB/m	Preamp Factor dB	Read Level dBμV	Level dBμV/m	Limit dBμV/m	Over Limit dB	Remark
903	1.51	29	38.52	106.23	98.22	--		Fundamental
903	1.51	29	38.52	89.38	81.37	--		Fundamental
1,807.68	1.82	28.02	39.21	69.25	59.88	74.00	-14.12	Peak
1,807.00	1.82	28.02	39.21	56.52	47.15	54.00	-6.85	AV
2,708.84	2.28	33.16	35.16	56.84	57.12	74.00	-16.88	Peak
2,710.02	2.28	33.16	35.16	43.28	43.56	54.00	-10.44	AV
3,612.34	2.5	33.31	35.02	60.85	61.64	74.00	-12.36	Peak
3,614.80	2.5	33.31	35.02	42.58	43.37	54.00	-10.63	AV
4,516.21	2.65	34.4	34.77	58.28	60.56	74.00	-13.44	Peak
4,516.18	2.65	34.4	34.77	42.01	44.29	54.00	-9.71	AV
5,418.66	---	---	---	---	---	---	---	---
6,322.79	---	---	---	---	---	---	---	---
7,223.85	---	---	---	---	---	---	---	---

Vertical

Frequency MHz	Cable Loss dB	Ant Factor dB/m	Preamp Factor dB	Read Level dBμV	Level dBμV/m	Limit dBμV/m	Over Limit dB	Remark
903	1.51	29	38.52	104.13	96.12	--		Fundamental
903	1.51	29	38.52	92.25	84.24	--		Fundamental
1,807.33	1.82	28.02	39.21	72.67	63.30	74.00	-10.70	Peak
1,805.95	1.82	28.02	39.21	54.48	45.11	54.00	-8.89	AV
2,710.95	2.28	33.16	35.16	58.35	58.63	74.00	-15.37	Peak
2,711.89	2.28	33.16	35.16	41.05	41.33	54.00	-12.67	AV
3,610.99	2.5	33.31	35.02	59.48	60.27	74.00	-13.73	Peak
3,613.79	2.5	33.31	35.02	41.54	42.33	54.00	-11.67	AV
4,517.94	2.65	34.4	34.77	57.76	60.04	74.00	-13.96	Peak
4,514.24	2.65	34.4	34.77	43.79	46.07	54.00	-7.93	AV
5,417.15	---	---	---	---	---	---	---	---
6,322.02	---	---	---	---	---	---	---	---
7,224.07	---	---	---	---	---	---	---	---

NOTE: " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

Data: (Frequency=915MHz)

Horizontal

Frequency MHz	Cable Loss dB	Ant Factor dB/m	Preamp Factor dB	Read Level dBμV	Level dBμV/m	Limit dBμV/m	Over Limit dB	Remark
915	1.51	29	38.52	106.62	98.61	--		Fundamental
915	1.51	29	38.52	90.26	82.25	--		Fundamental
1,830.87	1.82	28.02	39.21	71.41	62.04	74.00	-11.96	Peak
1,829.30	1.82	28.02	39.21	55.10	45.73	54.00	-8.27	AV
2,744.78	2.28	33.16	35.16	59.47	59.75	74.00	-14.25	Peak
2,745.60	2.28	33.16	35.16	43.44	43.72	54.00	-10.28	AV
3,659.07	2.5	33.31	35.02	59.81	60.60	74.00	-13.40	Peak
3,659.45	2.5	33.31	35.02	44.22	45.01	54.00	-8.99	AV
4,574.21	2.65	34.4	34.77	57.47	59.75	74.00	-14.25	Peak
4,574.33	2.65	34.4	34.77	44.05	46.33	54.00	-7.67	AV
5,490.59	---	---	---	---	---	---	---	---
6,406.29	---	---	---	---	---	---	---	---
7,322.82	---	---	---	---	---	---	---	---

Vertical

Frequency MHz	Cable Loss dB	Ant Factor dB/m	Preamp Factor dB	Read Level dBμV	Level dBμV/m	Limit dBμV/m	Over Limit dB	Remark
915	1.51	29	38.52	105.72	97.71	--		Fundamental
915	1.51	29	38.52	90.68	82.67	--		Fundamental
1,828.98	1.82	28.02	39.21	69.97	60.60	74.00	-13.40	Peak
1,828.39	1.82	28.02	39.21	53.62	44.25	54.00	-9.75	AV
2,745.14	2.28	33.16	35.16	58.71	58.99	74.00	-15.01	Peak
2,747.44	2.28	33.16	35.16	43.65	43.93	54.00	-10.07	AV
3,659.85	2.5	33.31	35.02	57.21	58.00	74.00	-16.00	Peak
3,661.17	2.5	33.31	35.02	43.25	44.04	54.00	-9.96	AV
4,574.50	2.65	34.4	34.77	59.62	61.90	74.00	-12.10	Peak
4,574.91	2.65	34.4	34.77	42.17	44.45	54.00	-9.55	AV
5,488.63	---	---	---	---	---	---	---	---
6,404.21	---	---	---	---	---	---	---	---
7,319.88	---	---	---	---	---	---	---	---

NOTE: " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

Data: (Frequency=927MHz)

Horizontal Frequency MHz	Cable Loss dB	Ant Factor dB/m	Preamp Factor dB	Read Level dBμV	Level dBμV/m	Limit dBμV/m	Over Limit dB	Remark
927	1.51	29	38.52	106.71	98.70	--		Fundamental
927	1.51	29	38.52	88.26	80.25	--		Fundamental
1,854.66	1.82	28.02	39.21	70.28	60.91	74.00	-13.09	Peak
1,855.26	1.82	28.02	39.21	54.73	45.36	54.00	-8.64	AV
2,782.41	2.28	33.16	35.16	56.97	57.25	74.00	-16.75	Peak
2,780.06	2.28	33.16	35.16	41.00	41.28	54.00	-12.72	AV
3,707.49	2.5	33.31	35.02	58.44	59.23	74.00	-14.77	Peak
3,708.65	2.5	33.31	35.02	42.27	43.06	54.00	-10.94	AV
4,637.80	2.65	34.4	34.77	58.65	60.93	74.00	-13.07	Peak
4,634.85	2.65	34.4	34.77	40.74	43.02	54.00	-10.98	AV
5,563.81	---	---	---	---	---	---	---	---
6,490.65	---	---	---	---	---	---	---	---
7,416.31	---	---	---	---	---	---	---	---

Vertical Frequency MHz	Cable Loss dB	Ant Factor dB/m	Preamp Factor dB	Read Level dBμV	Level dBμV/m	Limit dBμV/m	Over Limit dB	Remark
927	1.51	29	38.52	107.81	99.80	--		Fundamental
927	1.51	29	38.52	89.11	81.10	--		Fundamental
1,855.55	1.82	28.02	39.21	68.42	59.05	74.00	-14.95	Peak
1,855.68	1.82	28.02	39.21	56.28	46.91	54.00	-7.09	AV
2,780.06	2.28	33.16	35.16	60.82	61.10	74.00	-12.90	Peak
2,781.65	2.28	33.16	35.16	41.02	41.30	54.00	-12.70	AV
3,708.42	2.5	33.31	35.02	58.96	59.75	74.00	-14.25	Peak
3,707.00	2.5	33.31	35.02	44.03	44.82	54.00	-9.18	AV
4,635.00	2.65	34.4	34.77	57.58	59.86	74.00	-14.14	Peak
4,635.64	2.65	34.4	34.77	41.89	44.17	54.00	-9.83	AV
5,561.41	---	---	---	---	---	---	---	---
6,489.70	---	---	---	---	---	---	---	---
7,415.55	---	---	---	---	---	---	---	---

NOTE: " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

5. ANTENNA APPLICATION

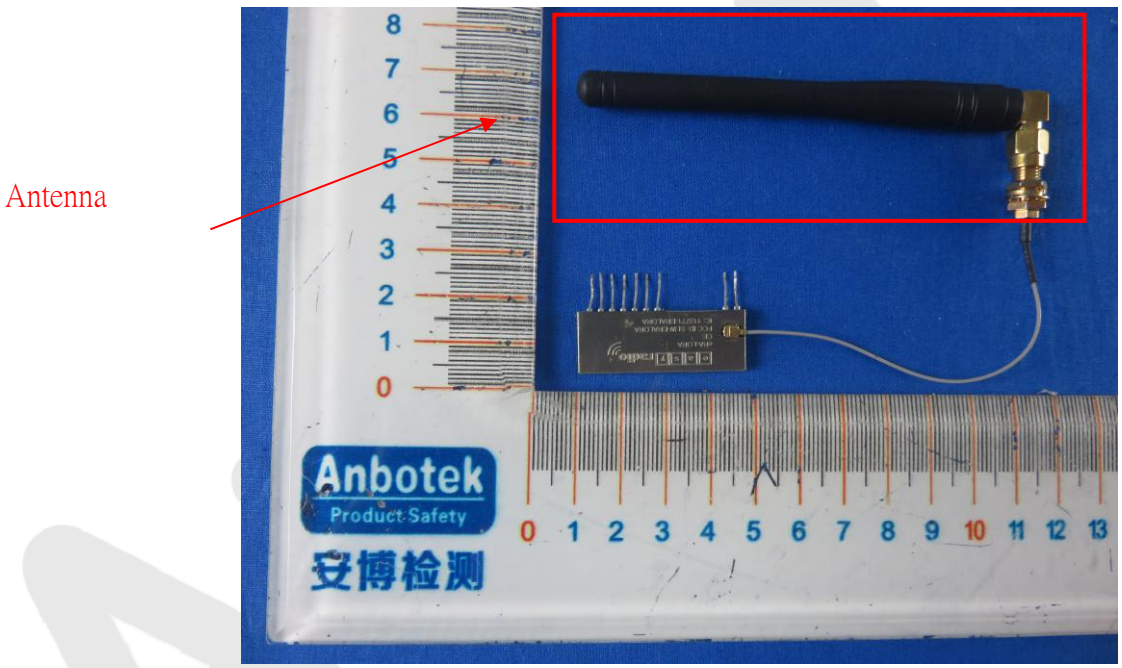
5.1 Antenna requirement

The EUT'S antenna is met the requirement of FCC part 15C section 15.203 and 15.247.

FCC part 15C section 15.247 requirements:
Systems operating in the 2402-2480MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum peak output power of the intentional radiator is reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

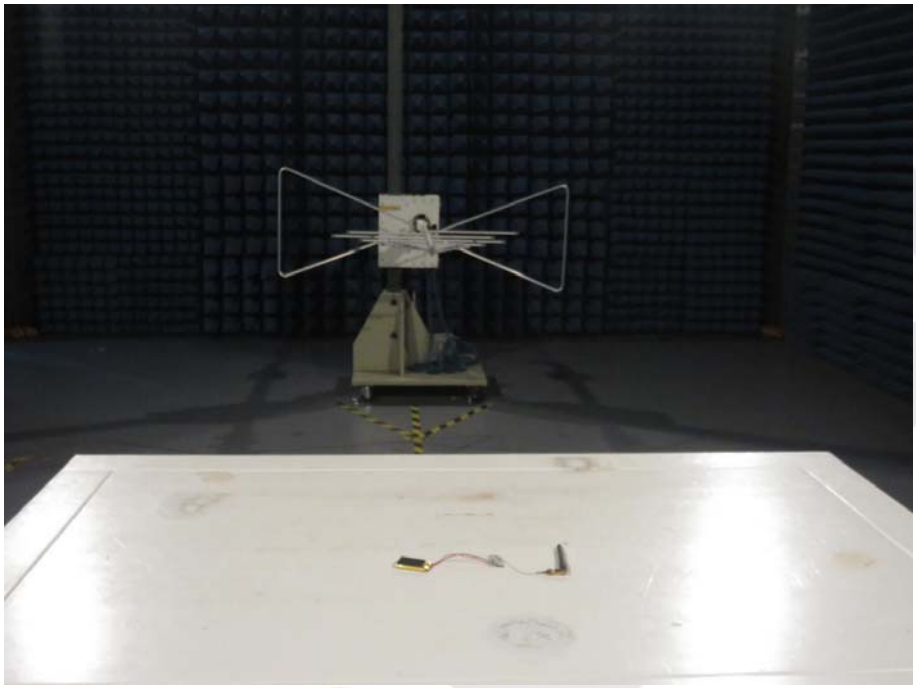
5.2 Result

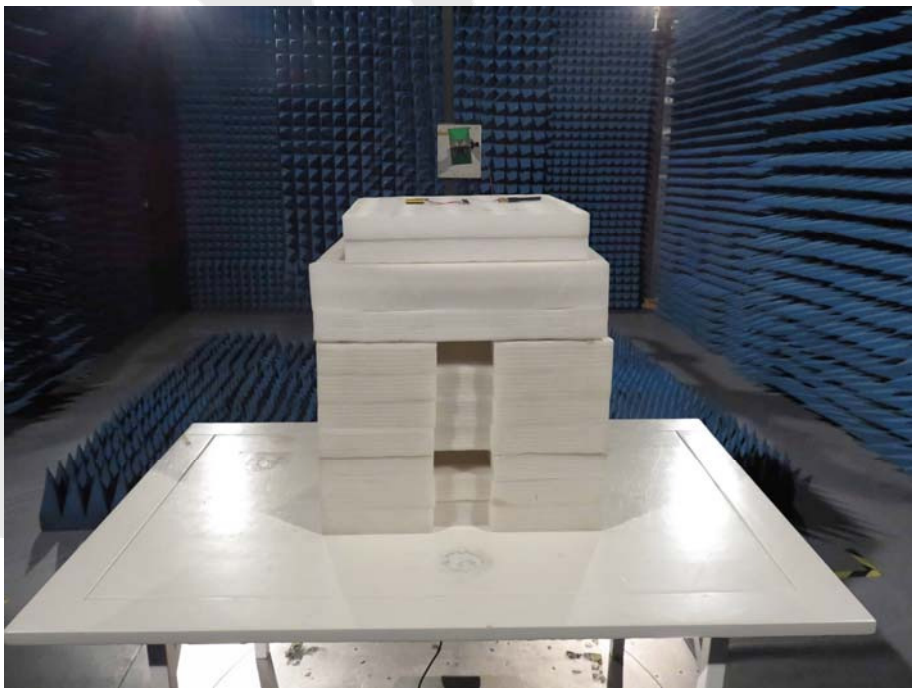
The EUT's antenna used a External Antenna, which is permanently attached to the PCB with glue, The antenna's gain is 3.0 dBi and meets the requirement.



6. PHOTOGRAPH

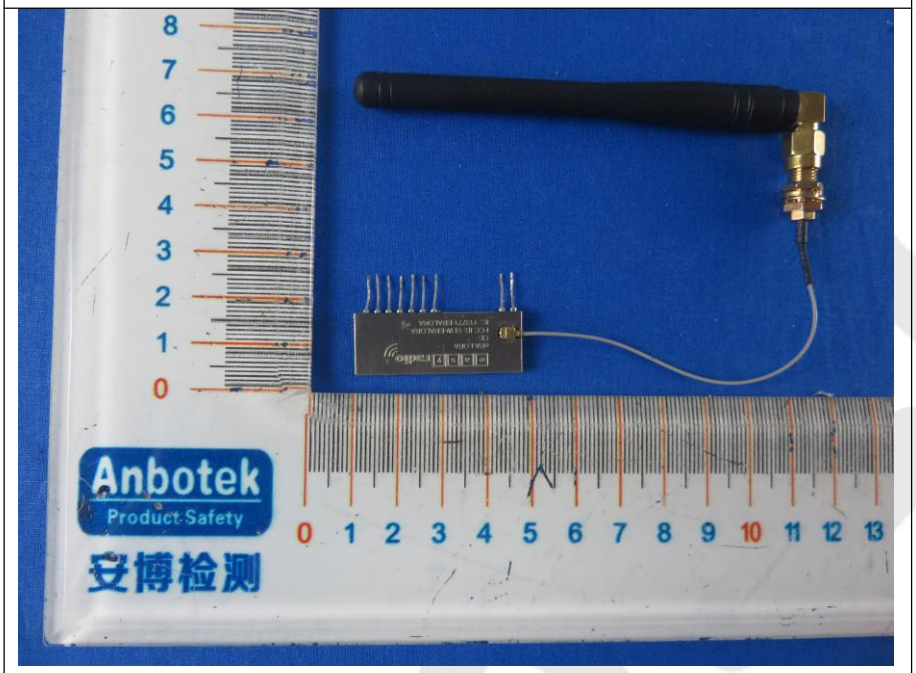
6.1 Photo of Radiation Emission Test



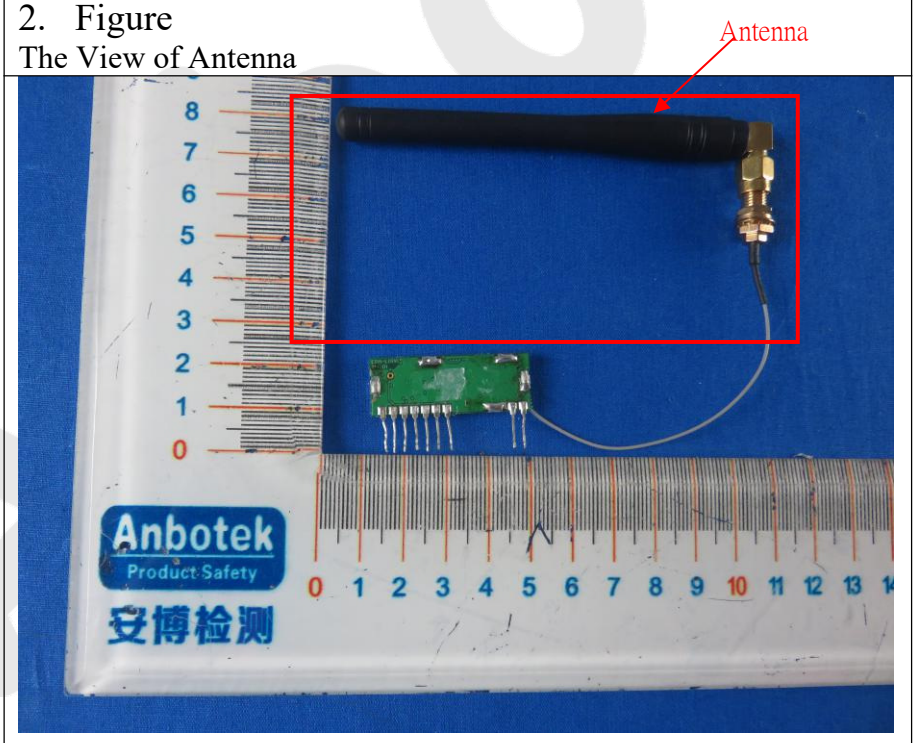


APPENDIX I (EXTERNAL PHOTOS)

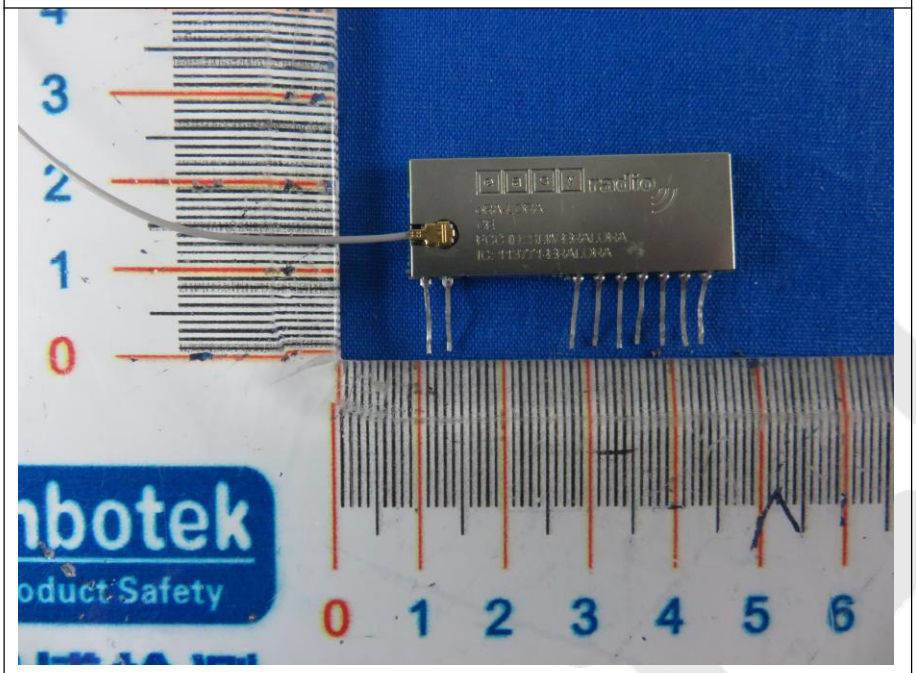
1. Figure
The EUT-Overall View



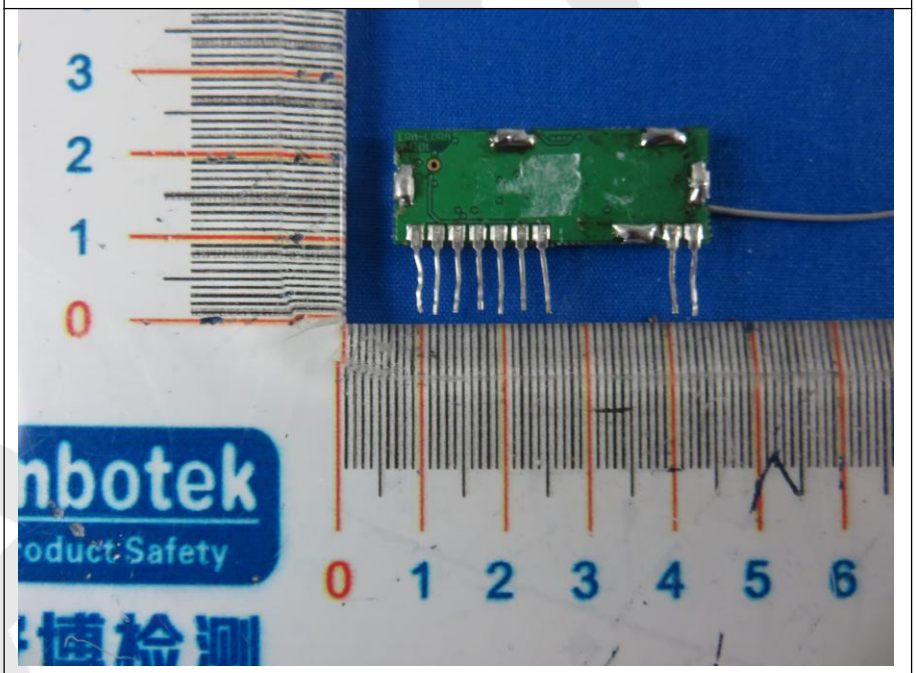
2. Figure
The View of Antenna



3. Figure
The EUT-Front View

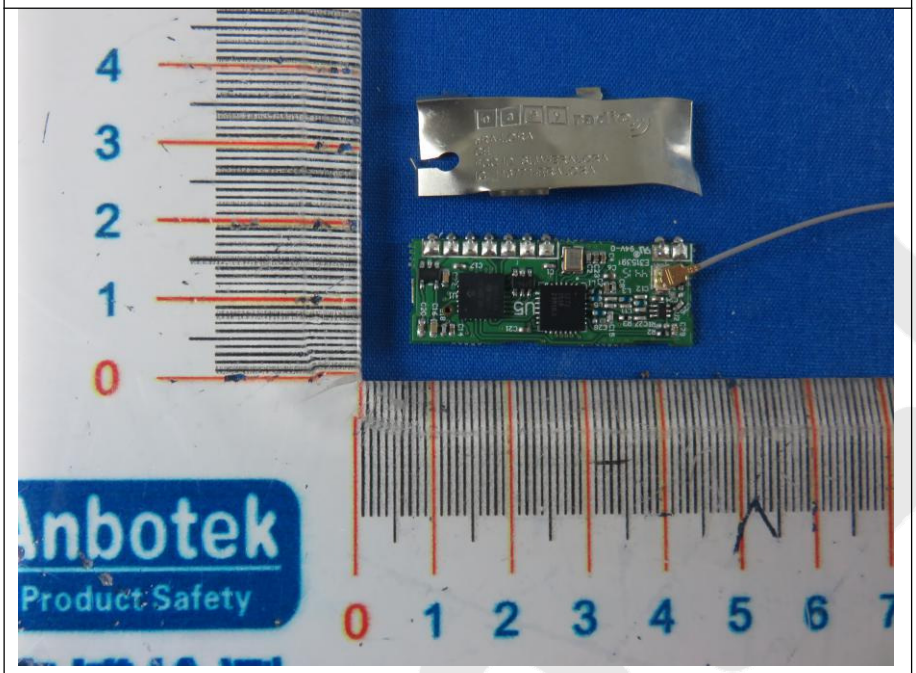


4. Figure
The EUT-Back View

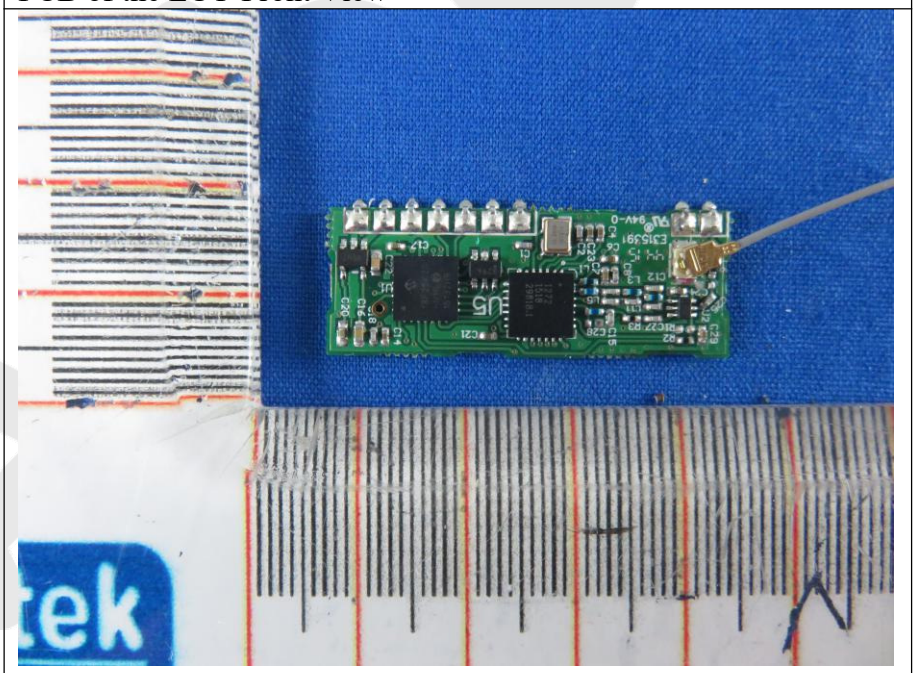


APPENDIX II(INTERNAL PHOTOS)

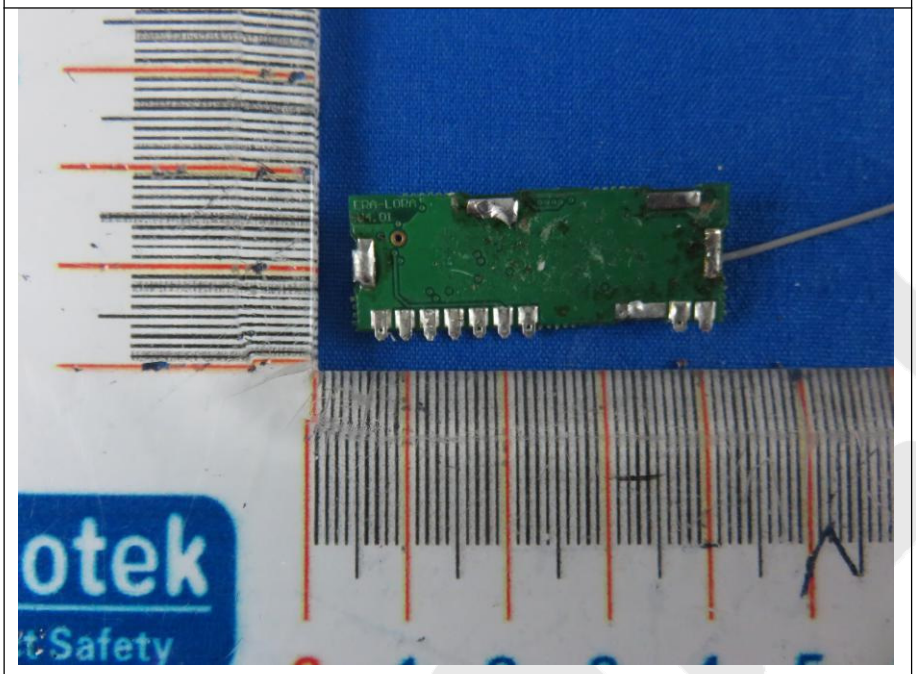
1. Figure
The EUT-Inside View



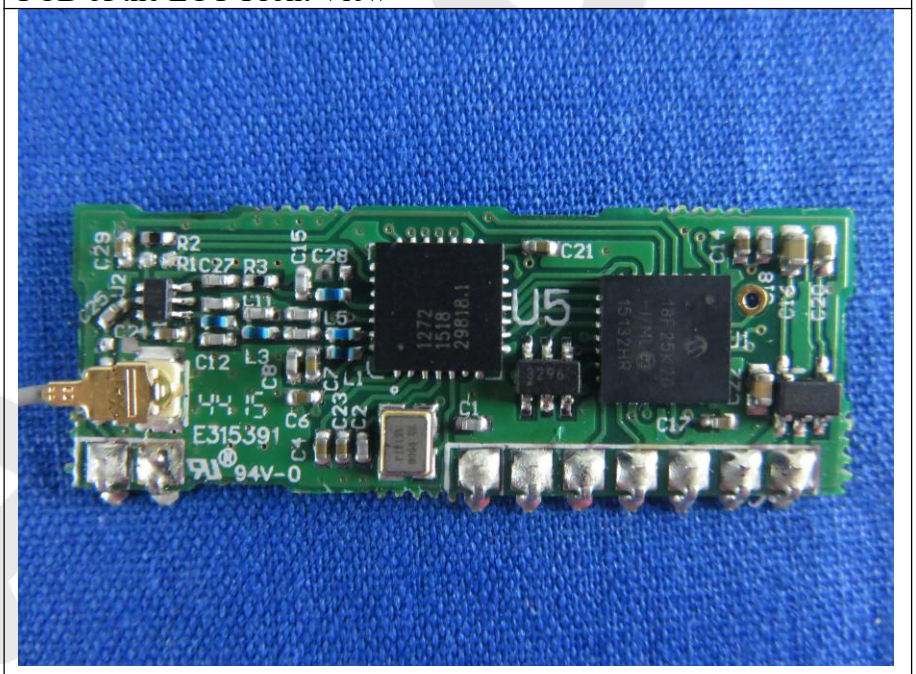
2. Figure
PCB of the EUT-Front View



3. Figure
PCB of the EUT-Back View



4. Figure
PCB of the EUT-Front View



5. Figure

PCB of the EUT-Back View