Prüfbericht-Nr.: *Test Report No.*:	**15065381 001**	**Auftrags-Nr.:** *Order No.*:	154035623	Seite 1 von 39 *Page 1 of 39*
Kunden-Referenz-Nr.: *Client Reference No.*:	389925	**Auftragsdatum:** *Order date*:	2013.9.27	
Auftraggeber: *Client*:	ACON Biotech (Hangzhou) co., Ltd. No. 398 Tianmushan Road, Hangzhou, P.R.China 310023			
Prüfgegenstand: *Test item*:	On Call® Bluetooth® Adapter			
Bezeichnung / Typ-Nr.: *Identification / Type No.*:	Model Name : OGA-101 FCC ID : 2AA3K001			
Auftrags-Inhalt: *Order content*:	Complete test			
Prüfgrundlage: *Test specification*:	FCC CFR47 Part 15, Subpart C, §15.247 ANSI C63.10-2009 KDB 558074 D01 DTS Meas Guidance v03			

Wareneingangsdatum: *Date of receipt*:	15.10.2013
Prüfmuster-Nr.: *Test sample No.*:	N.A
Prüfzeitraum: *Testing period*:	15.10.2013 – 14.11.2013
Ort der Prüfung: *Place of testing*:	QuieTek Technology(Suzhou)Co., Ltd.
Prüflaboratorium: *Testing laboratory*:	TÜV Rheinland (Shanghai) Co., Ltd.
Prüfergebnis*: *Test result**:	Pass

geprüft von / *tested by*:

14.11.2013	ShiLi / PE	Shi Li
Datum *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*

kontrolliert von / *reviewed by*:

14.11.2013	Jesse huang / PM	Jesse Huang
Datum *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*

Sonstiges / *Other*:

Zustand des Prüfgegenstandes bei Anlieferung: *Condition of the test item at delivery*: Prüfmuster vollständig und unbeschädigt *Test item complete and undamaged*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
Legend:	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specification(s)		*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

TEST SUMMARY

3.2.1 VOLTAGE REQUIREMENTS, FCC 15.31(E)
RESULT: PASS

3.2.2 ANTENNA REQUIREMENTS, FCC 15.203, FCC 15.204 AND RSS-GEN 7.1.4
RESULT: PASS

5.1.1 CONDUCTED OUTPUT POWER, FCC 15.247(B)(3) AND RSS-210 A8.4(2)
RESULT: PASS

5.1.2 6DB&99% BANDWIDTH, FCC 15.247(A)(2) AND RSS-210 A8.2(A)

5.1.3 POWER SPECTRAL DENSITY (PSD), FCC 15.247(E) AND RSS-210 A8.2
RESULT: PASS

5.1.4 CONDUCTED SPURIOUS EMISSION, FCC 15.247(D) AND RSS-210 A8.5
RESULT: PASS

5.1.5 BAND EDGE COMPLIANCE OF RF CONDUCTED EMISSION, FCC 15.247(D) AND RSS-210 A8.5
RESULT: PASS

6.1.1 BAND EDGE RADIATED EMISSION, FCC 15.205, FCC 15.209, FCC 15.247(D), RSS-210 2.2, RSS-210 2.6 AND RSS-210 A8.5
RESULT: Pass

6.1.2 RADIATED SPURIOUS EMISSION OF TRANSMITTER, FCC 15.205, FCC 15.209, FCC 15.247(D), RSS-210 2.2, RSS-210 2.6 AND RSS-210 A8.5
RESULT: PASS

CONTENTS

1. General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report.

2. Test Sites

2.1 Test Facilities

QuieTek Technology(Suzhou)Co.,Ltd.
No.99 Hongye RD.Suzhou Industnal Park Loufeng Hi-Tech Development Zone.,Suzhou,China
The used test equipment is in accordance with CISPR 16 for measurement of radio interference.

The Federal Communications Commission has reviewed the technical characteristics of the radiated and conducted emission facility, and has found these test facilities to be in compliance with the requirements of section 2.948 of the FCC rules. The description of the test facility is listed under FCC registration number 800392.

The Industry Canada has reviewed the technical characteristics of the radiated and conducted emission facility, and has found these test facilities to be in compliance. The description of the test facility is listed under chambers filing number 4075B.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Equipment	Model	Serial no.	Cal. due date
3m modified semi-anechoic chamber	SAC	N/A	10.12.2014
EMI test receiver	ESCI	100280	08.11.2014
broadband antenna	BTA-H	040005H	28.07.2014
Spectrum analyzer	FSP30	100192	21.07.2014
Broadband coaxial preamplifier	BBV 9718	9718-012	04.07.2014
Double ridged broadband horn antenna	BBHA 9120 D	9120D-433	15.05.2014

2.3 Measurement Uncertainty

Table 2: Emission Measurement Uncertainty

Measurement Type	Frequency	Uncertainty
Antenna Port Conducted Emission	< 1GHz	±0.39dB
	> 1GHz	±0.68dB
Radiated Emission	30MHz - 1GHz	±5.34dB
	> 1GHz	±5.40dB

3. General Product Information

3.1 Product Function and Intended Use

The EUT (Equipment Under Test) is a On Call® Bluetooth® Adapter

3.2 System Details

Radio standard:	Bluetooth 4.0 BLE
Specified output power:	7.2dBm
Antenna gain:	1dBi
Antenna type:	Ceramic antenna
Antenna cable length:	N/A
Frequency range:	2402 – 2480MHz
Number of channels:	40
Channel spacing:	2MHz
Rated voltage:	3V
Test voltage:	3V

3.2.1 Voltage Requirements, FCC 15.31(e)

RESULT: **PASS**

All the tests were performed using steady DC 3V. Hence it complies with the power supply requirements.

3.2.2 Antenna Requirements, FCC 15.203, FCC 15.204 and RSS-Gen 7.1.4

RESULT: **PASS**

The EUT has an internal antenna which is not user accessible. Hence it complies with the requirements.

3.3 Independent Operation Modes

The EUT was tested on a stand-alone basis (only attached to the test jig) and the test system was configured in a typical fashion (as a customer would normally use it).

The justification and manipulation of cables and equipment in order to simulate a worst-case behavior of the test setup has been carried out as prescribed in ANSI C63.4:2009. Testing was performed at the lowest operating frequency (2402MHz), at the operating frequency in the middle of the specified frequency band (2442MHz) and at the highest operating frequency (2480MHz) with different modulation types.

Each mode basic operation in :

A. EUT transmits (TX mode), with full power, at lowest channel (2402MHz), a continuous modulated signal streaming with 100% duty cycle.

B. EUT transmits (TX mode), with full power, at middle channel (2442MHz), a continuous modulated signal streaming with 100% duty cycle.

C. EUT transmits (TX mode), with full power, at highest channel (2480MHz), a continuous modulated signal streaming with 100% duty cycle.

D. EUT receives (RX mode), at lowest channel (2402MHz), continuously.

E. EUT receives (RX mode), at middle channel (2442MHz), continuously.

F. EUT receives (RX mode), at highest channel (2480MHz), continuously.

3.4 Noise Suppressing Parts

Refer to schematics and internal photos.

4. Test Set-up and Operation Modes

4.1 Test Methodology

The test methodology used is based on the requirements of 47 CFR Part 15, Sections 15.31, 15.33, 15.35, 15.205, 15.207, 15.209

The test methods, which have been used, are based on ANSI C63.10-2009 and KDB 558074 D01 DTS Meas Guidance v03

For details, see under each test item.

4.2 Physical Configuration for Testing

The EUT was designed to get into related working mode with the control of a laptop computer through RS 232 interface.
Notes:
Two test sample was available:

For antennas conducted measurements with 50Ω connector and radiated measurements.more details, refer to section: Photographs of the Test Set-Up.

4.3 Test Operation and Test Software

Software used for testing: InstalluEnergyTools_1_3_1by client.

This software was running on the laptop computer connected to the EUT. It was used to enable the test operation modes listed in section 3.3 as appropriate.

4.4 Special Accessories and Auxiliary Equipment

The product has been tested together with a PCB Development kit (Control the module).

4.5 Countermeasures to achieve EMC Compliance

No additional measures were employed to achieve compliance.

5. Test Results of Conducted Measurements at Antenna Port

5.1 Transmitter Parameters

5.1.1 Conducted Output Power, FCC 15.247(b)(3)

RESULT: **PASS**

Date of testing: 2013-11-4

Ambient temperature: 20°C
Relative humidity: 39.6%
Atmospheric pressure: 101.5hPa

Requirements:

For frequency hopping systems operating in the 2400-2483.5MHz band employing at least 75 non-overlapping hopping channels, the maximum peak output power shall be 1W (30dBm). For other hopping systems operating in the 2400-2483.5MHz band, the maximum peak output power shall be 0.125W (21dBm).

Test procedure:

ANSI C63.10-2009, RSS-Gen 4.8 and KDB 558074 D01 DTS Meas Guidance v03

The maximum peak output power (conducted) was measured at the antenna connector with a spectrum analyzer. The analyzer resolution bandwidth was set to 3MHz and the video bandwidth to 10MHz.The final measurement takes into account the loss generated by all the involved cables.

Table 3: Conducted Output Power, Mode A (2402MHz)

Reading [dBm]	RBW [MHz]	Output Power [dBm]	Limit [dBm]
6.04	3	6.04	30

Notes: Cable loss was included in reading as offset.

Figure 1: Conducted Output Power, Mode A

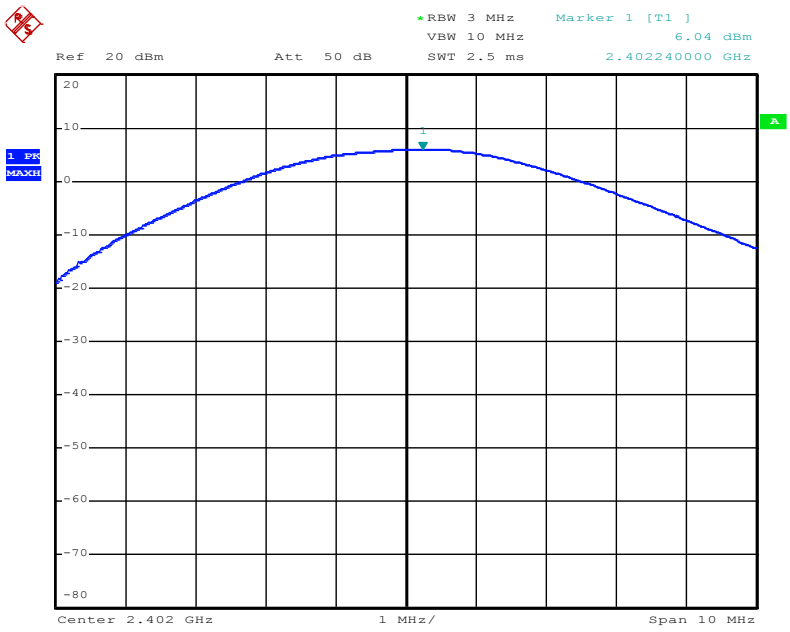


Table 4: Conducted Output Power, Mode B (2442MHz)

Reading [dBm]	RBW [MHz]	Output Power [dBm]	Limit [dBm]
6.93	3	5.07	30

Notes: Cable loss was included in reading as offset.

Figure 2: Conducted Output Power, Mode B

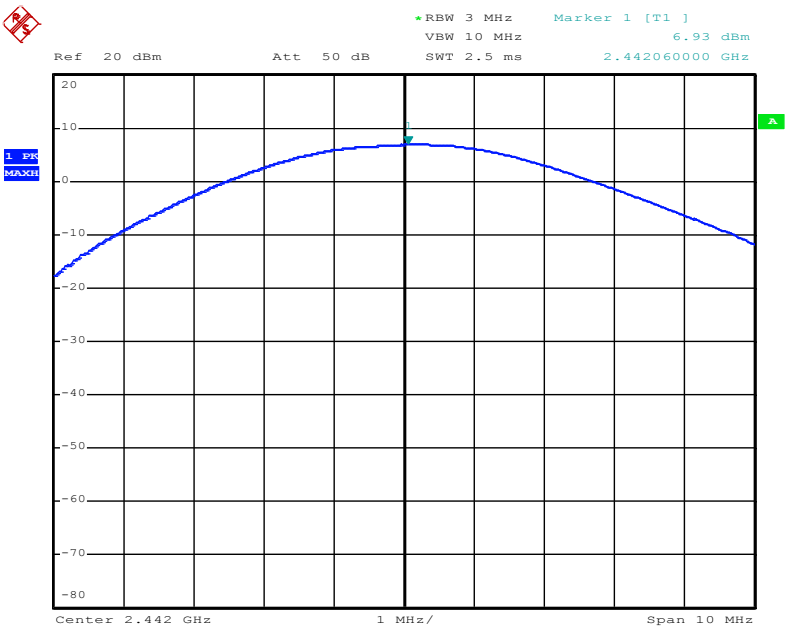
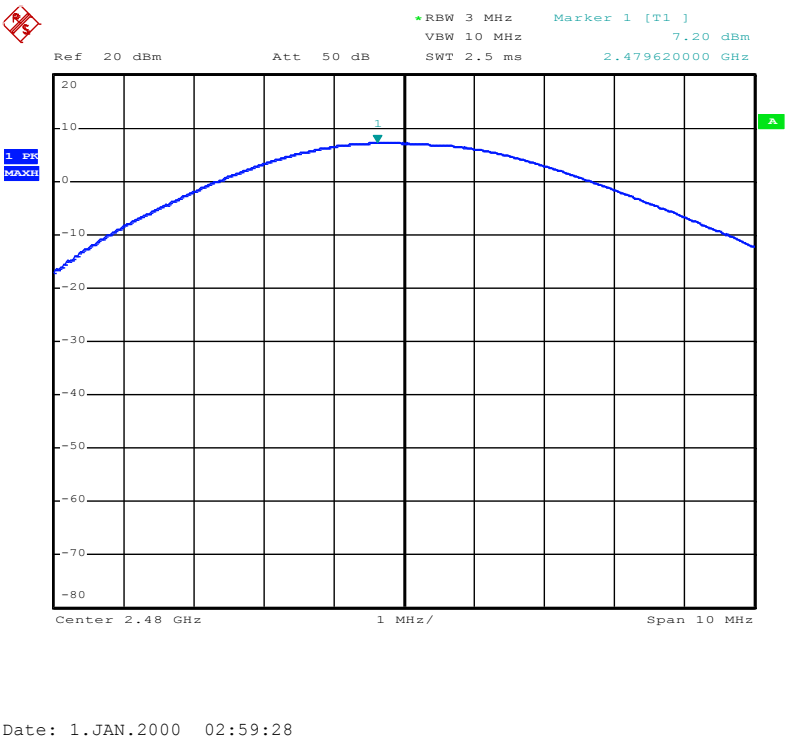


Table 5: Conducted Output Power, Mode C (2480MHz)

Reading [dBm]	RBW [MHz]	Output Power [dBm]	Limit [dBm]
7.20	3	5.19	30

Notes: Cable loss was included in reading as offset.

Figure 3: Conducted Output Power, Mode C



Date: 1.JAN.2000 02:59:28

5.1.2 6dB Bandwidth, FCC 15.247(a)(2)

Date of testing:	2013-11-4
Ambient temperature:	20°C
Relative humidity:	39.6%
Atmospheric pressure:	101.5hPa

Requirements:

For frequency hopping systems operating in the 2400-2483.5MHz band, no bandwidth limit is specified. Test data is provided for reference.

Test procedure:

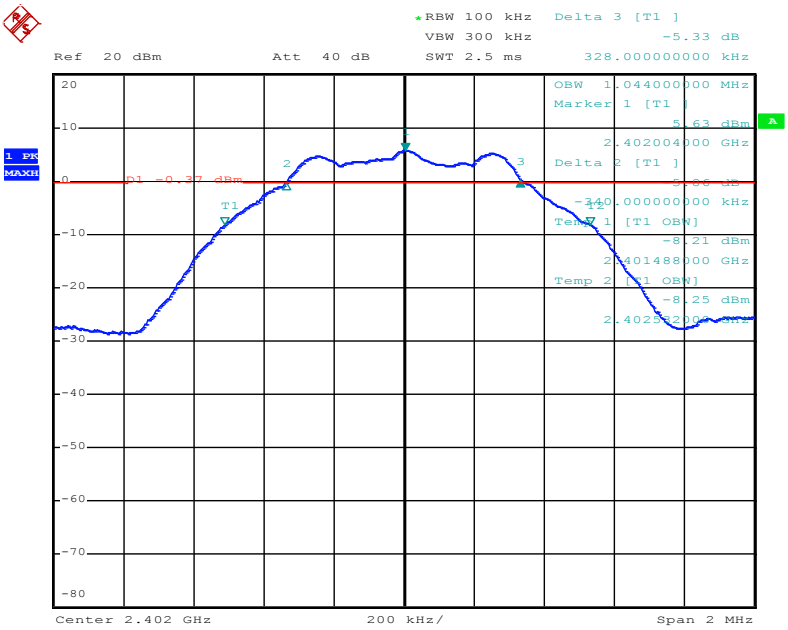
ANSI C63.10-2009 and KDB 558074 D01 DTS Meas Guidance v03

A spectrum analyzer was connected to the antenna port of the EUT. The spectrum analyzer resolution bandwidth was set to 100kHz, the video bandwidth to 300kHz and the span to 2MHz.

Table 6: 6dB Bandwidth

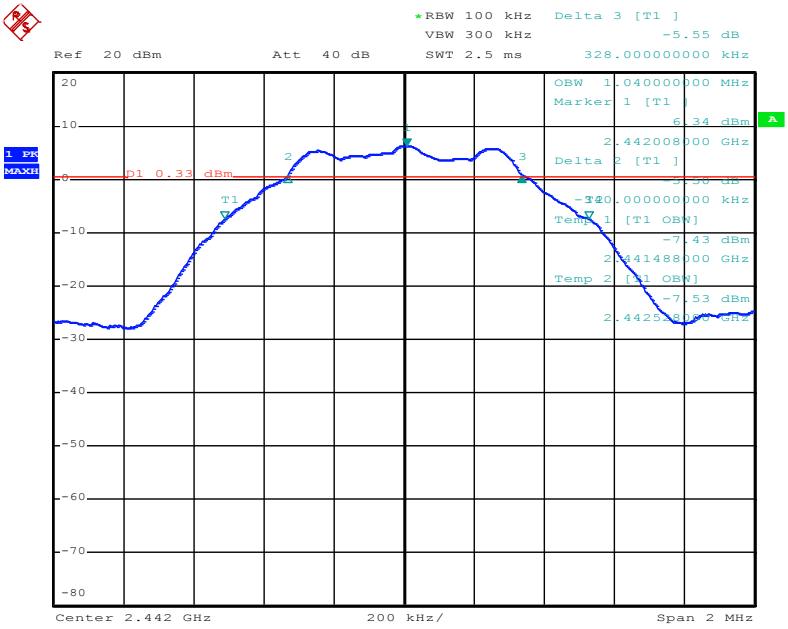
Operating Frequency [MHz]	6dB Bandwidth[MHz] limit 500KHz
2402	0.668
2442	0.648
2480	0.642

Figure 4: 6dB Bandwidth, Mode A



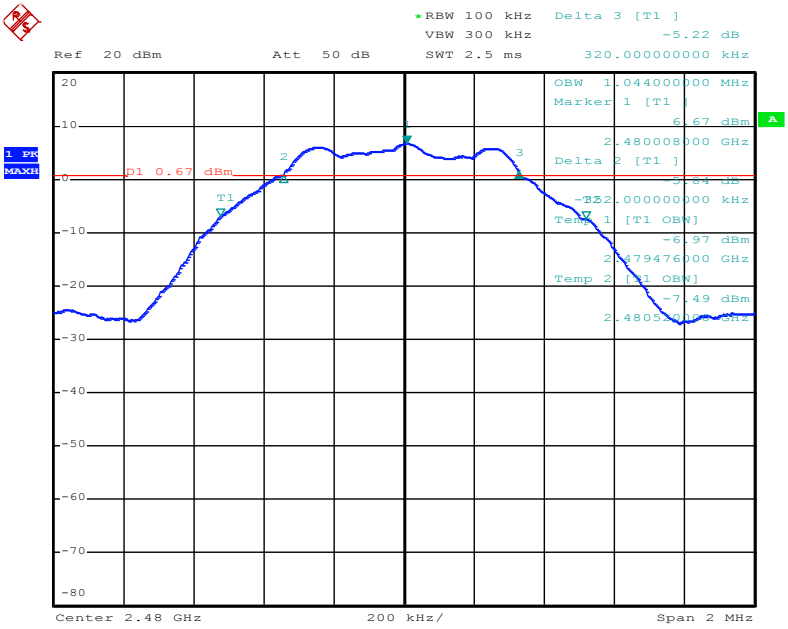
Date: 1.JAN.2000 03:05:51

Figure 5: 6dB Bandwidth, Mode B



Date: 1.JAN.2000 03:04:23

Figure 6: 6dB Bandwidth, Mode C



Date: 1.JAN.2000 03:02:28

5.1.3 Power Spectral Density (PSD), FCC 15.247(e)

RESULT: **PASS**

Date of testing: 2013-11-4

Ambient temperature: 20°C
Relative humidity: 39.6%
Atmospheric pressure: 101.5hPa

Requirements:

According to FCC section 15.247(e) , the same method of determining the conducted output power shall be used to determine the power spectral density. If a peak output power is measured, then a peak power spectral density measurement is required. If an average output power is measured, then an average power spectral density measurement should be used.

Test procedure:

KDB 558074 D01 DTS Meas Guidance v03

A spectrum analyzer was connected to the antenna port of the EUT. The analyzer resolution bandwidth was set to 100kHz.

The final measurement takes into account the loss generated by all the involved cables.

Table 7: Power spectral density

Frequency [MHz]	PSD [dBm/3KHz]	Limit [dBm/3kHz]
Low	-10.05	8
Middle	-9.20	8
High	-8.72	8

Figure 7: Power spectral density, Mode A

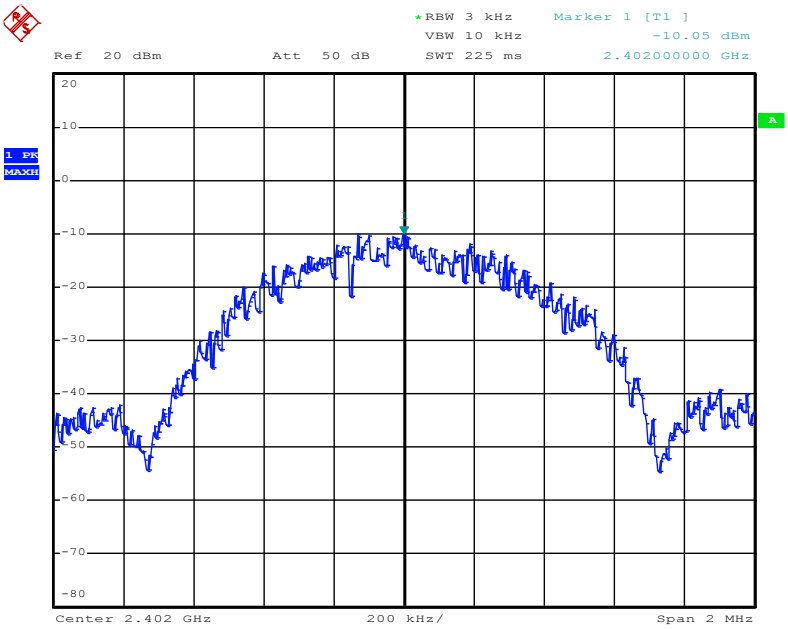


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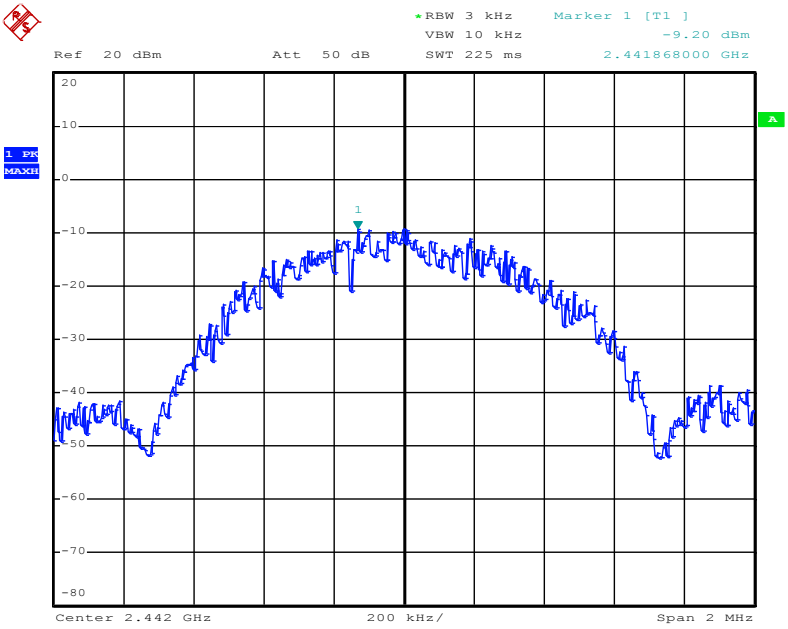
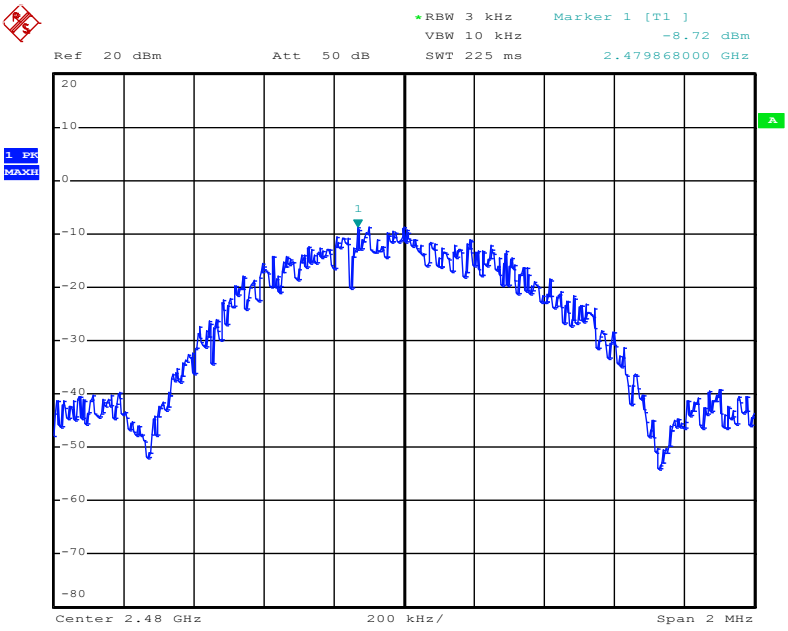
Figure 8: Power spectral density, Mode B



Date: 1.JAN.2000 03:29:41

Figure 9: Power spectral density, Mode C



Date: 1.JAN.2000 03:32:08

5.1.4 Conducted Spurious Emission, FCC 15.247(d)

RESULT: **PASS**

Date of testing: 2013-11-4

Ambient temperature: 20°C
Relative humidity: 39.6%
Atmospheric pressure: 101.5hPa

Requirements:

In any 100kHz bandwidth outside the frequency band, the RF power shall be at least 20dB below that of the maximum in-band 100kHz emission.

Test procedure:

ANSI C63.10-2009 and KDB 558074 D01 DTS Meas Guidance v03

A spectrum analyzer was connected to the antenna port of the EUT. The analyzer resolution bandwidth was set to 100kHz. For each channel investigated, the in-band and out-of-band emission measurements were performed. The out-of-band emissions were measured from 30MHz to 26GHz (10^{th} harmonics).

The final measurement takes into account the loss generated by all the involved cables.

Table 8: Conducted Spurious Emission, Mode A

Frequency [MHz]	Reading [dBm]	Emission Level [dBm]	Limit [dBm]	Margin [dB]
24430	-21.60	-21.60	-14.26	7.34
N/A	N/A	N/A	-14.26	N/A
2402	5.74	5.74	N/A	N/A

Notes: Cable loss was included in reading as offset.
Limit = Reading of fundamental + Correction factor – 20dB

Figure 10: Conducted Spurious Emission, 30MHz – 6GHz, Mode A

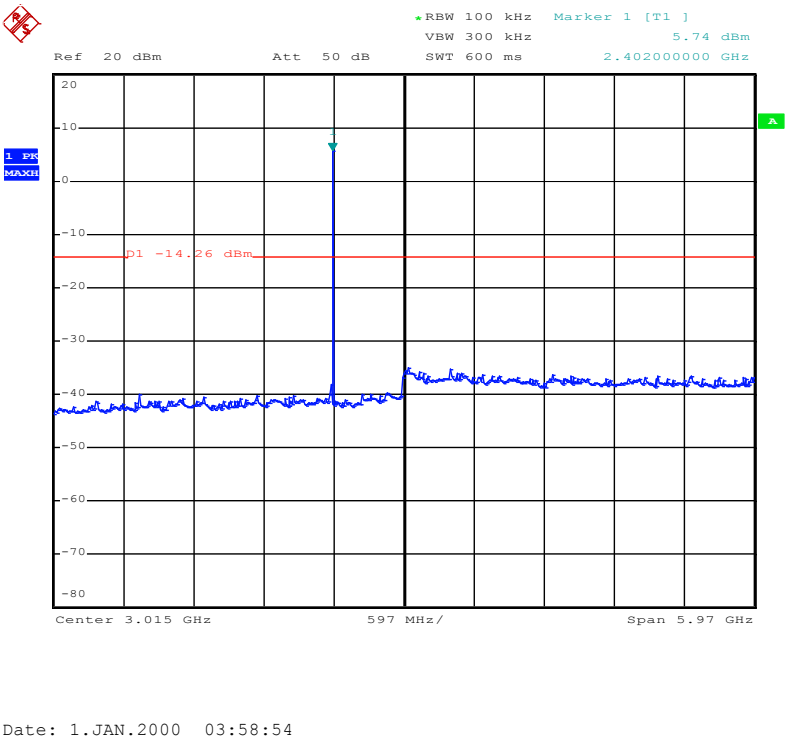
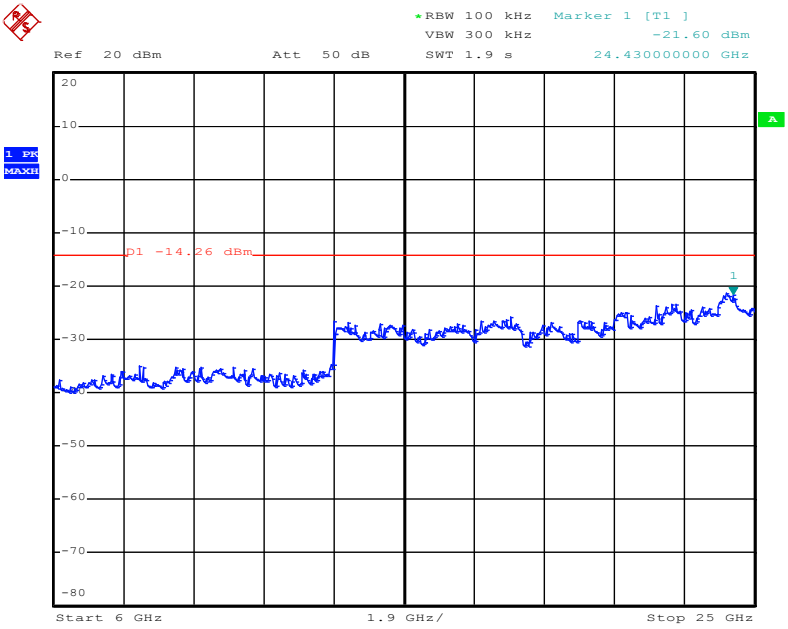


Figure 11: Conducted Spurious Emission, 6 – 26GHz, Mode A



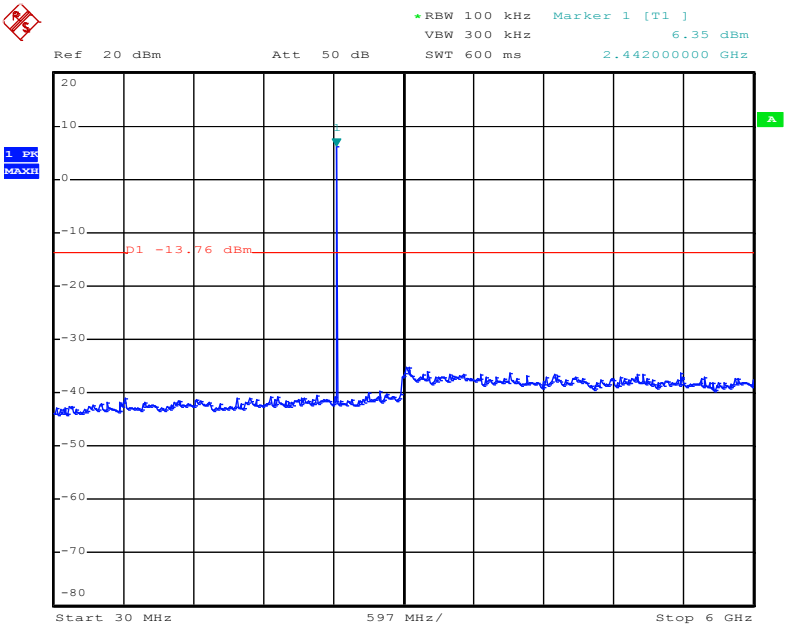
Date: 1.JAN.2000 03:59:16

Table 9: Conducted Spurious Emission, Mode B

Frequency [MHz]	Reading [dBm]	Emission Level [dBm]	Limit [dBm]	Margin [dB]
24278	-21.57	-21.57	-13.76	7.81
NA	N/A	NA	N/A	NA
2442	6.35	6.35	NA	N/A

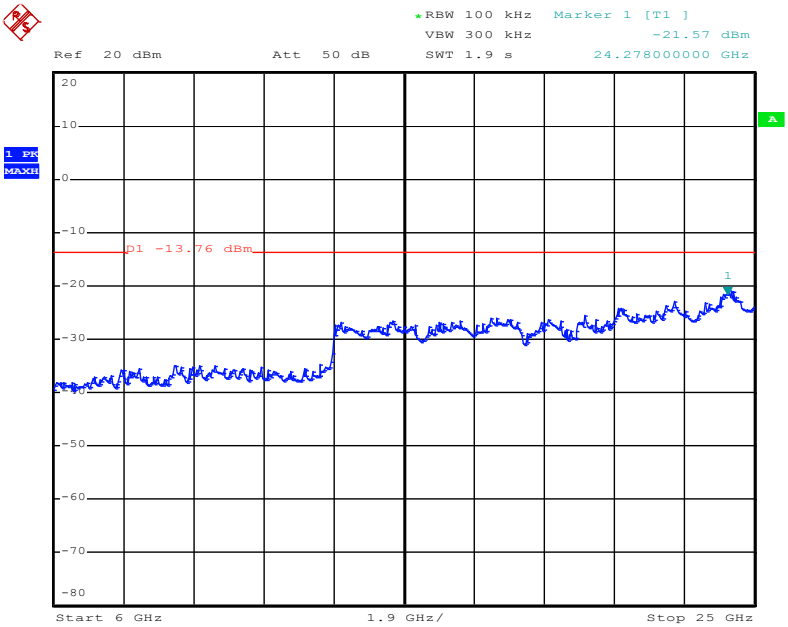
Notes: Cable loss was included in reading as offset.
Limit = Reading of fundamental + Correction factor – 20dB

Figure 12: Conducted Spurious Emission, 30MHz – 6GHz, Mode B



Date: 1.JAN.2000 03:38:01

Figure 13: Conducted Spurious Emission, 6 – 26GHz, Mode B



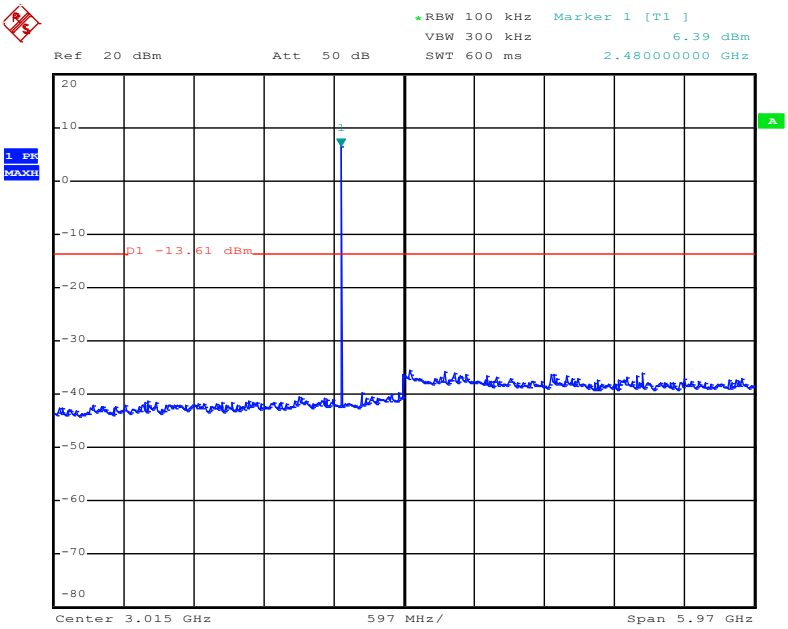
Date: 1.JAN.2000 03:38:47

Table 10: Conducted Spurious Emission, Mode C

Frequency [MHz]	Reading [dBm]	Emission Level [dBm]	Limit [dBm]	Margin [dB]
24278	-21.31	-21.31	-13.61	7.7
N/A	N/A	N/A	N/A	N/A
2480	6.39	6.39	N/A	N/A

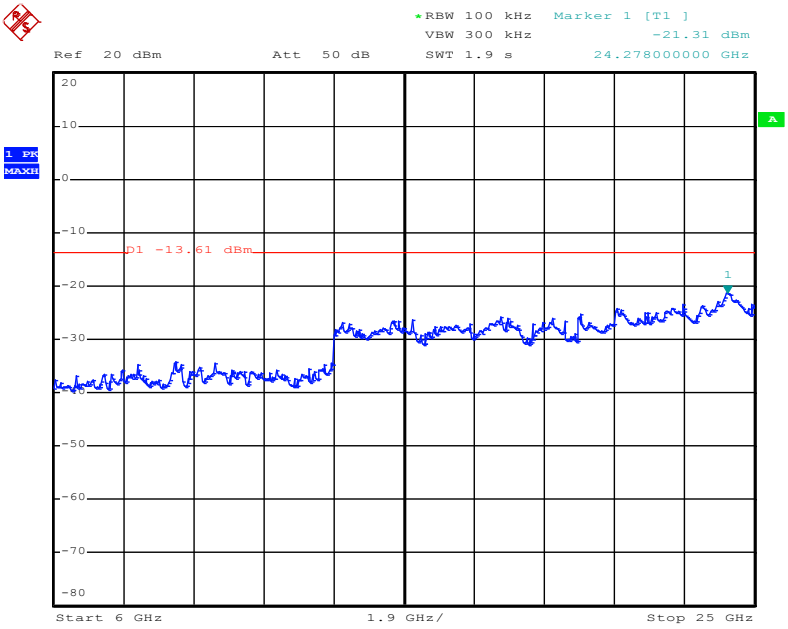
Notes: Cable loss was included in reading as offset.
Limit = Reading of fundamental + Correction factor – 20dB

Figure 14: Conducted Spurious Emission, 30MHz – 6GHz, Mode C



Date: 1.JAN.2000 03:34:39

Figure 15: Conducted Spurious Emission, 6 – 26GHz, Mode C



Date: 1.JAN.2000 03:35:13

5.1.5 Band Edge Compliance of RF Conducted Emission, FCC 15.247(d)

RESULT: **PASS**

Date of testing: 2013-11-4

Ambient temperature: 20°C
Relative humidity: 39.6%
Atmospheric pressure: 101.5hPa

Requirements:

In any 100kHz bandwidth outside the frequency band, the RF power shall be at least 20dB below that of the maximum in-band 100kHz emission.

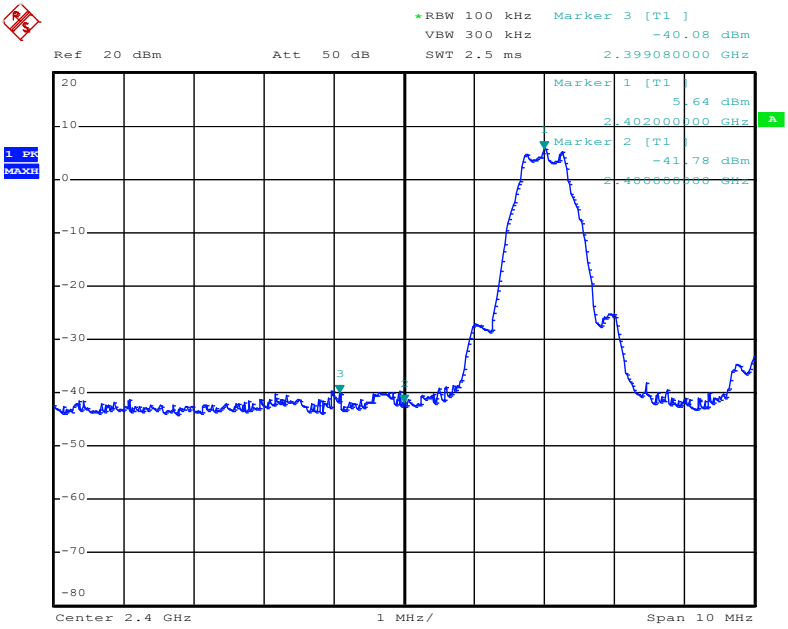
Test procedure:

ANSI C63.10-2009 and KDB 558074 D01 DTS Meas Guidance v03

A spectrum analyzer was connected to the antenna port of the EUT. The analyzer resolution bandwidth was set to 100kHz and video bandwidth was set to 300kHz. Allow the trace to stabilize. Set the marker on the emission at the band edge, or on the highest modulation product outside of the band, if this level is greater than that at the band edge. Enable the marker-delta function, and then use the marker-to-peak function to move the marker to the peak of the in-band emission.

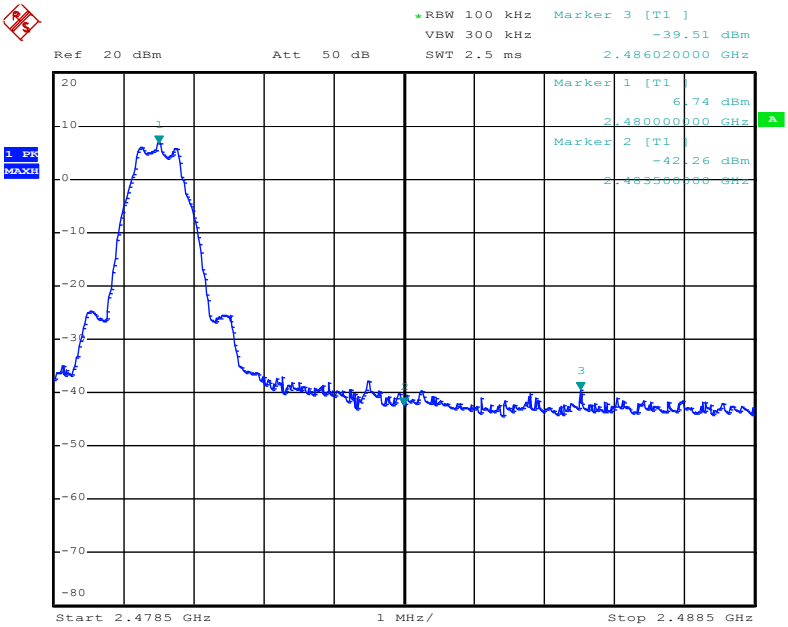
The final measurement takes into account the loss generated by all the involved cables.

Figure 16: Lower Band Edge Conducted



Date: 1.JAN.2000 04:00:25

Figure 17: Upper Band Edge Conducted



Date: 1.JAN.2000 04:01:50

6. Test Results of Radiated Measurements

6.1 Transmitter Parameters

6.1.1 Band Edge Radiated Emission, FCC 15.205, FCC 15.209, FCC 15.247(d)

RESULT: **Pass**

Date of testing:	2013-10-19
Ambient temperature:	23.5°C
Relative humidity:	45%
Atmospheric pressure:	101.5hPa
Measurement distance:	3m
Kind of test site:	Semi Anechoic Chamber

Requirements:

Radiated emissions which fall in the restricted bands, as defined in FCC 15.205(a) and RSS-210 2.7 (Table 1), must comply with the radiated emission limits specified in FCC 15.209(a) (Table 2 and 3).

Test procedure:

ANSI C63.10-2009 and KDB 558074 D01 DTS Meas Guidance v03

The EUT was placed on a nonconductive turntable 0.8m above the ground plane. Measurements were made at 3m distance. The EUT was rotated 360° and the antenna was raised and lowered from 1 to 4m in order to determine the emission's maximum level.

Measurements were taken using both horizontal and vertical antenna polarization. The rotation through the three orthogonal axes is normally not needed for equipment that is not hand-held or body-worn. The EUT was pretested in floor-standing condition and in the table position and the worst case condition was table position which was used for the final measurements.
Measurements were performed using a spectrum analyzer with a suitable span to encompass the peak of the fundamental and using the following settings: Peak: RBW & VBW = 1MHz, Average: RBW = 1MHz, VBW = 10Hz.

The highest emission amplitudes relative to the appropriate limit were measured and recorded in this report.

Table 11: Band Edge Radiated Emission

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	Horizontal	2390.000	51.883	14.236	-22.117	74.000	37.648	PK
2	Horizontal	2402.073	76.417	38.661	N/A	N/A	37.756	PK
3	Horizontal	N/A	N/A	N/A	N/A	N/A	N/A	N/A

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	Horizontal	2390.000	39.594	1.947	-14.406	54.000	37.648	AV
2	Horizontal	2402.073	63.469	25.713	N/A	N/A	37.756	AV
3	Horizontal	N/A	N/A	N/A	N/A	N/A	N/A	N/A

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	Vertical	2390.000	53.208	16.221	-20.792	74.000	36.988	PK
2	Vertical	2402.120	75.475	38.427	N/A	N/A	37.048	PK
3	Vertical	N/A	N/A	N/A	N/A	N/A	N/A	N/A

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	Vertical	2390.000	38.984	1.997	-15.016	54.000	36.988	AV
2	Vertical	2402.073	61.918	24.871	N/A	N/A	37.047	AV
3	Vertical	N/A	N/A	N/A	N/A	N/A	N/A	N/A

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	Horizontal	2480.046	78.317	39.873	N/A	N/A	38.444	PK
2	Horizontal	2483.500	53.794	15.319	-20.206	74.000	38.475	PK
3	Horizontal	N/A	N/A	N/A	N/A	N/A	N/A	N/A

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	Horizontal	2479.969	65.113	26.669	N/A	N/A	38.443	AV
2	Horizontal	2483.500	40.684	2.209	-13.316	54.000	38.475	AV
3	Horizontal	N/A	N/A	N/A	N/A	N/A	N/A	N/A

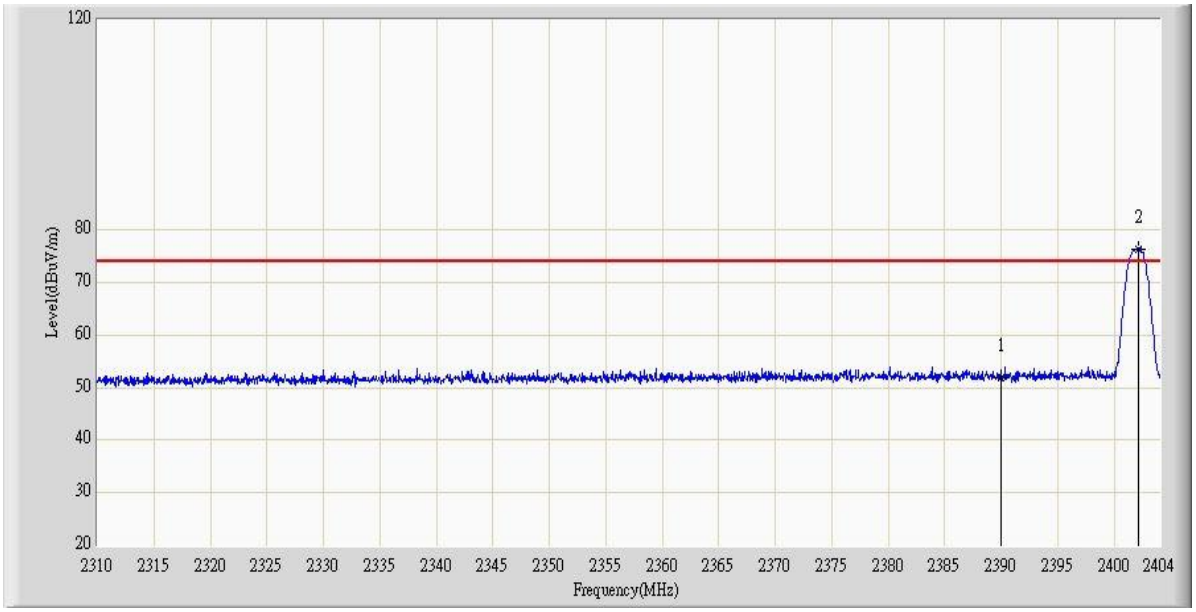
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	Vertical	2479.738	73.592	36.169	N/A	N/A	37.423	PK
2	Vertical	2483.500	52.520	15.079	-21.480	74.000	37.441	PK
3	Vertical	N/A	N/A	N/A	N/A	N/A	N/A	N/A

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	Vertical	2480.002	61.095	23.671	N/A	N/A	37.424	AV
2	Vertical	2483.500	39.587	2.146	-14.413	54.000	37.441	AV
3	Vertical	N/A	N/A	N/A	N/A	N/A	N/A	N/A

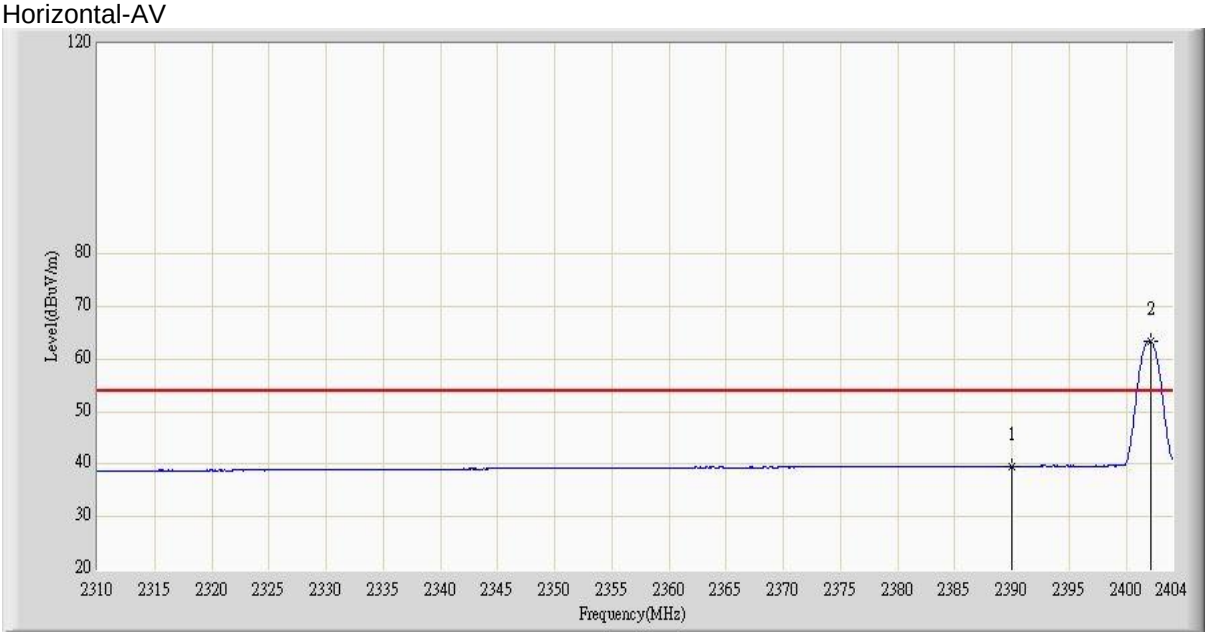
Notes: All correction factors (antenna, cable, pre-amplifier) are included in the measurement values.
Average limit in dBuV/m is calculated as follows: Average limit = 20 x log(500uV/m).
Peak limit in dBuV/m is calculated as follows: Peak limit = Average limit + 20dB.

Figure 18: Band Edge Radiated Emission, Spectral Diagram, Mode A (2402MHz)

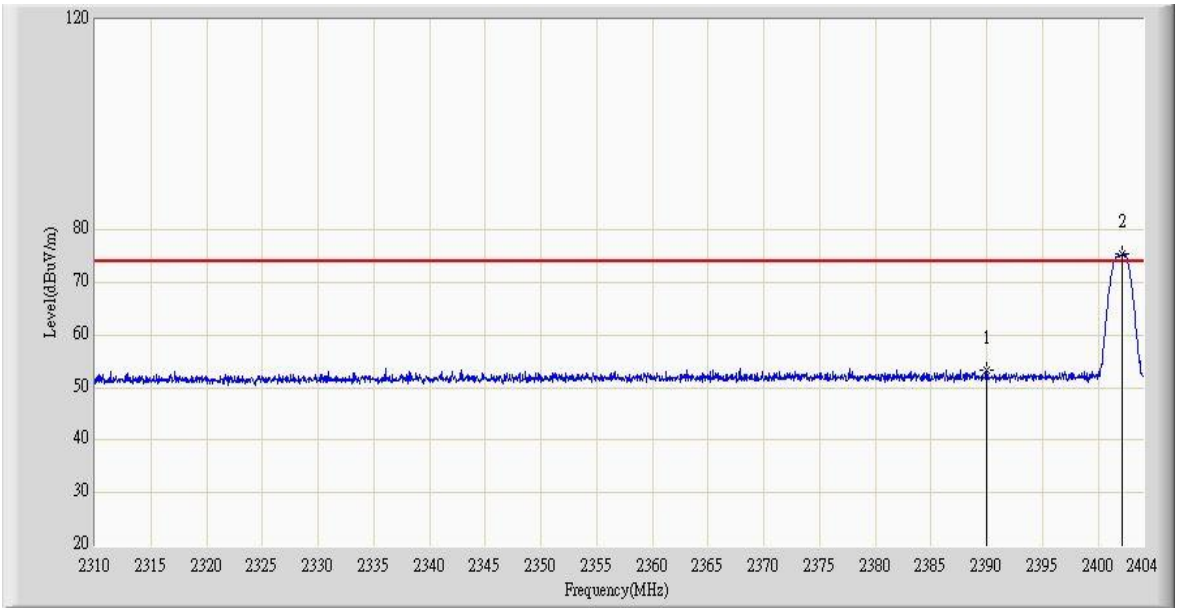
Horizontal-PK



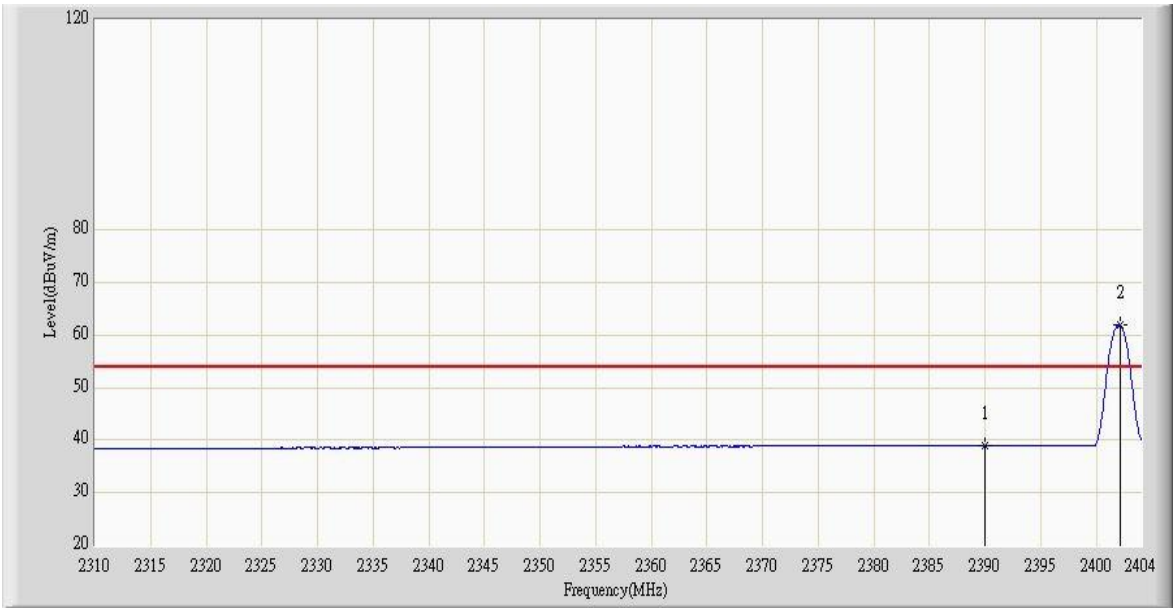
Horizontal-AV



Vertical-PK



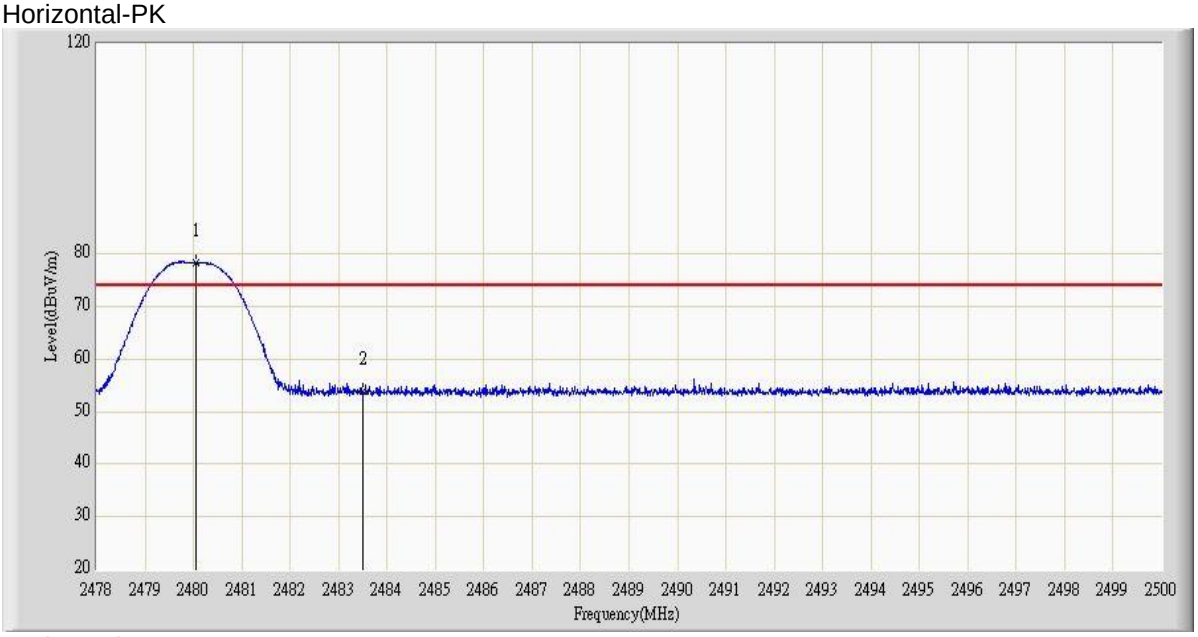
Vertical-AV



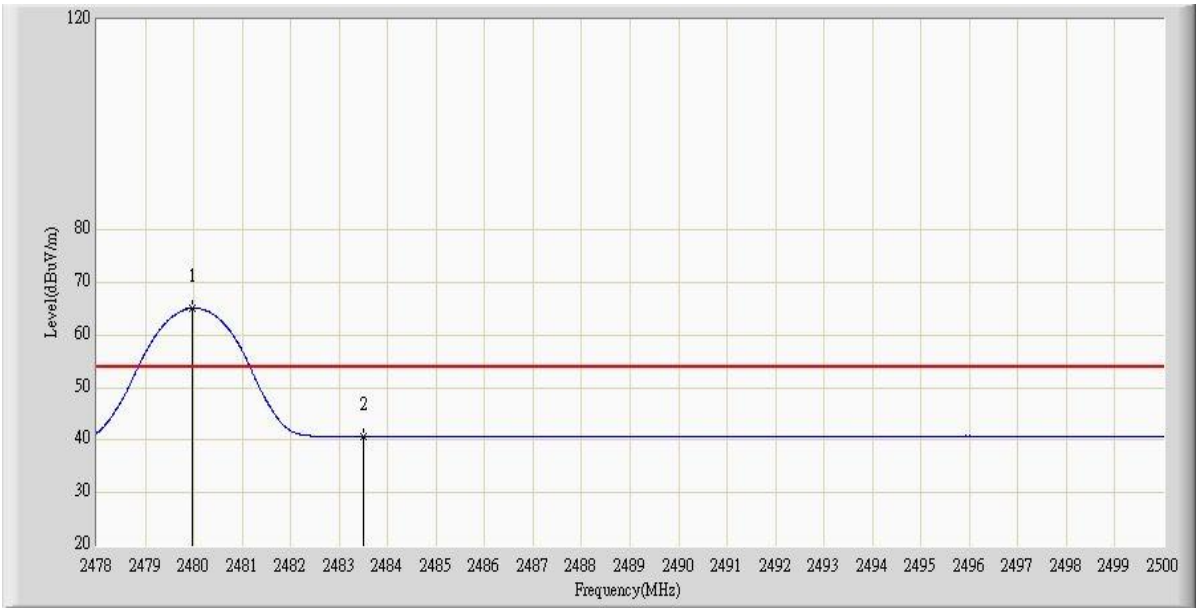
Note: The upper diagram shows the vertical peak value and the lower diagram shows the horizontal value.

Figure 19: Band Edge Radiated Emission, Spectral Diagram, Mode C (2402MHz)

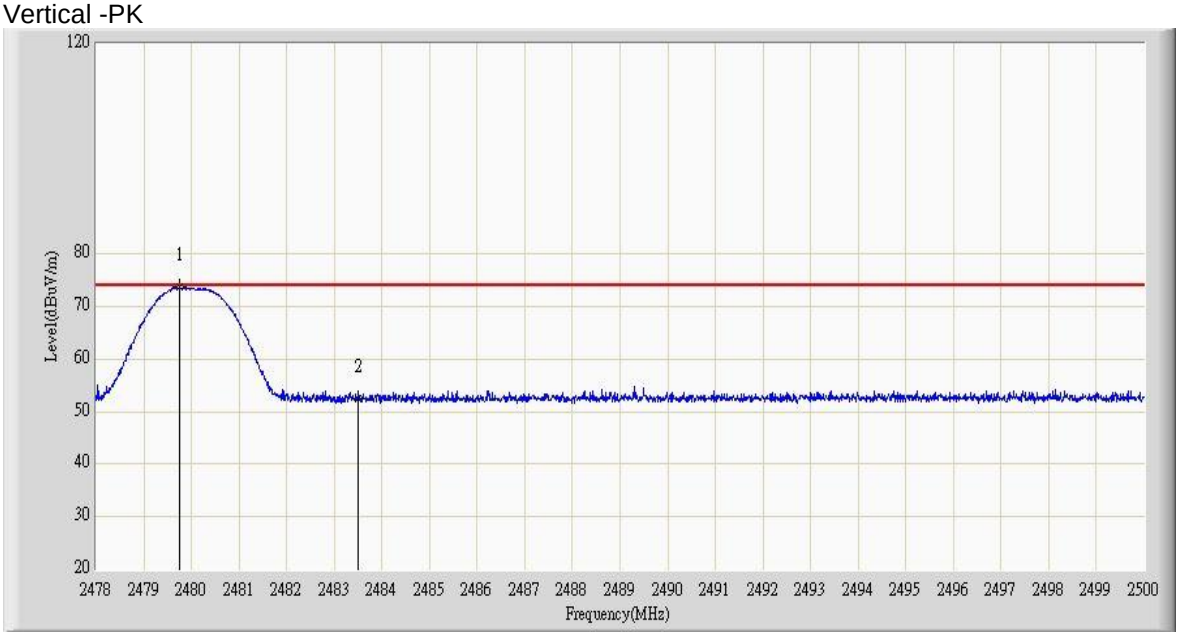
Horizontal-PK



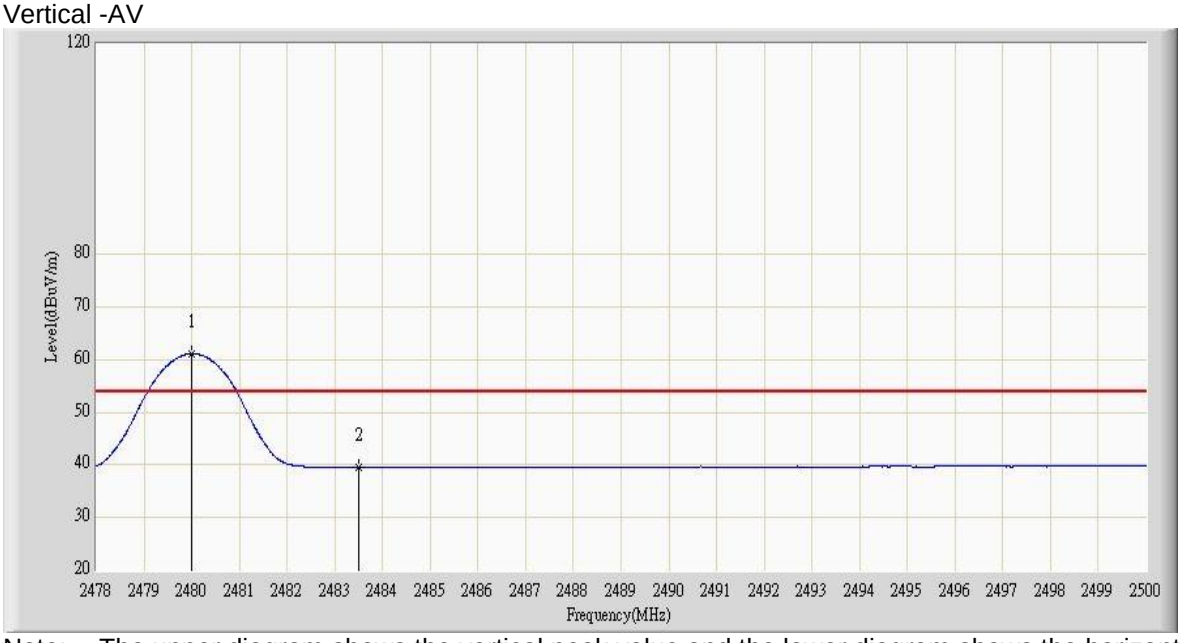
Horizontal-AV



Vertical -PK



Vertical -AV



Note: The upper diagram shows the vertical peak value and the lower diagram shows the horizontal value.

6.1.2 Radiated Spurious Emission of Transmitter, FCC 15.205, FCC 15.209, FCC 15.247(d)

RESULT: **PASS**

Date of testing:	2013-10-19
Ambient temperature:	23.5°C
Relative humidity:	45%
Atmospheric pressure:	101.5hPa
Frequency range:	30MHz – 25GHz
Measurement distance:	3m
Kind of test site:	Semi Anechoic Chamber

Requirements:

Radiated emissions which fall in the restricted bands, as defined in FCC 15.205(a) and RSS-210 2.7 (Table 1), must comply with the radiated emission limits specified in FCC 15.209(a) (Table 2 and 3).

Test procedure:

ANSI C63.10-2009, RSS-Gen 4.9 and KDB 558074 D01 DTS Meas Guidance v03

The EUT was placed on a nonconductive turntable 0.8m above the ground plane. Before final measurements of radiated emissions were performed, the EUT was scanned to determine its emission spectrum profile. The EUT was pretested in floor-standing condition and in the table position and the worst case condition was table position which was used for the final measurements. The rotation through the three orthogonal axes is normally not needed for equipment that is not hand-held or body-worn.

The spectrum was examined from 30MHz to the 10th harmonic of the highest fundamental transmitter frequency (25GHz). Final radiated emission measurements were made at 3m distance.

At each frequency where a spurious emission was found, the EUT was rotated 360° and the antenna was raised and lowered from 1 to 4m in order to determine the emission's maximum level. Measurements were taken using both horizontal and vertical antenna polarizations.

For frequencies between 30MHz and 1GHz, the spectrum analyzer's 6 dB bandwidth was set to 120 kHz, and the analyzer was operated in the CISPR quasi-peak detection mode. For emissions above 1GHz, measurements were performed using the following settings: Peak: RBW & VBW = 1MHz, Average: RBW = 1MHz, VBW = 10Hz.

The highest emission amplitudes relative to the appropriate limit were recorded in this report. Emissions other than those mentioned are small or not detectable.

Table 12: Radiated Emission, Average and Peak Data, 1 – 25GHz, Horizontal and Vertical Antenna Orientations, Mode A (2402MHz)

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	Horizontal	4804.000	38.165	44.336	-35.835	74.000	-6.171	PK
2	Horizontal	7206.000	40.584	42.272	-33.416	74.000	-1.687	PK
3	Vertical	4808.000	43.946	50.224	-30.054	74.000	-6.278	PK
4	Vertical	7206.000	39.527	41.250	-34.473	74.000	-1.722	PK

Note: All correction factors (antenna, cable, pre-amplifier) are included in the measurement values.

Table 13: Radiated Emission, Average and Peak Data, 1 – 25GHz, Horizontal and Vertical Antenna Orientations, Mode B (2442MHz)

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	Horizontal	4884.000	38.935	45.106	-35.065	74.000	-6.171	PK
2	Horizontal	7326.000	41.981	43.318	-32.019	74.000	-1.337	PK
3	Vertical	4884.500	44.212	50.369	-29.788	74.000	-6.157	PK
4	Vertical	7326.000	41.813	43.150	-32.187	74.000	-1.337	PK

Table 14:Radiated Emission, Average and Peak Data, 1 – 25GHz, Horizontal and Vertical Antenna Orientations, Mode B (2442MHz)

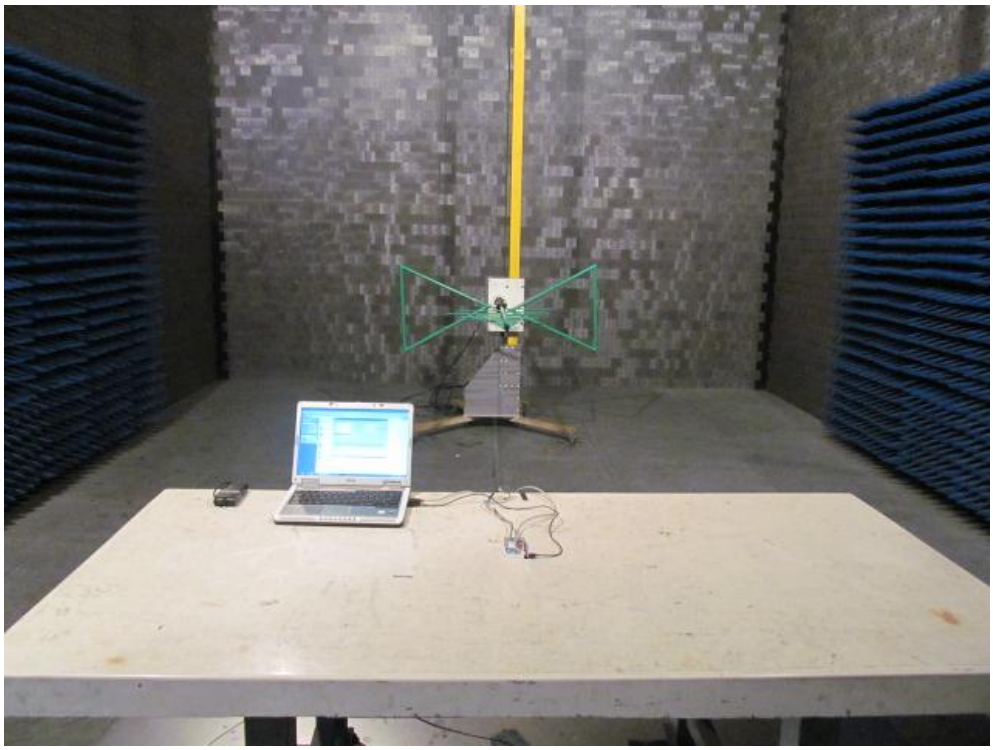
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	Horizontal	4960.000	37.957	44.212	-36.043	74.000	-6.255	PK
2	Horizontal	7440.000	43.985	44.801	-30.015	74.000	-0.816	PK
3	Vertical	4960.000	40.707	46.826	-33.293	74.000	-6.119	PK
4	Vertical	7440.000	44.300	45.116	-29.700	74.000	-0.816	PK

Note: All correction factors (antenna, cable, pre-amplifier) are included in the measurement values. Above 18 GHz emission far below limit

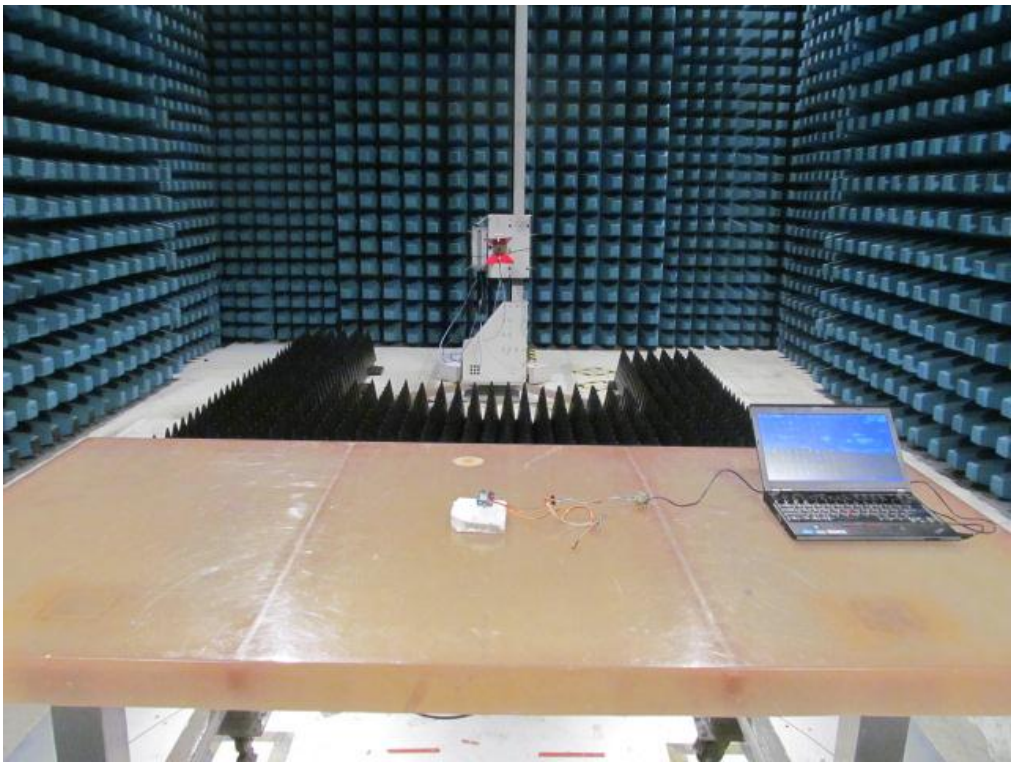
7. Photographs of the Test Setup

Photograph 1: Set-up for Conducted RF test at Antenna Port

Photograph 2: Set-up for Radiated Emission, 30MHz-1000MHz



Photograph 3: Set-up for Radiated Emission, above 1GHz



8. List of Tables

9. List of Figures

10. List of Photographs