



International Certification Corp.

No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.

Tel: 886-3-271-8666

Fax: 886-3-318-0155

FCC 15B Test Report

Equipment : IEEE802.11b/g/n Wireless LAN module
Model No. : WSDE-670GN
Brand Name : eConais
Applicant : eConais SA
Address : Patras, Science Park, Stadiou Str, Platani,
PATRAS, 26504
Standard : FCC Part 15, Subpart B, Class B
Canada Standard ICES-003 Issue 5
ANSI C63.4:2003
Received Date : Apr. 17, 2013
Tested Date : Apr. 17 ~ Apr. 23, 2013

We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Approved & Reviewed by:


Kent Chen / Assistant Manager





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Release Record

Report No.	Version	Description	Issued Date
FD341701	Rev. 01	Initial issue	Apr. 25, 2013



Summary of Test Results

FCC Part 15, Subpart B Emission Tests				
Ref. Std. Clause	Test Standard	Test Items	Measured	Result
15.107	FCC Part 15, Subpart B, Class B	Conducted Emissions	[dBuV]: 0.154MHz 46.31 (Margin 9.47dB) - AV	Pass
15.109	FCC Part 15, Subpart B, Class B	Radiated Emissions	[dBuV/m at 3m]: 192.96MHz 42.48 (Margin 1.02dB) - QP	Pass



1 General Description

1.1 Information

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS
2400-2483.5	b	2412-2462	1-11 [11]	1	1-11 Mbps
2400-2483.5	g	2412-2462	1-11 [11]	1	6-54 Mbps
2400-2483.5	n (HT20)	2412-2462	1-11 [11]	1	MCS 0-7
Note 1: RF output power specifies that Maximum Peak Conducted Output Power.					
Note 2: 802.11b uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.					
Note 3: 802.11g/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.					

1.1.2 Antenna Details

Ant. No.	Type	Gain (dBi)	Connector	Remark
1	CHIP	0.5	---	---

1.1.3 EUT Operational Condition

Supply Voltage	☐ AC mains	☒ DC	
Type of DC Source	☐ Internal DC supply	☐ External DC adapter	☒ From Host



1.1.4 Accessories

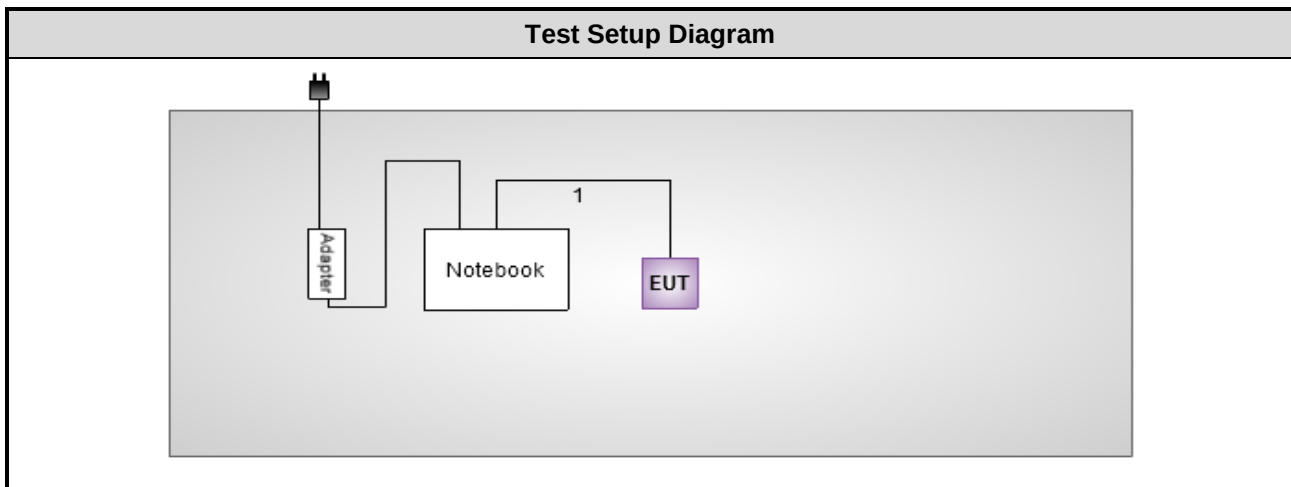
N/A

1.1.5 Channel List

Frequency band (MHz)	
802.11 b / g / n HT20	
Channel	Frequency(MHz)
1	2412
2	2417
3	2422
4	2427
5	2432
6	2437
7	2442
8	2447
9	2452
10	2457
11	2462



1.2 Test Setup Chart



1.3 Local Support Equipment List

Support Equipment List						
No.	Equipment	Brand	Model	S/N	FCC ID	Length (m)
1	Notebook	DELL	E5420	---	DoC	USB 1.8m non-shielded cable w/o core



1.4 The Equipment List

EMI	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
EMC Receiver	R&S	ESCS 30	100169	Dec. 12, 2012	Dec. 11, 2013
LISN	SCHWARZBECK MESS-ELEKTRONIK	Schwarzbeck 8127	8127-667	Dec. 04, 2012	Dec. 03, 2013
LISN (Support Unit)	SCHWARZBECK MESS-ELEKTRONIK	Schwarzbeck 8127	8127-666	Dec. 04, 2012	Dec. 03, 2013
ISN	TESEQ	ISN T800	23342	Feb. 17, 2013	Feb. 16, 2014
ISN	TESEQ	ISN T400	21653	Jun. 22, 2012	Jun. 21, 2013
ISN	TESEQ	ISN T8-Cat6	27262	Sep. 17, 2012	Sep. 16, 2013
ISN	TESEQ	ISN ST08	22589	Jan. 24, 2013	Jan. 23, 2014
RF Current Probe	FCC	F-33-4	121630	Dec. 04, 2012	Dec. 03, 2013
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Dec. 25, 2012	Dec. 24, 2013
ESH3-Z6 V-Network	R&S	ESH3-Z6	100920	Nov. 21, 2012	Nov. 20, 2013
Note: Calibration Interval of instruments listed above is one year.					

EMI	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
3m semi-anechoic chamber	RIKEN	SAC-03	03CH01-WS	Jan. 04, 2013	Jan. 03, 2014
Amplifier	Burgeon	BPA-530	100219	Nov. 28, 2012	Nov. 27, 2013
Amplifier	Agilent	83017A	MY39501308	Dec. 18, 2012	Dec. 17, 2013
Bilog Antenna	Schwarzbeck	VULB9168	VULB9168-522	Jan. 11, 2013	Jan. 10, 2014
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Feb. 18, 2013	Feb. 17, 2014
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Jan. 14, 2013	Jan. 13, 2014
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Dec. 25, 2012	Dec. 24, 2013
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Dec. 25, 2012	Dec. 24, 2013
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16139/4	Dec. 25, 2012	Dec. 24, 2013
RF Cable-R03m	Woken	CFD400NL-LW	CFD400NL-001	Dec. 25, 2012	Dec. 24, 2013
RF Cable-R10m	Woken	CFD400NL-LW	CFD400NL-002	Dec. 25, 2012	Dec. 24, 2013
Spectrum Analyzer	R&S	FSV40	101498	Jan. 24, 2013	Jan. 23, 2014
Receiver	ROHDE&SCHWARZ	ESR3	101658	Jan. 30, 2013	Jan. 29, 2014
control	EM Electronics	EM1000	60612	N/A	N/A
Note: Calibration Interval of instruments listed above is one year.					



1.5 Testing Applied Standards

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

FCC Part 15, Subpart B, Class B
Canada Standard ICES-003 Issue 5
ANSI C63.4:2003

1.6 Measurement Uncertainty

CISPR 16-4-2 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor ($k=2$))

Measurement Uncertainty		
Test Item	Frequency	Uncertainty
Conducted Emissions	150kHz ~ 30MHz	2.8 dB
Radiated Emissions	30MHz ~ 1GHz	3.9 dB
	Above 1GHz	4.2 dB



2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	23°C / 55%	Skys Huang
Radiated Emissions	03CH01-WS	25°C / 65%	Aska Huang

2.2 The Worst Test Modes and Channel Details

The Worst Test Modes and Channel Details	
Test Item(s)	Conducted Emissions
Modulation, Data rate	11g/6Mbps
Test channel (MHz)	2437
Test Mode	Operating Mode Description
-	RX mode

The Worst Test Modes and Channel Details	
Test Item(s)	Radiated emission (below 1GHz)
Modulation, Data rate	11g/6Mbps
Test channel (MHz)	2437
Test Mode	Operating Mode Description
-	RX mode
Test Item(s)	Radiated emission (above 1GHz)
Modulation, Data rate	11g/6Mbps
Test channel (MHz)	2412, 2437, 2462
Test Mode	Operating Mode Description
-	RX mode

NOTE:

1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Z-plane** results were found as the worst case and were shown in this report.



3 Emission Tests Results

3.1 Conducted Emissions

3.1.1 Limit of Conducted Emissions

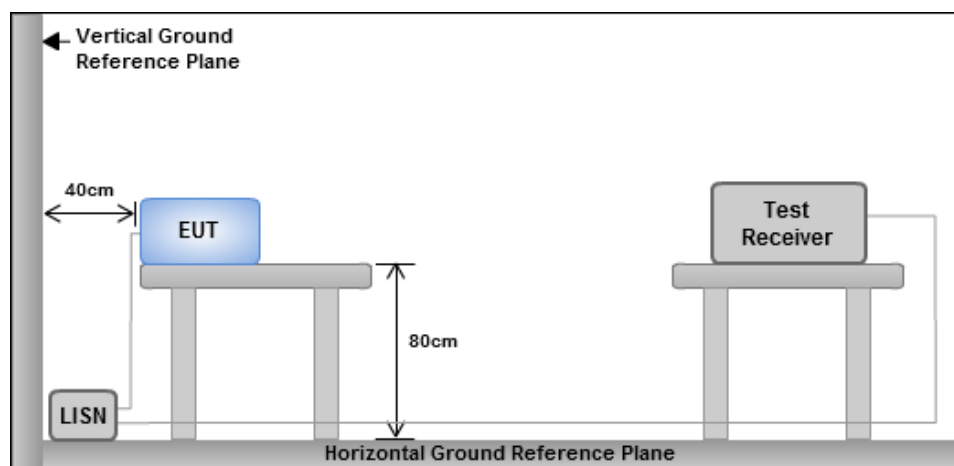
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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

3.1.2 Test Procedures

- The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
- The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50 Ω LISN port.
- AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.

3.1.3 Test Setup



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes



3.1.4 Test Result of Conducted Emissions

Power Phase	Line	Test Freq. (MHz)	2437
Test Mode	-		

Level (dBuV) Date: 2013-04-23

Frequency (MHz)

	Freq MHz	Level dBuV	Limit dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.154	46.31	55.78	-9.47	46.21	0.03	0.07	Average
2	0.154	53.38	65.78	-12.40	53.28	0.03	0.07	QP
3	0.178	32.29	54.59	-22.30	32.13	0.03	0.13	Average
4	0.178	48.51	64.59	-16.08	48.35	0.03	0.13	QP
5	0.484	29.74	46.27	-16.53	29.66	0.03	0.05	Average
6	0.484	36.92	56.27	-19.35	36.84	0.03	0.05	QP
7	2.448	29.65	46.00	-16.35	29.42	0.05	0.18	Average
8	2.448	32.04	56.00	-23.96	31.81	0.05	0.18	QP
9	7.486	25.32	50.00	-24.68	25.08	0.09	0.15	Average
10	7.486	28.17	60.00	-31.83	27.93	0.09	0.15	QP
11	17.755	21.08	50.00	-28.92	20.79	0.12	0.17	Average
12	17.755	28.14	60.00	-31.86	27.85	0.12	0.17	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
2: Over Limit (dBuV) = Limit Line (dBuV) – Level (dBuV).



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Power Phase	Neutral	Test Freq. (MHz)	2437
Test Mode	-		

Level (dBuV)

Date: 2013-04-23

Frequency (MHz)

	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1	0.162	33.22	55.34	-22.12	33.11	0.02	0.09	Average
2	0.162	52.62	65.34	-12.72	52.51	0.02	0.09	QP
3	0.192	13.14	53.93	-40.79	12.96	0.02	0.16	Average
4	0.192	45.91	63.93	-18.02	45.73	0.02	0.16	QP
5	0.476	28.69	46.41	-17.72	28.62	0.02	0.05	Average
6	0.476	35.82	56.41	-20.59	35.75	0.02	0.05	QP
7	2.309	27.75	46.00	-18.25	27.53	0.04	0.18	Average
8	2.309	32.30	56.00	-23.70	32.08	0.04	0.18	QP
9	7.893	21.32	50.00	-28.68	21.10	0.08	0.14	Average
10	7.893	27.67	60.00	-32.33	27.45	0.08	0.14	QP
11	17.383	21.56	50.00	-28.44	21.29	0.11	0.16	Average
12	17.383	28.62	60.00	-31.38	28.35	0.11	0.16	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).

2: Over Limit (dBuV) = Limit Line (dBuV) – Level (dBuV).



3.2 Radiated Emissions

3.2.1 Limit of Radiated Emissions

According to FCC Part 15, Subpart B §15.109, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency of Emission (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
Above 960	500	54	3

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705-108	1000
108-500	2000
500-1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

Note: According to FCC Part 15, Subpart B §15.33: For an unintentional radiator is shown in the table above.

3.2.2 Test Procedures

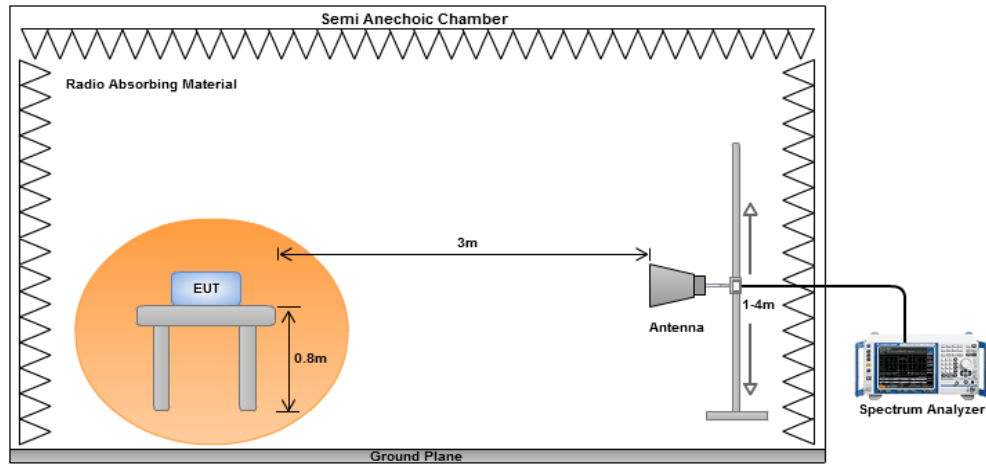
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at a height of 0.8 m test table above the ground plane.
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=10Hz and Peak detector is for average measured value of radiated emission above 1GHz.



3.2.3 Test Setup





3.2.4 Radiated Emissions (Below 1GHz)

Polarization	Horizontal		Test Freq. (MHz)		2437																																																																							
Test Mode	-																																																																											
Level (dBuV/m) Frequency (MHz) <table><tr><th></th><th>Freq. MHz</th><th>Emission level dBuV/m</th><th>Limit dBuV/m</th><th>Margin dB</th><th>SA reading dBuV</th><th>Factor dB</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr><tr><td>1</td><td>106.63</td><td>35.96</td><td>43.50</td><td>-7.54</td><td>56.50</td><td>-20.54</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>2</td><td>192.96</td><td>42.48</td><td>43.50</td><td>-1.02</td><td>61.62</td><td>-19.14</td><td>QP</td><td>---</td><td>---</td></tr><tr><td>3</td><td>214.30</td><td>40.48</td><td>43.50</td><td>-3.02</td><td>59.88</td><td>-19.40</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>4</td><td>278.64</td><td>44.86</td><td>46.00</td><td>-1.14</td><td>61.57</td><td>-16.71</td><td>QP</td><td>---</td><td>---</td></tr><tr><td>5</td><td>342.34</td><td>42.79</td><td>46.00</td><td>-3.21</td><td>57.89</td><td>-15.10</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>6</td><td>385.99</td><td>40.57</td><td>46.00</td><td>-5.43</td><td>54.59</td><td>-14.02</td><td>Peak</td><td>---</td><td>---</td></tr></table>								Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	106.63	35.96	43.50	-7.54	56.50	-20.54	Peak	---	---	2	192.96	42.48	43.50	-1.02	61.62	-19.14	QP	---	---	3	214.30	40.48	43.50	-3.02	59.88	-19.40	Peak	---	---	4	278.64	44.86	46.00	-1.14	61.57	-16.71	QP	---	---	5	342.34	42.79	46.00	-3.21	57.89	-15.10	Peak	---	---	6	385.99	40.57	46.00	-5.43	54.59	-14.02	Peak	---	---
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																			
1	106.63	35.96	43.50	-7.54	56.50	-20.54	Peak	---	---																																																																			
2	192.96	42.48	43.50	-1.02	61.62	-19.14	QP	---	---																																																																			
3	214.30	40.48	43.50	-3.02	59.88	-19.40	Peak	---	---																																																																			
4	278.64	44.86	46.00	-1.14	61.57	-16.71	QP	---	---																																																																			
5	342.34	42.79	46.00	-3.21	57.89	-15.10	Peak	---	---																																																																			
6	385.99	40.57	46.00	-5.43	54.59	-14.02	Peak	---	---																																																																			
Note 1: Level (dBuV/m) = Read Level (dBuV/m) + Antenna Factor (dB) + Cable Loss (dB) - Preamp Factor (dB). 2: Over Limit (dBuV/m) = Limit Line (dBuV/m) – Level (dBuV/m).																																																																												



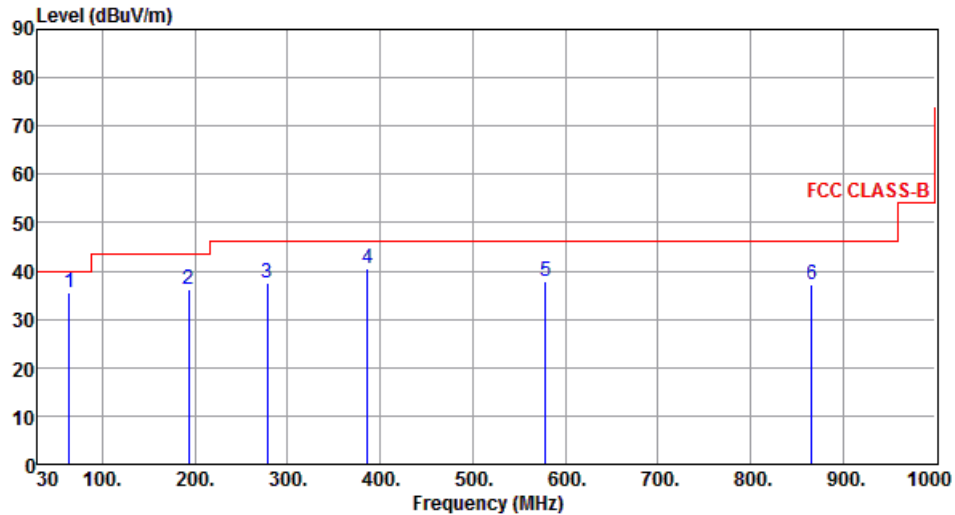
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Polarization	Vertical	Test Freq. (MHz)	2437
Test Mode	-		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	63.95	35.57	40.00	-4.43	53.63	-18.06	Peak	---	---
2	192.96	36.05	43.50	-7.45	55.19	-19.14	Peak	---	---
3	278.32	37.61	46.00	-8.39	54.34	-16.73	Peak	---	---
4	385.99	40.58	46.00	-5.42	54.60	-14.02	Peak	---	---
5	579.02	37.86	46.00	-8.14	48.00	-10.14	Peak	---	---
6	866.14	37.28	46.00	-8.72	43.21	-5.93	Peak	---	---

Note 1: Level (dBuV/m) = Read Level (dBuV/m) + Antenna Factor (dB) + Cable Loss (dB) - Preamp Factor (dB).
2: Over Limit (dBuV/m) = Limit Line (dBuV/m) – Level (dBuV/m).



3.2.5 Radiated Emissions (Above 1GHz)

Polarization	Horizontal		Test Freq. (MHz)		2412																																																																																	
Test Mode	-																																																																																					
Level (dBuV/m) Frequency (MHz) <table><tr><th></th><th>Freq.</th><th>Emission level</th><th>Limit</th><th>Margin</th><th>SA reading</th><th>Factor</th><th>Remark</th><th>ANT High</th><th>Turn Table</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB</th><th></th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>1319.00</td><td>26.78</td><td>54.00</td><td>-27.22</td><td>34.39</td><td>-7.61</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>2</td><td>1319.00</td><td>37.08</td><td>74.00</td><td>-36.92</td><td>44.69</td><td>-7.61</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>3</td><td>1605.00</td><td>27.14</td><td>54.00</td><td>-26.86</td><td>33.41</td><td>-6.27</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>4</td><td>1605.00</td><td>39.30</td><td>74.00</td><td>-34.70</td><td>45.57</td><td>-6.27</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>5</td><td>9648.00</td><td>49.08</td><td>54.00</td><td>-4.92</td><td>35.53</td><td>13.55</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>6</td><td>9648.00</td><td>55.80</td><td>74.00</td><td>-18.20</td><td>42.25</td><td>13.55</td><td>Peak</td><td>---</td><td>---</td></tr></table>								Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table		MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg	1	1319.00	26.78	54.00	-27.22	34.39	-7.61	Average	---	---	2	1319.00	37.08	74.00	-36.92	44.69	-7.61	Peak	---	---	3	1605.00	27.14	54.00	-26.86	33.41	-6.27	Average	---	---	4	1605.00	39.30	74.00	-34.70	45.57	-6.27	Peak	---	---	5	9648.00	49.08	54.00	-4.92	35.53	13.55	Average	---	---	6	9648.00	55.80	74.00	-18.20	42.25	13.55	Peak	---	---
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table																																																																													
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg																																																																													
1	1319.00	26.78	54.00	-27.22	34.39	-7.61	Average	---	---																																																																													
2	1319.00	37.08	74.00	-36.92	44.69	-7.61	Peak	---	---																																																																													
3	1605.00	27.14	54.00	-26.86	33.41	-6.27	Average	---	---																																																																													
4	1605.00	39.30	74.00	-34.70	45.57	-6.27	Peak	---	---																																																																													
5	9648.00	49.08	54.00	-4.92	35.53	13.55	Average	---	---																																																																													
6	9648.00	55.80	74.00	-18.20	42.25	13.55	Peak	---	---																																																																													
Note 1: Level (dBuV/m) = Read Level (dBuV/m) + Antenna Factor (dB) + Cable Loss (dB) - Preamp Factor (dB). 2: Over Limit (dBuV/m) = Limit Line (dBuV/m) – Level (dBuV/m).																																																																																						



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Fax: 886-3-318-0155

Polarization	Vertical	Test Freq. (MHz)	2412																																																																																
Test Mode	-																																																																																		
Level (dBuV/m) Frequency (MHz) <table><tr><th></th><th>Freq.</th><th>Emission level</th><th>Limit</th><th>Margin</th><th>SA reading</th><th>Factor</th><th>Remark</th><th>ANT High</th><th>Turn Table</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB</th><th></th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>1319.00</td><td>25.92</td><td>54.00</td><td>-28.08</td><td>33.53</td><td>-7.61</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>2</td><td>1319.00</td><td>37.09</td><td>74.00</td><td>-36.91</td><td>44.70</td><td>-7.61</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>3</td><td>1605.00</td><td>28.11</td><td>54.00</td><td>-25.89</td><td>34.38</td><td>-6.27</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>4</td><td>1605.00</td><td>39.98</td><td>74.00</td><td>-34.02</td><td>46.25</td><td>-6.27</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>5</td><td>9648.00</td><td>50.88</td><td>54.00</td><td>-3.12</td><td>37.33</td><td>13.55</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>6</td><td>9648.00</td><td>56.46</td><td>74.00</td><td>-17.54</td><td>42.91</td><td>13.55</td><td>Peak</td><td>---</td><td>---</td></tr></table>					Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table		MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg	1	1319.00	25.92	54.00	-28.08	33.53	-7.61	Average	---	---	2	1319.00	37.09	74.00	-36.91	44.70	-7.61	Peak	---	---	3	1605.00	28.11	54.00	-25.89	34.38	-6.27	Average	---	---	4	1605.00	39.98	74.00	-34.02	46.25	-6.27	Peak	---	---	5	9648.00	50.88	54.00	-3.12	37.33	13.55	Average	---	---	6	9648.00	56.46	74.00	-17.54	42.91	13.55	Peak	---	---
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Polarization	Horizontal			Test Freq. (MHz)		2437																																																																									
Test Mode	-																																																																														
Level (dBuV/m) Frequency (MHz) <table><tr><th></th><th>Freq. MHz</th><th>Emission level dBuV/m</th><th>Limit dBuV/m</th><th>Margin dB</th><th>SA reading dBuV</th><th>Factor dB</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr><tr><td>1</td><td>1319.00</td><td>26.92</td><td>54.00</td><td>-27.08</td><td>34.53</td><td>-7.61</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>2</td><td>1319.00</td><td>37.08</td><td>74.00</td><td>-36.92</td><td>44.69</td><td>-7.61</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>3</td><td>1605.00</td><td>25.41</td><td>54.00</td><td>-28.59</td><td>31.68</td><td>-6.27</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>4</td><td>1605.00</td><td>38.10</td><td>74.00</td><td>-35.90</td><td>44.37</td><td>-6.27</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>5</td><td>9748.00</td><td>48.69</td><td>54.00</td><td>-5.31</td><td>34.95</td><td>13.74</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>6</td><td>9748.00</td><td>55.35</td><td>74.00</td><td>-18.65</td><td>41.61</td><td>13.74</td><td>Peak</td><td>---</td><td>---</td></tr></table>											Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	1319.00	26.92	54.00	-27.08	34.53	-7.61	Average	---	---	2	1319.00	37.08	74.00	-36.92	44.69	-7.61	Peak	---	---	3	1605.00	25.41	54.00	-28.59	31.68	-6.27	Average	---	---	4	1605.00	38.10	74.00	-35.90	44.37	-6.27	Peak	---	---	5	9748.00	48.69	54.00	-5.31	34.95	13.74	Average	---	---	6	9748.00	55.35	74.00	-18.65	41.61	13.74	Peak	---	---
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																						
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Polarization	Vertical	Test Freq. (MHz)	2437																																																																																										
Test Mode	-																																																																																												
Level (dBuV/m) <table><tr><th></th><th>Freq.</th><th>Emission</th><th>Limit</th><th>Margin</th><th>SA</th><th>Factor</th><th>Remark</th><th>ANT</th><th>Turn</th></tr><tr><th></th><th>MHz</th><th>level</th><th>dBuV/m</th><th>dB</th><th>reading</th><th>dB</th><th></th><th>High</th><th>Table</th></tr><tr><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>1319.00</td><td>24.73</td><td>54.00</td><td>-29.27</td><td>32.34</td><td>-7.61</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>2</td><td>1319.00</td><td>36.96</td><td>74.00</td><td>-37.04</td><td>44.57</td><td>-7.61</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>3</td><td>1605.00</td><td>25.07</td><td>54.00</td><td>-28.93</td><td>31.34</td><td>-6.27</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>4</td><td>1605.00</td><td>37.41</td><td>74.00</td><td>-36.59</td><td>43.68</td><td>-6.27</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>5</td><td>9748.00</td><td>49.63</td><td>54.00</td><td>-4.37</td><td>35.89</td><td>13.74</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>6</td><td>9748.00</td><td>56.19</td><td>74.00</td><td>-17.81</td><td>42.45</td><td>13.74</td><td>Peak</td><td>---</td><td>---</td></tr></table>					Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn		MHz	level	dBuV/m	dB	reading	dB		High	Table									cm	deg	1	1319.00	24.73	54.00	-29.27	32.34	-7.61	Average	---	---	2	1319.00	36.96	74.00	-37.04	44.57	-7.61	Peak	---	---	3	1605.00	25.07	54.00	-28.93	31.34	-6.27	Average	---	---	4	1605.00	37.41	74.00	-36.59	43.68	-6.27	Peak	---	---	5	9748.00	49.63	54.00	-4.37	35.89	13.74	Average	---	---	6	9748.00	56.19	74.00	-17.81	42.45	13.74	Peak	---	---
	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn																																																																																				
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Polarization	Horizontal			Test Freq. (MHz)		2462																																																																																													
Test Mode	-																																																																																																		
Level (dBuV/m) 117 110 90 70 50 30 10 0 2 4 1 3 6 5 1000 2000. 4000. 6000. 8000. 10000. 12000. 13000 Frequency (MHz) FCC CLASS-B FCC CLASS-B (AVG) <table><tr><th></th><th>Freq.</th><th>Emission</th><th>Limit</th><th>Margin</th><th>SA</th><th>Factor</th><th>Remark</th><th>ANT</th><th>Turn</th></tr><tr><th></th><th>MHz</th><th>level</th><th></th><th></th><th>reading</th><th></th><th></th><th>High</th><th>Table</th></tr><tr><th></th><th></th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB</th><th></th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>1319.00</td><td>27.11</td><td>54.00</td><td>-26.89</td><td>34.72</td><td>-7.61</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>2</td><td>1319.00</td><td>36.24</td><td>74.00</td><td>-37.76</td><td>43.85</td><td>-7.61</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>3</td><td>1605.00</td><td>26.06</td><td>54.00</td><td>-27.94</td><td>32.33</td><td>-6.27</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>4</td><td>1605.00</td><td>36.64</td><td>74.00</td><td>-37.36</td><td>42.91</td><td>-6.27</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>5</td><td>9848.00</td><td>48.89</td><td>54.00</td><td>-5.11</td><td>34.94</td><td>13.95</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>6</td><td>9848.00</td><td>62.49</td><td>74.00</td><td>-11.51</td><td>48.54</td><td>13.95</td><td>Peak</td><td>---</td><td>---</td></tr></table>											Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn		MHz	level			reading			High	Table			dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg	1	1319.00	27.11	54.00	-26.89	34.72	-7.61	Average	---	---	2	1319.00	36.24	74.00	-37.76	43.85	-7.61	Peak	---	---	3	1605.00	26.06	54.00	-27.94	32.33	-6.27	Average	---	---	4	1605.00	36.64	74.00	-37.36	42.91	-6.27	Peak	---	---	5	9848.00	48.89	54.00	-5.11	34.94	13.95	Average	---	---	6	9848.00	62.49	74.00	-11.51	48.54	13.95	Peak	---	---
	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn																																																																																										
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Polarization	Vertical	Test Freq. (MHz)	2462																																																																																																
Test Mode	-																																																																																																		
Level (dBuV/m) Frequency (MHz) <table><tr><th></th><th>Freq.</th><th>Emission</th><th>Limit</th><th>Margin</th><th>SA</th><th>Factor</th><th>Remark</th><th>ANT</th><th>Turn</th></tr><tr><th></th><th>MHz</th><th>level</th><th></th><th></th><th>reading</th><th></th><th></th><th>High</th><th>Table</th></tr><tr><th></th><th></th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB</th><th></th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>1319.00</td><td>26.61</td><td>54.00</td><td>-27.39</td><td>34.22</td><td>-7.61</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>2</td><td>1319.00</td><td>37.78</td><td>74.00</td><td>-36.22</td><td>45.39</td><td>-7.61</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>3</td><td>1605.00</td><td>25.09</td><td>54.00</td><td>-28.91</td><td>31.36</td><td>-6.27</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>4</td><td>1605.00</td><td>38.11</td><td>74.00</td><td>-35.89</td><td>44.38</td><td>-6.27</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>5</td><td>9848.00</td><td>49.52</td><td>54.00</td><td>-4.48</td><td>35.57</td><td>13.95</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>6</td><td>9848.00</td><td>56.44</td><td>74.00</td><td>-17.56</td><td>42.49</td><td>13.95</td><td>Peak</td><td>---</td><td>---</td></tr></table>											Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn		MHz	level			reading			High	Table			dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg	1	1319.00	26.61	54.00	-27.39	34.22	-7.61	Average	---	---	2	1319.00	37.78	74.00	-36.22	45.39	-7.61	Peak	---	---	3	1605.00	25.09	54.00	-28.91	31.36	-6.27	Average	---	---	4	1605.00	38.11	74.00	-35.89	44.38	-6.27	Peak	---	---	5	9848.00	49.52	54.00	-4.48	35.57	13.95	Average	---	---	6	9848.00	56.44	74.00	-17.56	42.49	13.95	Peak	---	---
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International Certification Corp.

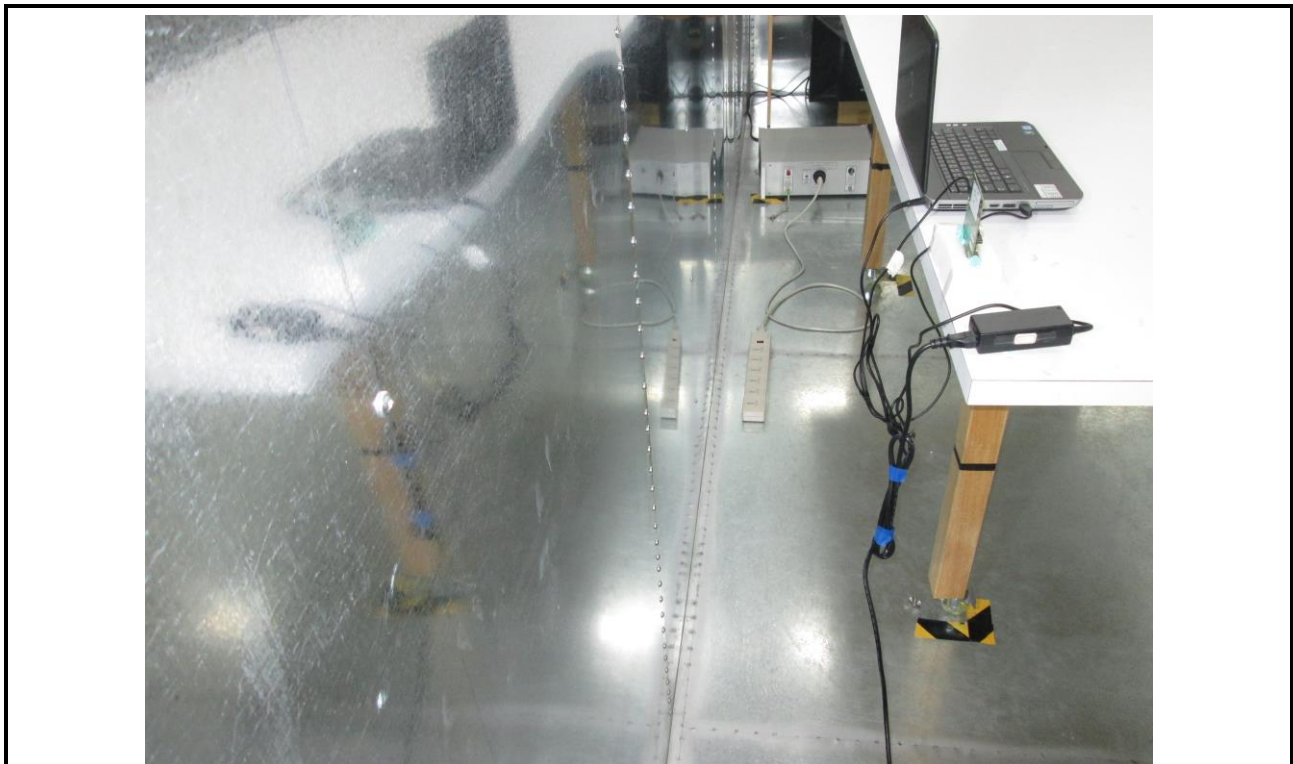
No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.

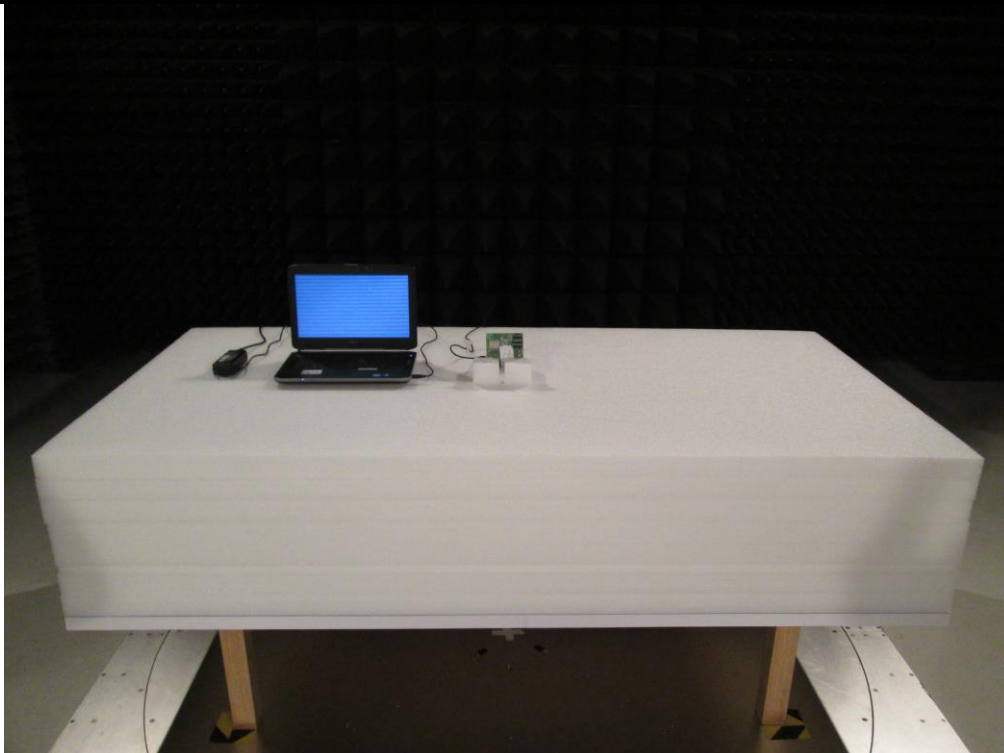
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4 Photographs of the Test Configuration

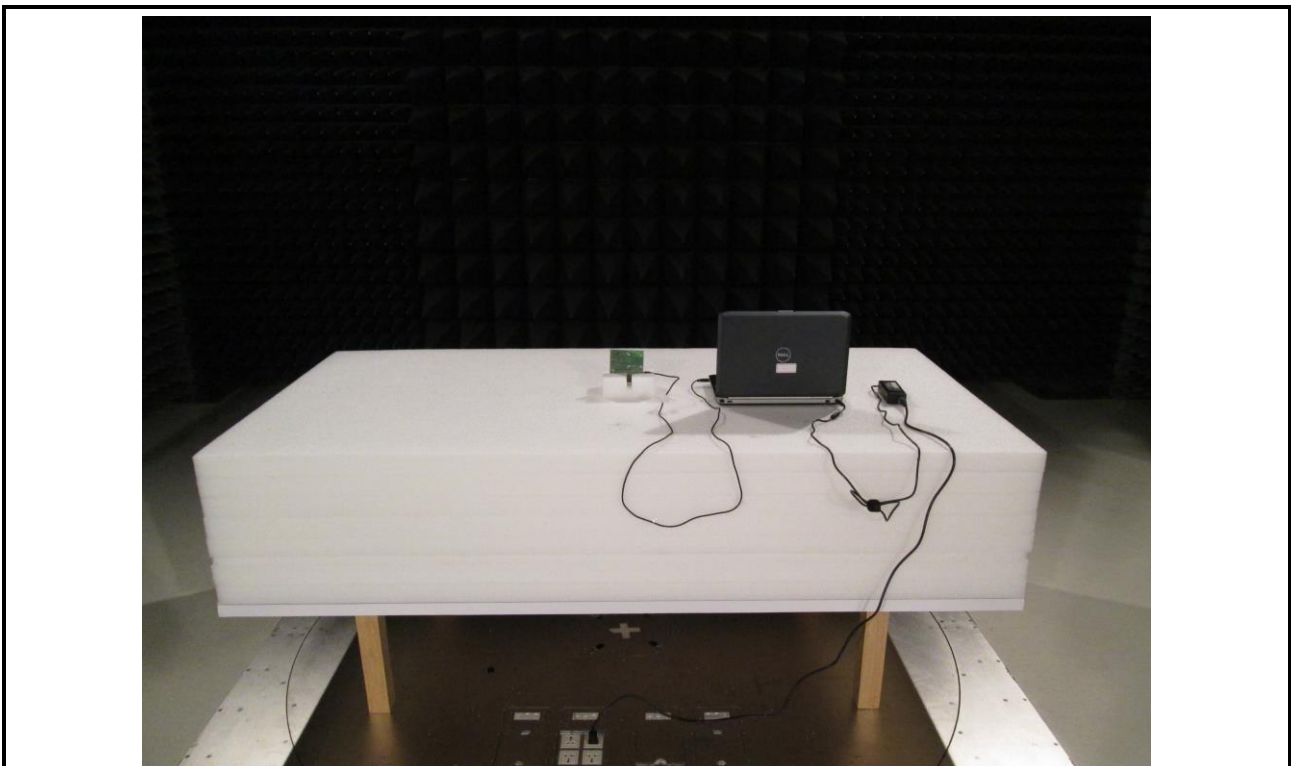
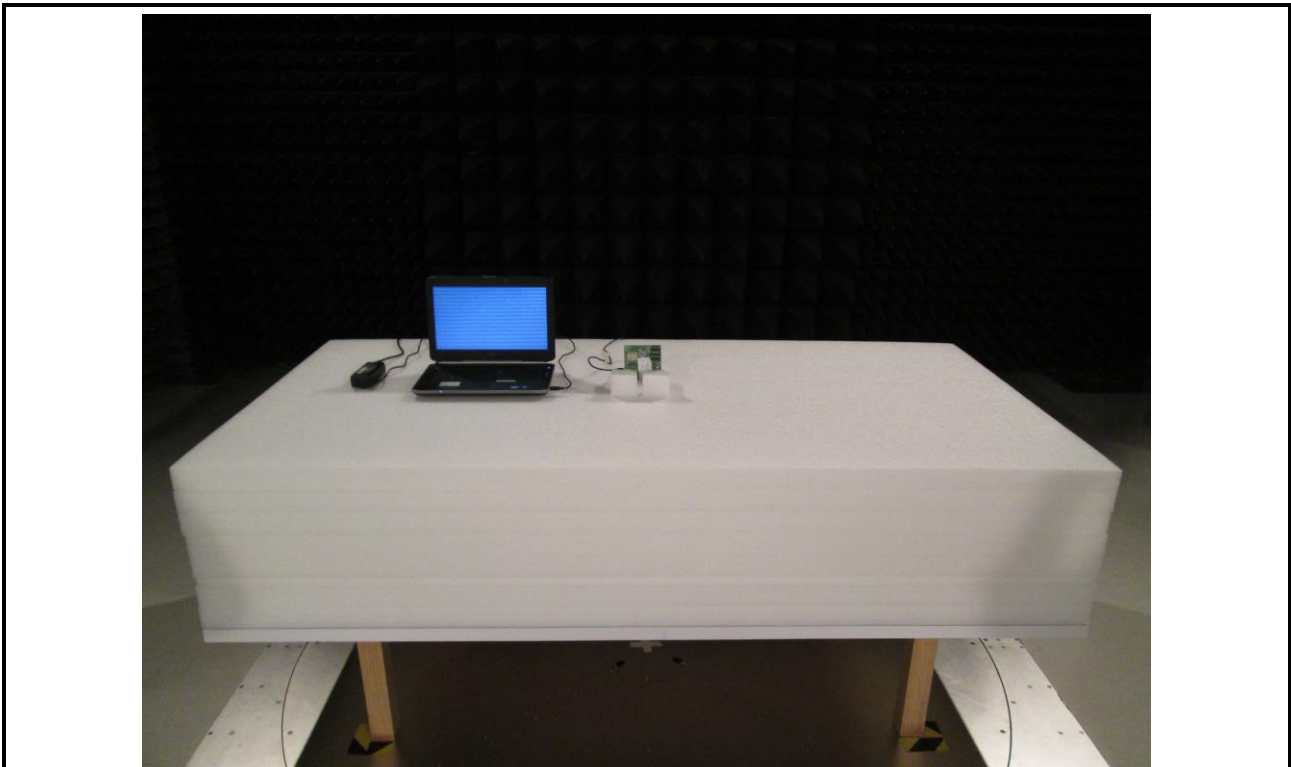
Conducted Emission Test







Radiated Emission Test





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==END==