

RF TEST REPORT



Report No.: FCC_RF_SL13101001-ZBR-056_WLAN Rev1.0
Supersede Report No.: FCC_RF_SL13101001-ZBR_WLAN

Applicant	Zebra Technologies Corp.		
Product Name	802.11b/g Radio Module		
Model No.	W2SW0001		
Test Standard	47CFR15.247: 2013, RSS-210 Issue8: 2010		
Test Method	ANCI C63.4:2009 558074 D01 DTS Meas Guidance v03r01, RSS-Gen Issue 3: 2010		
FCC ID	I28-W2WLAN11G		
IC ID	3798B-W2WLAN11G		
Date of test	12/04/2013-12/06/2013		
Issue Date	12/20/2013		
Test Result	<u>Pass</u> Fail		
Equipment complied with the specification	[x]		
Equipment did not comply with the specification	[]		
			
David Zhang		Choon Sian Ooi	
Test Engineer		Engineer Reviewer	
This test report may be reproduced in full only Test result presented in this test report is applicable to the tested sample only			

Issued By:
SIEMIC Laboratories
775 Montague Expressway, Milpitas, 95035 CA



775 Montague Expressway, Milpitas, CA 95035, USA • Phone: (+1) 408 526 1188 • Facsimile (+1) 408 526 1088

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Laboratory Introduction

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Accreditations for Conformity Assessment

Country/Region	Accreditation Body	Scope
USA	FCC, A2LA	EMC , RF/Wireless , Telecom
Canada	IC, A2LA, NIST	EMC, RF/Wireless , Telecom
Taiwan	BSMI , NCC , NIST	EMC, RF, Telecom , Safety
Hong Kong	OFTA , NIST	RF/Wireless ,Telecom
Australia	NATA, NIST	EMC, RF, Telecom , Safety
Korea	KCC/RRR, NIST	EMI, EMS, RF , Telecom, Safety
Japan	VCCI, JATE, TELEC, RFT	EMI, RF/Wireless, Telecom
Mexico	NOM, COFETEL, Caniety	Safety, EMC , RF/Wireless, Telecom
Europe	A2LA, NIST	EMC, RF, Telecom , Safety

Accreditations for Product Certifications

Country	Accreditation Body	Scope
USA	FCC TCB, NIST	EMC , RF , Telecom
Canada	IC FCB , NIST	EMC , RF , Telecom
Singapore	iDA, NIST	EMC , RF , Telecom
EU	NB	EMC & R&TTE Directive
Japan	MIC (RCB 208)	RF , Telecom
HongKong	OFTA (US002)	RF , Telecom

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1 Report Revision History

Report No.	Report Version	Description	Issue Date
FCC_RF_SL13101001-ZBR-056_WLAN	None	Original	12/11/2013
FCC_RF_SL13101001-ZBR-056_WLAN Rev1.0	Rev1.0	Update EUT serial number	12/20/2013

2 Executive Summary

The purpose of this test program was to demonstrate compliance of following product

Company: Zebra Technologies Corp.
Product: 802.11b/g Radio Module
Model: W2SW0001

, which is FCC certified radio module (FCC ID: I28-W2WLAN11G, IC ID: 3798B-W2WLAN11G), to be installed into a printer host (Printer Model: ZXP Series 7) and simultaneously transmission with FCC certified WLAN radio module (FCC ID: I28-RFIDM6EM, IC ID: 3798B-RFIDM6EM), against the current Stipulated Standards. The specified model product stated above has demonstrated compliance with the Stipulated Standard listed on 1st page.

3 Customer information

Applicant Name	Zebra Technologies Corp.
Applicant Address	333 Corporate Woods Pkwy. Vernon Hills, IL 60061, USA
Manufacturer Name	Zebra Technologies Corp.
Manufacturer Address	333 Corporate Woods Pkwy. Vernon Hills, IL 60061, USA

4 Test site information

Lab performing tests	SIEMIC Laboratories
Lab Address	775 Montague Expressway, Milpitas, CA 95035
FCC Test Site No.	881796
IC Test Site No.	4842D-2
VCCI Test Site No.	A0133

5 Modification

Index	Item	Description	Note
-	-	-	-

6 EUT Information

6.1 EUT Description

Product Name	802.11b/g Radio Module
Model No.	W2SW0001
Trade Name	Zebra
Host Serial No.	12J133104923
Input Power	100-240VAC
Power Adapter Manu/Model	N/A
Power Adapter SN	-
Hardware version	N/A
Software version	N/A
Date of EUT received	12/4/2013
Equipment Class/ Category	DTS
Clock Frequencies	>108MHz
Port/Connectors	RJ45, USB
Remark	The host ZXP Series 7 printer can be equipped with or without ZXP-LM laminator as an option. Test actual RF testing was performed without ZXP-LM laminator

6.2 Radio Description

Spec for Radio -

Radio Type	802.11b	802.11g
Operating Frequency	2412-2472MHz	2412-2472MHz
Modulation	DSSS (CCK, DQPSK, DBPSK)	OFDM-CCK (BPSK, QPSK, 16QAM, 64QAM)
Channel Spacing	5MHz	5MHz
Number of Channels	13	13
Antenna Type	External dipole antenna	
Antenna Gain	2 dBi	
Antenna Connector Type	SMA	

6.3 EUT test modes/configuration Description

Test mode

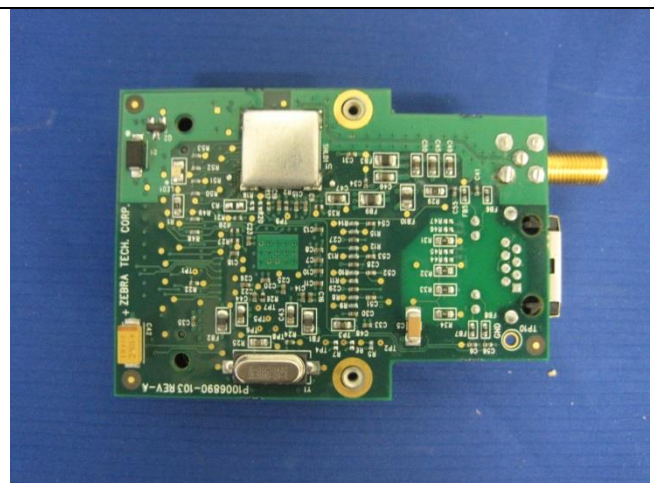
Prescan Test Mode		Note
Test_mode_1	Below 1GHz- Mode1: WLAN cont TX at 802.11b (2437MHz)	-
Test_mode_2	Below 1GHz- Mode2: UHF (915.75MHz) + WLAN at 802.11b (2437MHz) all transmit simultaneously	-
Test_mode_3	Above 1GHz-Mode1: WLAN cont TX at 802.11b (2412MHz)	-
Test_mode_4	Above 1GHz-Mode2: WLAN cont TX at 802.11b (2437MHz)	-
Test_mode_5	Above 1GHz-Mode3: WLAN cont TX at 802.11b (2462MHz)	-
Test_mode_6	Above 1GHz-Mode4: WLAN cont TX at 802.11g (2412MHz)	-
Test_mode_7	Above 1GHz-Mode5: WLAN cont TX at 802.11g (2437MHz)	-
Test_mode_8	Above 1GHz-Mode6: WLAN cont TX at 802.11g (2462MHz)	-
Test_mode_9	Above 1GHz-Mode7: UHF (915.75MHz) + WLAN at 802.11b (2437MHz) all transmit simultaneously	-

Remark:

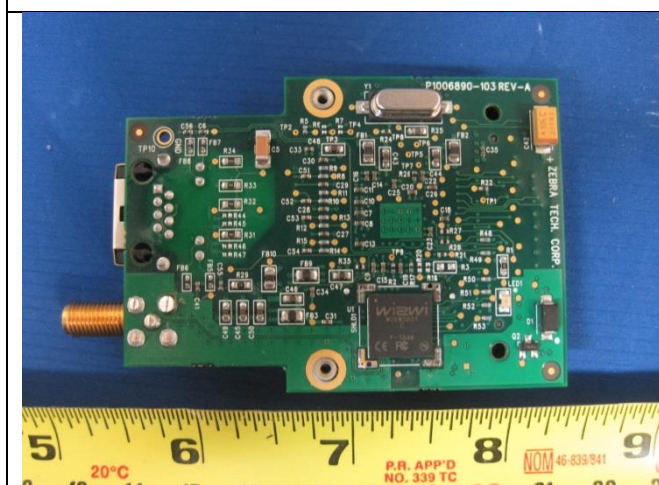
6.4 EUT Photos - External



EUT – Top View



EUT – Bottom View



EUT – Shielding off View

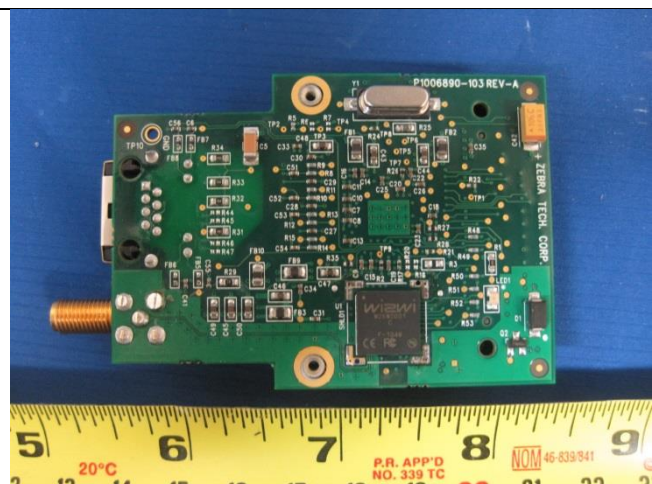


EUT – Antenna View

6.5 EUT Photos - Internal



EUT – Top View

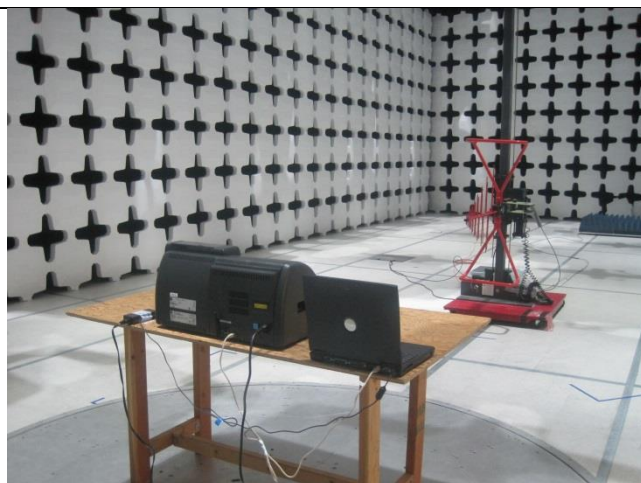


EUT – Bottom View

6.6 EUT Test Setup Photos



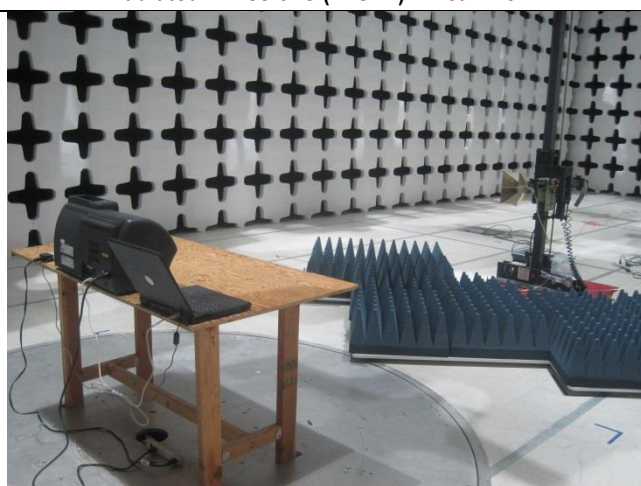
Radiated Emissions (<1GHz) – Front View



Radiated Emissions (<1GHz) – Rear View



Radiated Emissions (>1GHz) – Front View



Radiated Emissions (>1GHz) – Rear View

7 Supporting Equipment/Software and cabling Description

7.1 Supporting Equipment

Item	Supporting Equipment Description	Model	Serial Number	Manufacturer	Note
1	D600	Laptop PC	9444352681	Dell	-
2	PA-1650-05D2	AC Power Adapter	F7970	Dell	-

7.2 Test Software Description

Test Item	Software	Description
Spurious Emission	Zebra printer toolbox	Enable RF Test mode for WLAN

8 Test Summary

Spurious Emissions			
Test Item	Test standard	Test Method/Procedure	Pass / Fail
Radiated Spurious Emissions<1GHz	FCC-15.247	ANSI C63.4: 2009 558074 D01 DTS Meas Guidance v03r01	☒ Pass ☐ Fail
Radiated Spurious Emissions<1GHz	IC-RSS 210	RSS-Gen Issue 3: 2010	☒ Pass ☐ Fail
Radiated Spurious Emissions>1GHz	FCC-15.247	ANSI C63.4: 2009 558074 D01 DTS Meas Guidance v03r01	☒ Pass ☐ Fail
Radiated Spurious Emissions>1GHz	IC-RSS 210	RSS-Gen Issue 3: 2010	☒ Pass ☐ Fail

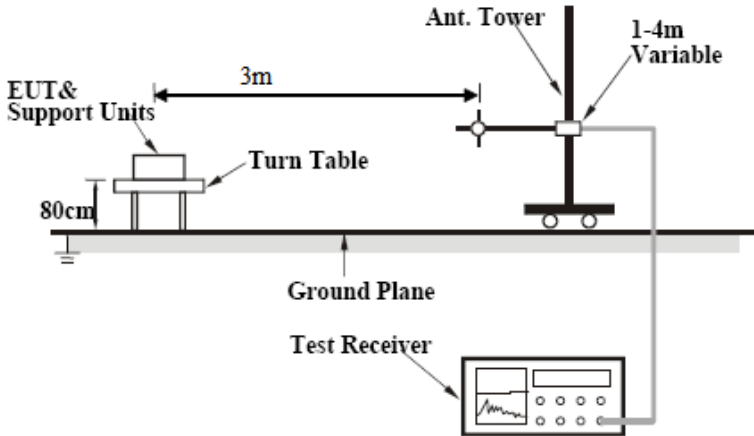
9 Measurement Uncertainty

Emissions			
Test Item	Frequency Range	Description	Uncertainty
Radiated Spurious Emissions	30MHz – 1GHz	Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m)	+5.6dB/-4.5dB
Radiated Spurious Emissions	1GHz – 40GHz	Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m)	+4.3dB/-4.1dB

10 Measurements, Examination and Derived Results

10.1 Radiated Emissions below 1GHz

Requirement(s):

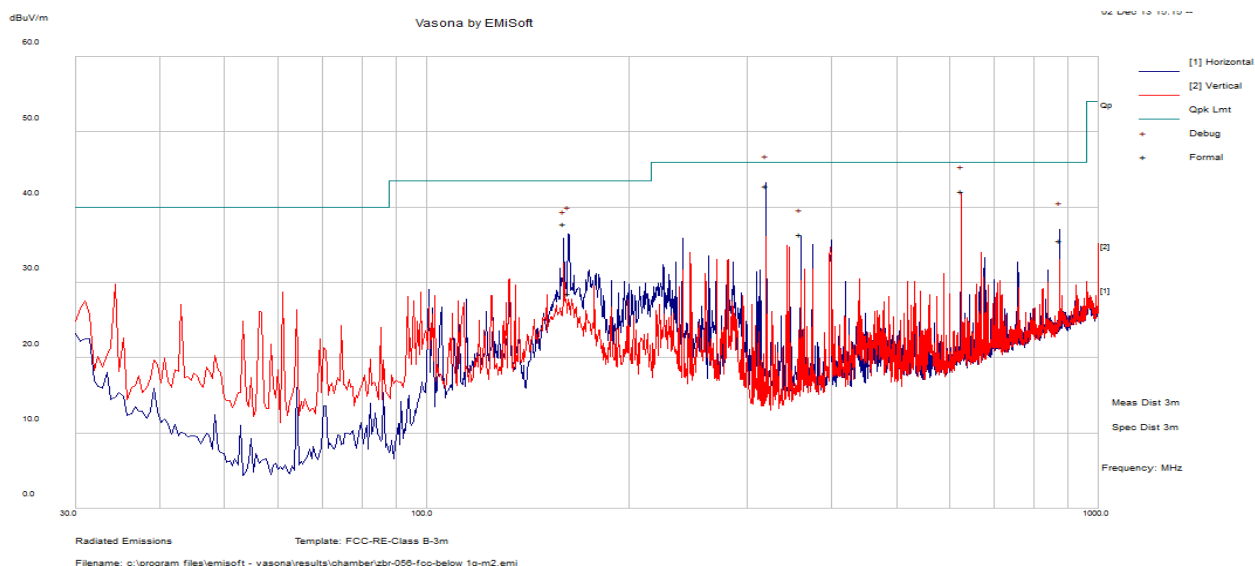
Spec	Item	Requirement	Applicable										
47CFR§15.247(d), RSS210(A8.5)	a)	Except higher limit as specified elsewhere in other section, the emissions from the low-power radio-frequency devices shall not exceed the field strength levels specified in the following table and the level of any unwanted emissions shall not exceed the level of the fundamental emission. The tighter limit applies at the band edges <table><tr><th>Frequency range (MHz)</th><th>Field Strength (uV/m)</th></tr><tr><td>30 – 88</td><td>100</td></tr><tr><td>88 – 216</td><td>150</td></tr><tr><td>216 960</td><td>200</td></tr><tr><td>Above 960</td><td>500</td></tr></table>	Frequency range (MHz)	Field Strength (uV/m)	30 – 88	100	88 – 216	150	216 960	200	Above 960	500	☒
	Frequency range (MHz)	Field Strength (uV/m)											
30 – 88	100												
88 – 216	150												
216 960	200												
Above 960	500												
Test Setup													
Procedure	1. The EUT was switched on and allowed to warm up to its normal operating condition. 2. The test was carried out at the selected frequency points obtained from the EUT characterisation. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner: a. Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen. b. The EUT was then rotated to the direction that gave the maximum emission. c. Finally, the antenna height was adjusted to the height that gave the maximum emission. 3. A Quasi-peak measurement was then made for that frequency point. 4. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.												
Remark	Different RF configuration has been evaluated but not much difference was found. The data presented here is the worst case data with EUT under 802.11n –HT20-2437MHz mode.												
Result	☒ Pass ☐ Fail												

Test Data ☒ Yes (See below) ☐ N/A

Test Plot ☒ Yes (See below) ☐ N/A

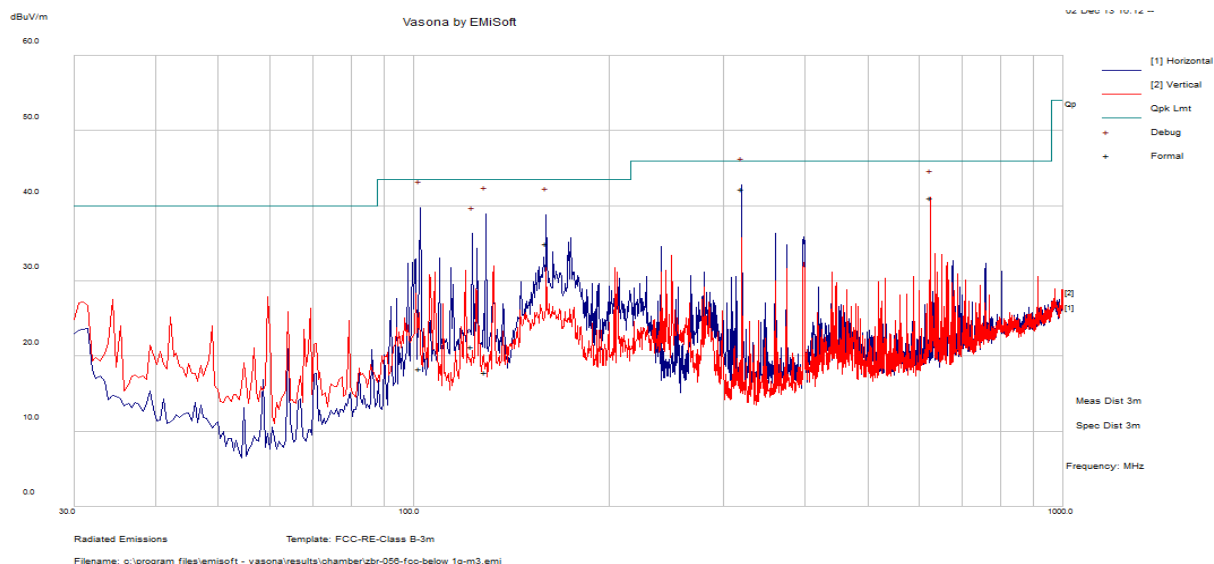
Radiated Emission Test Results (Below 1GHz)

Test specification	below 1GHz		Result	Pass
Environmental Conditions:	Temp (°C):	23		
	Humidity (%)	22		
	Atmospheric (mbar):	1008		
Mains Power:	110VAC,60Hz			
Tested by:	Teody Manansala			
Test Date:	4-Dec-13			
Remarks:	Below 1GHz- Mode1: WLAN cont TX at 802.11b (2437MHz)			



Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
319.97	53.16	3.05	-13.35	42.85	Quasi Max	H	101.00	312.00	46.00	-3.15	Pass
625.01	46.04	4.38	-8.26	42.16	Quasi Max	V	100.00	37.00	46.00	-3.84	Pass
162.69	40.95	2.22	-14.70	28.47	Quasi Max	H	160.00	356.00	43.50	-15.03	Pass
160.07	50.33	2.20	-14.69	37.84	Quasi Max	H	153.00	357.00	43.50	-5.66	Pass
875.02	34.51	5.30	-4.20	35.62	Quasi Max	V	113.00	171.00	46.00	-10.38	Pass
359.99	45.54	3.25	-12.41	36.37	Quasi Max	H	100.00	14.00	46.00	-9.63	Pass

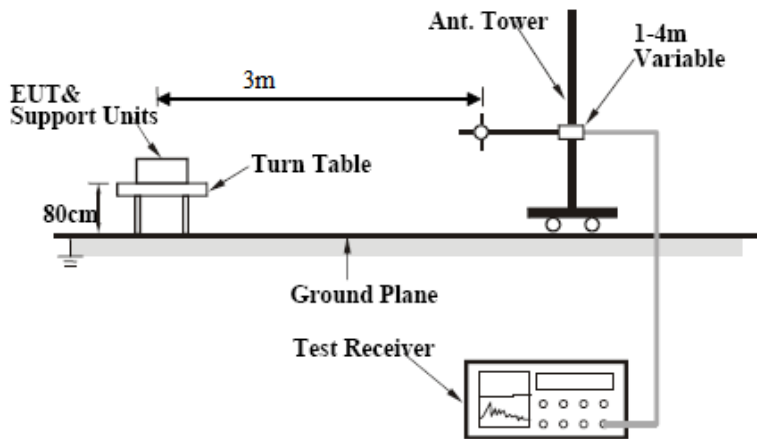
Test specification	below 1GHz		Result	Pass
Environmental Conditions:	Temp (°C):	23		
	Humidity (%)	22		
	Atmospheric (mbar):	1008		
Mains Power:	110VAC,60Hz			
Tested by:	Teody Manansala			
Test Date:	4-Dec-13			
Remarks:	Below 1GHz-Mode2: UHF (915.75MHz) + WLAN at 802.11b (2437MHz) all transmit simultaneously			



Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Polarization	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass/Fail
320.01	52.51	3.05	-13.35	42.21	Quasi Max	H	102.00	47.00	46.00	-3.79	Pass
101.94	32.45	1.68	-15.76	18.38	Quasi Max	H	311.00	237.00	43.50	-25.12	Pass
129.03	28.40	1.95	-12.53	17.82	Quasi Max	H	214.00	6.00	43.50	-25.68	Pass
160.00	47.42	2.20	-14.70	34.92	Quasi Max	H	182.00	356.00	43.50	-8.58	Pass
625.01	44.98	4.38	-8.26	41.10	Quasi Max	V	100.00	24.00	46.00	-4.90	Pass
122.93	31.91	1.90	-12.52	21.29	Quasi Max	H	130.00	162.00	43.50	-22.21	Pass

10.2 Radiated Spurious Emissions above 1GHz

Requirement(s):

Spec	Item	Requirement	Applicable
47CFR§15.247(d), RSS210(A8.5)	a)	For non-restricted band, 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 or 30dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, determined by the measurement method on output power to be used. Attenuation below the general limits specified in § 15.209(a) is not required ☒ 20 dB down ☐ 30 dB down	☒
	b)	or restricted band, emission must also comply with the radiated emission limits specified in 2.8	☒
Test Setup			
Procedure	- The EUT was switched on and allowed to warm up to its normal operating condition. - The test was carried out at the selected frequency points obtained from the EUT characterisation. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner: - Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen. - The EUT was then rotated to the direction that gave the maximum emission. - Finally, the antenna height was adjusted to the height that gave the maximum emission. - An average measurement was then made for that frequency point. - Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.		
Remark	Test date: 4-Dec-13 Temp (°C): 23 Humidity (%): 22 Atmospheric (mbar): 1008		
Result	☒ Pass ☐ Fail		

Test Data ☒ Yes (See below) ☐ N/A

Test Plot ☐ Yes (See below) ☒ N/A

Radiated Emission Test Results (Above 1GHz)

Above 1GHz-25G-Mode1: WLAN cont TX at 802.11b (2412MHz)

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Polarization	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass/Fail
15511.7	45.21	5.51	10.12	60.83	Peak Max	H	101	232	74	-13.17	Pass
4823.69	47.19	2.54	0.13	49.87	Peak Max	H	104	202	74	-24.13	Pass
1125.043	54.59	0.86	-6.93	48.52	Peak Max	V	130	176	74	-25.48	Pass
2390.0	49.78	1.23	-5.89	45.12	Peak Max	V	156	50	74	-28.88	Pass
15511.7	33.29	5.51	10.12	48.91	Average Max	H	101	232	54	-5.09	Pass
4823.69	41.18	2.54	0.13	43.85	Average Max	H	104	202	54	-10.15	Pass
1125.043	51.06	0.86	-6.93	45	Average Max	V	130	176	54	-9.01	Pass
2390.0	44.62	1.23	-5.89	39.96	Average Max	V	156	50	54	-14.04	Pass

Above 1GHz-25G-Mode2: WLAN cont TX at 802.11b (2437MHz)

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Polarization	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass/Fail
10988.08	41.02	3.98	5.51	50.5	Peak Max	V	105	301	74	-23.5	Pass
4873.03	43.07	2.54	0.13	45.74	Peak Max	V	241	229	74	-28.26	Pass
1198.648	50.52	0.92	-6.78	44.66	Peak Max	H	100	102	74	-29.34	Pass
1600.135	53.3	1.23	-5.89	48.64	Peak Max	V	209	137	74	-25.36	Pass
10988.08	28.96	3.98	5.51	38.44	Average Max	V	105	301	54	-15.56	Pass
4873.03	33.5	2.54	0.13	36.18	Average Max	V	241	229	54	-17.82	Pass
1198.6475	35.13	0.92	-6.78	29.27	Average Max	H	100	102	54	-24.73	Pass
1600.135	32.33	1.23	-5.89	27.67	Average Max	V	209	137	54	-26.33	Pass

Above 1GHz-25G-Mode3: WLAN cont TX at 802.11b (2462MHz)

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Polarization	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass/Fail
4913.43	53.74	2.55	0.13	56.42	Peak Max	H	106	84	74	-17.58	Pass
1125.11	54.37	0.86	-6.93	48.3	Peak Max	H	110	211	74	-25.7	Pass
2483.5	43.27	1.25	-5.8	38.72	Peak Max	H	233	181	74	-35.28	Pass
4913.43	49.55	2.55	0.13	52.23	Average Max	H	106	84	54	-1.77	Pass
1125.11	51.26	0.86	-6.93	45.19	Average Max	H	110	211	54	-8.81	Pass
2483.5	33.56	1.25	-5.8	29.01	Average Max	H	233	181	54	-24.99	Pass

Above 1GHz-25G-Mode4: WLAN cont TX at 802.11g (2412MHz)

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
4823.825	53.6	2.54	0.13	56.28	Peak Max	H	147	95	74	-17.72	Pass
1125.155	54.89	0.86	-6.93	48.82	Peak Max	H	116	211	74	-25.18	Pass
2390.0	42.41	1.25	-5.8	37.85	Peak Max	H	134	142	74	-36.15	Pass
4823.825	50.36	2.54	0.13	53.04	Average Max	H	147	95	54	-0.96	Pass
1125.155	51.65	0.86	-6.93	45.58	Average Max	H	116	211	54	-8.42	Pass
2390.0	30.5	1.25	-5.8	25.94	Average Max	H	134	142	54	-28.06	Pass

Above 1GHz-25G-Mode5: WLAN cont TX at 802.11g (2437MHz)

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
15483.22	44.52	5.5	10.17	60.2	Peak Max	V	175	198	74	-13.8	Pass
4873.03	53.94	2.55	0.13	56.62	Peak Max	H	112	83	74	-17.38	Pass
1125.2	54.81	0.86	-6.93	48.74	Peak Max	H	121	215	74	-25.26	Pass
15483.22	33.32	5.5	10.17	49	Average Max	V	175	198	54	-5	Pass
4873.03	50.62	2.55	0.13	53.3	Average Max	H	112	83	54	-0.7	Pass
1125.2	51.34	0.86	-6.93	45.28	Average Max	H	121	215	54	-8.72	Pass

Above 1GHz-25G-Mode6: WLAN cont TX at 802.11g (2462MHz)

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
15624.61	42.98	5.47	10.09	58.55	Peak Max	V	115	130	74	-15.45	Pass
2483.5	50.73	1.24	-5.77	46.20	Peak Max	H	73	54	74	-27.80	Pass
4913.43	51.77	2.54	0.13	54.44	Peak Max	H	79	141	74	-19.56	Pass
15624.61	31.62	5.47	10.09	47.19	Average Max	V	115	130	54	-6.81	Pass
2483.5	43.54	1.24	-5.77	39.01	Average Max	H	73	54	54	-14.99	Pass
4913.43	49.00	2.54	0.13	51.67	Average Max	H	79	141	54	-2.33	Pass

Above 1GHz- Mode7: UHF (915.75MHz) + WLAN at 802.11b (2437MHz) all transmit simultaneously

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
15061.13	41.89	5.35	9.87	57.11	Peak [Scan]	H	112	127	74	-16.89	Pass
4873.03	41.92	2.47	0.13	44.52	Peak [Scan]	V	235	223	74	-29.48	Pass
1582	47.76	1.22	-5.65	43.33	Peak [Scan]	V	77	137	74	-30.67	Pass
15061.13	34.45	5.35	9.87	49.67	Average Max	H	112	127	54	-4.33	Pass
4873.03	32.41	2.47	0.13	35.01	Average Max	V	235	223	54	-18.99	Pass
1582	37.42	1.22	-5.65	32.99	Average Max	V	77	137	54	-21.01	Pass

Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Cycle	Cal Due	In use
Conducted Emissions						
R & S Receiver	ESIB 40	100179	04/20/2013	1 Year	04/20/2014	☐
R&S LISN	ESH2-Z5	861741/013	05/18/2013	1 Year	05/18/2014	☐
CHASE LISN	MN2050B	1018	07/24/2013	1 Year	07/24/2014	☐
Sekonic Hygro Hermograph	ST-50	HE01-000092	05/25/2013	1 Year	05/25/2014	☐
Radiated Emissions						
R & S Receiver	ESL6	100178	03/01/2013	1 Year	03/01/2014	☒
R & S Receiver	ESIB 40	100179	04/20/2013	1 Year	04/20/2014	☒
ETS-Lingren Loop Antenna	6512	00049120	05/13/2013	1 Year	05/13/2014	☒
Bi-Log antenna (30MHz~2GHz)	JB1	A030702	02/09/2013	1 Year	02/09/2014	☒
Horn Antenna (1-26.5GHz)	3115	10SL0059	04/26/2013	1 Year	04/26/2014	☒
Horn Antenna (18-40 GHz)	AH-840	101013	04/23/2013	1 Year	04/23/2014	☒
Pre-Amplifier (1-26.5GHz)	8449B	3008A00715	05/30/2013	1 Year	05/30/2014	☒
Microwave Preamplifier (18-40 GHz)	PA-840	181251	05/30/2013	1 Year	05/30/2014	☒
3 Meters SAC	3M	N/A	10/13/2013	1 Year	10/13/2014	☐
10 Meters SAC	10M	N/A	06/05/2013	1 Year	06/05/2014	☒
Sekonic Hygro Hermograph	ST-50	HE01-000092	05/25/2013	1 Year	05/25/2014	☒
RF Conducted Measurement						
Spectrum Analyzer	N9010A	MY50210206	05/30/2013	1 Year	05/30/2014	☐
Spectrum Analyzer	E4407B	US88441016	05/31/2013	1 Year	05/31/2014	☐
R & S Receiver	ESIB 40	100179	04/20/2013	1 Year	04/20/2014	☐

Annex B. USER MANUAL, BLOCK & CIRCUIT DIAGRAM

Please see attachment

Annex C. SIEMIC Accreditation

Accreditations	Document	Scope / Remark
ISO 17025 (A2LA)		Please see the documents for the detailed scope
ISO Guide 65 (A2LA)		Please see the documents for the detailed scope
TCB Designation		A1 , A2 , A3 , A4 , B1 , B2 , B3 , B4 , C
FCC DoC Accreditation		FCC Declaration of Conformity Accreditation
FCC Site Registration		3 meter site
FCC Site Registration		10 meter site
IC Site Registration		3 meter site
IC Site Registration		10 meter site
EU NB		Radio & Telecommunications Terminal Equipment: EN45001 – EN ISO/IEC 17025
		Electromagnetic Compatibility: EN45001 – EN ISO/IEC 17025
Singapore iDA CB(Certification Body)		Phase I , Phase II
Vietnam MIC CAB Accreditation		Please see the document for the detailed scope
HongKong OFCA		(Phase II) OFCA Foreign Certification Body for Radio and Telecom
		(Phase I) Conformity Assessment Body for Radio and Telecom
Industry Canada CAB		Radio: Scope A – All Radio Standard Specification in Category I
		Telecom: CS-03 Part I, II, V, VI, VII, VIII

Japan Recognized Certification Body Designation		Radio : A1. Terminal equipment for purpose of calling Telecom : B1. Specified radio equipment specified in Article 38-2, Paragraph 1, Item 1 of the Radio Law
Korea CAB Accreditation		EMI : KCC Notice 2008-39, RRL Notice 2008-3: CA Procedures for EMI KN22: Test Method for EMI EMS : KCC Notice 2008-38, RRL Notice 2008-4: CA Procedures for EMS KN24, KN61000-4-2, -4-3, -4-4, -4-5, -4-6, -4-8, -4-11: Test Method for EMS Radio : RRL Notice 2008-26, RRL Notice 2008-2, RRL Notice 2008-10, RRL Notice 2007-49, RRL Notice 2007-20, RRL Notice 2007-21, RRL Notice 2007-80, RRL Notice 2004-68 Telecom : President Notice 20664, RRL Notice 2007-30, RRL Notice 2008-7 with attachments 1, 3, 5, 6; President Notice 20664, RRL Notice 2008-7 with attachment 4
Taiwan NCC CAB Recognition		LP0002, PSTN01, ADSL01, ID0002, IS6100, CNS14336, PLMN07, PLMN01, PLMN08
Taiwan BSMI CAB Recognition		CNS 13438
Japan VCCI		R-3083: Radiation 3 meter site C-3421: Main Ports Conducted Interference Measurement T-1597: Telecommunication Ports Conducted Interference Measurement
Australia CAB Recognition		EMC : AS/NZS CISPR 11, AS/NZS CISPR 14.1, AS/NZS CISPR22, AS/NZS 61000.6.3, AS/NZS 61000.6.4 Radiocommunications : AS/NZS 4281, AS/NZS 4268, AS/NZS 4280.1, AS/NZS 4280.2, AS/NZS 4295, AS/NZS 4582, AS/NZS 4583, AS/NZS 4769.1, AS/NZS 4769.2, AS/NZS 4770, AS/NZS 4771 Telecommunications : AS/ACIF S002:05, AS/ACIF S003:06, AS/ACIF S004:06 AS/ACIF S006:01, AS/ACIF S016:01, AS/ACIF S031:01, AS/ACIF S038:01, AS/ACIF S040:01, AS/ACIF S041:05, AS/ACIF S043.2:06, AS/ACIF S60950.1
Australia NATA Recognition		AS/ACIF S002, AS/ACIF S003, AS/ACIF S004, AS/ACIF S006, AS/ACIF S016, AS/ACIF S031, AS/ACIF S038, AS/ACIF S040, AS/ACIF S041, AS/ACIF S043.2