Radiated Emission Test Results (Above 1GHz)

Above 1GHz-25GHz – 802.11b – 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
7236.28	38.53	5.32	0.83	44.68	Peak Max	H	134.00	279.00	74.00	-29.32	Pass
12059.54	38.26	7.86	3.59	49.71	Peak Max	V	278.00	171.00	74.00	-24.29	Pass
4823.84	52.87	4.17	-2.19	54.86	Peak Max	H	211.00	33.00	74.00	-19.15	Pass
7236.28	26.30	5.32	0.83	32.45	Average Max	H	134.00	279.00	54.00	-21.55	Pass
12059.54	25.97	7.86	3.59	37.42	Average Max	V	278.00	171.00	54.00	-16.58	Pass
4823.84	50.48	4.17	-2.19	52.47	Average Max	H	211.00	33.00	54.00	-1.54	Pass

Above 1GHz-25GHz- 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
7314.29	38.40	5.35	0.78	44.53	Peak Max	H	124.00	25.00	74.00	-29.47	Pass
14623.95	38.21	8.01	8.08	54.29	Peak Max	V	212.00	344.00	74.00	-19.71	Pass
4873.85	45.95	4.20	-2.25	47.90	Peak Max	H	187.00	21.00	74.00	-26.10	Pass
7314.29	26.28	5.35	0.78	32.41	Average Max	V	274.00	332.00	54.00	-21.59	Pass
14623.95	26.09	8.01	8.08	42.18	Average Max	H	115.00	247.00	54.00	-11.82	Pass
4873.85	41.56	4.20	-2.25	43.51	Average Max	H	187.00	21.00	54.00	-10.49	Pass

Above 1GHz-25GHz – 802.11b – 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
4924.02	53.49	4.23	-2.26	55.45	Peak Max	H	226.00	265.00	74.00	-18.55	Pass
14303.20	38.54	8.01	8.03	54.57	Peak Max	V	363.00	131.00	74.00	-19.43	Pass
7315.97	38.42	5.35	0.77	44.54	Peak Max	V	172.00	153.00	74.00	-29.46	Pass
4924.02	51.11	4.23	-2.26	53.08	Average Max	H	226.00	265.00	54.00	-0.92	Pass
14303.20	25.77	8.01	8.03	41.81	Average Max	V	363.00	131.00	54.00	-12.19	Pass
7315.97	26.23	5.35	0.77	32.36	Average Max	V	172.00	153.00	54.00	-21.64	Pass

Above 1GHz-25GHz- 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
13405.81	36.86	8.48	6.28	51.62	Peak Max	V	132.00	120.00	74.00	-22.38	Pass
4824.68	49.32	4.17	-2.19	51.30	Peak Max	H	210.00	263.00	74.00	-22.70	Pass
7739.47	39.03	5.70	0.46	45.18	Peak Max	V	104.00	64.00	74.00	-28.82	Pass
13405.81	25.34	8.48	6.28	40.10	Average Max	V	132.00	120.00	54.00	-13.90	Pass
4824.68	36.05	4.17	-2.19	38.04	Average Max	H	210.00	263.00	54.00	-15.96	Pass
7739.47	26.32	5.70	0.46	32.48	Average Max	V	104.00	64.00	54.00	-21.52	Pass

Above 1GHz-25GHz – 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
14556.79	38.18	7.99	7.95	54.12	Peak Max	V	378.00	36.00	74.00	-19.88	Pass
4883.12	45.82	4.20	-2.26	47.77	Peak Max	H	192.00	249.00	74.00	-26.24	Pass
7243.01	38.36	5.32	0.84	44.53	Peak Max	V	156.00	239.00	74.00	-29.48	Pass
14556.79	25.94	7.99	7.95	41.88	Average Max	V	378.00	36.00	54.00	-12.12	Pass
4883.12	32.51	4.20	-2.26	34.45	Average Max	H	192.00	249.00	54.00	-19.55	Pass
7243.01	26.15	5.32	0.84	32.31	Average Max	V	156.00	239.00	54.00	-21.69	Pass

Above 1GHz-25GHz- 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
14366.56	38.31	8.00	7.55	53.85	Peak Max	V	236.00	146.00	74.00	-20.15	Pass
4920.22	44.15	4.22	-2.27	46.10	Peak Max	H	147.00	215.00	74.00	-27.90	Pass
9098.38	38.89	6.17	1.98	47.04	Peak Max	V	100.00	260.00	74.00	-26.96	Pass
14366.56	26.01	8.00	7.55	41.56	Average Max	V	236.00	146.00	54.00	-12.45	Pass
4920.22	30.18	4.22	-2.27	32.13	Average Max	H	147.00	215.00	54.00	-21.87	Pass
9098.38	26.83	6.17	1.98	34.98	Average Max	V	100.00	260.00	54.00	-19.02	Pass

Above 1GHz-25GHz- 802.11n20 - 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
14596.35	38.16	8.00	8.15	54.31	Peak Max	V	105.00	332.00	74.00	-19.69	Pass
4826.63	48.39	4.17	-2.19	50.37	Peak Max	H	267.00	29.00	74.00	-23.63	Pass
9528.88	38.47	6.58	1.98	47.04	Peak Max	V	390.00	203.00	74.00	-26.96	Pass
14596.35	25.94	8.00	8.15	42.08	Average Max	V	105.00	332.00	54.00	-11.92	Pass
4826.63	34.16	4.17	-2.19	36.14	Average Max	H	267.00	29.00	54.00	-17.86	Pass
9528.88	26.78	6.58	1.98	35.35	Average Max	V	390.00	203.00	54.00	-18.65	Pass

Above 1GHz-25GHz – 802.11n20 – 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
14895.93	38.75	8.08	7.97	54.80	Peak Max	V	254.00	4.00	74.00	-19.20	Pass
4876.67	51.70	4.20	-2.25	53.65	Peak Max	H	238.00	344.00	74.00	-20.35	Pass
9501.29	38.70	6.59	2.11	47.40	Peak Max	V	300.00	44.00	74.00	-26.60	Pass
14895.93	26.38	8.08	7.97	42.43	Average Max	V	254.00	4.00	54.00	-11.57	Pass
4876.67	37.50	4.20	-2.25	39.45	Average Max	H	238.00	344.00	54.00	-14.55	Pass
9501.29	26.51	6.59	2.11	35.21	Average Max	V	300.00	44.00	54.00	-18.79	Pass

Above 1GHz-25GHz- 802.11n20 - 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
15092.24	38.73	8.13	7.72	54.59	Peak Max	V	99.00	356.00	74.00	-19.41	Pass
4919.77	44.91	4.22	-2.27	46.86	Peak Max	H	168.00	34.00	74.00	-27.14	Pass
8740.74	38.47	5.94	1.17	45.58	Peak Max	V	173.00	46.00	74.00	-28.42	Pass
15092.24	26.48	8.13	7.72	42.34	Average Max	V	99.00	356.00	54.00	-11.66	Pass
4919.77	31.37	4.22	-2.27	33.33	Average Max	H	168.00	34.00	54.00	-20.67	Pass
8740.74	26.29	5.94	1.17	33.41	Average Max	V	173.00	46.00	54.00	-20.60	Pass

Above 1GHz-25GHz- 802.11n40 - 2422MHz

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
13482.12	37.35	8.84	6.66	52.84	Peak Max	V	400.00	100.00	74.00	-21.16	Pass
9587.13	39.63	6.57	1.70	47.91	Peak Max	V	100.00	164.00	74.00	-26.09	Pass
4835.02	43.77	4.17	-2.20	45.75	Peak Max	H	204.00	357.00	74.00	-28.25	Pass
13482.12	25.37	8.84	6.66	40.87	Average Max	V	400.00	100.00	54.00	-13.13	Pass
9587.13	26.97	6.57	1.70	35.24	Average Max	V	100.00	164.00	54.00	-18.76	Pass
4835.02	31.85	4.17	-2.20	33.82	Average Max	H	204.00	357.00	54.00	-20.18	Pass

Above 1GHz-25GHz – 802.11n40 – 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
13480.65	37.75	8.83	6.65	53.24	Peak Max	V	394.00	3.00	74.00	-20.77	Pass
4878.23	46.66	4.20	-2.25	48.61	Peak Max	H	187.00	320.00	74.00	-25.39	Pass
7607.92	38.06	5.55	0.66	44.26	Peak Max	V	153.00	77.00	74.00	-29.74	Pass
13480.65	25.39	8.83	6.65	40.87	Average Max	V	394.00	3.00	54.00	-13.13	Pass
4878.23	34.46	4.20	-2.25	36.41	Average Max	H	187.00	320.00	54.00	-17.59	Pass
7607.92	26.26	5.55	0.66	32.47	Average Max	V	153.00	77.00	54.00	-21.53	Pass

Above 1GHz-25GHz- 802.11n40 - 2452MHz

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
15177.73	38.75	8.15	7.53	54.43	Peak Max	V	400.00	43.00	74.00	-19.57	Pass
9810.48	38.60	6.53	1.69	46.83	Peak Max	V	363.00	278.00	74.00	-27.17	Pass
4914.58	38.96	4.22	-2.27	40.92	Peak Max	V	275.00	272.00	74.00	-33.08	Pass
15177.73	26.53	8.15	7.53	42.21	Average Max	V	400.00	43.00	54.00	-11.79	Pass
9810.48	26.27	6.53	1.69	34.50	Average Max	V	363.00	278.00	54.00	-19.50	Pass
4914.58	27.15	4.22	-2.27	29.10	Average Max	V	275.00	272.00	54.00	-24.90	Pass

Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Cycle	Cal Due	In use
Conducted Emissions						
R & S Receiver	ESIB 40	100179	04/21/2017	1 Year	04/21/2018	☑
CHASE LISN	MN2050B	1018	08/16/2016	1 Year	08/16/2017	☑
Radiated Emissions						
Keysight EXA 44GHz Spectrum Analyzer	N9010A	MY51440112	11/02/2016	1 Year	11/02/2017	☑
Bi-Log antenna (30MHz~2GHz)	JB1	A030702	01/13/2017	1 Year	01/13/2018	☑
Horn Antenna (1GHz~26GHz)	3115	100059	08/11/2016	1 Year	08/11/2017	☑
Horn Antenna (18GHz~40GHz)	PA-840	181251	06/23/2017	1 Year	06/23/2018	☑
Preamplifier (100KHz-7GHz)	LPA-6-30	11170602	02/09/2017	1 Year	02/09/2018	☑
Pre-Amplifier (1-40GHz)	SAS-474	579	05/04/2017	1 Year	05/04/2018	☑
10 Meters SAC	10M	N/A	10/06/2016	1 Year	10/06/2017	☑
RF Conducted Measurement						
Spectrum Analyzer	N9010A	10SL0180	11/16/2016	1 Year	11/16/2017	☑

Annex B. 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 Equipment: EN45011: EN ISO/IEC 17065
		Electromagnetic Compatibility: EN45011 – EN ISO/IEC 17065
Singapore iDA CB(Certification Body)		Phase I, Phase II
Vietnam MIC CAB Accreditation		Please see the document for the detailed scope
Hong Kong 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 Measuremet
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