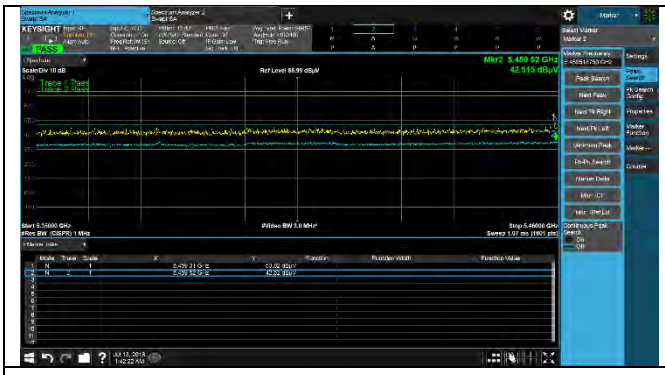
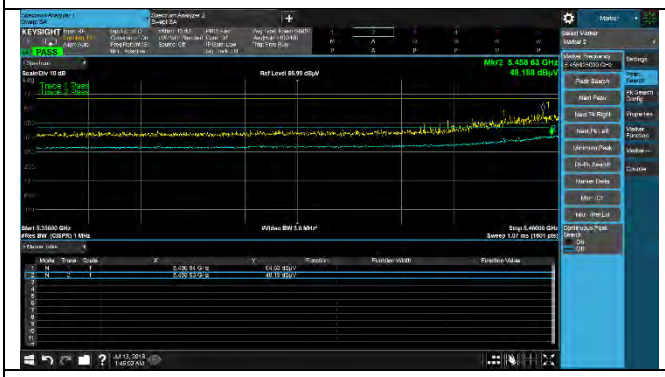
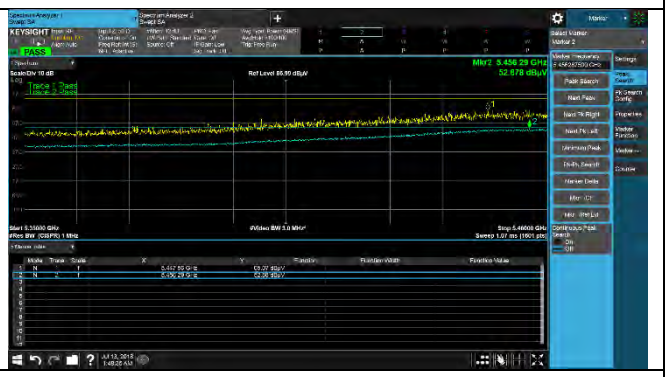


802.11a 5500M(5350-5460MHz)

802.11ax20 5500M(5350-5460MHz)



802.11ax40 5510M(5350-5460MHz)



802.11ax 5530M(5350-5460MHz)

4x4 mode: Radiated Emission Test Results (Above 1GHz)

W53 band:

Above 1GHz-40GHz – 802.11a – 5260MHz

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
7202.26	51.34	5.14	-7.73	48.75	Peak Max	V	265	304	74	-25.25	Pass
10520.13	55.01	6.09	-3.78	57.32	Peak Max	V	234	46	74	-16.68	Pass
13096.13	46.71	6.94	-1.82	51.83	Peak Max	H	166	160	74	-22.17	Pass
7202.26	37.82	5.14	-7.73	35.23	Average Max	V	265	304	54	-18.77	Pass
10520.13	41.99	6.09	-3.78	44.3	Average Max	V	234	46	54	-9.7	Pass
13096.13	33.34	6.94	-1.82	38.46	Average Max	H	166	160	54	-15.54	Pass

Above 1GHz-40GHz – 802.11a – 5280MHz

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
7786.47	52.44	5.25	-7.22	50.47	Peak Max	V	269	299	74	-23.53	Pass
10559.72	54.88	6.1	-3.71	57.27	Peak Max	H	229	42	74	-16.73	Pass
13196.09	46.44	6.98	-1.91	51.51	Peak Max	V	166	154	74	-22.49	Pass
7786.47	39.04	5.25	-7.22	37.07	Average Max	V	269	299	54	-16.93	Pass
10559.72	41.34	6.1	-3.71	43.73	Average Max	H	229	42	54	-10.27	Pass
13196.09	33	6.98	-1.91	38.07	Average Max	V	166	154	54	-15.93	Pass

Above 1GHz-40GHz – 802.11a – 5320MHz

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
7727.12	51.39	5.21	-7.27	49.33	Peak Max	V	273	299	74	-24.67	Pass
10640.28	55.21	6.14	-3.61	57.74	Peak Max	V	234	44	74	-16.26	Pass
13680.82	45.82	7.1	-1.54	51.38	Peak Max	H	161	154	74	-22.62	Pass
7727.12	37.62	5.21	-7.27	35.56	Average Max	V	273	299	54	-18.44	Pass
10640.28	41.26	6.14	-3.61	43.79	Average Max	V	234	44	54	-10.21	Pass
13680.82	32.8	7.1	-1.54	38.36	Average Max	H	161	154	54	-15.64	Pass

Above 1GHz-40GHz – 802.11ax-20M – 5260MHz

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
7280.33	51.83	5.16	-7.69	49.3	Peak Max	H	264	296	74	-24.7	Pass
10520.21	55.01	6.09	-3.78	57.32	Peak Max	V	229	44	74	-16.68	Pass
13857.57	46.44	7.19	-1.66	51.97	Peak Max	H	167	159	74	-22.03	Pass
7280.33	38.81	5.16	-7.69	36.28	Average Max	H	264	296	54	-17.72	Pass
10520.21	41.43	6.09	-3.78	43.74	Average Max	V	229	44	54	-10.26	Pass
13857.57	32.5	7.19	-1.66	38.03	Average Max	H	167	159	54	-15.97	Pass

Above 1GHz-40GHz – 802.11ax-20M – 5280MHz

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
7038.34	50.95	5.09	-7.79	48.25	Peak Max	H	266	295	74	-25.75	Pass
10559.63	54.89	6.1	-3.71	57.28	Peak Max	V	231	42	74	-16.72	Pass
13804.14	46.28	7.16	-1.71	51.73	Peak Max	H	161	154	74	-22.27	Pass
7038.34	37.82	5.09	-7.79	35.12	Average Max	H	266	295	54	-18.88	Pass
10559.63	41.45	6.1	-3.71	43.84	Average Max	V	231	42	54	-10.16	Pass
13804.14	32.53	7.16	-1.71	37.98	Average Max	H	161	154	54	-16.02	Pass

Above 1GHz-40GHz – 802.11ax-20M – 5320MHz

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
7963.64	52.03	5.4	-7.06	50.37	Peak Max	V	273	301	74	-23.63	Pass
10640.47	55.22	6.14	-3.61	57.75	Peak Max	V	234	42	74	-16.25	Pass
13923.95	48.02	7.24	-1.61	53.65	Peak Max	H	166	154	74	-20.35	Pass
7963.64	38.73	5.4	-7.06	37.07	Average Max	V	273	301	54	-16.93	Pass
10640.47	42.06	6.14	-3.61	44.59	Average Max	V	234	42	54	-9.41	Pass
13923.95	34.44	7.24	-1.61	40.07	Average Max	H	166	154	54	-13.93	Pass

Above 1GHz-40GHz – 802.11ax-40M – 5270MHz

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
7601.31	51.54	5.17	-7.46	49.25	Peak Max	V	271	296	74	-24.75	Pass
10379.08	53.78	6.01	-3.86	55.93	Peak Max	V	231	48	74	-18.07	Pass
13894.41	46.67	7.22	-1.64	52.25	Peak Max	H	165	156	74	-21.75	Pass
7601.31	38.43	5.17	-7.46	36.14	Average Max	V	271	296	54	-17.86	Pass
10379.08	40.23	6.01	-3.86	42.38	Average Max	V	231	48	54	-11.62	Pass
13894.41	33.05	7.22	-1.64	38.63	Average Max	H	165	156	54	-15.37	Pass

Above 1GHz-40GHz – 802.11ax-40M – 5310MHz

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
7757.67	51.32	5.23	-7.24	49.31	Peak Max	V	272	300	74	-24.69	Pass
10620.50	54.58	6.13	-3.62	57.09	Peak Max	V	225	41	74	-16.91	Pass
13745.34	46.1	7.12	-1.61	51.61	Peak Max	H	162	153	74	-22.39	Pass
7757.67	37.42	5.23	-7.24	35.41	Average Max	V	272	300	54	-18.59	Pass
10620.50	40.8	6.13	-3.62	43.31	Average Max	V	225	41	54	-10.69	Pass
13745.34	32.28	7.12	-1.61	37.79	Average Max	H	162	153	54	-16.21	Pass

Above 1GHz-40GHz – 802.11ax-80M – 5290MHz

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
7497.06	51.36	5.13	-7.53	48.96	Peak Max	V	268	295	74	-25.04	Pass
10579.27	54.32	6.11	-3.67	56.76	Peak Max	V	234	44	74	-17.24	Pass
13229.15	46.01	6.99	-1.9	51.1	Peak Max	H	168	156	74	-22.9	Pass
7497.06	37.65	5.13	-7.53	35.25	Average Max	V	268	295	54	-18.75	Pass
10579.27	41.04	6.11	-3.67	43.48	Average Max	V	234	44	54	-10.52	Pass
13229.15	32.51	6.99	-1.9	37.6	Average Max	H	168	156	54	-16.4	Pass

W56 band:
Above 1GHz-40GHz – 802.11a – 5500MHz

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
7798.59	51.75	5.26	-7.21	49.8	Peak Max	H	268	300	74	-24.2	Pass
11000.10	54.26	6.13	-3.08	57.31	Peak Max	H	226	45	74	-16.69	Pass
13651.40	46.51	7.09	-1.53	52.07	Peak Max	V	162	160	74	-21.93	Pass
7798.59	38.11	5.26	-7.21	36.16	Average Max	H	268	300	54	-17.84	Pass
11000.10	40.31	6.13	-3.08	43.36	Average Max	H	226	45	54	-10.64	Pass
13651.40	33.11	7.09	-1.53	38.67	Average Max	V	162	160	54	-15.33	Pass

Above 1GHz-40GHz – 802.11a – 5580MHz

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
7659.04	52.15	5.19	-7.32	50.02	Peak Max	V	270	301	74	-23.98	Pass
11159.99	54.83	6.07	-3.12	57.78	Peak Max	H	233	44	74	-16.22	Pass
13827.20	46.65	7.17	-1.7	52.12	Peak Max	H	161	162	74	-21.88	Pass
7659.04	39.01	5.19	-7.32	36.88	Average Max	V	270	301	54	-17.12	Pass
11159.99	40.88	6.07	-3.12	43.83	Average Max	H	233	44	54	-10.17	Pass
13827.20	32.87	7.17	-1.7	38.34	Average Max	H	161	162	54	-15.66	Pass

Above 1GHz-40GHz – 802.11a – 5700MHz

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
7236.12	51.23	5.16	-7.72	48.67	Peak Max	H	271	296	74	-25.33	Pass
11400.55	54.75	6.05	-2.88	57.92	Peak Max	V	225	46	74	-16.08	Pass
13641.71	46.37	7.09	-1.53	51.93	Peak Max	H	164	154	74	-22.07	Pass
7236.12	37.89	5.16	-7.72	35.33	Average Max	H	271	296	54	-18.67	Pass
11400.55	41.11	6.05	-2.88	44.28	Average Max	V	225	46	54	-9.72	Pass
13641.71	32.92	7.09	-1.53	38.48	Average Max	H	164	154	54	-15.52	Pass

Above 1GHz-40GHz – 802.11ax-20M – 5500MHz

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
7270.06	51.05	5.16	-7.7	48.51	Peak Max	V	266	302	74	-25.49	Pass
11000.47	54.29	6.13	-3.08	57.34	Peak Max	H	229	46	74	-16.66	Pass
13530.02	46.4	7.06	-1.57	51.89	Peak Max	H	167	156	74	-22.11	Pass
7270.06	37.89	5.16	-7.7	35.35	Average Max	V	266	302	54	-18.65	Pass
11000.47	40.75	6.13	-3.08	43.8	Average Max	H	229	46	54	-10.2	Pass
13530.02	33.01	7.06	-1.57	38.5	Average Max	H	167	156	54	-15.5	Pass

Above 1GHz-40GHz – 802.11ax-20M – 5580MHz

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
7623.29	51.39	5.17	-7.39	49.17	Peak Max	V	264	302	74	-24.83	Pass
11159.15	54.91	6.07	-3.12	57.86	Peak Max	H	228	45	74	-16.14	Pass
13710.45	46.47	7.11	-1.56	52.02	Peak Max	V	163	159	74	-21.98	Pass
7623.29	38.06	5.17	-7.39	35.84	Average Max	V	264	302	54	-18.16	Pass
11159.15	40.95	6.07	-3.12	43.9	Average Max	H	228	45	54	-10.1	Pass
13710.45	33.2	7.11	-1.56	38.75	Average Max	V	163	159	54	-15.25	Pass

Above 1GHz-40GHz – 802.11ax-20M – 5700MHz

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
7448.20	50.8	5.14	-7.57	48.37	Peak Max	H	270	298	74	-25.63	Pass
11400.25	54.77	6.05	-2.88	57.94	Peak Max	V	231	44	74	-16.06	Pass
13812.03	45.84	7.16	-1.71	51.29	Peak Max	V	167	156	74	-22.71	Pass
7448.20	37.71	5.14	-7.57	35.28	Average Max	H	270	298	54	-18.72	Pass
11400.25	40.91	6.05	-2.88	44.08	Average Max	V	231	44	54	-9.92	Pass
13812.03	32.73	7.16	-1.71	38.18	Average Max	V	167	156	54	-15.82	Pass

Above 1GHz-40GHz – 802.11ax-40M – 5510MHz

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
7160.81	51.72	5.13	-7.75	49.1	Peak Max	V	269	298	74	-24.9	Pass
11019.86	55.17	6.12	-3.08	58.21	Peak Max	V	230	47	74	-15.79	Pass
13229.95	46.08	6.99	-1.9	51.17	Peak Max	H	168	156	74	-22.83	Pass
7160.81	38.37	5.13	-7.75	35.75	Average Max	V	269	298	54	-18.25	Pass
11019.86	41.61	6.12	-3.08	44.65	Average Max	V	230	47	54	-9.35	Pass
13229.95	32.15	6.99	-1.9	37.24	Average Max	H	168	156	54	-16.76	Pass

Above 1GHz-40GHz – 802.11ax-40M – 5550MHz

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
7051.97	51.58	5.1	-7.79	48.89	Peak Max	V	267	303	74	-25.11	Pass
11100.99	54.55	6.09	-3.1	57.54	Peak Max	H	231	46	74	-16.46	Pass
13768.36	47.21	7.13	-1.65	52.69	Peak Max	V	170	158	74	-21.31	Pass
7051.97	38.23	5.1	-7.79	35.54	Average Max	V	267	303	54	-18.46	Pass
11100.99	41.46	6.09	-3.1	44.45	Average Max	H	231	46	54	-9.55	Pass
13768.36	33.73	7.13	-1.65	39.21	Average Max	V	170	158	54	-14.79	Pass

Above 1GHz-40GHz – 802.11ax-40M – 5670MHz

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
7172.39	51.36	5.14	-7.74	48.76	Peak Max	V	268	298	74	-25.24	Pass
11340.31	54.54	6.04	-3.01	57.57	Peak Max	H	227	49	74	-16.43	Pass
13692.01	47.02	7.1	-1.54	52.58	Peak Max	V	169	154	74	-21.42	Pass
7172.39	38.08	5.14	-7.74	35.48	Average Max	V	268	298	54	-18.52	Pass
11340.31	41.26	6.04	-3.01	44.29	Average Max	H	227	49	54	-9.71	Pass
13692.01	33.8	7.1	-1.54	39.36	Average Max	V	169	154	54	-14.64	Pass

Pass*: The margin is within the measurement uncertainty.

Above 1GHz-40GHz – 802.11ax-80M – 5530MHz

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
7172.39	51.36	5.14	-7.74	48.76	Peak Max	V	268	298	74	-25.24	Pass
11340.31	54.54	6.04	-3.01	57.57	Peak Max	H	227	49	74	-16.43	Pass
13692.01	47.02	7.1	-1.54	52.58	Peak Max	V	169	154	74	-21.42	Pass
7172.39	38.08	5.14	-7.74	35.48	Average Max	V	268	298	54	-18.52	Pass
11340.31	41.26	6.04	-3.01	44.29	Average Max	H	227	49	54	-9.71	Pass
13692.01	33.8	7.1	-1.54	39.36	Average Max	V	169	154	54	-14.64	Pass

Above 1GHz-40GHz – 802.11ax-80M – 5610MHz

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
7047.08	51.85	5.1	-7.79	49.16	Peak Max	V	265	303	74	-24.84	Pass
11219.83	55.07	6.04	-3.13	57.98	Peak Max	H	225	44	74	-16.02	Pass
13231.80	46.25	6.99	-1.91	51.33	Peak Max	H	161	160	74	-22.67	Pass
7047.08	38.06	5.1	-7.79	35.37	Average Max	V	265	303	54	-18.63	Pass
11219.83	41.33	6.04	-3.13	44.24	Average Max	H	225	44	54	-9.76	Pass
13231.80	33.11	6.99	-1.91	38.19	Average Max	H	161	160	54	-15.81	Pass

Above 1GHz - 40GHz- Collocation testing (2.4GHz WLAN & 5GHz WLAN on the main-board transmitting 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
3673.82	49.65	3.57	-13.31	39.91	Peak Max	V	265	295	74	-34.09	Pass
4843.43	51.36	4.14	-10.94	44.56	Peak Max	V	230	45	74	-29.44	Pass
11000.36	42.14	6.13	-3.08	45.19	Peak Max	H	149	52	74	-28.81	Pass
3673.82	35.89	3.57	-13.31	26.15	Average Max	V	265	295	54	-27.85	Pass
4843.43	37.51	4.14	-10.94	30.71	Average Max	V	230	45	54	-23.29	Pass
11000.36	32.49	6.13	-3.08	35.54	Average Max	H	149	52	54	-18.46	Pass

Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Cycle	Cal Due	In use
Conducted Emissions						
R & S Receiver	ESIB 40	100179	06/08/2018	1 Year	06/08/2019	☑
CHASE LISN	MN2050B	1018	08/07/2017	1 Year	08/07/2018	☑
Radiated Emissions						
Spectrum Analyzer	N9010A	10SL0219	08/20/2017	1 Year	08/20/2018	☑
Bi-Log antenna (30MHz~2GHz)	JB1	A030702	08/12/2017	1 Year	08/12/2018	☑
Horn Antenna (1GHz~26GHz)	3115	100059	08/25/2017	1 Year	08/25/2018	☑
Horn Antenna (26GHz~40GHz)	AH-840	101013	08/28/2017	1 Year	08/28/2018	☑
Pre-Amp (30MHz~40GHz)	LPA-6-30	11140711	02/10/2018	1 Year	02/10/2019	☑
RF Conducted Measurement						
Spectrum Analyzer	N9010A	10SL0219	08/20/2017	1 Year	08/20/2018	☑

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 & 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
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 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
		Radio communications: 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