

1GHz-40GHz – 802.11ax-40M – 5755MHz

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
7634.79	42.05	5.18	-0.35	46.88	Peak Max	V	268	298	74	-27.12	Pass
11509.25	45.24	6.08	2.66	53.98	Peak Max	H	229	47	74	-20.02	Pass
13963.22	47.56	7.26	4.85	59.67	Peak Max	V	163	155	74	-14.33	Pass
7634.79	24.34	5.18	-0.35	29.17	Average Max	H	268	298	54	-24.83	Pass
11509.25	27.58	6.08	2.66	36.32	Average Max	V	229	47	54	-17.68	Pass
13963.22	30.47	7.26	4.85	42.58	Average Max	V	163	155	54	-11.42	Pass

1GHz-40GHz - 802.11ax-40M– 5795MHz

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
7179.30	41.38	5.14	-0.31	46.21	Peak Max	H	272	303	74	-27.79	Pass
11590.50	46.19	6.15	2.79	55.13	Peak Max	H	230	46	74	-18.87	Pass
13783.74	46.47	7.14	4.53	58.14	Peak Max	V	170	162	74	-15.86	Pass
7179.30	23.96	5.14	-0.31	28.79	Average Max	V	272	303	54	-25.21	Pass
11590.50	29.05	6.15	2.79	37.99	Average Max	V	230	46	54	-16.01	Pass
13783.74	29.17	7.14	4.53	40.84	Average Max	H	170	162	54	-13.16	Pass

1GHz-40GHz - 802.11ax-80M - 5775MHz

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
7203.77	41.33	5.15	-0.32	46.16	Peak Max	H	272	301	74	-27.84	Pass
11549.71	44.84	6.11	2.72	53.67	Peak Max	V	230	50	74	-20.33	Pass
13463.57	45.76	7.04	4.52	57.32	Peak Max	H	167	154	74	-16.68	Pass
7203.77	23.33	5.15	-0.32	28.16	Average Max	V	272	301	54	-25.84	Pass
11549.71	27.12	6.11	2.72	35.95	Average Max	V	230	50	54	-18.05	Pass
13463.57	28.56	7.04	4.52	40.12	Average Max	V	167	154	54	-13.88	Pass

4x4 Mode: Restricted Band Measurement Plots:



802.11a-5180MHz



802.11ax20 5180MHz



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

1GHz-40GHz – 802.11a – 5180MHz

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
7899.21	51.76	5.35	-7.12	49.99	Peak Max	V	266	298	74	-24.01	Pass
10360.59	54.16	6	-3.87	56.29	Peak Max	V	234	46	74	-17.71	Pass
13786.02	46.27	7.14	-1.69	51.72	Peak Max	V	169	153	74	-22.28	Pass
7899.21	37.88	5.35	-7.12	36.11	Average Max	V	266	298	54	-17.89	Pass
10360.59	40.48	6	-3.87	42.61	Average Max	H	234	46	54	-11.39	Pass
13786.02	32.3	7.14	-1.69	37.75	Average Max	H	169	153	54	-16.25	Pass

1GHz-40GHz – 802.11a – 5200MHz

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
7388.50	51.12	5.14	-7.61	48.65	Peak Max	V	272	302	74	-25.35	Pass
10399.56	54.57	6.02	-3.85	56.74	Peak Max	H	227	49	74	-17.26	Pass
13685.81	45.99	7.1	-1.54	51.55	Peak Max	H	166	156	74	-22.45	Pass
7388.50	37.24	5.14	-7.61	34.77	Average Max	H	272	302	54	-19.23	Pass
10399.56	41.05	6.02	-3.85	43.22	Average Max	V	227	49	54	-10.78	Pass
13685.81	32.37	7.1	-1.54	37.93	Average Max	H	166	156	54	-16.07	Pass

1GHz-40GHz – 802.11a – 5240MHz

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
7730.65	51.8	5.21	-7.26	49.75	Peak Max	V	272	301	74	-24.25	Pass
10480.05	54.59	6.07	-3.82	56.84	Peak Max	V	231	47	74	-17.16	Pass
13636.46	47.35	7.09	-1.53	52.91	Peak Max	V	167	154	74	-21.09	Pass
7730.65	38.56	5.21	-7.26	36.51	Average Max	H	272	301	54	-17.49	Pass
10480.05	41.31	6.07	-3.82	43.56	Average Max	V	231	47	54	-10.44	Pass
13636.46	33.85	7.09	-1.53	39.41	Average Max	V	167	154	54	-14.59	Pass

1GHz-40GHz – 802.11ax-20M – 5180MHz

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
7865.85	52.29	5.32	-7.15	50.46	Peak Max	H	266	298	74	-23.54	Pass
10360.17	54.13	6	-3.87	56.26	Peak Max	V	232	47	74	-17.74	Pass
13689.86	46.84	7.1	-1.54	52.4	Peak Max	V	166	156	74	-21.6	Pass
7865.85	39.17	5.32	-7.15	37.34	Average Max	H	266	298	54	-16.66	Pass
10360.17	40.49	6	-3.87	42.62	Average Max	H	232	47	54	-11.38	Pass
13689.86	33.33	7.1	-1.54	38.89	Average Max	V	166	156	54	-15.11	Pass

1GHz-40GHz – 802.11ax-20M – 5200MHz

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
7623.57	51.43	5.17	-7.39	49.21	Peak Max	H	272	298	74	-24.79	Pass
10399.79	54.53	6.02	-3.85	56.7	Peak Max	V	225	43	74	-17.3	Pass
13290.85	46.39	7.01	-1.8	51.6	Peak Max	V	165	160	74	-22.4	Pass
7623.57	37.89	5.17	-7.39	35.67	Average Max	V	272	298	54	-18.33	Pass
10399.79	40.82	6.02	-3.85	42.99	Average Max	H	225	43	54	-11.01	Pass
13290.85	32.91	7.01	-1.8	38.12	Average Max	H	165	160	54	-15.88	Pass

1GHz-40GHz – 802.11ax-20M – 5240MHz

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
7465.03	51.69	5.13	-7.56	49.26	Peak Max	V	267	295	74	-24.74	Pass
10480.64	54.56	6.07	-3.82	56.81	Peak Max	H	226	45	74	-17.19	Pass
13539.55	47.28	7.06	-1.56	52.78	Peak Max	V	167	158	74	-21.22	Pass
7465.03	38.38	5.13	-7.56	35.95	Average Max	V	267	295	54	-18.05	Pass
10480.64	40.71	6.07	-3.82	42.96	Average Max	V	226	45	54	-11.04	Pass
13539.55	34.26	7.06	-1.56	39.76	Average Max	V	167	158	54	-14.24	Pass

1GHz-40GHz – 802.11ax-40M – 5190MHz

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	H	264	299	74	-24.75	Pass
10379.08	53.78	6.01	-3.86	55.93	Peak Max	V	228	45	74	-18.07	Pass
13894.41	46.67	7.22	-1.64	52.25	Peak Max	V	161	161	74	-21.75	Pass
7601.31	38.02	5.17	-7.46	35.73	Average Max	V	264	299	54	-18.27	Pass
10379.08	40.75	6.01	-3.86	42.9	Average Max	V	228	45	54	-11.1	Pass
13894.41	32.91	7.22	-1.64	38.49	Average Max	H	161	161	54	-15.51	Pass

1GHz-40GHz – 802.11ax-40M – 5230MHz

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
7434.68	51.55	5.14	-7.58	49.11	Peak Max	H	265	303	74	-24.89	Pass
10460.31	54.79	6.06	-3.83	57.02	Peak Max	H	225	47	74	-16.98	Pass
13944.77	48.35	7.25	-1.6	54	Peak Max	V	162	157	74	-20	Pass
7434.68	37.98	5.14	-7.58	35.54	Average Max	V	265	303	54	-18.46	Pass
10460.31	41.08	6.06	-3.83	43.31	Average Max	H	225	47	54	-10.69	Pass
13944.77	35	7.25	-1.6	40.65	Average Max	H	162	157	54	-13.35	Pass

1GHz-40GHz – 802.11ax-80M – 5210MHz

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
7170.48	51.33	5.13	-7.74	48.72	Peak Max	V	264	296	74	-25.28	Pass
10419.77	53.98	6.04	-3.85	56.17	Peak Max	V	234	50	74	-17.83	Pass
13854.27	46.63	7.19	-1.67	52.15	Peak Max	V	161	158	74	-21.85	Pass
7170.48	37.75	5.13	-7.74	35.14	Average Max	H	264	296	54	-18.86	Pass
10419.77	40.4	6.04	-3.85	42.59	Average Max	H	234	50	54	-11.41	Pass
13854.27	32.73	7.19	-1.67	38.25	Average Max	V	161	158	54	-15.75	Pass

1GHz-40GHz – 802.11a – 5745MHz

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
7276.41	51.54	5.16	-7.69	49.01	Peak Max	V	267	296	74	-24.99	Pass
11490.71	55.02	6.07	-2.79	58.3	Peak Max	V	228	43	74	-15.7	Pass
13506.82	45.9	7.05	-1.58	51.37	Peak Max	V	167	159	74	-22.63	Pass
7276.41	38.09	5.16	-7.69	35.56	Average Max	V	267	296	54	-18.44	Pass
11490.71	41.39	6.07	-2.79	44.67	Average Max	V	228	43	54	-9.33	Pass
13506.82	32.13	7.05	-1.58	37.6	Average Max	V	167	159	54	-16.4	Pass

1GHz-40GHz - 802.11a– 5785MHz

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
7236.39	51.21	5.16	-7.72	48.65	Peak Max	V	270	295	74	-25.35	Pass
11569.20	54.4	6.13	-2.68	57.85	Peak Max	V	232	42	74	-16.15	Pass
13624.37	46.23	7.08	-1.52	51.79	Peak Max	V	162	159	74	-22.21	Pass
7236.39	37.77	5.16	-7.72	35.21	Average Max	H	270	295	54	-18.79	Pass
11569.20	41.29	6.13	-2.68	44.74	Average Max	H	232	42	54	-9.26	Pass
13624.37	32.66	7.08	-1.52	38.22	Average Max	H	162	159	54	-15.78	Pass

1GHz-40GHz - 802.11a - 5825MHz

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
7223.32	52.2	5.15	-7.72	49.63	Peak Max	V	264	300	74	-24.37	Pass
11650.43	55.37	6.2	-2.52	59.05	Peak Max	H	227	42	74	-14.95	Pass
13745.85	46.09	7.12	-1.61	51.6	Peak Max	H	166	159	74	-22.4	Pass
7223.32	38.77	5.15	-7.72	36.2	Average Max	V	264	300	54	-17.8	Pass
11650.43	41.97	6.2	-2.52	45.65	Average Max	H	227	42	54	-8.35	Pass
13745.85	32.79	7.12	-1.61	38.3	Average Max	V	166	159	54	-15.7	Pass

1GHz-40GHz – 802.11ax-20M – 5745MHz

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
7012.26	51.27	5.08	-7.81	48.54	Peak Max	H	264	296	74	-25.46	Pass
11490.54	55.04	6.07	-2.79	58.32	Peak Max	V	227	41	74	-15.68	Pass
13834.72	47.42	7.18	-1.69	52.91	Peak Max	H	161	155	74	-21.09	Pass
7012.26	37.82	5.08	-7.81	35.09	Average Max	H	264	296	54	-18.91	Pass
11490.54	41.71	6.07	-2.79	44.99	Average Max	V	227	41	54	-9.01	Pass
13834.72	34.08	7.18	-1.69	39.57	Average Max	H	161	155	54	-14.43	Pass

1GHz-40GHz - 802.11ax-20M– 5785MHz

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
7891.31	50.61	5.34	-7.13	48.82	Peak Max	H	264	295	74	-25.18	Pass
11569.93	54.35	6.13	-2.68	57.8	Peak Max	H	225	43	74	-16.2	Pass
13070.20	46.57	6.93	-1.75	51.75	Peak Max	H	167	157	74	-22.25	Pass
7891.31	37.35	5.34	-7.13	35.56	Average Max	V	264	295	54	-18.44	Pass
11569.93	41.27	6.13	-2.68	44.72	Average Max	V	225	43	54	-9.28	Pass
13070.20	33.3	6.93	-1.75	38.48	Average Max	H	167	157	54	-15.52	Pass

1GHz-40GHz - 802.11ax-20M - 5825MHz

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
7315.81	52.37	5.15	-7.66	49.86	Peak Max	V	273	304	74	-24.14	Pass
11650.91	55.38	6.2	-2.52	59.06	Peak Max	V	234	47	74	-14.94	Pass
13444.18	46.62	7.04	-1.61	52.05	Peak Max	V	166	162	74	-21.95	Pass
7315.81	39.03	5.15	-7.66	36.52	Average Max	V	273	304	54	-17.48	Pass
11650.91	41.67	6.2	-2.52	45.35	Average Max	H	234	47	54	-8.65	Pass
13444.18	32.79	7.04	-1.61	38.22	Average Max	H	166	162	54	-15.78	Pass

1GHz-40GHz – 802.11ax-40M – 5755MHz

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
7741.38	53.13	5.22	-7.26	51.09	Peak Max	H	268	299	74	-22.91	Pass
11509.56	55.24	6.08	-2.77	58.55	Peak Max	H	234	46	74	-15.45	Pass
13443.36	46.64	7.04	-1.61	52.07	Peak Max	H	164	153	74	-21.93	Pass
7741.38	39.27	5.22	-7.26	37.23	Average Max	H	268	299	54	-16.77	Pass
11509.56	42.17	6.08	-2.77	45.48	Average Max	H	234	46	54	-8.52	Pass
13443.36	33.25	7.04	-1.61	38.68	Average Max	H	164	153	54	-15.32	Pass

1GHz-40GHz - 802.11ax-40M– 5795MHz

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
7719.31	51.2	5.21	-7.27	49.14	Peak Max	H	266	297	74	-24.86	Pass
11590.45	56.19	6.15	-2.65	59.69	Peak Max	H	229	50	74	-14.31	Pass
13216.93	46.92	6.99	-1.9	52.01	Peak Max	H	161	158	74	-21.99	Pass
7719.31	37.77	5.21	-7.27	35.71	Average Max	V	266	297	54	-18.29	Pass
11590.45	43.11	6.15	-2.65	46.61	Average Max	V	229	50	54	-7.39	Pass
13216.93	33.37	6.99	-1.9	38.46	Average Max	V	161	158	54	-15.54	Pass

1GHz-40GHz - 802.11ax-80M - 5775MHz

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
7904.10	51.21	5.35	-7.11	49.45	Peak Max	V	264	300	74	-24.55	Pass
11549.63	54.85	6.11	-2.71	58.25	Peak Max	H	233	50	74	-15.75	Pass
13352.28	46.55	7.02	-1.7	51.87	Peak Max	V	170	154	74	-22.13	Pass
7904.10	38.08	5.35	-7.11	36.32	Average Max	H	264	300	54	-17.68	Pass
11549.63	41.17	6.11	-2.71	44.57	Average Max	H	233	50	54	-9.43	Pass
13352.28	32.64	7.02	-1.7	37.96	Average Max	V	170	154	54	-16.04	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