Emission below 1GHz

2.4GHz WIFI 802.11g (LF)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
2.4GHz 802.11g LF		62.01	27.41	-12.59	40	49.73	11.85	1.54	35.71	-	-	P	H
		197.81	26.14	-17.36	43.5	43.99	15.01	2.63	35.49	-	-	P	H
		354.95	31.88	-14.12	46	42.9	20.62	3.48	35.12	-	-	P	H
		526.64	31.8	-14.2	46	38.18	24.04	4.26	34.68	-	-	P	H
		593.57	32.53	-13.47	46	36.76	25.71	4.53	34.47	-	-	P	H
		950.53	35.63	-10.37	46	32.3	30.76	5.7	33.13	-	-	P	H
													H
													H
													H
													H
													H
													H
		34.85	29.99	-10.01	40	42.13	22.38	1.24	35.76	-	-	P	V
		62.01	27.03	-12.97	40	49.35	11.85	1.54	35.71	-	-	P	V
		258.92	23.58	-22.42	46	36	19.96	3	35.38	-	-	P	V
		353.98	26.71	-19.29	46	37.78	20.58	3.48	35.13	-	-	P	V
		442.25	29.3	-16.7	46	37.32	23.01	3.89	34.92	-	-	P	V
		957.32	36.29	-9.71	46	32.59	31.09	5.72	33.11	-	-	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line. 3. The emission position marked as "-" means no suspected emission found and emission level has at least 6dB margin against limit or emission is noise floor only.												

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 Full (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 Full CH 01 2412MHz		2387.7	68.82	-5.18	74	58.87	27.38	18.63	36.06	155	162	P	H
		2390	52.16	-1.84	54	42.21	27.38	18.63	36.06	155	162	A	H
	*	2412	112.6	-	-	102.54	27.45	18.67	36.06	155	162	P	H
	*	2412	102.94	-	-	92.88	27.45	18.67	36.06	155	162	A	H
													H
													H
		2390	65.56	-8.44	74	55.61	27.38	18.63	36.06	318	172	P	V
		2390	50.6	-3.4	54	40.65	27.38	18.63	36.06	318	172	A	V
	*	2412	108.58	-	-	98.52	27.45	18.67	36.06	318	172	P	V
	*	2412	100.06	-	-	90	27.45	18.67	36.06	318	172	A	V
													V
													V
802.11ax HE20 Full CH 06 2437MHz		2389.84	53.57	-20.43	74	43.62	27.38	18.63	36.06	299	119	P	H
		2389.84	40.04	-13.96	54	30.09	27.38	18.63	36.06	299	119	A	H
	*	2437	111.23	-	-	101.03	27.55	18.72	36.07	299	119	P	H
	*	2437	101.04	-	-	90.84	27.55	18.72	36.07	299	119	A	H
		2484.8	55.66	-18.34	74	45.19	27.74	18.82	36.09	299	119	P	H
		2483.84	40.68	-13.32	54	30.21	27.74	18.82	36.09	299	119	A	H
		2382.96	52.6	-21.4	74	42.66	27.37	18.62	36.05	295	179	P	V
		2389.68	39.68	-14.32	54	29.73	27.38	18.63	36.06	295	179	A	V
	*	2437	109.8	-	-	99.6	27.55	18.72	36.07	295	179	P	V
	*	2437	100.96	-	-	90.76	27.55	18.72	36.07	295	179	A	V
		2485.12	53.83	-20.17	74	43.36	27.74	18.82	36.09	295	179	P	V
		2483.6	40.08	-13.92	54	29.62	27.73	18.82	36.09	295	179	A	V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 Full CH 11 2462MHz	*	2462	111.86	-	-	101.52	27.65	18.77	36.08	151	158	P	H
	*	2462	102.39	-	-	92.05	27.65	18.77	36.08	151	158	A	H
		2484.88	68.47	-5.53	74	58	27.74	18.82	36.09	151	158	P	H
		2483.52	51.25	-2.75	54	40.79	27.73	18.82	36.09	151	158	A	H
													H
													H
	*	2462	108.42	-	-	98.08	27.65	18.77	36.08	300	187	P	V
	*	2462	99.5	-	-	89.16	27.65	18.77	36.08	300	187	A	V
		2483.52	66.47	-7.53	74	56.01	27.73	18.82	36.09	300	187	P	V
		2483.52	48.51	-5.49	54	38.05	27.73	18.82	36.09	300	187	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11 ax HE20 Full (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		4824	43.15	-30.85	74	34.98	32.44	12.95	37.22	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 01		4824	44.02	-29.98	74	35.85	32.44	12.95	37.22	-	-	P	V
2412MHz													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Margin (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		4874	44.21	-29.79	74	35.73	32.65	13.09	37.26	-	-	P	H
		7311	48.34	-25.66	74	33.77	36.86	15.88	38.17	300	227	P	H
		7311	38.63	-15.37	54	24.06	36.86	15.88	38.17	300	227	A	H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 06		4874	43.81	-30.19	74	35.33	32.65	13.09	37.26	-	-	P	V
2437MHz		7311	49.14	-24.86	74	34.57	36.86	15.88	38.17	150	78	P	V
		7311	38.61	-15.39	54	24.04	36.86	15.88	38.17	150	78	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		4924	44.06	-29.94	74	35.33	32.8	13.23	37.3	-	-	P	H
		7386	47.75	-26.25	74	33.43	36.56	15.98	38.22	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 11		4924	44.35	-29.65	74	35.62	32.8	13.23	37.3	-	-	P	V
2462MHz		7386	48.14	-25.86	74	33.82	36.56	15.98	38.22	300	103	P	V
		7386	38.1	-15.9	54	23.78	36.56	15.98	38.22	300	103	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE40 Full (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Full CH 03 2422MHz		2389.84	64.43	-9.57	74	54.48	27.38	18.63	36.06	155	159	P	H
		2386.96	52.79	-1.21	54	42.86	27.37	18.62	36.06	155	159	A	H
	*	2422	107.55	-	-	97.44	27.49	18.69	36.07	155	159	P	H
	*	2422	97.85	-	-	87.74	27.49	18.69	36.07	155	159	A	H
		2486.08	51.55	-22.45	74	41.08	27.74	18.82	36.09	155	159	P	H
		2490.08	42.37	-11.63	54	31.87	27.76	18.83	36.09	155	159	A	H
		2389.68	59.95	-14.05	74	50	27.38	18.63	36.06	325	172	P	V
		2386.96	50.86	-3.14	54	40.93	27.37	18.62	36.06	325	172	A	V
	*	2422	103.88	-	-	93.77	27.49	18.69	36.07	325	172	P	V
	*	2422	93.63	-	-	83.52	27.49	18.69	36.07	325	172	A	V
		2487.44	50.87	-23.13	74	40.39	27.75	18.82	36.09	325	172	P	V
		2497.28	41.31	-12.69	54	30.77	27.79	18.84	36.09	325	172	A	V
802.11ax HE40 Full CH 06 2437MHz		2388.4	59.3	-14.7	74	49.35	27.38	18.63	36.06	301	118	P	H
		2390	47.73	-6.27	54	37.78	27.38	18.63	36.06	301	118	A	H
	*	2437	107.4	-	-	97.2	27.55	18.72	36.07	301	118	P	H
	*	2437	98.2	-	-	88	27.55	18.72	36.07	301	118	A	H
		2483.76	63.46	-10.54	74	52.99	27.74	18.82	36.09	301	118	P	H
		2483.84	49.34	-4.66	54	38.87	27.74	18.82	36.09	301	118	A	H
		2390	60.28	-13.72	74	50.33	27.38	18.63	36.06	297	173	P	V
		2389.36	47.3	-6.7	54	37.35	27.38	18.63	36.06	297	173	A	V
	*	2437	106.31	-	-	96.11	27.55	18.72	36.07	297	173	P	V
	*	2437	96.88	-	-	86.68	27.55	18.72	36.07	297	173	A	V
		2486.96	59.4	-14.6	74	48.92	27.75	18.82	36.09	297	173	P	V
		2484.64	46.69	-7.31	54	36.22	27.74	18.82	36.09	297	173	A	V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Full CH 09 2452MHz		2382.32	54.49	-19.51	74	44.56	27.36	18.62	36.05	144	159	P	H
		2387.28	42.86	-11.14	54	32.92	27.37	18.63	36.06	144	159	A	H
	*	2452	108.67	-	-	98.39	27.61	18.75	36.08	144	159	P	H
	*	2452	98.51	-	-	88.23	27.61	18.75	36.08	144	159	A	H
		2484.48	64.34	-9.66	74	53.87	27.74	18.82	36.09	144	159	P	H
		2485.52	52.33	-1.67	54	41.86	27.74	18.82	36.09	144	159	A	H
		2386	50.29	-23.71	74	40.36	27.37	18.62	36.06	298	185	P	V
		2388.4	41.2	-12.8	54	31.25	27.38	18.63	36.06	298	185	A	V
	*	2452	104.63	-	-	94.35	27.61	18.75	36.08	298	185	P	V
	*	2452	95.6	-	-	85.32	27.61	18.75	36.08	298	185	A	V
		2486.72	61.61	-12.39	74	51.13	27.75	18.82	36.09	298	185	P	V
		2485.68	49.8	-4.2	54	39.33	27.74	18.82	36.09	298	185	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11 ax HE40 Full (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		4844	44.05	-29.95	74	35.72	32.56	13	37.23	-	-	P	H
		7266	48.36	-25.64	74	33.71	36.97	15.82	38.14	350	65	P	H
		7266	39.82	-14.18	54	25.17	36.97	15.82	38.14	350	65	A	H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE40 Full													H
CH 03		4844	43.48	-30.52	74	35.15	32.56	13	37.23	-	-	P	V
2422MHz		7266	48.24	-25.76	74	33.59	36.97	15.82	38.14	300	231	P	V
		7266	39.8	-14.2	54	25.15	36.97	15.82	38.14	300	231	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		4874	44.05	-29.95	74	35.57	32.65	13.09	37.26	-	-	P	H
		7311	48.9	-25.1	74	34.33	36.86	15.88	38.17	200	79	P	H
		7311	39.68	-14.32	54	25.11	36.86	15.88	38.17	200	79	A	H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE40 Full													H
CH 06		4874	44.88	-29.12	74	36.4	32.65	13.09	37.26	-	-	P	V
2437MHz		7311	48.54	-25.46	74	33.97	36.86	15.88	38.17	400	334	P	V
		7311	39.64	-14.36	54	25.07	36.86	15.88	38.17	400	334	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		4904	44.9	-29.1	74	36.29	32.72	13.18	37.29	-	-	P	H
		7356	48.57	-25.43	74	34.16	36.68	15.93	38.2	350	197	P	H
		7356	39.42	-14.58	54	25.01	36.68	15.93	38.2	350	197	A	H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE40 Full													H
CH 09		4904	44.82	-29.18	74	36.21	32.72	13.18	37.29	-	-	P	V
2452MHz		7356	49.3	-24.7	74	34.89	36.68	15.93	38.2	350	348	P	V
		7356	39.38	-14.62	54	24.97	36.68	15.93	38.2	350	348	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Emission above 18GHz

2.4GHz WIFI 802.11ax HE40 (SHF)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
2.4GHz 802.11ax HE40 SHF		24804	42.4	-31.6	74	36.3	39.62	19.7	53.22	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		24972	42.79	-31.21	74	36.43	39.69	19.79	53.12	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line. 3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.												

Emission below 1GHz

2.4GHz WIFI 802.11ax HE40 (LF)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
2.4GHz 802.11ax HE40 LF		62.98	29.02	-10.98	40	51.34	11.86	1.54	35.72	-	-	P	H
		197.81	26.28	-17.22	43.5	44.13	15.01	2.63	35.49	-	-	P	H
		348.16	32.18	-13.82	46	43.5	20.38	3.45	35.15	-	-	P	H
		461.65	31.82	-14.18	46	39.34	23.39	3.97	34.88	-	-	P	H
		593.57	32.49	-13.51	46	36.72	25.71	4.53	34.47	-	-	P	H
		953.44	35.15	-10.85	46	31.65	30.91	5.71	33.12	-	-	P	H
													H
													H
													H
													H
													H
													H
		35.82	30.29	-9.71	40	42.98	21.83	1.24	35.76	-	-	P	V
		62.01	30.29	-9.71	40	52.61	11.85	1.54	35.71	-	-	P	V
		461.65	27.59	-18.41	46	35.11	23.39	3.97	34.88	-	-	P	V
		593.57	30.59	-15.41	46	34.82	25.71	4.53	34.47	-	-	P	V
		745.86	33.13	-12.87	46	34.06	27.95	5.03	33.91	-	-	P	V
		957.32	35.74	-10.26	46	32.04	31.09	5.72	33.11	-	-	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line. 3. The emission position marked as "-" means no suspected emission found and emission level has at least 6dB margin against limit or emission is noise floor only.												

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is **Margin** line.
P/A	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) =

Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

3. Margin (dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Margin (dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)

= 43.54 (dBμV/m)

2. Margin (dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

Both peak and average measured complies with the limit line, so test result is “PASS”.

Appendix C. Radiated Spurious Emission Plots

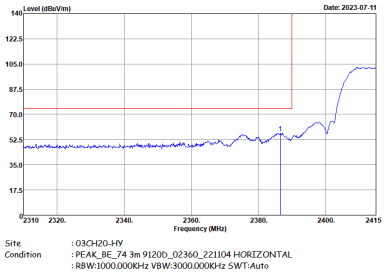
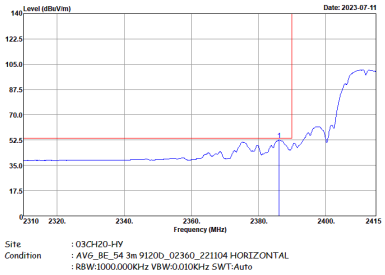
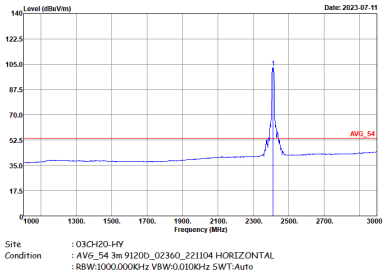
Test Engineer :	John Chuang, David Dai and Howard Huang	**Temperature :**	18.6~22.4°C
		Relative Humidity :	66.8~69.2%

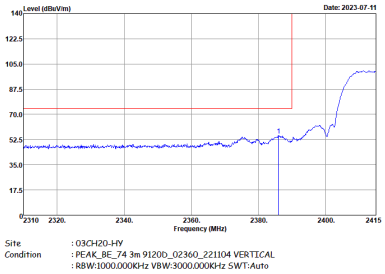
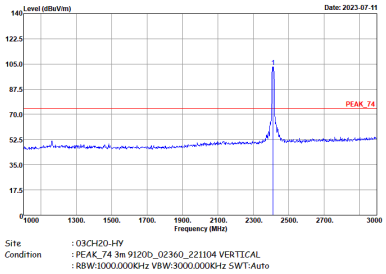
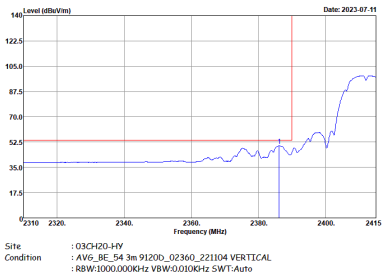
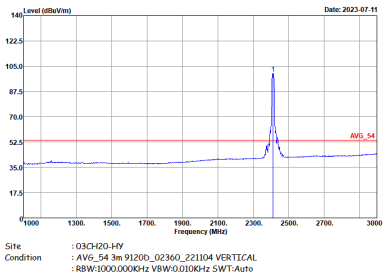
Note symbol

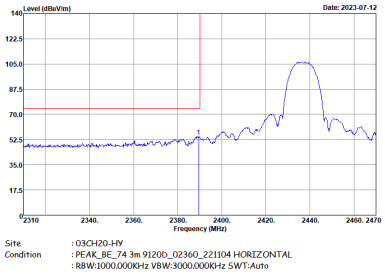
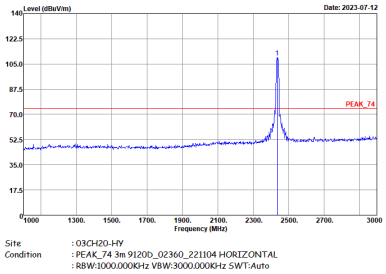
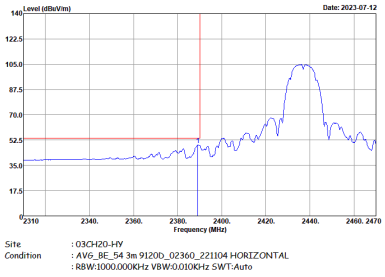
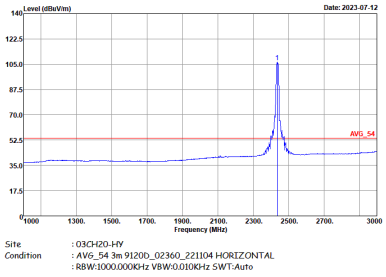
-L	**Low channel location**
-R	**High channel location**

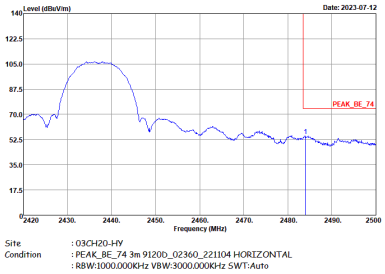
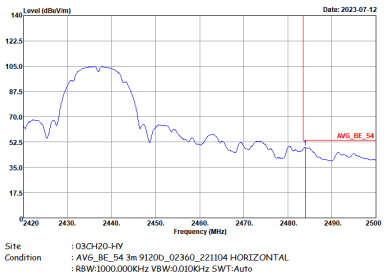
2.4GHz 2400~2483.5MHz

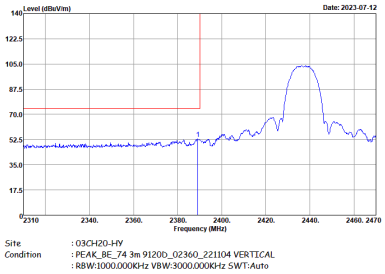
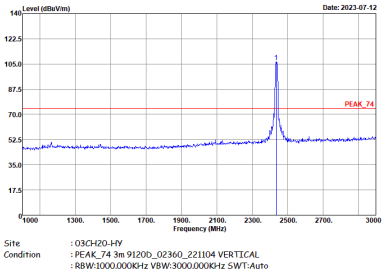
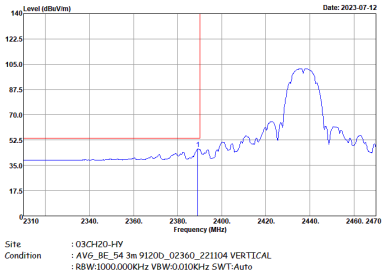
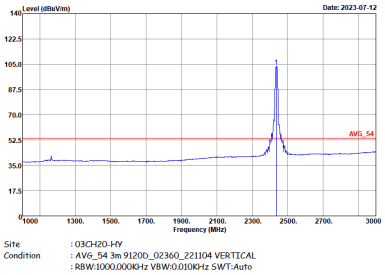
WIFI 802.11b (Band Edge @ 3m)

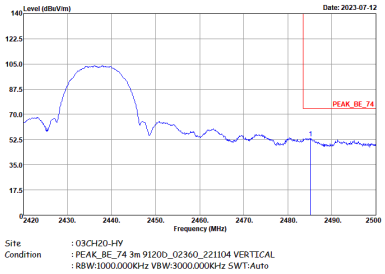
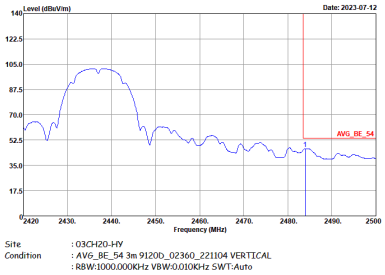
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		

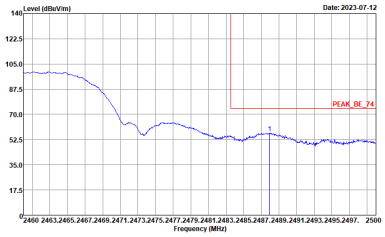
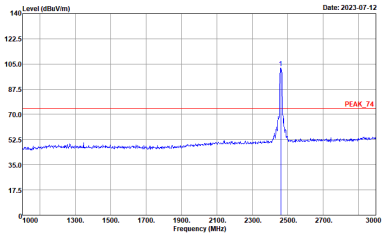
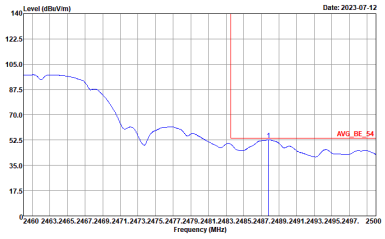
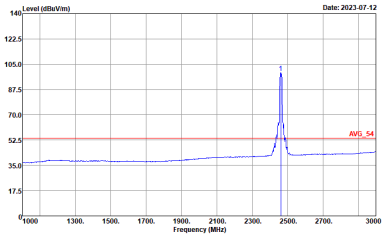
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Vertical	Fundamental
Peak		
Avg.		

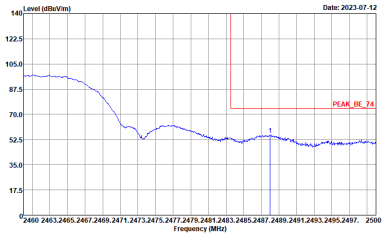
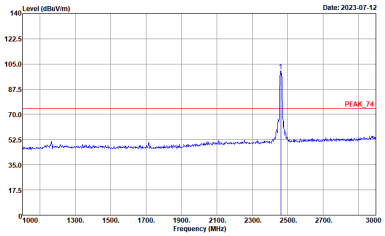
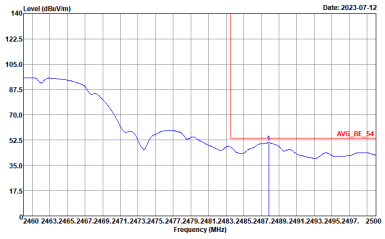
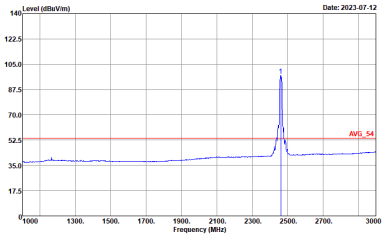
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		

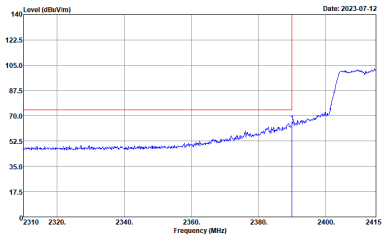
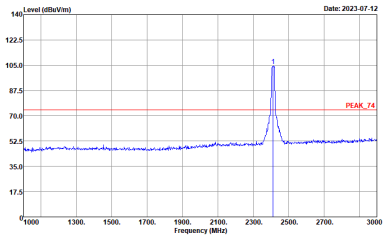
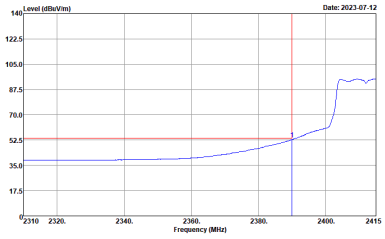
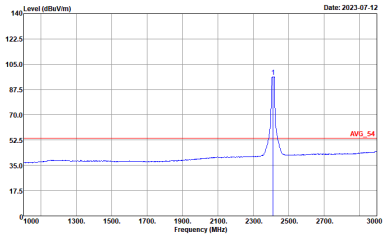
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

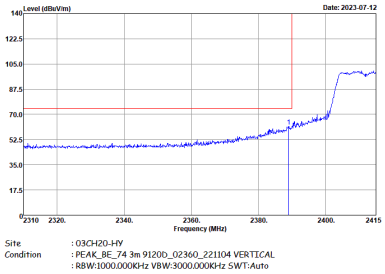
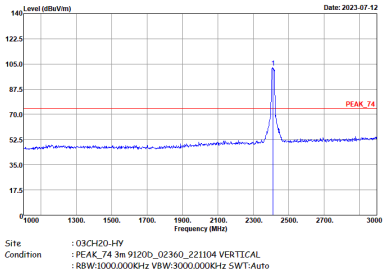
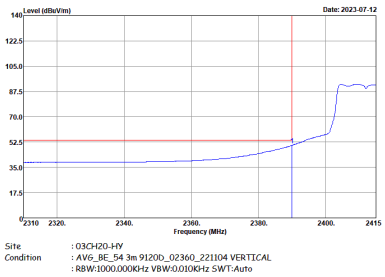
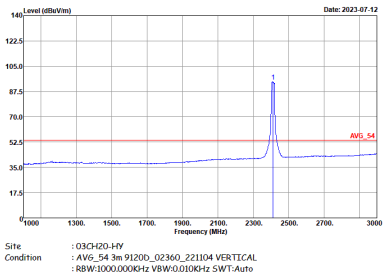
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE_74 3m 9120D_02360_221104 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK_74 3m 9120D_02360_221104 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH20-HY Condition : AVG_BE_54 3m 9120D_02360_221104 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH20-HY Condition : AVG_54 3m 9120D_02360_221104 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

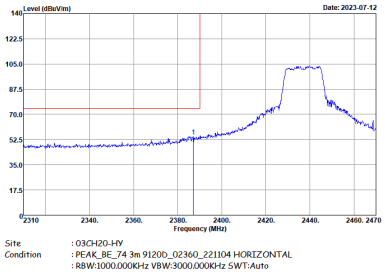
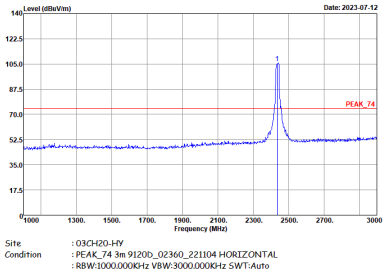
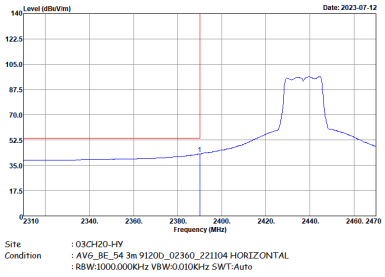
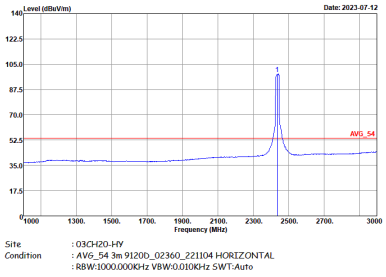
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE_74 3m 9120D_02360_221104 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK_74 3m 9120D_02360_221104 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH20-HY Condition : AVG_BE_54 3m 9120D_02360_221104 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH20-HY Condition : AVG_54 3m 9120D_02360_221104 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

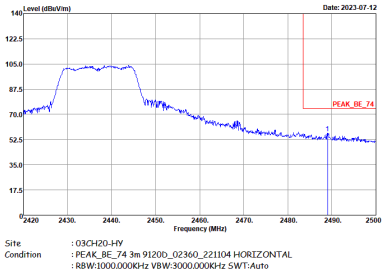
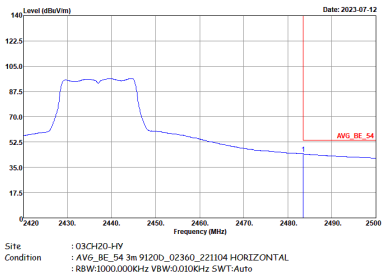
2.4GHz 2400~2483.5MHz

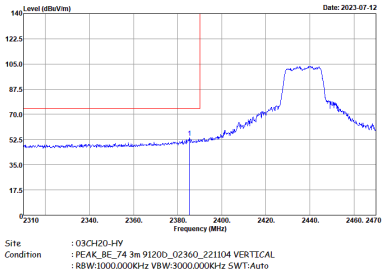
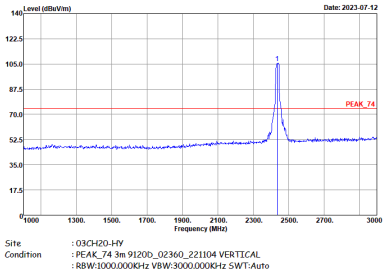
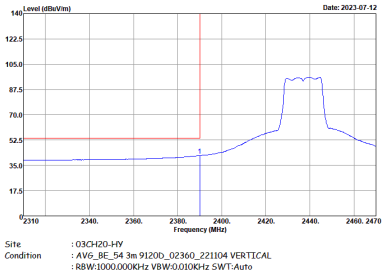
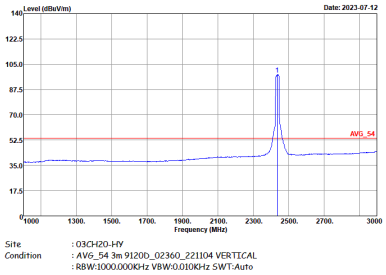
WIFI 802.11g (Band Edge @ 3m)

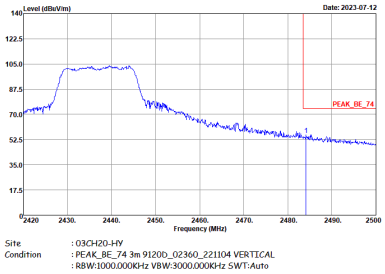
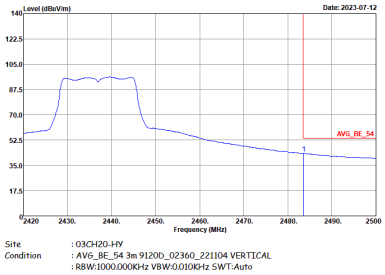
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

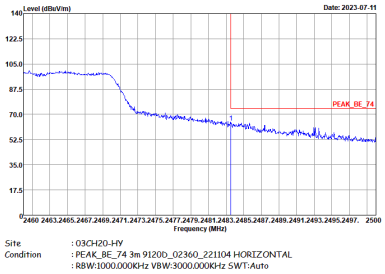
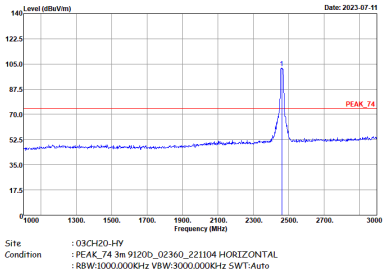
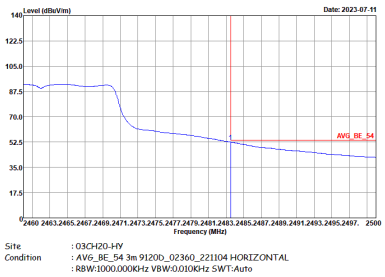
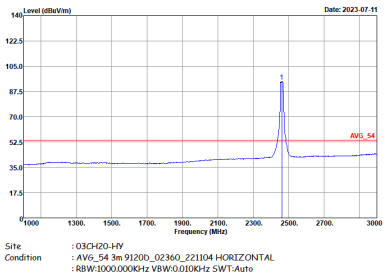
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Vertical	Fundamental
Peak		
Avg.		

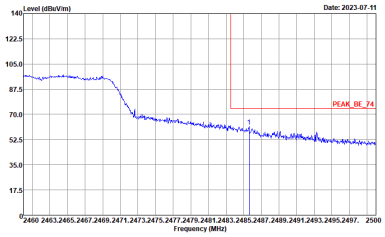
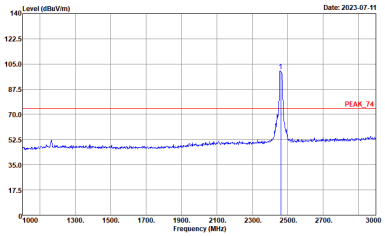
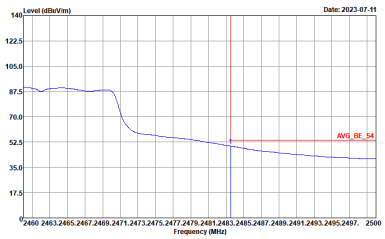
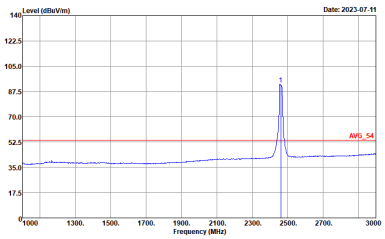
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		

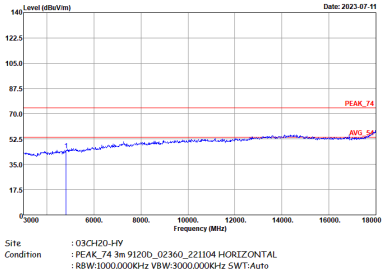
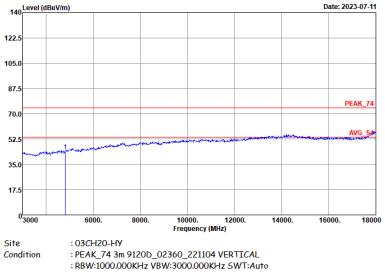
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Vertical	Fundamental
Peak		Left Blank
Avg.		Left Blank

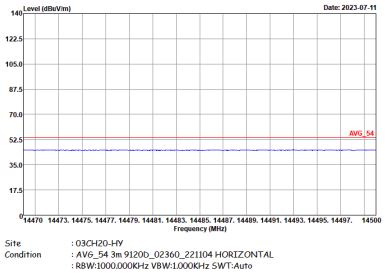
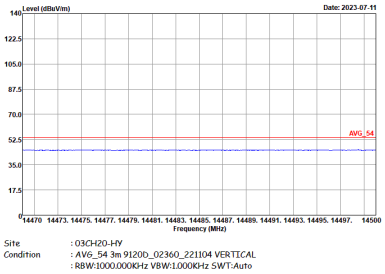
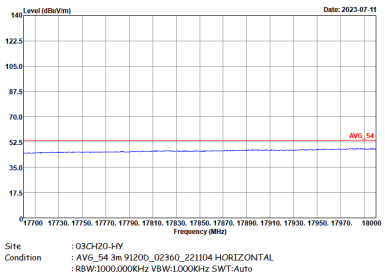
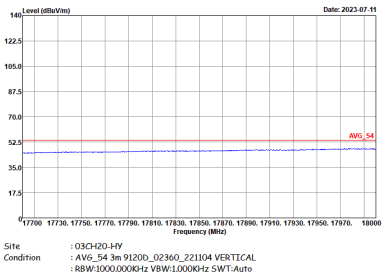
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

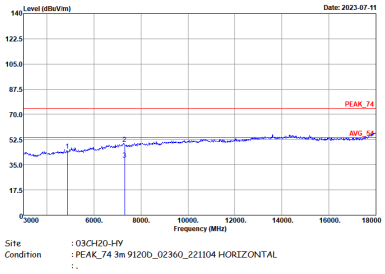
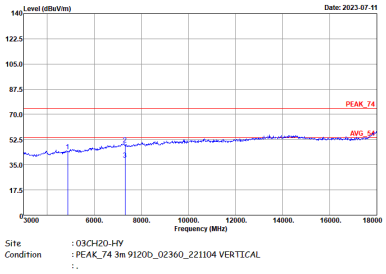
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE_74 3m 9120D_02360_221104 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK_74 3m 9120D_02360_221104 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH20-HY Condition : AVG_BE_54 3m 9120D_02360_221104 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH20-HY Condition : AVG_54 3m 9120D_02360_221104 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

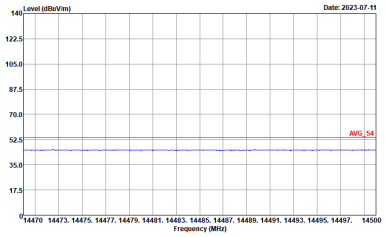
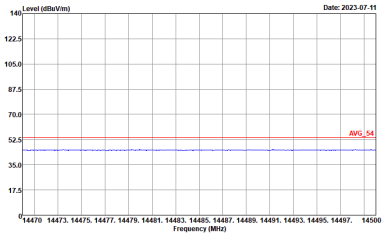
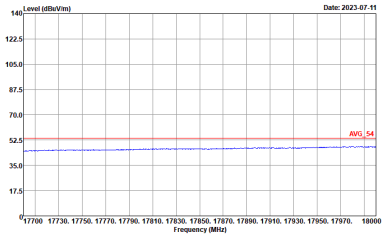
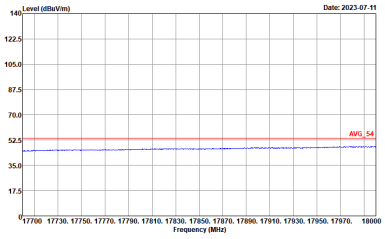
2.4GHz 2400~2483.5MHz

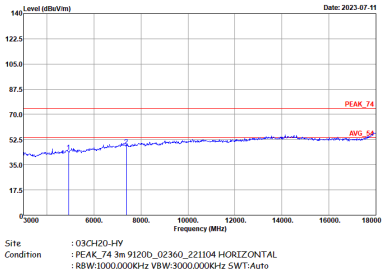
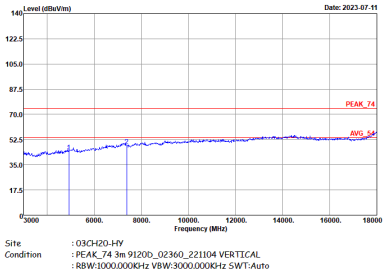
WIFI 802.11b (Harmonic @ 3m)

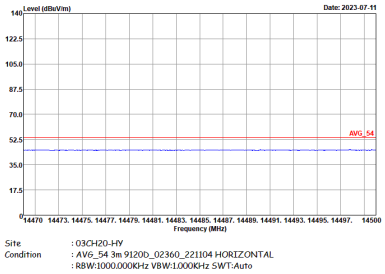
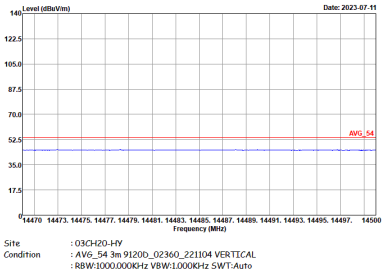
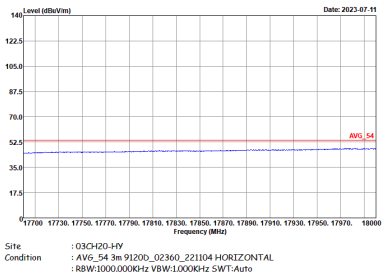
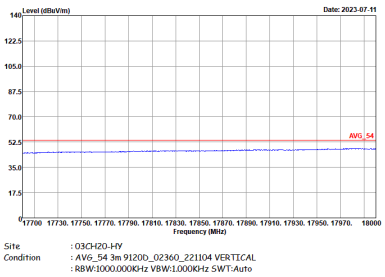
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

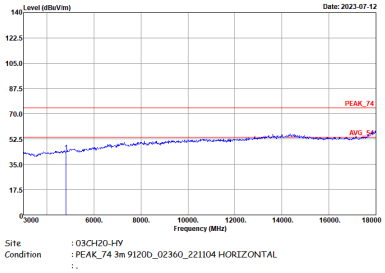
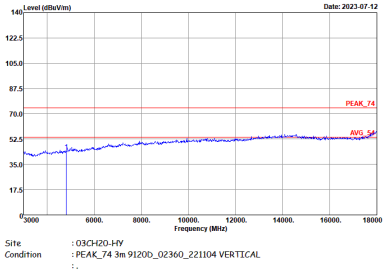
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.	 Site : 03CH20-HY Condition : AVG_54 3m 9120D_02360_221104 HORIZONTAL : .	 Site : 03CH20-HY Condition : AVG_54 3m 9120D_02360_221104 VERTICAL : .
17.7G ~18G Avg	 Site : 03CH20-HY Condition : AVG_54 3m 9120D_02360_221104 HORIZONTAL : .	 Site : 03CH20-HY Condition : AVG_54 3m 9120D_02360_221104 VERTICAL : .

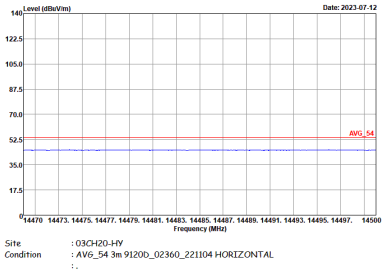
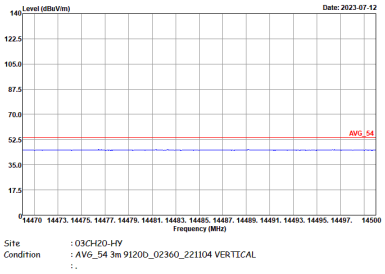
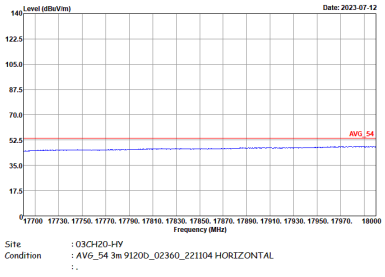
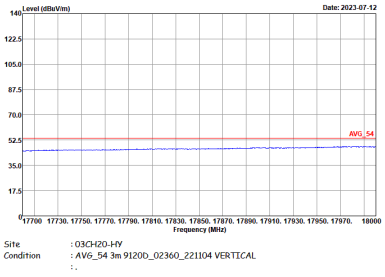
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.		

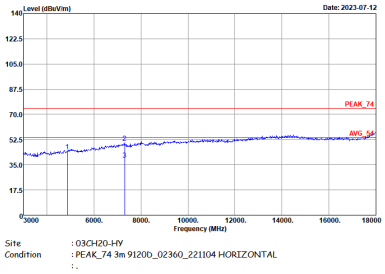
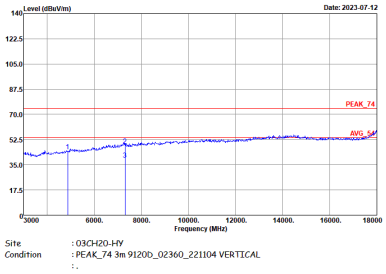
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

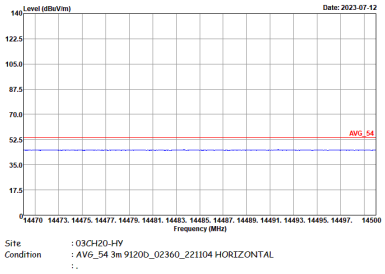
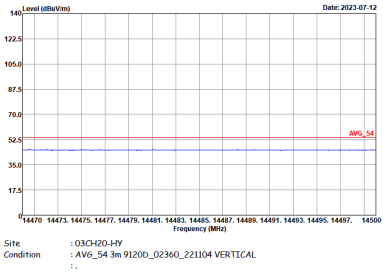
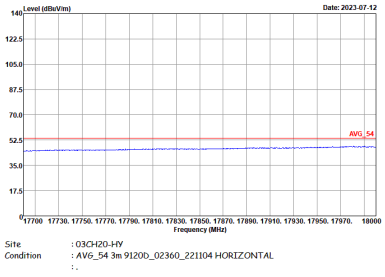
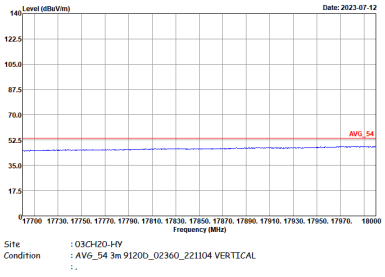
2.4GHz 2400~2483.5MHz

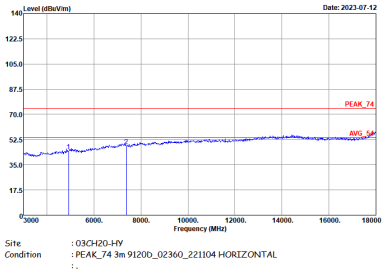
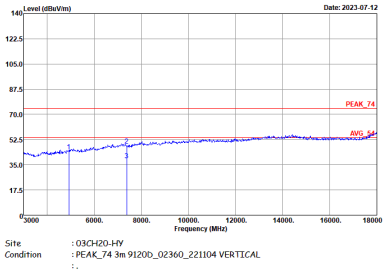
WIFI 802.11g (Harmonic @ 3m)

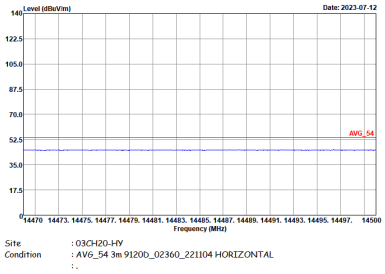
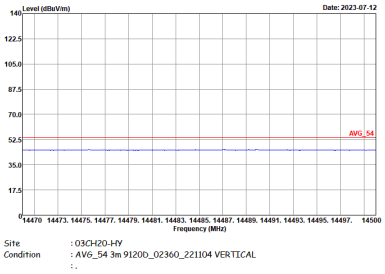
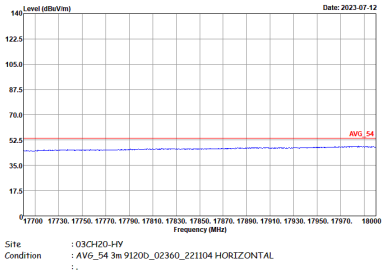
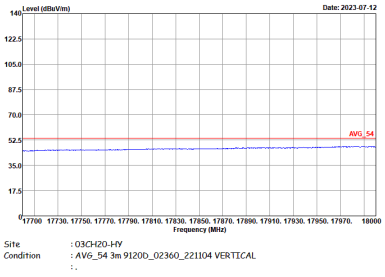
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

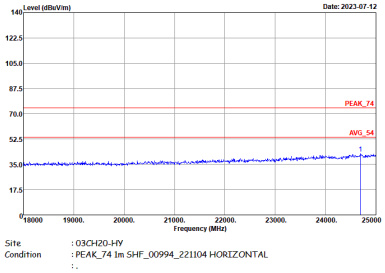
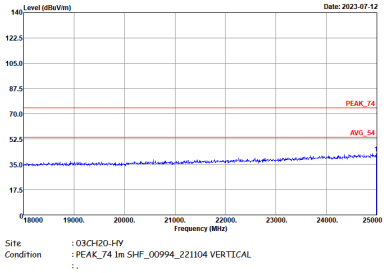
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

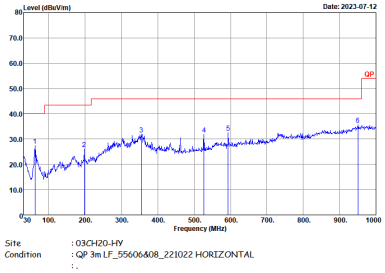
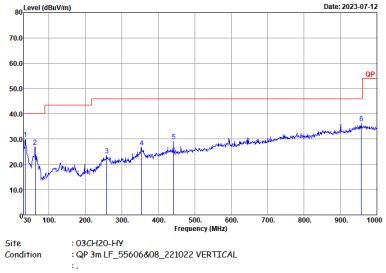
Emission above 18GHz

2.4GHz WIFI 802.11g (SHF @ 1m)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11g SHF	
1	Horizontal	Vertical
Peak Avg.		

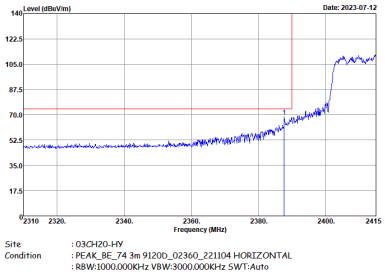
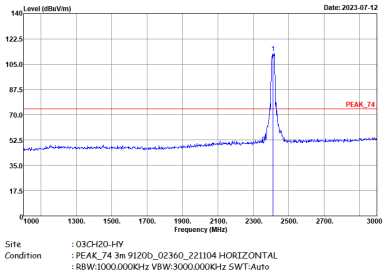
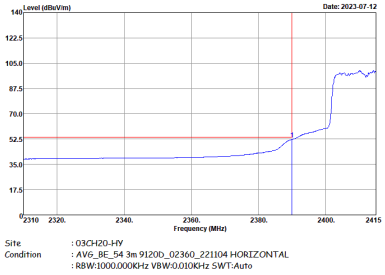
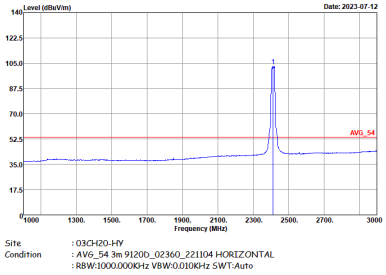
Emission below 1GHz

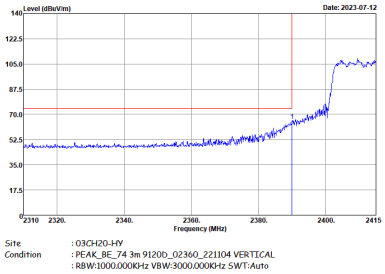
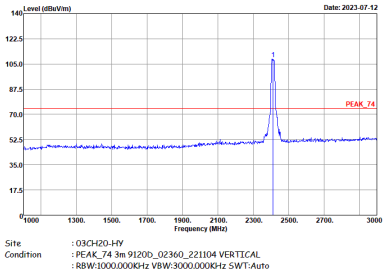
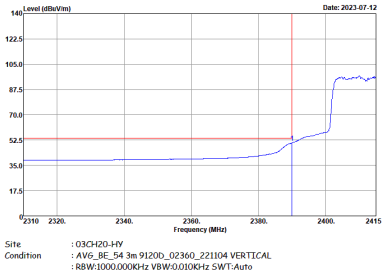
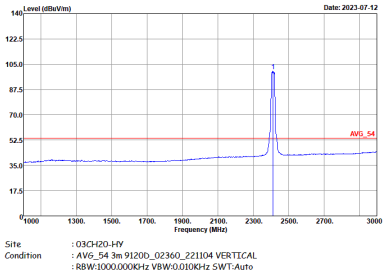
2.4GHz WIFI 802.11g (LF)

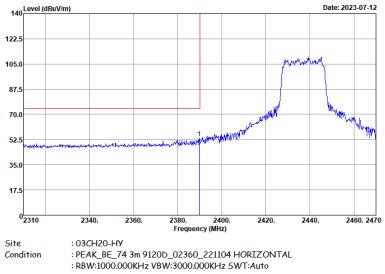
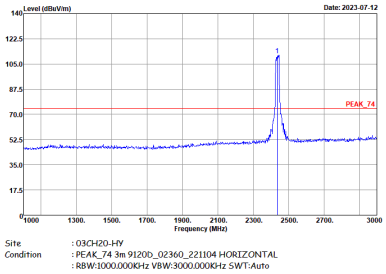
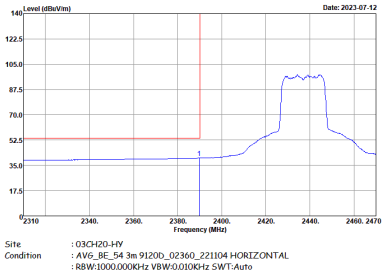
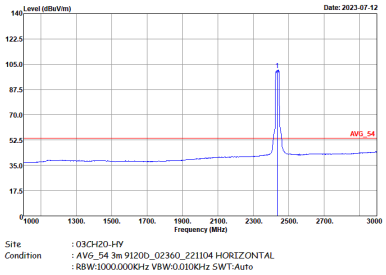
WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11g LF	
1	Horizontal	Vertical
QP / Peak		

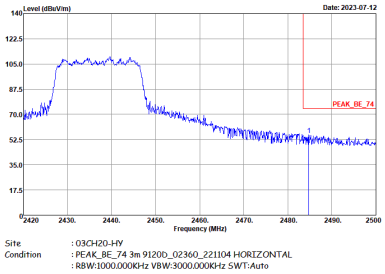
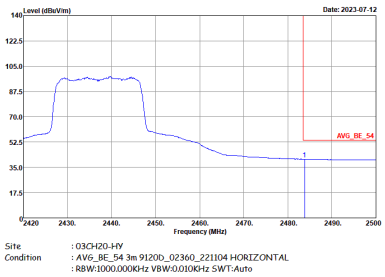
2.4GHz 2400~2483.5MHz

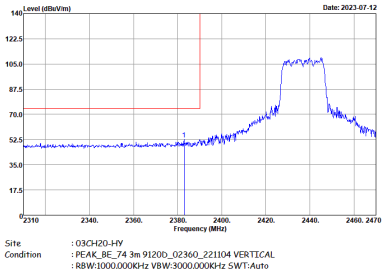
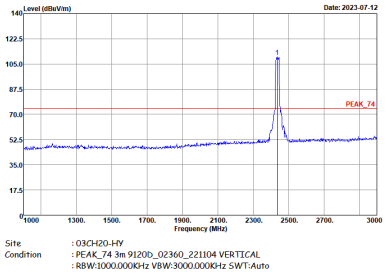
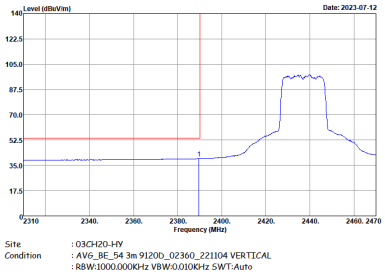
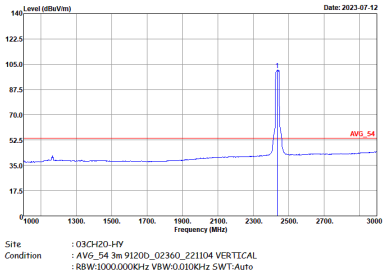
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

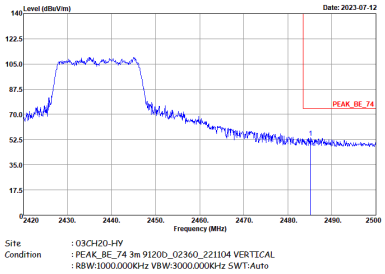
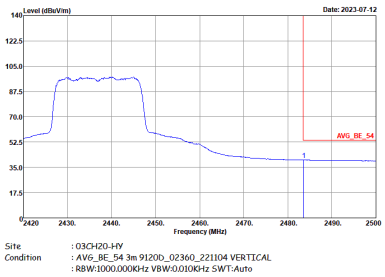
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH01 2412MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		

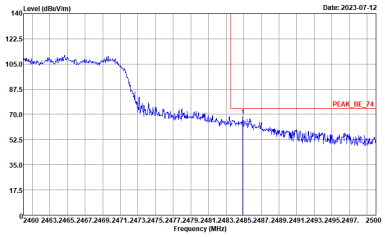
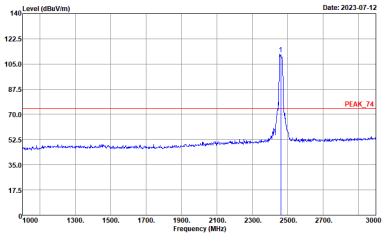
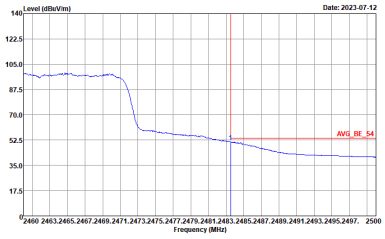
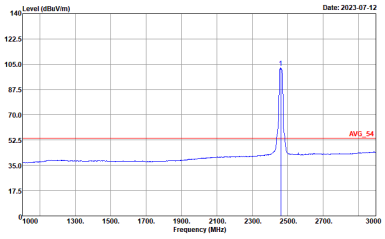
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH01 2412MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		

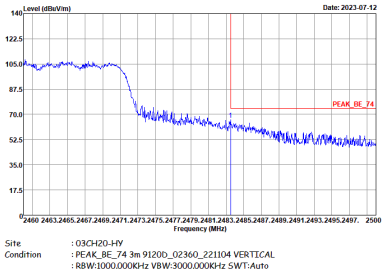
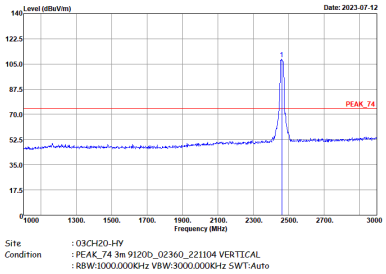
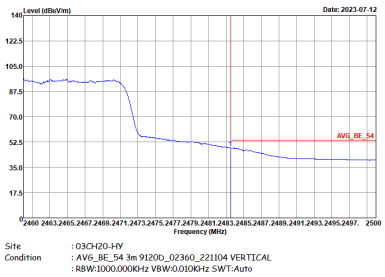
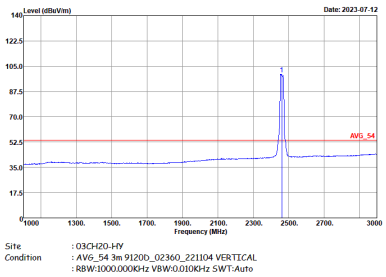
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH06 2437MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH06 2437MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH06 2437MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		

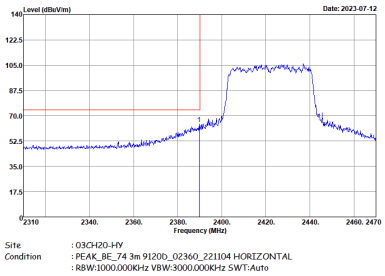
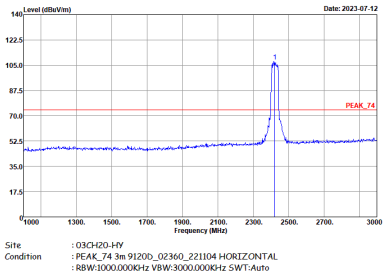
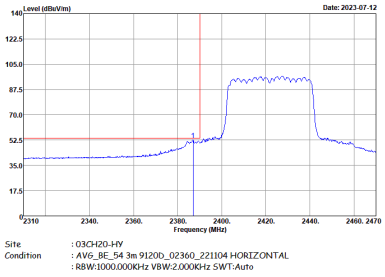
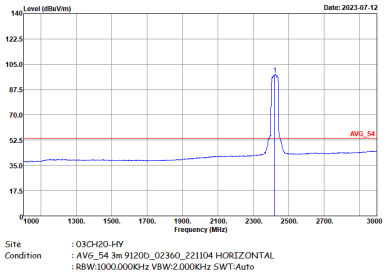
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH06 2437MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

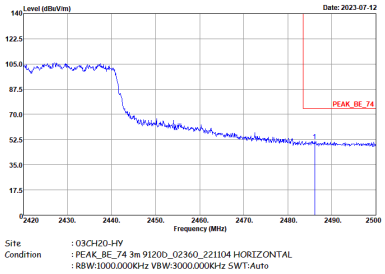
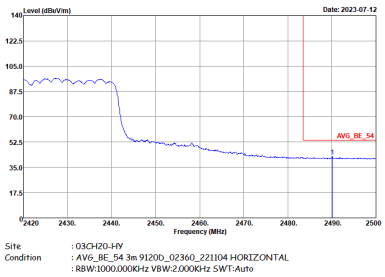
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH11 2462MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE_74 3m 9120D_02360_221104 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK_74 3m 9120D_02360_221104 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH20-HY Condition : AVG_BE_54 3m 9120D_02360_221104 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH20-HY Condition : AVG_54 3m 9120D_02360_221104 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

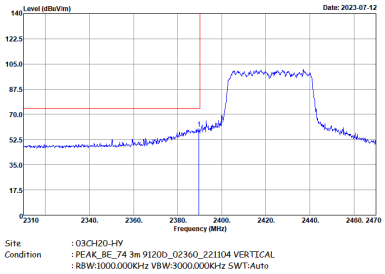
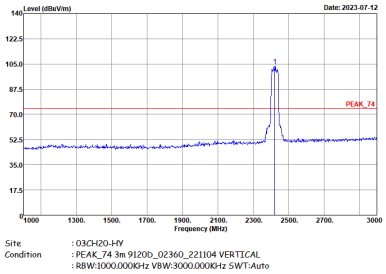
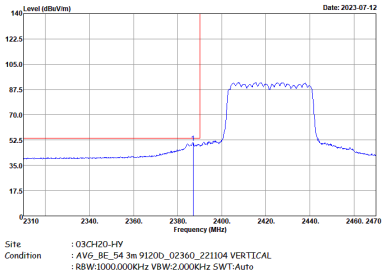
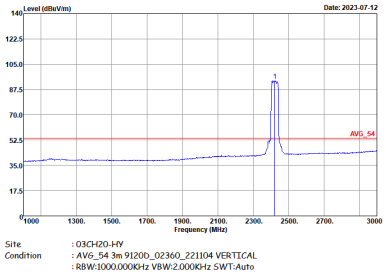
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH11 2462MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		

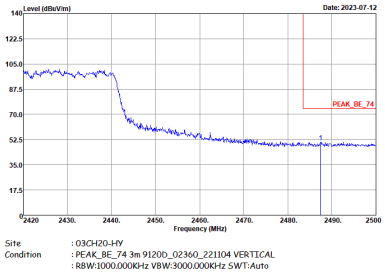
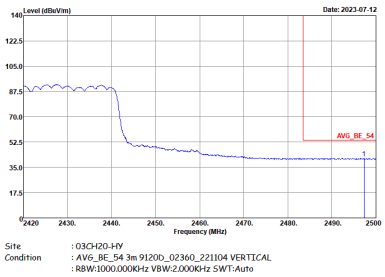
2.4GHz 2400~2483.5MHz

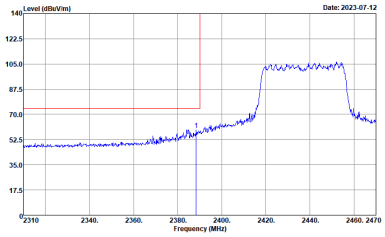
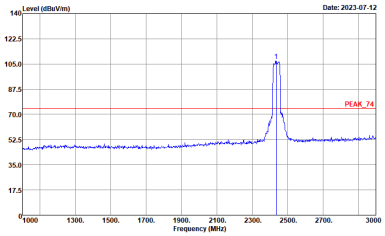
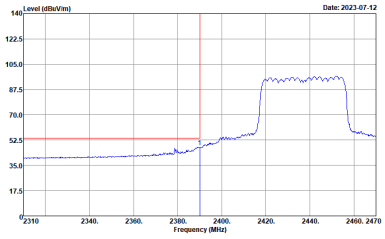
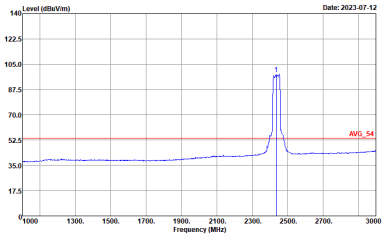
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

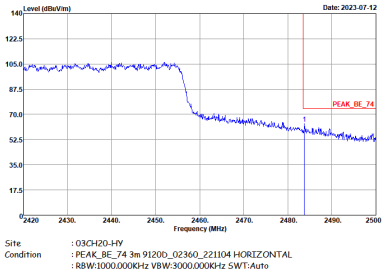
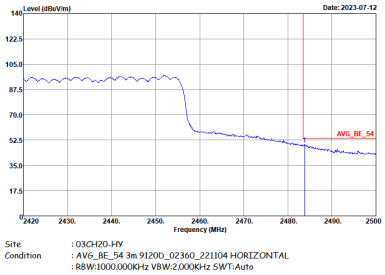
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH03 2422MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		

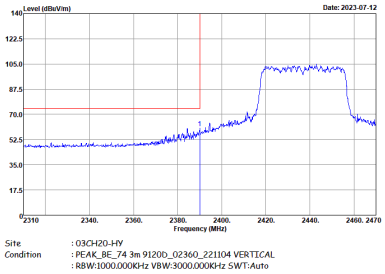
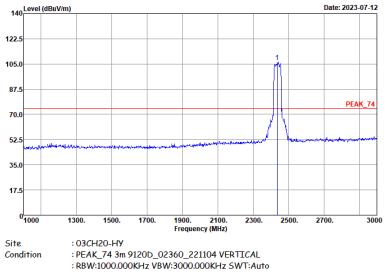
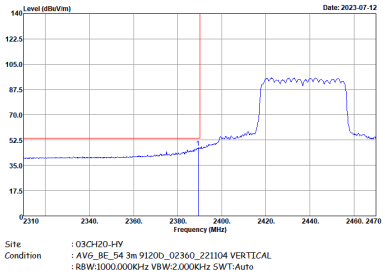
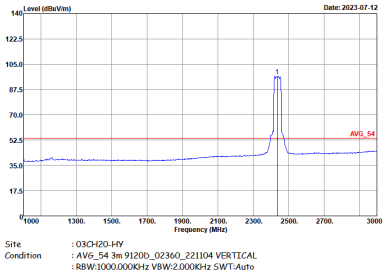
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH03 2422MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

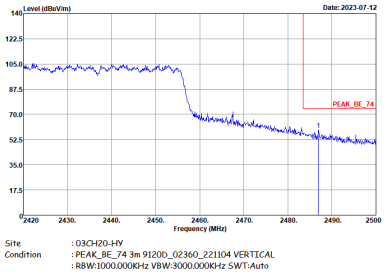
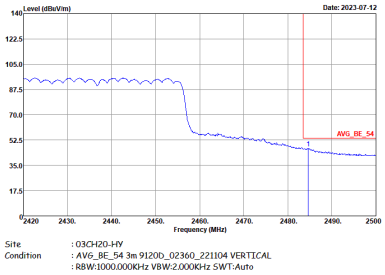
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH03 2422MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		

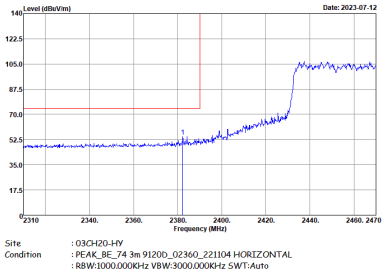
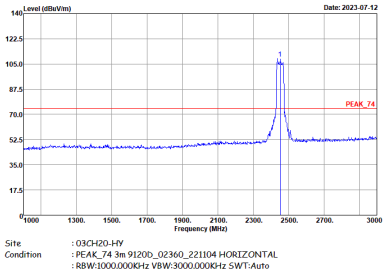
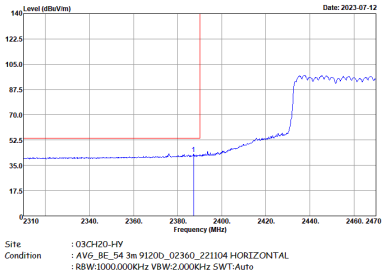
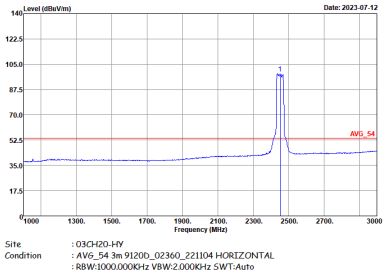
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH03 2422MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

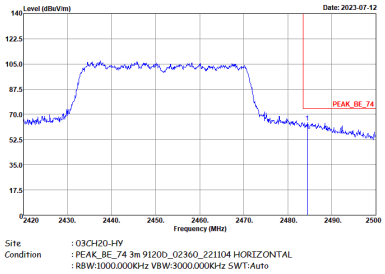
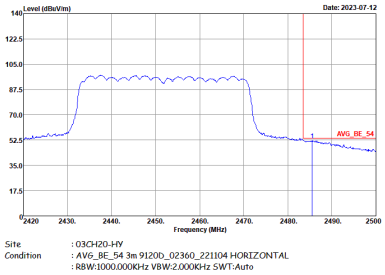
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH06 2437MHz - L	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE_74 3m 9120D_02360_221104 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK_74 3m 9120D_02360_221104 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH20-HY Condition : AVG_BE_54 3m 9120D_02360_221104 HORIZONTAL : RBW:1000.000KHz VBW:2.000KHz SWT:Auto	 Site : 03CH20-HY Condition : AVG_54 3m 9120D_02360_221104 HORIZONTAL : RBW:1000.000KHz VBW:2.000KHz SWT:Auto

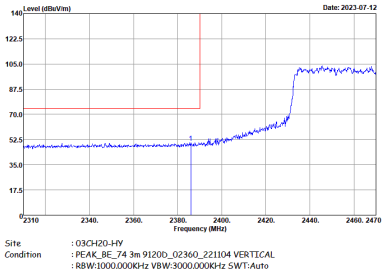
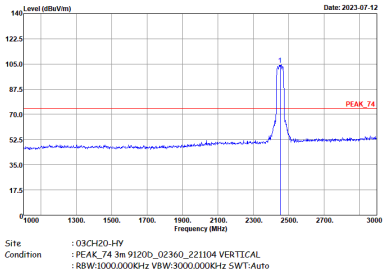
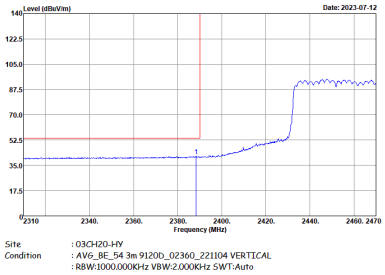
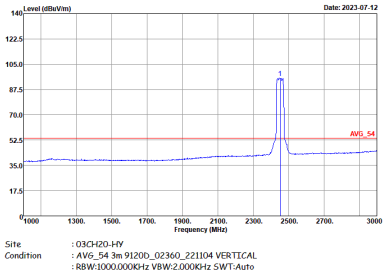
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH06 2437MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

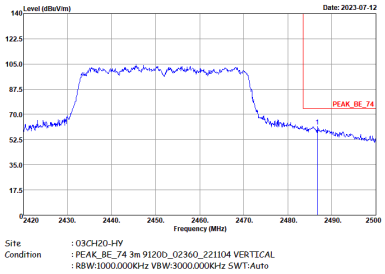
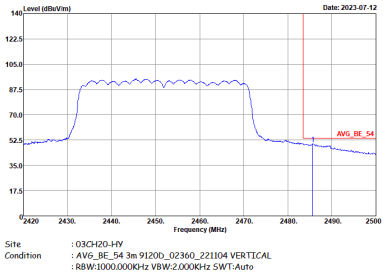
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH06 2437MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH06 2437MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH09 2452MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		

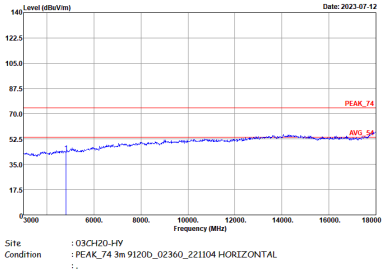
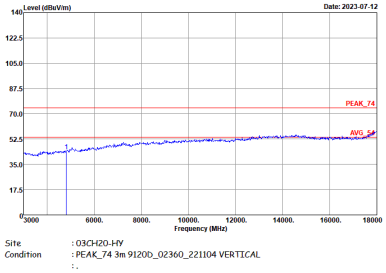
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH09 2452MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

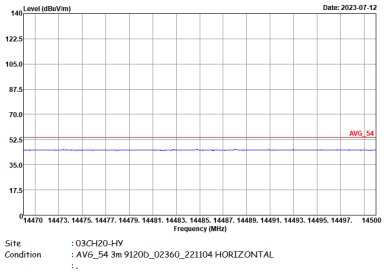
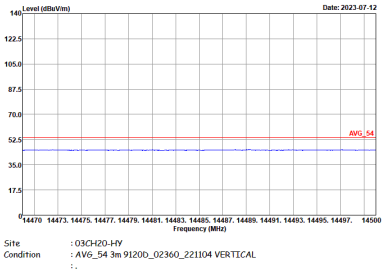
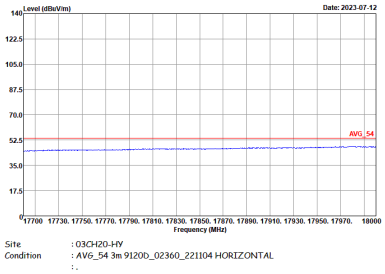
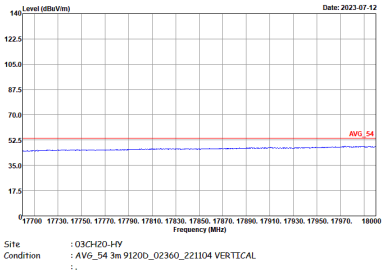
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH09 2452MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		

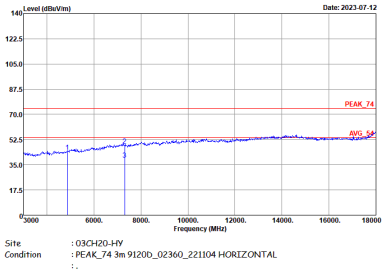
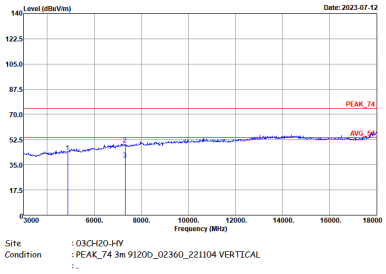
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH09 2452MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

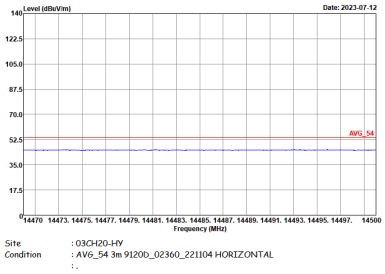
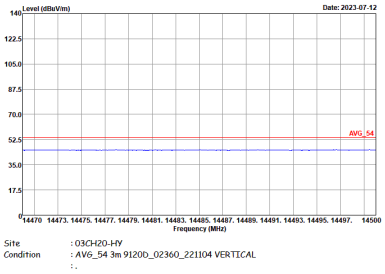
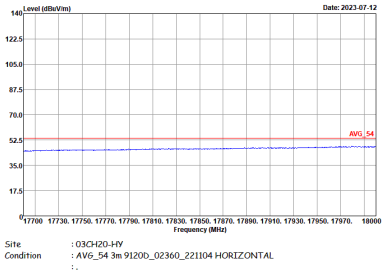
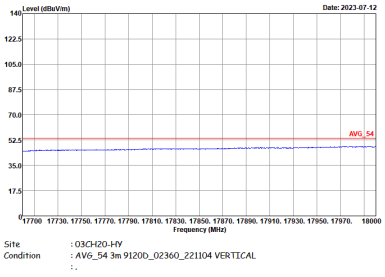
2.4GHz 2400~2483.5MHz

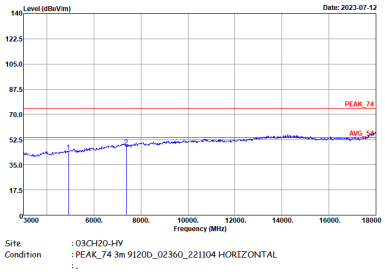
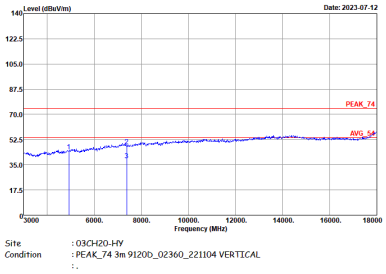
WIFI 802.11 ax HE20 Full (Harmonic @ 3m)

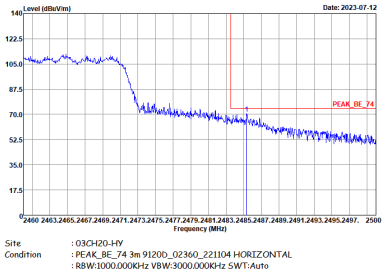
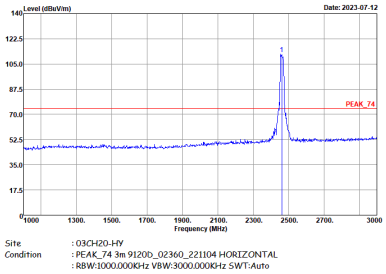
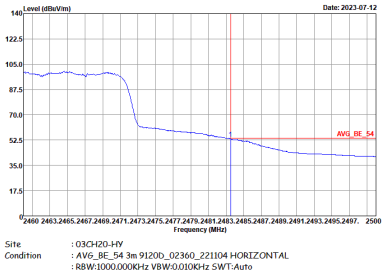
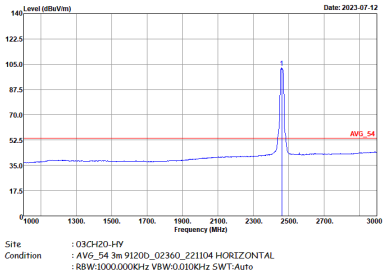
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH01 2412MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH01 2412MHz	
1+2	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH06 2437MHz	
1+2	Horizontal	Vertical
Peak Avg.		

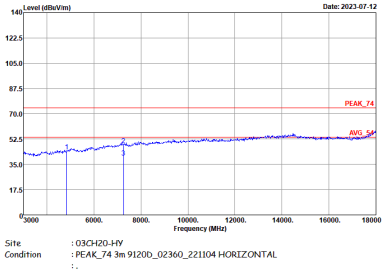
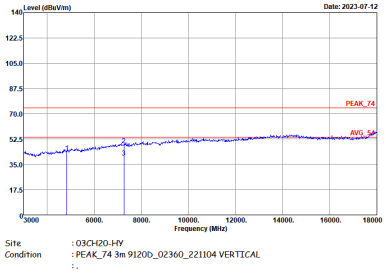
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH06 2437MHz	
1+2	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

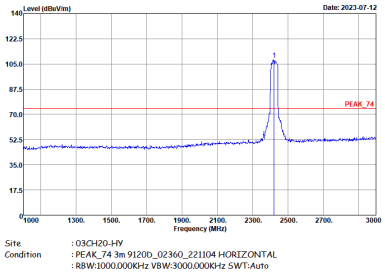
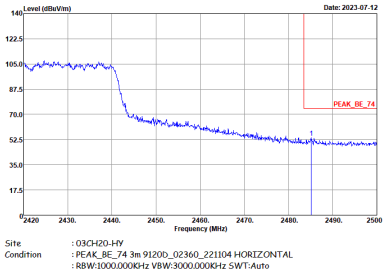
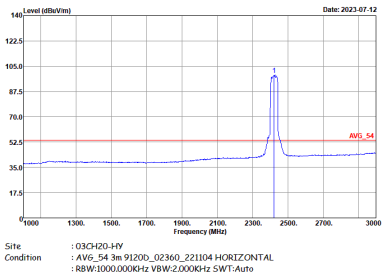
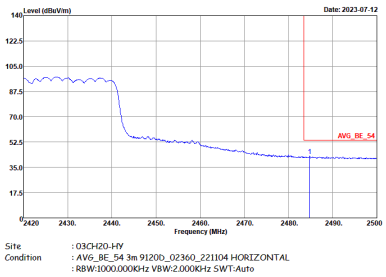
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH11 2462MHz	
1+2	Horizontal	Vertical
Peak Avg.		

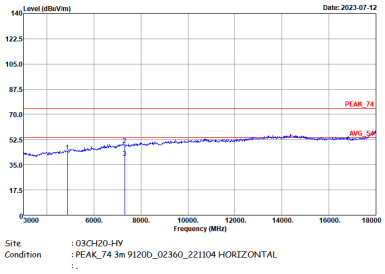
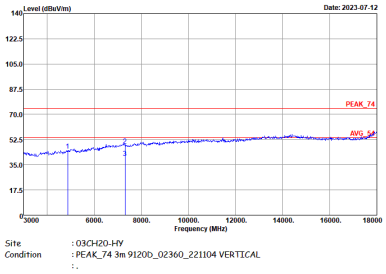
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH11 2462MHz	
1+2	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

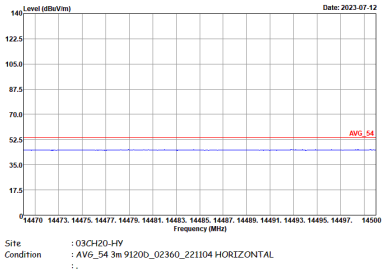
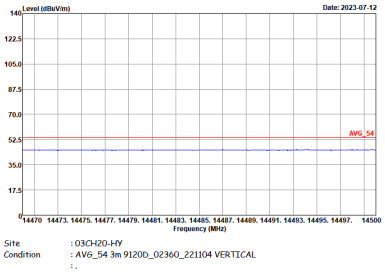
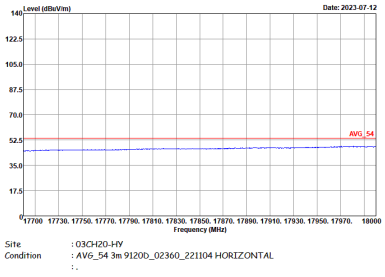
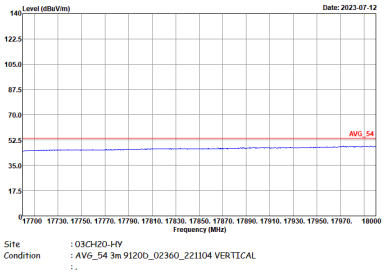
2.4GHz 2400~2483.5MHz

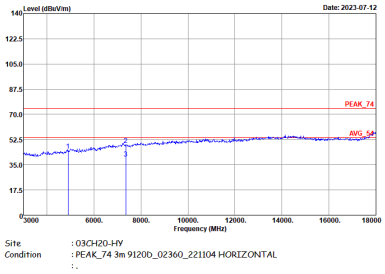
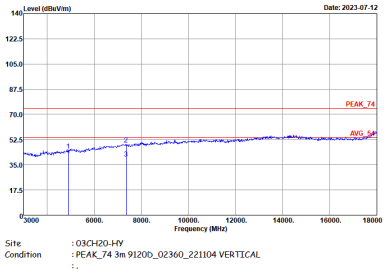
WIFI 802.11 ax HE40 Full (Harmonic @ 3m)

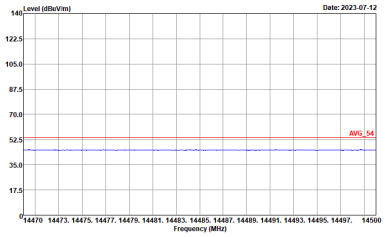
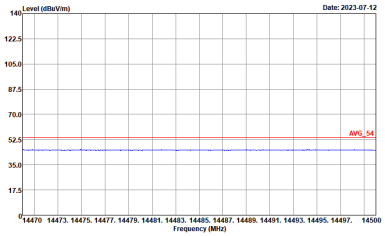
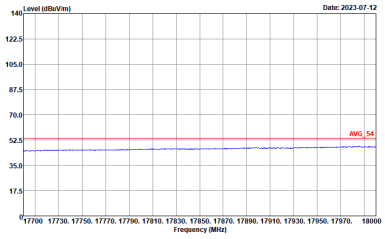
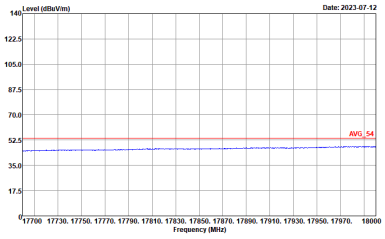
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH03 2422MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH03 2422MHz	
1+2	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH06 2437MHz	
1+2	Horizontal	Vertical
Peak Avg.		

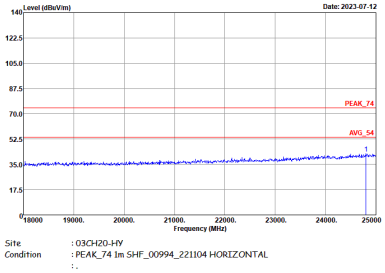
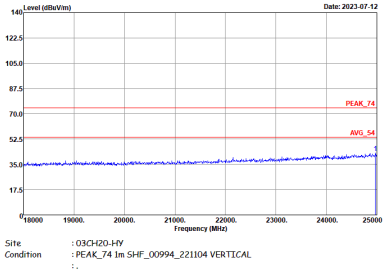
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH06 2437MHz	
1+2	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH09 2452MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH09 2452MHz	
1+2	Horizontal	Vertical
14.47G ~14.5G Avg.	 Site : 03CH20-HY Condition : AVG_54 3m 9120D_02360_221104 HORIZONTAL : .	 Site : 03CH20-HY Condition : AVG_54 3m 9120D_02360_221104 VERTICAL : .
17.7G ~18G Avg	 Site : 03CH20-HY Condition : AVG_54 3m 9120D_02360_221104 HORIZONTAL : .	 Site : 03CH20-HY Condition : AVG_54 3m 9120D_02360_221104 VERTICAL : .

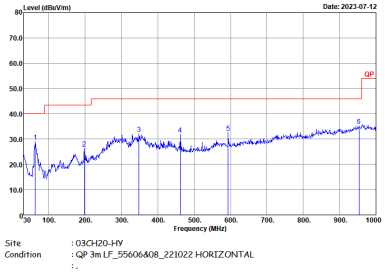
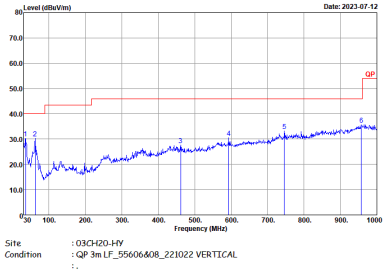
Emission above 18GHz

2.4GHz WIFI 802.11ax HE40 Full (SHF @ 1m)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11ax HE40 Full SHF	
1+2	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

2.4GHz WIFI 802.11ax HE40 Full (LF)

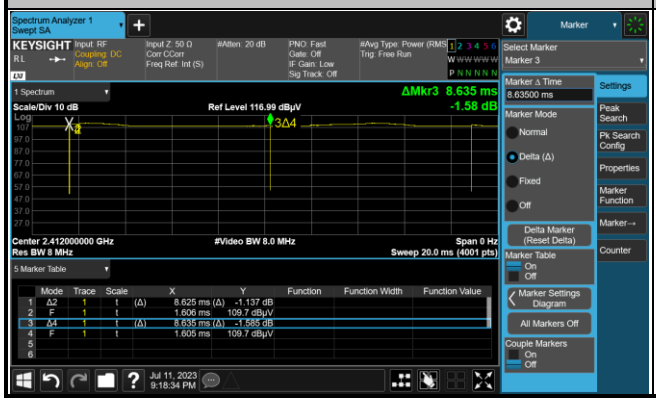
WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11ax HE40 Full LF	
1+2	Horizontal	Vertical
QP / Peak		

Appendix D. Duty Cycle Plots

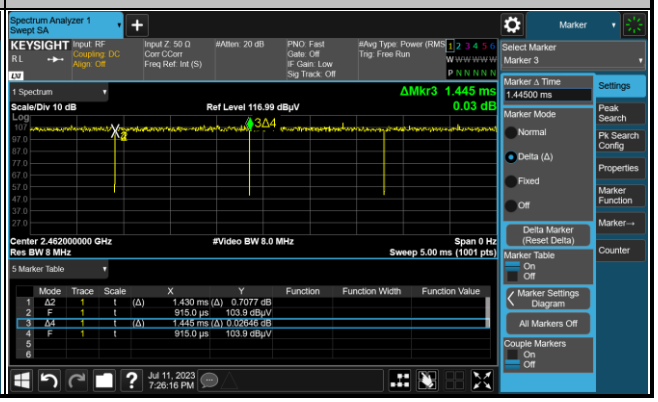
Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1	802.11b	99.88	-	-	10Hz
1	802.11g	98.96	-	-	10Hz
1+2	2.4GHz 802.11ax HE20 Full RU	98.59	-	-	10Hz
1+2	2.4GHz 802.11ax HE40 Full RU	97.35	552	1.81	2kHz

<Ant. 1>

802.11b

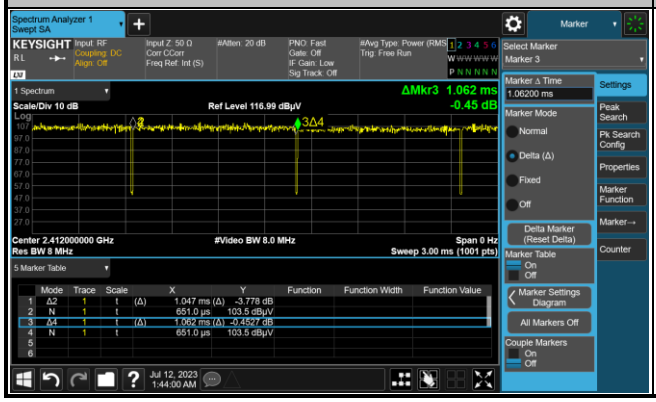
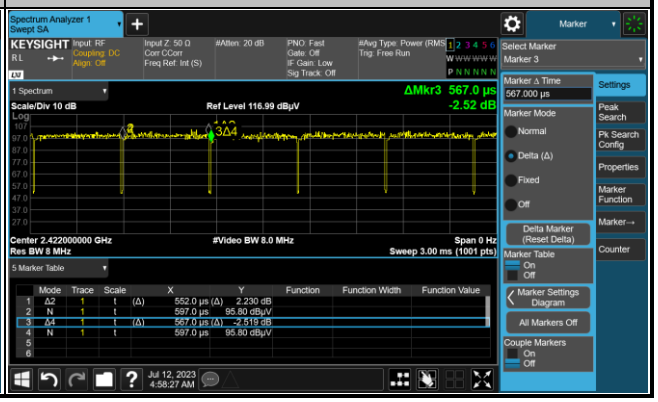


802.11g



MIMO <Ant. 1+2>

2.4GHz 802.11ax HE20 Full RU



2.4GHz 802.11ax HE40 Full RU