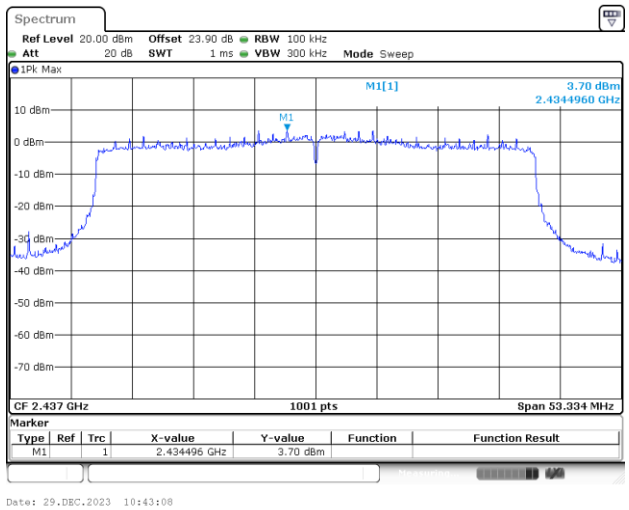
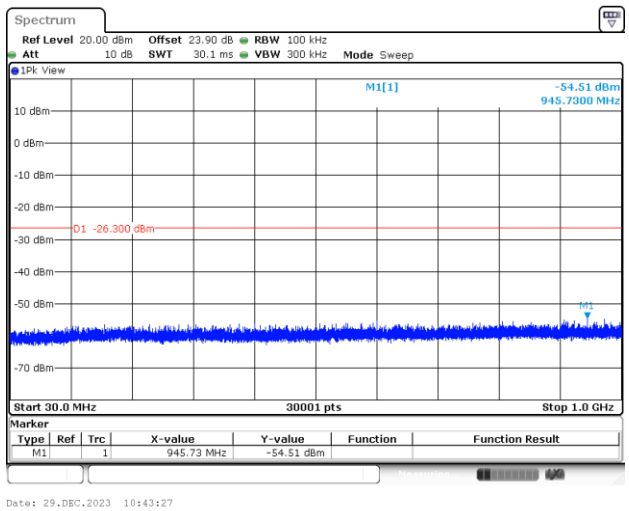
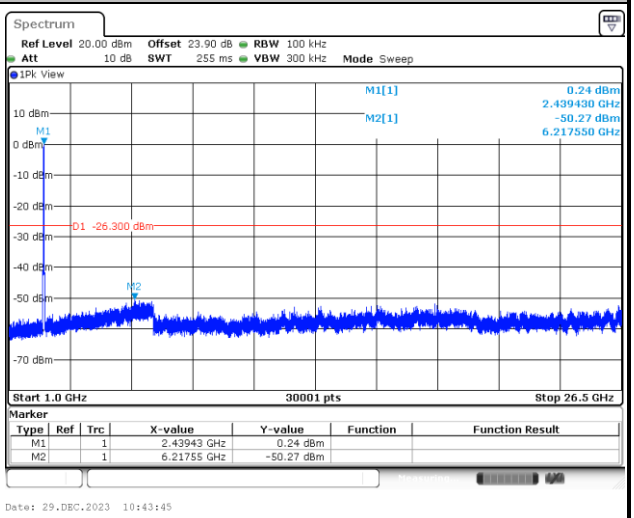
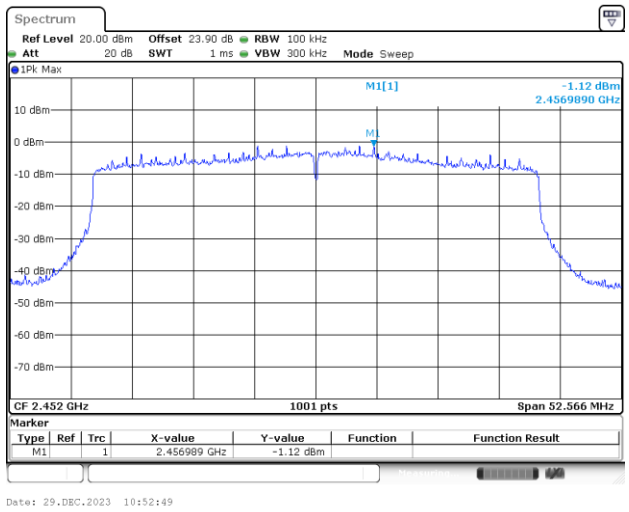
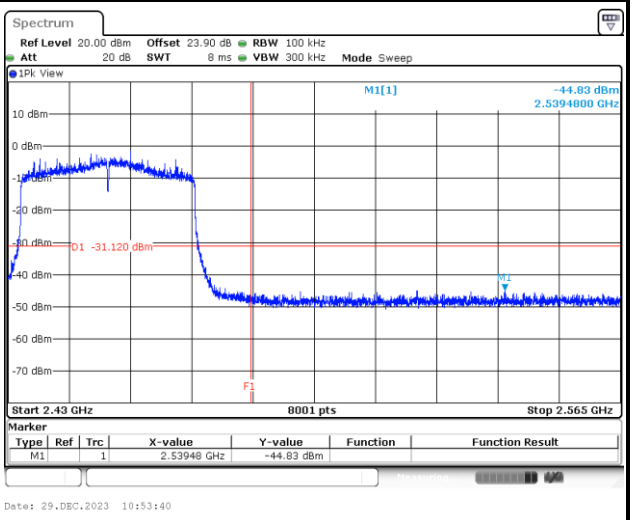
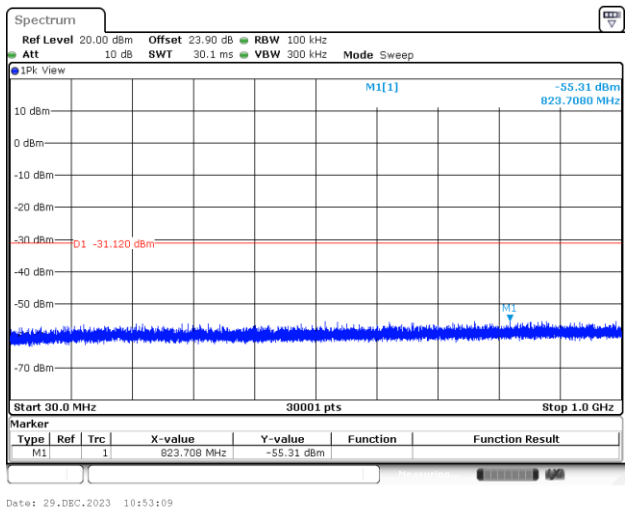
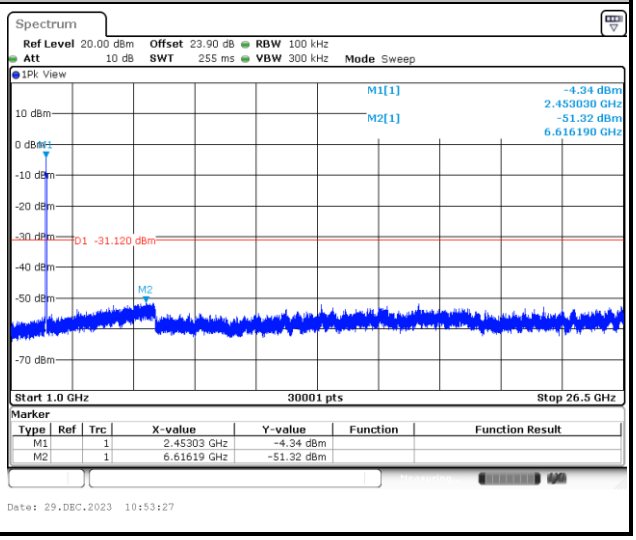
Test Mode :	802.11ax HE40	Test Channel :	06

100kHz PSD reference Level	Channel Plot
	

Spurious Emission 30MHz~1GHz	Spurious Emission 1GHz~26.5GHz
	

Test Mode :	802.11ax HE40	Test Channel :	09

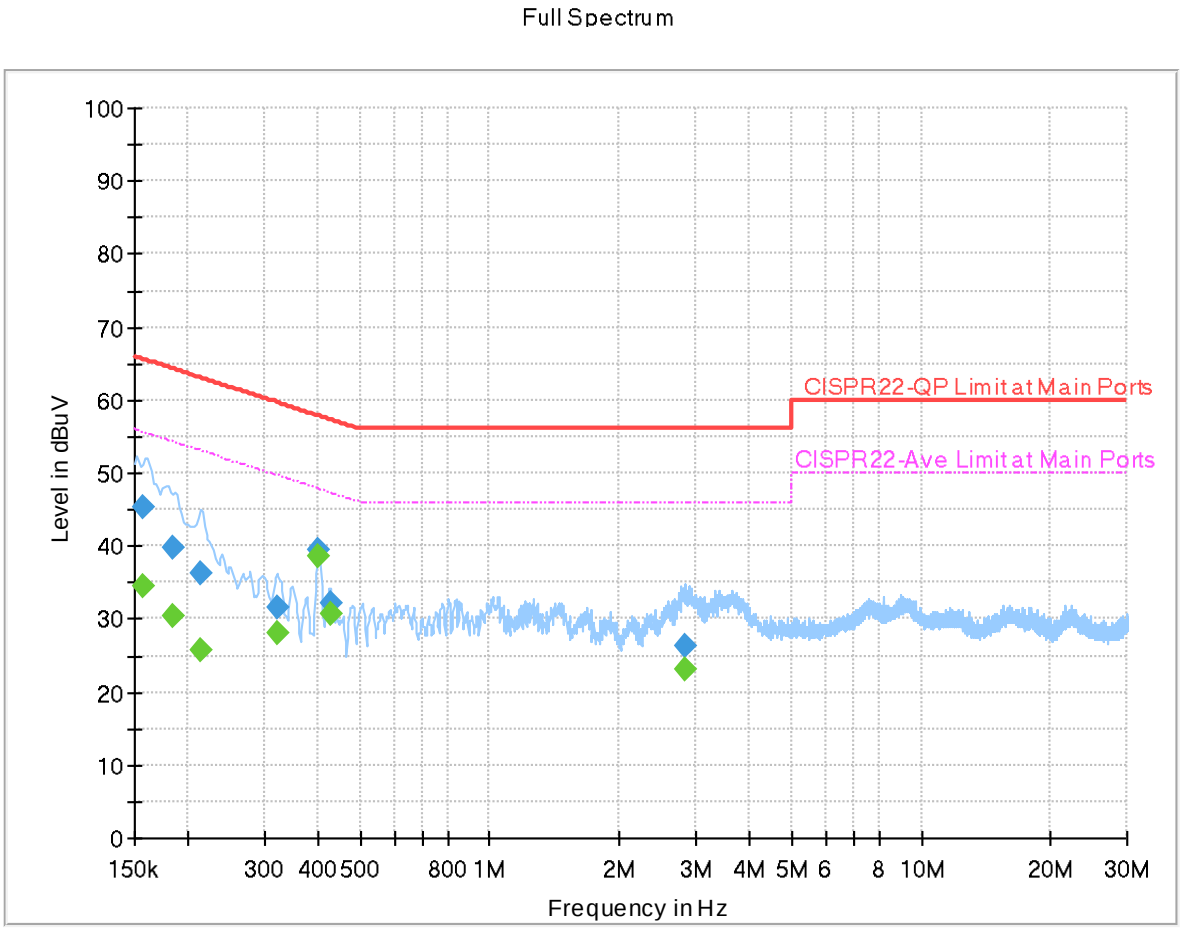
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~1GHz	**Spurious Emission 1GHz~26.5GHz**
	

Appendix B. AC Conducted Emission Test Results

Test Engineer :	Louis Chung	**Temperature :**	19.2~21.3℃
		Relative Humidity :	58.2~63.7%

EUT Information

Report NO :	3N2803
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

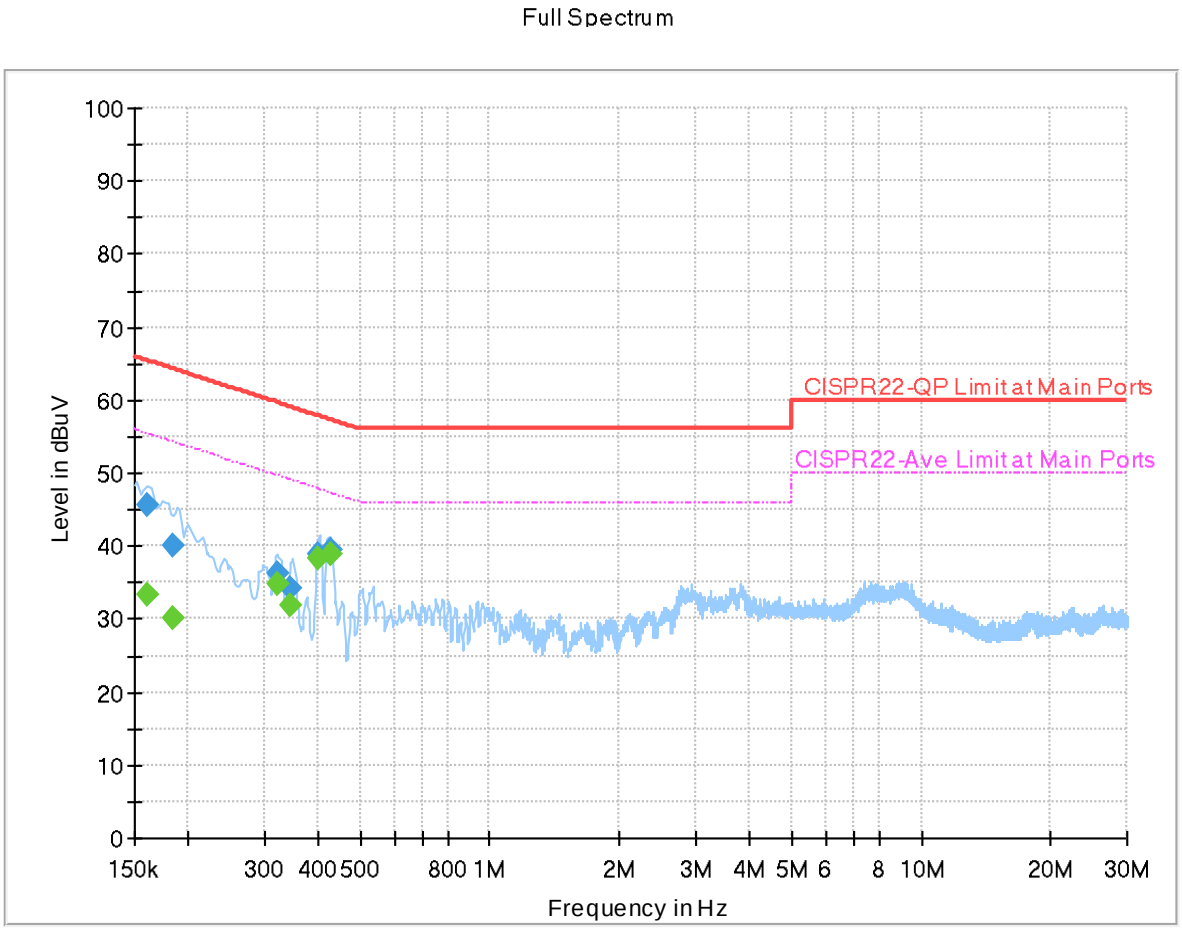


Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.157380	---	34.43	55.60	21.17	L1	OFF	19.9
0.157380	45.44	---	65.60	20.16	L1	OFF	19.9
0.183750	---	30.55	54.31	23.76	L1	OFF	19.9
0.183750	39.70	---	64.31	24.61	L1	OFF	19.9
0.214710	---	25.73	53.02	27.29	L1	OFF	19.9
0.214710	36.27	---	63.02	26.75	L1	OFF	19.9
0.323340	---	27.97	49.62	21.65	L1	OFF	19.9
0.323340	31.56	---	59.62	28.06	L1	OFF	19.9
0.401280	---	38.69	47.83	9.14	L1	OFF	19.9
0.401280	39.39	---	57.83	18.44	L1	OFF	19.9
0.426210	---	30.67	47.33	16.66	L1	OFF	19.9
0.426210	32.23	---	57.33	25.10	L1	OFF	19.9
2.845860	---	23.00	46.00	23.00	L1	OFF	20.0
2.845860	26.31	---	56.00	29.69	L1	OFF	20.0

EUT Information

Report NO :	3N2803
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.161250	---	33.28	55.40	22.12	N	OFF	19.9
0.161250	45.63	---	65.40	19.77	N	OFF	19.9
0.183750	---	30.21	54.31	24.10	N	OFF	19.9
0.183750	40.01	---	64.31	24.30	N	OFF	19.9
0.321810	---	34.75	49.66	14.91	N	OFF	19.9
0.321810	36.18	---	59.66	23.48	N	OFF	19.9
0.345750	---	31.76	49.06	17.30	N	OFF	19.9
0.345750	34.15	---	59.06	24.91	N	OFF	19.9
0.401550	---	38.44	47.82	9.38	N	OFF	19.9
0.401550	39.00	---	57.82	18.82	N	OFF	19.9
0.425940	---	38.96	47.33	8.37	N	OFF	19.9
0.425940	39.50	---	57.33	17.83	N	OFF	19.9

Appendix C. Radiated Spurious Emission

Test Engineer :	Jack Cheng, Ray Lung and Sky Chang	Temperature :	18~26°C
		Relative Humidity :	50~70%

<Sample 1>

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
6+7		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2388.015	57.56	-16.44	74	44.93	27	18.3	32.67	108	304	P	H
		2388.54	52.73	-1.27	54	40.1	27	18.3	32.67	108	304	A	H
	*	2412	109.91	-	-	97.28	26.98	18.34	32.69	108	304	P	H
	*	2412	107.1	-	-	94.47	26.98	18.34	32.69	108	304	A	H
													H
													H
		2389.065	55.69	-18.31	74	43.06	27	18.3	32.67	194	244	P	V
		2388.33	50.47	-3.53	54	37.84	27	18.3	32.67	194	244	A	V
	*	2412	109.4	-	-	96.77	26.98	18.34	32.69	194	244	P	V
	*	2412	106.61	-	-	93.98	26.98	18.34	32.69	194	244	A	V
													V
													V
802.11b CH 06 2437MHz		2389.94	51.77	-22.23	74	39.14	27	18.3	32.67	154	52	P	H
		2389.52	41.44	-12.56	54	28.81	27	18.3	32.67	154	52	A	H
	*	2437	116.15	-	-	103.56	26.9	18.39	32.7	154	52	P	H
	*	2437	113.36	-	-	100.77	26.9	18.39	32.7	154	52	A	H
		2491.39	50.39	-23.61	74	37.74	26.9	18.48	32.73	154	52	P	H
		2484.11	40.21	-13.79	54	27.57	26.9	18.47	32.73	154	52	A	H
		2379.86	50.53	-23.47	74	37.92	27	18.28	32.67	197	247	P	V
		2389.52	40.2	-13.8	54	27.57	27	18.3	32.67	197	247	A	V
	*	2437	112.81	-	-	100.22	26.9	18.39	32.7	197	247	P	V
	*	2437	110.05	-	-	97.46	26.9	18.39	32.7	197	247	A	V
		2493.77	50.76	-23.24	74	38.11	26.9	18.49	32.74	197	247	P	V
		2485.3	39.91	-14.09	54	27.27	26.9	18.47	32.73	197	247	A	V

802.11b CH 11 2462MHz	*	2462	113.16	-	-	100.57	26.88	18.43	32.72	100	74	P	H
	*	2462	110.33	-	-	97.74	26.88	18.43	32.72	100	74	A	H
		2483.52	56.06	-17.94	74	43.42	26.9	18.47	32.73	100	74	P	H
		2483.52	51.94	-2.06	54	39.3	26.9	18.47	32.73	100	74	A	H
													H
													H
	*	2462	110.01	-	-	97.42	26.88	18.43	32.72	215	249	P	V
	*	2462	107.17	-	-	94.58	26.88	18.43	32.72	215	249	A	V
		2483.52	54.78	-19.22	74	42.14	26.9	18.47	32.73	215	249	P	V
		2483.52	50.14	-3.86	54	37.5	26.9	18.47	32.73	215	249	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 802.11b (Harmonic @ 3m)

WIFI Ant. 6+7	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)
802.11b CH 01 2412MHz		4824	45.87	-28.13	74	34.67	32.4	12.78	33.98	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4824	45.82	-28.18	74	34.62	32.4	12.78	33.98	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 6+7	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	45.79	-28.21	74	34.47	32.55	12.75	33.98	-	-	P	H
		7311	59.11	-14.89	74	42.97	37	15.55	36.41	100	52	P	H
		7311	49.91	-4.09	54	33.77	37	15.55	36.41	100	52	A	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11b CH 06 2437MHz		4874	45.13	-28.87	74	33.81	32.55	12.75	33.98	-	-	P	V
		7311	57.55	-16.45	74	41.41	37	15.55	36.41	305	346	P	V
		7311	46.9	-7.1	54	30.76	37	15.55	36.41	305	346	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 6+7	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)
802.11b CH 11 2462MHz		4924	45.45	-28.55	74	34.05	32.65	12.72	33.97	-	-	P	H
		7386	57.03	-16.97	74	40.95	36.93	15.61	36.46	100	51	P	H
		7386	48.82	-5.18	54	32.74	36.93	15.61	36.46	100	51	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4924	45.4	-28.6	74	34	32.65	12.72	33.97	-	-	P	V
		7386	55.01	-18.99	74	38.93	36.93	15.61	36.46	290	349	P	V
		7386	47.13	-6.87	54	31.05	36.93	15.61	36.46	290	349	A	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 802.11g (Band Edge @ 3m)

WIFI Ant. 6+7	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)
802.11g CH 01 2412MHz		2389.905	70.62	-3.38	74	57.99	27	18.3	32.67	234	55	P	H
		2390	52.77	-1.23	54	40.14	27	18.3	32.67	234	55	A	H
	*	2412	114.77	-	-	102.14	26.98	18.34	32.69	234	55	P	H
	*	2412	107.12	-	-	94.49	26.98	18.34	32.69	234	55	A	H
													H
													H
		2389.275	62.12	-11.88	74	49.49	27	18.3	32.67	365	83	P	V
		2390	49.1	-4.9	54	36.47	27	18.3	32.67	365	83	A	V
	*	2412	108.53	-	-	95.9	26.98	18.34	32.69	365	83	P	V
	*	2412	101.63	-	-	89	26.98	18.34	32.69	365	83	A	V
													V
													V
802.11g CH 06 2437MHz		2389.94	60.85	-13.15	74	48.22	27	18.3	32.67	157	55	P	H
		2389.94	46.35	-7.65	54	33.72	27	18.3	32.67	157	55	A	H
	*	2437	117.53	-	-	104.94	26.9	18.39	32.7	157	55	P	H
	*	2437	110.28	-	-	97.69	26.9	18.39	32.7	157	55	A	H
		2483.55	65.09	-8.91	74	52.45	26.9	18.47	32.73	157	55	P	H
		2483.5	50.44	-3.56	54	37.8	26.9	18.47	32.73	157	55	A	H
		2389.94	56.5	-17.5	74	43.87	27	18.3	32.67	102	56	P	V
		2389.94	42.6	-11.4	54	29.97	27	18.3	32.67	102	56	A	V
	*	2437	113.28	-	-	100.69	26.9	18.39	32.7	102	56	P	V
	*	2437	106.5	-	-	93.91	26.9	18.39	32.7	102	56	A	V
		2484.88	60.5	-13.5	74	47.86	26.9	18.47	32.73	102	56	P	V
		2483.5	48.58	-5.42	54	35.94	26.9	18.47	32.73	102	56	A	V

802.11g CH 11 2462MHz	*	2462	107.92	-	-	95.33	26.88	18.43	32.72	102	341	P	H
	*	2462	100.91	-	-	88.32	26.88	18.43	32.72	102	341	A	H
		2483.68	63.98	-10.02	74	51.34	26.9	18.47	32.73	102	341	P	H
		2483.52	50.83	-3.17	54	38.19	26.9	18.47	32.73	102	341	A	H
													H
													H
	*	2462	107.77	-	-	95.18	26.88	18.43	32.72	192	44	P	V
	*	2462	100.48	-	-	87.89	26.88	18.43	32.72	192	44	A	V
		2483.76	60.03	-13.97	74	47.39	26.9	18.47	32.73	192	44	P	V
		2483.52	48.24	-5.76	54	35.6	26.9	18.47	32.73	192	44	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 802.11g (Harmonic @ 3m)

WIFI Ant. 6+7	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)
802.11g CH 01 2412MHz		4824	43.95	-30.05	74	32.75	32.4	12.78	33.98	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4824	43.46	-30.54	74	32.26	32.4	12.78	33.98	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 6+7	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	44.26	-29.74	74	32.94	32.55	12.75	33.98	-	-	P	H
		7311	60.05	-13.95	74	43.91	37	15.55	36.41	100	51	P	H
		7311	47.65	-6.35	54	31.51	37	15.55	36.41	100	51	A	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11g CH 06 2437MHz		4874	43.69	-30.31	74	32.37	32.55	12.75	33.98	-	-	P	V
		7311	57.57	-16.43	74	41.43	37	15.55	36.41	304	344	P	V
		7311	44.36	-9.64	54	28.22	37	15.55	36.41	304	344	A	V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 6+7	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	44.2	-29.8	74	32.8	32.65	12.72	33.97	-	-	P	H
		7386	55.71	-18.29	74	39.63	36.93	15.61	36.46	100	47	P	H
		7386	43.79	-10.21	54	27.71	36.93	15.61	36.46	100	47	A	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11g CH 11 2462MHz		4924	44.35	-29.65	74	32.95	32.65	12.72	33.97	-	-	P	V
		7386	55.03	-18.97	74	38.95	36.93	15.61	36.46	100	351	P	V
		7386	41.85	-12.15	54	25.77	36.93	15.61	36.46	100	351	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 HE20 Full (Band Edge @ 3m)

WIFI Ant. 6+7	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)
		2390	62.38	-11.62	74	49.75	27	18.3	32.67	162	56	P	H
		2390	51.72	-2.28	54	39.09	27	18.3	32.67	162	56	A	H
	*	2412	113.46	-	-	100.83	26.98	18.34	32.69	162	56	P	H
	*	2412	105.65	-	-	93.02	26.98	18.34	32.69	162	56	A	H
802.11ax													H
HE20 Full													H
CH 01		2390	61.69	-12.31	74	49.06	27	18.3	32.67	259	245	P	V
2412MHz		2390	51.99	-2.01	54	39.36	27	18.3	32.67	259	245	A	V
	*	2412	107.5	-	-	94.87	26.98	18.34	32.69	259	245	P	V
	*	2412	99.73	-	-	87.1	26.98	18.34	32.69	259	245	A	V
													V
													V
		2389.8	58.62	-15.38	74	45.99	27	18.3	32.67	153	55	P	H
		2389.94	44.5	-9.5	54	31.87	27	18.3	32.67	153	55	A	H
	*	2437	117.65	-	-	105.06	26.9	18.39	32.7	153	55	P	H
	*	2437	109.94	-	-	97.35	26.9	18.39	32.7	153	55	A	H
802.11ax		2483.55	61.58	-12.42	74	48.94	26.9	18.47	32.73	153	55	P	H
HE20 Full		2483.5	48.34	-5.66	54	35.7	26.9	18.47	32.73	153	55	A	H
CH 06		2389.66	53.62	-20.38	74	40.99	27	18.3	32.67	195	247	P	V
2437MHz		2389.94	41.42	-12.58	54	28.79	27	18.3	32.67	195	247	A	V
	*	2437	114.36	-	-	101.77	26.9	18.39	32.7	195	247	P	V
	*	2437	105.88	-	-	93.29	26.9	18.39	32.7	195	247	A	V
		2483.5	57.98	-16.02	74	45.34	26.9	18.47	32.73	195	247	P	V
		2483.5	44.72	-9.28	54	32.08	26.9	18.47	32.73	195	247	A	V

WIFI Ant. 6+7	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)
	*	2462	109.05	-	-	96.46	26.88	18.43	32.72	100	334	P	H
	*	2462	100.11	-	-	87.52	26.88	18.43	32.72	100	334	A	H
		2483.72	61.55	-12.45	74	48.91	26.9	18.47	32.73	100	334	P	H
		2483.52	50.39	-3.61	54	37.75	26.9	18.47	32.73	100	334	A	H
802.11ax													H
HE20 Full													H
CH 11	*	2462	105.71	-	-	93.12	26.88	18.43	32.72	335	23	P	V
2462MHz	*	2462	97.82	-	-	85.23	26.88	18.43	32.72	335	23	A	V
		2483.56	61.61	-12.39	74	48.97	26.9	18.47	32.73	335	23	P	V
		2483.52	48.92	-5.08	54	36.28	26.9	18.47	32.73	335	23	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. 6+7	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	43.21	-30.79	74	32.01	32.4	12.78	33.98	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 01		4824	45.68	-28.32	74	34.48	32.4	12.78	33.98	-	-	P	V
2412MHz													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 6+7	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	44.08	-29.92	74	32.76	32.55	12.75	33.98	-	-	P	H
		7311	61.24	-12.76	74	45.1	37	15.55	36.41	100	51	P	H
		7311	48.49	-5.51	54	32.35	37	15.55	36.41	100	51	A	H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 06		4874	43.53	-30.47	74	32.21	32.55	12.75	33.98	-	-	P	V
2437MHz		7311	57.99	-16.01	74	41.85	37	15.55	36.41	100	3	P	V
		7311	44.51	-9.49	54	28.37	37	15.55	36.41	100	3	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 6+7	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	44.94	-29.06	74	33.54	32.65	12.72	33.97	-	-	P	H
		7386	56.44	-17.56	74	40.36	36.93	15.61	36.46	100	52	P	H
		7386	43.03	-10.97	54	26.95	36.93	15.61	36.46	100	52	A	H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 11		4924	44.56	-29.44	74	33.16	32.65	12.72	33.97	-	-	P	V
2462MHz		7386	55.17	-18.83	74	39.09	36.93	15.61	36.46	300	344	P	V
		7386	41.06	-12.94	54	24.98	36.93	15.61	36.46	300	344	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 HE20 Partial 106 (Band Edge @ 3m)

WIFI Ant. 6+7	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)
		2389.38	72.78	-1.22	74	60.15	27	18.3	32.67	132	64	P	H
		2389.38	52.05	-1.95	54	39.42	27	18.3	32.67	132	64	A	H
	*	2412	114.23	-	-	101.6	26.98	18.34	32.69	132	64	P	H
802.11ax	*	2412	106.49	-	-	93.86	26.98	18.34	32.69	132	64	A	H
HE20													H
Partial													H
106/53		2389.275	66.96	-7.04	74	54.33	27	18.3	32.67	100	258	P	V
CH 01		2390	42.59	-11.41	54	29.96	27	18.3	32.67	100	258	A	V
2412MHz	*	2412	108.51	-	-	95.88	26.98	18.34	32.69	100	258	P	V
	*	2412	99.65	-	-	87.02	26.98	18.34	32.69	100	258	A	V
													V
													V
	*	2462	113.65	-	-	101.06	26.88	18.43	32.72	228	52	P	H
	*	2462	106.3	-	-	93.71	26.88	18.43	32.72	228	52	A	H
		2484.56	70.05	-3.95	74	57.41	26.9	18.47	32.73	228	52	P	H
802.11ax		2483.52	49.43	-4.57	54	36.79	26.9	18.47	32.73	228	52	A	H
HE20													H
Partial													H
106/54	*	2462	112.02	-	-	99.43	26.88	18.43	32.72	121	46	P	V
CH 11	*	2462	104.27	-	-	91.68	26.88	18.43	32.72	121	46	A	V
2462MHz		2483.96	72.57	-1.43	74	59.93	26.9	18.47	32.73	121	46	P	V
		2484.12	48.55	-5.45	54	35.91	26.9	18.47	32.73	121	46	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 802.11ax HE40 Full (Band Edge @ 3m)

WIFI Ant. 6+7	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)
		2389.94	62.45	-11.55	74	49.82	27	18.3	32.67	133	56	P	H
		2389.94	52.6	-1.4	54	39.97	27	18.3	32.67	133	56	A	H
	*	2422	113.72	-	-	101.15	26.9	18.36	32.69	133	56	P	H
	*	2422	105.4	-	-	92.83	26.9	18.36	32.69	133	56	A	H
802.11ax		2484.18	54.98	-19.02	74	42.34	26.9	18.47	32.73	133	56	P	H
HE40 Full		2483.5	42.97	-11.03	54	30.33	26.9	18.47	32.73	133	56	A	H
CH 03		2389.94	61.36	-12.64	74	48.73	27	18.3	32.67	194	247	P	V
2422MHz		2389.94	51.6	-2.4	54	38.97	27	18.3	32.67	194	247	A	V
	*	2422	108.69	-	-	96.12	26.9	18.36	32.69	194	247	P	V
	*	2422	100.88	-	-	88.31	26.9	18.36	32.69	194	247	A	V
		2484.04	55.85	-18.15	74	43.21	26.9	18.47	32.73	194	247	P	V
		2483.5	44.3	-9.7	54	31.66	26.9	18.47	32.73	194	247	A	V
		2389.52	57.68	-16.32	74	45.05	27	18.3	32.67	153	52	P	H
		2389.94	46.64	-7.36	54	34.01	27	18.3	32.67	153	52	A	H
	*	2437	114.35	-	-	101.76	26.9	18.39	32.7	153	52	P	H
	*	2437	105.78	-	-	93.19	26.9	18.39	32.7	153	52	A	H
802.11ax		2484.25	63.59	-10.41	74	50.95	26.9	18.47	32.73	153	52	P	H
HE40 Full		2483.5	49.87	-4.13	54	37.23	26.9	18.47	32.73	153	52	A	H
CH 06		2389.94	58.08	-15.92	74	45.45	27	18.3	32.67	195	247	P	V
2437MHz		2389.94	45.94	-8.06	54	33.31	27	18.3	32.67	195	247	A	V
	*	2437	109.53	-	-	96.94	26.9	18.39	32.7	195	247	P	V
	*	2437	101.62	-	-	89.03	26.9	18.39	32.7	195	247	A	V
		2483.5	60.36	-13.64	74	47.72	26.9	18.47	32.73	195	247	P	V
		2483.5	49.97	-4.03	54	37.33	26.9	18.47	32.73	195	247	A	V

WIFI Ant. 6+7	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)
		2367.4	50.97	-23.03	74	38.27	27.1	18.26	32.66	100	57	P	H
		2389.8	39.37	-14.63	54	26.74	27	18.3	32.67	100	57	A	H
	*	2452	107.29	-	-	94.69	26.9	18.41	32.71	100	57	P	H
	*	2452	99.53	-	-	86.93	26.9	18.41	32.71	100	57	A	H
802.11ax		2484.25	58.65	-15.35	74	46.01	26.9	18.47	32.73	100	57	P	H
HE40 Full		2483.5	48.52	-5.48	54	35.88	26.9	18.47	32.73	100	57	A	H
CH 09		2350.18	50.17	-23.83	74	37.59	27	18.23	32.65	198	248	P	V
2452MHz		2389.94	39.48	-14.52	54	26.85	27	18.3	32.67	198	248	A	V
	*	2452	104.51	-	-	91.91	26.9	18.41	32.71	198	248	P	V
	*	2452	97.05	-	-	84.45	26.9	18.41	32.71	198	248	A	V
		2483.62	62.34	-11.66	74	49.7	26.9	18.47	32.73	198	248	P	V
		2483.5	52.39	-1.61	54	39.75	26.9	18.47	32.73	198	248	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. 6+7	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	43.4	-30.6	74	32.14	32.48	12.76	33.98	-	-	P	H
		7266	47.52	-26.48	74	31.46	36.93	15.52	36.39	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE40 Full													H
CH 03		4844	43.57	-30.43	74	32.31	32.48	12.76	33.98	-	-	P	V
2422MHz		7266	47.99	-26.01	74	31.93	36.93	15.52	36.39	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 6+7	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	43.91	-30.09	74	32.59	32.55	12.75	33.98	-	-	P	H
		7311	47.96	-26.04	74	31.82	37	15.55	36.41	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE40 Full													H
CH 06		4874	43.69	-30.31	74	32.37	32.55	12.75	33.98	-	-	P	V
2437MHz		7311	47.97	-26.03	74	31.83	37	15.55	36.41	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 6+7	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	44.28	-29.72	74	32.91	32.61	12.73	33.97	-	-	P	H
		7356	47.97	-26.03	74	31.83	36.99	15.59	36.44	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE40 Full													H
CH 09		4904	43.5	-30.5	74	32.13	32.61	12.73	33.97	-	-	P	V
2452MHz		7356	47.95	-26.05	74	31.81	36.99	15.59	36.44	-	-	P	V
													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 Partial 242 (Band Edge @ 3m)

WIFI Ant. 6+7	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)
		2389.66	66.16	-7.84	74	53.53	27	18.3	32.67	118	9	P	H
		2389.94	51.25	-2.75	54	38.62	27	18.3	32.67	118	9	A	H
	*	2422	108.81	-	-	96.24	26.9	18.36	32.69	118	9	P	H
802.11ax	*	2422	100.83	-	-	88.26	26.9	18.36	32.69	118	9	A	H
HE40		2484.46	59.5	-14.5	74	46.86	26.9	18.47	32.73	118	9	P	H
Partial		2484.32	40.09	-13.91	54	27.45	26.9	18.47	32.73	118	9	A	H
242/61		2389.94	63.19	-10.81	74	50.56	27	18.3	32.67	323	42	P	V
CH 03		2389.94	50.72	-3.28	54	38.09	27	18.3	32.67	323	42	A	V
2422MHz	*	2422	106.77	-	-	94.2	26.9	18.36	32.69	323	42	P	V
	*	2422	98.08	-	-	85.51	26.9	18.36	32.69	323	42	A	V
		2484.53	55.69	-18.31	74	43.05	26.9	18.47	32.73	323	42	P	V
		2484.32	39.76	-14.24	54	27.12	26.9	18.47	32.73	323	42	A	V
		2388.96	50.25	-23.75	74	37.62	27	18.3	32.67	106	347	P	H
		2389.94	39.21	-14.79	54	26.58	27	18.3	32.67	106	347	A	H
	*	2452	104.95	-	-	92.35	26.9	18.41	32.71	106	347	P	H
802.11ax	*	2452	96.81	-	-	84.21	26.9	18.41	32.71	106	347	A	H
HE40		2483.69	67	-7	74	54.36	26.9	18.47	32.73	106	347	P	H
Partial		2483.5	52.74	-1.26	54	40.1	26.9	18.47	32.73	106	347	A	H
242/62		2388.12	50.05	-23.95	74	37.42	27	18.3	32.67	209	43	P	V
CH 09		2365.58	39.13	-14.87	54	26.43	27.1	18.26	32.66	209	43	A	V
2452MHz	*	2452	103.59	-	-	90.99	26.9	18.41	32.71	209	43	P	V
	*	2452	95.28	-	-	82.68	26.9	18.41	32.71	209	43	A	V
		2483.97	65.63	-8.37	74	52.99	26.9	18.47	32.73	209	43	P	V
		2483.5	51.48	-2.52	54	38.84	26.9	18.47	32.73	209	43	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission above 18GHz

2.4GHz WIFI 802.11ax HE20 (SHF)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
6+7		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		22228	40.43	-33.57	74	45.23	38.34	17.48	60.62	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
2.4GHz													H
802.11ax													H
HE20		22963	40.97	-33.03	74	44.16	39.1	18.02	60.31	-	-	P	V
SHF													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 HE20 (LF)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
6+7		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		31.89	22.29	-17.71	40	30.03	24.01	0.99	32.74	-	-	P	H
		142.86	22.33	-21.17	43.5	35.49	17.44	2.1	32.7	-	-	P	H
		199.56	19.14	-24.36	43.5	34.42	14.96	2.47	32.71	-	-	P	H
		264.36	20.76	-25.24	46	30.58	20.06	2.88	32.76	-	-	P	H
		383.3	28.5	-17.5	46	36.75	21.15	3.44	32.84	-	-	P	H
		958	36.7	-9.3	46	31.56	31.19	5.51	31.56	-	-	P	H
													H
													H
													H
													H
2.4GHz													H
802.11ax													H
HE20		34.05	28.81	-11.19	40	37.61	22.92	1.02	32.74	-	-	P	V
LF		91.02	25.04	-18.46	43.5	40.83	15.23	1.68	32.7	-	-	P	V
		143.94	25.83	-17.67	43.5	39.02	17.4	2.11	32.7	-	-	P	V
		413.4	24.49	-21.51	46	31.39	22.38	3.58	32.86	-	-	P	V
		717.9	34.2	-11.8	46	35.21	27.2	4.71	32.92	-	-	P	V
		951	35.61	-10.39	46	30.68	31.08	5.48	31.63	-	-	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.

<Sample 2>

2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 Partial 106 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
6+7		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		2389.905	72.62	-1.38	74	59.99	27	18.3	32.67	120	340	P	H
		2390	51.73	-2.27	54	39.1	27	18.3	32.67	120	340	A	H
	*	2412	114.22	-	-	101.59	26.98	18.34	32.69	120	340	P	H
802.11ax	*	2412	105.11	-	-	92.48	26.98	18.34	32.69	120	340	A	H
HE20													H
Partial													H
106/53		2390	71.48	-2.52	74	58.85	27	18.3	32.67	222	256	P	V
CH 01		2390	49.37	-4.63	54	36.74	27	18.3	32.67	222	256	A	V
2412MHz	*	2412	111.93	-	-	99.3	26.98	18.34	32.69	222	256	P	V
	*	2412	103.9	-	-	91.27	26.98	18.34	32.69	222	256	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 802.11ax HE20 Partial 106 (Harmonic @ 3m)

WIFI Ant. 6+7	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	43.76	-30.24	74	32.56	32.4	12.78	33.98	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE20													H
Partial													H
106/53		4824	43.85	-30.15	74	32.65	32.4	12.78	33.98	-	-	P	V
CH 01													V
2412MHz													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 HE20 Partial 106 (SHF)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
6+7		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11ax HE20 Partial 106 SHF		20408	40.2	-33.8	74	48.38	37.7	16.25	62.13	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		22158	40.06	-33.94	74	44.98	38.32	17.43	60.67	-	-	P	V
													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 HE20 Partial 106 (LF)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
6+7		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11ax HE20 Partial 106 LF		31.62	22.99	-17.01	40	30.73	24.01	0.99	32.74	-	-	P	H
		145.56	21.76	-21.74	43.5	35	17.34	2.12	32.7	-	-	P	H
		199.56	18.14	-25.36	43.5	33.42	14.96	2.47	32.71	-	-	P	H
		383.3	28.5	-17.5	46	36.75	21.15	3.44	32.84	-	-	P	H
		618.5	28.79	-17.21	46	31.47	25.94	4.41	33.03	-	-	P	H
		953.8	36.48	-9.52	46	31.44	31.14	5.5	31.6	-	-	P	H
													H
													H
													H
													H
													H
													H
		32.7	29.4	-10.6	40	37.6	23.54	1	32.74	-	-	P	V
		91.29	26.11	-17.39	43.5	41.87	15.25	1.69	32.7	-	-	P	V
		143.94	25.83	-17.67	43.5	39.02	17.4	2.11	32.7	-	-	P	V
		464.5	26.39	-19.61	46	32.19	23.27	3.84	32.91	-	-	P	V
		717.9	33.2	-12.8	46	34.21	27.2	4.71	32.92	-	-	P	V
		939.1	36.34	-9.66	46	32.15	30.49	5.44	31.74	-	-	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.	
6+7		(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 D. Radiated Spurious Emission Plots

Test Engineer :	Jack Cheng, Ray Lung and Sky Chang	**Temperature :**	18~26°C
		Relative Humidity :	50~70%

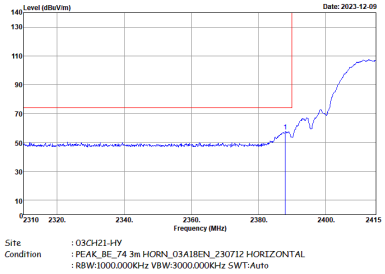
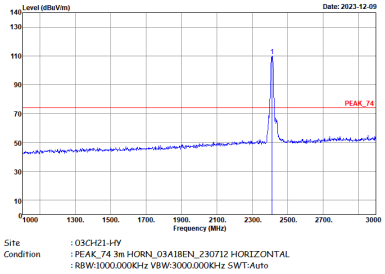
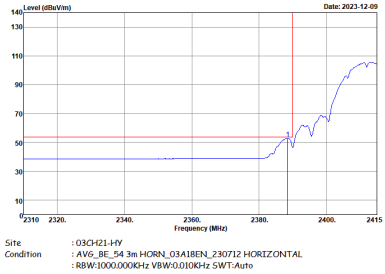
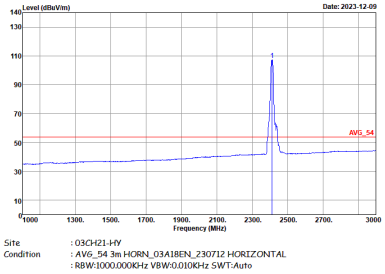
Note symbol

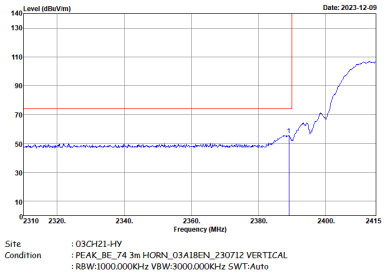
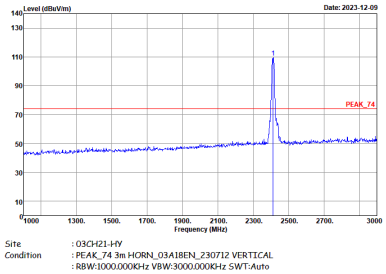
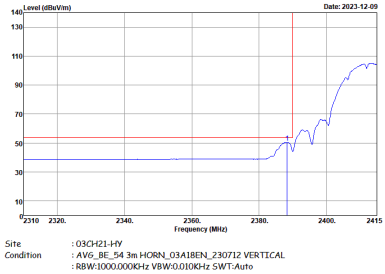
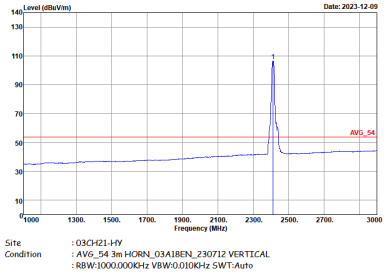
-L	**Low channel location**
-R	**High channel location**

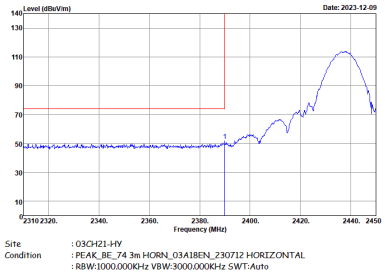
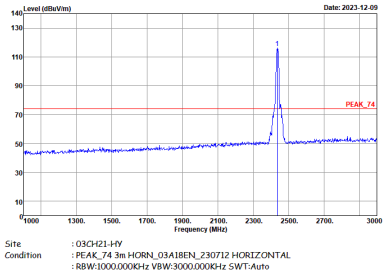
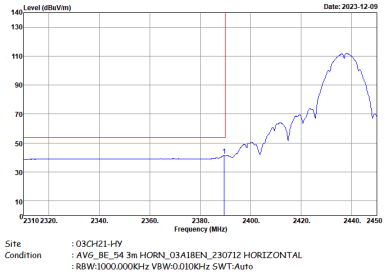
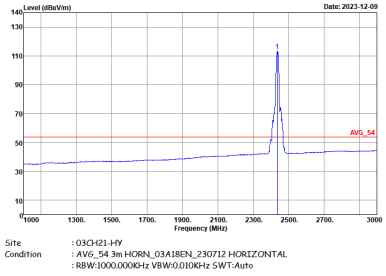
<Sample 1>

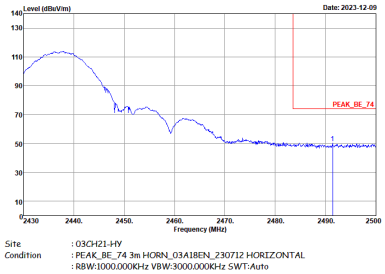
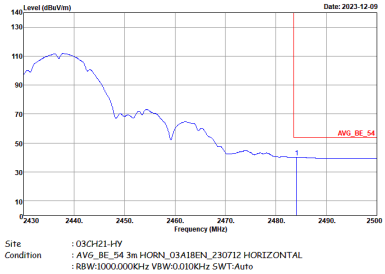
2.4GHz 2400~2483.5MHz

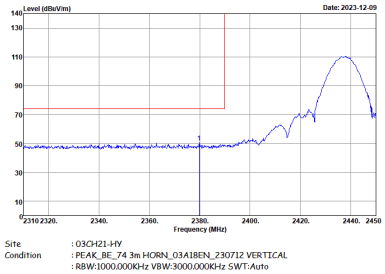
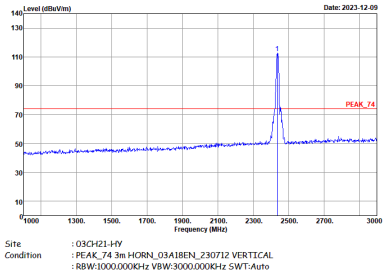
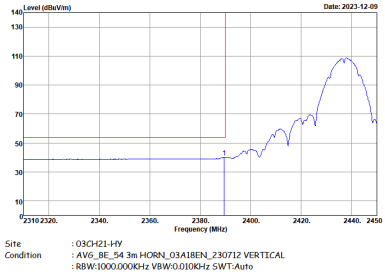
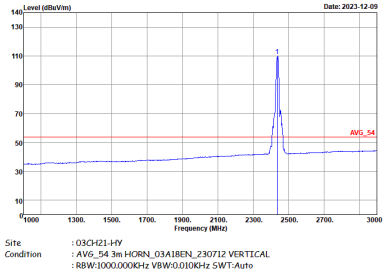
WIFI 802.11b (Band Edge @ 3m)

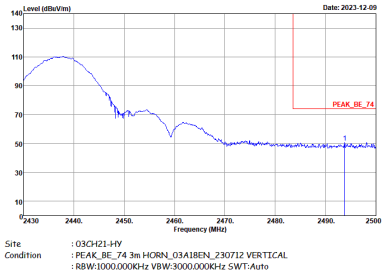
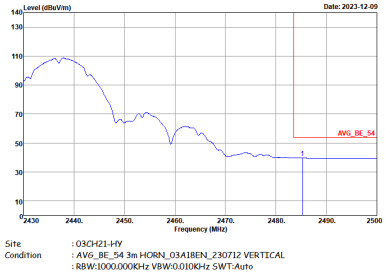
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
6+7	Horizontal	Fundamental
Peak		
Avg.		

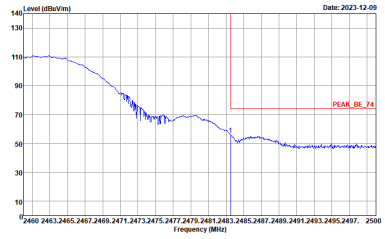
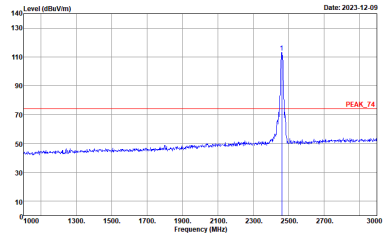
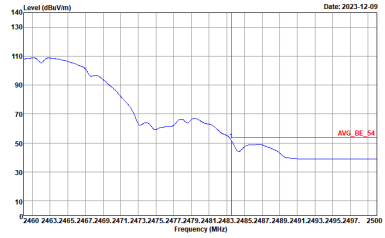
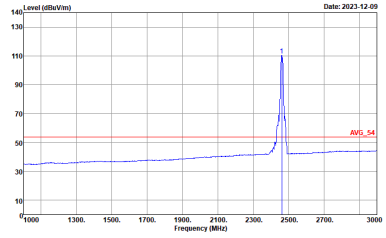
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
6+7	Vertical	Fundamental
Peak		
Avg.		

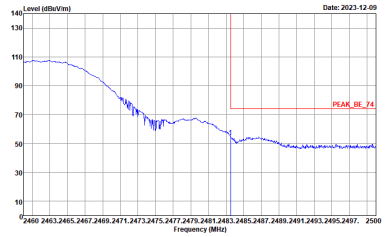
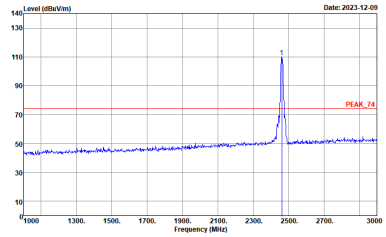
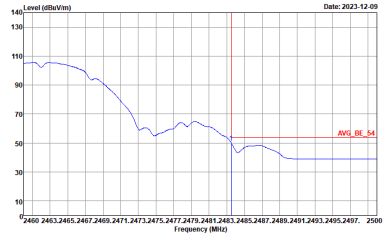
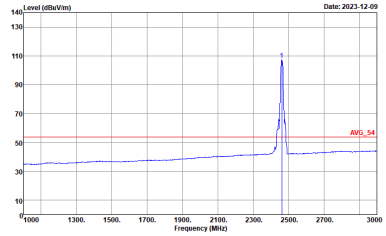
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
6+7	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
6+7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
6+7	Vertical	Fundamental
Peak		
Avg.		

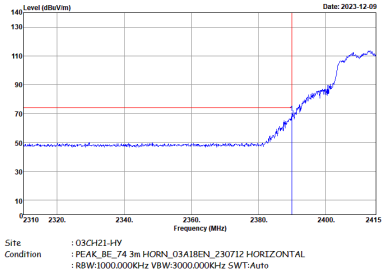
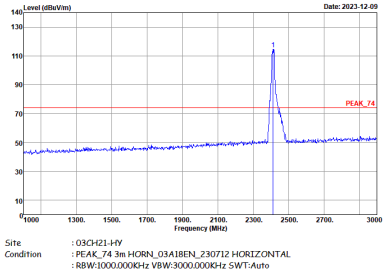
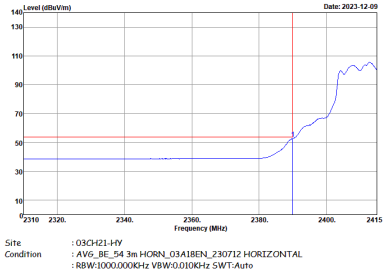
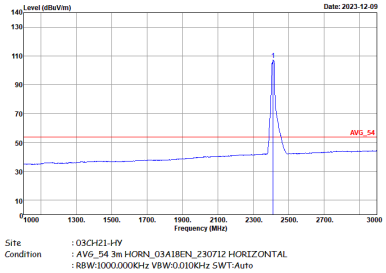
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
6+7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

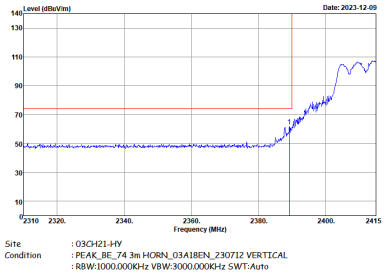
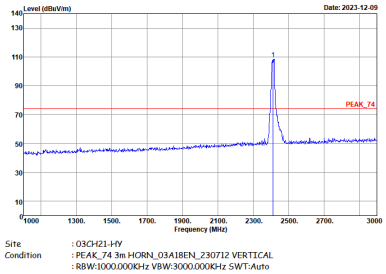
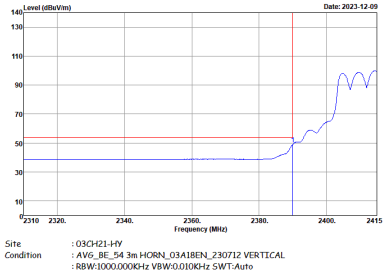
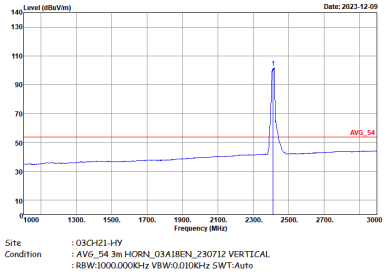
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
6+7	Horizontal	Fundamental
Peak	 Site : 03CH21-HY Condition : PEAK_BE_74 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH21-HY Condition : PEAK_74 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH21-HY Condition : AVG_BE_54 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH21-HY Condition : AVG_54 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

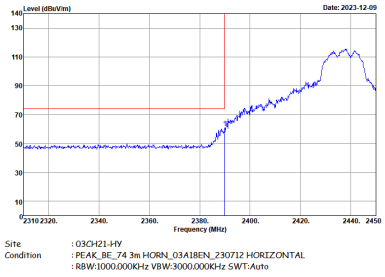
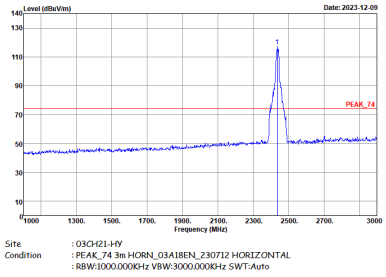
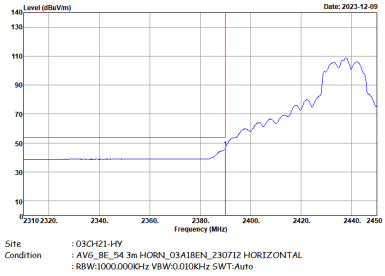
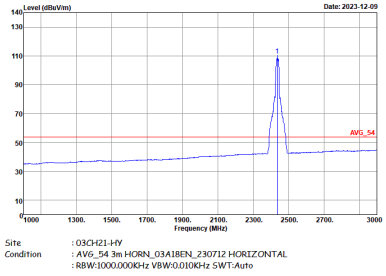
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
6+7	Vertical	Fundamental
Peak	 Site : 03CH21-HY Condition : PEAK_BE_74 3m HORN_03A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH21-HY Condition : PEAK_74 3m HORN_03A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH21-HY Condition : AVG_BE_54 3m HORN_03A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH21-HY Condition : AVG_54 3m HORN_03A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

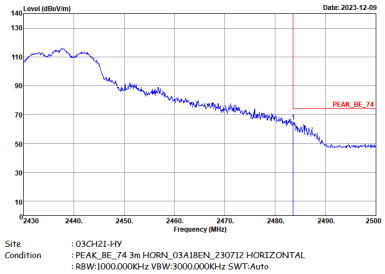
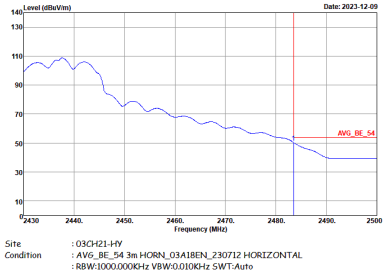
2.4GHz 2400~2483.5MHz

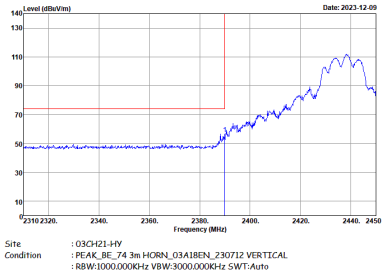
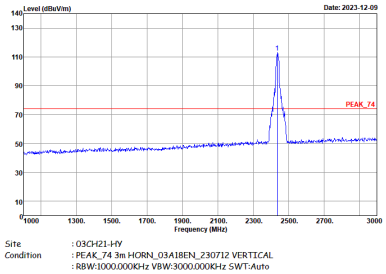
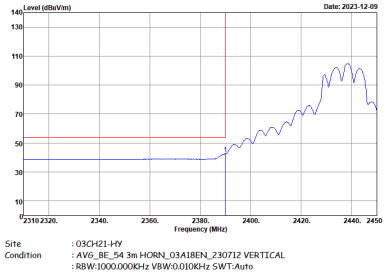
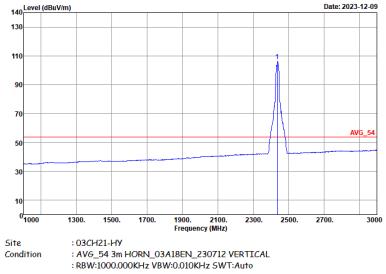
WIFI 802.11g (Band Edge @ 3m)

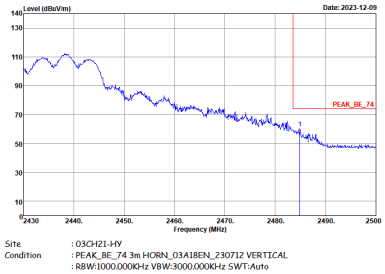
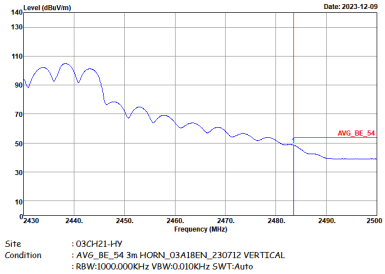
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
6+7	Horizontal	Fundamental
Peak		
Avg.		

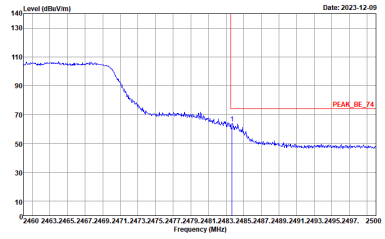
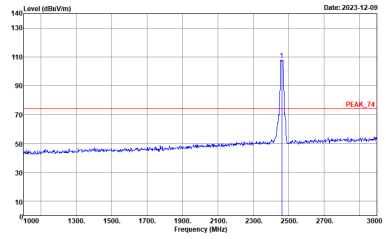
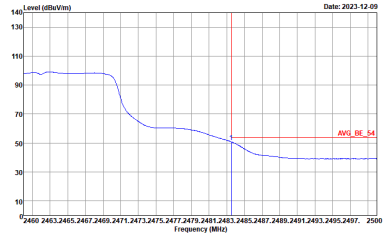
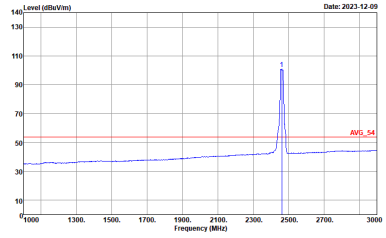
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
6+7	Vertical	Fundamental
Peak		
Avg.		

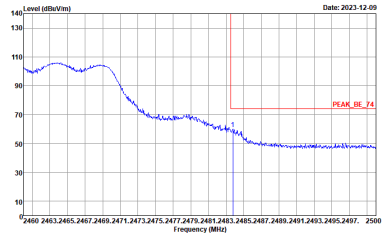
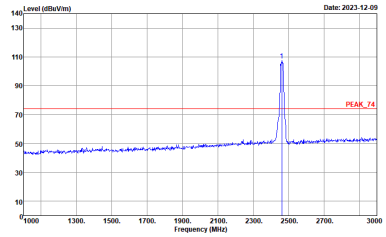
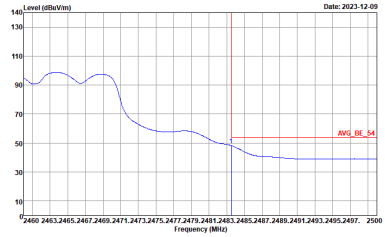
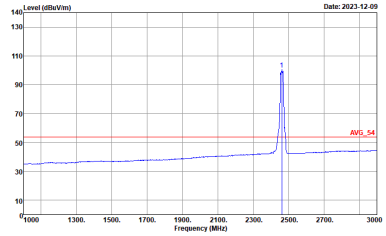
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
6+7	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
6+7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
6+7	Vertical	Fundamental
Peak		
Avg.		

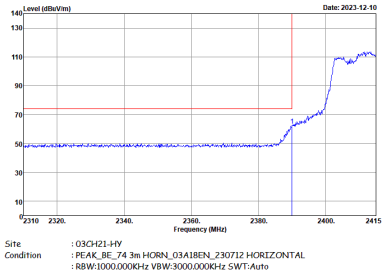
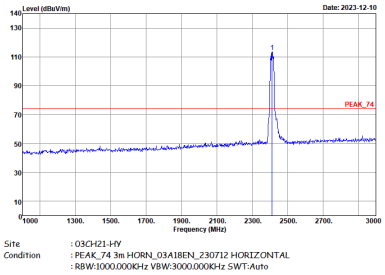
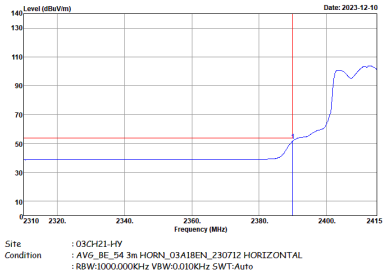
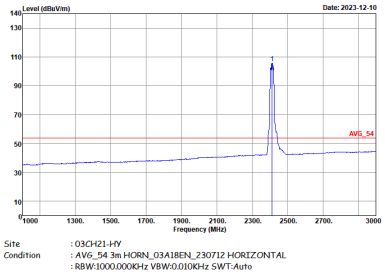
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
6+7	Vertical	Fundamental
Peak		Left Blank
Avg.		Left Blank

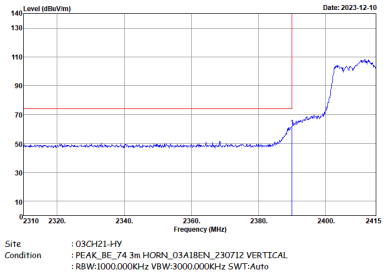
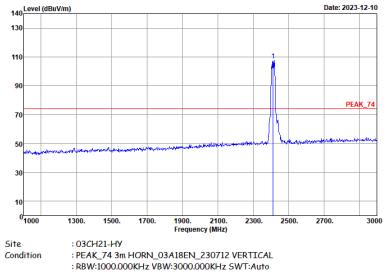
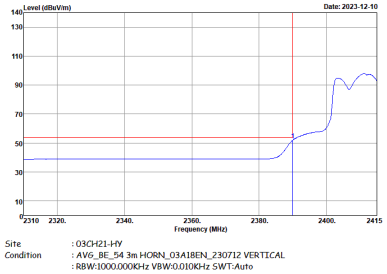
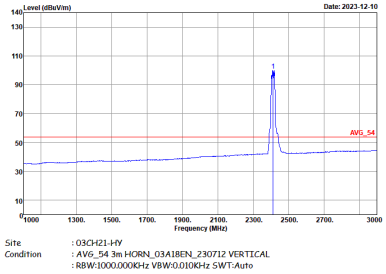
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
6+7	Horizontal	Fundamental
Peak	 Site : 03CH21-HY Condition : PEAK_BE_74 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH21-HY Condition : PEAK_74 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH21-HY Condition : AVG_BE_54 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH21-HY Condition : AVG_54 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

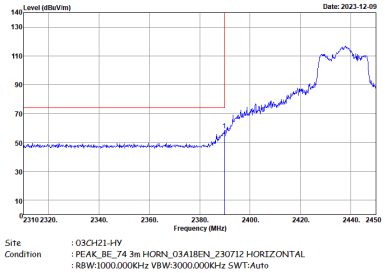
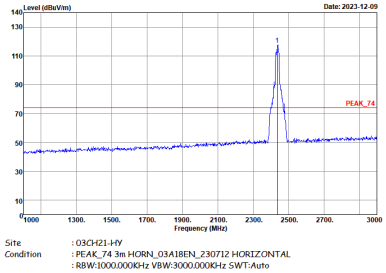
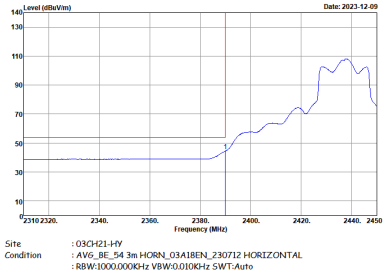
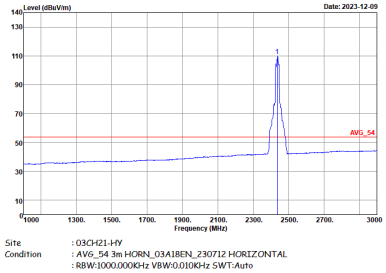
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
6+7	Vertical	Fundamental
Peak	 Site : 03CH21-HY Condition : PEAK_BE_74 3m HORN_03A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH21-HY Condition : PEAK_74 3m HORN_03A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH21-HY Condition : AVG_BE_54 3m HORN_03A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH21-HY Condition : AVG_54 3m HORN_03A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

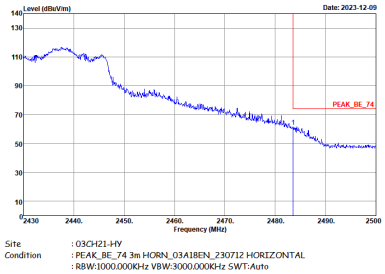
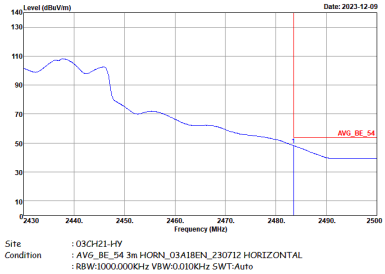
2.4GHz 2400~2483.5MHz

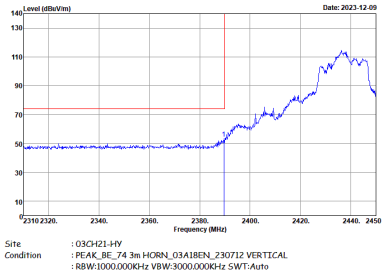
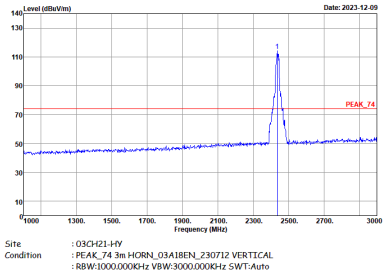
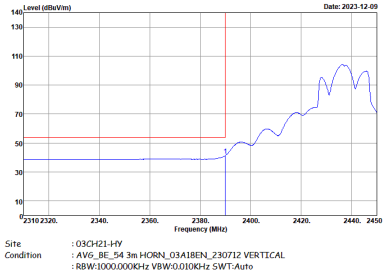
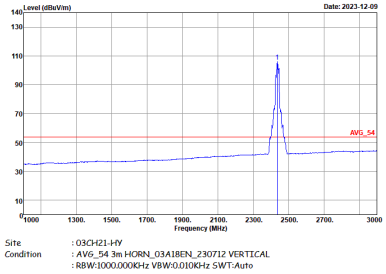
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

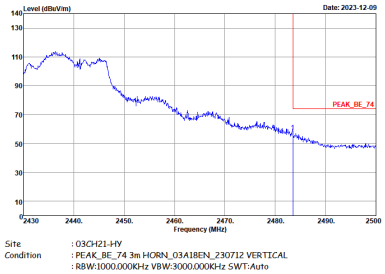
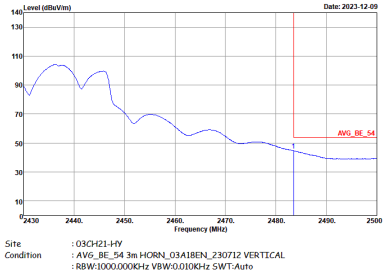
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH01 2412MHz	
6+7	Horizontal	Fundamental
Peak		
Avg.		

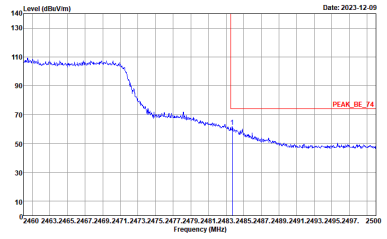
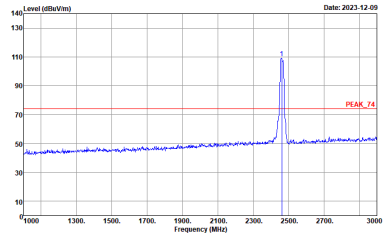
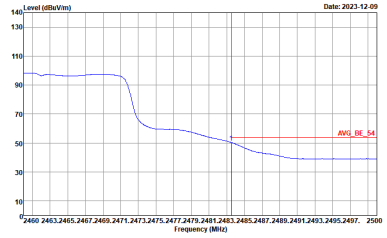
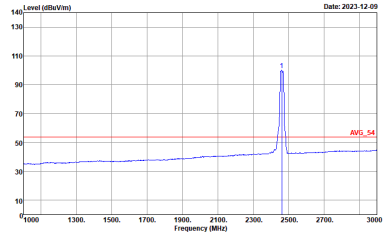
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH01 2412MHz	
6+7	Vertical	Fundamental
Peak		
Avg.		

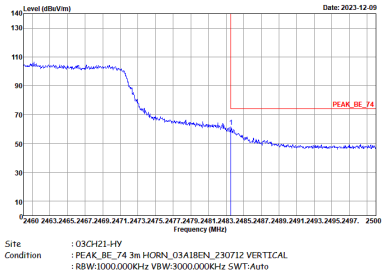
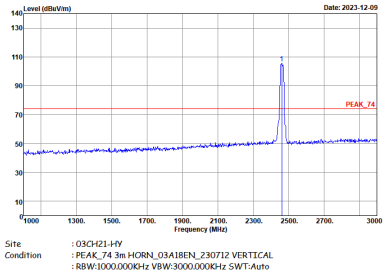
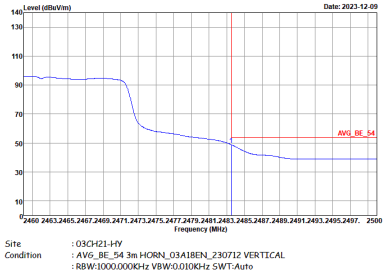
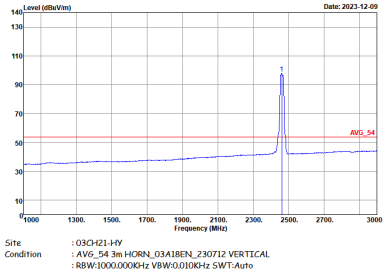
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH06 2437MHz - L	
6+7	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH06 2437MHz - R	
6+7	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	
6+7	Vertical	Fundamental
Peak		
Avg.		

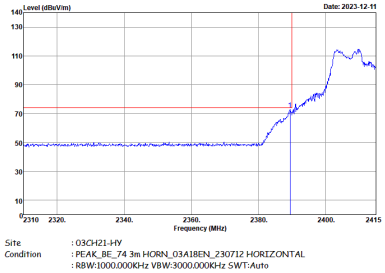
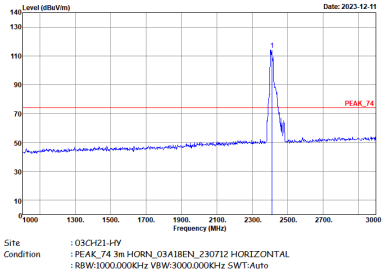
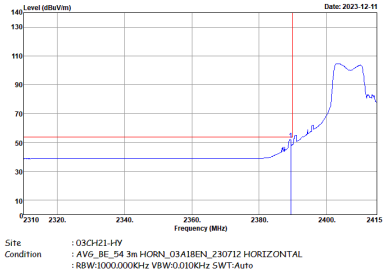
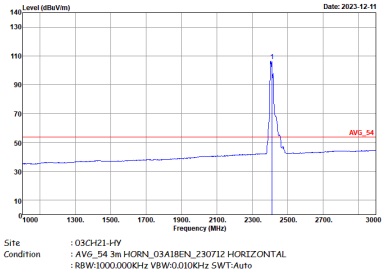
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH06 2437MHz - R	
6+7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

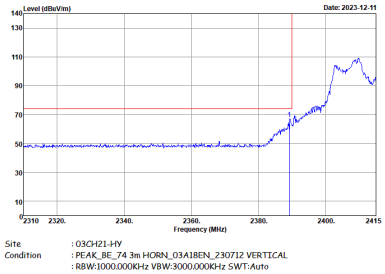
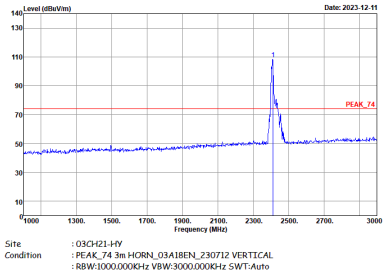
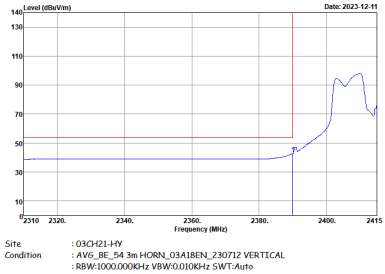
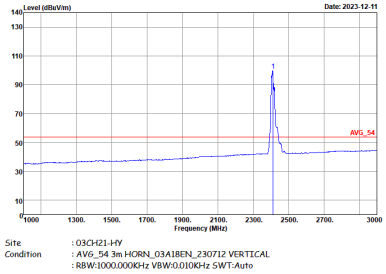
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH11 2462MHz	
6+7	Horizontal	Fundamental
Peak	 Site : 03CH21-HY Condition : PEAK_BE_74 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH21-HY Condition : PEAK_74 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH21-HY Condition : AVG_BE_54 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH21-HY Condition : AVG_54 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

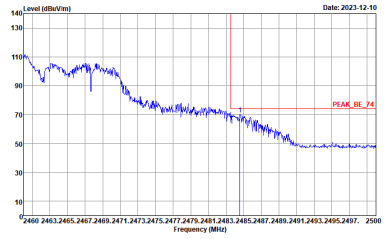
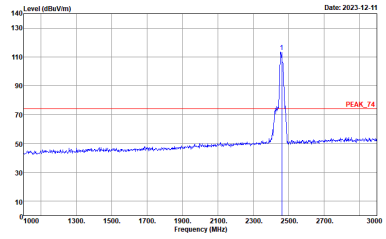
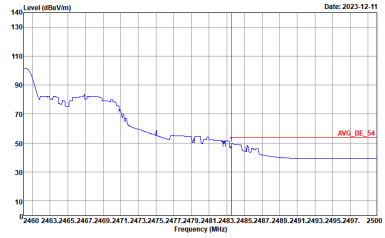
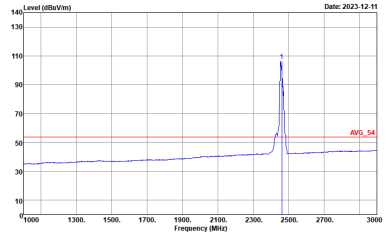
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH11 2462MHz	
6+7	Vertical	Fundamental
Peak	 Site : 03CH21-HY Condition : PEAK_BE_74 3m HORN_03A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH21-HY Condition : PEAK_74 3m HORN_03A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH21-HY Condition : AVG_BE_54 3m HORN_03A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH21-HY Condition : AVG_54 3m HORN_03A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

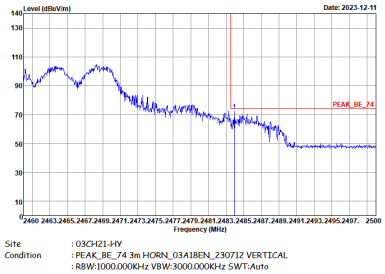
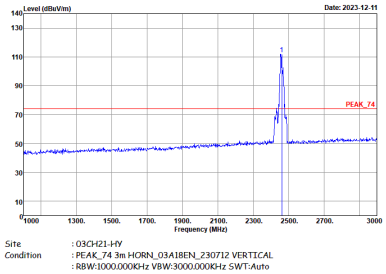
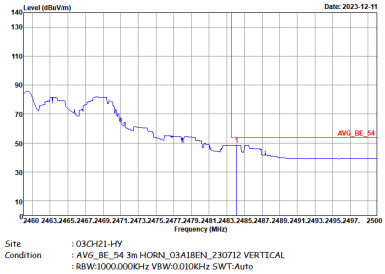
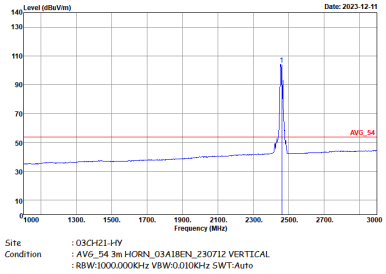
2.4GHz 2400~2483.5MHz

WIFI 802.11ax HE20 Partial 106 (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/53 CH01 2412MHz	
6+7	Horizontal	Fundamental
Peak		
Avg.		

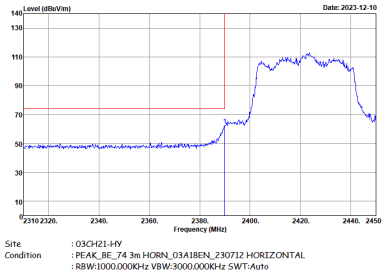
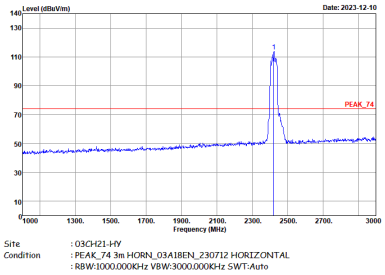
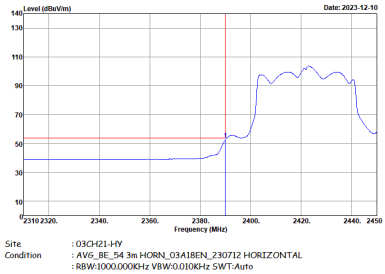
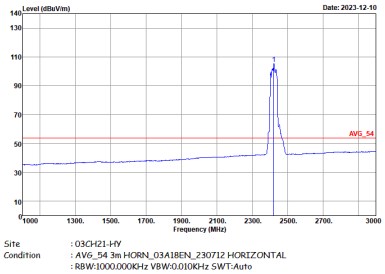
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/53 CH01 2412MHz	
6+7	Vertical	Fundamental
Peak		
Avg.		

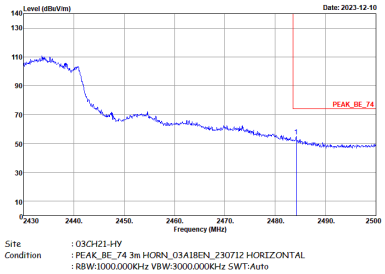
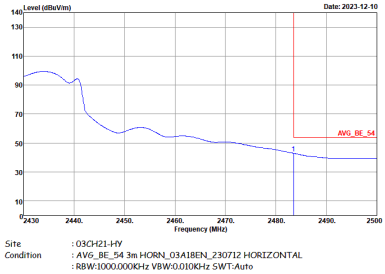
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/54 CH11 2462MHz	
6+7	Horizontal	Fundamental
Peak	 Site : 03CH21-HY Condition : PEAK_BE_74 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH21-HY Condition : PEAK_74 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH21-HY Condition : AVG_BE_54 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH21-HY Condition : AVG_54 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

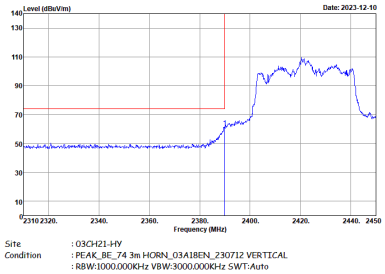
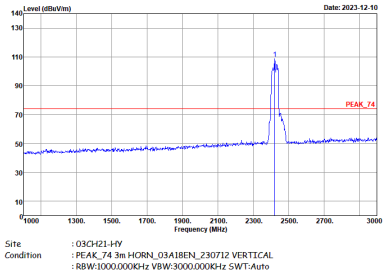
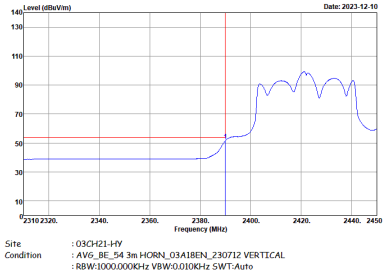
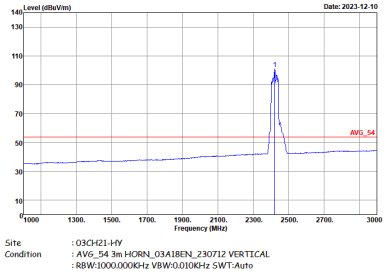
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/54 CH11 2462MHz	
6+7	Vertical	Fundamental
Peak	 Site : 03CH21-HY Condition : PEAK_BE_74 3m HORN_03A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH21-HY Condition : PEAK_74 3m HORN_03A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH21-HY Condition : AVG_BE_54 3m HORN_03A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH21-HY Condition : AVG_54 3m HORN_03A18EN_230712 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

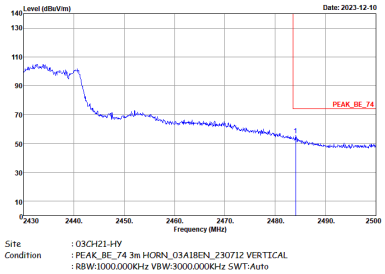
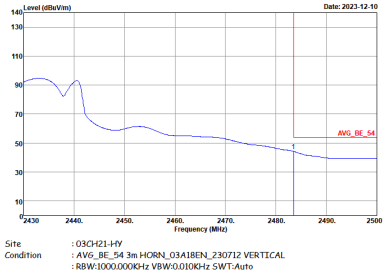
2.4GHz 2400~2483.5MHz

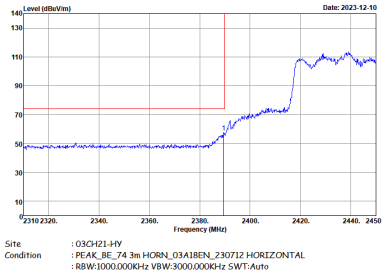
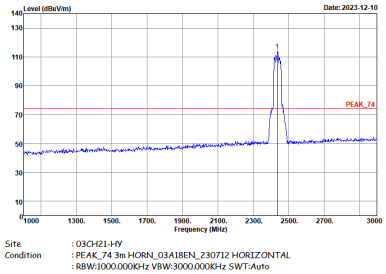
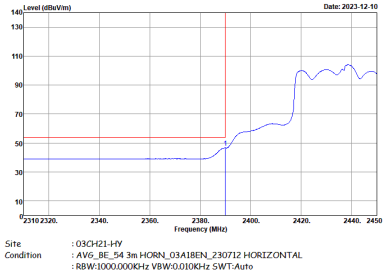
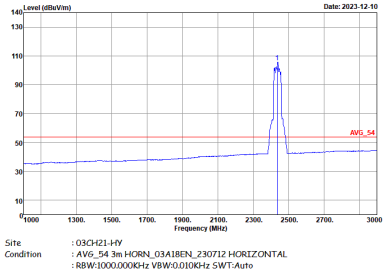
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

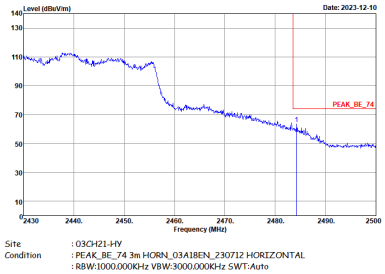
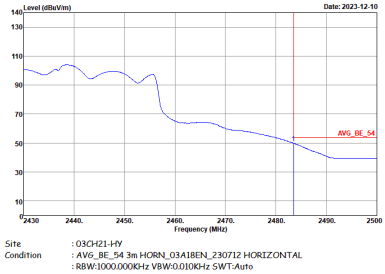
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH03 2422MHz - L	
6+7	Horizontal	Fundamental
Peak		
Avg.		

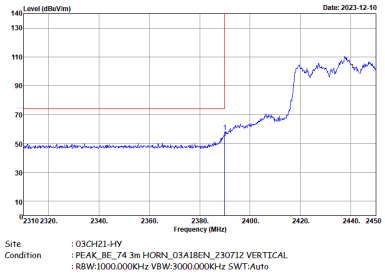
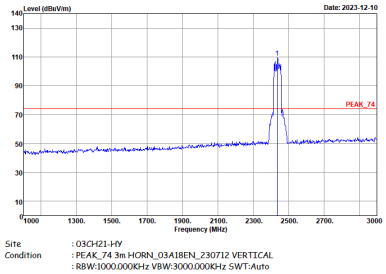
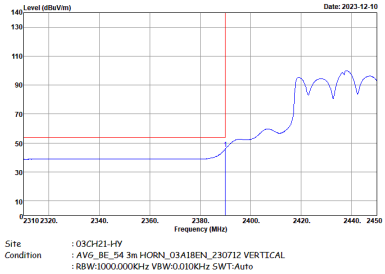
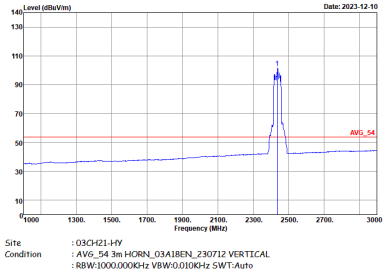
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH03 2422MHz - R	
6+7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

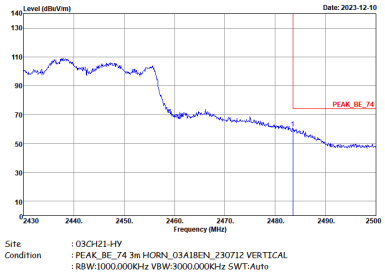
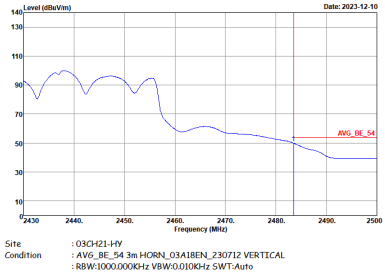
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH03 2422MHz - L	
6+7	Vertical	Fundamental
Peak		
Avg.		

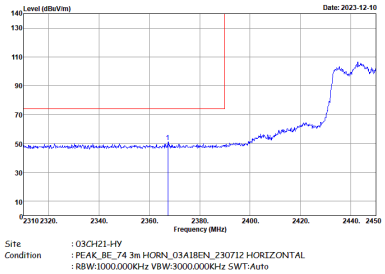
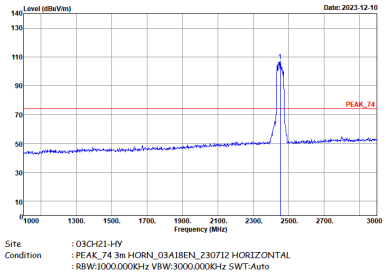
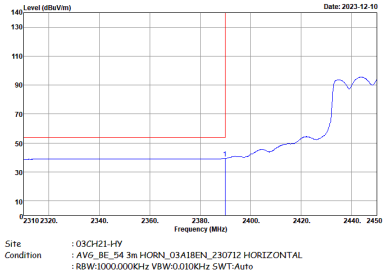
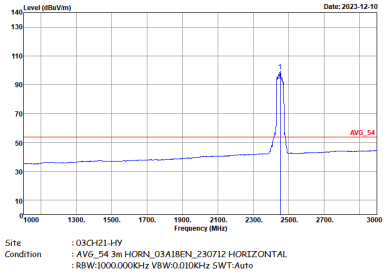
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH03 2422MHz - R	
6+7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

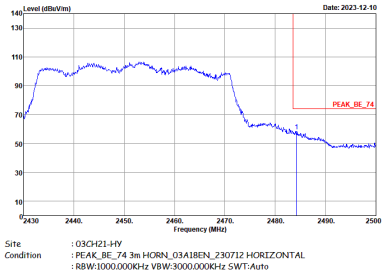
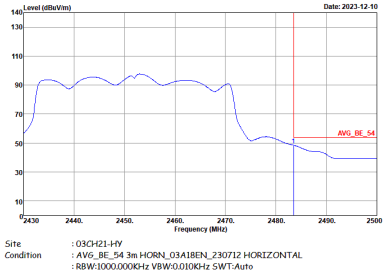
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH06 2437MHz - L	
6+7	Horizontal	Fundamental
Peak		
Avg.		

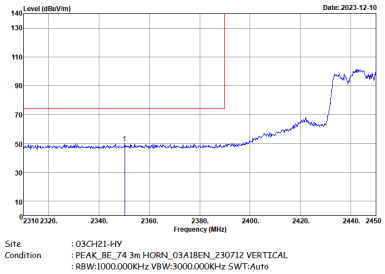
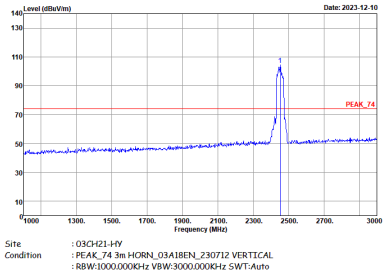
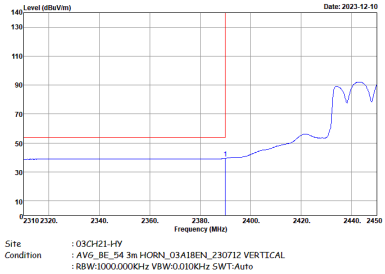
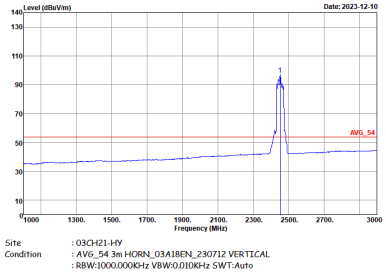
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH06 2437MHz - R	
6+7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

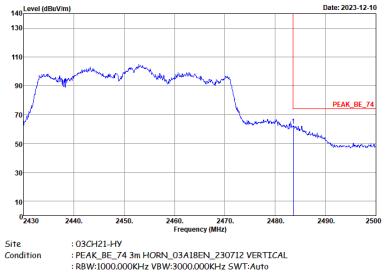
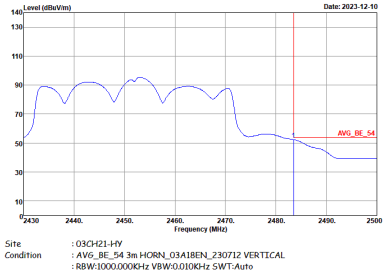
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH06 2437MHz - L	
6+7	Vertical	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH06 2437MHz - R	
6+7	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	
6+7	Horizontal	Fundamental
Peak		
Avg.		

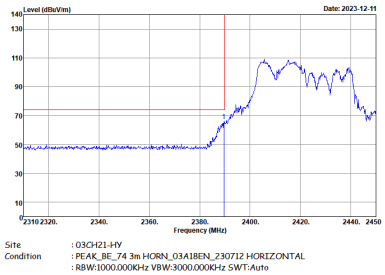
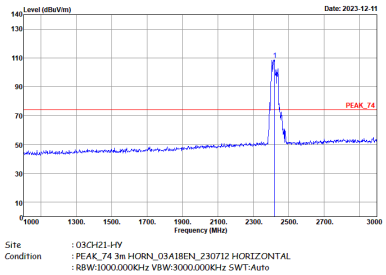
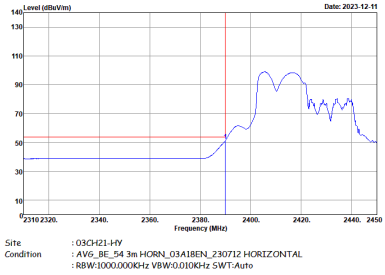
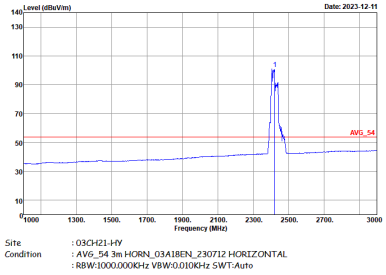
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH09 2452MHz - R	
6+7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

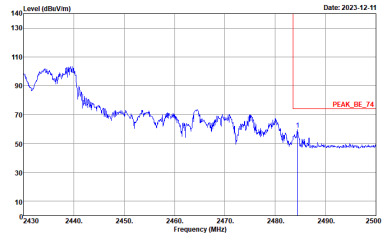
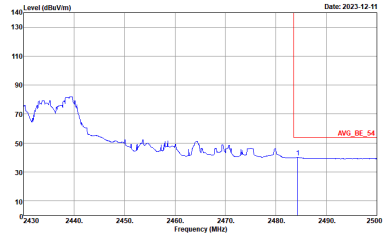
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH09 2452MHz - L	
6+7	Vertical	Fundamental
Peak		
Avg.		

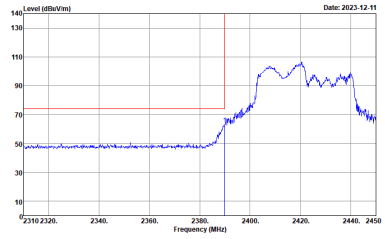
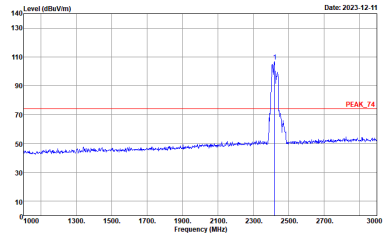
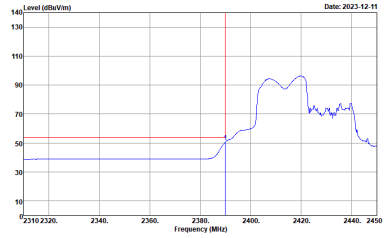
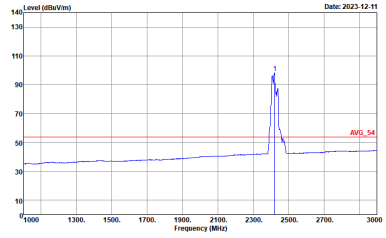
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH09 2452MHz - R	
6+7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

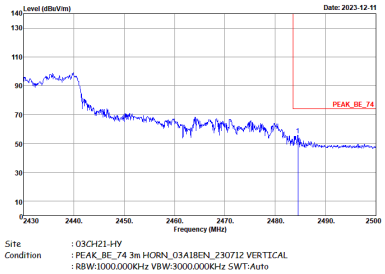
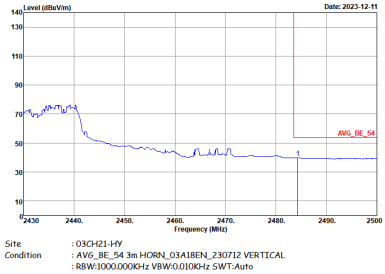
2.4GHz 2400~2483.5MHz

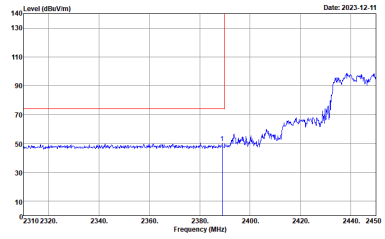
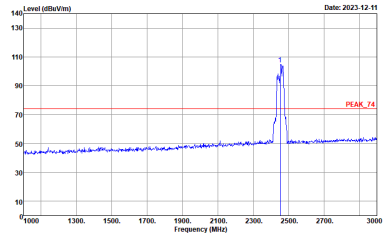
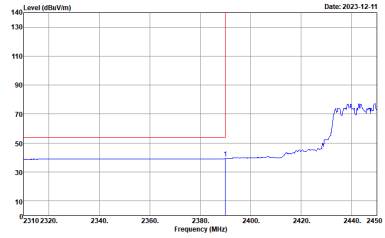
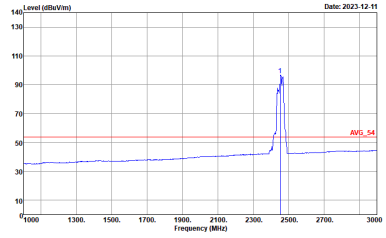
WIFI 802.11ax HE40 Partial 242 (Band Edge @ 3m)

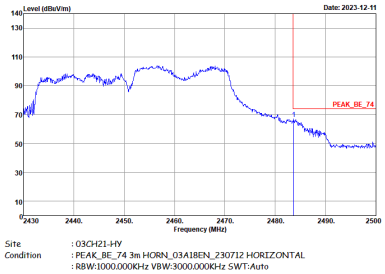
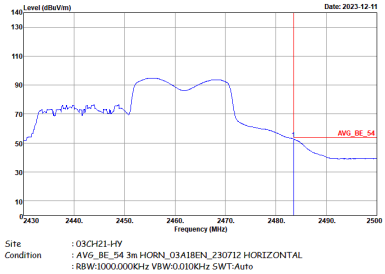
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH03 2422MHz - L	
6+7	Horizontal	Fundamental
Peak		
Avg.		

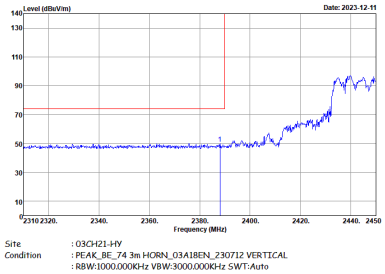
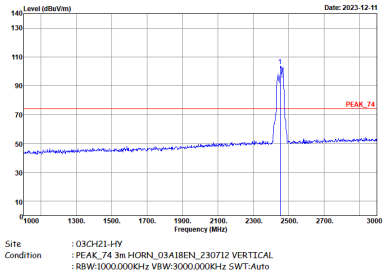
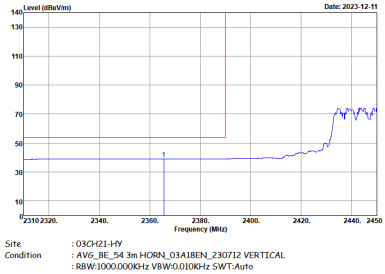
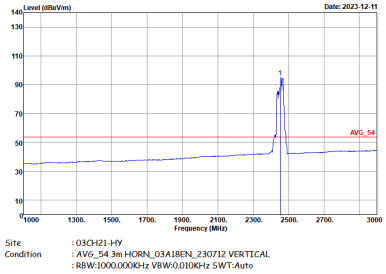
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH03 2422MHz - R	
6+7	Horizontal	Fundamental
Peak	 Site : 03CH21-HV Condition : PEAK_BE_74 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH21-HV Condition : AVG_BE_54 3m HORN_03A18EN_230712 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

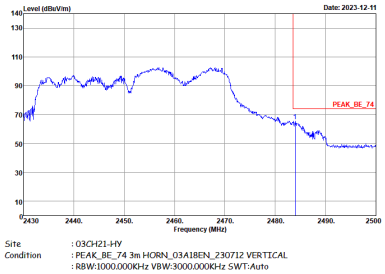
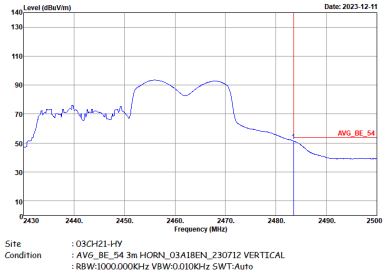
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH03 2422MHz - L	
6+7	Vertical	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH03 2422MHz - R	
6+7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/62 CH09 2452MHz - L	
6+7	Horizontal	Fundamental
Peak		
Avg.		

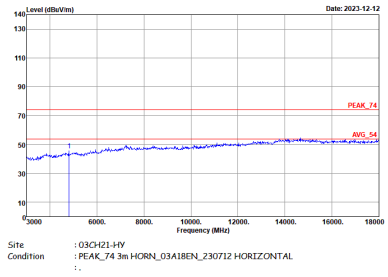
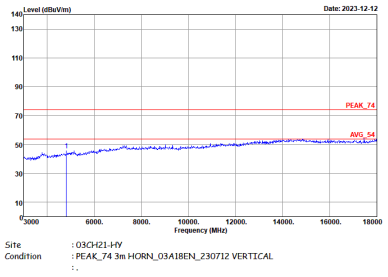
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/62 CH09 2452MHz - R	
6+7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

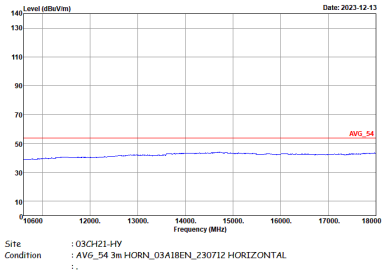
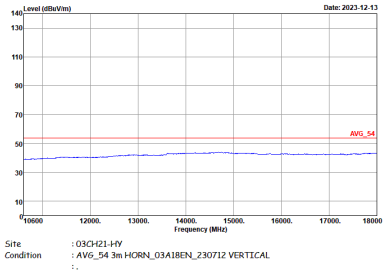
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/62 CH09 2452MHz - L	
6+7	Vertical	Fundamental
Peak		
Avg.		

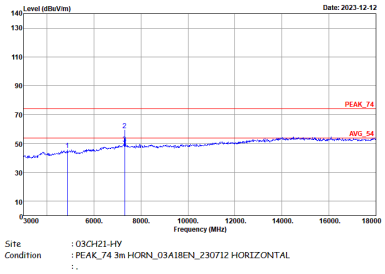
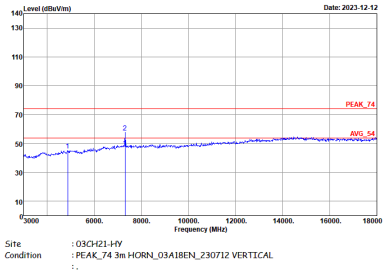
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/62 CH09 2452MHz - R	
6+7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

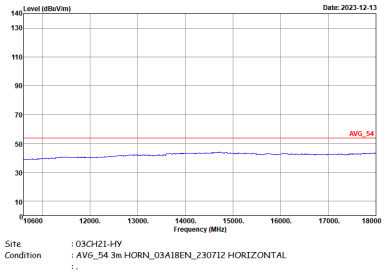
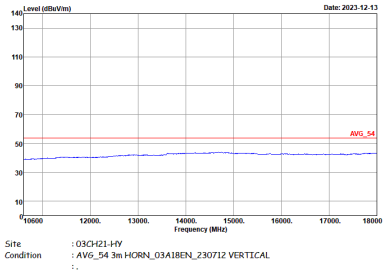
2.4GHz 2400~2483.5MHz

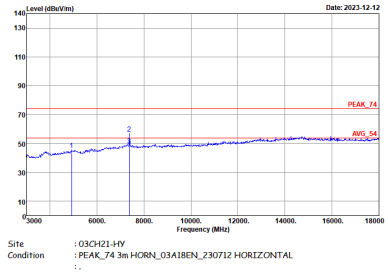
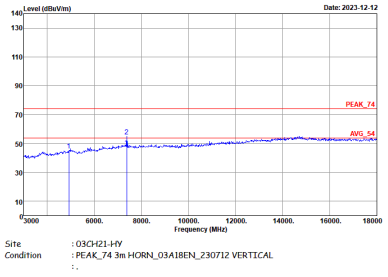
WIFI 802.11b (Harmonic @ 3m)

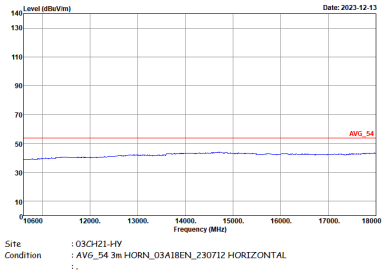
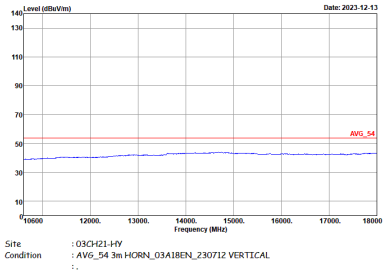
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
6+7	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
6+7	Horizontal	Vertical
10.6G ~18G Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
6+7	Horizontal	Vertical
Peak Avg.		

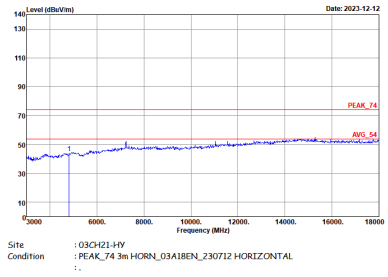
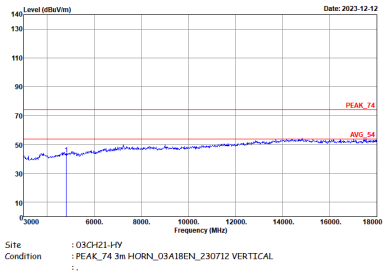
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
6+7	Horizontal	Vertical
10.6G ~18G Avg.		

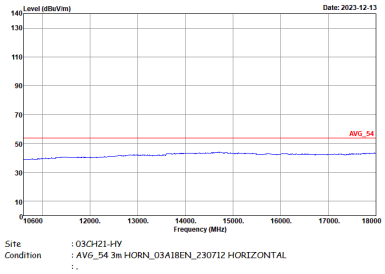
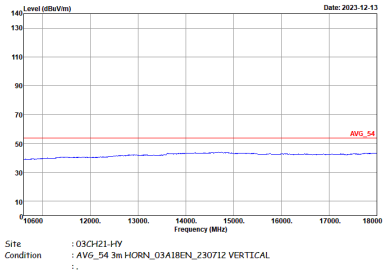
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
6+7	Horizontal	Vertical
Peak Avg.		

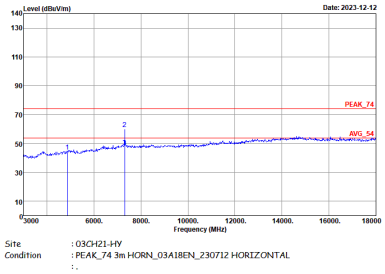
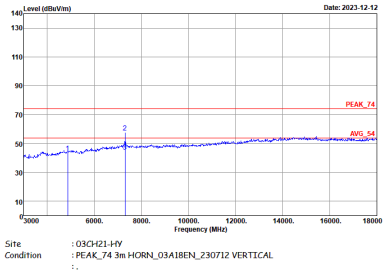
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
6+7	Horizontal	Vertical
10.6G ~18G Avg.		

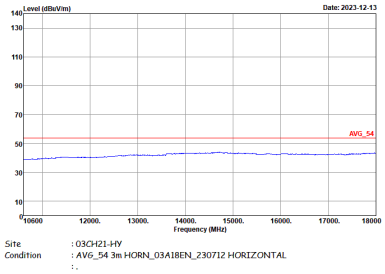
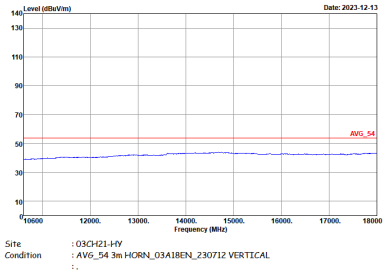
2.4GHz 2400~2483.5MHz

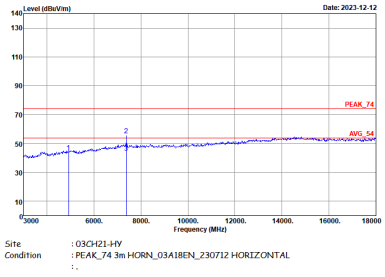
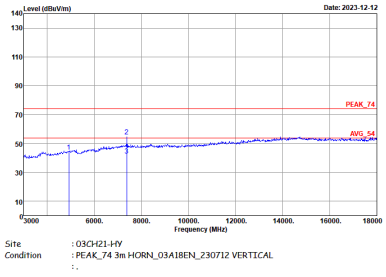
WIFI 802.11g (Harmonic @ 3m)

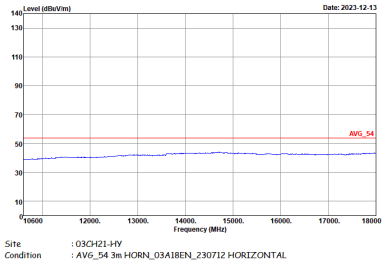
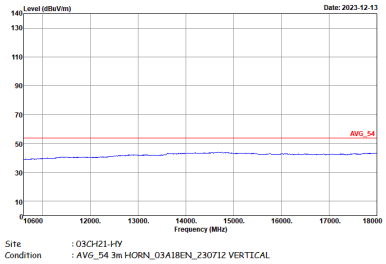
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
6+7	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
6+7	Horizontal	Vertical
10.6G ~18G Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
6+7	Horizontal	Vertical
Peak Avg.		

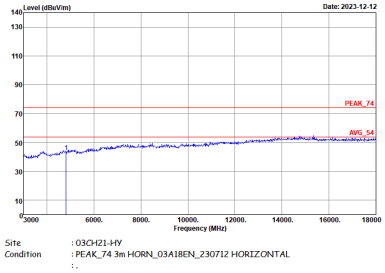
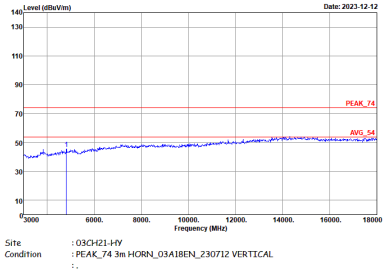
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
6+7	Horizontal	Vertical
10.6G ~18G Avg.		

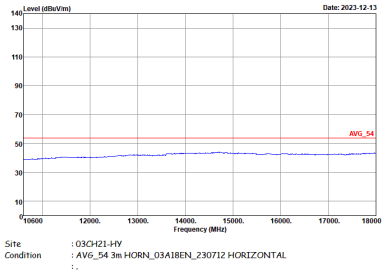
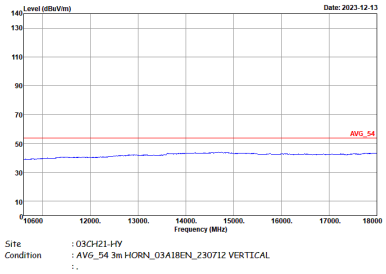
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
6+7	Horizontal	Vertical
Peak Avg.		

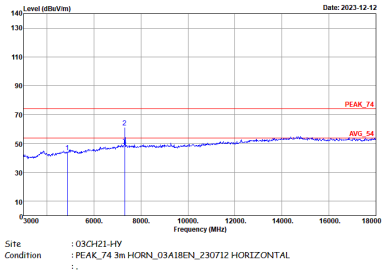
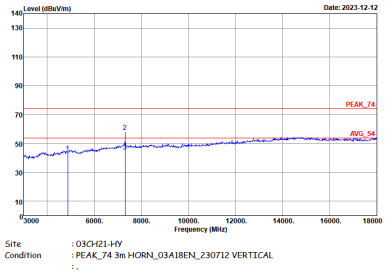
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
6+7	Horizontal	Vertical
10.6G ~18G Avg.		

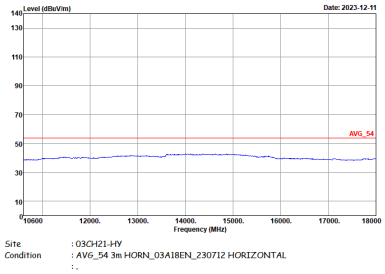
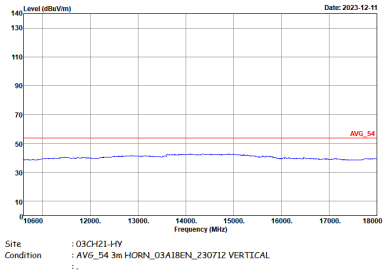
2.4GHz 2400~2483.5MHz

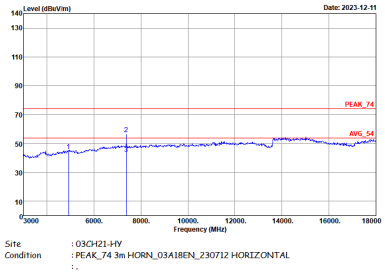
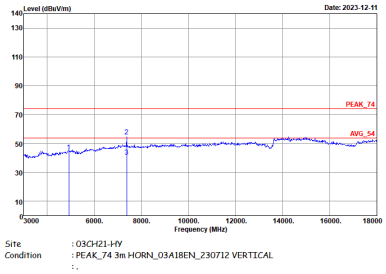
WIFI 802.11 ax HE20 Full (Harmonic @ 3m)

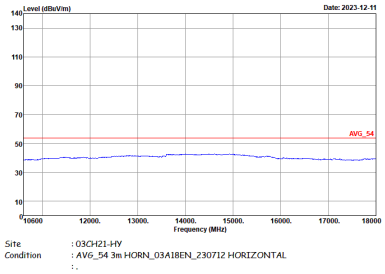
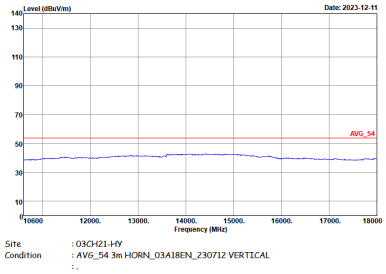
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH01 2412MHz	
6+7	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH01 2412MHz	
6+7	Horizontal	Vertical
10.6G ~18G Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH06 2437MHz	
6+7	Horizontal	Vertical
Peak Avg.		

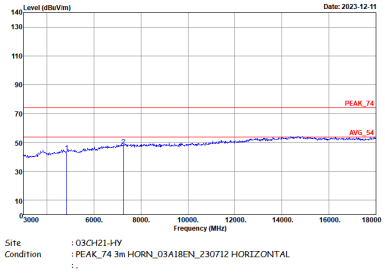
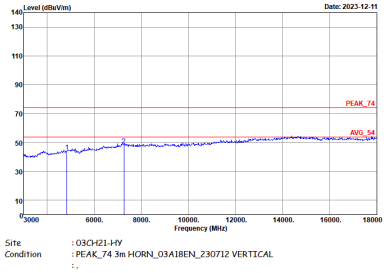
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH06 2437MHz	
6+7	Horizontal	Vertical
10.6G ~18G Avg.		

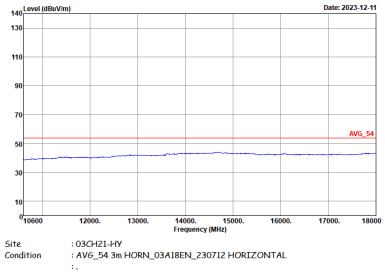
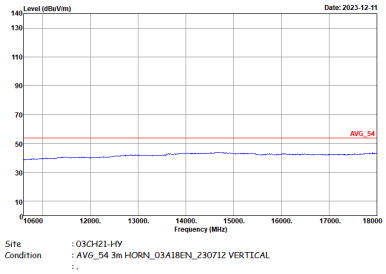
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH11 2462MHz	
6+7	Horizontal	Vertical
Peak Avg.		

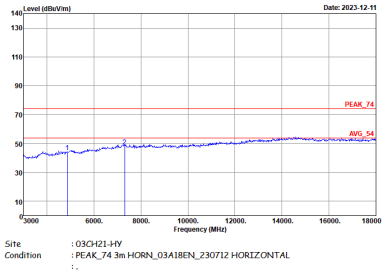
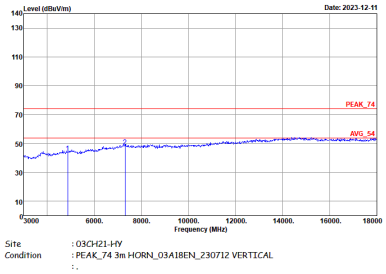
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH11 2462MHz	
6+7	Horizontal	Vertical
10.6G ~18G Avg.		

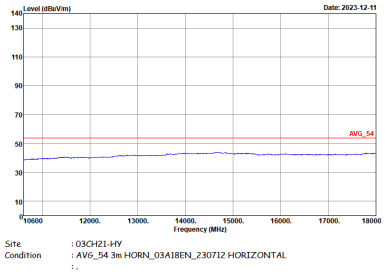
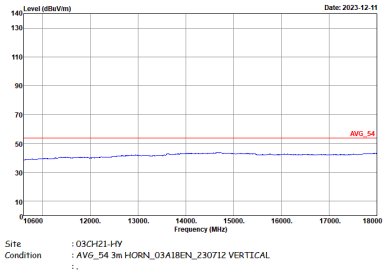
2.4GHz 2400~2483.5MHz

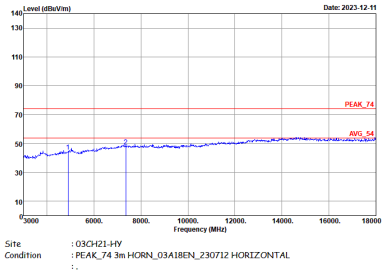
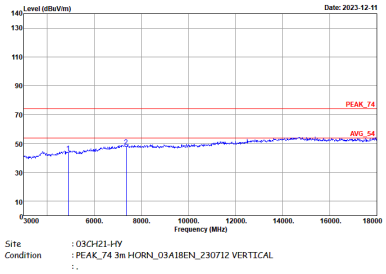
WIFI 802.11 ax HE40 Full (Harmonic @ 3m)

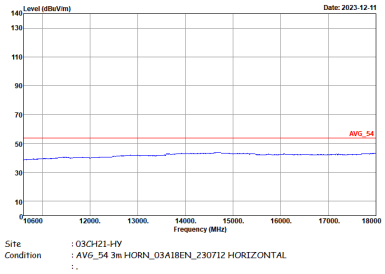
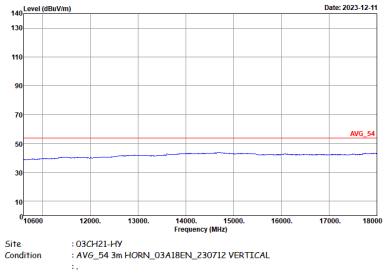
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH03 2422MHz	
6+7	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH03 2422MHz	
6+7	Horizontal	Vertical
10.6G ~18G Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH06 2437MHz	
6+7	Horizontal	Vertical
Peak Avg.		

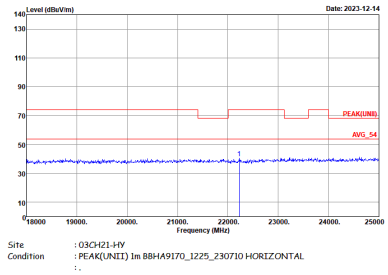
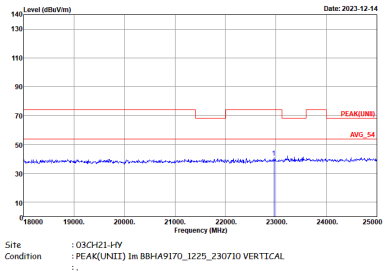
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH06 2437MHz	
6+7	Horizontal	Vertical
10.6G ~18G Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH09 2452MHz	
6+7	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE40 Full CH09 2452MHz	
6+7	Horizontal	Vertical
10.6G ~18G Avg.		

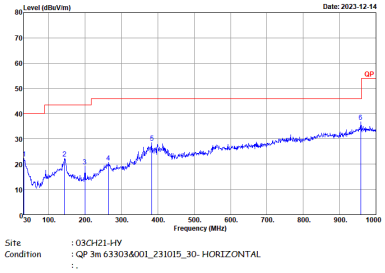
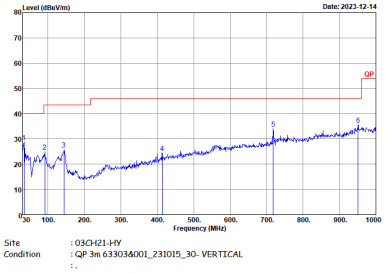
Emission above 18GHz

2.4GHz WIFI 802.11ax HE20 (SHF @ 1m)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11ax HE20 SHF	
6+7	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

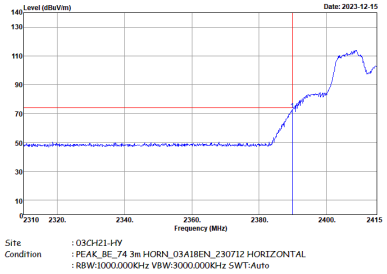
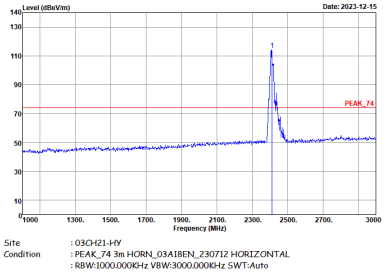
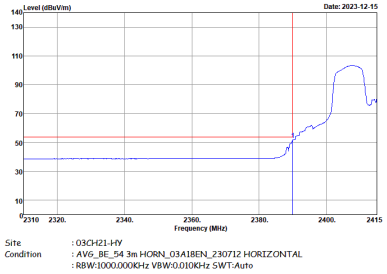
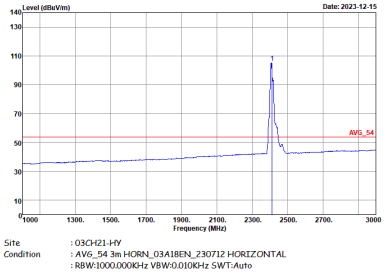
2.4GHz WIFI 802.11ax HE20 (LF)

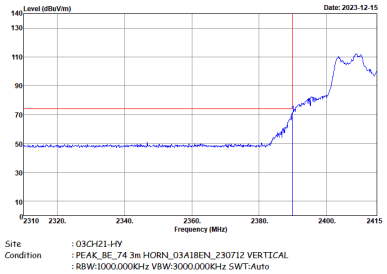
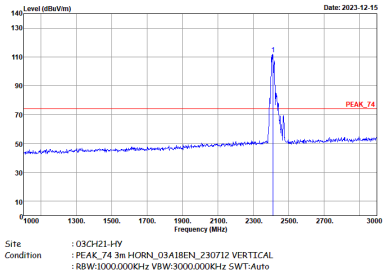
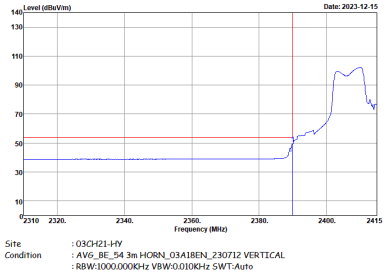
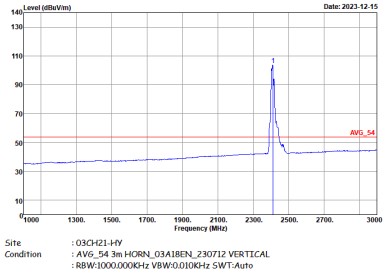
WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11ax HE20 LF	
6+7	Horizontal	Vertical
QP / Peak		

<Sample 2>

2.4GHz 2400~2483.5MHz

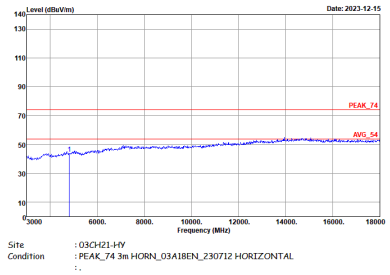
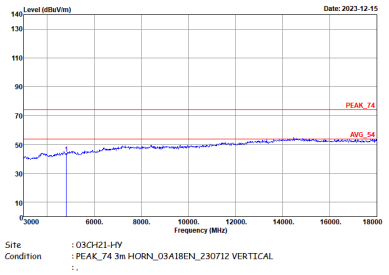
WIFI 802.11ax HE20 Partial 106 (Band Edge @ 3m)

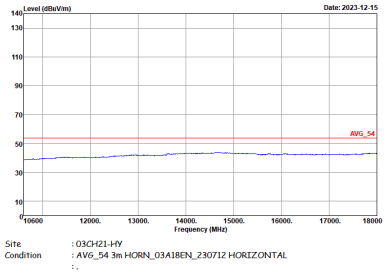
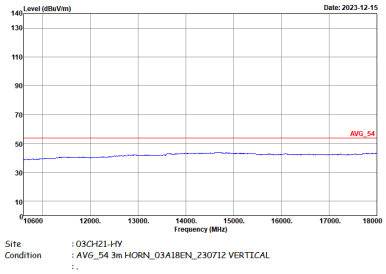
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/53 CH01 2412MHz	
6+7	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 106/53 CH01 2412MHz	
6+7	Vertical	Fundamental
Peak		
Avg.		

2.4GHz 2400~2483.5MHz

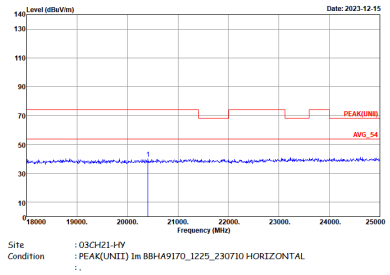
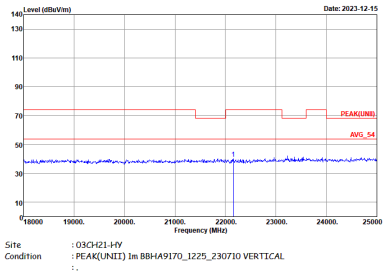
WIFI 802.11ax HE20 Partial 106 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11ax HE20 Partial 106/53 CH01 2412MHz	
6+7	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11ax HE20 Partial 106/53 CH01 2412MHz	
6+7	Horizontal	Vertical
10.6G ~18G Avg.		

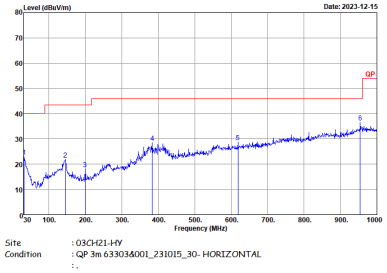
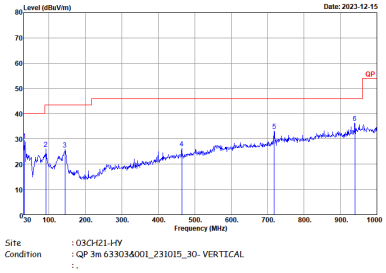
Emission above 18GHz

2.4GHz WIFI 802.11ax HE20 Partial 106 (SHF @ 1m)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11ax HE20 Partial 106 SHF	
6+7	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

2.4GHz WIFI 802.11ax HE20 Partial 106 (LF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11ax HE20 Partial 106 LF	
6+7	Horizontal	Vertical
QP / Peak		

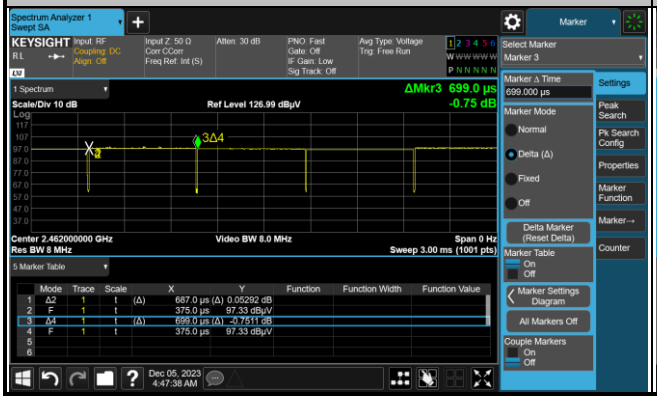
Appendix E. Duty Cycle Plots

<Sample 1>

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
6+7	802.11b	98.28	-	-	10Hz
6+7	802.11g	100.00	-	-	10Hz
6+7	2.4GHz 802.11ax HE20 Full RU	100.00	-	-	10Hz
6+7	2.4GHz 802.11ax HE20 106 RU	100.00	-	-	10Hz
6+7	2.4GHz 802.11ax HE40 Full RU	99.17	-	-	10Hz
6+7	2.4GHz 802.11ax HE40 242RU	99.28	-	-	10Hz

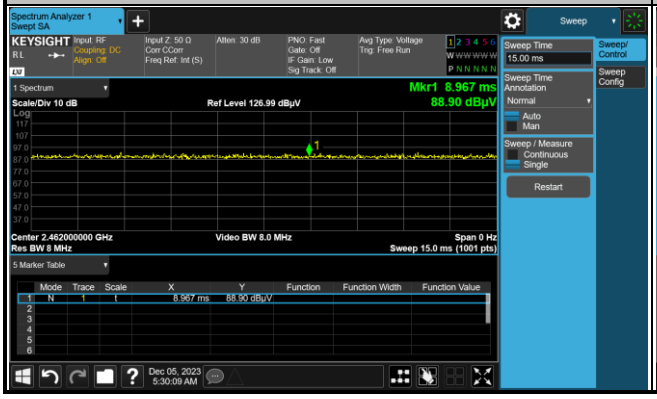
MIMO <Ant. 6+7>

802.11b

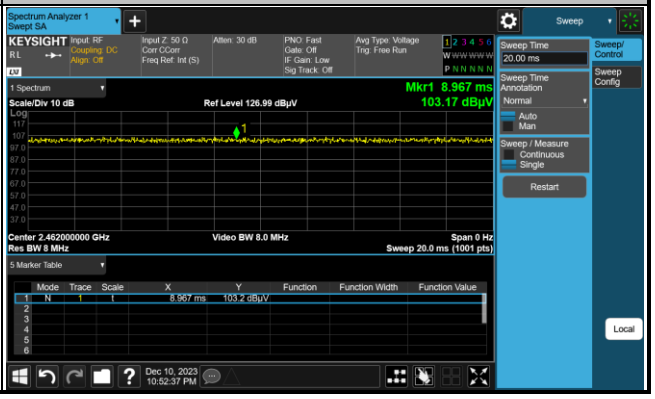


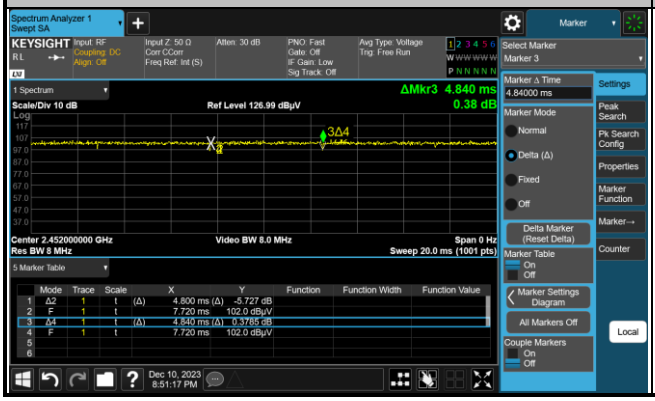
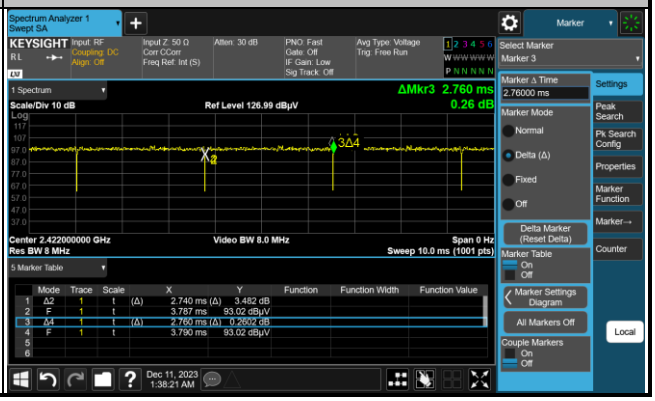
802.11g

2.4GHz 802.11ax HE20 Full RU



2.4GHz 802.11ax HE20 106 RU



2.4GHz 802.11ax HE40 Full RU	2.4GHz 802.11ax HE40 242RU
	

<Sample 2>

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
6+7	2.4GHz 802.11ax HE20 106 RU	100.00	-	-	10Hz

MIMO <Ant. 6+7>

2.4GHz 802.11ax HE20 106 RU