<Ant. 8>

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Occupied BW (MHz)	6dB BW (MHz)	6dB BW Limit (MHz)	Pass/Fail
BLE	1Mbps	1	0	2402	1.019	0.678	0.50	Pass
BLE	1Mbps	1	19	2440	1.019	0.678	0.50	Pass
BLE	1Mbps	1	39	2480	1.019	0.678	0.50	Pass

TEST RESULTS DATA
Average Power Table

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
BLE	1Mbps	1	0	2402	7.60	30.00	-3.82	3.78	36.00	Pass
BLE	1Mbps	1	19	2440	9.10	30.00	-3.82	5.28	36.00	Pass
BLE	1Mbps	1	39	2480	7.60	30.00	-3.82	3.78	36.00	Pass

TEST RESULTS DATA
Peak Power Density

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm /100kHz)	Peak PSD (dBm /3kHz)	DG (dBi)	Peak PSD Limit (dBm /3kHz)	Pass/Fail
BLE	1Mbps	1	0	2402	6.72	-7.67	-3.82	8.00	Pass
BLE	1Mbps	1	19	2440	8.25	-6.12	-3.82	8.00	Pass
BLE	1Mbps	1	39	2480	6.87	-7.48	-3.82	8.00	Pass

Note: PSD (dBm/ 100kHz) is a reference level used for Conducted Band Edges and Conducted Spurious Emission 30dBc limit.

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Occupied BW (MHz)	6dB BW (MHz)	6dB BW Limit (MHz)	Pass/Fail
BLE	2Mbps	1	0	2402	1.998	1.168	0.50	Pass
BLE	2Mbps	1	19	2440	1.998	1.164	0.50	Pass
BLE	2Mbps	1	39	2480	1.998	1.168	0.50	Pass

TEST RESULTS DATA
Average Power Table

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail
BLE	2Mbps	1	0	2402	7.60	30.00	-3.82	3.78	36.00	Pass
BLE	2Mbps	1	19	2440	9.10	30.00	-3.82	5.28	36.00	Pass
BLE	2Mbps	1	39	2480	7.60	30.00	-3.82	3.78	36.00	Pass

TEST RESULTS DATA
Peak Power Density

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm /100kHz)	Peak PSD (dBm /3kHz)	DG (dBi)	Peak PSD Limit (dBm /3kHz)	Pass/Fail
BLE	2Mbps	1	0	2402	6.78	-10.64	-3.82	8.00	Pass
BLE	2Mbps	1	19	2440	8.24	-9.04	-3.82	8.00	Pass
BLE	2Mbps	1	39	2480	6.86	-10.44	-3.82	8.00	Pass

Note: PSD (dBm/ 100kHz) is a reference level used for Conducted Band Edges and Conducted Spurious Emission 30dBc limit.

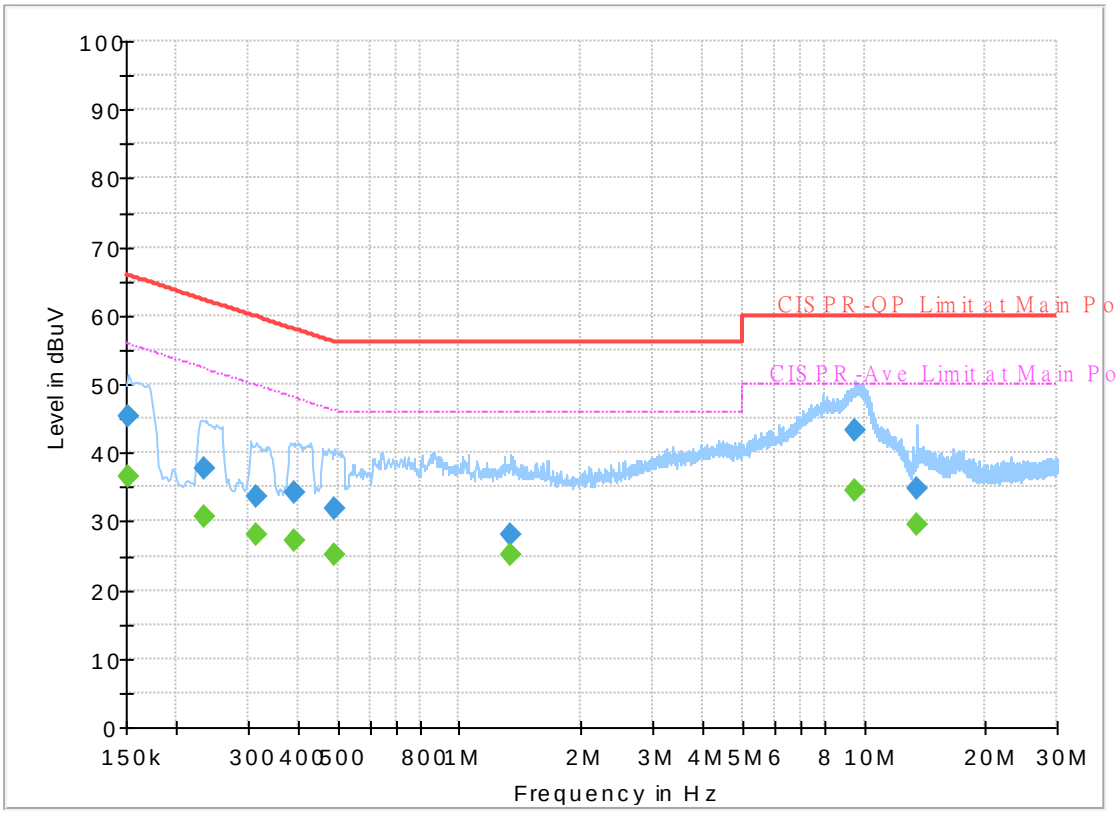
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Howard Huang	**Temperature :**	23~26℃
		Relative Humidity :	45~55%

EUT Information

Report NO :	210409
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

Full Spectrum



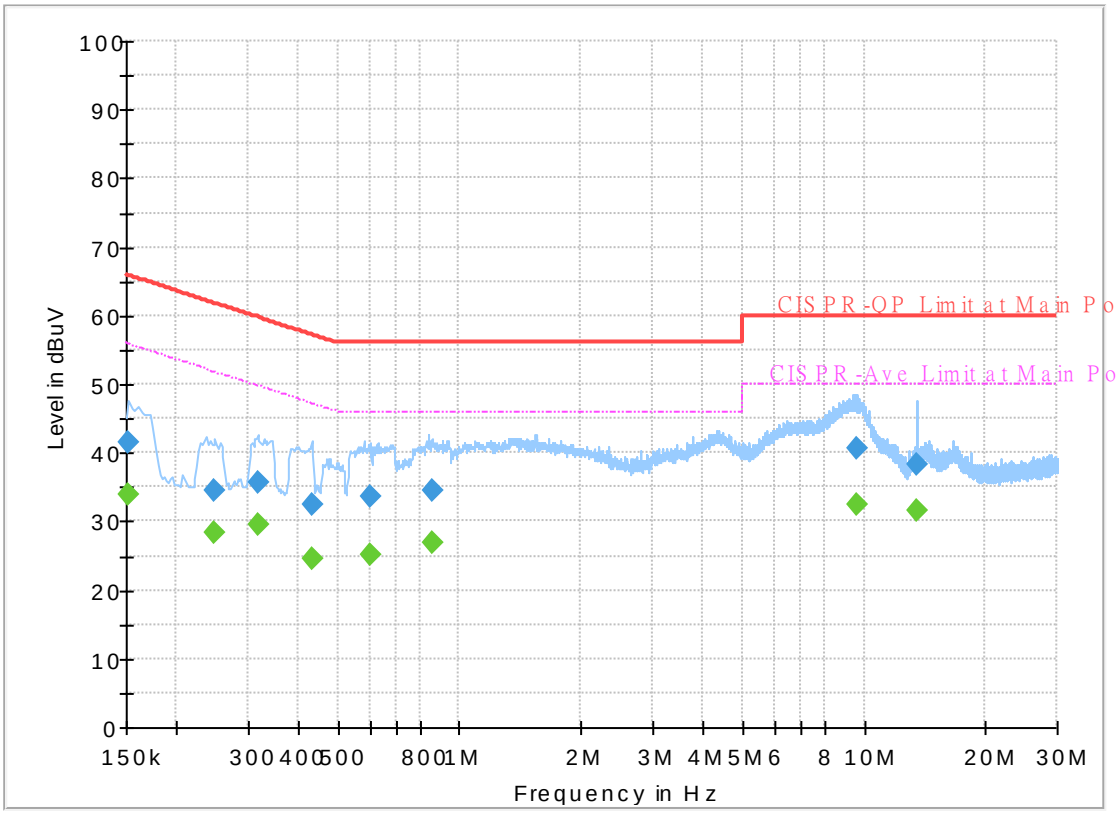
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	36.49	55.88	19.39	L1	OFF	19.6
0.152250	45.29	---	65.88	20.59	L1	OFF	19.6
0.233250	---	30.59	52.33	21.74	L1	OFF	19.6
0.233250	37.82	---	62.33	24.51	L1	OFF	19.6
0.314250	---	28.09	49.86	21.77	L1	OFF	19.6
0.314250	33.48	---	59.86	26.38	L1	OFF	19.6
0.388500	---	27.14	48.10	20.96	L1	OFF	19.6
0.388500	34.24	---	58.10	23.86	L1	OFF	19.6
0.492000	---	25.14	46.13	20.99	L1	OFF	19.6
0.492000	31.77	---	56.13	24.36	L1	OFF	19.6
1.338000	---	25.07	46.00	20.93	L1	OFF	19.7
1.338000	28.11	---	56.00	27.89	L1	OFF	19.7
9.543750	---	34.63	50.00	15.37	L1	OFF	20.0
9.543750	43.35	---	60.00	16.65	L1	OFF	20.0
13.560000	---	29.44	50.00	20.56	L1	OFF	20.2
13.560000	34.77	---	60.00	25.23	L1	OFF	20.2

EUT Information

Report NO :	210409
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	33.83	55.88	22.05	N	OFF	19.6
0.152250	41.64	---	65.88	24.24	N	OFF	19.6
0.249000	---	28.29	51.79	23.50	N	OFF	19.6
0.249000	34.39	---	61.79	27.40	N	OFF	19.6
0.316500	---	29.54	49.80	20.26	N	OFF	19.6
0.316500	35.65	---	59.80	24.15	N	OFF	19.6
0.431250	---	24.65	47.23	22.58	N	OFF	19.6
0.431250	32.52	---	57.23	24.71	N	OFF	19.6
0.600000	---	25.12	46.00	20.88	N	OFF	19.6
0.600000	33.57	---	56.00	22.43	N	OFF	19.6
0.854250	---	26.77	46.00	19.23	N	OFF	19.6
0.854250	34.39	---	56.00	21.61	N	OFF	19.6
9.642750	---	32.51	50.00	17.49	N	OFF	20.1
9.642750	40.63	---	60.00	19.37	N	OFF	20.1
13.560000	---	31.56	50.00	18.44	N	OFF	20.2
13.560000	38.43	---	60.00	21.57	N	OFF	20.2

Appendix C. Radiated Spurious Emission

Test Engineer :	Daniel Lee, Fu Chen and Troye Hsieh	Temperature :	20.1~21.6°C
		Relative Humidity :	56.5~66.9%

<1Mbps>

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

BLE Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
7		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BLE CH 00 2402MHz		2332.68	52.91	-21.09	74	42.36	27.3	17.21	33.96	181	24	P	H
		2382.03	43.51	-10.49	54	32.75	27.43	17.28	33.95	181	24	A	H
	*	2402	101.72	-	-	90.86	27.51	17.3	33.95	181	24	P	H
	*	2402	100.91	-	-	90.05	27.51	17.3	33.95	181	24	A	H
													H
													H
		2388.225	53.18	-20.82	74	42.4	27.45	17.28	33.95	400	124	P	V
		2375.205	43.55	-10.45	54	32.83	27.4	17.27	33.95	400	124	A	V
	*	2402	98.46	-	-	87.6	27.51	17.3	33.95	400	124	P	V
	*	2402	97.25	-	-	86.39	27.51	17.3	33.95	400	124	A	V
													V
													V
BLE CH 19 2440MHz		2386.48	52.79	-21.21	74	42.01	27.45	17.28	33.95	168	25	P	H
		2345.68	43.44	-10.56	54	32.87	27.3	17.23	33.96	168	25	A	H
	*	2440	103.21	-	-	92.13	27.66	17.36	33.94	168	25	P	H
	*	2440	102.57	-	-	91.49	27.66	17.36	33.94	168	25	A	H
		2498.24	53.29	-20.71	74	41.96	27.8	17.45	33.92	168	25	P	H
		2496.96	43.99	-10.01	54	32.67	27.79	17.45	33.92	168	25	A	H
		2384.24	52.42	-21.58	74	41.65	27.44	17.28	33.95	388	133	P	V
		2384.08	43.58	-10.42	54	32.81	27.44	17.28	33.95	388	133	A	V
	*	2440	98.05	-	-	86.97	27.66	17.36	33.94	388	133	P	V
	*	2440	97.5	-	-	86.42	27.66	17.36	33.94	388	133	A	V
		2488.08	53	-21	74	41.71	27.78	17.43	33.92	388	133	P	V
		2485.36	44.05	-9.95	54	32.77	27.77	17.43	33.92	388	133	A	V

BLE CH 39 2480MHz	*	2480	103.03	-	-	91.78	27.76	17.42	33.93	150	22	P	H
	*	2480	102.52	-	-	91.27	27.76	17.42	33.93	150	22	A	H
		2484.44	53.6	-20.4	74	42.32	27.77	17.43	33.92	150	22	P	H
		2488.64	44.09	-9.91	54	32.8	27.78	17.43	33.92	150	22	A	H
													H
													H
	*	2480	96.55	-	-	85.3	27.76	17.42	33.93	400	133	P	V
	*	2480	95.96	-	-	84.71	27.76	17.42	33.93	400	133	A	V
		2498.44	53.99	-20.01	74	42.66	27.8	17.45	33.92	400	133	P	V
		2496.32	44.03	-9.97	54	32.72	27.79	17.44	33.92	400	133	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

BLE (Harmonic @ 3m)

BLE Ant. 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)
BLE CH 00 2402MHz		4804	39.72	-34.28	74	54.04	32.22	11.4	57.94	-	-	P	H
		12570	47.48	-26.52	74	52.92	39.41	18.41	63.26	-	-	P	H
		12570	37.72	-16.28	54	43.16	39.41	18.41	63.26	-	-	A	H
		14490	48.74	-25.26	74	49.79	40.59	20.83	62.47	-	-	P	H
		14490	38.87	-15.13	54	39.92	40.59	20.83	62.47	-	-	A	H
		18000	50.37	-23.63	74	40.81	42.6	23.04	56.08	-	-	P	H
		18000	40.54	-13.46	54	30.98	42.6	23.04	56.08	-	-	A	H
													H
													H
													H
													H
													H
		4804	40.1	-33.9	74	54.42	32.22	11.4	57.94	-	-	P	V
		11460	47.96	-26.04	74	52.88	39.1	17.59	61.61	-	-	P	V
		11460	38.3	-15.7	54	43.22	39.1	17.59	61.61	-	-	A	V
		14475	48.67	-25.33	74	49.79	40.57	20.81	62.5	-	-	P	V
		14475	38.88	-15.12	54	40	40.57	20.81	62.5	-	-	A	V
		17910	49.58	-24.42	74	40.9	41.97	22.96	56.25	-	-	P	V
		17910	40.66	-13.34	54	31.98	41.97	22.96	56.25	-	-	A	V
													V
													V
													V
													V
													V

BLE Ant. 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)
		4880	41.08	-32.92	74	54.81	32.62	11.65	58	-	-	P	H
		7320	42.89	-31.11	74	51.16	37.02	13.44	58.73	-	-	P	H
		12240	48.01	-25.99	74	53.67	39.24	18.06	62.96	-	-	P	H
		12240	38.24	-15.76	54	43.9	39.24	18.06	62.96	-	-	A	H
		14475	48.5	-25.5	74	49.62	40.57	20.81	62.5	-	-	P	H
		14475	38.27	-15.73	54	39.39	40.57	20.81	62.5	-	-	A	H
		17985	49.83	-24.17	74	40.42	42.49	23.03	56.11	-	-	P	H
		17985	39.7	-14.3	54	30.29	42.49	23.03	56.11	-	-	A	H
													H
													H
													H
BLE CH 19 2440MHz													H
		4880	41.42	-32.58	74	55.15	32.62	11.65	58	-	-	P	V
		7320	42.83	-31.17	74	51.1	37.02	13.44	58.73	-	-	P	V
		11445	47.9	-26.1	74	52.81	39.1	17.59	61.6	-	-	P	V
		11445	38.25	-15.75	54	43.16	39.1	17.59	61.6	-	-	A	V
		14490	48.26	-25.74	74	49.31	40.59	20.83	62.47	-	-	P	V
		14490	38.51	-15.49	54	39.56	40.59	20.83	62.47	-	-	A	V
		17925	50.74	-23.26	74	41.91	42.08	22.97	56.22	-	-	P	V
		17925	40.98	-13.02	54	32.15	42.08	22.97	56.22	-	-	A	V
													V
													V
													V
													V

BLE Ant. 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)
		4960	42.18	-31.82	74	55.33	33.02	11.89	58.06	-	-	P	H
		7440	41.28	-32.72	74	49.8	36.44	13.75	58.71	-	-	P	H
		12600	47.32	-26.68	74	52.59	39.5	18.44	63.21	-	-	P	H
		12600	38.53	-15.47	54	43.8	39.5	18.44	63.21	-	-	A	H
		14475	48.28	-25.72	74	49.4	40.57	20.81	62.5	-	-	P	H
		14475	39.49	-14.51	54	40.61	40.57	20.81	62.5	-	-	A	H
		18000	49.33	-24.67	74	39.77	42.6	23.04	56.08	-	-	P	H
		18000	40.54	-13.46	54	30.98	42.6	23.04	56.08	-	-	A	H
													H
													H
													H
													H
BLE CH 39 2480MHz		4960	40.47	-33.53	74	53.62	33.02	11.89	58.06	-	-	P	V
		7440	41.49	-32.51	74	50.01	36.44	13.75	58.71	-	-	P	V
		12465	47.91	-26.09	74	53.7	39.24	18.3	63.33	-	-	P	V
		12465	39.12	-14.88	54	44.91	39.24	18.3	63.33	-	-	A	V
		14490	48.36	-25.64	74	49.41	40.59	20.83	62.47	-	-	P	V
		14490	39.57	-14.43	54	40.62	40.59	20.83	62.47	-	-	A	V
		17940	50.12	-23.88	74	41.15	42.18	22.99	56.2	-	-	P	V
		17940	41.33	-12.67	54	32.36	42.18	22.99	56.2	-	-	A	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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Emission above 18GHz

2.4GHz BLE (SHF)

BT	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
7		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz BLE SHF		22992	38.48	-35.52	74	57.06	38.89	-3.17	54.3	-	-	P	H
		24888	38.72	-35.28	74	55.59	39.11	-2.81	53.17	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		23968	38.79	-35.21	74	56.67	38.8	-2.87	53.81	-	-	P	V
		25792	39.37	-34.63	74	56.29	38.87	-2.69	53.1	-	-	P	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 BLE (LF)

BLE	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
7		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz BLE LF		30	24.83	-15.17	40	31.97	24.27	0.95	32.36	-	-	P	H
		102.75	23.97	-19.53	43.5	38.7	16.08	1.57	32.38	-	-	P	H
		179.38	21.75	-21.75	43.5	37.45	14.72	2.08	32.5	-	-	P	H
		846.74	29.83	-16.17	46	27.88	28.98	4.48	31.51	-	-	P	H
		865.17	30.42	-15.58	46	28.14	29.15	4.54	31.41	-	-	P	H
		959.26	31.26	-14.74	46	26.41	30.87	4.81	30.83	-	-	P	H
													H
													H
													H
													H
													H
													H
		41.64	32.4	-7.6	40	45.54	18.37	0.93	32.44	-	-	P	V
		73.65	22.7	-17.3	40	41.42	12.42	1.3	32.44	-	-	P	V
		159.98	21.14	-22.36	43.5	35.48	16.18	1.95	32.47	-	-	P	V
		871.96	30.32	-15.68	46	28.07	29.07	4.56	31.38	-	-	P	V
		945.68	30.8	-15.2	46	26.77	30.18	4.77	30.92	-	-	P	V
		983.51	32.6	-21.4	54	27.91	30.48	4.88	30.67	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.
3. The emission position marked as “-” means no suspected emission found and emission level has at least 6dB margin against limit or emission is noise floor only.

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

BLE	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
8		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BLE CH 00 2402MHz		2375.205	52.65	-21.35	74	41.93	27.4	17.27	33.95	327	129	P	H
		2369.22	45.37	-8.63	54	34.68	27.38	17.26	33.95	327	129	A	H
	*	2402	96.07	-	-	85.21	27.51	17.3	33.95	327	129	P	H
	*	2402	95.17	-	-	84.31	27.51	17.3	33.95	327	129	A	H
													H
													H
		2364.18	53.52	-20.48	74	42.87	27.36	17.25	33.96	205	320	P	V
		2377.62	45.27	-8.73	54	34.54	27.41	17.27	33.95	205	320	A	V
	*	2402	96.44	-	-	85.58	27.51	17.3	33.95	205	320	P	V
	*	2402	96.82	-	-	85.96	27.51	17.3	33.95	205	320	A	V
													V
													V
BLE CH 19 2440MHz		2372.24	52.51	-21.49	74	41.81	27.39	17.26	33.95	311	141	P	H
		2341.52	45.07	-8.93	54	34.51	27.3	17.22	33.96	311	141	A	H
	*	2440	97.47	-	-	86.39	27.66	17.36	33.94	311	141	P	H
	*	2440	96.41	-	-	85.33	27.66	17.36	33.94	311	141	A	H
		2484.56	52.88	-21.12	74	41.6	27.77	17.43	33.92	311	141	P	H
		2493.36	45.53	-8.47	54	34.22	27.79	17.44	33.92	311	141	A	H
		2356.4	52.58	-21.42	74	41.97	27.33	17.24	33.96	235	353	P	V
		2377.04	44.85	-9.15	54	34.12	27.41	17.27	33.95	235	353	A	V
	*	2440	97.79	-	-	86.71	27.66	17.36	33.94	235	353	P	V
	*	2440	97.58	-	-	86.5	27.66	17.36	33.94	235	353	A	V
		2494.24	52.96	-21.04	74	41.65	27.79	17.44	33.92	235	353	P	V
		2496.08	45.48	-8.52	54	34.17	27.79	17.44	33.92	235	353	A	V

BLE CH 39 2480MHz	*	2480	94.04	-	-	82.79	27.76	17.42	33.93	300	138	P	H
	*	2480	93.8	-	-	82.55	27.76	17.42	33.93	300	138	A	H
		2496.16	54.45	-19.55	74	43.14	27.79	17.44	33.92	300	138	P	H
		2498.08	45.82	-8.18	54	34.49	27.8	17.45	33.92	300	138	A	H
													H
													H
	*	2480	97.02	-	-	85.77	27.76	17.42	33.93	200	344	P	V
	*	2480	96.73	-	-	85.48	27.76	17.42	33.93	200	344	A	V
		2497.12	53.58	-20.42	74	42.26	27.79	17.45	33.92	200	344	P	V
		2497.04	45.94	-8.06	54	34.62	27.79	17.45	33.92	200	344	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

BLE (Harmonic @ 3m)

BLE Ant. 8	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)
BLE CH 00 2402MHz		4804	39.32	-34.68	74	53.64	32.22	11.4	57.94	-	-	P	H
		11235	47.28	-26.72	74	52.04	39.13	17.5	61.39	-	-	P	H
		11235	38.49	-15.51	54	43.25	39.13	17.5	61.39	-	-	A	H
		14490	48.18	-25.82	74	49.23	40.59	20.83	62.47	-	-	P	H
		14490	39.39	-14.61	54	40.44	40.59	20.83	62.47	-	-	A	H
		17985	49.61	-24.39	74	40.2	42.49	23.03	56.11	-	-	P	H
		17985	40.82	-13.18	54	31.41	42.49	23.03	56.11	-	-	A	H
													H
													H
													H
													H
													H
		4804	43.44	-30.56	74	57.76	32.22	11.4	57.94	-	-	P	V
		11085	47.67	-26.33	74	52.57	38.9	17.44	61.24	-	-	P	V
		11085	38.88	-15.12	54	43.78	38.9	17.44	61.24	-	-	A	V
		14475	49.74	-24.26	74	50.86	40.57	20.81	62.5	-	-	P	V
		14475	40.95	-13.05	54	42.07	40.57	20.81	62.5	-	-	A	V
		17970	50.13	-23.87	74	40.87	42.39	23.01	56.14	-	-	P	V
		17970	41.34	-12.66	54	32.08	42.39	23.01	56.14	-	-	A	V
													V
													V
													V
													V
													V

BLE Ant. 8	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)
		4880	40.03	-33.97	74	53.76	32.62	11.65	58	-	-	P	H
		7320	44.36	-29.64	74	52.63	37.02	13.44	58.73	-	-	P	H
		12630	48	-26	74	53.15	39.53	18.47	63.15	-	-	P	H
		12630	39.21	-14.79	54	44.36	39.53	18.47	63.15	-	-	A	H
		14475	49.57	-24.43	74	50.69	40.57	20.81	62.5	-	-	P	H
		14475	40.78	-13.22	54	41.9	40.57	20.81	62.5	-	-	A	H
		17985	49.42	-24.58	74	40.01	42.49	23.03	56.11	-	-	P	H
		17985	40.63	-13.37	54	31.22	42.49	23.03	56.11	-	-	A	H
													H
													H
													H
BLE CH 19 2440MHz													H
		4880	40.21	-33.79	74	53.94	32.62	11.65	58	-	-	P	V
		7320	42.96	-31.04	74	51.23	37.02	13.44	58.73	-	-	P	V
		11070	47.4	-26.6	74	52.29	38.9	17.44	61.23	-	-	P	V
		11070	38.61	-15.39	54	43.5	38.9	17.44	61.23	-	-	A	V
		14475	48.52	-25.48	74	49.64	40.57	20.81	62.5	-	-	P	V
		14475	39.73	-14.27	54	40.85	40.57	20.81	62.5	-	-	A	V
		17970	49.28	-24.72	74	40.02	42.39	23.01	56.14	-	-	P	V
		17970	40.49	-13.51	54	31.23	42.39	23.01	56.14	-	-	A	V
													V
													V
													V
													V

BLE Ant. 8	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)
BLE CH 39 2480MHz		4960	41.27	-32.73	74	54.42	33.02	11.89	58.06	-	-	P	H
		7440	41.58	-32.42	74	50.1	36.44	13.75	58.71	-	-	P	H
		11340	47.87	-26.13	74	52.65	39.16	17.55	61.49	-	-	P	H
		11340	39.08	-14.92	54	43.86	39.16	17.55	61.49	-	-	A	H
		14475	48.46	-25.54	74	49.58	40.57	20.81	62.5	-	-	P	H
		14475	39.67	-14.33	54	40.79	40.57	20.81	62.5	-	-	A	H
		17985	49.71	-24.29	74	40.3	42.49	23.03	56.11	-	-	P	H
		17985	40.92	-13.08	54	31.51	42.49	23.03	56.11	-	-	A	H
													H
													H
													H
													H
		4960	41.45	-32.55	74	54.6	33.02	11.89	58.06	-	-	P	V
		7440	41.52	-32.48	74	50.04	36.44	13.75	58.71	-	-	P	V
		11445	48.06	-25.94	74	52.97	39.1	17.59	61.6	-	-	P	V
		11445	39.27	-14.73	54	44.18	39.1	17.59	61.6	-	-	A	V
		14490	48.94	-25.06	74	49.99	40.59	20.83	62.47	-	-	P	V
		14490	40.15	-13.85	54	41.2	40.59	20.83	62.47	-	-	A	V
		17850	49.47	-24.53	74	41.75	41.2	22.89	56.37	-	-	P	V
		17850	40.68	-13.32	54	32.96	41.2	22.89	56.37	-	-	A	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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Emission above 18GHz

2.4GHz BLE (SHF)

BT	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
8		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz BLE SHF		23344	36.73	-37.27	74	55.01	38.86	-3.05	54.09	-	-	P	H
		25656	38.1	-35.9	74	55.02	38.9	-2.72	53.1	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		22944	37.32	-36.68	74	56.02	38.81	-3.18	54.33	-	-	P	V
		25184	38.26	-35.74	74	55.1	39.05	-2.79	53.1	-	-	P	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 BLE (LF)

BLE	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
8		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz BLE LF		30	24.99	-15.01	40	32.13	24.27	0.95	32.36	-	-	P	H
		103.72	24.13	-19.37	43.5	38.74	16.2	1.58	32.39	-	-	P	H
		175.5	21.65	-21.85	43.5	37.08	15.01	2.05	32.49	-	-	P	H
		844.8	29.2	-16.8	46	27.29	28.95	4.48	31.52	-	-	P	H
		884.57	30.44	-15.56	46	28.29	28.85	4.61	31.31	-	-	P	H
		956.35	31.29	-14.71	46	26.63	30.71	4.8	30.85	-	-	P	H
													H
													H
													H
													H
													H
													H
		41.64	32.24	-7.76	40	45.38	18.37	0.93	32.44	-	-	P	V
		112.45	18.66	-24.84	43.5	32.61	16.8	1.65	32.4	-	-	P	V
		164.83	20.58	-22.92	43.5	35.25	15.83	1.98	32.48	-	-	P	V
		827.34	28.83	-17.17	46	27.88	28.13	4.43	31.61	-	-	P	V
		862.26	30.44	-15.56	46	28.19	29.15	4.53	31.43	-	-	P	V
		958.29	31.31	-14.69	46	26.52	30.82	4.81	30.84	-	-	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.

<2Mbps>

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

BLE Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
7		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BLE CH 00 2402MHz		2374.05	52.58	-21.42	74	41.86	27.4	17.27	33.95	177	27	P	H
		2363.655	44.74	-9.26	54	34.1	27.35	17.25	33.96	177	27	A	H
	*	2402	101.12	-	-	90.26	27.51	17.3	33.95	177	27	P	H
	*	2402	99.93	-	-	89.07	27.51	17.3	33.95	177	27	A	H
													H
													H
		2366.595	52.98	-21.02	74	42.3	27.37	17.26	33.95	400	125	P	V
		2372.055	45.64	-8.36	54	34.94	27.39	17.26	33.95	400	125	A	V
	*	2402	98.54	-	-	87.68	27.51	17.3	33.95	400	125	P	V
	*	2402	97.1	-	-	86.24	27.51	17.3	33.95	400	125	A	V
													V
													V
BLE CH 19 2440MHz		2351.12	53.08	-20.92	74	42.5	27.3	17.24	33.96	144	24	P	H
		2380.24	44.94	-9.06	54	34.2	27.42	17.27	33.95	144	24	A	H
	*	2440	103.36	-	-	92.28	27.66	17.36	33.94	144	24	P	H
	*	2440	102.25	-	-	91.17	27.66	17.36	33.94	144	24	A	H
		2499.12	53.5	-20.5	74	42.17	27.8	17.45	33.92	144	24	P	H
		2495.36	45.48	-8.52	54	34.17	27.79	17.44	33.92	144	24	A	H
		2387.6	53.1	-20.9	74	42.32	27.45	17.28	33.95	383	134	P	V
		2378.16	44.87	-9.13	54	34.14	27.41	17.27	33.95	383	134	A	V
	*	2440	97.68	-	-	86.6	27.66	17.36	33.94	383	134	P	V
	*	2440	96.57	-	-	85.49	27.66	17.36	33.94	383	134	A	V
		2498	54.22	-19.78	74	42.89	27.8	17.45	33.92	383	134	P	V
		2487.04	45.57	-8.43	54	34.29	27.77	17.43	33.92	383	134	A	V

BLE CH 39 2480MHz	*	2480	103.41	-	-	92.16	27.76	17.42	33.93	196	23	P	H
	*	2480	102.36	-	-	91.11	27.76	17.42	33.93	196	23	A	H
		2487.2	54.69	-19.31	74	43.41	27.77	17.43	33.92	196	23	P	H
		2493.04	45.77	-8.23	54	34.46	27.79	17.44	33.92	196	23	A	H
													H
													H
	*	2480	98.04	-	-	86.79	27.76	17.42	33.93	373	135	P	V
	*	2480	96.78	-	-	85.53	27.76	17.42	33.93	373	135	A	V
		2486.16	53.78	-20.22	74	42.5	27.77	17.43	33.92	373	135	P	V
		2489.4	45.86	-8.14	54	34.57	27.78	17.43	33.92	373	135	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

BLE (Band Edge @ 3m)

BLE	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
8		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BLE CH 00 2402MHz		2356.83	53.46	-20.54	74	42.85	27.33	17.24	33.96	185	132	P	H
		2386.44	44.74	-9.26	54	33.96	27.45	17.28	33.95	185	132	A	H
	*	2402	94.9	-	-	84.04	27.51	17.3	33.95	185	132	P	H
	*	2402	93.57	-	-	82.71	27.51	17.3	33.95	185	132	A	H
													H
													H
		2388.96	53.96	-20.04	74	43.16	27.46	17.29	33.95	213	341	P	V
		2388.645	45.19	-8.81	54	34.4	27.45	17.29	33.95	213	341	A	V
	*	2402	89.69	-	-	78.83	27.51	17.3	33.95	213	341	P	V
	*	2402	87.97	-	-	77.11	27.51	17.3	33.95	213	341	A	V
													V
													V
BLE CH 19 2440MHz		2378.16	53.38	-20.62	74	42.65	27.41	17.27	33.95	278	122	P	H
		2382.16	45.1	-8.9	54	34.34	27.43	17.28	33.95	278	122	A	H
	*	2440	96.68	-	-	85.6	27.66	17.36	33.94	278	122	P	H
	*	2440	95.24	-	-	84.16	27.66	17.36	33.94	278	122	A	H
		2483.68	53.24	-20.76	74	41.96	27.77	17.43	33.92	278	122	P	H
		2490.16	45.32	-8.68	54	34.02	27.78	17.44	33.92	278	122	A	H
		2343.92	53.25	-20.75	74	42.68	27.3	17.23	33.96	212	348	P	V
		2387.92	45.3	-8.7	54	34.52	27.45	17.28	33.95	212	348	A	V
	*	2440	94.1	-	-	83.02	27.66	17.36	33.94	212	348	P	V
	*	2440	92.84	-	-	81.76	27.66	17.36	33.94	212	348	A	V
		2498.88	53.43	-20.57	74	42.1	27.8	17.45	33.92	212	348	P	V
		2490.4	45.59	-8.41	54	34.29	27.78	17.44	33.92	212	348	A	V

BLE CH 39 2480MHz	*	2480	95.63	-	-	84.38	27.76	17.42	33.93	300	133	P	H
	*	2480	94.41	-	-	83.16	27.76	17.42	33.93	300	133	A	H
		2485.6	53.98	-20.02	74	42.7	27.77	17.43	33.92	300	133	P	H
		2499.84	46.17	-7.83	54	34.84	27.8	17.45	33.92	300	133	A	H
													H
													H
	*	2480	93.45	-	-	82.2	27.76	17.42	33.93	200	333	P	V
	*	2480	92.12	-	-	80.87	27.76	17.42	33.93	200	333	A	V
		2485.44	54.12	-19.88	74	42.84	27.77	17.43	33.92	200	333	P	V
		2489.56	45.76	-8.24	54	34.47	27.78	17.43	33.92	200	333	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

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 **over limit** 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:

BLE	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BLE CH 00 2402MHz		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 :	Daniel Lee, Fu Chen and Troye Hsieh	**Temperature :**	20.1~21.6°C
		Relative Humidity :	56.5~66.9%

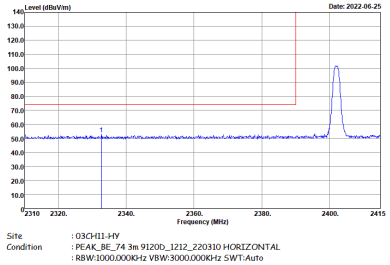
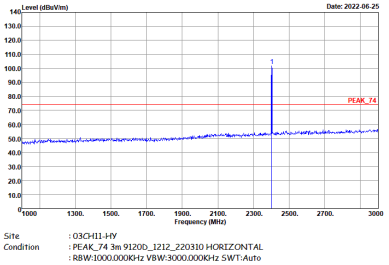
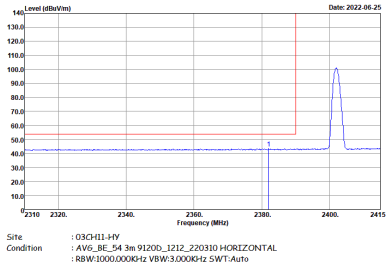
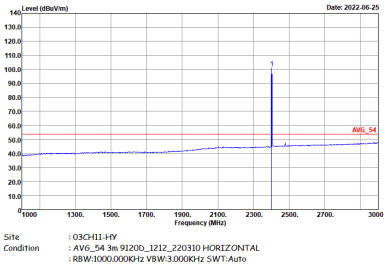
Note symbol

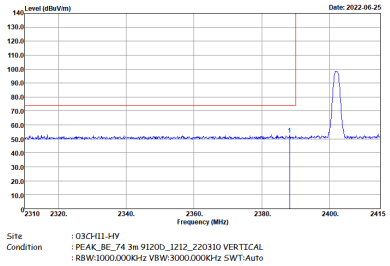
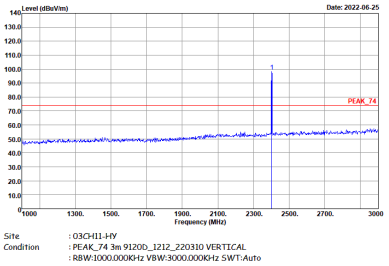
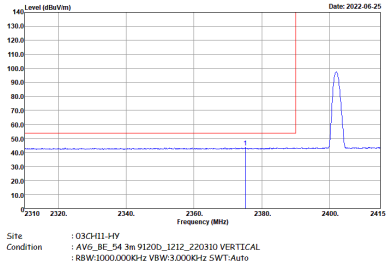
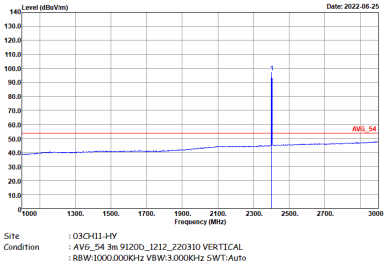
-L	**Low channel location**
-R	**High channel location**

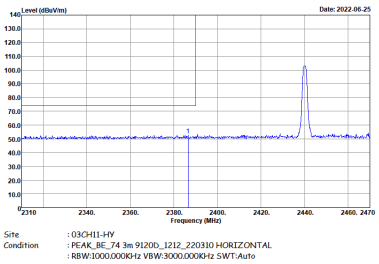
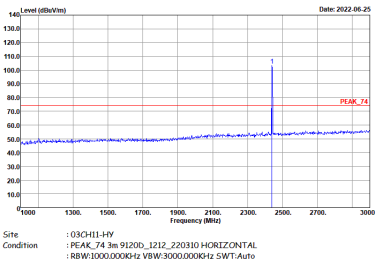
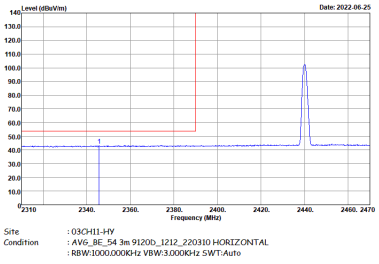
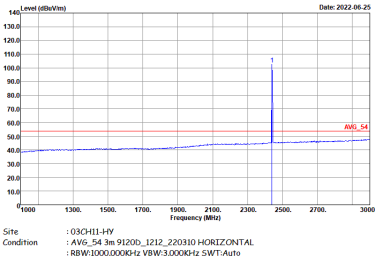
<1Mbps>

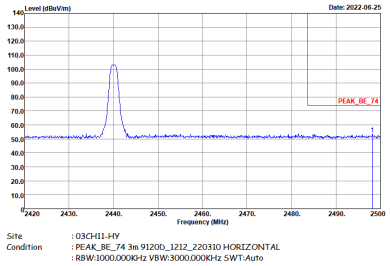
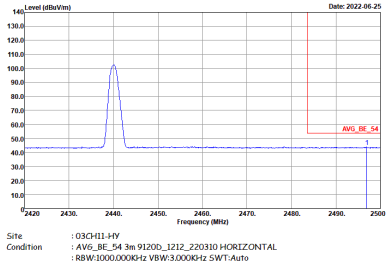
2.4GHz 2400~2483.5MHz

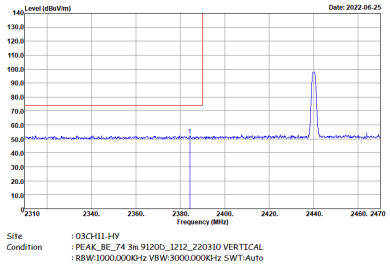
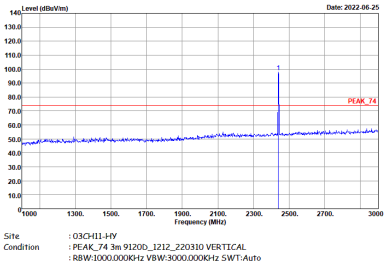
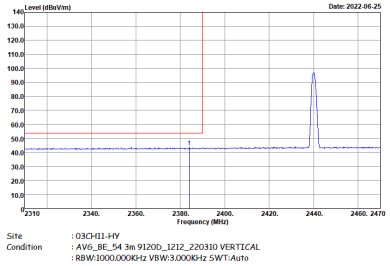
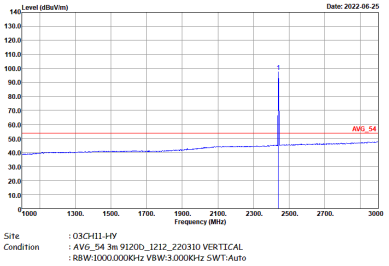
BLE (Band Edge @ 3m)

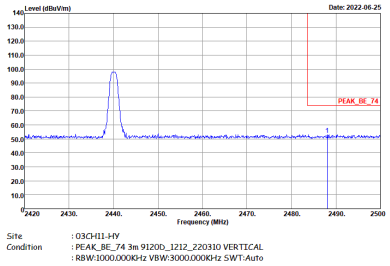
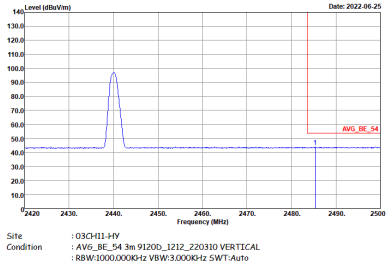
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH00 2402MHz	
7	Horizontal	Fundamental
Peak		
Avg.		

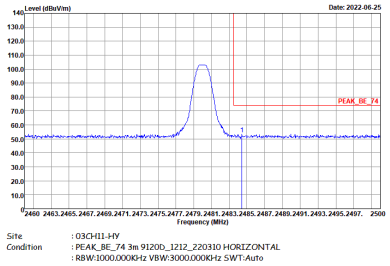
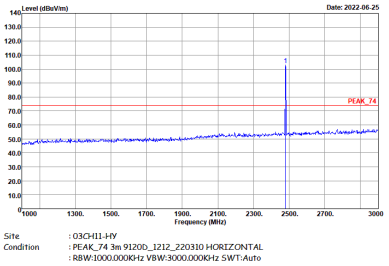
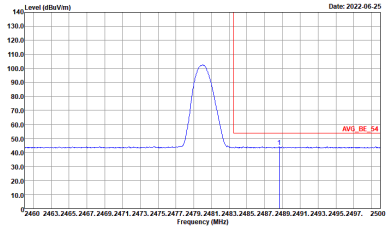
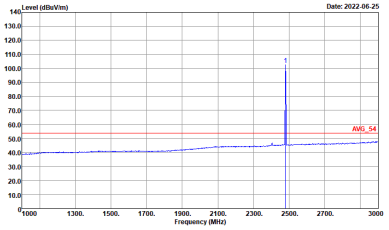
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH00 2402MHz	
7	Vertical	Fundamental
Peak		
Avg		

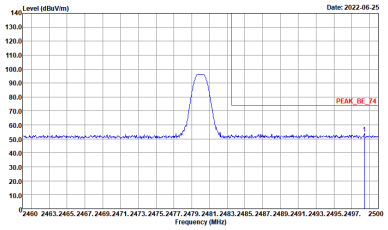
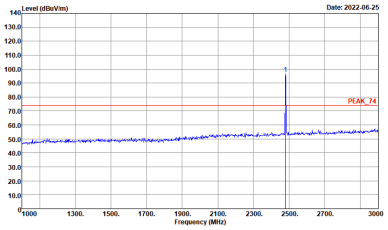
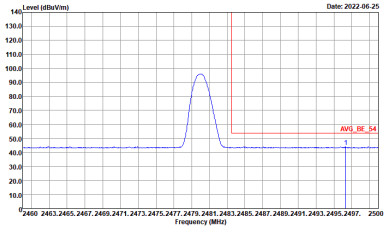
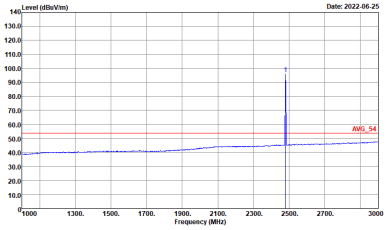
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - L	
7	Horizontal	Fundamental
Peak		
Avg.		

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - R	
7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - L	
7	Vertical	Fundamental
Peak		
Avg.		

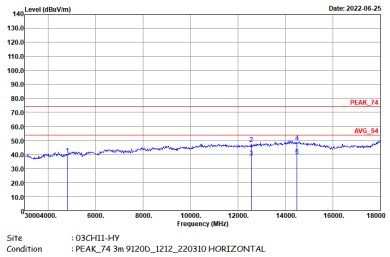
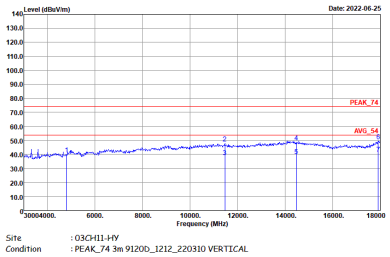
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - R	
7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

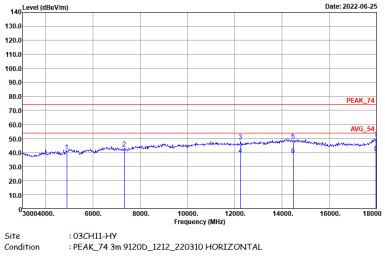
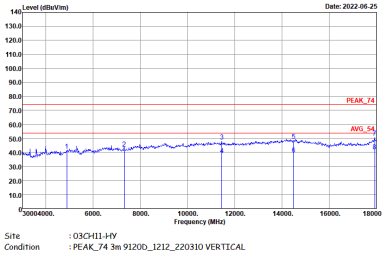
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
7	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK_74 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto	 Site : 03CH11-HY Condition : AVG_54 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto

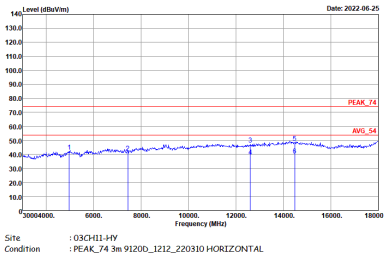
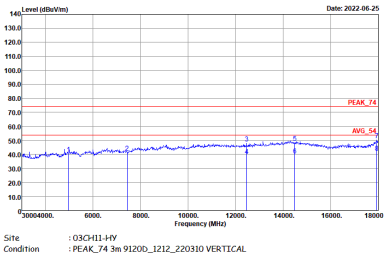
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
7	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK_74 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto	 Site : 03CH11-HY Condition : AVG_54 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto

2.4GHz 2400~2483.5MHz

BLE (Harmonic @ 3m)

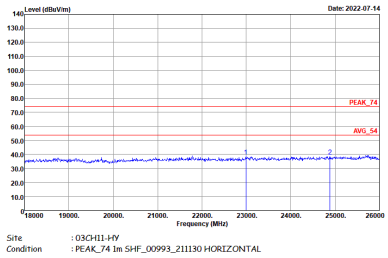
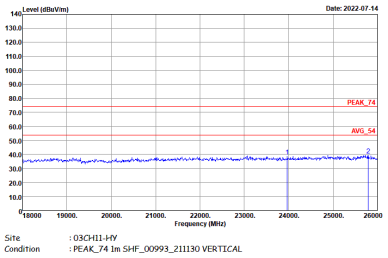
BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BLE CH00 2402MHz	
7	Horizontal	Vertical
Peak Avg.		

BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BLE CH19 2440MHz	
7	Horizontal	Vertical
Peak Avg.		

BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BLE CH39 2480MHz	
7	Horizontal	Vertical
Peak Avg.		

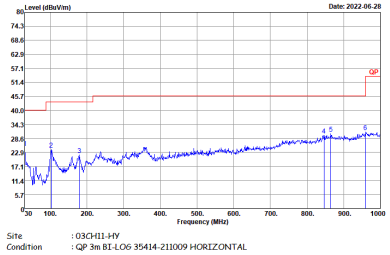
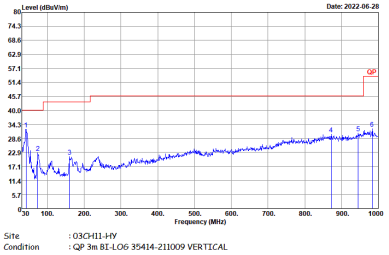
Emission above 18GHz

2.4GHz BLE (SHF @ 1m)

BLE	2.4GHz 2400~2483.5MHz	
ANT	BLE SHF	
7	Horizontal	Vertical
Peak Avg.		

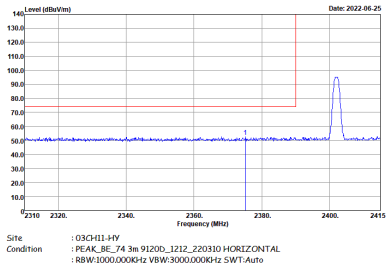
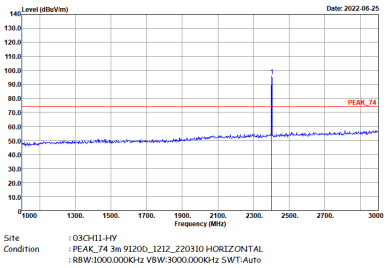
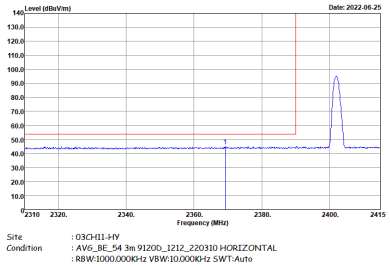
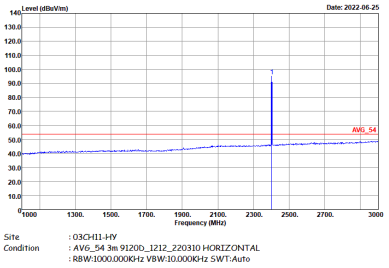
Emission below 1GHz

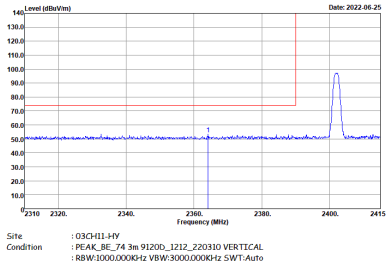
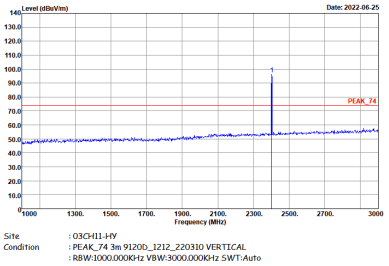
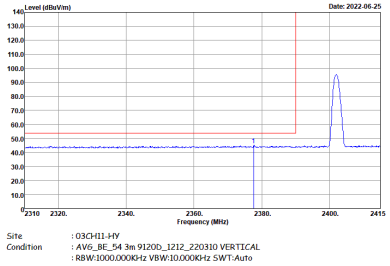
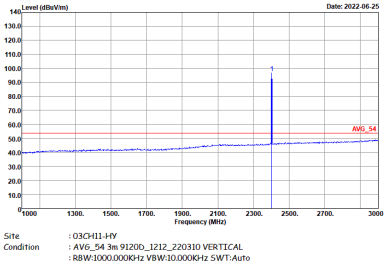
2.4GHz BLE (LF)

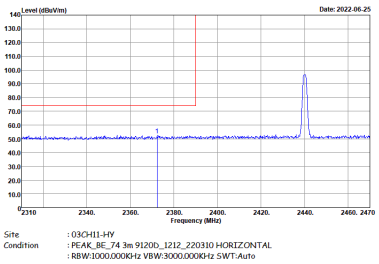
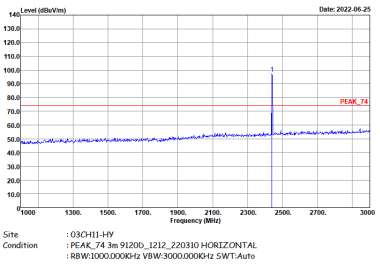
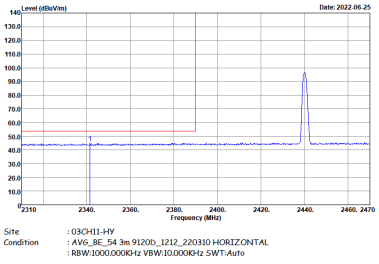
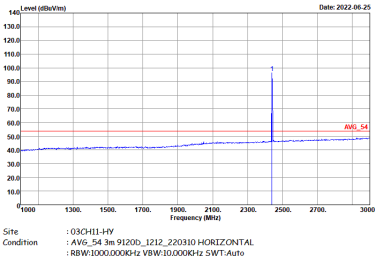
BLE	2.4GHz 2400~2483.5MHz	
ANT	BLE LF	
7	Horizontal	Vertical
QP / Peak		

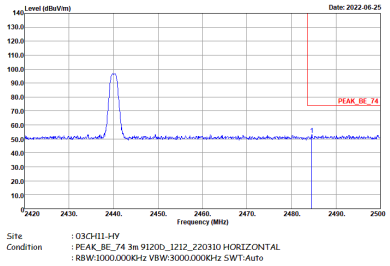
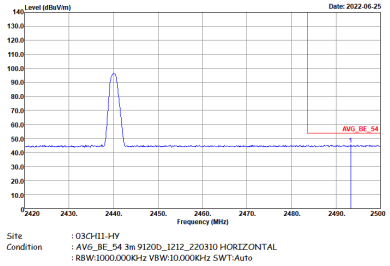
2.4GHz 2400~2483.5MHz

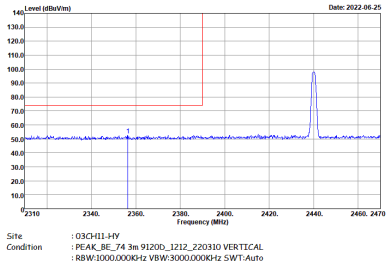
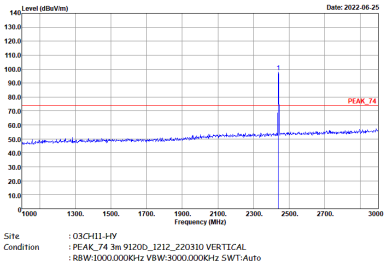
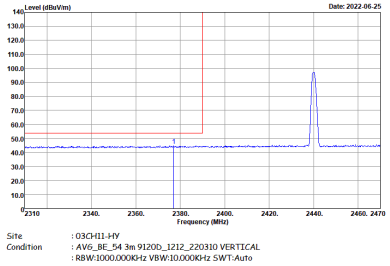
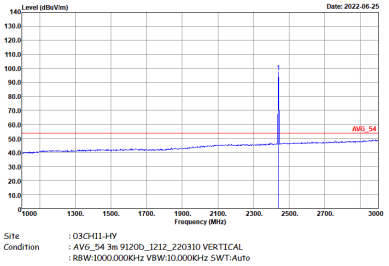
BLE (Band Edge @ 3m)

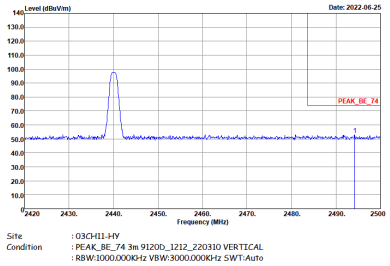
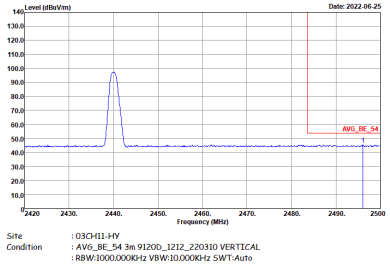
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH00 2402MHz	
8	Horizontal	Fundamental
Peak		
Avg.		

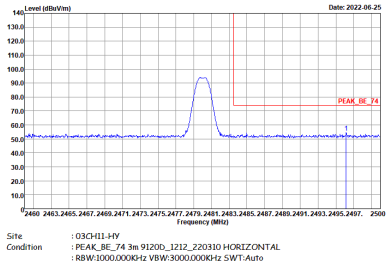
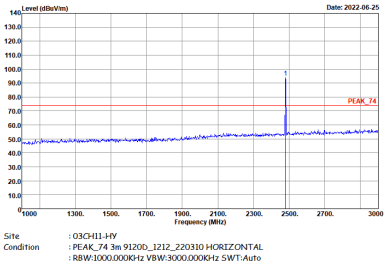
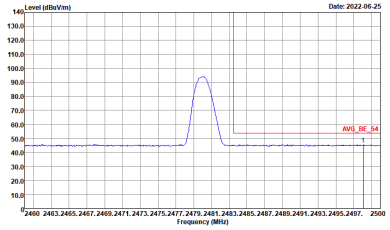
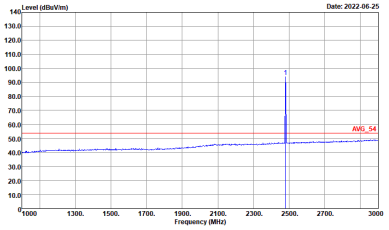
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH00 2402MHz	
8	Vertical	Fundamental
Peak		
Avg.		

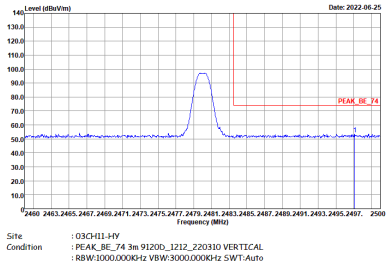
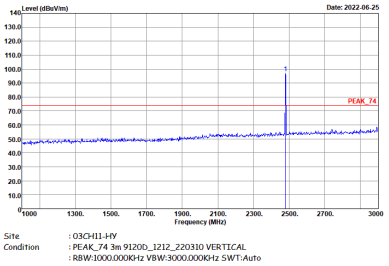
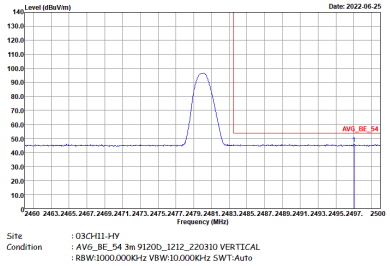
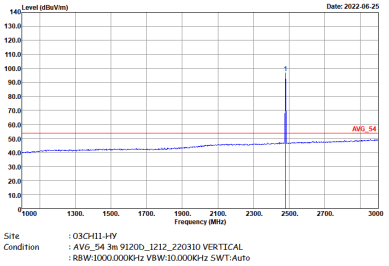
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - L	
8	Horizontal	Fundamental
Peak		
Avg.		

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - R	
8	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - L	
8	Vertical	Fundamental
Peak		
Avg.		

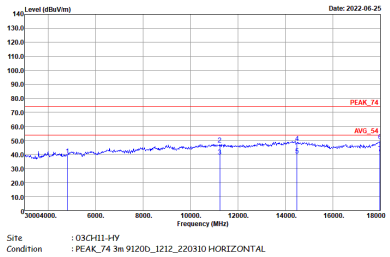
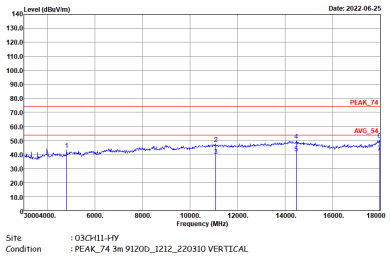
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - R	
8	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

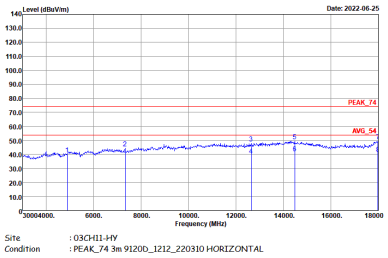
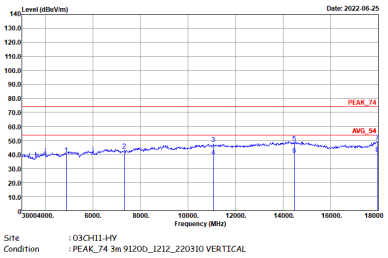
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
8	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK_74 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	 Site : 03CH11-HY Condition : AVG_54 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto

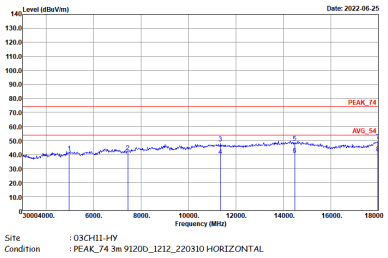
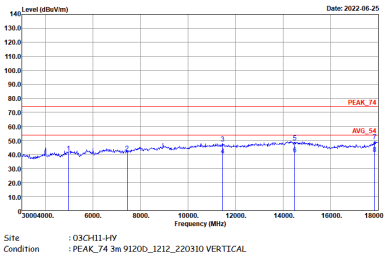
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
8	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK_74 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	 Site : 03CH11-HY Condition : AVG_54 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto

2.4GHz 2400~2483.5MHz

BLE (Harmonic @ 3m)

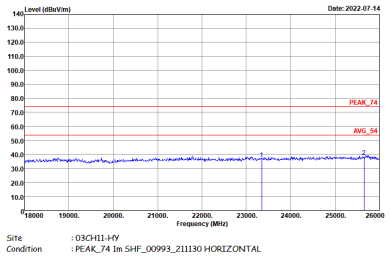
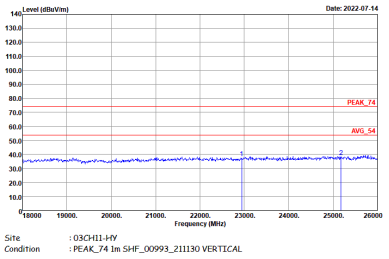
BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BLE CH00 2402MHz	
8	Horizontal	Vertical
Peak Avg.		

BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BLE CH19 2440MHz	
8	Horizontal	Vertical
Peak Avg.		

BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BLE CH39 2480MHz	
8	Horizontal	Vertical
Peak Avg.		

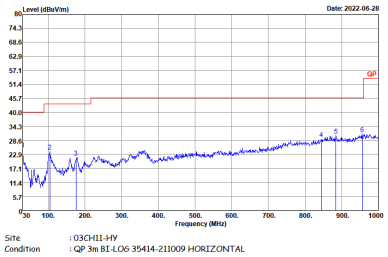
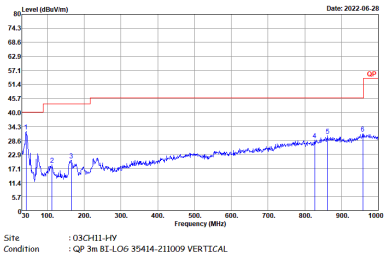
Emission above 18GHz

2.4GHz BLE (SHF @ 1m)

BLE	2.4GHz 2400~2483.5MHz	
ANT	BLE SHF	
8	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

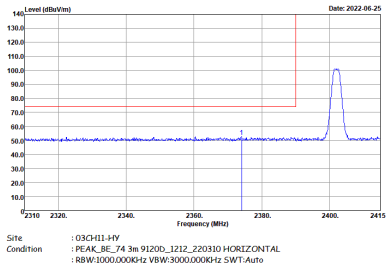
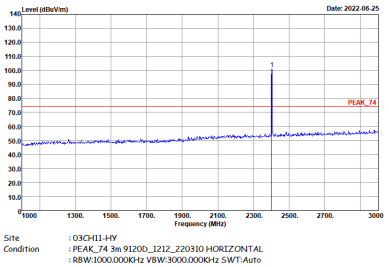
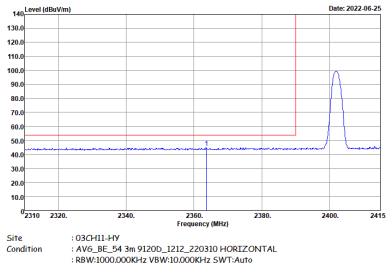
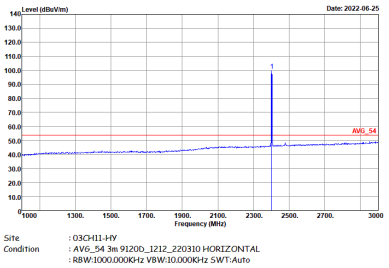
2.4GHz BLE (LF)

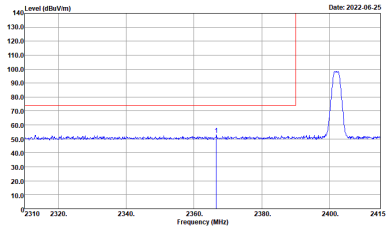
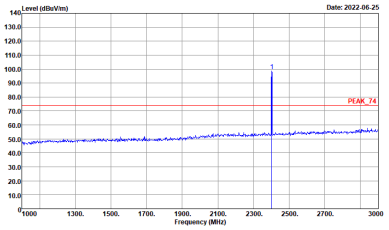
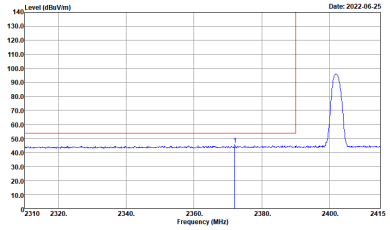
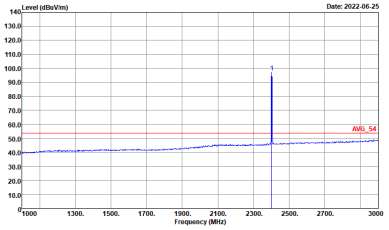
BLE	2.4GHz 2400~2483.5MHz	
ANT	BLE LF	
8	Horizontal	Vertical
QP / Peak		

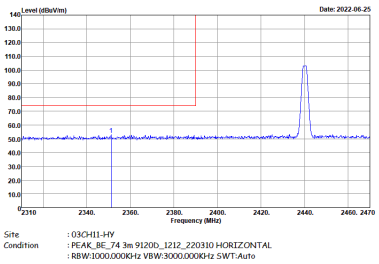
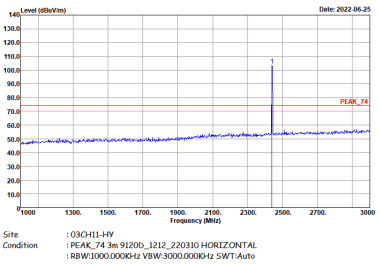
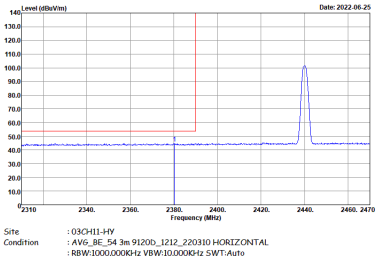
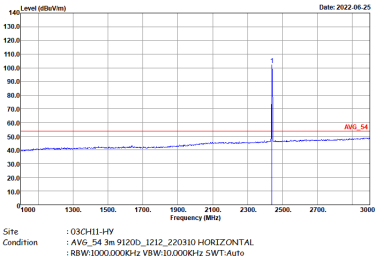
<2Mbps>

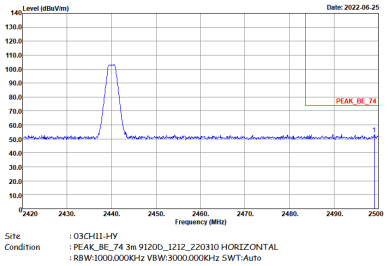
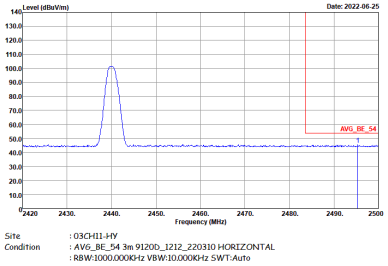
2.4GHz 2400~2483.5MHz

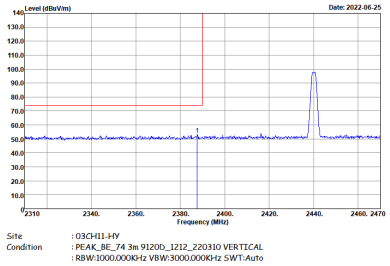
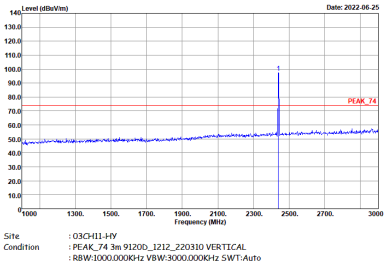
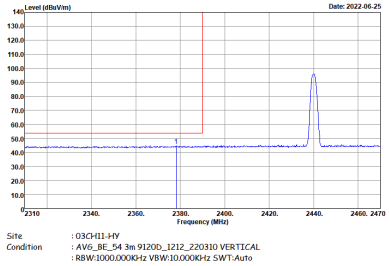
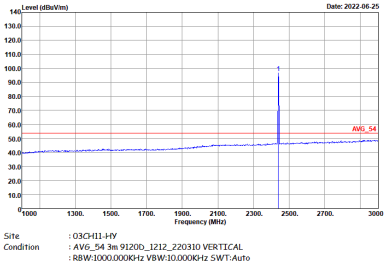
BLE (Band Edge @ 3m)

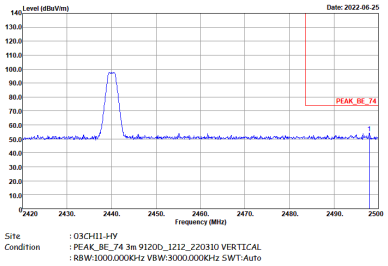
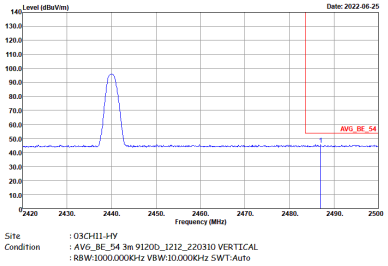
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH00 2402MHz	
7	Horizontal	Fundamental
Peak		
Avg.		

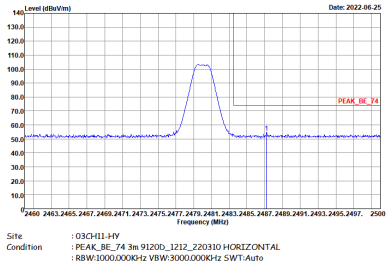
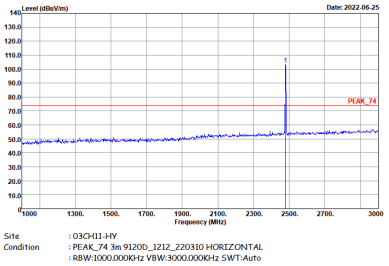
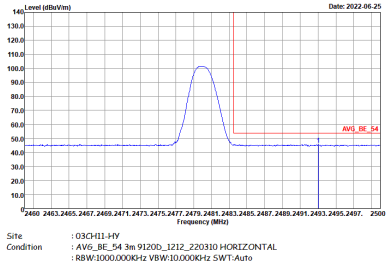
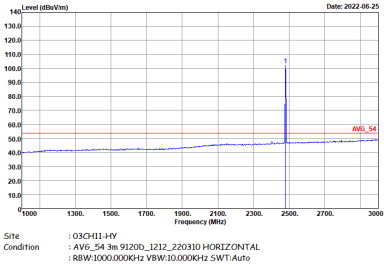
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH00 2402MHz	
7	Vertical	Fundamental
Peak		
Avg.		

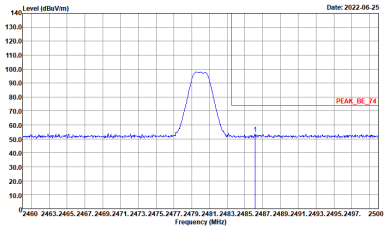
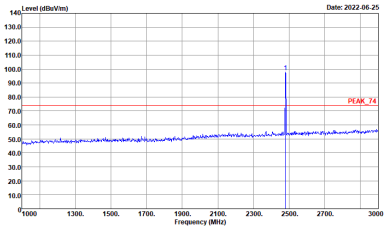
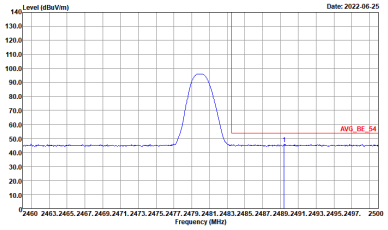
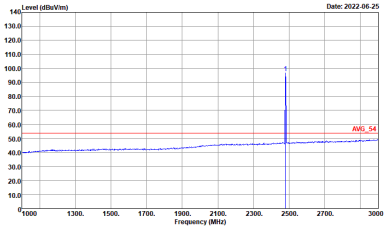
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - L	
7	Horizontal	Fundamental
Peak		
Avg.		

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - R	
7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - L	
7	Vertical	Fundamental
Peak		
Avg.		

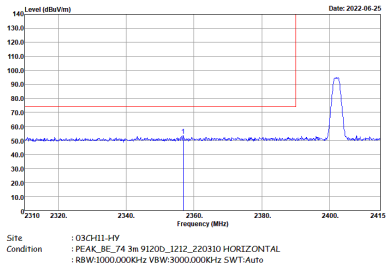
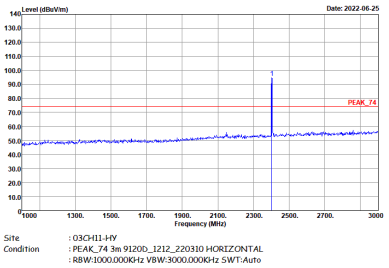
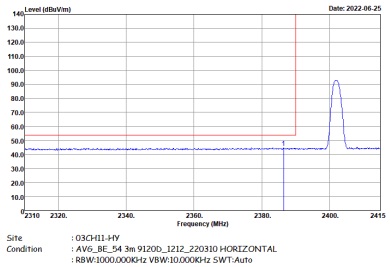
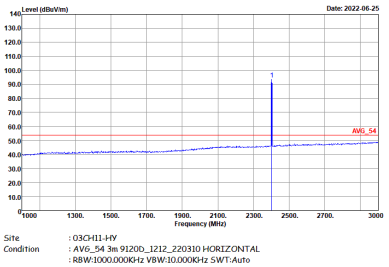
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - R	
7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

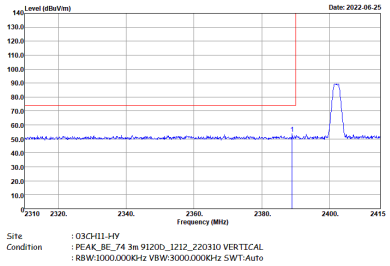
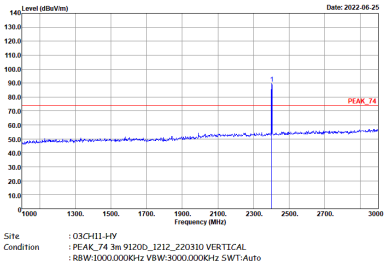
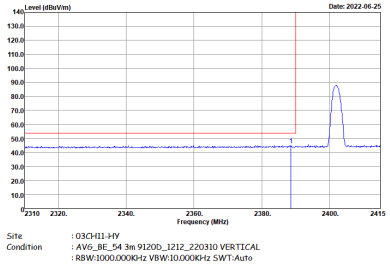
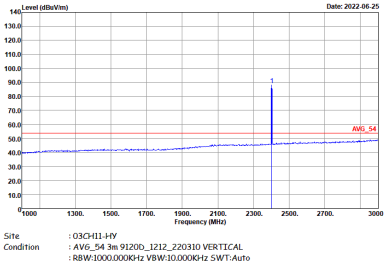
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
7	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK_74 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	 Site : 03CH11-HY Condition : AVG_54 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto

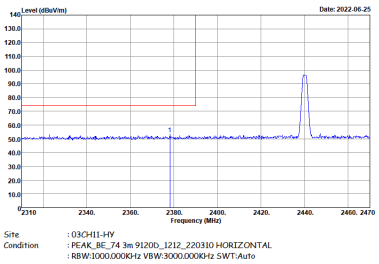
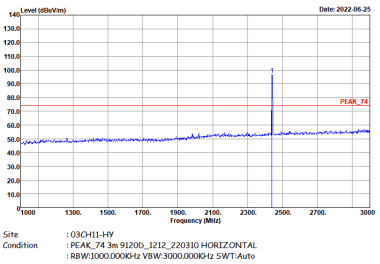
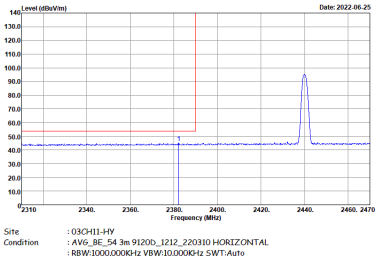
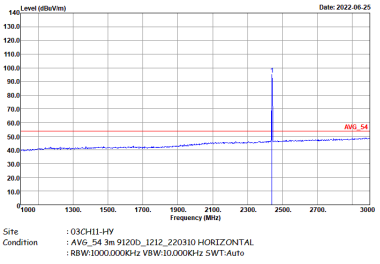
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
7	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK_74 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	 Site : 03CH11-HY Condition : AVG_54 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto

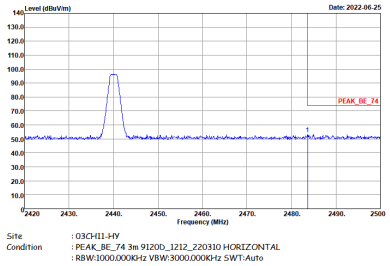
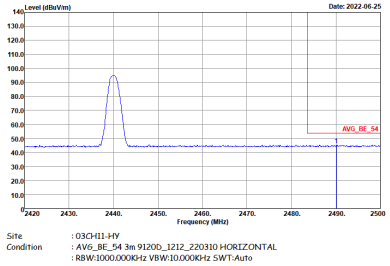
2.4GHz 2400~2483.5MHz

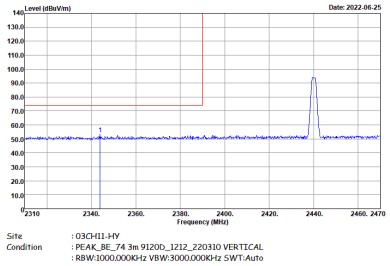
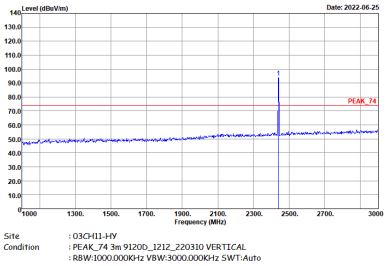
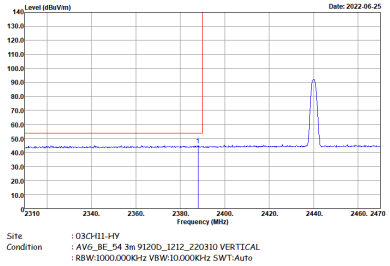
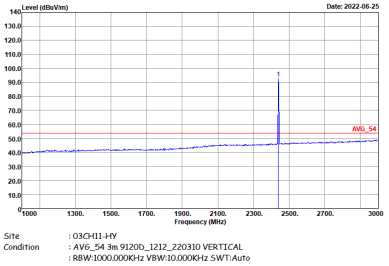
BLE (Band Edge @ 3m)

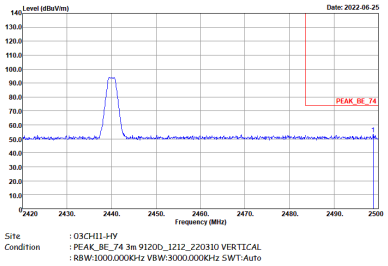
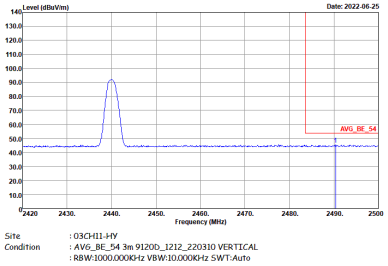
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH00 2402MHz	
8	Horizontal	Fundamental
Peak		
Avg.		

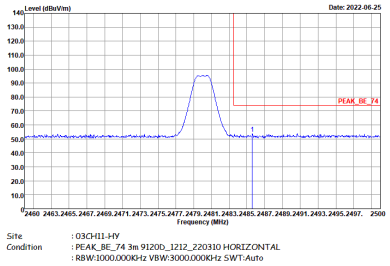
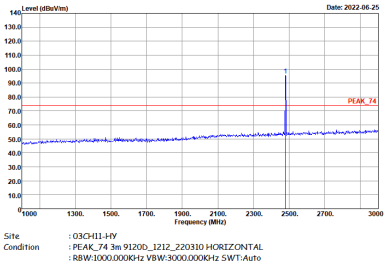
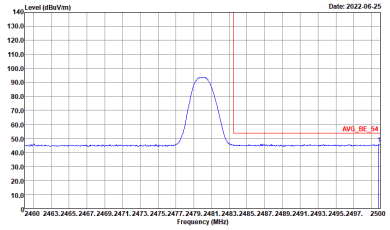
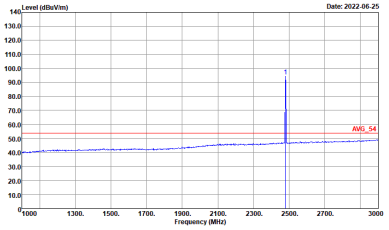
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH00 2402MHz	
8	Vertical	Fundamental
Peak		
Avg.		

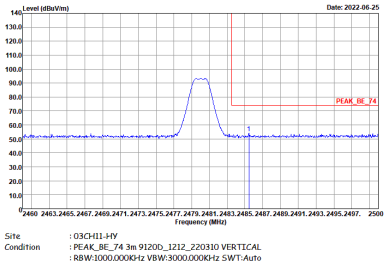
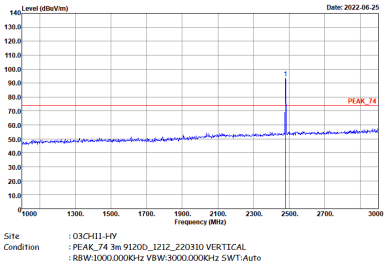
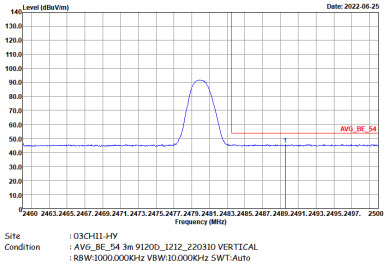
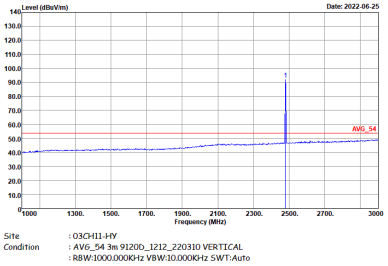
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - L	
8	Horizontal	Fundamental
Peak		
Avg.		

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - R	
8	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - L	
8	Vertical	Fundamental
Peak		
Avg.		

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH19 2440MHz - R	
8	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

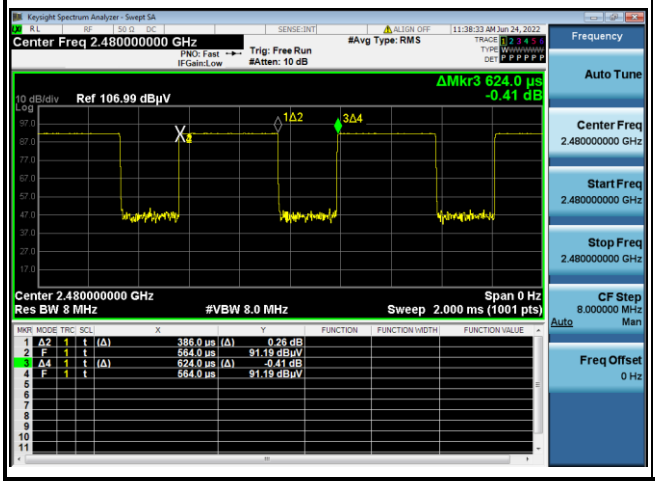
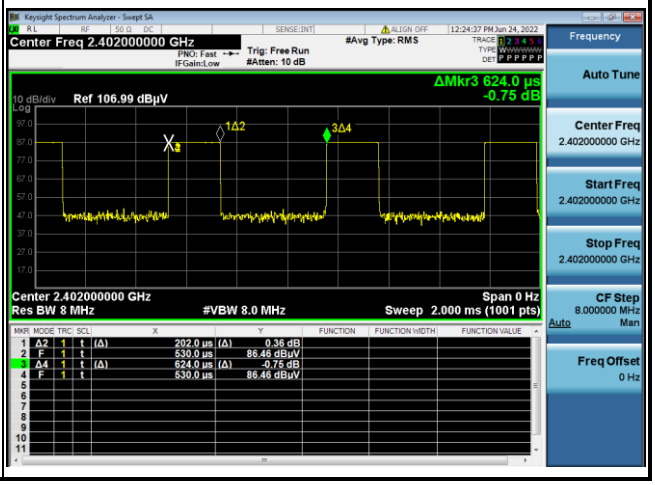
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
8	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK_74 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	 Site : 03CH11-HY Condition : AVG_54 3m 9120D_1212_220310 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
8	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK_74 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	 Site : 03CH11-HY Condition : AVG_54 3m 9120D_1212_220310 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto

Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
7	Bluetooth - LE for 1Mbps	68.44	386	2.59	3kHz
7	Bluetooth - LE for 2Mbps	32.37	202	4.95	10kHz
8	Bluetooth - LE for 1Mbps	62.18	388	2.58	3kHz
8	Bluetooth - LE for 2Mbps	32.37	202	4.95	10kHz

<Ant. 7>

Bluetooth – LE for 1Mbps	Bluetooth – LE for 2Mbps
	

<Ant. 8>

Bluetooth – LE for 1Mbps	Bluetooth – LE for 2Mbps