

<Ant. 7>

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	1.018	0.670	0.50	Pass
BLE	1Mbps	1	19	2440	1.014	0.666	0.50	Pass
BLE	1Mbps	1	39	2480	1.016	0.666	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	6.30	30.00	-3.40	2.90	36.00	Pass
BLE	1Mbps	1	19	2440	7.00	30.00	-3.40	3.60	36.00	Pass
BLE	1Mbps	1	39	2480	8.10	30.00	-3.40	4.70	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	4.43	-9.92	-3.40	8.00	Pass
BLE	1Mbps	1	19	2440	5.23	-9.30	-3.40	8.00	Pass
BLE	1Mbps	1	39	2480	6.46	-8.01	-3.40	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	1.156	0.50	Pass
BLE	2Mbps	1	19	2440	1.994	1.144	0.50	Pass
BLE	2Mbps	1	39	2480	1.986	1.144	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	6.40	30.00	-3.40	3.00	36.00	Pass
BLE	2Mbps	1	19	2440	7.30	30.00	-3.40	3.90	36.00	Pass
BLE	2Mbps	1	39	2480	8.40	30.00	-3.40	5.00	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	4.59	-12.78	-3.40	8.00	Pass
BLE	2Mbps	1	19	2440	5.45	-12.03	-3.40	8.00	Pass
BLE	2Mbps	1	39	2480	6.78	-10.69	-3.40	8.00	Pass

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



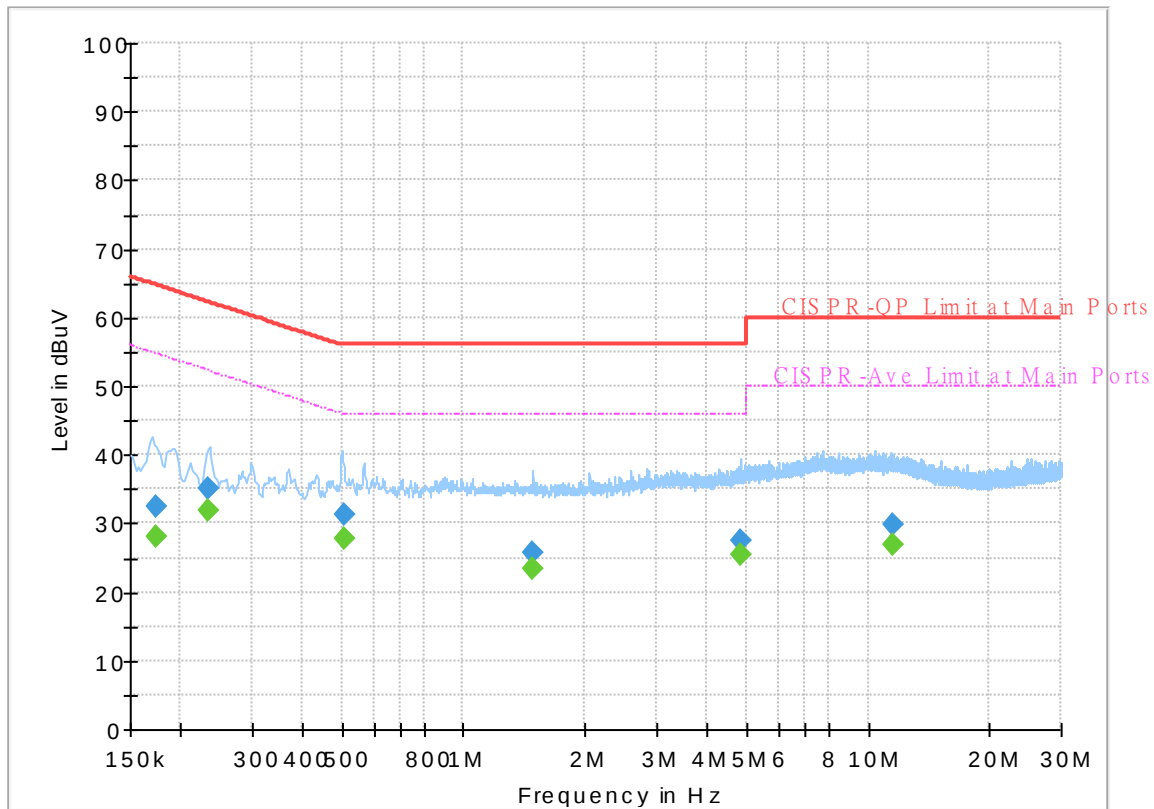
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Tom Lee	Temperature :	23~26℃
		Relative Humidity :	40~50%

EUT Information

Report NO : 110409
Test Mode : Mode 1
Test Voltage : 120Vac/60Hz
Phase : Line

Full Spectrum



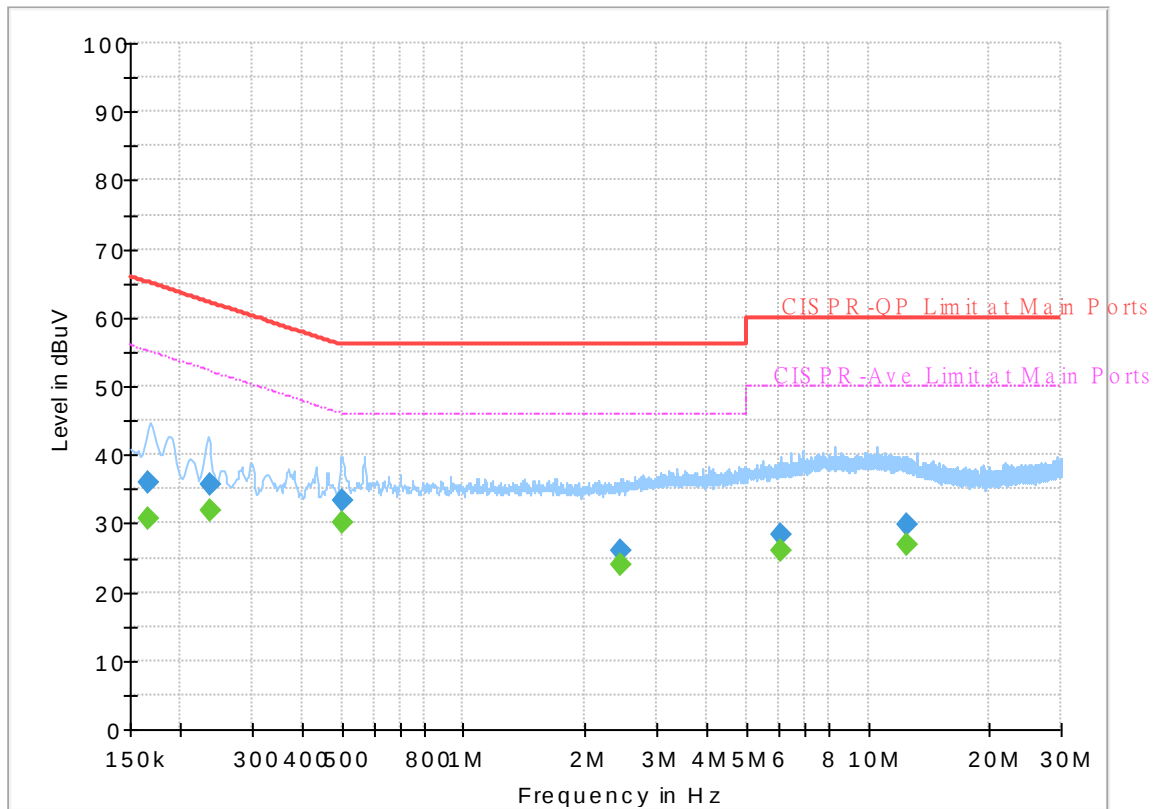
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.174750	---	27.99	54.73	26.74	L1	OFF	19.7
0.174750	32.42	---	64.73	32.31	L1	OFF	19.7
0.234510	---	31.95	52.29	20.34	L1	OFF	19.7
0.234510	35.10	---	62.29	27.19	L1	OFF	19.7
0.504960	---	27.81	46.00	18.19	L1	OFF	19.9
0.504960	31.29	---	56.00	24.71	L1	OFF	19.9
1.488390	---	23.38	46.00	22.62	L1	OFF	20.2
1.488390	25.59	---	56.00	30.41	L1	OFF	20.2
4.832970	---	25.35	46.00	20.65	L1	OFF	20.1
4.832970	27.56	---	56.00	28.44	L1	OFF	20.1
11.573250	---	27.03	50.00	22.97	L1	OFF	20.2
11.573250	29.83	---	60.00	30.17	L1	OFF	20.2

EUT Information

Report NO : 110409
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)
0.166200	---	30.68	55.15	24.47	N	OFF	19.7
0.166200	36.00	---	65.15	29.15	N	OFF	19.7
0.235770	---	31.96	52.24	20.28	N	OFF	19.8
0.235770	35.54	---	62.24	26.70	N	OFF	19.8
0.502980	---	30.21	46.00	15.79	N	OFF	19.9
0.502980	33.24	---	56.00	22.76	N	OFF	19.9
2.455170	---	23.87	46.00	22.13	N	OFF	20.2
2.455170	25.95	---	56.00	30.05	N	OFF	20.2
6.083250	---	26.00	50.00	24.00	N	OFF	20.1
6.083250	28.33	---	60.00	31.67	N	OFF	20.1
12.534000	---	26.80	50.00	23.20	N	OFF	20.3
12.534000	29.78	---	60.00	30.22	N	OFF	20.3



Appendix C. Radiated Spurious Emission

Test Engineer :	Karl Hou, Caster Liao, and Andy Yang	Temperature :	20~25°C
		Relative Humidity :	50~60%

<Ant. 11>

<1Mbps>

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

BLE	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BLE CH 00 2402MHz		2387.49	56.65	-17.35	74	40.87	27.58	18.48	30.28	144	306	P	H
		2321.445	46.82	-7.18	54	30.91	27.86	18.35	30.3	144	306	A	H
	*	2402	97.35	-	-	81.63	27.5	18.5	30.28	144	306	P	H
	*	2402	96.75	-	-	81.03	27.5	18.5	30.28	144	306	A	H
													H
		2375.205	56.11	-17.89	74	40.29	27.65	18.45	30.28	294	14	P	V
		2356.095	46.62	-7.38	54	30.73	27.76	18.42	30.29	294	14	A	V
	*	2402	92.7	-	-	76.98	27.5	18.5	30.28	294	14	P	V
	*	2402	92.06	-	-	76.34	27.5	18.5	30.28	294	14	A	V
													V
BLE CH 19 2440MHz		2363.06	56.68	-17.32	74	40.82	27.72	18.43	30.29	109	307	P	H
		2349.62	46.67	-7.33	54	30.75	27.8	18.41	30.29	109	307	A	H
	*	2440	101.08	-	-	85.35	27.42	18.58	30.27	109	307	P	H
	*	2440	100.51	-	-	84.78	27.42	18.58	30.27	109	307	A	H
		2499.51	56.23	-17.77	74	40.39	27.4	18.69	30.25	109	307	P	H
		2488.38	46.62	-7.38	54	30.8	27.4	18.67	30.25	109	307	A	H
		2361.52	56.48	-17.52	74	40.61	27.73	18.43	30.29	367	29	P	V
		2340.94	46.48	-7.52	54	30.56	27.82	18.39	30.29	367	29	A	V
	*	2440	97.14	-	-	81.41	27.42	18.58	30.27	367	29	P	V
	*	2440	96.44	-	-	80.71	27.42	18.58	30.27	367	29	A	V
		2484.39	57.26	-16.74	74	41.45	27.4	18.66	30.25	367	29	P	V
		2491.81	46.61	-7.39	54	30.78	27.4	18.68	30.25	367	29	A	V



BLE CH 39 2480MHz	*	2480	100.32	-	-	84.52	27.4	18.66	30.26	101	311	P	H
	*	2480	99.58	-	-	83.78	27.4	18.66	30.26	101	311	A	H
		2498.88	57	-17	74	41.16	27.4	18.69	30.25	101	311	P	H
		2490.96	46.71	-7.29	54	30.88	27.4	18.68	30.25	101	311	A	H
													H
													H
	*	2480	96.82	-	-	81.02	27.4	18.66	30.26	398	28	P	V
	*	2480	96.03	-	-	80.23	27.4	18.66	30.26	398	28	A	V
		2485.92	56.2	-17.8	74	40.38	27.4	18.67	30.25	398	28	P	V
		2486.68	46.73	-7.27	54	30.91	27.4	18.67	30.25	398	28	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	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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	40.82	-33.18	74	51.71	31.11	13.36	55.36	100	0	P	H
													H
													H
													H
		4804	40.19	-33.81	74	51.08	31.11	13.36	55.36	100	0	P	V
													V
													V
													V
BLE CH 19 2440MHz		4880	40.2	-33.8	74	51.08	31.14	13.36	55.38	100	0	P	H
		7320	46.16	-27.84	74	49.8	36.44	16.18	56.26	100	0	P	H
													H
													H
		4880	40.23	-33.77	74	51.11	31.14	13.36	55.38	100	0	P	V
		7320	45.97	-28.03	74	49.61	36.44	16.18	56.26	100	0	P	V
													V
													V
BLE CH 39 2480MHz		4960	39.81	-34.19	74	50.5	31.34	13.36	55.39	100	0	P	H
		7440	45.38	-28.62	74	48.88	36.4	16.39	56.29	100	0	P	H
													H
													H
		4960	39.79	-34.21	74	50.48	31.34	13.36	55.39	100	0	P	V
		7440	45.27	-28.73	74	48.77	36.4	16.39	56.29	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



<2Mbps>

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

BLE	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BLE CH 00 2402MHz		2365.86	56.62	-17.38	74	40.77	27.7	18.44	30.29	110	307	P	H
		2360.4	48.45	-5.55	54	32.57	27.74	18.43	30.29	110	307	A	H
	*	2402	98.38	-	-	82.66	27.5	18.5	30.28	110	307	P	H
	*	2402	97.07	-	-	81.35	27.5	18.5	30.28	110	307	A	H
													H
													H
		2331.63	57	-17	74	41.09	27.84	18.37	30.3	379	43	P	V
		2355.99	48.21	-5.79	54	32.32	27.76	18.42	30.29	379	43	A	V
	*	2402	94.32	-	-	78.6	27.5	18.5	30.28	379	43	P	V
	*	2402	92.82	-	-	77.1	27.5	18.5	30.28	379	43	A	V
													V
													V
BLE CH 19 2440MHz		2321.48	56.83	-17.17	74	40.92	27.86	18.35	30.3	110	309	P	H
		2337.72	48.18	-5.82	54	32.28	27.82	18.38	30.3	111	309	A	H
	*	2440	102.05	-	-	86.32	27.42	18.58	30.27	111	309	P	H
	*	2440	100.51	-	-	84.78	27.42	18.58	30.27	111	309	A	H
		2493.42	55.84	-18.16	74	40.01	27.4	18.68	30.25	111	309	P	H
		2499.79	48.44	-5.56	54	32.6	27.4	18.69	30.25	111	309	A	H
		2353.12	56.5	-17.5	74	40.6	27.78	18.41	30.29	400	14	P	V
		2338.98	48.33	-5.67	54	32.42	27.82	18.39	30.3	400	14	A	V
	*	2440	96.35	-	-	80.62	27.42	18.58	30.27	400	14	P	V
	*	2440	94.95	-	-	79.22	27.42	18.58	30.27	400	14	A	V
		2485.09	56.74	-17.26	74	40.92	27.4	18.67	30.25	400	14	P	V
		2496.08	49.01	-4.99	54	33.17	27.4	18.69	30.25	400	14	A	V



BLE CH 39 2480MHz	*	2480	100.73	-	-	84.93	27.4	18.66	30.26	104	311	P	H
	*	2480	99.41	-	-	83.61	27.4	18.66	30.26	104	311	A	H
		2490.32	56.45	-17.55	74	40.62	27.4	18.68	30.25	104	311	P	H
		2491.16	48.5	-5.5	54	32.67	27.4	18.68	30.25	104	311	A	H
													H
													H
	*	2480	97.93	-	-	82.13	27.4	18.66	30.26	397	14	P	V
	*	2480	96.54	-	-	80.74	27.4	18.66	30.26	397	14	A	V
		2494.08	56.61	-17.39	74	40.78	27.4	18.68	30.25	397	14	P	V
		2486.2	48.67	-5.33	54	32.85	27.4	18.67	30.25	397	14	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	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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	41.01	-32.99	74	51.9	31.11	13.36	55.36	100	0	P	V
													H
													H
													H
		4804	39.98	-34.02	74	50.87	31.11	13.36	55.36	100	0	P	V
													V
													V
													V
BLE CH 19 2440MHz		4880	39.72	-34.28	74	50.6	31.14	13.36	55.38	100	0	P	V
		7320	45.14	-28.86	74	48.78	36.44	16.18	56.26	100	0	P	V
													H
													H
		4880	39.92	-34.08	74	50.8	31.14	13.36	55.38	100	0	P	V
		7320	45.63	-28.37	74	49.27	36.44	16.18	56.26	100	0	P	V
													V
													V
BLE CH 39 2480MHz		4960	40.12	-33.88	74	50.81	31.34	13.36	55.39	100	0	P	H
		7440	46.01	-27.99	74	49.51	36.4	16.39	56.29	100	0	P	H
													H
													H
		4960	39.91	-34.09	74	50.6	31.34	13.36	55.39	100	0	P	V
		7440	45.38	-28.62	74	48.88	36.4	16.39	56.29	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

2.4GHz BLE (LF)

BLE	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
				Limit	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)
2.4GHz BLE LF		62.98	18.33	-21.67	40	38	62.98	18.33	-21.67	-	-	P	H
		77.53	21.79	-18.21	40	39.94	77.53	21.79	-18.21	-	-	P	H
		97.9	24.54	-18.96	43.5	39.75	97.9	24.54	-18.96	-	-	P	H
		184.23	26.22	-17.28	43.5	41.83	184.23	26.22	-17.28	-	-	P	H
		305.48	23.79	-22.21	46	34.08	305.48	23.79	-22.21	-	-	P	H
		746.83	31.83	-14.17	46	31.63	746.83	31.83	-14.17	100	0	P	H
													H
													H
													H
													H
													H
													H
		44.55	24.67	-15.33	40	39.63	16.97	0.84	32.82	-	-	P	V
		63.95	26.06	-13.94	40	45.73	11.94	1.11	32.78	-	-	P	V
		77.53	29.28	-10.72	40	47.43	13.25	1.25	32.71	100	0	P	V
		184.23	24.9	-18.6	43.5	40.51	15.03	2.08	32.86	-	-	P	V
		557.68	27.81	-18.19	46	30.31	26.14	3.91	32.67	-	-	P	V
		922.4	32.84	-13.16	46	29.74	29.81	5.14	32.07	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



<Ant. 7>

<1Mbps>

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

BLE	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BLE CH 00 2402MHz		2337.3	57.64	-16.36	74	41.73	27.83	18.38	30.3	121	145	P	H
		2367.645	46.63	-7.37	54	30.79	27.69	18.44	30.29	121	145	A	H
	*	2402	98.88	-	-	83.16	27.5	18.5	30.28	121	145	P	H
	*	2402	98.07	-	-	82.35	27.5	18.5	30.28	121	145	A	H
													H
													H
		2328.585	56.9	-17.1	74	40.99	27.84	18.37	30.3	332	66	P	V
		2338.14	46.53	-7.47	54	30.62	27.82	18.39	30.3	332	66	A	V
	*	2402	97.06	-	-	81.34	27.5	18.5	30.28	332	66	P	V
	*	2402	96.24	-	-	80.52	27.5	18.5	30.28	332	66	A	V
													V
													V
BLE CH 19 2440MHz		2362.08	56.9	-17.1	74	41.03	27.73	18.43	30.29	106	143	P	H
		2364.04	46.5	-7.5	54	30.64	27.72	18.43	30.29	106	143	A	H
	*	2440	101.24	-	-	85.51	27.42	18.58	30.27	106	143	P	H
	*	2440	100.63	-	-	84.9	27.42	18.58	30.27	106	143	A	H
		2488.73	57.58	-16.42	74	41.76	27.4	18.67	30.25	106	143	P	H
		2486.91	46.52	-7.48	54	30.7	27.4	18.67	30.25	106	143	A	H
		2326.38	56.28	-17.72	74	40.37	27.85	18.36	30.3	365	65	P	V
		2320.78	46.31	-7.69	54	30.4	27.86	18.35	30.3	365	65	A	V
	*	2440	100.16	-	-	84.43	27.42	18.58	30.27	365	65	P	V
	*	2440	99.59	-	-	83.86	27.42	18.58	30.27	365	65	A	V
		2496.08	56.76	-17.24	74	40.92	27.4	18.69	30.25	365	65	P	V
		2492.51	46.71	-7.29	54	30.88	27.4	18.68	30.25	365	65	A	V



BLE CH 39 2480MHz	*	2480	99.21	-	-	83.41	27.4	18.66	30.26	100	139	P	H
	*	2480	98.35	-	-	82.55	27.4	18.66	30.26	100	139	A	H
		2493.96	56.08	-17.92	74	40.25	27.4	18.68	30.25	100	139	P	H
		2487	46.72	-7.28	54	30.9	27.4	18.67	30.25	100	139	A	H
													H
													H
	*	2480	97.99	-	-	82.19	27.4	18.66	30.26	351	65	P	V
	*	2480	97.21	-	-	81.41	27.4	18.66	30.26	351	65	A	V
		2484.8	56.57	-17.43	74	40.75	27.4	18.67	30.25	351	65	P	V
		2499.84	46.61	-7.39	54	30.77	27.4	18.69	30.25	351	65	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	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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	40.49	-33.51	74	51.38	31.11	13.36	55.36	100	0	P	H
													H
													H
													H
		4804	40.49	-33.51	74	51.38	31.11	13.36	55.36	100	0	P	V
													V
													V
													V
BLE CH 19 2440MHz		4880	40.13	-33.87	74	51.01	31.14	13.36	55.38	100	0	P	H
		7320	46.55	-27.45	74	50.19	36.44	16.18	56.26	100	0	P	H
													H
													H
		4880	40.4	-33.6	74	51.28	31.14	13.36	55.38	100	0	P	V
		7320	45.66	-28.34	74	49.3	36.44	16.18	56.26	100	0	P	V
													V
													V
BLE CH 39 2480MHz		4960	39.71	-34.29	74	50.4	31.34	13.36	55.39	100	0	P	H
		7440	45.95	-28.05	74	49.45	36.4	16.39	56.29	100	0	P	H
													H
													H
		4960	39.88	-34.12	74	50.57	31.34	13.36	55.39	100	0	P	V
		7440	45.78	-28.22	74	49.28	36.4	16.39	56.29	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



<2Mbps>

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

BLE	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BLE CH 00 2402MHz		2377.83	56.74	-17.26	74	40.93	27.63	18.46	30.28	119	145	P	H
		2356.725	48.96	-5.04	54	33.07	27.76	18.42	30.29	119	145	P	H
	*	2402	99.05	-	-	83.33	27.5	18.5	30.28	119	145	P	H
	*	2402	97.62	-	-	81.9	27.5	18.5	30.28	119	145	A	H
													H
													H
		2365.965	56.18	-17.82	74	40.33	27.7	18.44	30.29	332	68	P	V
		2316.93	48.28	-5.72	54	32.36	27.87	18.35	30.3	332	68	A	V
	*	2402	97.61	-	-	81.89	27.5	18.5	30.28	332	68	P	V
	*	2402	96.4	-	-	80.68	27.5	18.5	30.28	332	68	A	V
													V
													V
BLE CH 19 2440MHz		2320.36	56.82	-17.18	74	40.91	27.86	18.35	30.3	103	144	P	H
		2320.78	48.39	-5.61	54	32.48	27.86	18.35	30.3	103	144	A	H
	*	2440	101.47	-	-	85.74	27.42	18.58	30.27	103	144	P	H
	*	2440	100.2	-	-	84.47	27.42	18.58	30.27	103	144	A	H
		2484.18	55.82	-18.18	74	40.01	27.4	18.66	30.25	103	144	P	H
		2490.62	48.44	-5.56	54	32.61	27.4	18.68	30.25	103	144	A	H
		2389.8	56.99	-17.01	74	41.23	27.56	18.48	30.28	364	64	P	V
		2331.84	48.38	-5.62	54	32.47	27.84	18.37	30.3	364	64	A	V
	*	2440	100.55	-	-	84.82	27.42	18.58	30.27	364	64	P	V
	*	2440	99.21	-	-	83.48	27.42	18.58	30.27	364	64	A	V
		2489.78	56.08	-17.92	74	40.25	27.4	18.68	30.25	364	64	P	V
		2498.46	48.2	-5.8	54	32.36	27.4	18.69	30.25	364	64	A	V



BLE CH 39 2480MHz	*	2480	99.33	-	-	83.53	27.4	18.66	30.26	101	140	P	H
	*	2480	97.79	-	-	81.99	27.4	18.66	30.26	101	140	A	H
		2494.64	57.52	-16.48	74	41.69	27.4	18.68	30.25	101	140	P	H
		2489.76	48.71	-5.29	54	32.88	27.4	18.68	30.25	101	140	A	H
													H
													H
	*	2480	98.25	-	-	82.45	27.4	18.66	30.26	355	65	P	V
	*	2480	96.92	-	-	81.12	27.4	18.66	30.26	355	65	A	V
		2496.84	56.67	-17.33	74	40.83	27.4	18.69	30.25	355	65	P	V
		2489.12	48.33	-5.67	54	32.51	27.4	18.67	30.25	355	65	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	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (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	39.89	-34.11	74	50.78	31.11	13.36	55.36	100	0	P	H
													H
													H
													H
		4804	40.84	-33.16	74	51.73	31.11	13.36	55.36	100	0	P	V
													V
													V
													V
BLE CH 19 2440MHz		4880	40.6	-33.4	74	51.48	31.14	13.36	55.38	100	0	P	H
		7320	46.35	-27.65	74	49.99	36.44	16.18	56.26	100	0	P	H
													H
													H
		4880	39.93	-34.07	74	50.81	31.14	13.36	55.38	100	0	P	V
		7320	45.64	-28.36	74	49.28	36.44	16.18	56.26	100	0	P	V
													V
													V
BLE CH 39 2480MHz		4960	39.92	-34.08	74	50.61	31.34	13.36	55.39	100	0	P	V
		7440	45.71	-28.29	74	49.21	36.4	16.39	56.29	100	0	P	V
													H
													H
		4960	39.54	-34.46	74	50.23	31.34	13.36	55.39	100	0	P	V
		7440	46.75	-27.25	74	50.25	36.4	16.39	56.29	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

2.4GHz BLE (LF)

BLE	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
				Limit	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)	
2.4GHz BLE LF		62.98	18.53	-21.47	40	38.2	11.96	1.16	32.79	-	-	P	H	
		76.56	23.2	-16.8	40	41.53	13.35	1.32	32.71	-	-	P	H	
		95.96	24.51	-18.99	43.5	40.14	15.7	1.51	32.62	-	-	P	H	
		185.2	26.02	-17.48	43.5	41.61	15.03	2.22	32.86	-	-	P	H	
		421.88	23.92	-22.08	46	29.93	19.2	2.87	32.58	-	-	P	H	
		731.31	32.39	-13.61	46	32.46	30.9	5.46	31.57	100	0	P	H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
		44.55	24.38	-15.62	40	39.34	19.02	0.83	32.79	-	-	P	V	
		62.98	26.84	-13.16	40	46.51	11.96	1.16	32.79	-	-	P	V	
		77.53	29.77	-10.23	40	47.92	13.35	1.32	32.71	100	0	P	V	
		183.26	24.6	-18.9	43.5	40.18	15.03	2.22	32.86	-	-	P	V	
		629.46	27.93	-18.07	46	29.9	19.3	2.92	32.55	-	-	P	V	
		745.86	32.37	-13.63	46	32.16	25.67	4.2	32.67	-	-	P	V	
														V
														V
														V
														V
														V
													V	
													V	
Remark	1. No other spurious found. 2. All results are PASS against 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	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
				Limit	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. Over Limit(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. Over Limit(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. Over Limit(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 :	Karl Hou, Caster Liao, and Andy Yang	Temperature :	20~25°C
		Relative Humidity :	50~60%

Note symbol

-L	Low channel location
-R	High channel location

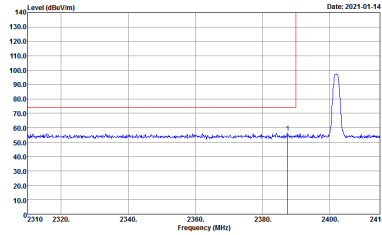
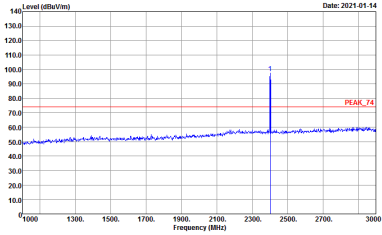
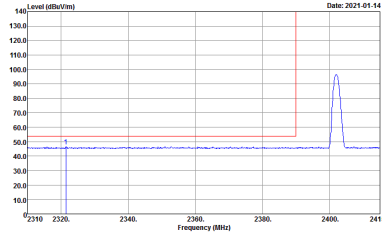
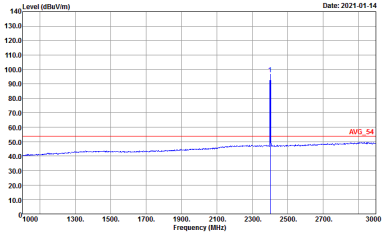


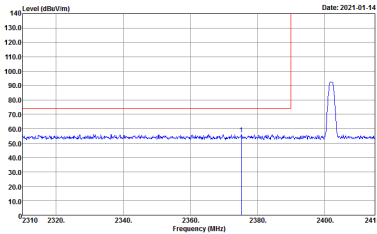
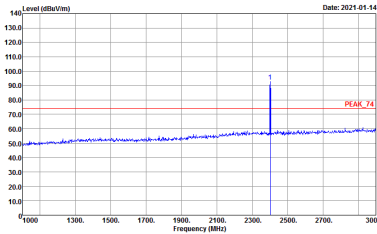
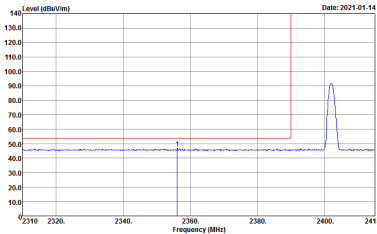
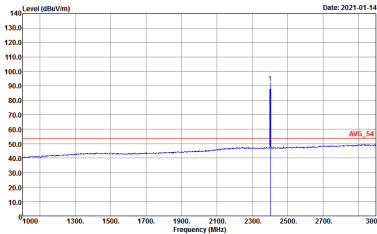
<Ant. 11>

<1Mbps>

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

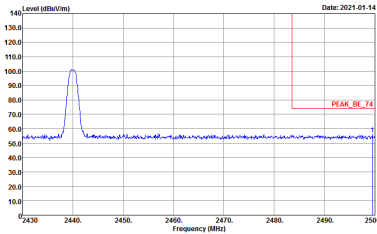
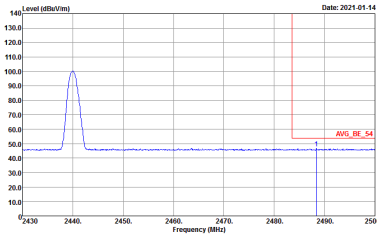
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH00 2402MHz	
	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH00 2402MHz	
	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

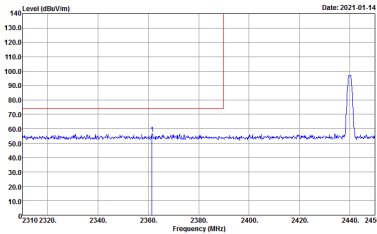
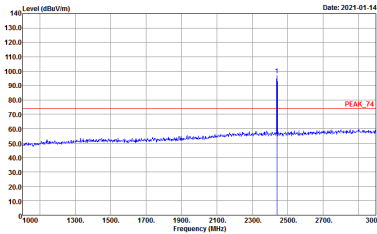
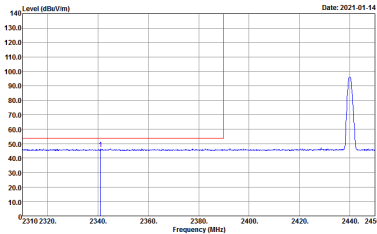
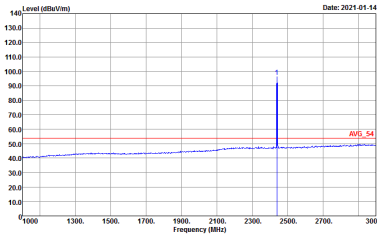


BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - L	
	Horizontal	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

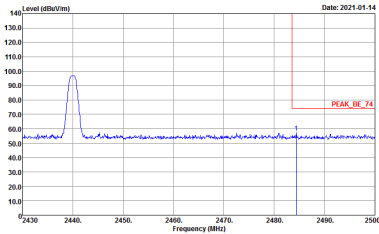
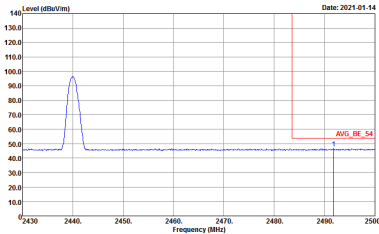


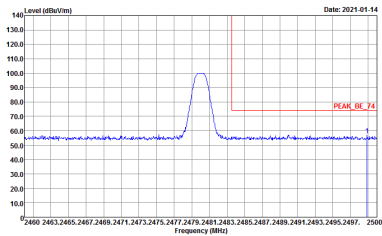
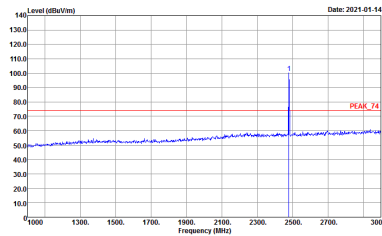
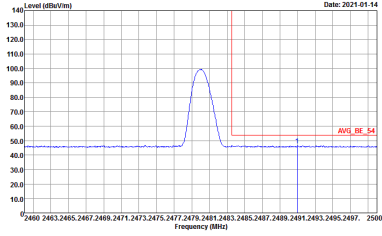
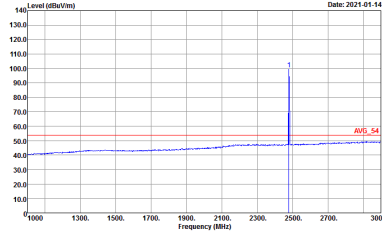
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - R	
	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - L	
	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - R	
	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH39 2480MHz	
	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH39 2480MHz	
	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



2.4GHz 2400~2483.5MHz

BLE (Harmonic @ 3m)

BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE CH00 2402MHz	
	Horizontal	Vertical
Peak Avg.	Level (dBu/1m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL	Level (dBu/1m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL



BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE CH19 2440MHz	
	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL	Level (dBuV/m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL



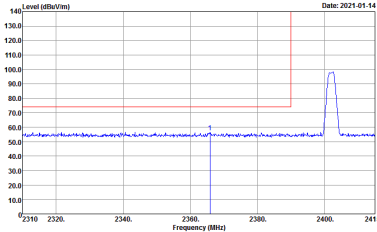
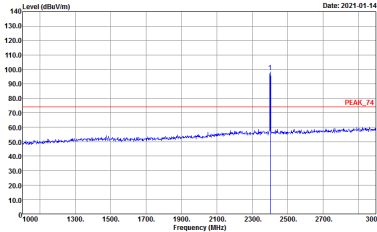
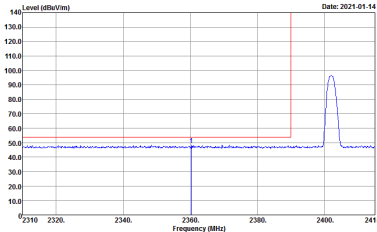
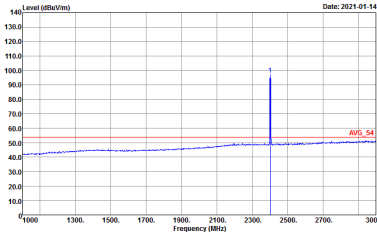
BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE CH39 2480MHz	
	Horizontal	Vertical
Peak	Level (dBuV/m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL	Level (dBuV/m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL

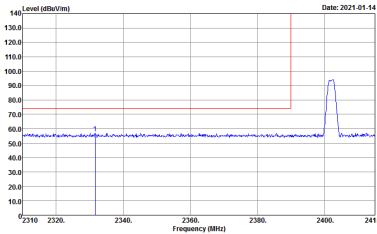
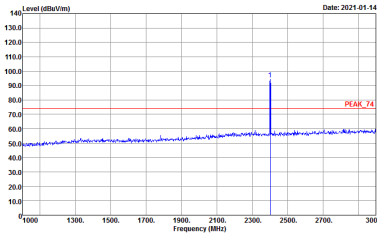
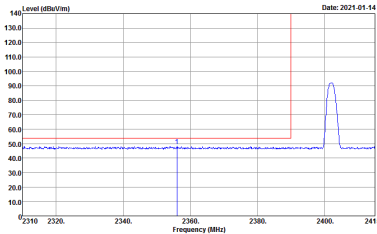
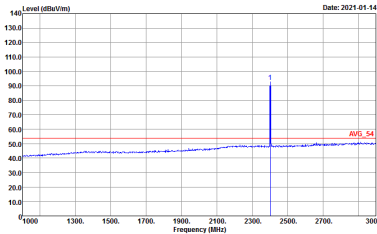


<2Mbps>

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

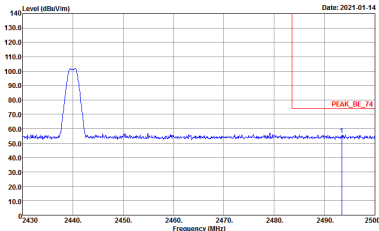
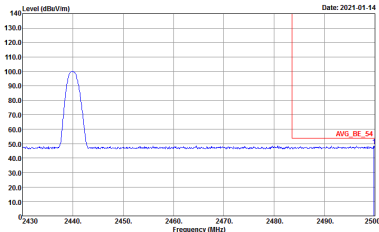
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH00 2402MHz	
	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH00 2402MHz	
	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	 Site : 03CH16-HY Condition : AV6_BE_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AV6_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - L	
	Horizontal	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - R	
	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000kHz VBW:10.000kHz SWT:Auto	Left blank



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - L	
	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - R	
	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	Left blank



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH39 2480MHz	
	Horizontal	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH39 2480MHz	
	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 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	
	BLE CH00 2402MHz	
	Horizontal	Vertical
Peak Avg.	Level (dBm/5m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL	Level (dBm/5m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL

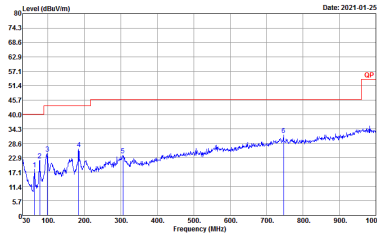
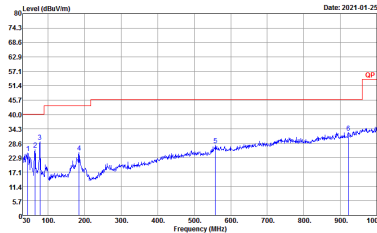


BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE CH19 2440MHz	
	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL	Level (dBuV/m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL



BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE CH39 2480MHz	
	Horizontal	Vertical
Peak	Level (dBuV/m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL	Level (dBuV/m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL

Emission below 1GHz
2.4GHz BLE (LF)

BLE	2.4GHz 2400~2483.5MHz	
	BLE LF	
	Horizontal	Vertical
QP / Peak	 Site : 03CH16-HY Condition : QP 3m B1LOG_47020406 HORIZONTAL	 Site : 03CH16-HY Condition : QP 3m B1LOG_47020406 VERTICAL

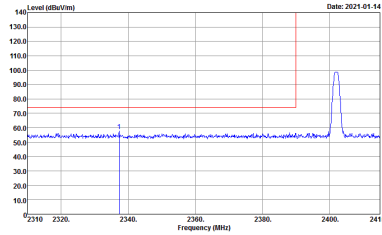
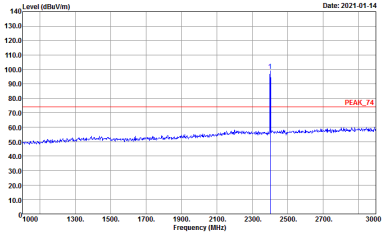
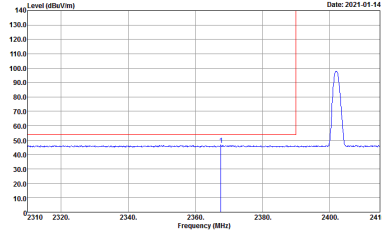
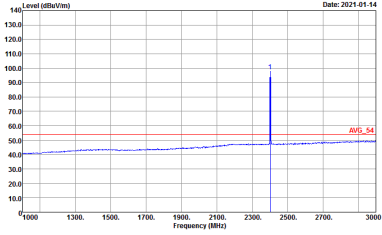


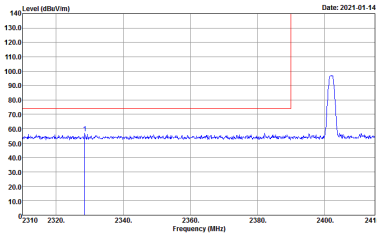
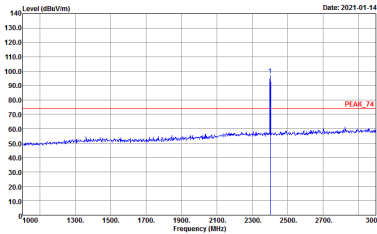
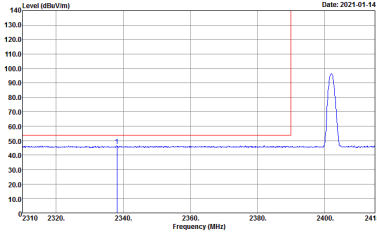
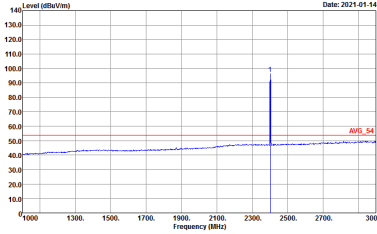
<Ant. 7>

<1Mbps>

2.4GHz 2400~2483.5MHz

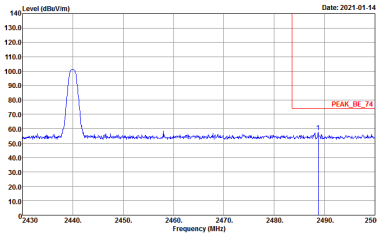
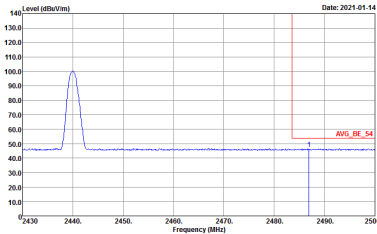
BLE (Band Edge @ 3m)

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH00 2402MHz	
	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto

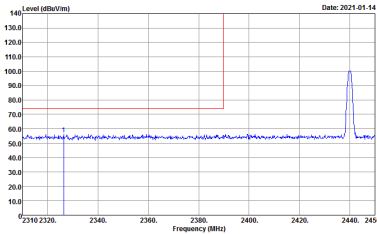
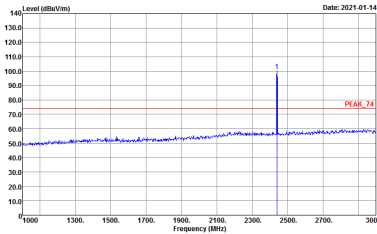
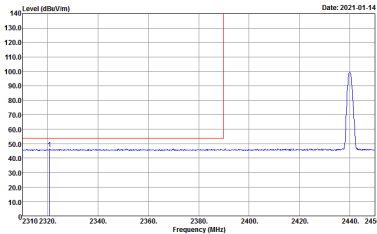
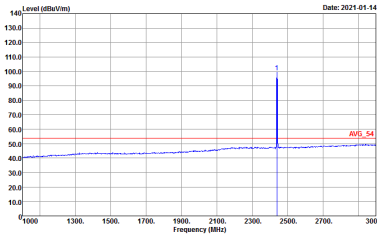
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH00 2402MHz	
	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

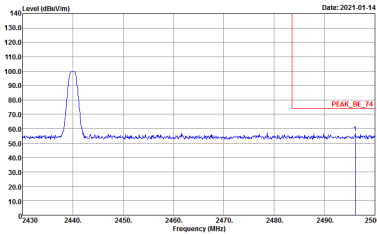
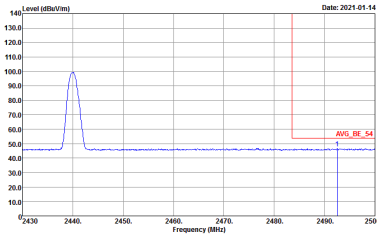


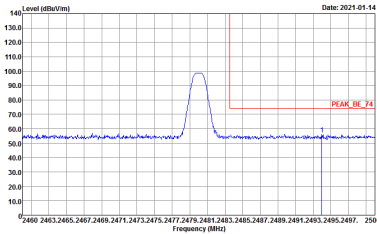
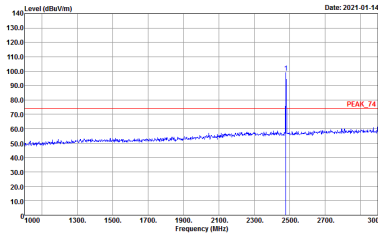
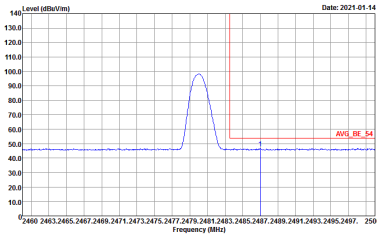
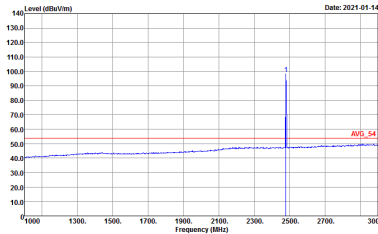
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - L	
	Horizontal	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - R	
	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

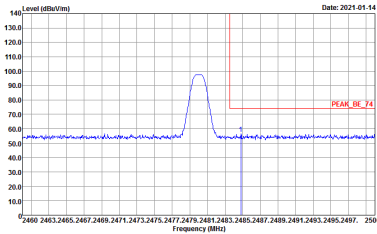
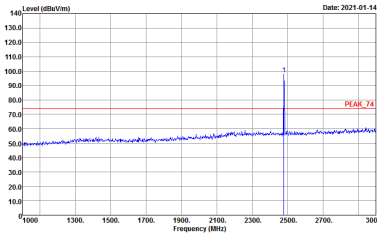
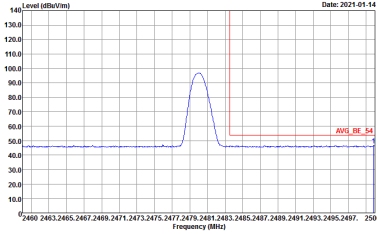
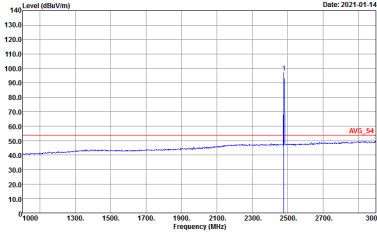


BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - L	
	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - R	
	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH39 2480MHz	
	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH39 2480MHz	
	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



2.4GHz 2400~2483.5MHz

BLE (Harmonic @ 3m)

BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE CH00 2402MHz	
	Horizontal	Vertical
Peak Avg.	Level (dBm/5m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL	Level (dBm/5m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL



BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE CH19 2440MHz	
	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL	Level (dBuV/m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL



BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE CH39 2480MHz	
	Horizontal	Vertical
Peak	Level (dBuV/m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL	Level (dBuV/m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL



<2Mbps>

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

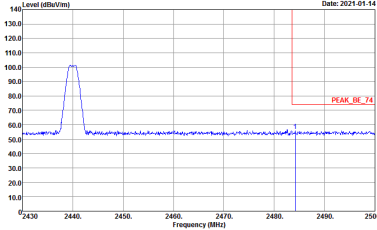
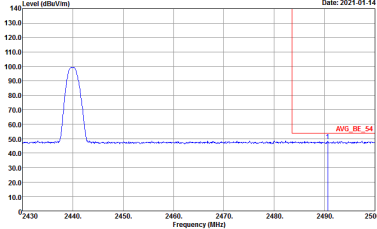
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH00 2402MHz	
	Horizontal	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto



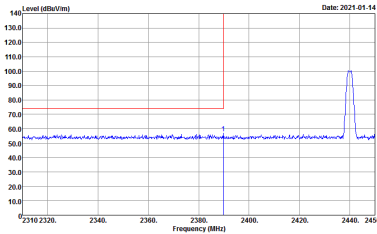
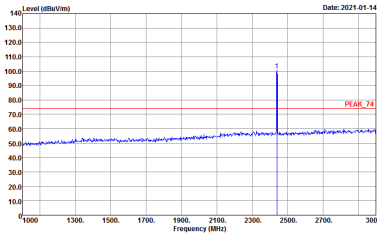
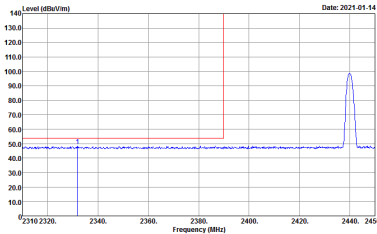
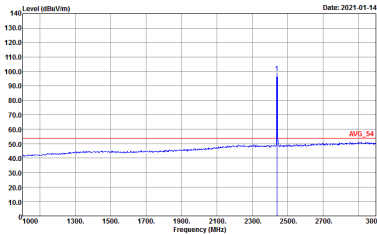
BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH00 2402MHz	
	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto

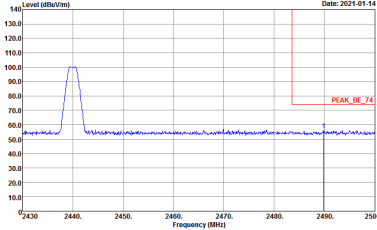
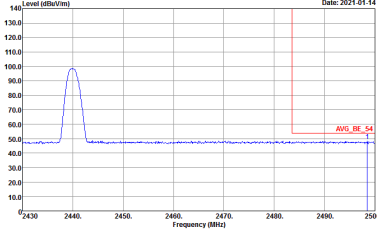


BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - L	
	Horizontal	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - R	
	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000kHz VBW:10.000kHz SWT:Auto	Left blank



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - L	
	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH19 2440MHz - R	
	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000kHz VBW:10.000kHz SWT:Auto	Left blank



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH39 2480MHz	
	Horizontal	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:10.000KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 HORIZONTAL RBW:1000.000KHz VBW:10.000KHz SWT:Auto



BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BLE CH39 2480MHz	
	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_1522 VERTICAL RBW:1000.000KHz VBW:10.000KHz SWT:Auto	Site : 03CH16-HY Condition : AVG_54 3m 91200_1522 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	
	BLE CH00 2402MHz	
	Horizontal	Vertical
Peak Avg.	Level (dBu/1m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL	Level (dBu/1m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL

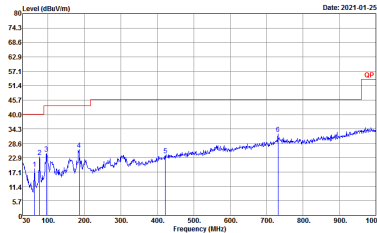
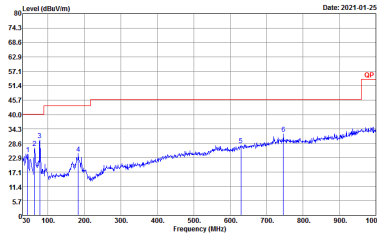


BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE CH19 2440MHz	
	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 HORIZONTAL	Level (dBuV/m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL



BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BLE CH39 2480MHz	
	Horizontal	Vertical
Peak	Level (dBuV/m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL	Level (dBuV/m) Date: 2021-01-26 Site : 03CH16-HY Condition : PEAK_74 3m 91200_1522 VERTICAL

Emission below 1GHz
2.4GHz BLE (LF)

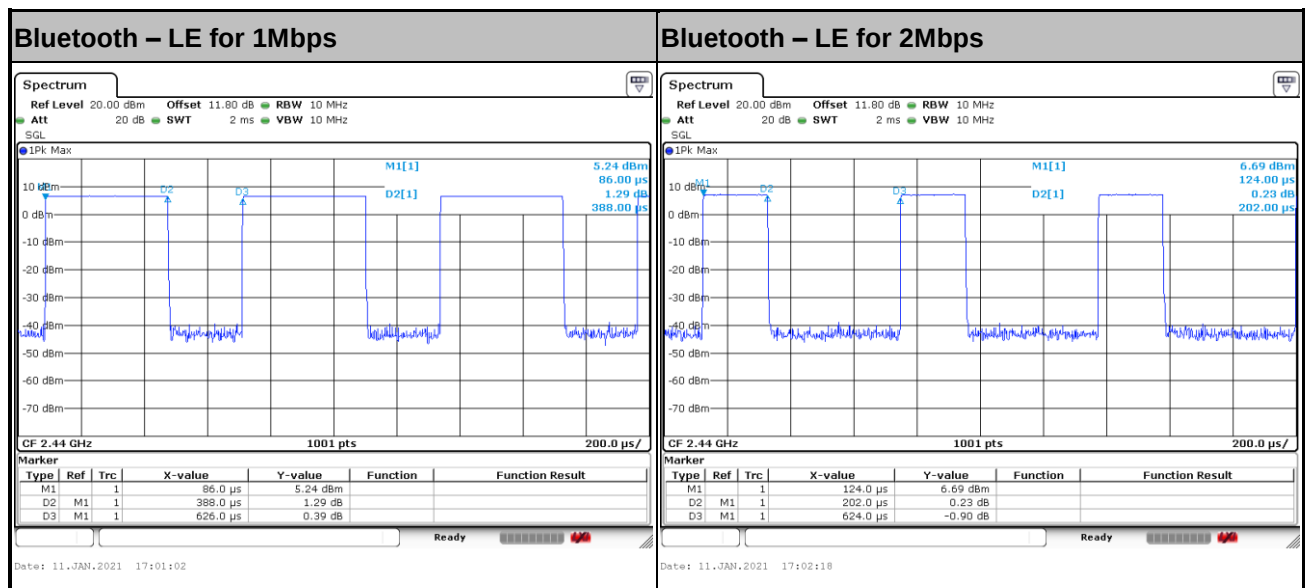
BLE	2.4GHz 2400~2483.5MHz	
	BLE LF	
	Horizontal	Vertical
QP / Peak	 Site : 03CH16-HY Condition : QP 3m B1LOG_47020406 HORIZONTAL	 Site : 03CH16-HY Condition : QP 3m B1LOG_47020406 VERTICAL



Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
11	Bluetooth –LE for 1Mbps	61.98	380	2.63	3kHz	2.08
11	Bluetooth –LE for 2Mbps	32.37	202	4.95	10kHz	4.90
7	Bluetooth –LE for 1Mbps	61.98	380	2.63	3kHz	2.08
7	Bluetooth –LE for 2Mbps	32.59	204	4.90	10kHz	4.87

<Ant. 11>



<Ant. 7>

