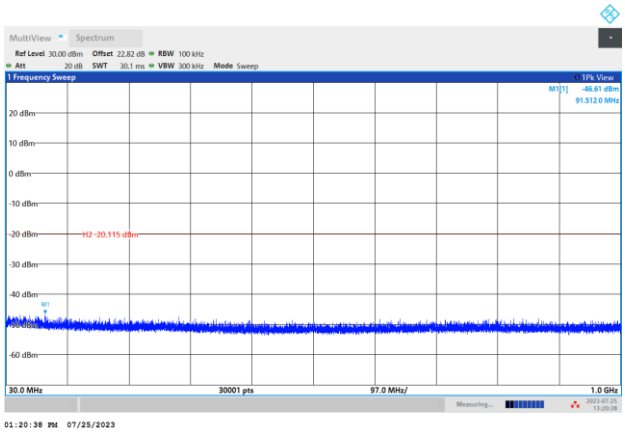
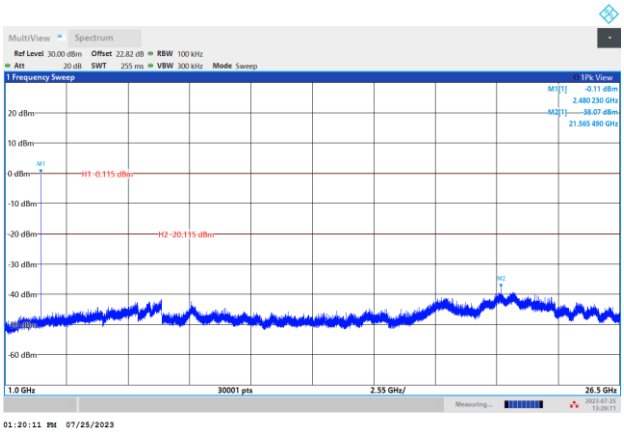
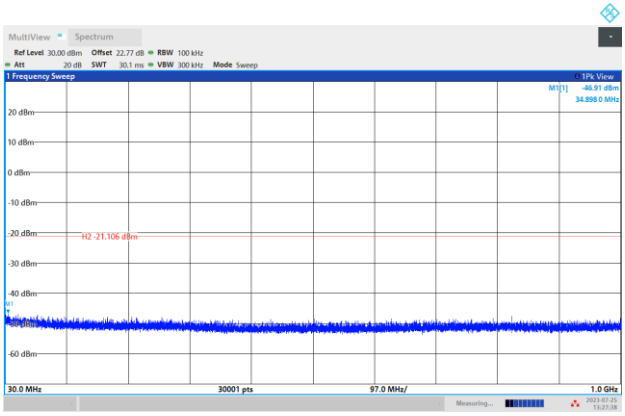
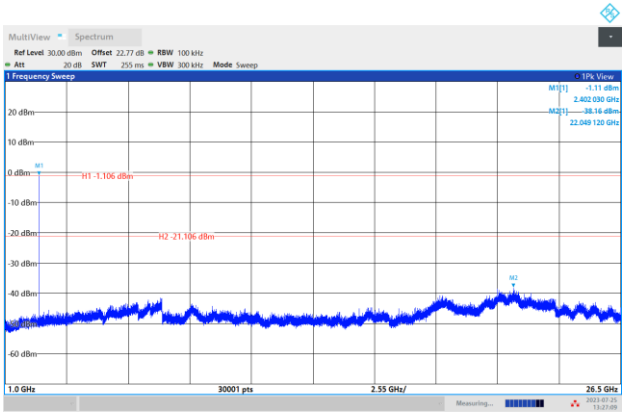
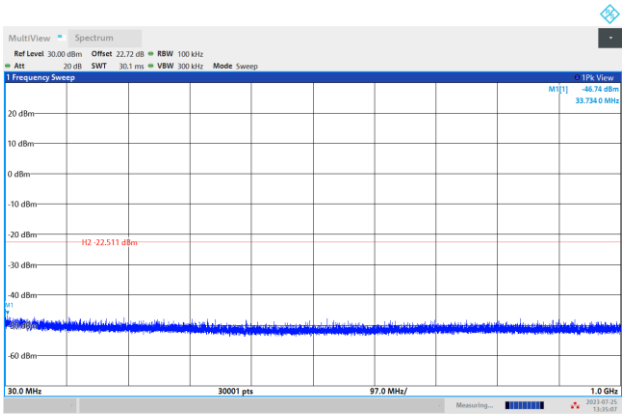
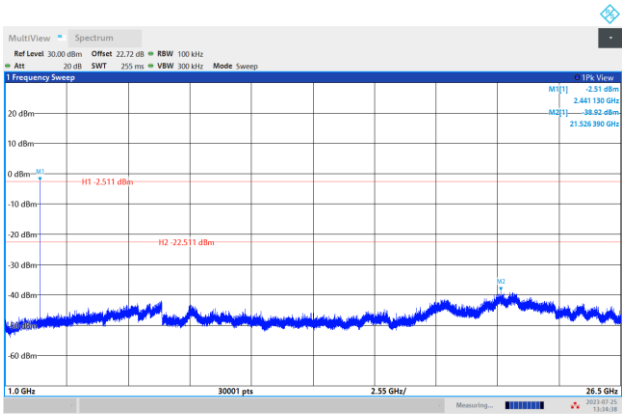
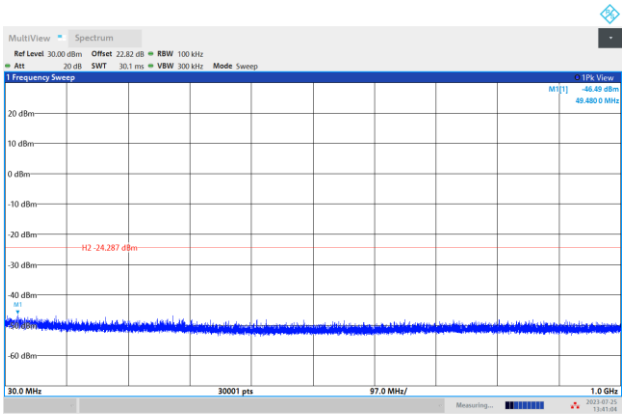
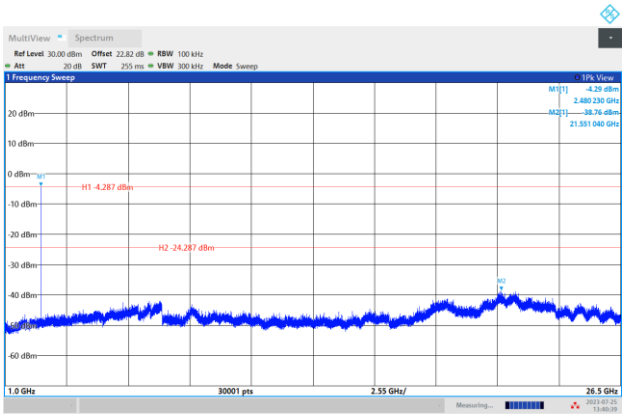
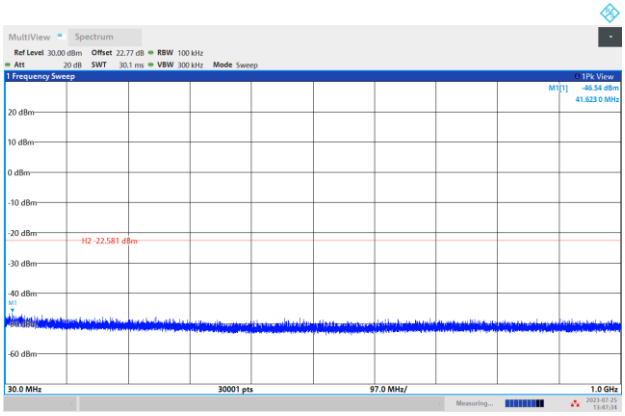
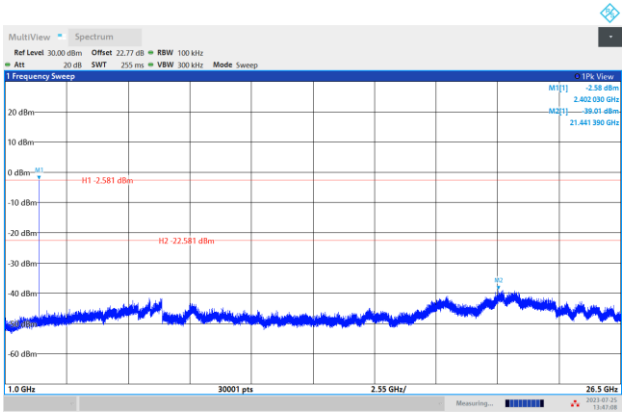
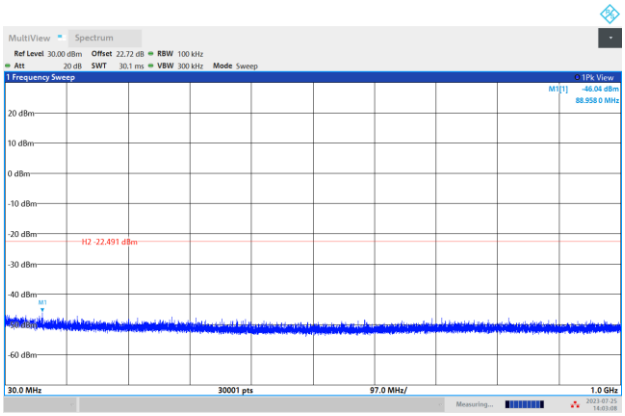
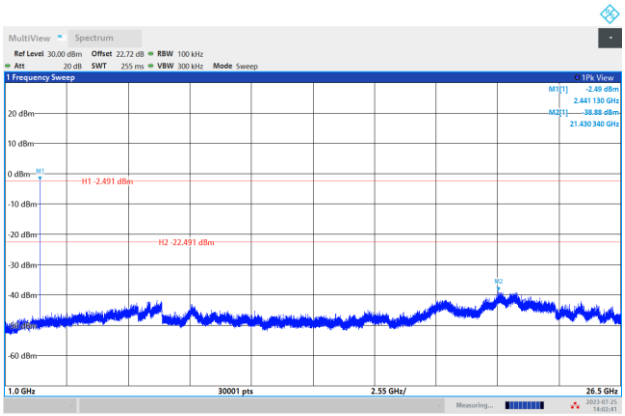
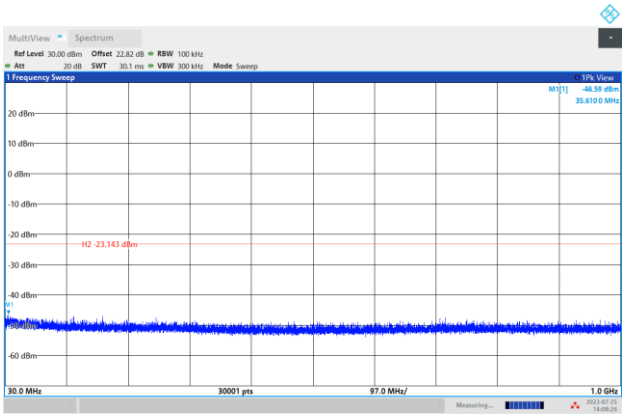
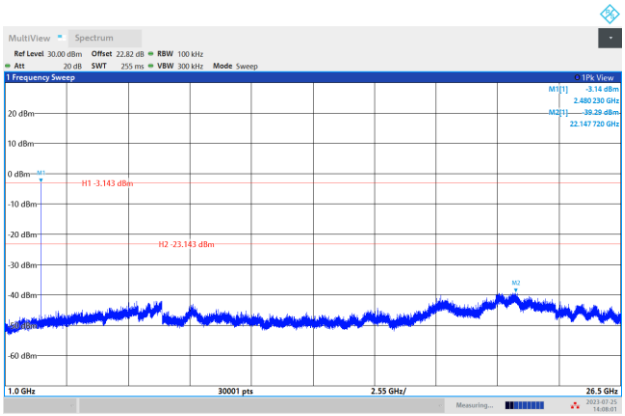
CSE Plot on Ch 78 between 30MHz ~ 1 GHz	CSE Plot on Ch 78 between 1 GHz ~ 26.5 GHz
	

<2Mbps>	
CSE Plot on Ch 00 between 30MHz ~ 1 GHz	**CSE Plot on Ch 00 between 1 GHz ~ 26.5 GHz**
	
CSE Plot on Ch 39 between 30MHz ~ 1 GHz	**CSE Plot on Ch 39 between 1 GHz ~ 26.5 GHz**
	
CSE Plot on Ch 78 between 30MHz ~ 1 GHz	**CSE Plot on Ch 78 between 1 GHz ~ 26.5 GHz**
	

<3Mbps>	
CSE Plot on Ch 00 between 30MHz ~ 1 GHz	**CSE Plot on Ch 00 between 1 GHz ~ 26.5 GHz**
	
CSE Plot on Ch 39 between 30MHz ~ 1 GHz	**CSE Plot on Ch 39 between 1 GHz ~ 26.5 GHz**
	
CSE Plot on Ch 78 between 30MHz ~ 1 GHz	**CSE Plot on Ch 78 between 1 GHz ~ 26.5 GHz**
	

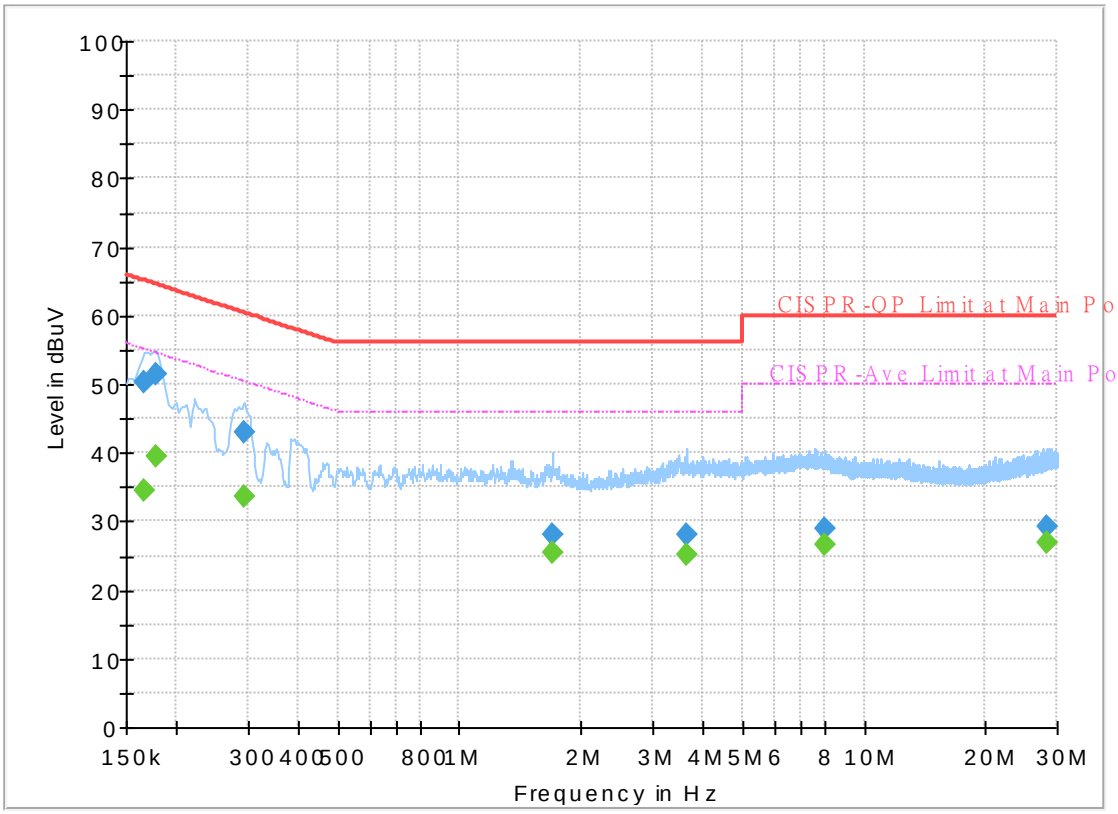
Appendix B. AC Conducted Emission Test Results

Test Engineer :	LI YAN-XUN	**Temperature :**	23~26℃
		Relative Humidity :	45~55%

EUT Information

Report NO :	362117
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

Full Spectrum



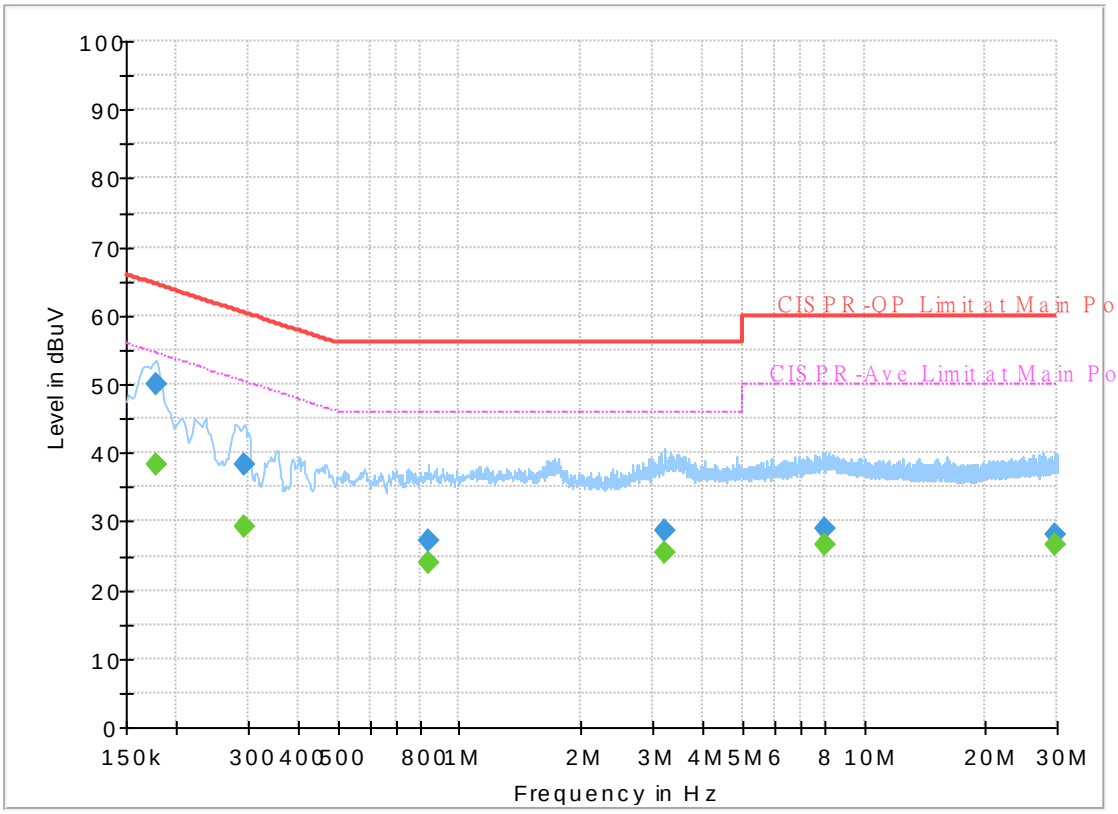
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.165750	---	34.55	55.17	20.62	L1	OFF	19.8
0.165750	50.26	---	65.17	14.91	L1	OFF	19.8
0.177000	---	39.42	54.63	15.21	L1	OFF	19.8
0.177000	51.57	---	64.63	13.06	L1	OFF	19.8
0.294000	---	33.59	50.41	16.82	L1	OFF	19.9
0.294000	43.08	---	60.41	17.33	L1	OFF	19.9
1.700250	---	25.33	46.00	20.67	L1	OFF	19.9
1.700250	28.14	---	56.00	27.86	L1	OFF	19.9
3.628500	---	25.28	46.00	20.72	L1	OFF	20.0
3.628500	28.19	---	56.00	27.81	L1	OFF	20.0
7.973250	---	26.47	50.00	23.53	L1	OFF	20.1
7.973250	29.07	---	60.00	30.93	L1	OFF	20.1
28.407750	---	26.98	50.00	23.02	L1	OFF	20.6
28.407750	29.34	---	60.00	30.66	L1	OFF	20.6

EUT Information

Report NO :	362117
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)
0.177000	---	38.24	54.63	16.39	N	OFF	19.8
0.177000	49.86	---	64.63	14.77	N	OFF	19.8
0.294000	---	29.10	50.41	21.31	N	OFF	19.9
0.294000	38.22	---	60.41	22.19	N	OFF	19.9
0.836250	---	24.02	46.00	21.98	N	OFF	19.9
0.836250	27.25	---	56.00	28.75	N	OFF	19.9
3.219000	---	25.34	46.00	20.66	N	OFF	19.9
3.219000	28.57	---	56.00	27.43	N	OFF	19.9
7.971000	---	26.56	50.00	23.44	N	OFF	20.1
7.971000	29.08	---	60.00	30.92	N	OFF	20.1
29.773500	---	26.52	50.00	23.48	N	OFF	20.8
29.773500	28.16	---	60.00	31.84	N	OFF	20.8

Appendix C. Radiated Spurious Emission

Test Engineer :	Jack Tasi, Gary Guo and Steven Wu	Temperature :	20~25°C
		Relative Humidity :	50~65%

2.4GHz 2400~2483.5MHz

BT (Band Edge @ 3m)

BT	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
ANT					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
6		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BT CH00 2402MHz		2374.26	44.68	-29.32	74	40.5	27.24	7.41	30.47	100	298	P	H
		2374.26	19.89	-34.11	54	-	-	-	-	-	-	A	H
	*	2402	103.64	-	-	99.24	27.4	7.46	30.46	100	298	P	H
	*	2402	78.85	-	-	-	-	-	-	-	-	A	H
													H
													H
		2381.61	44.1	-29.9	74	39.83	27.32	7.42	30.47	252	269	P	V
		2381.61	19.31	-34.69	54	-	-	-	-	-	-	A	V
	*	2402	102.13	-	-	97.73	27.4	7.46	30.46	252	269	P	V
	*	2402	77.34	-	-	-	-	-	-	-	-	A	V
													V
													V
BT CH 39 2441MHz		2378.6	43.9	-30.1	74	39.66	27.29	7.42	30.47	100	299	P	H
		2378.6	19.11	-34.89	54	-	-	-	-	-	-	A	H
	*	2441	104.53	-	-	99.86	27.6	7.52	30.45	100	299	P	H
	*	2441	79.74	-	-	-	-	-	-	-	-	A	H
		2489.43	45.16	-28.84	74	40.21	27.79	7.59	30.43	100	299	P	H
		2489.43	20.37	-33.63	54	-	-	-	-	-	-	A	H
		2359.84	44.13	-29.87	74	40.02	27.2	7.38	30.47	308	275	P	V
		2359.84	19.34	-34.66	54	-	-	-	-	-	-	A	V
	*	2441	103.6	-	-	98.93	27.6	7.52	30.45	308	275	P	V
	*	2441	78.81	-	-	-	-	-	-	-	-	A	V
		2493.35	44.8	-29.2	74	39.83	27.8	7.6	30.43	308	275	P	V
		2493.35	20.01	-33.99	54	-	-	-	-	-	-	A	V

BT CH 78 2480MHz	*	2480	99.08	-	-	94.24	27.7	7.58	30.44	110	298	P	H
	*	2480	74.29	-	-	-	-	-	-	-	-	A	H
		2496.88	45.17	-28.83	74	40.19	27.8	7.61	30.43	110	298	P	H
		2496.88	20.38	-33.62	54	-	-	-	-	-	-	A	H
													H
													H
	*	2480	98.36	-	-	93.52	27.7	7.58	30.44	266	273	P	V
	*	2480	73.57	-	-	-	-	-	-	-	-	A	V
		2496.36	45.79	-28.21	74	40.82	27.8	7.6	30.43	266	273	P	V
		2496.36	21	-33	54	-	-	-	-	-	-	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

BT (Harmonic @ 3m)

BT ANT 6	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)
		4804	39.97	-34.03	74	63.07	32.32	11.23	66.65	-	-	P	H
		4804	15.18	-38.82	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
BT CH 00 2402MHz													H
		4804	39.24	-34.76	74	62.34	32.32	11.23	66.65	-	-	P	V
		4804	14.45	-39.55	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

BT ANT 6	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)
		4882	39.77	-34.23	74	62.39	32.66	11.3	66.58	-	-	P	H
		4882	14.98	-39.02	54	-	-	-	-	-	-	A	H
		7323	44.05	-29.95	74	60.1	36.85	13.43	66.33	-	-	P	H
		7323	19.26	-34.74	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
BT CH 39 2441MHz													H
		4882	39.81	-34.19	74	62.43	32.66	11.3	66.58	-	-	P	V
		4882	15.02	-38.98	54	-	-	-	-	-	-	A	V
		7323	43.78	-30.22	74	59.83	36.85	13.43	66.33	-	-	P	V
		7323	18.99	-35.01	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V
													V
													V
													V
													V

BT ANT 6	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)
BT CH 78 2480MHz		4960	39.81	-34.19	74	62.07	32.88	11.37	66.51	-	-	P	H
		4960	15.02	-38.98	54	-	-	-	-	-	-	A	H
		7440	43.37	-30.63	74	59.87	36.44	13.44	66.38	-	-	P	H
		7440	18.58	-35.42	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
		4960	40.8	-33.2	74	63.06	32.88	11.37	66.51	-	-	P	V
		4960	16.01	-37.99	54	-	-	-	-	-	-	A	V
		7440	42.68	-31.32	74	59.18	36.44	13.44	66.38	-	-	P	V
		7440	17.89	-36.11	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Emission above 18GHz

2.4GHz BT (SHF)

BT	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
ANT					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
6		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz BT SHF		25008	39.59	-34.41	74	56.38	39.11	-2.6	53.3	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		25968	39.22	-34.78	74	56.1	39.1	-2.68	53.3	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Emission below 1GHz

2.4GHz BT (LF)

BT	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
ANT					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
6		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz BT LF		30.54	22.53	-17.47	40	30.33	24.17	0.47	32.44	-	-	P	H
		125.85	22.27	-21.23	43.5	35.43	17.51	1.72	32.39	-	-	P	H
		264.63	21.87	-24.13	46	31.8	19.99	2.5	32.42	-	-	P	H
		425.3	24.7	-21.3	46	31.19	22.84	3.18	32.51	-	-	P	H
		607.3	28.18	-17.82	46	31.79	25.33	3.83	32.77	-	-	P	H
		954.5	33.42	-12.58	46	29.84	30.24	4.82	31.48	-	-	P	H
													H
													H
													H
													H
													H
													H
		34.32	28.96	-11.04	40	38.49	22.37	0.56	32.46	-	-	P	V
		190.38	24.94	-18.56	43.5	40.32	14.87	2.12	32.37	-	-	P	V
		258.42	22.92	-23.08	46	33.19	19.68	2.47	32.42	-	-	P	V
		513.5	24.62	-21.38	46	29.94	23.85	3.49	32.66	-	-	P	V
		722.8	28.46	-17.54	46	30.05	26.9	4.16	32.65	-	-	P	V
		951.7	32.52	-13.48	46	29.02	30.18	4.82	31.5	-	-	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

BT (Band Edge @ 3m)

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)
BT CH00 2402MHz		2367.225	43.7	-30.3	74	39.58	27.2	7.39	30.47	100	301	P	H
		2367.225	18.91	-35.09	54	-	-	-	-	-	-	A	H
	*	2402	103.53	-	-	99.13	27.4	7.46	30.46	100	301	P	H
	*	2402	78.74	-	-	-	-	-	-	-	-	A	H
													H
													H
		2359.035	43.67	-30.33	74	39.58	27.2	7.37	30.48	250	268	P	V
		2359.035	18.88	-35.12	54	-	-	-	-	-	-	A	V
	*	2402	102.15	-	-	97.75	27.4	7.46	30.46	250	268	P	V
	*	2402	77.36	-	-	-	-	-	-	-	-	A	V
													V
													V
BT CH 39 2441MHz		2356.76	44.43	-29.57	74	40.34	27.2	7.37	30.48	106	301	P	H
		2356.76	19.64	-34.36	54	-	-	-	-	-	-	A	H
	*	2441	104.48	-	-	99.81	27.6	7.52	30.45	106	301	P	H
	*	2441	79.69	-	-	-	-	-	-	-	-	A	H
		2493	44.38	-29.62	74	39.41	27.8	7.6	30.43	106	301	P	H
		2493	19.59	-34.41	54	-	-	-	-	-	-	A	H
		2362.36	43.94	-30.06	74	39.83	27.2	7.38	30.47	306	262	P	V
		2362.36	19.15	-34.85	54	-	-	-	-	-	-	A	V
	*	2441	103.76	-	-	99.09	27.6	7.52	30.45	306	262	P	V
	*	2441	78.97	-	-	-	-	-	-	-	-	A	V
		2498.67	44.16	-29.84	74	39.18	27.8	7.61	30.43	306	262	P	V
		2498.67	19.37	-34.63	54	-	-	-	-	-	-	A	V

BT CH 78 2480MHz	*	2480	98.95	-	-	94.11	27.7	7.58	30.44	111	300	P	H
	*	2480	74.16	-	-	-	-	-	-	-	-	A	H
		2498.44	45.31	-28.69	74	40.33	27.8	7.61	30.43	111	300	P	H
		2498.44	20.52	-33.48	54	-	-	-	-	-	-	A	H
													H
													H
	*	2480	98.06	-	-	93.22	27.7	7.58	30.44	298	278	P	V
	*	2480	73.27	-	-	-	-	-	-	-	-	A	V
		2497.96	45.89	-28.11	74	40.91	27.8	7.61	30.43	298	278	P	V
		2497.96	21.1	-32.9	54	-	-	-	-	-	-	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

BT (Harmonic @ 3m)

BT 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)
BT CH 00 2402MHz		4804	39.53	-34.47	74	62.63	32.32	11.23	66.65	-	-	P	H
		4804	14.74	-39.26	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4804	39.63	-34.37	74	62.73	32.32	11.23	66.65	-	-	P	V
		4804	14.84	-39.16	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

BT 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)
		4882	39.64	-34.36	74	62.26	32.66	11.3	66.58	-	-	P	H
		4882	14.85	-39.15	54	-	-	-	-	-	-	A	H
		7323	43.62	-30.38	74	59.67	36.85	13.43	66.33	-	-	P	H
		7323	18.83	-35.17	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
BT CH 39 2441MHz													H
		4882	39.81	-34.19	74	62.43	32.66	11.3	66.58	-	-	P	V
		4882	15.02	-38.98	54	-	-	-	-	-	-	A	V
		7323	43.48	-30.52	74	59.53	36.85	13.43	66.33	-	-	P	V
		7323	18.69	-35.31	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V
													V
													V
													V

BT 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)
BT CH 78 2480MHz		4960	39.76	-34.24	74	62.02	32.88	11.37	66.51	-	-	P	H
		4960	14.97	-39.03	54	-	-	-	-	-	-	A	H
		7440	43.02	-30.98	74	59.52	36.44	13.44	66.38	-	-	P	H
		7440	18.23	-35.77	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
		4960	40.09	-33.91	74	62.35	32.88	11.37	66.51	-	-	P	V
		4960	15.3	-38.7	54	-	-	-	-	-	-	A	V
		7440	43.21	-30.79	74	59.71	36.44	13.44	66.38	-	-	P	V
		7440	18.42	-35.58	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Emission above 18GHz

2.4GHz BT (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 BT SHF		25608	38.59	-35.41	74	55.59	38.76	-2.46	53.3	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		25160	38.74	-35.26	74	55.34	39.23	-2.53	53.3	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Emission below 1GHz

2.4GHz BT (LF)

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 BT LF		30	21.85	-18.15	40	29.33	24.5	0.46	32.44	-	-	P	H
		126.93	22.89	-20.61	43.5	36.04	17.51	1.73	32.39	-	-	P	H
		262.47	20.72	-25.28	46	30.61	20.04	2.49	32.42	-	-	P	H
		389.6	22.05	-23.95	46	30.03	21.49	3.03	32.5	-	-	P	H
		635.3	28.62	-17.38	46	31.35	26.03	3.9	32.66	-	-	P	H
		958	33.12	-12.88	46	29.4	30.32	4.84	31.44	-	-	P	H
													H
													H
													H
													H
													H
													H
		34.32	28.84	-11.16	40	38.37	22.37	0.56	32.46	-	-	P	V
		126.66	25.84	-17.66	43.5	39	17.51	1.72	32.39	-	-	P	V
		263.01	20.11	-25.89	46	29.98	20.06	2.49	32.42	-	-	P	V
		457.5	24.6	-21.4	46	30.64	23.21	3.29	32.54	-	-	P	V
		608.7	28.06	-17.94	46	31.62	25.38	3.83	32.77	-	-	P	V
		946.8	32.92	-13.08	46	29.55	30.12	4.8	31.55	-	-	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

BT (Band Edge @ 3m)

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)
BT CH 78 2480MHz	*	2480	103.9	-	-	99.06	27.7	7.58	30.44	111	303	P	H
	*	2480	79.11	-	-	-	-		-	-	-	A	H
		2483.6	45.27	-28.73	74	40.38	27.74	7.59	30.44	111	303	P	H
		2483.6	20.48	-33.52	54	-	-		-	-	-	A	H
													H
													H
	*	2480	102.67	-	-	97.83	27.7	7.58	30.44	297	267	P	V
	*	2480	77.88	-	-	-	-		-	-	-	A	V
		2483.52	47.97	-26.03	74	43.08	27.74	7.59	30.44	297	267	P	V
		2483.52	23.18	-30.82	54	-	-		-	-	-	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

BT (Harmonic @ 3m)

BT 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)
BT CH 78 2480MHz		4960	39.52	-34.48	74	61.78	32.88	11.37	66.51	-	-	P	H
		4960	14.73	-39.27	54	-	-	-	-	-	-	A	H
		7440	42.5	-31.5	74	59	36.44	13.44	66.38	-	-	P	H
		7440	17.71	-36.29	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
		4960	39.17	-34.83	74	61.43	32.88	11.37	66.51	-	-	P	V
		4960	14.38	-39.62	54	-	-	-	-	-	-	A	V
		7440	43.44	-30.56	74	59.94	36.44	13.44	66.38	-	-	P	V
		7440	18.65	-35.35	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Emission above 18GHz

2.4GHz BT (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 BT SHF		25912	38.3	-35.7	74	55.15	39.1	-2.65	53.3	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		24520	37.82	-36.18	74	55.06	38.74	-2.49	53.49	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

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

Emission below 1GHz

2.4GHz BT (LF)

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 BT LF		31.89	22.25	-17.75	40	30.67	23.53	0.5	32.45	-	-	P	H
		199.56	21.38	-22.12	43.5	36.68	14.93	2.16	32.39	-	-	P	H
		264.09	19.81	-26.19	46	29.65	20.08	2.5	32.42	-	-	P	H
		399.4	25.35	-20.65	46	32.95	21.84	3.07	32.51	-	-	P	H
		783.7	31.52	-14.48	46	32.11	27.57	4.34	32.5	-	-	P	H
		997.9	33.93	-20.07	54	29.91	30.06	5	31.04	-	-	P	H
													H
													H
													H
													H
													H
													H
		47.28	28.4	-11.6	40	44.6	15.43	0.83	32.46	-	-	P	V
		190.38	24.68	-18.82	43.5	40.06	14.87	2.12	32.37	-	-	P	V
		260.85	19.79	-26.21	46	29.76	19.97	2.48	32.42	-	-	P	V
		535.2	25.81	-20.19	46	30.99	23.84	3.56	32.58	-	-	P	V
		783.7	32.59	-13.41	46	33.18	27.57	4.34	32.5	-	-	P	V
		958	32.77	-13.23	46	29.05	30.32	4.84	31.44	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

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

Note symbol

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

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

BT	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
ANT					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
6		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BT CH 00 2402MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	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)

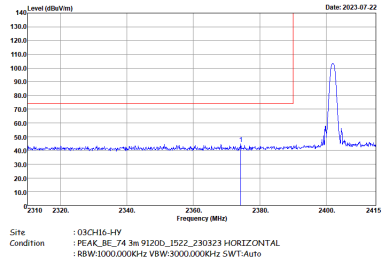
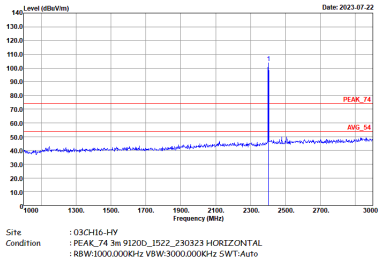
Peak measured complies with the limit line, so test result is “PASS”.

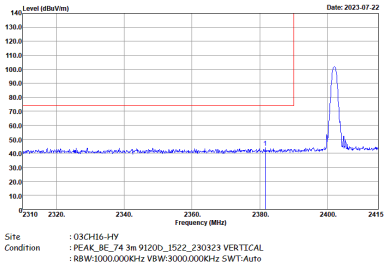
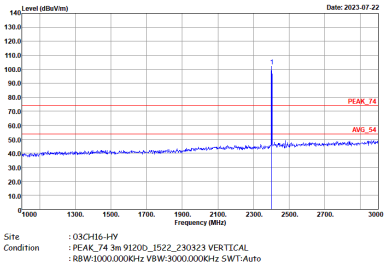
Appendix D. Radiated Spurious Emission Plots

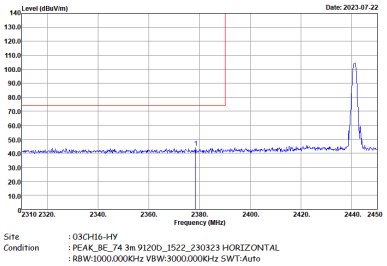
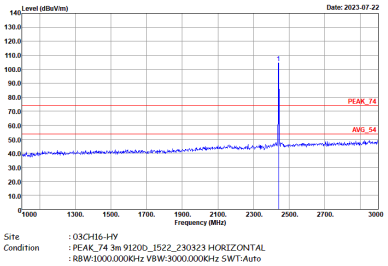
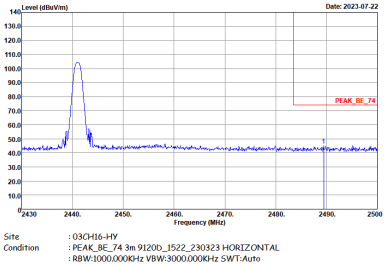
Test Engineer :	Jack Tasi, Gary Guo and Steven Wu	Temperature :	20~25°C
		Relative Humidity :	50~65%

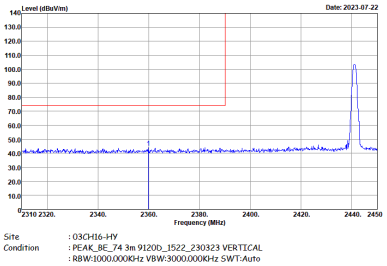
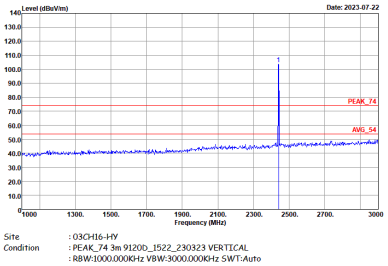
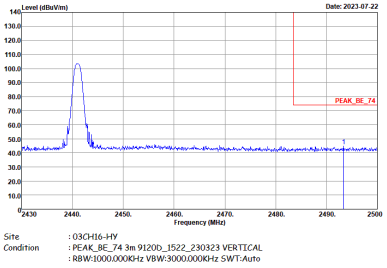
2.4GHz 2400~2483.5MHz

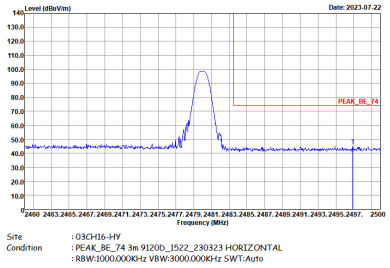
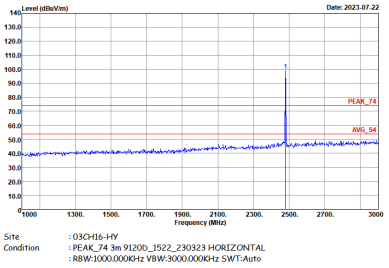
BT (Band Edge @ 3m)

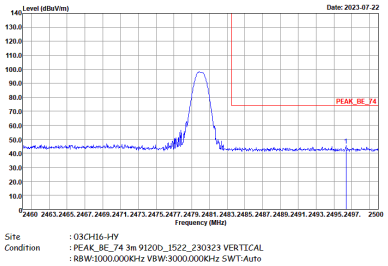
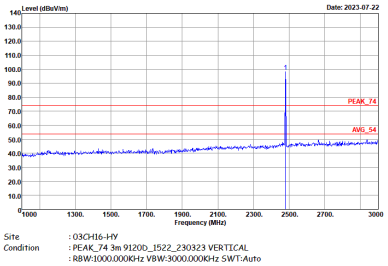
BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH00 2402MHz	
6	Horizontal	Fundamental
Peak		

BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH00 2402MHz	
6	Vertical	Fundamental
Peak		

BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
6	Horizontal	Fundamental
Peak		
Peak		Left blank

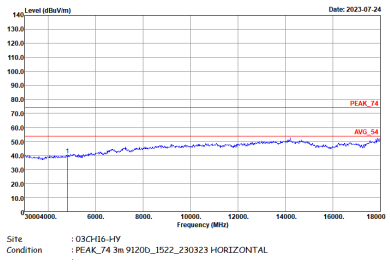
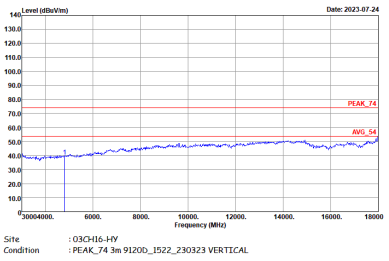
BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
6	Vertical	Fundamental
Peak		
Peak		Left blank

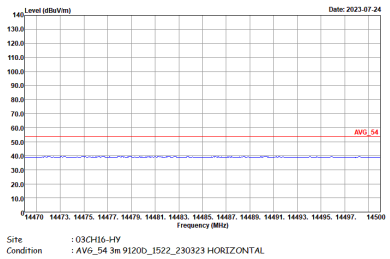
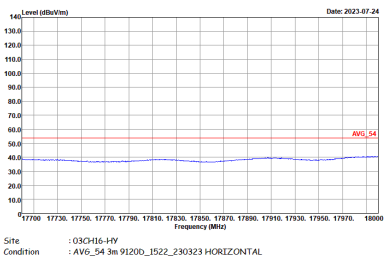
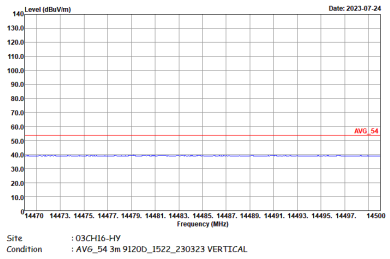
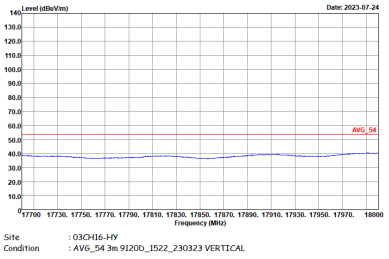
BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
6	Horizontal	Fundamental
Peak		

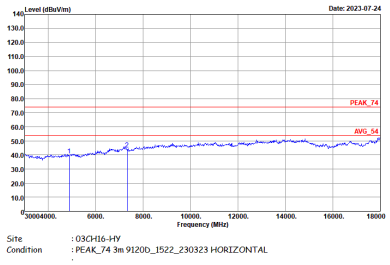
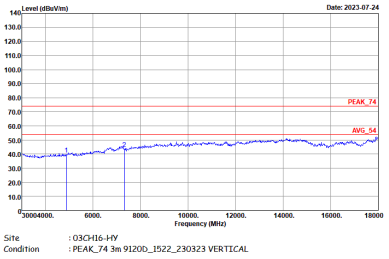
BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
6	Vertical	Fundamental
Peak		

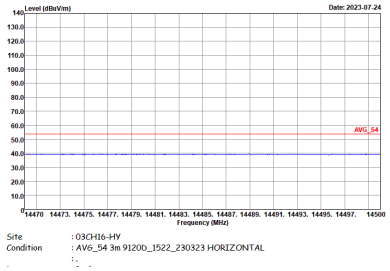
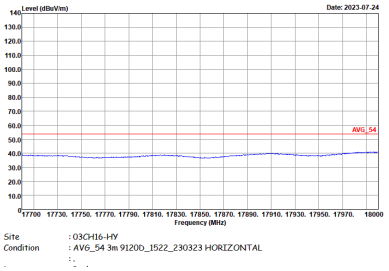
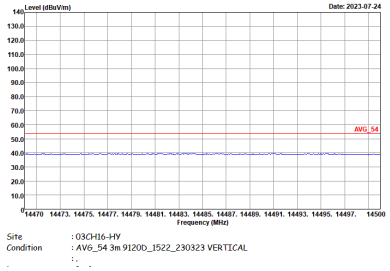
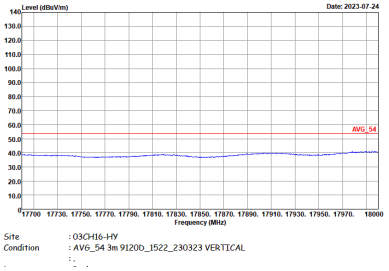
2.4GHz 2400~2483.5MHz

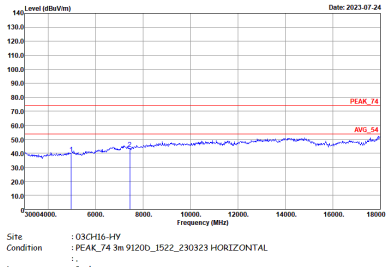
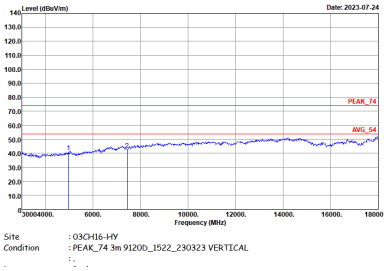
BT (Harmonic @ 3m)

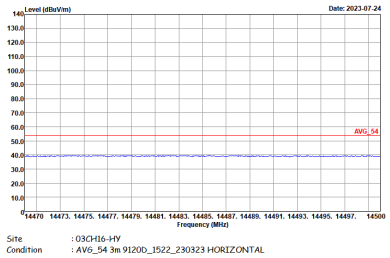
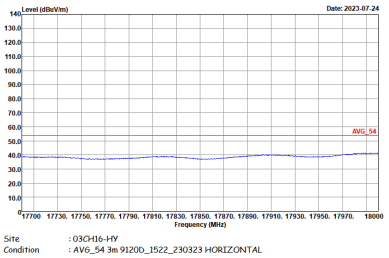
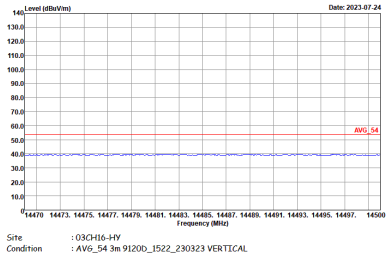
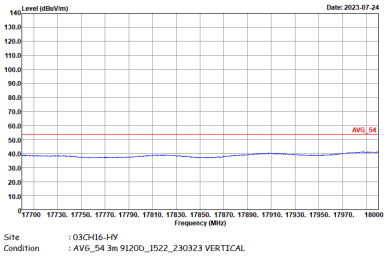
BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH00 2402MHz	
6	Horizontal	Vertical
Peak Avg.		

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH00 2402MHz	
6	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH39 2441MHz	
6	Horizontal	Vertical
Peak Avg.		

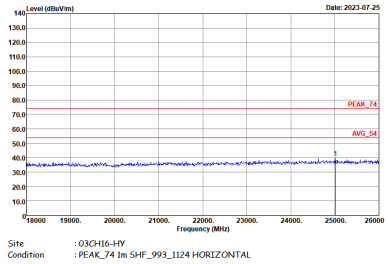
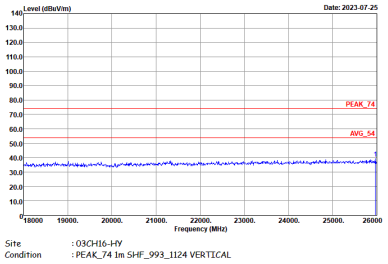
BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH39 2441MHz	
6	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH78 2480MHz	
6	Horizontal	Vertical
Peak Avg.		

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH78 2480MHz	
6	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

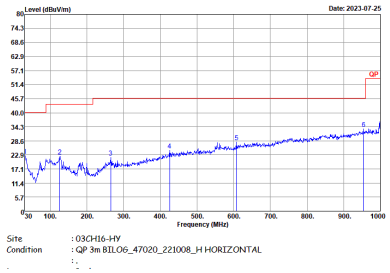
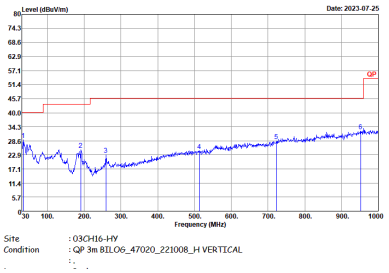
Emission above 18GHz

2.4GHz BT (SHF @ 1m)

BT	2.4GHz 2400~2483.5MHz	
ANT	BT SHF	
6	Horizontal	Vertical
Peak Avg.		

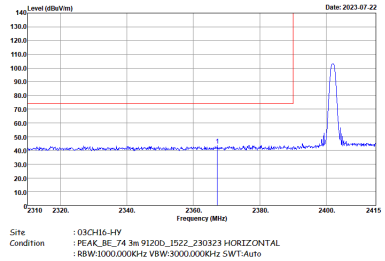
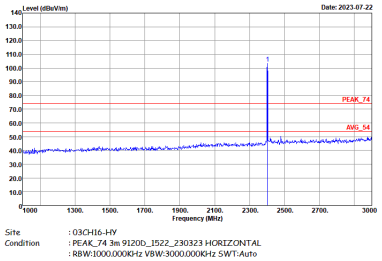
Emission below 1GHz

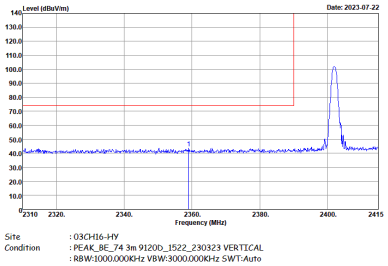
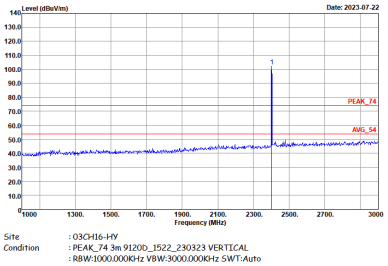
2.4GHz BT (LF)

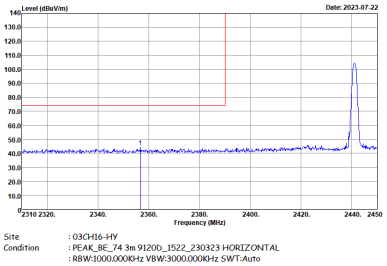
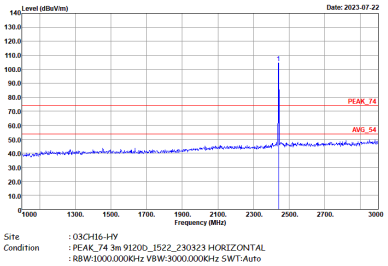
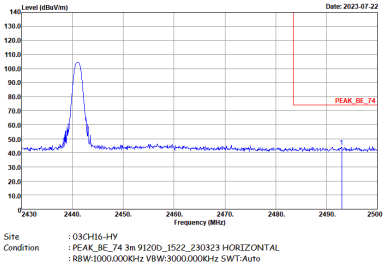
BT	2.4GHz 2400~2483.5MHz	
ANT	BT LF	
6	Horizontal	Vertical
QP / Peak		

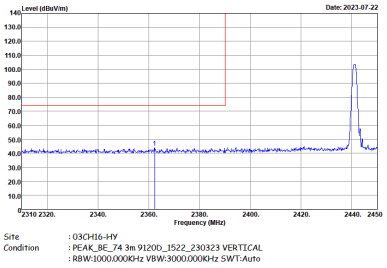
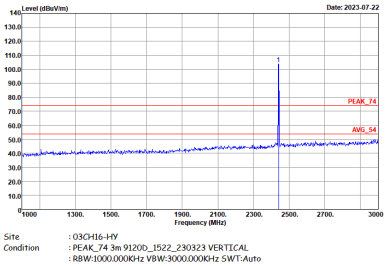
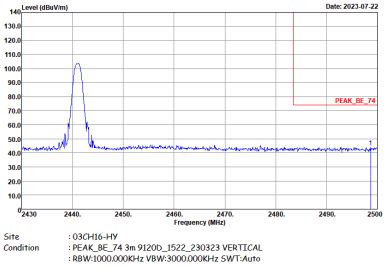
2.4GHz 2400~2483.5MHz

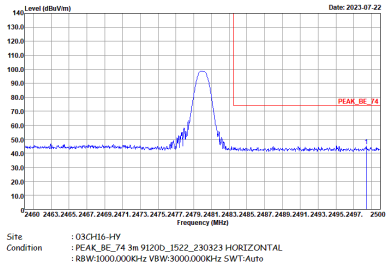
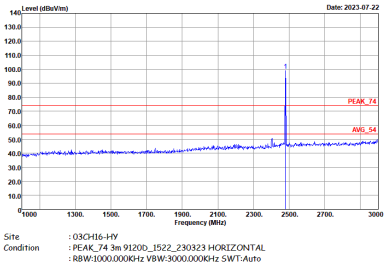
BT (Band Edge @ 3m)

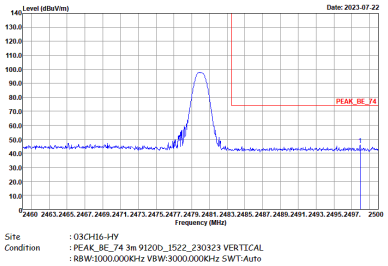
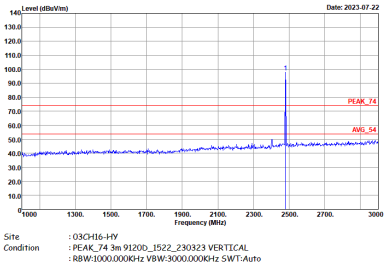
BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH00 2402MHz	
7	Horizontal	Fundamental
Peak		

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

BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
7	Horizontal	Fundamental
Peak		
Peak		Left blank

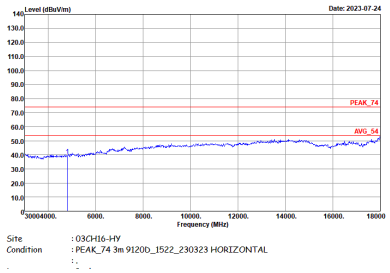
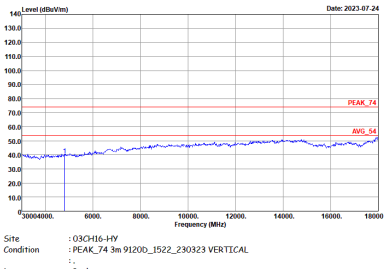
BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
7	Vertical	Fundamental
Peak		
Peak		Left blank

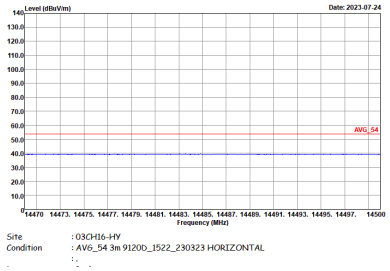
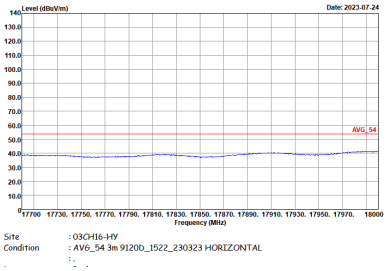
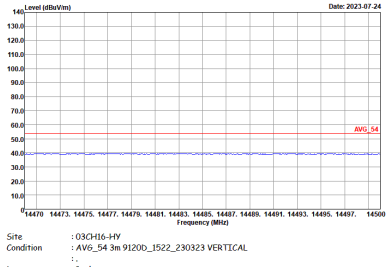
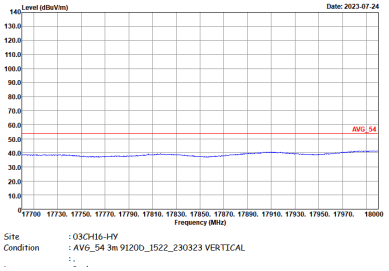
BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
7	Horizontal	Fundamental
Peak		

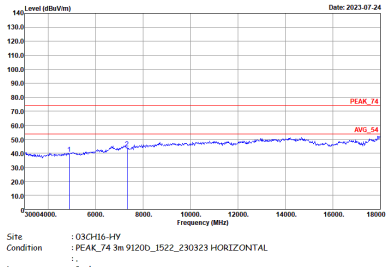
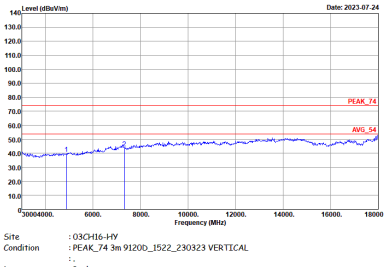
BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
7	Vertical	Fundamental
Peak		

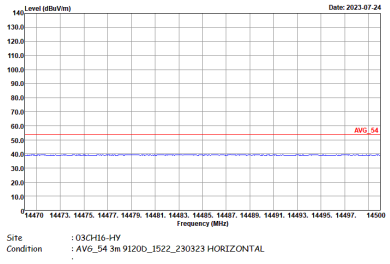
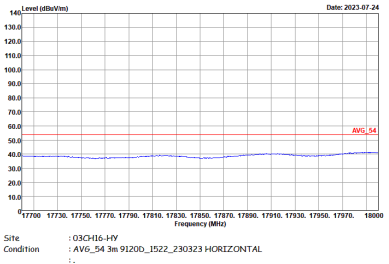
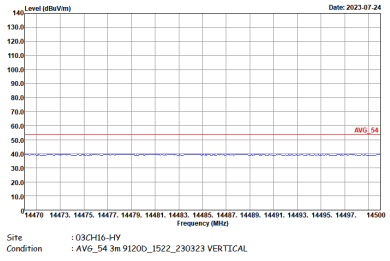
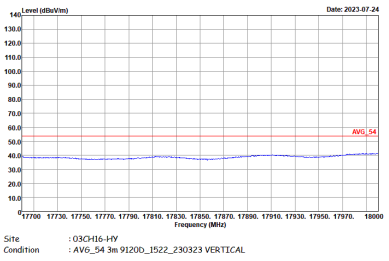
2.4GHz 2400~2483.5MHz

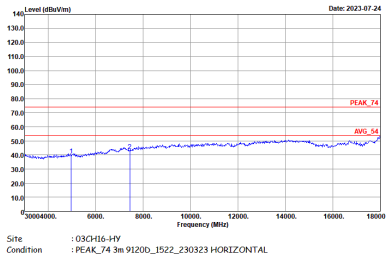
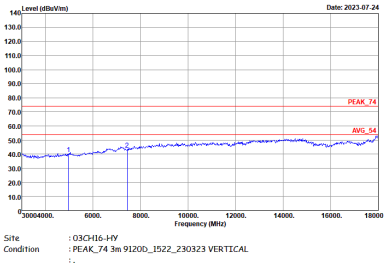
BT (Harmonic @ 3m)

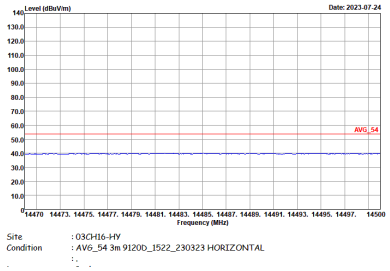
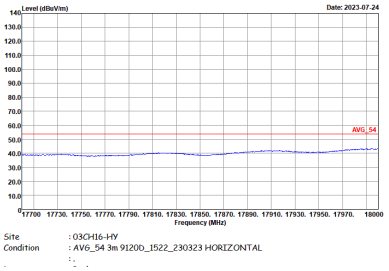
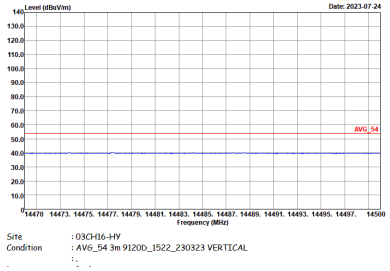
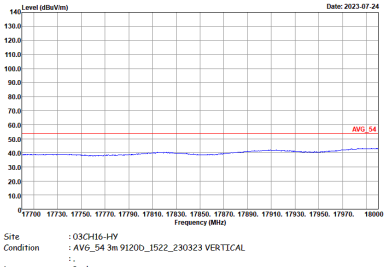
BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH00 2402MHz	
7	Horizontal	Vertical
Peak Avg.		

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH00 2402MHz	
7	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH39 2441MHz	
7	Horizontal	Vertical
Peak Avg.		

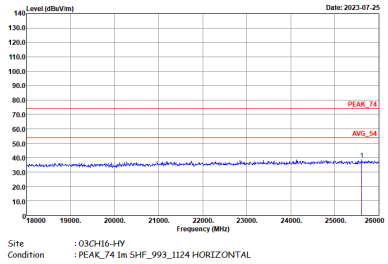
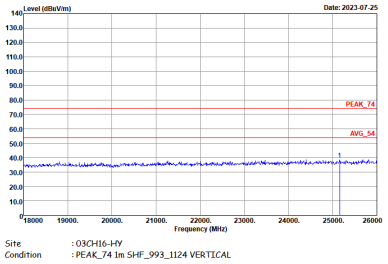
BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH39 2441MHz	
7	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH78 2480MHz	
7	Horizontal	Vertical
Peak Avg.		

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH78 2480MHz	
7	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

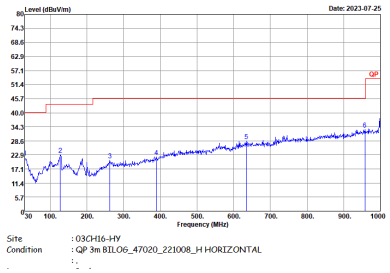
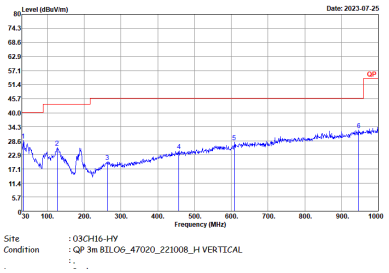
Emission above 18GHz

2.4GHz BT (SHF @ 1m)

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

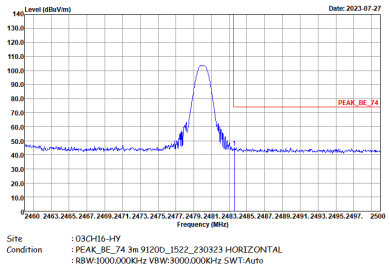
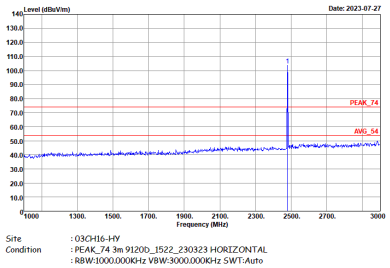
Emission below 1GHz

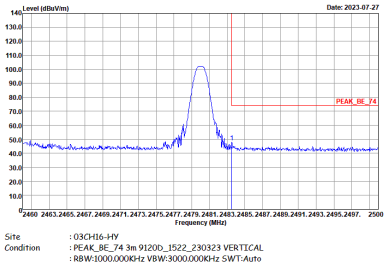
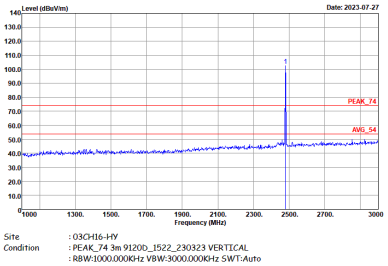
2.4GHz BT (LF)

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

2.4GHz 2400~2483.5MHz

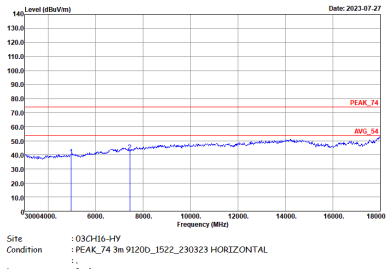
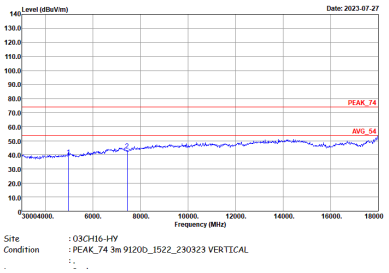
BT (Band Edge @ 3m)

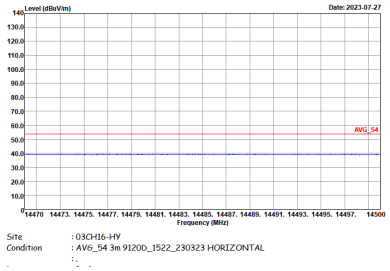
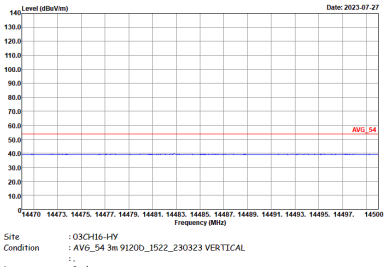
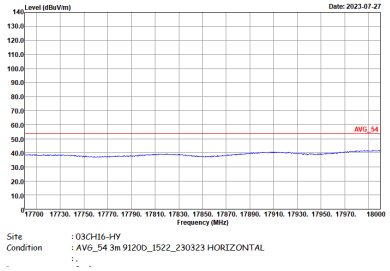
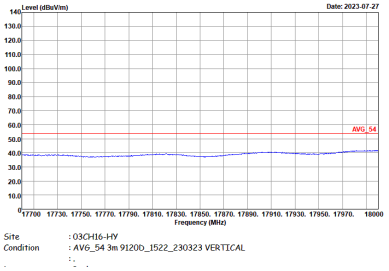
BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
7	Horizontal	Fundamental
Peak		

BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
7	Vertical	Fundamental
Peak		

2.4GHz 2400~2483.5MHz

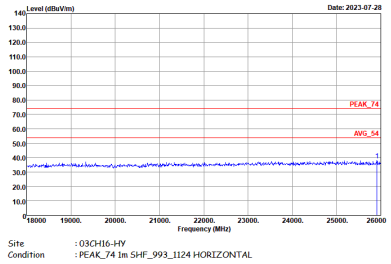
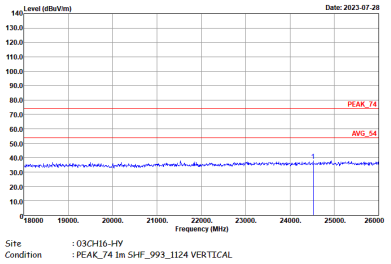
BT (Harmonic @ 3m)

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH78 2480MHz	
7	Horizontal	Vertical
Peak Avg.		

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH78 2480MHz	
7	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

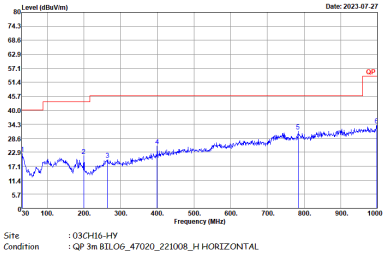
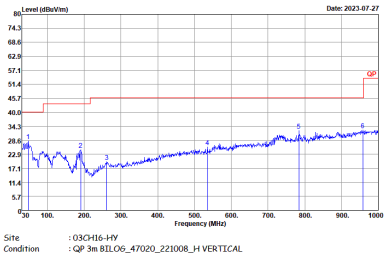
Emission above 18GHz

2.4GHz BT (SHF @ 1m)

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

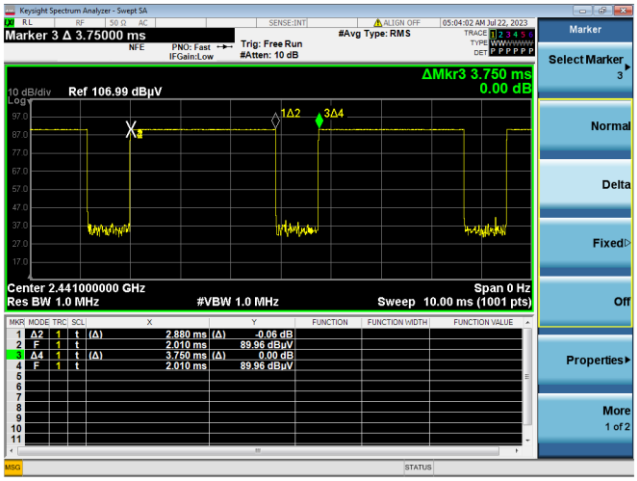
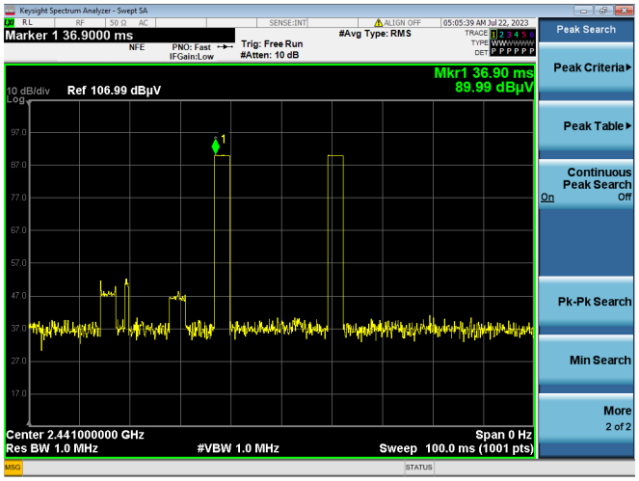
Emission below 1GHz

2.4GHz BT (LF)

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

Appendix E. Duty Cycle Plots

<Ant.6>

DH5 on time (One Pulse) Plot on Channel 39	on time (Count Pulses) Plot on Channel 39
	

Note:

1. Worst case Duty cycle = on time/100 milliseconds = 2 * 2.88 / 100 = 5.76 %
2. Worst case Duty cycle correction factor = 20*log(Duty cycle) = -24.79 dB
3. **DH5** has the highest duty cycle worst case and is reported.

Duty Cycle Correction Factor Consideration for AFH mode:

Bluetooth normal hopping rate is 1600Hz and reduced to 800Hz in AFH mode; due to the reduced number of hopping frequencies, with the same packet configuration the dwell time in each channel frequency within 100msec period is longer in AFH mode than normal mode.

In AFH mode, the minimum hopping frequencies are 20, to get the longest dwell time DH5 packet is observed; the on time period to have DH5 packet completing one hopping sequence is

2.88 ms x 20 channels = 57.6 ms

There cannot be 2 complete hopping sequences within 100ms period, considering the random hopping behavior, maximum 2 hops can be possibly observed within the period. [100 ms / 57.6 ms] = 2 hops

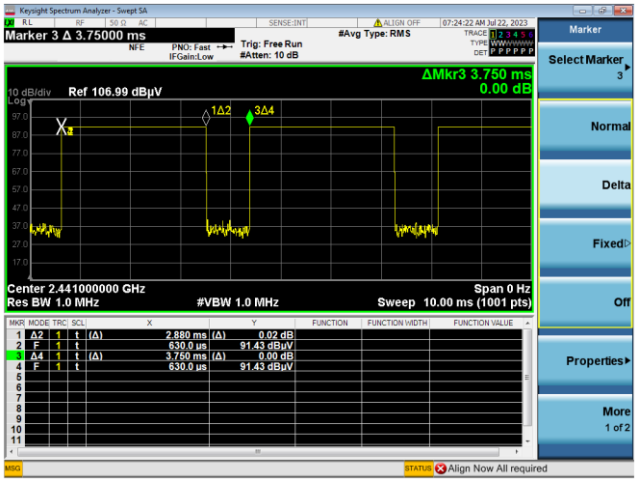
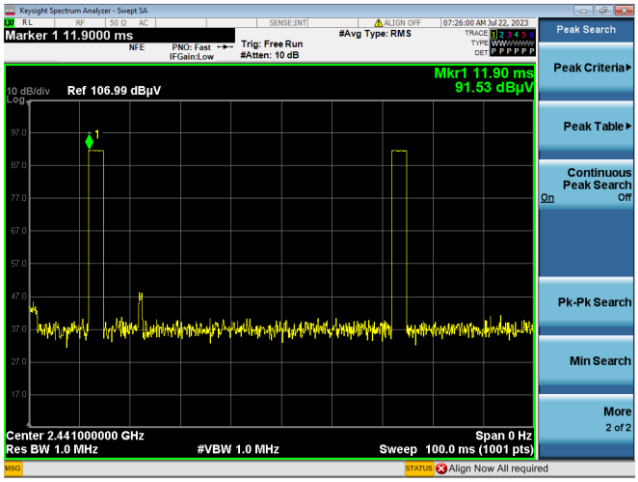
Thus, the maximum possible ON time:

2.88 ms x 2 = 5.76 ms

Worst case Duty Cycle Correction factor, which is derived from the maximum possible ON time,

20 x log(5.76 ms/100 ms) = -24.79 dB

<Ant.7>

DH5 on time (One Pulse) Plot on Channel 39	on time (Count Pulses) Plot on Channel 39
	

Note:

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20 x log(5.76 ms/100 ms) = -24.79 dB