

<ANT. 6>

TEST RESULTS DATA**Peak Power Table**

DH	CH.	NTX	Peak Power (dBm)	Power Limit (dBm)	Test Result
DH1	0	1	15.46	20.97	Pass
	39	1	17.09	20.97	Pass
	78	1	15.51	20.97	Pass
2DH1	0	1	14.69	20.97	Pass
	39	1	16.33	20.97	Pass
	78	1	14.72	20.97	Pass
3DH1	0	1	15.00	20.97	Pass
	39	1	16.76	20.97	Pass
	78	1	15.03	20.97	Pass

TEST RESULTS DATA**Average Power Table*****(Reporting Only)***

DH	CH.	NTX	Average Power (dBm)	Duty Factor (dB)
DH1	0	1	15.41	5.20
	39	1	17.00	5.20
	78	1	15.46	5.20
2DH1	0	1	12.62	5.08
	39	1	14.29	5.08
	78	1	12.68	5.08
3DH1	0	1	12.64	5.08
	39	1	14.31	5.08
	78	1	12.70	5.08



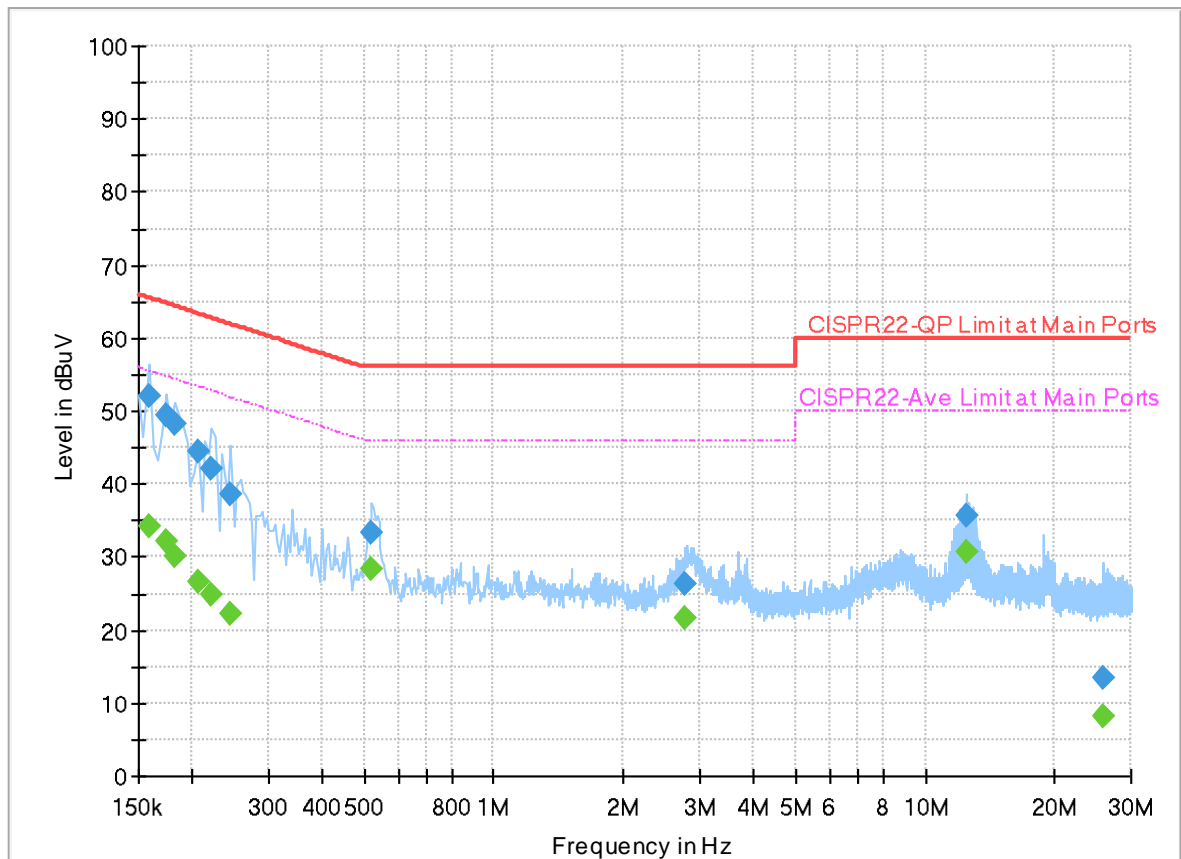
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Louis Chung	Temperature :	23.3~27.8°C
		Relative Humidity :	42.6~48.7%

EUT Information

Report NO : 210404
 Test Mode : Mode 1
 Test Voltage : 120Vac/60Hz
 Phase : Line

Full Spectrum



Final_Result

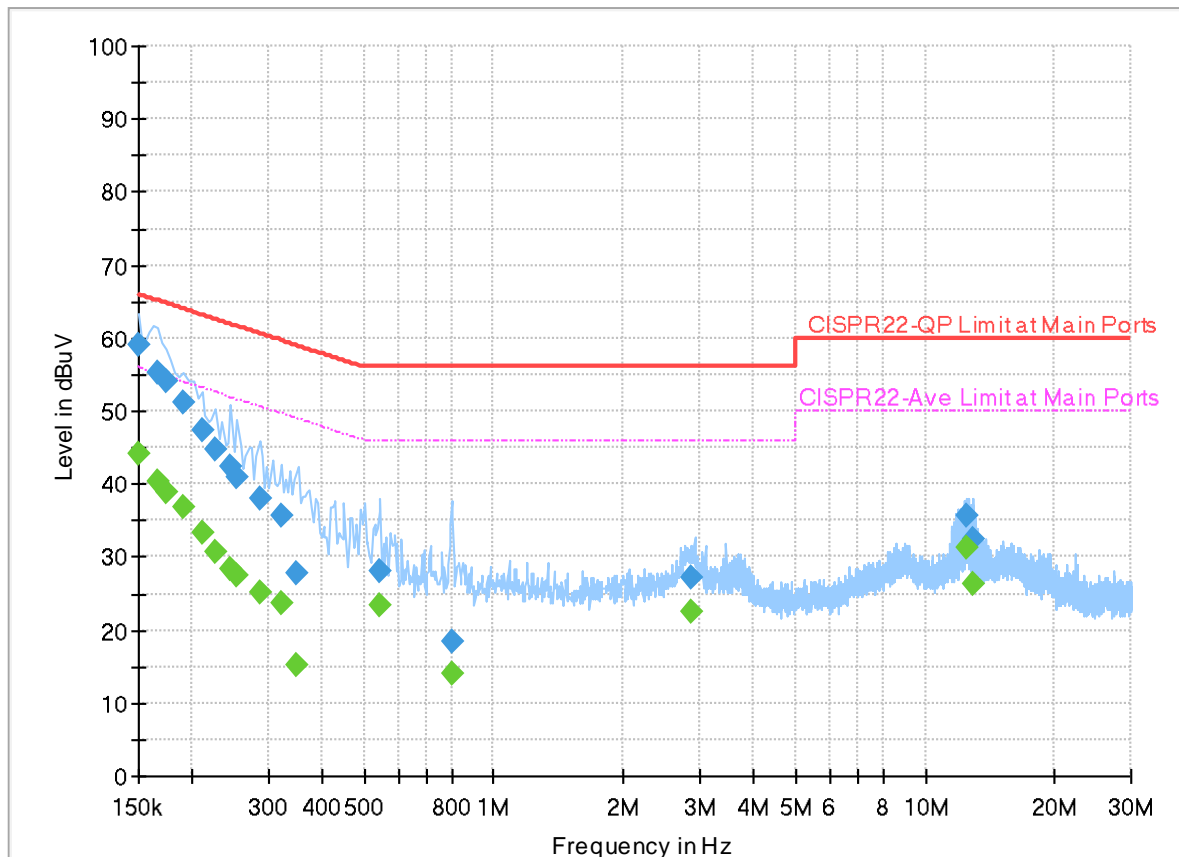
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.158000	---	34.26	55.57	21.31	L1	OFF	20.0
0.158000	51.97	---	65.57	13.60	L1	OFF	20.0
0.174000	---	32.05	54.77	22.72	L1	OFF	20.0
0.174000	49.40	---	64.77	15.37	L1	OFF	20.0
0.182000	---	30.23	54.39	24.16	L1	OFF	20.0
0.182000	48.25	---	64.39	16.14	L1	OFF	20.0
0.206000	---	26.51	53.37	26.86	L1	OFF	20.0
0.206000	44.32	---	63.37	19.05	L1	OFF	20.0
0.222000	---	24.93	52.74	27.81	L1	OFF	20.0
0.222000	42.10	---	62.74	20.64	L1	OFF	20.0
0.246000	---	22.23	51.89	29.66	L1	OFF	20.0
0.246000	38.63	---	61.89	23.26	L1	OFF	20.0
0.522000	---	28.42	46.00	17.58	L1	OFF	20.0
0.522000	33.35	---	56.00	22.65	L1	OFF	20.0
2.766000	---	21.64	46.00	24.36	L1	OFF	20.0
2.766000	26.38	---	56.00	29.62	L1	OFF	20.0
12.478000	---	30.67	50.00	19.33	L1	OFF	20.2
12.478000	35.77	---	60.00	24.23	L1	OFF	20.2
25.874000	---	8.18	50.00	41.82	L1	OFF	20.3

25.874000	13.37	---	60.00	46.63	L1	OFF	20.3
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EUT Information

Report NO : 210404
 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)
0.150000	---	44.26	56.00	11.74	N	OFF	20.0
0.150000	59.02	---	66.00	6.98	N	OFF	20.0
0.166000	---	40.36	55.16	14.80	N	OFF	20.0
0.166000	55.29	---	65.16	9.87	N	OFF	20.0
0.174000	---	39.01	54.77	15.76	N	OFF	20.0
0.174000	54.17	---	64.77	10.60	N	OFF	20.0
0.190000	---	36.76	54.04	17.28	N	OFF	20.0
0.190000	51.10	---	64.04	12.94	N	OFF	20.0
0.210000	---	33.20	53.21	20.01	N	OFF	20.0
0.210000	47.43	---	63.21	15.78	N	OFF	20.0
0.226000	---	30.59	52.60	22.01	N	OFF	20.0
0.226000	44.66	---	62.60	17.94	N	OFF	20.0
0.246000	---	28.32	51.89	23.57	N	OFF	20.0
0.246000	42.47	---	61.89	19.42	N	OFF	20.0
0.254000	---	27.63	51.63	24.00	N	OFF	20.0
0.254000	41.06	---	61.63	20.57	N	OFF	20.0
0.286000	---	25.02	50.64	25.62	N	OFF	20.0
0.286000	37.91	---	60.64	22.73	N	OFF	20.0
0.322000	---	23.82	49.66	25.84	N	OFF	20.0

0.322000	35.68	---	59.66	23.98	N	OFF	20.0
0.350000	---	15.10	48.96	33.86	N	OFF	20.0
0.350000	27.84	---	58.96	31.12	N	OFF	20.0
0.546000	---	23.30	46.00	22.70	N	OFF	20.0
0.546000	28.11	---	56.00	27.89	N	OFF	20.0
0.798000	---	14.08	46.00	31.92	N	OFF	20.0
0.798000	18.54	---	56.00	37.46	N	OFF	20.0
2.858000	---	22.39	46.00	23.61	N	OFF	20.0
2.858000	27.06	---	56.00	28.94	N	OFF	20.0
12.474000	---	31.29	50.00	18.71	N	OFF	20.2
12.474000	35.60	---	60.00	24.40	N	OFF	20.2
12.946000	---	26.26	50.00	23.74	N	OFF	20.2
12.946000	32.52	---	60.00	27.48	N	OFF	20.2



Appendix C. Radiated Spurious Emission

Test Engineer :	Leo Lee 、 Mancy Chou 、 Bigshow Wang	Temperature :	22.1~23.1°C
		Relative Humidity :	55~60%

2.4GHz 2400~2483.5MHz

BT (Band Edge @ 3m)

BT ANT	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.	
4		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
BT CH00 2402MHz		2364.705	41.79	-32.21	74	44.77	27.26	6.6	36.84	100	50	P	H	
		2364.705	17	-37	54	-	-	-	-	-	-	A	H	
	*	2402	104.95	-	-	107.72	27.4	6.66	36.83	100	50	P	H	
	*	2402	80.16	-	-	-	-	-	-	-	-	A	H	
													H	
													H	
			2378.985	41.98	-32.02	74	44.87	27.32	6.63	36.84	400	126	P	V
			2378.985	17.19	-36.81	54	-	-	-	-	-	-	A	V
	*		2402	100.41	-	-	103.18	27.4	6.66	36.83	400	126	P	V
	*		2402	75.62	-	-	-	-	-	-	-	-	A	V
													V	
													V	
BT CH 39 2441MHz		2380	42.13	-31.87	74	45.02	27.32	6.63	36.84	100	50	P	H	
		2380	17.34	-36.66	54	-	-	-	-	-	-	A	H	
	*	2441	109.92	-	-	112.53	27.48	6.72	36.81	100	50	P	H	
	*	2441	85.13	-	-	-	-	-	-	-	-	A	H	
			2485.44	42.42	-31.58	74	44.78	27.64	6.79	36.79	100	50	P	H
			2485.44	17.63	-36.37	54	-	-	-	-	-	-	A	H
			2350.04	41.53	-32.47	74	44.6	27.2	6.58	36.85	400	126	P	V
			2350.04	16.74	-37.26	54	-	-	-	-	-	-	A	V
	*		2441	105.97	-	-	108.58	27.48	6.72	36.81	400	126	P	V
	*		2441	81.18	-	-	-	-	-	-	-	-	A	V
			2484.04	41.69	-32.31	74	44.05	27.64	6.79	36.79	400	126	P	V
			2484.04	16.9	-37.1	54	-	-	-	-	-	-	A	V



BT CH 78 2480MHz	*	2480	108.39	-	-	110.78	27.62	6.78	36.79	100	50	P	H
	*	2480	83.6	-	-	-	-	-	-	-	-	A	H
		2483.52	51.3	-22.7	74	53.67	27.63	6.79	36.79	100	50	P	H
		2483.52	26.51	-27.49	54	-	-	-	-	-	-	A	H
													H
													H
	*	2480	107.08	-	-	109.47	27.62	6.78	36.79	400	126	P	V
	*	2480	82.29	-	-	-	-	-	-	-	-	A	V
		2483.68	50.52	-23.48	74	52.89	27.63	6.79	36.79	400	126	P	V
		2483.68	25.73	-28.27	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 4	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	39.87	-34.13	74	55.97	32.31	10.13	58.54	-	-	P	H
		4804	15.08	-38.92	54	-	-	-	-	-	-	A	H
		11460	49.22	-24.78	74	56.08	38.92	14.99	60.77	-	-	P	H
		11460	24.43	-29.57	54	-	-	-	-	-	-	A	H
		14505	49.73	-24.27	74	55.85	40.49	16.87	63.48			P	H
		14505	24.94	-29.06	54	-	-	-	-	-	-	A	H
		17985	53.98	-20.02	74	49.26	42.97	18.94	57.19	-	-	P	H
		17985	29.19	-24.81	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
BT CH 00 2402MHz		4804	38.84	-35.16	74	55.87	31.38	10.13	58.54	-	-	P	V
		4804	14.05	-39.95	54	-	-	-	-	-	-	A	V
		11430	50.22	-23.78	74	55.81	40.23	14.97	60.79	-	-	P	V
		11430	25.43	-28.57	54	-	-	-	-	-	-	A	V
		14505	50.69	-23.31	74	55.9	41.4	16.87	63.48			P	V
		14505	25.9	-28.1	54	-	-	-	-	-	-	A	V
		18000	58.98	-15.02	74	48.8	48.4	18.95	57.17	-	-	P	V
		18000	34.19	-19.81	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V



BT ANT 4	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	40.38	-33.62	74	56.23	32.53	10.21	58.59	-	-	P	H
		4882	15.59	-38.41	54	-	-	-	-	-	-	A	H
		7323	51.29	-22.71	74	60.42	36.51	12.43	58.07	-	-	P	H
		7323	26.5	-27.5	54	-	-	-	-	-	-	A	H
		11385	50.02	-23.98	74	56.82	39.07	14.95	60.82	-	-	P	H
		11385	25.23	-28.77	54	-	-	-	-	-	-	A	H
		14505	50.07	-23.93	74	56.19	40.49	16.87	63.48	-	-	P	H
		14505	25.28	-28.72	54	-	-	-	-	-	-	A	H
		17910	54.18	-19.82	74	50.29	42.29	18.89	57.29			P	H
		17910	29.39	-24.61	54	-	-	-	-	-	-	A	H
													H
													H
BT CH 39 2441MHz		4882	41.53	-32.47	74	58.58	31.33	10.21	58.59	-	-	P	V
		4882	16.74	-37.26	54	-	-	-	-	-	-	A	V
		7323	50.65	-23.35	74	59.94	36.35	12.43	58.07			P	V
		7323	25.86	-28.14	54	-	-	-	-	-	-	A	V
		11505	50.55	-23.45	74	56.02	40.29	15	60.76	-	-	P	V
		11505	25.76	-28.24	54	-	-	-	-	-	-	A	V
		14505	50.46	-23.54	74	55.67	41.4	16.87	63.48	-	-	P	V
		14505	25.67	-28.33	54	-	-	-	-	-	-	A	V
		18000	59.11	-14.89	74	48.93	48.4	18.95	57.17	-	-	P	V
		18000	34.32	-19.68	54	-	-	-	-	-	-	A	V
													V
													V



BT ANT 4	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		4960	41.73	-32.27	74	57.25	32.84	10.28	58.64	-	-	P	H
		4960	16.94	-37.06	54	-	-	-	-	-	-	A	H
		7440	46.75	-27.25	74	56.24	36.02	12.48	57.99	-	-	P	H
		7440	21.96	-32.04	54	-	-	-	-	-	-	A	H
		11235	48.12	-25.88	74	55.32	38.83	14.87	60.9	-	-	P	H
		11235	23.33	-30.67	54	-	-	-	-	-	-	A	H
		14505	49.5	-24.5	74	55.62	40.49	16.87	63.48	-	-	P	H
		14505	24.71	-29.29	54	-	-	-	-	-	-	A	H
		17910	53.92	-20.08	74	50.03	42.29	18.89	57.29	-	-	P	H
		17910	29.13	-24.87	54	-	-	-	-	-	-	A	H
													H
													H
BT CH 78 2480MHz		4960	38.5	-35.5	74	55.42	31.44	10.28	58.64	-	-	P	V
		4960	13.71	-40.29	54	-	-	-	-	-	-	A	V
		7440	46.84	-27.16	74	55.99	36.36	12.48	57.99	-	-	P	V
		7440	22.05	-31.95	54	-	-	-	-	-	-	A	V
		11505	50.45	-23.55	74	55.92	40.29	15	60.76	-	-	P	V
		11505	25.66	-28.34	54	-	-	-	-	-	-	A	V
		14490	49.93	-24.07	74	55.18	41.37	16.86	63.48	-	-	P	V
		14490	25.14	-28.86	54	-	-	-	-	-	-	A	V
		18000	58.87	-15.13	74	48.69	48.4	18.95	57.17	-	-	P	V
		18000	34.08	-19.92	54	-	-	-	-	-	-	A	V
													V
													V

Remark

- No other spurious found.
- All results are PASS against Peak and Average limit line.
- The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
- The emission level close to 18GHz is checked that the average emission level is noise floor only.



Emission above 18GHz

2.4GHz BT (SHF)

BT	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
ANT				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
4		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz BT SHF		18840	41.22	-32.78	74	61.32	38.06	-2.83	55.33	-	-	P	H
													H
													H
													H
													H
													H
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													H
													H
													H
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													H
													H
													H
			24232	42.43	-31.57	74	59.31	38.89	-2.16	53.61	-	-	P
													V
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													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.		
4		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
2.4GHz BT LF		68.8	29.2	-10.8	40	48.46	12.19	1.06	32.51	-	-	P	H	
		100.81	37.01	-6.49	43.5	52.31	15.94	1.23	32.47	-	-	P	H	
		159.01	36.24	-7.26	43.5	50.5	16.5	1.69	32.45	-	-	P	H	
		240.49	26.8	-19.2	46	40.16	17.06	2.04	32.46	-	-	P	H	
		722.58	31.4	-14.6	46	33.48	26.91	3.36	32.35	-	-	P	H	
		960.23	33.93	-20.07	54	30.14	30.95	3.97	31.13	-	-	P	H	
														H
														H
														H
														H
														H
														H
														H
			34.85	32.04	-7.96	40	41.77	22.08	0.7	32.51	100	318	Q	V
			59.1	34.76	-5.24	40	54.59	11.73	0.99	32.55	200	157	Q	V
			95.96	29.91	-13.59	43.5	45.85	15.31	1.21	32.46	-	-	P	V
			158.04	31.09	-12.41	43.5	45.27	16.58	1.69	32.45	-	-	P	V
			714.82	35.09	-10.91	46	37.52	26.59	3.34	32.36	-	-	P	V
			950.53	34.04	-11.96	46	30.67	30.64	3.95	31.22	-	-	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.		
5		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
BT CH00 2402MHz		2345.805	42.19	-31.81	74	45.29	27.18	6.57	36.85	100	40	P	H	
		2345.805	17.4	-36.6	54	-	-	-	-	-	-	A	H	
	*	2402	103.79	-	-	106.56	27.4	6.66	36.83	100	40	P	H	
	*	2402	79	-	-	-	-	-	-	-	-	A	H	
													H	
														H
			2378.985	41.88	-32.12	74	44.77	27.32	6.63	36.84	400	126	P	V
			2378.985	17.09	-36.91	54	-	-	-	-	-	-	A	V
	*	2402	100.21	-	-	102.98	27.4	6.66	36.83	400	126	P	V	
	*	2402	75.42	-	-	-	-	-	-	-	-	-	A	V
														V
														V
BT CH 39 2441MHz		2358.58	41.59	-32.41	74	44.62	27.23	6.59	36.85	100	351	P	H	
		2358.58	16.8	-37.2	54	-	-	-	-	-	-	A	H	
	*	2441	107.49	-	-	110.1	27.48	6.72	36.81	100	351	P	H	
	*	2441	82.7	-	-	-	-	-	-	-	-	A	H	
			2486.35	42.16	-31.84	74	44.51	27.65	6.79	36.79	100	351	P	H
			2486.35	17.37	-36.63	54	-	-	-	-	-	-	A	H
			2344.3	41.83	-32.17	74	44.93	27.18	6.57	36.85	400	238	P	V
			2344.3	17.04	-36.96	54	-	-	-	-	-	-	A	V
	*	2441	105.27	-	-	107.88	27.48	6.72	36.81	400	238	P	V	
	*	2441	80.48	-	-	-	-	-	-	-	-	-	A	V
			2489.5	42.11	-31.89	74	44.43	27.66	6.8	36.78	400	238	P	V
			2489.5	17.32	-36.68	54	-	-	-	-	-	-	A	V



BT CH 78 2480MHz	*	2480	109.76	-	-	112.15	27.62	6.78	36.79	100	348	P	H
	*	2480	84.97	-	-	-	-	-	-	-	-	A	H
		2483.52	51.05	-22.95	74	53.42	27.63	6.79	36.79	100	348	P	H
		2483.52	26.26	-27.74	54	-	-	-	-	-	-	A	H
													H
													H
	*	2480	107.37	-	-	109.76	27.62	6.78	36.79	400	227	P	V
	*	2480	82.58	-	-	-	-	-	-	-	-	A	V
		2483.52	50.73	-23.27	74	53.1	27.63	6.79	36.79	400	227	P	V
		2483.52	25.94	-28.06	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 5	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	39.63	-34.37	74	55.73	32.31	10.13	58.54	-	-	P	H
		4804	14.84	-39.16	54	-	-	-	-	-	-	A	H
		11430	48.95	-25.05	74	55.76	39.01	14.97	60.79	-	-	P	H
		11430	24.16	-29.84	54	-	-	-	-	-	-	A	H
		14475	49.58	-24.42	74	55.66	40.53	16.85	63.46			P	H
		14475	24.79	-29.21	54	-	-	-	-	-	-	A	H
		17940	54.69	-19.31	74	50.47	42.56	18.91	57.25	-	-	P	H
		17940	29.9	-24.1	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
BT CH 00 2402MHz		4804	37.68	-36.32	74	54.71	31.38	10.13	58.54	-	-	P	V
		4804	12.89	-41.11	54	-	-	-	-	-	-	A	V
		11430	50.11	-23.89	74	55.7	40.23	14.97	60.79	-	-	P	V
		11430	25.32	-28.68	54	-	-	-	-	-	-	A	V
		14505	51.34	-22.66	74	56.55	41.4	16.87	63.48	-	-	P	V
		14505	26.55	-27.45	54	-	-	-	-	-	-	A	V
		18000	60.09	-13.91	74	49.91	48.4	18.95	57.17	-	-	P	V
		18000	35.3	-18.7	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V



BT ANT 5	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	43.05	-30.95	74	58.9	32.53	10.21	58.59	-	-	P	H
		4882	18.26	-35.74	54	-	-	-	-	-	-	A	H
		7323	48.18	-25.82	74	57.31	36.51	12.43	58.07	-	-	P	H
		7323	23.39	-30.61	54	-	-	-	-	-	-	A	H
		11400	48.5	-25.5	74	55.25	39.1	14.96	60.81	-	-	P	H
		11400	23.71	-30.29	54	-	-	-	-	-	-	A	H
		14505	48.98	-25.02	74	55.1	40.49	16.87	63.48	-	-	P	H
		14505	24.19	-29.81	54	-	-	-	-	-	-	A	H
		17925	54.39	-19.61	74	50.34	42.42	18.9	57.27	-	-	P	H
		17925	29.6	-24.4	54	-	-	-	-	-	-	A	H
													H
													H
BT CH 39 2441MHz		4882	40.33	-33.67	74	57.38	31.33	10.21	58.59	-	-	P	V
		4882	15.54	-38.46	54	-	-	-	-	-	-	A	V
		7323	47.73	-26.27	74	57.02	36.35	12.43	58.07	-	-	P	V
		7323	22.94	-31.06	54	-	-	-	-	-	-	A	V
		11505	51.88	-22.12	74	57.35	40.29	15	60.76	-	-	P	V
		11505	27.09	-26.91	54	-	-	-	-	-	-	A	V
		14505	50.91	-23.09	74	56.12	41.4	16.87	63.48	-	-	P	V
		14505	26.12	-27.88	54	-	-	-	-	-	-	A	V
		18000	59.57	-14.43	74	49.39	48.4	18.95	57.17	-	-	P	V
		18000	34.78	-19.22	54	-	-	-	-	-	-	A	V
													V
													V



BT ANT 5	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		4960	42.68	-31.32	74	58.2	32.84	10.28	58.64	-	-	P	H
		4960	17.89	-36.11	54	-	-	-	-	-	-	A	H
		7440	47.18	-26.82	74	56.67	36.02	12.48	57.99	-	-	P	H
		7440	22.39	-31.61	54	-	-	-	-	-	-	A	H
		11520	48.66	-25.34	74	55.66	38.76	15.01	60.77	-	-	P	H
		11520	23.87	-30.13	54	-	-	-	-	-	-	A	H
		14490	48.97	-25.03	74	55.08	40.51	16.86	63.48	-	-	P	H
		14490	24.18	-29.82	54	-	-	-	-	-	-	A	H
		18000	54.16	-19.84	74	49.28	43.1	18.95	57.17	-	-	P	H
		18000	29.37	-24.63	54	-	-	-	-	-	-	A	H
													H
													H
BT CH 78 2480MHz		4960	39.17	-34.83	74	56.09	31.44	10.28	58.64	-	-	P	V
		4960	14.38	-39.62	54	-	-	-	-	-	-	A	V
		7440	46.1	-27.9	74	55.25	36.36	12.48	57.99	-	-	P	V
		7440	21.31	-32.69	54	-	-	-	-	-	-	A	V
		11475	49.98	-24.02	74	55.47	40.28	14.99	60.76	-	-	P	V
		11475	25.19	-28.81	54	-	-	-	-	-	-	A	V
		14505	49.59	-24.41	74	54.8	41.4	16.87	63.48			P	V
		14505	24.8	-29.2	54	-	-	-	-	-	-	A	V
		18000	59.49	-14.51	74	49.31	48.4	18.95	57.17	-	-	P	V
		18000	34.7	-19.3	54	-	-	-	-	-	-	A	V
													V
													V

Remark

- No other spurious found.
- All results are PASS against Peak and Average limit line.
- The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
- The emission level close to 18GHz is checked that the average emission level is noise floor only.



Emission above 18GHz

2.4GHz BT (SHF)

BT	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
ANT				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
5		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz BT SHF		23128	41.78	-32.22	74	59.89	38.9	-2.79	54.22	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
			23208	42.41	-31.59	74	60.39	38.9	-2.7	54.18	-	-	P
													V
													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.		
5		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
2.4GHz BT LF		68.8	29.07	-10.93	40	48.33	12.19	1.06	32.51	-	-	P	H	
		98.87	36.97	-6.53	43.5	52.53	15.69	1.22	32.47	-	-	P	H	
		159.01	35.54	-7.96	43.5	49.8	16.5	1.69	32.45	-	-	P	H	
		240.49	27.77	-18.23	46	41.13	17.06	2.04	32.46	-	-	P	H	
		714.82	32.85	-13.15	46	35.28	26.59	3.34	32.36	-	-	P	H	
		957.32	33.52	-12.48	46	29.78	30.93	3.97	31.16	-	-	P	H	
														H
														H
														H
														H
														H
														H
														H
			34.85	31.98	-8.02	40	41.71	22.08	0.7	32.51	100	312	Q	V
			51.34	35.62	-4.38	40	53.67	13.6	0.92	32.57	200	149	Q	V
			97.9	29.97	-13.53	43.5	45.63	15.59	1.22	32.47	-	-	P	V
			158.04	31.12	-12.38	43.5	45.3	16.58	1.69	32.45	-	-	P	V
			245.34	22.25	-23.75	46	34.89	17.74	2.07	32.45	-	-	P	V
			708.03	31.95	-14.05	46	34.63	26.37	3.33	32.38	-	-	P	V
														V
													V	
													V	
													V	
													V	
													V	
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against limit line. 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.		
6		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
BT CH00 2402MHz		2325.435	41.55	-32.45	74	44.77	27.1	6.54	36.86	100	52	P	H	
		2325.435	16.76	-37.24	54	-	-	-	-	-	-	A	H	
	*	2402	100.49	-	-	103.26	27.4	6.66	36.83	100	52	P	H	
	*	2402	75.7	-	-	-	-	-	-	-	-	A	H	
													H	
														H
			2374.575	41.56	-32.44	74	44.48	27.3	6.62	36.84	400	229	P	V
			2374.575	16.77	-37.23	54	-	-	-	-	-	-	A	V
	*	2402	94.32	-	-	97.09	27.4	6.66	36.83	400	229	P	V	
	*	2402	69.53	-	-	-	-	-	-	-	-	-	A	V
														V
														V
BT CH 39 2441MHz		2364.04	41.81	-32.19	74	44.79	27.26	6.6	36.84	100	54	P	H	
		2364.04	17.02	-36.98	54	-	-	-	-	-	-	A	H	
	*	2441	108.32	-	-	110.93	27.48	6.72	36.81	100	54	P	H	
	*	2441	83.53	-	-	-	-	-	-	-	-	A	H	
			2493.35	42.76	-31.24	74	45.07	27.67	6.8	36.78	100	54	P	H
			2493.35	17.97	-36.03	54	-	-	-	-	-	-	A	H
			2338.42	42.02	-31.98	74	45.16	27.15	6.56	36.85	400	233	P	V
			2338.42	17.23	-36.77	54	-	-	-	-	-	-	A	V
	*	2441	103.25	-	-	105.86	27.48	6.72	36.81	400	233	P	V	
	*	2441	78.46	-	-	-	-	-	-	-	-	-	A	V
			2487.33	41.85	-32.15	74	44.19	27.65	6.8	36.79	400	233	P	V
			2487.33	17.06	-36.94	54	-	-	-	-	-	-	A	V



BT CH 78 2480MHz	*	2480	107.15	-	-	109.54	27.62	6.78	36.79	100	52	P	H
	*	2480	82.36	-	-	-	-	-	-	-	-	A	H
		2483.68	51.87	-22.13	74	54.24	27.63	6.79	36.79	100	52	P	H
		2483.68	27.08	-26.92	54	-	-	-	-	-	-	A	H
													H
													H
	*	2480	103.41	-	-	105.8	27.62	6.78	36.79	195	233	P	V
	*	2480	78.62	-	-	-	-	-	-	-	-	A	V
		2483.52	47.51	-26.49	74	49.88	27.63	6.79	36.79	195	233	P	V
		2483.52	22.72	-31.28	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	40.06	-33.94	74	56.16	32.31	10.13	58.54	-	-	P	H
		4804	15.27	-38.73	54	-	-	-	-	-	-	A	H
		11460	48.93	-25.07	74	55.79	38.92	14.99	60.77	-	-	P	H
		11460	24.14	-29.86	54	-	-	-	-	-	-	A	H
		14505	49.99	-24.01	74	56.11	40.49	16.87	63.48	-	-	P	H
		14505	25.2	-28.8	54	-	-	-	-	-	-	A	H
		18000	53.46	-20.54	74	48.58	43.1	18.95	57.17	-	-	P	H
		18000	28.67	-25.33	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
BT CH 00 2402MHz		4804	38.67	-35.33	74	55.7	31.38	10.13	58.54	-	-	P	V
		4804	13.88	-40.12	54	-	-	-	-	-	-	A	V
		11460	50.53	-23.47	74	56.05	40.26	14.99	60.77	-	-	P	V
		11460	25.74	-28.26	54	-	-	-	-	-	-	A	V
		14505	50.16	-23.84	74	55.37	41.4	16.87	63.48	-	-	P	V
		14505	25.37	-28.63	54	-	-	-	-	-	-	A	V
		18000	58.93	-15.07	74	48.75	48.4	18.95	57.17	-	-	P	V
		18000	34.14	-19.86	54	-	-	-	-	-	-	A	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	40.9	-33.1	74	56.75	32.53	10.21	58.59	-	-	P	H
		4882	16.11	-37.89	54	-	-	-	-	-	-	A	H
		7323	45.24	-28.76	74	54.37	36.51	12.43	58.07	-	-	P	H
		7323	20.45	-33.55	54	-	-	-	-	-	-	A	H
		11370	48.85	-25.15	74	55.7	39.04	14.94	60.83	-	-	P	H
		11370	24.06	-29.94	54	-	-	-	-	-	-	A	H
		14505	49.92	-24.08	74	56.04	40.49	16.87	63.48	-	-	P	H
		14505	25.13	-28.87	54	-	-	-	-	-	-	A	H
		17985	53.78	-20.22	74	49.06	42.97	18.94	57.19	-	-	P	H
		17985	28.99	-25.01	54	-	-	-	-	-	-	A	H
													H
													H
BT CH 39 2441MHz		4882	39.33	-34.67	74	56.38	31.33	10.21	58.59	-	-	P	V
		4882	14.54	-39.46	54	-	-	-	-	-	-	A	V
		7323	43.77	-30.23	74	53.06	36.35	12.43	58.07	-	-	P	V
		7323	18.98	-35.02	54	-	-	-	-	-	-	A	V
		11460	50.69	-23.31	74	56.21	40.26	14.99	60.77	-	-	P	V
		11460	25.9	-28.1	54	-	-	-	-	-	-	A	V
		14490	49.45	-24.55	74	54.7	41.37	16.86	63.48	-	-	P	V
		14490	24.66	-29.34	54	-	-	-	-	-	-	A	V
		17985	59.3	-14.7	74	49.45	48.1	18.94	57.19	-	-	P	V
		17985	34.51	-19.49	54	-	-	-	-	-	-	A	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)
		4960	40.1	-33.9	74	55.62	32.84	10.28	58.64	-	-	P	H
		4960	15.31	-38.69	54	-	-	-	-	-	-	A	H
		7440	43.2	-30.8	74	52.69	36.02	12.48	57.99	-	-	P	H
		7440	18.41	-35.59	54	-	-	-	-	-	-	A	H
		11220	49.02	-24.98	74	56.24	38.82	14.87	60.91	-	-	P	H
		11220	24.23	-29.77	54	-	-	-	-	-	-	A	H
		14505	48.7	-25.3	74	54.82	40.49	16.87	63.48	-	-	P	H
		14505	23.91	-30.09	54	-	-	-	-	-	-	A	H
		17985	52.85	-21.15	74	48.13	42.97	18.94	57.19	-	-	P	H
		17985	28.06	-25.94	54	-	-	-	-	-	-	A	H
													H
													H
BT CH 78 2480MHz		4960	39.58	-34.42	74	56.5	31.44	10.28	58.64	-	-	P	V
		4960	14.79	-39.21	54	-	-	-	-	-	-	A	V
		7440	43.71	-30.29	74	52.86	36.36	12.48	57.99	-	-	P	V
		7440	18.92	-35.08	54	-	-	-	-	-	-	A	V
		11505	51.04	-22.96	74	56.51	40.29	15	60.76	-	-	P	V
		11505	26.25	-27.75	54	-	-	-	-	-	-	A	V
		14505	50.14	-23.86	74	55.35	41.4	16.87	63.48	-	-	P	V
		14505	25.35	-28.65	54	-	-	-	-	-	-	A	V
		18000	59.11	-14.89	74	48.93	48.4	18.95	57.17	-	-	P	V
		18000	34.32	-19.68	54	-	-	-	-	-	-	A	V
													V
													V
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only. The emission level close to 18GHz is checked that the average emission level is noise floor only. 												



Emission above 18GHz

2.4GHz BT (SHF)

BT	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
ANT				Limit	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		24016	41.67	-32.33	74	58.8	38.81	-2.15	53.79	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
			21440	41.37	-32.63	74	60.8	37.98	-2.61	54.8	-	-	P
													V
													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.		
6		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
2.4GHz BT LF		68.8	29	-11	40	48.26	12.19	1.06	32.51	-	-	P	H	
		99.84	37.12	-6.38	43.5	52.58	15.78	1.23	32.47	-	-	P	H	
		160.95	35.76	-7.74	43.5	50.19	16.32	1.7	32.45	-	-	P	H	
		238.55	27.31	-18.69	46	40.9	16.84	2.03	32.46	-	-	P	H	
		736.16	34.58	-11.42	46	35.95	27.56	3.38	32.31	-	-	P	H	
		946.65	33.49	-12.51	46	30.37	30.42	3.94	31.24	-	-	P	H	
														H
														H
														H
														H
														H
														H
														H
			31.94	33.13	-6.87	40	41.4	23.52	0.7	32.49	100	313	Q	V
			50.37	35.79	-4.21	40	53.31	14.14	0.91	32.57	200	156	Q	V
			98.87	29.93	-13.57	43.5	45.49	15.69	1.22	32.47	-	-	P	V
			158.04	31.26	-12.24	43.5	45.44	16.58	1.69	32.45	-	-	P	V
			246.31	22.24	-23.76	46	34.76	17.86	2.07	32.45	-	-	P	V
			710.94	33.71	-12.29	46	36.31	26.43	3.34	32.37	-	-	P	V
														V
													V	
													V	
													V	
													V	
													V	

Remark

- No other spurious found.
- All results are PASS against limit line.
- 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 over limit line.
P/A	Peak or Average
H/V	Horizontal or Vertical



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

BT	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)
BT 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)

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



Appendix D. Radiated Spurious Emission Plots

Test Engineer :	Leo Lee 、 Mancy Chou 、 Bigshow Wang	Temperature :	22.1~23.1°C
		Relative Humidity :	55~60%

2.4GHz 2400~2483.5MHz

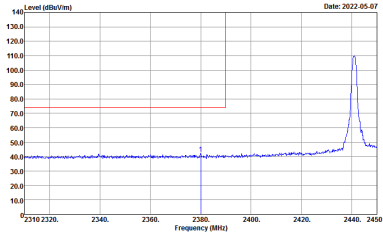
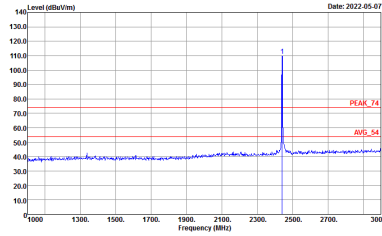
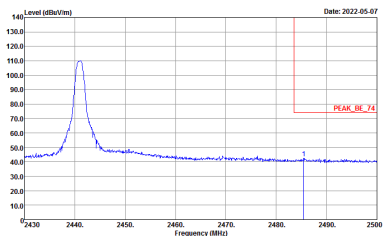
BT (Band Edge @ 3m)

BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH00 2402MHz	
4	Horizontal	Fundamental
Peak	<p>Site : 03CH15-1V Condition : PEAK_BE_74 3m 90120_02038_20210804 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>	<p>Site : 03CH15-1V Condition : PEAK_74 3m 90120_02038_20210804 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>

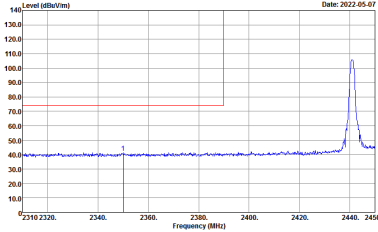
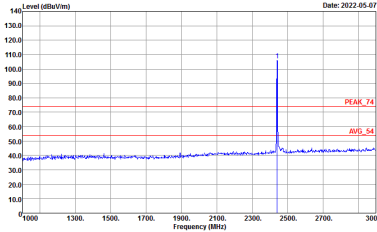
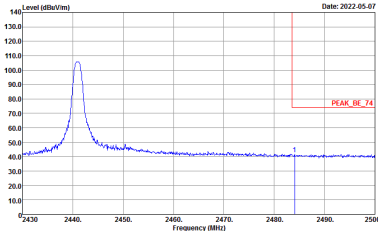


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH00 2402MHz	
4	Vertical	Fundamental
Peak	<p>Site : 03CH15-HY Condition : PEAK_BC_74 3m 90120_02038_20210804 VERTICAL : RBW:1000.000kHz VSW:3000.000kHz SWT:Auto</p>	<p>Site : 03CH15-HY Condition : PEAK_74 3m 90120_02038_20210804 VERTICAL : RBW:1000.000kHz VSW:3000.000kHz SWT:Auto</p>

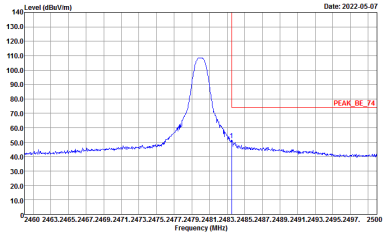
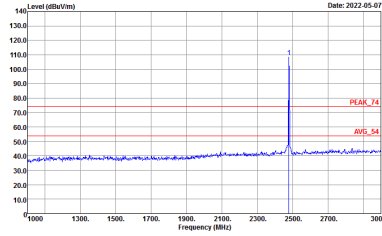


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
4	Horizontal	Fundamental
Peak	 <p>Date: 2022-05-07</p> <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	 <p>Date: 2022-05-07</p> <p>Site : 03CH15-HY Condition : PEAK_74 3m 90120_02038_20210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>
Peak	 <p>Date: 2022-05-07</p> <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	Left blank

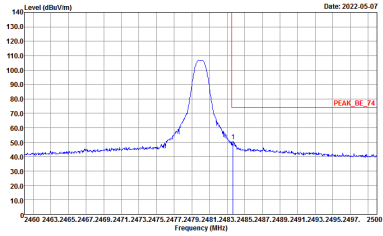
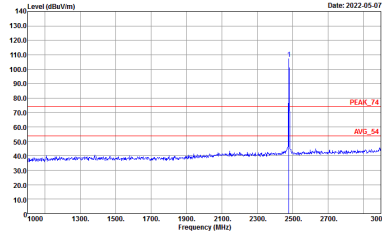


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
4	Vertical	Fundamental
Peak	 <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	 <p>Site : 03CH15-HY Condition : PEAK_74 3m 90120_02038_20210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>
Peak	 <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	Left blank



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
4	Horizontal	Fundamental
Peak	 <p>Date: 2022-05-07</p> <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 HORIZONTAL : RBW:1000.000KHz VSW:3000.000KHz SWT:Auto</p>	 <p>Date: 2022-05-07</p> <p>Site : 03CH15-HY Condition : PEAK_74 3m 90120_02038_20210804 HORIZONTAL : RBW:1000.000KHz VSW:3000.000KHz SWT:Auto</p>

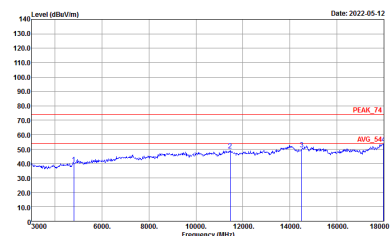
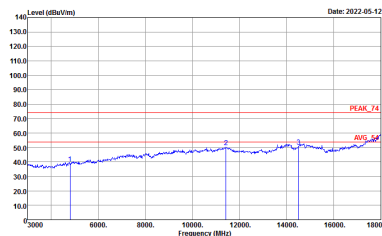


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
4	Vertical	Fundamental
Peak	 <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	 <p>Site : 03CH15-HY Condition : PEAK_74 3m 90120_02038_20210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>



2.4GHz 2400~2483.5MHz

BT (Harmonic @ 3m)

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH00 2402MHz	
4	Horizontal	Vertical
<p>Peak Avg.</p>	 <p>Site : 03CH15-1HY Condition : PEAK_74 3m 9D120_02038_20210804 HORIZONTAL</p>	 <p>Site : 03CH15-1HY Condition : PEAK_74 3m 9120D_1620_20211025 VERTICAL</p>



BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH39 2441MHz	
4	Horizontal	Vertical
Peak Avg.	<p>Site : 03CH15-HY Condition : PEAK_74 3m 9D120_02038_20210804 HORIZONTAL</p>	<p>Site : 03CH15-HY Condition : PEAK_74 3m 9I200_1620_20211025 VERTICAL</p>



BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH78 2480MHz	
4	Horizontal	Vertical
Peak Avg.	<p>Site : 03CH15-HY Condition : PEAK_74 3m 9D120_02038_20210804 HORIZONTAL</p>	<p>Site : 03CH15-HY Condition : PEAK_74 3m 9I200_1620_20211025 VERTICAL</p>



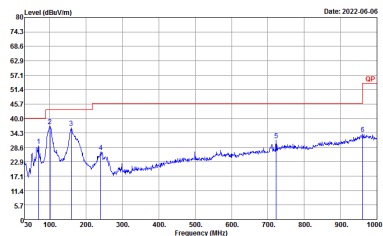
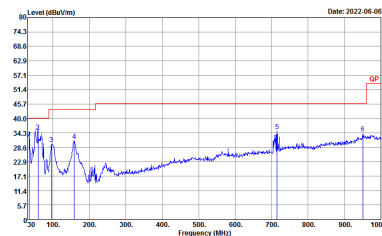
**Emission above 18GHz
2.4GHz BT (SHF)**

BT	2.4GHz 2400~2483.5MHz	
ANT	BT SHF	
4	Horizontal	Vertical
Peak Avg.	<p>Site : 03CH15-HY Condition : PEAK_74 1m SHF ANT_9170_00993 HORIZONTAL</p>	<p>Site : 03CH15-HY Condition : PEAK_74 1m SHF ANT_9170_00993 VERTICAL</p>



Emission below 1GHz

2.4GHz BT (LF)

BT	2.4GHz 2400~2483.5MHz	
ANT	BT LF	
4	Horizontal	Vertical
QP / Peak	 <p>Site : 03CH15-HY Condition : QP 3m B1LOG_41912_20220206 HORIZONTAL</p>	 <p>Site : 03CH15-HY Condition : QP 3m B1LOG_41912_20220206 VERTICAL</p>

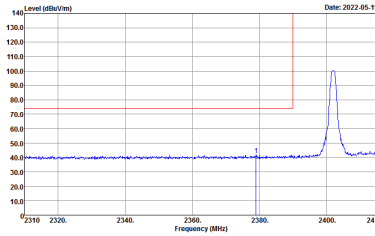
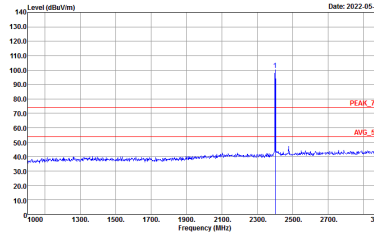


2.4GHz 2400~2483.5MHz

BT (Band Edge @ 3m)

BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH00 2402MHz	
5	Horizontal	Fundamental
Peak	<p>Site : 03CH15-1HY Condition : PEAK_BC_74 3m 90120_0203R_20210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	<p>Site : 03CH15-1HY Condition : PEAK_74 3m 90120_0203R_20210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>

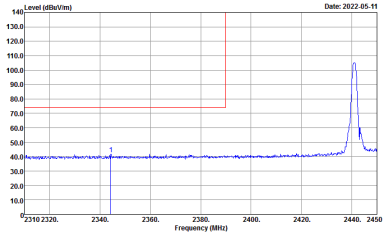
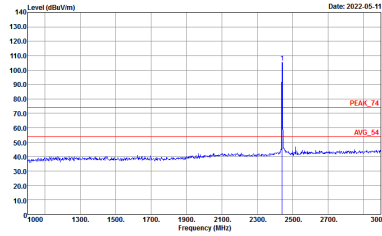
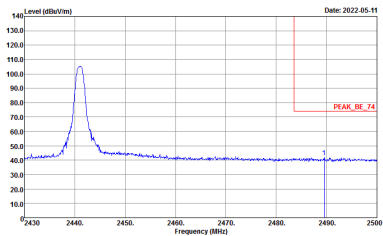


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH00 2402MHz	
5	Vertical	Fundamental
Peak	 <p data-bbox="430 705 718 750">Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 VERTICAL -RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	 <p data-bbox="901 705 1189 750">Site : 03CH15-HY Condition : PEAK_74 3m 90120_02038_20210804 VERTICAL -RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>

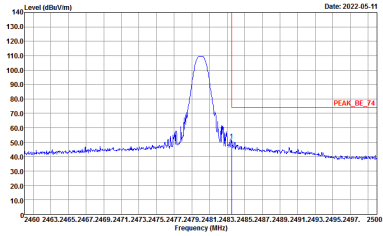
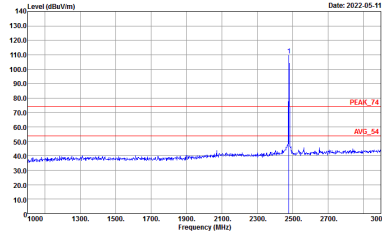


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
5	Horizontal	Fundamental
Peak	<p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	<p>Site : 03CH15-HY Condition : PEAK_74 3m 90120_02038_20210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>
Peak	<p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	Left blank

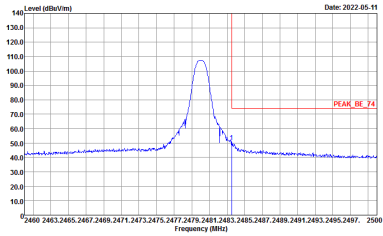
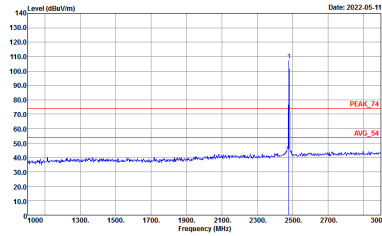


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
5	Vertical	Fundamental
Peak	 <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>	 <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>
Peak	 <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 VERTICAL Detector : Peak Project : Z10404</p>	Left blank



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
5	Horizontal	Fundamental
Peak	 <p>Date: 2022-05-11</p> <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 HORIZONTAL : RBW:1000.000KHz VSW:3000.000KHz SWT:Auto</p>	 <p>Date: 2022-05-11</p> <p>Site : 03CH15-HY Condition : PEAK_74 3m 90120_02038_20210804 HORIZONTAL : RBW:1000.000KHz VSW:3000.000KHz SWT:Auto</p>

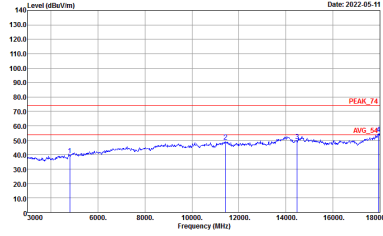
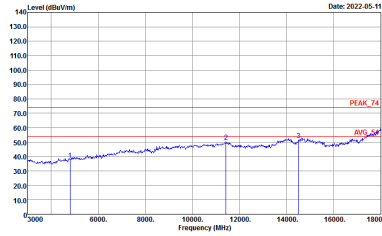


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
5	Vertical	Fundamental
Peak	 <p>Date: 2022-05-11</p> <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 VERTICAL -RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	 <p>Date: 2022-05-11</p> <p>Site : 03CH15-HY Condition : PEAK_74 3m 90120_02038_20210804 VERTICAL -RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>



2.4GHz 2400~2483.5MHz

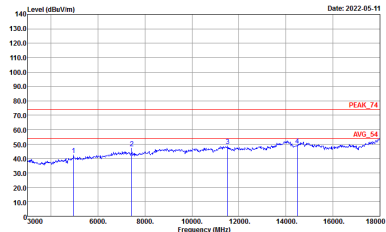
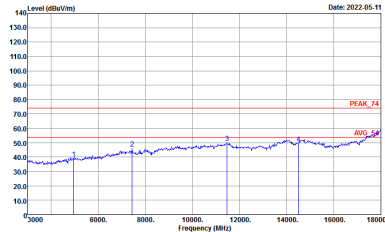
BT (Harmonic @ 3m)

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH00 2402MHz	
5	Horizontal	Vertical
<p>Peak</p> <p>Avg.</p>	 <p>Site : 03CH15-HY Condition : PEAK_74 3m 9D120_02038_20210804 HORIZONTAL</p>	 <p>Site : 03CH15-HY Condition : PEAK_74 3m 9120D_1620_20211025 VERTICAL</p>



BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH39 2441MHz	
5	Horizontal	Vertical
Peak Avg.	<p>Site : 03CH15-HY Condition : PEAK_74 3m 9D120_02038_20210804 HORIZONTAL</p>	<p>Site : 03CH15-HY Condition : PEAK_74 3m 9I200_1620_20211025 VERTICAL</p>



BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH78 2480MHz	
5	Horizontal	Vertical
<p>Peak</p> <p>Avg.</p>	 <p>Site : 03CH15-HY Condition : PEAK_74 3m 9D120_02038_20210804 HORIZONTAL</p>	 <p>Site : 03CH15-HY Condition : PEAK_74 3m 9I200_1620_20211025 VERTICAL</p>

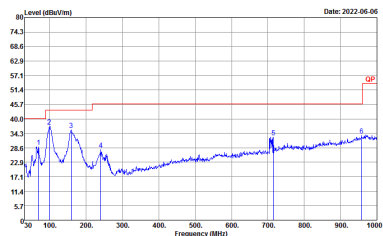
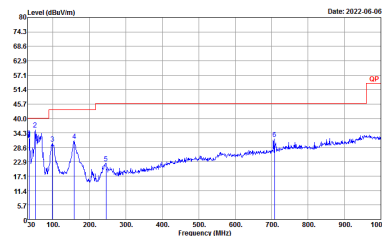


Emission above 18GHz
2.4GHz BT (SHF)

BT	2.4GHz 2400~2483.5MHz	
ANT	BT SHF	
5	Horizontal	Vertical
Peak Avg.	<p>Site : 03CH15-HY Condition : PEAK_74 1m SHF ANT_9170_00993 HORIZONTAL</p>	<p>Site : 03CH15-HY Condition : PEAK_74 1m SHF ANT_9170_00993 VERTICAL</p>



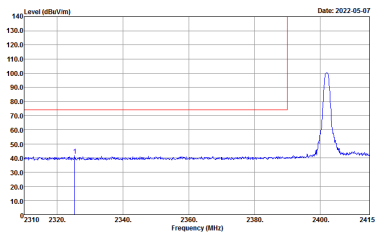
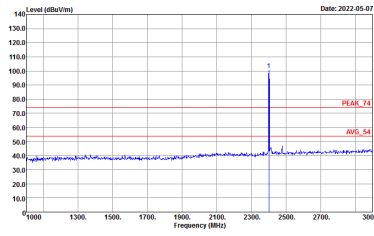
Emission below 1GHz
2.4GHz BT (LF)

BT	2.4GHz 2400~2483.5MHz	
ANT	BT LF	
5	Horizontal	Vertical
QP / Peak	 <p>Site : 03CH15-HY Condition : QP 3m BIL06_41912_20220206 HORIZONTAL</p>	 <p>Site : 03CH15-HY Condition : QP 3m BIL06_41912_20220206 VERTICAL</p>

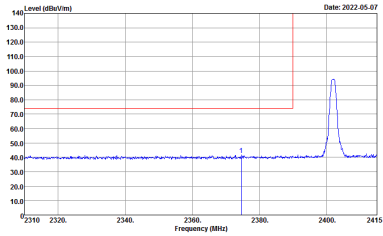
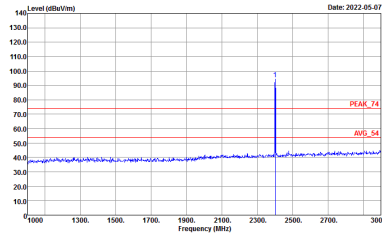


2.4GHz 2400~2483.5MHz

BT (Band Edge @ 3m)

BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH00 2402MHz	
6	Horizontal	Fundamental
Peak	 <p>Date: 2022-05-07</p> <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 HORIZONTAL : RBW:3000.000KHz VBW:3000.000KHz SWT:Auto</p>	 <p>Date: 2022-05-07</p> <p>Site : 03CH15-HY Condition : PEAK_74 3m 90120_02038_20210804 HORIZONTAL : RBW:3000.000KHz VBW:3000.000KHz SWT:Auto</p>



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH00 2402MHz	
6	Vertical	Fundamental
Peak	 <p data-bbox="430 705 718 750">Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 VERTICAL -RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	 <p data-bbox="901 705 1189 750">Site : 03CH15-HY Condition : PEAK_74 3m 90120_02038_20210804 VERTICAL -RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>

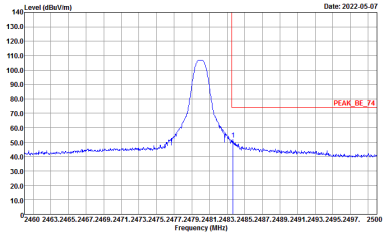
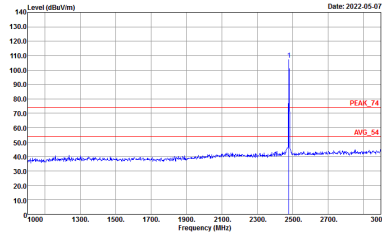


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
6	Horizontal	Fundamental
Peak	<p>Date: 2022-05-07</p> <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 HORIZONTAL -RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	<p>Date: 2022-05-07</p> <p>Site : 03CH15-HY Condition : PEAK_74 3m 90120_02038_20210804 HORIZONTAL -RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>
Peak	<p>Date: 2022-05-07</p> <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 HORIZONTAL -RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	Left blank

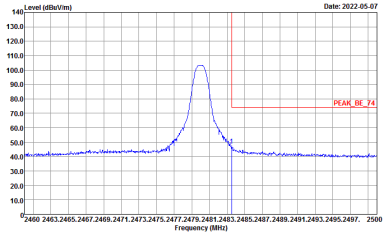
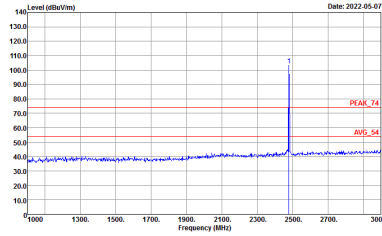


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
6	Vertical	Fundamental
Peak	<p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	<p>Site : 03CH15-HY Condition : PEAK_74 3m 90120_02038_20210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>
Peak	<p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	Left blank



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
6	Horizontal	Fundamental
Peak	 <p>Date: 2022-05-07</p> <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 HORIZONTAL : REW:1000.000KHz VSW:3000.000KHz SWT:Auto</p>	 <p>Date: 2022-05-07</p> <p>Site : 03CH15-HY Condition : PEAK_74 3m 90120_02038_20210804 HORIZONTAL : REW:1000.000KHz VSW:3000.000KHz SWT:Auto</p>

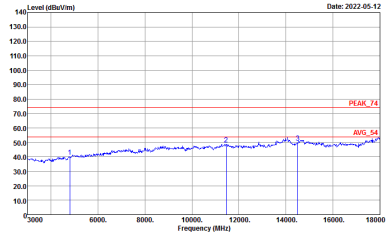
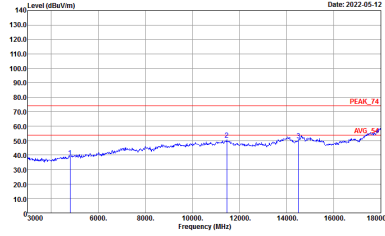


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
6	Vertical	Fundamental
Peak	 <p>Date: 2022-05-07</p> <p>Site : 03CH15-HY Condition : PEAK_BE_74 3m 90120_02038_20210804 VERTICAL : REW:1000.000KHz VSW:3000.000KHz SWT:Auto</p>	 <p>Date: 2022-05-07</p> <p>Site : 03CH15-HY Condition : PEAK_74 3m 90120_02038_20210804 VERTICAL : REW:1000.000KHz VSW:3000.000KHz SWT:Auto</p>



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.	 <p>Site : 03CH15-HY Condition : PEAK_74 3m 9D120_02038_20210804 HORIZONTAL</p>	 <p>Site : 03CH15-HY Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL</p>



BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH39 2441MHz	
6	Horizontal	Vertical
Peak Avg.	<p>Site : 03CH15-HY Condition : PEAK_74 3m 90120_02038_20210804 HORIZONTAL</p>	<p>Site : 03CH15-HY Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL</p>



BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH78 2480MHz	
6	Horizontal	Vertical
Peak Avg.	<p>Site : 03CH15-HY Condition : PEAK_74 3m 9D120_02038_20210804 HORIZONTAL</p>	<p>Site : 03CH15-HY Condition : PEAK_74 3m 91200_1620_20211025 VERTICAL</p>



Emission above 18GHz
2.4GHz BT (SHF)

BT	2.4GHz 2400~2483.5MHz	
ANT	BT SHF	
6	Horizontal	Vertical
Peak Avg.	<p>Site : 03CH15-4Y Condition : PEAK_74 1m SHF ANT_9170_00993 HORIZONTAL</p>	<p>Site : 03CH15-4Y Condition : PEAK_74 1m SHF ANT_9170_00993 VERTICAL</p>



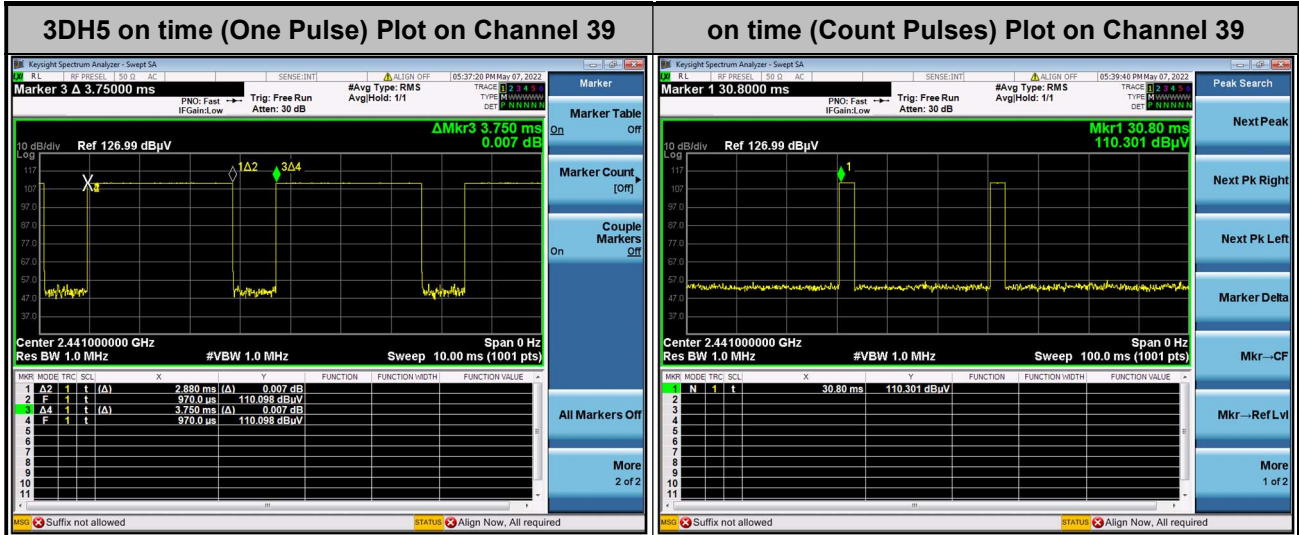
Emission below 1GHz
2.4GHz BT (LF)

BT	2.4GHz 2400~2483.5MHz	
ANT	BT LF	
6	Horizontal	Vertical
QP / Peak	<p>Site : 03CH15-HY Condition : QP 3m B1LOG_41912_20220206 HORIZONTAL</p>	<p>Site : 03CH15-HY Condition : QP 3m B1LOG_41912_20220206 VERTICAL</p>



Appendix E. Duty Cycle Plots

<Ant. 4>



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. **3DH5** 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

$$2.88 \text{ ms} \times 20 \text{ channels} = 57.6 \text{ ms}$$

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:

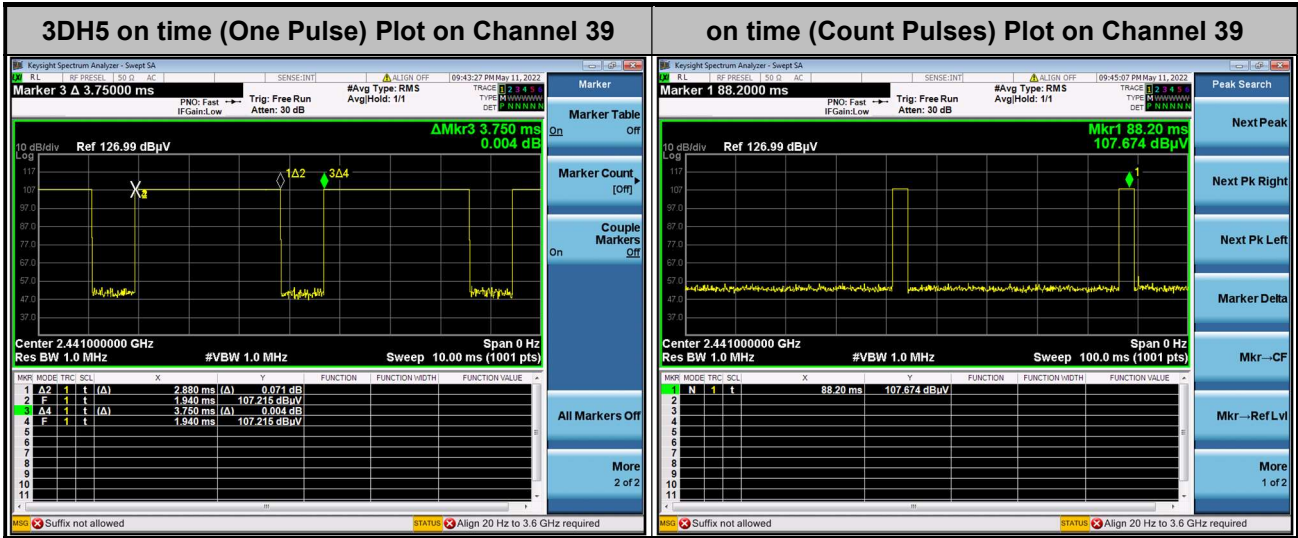
$$2.88 \text{ ms} \times 2 = 5.76 \text{ ms}$$

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

$$20 \times \log(5.76 \text{ ms}/100 \text{ ms}) = -24.79 \text{ dB}$$



<Ant. 5>



Note:

4. Worst case Duty cycle = on time/100 milliseconds = $2 * 2.88 / 100 = 5.76 \%$
5. Worst case Duty cycle correction factor = $20 * \log(\text{Duty cycle}) = -24.79 \text{ dB}$
6. **3DH5** 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

$$2.88 \text{ ms} \times 20 \text{ channels} = 57.6 \text{ ms}$$

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. $[100 \text{ ms} / 57.6 \text{ ms}] = 2 \text{ hops}$

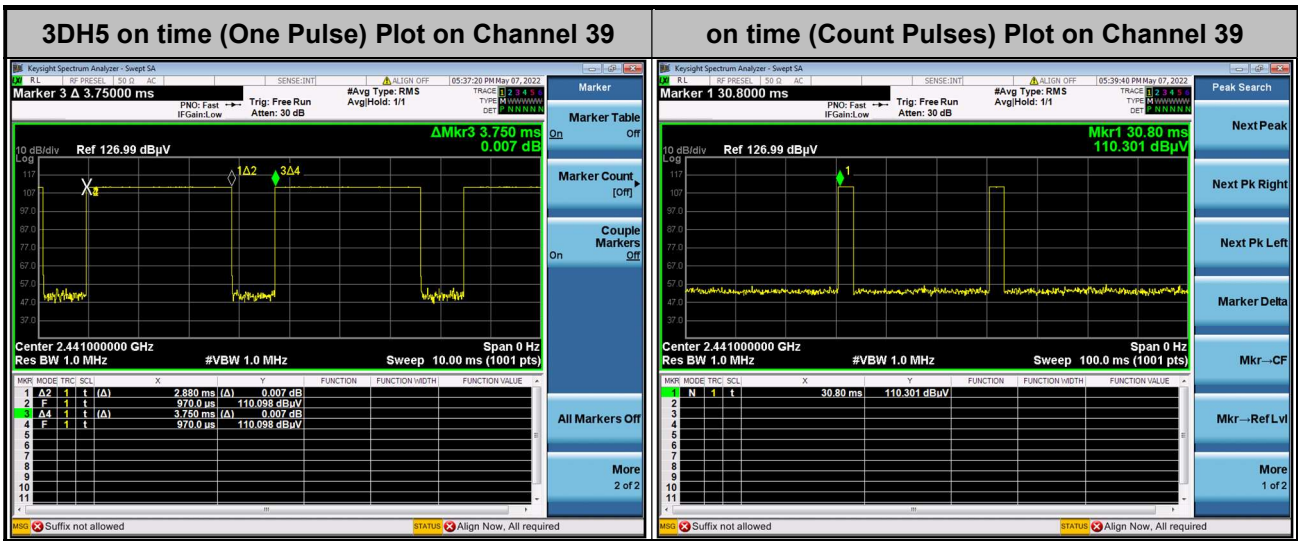
Thus, the maximum possible ON time:

$$2.88 \text{ ms} \times 2 = 5.76 \text{ ms}$$

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

$$20 \times \log(5.76 \text{ ms}/100 \text{ ms}) = -24.79 \text{ dB}$$

<Ant. 6>



Note:

7. Worst case Duty cycle = on time/100 milliseconds = $2 * 2.88 / 100 = 5.76 \%$
8. Worst case Duty cycle correction factor = $20 * \log(\text{Duty cycle}) = -24.79 \text{ dB}$
9. **3DH5** 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

$$2.88 \text{ ms} \times 20 \text{ channels} = 57.6 \text{ ms}$$

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. $[100 \text{ ms} / 57.6 \text{ ms}] = 2 \text{ hops}$

Thus, the maximum possible ON time:

$$2.88 \text{ ms} \times 2 = 5.76 \text{ ms}$$

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

$$20 \times \log(5.76 \text{ ms}/100 \text{ ms}) = -24.79 \text{ dB}$$