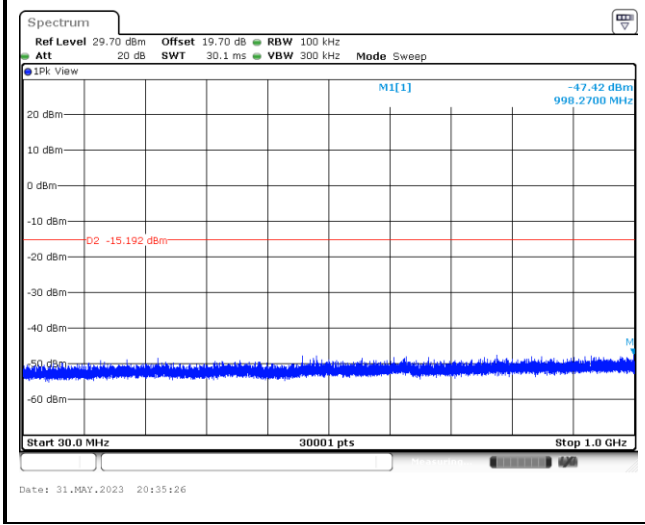
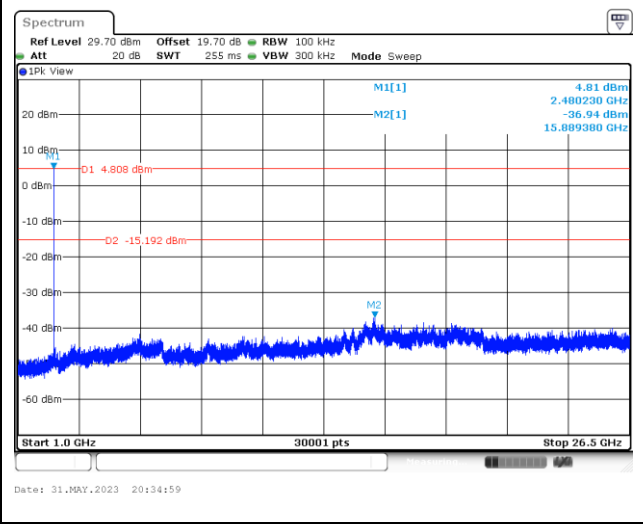




CSE Plot on Ch 78 between 30 MHz ~ 1 GHz



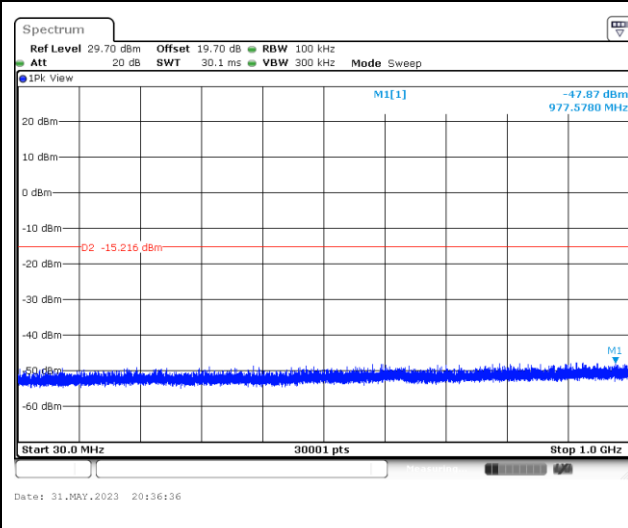
CSE Plot on Ch 78 between 1 GHz ~ 26.5 GHz



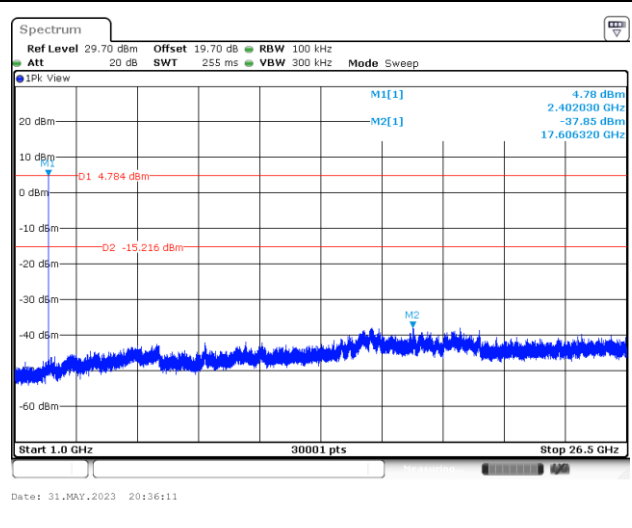


<3Mbps>

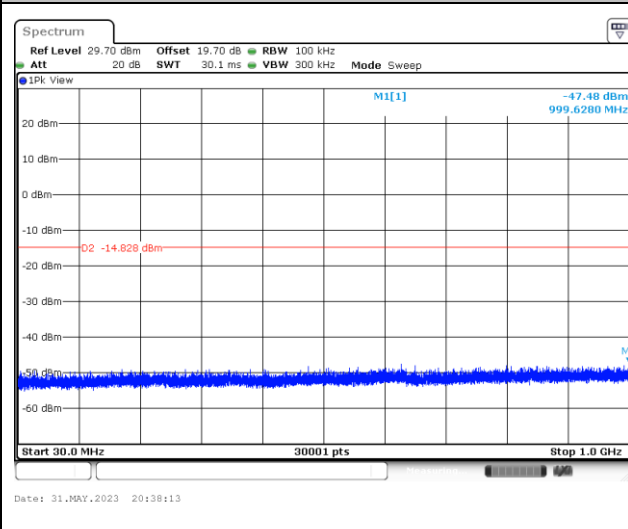
CSE Plot on Ch 00 between 30 MHz ~ 1 GHz



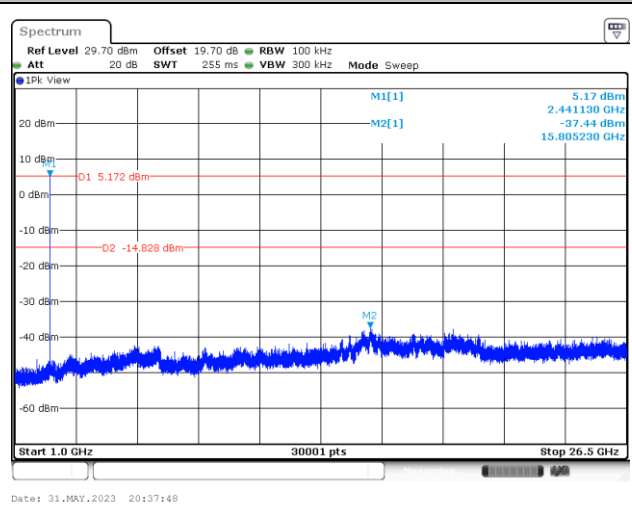
CSE Plot on Ch 00 between 1 GHz ~ 26.5 GHz



CSE Plot on Ch 39 between 30 MHz ~ 1 GHz

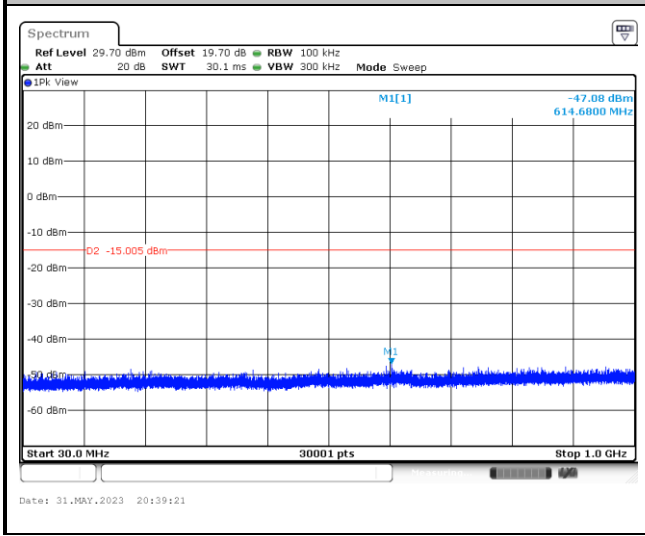


CSE Plot on Ch 39 between 1 GHz ~ 26.5 GHz

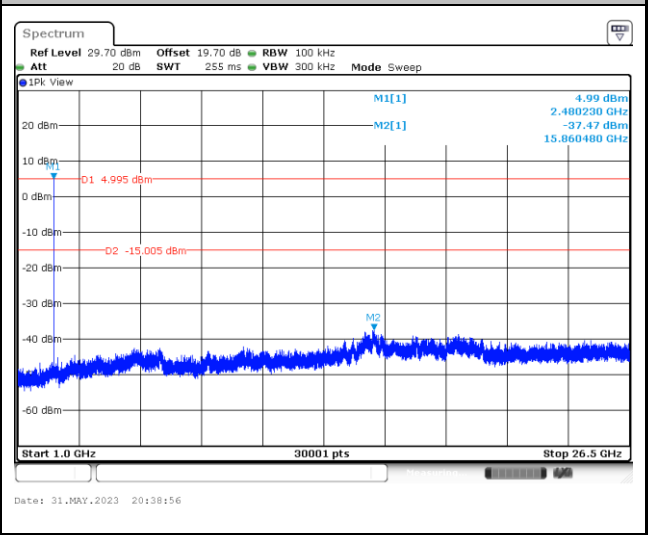




CSE Plot on Ch 78 between 30 MHz ~ 1 GHz



CSE Plot on Ch 78 between 1 GHz ~ 26.5 GHz





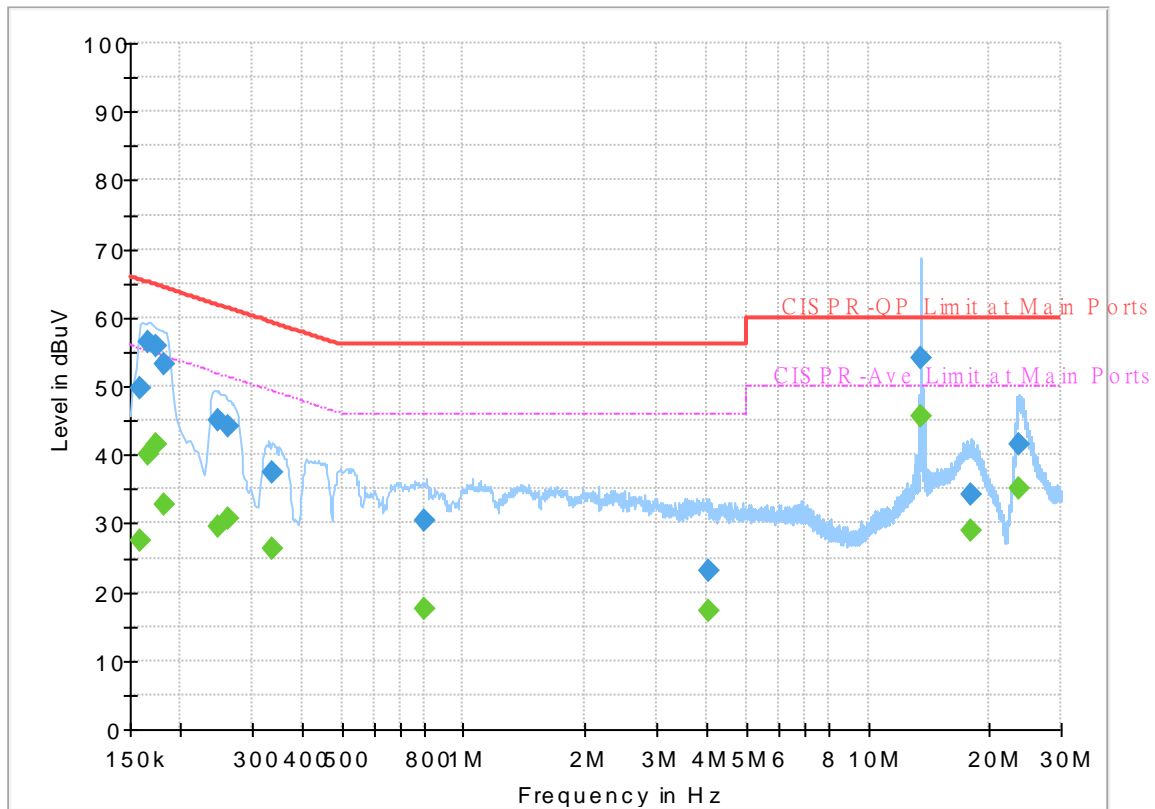
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Calvin Wang	Temperature :	23~26°C
		Relative Humidity :	45~55%

EUT Information

Report NO : 332310
 Test Mode : Mode 1
 Test Voltage : 120Vac/60Hz
 Phase : Line

Full Spectrum



Final_Result

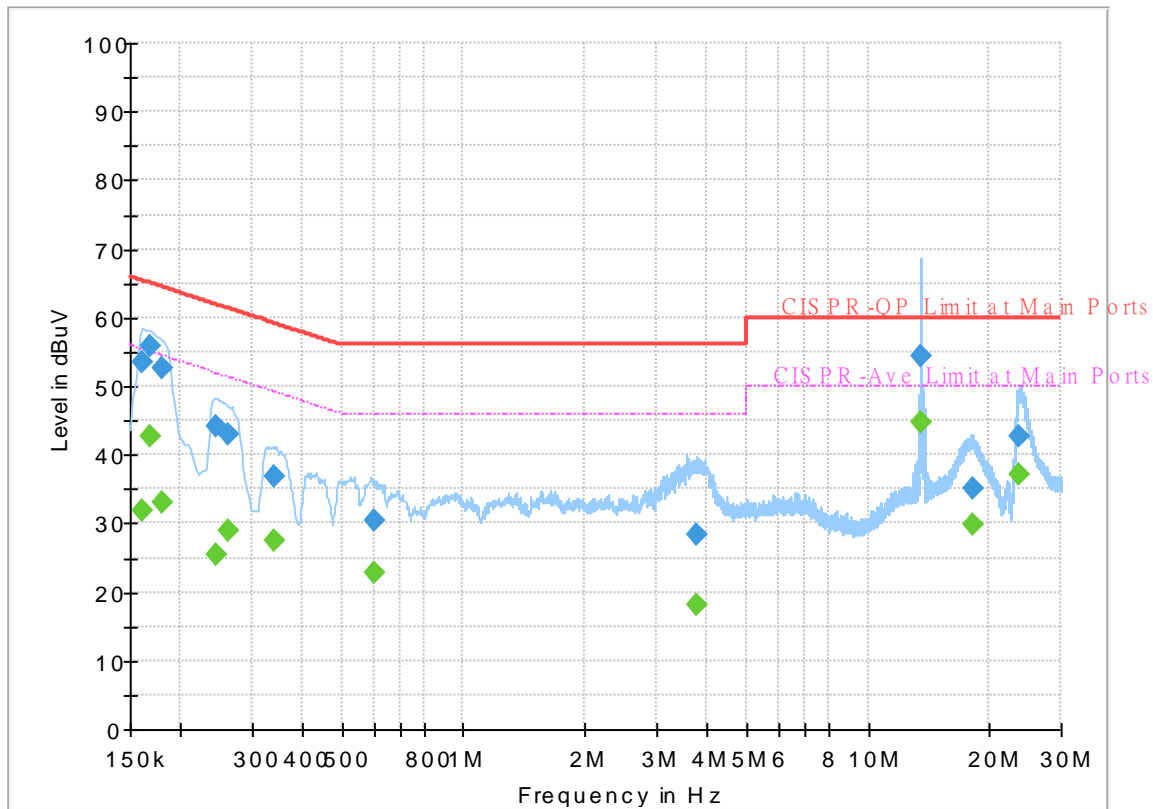
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.159000	---	27.62	55.52	27.90	L1	OFF	19.8
0.159000	49.80	---	65.52	15.72	L1	OFF	19.8
0.165750	---	40.19	55.17	14.98	L1	OFF	19.8
0.165750	56.43	---	65.17	8.74	L1	OFF	19.8
0.174750	---	41.50	54.73	13.23	L1	OFF	19.8
0.174750	55.94	---	64.73	8.79	L1	OFF	19.8
0.181500	---	32.79	54.42	21.63	L1	OFF	19.8
0.181500	53.30	---	64.42	11.12	L1	OFF	19.8
0.249000	---	29.67	51.79	22.12	L1	OFF	19.8
0.249000	45.06	---	61.79	16.73	L1	OFF	19.8
0.262500	---	30.64	51.35	20.71	L1	OFF	19.8
0.262500	44.29	---	61.35	17.06	L1	OFF	19.8
0.336750	---	26.38	49.28	22.90	L1	OFF	19.8
0.336750	37.43	---	59.28	21.85	L1	OFF	19.8
0.804750	---	17.56	46.00	28.44	L1	OFF	19.8
0.804750	30.34	---	56.00	25.66	L1	OFF	19.8
4.029000	---	17.29	46.00	28.71	L1	OFF	19.9
4.029000	23.00	---	56.00	33.00	L1	OFF	19.9
13.560000	---	45.51	50.00	4.49	L1	OFF	20.0
13.560000	54.08	---	60.00	5.92	L1	OFF	20.0
17.868750	---	29.01	50.00	20.99	L1	OFF	20.0

17.868750	34.30	---	60.00	25.70	L1	OFF	20.0
23.498250	---	35.10	50.00	14.90	L1	OFF	20.0
23.498250	41.40	---	60.00	18.60	L1	OFF	20.0

EUT Information

Report NO : 332310
 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)
0.161250	---	31.94	55.40	23.46	N	OFF	19.8
0.161250	53.37	---	65.40	12.03	N	OFF	19.8
0.168000	---	42.65	55.06	12.41	N	OFF	19.8
0.168000	55.86	---	65.06	9.20	N	OFF	19.8
0.179250	---	32.93	54.52	21.59	N	OFF	19.8
0.179250	52.60	---	64.52	11.92	N	OFF	19.8
0.244500	---	25.31	51.94	26.63	N	OFF	19.8
0.244500	44.25	---	61.94	17.69	N	OFF	19.8
0.262500	---	29.07	51.35	22.28	N	OFF	19.8
0.262500	42.98	---	61.35	18.37	N	OFF	19.8
0.341250	---	27.48	49.17	21.69	N	OFF	19.8
0.341250	36.98	---	59.17	22.19	N	OFF	19.8
0.602250	---	22.70	46.00	23.30	N	OFF	19.8
0.602250	30.48	---	56.00	25.52	N	OFF	19.8
3.756750	---	18.24	46.00	27.76	N	OFF	19.9
3.756750	28.36	---	56.00	27.64	N	OFF	19.9
13.560000	---	44.74	50.00	5.26	N	OFF	20.1
13.560000	54.35	---	60.00	5.65	N	OFF	20.1
18.154500	---	29.70	50.00	20.30	N	OFF	20.1
18.154500	35.08	---	60.00	24.92	N	OFF	20.1
23.617500	---	37.03	50.00	12.97	N	OFF	20.2

23.617500	42.68	---	60.00	17.32	N	OFF	20.2
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Appendix C. Radiated Spurious Emission

Test Engineer :	Yuan Lee and Troye Hsieh	Temperature :	20.1~22.3°C
		Relative Humidity :	54.1~66.9%

2.4GHz 2400~2483.5MHz

BT (Band Edge @ 3m)

BT	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
Ant.		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
BT CH00 2402MHz	7	2351.16	48.08	-25.92	74	47.88	27.3	7.12	34.22	284	330	P	H	
		2351.16	23.29	-30.71	54	-	-	-	-	-	-	A	H	
	*	2402	99.57	-	-	99.08	27.51	7.18	34.2	284	330	P	H	
	*	2402	74.78	-	-	-	-	-	-	-	-	A	H	
													H	
														H
			2380.035	48.39	-25.61	74	48.02	27.42	7.16	34.21	106	271	P	V
			2380.035	23.6	-30.4	54	-	-	-	-	-	-	A	V
	*		2402	97.05	-	-	96.56	27.51	7.18	34.2	106	271	P	V
	*		2402	72.26	-	-	-	-	-	-	-	-	A	V
														V
														V
BT CH 39 2441MHz		2348.78	48.99	-25.01	74	48.79	27.3	7.12	34.22	278	330	P	H	
		2348.78	24.2	-29.8	54	-	-	-	-	-	-	A	H	
	*	2441	99.08	-	-	98.27	27.75	7.24	34.18	278	330	P	H	
	*	2441	74.29	-	-	-	-	-	-	-	-	A	H	
			2496.08	48.82	-25.18	74	47.77	27.89	7.32	34.16	278	330	P	H
			2496.08	24.03	-29.97	54	-	-	-	-	-	-	A	H
			2389.8	48.12	-25.88	74	47.69	27.46	7.17	34.2	109	352	P	V
			2389.8	23.33	-30.67	54	-	-	-	-	-	-	A	V
	*		2441	95.4	-	-	94.59	27.75	7.24	34.18	109	352	P	V
	*		2441	70.61	-	-	-	-	-	-	-	-	A	V
			2496.85	48.68	-25.32	74	47.63	27.89	7.32	34.16	109	352	P	V
			2496.85	23.89	-30.11	54	-	-	-	-	-	-	A	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	*	2480	98.74	-	-	97.75	27.86	7.3	34.17	246	333	P	H	
	*	2480	73.95	-	-	-	-	-	-	-	-	A	H	
		2488.84	49.71	-24.29	74	48.68	27.88	7.31	34.16	246	333	P	H	
		2488.84	24.92	-29.08	54	-	-	-	-	-	-	A	H	
													H	
													H	
	*	2480	95.31	-	-	94.32	27.86	7.3	34.17	100	352	P	V	
	*	2480	70.52	-	-	-	-	-	-	-	-	-	A	V
		2485.64	49.61	-24.39	74	48.61	27.87	7.3	34.17	100	352	P	V	
		2485.64	24.82	-29.18	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	41.69	-32.31	74	55.45	32.42	11.76	57.94	-	-	P	H
		4804	16.9	-37.1	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
			4804	40.76	-33.24	74	54.52	32.42	11.76	57.94	-	-	P
		4804	15.97	-38.03	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V



BT Ant.	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 39 2441MHz		4882	42.4	-31.6	74	55.77	32.76	11.87	58	-	-	P	H	
		4882	17.61	-36.39	54	-	-	-	-	-	-	A	H	
		7323	42.79	-31.21	74	50.27	36.81	14.44	58.73	-	-	P	H	
		7323	18	-36	54	-	-	-	-	-	-	A	H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
			4882	41.82	-32.18	74	55.19	32.76	11.87	58	-	-	P	V
			4882	17.03	-36.97	54	-	-	-	-	-	-	A	V
			7323	43.43	-30.57	74	50.91	36.81	14.44	58.73	-	-	P	V
			7323	18.64	-35.36	54	-	-	-	-	-	-	A	V
														V
														V
														V
														V
													V	
													V	



BT Ant.	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	42.29	-31.71	74	55.3	33.06	11.99	58.06	-	-	P	H	
		4960	17.5	-36.5	54	-	-	-	-	-	-	A	H	
		7440	42.19	-31.81	74	50.04	36.42	14.44	58.71	-	-	P	H	
		7440	17.4	-36.6	54	-	-	-	-	-	-	A	H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
			4960	42.36	-31.64	74	55.37	33.06	11.99	58.06	-	-	P	V
			4960	17.57	-36.43	54	-	-	-	-	-	-	A	V
			7440	43.07	-30.93	74	50.92	36.42	14.44	58.71	-	-	P	V
			7440	18.28	-35.72	54	-	-	-	-	-	-	A	V
														V
														V
														V
														V
													V	
													V	
													V	
Remark	<ol style="list-style-type: none"> 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 below 1GHz

2.4GHz BT (LF)

BT	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.	
Ant.		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
2.4GHz BT LF		30	33.56	-6.44	40	40.95	23.92	0.84	32.15	-	-	P	H	
		125.58	36.24	-7.26	43.5	49.13	17.45	1.82	32.16	-	-	P	H	
		163.92	29.56	-13.94	43.5	43.75	15.85	2.04	32.08	-	-	P	H	
		563.9	27.9	-18.1	46	30.47	25.78	3.64	31.99	-	-	P	H	
		729.1	30.98	-15.02	46	31.7	27.11	4.12	31.95	-	-	P	H	
		954.5	33.85	-12.15	46	29.54	30.39	4.67	30.75	-	-	P	H	
														H
														H
														H
														H
														H
														H
			30.27	34.39	-5.61	40	41.89	23.8	0.85	32.15	100	85	Q	V
			65.1	29.25	-10.75	40	48.63	11.6	1.26	32.24	-	-	P	V
			126.39	32.45	-11.05	43.5	45.35	17.45	1.81	32.16	-	-	P	V
			563.9	28.46	-17.54	46	31.03	25.78	3.64	31.99	-	-	P	V
			718.6	31.13	-14.87	46	32.47	26.59	4.08	32.01	-	-	P	V
			958.7	34.02	-11.98	46	29.42	30.62	4.69	30.71	-	-	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 Ant.	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 CH00 2402MHz		2366.28	48.01	-25.99	74	47.71	27.37	7.14	34.21	327	42	P	H	
		2366.28	23.22	-30.78	54	-	-	-	-	-	-	A	H	
	*	2402	96.62	-	-	96.13	27.51	7.18	34.2	327	42	P	H	
	*	2402	71.83	-	-	-	-	-	-	-	-	A	H	
													H	
														H
			2361.345	48.13	-25.87	74	47.86	27.35	7.13	34.21	145	111	P	V
			2361.345	23.34	-30.66	54	-	-	-	-	-	-	A	V
	*		2402	99.42	-	-	98.93	27.51	7.18	34.2	145	111	P	V
			2402	74.63	-	-	-	-	-	-	-	-	A	V
														V
														V
BT CH 39 2441MHz		2360.26	47.66	-26.34	74	47.4	27.34	7.13	34.21	301	59	P	H	
		2360.26	22.87	-31.13	54	-	-	-	-	-	-	A	H	
	*	2441	97.61	-	-	96.8	27.75	7.24	34.18	301	59	P	H	
	*	2441	72.82	-	-	-	-	-	-	-	-	A	H	
			2488.66	48.36	-25.64	74	47.33	27.88	7.31	34.16	301	59	P	H
			2488.66	23.57	-30.43	54	-	-	-	-	-	-	A	H
			2377.48	47.8	-26.2	74	47.45	27.41	7.15	34.21	119	110	P	V
			2377.48	23.01	-30.99	54	-	-	-	-	-	-	A	V
	*		2441	100.01	-	-	99.2	27.75	7.24	34.18	119	110	P	V
	*		2441	75.22	-	-	-	-	-	-	-	-	A	V
			2490.97	48.55	-25.45	74	47.52	27.88	7.31	34.16	119	110	P	V
			2490.97	23.76	-30.24	54	-	-	-	-	-	-	A	V



BT Ant. 8	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
BT CH 78 2480MHz	*	2480	98.87	-	-	97.88	27.86	7.3	34.17	300	40	P	H	
		2480	74.08	-	-	-	-	-	-	-	-	A	H	
		2489.28	49.31	-24.69	74	48.28	27.88	7.31	34.16	300	40	P	H	
		2489.28	24.52	-29.48	54	-	-	-	-	-	-	A	H	
													H	
													H	
	*	2480	97.77	-	-	96.78	27.86	7.3	34.17	100	111	P	V	
		2480	72.98	-	-	-	-	-	-	-	-	-	A	V
		2486.8	49.04	-24.96	74	48.03	27.87	7.31	34.17	100	111	P	V	
		2486.8	24.25	-29.75	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. 8	Note	Frequency (MHz)	Level (dBμV/m)	Margin (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
BT CH 00 2402MHz		4804	41.12	-32.88	74	54.88	32.42	11.76	57.94	-	-	P	H	
		4804	16.33	-37.67	54	-	-	-	-	-	-	A	H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
			4804	40.7	-33.3	74	54.46	32.42	11.76	57.94	-	-	P	V
			4804	15.91	-38.09	54	-	-	-	-	-	-	A	V
														V
														V
														V
														V
														V
														V
														V
													V	



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	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
		(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 :	Yuan Lee and Troye Hsieh	Temperature :	20.1~22.3°C
		Relative Humidity :	54.1~66.9%

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	<p>Site : 03CH11-HY Condition : PEAK_BCE_74 3m 91200_01620_220824 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>	<p>Site : 03CH11-HY Condition : PEAK_F4 3m 91200_01620_220824 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH00 2402MHz	
7	Vertical	Fundamental
Peak	<p>Site : 03CH11-HY Condition : PEAK_BE_74 3m 91200_01620_220824 VERTICAL : RBW:3000.000GHz VBW:3000.000GHz SWT:Auto</p>	<p>Site : 03CH11-HY Condition : PEAK_74 3m 91200_01620_220824 VERTICAL : RBW:3000.000GHz VBW:3000.000GHz SWT:Auto</p>

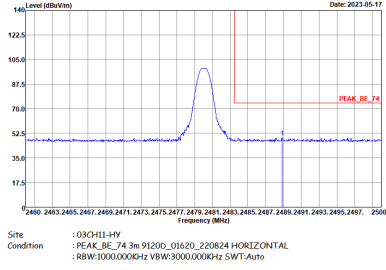
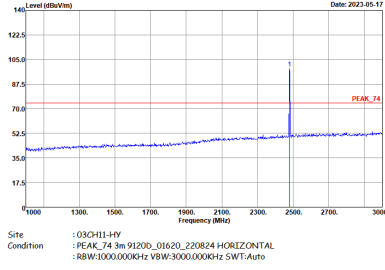


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
7	Horizontal	Fundamental
Peak	<p>Date: 2023-05-17</p> <p>Site : 03CHI-HY Condition : PEAK_BE_74 3m 91200_01620_220824 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>	<p>Date: 2023-05-17</p> <p>Site : 03CHI-HY Condition : PEAK_74 3m 91200_01620_220824 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>
Peak	<p>Date: 2023-05-17</p> <p>Site : 03CHI-HY Condition : PEAK_BE_74 3m 91200_01620_220824 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	
7	Vertical	Fundamental
Peak	<p>Site : 03CHI1-HY Condition : PEAK_BE_74 3m 91200_01620_220824 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>	<p>Site : 03CHI1-HY Condition : PEAK_74 3m 91200_01620_220824 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>
Peak	<p>Site : 03CHI1-HY Condition : PEAK_BE_74 3m 91200_01620_220824 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	
7	Horizontal	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m 91200_01620_220824 HORIZONTAL : RBW:3000.000kHz VBW:3000.000kHz SWT:Auto</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m 91200_01620_220824 HORIZONTAL : RBW:3000.000kHz VBW:3000.000kHz SWT:Auto</p>



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
7	Vertical	Fundamental
Peak	<p>Site: 03CH11-HY Condition: PEAK_BE_74 3m 91200_01620_220824 VERTICAL : RBW:3000.000kHz VBW:3000.000kHz SWT:Auto</p>	<p>Site: 03CH11-HY Condition: PEAK_74 3m 91200_01620_220824 VERTICAL : RBW:3000.000kHz VBW:3000.000kHz SWT:Auto</p>

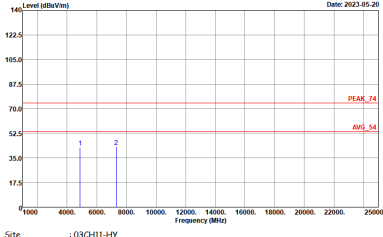
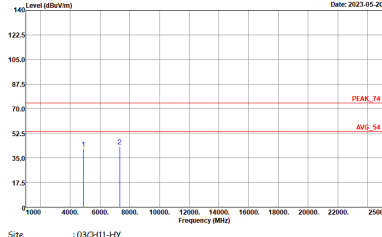


2.4GHz 2400~2483.5MHz

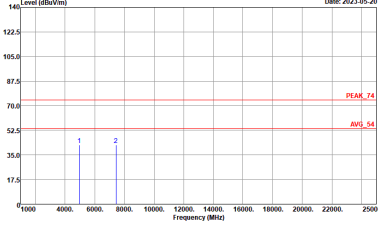
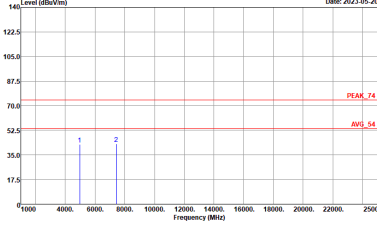
BT (Harmonic @ 3m)

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH00 2402MHz	
7	Horizontal	Vertical
Peak Avg.	<p>Site : 03CH11-HY Condition : PEAK_74 3m 91200_01620_220824 HORIZONTAL</p>	<p>Site : 03CH11-HY Condition : PEAK_74 3m 91200_01620_220824 VERTICAL</p>



BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH39 2441MHz	
7	Horizontal	Vertical
Peak Avg.	 <p>Site : 03CH11-HY Condition : PEAK_74 3m 91200_01620_220824 HORIZONTAL</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m 91200_01620_220824 VERTICAL</p>



BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH78 2480MHz	
7	Horizontal	Vertical
Peak Avg.	 <p>Site : 03CH11-HY Condition : PEAK_74 3m 91200_01620_220824 HORIZONTAL</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m 91200_01620_220824 VERTICAL</p>



Emission below 1GHz
2.4GHz BT (LF)

BT	2.4GHz 2400~2483.5MHz	
ANT	BT LF	
7	Horizontal	Vertical
QP / Peak	<p>Site : 03CH11-HY Condition : QP 3m 2_BILO6_35414_221008 HORIZONTAL</p>	<p>Site : 03CH11-HY Condition : QP 3m 2_BILO6_35414_221008 VERTICAL</p>



2.4GHz 2400~2483.5MHz

BT (Band Edge @ 3m)

BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH00 2402MHz	
8	Horizontal	Fundamental
Peak	<p>Site : 03CH11-HY Condition : PEAK_BE_74 3m 91200_01620_220824 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>	<p>Site : 03CH11-HY Condition : PEAK_74 3m 91200_01620_220824 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto</p>



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH00 2402MHz	
8	Vertical	Fundamental
Peak	<p>Site : 03CH11-HY Condition : PEAK_BE_74 3m 91200_01620_220824 VERTICAL : RBW:3000.000kHz VBW:3000.000kHz SWT:Auto</p>	<p>Site : 03CH11-HY Condition : PEAK_74 3m 91200_01620_220824 VERTICAL : RBW:3000.000kHz VBW:3000.000kHz SWT:Auto</p>



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
8	Horizontal	Fundamental
Peak	<p>Date: 2023-06-02</p> <p>Site : 03CHI1-HY Condition : PEAK_BE_74 3m 91200_01620_220824 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>	<p>Date: 2023-06-02</p> <p>Site : 03CHI1-HY Condition : PEAK_74 3m 91200_01620_220824 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>
Peak	<p>Date: 2023-06-02</p> <p>Site : 03CHI1-HY Condition : PEAK_BE_74 3m 91200_01620_220824 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>	Left blank

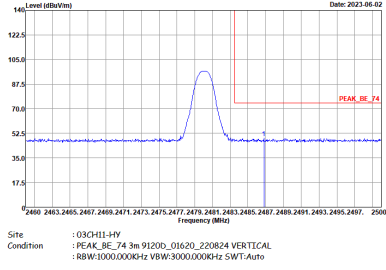
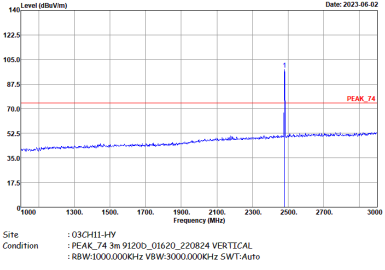


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
8	Vertical	Fundamental
Peak	<p>Site : 03CHI1-HY Condition : PEAK_BE_74 3m 91200_01620_220824 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>	<p>Site : 03CHI1-HY Condition : PEAK_74 3m 91200_01620_220824 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>
Peak	<p>Site : 03CHI1-HY Condition : PEAK_BE_74 3m 91200_01620_220824 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	
8	Horizontal	Fundamental
Peak	<p>Site : 03CH11-HY Condition : PEAK_BE_74 3m 91200_01620_220824 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>	<p>Site : 03CH11-HY Condition : PEAK_74 3m 91200_01620_220824 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto</p>

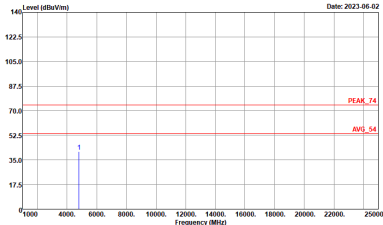
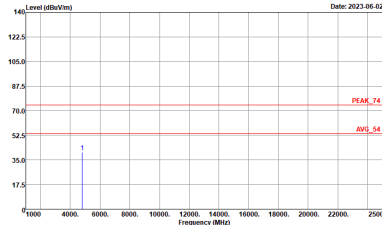


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
8	Vertical	Fundamental
Peak	 <p>Site : 03CH11-HY Condition : PEAK_BE_74 3m 91200_01620_220824 VERTICAL : RBW:3000.000kHz VBW:3000.000kHz SWT:Auto</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m 91200_01620_220824 VERTICAL : RBW:3000.000kHz VBW:3000.000kHz SWT:Auto</p>

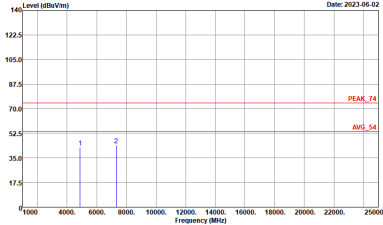
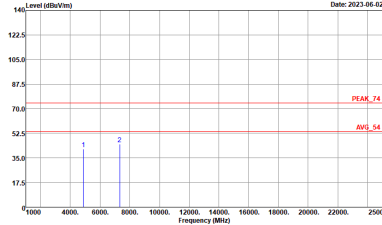


2.4GHz 2400~2483.5MHz

BT (Harmonic @ 3m)

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH00 2402MHz	
8	Horizontal	Vertical
<p>Peak</p> <p>Avg.</p>	 <p>Site : 03CH11-FY Condition : PEAK_74 3m 91200_01620_220824 HORIZONTAL</p>	 <p>Site : 03CH11-FY Condition : PEAK_74 3m 91200_01620_220824 VERTICAL</p>



BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH39 2441MHz	
8	Horizontal	Vertical
<p>Peak</p> <p>Avg.</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m 91200_01620_220824 HORIZONTAL</p>	 <p>Site : 03CH11-HY Condition : PEAK_74 3m 91200_01620_220824 VERTICAL</p>

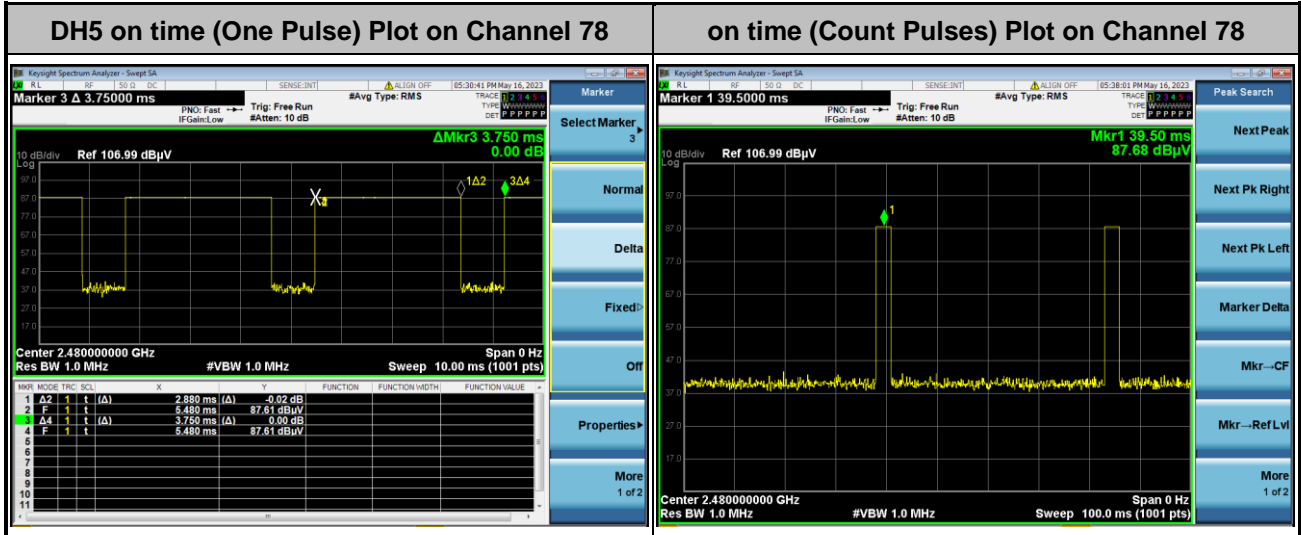


BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH78 2480MHz	
8	Horizontal	Vertical
Peak Avg.	<p>Site : 03CH11-HY Condition : PEAK_74 3m 91200_01620_220824 HORIZONTAL</p>	<p>Site : 03CH11-HY Condition : PEAK_74 3m 91200_01620_220824 VERTICAL</p>



Appendix E. Duty Cycle Plots

<Ant.7>



Note:

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

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

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:

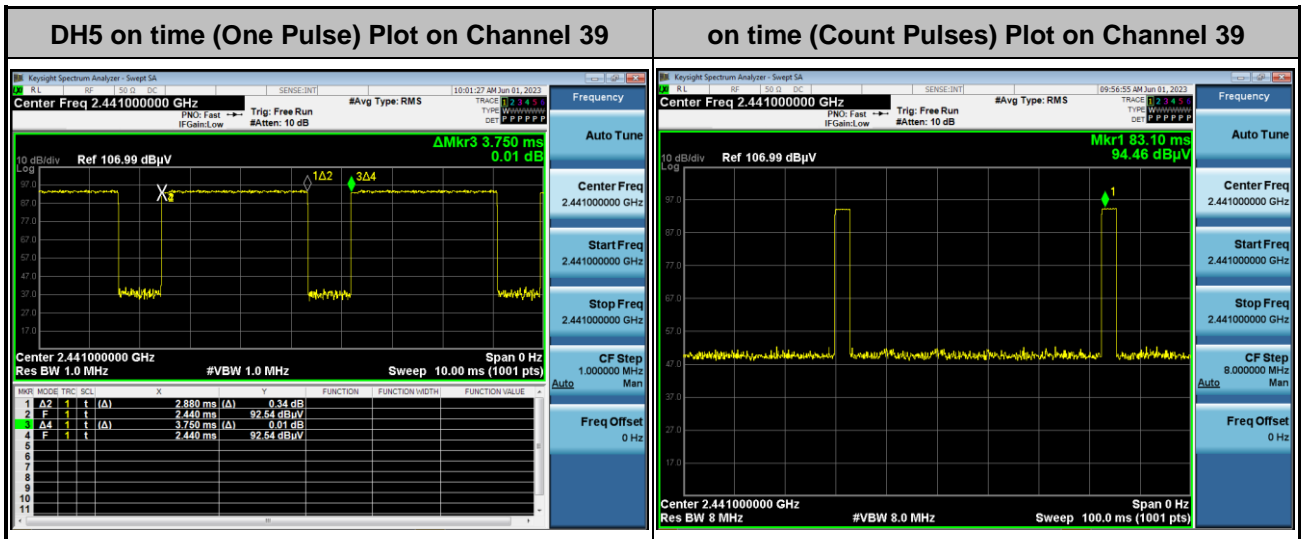
$$2.88 \text{ ms} \times 2 = 5.76 \text{ ms}$$

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.8>



Note:

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

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

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,

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