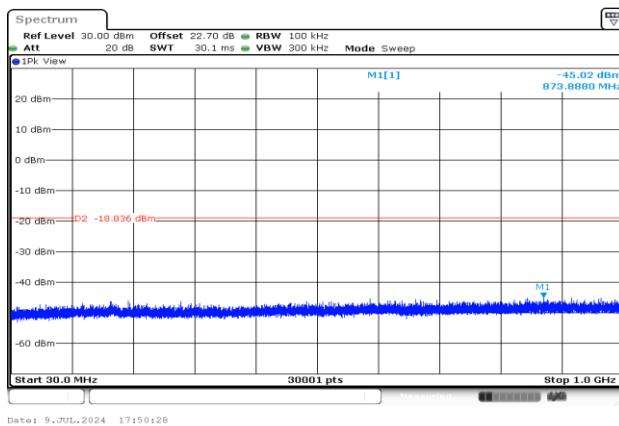


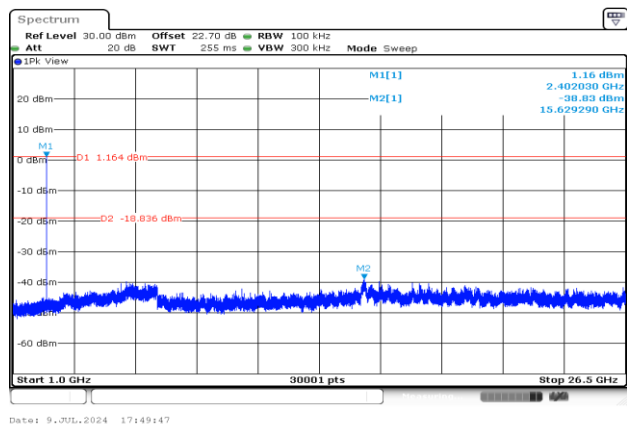


<3Mbps>

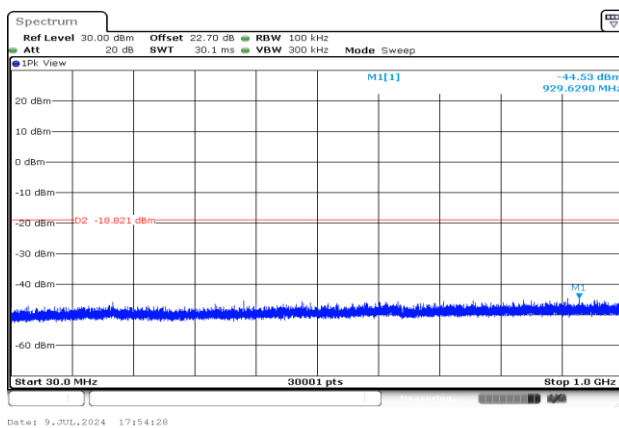
CSE Plot on Low Ch between 30MHz ~ 1 GHz



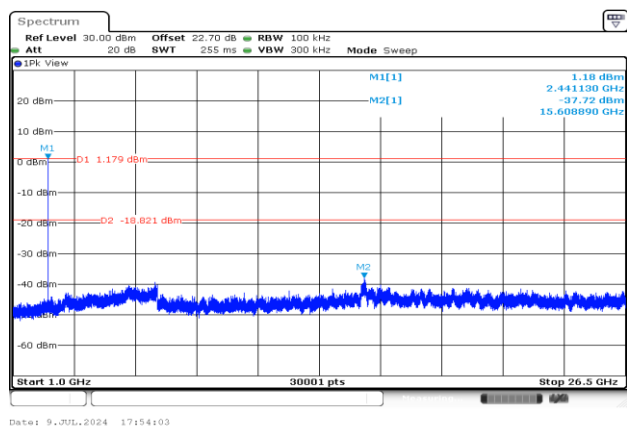
CSE Plot on Low Ch between 1GHz ~ 26.5GHz



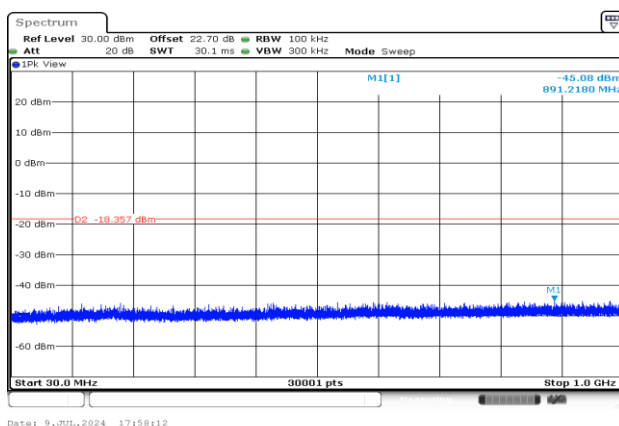
CSE Plot on Mid. Ch between 30MHz ~ 1 GHz



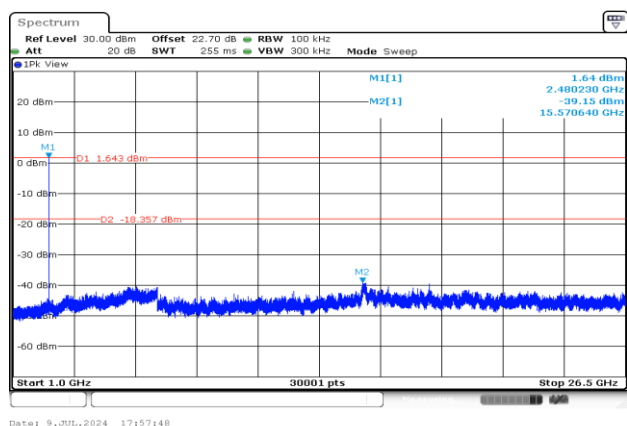
CSE Plot on Mid. Ch between 1GHz ~ 26.5GHz



CSE Plot on High Ch between 30MHz ~ 1 GHz



CSE Plot on High Ch between 1GHz ~ 26.5GHz





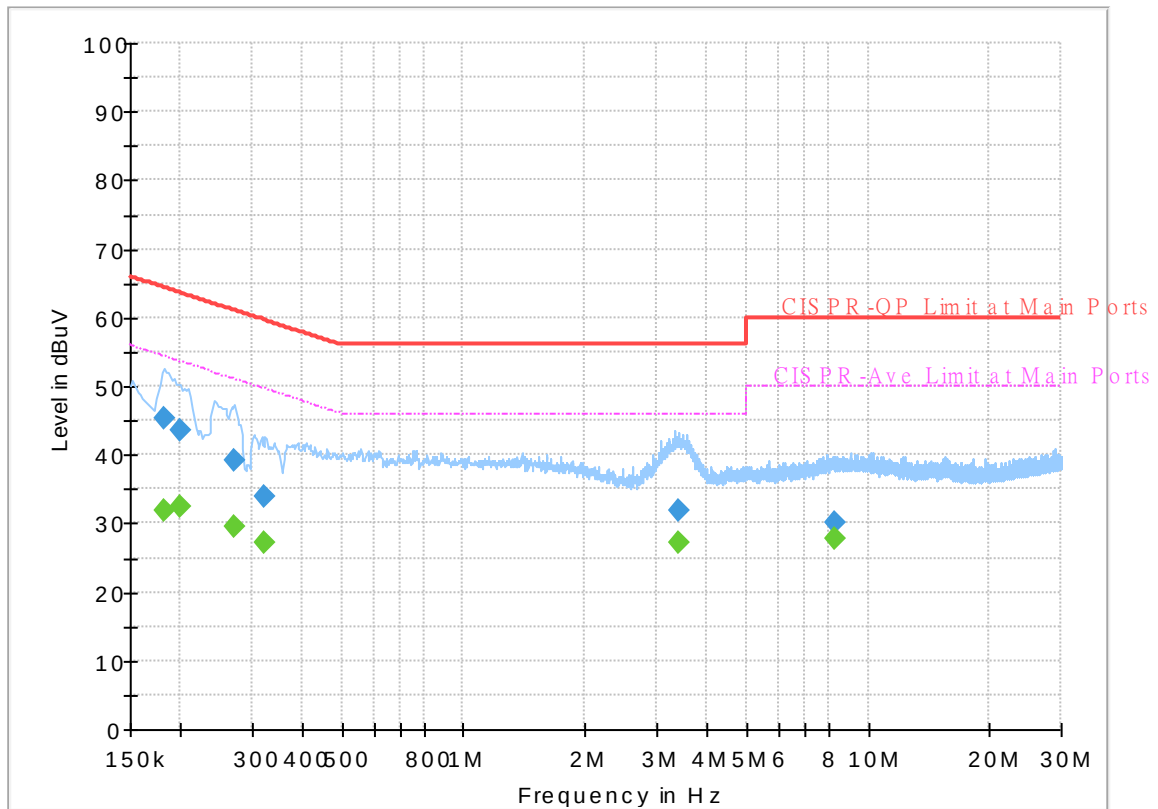
Appendix B. AC Conducted Emission Test Results

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

EUT Information

Report NO : 430824
Test Mode : Mode 1
Test Voltage : 120Vac/60Hz
Phase : Line

Full Spectrum



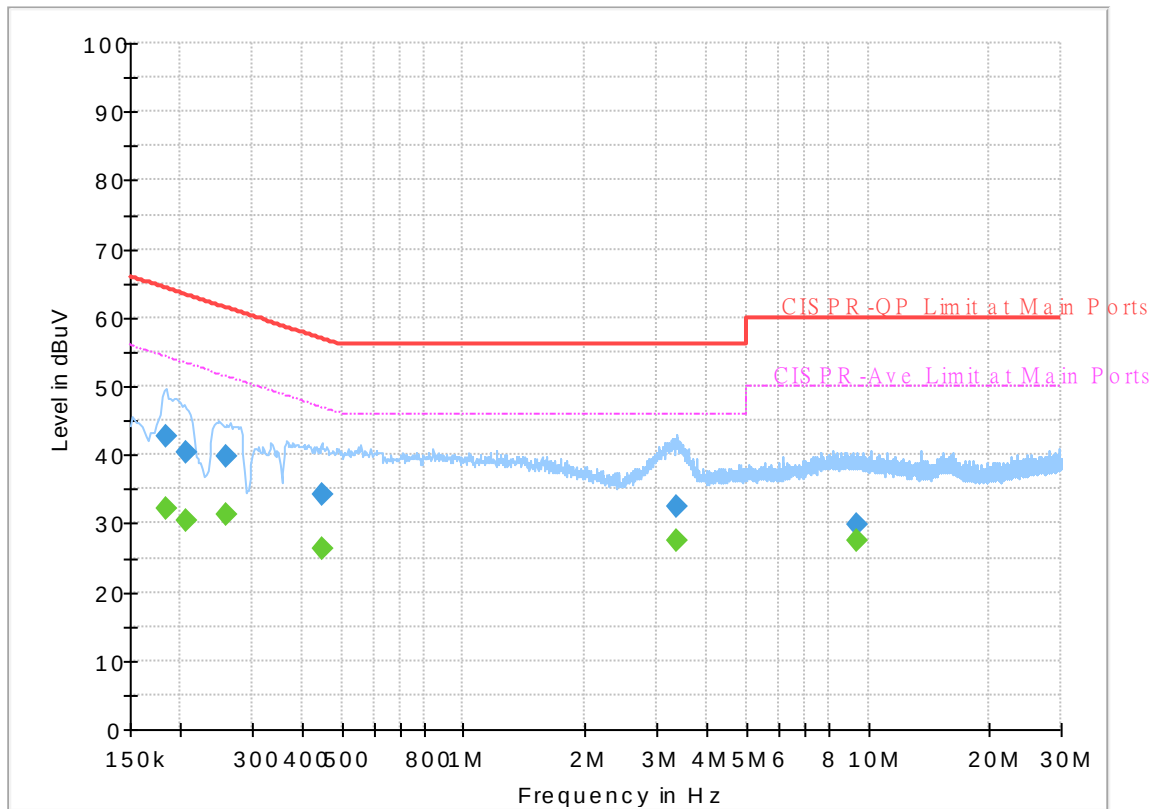
Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.181500	---	31.95	54.42	22.47	L1	OFF	19.8
0.181500	45.35	---	64.42	19.07	L1	OFF	19.8
0.199500	---	32.41	53.63	21.22	L1	OFF	19.8
0.199500	43.43	---	63.63	20.20	L1	OFF	19.8
0.271500	---	29.55	51.07	21.52	L1	OFF	19.8
0.271500	39.16	---	61.07	21.91	L1	OFF	19.8
0.323250	---	27.13	49.62	22.49	L1	OFF	19.8
0.323250	33.96	---	59.62	25.66	L1	OFF	19.8
3.396750	---	27.29	46.00	18.71	L1	OFF	19.9
3.396750	31.93	---	56.00	24.07	L1	OFF	19.9
8.254500	---	27.88	50.00	22.12	L1	OFF	20.2
8.254500	30.13	---	60.00	29.87	L1	OFF	20.2

EUT Information

Report NO : 430824
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)
0.183750	---	32.09	54.31	22.22	N	OFF	19.8
0.183750	42.60	---	64.31	21.71	N	OFF	19.8
0.206250	---	30.29	53.36	23.07	N	OFF	19.8
0.206250	40.25	---	63.36	23.11	N	OFF	19.8
0.260250	---	31.14	51.42	20.28	N	OFF	19.8
0.260250	39.76	---	61.42	21.66	N	OFF	19.8
0.447000	---	26.19	46.93	20.74	N	OFF	19.8
0.447000	34.32	---	56.93	22.61	N	OFF	19.8
3.363000	---	27.51	46.00	18.49	N	OFF	19.9
3.363000	32.48	---	56.00	23.52	N	OFF	19.9
9.345750	---	27.55	50.00	22.45	N	OFF	20.3
9.345750	29.77	---	60.00	30.23	N	OFF	20.3



Appendix C. Radiated Spurious Emission

Test Engineer :	Jesse Wang, Stan Hsieh and Ken Wu	Temperature :	23.5~26.5°C
		Relative Humidity :	42.8~67.2%

<Ant. 6>

2.4GHz 2400~2483.5MHz

BT (Band Edge @ 3m)

BT	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BT CH00 2402MHz		2326.905	44.73	-29.27	74	38.63	32.1	8.35	34.35	189	148	P	H
		2326.905	19.97	-34.03	54	-	-	-	-	-	-	A	H
	*	2402	96.94	-	-	90.78	32	8.47	34.31	189	148	P	H
	*	2402	96.94	-	-	-	-	-	-	-	-	A	H
													H
													H
		2322.81	44.74	-29.26	74	38.65	32.1	8.34	34.35	242	0	P	V
		2322.81	44.74	-9.26	54	-	-	-	-	-	-	A	V
	*	2402	95.22	-	-	89.06	32	8.47	34.31	242	0	P	V
	*	2402	95.22	-	-	-	-	-	-	-	-	A	V
													V
													V
BT CH 39 2441MHz		2361.1	44.74	-29.26	74	38.68	31.99	8.4	34.33	194	149	P	H
		2361.1	19.98	-34.02	54	-	-	-	-	-	-	A	H
	*	2441	97.32	-	-	91.17	31.91	8.54	34.3	194	149	P	H
	*	2441	72.56	-	-	-	-	-	-	-	-	A	H
		2492.79	45.59	-28.41	74	39	32.23	8.63	34.27	194	149	P	H
		2492.79	20.83	-33.17	54	-	-	-	-	-	-	A	H
		2389.94	47.79	-26.21	74	41.66	32	8.45	34.32	207	0	P	V
		2389.94	23.03	-30.97	54	-	-	-	-	-	-	A	V
	*	2441	98.11	-	-	91.96	31.91	8.54	34.3	207	0	P	V
	*	2441	73.35	-	-	-	-	-	-	-	-	A	V
		2497.41	44.72	-29.28	74	38.08	32.27	8.64	34.27	207	0	P	V
		2497.41	19.96	-34.04	54	-	-	-	-	-	-	A	V



BT CH 78 2480MHz	*	2480	96.74	-	-	90.31	32.1	8.61	34.28	205	150	P	H
	*	2480	71.98	-	-	-	-	-	-	-	-	A	H
		2489.24	45.86	-28.14	74	39.32	32.19	8.62	34.27	205	150	P	H
		2489.24	21.1	-32.9	54	-	-	-	-	-	-	A	H
													H
													H
	*	2480	98.91	-	-	92.48	32.1	8.61	34.28	253	360	P	V
	*	2480	74.15	-	-	-	-	-	-	-	-	A	V
		2488.12	45.2	-28.8	74	38.68	32.18	8.62	34.28	253	360	P	V
		2488.12	20.44	-33.56	54	-	-	-	-	-	-	A	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.												

**2.4GHz 2400~2483.5MHz****BT (Harmonic @ 3m)**

BT	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	41.7	-32.3	74	53.62	34.2	13.07	59.19	-	-	P	H
		4804	16.94	-37.06	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4804	43.67	-30.33	74	55.59	34.2	13.07	59.19	-	-	P	V
		4804	18.91	-35.09	54	-	-	-	-	-	-	A	V
													V
													V
													V
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													V
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													V



BT	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	41.95	-32.05	74	53.63	34.26	13.07	59.01	-	-	P	H
		4882	17.19	-36.81	54	-	-	-	-	-	-	A	H
		7323	42.89	-31.11	74	49.53	35.8	15.3	57.74	-	-	P	H
		7323	18.13	-35.87	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
		4882	42.81	-31.19	74	54.49	34.26	13.07	59.01	-	-	P	V
		4882	18.05	-35.95	54	-	-	-	-	-	-	A	V
		7323	43.64	-30.36	74	50.28	35.8	15.3	57.74	-	-	P	V
		7323	18.88	-35.12	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

[illegible]

Emission below 1GHz

2.4GHz BT (LF)

BT	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz BT LF		51.87	23.26	-16.74	40	38.04	13.64	1.5	29.92	-	-	P	H
		93.18	27.07	-16.43	43.5	39.97	14.99	2.01	29.9	-	-	P	H
		264.09	27.47	-18.53	46	34.52	19.68	3.09	29.82	-	-	P	H
		566	27.87	-18.13	46	27.88	25.3	4.43	29.74	-	-	P	H
		737.5	31.81	-14.19	46	29.49	26.79	5.04	29.51	-	-	P	H
		953.1	34.4	-11.6	46	28.06	29.22	5.77	28.65	-	-	P	H
													H
													H
													H
													H
													H
													H
		51.6	33.46	-6.54	40	48.12	13.77	1.49	29.92	-	-	P	V
		93.99	31.7	-11.8	43.5	44.53	15.05	2.01	29.89	-	-	P	V
		265.71	29.89	-16.11	46	37.16	19.45	3.1	29.82	-	-	P	V
		731.2	32.12	-13.88	46	30.15	26.48	5.02	29.53	-	-	P	V
		888.7	33.64	-12.36	46	29.04	27.89	5.62	28.91	-	-	P	V
		955.9	34.12	-11.88	46	27.32	29.63	5.79	28.62	-	-	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.												



<Ant 7>

2.4GHz 2400~2483.5MHz

BT (Band Edge @ 3m)

BT	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BT CH00 2402MHz		2330.265	45.25	-28.75	74	39.14	32.1	8.35	34.34	100	218	P	H
		2330.265	20.49	-33.51	54	-	-	-	-	-	-	A	H
	*	2402	98.61	-	-	92.45	32	8.47	34.31	100	218	P	H
	*	2402	73.85	-	-	-	-	-	-	-	-	A	H
													H
													H
		2352.315	45.58	-28.42	74	39.44	32.08	8.39	34.33	107	4	P	V
		2352.315	20.82	-33.18	54	-	-	-	-	-	-	A	V
	*	2402	100.56	-	-	94.4	32	8.47	34.31	107	4	P	V
	*	2402	75.8	-	-	-	-	-	-	-	-	A	V
													V
													V
BT CH 39 2441MHz		2365.16	45.2	-28.8	74	39.17	31.95	8.41	34.33	100	214	P	H
		2365.16	20.44	-33.56	54	-	-	-	-	-	-	A	H
	*	2441	96.5	-	-	90.35	31.91	8.54	34.3	100	214	P	H
	*	2441	71.74	-	-	-	-	-	-	-	-	A	H
		2495.45	45.88	-28.12	74	39.27	32.25	8.63	34.27	100	214	P	H
		2495.45	21.12	-32.88	54	-	-	-	-	-	-	A	H
		2337.02	47.52	-26.48	74	41.4	32.1	8.36	34.34	130	0	P	V
		2337.02	22.76	-31.24	54	-	-	-	-	-	-	A	V
	*	2441	99.85	-	-	93.7	31.91	8.54	34.3	130	0	P	V
	*	2441	75.09	-	-	-	-	-	-	-	-	A	V
		2495.52	45.46	-28.54	74	38.84	32.26	8.63	34.27	130	0	P	V
		2495.52	20.7	-33.3	54	-	-	-	-	-	-	A	V



BT CH 78 2480MHz	*	2480	95.27	-	-	88.84	32.1	8.61	34.28	201	214	P	H
	*	2480	70.51	-	-	-	-	-	-	-	-	A	H
		2490.56	45.02	-28.98	74	38.46	32.21	8.62	34.27	201	214	P	H
		2490.56	20.26	-33.74	54	-	-	-	-	-	-	A	H
													H
													H
	*	2480	99.63	-	-	93.2	32.1	8.61	34.28	105	10	P	V
	*	2480	74.87	-	-	-	-	-	-	-	-	A	V
		2492.24	45.15	-28.85	74	38.57	32.22	8.63	34.27	105	10	P	V
		2492.24	20.39	-33.61	54	-	-	-	-	-	-	A	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.												

**2.4GHz 2400~2483.5MHz****BT (Harmonic @ 3m)**

BT	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	41.83	-32.17	74	53.75	34.2	13.07	59.19	-	-	P	H
		4804	17.07	-36.93	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4804	42.24	-31.76	74	54.16	34.2	13.07	59.19	-	-	P	V
		4804	17.48	-36.52	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V
													V
													V
													V
													V



BT	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	42.52	-31.48	74	54.2	34.26	13.07	59.01	-	-	P	H
		4882	17.76	-36.24	54	-	-	-	-	-	-	A	H
		7323	42.54	-31.46	74	49.18	35.8	15.3	57.74	-	-	P	H
		7323	17.78	-36.22	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
		4882	42.83	-31.17	74	54.51	34.26	13.07	59.01	-	-	P	V
		4882	18.07	-35.93	54	-	-	-	-	-	-	A	V
		7323	43.37	-30.63	74	50.01	35.8	15.3	57.74	-	-	P	V
		7323	18.61	-35.39	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V
													V
													V
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													V

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Emission below 1GHz

2.4GHz BT (LF)

BT	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz BT LF		51.87	22.83	-17.17	40	37.61	13.64	1.5	29.92	-	-	P	H
		92.64	22.71	-20.79	43.5	35.67	14.94	2	29.9	-	-	P	H
		264.9	28.34	-17.66	46	35.51	19.56	3.09	29.82	-	-	P	H
		743.8	29.91	-16.09	46	27.07	27.26	5.07	29.49	-	-	P	H
		823.6	31.12	-14.88	46	27.82	27.17	5.36	29.23	-	-	P	H
		957.3	33.31	-12.69	46	26.45	29.68	5.79	28.61	-	-	P	H
													H
													H
													H
													H
													H
													H
		52.68	33.04	-6.96	40	48.2	13.25	1.51	29.92	-	-	P	V
		92.37	32.48	-11.02	43.5	45.46	14.92	2	29.9	-	-	P	V
		265.44	25.68	-20.32	46	32.92	19.49	3.09	29.82	-	-	P	V
		549.9	26.36	-19.64	46	27.09	24.62	4.36	29.71	-	-	P	V
		779.5	30.11	-15.89	46	27.12	27.16	5.19	29.36	-	-	P	V
		954.5	32.91	-13.09	46	26.35	29.42	5.78	28.64	-	-	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	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.
					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

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 :	Jesse Wang, Stan Hsieh and Ken Wu	Temperature :	23.5~26.5°C
		Relative Humidity :	42.8~67.2%

Note symbol

-L	Low channel location
-R	High channel location

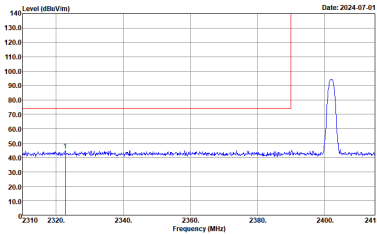
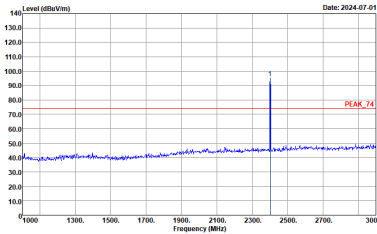


2.4GHz 2400~2483.5MHz

BT (Band Edge @ 3m)

BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH00 2402MHz	
6	Horizontal	Fundamental
Peak	140 Level (dBm/Hz) Date: 2024-07-01 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto	140 Level (dBm/Hz) Date: 2024-07-01 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH00 2402MHz	
6	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : : PEAK_RE_74 3m HF ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH07-HY Condition : : PEAK_RE_74 3m HF ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
6	Horizontal	Fundamental
Peak	Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto	Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto
	Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto	Left blank

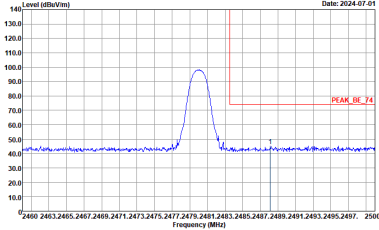
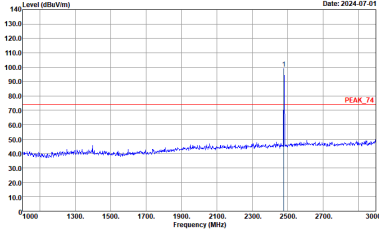


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
6	Vertical	Fundamental
Peak	Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto	Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto
	Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto	Left blank



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
6	Horizontal	Fundamental
Peak	Level (dBuV/m) Date: 2024-07-01 Frequency (MHz) Site : 03CH07-HY Condition : : PEAK_BE_74 3m HF ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto	Level (dBuV/m) Date: 2024-07-01 Frequency (MHz) Site : 03CH07-HY Condition : : PEAK_74 3m HF ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
6	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto	 Site : 03CH07-HY Condition : PEAK_74 3m HF ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto



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.	Level (dBuV/m) Date: 2024-07-02 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 HORIZONTAL	Level (dBuV/m) Date: 2024-07-02 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 VERTICAL



BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH39 2441MHz	
6	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2024.07.02 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 HORIZONTAL	Level (dBuV/m) Date: 2024.07.02 Site : 03CH07-HY Condition : PEAK_74 3m HF ANT_00075962 VERTICAL



BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH78 2480MHz	
6	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2024.07.02 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 HORIZONTAL	Level (dBuV/m) Date: 2024.07.02 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 VERTICAL



Emission below 1GHz

2.4GHz BT (LF)

BT	2.4GHz 2400~2483.5MHz	
ANT	BT LF	
6	Horizontal	Vertical
QP / Peak	Level (dBuV/m) Date: 2024-07-04 Site : 03CH07-HY Condition : QP 3m LF-ANT-35419(6)_H HORIZONTAL	Level (dBuV/m) Date: 2024-07-04 Site : 03CH07-HY Condition : QP 3m LF-ANT-35419(6)_H VERTICAL

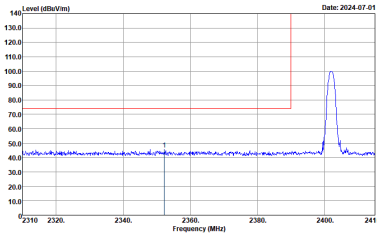
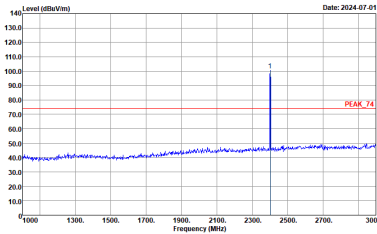


2.4GHz 2400~2483.5MHz

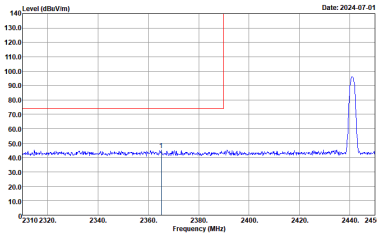
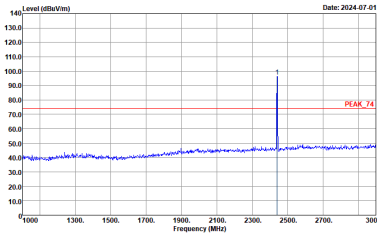
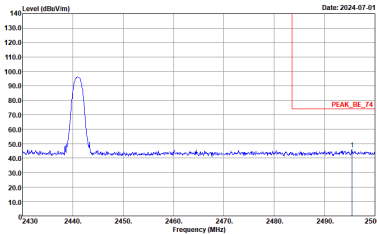
BT (Band Edge @ 3m)

BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH00 2402MHz	
7	Horizontal	Fundamental
Peak	Level (dBm/1m) Date: 2024-07-01 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto	Level (dBm/1m) Date: 2024-07-01 Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH00 2402MHz	
7	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : : PEAK_RE_74 3m HF ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto	 Site : 03CH07-HY Condition : : PEAK_RE_74 3m HF ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
7	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto
Peak	 Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto	Left blank

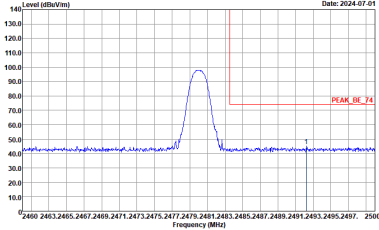
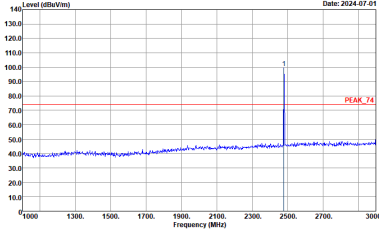


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH39 2441MHz	
7	Vertical	Fundamental
Peak	Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto	Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto
	Site : 03CH07-HY Condition : PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto	Left blank



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
7	Horizontal	Fundamental
Peak	Level (dBuV/m) Date: 2024-07-01 PEAK_BE_74 Frequency (MHz) Site : 03CH07-HY Condition : PEAK_BE_74 3m HF ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto	Level (dBuV/m) Date: 2024-07-01 PEAK_74 Frequency (MHz) Site : 03CH07-HY Condition : PEAK_74 3m HF ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BT CH78 2480MHz	
7	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_74 3m HF ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto	 Site : 03CH07-HY Condition : PEAK_74 3m HF ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWTAuto



2.4GHz 2400~2483.5MHz

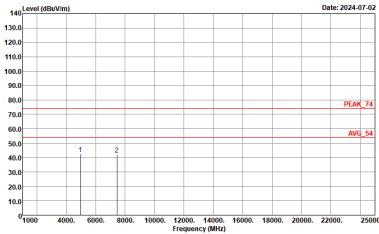
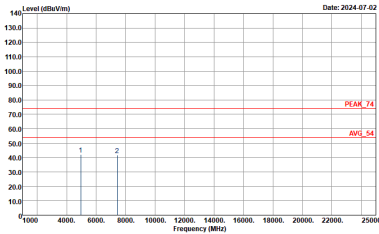
BT (Harmonic @ 3m)

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH00 2402MHz	
7	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2024-07-02 Site : 03CH02-HY Condition : PEAK_74 3m HF_ANT_00075962 HORIZONTAL	Level (dBuV/m) Date: 2024-07-02 Site : 03CH02-HY Condition : PEAK_74 3m HF_ANT_00075962 VERTICAL



BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH39 2441MHz	
7	Horizontal	Vertical
Peak Avg.	Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 HORIZONTAL	Site : 03CH07-HY Condition : PEAK_74 3m HF_ANT_00075962 VERTICAL



BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BT CH78 2480MHz	
7	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK_78 3m HF_ANT_00075962 HORIZONTAL - - - - -	 Site : 03CH07-HY Condition : PEAK_78 3m HF_ANT_00075962 VERTICAL - - - - -



Emission below 1GHz

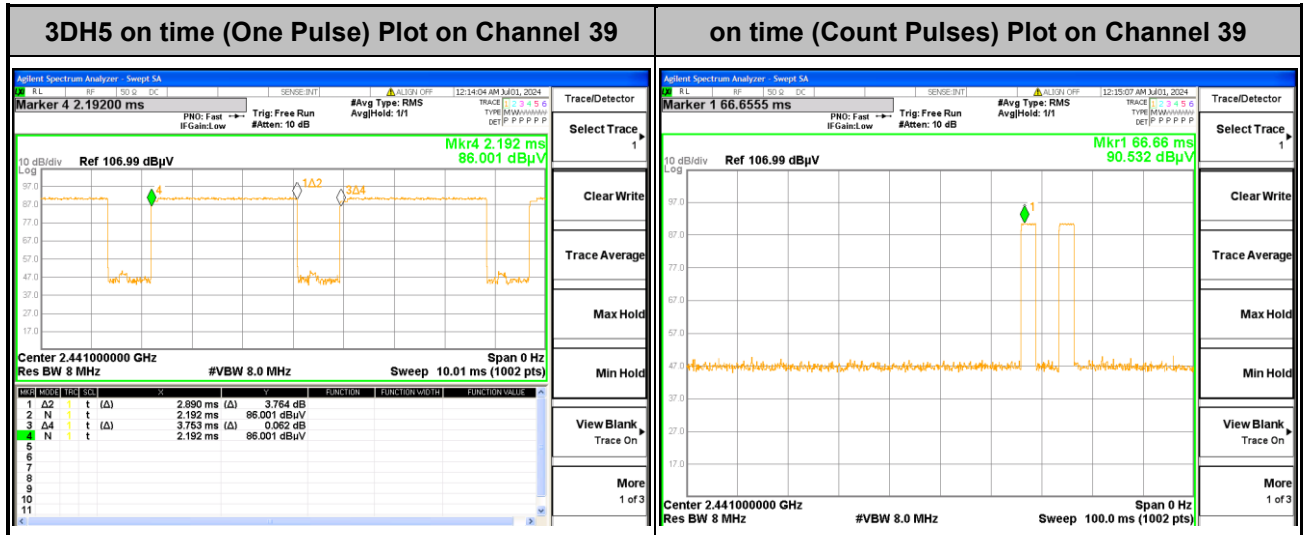
2.4GHz BT (LF)

BT	2.4GHz 2400~2483.5MHz	
ANT	BT LF	
7	Horizontal	Vertical
QP / Peak	Level (dBuV/m) Date: 2024-07-04 Site : 03CH07-HY Condition : QP 3m LF-ANT-35419(S)_H HORIZONTAL	Level (dBuV/m) Date: 2024-07-04 Site : 03CH07-HY Condition : QP 3m LF-ANT-35419(S)_H VERTICAL



Appendix E. Duty Cycle Plots

<Ant. 6>



Note:

1. Worst case Duty cycle = on time/100 milliseconds = $2 * 2.89 / 100 = 5.78 \%$
2. Worst case Duty cycle correction factor = $20 * \log(\text{Duty cycle}) = -24.76 \text{ dB}$
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

$$2.89 \text{ ms} \times 20 \text{ channels} = 57.8 \text{ ms}$$

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. $[100 \text{ ms} / 57.8 \text{ ms}] = 2 \text{ hops}$

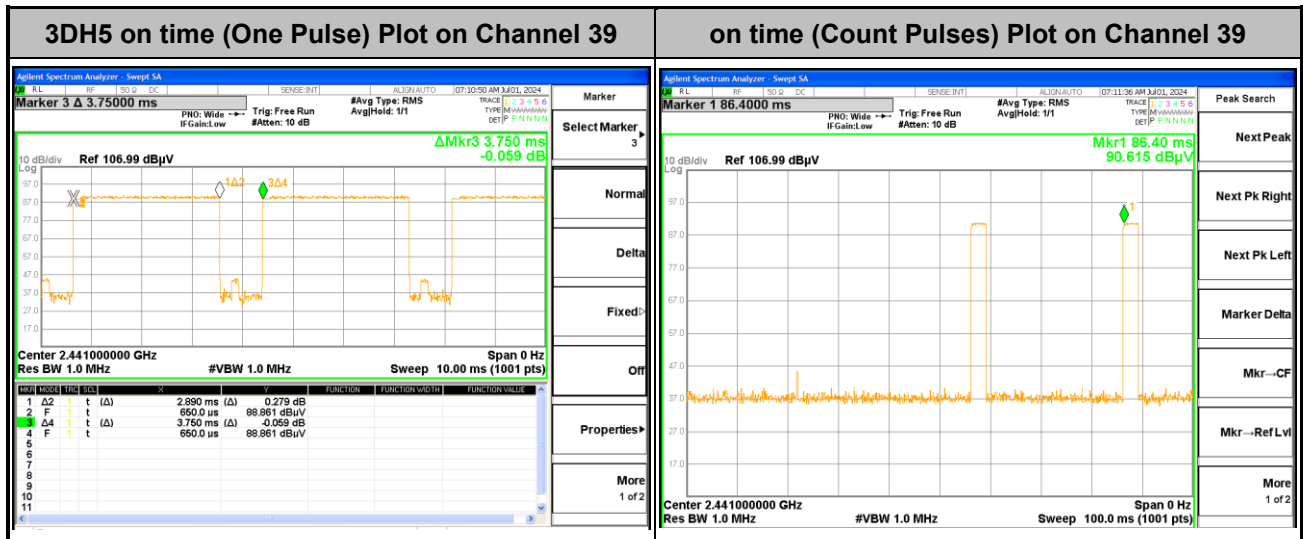
Thus, the maximum possible ON time:

$$2.89 \text{ ms} \times 2 = 5.78 \text{ ms}$$

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

$$20 \times \log(5.78 \text{ ms}/100 \text{ ms}) = -24.76 \text{ dB}$$

<Ant. 7>



Note:

1. Worst case Duty cycle = on time/100 milliseconds = $2 \times 2.89 / 100 = 5.78 \%$
2. Worst case Duty cycle correction factor = $20 \times \log(\text{Duty cycle}) = -24.76 \text{ dB}$
3. 3DH5 has the highest duty cycle worst case and is reported.

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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.

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