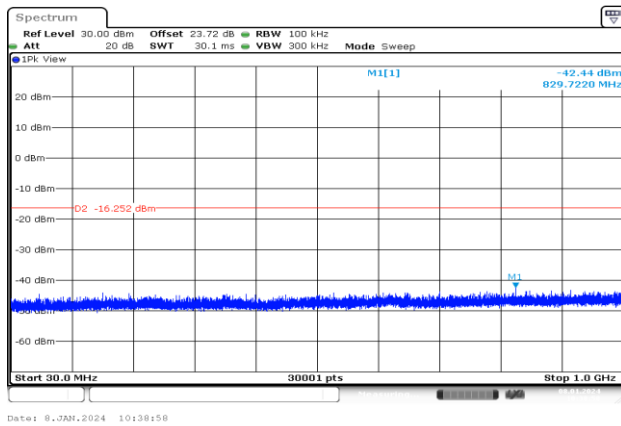


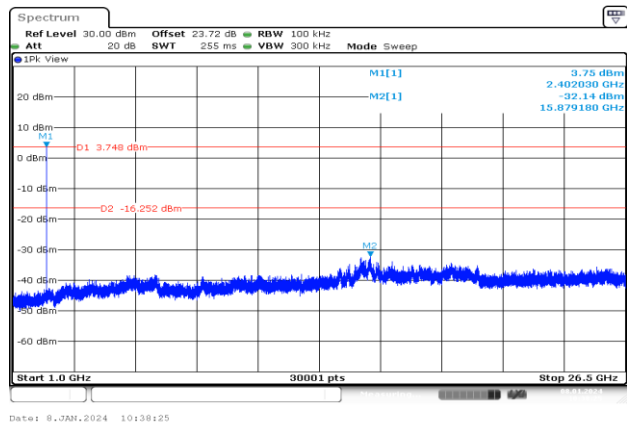


<2Mbps>

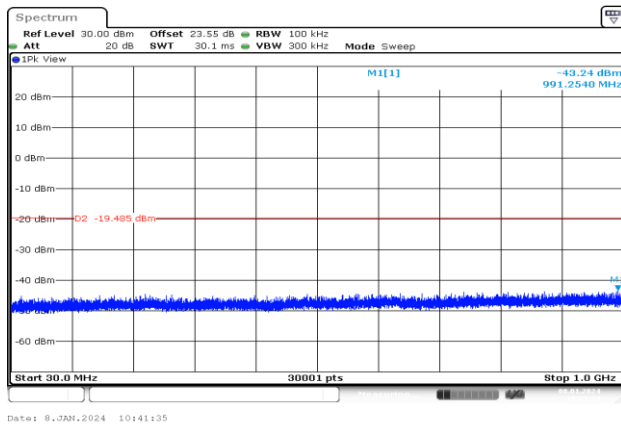
CSE Plot on Low Ch between 30MHz ~ 1 GHz



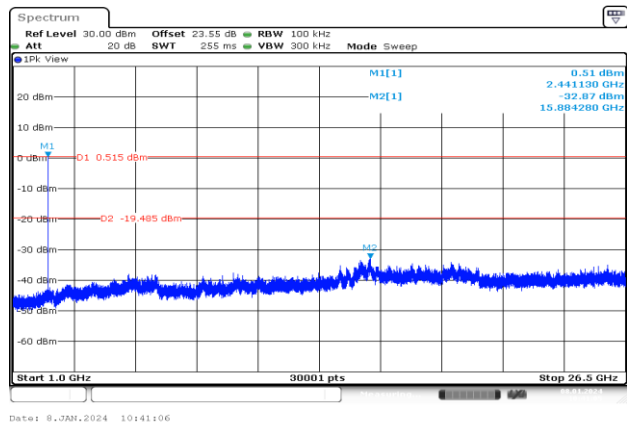
CSE Plot on Low Ch between 1GHz ~ 26.5GHz



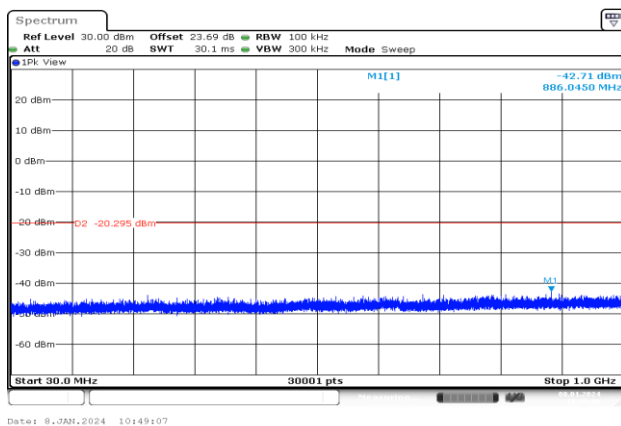
CSE Plot on Mid. Ch between 30MHz ~ 1 GHz



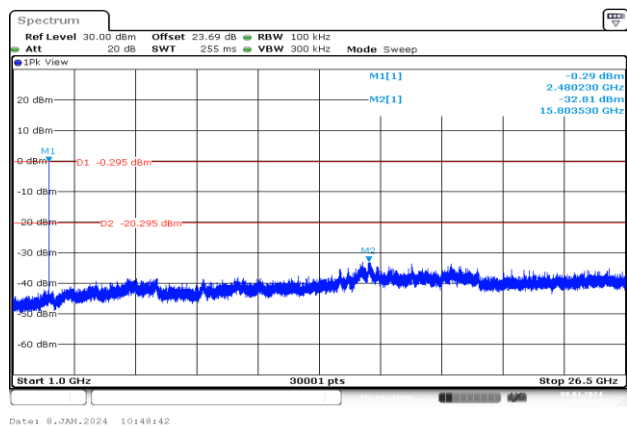
CSE Plot on Mid. Ch between 1GHz ~ 26.5GHz



CSE Plot on High Ch between 30MHz ~ 1 GHz



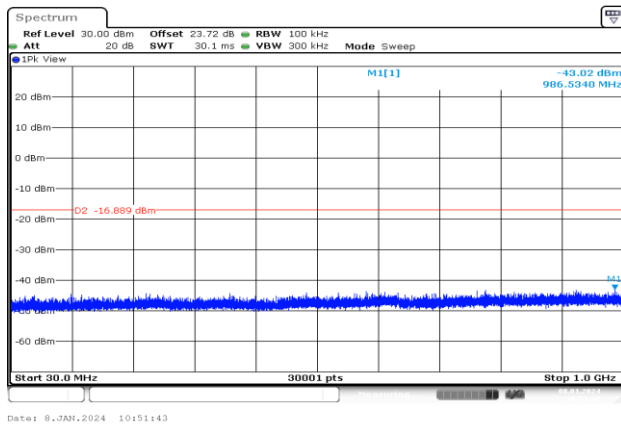
CSE Plot on High Ch between 1GHz ~ 26.5GHz



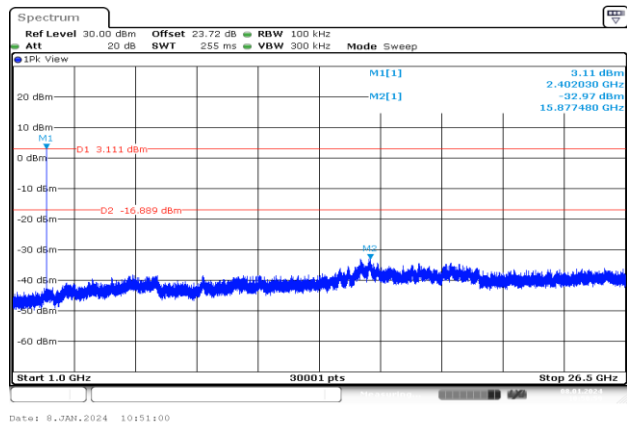


<3Mbps>

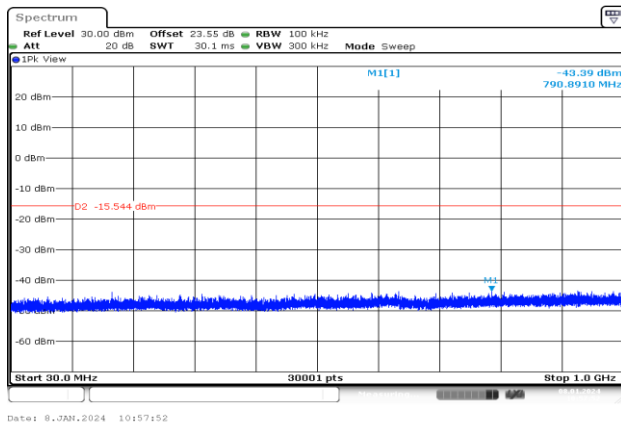
CSE Plot on Low Ch between 30MHz ~ 1 GHz



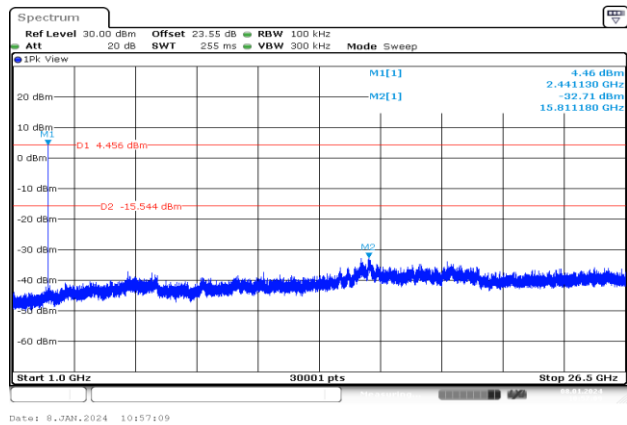
CSE Plot on Low Ch between 1GHz ~ 26.5GHz



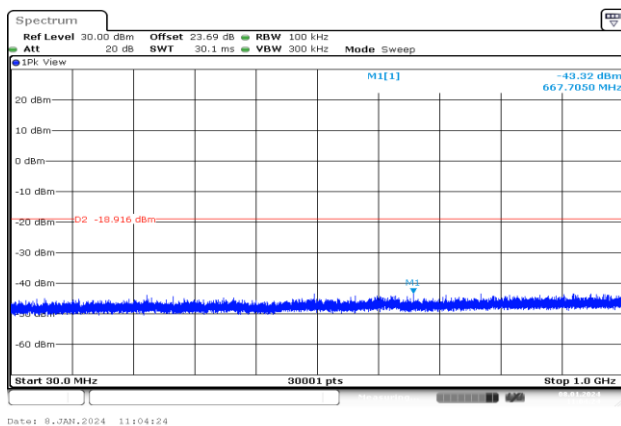
CSE Plot on Mid. Ch between 30MHz ~ 1 GHz



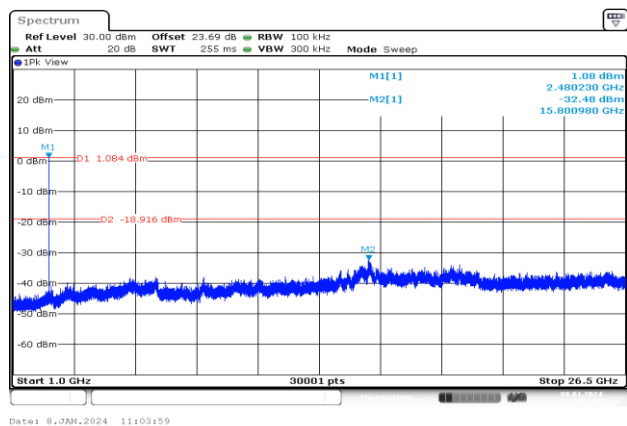
CSE Plot on Mid. Ch between 1GHz ~ 26.5GHz



CSE Plot on High Ch between 30MHz ~ 1 GHz



CSE Plot on High Ch between 1GHz ~ 26.5GHz





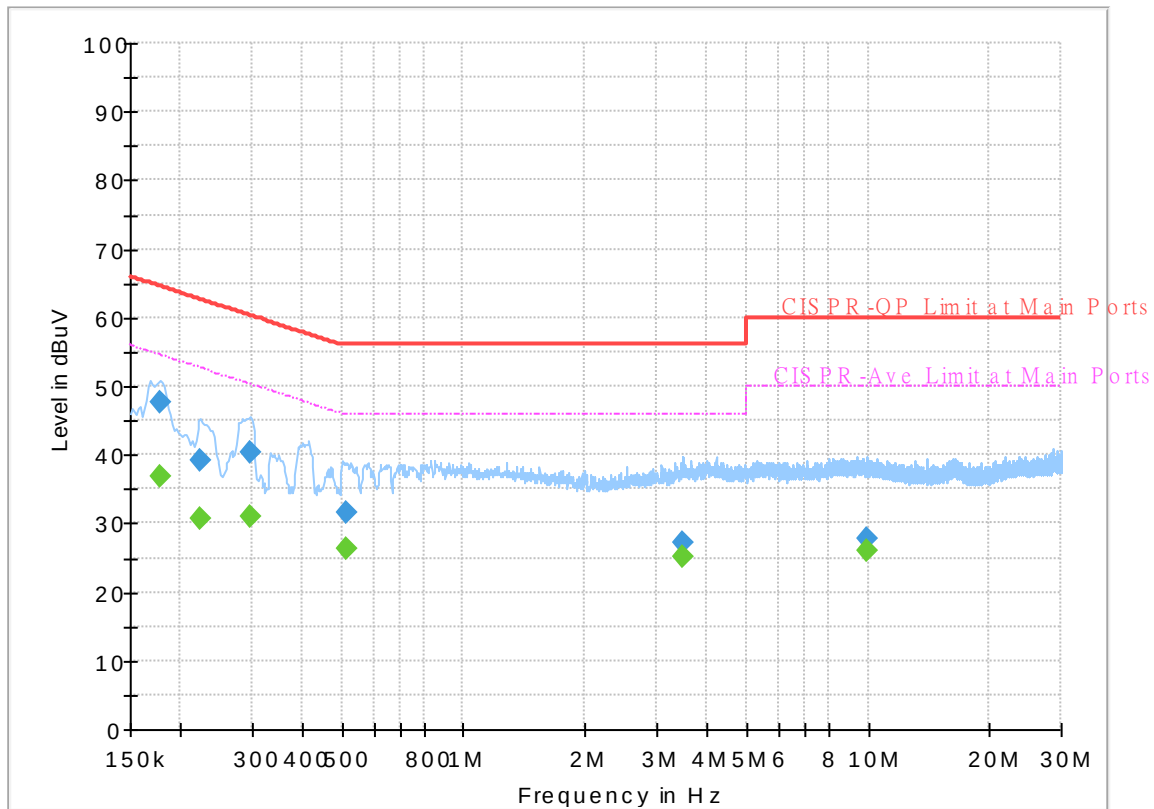
Appendix B. AC Conducted Emission Test Results

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

EUT Information

Report NO : 3D0601
Test Mode : Mode 1
Test Voltage : 120Vac/60Hz
Phase : Line

Full Spectrum



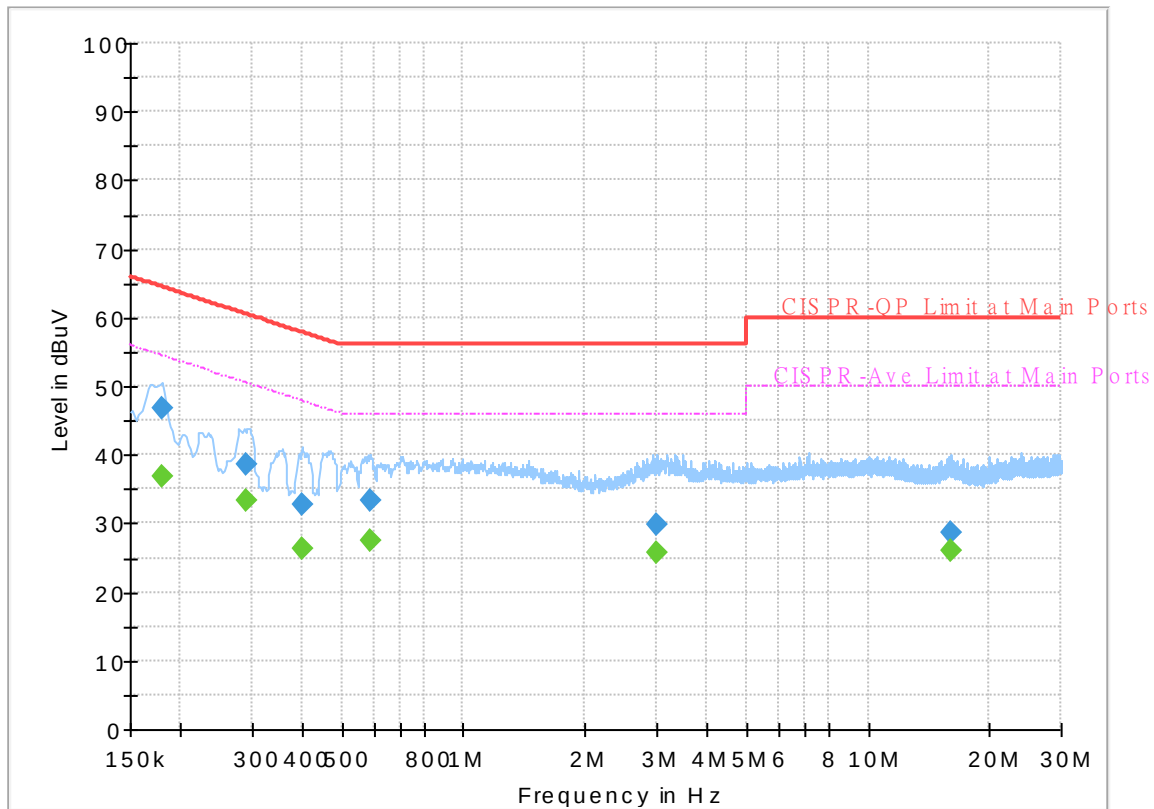
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.177000	---	36.92	54.63	17.71	L1	OFF	19.9
0.177000	47.71	---	64.63	16.92	L1	OFF	19.9
0.224250	---	30.70	52.66	21.96	L1	OFF	19.9
0.224250	39.25	---	62.66	23.41	L1	OFF	19.9
0.298500	---	31.00	50.28	19.28	L1	OFF	19.9
0.298500	40.22	---	60.28	20.06	L1	OFF	19.9
0.514500	---	26.26	46.00	19.74	L1	OFF	19.9
0.514500	31.65	---	56.00	24.35	L1	OFF	19.9
3.482250	---	25.11	46.00	20.89	L1	OFF	20.0
3.482250	27.14	---	56.00	28.86	L1	OFF	20.0
9.912750	---	26.14	50.00	23.86	L1	OFF	20.2
9.912750	27.89	---	60.00	32.11	L1	OFF	20.2

EUT Information

Report NO : 3D0601
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)
0.179250	---	36.73	54.52	17.79	N	OFF	19.9
0.179250	46.71	---	64.52	17.81	N	OFF	19.9
0.291750	---	33.20	50.47	17.27	N	OFF	19.9
0.291750	38.63	---	60.47	21.84	N	OFF	19.9
0.397500	---	26.39	47.91	21.52	N	OFF	19.9
0.397500	32.84	---	57.91	25.07	N	OFF	19.9
0.591000	---	27.52	46.00	18.48	N	OFF	19.9
0.591000	33.33	---	56.00	22.67	N	OFF	19.9
3.007500	---	25.71	46.00	20.29	N	OFF	20.0
3.007500	29.92	---	56.00	26.08	N	OFF	20.0
16.026000	---	26.08	50.00	23.92	N	OFF	20.4
16.026000	28.62	---	60.00	31.38	N	OFF	20.4



Appendix C. Radiated Spurious Emission

Test Engineer :	John Chuang, David Dai, and Howard Huang	Temperature :	19.3~23.4°C
		Relative Humidity :	65.9~70.3%

<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		2360.085	40.18	-33.82	74	40.73	27.14	8.54	36.23	382	0	P	H
		2360.085	15.39	-38.61	54	-	-	-	-	-	-	A	H
	*	2402	99.62	-	-	99.94	27.31	8.62	36.25	382	0	P	H
	*	2402	74.83	-	-	-	-	-	-	-	-	A	H
													H
		2310.735	39.85	-34.15	74	40.52	27.1	8.45	36.22	239	1	P	V
		2310.735	15.06	-38.94	54	-	-	-	-	-	-	A	V
	*	2402	101.78	-	-	102.1	27.31	8.62	36.25	239	1	P	V
	*	2402	76.99	-	-	-	-	-	-	-	-	A	V
													V
BT CH 39 2441MHz		2362.92	39.01	-34.99	74	39.54	27.15	8.55	36.23	294	323	P	H
		2362.92	14.22	-39.78	54	-	-	-	-	-	-	A	H
	*	2441	97.33	-	-	97.43	27.46	8.7	36.26	294	323	P	H
	*	2441	72.54	-	-	-	-	-	-	-	-	A	H
		2484.95	39.52	-34.48	74	39.36	27.64	8.79	36.27	294	323	P	H
		2484.95	14.73	-39.27	54	-	-	-	-	-	-	A	H
		2387.42	38.95	-35.05	74	39.34	27.25	8.6	36.24	297	6	P	V
		2387.42	14.16	-39.84	54	-	-	-	-	-	-	A	V
	*	2441	101.48	-	-	101.58	27.46	8.7	36.26	297	6	P	V
	*	2441	76.69	-	-	-	-	-	-	-	-	A	V
		2487.33	40.09	-33.91	74	39.93	27.65	8.79	36.28	297	6	P	V
		2487.33	15.3	-38.7	54	-	-	-	-	-	-	A	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 78 2480MHz	*	2480	98.39	-	-	98.26	27.62	8.78	36.27	324	7	P	H
	*	2480	73.6	-	-	-	-	-	-	-	-	A	H
		2483.52	41.97	-32.03	74	41.82	27.63	8.79	36.27	324	7	P	H
		2483.52	17.18	-36.82	54	-	-	-	-	-	-	A	H
													H
													H
	*	2480	102.91	-	-	102.78	27.62	8.78	36.27	284	8	P	V
	*	2480	78.12	-	-	-	-	-	-	-	-	A	V
		2483.52	44.5	-29.5	74	44.35	27.63	8.79	36.27	284	8	P	V
		2483.52	19.71	-34.29	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	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	42.95	-31.05	74	35.16	32.4	12.89	37.5	-	-	P	H
		4804	18.16	-35.84	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4804	42.55	-31.45	74	34.76	32.4	12.89	37.5	-	-	P	V
		4804	17.76	-36.24	54	-	-	-	-	-	-	A	V
													V
													V
													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	43.85	-30.15	74	35.78	32.53	13.11	37.57	-	-	P	H
		4882	19.06	-34.94	54	-	-	-	-	-	-	A	H
		7323	48.53	-25.47	74	34.35	36.9	15.89	38.61	-	-	P	H
		7323	23.74	-30.26	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
		4882	43.34	-30.66	74	35.27	32.53	13.11	37.57	-	-	P	V
		4882	18.55	-35.45	54	-	-	-	-	-	-	A	V
		7323	48.15	-25.85	74	33.97	36.9	15.89	38.61	-	-	P	V
		7323	23.36	-30.64	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

BT	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
		(MHz)	(dBμV/m)	(dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
BT CH 78 2480MHz		4960	44.66	-29.34	74	36.01	32.94	13.34	37.63	-	-	P	H
		4960	19.87	-34.13	54	-	-	-	-	-	-	A	H
		7440	47.25	-26.75	74	33.43	36.52	16.01	38.71	-	-	P	H
		7440	22.46	-31.54	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4960	44.21	-29.79	74	35.56	32.94	13.34	37.63	-	-	P	V
		4960	19.42	-34.58	54	-	-	-	-	-	-	A	V
		7440	47.04	-26.96	74	33.22	36.52	16.01	38.71	-	-	P	V
		7440	22.25	-31.75	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V
													V
													V
													V
												V	
												V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line. 3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.												



<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		2389.905	39.75	-34.25	74	40.13	27.26	8.6	36.24	150	349	P	H
		2389.905	14.96	-39.04	54	-	-	-	-	-	-	A	H
	*	2402	104.2	-	-	104.52	27.31	8.62	36.25	150	349	P	H
	*	2402	79.41	-	-	-	-	-	-	-	-	A	H
													H
													H
		2384.445	39.36	-34.64	74	39.77	27.24	8.59	36.24	100	325	P	V
		2384.445	14.57	-39.43	54	-	-	-	-	-	-	A	V
	*	2402	102.81	-	-	103.13	27.31	8.62	36.25	100	325	P	V
	*	2402	78.02	-	-	-	-	-	-	-	-	A	V
													V
													V
BT CH 39 2441MHz		2365.02	39.37	-34.63	74	39.89	27.16	8.55	36.23	200	349	P	H
		2365.02	14.58	-39.42	54	-	-	-	-	-	-	A	H
	*	2441	104.06	-	-	104.16	27.46	8.7	36.26	200	349	P	H
	*	2441	79.27	-	-	-	-	-	-	-	-	A	H
		2490.34	40.54	-33.46	74	40.36	27.66	8.8	36.28	200	349	P	H
		2490.34	15.75	-38.25	54	-	-	-	-	-	-	A	H
		2388.96	39.49	-34.51	74	39.87	27.26	8.6	36.24	100	327	P	V
		2388.96	14.7	-39.3	54	-	-	-	-	-	-	A	V
	*	2441	101.47	-	-	101.57	27.46	8.7	36.26	100	327	P	V
	*	2441	76.68	-	-	-	-	-	-	-	-	A	V
		2488.1	41.07	-32.93	74	40.9	27.65	8.8	36.28	100	327	P	V
		2488.1	16.28	-37.72	54	-	-	-	-	-	-	A	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 78 2480MHz	*	2480	104.88	-	-	104.75	27.62	8.78	36.27	100	73	P	H
	*	2480	80.09	-	-	-	-	-	-	-	-	A	H
		2483.52	48.35	-25.65	74	48.2	27.63	8.79	36.27	100	73	P	H
		2483.52	23.56	-30.44	54	-	-	-	-	-	-	A	H
													H
													H
	*	2480	103.79	-	-	103.66	27.62	8.78	36.27	250	318	P	V
	*	2480	79	-	-	-	-	-	-	-	-	A	V
		2483.52	48.59	-25.41	74	48.44	27.63	8.79	36.27	250	318	P	V
		2483.52	23.8	-30.2	54	-	-	-	-	-	-	A	V
													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	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	43.26	-30.74	74	35.47	32.4	12.89	37.5	-	-	P	H
		4804	18.47	-35.53	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4804	43.33	-30.67	74	35.54	32.4	12.89	37.5	-	-	P	V
		4804	18.54	-35.46	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	43.79	-30.21	74	35.72	32.53	13.11	37.57	-	-	P	H
		4882	19	-35	54	-	-	-	-	-	-	A	H
		7323	47.91	-26.09	74	33.73	36.9	15.89	38.61	-	-	P	H
		7323	23.12	-30.88	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
		4882	43.04	-30.96	74	34.97	32.53	13.11	37.57	-	-	P	V
		4882	18.25	-35.75	54	-	-	-	-	-	-	A	V
		7323	48.07	-25.93	74	33.89	36.9	15.89	38.61	-	-	P	V
		7323	23.28	-30.72	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

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 CH 78 2480MHz		4960	43.45	-30.55	74	34.8	32.94	13.34	37.63	-	-	P	H
		4960	18.66	-35.34	54	-	-	-	-	-	-	A	H
		7440	48.97	-25.03	74	35.15	36.52	16.01	38.71	-	-	P	H
		7440	24.18	-29.82	54	-	-	-	-	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4960	43.92	-30.08	74	35.27	32.94	13.34	37.63	-	-	P	V
		4960	19.13	-34.87	54	-	-	-	-	-	-	A	V
		7440	48.66	-25.34	74	34.84	36.52	16.01	38.71	-	-	P	V
		7440	23.87	-30.13	54	-	-	-	-	-	-	A	V
													V
													V
													V
													V
													V
													V
													V
												V	
												V	
												V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line. 3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.												



Emission above 18GHz

2.4GHz BT (SHF)

BT	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
					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 SHF		24923	43.31	-30.69	74	37.68	39.45	19.51	53.33	-	-	P	H
													H
													H
													H
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													H
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													H
		24762	43.76	-30.24	74	38.42	39.32	19.42	53.4	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
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													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.	
					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		30.17	24.93	-15.07	40	34.3	24.92	1.3	35.59	-	-	P	H	
		91.37	31.46	-12.04	43.5	50.19	14.92	1.87	35.52	-	-	P	H	
		150.7	24.88	-18.62	43.5	40.57	17.34	2.39	35.42	-	-	P	H	
		268.8	28.84	-17.16	46	41.57	19.37	3.09	35.19	-	-	P	H	
		657.6	29.87	-16.13	46	32.72	26.47	4.79	34.11	-	-	P	H	
		960.8	36.1	-17.9	54	32.21	31.01	5.81	32.93	-	-	P	H	
													H	
													H	
													H	
													H	
													H	
													H	
		46.15	29.7	-10.3	40	47.4	16.48	1.4	35.58	100	74	Q	V	
		89.67	31.29	-12.21	43.5	50.22	14.74	1.86	35.53	-	-	P	V	
		128.77	24.33	-19.17	43.5	39.83	17.73	2.23	35.46	-	-	P	V	
		274.4	23.03	-22.97	46	36.17	18.92	3.12	35.18	-	-	P	V	
		561.6	28.89	-17.11	46	32.43	26.34	4.48	34.36	-	-	P	V	
		955.2	36.68	-9.32	46	32.9	30.95	5.79	32.96	-	-	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”.



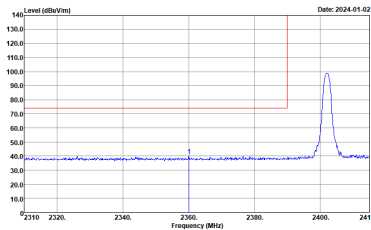
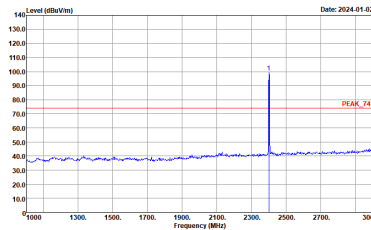
Appendix D. Radiated Spurious Emission Plots

Test Engineer :	John Chuang, David Dai, and Howard Huang	Temperature :	19.3~23.4°C
		Relative Humidity :	65.9~70.3%

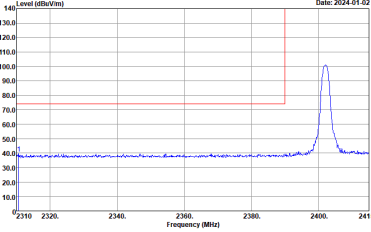
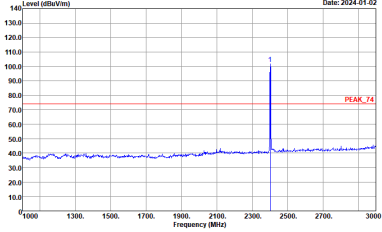
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2.4GHz 2400~2483.5MHz

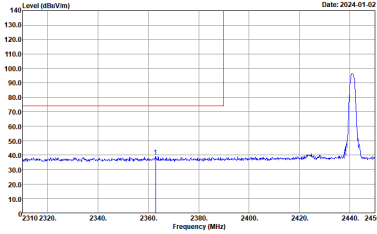
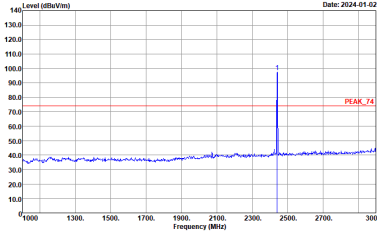
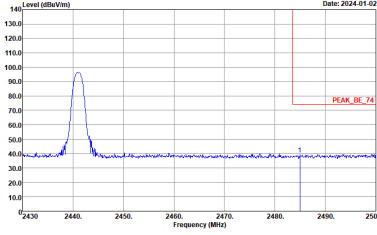
BT (Band Edge @ 3m)

BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BT CH00 2402MHz	
	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BT CH00 2402MHz	
	Vertical	Fundamental
Peak	 Site : 03CH20-11Y Condition : PEAK_85_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-11Y Condition : PEAK_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BT CH39 2441MHz	
	Horizontal	Fundamental
Peak	 Site : 03CH20-HV Condition : PEAK_BE_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH20-HV Condition : PEAK_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Peak	 Site : 03CH20-HV Condition : PEAK_BE_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BT CH39 2441MHz	
	Vertical	Fundamental
Peak	Site : 03CH20-HY Condition : PEAK_BE_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH20-HY Condition : PEAK_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Peak	Site : 03CH20-HY Condition : PEAK_BE_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BT CH78 2480MHz	
	Horizontal	Fundamental
Peak	Level (dBm/100MHz) Date: 2024-01-02 2400 2403.2405.2407.2409.2411.2413.2415.2417.2419.2421.2423.2425.2427.2429.2431.2433.2435.2437.2439.2441.2443.2445.2447.2449.2451.2453.2455.2457.2459.2461.2463.2465.2467.2469.2471.2473.2475.2477.2479.2481.2483.2485.2487.2489.2491.2493.2495.2497.2500 Frequency (MHz) Site : 03CH20-14Y Condition : PEAK_B7_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Level (dBm/100MHz) Date: 2024-01-02 1000 1300 1600 1900 2200 2500 2800 3000 Frequency (MHz) Site : 03CH20-14Y Condition : PEAK_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BT CH78 2480MHz	
	Vertical	Fundamental
Peak	Level (dBuV/m) Date: 2024-01-02 Frequency (MHz) Site : 03CH20-14Y Condition : PEAK_B7_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Level (dBuV/m) Date: 2024-01-02 Frequency (MHz) Site : 03CH20-14Y Condition : PEAK_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



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

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BT CH00 2402MHz	
	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2024-01-02 Frequency (MHz) Site : 03CH20-HV Condition : PEAK_74 3m 91200_02340_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Level (dBuV/m) Date: 2024-01-02 Frequency (MHz) Site : 03CH20-HV Condition : PEAK_74 3m 91200_02340_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BT CH39 2441MHz	
	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2024-01-02 Frequency (MHz) Site : 03CH20-14Y Condition : PEAK_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Level (dBuV/m) Date: 2024-01-02 Frequency (MHz) Site : 03CH20-14Y Condition : PEAK_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



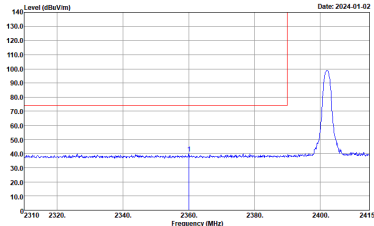
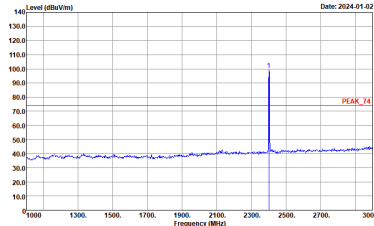
BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BT CH78 2480MHz	
	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2024-01-02 Frequency (MHz) Site : 03CH20-14Y Condition : PEAK_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Level (dBuV/m) Date: 2024-01-02 Frequency (MHz) Site : 03CH20-14Y Condition : PEAK_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



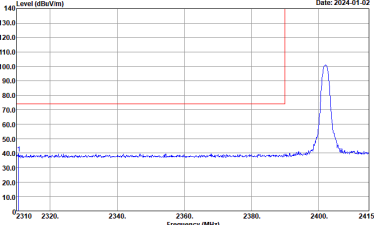
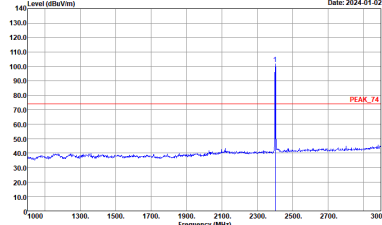
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2.4GHz 2400~2483.5MHz

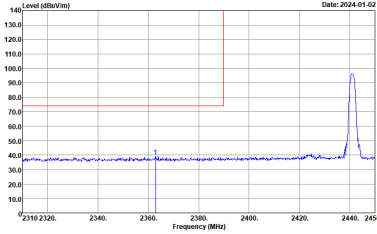
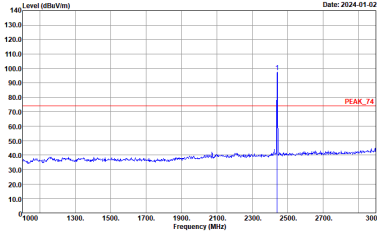
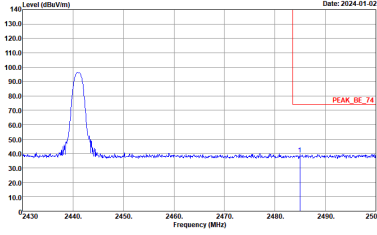
BT (Band Edge @ 3m)

BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BT CH00 2402MHz	
	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_RE_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK_RE_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

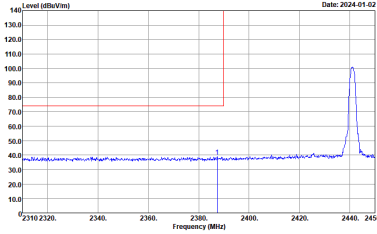
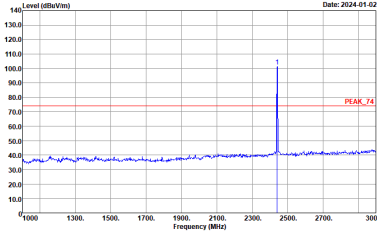
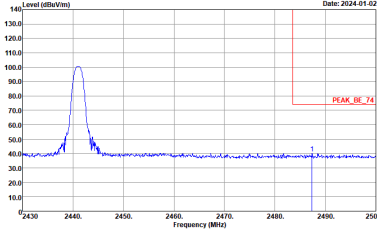


BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BT CH00 2402MHz	
	Vertical	Fundamental
Peak	 Site : 03CH20-11Y Condition : PEAK_85_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-11Y Condition : PEAK_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BT CH39 2441MHz	
	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH20-HY Condition : PEAK_BE_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BT CH39 2441MHz	
	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition : PEAK_BE_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH20-HY Condition : PEAK_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Peak	 Site : 03CH20-HY Condition : PEAK_BE_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BT CH78 2480MHz	
	Horizontal	Fundamental
Peak	Level (dBm/100kHz) Date: 2024-01-02 2400 2403.2405.2407.2409.2411.2413.2415.2417.2419.2421.2423.2425.2427.2429.2431.2433.2435.2437.2439.2441.2443.2445.2447.2449.2451.2453.2455.2457.2459.2461.2463.2465.2467.2469.2471.2473.2475.2477.2479.2481.2483.2485.2487.2489.2491.2493.2495.2497.2500 Frequency (MHz) Site : 03CH20-14Y Condition : PEAK_B7_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.0000kHz VBW:3000.0000kHz SWT:Auto	Level (dBm/100kHz) Date: 2024-01-02 1000 1300 1600 1900 2200 2500 2800 3000 Frequency (MHz) Site : 03CH20-14Y Condition : PEAK_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.0000kHz VBW:3000.0000kHz SWT:Auto



BT	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
	BT CH78 2480MHz	
	Vertical	Fundamental
Peak	Level (dBuV/m) Date: 2024-01-02 Frequency (MHz) Site : 03CH20-11Y Condition : PEAK_B7_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Level (dBuV/m) Date: 2024-01-02 Frequency (MHz) Site : 03CH20-11Y Condition : PEAK_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



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

BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BT CH00 2402MHz	
	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2024-01-02 Frequency (MHz) Site : 09CH20-HY Condition : PEAK_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Level (dBuV/m) Date: 2024-01-02 Frequency (MHz) Site : 09CH20-HY Condition : PEAK_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BT CH39 2441MHz	
	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2024-01-02 Site : 03CH20-14Y Condition : PEAK_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Level (dBuV/m) Date: 2024-01-02 Site : 03CH20-14Y Condition : PEAK_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



BT	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
	BT CH78 2480MHz	
	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2024-01-02 Frequency (MHz) Site : 03CH20-14Y Condition : PEAK_74 3m 91200_02360_231030 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Level (dBuV/m) Date: 2024-01-02 Frequency (MHz) Site : 03CH20-14Y Condition : PEAK_74 3m 91200_02360_231030 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



Emission above 18GHz

2.4GHz BT (SHF @ 1m)

BT	2.4GHz 2400~2483.5MHz	
	BT SHF	
	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2024-01-25 PEAK 74 AVG 54 Site : 03CH20-HV Condition : PEAK_74 1m SHF_1223_230710 HORIZONTAL	Level (dBuV/m) Date: 2024-01-25 PEAK 74 AVG 54 Site : 03CH20-HV Condition : PEAK_74 1m SHF_1223_230710 VERTICAL



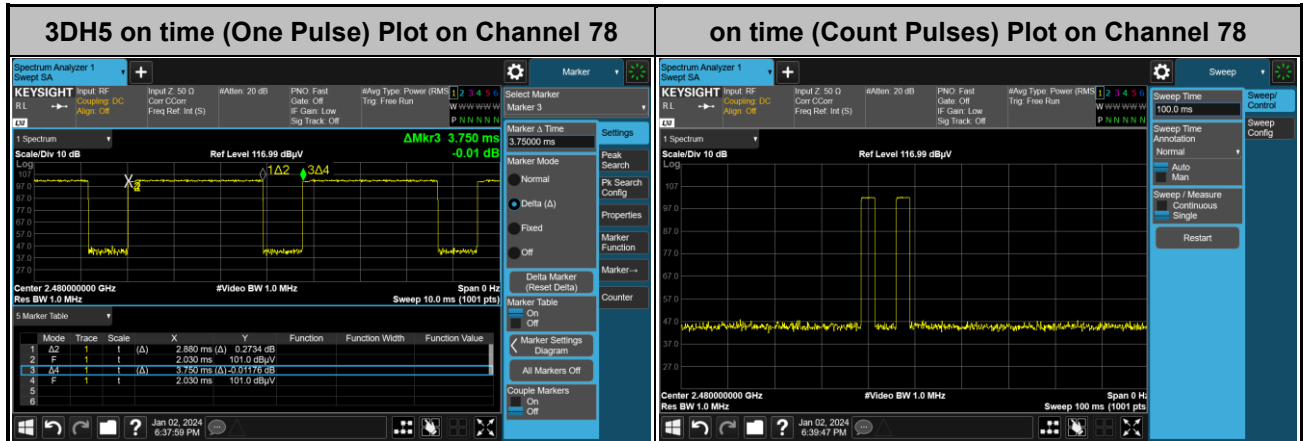
Emission below 1GHz

2.4GHz BT (LF)

BT	2.4GHz 2400~2483.5MHz	
	BT LF	
	Horizontal	Vertical
QP / Peak	Level (dBuV/m) Date: 2024-01-26 Site : 03CH20-HV Condition : QP-3m LF_55606_231020_200 HORIZONTAL :	Level (dBuV/m) Date: 2024-01-26 Site : 03CH20-HV Condition : QP-3m LF_55606_231020_200 VERTICAL :

Appendix E. Duty Cycle Plots

<Ant. 6>



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

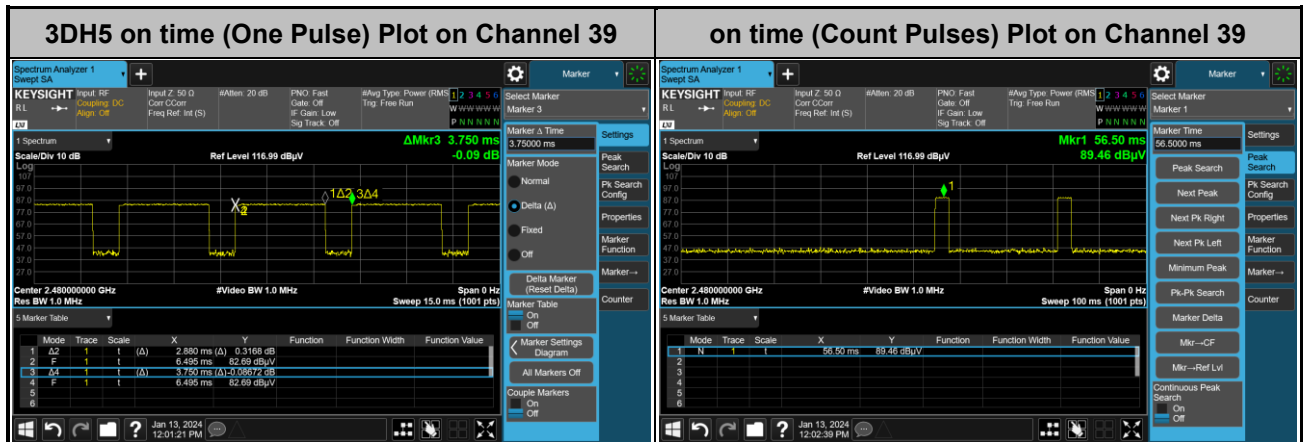
Thus, the maximum possible ON time:

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

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. 7>



Note:

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

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

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,

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