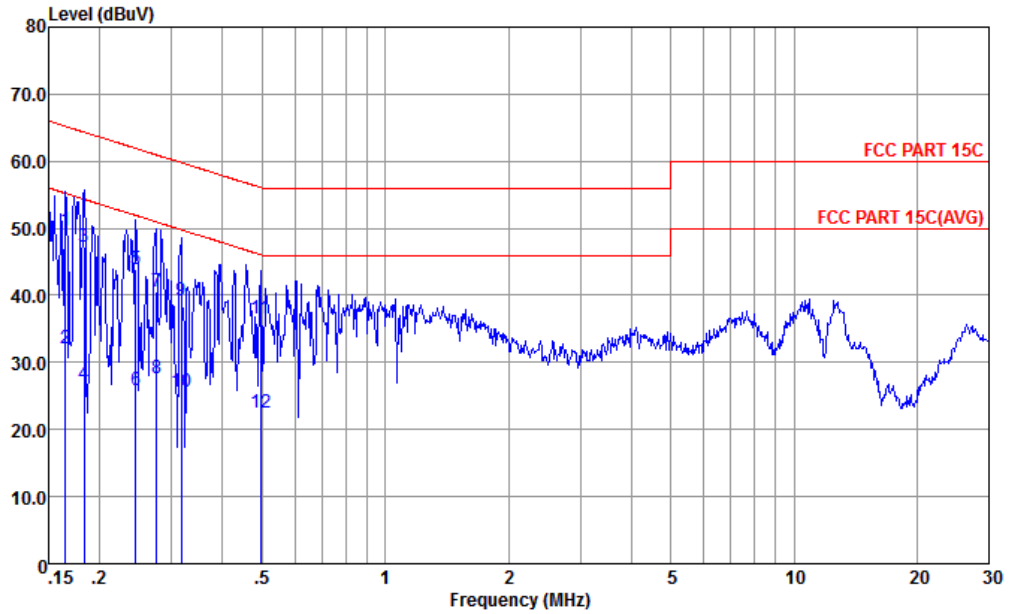




## Appendix B. AC Conducted Emission Test Results

Test Engineer :	Amos Zhang	Temperature :	25.3~26.2°C
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

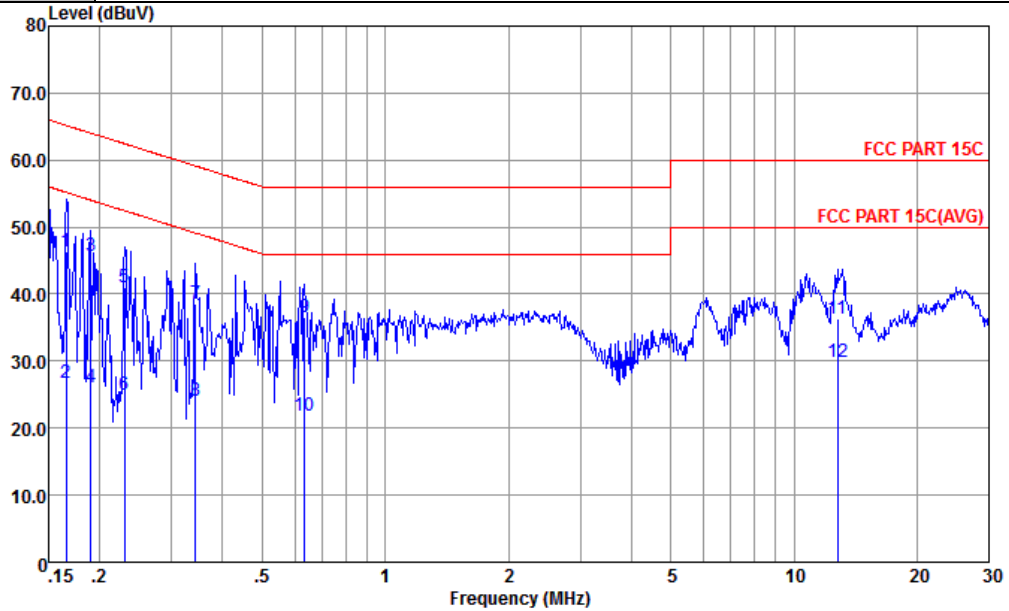


Site : CO01-KS  
 Condition : FCC PART 15C LISN-060105-L LINE

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1 *	0.165	49.67	-15.54	65.21	39.20	0.03	10.44	QP
2	0.165	32.07	-23.14	55.21	21.60	0.03	10.44	Average
3	0.183	47.23	-17.10	64.33	36.80	0.03	10.40	QP
4	0.183	26.63	-27.70	54.33	16.20	0.03	10.40	Average
5	0.246	43.89	-18.02	61.91	33.49	0.06	10.34	QP
6	0.246	25.89	-26.02	51.91	15.49	0.06	10.34	Average
7	0.276	40.58	-20.36	60.94	30.20	0.06	10.32	QP
8	0.276	27.58	-23.36	50.94	17.20	0.06	10.32	Average
9	0.317	39.17	-20.63	59.80	28.80	0.07	10.30	QP
10	0.317	25.57	-24.23	49.80	15.20	0.07	10.30	Average
11	0.494	36.54	-19.56	56.10	26.20	0.10	10.24	QP
12	0.494	22.54	-23.56	46.10	12.20	0.10	10.24	Average



Test Engineer :	Amos Zhang	Temperature :	25.3~26.2°C
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : CO01-KS  
 Condition : FCC PART 15C LISN-060105-N NEUTRAL

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.166	46.45	-18.71	65.16	35.90	0.11	10.44	QP
2	0.166	26.85	-28.31	55.16	16.30	0.11	10.44	Average
3 *	0.190	45.69	-18.33	64.02	35.21	0.10	10.38	QP
4	0.190	26.09	-27.93	54.02	15.61	0.10	10.38	Average
5	0.230	40.94	-21.50	62.44	30.50	0.10	10.34	QP
6	0.230	25.04	-27.40	52.44	14.60	0.10	10.34	Average
7	0.343	38.59	-20.54	59.13	28.20	0.10	10.29	QP
8	0.343	23.99	-25.14	49.13	13.60	0.10	10.29	Average
9	0.634	36.55	-19.45	56.00	26.20	0.11	10.24	QP
10	0.634	21.85	-24.15	46.00	11.50	0.11	10.24	Average
11	12.784	36.25	-23.75	60.00	25.60	0.28	10.37	QP
12	12.784	29.95	-20.05	50.00	19.30	0.28	10.37	Average

Note:

- Level(dBμV) = Read Level(dBμV) + LISN Factor(dB) + Cable Loss(dB)
- Over Limit(dB) = Level(dBμV) – Limit Line(dBμV)



### Appendix C. Radiated Spurious Emission

Only the worst results are shown in the report

2.4GHz 2400~2483.5MHz

BT (Band Edge @ 3m)

BT	Note	Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( 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	109.24	-	-	102.95	32.2	6.73	32.64	244	22	P	H	
		2480	84.45	-	-	-	-	-	-	-	-	A	H	
		2484.28	57.47	-16.53	74	51.18	32.2	6.73	32.64	244	22	P	H	
		2484.28	32.68	-21.32	54	-	-	-	-	-	-	A	H	
	*	2480	106.76	-	-	100.47	32.2	6.73	32.64	273	78	P	V	
		2480	81.97	-	-	-	-	-	-	-	-	-	A	V
		2483.68	55.74	-18.26	74	49.45	32.2	6.73	32.64	273	78	P	V	
		2483.68	30.95	-23.05	54	-	-	-	-	-	-	-	A	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)

Table with 14 columns: BT, Note, Frequency (MHz), Level (dBµV/m), Over Limit (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). Rows include test data for BT CH 78 2480MHz and a Remark section.



Emission below 1GHz

2.4GHz BT (LF)

BT	Note	Frequency	Level	Over	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 )
2.4GHz BT LF		30.97	21.12	-18.88	40	28.72	24.32	0.89	32.81	-	-	P	H
		136.7	14.76	-28.74	43.5	29.14	16.68	1.85	32.91	-	-	P	H
		283.17	16.47	-29.53	46	27.79	18.97	2.71	33	-	-	P	H
		460.68	22.04	-23.96	46	28.83	23.01	3.43	33.23	-	-	P	H
		605.21	24.79	-21.21	46	28.39	25.75	3.93	33.28	-	-	P	H
		780.78	27.72	-18.28	46	28.16	28.12	4.46	33.02	-	-	P	H
		30.97	21.12	-18.88	40	28.72	24.32	0.89	32.81	-	-	P	V
		136.7	14.76	-28.74	43.5	29.14	16.68	1.85	32.91	-	-	P	V
		294.81	17.66	-28.34	46	28.76	19.13	2.77	33	-	-	P	V
		438.37	20.57	-25.43	46	27.85	22.52	3.35	33.15	-	-	P	V
		652.74	25.39	-20.61	46	28.4	26.21	4.08	33.3	-	-	P	V
		810.85	28.7	-17.3	46	28.67	28.37	4.54	32.88	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Note symbol

*	<b>Fundamental Frequency</b> which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is <b>over limit</b> line.
P/A	<b>Peak</b> or <b>Average</b>
H/V	<b>Horizontal</b> or <b>Vertical</b>



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.
		( 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)

**For Average Limit @ 2390MHz:**

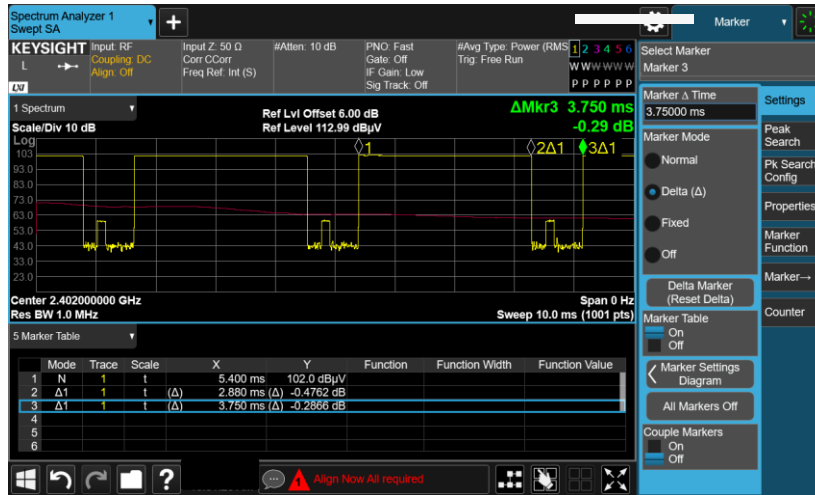
1. Level(dBμV/m)  
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)  
= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)  
= 43.54 (dBμV/m)
2. Over Limit(dB)  
= Level(dBμV/m) – Limit Line(dBμV/m)  
= 43.54(dBμV/m) – 54(dBμV/m)  
= -10.46(dB)

Both peak and average measured complies with the limit line, so test result is “PASS”.

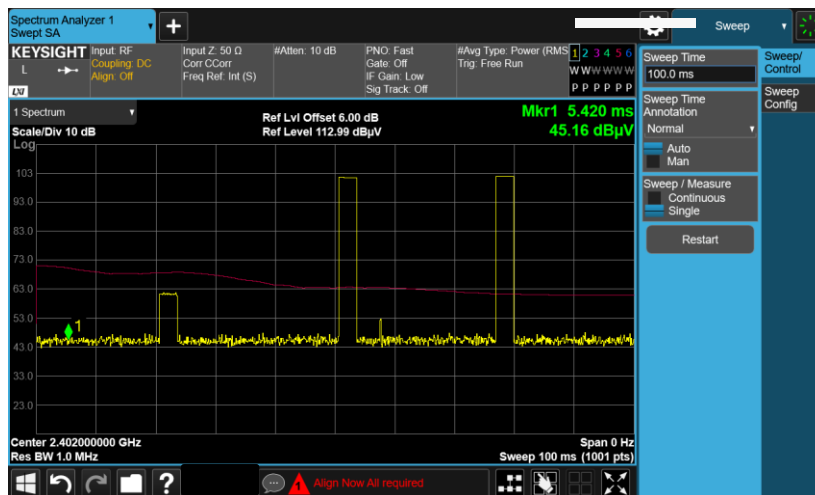


## Appendix D. Duty Cycle Plots

### 3DH5 on time (One Pulse) Plot on Channel 39



### 3DH5 on time (Count Pulses) Plot on Channel 39



**Note:**

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