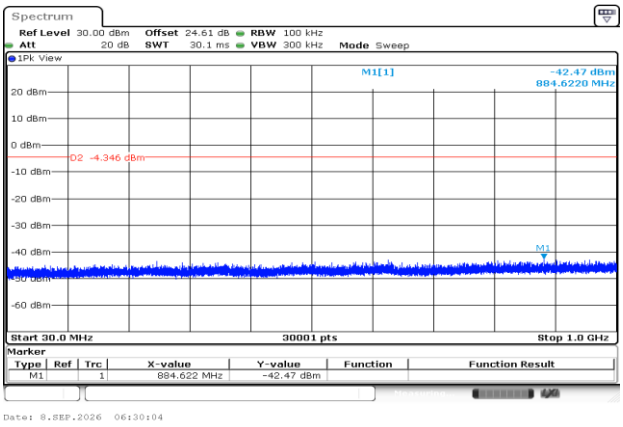
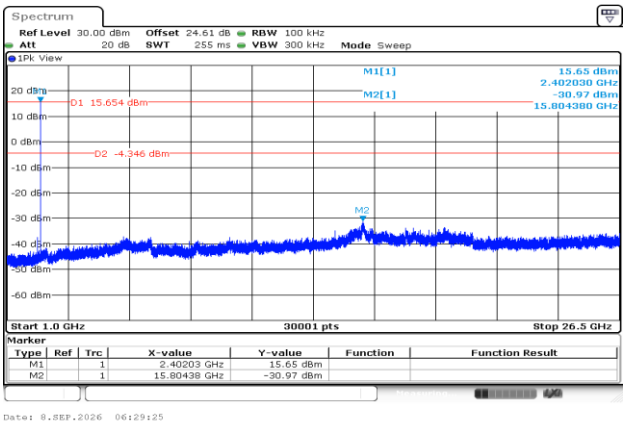
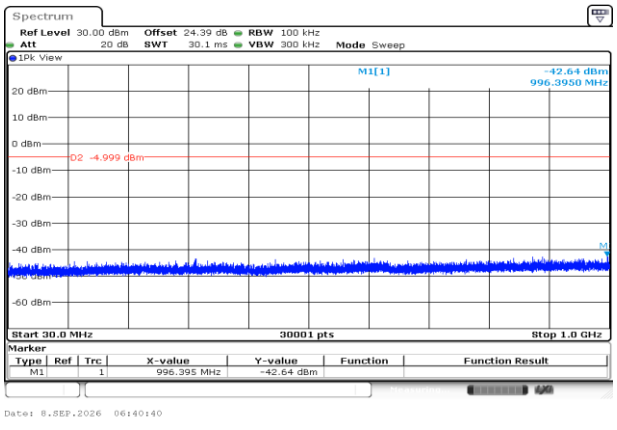
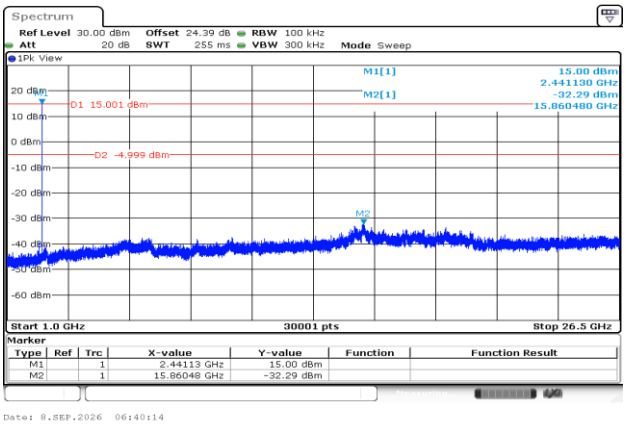
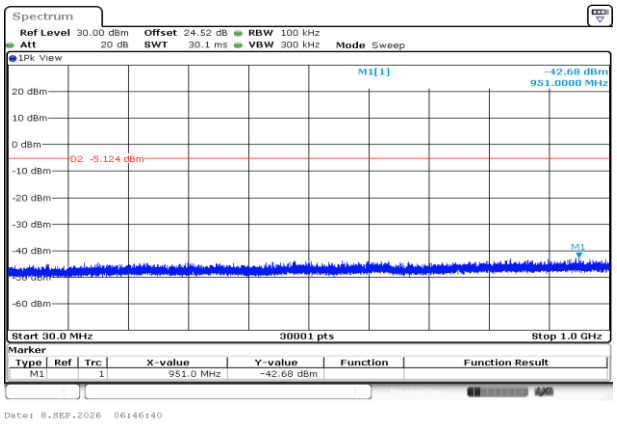
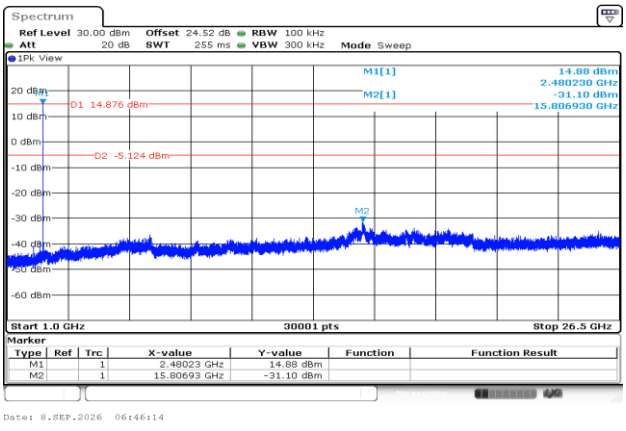
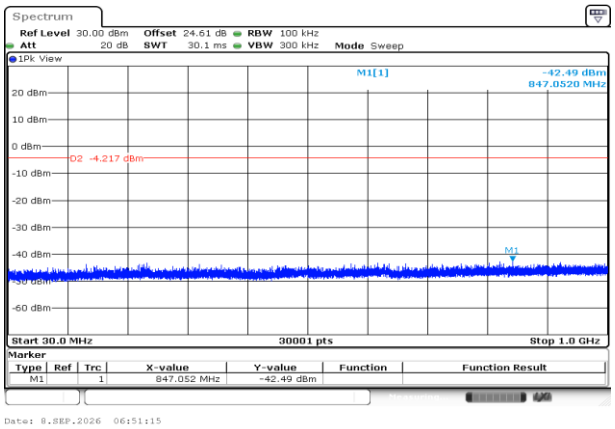
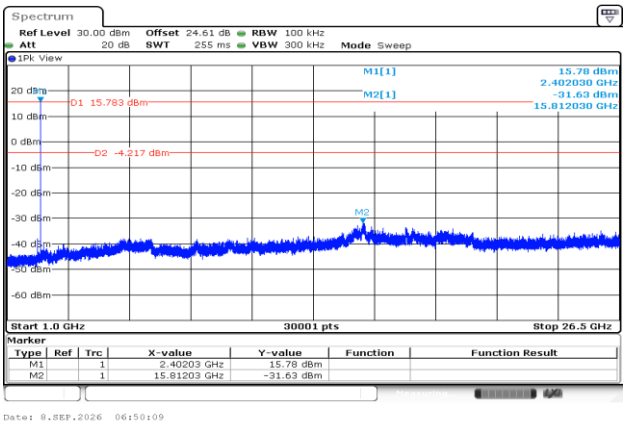
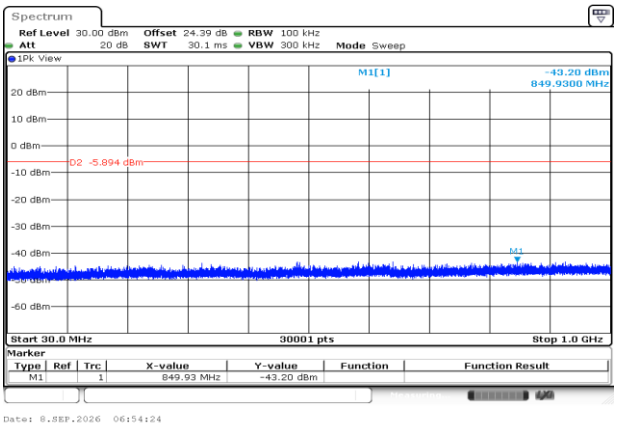
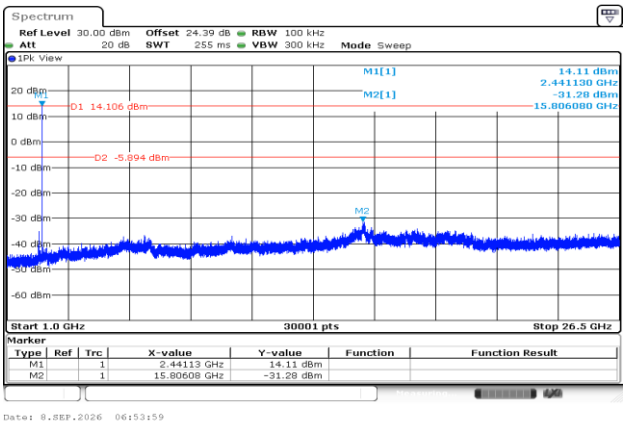
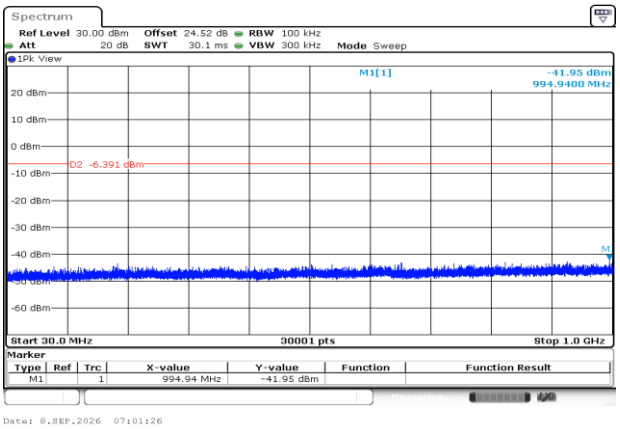
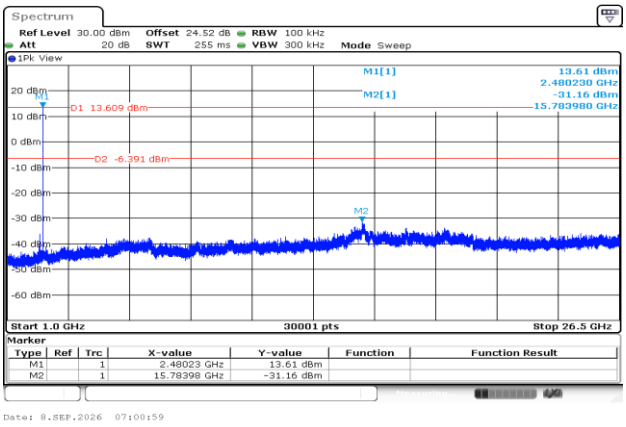
<2Mbps>

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>

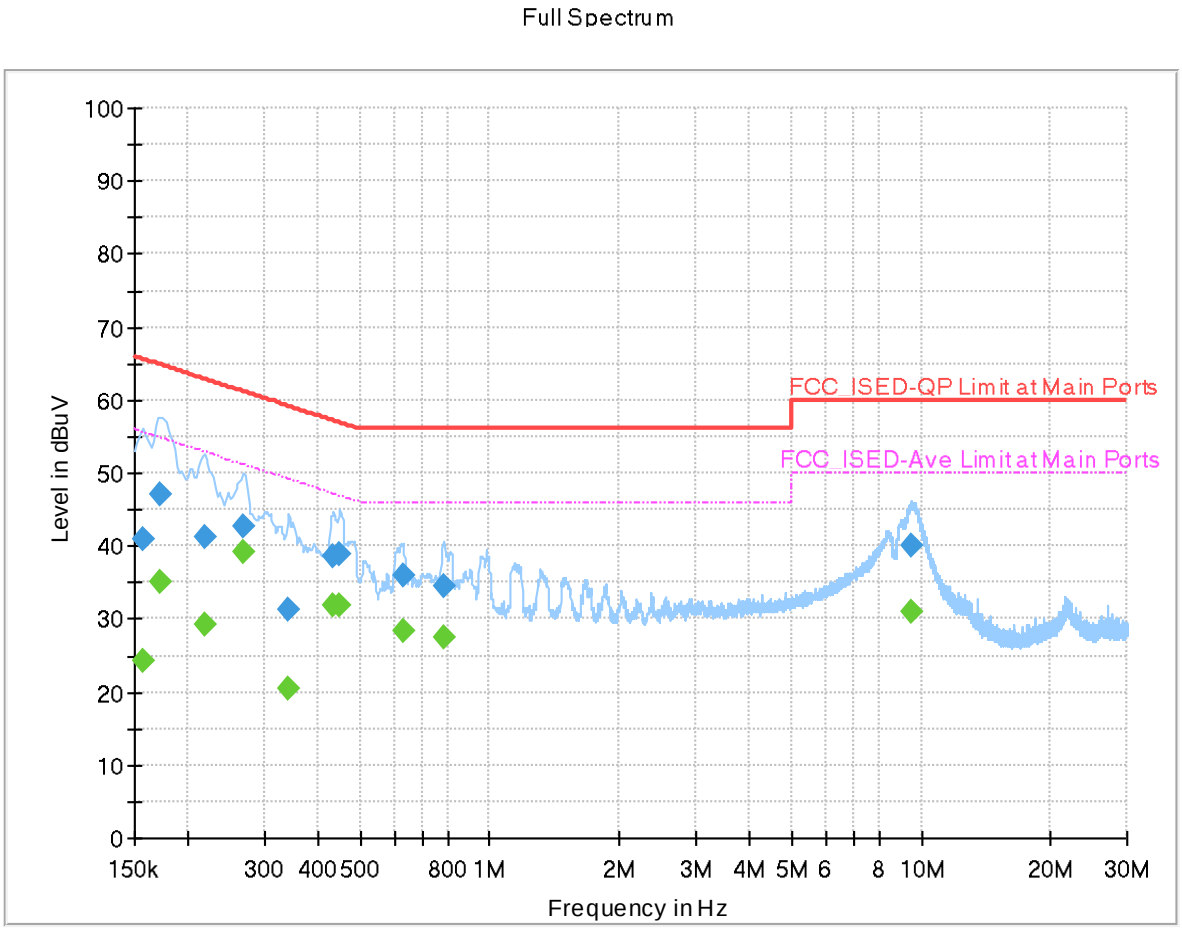
CSE Plot on Low Ch between 30MHz ~ 1 GHz	CSE Plot on Low Ch between 1GHz ~ 26.5GHz
	
CSE Plot on Mid. Ch between 30MHz ~ 1 GHz	**CSE Plot on Mid. Ch between 1GHz ~ 26.5GHz**
	
CSE Plot on High Ch between 30MHz ~ 1 GHz	**CSE Plot on High Ch between 1GHz ~ 26.5GHz**
	

Appendix B. AC Conducted Emission Test Results

Test Engineer :	Brian Chen	**Temperature :**	23.6~26.7℃
		Relative Humidity :	40.5~48.7%

EUT Information

Report NO :	631827
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

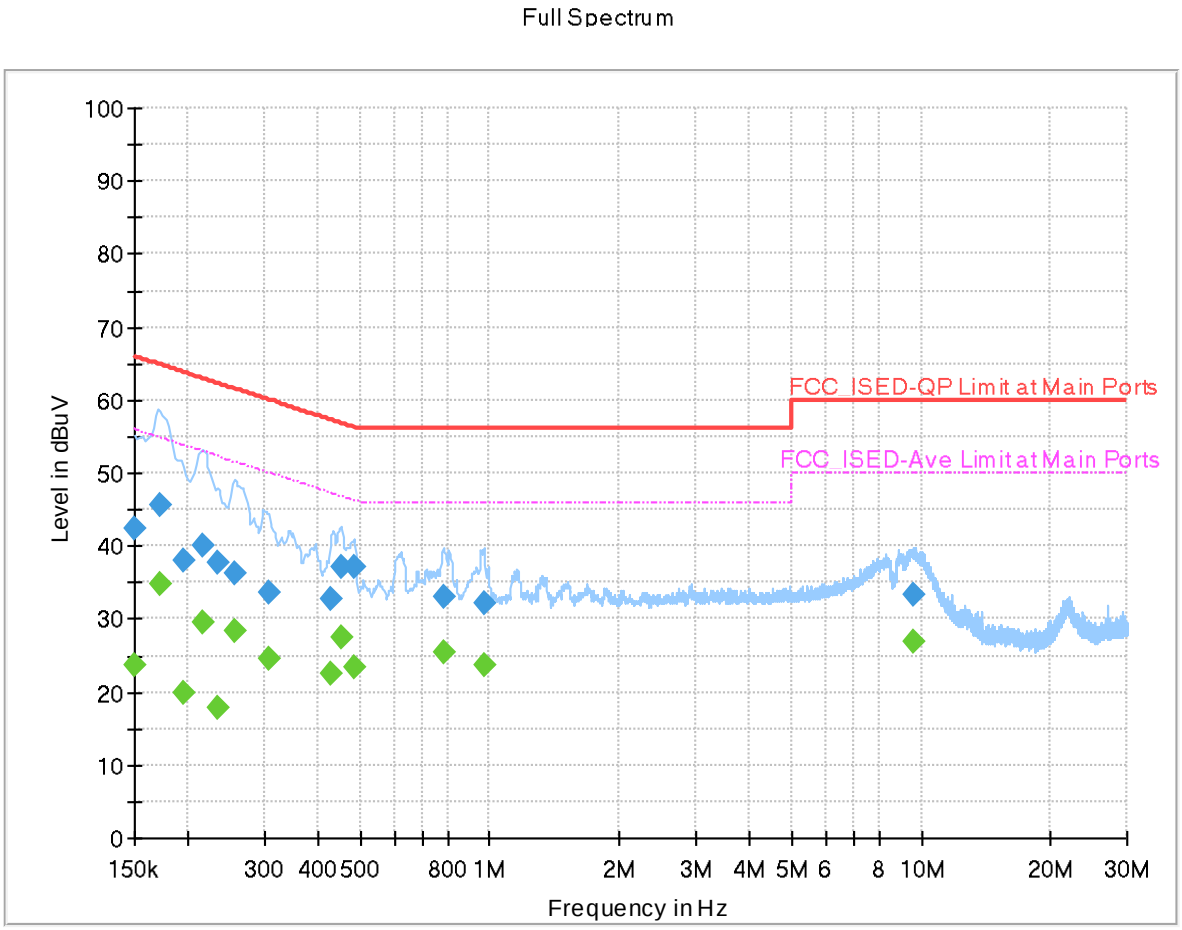


Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.156750	---	24.26	55.63	31.37	L1	ON	20.0
0.156750	40.97	---	65.63	24.66	L1	ON	20.0
0.172500	---	35.01	54.84	19.83	L1	ON	20.0
0.172500	47.18	---	64.84	17.66	L1	ON	20.0
0.217500	---	29.10	52.91	23.81	L1	ON	20.0
0.217500	41.10	---	62.91	21.81	L1	ON	20.0
0.267000	---	39.08	51.21	12.13	L1	ON	20.0
0.267000	42.76	---	61.21	18.45	L1	ON	20.0
0.341250	---	20.37	49.17	28.80	L1	ON	20.0
0.341250	31.25	---	59.17	27.92	L1	ON	20.0
0.433500	---	31.95	47.19	15.24	L1	ON	20.0
0.433500	38.66	---	57.19	18.53	L1	ON	20.0
0.449250	---	31.89	46.89	15.00	L1	ON	20.0
0.449250	38.82	---	56.89	18.07	L1	ON	20.0
0.629250	---	28.30	46.00	17.70	L1	ON	20.0
0.629250	35.83	---	56.00	20.17	L1	ON	20.0
0.786750	---	27.46	46.00	18.54	L1	ON	20.0
0.786750	34.54	---	56.00	21.46	L1	ON	20.0
9.469500	---	31.14	50.00	18.86	L1	ON	20.1
9.469500	40.14	---	60.00	19.86	L1	ON	20.1

EUT Information

Report NO :	631827
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	23.68	56.00	32.32	N	ON	20.0
0.150000	42.38	---	66.00	23.62	N	ON	20.0
0.172500	---	34.80	54.84	20.04	N	ON	20.0
0.172500	45.68	---	64.84	19.16	N	ON	20.0
0.195000	---	19.74	53.82	34.08	N	ON	20.0
0.195000	38.03	---	63.82	25.79	N	ON	20.0
0.215250	---	29.64	53.00	23.36	N	ON	20.0
0.215250	39.92	---	63.00	23.08	N	ON	20.0
0.233250	---	17.85	52.33	34.48	N	ON	20.0
0.233250	37.64	---	62.33	24.69	N	ON	20.0
0.255750	---	28.39	51.57	23.18	N	ON	20.0
0.255750	36.31	---	61.57	25.26	N	ON	20.0
0.307500	---	24.45	50.04	25.59	N	ON	20.0
0.307500	33.65	---	60.04	26.39	N	ON	20.0
0.429000	---	22.43	47.27	24.84	N	ON	20.0
0.429000	32.70	---	57.27	24.57	N	ON	20.0
0.451500	---	27.44	46.85	19.41	N	ON	20.0
0.451500	37.06	---	56.85	19.79	N	ON	20.0
0.485250	---	23.49	46.25	22.76	N	ON	20.0
0.485250	37.20	---	56.25	19.05	N	ON	20.0
0.782250	---	25.49	46.00	20.51	N	ON	20.0
0.782250	33.10	---	56.00	22.90	N	ON	20.0
0.966750	---	23.77	46.00	22.23	N	ON	20.0
0.966750	32.20	---	56.00	23.80	N	ON	20.0
9.593250	---	26.80	50.00	23.20	N	ON	20.1
9.593250	33.26	---	60.00	26.74	N	ON	20.1

Appendix C. Radiated Spurious Emission Test Data

Test Engineer :	John Chuang, David Dai and Sam Chou	**Temperature :**	18.8~20.1°C
		Relative Humidity :	66.3~69.6%

Note symbol

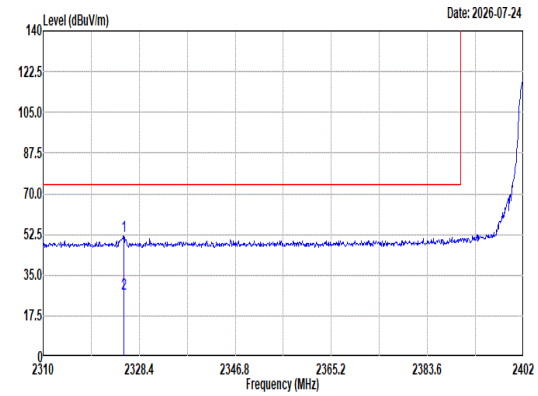
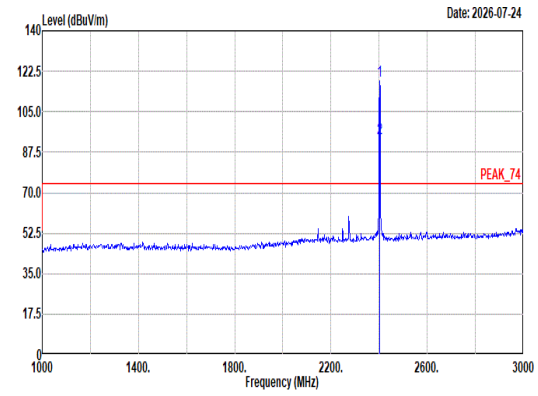
-L	**Low channel location**
-R	**High channel location**

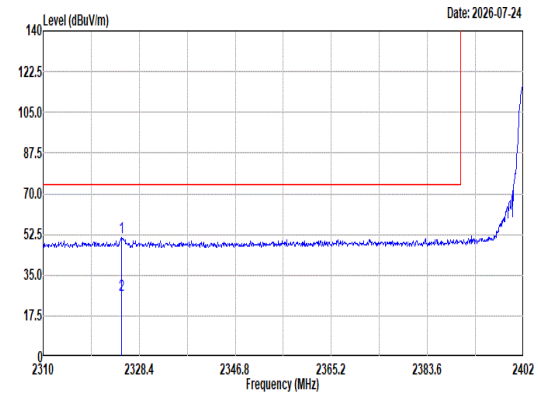
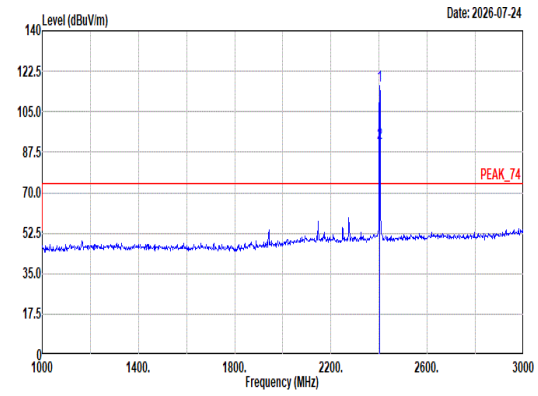
C1.Radiated Spurious Emission Test Modes

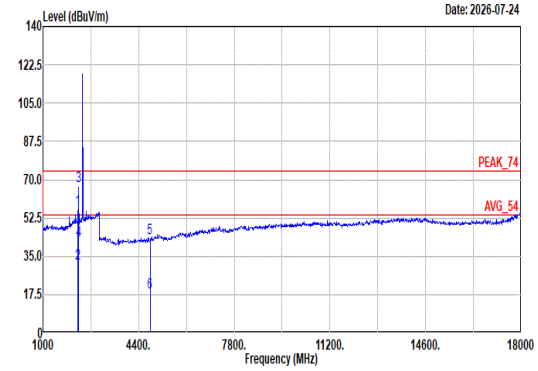
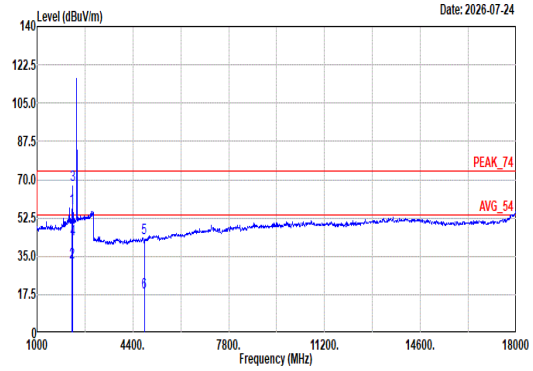
Mode	Band (MHz)	Antenna	Modulation	Channel	Frequency	Data Rate	RU	Remark
Mode 1	2400-2483.5	1	Bluetooth BR_GFSK	00	2402	1Mbps	-	-
Mode 2	2400-2483.5	1	Bluetooth BR_GFSK	39	2441	1Mbps	-	-
Mode 3	2400-2483.5	1	Bluetooth BR_GFSK	78	2480	1Mbps	-	-
Mode 4	2400-2483.5	2	Bluetooth BR_GFSK	00	2402	1Mbps	-	-
Mode 5	2400-2483.5	2	Bluetooth BR_GFSK	39	2441	1Mbps	-	-
Mode 6	2400-2483.5	2	Bluetooth BR_GFSK	78	2480	1Mbps	-	-
Mode 7	2400-2483.5	1	Bluetooth BR_GFSK	78	2480	1Mbps	-	LF
Mode 8	2400-2483.5	1	Bluetooth BR_GFSK	78	2480	1Mbps	-	SHF

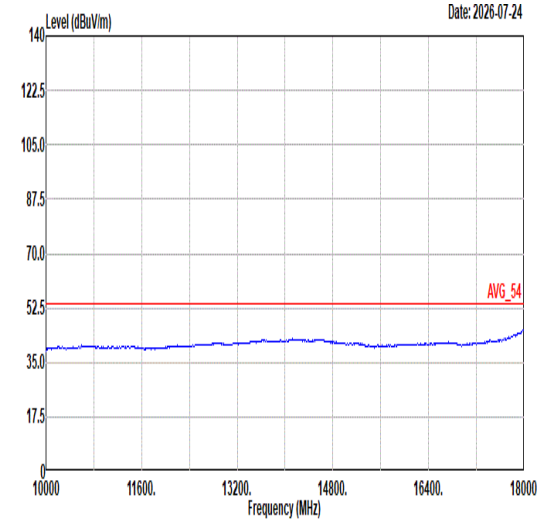
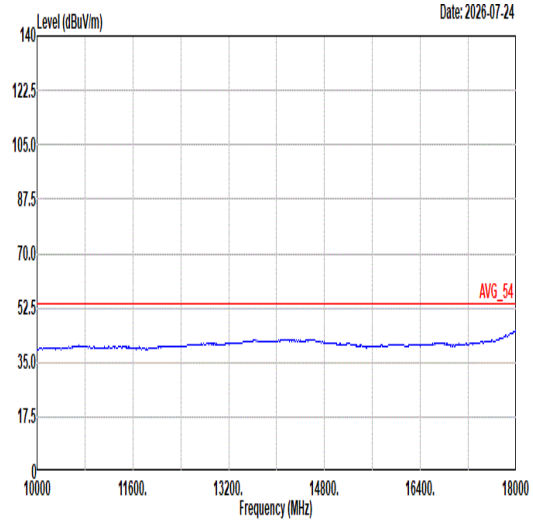
C2.Summary of each worse mode

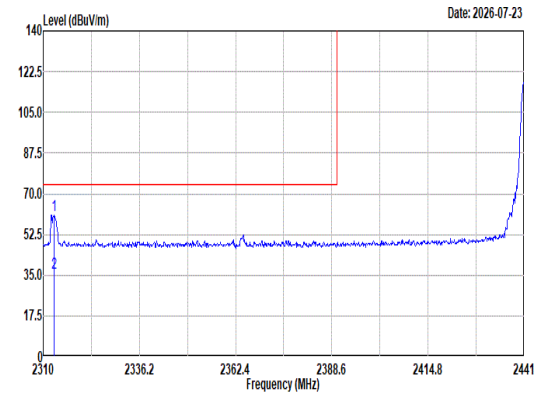
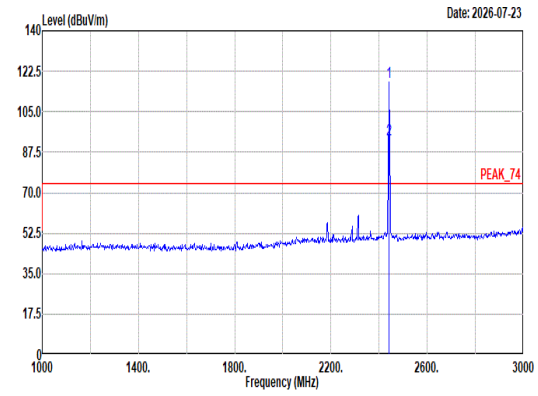
Mode	Modulation	Ch.	Freq. (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol.	Peak Avg.	Result	RU	Remark
1	Bluetooth BR_GFSK	00	2325.46	51.88	74.00	-22.12	H	Peak	Pass	-	Band Edge
	Bluetooth BR_GFSK	00	2274.00	67.69	74.00	-6.31	V	Peak	Pass	-	Harmonic
2	Bluetooth BR_GFSK	39	2312.88	60.81	74.00	-13.19	H	Peak	Pass	-	Band Edge
	Bluetooth BR_GFSK	39	2313.00	68.29	74.00	-5.71	V	Peak	Pass	-	Harmonic
3	Bluetooth BR_GFSK	78	2483.56	64.35	74.00	-9.65	H	Peak	Pass	-	Band Edge
	Bluetooth BR_GFSK	78	2352.00	69.43	74.00	-4.57	H	Peak	Pass	-	Harmonic
4	Bluetooth BR_GFSK	00	2386.64	51.72	74.00	-22.28	H	Peak	Pass	-	Band Edge
	Bluetooth BR_GFSK	00	2274.00	65.26	74.00	-8.74	V	Peak	Pass	-	Harmonic
5	Bluetooth BR_GFSK	39	2312.75	54.44	74.00	-19.56	H	Peak	Pass	-	Band Edge
	Bluetooth BR_GFSK	39	2313.00	64.04	74.00	-9.96	H	Peak	Pass	-	Harmonic
6	Bluetooth BR_GFSK	78	2483.54	62.06	74.00	-11.94	H	Peak	Pass	-	Band Edge
	Bluetooth BR_GFSK	78	2352.00	67.26	74.00	-6.74	H	Peak	Pass	-	Harmonic
7	LF	78	35.82	32.67	40.00	-7.33	V	QP	Pass	-	LF
8	SHF	78	18959.00	41.42	74.00	-32.58	H	Peak	Pass	-	SHF

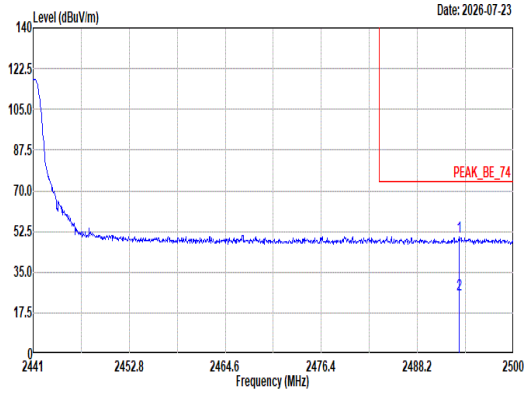
Mode	1	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH00_2402MHz	
ANT	Antenna 1	
Pol.	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition: PEAK_BE_74 3m HF_9120D_02360_251105 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Limit Read Ant Cable Preamp Aux APos TPos Freq Level Line Margin Level Factor Loss Factor Factor Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2325.46 51.88 74.00 -22.12 43.39 27.20 7.86 36.25 9.68 400 308 Peak 2 2325.46 27.09 54.00 -26.91 -- -- -- -- -- -- -- AVERAGE	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Limit Read Ant Cable Preamp Aux APos TPos Freq Level Line Margin Level Factor Loss Factor Factor Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2402.00 118.49 ------ ------ 109.66 27.40 8.01 36.26 9.68 400 308 Peak 2 2402.00 93.70 ------ ------ -- -- -- -- -- -- -- Average

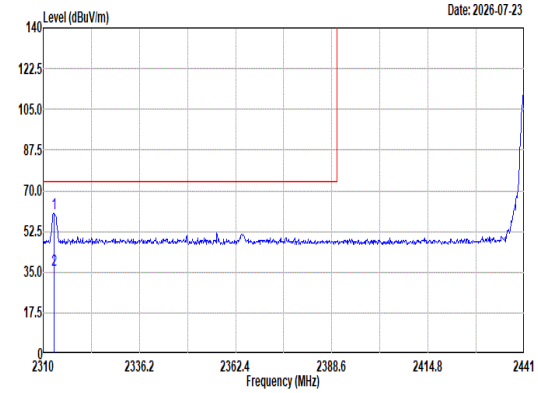
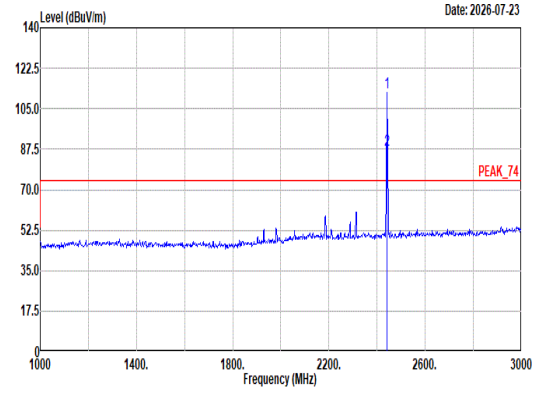
Mode	1	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH00_2402MHz	
ANT	Antenna 1	
Pol.	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition: PEAK_BE_74 3m HF_9120D_02360_251105 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2325.00 51.20 74.00 -22.80 42.71 27.20 7.86 36.25 9.68 100 180 Peak 2 2325.00 26.41 54.00 -27.59 -- -- -- -- -- -- -- AVERAGE	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2402.00 116.18 ------ ------ 107.35 27.40 8.01 36.26 9.68 100 180 Peak 2 2402.00 91.39 ------ ------ -- -- -- -- -- -- -- Average

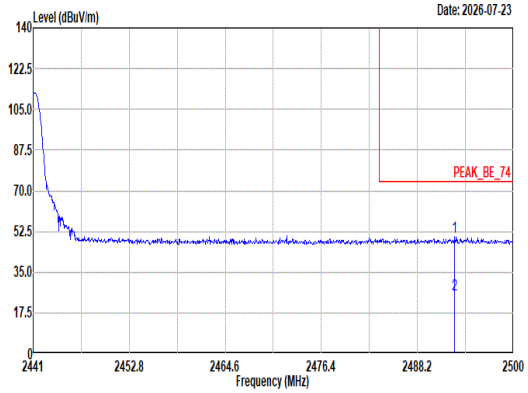
Mode	1	
	Harmonic	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH00_2402MHz	
ANT	Antenna 1	
Pol.	Horizontal	Vertical
Peak Avg	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 HORIZONTAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2248.00 56.32 74.00 -17.68 48.06 27.10 7.71 36.23 9.68 367 312 Peak 2 2248.00 31.53 54.00 -22.47 -- -- -- -- -- -- -- Average 3 2274.00 66.88 74.00 -7.12 58.48 27.20 7.76 36.24 9.68 400 312 Peak 4 2274.00 42.09 54.00 -11.91 -- -- -- -- -- -- -- Average 5 4804.00 43.34 74.00 -30.66 36.89 32.22 11.15 37.44 0.52 -- -- Peak 6 4804.00 18.55 54.00 -35.45 -- -- -- -- -- -- -- Average	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 VERTICAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2248.00 56.85 74.00 -17.15 48.59 27.10 7.71 36.23 9.68 100 204 Peak 2 2248.00 32.06 54.00 -21.94 -- -- -- -- -- -- -- Average 3 2274.00 67.69 74.00 -6.31 59.29 27.20 7.76 36.24 9.68 100 196 Peak 4 2274.00 42.90 54.00 -11.10 -- -- -- -- -- -- -- Average 5 4804.00 43.33 74.00 -30.67 36.88 32.22 11.15 37.44 0.52 -- -- Peak 6 4804.00 18.54 54.00 -35.46 -- -- -- -- -- -- -- Average

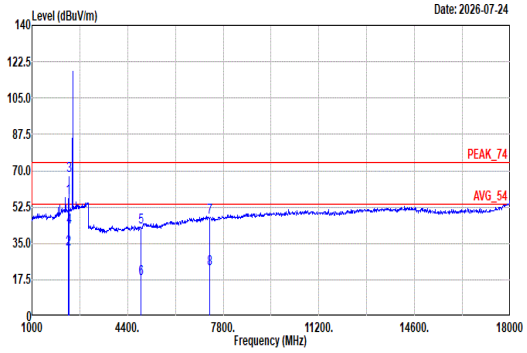
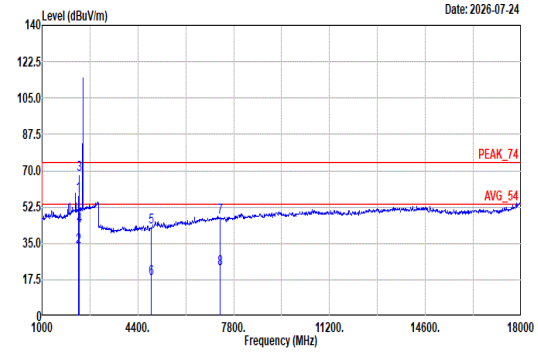
Mode	1	
	Harmonic	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH00_2402MHz	
ANT	Antenna 1	
Pol.	Horizontal	Vertical
10G ~18G Avg		

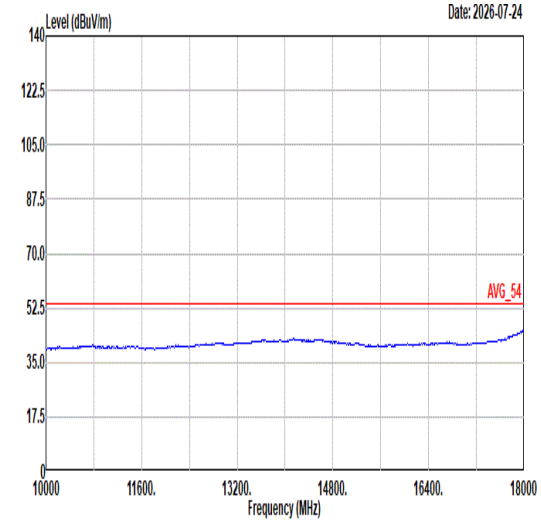
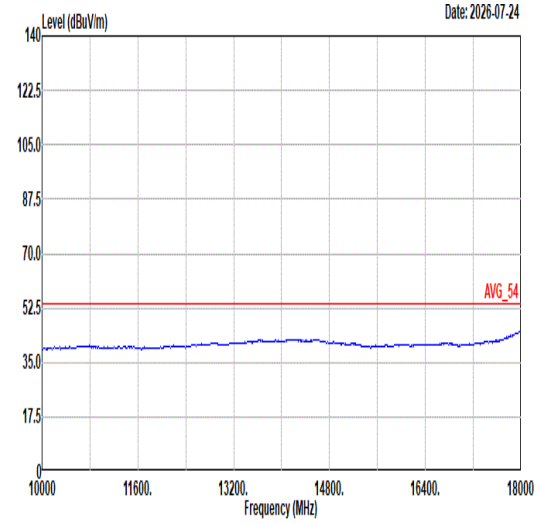
Mode	2	
	Band Edge - L	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH39_2441MHz	
ANT	Antenna 1	
Pol.	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition: PEAK_BE_74 3m HF_9120D_02360_251105 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2312.88 60.81 74.00 -13.19 52.33 27.20 7.84 36.24 9.68 400 311 Peak 2 2312.88 36.02 54.00 -17.98 -- -- -- -- -- -- -- AVERAGE	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2441.00 117.97 ------ ------ 108.95 27.50 8.10 36.26 9.68 400 311 Peak 2 2441.00 93.18 ------ ------ -- -- -- -- -- -- -- Average

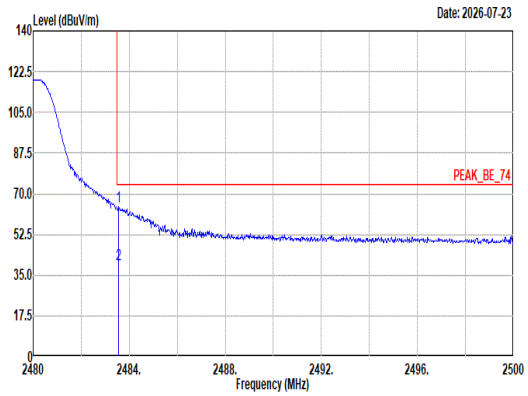
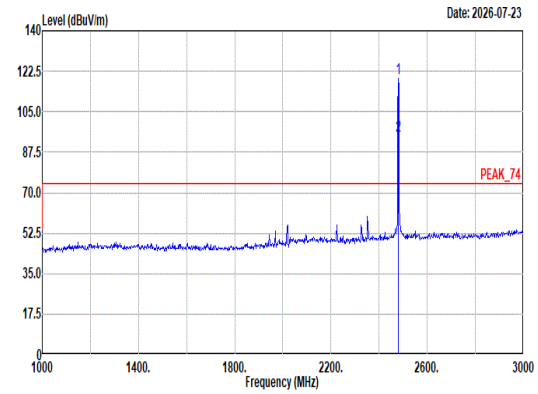
Mode	2	
	Band Edge - R	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH39_2441MHz	
ANT	Antenna 1	
Pol.	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition: PEAK_BE_74 3m HF_9120D_02360_251105 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2493.33 50.29 74.00 -23.71 40.87 27.80 8.21 36.27 9.68 400 311 Peak 2 2493.33 25.50 54.00 -28.50 -- -- -- -- -- -- -- AVERAGE	Blank

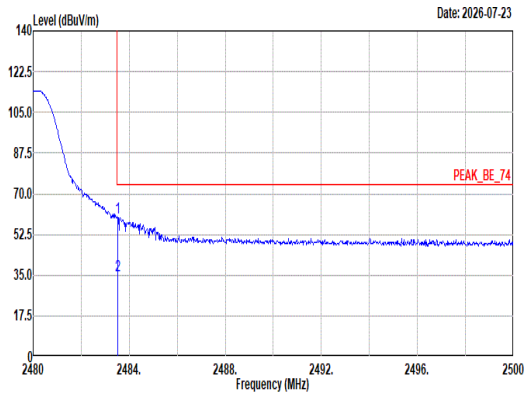
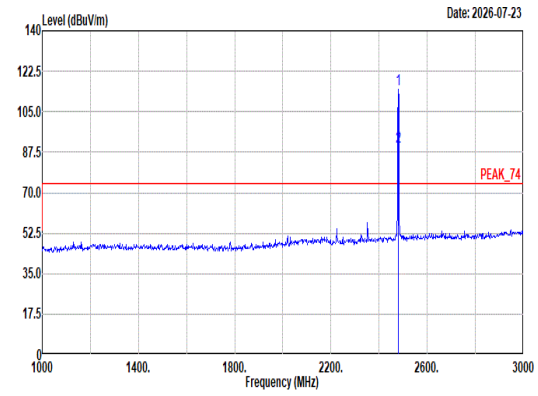
Mode	2	
	Band Edge - L	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH39_2441MHz	
ANT	Antenna 1	
Pol.	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition: PEAK_BE_74 3m HF_9120D_02360_251105 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2312.88 60.46 74.00 -13.54 51.98 27.20 7.84 36.24 9.68 100 199 Peak 2 2312.88 35.67 54.00 -18.33 -- -- -- -- -- -- -- AVERAGE	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2441.00 112.07 ------ ------ 103.05 27.50 8.10 36.26 9.68 100 199 Peak 2 2441.00 87.28 ------ ------ -- -- -- -- -- -- -- Average

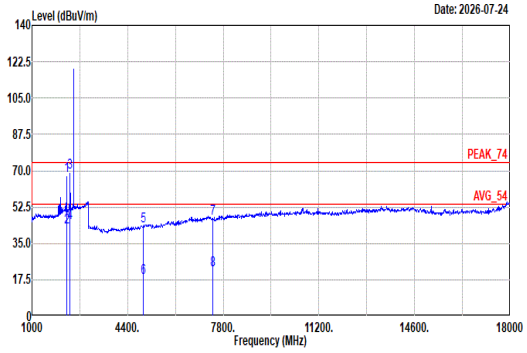
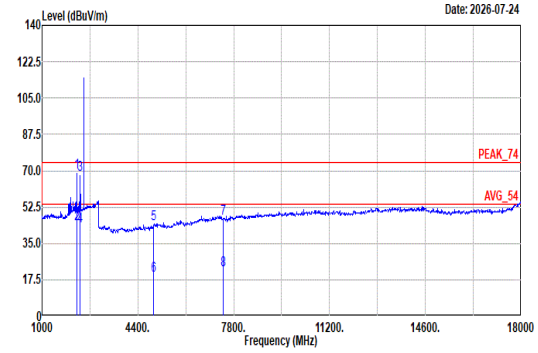
Mode	2	
	Band Edge - R	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH39_2441MHz	
ANT	Antenna 1	
Pol.	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition: PEAK_BE_74 3m HF_9120D_02360_251105 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Limit Read Ant Cable Preamp Aux APos TPos Freq Level Line Margin Level Factor Loss Factor Factor Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2492.80 50.33 74.00 -23.67 40.92 27.80 8.20 36.27 9.68 100 199 Peak 2 2492.80 25.54 54.00 -28.46 -- -- -- -- -- -- -- AVERAGE	Blank

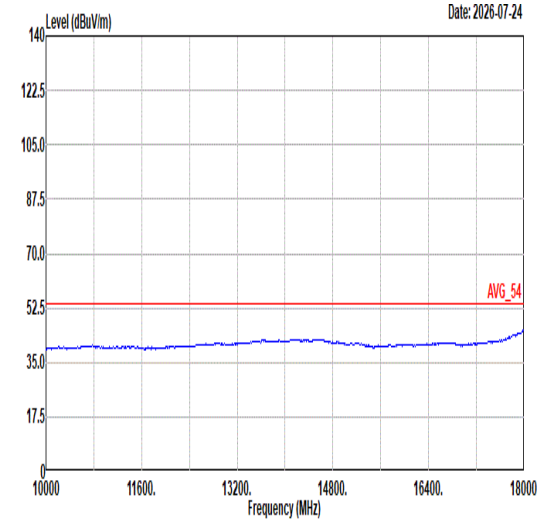
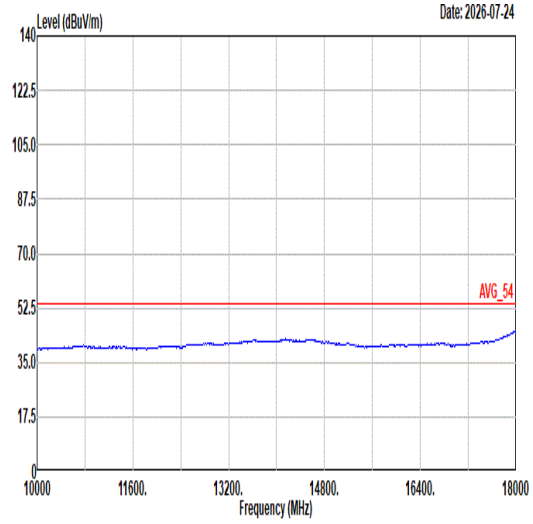
Mode	2	
	Harmonic	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH39_2441MHz	
ANT	Antenna 1	
Pol.	Horizontal	Vertical
Peak Avg	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 HORIZONTAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2288.00 56.90 74.00 -17.10 48.63 27.04 7.79 36.24 9.68 400 312 Peak 2 2288.00 32.11 54.00 -21.89 -- -- -- -- -- -- -- Average 3 2313.00 67.68 74.00 -6.32 59.20 27.20 7.84 36.24 9.68 394 311 Peak 4 2313.00 42.89 54.00 -11.11 -- -- -- -- -- -- -- Average 5 4882.00 42.82 74.00 -31.18 35.93 32.63 11.24 37.49 0.51 -- -- Peak 6 4882.00 18.03 54.00 -35.97 -- -- -- -- -- -- -- Average 7 7323.00 47.63 74.00 -26.37 34.90 36.76 13.83 38.25 0.39 -- -- Peak 8 7323.00 22.84 54.00 -31.16 -- -- -- -- -- -- -- Average	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 VERTICAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2288.00 57.97 74.00 -16.03 49.70 27.04 7.79 36.24 9.68 146 197 Peak 2 2288.00 33.18 54.00 -20.82 -- -- -- -- -- -- -- Average 3 2313.00 68.29 74.00 -5.71 59.81 27.20 7.84 36.24 9.68 115 198 Peak 4 2313.00 43.50 54.00 -10.50 -- -- -- -- -- -- -- Average 5 4882.00 42.71 74.00 -31.29 35.82 32.63 11.24 37.49 0.51 -- -- Peak 6 4882.00 17.92 54.00 -36.08 -- -- -- -- -- -- -- Average 7 7323.00 47.51 74.00 -26.49 34.78 36.76 13.83 38.25 0.39 -- -- Peak 8 7323.00 22.72 54.00 -31.28 -- -- -- -- -- -- -- Average

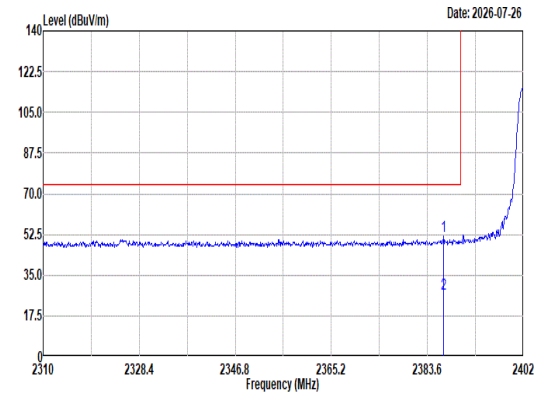
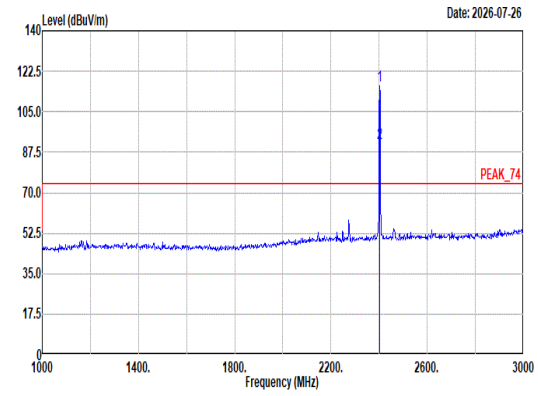
Mode	2	
	Harmonic	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH39_2441MHz	
ANT	Antenna 1	
Pol.	Horizontal	Vertical
10G ~18G Avg		

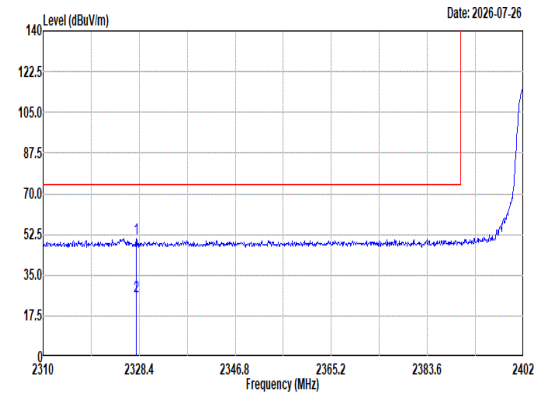
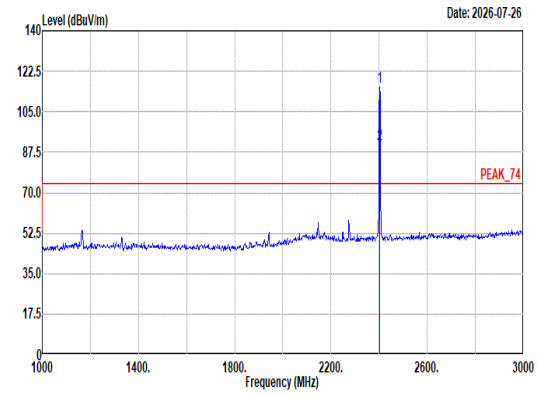
Mode	3	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH78_2480MHz	
ANT	Antenna 1	
Pol.	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition: PEAK_BE_74 3m HF_9120D_02360_251105 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2483.56 64.35 74.00 -9.65 55.01 27.74 8.19 36.27 9.68 300 55 Peak 2 2483.56 39.56 54.00 -14.44 -- -- -- -- -- -- -- AVERAGE	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2480.00 119.22 ------ ------ 109.93 27.70 8.18 36.27 9.68 300 55 Peak 2 2480.00 94.43 ------ ------ -- -- -- -- -- -- -- Average

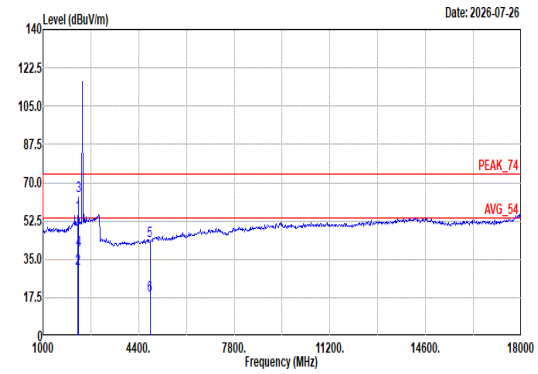
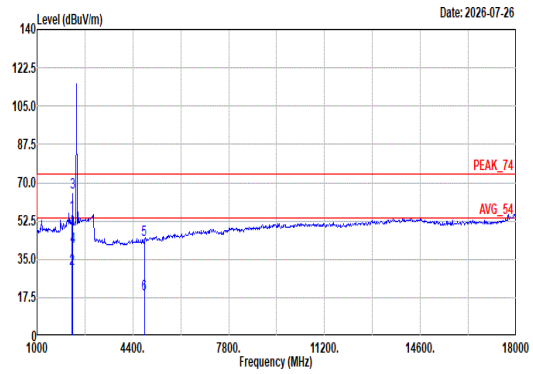
Mode	3	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH78_2480MHz	
ANT	Antenna 1	
Pol.	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition: PEAK_BE_74 3m HF_9120D_02360_251105 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2483.52 59.72 74.00 -14.28 50.38 27.74 8.19 36.27 9.68 100 96 Peak 2 2483.52 34.93 54.00 -19.07 -- -- -- -- -- -- -- AVERAGE	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2480.00 114.43 ------ ------ 105.14 27.70 8.18 36.27 9.68 100 96 Peak 2 2480.00 89.64 ------ ------ -- -- -- -- -- -- -- Average

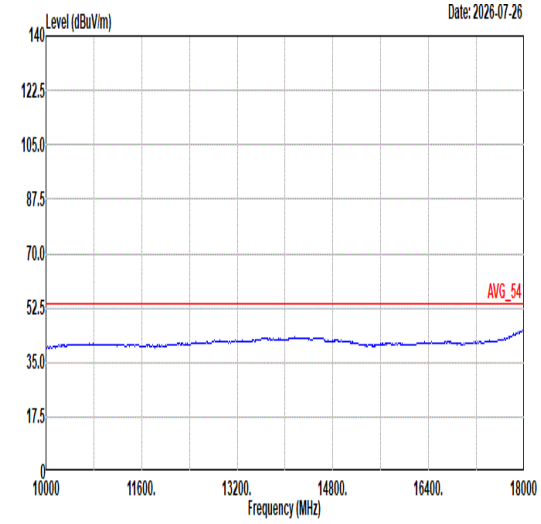
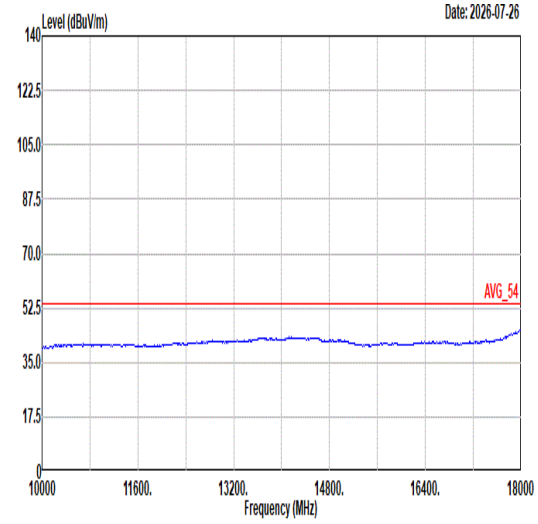
Mode	3	
	Harmonic	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH78_2480MHz	
ANT	Antenna 1	
Pol.	Horizontal	Vertical
Peak Avg	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 HORIZONTAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2224.00 67.61 74.00 -6.39 59.40 27.10 7.66 36.23 9.68 392 314 Peak 2 2224.00 42.82 54.00 -11.18 -- -- -- -- -- -- -- Average 3 2352.00 69.43 74.00 -4.57 60.79 27.30 7.91 36.25 9.68 294 46 Peak 4 2352.00 44.64 54.00 -9.36 -- -- -- -- -- -- -- Average 5 4960.00 43.12 74.00 -30.88 35.76 33.06 11.34 37.54 0.50 -- -- Peak 6 4960.00 18.33 54.00 -35.67 -- -- -- -- -- -- -- Average 7 7440.00 46.92 74.00 -27.08 34.44 36.48 13.97 38.38 0.41 -- -- Peak 8 7440.00 22.13 54.00 -31.87 -- -- -- -- -- -- -- Average	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 VERTICAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2224.00 69.20 74.00 -4.80 60.99 27.10 7.66 36.23 9.68 193 196 Peak 2 2224.00 44.41 54.00 -9.59 -- -- -- -- -- -- -- Average 3 2352.00 68.10 74.00 -5.90 59.46 27.30 7.91 36.25 9.68 128 201 Peak 4 2352.00 43.31 54.00 -10.69 -- -- -- -- -- -- -- Average 5 4960.00 44.14 74.00 -29.86 36.78 33.06 11.34 37.54 0.50 -- -- Peak 6 4960.00 19.35 54.00 -34.65 -- -- -- -- -- -- -- Average 7 7440.00 47.16 74.00 -26.84 34.68 36.48 13.97 38.38 0.41 -- -- Peak 8 7440.00 22.37 54.00 -31.63 -- -- -- -- -- -- -- Average

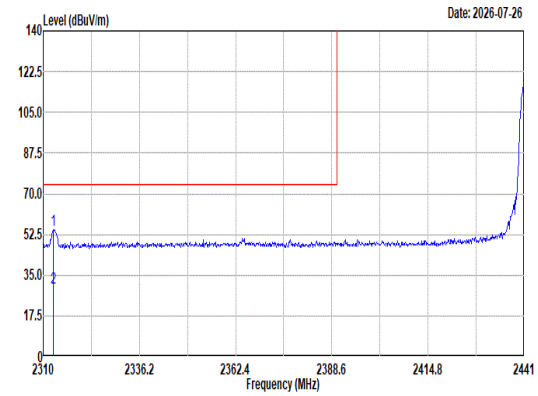
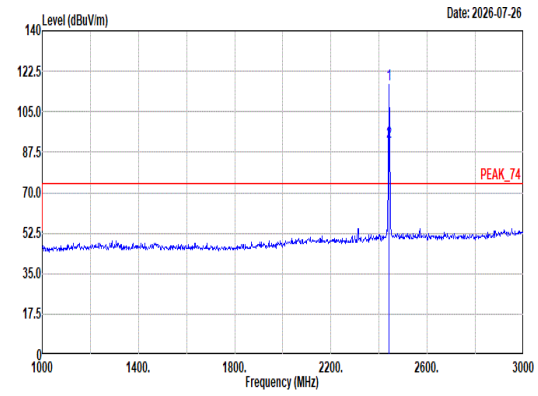
Mode	3	
	Harmonic	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH78_2480MHz	
ANT	Antenna 1	
Pol.	Horizontal	Vertical
10G ~18G Avg	 Site : 03CH20-HY Condition: AVG_54 3m HF_9120D_02360_251105 HORIZONTAL	 Site : 03CH20-HY Condition: AVG_54 3m HF_9120D_02360_251105 VERTICAL

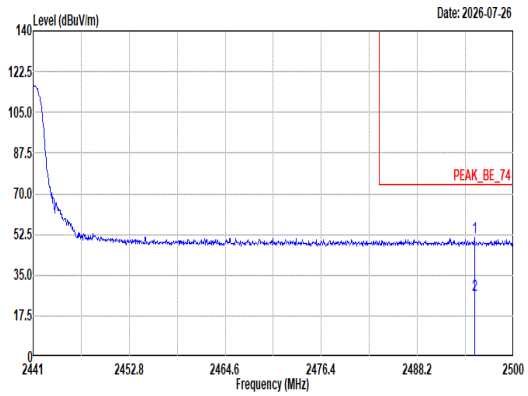
Mode	4	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH00_2402MHz	
ANT	Antenna 2	
Pol.	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition: PEAK_BE_74 3m HF_9120D_02360_251105 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2386.64 51.72 74.00 -22.28 43.04 27.27 7.98 36.25 9.68 400 311 Peak 2 2386.64 26.93 54.00 -27.07 -- -- -- -- -- -- -- AVERAGE	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2402.00 116.42 ------ ------ 107.59 27.40 8.01 36.26 9.68 400 311 Peak 2 2402.00 91.63 ------ ------ -- -- -- -- -- -- -- Average

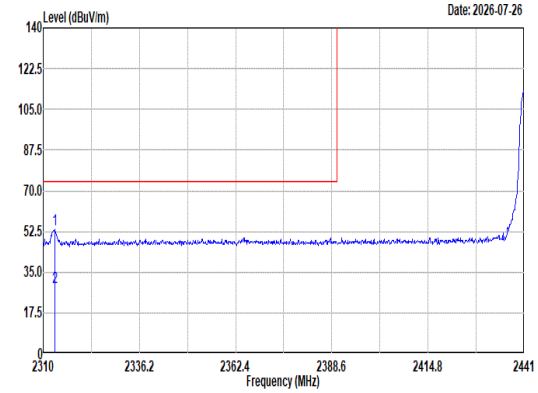
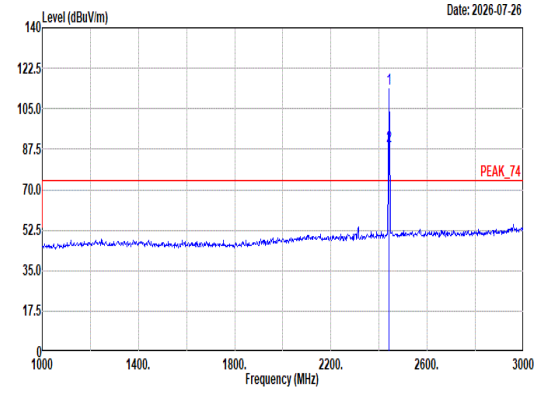
Mode	4	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH00_2402MHz	
ANT	Antenna 2	
Pol.	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition: PEAK_BE_74 3m HF_9120D_02360_251105 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Limit Read Ant Cable Preamp Aux APos TPos Freq Level Line Margin Level Factor Loss Factor Factor Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2327.85 50.61 74.00 -23.39 42.11 27.20 7.87 36.25 9.68 100 174 Peak 2 2327.85 25.82 54.00 -28.18 -- -- -- -- -- -- -- AVERAGE	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Limit Read Ant Cable Preamp Aux APos TPos Freq Level Line Margin Level Factor Loss Factor Factor Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2402.00 115.57 ------ ------ 106.74 27.40 8.01 36.26 9.68 100 174 Peak 2 2402.00 90.78 ------ ------ -- -- -- -- -- -- -- Average

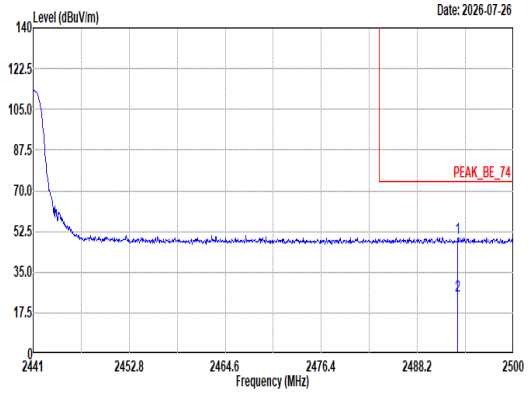
Mode	4	
	Harmonic	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH00_2402MHz	
ANT	Antenna 2	
Pol.	Horizontal	Vertical
Peak Avg	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 HORIZONTAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2248.00 55.27 74.00 -18.73 47.01 27.10 7.71 36.23 9.68 200 61 Peak 2 2248.00 30.48 54.00 -23.52 -- -- -- -- -- -- -- Average 3 2274.00 63.92 74.00 -10.08 55.52 27.20 7.76 36.24 9.68 300 38 Peak 4 2274.00 39.13 54.00 -14.87 -- -- -- -- -- -- -- Average 5 4804.00 43.45 74.00 -30.55 37.00 32.22 11.15 37.44 0.52 -- -- Peak 6 4804.00 18.66 54.00 -35.34 -- -- -- -- -- -- -- Average	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 VERTICAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2248.00 55.64 74.00 -18.36 47.38 27.10 7.71 36.23 9.68 100 211 Peak 2 2248.00 30.85 54.00 -23.15 -- -- -- -- -- -- -- Average 3 2274.00 65.26 74.00 -8.74 56.86 27.20 7.76 36.24 9.68 100 205 Peak 4 2274.00 40.47 54.00 -13.53 -- -- -- -- -- -- -- Average 5 4804.00 43.80 74.00 -30.20 37.35 32.22 11.15 37.44 0.52 -- -- Peak 6 4804.00 19.01 54.00 -34.99 -- -- -- -- -- -- -- Average

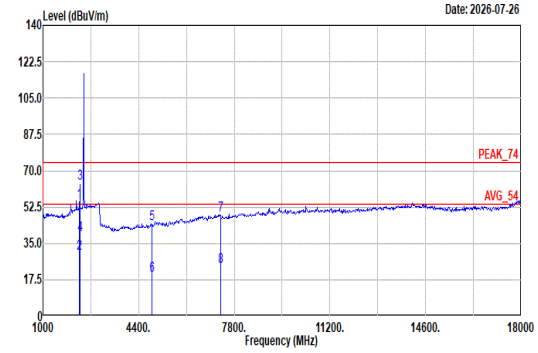
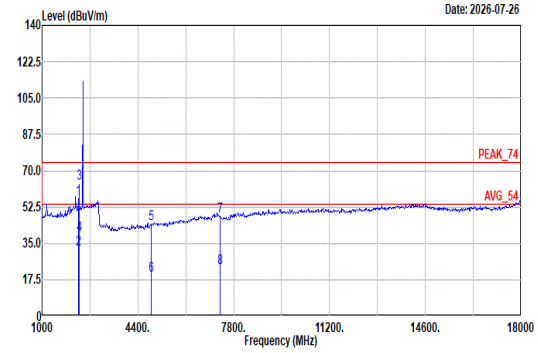
Mode	4	
	Harmonic	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH00_2402MHz	
ANT	Antenna 2	
Pol.	Horizontal	Vertical
10G ~18G Avg		

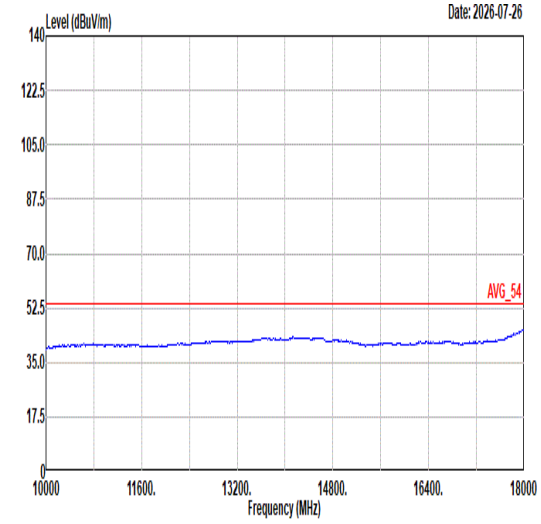
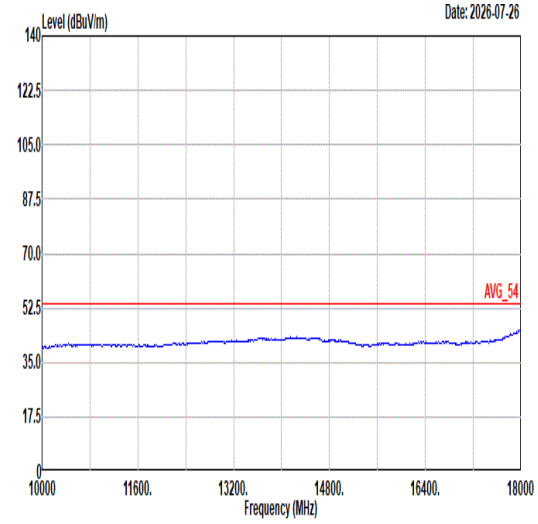
Mode	5	
	Band Edge - L	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH39_2441MHz	
ANT	Antenna 2	
Pol.	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition: PEAK_BE_74 3m HF_9120D_02360_251105 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2312.75 54.44 74.00 -19.56 45.96 27.20 7.84 36.24 9.68 100 182 Peak 2 2312.75 29.65 54.00 -24.35 -- -- -- -- -- -- -- AVERAGE	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2441.00 116.96 ------ ------ 107.94 27.50 8.10 36.26 9.68 100 182 Peak 2 2441.00 92.17 ------ ------ -- -- -- -- -- -- -- Average

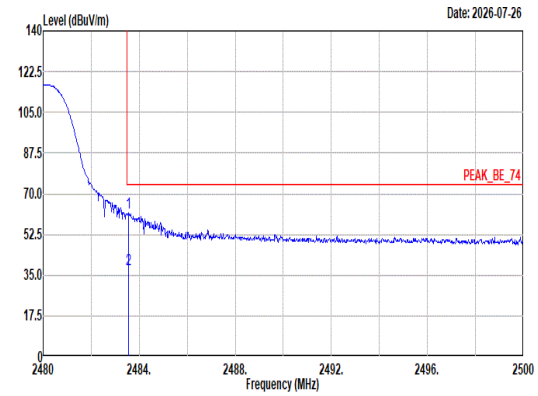
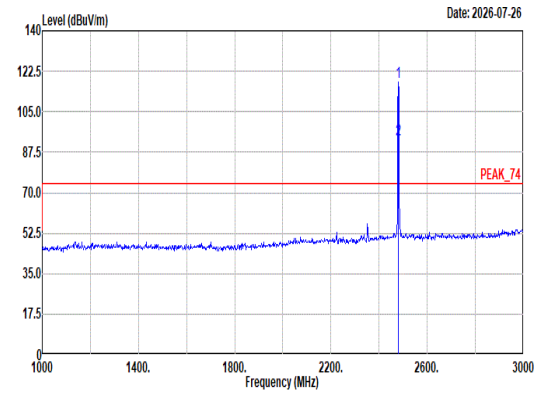
Mode	5	
	Band Edge - R	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH39_2441MHz	
ANT	Antenna 2	
Pol.	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition: PEAK_BE_74 3m HF_9120D_02360_251105 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Limit Read Ant Cable Preamp Aux APos TPos Freq Level Line Margin Level Factor Loss Factor Factor Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2495.22 51.11 74.00 -22.89 41.69 27.80 8.21 36.27 9.68 100 182 Peak 2 2495.22 26.32 54.00 -27.68 -- -- -- -- -- -- -- AVERAGE	Blank

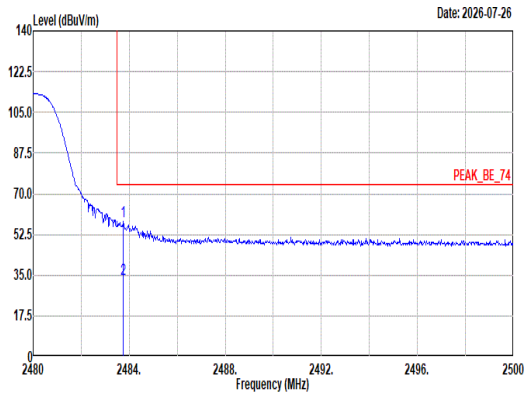
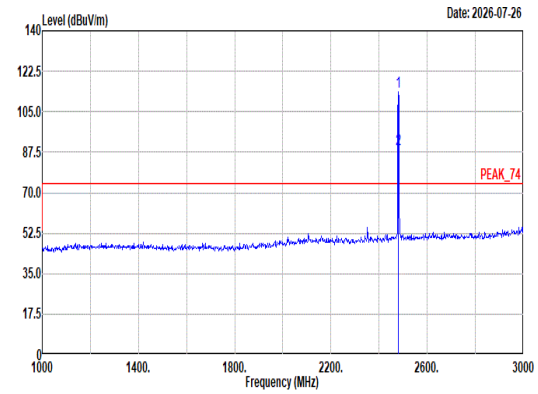
Mode	5	
	Band Edge - L	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH39_2441MHz	
ANT	Antenna 2	
Pol.	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition: PEAK_BE_74 3m HF_9120D_02360_251105 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2313.14 53.20 74.00 -20.80 44.72 27.20 7.84 36.24 9.68 107 102 Peak 2 2313.14 28.41 54.00 -25.59 -- -- -- -- -- -- -- AVERAGE	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2441.00 113.74 ------ ------ 104.72 27.50 8.10 36.26 9.68 107 102 Peak 2 2441.00 88.95 ------ ------ -- -- -- -- -- -- -- Average

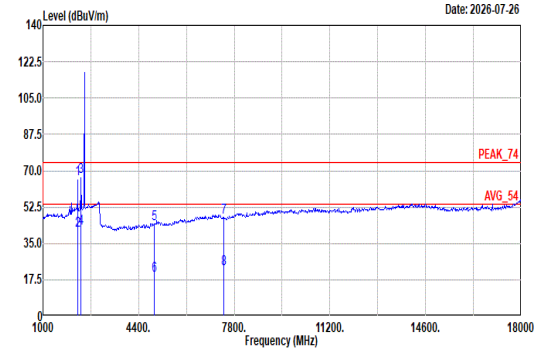
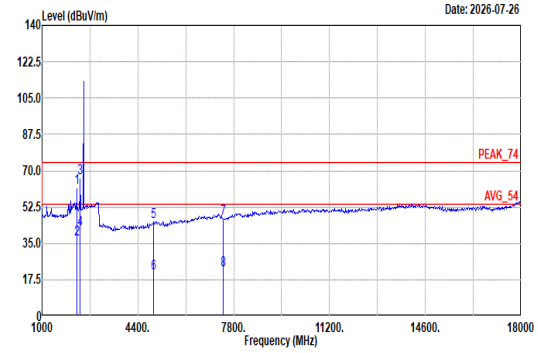
Mode	5	
	Band Edge - R	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH39_2441MHz	
ANT	Antenna 2	
Pol.	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition: PEAK_BE_74 3m HF_9120D_02360_251105 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Limit Read Ant Cable Preamp Aux APos TPos Freq Level Line Margin Level Factor Loss Factor Factor Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2493.16 49.88 74.00 -24.12 40.46 27.80 8.21 36.27 9.68 107 102 Peak 2 2493.16 25.09 54.00 -28.91 -- -- -- -- -- -- -- AVERAGE	Blank

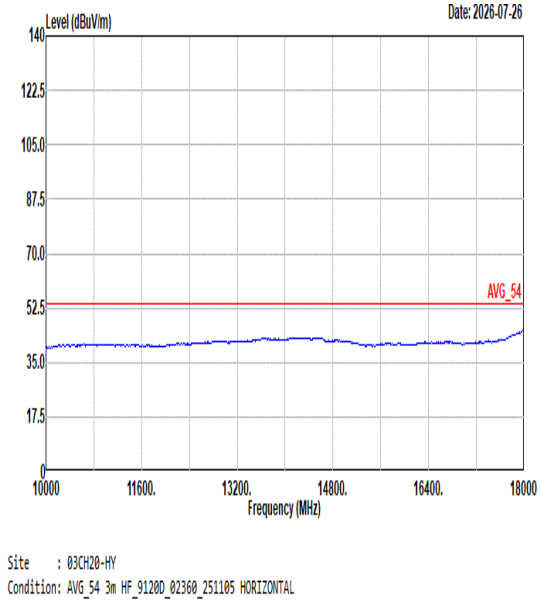
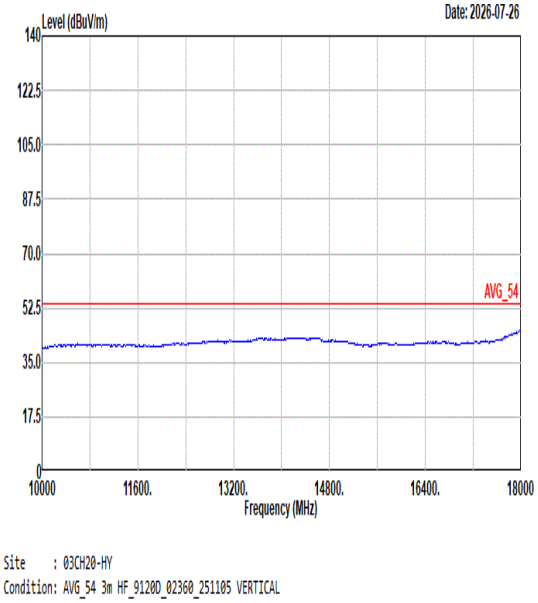
Mode	5	
	Harmonic	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH39_2441MHz	
ANT	Antenna 2	
Pol.	Horizontal	Vertical
Peak Avg	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 HORIZONTAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2288.00 54.92 74.00 -19.08 46.65 27.04 7.79 36.24 9.68 400 315 Peak 2 2288.00 30.13 54.00 -23.87 -- -- -- -- -- -- -- Average 3 2313.00 64.04 74.00 -9.96 55.56 27.20 7.84 36.24 9.68 400 312 Peak 4 2313.00 39.25 54.00 -14.75 -- -- -- -- -- -- -- Average 5 4882.00 44.24 74.00 -29.76 37.35 32.63 11.24 37.49 0.51 -- -- Peak 6 4882.00 19.45 54.00 -34.55 -- -- -- -- -- -- -- Average 7 7323.00 48.68 74.00 -25.32 35.95 36.76 13.83 38.25 0.39 -- -- Peak 8 7323.00 23.89 54.00 -30.11 -- -- -- -- -- -- -- Average	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 VERTICAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2288.00 56.79 74.00 -17.21 48.52 27.04 7.79 36.24 9.68 100 170 Peak 2 2288.00 32.00 54.00 -22.00 -- -- -- -- -- -- -- Average 3 2313.00 63.72 74.00 -10.28 55.24 27.20 7.84 36.24 9.68 100 180 Peak 4 2313.00 38.93 54.00 -15.07 -- -- -- -- -- -- -- Average 5 4882.00 44.14 74.00 -29.86 37.25 32.63 11.24 37.49 0.51 -- -- Peak 6 4882.00 19.35 54.00 -34.65 -- -- -- -- -- -- -- Average 7 7323.00 47.98 74.00 -26.02 35.25 36.76 13.83 38.25 0.39 -- -- Peak 8 7323.00 23.19 54.00 -30.81 -- -- -- -- -- -- -- Average

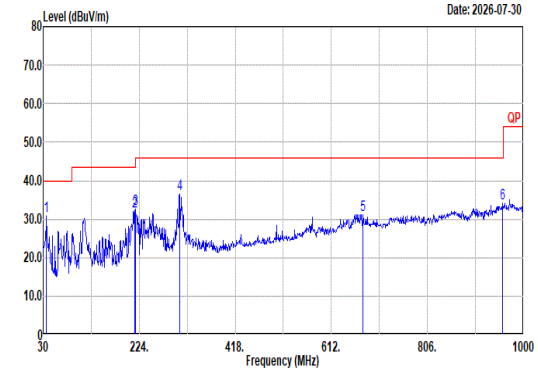
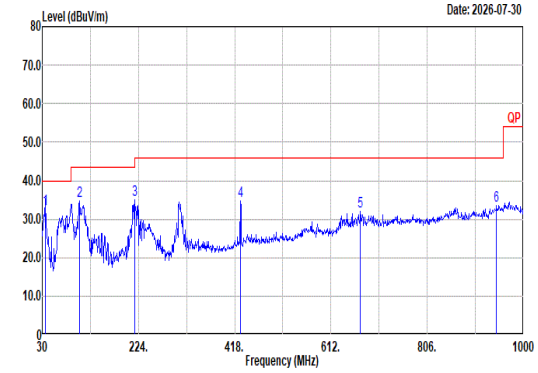
Mode	5	
	Harmonic	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH39_2441MHz	
ANT	Antenna 2	
Pol.	Horizontal	Vertical
10G ~18G Avg		

Mode	6	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH78_2480MHz	
ANT	Antenna 2	
Pol.	Horizontal	Fundamental
Peak	 Site : 03CH20-HY Condition: PEAK_BE_74 3m HF_9120D_02360_251105 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2483.54 62.06 74.00 -11.94 52.72 27.74 8.19 36.27 9.68 100 178 Peak 2 2483.54 37.27 54.00 -16.73 -- -- -- -- -- -- -- AVERAGE	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2480.00 117.58 ------ ------ 108.29 27.70 8.18 36.27 9.68 100 178 Peak 2 2480.00 92.79 ------ ------ -- -- -- -- -- -- -- Average

Mode	6	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH78_2480MHz	
ANT	Antenna 2	
Pol.	Vertical	Fundamental
Peak	 Site : 03CH20-HY Condition: PEAK_BE_74 3m HF_9120D_02360_251105 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2483.76 58.30 74.00 -15.70 48.96 27.74 8.19 36.27 9.68 100 100 Peak 2 2483.76 33.51 54.00 -20.49 -- -- -- -- -- -- -- AVERAGE	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2480.00 113.59 ------ ------ 104.30 27.70 8.18 36.27 9.68 100 100 Peak 2 2480.00 88.80 ------ ------ -- -- -- -- -- -- -- Average

Mode	6	
	Harmonic	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH78_2480MHz	
ANT	Antenna 2	
Pol.	Horizontal	Vertical
Peak Avg	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 HORIZONTAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2224.00 66.08 74.00 -7.92 57.87 27.10 7.66 36.23 9.68 200 40 Peak 2 2224.00 41.29 54.00 -12.71 -- -- -- -- -- -- -- Average 3 2352.00 67.26 74.00 -6.74 58.62 27.30 7.91 36.25 9.68 300 45 Peak 4 2352.00 42.47 54.00 -11.53 -- -- -- -- -- -- -- Average 5 4960.00 44.28 74.00 -29.72 36.92 33.06 11.34 37.54 0.50 -- -- Peak 6 4960.00 19.49 54.00 -34.51 -- -- -- -- -- -- -- Average 7 7440.00 47.31 74.00 -26.69 34.83 36.48 13.97 38.38 0.41 -- -- Peak 8 7440.00 22.52 54.00 -31.48 -- -- -- -- -- -- -- Average	 Site : 03CH20-HY Condition: PEAK_74 3m HF_9120D_02360_251105 VERTICAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2224.00 61.69 74.00 -12.31 53.48 27.10 7.66 36.23 9.68 100 202 Peak 2 2224.00 36.90 54.00 -17.10 -- -- -- -- -- -- -- Average 3 2352.00 66.74 74.00 -7.26 58.10 27.30 7.91 36.25 9.68 100 219 Peak 4 2352.00 41.95 54.00 -12.05 -- -- -- -- -- -- -- Average 5 4960.00 45.31 74.00 -28.69 37.95 33.06 11.34 37.54 0.50 -- -- Peak 6 4960.00 20.52 54.00 -33.48 -- -- -- -- -- -- -- Average 7 7440.00 47.15 74.00 -26.85 34.67 36.48 13.97 38.38 0.41 -- -- Peak 8 7440.00 22.36 54.00 -31.64 -- -- -- -- -- -- -- Average

Mode	6	
	Harmonic	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH78_2480MHz	
ANT	Antenna 2	
Pol.	Horizontal	Vertical
10G ~18G Avg		

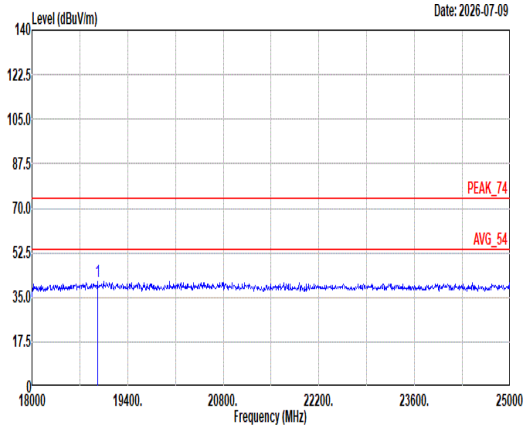
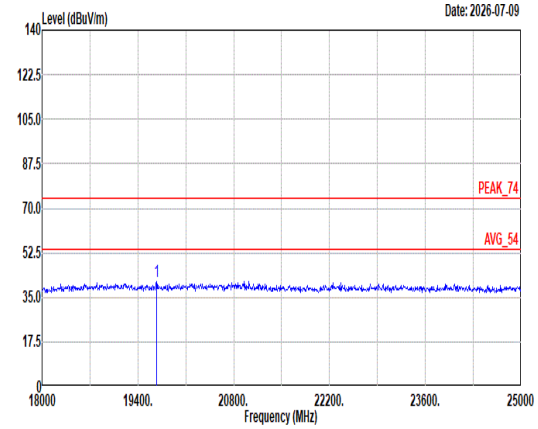
Mode	7	
	LF	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH78_2480MHz	
ANT	Antenna 1	
Pol.	Horizontal	Vertical
QP/ Peak		

Site : 03CH20-HY
Condition: QP 3m Bilog_55606 & 08_251126 HORIZONTAL

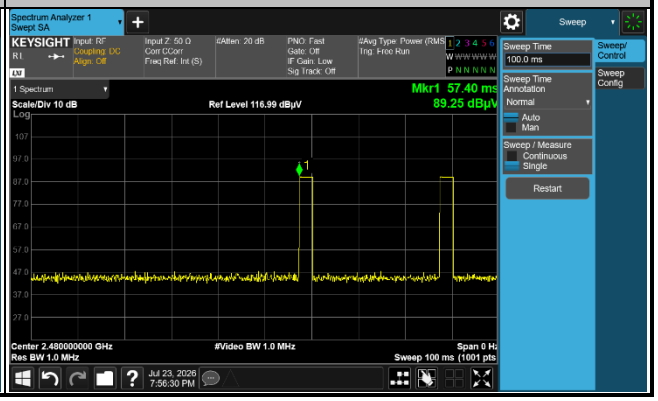
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	36.79	30.75	40.00	-9.25	44.15	21.05	1.21	35.80	0.14	--	--	Peak
2	215.27	32.01	43.50	-11.49	49.61	15.21	2.54	35.48	0.13	--	--	Peak
3	216.24	32.69	46.00	-13.31	50.27	15.22	2.54	35.47	0.13	--	--	Peak
4	305.48	36.48	46.00	-9.52	49.30	19.30	2.98	35.27	0.17	--	--	Peak
5	676.02	31.18	46.00	-14.82	34.26	26.54	4.32	34.18	0.24	--	--	Peak
6	958.29	33.97	46.00	-12.03	30.81	30.89	5.06	33.15	0.36	--	--	Peak

Site : 03CH20-HY
Condition: QP 3m Bilog_55606 & 08_251126 VERTICAL

	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	35.82	32.67	40.00	-7.33	45.54	21.59	1.20	35.80	0.14	100	259	QP
2	105.66	34.61	43.50	-8.89	52.00	16.28	1.85	35.68	0.16	--	--	Peak
3	216.24	35.10	46.00	-10.90	52.68	15.22	2.54	35.47	0.13	--	--	Peak
4	429.64	34.61	46.00	-11.39	43.17	22.70	3.50	34.93	0.17	--	--	Peak
5	671.17	31.96	46.00	-14.04	35.13	26.48	4.30	34.20	0.25	--	--	Peak
6	945.68	33.62	46.00	-12.38	31.09	30.36	5.03	33.20	0.34	--	--	Peak

Mode	8	
	SHF	
	2400-2483.5_Bluetooth BR_GFSK_1DH5_CH78_2480MHz	
ANT	Antenna 1	
Pol.	Horizontal	Vertical
Peak	 Site : 03CH20-HY Condition: PEAK_74 1m BBHA9170_1230_251105 HORIZONTAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 18959.00 41.42 74.00 -32.58 54.82 38.02 22.37 64.25 -9.54 -- -- Peak	 Site : 03CH20-HY Condition: PEAK_74 1m BBHA9170_1230_251105 VERTICAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 19673.00 41.28 74.00 -32.72 54.13 38.09 22.76 64.16 -9.54 -- -- Peak

Appendix D. Duty Cycle Plots

DH5 on time (One Pulse) Plot on Channel 78	on time (Count Pulses) Plot on Channel 78
	

Note:

1. Worst case Duty cycle = on time/100 milliseconds = 2 * 2.88 / 100 = 5.76 %
2. Worst case Duty cycle correction factor = 20*log(Duty cycle) = -24.79 dB
3. 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 ms x 20 channels = 57.6 ms

There cannot be 2 complete hopping sequences within 100ms period, considering the random hopping behavior, maximum 2 hops can be possibly observed within the period. [100 ms / 57.6 ms] = 2 hops

Thus, the maximum possible ON time:

2.88 ms x 2 = 5.76 ms

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

20 x log(5.76 ms/100 ms) = -24.79 dB