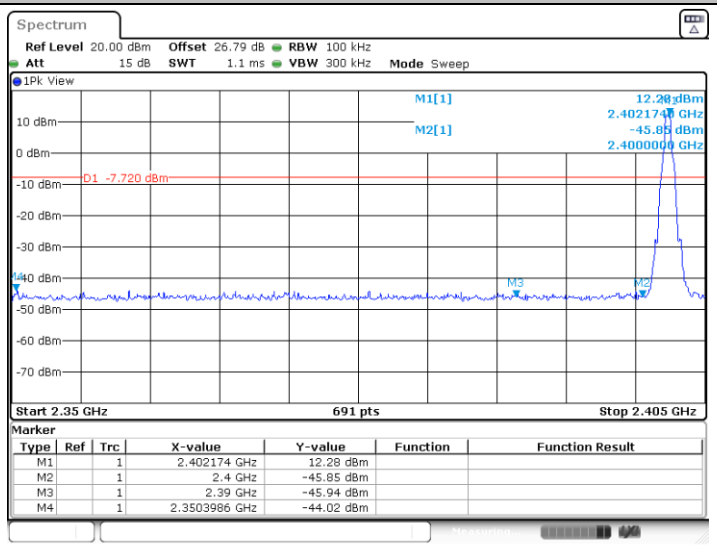
Band edge measurements

Test Result

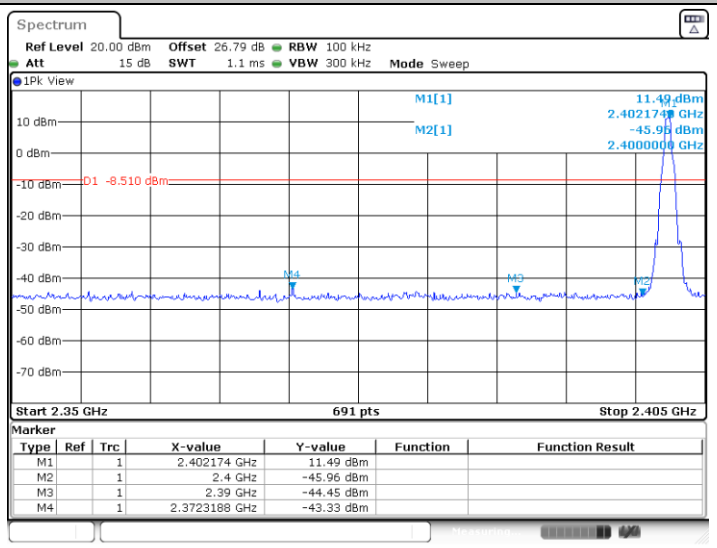
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant16	Low	2402	12.28	-44.02	≤-7.72	PASS
	Ant7	Low	2402	11.49	-43.33	≤-8.51	PASS
	Ant16	High	2480	12.49	-43.07	≤-7.51	PASS
	Ant7	High	2480	11.38	-42.91	≤-8.62	PASS
	Ant16	Low	Hop_2402	11.92	-43.45	≤-8.08	PASS
	Ant7	Low	Hop_2402	11.21	-43.09	≤-8.79	PASS
	Ant16	High	Hop_2480	13.10	-43.34	≤-6.9	PASS
	Ant7	High	Hop_2480	12.30	-43.31	≤-7.7	PASS
2DH1	Ant16	Low	2402	6.94	-44.14	≤-13.06	PASS
	Ant7	Low	2402	5.94	-43.4	≤-14.06	PASS
	Ant16	High	2480	8.01	-43.17	≤-11.99	PASS
	Ant7	High	2480	6.25	-42.8	≤-13.75	PASS
	Ant16	Low	Hop_2402	6.43	-43.83	≤-13.57	PASS
	Ant7	Low	Hop_2402	5.74	-44.05	≤-14.26	PASS
	Ant16	High	Hop_2480	8.62	-42.76	≤-11.38	PASS
	Ant7	High	Hop_2480	6.68	-42.75	≤-13.32	PASS
3DH1	Ant16	Low	2402	7.04	-43.65	≤-12.96	PASS
	Ant7	Low	2402	6.05	-42.87	≤-13.95	PASS
	Ant16	High	2480	8.09	-42.47	≤-11.91	PASS
	Ant7	High	2480	6.33	-42.14	≤-13.67	PASS
	Ant16	Low	Hop_2402	6.74	-44.26	≤-13.26	PASS
	Ant7	Low	Hop_2402	5.74	-43.93	≤-14.26	PASS
	Ant16	High	Hop_2480	8.56	-42.84	≤-11.44	PASS
	Ant7	High	Hop_2480	7.14	-43.19	≤-12.86	PASS

Test Graphs

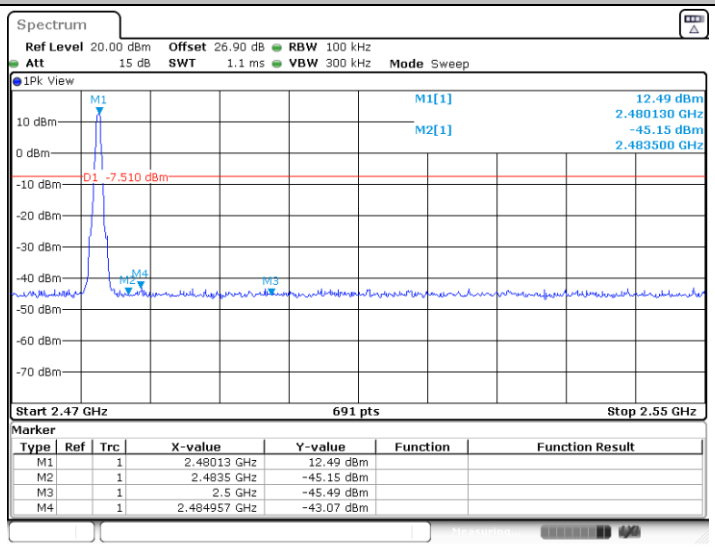
DH5_Ant16_Low_2402



DH5_Ant7_Low_2402



DH5_Ant16_High_2480



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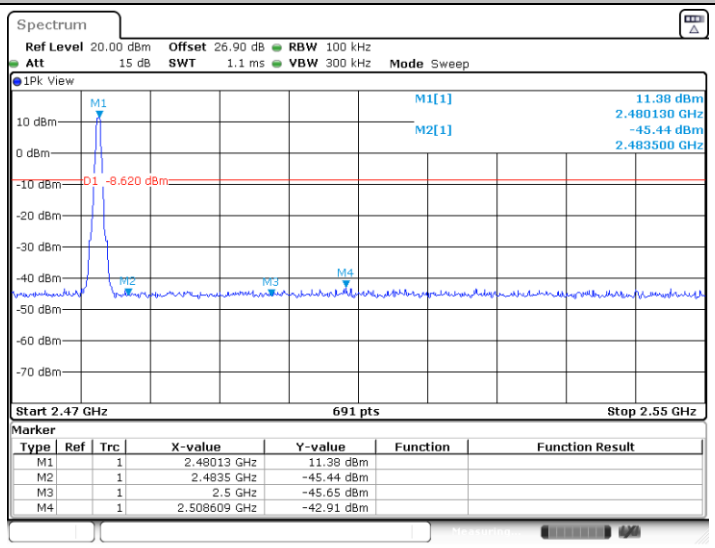

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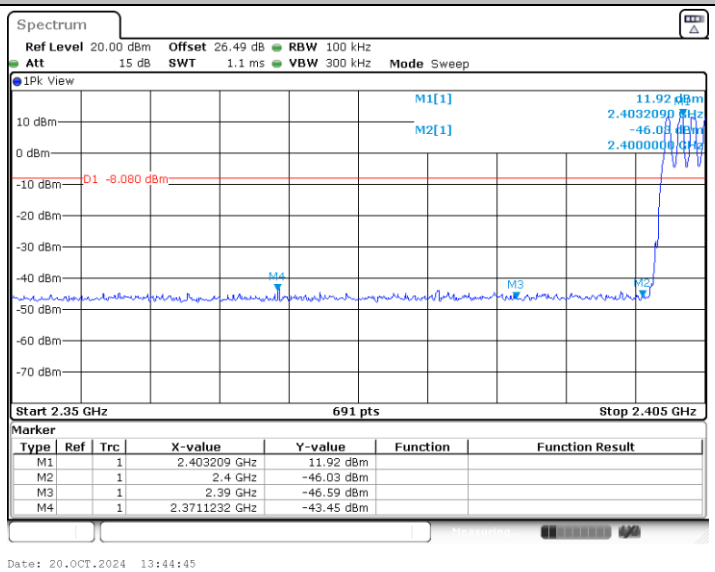

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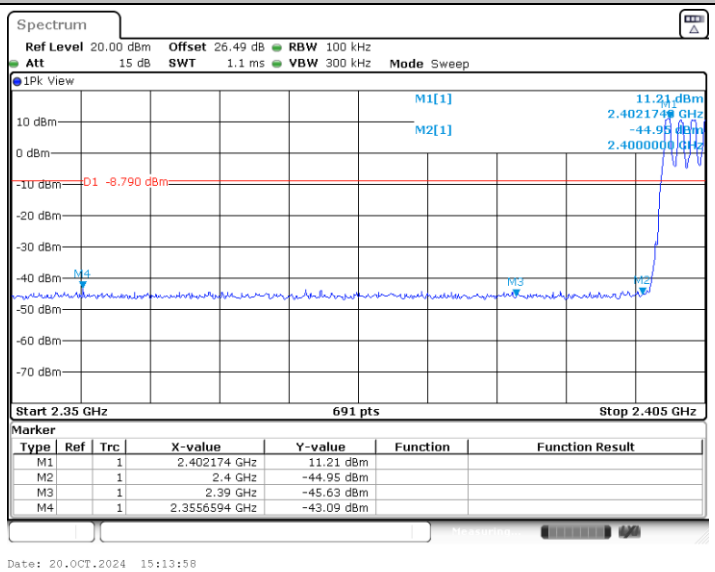

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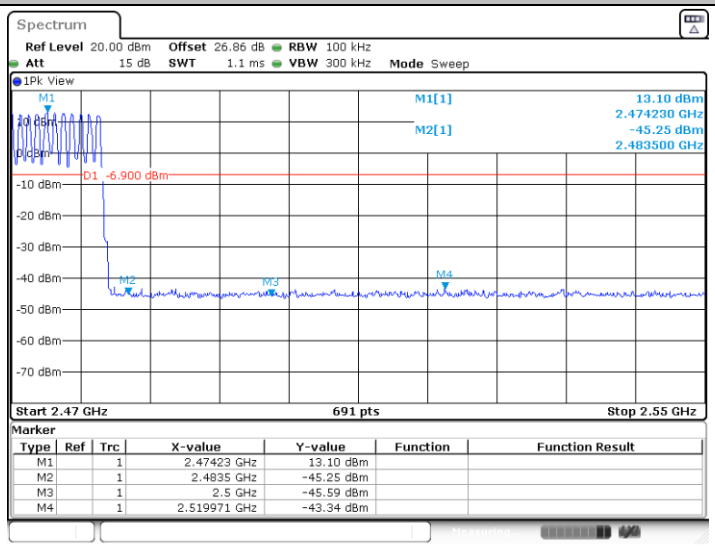

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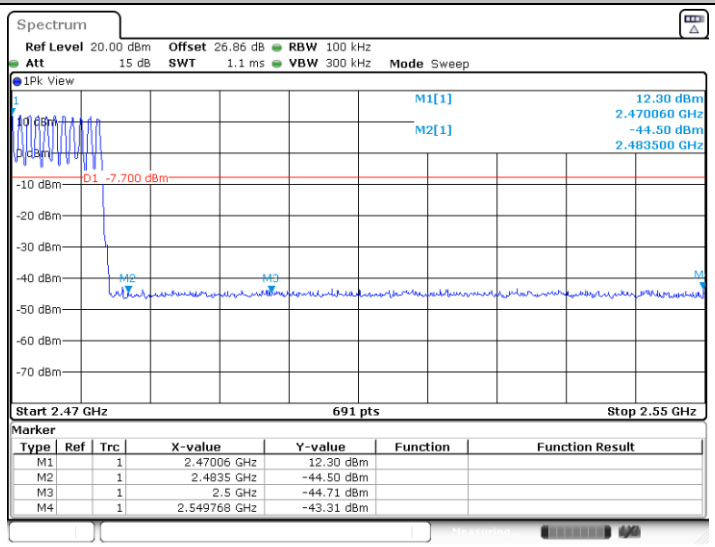

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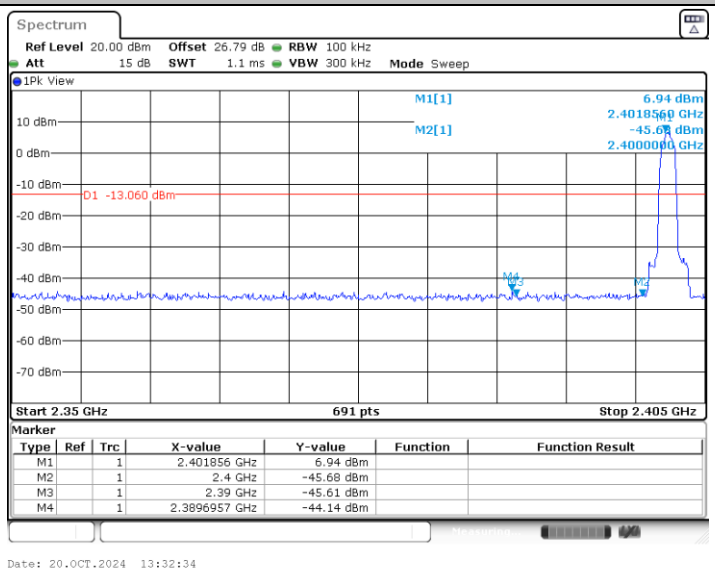

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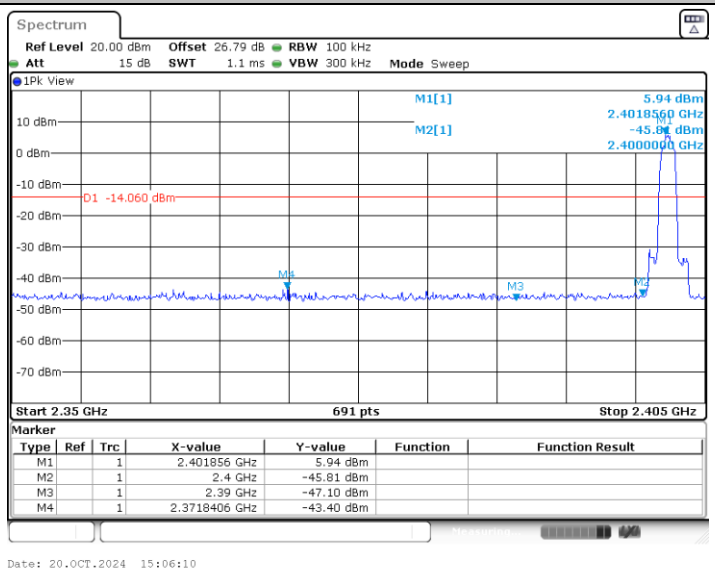

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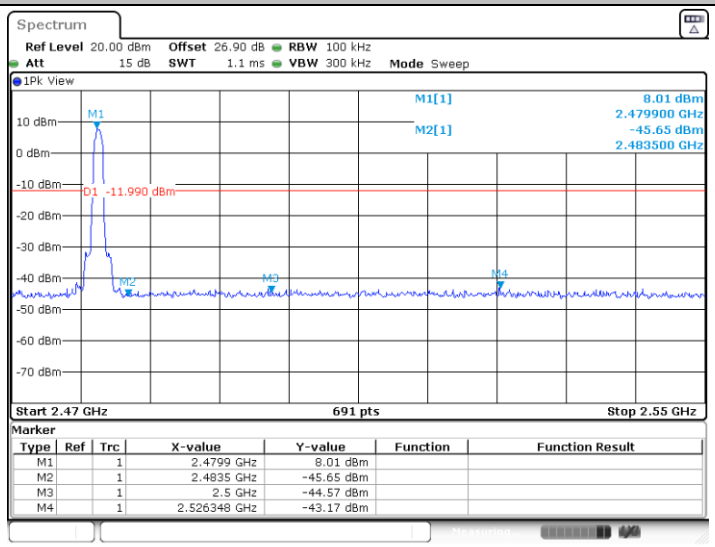

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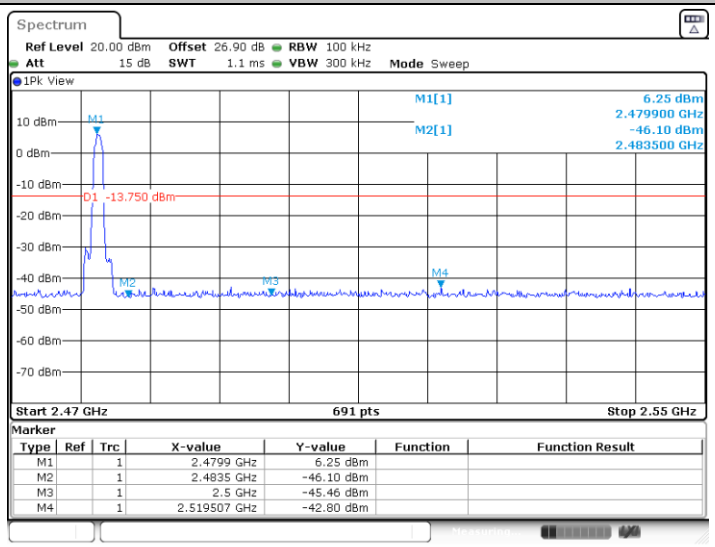

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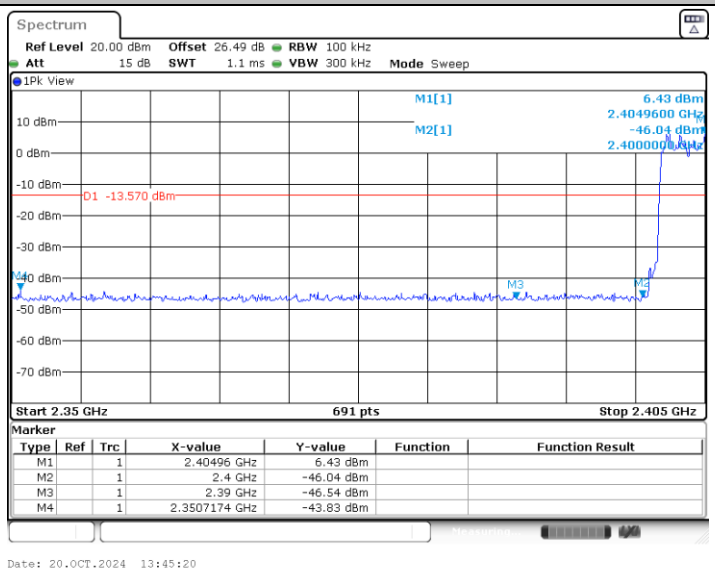

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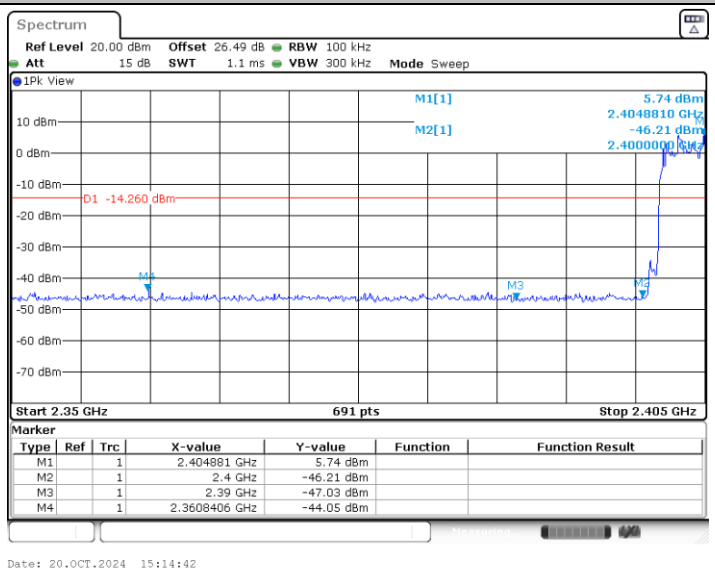

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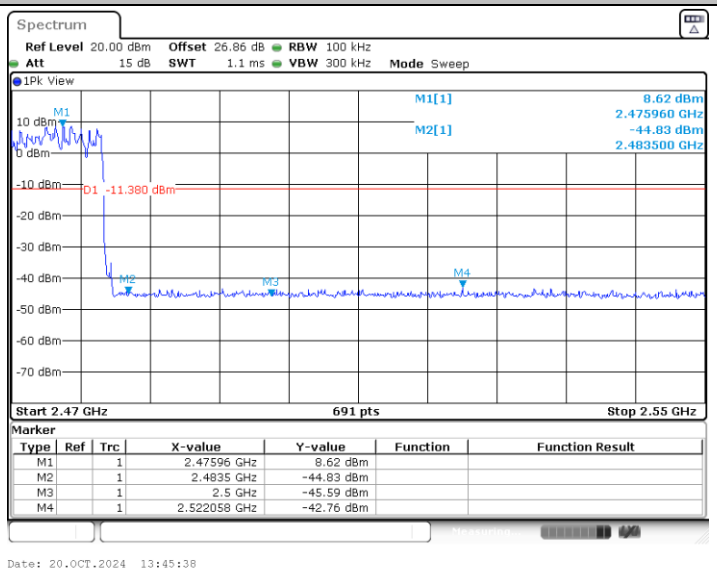

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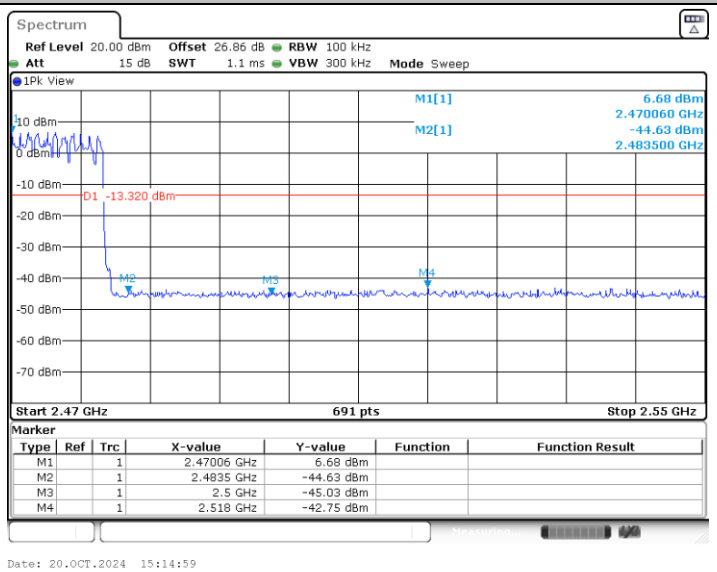

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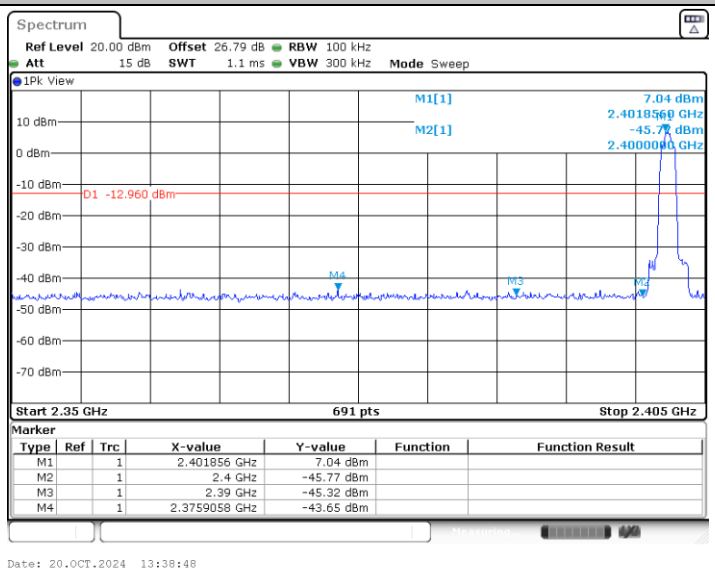

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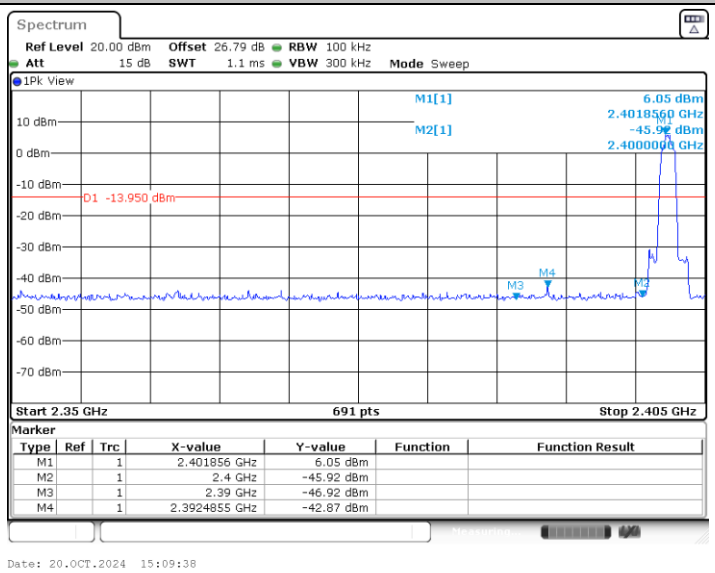

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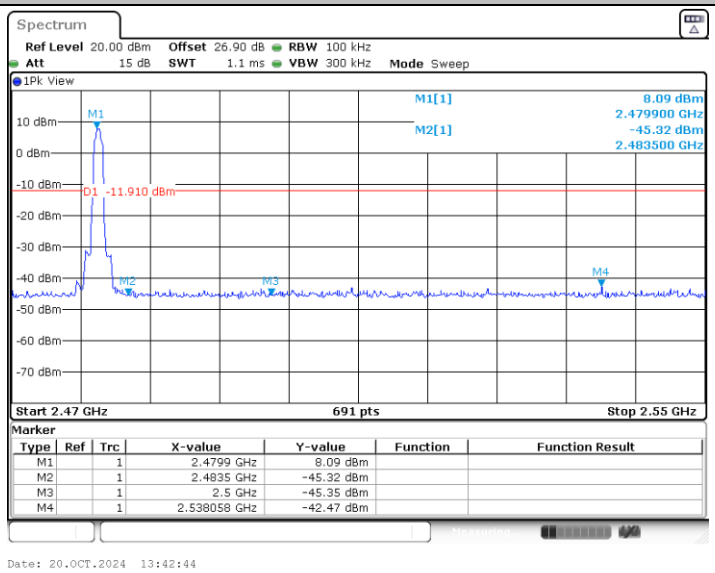

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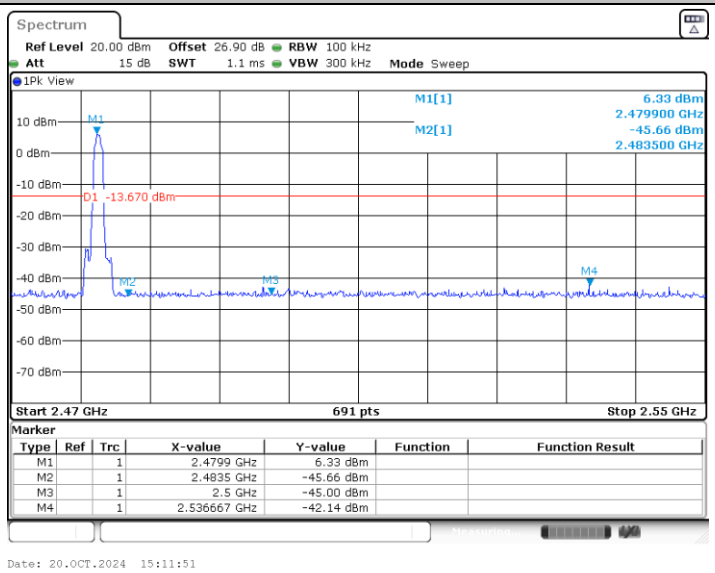

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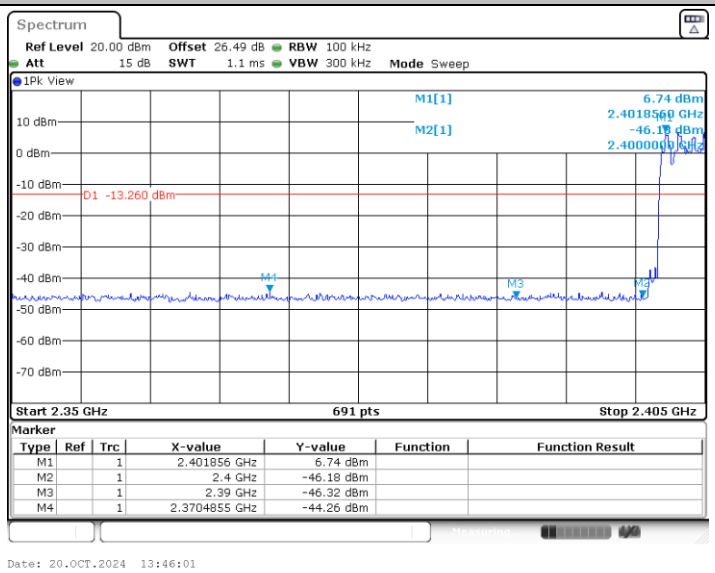

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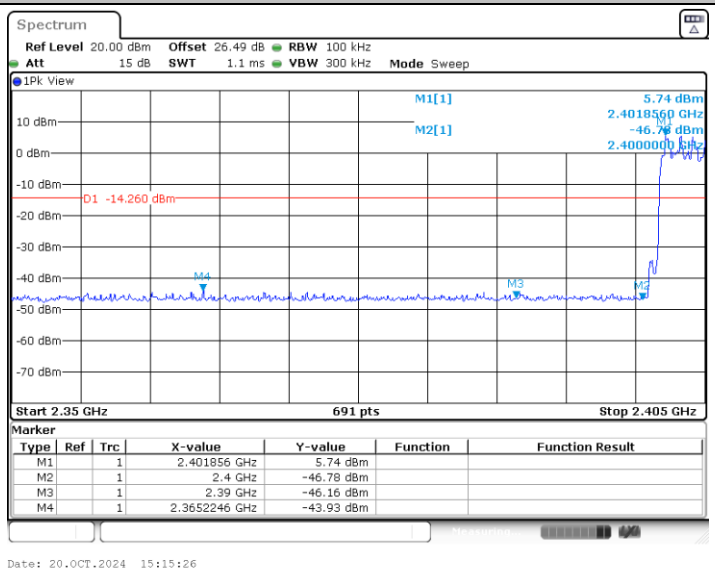

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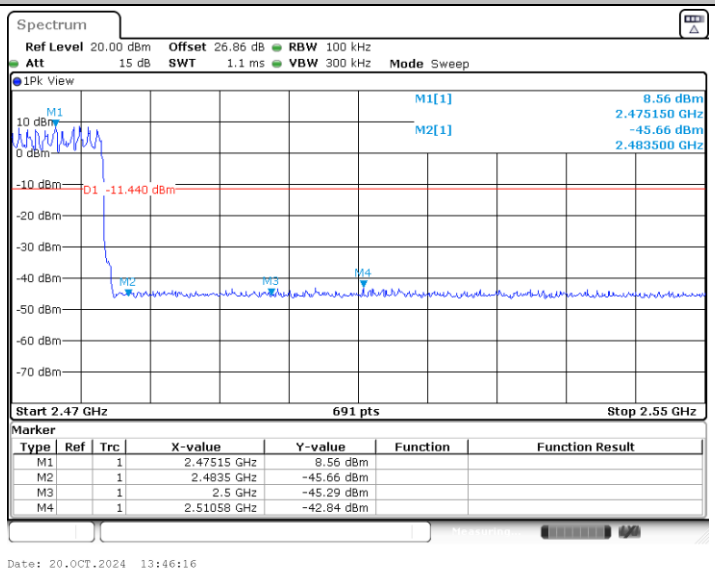

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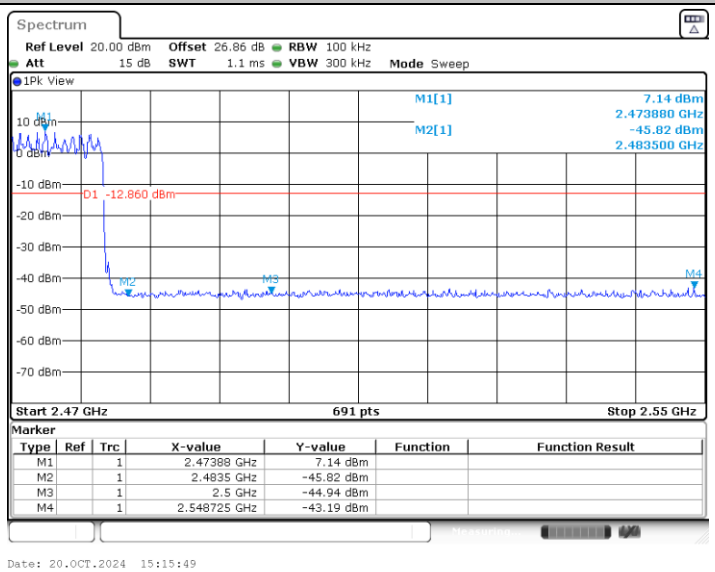


Conducted Spurious Emission

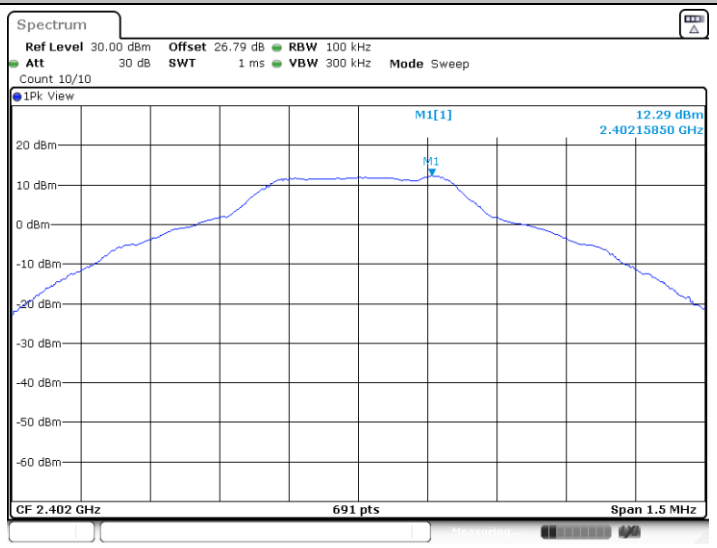
Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant16	2402	Reference	12.29	12.29	---	PASS
			30~1000	12.29	-44.7	≤-7.71	PASS
			1000~26500	12.29	-39.73	≤-7.71	PASS
	Ant7	2402	Reference	11.49	11.49	---	PASS
			30~1000	11.49	-45.03	≤-8.51	PASS
			1000~26500	11.49	-39.15	≤-8.51	PASS
	Ant16	2441	Reference	12.37	12.37	---	PASS
			30~1000	12.37	-44.62	≤-7.63	PASS
			1000~26500	12.37	-38.83	≤-7.63	PASS
	Ant7	2441	Reference	11.77	11.77	---	PASS
			30~1000	11.77	-45.13	≤-8.23	PASS
			1000~26500	11.77	-39.24	≤-8.23	PASS
	Ant16	2480	Reference	12.64	12.64	---	PASS
			30~1000	12.64	-44.26	≤-7.36	PASS
			1000~26500	12.64	-38.91	≤-7.36	PASS
	Ant7	2480	Reference	11.66	11.66	---	PASS
			30~1000	11.66	-42.75	≤-8.34	PASS
			1000~26500	11.66	-39.2	≤-8.34	PASS
2DH1	Ant16	2402	Reference	6.89	6.89	---	PASS
			30~1000	6.89	-45.34	≤-13.11	PASS
			1000~26500	6.89	-39.06	≤-13.11	PASS
	Ant7	2402	Reference	5.89	5.89	---	PASS
			30~1000	5.89	-45.02	≤-14.11	PASS
			1000~26500	5.89	-39.38	≤-14.11	PASS
	Ant16	2441	Reference	7.15	7.15	---	PASS
			30~1000	7.15	-45.14	≤-12.85	PASS
			1000~26500	7.15	-39.5	≤-12.85	PASS
	Ant7	2441	Reference	6.38	6.38	---	PASS
			30~1000	6.38	-44.99	≤-13.62	PASS
			1000~26500	6.38	-38.33	≤-13.62	PASS
	Ant16	2480	Reference	8.11	8.11	---	PASS
			30~1000	8.11	-44.16	≤-11.89	PASS
			1000~26500	8.11	-38.21	≤-11.89	PASS

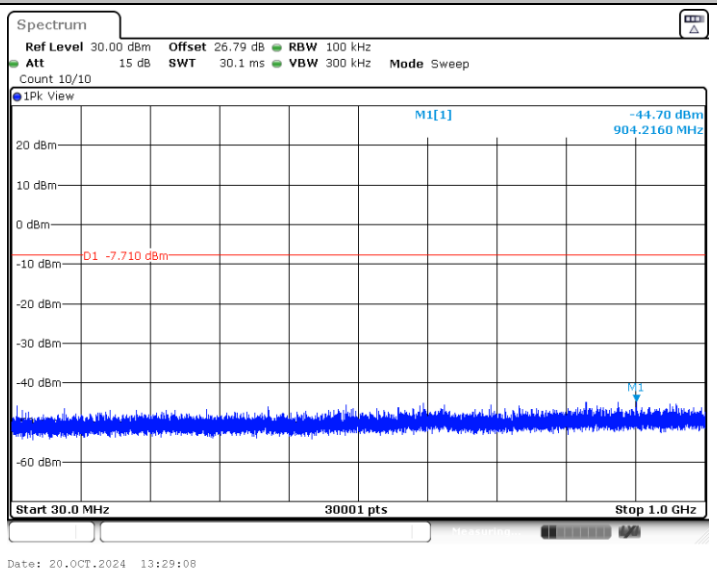
	Ant7	2480	Reference	6.42	6.42	---	PASS
			30~1000	6.42	-45.16	≤-13.58	PASS
			1000~26500	6.42	-38.26	≤-13.58	PASS
3DH1	Ant16	2402	Reference	7.06	7.06	---	PASS
			30~1000	7.06	-44.71	≤-12.94	PASS
			1000~26500	7.06	-39.43	≤-12.94	PASS
	Ant7	2402	Reference	6.03	6.03	---	PASS
			30~1000	6.03	-44.69	≤-13.97	PASS
			1000~26500	6.03	-39.08	≤-13.97	PASS
	Ant16	2441	Reference	7.32	7.32	---	PASS
			30~1000	7.32	-45.49	≤-12.68	PASS
			1000~26500	7.32	-38.29	≤-12.68	PASS
	Ant7	2441	Reference	6.51	6.51	---	PASS
			30~1000	6.51	-45.3	≤-13.49	PASS
			1000~26500	6.51	-39.44	≤-13.49	PASS
	Ant16	2480	Reference	8.32	8.32	---	PASS
			30~1000	8.32	-41.53	≤-11.68	PASS
			1000~26500	8.32	-39.33	≤-11.68	PASS
	Ant7	2480	Reference	6.57	6.57	---	PASS
			30~1000	6.57	-45.28	≤-13.43	PASS
			1000~26500	6.57	-38.48	≤-13.43	PASS

Test Graphs

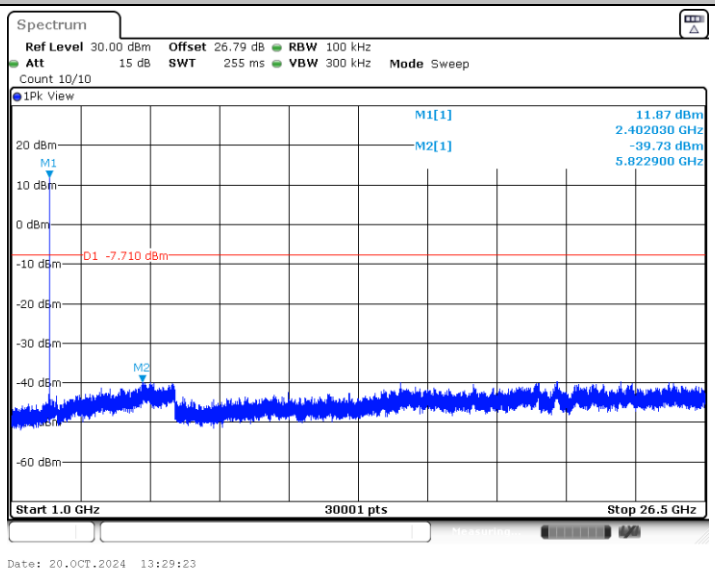
DH5_Ant16_2402_0~Reference



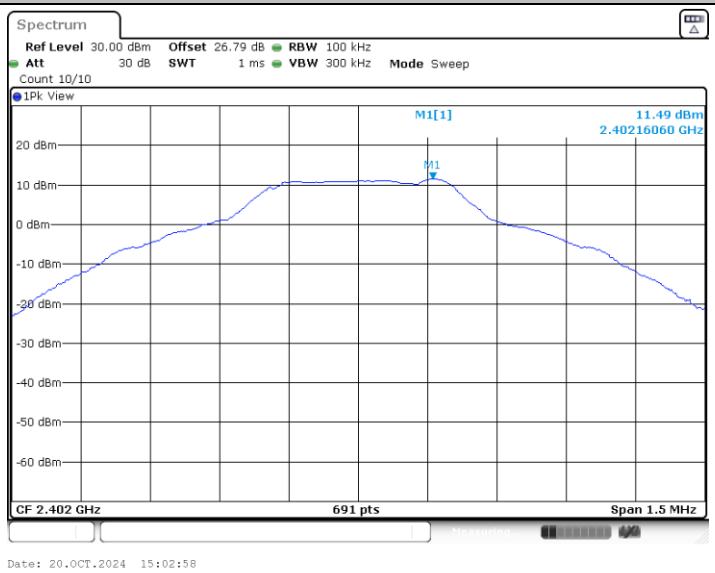
DH5_Ant16_2402_30~1000



DH5_Ant16_2402_1000~26500



DH5_Ant7_2402_0~Reference



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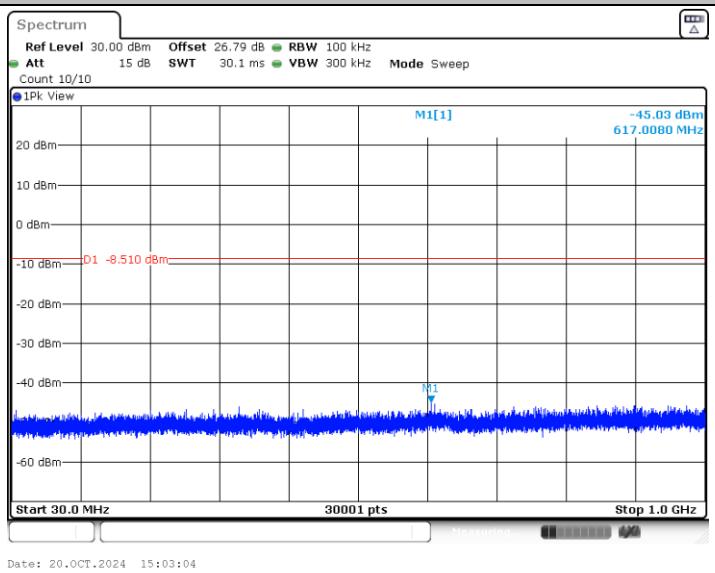
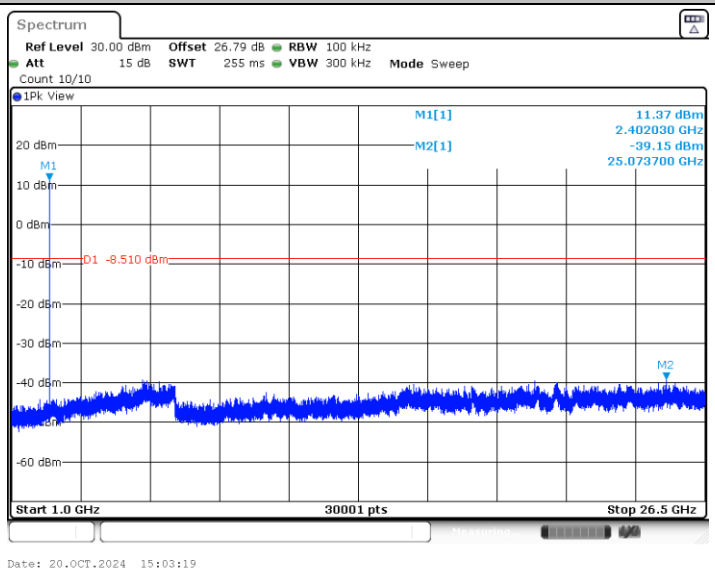


DH5_Ant7_2402_1000~26500


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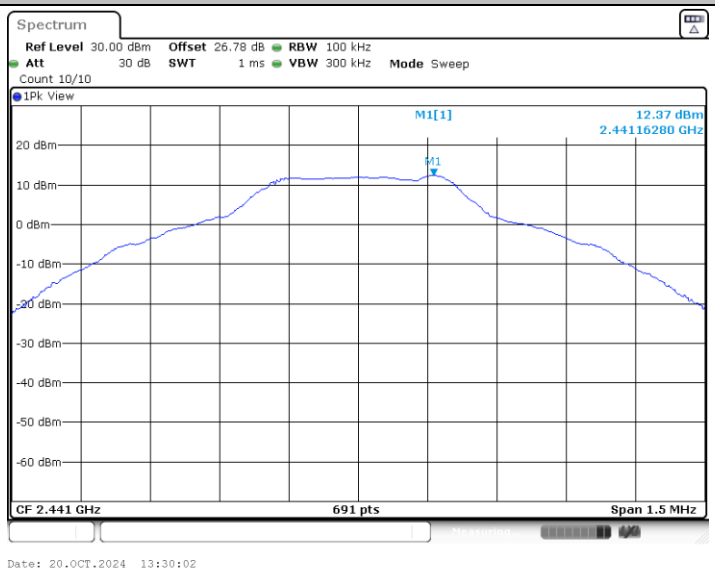
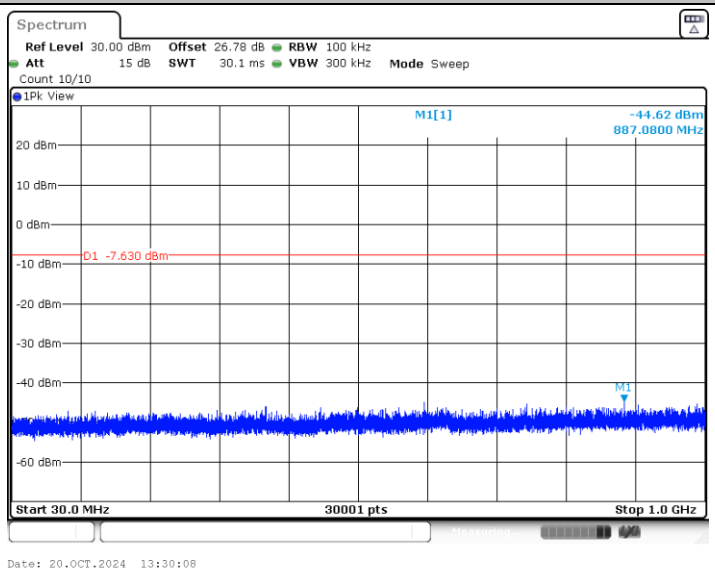
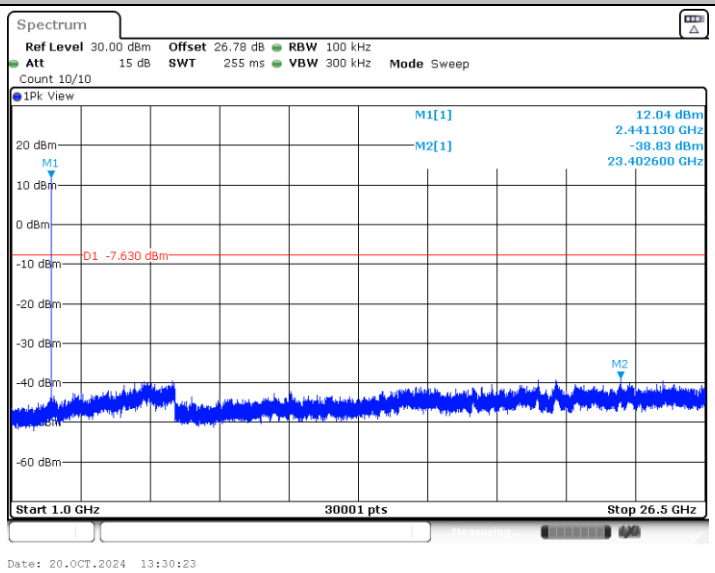


DH5_Ant16_2441_30~1000


DH5_Ant16_2441_1000~26500


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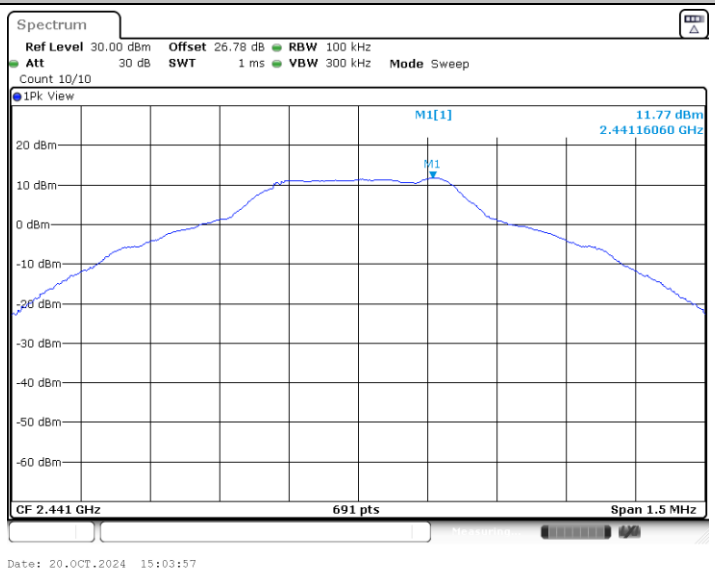
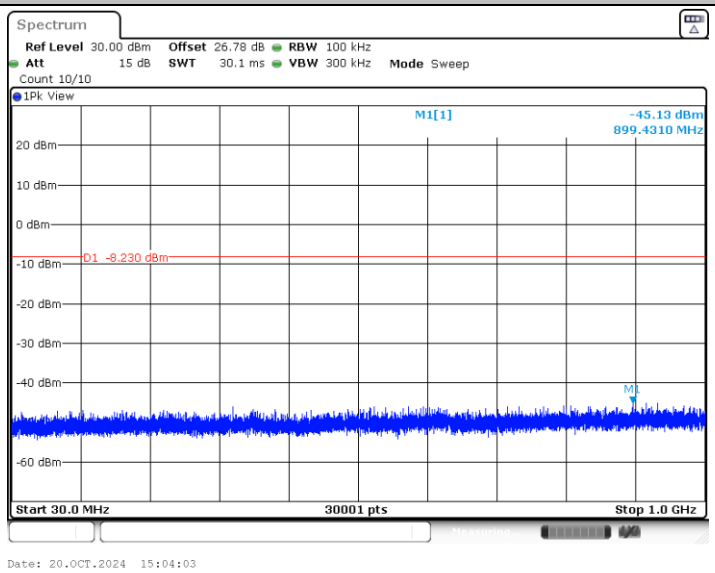
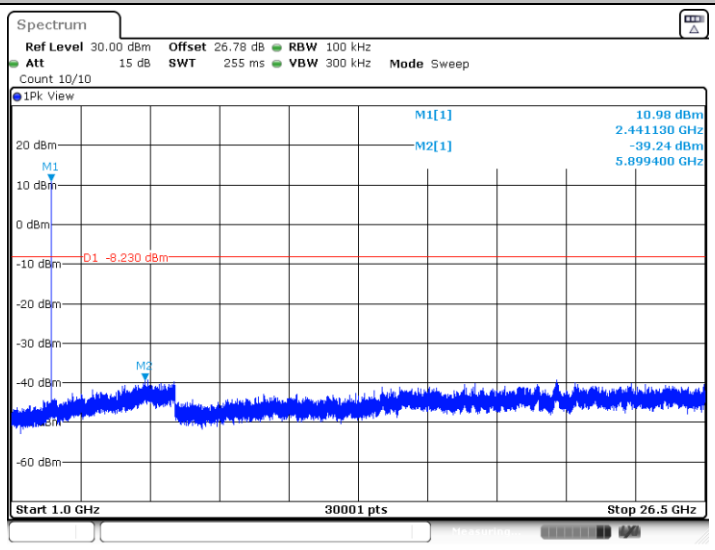


DH5_Ant7_2441_30~1000



DH5_Ant7_2441_1000~26500



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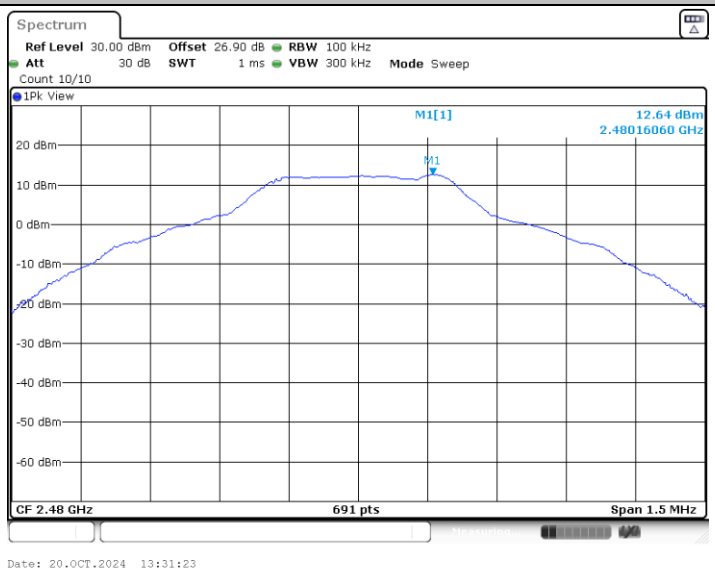
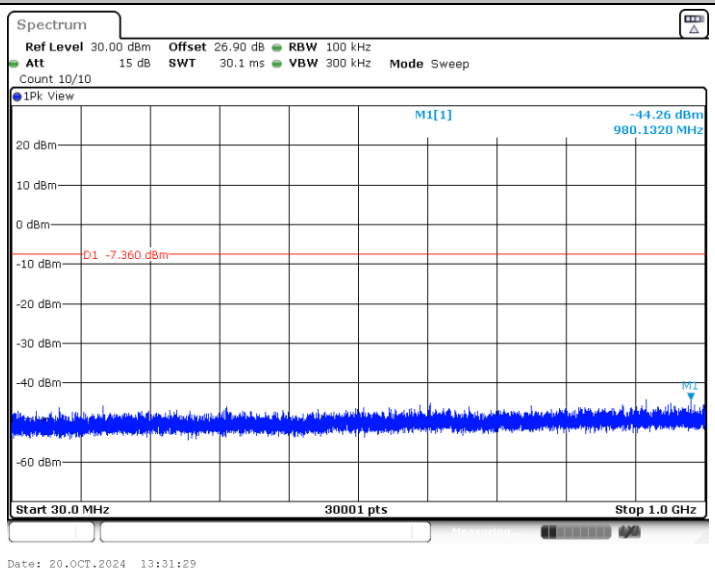
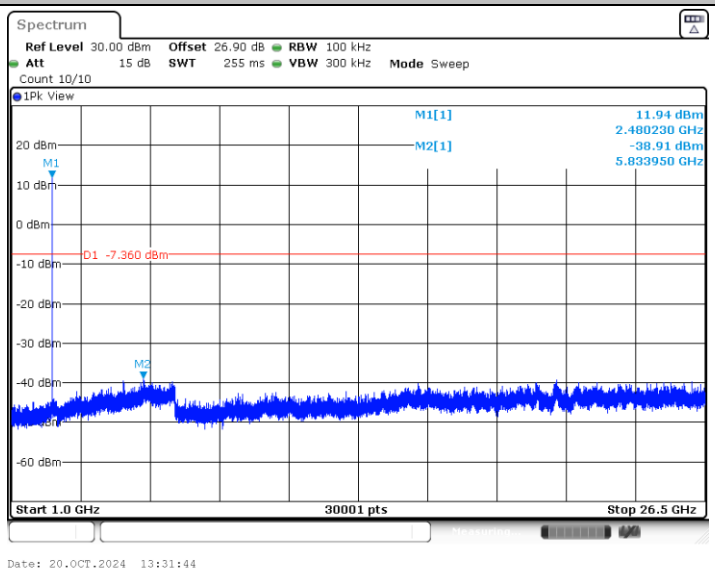
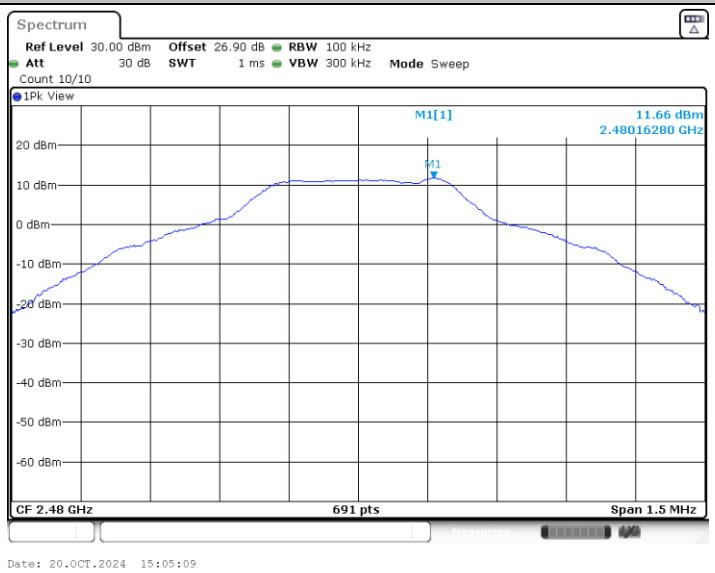


DH5_Ant16_2480_30~1000


DH5_Ant16_2480_1000~26500



DH5_Ant7_2480_0~Reference



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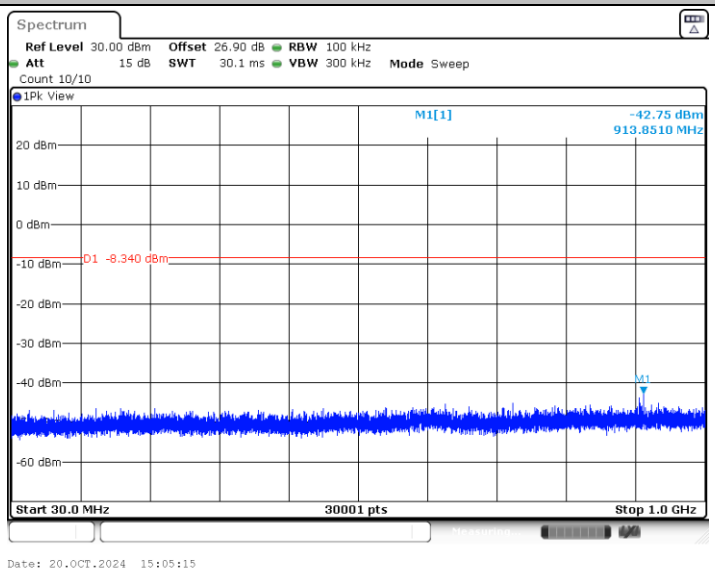

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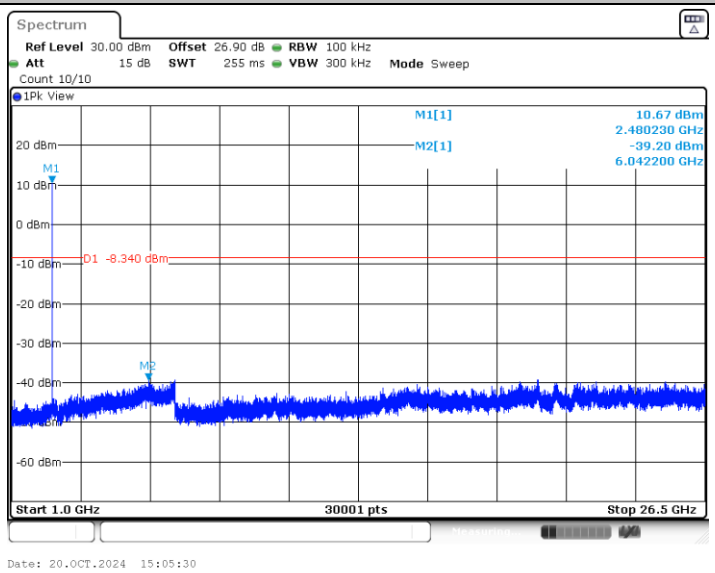

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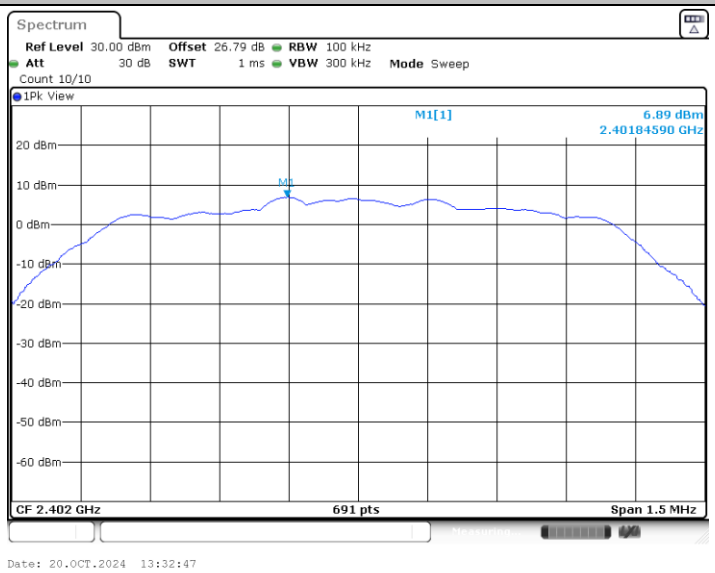

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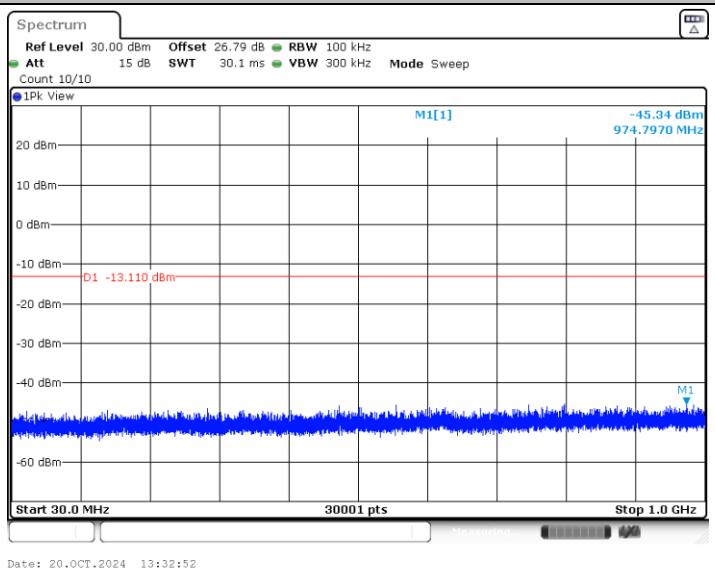

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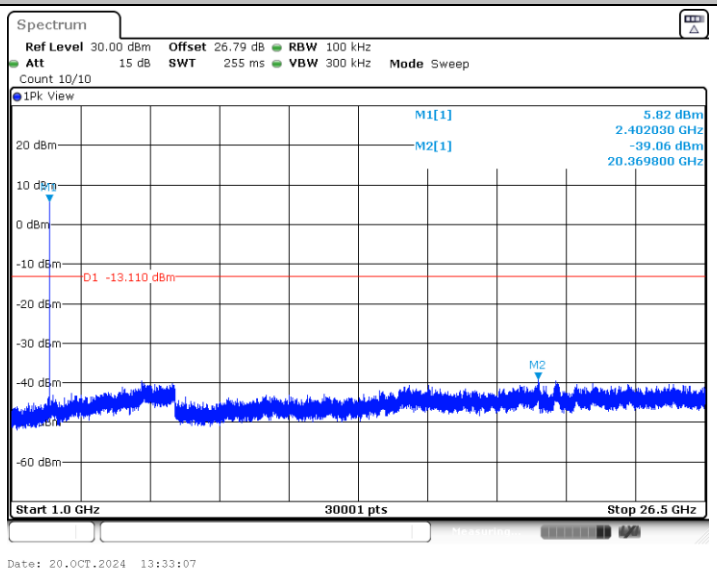

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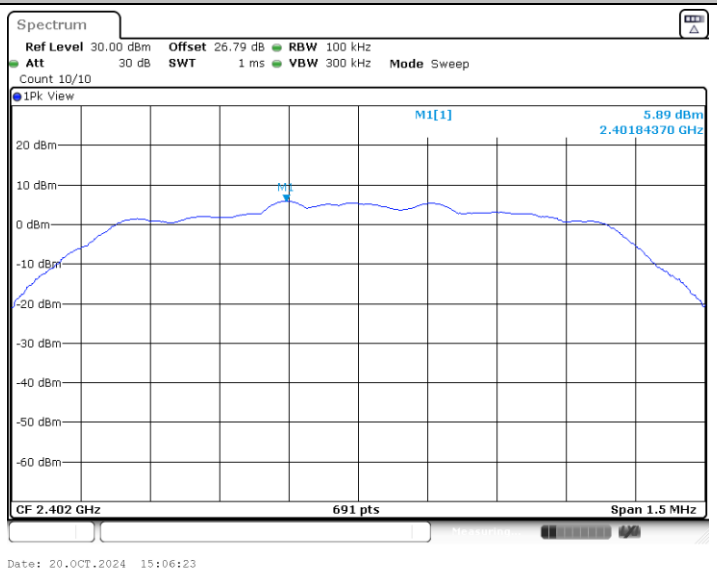

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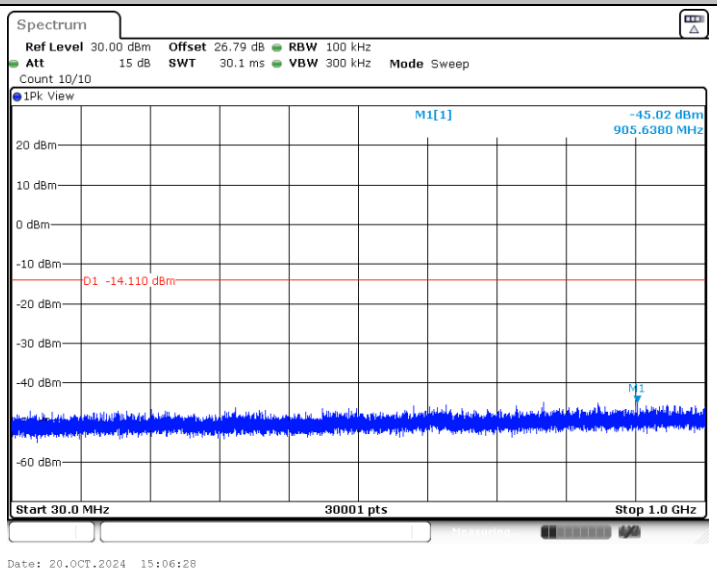

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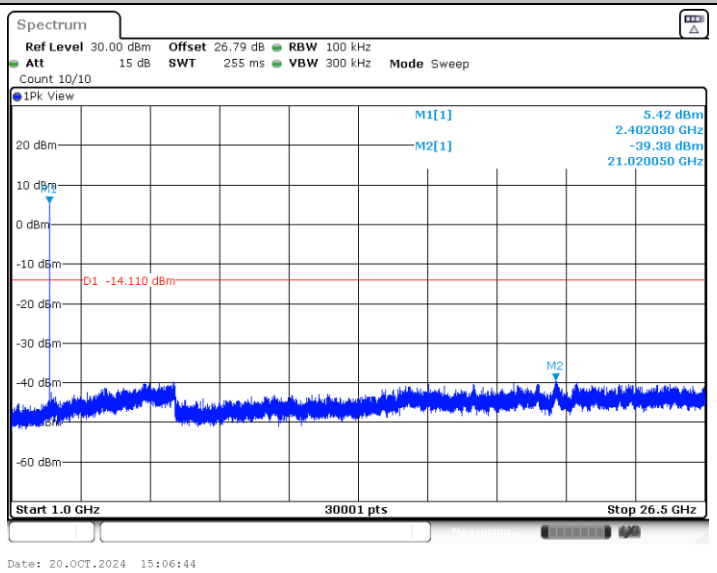

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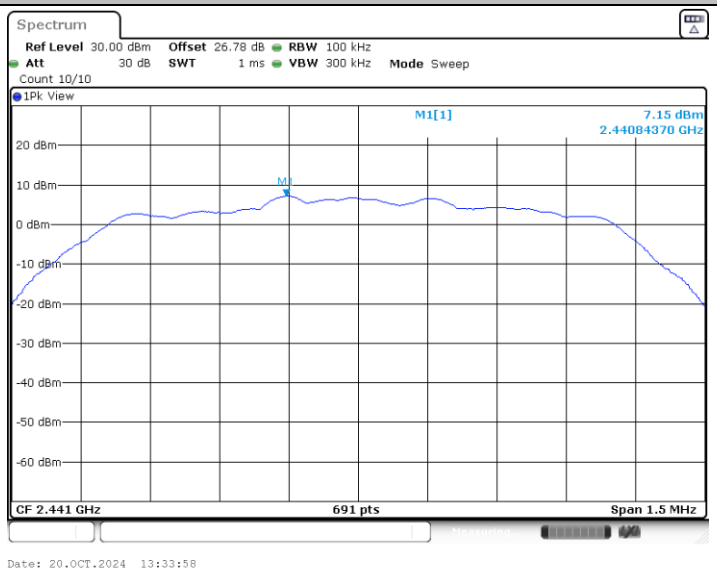

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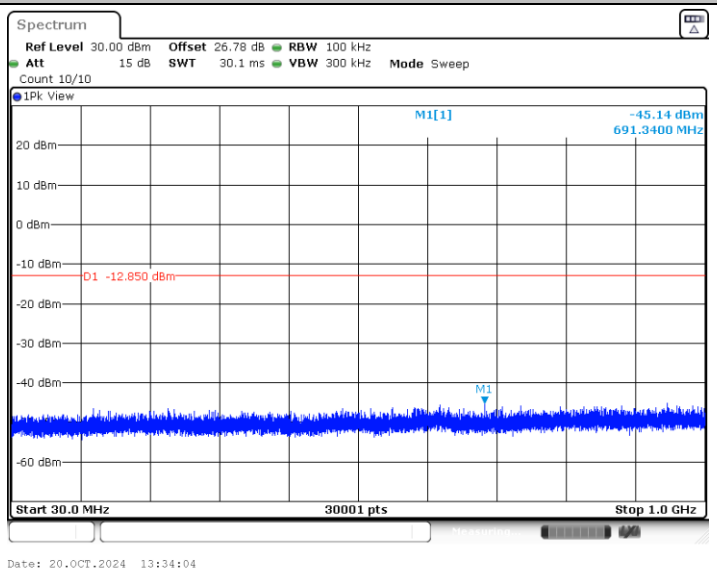

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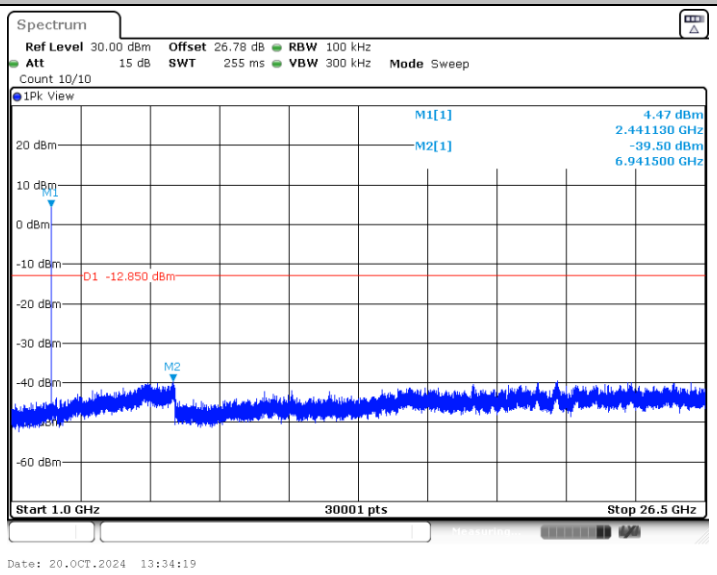

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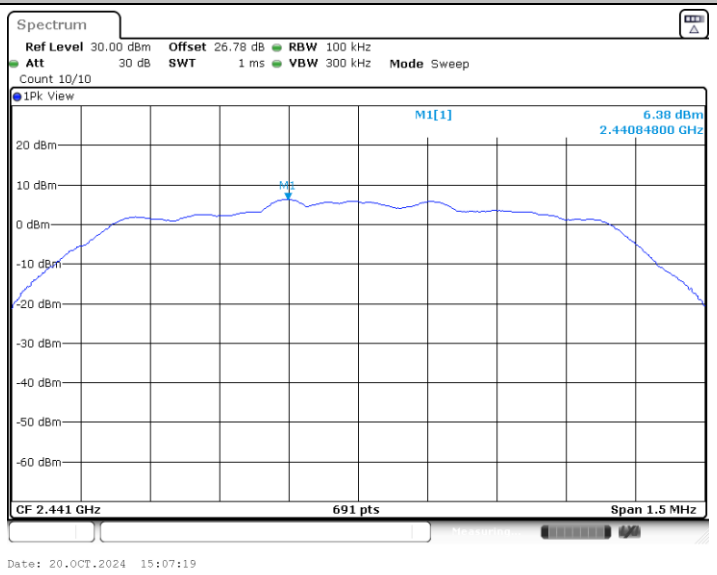

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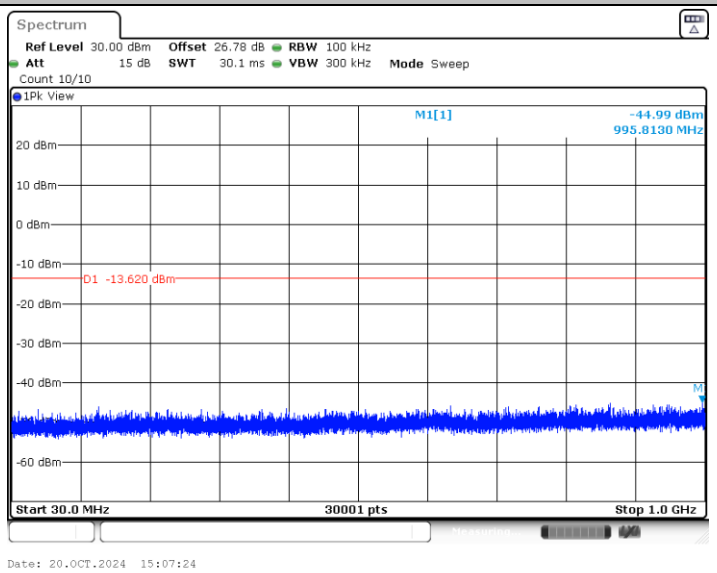

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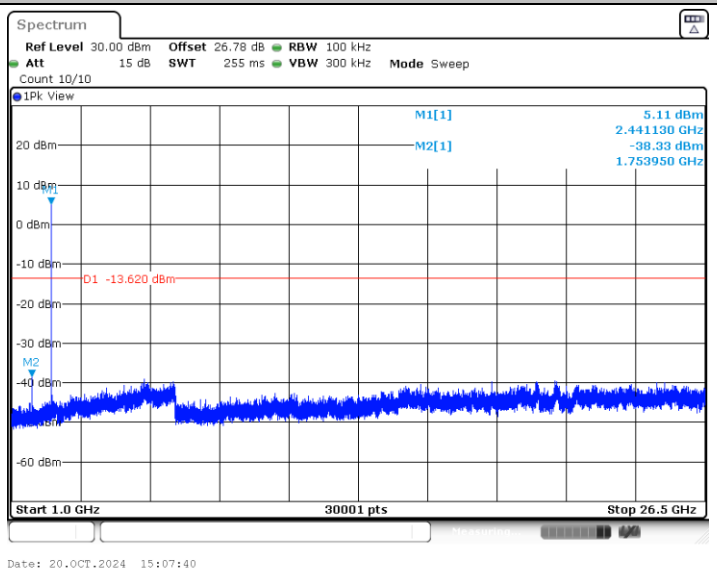

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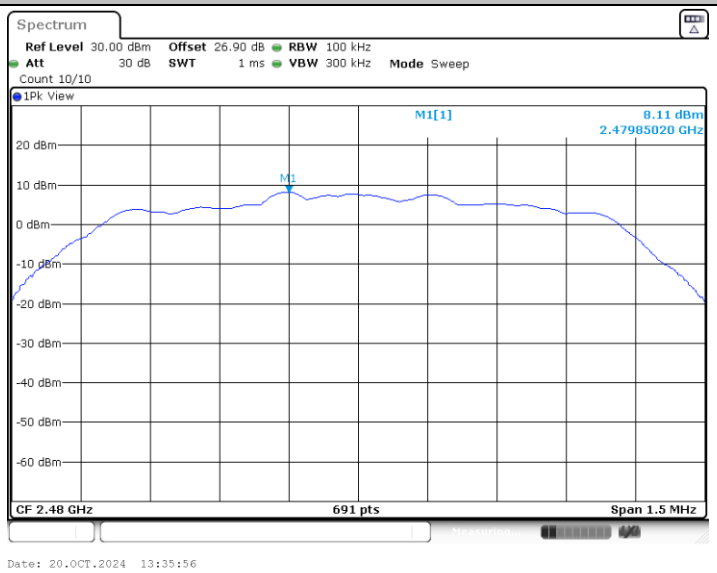

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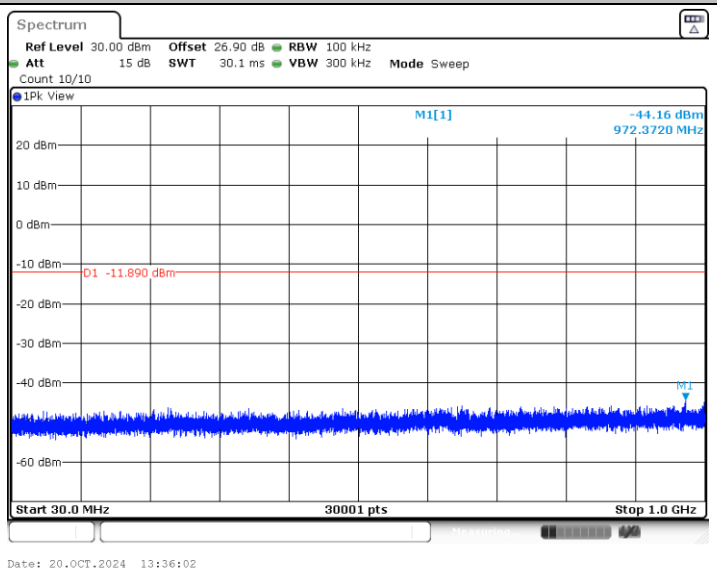

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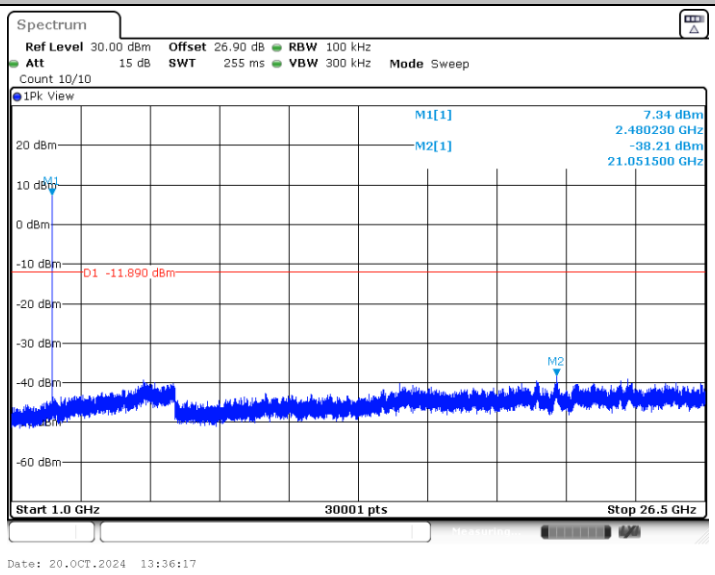

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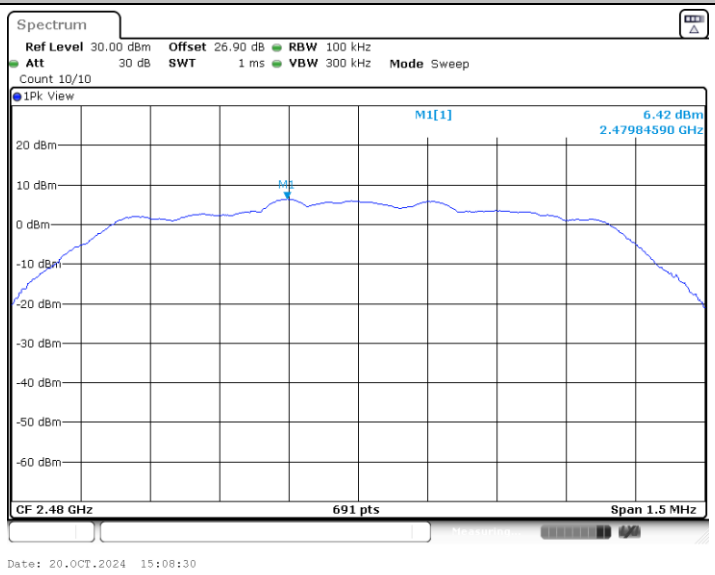

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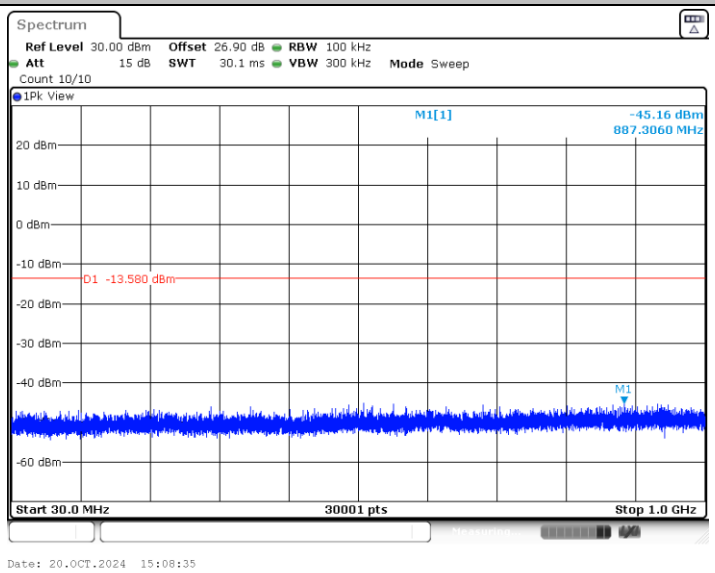

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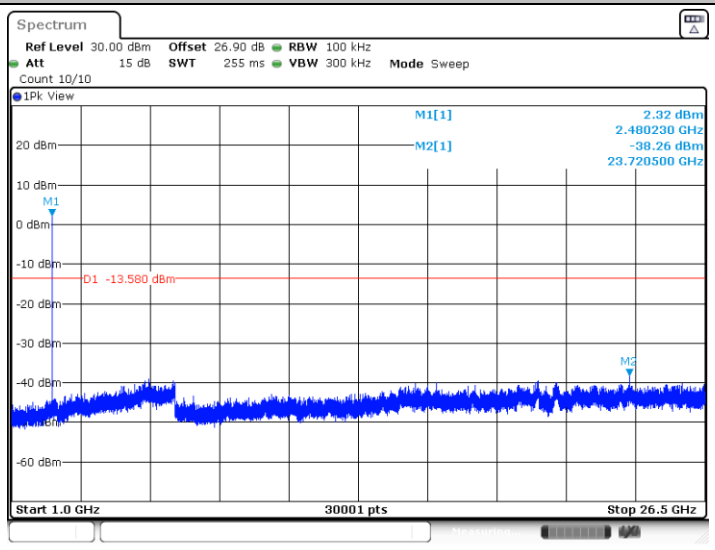

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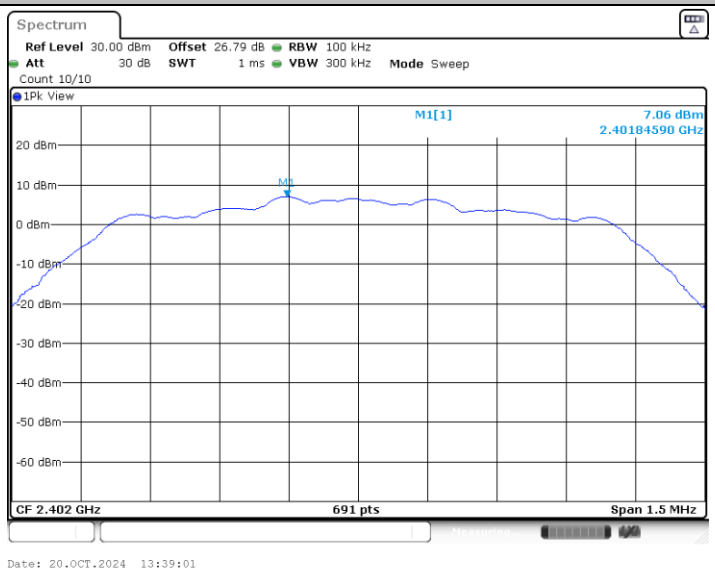
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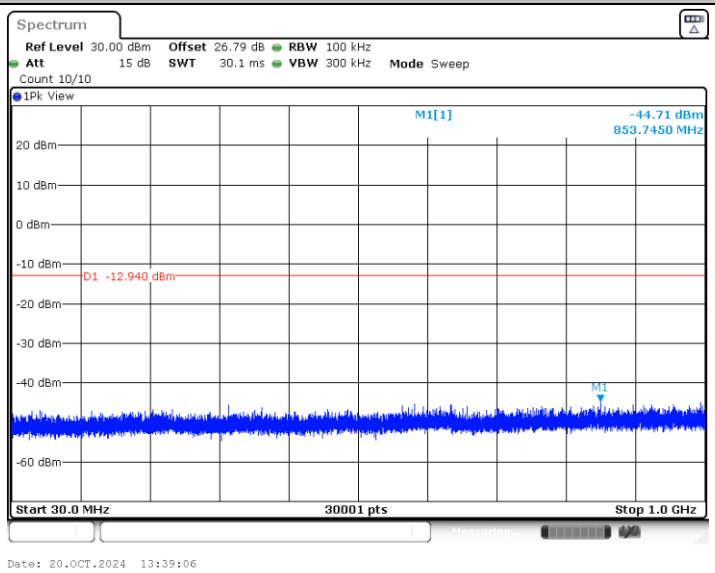

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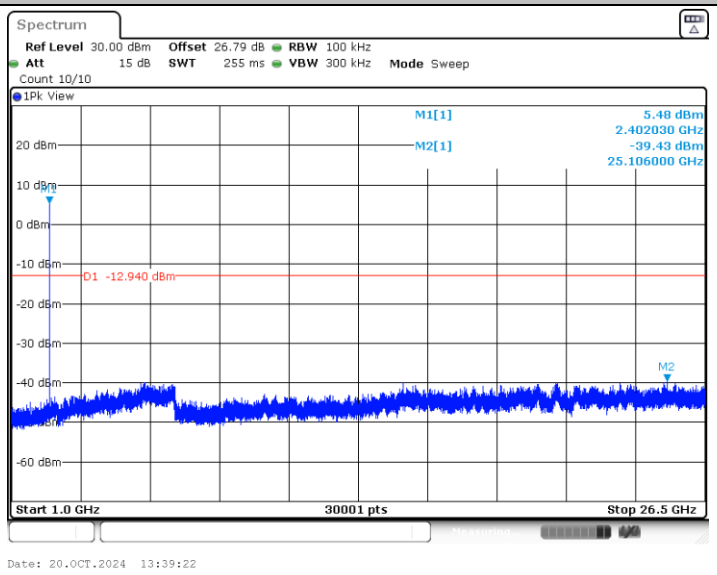

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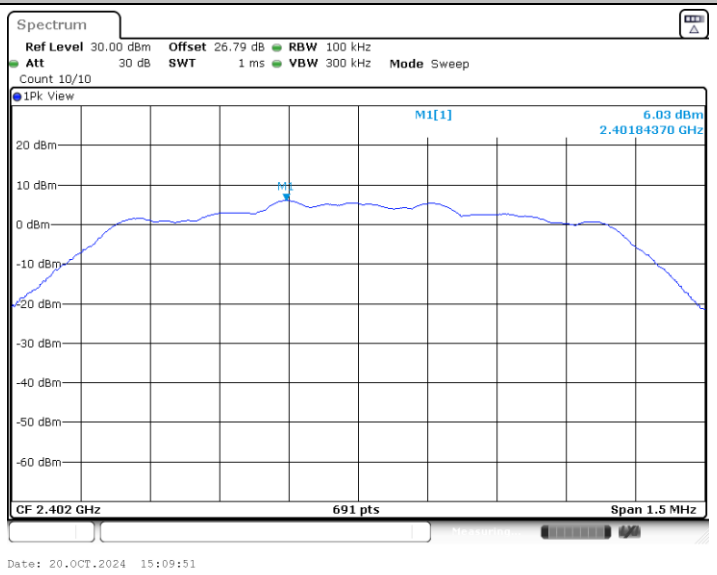

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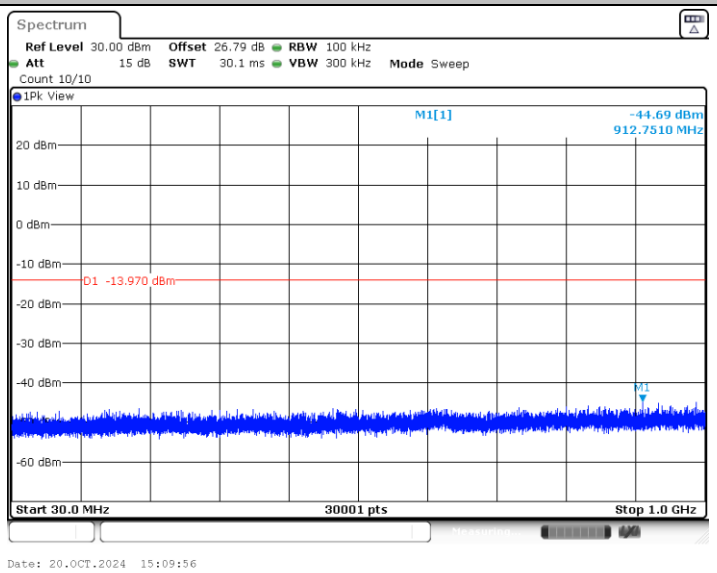

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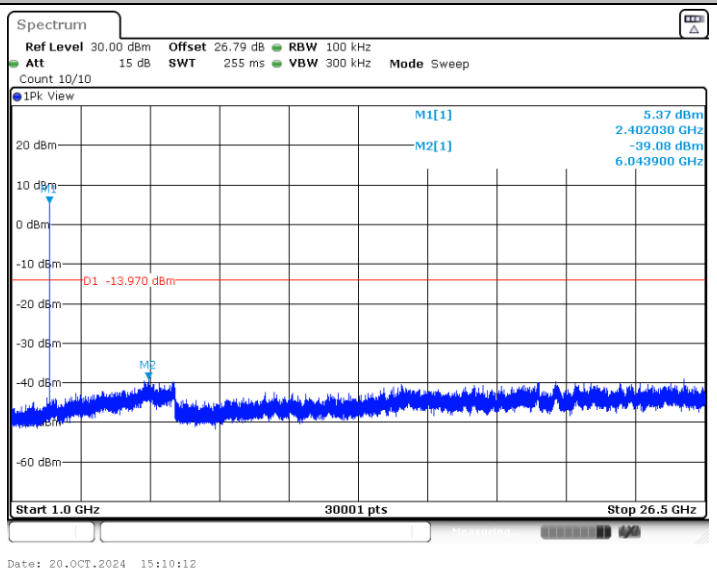

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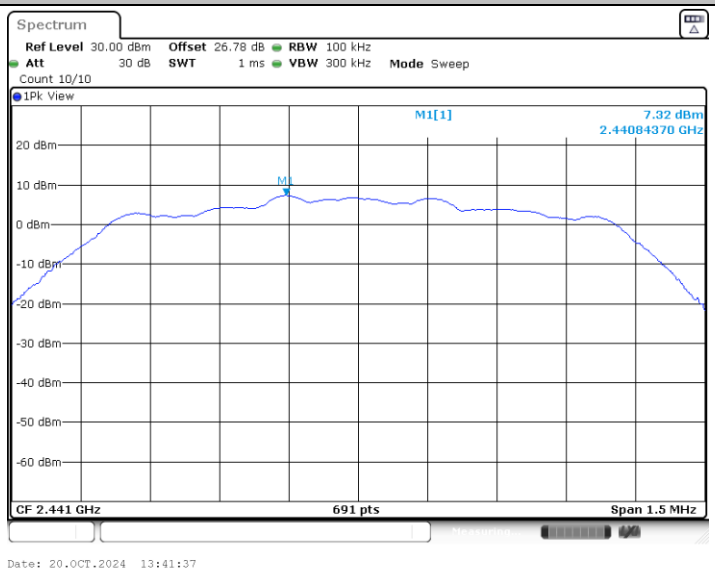

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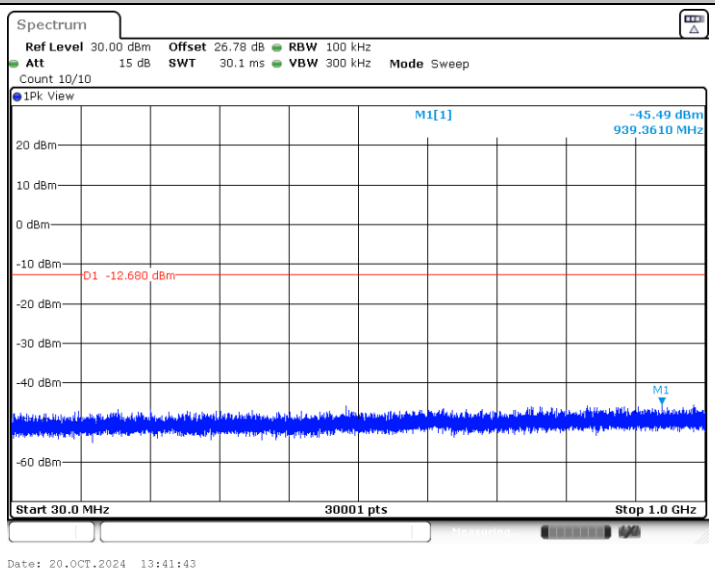

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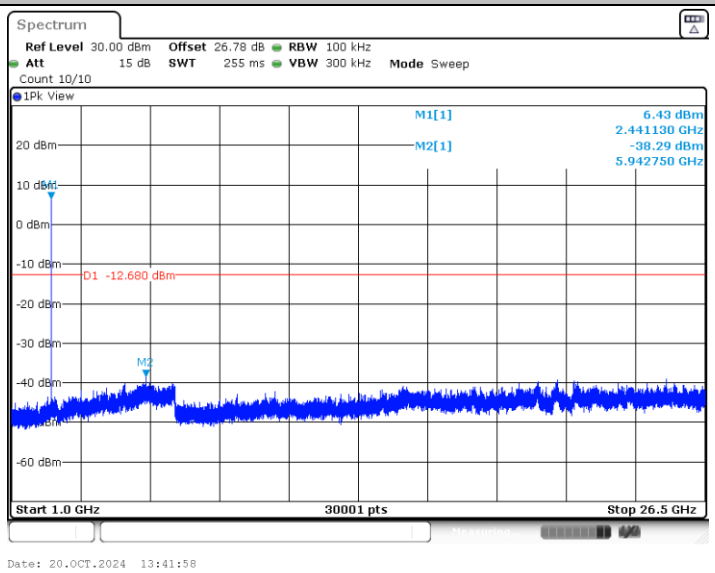

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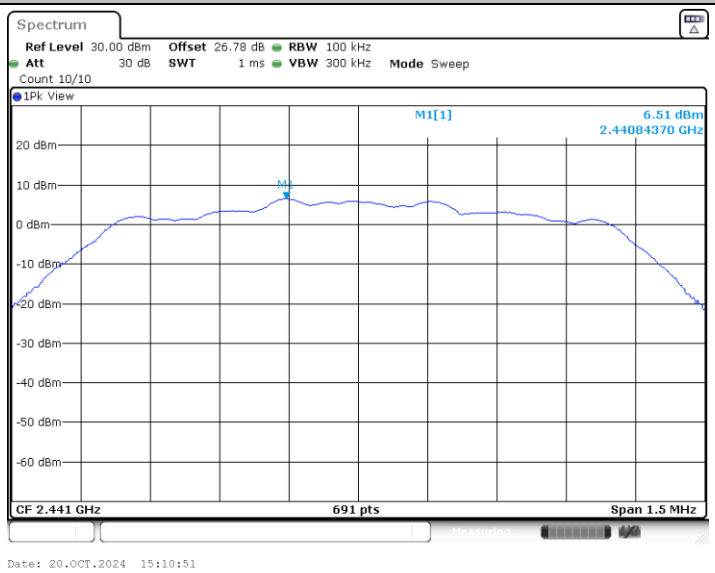

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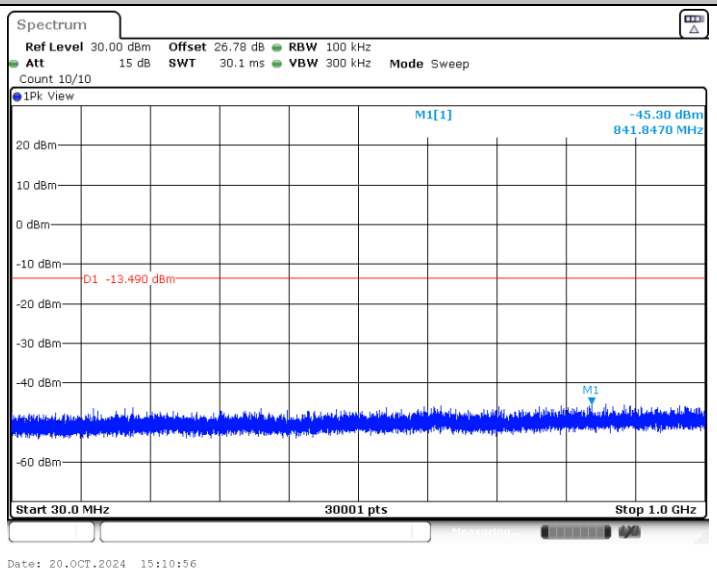

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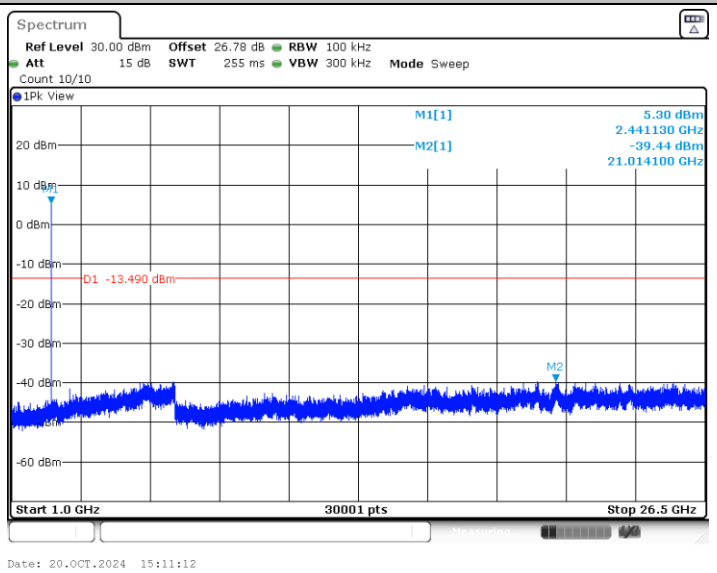

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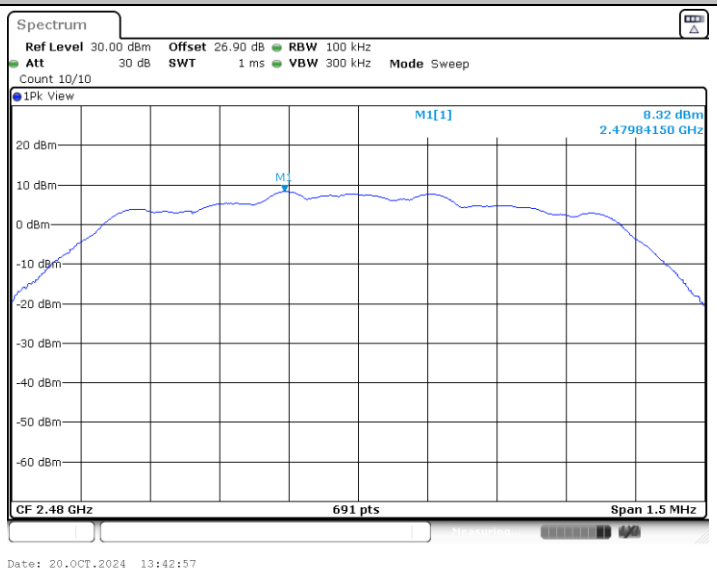

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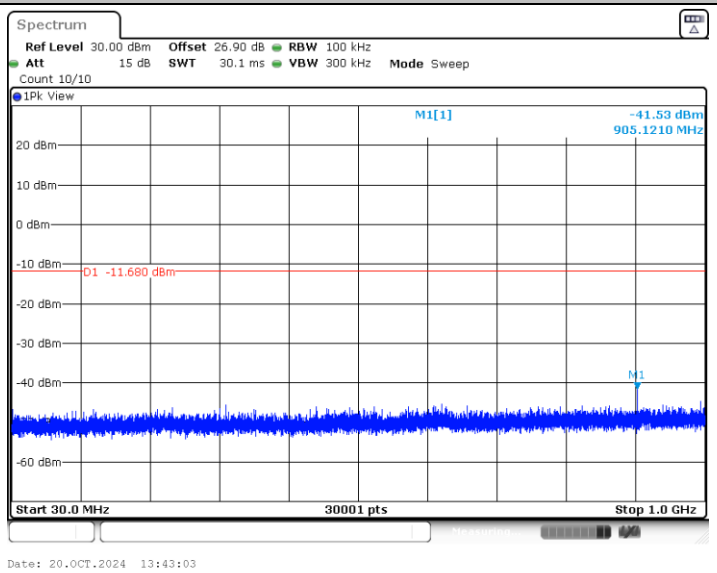

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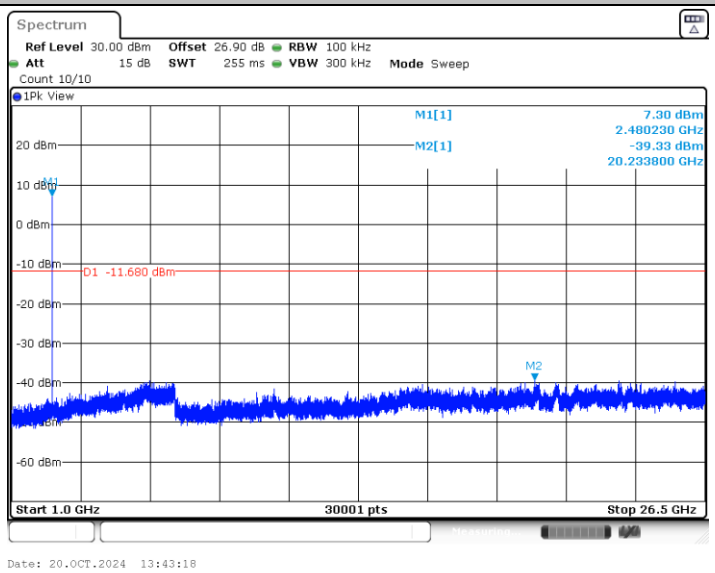

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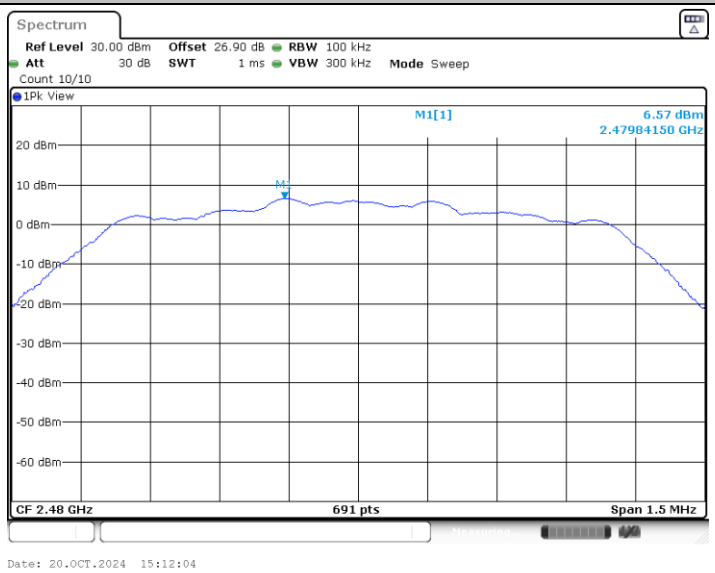

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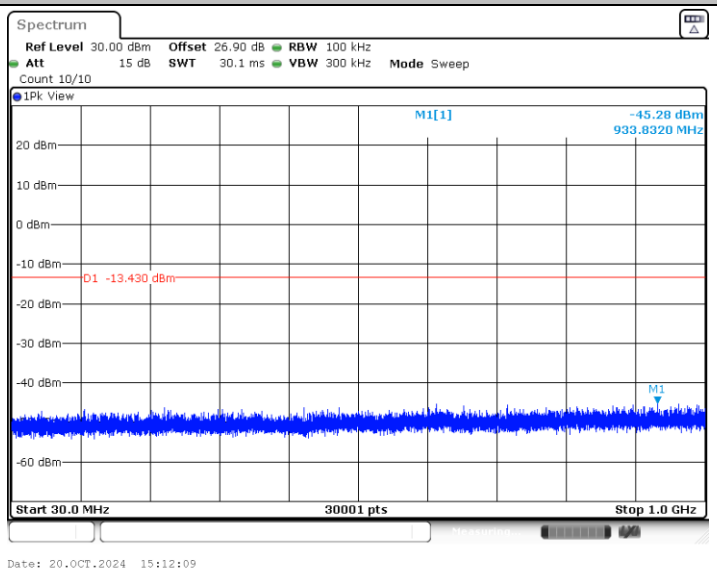

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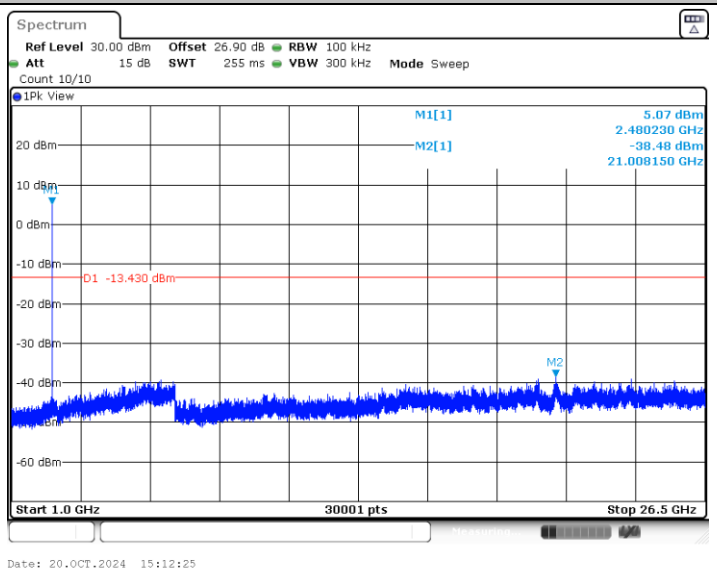
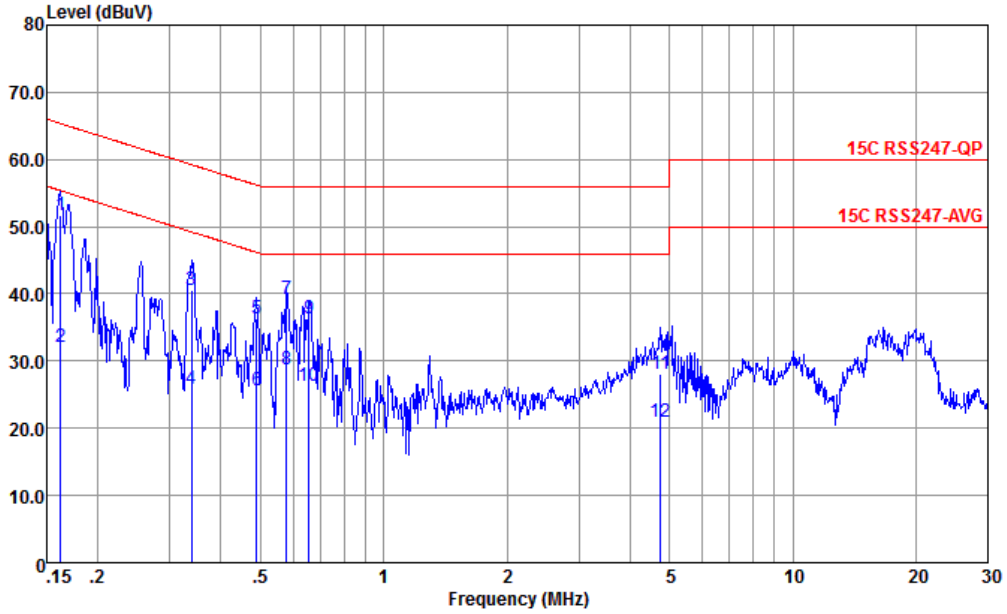


Appendix B. AC Conducted Emission Test Results

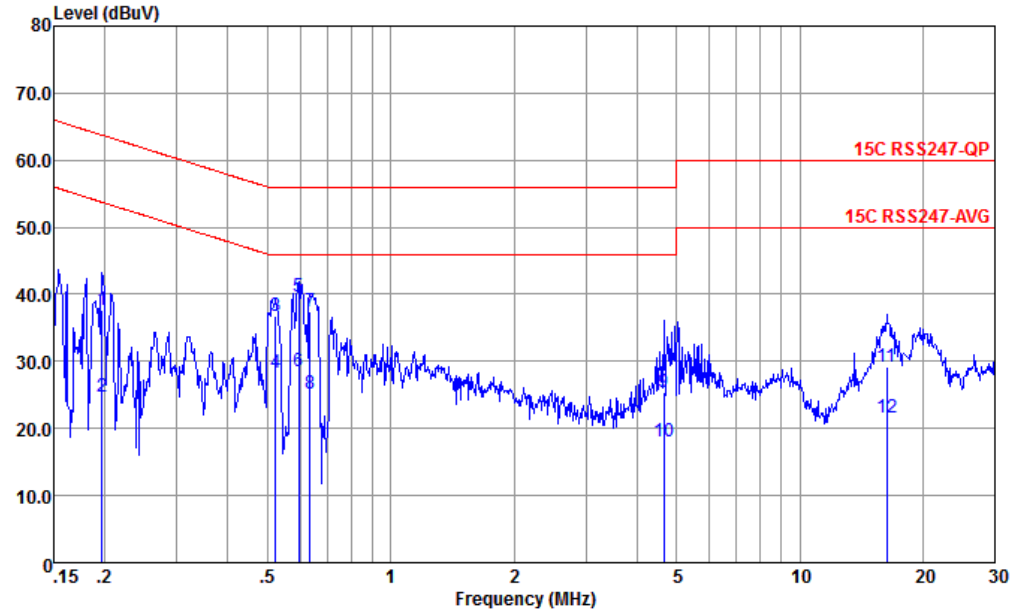
Test Engineer :	Amos	**Temperature :**	25.3~26.2℃
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : CO01-KS
Condition : 15C RSS247-QP LISN-060105-L 2024 LINE

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	*	0.162	51.63	-13.71	65.34	41.10	0.11	10.42	QP
2		0.162	32.13	-23.21	55.34	21.60	0.11	10.42	Average
3		0.339	40.55	-18.67	59.22	30.20	0.04	10.31	QP
4		0.339	25.85	-23.37	49.22	15.50	0.04	10.31	Average
5		0.489	36.33	-19.86	56.19	26.20	-0.10	10.23	QP
6		0.489	25.63	-20.56	46.19	15.50	-0.10	10.23	Average
7		0.579	39.26	-16.74	56.00	29.20	-0.13	10.19	QP
8		0.579	28.66	-17.34	46.00	18.60	-0.13	10.19	Average
9		0.658	36.21	-19.79	56.00	26.19	-0.14	10.16	QP
10		0.658	26.31	-19.69	46.00	16.29	-0.14	10.16	Average
11		4.746	28.05	-27.95	56.00	18.20	-0.21	10.06	QP
12		4.746	21.05	-24.95	46.00	11.20	-0.21	10.06	Average

Test Engineer :	Amos	Temperature :	25.3~26.2℃
		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 : 15C RSS247-QP LISN-060105-N 2024 NEUTRAL

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.197	37.74	-26.02	63.76	27.20	0.13	10.41	QP
2	0.197	24.84	-28.92	53.76	14.30	0.13	10.41	Average
3	0.524	36.86	-19.14	56.00	26.80	-0.15	10.21	QP
4	0.524	28.26	-17.74	46.00	18.20	-0.15	10.21	Average
5 *	0.595	39.62	-16.38	56.00	29.60	-0.16	10.18	QP
6	0.595	28.54	-17.46	46.00	18.52	-0.16	10.18	Average
7	0.634	37.50	-18.50	56.00	27.50	-0.16	10.16	QP
8	0.634	25.20	-20.80	46.00	15.20	-0.16	10.16	Average
9	4.647	25.35	-30.65	56.00	15.50	-0.21	10.06	QP
10	4.647	18.05	-27.95	46.00	8.20	-0.21	10.06	Average
11	16.312	29.22	-30.78	60.00	18.20	-0.23	11.25	QP
12	16.312	21.52	-28.48	50.00	10.50	-0.23	11.25	Average

Note:

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

Appendix C Radiated Spurious Emission Test Data

Test Engineer :	Koi Ji	Relative Humidity :	51~53%
		Temperature :	25.2~26.5℃

Radiated Spurious Emission Test Modes

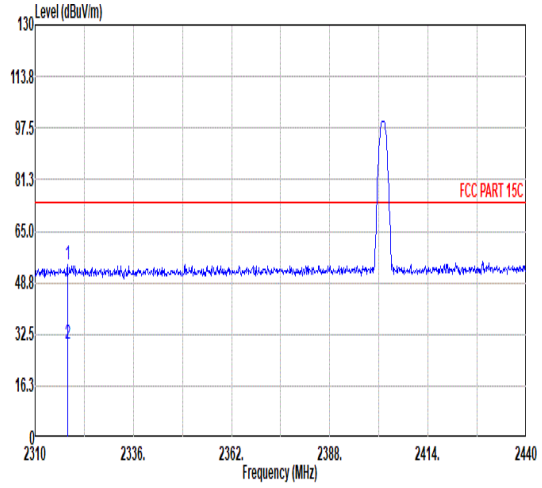
Mode	Band (MHz)	Antenna	Modulation	Channel	Frequency	Data Rate	RU	Remark
Mode 1	2400-2483.5	7	Bluetooth BR_GFSK	00	2402	1Mbps	-	-
Mode 2	2400-2483.5	7	Bluetooth BR_GFSK	39	2441	1Mbps	-	-
Mode 3	2400-2483.5	7	Bluetooth BR_GFSK	78	2480	1Mbps	-	-
Mode 4	2400-2483.5	16	Bluetooth BR_GFSK	00	2402	1Mbps	-	-
Mode 5	2400-2483.5	16	Bluetooth BR_GFSK	39	2441	1Mbps	-	-
Mode 6	2400-2483.5	16	Bluetooth BR_GFSK	78	2480	1Mbps	-	-
Mode 7	2400-2483.5	BF 7+16	Bluetooth BR_GFSK	0	2402	1Mbps	-	-
Mode 8	2400-2483.5	BF 7+16	Bluetooth BR_GFSK	39	2441	1Mbps	-	-
Mode 9	2400-2483.5	BF 7+16	Bluetooth BR_GFSK	78	2480	1Mbps	-	-

Summary of each worse mode

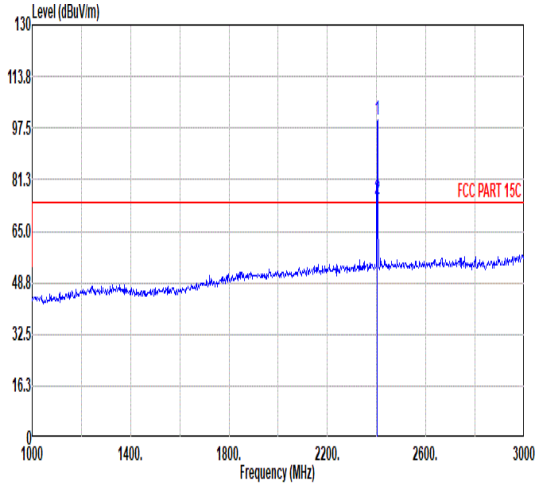
Mode	Modulation	Ch.	Freq. (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol.	Peak Avg.	Result	Remark
1	Bluetooth BR_GFSK	00	2386.83	54.82	74.00	-19.18	V	PEAK	Pass	Band Edge
1	Bluetooth BR_GFSK	00	4804.00	39.80	74.00	-34.20	H	PEAK	Pass	Harmonic
2	Bluetooth BR_GFSK	39	-	-	-	-	-	-	-	Band Edge
2	Bluetooth BR_GFSK	39	7323.00	42.27	74.00	-31.73	V	PEAK	Pass	Harmonic
3	Bluetooth BR_GFSK	78	2498.76	55.39	74.00	-18.61	V	PEAK	Pass	Band Edge
3	Bluetooth BR_GFSK	78	7440.00	42.46	74.00	-31.54	V	PEAK	Pass	Harmonic
4	Bluetooth BR_GFSK	00	2349.26	55.08	74.00	-18.92	V	PEAK	Pass	Band Edge
4	Bluetooth BR_GFSK	00	4804.00	39.87	74.00	-34.13	H	PEAK	Pass	Harmonic
5	Bluetooth BR_GFSK	39	-	-	-	-	-	-	-	Band Edge
5	Bluetooth BR_GFSK	39	7323.00	42.03	74.00	-31.97	H	PEAK	Pass	Harmonic
6	Bluetooth BR_GFSK	78	2486.49	55.97	74.00	-18.03	H	PEAK	Pass	Band Edge
6	Bluetooth BR_GFSK	78	7440.00	42.68	74.00	-31.32	V	PEAK	Pass	Harmonic
7	Bluetooth BR_GFSK	0	2386.70	56.52	74.00	-17.48	H	PEAK	Pass	Band Edge
7	Bluetooth BR_GFSK	0	7206.00	44.26	74.00	-29.74	V	PEAK	Pass	Harmonic
8	Bluetooth BR_GFSK	39	-	-	-	-	-	-	-	Band Edge
8	Bluetooth BR_GFSK	39	7323.00	44.15	74.00	-29.85	H	PEAK	Pass	Harmonic
9	Bluetooth BR_GFSK	78	2497.40	56.24	74.00	-17.76	V	PEAK	Pass	Band Edge
9	Bluetooth BR_GFSK	78	7440.00	43.93	74.00	-30.07	V	PEAK	Pass	Harmonic

Mode	1	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_CH00_2402MHz	
ANT	7	
Pol.	Horizontal	Fundamental

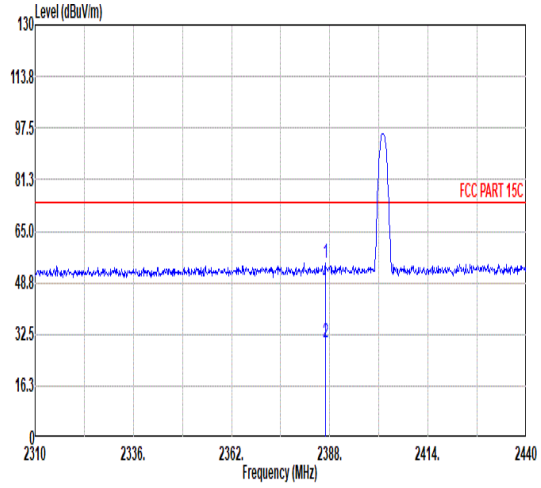
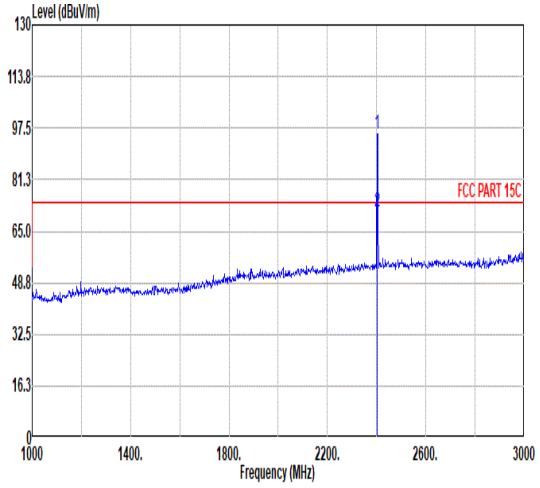
Peak



	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	2318.58	54.35	74.00	-19.65	38.79	31.90	8.61	30.95	6.00	129	266	PEAK
2	2318.58	29.56	54.00	-24.44	14.00	31.90	8.61	30.95	6.00	129	266	AVERAGE

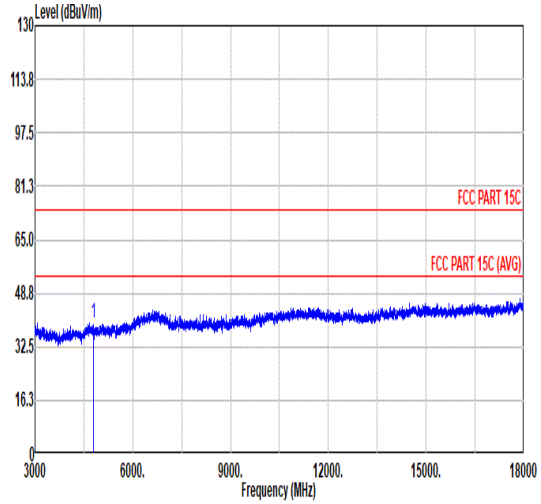
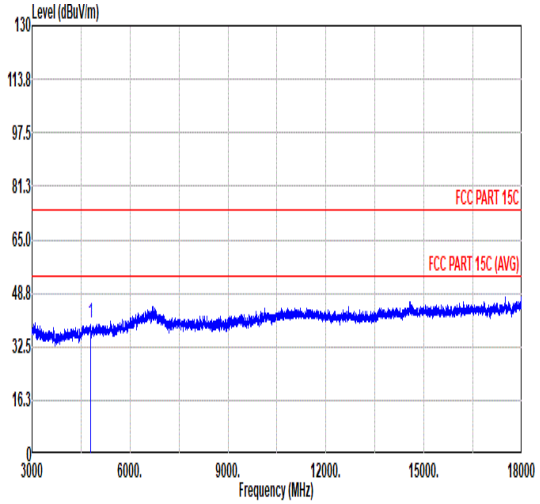


	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2402.00	99.92	------	------	83.84	32.21	8.80	30.93	6.00	129	266	PEAK
2	2402.00	75.13	------	------	59.05	32.21	8.80	30.93	6.00	129	266	AVERAGE

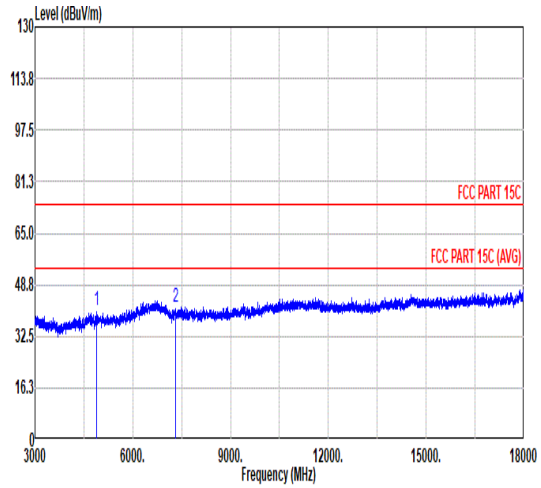
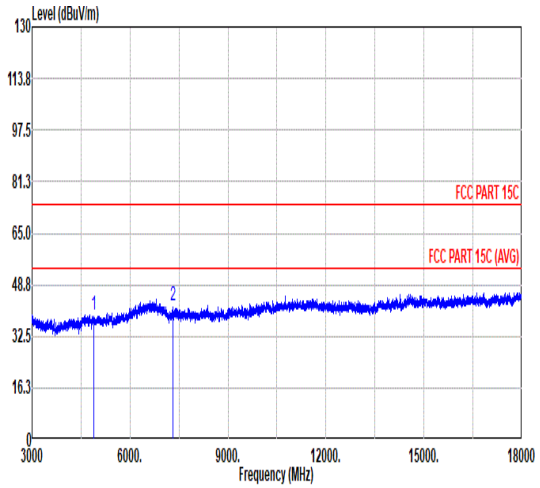
Mode	1	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_CH00_2402MHz	
ANT	7	
Pol.	Vertical	Fundamental
Peak		

	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	2386.83	54.82	74.00	-19.18	38.86	32.12	8.77	30.93	6.00	381	353	PEAK
2	2386.83	30.03	54.00	-23.97	14.07	32.12	8.77	30.93	6.00	381	353	AVERAGE

	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	95.69	------	------	79.61	32.21	8.80	30.93	6.00	381	353	PEAK
2	2402.00	70.90	------	------	54.82	32.21	8.80	30.93	6.00	381	353	AVERAGE

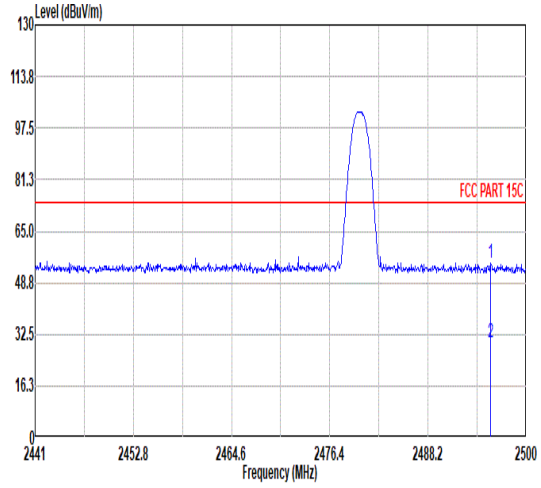
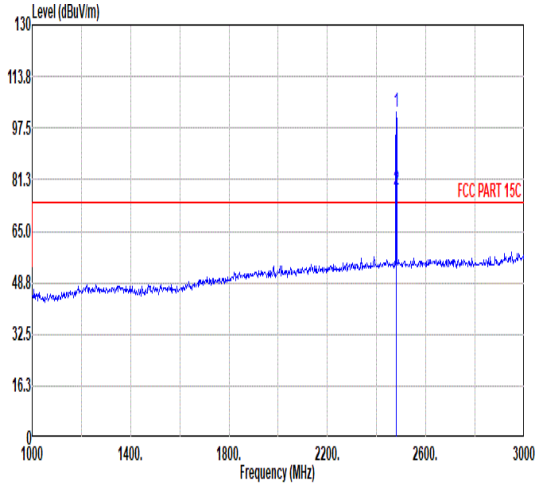
Mode	1	
	Harmonic	
	2400-2483.5_Bluetooth BR_GFSK_CH00_2402MHz	
ANT	7	
Pol.	Horizontal	Vertical
Peak Avg	 Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 4804.00 39.80 74.00 -34.20 59.09 34.11 12.57 65.97 0.00 -- -- PEAK	 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 4804.00 39.66 74.00 -34.34 58.95 34.11 12.57 65.97 0.00 -- -- PEAK

Mode	2
	Harmonic
	2400-2483.5_Bluetooth BR_GFSK_CH39_2441MHz
ANT	7

Pol.	Horizontal	Vertical
Peak Avg		

	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	4882.00	40.47	74.00	-33.53	59.72	34.14	12.47	65.86	0.00	--	--	PEAK
2	7323.00	41.80	74.00	-32.20	56.54	35.75	14.72	65.21	0.00	--	--	PEAK

	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	4882.00	39.32	74.00	-34.68	58.57	34.14	12.47	65.86	0.00	--	--	PEAK
2	7323.00	42.27	74.00	-31.73	57.01	35.75	14.72	65.21	0.00	--	--	PEAK

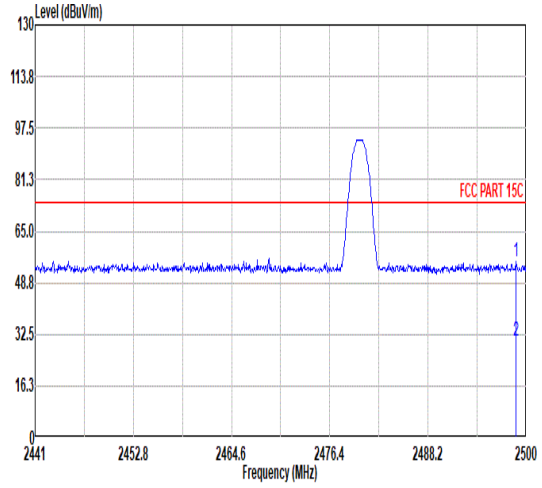
Mode	3	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_CH78_2480MHz	
ANT	7	
Pol.	Horizontal	Fundamental
Peak		

	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	2495.75	54.87	74.00	-19.13	38.62	32.39	8.83	30.97	6.00	152	311	PEAK
2	2495.75	30.08	54.00	-23.92	13.83	32.39	8.83	30.97	6.00	152	311	AVERAGE

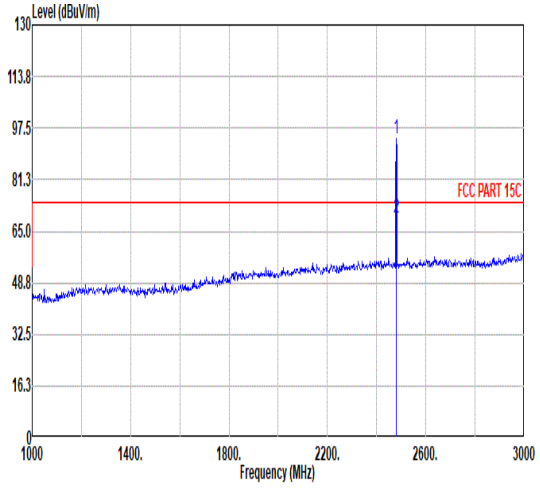
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2480.00	102.60	------	------	86.39	32.36	8.82	30.97	6.00	152	311	PEAK
2	2480.00	77.81	------	------	61.60	32.36	8.82	30.97	6.00	152	311	AVERAGE

Mode	3	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_CH78_2480MHz	
ANT	7	
Pol.	Vertical	Fundamental

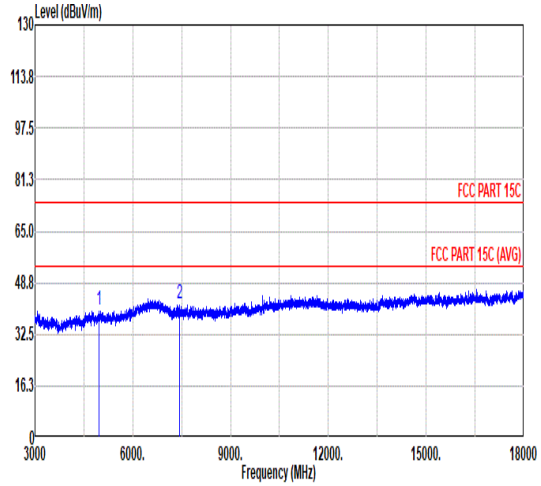
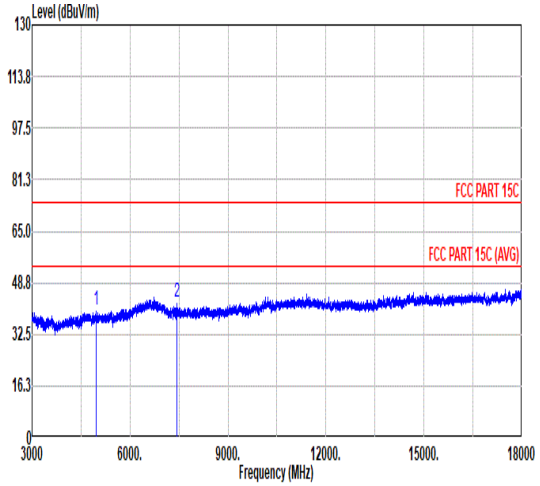
Peak

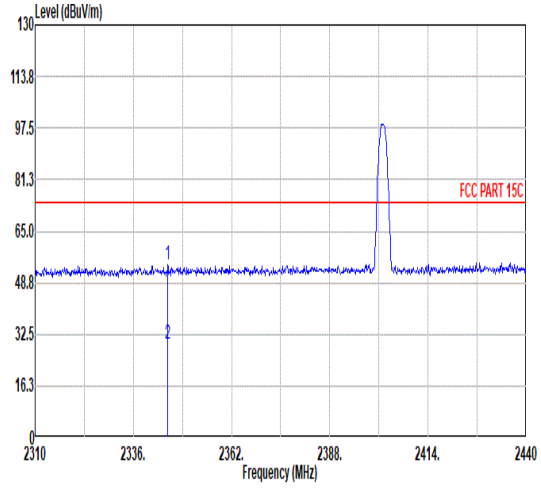
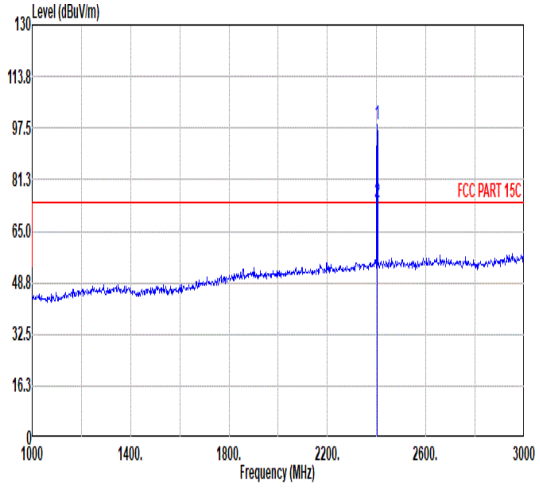


	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2498.76	55.39	74.00	-18.61	39.14	32.40	8.83	30.98	6.00	253	0	PEAK
2	2498.76	30.60	54.00	-23.40	14.35	32.40	8.83	30.98	6.00	253	0	AVERAGE



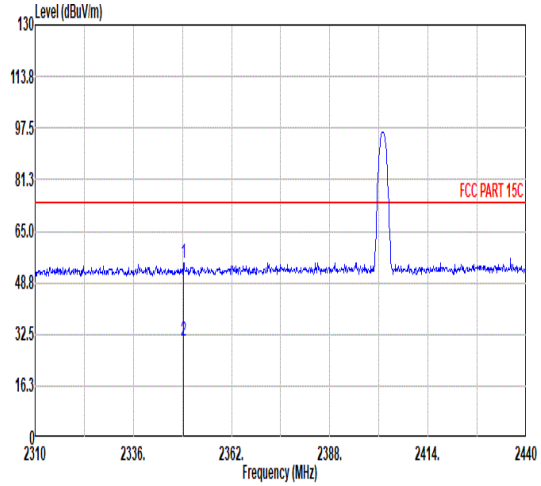
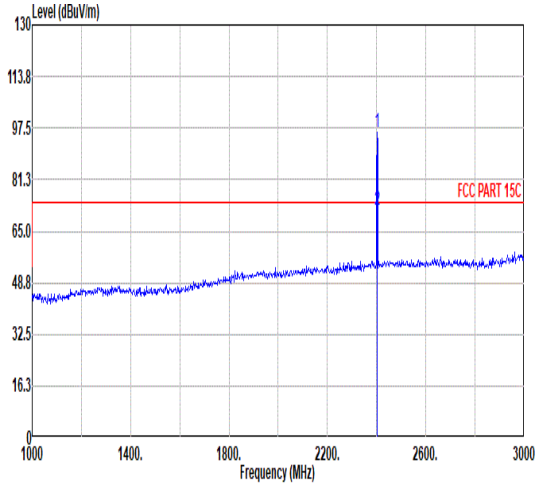
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2480.00	94.00	------	------	77.79	32.36	8.82	30.97	6.00	253	0	PEAK
2	2480.00	69.21	------	------	53.00	32.36	8.82	30.97	6.00	253	0	AVERAGE

Mode	3	
	Harmonic	
	2400-2483.5_Bluetooth BR_GFSK_CH78_2480MHz	
ANT	7	
Pol.	Horizontal	Vertical
Peak Avg	 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 4960.00 40.10 74.00 -33.90 59.53 33.94 12.38 65.75 0.00 -- -- PEAK 2 7440.00 42.28 74.00 -31.72 57.13 35.80 14.92 65.57 0.00 -- -- PEAK	 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 4960.00 40.38 74.00 -33.62 59.81 33.94 12.38 65.75 0.00 -- -- PEAK 2 7440.00 42.46 74.00 -31.54 57.31 35.80 14.92 65.57 0.00 -- -- PEAK

Mode	4	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_CH00_2402MHz	
ANT	16	
Pol.	Horizontal	Fundamental
Peak		

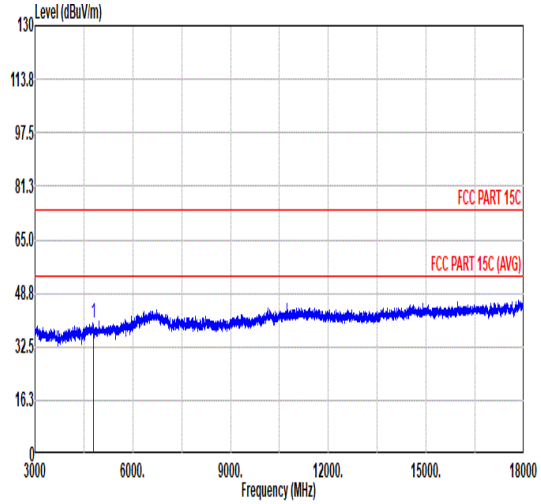
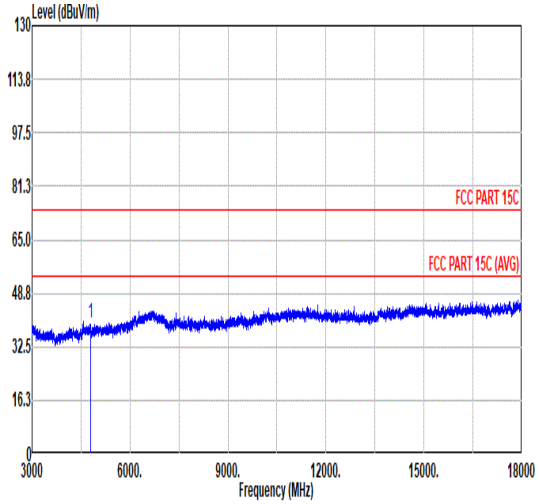
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2345.10	54.41	74.00	-19.59	38.78	31.90	8.67	30.94	6.00	100	98	PEAK
2	2345.10	29.62	54.00	-24.38	13.99	31.90	8.67	30.94	6.00	100	98	AVERAGE

	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	98.82	------	------	82.75	32.20	8.80	30.93	6.00	100	98	PEAK
2	2402.00	74.03	------	------	57.96	32.20	8.80	30.93	6.00	100	98	AVERAGE

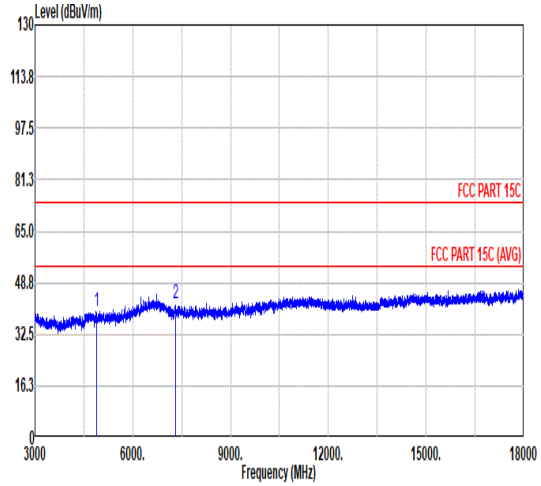
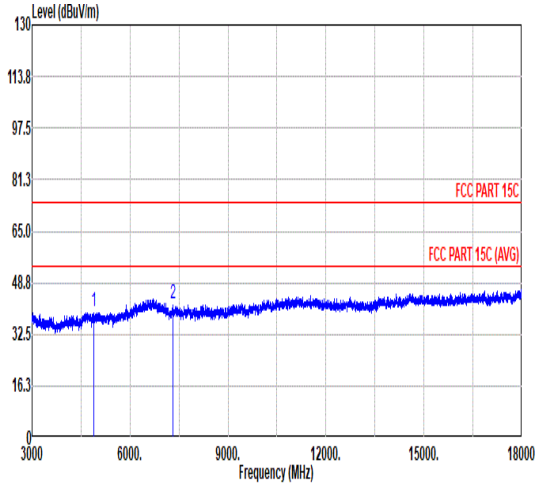
Mode	4	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_CH00_2402MHz	
ANT	16	
Pol.	Vertical	Fundamental
Peak		

	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	2349.26	55.08	74.00	-18.92	39.44	31.90	8.68	30.94	6.00	387	68	PEAK
2	2349.26	30.29	54.00	-23.71	14.65	31.90	8.68	30.94	6.00	387	68	AVERAGE

	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	96.24	------	------	80.17	32.20	8.80	30.93	6.00	387	68	PEAK
2	2402.00	71.45	------	------	55.38	32.20	8.80	30.93	6.00	387	68	AVERAGE

Mode	4	
	Harmonic	
	2400-2483.5_Bluetooth BR_GFSK_CH00_2402MHz	
ANT	16	
Pol.	Horizontal	Vertical
Peak Avg	 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 4804.00 39.87 74.00 -34.13 59.16 34.11 12.57 65.97 0.00 -- -- PEAK	 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 4804.00 39.73 74.00 -34.27 59.02 34.11 12.57 65.97 0.00 -- -- PEAK

Mode	5
	Harmonic
	2400-2483.5_Bluetooth BR_GFSK_CH39_2441MHz
ANT	16

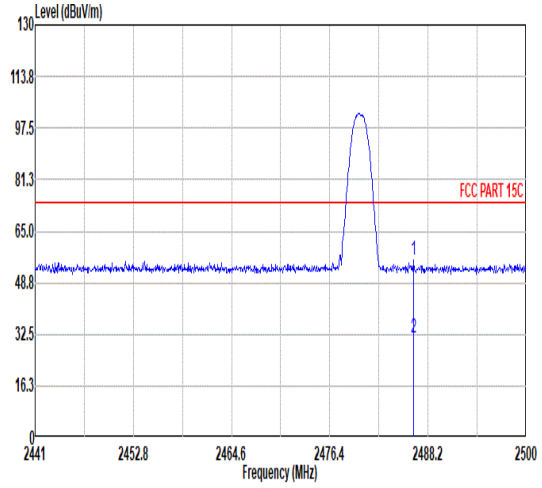
Pol.	Horizontal	Vertical
Peak Avg		

	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	4882.00	39.49	74.00	-34.51	58.74	34.14	12.47	65.86	0.00	--	--	PEAK
2	7323.00	42.03	74.00	-31.97	56.77	35.75	14.72	65.21	0.00	--	--	PEAK

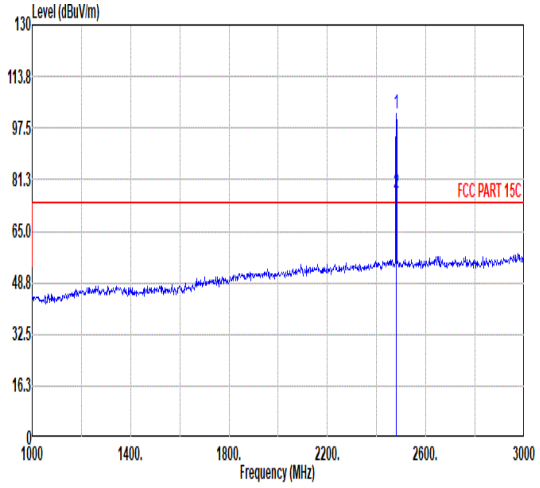
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	4882.00	39.87	74.00	-34.13	59.12	34.14	12.47	65.86	0.00	--	--	PEAK
2	7323.00	41.95	74.00	-32.05	56.69	35.75	14.72	65.21	0.00	--	--	PEAK

Mode	6	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_CH78_2480MHz	
ANT	16	
Pol.	Horizontal	Fundamental

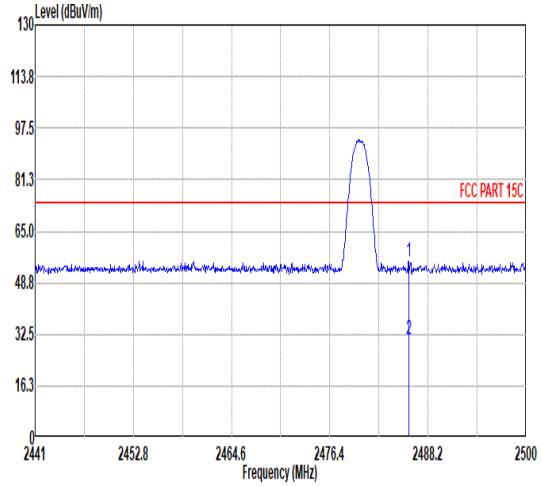
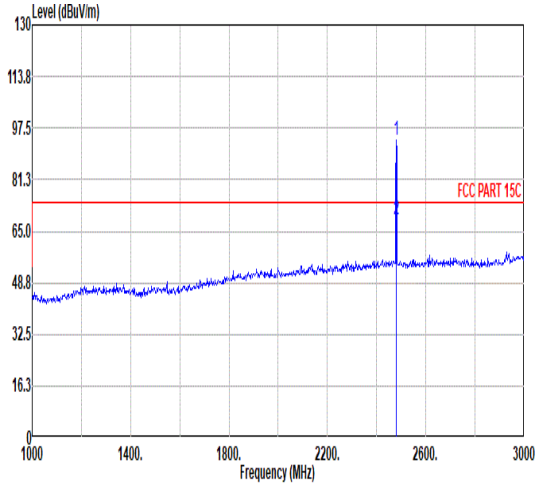
Peak



	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	2486.49	55.97	74.00	-18.03	39.74	32.37	8.83	30.97	6.00	152	311	PEAK
2	2486.49	31.18	54.00	-22.82	14.95	32.37	8.83	30.97	6.00	152	311	AVERAGE



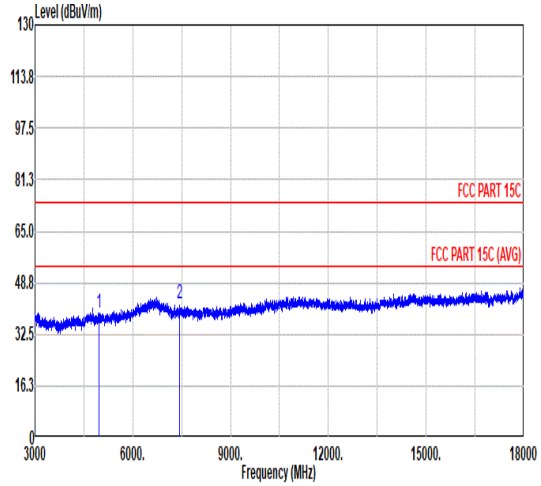
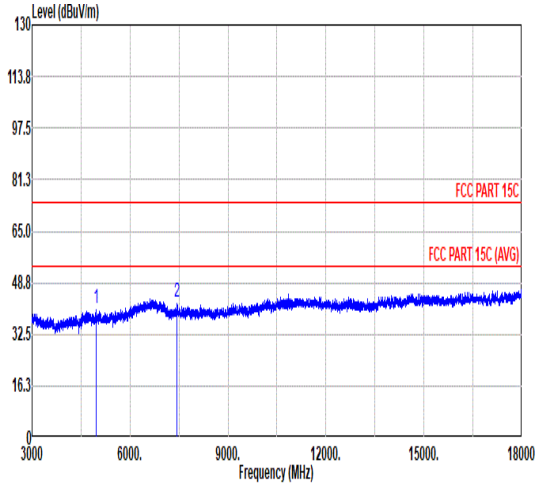
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2480.00	102.00	------	------	85.79	32.36	8.82	30.97	6.00	152	311	PEAK
2	2480.00	77.21	------	------	61.00	32.36	8.82	30.97	6.00	152	311	AVERAGE

Mode	6	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_CH78_2480MHz	
ANT	16	
Pol.	Vertical	Fundamental
Peak		

	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	2485.90	55.52	74.00	-18.48	39.29	32.37	8.83	30.97	6.00	253	0	PEAK
2	2485.90	30.73	54.00	-23.27	14.50	32.37	8.83	30.97	6.00	253	0	AVERAGE

	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	93.61	------	------	77.40	32.36	8.82	30.97	6.00	253	0	PEAK
2	2480.00	68.82	------	------	52.61	32.36	8.82	30.97	6.00	253	0	AVERAGE

Mode	6
	Harmonic
	2400-2483.5_Bluetooth BR_GFSK_CH78_2480MHz
ANT	16

Pol.	Horizontal	Vertical
Peak Avg		

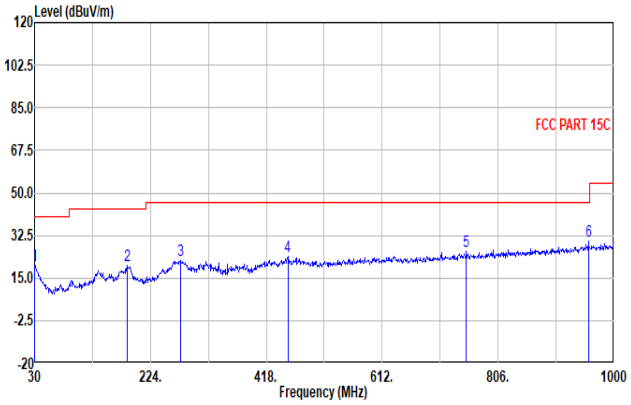
	Freq	Level	Limit Line	Margin	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	4960.00	39.34	74.00	-34.66	58.77	33.94	12.38	65.75	0.00	--	--	PEAK
2	7440.00	42.18	74.00	-31.82	57.03	35.80	14.92	65.57	0.00	--	--	PEAK

	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	4960.00	40.54	74.00	-33.46	59.97	33.94	12.38	65.75	0.00	--	--	PEAK
2	7440.00	42.68	74.00	-31.32	57.53	35.80	14.92	65.57	0.00	--	--	PEAK

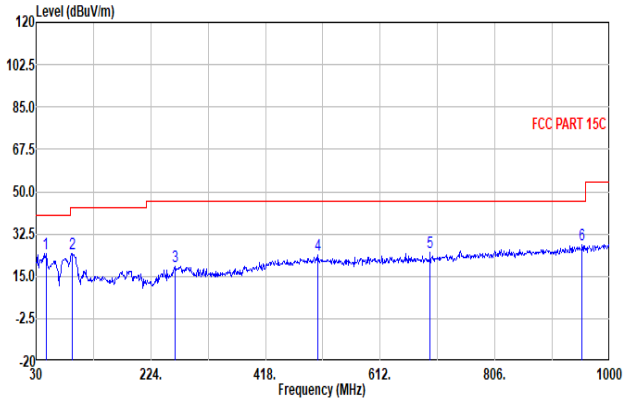
Mode	6
	LF
	2400-2483.5_Bluetooth BR_GFSK_CH78_2480MHz
ANT	16

Pol.	Horizontal	Vertical

Peak



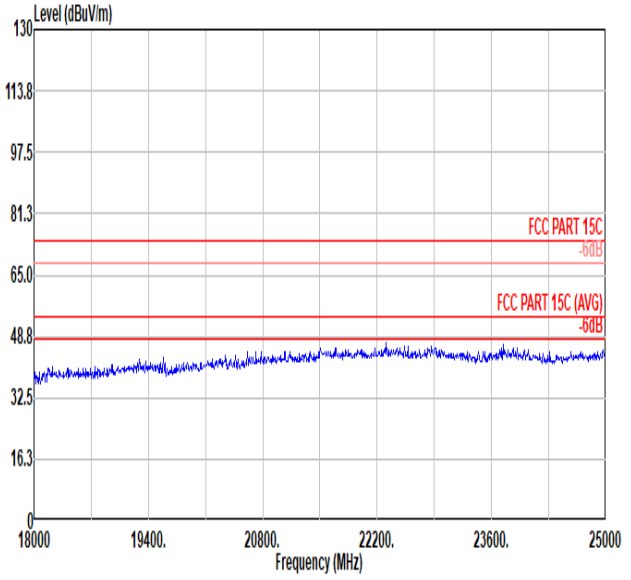
	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	20.26	40.00	-19.74	27.24	24.83	0.50	32.31	--	--	Peak
2	185.20	19.97	43.50	-23.53	35.54	14.76	1.98	32.31	--	--	Peak
3	274.44	22.41	46.00	-23.59	33.64	18.65	2.42	32.30	--	--	Peak
4	453.89	23.84	46.00	-22.16	30.30	22.95	3.10	32.51	--	--	Peak
5	752.65	26.21	46.00	-19.79	26.25	28.28	4.00	32.32	--	--	Peak
6	957.32	30.39	46.00	-15.61	26.00	30.99	4.50	31.10	--	--	Peak

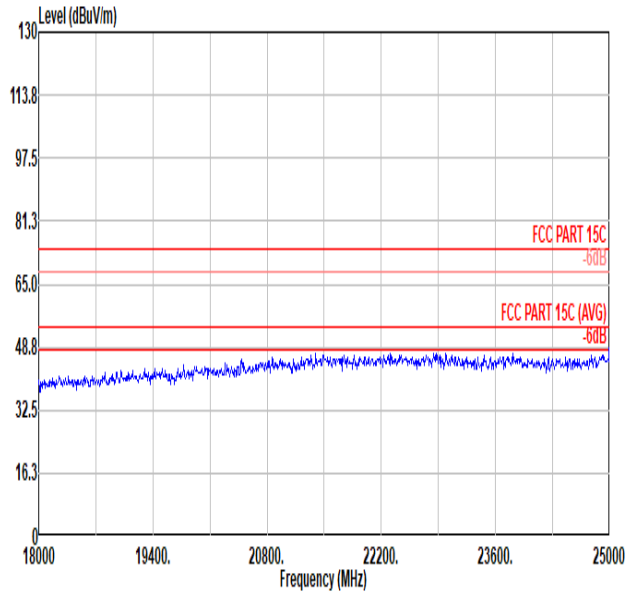


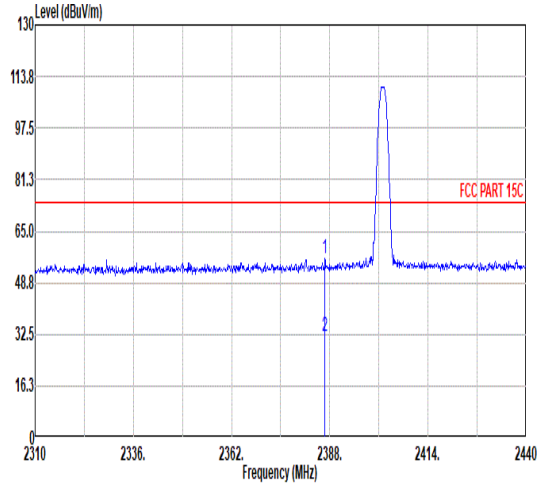
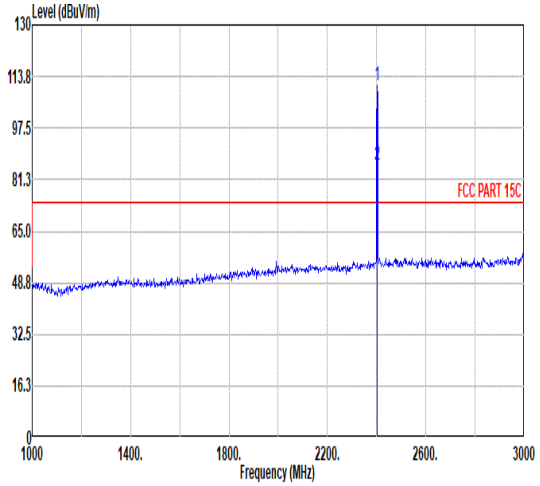
	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	
1	46.49	24.34	40.00	-15.66	39.78	16.11	0.72	32.27	--	--	Peak
2	91.11	24.28	43.50	-19.22	40.53	14.77	1.34	32.36	--	--	Peak
3	265.71	18.84	46.00	-27.16	29.34	19.40	2.38	32.28	--	--	Peak
4	506.27	23.60	46.00	-22.40	28.76	24.08	3.28	32.52	--	--	Peak
5	696.39	24.76	46.00	-21.24	26.67	26.71	3.86	32.48	--	--	Peak
6	953.44	27.99	46.00	-18.01	23.71	30.95	4.49	31.16	--	--	Peak

Emission above 18GHz

Peak

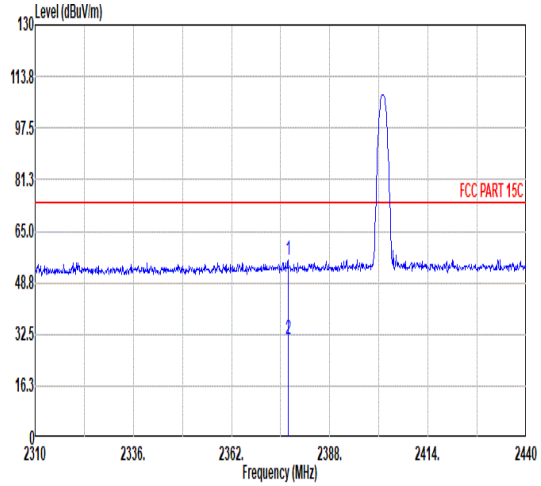
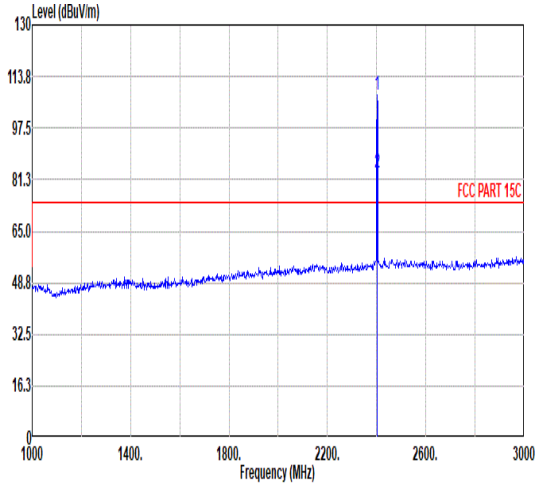




Mode	7	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_CH0_2402MHz	
ANT	7+16	
Pol.	Horizontal	Fundamental
Peak		

	Freq	Level	Limit Line	Over Limit	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	2386.70	56.52	74.00	-17.48	43.66	32.44	6.60	32.18	6.00	106	195	PEAK
2	2386.70	31.74	54.00	-22.26	18.88	32.44	6.60	32.18	6.00	106	195	AVERAGE

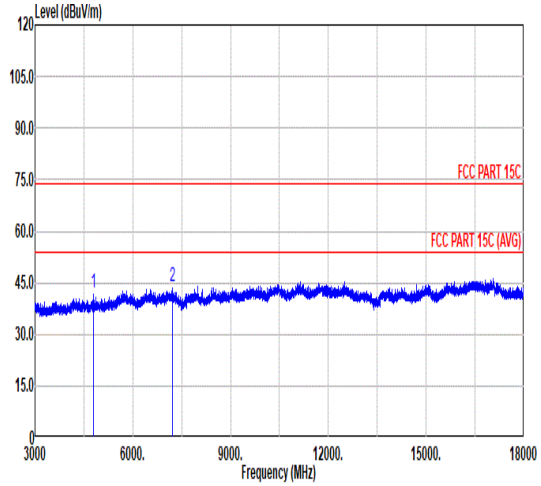
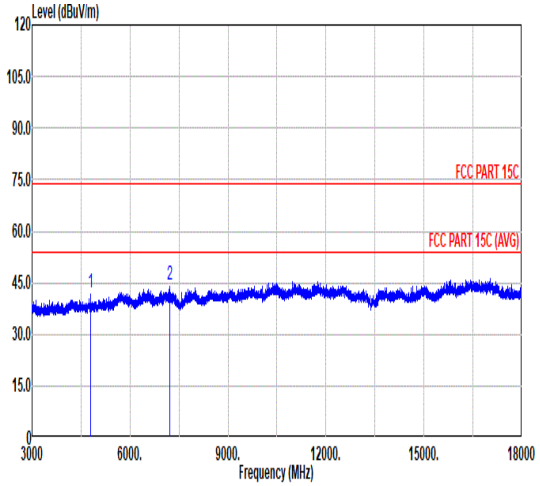
	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2402.00	110.77	------	------	97.74	32.59	6.62	32.18	6.00	106	195	PEAK
2	2402.00	85.99	------	------	72.96	32.59	6.62	32.18	6.00	106	195	AVERAGE

Mode	7	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_CH0_2402MHz	
ANT	7+16	
Pol.	Vertical	Fundamental
Peak		

	Freq	Level	Limit Line	Over Limit	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	2376.95	55.76	74.00	-18.24	43.05	32.32	6.58	32.19	6.00	342	63	PEAK
2	2376.95	30.98	54.00	-23.02	18.27	32.32	6.58	32.19	6.00	342	63	AVERAGE

	Freq	Level	Limit Line	Over Limit	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	108.06	------	------	95.03	32.59	6.62	32.18	6.00	342	63	PEAK
2	2402.00	83.28	------	------	70.25	32.59	6.62	32.18	6.00	342	63	AVERAGE

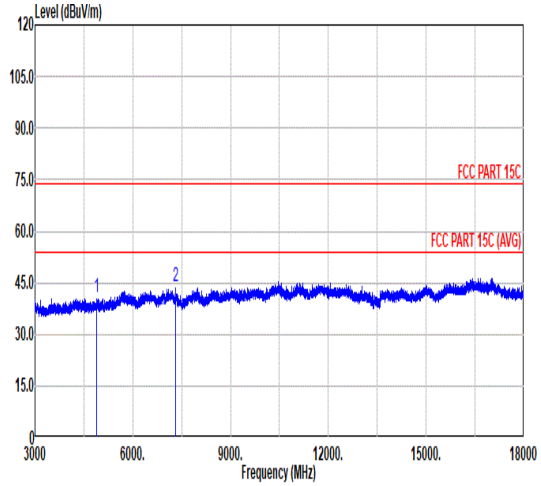
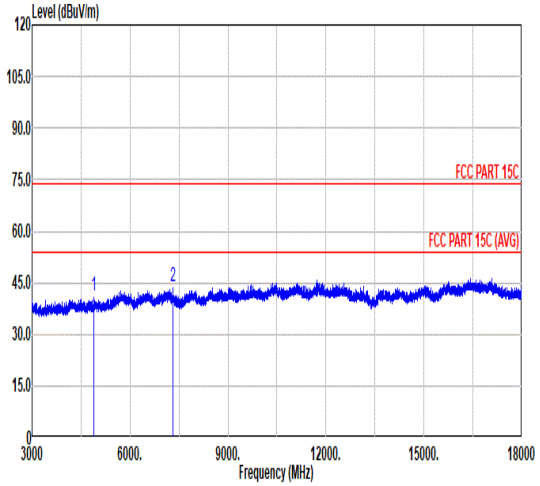
Mode	7
	Harmonic
	2400-2483.5_Bluetooth BR_GFSK_CH0_2402MHz
ANT	7+16

Pol.	Horizontal	Vertical
Peak Avg		

	Freq	Level	Limit Line	Over Limit	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	4804.00	41.98	74.00	-32.02	59.62	34.20	9.44	61.28	0.00	---	---	PEAK
2	7206.00	43.89	74.00	-30.11	57.13	35.60	11.65	60.49	0.00	---	---	PEAK

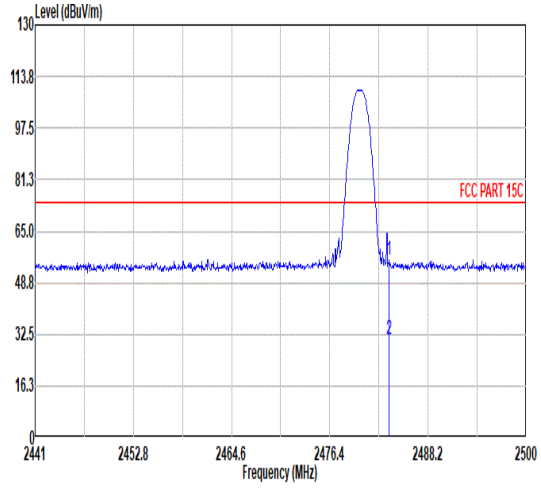
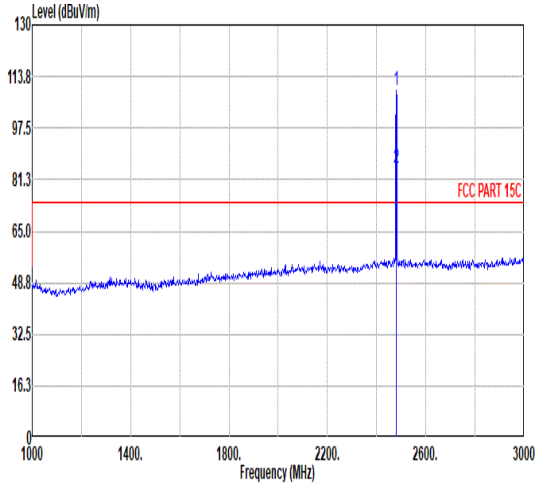
	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	4804.00	41.95	74.00	-32.05	59.59	34.20	9.44	61.28	0.00	---	---	PEAK
2	7206.00	44.26	74.00	-29.74	57.50	35.60	11.65	60.49	0.00	---	---	PEAK

Mode	8
	Harmonic
	2400-2483.5_Bluetooth BR_GFSK_CH39_2441MHz
ANT	7+16

Pol.	Horizontal	Vertical
Peak Avg		

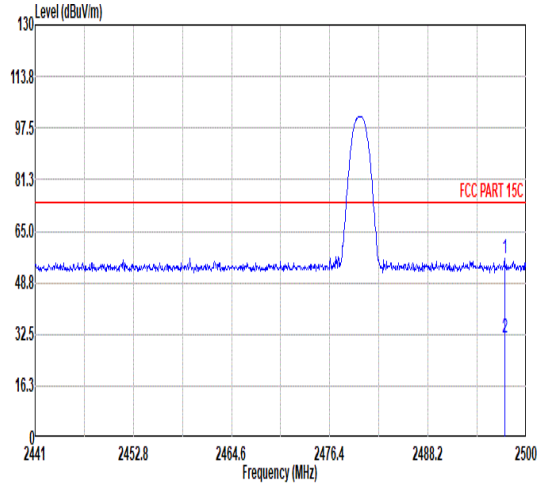
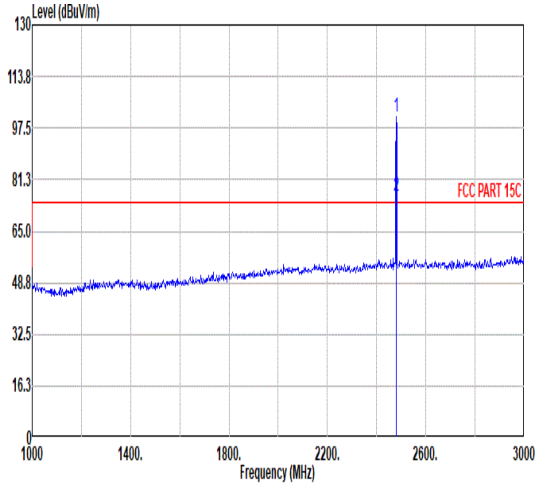
	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	4882.00	40.88	74.00	-33.12	58.43	34.14	9.53	61.22	0.00	---	---	PEAK
2	7323.00	44.15	74.00	-29.85	57.51	35.70	11.69	60.75	0.00	---	---	PEAK

	Freq	Level	Limit Line	Over Limit	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	4882.00	41.15	74.00	-32.85	58.70	34.14	9.53	61.22	0.00	---	---	PEAK
2	7323.00	43.91	74.00	-30.09	57.27	35.70	11.69	60.75	0.00	---	---	PEAK

Mode	9	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_CH78_2480MHz	
ANT	7+16	
Pol.	Horizontal	Fundamental
Peak		

	Freq	Level	Limit Line	Over Limit	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	55.73	74.00	-18.27	42.63	32.60	6.73	32.23	6.00	100	201	PEAK
2	2483.54	30.95	54.00	-23.05	17.85	32.60	6.73	32.23	6.00	100	201	AVERAGE

	Freq	Level	Limit Line	Over Limit	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	109.63	------	------	96.55	32.58	6.73	32.23	6.00	100	201	PEAK
2	2480.00	84.85	------	------	71.77	32.58	6.73	32.23	6.00	100	201	AVERAGE

Mode	9	
	Band Edge	
	2400-2483.5_Bluetooth BR_GFSK_CH78_2480MHz	
ANT	7+16	
Pol.	Vertical	Fundamental
Peak		

	Freq	Level	Limit Line	Over Limit	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	2497.40	56.24	74.00	-17.76	43.05	32.68	6.75	32.24	6.00	300	212	PEAK
2	2497.40	31.46	54.00	-22.54	18.27	32.68	6.75	32.24	6.00	300	212	AVERAGE

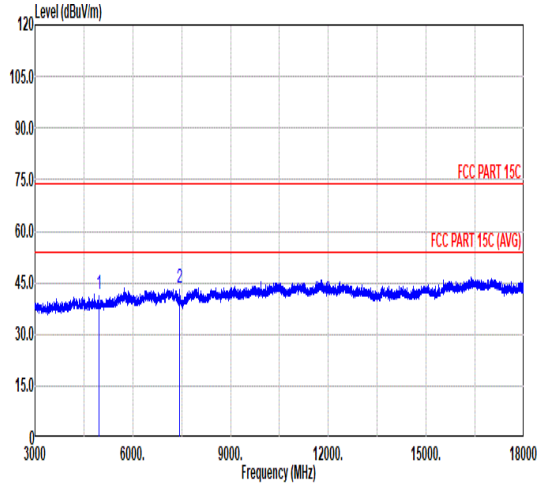
	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	2480.00	101.06	------	------	87.98	32.58	6.73	32.23	6.00	300	212	PEAK
2	2480.00	76.28	------	------	63.20	32.58	6.73	32.23	6.00	300	212	AVERAGE

Mode	9
	Harmonic
	2400-2483.5_Bluetooth BR_GFSK_CH78_2480MHz
ANT	7+16

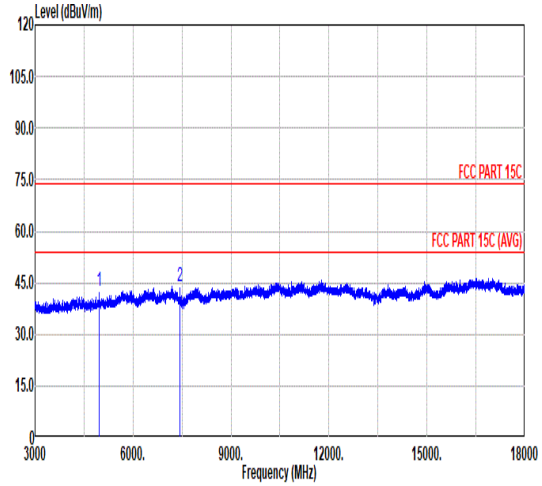
Pol.	Horizontal	Vertical

Peak

Avg



	Freq	Level	Limit Line	Over Limit	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	4960.00	41.74	74.00	-32.26	59.29	34.00	9.61	61.16	0.00	---	---	PEAK
2	7440.00	43.51	74.00	-30.49	57.06	35.70	11.77	61.02	0.00	---	---	PEAK

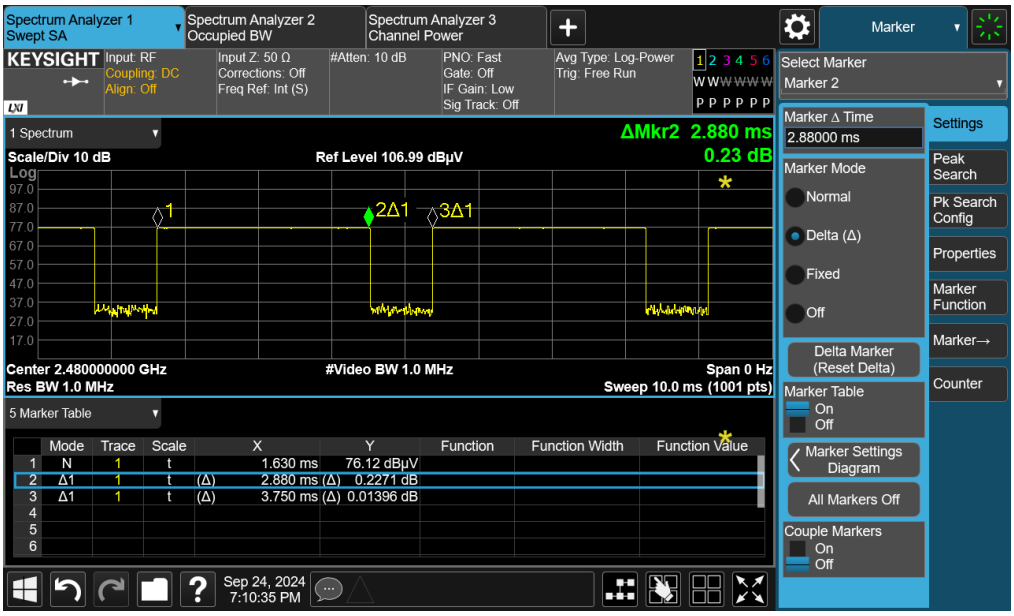


	Freq	Level	Limit Line	Over Limit	Read Level	Ant Factor	Cable Loss	Preamp Factor	Aux Factor	APos	TPos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	dB	cm	deg	
1	4960.00	42.43	74.00	-31.57	59.98	34.00	9.61	61.16	0.00	---	---	PEAK
2	7440.00	43.93	74.00	-30.07	57.48	35.70	11.77	61.02	0.00	---	---	PEAK

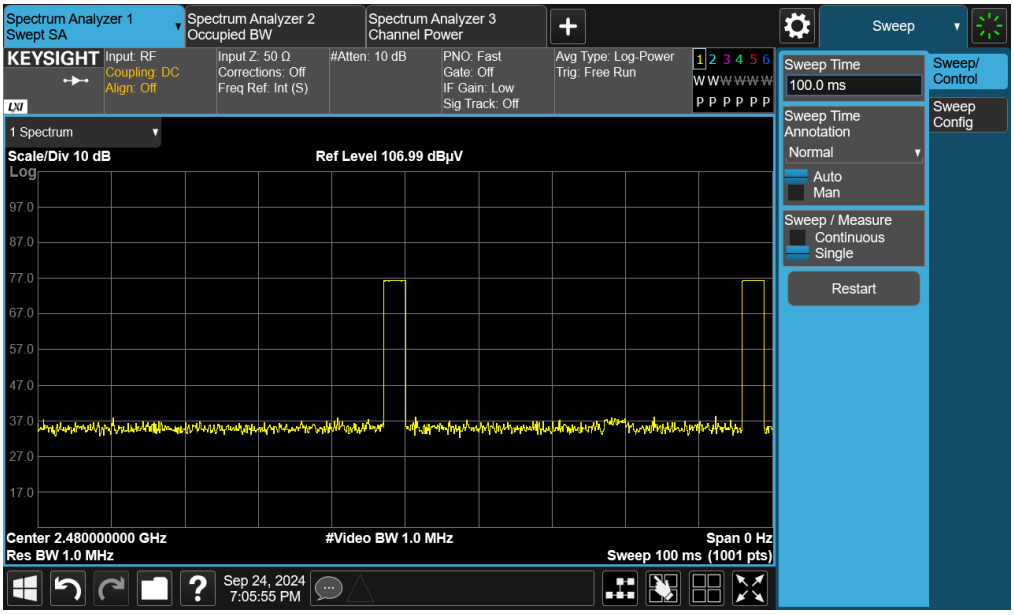
Appendix D. Duty Cycle Plots

Ant 16/7

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(Duty cycle) = -24.79 dB
3. 3DH5 has the highest duty cycle worst case and is reported.