Project No.	SHT2504052402W		
Test sample No.	YPHT25040524002	Model No.	X1 pro
Start date.	2025/5/12	Start date.	2025/5/19
Temperature	25.9℃	Humidity	52%
Test Engineer	Xiangyu Wei	Auditor	Xiaodong Zhao

Appendix clause	Test Item	Test date (M/D)	Test Result (PASS/FAIL)
A	Maximum Transmitter Power	5/12	PASS
B	Occupied Bandwidth	5/13	PASS
C	Emission Mask	5/19	PASS
D	Modulation Limit	5/13	PASS
E	Audio Frequency Response	5/13	PASS
F	Frequency Stability Test & Temperature	5/13	PASS
G	Frequency Stability Test & Voltage	5/13	PASS
H	Transmitter Frequency Behavior	5/13	PASS
I	Spurious Emission On Antenna Port	5/13	PASS

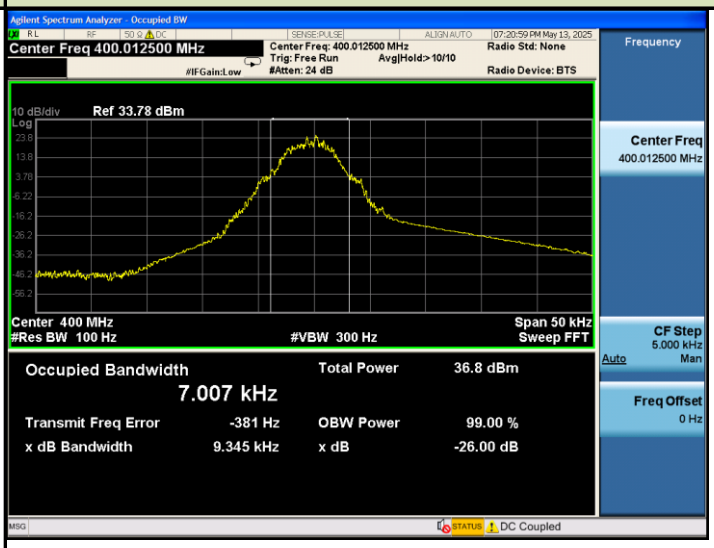
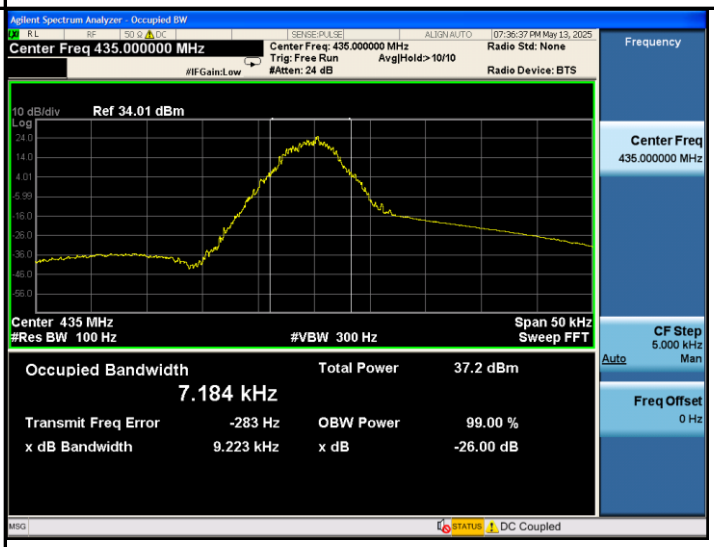
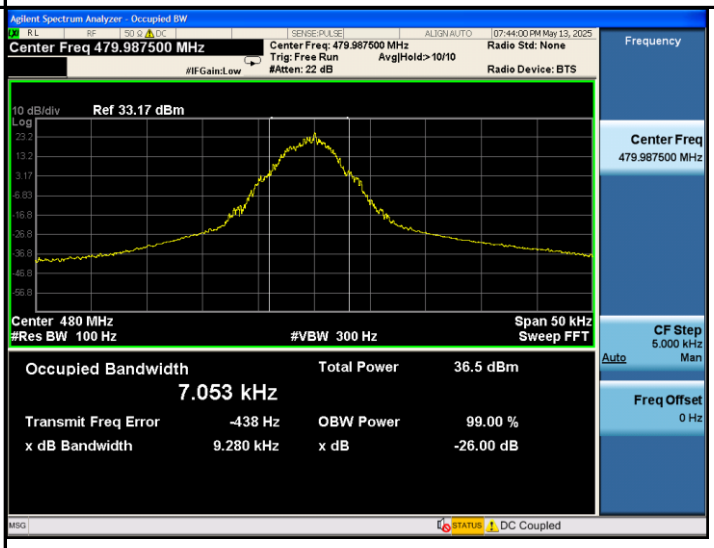
Appendix A:Maximum Transmitter Power

Operation Mode	Modulation Type	Test Channel	Measured Power(dBm)	Measured Power(W)	Rated Power(W)	Percentage(%)	Limit (%)	Result
TX-DNH	4FSK	CH_L	31.80	1.51	1.50	0.67	±20	PASS
TX-DNH	4FSK	CH_M	31.70	1.48	1.50	-1.33	±20	PASS
TX-DNH	4FSK	CH_H	31.60	1.45	1.50	-3.33	±20	PASS
TX-DNL	4FSK	CH_L	27.30	0.54	0.50	8.00	±20	PASS
TX-DNL	4FSK	CH_M	27.50	0.56	0.50	12.00	±20	PASS
TX-DNL	4FSK	CH_H	27.40	0.55	0.50	10.00	±20	PASS
TX-ANH	FM	CH_L	32.06	1.61	1.50	7.33	±20	PASS
TX-ANH	FM	CH_M	31.90	1.55	1.50	3.33	±20	PASS
TX-ANH	FM	CH_H	31.13	1.30	1.50	-13.33	±20	PASS
TX-ANL	FM	CH_L	27.20	0.52	0.50	4.00	±20	PASS
TX-ANL	FM	CH_M	26.95	0.50	0.50	0.00	±20	PASS
TX-ANL	FM	CH_H	26.91	0.49	0.50	-2.00	±20	PASS

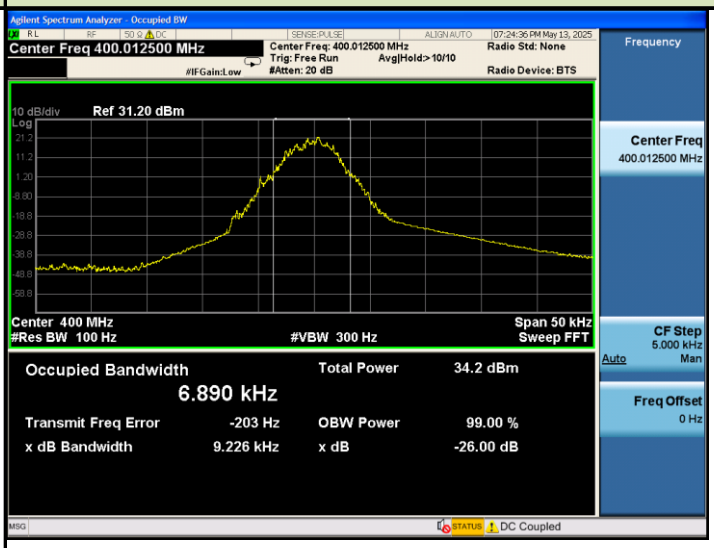
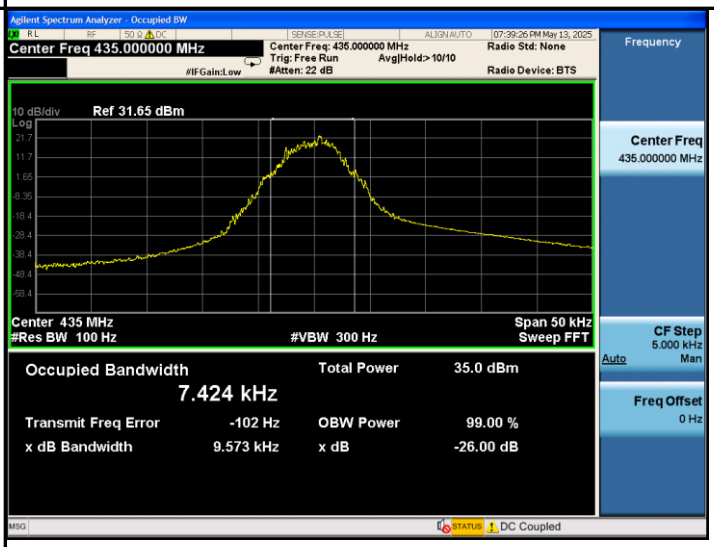
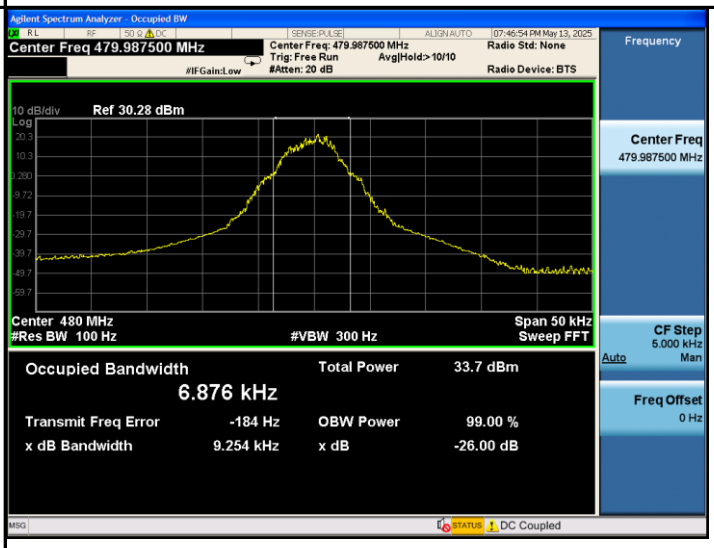
Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	Occupied Bandwidth		99% Limit(kHz)	Result
			99%(kHz)	26dB(kHz)		
TX-DNH	4FSK	CH_L	7.01	9.35	≤11.25	PASS
TX-DNH	4FSK	CH_M	7.18	9.22	≤11.25	PASS
TX-DNH	4FSK	CH_H	7.05	9.28	≤11.25	PASS
TX-DNL	4FSK	CH_L	6.89	9.23	≤11.25	PASS
TX-DNL	4FSK	CH_M	7.42	9.57	≤11.25	PASS
TX-DNL	4FSK	CH_H	6.88	9.25	≤11.25	PASS
TX-ANH	FM	CH_L	9.93	10.16	≤11.25	PASS
TX-ANH	FM	CH_M	9.94	10.16	≤11.25	PASS
TX-ANH	FM	CH_H	9.94	10.16	≤11.25	PASS
TX-ANL	FM	CH_L	9.94	10.16	≤11.25	PASS
TX-ANL	FM	CH_M	9.94	10.16	≤11.25	PASS
TX-ANL	FM	CH_H	9.94	10.16	≤11.25	PASS

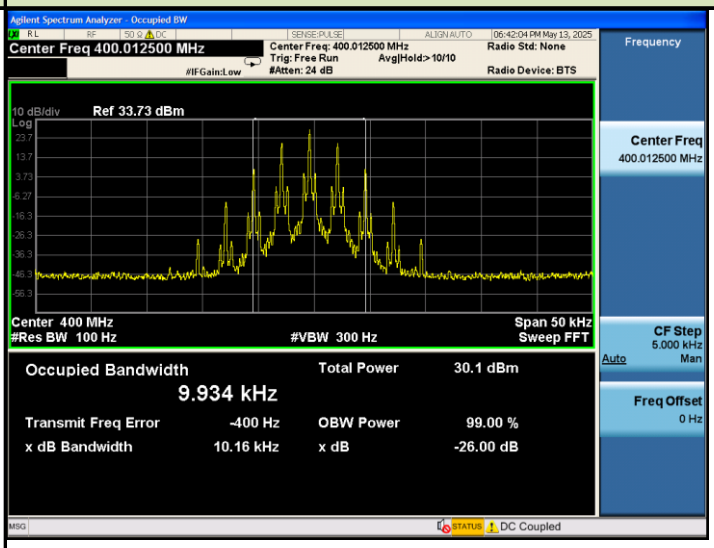
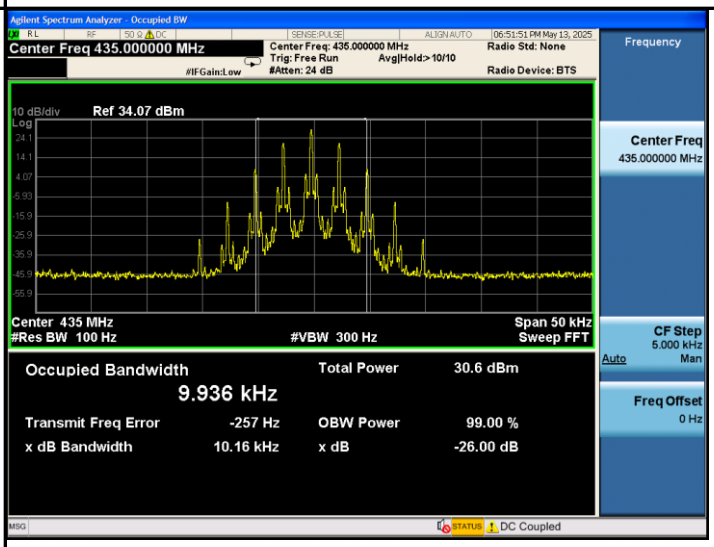
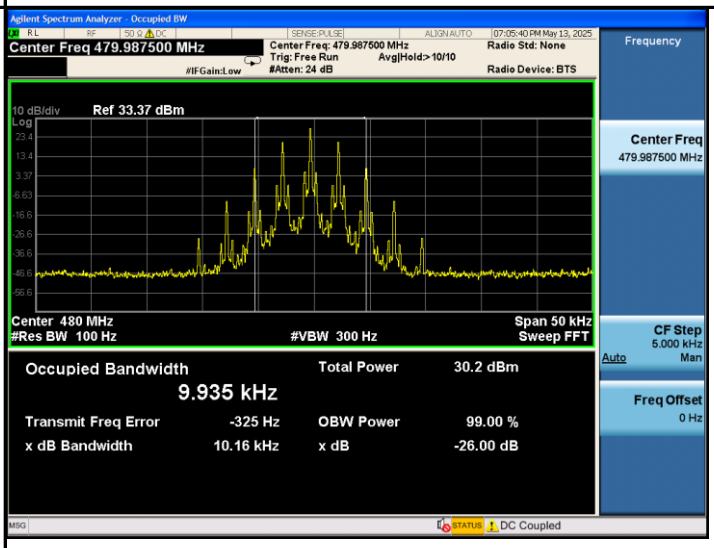
Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH_L	
TX-DNH	4FSK	CH_M	
TX-DNH	4FSK	CH_H	

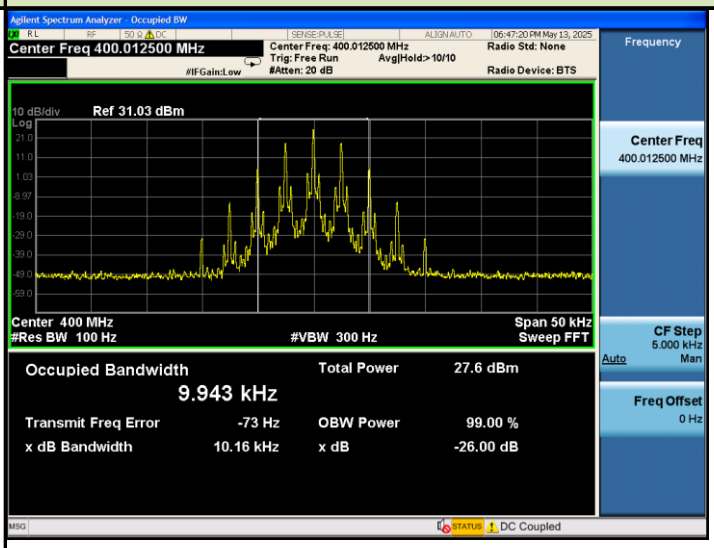
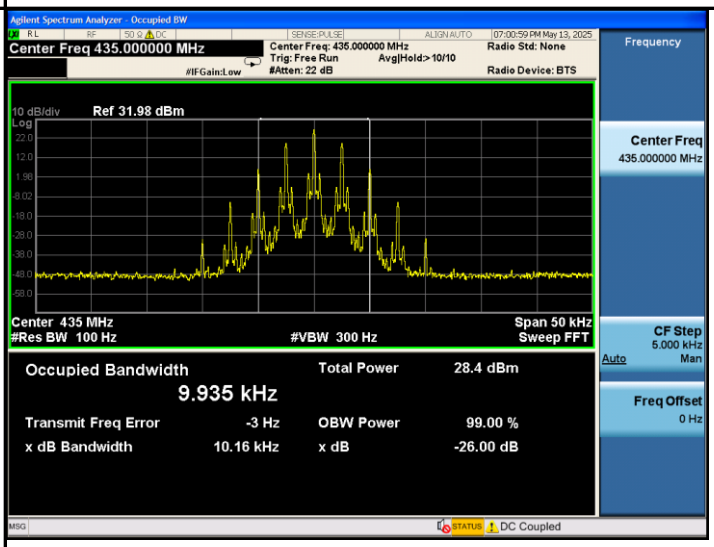
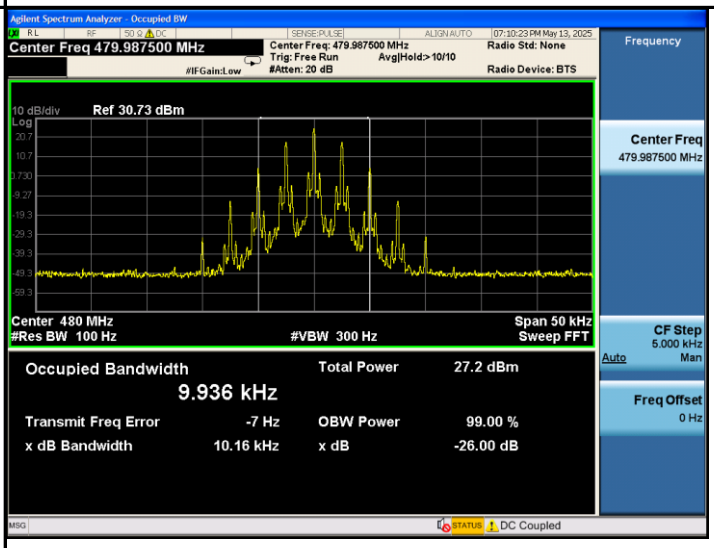
Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNL	4FSK	CH_L	
TX-DNL	4FSK	CH_M	
TX-DNL	4FSK	CH_H	

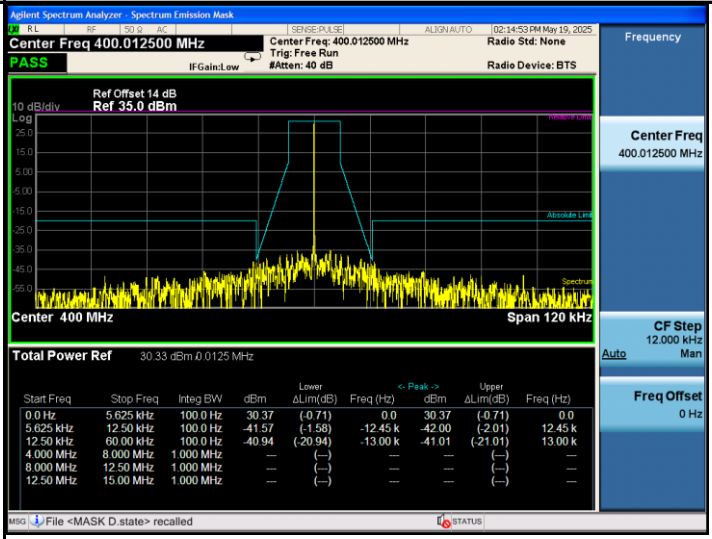
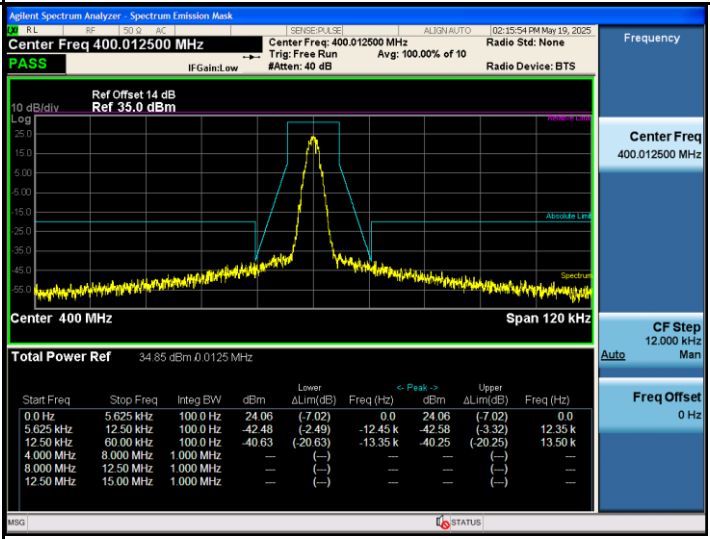
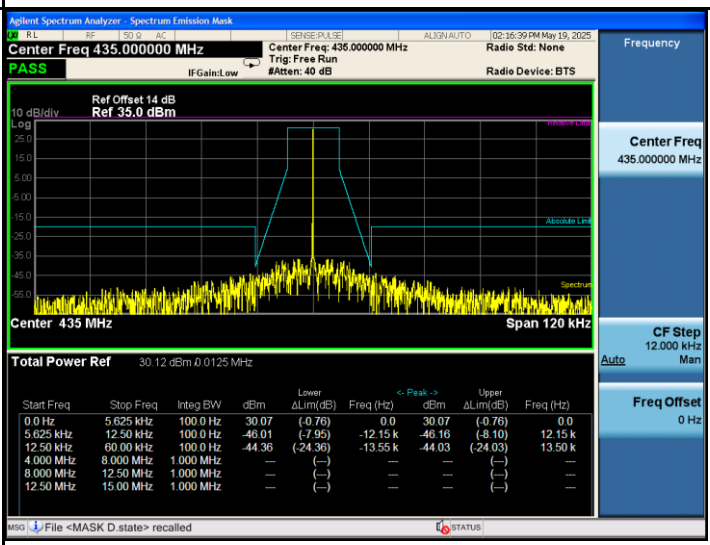
Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-ANH	FM	CH_L	
TX-ANH	FM	CH_M	
TX-ANH	FM	CH_H	

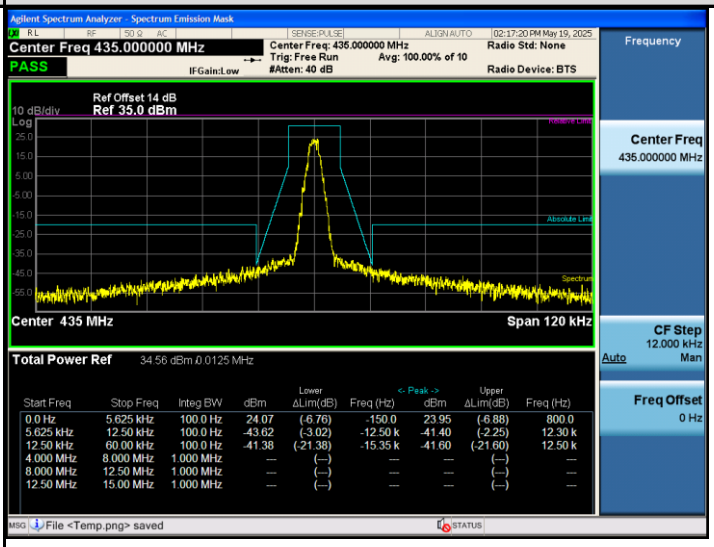
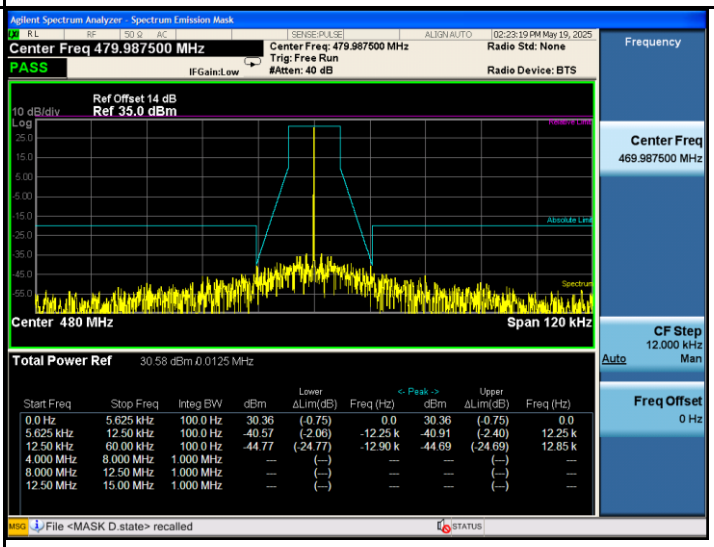
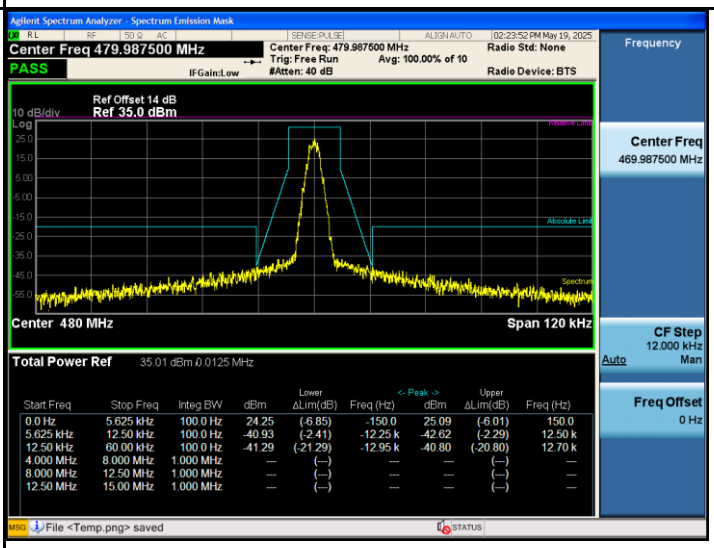
Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-ANL	FM	CH_L	
TX-ANL	FM	CH_M	
TX-ANL	FM	CH_H	

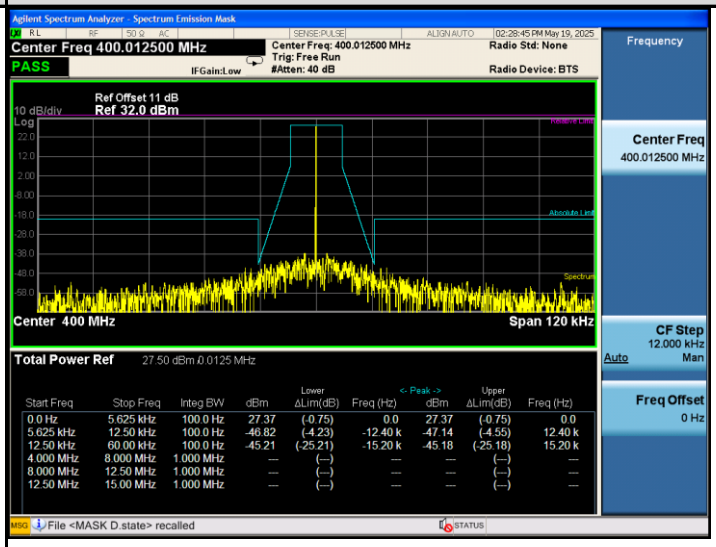
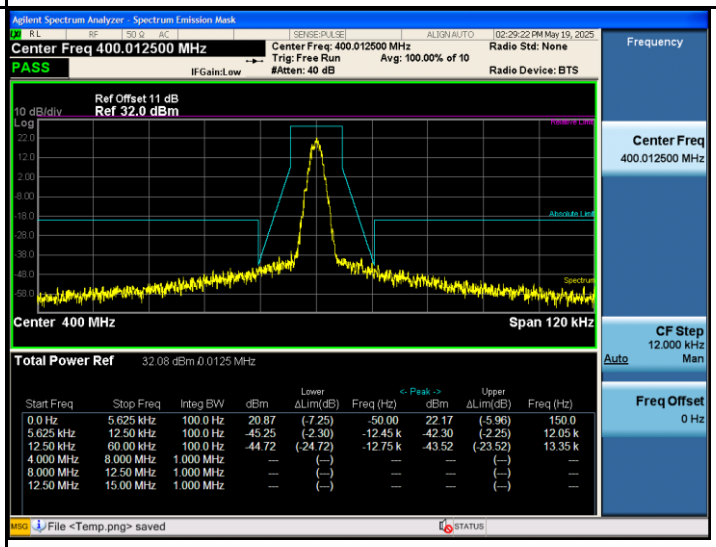
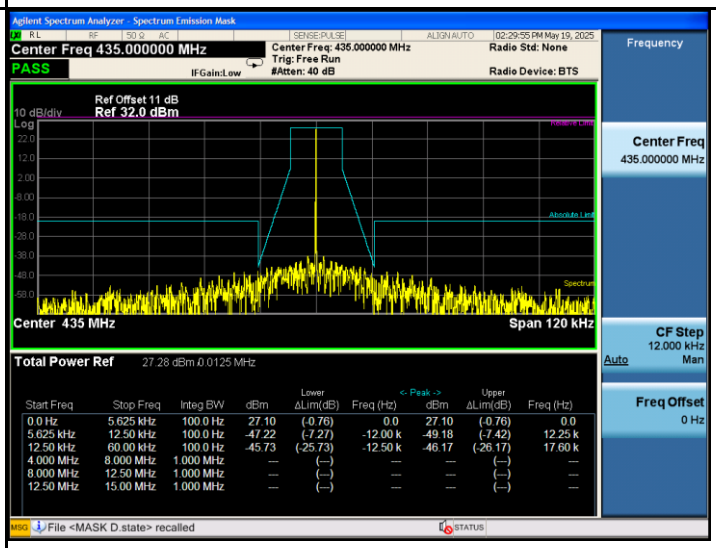
Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH_L	
TX-DNH	4FSK	CH_L	
TX-DNH	4FSK	CH_M	

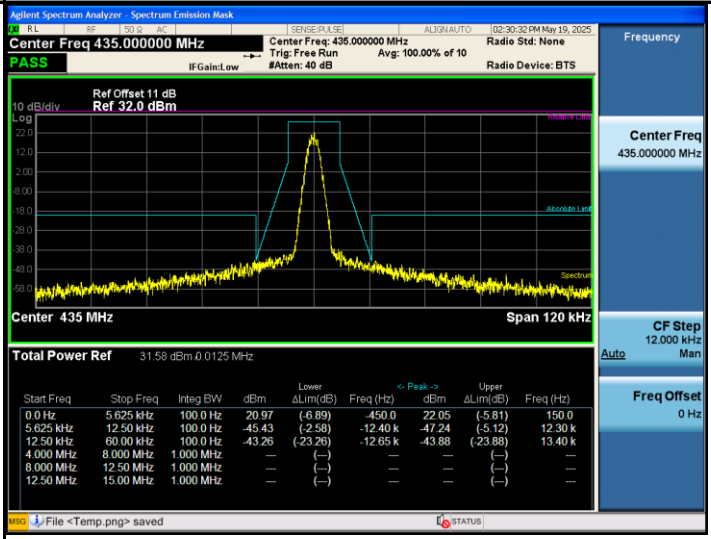
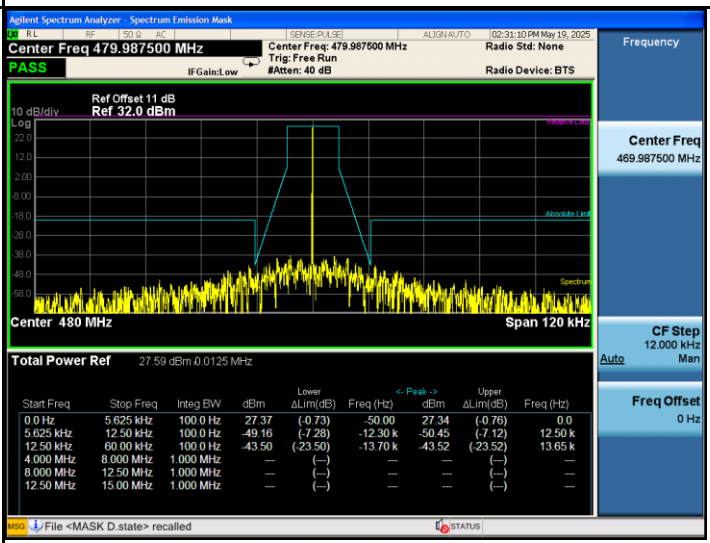
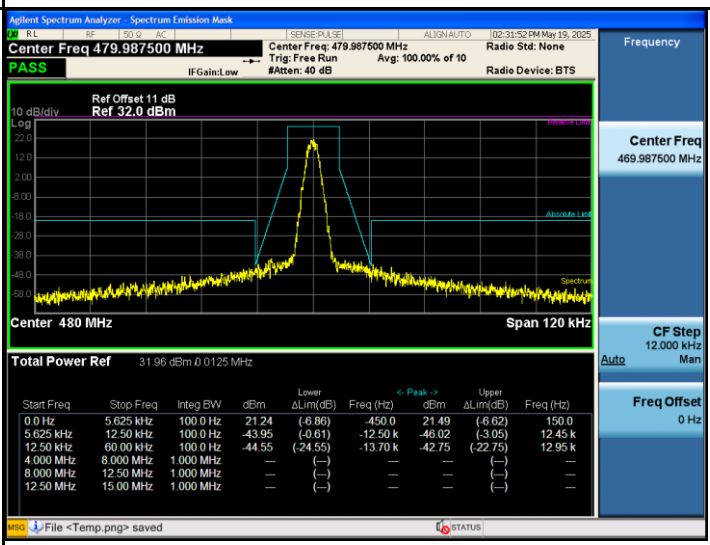
Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH_M	
TX-DNH	4FSK	CH_H	
TX-DNH	4FSK	CH_H	

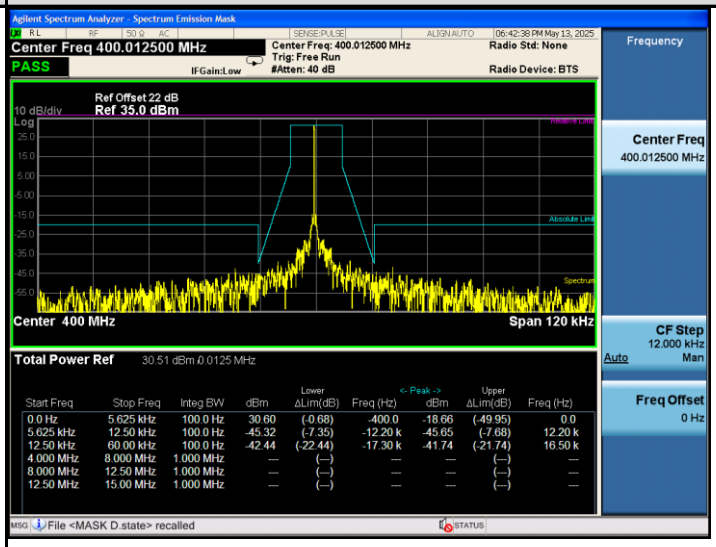
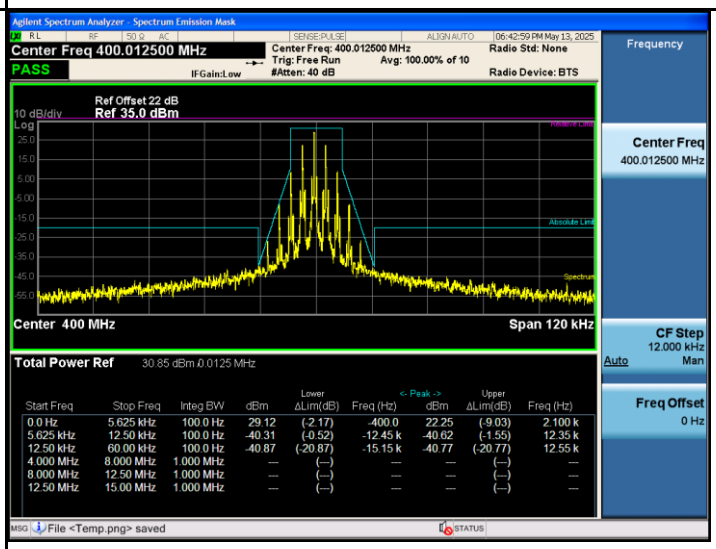
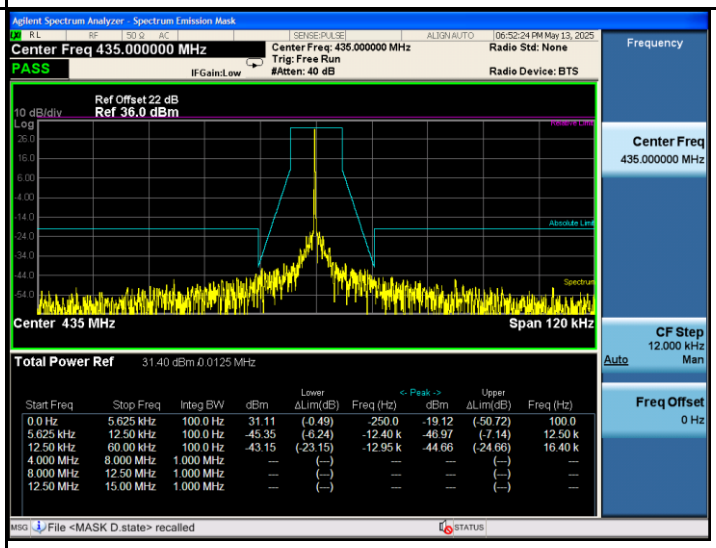
Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNL	4FSK	CH_L	
TX-DNL	4FSK	CH_L	
TX-DNL	4FSK	CH_M	

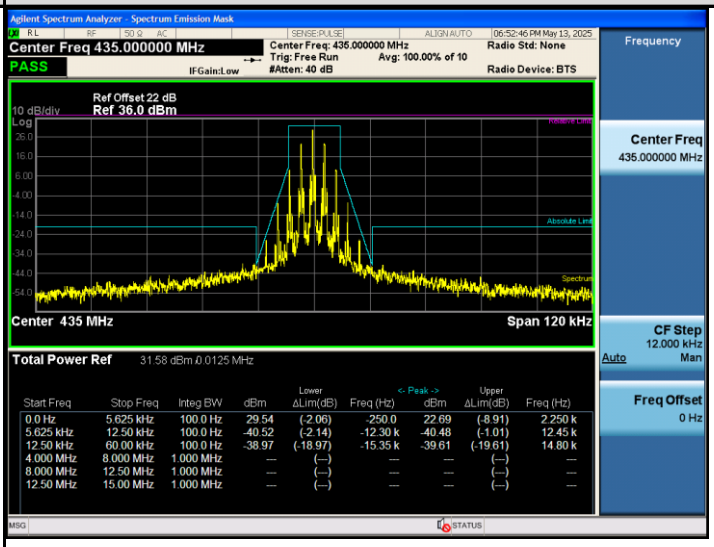
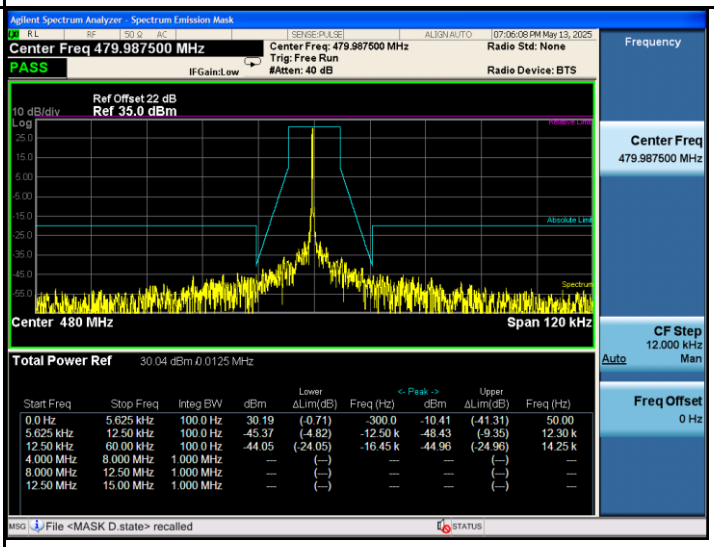
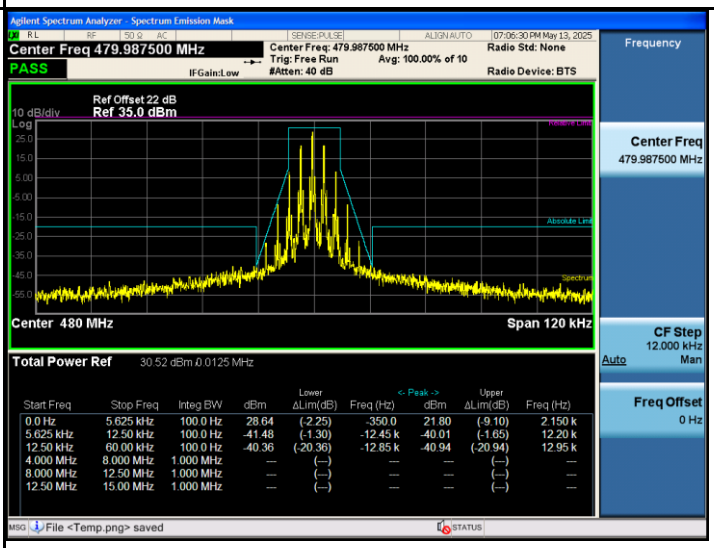
Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNL	4FSK	CH_M	
TX-DNL	4FSK	CH_H	
TX-DNL	4FSK	CH_H	

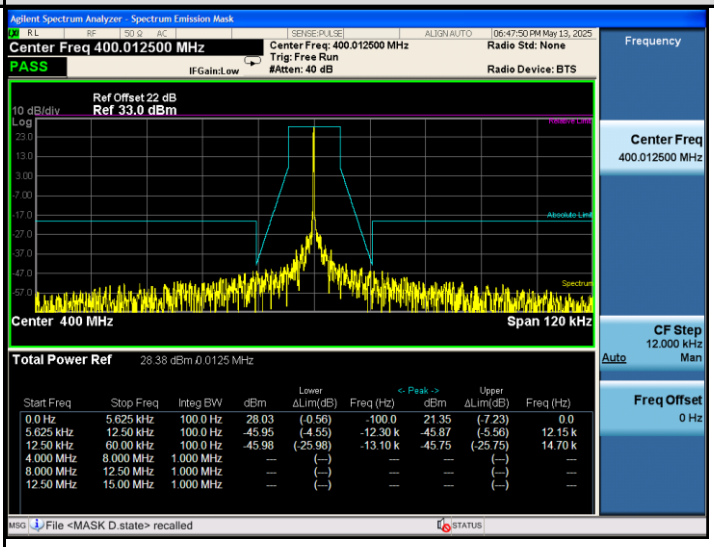
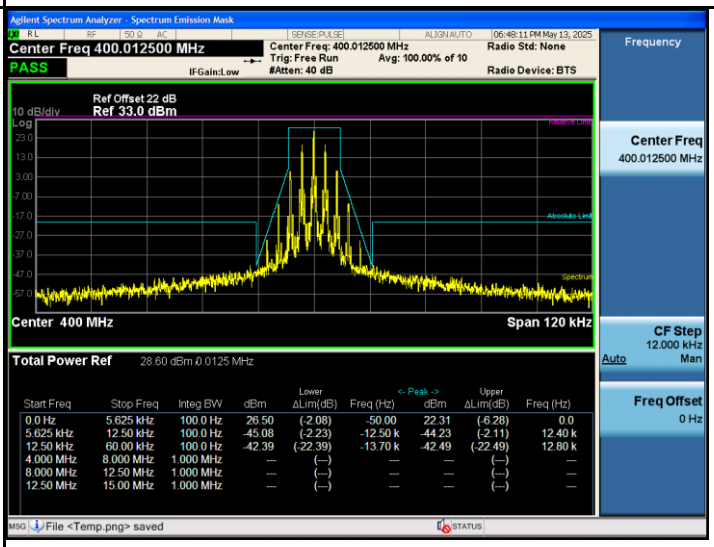
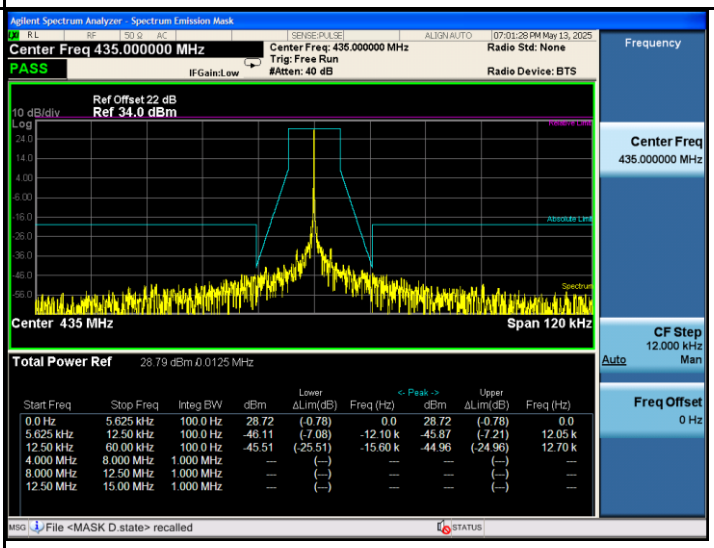
Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-ANH	FM	CH_L	
TX-ANH	FM	CH_L	
TX-ANH	FM	CH_M	

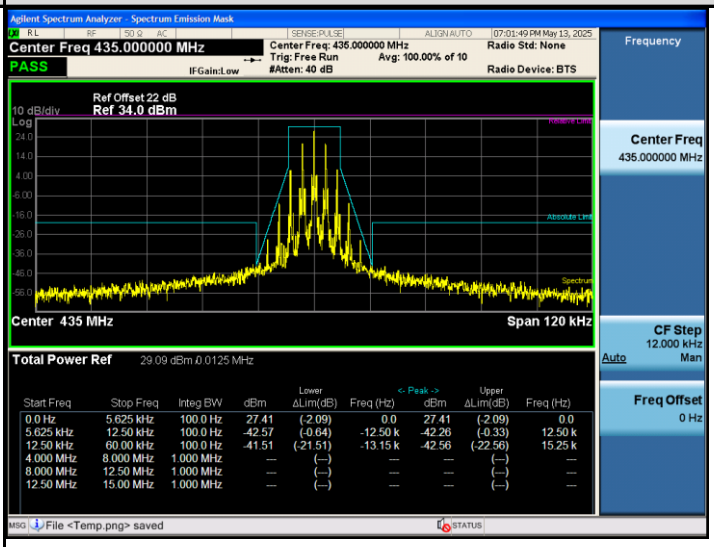
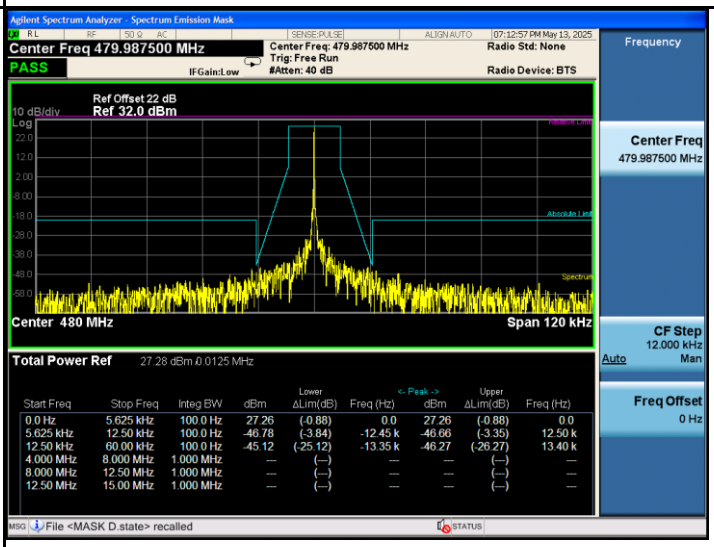
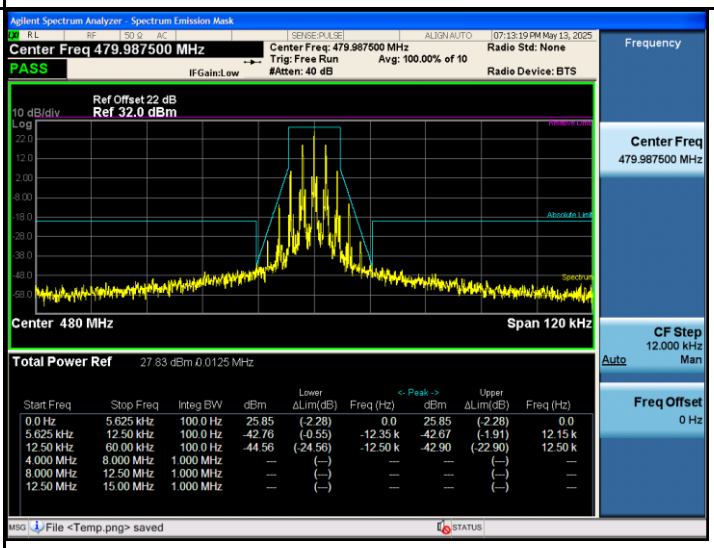
Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-ANH	FM	CH_M	
TX-ANH	FM	CH_H	
TX-ANH	FM	CH_H	

Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-ANL	FM	CH_L	
TX-ANL	FM	CH_L	
TX-ANL	FM	CH_M	

Appendix C:Emission Mask

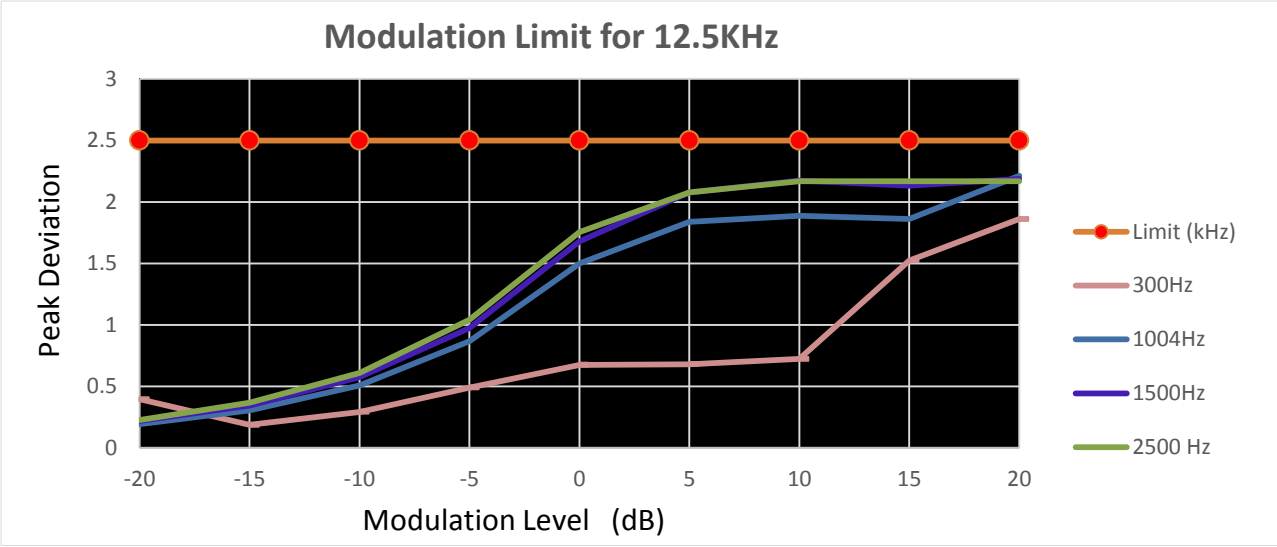
Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-ANL	FM	CH_M	
TX-ANL	FM	CH_H	
TX-ANL	FM	CH_H	

Appendix D:Modulation Limit

Operation Mode	Modulation Type	Test Channel	Modulation Level (dB)	Peak frequency deviation (kHz)				Limit (kHz)	Result
				300Hz	1004Hz	1500Hz	2500 Hz		
TX-ANH	FM	CH_M	-20	0.395	0.192	0.218	0.227	2.5	PASS
TX-ANH	FM	CH_M	-15	0.188	0.304	0.344	0.367	2.5	PASS
TX-ANH	FM	CH_M	-10	0.293	0.509	0.577	0.609	2.5	PASS
TX-ANH	FM	CH_M	-5	0.491	0.866	0.975	1.041	2.5	PASS
TX-ANH	FM	CH_M	0	0.675	1.499	1.679	1.754	2.5	PASS
TX-ANH	FM	CH_M	5	0.680	1.839	2.078	2.076	2.5	PASS
TX-ANH	FM	CH_M	10	0.723	1.888	2.174	2.169	2.5	PASS
TX-ANH	FM	CH_M	15	1.524	1.862	2.133	2.167	2.5	PASS
TX-ANH	FM	CH_M	20	1.860	2.213	2.186	2.169	2.5	PASS

Appendix D:Modulation Limit

TEST PLOT RESULT

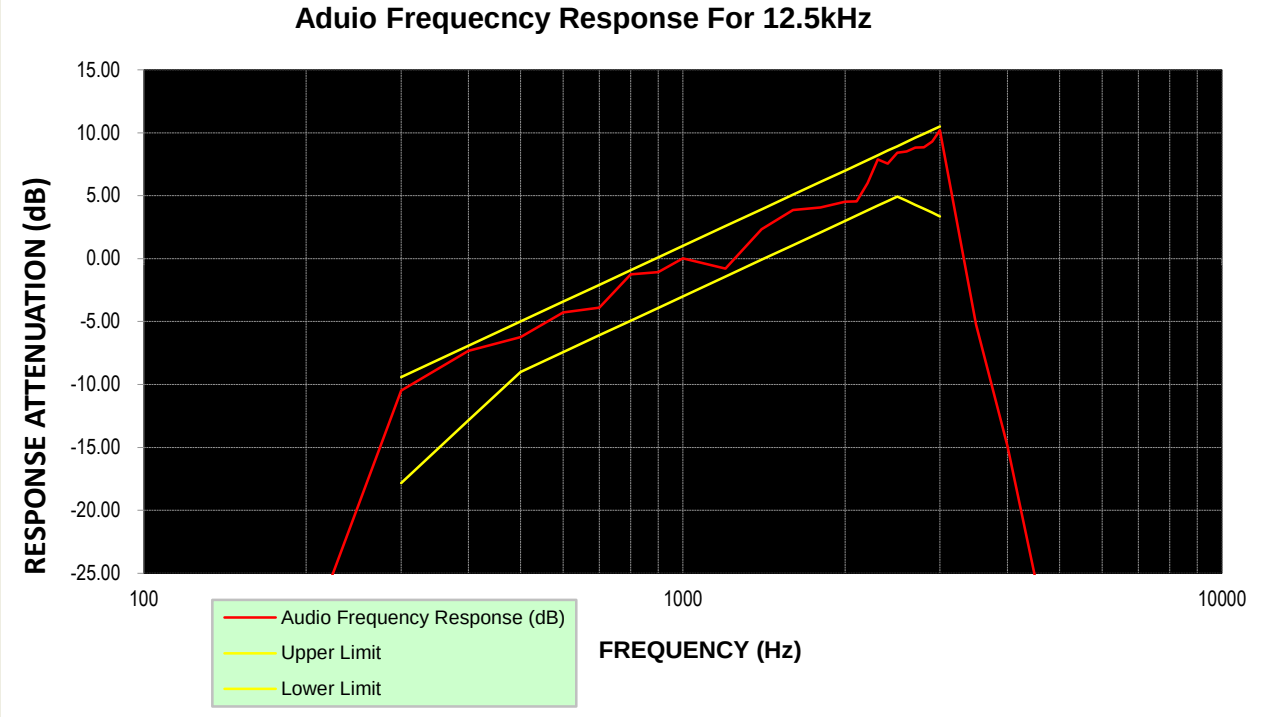


Appendix E:Audio Frequency Response

Operation Mode	Modulation Type	Test Channel	Frequency (Hz)	Audio Frequency Response (dB)	Lower Limit	Upper Limit	Result
TX-ANH	FM	CH_M	100	-30.66			PASS
TX-ANH	FM	CH_M	200	-30.72			PASS
TX-ANH	FM	CH_M	300	-10.49	-17.84	-9.42	PASS
TX-ANH	FM	CH_M	400	-7.34	-12.86	-6.93	PASS
TX-ANH	FM	CH_M	500	-6.24	-9.00	-5.00	PASS
TX-ANH	FM	CH_M	600	-4.27	-7.42	-3.42	PASS
TX-ANH	FM	CH_M	700	-3.89	-6.09	-2.09	PASS
TX-ANH	FM	CH_M	800	-1.26	-4.93	-0.93	PASS
TX-ANH	FM	CH_M	900	-1.07	-3.91	0.09	PASS
TX-ANH	FM	CH_M	1000	0.01	-3.00	1.00	PASS
TX-ANH	FM	CH_M	1200	-0.80	-1.42	2.58	PASS
TX-ANH	FM	CH_M	1400	2.34	-0.09	3.91	PASS
TX-ANH	FM	CH_M	1600	3.85	1.07	5.07	PASS
TX-ANH	FM	CH_M	1800	4.07	2.09	6.09	PASS
TX-ANH	FM	CH_M	2000	4.52	3.00	7.00	PASS
TX-ANH	FM	CH_M	2100	4.56	3.42	7.42	PASS
TX-ANH	FM	CH_M	2200	6.00	3.83	7.83	PASS
TX-ANH	FM	CH_M	2300	7.89	4.21	8.21	PASS
TX-ANH	FM	CH_M	2400	7.54	4.58	8.58	PASS
TX-ANH	FM	CH_M	2500	8.41	4.93	8.93	PASS
TX-ANH	FM	CH_M	2600	8.51	4.59	9.27	PASS
TX-ANH	FM	CH_M	2700	8.81	4.27	9.60	PASS
TX-ANH	FM	CH_M	2800	8.85	3.95	9.91	PASS
TX-ANH	FM	CH_M	2900	9.31	3.65	10.22	PASS
TX-ANH	FM	CH_M	3000	10.19	3.35	10.51	PASS
TX-ANH	FM	CH_M	3500	-5.26			PASS
TX-ANH	FM	CH_M	4000	-14.87			PASS
TX-ANH	FM	CH_M	4500	-25.27			PASS
TX-ANH	FM	CH_M	5000	-29.53			PASS

Appendix E:Audio Frequency Response

TEST PLOT RESULT



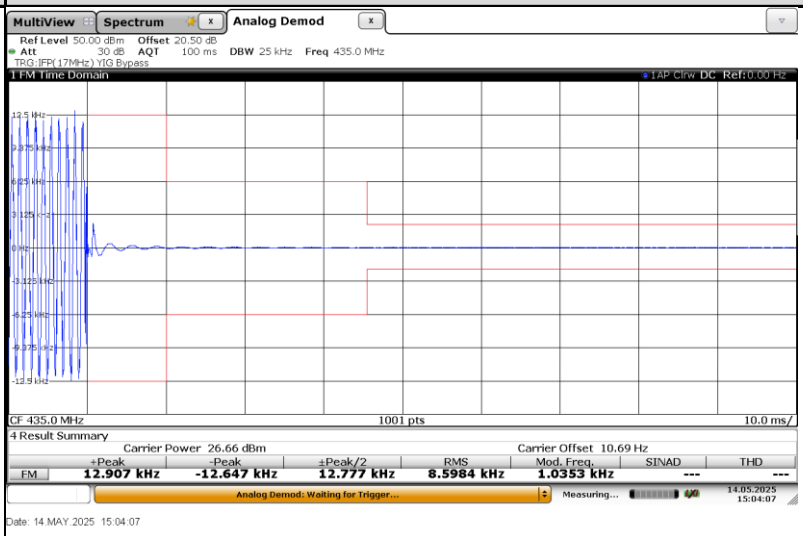
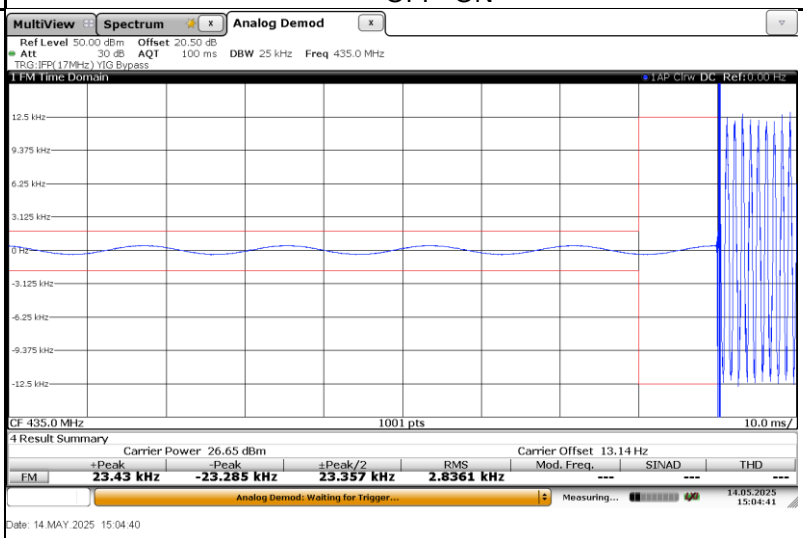
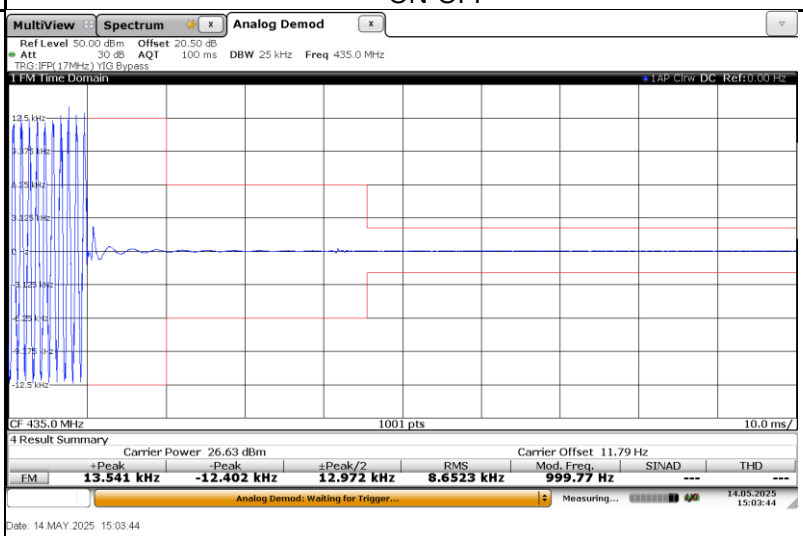
Appendix F:Frequency Stability Test & Temperature

Operation Mode	Modulation Type	Test Conditions		Frequency error (ppm)			Limit (ppm)	Result
		Voltage	Temperature	CH_L	CH_M	CH_H		
TX-DNH	4FSK	V_N	-30	-0.020	-0.205	-0.038	±5.0	PASS
TX-DNH	4FSK	V_N	-20	-0.020	-0.204	-0.036	±5.0	PASS
TX-DNH	4FSK	V_N	-10	-0.021	-0.203	-0.037	±5.0	PASS
TX-DNH	4FSK	V_N	0	-0.019	-0.189	-0.037	±5.0	PASS
TX-DNH	4FSK	V_N	10	-0.019	-0.193	-0.038	±5.0	PASS
TX-DNH	4FSK	V_N	20	-0.019	-0.188	-0.035	±5.0	PASS
TX-DNH	4FSK	V_N	30	-0.020	-0.198	-0.038	±5.0	PASS
TX-DNH	4FSK	V_N	40	-0.021	-0.198	-0.038	±5.0	PASS
TX-DNH	4FSK	V_N	50	-0.021	-0.194	-0.036	±5.0	PASS
TX-DNL	4FSK	V_N	-30	-0.084	-0.134	-0.130	±5.0	PASS
TX-DNL	4FSK	V_N	-20	-0.090	-0.136	-0.132	±5.0	PASS
TX-DNL	4FSK	V_N	-10	-0.085	-0.127	-0.130	±5.0	PASS
TX-DNL	4FSK	V_N	0	-0.085	-0.126	-0.125	±5.0	PASS
TX-DNL	4FSK	V_N	10	-0.086	-0.126	-0.123	±5.0	PASS
TX-DNL	4FSK	V_N	20	-0.083	-0.126	-0.121	±5.0	PASS
TX-DNL	4FSK	V_N	30	-0.088	-0.129	-0.125	±5.0	PASS
TX-DNL	4FSK	V_N	40	-0.091	-0.128	-0.123	±5.0	PASS
TX-DNL	4FSK	V_N	50	-0.084	-0.139	-0.128	±5.0	PASS
TX-ANH	FM	V_N	-30	-0.012	-0.038	-0.043	±5.0	PASS
TX-ANH	FM	V_N	-20	-0.012	-0.037	-0.041	±5.0	PASS
TX-ANH	FM	V_N	-10	-0.012	-0.039	-0.043	±5.0	PASS
TX-ANH	FM	V_N	0	-0.011	-0.038	-0.043	±5.0	PASS
TX-ANH	FM	V_N	10	-0.011	-0.039	-0.039	±5.0	PASS
TX-ANH	FM	V_N	20	-0.011	-0.036	-0.039	±5.0	PASS
TX-ANH	FM	V_N	30	-0.011	-0.038	-0.039	±5.0	PASS
TX-ANH	FM	V_N	40	-0.011	-0.039	-0.043	±5.0	PASS
TX-ANH	FM	V_N	50	-0.012	-0.038	-0.041	±5.0	PASS
TX-ANL	FM	V_N	-30	0.010	-0.059	-0.036	±5.0	PASS
TX-ANL	FM	V_N	-20	0.010	-0.060	-0.037	±5.0	PASS
TX-ANL	FM	V_N	-10	0.009	-0.057	-0.037	±5.0	PASS
TX-ANL	FM	V_N	0	0.010	-0.056	-0.038	±5.0	PASS
TX-ANL	FM	V_N	10	0.010	-0.060	-0.038	±5.0	PASS
TX-ANL	FM	V_N	20	0.009	-0.055	-0.035	±5.0	PASS
TX-ANL	FM	V_N	30	0.009	-0.057	-0.039	±5.0	PASS
TX-ANL	FM	V_N	40	0.009	-0.056	-0.038	±5.0	PASS
TX-ANL	FM	V_N	50	0.010	-0.058	-0.035	±5.0	PASS

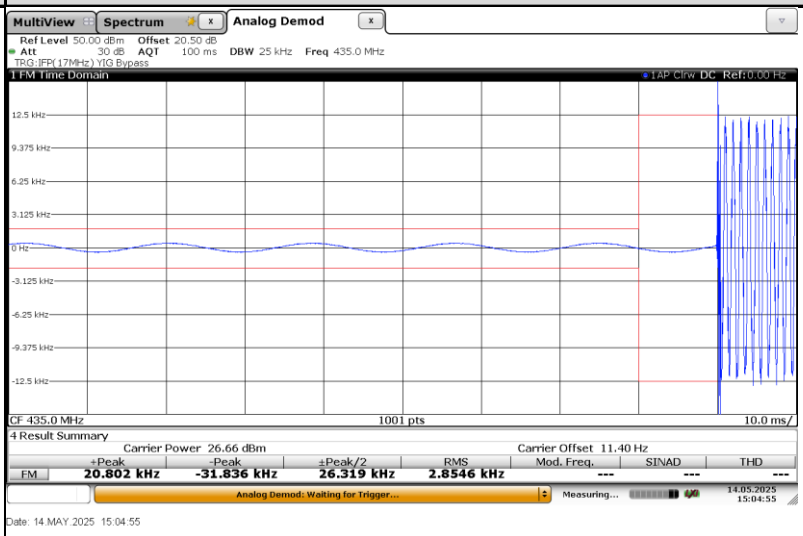
Appendix G:Frequency Stability Test & Voltage

Operation Mode	Modulation Type	Test Conditions		Frequency error (ppm)			Limit (ppm)	Result
		Voltage	Temperature	CH_L	CH_M	CH_H		
TX-DNH	4FSK	V_N	T_N	-0.019	-0.188	-0.035	±5.0	PASS
TX-DNH	4FSK	V_L	T_N	-0.019	-0.189	-0.035	±5.0	PASS
TX-DNH	4FSK	V_H	T_N	-0.020	-0.195	-0.037	±5.0	PASS
TX-DNL	4FSK	V_N	T_N	-0.083	-0.126	-0.121	±5.0	PASS
TX-DNL	4FSK	V_L	T_N	-0.083	-0.128	-0.122	±5.0	PASS
TX-DNL	4FSK	V_H	T_N	-0.087	-0.132	-0.122	±5.0	PASS
TX-ANH	FM	V_N	T_N	-0.011	-0.036	-0.039	±5.0	PASS
TX-ANH	FM	V_L	T_N	-0.011	-0.037	-0.039	±5.0	PASS
TX-ANH	FM	V_H	T_N	-0.012	-0.038	-0.041	±5.0	PASS
TX-ANL	FM	V_N	T_N	0.009	-0.055	-0.035	±5.0	PASS
TX-ANL	FM	V_L	T_N	0.009	-0.056	-0.036	±5.0	PASS
TX-ANL	FM	V_H	T_N	0.009	-0.058	-0.036	±5.0	PASS

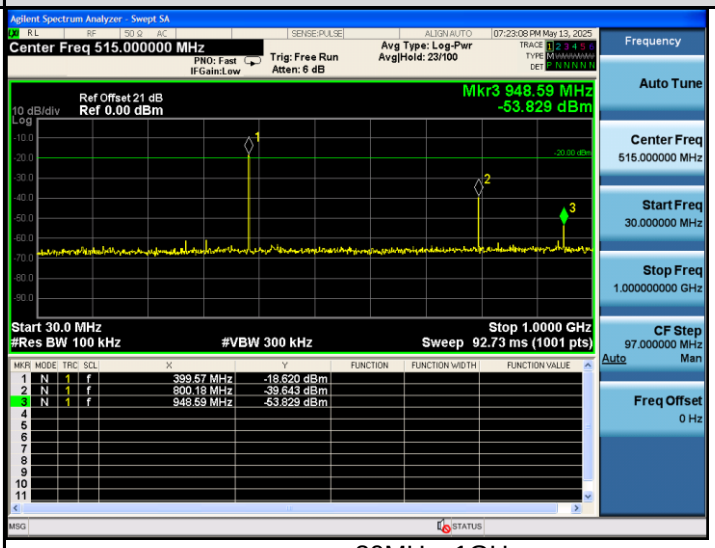
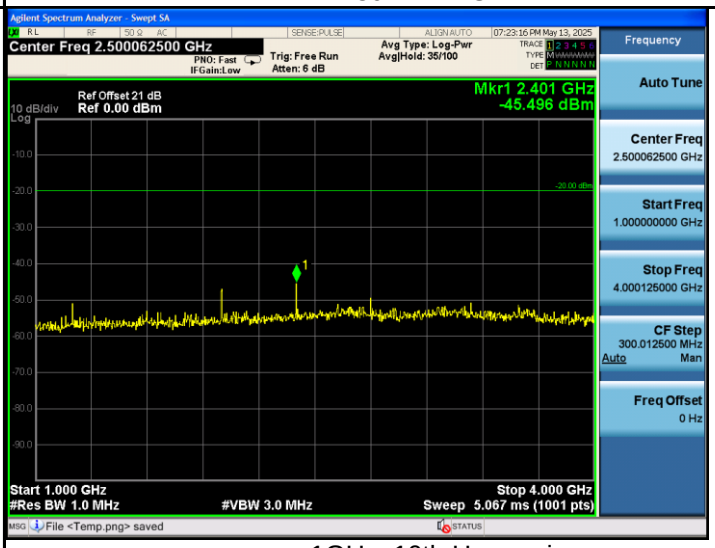
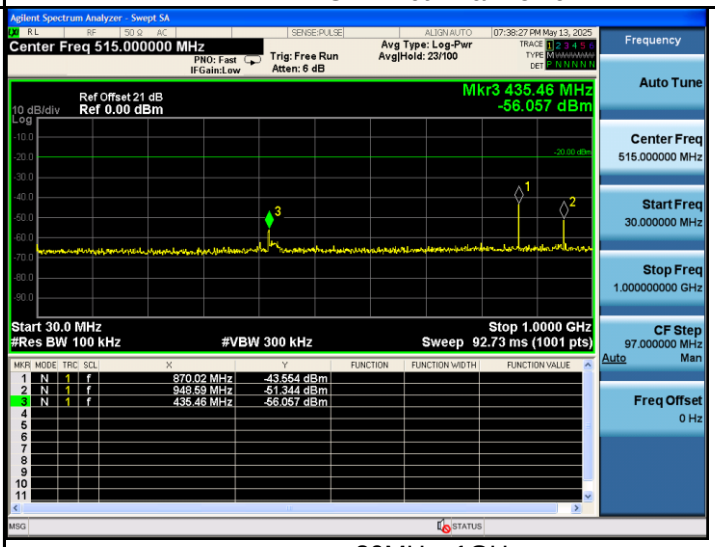
Appendix H:Transmitter Frequency Behavior

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH_M	 OFF~ON
TX-DNH	4FSK	CH_M	 ON-OFF
TX-ANH	FM	CH_M	 OFF~ON

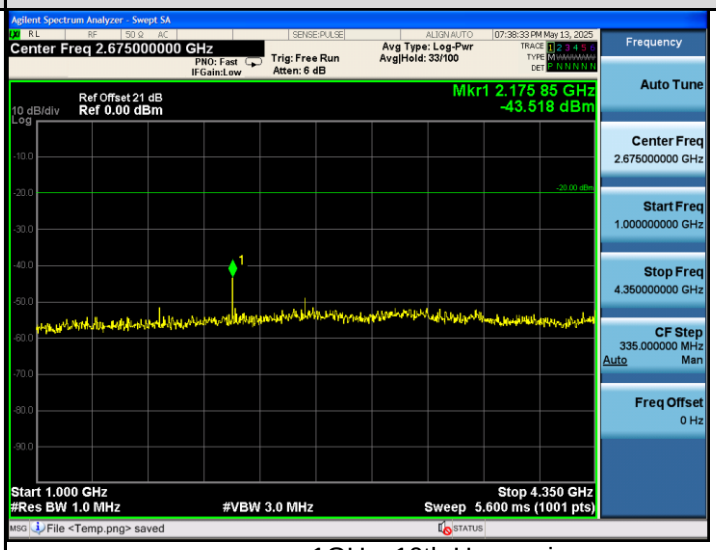
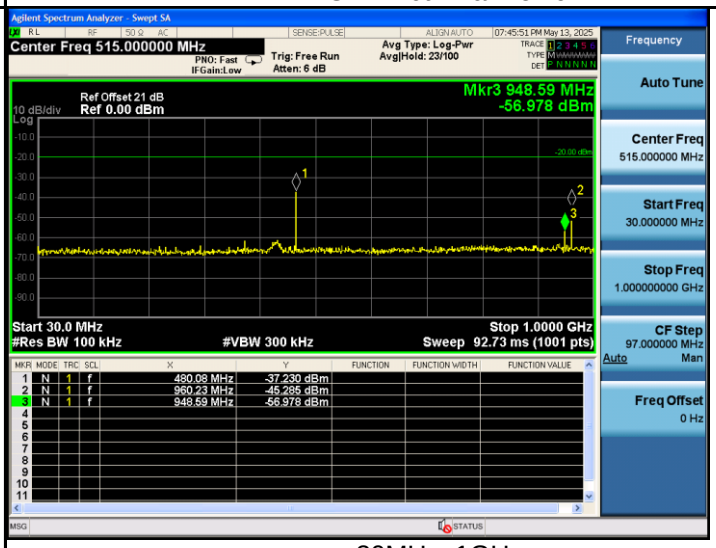
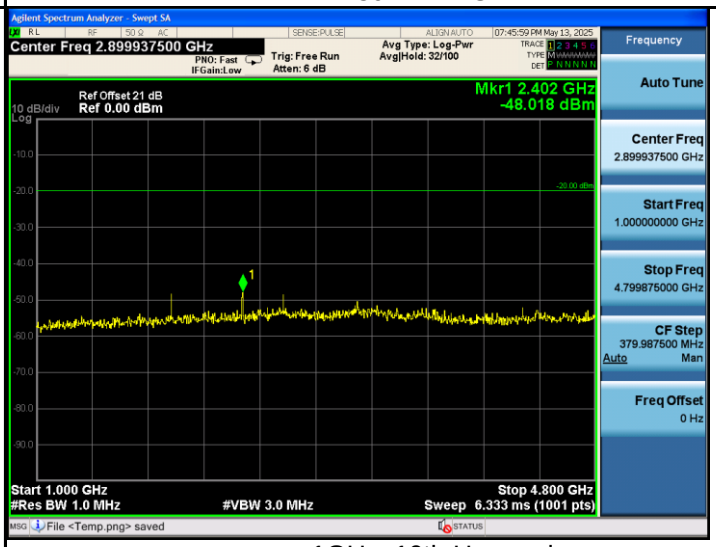
Appendix H:Transmitter Frequency Behavior

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-ANH	FM	CH_M	 ON-OFF

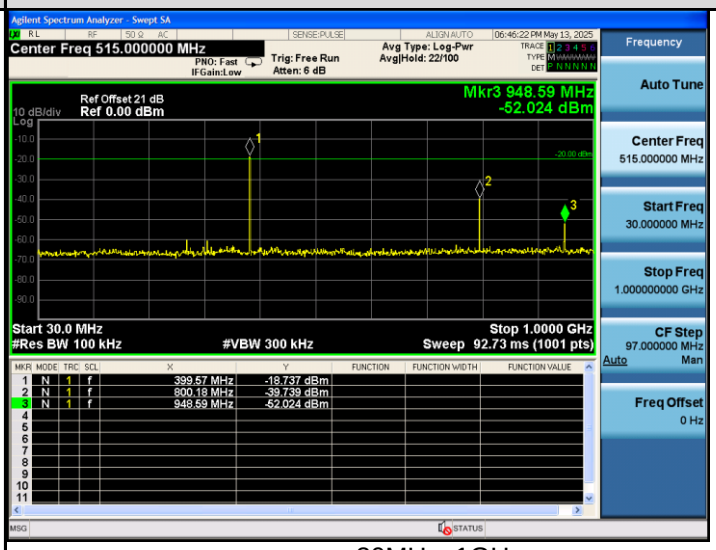
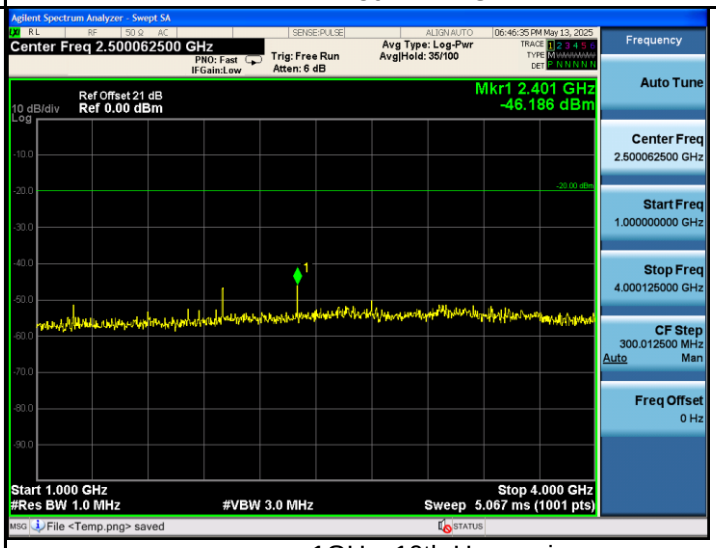
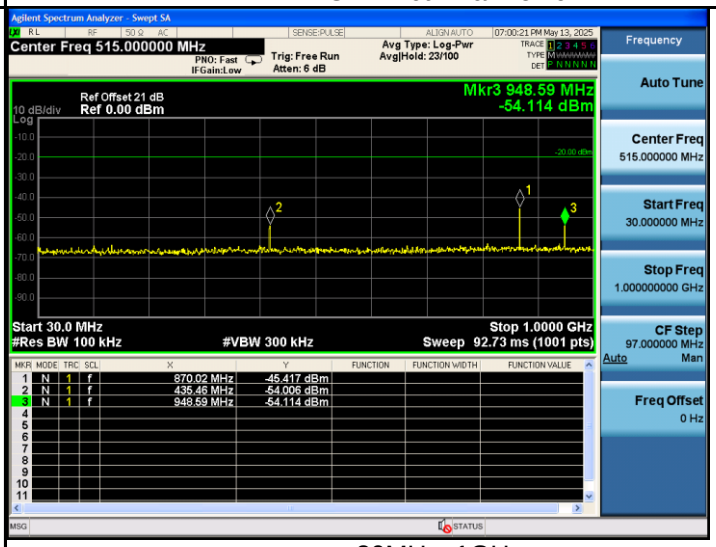
Appendix I:Spurious Emission On Antenna Port

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH_L	 30MHz~1GHz
TX-DNH	4FSK	CH_L	 1GHz~10th Harmonic
TX-DNH	4FSK	CH_M	 30MHz~1GHz

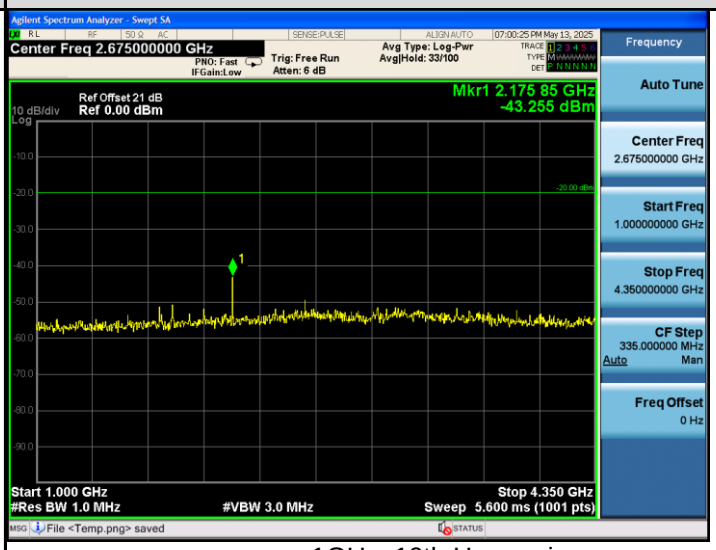
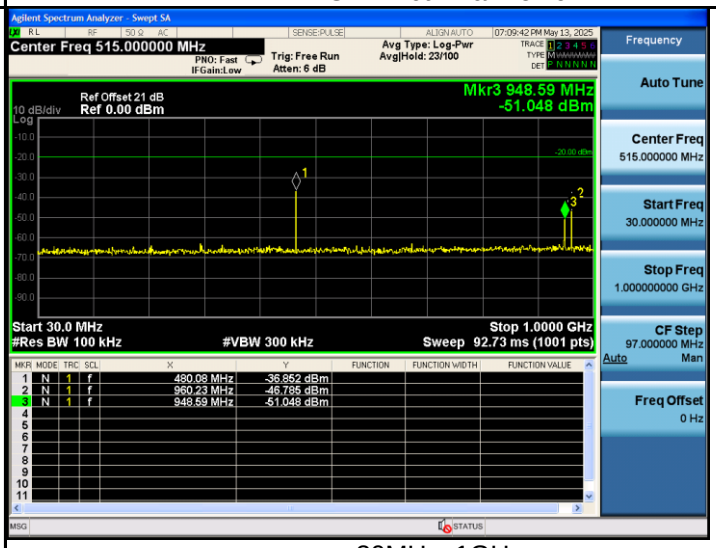
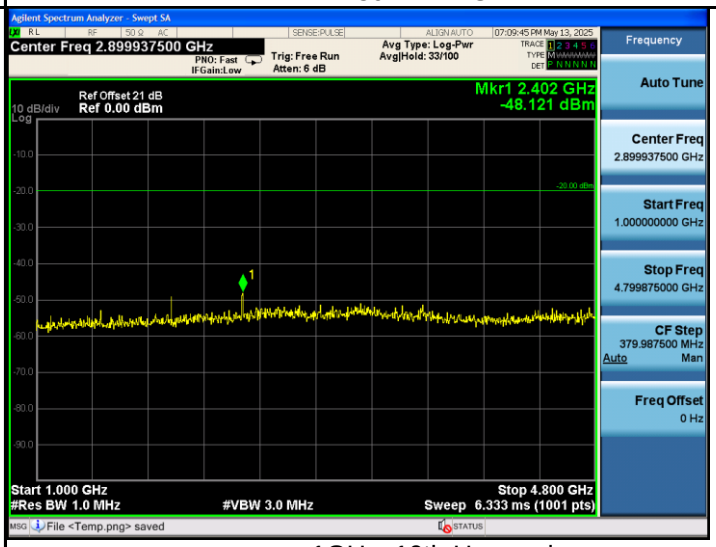
Appendix I:Spurious Emission On Antenna Port

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH_M	 1GHz~10th Harmonic
TX-DNH	4FSK	CH_H	 30MHz~1GHz
TX-DNH	4FSK	CH_H	 1GHz~10th Harmonic

Appendix I:Spurious Emission On Antenna Port

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-ANH	FM	CH_L	 30MHz~1GHz
TX-ANH	FM	CH_L	 1GHz~10th Harmonic
TX-ANH	FM	CH_M	 30MHz~1GHz

Appendix I:Spurious Emission On Antenna Port

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-ANH	FM	CH_M	 1GHz~10th Harmonic
TX-ANH	FM	CH_H	 30MHz~1GHz
TX-ANH	FM	CH_H	 1GHz~10th Harmonic