Project No.	SHT2409061701W		
Test sample No.	YPHT24090617001	Model No.	BF-TD588UV
Start test date	2024/10/10	Finish date	2024/10/12
Temperature	25.1℃	Humidity	49%
Test Engineer	Xiangyu Wei	Auditor	Xiaodong Zhao

Appendix clause	Test Item	Test date （M/D)	Test Result (PASS/FAIL)
A	Maximum Transmitter Power	10/10	PASS
B	Occupied Bandwidth	10/10	PASS
C	Emission Mask	10/10	PASS
D	Frequency Stability Test & Temperature	10/10	PASS
E	Frequency Stability Test & Voltage	10/10	PASS
F	Transmitter Frequency Behavior	10/12	PASS
G	Spurious Emission On Antenna Port	10/10	PASS

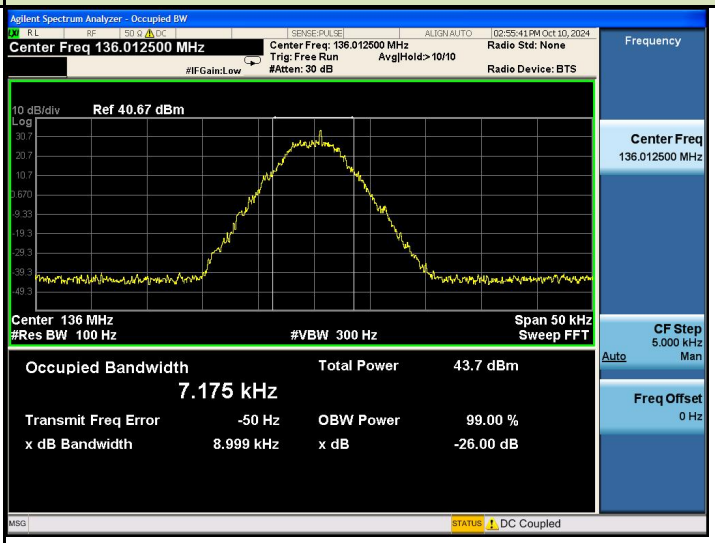
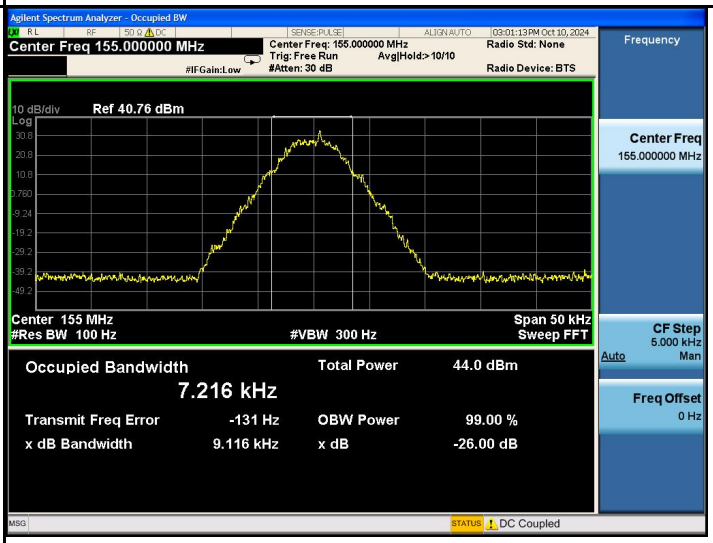
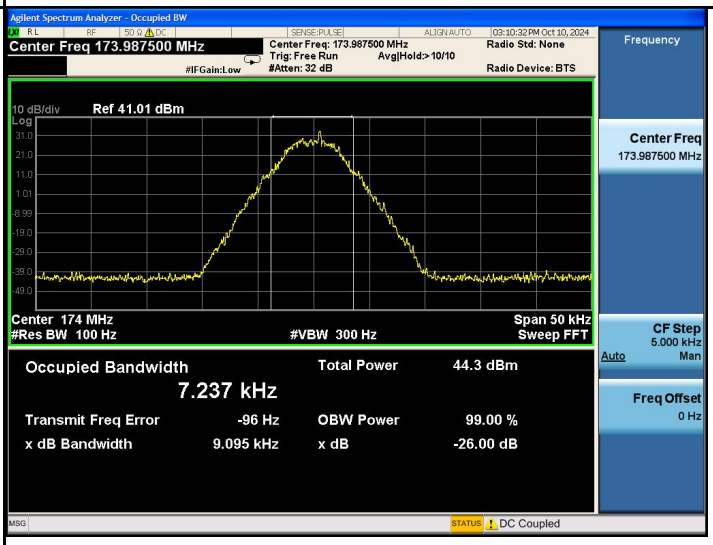
Appendix A:Maximum Transmitter Power

Operation Mode	Modulation Type	Test Channel	Measured Power (dBm)	Measured Power(W)	Rated Power(W)	Percentage (%)	Limit (%)	Result
TX-DNH	4FSK	CH_{L1}	36.60	4.57	5.00	-8.60	±20	PASS
TX-DNH	4FSK	CH_{M1}	36.80	4.79	5.00	-4.20	±20	PASS
TX-DNH	4FSK	CH_{H1}	37.00	5.01	5.00	0.20	±20	PASS
TX-DNL	4FSK	CH_{L1}	30.20	1.05	1.00	5.00	±20	PASS
TX-DNL	4FSK	CH_{M1}	30.32	1.08	1.00	8.00	±20	PASS
TX-DNL	4FSK	CH_{H1}	30.30	1.07	1.00	7.00	±20	PASS
TX-DNH	4FSK	CH_{L2}	36.80	4.79	5.00	-4.20	±20	PASS
TX-DNH	4FSK	CH_{M2}	37.00	5.01	5.00	0.20	±20	PASS
TX-DNH	4FSK	CH_{H2}	36.20	4.17	5.00	-16.60	±20	PASS
TX-DNL	4FSK	CH_{L2}	30.70	1.17	1.00	17.00	±20	PASS
TX-DNL	4FSK	CH_{M2}	29.50	0.89	1.00	-11.00	±20	PASS
TX-DNL	4FSK	CH_{H2}	30.40	1.10	1.00	10.00	±20	PASS

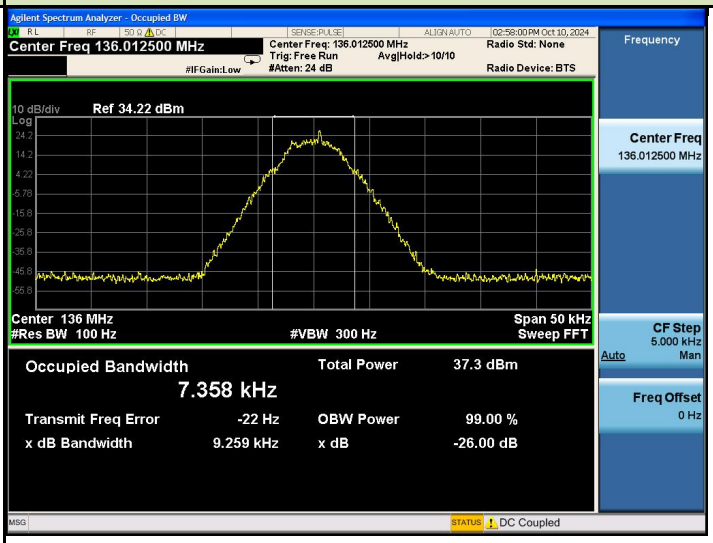
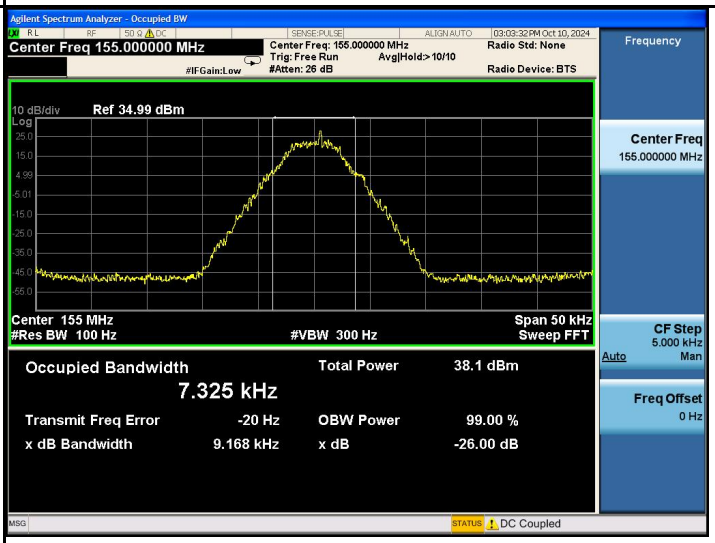
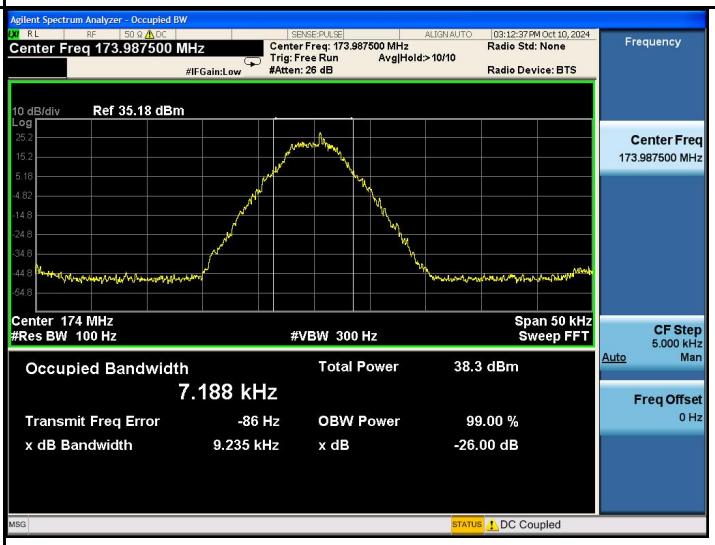
Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	Occupied Bandwidth		99% Limit(kHz)	Result
			99%(kHz)	26dB(kHz)		
TX-DNH	4FSK	CH_{L1}	7.18	9.00	≤11.25	PASS
TX-DNH	4FSK	CH_{M1}	7.22	9.12	≤11.25	PASS
TX-DNH	4FSK	CH_{H1}	7.24	9.10	≤11.25	PASS
TX-DNL	4FSK	CH_{L1}	7.36	9.26	≤11.25	PASS
TX-DNL	4FSK	CH_{M1}	7.33	9.17	≤11.25	PASS
TX-DNL	4FSK	CH_{H1}	7.19	9.24	≤11.25	PASS
TX-DNH	4FSK	CH_{L2}	6.71	8.83	≤11.25	PASS
TX-DNH	4FSK	CH_{M2}	6.88	9.02	≤11.25	PASS
TX-DNH	4FSK	CH_{H2}	6.86	8.94	≤11.25	PASS
TX-DNL	4FSK	CH_{L2}	6.82	8.88	≤11.25	PASS
TX-DNL	4FSK	CH_{M2}	6.78	8.93	≤11.25	PASS
TX-DNL	4FSK	CH_{H2}	6.87	8.91	≤11.25	PASS

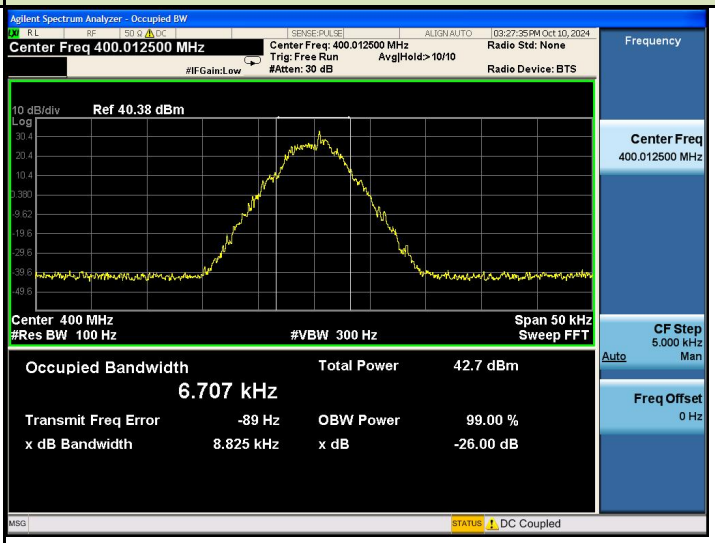
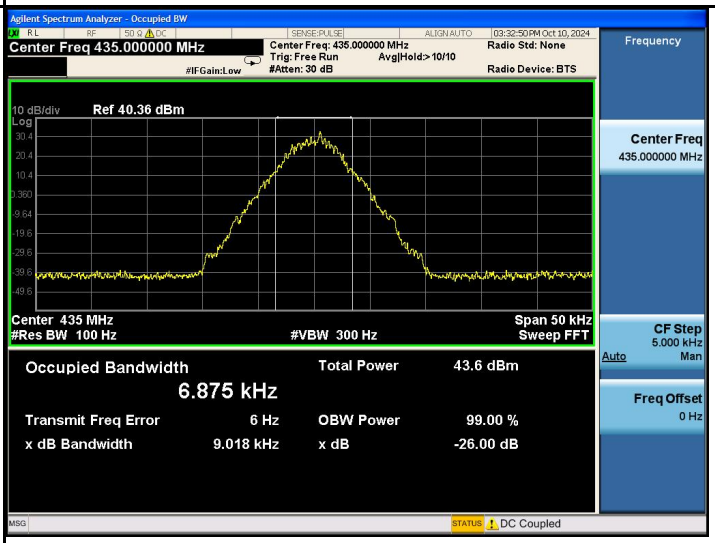
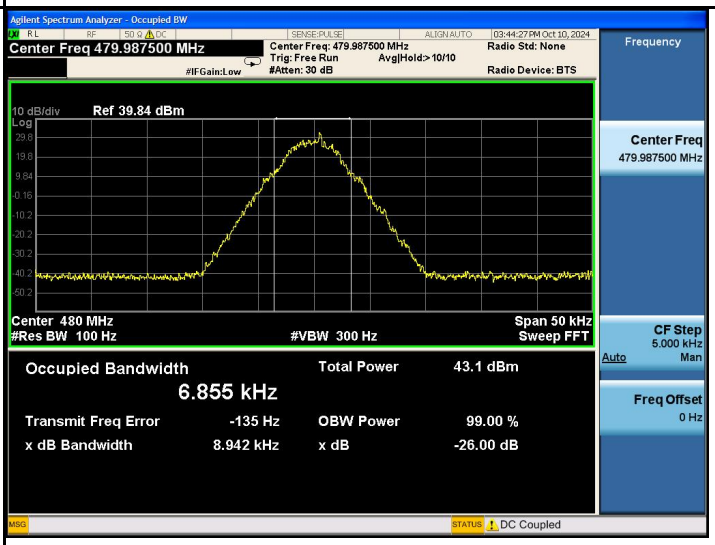
Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH_{L1}	
TX-DNH	4FSK	CH_{M1}	
TX-DNH	4FSK	CH_{H1}	

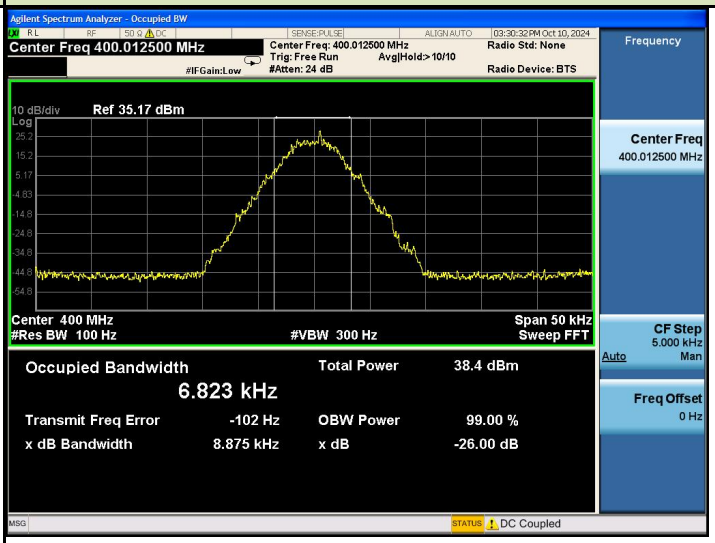
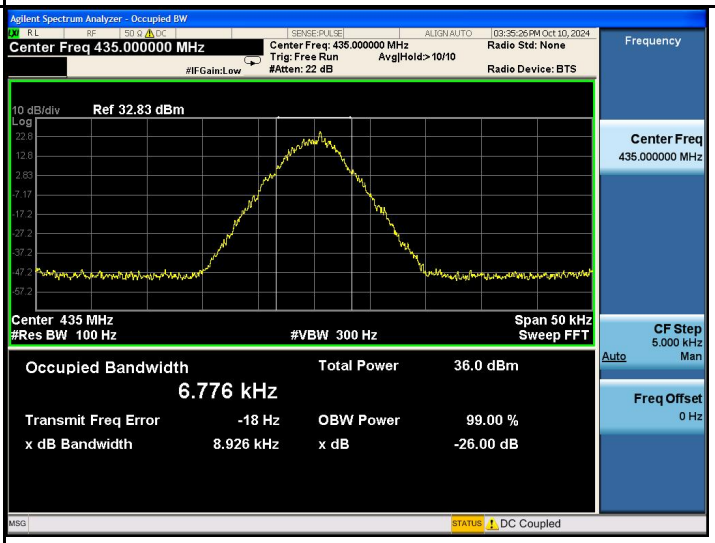
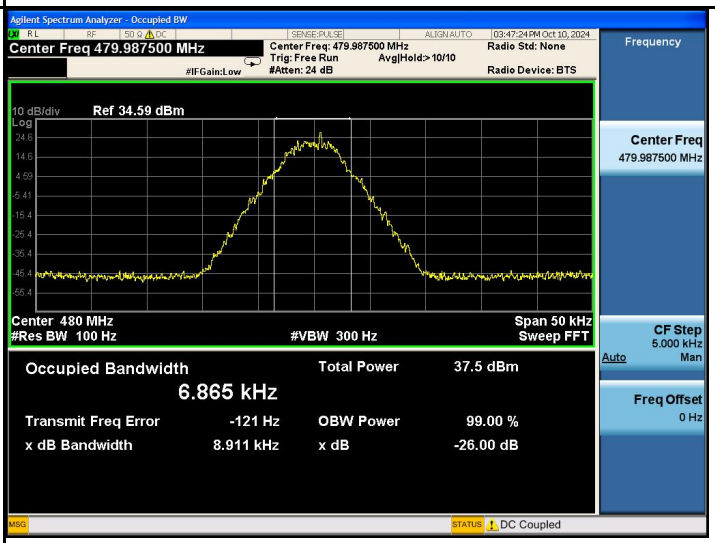
Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNL	4FSK	CH_{L1}	
TX-DNL	4FSK	CH_{M1}	
TX-DNL	4FSK	CH_{H1}	

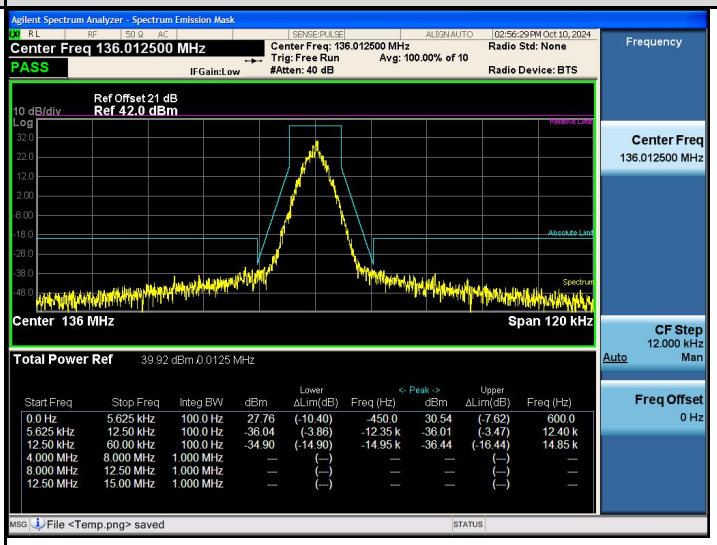
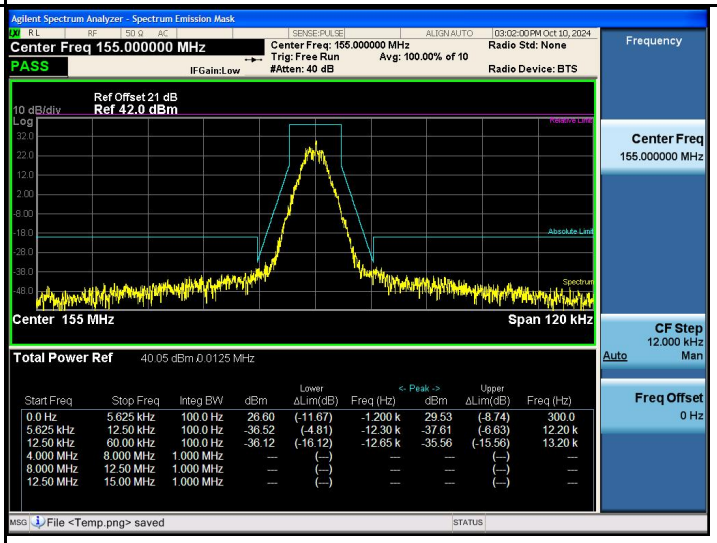
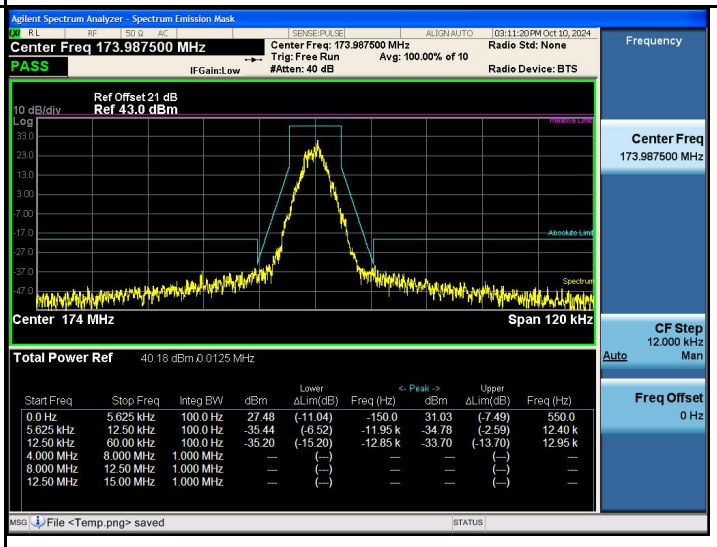
Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH_{L2}	
TX-DNH	4FSK	CH_{M2}	
TX-DNH	4FSK	CH_{H2}	

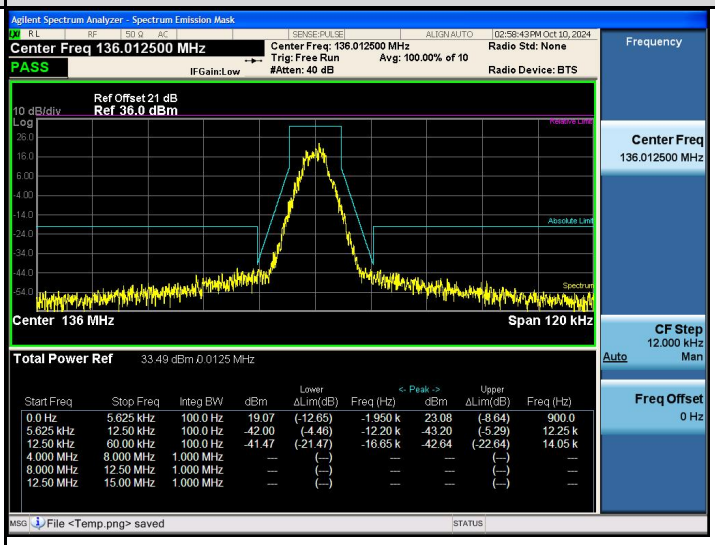
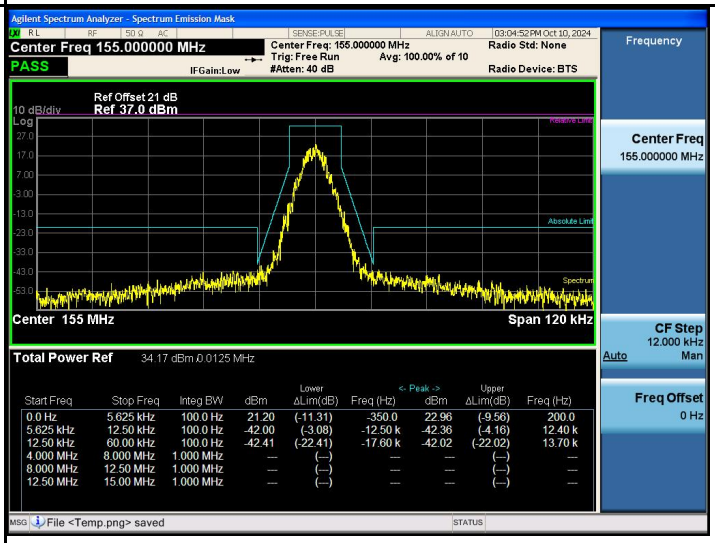
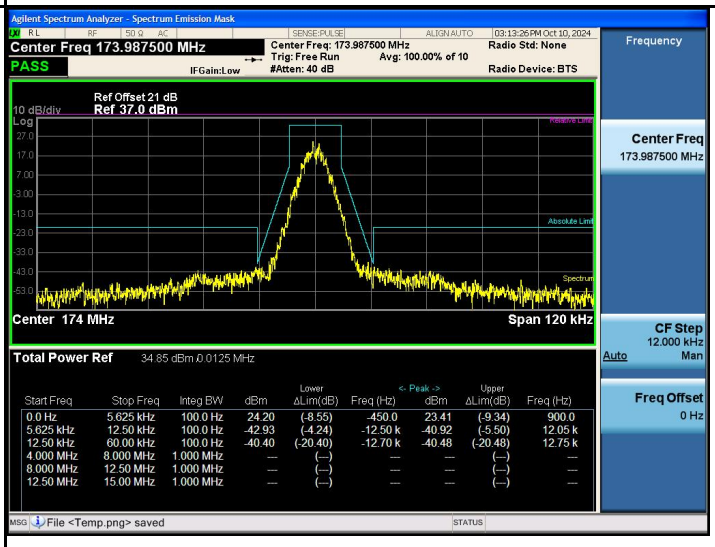
Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNL	4FSK	CH_{L2}	
TX-DNL	4FSK	CH_{M2}	
TX-DNL	4FSK	CH_{H2}	

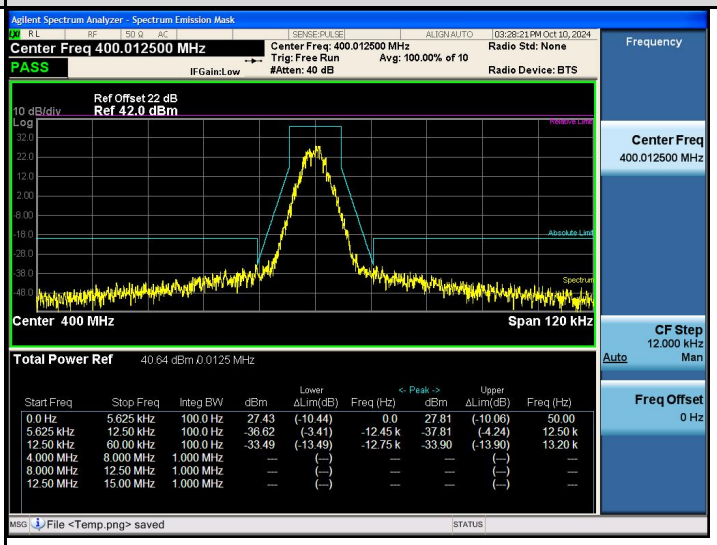
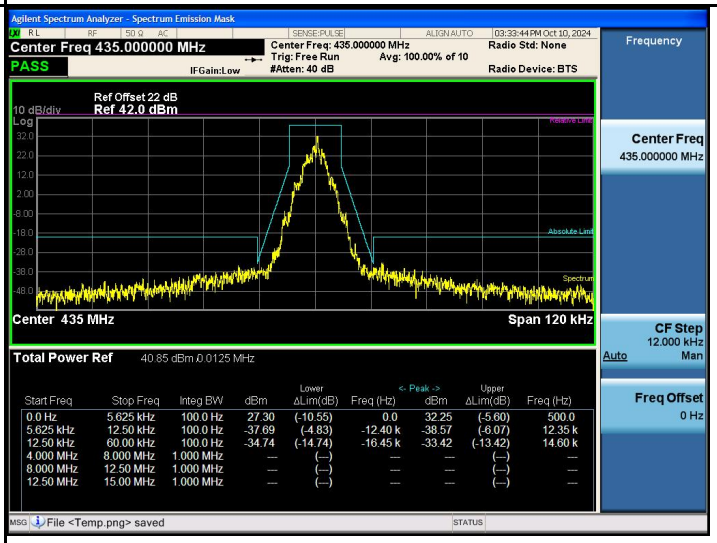
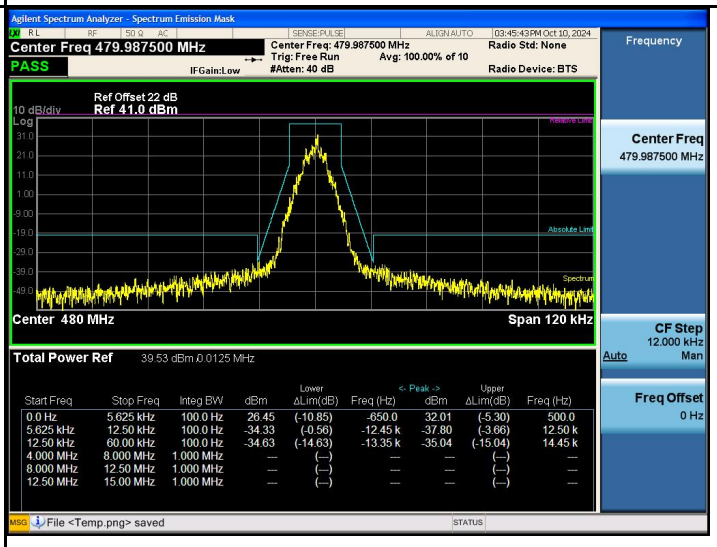
Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH_{L1}	
TX-DNH	4FSK	CH_{M1}	
TX-DNH	4FSK	CH_{H1}	

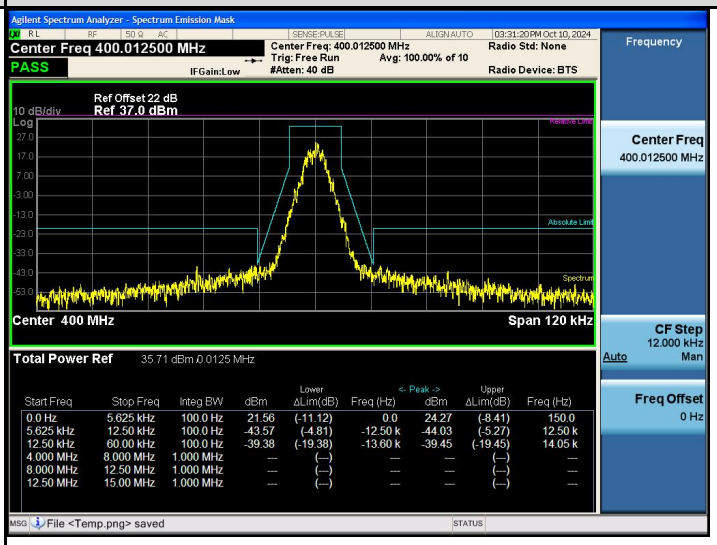
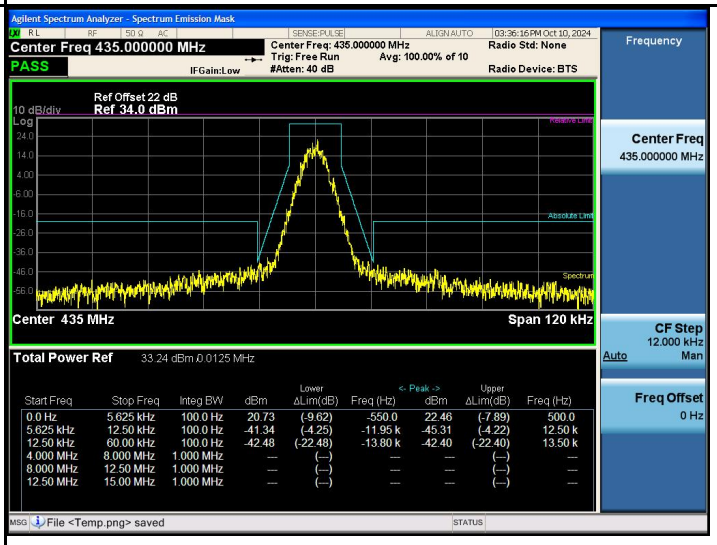
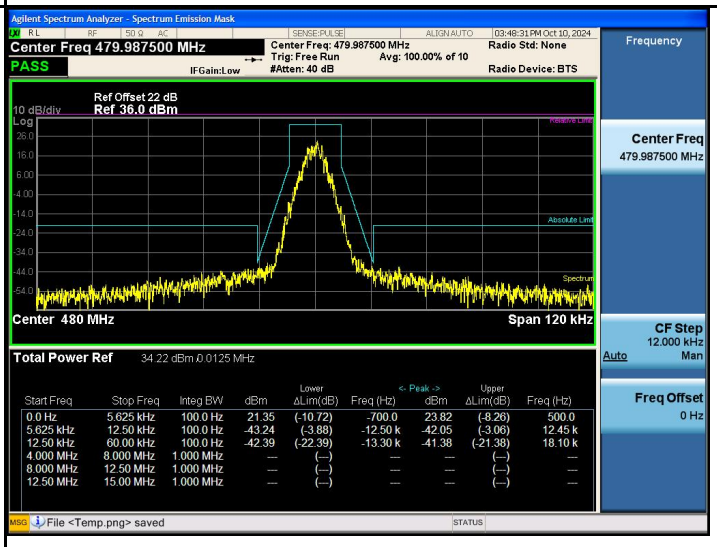
Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNL	4FSK	CH_{L1}	
TX-DNL	4FSK	CH_{M1}	
TX-DNL	4FSK	CH_{H1}	

Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH_{L2}	
TX-DNH	4FSK	CH_{M2}	
TX-DNH	4FSK	CH_{H2}	

Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNL	4FSK	CH_{L2}	
TX-DNL	4FSK	CH_{M2}	
TX-DNL	4FSK	CH_{H2}	

Appendix F:Frequency Stability Test & Temperature

Operation Mode	Modulation Type	Test Conditions		Frequency error (ppm)			Limit (ppm)	Result
		Voltage	Temperature	CH_{L1}	CH_{M1}	CH_{H1}		
TX-DNH	4FSK	V_N	-30	-0.055	0.070	0.031	±5.0	PASS
TX-DNH	4FSK	V_N	-20	-0.052	0.067	0.030	±5.0	PASS
TX-DNH	4FSK	V_N	-10	-0.057	0.069	0.031	±5.0	PASS
TX-DNH	4FSK	V_N	0	-0.056	0.068	0.030	±5.0	PASS
TX-DNH	4FSK	V_N	10	-0.052	0.069	0.031	±5.0	PASS
TX-DNH	4FSK	V_N	20	-0.052	0.065	0.029	±5.0	PASS
TX-DNH	4FSK	V_N	30	-0.054	0.067	0.030	±5.0	PASS
TX-DNH	4FSK	V_N	40	-0.054	0.069	0.031	±5.0	PASS
TX-DNH	4FSK	V_N	50	-0.055	0.067	0.031	±5.0	PASS
TX-DNL	4FSK	V_N	-30	0.235	0.376	0.251	±5.0	PASS
TX-DNL	4FSK	V_N	-20	0.243	0.365	0.235	±5.0	PASS
TX-DNL	4FSK	V_N	-10	0.248	0.379	0.247	±5.0	PASS
TX-DNL	4FSK	V_N	0	0.237	0.393	0.244	±5.0	PASS
TX-DNL	4FSK	V_N	10	0.249	0.372	0.248	±5.0	PASS
TX-DNL	4FSK	V_N	20	0.228	0.358	0.233	±5.0	PASS
TX-DNL	4FSK	V_N	30	0.251	0.388	0.234	±5.0	PASS
TX-DNL	4FSK	V_N	40	0.233	0.388	0.240	±5.0	PASS
TX-DNL	4FSK	V_N	50	0.250	0.374	0.252	±5.0	PASS

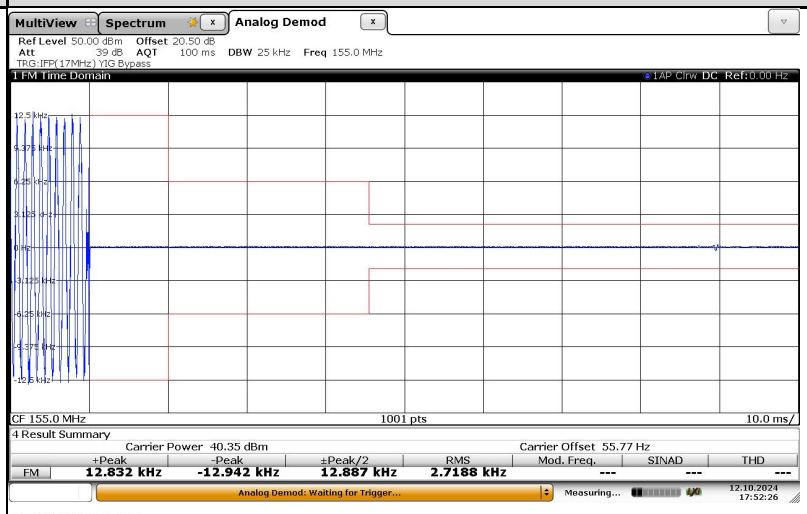
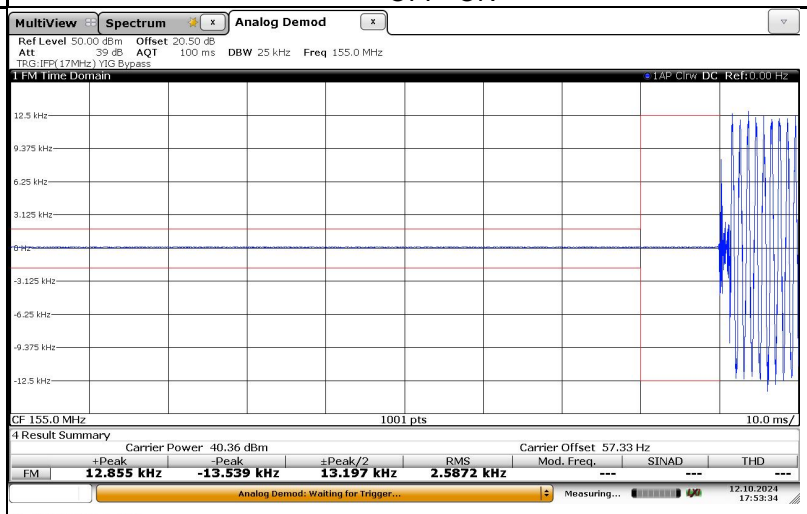
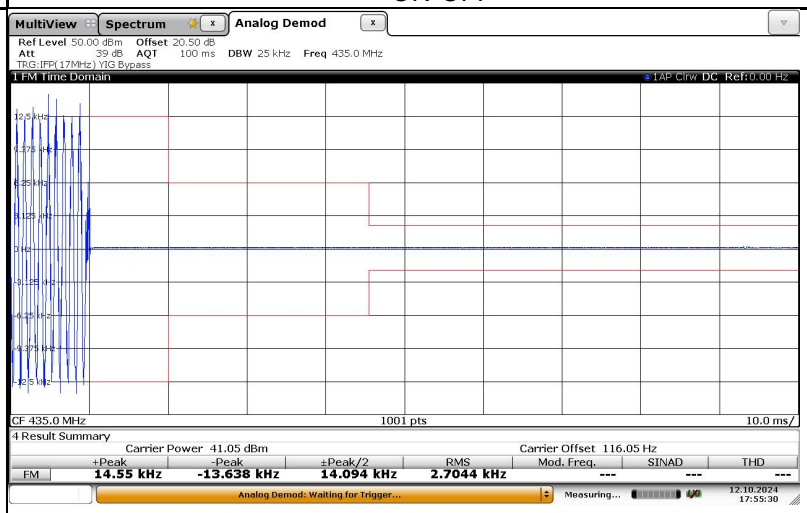
Operation Mode	Modulation Type	Test Conditions		Frequency error (ppm)			Limit (ppm)	Result
		Voltage	Temperature	CH_{L2}	CH_{M2}	CH_{H2}		
TX-DNH	4FSK	V_N	-30	-0.259	-0.240	-0.568	±5.0	PASS
TX-DNH	4FSK	V_N	-20	-0.237	-0.249	-0.586	±5.0	PASS
TX-DNH	4FSK	V_N	-10	-0.254	-0.237	-0.555	±5.0	PASS
TX-DNH	4FSK	V_N	0	-0.242	-0.248	-0.563	±5.0	PASS
TX-DNH	4FSK	V_N	10	-0.259	-0.252	-0.576	±5.0	PASS
TX-DNH	4FSK	V_N	20	-0.236	-0.236	-0.535	±5.0	PASS
TX-DNH	4FSK	V_N	30	-0.240	-0.240	-0.576	±5.0	PASS
TX-DNH	4FSK	V_N	40	-0.238	-0.239	-0.547	±5.0	PASS
TX-DNH	4FSK	V_N	50	-0.242	-0.245	-0.582	±5.0	PASS
TX-DNL	4FSK	V_N	-30	-0.041	-0.034	-0.045	±5.0	PASS
TX-DNL	4FSK	V_N	-20	-0.042	-0.035	-0.043	±5.0	PASS
TX-DNL	4FSK	V_N	-10	-0.041	-0.033	-0.044	±5.0	PASS
TX-DNL	4FSK	V_N	0	-0.041	-0.034	-0.043	±5.0	PASS
TX-DNL	4FSK	V_N	10	-0.038	-0.034	-0.042	±5.0	PASS
TX-DNL	4FSK	V_N	20	-0.038	-0.032	-0.041	±5.0	PASS
TX-DNL	4FSK	V_N	30	-0.039	-0.032	-0.042	±5.0	PASS
TX-DNL	4FSK	V_N	40	-0.042	-0.034	-0.042	±5.0	PASS
TX-DNL	4FSK	V_N	50	-0.042	-0.035	-0.043	±5.0	PASS

Appendix G:Frequency Stability Test & Voltage

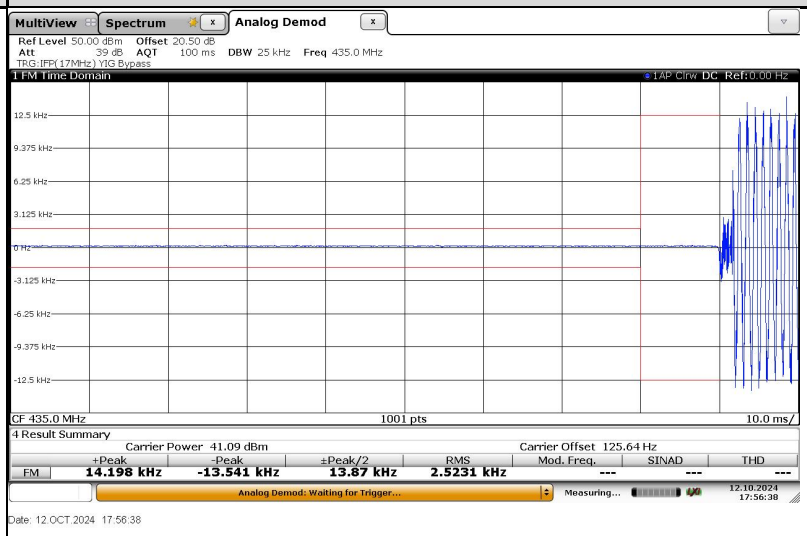
Operation Mode	Modulation Type	Test Conditions		Frequency error (ppm)			Limit (ppm)	Result
		Voltage	Temperature	CH_{L1}	CH_{M1}	CH_{H1}		
TX-DNH	4FSK	V_N	T_N	-0.052	0.065	0.029	±5.0	PASS
TX-DNH	4FSK	V_L	T_N	-0.052	0.066	0.029	±5.0	PASS
TX-DNH	4FSK	V_H	T_N	-0.055	0.066	0.029	±5.0	PASS
TX-DNL	4FSK	V_N	T_N	0.228	0.358	0.233	±5.0	PASS
TX-DNL	4FSK	V_L	T_N	0.230	0.361	0.235	±5.0	PASS
TX-DNL	4FSK	V_H	T_N	0.234	0.377	0.235	±5.0	PASS

Operation Mode	Modulation Type	Test Conditions		Frequency error (ppm)			Limit (ppm)	Result
		Voltage	Temperature	CH_{L2}	CH_{M2}	CH_{H2}		
TX-DNH	4FSK	V_N	T_N	-0.236	-0.236	-0.535	±5.0	PASS
TX-DNH	4FSK	V_L	T_N	-0.236	-0.241	-0.536	±5.0	PASS
TX-DNH	4FSK	V_H	T_N	-0.241	-0.242	-0.567	±5.0	PASS
TX-DNL	4FSK	V_N	T_N	-0.038	-0.032	-0.041	±5.0	PASS
TX-DNL	4FSK	V_L	T_N	-0.038	-0.032	-0.041	±5.0	PASS
TX-DNL	4FSK	V_H	T_N	-0.039	-0.033	-0.043	±5.0	PASS

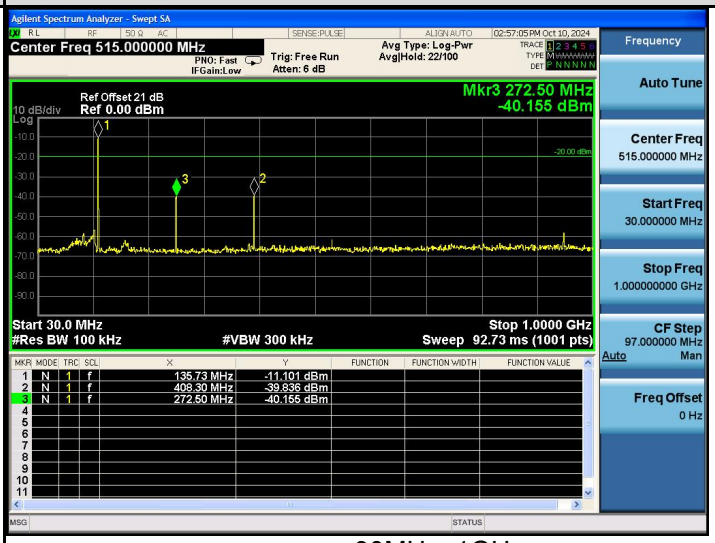
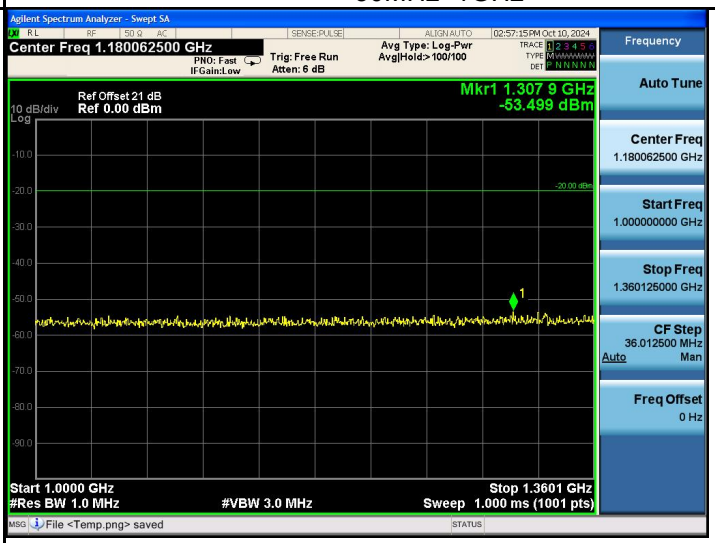
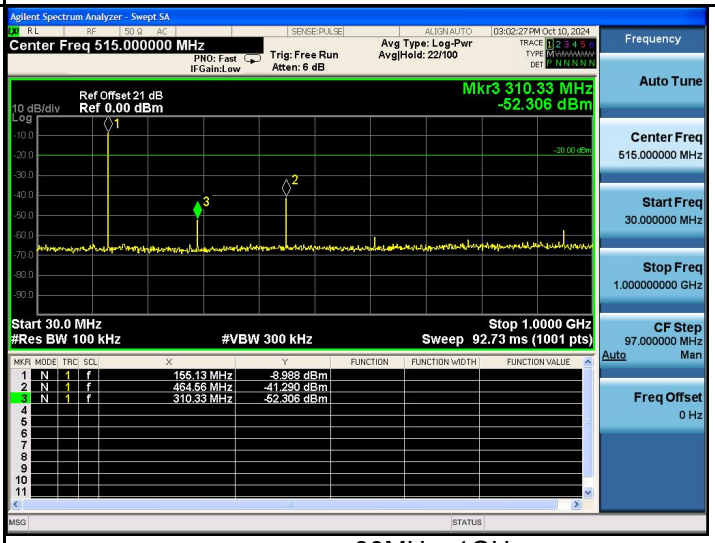
Appendix H:Transmitter Frequency Behavior

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH_{M1}	 OFF~ON
TX-DNH	4FSK	CH_{M1}	 ON-OFF
TX-DNH	4FSK	CH_{M2}	 OFF~ON

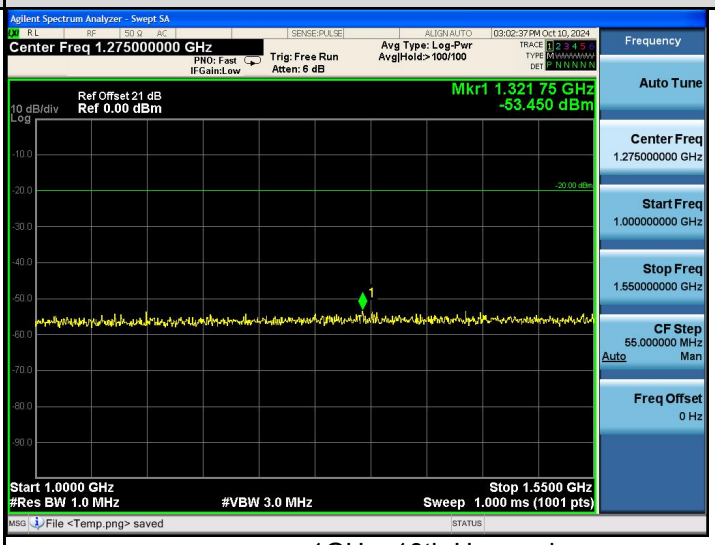
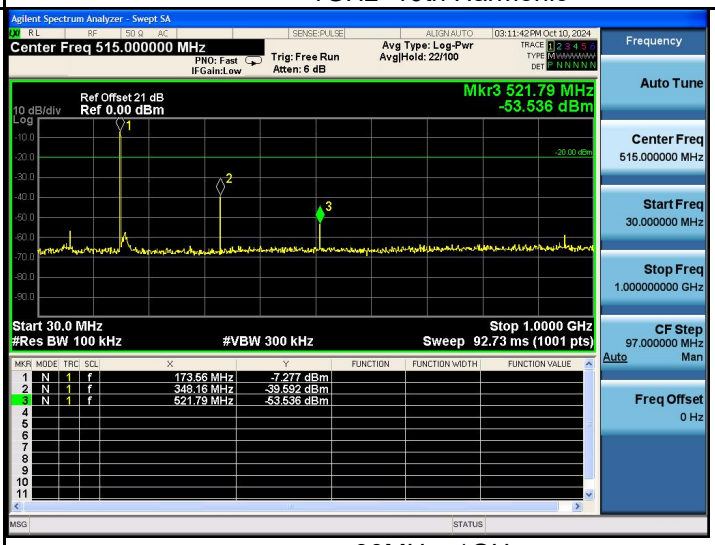
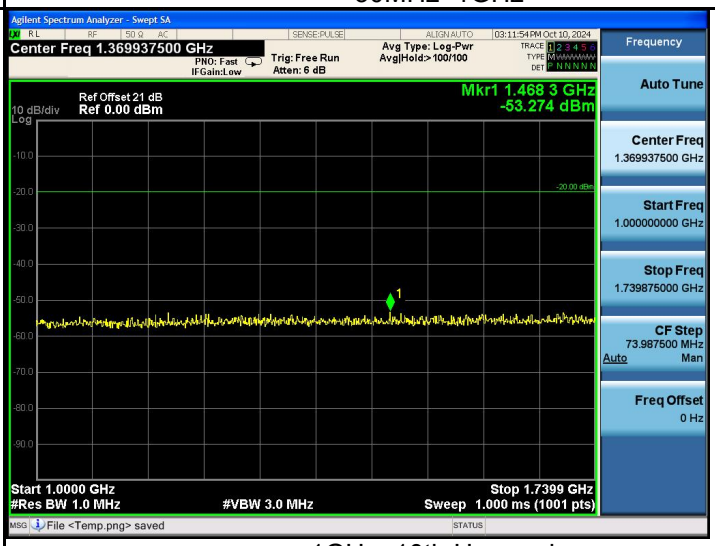
Appendix H:Transmitter Frequency Behavior

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH_{M2}	 ON-OFF

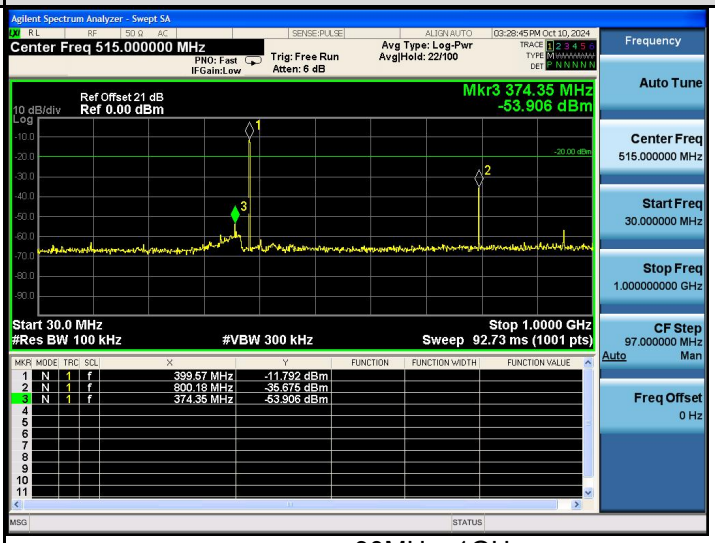
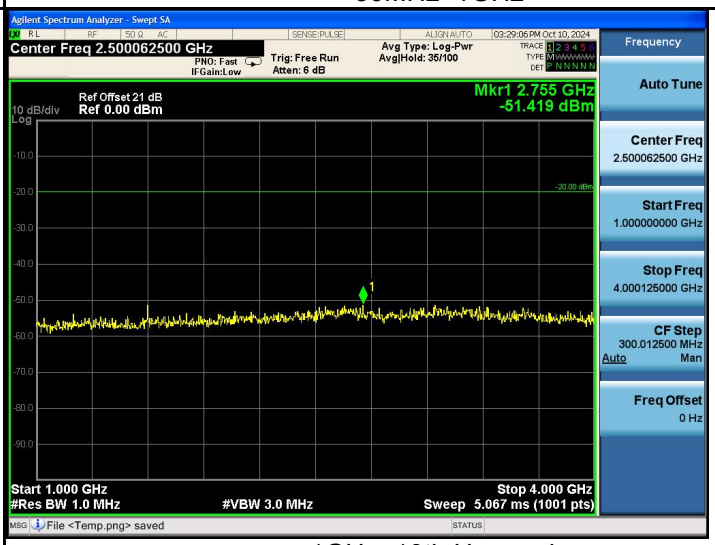
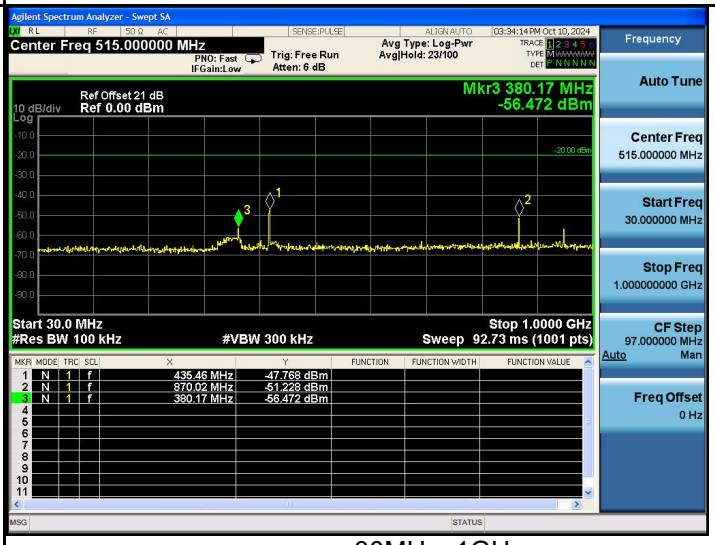
Appendix I:Spurious Emission On Antenna Port

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH_{L1}	 30MHz~1GHz
TX-DNH	4FSK	CH_{L1}	 1GHz~10th Harmonic
TX-DNH	4FSK	CH_{M1}	 30MHz~1GHz

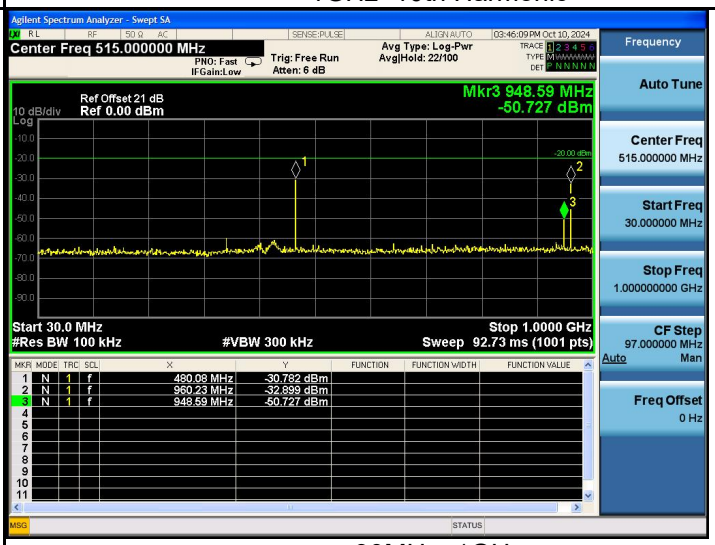
Appendix I:Spurious Emission On Antenna Port

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH_{M1}	 1GHz~10th Harmonic
TX-DNH	4FSK	CH_{H1}	 30MHz~1GHz
TX-DNH	4FSK	CH_{H1}	 1GHz~10th Harmonic

Appendix I:Spurious Emission On Antenna Port

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH_{L2}	 30MHz~1GHz
TX-DNH	4FSK	CH_{L2}	 1GHz~10th Harmonic
TX-DNH	4FSK	CH_{M2}	 30MHz~1GHz

Appendix I:Spurious Emission On Antenna Port

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH_{M2}	 1GHz~10th Harmonic
TX-DNH	4FSK	CH_{H2}	 30MHz~1GHz
TX-DNH	4FSK	CH_{H2}	 1GHz~10th Harmonic

----End of Report----