Project No.	SHT2209079801EW		
Test sample No.	YPHT22090798001	Model No.	RB48
Start test date	2022/11/22	Finish date	2022/12/6
Temperature	25.3℃	Humidity	51%
Test Engineer	ChunshuiGu	Auditor	Xiaodong Zhao

Appendix clause	Test Item	Test Result (PASS/FAIL)
A	Transmit Power (ERP)	PASS
B	Occupied Bandwidth	PASS
C	Emission Mask	PASS
D	Modulation Limit	PASS
E	Audio Frequency Response	PASS
F	Audio Low Pass Filter Response	PASS
G	Frequency Stability Test & Temperature	PASS
H	Frequency Stability Test & Voltage	PASS

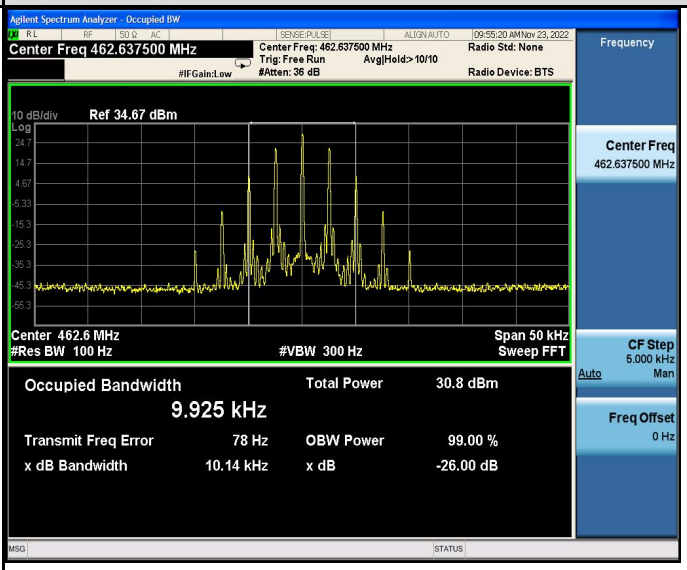
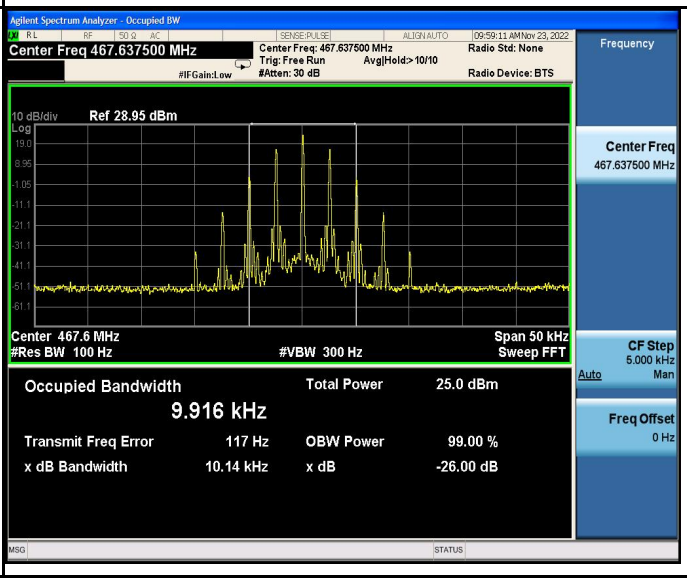
Appendix A: Transmit Power (ERP)

Test Mode	Modulation Type	Test Channel	Measured power (dBm)	Measured power (W)	Limit(W)	Result
TX-FRS	FM	CH_L-H	31.87	1.54	≤2	PASS
TX-FRS	FM	CH_L-L	25.82	0.38	≤2	PASS
TX-FRS	FM	CH_H	25.77	0.38	≤0.5	PASS

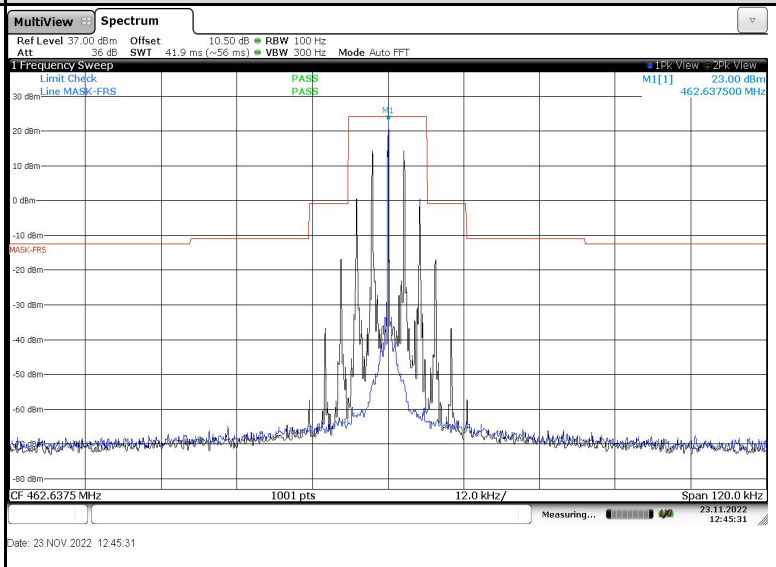
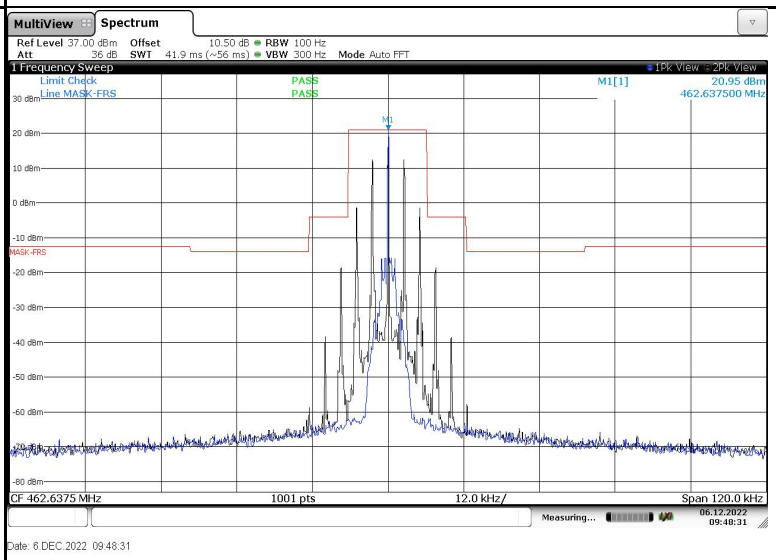
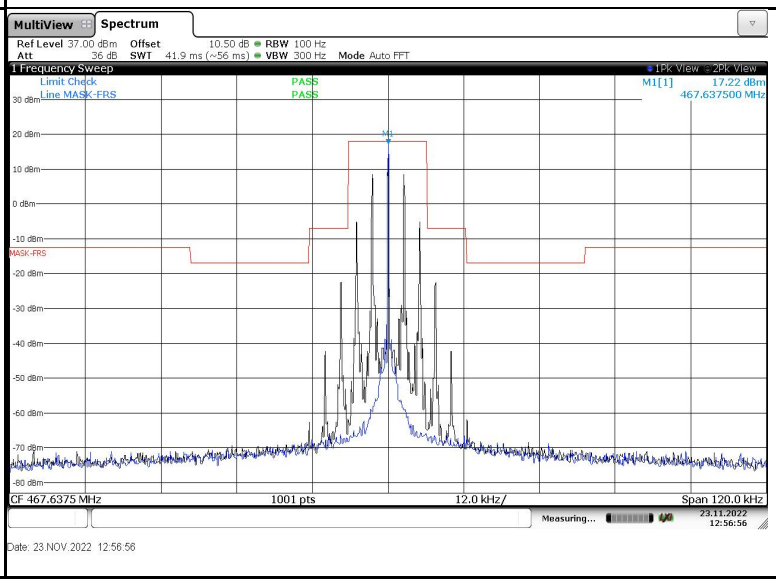
Appendix B: 99% Occupied Bandwidth & 26dB Bandwidth

Test Mode	Modulation Type	Test Channel	Occupied Bandwidth		99% Limit(kHz)	Result
			99%(kHz)	26dB(kHz)		
TX-FRS	FM	CH_L-H	9.925	10.14	≤12.5	PASS
TX-FRS	FM	CH_H	9.916	10.14	≤12.5	PASS

Appendix B: 99% Occupied Bandwidth & 26dB Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-FRS	FM	CH_L-H	
TX-FRS	FM	CH_H	

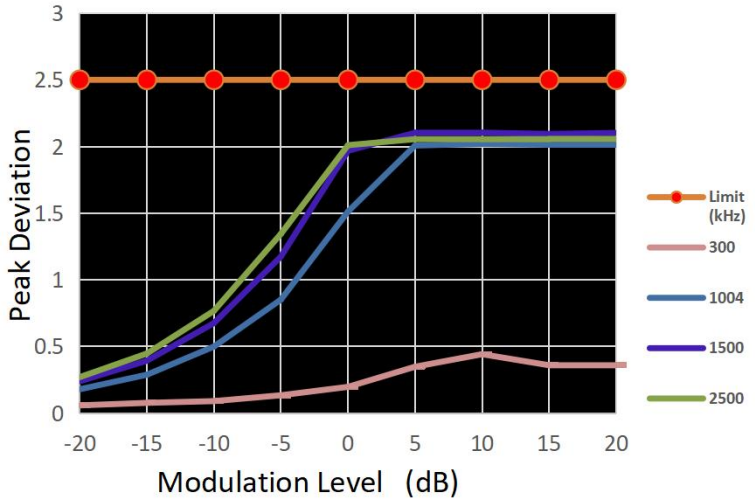
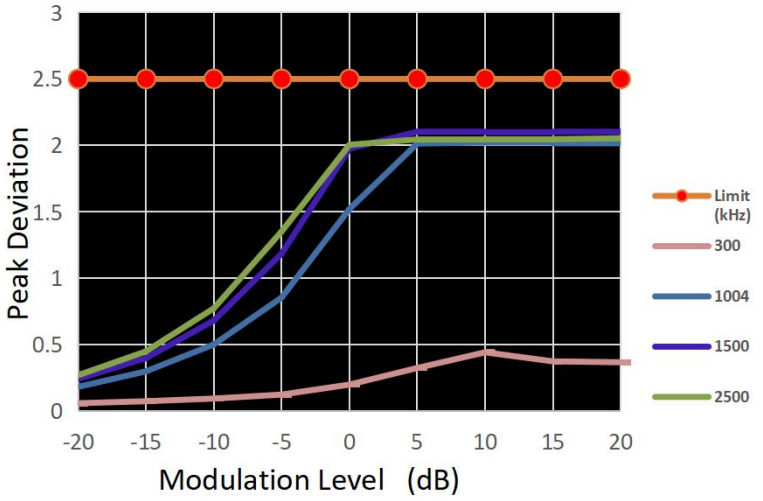
Appendix C:Emission Mask

Test Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-FRS	FM	CH_L-H	
TX-FRS	FM	CH_L-L	
TX-FRS	FM	CH_H	

Appendix D:Modulation Limit

Test Mode	Modulation Type	Test Channel	Modulation Level (dB)	Peak Frequency Deviation (Hz)				Limit (kHz)	Result
				300	1004	1500	2500		
TX-FRS	FM	CH_L-H	-20	0.058	0.179	0.239	0.270	2.5	PASS
TX-FRS	FM	CH_L-H	-15	0.077	0.288	0.393	0.447	2.5	PASS
TX-FRS	FM	CH_L-H	-10	0.090	0.499	0.675	0.767	2.5	PASS
TX-FRS	FM	CH_L-H	-5	0.134	0.852	1.175	1.345	2.5	PASS
TX-FRS	FM	CH_L-H	0	0.197	1.512	1.968	2.010	2.5	PASS
TX-FRS	FM	CH_L-H	5	0.348	2.007	2.103	2.055	2.5	PASS
TX-FRS	FM	CH_L-H	10	0.442	2.020	2.104	2.055	2.5	PASS
TX-FRS	FM	CH_L-H	15	0.359	2.013	2.094	2.057	2.5	PASS
TX-FRS	FM	CH_L-H	20	0.361	2.019	2.102	2.054	2.5	PASS
TX-FRS	FM	CH_H	-20	0.061	0.184	0.244	0.272	2.5	PASS
TX-FRS	FM	CH_H	-15	0.076	0.301	0.400	0.451	2.5	PASS
TX-FRS	FM	CH_H	-10	0.096	0.503	0.683	0.775	2.5	PASS
TX-FRS	FM	CH_H	-5	0.126	0.856	1.186	1.353	2.5	PASS
TX-FRS	FM	CH_H	0	0.201	1.522	1.976	2.005	2.5	PASS
TX-FRS	FM	CH_H	5	0.326	2.014	2.103	2.045	2.5	PASS
TX-FRS	FM	CH_H	10	0.444	2.022	2.099	2.046	2.5	PASS
TX-FRS	FM	CH_H	15	0.376	2.016	2.103	2.047	2.5	PASS
TX-FRS	FM	CH_H	20	0.369	2.020	2.104	2.054	2.5	PASS

Appendix D:Modulation Limit

Test Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-FRS	FM	CH_L-H	
TX-FRS	FM	CH_H	

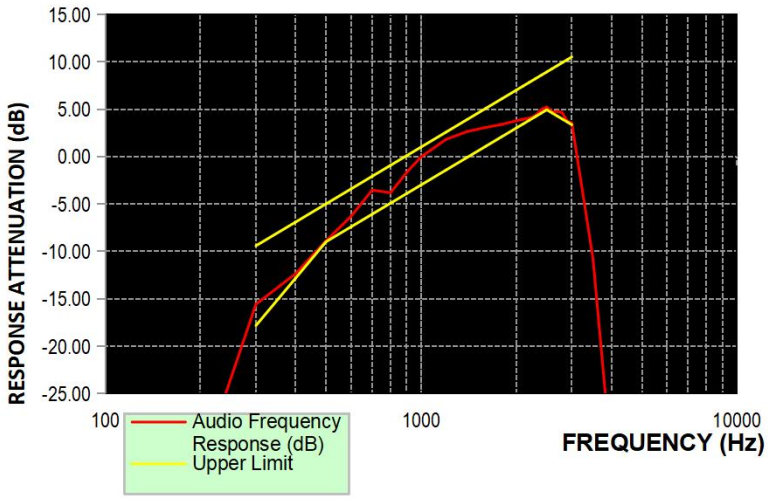
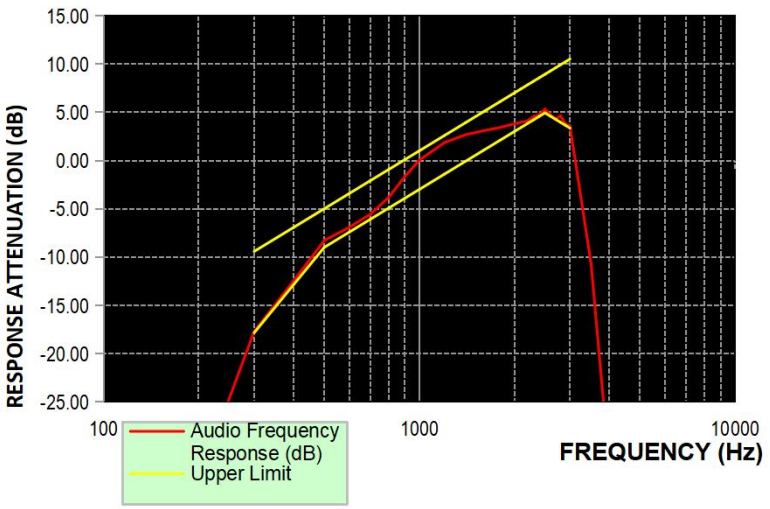
Appendix E:Audio Frequency Response

Test Mode	Modulation Type	Test Channel	Frequency (Hz)	Audio Frequency Response (dB)	Lower Limit	Upper Limit	Result
TX-FRS	FM	CH_L-H	100	-33.41			PASS
TX-FRS	FM	CH_L-H	200	-32.94			PASS
TX-FRS	FM	CH_L-H	300	-15.59	-17.84	-9.42	PASS
TX-FRS	FM	CH_L-H	400	-12.39	-12.86	-6.93	PASS
TX-FRS	FM	CH_L-H	500	-8.90	-9.00	-5.00	PASS
TX-FRS	FM	CH_L-H	600	-6.32	-7.42	-3.42	PASS
TX-FRS	FM	CH_L-H	700	-3.54	-6.09	-2.09	PASS
TX-FRS	FM	CH_L-H	800	-3.83	-4.93	-0.93	PASS
TX-FRS	FM	CH_L-H	900	-1.67	-3.91	0.09	PASS
TX-FRS	FM	CH_L-H	1000	-0.04	-3.00	1.00	PASS
TX-FRS	FM	CH_L-H	1200	1.82	-1.42	2.58	PASS
TX-FRS	FM	CH_L-H	1400	2.64	-0.09	3.91	PASS
TX-FRS	FM	CH_L-H	1600	3.06	1.07	5.07	PASS
TX-FRS	FM	CH_L-H	1800	3.39	2.09	6.09	PASS
TX-FRS	FM	CH_L-H	2000	3.77	3.00	7.00	PASS
TX-FRS	FM	CH_L-H	2100	3.93	3.42	7.42	PASS
TX-FRS	FM	CH_L-H	2200	4.06	3.83	7.83	PASS
TX-FRS	FM	CH_L-H	2300	4.32	4.21	8.21	PASS
TX-FRS	FM	CH_L-H	2400	4.95	4.58	8.58	PASS
TX-FRS	FM	CH_L-H	2500	5.23	4.93	8.93	PASS
TX-FRS	FM	CH_L-H	2600	4.73	4.59	9.27	PASS
TX-FRS	FM	CH_L-H	2700	4.78	4.27	9.60	PASS
TX-FRS	FM	CH_L-H	2800	4.60	3.95	9.91	PASS
TX-FRS	FM	CH_L-H	2900	3.74	3.65	10.22	PASS
TX-FRS	FM	CH_L-H	3000	3.54	3.35	10.51	PASS
TX-FRS	FM	CH_L-H	3500	-10.77			PASS
TX-FRS	FM	CH_L-H	4000	-31.92			PASS
TX-FRS	FM	CH_L-H	4500	-33.12			PASS
TX-FRS	FM	CH_L-H	5000	-33.23			PASS

Appendix E:Audio Frequency Response

Test Mode	Modulation Type	Test Channel	Frequency (Hz)	Audio Frequency Response (dB)	Lower Limit	Upper Limit	Result
TX-FRS	FM	CH_H	100	-33.11			PASS
TX-FRS	FM	CH_H	200	-33.22			PASS
TX-FRS	FM	CH_H	300	-17.71	-17.84	-9.42	PASS
TX-FRS	FM	CH_H	400	-12.47	-12.86	-6.93	PASS
TX-FRS	FM	CH_H	500	-8.29	-9.00	-5.00	PASS
TX-FRS	FM	CH_H	600	-6.93	-7.42	-3.42	PASS
TX-FRS	FM	CH_H	700	-5.57	-6.09	-2.09	PASS
TX-FRS	FM	CH_H	800	-3.82	-4.93	-0.93	PASS
TX-FRS	FM	CH_H	900	-1.67	-3.91	0.09	PASS
TX-FRS	FM	CH_H	1000	0.03	-3.00	1.00	PASS
TX-FRS	FM	CH_H	1200	1.85	-1.42	2.58	PASS
TX-FRS	FM	CH_H	1400	2.66	-0.09	3.91	PASS
TX-FRS	FM	CH_H	1600	3.09	1.07	5.07	PASS
TX-FRS	FM	CH_H	1800	3.42	2.09	6.09	PASS
TX-FRS	FM	CH_H	2000	3.80	3.00	7.00	PASS
TX-FRS	FM	CH_H	2100	3.96	3.42	7.42	PASS
TX-FRS	FM	CH_H	2200	4.09	3.83	7.83	PASS
TX-FRS	FM	CH_H	2300	4.56	4.21	8.21	PASS
TX-FRS	FM	CH_H	2400	4.73	4.58	8.58	PASS
TX-FRS	FM	CH_H	2500	5.32	4.93	8.93	PASS
TX-FRS	FM	CH_H	2600	4.75	4.59	9.27	PASS
TX-FRS	FM	CH_H	2700	4.31	4.27	9.60	PASS
TX-FRS	FM	CH_H	2800	4.63	3.95	9.91	PASS
TX-FRS	FM	CH_H	2900	3.78	3.65	10.22	PASS
TX-FRS	FM	CH_H	3000	3.57	3.35	10.51	PASS
TX-FRS	FM	CH_H	3500	-10.75			PASS
TX-FRS	FM	CH_H	4000	-31.90			PASS
TX-FRS	FM	CH_H	4500	-33.29			PASS
TX-FRS	FM	CH_H	5000	-33.33			PASS

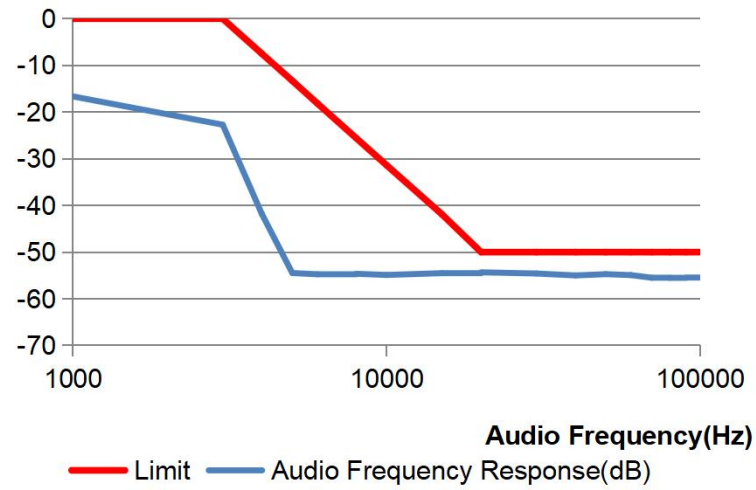
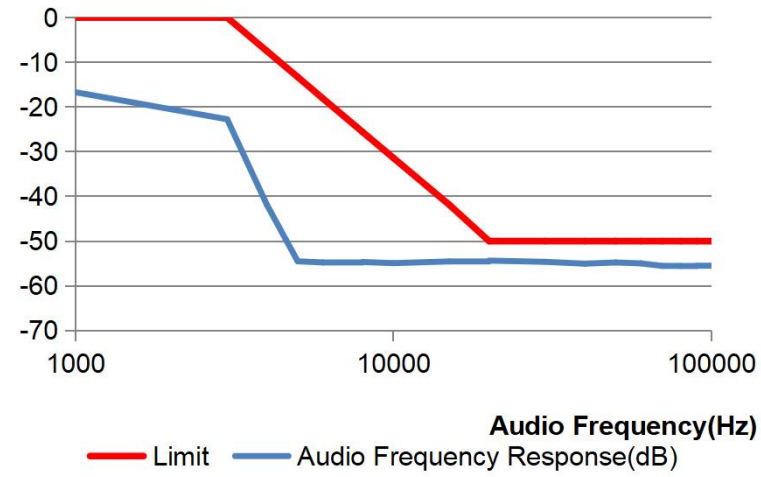
Appendix E:Audio Frequency Response

Test Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-FRS	FM	CH_L-H	
TX-FRS	FM	CH_H	

Appendix F:Audio Low Pass Filter Response

Test Mode	Modulation Type	Test Channel	Audio Frequency(Hz)	Audio Frequency Response(dB)	Limit	Result
TX-FRS	FM	CH_L-H	1000	-16.66	0	PASS
TX-FRS	FM	CH_L-H	3000	-22.71	0	PASS
TX-FRS	FM	CH_L-H	4000	-41.85	-7.5	PASS
TX-FRS	FM	CH_L-H	5000	-54.48	-13.3	PASS
TX-FRS	FM	CH_L-H	6000	-54.74	-18.1	PASS
TX-FRS	FM	CH_L-H	8000	-54.64	-25.6	PASS
TX-FRS	FM	CH_L-H	10000	-54.89	-31.4	PASS
TX-FRS	FM	CH_L-H	15000	-54.51	-41.9	PASS
TX-FRS	FM	CH_L-H	20000	-54.33	-50	PASS
TX-FRS	FM	CH_L-H	30000	-54.58	-50	PASS
TX-FRS	FM	CH_L-H	40000	-54.99	-50	PASS
TX-FRS	FM	CH_L-H	50000	-54.72	-50	PASS
TX-FRS	FM	CH_L-H	60000	-54.92	-50	PASS
TX-FRS	FM	CH_L-H	70000	-55.49	-50	PASS
TX-FRS	FM	CH_L-H	80000	-55.51	-50	PASS
TX-FRS	FM	CH_L-H	90000	-55.45	-50	PASS
TX-FRS	FM	CH_L-H	100000	-55.53	-50	PASS
TX-FRS	FM	CH_H	1000	-16.70	0	PASS
TX-FRS	FM	CH_H	3000	-22.75	0	PASS
TX-FRS	FM	CH_H	4000	-41.89	-7.5	PASS
TX-FRS	FM	CH_H	5000	-54.52	-13.3	PASS
TX-FRS	FM	CH_H	6000	-54.78	-18.1	PASS
TX-FRS	FM	CH_H	8000	-54.68	-25.6	PASS
TX-FRS	FM	CH_H	10000	-54.93	-31.4	PASS
TX-FRS	FM	CH_H	15000	-54.55	-41.9	PASS
TX-FRS	FM	CH_H	20000	-54.37	-50	PASS
TX-FRS	FM	CH_H	30000	-54.64	-50	PASS
TX-FRS	FM	CH_H	40000	-55.05	-50	PASS
TX-FRS	FM	CH_H	50000	-54.78	-50	PASS
TX-FRS	FM	CH_H	60000	-54.98	-50	PASS
TX-FRS	FM	CH_H	70000	-55.55	-50	PASS
TX-FRS	FM	CH_H	80000	-55.57	-50	PASS
TX-FRS	FM	CH_H	90000	-55.51	-50	PASS
TX-FRS	FM	CH_H	100000	-55.59	-50	PASS

Appendix F:Audio Low Pass Filter Response

Test Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-FRS	FM	CH_L-H	
TX-FRS	FM	CH_H	

Appendix G:Frequency Stability Test & Temperature

Test Mode	Modulation Type	Test Conditions		Frequency error (ppm)			Limit (ppm)	Result
		Voltage	Temperature	CH_L-H	CH_L-L	CH_H		
TX-FRS	FM	V_N	-30	0.351	0.335	0.333	±2.5	PASS
TX-FRS	FM	V_N	-20	0.330	0.318	0.316	±2.5	PASS
TX-FRS	FM	V_N	-10	0.342	0.335	0.332	±2.5	PASS
TX-FRS	FM	V_N	0	0.354	0.316	0.318	±2.5	PASS
TX-FRS	FM	V_N	10	0.360	0.321	0.319	±2.5	PASS
TX-FRS	FM	V_N	20	0.329	0.316	0.314	±2.5	PASS
TX-FRS	FM	V_N	30	0.340	0.344	0.342	±2.5	PASS
TX-FRS	FM	V_N	40	0.332	0.347	0.344	±2.5	PASS
TX-FRS	FM	V_N	50	0.333	0.345	0.344	±2.5	PASS

Appendix H:Frequency Stability Test & Voltage

Test Mode	Modulation Type	Test Conditions		Frequency error (ppm)			Limit (ppm)	Result
		Voltage	Temperature	CH_L-H	CH_L-L	CH_H		
TX-FRS	FM	V_N	T_N	0.329	0.318	0.314	±2.5	PASS
TX-FRS	FM	V_L	T_N	0.297	0.310	0.307	±2.5	PASS
TX-FRS	FM	V_H	T_N	0.361	0.339	0.335	±2.5	PASS

----End of Report----