



Appendix A: Carrier Output Power(ERP)

Test Mode	Modulation Type	Test Channel	Measured power (dBm)	Measured power (W)	Limit(W)	Result
TX-FRS	FM	CH _{M1}	25.7	0.37	≤2	PASS
TX-FRS	FM	CH _{M2}	25.9	0.39	≤0.5	PASS
TX-FRS	FM	CH _{M3}	25.8	0.38	≤2	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 _{M1}	5.227	10.11	≤12.5	PASS
TX-FRS	FM	CH _{M2}	<u>5.301</u>	10.12	≤12.5	PASS
TX-FRS	FM	CH _{M3}	5.2	10.12	≤12.5	PASS



Appendix B: 99% Occupied Bandwidth & 26dB Bandwidth

Test Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-FRS	FM	CH _{M1}	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 462.637500 MHz Center Freq: 462.637500 MHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS</p> <p>10 dB/div Ref 32.92 dBm Center 462.6 MHz #Res BW 100 Hz #VBW 300 Hz Span 50 kHz Sweep FFT</p> <p>Occupied Bandwidth 5.227 kHz Total Power 29.0 dBm Transmit Freq Error 250 Hz OBW Power 99.00 % x dB Bandwidth 10.11 kHz x dB -26.00 dB</p> <p>Frequency Center Freq 462.637500 MHz CF Step 5.000 kHz Freq Offset 0 Hz</p>
TX-FRS	FM	CH _{M2}	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 467.637500 MHz Center Freq: 467.637500 MHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS</p> <p>10 dB/div Ref 32.93 dBm Center 467.6 MHz #Res BW 100 Hz #VBW 300 Hz Span 50 kHz Sweep FFT</p> <p>Occupied Bandwidth 5.301 kHz Total Power 29.3 dBm Transmit Freq Error 238 Hz OBW Power 99.00 % x dB Bandwidth 10.12 kHz x dB -26.00 dB</p> <p>Frequency Center Freq 467.637500 MHz CF Step 5.000 kHz Freq Offset 0 Hz</p>
TX-FRS	FM	CH _{M3}	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 462.650000 MHz Center Freq: 462.650000 MHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS</p> <p>10 dB/div Ref 32.86 dBm Center 462.7 MHz #Res BW 100 Hz #VBW 300 Hz Span 50 kHz Sweep FFT</p> <p>Occupied Bandwidth 5.200 kHz Total Power 29.1 dBm Transmit Freq Error 225 Hz OBW Power 99.00 % x dB Bandwidth 10.12 kHz x dB -26.00 dB</p> <p>Frequency Center Freq 462.650000 MHz CF Step 5.000 kHz Freq Offset 0 Hz</p>



Appendix C:Emission Mask

Test Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-FRS	FM	CH _{M1}	
TX-FRS	FM	CH _{M2}	
TX-FRS	FM	CH _{M3}	

**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 _{M1}	-20	0.063	0.188	0.276	0.432	2.5	PASS
TX-FRS	FM	CH _{M1}	-15	0.089	0.305	0.447	0.726	2.5	PASS
TX-FRS	FM	CH _{M1}	-10	0.121	0.504	0.771	1.285	2.5	PASS
TX-FRS	FM	CH _{M1}	-5	0.181	0.869	1.359	1.748	2.5	PASS
TX-FRS	FM	CH _{M1}	0	0.302	1.526	1.777	1.847	2.5	PASS
TX-FRS	FM	CH _{M1}	5	0.512	1.833	1.881	1.881	2.5	PASS
TX-FRS	FM	CH _{M1}	10	0.885	2.016	1.904	1.911	2.5	PASS
TX-FRS	FM	CH _{M1}	15	1.535	2.076	1.923	1.918	2.5	PASS
TX-FRS	FM	CH _{M1}	20	1.955	2.102	1.941	1.958	2.5	PASS
TX-FRS	FM	CH _{M2}	-20	0.355	0.186	0.277	0.435	2.5	PASS
TX-FRS	FM	CH _{M2}	-15	0.087	0.31	0.45	0.743	2.5	PASS
TX-FRS	FM	CH _{M2}	-10	0.124	0.522	0.789	1.304	2.5	PASS
TX-FRS	FM	CH _{M2}	-5	0.195	0.904	1.382	1.754	2.5	PASS
TX-FRS	FM	CH _{M2}	0	0.318	1.544	1.787	1.851	2.5	PASS
TX-FRS	FM	CH _{M2}	5	0.517	1.842	1.874	1.881	2.5	PASS
TX-FRS	FM	CH _{M2}	10	0.904	2.014	1.906	1.899	2.5	PASS
TX-FRS	FM	CH _{M2}	15	1.553	2.078	1.919	1.929	2.5	PASS
TX-FRS	FM	CH _{M2}	20	1.947	2.105	1.923	1.969	2.5	PASS
TX-FRS	FM	CH _{M3}	-20	0.527	0.192	0.279	0.443	2.5	PASS
TX-FRS	FM	CH _{M3}	-15	0.09	0.319	0.478	0.778	2.5	PASS
TX-FRS	FM	CH _{M3}	-10	0.121	0.539	0.826	1.363	2.5	PASS
TX-FRS	FM	CH _{M3}	-5	0.202	0.933	1.445	1.763	2.5	PASS
TX-FRS	FM	CH _{M3}	0	0.309	1.548	1.794	1.848	2.5	PASS
TX-FRS	FM	CH _{M3}	5	0.547	1.864	1.875	1.875	2.5	PASS
TX-FRS	FM	CH _{M3}	10	0.942	2.02	1.91	1.898	2.5	PASS
TX-FRS	FM	CH _{M3}	15	1.586	2.088	1.921	1.93	2.5	PASS
TX-FRS	FM	CH _{M3}	20	1.95	2.095	1.92	1.968	2.5	PASS



Appendix D:Modulation Limit

Test Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-FRS	FM	CH _{M1}	
TX-FRS	FM	CH _{M2}	
TX-FRS	FM	CH _{M3}	

**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 _{M1}	100	-33.09			PASS
TX-FRS	FM	CH _{M1}	200	-33.01			PASS
TX-FRS	FM	CH _{M1}	300	-14.68	-17.84	-9.42	PASS
TX-FRS	FM	CH _{M1}	400	-9.63	-12.86	-6.93	PASS
TX-FRS	FM	CH _{M1}	500	-7.03	-9.00	-5.00	PASS
TX-FRS	FM	CH _{M1}	600	-4.85	-7.42	-3.42	PASS
TX-FRS	FM	CH _{M1}	700	-3.39	-6.09	-2.09	PASS
TX-FRS	FM	CH _{M1}	800	-2.12	-4.93	-0.93	PASS
TX-FRS	FM	CH _{M1}	900	-1.06	-3.91	0.09	PASS
TX-FRS	FM	CH _{M1}	1000	-0.02	-3.00	1.00	PASS
TX-FRS	FM	CH _{M1}	1200	1.70	-1.42	2.58	PASS
TX-FRS	FM	CH _{M1}	1400	3.16	-0.09	3.91	PASS
TX-FRS	FM	CH _{M1}	1600	4.45	1.07	5.07	PASS
TX-FRS	FM	CH _{M1}	1800	5.40	2.09	6.09	PASS
TX-FRS	FM	CH _{M1}	2000	6.30	3.00	7.00	PASS
TX-FRS	FM	CH _{M1}	2100	6.58	3.42	7.42	PASS
TX-FRS	FM	CH _{M1}	2200	6.81	3.83	7.83	PASS
TX-FRS	FM	CH _{M1}	2300	6.95	4.21	8.21	PASS
TX-FRS	FM	CH _{M1}	2400	7.06	4.58	8.58	PASS
TX-FRS	FM	CH _{M1}	2500	7.17	4.93	8.93	PASS
TX-FRS	FM	CH _{M1}	2600	7.24	4.59	9.27	PASS
TX-FRS	FM	CH _{M1}	2700	7.29	4.27	9.60	PASS
TX-FRS	FM	CH _{M1}	2800	7.28	3.95	9.91	PASS
TX-FRS	FM	CH _{M1}	2900	7.22	3.65	10.22	PASS
TX-FRS	FM	CH _{M1}	3000	7.12	3.35	10.51	PASS
TX-FRS	FM	CH _{M1}	3500	4.24			PASS
TX-FRS	FM	CH _{M1}	4000	-3.16			PASS
TX-FRS	FM	CH _{M1}	4500	-11.51			PASS
TX-FRS	FM	CH _{M1}	5000	-19.30			PASS
TX-FRS	FM	CH _{M2}	100	-33.09	-	-	PASS
TX-FRS	FM	CH _{M2}	200	-33.43	-	-	PASS
TX-FRS	FM	CH _{M2}	300	-14.80	-17.84	-9.42	PASS
TX-FRS	FM	CH _{M2}	400	-9.60	-12.86	-6.93	PASS
TX-FRS	FM	CH _{M2}	500	-7.04	-9.00	-5.00	PASS
TX-FRS	FM	CH _{M2}	600	-4.78	-7.42	-3.42	PASS
TX-FRS	FM	CH _{M2}	700	-3.40	-6.09	-2.09	PASS
TX-FRS	FM	CH _{M2}	800	-2.09	-4.93	-0.93	PASS
TX-FRS	FM	CH _{M2}	900	-1.07	-3.91	0.09	PASS
TX-FRS	FM	CH _{M2}	1000	0.00	-3.00	1.00	PASS
TX-FRS	FM	CH _{M2}	1200	1.72	-1.42	2.58	PASS
TX-FRS	FM	CH _{M2}	1400	3.18	-0.09	3.91	PASS
TX-FRS	FM	CH _{M2}	1600	4.45	1.07	5.07	PASS

**Appendix E:Aduio Frequency Response**

Test Mode	Modulation Type	Test Channel	Frequency (Hz)	Audio Frequency Response (dB)	Lower Limit	Upper Limit	Result
TX-FRS	FM	CH _{M2}	1800	5.40	2.09	6.09	PASS
TX-FRS	FM	CH _{M2}	2000	6.30	3.00	7.00	PASS
TX-FRS	FM	CH _{M2}	2100	6.59	3.42	7.42	PASS
TX-FRS	FM	CH _{M2}	2200	6.82	3.83	7.83	PASS
TX-FRS	FM	CH _{M2}	2300	6.98	4.21	8.21	PASS
TX-FRS	FM	CH _{M2}	2400	7.08	4.58	8.58	PASS
TX-FRS	FM	CH _{M2}	2500	7.20	4.93	8.93	PASS
TX-FRS	FM	CH _{M2}	2600	7.27	4.59	9.27	PASS
TX-FRS	FM	CH _{M2}	2700	7.32	4.27	9.60	PASS
TX-FRS	FM	CH _{M2}	2800	7.30	3.95	9.91	PASS
TX-FRS	FM	CH _{M2}	2900	7.26	3.65	10.22	PASS
TX-FRS	FM	CH _{M2}	3000	7.14	3.35	10.51	PASS
TX-FRS	FM	CH _{M2}	3500	4.27	-	-	PASS
TX-FRS	FM	CH _{M2}	4000	-3.13	-	-	PASS
TX-FRS	FM	CH _{M2}	4500	-11.48	-	-	PASS
TX-FRS	FM	CH _{M2}	5000	-19.28	-	-	PASS
TX-FRS	FM	CH _{M3}	100	-33.51			PASS
TX-FRS	FM	CH _{M3}	200	-33.26			PASS
TX-FRS	FM	CH _{M3}	300	-14.73	-17.84	-9.42	PASS
TX-FRS	FM	CH _{M3}	400	-9.41	-12.86	-6.93	PASS
TX-FRS	FM	CH _{M3}	500	-7.01	-9.00	-5.00	PASS
TX-FRS	FM	CH _{M3}	600	-4.79	-7.42	-3.42	PASS
TX-FRS	FM	CH _{M3}	700	-3.36	-6.09	-2.09	PASS
TX-FRS	FM	CH _{M3}	800	-2.07	-4.93	-0.93	PASS
TX-FRS	FM	CH _{M3}	900	-1.03	-3.91	0.09	PASS
TX-FRS	FM	CH _{M3}	1000	0.01	-3.00	1.00	PASS
TX-FRS	FM	CH _{M3}	1200	1.74	-1.42	2.58	PASS
TX-FRS	FM	CH _{M3}	1400	3.21	-0.09	3.91	PASS
TX-FRS	FM	CH _{M3}	1600	4.48	1.07	5.07	PASS
TX-FRS	FM	CH _{M3}	1800	5.44	2.09	6.09	PASS
TX-FRS	FM	CH _{M3}	2000	6.35	3.00	7.00	PASS
TX-FRS	FM	CH _{M3}	2100	6.62	3.42	7.42	PASS
TX-FRS	FM	CH _{M3}	2200	6.85	3.83	7.83	PASS
TX-FRS	FM	CH _{M3}	2300	7.00	4.21	8.21	PASS
TX-FRS	FM	CH _{M3}	2400	7.10	4.58	8.58	PASS
TX-FRS	FM	CH _{M3}	2500	7.21	4.93	8.93	PASS
TX-FRS	FM	CH _{M3}	2600	7.29	4.59	9.27	PASS
TX-FRS	FM	CH _{M3}	2700	7.34	4.27	9.60	PASS
TX-FRS	FM	CH _{M3}	2800	7.33	3.95	9.91	PASS
TX-FRS	FM	CH _{M3}	2900	7.27	3.65	10.22	PASS
TX-FRS	FM	CH _{M3}	3000	7.17	3.35	10.51	PASS
TX-FRS	FM	CH _{M3}	3500	4.29			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 _{M3}	4000	-3.11			PASS
TX-FRS	FM	CH _{M3}	4500	-11.44			PASS
TX-FRS	FM	CH _{M3}	5000	-19.26			PASS



Appendix E:Audio Frequency Response

Test Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-FRS	FM	CH _{M1}	
TX-FRS	FM	CH _{M2}	
TX-FRS	FM	CH _{M3}	

Note: The highest audio frequency response at 3kHz<3.125kHz, so meet the requirement.

**Appendix F:Frequency Stability Test & Temperature**

Test Mode	Modulation Type	Test Conditions		Frequency error (ppm)			Limit (ppm)	Result
		Voltage	Temperature	CH _{M1}	CH _{M2}	CH _{M3}		
TX-FRS	FM	V _N	-30	0.680	0.763	0.733	±2.5	PASS
TX-FRS	FM	V _N	-20	0.668	0.755	0.722	±2.5	PASS
TX-FRS	FM	V _N	-10	0.659	0.741	0.712	±2.5	PASS
TX-FRS	FM	V _N	0	0.645	0.728	0.693	±2.5	PASS
TX-FRS	FM	V _N	10	0.633	0.719	0.685	±2.5	PASS
TX-FRS	FM	V _N	20	0.615	0.699	0.678	±2.5	PASS
TX-FRS	FM	V _N	30	0.619	0.710	0.683	±2.5	PASS
TX-FRS	FM	V _N	40	0.635	0.725	0.694	±2.5	PASS
TX-FRS	FM	V _N	55	0.644	0.733	0.708	±2.5	PASS

**Appendix G:Frequency Stability Test & Voltage**

Test Mode	Modulation Type	Test Conditions		Frequency error (ppm)			Limit (ppm)	Result
		Voltage	Temperature	CH _{M1}	CH _{M2}	CH _{M3}		
TX-FRS	FM	V _N	T _N	0.615	0.699	0.678	±2.5	PASS
TX-FRS	FM	V _L	T _N	0.641	0.722	0.705	±2.5	PASS
TX-FRS	FM	V _H	T _N	0.623	0.715	0.687	±2.5	PASS

----End of Report----