

**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	47.6	57.54	50.00	15.1	±20	PASS
TX-DNH	4FSK	CH _{M1}	47.7	58.88	50.00	17.8	±20	PASS
TX-DNH	4FSK	CH _{M2}	47.7	58.88	50.00	17.8	±20	PASS
TX-DNH	4FSK	CH _{M3}	47.5	56.23	50.00	12.5	±20	PASS
TX-DNH	4FSK	CH _H	47.5	56.23	50.00	12.5	±20	PASS
TX-DNM	4FSK	CH _L	44.3	26.92	25.00	7.7	±20	PASS
TX-DNM	4FSK	CH _{M1}	44.5	28.18	25.00	12.7	±20	PASS
TX-DNM	4FSK	CH _{M2}	44.5	28.18	25.00	12.7	±20	PASS
TX-DNM	4FSK	CH _{M3}	44.2	26.30	25.00	5.2	±20	PASS
TX-DNM	4FSK	CH _H	44.5	28.18	25.00	12.7	±20	PASS
TX-DNL	4FSK	CH _L	37.5	5.62	5.00	12.5	±20	PASS
TX-DNL	4FSK	CH _{M1}	37.7	5.89	5.00	17.8	±20	PASS
TX-DNL	4FSK	CH _{M2}	37.7	5.89	5.00	17.8	±20	PASS
TX-DNL	4FSK	CH _{M3}	37.1	5.13	5.00	2.6	±20	PASS
TX-DNL	4FSK	CH _H	37.2	5.25	5.00	5.0	±20	PASS
TX-ANH	FM	CH _L	46.9	48.75	50.00	-2.5	±20	PASS
TX-ANH	FM	CH _{M1}	46.9	49.43	50.00	-1.1	±20	PASS
TX-ANH	FM	CH _{M2}	46.9	49.20	50.00	-1.6	±20	PASS
TX-ANH	FM	CH _{M3}	46.8	48.31	50.00	-3.4	±20	PASS
TX-ANH	FM	CH _H	46.8	47.86	50.00	-4.3	±20	PASS
TX-ANM	FM	CH _L	43.7	23.50	25.00	-6.0	±20	PASS
TX-ANM	FM	CH _{M1}	43.8	24.15	25.00	-3.4	±20	PASS
TX-ANM	FM	CH _{M2}	43.8	24.10	25.00	-3.6	±20	PASS
TX-ANM	FM	CH _{M3}	43.7	23.17	25.00	-7.3	±20	PASS
TX-ANM	FM	CH _H	43.6	23.01	25.00	-7.9	±20	PASS
TX-ANL	FM	CH _L	37.0	5.04	5.00	0.7	±20	PASS
TX-ANL	FM	CH _{M1}	37.1	5.13	5.00	2.6	±20	PASS
TX-ANL	FM	CH _{M2}	37.0	5.01	5.00	0.2	±20	PASS
TX-ANL	FM	CH _{M3}	36.8	4.79	5.00	-4.3	±20	PASS
TX-ANL	FM	CH _H	36.7	4.68	5.00	-6.5	±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	7.196	9.380	≤11.25	PASS
TX-DNH	4FSK	CH _{M1}	7.256	9.471	≤11.25	PASS
TX-DNH	4FSK	CH _{M2}	7.094	9.510	≤11.25	PASS
TX-DNH	4FSK	CH _{M3}	6.959	9.341	≤11.25	PASS
TX-DNH	4FSK	CH _H	6.836	9.328	≤11.25	PASS
TX-DNL	4FSK	CH _L	7.242	9.358	≤11.25	PASS
TX-DNL	4FSK	CH _{M1}	7.131	9.388	≤11.25	PASS
TX-DNL	4FSK		7.300	9.688	≤11.25	PASS
TX-DNL	4FSK	CH _{M3}	7.169	9.468	≤11.25	PASS
TX-DNL	4FSK	CH _H	6.988	9.301	≤11.25	PASS
TX-ANH	FM	CH _L	5.165	7.649	≤11.25	PASS
TX-ANH	FM	CH _{M1}	5.158	7.664	≤11.25	PASS
TX-ANH	FM	CH _{M2}	5.155	7.663	≤11.25	PASS
TX-ANH	FM	CH _{M3}	5.162	7.640	≤11.25	PASS
TX-ANH	FM	CH _H	5.176	7.665	≤11.25	PASS
TX-ANL	FM	CH _L	5.166	7.646	≤11.25	PASS
TX-ANL	FM	CH _{M1}	5.156	7.664	≤11.25	PASS
TX-ANL	FM	CH _{M2}	5.159	7.662	≤11.25	PASS
TX-ANL	FM	CH _{M3}	5.167	7.637	≤11.25	PASS
TX-ANL	FM	CH _H	5.177	7.662	≤11.25	PASS



Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH _L	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 400.012500 MHz Center Freq: 400.012500 MHz Radio Std: None</p> <p>Trig: Free Run Avg/Hold: >10/10 Radio Device: BTS</p> <p>#IF Gain: Low #Atten: 24 dB</p> <p>10 dB/div Ref 51.22 dBm</p> <p>Center 400 MHz Span 50 kHz</p> <p>#Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth Total Power 54.4 dBm</p> <p>7.196 kHz</p> <p>Transmit Freq Error 86 Hz OBW Power 99.00 %</p> <p>x dB Bandwidth 9.380 kHz x dB -26.00 dB</p> <p>STATUS DC Coupled</p>
TX-DNH	4FSK	CH _{M1}	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 405.987500 MHz Center Freq: 405.987500 MHz Radio Std: None</p> <p>Trig: Free Run Avg/Hold: >10/10 Radio Device: BTS</p> <p>#IF Gain: Low #Atten: 24 dB</p> <p>10 dB/div Ref 51.31 dBm</p> <p>Center 406 MHz Span 50 kHz</p> <p>#Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth Total Power 54.1 dBm</p> <p>7.259 kHz</p> <p>Transmit Freq Error 106 Hz OBW Power 99.00 %</p> <p>x dB Bandwidth 9.471 kHz x dB -26.00 dB</p> <p>STATUS DC Coupled</p>
TX-DNH	4FSK	CH _{M2}	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 406.112500 MHz Center Freq: 406.112500 MHz Radio Std: None</p> <p>Trig: Free Run Avg/Hold: >10/10 Radio Device: BTS</p> <p>#IF Gain: Low #Atten: 24 dB</p> <p>10 dB/div Ref 51.30 dBm</p> <p>Center 406.1 MHz Span 50 kHz</p> <p>#Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth Total Power 54.2 dBm</p> <p>7.094 kHz</p> <p>Transmit Freq Error 87 Hz OBW Power 99.00 %</p> <p>x dB Bandwidth 9.510 kHz x dB -26.00 dB</p> <p>STATUS DC Coupled</p>



Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH _{M3}	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 438.012500 MHz Center Freq: 438.012500 MHz Radio Std: None Trig: Free Run AvgHold>10/10 #IFGain:Low #Atten: 24 dB Radio Device: BTS</p> <p>10 dB/div Ref 51.01 dBm Log Center 438 MHz Span 50 kHz #Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth 6.959 kHz Total Power 54.0 dBm Transmit Freq Error -20 Hz OBW Power 99.00 % x dB Bandwidth 9.341 kHz x dB -26.00 dB</p> <p>Frequency Center Freq 438.012500 MHz CF Step 5.000 kHz Freq Offset 0 Hz</p>
TX-DNH	4FSK	CH _H	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 469.987500 MHz Center Freq: 469.987500 MHz Radio Std: None Trig: Free Run AvgHold>10/10 #IFGain:Low #Atten: 24 dB Radio Device: BTS</p> <p>10 dB/div Ref 51.06 dBm Log Center 470 MHz Span 50 kHz #Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth 6.836 kHz Total Power 53.7 dBm Transmit Freq Error 39 Hz OBW Power 99.00 % x dB Bandwidth 9.328 kHz x dB -26.00 dB</p> <p>Frequency Center Freq 469.987500 MHz CF Step 5.000 kHz Freq Offset 0 Hz</p>
TX-DNL	4FSK	CH _L	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 400.012500 MHz Center Freq: 400.012500 MHz Radio Std: None Trig: Free Run AvgHold>10/10 #IFGain:Low #Atten: 14 dB Radio Device: BTS</p> <p>10 dB/div Ref 40.72 dBm Log Center 400 MHz Span 50 kHz #Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth 7.242 kHz Total Power 43.8 dBm Transmit Freq Error 75 Hz OBW Power 99.00 % x dB Bandwidth 9.358 kHz x dB -26.00 dB</p> <p>Frequency Center Freq 400.012500 MHz CF Step 5.000 kHz Freq Offset 0 Hz</p>



Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNL	4FSK	CH _{M1}	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 405.987500 MHz Center Freq: 405.987500 MHz Trig: Free Run Avg/Hold>10/10 Radio Std: None #IF Gain:Low #Atten: 14 dB Radio Device: BTS</p> <p>10 dB/div Ref 40.98 dBm Log 31.0 21.0 11.0 0.980 -9.02 -19.0 -29.0 -39.0 -49.0</p> <p>Center 406 MHz Span 50 kHz #Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth 7.131 kHz Total Power 43.8 dBm Transmit Freq Error 126 Hz OBW Power 99.00 % x dB Bandwidth 9.388 kHz x dB -26.00 dB</p> <p>STATUS DC Coupled</p>
TX-DNL	4FSK	CH _{M2}	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 406.112500 MHz Center Freq: 406.112500 MHz Trig: Free Run Avg/Hold>10/10 Radio Std: None #IF Gain:Low #Atten: 14 dB Radio Device: BTS</p> <p>10 dB/div Ref 40.95 dBm Log 31.0 21.0 11.0 0.950 -9.05 -19.1 -29.1 -39.1 -49.1</p> <p>Center 406.1 MHz Span 50 kHz #Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth 7.300 kHz Total Power 43.9 dBm Transmit Freq Error 83 Hz OBW Power 99.00 % x dB Bandwidth 9.688 kHz x dB -26.00 dB</p> <p>STATUS DC Coupled</p>
TX-DNL	4FSK	CH _{M3}	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 438.012500 MHz Center Freq: 438.012500 MHz Trig: Free Run Avg/Hold>10/10 Radio Std: None #IF Gain:Low #Atten: 14 dB Radio Device: BTS</p> <p>10 dB/div Ref 40.35 dBm Log 30.4 20.4 10.4 0.350 -9.65 -19.7 -29.7 -39.7 -49.7</p> <p>Center 438 MHz Span 50 kHz #Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth 7.169 kHz Total Power 43.2 dBm Transmit Freq Error 56 Hz OBW Power 99.00 % x dB Bandwidth 9.469 kHz x dB -26.00 dB</p> <p>STATUS DC Coupled</p>



Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNL	4FSK	CH _H	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 469.987500 MHz Center Freq: 469.987500 MHz Trig: Free Run Avg/Hold>10/10 #IFGain:Low #Atten: 14 dB Radio Std: None Radio Device: BTS</p> <p>10 dB/div Ref 40.19 dBm Log Center 470 MHz Span 50 kHz #Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth 6.988 kHz Total Power 42.9 dBm Transmit Freq Error -18 Hz OBW Power 99.00 % x dB Bandwidth 9.301 kHz x dB -26.00 dB</p> <p>STATUS DC Coupled</p>
TX-ANH	FM	CH _L	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 400.012500 MHz Center Freq: 400.012500 MHz Trig: Free Run Avg/Hold>10/10 #IFGain:Low #Atten: 24 dB Radio Std: None Radio Device: BTS</p> <p>10 dB/div Ref 50.95 dBm Log Center 400 MHz Span 50 kHz #Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth 5.165 kHz Total Power 47.0 dBm Transmit Freq Error 112 Hz OBW Power 99.00 % x dB Bandwidth 7.649 kHz x dB -26.00 dB</p> <p>STATUS DC Coupled</p>
TX-ANH	FM	CH _{M1}	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 405.987500 MHz Center Freq: 405.987500 MHz Trig: Free Run Avg/Hold>10/10 #IFGain:Low #Atten: 24 dB Radio Std: None Radio Device: BTS</p> <p>10 dB/div Ref 51.06 dBm Log Center 406 MHz Span 50 kHz #Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth 5.158 kHz Total Power 47.1 dBm Transmit Freq Error 95 Hz OBW Power 99.00 % x dB Bandwidth 7.664 kHz x dB -26.00 dB</p> <p>STATUS DC Coupled</p>



Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-ANH	FM	CH _{M2}	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 406.112500 MHz Center Freq: 406.112500 MHz Trig: Free Run Avg/Hold: >10/10 Radio Std: None Radio Device: BTS</p> <p>10 dB/div Ref 51.03 dBm Center 406.1 MHz #Res BW 100 Hz #VBW 300 Hz Span 50 kHz Sweep FFT</p> <p>Occupied Bandwidth 5.155 kHz Total Power 47.0 dBm Transmit Freq Error 100 Hz OBW Power 99.00 % x dB Bandwidth 7.663 kHz x dB -26.00 dB</p> <p>MSG STATUS DC Coupled</p>
TX-ANH	FM	CH _{M3}	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 438.012500 MHz Center Freq: 438.012500 MHz Trig: Free Run Avg/Hold: >10/10 Radio Std: None Radio Device: BTS</p> <p>10 dB/div Ref 50.66 dBm Center 438 MHz #Res BW 100 Hz #VBW 300 Hz Span 50 kHz Sweep FFT</p> <p>Occupied Bandwidth 5.162 kHz Total Power 46.7 dBm Transmit Freq Error 110 Hz OBW Power 99.00 % x dB Bandwidth 7.640 kHz x dB -26.00 dB</p> <p>MSG STATUS DC Coupled</p>
TX-ANH	FM	CH _H	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 469.987500 MHz Center Freq: 469.987500 MHz Trig: Free Run Avg/Hold: >10/10 Radio Std: None Radio Device: BTS</p> <p>10 dB/div Ref 50.65 dBm Center 470 MHz #Res BW 100 Hz #VBW 300 Hz Span 50 kHz Sweep FFT</p> <p>Occupied Bandwidth 5.176 kHz Total Power 46.6 dBm Transmit Freq Error 117 Hz OBW Power 99.00 % x dB Bandwidth 7.665 kHz x dB -26.00 dB</p> <p>MSG STATUS DC Coupled</p>



Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-ANL	FM	CH _L	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 400.012500 MHz Center Freq: 400.012500 MHz Radio Std: None Trig: Free Run Avg/Hold: >10/10 #IF Gain: Low #Atten: 14 dB Radio Device: BTS</p> <p>10 dB/div Ref 41.03 dBm Center 400 MHz Span 50 kHz #Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth 5.166 kHz Total Power 37.0 dBm Transmit Freq Error 113 Hz OBW Power 99.00 % x dB Bandwidth 7.646 kHz x dB -26.00 dB</p> <p>MSG STATUS DC Coupled</p>
TX-ANL	FM	CH _{M1}	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 405.987500 MHz Center Freq: 405.987500 MHz Radio Std: None Trig: Free Run Avg/Hold: >10/10 #IF Gain: Low #Atten: 14 dB Radio Device: BTS</p> <p>10 dB/div Ref 41.07 dBm Center 406 MHz Span 50 kHz #Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth 5.156 kHz Total Power 36.9 dBm Transmit Freq Error 97 Hz OBW Power 99.00 % x dB Bandwidth 7.664 kHz x dB -26.00 dB</p> <p>MSG STATUS DC Coupled</p>
TX-ANL	FM	CH _{M2}	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 406.112500 MHz Center Freq: 406.112500 MHz Radio Std: None Trig: Free Run Avg/Hold: >10/10 #IF Gain: Low #Atten: 14 dB Radio Device: BTS</p> <p>10 dB/div Ref 41.02 dBm Center 406.1 MHz Span 50 kHz #Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth 5.159 kHz Total Power 36.9 dBm Transmit Freq Error 105 Hz OBW Power 99.00 % x dB Bandwidth 7.662 kHz x dB -26.00 dB</p> <p>MSG STATUS DC Coupled</p>

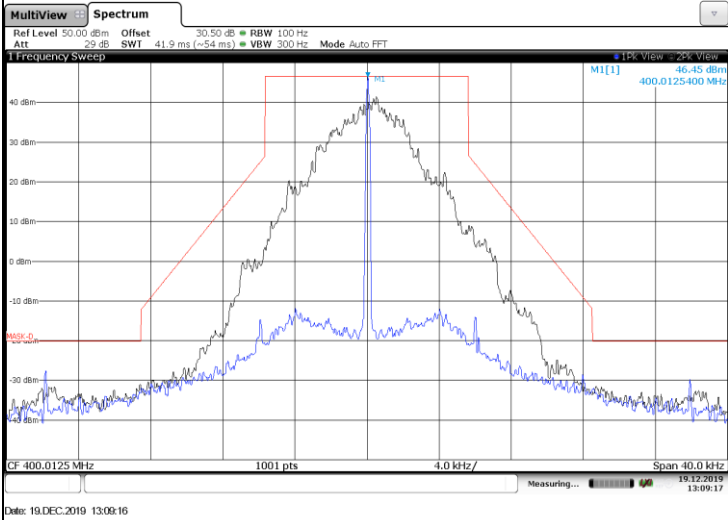
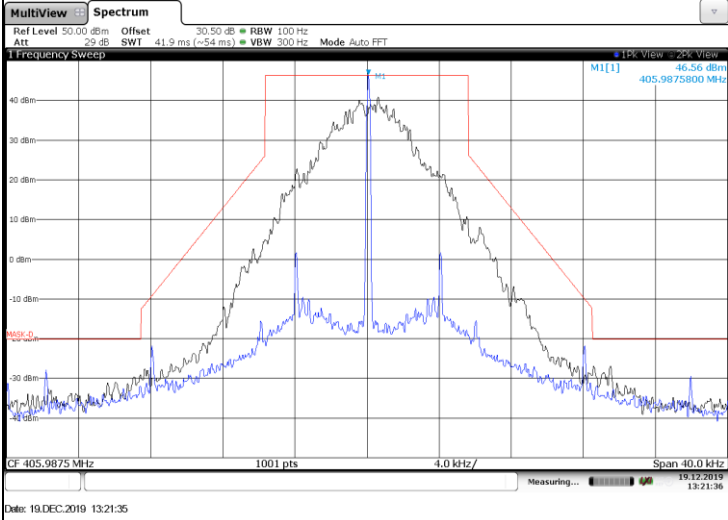
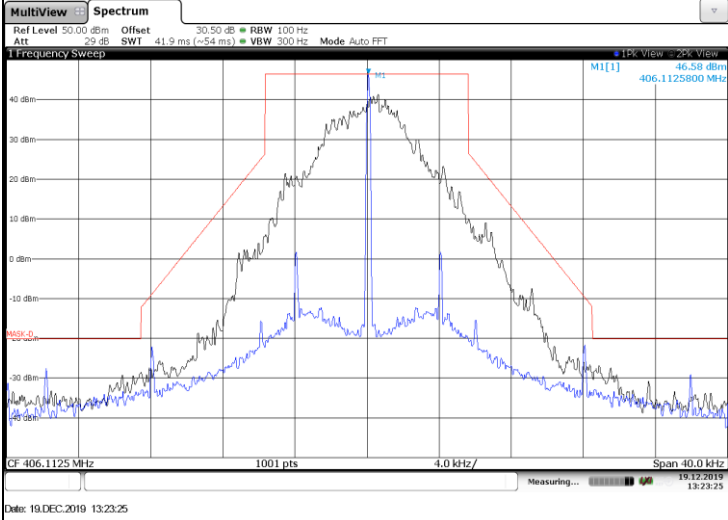


Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-ANL	FM	CH _{M3}	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 438.012500 MHz Center Freq: 438.012500 MHz Trig: Free Run Avg/Hold>10/10 Radio Std: None Radio Device: BTS</p> <p>10 dB/div Ref 40.18 dBm Center 438 MHz Span 50 kHz #Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth 5.167 kHz Total Power 36.0 dBm Transmit Freq Error 115 Hz OBW Power 99.00 % x dB Bandwidth 7.633 kHz x dB -26.00 dB</p> <p>Frequency 438.012500 MHz CF Step 5.000 kHz Man Freq Offset 0 Hz</p>
TX-ANL	FM	CH _H	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq 469.987500 MHz Center Freq: 469.987500 MHz Trig: Free Run Avg/Hold>10/10 Radio Std: None Radio Device: BTS</p> <p>10 dB/div Ref 39.99 dBm Center 470 MHz Span 50 kHz #Res BW 100 Hz #VBW 300 Hz Sweep FFT</p> <p>Occupied Bandwidth 5.177 kHz Total Power 35.9 dBm Transmit Freq Error 118 Hz OBW Power 99.00 % x dB Bandwidth 7.662 kHz x dB -26.00 dB</p> <p>Frequency 469.987500 MHz CF Step 5.000 kHz Man Freq Offset 0 Hz</p>



Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH _L	
TX-DNH	4FSK	CH _{M1}	
TX-DNH	4FSK	CH _{M2}	



Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH _{M3}	<p>MultiView Spectrum Ref Level 50.00 dBm Offset 30.50 dB RBW 100 Hz Att 29 dB SWI 41.9 ms (-54 ms) VBW 300 Hz Mode Auto FFT 1 Frequency Sweep M1[1] 46.21 dBm 438.0125800 MHz CF 438.0125 MHz 1001 pts 4.0 kHz/ Span 40.0 kHz Date: 19.DEC.2019 13:20:16</p>
TX-DNH	4FSK	CH _H	<p>MultiView Spectrum Ref Level 50.00 dBm Offset 30.50 dB RBW 100 Hz Att 29 dB SWI 41.9 ms (-54 ms) VBW 300 Hz Mode Auto FFT 1 Frequency Sweep M1[1] 45.85 dBm 469.9875800 MHz CF 469.9875 MHz 1001 pts 4.0 kHz/ Span 40.0 kHz Date: 19.DEC.2019 13:25:28</p>
TX-DNL	4FSK	CH _L	<p>MultiView Spectrum Ref Level 46.00 dBm Offset 30.50 dB RBW 100 Hz Att 25 dB SWI 41.9 ms (-54 ms) VBW 300 Hz Mode Auto FFT 1 Frequency Sweep M1[1] 37.03 dBm 400.0125800 MHz CF 400.0125 MHz 1001 pts 4.0 kHz/ Span 40.0 kHz Date: 6.DEC.2019 09:59:01</p>



Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNL	4FSK	CH _{M1}	
TX-DNL	4FSK	CH _{M2}	
TX-DNL	4FSK	CH _{M3}	



Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNL	4FSK	CH _H	<p>MultiView Spectrum Ref Level 46.00 dBm Offset 30.50 dB RBW 100 Hz Att 25 dB SWI 41.9 ms (-54 ms) VBW 300 Hz Mode Auto FFT 1 Frequency Sweep 40 dBm 30 dBm 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm MASK_0 M1[1] -41.60 dBm 469.9675000 MHz CF 469.9875 MHz 1001 pts 4.0 kHz/ Span 40.0 kHz Date: 6.DEC.2019 10:03:56</p>
TX-ANH	FM	CH _L	<p>MultiView Spectrum Ref Level 50.00 dBm Offset 30.50 dB RBW 100 Hz Att 29 dB SWI 41.9 ms (-54 ms) VBW 300 Hz Mode Auto FFT 1 Frequency Sweep 40 dBm 30 dBm 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm MASK_0 M1[1] -46.45 dBm 400.0125-400 MHz CF 400.0125 MHz 1001 pts 4.0 kHz/ Span 40.0 kHz Date: 19.DEC.2019 13:08:06</p>
TX-ANH	FM	CH _{M1}	<p>MultiView Spectrum Ref Level 50.00 dBm Offset 30.50 dB RBW 100 Hz Att 29 dB SWI 41.9 ms (-54 ms) VBW 300 Hz Mode Auto FFT 1 Frequency Sweep 40 dBm 30 dBm 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm MASK_0 M1[1] -46.62 dBm 405.9875-400 MHz CF 405.9875 MHz 1001 pts 4.0 kHz/ Span 40.0 kHz Date: 19.DEC.2019 13:10:42</p>



Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-ANH	FM	CH _{M2}	
TX-ANH	FM	CH _{M3}	
TX-ANH	FM	CH _H	



Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-ANL	FM	CH _L	<p>MultiView Spectrum Ref Level 42.00 dBm Offset 30.50 dB RBW 100 Hz Att 21 dB SWI 41.9 ms (~54 ms) VBW 300 Hz Mode Auto FFT Frequency Sweep 1 Frequency Sweep M1[1] 37.01 dBm 400.0125-400 MHz CF 400.0125 MHz 1001 pts 4.0 kHz/ Span 40.0 kHz Date: 6.DEC.2019 08:58:15</p>
TX-ANL	FM	CH _{M1}	<p>MultiView Spectrum Ref Level 45.00 dBm Offset 30.50 dB RBW 100 Hz Att 25 dB SWI 41.9 ms (~54 ms) VBW 300 Hz Mode Auto FFT Frequency Sweep 1 Frequency Sweep M1[1] 37.31 dBm 405.9875-400 MHz CF 405.9875 MHz 1001 pts 4.0 kHz/ Span 40.0 kHz Date: 6.DEC.2019 08:06:32</p>
TX-ANL	FM	CH _{M2}	<p>MultiView Spectrum Ref Level 45.00 dBm Offset 30.50 dB RBW 100 Hz Att 25 dB SWI 41.9 ms (~54 ms) VBW 300 Hz Mode Auto FFT Frequency Sweep 1 Frequency Sweep M1[1] 37.10 dBm 406.1125-400 MHz CF 406.1125 MHz 1001 pts 4.0 kHz/ Span 40.0 kHz Date: 6.DEC.2019 09:06:41</p>



Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-ANL	FM	CH _{M3}	
TX-ANL	FM	CH _H	



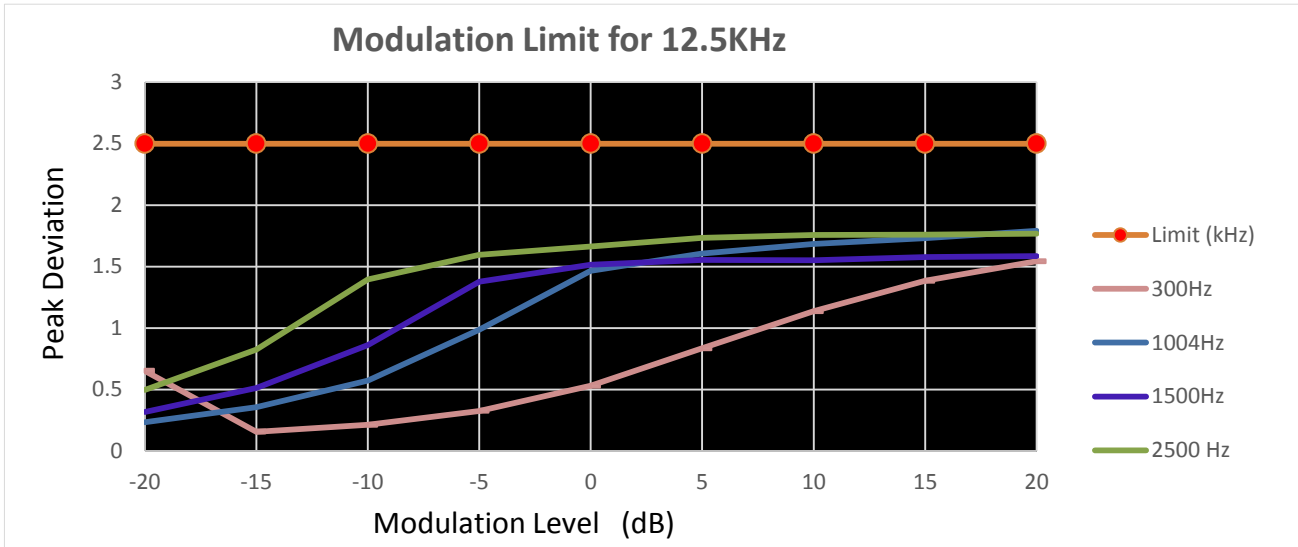
Appendix D:Modulation Limit

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 _{M2}	-20	0.652	0.234	0.319	0.497	2.5	PASS
TX-ANH	FM	CH _{M2}	-15	0.157	0.357	0.513	0.825	2.5	PASS
TX-ANH	FM	CH _{M2}	-10	0.214	0.573	0.863	1.396	2.5	PASS
TX-ANH	FM	CH _{M2}	-5	0.327	0.986	1.376	1.597	2.5	PASS
TX-ANH	FM	CH _{M2}	0	0.531	1.467	1.514	1.664	2.5	PASS
TX-ANH	FM	CH _{M2}	5	0.835	1.606	1.553	1.734	2.5	PASS
TX-ANH	FM	CH _{M2}	10	1.137	1.685	1.551	1.757	2.5	PASS
TX-ANH	FM	CH _{M2}	15	1.385	1.732	1.577	1.759	2.5	PASS
TX-ANH	FM	CH _{M2}	20	1.543	1.791	1.585	1.767	2.5	PASS



Appendix D:Modulation Limit

TEST PLOT RESULT



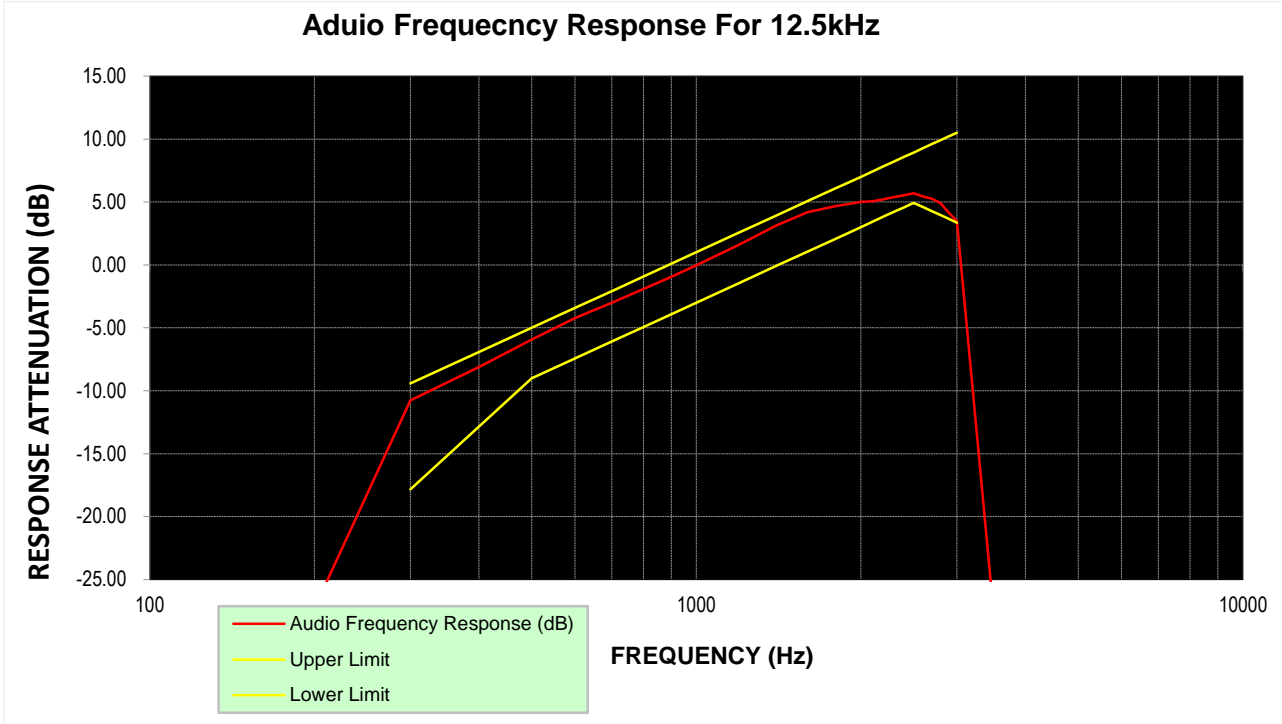
**Appendix E:Aduio Frequency Response**

Operation Mode	Modulation Type	Test Channel	Frequency (Hz)	Audio Frequency Response (dB)	Lower Limit	Upper Limit	Result
TX-ANH	FM	CH _{M2}	100	-27.34			PASS
TX-ANH	FM	CH _{M2}	200	-27.30			PASS
TX-ANH	FM	CH _{M2}	300	-10.76	-17.84	-9.42	PASS
TX-ANH	FM	CH _{M2}	400	-8.13	-12.86	-6.93	PASS
TX-ANH	FM	CH _{M2}	500	-5.93	-9.00	-5.00	PASS
TX-ANH	FM	CH _{M2}	600	-4.24	-7.42	-3.42	PASS
TX-ANH	FM	CH _{M2}	700	-3.01	-6.09	-2.09	PASS
TX-ANH	FM	CH _{M2}	800	-1.93	-4.93	-0.93	PASS
TX-ANH	FM	CH _{M2}	900	-0.94	-3.91	0.09	PASS
TX-ANH	FM	CH _{M2}	1000	-0.03	-3.00	1.00	PASS
TX-ANH	FM	CH _{M2}	1200	1.62	-1.42	2.58	PASS
TX-ANH	FM	CH _{M2}	1400	3.12	-0.09	3.91	PASS
TX-ANH	FM	CH _{M2}	1600	4.20	1.07	5.07	PASS
TX-ANH	FM	CH _{M2}	1800	4.68	2.09	6.09	PASS
TX-ANH	FM	CH _{M2}	2000	5.00	3.00	7.00	PASS
TX-ANH	FM	CH _{M2}	2100	5.05	3.42	7.42	PASS
TX-ANH	FM	CH _{M2}	2200	5.21	3.83	7.83	PASS
TX-ANH	FM	CH _{M2}	2300	5.37	4.21	8.21	PASS
TX-ANH	FM	CH _{M2}	2400	5.54	4.58	8.58	PASS
TX-ANH	FM	CH _{M2}	2500	5.70	4.93	8.93	PASS
TX-ANH	FM	CH _{M2}	2600	5.43	4.59	9.27	PASS
TX-ANH	FM	CH _{M2}	2700	5.25	4.27	9.60	PASS
TX-ANH	FM	CH _{M2}	2800	4.89	3.95	9.91	PASS
TX-ANH	FM	CH _{M2}	2900	4.15	3.65	10.22	PASS
TX-ANH	FM	CH _{M2}	3000	3.47	3.35	10.51	PASS
TX-ANH	FM	CH _{M2}	3500	-27.73			PASS
TX-ANH	FM	CH _{M2}	4000	-27.44			PASS
TX-ANH	FM	CH _{M2}	4500	-27.50			PASS
TX-ANH	FM	CH _{M2}	5000	-27.53			PASS



Appendix E:Aduio 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 _{M1}	CH _{M2}	CH _{M3}	CH _H		
TX-DNH	4FSK	V _N	-30	-0.126	-0.120	-0.124	-0.134	-0.167	±5.0	PASS
TX-DNH	4FSK	V _N	-20	-0.120	-0.120	-0.120	-0.141	-0.172	±5.0	PASS
TX-DNH	4FSK	V _N	-10	-0.125	-0.126	-0.121	-0.139	-0.170	±5.0	PASS
TX-DNH	4FSK	V _N	0	-0.127	-0.120	-0.120	-0.137	-0.171	±5.0	PASS
TX-DNH	4FSK	V _N	10	-0.125	-0.122	-0.120	-0.139	-0.173	±5.0	PASS
TX-DNH	4FSK	V _N	20	-0.119	-0.118	-0.119	-0.131	-0.163	±5.0	PASS
TX-DNH	4FSK	V _N	30	-0.120	-0.124	-0.127	-0.139	-0.170	±5.0	PASS
TX-DNH	4FSK	V _N	40	-0.121	-0.119	-0.130	-0.143	-0.170	±5.0	PASS
TX-DNH	4FSK	V _N	55	-0.130	-0.119	-0.124	-0.141	-0.178	±5.0	PASS
TX-DNL	4FSK	V _N	-30	-0.131	-0.133	-0.140	-0.065	-0.187	±5.0	PASS
TX-DNL	4FSK	V _N	-20	-0.122	-0.130	-0.130	-0.065	-0.176	±5.0	PASS
TX-DNL	4FSK	V _N	-10	-0.133	-0.130	-0.141	-0.065	-0.175	±5.0	PASS
TX-DNL	4FSK	V _N	0	-0.130	-0.129	-0.138	-0.071	-0.186	±5.0	PASS
TX-DNL	4FSK	V _N	10	-0.126	-0.133	-0.135	-0.069	-0.185	±5.0	PASS
TX-DNL	4FSK	V _N	20	-0.121	-0.128	-0.128	-0.065	-0.173	±5.0	PASS
TX-DNL	4FSK	V _N	30	-0.132	-0.132	-0.139	-0.066	-0.183	±5.0	PASS
TX-DNL	4FSK	V _N	40	-0.122	-0.132	-0.137	-0.066	-0.178	±5.0	PASS
TX-DNL	4FSK	V _N	55	-0.126	-0.138	-0.129	-0.069	-0.179	±5.0	PASS
TX-ANH	FM	V _N	-30	0.221	0.234	0.233	0.218	0.266	±5.0	PASS
TX-ANH	FM	V _N	-20	0.220	0.245	0.239	0.215	0.263	±5.0	PASS
TX-ANH	FM	V _N	-10	0.211	0.243	0.235	0.225	0.265	±5.0	PASS
TX-ANH	FM	V _N	0	0.218	0.246	0.231	0.208	0.250	±5.0	PASS
TX-ANH	FM	V _N	10	0.213	0.229	0.235	0.221	0.256	±5.0	PASS
TX-ANH	FM	V _N	20	0.204	0.225	0.219	0.207	0.244	±5.0	PASS
TX-ANH	FM	V _N	30	0.212	0.235	0.231	0.219	0.256	±5.0	PASS
TX-ANH	FM	V _N	40	0.216	0.233	0.230	0.211	0.267	±5.0	PASS
TX-ANH	FM	V _N	55	0.206	0.243	0.220	0.227	0.268	±5.0	PASS
TX-ANL	FM	V _N	-30	0.203	0.230	0.221	0.220	0.236	±5.0	PASS
TX-ANL	FM	V _N	-20	0.212	0.226	0.223	0.210	0.244	±5.0	PASS
TX-ANL	FM	V _N	-10	0.217	0.233	0.230	0.220	0.253	±5.0	PASS
TX-ANL	FM	V _N	0	0.216	0.242	0.227	0.219	0.244	±5.0	PASS
TX-ANL	FM	V _N	10	0.201	0.241	0.223	0.210	0.247	±5.0	PASS
TX-ANL	FM	V _N	20	0.201	0.222	0.216	0.201	0.233	±5.0	PASS
TX-ANL	FM	V _N	30	0.220	0.226	0.227	0.215	0.248	±5.0	PASS
TX-ANL	FM	V _N	40	0.218	0.228	0.226	0.207	0.247	±5.0	PASS
TX-ANL	FM	V _N	55	0.205	0.228	0.233	0.212	0.242	±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 _{M1}	CH _{M2}	CH _{M3}	CH _H		
TX-DNH	4FSK	V _N	T _N	-0.119	-0.118	-0.119	-0.131	-0.163	±5.0	PASS
TX-DNH	4FSK	V _L	T _N	-0.119	-0.120	-0.119	-0.132	-0.165	±5.0	PASS
TX-DNH	4FSK	V _H	T _N	-0.122	-0.123	-0.121	-0.133	-0.171	±5.0	PASS
TX-DNL	4FSK	V _N	T _N	-0.121	-0.128	-0.128	-0.065	-0.173	±5.0	PASS
TX-DNL	4FSK	V _L	T _N	-0.121	-0.129	-0.129	-0.066	-0.175	±5.0	PASS
TX-DNL	4FSK	V _H	T _N	-0.126	-0.135	-0.134	-0.066	-0.177	±5.0	PASS
TX-ANH	FM	V _N	T _N	0.204	0.225	0.219	0.207	0.244	±5.0	PASS
TX-ANH	FM	V _L	T _N	0.208	0.228	0.222	0.207	0.246	±5.0	PASS
TX-ANH	FM	V _H	T _N	0.205	0.236	0.222	0.217	0.248	±5.0	PASS
TX-ANL	FM	V _N	T _N	0.201	0.222	0.216	0.201	0.233	±5.0	PASS
TX-ANL	FM	V _L	T _N	0.204	0.222	0.217	0.205	0.234	±5.0	PASS
TX-ANL	FM	V _H	T _N	0.202	0.224	0.229	0.208	0.240	±5.0	PASS

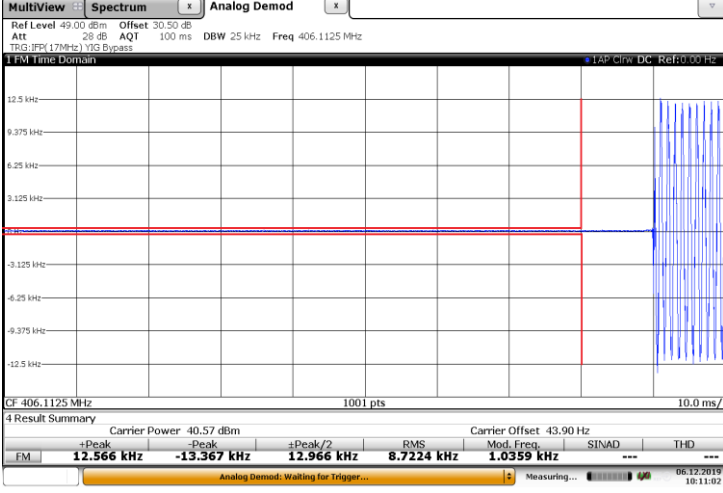


Appendix H:Transmitter Frequency Behavior

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT												
TX-DNH	4FSK	CH _{M2}	<p>MultiView Spectrum Analog Demod</p> <p>Ref Level 49.00 dBm Offset 30.50 dB Att 28 dB AQT 100 ms DBW 25 kHz Freq 406.1125 MHz TRG:JFSK (17MHz) YIG Bypass</p> <p>1 FM Time Domain</p> <p>CF 406.1125 MHz 1001 pts 10.0 ms/</p> <p>4 Result Summary</p> <table border="1"> <thead> <tr> <th></th> <th>Carrier Power</th> <th>Carrier Offset</th> <th>Mod. Freq.</th> <th>SINAD</th> <th>THD</th> </tr> </thead> <tbody> <tr> <td>FM</td> <td>40.58 dBm</td> <td>43.22 Hz</td> <td>12.488 kHz</td> <td>---</td> <td>---</td> </tr> </tbody> </table> <p>Date: 6.DEC.2019 10:10:27</p> <p>OFF~ON</p>		Carrier Power	Carrier Offset	Mod. Freq.	SINAD	THD	FM	40.58 dBm	43.22 Hz	12.488 kHz	---	---
	Carrier Power	Carrier Offset	Mod. Freq.	SINAD	THD										
FM	40.58 dBm	43.22 Hz	12.488 kHz	---	---										
TX-DNH	4FSK	CH _{M2}	<p>MultiView Spectrum Analog Demod</p> <p>Ref Level 49.00 dBm Offset 30.50 dB Att 28 dB AQT 100 ms DBW 25 kHz Freq 406.1125 MHz TRG:JFSK (17MHz) YIG Bypass</p> <p>1 FM Time Domain</p> <p>CF 406.1125 MHz 1001 pts 10.0 ms/</p> <p>4 Result Summary</p> <table border="1"> <thead> <tr> <th></th> <th>Carrier Power</th> <th>Carrier Offset</th> <th>Mod. Freq.</th> <th>SINAD</th> <th>THD</th> </tr> </thead> <tbody> <tr> <td>FM</td> <td>40.57 dBm</td> <td>43.64 Hz</td> <td>12.93 kHz</td> <td>---</td> <td>---</td> </tr> </tbody> </table> <p>Date: 6.DEC.2019 10:10:47</p> <p>ON-OFF</p>		Carrier Power	Carrier Offset	Mod. Freq.	SINAD	THD	FM	40.57 dBm	43.64 Hz	12.93 kHz	---	---
	Carrier Power	Carrier Offset	Mod. Freq.	SINAD	THD										
FM	40.57 dBm	43.64 Hz	12.93 kHz	---	---										
TX-ANH	FM	CH _{M2}	<p>MultiView Spectrum Analog Demod</p> <p>Ref Level 49.00 dBm Offset 30.50 dB Att 28 dB AQT 100 ms DBW 25 kHz Freq 406.1125 MHz TRG:JFSK (17MHz) YIG Bypass</p> <p>1 FM Time Domain</p> <p>CF 406.1125 MHz 1001 pts 10.0 ms/</p> <p>4 Result Summary</p> <table border="1"> <thead> <tr> <th></th> <th>Carrier Power</th> <th>Carrier Offset</th> <th>Mod. Freq.</th> <th>SINAD</th> <th>THD</th> </tr> </thead> <tbody> <tr> <td>FM</td> <td>40.54 dBm</td> <td>45.01 Hz</td> <td>13.794 kHz</td> <td>---</td> <td>---</td> </tr> </tbody> </table> <p>Date: 6.DEC.2019 10:10:18</p> <p>ON-OFF</p>		Carrier Power	Carrier Offset	Mod. Freq.	SINAD	THD	FM	40.54 dBm	45.01 Hz	13.794 kHz	---	---
	Carrier Power	Carrier Offset	Mod. Freq.	SINAD	THD										
FM	40.54 dBm	45.01 Hz	13.794 kHz	---	---										



Appendix H:Transmitter Frequency Behavior

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT																						
TX-ANH	FM	CH _{M2}	 <p>MultiView Spectrum Analog Demod</p> <p>Ref Level 49.00 dBm Offset 30.50 dB Att 25 dB AQT 100 ms DBW 25 kHz Freq 406.1125 MHz TRIG:JFF(17MHz) VSG Bypass</p> <p>1 FM Time Domain TAP Clw DC Ref:0.00 Hz</p> <p>CF: 406.1125 MHz 1001 pts 10.0 ms/</p> <p>4 Result Summary</p> <table border="1"> <thead> <tr> <th></th> <th>Carrier Power</th> <th>Carrier Offset</th> </tr> </thead> <tbody> <tr> <td></td> <td>40.57 dBm</td> <td>43.90 Hz</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th></th> <th>+Peak</th> <th>-Peak</th> <th>±Peak/2</th> <th>RMS</th> <th>Mod. Freq.</th> <th>SINAD</th> <th>THD</th> </tr> </thead> <tbody> <tr> <td>FM</td> <td>12.566 kHz</td> <td>-13.367 kHz</td> <td>12.966 kHz</td> <td>8.7224 kHz</td> <td>1.0359 kHz</td> <td>---</td> <td>---</td> </tr> </tbody> </table> <p>Analog Demod: Waiting for Trigger... Measuring... 06.12.2019 10:11:02</p> <p>Date: 6.DEC.2019 10:11:02</p> <p style="text-align: center;">ON-OFF</p>		Carrier Power	Carrier Offset		40.57 dBm	43.90 Hz		+Peak	-Peak	±Peak/2	RMS	Mod. Freq.	SINAD	THD	FM	12.566 kHz	-13.367 kHz	12.966 kHz	8.7224 kHz	1.0359 kHz	---	---
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