

Project No.	SHT2305026001EW		
Test sample No.	YPHT23050260001	Model No.	RS-569D
Start test date	2023/5/18	Finish date	2023/5/25
Temperature	24.5°C	Humidity	52%
Test Engineer	<i>Chunshui Gu</i>	Auditor	<i>Xiaodong Zhu</i>

Appendix clause	Test Item	Test Result (PASS/FAIL)
A	Maximum Transmitter Power	PASS
B	Occupied Bandwidth	PASS
C	Emission Mask	PASS
D	Frequency Stability Test & Temperature	PASS
E	Frequency Stability Test & Voltage	PASS
F	Transmitter Frequency Behavior	PASS
G	Spurious Emission On Antenna Port	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}	36.6	4.57	5.00	-8.6	±20	PASS
TX-DNH	4FSK	CH _{M1}	36.6	4.57	5.00	-8.6	±20	PASS
TX-DNH	4FSK	CH _{H1}	36.3	4.27	5.00	-14.6	±20	PASS
TX-DNH	4FSK	CH _{L2}	36.5	4.47	5.00	-10.6	±20	PASS
TX-DNH	4FSK	CH _{M2}	36.3	4.27	5.00	-14.6	±20	PASS
TX-DNH	4FSK	CH _{H2}	36.2	4.17	5.00	-16.6	±20	PASS
TX-DNL	4FSK	CH _{L1}	29.3	0.85	1.00	-15.0	±20	PASS
TX-DNL	4FSK	CH _{M1}	29.2	0.83	1.00	-17.0	±20	PASS
TX-DNL	4FSK	CH _{H1}	29.6	0.91	1.00	-9.0	±20	PASS
TX-DNL	4FSK	CH _{L2}	29.3	0.85	1.00	-15.0	±20	PASS
TX-DNL	4FSK	CH _{M2}	29.5	0.89	1.00	-11.0	±20	PASS
TX-DNL	4FSK	CH _{H2}	29.3	0.85	1.00	-15.0	±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}	7.319	9.258	≤11.25	PASS
TX-DNH	4FSK	CH _{M1}	7.363	9.315	≤11.25	PASS
TX-DNH	4FSK	CH _{H1}	7.495	9.282	≤11.25	PASS
TX-DNH	4FSK	CH _{L2}	7.363	9.221	≤11.25	PASS
TX-DNH	4FSK	CH _{M2}	7.567	9.417	≤11.25	PASS
TX-DNH	4FSK	CH _{H2}	7.607	9.473	≤11.25	PASS
TX-DNL	4FSK	CH _{L1}	7.559	9.313	≤11.25	PASS
TX-DNL	4FSK	CH _{M1}	7.454	9.517	≤11.25	PASS
TX-DNL	4FSK	CH _{H1}	7.550	9.336	≤11.25	PASS
TX-DNL	4FSK	CH _{L2}	7.406	9.218	≤11.25	PASS
TX-DNL	4FSK	CH _{M2}	7.565	9.389	≤11.25	PASS
TX-DNL	4FSK	CH _{H2}	7.715	9.648	≤11.25	PASS

Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH _{L1}	Agilent Spectrum Analyzer - Occupied BW Center Freq 136.100000 MHz Center Freq: 136.100000 MHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None #IF Gain: Low #Atten: 32 dB Radio Device: BTS Ref 41.43 dBm 10 dB/div Log Center 136.1 MHz #Res BW 100 Hz #VBW 300 Hz Span 50 kHz Sweep FFT Occupied Bandwidth 7.319 kHz Total Power 44.5 dBm Transmit Freq Error 12 Hz OBW Power 99.00 % x dB Bandwidth 9.258 kHz x dB -26.00 dB Frequency Center Freq 136.100000 MHz CF Step 5.000 kHz Man Freq Offset 0 Hz Auto MSG STATUS
TX-DNH	4FSK	CH _{M1}	Agilent Spectrum Analyzer - Occupied BW Center Freq 155.000000 MHz Center Freq: 155.000000 MHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None #IF Gain: Low #Atten: 32 dB Radio Device: BTS Ref 41.39 dBm 10 dB/div Log Center 155 MHz #Res BW 100 Hz #VBW 300 Hz Span 50 kHz Sweep FFT Occupied Bandwidth 7.363 kHz Total Power 44.0 dBm Transmit Freq Error -91 Hz OBW Power 99.00 % x dB Bandwidth 9.315 kHz x dB -26.00 dB Frequency Center Freq 155.000000 MHz CF Step 5.000 kHz Man Freq Offset 0 Hz Auto MSG STATUS
TX-DNH	4FSK	CH _{H1}	Agilent Spectrum Analyzer - Occupied BW Center Freq 173.900000 MHz Center Freq: 173.900000 MHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None #IF Gain: Low #Atten: 32 dB Radio Device: BTS Ref 41.22 dBm 10 dB/div Log Center 173.9 MHz #Res BW 100 Hz #VBW 300 Hz Span 50 kHz Sweep FFT Occupied Bandwidth 7.495 kHz Total Power 43.9 dBm Transmit Freq Error -69 Hz OBW Power 99.00 % x dB Bandwidth 9.282 kHz x dB -26.00 dB Frequency Center Freq 173.900000 MHz CF Step 5.000 kHz Man Freq Offset 0 Hz Auto MSG STATUS

Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH _{L2}	Agilent Spectrum Analyzer - Occupied BW Center Freq 400.100000 MHz Ref 41.13 dBm Occupied Bandwidth 7.363 kHz Total Power 43.4 dBm Transmit Freq Error -63 Hz OBW Power 99.00 % x dB Bandwidth 9.221 kHz x dB -26.00 dB
TX-DNH	4FSK	CH _{M2}	Agilent Spectrum Analyzer - Occupied BW Center Freq 435.000000 MHz Ref 41.40 dBm Occupied Bandwidth 7.567 kHz Total Power 43.6 dBm Transmit Freq Error -58 Hz OBW Power 99.00 % x dB Bandwidth 9.417 kHz x dB -26.00 dB
TX-DNH	4FSK	CH _{H2}	Agilent Spectrum Analyzer - Occupied BW Center Freq 469.900000 MHz Ref 41.74 dBm Occupied Bandwidth 7.607 kHz Total Power 43.2 dBm Transmit Freq Error -62 Hz OBW Power 99.00 % x dB Bandwidth 9.473 kHz x dB -26.00 dB

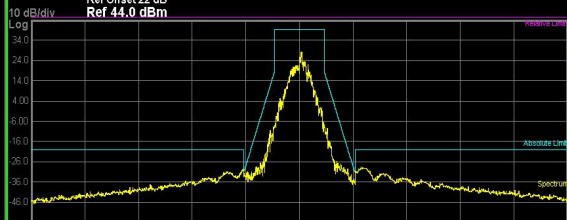
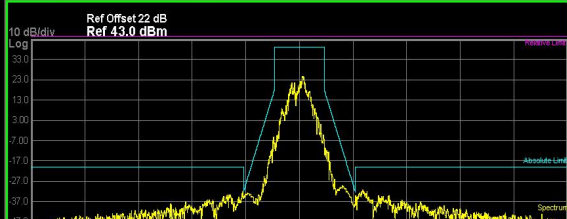
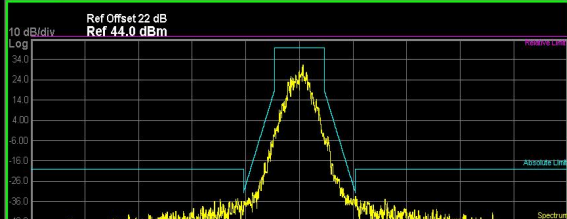
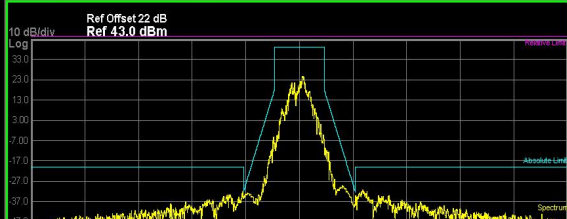
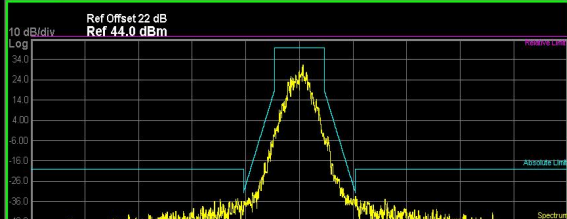
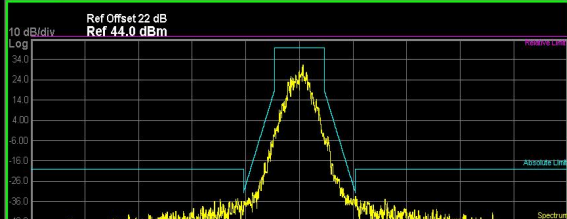
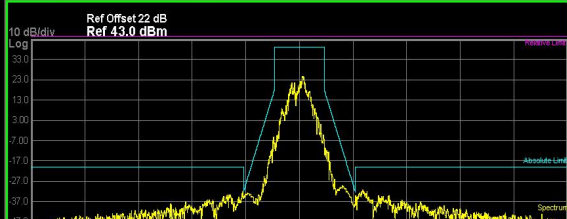
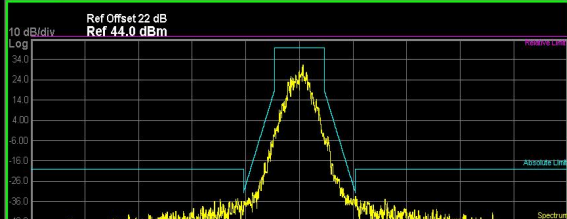
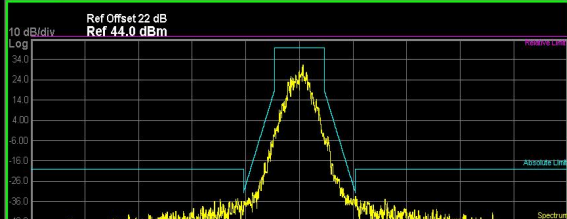
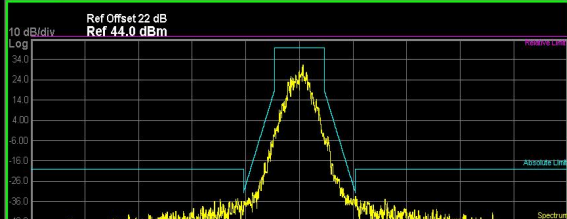
Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNL	4FSK	CH _{L1}	Agilent Spectrum Analyzer - Occupied BW Center Freq 136.100000 MHz Center Freq: 136.100000 MHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS #IF Gain: Low #Res BW 100 Hz #VBW 300 Hz Span 50 kHz Sweep FFT Occupied Bandwidth 7.550 kHz Total Power 38.1 dBm Transmit Freq Error 7 Hz OBW Power 99.00 % x dB Bandwidth 9.336 kHz x dB -26.00 dB Frequency Center Freq 136.100000 MHz CF Step 5.000 kHz Man Freq Offset 0 Hz Auto STATUS
TX-DNL	4FSK	CH _{M1}	Agilent Spectrum Analyzer - Occupied BW Center Freq 155.000000 MHz Center Freq: 155.000000 MHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS #IF Gain: Low #Res BW 100 Hz #VBW 300 Hz Span 50 kHz Sweep FFT Occupied Bandwidth 7.559 kHz Total Power 37.8 dBm Transmit Freq Error -94 Hz OBW Power 99.00 % x dB Bandwidth 9.313 kHz x dB -26.00 dB Frequency Center Freq 155.000000 MHz CF Step 5.000 kHz Man Freq Offset 0 Hz Auto STATUS
TX-DNL	4FSK	CH _{H1}	Agilent Spectrum Analyzer - Occupied BW Center Freq 173.900000 MHz Center Freq: 173.900000 MHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS #IF Gain: Low #Res BW 100 Hz #VBW 300 Hz Span 50 kHz Sweep FFT Occupied Bandwidth 7.454 kHz Total Power 38.7 dBm Transmit Freq Error -100 Hz OBW Power 99.00 % x dB Bandwidth 9.517 kHz x dB -26.00 dB Frequency Center Freq 173.900000 MHz CF Step 5.000 kHz Man Freq Offset 0 Hz Auto STATUS

Appendix B:Occupied Bandwidth

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNL	4FSK	CH _{L2}	Agilent Spectrum Analyzer - Occupied BW Center Freq 400.100000 MHz Center Freq: 400.100000 MHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref 39.76 dBm 10 dB/div Log Center 400.1 MHz #Res BW 100 Hz #VBW 300 Hz Span 50 kHz Sweep FFT Occupied Bandwidth 7.406 kHz Total Power 37.3 dBm Transmit Freq Error -90 Hz OBW Power 99.00 % x dB Bandwidth 9.218 kHz x dB -26.00 dB Frequency Center Freq 400.100000 MHz CF Step 5.000 kHz Man Freq Offset 0 Hz Auto MSO (STATUS)
TX-DNL	4FSK	CH _{M2}	Agilent Spectrum Analyzer - Occupied BW Center Freq 435.000000 MHz Center Freq: 435.000000 MHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref 39.93 dBm 10 dB/div Log Center 435 MHz #Res BW 100 Hz #VBW 300 Hz Span 50 kHz Sweep FFT Occupied Bandwidth 7.565 kHz Total Power 36.7 dBm Transmit Freq Error -31 Hz OBW Power 99.00 % x dB Bandwidth 9.389 kHz x dB -26.00 dB Frequency Center Freq 435.000000 MHz CF Step 5.000 kHz Man Freq Offset 0 Hz Auto MSO (STATUS)
TX-DNL	4FSK	CH _{H2}	Agilent Spectrum Analyzer - Occupied BW Center Freq 469.900000 MHz Center Freq: 469.900000 MHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref 39.82 dBm 10 dB/div Log Center 469.9 MHz #Res BW 100 Hz #VBW 300 Hz Span 50 kHz Sweep FFT Occupied Bandwidth 7.715 kHz Total Power 36.7 dBm Transmit Freq Error -92 Hz OBW Power 99.00 % x dB Bandwidth 9.648 kHz x dB -26.00 dB Frequency Center Freq 469.900000 MHz CF Step 5.000 kHz Man Freq Offset 0 Hz Auto MSO (STATUS)

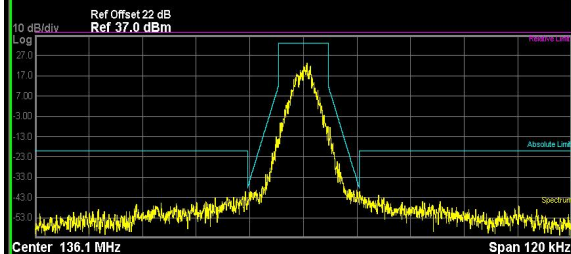
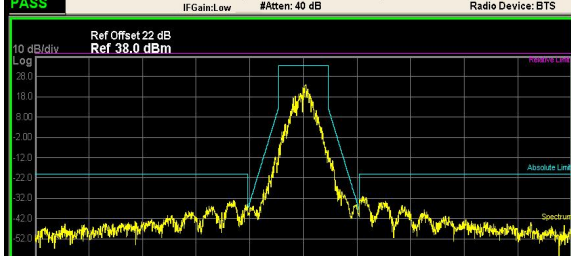
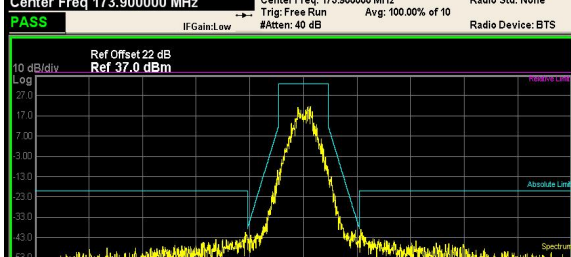
Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT																																																																																																																																																																																																					
TX-DNH	4FSK	CH _{L1}	Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF 50.0 AC SENSE: PULSE ALIGN: AUTO 09:56:32 PM May 24, 2023 Center Freq: 136.100000 MHz Center Freq: 136.100000 MHz Radio Std: None PASS IF Gain: Low Trig: Free Run Avg: 100.00% of 10 #Atten: 40 dB Radio Device: BTS 10 dB/div Ref Offset 22 dB Ref 44.0 dBm  Center 136.1 MHz Span 120 kHz Total Power Ref 37.21 dBm 0.0125 MHz <table><thead><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>Freq (Hz)</th><th>< Peak > dBm</th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr></thead><tbody><tr><td>0.0 Hz</td><td>5.625 kHz</td><td>100.0 Hz</td><td>21.92</td><td>(-17.62)</td><td>0.0</td><td>28.32</td><td>(-11.23)</td><td>500.0</td></tr><tr><td>5.625 kHz</td><td>12.50 kHz</td><td>100.0 Hz</td><td>-32.02</td><td>(-0.13)</td><td>-12.50 k</td><td>-34.58</td><td>(-4.51)</td><td>12.25 k</td></tr><tr><td>12.50 kHz</td><td>60.00 kHz</td><td>100.0 Hz</td><td>-29.59</td><td>(-9.59)</td><td>-12.55 k</td><td>-28.68</td><td>(-8.68)</td><td>13.85 k</td></tr><tr><td>4.000 MHz</td><td>8.000 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr></tbody></table> msd File <Temp.png> saved STATUS Frequency Center Freq 136.100000 MHz CF Step 12.000 kHz Auto Man Freq Offset 0 Hz <tr><td>TX-DNH</td><td>4FSK</td><td>CH_{M1}</td><td> Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF 50.0 AC SENSE: PULSE ALIGN: AUTO 09:01:39 AM May 25, 2023 Center Freq: 155.000000 MHz Center Freq: 155.000000 MHz Radio Std: None PASS IF Gain: Low Trig: Free Run Avg: 100.00% of 10 #Atten: 40 dB Radio Device: BTS 10 dB/div Ref Offset 22 dB Ref 43.0 dBm  Center 155 MHz Span 120 kHz Total Power Ref 35.92 dBm 0.0125 MHz <table><thead><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>Freq (Hz)</th><th>< Peak > dBm</th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr></thead><tbody><tr><td>0.0 Hz</td><td>5.625 kHz</td><td>100.0 Hz</td><td>21.66</td><td>(-17.51)</td><td>-1.600 k</td><td>24.75</td><td>(-14.42)</td><td>950.0</td></tr><tr><td>5.625 kHz</td><td>12.50 kHz</td><td>100.0 Hz</td><td>-34.83</td><td>(-2.56)</td><td>-12.50 k</td><td>-38.51</td><td>(-6.61)</td><td>12.45 k</td></tr><tr><td>12.50 kHz</td><td>60.00 kHz</td><td>100.0 Hz</td><td>-32.12</td><td>(-12.12)</td><td>-12.70 k</td><td>-31.26</td><td>(-11.26)</td><td>14.20 k</td></tr><tr><td>4.000 MHz</td><td>8.000 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr></tbody></table> msd File <Temp.png> saved STATUS Frequency Center Freq 155.000000 MHz CF Step 12.000 kHz Auto Man Freq Offset 0 Hz <tr><td>TX-DNH</td><td>4FSK</td><td>CH_{H1}</td><td> Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF 50.0 AC SENSE: PULSE ALIGN: AUTO 09:08:26 AM May 25, 2023 Center Freq: 173.900000 MHz Center Freq: 173.900000 MHz Radio Std: None PASS IF Gain: Low Trig: Free Run Avg: 100.00% of 10 #Atten: 40 dB Radio Device: BTS 10 dB/div Ref Offset 22 dB Ref 44.0 dBm  Center 173.9 MHz Span 120 kHz Total Power Ref 40.03 dBm 0.0125 MHz <table><thead><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>Freq (Hz)</th><th>< Peak > dBm</th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr></thead><tbody><tr><td>0.0 Hz</td><td>5.625 kHz</td><td>100.0 Hz</td><td>28.48</td><td>(-11.42)</td><td>0.0</td><td>31.26</td><td>(-8.64)</td><td>850.0</td></tr><tr><td>5.625 kHz</td><td>12.50 kHz</td><td>100.0 Hz</td><td>-37.15</td><td>(-5.61)</td><td>-12.50 k</td><td>-35.33</td><td>(-4.88)</td><td>12.35 k</td></tr><tr><td>12.50 kHz</td><td>60.00 kHz</td><td>100.0 Hz</td><td>-34.39</td><td>(-14.39)</td><td>-13.70 k</td><td>-33.63</td><td>(-13.63)</td><td>12.60 k</td></tr><tr><td>4.000 MHz</td><td>8.000 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr></tbody></table> msd File <Temp.png> saved STATUS Frequency Center Freq 173.900000 MHz CF Step 12.000 kHz Auto Man Freq Offset 0 Hz </td></tr></td></tr>	Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)	0.0 Hz	5.625 kHz	100.0 Hz	21.92	(-17.62)	0.0	28.32	(-11.23)	500.0	5.625 kHz	12.50 kHz	100.0 Hz	-32.02	(-0.13)	-12.50 k	-34.58	(-4.51)	12.25 k	12.50 kHz	60.00 kHz	100.0 Hz	-29.59	(-9.59)	-12.55 k	-28.68	(-8.68)	13.85 k	4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—	8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—	12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—	TX-DNH	4FSK	CH _{M1}	Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF 50.0 AC SENSE: PULSE ALIGN: AUTO 09:01:39 AM May 25, 2023 Center Freq: 155.000000 MHz Center Freq: 155.000000 MHz Radio Std: None PASS IF Gain: Low Trig: Free Run Avg: 100.00% of 10 #Atten: 40 dB Radio Device: BTS 10 dB/div Ref Offset 22 dB Ref 43.0 dBm  Center 155 MHz Span 120 kHz Total Power Ref 35.92 dBm 0.0125 MHz <table><thead><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>Freq (Hz)</th><th>< Peak > dBm</th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr></thead><tbody><tr><td>0.0 Hz</td><td>5.625 kHz</td><td>100.0 Hz</td><td>21.66</td><td>(-17.51)</td><td>-1.600 k</td><td>24.75</td><td>(-14.42)</td><td>950.0</td></tr><tr><td>5.625 kHz</td><td>12.50 kHz</td><td>100.0 Hz</td><td>-34.83</td><td>(-2.56)</td><td>-12.50 k</td><td>-38.51</td><td>(-6.61)</td><td>12.45 k</td></tr><tr><td>12.50 kHz</td><td>60.00 kHz</td><td>100.0 Hz</td><td>-32.12</td><td>(-12.12)</td><td>-12.70 k</td><td>-31.26</td><td>(-11.26)</td><td>14.20 k</td></tr><tr><td>4.000 MHz</td><td>8.000 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr></tbody></table> msd File <Temp.png> saved STATUS Frequency Center Freq 155.000000 MHz CF Step 12.000 kHz Auto Man Freq Offset 0 Hz <tr><td>TX-DNH</td><td>4FSK</td><td>CH_{H1}</td><td> Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF 50.0 AC SENSE: PULSE ALIGN: AUTO 09:08:26 AM May 25, 2023 Center Freq: 173.900000 MHz Center Freq: 173.900000 MHz Radio Std: None PASS IF Gain: Low Trig: Free Run Avg: 100.00% of 10 #Atten: 40 dB Radio Device: BTS 10 dB/div Ref Offset 22 dB Ref 44.0 dBm  Center 173.9 MHz Span 120 kHz Total Power Ref 40.03 dBm 0.0125 MHz <table><thead><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>Freq (Hz)</th><th>< Peak > dBm</th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr></thead><tbody><tr><td>0.0 Hz</td><td>5.625 kHz</td><td>100.0 Hz</td><td>28.48</td><td>(-11.42)</td><td>0.0</td><td>31.26</td><td>(-8.64)</td><td>850.0</td></tr><tr><td>5.625 kHz</td><td>12.50 kHz</td><td>100.0 Hz</td><td>-37.15</td><td>(-5.61)</td><td>-12.50 k</td><td>-35.33</td><td>(-4.88)</td><td>12.35 k</td></tr><tr><td>12.50 kHz</td><td>60.00 kHz</td><td>100.0 Hz</td><td>-34.39</td><td>(-14.39)</td><td>-13.70 k</td><td>-33.63</td><td>(-13.63)</td><td>12.60 k</td></tr><tr><td>4.000 MHz</td><td>8.000 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr></tbody></table> msd File <Temp.png> saved STATUS Frequency Center Freq 173.900000 MHz CF Step 12.000 kHz Auto Man Freq Offset 0 Hz </td></tr>	Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)	0.0 Hz	5.625 kHz	100.0 Hz	21.66	(-17.51)	-1.600 k	24.75	(-14.42)	950.0	5.625 kHz	12.50 kHz	100.0 Hz	-34.83	(-2.56)	-12.50 k	-38.51	(-6.61)	12.45 k	12.50 kHz	60.00 kHz	100.0 Hz	-32.12	(-12.12)	-12.70 k	-31.26	(-11.26)	14.20 k	4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—	8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—	12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—	TX-DNH	4FSK	CH _{H1}	Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF 50.0 AC SENSE: PULSE ALIGN: AUTO 09:08:26 AM May 25, 2023 Center Freq: 173.900000 MHz Center Freq: 173.900000 MHz Radio Std: None PASS IF Gain: Low Trig: Free Run Avg: 100.00% of 10 #Atten: 40 dB Radio Device: BTS 10 dB/div Ref Offset 22 dB Ref 44.0 dBm  Center 173.9 MHz Span 120 kHz Total Power Ref 40.03 dBm 0.0125 MHz <table><thead><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>Freq (Hz)</th><th>< Peak > dBm</th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr></thead><tbody><tr><td>0.0 Hz</td><td>5.625 kHz</td><td>100.0 Hz</td><td>28.48</td><td>(-11.42)</td><td>0.0</td><td>31.26</td><td>(-8.64)</td><td>850.0</td></tr><tr><td>5.625 kHz</td><td>12.50 kHz</td><td>100.0 Hz</td><td>-37.15</td><td>(-5.61)</td><td>-12.50 k</td><td>-35.33</td><td>(-4.88)</td><td>12.35 k</td></tr><tr><td>12.50 kHz</td><td>60.00 kHz</td><td>100.0 Hz</td><td>-34.39</td><td>(-14.39)</td><td>-13.70 k</td><td>-33.63</td><td>(-13.63)</td><td>12.60 k</td></tr><tr><td>4.000 MHz</td><td>8.000 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr></tbody></table> msd File <Temp.png> saved STATUS Frequency Center Freq 173.900000 MHz CF Step 12.000 kHz Auto Man Freq Offset 0 Hz	Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)	0.0 Hz	5.625 kHz	100.0 Hz	28.48	(-11.42)	0.0	31.26	(-8.64)	850.0	5.625 kHz	12.50 kHz	100.0 Hz	-37.15	(-5.61)	-12.50 k	-35.33	(-4.88)	12.35 k	12.50 kHz	60.00 kHz	100.0 Hz	-34.39	(-14.39)	-13.70 k	-33.63	(-13.63)	12.60 k	4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—	8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—	12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—
Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)																																																																																																																																																																																																
0.0 Hz	5.625 kHz	100.0 Hz	21.92	(-17.62)	0.0	28.32	(-11.23)	500.0																																																																																																																																																																																																
5.625 kHz	12.50 kHz	100.0 Hz	-32.02	(-0.13)	-12.50 k	-34.58	(-4.51)	12.25 k																																																																																																																																																																																																
12.50 kHz	60.00 kHz	100.0 Hz	-29.59	(-9.59)	-12.55 k	-28.68	(-8.68)	13.85 k																																																																																																																																																																																																
4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																																																																																																																																																																
8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																																																																																																																																																																
12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																																																																																																																																																																
TX-DNH	4FSK	CH _{M1}	Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF 50.0 AC SENSE: PULSE ALIGN: AUTO 09:01:39 AM May 25, 2023 Center Freq: 155.000000 MHz Center Freq: 155.000000 MHz Radio Std: None PASS IF Gain: Low Trig: Free Run Avg: 100.00% of 10 #Atten: 40 dB Radio Device: BTS 10 dB/div Ref Offset 22 dB Ref 43.0 dBm  Center 155 MHz Span 120 kHz Total Power Ref 35.92 dBm 0.0125 MHz <table><thead><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>Freq (Hz)</th><th>< Peak > dBm</th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr></thead><tbody><tr><td>0.0 Hz</td><td>5.625 kHz</td><td>100.0 Hz</td><td>21.66</td><td>(-17.51)</td><td>-1.600 k</td><td>24.75</td><td>(-14.42)</td><td>950.0</td></tr><tr><td>5.625 kHz</td><td>12.50 kHz</td><td>100.0 Hz</td><td>-34.83</td><td>(-2.56)</td><td>-12.50 k</td><td>-38.51</td><td>(-6.61)</td><td>12.45 k</td></tr><tr><td>12.50 kHz</td><td>60.00 kHz</td><td>100.0 Hz</td><td>-32.12</td><td>(-12.12)</td><td>-12.70 k</td><td>-31.26</td><td>(-11.26)</td><td>14.20 k</td></tr><tr><td>4.000 MHz</td><td>8.000 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr></tbody></table> msd File <Temp.png> saved STATUS Frequency Center Freq 155.000000 MHz CF Step 12.000 kHz Auto Man Freq Offset 0 Hz <tr><td>TX-DNH</td><td>4FSK</td><td>CH_{H1}</td><td> Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF 50.0 AC SENSE: PULSE ALIGN: AUTO 09:08:26 AM May 25, 2023 Center Freq: 173.900000 MHz Center Freq: 173.900000 MHz Radio Std: None PASS IF Gain: Low Trig: Free Run Avg: 100.00% of 10 #Atten: 40 dB Radio Device: BTS 10 dB/div Ref Offset 22 dB Ref 44.0 dBm  Center 173.9 MHz Span 120 kHz Total Power Ref 40.03 dBm 0.0125 MHz <table><thead><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>Freq (Hz)</th><th>< Peak > dBm</th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr></thead><tbody><tr><td>0.0 Hz</td><td>5.625 kHz</td><td>100.0 Hz</td><td>28.48</td><td>(-11.42)</td><td>0.0</td><td>31.26</td><td>(-8.64)</td><td>850.0</td></tr><tr><td>5.625 kHz</td><td>12.50 kHz</td><td>100.0 Hz</td><td>-37.15</td><td>(-5.61)</td><td>-12.50 k</td><td>-35.33</td><td>(-4.88)</td><td>12.35 k</td></tr><tr><td>12.50 kHz</td><td>60.00 kHz</td><td>100.0 Hz</td><td>-34.39</td><td>(-14.39)</td><td>-13.70 k</td><td>-33.63</td><td>(-13.63)</td><td>12.60 k</td></tr><tr><td>4.000 MHz</td><td>8.000 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr></tbody></table> msd File <Temp.png> saved STATUS Frequency Center Freq 173.900000 MHz CF Step 12.000 kHz Auto Man Freq Offset 0 Hz </td></tr>	Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)	0.0 Hz	5.625 kHz	100.0 Hz	21.66	(-17.51)	-1.600 k	24.75	(-14.42)	950.0	5.625 kHz	12.50 kHz	100.0 Hz	-34.83	(-2.56)	-12.50 k	-38.51	(-6.61)	12.45 k	12.50 kHz	60.00 kHz	100.0 Hz	-32.12	(-12.12)	-12.70 k	-31.26	(-11.26)	14.20 k	4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—	8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—	12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—	TX-DNH	4FSK	CH _{H1}	Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF 50.0 AC SENSE: PULSE ALIGN: AUTO 09:08:26 AM May 25, 2023 Center Freq: 173.900000 MHz Center Freq: 173.900000 MHz Radio Std: None PASS IF Gain: Low Trig: Free Run Avg: 100.00% of 10 #Atten: 40 dB Radio Device: BTS 10 dB/div Ref Offset 22 dB Ref 44.0 dBm  Center 173.9 MHz Span 120 kHz Total Power Ref 40.03 dBm 0.0125 MHz <table><thead><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>Freq (Hz)</th><th>< Peak > dBm</th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr></thead><tbody><tr><td>0.0 Hz</td><td>5.625 kHz</td><td>100.0 Hz</td><td>28.48</td><td>(-11.42)</td><td>0.0</td><td>31.26</td><td>(-8.64)</td><td>850.0</td></tr><tr><td>5.625 kHz</td><td>12.50 kHz</td><td>100.0 Hz</td><td>-37.15</td><td>(-5.61)</td><td>-12.50 k</td><td>-35.33</td><td>(-4.88)</td><td>12.35 k</td></tr><tr><td>12.50 kHz</td><td>60.00 kHz</td><td>100.0 Hz</td><td>-34.39</td><td>(-14.39)</td><td>-13.70 k</td><td>-33.63</td><td>(-13.63)</td><td>12.60 k</td></tr><tr><td>4.000 MHz</td><td>8.000 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr></tbody></table> msd File <Temp.png> saved STATUS Frequency Center Freq 173.900000 MHz CF Step 12.000 kHz Auto Man Freq Offset 0 Hz	Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)	0.0 Hz	5.625 kHz	100.0 Hz	28.48	(-11.42)	0.0	31.26	(-8.64)	850.0	5.625 kHz	12.50 kHz	100.0 Hz	-37.15	(-5.61)	-12.50 k	-35.33	(-4.88)	12.35 k	12.50 kHz	60.00 kHz	100.0 Hz	-34.39	(-14.39)	-13.70 k	-33.63	(-13.63)	12.60 k	4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—	8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—	12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																																			
Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)																																																																																																																																																																																																
0.0 Hz	5.625 kHz	100.0 Hz	21.66	(-17.51)	-1.600 k	24.75	(-14.42)	950.0																																																																																																																																																																																																
5.625 kHz	12.50 kHz	100.0 Hz	-34.83	(-2.56)	-12.50 k	-38.51	(-6.61)	12.45 k																																																																																																																																																																																																
12.50 kHz	60.00 kHz	100.0 Hz	-32.12	(-12.12)	-12.70 k	-31.26	(-11.26)	14.20 k																																																																																																																																																																																																
4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																																																																																																																																																																
8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																																																																																																																																																																
12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																																																																																																																																																																
TX-DNH	4FSK	CH _{H1}	Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF 50.0 AC SENSE: PULSE ALIGN: AUTO 09:08:26 AM May 25, 2023 Center Freq: 173.900000 MHz Center Freq: 173.900000 MHz Radio Std: None PASS IF Gain: Low Trig: Free Run Avg: 100.00% of 10 #Atten: 40 dB Radio Device: BTS 10 dB/div Ref Offset 22 dB Ref 44.0 dBm  Center 173.9 MHz Span 120 kHz Total Power Ref 40.03 dBm 0.0125 MHz <table><thead><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>Freq (Hz)</th><th>< Peak > dBm</th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr></thead><tbody><tr><td>0.0 Hz</td><td>5.625 kHz</td><td>100.0 Hz</td><td>28.48</td><td>(-11.42)</td><td>0.0</td><td>31.26</td><td>(-8.64)</td><td>850.0</td></tr><tr><td>5.625 kHz</td><td>12.50 kHz</td><td>100.0 Hz</td><td>-37.15</td><td>(-5.61)</td><td>-12.50 k</td><td>-35.33</td><td>(-4.88)</td><td>12.35 k</td></tr><tr><td>12.50 kHz</td><td>60.00 kHz</td><td>100.0 Hz</td><td>-34.39</td><td>(-14.39)</td><td>-13.70 k</td><td>-33.63</td><td>(-13.63)</td><td>12.60 k</td></tr><tr><td>4.000 MHz</td><td>8.000 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr></tbody></table> msd File <Temp.png> saved STATUS Frequency Center Freq 173.900000 MHz CF Step 12.000 kHz Auto Man Freq Offset 0 Hz	Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)	0.0 Hz	5.625 kHz	100.0 Hz	28.48	(-11.42)	0.0	31.26	(-8.64)	850.0	5.625 kHz	12.50 kHz	100.0 Hz	-37.15	(-5.61)	-12.50 k	-35.33	(-4.88)	12.35 k	12.50 kHz	60.00 kHz	100.0 Hz	-34.39	(-14.39)	-13.70 k	-33.63	(-13.63)	12.60 k	4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—	8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—	12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																																																																																																						
Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)																																																																																																																																																																																																
0.0 Hz	5.625 kHz	100.0 Hz	28.48	(-11.42)	0.0	31.26	(-8.64)	850.0																																																																																																																																																																																																
5.625 kHz	12.50 kHz	100.0 Hz	-37.15	(-5.61)	-12.50 k	-35.33	(-4.88)	12.35 k																																																																																																																																																																																																
12.50 kHz	60.00 kHz	100.0 Hz	-34.39	(-14.39)	-13.70 k	-33.63	(-13.63)	12.60 k																																																																																																																																																																																																
4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																																																																																																																																																																
8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																																																																																																																																																																
12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																																																																																																																																																																

Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH _{L2}	Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF 50.0 AC SENSE: PULSE ALIGN: AUTO 09:46:11 AM May 24, 2023 Center Freq 400.100000 MHz Center Freq: 400.100000 MHz Trig: Free Run Avg: 100.00% of 10 Radio Std: None PASS IF Gain: Low #Atten: 40 dB Radio Device: BTS Ref Offset 23 dB Ref 43.0 dBm 10 dB/div Log <

Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT																																																															
TX-DNL	4FSK	CH _{L1}	Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF 50.0 AC SENSE:PULSE ALIGN:AUTO 09:19:02 AM May 25, 2023 Center Freq 136.100000 MHz Center Freq: 136.100000 MHz Radio Std: None PASS IF Gain: Low Trig: Free Run Avg: 100.00% of 10 #Atten: 40 dB Radio Device: BTS Ref Offset 22 dB Ref 37.0 dBm  Center 136.1 MHz Span 120 kHz Total Power Ref 33.74 dBm 0.0125 MHz <table><thead><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>Freq (Hz)</th><th>< Peak > dBm</th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr></thead><tbody><tr><td>0.0 Hz</td><td>5.625 kHz</td><td>100.0 Hz</td><td>19.67</td><td>(-13.47)</td><td>-100.0</td><td>23.35</td><td>(-9.80)</td><td>850.0</td></tr><tr><td>5.625 kHz</td><td>12.50 kHz</td><td>100.0 Hz</td><td>-40.37</td><td>(-5.35)</td><td>-12.05 k</td><td>-40.38</td><td>(-3.54)</td><td>12.30 k</td></tr><tr><td>12.50 kHz</td><td>60.00 kHz</td><td>100.0 Hz</td><td>-40.21</td><td>(-20.21)</td><td>-12.90 k</td><td>-40.07</td><td>(-20.07)</td><td>12.70 k</td></tr><tr><td>4.000 MHz</td><td>8.000 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr></tbody></table> MSO File <Temp.png> saved STATUS Frequency Center Freq 136.100000 MHz CF Step 12.000 kHz Auto Man Freq Offset 0 Hz	Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)	0.0 Hz	5.625 kHz	100.0 Hz	19.67	(-13.47)	-100.0	23.35	(-9.80)	850.0	5.625 kHz	12.50 kHz	100.0 Hz	-40.37	(-5.35)	-12.05 k	-40.38	(-3.54)	12.30 k	12.50 kHz	60.00 kHz	100.0 Hz	-40.21	(-20.21)	-12.90 k	-40.07	(-20.07)	12.70 k	4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—	8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—	12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—
Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)																																																										
0.0 Hz	5.625 kHz	100.0 Hz	19.67	(-13.47)	-100.0	23.35	(-9.80)	850.0																																																										
5.625 kHz	12.50 kHz	100.0 Hz	-40.37	(-5.35)	-12.05 k	-40.38	(-3.54)	12.30 k																																																										
12.50 kHz	60.00 kHz	100.0 Hz	-40.21	(-20.21)	-12.90 k	-40.07	(-20.07)	12.70 k																																																										
4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										
8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										
12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										
TX-DNL	4FSK	CH _{M1}	Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF 50.0 AC SENSE:PULSE ALIGN:AUTO 09:51:04 AM May 25, 2023 Center Freq 155.000000 MHz Center Freq: 155.000000 MHz Radio Std: None PASS IF Gain: Low Trig: Free Run Avg: 100.00% of 10 #Atten: 40 dB Radio Device: BTS Ref Offset 22 dB Ref 38.0 dBm  Center 155 MHz Span 120 kHz Total Power Ref 33.91 dBm 0.0125 MHz <table><thead><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>Freq (Hz)</th><th>< Peak > dBm</th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr></thead><tbody><tr><td>0.0 Hz</td><td>5.625 kHz</td><td>100.0 Hz</td><td>22.39</td><td>(-11.14)</td><td>-50.00</td><td>24.08</td><td>(-9.44)</td><td>500.0</td></tr><tr><td>5.625 kHz</td><td>12.50 kHz</td><td>100.0 Hz</td><td>-39.82</td><td>(-1.91)</td><td>-12.50 k</td><td>-36.77</td><td>(-1.76)</td><td>12.10 k</td></tr><tr><td>12.50 kHz</td><td>60.00 kHz</td><td>100.0 Hz</td><td>-33.19</td><td>(-13.19)</td><td>-15.55 k</td><td>-31.12</td><td>(-11.12)</td><td>13.20 k</td></tr><tr><td>4.000 MHz</td><td>8.000 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr></tbody></table> MSO File <Temp.png> saved STATUS Frequency Center Freq 155.000000 MHz CF Step 12.000 kHz Auto Man Freq Offset 0 Hz	Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)	0.0 Hz	5.625 kHz	100.0 Hz	22.39	(-11.14)	-50.00	24.08	(-9.44)	500.0	5.625 kHz	12.50 kHz	100.0 Hz	-39.82	(-1.91)	-12.50 k	-36.77	(-1.76)	12.10 k	12.50 kHz	60.00 kHz	100.0 Hz	-33.19	(-13.19)	-15.55 k	-31.12	(-11.12)	13.20 k	4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—	8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—	12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—
Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)																																																										
0.0 Hz	5.625 kHz	100.0 Hz	22.39	(-11.14)	-50.00	24.08	(-9.44)	500.0																																																										
5.625 kHz	12.50 kHz	100.0 Hz	-39.82	(-1.91)	-12.50 k	-36.77	(-1.76)	12.10 k																																																										
12.50 kHz	60.00 kHz	100.0 Hz	-33.19	(-13.19)	-15.55 k	-31.12	(-11.12)	13.20 k																																																										
4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										
8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										
12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										
TX-DNL	4FSK	CH _{H1}	Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF 50.0 AC SENSE:PULSE ALIGN:AUTO 09:20:38 AM May 25, 2023 Center Freq 173.900000 MHz Center Freq: 173.900000 MHz Radio Std: None PASS IF Gain: Low Trig: Free Run Avg: 100.00% of 10 #Atten: 40 dB Radio Device: BTS Ref Offset 22 dB Ref 37.0 dBm  Center 173.9 MHz Span 120 kHz Total Power Ref 33.64 dBm 0.0125 MHz <table><thead><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>Freq (Hz)</th><th>< Peak > dBm</th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr></thead><tbody><tr><td>0.0 Hz</td><td>5.625 kHz</td><td>100.0 Hz</td><td>21.01</td><td>(-11.88)</td><td>-1.200 k</td><td>21.58</td><td>(-11.31)</td><td>1.100 k</td></tr><tr><td>5.625 kHz</td><td>12.50 kHz</td><td>100.0 Hz</td><td>-43.52</td><td>(-7.52)</td><td>-12.15 k</td><td>-44.74</td><td>(-6.19)</td><td>12.50 k</td></tr><tr><td>12.50 kHz</td><td>60.00 kHz</td><td>100.0 Hz</td><td>-40.32</td><td>(-20.32)</td><td>-12.80 k</td><td>-38.98</td><td>(-18.98)</td><td>12.90 k</td></tr><tr><td>4.000 MHz</td><td>8.000 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr></tbody></table> MSO File <Temp.png> saved STATUS Frequency Center Freq 173.900000 MHz CF Step 12.000 kHz Auto Man Freq Offset 0 Hz	Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)	0.0 Hz	5.625 kHz	100.0 Hz	21.01	(-11.88)	-1.200 k	21.58	(-11.31)	1.100 k	5.625 kHz	12.50 kHz	100.0 Hz	-43.52	(-7.52)	-12.15 k	-44.74	(-6.19)	12.50 k	12.50 kHz	60.00 kHz	100.0 Hz	-40.32	(-20.32)	-12.80 k	-38.98	(-18.98)	12.90 k	4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—	8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—	12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—
Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)																																																										
0.0 Hz	5.625 kHz	100.0 Hz	21.01	(-11.88)	-1.200 k	21.58	(-11.31)	1.100 k																																																										
5.625 kHz	12.50 kHz	100.0 Hz	-43.52	(-7.52)	-12.15 k	-44.74	(-6.19)	12.50 k																																																										
12.50 kHz	60.00 kHz	100.0 Hz	-40.32	(-20.32)	-12.80 k	-38.98	(-18.98)	12.90 k																																																										
4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										
8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										
12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										

Appendix C:Emission Mask

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT																																																															
TX-DNL	4FSK	CH _{L2}	Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF FSK AC SENSE: PULS E ALIGN: AUTO 09:53:24 AM May 24, 2023 Center Freq: 400.100000 MHz Center Freq: 400.100000 MHz Radio Std: None Trig: Free Run Avg: 100.00% of 10 IF Gain: Low #Atten: 40 dB Radio Device: BTS PASS Ref Offset 23 dB Ref 42.0 dBm 10 dB/div Log 32.0 22.0 12.0 2.00 8.00 -18.0 -28.0 -38.0 -48.0 Spectrum Center 400.1 MHz Span 120 kHz Total Power Ref 33.99 dBm 0.0125 MHz <table><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>Freq (Hz)</th><th>< Peak > dBm</th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr><tr><td>0.0 Hz</td><td>5.625 kHz</td><td>100.0 Hz</td><td>18.92</td><td>(-18.63)</td><td>-700.0</td><td>23.87</td><td>(-13.67)</td><td>600.0</td></tr><tr><td>5.625 kHz</td><td>12.50 kHz</td><td>100.0 Hz</td><td>-39.89</td><td>(-6.00)</td><td>-12.50 k</td><td>-34.85</td><td>(-2.42)</td><td>12.30 k</td></tr><tr><td>12.50 kHz</td><td>60.00 kHz</td><td>100.0 Hz</td><td>-37.09</td><td>(-17.09)</td><td>-12.65 k</td><td>-34.97</td><td>(-14.97)</td><td>13.00 k</td></tr><tr><td>4.000 MHz</td><td>8.000 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr></table> MSO File <Temp.png> saved STATUS Frequency Center Freq 400.100000 MHz CF Step 12.000 kHz Auto Man Freq Offset 0 Hz	Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)	0.0 Hz	5.625 kHz	100.0 Hz	18.92	(-18.63)	-700.0	23.87	(-13.67)	600.0	5.625 kHz	12.50 kHz	100.0 Hz	-39.89	(-6.00)	-12.50 k	-34.85	(-2.42)	12.30 k	12.50 kHz	60.00 kHz	100.0 Hz	-37.09	(-17.09)	-12.65 k	-34.97	(-14.97)	13.00 k	4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—	8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—	12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—
Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)																																																										
0.0 Hz	5.625 kHz	100.0 Hz	18.92	(-18.63)	-700.0	23.87	(-13.67)	600.0																																																										
5.625 kHz	12.50 kHz	100.0 Hz	-39.89	(-6.00)	-12.50 k	-34.85	(-2.42)	12.30 k																																																										
12.50 kHz	60.00 kHz	100.0 Hz	-37.09	(-17.09)	-12.65 k	-34.97	(-14.97)	13.00 k																																																										
4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										
8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										
12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										
TX-DNL	4FSK	CH _{M2}	Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF FSK AC SENSE: PULS E ALIGN: AUTO 09:54:24 AM May 24, 2023 Center Freq: 435.000000 MHz Center Freq: 435.000000 MHz Radio Std: None Trig: Free Run Avg: 100.00% of 10 IF Gain: Low #Atten: 40 dB Radio Device: BTS PASS Ref Offset 23 dB Ref 42.0 dBm 10 dB/div Log 32.0 22.0 12.0 2.00 8.00 -18.0 -28.0 -38.0 -48.0 Spectrum Center 435 MHz Span 120 kHz Total Power Ref 33.46 dBm 0.0125 MHz <table><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>Freq (Hz)</th><th>< Peak > dBm</th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr><tr><td>0.0 Hz</td><td>5.625 kHz</td><td>100.0 Hz</td><td>19.96</td><td>(-17.65)</td><td>-200.0</td><td>21.98</td><td>(-15.63)</td><td>500.0</td></tr><tr><td>5.625 kHz</td><td>12.50 kHz</td><td>100.0 Hz</td><td>-34.11</td><td>(-0.65)</td><td>-12.45 k</td><td>-35.50</td><td>(-1.68)</td><td>12.50 k</td></tr><tr><td>12.50 kHz</td><td>60.00 kHz</td><td>100.0 Hz</td><td>-34.50</td><td>(-14.50)</td><td>-12.90 k</td><td>-34.37</td><td>(-14.37)</td><td>12.85 k</td></tr><tr><td>4.000 MHz</td><td>8.000 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr></table> MSO File <Temp.png> saved STATUS Frequency Center Freq 435.000000 MHz CF Step 12.000 kHz Auto Man Freq Offset 0 Hz	Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)	0.0 Hz	5.625 kHz	100.0 Hz	19.96	(-17.65)	-200.0	21.98	(-15.63)	500.0	5.625 kHz	12.50 kHz	100.0 Hz	-34.11	(-0.65)	-12.45 k	-35.50	(-1.68)	12.50 k	12.50 kHz	60.00 kHz	100.0 Hz	-34.50	(-14.50)	-12.90 k	-34.37	(-14.37)	12.85 k	4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—	8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—	12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—
Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)																																																										
0.0 Hz	5.625 kHz	100.0 Hz	19.96	(-17.65)	-200.0	21.98	(-15.63)	500.0																																																										
5.625 kHz	12.50 kHz	100.0 Hz	-34.11	(-0.65)	-12.45 k	-35.50	(-1.68)	12.50 k																																																										
12.50 kHz	60.00 kHz	100.0 Hz	-34.50	(-14.50)	-12.90 k	-34.37	(-14.37)	12.85 k																																																										
4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										
8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										
12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										
TX-DNL	4FSK	CH _{H2}	Agilent Spectrum Analyzer - Spectrum Emission Mask RL RF FSK AC SENSE: PULS E ALIGN: AUTO 09:55:24 AM May 24, 2023 Center Freq: 469.900000 MHz Center Freq: 469.900000 MHz Radio Std: None Trig: Free Run Avg: 100.00% of 10 IF Gain: Low #Atten: 40 dB Radio Device: BTS PASS Ref Offset 23 dB Ref 42.0 dBm 10 dB/div Log 32.0 22.0 12.0 2.00 8.00 -18.0 -28.0 -38.0 -48.0 Spectrum Center 469.9 MHz Span 120 kHz Total Power Ref 32.71 dBm 0.0125 MHz <table><tr><th>Start Freq</th><th>Stop Freq</th><th>Integ BW</th><th>dBm</th><th>Lower ΔLim(dB)</th><th>Freq (Hz)</th><th>< Peak > dBm</th><th>Upper ΔLim(dB)</th><th>Freq (Hz)</th></tr><tr><td>0.0 Hz</td><td>5.625 kHz</td><td>100.0 Hz</td><td>19.22</td><td>(-18.41)</td><td>-1.100 k</td><td>23.70</td><td>(-13.93)</td><td>500.0</td></tr><tr><td>5.625 kHz</td><td>12.50 kHz</td><td>100.0 Hz</td><td>-34.49</td><td>(-0.68)</td><td>-12.50 k</td><td>-37.89</td><td>(-5.53)</td><td>12.30 k</td></tr><tr><td>12.50 kHz</td><td>60.00 kHz</td><td>100.0 Hz</td><td>-30.18</td><td>(-10.18)</td><td>-12.50 k</td><td>-35.70</td><td>(-15.70)</td><td>13.05 k</td></tr><tr><td>4.000 MHz</td><td>8.000 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>8.000 MHz</td><td>12.50 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr><tr><td>12.50 MHz</td><td>15.00 MHz</td><td>1.000 MHz</td><td>—</td><td>(—)</td><td>—</td><td>—</td><td>(—)</td><td>—</td></tr></table> MSO File <Temp.png> saved STATUS Frequency Center Freq 469.900000 MHz CF Step 12.000 kHz Auto Man Freq Offset 0 Hz	Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)	0.0 Hz	5.625 kHz	100.0 Hz	19.22	(-18.41)	-1.100 k	23.70	(-13.93)	500.0	5.625 kHz	12.50 kHz	100.0 Hz	-34.49	(-0.68)	-12.50 k	-37.89	(-5.53)	12.30 k	12.50 kHz	60.00 kHz	100.0 Hz	-30.18	(-10.18)	-12.50 k	-35.70	(-15.70)	13.05 k	4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—	8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—	12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—
Start Freq	Stop Freq	Integ BW	dBm	Lower ΔLim(dB)	Freq (Hz)	< Peak > dBm	Upper ΔLim(dB)	Freq (Hz)																																																										
0.0 Hz	5.625 kHz	100.0 Hz	19.22	(-18.41)	-1.100 k	23.70	(-13.93)	500.0																																																										
5.625 kHz	12.50 kHz	100.0 Hz	-34.49	(-0.68)	-12.50 k	-37.89	(-5.53)	12.30 k																																																										
12.50 kHz	60.00 kHz	100.0 Hz	-30.18	(-10.18)	-12.50 k	-35.70	(-15.70)	13.05 k																																																										
4.000 MHz	8.000 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										
8.000 MHz	12.50 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										
12.50 MHz	15.00 MHz	1.000 MHz	—	(—)	—	—	(—)	—																																																										

Appendix D:Frequency Stability Test & Temperature

Operation Mode	Modulation Type	Test Conditions		Frequency error (ppm)						Limit (ppm)	Result
		Voltage	Temperature	CH _{L1}	CH _{M1}	CH _{H1}	CH _{L2}	CH _{M2}	CH _{H2}		
TX-DNH	4FSK	V _N	-30	-0.839	-0.677	-0.812	-0.371	-0.347	-0.355	±5.0	PASS
TX-DNH	4FSK	V _N	-20	-0.857	-0.687	-0.820	-0.361	-0.360	-0.329	±5.0	PASS
TX-DNH	4FSK	V _N	-10	-0.850	-0.742	-0.888	-0.385	-0.353	-0.336	±5.0	PASS
TX-DNH	4FSK	V _N	0	-0.839	-0.711	-0.850	-0.364	-0.361	-0.346	±5.0	PASS
TX-DNH	4FSK	V _N	10	-0.815	-0.700	-0.850	-0.365	-0.341	-0.339	±5.0	PASS
TX-DNH	4FSK	V _N	20	-0.794	-0.677	-0.811	-0.360	-0.334	-0.324	±5.0	PASS
TX-DNH	4FSK	V _N	30	-0.850	-0.713	-0.854	-0.369	-0.344	-0.351	±5.0	PASS
TX-DNH	4FSK	V _N	40	-0.795	-0.696	-0.855	-0.369	-0.351	-0.343	±5.0	PASS
TX-DNH	4FSK	V _N	50	-0.819	-0.733	-0.818	-0.374	-0.348	-0.336	±5.0	PASS
TX-DNL	4FSK	V _N	-30	-0.826	-0.719	-0.919	-0.362	-0.346	-0.332	±5.0	PASS
TX-DNL	4FSK	V _N	-20	-0.796	-0.696	-0.873	-0.351	-0.353	-0.334	±5.0	PASS
TX-DNL	4FSK	V _N	-10	-0.806	-0.695	-0.875	-0.377	-0.346	-0.350	±5.0	PASS
TX-DNL	4FSK	V _N	0	-0.804	-0.736	-0.886	-0.373	-0.346	-0.327	±5.0	PASS
TX-DNL	4FSK	V _N	10	-0.829	-0.680	-0.884	-0.346	-0.337	-0.357	±5.0	PASS
TX-DNL	4FSK	V _N	20	-0.781	-0.675	-0.840	-0.343	-0.329	-0.326	±5.0	PASS
TX-DNL	4FSK	V _N	30	-0.843	-0.676	-0.860	-0.349	-0.329	-0.355	±5.0	PASS
TX-DNL	4FSK	V _N	40	-0.840	-0.703	-0.922	-0.361	-0.342	-0.345	±5.0	PASS
TX-DNL	4FSK	V _N	50	-0.797	-0.717	-0.877	-0.374	-0.348	-0.347	±5.0	PASS

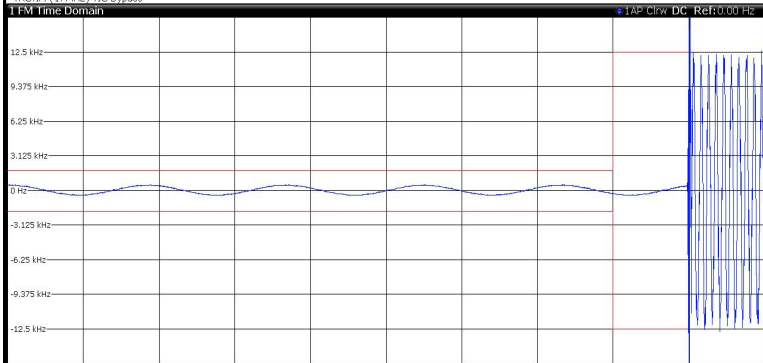
Appendix E:Frequency Stability Test & Voltage

Operation Mode	Modulation Type	Test Conditions		Frequency error (ppm)						Limit (ppm)	Result
		Voltage	Temperature	CH _{L1}	CH _{M1}	CH _{H1}	CH _{L2}	CH _{M2}	CH _{H2}		
TX-DNH	4FSK	V _N	T _N	-0.794	-0.677	-0.811	-0.360	-0.334	-0.324	±5.0	PASS
TX-DNH	4FSK	V _L	T _N	-0.795	-0.684	-0.827	-0.360	-0.337	-0.326	±5.0	PASS
TX-DNH	4FSK	V _H	T _N	-0.841	-0.694	-0.815	-0.366	-0.352	-0.334	±5.0	PASS
TX-DNL	4FSK	V _N	T _N	-0.781	-0.675	-0.840	-0.343	-0.329	-0.326	±5.0	PASS
TX-DNL	4FSK	V _L	T _N	-0.794	-0.686	-0.849	-0.349	-0.335	-0.330	±5.0	PASS
TX-DNL	4FSK	V _H	T _N	-0.785	-0.708	-0.882	-0.356	-0.342	-0.343	±5.0	PASS

Appendix F:Transmitter Frequency Behavior

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT
TX-DNH	4FSK	CH _{M1}	MultiViewSpectrumAnalog Demod Ref Level 47.00 dBm Offset 27.00 dB Att 30 dB AQT 100 ms DBW 25 kHz Freq 155.0 MHz TRG:JFY(17MHz) YIG Bypass 1 FM Time Domain 12.5 kHz 9.375 kHz 6.25 kHz 3.125 kHz 0 kHz -3.125 kHz -6.25 kHz -9.375 kHz -12.5 kHz CF 155.0 MHz 1001 pts 10.0 ms/ 4 Result Summary Carrier Power 23.88 dBm Carrier Offset -18.89 Hz FM +Peak 12.905 kHz -Peak -12.887 kHz +Peak/2 12.896 kHz RMS 2.7065 kHz Mod. Freq. SINAD THD Analog Demod: Waiting for Trigger... Measuring... 22.05.2023 10:33:47 Date: 22 MAY 2023 10:33:46
TX-DNH	4FSK	CH _{M1}	MultiViewSpectrumAnalog Demod Ref Level 47.00 dBm Offset 27.00 dB Att 30 dB AQT 100 ms DBW 25 kHz Freq 155.0 MHz TRG:JFY(17MHz) YIG Bypass 1 FM Time Domain 12.5 kHz 9.375 kHz 6.25 kHz 3.125 kHz 0 kHz -3.125 kHz -6.25 kHz -9.375 kHz -12.5 kHz CF 155.0 MHz 1001 pts 10.0 ms/ 4 Result Summary Carrier Power 23.90 dBm Carrier Offset -18.16 Hz FM +Peak 19.874 kHz -Peak -14.229 kHz +Peak/2 17.051 kHz RMS 2.7934 kHz Mod. Freq. SINAD THD Analog Demod: Waiting for Trigger... Measuring... 22.05.2023 10:34:18 Date: 22 MAY 2023 10:34:18
TX-DNH	4FSK	CH _{M2}	MultiViewSpectrumAnalog Demod Ref Level 47.00 dBm Offset 27.00 dB Att 30 dB AQT 100 ms DBW 25 kHz Freq 435.0 MHz TRG:JFY(17MHz) YIG Bypass 1 FM Time Domain 12.5 kHz 9.375 kHz 6.25 kHz 3.125 kHz 0 kHz -3.125 kHz -6.25 kHz -9.375 kHz -12.5 kHz CF 435.0 MHz 1001 pts 10.0 ms/ 4 Result Summary Carrier Power 30.02 dBm Carrier Offset 20.25 Hz FM +Peak 13.432 kHz -Peak -13.576 kHz +Peak/2 13.504 kHz RMS 2.7098 kHz Mod. Freq. SINAD THD Analog Demod: Waiting for Trigger... Measuring... 22.05.2023 10:45:26 Date: 22 MAY 2023 10:45:26

Appendix F:Transmitter Frequency Behavior

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT																
TX-DNH	4FSK	CH _{M2}	MultiViewSpectrumAnalog Demod Ref Level 47.00 dBm Offset 27.00 dB Att -30 dB AQT 100 ms DBW 25 kHz Freq 435.0 MHz TRG:FFX(17MHz) M0 Bypass 1 FM Time Domain  CF 435.0 MHz 1001 pts 10.0 ms/ 4 Result Summary <table><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>23.307 kHz</td><td>-19.986 kHz</td><td>21.646 kHz</td><td>2.8165 kHz</td><td>---</td><td>---</td><td>---</td></tr></tbody></table> Analog Demod: Waiting for Trigger...Measuring... Date: 22 MAY 2023 10:45:51		+Peak	-Peak	+Peak/2	RMS	Mod. Freq.	SINAD	THD	FM	23.307 kHz	-19.986 kHz	21.646 kHz	2.8165 kHz	---	---	---
	+Peak	-Peak	+Peak/2	RMS	Mod. Freq.	SINAD	THD												
FM	23.307 kHz	-19.986 kHz	21.646 kHz	2.8165 kHz	---	---	---												

Appendix G:Spurious Emission On Antenna Port

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT																																				
TX-DNH	4FSK	CH _{L1}	Agilent Spectrum Analyzer - Swept SA Center Freq 515.000000 MHz Ref Offset 22 dB Ref 0.00 dBm Mkr3 272.50 MHz -28.304 dBm Start 30.0 MHz #Res BW 100 kHz #VBW 300 kHz Stop 1.0000 GHz Sweep 92.73 ms (1001 pts) <table><thead><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr></thead><tbody><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>135.73 MHz</td><td>-15.447 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>544.10 MHz</td><td>-24.986 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>272.50 MHz</td><td>-28.304 dBm</td><td></td><td></td><td></td></tr></tbody></table> Frequency Auto Tune Center Freq 515.000000 MHz Start Freq 30.000000 MHz Stop Freq 1.000000000 GHz CF Step 97.000000 MHz Auto Man Freq Offset 0 Hz	MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	135.73 MHz	-15.447 dBm				2	N	1	f	544.10 MHz	-24.986 dBm				3	N	1	f	272.50 MHz	-28.304 dBm			
MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																															
1	N	1	f	135.73 MHz	-15.447 dBm																																		
2	N	1	f	544.10 MHz	-24.986 dBm																																		
3	N	1	f	272.50 MHz	-28.304 dBm																																		
TX-DNH	4FSK	CH _{L1}	Agilent Spectrum Analyzer - Swept SA Center Freq 1.180500000 GHz Ref Offset 22 dB Ref 0.00 dBm Mkr1 1.089167 GHz -51.785 dBm Start 1.0000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 1.3610 GHz Sweep 1.000 ms (1001 pts) <table><thead><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr></thead><tbody><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>1.089167 GHz</td><td>-51.785 dBm</td><td></td><td></td><td></td></tr></tbody></table> Frequency Auto Tune Center Freq 1.180500000 GHz Start Freq 1.000000000 GHz Stop Freq 1.361000000 GHz CF Step 36.100000 MHz Auto Man Freq Offset 0 Hz	MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	1.089167 GHz	-51.785 dBm																					
MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																															
1	N	1	f	1.089167 GHz	-51.785 dBm																																		
TX-DNH	4FSK	CH _{M1}	Agilent Spectrum Analyzer - Swept SA Center Freq 515.000000 MHz Ref Offset 22 dB Ref 0.00 dBm Mkr3 464.56 MHz -39.077 dBm Start 30.0 MHz #Res BW 100 kHz #VBW 300 kHz Stop 1.0000 GHz Sweep 92.73 ms (1001 pts) <table><thead><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr></thead><tbody><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>165.13 MHz</td><td>-11.085 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>619.76 MHz</td><td>-24.198 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>464.56 MHz</td><td>-39.077 dBm</td><td></td><td></td><td></td></tr></tbody></table> Frequency Auto Tune Center Freq 515.000000 MHz Start Freq 30.000000 MHz Stop Freq 1.000000000 GHz CF Step 97.000000 MHz Auto Man Freq Offset 0 Hz	MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	165.13 MHz	-11.085 dBm				2	N	1	f	619.76 MHz	-24.198 dBm				3	N	1	f	464.56 MHz	-39.077 dBm			
MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																															
1	N	1	f	165.13 MHz	-11.085 dBm																																		
2	N	1	f	619.76 MHz	-24.198 dBm																																		
3	N	1	f	464.56 MHz	-39.077 dBm																																		

Appendix G:Spurious Emission On Antenna Port

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT																																																																																																												
TX-DNH	4FSK	CH _{M1}	Agilent Spectrum Analyzer - Swept SA Center Freq 1.275000000 GHz Ref Offset 22 dB Ref 0.00 dBm Mkr1 1.085 25 GHz -51.822 dBm Start 1.0000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 1.5500 GHz Sweep 1.000 ms (1001 pts) Frequency Auto Tune Center Freq 1.275000000 GHz Start Freq 1.000000000 GHz Stop Freq 1.550000000 GHz CF Step 55.000000 MHz Auto Man Freq Offset 0 Hz																																																																																																												
TX-DNH	4FSK	CH _{H1}	Agilent Spectrum Analyzer - Swept SA Center Freq 515.000000 MHz Ref Offset 22 dB Ref 0.00 dBm Mkr3 695.42 MHz -31.368 dBm Start 30.0 MHz #Res BW 100 kHz #VBW 300 kHz Stop 1.0000 GHz Sweep 92.73 ms (1001 pts) Frequency Auto Tune Center Freq 515.000000 MHz Start Freq 30.000000 MHz Stop Freq 1.000000000 GHz CF Step 97.000000 MHz Auto Man Freq Offset 0 Hz <table><tr><th>MKR</th><th>MODE</th><th>TRIG</th><th>SCL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>173.56 MHz</td><td>-10.811 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>348.16 MHz</td><td>-23.123 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>695.42 MHz</td><td>-31.368 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>	MKR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	173.56 MHz	-10.811 dBm				2	N	1	f	348.16 MHz	-23.123 dBm				3	N	1	f	695.42 MHz	-31.368 dBm				4									5									6									7									8									9									10									11								
MKR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																																																																																																							
1	N	1	f	173.56 MHz	-10.811 dBm																																																																																																										
2	N	1	f	348.16 MHz	-23.123 dBm																																																																																																										
3	N	1	f	695.42 MHz	-31.368 dBm																																																																																																										
4																																																																																																															
5																																																																																																															
6																																																																																																															
7																																																																																																															
8																																																																																																															
9																																																																																																															
10																																																																																																															
11																																																																																																															
TX-DNH	4FSK	CH _{H1}	Agilent Spectrum Analyzer - Swept SA Center Freq 1.369500000 GHz Ref Offset 22 dB Ref 0.00 dBm Mkr1 1.044 340 GHz -49.383 dBm Start 1.0000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Stop 1.7390 GHz Sweep 1.000 ms (1001 pts) Frequency Auto Tune Center Freq 1.369500000 GHz Start Freq 1.000000000 GHz Stop Freq 1.739000000 GHz CF Step 73.900000 MHz Auto Man Freq Offset 0 Hz																																																																																																												

Appendix G:Spurious Emission On Antenna Port

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT																																																																																																																																																																																																																																																		
TX-DNH	4FSK	CH _{L2}	Agilent Spectrum Analyzer - Swept SA Center Freq 515.000000 MHz Ref Offset 21 dB Ref 0.00 dBm Mkr3 289.96 MHz -48.797 dBm Start 30.0 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 92.73 ms (1001 pts) Stop 1.000 GHz <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>400.64 MHz</td><td>-11.666 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>800.18 MHz</td><td>-30.059 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>289.96 MHz</td><td>-48.797 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Frequency Auto Tune Center Freq 515.000000 MHz Start Freq 30.000000 MHz Stop Freq 1.000000000 GHz CF Step 97.000000 MHz Auto Man Freq Offset 0 Hz <tr><td>TX-DNH</td><td>4FSK</td><td>CH_{L2}</td><td> Agilent Spectrum Analyzer - Swept SA Center Freq 2.500500000 GHz Ref Offset 21 dB Ref 0.00 dBm Mkr1 1.201 GHz -44.725 dBm Start 1.000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 5.067 ms (1001 pts) Stop 4.001 GHz <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>1.201 GHz</td><td>-44.725 dBm</td><td></td><td></td><td></td></tr></table> Frequency Auto Tune Center Freq 2.500500000 GHz Start Freq 1.000000000 GHz Stop Freq 4.001000000 GHz CF Step 300.100000 MHz Auto Man Freq Offset 0 Hz <tr><td>TX-DNH</td><td>4FSK</td><td>CH_{M2}</td><td> Agilent Spectrum Analyzer - Swept SA Center Freq 515.000000 MHz Ref Offset 21 dB Ref 0.00 dBm Mkr3 332.64 MHz -59.008 dBm Start 30.0 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 92.73 ms (1001 pts) Stop 1.000 GHz <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>870.02 MHz</td><td>-34.259 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>435.46 MHz</td><td>-47.266 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>332.64 MHz</td><td>-59.008 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Frequency Auto Tune Center Freq 515.000000 MHz Start Freq 30.000000 MHz Stop Freq 1.000000000 GHz CF Step 97.000000 MHz Auto Man Freq Offset 0 Hz </td></tr></td></tr>	MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	400.64 MHz	-11.666 dBm				2	N	1	f	800.18 MHz	-30.059 dBm				3	N	1	f	289.96 MHz	-48.797 dBm				4									5									6									7									8									9									10									11									TX-DNH	4FSK	CH _{L2}	Agilent Spectrum Analyzer - Swept SA Center Freq 2.500500000 GHz Ref Offset 21 dB Ref 0.00 dBm Mkr1 1.201 GHz -44.725 dBm Start 1.000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 5.067 ms (1001 pts) Stop 4.001 GHz <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>1.201 GHz</td><td>-44.725 dBm</td><td></td><td></td><td></td></tr></table> Frequency Auto Tune Center Freq 2.500500000 GHz Start Freq 1.000000000 GHz Stop Freq 4.001000000 GHz CF Step 300.100000 MHz Auto Man Freq Offset 0 Hz <tr><td>TX-DNH</td><td>4FSK</td><td>CH_{M2}</td><td> Agilent Spectrum Analyzer - Swept SA Center Freq 515.000000 MHz Ref Offset 21 dB Ref 0.00 dBm Mkr3 332.64 MHz -59.008 dBm Start 30.0 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 92.73 ms (1001 pts) Stop 1.000 GHz <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>870.02 MHz</td><td>-34.259 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>435.46 MHz</td><td>-47.266 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>332.64 MHz</td><td>-59.008 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Frequency Auto Tune Center Freq 515.000000 MHz Start Freq 30.000000 MHz Stop Freq 1.000000000 GHz CF Step 97.000000 MHz Auto Man Freq Offset 0 Hz </td></tr>	MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	1.201 GHz	-44.725 dBm				TX-DNH	4FSK	CH _{M2}	Agilent Spectrum Analyzer - Swept SA Center Freq 515.000000 MHz Ref Offset 21 dB Ref 0.00 dBm Mkr3 332.64 MHz -59.008 dBm Start 30.0 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 92.73 ms (1001 pts) Stop 1.000 GHz <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>870.02 MHz</td><td>-34.259 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>435.46 MHz</td><td>-47.266 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>332.64 MHz</td><td>-59.008 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Frequency Auto Tune Center Freq 515.000000 MHz Start Freq 30.000000 MHz Stop Freq 1.000000000 GHz CF Step 97.000000 MHz Auto Man Freq Offset 0 Hz	MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	870.02 MHz	-34.259 dBm				2	N	1	f	435.46 MHz	-47.266 dBm				3	N	1	f	332.64 MHz	-59.008 dBm				4									5									6									7									8									9									10									11								
MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																																																																																																																																																																																																																																													
1	N	1	f	400.64 MHz	-11.666 dBm																																																																																																																																																																																																																																																
2	N	1	f	800.18 MHz	-30.059 dBm																																																																																																																																																																																																																																																
3	N	1	f	289.96 MHz	-48.797 dBm																																																																																																																																																																																																																																																
4																																																																																																																																																																																																																																																					
5																																																																																																																																																																																																																																																					
6																																																																																																																																																																																																																																																					
7																																																																																																																																																																																																																																																					
8																																																																																																																																																																																																																																																					
9																																																																																																																																																																																																																																																					
10																																																																																																																																																																																																																																																					
11																																																																																																																																																																																																																																																					
TX-DNH	4FSK	CH _{L2}	Agilent Spectrum Analyzer - Swept SA Center Freq 2.500500000 GHz Ref Offset 21 dB Ref 0.00 dBm Mkr1 1.201 GHz -44.725 dBm Start 1.000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 5.067 ms (1001 pts) Stop 4.001 GHz <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>1.201 GHz</td><td>-44.725 dBm</td><td></td><td></td><td></td></tr></table> Frequency Auto Tune Center Freq 2.500500000 GHz Start Freq 1.000000000 GHz Stop Freq 4.001000000 GHz CF Step 300.100000 MHz Auto Man Freq Offset 0 Hz <tr><td>TX-DNH</td><td>4FSK</td><td>CH_{M2}</td><td> Agilent Spectrum Analyzer - Swept SA Center Freq 515.000000 MHz Ref Offset 21 dB Ref 0.00 dBm Mkr3 332.64 MHz -59.008 dBm Start 30.0 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 92.73 ms (1001 pts) Stop 1.000 GHz <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>870.02 MHz</td><td>-34.259 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>435.46 MHz</td><td>-47.266 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>332.64 MHz</td><td>-59.008 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Frequency Auto Tune Center Freq 515.000000 MHz Start Freq 30.000000 MHz Stop Freq 1.000000000 GHz CF Step 97.000000 MHz Auto Man Freq Offset 0 Hz </td></tr>	MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	1.201 GHz	-44.725 dBm				TX-DNH	4FSK	CH _{M2}	Agilent Spectrum Analyzer - Swept SA Center Freq 515.000000 MHz Ref Offset 21 dB Ref 0.00 dBm Mkr3 332.64 MHz -59.008 dBm Start 30.0 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 92.73 ms (1001 pts) Stop 1.000 GHz <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>870.02 MHz</td><td>-34.259 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>435.46 MHz</td><td>-47.266 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>332.64 MHz</td><td>-59.008 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Frequency Auto Tune Center Freq 515.000000 MHz Start Freq 30.000000 MHz Stop Freq 1.000000000 GHz CF Step 97.000000 MHz Auto Man Freq Offset 0 Hz	MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	870.02 MHz	-34.259 dBm				2	N	1	f	435.46 MHz	-47.266 dBm				3	N	1	f	332.64 MHz	-59.008 dBm				4									5									6									7									8									9									10									11																																																																																																																								
MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																																																																																																																																																																																																																																													
1	N	1	f	1.201 GHz	-44.725 dBm																																																																																																																																																																																																																																																
TX-DNH	4FSK	CH _{M2}	Agilent Spectrum Analyzer - Swept SA Center Freq 515.000000 MHz Ref Offset 21 dB Ref 0.00 dBm Mkr3 332.64 MHz -59.008 dBm Start 30.0 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 92.73 ms (1001 pts) Stop 1.000 GHz <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>870.02 MHz</td><td>-34.259 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>435.46 MHz</td><td>-47.266 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>332.64 MHz</td><td>-59.008 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Frequency Auto Tune Center Freq 515.000000 MHz Start Freq 30.000000 MHz Stop Freq 1.000000000 GHz CF Step 97.000000 MHz Auto Man Freq Offset 0 Hz	MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	870.02 MHz	-34.259 dBm				2	N	1	f	435.46 MHz	-47.266 dBm				3	N	1	f	332.64 MHz	-59.008 dBm				4									5									6									7									8									9									10									11																																																																																																																																														
MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																																																																																																																																																																																																																																													
1	N	1	f	870.02 MHz	-34.259 dBm																																																																																																																																																																																																																																																
2	N	1	f	435.46 MHz	-47.266 dBm																																																																																																																																																																																																																																																
3	N	1	f	332.64 MHz	-59.008 dBm																																																																																																																																																																																																																																																
4																																																																																																																																																																																																																																																					
5																																																																																																																																																																																																																																																					
6																																																																																																																																																																																																																																																					
7																																																																																																																																																																																																																																																					
8																																																																																																																																																																																																																																																					
9																																																																																																																																																																																																																																																					
10																																																																																																																																																																																																																																																					
11																																																																																																																																																																																																																																																					

Appendix G:Spurious Emission On Antenna Port

Operation Mode	Modulation Type	Test Channel	TEST PLOT RESULT																																				
TX-DNH	4FSK	CH _{M2}	Agilent Spectrum Analyzer - Swept SA Center Freq 2.675000000 GHz Ref Offset 21 dB Ref 0.00 dBm Mkr1 1.740 35 GHz -44.874 dBm Start 1.000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 5.600 ms (1001 pts) Frequency Auto Tune Center Freq 2.675000000 GHz Start Freq 1.000000000 GHz Stop Freq 4.350000000 GHz CF Step 336.000000 MHz Auto Man Freq Offset 0 Hz																																				
TX-DNH	4FSK	CH _{H2}	Agilent Spectrum Analyzer - Swept SA Center Freq 515.0000000 MHz Ref Offset 21 dB Ref 0.00 dBm Mkr3 334.58 MHz -60.116 dBm Start 30.0 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 92.73 ms (1001 pts) Frequency Auto Tune Center Freq 515.000000 MHz Start Freq 30.000000 MHz Stop Freq 1.000000000 GHz CF Step 97.000000 MHz Auto Man Freq Offset 0 Hz <table><thead><tr><th>MKR</th><th>MODE</th><th>TRIG</th><th>SCL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr></thead><tbody><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>470.38 MHz</td><td>-37.962 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>939.86 MHz</td><td>-43.403 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>334.58 MHz</td><td>-60.116 dBm</td><td></td><td></td><td></td></tr></tbody></table>	MKR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	470.38 MHz	-37.962 dBm				2	N	1	f	939.86 MHz	-43.403 dBm				3	N	1	f	334.58 MHz	-60.116 dBm			
MKR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																															
1	N	1	f	470.38 MHz	-37.962 dBm																																		
2	N	1	f	939.86 MHz	-43.403 dBm																																		
3	N	1	f	334.58 MHz	-60.116 dBm																																		
TX-DNH	4FSK	CH _{H2}	Agilent Spectrum Analyzer - Swept SA Center Freq 2.849500000 GHz Ref Offset 21 dB Ref 0.00 dBm Mkr1 1.411 GHz -35.568 dBm Start 1.000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 6.200 ms (1001 pts) Frequency Auto Tune Center Freq 2.849500000 GHz Start Freq 1.000000000 GHz Stop Freq 4.699000000 GHz CF Step 369.900000 MHz Auto Man Freq Offset 0 Hz																																				

----End of Report----