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**EXHIBIT 6F** – Conducted Spurious Emissions (6 Graphs)

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- EXHIBIT 6H Frequency Stability (2 Graphs) 6H-1 – Frequency Stability vs. Temperature 6H-2 – Frequency Stability vs. Voltage
- EXHIBIT 6I Transient Frequency Behavior (8 Graphs) 6I-1 – 28 Watts, 12.5 KHz Key-Up Attack Time 6I-2 – 28 Watts, 12.5 KHz De-Key Decay Time

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The RF power output was measured with the indicated voltage applied to and current into the final RF amplifying device (Q100).

#### At maximum output power setting, Frequency 146 MHz:

Output RF power	27.3	Watts
DC Voltage	13.8	Volts
DC Current	5.135	Amps
RF PA Input Power	1.65	Watts

#### At minimum output power setting, Frequency 146 MHz:

Output RF power	1.05	Watts
DC Voltage	13.8	Volts
DC Current	1.23	Amps
RF PA Input Power	3.99	milliWatts

### At maximum output power setting, Frequency 160 MHz:

Output RF power	27.5	Watts
DC Voltage	13.8	Volts
DC Current	4.740	Amps
RF PA Input Power	2.08	Watts

#### At minimum output power setting, Frequency 160 MHz:

Output RF power	1.04	Watts
DC Voltage	13.8	Volts
DC Current	1.25	Amps
RF PA Input Power	4.98	milliWatts

### At maximum output power setting, Frequency 174 MHz:

Output RF power	27.4	Watts
DC Voltage	13.8	Volts
DC Current	5.214	Amps
RF PA Input Power	1.65	Watts

# At minimum output power setting, Frequency 174 MHz:

Output RF power	1.05	Watts
DC Voltage	13.8	Volts
DC Current	1.34	Amps
RF PA Input Power	3.99	milliWatts



## EXHIBIT 6B - Transmit Audio Response - Pursuant 47 CFR 2.1047 and 2.1033(c)(13)





Figure 6B-2: 25 KHz Channel Spacing, Transmit Audio Response

**EXHIBIT 6C – Transmit Audio Post Limiter Lowpass Filter Response -** Pursuant 47 CFR 2.1047 and 2.1033(c)(13)



Figure 6C-1: 12.5 KHz Channel Spacing, Transmit Audio Post Limiter Lowpass Filter Response







EXHIBIT 6D – Modulation Limiting Characteristics - Pursuant 47 CFR 2.1047 and 2.1033(c)(13)

Figure 6D-1: 12.5 KHz Channel Spacing, Carrier Squelch Mode



Figure 6D-2: 12.5 KHz Channel Spacing, Tone Private Line (TPL) Mode



Figure 6D-3: 12.5 KHz Channel Spacing, Digital Private Line (DPL) Mode



Figure 6D-4: 25 KHz Channel Spacing, Carrier Squelch Mode



Figure 6D-5: 25 KHz Channel Spacing, Tone Private Line (TPL) Mode



Figure 6D-6: 25 KHz Channel Spacing, Digital Private Line (DPL) Mode

EXHIBIT 6E- Occupied Bandwidth Data -- Pursuant 47 CFR 2.1049, 90.210(g) and 90.691



Figure 6E-1: 12.5 KHz Channel Spacing, 2500 Hz Audio Modulation Only



Figure 6E-2: 12.5 KHz Channel Spacing, 2500 Hz Audio and PL Tone Modulation







Figure 6E-4: 12.5 KHz Channel Spacing, 2000/3000 Hz FSK Data Modulation Only



Figure 6E-5: 12.5 KHz Channel Spacing, 2000/3000 Hz FSK Data and PL Tone Modulation



Figure 6E-6: 12.5 KHz Channel Spacing, 2000/3000 Hz FSK Data and DPL Tone Modulation



Figure 6E-7: 25 KHz Channel Spacing, 2500 Hz Audio Modulation Only







Figure 6E-9: 25 KHz Channel Spacing, 2500 Hz Audio and DPL Tone Modulation



Figure 6E-10: 25 KHz Channel Spacing, 2000/3000 Hz FSK Data Modulation Only



Figure 6E-11: 25 KHz Channel Spacing, 2000/3000 Hz FSK Data and PL Tone Modulation



Figure 6E-12: 25 KHz Channel Spacing, 2000/3000 Hz FSK Data and DPL Tone Modulation





















Figure 6F-5: 1 Watt, 160.025 MHz



Figure 6F-6: 1 Watt, 173.975 MHz

**EXHIBIT 6G – Radiated Spurious Emissions -** Pursuant 47 CFR 2.1047 and 2.1033(c)(13) Notes: 1) The shown results are the worst case results for the given frequency. Measurements were made to

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the 10<sup>th</sup> harmonic, antenna polarization horizontal and vertical.

2) The margin[dB] is the amount in dB below the FCC specification limit of -13dBm(red line on graph)

Carrier Frequency 146 MHZ, high Power (26 Watts)								
Frequency	Radiated	Generator	Cable	Antenna	Dipole	Attenuation	Limit	Margin
[MHz]	Measured	Pout dBm	Loss dB	Gain	equivalent	dBc	dBc	[dB]
	Result,			dBd	power dBm			
	dB(uV/m)				•			
292	39.2	-62.6	0.4	-0.3	-63.3	107.8	57.47	50.3
438	32.8	-68.1	0.5	-1	-69.6	114.1	57.47	50.6

Carrier Frequency 146 MHz, High Power (28 Watts)



Figure 6G-1: 28 Watts, 146 MHz

Frequency [MHz]	Radiated Measured Result, dB(uV/m)	Generator Pout dBm	Cable Loss dB	Antenna Gain dBd	Dipole equivalent power dBm	Attenuation dBc	Limit dBc	Margin [dB]
320	45.7	-56.4	0.4	-0.3	-57.1	101.6	57.47	44.1
480	43.8	-57.7	0.5	-1.8	-60.0	104.5	57.47	47.0



Figure 6G-2: 28 Watts, 160 MHz

Frequency [MHz]	Radiated Measured Result, dB(uV/m)	Generator Pout dBm	Cable Loss dB	Antenna Gain dBd	Dipole equivalent power dBm	Attenuation dBc	Limit dBc	Margin [dB]
348	52.9	-49.3	0.5	-0.3	-50.1	94.6	57.47	37.1
522	37.7	-61.7	0.5	-1.5	-63.7	108.2	57.47	50.7
696	39.6	-62.2	0.7	0.4	-62.5	107.0	57.47	49.5





Figure 6G-3: 28 Watts, 174 MHz

Carrier Frequency 146 MHz, Low Power (1 Wat	t)
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Frequency [MHz]	Radiated Measured Result, dB(uV/m)	Generator Pout dBm	Cable Loss dB	Antenna Gain dBd	Dipole equivalent power dBm	Attenuation dBc	Limit dBc	Margin [dB]
292	30.8	-71.0	0.4	-0.3	-71.7	101.7	43	58.7
438	30.4	-70.5	0.5	-1	-72.0	102.0	43	59.0





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Frequency [MHz]	Radiated Measured Result, dB(uV/m)	Generator Pout dBm	Cable Loss dB	Antenna Gain dBd	Dipole equivalent power dBm	Attenuation dBc	Limit dBc	Margin [dB]
320	36.9	-65.2	0.4	-0.3	-65.9	95.9	43	52.9
480	34.1	-67.4	0.5	-1.8	-69.7	99.7	43	56.7

# Carrier Frequency 160 MHz, Low Power (1 Watt)





# Carrier Frequency 174 MHz, Low Power (1 Watt)

Frequency	Radiated	Generator	Cable	Antenna	Dipole	Attenuation	Limit	Margin
[MHz]	Measured	Pout dBm	Loss dB	Gain	equivalent	dBc	dBc	[dB]
	Result,			dBd	power dBm			
	dB(uV/m)							
348	38.1	-64.1	0.5	-0.3	-64.9	109.4	43	66.4
522	30.2	-69.2	0.5	-1.5	-71.2	115.7	43	72.7
696	32.5	-69.3	0.7	0.4	-69.6	114.1	43	71.1







# EXHIBIT 6H - Frequency Stability - Pursuant 47 CFR 2.1047 and 2.1033(c)(13)





Figure 6H-2: Frequency Stability vs. Supply Voltage



EXHIBIT 6I – Transient Frequency Behavior Note: Measurement made at 160.025 MHz





Figure 6I-2: 28 Watts, 12.5 KHz De-Key Decay Time



Figure 6I-3: 28 Watts, 25 KHz Key-Up Attack Time







Figure 6I-5: 1 Watt, 12.5 KHz Key-Up Attack Time



Figure 6I-6: 1 Watt, 12.5 KHz De-Key Decay Time



Figure 6I-7: 1 Watt, 25 KHz Key-Up Attack Time



Figure 6I-8: 1 Watt, 25 KHz De-Key Decay Time