Exhibit 6. Measured Data – Pursuant 47 CFR 2.1041

6.1. RF Power Output Data – Pursuant 47 CFR 2.1033c(8), 2.1046a

The RF power output was measured at the nominal battery voltage of 4.0 V (unloaded battery terminal voltage). The voltage applied to and current into the final RF amplifying device U500 is indicated below (refer to Exhibit 10 for active device list). The measurements were taken during a transmission slot.

Primary U500 Data

	Maximum Power Setting	Minimum Power Setting
Mean RF Output Power (mW)	620	0.730
DC Voltage (V)	4.0	4.0
DC Current (mA)	520	280
RF Input Power for the final RF Amplifying Module (µW)	35.5	0.035

Alternate U500 Data

	Maximum Power Setting	Minimum Power Setting
Mean RF Output Power (mW)	620	0.65
DC Voltage (V)	4.0	4.0
DC Current (mA)	1000	567
RF Input Power for the final RF Amplifying Module (µW)	35.5	0.035

6.2. Modulation Characteristics Data – Pursuant 47 CFR 2.1033c(13), 2.1047d

Digitally encoded speech or digital data is transmitted in four sub-channels at a 4 kHz rate, using M-ary symbols mapped to predetermined fixed magnitude and phase components, within one of three constellations associated with a particular modulation scheme. Figure 6-2 illustrates symbol mapping to one of the four QPSK sub-channel constellations. Figure 6-3 illustrates symbol mapping to one of four 16-QAM sub-channel constellations. Figure 6-4 illustrates symbol mapping to one of the four 64-QAM sub-channel constellations. For Quad-QPSK modulation this mapping adjusts the amplitude and phase variations of the baseband signal to one of four points on the constellation. For Quad-16-QAM modulation this mapping adjusts the amplitude and phase variations of the baseband signal to one of 16 points on the constellation. For Quad-64-QAM modulation this mapping adjusts the amplitude and phase variations of the baseband signal to one of 64 points on the constellation. The bandwidth of the modulating signal is limited by the pair of modulation limiting low pass filters in U801 (see Figure 4-3 in Exhibit 4.3). These filters serve to limit out-of-band and spurious emissions due to modulation. The necessary bandwidth of the sub-channels is limited to 4.8 kHz by the pair of modulation limiting low pass filters. The transfer response of these filters is depicted in Figure 6-1, where the filter excess bandwidth coefficient of 0.2 is shown. This excess

bandwidth leads to the necessary bandwidth calculation of (1+0.2) x (4 kHz) = 4.8 kHz. Because the sub-channels are spaced 4.5 kHz apart, the necessary bandwidth of the composite 4 sub-channel symbol streams is 4.8 + (3 x 4.5) = 18.3 kHz.

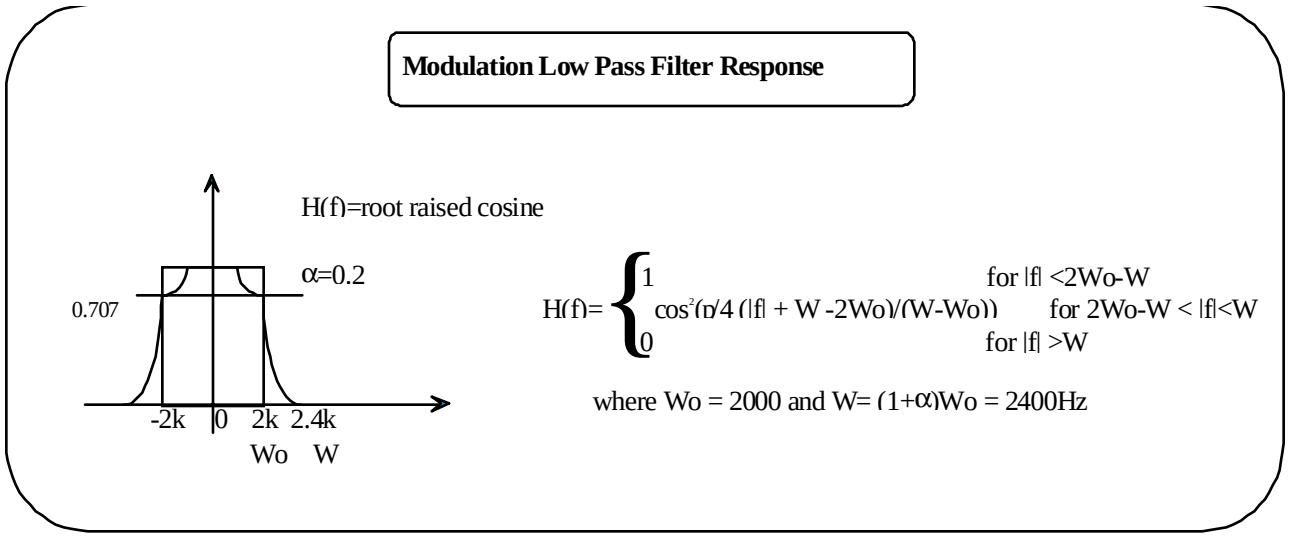

Figure 6-1

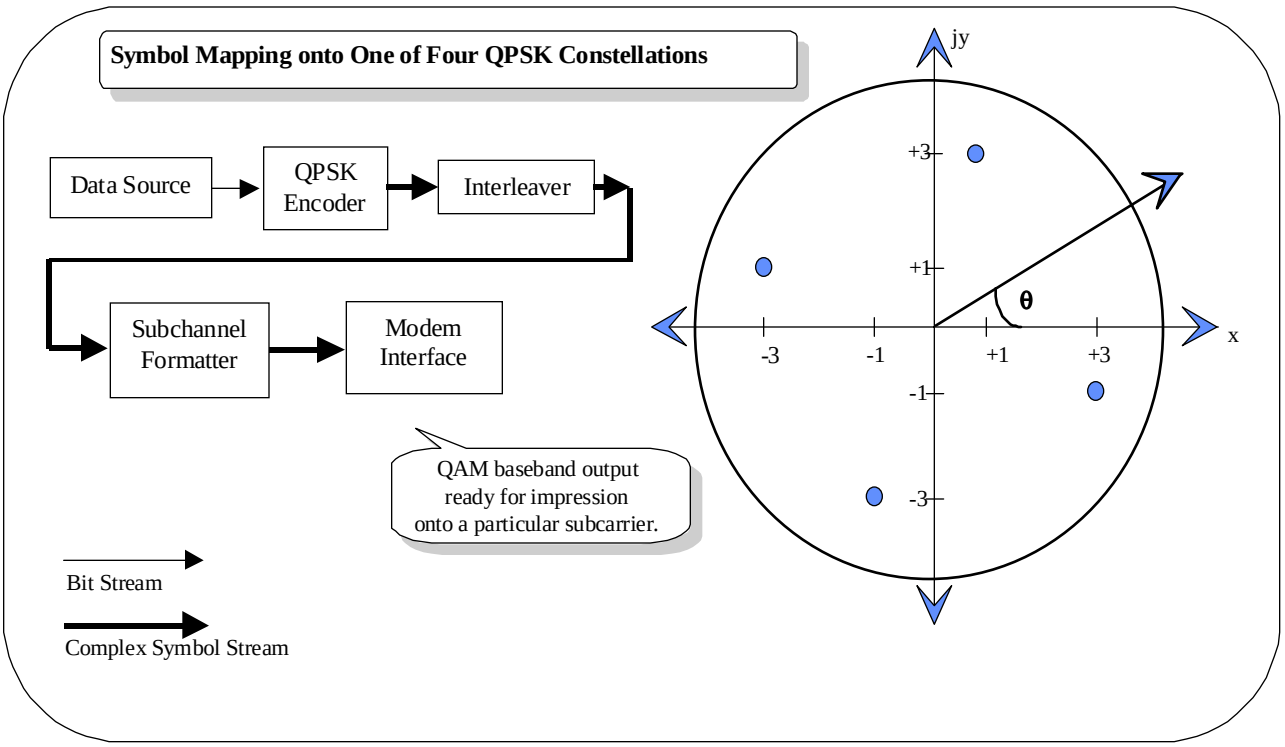

Figure 6-2

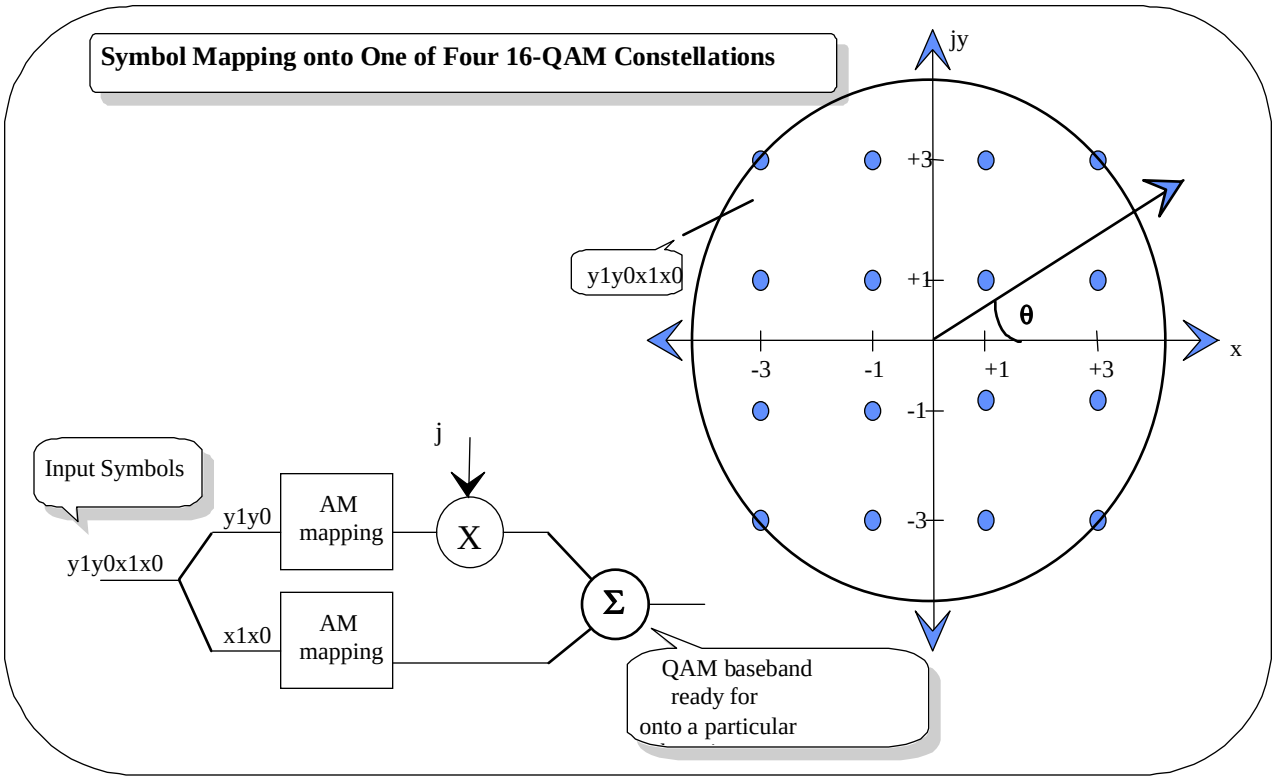

Figure 6-3

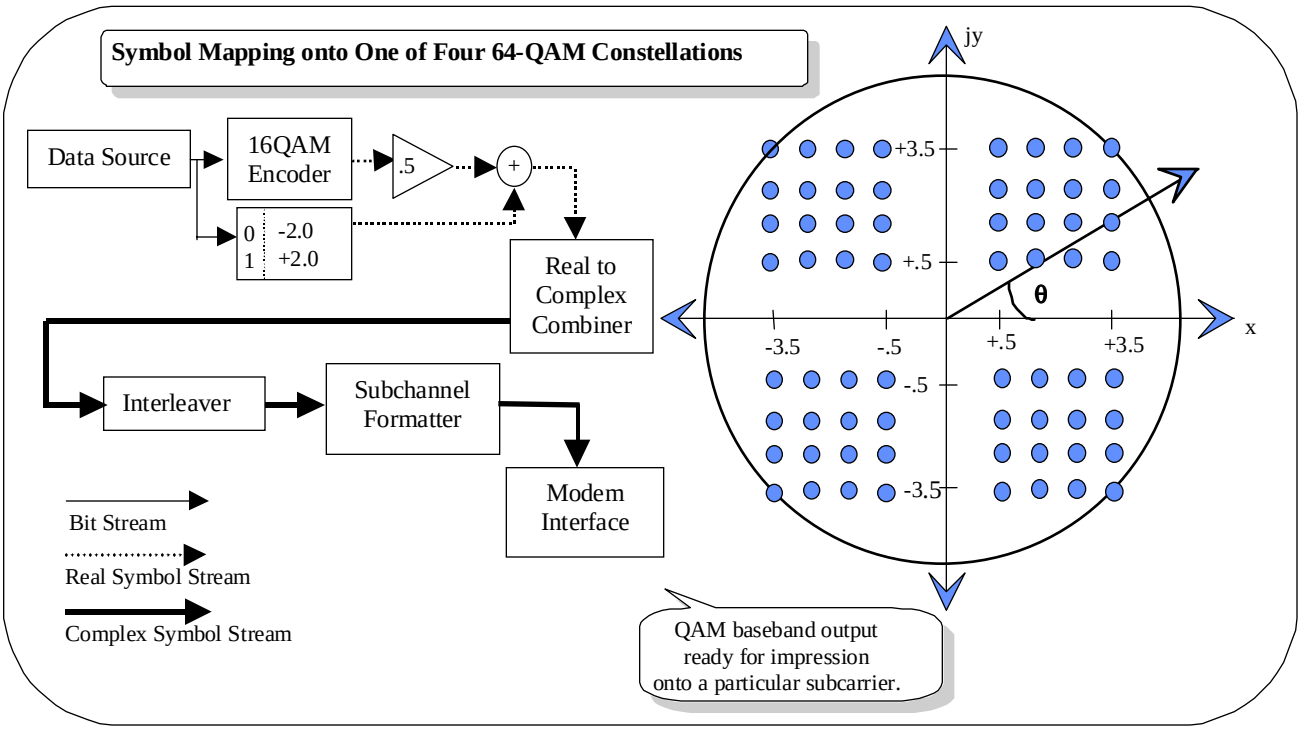

Figure 6-4

6.3. Occupied Bandwidth Data – Pursuant 47 CFR 2.1049h, 90.210g and 90.691

The method described in paragraph 7.2 was employed with the following conditions:

For Quad-QPSK Modulation:
32K Bits Per Second Pseudo-Random Digital Modulation
Vertical Division: 10 dB/division
Carrier Reference: Carrier reference 0 dB corresponds to maximum and minimum peak output power settings, respectively.

For Quad-16-QAM Modulation:
64K Bits Per Second Pseudo-Random Digital Modulation
Vertical Division: 10 dB/division
Carrier Reference: Carrier reference 0 dB corresponds to maximum and minimum peak output power settings, respectively.

For Quad-64-QAM Modulation:
96K Bits Per Second Pseudo-Random Digital Modulation
Vertical Division: 10dB/division
Carrier Reference: Carrier reference 0 dB corresponds to maximum and minimum peak output power settings, respectively.

In Figures 6-5 through 6-28, one trace was used to capture transmitter performance, measured using a resolution bandwidth of 300 Hz, while the reference level was obtained by another trace, using a resolution bandwidth of 30 kHz. A third trace shows the applicable emission mask.

Measured Data

Refer to Figures 6-5 and 6-6 for Quad-QPSK Modulation performance relative to masks 47 CFR 90.210g (Figures 6-17 and 6-18 for alternate U500).

Refer to Figures 6-9 and 6-10 for Quad-16-QAM Modulation performance relative to masks 47 CFR 90.210g (Figures 6-21 and 6-22 for alternate U500).

Refer to Figures 6-13 and 6-14 for Quad-64-QAM Modulation performance relative to masks 47 CFR 90.210g (Figures 6-25 and 6-26 for alternate U500).

Refer to Figures 6-7 and 6-8 for Quad-QPSK Modulation performance relative to masks 47 CFR 90.691(Figures 6-19 and 6-20 for alternate U500).

Refer to Figures 6-11 and 6-12 for Quad-16-QAM Modulation performance relative to masks 47 CFR 90.691(Figures 6-23 and 6-24 for alternate U500).

Refer to Figures 6-15 and 6-16 for Quad-64-QAM Modulation performance relative to masks 47 CFR 90.691(Figures 6-27 and 6-28 for alternate U500).

FCC Limits

a.) Per 47 CFR 90.210g

(1) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 5 kHz up to and including 10 kHz:

At least 83 $\log_{10}(f_d/5)$ decibels.

(2) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 10 kHz up to and including 250 percent of the authorized bandwidth:

At least 116 $\log_{10}(f_d/6.1)$ decibels or 50 + 10 $\log_{10}$(Unmodulated Carrier Power) decibels, whichever is lesser attenuation.

(3) On any frequency removed from the center of the authorized bandwidth by more than 250 percent of the authorized bandwidth:

At least 43 + 10 $\log_{10}$(Output Power in Watts) decibels or 80 decibels, whichever is lesser attenuation.

b.) Per EA SMR Emission Mask, 47 CFR 90.691a

Out-of-band emission requirement shall apply only to outer channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees.

(1) For any frequency removed from the EA licensees frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 $\log_{10}(f/6.1)$ decibels or 50 + 10 $\log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center channel of the outer channel in the block in kHz and where f is greater than 12.5 kHz.

(2) For any frequency removed from the EA licensees frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 $\log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center channel of the outer channel in the block in kHz and where f is greater than 37.5 kHz.

Figure 6-5: Quad-QPSK Modulation performance (Primary U500), relative to mask 47 CFR 90.210g. MAXIMUM POWER SETTING:

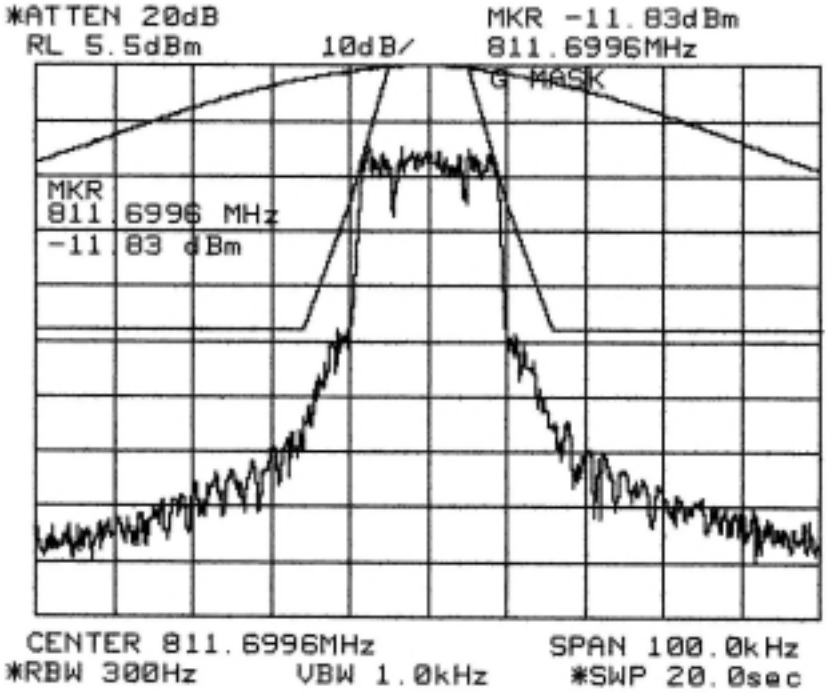

Figure 6-6: Quad-QPSK Modulation performance (Primary U500), relative to mask 47 CFR 90.210g. MINIMUM POWER SETTING:

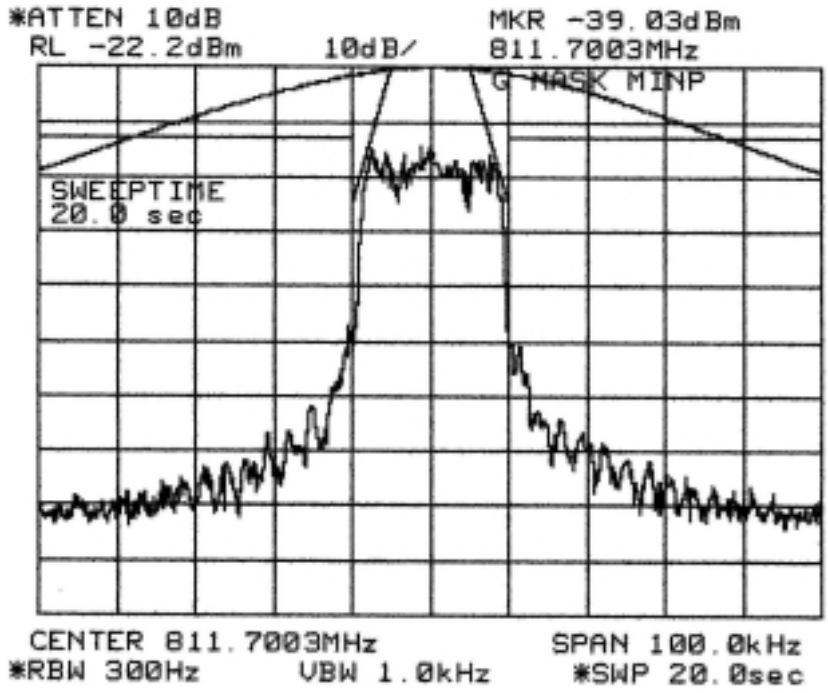

Figure 6-7: Quad-QPSK Modulation performance (Primary U500), relative to mask 47 CFR 90.691. MAXIMUM POWER SETTING:

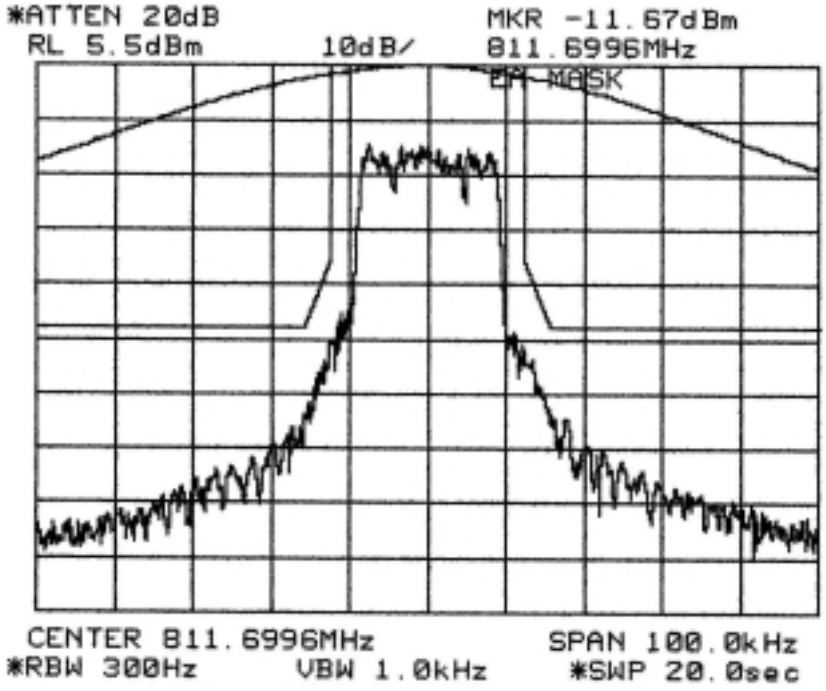

Figure 6-8: Quad-QPSK Modulation performance (Primary U500), relative to mask 47 CFR 90.691. MINIMUM POWER SETTING:

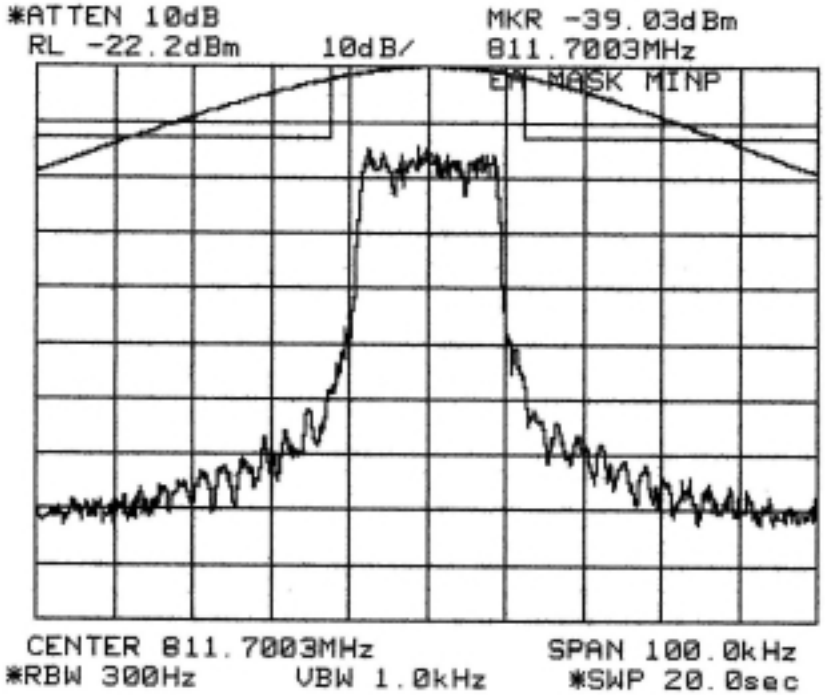

Figure 6-9: Quad-16-QAM Modulation performance (Primary U500), relative to mask 47 CFR 90.210g. MAXIMUM POWER SETTING:

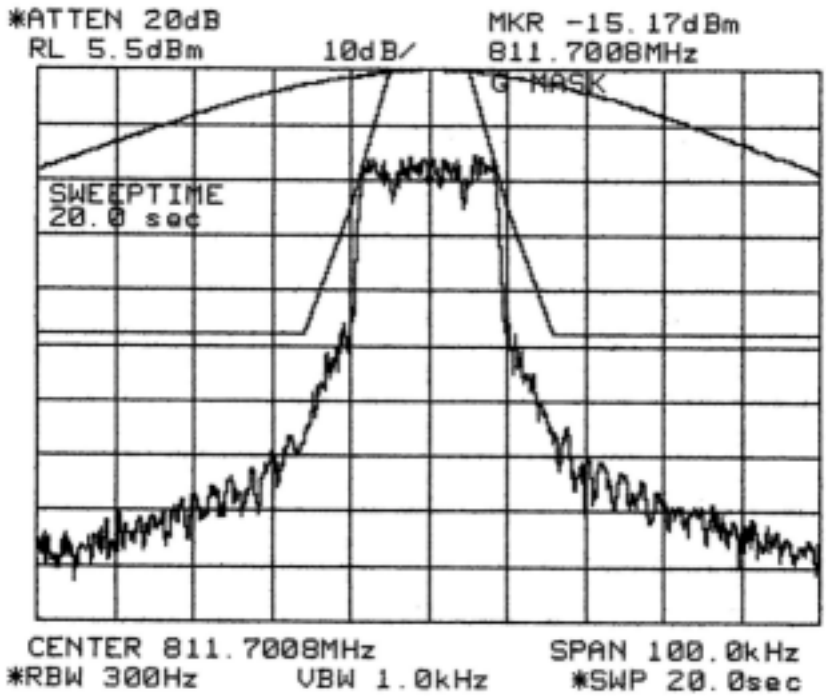

Figure 6-10: Quad-16-QAM Modulation performance (Primary U500), relative to mask 47 CFR 90.210g. MINIMUM POWER SETTING:

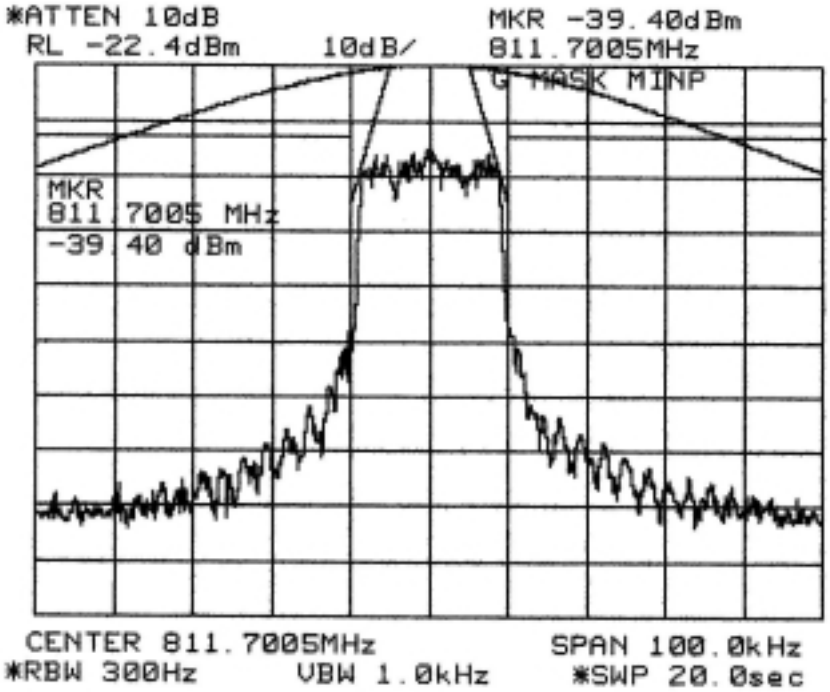

Figure 6-11: Quad-16-QAM Modulation performance (Primary U500), relative to mask 47 CFR 90.691. MAXIMUM POWER SETTING:

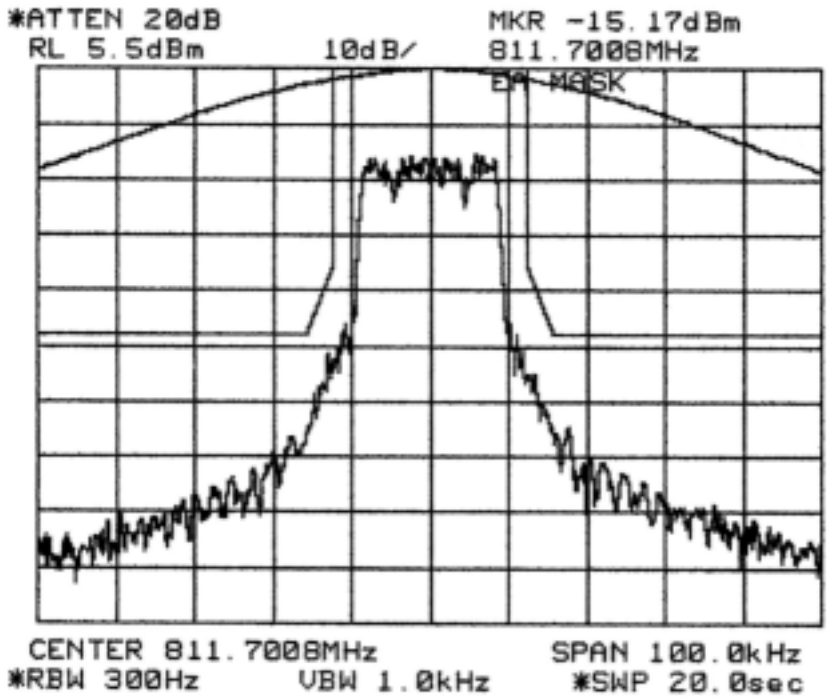

Figure 6-12: Quad-16-QAM Modulation performance (Primary U500), relative to mask 47 CFR 90.691. MINIMUM POWER SETTING:

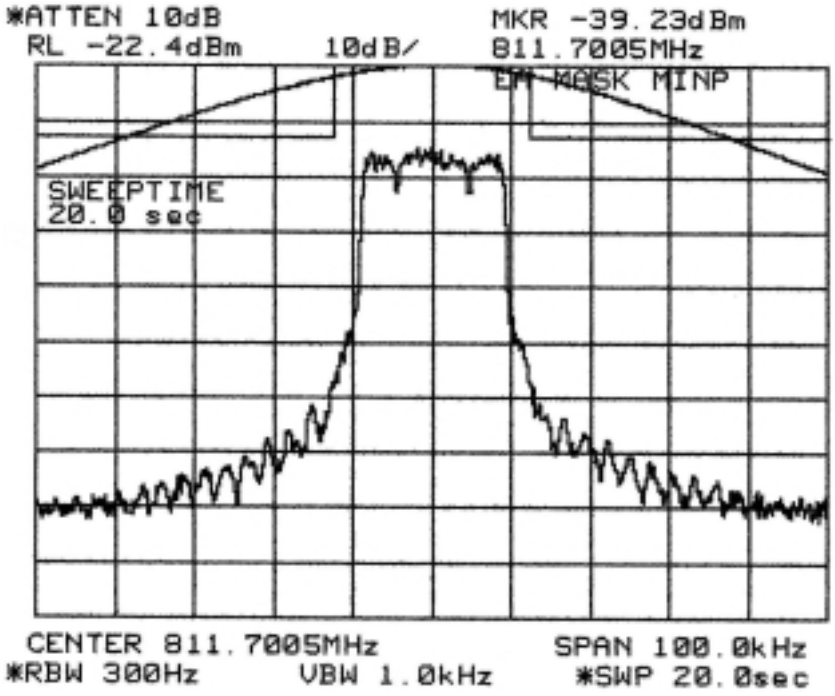

Figure 6-13: Quad-64-QAM Modulation performance (Primary U500), relative to mask 47 CFR 90.210g. MAXIMUM POWER SETTING:

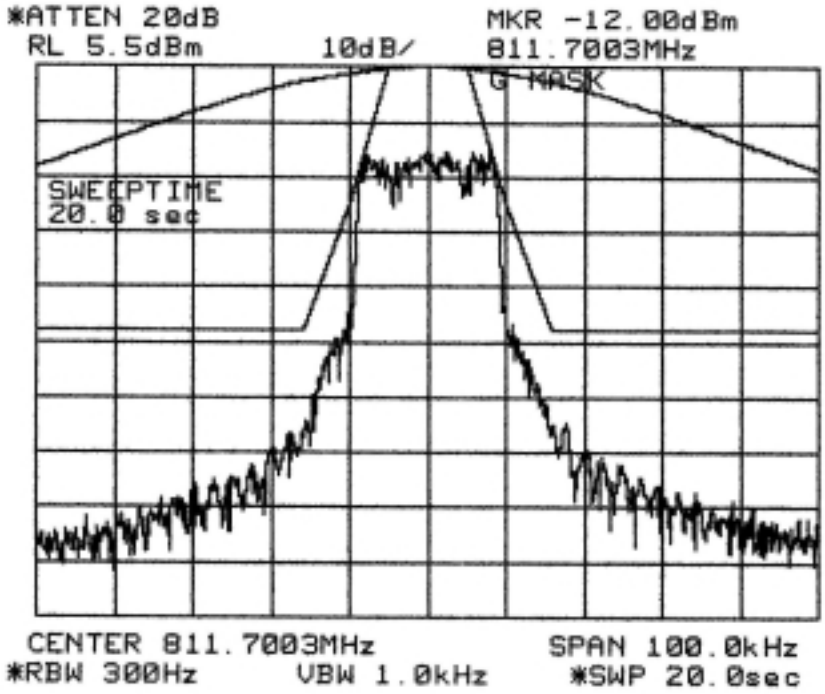

Figure 6-14: Quad-64-QAM Modulation performance (Primary U500), relative to mask 47 CFR 90.210g. MINIMUM POWER SETTING:

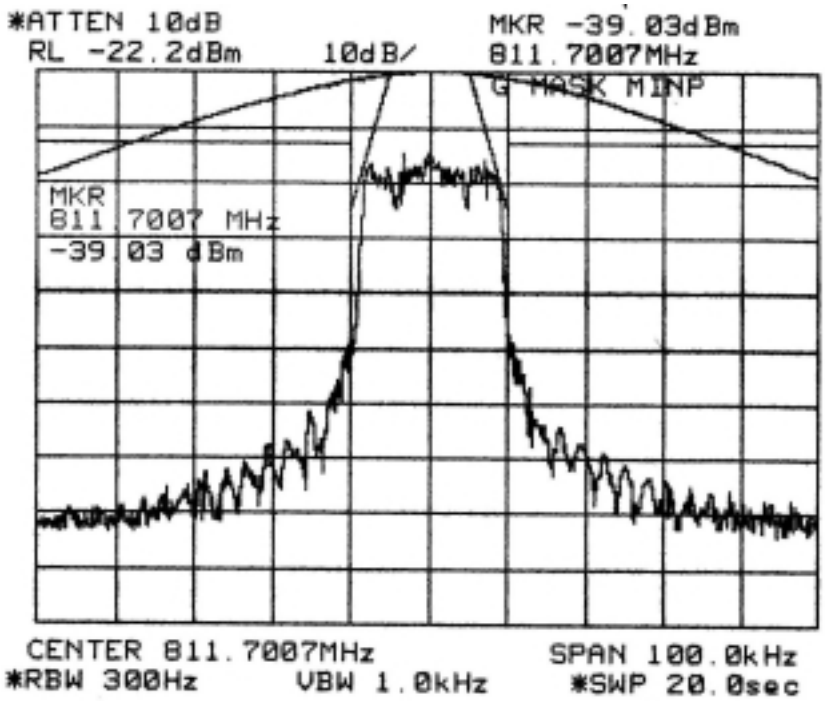

Figure 6-15: Quad-64-QAM Modulation performance (Primary U500), relative to mask 47 CFR 90.691. MAXIMUM POWER SETTING:

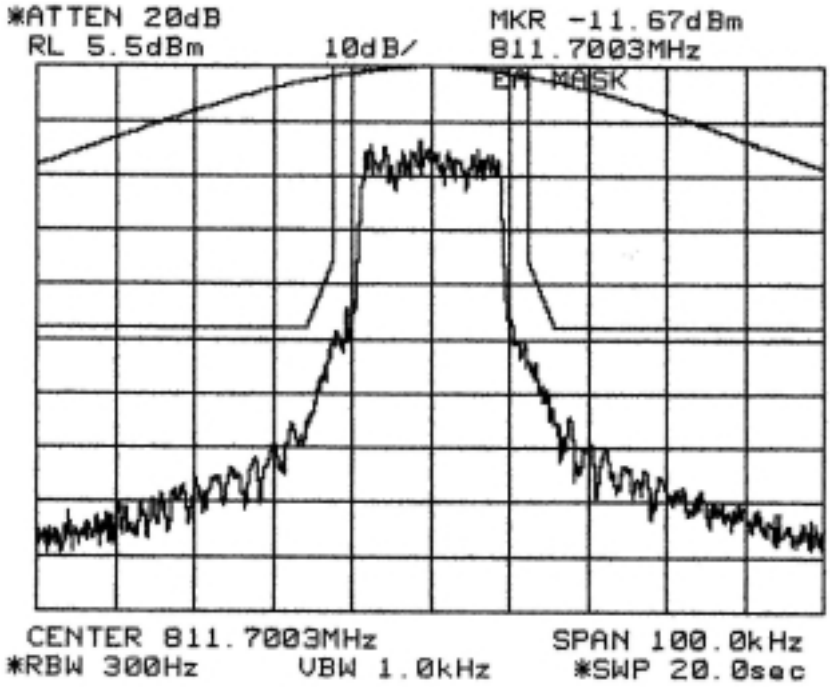

Figure 6-16: Quad-64-QAM Modulation performance (Primary U500), relative to mask 47 CFR 90.691. MINIMUM POWER SETTING:

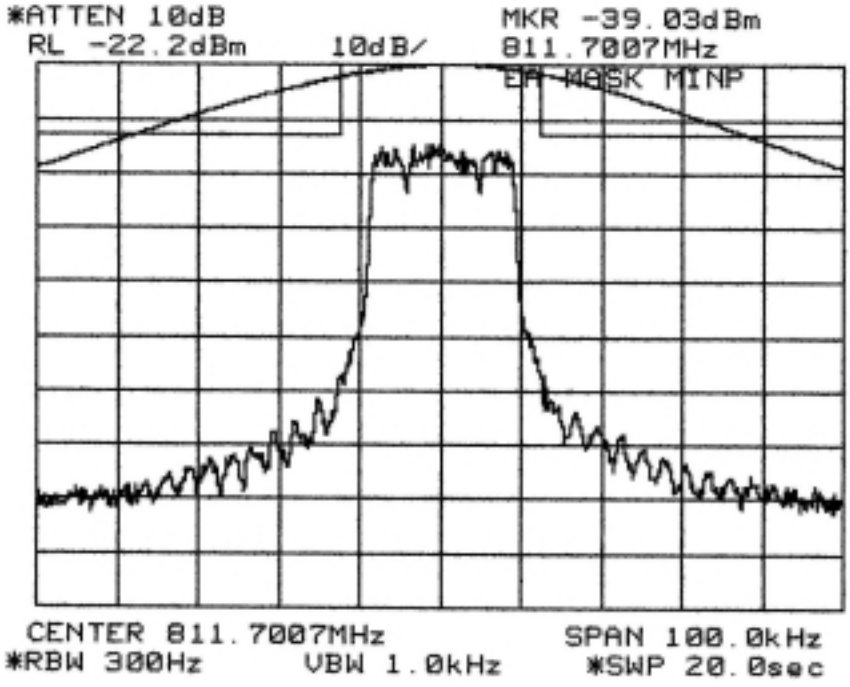

Figure 6-17: Quad-QPSK Modulation performance (Alternate U500), relative to mask 47 CFR 90.210g. MAXIMUM POWER SETTING:

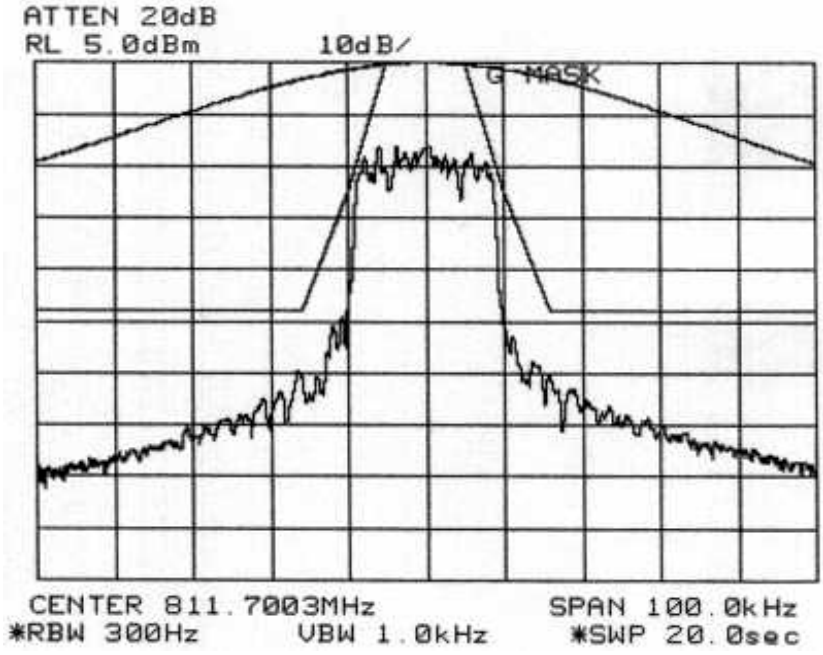

Figure 6-18: Quad-QPSK Modulation performance (Alternate U500), relative to mask 47 CFR 90.210g. MINIMUM POWER SETTING:

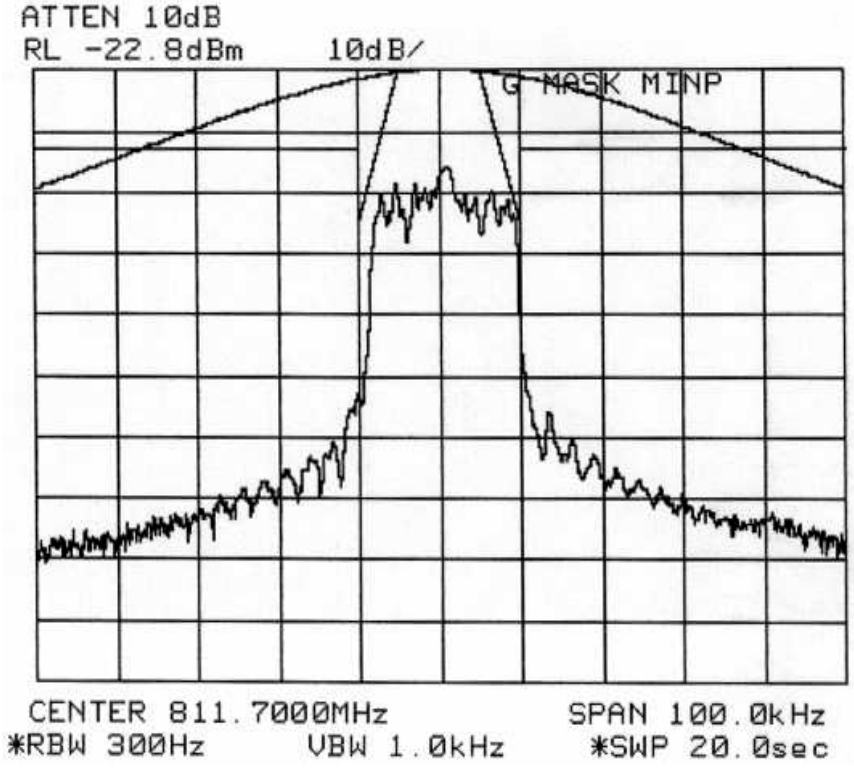

Figure 6-19: Quad-QPSK Modulation performance (Alternate U500), relative to mask 47 CFR 90.691. MAXIMUM POWER SETTING:

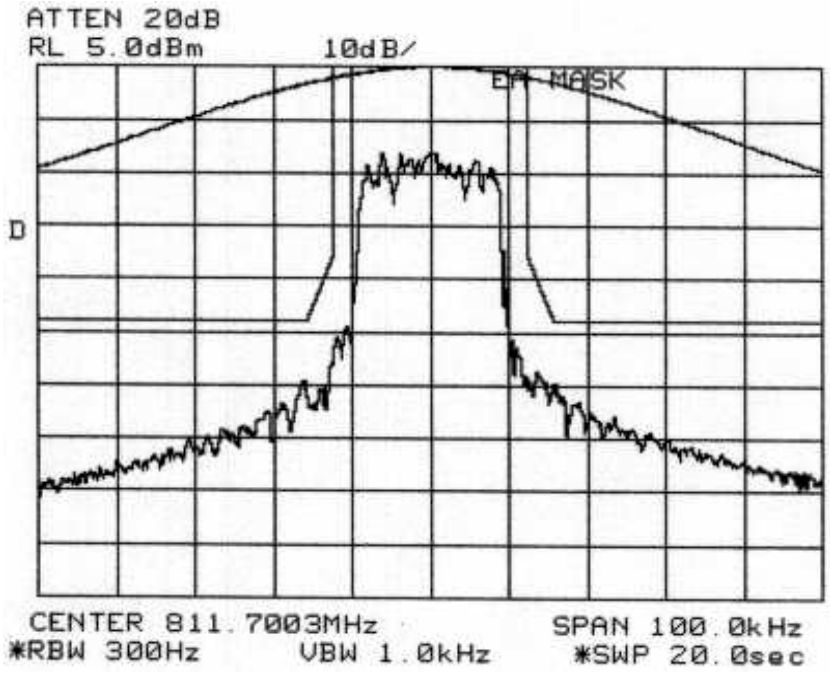

Figure 6-20: Quad-QPSK Modulation performance (Alternate U500), relative to mask 47 CFR 90.691. MINIMUM POWER SETTING:

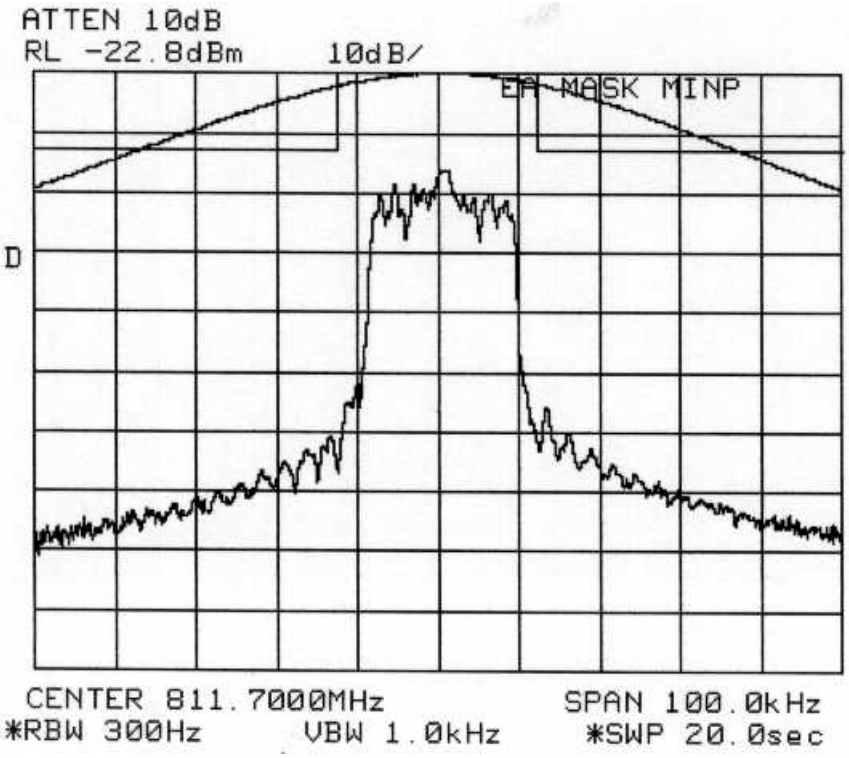

Figure 6-21: Quad-16-QAM Modulation performance (Alternate U500), relative to mask 47 CFR 90.210g. MAXIMUM POWER SETTING:

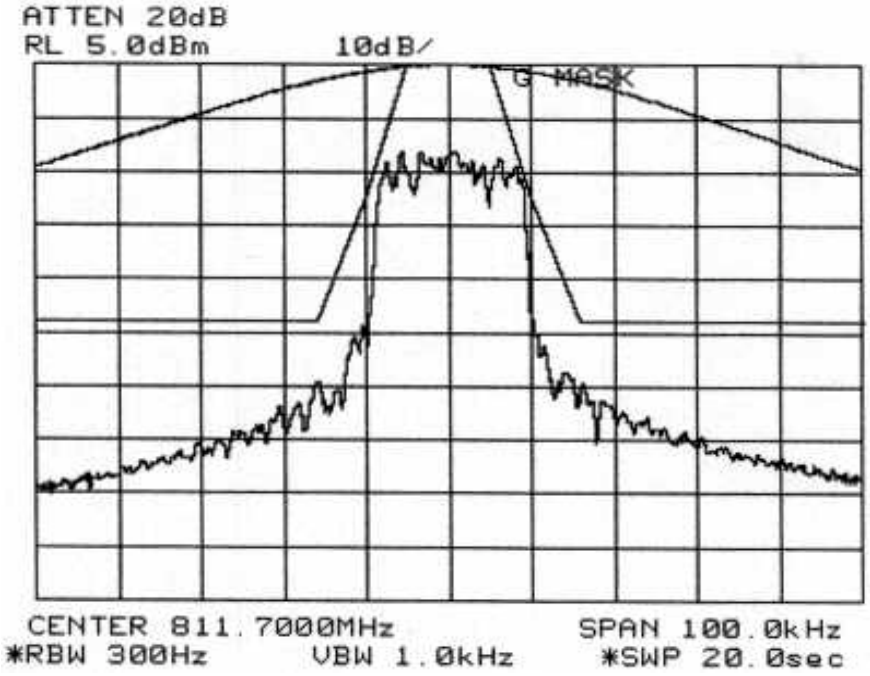

Figure 6-22: Quad-16-QAM Modulation performance (Alternate U500), relative to mask 47 CFR 90.210g. MINIMUM POWER SETTING:

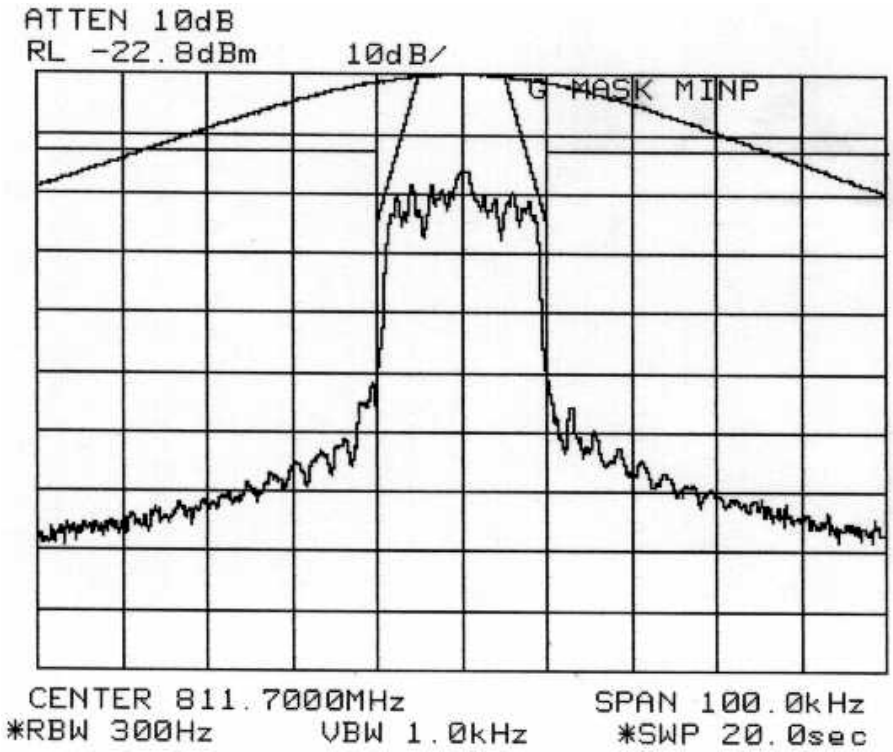

Figure 6-23: Quad-16-QAM Modulation performance (Alternate U500), relative to mask 47 CFR 90.691. MAXIMUM POWER SETTING:

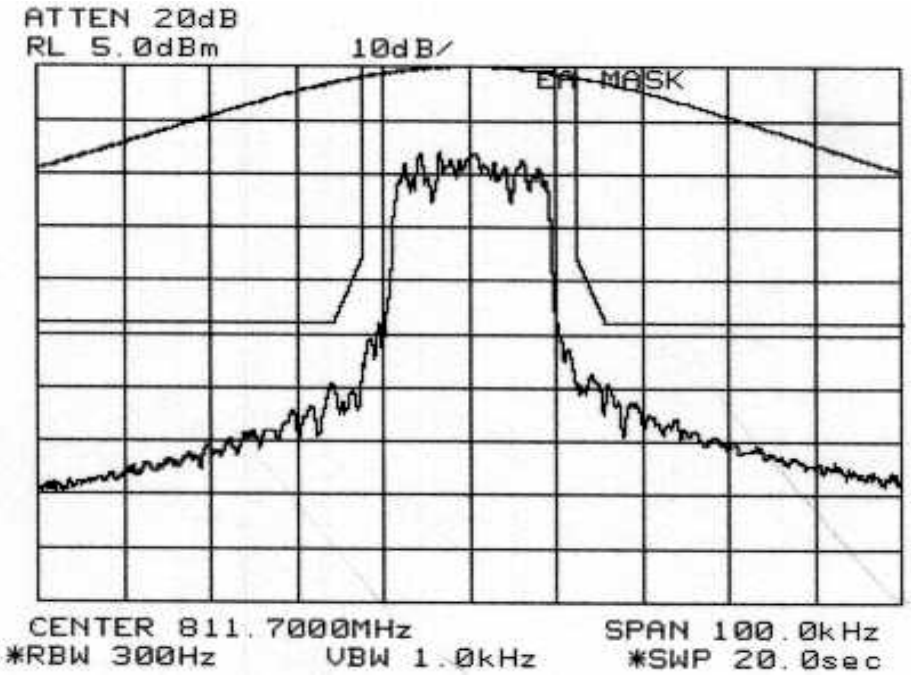

Figure 6-24: Quad-16-QAM Modulation performance (Alternate U500), relative to mask 47 CFR 90.691. MINIMUM POWER SETTING:

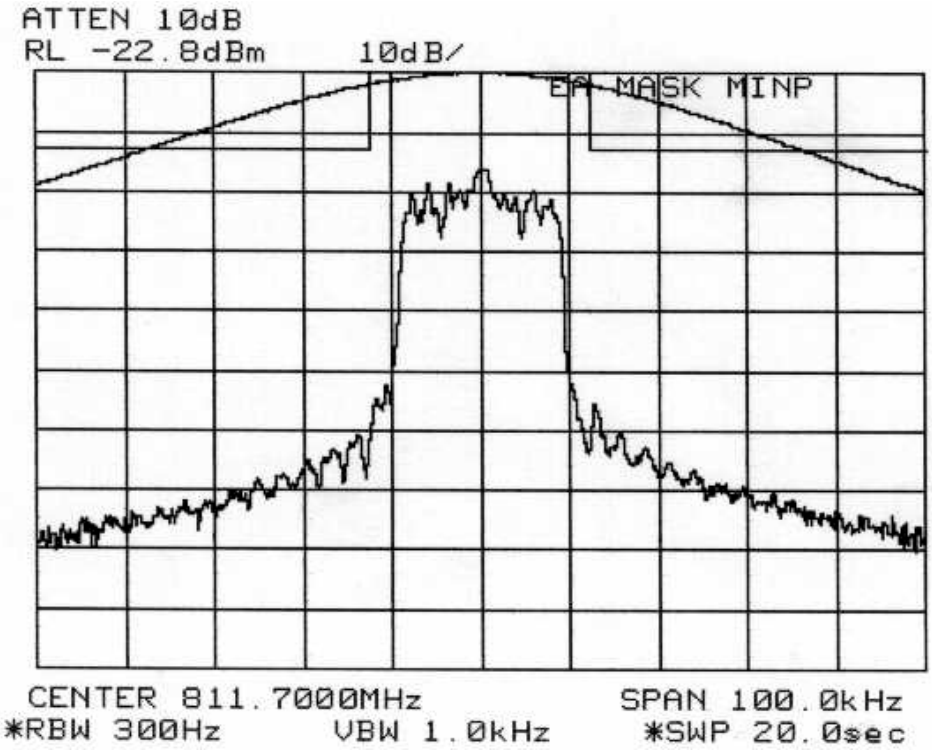

Figure 6-25: Quad-64-QAM Modulation performance (Alternate U500), relative to mask 47 CFR 90.210g. MAXIMUM POWER SETTING:

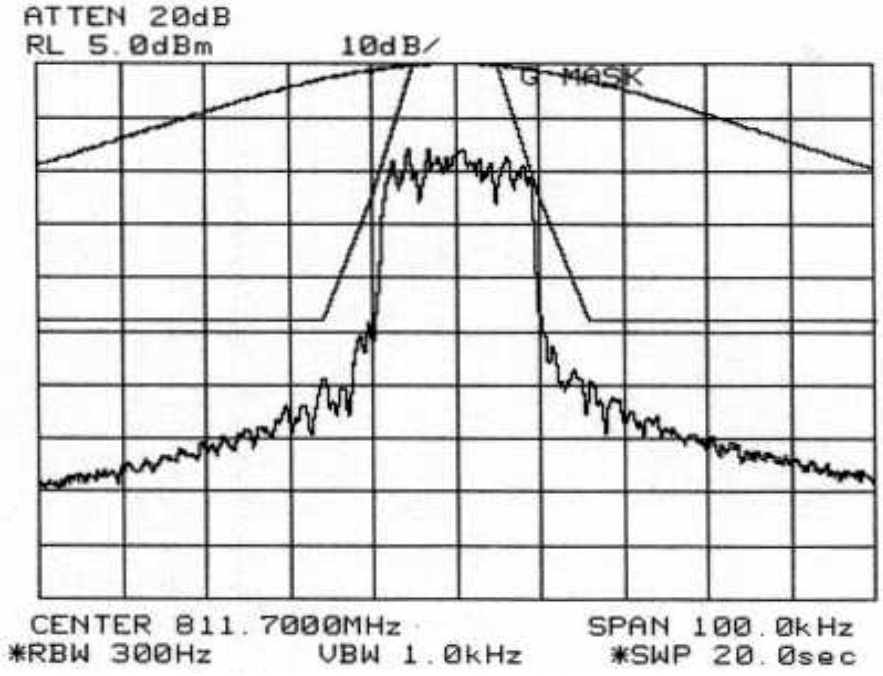

Figure 6-26: Quad-64-QAM Modulation performance (Alternate U500), relative to mask 47 CFR 90.210g. MINIMUM POWER SETTING:

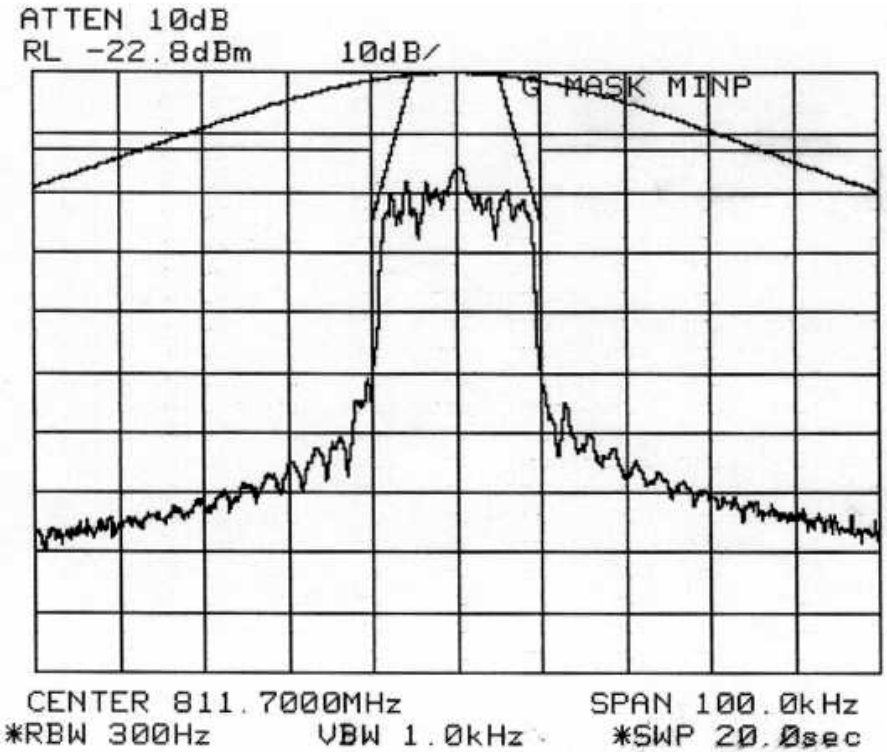

Figure 6-27: Quad-64-QAM Modulation performance (Alternate U500), relative to mask 47 CFR 90.691. MAXIMUM POWER SETTING:

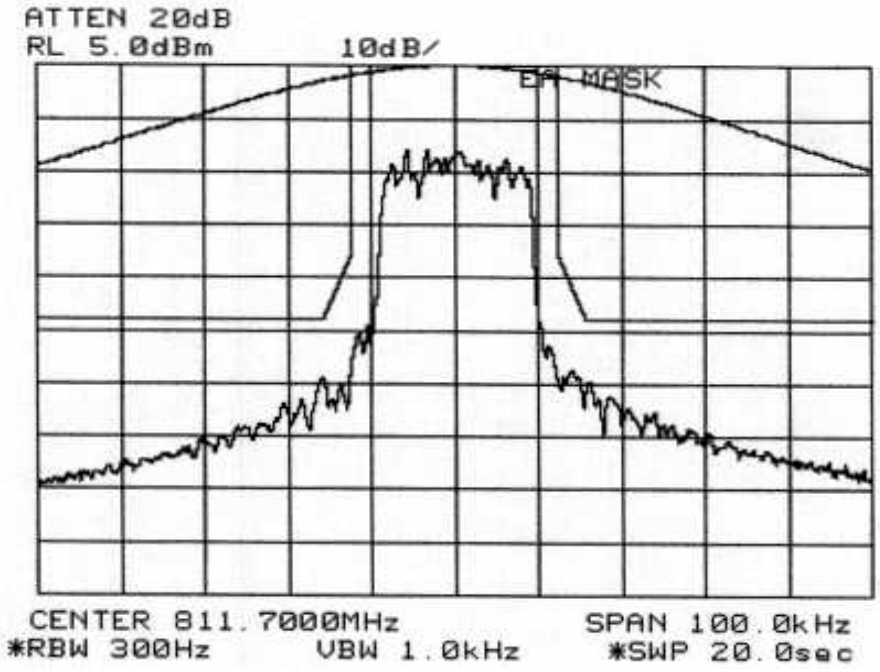

Figure 6-28: Quad-64-QAM Modulation performance (Alternate U500), relative to mask 47 CFR 90.691. MINIMUM POWER SETTING: