Exhibit 6.   Measured Data ----- 47 CFR. 2.1033(c) 14

6.1   RF Power Output Data -- Pursuant 47 CFR 2.1046(a), 2.1033(c)(6), 2.1033(c)(7) and 2.1033(c)(8)

The RF power output was measured with the indicated voltage applied to and current into the final RF amplifying device (U503). The power Voltage and current given are averaged in the transmission time slot.

At maximum output power setting:

Output RF power	0.7	Watts	(Pulse average)
DC Voltage	4.1	Volts	(Pulse average)
DC Current	850	mA	(Pulse average)
RF PA Input Power	0.19	milliWatts	(Pulse average)

At the minimum power setting:

Output RF power	0.7	milliWatts	(Pulse average)
DC Voltage	4.0	Volts	(Pulse average)
DC Current	500	mA	(Pulse average)
RF PA Input Power	0.2	microWatts	(Pulse average)

6.2   Modulation Characteristics Data -- Pursuant 47 CFR 2.1047 and 2.1033(c)(13)

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 1 of 3 constellations associated with a particular modulation scheme. Figure 6-2 illustrates symbol mapping to one of the four QPSK sub-channels constellations. Figure 6-3 illustrates symbol mapping to one of the four 16QAM sub-channels constellation. Figure 6-4 illustrates symbol mapping to one of the four 64QAM sub-channels constellation. For Quad-QPSK modulation, this mapping adjusts the amplitude and phase variations of the baseband signal to one of 4 points on the constellation. For Quad-16QAM modulation, this mapping adjusts the amplitude and phase variations of the baseband signal to one of 16 points on the constellation. For Quad-64 modulation, this mapping adjusts the amplitude and phase variations of the baseband signal to one of 64 points on the constellation. After conversion by the D/A converters in U401 (see Figure 4-3 in Exhibit 4), 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. Since 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.

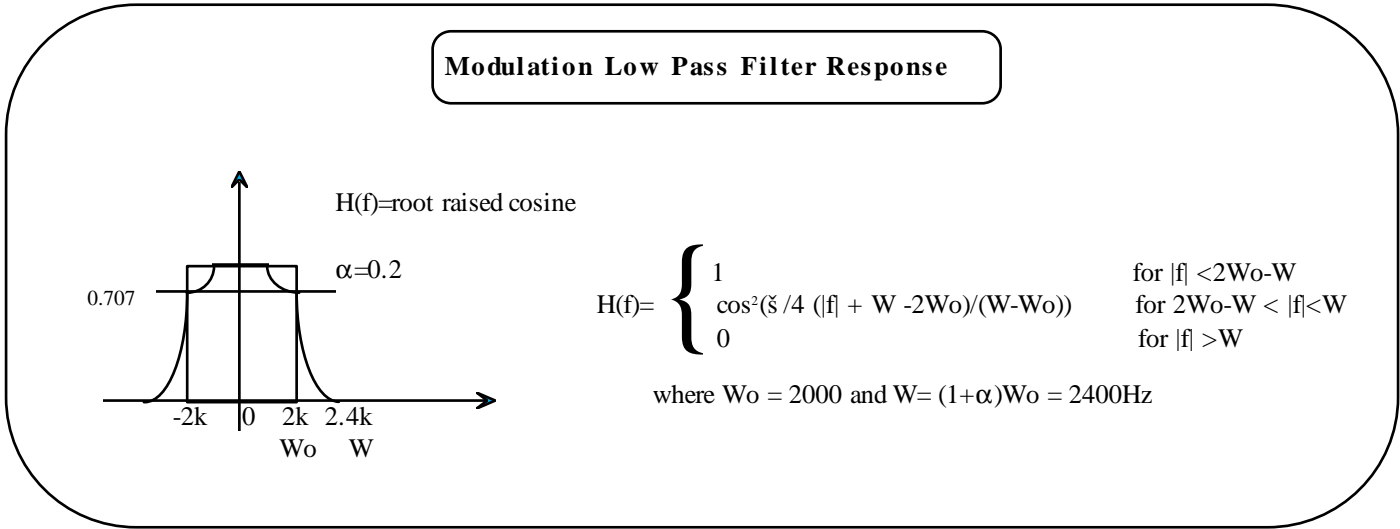**Modulation Low Pass Filter Response**

H(f)=root raised cosine

α=0.2

0.707

-2k 0 2k 2.4k
        Wo   W

$$H(f)= \begin{cases} 1 & \text{for } |f| < 2Wo-W \\ \cos^2(\check{s}/4\ (|f| + W - 2Wo)/(W-Wo)) & \text{for } 2Wo-W < |f| < W \\ 0 & \text{for } |f| > W \end{cases}$$

where Wo = 2000 and W= (1+α)Wo = 2400Hz

Figure 6-1: Modulation Low Pass Filter Response

Symbol Mapping onto One of Four QPSK Constellations

Data Source → QPSK Encoder → Interleaver →

→ Subchannel Formatter → Modem Interface

QAM baseband output ready for impression onto a particular subcarrier.

jy

+3
+1
θ
-3 -1 +1 +3 x
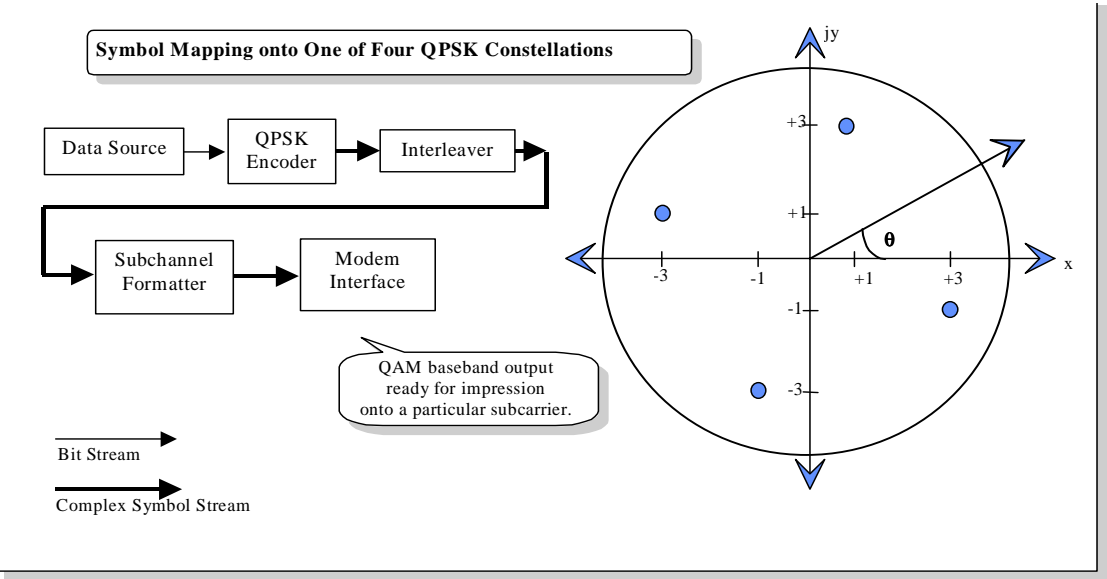-1
-3

Bit Stream

Complex Symbol Stream

Figure 6-2: Symbol Mapping onto One of Four QPSK Constellations

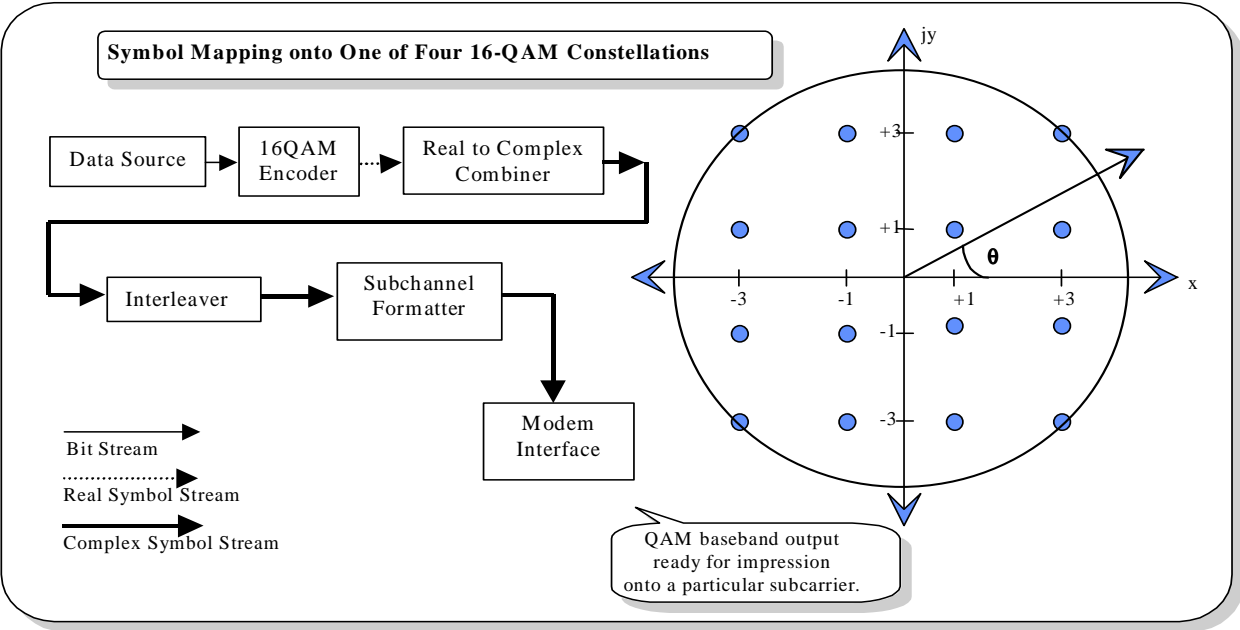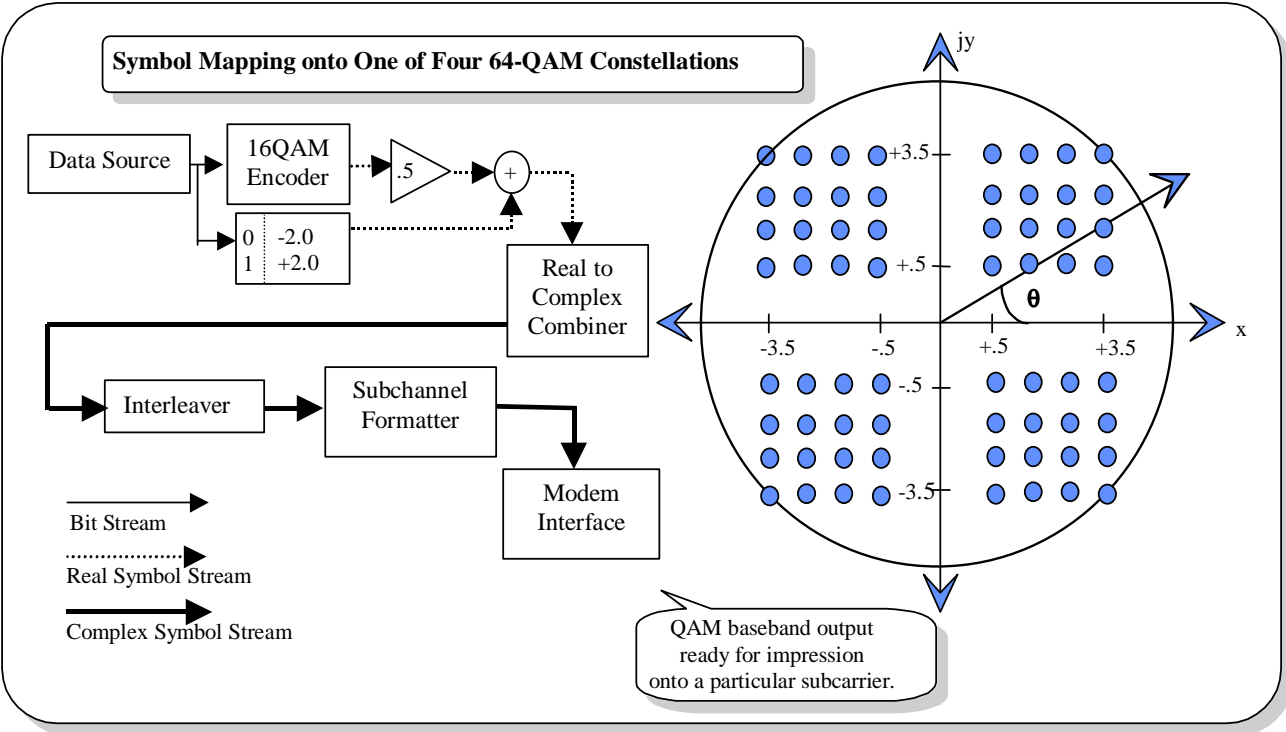**Figure 6-3: Symbol Mapping onto One of Four 16-QAM Constellations**

Figure 6-4: Symbol Mapping onto One of Four 64-QAM Constellations