EXHIBIT 6a: MEASURED DATA – Pursuant 47 CFR 2.1041

6.1 Transmitter Output Power -- Pursuant 47 CFR 2.1033(c)7, 2.1033(c)6) and 90.635(d)

The transmitter operating in the 800 MHz band is a variable power type used in a SMR trunking system. Output power (as defined in 47 CFR 90.7) is dynamically controlled as described in Exhibit 12.

Maximum output power rating: 640 milliwatts (28.06 dBm), pulse average power. Output power will vary over a range from 0.088 to 640 milliwatts (pulse average power).

Note 1: Nominal output power rating: 600 milliwatts (27.78 dBm) (Pulse average power).
Note 2: These ratings are compliant with the FCC maximum of 100 watts (50 dBm) for Mobile stations
Note 3: The term pulse average power is used to specify the power that would be measured during the intervals of recurrent TDM transmission pulses by an average responding RF power meter. Power expressed in this manner is independent of the TDM duty cycle, and facilitates RF system coverage analysis.

6.2 DC Power Used by Final Amplifier Device -- Pursuant 47 CFR 2.1033(c)8)

In order to prevent the malfunctions that can occur due to directly measuring the DC characteristics of the final RF amplifying stage, data was obtained by measuring the entire radio DC current and is reported herein for the entire radio.

The DC current and the RF output power was measured with a special RF/DC test fixture set to supply the radio with the nominal voltage of 5.0 V. The characteristics were measured during a transmission pulse and are listed in the Table 6-1:

Characteristics	**800 MHz**	
Power Setting	**maximum**	**minimum**
DC Voltage (Volts)	5	5
DC Current (A)	0.803	0.430
Output Power (mW)	606	0.0814

Table 6-1 Characteristics for 800 MHz bands

6.3 Modulation Characteristics and Necessary Bandwidth -- Pursuant 47 CFR 2.1033(c)13, 2.1047(d) & 2.202

Digitally encoded digital data is transmitted in groups of 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. One to four groups of four sub-channel streams are combined using frequency division multiplexing to form the modulated waveform. Figure 6-3 illustrates symbol mapping to one of the four QPSK sub-channels constellations. Figure 6-4 illustrates symbol mapping to one of the four 16QAM sub-channels constellation. Figure 6-5 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. The bandwidth of the modulating signals is limited by the pair of modulation limiting low pass filters within the modem block function of U801 (see Figure 4-2 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. Since the sub-channels are spaced 4.5 kHz apart, and the groups that each contain 4 sub-channels are spaced apart in integer multiples of 25 kHz, the necessary bandwidth of the composite 4 sub-channel symbol streams (single group) is 4.8 + (3 x 4.5) = 18.3 kHz and the necessary bandwidth of the entire waveform depends on the number and combination of groups transmitted. Figure 6-2 illustrates all group combinations and corresponding bandwidths.

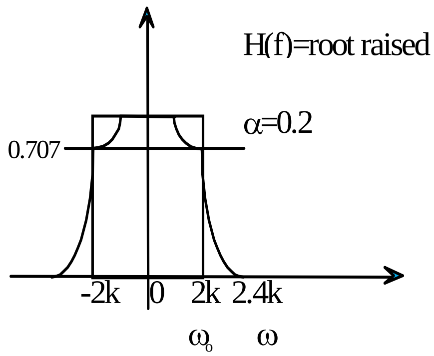
Below in Table 6-2 is a description of each waveform case.

Case	Description (Figure)	Number of Groups	Number Of Sub-channels	Emission Designator	Mask Figure
1	When Transmitting Voice, data or fax on one 25kHz channel (6.2.1)	1	4	18K3D7W	6-5 to 6-16
2	When Transmitting data on 2 adjacent 25kHz channels (6-2 (Adjacent))	2	8	43K3D7D	6-17 to 6-22
3	When Transmitting data on 3 adjacent 25kHz channels (6-3)	3	12	68K3D7D	6-23 to 6-28
4	When Transmitting data on the 2 outer 25kHz channels of 4 25kHz channels (6-2(outer))	2	8	93K3D7D	6-35 to 6-40
	When Transmitting data on 4 adjacent 25kHz channels (6-4)	4	16	93K3D7D	6-29 to 6-34

Table 6-2: Waveform Description of all transmitted cases.

The designator for emissions in case 2 and 3 is determined by adding N x 25 to the first 2 digits, when N = the number of channels. The designator for case 4 is determined by adding 3 x 25 to the fist 2 digits because the outer channels are 3 channels apart. “D” is used for the last character when only data is transmitted, not telephony.

Modulation Low Pass Filter Response



$$H(f)=\begin{cases}1 & \text{for } |f| < 2\omega_o-\omega \\ \cos^2(\pi/4\,(|f| + \omega - 2\omega_o)/(\omega-\omega_o)) & \text{for } 2\omega_o-\omega < |f| < \omega \\ 0 & \text{for } |f| > \omega\end{cases}$$

where $\omega_o = 2000$ and $\omega = (1+\alpha)\omega_o = 2400$Hz

Figure 6-1: Modulation Low Pass Filter Response

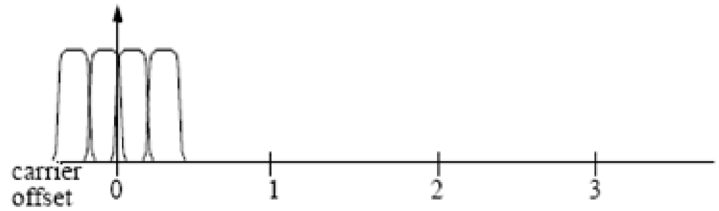
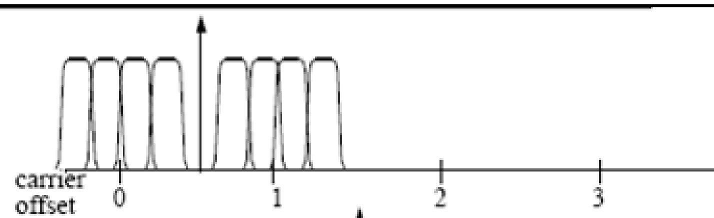
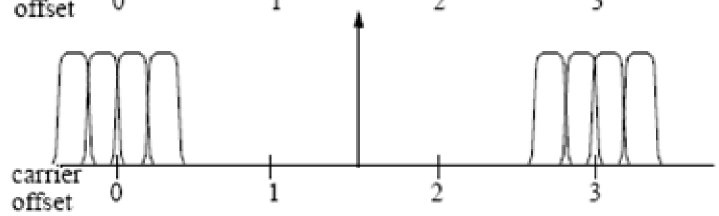
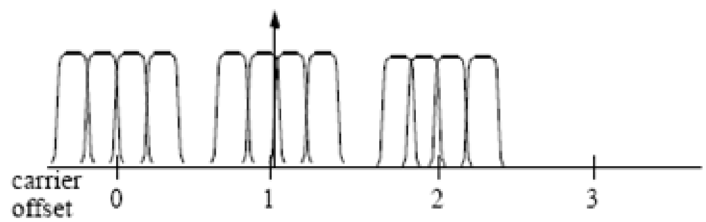
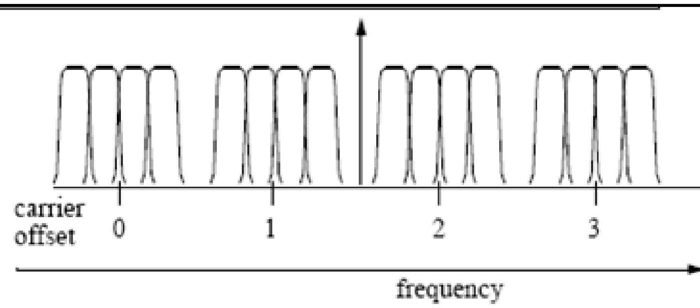
Number of Sub-Channel Groups	Bandwidth (kHz)	Sub-Channel Group Combination
1	18.3	
2 (adjacent)	43.3	
2 (outer)	93.3	
3	68.3	
4	93.3	

Figure 6-2: Sub-Channel Group Combination Bandwidths

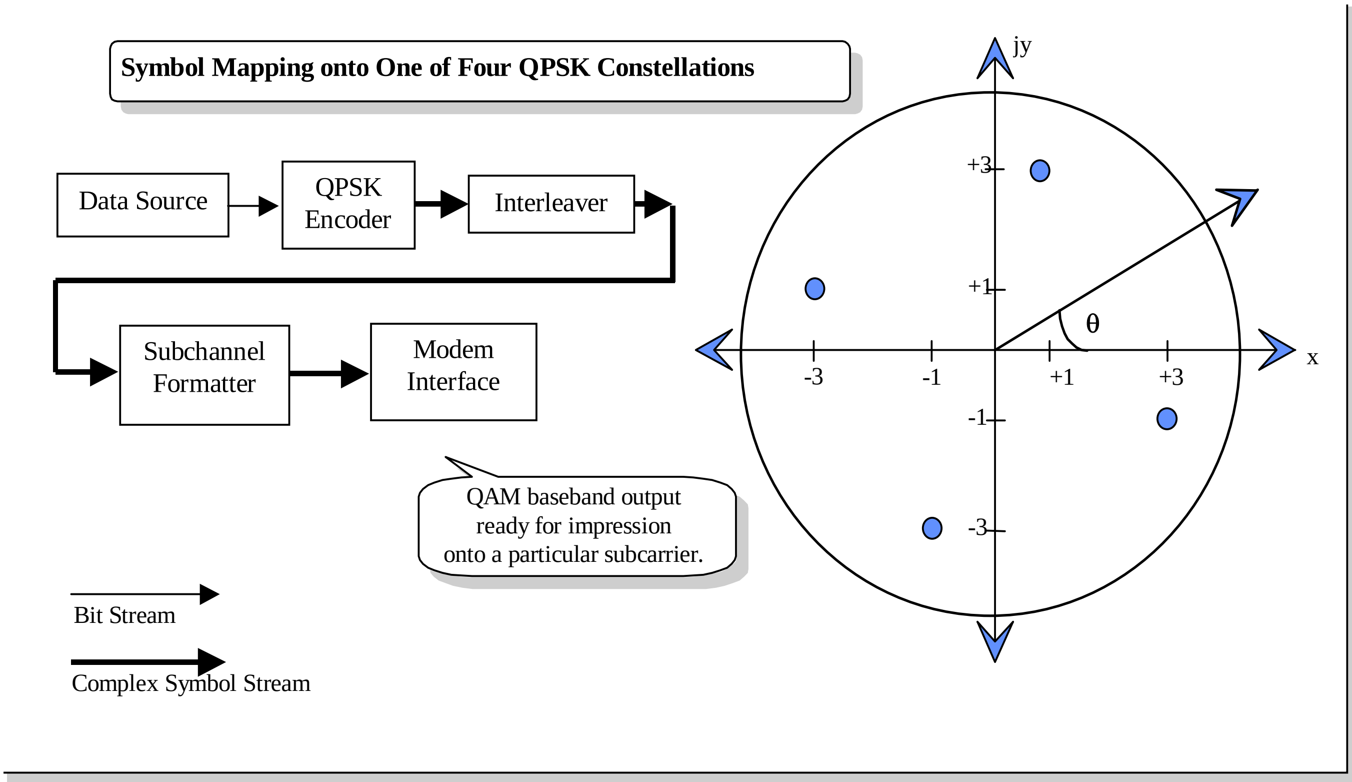


Figure 6-3: Symbol Mapping onto One of Four QPSK Constellations

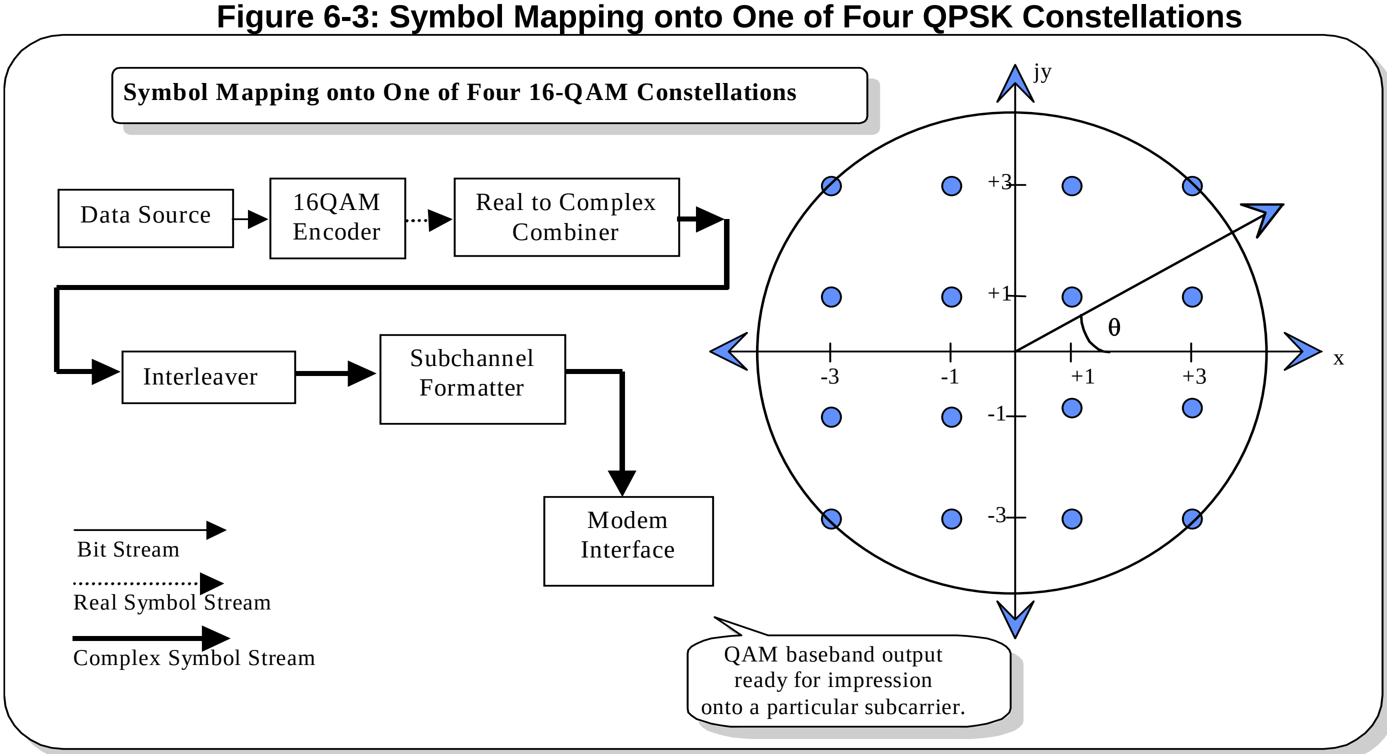


Figure 6-4: Symbol Mapping onto One of Four 16-QAM Constellations

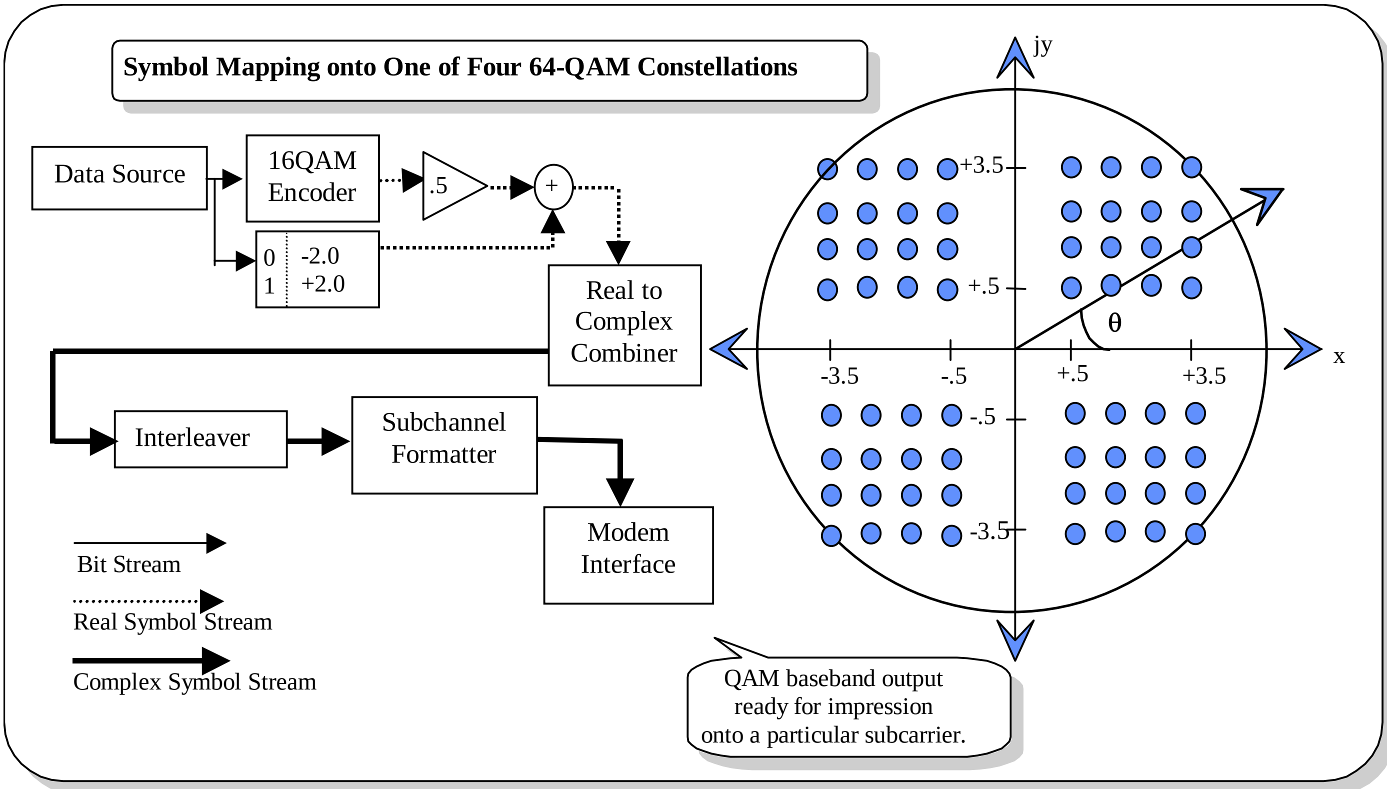


Figure 6-5: Symbol Mapping onto One of Four 64-QAM Constellations