

**EMISSION DESIGNATORS AND BANDWIDTH CALCULATIONS**

The subject transmitter uses multiple (3) FM Sub-carriers modulated with 3 level FSK. The positioning of the sub-carriers for three sub-carrier operation will be 0 KHz and  $\pm 12.5$  KHz from the carrier. In the event the subject transmitter is required to transmit three sub-carriers, P0 to P2 will be used.

**THREE sub-carriers: 33K0F2D (Figure 2.)**

- The sub-carriers are offset from fc at -12.5 KHz, 0 KHz and +12.5 KHz.
- The Lower sub-carrier' LSB (Lower Side Band) has a BW of 4 KHz ( $\frac{1}{2}$  the BW of a single sub-channel).
- The Upper sub-carrier' USB (Upper Side Band) has a BW of 4 KHz ( $\frac{1}{2}$  the BW of a single sub-channel).
- The lower and upper sub-carriers are spaced 25 KHz apart.

$$\begin{aligned} \text{BW} &= 4 \text{ KHz} + 25 \text{ KHz} + 4 \text{ KHz} \\ &= 33 \text{ KHz} \end{aligned}$$

**Note: Previous sub-carrier configurations will remain the same.**