

## CHANGES TO 2.8.2 OF 2.983(d)(10)

### DESCRIPTION OF OSCILLATOR AND SYNTHESIZER CIRCUITS

The transmitter output frequency of this equipment is produced by the phase-locked loop (PLL) circuit. The stability of the output frequency is determined by the accuracy of the crystal oscillator located in the PLL circuit.

The Fractional N PLL synthesizer is made by National Semiconductor and operates with reference frequency of 240kHz. It operates at the frequency band of 1007.19MHz to 1032.12MHz.

The reference counter value for Main PLL is calculated as follows:

TCXO frequency: 19.44MHz  
Reference frequency: 240kHz

$$R = (19.44 \times 10^6) / (240 \times 10^3) \\ = 81$$

The reference counter value for Auxiliary PLL is calculated as follows:

TCXO frequency: 19.44MHz  
Reference frequency: 90kHz

$$R = (19.44 \times 10^6) / (90 \times 10^3) \\ = 216$$