

**DESCRIPTION**

## 1. Transmitter Technical Characteristics--Pursuant 2.983(d)

## A. R.F. Power Output:

In analog mode, the power output is continuous and has a variable range from .005 to 0.5 Watts (controlled by the Cell-site).

In digital mode, power output ranges from 0.00001 mW to 0.250 Watts (controlled by the Cell site via Closed Loop Power Control). The power output varies depending on the mobile's data rate. Transmit duty cycle is 100% in 14400 bps, 50% in 7200 bps, 25% in 3600 bps, and 12.5% in 1800 bps.

B. Frequency Range 824.04 to 848.97 MHz for Wide Analog Mode and Digital CDMA Mode  
Frequency Range 824.01 to 848.99 MHz for Narrow Analog Mode

## C. Frequency Stability

+/-0.000075% (0.75PPM) steady state of the receive carrier frequency (Analog Modes).

NAMPS operational stability:  $\pm$  .00010% (1.0 PPM)

AMPS operational stability:  $\pm$  .00025% (2.5 PPM)

+/-0.000036% (0.36PPM) steady state of the receive carrier frequency (Digital Modes).

CDMA operational stability:  $\pm$  .00005% (0.5 PPM)

## D. Emissions 40K0F8W, 40K0F1D, 17K4F9W, 1M25F9W

## E. D.C. Voltage into the Final two stage R.F. Amplifier: 3.6 Volts DC

D.C. Current into the Final two stage R.F. Amplifier: 635 mA (Analog)

550 mA (Analog Alternate P.A.)

D.C. Current into the Final two stage R.F. Amplifier: 570 mA (Digital)

400 mA (Digital Alternate P.A.)

(Average Current in Digital CDMA Mode in 100% transmit duty cycle)

## 2. Transmitter Application

## A. Power Supply Available

The transmitter is normally operated by means of a 3.6 volt battery with battery cutoff voltage to no lower than 2.9V. Performance is also guaranteed up to 5.4V. (Refer to exhibit 9K)

## B. Antenna Available

The transmitter is designed to be used with an integral extendable antenna. In the down position, the antenna is a quarter wave helical. In the up position, the antenna is a quarter wave whip in series with a quarter wave helical.

## C. Maximum Transmit Channel Capability

AMPS Mode - 832 channels

NAMPS Mode - 2412 channels

CDMA Mode - Per 6.1.1.1 of TIA/EIA IS-95-A