



Tecore, Inc.

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# Operation Description

## 1.0 OPERATIONAL DESCRIPTION

The RF Unit operates in the UMTS Band V frequency band and provides the following functions.

High Power Amplifier (HPA) module providing 20 watts of power.

-The RF unit amplifies the UMTS downlink carrier (824-894 MHz) to a level of 20W.

Dual Low Noise Amplifiers (LNA) providing low noise amplification of received signals.

-The RF unit provides low noise amplification for the UMTS uplinks signals (824-849 MHz)

Duplex filter providing a single duplex antenna connector for transmit and receive signals as well as a receive diversity antenna connector; also providing receive and transmit signal out-of-band filtering.

DC Injectors/Lightning Arrestors providing lightning and surge protection for antenna connectors and DC power for optional tower mounted amplifiers (TMAs).

The RF unit connects to the Control Unit via the two Tecore supplied SMA .141 semi-rigid coax cables (24" length).

The Control Unit contains two NodeB modules which provide the transmit and receive UMTS radio access functions. Only a single NodeB will be connected to the RF Unit at any one time.

