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**Unity Wireless Systems Corp.
Osprey 35 W CDMA SCPA
100.0188.001
Power Amplifier
Operational Description**

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E.1 Operational Description

The Osprey 35W CDMA SCPA is a compact high power amplifier (HPA) designed for CDMA 1X in the frequency range 869-894 MHz.

The amplifier is composed of an RF line-up and a function board. The RF line-up provides the necessary amplification of the input signal. The function board provides power supplies to the RF board, processes alarms and provides monitoring functions for the external user. The function board also provides for RF shut down in case of a major alarm condition. The SCPA requires forced air cooling appropriate to the efficiency.

An additional feature of the Osprey is the special alarming function. When an alarm occurs and extends beyond 2 seconds, the HPA will be shut down automatically. The alarm functions included are over power alarm, VSWR alarm and device failure alarm, additionally an over temperature alarm. To clear the alarm, the user must disable the HPA for 1 second, and then issue the enable command. This function is monitored by a micro-controller inside the HPA, which is unique to this HPA.