



## SA300 iDEN Cellular Amplifier

iDEN

### Description

The SignalReach™ SA300 iDEN Cellular Amplifier provides amplification of transmit and receive signals for improved cellular communications. Designed for use with cellular iDEN standard telephones, the signal amplifier reduces problems with signal fades and dropped calls while improving voice quality, service range and access. The signal amplifier enhances the performance of cradle-mounted mobile telephones, resulting in wider coverage, less signal fading in buildings in urban environments, and increased coverage when used in rural areas. This product is designed to operate for iDEN mode signals from cellular service providers in the 806 to 870 MHz iDEN band. The amplifier is designed to work with a variety of cradles and hands-free systems in fixed or mobile applications.

This cellular signal amplifier is a network-compatible device that ensures proper power levels in the transmit (uplink) path. This enhances the iDEN telephone user's experience without compromising cellular network inter-operability requirements. The amplifier receive circuitry is appropriately optimized for network operation.

### Features

- Power control logic to ensure maximum output power is within cellular standards.
- Self-adjusting circuitry allows it to work with any cellular telephone/cradle combination.
- Network-compatible operation to ensure transmit power tracks the connected cellular telephone output.
- 3 Watts output (iDEN band) with typical antenna.

### RF Specifications

|                                        | Transmit                      | Receive                     |
|----------------------------------------|-------------------------------|-----------------------------|
| Frequency Range                        | 806-825 MHz                   | 851-870 MHz                 |
| Output Power                           | 3 W @ 815.5 MHz typical (ERP) |                             |
| Gain                                   | 6 dB to 18 dB, @ 815.5 MHz    | 8 dB $\pm$ 3 dB @ 860.5 MHz |
| Minimum Input for Maximum Output Power | 32 mW (15 dBm) @ 815.5 MHz    |                             |
| Noise Figure                           |                               | 7dB max                     |
| Maximum Input Power                    | 27 dBm (500 mW)               | -15 dBm (0.03 mW)           |
| VSWR (typical)                         | 2:1                           | 2:1                         |

### General Specifications

|                                     |                                                                                          |
|-------------------------------------|------------------------------------------------------------------------------------------|
| Power Requirements                  | 10-24 V, 1.6 Amps maximum                                                                |
| Nominal Operating Temperature Range | -40 to +70°C (-40 to 158°F)                                                              |
| Dimensions                          | 135mm L x 152mm W x 33mm H (5.31" L x 5.98" W x 1.30" H) without RF connectors           |
| Net Weight                          | 1.36 kg (3 lbs)                                                                          |
| RF Connectors                       | TNC Female                                                                               |
| Included Accessories                | DC power cable with fuse, 1.5m (4 ft) RF cable w/ TNC ends, qty two (2) FME/TNC adapters |
| Optional Accessories                | <a href="#">Accessory kits</a>                                                           |

For more Information Contact: [sales@signalreach.com](mailto:sales@signalreach.com)

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