

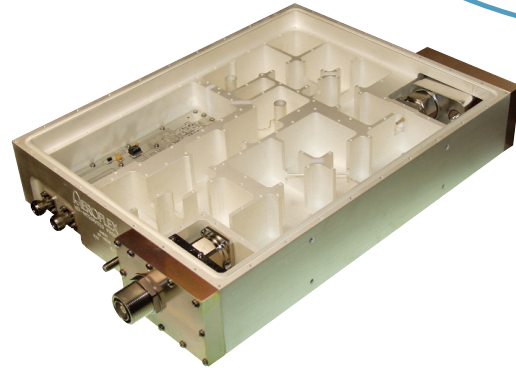
# Base Station RX Access Port With Full RX/TX Duplex Function



The Dual Duplexer LNA provides a unique solution for connecting location equipment (E911) to Microcells. The Dual Duplexer splits the Rx/Tx line from the antenna and couples a test port for Rx access. This is ideal for base stations with no Rx port access, such as in the case of a Microcell. The Rx path is amplified in the Dual Duplexer to provide unity gain to the base station.

The Dual Duplexer comes in a Cellular or PCS frequency band models. Both are powered by a rack mounted Power Alarm Unit, (PAU), Model AY-H29S. The PAU also provides relay pin-outs to indicate alarm events.

The Dual Duplexer is suitable for outdoor applications. It is sealed and painted to protect it from environmental weathering and ingress.

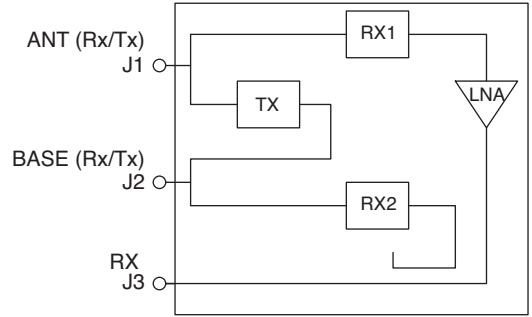


## Features

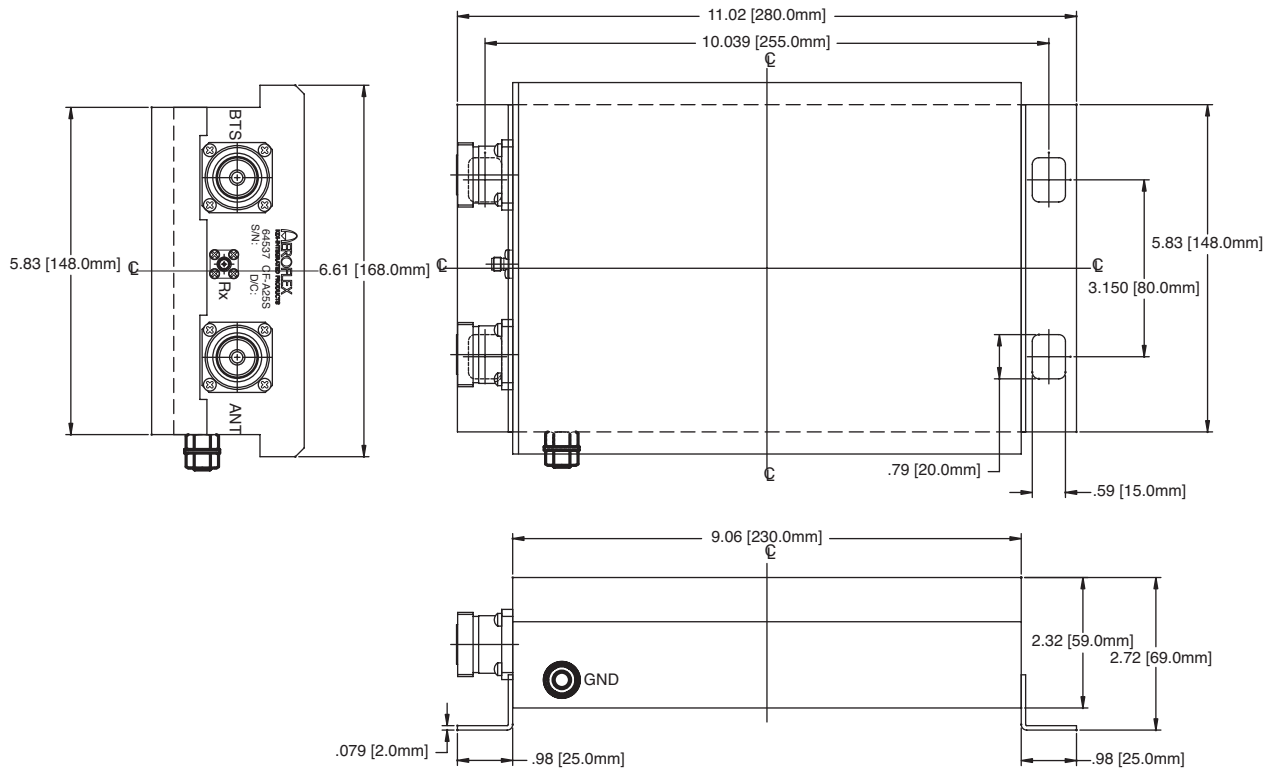
- Provides Rx port in TX-Rx line
- Full duplex function
- High Q cavity filter
- Integral LNA
- Low loss
- Cellular or PCS

## SPECIFICATIONS

| Model Number                                | CF-A03S   | CF-A25S (Replaces AY-H13S)  |
|---|---|---|
| Frequency                                   | Rx: 824-849 MHz<br>Tx: 869-894 MHz  | Rx: 1850-1910 MHz<br>Tx: 1930-1990 MHz  |
| Gain/Loss (nominal)                         | Rx to BTS: 0 dB gain<br>Rx to Test Port: 15 dB gain<br>Tx to Antenna: 0.6 dB loss | Rx to BTS: 0 dB gain<br>Rx to Test Port: 12 dB gain<br>Tx to Antenna: 0.6 dB loss |
| Noise figure, Rx                            | 2.6 dB max.   | 2.3 dB max.   |
| VSWR all ports                              | 1.30 max  | 1.30 max  |
| Rx Rejection in Tx band                     | 75 dB min.  | 90 dB min.  |
| 3rd Order IMD                               | <-110 dBm, Rx   | <-115 dBm, Rx   |
| Impedance (nominal)                         | 50 ohms   | 50 ohms   |
| Pass dc current                             | 1 amp   | N/A   |
| Group Delay, Antenna to Test Port (nominal) | 550 ns  | 115 ns  |
| Power                                       | 5 kW pep  | 1.5 kW pep  |
| Connectors                                  | Antenna Port: 7/16 DIN<br>BTS Port: 7/16 DIN<br>Rx Test Ports, (Two): Type-N      | Antenna Port: 7/16 DIN<br>BTS Port: 7/16 DIN<br>Rx Test Port: SMA                 |
| Environmental Ingress Qualification         | IP65  | IP65  |

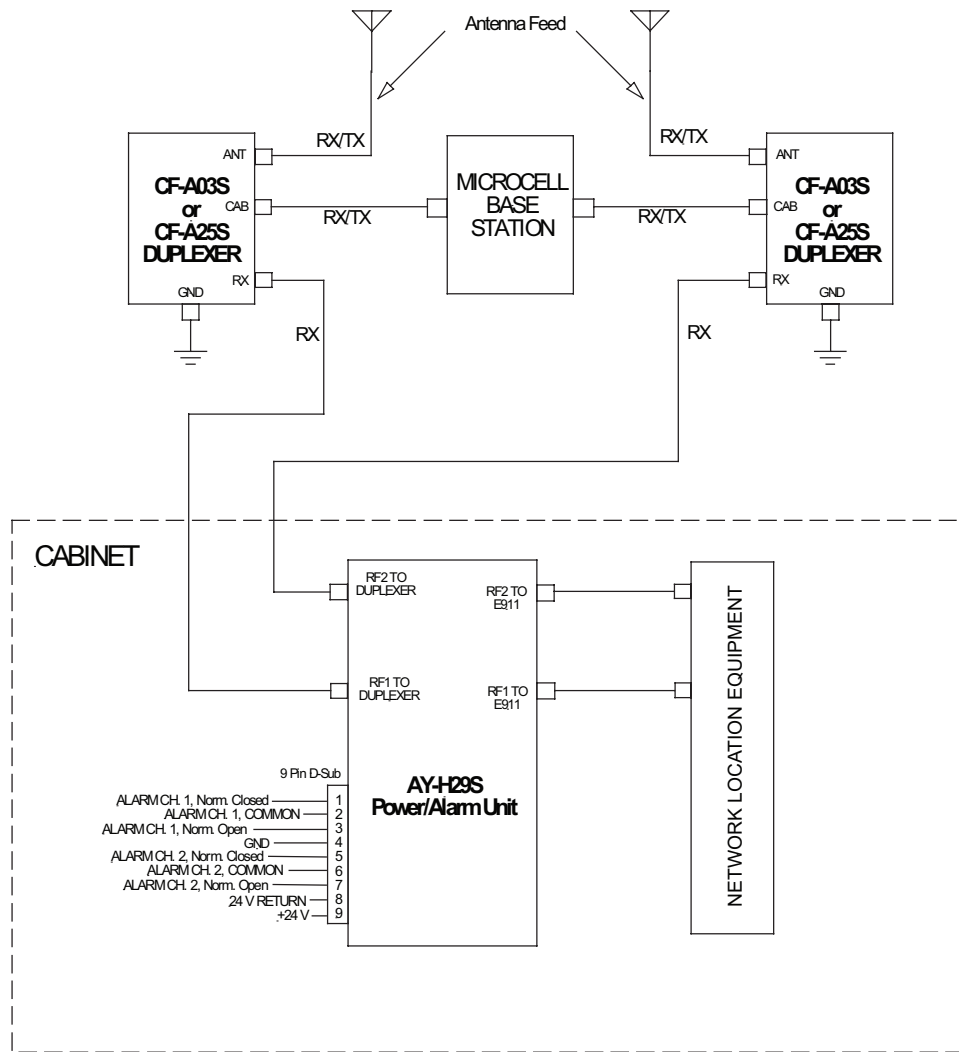


## BLOCK DIAGRAM



## CF-A25S OUTLINE





APPLICATION DIAGRAM

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