



Innovative **Technology**  
for a **Connected** World

# Asset Tracking Internal Antenna

## Cell+GPS|Wedge



### LOW-PROFILE ANTENNA IS IDEAL FOR COVERT INSTALLATIONS

The Wedge antenna helps enable fleet tracking while providing five radio frequency options. The antenna's small size offers covert installation for fleet, logistics, utility, and public safety applications. The versatile multiband solution supports AMPS, GSM, DCS, PCS, and UMTS frequency voice and data; and operates in the 3 to 5 volt range. An optional housing is available which is suitable for glass mounting.

Laird Technologies is a leading supplier of mobile antenna solutions for automotive, asset tracking and consumer electronics industries. Products include cellular antennas (AMPS, GSM/DCS/PCS, UMTS), GPS antennas, entertainment antennas (AM/FM, DAB, DVB-T, Satellite radio, TV), mobile communication antennas (Bluetooth, DSRC, RKE, TPMS, WiFi), satellite communication antennas and battery packs.

Leveraging our experience in M2M wireless modules, Laird Technologies also designs smart antennas integrating functionalities such as cellular, WiFi and Bluetooth® modems, GPS receivers and vehicle networking. All of these capabilities can be further integrated into M2M Devices, that add control electronics and firmware to provide the latest evolution in telematics systems.

### FEATURES

- Compact and ideally suited for stealth applications
- Measures only 138 x 32 x 11.2mm
- Hook and Loop fastener or adhesive mounts available
- Operates in the 3 to 5 volt range
- Two housing options available

### BENEFITS

- Low total-cost implementation
- Easy installation
- Easy concealment
- Small package size
- Meets enhanced environmental specifications

### APPLICATIONS

- General automotive aftermarket
- Fleet logistics, tracking, and diagnostics
- Theft protection
- Vehicle and asset recovery
- Navigation systems
- Infotainment systems
- On-board computing

**global solutions: local support™**

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### Wedge

|                               | AMPS                                               | GSM         | DCS           | PCS           | UMTS          | GPS                         |
|-------------------------------|----------------------------------------------------|-------------|---------------|---------------|---------------|-----------------------------|
| ANTENNA SPECIFICATION         |                                                    |             |               |               |               |                             |
| Frequency Range               | 824-896 MHz                                        | 880-960 MHz | 1710-1880 MHz | 1850-1990 MHz | 1920-2170 MHz | 1574.42 - 1576.42 MHz       |
| Peak Gain                     | 3.5 dBi                                            | 3.0 dBi     | 3.5 dBi       | 0 dBi         | 2.5 dBi       | 3.0 dBi @ Boresight         |
| Polarization                  | Linear                                             | Linear      | Linear        | Linear        | Linear        | RHCP                        |
| Impedance                     | 50 Ω                                               | 50 Ω        | 50 Ω          | 50 Ω          | 50 Ω          | 50 Ω                        |
| Output VSWR (Min. Perf.)      | ≤ 2:1                                              | ≤ 2:1       | ≤ 2:1         | ≤ 2:1         | ≤ 2:1         | ≤ 2:1                       |
| LNA SPECIFICATION             |                                                    |             |               |               |               |                             |
| Gain (Max)                    |                                                    |             |               |               |               | 28 dB                       |
| Noise Figure                  |                                                    |             |               |               |               | ≤1.5 dB                     |
| Supply Voltage                |                                                    |             |               |               |               | 3.3 ± 0.3V<br>or 5.0 ± 0.5V |
| Current                       |                                                    |             |               |               |               | 17 mA                       |
| Input P1dB                    |                                                    |             |               |               |               | ≥-27dBm                     |
| Output VSWR                   |                                                    |             |               |               |               | ≤ 2:1                       |
| MECHANICAL SPECIFICATION      |                                                    |             |               |               |               |                             |
| Dimension                     | 138 X 32 X 11.2 mm                                 |             |               |               |               |                             |
| Radome Material               | Cycoloy                                            |             |               |               |               |                             |
| Connectors                    | SMC for cellular, SMA for GPS                      |             |               |               |               |                             |
| Cable Length                  | 4000 mm                                            |             |               |               |               |                             |
| Cable Type                    | RG-174 Coaxial                                     |             |               |               |               |                             |
| Mounting Method               | Hook and Loop, Adhesive                            |             |               |               |               |                             |
| ENVIRONMENTAL SPECIFICATION   |                                                    |             |               |               |               |                             |
| Operating Temperature         | -40°C to +85°C                                     |             |               |               |               |                             |
| Humidity                      | Operation 95% RH at 65oC                           |             |               |               |               |                             |
| Ingress Protection            | IP-50                                              |             |               |               |               |                             |
| Drop Test / Shock             | 50 g shocks 10x3 axis / 1 meter drop 6 axis        |             |               |               |               |                             |
| Vibration                     | 10-1000 Hz vibration 1 hour 3 axis                 |             |               |               |               |                             |
| ORDERING INFORMATION          |                                                    |             |               |               |               |                             |
| Part Number                   | 637112                                             |             |               |               |               |                             |
| Customization available w/MOQ | Cable type, length, connector type, mounting style |             |               |               |               |                             |



Optional housing available.

#### TEL-DS-INTERNAL WEDGE 1210

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