

Phantom Fin Multiband Roof Mount Antenna FHQ69273CE



Patent Pending

PHANTOM FIN 4G/LTE, GPS, UHF & WLAN ROOF MOUNT ANTENNA

The Laird Phantom Fin multiband antenna provides an excellent solution for the public safety, transportation and after market fleet applications. The Phantom Fin requires only (1) one single hole mount/fixing which reduces vehicle damage, cost of installation and visual impact. The Phantom Fin design provides multiple antenna functions while remaining discrete. The Phantom Fin multiband antenna integrates 4G/LTE, GPS, UHF and WLAN frequency operation into one aerodynamic housing.

FEATURES

- One (1) single hole mount/fixing which reduces vehicle damage and cost of installation.
- Attractive IP67 aerodynamic housing excellent for overt and/or discrete installations.
- Multiband 4G/LTE, GPS, UHF, and WLAN frequency operation.

MARKETS

- Public Safety
- Transportation
- Aftermarket Fleet
- Land Mobile Radio

SPECIFICATIONS

| PARAMETER | PERFORMANCE | | | | | |
|---|--|-----------------|---------------|-----------------|-------------|-----------------|
| Antenna Model / No. of Ports: | FHQ69273CE 4 ports | | | | | |
| Port ID | 4G/LTE Port | | WiFi Port | | UHF Port | |
| Frequency Bands, MHz | 698-960 MHz | 1710-2700 MHz | 2400-2500 MHz | 4900-5875 MHz | 430-520 MHz | |
| Peak Gain, Typical dBi | 3.5 dBi | 5.4 dBi | 6.5 dBi | 6.5 dBi | 2.1 dBi | |
| Peak Gain, Maximum dBi | 4.1 dBi | 7.1 dBi | 7.3 dBi | 8.2 dBi | 2.5 dBi | |
| Max Gain ± 30° Above Horizon, dBi | N/A | N/A | N/A | 3.6 dBi | N/A | |
| VSWR*, Typical | < 1.8:1 | < 1.4:1 | < 1.3:1 | < 1.3:1 | < 1.7:1 | |
| VSWR*, Max | < 2.0:1 | < 2.0:1 | < 2.0:1 | < 2.0:1 | < 2.0:1 | |
| Port-to-Port Isolation, Maximum (Typical) | UHF-LTE | > 15 dB (15 dB) | UHF-WiFi | > 20 dB (35 dB) | LTE-WiFi | > 20 dB (22 dB) |
| Nominal Impedance | 50 Ohms | | | | | |
| Polarization | Vertical Linear | | | | | |
| Azimuth Beam Width | Omnidirectional | | | | | |
| Input Power, Max | 10 watt (ambient temp. of 25°C / 77°F) | | | | | |
| Operating Temperature | - 30°C to + 70°C (- 22°F to + 158°F) | | | | | |
| Storage Temperature | - 40°C to + 85°C (- 40°F to + 185°F) | | | | | |
| Dimensions HxLxW mm (inches) | 98 x 70 x 160 (3.9"x 2.7" x 6.30") | | | | | |
| Weight Kg (lbs.) | Approximately 0.52 Kg (1.15 lbs.) | | | | | |
| Cable | LMR-100 (5.18 m / 17 ft.) | | | | | |
| Radome Material | PC/ASA (Black) | | | | | |
| Baseplate Material | Aluminum | | | | | |
| Material Compliance | RoHS Compliant | | | | | |
| IP Dust & Water Ingress Rating | IP67 | | | | | |

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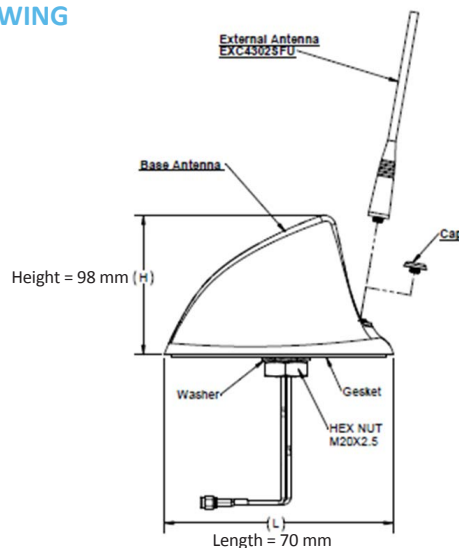
SPECIFICATIONS - GPS

| PARAMETER | PERFORMANCE | | |
|--|--|-----------------|----------------------|
| Frequency Band | 1575.42 MHz (GPS L1) | | |
| Band Width | 6 MHz (Typical) | | |
| Amplifier Gain | 27 dB ± 3 dBc | | |
| Nominal Impedance | 50 Ohm | | |
| Output VSWR | < 1.5:1 | | |
| DC Voltage | 2.7 -12 Vdc | | |
| DC Current | 20 mA (Nominal); <30 mA (-40°C to +85°C) | | |
| Out-of-Band Signal Rejection | > 40 dB rejection @ ± 50 MHz from center frequency | | |
| Intermodulation @ CW Mode (-40°C to +85°C) | Int1 | Int2 | IM3 |
| | - 10 (1842.8 MHz) | - 10 (2110 MHz) | <- 100 (1575.6 MHz) |
| | - 10 (829.58 MHz) | - 10 (2405 MHz) | <- 100 (1575.42 MHz) |
| | - 10 (755.42 MHz) | - 10 (820 MHz) | <- 100 (1575.42 MHz) |
| Input 1 dB Compression @ 750 MHz, 2000 MHz & 3500 MHz | > 10dBm (-40°C to +85°C) | | |
| Cable - Exposed Length | RG174-518.2 cm (17 ft.) | | |

CONFIGURATION

| PART NUMBER | CONNECTOR: | GPS | LTE | WiFi | UHF |
|-------------------|------------|----------|----------|------------|----------|
| FHQ69273CE-518VC3 | | SMA-male | SMA-male | SMA-male | PL259 |
| FHQ69273CE-518VC4 | | SMA-male | SMA-male | SMA-male | FME Plug |
| FHQ69273CE-518VC5 | | SMA-male | SMA-male | RPSMA-male | PL259 |
| FHQ69273CE-518VC6 | | SMA-male | SMA-male | RPSMA-male | FME Plug |

ANTENNA DRAWING



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