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# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









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Patent Pending

# Phantom Fin Multiband Roof Mount Antenna

**FHQ69273CE** 



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 Po	No. of Ports: FHQ69273CE 4 ports						
Port ID	4G/LTE Port		WiFi Port		UHF Port		
Frequency Bands, MHz	698-960 N	IHz 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-WiFi > 20 d	B (15 dB) B (35 dB) 3 (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 Temparture		- 30°C to + 70°C ( - 22°F to + 158°F )					
Storage Temparture		- 40°C to + 85°C ( - 40°F to + 185°F )					
Dimensions 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 R	ating	IP67					

Americas: +1.847 839.6925 IAS-AmericasEastSales@lairdtech.com

Europe: +44.(0).1628.858941 IAS-EUSales@lairdtech.com Asia: IAS-AsiaSales@lairdtech.com

www.lairdtech.com

Laird warrants to the original end user customer of its products that its products are free from defects in material and workmanship. Subject to conditions and limitations Laird will, at its option, either repair or replace any part of its products that prove defective by reason of improper workmanship or materials. This limited warranty is in force for the useful lifetime of the original end product into which the Laird product is installed. Useful lifetime of the original end product may vary but is not to exceed five (5) years from the original date of the end product purchase.





# Phantom Fin Multiband Roof Mount Antenna

**FHQ69273CE** 

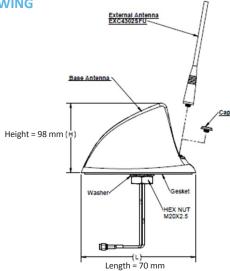
# **SPECIFICATIONS - GPS**

PARAMETER	PERFC	DRMANCE		
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 - 10 (1842.8 MHz) - 10 (829.58 MHz) - 10 (755.42 MHz)	Int2 - 10 (2110 MHz) - 10 (2405 MHz) - 10 (820 MHz)	IM3 <- 100 (1575.6 MHz) <- 100 (1575.42 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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