



Patent Pending

# Phantom Fin Multiband Roof Mount Antenna

## FHQ69273CD

### PHANTOM FIN 4G/LTE, GPS, UHF & WiFi 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 WiFi frequency operation into one aerodynamic housing.

## FEATURES

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

## MARKETS

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

PARAMETER	PERFORMANCE				
Antenna Model / No. of Ports:	FHQ69273CD 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	380-430 MHz
Peak Gain, Typical dBi	3.4 dBi	5.5 dBi	6.6 dBi	6.2 dBi	2.0 dBi
Peak Gain, Maximum dBi	4.0 dBi	6.4 dBi	7.1 dBi	7.8 dBi	2.6 dBi
Max Gain ± 30° Above Horizon, dBi	N/A	N/A	N/A	4.1 dBi	N/A
VSWR*, Typical	< 1.9:1	< 1.5:1	< 1.3:1	< 1.3:1	< 1.6:1
VSWR*, Max	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1	< 2.0:1
Input Power, Max Ambient temp of 25o C / 77oF	10 Watts				25 Watts
Port-to-Port Isolation, Maximum (Typical)	UHF-LTE > 15 dB (18 dB) UHF-WiFi > 20 dB (31 dB) LTE-WiFi > 20 dB (23 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 Rating	IP67				

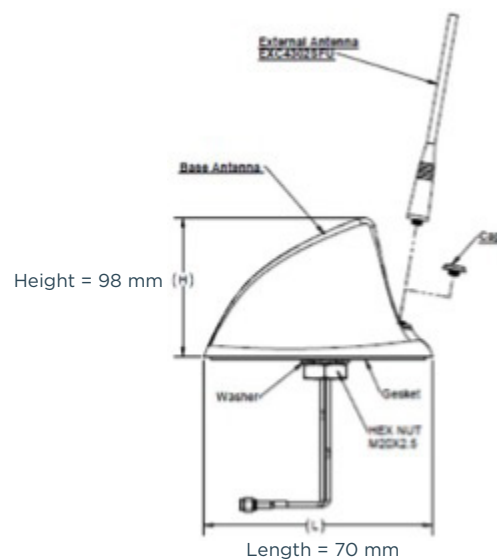
## SPECIFICATIONS - GPS

PARAMETER	PERFORMANCE		
Frequency Band	1575.42 MHz (GPS L1)		
Band Width	6 MHz (Typical)		
Amplifier Gain	27 dB $\pm$ 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 @ $\pm$ 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
FHQ69273CD-518VC3	SMA-male	SMA-male	SMA-male	PL259
FHQ69273CD-518VC4	SMA-male	SMA-male	SMA-male	FME Plug
FHQ69273CD-518VC5	SMA-male	SMA-male	RPSMA-male	PL259
FHQ69273CD-518VC6	SMA-male	SMA-male	RPSMA-male	FME Plug

## ANTENNA DRAWING



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