



## FHQ69273CE

### Phantom Fin Multiband Roof Mount Antenna

The Laird Phantom Fin multiband antenna provides an excellent solution for the public safety, transportation and aftermarket fleet applications. The Phantom Fin requires only a 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 AND BENEFITS

- One single-hole mount/fixing - Reduces vehicle damage and the cost of installation.
- Attractive IP67 aerodynamic housing - Excellent for overt and/or discrete installations.
- Multiband 4G/LTE, GPS, UHF, and Wi-Fi frequency operation.

### APPLICATIONS

- FirstNet/Public Safety
- Transportation
- Aftermarket fleet
- Land mobile radio

### ELECTRICAL SPECIFICATIONS

Operating Frequency (MHz)	698-960	1710-2700	2400-2500	4900-5875	430-520
Ports	4G/LTE		Wi-Fi Port		UHF Port
VSWR - Avg	<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
Gain - Typ (dBi)	3.5	5.4	6.5	6.5	2.1
Gain - Max (dBi)	4.1	7.1	7.3	8.2	2.5
Gain Horizon 30° - Max (dBi)	N/A	N/A	N/A	3.6	N/A
Port-to-Port Isolation (dB) - Max (Typ)	UHF-LTE >15 (15) UHF-Wi-Fi >20 (35) LTE-Wi-Fi >15 (22)				
Nominal Impedance (Ohms)	50				
Max Power - Ambient 25°C (W)	10				50
Polarization	Vertical Linear				
Azimuth 3 dB Beamwidth	Omnidirectional				

## MECHANICAL SPECIFICATIONS

Dimensions - mm (in.)	98 x 70 x 160 (3.9 x 2.7 x 6.3)
Weight - kg (lbs.)	Approximately 0.52 (1.15)
Radome Material	PC/ASA (Black)
Baseplate Material	Aluminum
Cable Type	LMR-100 (5.18 m/17 ft.)

## ENVIRONMENTAL SPECIFICATIONS

Operating Temperature - C° (F°)	-30 to +70 (-22 to +158)
Storage Temperature - C° (F°)	-40 to +85 (-40 to +185)
Ingression Protection (PAV69278PO)	IP67
Material Substance Compliance	RoHS

## GPS ANTENNA SPECIFICATIONS

Frequency Band	1575.42 MHz (GPS L1)		
Bandwidth - Typ	6 MHz		
Amplifier Gain	27 dB ± 3 dBc		
Nominal Impedance (Ohms)	50		
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
Power, dBm	-10 (1842.8 MHz)	-10 (2110 MHz)	<- 100 (1575.6 MHz)
Power, dBm	-10 (829.58 MHz)	-10 (2405 MHz)	<- 100 (1575.42 MHz)
Power, dBm	-10 (755.42 MHz)	-10 (820 MHz)	<- 100 (1575.42 MHz)
Input 1 dB Compression @ 750 MHz, 2000 MHz, 3500 MHz	> 10 dBm (-40° C to +85° C)		
Cable - Exposed Length	RG174 - 518.2 cm (17 ft.)		

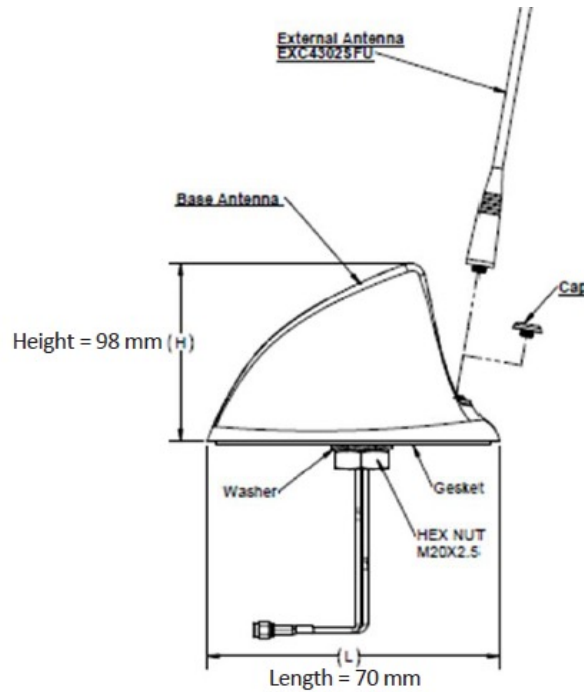
## CONFIGURATION

PART NUMBER	CONNECTOR			
	GPS	LTE	WI-FI	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
FHQ69273CE-518QMAM	QMA-male	QMA-male	QMA-male	QMA-male

## QMA-MALE CONNECTOR



### MECHANICAL DRAWING



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