



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.)		

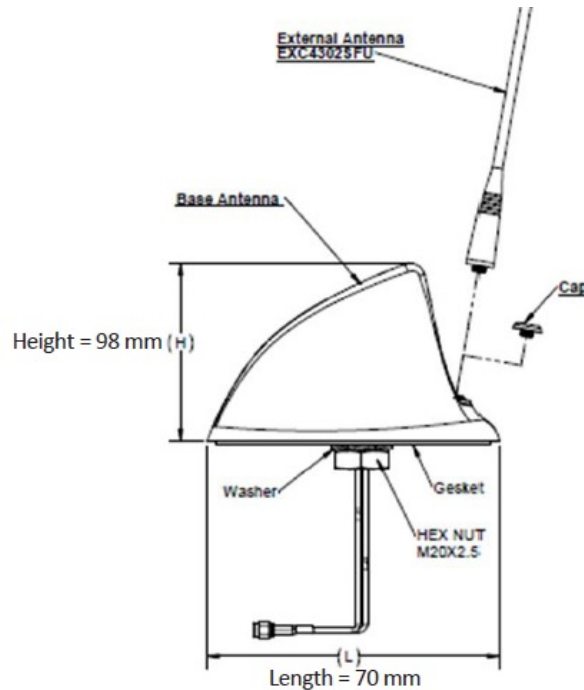
CONFIGURATION

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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