

FHQ69273CE

ASSEMBLY AND INSTALLATION INSTRUCTIONS

MODEL	Phantom Fin 4-Ports LTE/WIFI/ UHF-2/GPS (FHQ69273CE)
Frequency	698-960MHz; 1710-2700MHz (LTE/EDVO) 2400-2500MHz; 4900-5875MHz (WIFI) 430-520MHz; (UHF-2 External Antenna)
Gain	<u>LTE/EDVO</u> 3.6dBi (typical), 4.1dBi (max) @ 698-806 MHz 3.1dBi (typical), 3.7dBi (max) @ 824-894 MHz 3.3dBi (typical), 3.5dBi (max) @ 880-960 MHz 5.7dBi (typical), 6.0dBi (max) @ 1710-1880 MHz 5.2dBi (typical), 5.5dBi (max) @ 1850-1990 MHz 5.1dBi (typical), 5.5dBi (max) @ 1910-2170 MHz 4.6dBi (typical), 4.9dBi (max) @ 2300-2500 MHz 6.2dBi (typical), 7.1dBi (max) @ 2500-2700 MHz <u>WIFI</u> 6.5dBi (typical), 7.3dBi (max) @ 2400-2500 MHz 6.5dBi (typical), 8.2dBi (max) @ 4900-5875 MHz <u>UHF-2 (External Antenna)</u> 2.1dBi (typical), 2.5dBi (max) @ 430-520 MHz
VSWR	2.0:1 Max across the bands
Port-to-Port Isolation	>15dB (UHF-LTE ports); >20dB (UHF-WIFI ports); >20dB (LTE-WIFI ports);
Nominal Impedance	50Ω
Polarization	Linear
Azimuth Beam Width	Omnidirectional
Max Gain ±30 above Horizon 5GHz	3.6 dBi
Power Input (Max)	10 Watts (ambient temp of 25°C/77°F)
Operating Temperature	-30°C to +70°C
Storage Temperature	-40°C to +85°C
Cable	Coax Cable LMR-100
Dimensions HxLxW	98.0mm x 70.0mm x 160.0mm
Weight	0.52kg
Radome	PC/ASA (Black)
Base Plate Material	Aluminum
Mount Style	Vehicle Mounted
RoHS	Compliant
Ingress Rating	IP67
GPS ANTENNA	
Frequency	1575.42MHz (GPS L1)
Amplifier Gain	27dB ± 3 dBc
Nominal Impedance	50Ω
Output VSWR	1.5:1 typical
DC Current	20mA Nominal;< 30mA @-40°C to +85°C
DC Voltage	2.7-12 Vdc
Noise Figure	4 dB max
Cable	Coax Cable RG174



Patent Pending

Please read all instructions carefully before attempting to install this product.

SAFETY

The antennas and all associated equipment should be installed in accordance with all applicable local and national electrical code guidelines to ensure safe operation.

APPLICATION

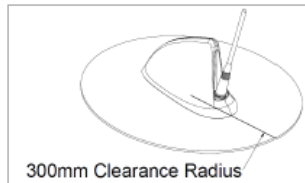
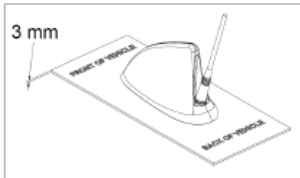
The FHQ69273CE antenna provides an excellent solution for transportation application with an integration of wide range of frequencies in within one aerodynamic housing. This design This antenna, Internal or External LTE/EVDO, Internal or External UHF and WLAN antennas.

LOCATION

The antenna should be mounted on the desired location before connecting the cable. This is to ensure that the cable is not twisted or damage during the mounting of the antenna.

INSTALLATION

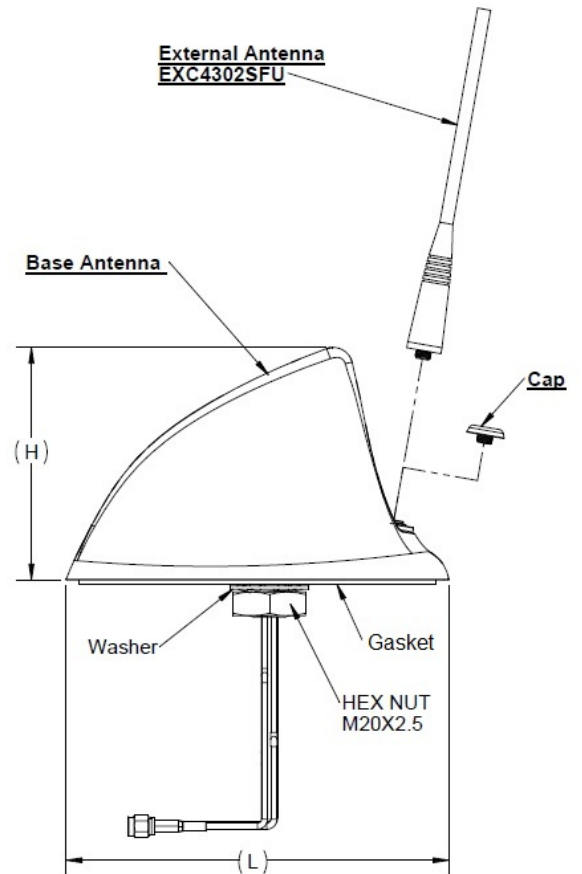
- Maximum mounting plate thickness is 3 mm.
- The mounting area should be clean of any debris, clear from obstructions, and as flat as possible
- Punch or drill a hole 21 mm in the roof of the vehicle at the location identified.



- Place the antenna base onto the mounting plate. The recommended orientation is facing the front of the vehicle. Feed the cables from the bottom of the antenna through the top side of the 21 mm hole. Peel the adhesive covering on the bottom side of the antenna's gasket. Place the threads of the base plate of the antenna through the hole so the gasket of the antenna is flat on the mounting plate. Slide the lock-nut and washer around the 4 cables and finger-tighten to the stud of the antenna. Orient the antenna in the desired direction, and tighten the nut with a crescent wrench using 30 N*m of torque.
- Remove the cap and assemble the external Antenna on the antenna base and manually tighten. Use a short service loop (slack) with tie-downs to secure the antenna cables such that any force or movement will not be transmitted to the antenna connectors or the apparatus. Minimum bending radius for the cable exiting the bottom of the antenna is 10 mm.

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