



VHP69273X22G

Vehicular 5-Port MIMO Antenna
698-960 MHz/1710-2700 MHz/2300-2700
MHz/4900-5900 MHz/GPS

The Laird vehicular five-port MIMO antenna covers the 698-960 MHz, 1710-2700 MHz, 2300-2700 MHz, and 4900-5900 MHz as well as GPS (1575.42 MHz) frequency ranges. It is configured with four-port, dual-band elements in addition to one-port with integrated GPS.

Connector options include SMA male connectors for 3G/4G LTE and GPS ports with an RPSMA male connector for the Wi-Fi port. The housing incorporates a low-profile, rugged design that meets IP67 standards. The antenna also features high impact, UV-resistant polycarbonate plastic available in black or white.

APPLICATIONS

- FirstNet/Public Safety

ELECTRICAL SPECIFICATIONS

Number of Ports	3G/4G LTE - 2		Wi-Fi - 2	
Operating Frequency (MHz)	698-960	1710-2700	2300-2700	4900-5900
VSWR - Avg*	<1.7:1	<1.6:1	<1.7:1	<1.4:1
VSWR - Max	<2.0:1	<2.0:1	<2.0:1	<2.0:1
Gain - Peak (dBi)*	4.1	5.9	6.2	6.5
Gain Horizon 30° - Max (dBi)	N/A	N/A	N/A	6.2
Typical Port-to-Port Isolation*	698-960	1710-2700	2300-2700	4900-5900
LTE 1 to LTE 2	>14	>26	>28	N/A
LTE 1 to Wi-Fi 1	>27	>18	>20	>31
LTE 1 to Wi-Fi 2	>26	>23	>23	>29
LTE 2 to Wi-Fi 1	>27	>23	>23	>28
LTE 2 to Wi-Fi 2	>26	>18	>20	>33
Wi-Fi 1 to Wi-Fi 2	N/A	N/A	>21	>29
Nominal Impedance (Ohms)	50			
Max Power - Ambient 25°C (W)	50			
Polarization	Vertical Linear			
Horizontal Plane 3 dB Beamwidth Port 1	Omnidirectional			

MECHANICAL SPECIFICATIONS

Dimensions - diameter x height - mm (in.)	132 x 87 (5.2 x 3.4)
Weight - kg (lbs)	Approximately 1.16 (2.55)
Connector	LTE ports- SMA male; Wi-Fi ports- RPSMA male
Cable Type	LMR*-195 or equivalent - 518.2 cm (17 ft)
Radome Material	PC, UL94 - VO Rating, UV Stable (Black and White)

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature - °C (°F)	-30 to +70 (-22 to +158)
IP Dust & Water Ingress Protection Rating	IP67
Material Substance Compliance	RoHS

GPS ANTENNA SPECIFICATIONS

Number of Ports	GPS- 1		
Frequency Band (MHz)	1575.42 MHz (GPS L1)		
Bandwidth	6 MHz (Typical)		
Amplifier Gain	27 dB $\pm$ 3 dBc		
Nominal Impedance (Ohms)	50 Ω		
Output VSWR	< 1.5:1		
DC Voltage	2.7 - 12 Vdc		
DC Current	20 mA (Nominal); < 30 mA (-40°C - +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	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 - +85°C)		
Connector	SMA-Male		
Cable - Exposed Length	RG174-518.2 cm (17 ft.)		

CONFIGURATION

PART NUMBER	CONNECTOR
VHP69273B22G-518A	SMA MALE (BLACK)
VHP69273W22G-518A	SMA MALE (WHITE)

te.com

TE Connectivity, TE Connectivity (logo) and Every Connection Counts are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

TE 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 TE will, at its option, either repair or replace any part of its products that prove defective because of improper workmanship or materials. This limited warranty is in force for the useful lifetime of the original end product into which the TE 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.

©2021 TE Connectivity. All Rights Reserved.

11/21 Original

TE TECHNICAL SUPPORT CENTER

USA:	+1 (800) 522-6752
Canada:	+1 (905) 475-6222
Mexico:	+52 (0) 55-1106-0800
Latin/S. America:	+54 (0) 11-4733-2200
Germany:	+49 (0) 6251-133-1999
UK:	+44 (0) 800-267666
France:	+33 (0) 1-3420-8686
Netherlands:	+31 (0) 73-6246-999
China:	+86 (0) 400-820-6015

