



The Laird Connectivity ground plane independent three-port MIMO antenna covers the 2400 to 2500 MHz and 4900 to 6000 MHz frequency ranges with an added global navigational antenna. Configured with two dual band Wi-Fi ports and a third port configured with a GNSS navigational antenna, the antenna is well suited for global applications where the need for Wi-Fi coverage is required.

Connector options include, but not limited to, a SMA male connector for the GNSS port and RPSMA male connectors for the Wi-Fi ports. The housing incorporates a low-profile, rugged design that conforms to IP67 standards. The antenna also features high impact, UV-resistant polycarbonate plastic radome available in black or white.

APPLICATIONS

- Passenger Fleet
- Commercial Vehicle Fleet
- Kiosk/Vending/Utilities
- Commercial Industrial

ELECTRICAL SPECIFICATIONS

Antenna Model	VMJ24493x	
Number of Ports	3	
Port Configuration (Label)	2x- WIFI, 1x-GNSS	
Operating Frequency (MHz)	2400-2500	4900-6000
Peak Gain – Average* (dBi)	4.7	6.3
Peak Gain – Max* (dBi)	5.1	6.9
Efficiency- Average* (%)	71	67
Efficiency, Max* (%)	76	71
VSWR- Average**	1.3	1.4
VSWR- Max**	2.0	2.0
Isolation** WIFI 1 to WIFI 2 (dB)	-20	-20
Nominal Impedance (Ohms)	50	
Max Power - Ambient 25°C (W)	50	
Polarization	Vertical Linear	
Horizontal Plane 3 dB Beamwidth	Omnidirectional	

* Measured on 1 ft (30.48 cm) diameter ground plane and 1ft (30.48 cm) of coaxial cable

** Measured on 1 ft (30.48 cm) diameter ground plane and 17 ft (51.8 cm) of coaxial cable

Antenna specification is subjected to change according to the ground plane size

MECHANICAL SPECIFICATIONS

Dimensions – diameter x height – mm (in.)	127 x 38.5 (5.0 x 1.52)
Weight – kg (lbs)	0.58 (1.29)
Cable Type	LMR240
Mounting	P- Mount
Radome and Base Plate Material	PC, UL94 - V0 Rating, UV Stable

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature – °C (°F)	-40 to +80 (-40 to +176)
Storage Temperature – °C (°F)	-40 to +85 (-40 to +185)
Ingress Protection Rating	IP67
Material Substance Compliance	RoHS

CONFIGURATION

PART NUMBER	CABLE LENGTH	CONNECTOR GNSS	CONNECTOR Wi-Fi PORTS	COLOR	NAVIGATION
VMJ24493B-518RSMM	5.18m (17ft)	SMA Male	RPSMA Male	Black	GNSS
VMJ24493W-518RSMM	5.18m (17ft)	SMA Male	RPSMA Male	White	GNSS

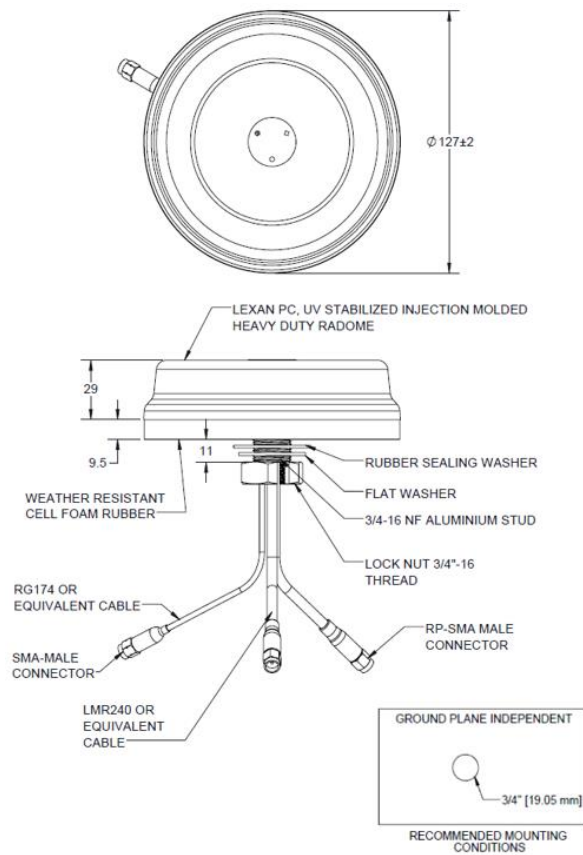
GNSS ANTENNA SPECIFICATIONS:

Model Number	VMJ24493x		
Number of Ports	1x- GNSS		
Frequency Band (MHz)	Beidou	GPS	GLONASS
Frequency of Operation (MHz)	1561.098 ± 2.046	1.575.42 ± 1.023	1602.0 ± 5.0
Amplifier Gain (dB)	28 dB ± 3		
Nominal Impedance (Ohms)	50 Ω		
Output VSWR	< 2:1		
DC Voltage	2.5 - 7 Vdc		
Current Consumption, mA	8.5 ± 3 (at 3.0V)		
Input Max Power, dBm	-10		
Out of Band Rejection, dBc	80 (@ 698- 960 MHz) 80 (@ 1428- 1511 MHz) 50 @ (1627- 1638 MHz) 80 @ (1710- 2700 MHz) 70 (@ 4900- 5800 MHz)		
Working/Storage Temperature	-40°C - +85°C (-40°F - +185°F)		
Connector	SMA-Male		
Cable – Exposed Length	RG174-518.2 cm (17 ft.)		

PACKAGING INFORMATION

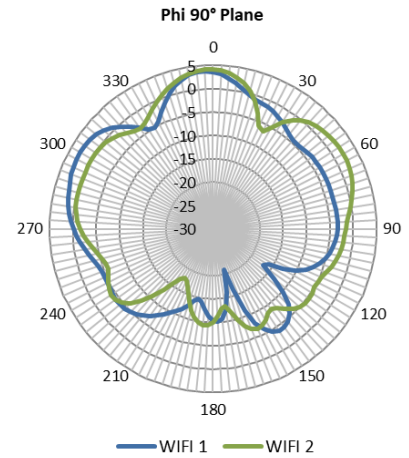
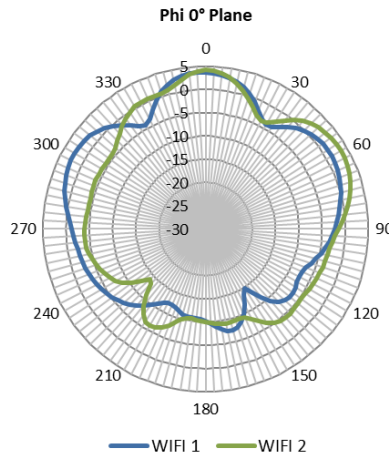
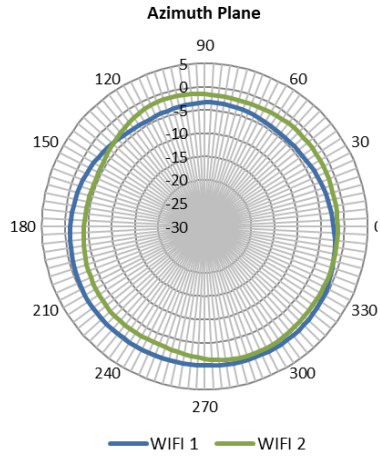
PACKAGE DIMENSIONS	CARTON	MASTER CARTON	AIR PALLET	OCEAN PALLET
Number of Antennas	1	4	96	120
Height- mm (in.)	125 (4.92)	305 (12.0)	1363 (53.66)	1668 (65.67)
Length- mm (in.)	290 (11.4)	525 (20.7)	1200 (47.24)	1200 (47.24)
Width- mm (in.)	255 (10.0)	265 (10.4)	800 (31.5)	800 (31.5)
Shipping Weight- kg (lb.)	1.2 (2.6)	5.6 (12)	146 (322)	180 (397)

MECHANICAL DRAWING

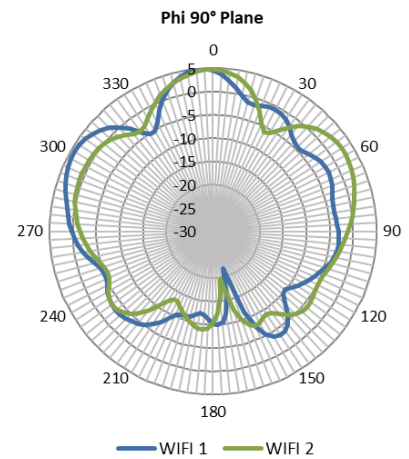
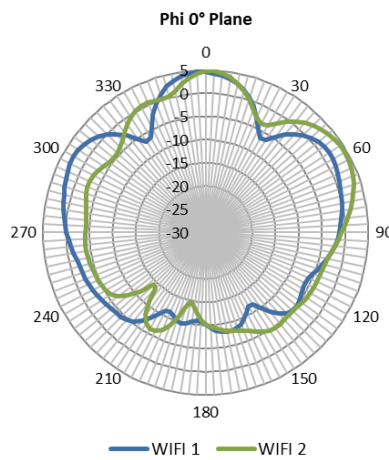
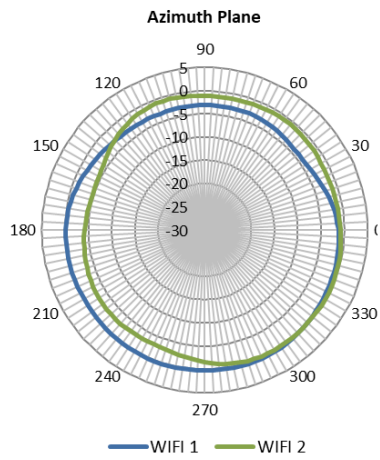


RADIATION PATTERNS- WIFI PORTS

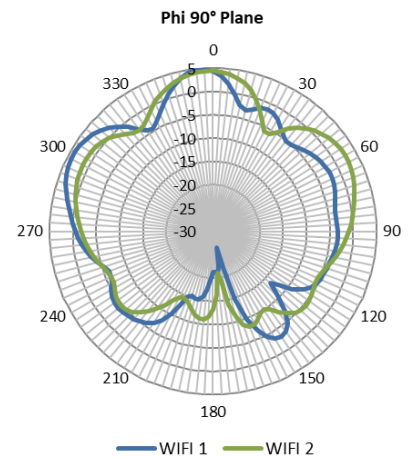
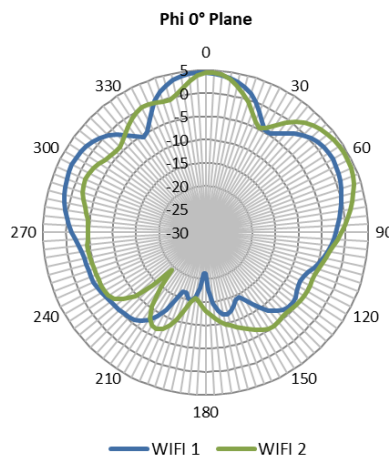
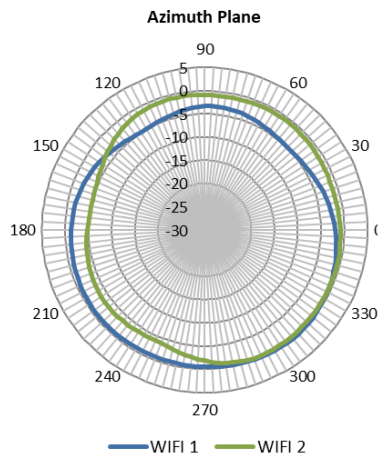
2400 MHz



2450 MHz

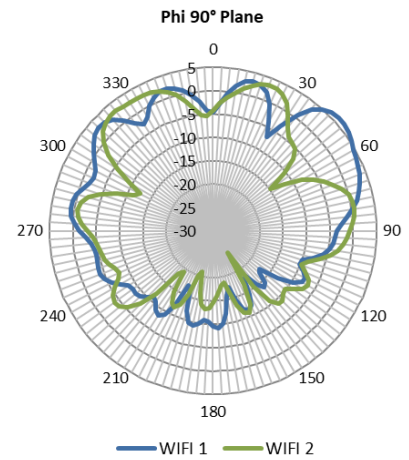
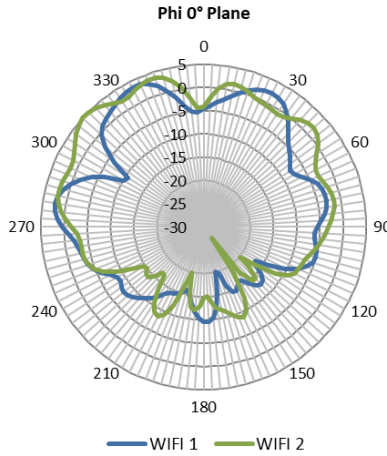
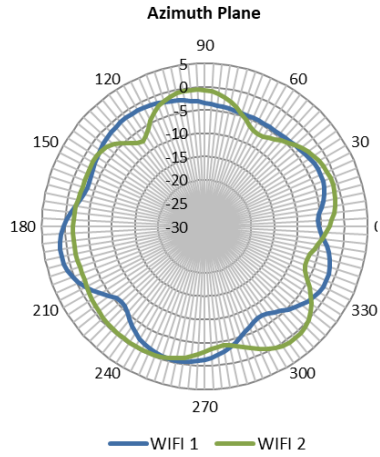


2500 MHz

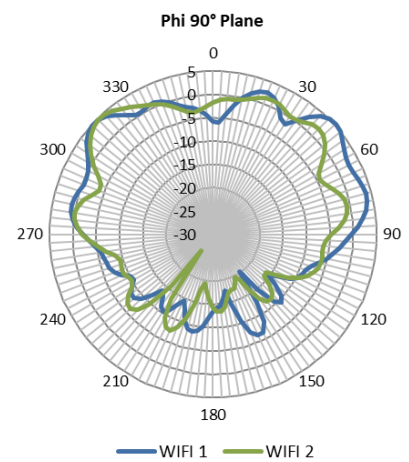
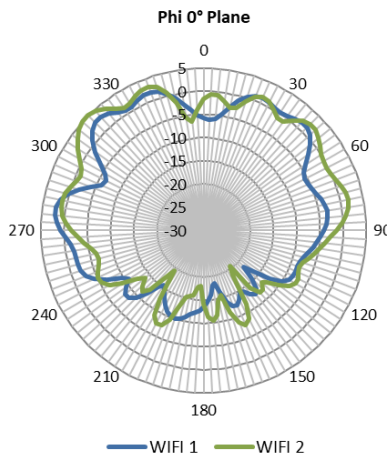
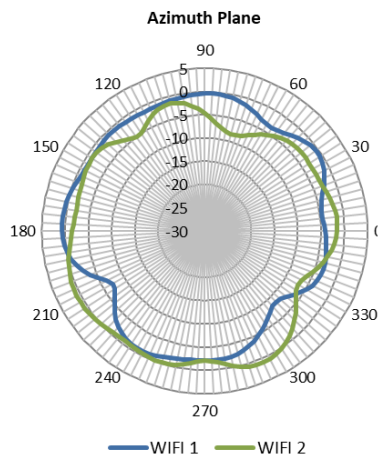


RADIATION PATTERNS- WIFI PORTS

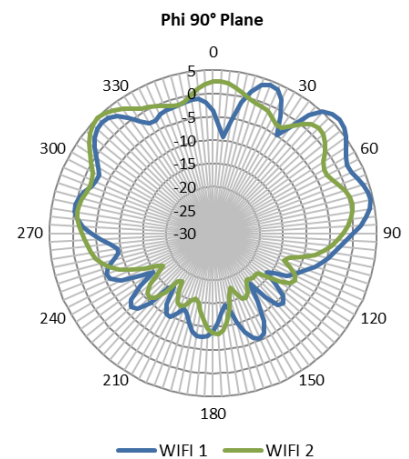
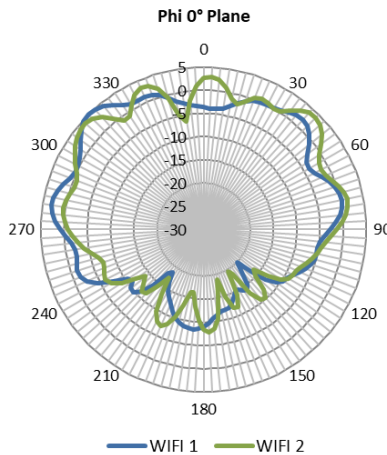
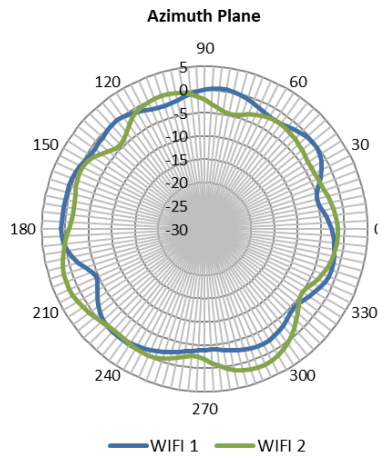
4900 MHz



5470 MHz

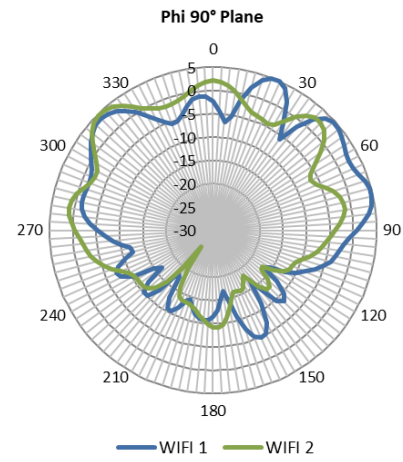
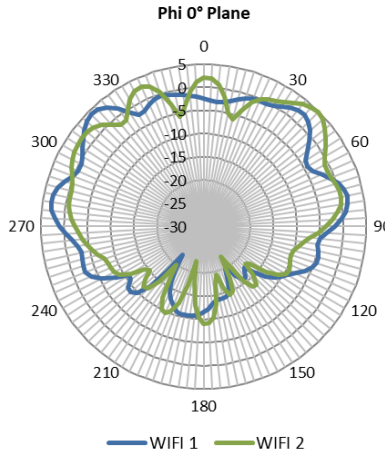
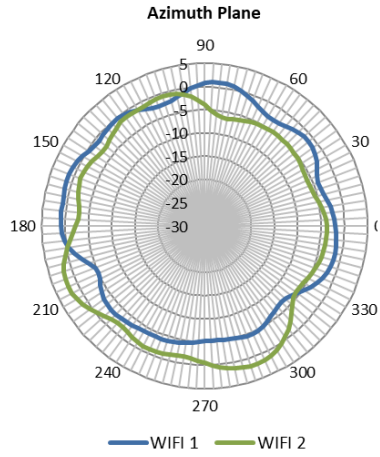


5725 MHz



RADIATION PATTERNS- WIFI PORTS

5900 MHz



✓RoHS

sales@lairdconnect.com
support@lairdconnect.com
www.lairdconnect.com

Laird Connectivity 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 Laird Connectivity 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 Laird Connectivity 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.

Any information furnished by Laird Connectivity and its agents is believed to be accurate and reliable. All specifications are subject to change without notice. Responsibility for the use and application of Laird Connectivity materials rests with the end user, since Laird Connectivity and its agents cannot be aware of all potential uses. Laird Connectivity makes no warranties as to the fitness, merchantability or suitability of any Laird Connectivity materials or products for any specific or general uses. Laird Connectivity shall not be liable for incidental or consequential damages of any kind. All Laird Connectivity products are sold pursuant to the Laird Connectivity Terms and Conditions of sale in effect from time to time, a copy of which will be furnished upon request.

© Copyright 2020 Laird Connectivity All Rights Reserved. Laird Connectivity, the Laird Connectivity logo, and other marks are trademarks or registered trademarks of Laird Connectivity or an affiliate company thereof. Other product or service names may be the property of third parties. Nothing herein provides a license under any Laird Connectivity or any third party intellectual property rights.

