

2.4, 5 GHz Wi-Fi/Bluetooth External Antennas



Off-the-shelf 2.4, 5 GHz Wi-Fi/Bluetooth External Antennas, available in various configurations, offer high RF performance and reliability for wireless and networking applications

Features and Advantages

Single- and dual-band connectors in straight and folded modes with I-PEX, SMA-J, RP-SMA-J and N-type mounting options
Offers design flexibility



RP-SMA-J



SMA-J



I-PEX MHF I



Wi-Fi Antenna, I-PEX type

Multi-protocol solution that supports Wi-Fi, 2.4 GHz, 5.8 GHz and Bluetooth technologies
Makes it suitable for diverse applications

I-PEX type connector
Secures to the application's device radio and provides space savings

Hinge joint allows 90° rotation on the vertical plane and SMA-J connector allows 180° rotation on the horizontal plane
Provides excellent directional coverage

ø108.40 by 9.35mm (Straight mode)
ø87.80 by 9.35mm (Folded mode)

IP65-rated design
Provides protection against dust and water ingress

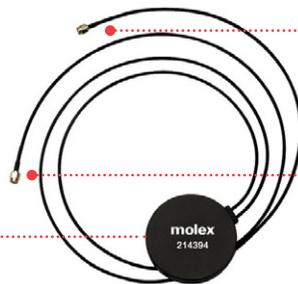


Wi-Fi Antennas, Hinge type

3M adhesive for "peel and stick" mounting
Enables easy mounting. Provides strong adhesion with shock absorption, and temperature and water resistance



2.4/5GHz External Wi-Fi MIMO Antenna



Two SMA straight cable plugs (male)
Provides reliable and durable connection for external applications

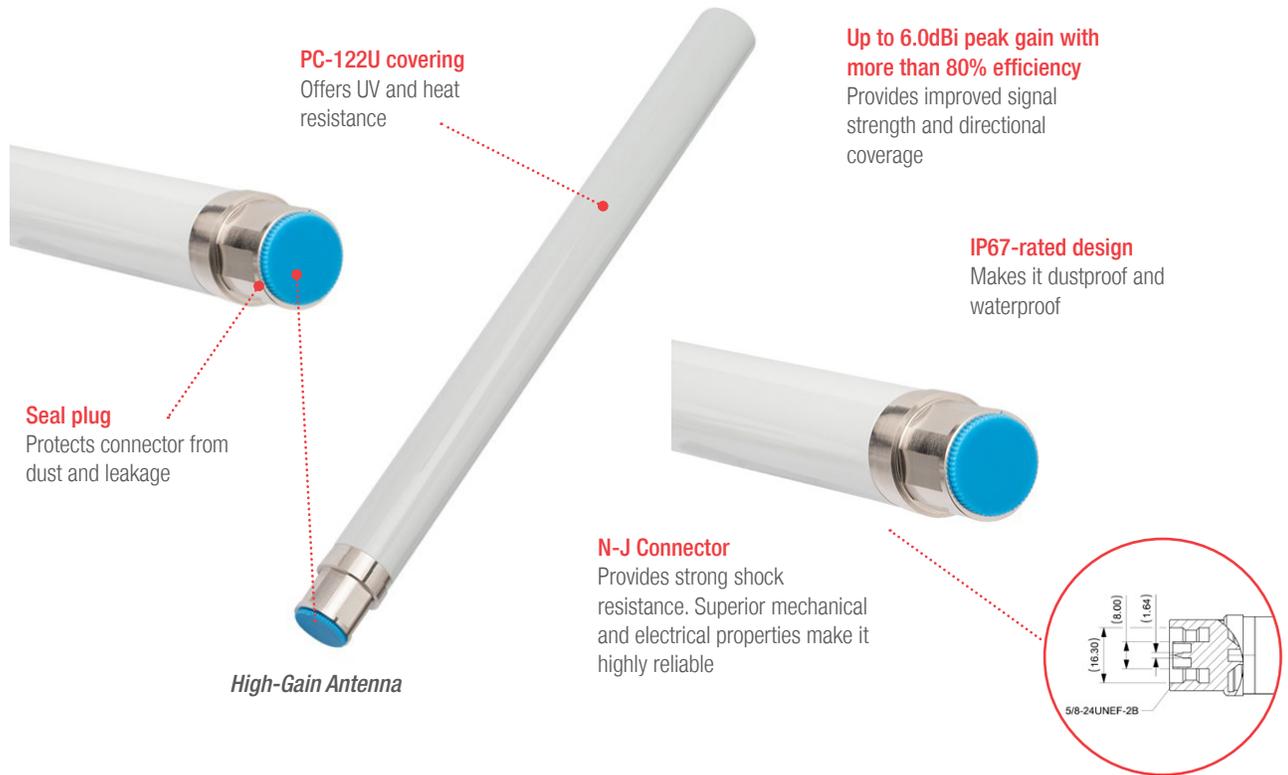
Multiple Input Multiple Output (MIMO) design

- Achieves superior bit error rate compared with SISO (Single Input Single Output), offering improved coverage
- Delivers higher data rates

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Features and Advantages (High-Gain Antenna)



Up to 6.0dBi peak gain with more than 80% efficiency
Provides improved signal strength and directional coverage

IP67-rated design
Makes it dustproof and waterproof

N-J Connector
Provides strong shock resistance. Superior mechanical and electrical properties make it highly reliable

High-Gain Antenna

Markets and Applications

Connected Home

- Security and surveillance
- Home automation
- Home streaming
- Entertainment
- Smart appliances
- Energy and utilities

IoT

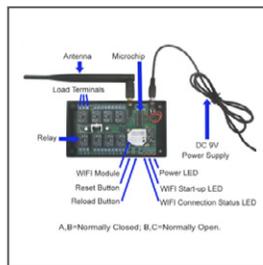
- Wireless solutions

Telecommunications/Networking

- Infrastructure/Networking

Commercial Vehicles

- Networking



Smart transportation



Networking



Security and Surveillance

2.4, 5 GHz Wi-Fi/Bluetooth External Antennas



Specifications

	214415	212860	214428	214386	214394 (MIMO)	214389 (High-Gain)
REFERENCE INFORMATION						
Packaging	PET bag				Carton	Tray
Mates With	SMA jack receptacle; I-PEX MHF I receptacle				SMA plugs (male)	N type-J
Designed In	Millimeters					
RoHS	Yes					
ELECTRICAL						
Frequency (GHz)	2.4	2.4 / 5.0	2.4	2.4 / 5.0	2.4 / 5.0	2.4 / 5.0
RF Power (Watt)	2.0					
Return Loss (dB)	<-10	<-10	<-8	<-10	<-10	<-10
Average Total Radiation Efficiency	>80%	>80% / >75%	>75%	>80% / >65%	>65% / >47.5%	>85% / >80%
Peak Gain (dBi)	5.3	5.3 / 4.5	3.1	5.2 / 3.3	Port 1: 2.5 / 2.6 Port 2: 3.1 / 3.4	5.0 / 6.0
Impedance (Ohms)	50					
MECHANICAL						
Refer to product specifications						
PHYSICAL						
Size (mm)	108.40 by 9.35		104.00 by 9.40		77.00 by 15.00	275.00 by 23.00
Material	Refer to sales drawings					
Operating Temperature	-40 to +85°C					

Ordering Information

Series No.	Description	Type
214415	Wi-Fi/Bluetooth Antenna, Single Band	Hinged
212860	Wi-Fi/Bluetooth Antenna, Dual Band	
214428	Wi-Fi/Bluetooth Antenna, Single Band	I-PEX
214386	Wi-Fi/Bluetooth Antenna, Dual Band	
214394	Wi-Fi/Bluetooth Antenna, Dual Band	MIMO
214389	Wi-Fi/Bluetooth Antenna, Dual Band	High-Gain

www.molex.com/link/wifi-external.html

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