



**Pro Series**

MIMO Wi-Fi and Bluetooth/Zigbee External IP67 Antenna

**Product Description**

Parsec’s PTA-PRO2S-2XWIFI-XXX is a small footprint two-in-one two element MIMO Wi-Fi external waterproof antenna that can also be configured as one element Wi-Fi plus one element Bluetooth or Zigbee. This compact rugged omni-directional antenna works on both the 2.4 GHz and the 5 GHz Wi-Fi bands with high efficiency. The PTA-PRO2S-2XWIFI-XXX is optimized for small footprint to fit the top of common electrical equipment boxes. The strong tamper resistant housing with no exposed connections or mounting hardware is ideally suited for use with self-service kiosks in public areas. The antenna requires a single 1 inch mounting hole.

Detailed product information and options are available under NDA. Patent pending.

**Features**

- **Wi-Fi frequency range: 2400 – 2483.5 MHz  
4900 – 5900 MHz**
- **Omni-directional**
- **High Efficiency: 70%**
- **Small footprint**
- **No ground plane required**

**Applications**

- **External M2M, IoT Applications**
- **SCADA, Industrial monitoring**
- **Oil and natural gas fields**
- **Self-service kiosks**

**Electrical Specifications**

ID	Port	Parameters	Units	Typ.
<b>Radiated Efficiency</b>	WiFi-1,2	2400 – 2483.5 MHz	%	70
	WiFi-1,2	4900 – 5900 MHz		70
<b>Peak Gain</b>	WiFi-1,2	2400 – 2483.5 MHz	dBi	2.2
	WiFi-1,2	4900 – 5900 MHz		4.5
<b>Return Loss (50 Ω)</b>	WiFi-1,2	2400 – 2483.5 MHz	dB	16
	WiFi-1,2	4900 – 5900 MHz		8
<b>Isolation</b>	WiFi-1,2	2400 – 5900 MHz	dB	11
	WiFi-1,2	4900 – 5900 MHz		15
<b>Polarization</b>	WiFi			Linear
<b>Max Input Power</b>	WiFi		Watts	5
<b>RF Connector</b>	WiFi			RP-SMA
<b>RF Cable Type</b>	WiFi			LMR200

**Notes:**

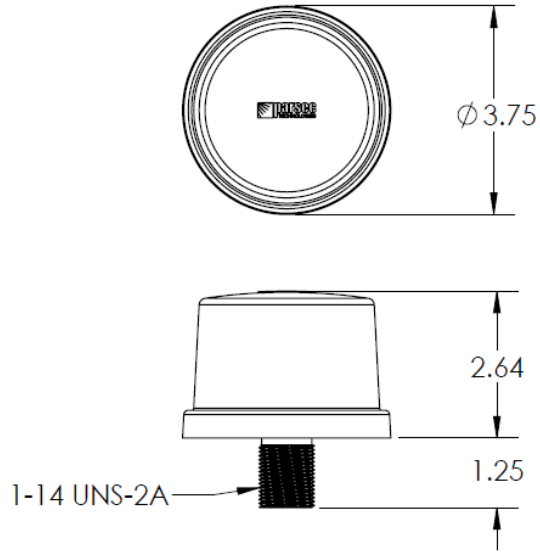
1. Electrical specifications based on antenna without an external ground plane.
2. Isolation does not include cable loss.

**Mechanical**

<b>Dimensions</b>	3.75 inch diameter x 2.64 inch height
<b>Mounting Hole</b>	Single 1 inch
<b>RF Cable Length</b>	Choice of 1, 2, or 6 foot cables

**Environmental**

<b>Operating Temperature</b>	-40°C to 85°C
<b>Ingress Protection</b>	IP67 waterproof



**Figure 1. Product Dimensions**



**Figure 2. Product Picture**

Typical Performance

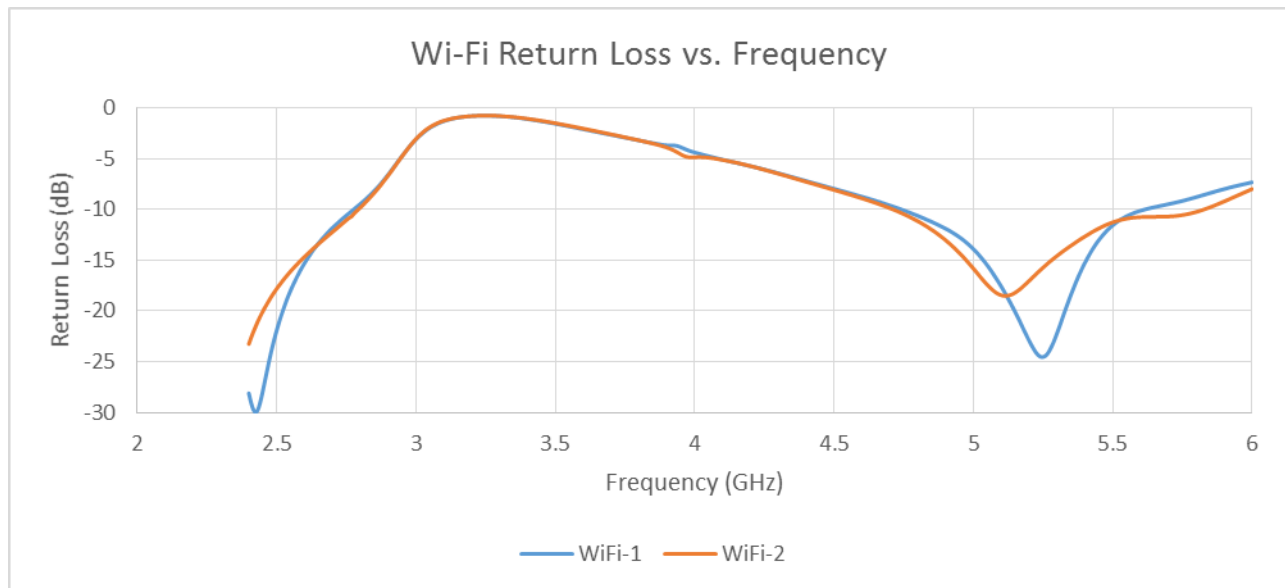


Figure 3. Wi-Fi Return Loss

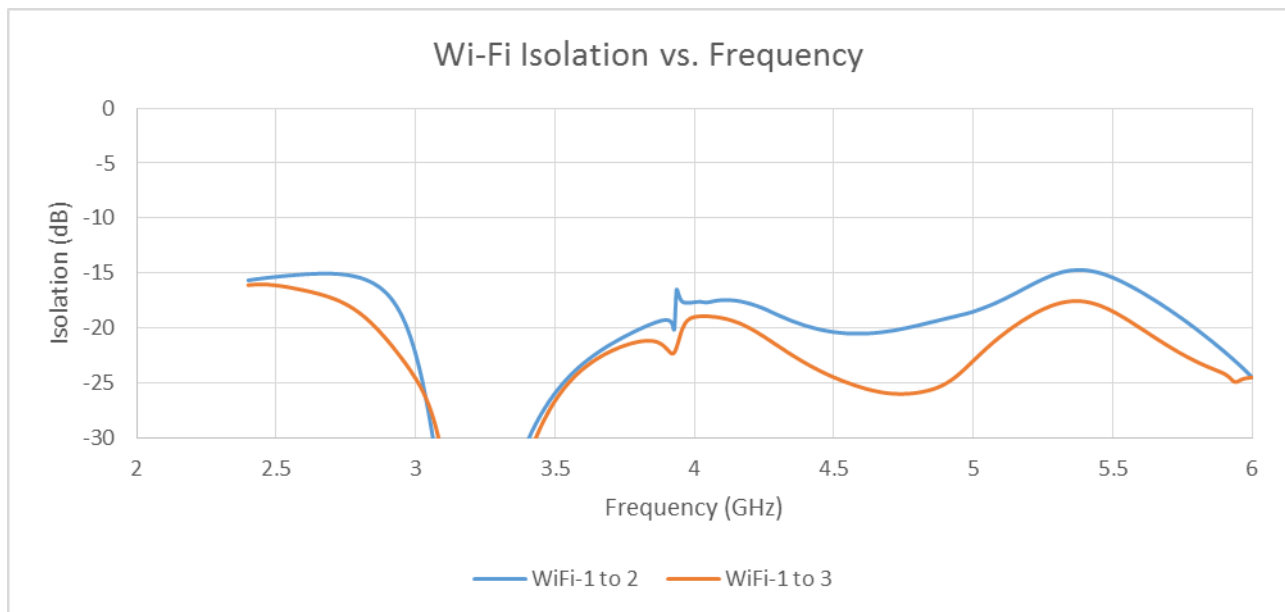


Figure 4. Wi-Fi Isolation

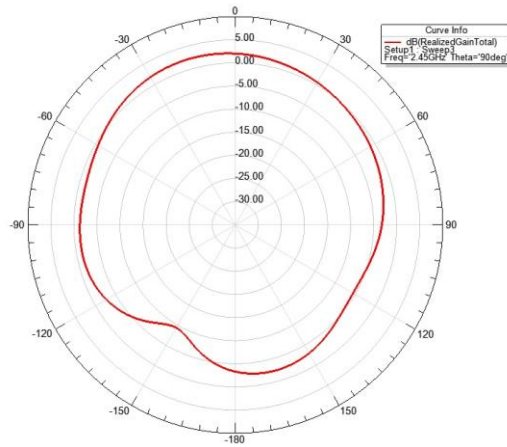
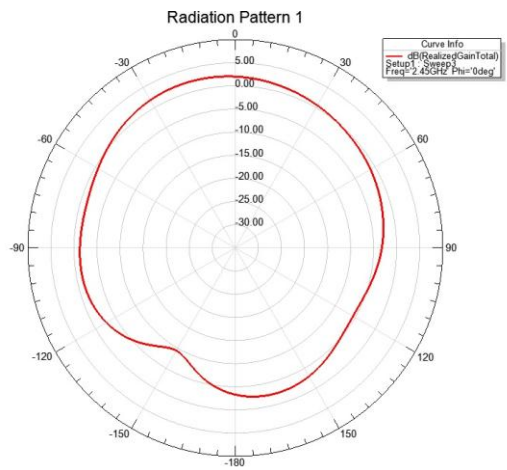


Figure 5. Wi-Fi, Azimuth, 2.45 GHz, Phi/Deg, Theta = 90



HFSSDesign11 ▲

Figure 6. Wi-Fi, Elevation, 2.45 GHz, Theta/Deg, Phi = 0

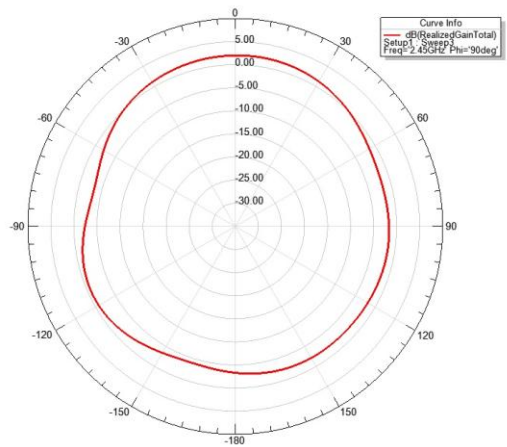


Figure 7. Wi-Fi, Elevation, 2.45 GHz, Theta/Deg, Phi = 90

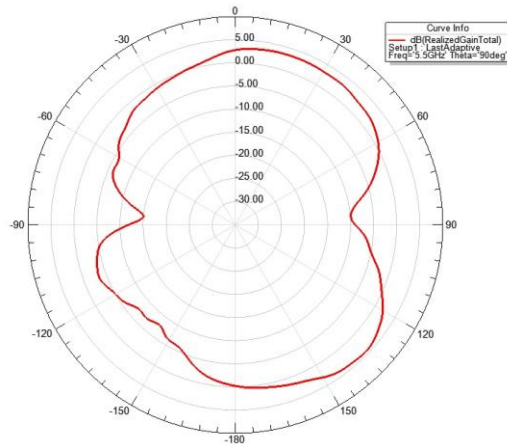


Figure 8. Wi-Fi, Azimuth, 5.5 GHz, Phi/Deg, Theta = 90

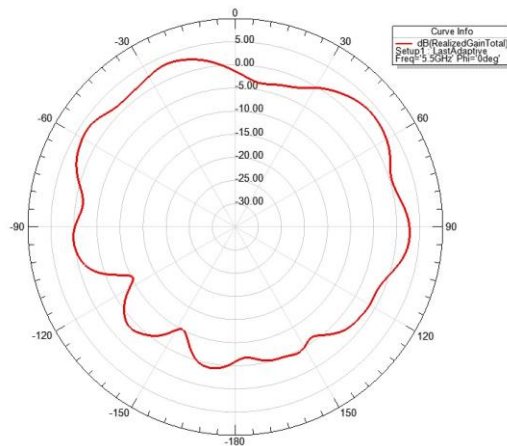


Figure 9. Wi-Fi, Elevation, 5.5 GHz, Theta/Deg, Phi = 0

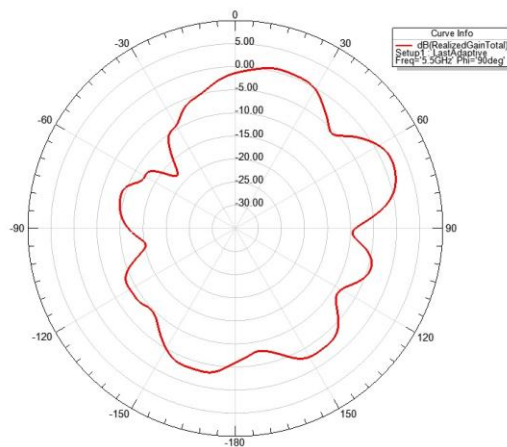


Figure 10. Wi-Fi, Elevation, 5.5 GHz, Theta/Deg, Phi = 90

**Contact Information**

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**Ordering Information**

Part Number	PTA-PRO2S-2XWIFI-001	1 foot long cables
	PTA-PRO2S-2XWIFI-002	2 foot long cables
	PTA-PRO2S-2XWIFI-006	6 foot long cables

Add -B for Black Radome, -W for White Radome

Custom cable lengths available

Packing for Shipment          Protective box, qty. 1 per box.