

Taoglas MA9908 Guardian 4x4 MIMO 5G + 3x3 WiFi Adhesive Antenna

SKU: ANT-TG-00005
MPN: MA9908.A.001

Description

The Taoglas GuardianX MA9908 is a low profile heavy duty, fully IP67 waterproof external antenna. It incorporates eight elements under a single housing, supporting the following technologies concurrently:

- 4x4 MIMO 4G LTE / 5G NR from 600 to 6000 MHz
- 3x3 MIMO Dual Band WiFi (2.4 + 5 GHz)
- Active GNSS for GPS/GLONASS/Galileo operation

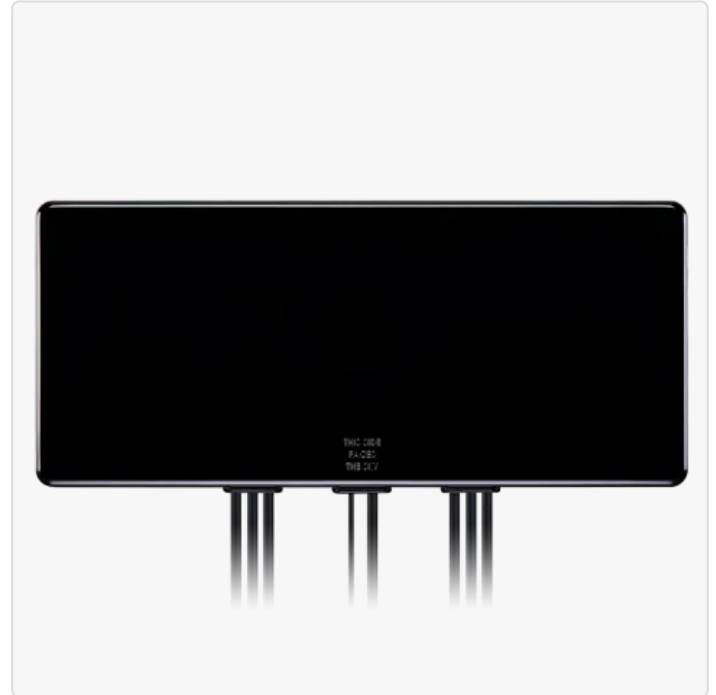
When paired with a good quality modem this one antenna unit is capable of establishing a high throughput data connection over the 4G or 5G network, providing high speed dual-band WiFi network, while being tracked over GPS.

Read More

Variable performance is typical of highly compact antennas with limited VSWR and isolation performance. Datasheet must be studied carefully to ensure you recognise the limitations of this antenna, particularly on 5G bands. If in doubt please discuss your application with our team prior to purchasing.

Typical applications include:

- Passenger Bus / Rail / Air Applications.
- Automotive and Heavy Equipment Vehicle Tracking and Telematics



Taoglas



RF Specification

Taoglas provides a comprehensive range of external, embedded and base station antenna solutions for M2M applications such as Telematics / Automotive, Smart-Grid, Metering / Telemetry, Home Automation, Remote Monitoring and Medical applications.

Taoglas' cross-cultural business-solutions approach means research, design, production and customer support services are based at our world class technology ...

4G-5G Cellular

Start Frequency: 617 MHz Polarisation: Linear

Stop Frequency: 6000 MHz Input Impedance: 50

Max. Input Power: 2 W

RF Connectors

| Ports | RF Interface | Body Shape | Cable Series | Length |
|-------|--------------|------------|--------------|---------|
| 4 | SMA Male | Straight | L-200 | 1000 mm |

Frequency Test Data

| Start Freq. | Stop Freq. | Peak Gain | VSWR | Avg. Gain | Efficiency | Inter-Port Iso. |
|-------------|------------|-----------|---------|-----------|------------|-----------------|
| 617 MHz | 698 MHz | 2.7 dBi | < 4.5:1 | -2.69 dBi | 54% | > 8 dB |
| 698 MHz | 824 MHz | 2.3 dBi | < 4.5:1 | -2.53 dBi | 55% | > 8 dB |
| 824 MHz | 960 MHz | 3.5 dBi | < 4.5:1 | -2.6 dBi | 55% | > 8 dB |
| 1427 MHz | 1518 MHz | 3.8 dBi | < 4.5:1 | -0.18 dBi | 83% | > 13 dB |
| 1710 MHz | 1880 MHz | 3.8 dBi | < 2.5:1 | -1.81 dBi | 66% | > 13 dB |
| 1850 MHz | 1990 MHz | 4 dBi | < 2.5:1 | -2.48 dBi | 56% | > 13 dB |
| 1920 MHz | 2170 MHz | 5.2 dBi | < 2.5:1 | -2.63 dBi | 55% | > 13 dB |
| 2300 MHz | 2690 MHz | 5.1 dBi | < 4.5:1 | -2.76 dBi | 53% | > 16 dB |
| 3300 MHz | 3800 MHz | 2.4 dBi | < 4.5:1 | -4.43 dBi | 36% | > 16 dB |
| 5150 MHz | 5925 MHz | 3.8 dBi | < 4.5:1 | -2.55 dBi | 56% | > 24 dB |

Dual-Band WiFi

Start Frequency: 2400 MHz Polarisation: Linear

Stop Frequency: 5850 MHz Input Impedance: 50

Max. Input Power: 2 W

RF Connectors

| Ports | RF Interface | Body Shape | Cable Series |
|-------|--------------|------------|--------------|
| 2 | RP-SMA Male | Straight | L-200 |

Frequency Test Data

| Start Freq. | Stop Freq. | Peak Gain | VSWR | Avg. Gain | Efficiency | Inter-Port Iso. |
|-------------|------------|-----------|-------|-----------|------------|-----------------|
| 2400 MHz | 2500 MHz | 4.08 dBi | < 3:1 | -1.46 dBi | 72% | > 30 dB |
| 5150 MHz | 5850 MHz | 3.47 dBi | < 3:1 | -2.23 dBi | 60% | > 30 dB |

GNSS Antenna

| | | | |
|------------------|-------------|------------------|----------------------------|
| Gain (Zenith): | 0 dBic | Input Impedance: | 50 |
| Start Frequency: | 1575.42 MHz | Polarisation: | Right Hand Circular (RHCP) |
| Stop Frequency: | 1602 MHz | | |

Low Noise Amplifier (LNA)

| | | | |
|--------------------|---------|-------------------------|-------|
| LNA Gain: | 30 dBic | Min. Operating Voltage: | 1.8 V |
| Noise Figure: | ≤ 3 dB | Max. Operating Voltage: | 5.5 V |
| Power Consumption: | < 10 mW | | |

RF Connectors

| Ports | RF Interface | Body Shape | Cable Series |
|-------|--------------|------------|--------------|
| 1 | SMA Male | Straight | RG-174 |

Physical Specification

| | | | |
|-----------------------------|--------------------|---------------------|--------------------|
| Subtype: | Fin / Stud / Combo | Dimensions: | 360 x 160 x 16.5 |
| Input Ports: | 8 | Ingress Protection: | IP67 |
| MIMO: | 4x4 MIMO | Materials: | Polycarbonate (PC) |
| Min. Operating Temperature: | -40 °C | Mounting: | Adhesive |
| Max. Operating Temperature: | 85 °C | Weight: | 0.75 kg |

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