Product Overview

The MIMO-1-01 incorporates 2 LTE antennas in a single rugged low profile antenna housing. Two LTE/4G/3G antennas covering all cellular bands and also achieves MIMO data speed increases since the two antennas provide space and pattern diversity. The antenna exceeds the performance of most competitors due to the care of attention to radiation patterns of all radiators. An excellent compromise between omnidirectionality, pattern diversity and good radiation at low (horizontal) angles is achieved. Main applications are for industrial vehicles, M2M and other IoT using a range of radio technologies.

Features

- Advanced antenna engineering with exceptional radiation pattern and gain
- Cleverly designed decorrelated antennas give superior MIMO performance in cellular bands
- Above features maintained from 698MHz to 2700MHz in relevant bands
- Careful mechanical design provides ruggedness, water and corrosion resistance

Application areas

- 4G internet on busses, trains etc
- Linking public vehicles to data networks
- Trucks, tractors and other industrial vehicles for control and communications
- M2M to ATMs, vending machines, modems, smart meters, industrial inclosures
- Asset tracking (containers etc)
Antenna Performance Plots - Cellular

**Voltage Standing Wave Ratio (VSWR)**

VSWR is a measure of how efficiently radio-frequency power is transmitted from a power source, through a transmission line, into a load. In an ideal system, 100% of the energy is transmitted which corresponds to a VSWR of 1:1. The MIMO-1 delivers superior performance across all bands with a VSWR of 3:1 or better.

* Measured with 1m low loss cable
* Measured on a 40cm x 40cm ground plane

**Gain**

4.5 dBi is the peak gain across all bands from 698 - 2700 MHz

- Gain @ different bands: Band 1 1.8dBi @ 690-960MHz
- Gain @ different bands: Band 2 4.5dBi @ 1710-2700MHz

*Measured on a 40cm x 40cm ground plane*
Radiation Patterns - Cellular

Port 1:

Azimuth 690 - 960:

Azimuth 1710 - 2200:

Azimuth 2300 - 2400:

Azimuth 2400 - 2500:

Azimuth 2500 - 2700:
Azimuth 690 - 960:

Port 2:

Azimuth 1710 - 2200:

Azimuth 2300 - 2400:

Azimuth 2400 - 2500:

Azimuth 2500 - 2700:

Radiation Patterns - Cellular
Cable Configuration

- **Antenna**
- **Foam Seal**
- **M18 Star Washer**
- **M18 Nut**
- **Cable Protection Sleeve**

**2G/3G/4G MiMo antenna cable:**
- Maroon Labels
- SMA (m) connector
Electrical Specifications

| Frequency Band 1: | 690 - 960MHz |
| Frequency Band 2: | 1710 - 2700MHz |
| Gain (Max): | 3 dBi |
| VSWR: | <2.5:1 |
| Feed Power Handling: | 10 W |
| Input impedance: | 50 Ohm (nominal) |
| Polarisation: | Linear Vertical x 2 |
| Cable loss: | 1000MHz - 0.4dB/1/2 m |
| 3000MHz - 0.8dB/1/2 m |
| DC Short: | Yes |

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Cable loss: 1000MHz - 0.4dB/1/2 m
3000MHz - 0.8dB/1/2 m
DC Short: Yes

Mechanical Specifications

| Product Dimensions (L x W x D): | 252 mm x 127 mm x 55 mm |
| Package Weight: | 600 g |
| Base Material: | Passivated ADC12 |
| Radome Colour: | Black |
| End Cap Colour: | Pantone - Black, RAL - Black |

Environmental Specifications

Wind Survival: 160 km/h
Temperature Range (Operating): -40°C to +70°C
Environmental Conditions: Outdoor/Indoor
Operating Relative Humidity: Up to 98%
Storage Humidity: 5% to 95% - non condensing
Storage Temperature: -40°C to +70°C

Certification Approvals and Standards

Cable Flammability rating: UL 94 V1, EN13823
Water Ingress Protection Ratio/Standard: IP 65 (NEMA 4X)
Impact resistance: IK 10
Salt Spray: MIL-STD 810F/ASTM B117
Product Safety: Complies with UL, CE, EN, CSA and IEC

Product Box Contents

Antenna: A-MIMO-0001-01
Mounting Bracket: M18 threaded spigot with M18 nut
Cable Length: 2 x 300mm
Cable Type: EF_316_D
Connector: 2 x SMA male

Ordering Information

Commercial name: MIMO-1-01
Order Product Code: A-MIMO-0001-01
EAN number: 0707273469052

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Product Specifications may change without prior notice
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