



Alpha 22

Combo 2G/3G/4G WiFi & GPS Adhesive Puck Antenna



Key Features

- 2G/3G/4G, WiFi and GPS Antenna
- Low profile design
- Adhesive Base
- Galileo - GPS - GLONASS Coverage
- Bluetooth and ZIGBEE Compatible

General Description

The Alpha 22 combines 3 separate antennas into one compact and low profile package, capable of 2G/3G/4G, WiFi & Global Positioning. Designed for users who want an 'all-in-one' solution rather than having to install three separate antennas.

The Alpha 22 is very compact solution for mobile vehicle interiors, in-building applications close to perimeter windows or protected exterior environments.

The Alpha 22 GPS antenna has a wide upper frequency band to cover the Galileo, GPS and GLONASS satellite positioning systems.

Additional Considerations

- Combination design saves on cost and installation of additional antennas
- Meets all EU compliance criteria for electronic goods





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Electrical Specifications Cellular Antenna

| | |
|------------------|----------------------------|
| Frequency Range: | 698 - 960MHz/1710-2700 MHz |
| VSWR: | ≤3.0 |
| Peak Gain: | 2dBi |
| Polarization: | Linear |
| Impedance: | 50 Ohm |

GPS Dielectric Antenna

| | |
|-------------------|-----------------|
| Center Frequency: | 1561 - 1602 MHz |
| VSWR: | <1.5 |
| Gain: | 5dBic |
| Polarization: | RHCP |
| Impedance: | 50 Ohm |

GPS LNA

| | |
|------------------------------|--|
| Gain: | 28dB |
| Noise figure: | <1.5 |
| Filter out band attenuation: | 12dB min f0+50MHz ± 1dB 16dB min f0-50MHz ± 1dB |
| Supply voltage: | 2.2 ~ 5V DC |
| DC current: | 5 ~ 15mA |
| VSWR: | <2.0 |

Mechanical Specifications

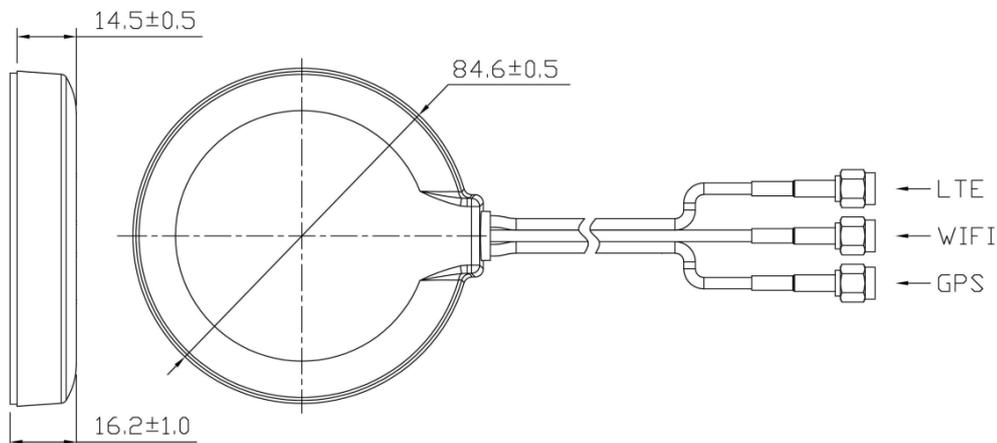
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|-----------------------------|---|
| Dimensions: | L84 Ø x H16mm |
| Cable: | RG174 |
| Connector: | 2x SMA Male 1x SMA Male Reverse Polarity |
| Mounting: | M12 Screw |
| Maximum Material Thickness: | 6.5mm |

Environmental Specifications

| | |
|------------------------------|-------------|
| Operating temperature range: | -40 - +85°C |
| Relative Humidity: | -Up to 95% |

WiFi Antenna Specifications

| | |
|---------------|------------------|
| Frequency: | 2400 ~ 2483.5MHz |
| VSWR: | ≤2.0 |
| Gain: | 3dBi |
| Impedance: | 50 Ohm |
| Polarization: | Linear |

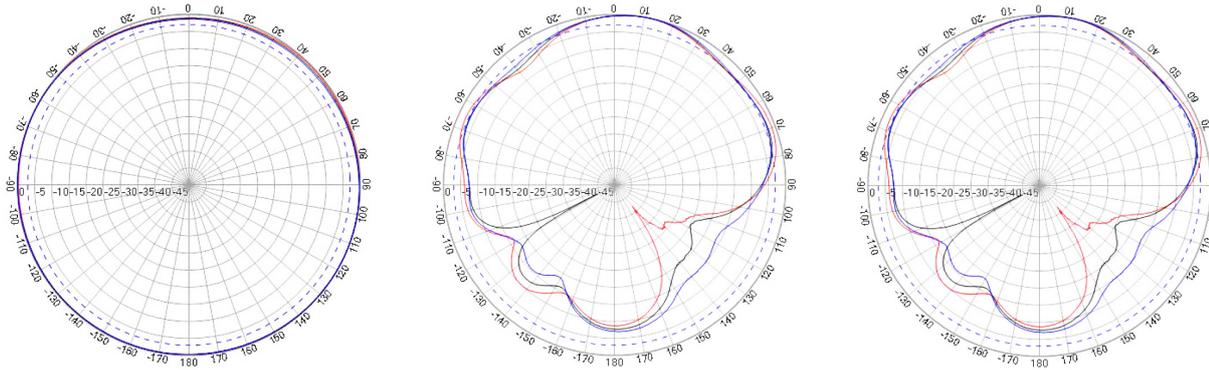




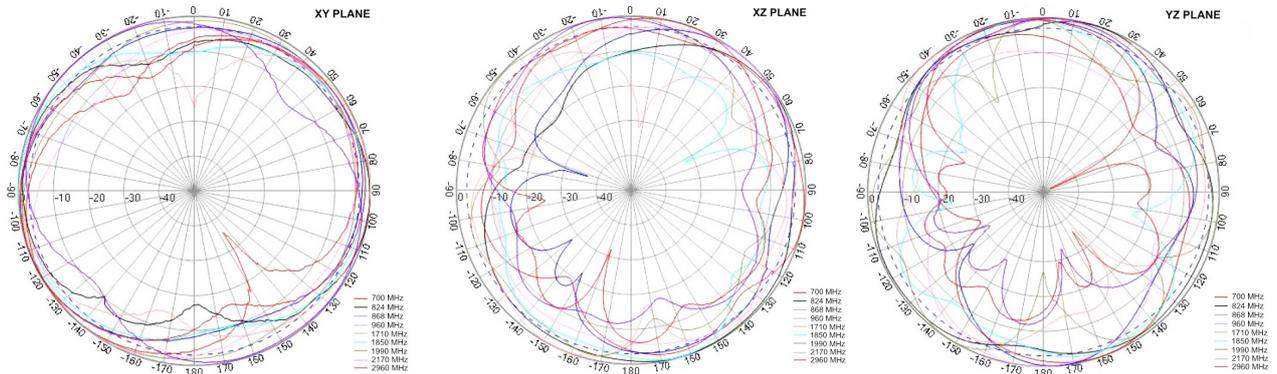
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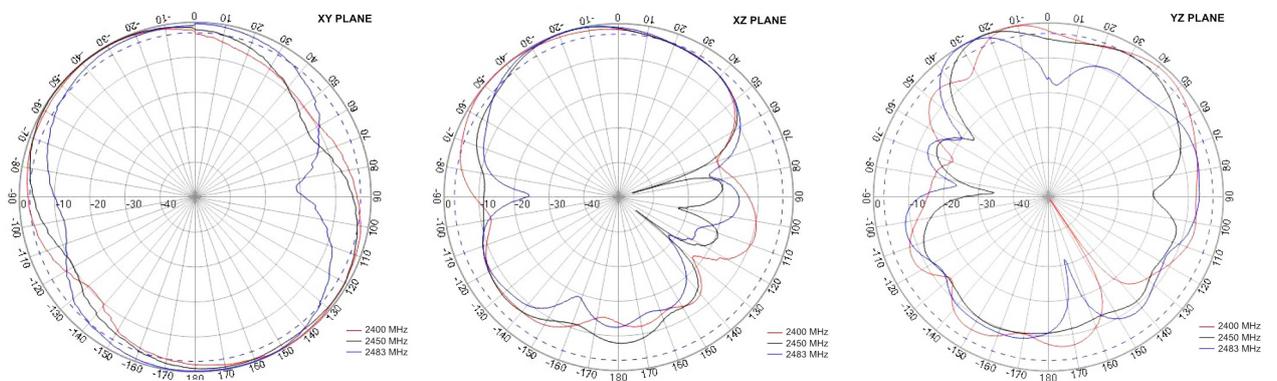
GPS Antenna



Cellular Antenna



WiFi Antenna





Enabling Industrial IoT

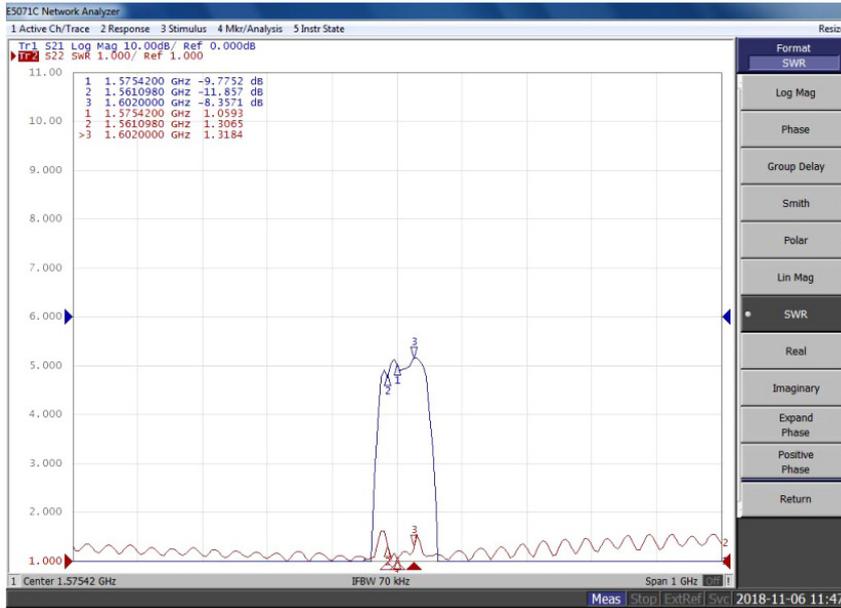


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GPS VSWR/RL

based on 3M SMA



Cellular VSWR

based on 3M SMA



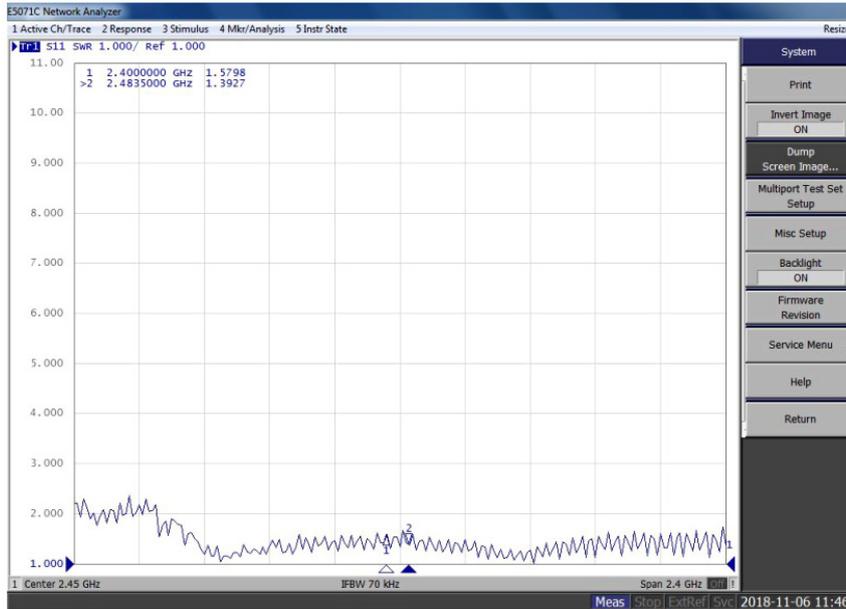


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WiFi VSWR

based on 3M SMA



Ordering Details

Part Number

Description

ALPHA22/3M/SMAM/SMAM/SMAM/S/S/26

Combo 2G/3G/4G WiFi & GPS Puck Antenna 3M SMA Male Connectors