



Enabling Industrial IoT



## Alpha 22

2G/3G/4G WiFi and GPS/GNSS/GALILEO ADHESIVE PUCK COMBO 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:	$\leq 3.0$
Peak Gain:	2dBi
Polarization:	Linear
Impedance:	50 Ohm
Ground Plane Independent:	Yes
Max Input Power:	10W

#### GPS Dielectric Antenna

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

#### GPS LNA

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

### Mechanical Specifications

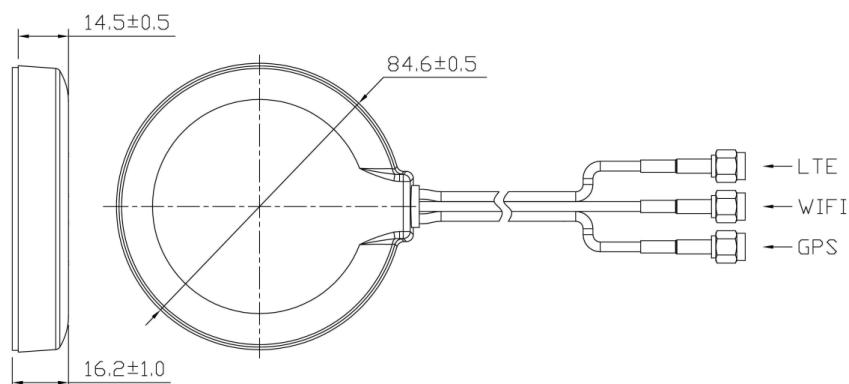
Dimensions:	L84 Ø x H16mm
Weight:	125g
Cable:	RG174
Connector:	2x SMA Male 1x SMA Male Reverse Polarity
Mounting:	M12 Screw
Maximum Material Thickness:	6.5mm

### Environmental Specifications

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

### WiFi Antenna Specifications

Frequency:	2400 ~ 2483.5MHz
VSWR:	$\leq 2.0$
Gain:	3dBi
Impedance:	50 Ohm
Polarization:	Linear



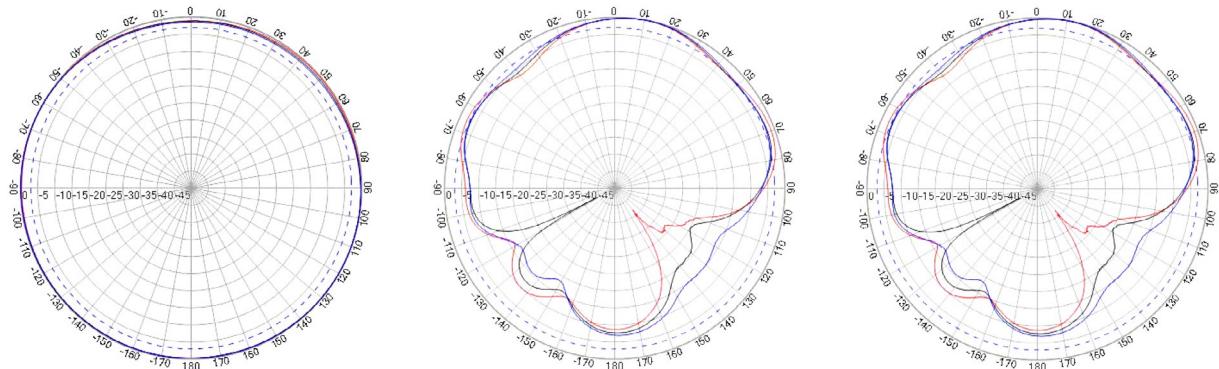


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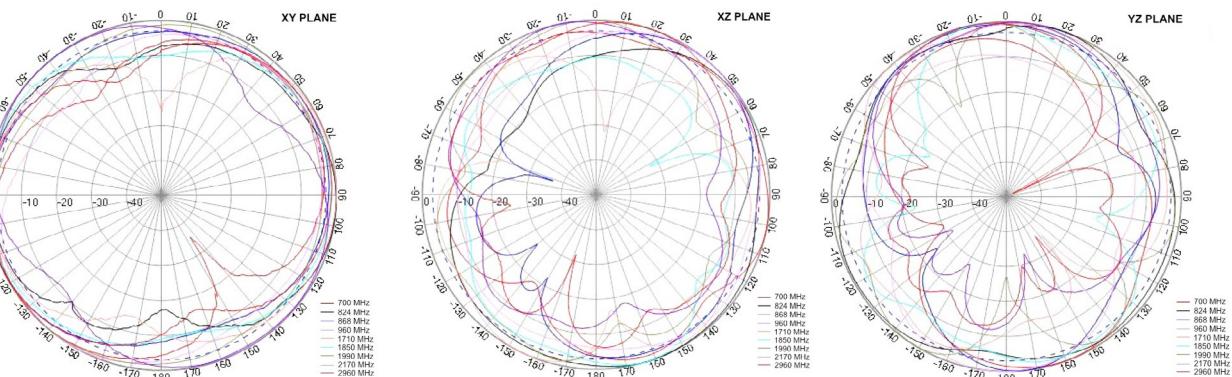
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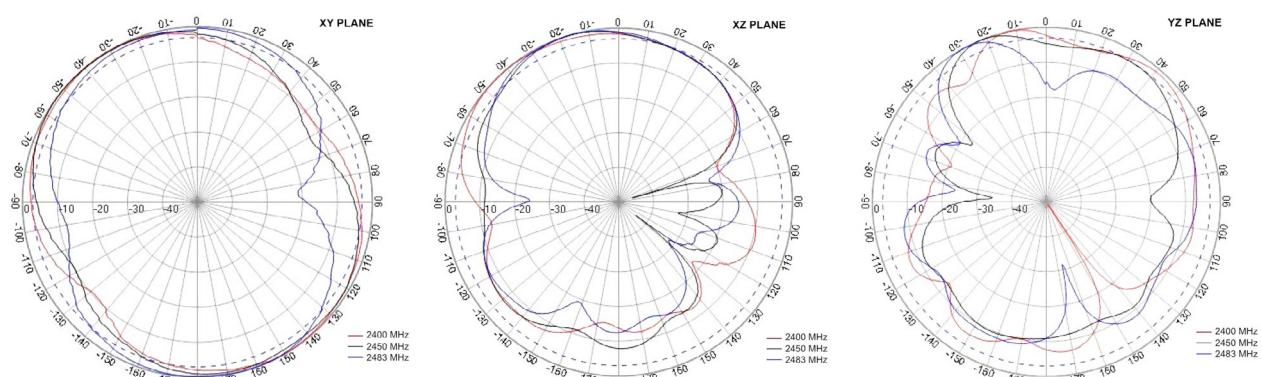
### GPS Antenna



### Cellular Antenna



### WiFi Antenna





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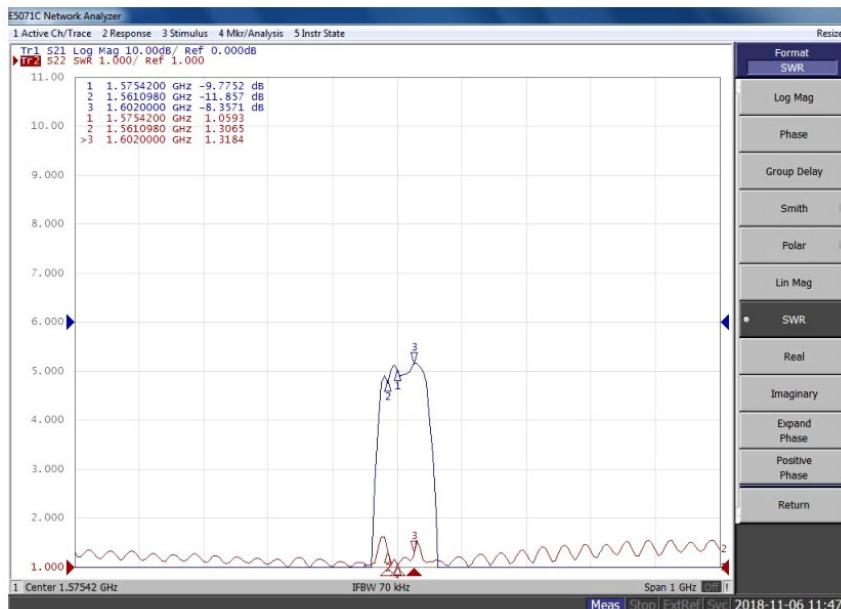


**Alpha 22**

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## GPS VSWR/RL

based on 3M SMA



## Cellular VSWR

based on 3M SMA





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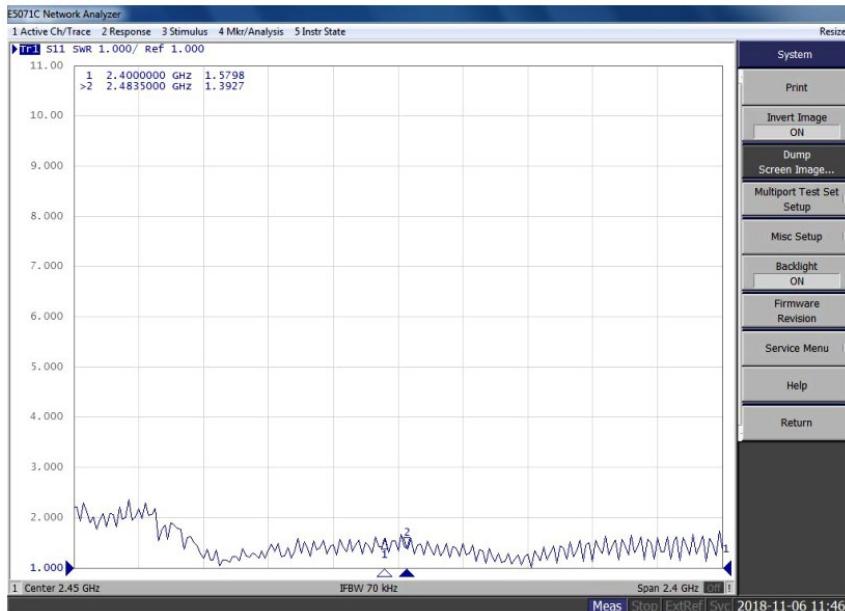


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### WiFi VSWR

based on 3M SMA



### Ordering Details

Part Number	Description
ALPHA22/3M/SMAM/SMAM/SMAM/S/S/26	2G/3G/4G WiFi and GPS/GNSS/GALILEO ADHESIVE PUCK COMBO ANTENNA 3 x SMA MALE 3M CABLE

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