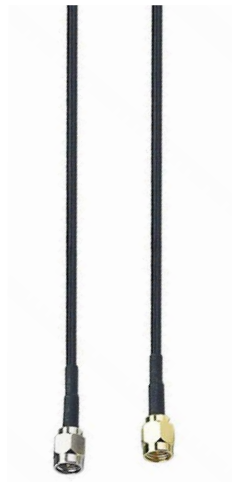




Underside View
(this side faces the passenger)



Top View
(this side faces the sky)

Stingray

MA203w.AB.002

Specification

| | |
|---------------------|---|
| Part No. | MA.203w.AB.002 |
| Product Name | Stingray GPS/Penta-band Cellular Adhesive Antenna |
| Feature | High gain LNA up to 32dB (GSM/CDMA/PCS/DCS/UMTS/GPRS/EDGE/ HSPA) Height 10.8mm Diameter 55.1mm Waterproof IP67 Version ROHS Compliant |

1. Introduction

This is a combination high performance GPS and Penta-band Cellular (GSM/CDMA/PCS/DCS/ / UMTS / GPRS / EDGE/ HSPA) antenna to simplify AVL or Fleet management antenna systems worldwide.

Its high quality low profile covert housing can be attached onto the glass or even out of sight under the dashboard. This combination of a high gain GPS antenna and a leading edge penta band

cellular antenna is ideal for those applications that require durability, small size and covert installation, and reliable reception and transmission crossing through different mobile networks.

1.1 Features

GPS

High LNA Gain up to 32 dB

Antenna Gain 30 ± 2 dB

Miniaturized to 55.15x12mm

Low Noise 1.5 dB max

Cellular

Advanced Penta-Band Cellular Antenna
(GSM/CDMA/PCS/DCS/UMTS/GPRS/EDGE/HSPA)

Other

Water Resistant IP 67

Quality textured covert design. Low profile

UV resistant ABS housing

Comes with high grade 3M double sided tape for quick and easy mounting

Optional cables and connectors

2. Specification

2.1 Performance Specifications

| Items | GPS Patch Antenna | Cellular Antenna |
|--------------------------|--|---|
| Features | High performance GPS ceramic patch antenna with cutting edge low noise amplifier | CDMA: 824~896MHz DCS: 1710~1880MHz PCS: 1850~1990MHz GSM: 880~960MHz |
| Centre Frequency | 1593MHz ± 2MHz(Free Space) | As above |
| Gain | -3.0dB typ. Axial Ratio :2.0 dB max | As patterns |
| Polarization | RHCP | |
| Bandwidth | 10 MHz min | |
| VSWR | 1.92 Max. | |
| Impedance | 50Ω | 50Ω |
| Cable / Connector | Standard 1/2/3/5/10mRG-174 Cables and Connectors Fully Customizable | Standard 1/2/3/5/10mRG-174 Cables and Connectors Fully Customizable |
| Return Loss | | 10dB Typ |
| Size | 59.8mm * 16mm | |
| Housing | UV resistant ABS | |

*Note: Specifications may be subject to change

2.2 LNA GPS Antenna

| Parameter | Specification |
|--------------------------|--------------------|
| Frequency (MHz) | 1575.42 ± 1.023MHz |
| Gain | 28dB Typical |
| Output Impedance | 50Ω |
| Output VSWR | 1.92 Max |
| DC Power Input | 2.7-3.3V |
| Noise Figure | 1.5dB Typ. |
| Power Consumption | 6mA |

3. GPS Ceramic Patch Antenna

3.1 Free Space



3. GPS Ceramic Patch Antenna

3.2 With Housing, Glass Mount

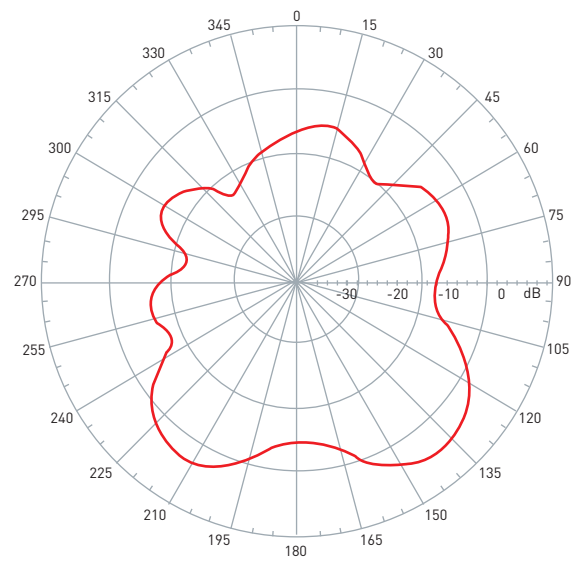
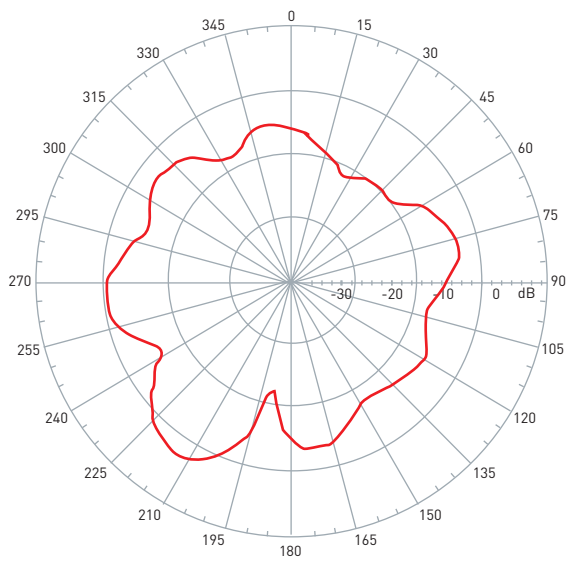


4. GSM Radiation Patterns

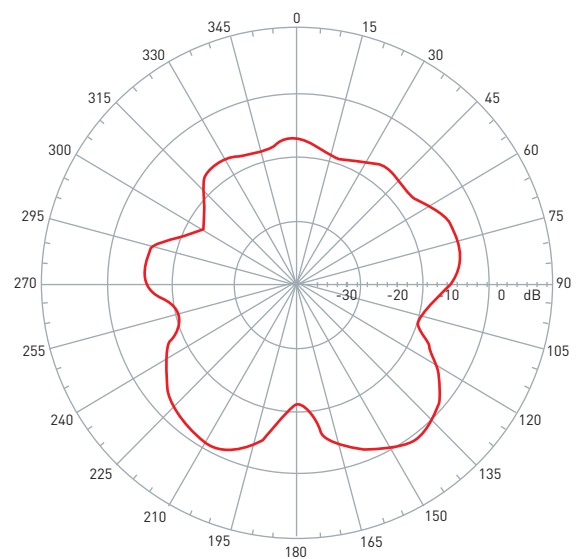
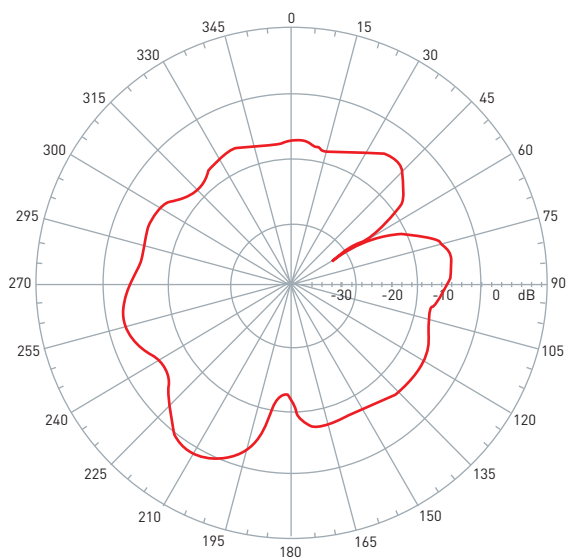
XZ Plane

YZ Plane

880 MHz



960 MHz

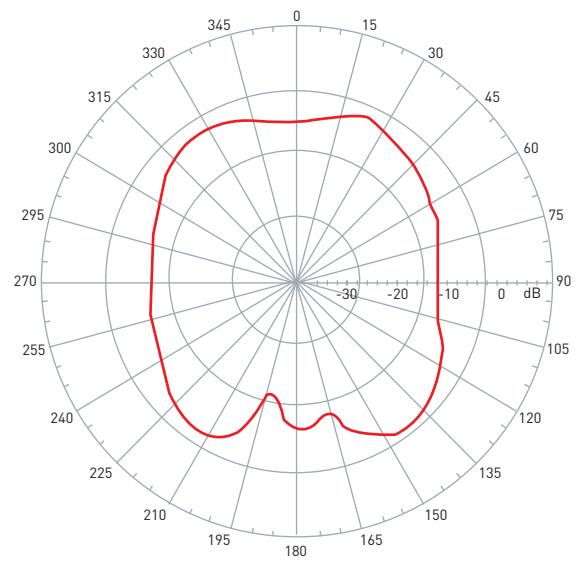
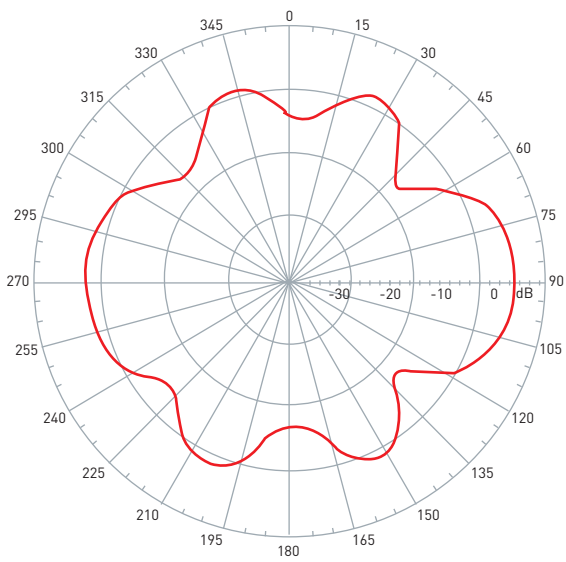


4. GSM Radiation Patterns

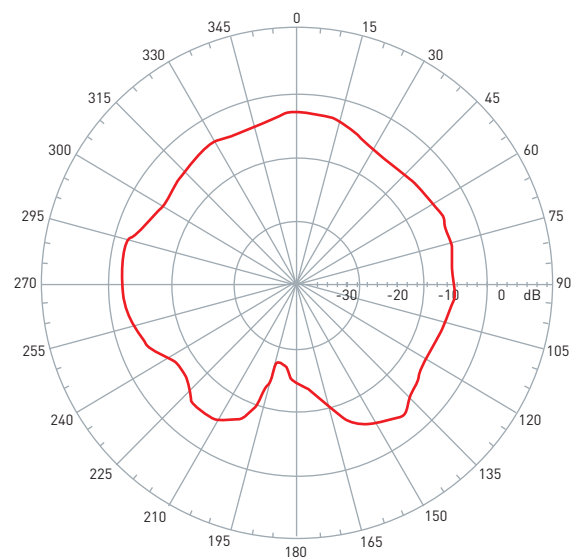
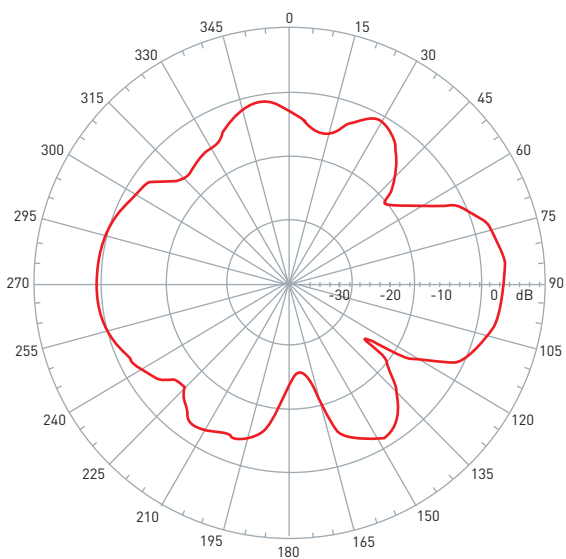
XZ Plane

YZ Plane

1710 MHz

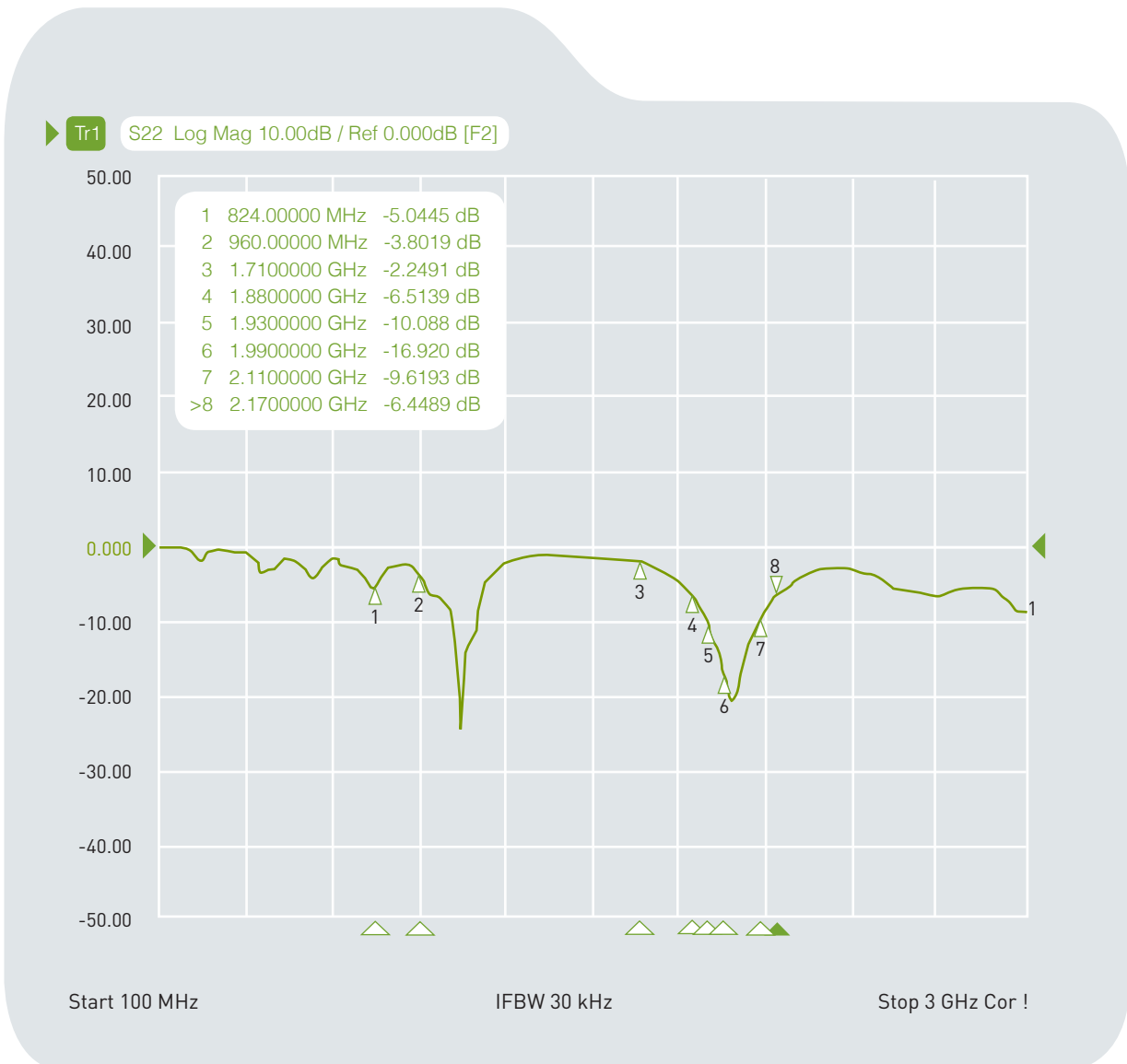


1880 MHz



5. GSM Antenna Return Loss

5.1 Free Space

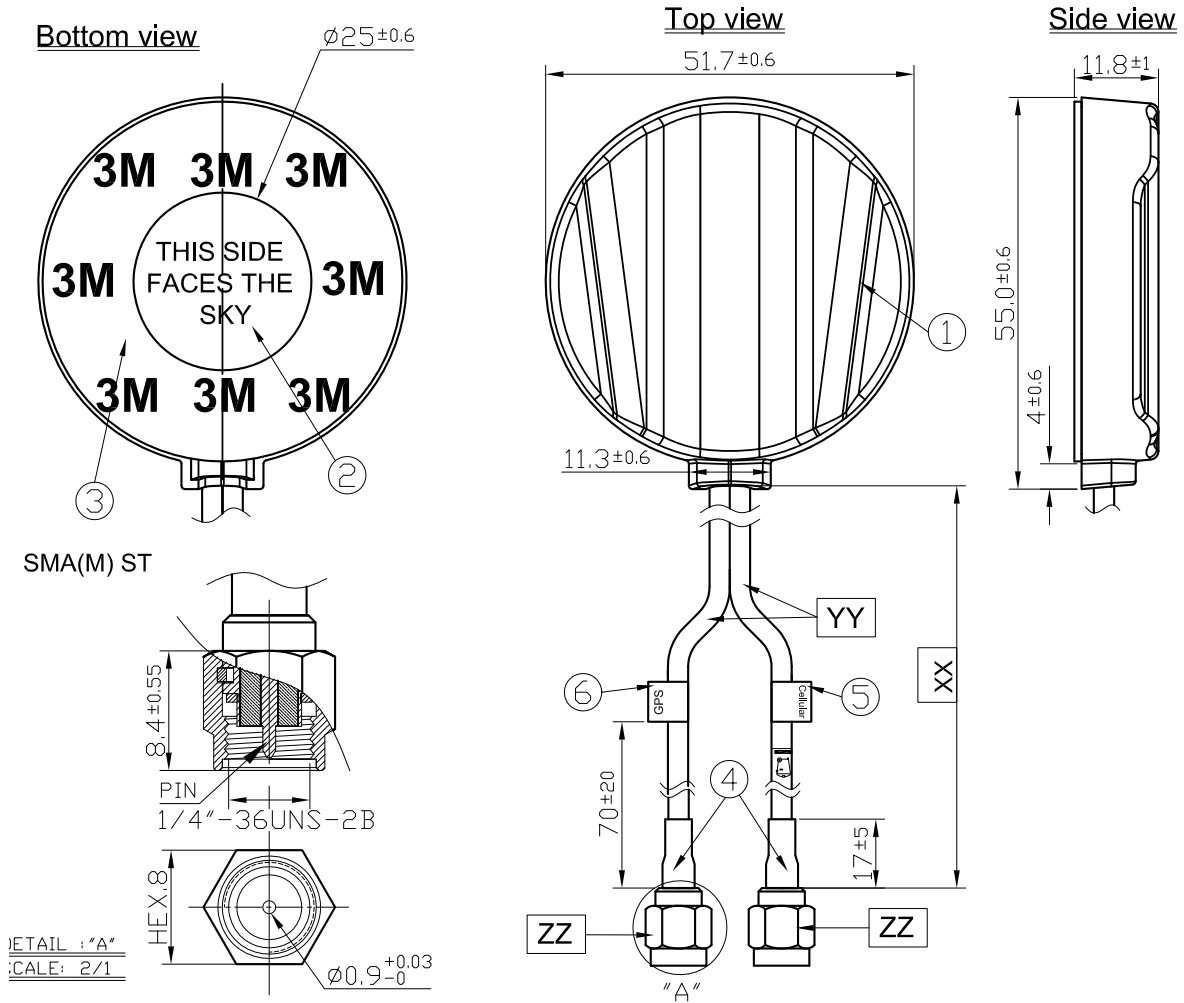


5. GSM Antenna Return Loss

5.2 With Housing, Glass Mount



6. Drawings



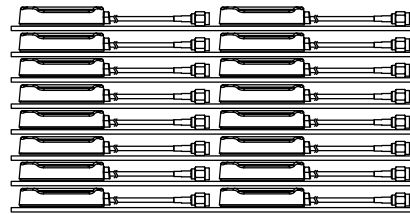
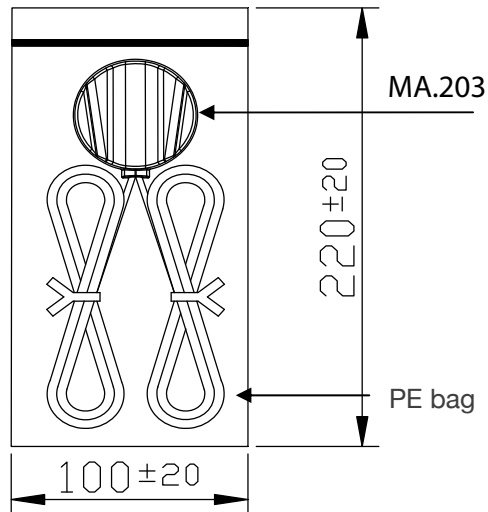
| | Name | Material | Finish | QTY |
|---|--------------------------------|--------------|-------------|-----|
| 1 | Housing | ABS | Black | 1 |
| 2 | Round Label | Art Paper | White | 1 |
| 3 | Scotch Brand Acrylic Foam Tape | 3M 4612 | White Liner | 1 |
| 4 | Heat Shrink Tube | PE | Black | 2 |
| 5 | Cellular Label | Coated Paper | Blue | 1 |
| 6 | GPS Label | Coated Paper | Orange | 1 |

| | Name | Spec | Finish | QTY |
|----|----------------|---------------|--------|-----|
| XX | Cable Length | 3000mm ± 30mm | | 1 |
| YY | Cable Type | RG174 | Black | 2 |
| ZZ | Connector Type | SMA(M) ST | Gold | 2 |

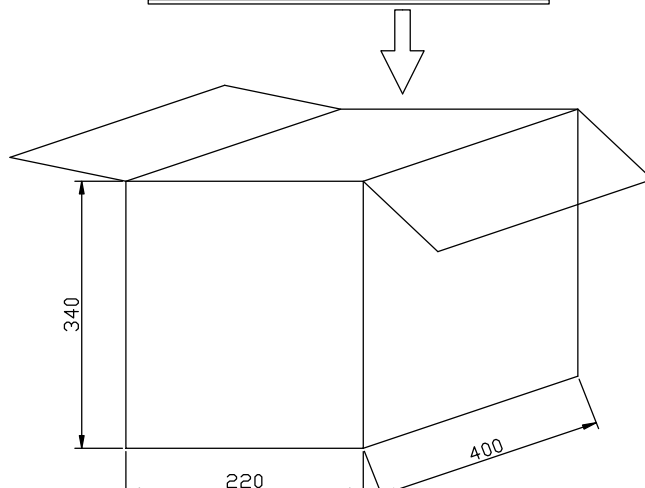
7. Packaging

1 pcs antenna per small PE bag

80 small PE bag per box



← 10 pcs/pad



← 80 pcs per carton

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