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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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# SPECIFICATION

- Part No. : **MA.203W.A.A301621.B301721**
- Product Name : 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.

### Features

#### GPS

- High LNA Gain up to 32 dB
- Antenna Gain  $30 \pm 2$  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 IP67
- 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

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 $\pm$ 2MHz(Free Space)	As above
Gain	-3.0dB typ.	As patterns
	Axial Ratio :2.0 dB max	
Polarization	RHCP	-
Bandwidth	10 MHz min	-
VSWR	1.92 Max.	-
Impedance	50 $\Omega$	50 $\Omega$
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

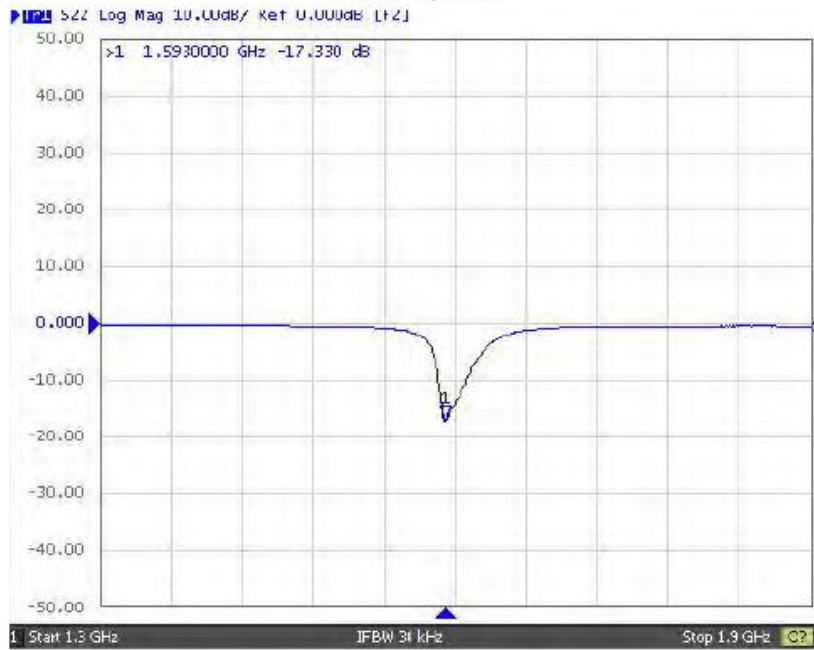
\*note: specifications may be subject to change

### LNA GPS Antenna

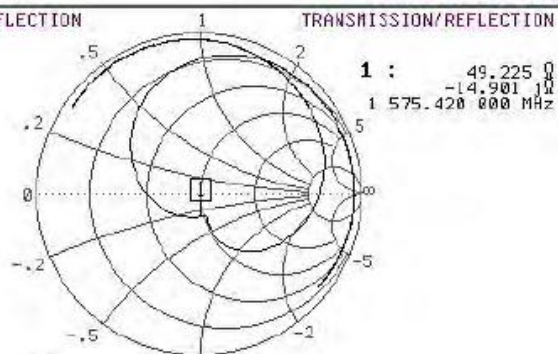
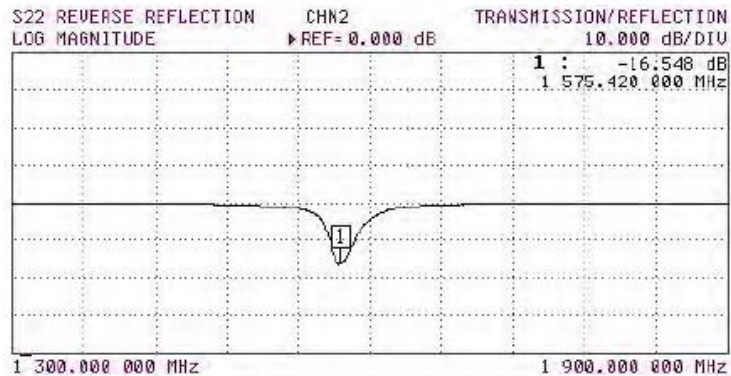
Parameter	Specification
Frequency	1575.42 $\pm$ 1.023MHz
Gain	28dB Typical
Output Impedance	50 $\Omega$
Output VSWR	1.92 Max
DC Power Input	2.7-3.3V
Noise Figure	1.5dB Typ.
Power Consumption	6mA



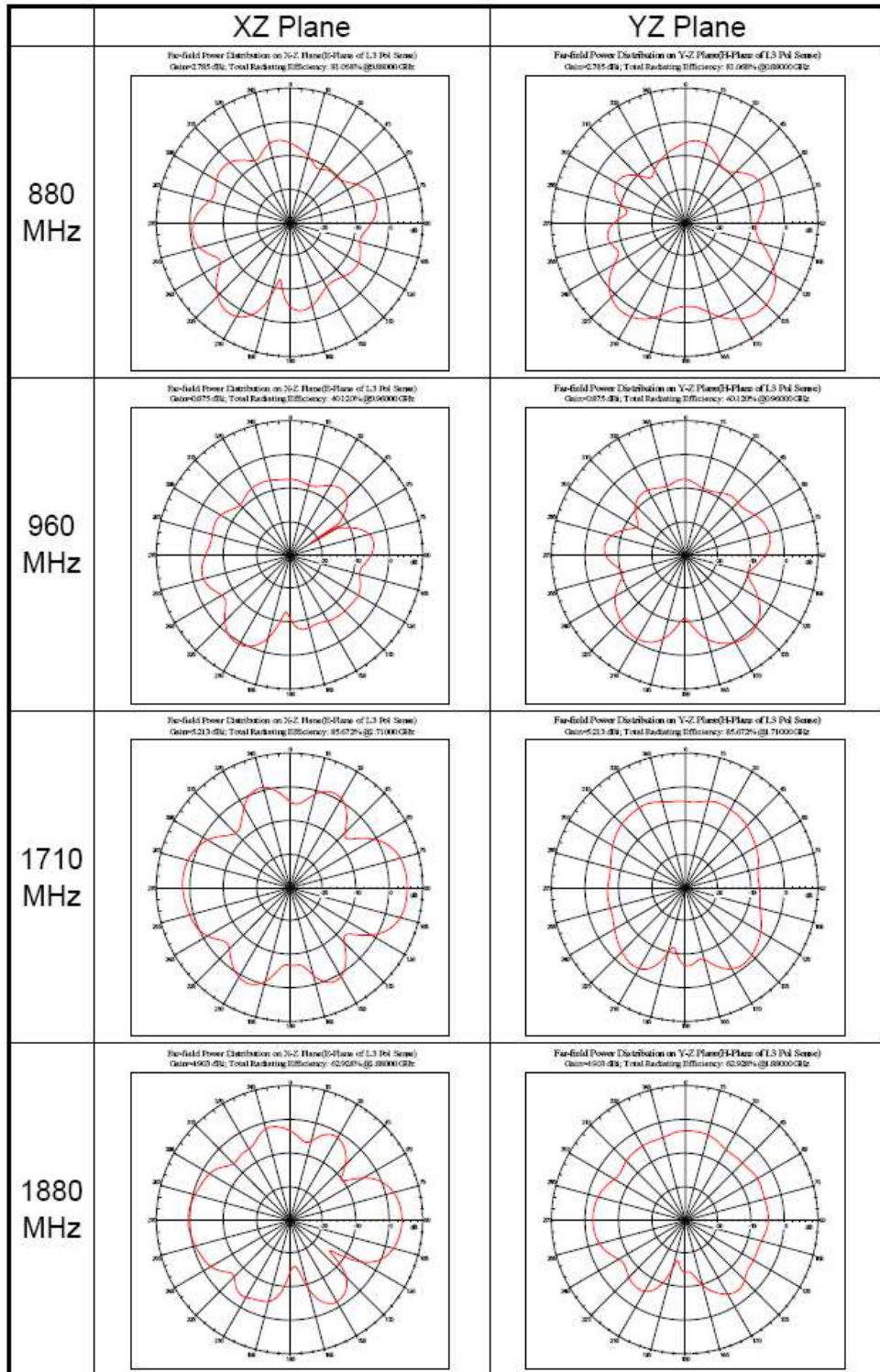
### 3. GPS Ceramic Patch Antenna Free Space



### With Housing, Glass Mount

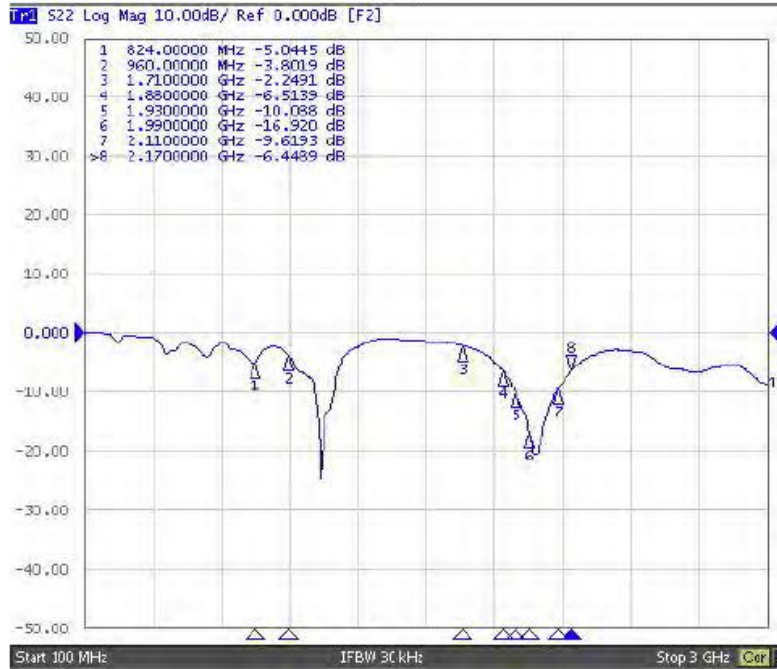


## 4. GSM Radiation Patterns

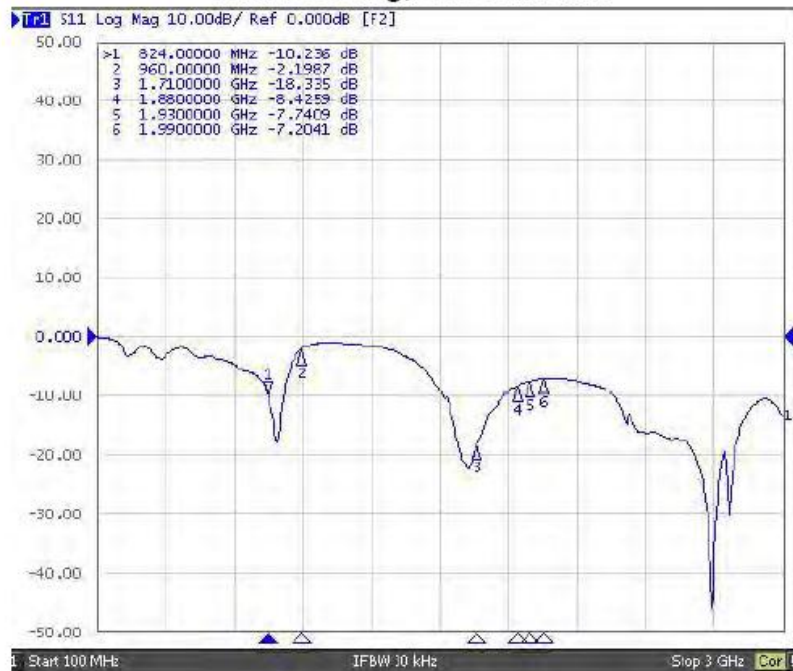


## 5. GSM Antenna Return Loss

### Free Space



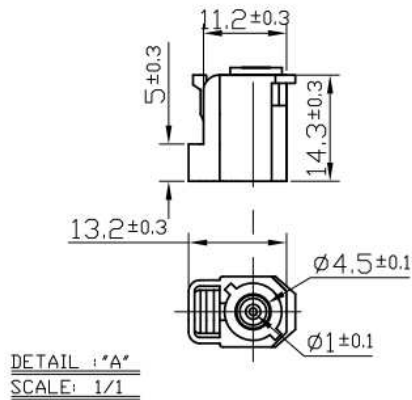
### With Housing, Glass Mount



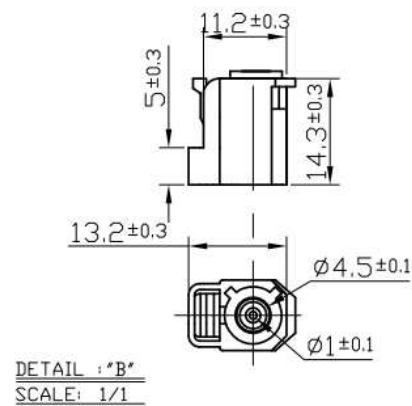
## 6. Drawing



FAKRA .G2.SMB.F.ST.C.B.AM

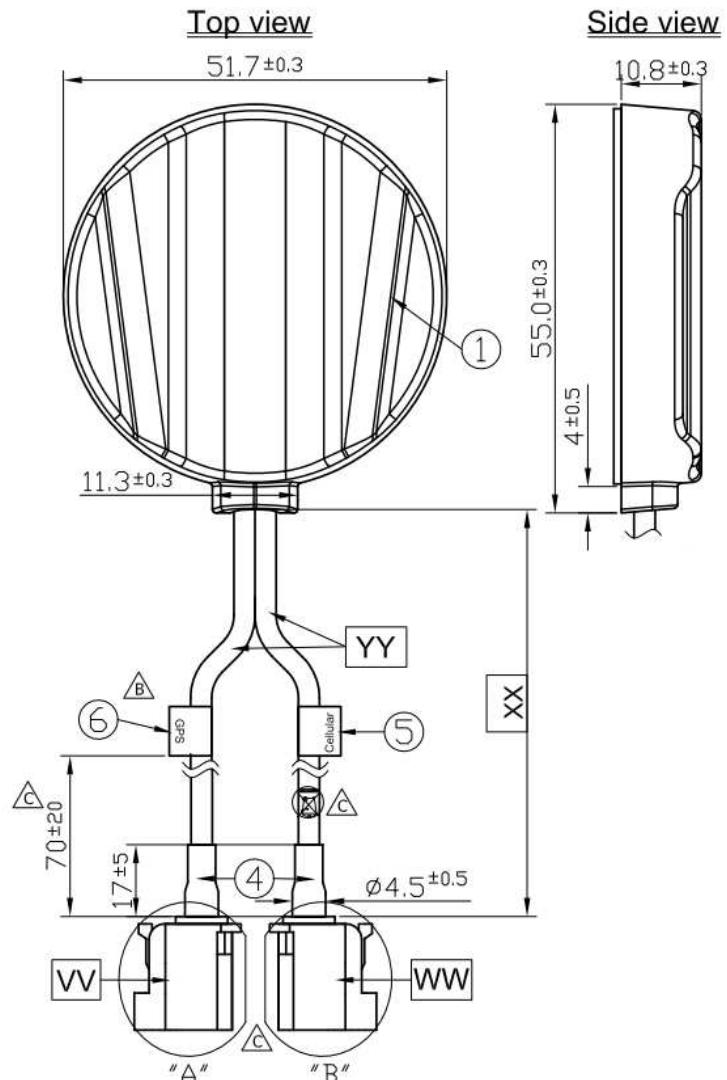


FAKRA.G2.SMB.F.ST.D.V.AM



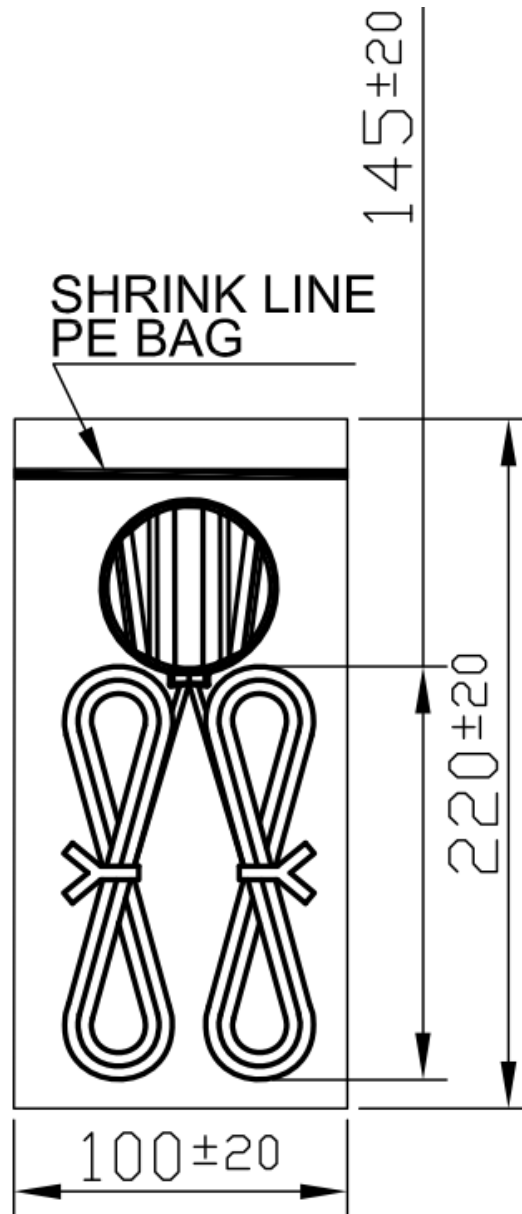
Name	P/N	Material	Finish	QTY
1 Housing	000111I0200XXA	ABS	Black	1
2 Round Label	001011I0100XXA	Art Paper	White	1
3 Scotch Brand Acrylic Foam Tape	001011I0200XXA	3M 4612	White Liner	1
4 Heat Shrink tube	001311F0000XXA	PE	Black	2
5 Cellular Label	001011F0200XXA	Coated Paper	Blue	1
6 GPS Label	001011F0000XXA	Coated Paper	Orange	1

Name	P/N	Spec	Finish	QTY
VV Connector Type	202311G010003A	FAKRA Code C GEN2	Blue	1
WW Connector Type	202411G020003A	FAKRA Code D GEN2	Violet	1
XX Cable Length		3000mm ±30mm	Black	1
YY Cable Type	301311F0000XXA	RG174	Black	2





## 7. Packaging



**PACKING: 1PCS/BAG**

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