

SPECIFICATION

Penta-band Cellular Omni-Directional Antenna

Part No. : **OMB.8912. 05F21**

Product Name : 5 dBi Penta-band Cellular Indoor/Outdoor

Omni-Directional Antenna

Feature : GSM850/ GSM900/ DCS/ PCS/ WCDMA I

850/900/1800/1900/2100 MHz

Suitable to use in robust outdoor environment

RoHS compliant



SPE-12-8-129/C/PK

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1. Introduction

The Penta-band cellular Barracuda Outdoor antenna is designed to a have long distance coverage. Omni-directional high gain across all bands ensures constant reception and transmission. The UV resistant coating with fiberglass housing makes this antenna suitable to be mounted in robust outdoor environment, pole-mounting and wall-mounting bracket is included. The antenna finds its usage in boosting cellular coverage in remote areas or difficult environments indoors and outdoors.



2. Specification

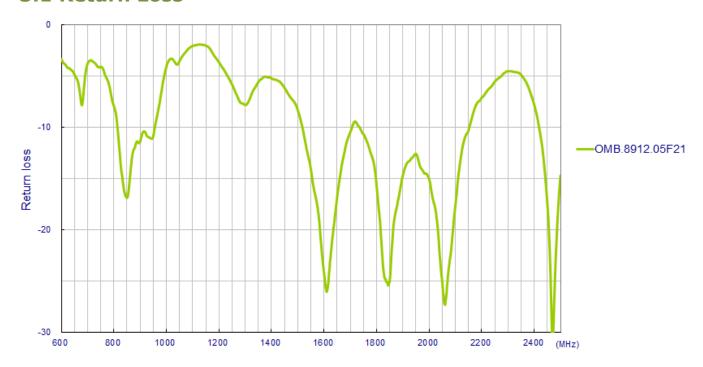
| Standard GSM GSM DCS PCS WCDMA I Band 850 900 1800 1900 2100 Frequency (MHz) 824~894 880~960 1710~188 1850~199 0 1920~217 Peak Gain (dBi) 3.04 3.03 4.30 4.83 5.56 Average Gain (dBi) 2.52 2.76 3.50 4.57 4.63 Efficiency (%) 84.2 88.7 77.8 84.5 84.2 Antenna Type Collinear Polarization Vertical Vertical Impedance 50 ohms Max Input Power 50 watts VSWR <2.0:1 Radiation Omni-Directional Vertical Bandwidth 360 Deg Antenna Design Dipole Array Internal Material Copper Connector N Type Female MECHANICAL Length 595 mm Base Diameter 70*55mm(Max) Accessories (G. W) 70a <th colspan="6">ELECTRICAL</th> | ELECTRICAL | | | | | |
|---|------------------------------|-----------------------|---------|------|------|---------|
| Frequency (MHz) 824~894 880~960 1710~188 0 1850~199 0 1920~217 0 Peak Gain (dBi) 3.04 3.03 4.30 4.83 5.56 Average Gain (dBi) 2.52 2.76 3.50 4.57 4.63 Efficiency (%) 84.2 88.7 77.8 84.5 84.2 Antenna Type Collinear Vertical Impedance 50 ohms Vertical Max Input Power 50 watts VSWR <2.0:1 | Standard | GSM | GSM | DCS | PCS | WCDMA I |
| Prequency (MHz) | Band | 850 | 900 | 1800 | 1900 | 2100 |
| Average Gain (dBi) 2.52 2.76 3.50 4.57 4.63 Efficiency (%) 84.2 88.7 77.8 84.5 84.2 Antenna Type Collinear Polarization Vertical Impedance 50 ohms Max Input Power 50 watts VSWR <2.0:1 Radiation Omni-Directional Vertical Bandwidth 30 Deg Horizontal Bandwidth 360 Deg Antenna Design Dipole Array Internal Material Copper Connector N Type Female MECHANICAL Length 595 mm Base Diameter 70*55mm(Max) Antenna Weight(G.W) 350g Mounting | Frequency (MHz) | 824~894 | 880~960 | | | |
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| Antenna Type Polarization Vertical Impedance So ohms Max Input Power So watts VSWR VSWR Radiation Omni-Directional Vertical Bandwidth 30 Deg Horizontal Bandwidth 360 Deg Antenna Design Dipole Array Internal Material Copper Connector N Type Female MECHANICAL Length Base Diameter 70*55mm(Max) Antenna Weight(G.W) Mounting | Average Gain (dBi) | 2.52 | 2.76 | 3.50 | 4.57 | 4.63 |
| Polarization Impedance So ohms Max Input Power VSWR VSWR Radiation Vertical Bandwidth Vertical Bandwidth Antenna Design Connector N Type Female MECHANICAL Length Base Diameter Antenna Weight(G.W) Mounting | Efficiency (%) | 84.2 | 88.7 | 77.8 | 84.5 | 84.2 |
| Impedance 50 ohms Max Input Power 50 watts VSWR <2.0:1 Radiation Omni-Directional Vertical Bandwidth 30 Deg Horizontal Bandwidth 360 Deg Antenna Design Dipole Array Internal Material Copper Connector N Type Female MECHANICAL Length 595 mm Base Diameter 70*55mm(Max) Antenna Weight(G.W) 350g Mounting | Antenna Type | Collinear | | | | |
| Max Input Power VSWR <2.0:1 Radiation Omni-Directional Vertical Bandwidth 30 Deg Horizontal Bandwidth 360 Deg Antenna Design Dipole Array Internal Material Copper Connector N Type Female MECHANICAL Length Base Diameter 70*55mm(Max) Antenna Weight(G.W) Mounting | Polarization | Vertical | | | | |
| VSWR Radiation Omni-Directional Vertical Bandwidth 30 Deg Horizontal Bandwidth 360 Deg Antenna Design Dipole Array Internal Material Copper Connector N Type Female MECHANICAL Length Base Diameter 70*55mm(Max) Antenna Weight(G.W) Mounting | Impedance | 50 ohms | | | | |
| Radiation Omni-Directional Vertical Bandwidth 30 Deg Horizontal Bandwidth 360 Deg Antenna Design Dipole Array Internal Material Copper Connector N Type Female MECHANICAL Length 595 mm Base Diameter 70*55mm(Max) Antenna Weight(G.W) 350g Mounting | Max Input Power | 50 watts | | | | |
| Vertical Bandwidth 30 Deg Horizontal Bandwidth 360 Deg Antenna Design Dipole Array Internal Material Copper Connector N Type Female MECHANICAL Length Base Diameter 70*55mm(Max) Antenna Weight(G.W) Mounting | VSWR | <2.0:1 | | | | |
| Horizontal Bandwidth 360 Deg Antenna Design Dipole Array Internal Material Copper Connector N Type Female MECHANICAL Length Base Diameter 70*55mm(Max) Antenna Weight(G.W) Mounting | Radiation | Omni-Directional | | | | |
| Antenna Design Dipole Array Internal Material Copper Connector N Type Female MECHANICAL Length Base Diameter 70*55mm(Max) Antenna Weight(G.W) Mounting | Vertical Bandwidth | 30 Deg | | | | |
| Internal Material Copper Connector N Type Female MECHANICAL Length 595 mm Base Diameter 70*55mm(Max) Antenna Weight(G.W) 350g Mounting | Horizontal Bandwidth | 360 Deg | | | | |
| Connector N Type Female MECHANICAL Length Base Diameter 70*55mm(Max) Antenna Weight(G.W) Mounting | Antenna Design | Dipole Array | | | | |
| Length 595 mm Base Diameter 70*55mm(Max) Antenna Weight(G.W) 350g Mounting | Internal Material | Copper | | | | |
| Length 595 mm Base Diameter 70*55mm(Max) Antenna Weight(G.W) 350g Mounting | Connector | | | | | |
| Base Diameter 70*55mm(Max) Antenna Weight(G.W) 350g Mounting | MECHANICAL | | | | | |
| Antenna Weight(G.W) 350g Mounting | Length | | | | | |
| Mounting | Base Diameter | 70*55mm(Max) | | | | |
| | Antenna Weight(G.W) | | | | | |
| , | Mounting Accessories(G.W) | 70g | | | | |
| Application Indoor/Outdoor | Application | Indoor/Outdoor | | | | |
| Radome Material White Fiberglass | Radome Material | White Fiberglass | | | | |
| Base Material Aluminum | Base Material | Aluminum | | | | |
| Mount Style Pole Mount/Wall Mount | Mount Style | Pole Mount/Wall Mount | | | | |
| Mounting Stainless Steel | Mounting | Stainless Steel | | | | |
| Wind Resistance >150mph (>241km/h) | Wind Resistance | >150mph (>241km/h) | | | | |



| ENVIRONMENTAL | | | | |
|-----------------------|------------------------|--|--|--|
| Storage Temperature | -40°C to +80°C | | | |
| Operating Temperature | -40°C to +60°C | | | |
| Operating Humidity | 10%~80% non-condensing | | | |
| Storage Humidity | 5%~80% non-condensing | | | |

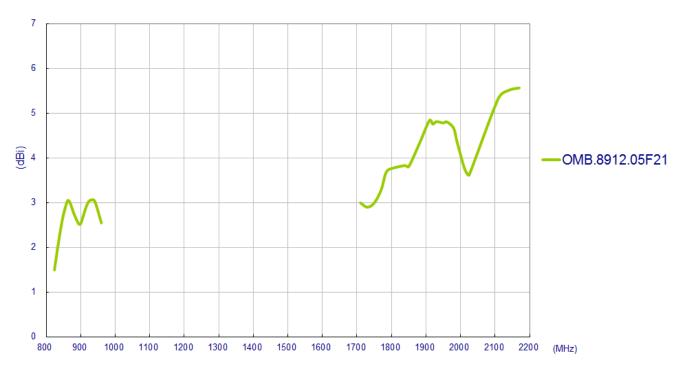
3. Antenna Characteristics

3.1 Return Loss

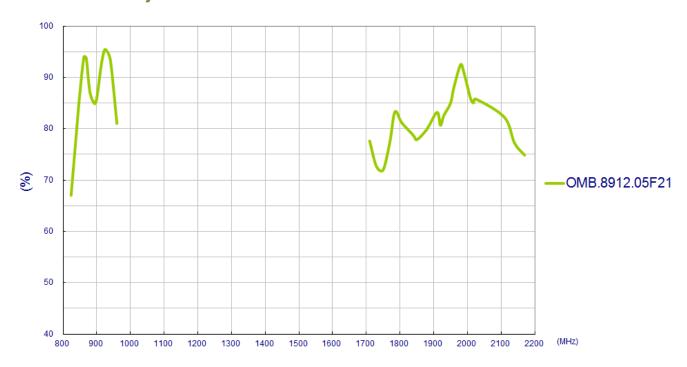




3.2 Maximum Gain



3.3 Efficiency

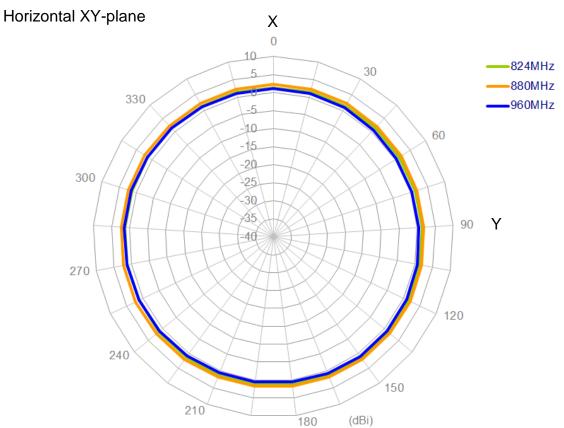


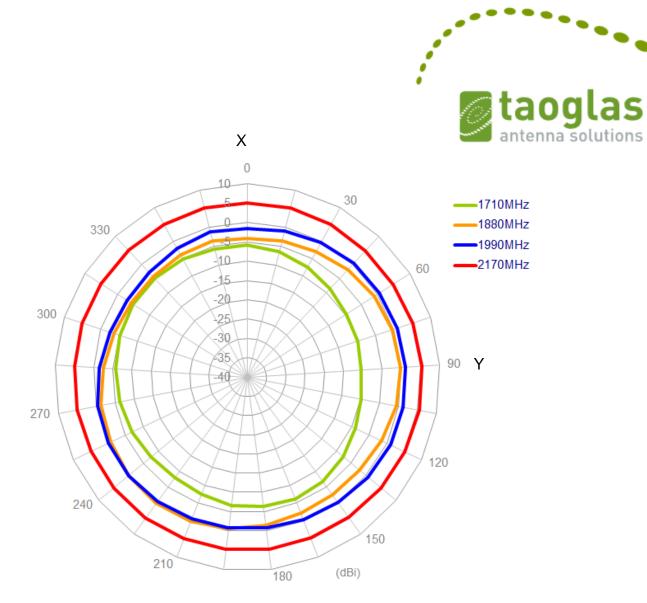


4.3D Radiation Property



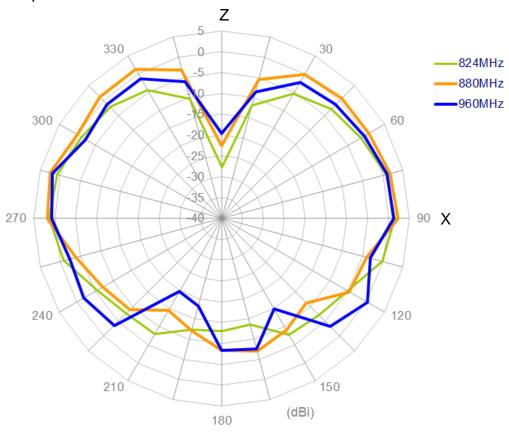


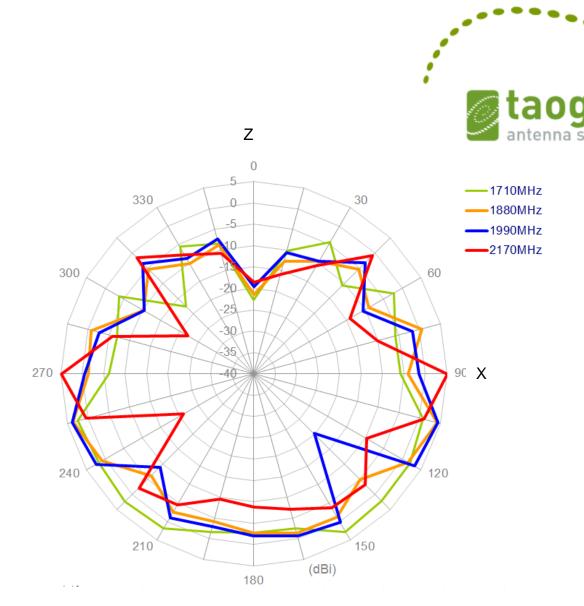




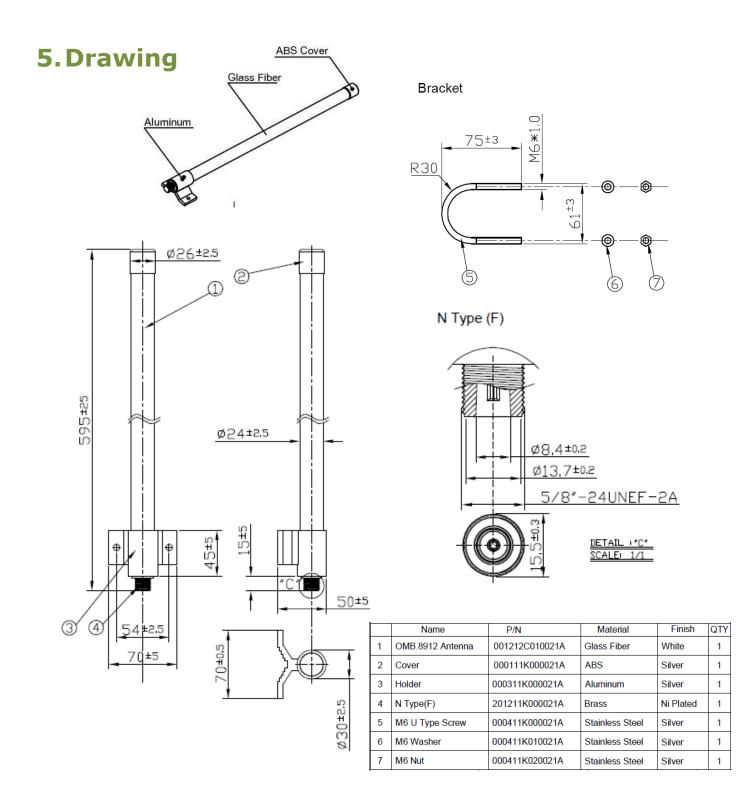


Vertical XZ-plane





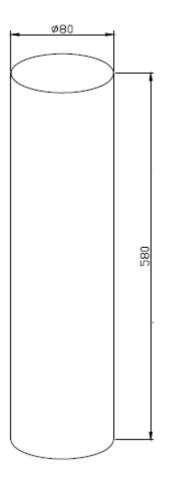


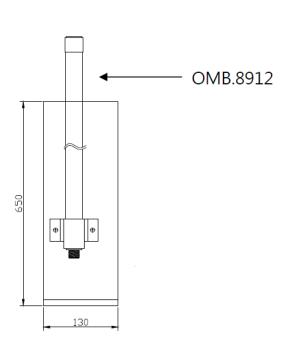




6. Packaging

Antennas are packed in carton tubes inside PE bags. Mounting components are packed in the separate PE bag inside the tube





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