



**FXP14.11.0100B**

## Specification

<b>Part No.</b>	<b>FXP14.11.0100B</b>
<b>Product Name</b>	<b>FXP14 Hexa-Band Cellular Antenna</b> 850/900/1700/1800/1900/2100MHz
<b>Feature</b>	Murata GSC Connector 100 mm 0.81 Coaxial Cable 70*20*0.1 mm RoHS Compliant

## 1. Introduction

The Taoglas FXP14 Hexa Band Cellular Antenna covers all world-wide bands (850 / 900 / 1700 / 1800 / 1900 / 2100 MHz). These cellular bands are used for different technologies in different countries such

as GSM / CDMA / DCS / PCS / WCDMA / UMTS/ HSPA / GPRS / EDGE / 3G. The antenna has been designed in a flexible material with a rectangular form-factor and cable connection for

an easy installation. The antenna works on different plastic materials and thickness. We have selected a piece of ABS with 2mm of thickness as a baseline for testing.

## 2. Specifications

Parameter	Hexa Band Cellular Antenna					
<b>Cellular Band (MHz)</b>	850	900	1700	1800	1900	2100
<b>Return Loss (dB)</b>	-7	-12	-8	-9	-9	-8
<b>Efficiency (%)</b>	52	55	60	60	62	65
<b>Gain (dBi)</b>	2	1.5	3	2.5	2	2.5
<b>Impedance</b>	50 Ohms					
<b>VSWR</b>	≤2.5:1					
<b>Polarization</b>	Linear					
<b>Power Handled</b>	5W					
<b>Operation Temperature</b>	-40 °C ~ +85 °C					
<b>Storage Temperature</b>	-40 °C ~ +85 °C					
<b>Dimensions</b>	70 X 20 X 0.1 mm					
<b>Weight</b>	1.5 g					
<b>Connector</b>	Murata GSC					
<b>Cable Standard</b>	Mini-Coax 0.81 mm					
<b>Cable Length and color</b>	100 mm, Black					
<b>RoHS Compliant</b>	Yes					
<b>Adhesive</b>	3M 467					

### 3. Test Set Up

A Satimo SG24 3D Scan System with Anechoic Chamber

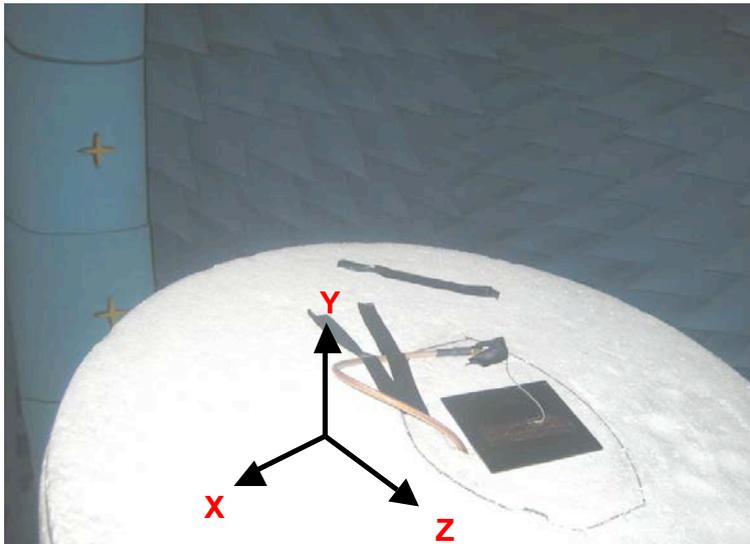


Figure 1. Satimo System.

Agilent 5071C Vector Network Analyzer

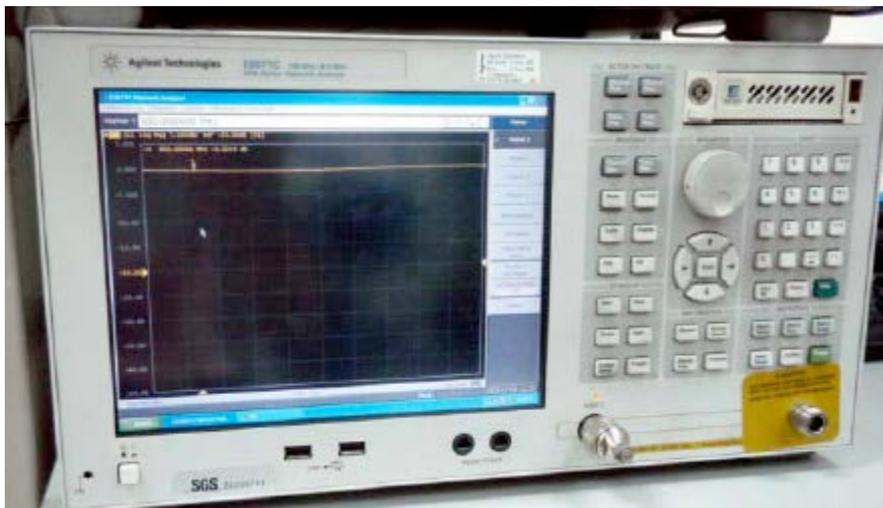
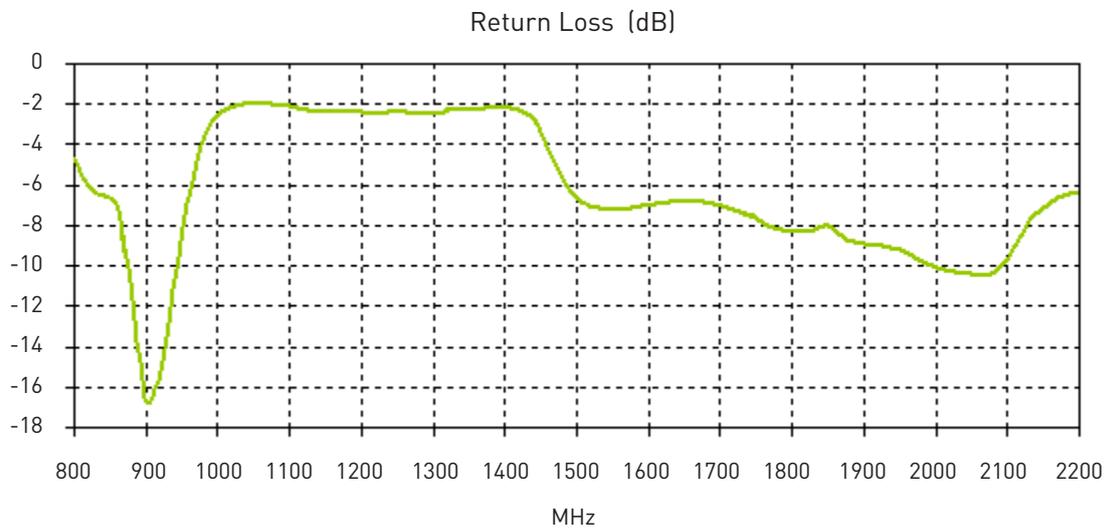


Figure 2. Network Analyzer.

## 4. Antenna Parameters

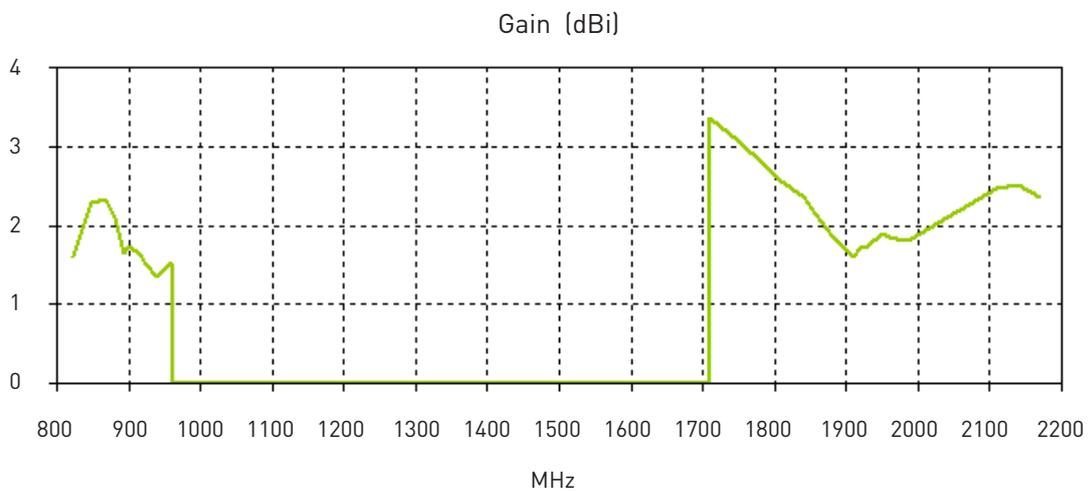
The next antenna parameter graphs like Return Loss were measured in the Agilent 5071C Vector Network Analyzer. The Gain, Efficiency and Radiation Patterns were measured in the reliable Satimo 3D Scan System.

### 4.1 Return Loss Data



**Figure 3.** Return Loss for the FXP14 Antenna.

### 4.2 Gain Data



**Figure 4.** Gain for the FXP14 Antenna.

### 4.3 Efficiency Data

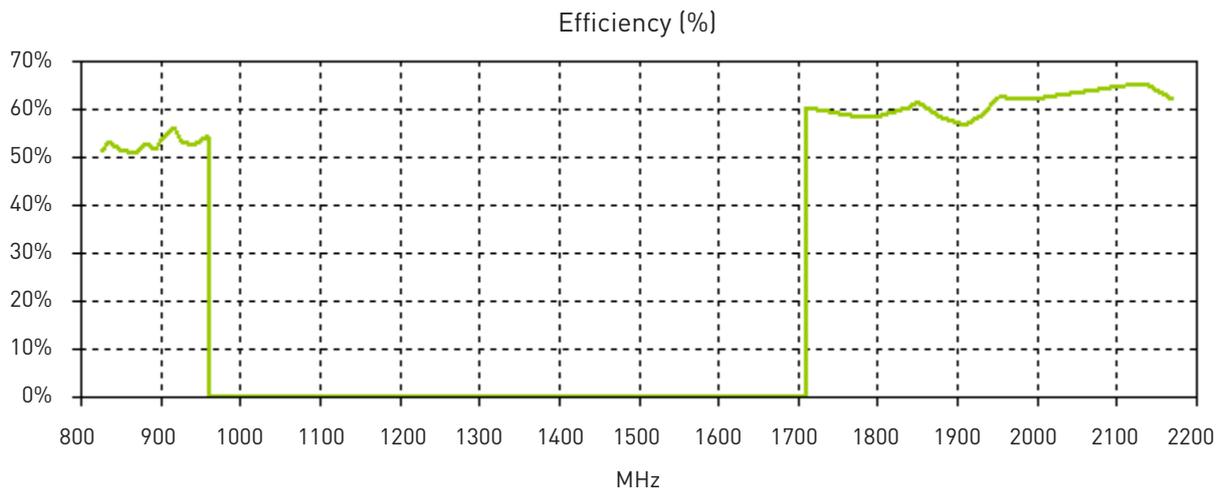


Figure 5. Efficiency for the FXP14 Antenna.

### 4.4 Radiation Pattern Data

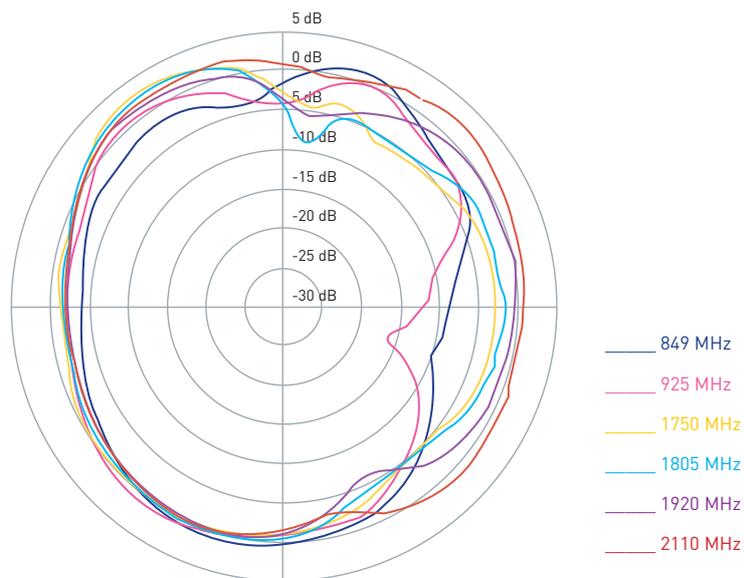
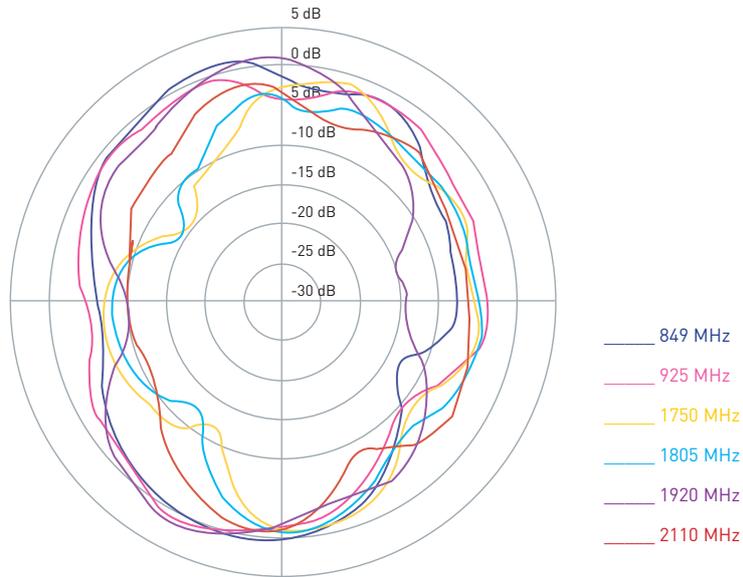
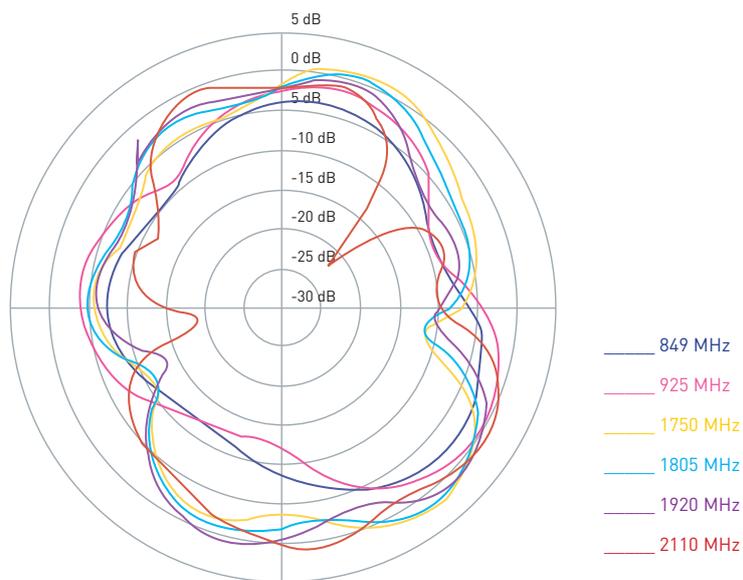


Figure 6. Radiation pattern XZ Plane, Figure 1 as reference (dB)

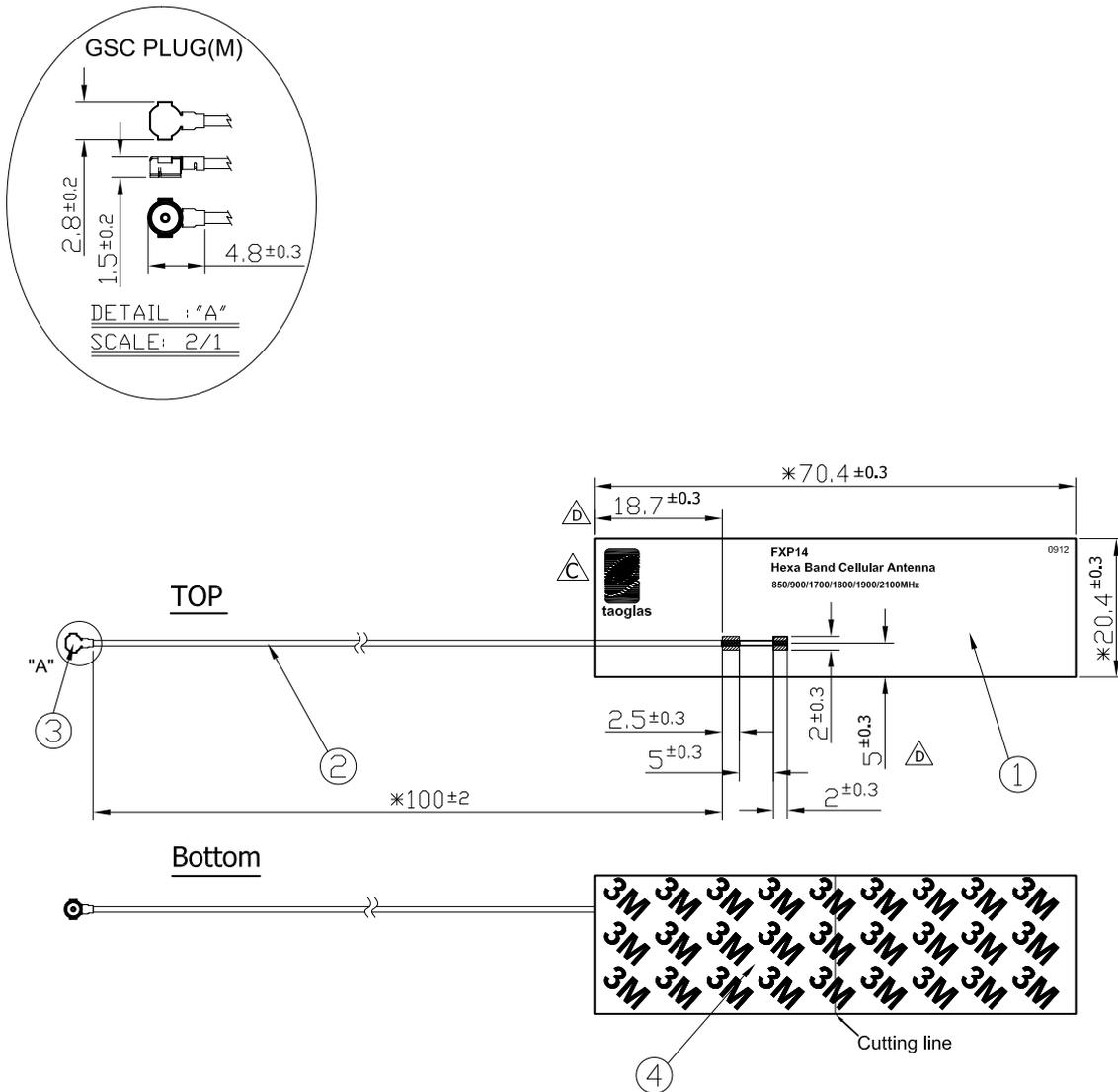


**Figure 7.** Radiation pattern YZ Plane, Figure 1 as reference (dB)



**Figure 8.** Radiation pattern XY plane, Figure 1 as reference (dB)

## 5. Drawing

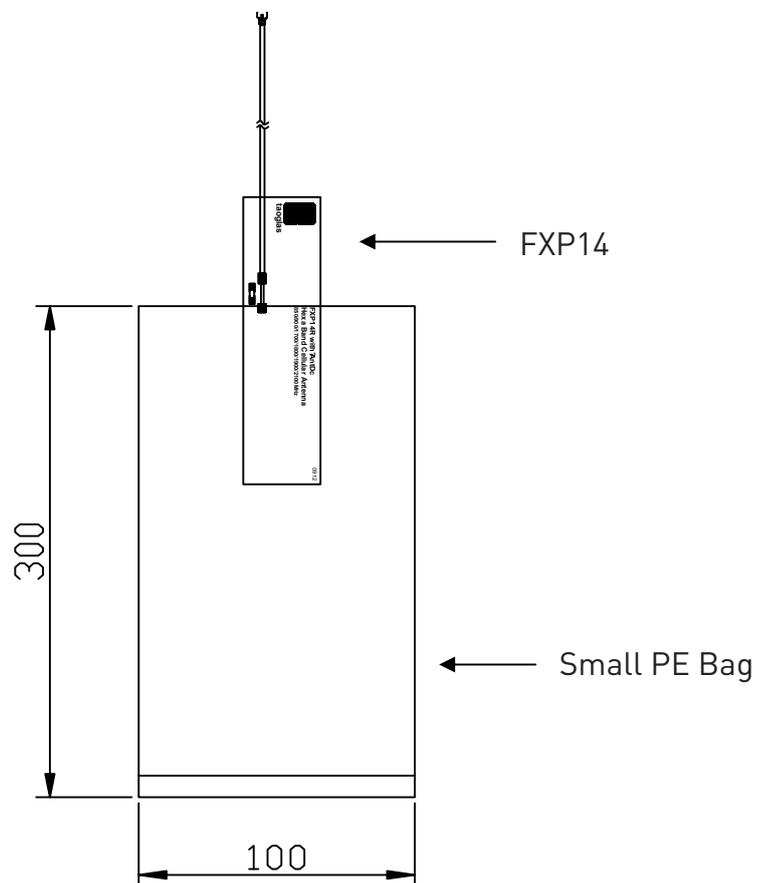


**Figure 9.** Mechanical Drawing for the FXP14 Antenna

	Name	Material	Finish	QTY
1	FXP14 PCB	FPCB 0.1t	Black	1
2	Ø0.81 Coaxial Cable	FEP	White	1
3	GSC Plug(M)	Brass	Silver	1
4	Double-Sided Adhesive	3M 467	Brown Liner	1

## 6. Packaging

100pcs antenna per small PE bag



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