

# **SPECIFICATION**

### **FXP14 Hexa Band Cellular Antenna**

Part No.	:	FXP14.24.0100B			
Product Name	:	FXP14 Hexa-Band Cellular Antenna 850/900/1700/1800/1900/2100MHz			
Feature	:	IPEX MHFIV Connector 100 mm 0.81 Coaxial Cable 70*20*0.1 mm RoHS Compliant			
		Provide complication of the second se			



# **1. OVERVIEW**

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 2 mm of thickness as a baseline for testing.

### 2. ANTENNA CHARACTERISTICS

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



# 3. TEST SET UP

A Satimo SG24 3D Scan System with Anechoic Chamber.

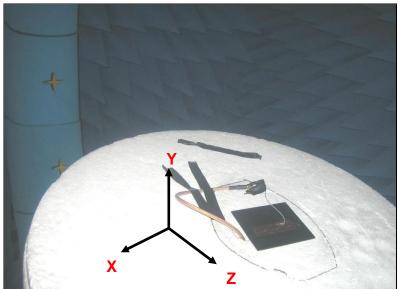


Figure 1. Satimo System.

Agilent 5071C Vector Network Analyzer.

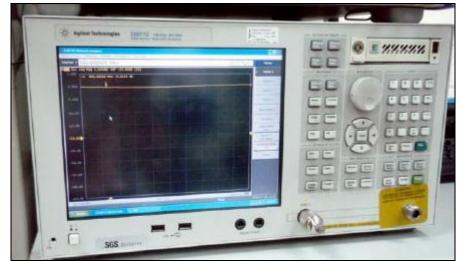


Figure 2. Network Analyzer.



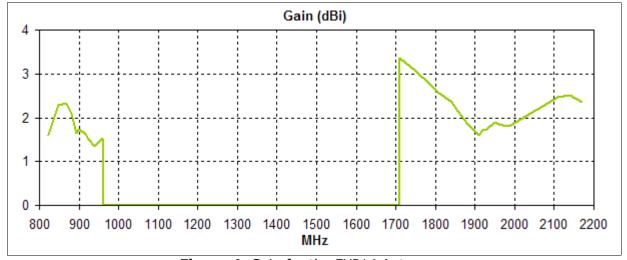
# 4. ANTENNA PARAMETERS

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.

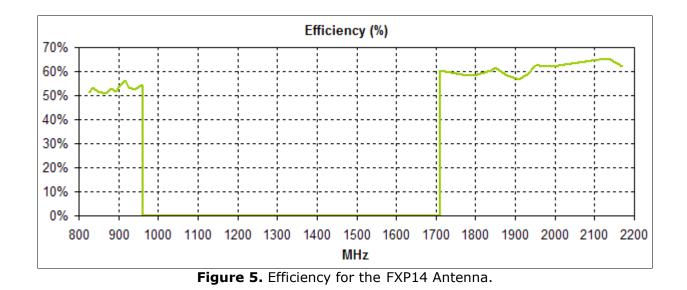


### 4.2 Gain Data

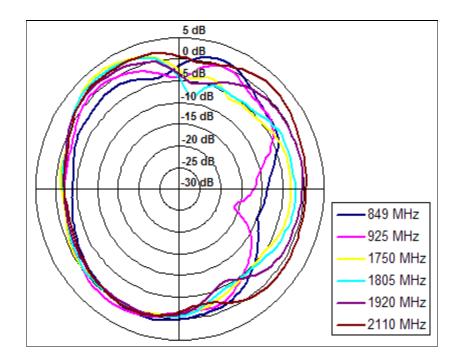
Figure 4. Gain for the FXP14 Antenna.



### 4.3 Efficiency Data



### 4.4 Radiation Pattern Data





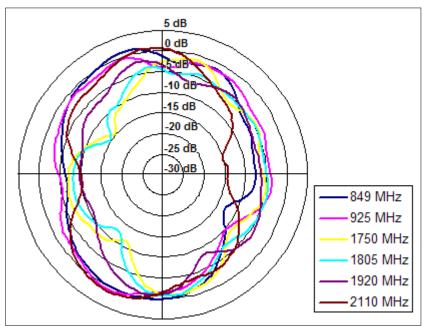




Figure 7. Radiation pattern YZ Plane, Figure 1 as reference (dB).

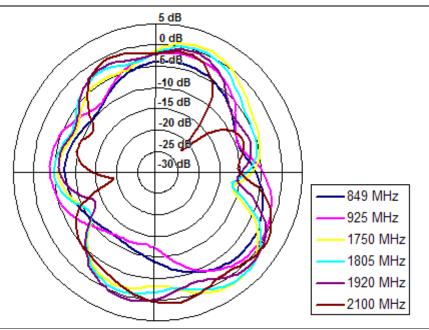


Figure 8. Radiation pattern XY plane, Figure 1 as reference (dB).



# **5. MECHANICAL DRAWING**

