

# SPECIFICATION

## FXP73 Blue Diamond 2.4GHz Band Antenna

Part No. : **FXP73.09.0100A**

Product Name : FXP73 Blue Diamond 2.4GHz  
Multi Standard Antenna

Feature : 2.5dBi Gain  
MMCX(M)RA Connector  
10 mm Cable  
47\*7\*0.1 mm  
RoHS Compliant



## 1. OVERVIEW

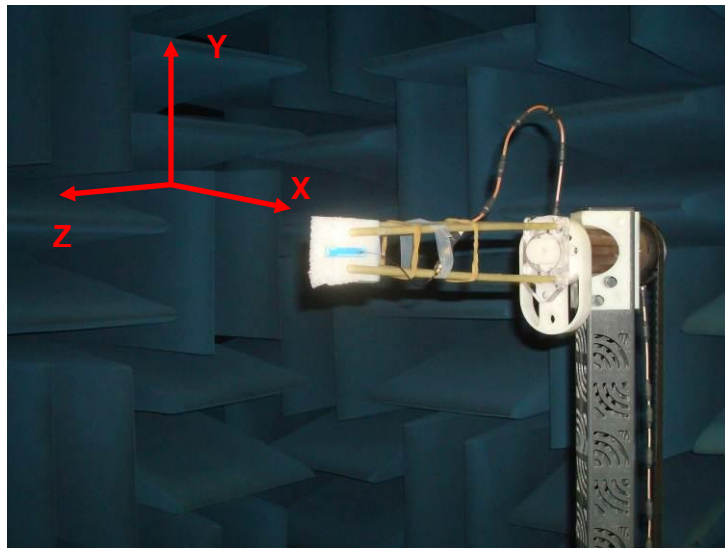
The FXP73 Blue Diamond 2.4GHz Antenna works on WiFi, ZigBee, Bluetooth and ISM band at 2.4 GHz. This antenna has been designed with a specific solution to cover the current market applications that require rectangular form-factor, with easy installation through a cable connection.

## 2. ANTENNA CHARACTERISTICS

Communication System	Bluetooth	Wi-Fi	Zigbee	2.4GHz ISM
	2401-2480	2412-2462	2410-2480	2400-2483.5
Efficiency	50%			
Gain	2.5dBi			
Free Space Peak Gain	3.0dBi			
Return Loss	-10dB			
Impedance	50 Ohms			
VSWR	≤ 2:1			
Polarization	Linear			
Power Handled	5 W			
Operation Temperature	-40 °C ~ +85 °C			
Storage Temperature	-40 °C ~ +85 °C			
Dimensions	47*7*0.1 mm			
Weight	1.2 g			
Connector	MMCX(M)RA)			
Cable Standard	Mini-Coax 1.13 mm			
Cable Length and color	100mm, White			
RoHS Compliant	Yes			
Adhesive	3M 467			

### 3. TEST SET UP

A ETS 3D Scan System with Anechoic Chamber.



**Figure 1.** ETS System

Agilent 8753ES Vector Network Analyzer.

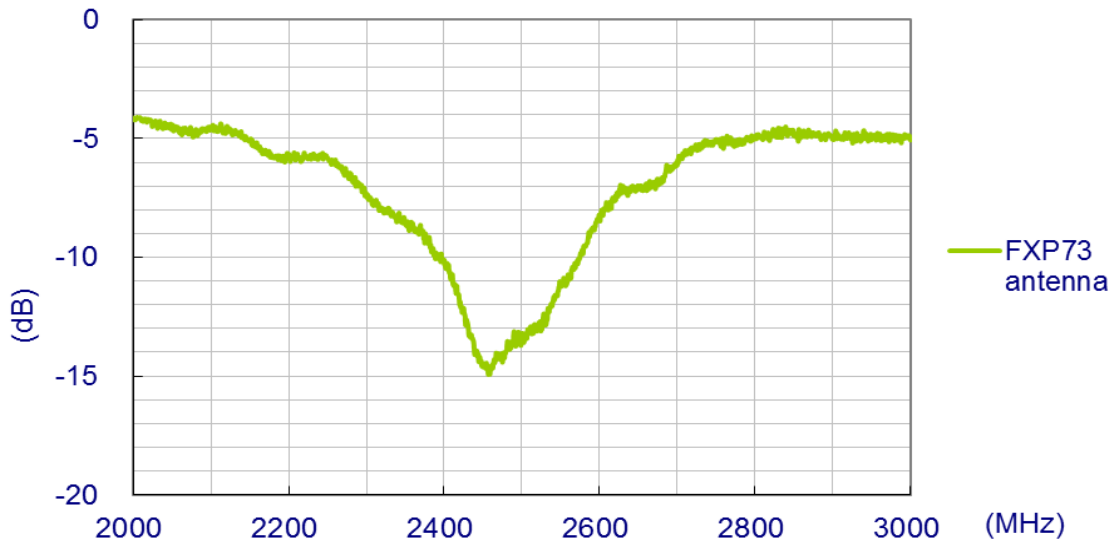


**Figure 2.** Network Analyzer

## 4. ANTENNA PARAMETERS

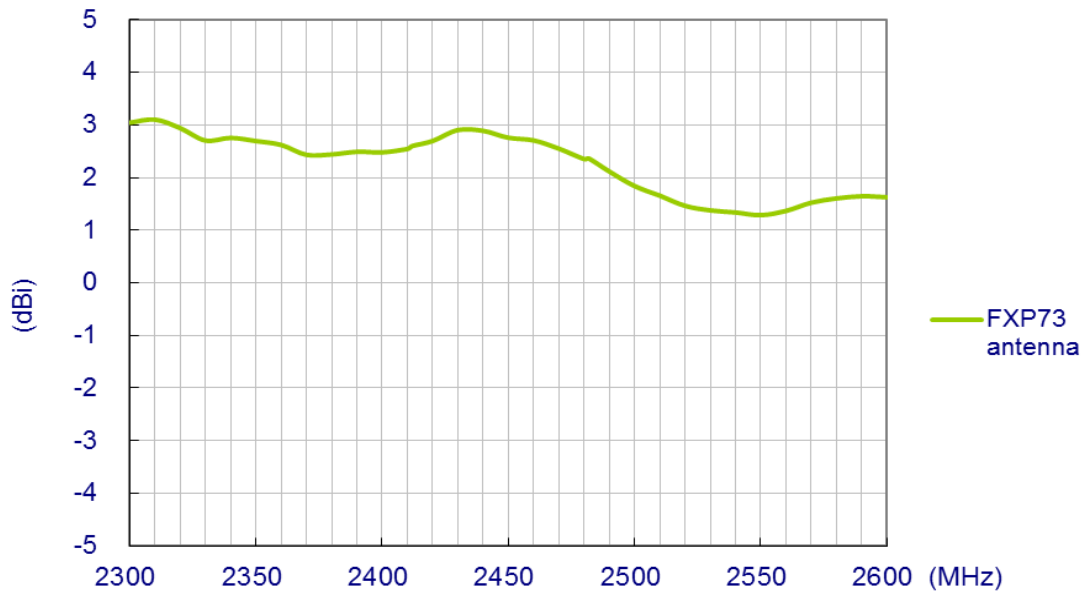
The next antenna parameter graphs like Return Loss, Smith Chart and VSWR were measured in the Agilent 8753ES Vector Network Analyzer. The Gain, Efficiency and Radiation Patterns were measured in the reliable ETS 3D Scan System.

### 4.1 Return Loss Data



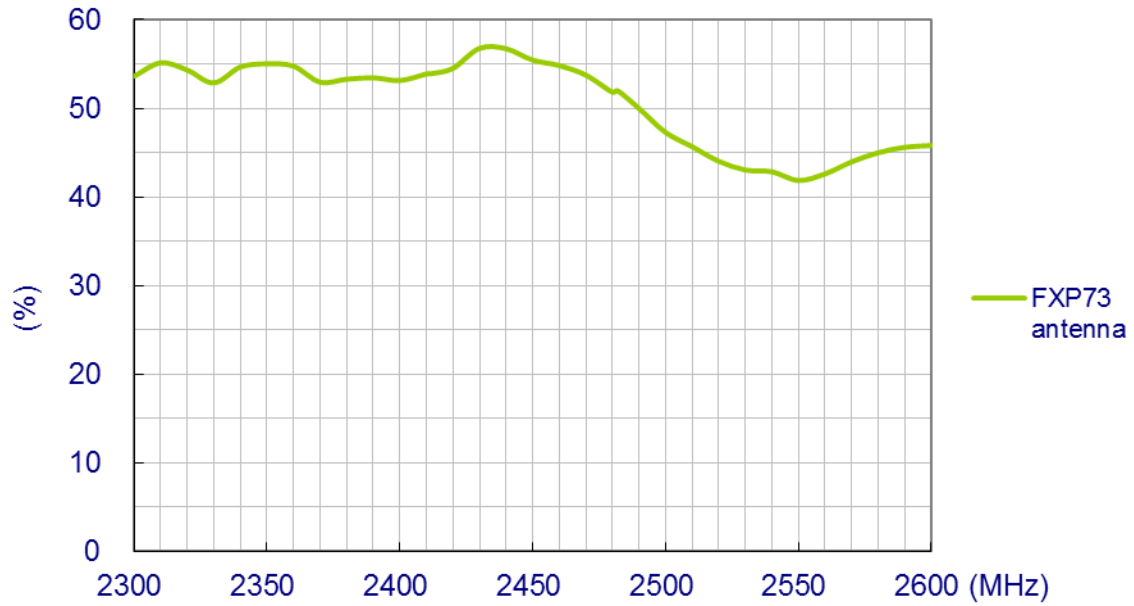
**Figure 3.** Return Loss for the FXP73 Antenna

### 4.2 Gain Data



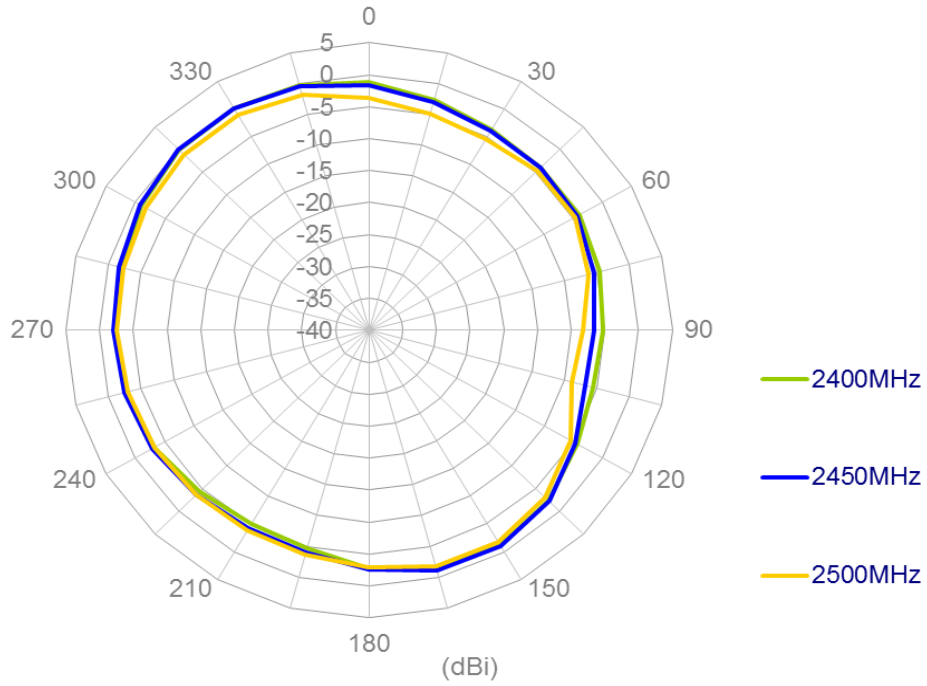
**Figure 6.** Gain for the FXP73 Antenna

### 4.3 Efficiency Data

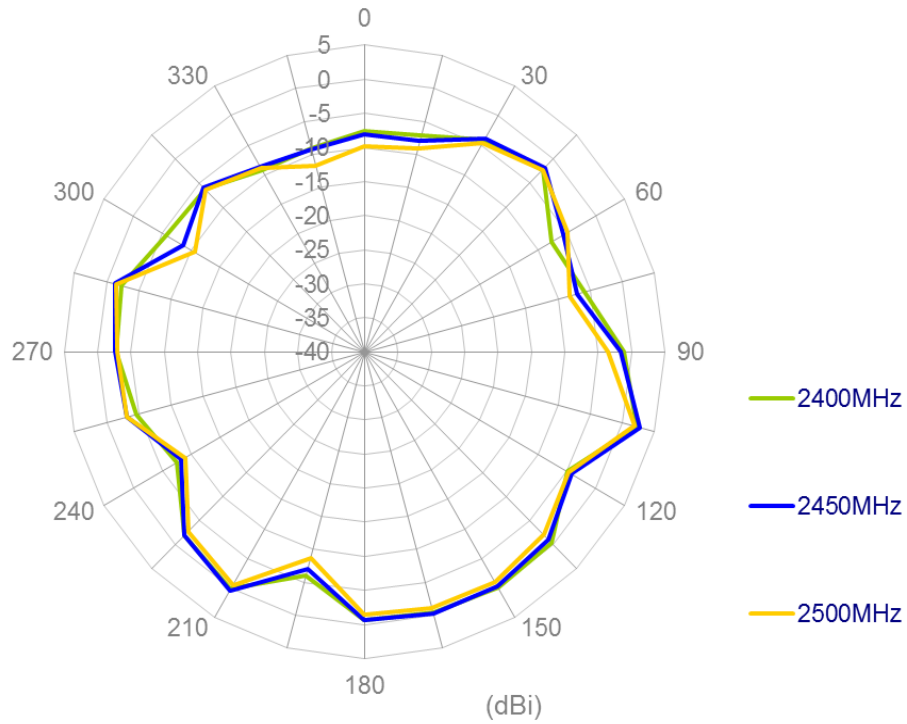


**Figure 7.** Efficiency for the FXP73 Antenna.

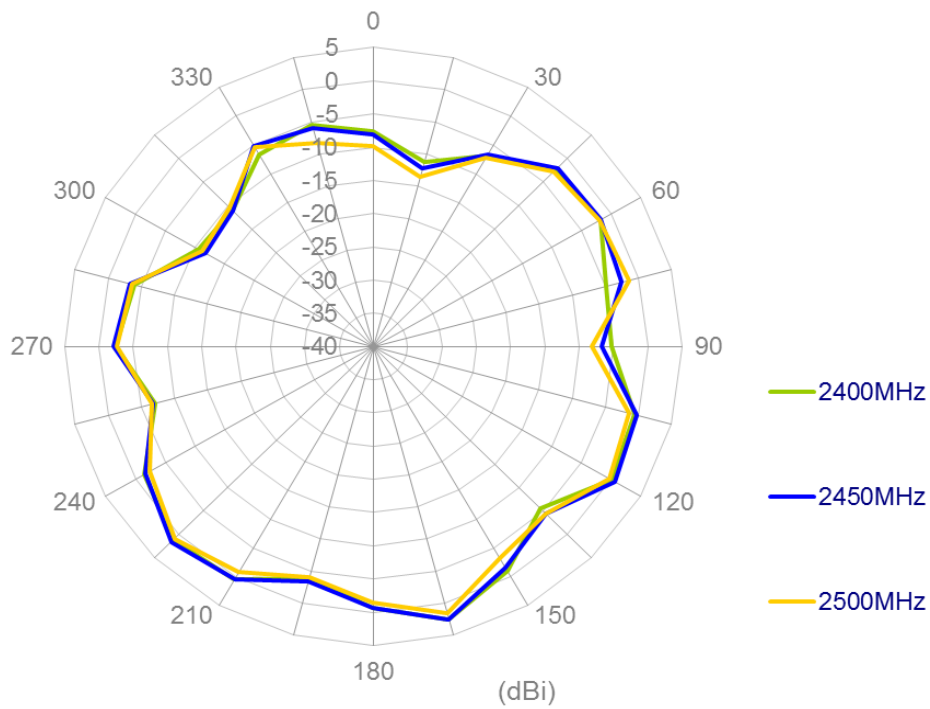
### 4.4. Radiation Pattern Data



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

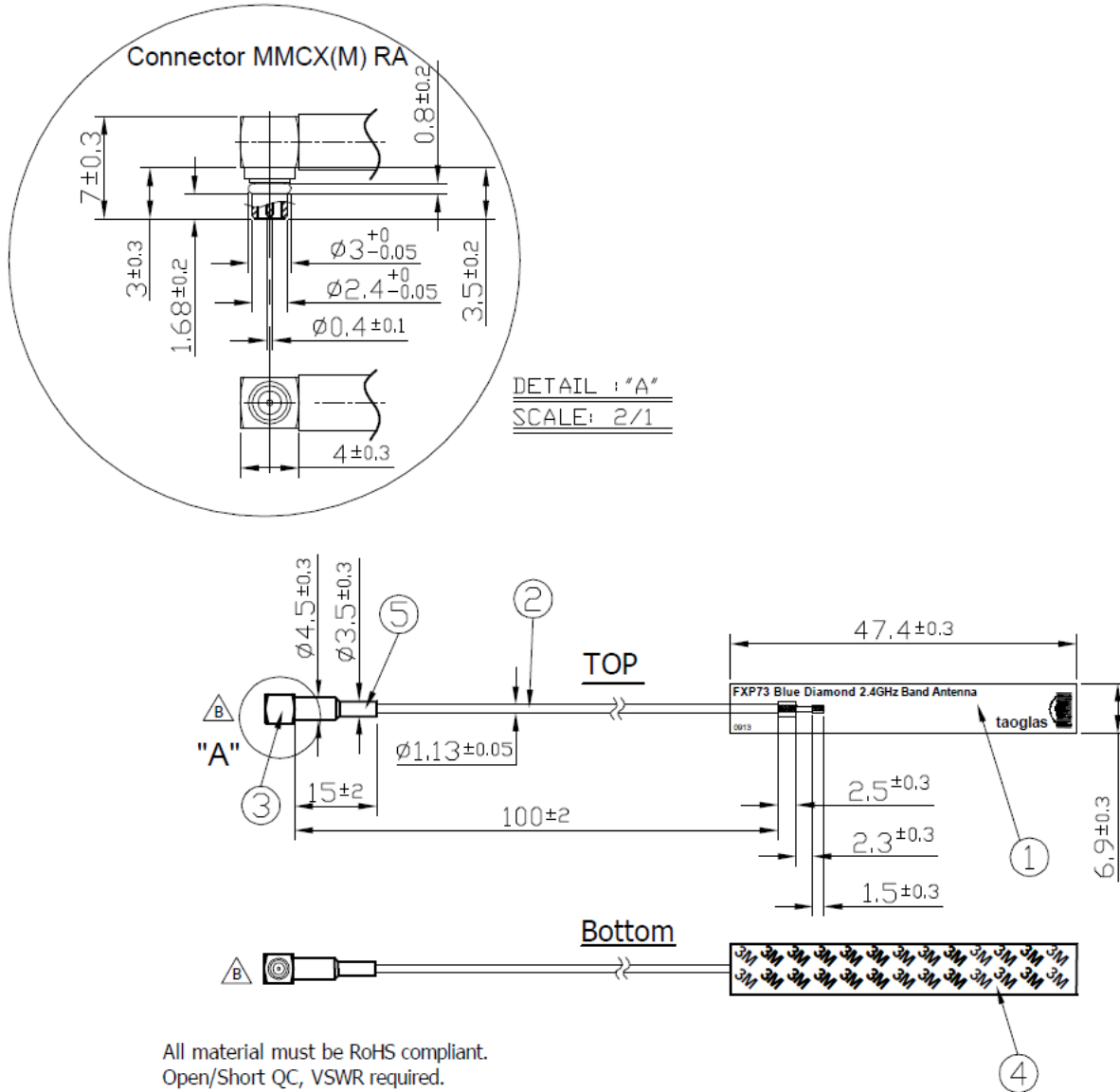


**Figure 9.** Radiation pattern XZ Plane, Figure 1 as reference (dB).



**Figure 10.** Radiation pattern YZ plane, Figure 1 as reference (dB).

## 5. MECHANICAL DRAWING



	Name	Part No.	Material	Finish	QTY
①	FXP73 PCB		FPCB 0.1t	Blue	1
②	1.13 Mini-Coaxial Cable		FEP	White	1
③	MMCX(M) RA		Brass	Gold	1
④	Double-Sided Adhesive		3M 467	Brown Liner	1
⑤	Heat Shrink Tube		PE	Black	1

**Figure 11.** Mechanical Drawing for the FXP73 Antenna