



Specification

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Spec No. : **FXP240**
Part No. : **FXP240.07.0100A**
Model : 433MHz ISM Band Flex Circuit Antenna
Features : 75*45*0.1mm
100mm Ø1.13 Cable
RoHS ✓



VERSION	DATE	PAGE	DESCRIPTION	CENTRE	APPROVED
A	09/21/2009	All	Antenna Specifications	Taiwan	Ruben F. Cuadras



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I. OVERVIEW

The Taoglas FXP240 433 MHz ISM Antenna covers from 433-435 MHz used in the 433 MHz ISM (Industrial Scientific Medical) Band. The antenna has been designed in a flexible material with a square 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.

II. ANTENNA CHARACTERISTICS

Parameter	Specification
Frequency Range	433MHz to 435MHz
Return Loss (dB)	-20
Gain (dBi)	0
Impedance	50 Ω
VSWR	$\leq 2:1$
Polarization	Linear
Power Handled	5W
Operation Temperature	-40 °C ~ +85 °C
Storage Temperature	-40 °C ~ +85 °C
Dimensions	75*45*0.1mm
Weight	1.5g
Connector	MHFII (U.FL Compatible)
Cable Standard	Mini-Coax 1.13 mm
Cable Length and color	100mm, Black
RoHS Compliant	Yes
Adhesive	3M 467



III. TEST SET UP

Rhode & Schwartz ZVL6 Vector Network Analyzer

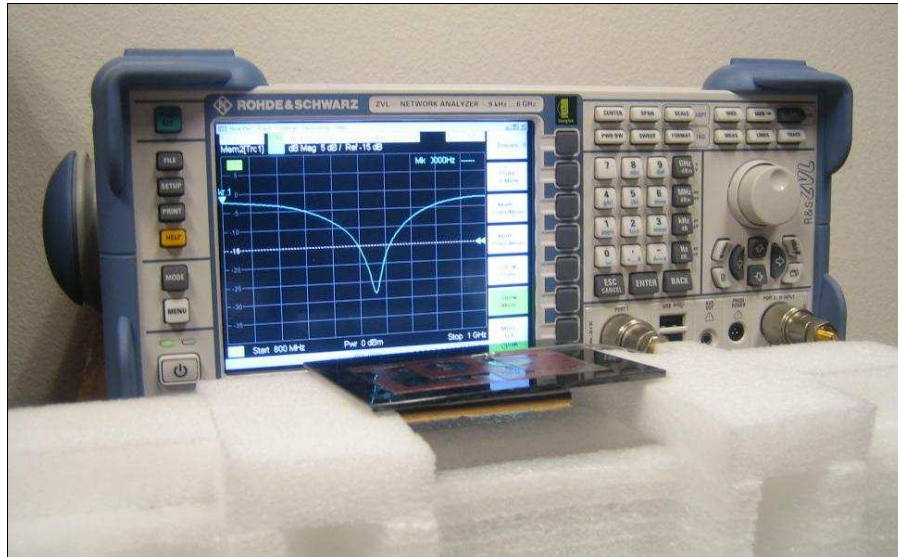


Figure 1. Network Analyzer.



IV. ANTENNA PARAMETERS

The next antenna parameter graphs like Return Loss, VSWR and smith chart were measured in the Agilent Rhode & Schwartz ZVL6 Vector Network Analyzer.

A. Return Loss Data

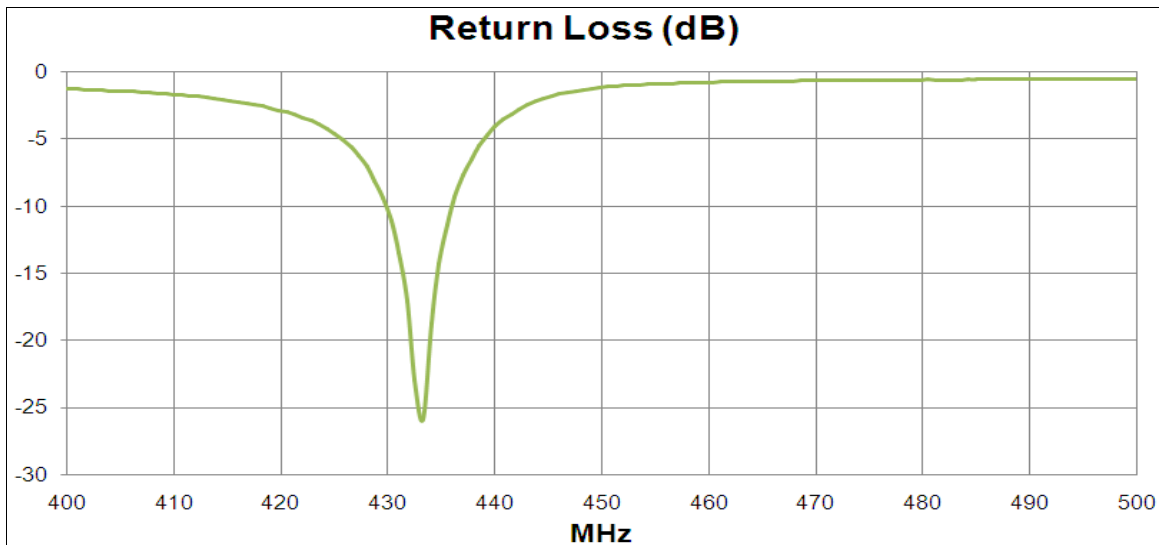


Figure 2. Return Loss for the FXP240 Antenna.

B. VSWR Data

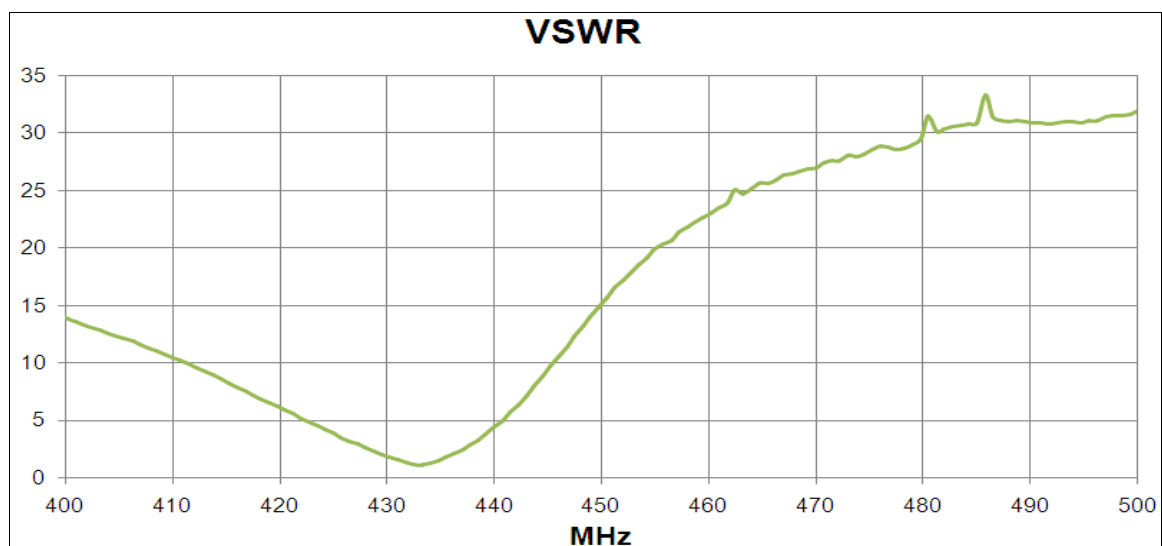


Figure 3. VSWR for the FXP240 Antenna.



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C. Smith Chart Data

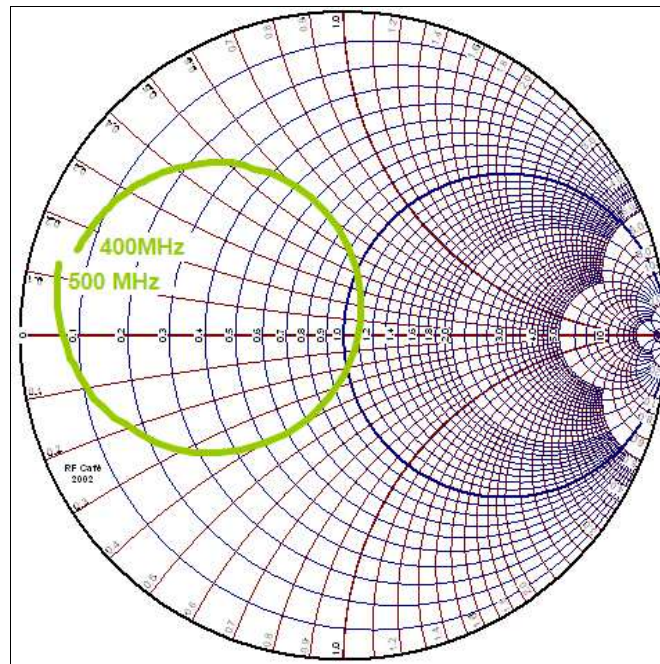
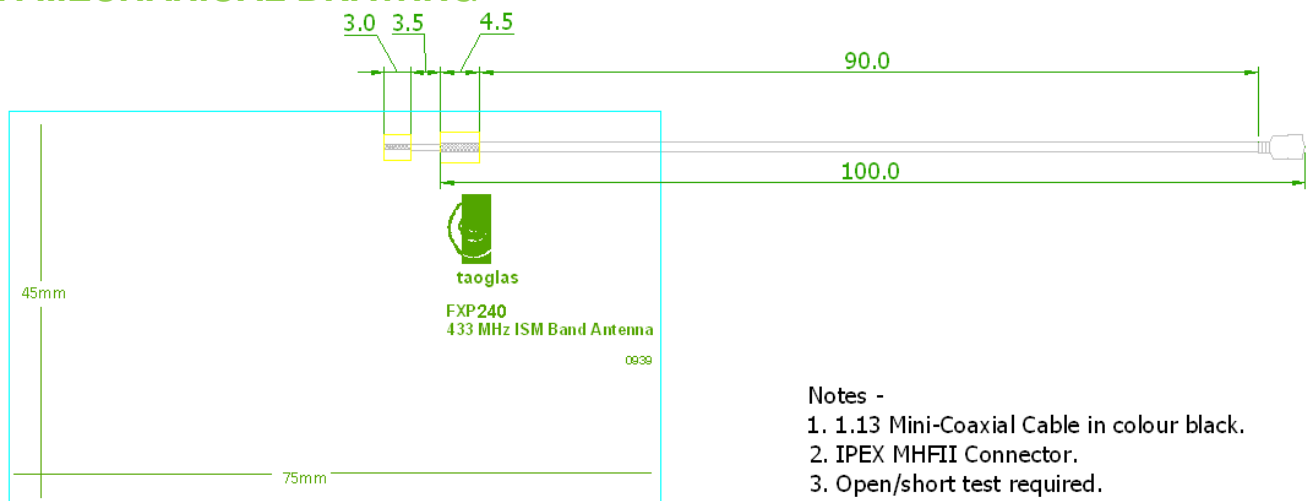


Figure 4. Smith Chart for the FXP240 Antenna.

V. MECHANICAL DRAWING



Notes -

1. 1.13 Mini-Coaxial Cable in colour black.
2. IPEX MHFII Connector.
3. Open/short test required.

XXX.	±2.0	PART NO		PRODUCT NAME			
XX.	±1.0	FXP240		FXP240 433 MHz ISM Band Antenna			
X.	±0.5						
.X	±0.1	REV	UNIT	SCALE	SIZE	SHEET	CUSTOMER
.XX	±0.05	A	mm	1/1	A 4	1 OF 1	taoglas



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Figure 5. Mechanical Drawing for the FXP240 Antenna.