Specification

Spec No.	:	**FXP245**
Part No.	:	**FXP245.07.0100A**
Model	:	450MHz 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 FXP245 450 MHz ISM Antenna covers from 450-457 MHz used in the 450 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	450MHz to 457MHz
Return Loss (dB)	-20
Gain (dBi)	0
Impedance	50 Ω
VSWR	≤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

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III. TEST SET UP

Rhode & Schwartz ZVL6 Vector Network Analyzer

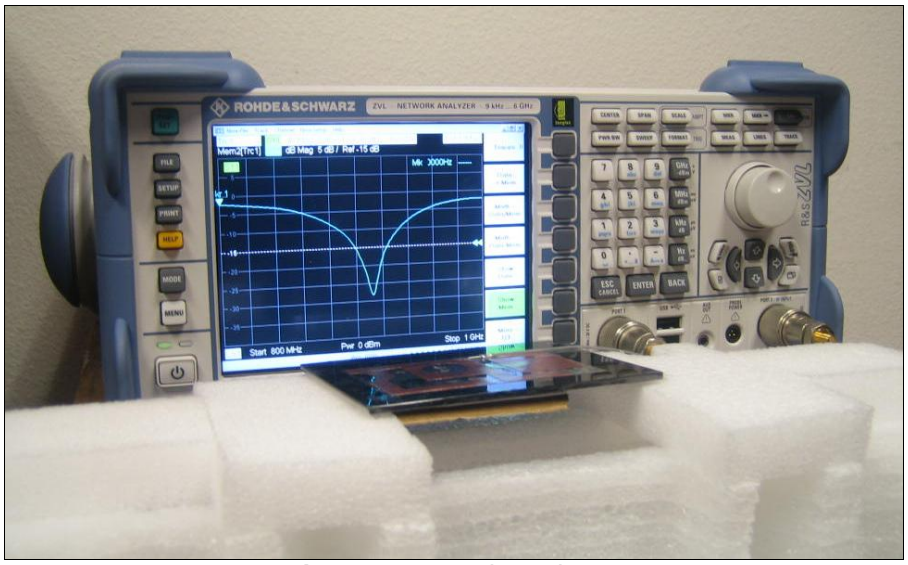


Figure 1. Network Analyzer.

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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

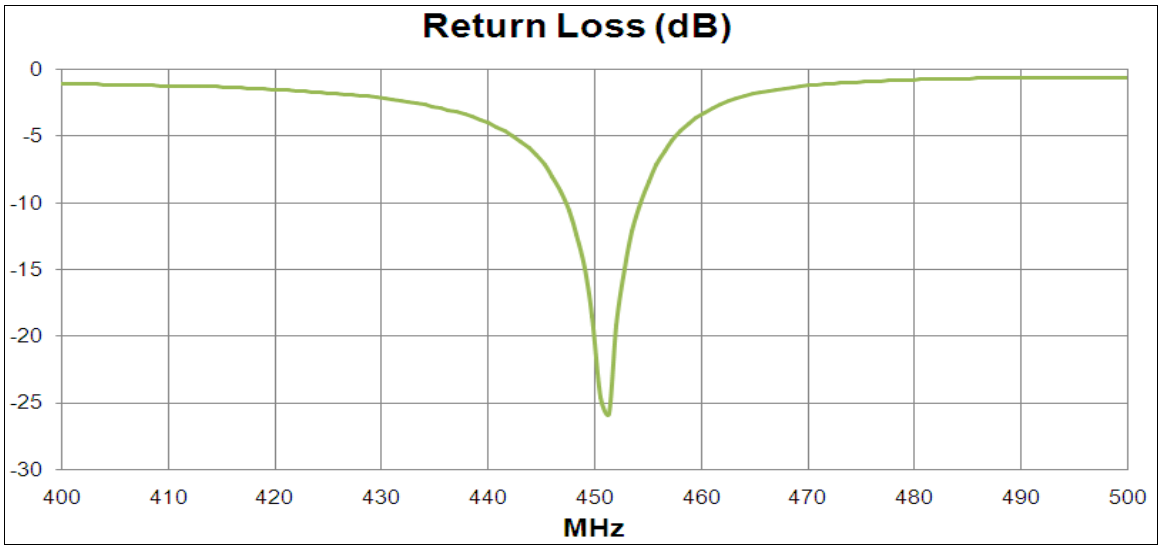


Figure 2. Return Loss for the FXP245 Antenna.

B. VSWR Data

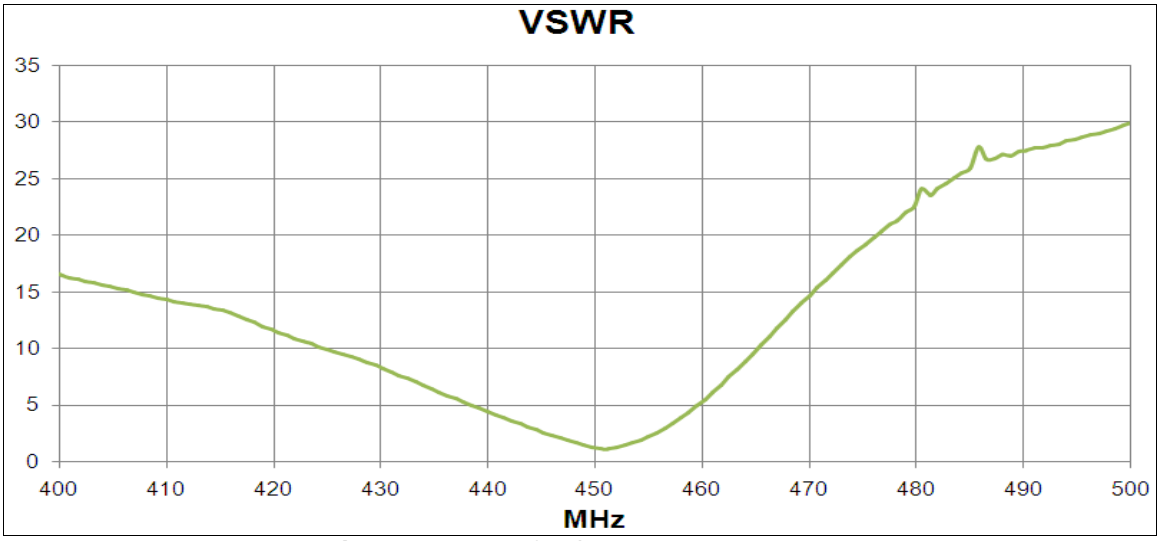


Figure 3. VSWR for the FXP245 Antenna.

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C. Smith Chart Data

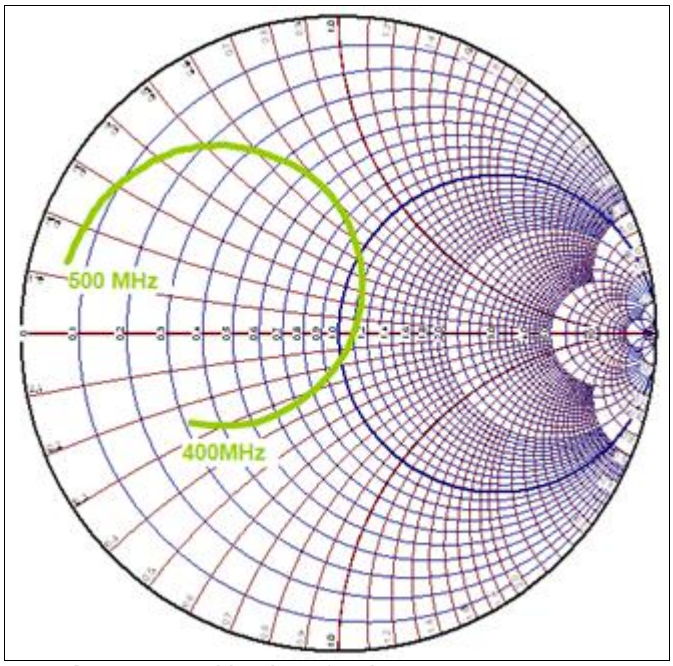
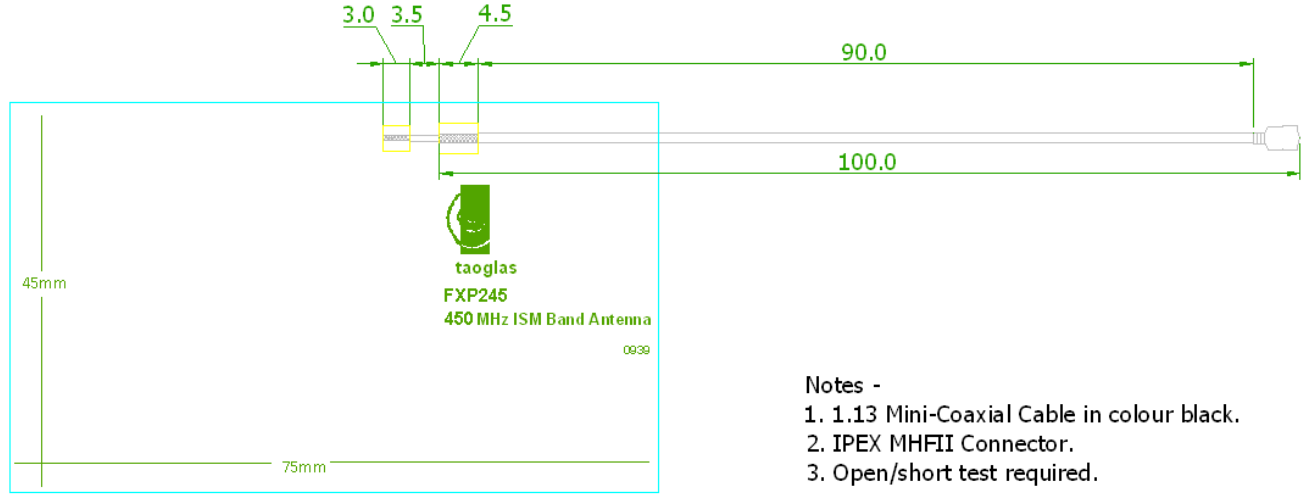


Figure 4. Smith Chart for the FXP245 Antenna.

V. MECHANICAL DRAWING



XXX.	±2.0	PART NO		PRODUCT NAME			
XX.	±1.0	FXP245		FXP245 450 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 FXP245 Antenna.

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