SPECIFICATION

Part No.	:	**FXP290.07.0100A**
Model	:	915MHz ISM Band Flex Circuit Antenna
Features	:	75*45*0.1mm 100mm Ø1.13 Cable RoHS & REACH compliant

1. OVERVIEW

The Taoglas FXP290 915 MHz ISM Antenna covers from 902-928 MHz used in the 915 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.

2. ANTENNA CHARACTERISTICS

Parameter	Specification
Frequency Range	902MHz to 928MHz
Return Loss (dB)	-20
Efficiency (%)	40
Gain (dBi)	1.5
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

3. TEST SET UP

An ETS-Lindgren 3D Scan System with Anechoic Chamber

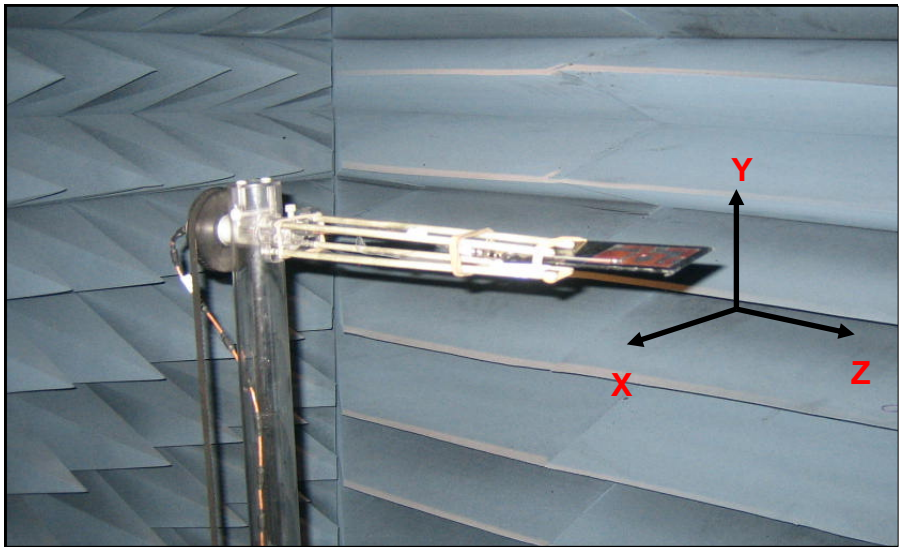


Figure 1. ETS-Lindgren System.

Rhode & Schwartz ZVL6 Vector Network Analyzer

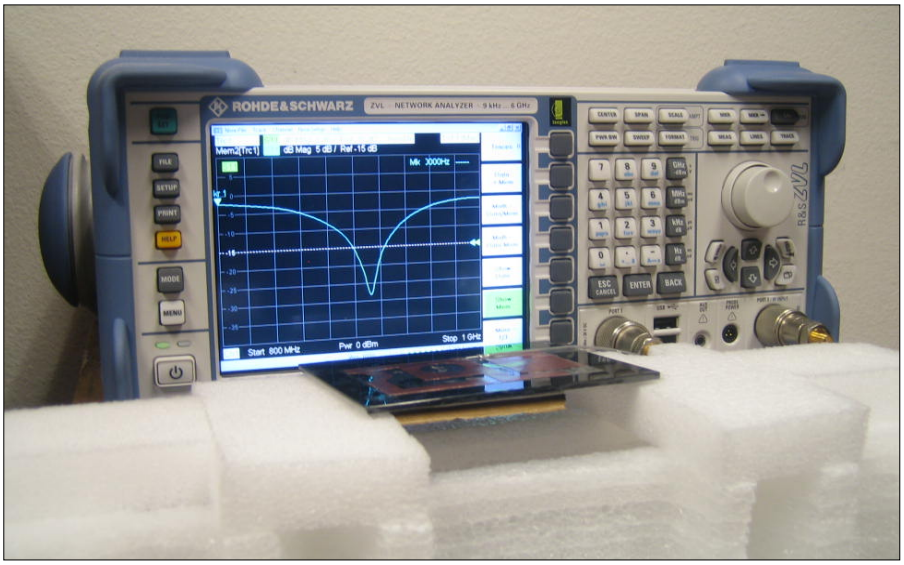


Figure 2. Network Analyzer.

4. 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. The Gain, Efficiency and Radiation Patterns were measured in the ETS-Lindgren 3D Scan System.

4.1. Return Loss Data

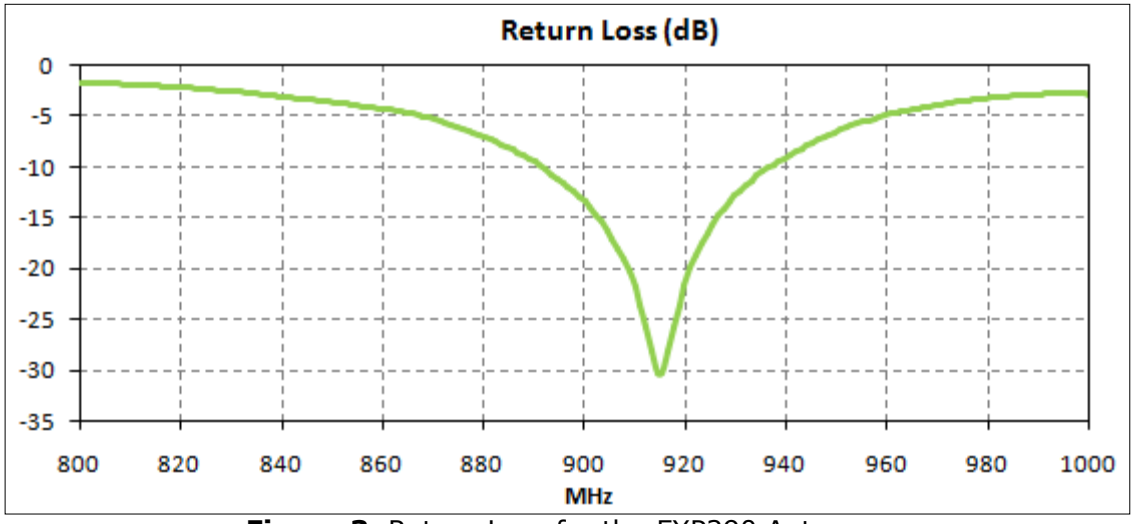


Figure 3. Return Loss for the FXP290 Antenna.

4.2. VSWR Data

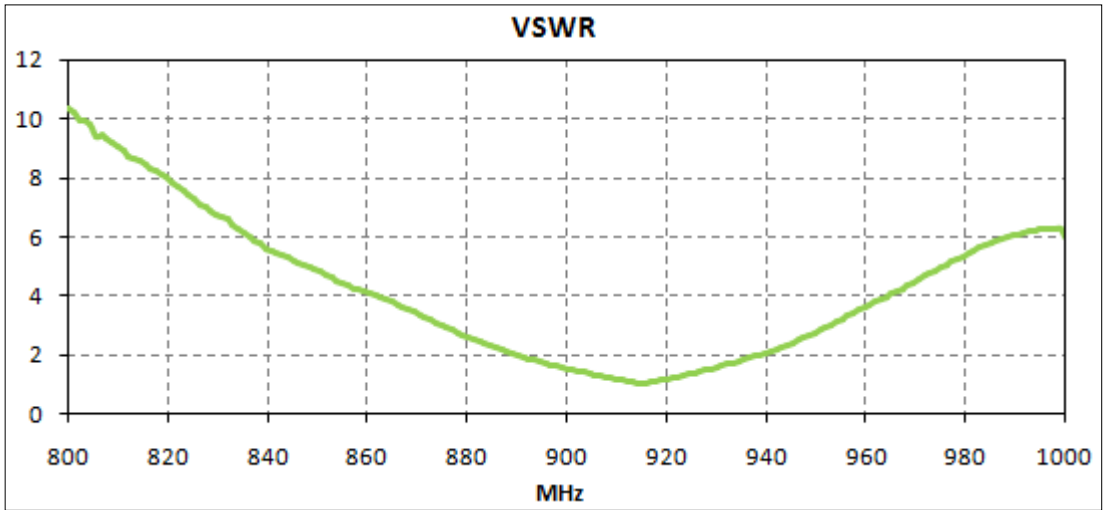


Figure 4. VSWR for the FXP290 Antenna.

4.3. Smith Chart Data

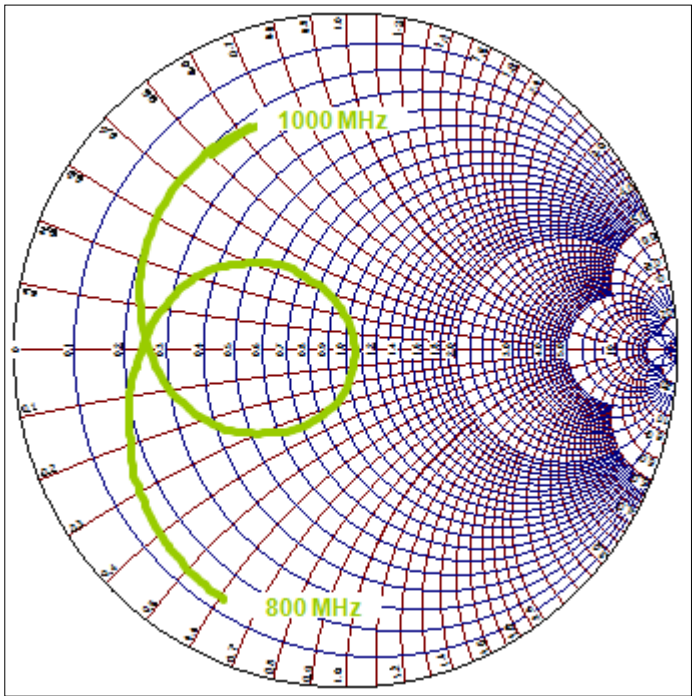


Figure 5. Smith Chart for the FXP290 Antenna.

4.4. Efficiency Data

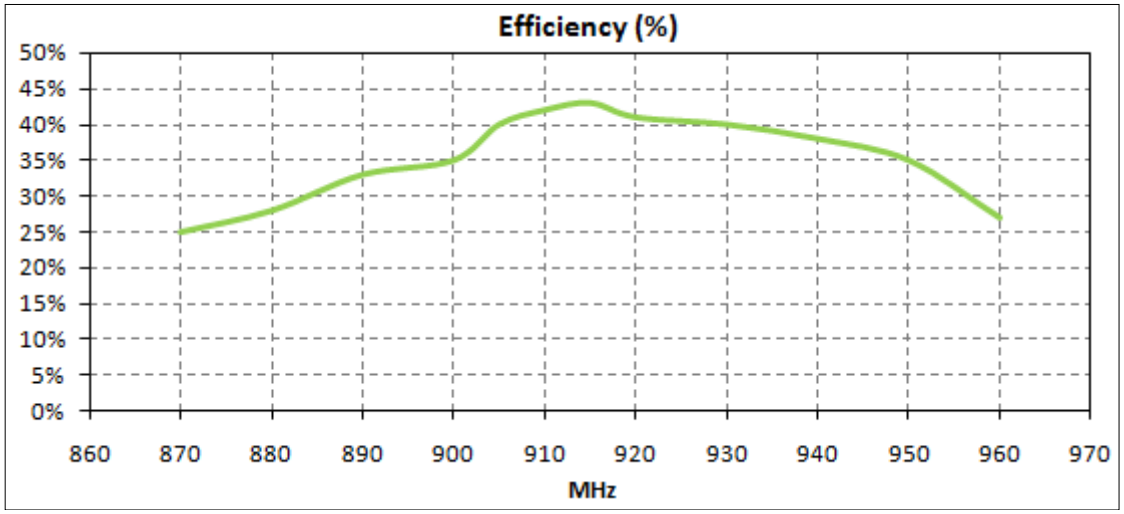


Figure 6. Efficiency for the FXP290 Antenna.

4.5. Gain Data

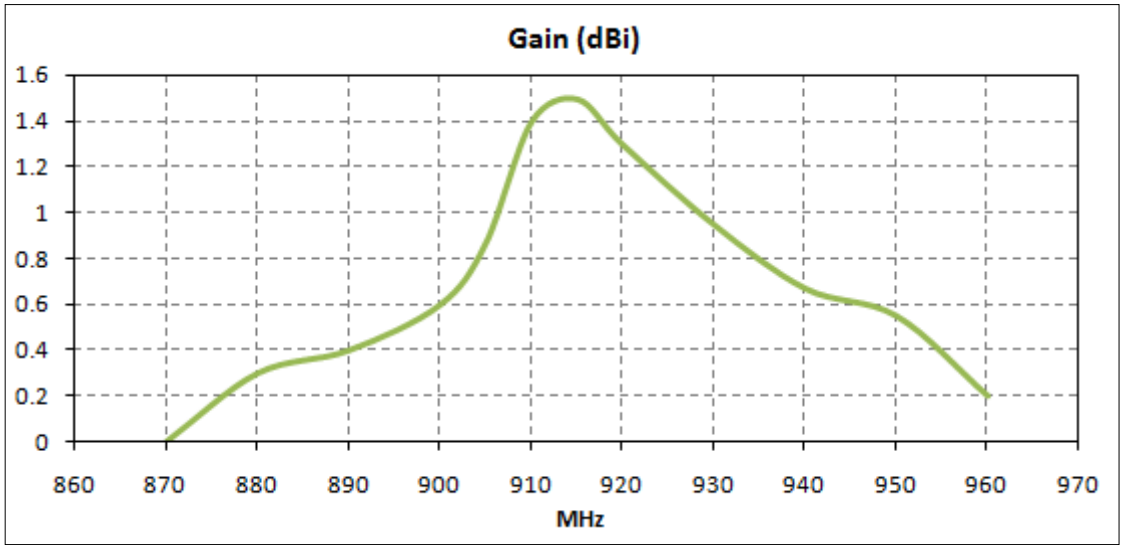


Figure 7. Gain for the FXP290 Antenna.

4.6. Radiation Pattern Data.

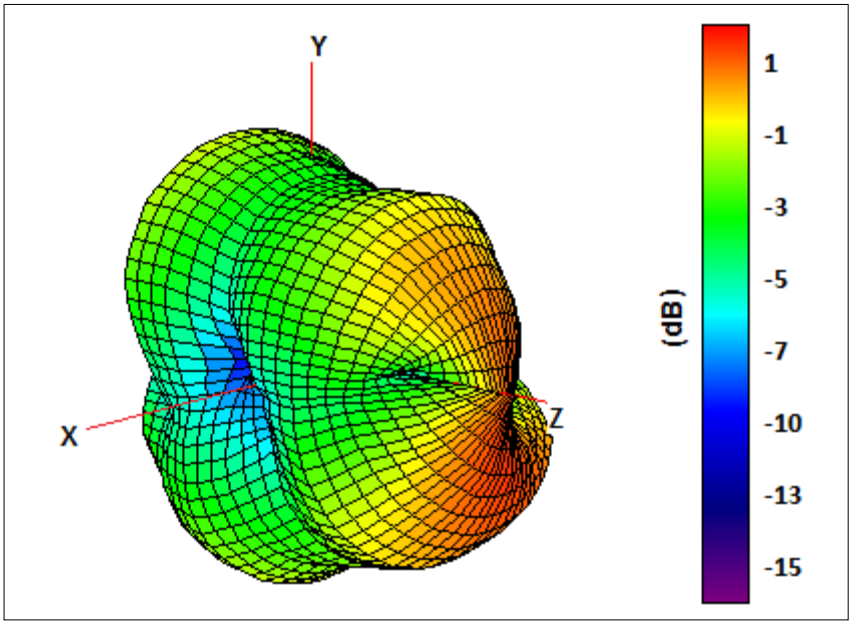


Figure 8. Radiation pattern 3D View, Figure 1 as reference (dB).

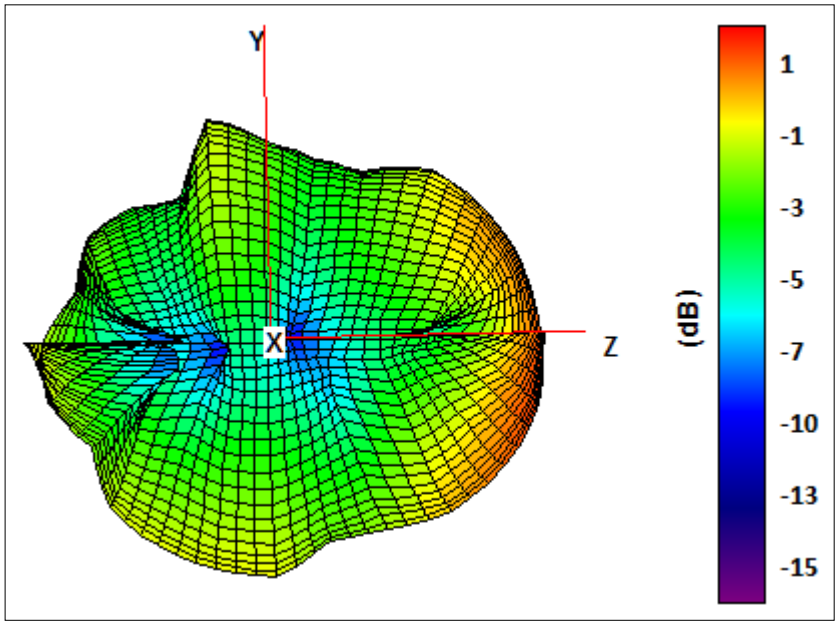


Figure 9. Radiation pattern YZ Plane, Figure 1 as reference (dB).

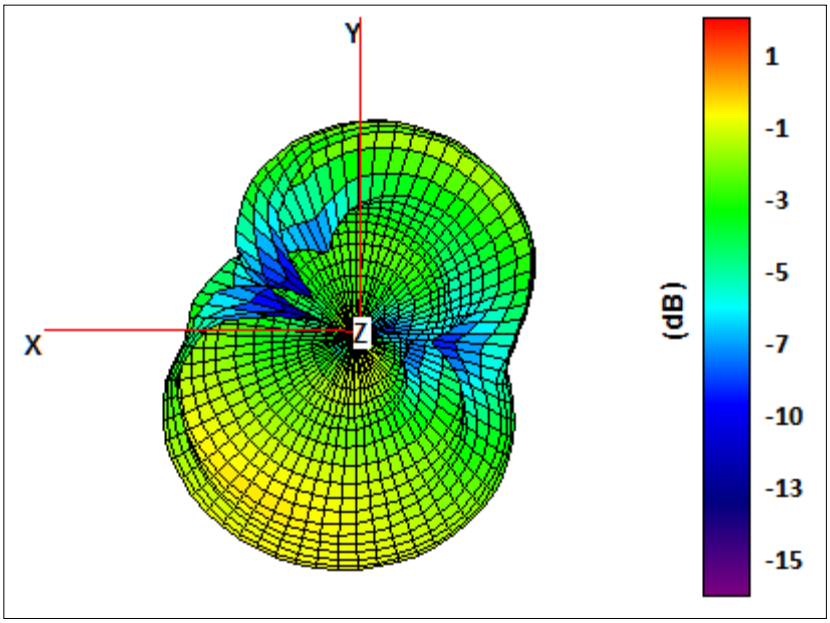


Figure 10. Radiation pattern XY plane, Figure 1 as reference (dB).

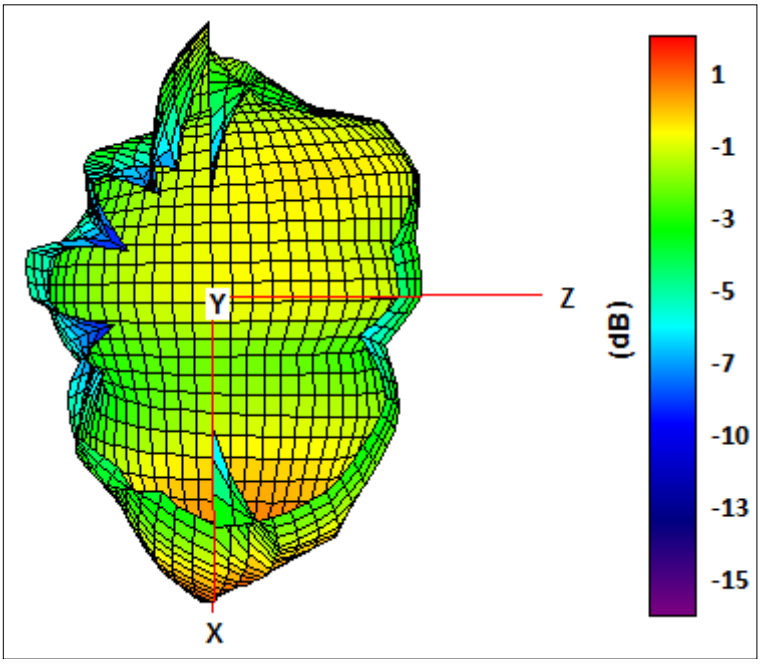


Figure 11. Radiation pattern XY plane, Figure 1 as reference (dB).

5. MECHANICAL DRAWING

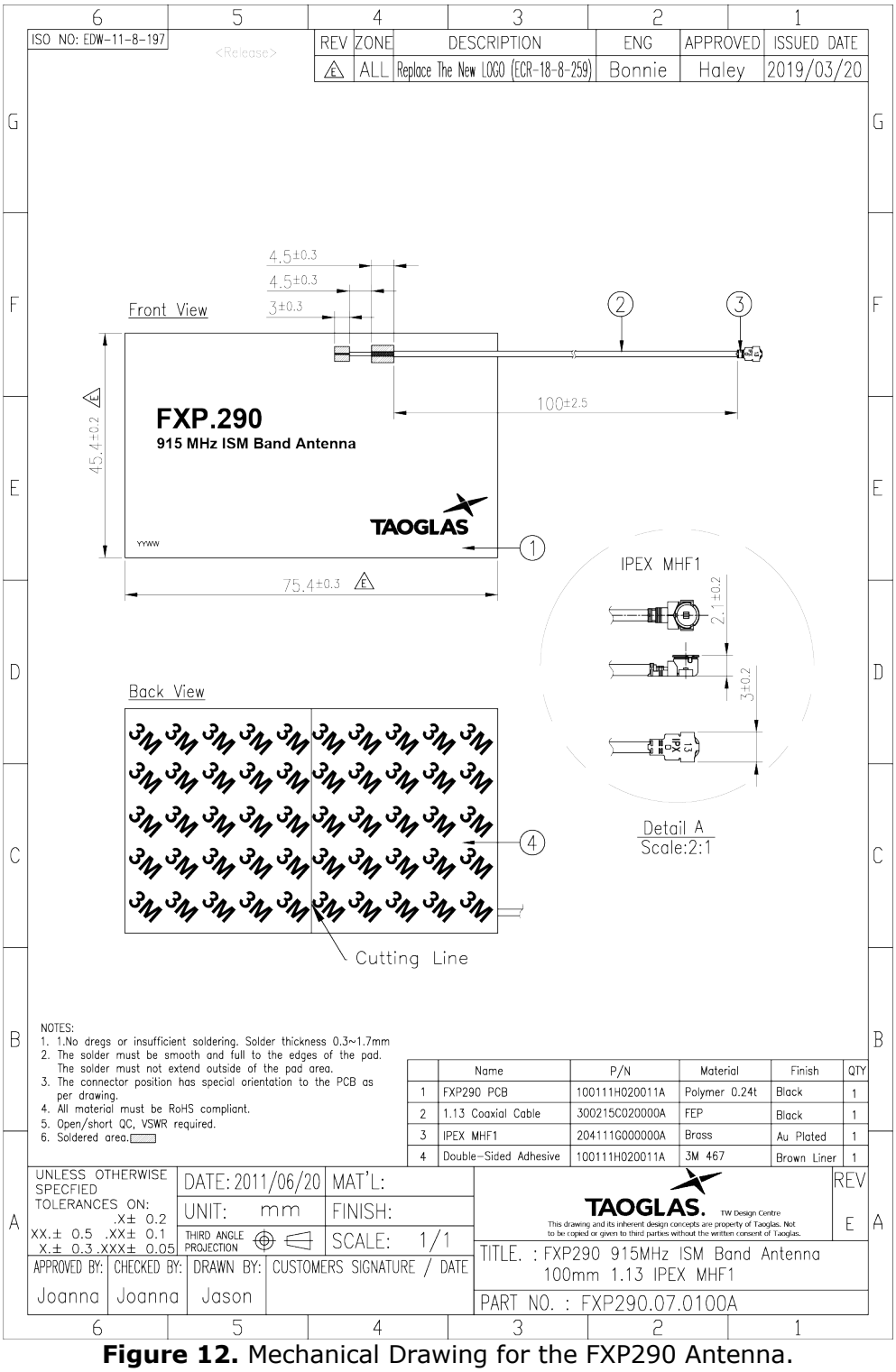


Figure 12. Mechanical Drawing for the FXP290 Antenna.

ZDA COMMUNICATIONS US LLC.

wireless antenna solutions

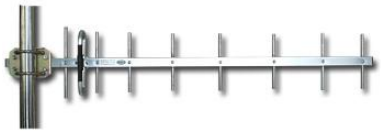
902-928MHz Yagi Antennas

Frequency:902-928MHz, gain:17dBi 14dBi 11dBi 8dBi, It is designed primarily for directional applications, Point to multipoint systems . The wide band antenna ideally suited for 900MHz Motorola canopy ,Non Line of Sight (NLOS) ,RFID & SCADA ,Wireless Video Links & 900MHz Cellular ,Wireless LAN systems , 900MHz ISM Band applications

The Yagi directional Series antenna system offered by ZDA is constructed of 6061-T6 Aluminum for outstanding service life. Individual elements are braised to the main beam for permanent attachment. These antennas have high gain and good front to back performance to minimize external interference. They can be mounted in vertical or horizontal polarization.provides the user with anodized aluminum boom, solid elements,Heavy duty mounting hardwareWaterproof Design all-weather operation. these Yagi directional antenna features from ZDA are offered at cost-effective price.

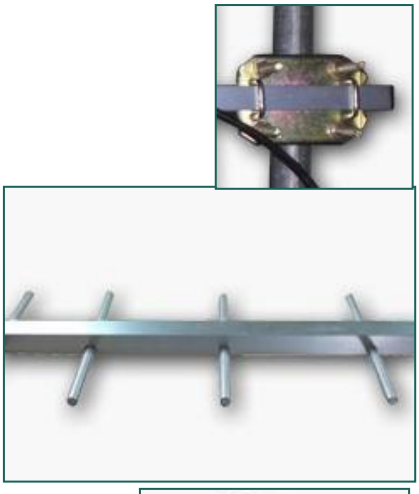
Features:
- 17dBi High Gain
- all weather Anodized Aluminum construction
- Can be installed for either vertical or horizontal polarization
- Solid Aluminum elements
- Heavy duty mounting hardware

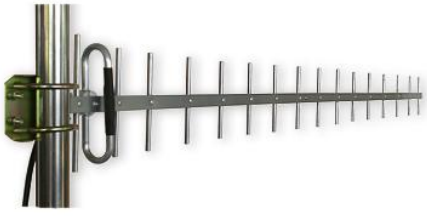
Applications :
- motorola canopy
- Non Line of Sight (NLOS)
- RFID & SCADA
- Wireless Video Links & 900MHz Cellular
- Wireless LAN systems & Point to Multipoint applications
- 900MHz ISM Band



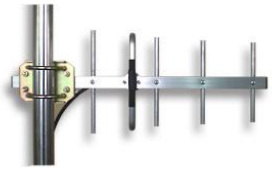
ZDADJ928-14YG

ZDADJ928-8YG





ZDADJ928-17YG



ZDADJ928-11YG

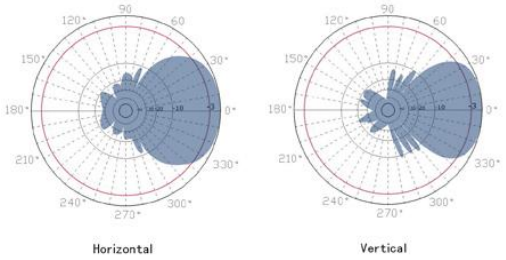
ZDA COMMUNICATIONS US LLC.

wireless antenna solutions

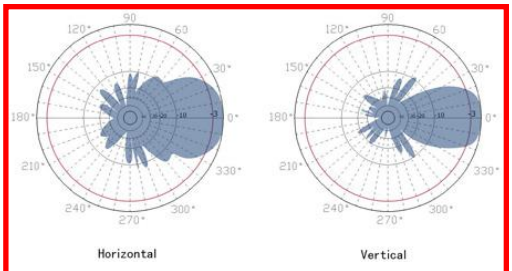
902-928MHz yagi Antennas

902-928MHz Yagi antenna series specifications

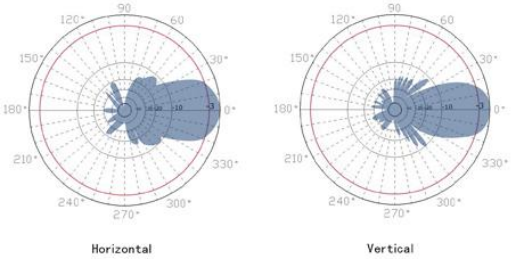
Model	ZDADJ928-8YG	ZDADJ928-11YG	ZDADJ928-14YG	ZDADJ928-17YG
Frequency Range	902-928MHz	902-928 MHz	902-928 MHz	902-928 MHz
Gain	8dBi	11dBi	14dBi	17dBi
Polarization	Vertical or Horizontal	Vertical or Horizontal	Vertical or Horizontal	Vertical or Horizontal
Horizontal Beam Width	90 °	50°	38°	32°
Vertical Beam Width	60°	40°	32°	25°
VSWR	<1.5	<1.5	<1.4	<1.4
Front to back radio	>12dB	>15dB	>15dB	>18dB
Input Impedance	50 ohm	50 ohm	50 ohm	50 ohm
Input Maximum Power	100 W	100 W	100 W	150 W
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground
Connector	N female or customized	N female or customized	N female or customized	N female or customized
Size	11.5 inches(0.23m)	19.4 inches(0.45m)	35.5 inches(0.9m)	70.8 inches(1.8m)
Antenna Material	Alu alloy	Alu alloy	Alu alloy	Alu alloy
Antenna Structure	3 units	5 units	9 units	17 units , two pieces design
Operating Temperature	-40to 85° C (-40to 185° F)	-40to 85° C (-40to 185° F)	-40to 85° C (-40to 185° F)	-40to 85° C (-40to 185° F)
Diameter of Installation Pole	1.2-2.3in. (30-55mm)	1.2-2.3in. (30-55mm)	1.2-2.3in. (30-55mm)	1.2-2.3in. (30-55mm)
Weight	1.21 lbs. (0.55kg)	1.32 lbs. (0.6 kg)	2.04 lbs. (0.93 kg)	3 lbs. (1.36kg)
Wind Loading: 100MPH 120MPH	4lb. 7lb.	6.6lb. 8.6lb.	8.6lb. 10.2lb.	15.2lb. 19.2lb.



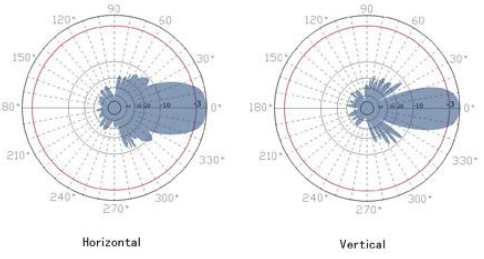
ZDADJ928-8YG Patterns



ZDADJ928-11YG Patterns



ZDADJ928-14YG Patterns



ZDADJ928-17YG Patterns

HyperLink brand 2.4 GHz / 900 MHz Dual Band 3 dBi Mobile Omnidirectional Wireless LAN Antenna - Model: HG2403U-NMO

Applications and Features

Applications:

- 802.11b, 802.11g and Bluetooth® compatible (2.4 GHz Band)
- ISM, GSM, RFID, 900 MHz Cellular compatible (900 MHz Band
- 2.4 GHz and 900 MHz Wireless Video Systems

Features:

- Superior performance
- Compact size
- Can be used with 2.4 GHz and 900 MHz systems
- TAD/NMO mounting system
- Weather-Proof
- RoHS Compliant
- Fixed mounts available

Description

Superior Performance

This very compact mobile-mount dual band omni antenna is designed to operate in 2.4 GHz or 900 MHz bands and provides broad coverage and 3 dBi gain. The Dual-Band design of this antenna eliminates the need to purchase different antennas for each frequency. In the 2.4 GHz ISM band, it is ideally suited for ISM, IEEE 802.11b and 802.11g wireless LANs, Bluetooth® and other WLAN applications where omni-directional coverage and low visibility are desired. In the 900 MHz band, this antenna is ideally suited for ISM, GSM and RFID applications as well as 900MHz wireless LAN and Cellular systems.

Applications

This RF antenna is only 2.7" long and features an aesthetic black finish. It is designed with a standard TAD/NMO Motorola-type connection that allows for ease of installation to similar TAD/NMO mounting systems. Because of its near-invisible design this antenna is ideal for use on vehicles where vandal-resistance and aesthetics are important.

Specifications

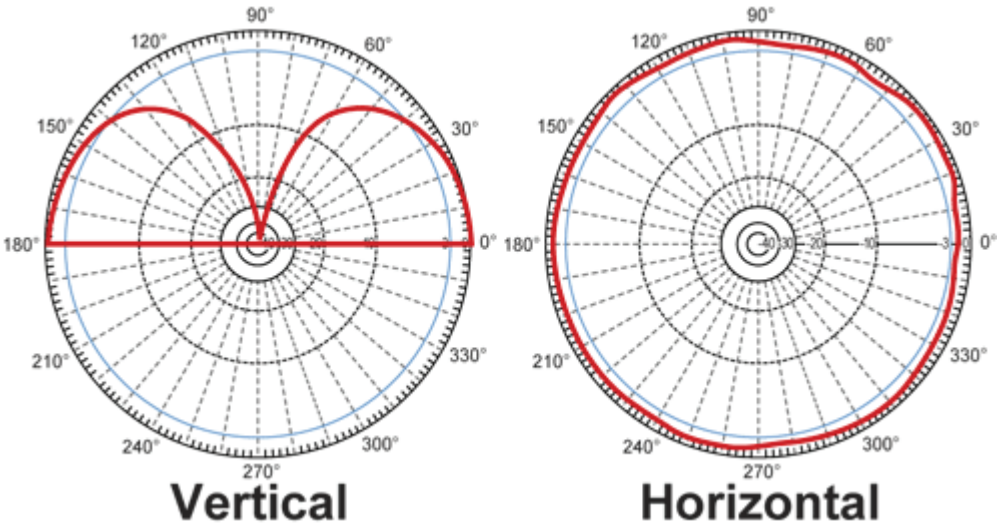
Electrical Specifications

Frequency Ranges	2400-2500 MHz 900-960 MHz
Gain	3 dBi
Impedance	50 Ohm
VSWR	< 2.0:1 avg.
Maximum Input Power	50 W

Mechanical Specifications

Weight	< 0.25 lbs. (0.11 kg)
Length	2.7" (68.58 mm)
Finish	UV Black
Mounting	TAD/NMO
Polarization	Vertical
Operating Temperature	-40° C to to 85° C (-40° F to 185° F)
Wind Survival	>150 MPH
RoHS Compliant	Yes

Antenna Gain Pattern



Guaranteed Quality

This product is backed by Hyperlink's Limited Warranty