

**Description**: ISM 868 / 915 MHz Chip Antenna

PART NUMBER: W3014





# [0.059 ±0.008] 1.50 ±0.00 0.009 ±0.008 1.50 ±0.00 1.50 ±0.00

## Features:

- Low profile
- Compact size W x L x H (10 x 3.2 x 1.5 mm)
- Low weight (240 mg)
- Lead free materials
- Fully SMD compatible
- Lead free soldering compatible

# **Applications:**

- 868MHz radios
- 915MHz radios

All dimensions are in mm / inches

Issue: 2049

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## **ELECTRICAL SPECIFICATIONS**

Frequency 848-888MHz/895-935MHz

Nominal Impedance  $50\Omega$ 

Return loss -7dB

Gain (Radiating element -0.5dBi +/- 1 dB

Radiation Pattern Omni

Polarization: linear

Total Efficiency 35%



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## **MECHANICAL SPECIFICATIONS**

Size 10x3.2x1.5 mm

Weight 240 mg

MSL Level 1

## **ENVIRONMENTAL SPECIFICATIONS**

Operating temperature

-40/+85° C



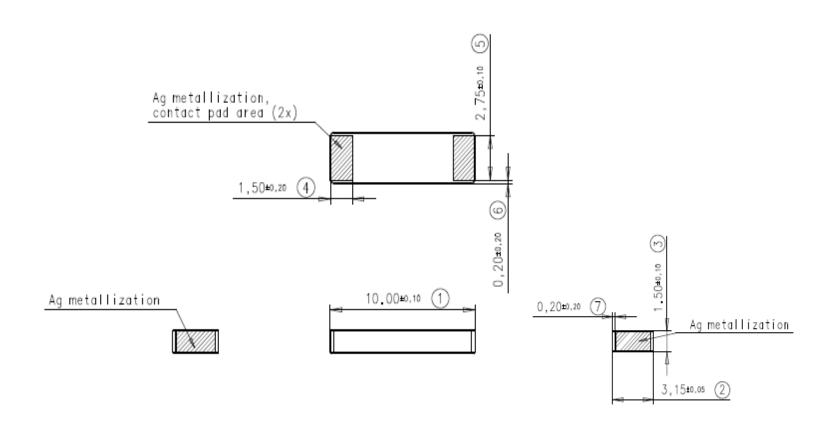


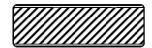
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## **MECHANICAL DRAWING**









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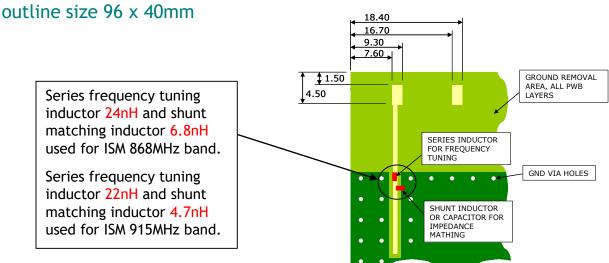
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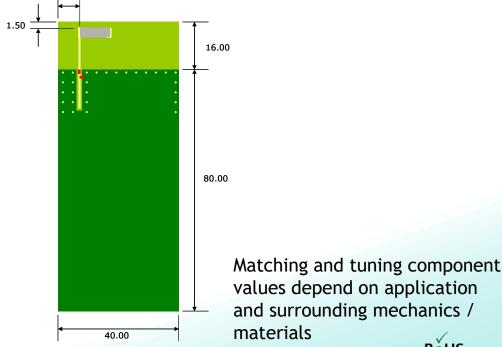
## **OTHER SPECIFICATIONS**

Ground cleared under antenna, clearance area 40 mm x 16 mm

Recommended test board layout for electrical characteristic measurement, test board



Feed line should be designed to match 50  $\Omega$  characteristic impedance, depending on PWB material and thickness.



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RóHS



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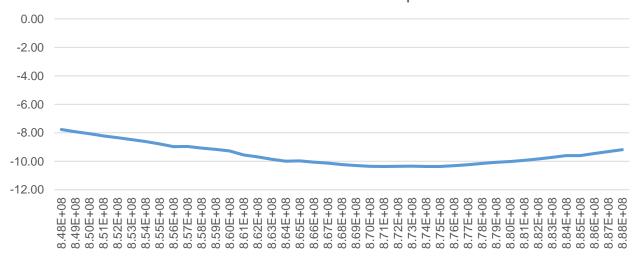
PART NUMBER: W3014

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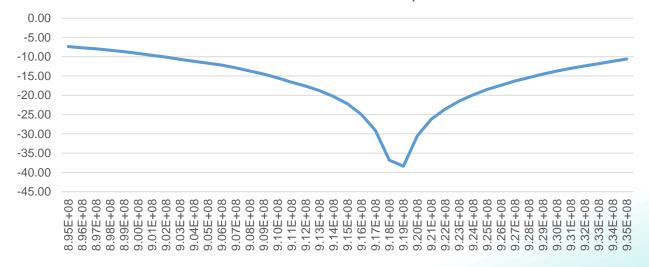
## **CHARTS**

## Return Loss

## ISM 868MHz RL in free space



## ISM 915MHz RL in free space



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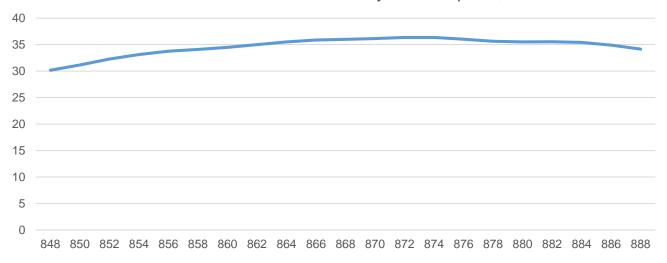
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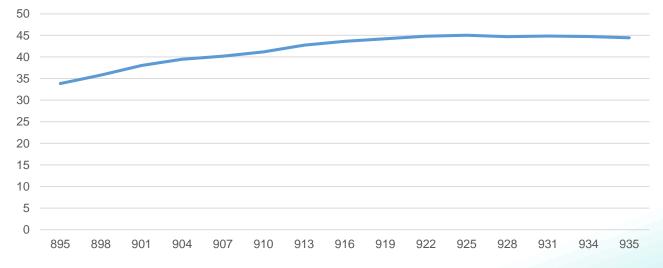
#### **CHARTS**

# Efficiency(%)

# ISM 868MHz Total Efficiency in free space, %



# ISM 915MHz Total Efficiency in free space, %





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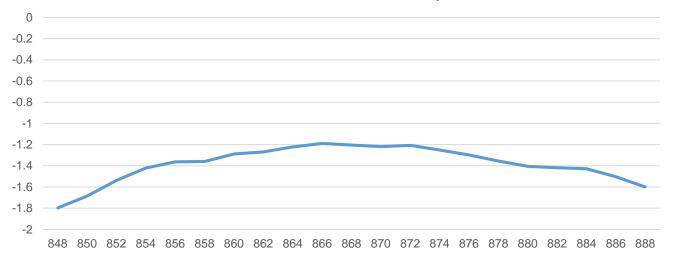
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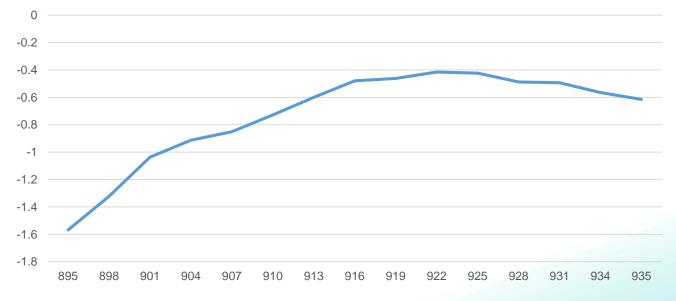
#### **CHARTS**

# Peak Gain(dBi)

## ISM 868MHz Peak Gain in free space, dBi



# ISM 915MHz Peak Gain in free space, dBi









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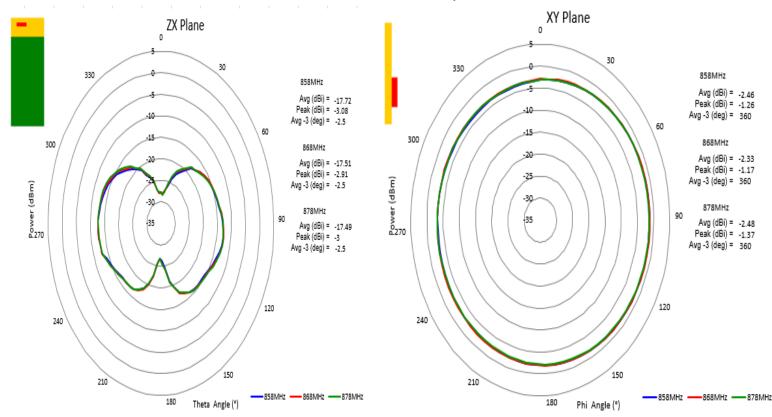
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## **CHARTS**

# free space radiation pattern

# ISM 868MHz radiation pattern





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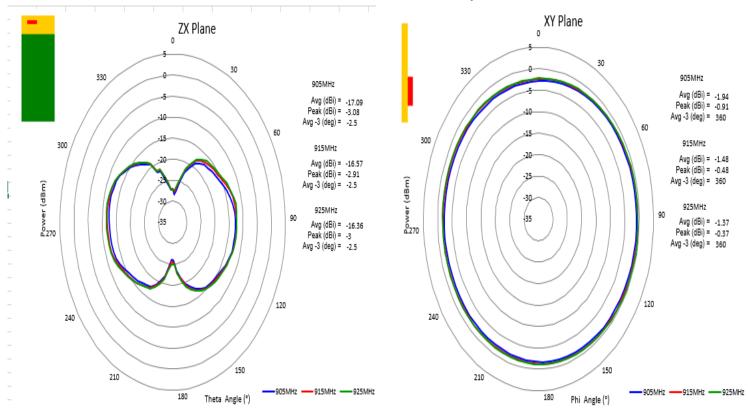
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## **CHARTS**

# free space radiation pattern

# ISM 915MHz radiation pattern





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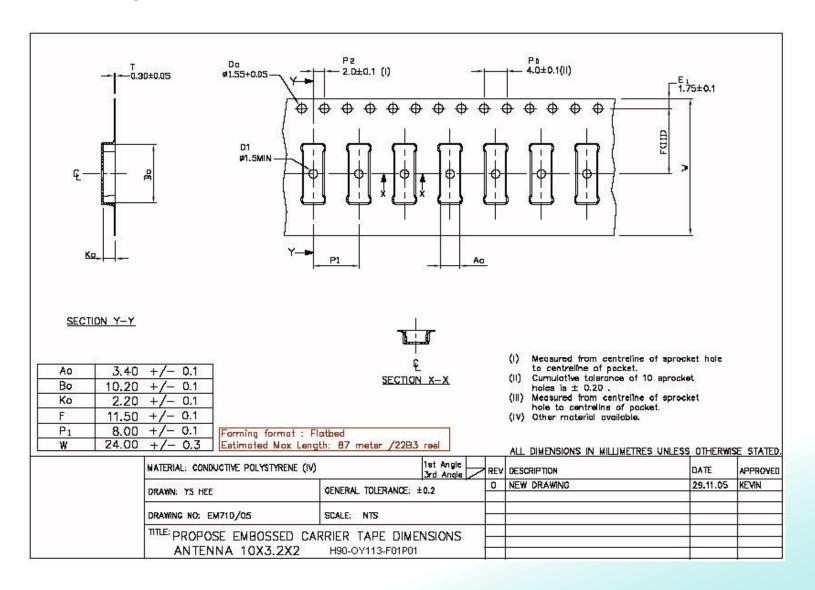
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## **PACKAGING**

## General

Tape and reel packing is used. Carrier tape, reel and box dimensions are presented in following pictures.

# Carrier tape



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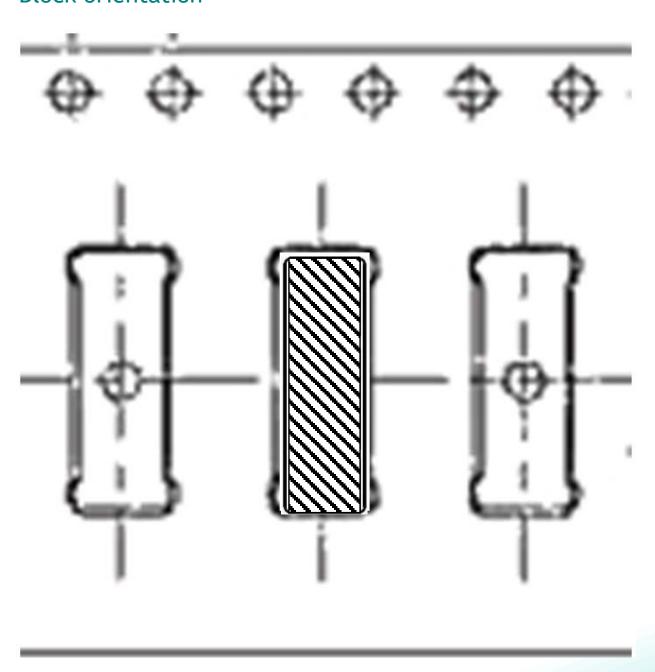


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# **Block orientation**





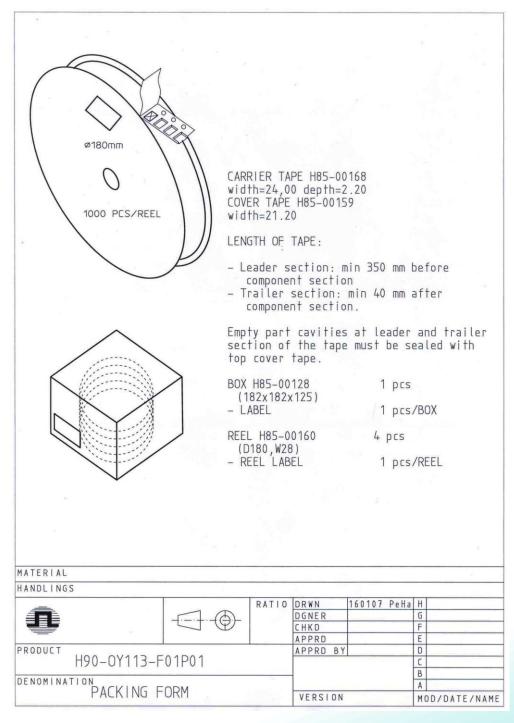


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# Packing form



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