

# ISM 315MHz Helical Antenna

Ground cleared under antenna, clearance area 8.50 x 40.00 mm. Pulse Part Number: W3126



## Features

- Plastic supported helical antenna
- Size (helix): Length 35.35mm,  $\varnothing$  7mm
- Low weight (1.8g)
- Mounting on top of the PWB
- Through hole mechanical support pegs
- Feed contact by soldering via PWB hole
- Tray packing
- RoHS Compliant Product

## Applications

- Remote controls, toys etc.
- 315MHz ISM Band Systems

## Electrical specifications @ +25 °C

*Note: Electrical characteristics depend on test board (GP) size and antenna positioning on GP and Ground Clearance area size.*

## ISM 315MHz

Typical performance (test board size 100x40 mm, PWB ground clearance area 8.50 x40.00 mm), tuning and matching circuit: tuning 33nH series, matching 10nH shunt for Pulse standard evaluation board.

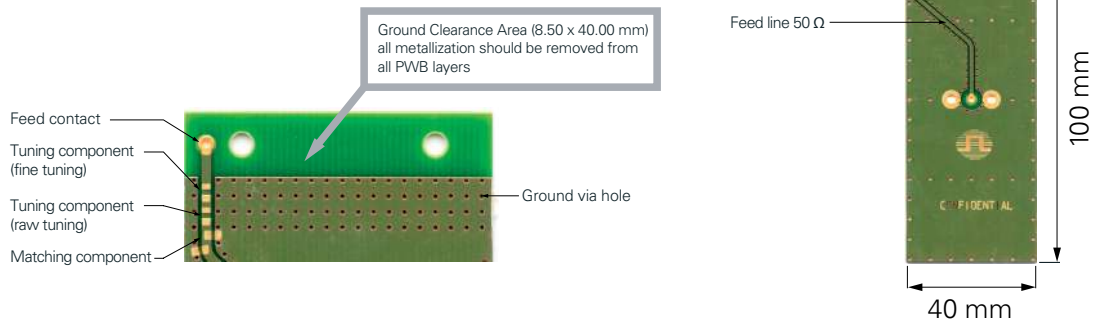
Frequency Range [MHz]	Max Gain [dBi]	Return loss min. [dB]	Impedance [ $\Omega$ ]	Operating Temperature [°C]
315	-5	-10	50	-40 to +85

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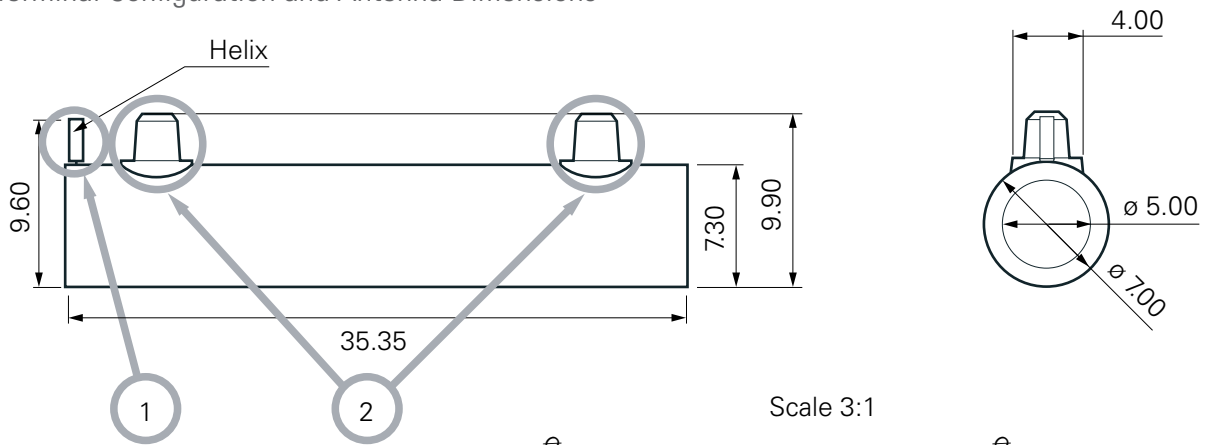
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## Terminal Configuration

### PWB Layout

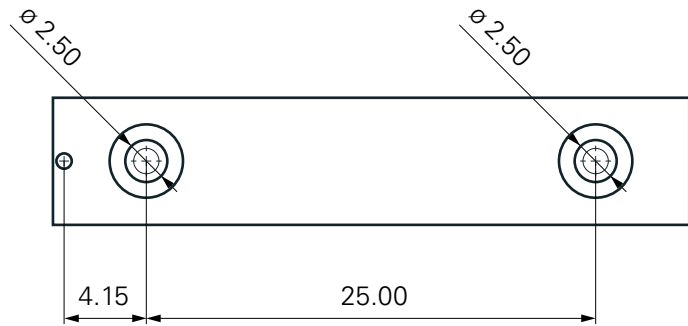


### Terminal Configuration and Antenna Dimensions



### Antenna Features

No.	Terminal Name	Terminal Dimensions
1	Feed terminal	Wire diameter 0.8mm
2	Support	Diameter 2.5mm, length 2.6mm



Matching circuit needs to be placed on PCB close to antenna feed terminal.

Matching component values depend on device construction; size, surrounding mechanics, materials etc..

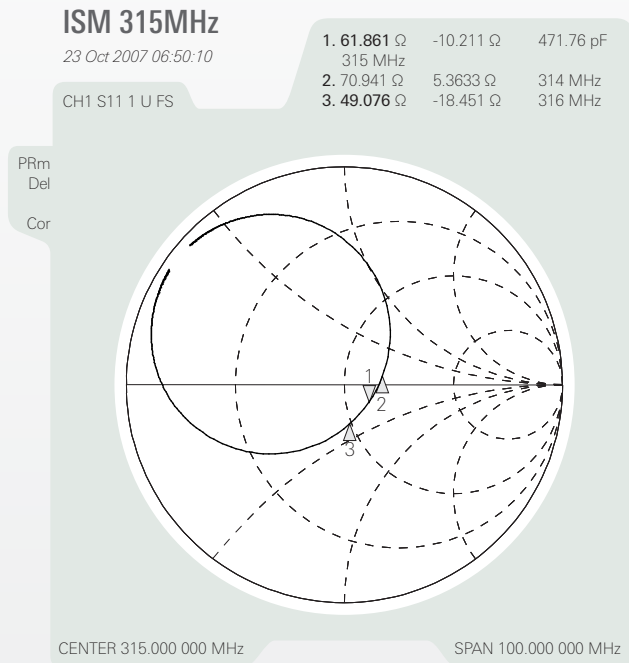
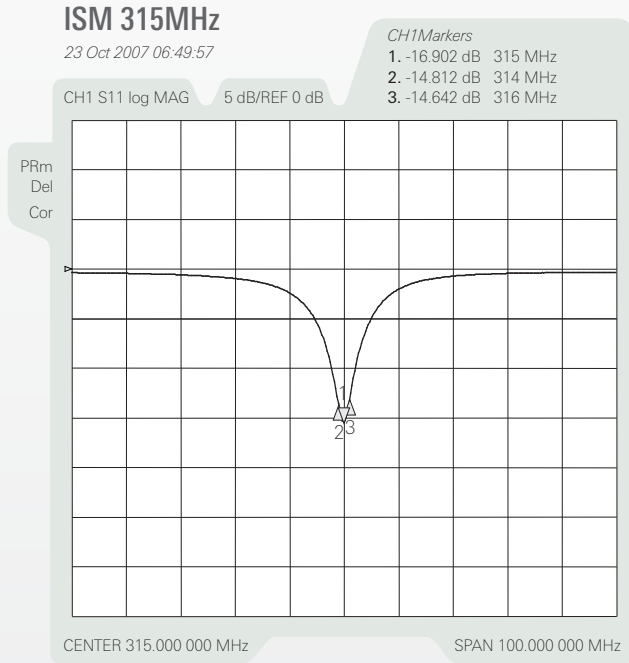
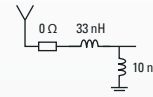
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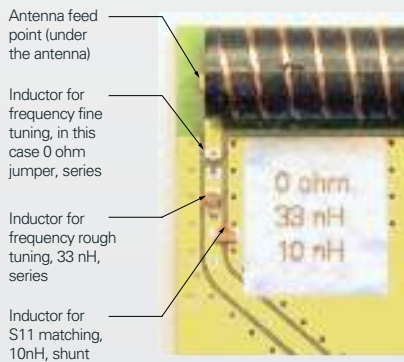
## Typical Electrical Characteristics (T=25 °C)

Typical Return Loss S11/ impedance,

Measured on the 100x40mm test board with tuning and matching circuit



## Matching Circuit Details



Note: Exact matching and tuning components value depend on application, board size, cover etc.

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## Typical Free space Radiation Patterns

