

# RFID Patch Antenna

860 - 960 Mhz, Circular Polarization

Product code: PATCH-A0025



This antenna covers both EU and USA RFID bands. The antenna has been designed to be waterproof and is easy to install. It is circularly polarised for reading in any orientation. It can be used for improved indoor GSM coverage, due to circular polarisation. VSWR is typically less than 1.2:1, giving a return loss better than 20dB.

## Features:

- 860 - 960 MHz.
- Extremely low VSWR return loss .
- Circularly Polarised.
- Low axial ratio for optimum transmitted power.
- Wall mountable.

## Application areas:

- RFID readers.
- UHF.

## Specifications:

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### Electrical:

Gain (max)	7 dBi $\pm$ 1dBi
Gain (min over frequency band)	6.5 dBi $\pm$ 0,5 dBi
Input Frequency	860 - 960 MHz
VSWR	< 1.3:1
Axial ratio	< 1dB
Power handling	10 W
Polarisation	Circular
Input Impedance	50 Ohm (nominal)

### Mechanical:

Dimensions	245 mm x 235 mm x 40 mm
Weight	470 g

### Environmental:

Operating Temperature*	-20°C to +70°C
Max wind speed**	Calculated to 160km/h (without ice)
Rain***	IP 66 (Nema 4X)
Shock	40g for 10ms

\* VSWR tested at min and max temperatures

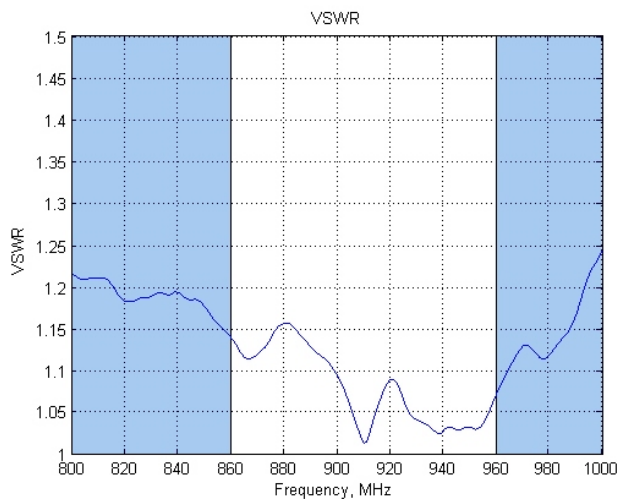
\*\* Tested to 120km/h

\*\*\* VSWR and Gain measurements done 100mm  $\pm$  10mm/hr

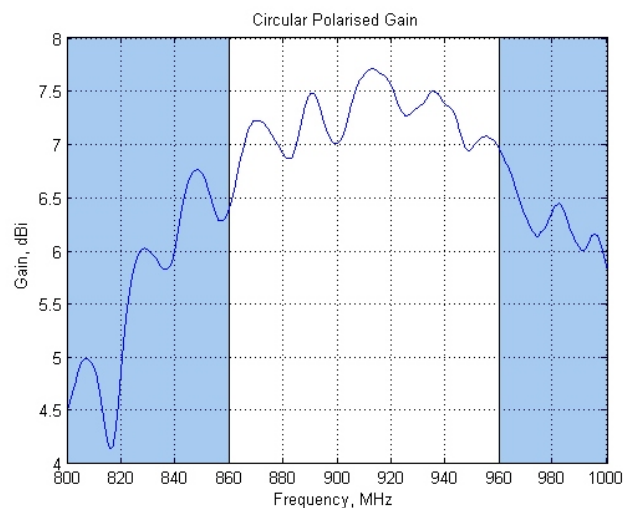
## VSWR and Gain Measurements:

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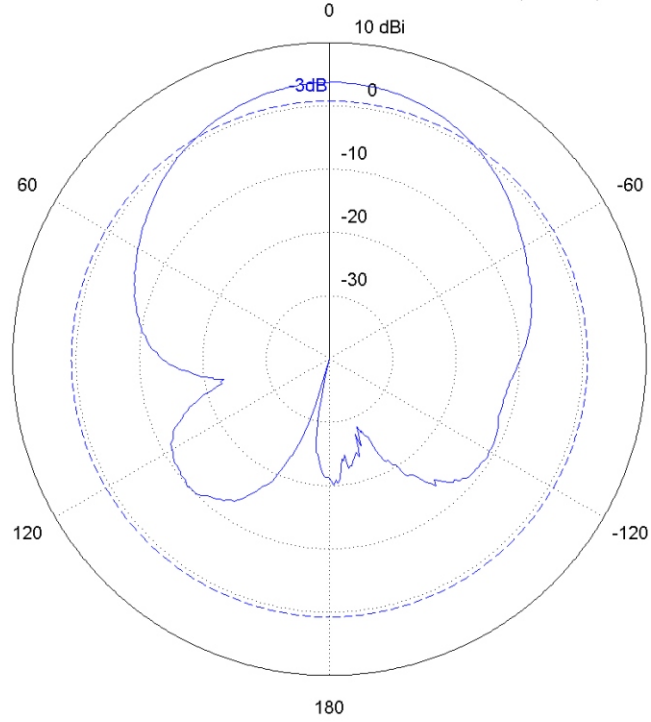
### VSWR:



### Gain

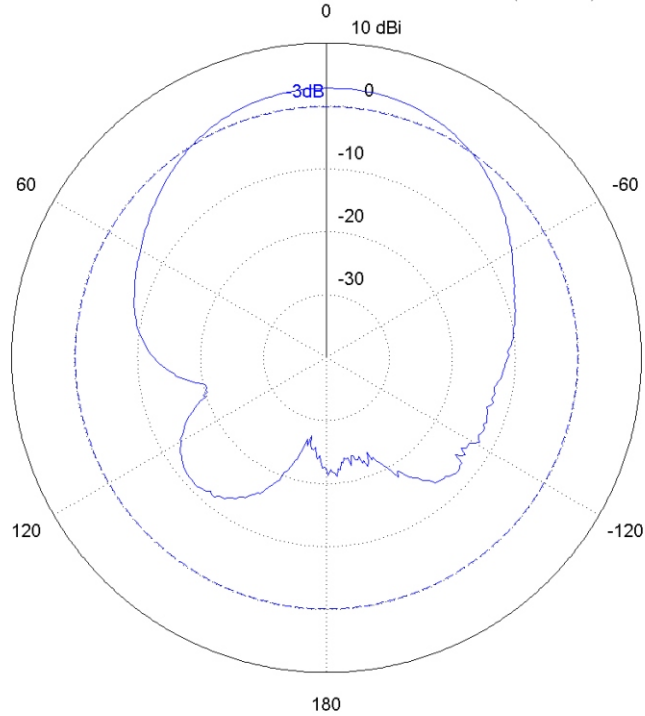


PATCH-A0025 Radiation Pattern: Horizontal - Vertical (900 MHz)



-3dB at 33 Deg  
-3dB at 326 Deg  
Beamwidth = 67 Deg

PATCH-A0025 Radiation Pattern: Vertical - Vertical (900 MHz)



-3dB at 34 Deg  
-3dB at 325 Deg  
Beamwidth = 69 Deg