

**ANTENNAS | PATCH-25 SERIES**

## UNI-DIRECTIONAL, RFID PATCH ANTENNA

860 - 960 MHz, 8.8 dBi



860 – 960 MHz;	8.8 dBi	Increase x Mb/s	Uni-Directional	Machine to Machine	IP 65
-20°C to +70°C	Fire Resistant				

- **Uni-directional antenna**
- **Circularly polarised**
- **Covers GSM-800 and GSM-900 bands**
- **Robust enclosure design**
- **Vandal and water resistant (IP 65)**
- **Meets the stringent electrical requirement for RFID applications**

APPLICATION AREAS

 Urban  
 Rural/Farm

### Product Overview

The PATCH-25 antenna covers both EU and USA RFID bands. The antenna has been designed to be water resistant and is easy to install. It is circularly polarised for reading in any orientation. Due to its circular polarisation it can also be used to improve indoor GSM coverage. VSWR is typically less than 1.3:1, giving a return loss better than 20dB. This antenna is unique in the RFID environment because of its VSWR & gain specifications.

### Features

- Medium gain, directional antenna
- Circularly polarised
- Operation is independent of the ground plane
- Easy to install
- VSWR < 1.3:1

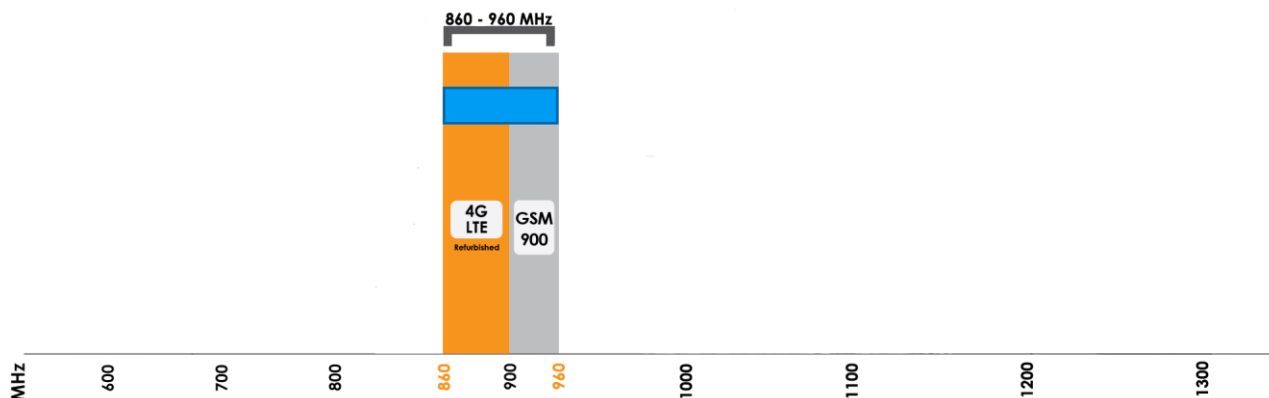
### Application Areas

- Areas with poor GSM-800 and GSM-900 coverage
- Indoor GSM applications
- Rural and urban environments
- Operator agnostic
- RFID reader applications



### Frequency Bands

The PATCH-25 is a directional antenna that works from 860 – 960 MHz



 Indicates the bands on which PATCH-25 works

### Antenna Derivatives

Product Order Code (SKU)	A-PATCH-0025-01	A-PATCH-0025-V2	A-PATCH-0025-V2-02
Ports	1	1	1
SISO / MIMO	SISO	SISO	SISO
Coax Cable Type	RG58	RG58	RG58
Coax Cable Length	1m	0.3m	0.3m
Connector Type	SMA (M)	N-Type (F)	N-Type (F)
Included Mounting Bracket	N/A	N/A	Swivel bracket
Product Weight	0.59 kg	0.57 kg	0.57 kg
Packaged Weight	0.75 kg	0.7 kg	0.86 kg
EAN	0707273469953	6009693810259	6009880915460

\*The coax cable & connector are factory mounted to the antenna

### Electrical Specifications

Frequency bands:	860 – 960 MHz
Gain (max):	8.8 dBi
VSWR:	<1.3:1
Feed power handling:	10 W
Input impedance:	50 Ohm (nominal)
Polarisation:	Circular (Right Hand Circular Polarised)
Coax cable loss:	0.535 dB/m @ 900 MHz
DC short:	Yes

### Product Box Contents

Antenna:	A-PATCH-0025
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### Mechanical Specifications

Product dimensions	250 mm x 250 mm x 40 mm
Packaged dimensions:	335 mm x 250 mm x 95 mm
Radome material:	ABS (Halogen Free)
Radome colour:	Pantone – Cool Gray (1C) RAL - 7047
Mounting Type:	Pole

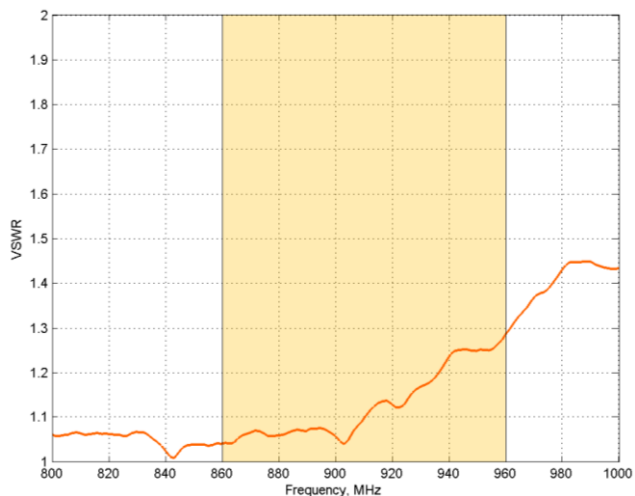
### Environmental Specifications, Certification & Approvals

Wind Survival:	≤160 km/h
Temperature Range (Operating):	-20°C to +70°C
Environmental Conditions:	Outdoor/Indoor
Water ingress protection ratio/standard:	IP 65 (NEMA 4X)
Salt Spray:	MIL-STD 810F/ASTM B117
Operating Relative Humidity:	Up to 98%
Storage Humidity:	5% to 95% - non-condensing
Storage Temperature:	-20°C to +70°C
Enclosure Flammability Rating:	UL 94-HB
Impact resistance:	IK 08
Product Safety & Environmental:	Complies with CE and RoHS standards

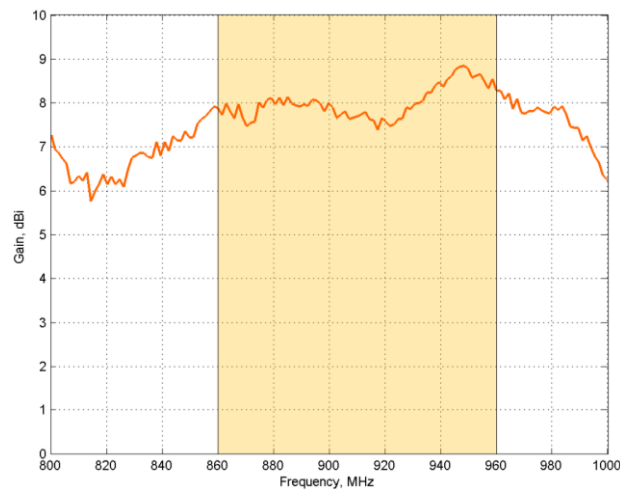


**Antenna Performance Plots**

**VSWR**



**GAIN (EXCLUDING CABLE LOSS)**



**Voltage Standing Wave Ratio (VSWR)**

VSWR is a measure of how efficiently radio-frequency power is transmitted from a power source, through a transmission line, into a load. In an ideal system, 100% of the energy is transmitted which corresponds to a VSWR of 1:1.

The PATCH-25 delivers superior performance across all bands with a VSWR of <1.3:1.

**Gain\* in dBi**

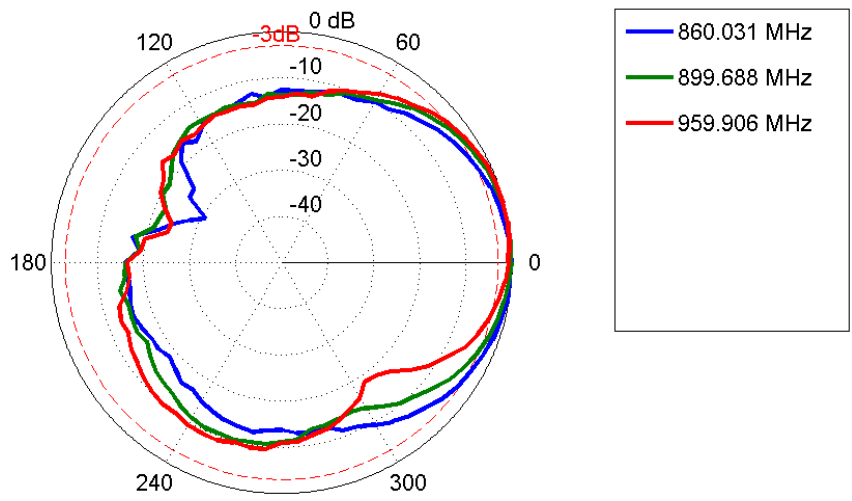
8.8 dBi is the peak gain across all bands from 860 – 960 MHz

Gain @ 860 – 960 MHz: 8.8 dBi

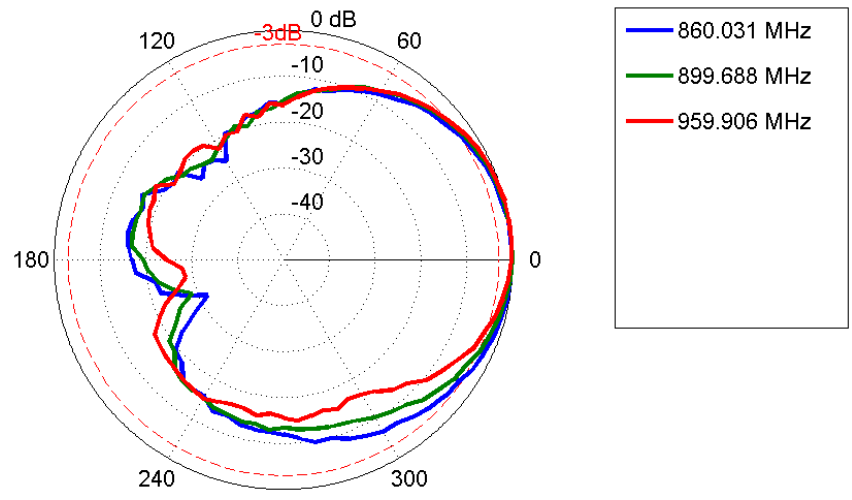
*\*Antenna gain measured with polarisation aligned standard antenna*

**Radiation Patterns**

Azimuth: 860 – 960 MHz



Elevation: 860 – 960 MHz



## Mounting Options



### Pole Mount

Pole mounted using the provided bracket.

### Additional Accessories

Extension Cables: Up to 15m RG58  
Various connectors available  
Installation poles and brackets available

See accessories technical specifications on [www.poynting.tech](http://www.poynting.tech)

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