

iANT217 UHF RFID Patch Antenna with Circular Polarisation



Simple apparatus patch antenna with circular polarisation – allows tags to be read in any orientation. Suited for use with Extronics iRFID products.

Ex II 1 G T6

IP66

-20°C to 70°C

Simple Apparatus

Overview

The iANT217 is a rugged antenna for use in hazardous areas, which is classed as simple apparatus as defined in the international area intrinsic safety standards. It is suitable for either indoor or outdoor use. The iANT217 covers both European and American RFID bands, and allows excellent read reliability due to its circular polarised design—allowing tags to be read in any orientation.

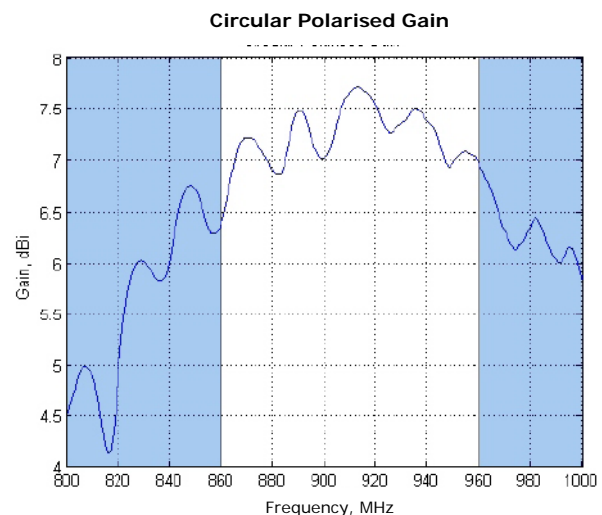
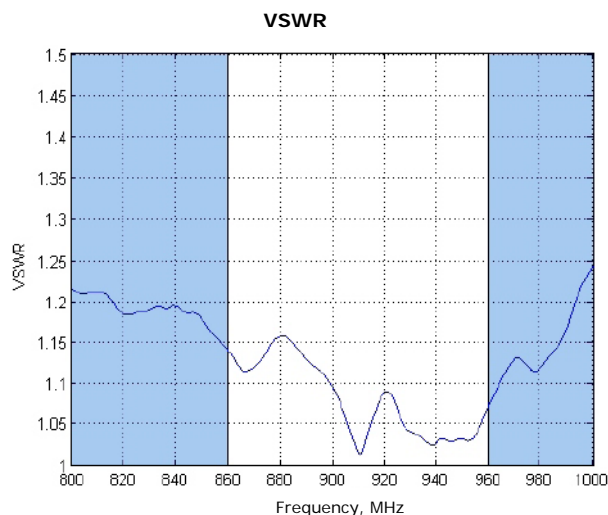
The antenna has been evaluated as compliant to the latest EN60079-0 & EN60079-11 standards to determine suitable parameters for intrinsic safety, allowing users to easily install with their own intrinsically safe equipment. Also, the antenna is suitable for use with Extronics' range of UHF RFID readers such as the iRFID100 / iRFID101, and can be used with any other solutions that utilise Extronics ISOLATE500 intrinsically safe RF galvanic isolators.

Indoor and Outdoor operation—The iANT217 is suitable for both indoor and outdoor operation, as it is made from durable UV resistant ABS plastic, with good thermal shock resistance. Rated to IP66 and –20°C to 70°C it can be used in every climate without concerns.

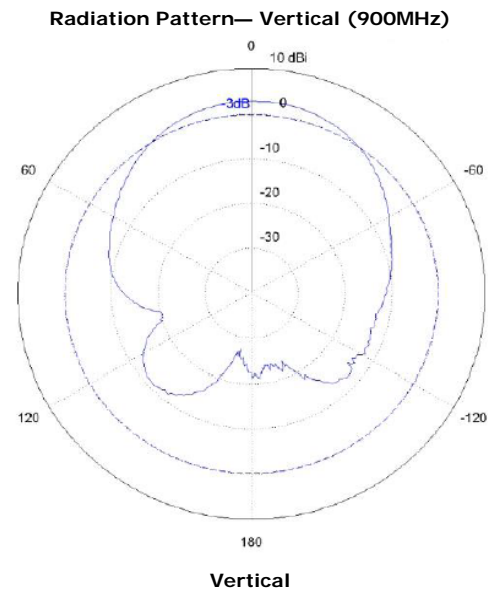
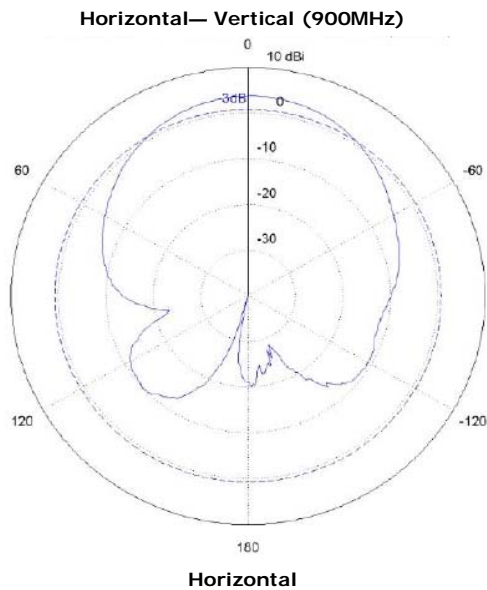
Gain and Directionality—The iANT217 offers a gain of up to 7dBi. With a spherical directional pattern, it is ideally suited for use in a wide variety of RFID applications allowing tags to be read in any orientation.

It is important to note that the iANT217 antenna is classed as “Simple Apparatus” under international intrinsic safety standards. This means that it is assessed to be safe to use in a Hazardous Area, but must be connected to a suitably certified wireless device with an intrinsically safe RF output with defined V_{max} , I_{max} and P_{max} safety parameters, such as our iWAP400. The iANT217 antenna cannot be connected to an RF source that is not intrinsically safe and still maintain its suitability for installation in a hazardous area.

Diagrammatical Data



Diagrammatical Data—Radiation Patterns



Specification

Gain (max)	7dBi (+/-1 dB)
Gain (min over the band)	6.5 dBi (+/-0.5 dB)
Frequency	860—960 MHz
VSWR	< 1.3:1
Axial ratio	< 1dB
Feed power handling	10 W
Horizontal 3 dB beam width	67 ° (± 5 °)
Vertical 3 dB beam width	69° (± 5 °)
Front to back (F/B ratio)	20 dB (± 3dB)
Nominal input impedance	50 Ohm
Wind loading	160 km/h
Temperature Range	-20° C to +70° C
Shock	40G at 10msec
Thermal Shock	-20° C to +70° C
Water Ingress Rating	IP66 (NEMA 4X)
Dimensions (l x w x d)	245 mm x 235 mm x 40 mm
Weight	470g
Mounting	Not supplied with mounting bracket - see accessories below
RF Connection	Supplied with 0.3m RG58 cable & N-female connector

Ordering Information

Description

UHF RFID circular polarised patch antenna 860—960 MHz
Pole mount bracket

Part Number

iANT217
iANTMB09