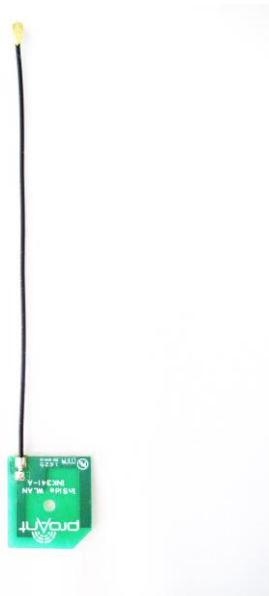


General information

Antenna covering the ISM band 2400 - 2500 MHz and 5150 - 5850 MHz used for WLAN. The antenna is designed for inside mounting on non-conductive surfaces, such as plastic.

InSide WLAN Square is a ground plane independent antenna including 100 mm coaxial cable with MHF or MHF4 connector, supplied with adhesive.

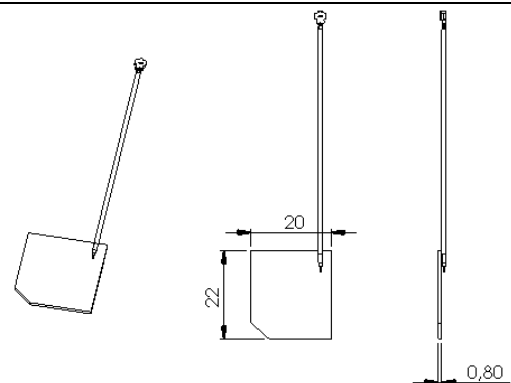


Technical data

Frequency	2400 - 2500, 5150 - 5850 MHz
Return loss*	< -6.8 dB, 2400 - 2500 MHz < -6.4 dB, 5150 - 5850 MHz
Efficiency*	> -2.7 dB (54%), 2400 - 2500 MHz > -4.0 dB (40%), 5150 - 5850 MHz
Gain*	Max 0.8 dBi, 2400 - 2500 MHz Max 3.4 dBi, 5150 - 5850 MHz
Dimensions	22.00 x 20.00 mm, thickness 0.80 mm
RoHS status	Compliant with EU directive 2011/65/EU and 2015/863
Mounting	Adhesive tape
Temperature	-40 to +85° C

Applications

- IoT devices
- M2M-communications
- Telemetry
- Automated meter reading
- Alarms

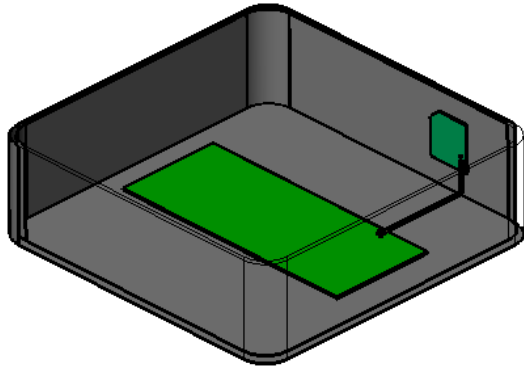


Antenna drawing. Above dimensions are given in millimeter.

*Measured on Proant standard measurement fixture, see next page for more information.

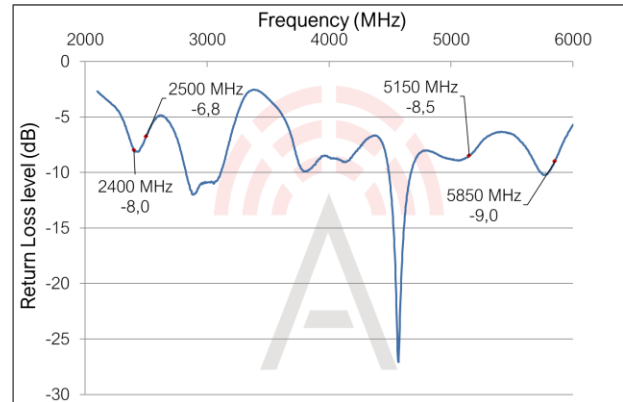
Electrical performance

Measurement setup

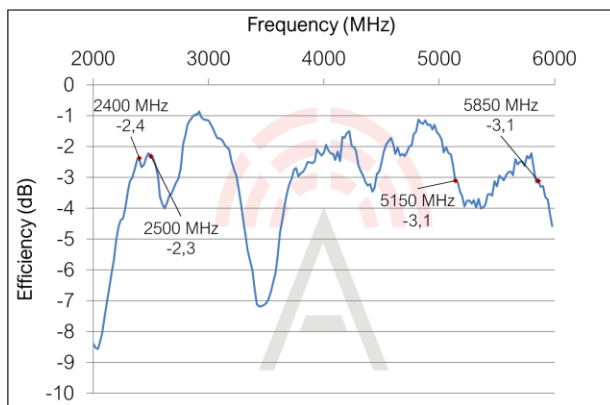


The antenna measurements were done on Proant's standard measurement fixture - the antenna mounted in an ABS plastic box, 150x150x45 mm, connected to a PCB, 120x50 mm, with the cable fully extended.

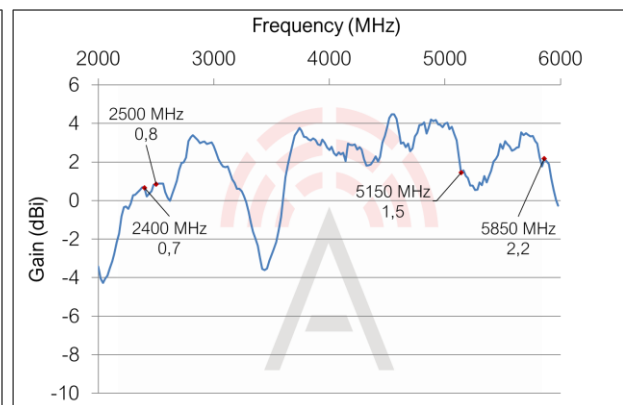
Return loss



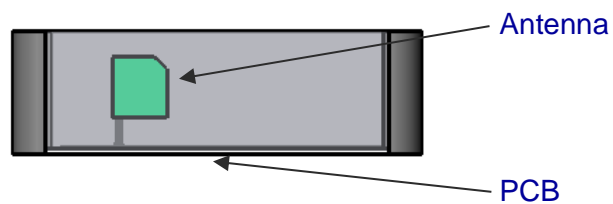
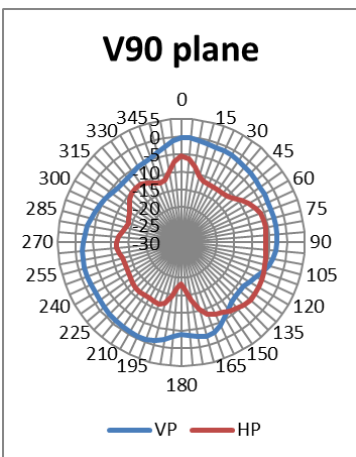
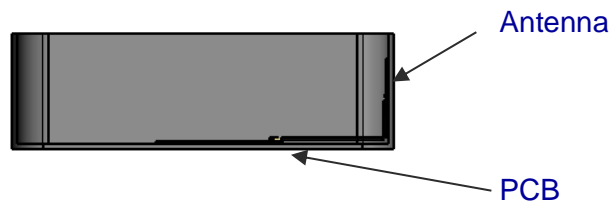
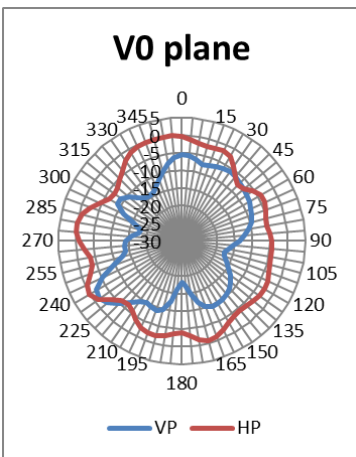
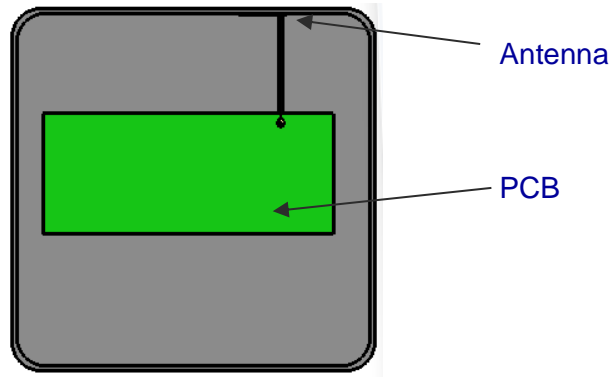
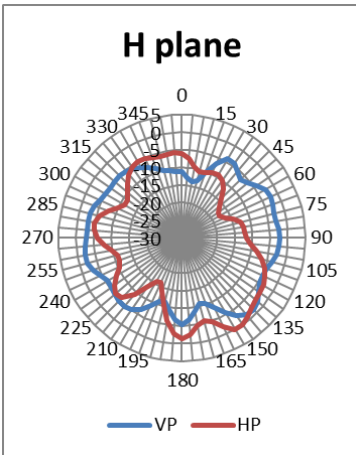
Total radiation efficiency



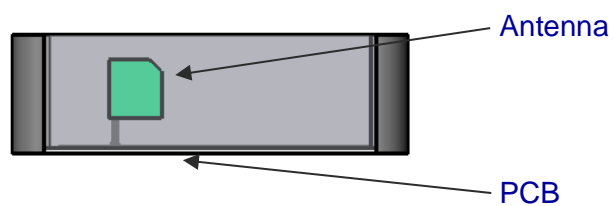
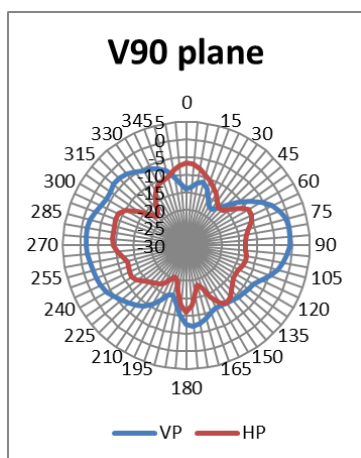
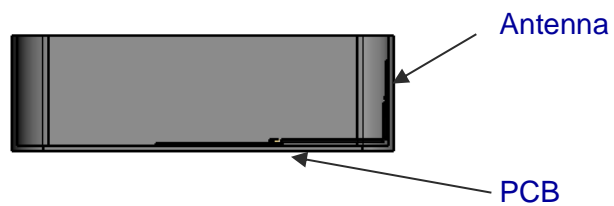
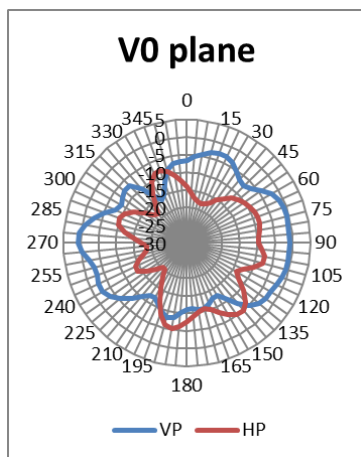
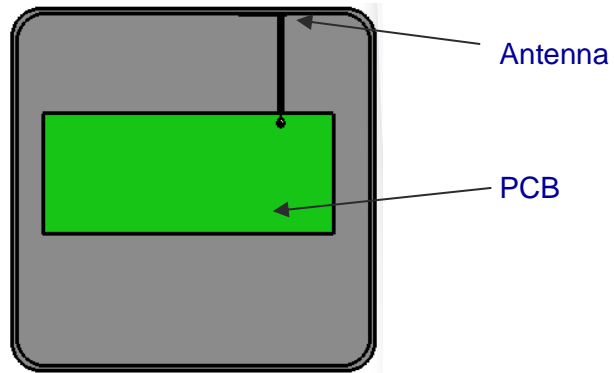
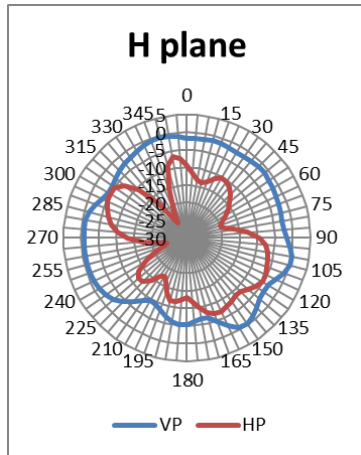
Maximum radiation gain



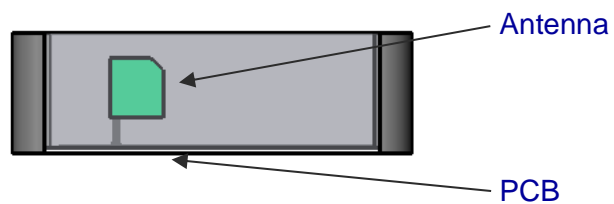
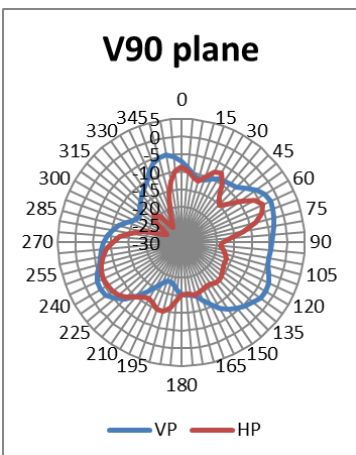
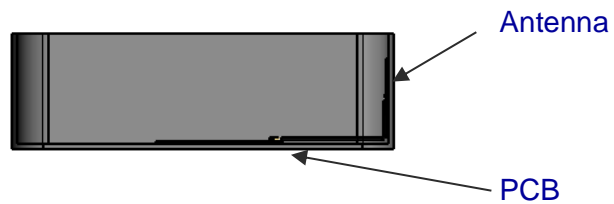
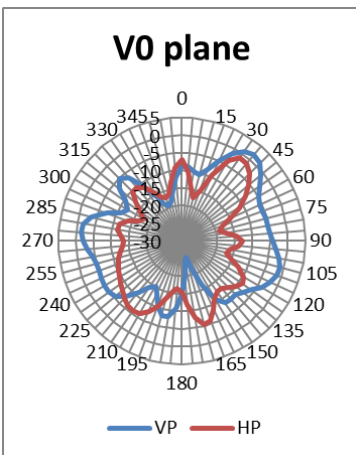
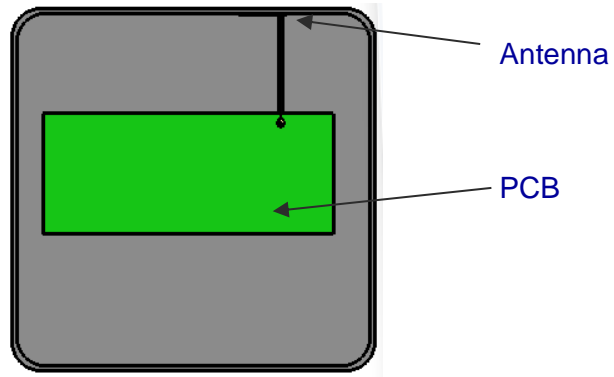
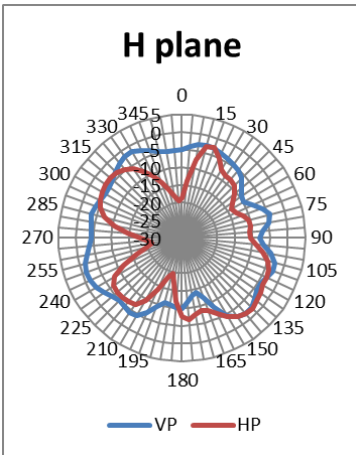
Radiation pattern, 2450 MHz



Radiation pattern, 5150 MHz



Radiation pattern, 5850 MHz



Intended applications

The antenna is optimized for the ISM band 2400 - 2500 MHz and 5180 - 5850 MHz used for WLAN and is also suitable for applications in Bluetooth and ZigBee etc. Some of the applications are:

WLAN/Wifi	IEEE 802.11 (b, g, n) IEEE 802.11 (a/n/ac)	2400 - 2497 MHz 5150 - 5835 MHz
Bluetooth	IEEE 802.15.1	2400 - 2483.5 MHz
ZigBee	IEEE 802.15.4	2400 - 2483.5 MHz
RFID	ISO/IEC 18000	2450, 5800 MHz
WirelessHART	IEEE 802.15.4	2400 - 2483.5 MHz

Ordering information

Part number	Part name	Details
PRO-IS-432	InSide WLAN Square, 100 mm MHF	Antenna for WLAN, 100 mm coaxial with MHF (U.FL) connector.
PRO-IS-579	InSide WLAN Square, 100 mm MHF4	Antenna for WLAN, 100 mm coaxial with MHF4 connector.

For information on sales, delivery terms and conditions and prices, please visit the Proant website (www.proant.se) for a complete list of distributors.

Proant offers consultation with design-in of the InSide antennas. Proant have all necessary capabilities for antenna design including anechoic chamber and prototype workshop. Please send your requests to info@proant.se.

Disclaimer

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