

General information

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

InSide 2400 Triangular is a ground plane independent antenna including 10 cm coaxial cable with MHF or MHF4 connector, supplied with adhesive.

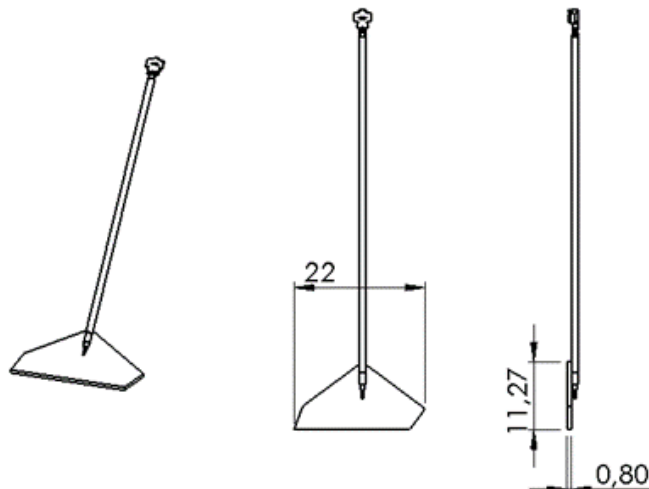


Technical data

Frequency	2400 - 2500 MHz
Return loss*	< -4.5 dB
Efficiency*	> -4.7 dB (34%)
Gain*	Max 1.8 dBi
Dimensions	22.00 x 11.27, 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

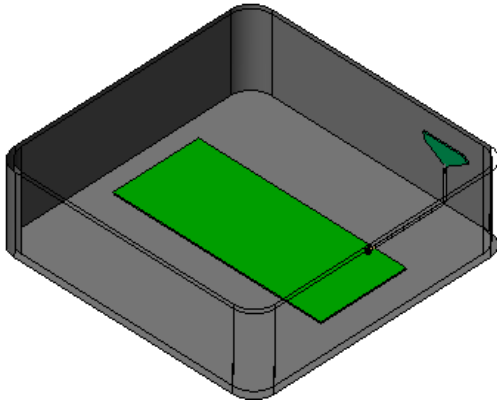


Antenna drawing. Above dimensions are given in millimeter.

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

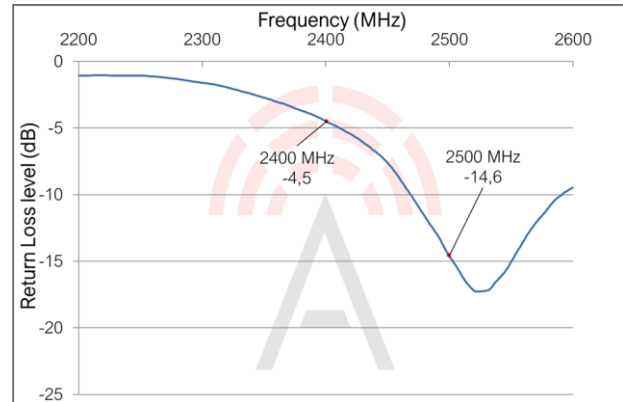
Electrical performance

Measurement setup

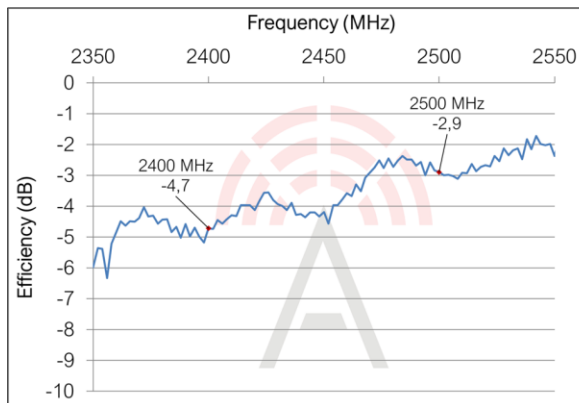


The antenna measurements were done on Proant's standard measurement fixture - the antenna mounted in an ABS plastic box, 150x150x45 mm, connected to a PCB, 120x50 mm, with the cable fully extended.

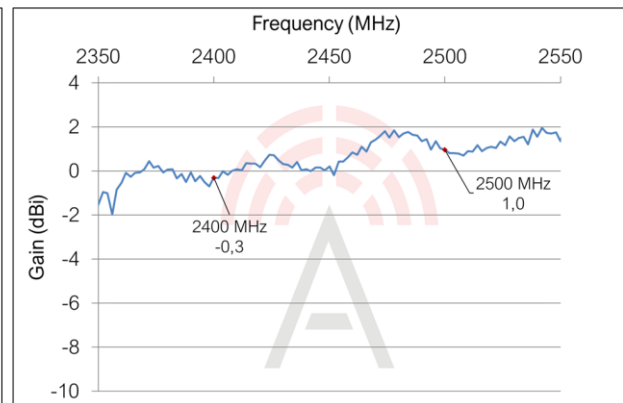
Return loss



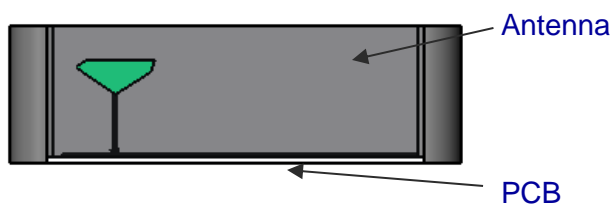
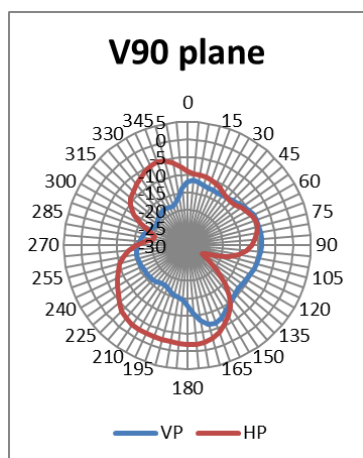
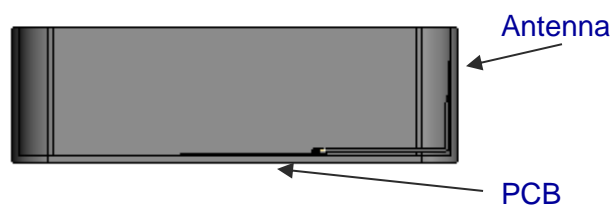
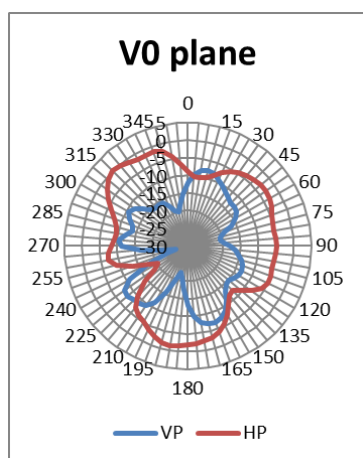
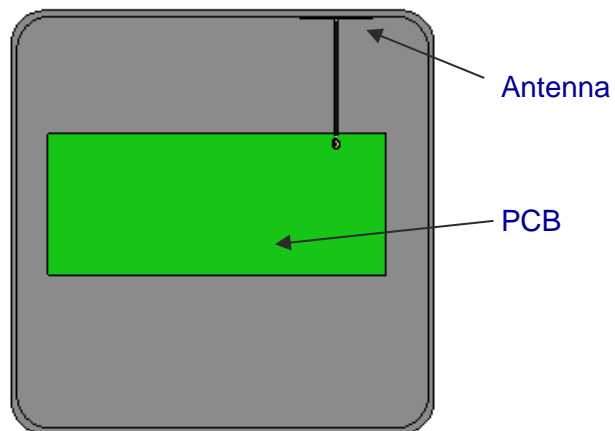
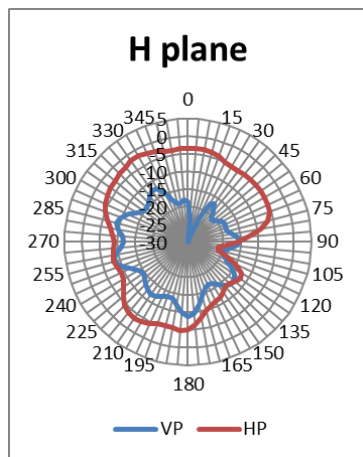
Total radiation efficiency



Maximum radiation gain



Radiation pattern, 2450 MHz



Intended applications

The antenna is optimized for the ISM band 2400 - 2500 MHz. Some of the applications are:

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

Ordering information

Part number	Part name	Details
PRO-IS-237	InSide 2400 Triangular, 100 mm MHF	Antenna for 2.4 GHz ISM bands, 100 mm coaxial with MHF (U.FL) connector.
PRO-IS-587	InSide 2400 Triangular, 100 mm MHF4	Antenna for 2.4 GHz ISM bands, 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

The information given in this application note shall in no event be regarded as a guarantee of conditions or characteristics. With respect to any examples or hints given herein, any typical values stated herein and/or any information regarding the application of the device, Proant AB hereby disclaims any and all warranties and liabilities of any kind, including without limitation, warranties of non-infringement of intellectual property rights of any third party.