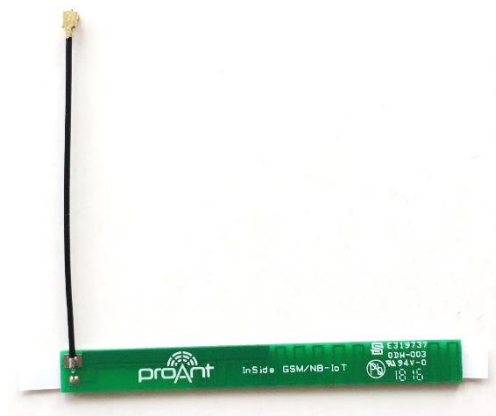


## General information

Antenna covering NB-IoT Band 8 and 20 (791 - 960 MHz), GSM 900 (880-960 MHz) and GSM 1800 (1710-1880 MHz) for inside mounting on non-conductive surfaces such as plastic.

InSide GSM/NB-IoT is a ground plane independent antenna including coaxial cable with connector and is supplied with adhesive.

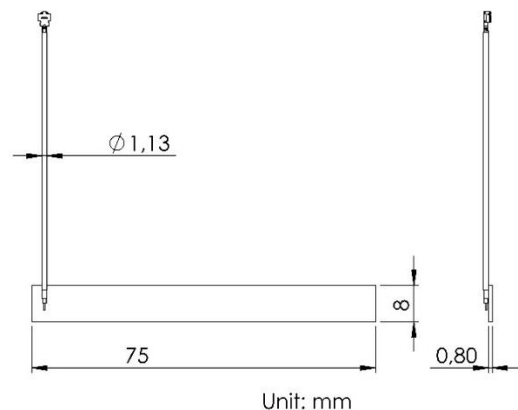
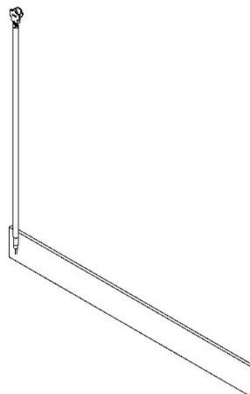


### Technical data

Frequency	791-960/1710-1880 MHz
Return loss	< -4,5 dB (on Proant fixture)
Gain	Max 4 dBi (on Proant fixture)
Dimension	8 x 75 mm, thickness 0.8 mm
Mounting	Adhesive tape
Temperature	-40 to +85° C

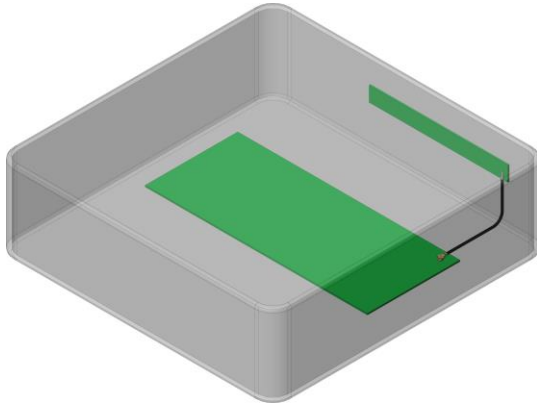
### Applications

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

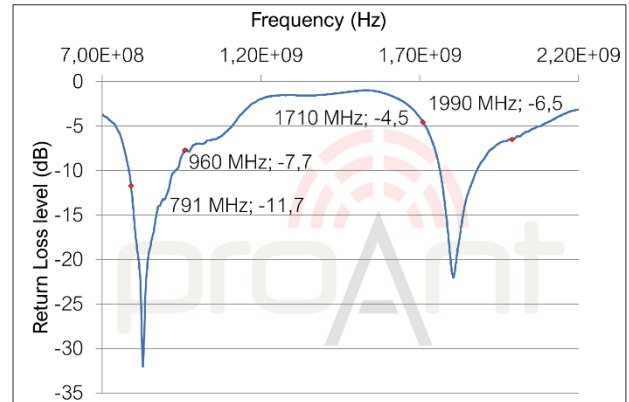


## Electrical performance

### Measurement setup

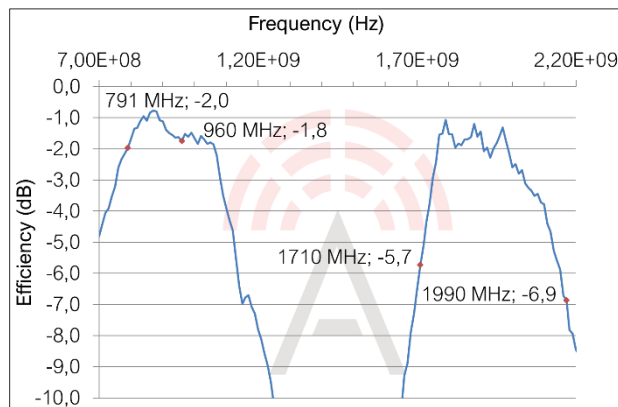


### Return loss

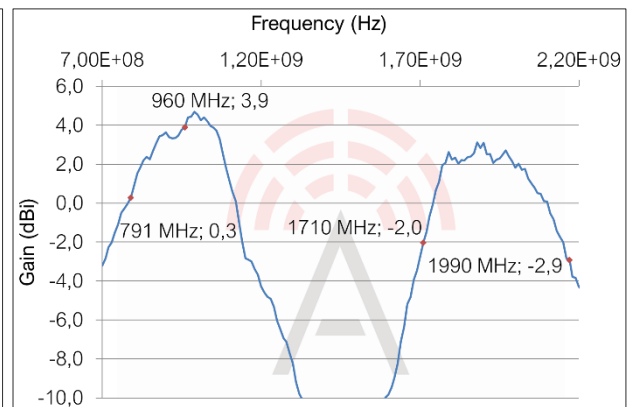


The antenna measurements were done on Proant's standard measurement fixture - the antenna mounted in an ABS plastic box, 150x150x45 mm, connected to a PCB, 120x50 mm, with the cable fully extended.

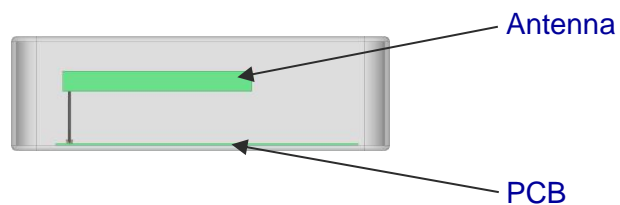
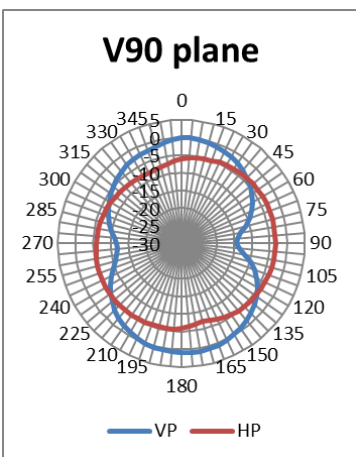
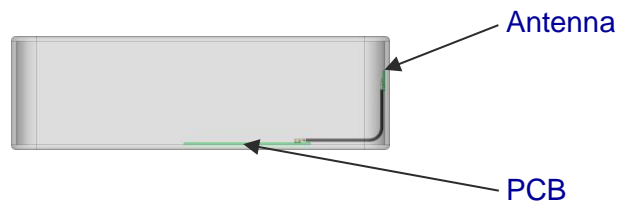
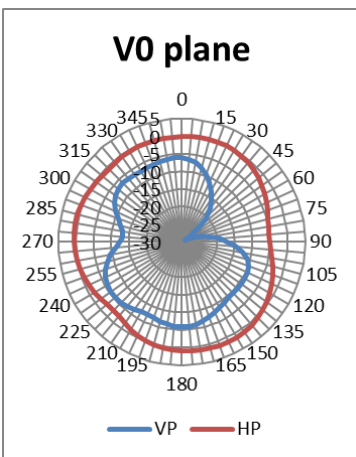
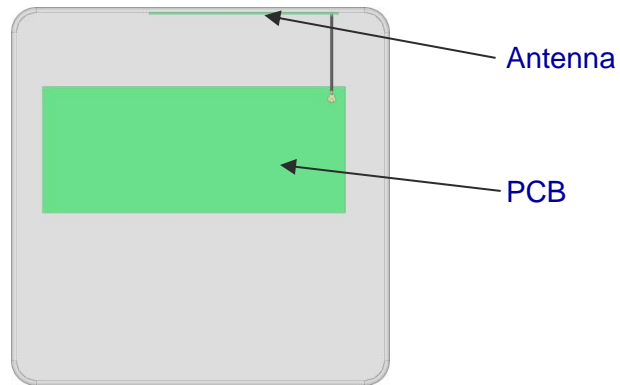
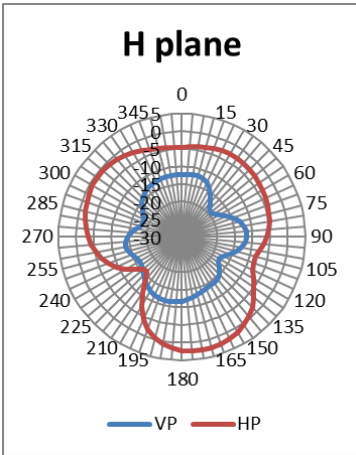
### Total radiation efficiency



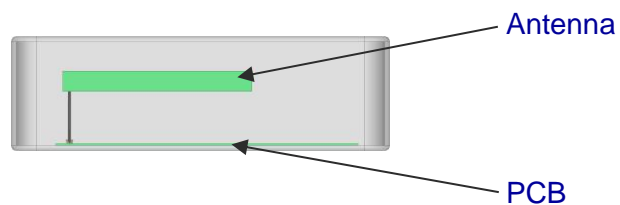
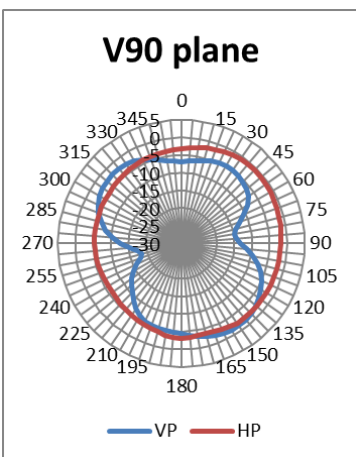
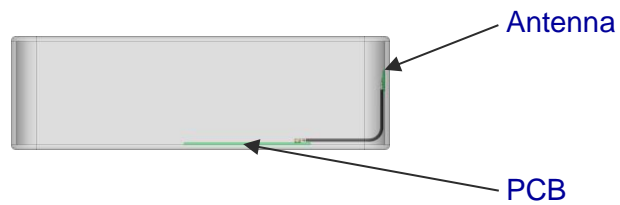
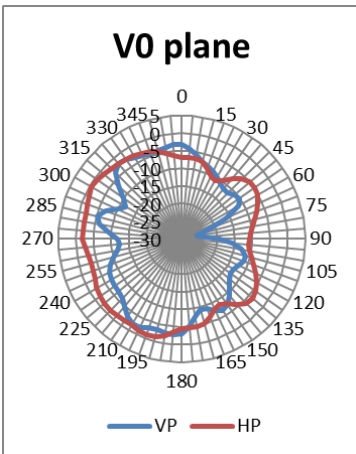
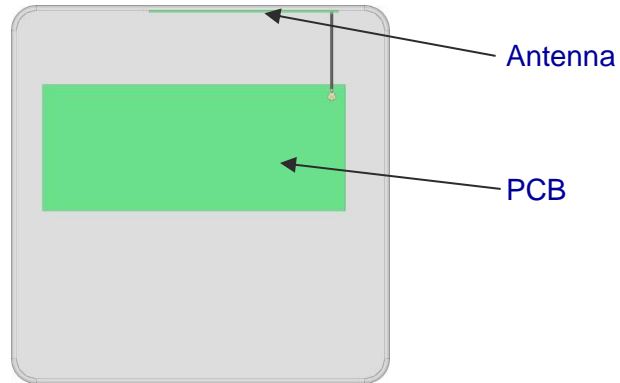
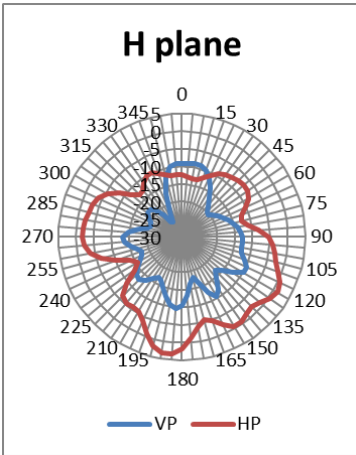
### Maximum radiation gain



## Radiation pattern, 800/850/900 MHz



### Radiation pattern, 1800/1900 MHz



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## Intended applications

The antenna is optimized for pentaband operation in the GSM, UMTS and NB-IoT systems, which is defined by several frequency bands. Some of the supported bands are:

GSM/GPRS/EDGE	GSM 850 (824 – 894 MHz)
	GSM 900 (880 – 960 MHz)
	GSM 1800 (1710 – 1880 MHz)
	GSM 1900 (1850 – 1990 MHz)
UMTS/LTE	Band 2 (1850 – 1990 MHz)
	Band 3 (1710 – 1880 MHz)
	Band 5 (824 – 894 MHz)
	Band 6 (830 – 883 MHz)
	Band 8 (880 – 960 MHz)
NB-IoT	Band 8 (880 – 960 MHz)
	Band 20 (791 – 862 MHz)

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## Ordering information

Part number	Part name	Details
PRO-IS-573	InSide GSM/NB-IoT, 60mm MHF	Antenna for NB-IoT and GSM. 60 mm cable with MHF (U.FL) connector.
PRO-IS-589	InSide GSM/NB-IoT, 60mm MHF4	Antenna for NB-IoT and GSM. 60 mm cable with MHF4 connector.

For information on sales, delivery terms and conditions and prices, please visit the Proant website ([www.proant.se](http://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](mailto:info@proant.se).

## Disclaimer

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