

General information

The OnBoard SMD 169 antenna is a combination of small size, low cost and high performance, suitable for M2M-applications.

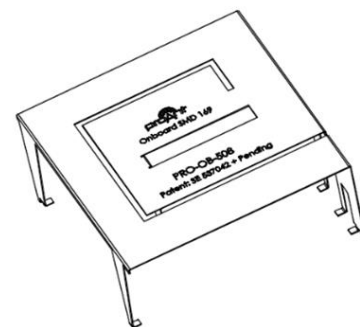
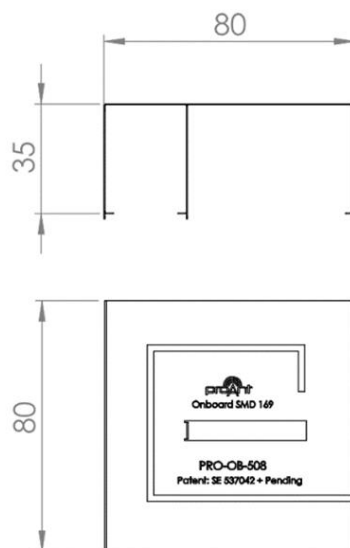


Technical data

Frequency	169 MHz
Impedance	50 Ω
Return loss*	< -10 dB
Total efficiency*	> -5.4 dB (28%)
Gain*	Max -2.8 dBi
Dimensions (LxWxH)	80.00 x 80.00 x 35.00 mm (3.150 x 3.150 x 1.378 in)
RoHS status	Compliant with EU directive 2011/65/EU and 2015/863
Shelf life	10 years
MSL	Level 1, unlimited

Applications

- Telemetry
- Automated meter reading
- Alarms

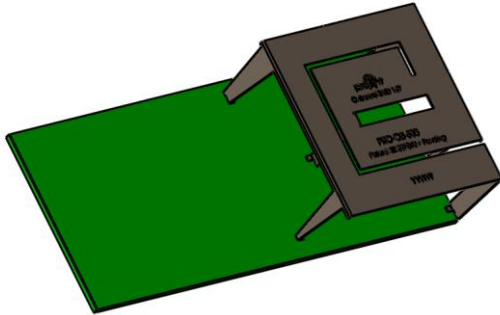


Antenna drawing. Above dimensions are given in millimeter.

**Measured on Proant evaluation board, PRO-EB-532*

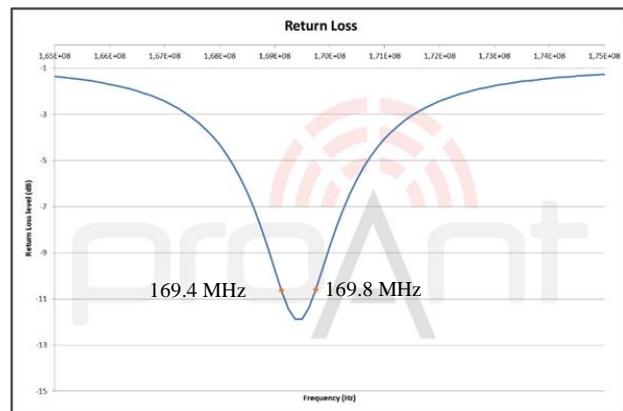
Electrical performance

Measurement setup

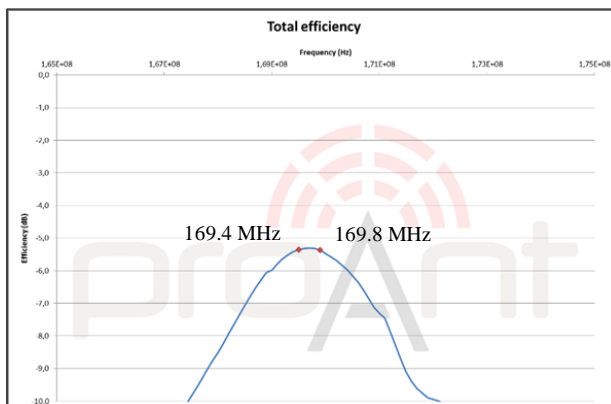


The antenna measurements were done with the OnBoard SMD 169 evaluation board (PRO-EB-532, 190 x 80 mm) - measured in free space.

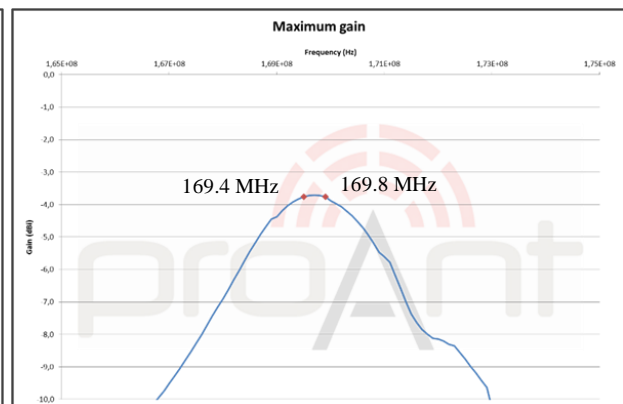
Return loss



Total radiation efficiency

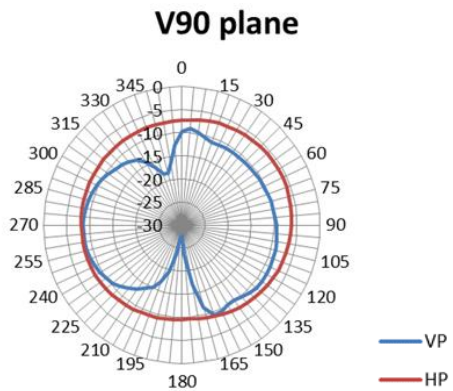
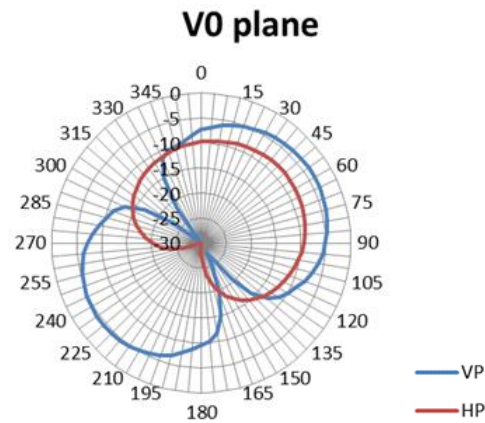
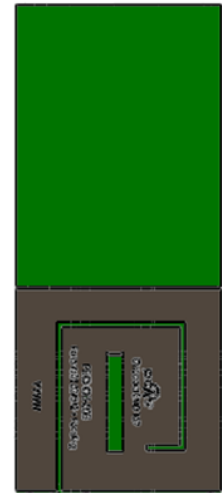
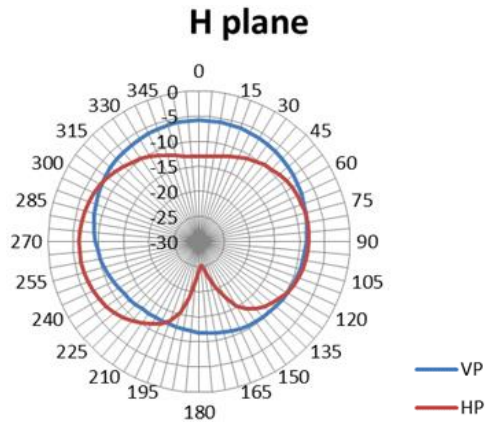


Maximum radiation gain



Radiation pattern, 169.6 MHz

Board rotation



Intended applications

The antenna is optimized for the 169 MHz. Some of the applications are:

Wireless M-Bus EN 13757-4:2013 mode N 169.4 - 169.475 MHz

Ordering information

Part number	Part name	Details
PRO-OB-508	OnBoard SMD 169	Antenna for 169 MHz.
PRO-EB-532	Evaluation board, Onboard SMD 169	Evaluation board with PRO-OB-508 for M2M-applications.

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 OnBoard SMD 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.