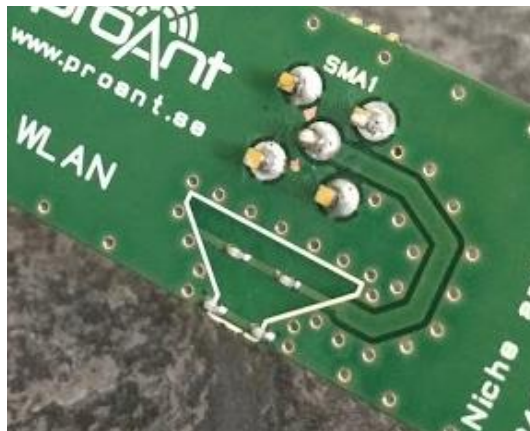


General information

This Proant patented Niche antenna, is a miniature PCB integrated antenna covering the WLAN/Wifi frequencies 2,4-2,5 GHz and 5,15-5,825 GHz. The antenna technology is licensed from, and used by permission of, Proant AB.



Technical data

Frequency	2,4-2,5 GHz and 5,15-5,825 GHz
Return loss	2,4 GHz: < -12,7 dB 5 GHz: < -3,2 dB (on Proant evaluation board)
Total efficiency	2,4 GHz: < -0,6 dB (87%) 5 GHz: < -3,6 dB (44%) (on Proant evaluation board)
Gain	2,4 GHz: Max 4,7 dBi 5 GHz: Max 2,7 dBi (on Proant evaluation board)
Dimensions	6 x 12 mm
Mounting	Integrated in PCB

Application examples

Mobile accessories

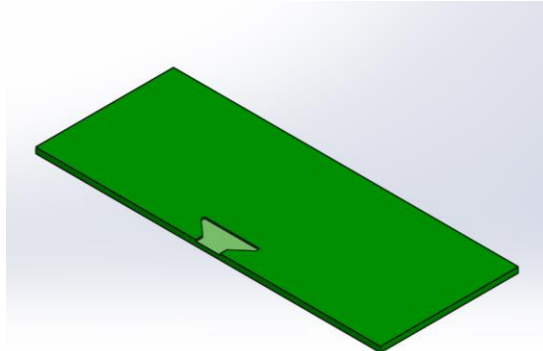
Wearable devices

IoT devices

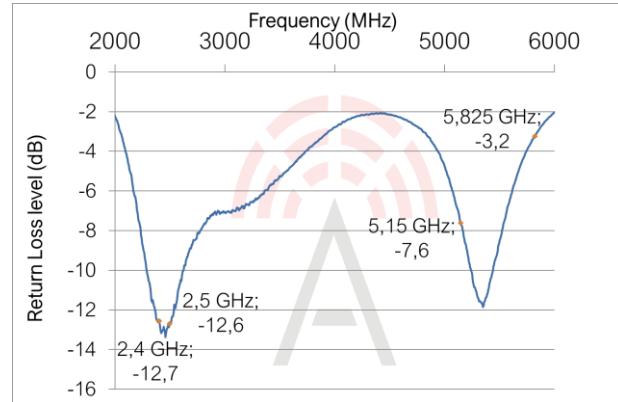
Alarms

Electrical performance

Measurement setup

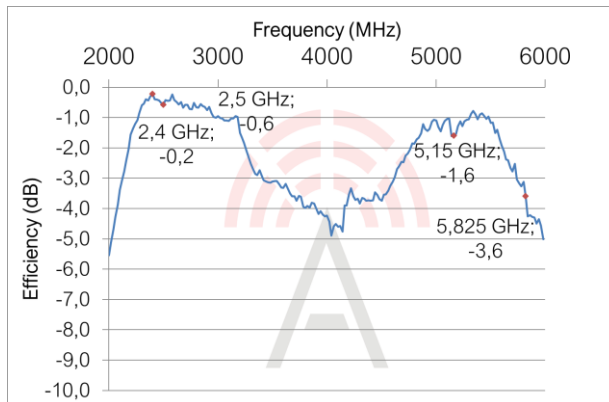


Return loss

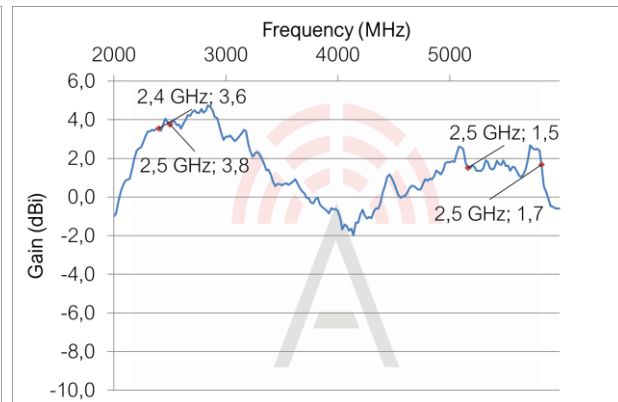


The antenna measurements were done in free space, with the antenna implemented on a 20 x 50 mm PCB.

Total radiation efficiency

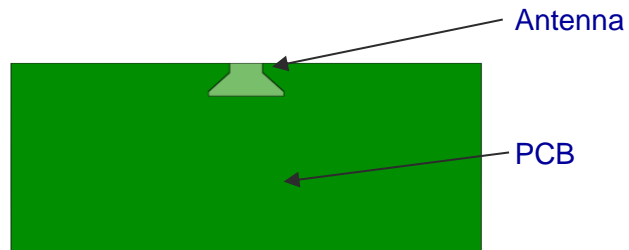
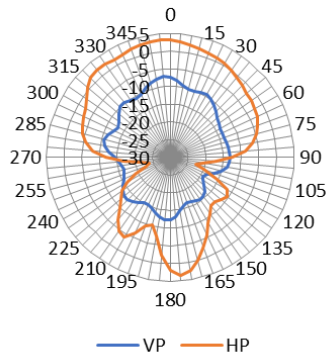


Maximum radiation gain

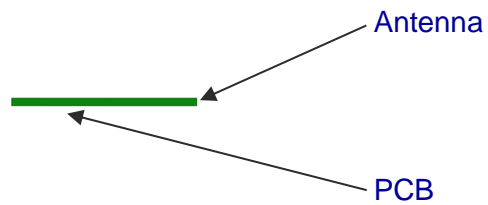
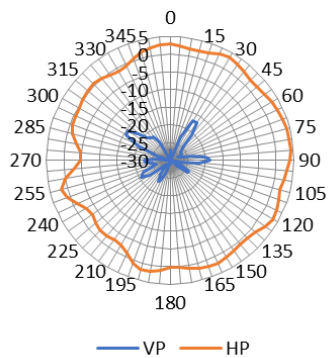


Radiation pattern, 2,45 GHz

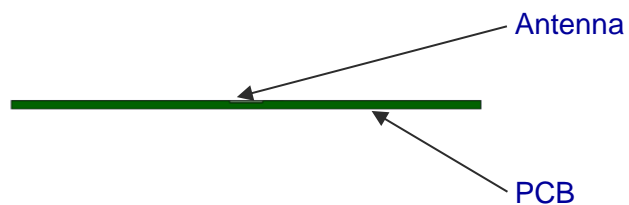
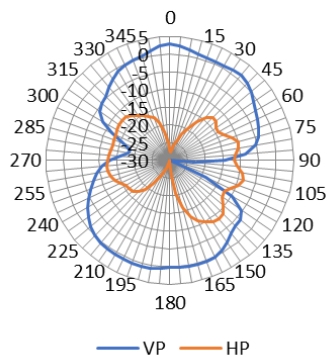
H plane



V0 plane

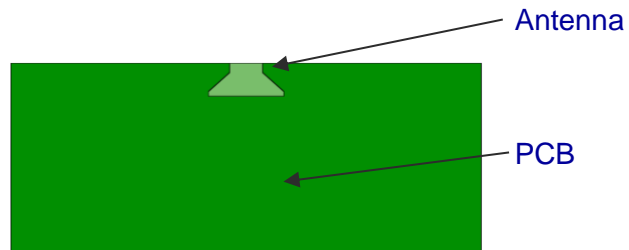
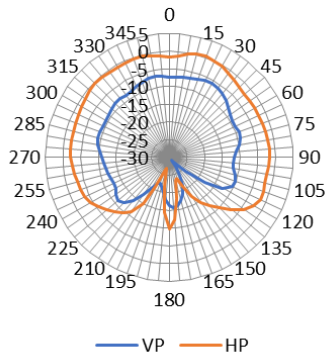


V90 plane

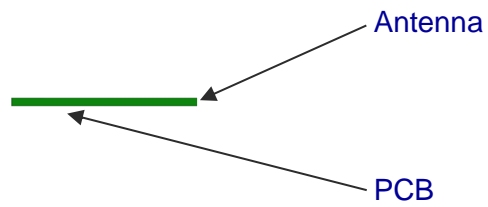
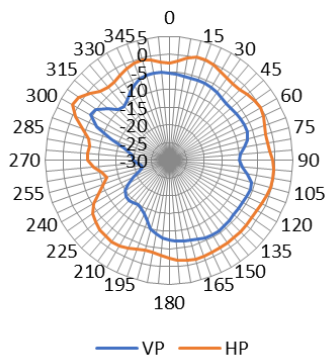


Radiation pattern, 5,5 GHz

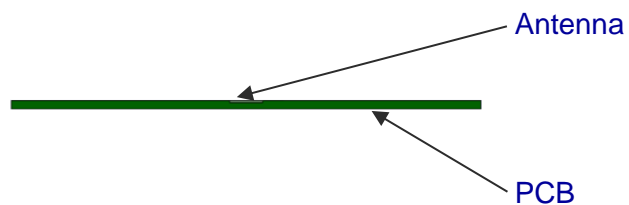
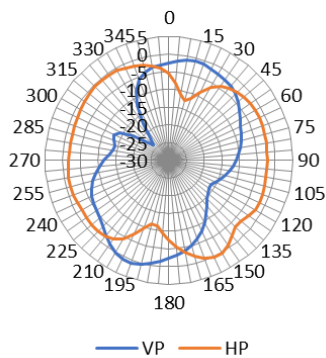
H plane



V0 plane



V90 plane



Intended applications

The antenna is optimized for operation in the 2,4 GHz and 5 GHz bands.

WLAN/Wifi	IEEE 802.11 (b, g, n)	2400–2497 MHz
	IEEE 802.11 (a/n/ac)	2400–2497 MHz
		5150–5835 MHz
Bluetooth/BLE	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

Licensing information

License agreement information, terms and conditions, and design advice are provided upon request. Please send all requests to info@proant.se.

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