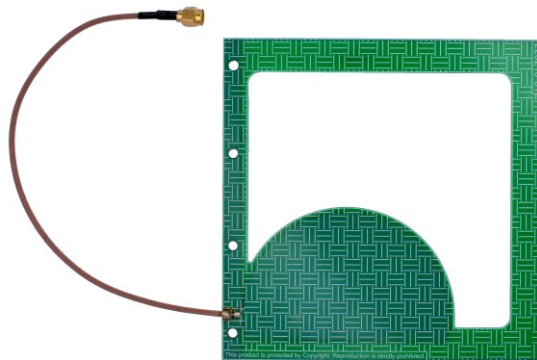


400 MHz / 900 MHz Wideband PCB antenna



General information

Planar wideband PCB antenna is used for various applications including laboratory measurements, spectrum monitoring, remote sensing, telemetry system etc.

Typical applications

ISM, RFID, IoT (Sigfox, LoRa), LP-WAN, Smart meters, LTE, 5G, drone control

Electrical data

Antenna type	External / internal PCB antenna
5G bands	5, 8, 12 - 14, 18, 20, 26, 28, 29, 71, 81 - 83, 89
4G bands	5, 6, 8, 12 - 14, 17 - 20, 26 - 29, 31, 44, 67, 68, 71 - 73, 85 - 88
Frequency range [MHz]	400...900
Return loss [dB]	-7
Peak gain [dBi]	-2...3
Radiation efficiency [%]	85...95
Nominal input impedance [Ohm]	50
Polarization	linear
Radiation pattern	omnidirectional
Maximum input power [W]	5

Mechanical data

Antenna dimensions [mm]	140 x 140 x 1
Connector type ¹⁾	SMA male
Cable type and thickness [mm]	RG178, 2.5
Weight [g]	30

Environmental data

Operating temperature [°C]	-40...+85
Storage temperature [°C]	-40...+85
Ambient relative humidity [%]	0...95
RoHS / REACH compliant	yes / yes

Additional information

¹⁾ Other connector types can be offered on request.

Antenna performance was measured using the recommended cable length in free space.

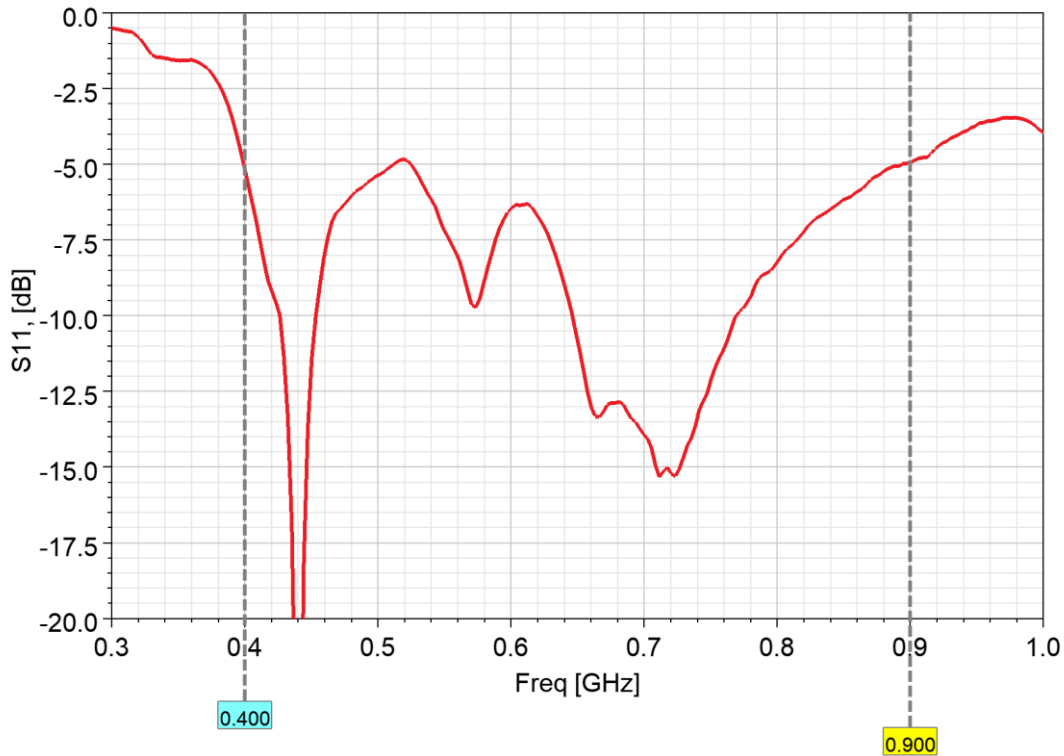
Further customization, electromagnetic simulations and measurements can be offered on request.

The antenna can be additionally equipped with adhesive tape and mounting holes.

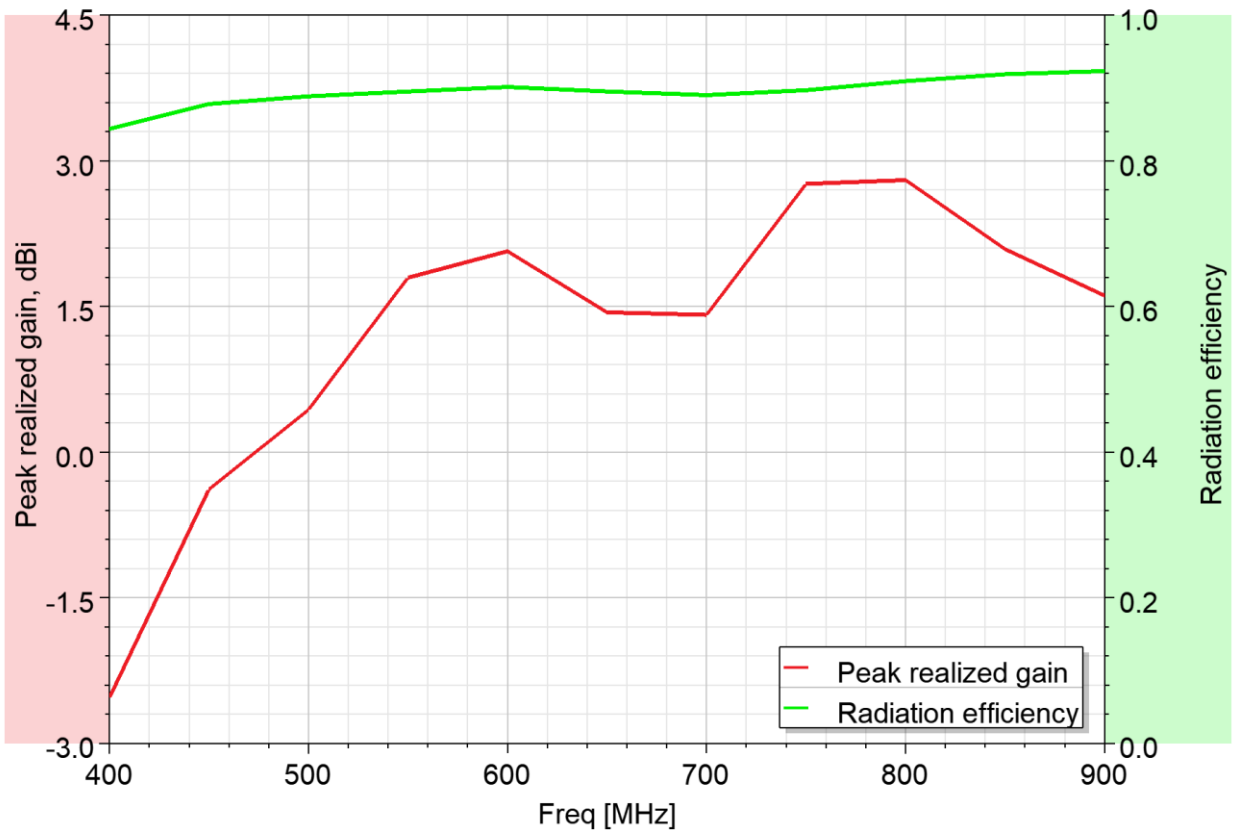
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400 MHz / 900 MHz Wideband PCB antenna

Measured input impedance matching



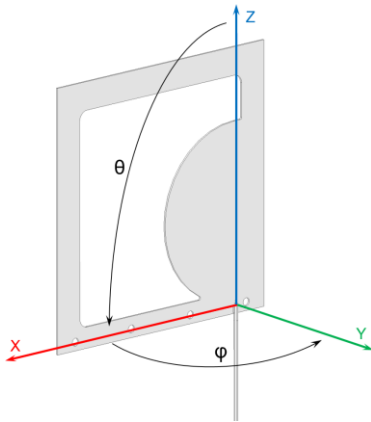
Peak realized gain and radiation efficiency



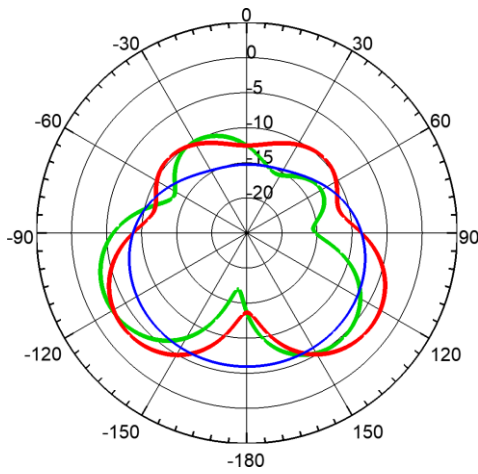
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400 MHz / 900 MHz Wideband PCB antenna

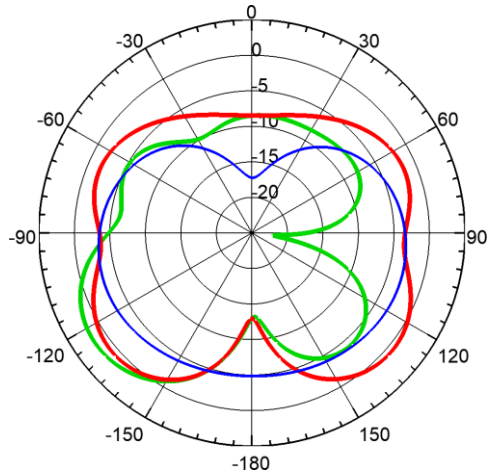
Radiation pattern (total realized gain)



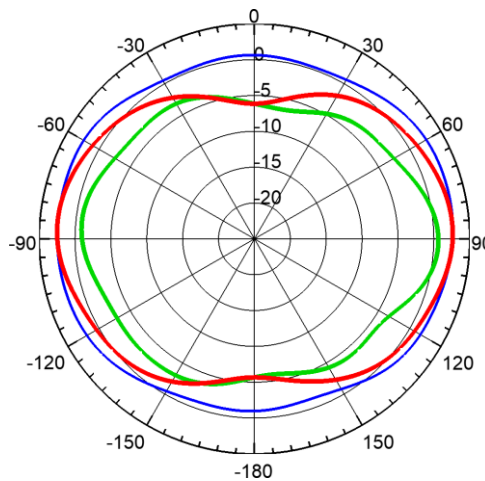
Phi=0°, plane XZ, green curve
Phi=90°, plane YZ, red curve
Theta=90°, plane XY, blue curve



f = 400 MHz



f = 600 MHz



f = 800 MHz

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