

4900 MHz / 6000 MHz Circularly polarized patch antenna array



General information

Circularly polarized patch antenna array is used for various applications including long-range Wi-Fi networks, video surveillance systems, IoT and M2M communications, drone control etc.

Typical applications

ISM, M2M, IoT, Wi-Fi, drone control

Electrical data

Antenna type	Patch antenna array
Frequency bands	5.5 GHz ISM band
Frequency range [MHz]	4900...6000
Return loss [dB]	-10
Peak gain [dBi]	18...20
Radiation efficiency [%]	85
Nominal input impedance [Ohm]	50
Polarization	Circular (RHCP)
Radiation pattern	directional
Maximum input power [W]	5

Mechanical data

Antenna dimensions [mm]	200 x 200 x 5
Connector type ¹⁾	SMA Female ¹⁾
Material	PTFE Teflon, FR-4
Weight [g]	220

Environmental data

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

Additional information

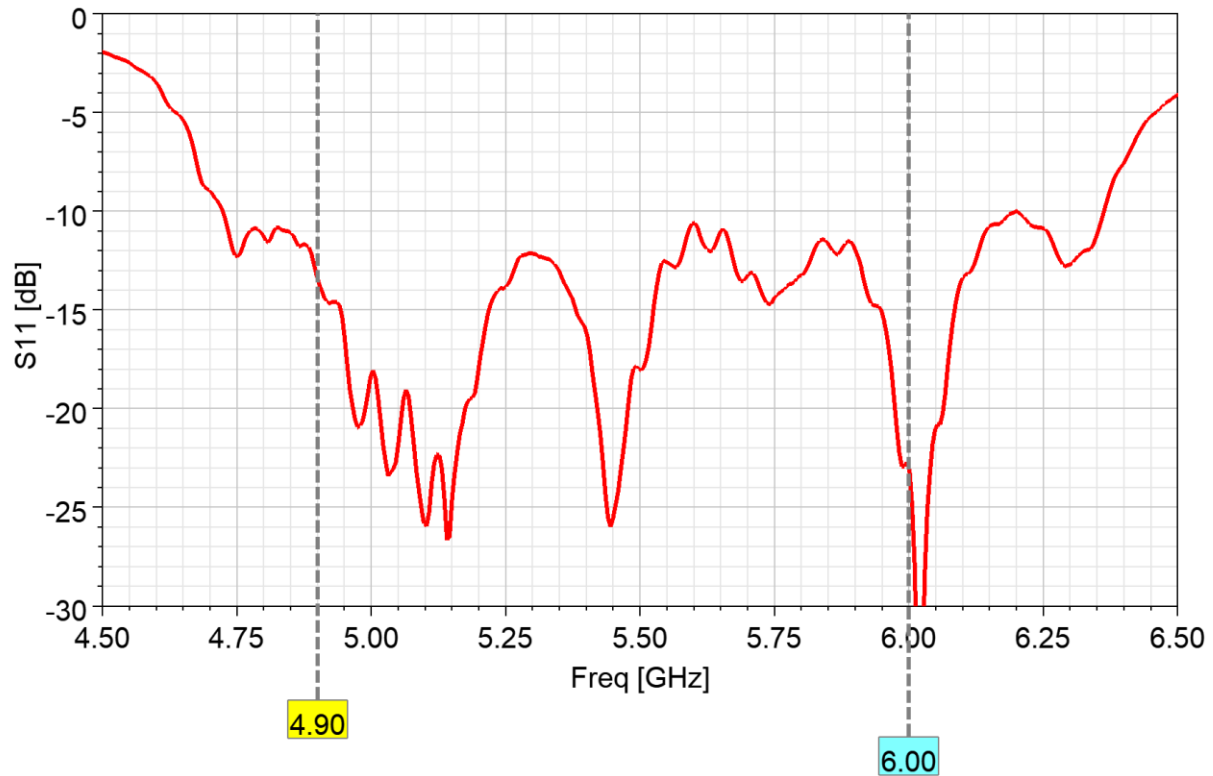
¹⁾ Other connector types can be offered on request.

Other designs, geometries or materials are possible on request.

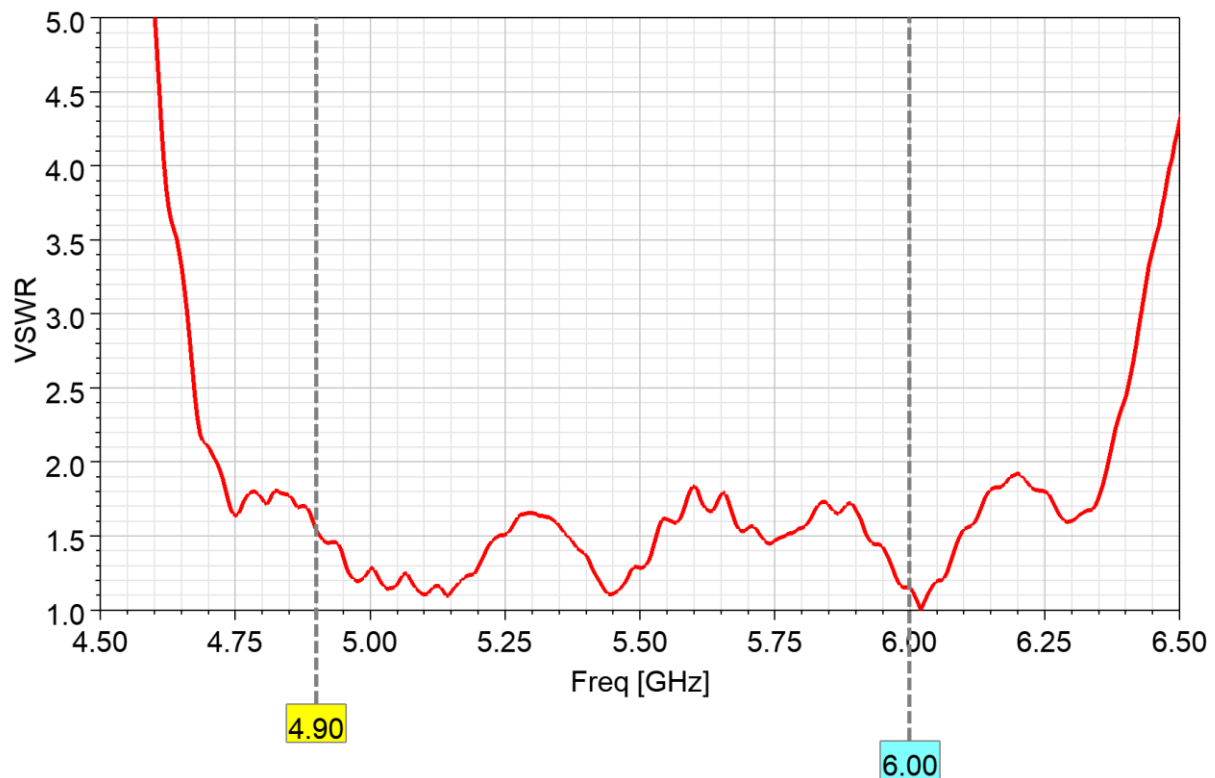
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Measured input impedance matching



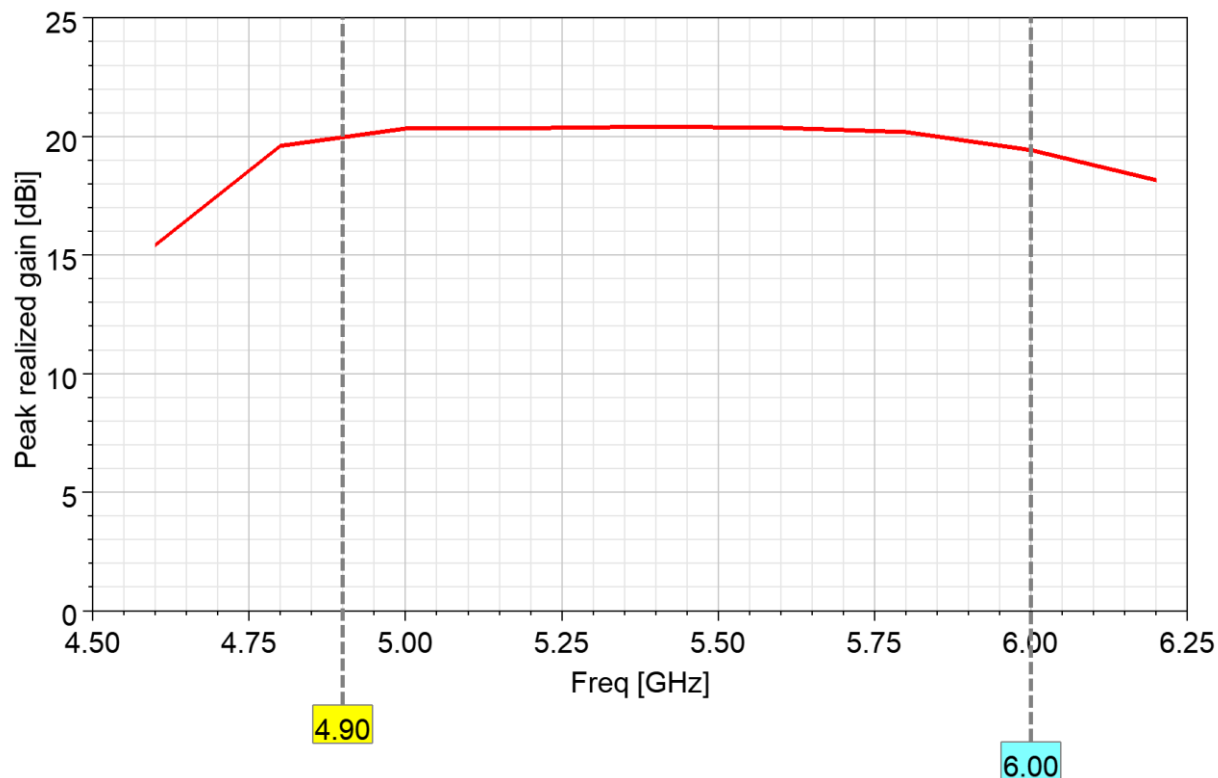
VSWR



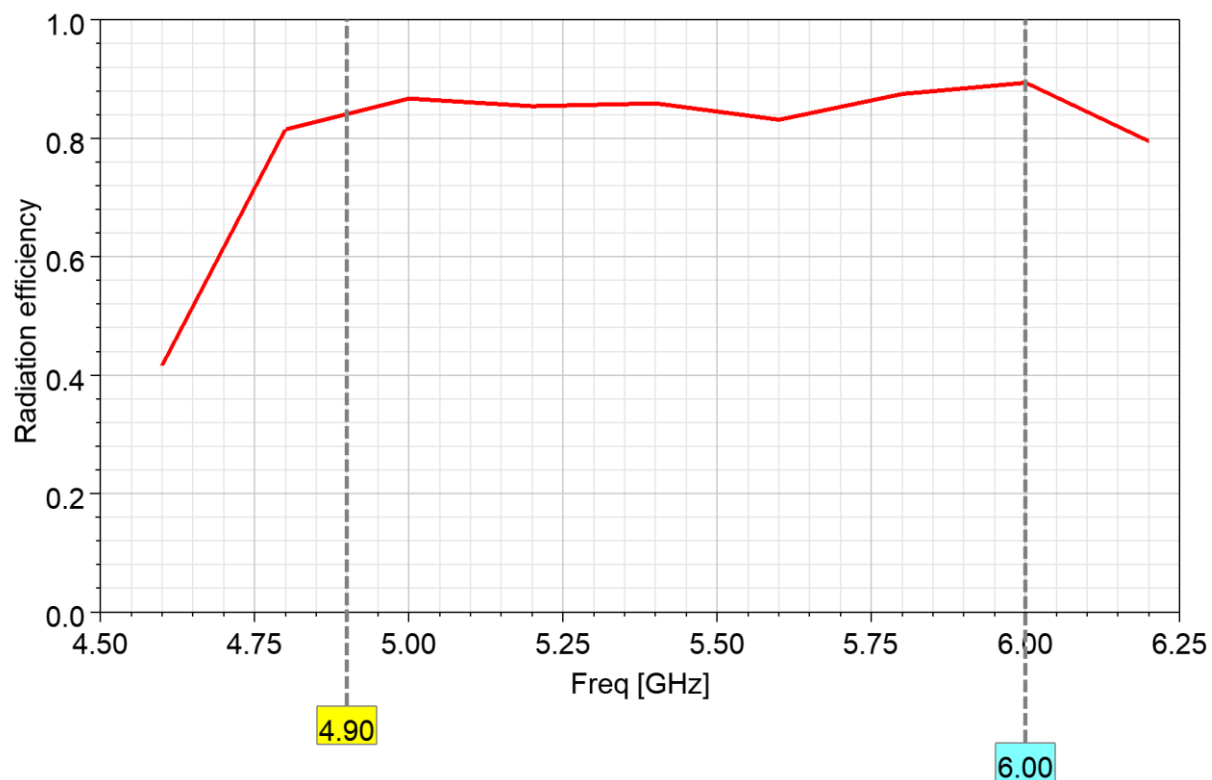
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Peak realized gain



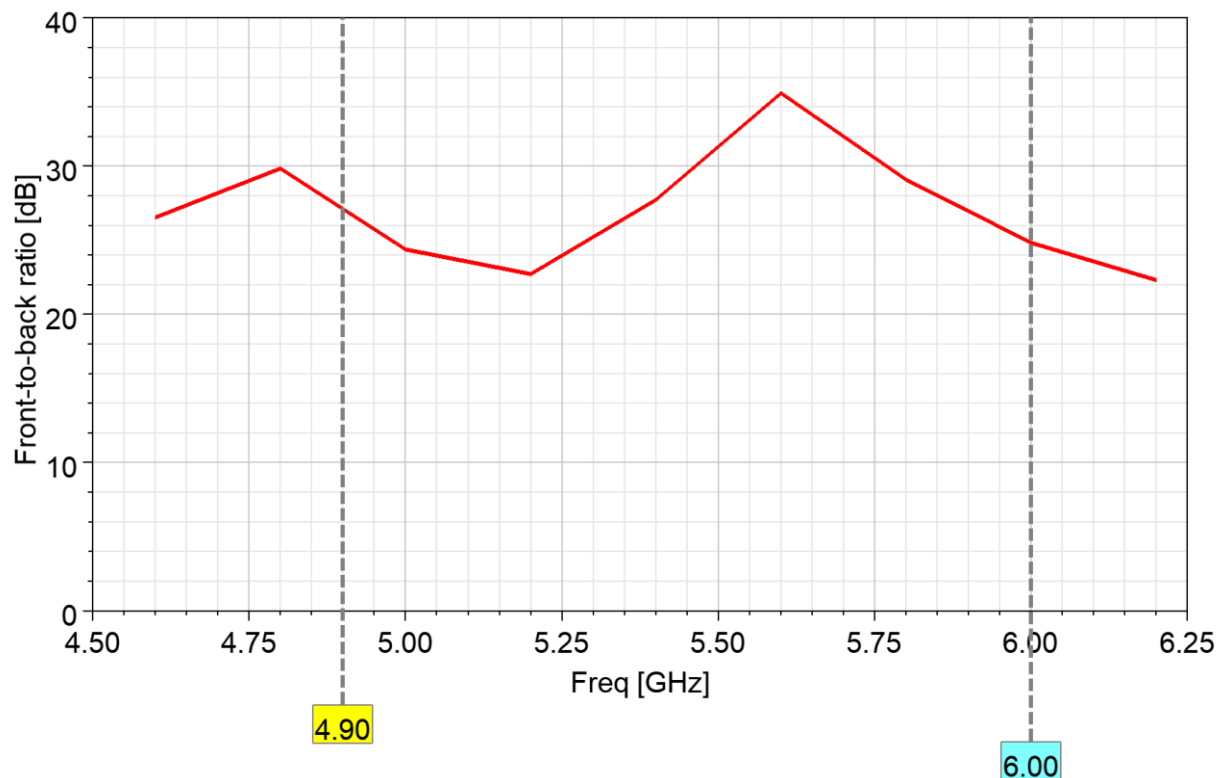
Radiation efficiency



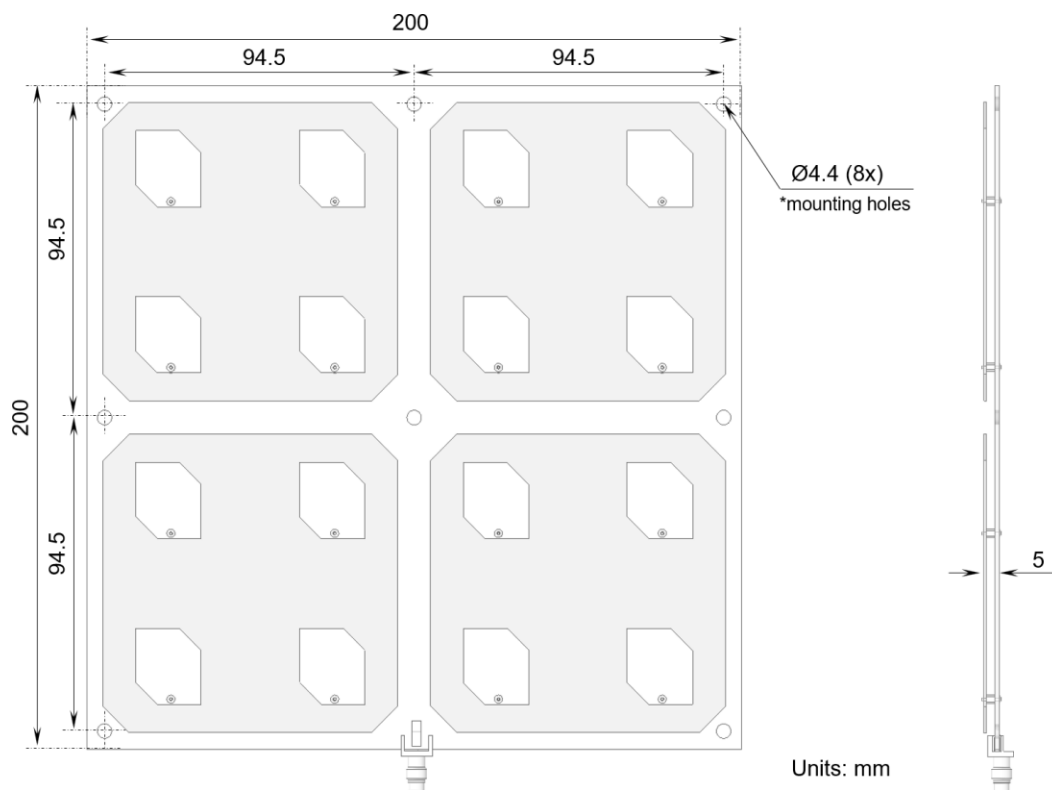
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Front-to-back ratio



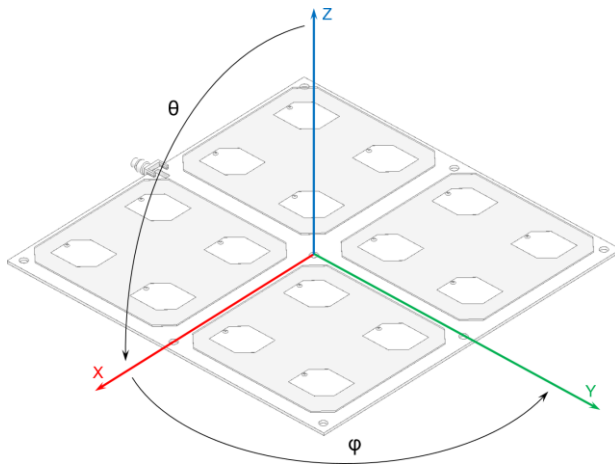
Product dimensions



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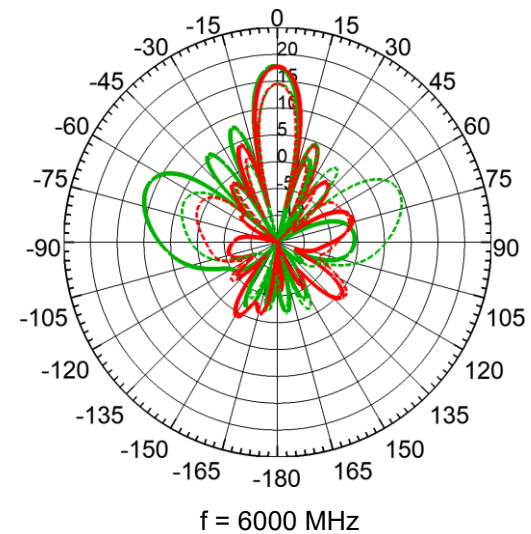
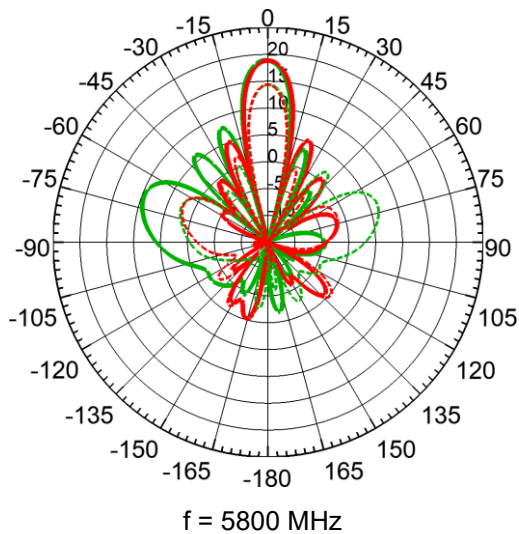
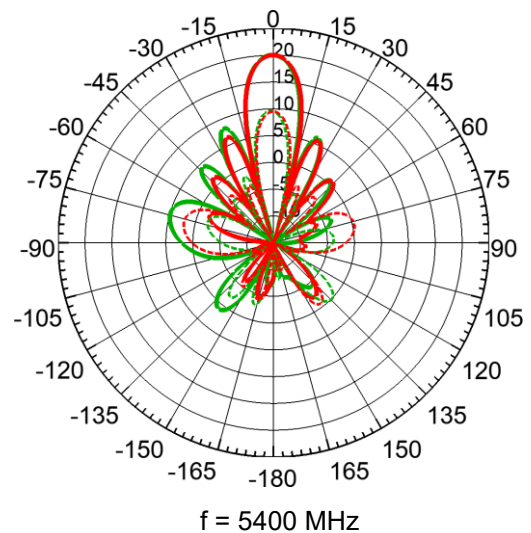
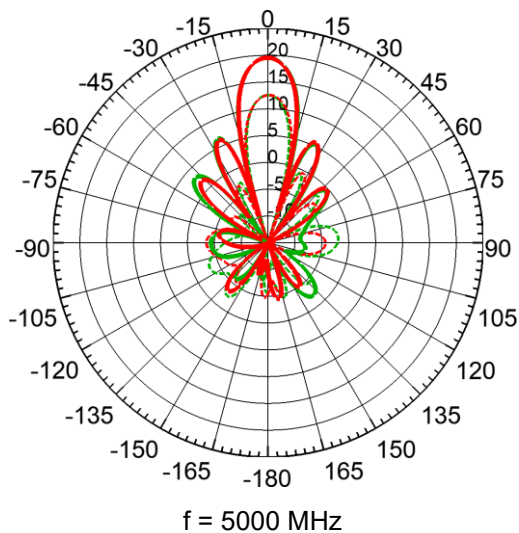
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Radiation pattern (total realized gain)



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

Solid curves – co-polarization RHCP
Dash curves – cross-polarization LHCP



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