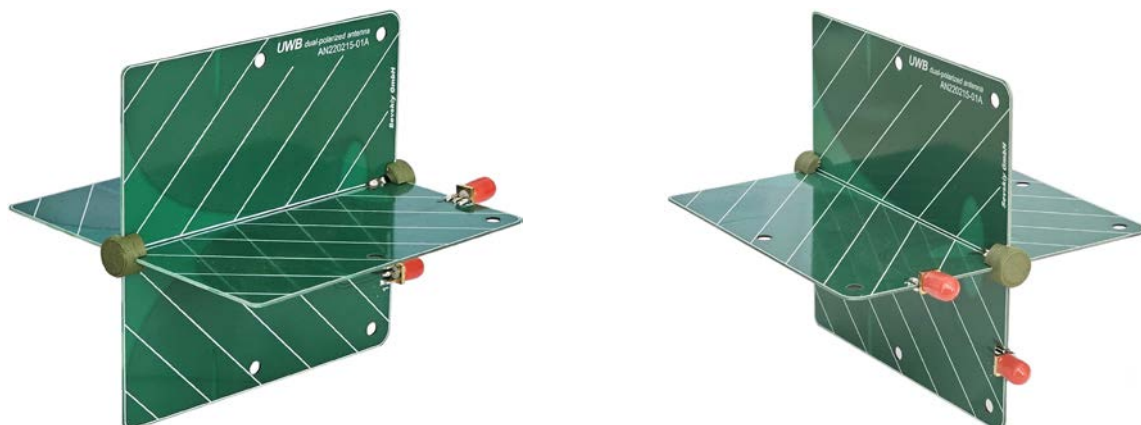


700...7500 MHz UWB dual-polarized compact antenna (5G, LTE, ISM, IoT, UMTS, GSM, UWB)



General information

The compact ultra-wideband dual-polarized Vivaldi antenna is designed for broadband operation over a wide frequency range and supports two orthogonal linear polarizations. This configuration enables improved polarization diversity, increased channel capacity, and enhanced link reliability in complex propagation environments.

Due to its wide bandwidth and dual-polarization capability, the antenna is suitable for a broad range of wireless communication systems, including UWB links, cellular networks (LTE and sub-6 GHz 5G), ISM and IoT systems, as well as broadband wireless access and measurement equipment. The antenna can be used in both single-input multiple-output (SIMO) and multiple-input multiple-output (MIMO) configurations.

Typical applications include laboratory and field measurements, spectrum monitoring, electromagnetic compatibility (EMC) testing, channel sounding, and antenna characterization. The dual-polarized design also makes the antenna well suited for positioning and localization systems, short-range and imaging radar systems, wireless sensing, and industrial monitoring applications.

Electrical data

Antenna type	Dual-polarized Vivaldi antenna	
5G bands	1-3, 5, 7, 8, 12-14, 18, 20, 25, 26, 28-30, 34, 38-41, 46-48, 50, 51, 53, 65, 66, 70, 74-84, 86, 89-98	
4G bands	1-14, 17-30, 32-53, 65-71, 74-76	
Frequency range [MHz]	700...1500	1500...7500
Return loss [dB]	-7	-10
Peak gain [dBi]	1...4	4...8
Radiation efficiency [%]	80...90	70...80
Radiation pattern	omnidirectional	directional
Polarization	two orthogonal linear	
Nominal input impedance [Ohm]	50	
Maximum input power [W]	5	

Mechanical data

Antenna dimensions [mm]	110 x 110 x 110
Connector type	SMA Female
PCB material	FR-4
Weight [g]	51

Additional information

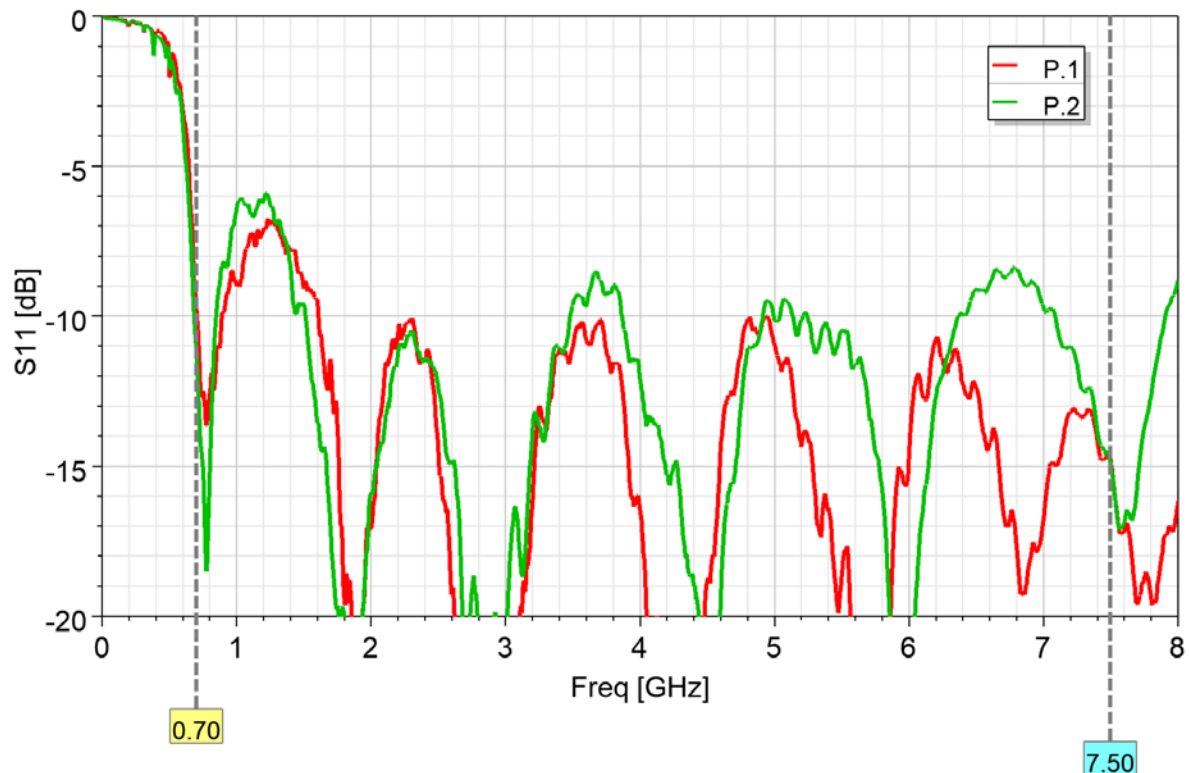
Other mechanical designs, materials or frequency bands are possible on request.

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

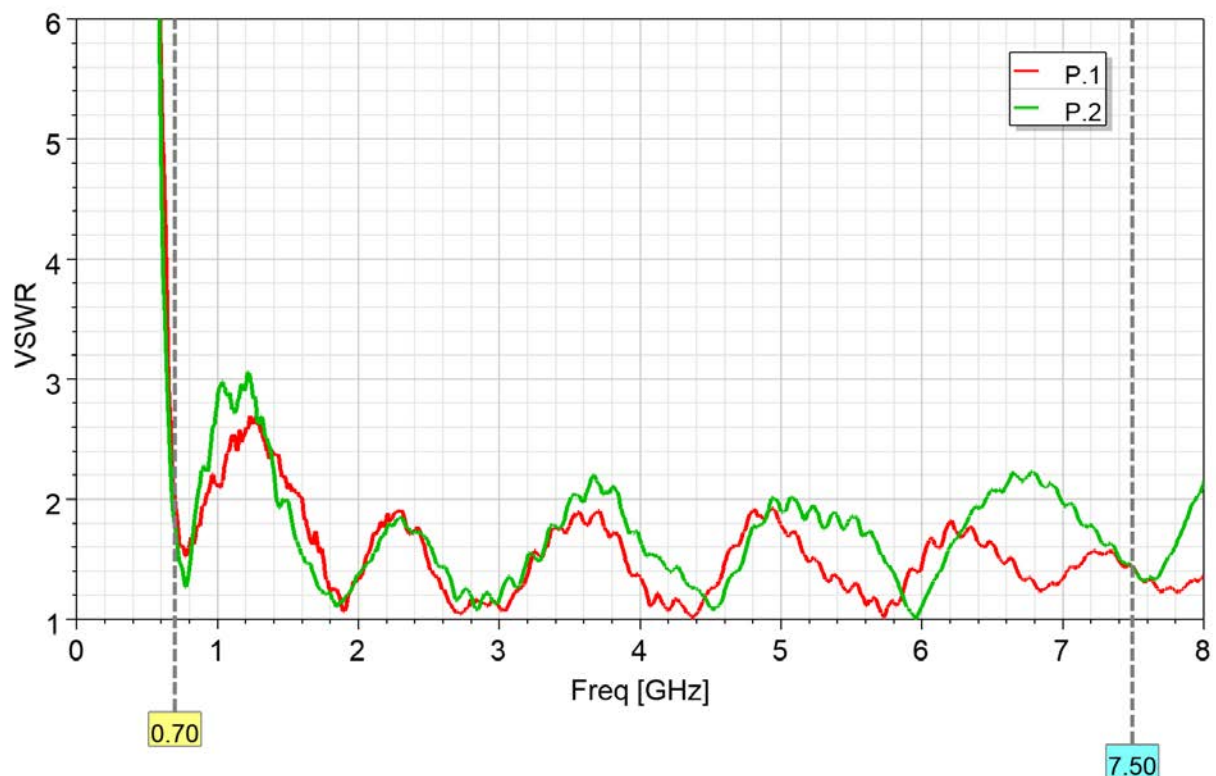
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700...7500 MHz UWB dual-polarized compact antenna (5G, LTE, ISM, IoT, UMTS, GSM, UWB)

Measured input impedance matching



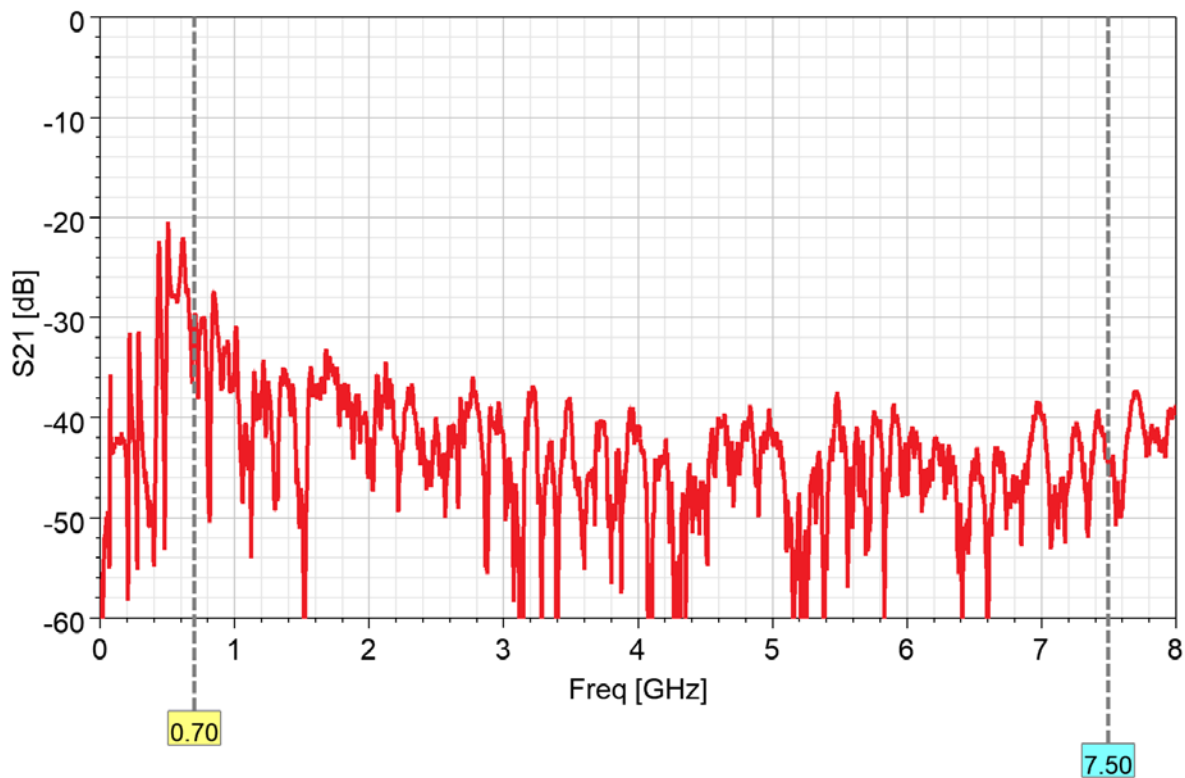
VSWR



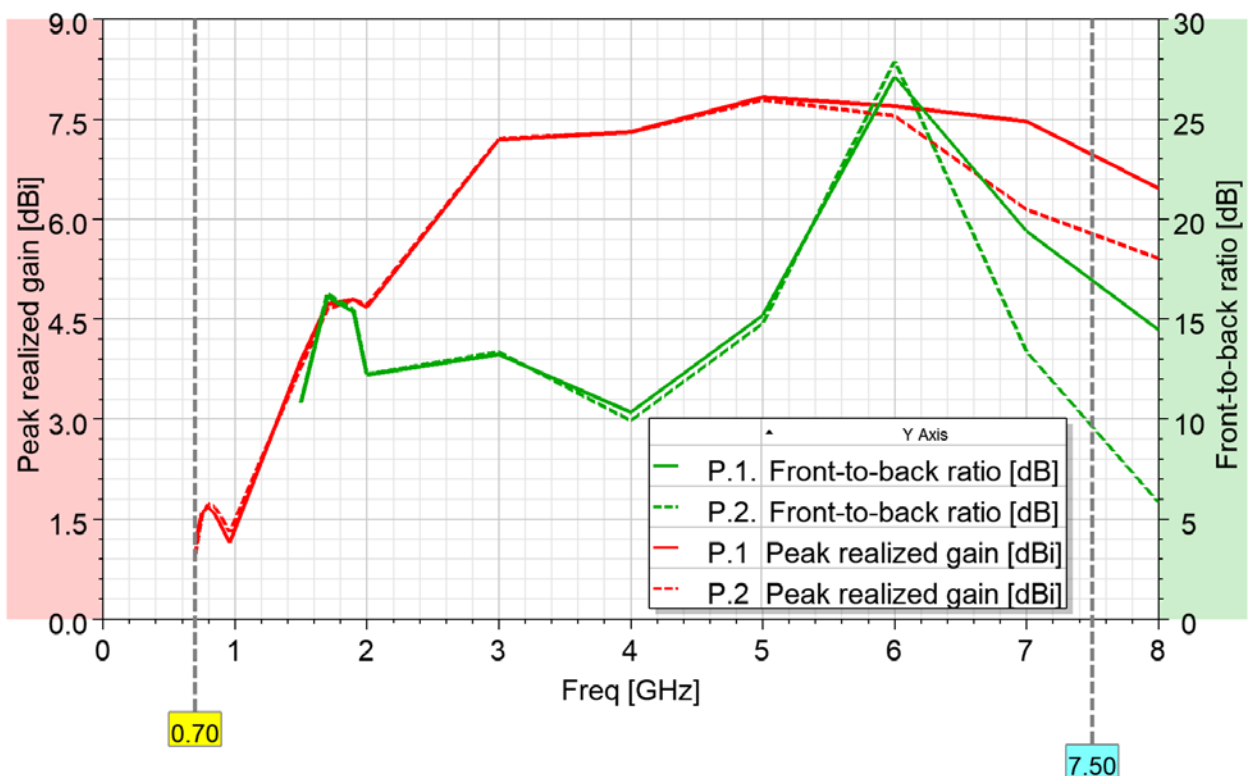
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Decoupling



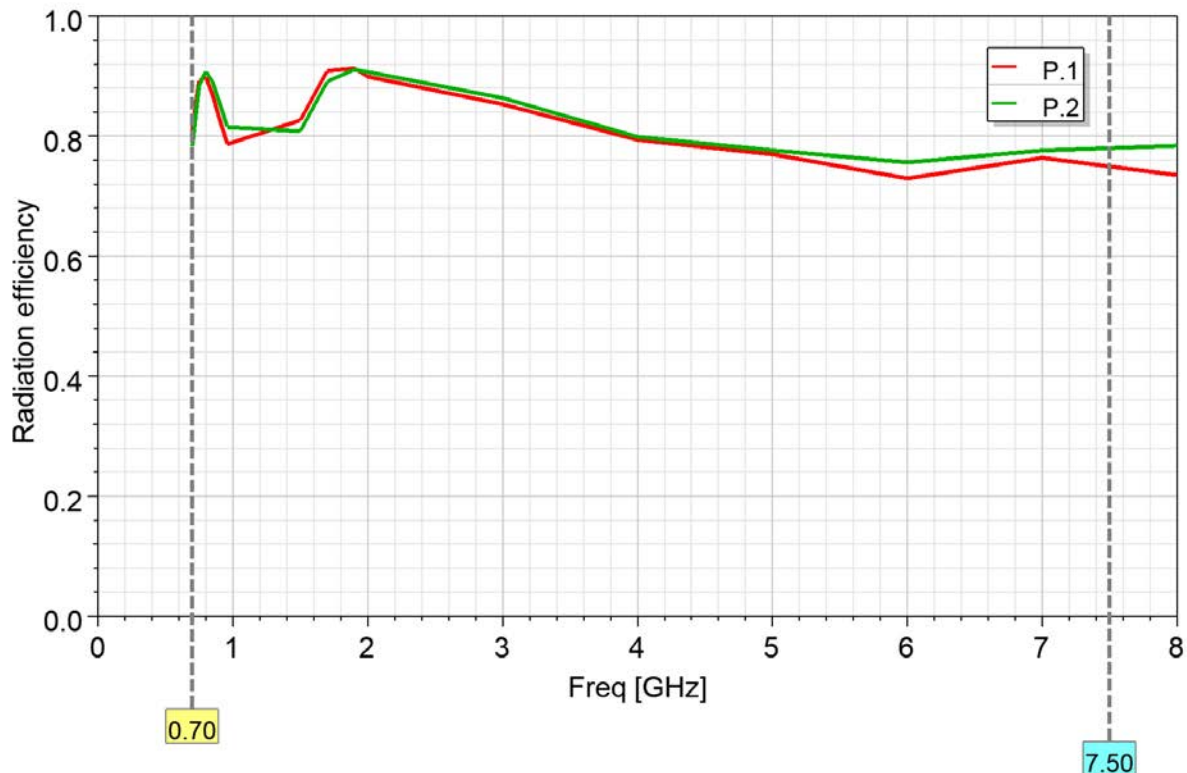
Peak realized gain and front-to-back ratio



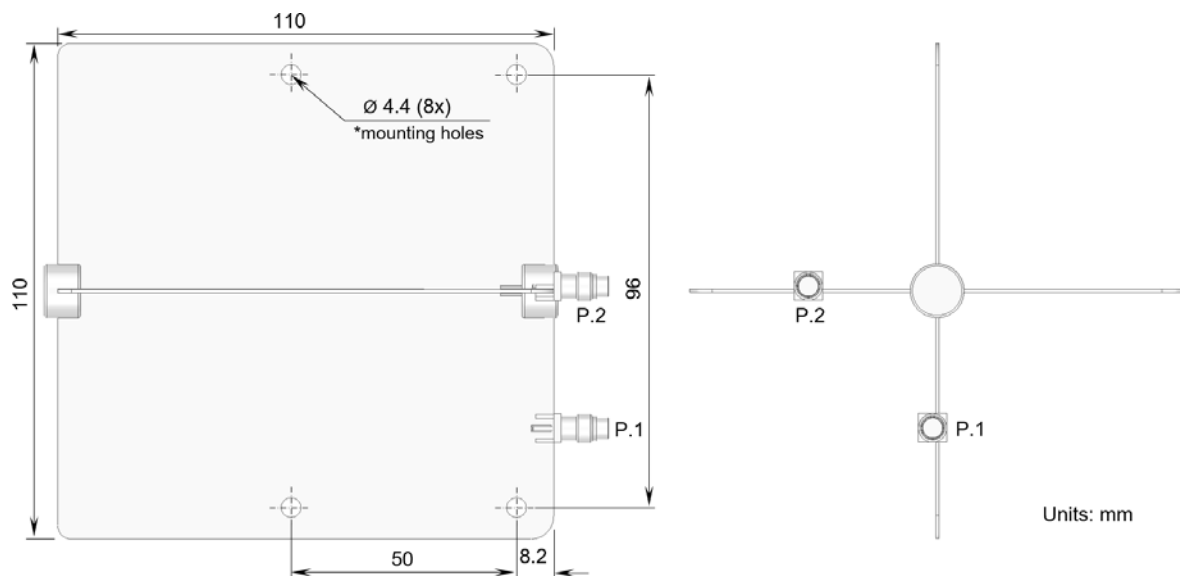
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700...7500 MHz UWB dual-polarized compact antenna (5G, LTE, ISM, IoT, UMTS, GSM, UWB)

Radiation efficiency



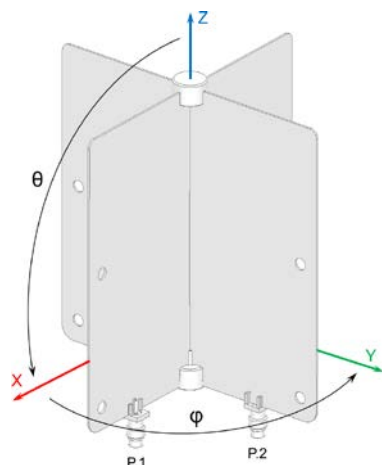
Product dimensions



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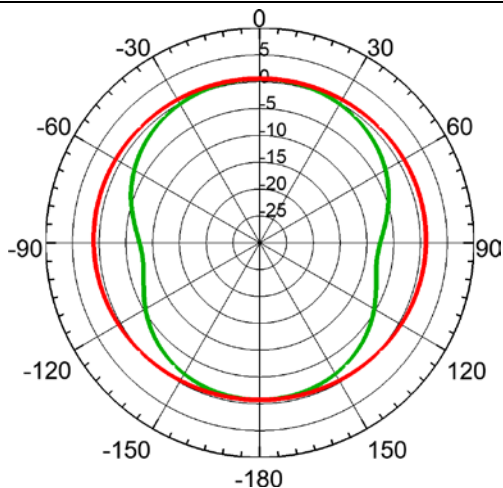
700...7500 MHz UWB dual-polarized compact antenna (5G, LTE, ISM, IoT, UMTS, GSM, UWB)

Radiation pattern

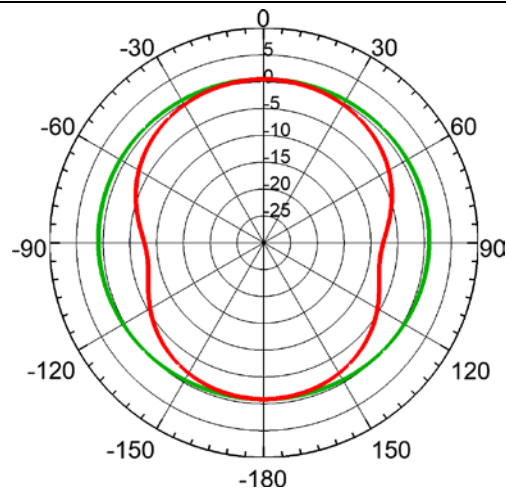


Total realized gain [dBi]
Phi=0°, plane XZ, green curve
Phi=90°, plane YZ, red curve

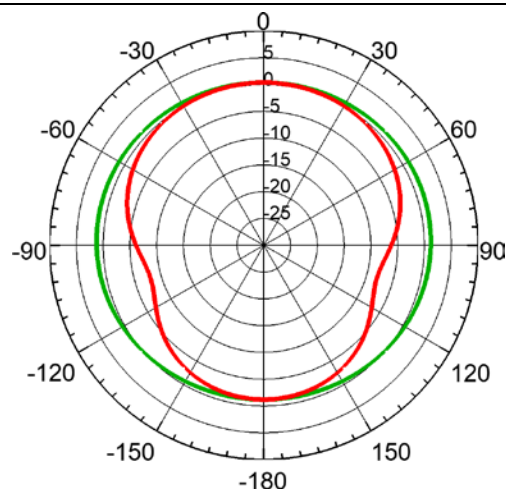
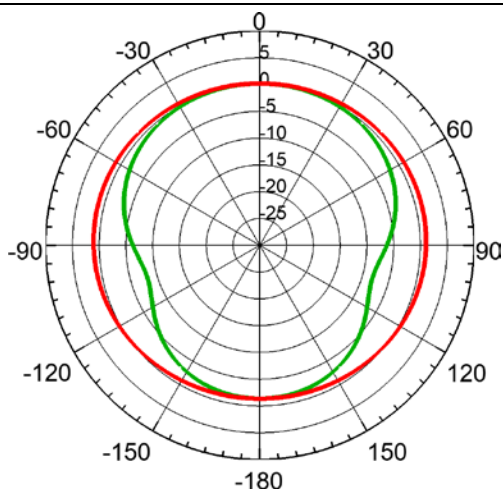
P.1



P.2



700 MHz

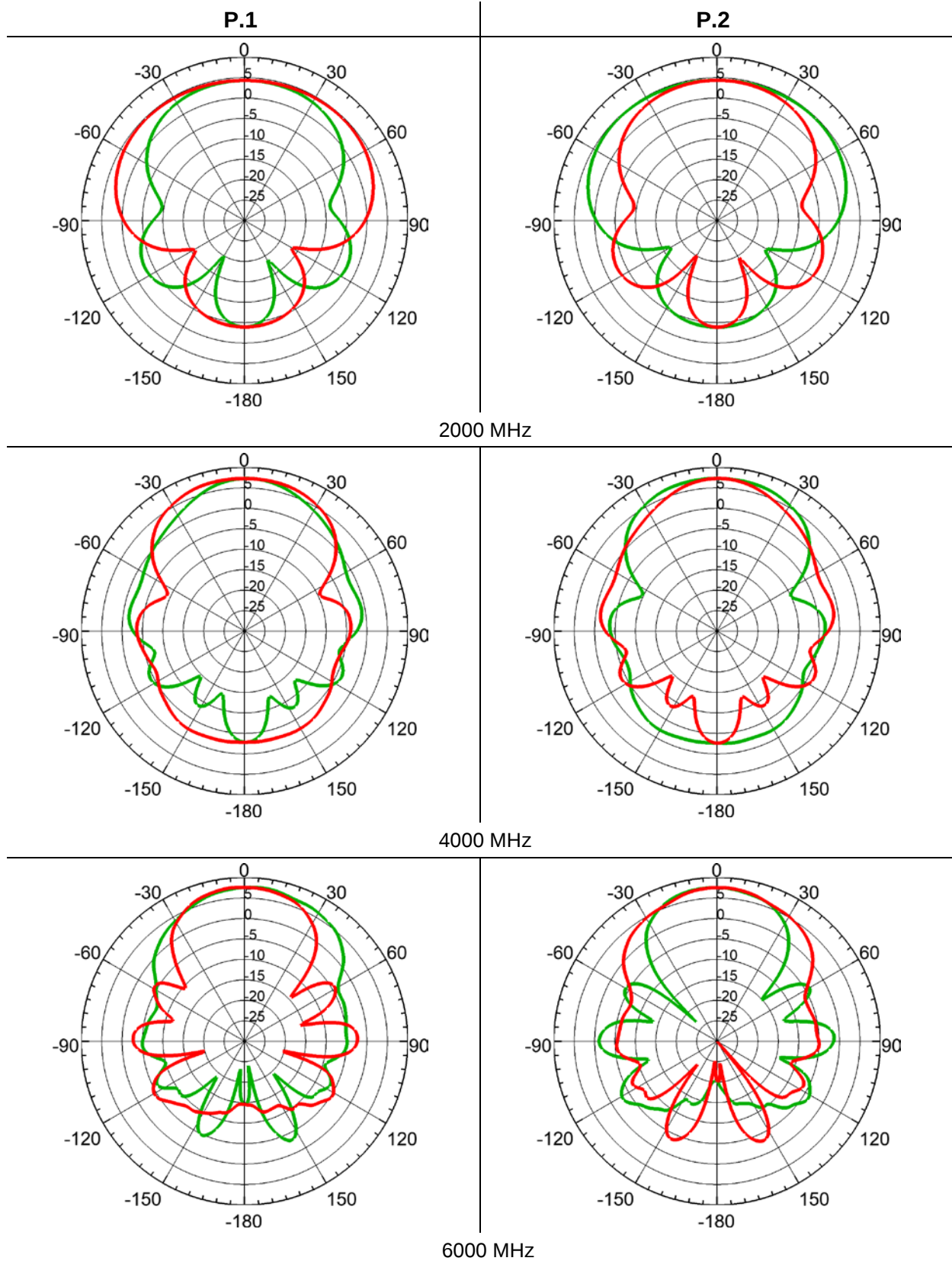


960 MHz

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700...7500 MHz UWB dual-polarized compact antenna (5G, LTE, ISM, IoT, UMTS, GSM, UWB)

Radiation pattern



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700...7500 MHz UWB dual-polarized compact antenna (5G, LTE, ISM, IoT, UMTS, GSM, UWB)

Accessories: antenna holder PH220215-001



General information

Plastic antenna holder for dual-polarized ultra-wideband Vivaldi antenna AN220215-01A.

Mechanical data

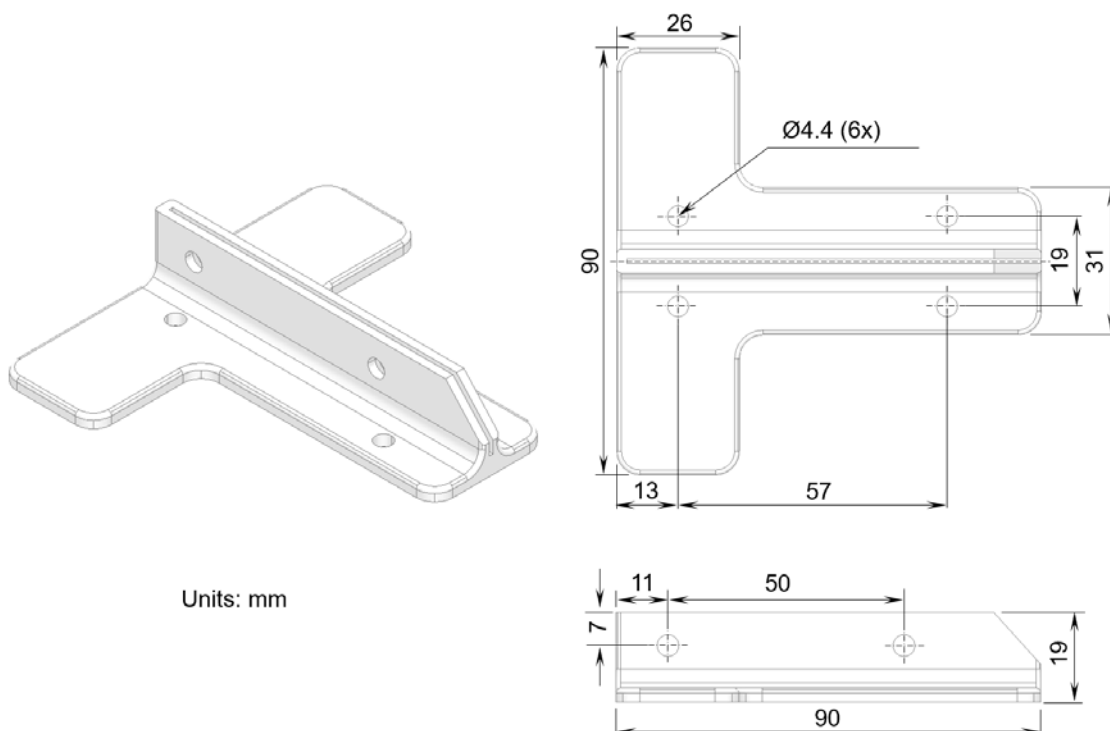
Dimensions [mm]	19 x 90 x 90
Material	plastic
Weight [g]	16

Additional information

Other designs, geometries, colour or materials are possible on request.

The antenna holder is not included and should be purchased separately.

Product dimensions



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