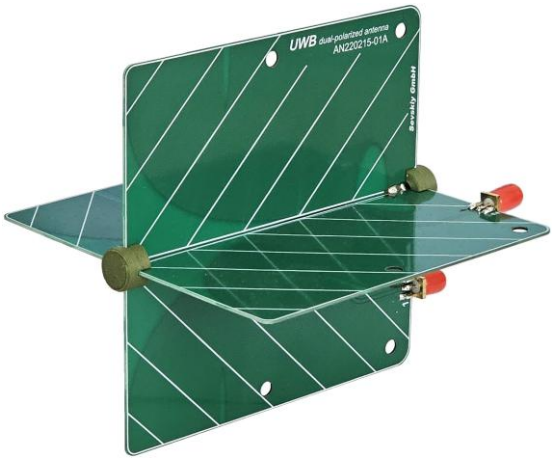
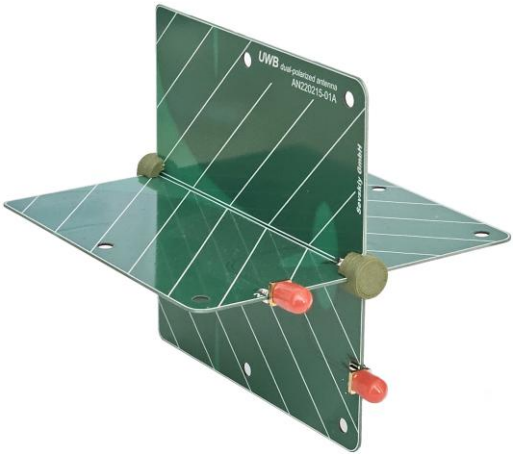
700…7500 MHz UWB dual-polarized compact antenna





General information

Ultra-wideband dual-polarized Vivaldi 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, UMTS, GSM, UWB, GNSS

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]	-8	-10
Peak gain [dBi]	1…4	4...7
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

Environmental data

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

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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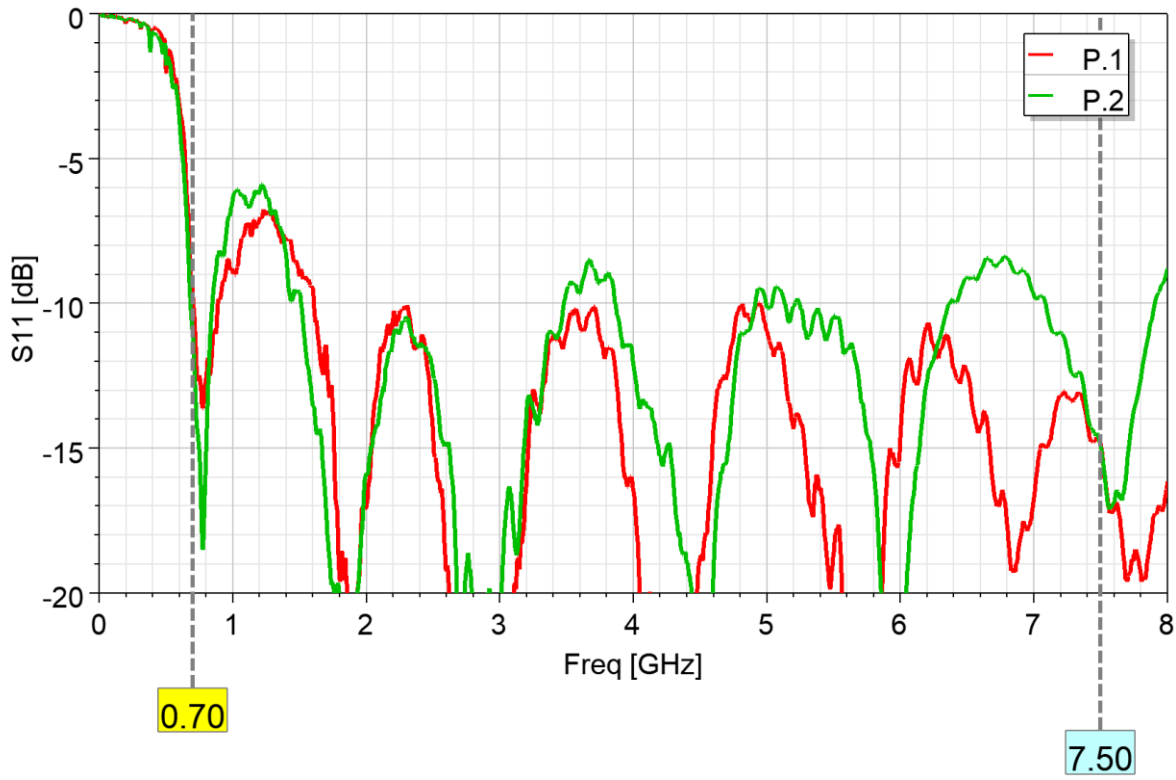
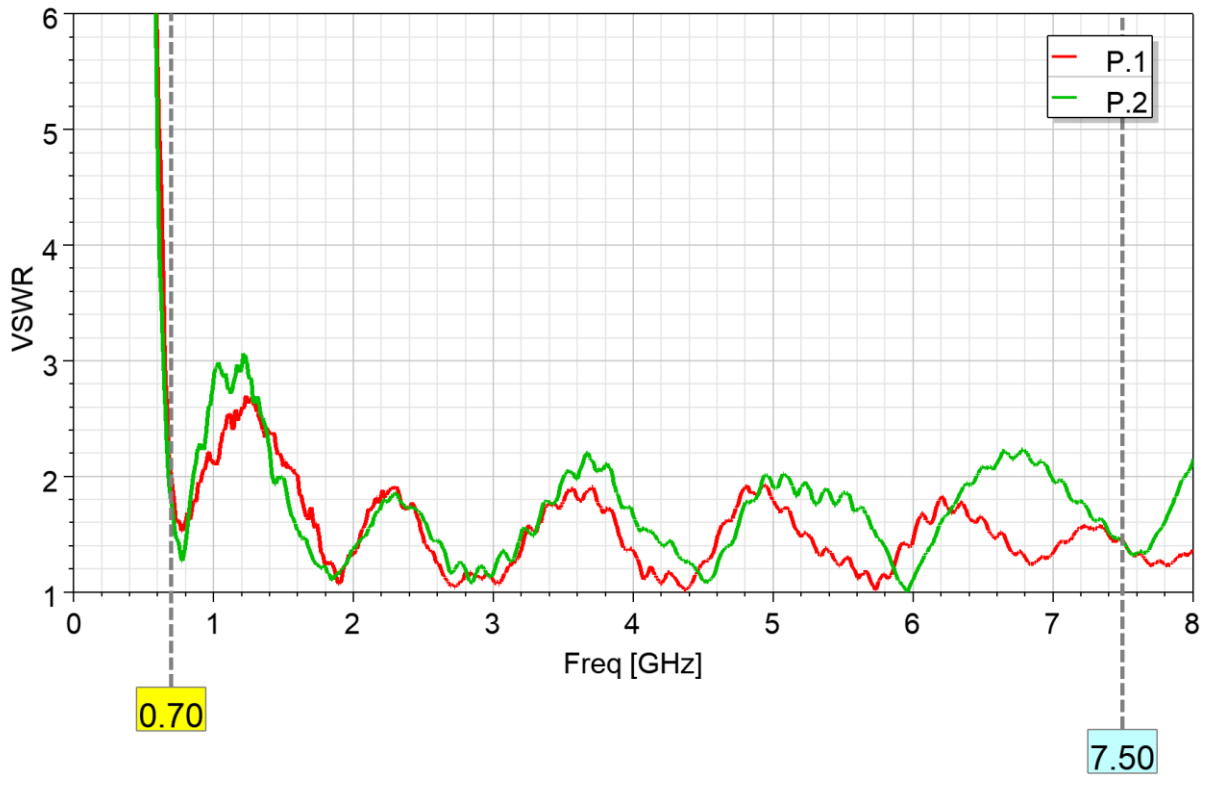
700…7500 MHz UWB dual-polarized compact antenna

Measured input impedance matching



VSWR



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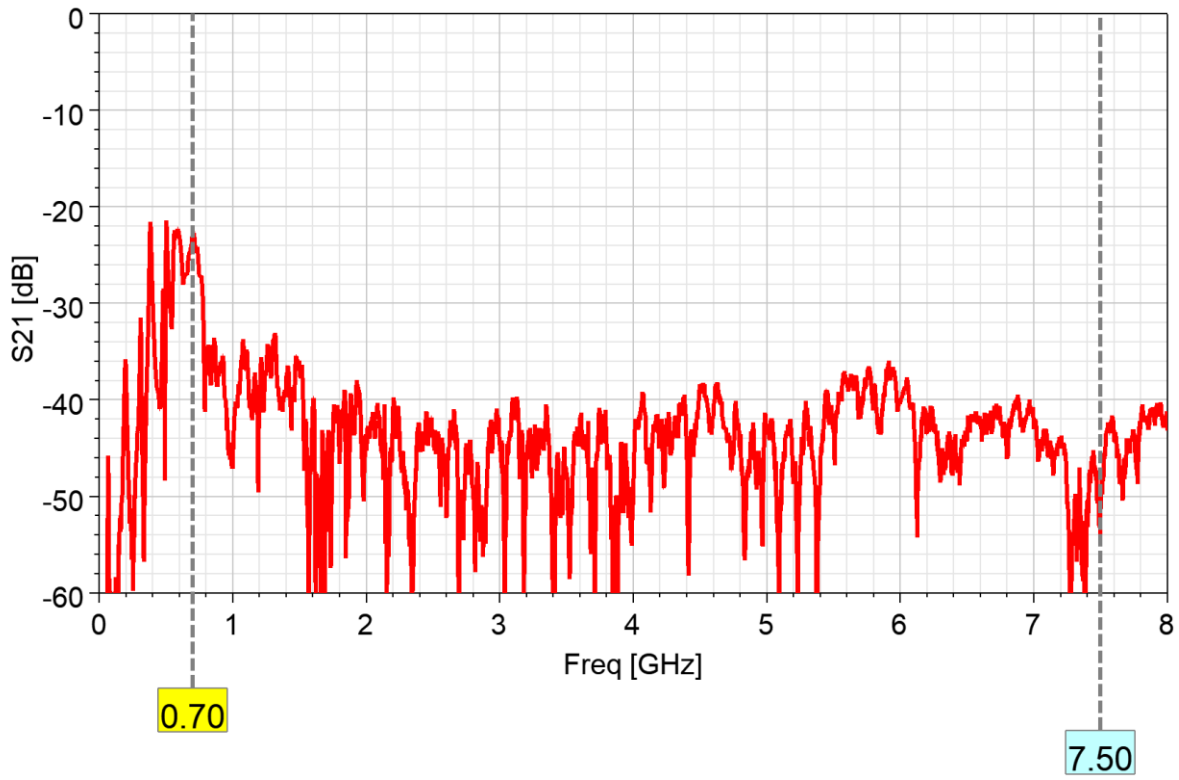
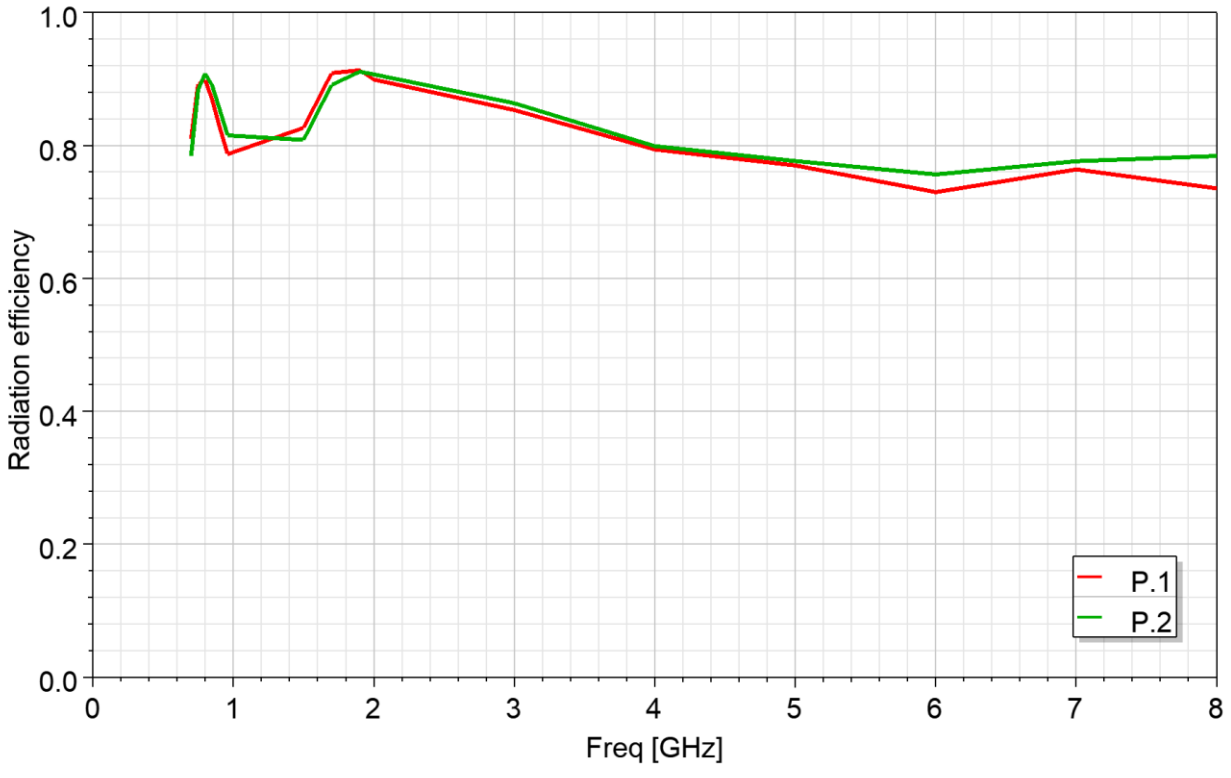
Decoupling



Radiation efficiency



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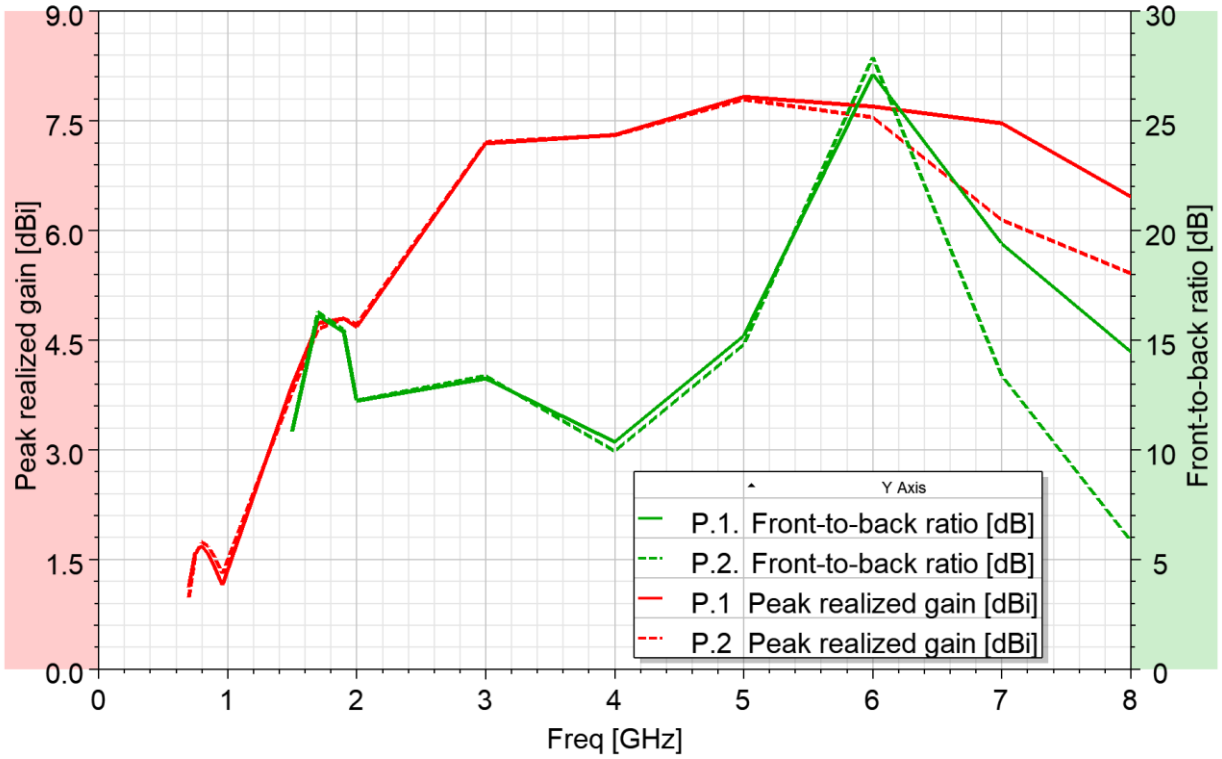
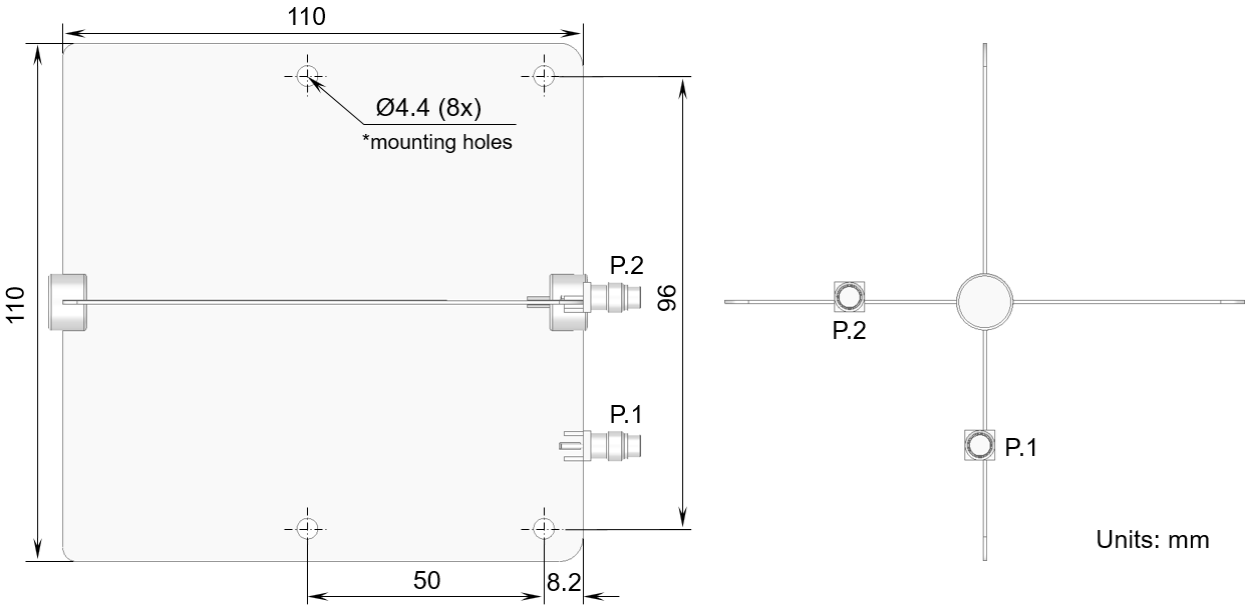
Peak realized gain and front-to-back ratio



Product dimensions



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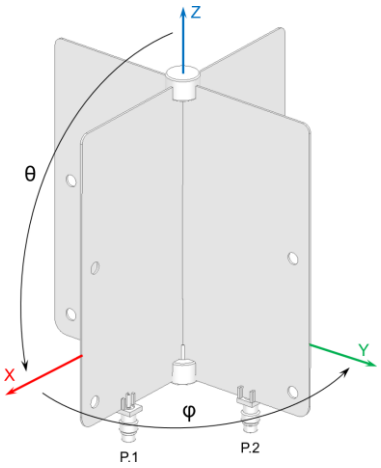
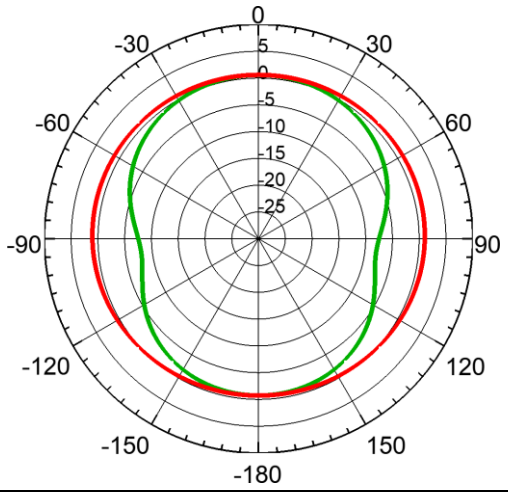
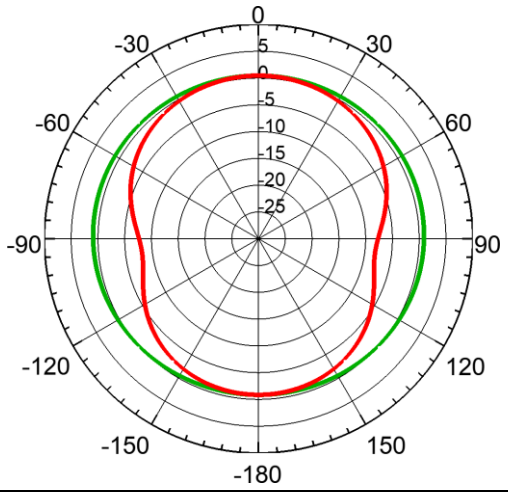
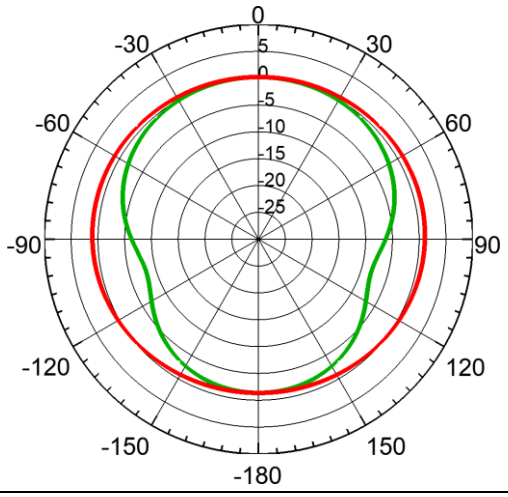
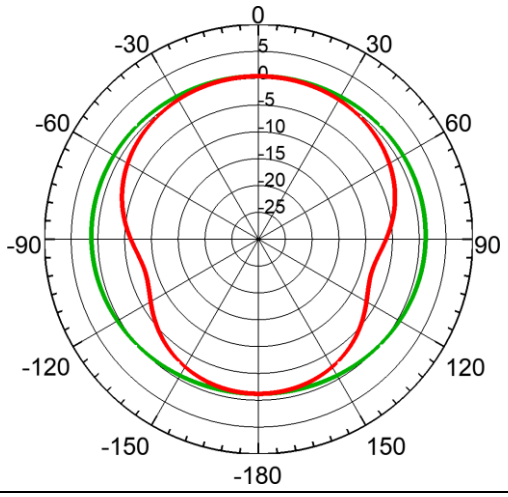
700…7500 MHz UWB dual-polarized compact antenna

Radiation pattern (total realized gain)



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

P.1	P.2
	
f = 700 MHz	
	
f = 960 MHz	

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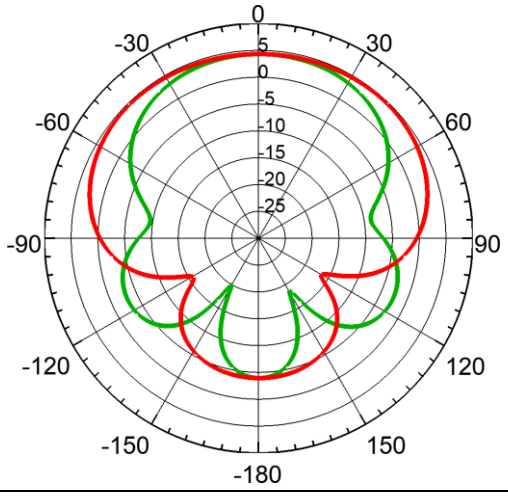
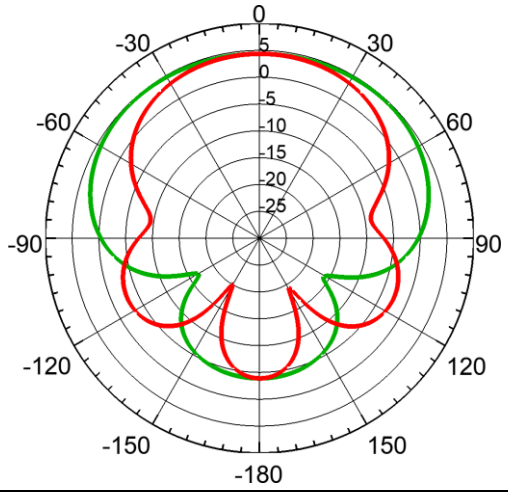
700…7500 MHz UWB dual-polarized compact antenna

Radiation pattern (total realized gain)

P.1	P.2
	
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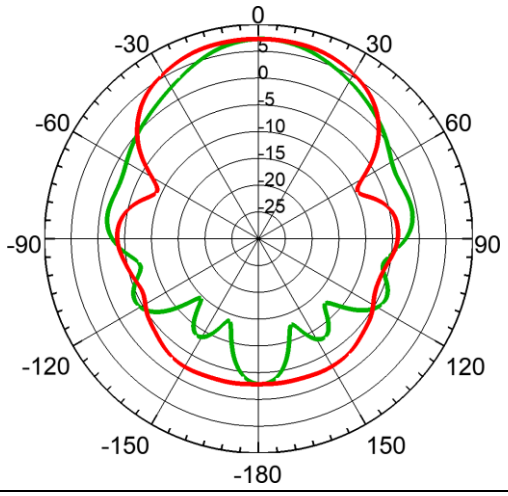
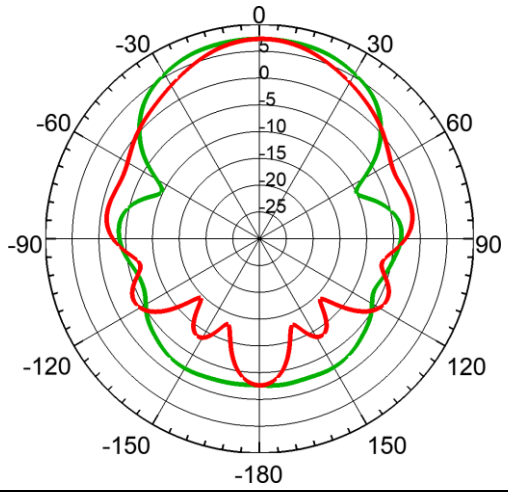
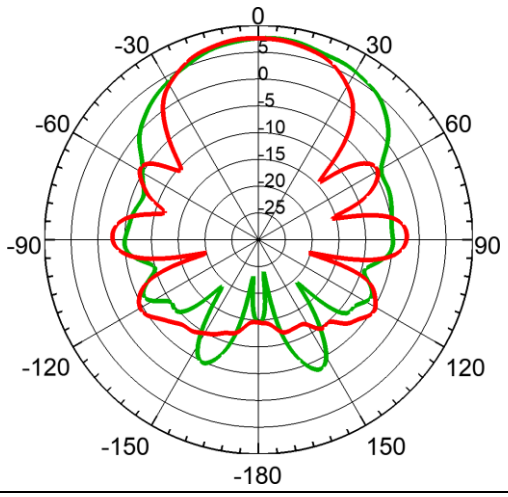
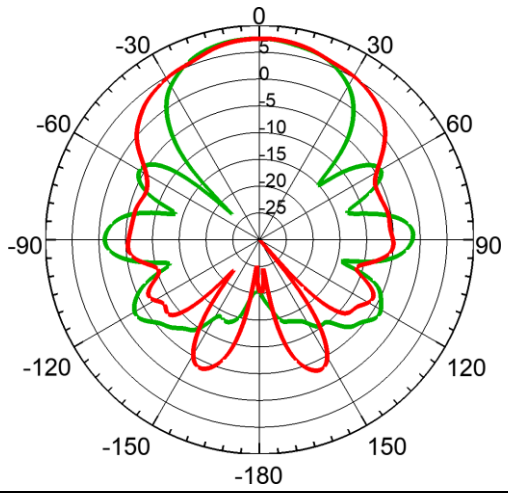
	
f = 4000 MHz	
	
f = 6000 MHz	

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700…7500 MHz UWB dual-polarized compact antenna

Accessories: antenna holder PH220215-001

General information

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

Mechanical data

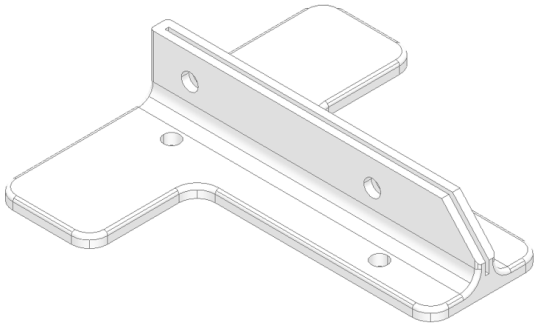
Dimensions [mm]	19 x 90 x 90
Material	plastic
Weight [g]	16

Additional information

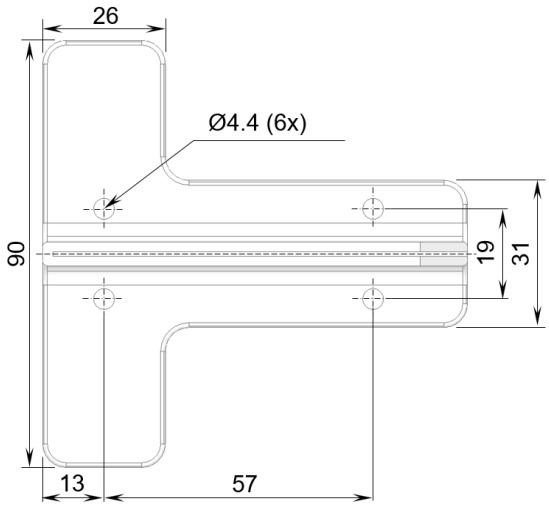
Other designs, geometries, colour or materials are possible on request.

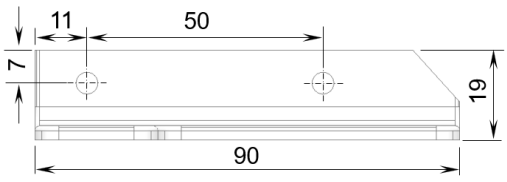
The antenna holder is not included and should be purchased separately.

Product dimensions



Units: mm





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