1200 MHz … 9000 MHz UWB Vivaldi antenna

General information

Planar ultra-wideband (UWB) Vivaldi antenna for various applications including laboratory measurements, spectrum monitoring, remote sensing and control, etc.

Typical applications

ISM, RFID, IoT, LP-WAN, Smart meters, 5G, LTE, UMTS, GSM, UWB

Electrical data

Antenna type	UWB Vivaldi antenna	
Frequency range [MHz]	1200...2170	2170…9000
Return loss [dB]	-10	-8
Peak gain [dBi]	3.9…7.2	7.2...10.4
Radiation efficiency [%]	85…90	45…85
Nominal input impedance [Ohm]	50	
Polarization	linear	
Radiation pattern	directional	
Maximum input power [W]	20	

Mechanical data

Antenna PCB dimensions [mm]	213 x 150 x 1
Connector type	SMA (female)
PCB material	FR4
Weight [g]	55

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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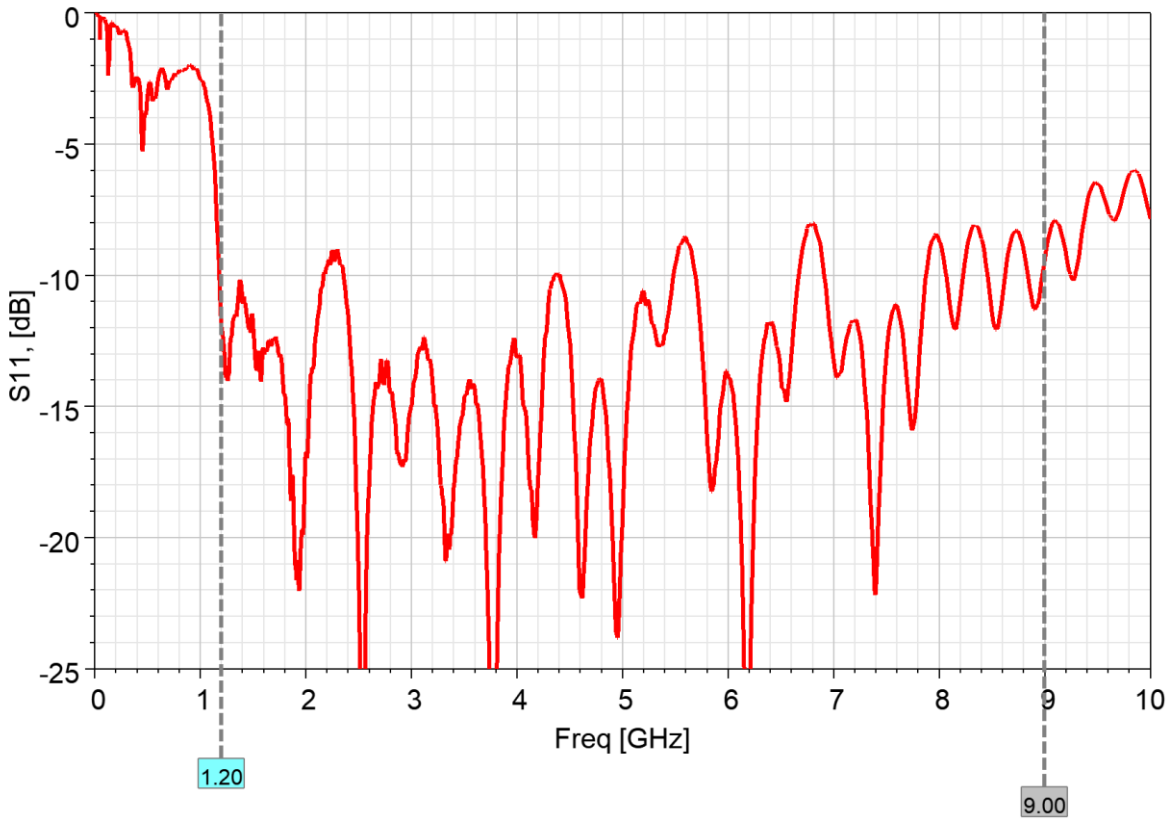
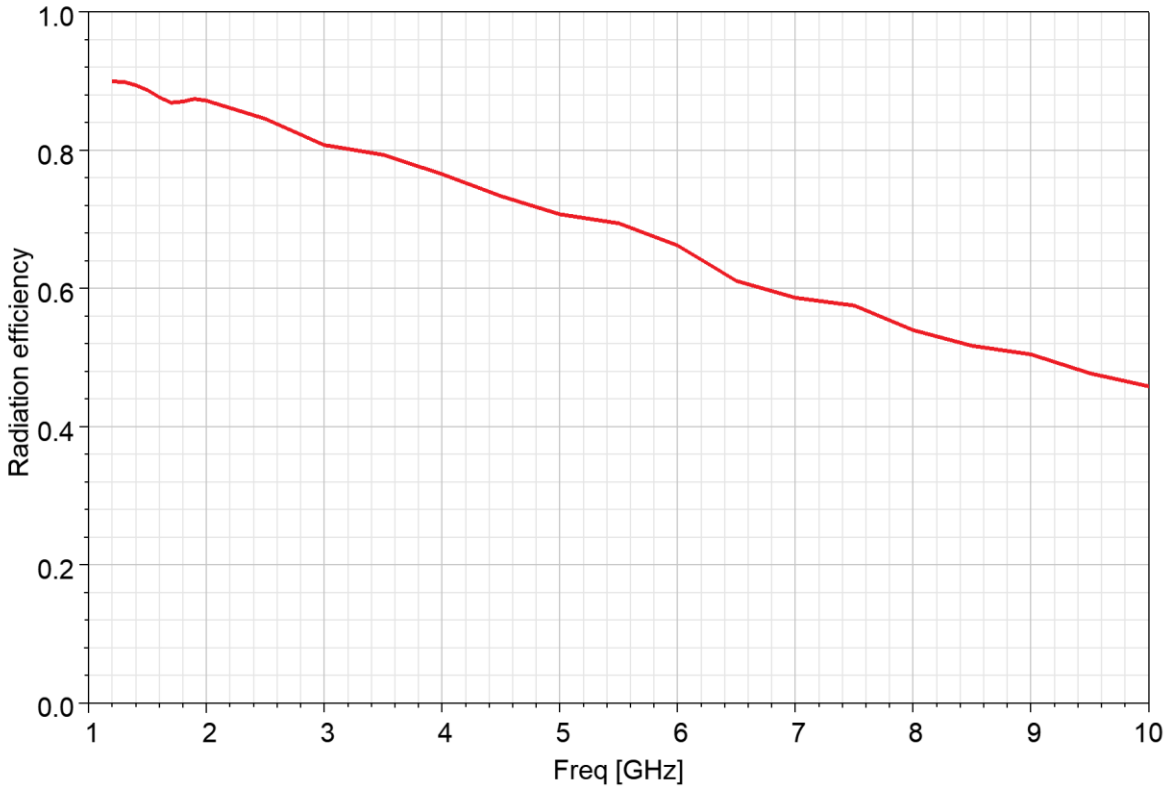
Measured input impedance matching



Radiation efficiency



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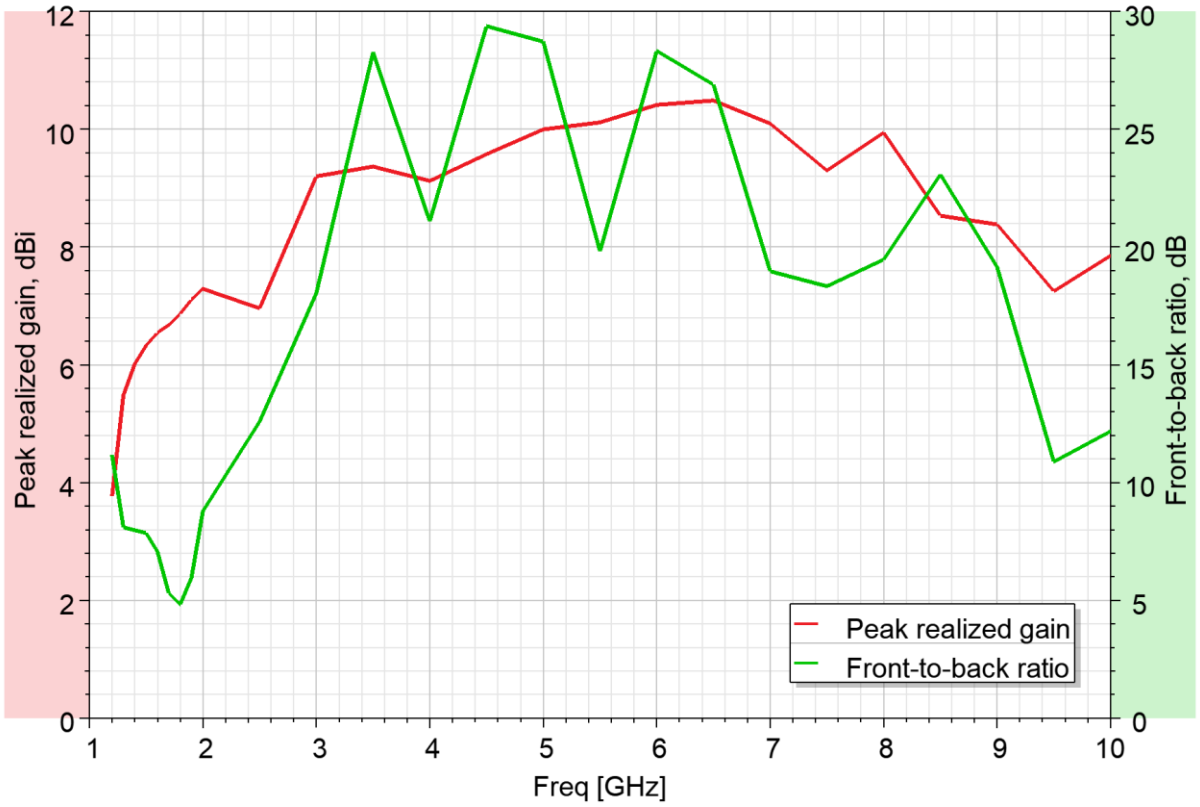
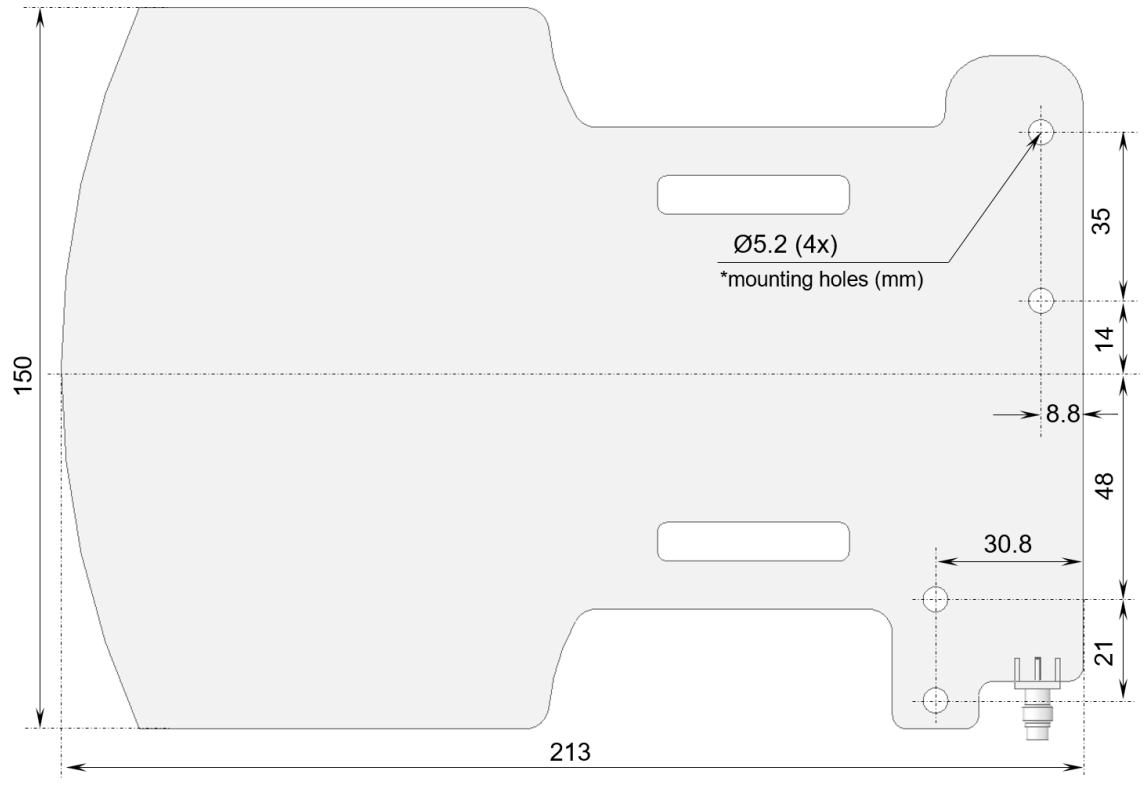
Peak realized gain and front-to-back ratio



Product dimensions



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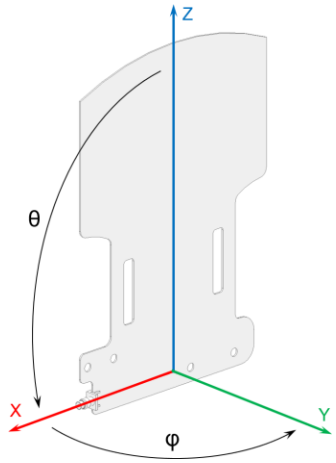
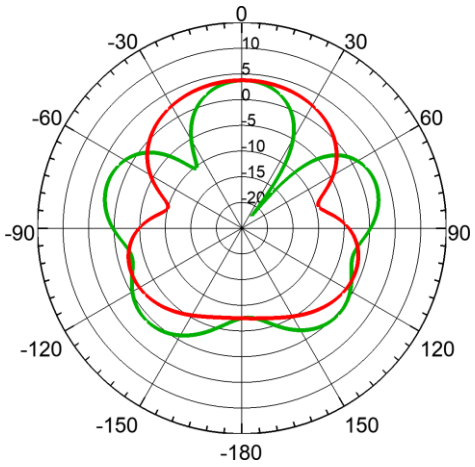
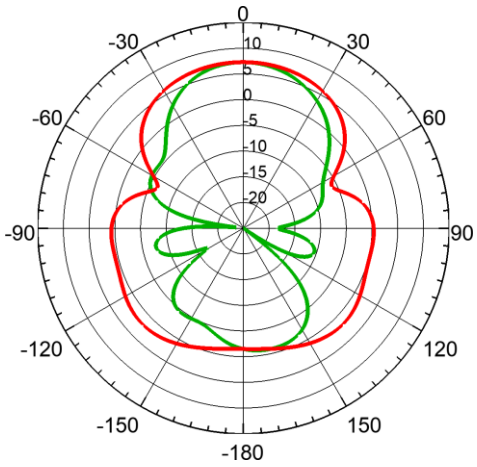
Radiation pattern (total realized gain)



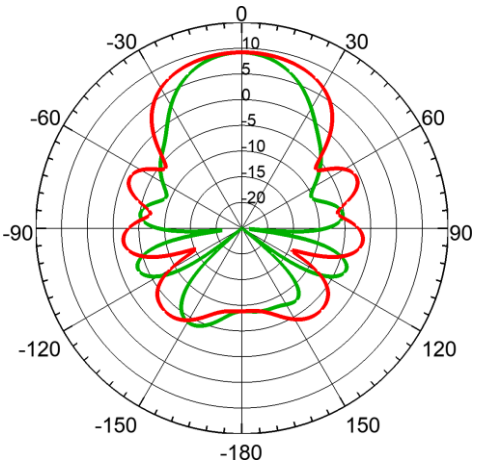
Phi=0°, plane XZ, green curve
Phi=90°, plane YZ, red curve



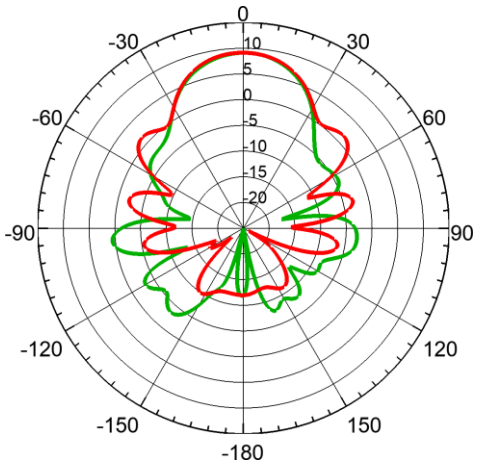
f = 1200 MHz



f = 2000 MHz



f = 3000 MHz



f = 4000 MHz

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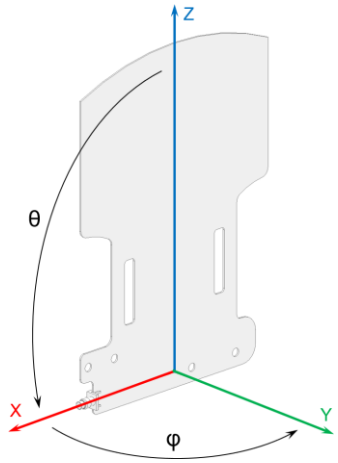
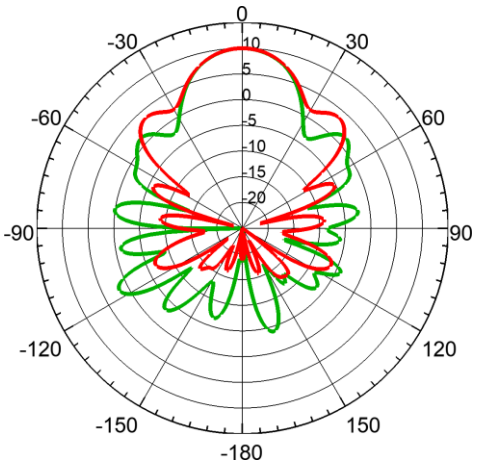
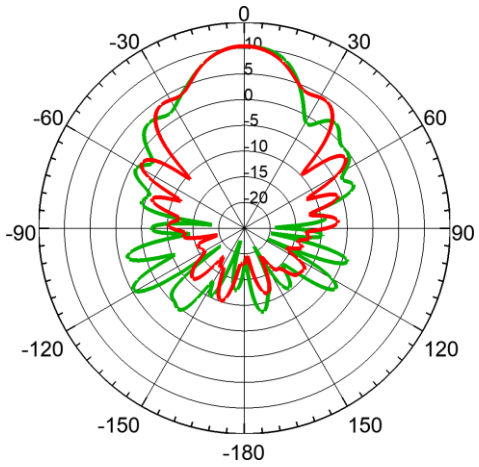
Radiation pattern (total realized gain)



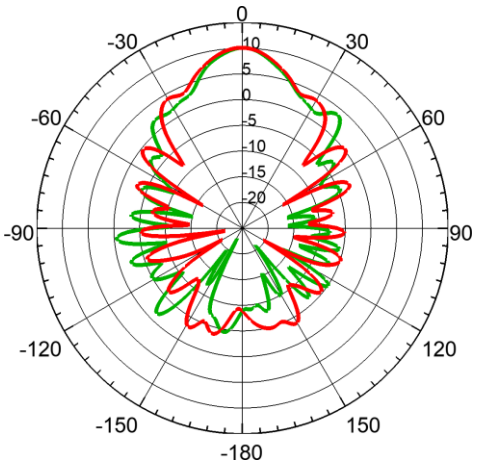
Phi=0°, plane XZ, green curve
Phi=90°, plane YZ, red curve



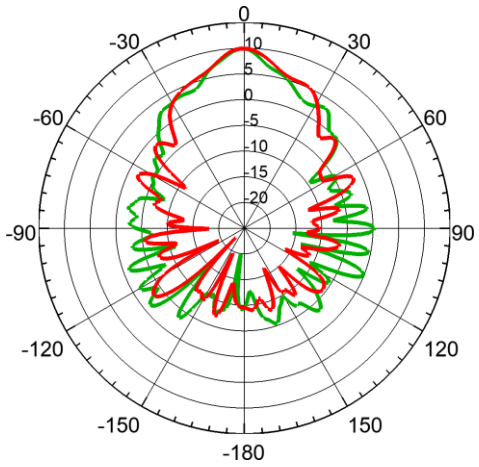
f = 5000 MHz



f = 6000 MHz



f = 7000 MHz



f = 8000 MHz

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