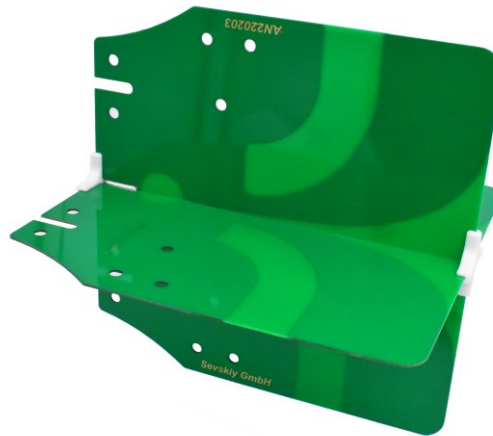


650 MHz ... 9000 MHz UWB dual-polarized Vivaldi antenna



General information

Ultra-wideband dual-polarized 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	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]	650...1600	1600...9000
Return loss [dB]	-10	-9
Peak gain [dBi]	3.6...6.4	6.4...8
Radiation efficiency [%]	83...90	45...83
Nominal input impedance [Ohm]	50	
Polarization	two orthogonal linear	
Radiation pattern	directional	
Maximum input power [W]	10	

Mechanical data

Antenna dimensions [mm]	180.6 x 180.6 x 180.6
Connector type	2 x SMA Female
PCB material	FR4
Weight [g]	150

Environmental data

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

Additional information

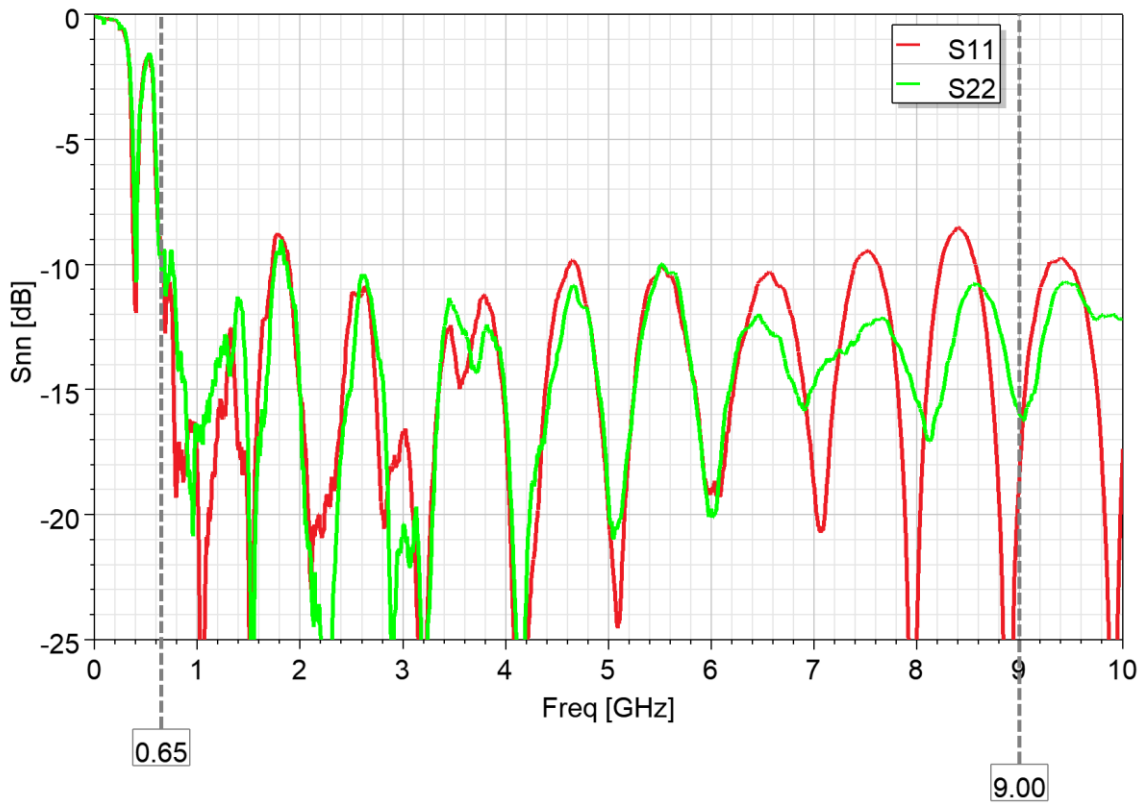
Other mechanical designs, materials or frequency bands are possible on request.

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

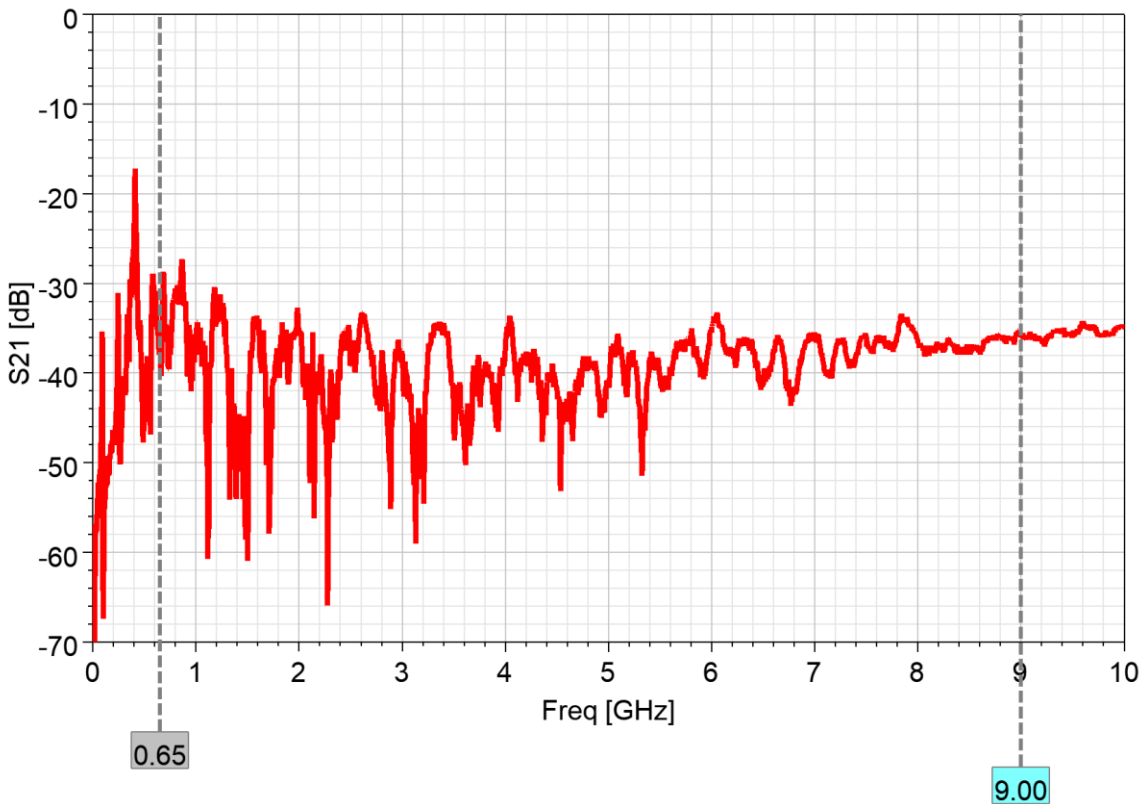
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Input impedance matching



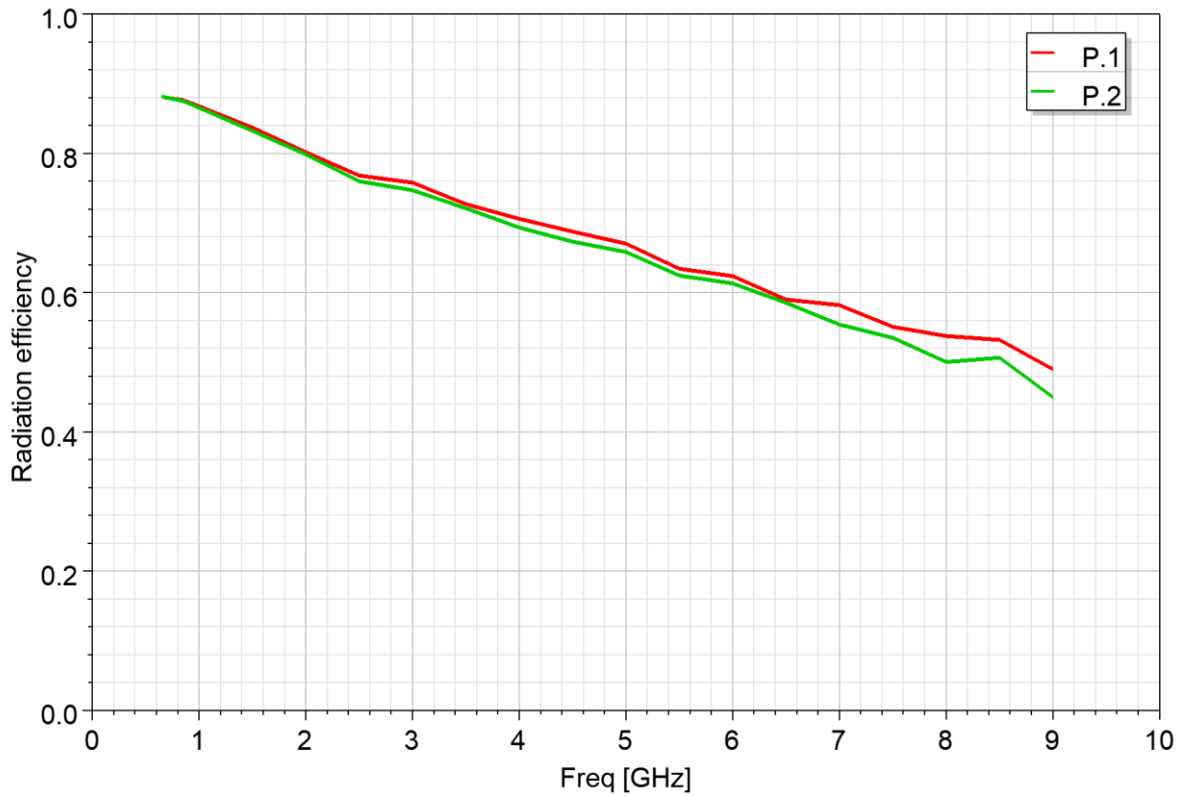
Decoupling



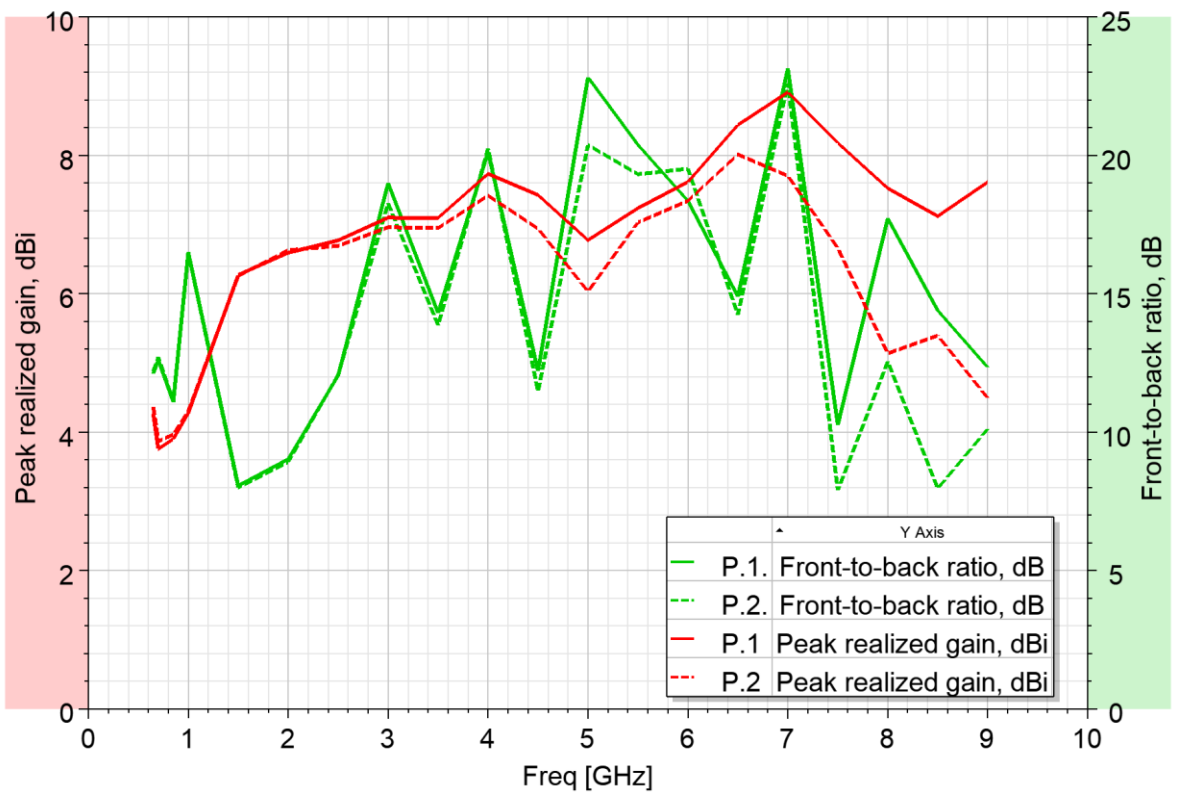
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Radiation efficiency



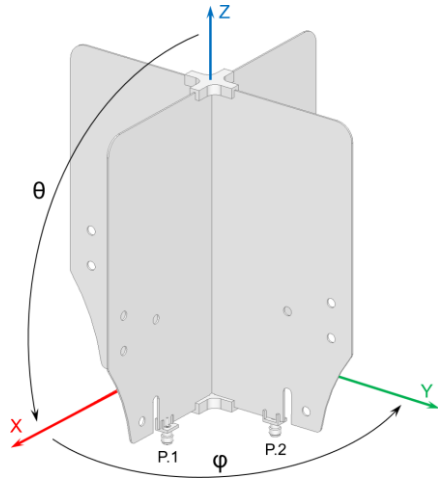
Peak realized gain and front-to-back ratio



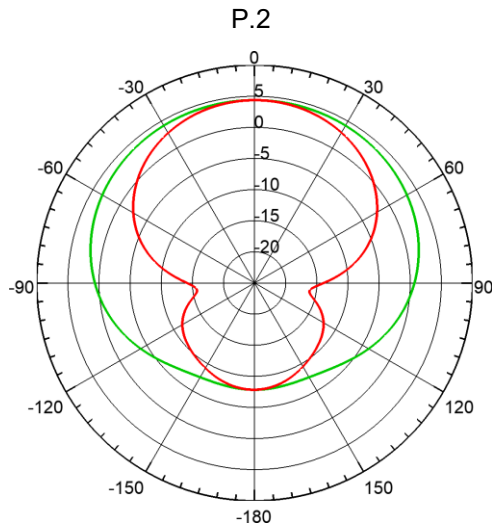
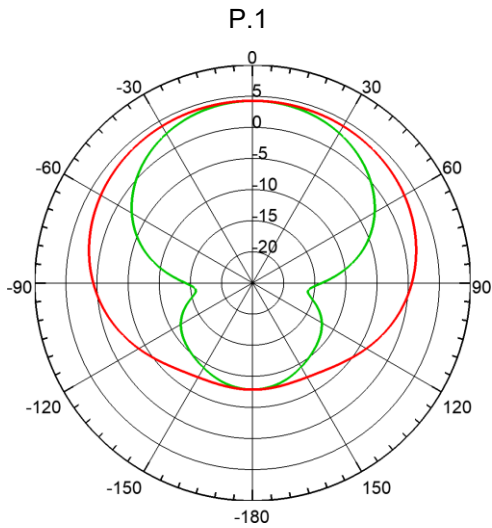
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650 MHz ... 9000 MHz UWB dual-polarized Vivaldi antenna

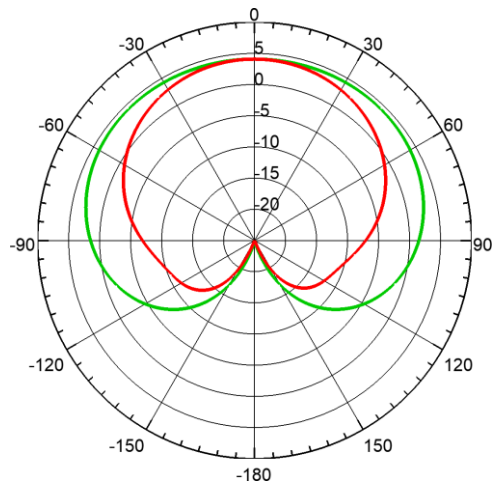
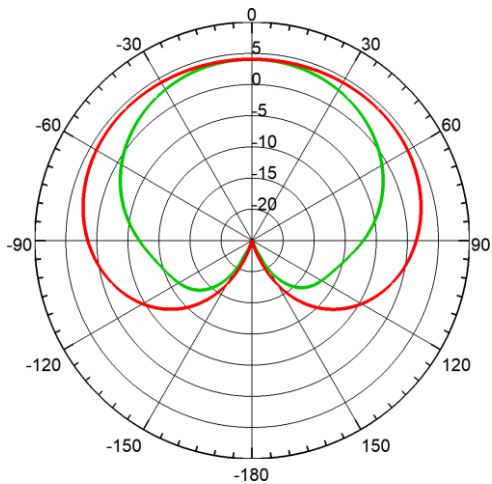
Radiation pattern (total realized gain)



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



f = 650 MHz

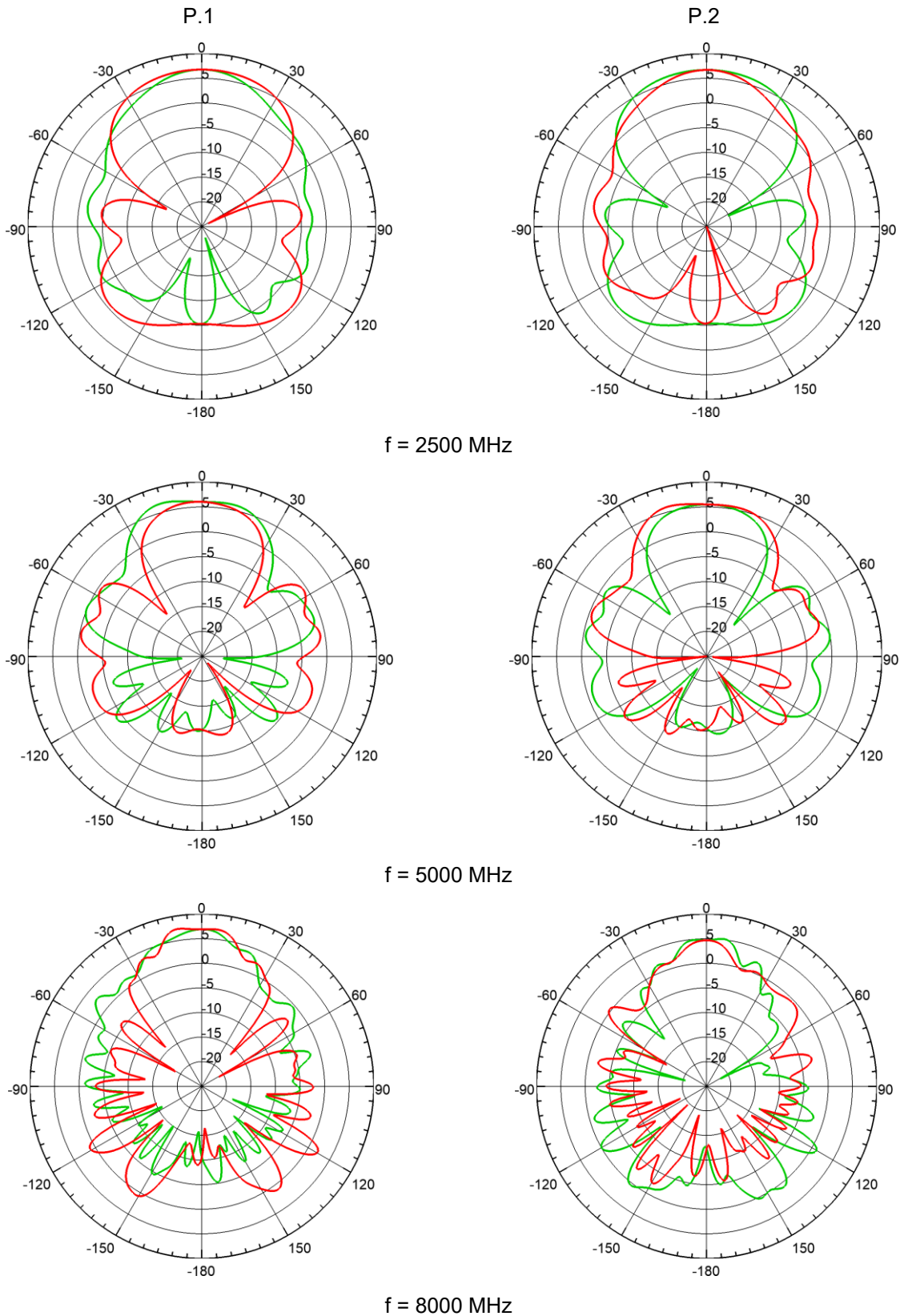


f = 1000 MHz

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650 MHz ... 9000 MHz UWB dual-polarized Vivaldi antenna

Radiation pattern (total realized gain)



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