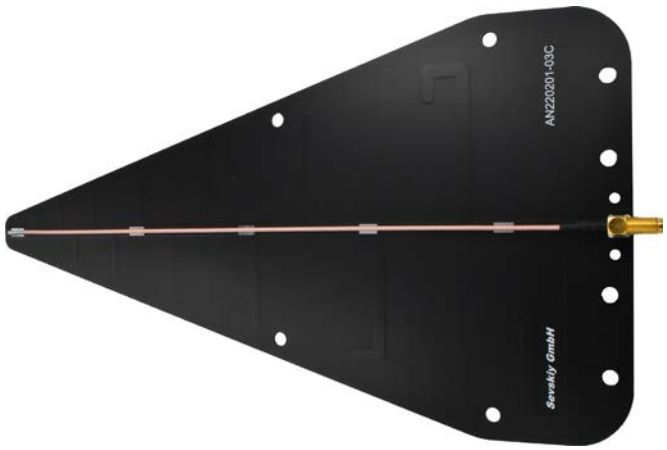
750…9000 MHz UWB log-periodic antenna (5G, LTE, ISM, UMTS, GSM, UWB)



General information

The AN220201-03C is a planar ultra-wideband log-periodic antenna designed to provide stable directional performance over a very wide frequency range from 750 to 9000 MHz. The antenna supports multiple wireless standards and services, LTE, GSM, UMTS, ISM, UWB, and sub-6 GHz 5G, making it suitable for modern broadband communication and measurement applications.

The log-periodic architecture provides broadband impedance matching and predictable radiation behavior across the entire operating band. Its directional radiation pattern enhances signal discrimination, reduces susceptibility to unwanted interference, and supports reliable operation in dense and challenging RF environments. Typical applications include spectrum monitoring systems, RF measurement and calibration equipment, EMC/EMI testing, laboratory instrumentation, wireless communication testing, industrial RF diagnostics, research and development platforms, as well as UAV communication and control applications.

The planar PCB construction with an SMA connector allows straightforward integration into test setups, monitoring devices, and compact RF systems.

Electrical data

Antenna type	Log-periodic antenna	
5G bands	1, 2, 3, 5, 8, 18, 25, 26, 34, 39, 65, 66, 70, 80 - 82, 84, 86, 89, 95, 98	
4G bands	1 - 6, 8 -10, 18 - 20, 23, 25 - 27, 33 - 37, 39, 65, 66, 70	
Frequency range [MHz]	750...1500	1500…9000
Return loss [dB]	-8	-7
Peak gain [dBi]	1.5…5	5...6
Radiation efficiency [%]	65…75	45…65
Nominal input impedance [Ohm]	50	
Polarization	linear	
Radiation pattern	directional	
Maximum input power [W]	5	

Mechanical data

Antenna dimensions [mm]	262 x 150 x 1.6
Connector type	SMA Female 4-Pin Right Angle PCB Mount
Material	FR-4
Weight [g]	85

Additional information

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

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

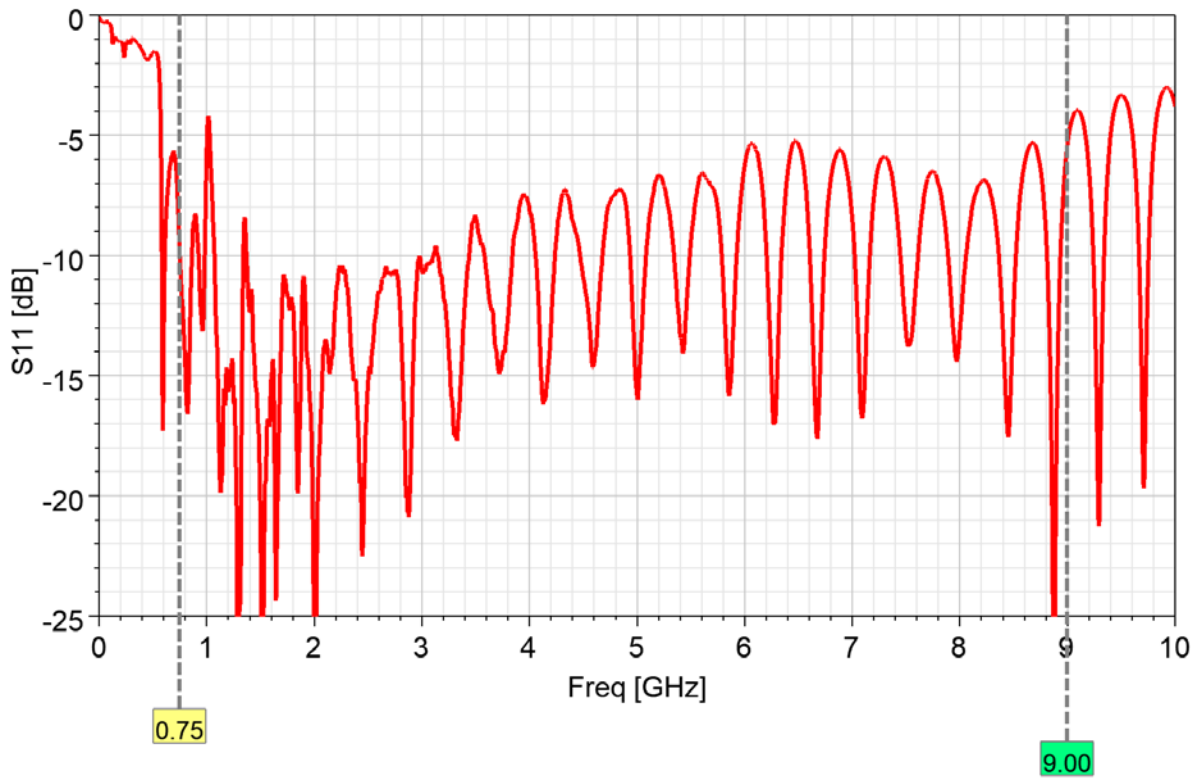
Sevskiy GmbH, CEO: Dr. Sergey Sevskiy
Office: Schatzbogen 43, Munich, Germany

Tel.: +49 89 38-90-7229
Fax: +49 89 38-90-7230

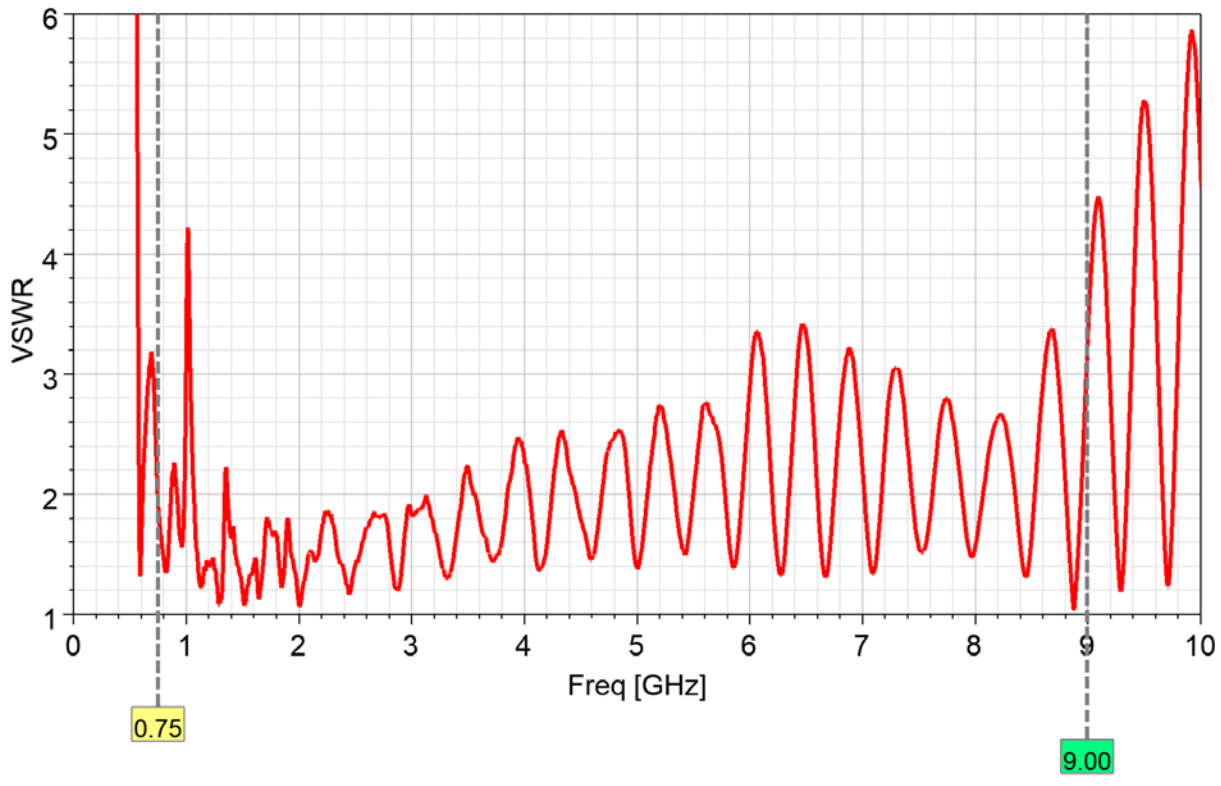
E-Mail: sergey@sevskiy.de
Internet: www.sevskiy.com

750…9000 MHz UWB log-periodic antenna (5G, LTE, ISM, UMTS, GSM, UWB)

Measured input impedance matching



VSWR



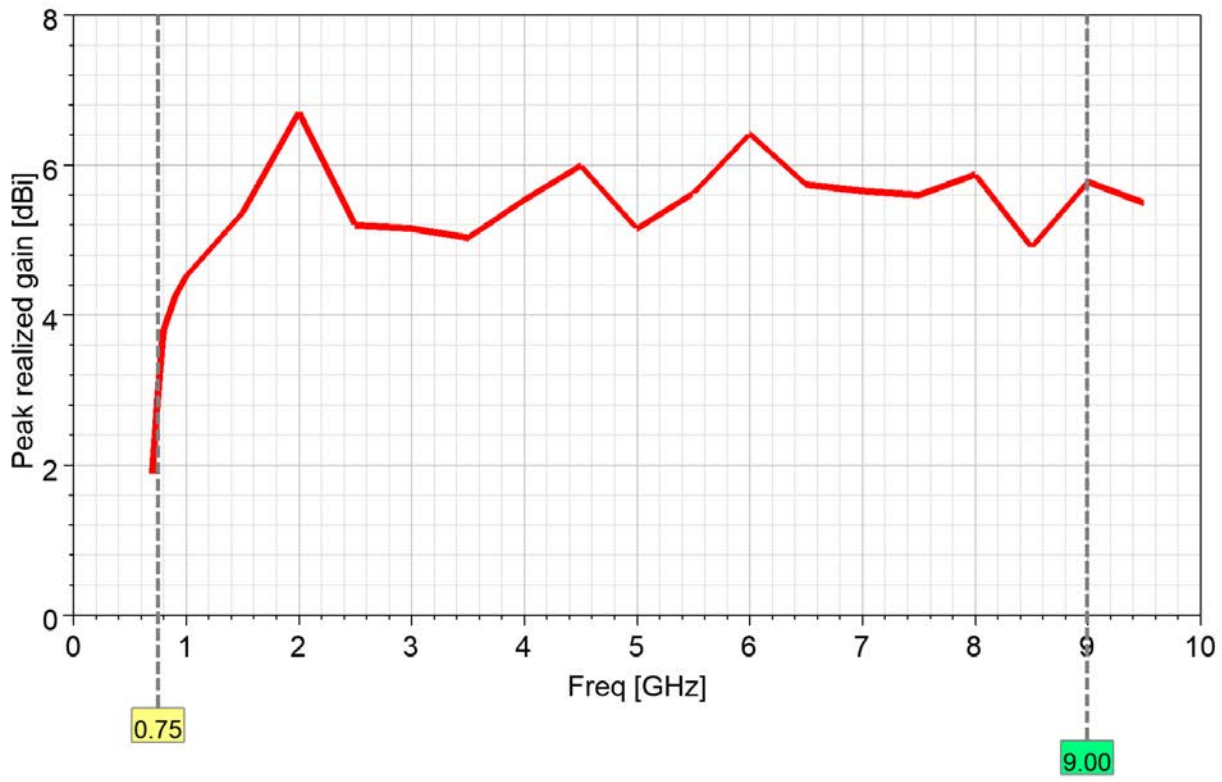
Sevskiy GmbH, CEO: Dr. Sergey Sevskiy
Office: Schatzbogen 43, Munich, Germany

Tel.: +49 89 38-90-7229
Fax: +49 89 38-90-7230

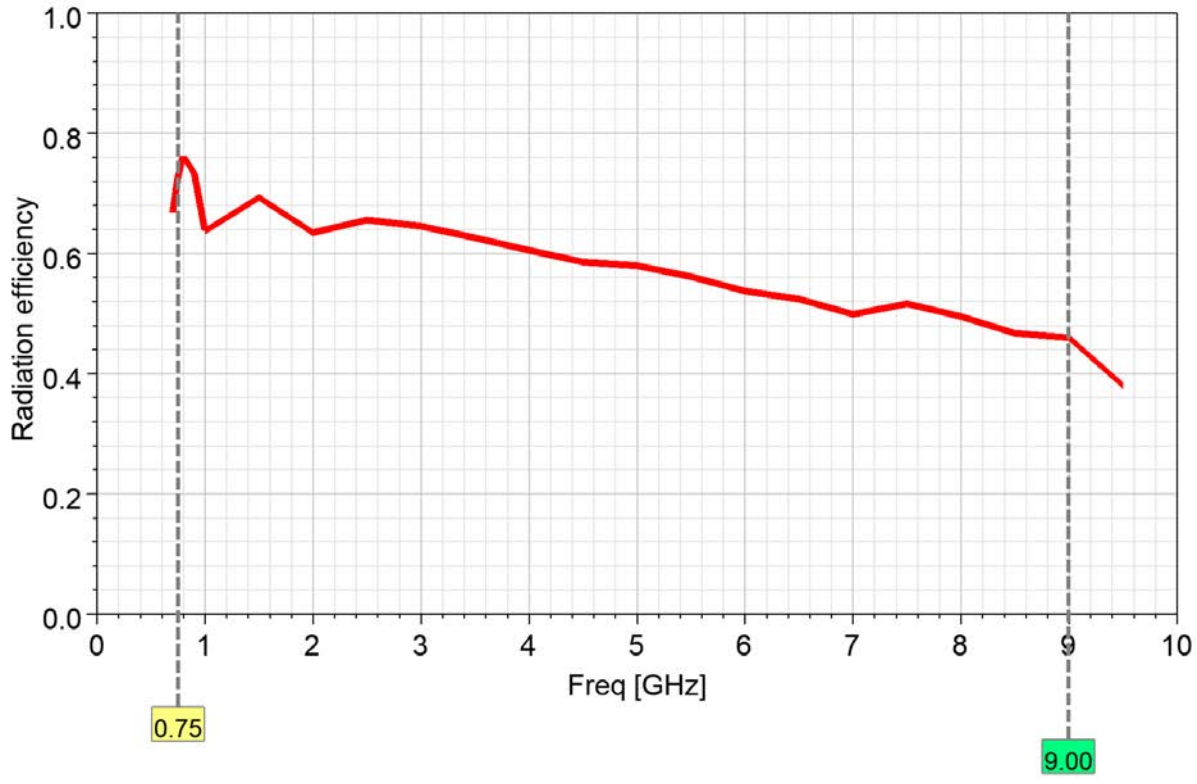
E-Mail: sergey@sevskiy.de
Internet: www.sevskiy.com

750…9000 MHz UWB log-periodic antenna (5G, LTE, ISM, UMTS, GSM, UWB)

Peak realized gain



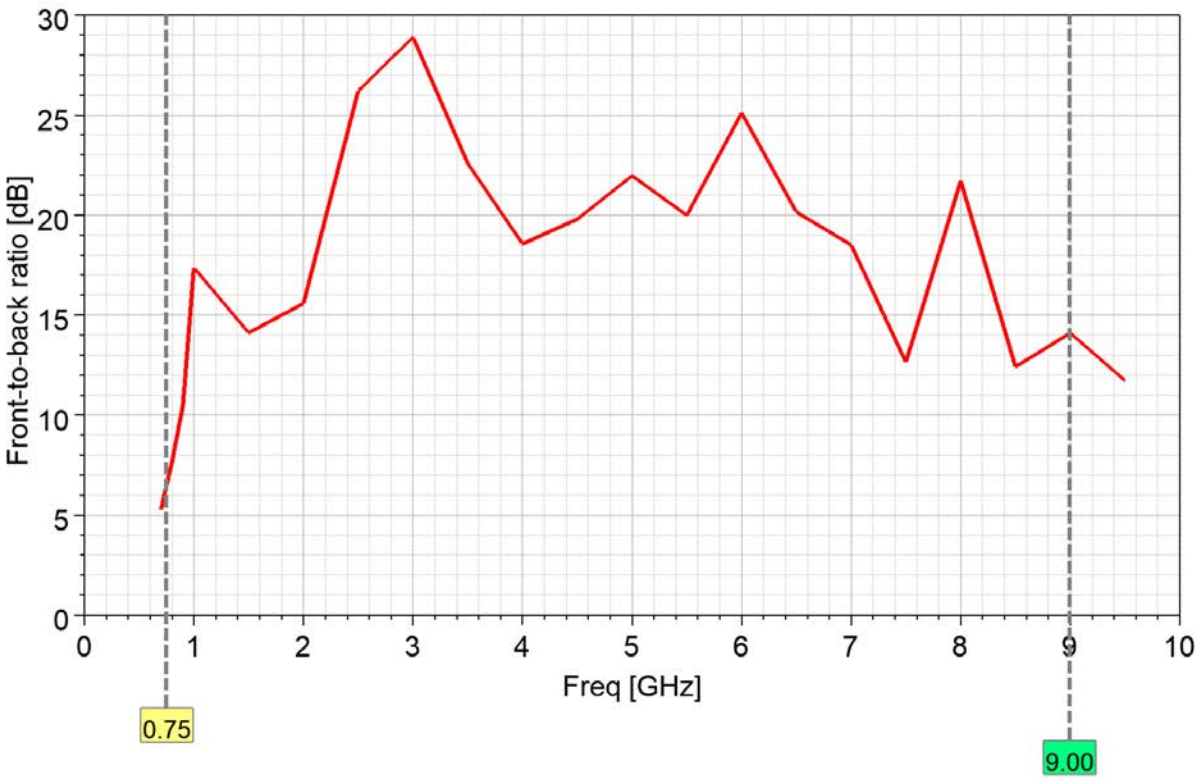
Radiation efficiency



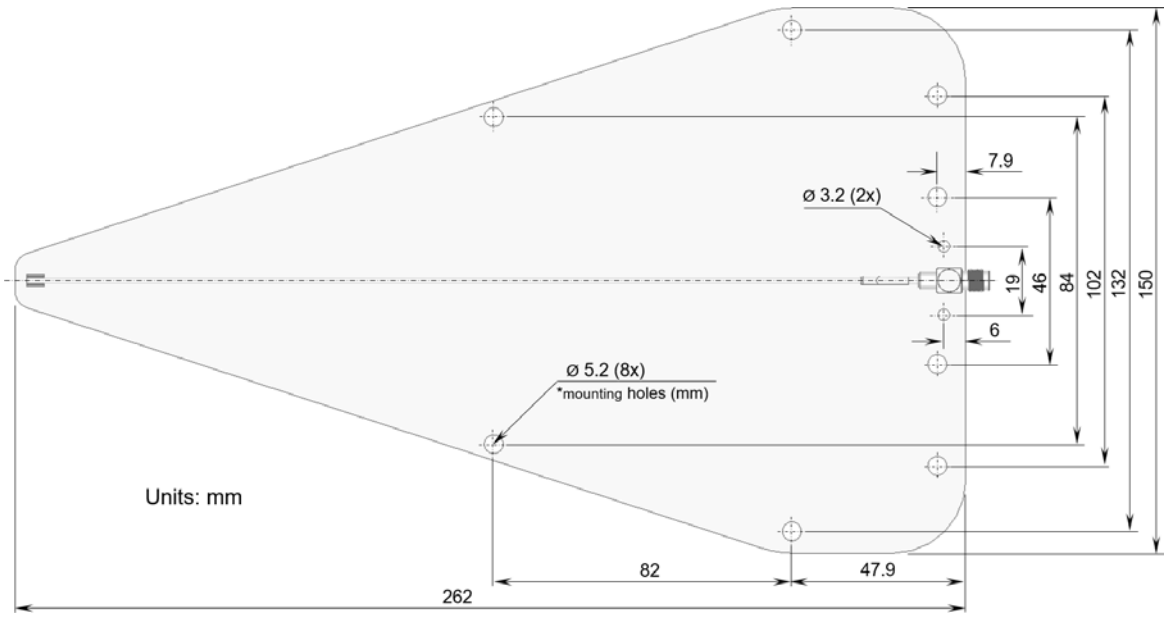
Sevskiy GmbH, CEO: Dr. Sergey Sevskiy
Office: Schatzbogen 43, Munich, Germany
Tel.: +49 89 38-90-7229
Fax: +49 89 38-90-7230
E-Mail: sergey@sevskiy.de
Internet: www.sevskiy.com

750…9000 MHz UWB log-periodic antenna (5G, LTE, ISM, UMTS, GSM, UWB)

Front-to-back ratio



Product dimensions



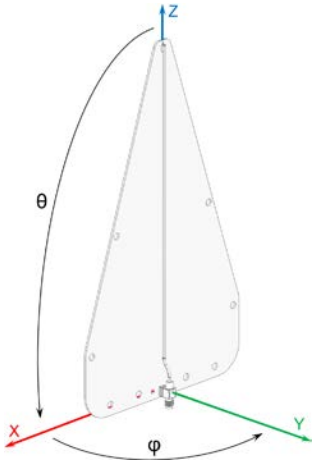
Sevskiy GmbH, CEO: Dr. Sergey Sevskiy
Office: Schatzbogen 43, Munich, Germany

Tel.: +49 89 38-90-7229
Fax: +49 89 38-90-7230

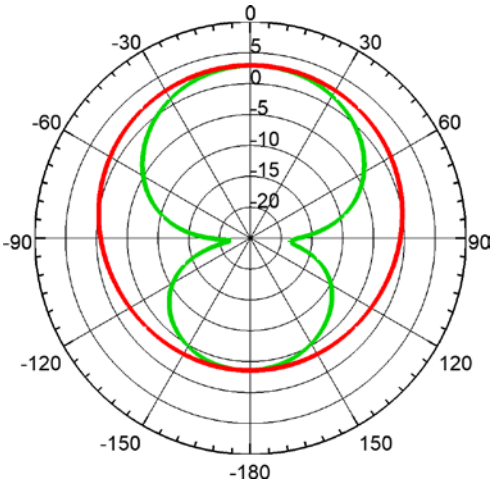
E-Mail: sergey@sevskiy.de
Internet: www.sevskiy.com

750…9000 MHz UWB log-periodic antenna (5G, LTE, ISM, UMTS, GSM, UWB)

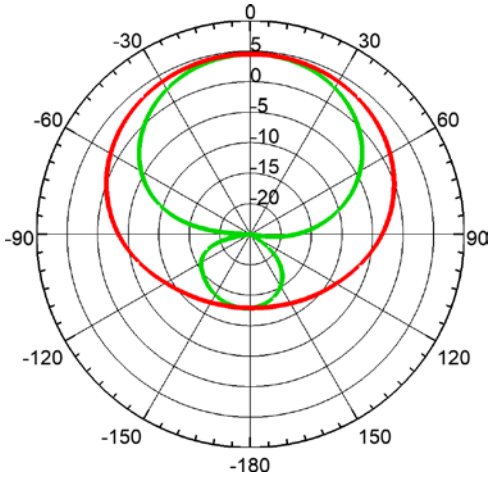
Radiation pattern



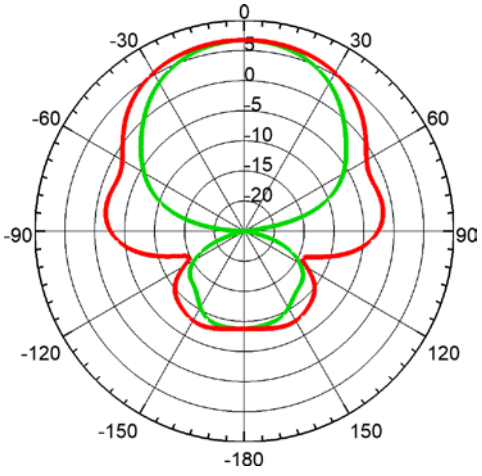
Total realized gain [dBi]
Phi=0°, plane XZ, green curve
Phi=90°, plane YZ, red curve



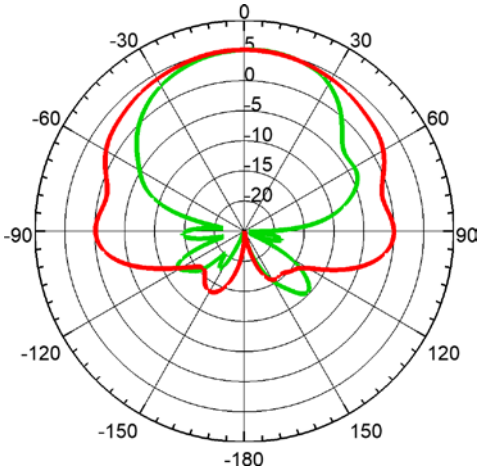
750 MHz



1000 MHz



2000 MHz

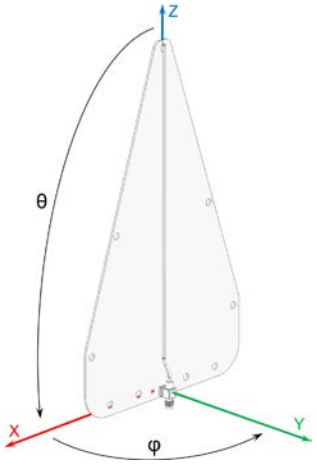


3000 MHz

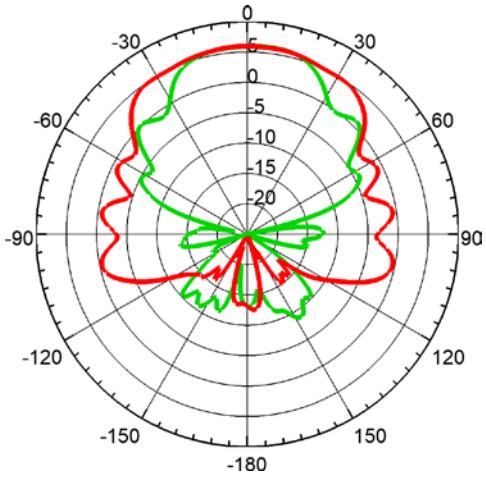
Sevskiy GmbH, CEO: Dr. Sergey Sevskiy
Office: Schatzbogen 43, Munich, Germany
Tel.: +49 89 38-90-7229
Fax: +49 89 38-90-7230
E-Mail: sergey@sevskiy.de
Internet: www.sevskiy.com

750…9000 MHz UWB log-periodic antenna (5G, LTE, ISM, UMTS, GSM, UWB)

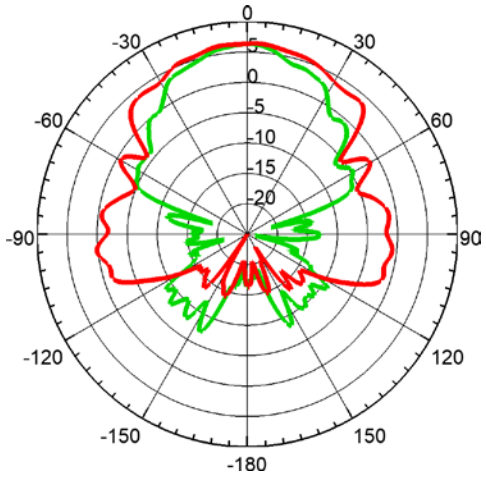
Radiation pattern



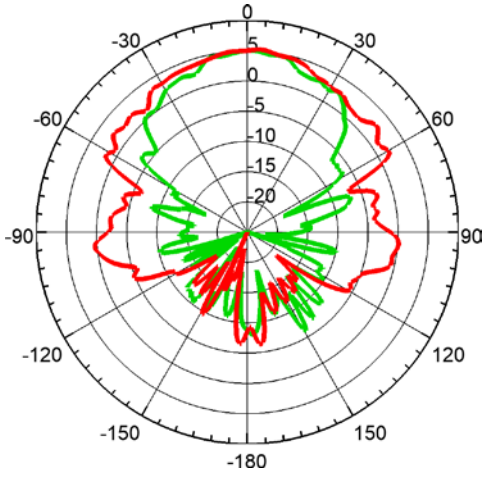
Total realized gain [dBi]
Phi=0°, plane XZ, green curve
Phi=90°, plane YZ, red curve



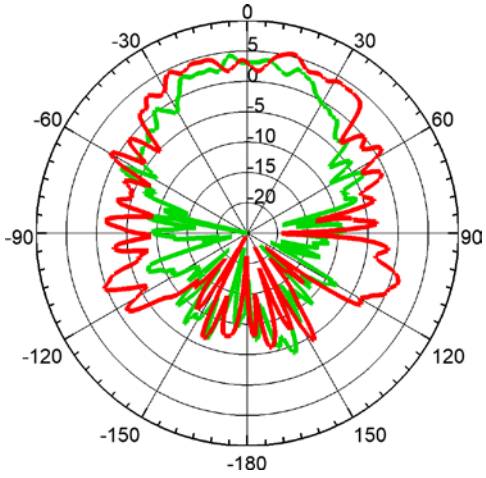
4500 MHz



6000 MHz



7500 MHz



9000 MHz

Sevskiy GmbH, CEO: Dr. Sergey Sevskiy
Office: Schatzbogen 43, Munich, Germany

Tel.: +49 89 38-90-7229
Fax: +49 89 38-90-7230

E-Mail: sergey@sevskiy.de
Internet: www.sevskiy.com