



Ultra-wideband antenna Antrad-11

Technical Data

Antenna Type: antenna Vivaldi, directional

Frequency Range: 0,6 – 8 GHz

Gain: up to 13 dBi (at 3 GHz)

Impedance: 50 Ω , unbalanced

VSWR: < 2,5:1

Size without connector: 325 × 200 × 1.5 mm

Connector: SMA (FEMALE, MALE)

Material: FR4

Can be performed in a protective plastic housing

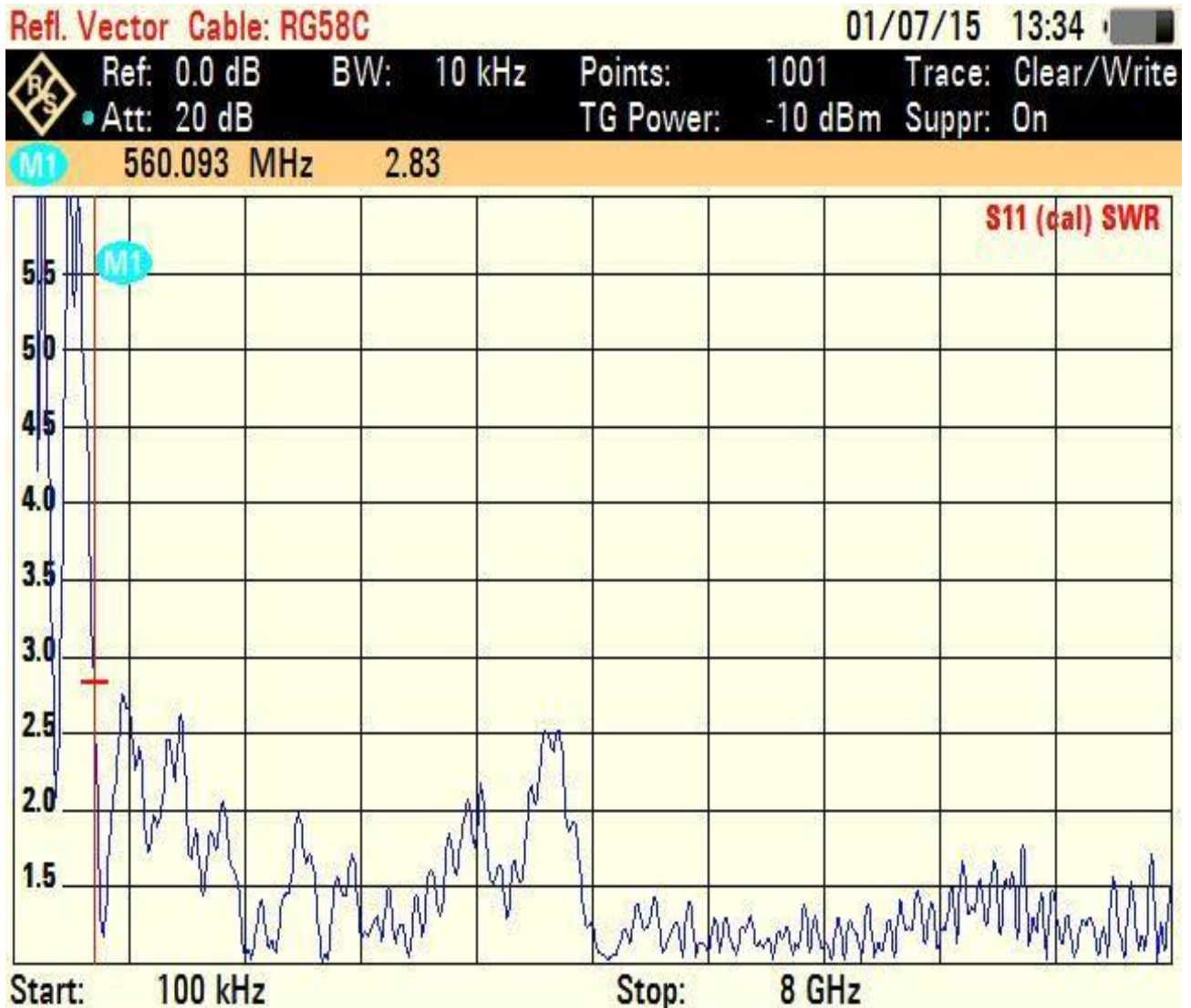




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VSWR

The following picture shows VSWR.

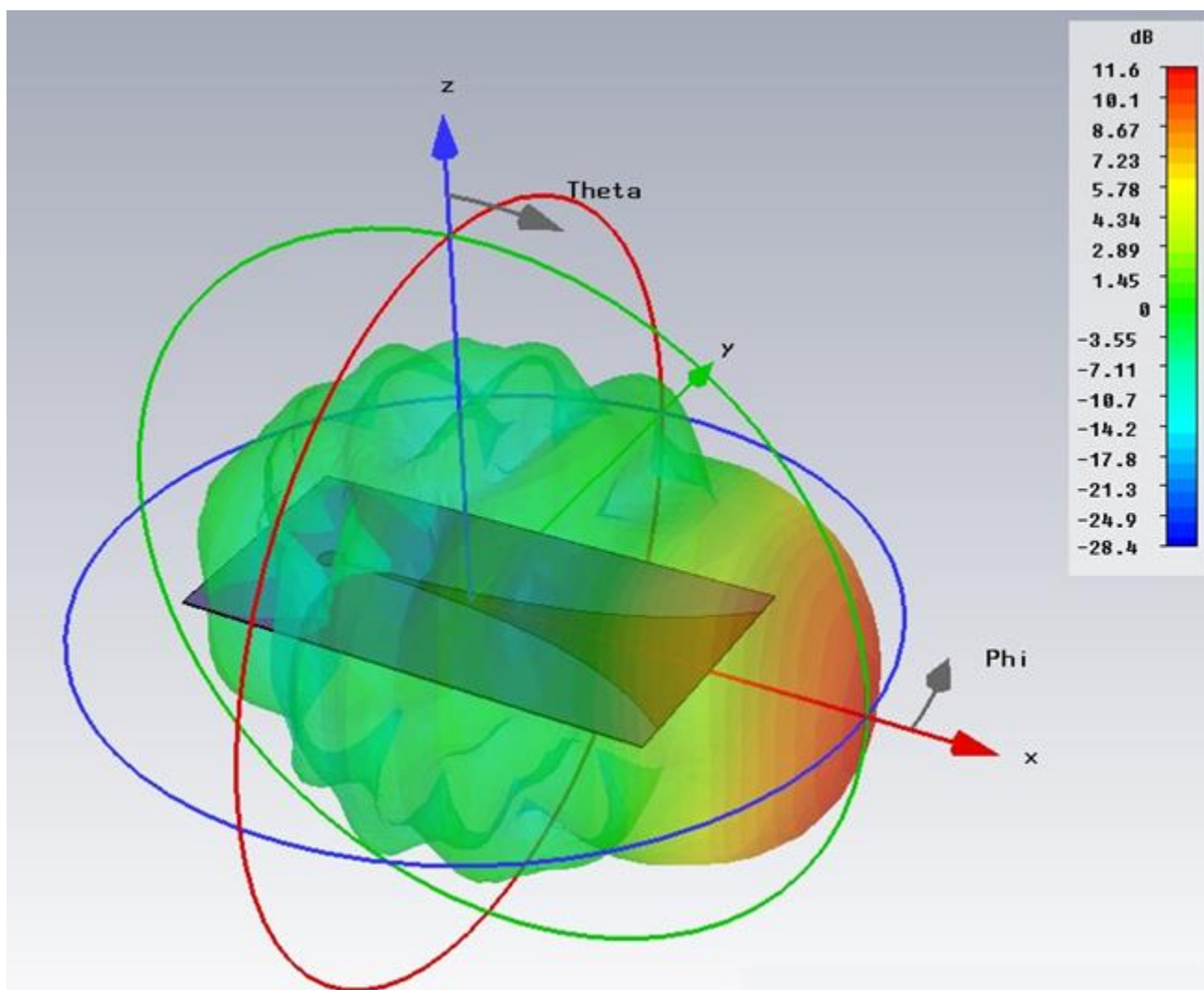




Radiation pattern

The following picture shows Radiation pattern in 3D according to the model at a frequency of 2 GHz.

Gain is 11.6 dB.





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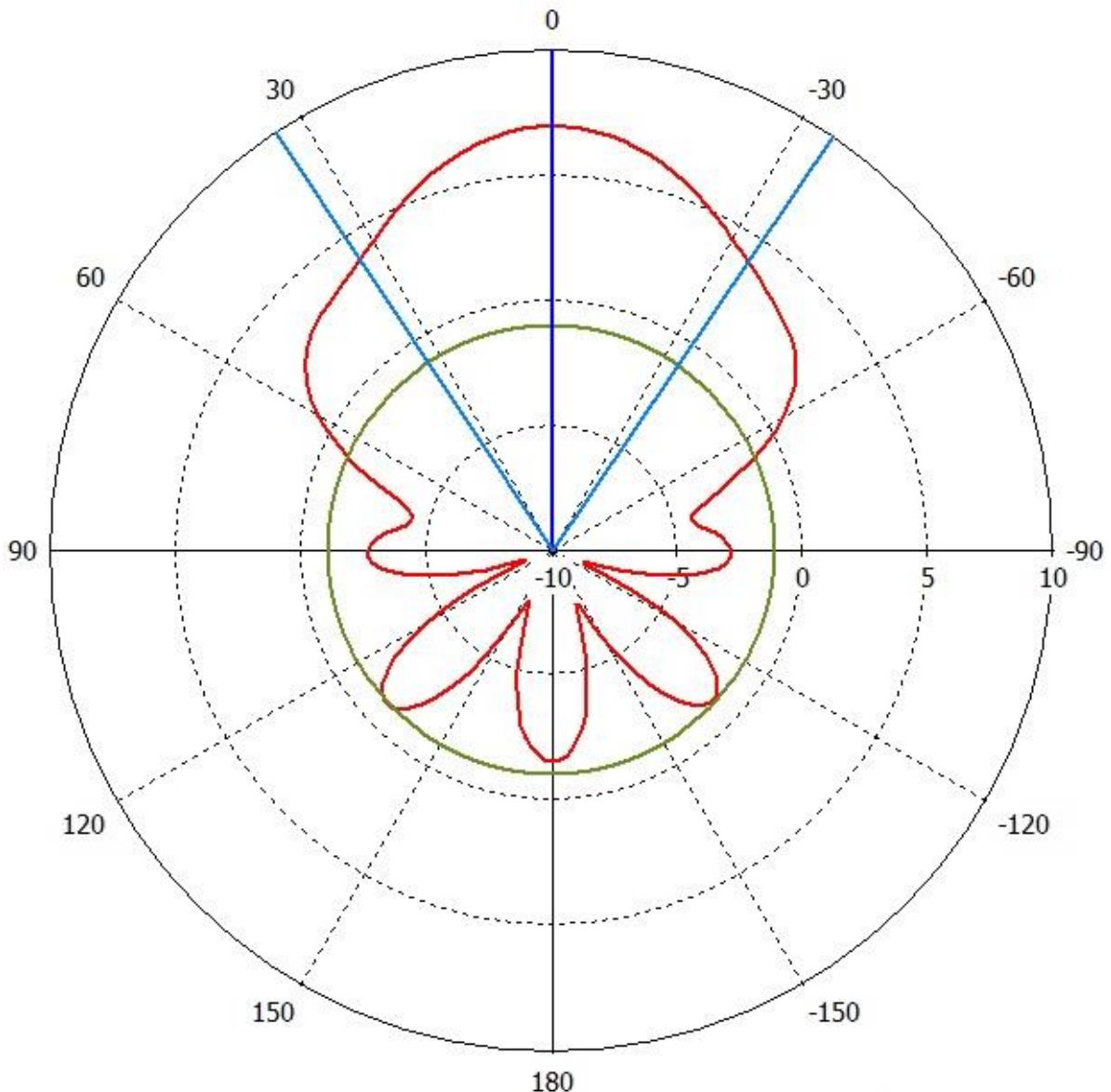
Radiation pattern

The following picture shows normalized radiation pattern in the horizontal plane in dB at a frequency of 1 GHz.

Main lobe magnitude = 7 dB.

Angular width (3 dB) = 67.6 deg.

Side lobe level = -8 dB.





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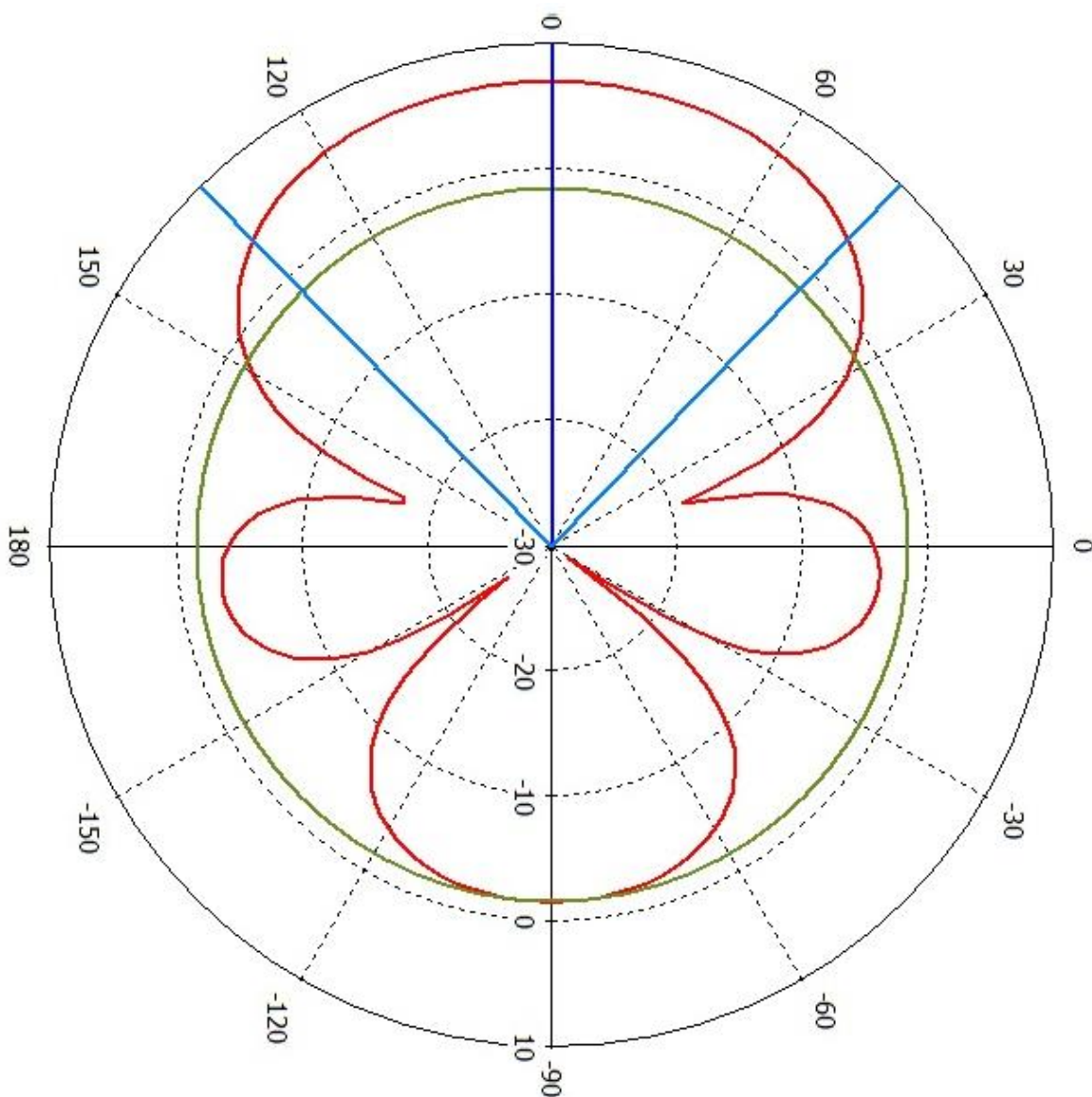
Radiation pattern

The following picture shows normalized radiation pattern in the vertical plane in dB at a frequency of 1 GHz.

Main lobe magnitude = 7 dB.

Angular width (3 dB) = 88.5 deg.

Side lobe level = -8.5 dB.





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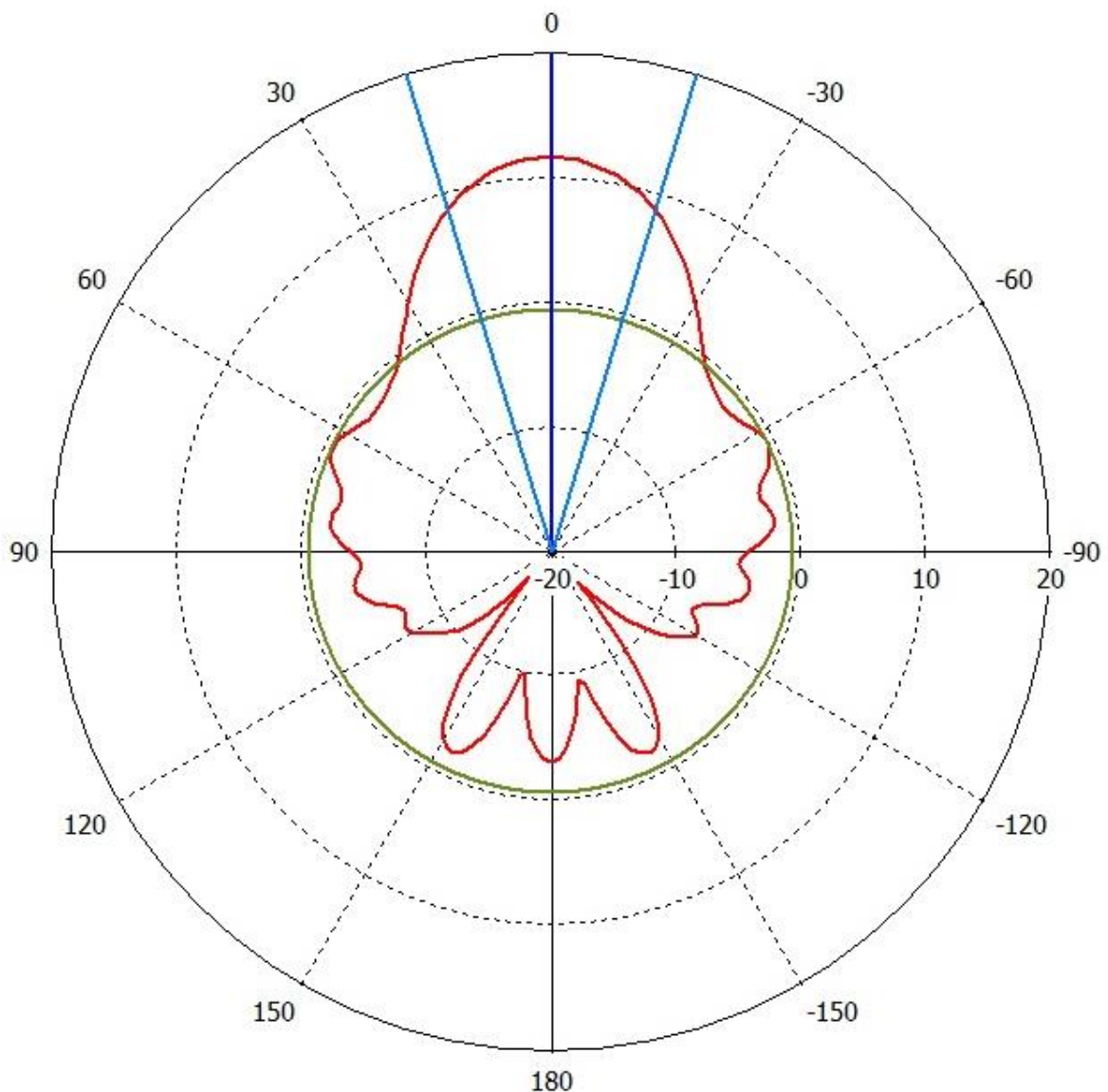
Radiation pattern

The following picture shows normalized radiation pattern in the horizontal plane in dB at a frequency of 2 GHz.

Main lobe magnitude = 11.6 dB.

Angular width (3 dB) = 34 deg.

Side lobe level = -12 dB.





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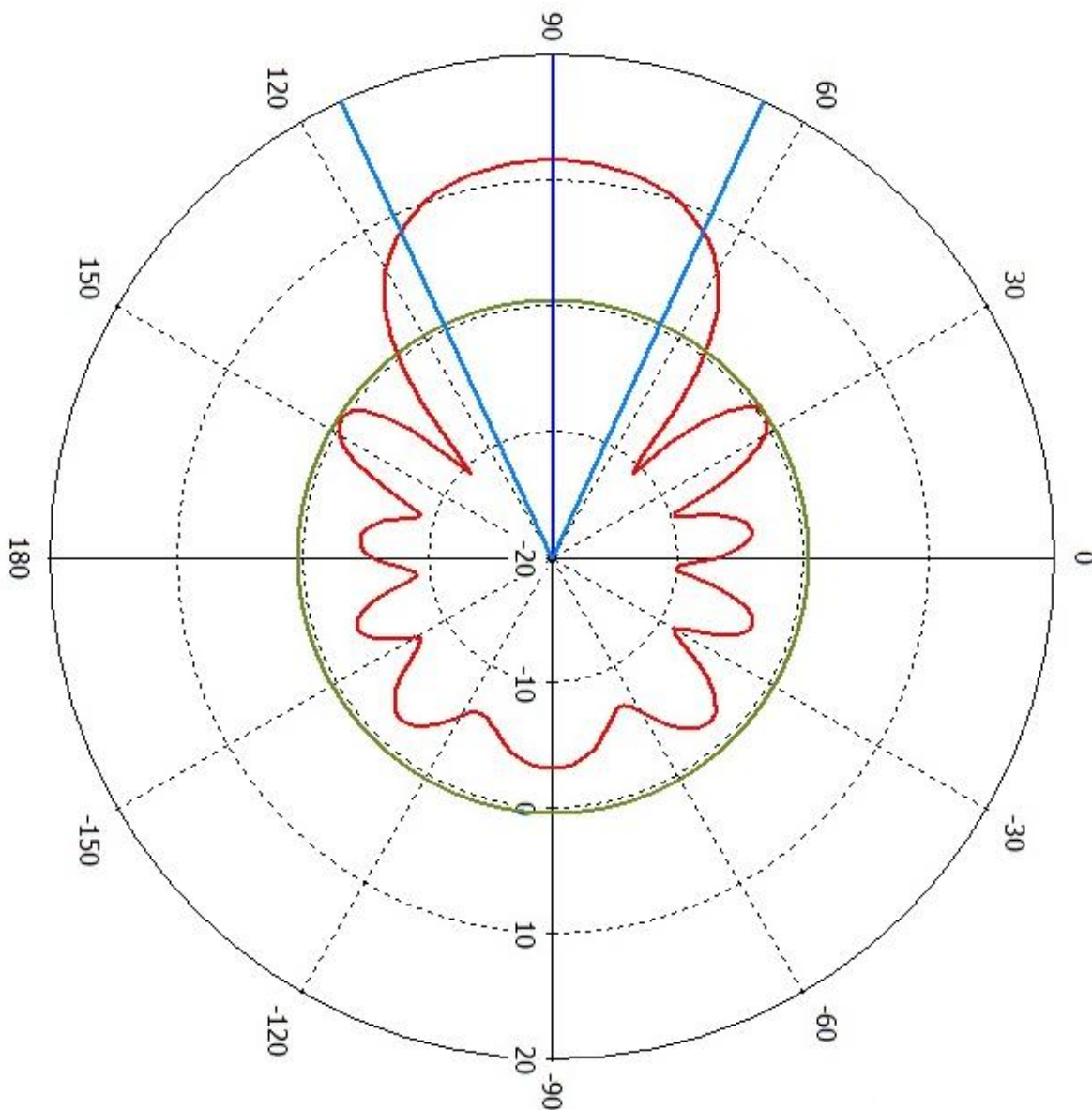
Radiation pattern

The following picture shows normalized radiation pattern in the vertical plane in dB at a frequency of 2 GHz.

Main lobe magnitude = 11.6 dB.

Angular width (3 dB) = 50 deg.

Side lobe level = -11 dB.





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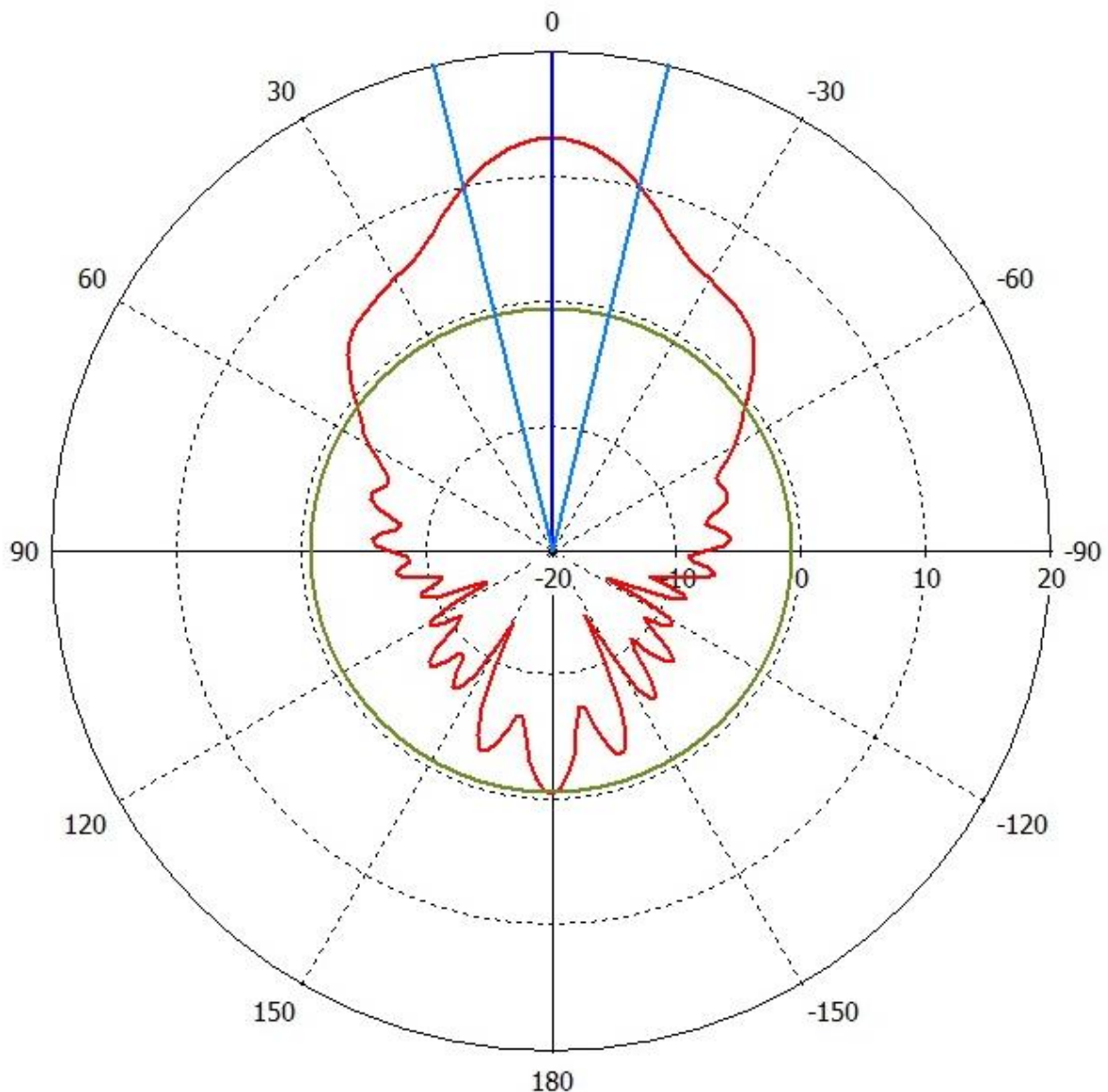
Radiation pattern

The following picture shows normalized radiation pattern in the horizontal plane in dB at a frequency of 3 GHz.

Main lobe magnitude = 13 dB.

Angular width (3 dB) = 27.2 deg.

Side lobe level = -13.6 dB.





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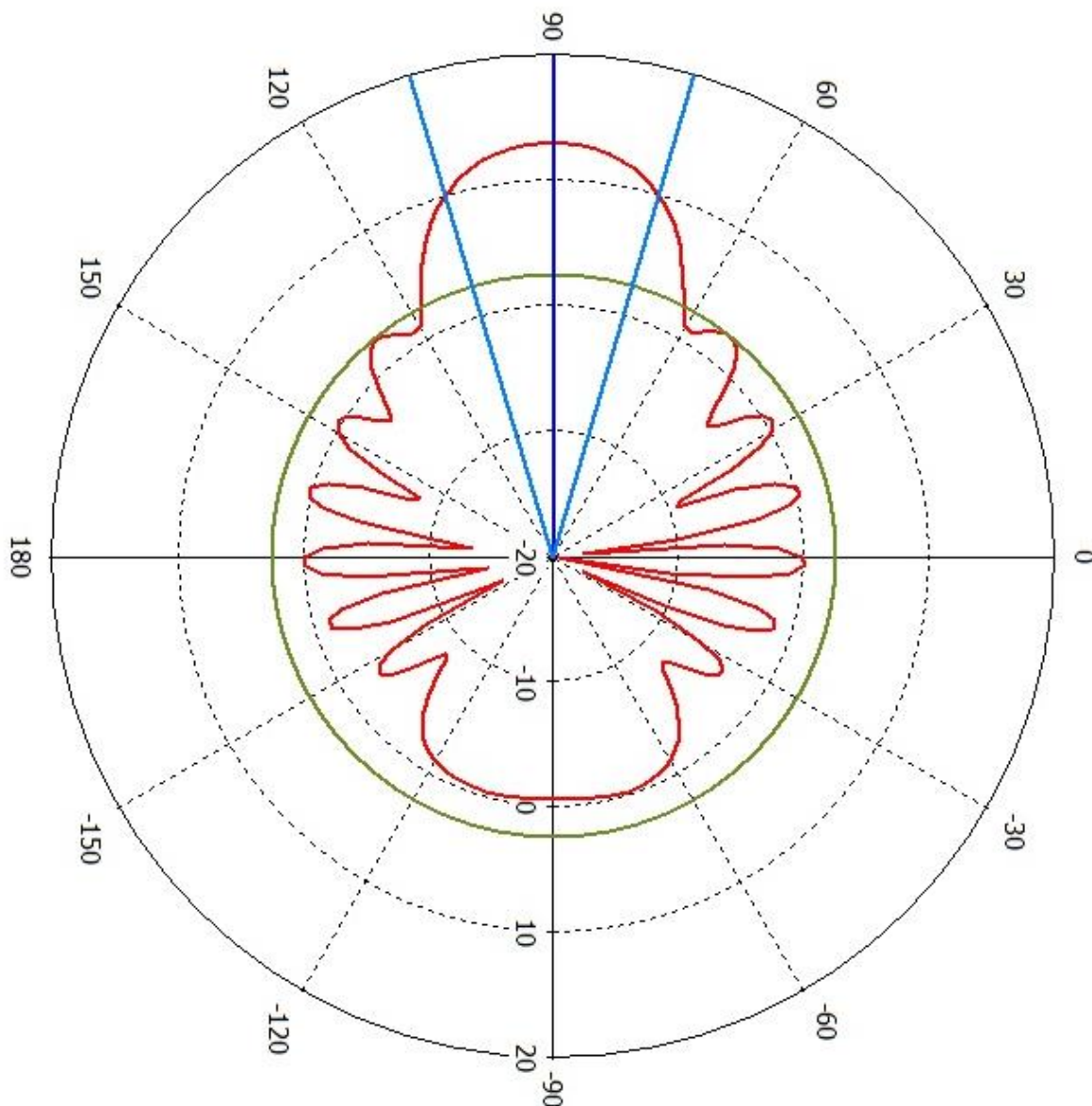
Radiation pattern

The following picture shows normalized radiation pattern in the vertical plane in dB at a frequency of 3 GHz.

Main lobe magnitude = 13 dB.

Angular width (3 dB) = 33 deg.

Side lobe level = -10.4 dB.





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Application note

The highly directional ultra-wideband PCB antenna Antrad-11 can be used for radar, radio communication and radio monitoring systems operating in different frequency bands from 0,6 to 8 GHz. Also Antrad-11 can be used in the laboratory as the **measuring antenna**.