

RF-RXTX-319

Antenna info

Overview:

- **Antenna description:**

The antenna is used in a monopole arrangement. Antenna is permanently attached to the units. Antenna does not use reverse polarity connector.

Antenna Drawing

RX antenna



TX antenna



Right antenna is used for transmitting and left antenna is used for receiving

Antenna design/Simulation data:

Antenna Gain -9.34 dBi

Transmit Frequency at 319.508 MHz

Receiver frequency at 345 MHz

Length 8.7 inches

Diameter 0.115 inches

Capacitance 45.42 pF

Inductance 14.85 nH

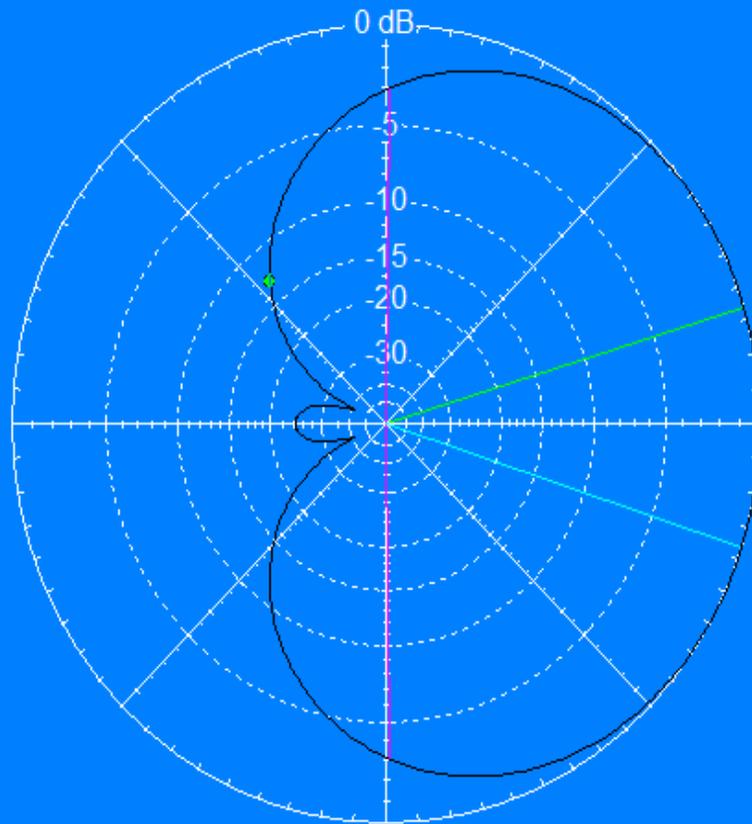
Quarter Wavelength 0.115 m

Antenna Length 75.10 %

Radiation Resistance 0.53 Ohms

Total Field

EZNEC Demo



319.508 MHz

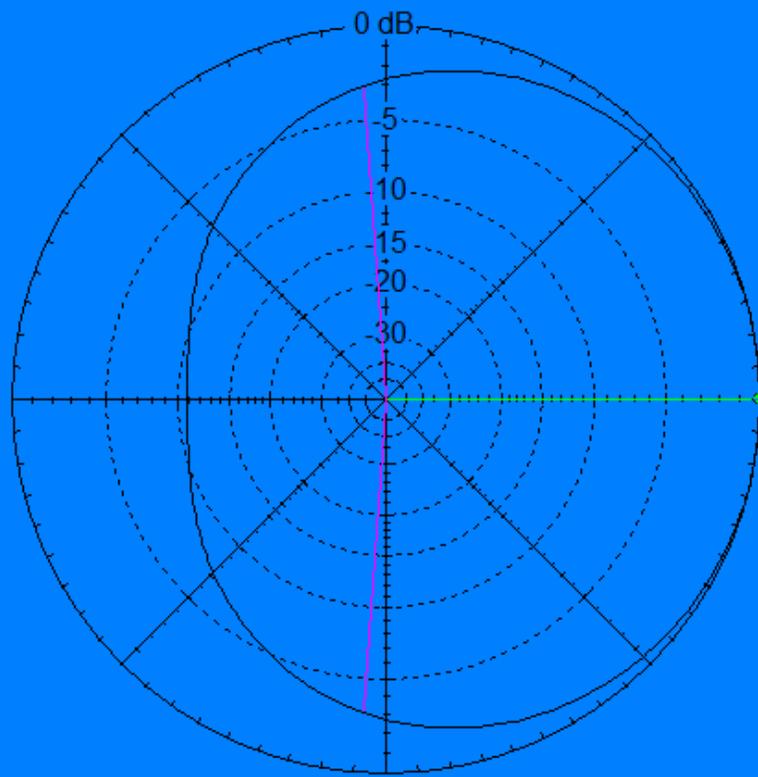
Azimuth Plot
Elevation Angle 0.0 deg.
Outer Ring 3.59 dBi

Cursor Az 131.0 deg.
Gain -9.34 dBi
-12.92 dBmax

Slice Max Gain 3.59 dBi @ Az Angle = 17.0 deg.
Front/Back 31.95 dB
Beamwidth 178.6 deg.; -3dB @ 270.7, 89.3 deg.
Sidelobe Gain 3.59 dBi @ Az Angle = 342.0 deg.
Front/Sidelobe 0.0 dB

Total Field

EZNEC Demo



319.508 MHz

Azimuth Plot
Elevation Angle 53.0 deg.
Outer Ring -4.7 dBref

Cursor Az 0.0 deg.
Gain -4.7 dBref
0.0 dBmax

Slice Max Gain -4.7 dBref @ Az Angle = 0.0 deg.
Front/Back 10.87 dB
Beamwidth 188.0 deg.; -3dB @ 266.0, 94.0 deg.
Sidelobe Gain < -100 dBi
Front/Sidelobe > 100 dB