

920MHz PCB Antenna with case

Measurement results

Appover	Reviewer	Author
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- Sample name : 920MHz PCB Antenna with case
- Antenna type : Dipole Antenna
- Frequency : 920.6 - 923 MHz
- Quantity : 1 pcs.
- Note : Measured values include cable and connector characteristics.

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Yokohana-shi, Kanagawa 223-0058, Japan

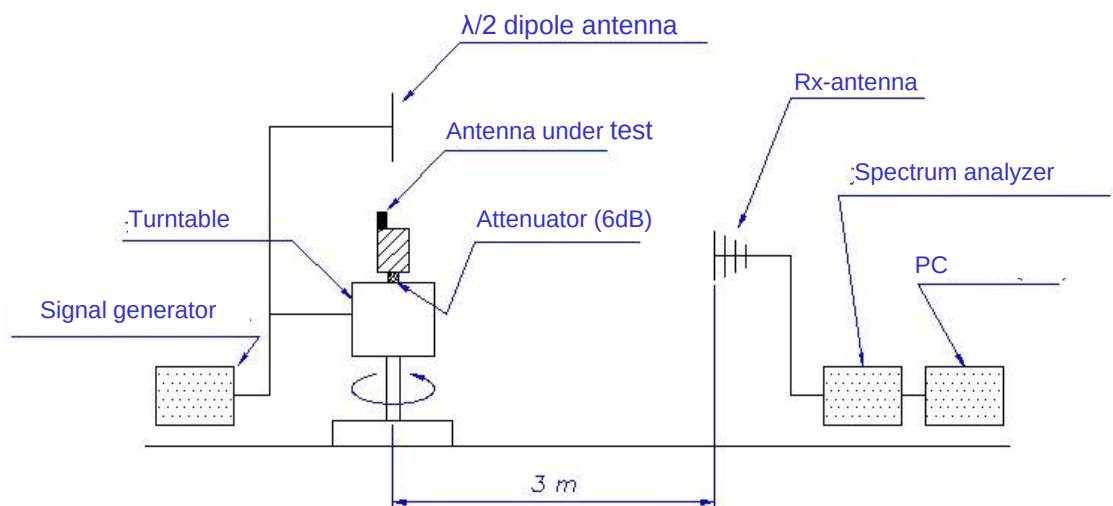
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◆ Measuring equipment

Signal generator	[Anritsu / MG3692C]
Spectrum analyzer	[Agilent Technology / 4407B]
Network analyzer	[Agilent Technologies / E8361A]
$\lambda/2$ dipole antenna	[Anritsu / MP663A]
Rx-antenna	[Advantest / TR17206]

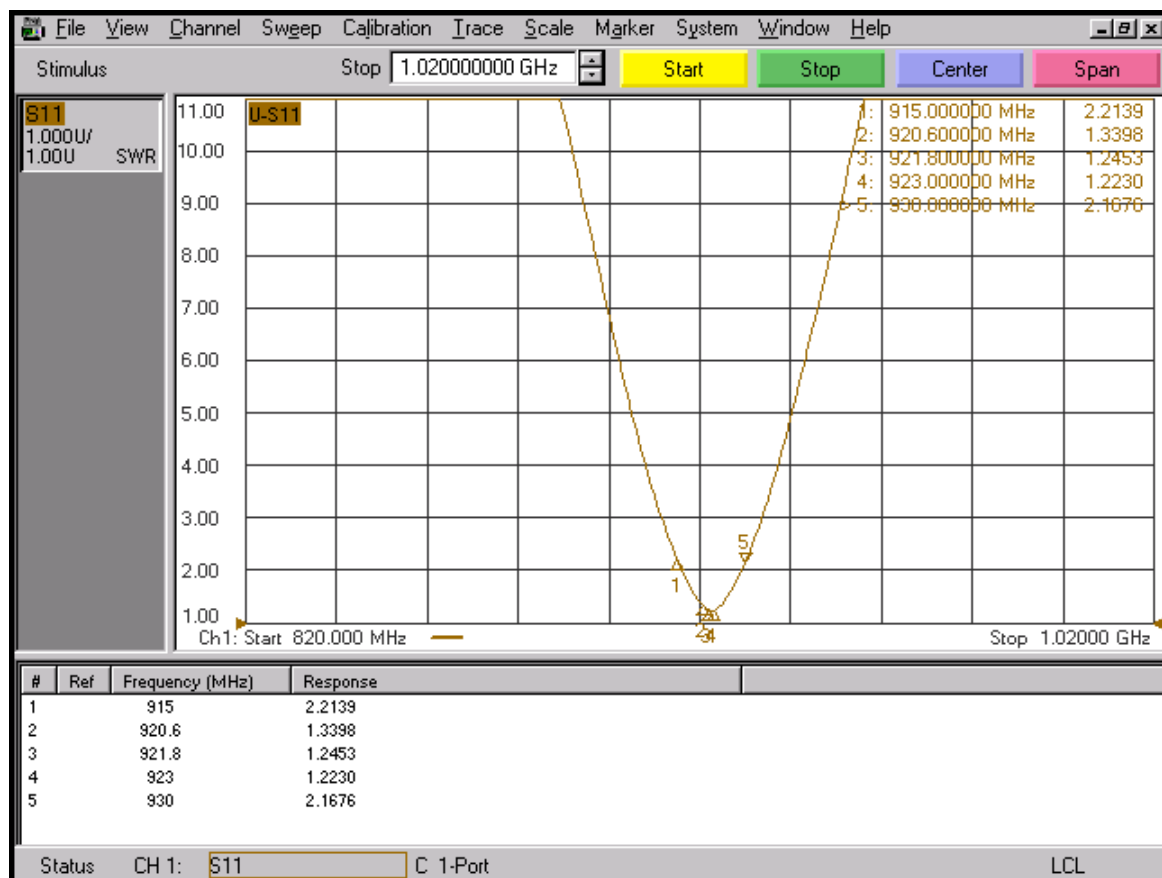
Note 1 : Calculate the gain of the dipole antenna as 2.14dBi.

Note 2 : Cable losses in the measurement are compensated for.



➤ S11 characteristic

•VSWR



➤ Radiation pattern at XY plane

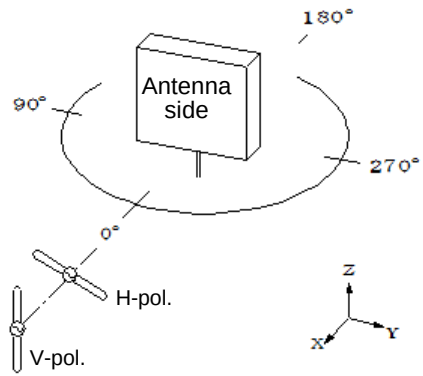
Sample Name :

920MHz PCB Antenna with case

Frequency : 920.6 - 923 MHz

H-pol. (Horizontal polarization)

V-Pol. (Vertical polarization)



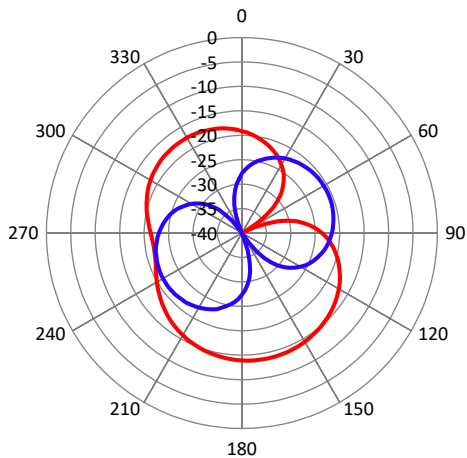
920.6 MHz

H-pol. Max. Gain -13.8 dBi

Ave. Gain -17.9 dBi

V-pol. Max. Gain -20.6 dBi

Ave. Gain -24.1 dBi



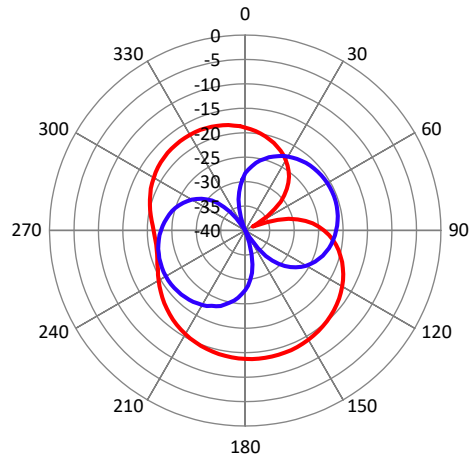
921.8 MHz

H-pol. Max. Gain -13.6 dBi

Ave. Gain -17.8 dBi

V-Pol. Max. Gain -20.5 dBi

Ave. Gain -24.0 dBi



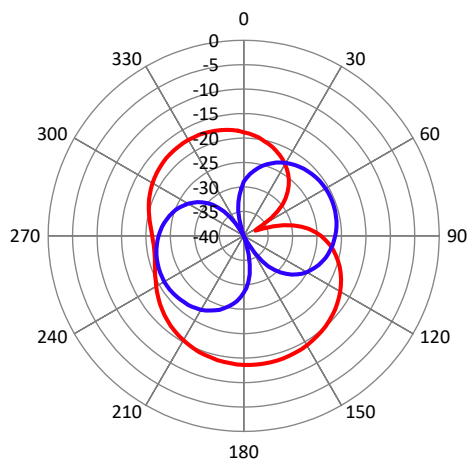
923.0 MHz

H-pol. Max. Gain -13.5 dBi

Ave. Gain -17.7 dBi

V-pol. Max. Gain -20.6 dBi

Ave. Gain -24.0 dBi



➤ Radiation pattern at YZ plane

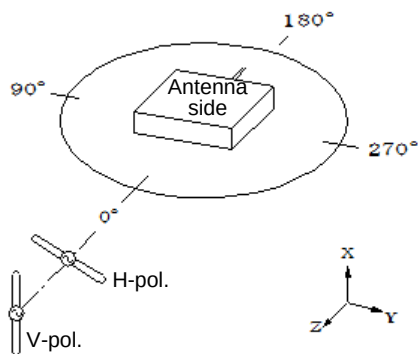
Sample Name :

920MHz PCB Antenna with case

Frequency : 920.6 - 923 MHz

H-pol. (Horizontal polarization)

V-Pol. (Vertical polarization)



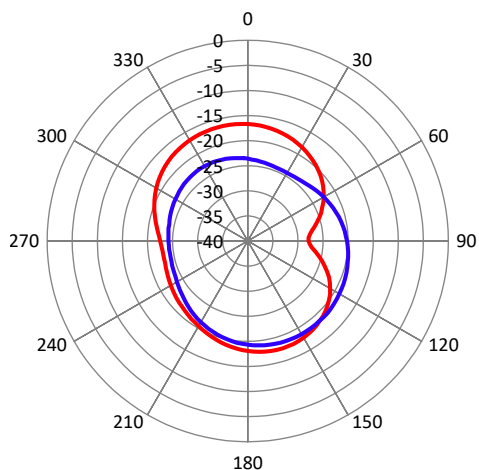
920.6 MHz

H-pol. Max. Gain -16.6 dBi

Ave. Gain -19.4 dBi

V-pol. Max. Gain -18.6 dBi

Ave. Gain -21.4 dBi



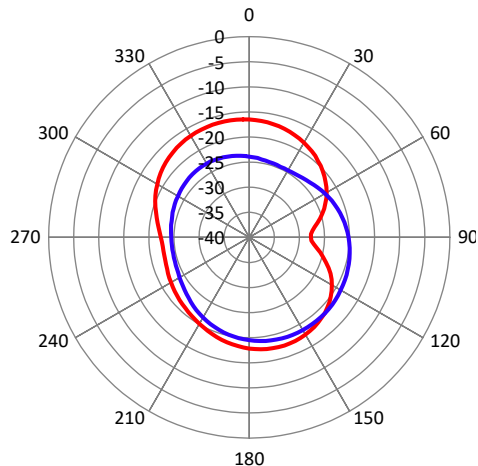
921.8 MHz

H-pol. Max. Gain -16.4 dBi

Ave. Gain -19.2 dBi

V-pol. Max. Gain -18.6 dBi

Ave. Gain -21.5 dBi



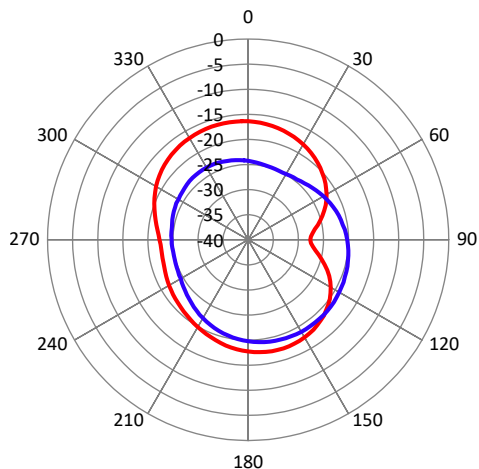
923.0 MHz

H-pol. Max. Gain -16.3 dBi

Ave. Gain -19.1 dBi

V-pol. Max. Gain -18.8 dBi

Ave. Gain -21.8 dBi



➤ Radiation pattern at XZ plane

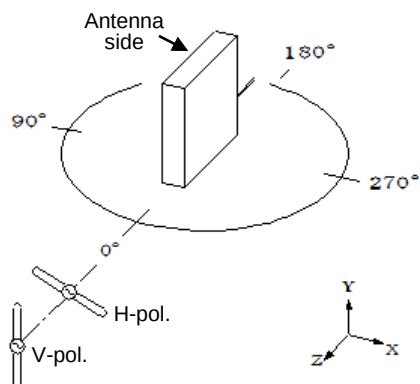
Sample Name :

920MHz PCB Antenna with case

Frequency : 920.6 - 923 MHz

H-pol. (Horizontal polarization)

V-Pol. (Vertical polarization)



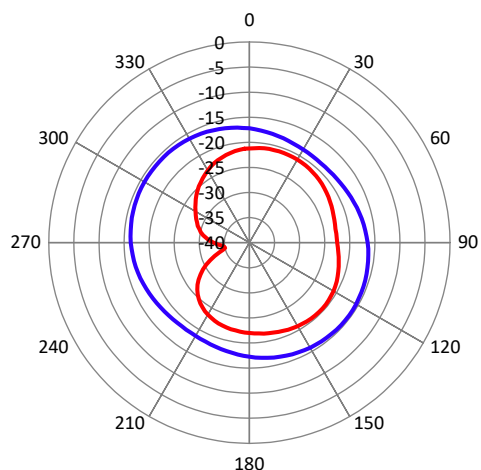
920.6 MHz

H-pol. Max. Gain -20.4 dBi

Ave. Gain -22.7 dBi

V-pol. Max. Gain -15.4 dBi

Ave. Gain -16.8 dBi



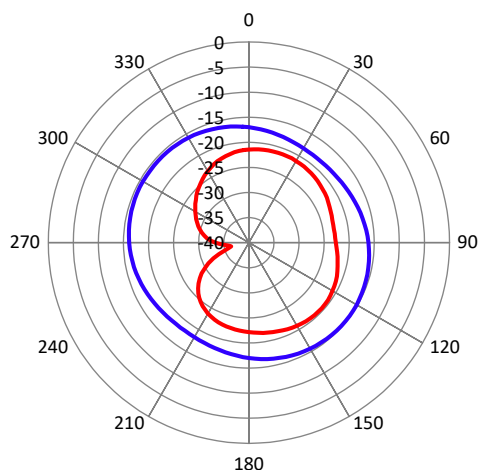
921.8 MHz

H-pol. Max. Gain -20.4 dBi

Ave. Gain -22.9 dBi

V-pol. Max. Gain -15.2 dBi

Ave. Gain -16.6 dBi



923.0 MHz

H-pol. Max. Gain -20.6 dBi

Ave. Gain -23.2 dBi

V-pol. Max. Gain -15.0 dBi

Ave. Gain -16.4 dBi

