



Planar Antenna Data Sheet

RM-PA7087-43

Specifications

RM-PA7087-43		
Parameters	Indicator requirements	Unit
Frequency Range	71-76 81-86	GHz
Polarization	vertical and horizontal polarization	
Gain	≥43 In-band fluctuation:0.7dB(5GHz)	dB
First Sidelobe	≤-13	dB
Cross Polarization	≥40	dB
VSWR	≤1.8:1	
Waveguide	WR12	
Material	Al	
Weight	≤2.5	Kg
Size(L*W*H)	450*370*16 (±5)	mm

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Technical drawing of a circular waveguide flange assembly, showing front, top, and side views with dimensions in mm.

Front View (Left):

- Overall width: $[14.252]$ 382.0
- Overall height: $[17.402]$ 442.0
- Inner width: $[13.485]$ 342.0
- Inner height: $[16.526]$ 422.0
- Flange thickness: $[1.895]$ 50.0
- Central hole diameter: $\phi 3.40 [0.134]$ Thru
- Inner hole diameter: $\phi 10.4 [0.403] \mp 0.50 [0.020]$
- Inner hole diameter: $\phi 1.65 [0.061] \mp 0.30 [0.150]$
- Inner hole diameter: $\phi 1.60 [0.063] \mp 0.30 [0.150]$
- Inner hole diameter: $\phi 1.181$ 30.0
- Inner hole diameter: $\phi 0.787$ 20.0 $\mp 0.16.4$
- Inner hole diameter: $\phi 0.612$ 16.5
- Inner hole diameter: $\phi 0.583$ 15.0
- Inner hole diameter: $\phi 0.551$ 14.0
- Inner hole diameter: $\phi 0.526$ 13.5
- Inner hole diameter: $\phi 0.500$ 12.7
- Inner hole diameter: $\phi 0.475$ 12.0
- Inner hole diameter: $\phi 0.450$ 11.3
- Inner hole diameter: $\phi 0.425$ 10.7
- Inner hole diameter: $\phi 0.400$ 10.0
- Inner hole diameter: $\phi 0.375$ 9.5
- Inner hole diameter: $\phi 0.350$ 9.0
- Inner hole diameter: $\phi 0.325$ 8.3
- Inner hole diameter: $\phi 0.300$ 7.6
- Inner hole diameter: $\phi 0.275$ 7.0
- Inner hole diameter: $\phi 0.250$ 6.4
- Inner hole diameter: $\phi 0.225$ 5.7
- Inner hole diameter: $\phi 0.200$ 5.1
- Inner hole diameter: $\phi 0.175$ 4.5
- Inner hole diameter: $\phi 0.150$ 3.8
- Inner hole diameter: $\phi 0.125$ 3.2
- Inner hole diameter: $\phi 0.100$ 2.5
- Inner hole diameter: $\phi 0.075$ 1.9
- Inner hole diameter: $\phi 0.050$ 1.3
- Inner hole diameter: $\phi 0.025$ 0.6

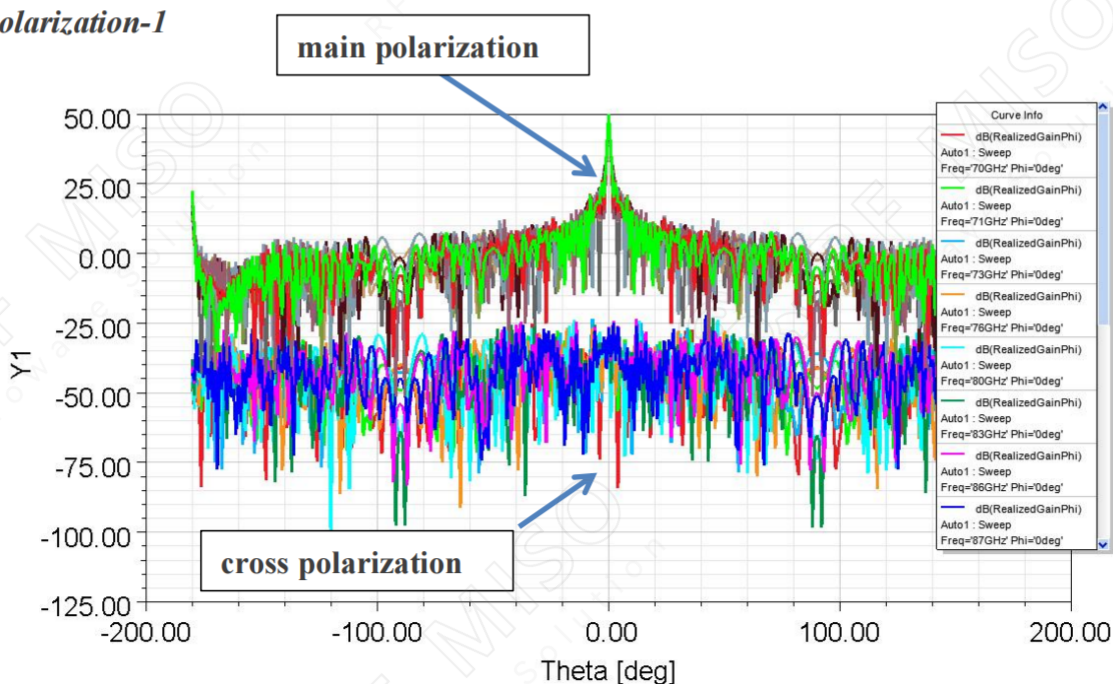
Top View (Right):

- Overall diameter: $[17.717]$ 450.0
- Inner diameter: $[16.866]$ 428.4
- Flange thickness: $[1.895]$ 50.0
- Central hole diameter: $\phi 3.40 [0.134]$ Thru
- Inner hole diameter: $\phi 10.4 [0.403] \mp 0.50 [0.020]$
- Inner hole diameter: $\phi 1.65 [0.061] \mp 0.30 [0.150]$
- Inner hole diameter: $\phi 1.60 [0.063] \mp 0.30 [0.150]$
- Inner hole diameter: $\phi 1.181$ 30.0
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- Inner hole diameter: $\phi 0.050$ 1.3
- Inner hole diameter: $\phi 0.025$ 0.6

Side View (Bottom):

- Overall height: $[12.472]$ 316.8
- Inner height: $[11.567]$ 293.0
- Flange thickness: $[1.895]$ 50.0
- Central hole diameter: $\phi 3.40 [0.134]$ Thru
- Inner hole diameter: $\phi 10.4 [0.403] \mp 0.50 [0.020]$
- Inner hole diameter: $\phi 1.65 [0.061] \mp 0.30 [0.150]$
- Inner hole diameter: $\phi 1.60 [0.063] \mp 0.30 [0.150]$
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Polarization-1

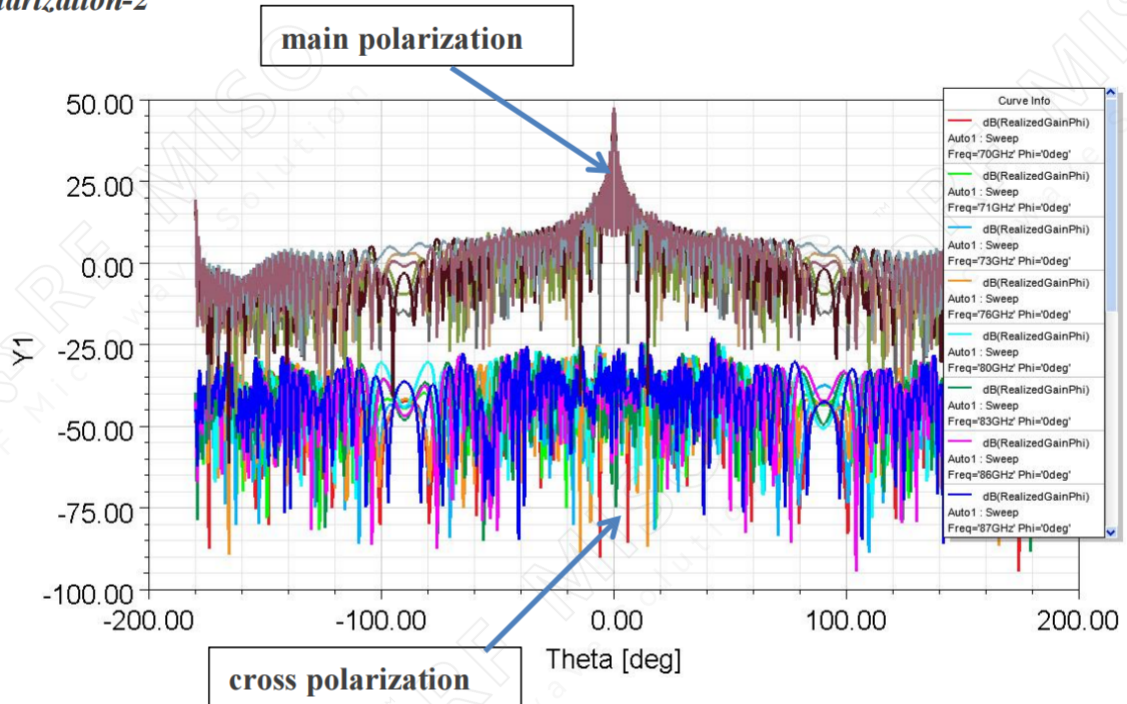




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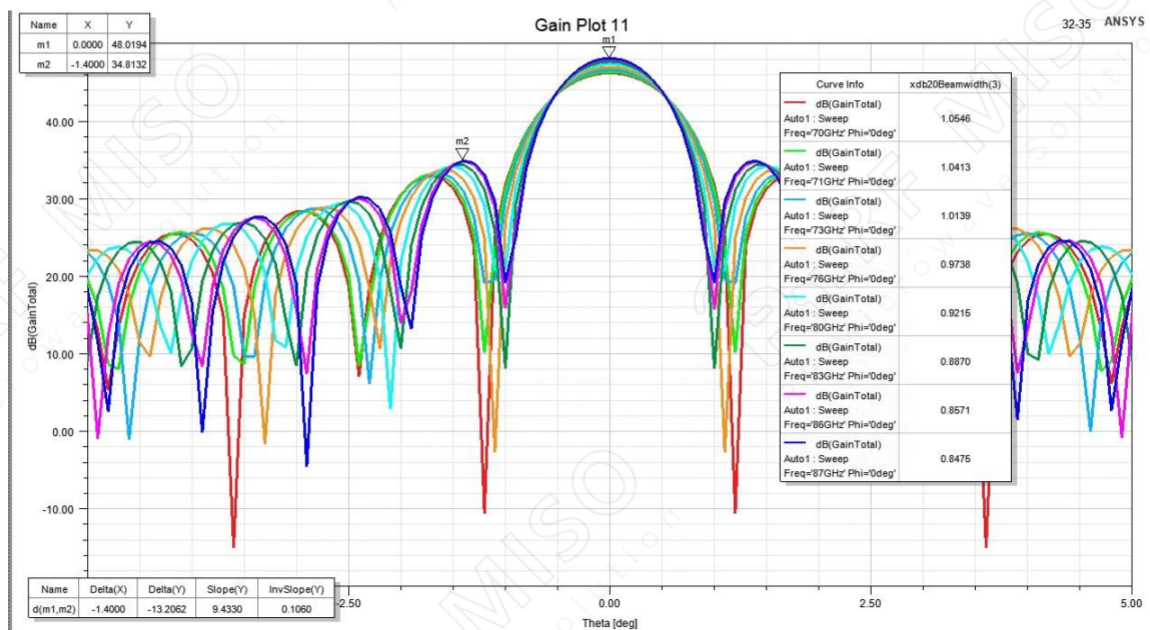
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Polarization-2



Main Lobe Width——Polarization-1

70-87GHz- E plane 3dB:



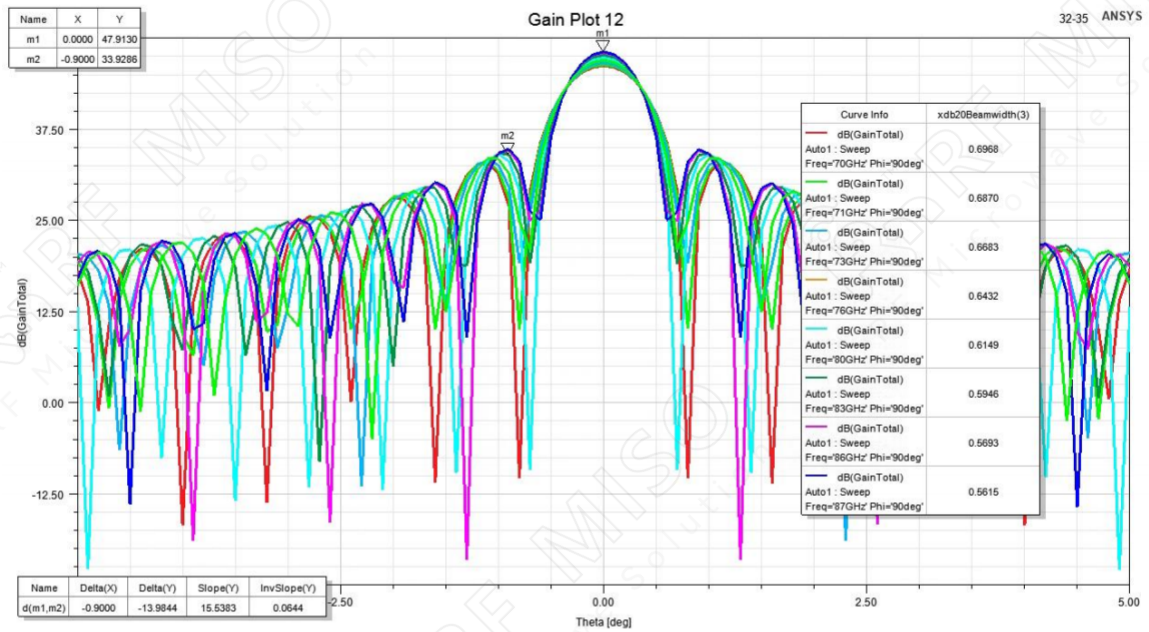


71-76GHz,81-86GHz Dual Band E-Band Dual Polarized Panel Antenna

Planar Antenna Data Sheet

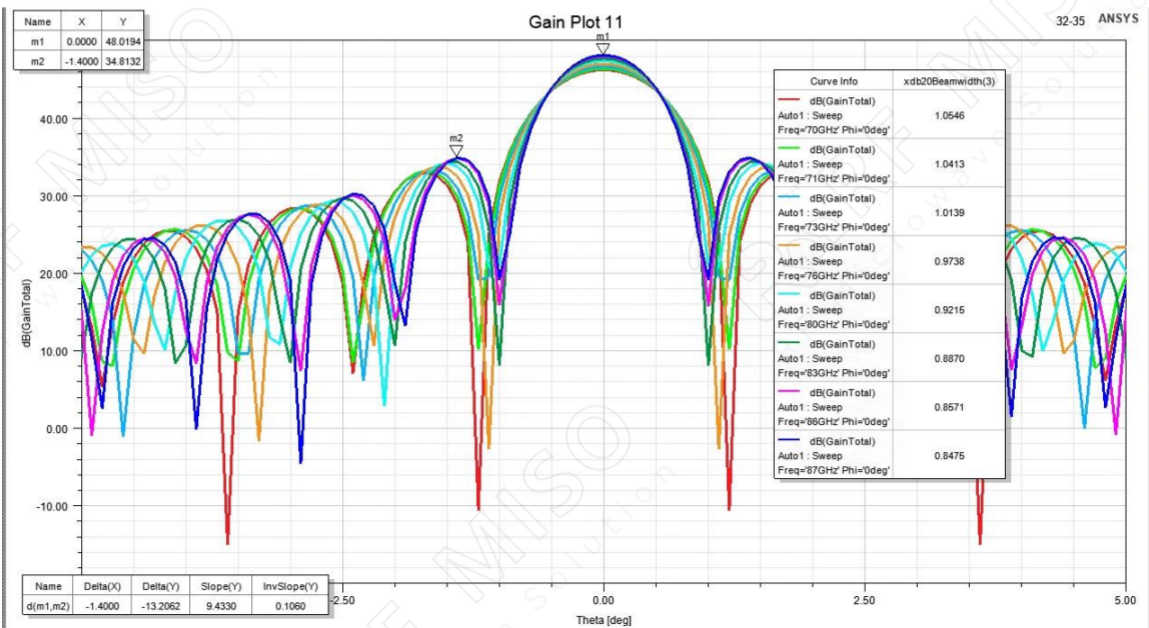
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70-87GHz- H plane 3dB:



Main Lobe Width——Polarization-2

70-87GHz- E plane 3dB:



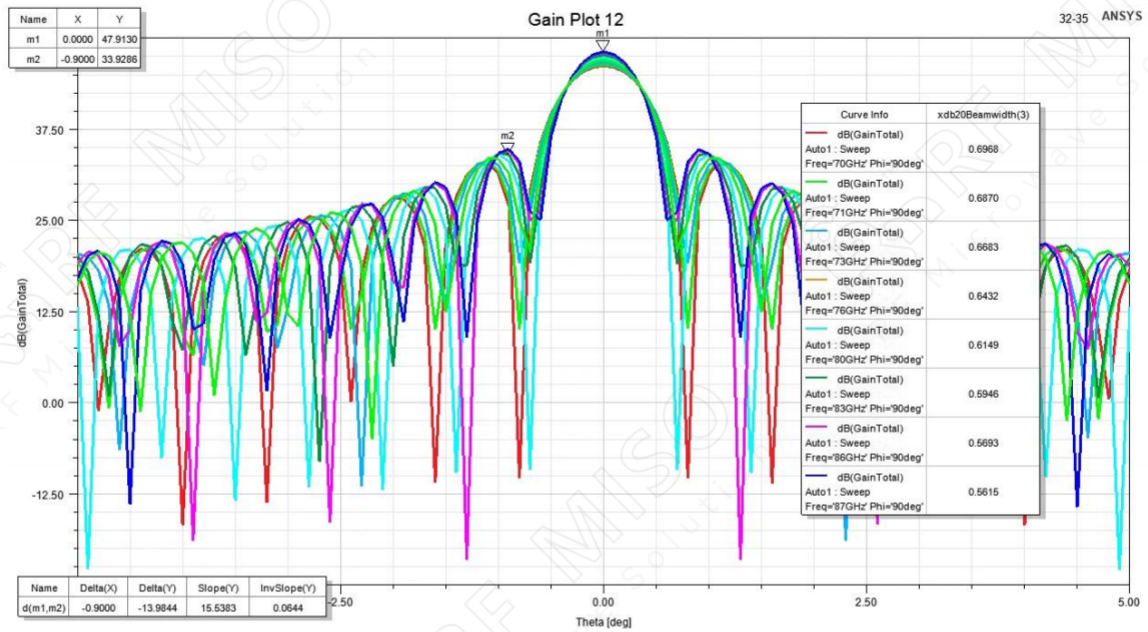


71-76GHz,81-86GHz Dual Band E-Band Dual Polarized Panel Antenna

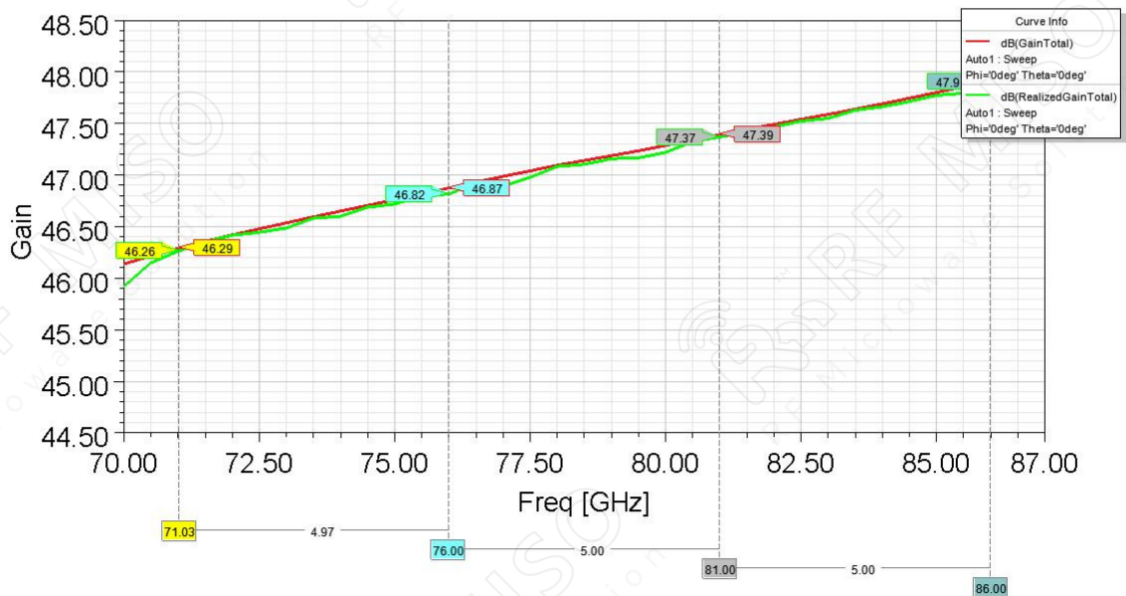
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70-87GHz- H plane 3dB:



Gain——Polarization-1

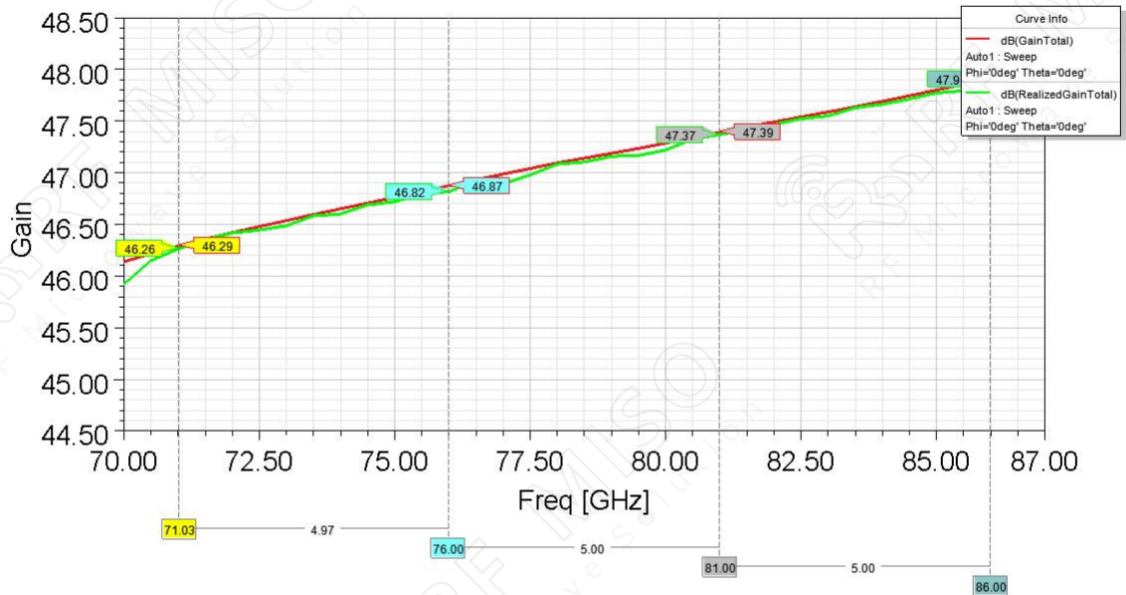




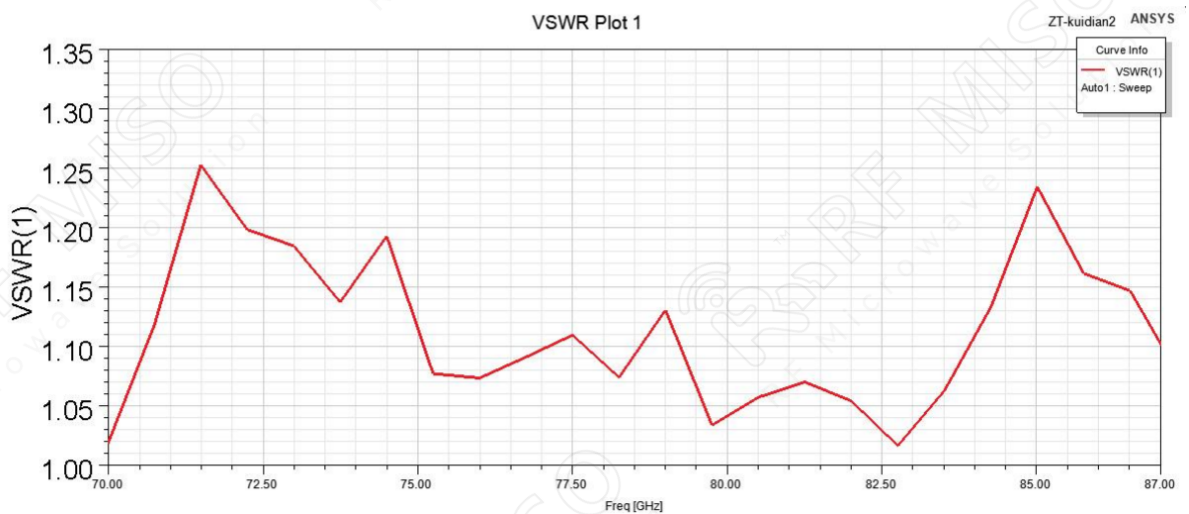
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Gain——Polarization-2



Reflection Coefficient——Polarization-1





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Reflection Coefficient——Polarization-2

