RH15-185-15

15 dBi Gain, 49.8-70 GHz, WR15 Standard Gain Horn with 1.85mm Female Port

Rev 1

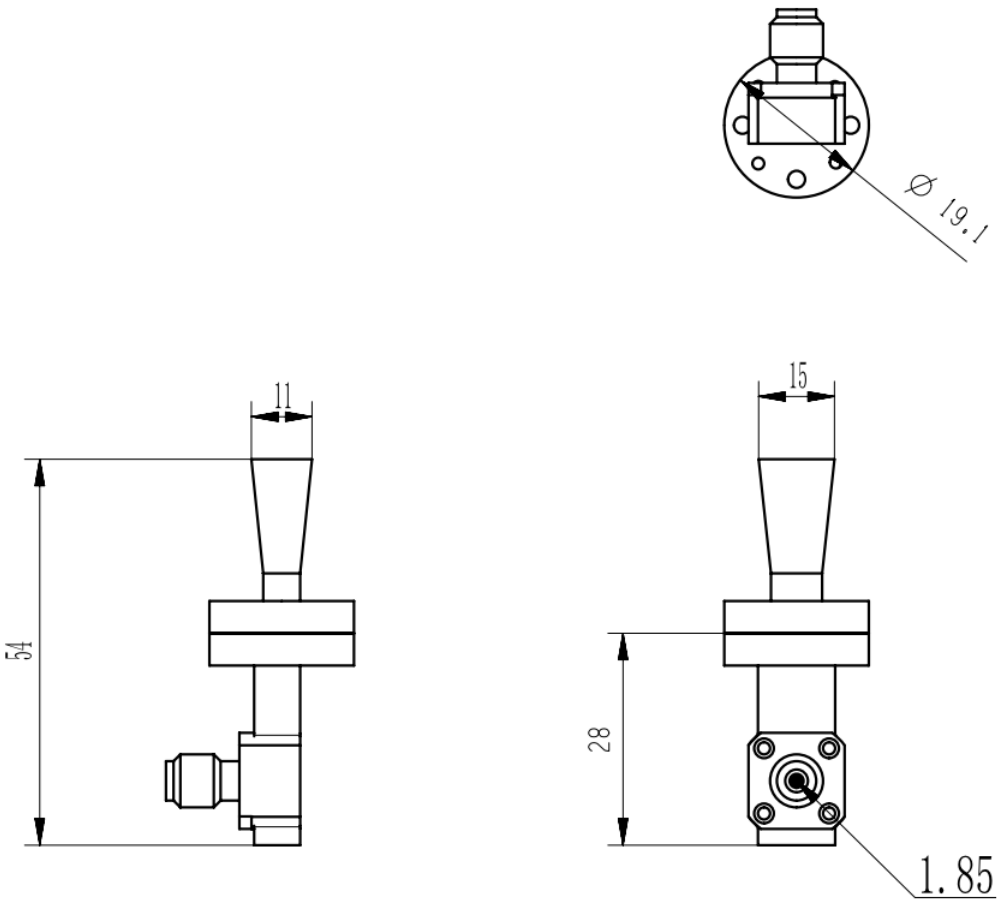
Electrical

Frequency Range	49.8-70 GHz
Norminal Gain	15 dBi
Polarization	Linear
VSWR	1.5 max
3dB Beamwidth	E-Plane: 20.7~29.5 deg, H-Plane: 20.7~30.2 deg
Operating Temperature	-40℃~+70℃

Mechanical

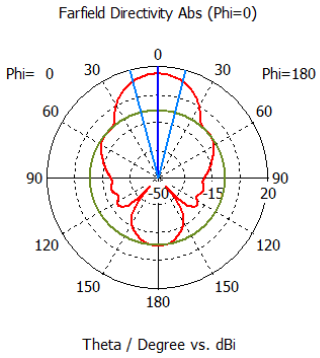
Waveguide Size	WR15
Flange Type	UG385/U Round Cover Flange
Body Material and Finish	Copper, Gold Plated
RF Connector	1.85mm Female

Dimensions(mm)



Simulated Antenna Patterns

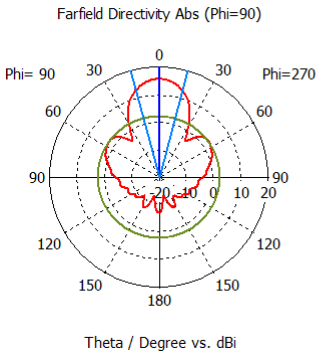
49.8GHz E-Plane



farfield (f=49.8) [1]

Frequency = 49.8
Main lobe magnitude = 15.7 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 29.5 deg.
Side lobe level = -22.9 dB

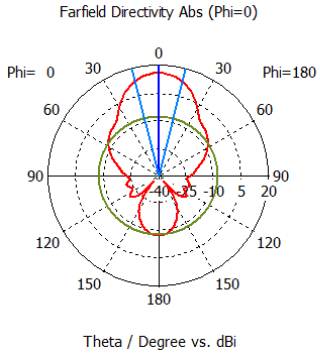
H-Plane



farfield (f=49.8) [1]

Frequency = 49.8
Main lobe magnitude = 15.7 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 30.2 deg.
Side lobe level = -13.4 dB

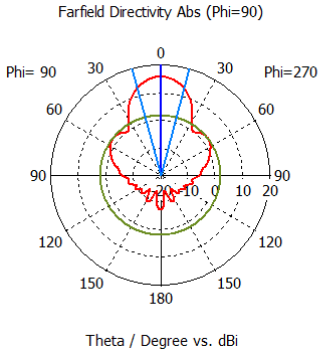
52GHz E-Plane



farfield (f=52) [1]

Frequency = 52
Main lobe magnitude = 15.9 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 28.3 deg.
Side lobe level = -23.4 dB

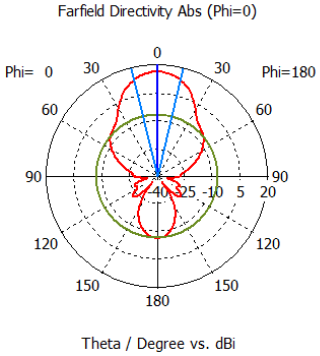
H-Plane



farfield (f=52) [1]

Frequency = 52
Main lobe magnitude = 15.9 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 30.2 deg.
Side lobe level = -13.9 dB

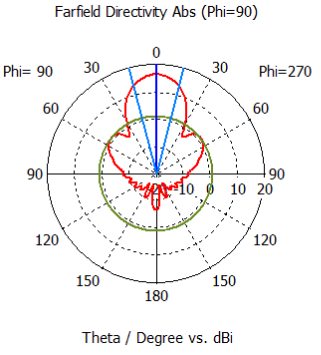
55GHz E-Plane



farfield (f=55) [1]

Frequency = 55
Main lobe magnitude = 16.4 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 27.2 deg.
Side lobe level = -23.3 dB

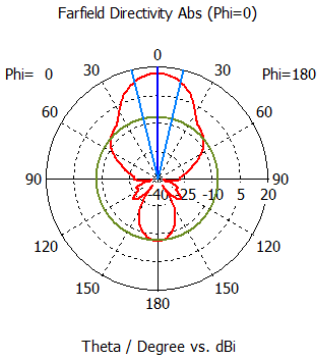
H-Plane



farfield (f=55) [1]

Frequency = 55
Main lobe magnitude = 16.4 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 28.7 deg.
Side lobe level = -15.3 dB

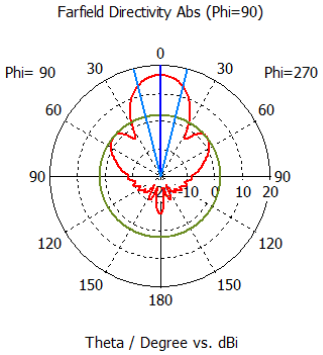
56GHz E-Plane



farfield (f=56) [1]

Frequency = 56
Main lobe magnitude = 16.6 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 26.6 deg.
Side lobe level = -23.3 dB

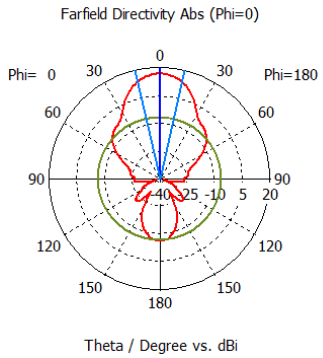
H-Plane



farfield (f=56) [1]

Frequency = 56
Main lobe magnitude = 16.6 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 27.9 deg.
Side lobe level = -14.5 dB

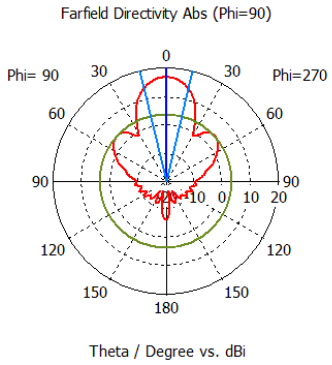
58GHz E-Plane



farfield (f=58) [1]

Frequency = 58
Main lobe magnitude = 16.9 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 25.5 deg.
Side lobe level = -23.4 dB

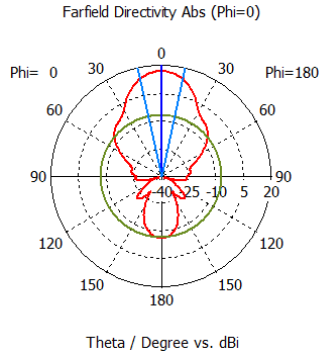
H-Plane



farfield (f=58) [1]

Frequency = 58
Main lobe magnitude = 16.9 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 26.7 deg.
Side lobe level = -13.2 dB

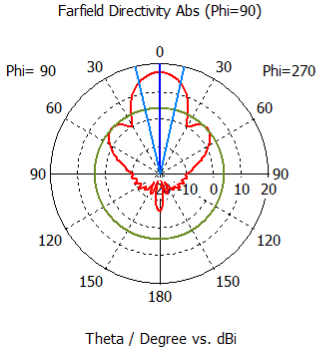
59GHz E-Plane



farfield (f=59) [1]

Frequency = 59
Main lobe magnitude = 17.0 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 25.1 deg.
Side lobe level = -23.6 dB

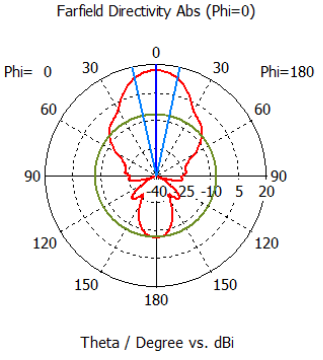
H-Plane



farfield (f=59) [1]

Frequency = 59
Main lobe magnitude = 17.0 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 26.3 deg.
Side lobe level = -13.0 dB

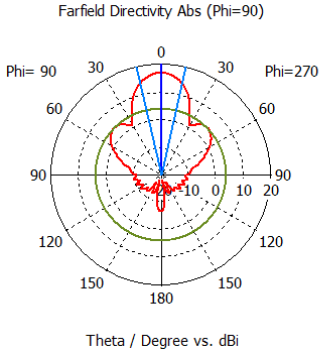
60GHz E-Plane



farfield (f=60) [1]

Frequency = 60
Main lobe magnitude = 17.1 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 24.9 deg.
Side lobe level = -23.7 dB

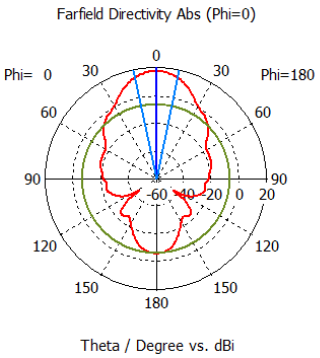
H-Plane



farfield (f=60) [1]

Frequency = 60
Main lobe magnitude = 17.1 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 26.0 deg.
Side lobe level = -13.0 dB

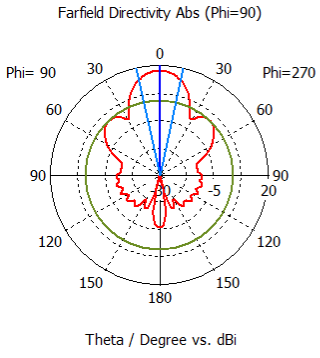
64GHz E-Plane



farfield (f=64) [1]

Frequency = 64
Main lobe magnitude = 17.7 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 23.5 deg.
Side lobe level = -23.9 dB

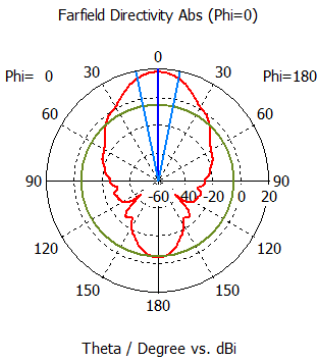
H-Plane



farfield (f=64) [1]

Frequency = 64
Main lobe magnitude = 17.7 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 24.5 deg.
Side lobe level = -13.6 dB

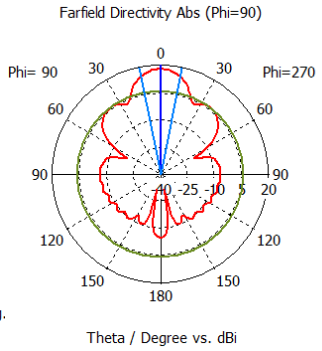
68GHz E-Plane



farfield (f=68) [1]

Frequency = 68
Main lobe magnitude = 18.1 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 22.4 deg.
Side lobe level = -23.3 dB

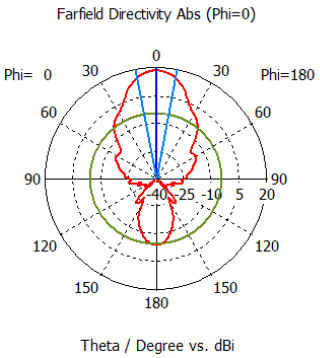
H-Plane



farfield (f=68) [1]

Frequency = 68
Main lobe magnitude = 18.1 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 22.5 deg.
Side lobe level = -11.9 dB

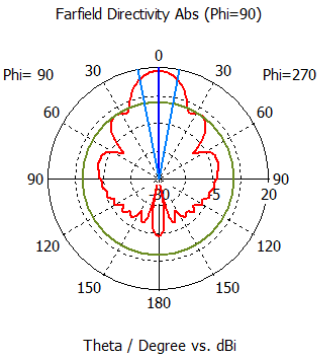
72GHz E-Plane



farfield (f=72) [1]

Frequency = 72
Main lobe magnitude = 18.6 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 21.2 deg.
Side lobe level = -22.8 dB

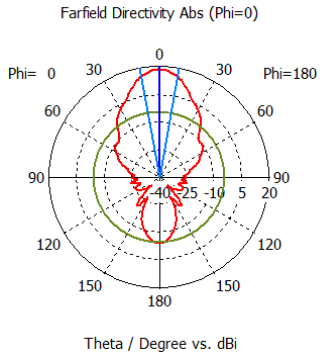
H-Plane



farfield (f=72) [1]

Frequency = 72
Main lobe magnitude = 18.6 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 21.7 deg
Side lobe level = -14.1 dB

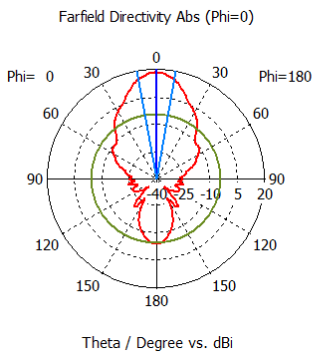
75.8GHz E-Plane



farfield (f=75.8) [1]

Frequency = 75.8
Main lobe magnitude = 18.5 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 20.7 deg.
Side lobe level = -22.7 dB

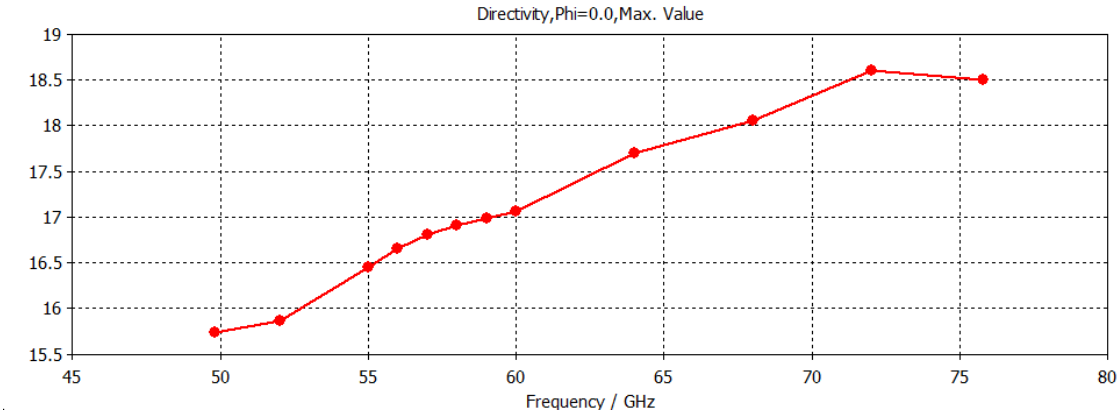
H-Plane



farfield (f=75.8) [1]

Frequency = 75.8
Main lobe magnitude = 18.5 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 20.7 deg.
Side lobe level = -22.7 dB

Gain


Directivity,Phi=0.0,Max. Value
19
18.5
18
17.5
17
16.5
16
15.5
45
50
55
60
65
70
75
80
Frequency / GHz