RH42-292-15

15 dBi Gain, 17.6-26.7 GHz, WR42 Standard Gain Horn with 2.92mm Female Port

Rev 2

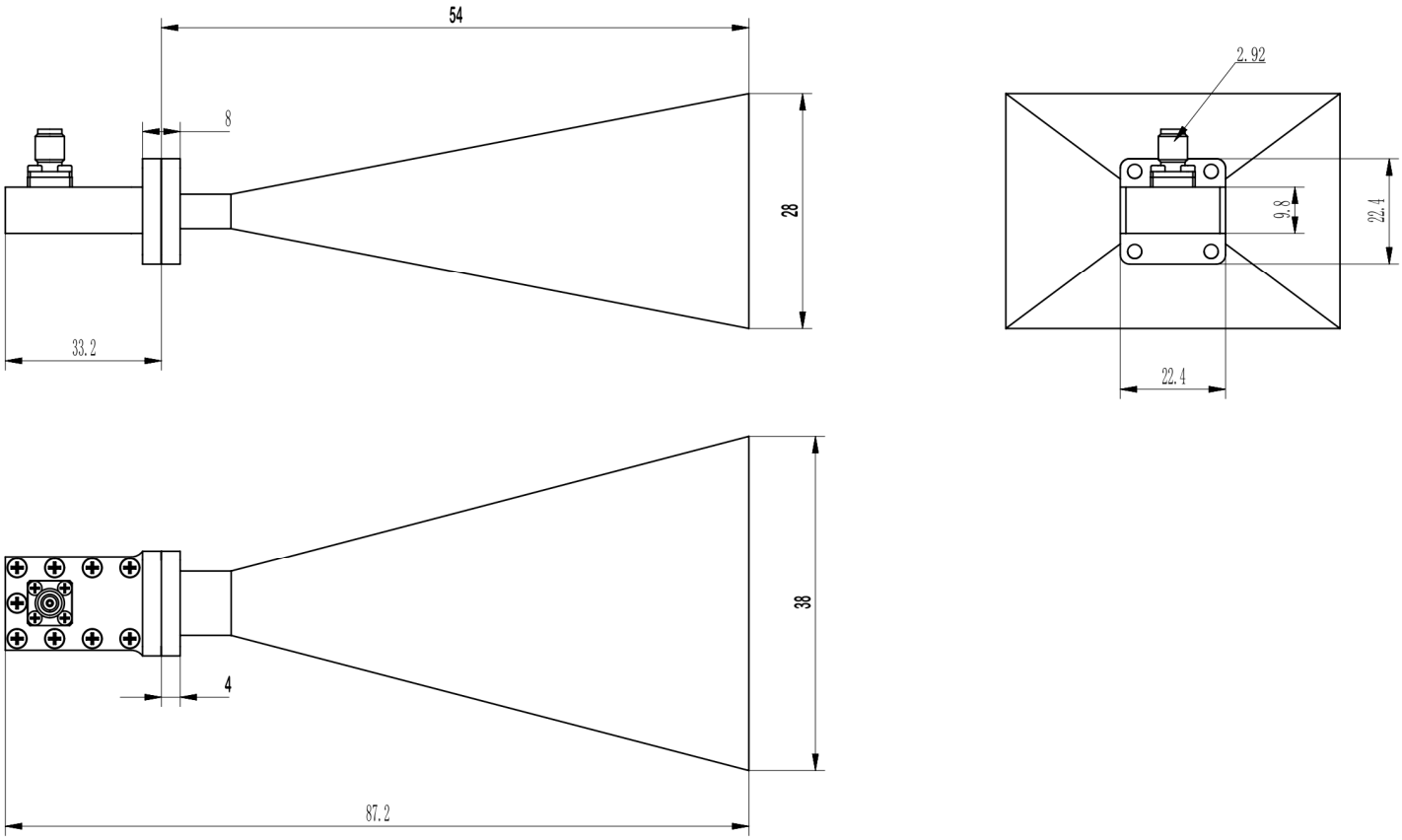
Electrical

Frequency Range	17.6-26.7 GHz
Norminal Gain	15 dBi
Polarization	Linear
VSWR	1.3 max
3dB Beamwidth	E-Plane: 21.3~31.6 deg, H-Plane: 21.5~32.9 deg
Operating Temperature	-40℃~+70℃

Mechanical

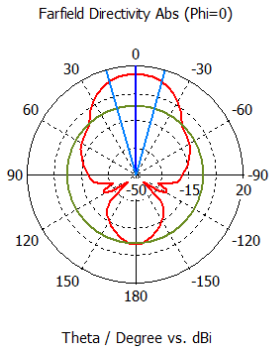
Waveguide Size	WR42
Flange Type	UBR220 Square Cover Flange
Body Material and Finish	Copper, Painted
RF Connector	2.92mm Female

Dimensions(mm)



Simulated Antenna Patterns

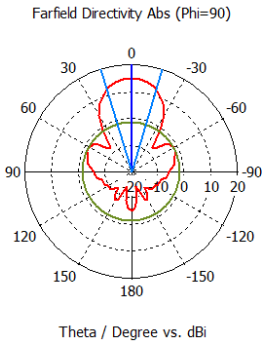
17.6GHz E-Plane



farfield (f=17.6) [1]

Frequency = 17.6
Main lobe magnitude = 15.2 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 31.6 deg.
Side lobe level = -20.7 dB

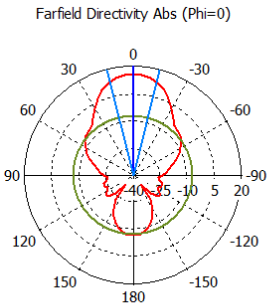
H-Plane



farfield (f=17.6) [1]

Frequency = 17.6
Main lobe magnitude = 15.2 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 32.9 deg.
Side lobe level = -16.7 dB

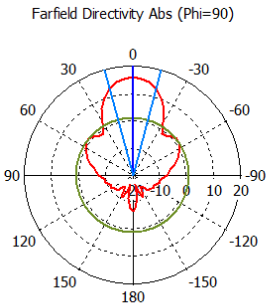
20GHz E-Plane



farfield (f=20) [1]

Frequency = 20
Main lobe magnitude = 16.1 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 28.2 deg.
Side lobe level = -23.0 dB

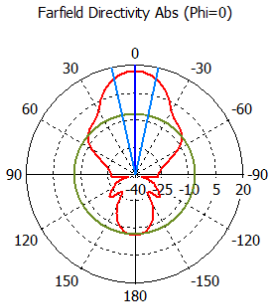
H-Plane



farfield (f=20) [1]

Frequency = 20
Main lobe magnitude = 16.1 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 29.7 deg.
Side lobe level = -15.0 dB

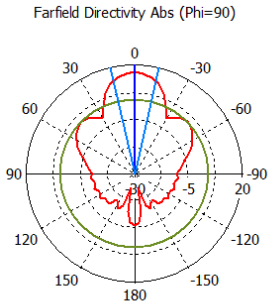
22GHz E-Plane



farfield (f=22) [1]

Frequency = 22
Main lobe magnitude = 16.9 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 25.2 deg.
Side lobe level = -23.3 dB

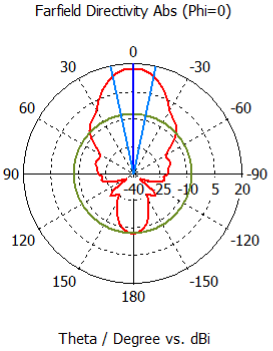
H-Plane



farfield (f=22) [1]

Frequency = 22
Main lobe magnitude = 16.9 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 25.4 deg.
Side lobe level = -12.7 dB

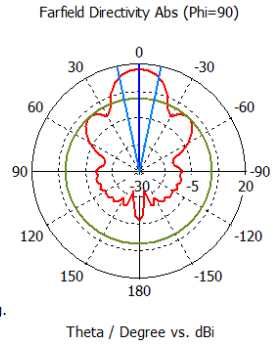
24GHz E-Plane



farfield (f=24) [1]

Frequency = 24
Main lobe magnitude = 17.7 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 23.3 deg.
Side lobe level = -25.1 dB

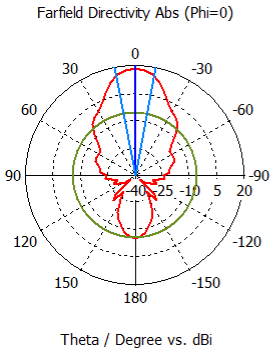
H-Plane



farfield (f=24) [1]

Frequency = 24
Main lobe magnitude = 17.7 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 23.6 deg.
Side lobe level = -13.5 dB

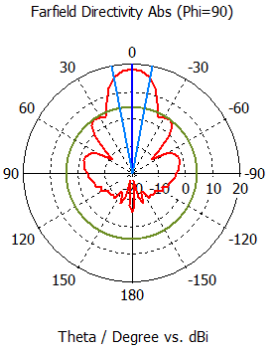
26.7GHz E-Plane



farfield (f=26.7) [1]

Frequency = 26.7
Main lobe magnitude = 18.5 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 21.3 deg.
Side lobe level = -24.2 dB

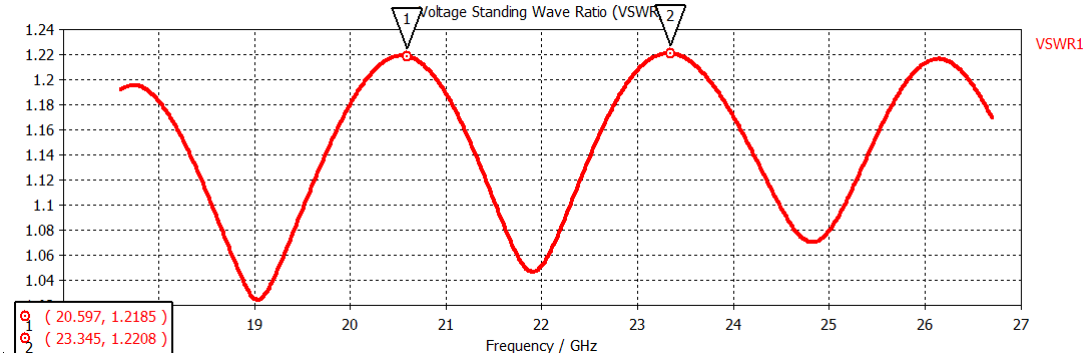
H-Plane



farfield (f=26.7) [1]

Frequency = 26.7
Main lobe magnitude = 18.5 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 21.5 deg.
Side lobe level = -14.2 dB

Simulated VSWR



Simulated Gain