

15 dBi Gain, 17.6-26.7 GHz, WR42 Standard Gain Horn with UBR220

Flange

Rev 2

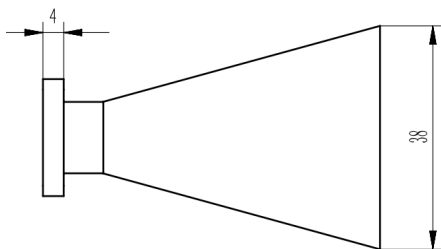
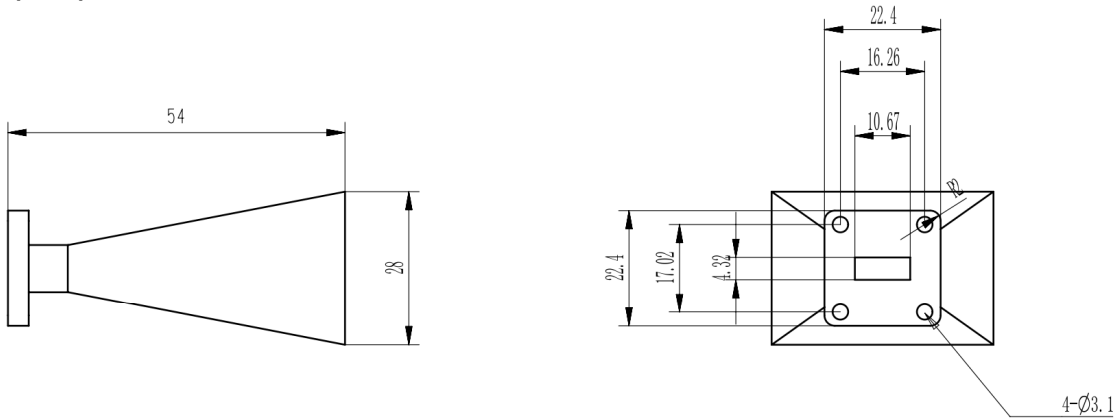
Electrical

Frequency Range	17.6-26.7 GHz
Norminal Gain	15 dBi
Polarization	Linear
VSWR	1.2 max
3dB Beamwidth	H-Plane: 21.3~31.6 deg, E-Plane: 21.5~32.9 deg
Operating Temperature	-40°C~+70°C

Mechanical

Waveguide Size	WR42
Flange Type	UBR220 Square Cover Flange
Body Material and Finish	Copper, Painted

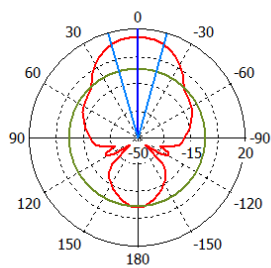
Dimensions(mm)



# Simulated Antenna Patterns

## 17.6GHz H-Plane

Farfield Directivity Abs (Phi=0)



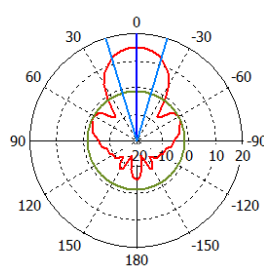
Theta / Degree vs. dBi

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

## E-Plane

Farfield Directivity Abs (Phi=90)



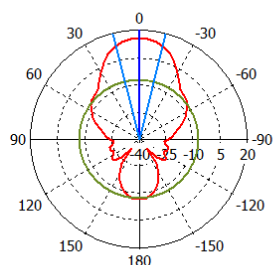
Theta / Degree vs. dBi

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 H-Plane

Farfield Directivity Abs (Phi=0)



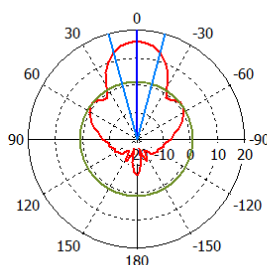
Theta / Degree vs. dBi

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

## E-Plane

Farfield Directivity Abs (Phi=90)



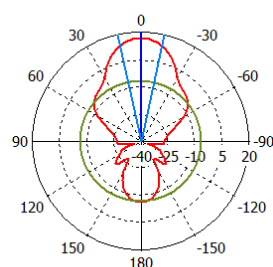
Theta / Degree vs. dBi

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 H-Plane

Farfield Directivity Abs (Phi=0)



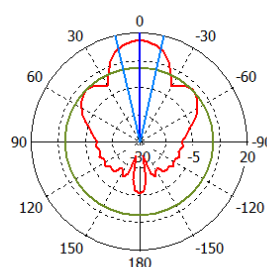
Theta / Degree vs. dBi

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

## E-Plane

Farfield Directivity Abs (Phi=90)



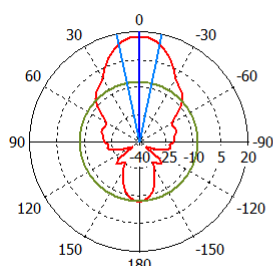
Theta / Degree vs. dBi

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 H-Plane

Farfield Directivity Abs (Phi=0)



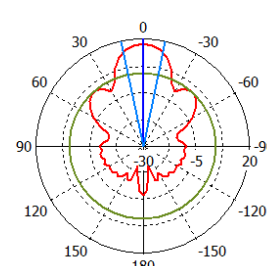
Theta / Degree vs. dBi

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

## E-Plane

Farfield Directivity Abs (Phi=90)

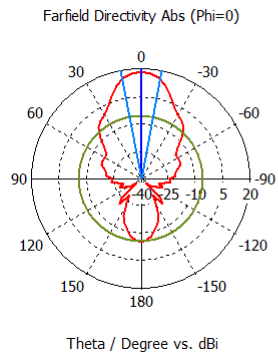


Theta / Degree vs. dBi

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

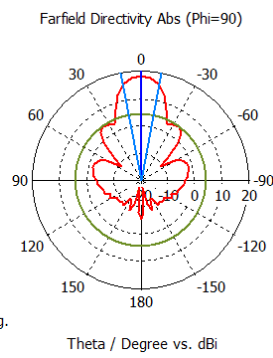
## 26.7GHz H-Plane



farfield (f=26.7) [1]

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

## 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) = 21.5 deg.  
 Side lobe level = -14.2 dB

## Simulated Gain

