



**20 dBi Gain, 26.3-40 GHz, WR28 Standard Gain Horn with 2.92mm Female Port**

Rev 1

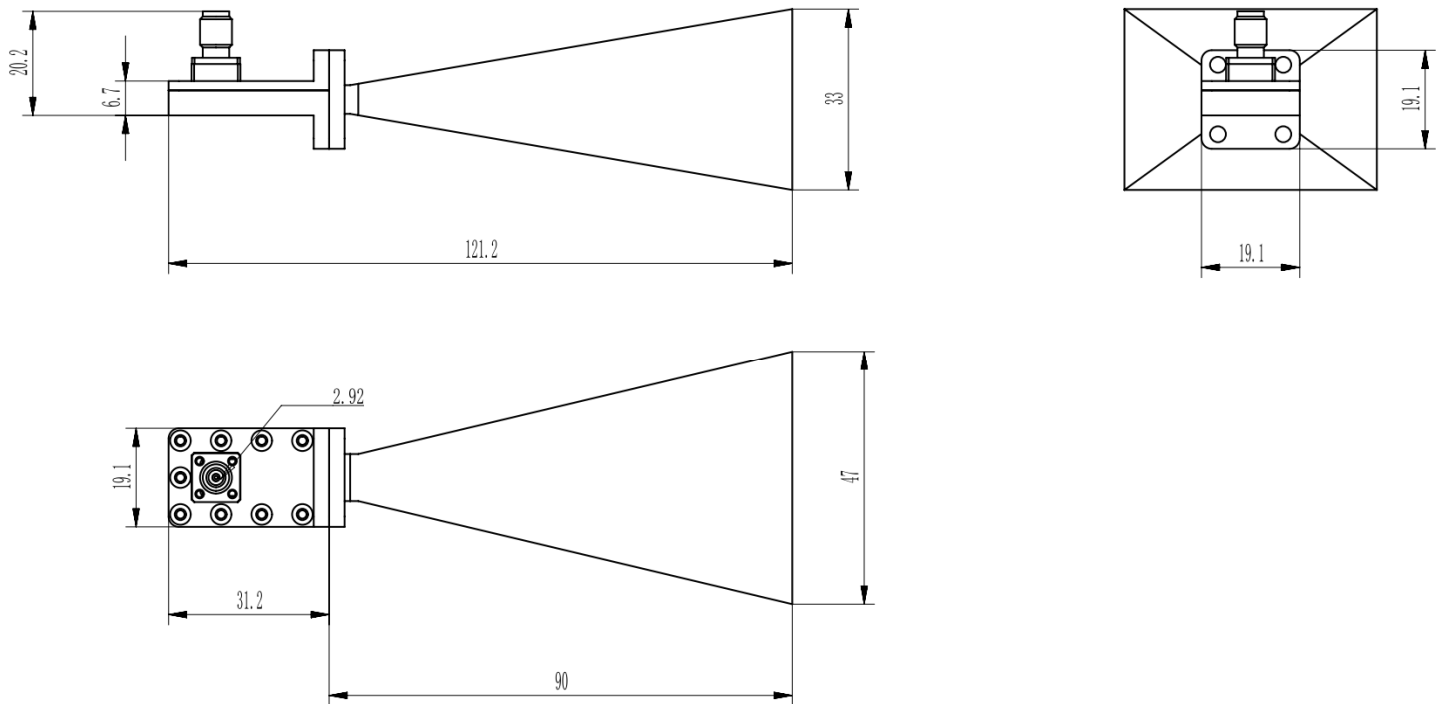
**Electrical**

Frequency Range	26.3-40 GHz
Norminal Gain	20 dBi
Polarization	Linear
VSWR	1.3 max
3dB Beamwidth	H-Plane: 11.9~17.2 deg, E-Plane: 11.6~17.7 deg
Operating Temperature	-40°C~+70°C

**Mechanical**

Waveguide Size	WR28
Flange Type	UBR320 Square Cover Flange
Body Material and Finish	Copper, Painted
RF Connector	2.92mm Female
Net Weight	Approx 120g

**Dimensions(mm)**

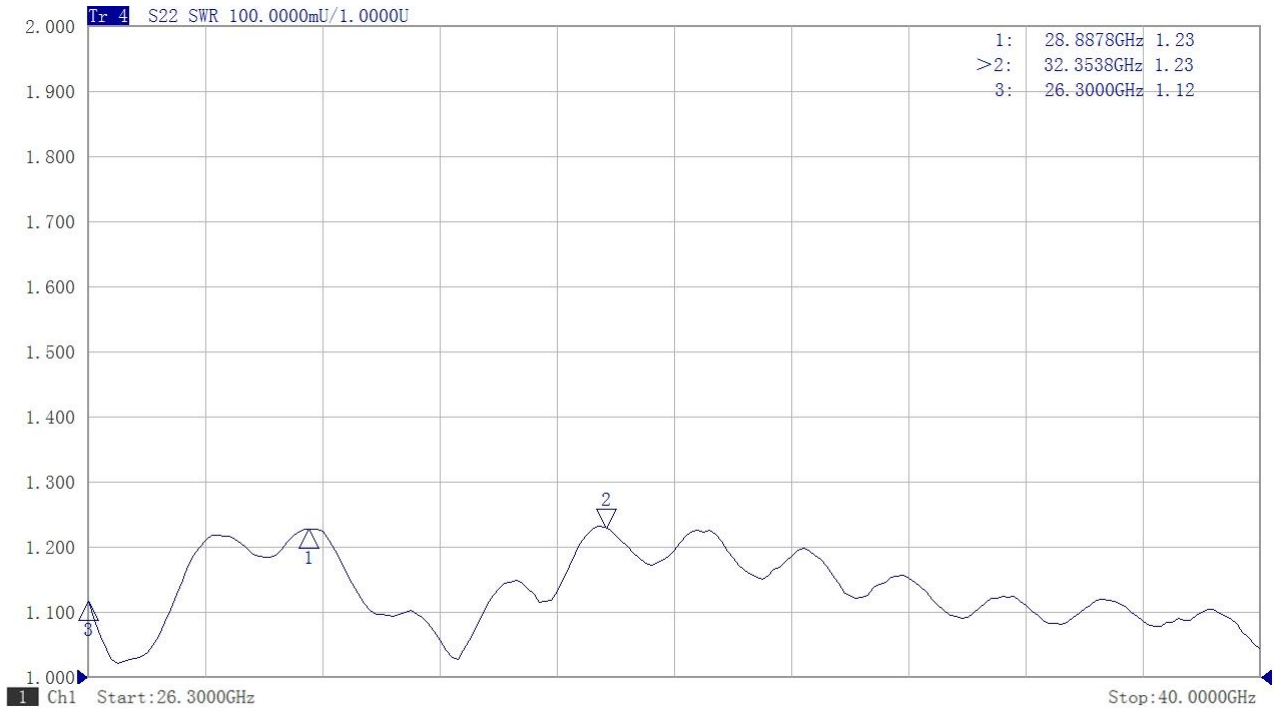




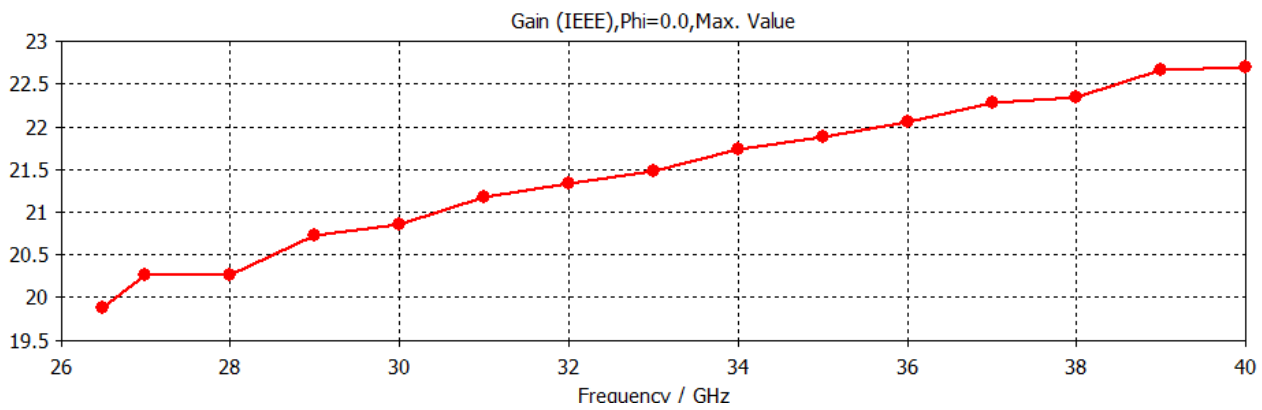
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Rev 1

**Typical Test Data**

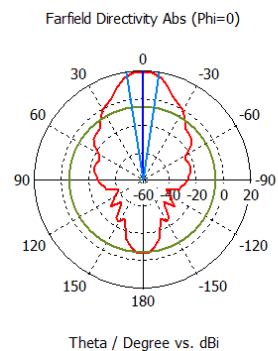


**Gain**



# Simulated Antenna Patterns

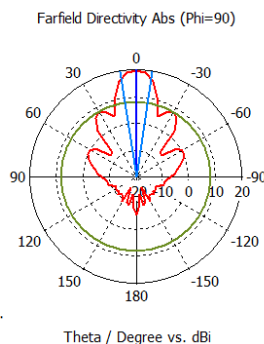
## 26.5GHz H-Plane



farfield (f=26.5) [1]

Frequency = 26.5  
 Main lobe magnitude = 20.0 dBi  
 Main lobe direction = 0.0 deg.  
 Angular width (3 dB) = 17.2 deg.  
 Side lobe level = -25.9 dB

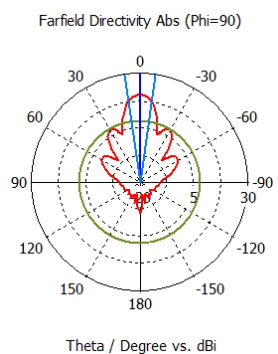
## EE-Plane



farfield (f=26.5) [1]

Frequency = 26.5  
 Main lobe magnitude = 20.0 dBi  
 Main lobe direction = 0.0 deg.  
 Angular width (3 dB) = 17.7 deg.  
 Side lobe level = -11.8 dB

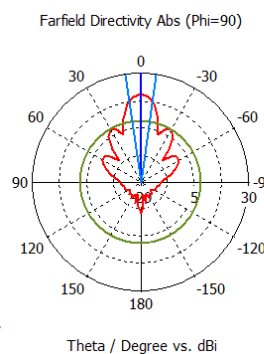
## 28GHz H-Plane



farfield (f=28) [1]

Frequency = 28  
 Main lobe magnitude = 20.5 dBi  
 Main lobe direction = 0.0 deg.  
 Angular width (3 dB) = 16.7 deg.  
 Side lobe level = -12.3 dB

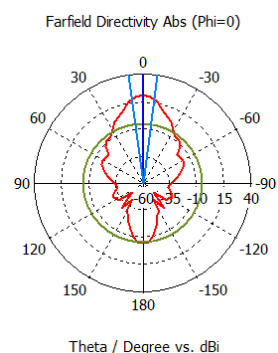
## E-Plane



farfield (f=28) [1]

Frequency = 28  
 Main lobe magnitude = 20.5 dBi  
 Main lobe direction = 0.0 deg.  
 Angular width (3 dB) = 16.7 deg.  
 Side lobe level = -12.3 dB

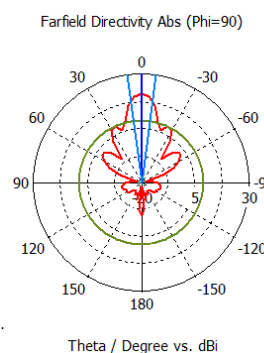
## 30GHz H-Plane



farfield (f=30) [1]

Frequency = 30  
 Main lobe magnitude = 21.0 dBi  
 Main lobe direction = 0.0 deg.  
 Angular width (3 dB) = 15.0 deg.  
 Side lobe level = -26.0 dB

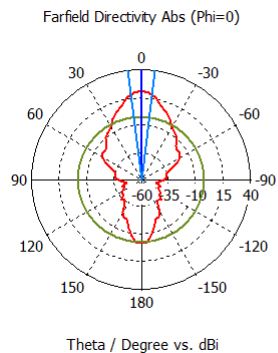
## E-Plane



farfield (f=30) [1]

Frequency = 30  
 Main lobe magnitude = 21.0 dBi  
 Main lobe direction = 0.0 deg.  
 Angular width (3 dB) = 15.4 deg.  
 Side lobe level = -12.2 dB

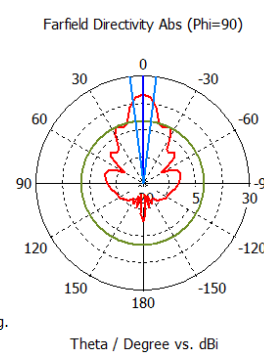
## 32GHz H-Plane



farfield (f=32) [1]

Frequency = 32  
 Main lobe magnitude = 21.5 dBi  
 Main lobe direction = 0.0 deg.  
 Angular width (3 dB) = 14.1 deg.  
 Side lobe level = -23.6 dB

## E-Plane

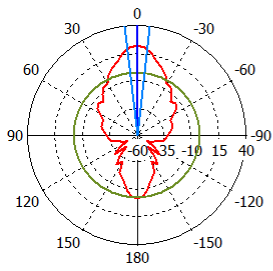


farfield (f=32) [1]

Frequency = 32  
 Main lobe magnitude = 21.5 dBi  
 Main lobe direction = 0.0 deg.  
 Angular width (3 dB) = 14.3 deg.  
 Side lobe level = -12.2 dB

### 34GHz H-Plane

Farfield Directivity Abs (Phi=0)



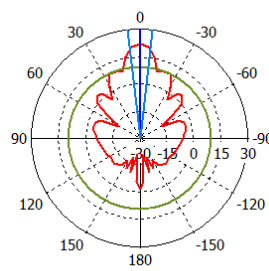
Theta / Degree vs. dBi

farfield (f=34) [1]

Frequency = 34  
Main lobe magnitude = 21.9 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 13.4 deg.  
Side lobe level = -24.2 dB

### E-Plane

Farfield Directivity Abs (Phi=90)



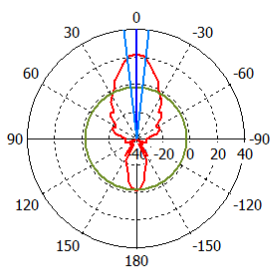
Theta / Degree vs. dBi

farfield (f=34) [1]

Frequency = 34  
Main lobe magnitude = 21.9 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 13.5 deg.  
Side lobe level = -12.4 dB

### 36GHz H-Plane

Farfield Directivity Abs (Phi=0)



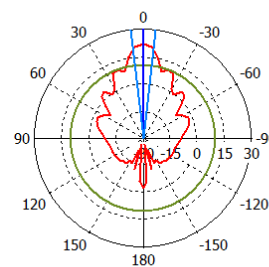
Theta / Degree vs. dBi

farfield (f=36) [1]

Frequency = 36  
Main lobe magnitude = 22.3 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 12.8 deg.  
Side lobe level = -24.6 dB

### E-Plane

Farfield Directivity Abs (Phi=90)



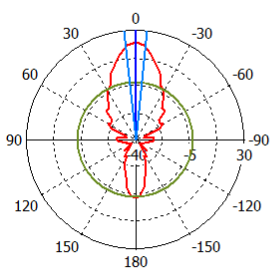
Theta / Degree vs. dBi

farfield (f=36) [1]

Frequency = 36  
Main lobe magnitude = 22.3 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 12.9 deg.  
Side lobe level = -11.9 dB

### 38GHz H-Plane

Farfield Directivity Abs (Phi=0)



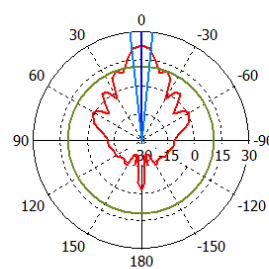
Theta / Degree vs. dBi

farfield (f=38) [1]

Frequency = 38  
Main lobe magnitude = 22.6 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 12.3 deg.  
Side lobe level = -25.3 dB

### E-Plane

Farfield Directivity Abs (Phi=90)



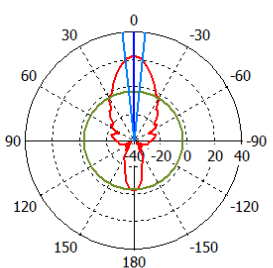
Theta / Degree vs. dBi

farfield (f=38) [1]

Frequency = 38  
Main lobe magnitude = 22.6 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 12.3 deg.  
Side lobe level = -11.6 dB

### 40GHz H-Plane

Farfield Directivity Abs (Phi=0)



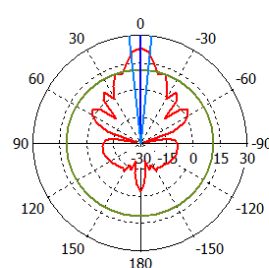
Theta / Degree vs. dBi

farfield (f=40) [1]

Frequency = 40  
Main lobe magnitude = 23.1 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 11.9 deg.  
Side lobe level = -26.3 dB

### E-Plane

Farfield Directivity Abs (Phi=90)



Theta / Degree vs. dBi

farfield (f=40) [1]

Frequency = 40  
Main lobe magnitude = 23.1 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 11.6 deg.  
Side lobe level = -12.0 dB