



**10 dBi Gain, 11.9-18 GHz, WR62 Standard Gain Horn with SMA Female Port**

Rev 3

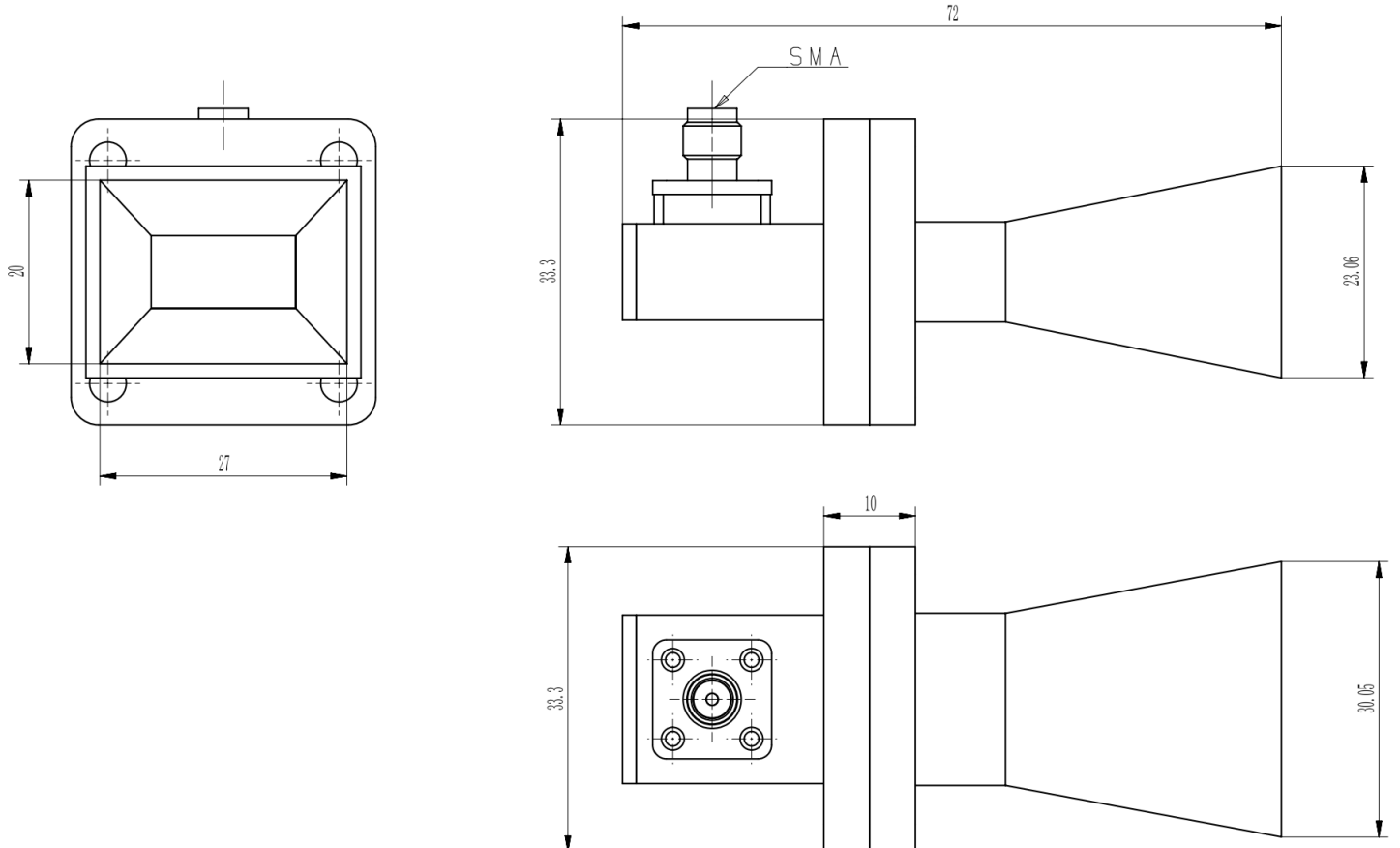
**Electrical**

Frequency Range	11.9-18 GHz
Norminal Gain	10 dBi
Polarization	Linear
VSWR	1.4 max
3dB Beamwidth	H-Plane: 39.8~56.4 deg, E-Plane: 40.2~60.4 deg
Operating Temperature	-40°C~+70°C

**Mechanical**

Waveguide Size	WR62
Flange Type	UBR140 Square Cover Flange
Body Material and Finish	Aluminum, Painted
RF Connector	SMA Female

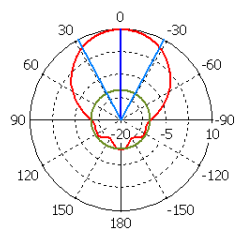
**Dimensions(mm)**



# Simulated Antenna Patterns

## 11.9GHz H-Plane

Farfield Directivity Abs (Phi=0)



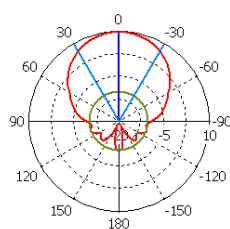
Theta / Degree vs. dBi

farfield (f=11.9) [1]

Frequency = 11.9  
Main lobe magnitude = 9.9 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 56.4 deg.  
Side lobe level = -20.1 dB

## E-Plane

Farfield Directivity Abs (Phi=90)



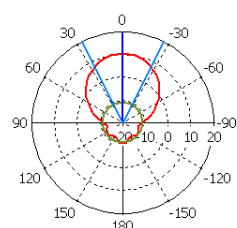
Theta / Degree vs. dBi

farfield (f=11.9) [1]

Frequency = 11.9  
Main lobe magnitude = 9.9 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 60.4 deg.  
Side lobe level = -20.1 dB

## 12.5GHz H-Plane

Farfield Directivity Abs (Phi=0)



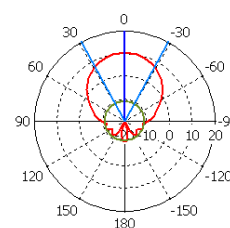
Theta / Degree vs. dBi

farfield (f=12.5000) [1]

Frequency = 12.5  
Main lobe magnitude = 10.3 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 54.1 deg.  
Side lobe level = -21.2 dB

## E-Plane

Farfield Directivity Abs (Phi=90)



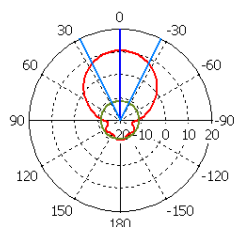
Theta / Degree vs. dBi

farfield (f=12.5000) [1]

Frequency = 12.5  
Main lobe magnitude = 10.3 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 57.2 deg.  
Side lobe level = -21.2 dB

## 13GHz H-Plane

Farfield Directivity Abs (Phi=0)



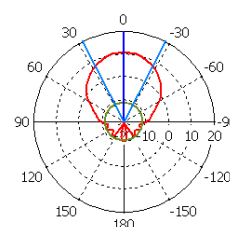
Theta / Degree vs. dBi

farfield (f=13.0000) [1]

Frequency = 13  
Main lobe magnitude = 10.6 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 52.4 deg.  
Side lobe level = -21.8 dB

## E-Plane

Farfield Directivity Abs (Phi=90)



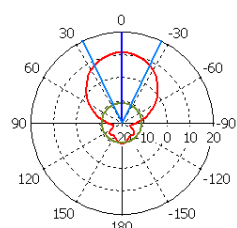
Theta / Degree vs. dBi

farfield (f=13.0000) [1]

Frequency = 13  
Main lobe magnitude = 10.6 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 54.9 deg.  
Side lobe level = -21.8 dB

## 13.5GHz H-Plane

Farfield Directivity Abs (Phi=0)



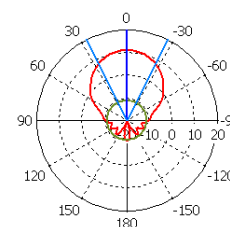
Theta / Degree vs. dBi

farfield (f=13.5000) [1]

Frequency = 13.5  
Main lobe magnitude = 10.9 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 51.0 deg.  
Side lobe level = -22.1 dB

## E-Plane

Farfield Directivity Abs (Phi=90)



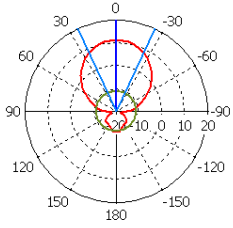
Theta / Degree vs. dBi

farfield (f=13.5000) [1]

Frequency = 13.5  
Main lobe magnitude = 10.9 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 53.5 deg.  
Side lobe level = -22.1 dB

### 14GHz H-Plane

Farfield Directivity Abs (Phi=0)



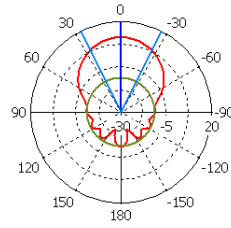
Theta / Degree vs. dBi

farfield (f=14.0000) [1]

Frequency = 14  
Main lobe magnitude = 11.2 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 49.8 deg.  
Side lobe level = -22.2 dB

### E-Plane

Farfield Directivity Abs (Phi=90)



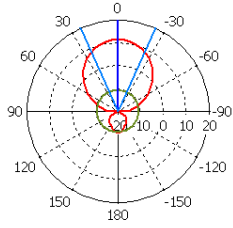
Theta / Degree vs. dBi

farfield (f=14.0000) [1]

Frequency = 14  
Main lobe magnitude = 11.2 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 52.6 deg.  
Side lobe level = -22.2 dB

### 14.5GHz H-Plane

Farfield Directivity Abs (Phi=0)



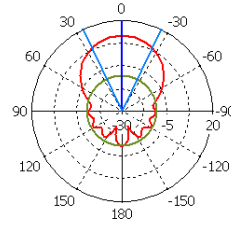
Theta / Degree vs. dBi

farfield (f=14.5000) [1]

Frequency = 14.5  
Main lobe magnitude = 11.5 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 48.3 deg.  
Side lobe level = -22.2 dB

### E-Plane

Farfield Directivity Abs (Phi=90)



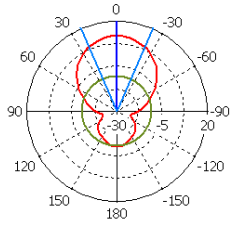
Theta / Degree vs. dBi

farfield (f=14.5000) [1]

Frequency = 14.5  
Main lobe magnitude = 11.5 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 51.6 deg.  
Side lobe level = -22.2 dB

### 15GHz H-Plane

Farfield Directivity Abs (Phi=0)



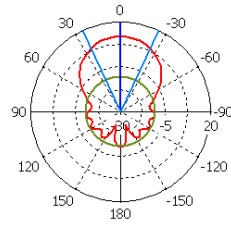
Theta / Degree vs. dBi

farfield (f=15.0000) [1]

Frequency = 15  
Main lobe magnitude = 11.8 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 46.7 deg.  
Side lobe level = -22.2 dB

### E-Plane

Farfield Directivity Abs (Phi=90)



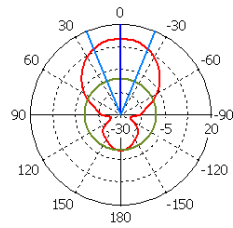
Theta / Degree vs. dBi

farfield (f=15.0000) [1]

Frequency = 15  
Main lobe magnitude = 11.8 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 49.9 deg.  
Side lobe level = -22.2 dB

### 15.5GHz H-Plane

Farfield Directivity Abs (Phi=0)



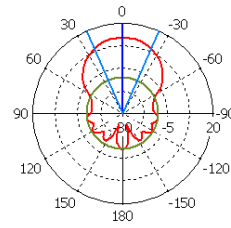
Theta / Degree vs. dBi

farfield (f=15.5000) [1]

Frequency = 15.5  
Main lobe magnitude = 12.1 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 45.0 deg.  
Side lobe level = -22.3 dB

### E-Plane

Farfield Directivity Abs (Phi=90)



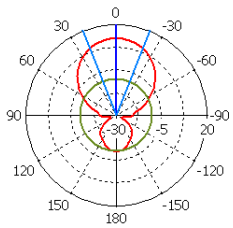
Theta / Degree vs. dBi

farfield (f=15.5000) [1]

Frequency = 15.5  
Main lobe magnitude = 12.1 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 47.3 deg.  
Side lobe level = -22.3 dB

### 16GHz H-Plane

Farfield Directivity Abs (Phi=0)



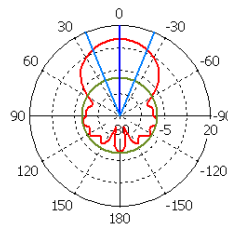
Theta / Degree vs. dBi

farfield (f=16.0000) [1]

Frequency = 16  
Main lobe magnitude = 12.4 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 43.4 deg.  
Side lobe level = -22.5 dB

### E-Plane

Farfield Directivity Abs (Phi=90)



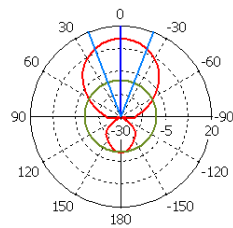
Theta / Degree vs. dBi

farfield (f=16.0000) [1]

Frequency = 16  
Main lobe magnitude = 12.4 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 44.9 deg.  
Side lobe level = -21.5 dB

### 16.5GHz H-Plane

Farfield Directivity Abs (Phi=0)



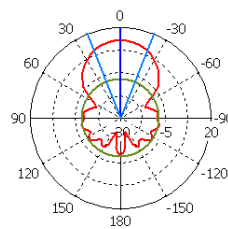
Theta / Degree vs. dBi

farfield (f=16.5000) [1]

Frequency = 16.5  
Main lobe magnitude = 12.7 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 42.3 deg.  
Side lobe level = -22.9 dB

### E-Plane

Farfield Directivity Abs (Phi=90)



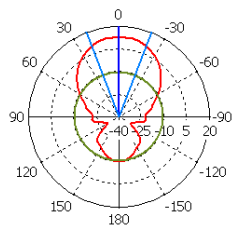
Theta / Degree vs. dBi

farfield (f=16.5000) [1]

Frequency = 16.5  
Main lobe magnitude = 12.7 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 43.3 deg.  
Side lobe level = -21.1 dB

### 17GHz H-Plane

Farfield Directivity Abs (Phi=0)



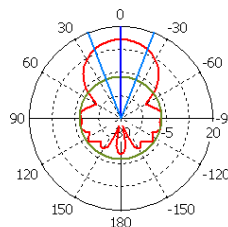
Theta / Degree vs. dBi

farfield (f=17.0000) [1]

Frequency = 17  
Main lobe magnitude = 13.0 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 41.5 deg.  
Side lobe level = -23.3 dB

### E-Plane

Farfield Directivity Abs (Phi=90)



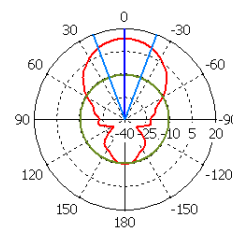
Theta / Degree vs. dBi

farfield (f=17.0000) [1]

Frequency = 17  
Main lobe magnitude = 13.0 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 42.5 deg.  
Side lobe level = -20.5 dB

### 17.5GHz H-Plane

Farfield Directivity Abs (Phi=0)



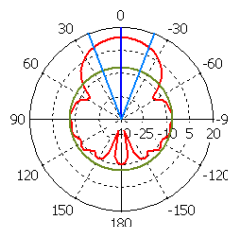
Theta / Degree vs. dBi

farfield (f=17.5000) [1]

Frequency = 17.5  
Main lobe magnitude = 13.2 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 40.8 deg.  
Side lobe level = -23.7 dB

### E-Plane

Farfield Directivity Abs (Phi=90)



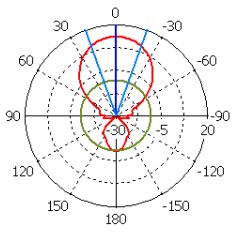
Theta / Degree vs. dBi

farfield (f=17.5000) [1]

Frequency = 17.5  
Main lobe magnitude = 13.2 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 41.7 deg.  
Side lobe level = -19.5 dB

## 18GHz H-Plane

Farfield Directivity Abs (Phi=0)

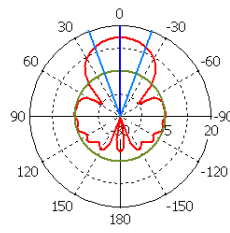


Theta / Degree vs. dBi

Frequency = 18  
Main lobe magnitude = 13.5 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 39.8 deg.  
Side lobe level = -23.9 dB

## E-Plane

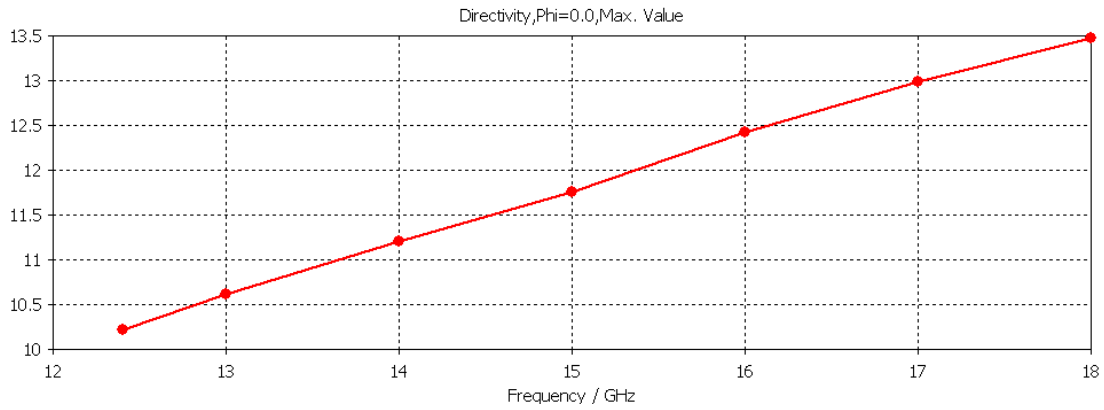
Farfield Directivity Abs (Phi=90)



Theta / Degree vs. dBi

Frequency = 18  
Main lobe magnitude = 13.5 dBi  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 40.2 deg.  
Side lobe level = -18.5 dB

## Simulated Gain



## Typical Test Data

