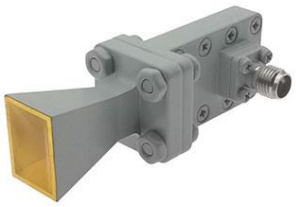
# RH28-292-10



## 10 dBi Gain, 26.3-40 GHz, WR28 Standard Gain Horn with 2.92mm Female Port

Rev 1

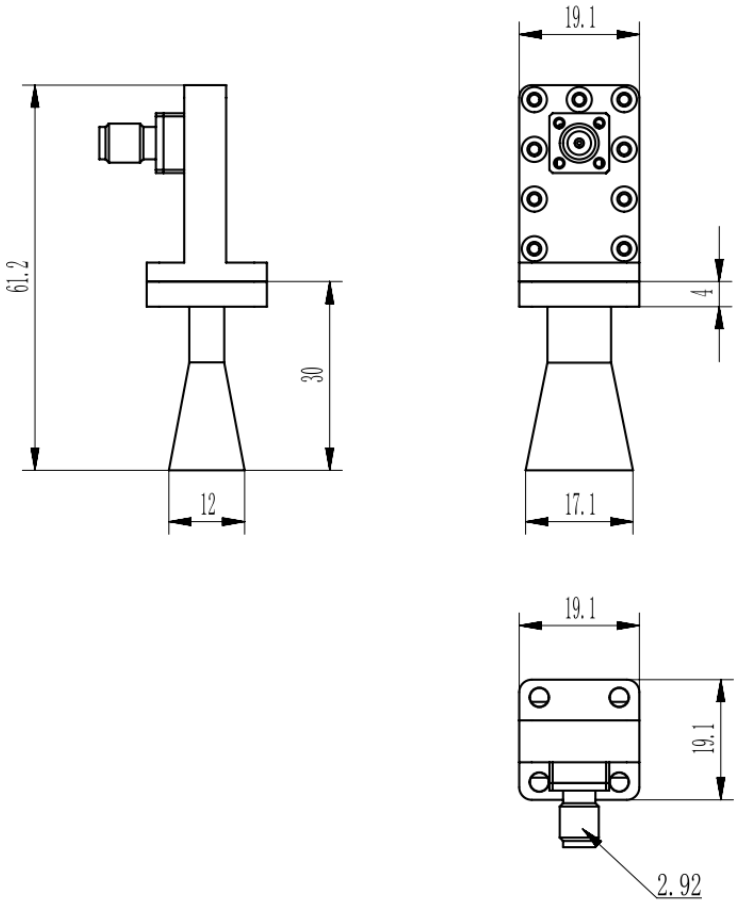
## Electrical

| | |
|---|---|
| **Frequency Range** | 26.3-40 GHz |
| **Norminal Gain** | 10 dBi |
| **Polarization** | Linear |
| **VSWR** | 1.4 max |
| **3dB Beamwidth** | E-Plane: 32.5~48.7 deg, H-Plane: 37.8~54.9 deg |
| **Operating Temperature** | -40℃~+70℃ |

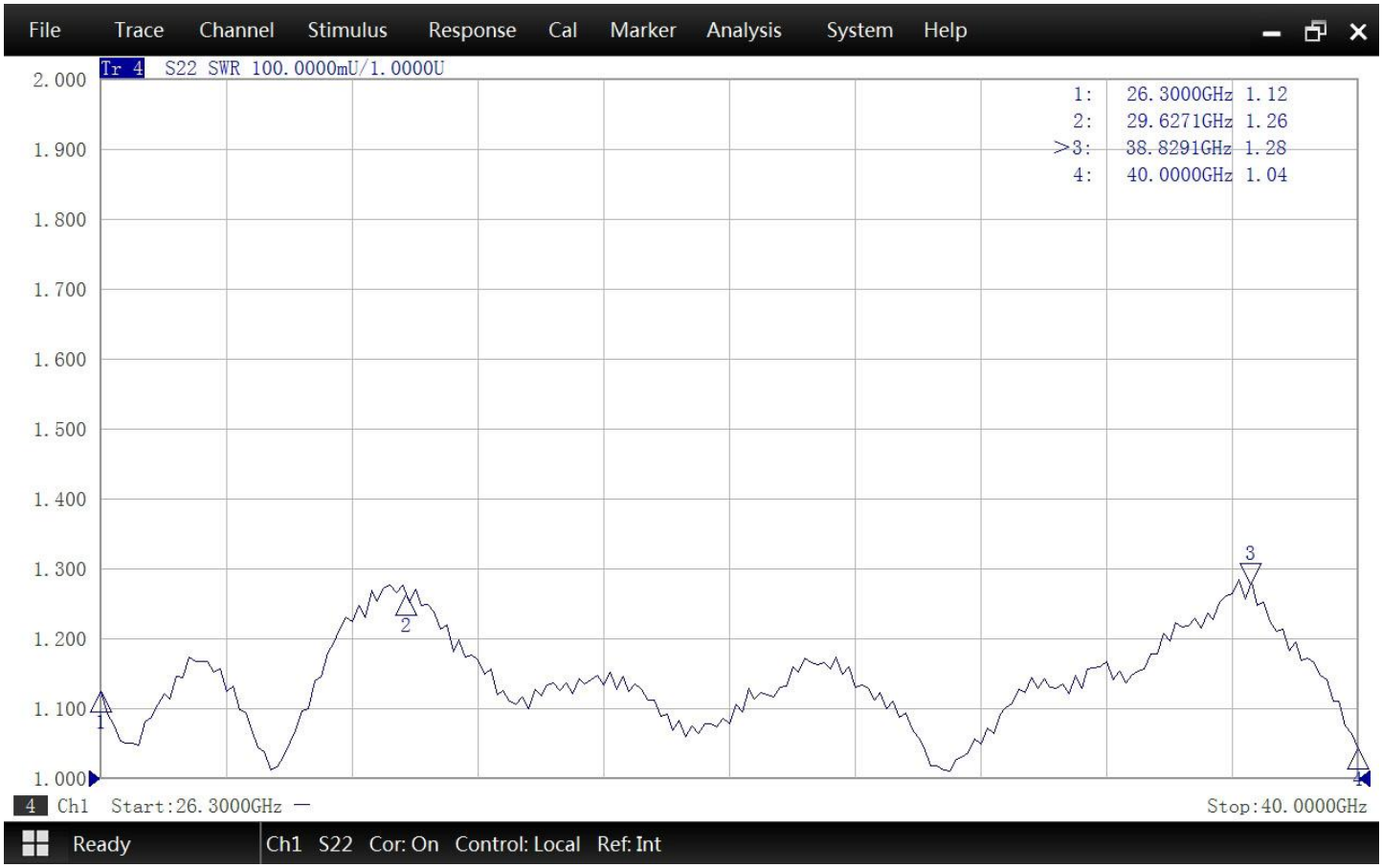
## Mechanical

| | |
|---|---|
| **Waveguide Size** | WR28 |
| **Flange Type** | UBR320 Square Cover Flange |
| **Body Material and Finish** | Copper, Painted |
| **RF Connector** | 2.92mm Female |

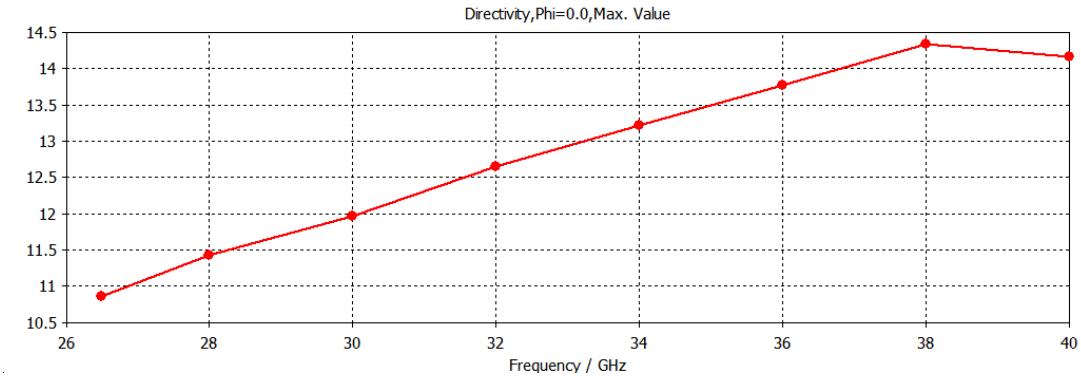
## Dimensions(mm)



## VSWR

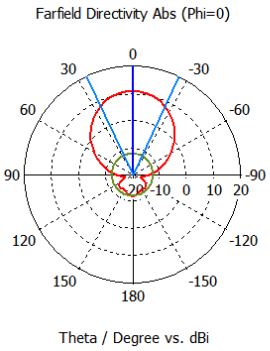

File Trace Channel Stimulus Response Cal Marker Analysis System Help
Tr 4 S22 SWR 100.0000mU/1.0000U
1: 26.3000GHz 1.12
2: 29.6271GHz 1.26
>3: 38.8291GHz 1.28
4: 40.0000GHz 1.04
2.000
1.900
1.800
1.700
1.600
1.500
1.400
1.300
1.200
1.100
1.000
4 Ch1 Start:26.3000GHz
Stop:40.0000GHz
Ready
Ch1 S22 Cor: On Control: Local Ref: Int

## Gain


Directivity,Phi=0.0,Max. Value
14.5
14
13.5
13
12.5
12
11.5
11
10.5
26
28
30
32
34
36
38
40
Frequency / GHz

# Simulated Antenna Patterns

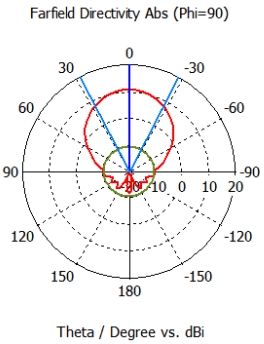
## 26.5GHz E-Plane




farfield (f=26.5) [1]

Frequency = 26.5
Main lobe magnitude = 10.9 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 50.6 deg.
Side lobe level = -23.0 dB

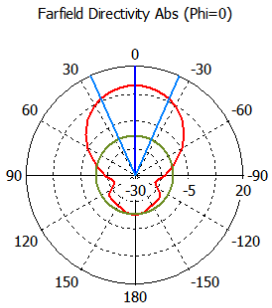
## H-Plane




farfield (f=26.5) [1]

Frequency = 26.5
Main lobe magnitude = 10.9 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 54.6 deg.
Side lobe level = -21.2 dB

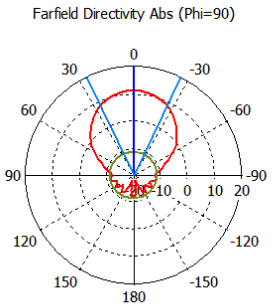
## 28GHz E-Plane




farfield (f=28) [1]

Frequency = 28
Main lobe magnitude = 11.4 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 47.9 deg.
Side lobe level = -23.3 dB

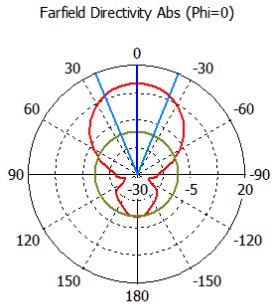
## H-Plane




farfield (f=28) [1]

Frequency = 28
Main lobe magnitude = 11.4 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 51.2 deg.
Side lobe level = -22.6 dB

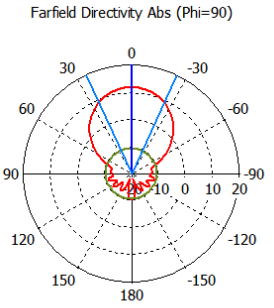
## 30GHz E-Plane




farfield (f=30) [1]

Frequency = 30
Main lobe magnitude = 12.0 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 45.1 deg.
Side lobe level = -22.4 dB

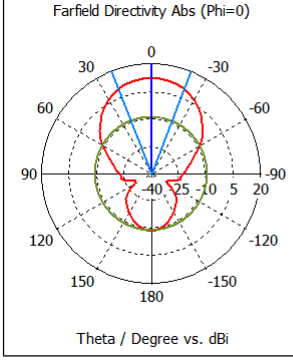
## H-Plane




farfield (f=30) [1]

Frequency = 30
Main lobe magnitude = 12.0 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 49.4 deg.
Side lobe level = -22.4 dB

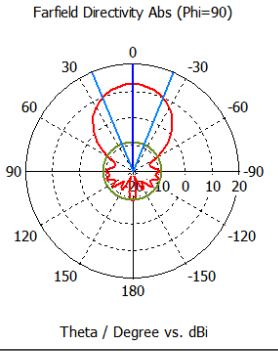
## 32GHz E-Plane




farfield (f=32) [1]

Frequency = 32
Main lobe magnitude = 12.6 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 41.9 deg.
Side lobe level = -21.6 dB

## H-Plane

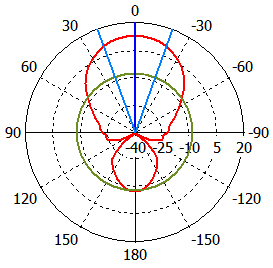



farfield (f=32) [1]

Frequency = 32
Main lobe magnitude = 12.6 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 44.7 deg.
Side lobe level = -21.6 dB

## 34GHz E-Plane

Farfield Directivity Abs (Phi=0)



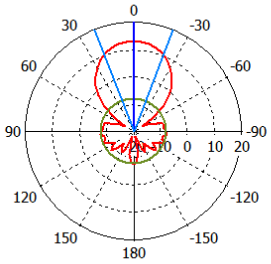

Theta / Degree vs. dBi

farfield (f=34) [1]

Frequency = 34
Main lobe magnitude = 13.2 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 40.0 deg.
Side lobe level = -21.1 dB

## H-Plane

Farfield Directivity Abs (Phi=90)



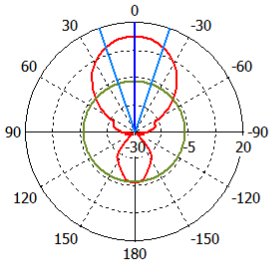

Theta / Degree vs. dBi

farfield (f=34) [1]

Frequency = 34
Main lobe magnitude = 13.2 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 42.1 deg.
Side lobe level = -21.1 dB

## 36GHz E-Plane

Farfield Directivity Abs (Phi=0)



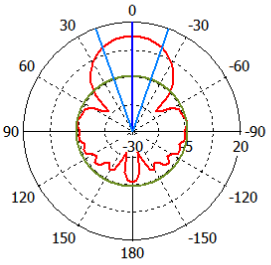

Theta / Degree vs. dBi

farfield (f=36) [1]

Frequency = 36
Main lobe magnitude = 13.8 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 37.9 deg.
Side lobe level = -20.3 dB

## H-Plane

Farfield Directivity Abs (Phi=90)



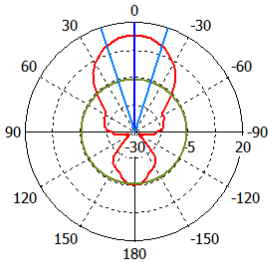

Theta / Degree vs. dBi

farfield (f=36) [1]

Frequency = 36
Main lobe magnitude = 13.8 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 38.9 deg.
Side lobe level = -18.2 dB

## 38GHz E-Plane

Farfield Directivity Abs (Phi=0)



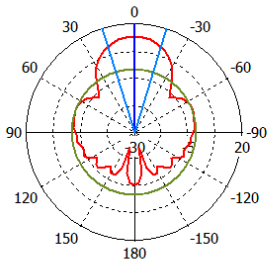

Theta / Degree vs. dBi

farfield (f=38) [1]

Frequency = 38
Main lobe magnitude = 14.3 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 35.4 deg.
Side lobe level = -19.9 dB

## H-Plane

Farfield Directivity Abs (Phi=90)



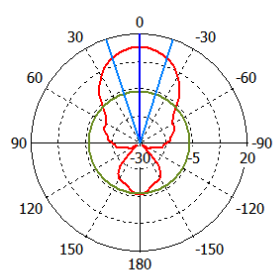

Theta / Degree vs. dBi

farfield (f=38) [1]

Frequency = 38
Main lobe magnitude = 14.3 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 34.7 deg.
Side lobe level = -15.2 dB

## 40GHz E-Plane

Farfield Directivity Abs (Phi=0)



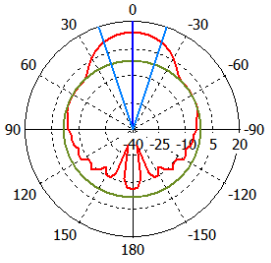

Theta / Degree vs. dBi

farfield (f=40) [1]

Frequency = 40
Main lobe magnitude = 14.2 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 35.3 deg.
Side lobe level = -20.6 dB

## H-Plane

Farfield Directivity Abs (Phi=90)




Theta / Degree vs. dBi

farfield (f=40) [1]

Frequency = 40
Main lobe magnitude = 14.2 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 36.5 deg.
Side lobe level = -15.6 dB