



**25 dBi Gain, 32.9-50.1 GHz, WR22 Standard Gain Horn with UG383/U Flange**

Rev 1

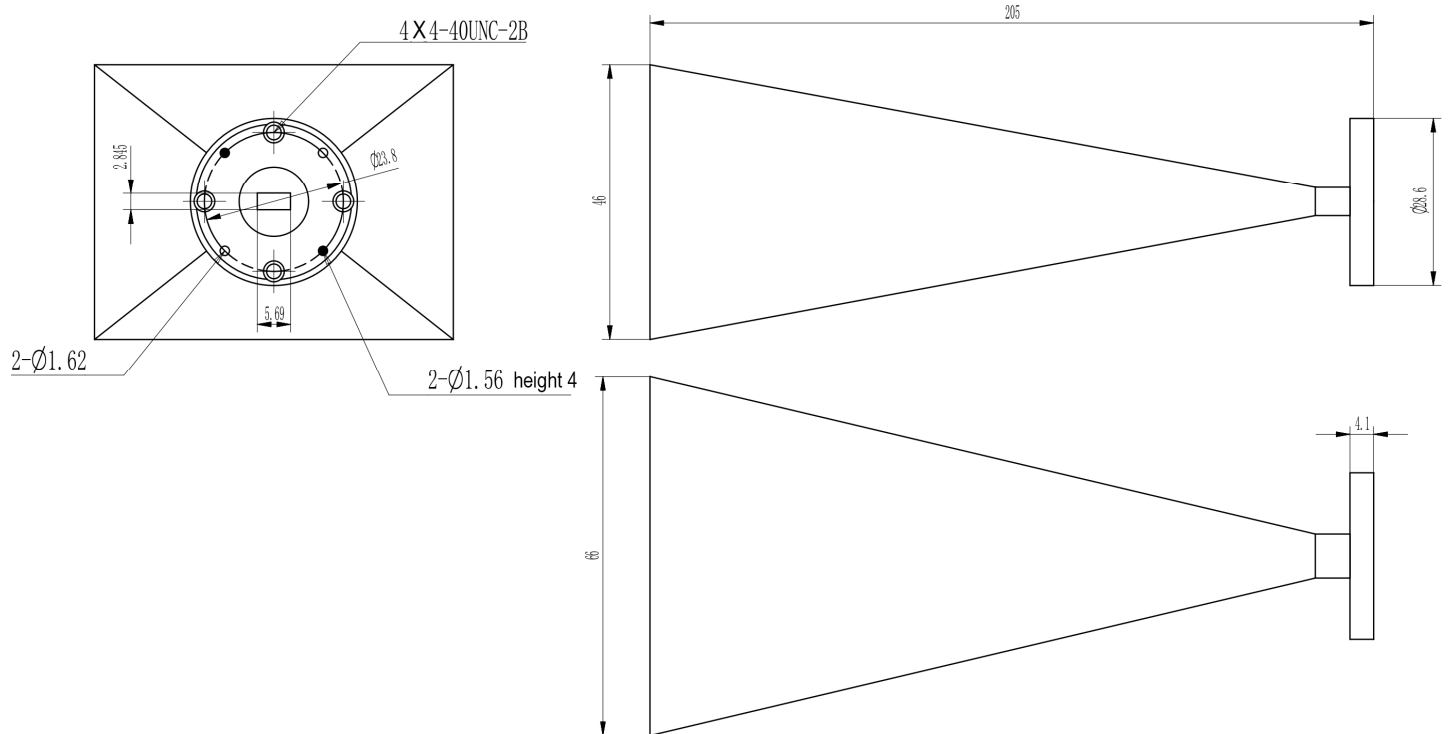
**Electrical**

Frequency Range	32.9-50.1 GHz
Norminal Gain	25 dBi
Polarization	Linear
VSWR	1.2 max
3dB Beamwidth	E-Plane: 7.0~10.3 deg, H-Plane: 7.0~10.5 deg
Operating Temperature	-40°C~+70°C

**Mechanical**

Waveguide Size	WR22
Flange Type	UG383/U Round Cover Flange
Body Material and Finish	Copper, painting over gold plating

**Dimensions(mm)**

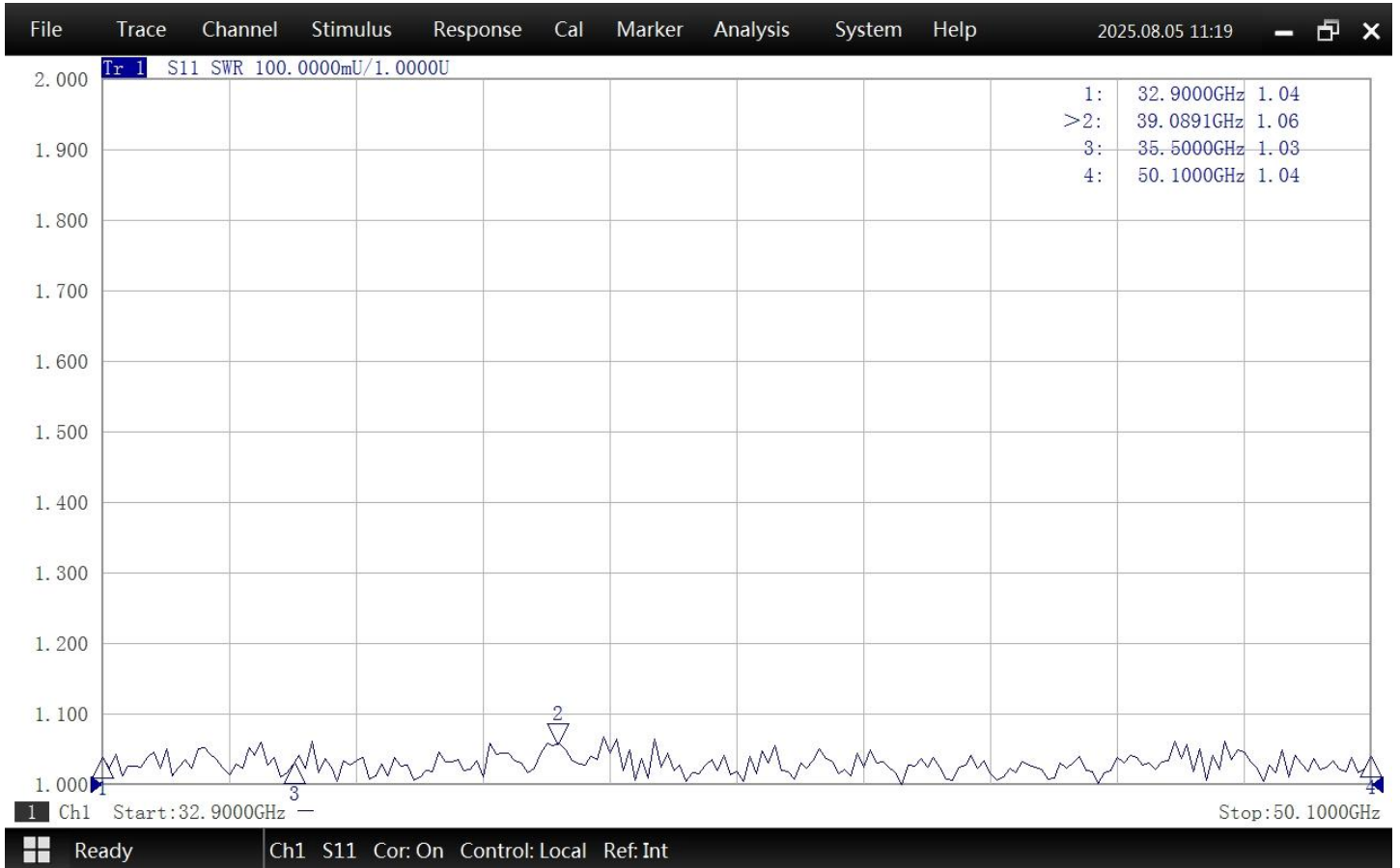




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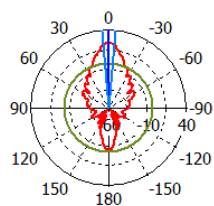
**Typical Test Data**



# Simulated Antenna Patterns

## 32.9GHz E-Plane

Farfield Gain Abs (Phi=0)



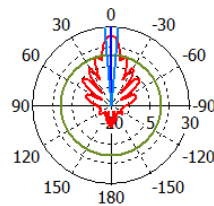
Theta / Degree vs. dB

farfield (f=32.9) [1]

Frequency = 32.9  
Main lobe magnitude = 24.7 dB  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 10.3 deg.  
Side lobe level = -27.2 dB

## H-Plane

Farfield Gain Abs (Phi=90)



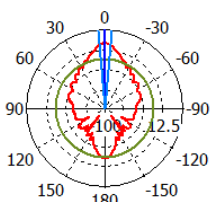
Theta / Degree vs. dB

farfield (f=32.9) [1]

Frequency = 32.9  
Main lobe magnitude = 24.7 dB  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 10.5 deg.  
Side lobe level = -12.1 dB

## 35GHz E-Plane

Farfield Gain Abs (Phi=0)



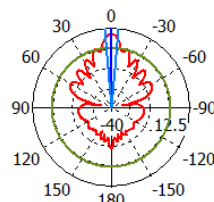
Theta / Degree vs. dB

farfield (f=35) [1]

Frequency = 35  
Main lobe magnitude = 25.1 dB  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 9.7 deg.  
Side lobe level = -29.3 dB

## H-Plane

Farfield Gain Abs (Phi=90)



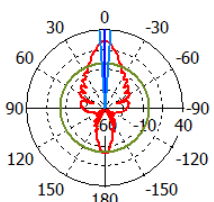
Theta / Degree vs. dB

farfield (f=35) [1]

Frequency = 35  
Main lobe magnitude = 25.1 dB  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 9.9 deg.  
Side lobe level = -11.9 dB

## 38GHz E-Plane

Farfield Gain Abs (Phi=0)



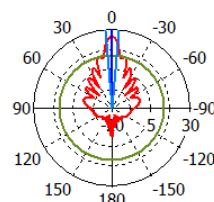
Theta / Degree vs. dB

farfield (f=38) [1]

Frequency = 38  
Main lobe magnitude = 25.6 dB  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 9.1 deg.  
Side lobe level = -27.4 dB

## H-Plane

Farfield Gain Abs (Phi=90)



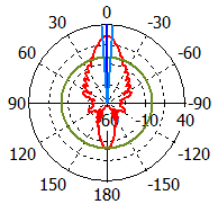
Theta / Degree vs. dB

farfield (f=38) [1]

Frequency = 38  
Main lobe magnitude = 25.6 dB  
Main lobe direction = 0.0 deg.  
Angular width (3 dB) = 9.2 deg.  
Side lobe level = -11.6 dB

41GHz E-Plane

Farfield Gain Abs (Phi=0)



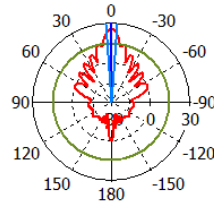
Theta / Degree vs. dB

farfield (f=41) [1]

Frequency = 41  
 Main lobe magnitude = 26.1 dB  
 Main lobe direction = 0.0 deg.  
 Angular width (3 dB) = 8.5 deg.  
 Side lobe level = -27.0 dB

H-Plane

Farfield Gain Abs (Phi=90)



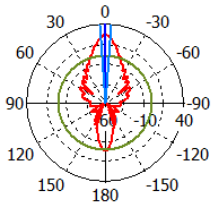
Theta / Degree vs. dB

farfield (f=41) [1]

Frequency = 41  
 Main lobe magnitude = 26.1 dB  
 Main lobe direction = 0.0 deg.  
 Angular width (3 dB) = 8.5 deg.  
 Side lobe level = -11.3 dB

44GHz E-Plane

Farfield Gain Abs (Phi=0)



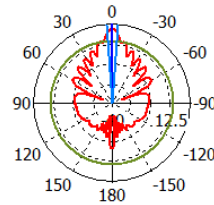
Theta / Degree vs. dB

farfield (f=44) [1]

Frequency = 44  
 Main lobe magnitude = 26.6 dB  
 Main lobe direction = 0.0 deg.  
 Angular width (3 dB) = 8.1 deg.  
 Side lobe level = -25.8 dB

H-Plane

Farfield Gain Abs (Phi=90)



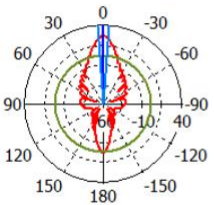
Theta / Degree vs. dB

farfield (f=44) [1]

Frequency = 44  
 Main lobe magnitude = 26.6 dB  
 Main lobe direction = 0.0 deg.  
 Angular width (3 dB) = 8.0 deg.  
 Side lobe level = -11.0 dB

50.1GHz E-Plane

Farfield Gain Abs (Phi=0)



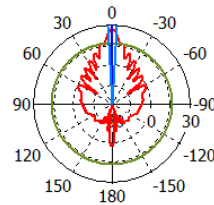
Theta / Degree vs. dB

farfield (f=50.1) [1]

Frequency = 50.1  
 Main lobe magnitude = 27.2 dB  
 Main lobe direction = 0.0 deg.  
 Angular width (3 dB) = 7.0 deg.  
 Side lobe level = -25.2 dB

H-Plane

Farfield Gain Abs (Phi=90)



Theta / Degree vs. dB

farfield (f=50.1) [1]

Frequency = 50.1  
 Main lobe magnitude = 27.2 dB  
 Main lobe direction = 0.0 deg.  
 Angular width (3 dB) = 7.0 deg.  
 Side lobe level = -10.5 dB