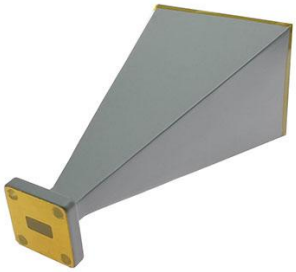
HR34-20



20 dBi Gain, 21.7-33 GHz, WR34 Standard Gain Horn with UBR260 Flange

Electrical

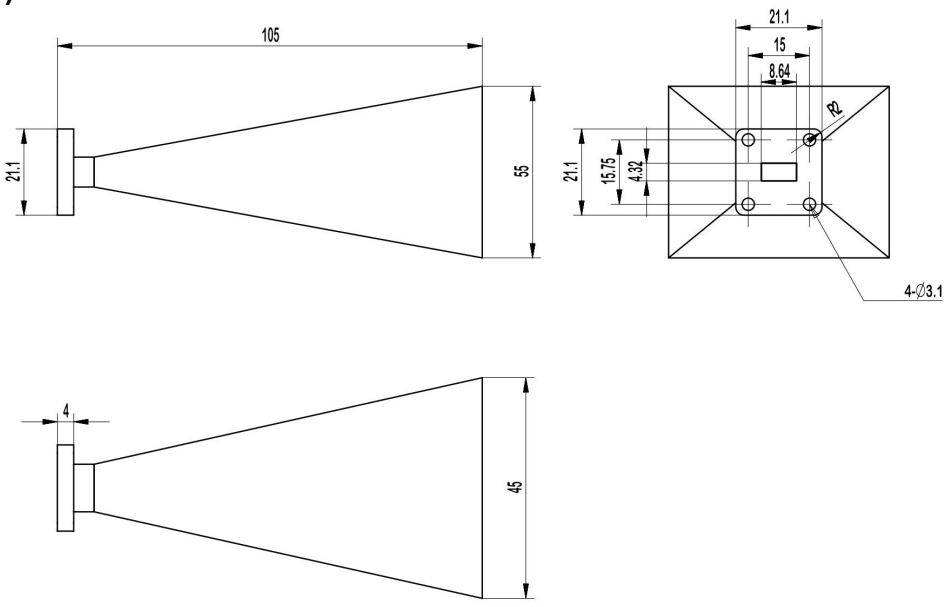
Frequency Range	21.7-33 GHz
Norminal Gain	20 dBi
Polarization	Linear
VSWR	1.2 max
3dB Beamwidth	H-Plane: 12.5~17.8 deg, E-Plane: 11.1~15.8 deg
Operating Temperature	-40℃~+70℃

Note: Measured pattern data is not provided by default. CST simulated data & VSWR measurement available.

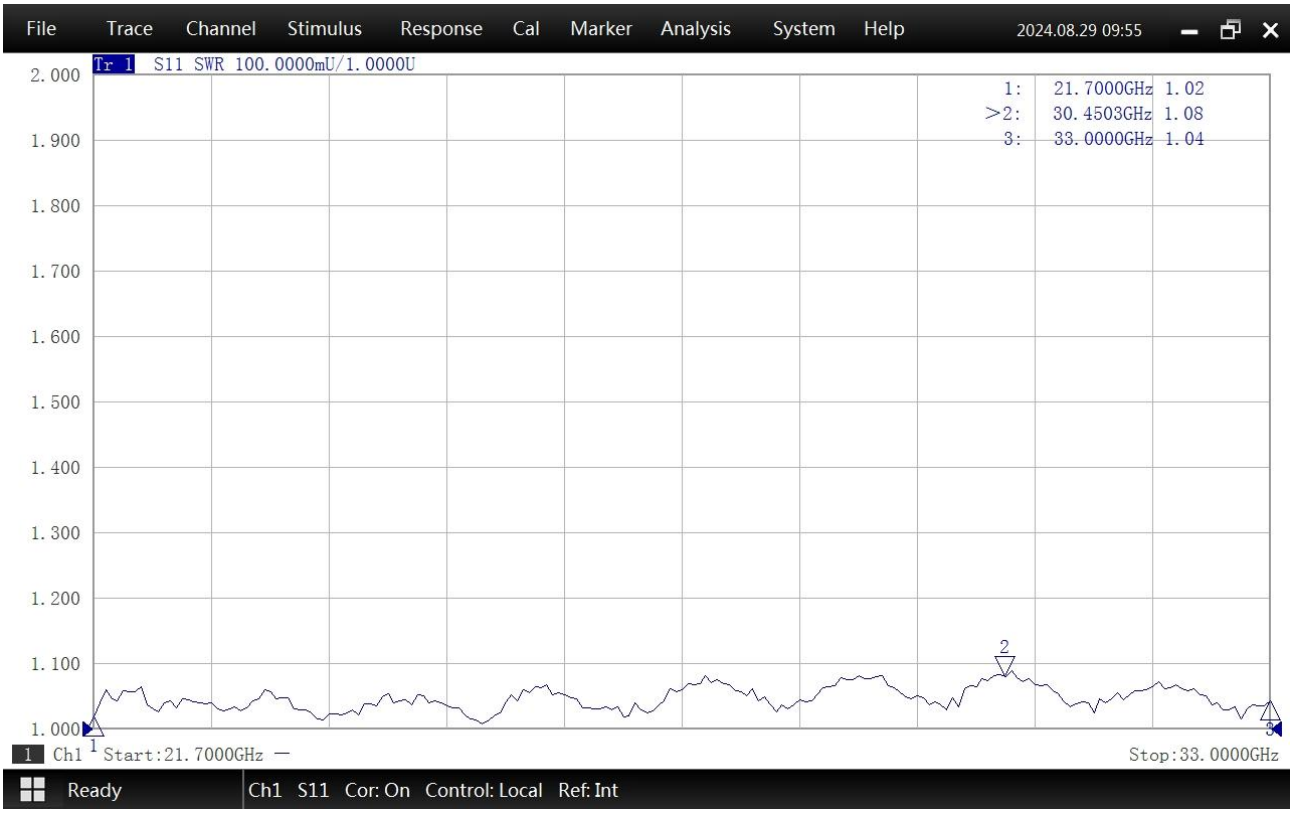
Mechanical

Waveguide Size	WR34
Flange Type	UBR260 Square Cover Flange
Body Material and Finish	Copper, Painted
Net Weight	105g

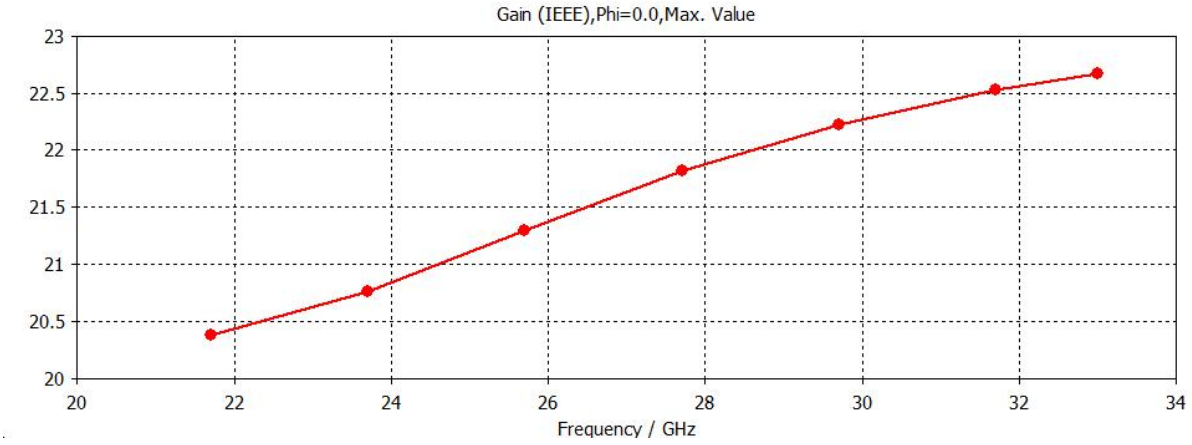
Dimensions(mm)



Typical VSWR

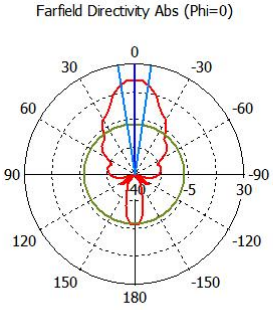


Gain



Simulated Antenna Patterns

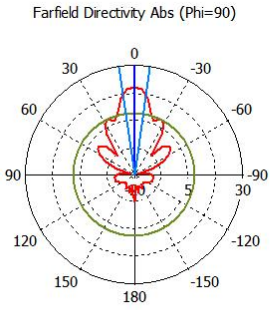
21.7GHz H-Plane



farfield (f=21.7) [1]

Frequency = 21.7
Main lobe magnitude = 20.3 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 17.8 deg.
Side lobe level = -28.0 dB

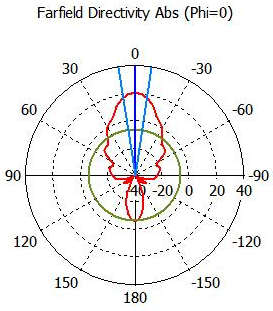
E-Plane



farfield (f=21.7) [1]

Frequency = 21.7
Main lobe magnitude = 20.3 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 15.8 deg.
Side lobe level = -12.2 dB

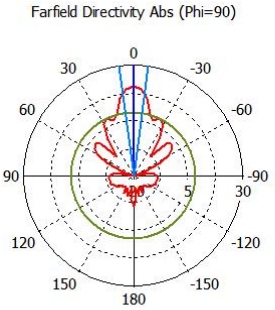
22GHz H-Plane



farfield (f=22) [1]

Frequency = 22
Main lobe magnitude = 20.5 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 17.2 deg.
Side lobe level = -26.8 dB

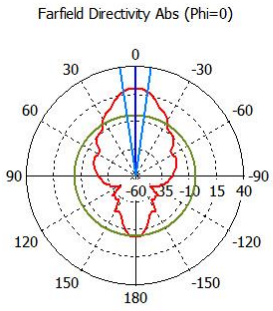
E-Plane



farfield (f=22) [1]

Frequency = 22
Main lobe magnitude = 20.5 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 15.1 deg.
Side lobe level = -11.8 dB

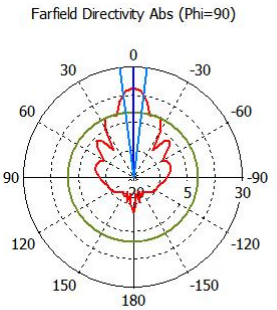
24GHz H-Plane



farfield (f=24) [1]

Frequency = 24
Main lobe magnitude = 20.8 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 16.2 deg.
Side lobe level = -24.9 dB

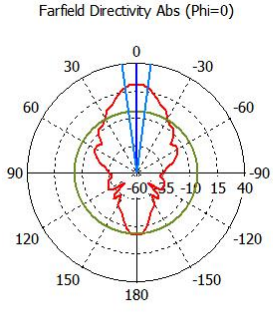
E-Plane



farfield (f=24) [1]

Frequency = 24
Main lobe magnitude = 20.8 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 14.0 deg.
Side lobe level = -10.9 dB

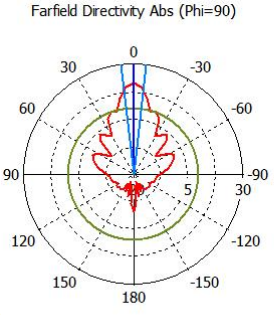
26GHz H-Plane



farfield (f=26) [1]

Frequency = 26
Main lobe magnitude = 21.4 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 14.8 deg.
Side lobe level = -24.4 dB

E-Plane

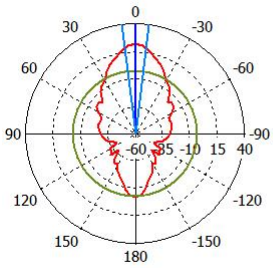


farfield (f=26) [1]

Frequency = 26
Main lobe magnitude = 21.4 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 13.3 deg.
Side lobe level = -11.4 dB

28GHz H-Plane

Farfield Directivity Abs (Phi=0)



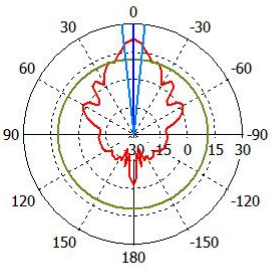
Theta / Degree vs. dBi

farfield (f=28) [1]

Frequency = 28
Main lobe magnitude = 21.9 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 14.0 deg.
Side lobe level = -24.6 dB

E-Plane

Farfield Directivity Abs (Phi=90)



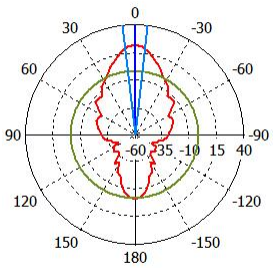
Theta / Degree vs. dBi

farfield (f=28) [1]

Frequency = 28
Main lobe magnitude = 21.9 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 12.2 deg.
Side lobe level = -10.7 dB

30GHz H-Plane

Farfield Directivity Abs (Phi=0)



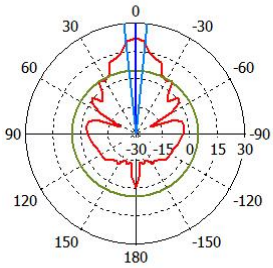
Theta / Degree vs. dBi

farfield (f=30) [1]

Frequency = 30
Main lobe magnitude = 22.3 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 13.1 deg.
Side lobe level = -23.4 dB

E-Plane

Farfield Directivity Abs (Phi=90)



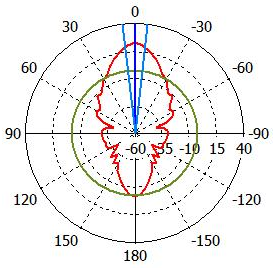
Theta / Degree vs. dBi

farfield (f=30) [1]

Frequency = 30
Main lobe magnitude = 22.3 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 11.8 deg
Side lobe level = -17.6 dB

32GHz H-Plane

Farfield Directivity Abs (Phi=0)



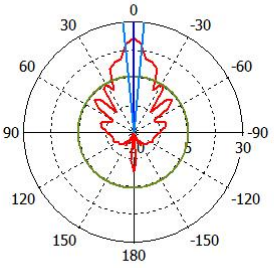
Theta / Degree vs. dBi

farfield (f=32) [1]

Frequency = 32
Main lobe magnitude = 22.7 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 12.7 deg.
Side lobe level = -24.7 dB

E-Plane

Farfield Directivity Abs (Phi=90)



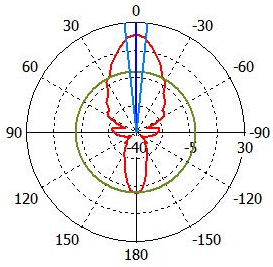
Theta / Degree vs. dBi

farfield (f=32) [1]

Frequency = 32
Main lobe magnitude = 22.7 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 11.2 deg.
Side lobe level = -17.2 dB

33GHz H-Plane

Farfield Directivity Abs (Phi=0)



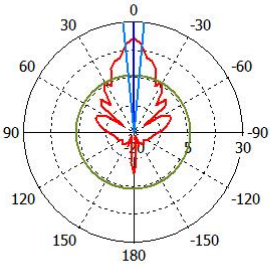
Theta / Degree vs. dBi

farfield (f=33) [1]

Frequency = 33
Main lobe magnitude = 22.7 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 12.5 deg
Side lobe level = -23.9 dB

E-Plane

Farfield Directivity Abs (Phi=90)



Theta / Degree vs. dBi

farfield (f=33) [1]

Frequency = 33
Main lobe magnitude = 22.7 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 11.1 deg.
Side lobe level = -16.6 dB