HR42-20



20 dBi Gain, 17.6-26.7 GHz, WR42 Standard Gain Horn with UBR220 Flange

Electrical

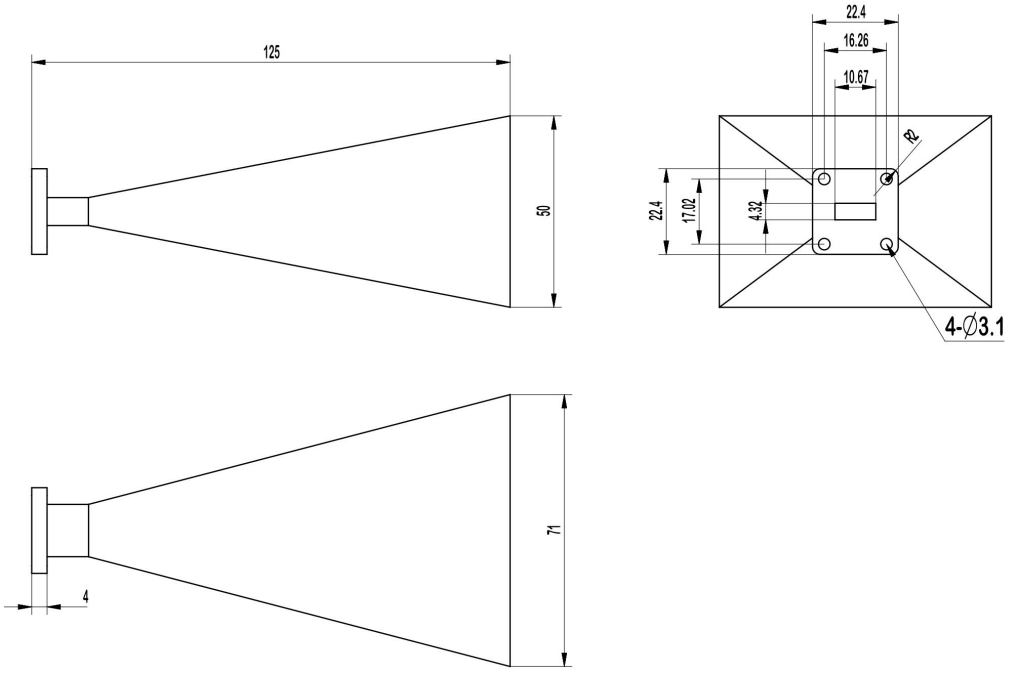
Frequency Range	17.6-26.7 GHz
Norminal Gain	20 dBi
Polarization	Linear
VSWR	1.2 max
3dB Beamwidth	H-Plane: 12.6~16.7 deg, E-Plane: 12.0~18.5 deg
Operating Temperature	-40℃~+70℃

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

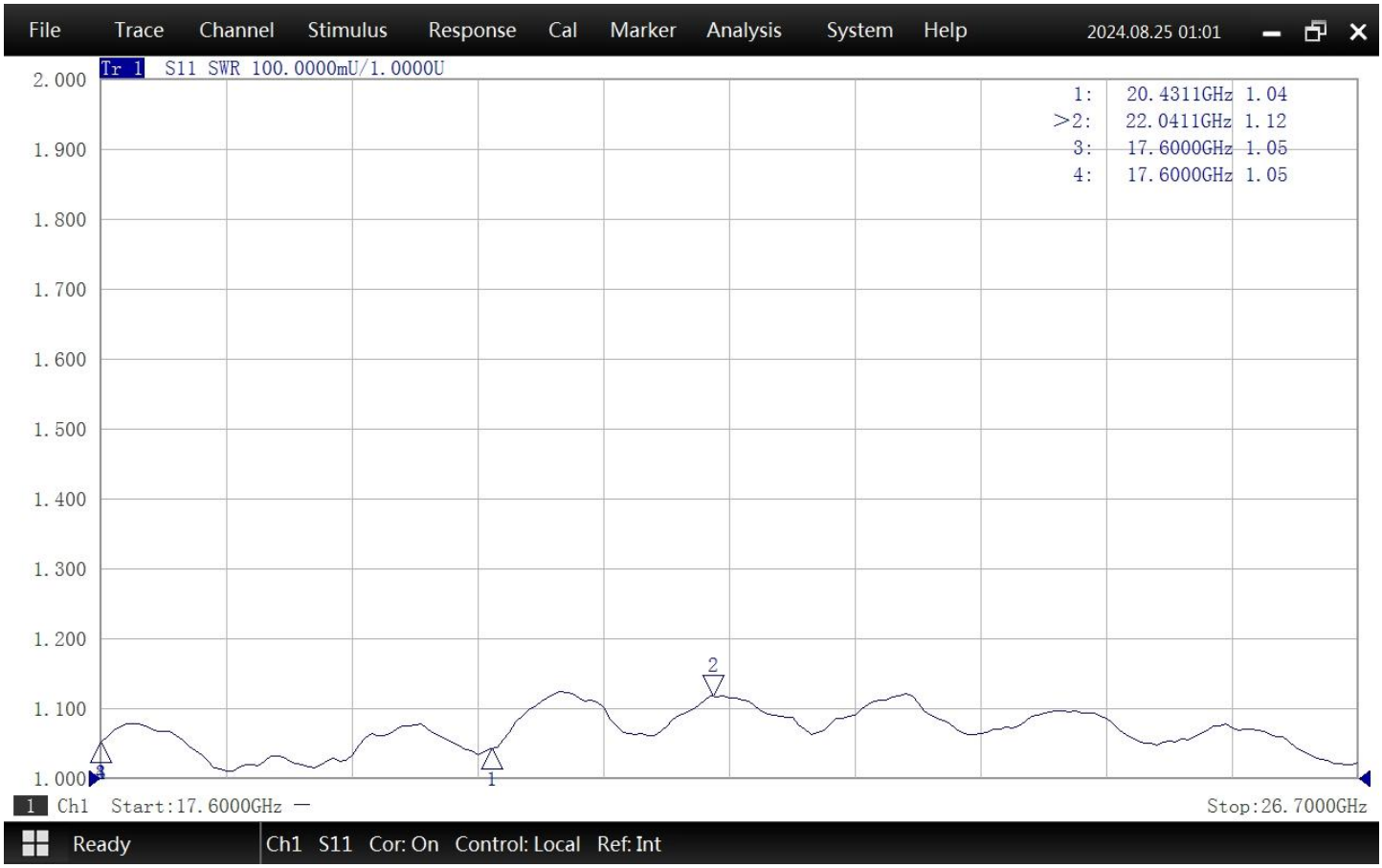
Mechanical

Waveguide Size	WR42
Flange Type	UBR220 Square Cover Flange
Body Material and Finish	Copper, Painted
Net Weight	215g

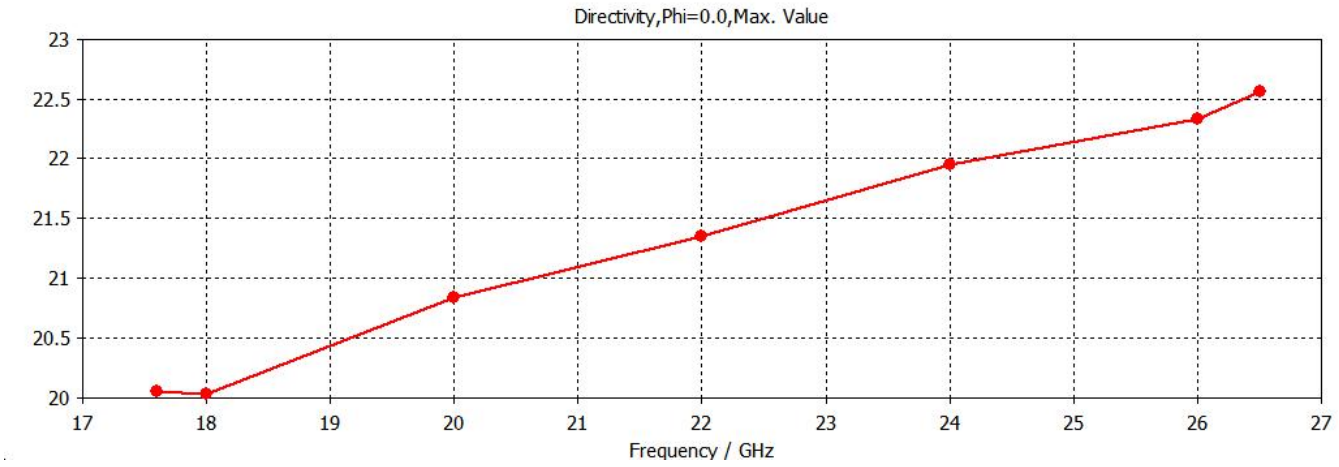
Dimensions(mm)



Typical VSWR

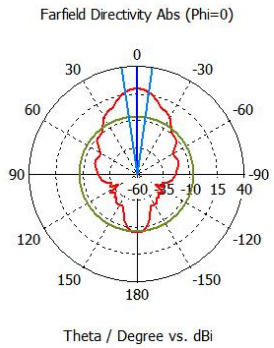


Gain



Simulated Antenna Patterns

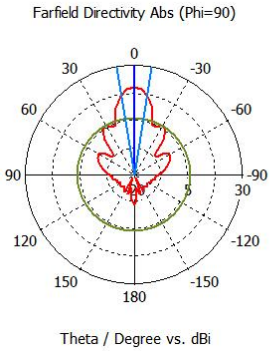
17.6GHz H-Plane



farfield (f=17.6) [1]

Frequency = 17.6
Main lobe magnitude = 20.1 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 16.7 deg.
Side lobe level = -26.3 dB

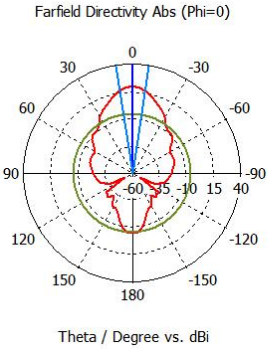
E-Plane



farfield (f=17.6) [1]

Frequency = 17.6
Main lobe magnitude = 20.1 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 18.5 deg.
Side lobe level = -13.9 dB

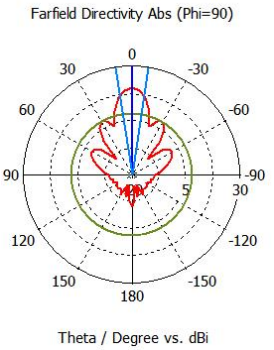
18GHz H-Plane



farfield (f=18) [1]

Frequency = 18
Main lobe magnitude = 20.0 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 17.3 deg.
Side lobe level = -25.3 dB

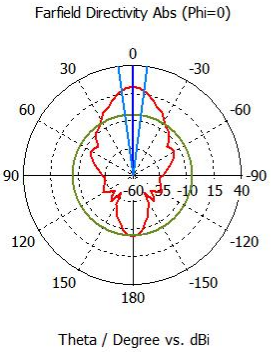
E-Plane



farfield (f=18) [1]

Frequency = 18
Main lobe magnitude = 20.0 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 16.8 deg.
Side lobe level = -11.7 dB

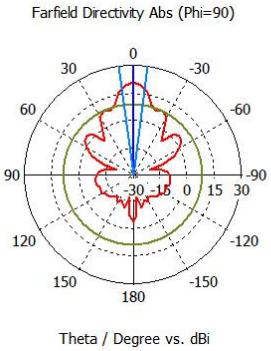
20GHz H-Plane



farfield (f=20) [1]

Frequency = 20
Main lobe magnitude = 20.8 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 15.1 deg.
Side lobe level = -25.2 dB

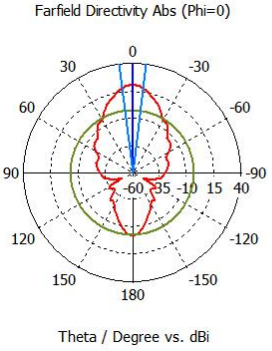
E-Plane



farfield (f=20) [1]

Frequency = 20
Main lobe magnitude = 20.8 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 15.5 deg.
Side lobe level = -12.2 dB

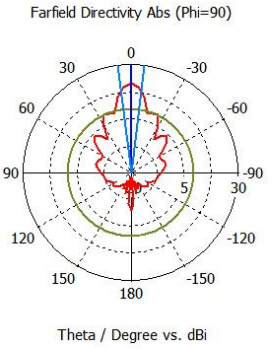
22GHz H-Plane



farfield (f=22) [1]

Frequency = 22
Main lobe magnitude = 21.4 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 14.3 deg.
Side lobe level = -23.9 dB

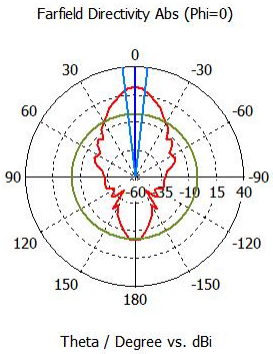
E-Plane



farfield (f=22) [1]

Frequency = 22
Main lobe magnitude = 21.4 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 13.9 deg.
Side lobe level = -11.7 dB

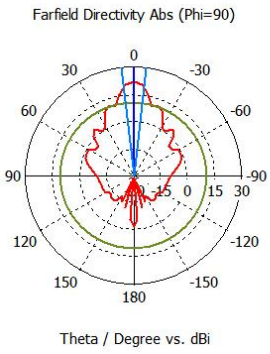
24GHz H-Plane



farfield (f=24) [1]

Frequency = 24
Main lobe magnitude = 22.0 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 13.2 deg.
Side lobe level = -24.0 dB

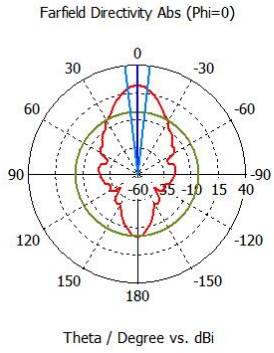
E-Plane



farfield (f=24) [1]

Frequency = 24
Main lobe magnitude = 22.0 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 13.0 deg.
Side lobe level = -11.3 dB

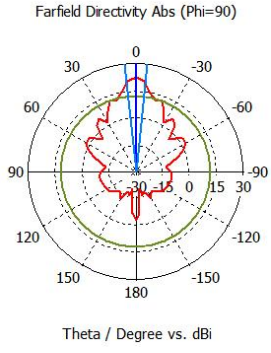
26GHz H-Plane



farfield (f=26) [1]

Frequency = 26
Main lobe magnitude = 22.3 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 12.6 deg.
Side lobe level = -25.2 dB

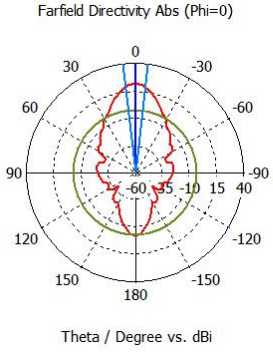
E-Plane



farfield (f=26) [1]

Frequency = 26
Main lobe magnitude = 22.3 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 12.0 deg.
Side lobe level = -10.4 dB

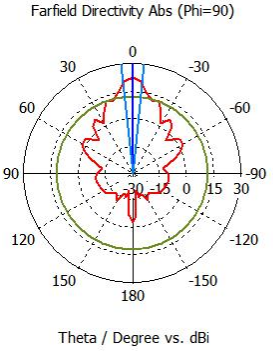
26.5GHz H-Plane



farfield (f=26) [1]

Frequency = 26
Main lobe magnitude = 22.3 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 12.6 deg.
Side lobe level = -25.2 dB

E-Plane



farfield (f=26) [1]

Frequency = 26
Main lobe magnitude = 22.3 dBi
Main lobe direction = 0.0 deg.
Angular width (3 dB) = 12.0 deg.
Side lobe level = -10.4 dB