

WR42 Standard Gain Horn Antenna

18-26.5 GHz | 20 dBi | P/N: AMT-SGH42-20

1. Product Overview

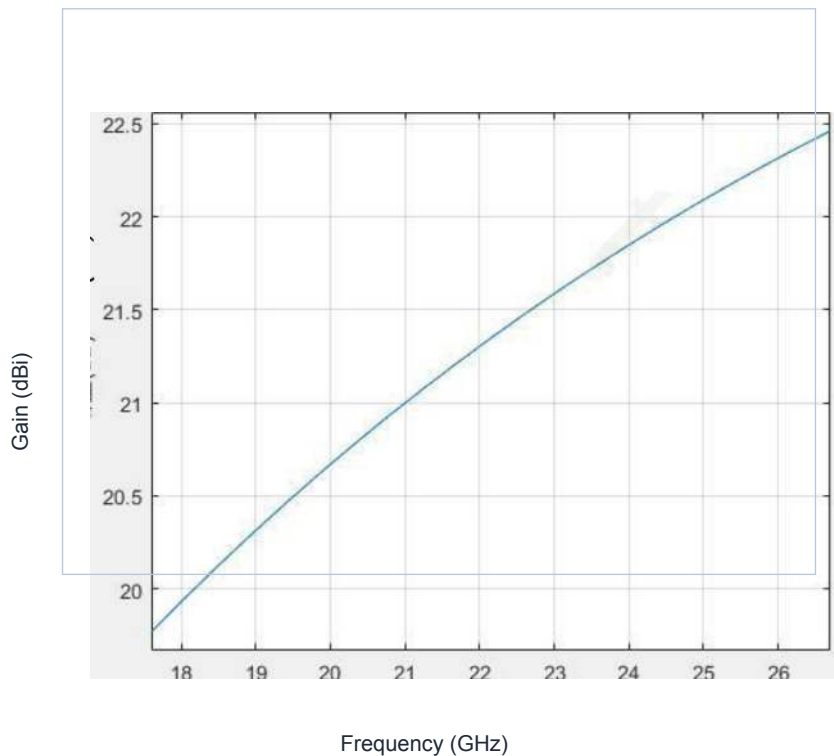
The AMT-SGH42-20 is a linearly polarized WR42 standard gain horn antenna operating from 18 GHz to 26.5 GHz. It provides nominal 20 dBi gain and low VSWR for antenna calibration, gain comparison, RF measurement, and laboratory applications.

2. Technical Specifications

Parameter	Specification
Frequency Range	18-26.5 GHz
Nominal Gain	20 dBi typ.
Polarization	Linear
VSWR	≤ 1.5
RF Interface	WR42(FBP220, UBR220) / SMA-Female
Dimensions (L × W × H)	49 × 70 × 155 mm
Color	Sea gray
Material	Aluminum

Test Result

Gain



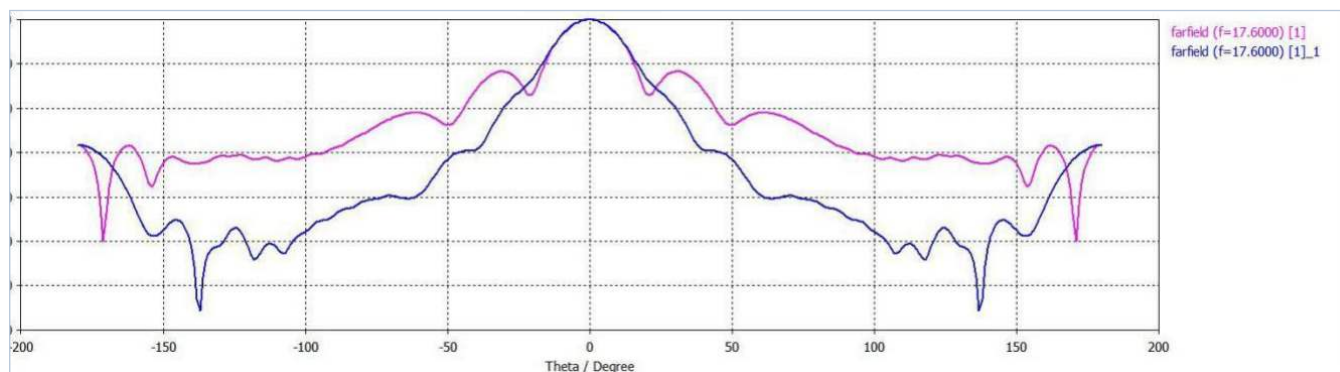


Gain Data

Frequency (GHz)	Gain (dBi)	Frequency (GHz)	Gain (dBi)
17.6	19.76	22.605	21.47
18.055	19.95	23.06	21.6
18.51	20.13	23.515	21.72
18.965	20.3	23.97	21.84
19.42	20.46	24.425	21.95
19.875	20.62	24.88	22.06
20.33	20.79	25.335	22.16
20.785	20.93	25.79	22.27
21.24	21.07	26.245	22.36
21.695	21.21	26.7	22.46
22.15	21.35		

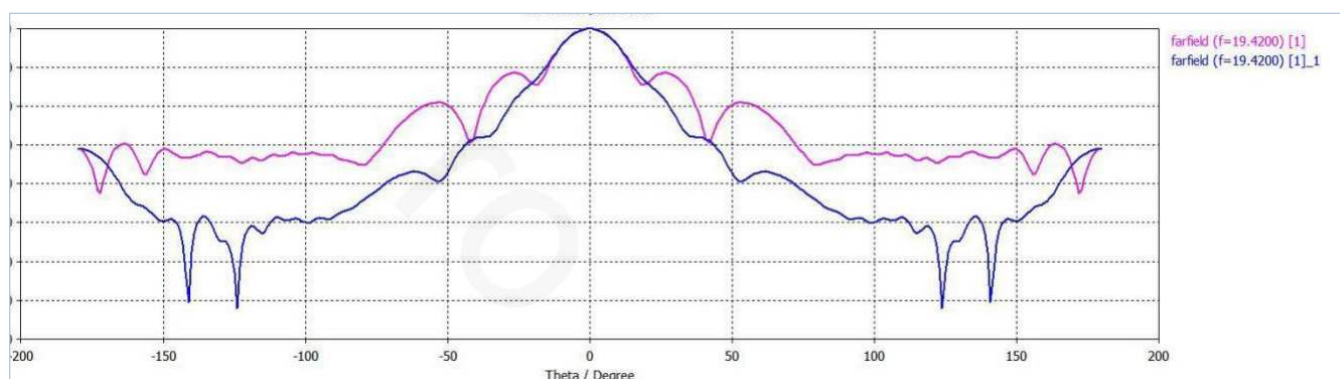
Pattern

Typical Radiation Pattern at 17.6 GHz



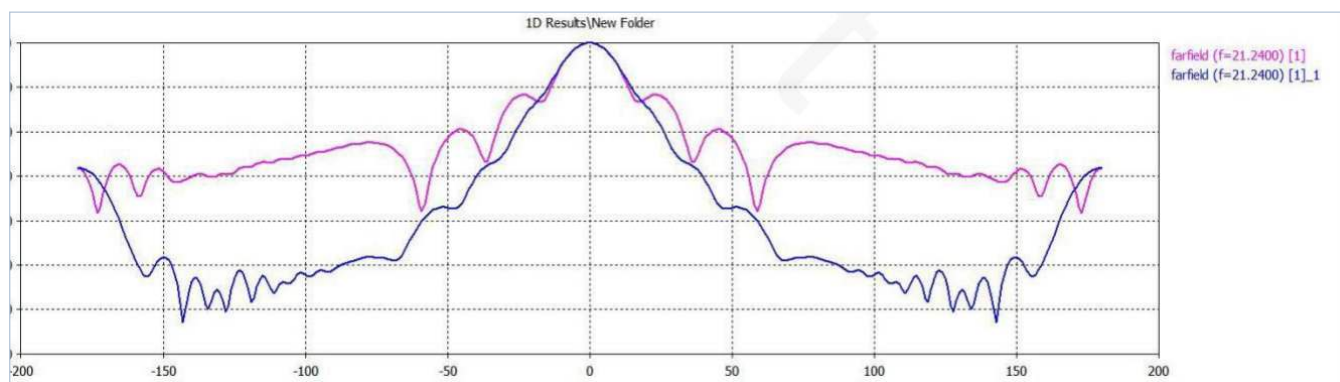
H-plane 3dB Beamwidth: 18.0° | E-plane 3dB Beamwidth: 18.3°

Typical Radiation Pattern at 19.42 GHz



H-plane 3dB Beamwidth: 16.5° | E-plane 3dB Beamwidth: 16.7°

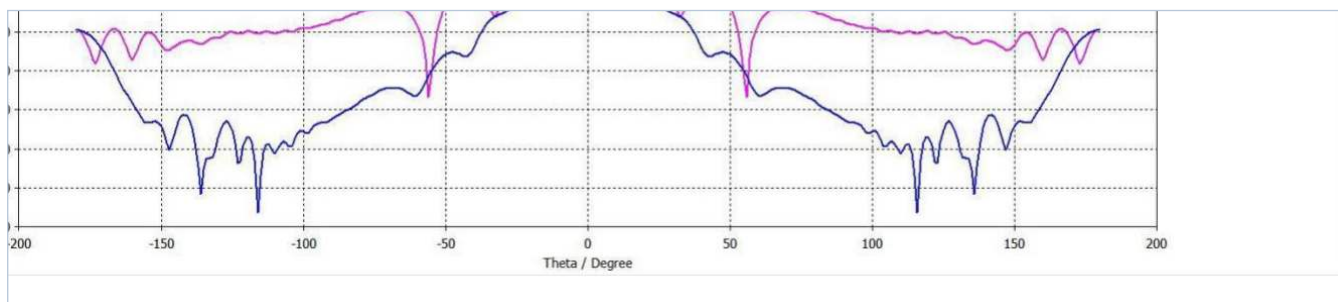
Typical Radiation Pattern at 21.24 GHz



H-plane 3dB Beamwidth: 15.3° | E-plane 3dB Beamwidth: 15.3°

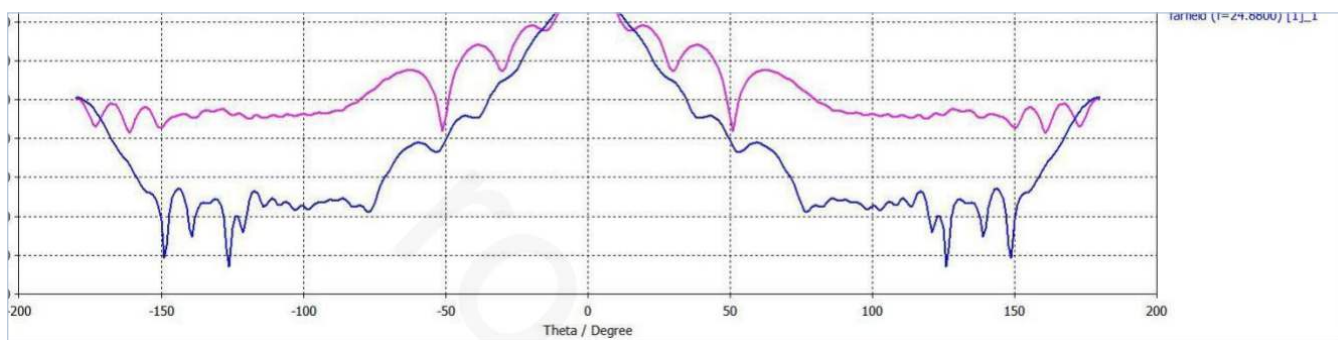
5. Radiation Pattern

Typical Radiation Pattern at 23.06 GHz



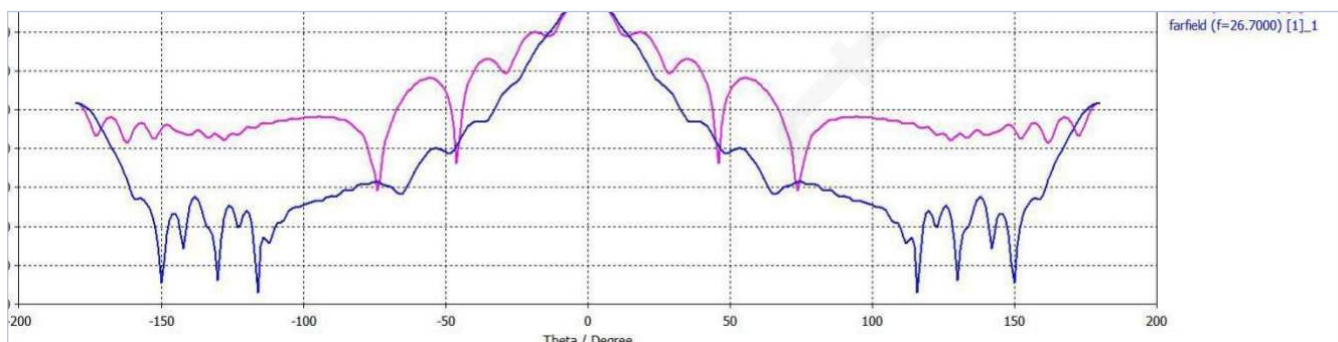
H-plane 3dB Beamwidth: 14.3° | E-plane 3dB Beamwidth: 14.2°

Typical Radiation Pattern at 24.88 GHz



H-plane 3dB Beamwidth: 13.5° | E-plane 3dB Beamwidth: 13.2°

Typical Radiation Pattern at 26.7 GHz



H-plane 3dB Beamwidth: 12.8° | E-plane 3dB Beamwidth: 12.5°