

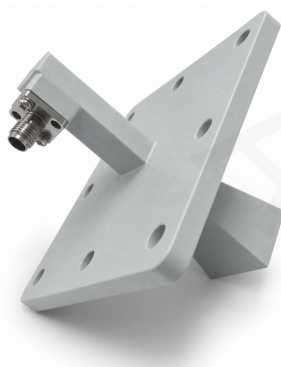
Standard Gain Horn Antenna

18-26.5 GHz | 10 dBi | P/N: AMT-SGH42-10-KF

1. Product Overview

The AMT-SGH42-10-KF is a linearly polarized standard gain horn antenna operating from 18 GHz to 26.5 GHz. It provides nominal 10 dBi gain, low VSWR, stable directional performance, and a 2.92 mm female-coaxial connector. Its aluminum construction and compact form factor make it suitable for antenna calibration, gain comparison, RF measurement, laboratory testing, and system integration.

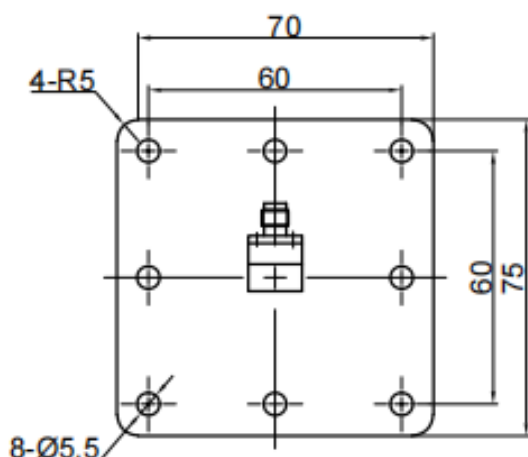
2. Technical Specifications



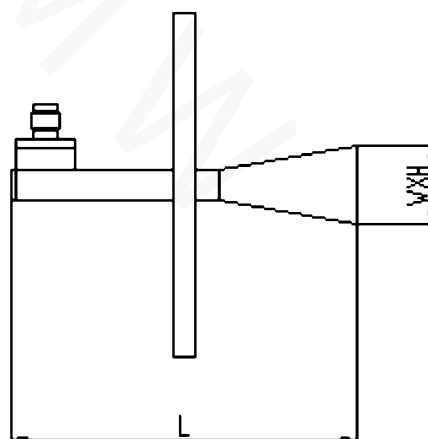
Parameter	Specification
Frequency Range	18 - 26.5 GHz
Nominal Gain	10 dBi typ.
VSWR	≤ 1.5
Polarization	Linear
Connector	2.92 mm-female
Dimensions (W × H × L)	24 × 17 × 75 mm Approx.
Material	Aluminum
Surface Finish	Sea-gray paint

3. Outline Drawing

Front View



Side View

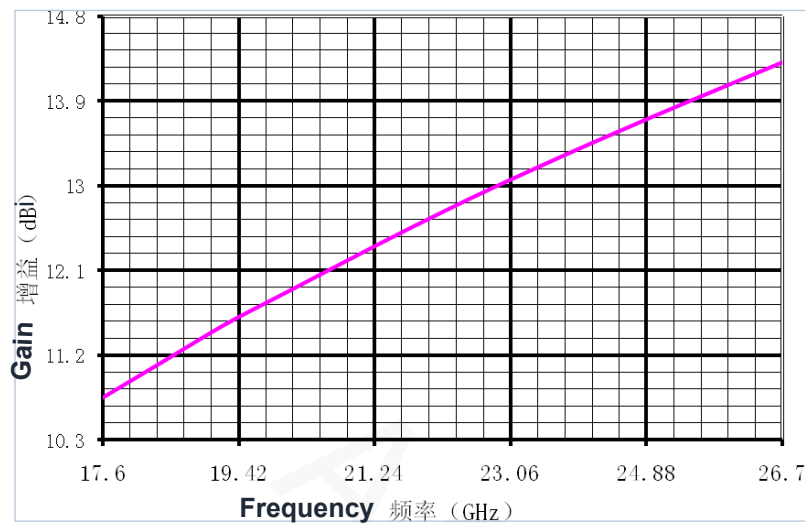


Connector: 2.92 mm Female

Nominal dimensions: approx. 24 × 17 × 75 mm

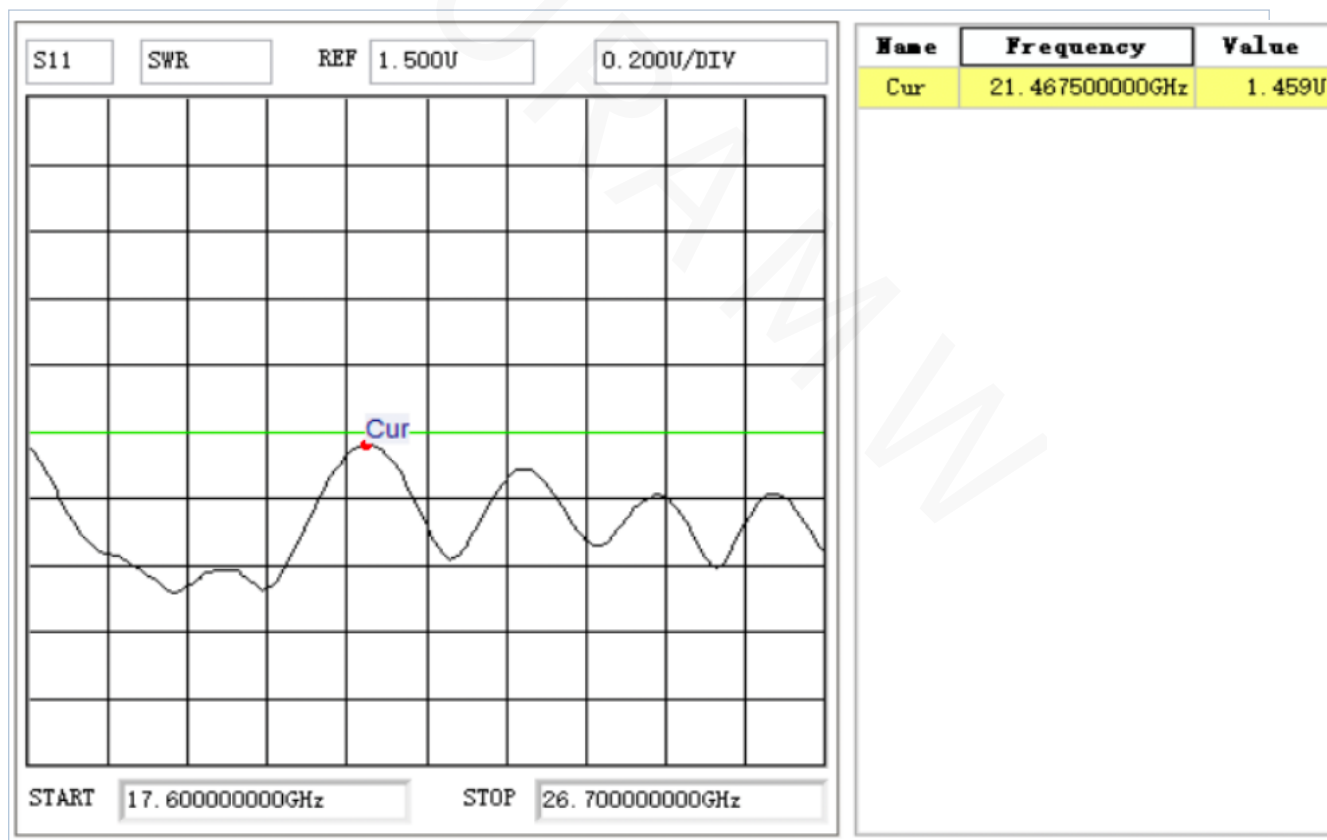
4. Test Result

Gain



Freq. (GHz)	Gain (dBi)	Freq. (GHz)	Gain (dBi)
17.60	10.75	22.51	12.86
18.42	11.14	23.33	13.17
19.24	11.53	24.15	13.46
20.06	11.87	24.97	13.74
20.88	12.21	25.79	14.01
21.70	12.54	26.60	14.28

VSWR

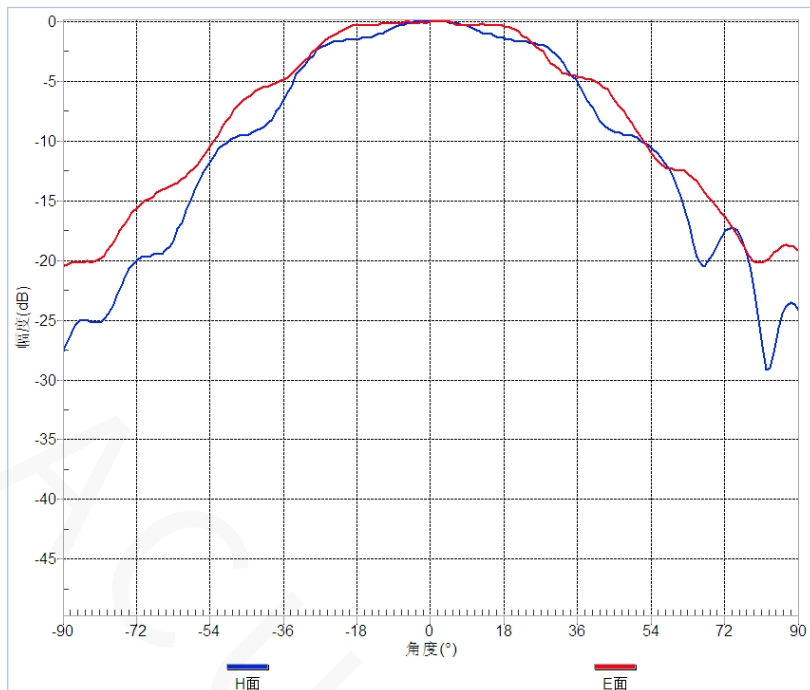


Pattern

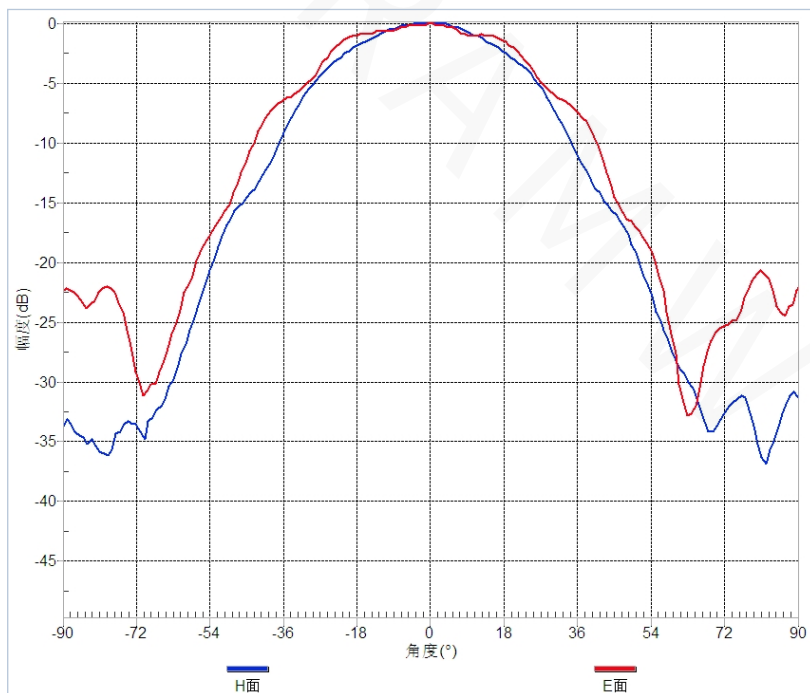
Radiation Pattern

Original measured E-plane and H-plane patterns

17.60 GHz | H-plane 3 dB Beamwidth: 60.85° | E-plane 3 dB Beamwidth: 58.40°



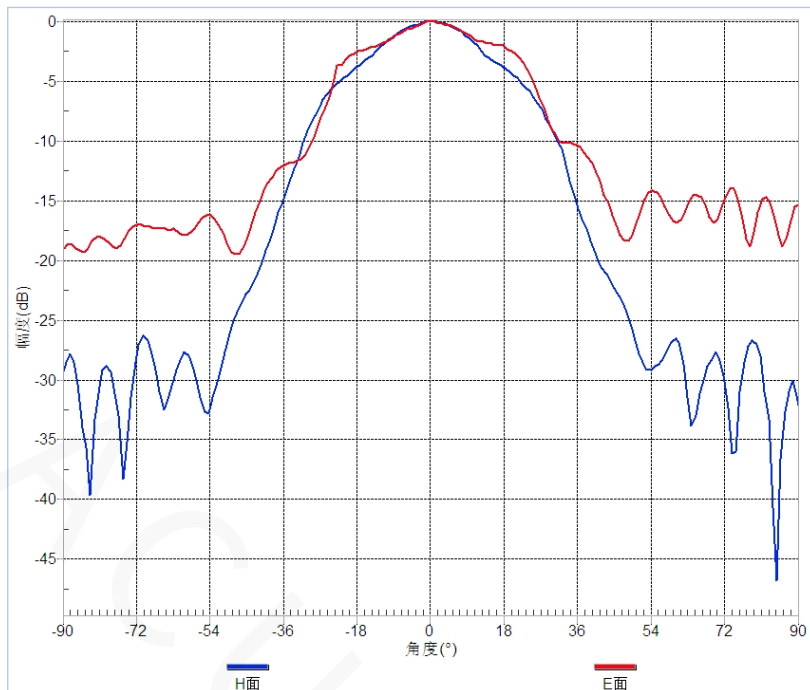
22.15 GHz | H-plane 3 dB Beamwidth: 43.60° | E-plane 3 dB Beamwidth: 48.69°



Radiation Pattern

Original measured E-plane and H-plane patterns

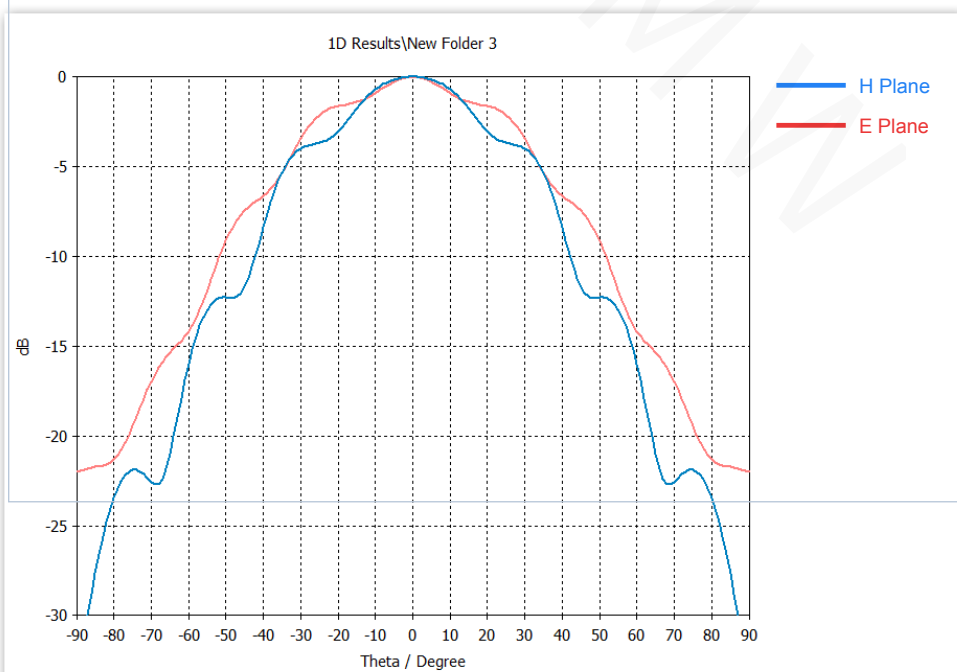
26.70 GHz | H-plane 3 dB Beamwidth: 29.60° | E-plane 3 dB Beamwidth: 42.08°



Typical Patterns at Other Frequencies

Radiation Pattern

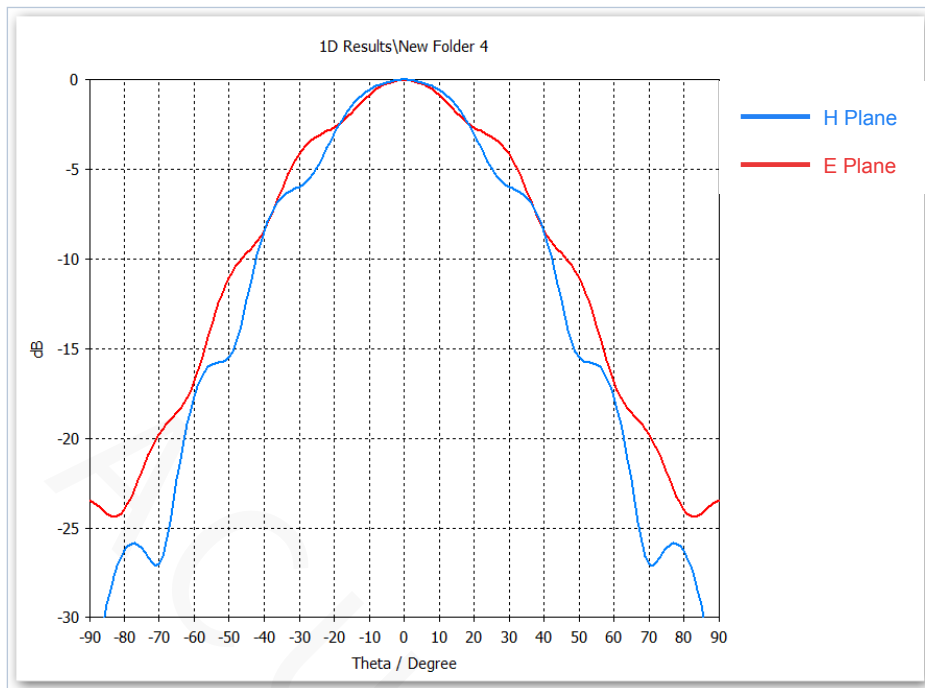
18.51 GHz | H-plane 3 dB Beamwidth: 39.70° | E-plane 3 dB Beamwidth: 57.30°



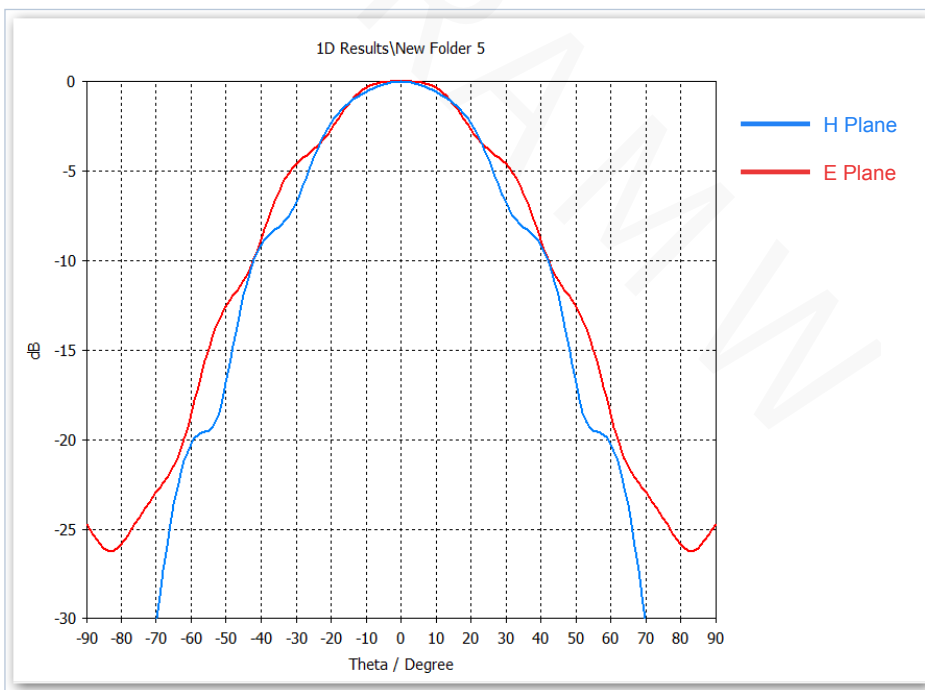
Radiation Pattern

Original measured E-plane and H-plane patterns

19.42 GHz | H-plane 3 dB Beamwidth: 40.00° | E-plane 3 dB Beamwidth: 47.00°



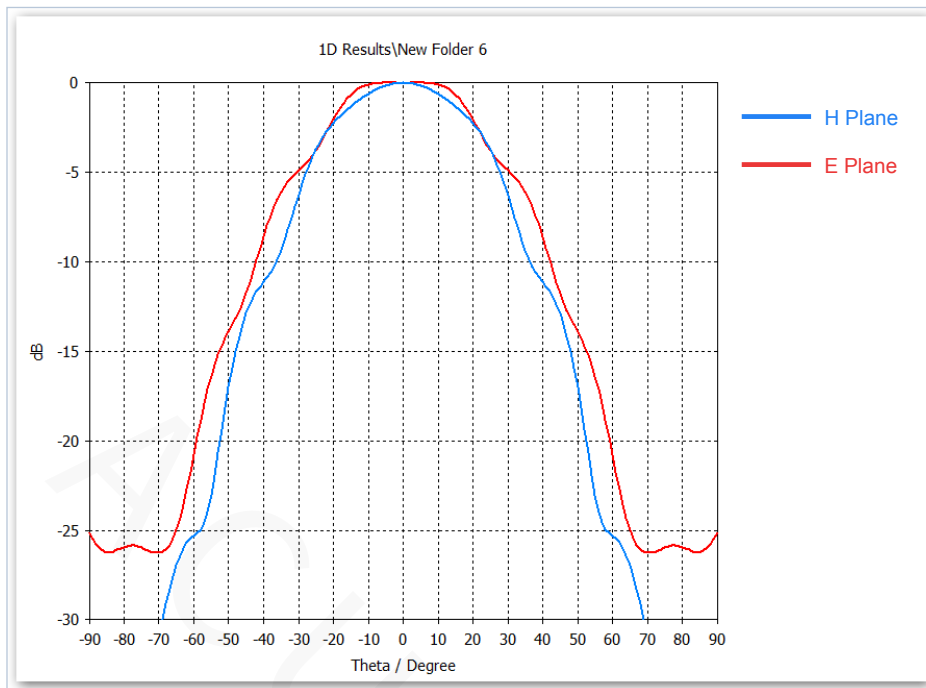
20.33 GHz | H-plane 3 dB Beamwidth: 44.10° | E-plane 3 dB Beamwidth: 42.50°



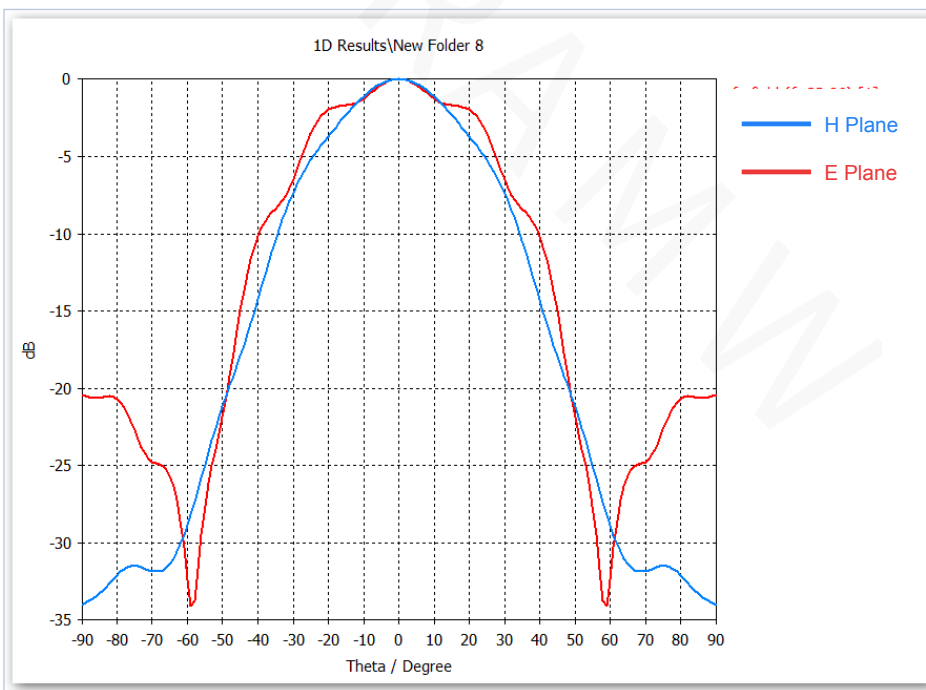
Radiation Pattern

Original measured E-plane and H-plane patterns

21.24 GHz | H-plane 3 dB Beamwidth: 45.90° | E-plane 3 dB Beamwidth: 45.40°



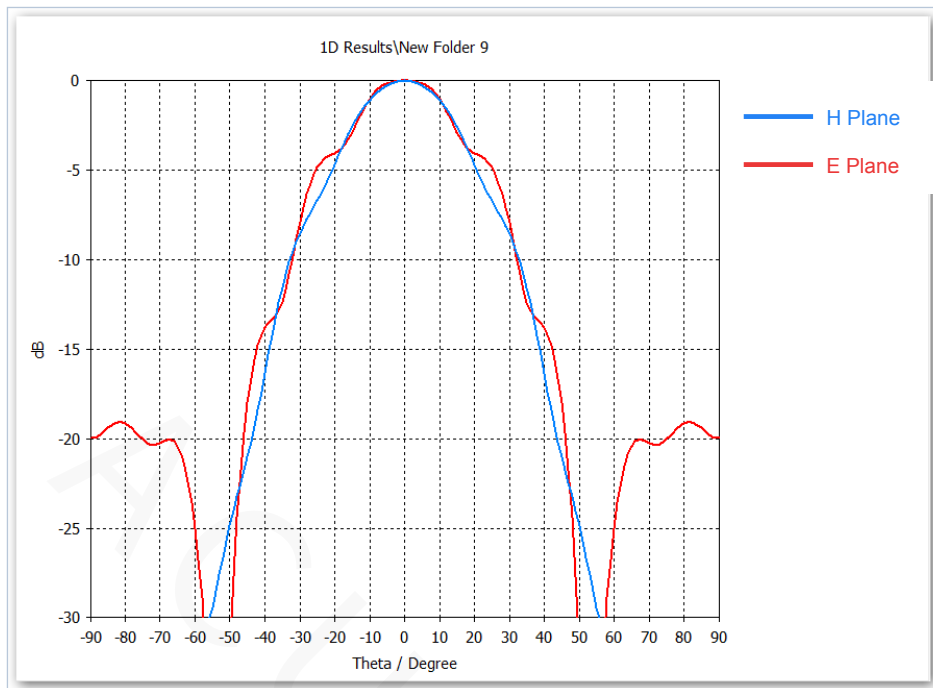
23.06 GHz | H-plane 3 dB Beamwidth: 35.00° | E-plane 3 dB Beamwidth: 47.70°



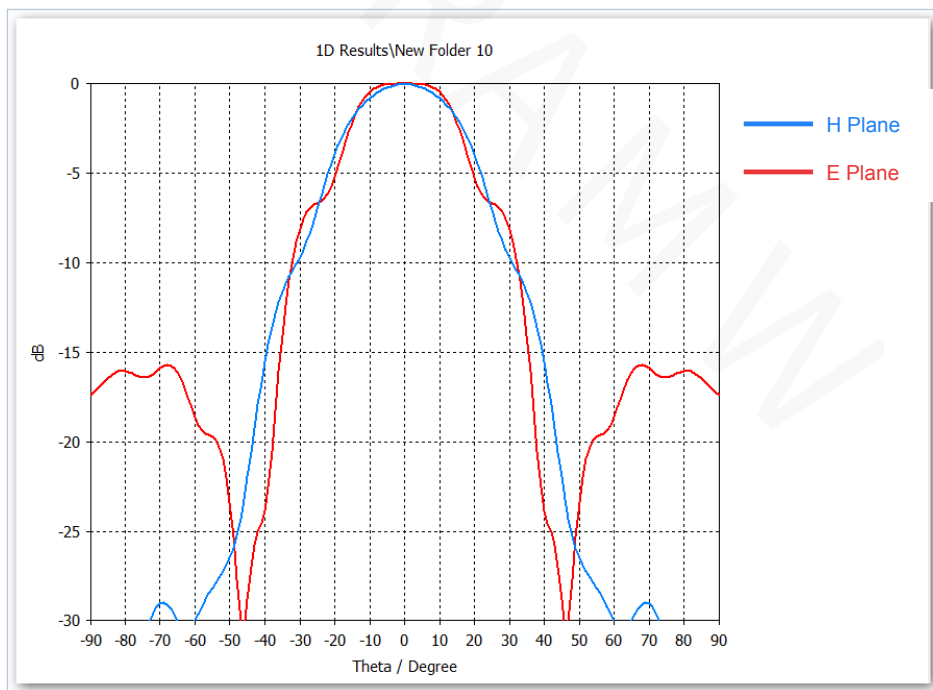
Radiation Pattern

Original measured E-plane and H-plane patterns

23.97 GHz | H-plane 3 dB Beamwidth: 32.20° | E-plane 3 dB Beamwidth: 30.70°



24.88 GHz | H-plane 3 dB Beamwidth: 36.00° | E-plane 3 dB Beamwidth: 32.90°



Radiation Pattern

Original measured E-plane and H-plane patterns

25.79 GHz | H-plane 3 dB Beamwidth: 40.50° | E-plane 3 dB Beamwidth: 41.10°

