

10RWH42 Rectangular 10 dB Horn Antenna from 18 to 26.5 GHz

Attributes

Electrical Specification

Adapter Type	Right Angel
Adapter Grade	Standard
Frequency Band	K
Waveguide Type	Rectangular
Waveguide Size EI WR	WR42
Min. Frequency (GHz)	18
Max. Frequency (GHz)	26.5
VSWR Max	1.21
VSWR Min	1
Impedance (Ω)	50
Max. Insertion Loss (dB)	0.27
Min. Insertion Loss (dB)	0.21

Interface

Flange Style	Square
Flange Type	FBP 220 (UBR 220)

Mechanical Specification

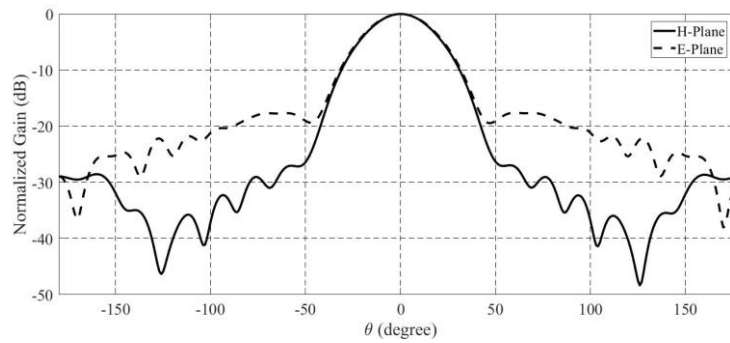
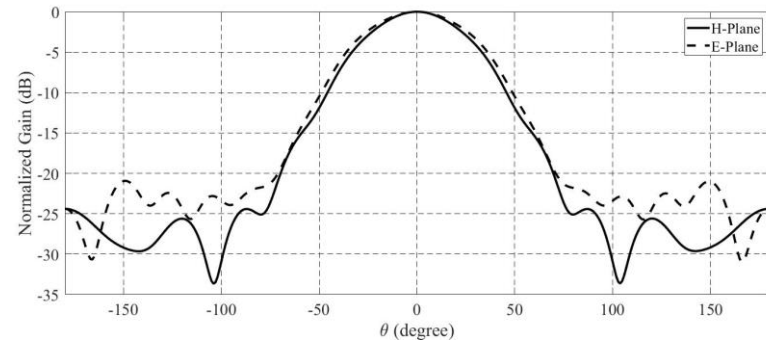
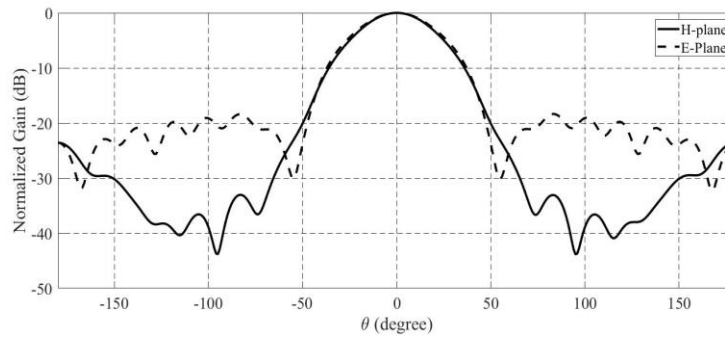
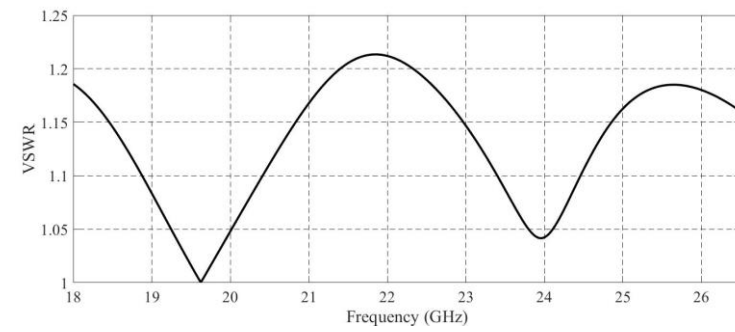
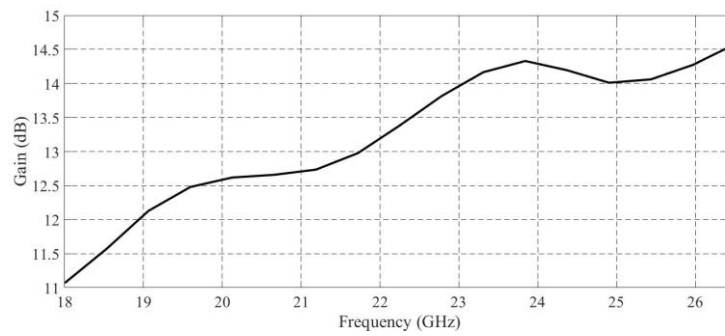
Body Material	Al
Finishing	Gray Paint
Operating Temp Low($^{\circ}\text{C}$)	-50
Operating Temp High($^{\circ}\text{C}$)	80



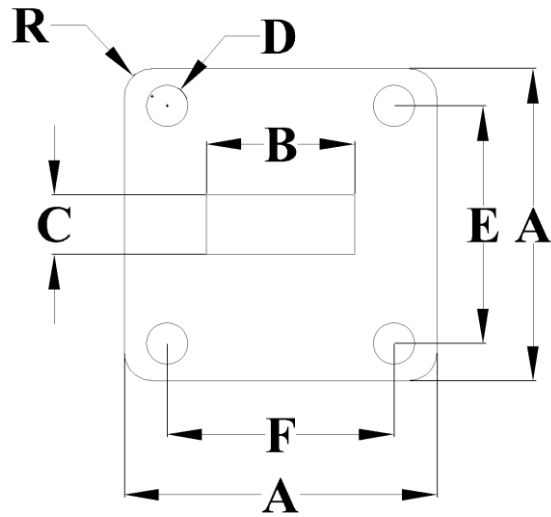
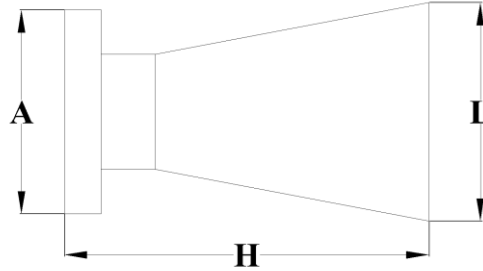
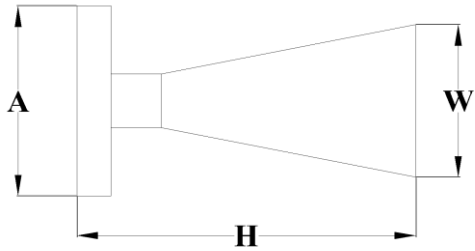
Overview

Rectangular Horn Antenna (WR42), operating from 18 to 26.5 GHz, is designed to provide efficient radiation with stable gain and low reflection across the operating band. The antenna exhibits low VSWR (≤ 1.21), ensuring good impedance matching to free space and minimal power loss. Based on the WR42 waveguide standard, it offers a reliable transition from guided waves inside the waveguide to radiated electromagnetic waves in space. The horn antenna can handle up to 50 W of continuous power and 3 kW peak power, making it suitable for high-power microwave applications. It is equipped with an FBP220 (UBR220) flange for secure mechanical integration. Manufactured in accordance with CACIRA high-quality standards, this horn antenna is an essential component for microwave systems, antenna measurements, EMC testing, and radar or communication applications.

Results



Drawing



<i>Parameter</i>	<i>Inch (mm)</i>
<i>A</i>	<i>0.882 (22.4)</i>
<i>B</i>	<i>0.169 (10.632)</i>
<i>C</i>	<i>2.29 (4.280)</i>
<i>D</i>	<i>0.118 (3)</i>
<i>E</i>	<i>0.67(17.02)</i>
<i>F</i>	<i>0.640 (16.26)</i>
<i>H</i>	<i>1.575 (40)</i>
<i>L</i>	<i>0.945 (24)</i>
<i>R</i>	<i>0.118 (3)</i>
<i>W</i>	<i>0.709 (18)</i>