

WR-34 UBR260 Flange to 2.92mm Female Waveguide to Coax Adapter Operating from 22GHz - 34GHz

Waveguide to Coax Adapters Technical Data Sheet

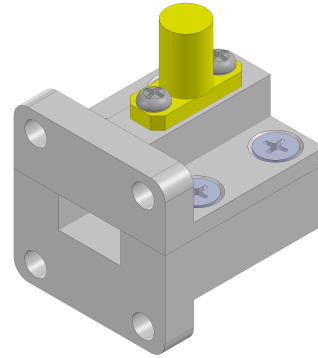
RHMA34-260-28.5-13

Features

- 22 to 34 GHz Frequency Range
- WR28 Interface to Right-Angle 2.92mm-F Coax Connector
- Low insertion loss: < 0.06 dB (typ.)
- VSWR $\leq$ 1.26:1 across the band
- Compatible with 2.92mm 50 Ω systems with Impedance Matching
- RoHS compliant

Applications

- Satellite Communications
- Waveguide Systems
- 5G mm Wave
- Military and Space
- Radio Astronomy



Overview

IAEM's **RHMA34-260-28.5-13** is a precision-engineered coaxial-to-waveguide adapter developed for use over the 22 to 34 GHz frequency band. It offers a low-loss, high-return-loss transition between a standard 50 Ω 2.92 mm coaxial connector and a WR-34 rectangular waveguide interface fitted with a UBR260 flange.

Configuration

Waveguide Size	WR-34
Flange	UBR260 Flange
RF Connector	2.92mm Female
Impedance	50 Ohms
Body Geometry	Right Angle Connector

Electrical Specifications

Notes: Values at +25 °C

Description	Minimum	Typical	Maximum	Units
Frequency Range	22		34	GHz
VSWR	1.13:1	1.16:1	1.26:1	
Insertion Loss	0.01	0.03	0.06	dB
Return Loss	18.83	22.47	24.38	dB

Absolute Maximum Ratings

Operating Case Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +100 °C

Performance Data

Notes: Simulation data using CST Studio Suite

VSWR Data

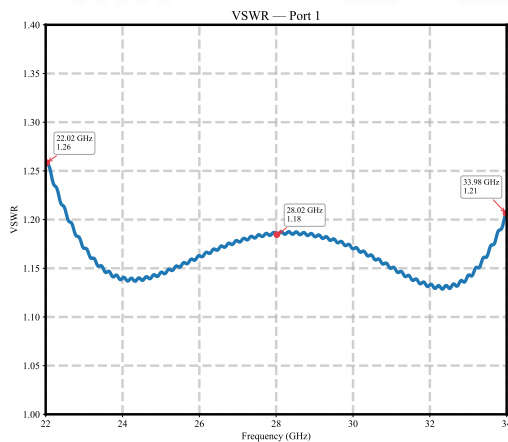


Figure 1: VSWR (Coax Port) vs. Frequency, 22 to 34 GHz

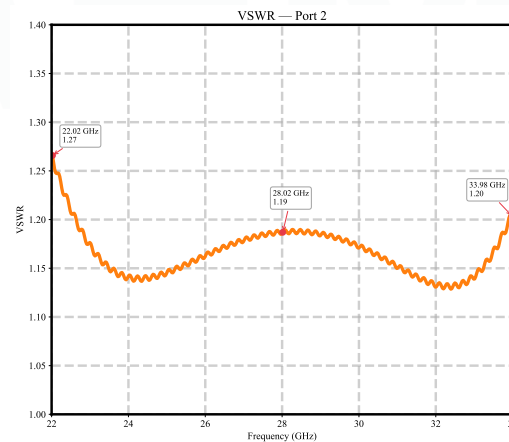


Figure 2: VSWR (Waveguide Port) vs. Frequency, 22 to 34 GHz

S-Parameter Data

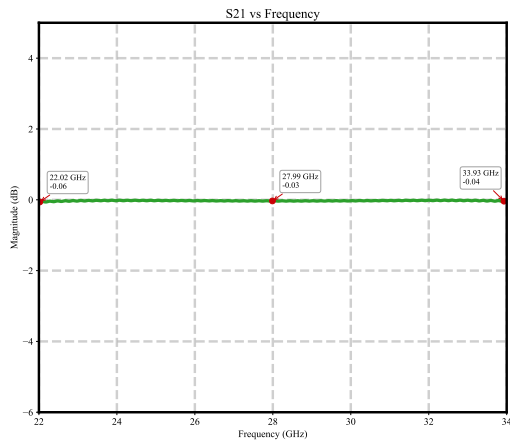


Figure 3: S21 (forward insertion loss) vs. Frequency

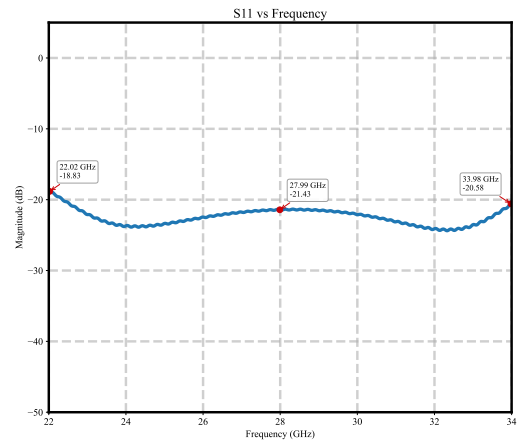


Figure 4: S11 (input return loss) vs. Frequency

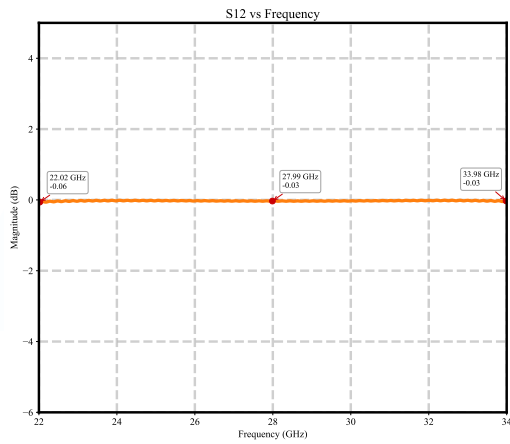


Figure 5: S12 (reverse isolation) vs. Frequency

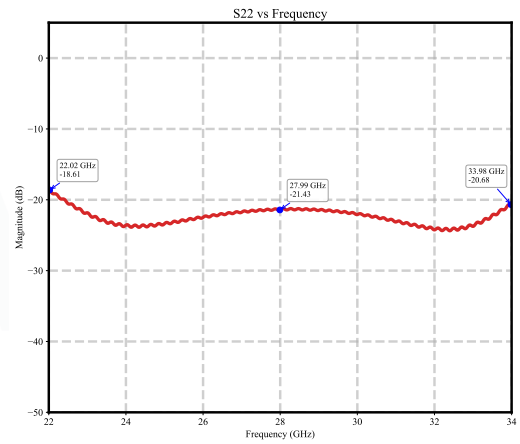


Figure 6: S22 (output return loss) vs. Frequency

RHMA34-260-28.5-13 CAD Drawing

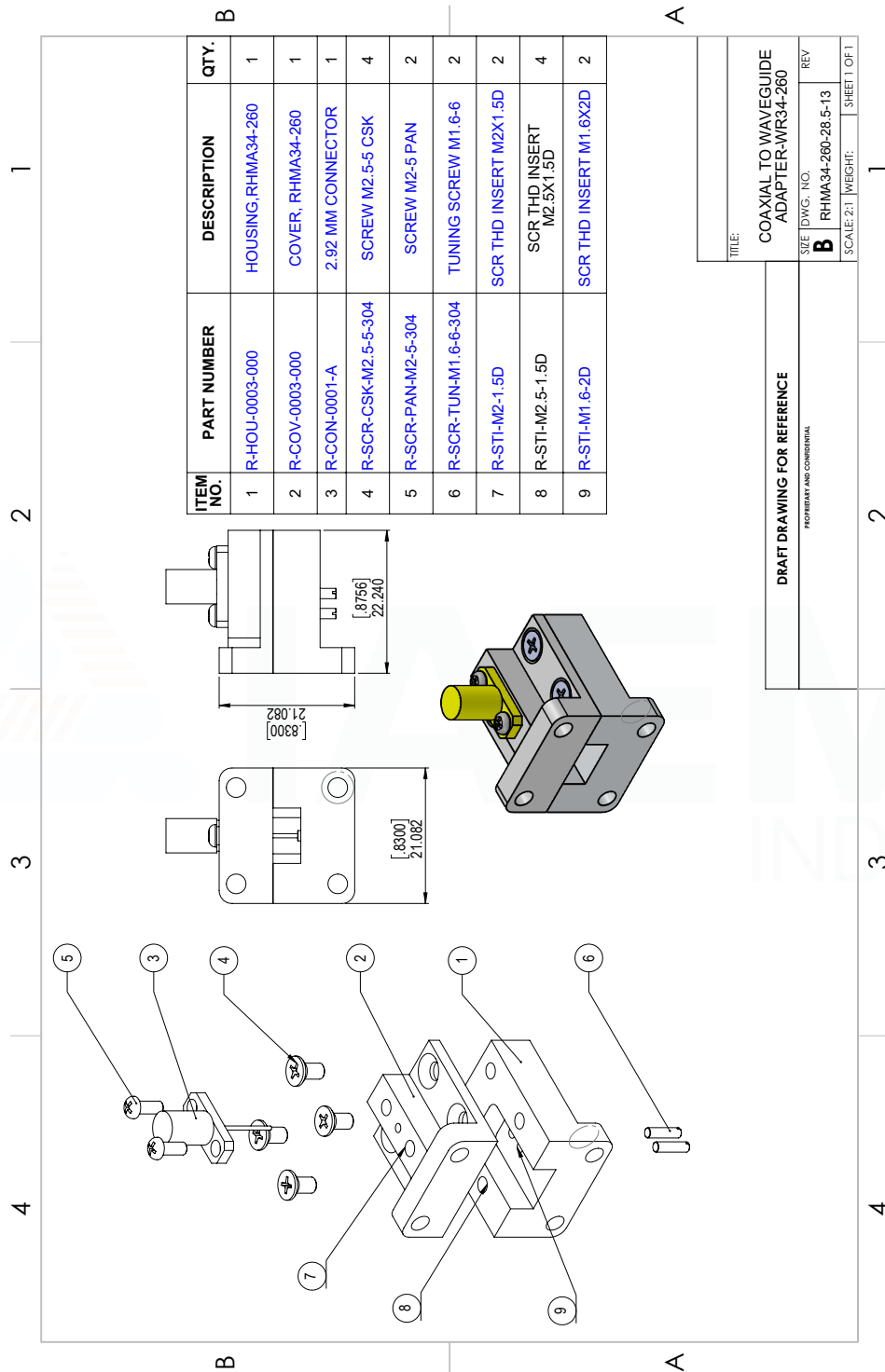


Figure 7: RHMA34-260-28.5-13 mechanical drawing