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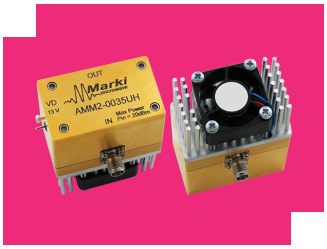
AMM2-0035UH

500 MHz to 35 GHz, Broadband High Gain, 1/2 Watt Distributed Amplifier

DEVICE OVERVIEW

General Description

The AMM2-0035UH is a high gain, medium power broadband amplifier enabling operation over a 500 MHz to 35 GHz frequency range. Delivering +27 dBm saturated output power up to 15 GHz, 26 dB typical gain and excellent return losses, the AMM2-0035UH eliminates the need for multiple gain stages across wideband systems. This amplifier is housed in a 1" x 1.7" connectorized module and operates with a single positive bias supply without the need for sequencing.



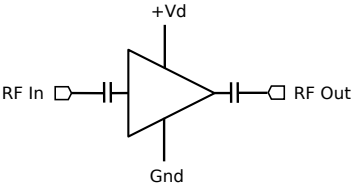
Features

- Broadband Operation, 500 MHz to 35 GHz Typical
- High Gain, 26 dB Typical
- Output Power, +27 dBm up to 15 GHz
- Single-Supply, Positive-Only Bias, 13V
- Integrated Voltage Sequencer
- Heat Sink and Fan

Applications

- Test and Measurement Equipment
- SATCOM
- LO signal chain for mmWave mixers
- Radar Systems
- Aerospace and Defense
- General Lab Use

Functional Block Diagram



Part Ordering Options

Part Number	Description	Package	Connectors	Green Status	Product Lifecycle	Export Classification
AMM2-0035UH	500 MHz to 35 GHz, Broadband High Gain, 1/2 Watt Distributed Amplifier	UH	-	REACH RoHS	Released	EAR99

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Revision History

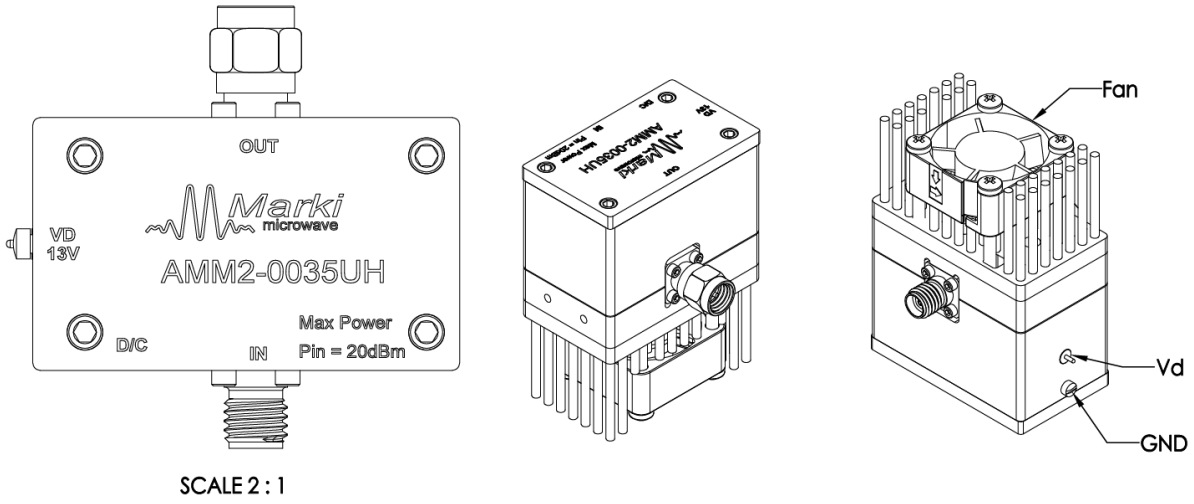
Revision Code	Revision Date	Comment
-	2026-11-04	Initial Release

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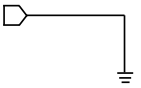
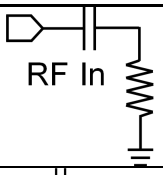
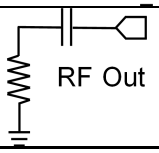
Port Configuration and Functions

Port Diagram

The port diagram of the AMM2-0035UH is shown below.



Port Functions

Port	Function	Connector Type	Description	DC Equivalent Circuit
GND	Ground	-	Ground Connection for UH Module	
RF In	RF Input	2.92F	RF input port to the module. This port is internally DC blocked and matched to 50 Ohms.	
RF Out	RF Output	2.92M	RF output port to module. This port is internally DC blocked and matched to 50 Ohms.	
Vd	Positive DC Supply Voltage	-	This pin provides DC power to the amplifier. DC voltage at this pin should be set to 13V for normal operation.	-

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Specifications

Absolute Maximum Ratings

The Absolute Maximum Ratings indicate limits beyond which damage may occur to the device. If these limits are exceeded, the device may become inoperable or have a reduced lifetime. Reliability limits are individual, instantaneous catastrophic limits only. Functional operation limits are indicated below. Operation of the device at multiple absolute maximum limits or for extended periods at a single limit can cause degradation and damage to the device.

Parameter	Maximum Rating	Unit
Maximum Operating Temperature for MTTF > 1E6 hours	65	°C
Maximum Storage Temperature	125	°C
Minimum Operating Temperature for MTTF > 1E6 hours	-40	°C
Minimum Storage Temperature	-65	°C
Power Supply DC Voltage (Vd)	13.5	V
RF Input Power	20	dBm

Package Information

Parameter	Details	Rating
Dimensions	-	25.2 x 42.6 x 55.9 mm

Recommended Operating Conditions

The Recommended Operating Conditions indicate the limits, inside which the device should be operated, to guarantee the performance given in Electrical Specifications. Operating outside these limits may not necessarily cause damage to the device, but the performance may degrade outside the limits of the Electrical Specifications. For limits, above which damage may occur, see Absolute Maximum Ratings.

Parameter	Min	Nominal	Max	Unit
Power Supply DC Current (Ib) [1]	-	445	500	mA
Positive DC Bias Voltage (Vb)	-	13	-	V
Input Power for Saturation	-	0	-	dBm

[1] Recommended operating current condition without RF input applied.

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Electrical Specifications

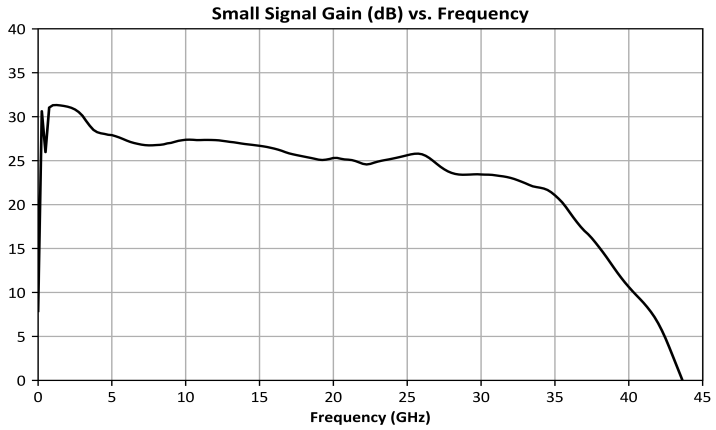
Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Small Signal Gain	Vd=13V, Pin=-20dBm	0.5	30	-	26	-	dB
Input Return Loss	Vd=13V, Pin=-20dBm	0.5	35	-	10	-	dB
Output Return Loss	Vd=13V, Pin=-20dBm	0.5	35	-	15	-	dB
Reverse Isolation	Vd=13V, Pin=-20dBm	0.5	35	-	70	-	dB
Saturated Output Power	Vd=13V	0.5	10	-	28	-	dBm
Saturated Output Power	Vd=13V	10	25	-	26	-	dBm
Saturated Output Power	Vd=13V	25	35	-	23	-	dBm
Noise Figure	Vd=13V	0.5	35	-	6	-	dB
Output P1dB	Vd=13V, Pin=-20dBm	0.5	10	-	24	-	dBm
Output P1dB	Vd=13V	10	25	-	23	-	dBm
Output P1dB	Vd=13V	25	35	-	23	-	dBm
Output IP2	Vd=13V, Pin=-20dBm	0.5	10	-	45	-	dBm
Output IP2	Vd=13V, Pin=-20dBm	10	20	-	35	-	dBm
Output IP3	Vd=13V, Pin=-30dBm	0.5	20	-	31	-	dBm
Output IP3	Vd=13V, Pin=-20dBm	20	35	-	28	-	dBm

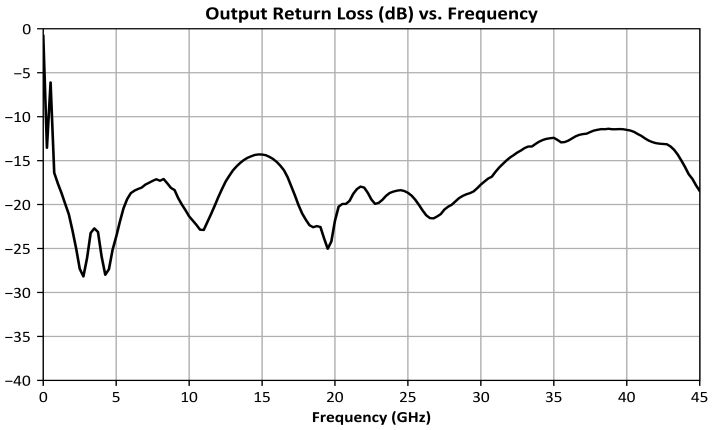
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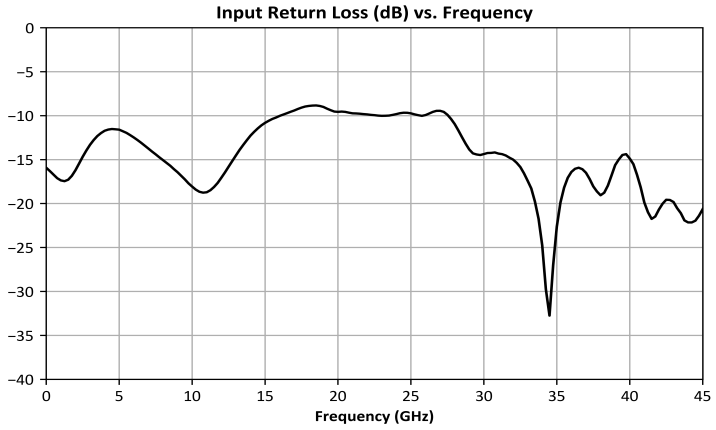
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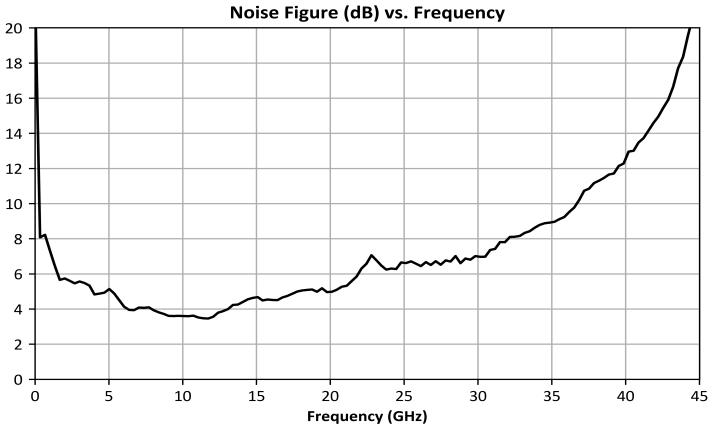
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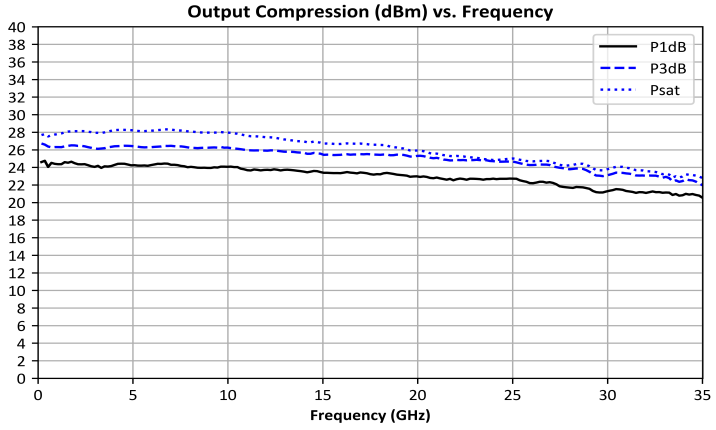
Typical Performance Plots

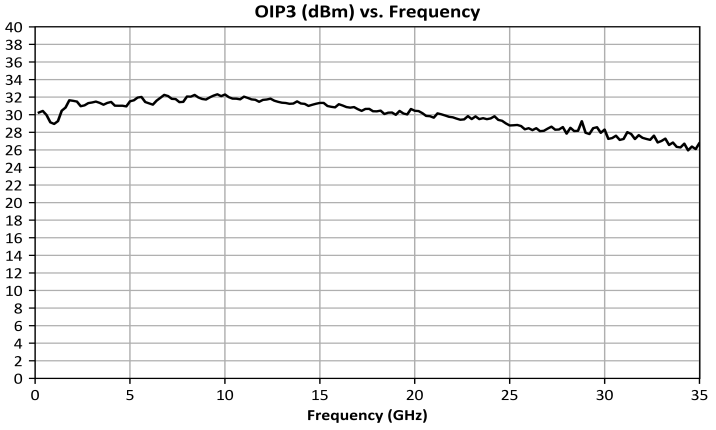


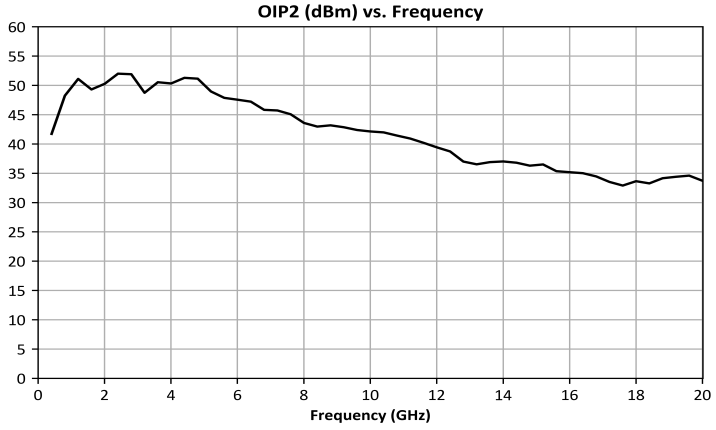












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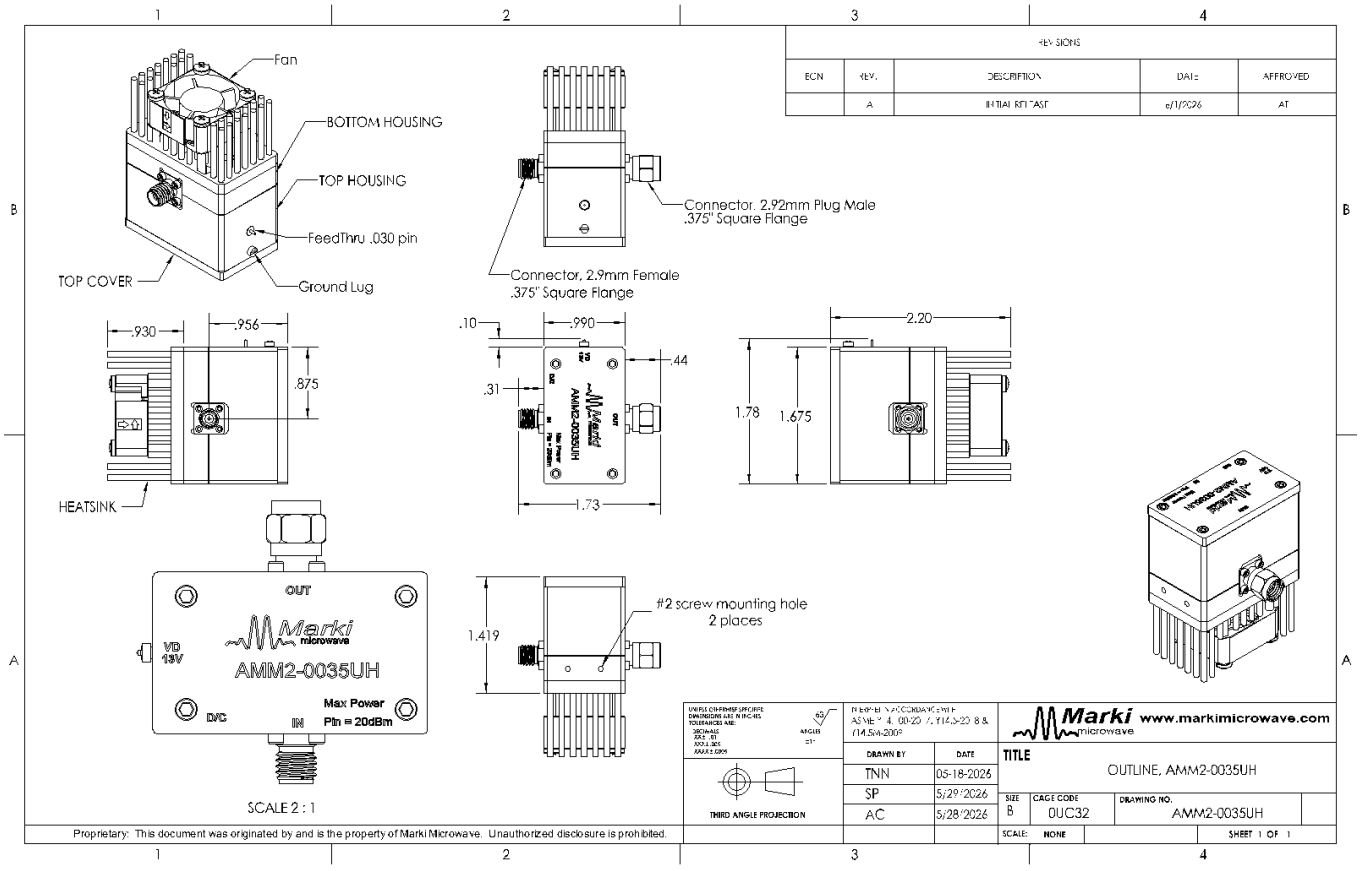
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Mechanical Data

Outline Drawing

Download : Outline 2D Drawing



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