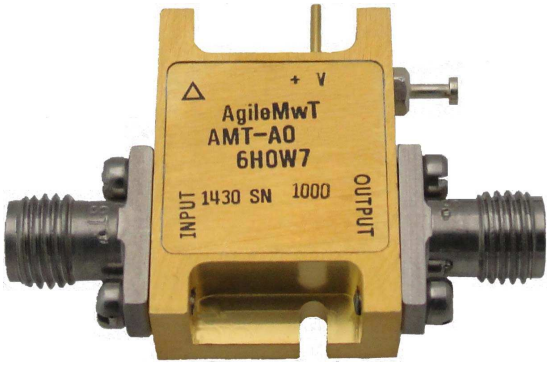
AMT-A0266 9.9 GHz to 18.7 GHz
Low Noise with Medium Power Amplifier

Data Sheet

Microwave Technology Inc

Features



- 9.9 GHz to 18.7GHz Frequency Range
- Typical Gain 27 dB
- Gain Flatness < ± 1.2 dB
- P1dB +18 dBm Typical
- Typical Noise Figure 2.3 dB
- Internally Regulated
- Operates from a Single Supply +12V
- Unconditionally Stable
- State-of-the-Art GaAs Technology

Description

The AMT-A0266 is a Medium Power Low Noise amplifier with flat gain over the full frequency range The performance is achieved through the use of AMTI's proprietary technology. The amplifier I/Os are Internally matched to 50 Ohms and DC Blocked. The AMT-A0266 is ideal for use as Front End of receiver system, or where amplification is required without adding excessive noise in a Hi-Rel communications system for Commercial or Military applications

Applications

- Receiver front end,
- Radar
- Communication systems
- Microwave Radio systems
- Test Equipment

MAXIMUM RATINGS[1]

EAR99 NLR

Parameter	Symbol	Units	MIN	MAX
Operating Temperature – Case	T_{MO}	° C	-40	+85
Storage Temperature - Case	T_{MS}	° C	-40	+125
RF Input power (CW)	Pin	dBm		+0
Die $T_{Junction}$	T_J	° C		+150
Positive Supply Voltage	V_{+SS}	V		+15.5

1.Stresses above those listed under "Absolute Maximum Rating" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

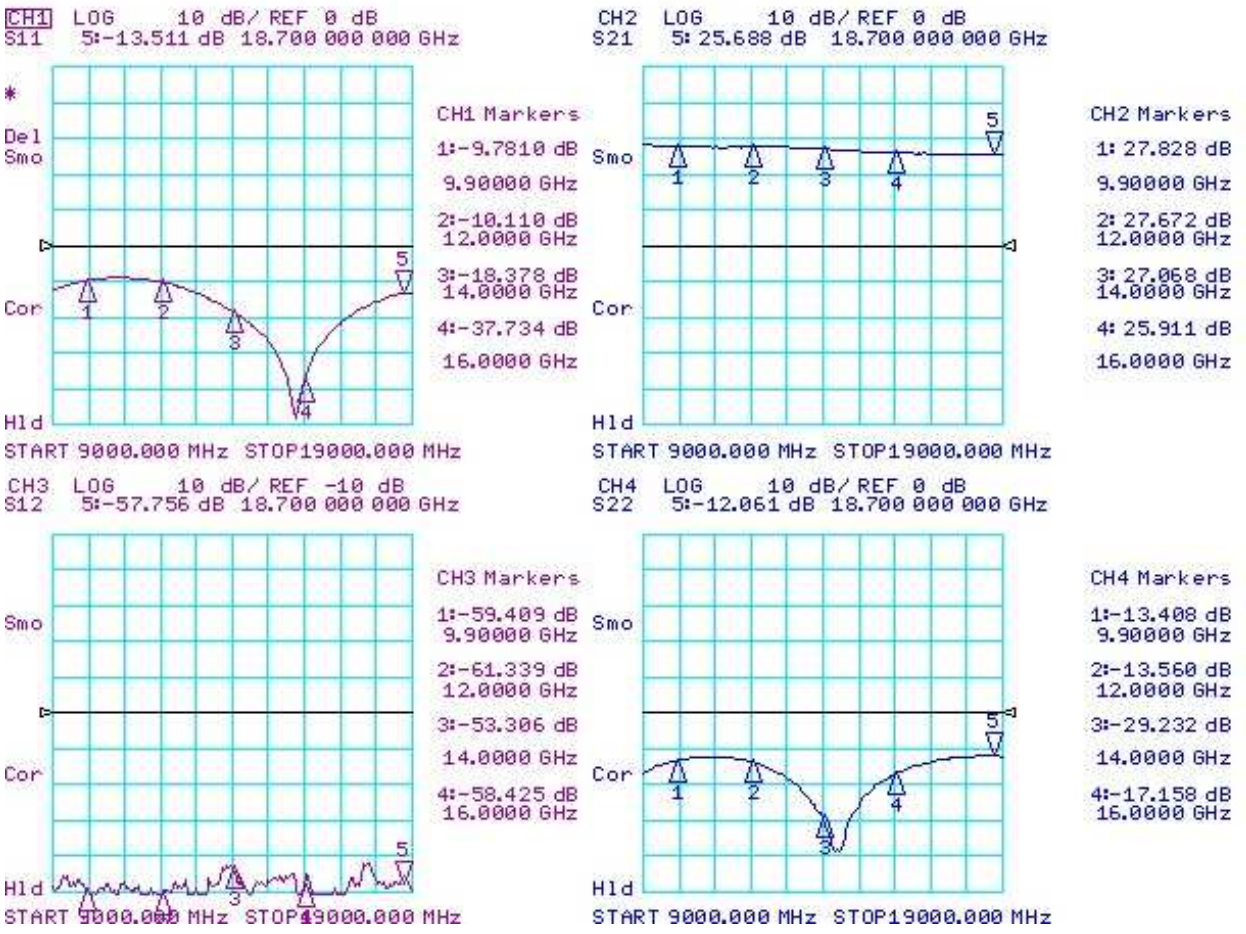
ELECTRICAL SPECIFICATIONS @ 23ºC

Parameter	Conditions	Units	MIN	Typical	MAX
Frequency Range		GHz	9.9		18.7
Gain	Small Signal	dB	25	27	28
Gain Flatness		dB		±1.2	± 2
Input Power Survival	CW short period, without damage	dBm	0		
Output Power (P1dB)	1 dB compression point @ 16 GHz	dBm	15	18	
OIP3	OPI3 measured @ 16 GHz Two tone F1-F2= 10MHz	dB		25	
Noise Figure		dB		2.3	3
RF Input Impedance	Reference to 50 ohms VSWR			1.6:1	2.2:1
RF Output Impedance	Reference to 50 ohms			1:8:1	2.2:1
Supply Voltage Positive: Supply Current Positive:		V mA		+12 230	 260

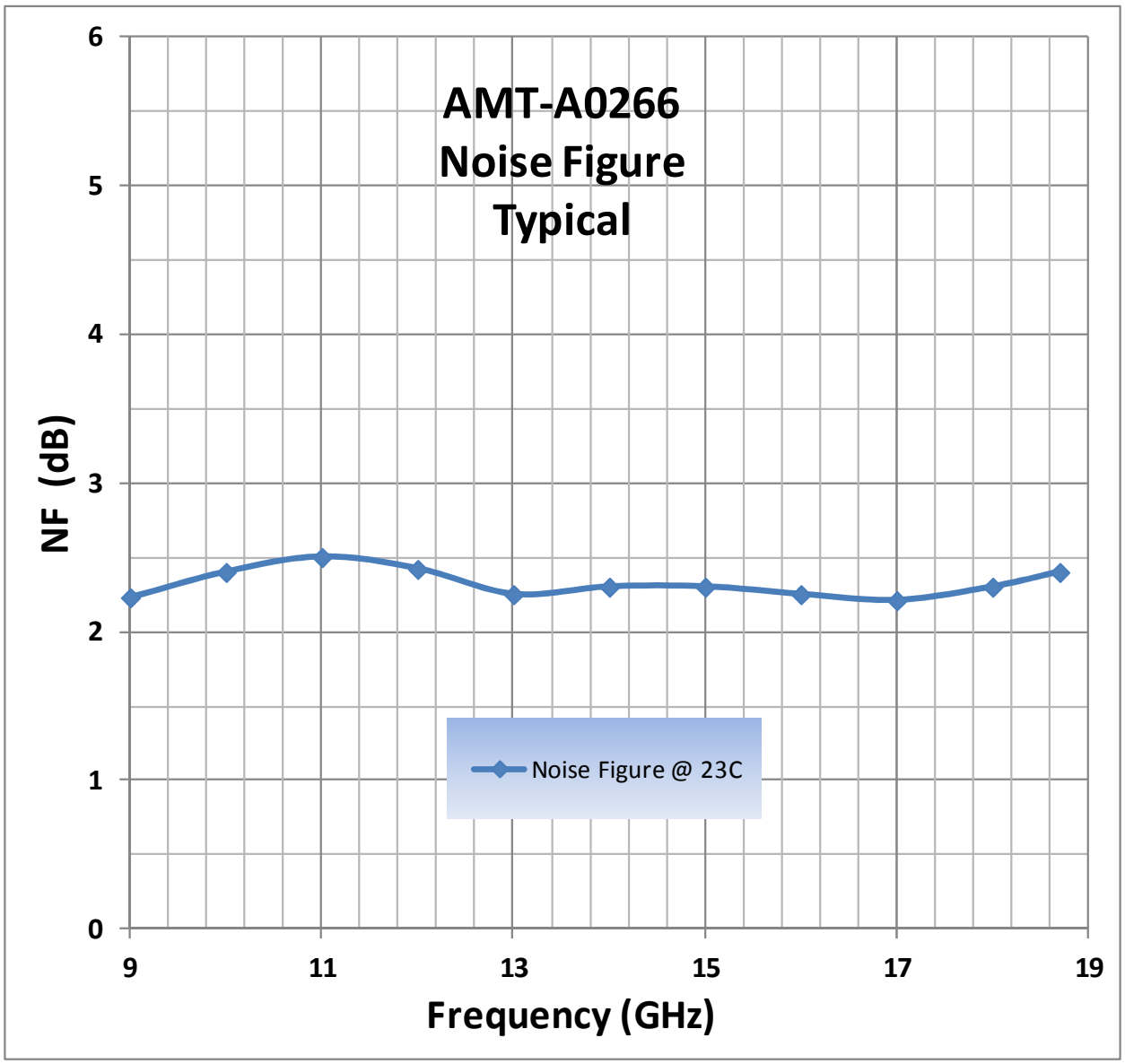
Notes:
1/ Unconditional Stability
2/ All min and max parameters are guaranteed by design

Customized configurations of the above specifications are available

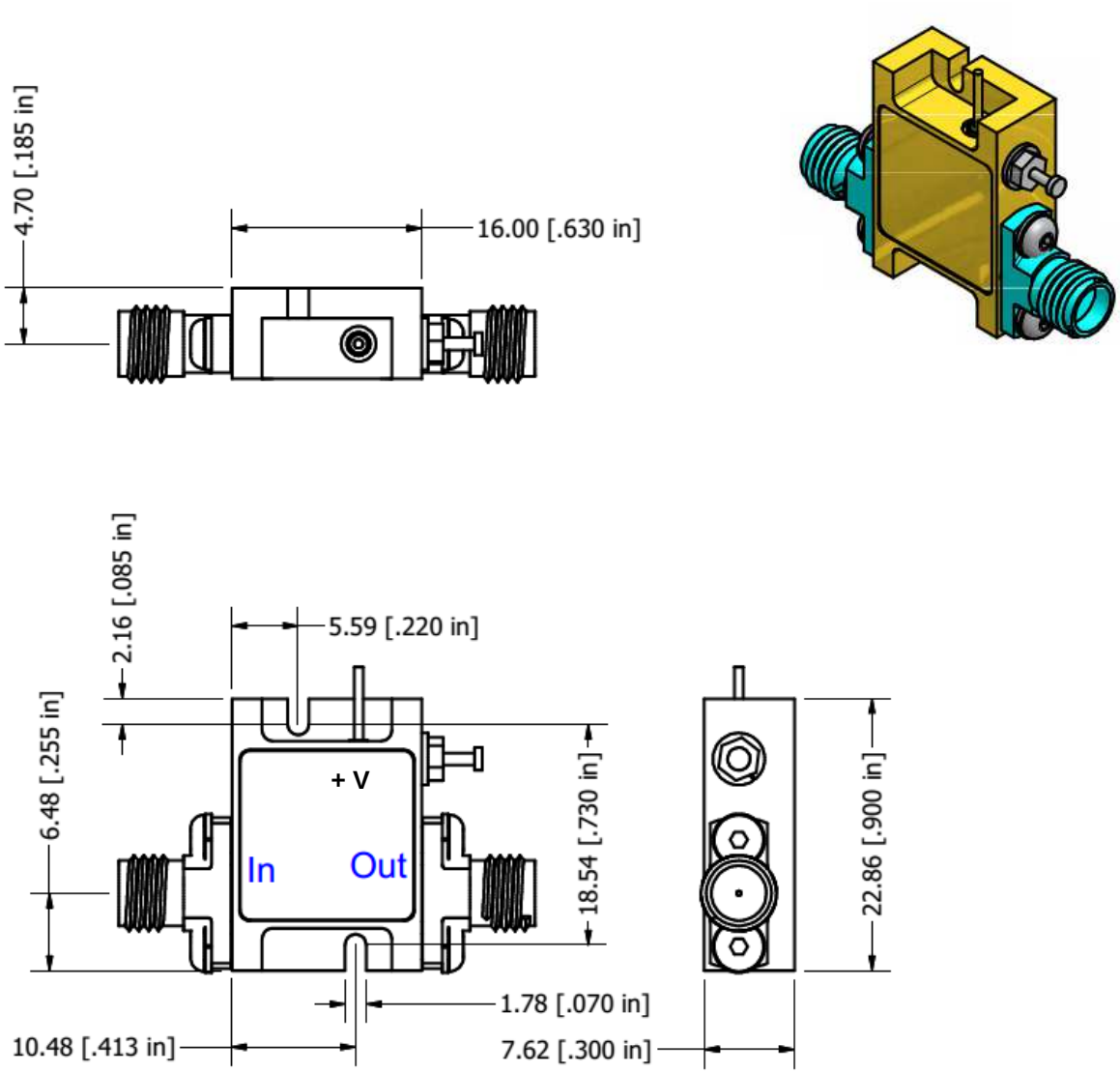
ELECTRICAL SPECIFICATIONS @ 23ºC



Noise Figure @ 23ºC



Package Outline M084: SMA Connectorized mm(inches)



Field replaceable SMA Connectors, Removable Ground Slug

Note: The unit must be attached to proper heat sink

Model Number	Description	Hermeticity	Package
AMT-A0266	SMA Female	Non-Hermetic	Outline: M084

Contact us for custom configurations and special requirements.

Our highly experienced team of engineers can quickly identify and implement innovative solutions using latest technology to improve performance and reduce cost.

- Add additional functionality: Input limiter, Temperature compensation, Amplitude/Phase matching, Amplitude/Phase Tracking, Automatic Gain control, Gain sloping, Bypass path, Specific supply voltage, Regulation, Power detector, Health status, and others

- Integrated: Filters, Switches, Limiter, Digital attenuator, Phase shifter, Microcontroller, Multiple amplifiers, Switch matrix, Comb generators and others

- Mechanical: Custom packages - Surface Mount, Connectorized, Waveguide, Carrier, Drop-in, Hermetic and others

Agile Microwave Technology Inc is the logical choice for all your commercial or military RF/Microwave components/module requirements.

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