

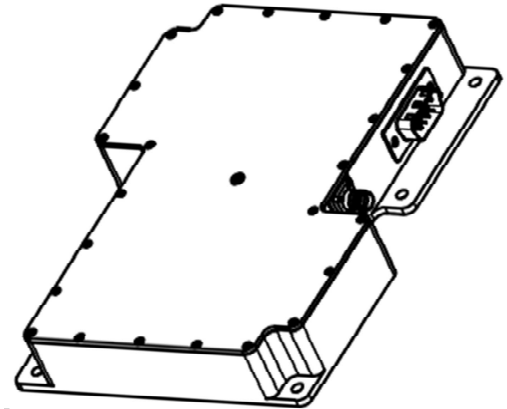
AMT-A0350 2 GHz to 18 GHz 15W Amplifier Broadband 15W Psat Power Amplifier



Data Sheet

Features

- 2000 to 18000 MHz Frequency Range
- 15W Psat typical 10W minimum
- Gain 43dB Typical
- Gain Flatness ± 1.3 dB Typical
- Internally Regulated
- Single +28V Supply
- Compact Design
- Unconditionally Stable



Description

The AMT-A0350 is a Broadband High power amplifier in a compact size. The performance is achieved through the use of AMTI's proprietary matching technology . The amplifier I/ Os are Internally matched to 50 Ohms and DC Blocked. The AMT-A0350 is ideal for use in testing, EW, Lab applications, Communication systems or where broadband amplification and power are required in a Hi-Rel communications system for Commercial or Military applications

Applications

- Test Equipment
- Lab Applications
- EW Systems

MAXIMUM RATINGS¹

Must be mounted to Proper heatsink

Parameter	Symbol	Units	MIN	MAX
Operating Temperature – Case	T_{MO}	$^{\circ}C$	-20	+75
Storage Temperature - Case	T_{MS}	$^{\circ}C$	-20	+125
RF Input power (CW)	P_{in}	dBm		+15
Die $T_{Junction}$	T_J	$^{\circ}C$		+150
Positive Supply Voltage	V_{+SS}	V		+30

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 @ 25°C

Parameter	Conditions	Units	MIN	Typical	MAX
Frequency Range		MHz	2000		18000
Gain ²	Small Signal	dB	40	43	
Gain Flatness		dB		±1.3	±2.5
Noise Figure		dB		8	
Output Power (Psat)		dBm	38	42	
OIP3	OIP3 @ 10 GHz Two tone F1-F2= 10MHz	dB		45	
RF Input Impedance ²	Reference to 50 ohms VSWR			1.8:1	2.3:1
RF Output Impedance ²	Reference to 50 ohms VSWR			1.8:1	2.3:1
Supply Voltage Positive:		V		28	
:	Psat	A		2.7	

Notes:

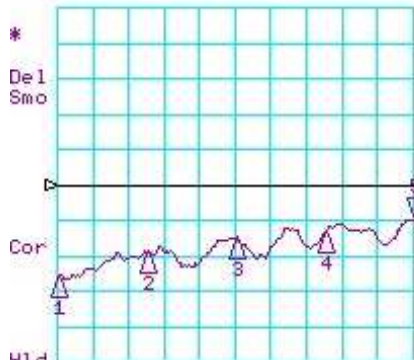
1/ Unconditional Stability

2/ Small Signal

Customized configurations of the above specifications are available

Typical S-Parameters @ 23°C

CH1 LOG 10 dB/ REF 0 dB
S11 5: -10.105 dB 18.000 000 000 GHz



CH1 Markers
1: -26.067 dB
2.00000 GHz
2: -18.968 dB
6.00000 GHz
3: -14.865 dB
10.0000 GHz
4: -13.522 dB
14.0000 GHz

H1d
START 2000.000 MHz STOP 18000.000 MHz

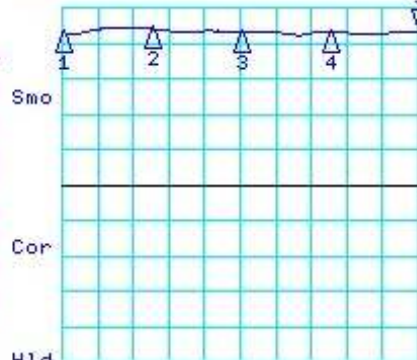
CH3 LOG 10 dB/ REF 0 dB
S12 5: -37.070 dB 18.000 000 000 GHz



CH3 Markers
1: -40.446 dB
2.00000 GHz
2: -39.429 dB
6.00000 GHz
3: -41.027 dB
10.0000 GHz
4: -43.437 dB
14.0000 GHz

H1d
START 2000.000 MHz STOP 18000.000 MHz

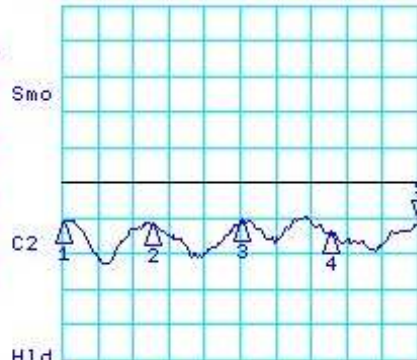
CH2 LOG 10 dB/ REF 0 dB
S21 5: 43.112 dB 18.000 000 000 GHz



CH2 Markers
1: 43.074 dB
2.00000 GHz
2: 44.102 dB
6.00000 GHz
3: 43.108 dB
10.0000 GHz
4: 43.480 dB
14.0000 GHz

H1d
START 2000.000 MHz STOP 18000.000 MHz

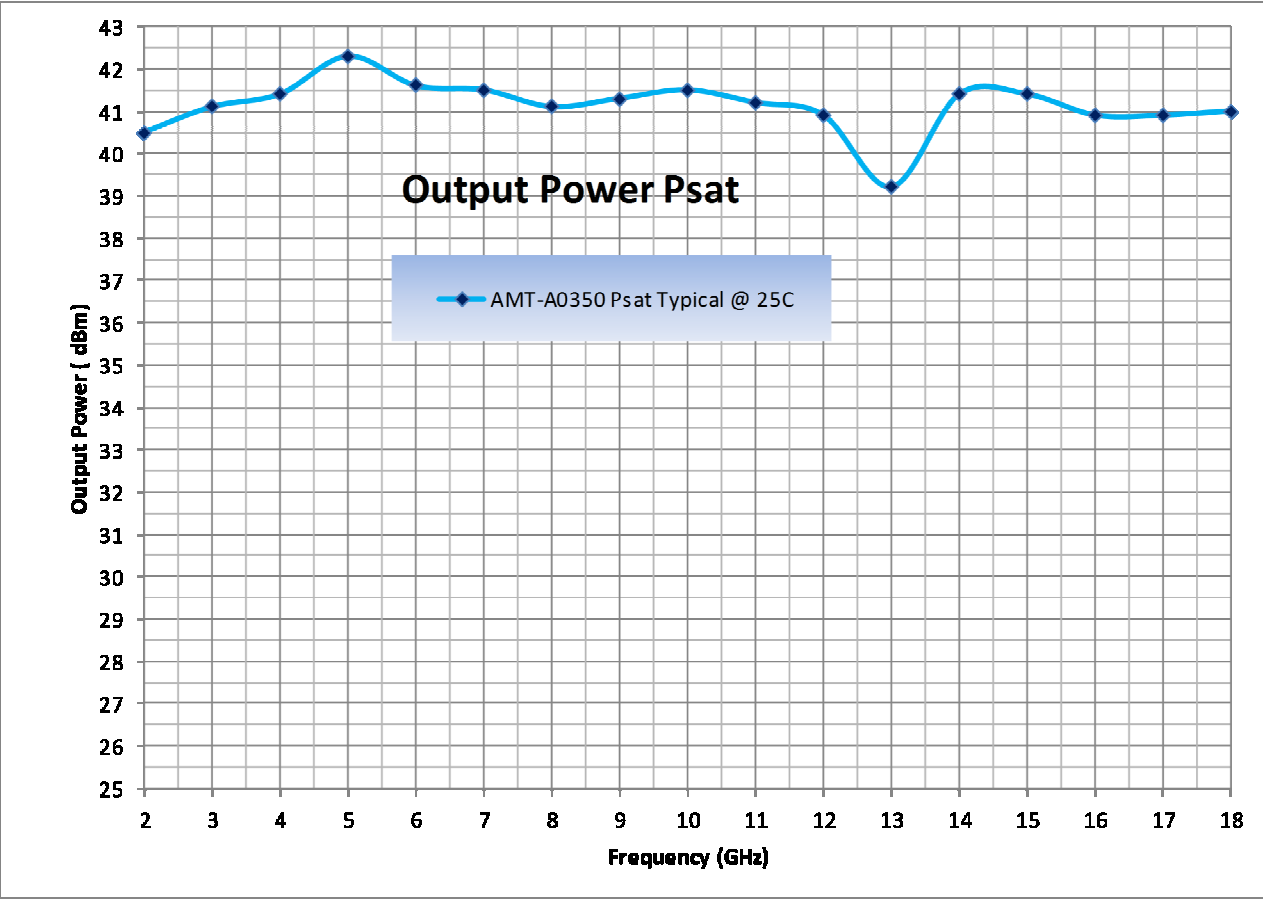
CH4 LOG 10 dB/ REF 0 dB
S22 5: -11.444 dB 18.000 000 000 GHz



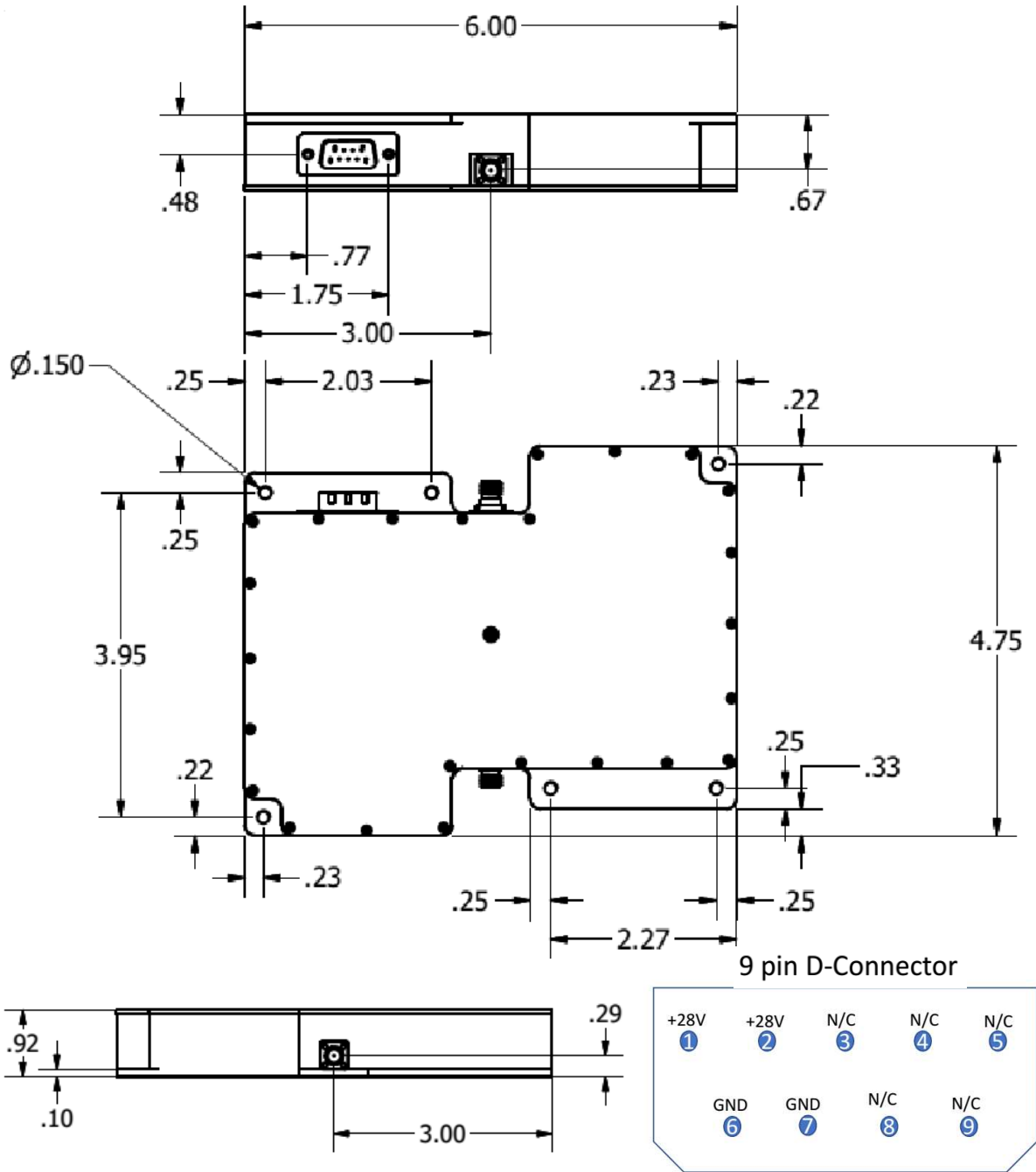
CH4 Markers
1: -11.379 dB
2.00000 GHz
2: -11.744 dB
6.00000 GHz
3: -11.001 dB
10.0000 GHz
4: -14.265 dB
14.0000 GHz

H1d
START 2000.000 MHz STOP 18000.000 MHz

Typical Output Power Psat @ 25C



Package Outline : SMA Connectorized (inches)



Model Number	Description	Hermeticity	Package
AMT-A0350	SSPA	Non-Hermetic	Outline: M166

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.

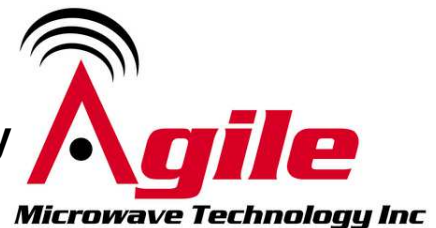
- Add additional functionality: Input limiter, Temperature compensation, Amplitude/Phase matching, Amplitude/Phase Tracking, Automatic Gain control, Gain sloping, Bypass path, Specific supply voltage, Regulation, Power detector, Health status, and others
- Integrated: Filters, Switches, Limiter, Digital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

Contact Information:

**701 Cascade Pointe Lane
Cary, NC 27513**

**ISO 9001:2015
Certified Company**



Phone: (984) 228-8001

info@agilemwt.com

www.agilemwt.com

AMTI reserves the right to change at any time without notice the design, specifications, function/form or availability of its products described herein. The buyer/customer has the responsibility to validate the performance for their applications. No liability is assumed as result of use of this product and no patent licenses are implied. AMTI reserves all rights .