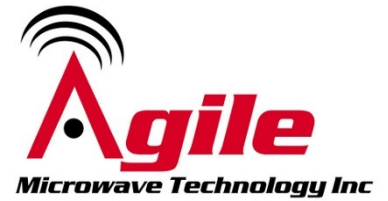


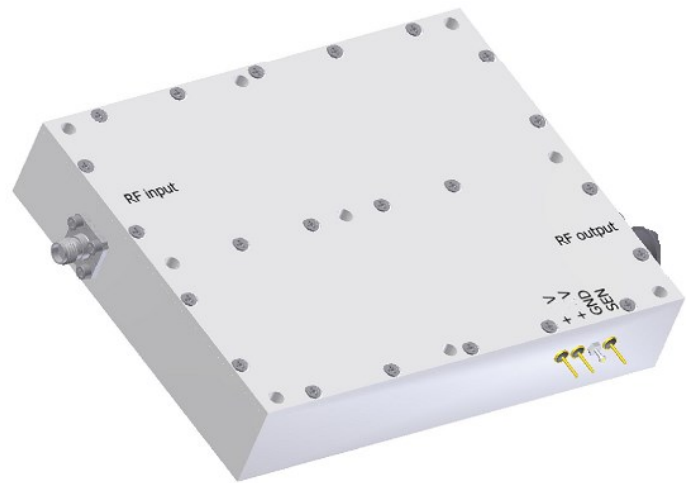
# AMT-A0350 2 GHz to 18 GHz 15W Amplifier Broadband 15W Psat Power Amplifier



## Data Sheet

### Features

- 2000 to 18000 MHz Frequency Range
- 15W Psat typical 10W minimum
- Gain 43dB Typical
- Gain Flatness  $\pm 1.2$  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 RATINGS<sup>1</sup>

**Must be mounted to Proper heatsink**

Parameter	Symbol	Units	MIN	MAX
Operating Temperature – Case	$T_{MO}$	$^{\circ}C$	0	+75
Storage Temperature - Case	$T_{MS}$	$^{\circ}C$	-20	+95
RF Input power (CW)	$P_{in}$	dBm		+10
Die $T_{Junction}$	$T_J$	$^{\circ}C$		+150
Positive Supply Voltage	$V_{+SS}$	Voltage AC		240

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 <sup>2</sup>	Small Signal	dB	40	43	
Gain Flatness		dB		±1.2	±2.5
Noise Figure		dB		8	
Output Power (Psat)		dBm	39	42	
OIP3	OIP3 @ 10 GHz Two tone F1-F2= 10MHz	dB		43	
RF Input Impedance <sup>2</sup>	Reference to 50 ohms VSWR			1.8:1	2.3:1
RF Output Impedance <sup>2</sup>	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

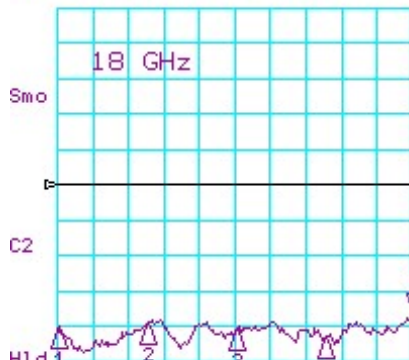
CH1 LOG 10 dB/ REF 0 dB  
S11 5: -10.105 dB 18.000 000 000 GHz



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

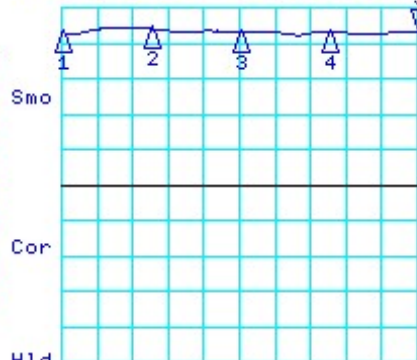
CH3 LOG 10 dB/ REF 0 dB  
S12 5: -37.070 dB 18.000 000 000 GHz



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

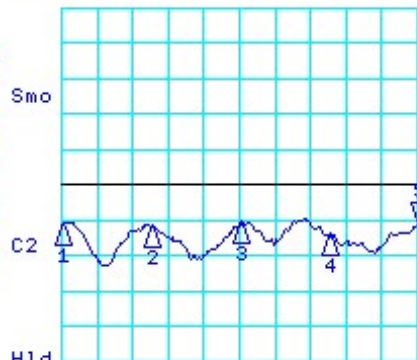
CH2 LOG 10 dB/ REF 0 dB  
S21 5: 43.112 dB 18.000 000 000 GHz



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

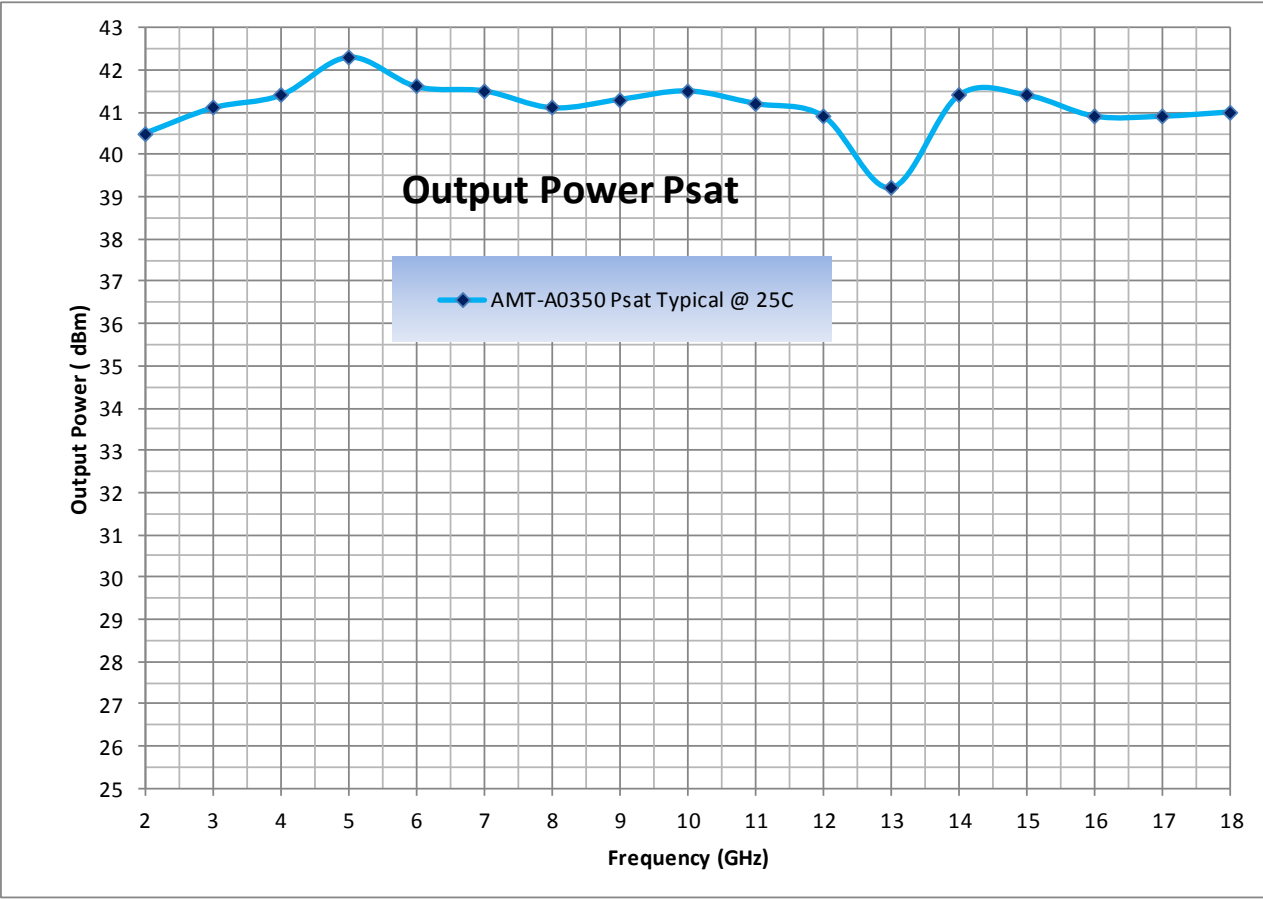
CH4 LOG 10 dB/ REF 0 dB  
S22 5: -11.444 dB 18.000 000 000 GHz



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 Bench Top: SMA Connectorized (inches)

~ 6" x 8" x 1"

<b>Model Number</b>	<b>Description</b>	<b>Hermeticity</b>	<b>Package</b>
AMT-BT0605	SSPA	Non-Hermetic	Outline: TBD

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- 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.

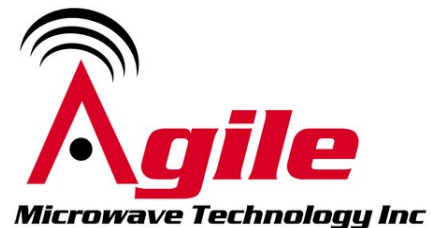
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