

DESCRIPTION

AMCOM's AM357039UM-2H is a broadband GaAs Power Amplifier Module. It has a nominal CW performance of 21dB small signal gain, and 39dBm (8W) saturated output power over the 3.5 to 7GHz band. The amplifier module has 4 screw slots for mounting to a heat sink. This amplifier module is very small and light weight at 1.5" (L) x 1.2" (W) x 0.56" (H) and 1.6 oz (45g).



FEATURES

- Wide bandwidth from 3.5 to 7GHz
- 39dBm of saturated CW output power
- High gain, 21dB
- Input /Output matched to 50 Ohms

APPLICATIONS

- Commercial telecom transmission equipment
- Fixed microwave backhaul
- Commercial 2-way radio

TYPICAL PERFORMANCE * ($V_{dd1,2} = +14V$, $I_{ddq1} = 0.3A$, $I_{ddq2} = 1.2A$, $V_{gs1,2} = -0.89V$)

Parameters	Minimum	Typical **	Maximum
Frequency	4 – 6.5GHz	3.5 – 7GHz	
Small Signal Gain		21dB	25dB
Gain Ripple		± 2dB	± 4dB
P_{1dB}		37dBm	
P_{3dB}	36dBm	38.5dBm	
Efficiency @ P_{3dB}		25%	
Noise Figure		-	
IP3 @ 5GHz		TBD	
Input Return Loss		12dB	
Output Return Loss		3dB	
Thermal Resistance		5.2 °C/W	

*Notes:

1- Specifications are subject to change without notice.

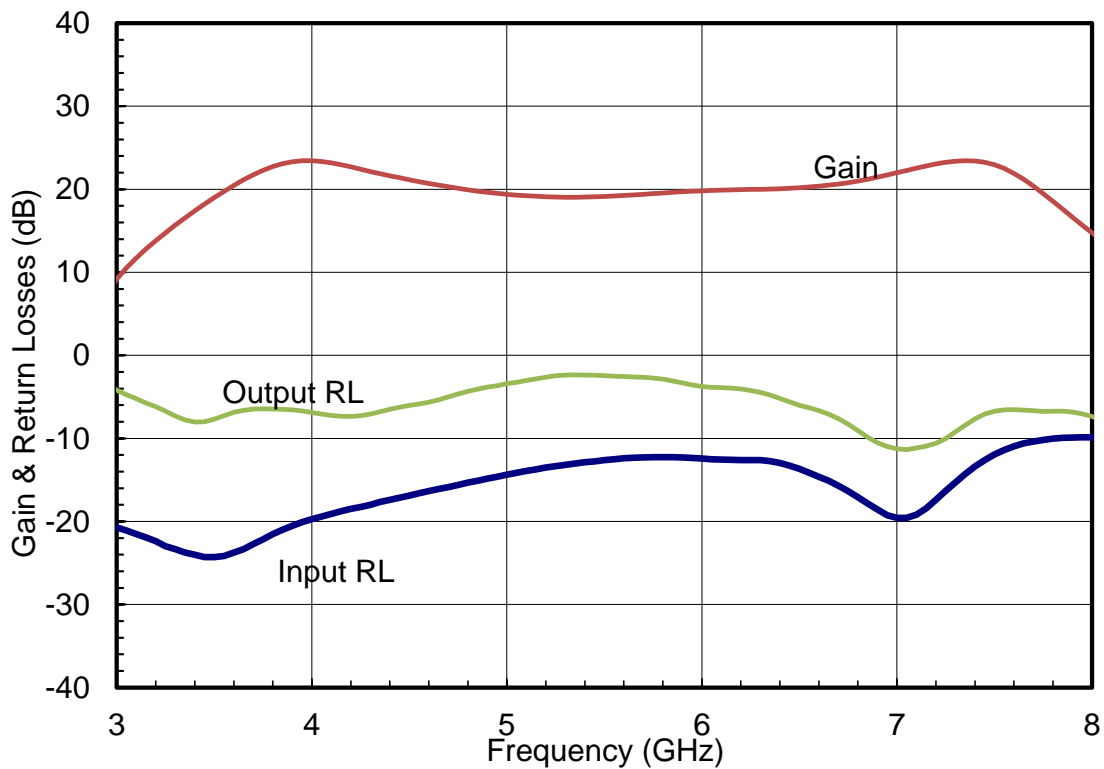
2- $V_{gs1,2}$ should be adjusted to -0.89V approximately to get the specified currents, and will vary slightly from one unit to another.

3- Measurements are done in CW mode.

ABSOLUTE MAXIMUM RATING

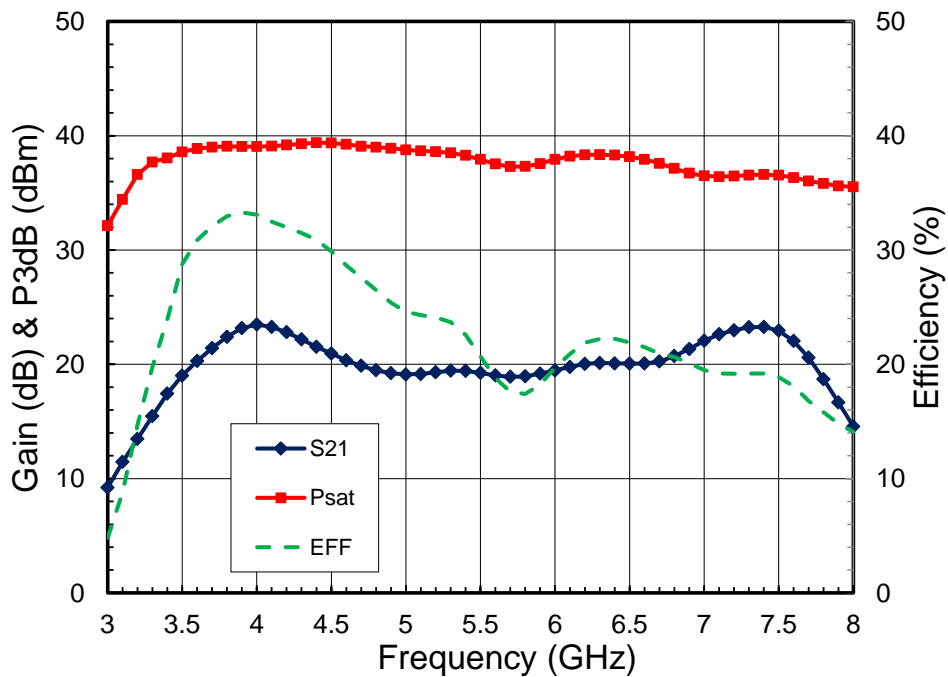
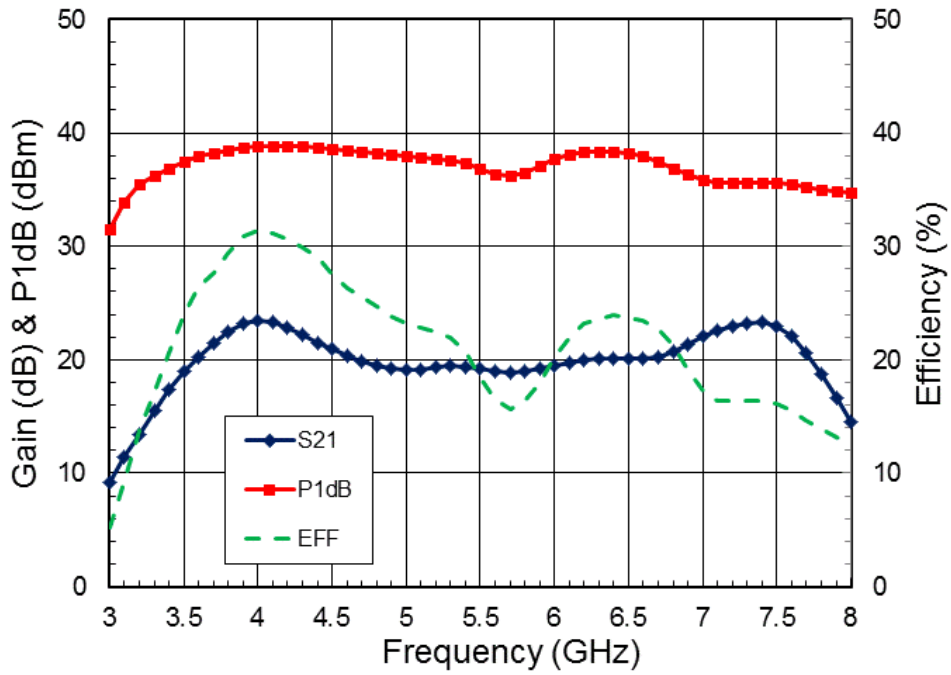
Parameters	Symbol	Rating
Drain source voltage	$V_{ds1,2}$	16V
Gate source voltage	$V_{gs1,2}$	-3V
Drain source current	I_{dsq1}	0.375A
Drain source current	I_{dsq2}	1.5A
Continuous dissipation at 25°C	P_t	38 W
Channel temperature	T_{ch}	175°C
Operating temperature	T_{op}	-55°C to +85°C
Storage temperature	T_{sto}	-55°C to +135°C

SMALL SIGNAL DATA*



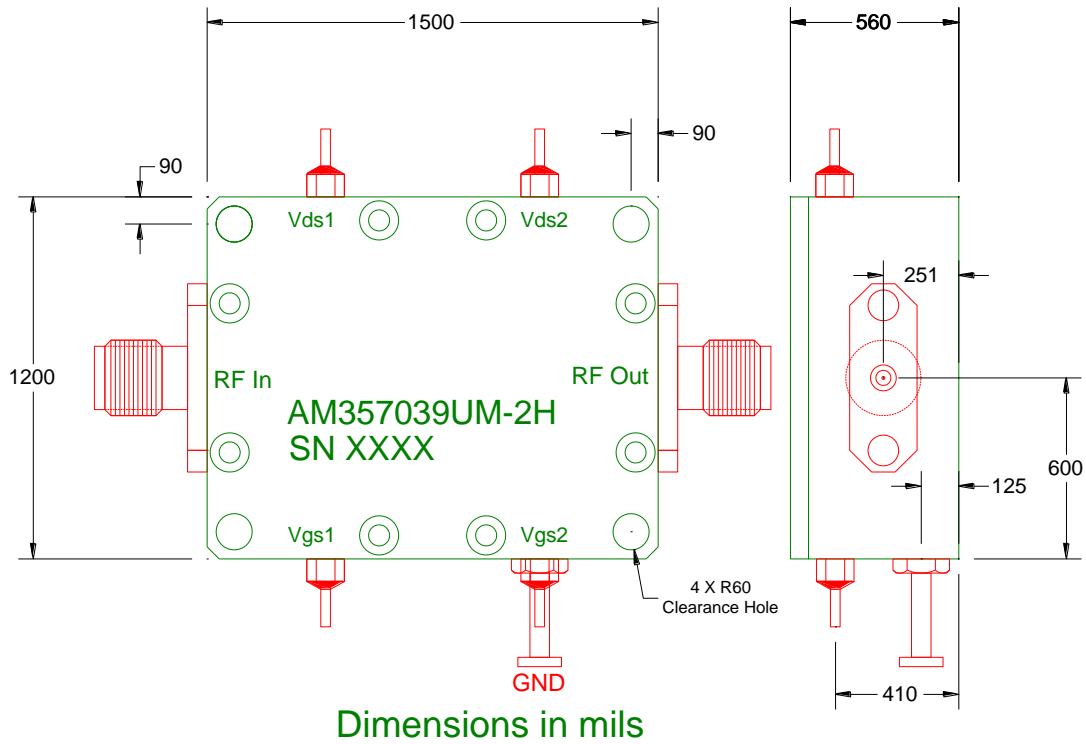
* Data shown is $V_{dd1,2} = +14V$, $I_{ddq1} = 0.3A$, $I_{ddq2} = 1.2A$, $V_{gs1,2} = -0.89V$

POWER DATA *



* Data shown is for $V_{dd1,2} = +14V$, $I_{ddq1} = 0.3A$, $I_{ddq2} = 1.2A$, $V_{gs1,2} = -0.89V$

PACKAGE OUTLINE



*Notes:

1- $V_{gs1,2}$ bias values are for reference only and will vary slightly from one unit to another.

Pin No.	Function	Bias
1	V_{gs1}	-0.89V
2	NC	-
3	V_{gs2}	-0.89V
4	V_{dd2}	+14V
5	NC	-
6	V_{dd1}	+14V