

## DESCRIPTION

AMCOM's AM357037UM-3H is a broadband GaAs Power Amplifier Module. It has a nominal CW performance of 27dB small signal gain, and 37dBm (5W) 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
- 37dBm of saturated CW output power
- High gain, 27dB
- Input /Output matched to 50 Ohms

## APPLICATIONS

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

## TYPICAL PERFORMANCE \* ( $V_{ds1,2,3} = 8V$ , $I_{dsq1} = 0.1A$ , $I_{dsq2} = 0.4A$ , $I_{dsq3} = 1.6A$ , $V_{gs1,2,3} = -0.89V$ )

Parameters	Minimum	Typical **	Maximum
Frequency	4 – 6.5 GHz	3.5 – 7 GHz	
Small Signal Gain	22 dB	27 dB	31 dB
Gain Ripple		± 1 dB	± 4.0 dB
$P_{1dB}$		36 dBm	
$P_{3dB}$	35 dBm	37 dBm	
Efficiency @ $P_{3dB}$		28%	
Noise Figure		-	
IP3 @ 5GHz		TBD	
Input Return Loss		12 dB	
Output Return Loss		5 dB	
Thermal Resistance		3.7 °C/W	

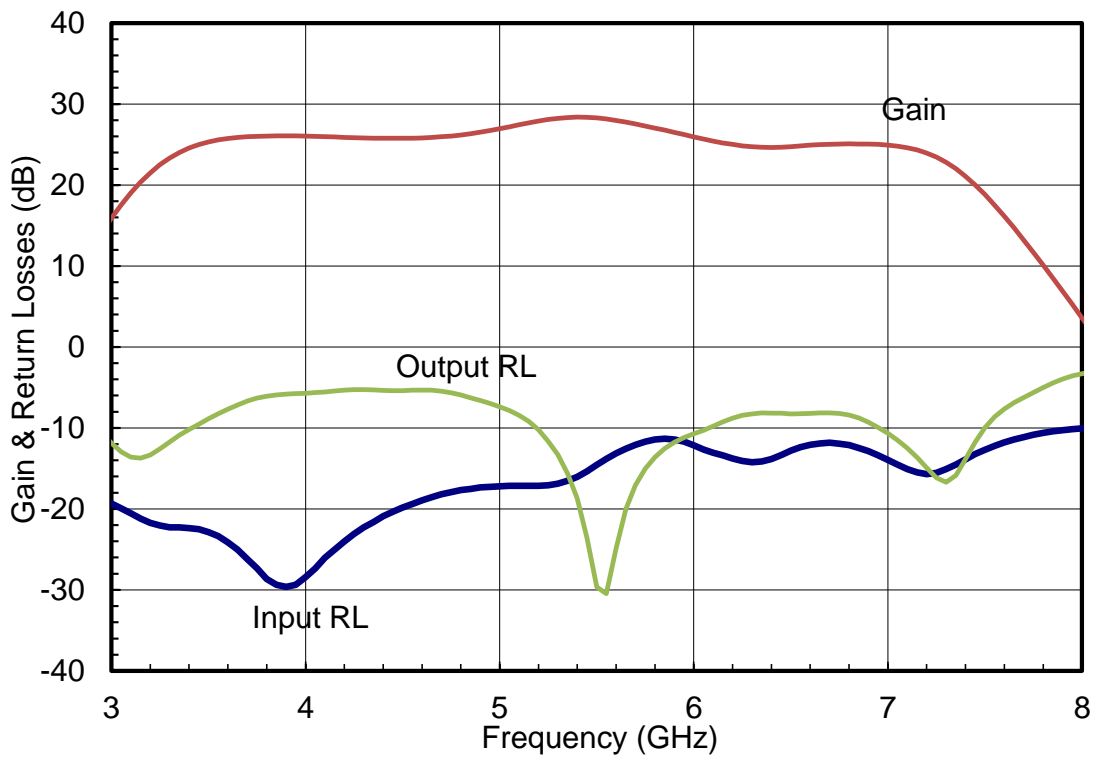
\*Notes:

- 1- Specifications are subject to change without notice.
- 2-  $V_{gs1,2,3}$  should be adjusted to -0.85V 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**

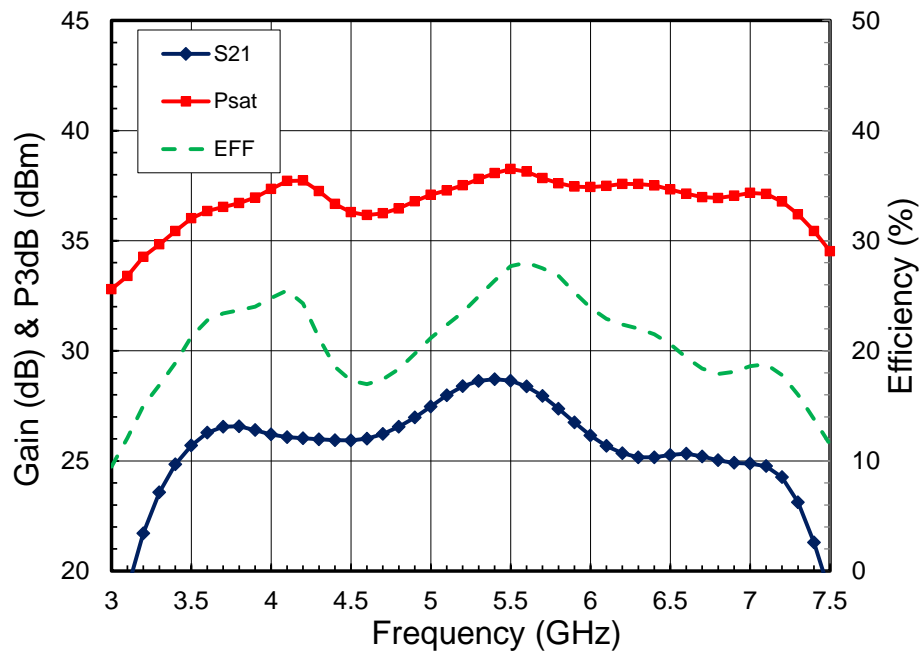
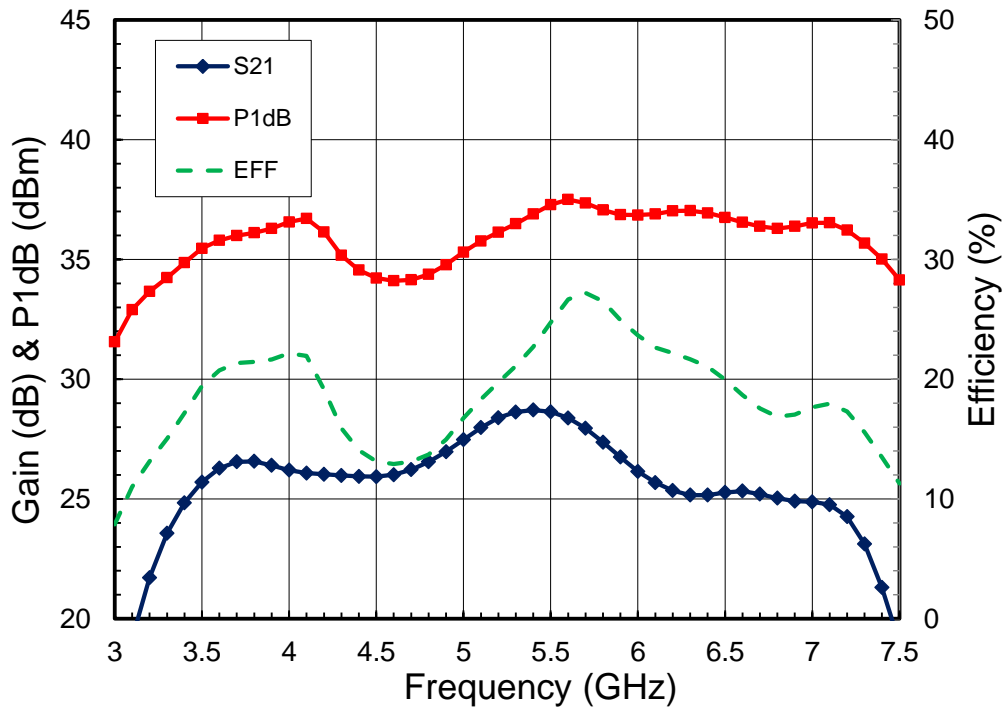
Parameters	Symbol	Rating
Drain source voltage	$V_{ds1,2,3}$	9V
Gate source voltage	$V_{gs1,2,3}$	-3V
Drain source current	$I_{dsq1}$	0.125A
Drain source current	$I_{dsq2}$	0.5A
Drain source current	$I_{dsq3}$	2A
Continuous dissipation at 25°C	$P_t$	30W
Channel temperature	$T_{ch}$	175°C
Operating temperature	$T_{op}$	-55°C to +85°C
Storage temperature	$T_{sto}$	-55°C to +135°C

**SMALL SIGNAL DATA\***



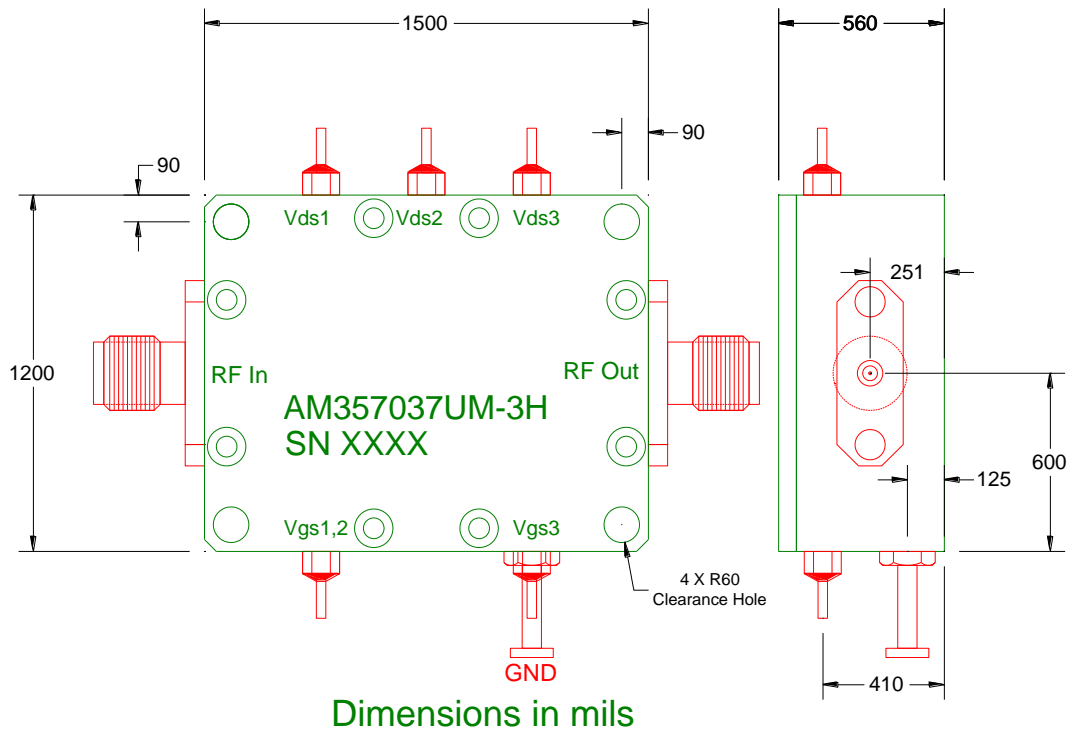
\* Data shown is  $V_{ds1,2,3} = 8V$ ,  $I_{dsq1} = 0.1A$ ,  $I_{dsq2} = 0.4A$ ,  $I_{dsq3} = 1.6A$ ,  $V_{gs1,2,3} = -0.89V$

POWER DATA \*



\* Data shown is for packaged version (SN-R) of the MMIC biased at  $V_{ds1,2,3} = 8V$ ,  $I_{dsq1} = 0.1A$ ,  $I_{dsq2} = 0.4A$ ,  $I_{dsq3} = 1.6A$ ,  $V_{gs1,2,3} = -0.89V$

PACKAGE OUTLINE



\*Notes:

1-  $V_{gs1,2,3}$  bias values are for reference only and will vary slightly from one unit to another.

Pin No.	Function	Bias
1	$V_{gs1}, V_{gs2}$	-0.89V
2	NC	-
3	$V_{gs3}$	-0.89V
4	$V_{ds3}$	+8V
5	$V_{ds2}$	+8V
6	$V_{ds1}$	+8V