

DESCRIPTION

AMCOM's AM08011034UM-3H is a broadband GaAs MMIC power amplifier. It has 25dB small signal gain, and 34dBm (2.5W) output power over the 8 to 11GHz band at +5V bias. 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 8 to 11GHz
- 34dBm of saturated output pulsed power
- High gain, 25dB
- Input /Output matched to 50 Ohms

APPLICATIONS

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

TYPICAL PERFORMANCE * (($V_{ds} = +5V$, $I_{dsq} = 2.0 A$, $V_{gg} = -2.4V^{**}$))

Parameters	Minimum	Typical **	Maximum
Frequency	8.5 – 10.5GHz	8 – 11GHz	
Small Signal Gain	20dB	25dB	30dB
Gain Ripple		± 2dB	± 4.0dB
P_{1dB}		31dBm	
P_{sat}	32dBm	34dBm	
Efficiency @ P_{sat}		20%	
Noise Figure		-	10dB
IP3		TBD	
Input Return Loss		10dB	
Output Return Loss		5dB	
Thermal Resistance		3°C/W	

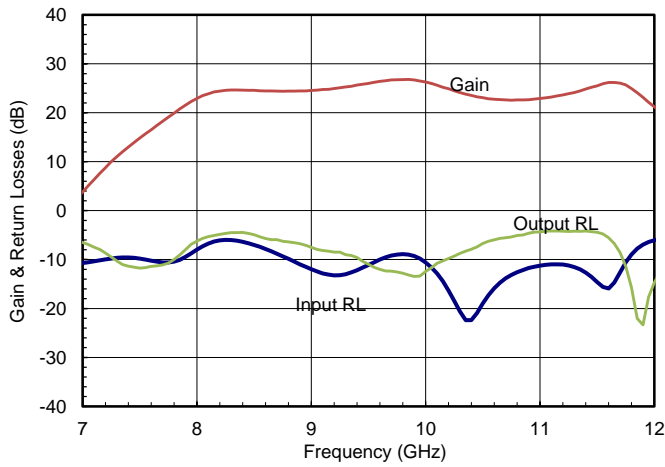
* Specifications subject to change without notice.

** Current may change from lot to lot. Adjust V_{gg} to reach total $I_{dsq1,2,3} = 2.A.$

ABSOLUTE MAXIMUM RATING

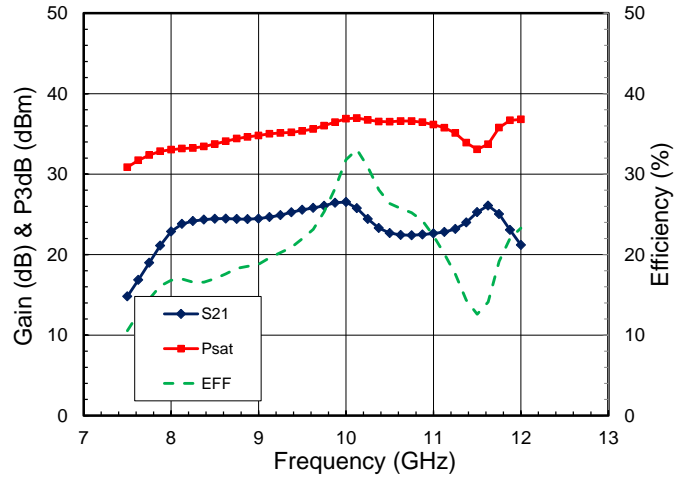
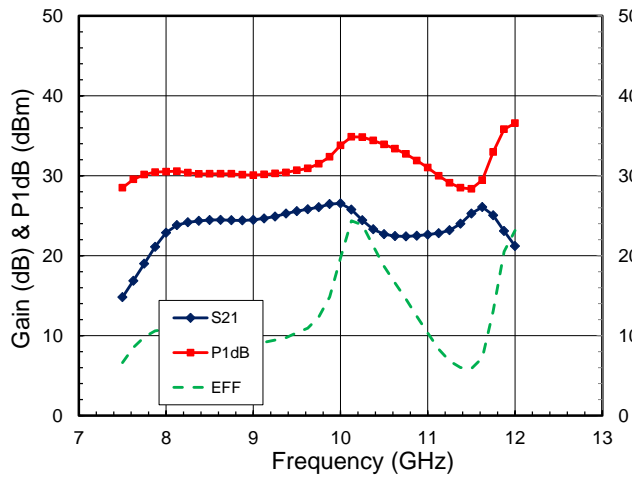
Parameters	Symbol	Rating
Drain source voltage	$V_{ds1}, V_{ds2}, V_{ds3}$	6V
Gate source voltage	V_{gg}	-3V
Drain source current	I_{dsq1}	0.2A
Drain source current	I_{dsq2}	0.9A
Drain source current	I_{dsq3}	2.0A
Continuous dissipation at 25°C	P_t	20W
Channel temperature	T_{ch}	175°C
Operating temperature	T_{op}	-40°C to +85°C
Storage temperature	T_{sto}	-55°C to +135°C

SMALL SIGNAL DATA*



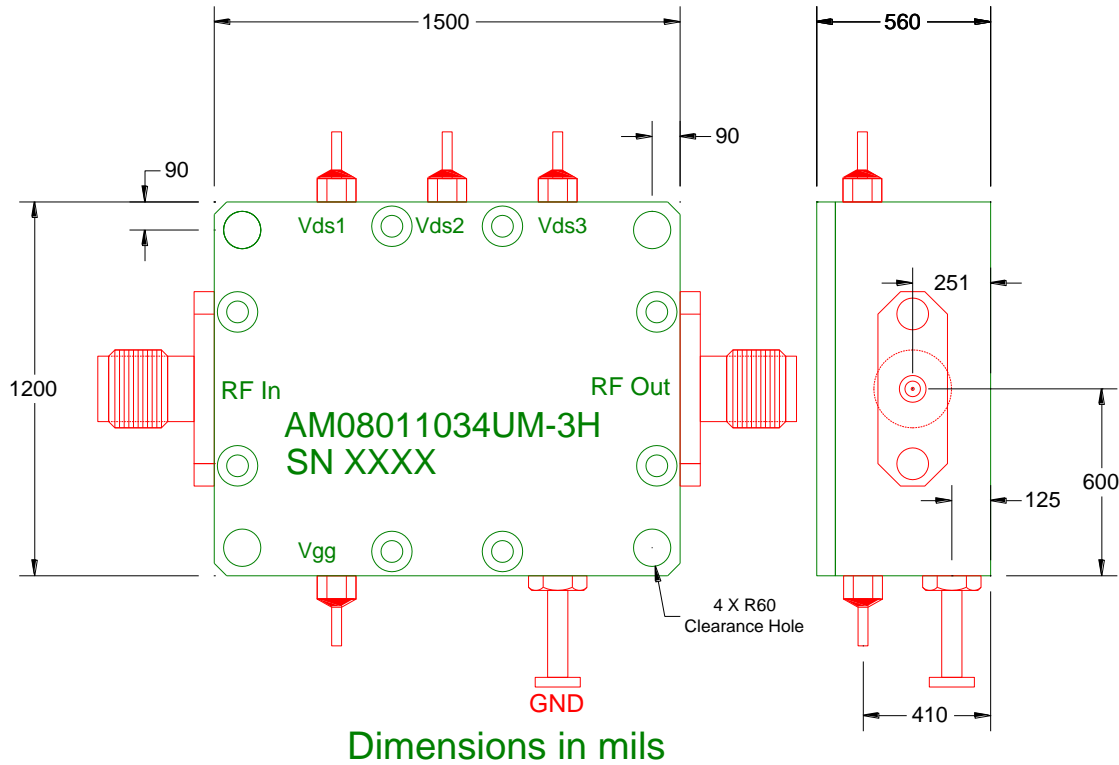
* Bias is $V_{ds} = +5V$, $I_{dsq} = 2.0 A$, $V_{gg} = -2.4V$.

POWER DATA *



* Bias at: $V_{ds1,2,3} = +5V$, $V_{gg} = -2.4V$, $I_{dsq1} = 0.14A$, $I_{dsq2} = 0.56A$, $I_{dsq3} = 1.3A$.

PACKAGE OUTLINE



Pin No.	Function	Bias
1	V_{gg}	-2.4V
2	NC	-
3	NC	-
4	V_{ds3}	+5V
5	V_{ds2}	+5V
6	V_{ds1}	+5V

Important Notes:

- 1- Recommended current bias is 2.0A for the first stage , second and third stage currents combined.
- 2- Gate V_{gg} bias of -2.4V is for reference only. V_{gg} could be adjusted to vary the currents going thru the module.
- 3- Do not apply V_{ds1} & , V_{ds2} & V_{ds3} without proper negative voltages.
- 4- The currents flowing out of the V_{gg} pin are around 200mA.