

DESCRIPTION

AMCOM's AM264240UM-2H is a broadband GaAs Power Amplifier module designed for Wireless Internet Access, Wireless Local Loop, and Two Way Radio. It operates from 2.6GHz to 4.2GHz and typically delivers 40dBm (10W) output power and 20 dB small signal gain. 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 2.6 to 4.2GHz
- 39dBm of saturated output power
- High gain, 20dB
- Input /Output matched to 50 Ohms

APPLICATIONS

- PCS Pico Cell Base Station
- GPS Applications
- WiMAX & WLL
- 2-way radio

TYPICAL PERFORMANCE * ($V_{dd1,2} = +14V$, $I_{ddq1} = 0.3A$, $I_{ddq2} = 1.2A$, $V_{gs1,2} = -0.95V$)

Parameters	Minimum	Typical **	Maximum
Frequency	3.0 – 3.8GHz	2.6 – 4.2 GHz	
Small Signal Gain	17 dB	20 dB	
Gain Ripple		± 1 dB	± 2.0 dB
P _{1dB}	37 dBm	39 dBm	
P _{3dB}	38 dBm	40 dBm	
Efficiency @ P _{1dB}		35%	
Noise Figure		-	10 dB
IP3		50dBm	
Input Return Loss		12 dB	
Output Return Loss		8 dB	
Thermal Resistance		5 °C/W	

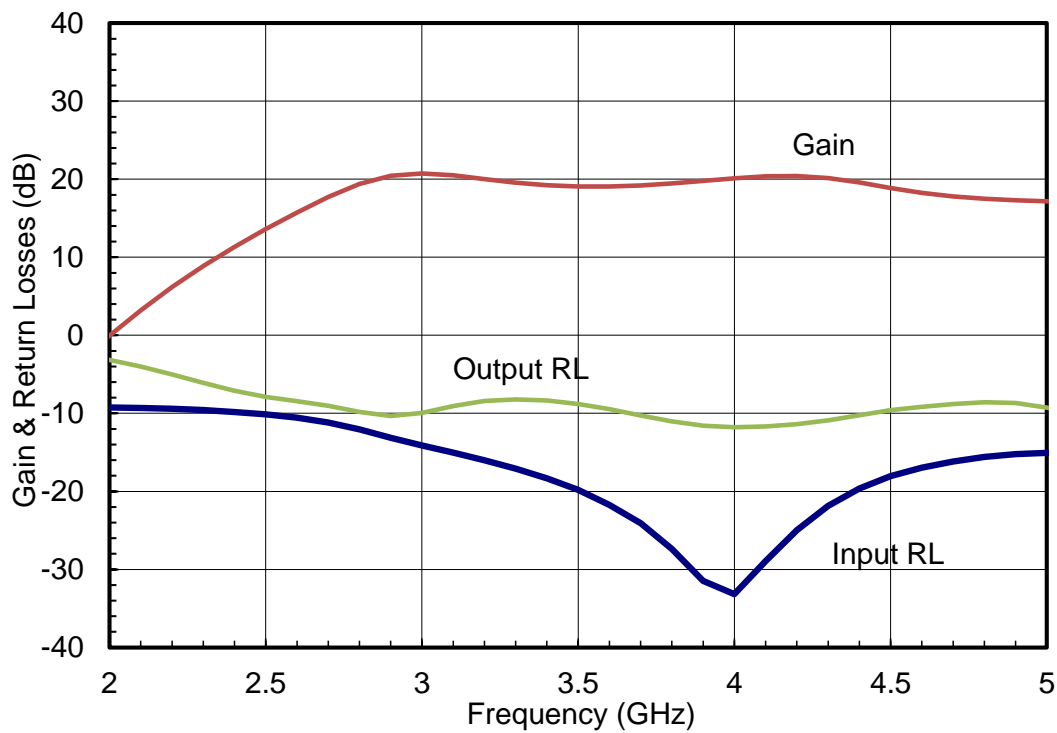
* Notes:

- 1- Specifications are subject to change without notice.
- 2- $V_{gs1,2}$ should be adjusted to -0.95V approximately to get the specified currents, and will vary slightly from one unit to another.

ABSOLUTE MAXIMUM RATING

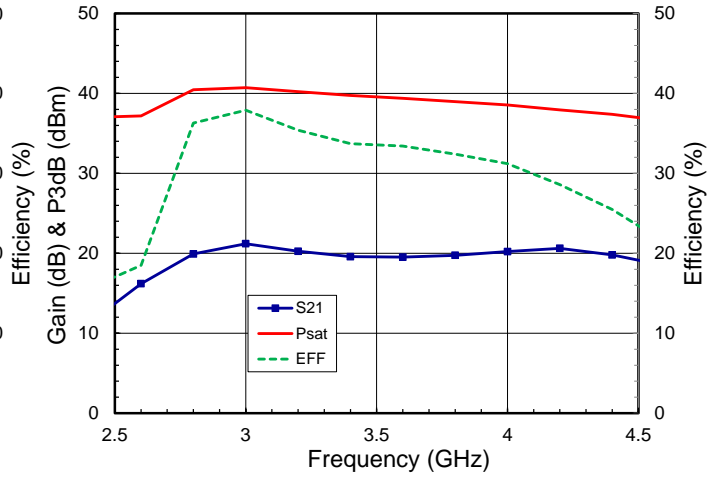
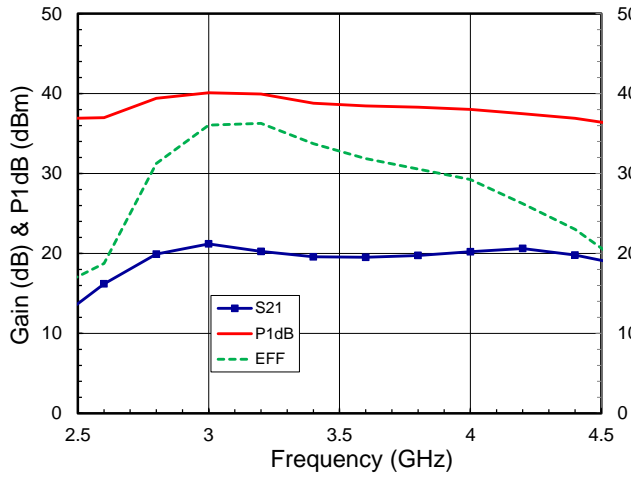
Parameters	Symbol	Rating
Drain source voltage	$V_{dd1,2}$	+16V
Gate source voltage	$V_{gs1,2}$	-5V
Drain source current	I_{ddq1}	0.38A
Drain source current	I_{ddq2}	1.5A
Continuous dissipation at 25°C	P_t	40W
Channel temperature	T_{ch}	175°C
Operating temperature	T_{op}	-40°C to +85°C
Storage temperature	T_{sto}	-55°C to +135°C

SMALL SIGNAL DATA*



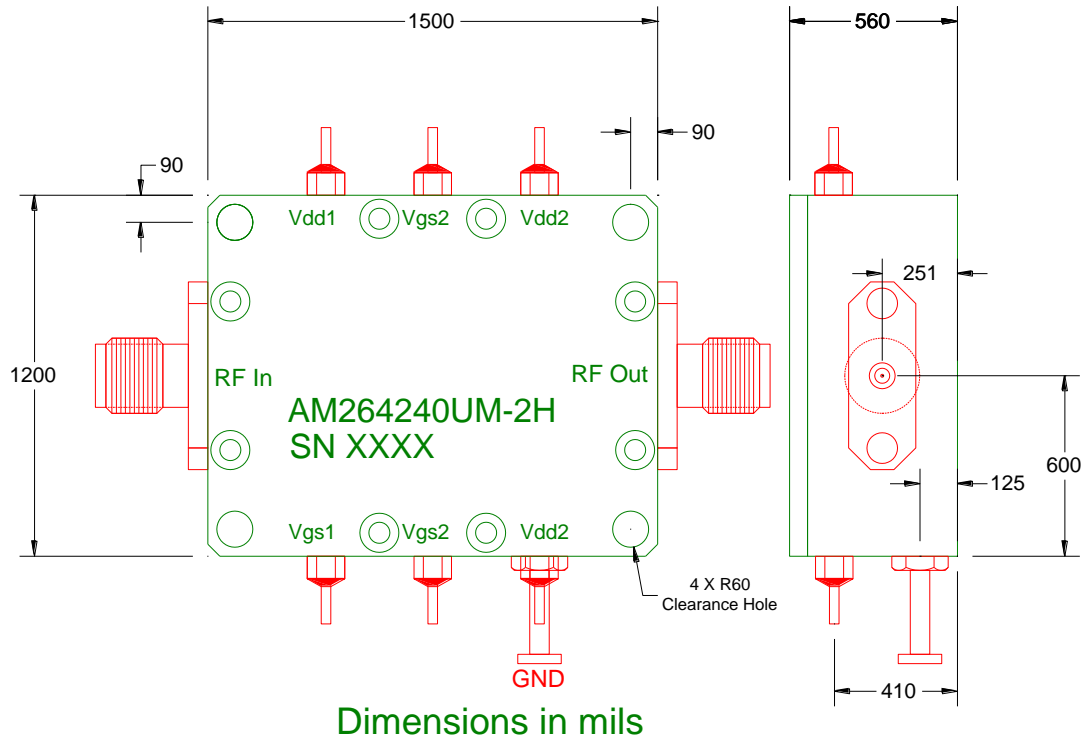
* Data shown is for $V_{dd1,2}=+14V$, $I_{ddq1}=0.3A$, $I_{ddq2}=1.2A$, $V_{gs1,2}=-0.95V$.

POWER DATA *



* Data shown is for $V_{dd1,2}=+14V$, $I_{ddq1}=0.3A$, $I_{ddq2}=1.2A$, $V_{gs1,2}=-0.95V$.

PACKAGE OUTLINE



Pin No.	Function	Bias
1	V _{gs1}	-0.95V
2	V _{gs2}	-0.95V
3	V _{dd2}	+14V
4	V _{dd2}	+14V
5	V _{gs2}	-0.95V
6	V _{dd1}	+14V

Important Notes:

- 1- Recommended bias currents are bias are: $I_{dsq1}=0.3A$, $I_{dsq2}= 1.2A$, for the first stage, second and third stage currents respectively.
- 2- Gate V_{gs1,2}, bias of -0.95V are for reference only. V_{gs1,2} could be adjusted to vary the currents going thru the module.
- 3- Do not apply V_{dd1} & V_{dd2} without proper negative voltages.