

Broadband UHF/VHF Power Module 20 - 512 MHz, 40W

M/A-COM Products
REV 0

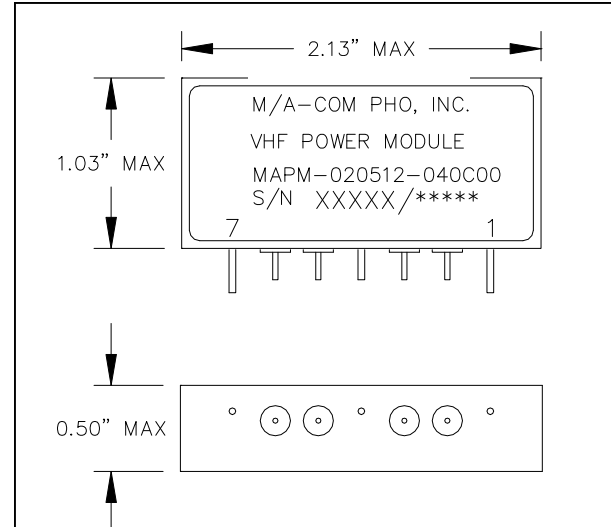
Features

- Broadband operation 20 - 512MHz
- Output power: 30 W Min
- Power gain: 8.0 dB Min
- Rugged push-pull FET
- External bias control
- Rugged construction for extreme environments
- Suitable for most commercial and industrial applications

Absolute Maximum Ratings

Parameter	Rating	Units
Supply Voltage	30	V
Input Power	8	W
Output Power	120	W
Bias Current	6.5	A
Operating Case Temperature	-40 to +85	°C
Storage Temperature	-50 to +100	°C

Product Image



Electrical Specifications: $T_c = 25 \pm 5^\circ\text{C}$

Parameter	Test Conditions	Min	Typ	Max	Units
Frequency Band	$V_{SUPP} = 28\text{ V}$, $P_{OUT} = 20\text{ watt}$	20	-	512	MHz
P_{1dB}	$V_{SUPP} = 28\text{ V}$, $I_D = 400\text{ mA}$	30	40	-	W
Power Gain	$V_{SUPP} = 28\text{ V}$, $I_D = 400\text{ mA}$	8.0	-	-	dB
Efficiency	$V_{SUPP} = 28\text{ V}$, $I_D = 400\text{ mA}$, $P_{OUT} = 40\text{ W}$	-	37	-	%
Gain Variation With Frequency	$V_{SUPP} = 28\text{ V}$, $P_{OUT} = 4\text{ W}$	-	-	± 2.5	dB
Input VSWR	$V_{SUPP} = 28\text{ V}$, $I_D = 400\text{ mA}$	-	3.5:1	-	VSWR
Load Mismatch Tolerance	$V_{SUPP} = 28\text{ V}$, $F = 512\text{ Mhz}$, $P_{OUT} = 20\text{ W}$	-	5:1	-	VSWR
Even Harmonics	$V_{SUPP} = 28\text{ V}$, $I_D = 400\text{ mA}$, $P_{OUT} = 20\text{ W}$	-	-	-25	dBc
Odd Harmonics	$V_{SUPP} = 28\text{ V}$, $I_D = 400\text{ mA}$, $P_{OUT} = 20\text{ W}$	-	-	-15	dBc
Spurious Output	$V_{SUPP} = 28\text{ V}$, $I_D = 400\text{ mA}$, $P_{OUT} = 20\text{ W}$	-	-	-60	dBc
IP3	$V_{SUPP} = 28\text{ V}$, $P_{OUT} = 20\text{ W}$, $\Delta F = 100\text{ kHz}$	-	56	-	dBm

ADVANCED: Data Sheets contain information regarding a product M/A-COM is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

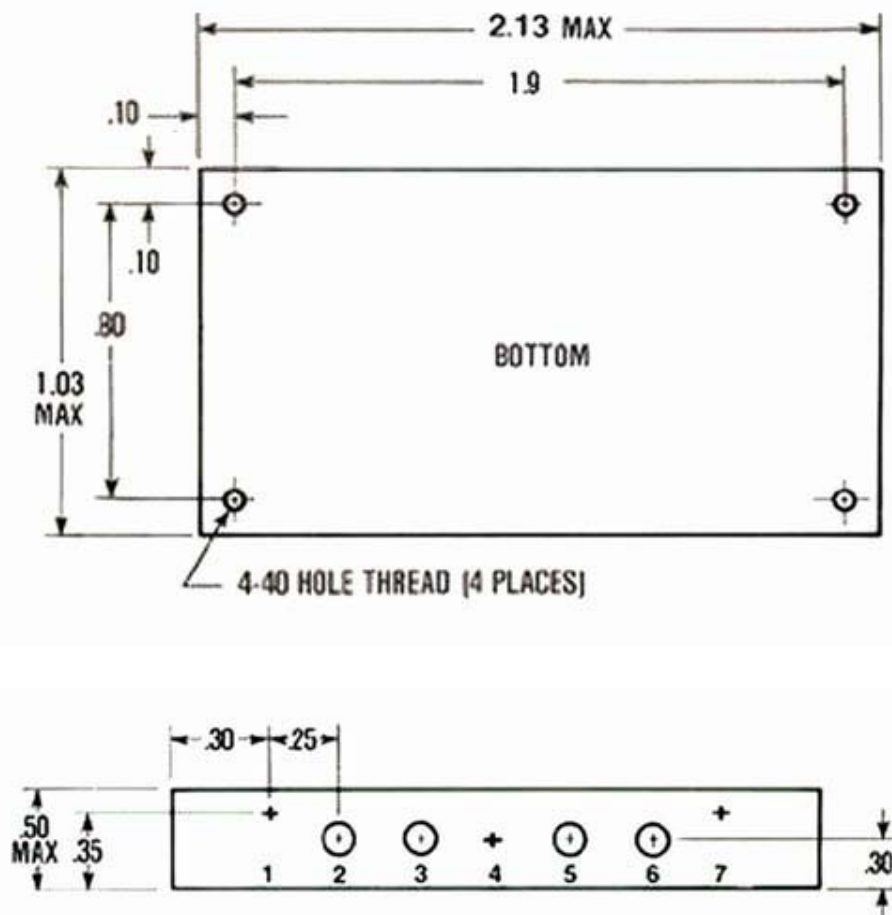
PRELIMINARY: Data Sheets contain information regarding a product M/A-COM has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

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Visit www.macom.com for additional data sheets and product information.

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Outline Drawing



Nickel Plated Copper Housing

PIN FUNCTION			
PIN(S)	Function	PIN(S)	Function
1, 4, 7	Ground	5	Vdc Input
2	RF Input	6	RF Output
3	Vbias		