

## Broadband UHF/VHF Power Module 20 - 512 MHz, 10W

M/A-COM Products  
REV 0

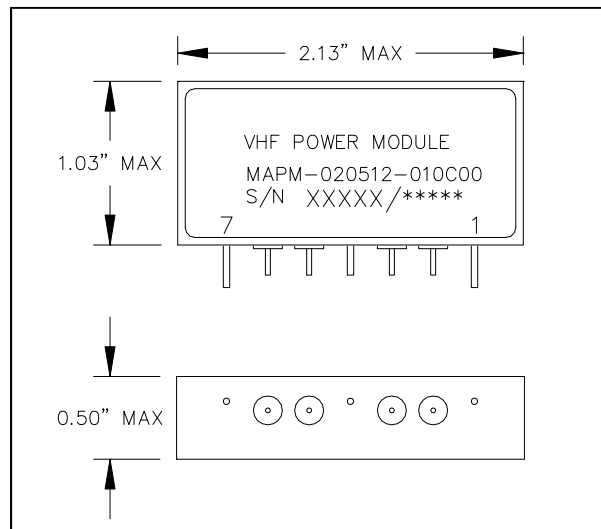
### Features

- Broadband operation 20 - 512 MHz
- Output power: 7.0W min
- Power gain: 22dB min
- Built - in gain control
- AM Modulation capable
- Rugged construction for extreme environments
- Suitable for most commercial and industrial applications.

### Absolute Maximum Ratings

| Parameter                  | Rating      | Units |
|----------------------------|-------------|-------|
| Supply Voltage             | 30          | V     |
| Input Power                | 20          | dBm   |
| Output Power               | 20          | W     |
| Supply Current             | 2.5         | 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                | $V_{SUPP} = 28\text{ V}$ , $P_{OUT} = 4\text{ watt}$                          | 20  | -   | 512       | MHz   |
| $P_{1dB}$                     | $V_{SUPP} = 28\text{ V}$ , $V_{ALC} = 10.0\text{V}$                           | 7.0 | 10  | -         | W     |
| Power Gain                    | $V_{SUPP} = 28\text{ V}$ , $V_{ALC} = 10.0\text{V}$                           | 22  | 25  | -         | dB    |
| Gain Control Range            | $V_{SUPP} = 28\text{ V}$ , $V_{ALC} = 0.0 - 10.0\text{V}$                     | -   | 60  | -         | dB    |
| Gain Variation With Frequency | $V_{SUPP} = 28\text{ V}$ , $P_{OUT} = 4\text{W}$                              | -   | -   | $\pm 3.0$ | dB    |
| Input VSWR                    | $V_{SUPP} = 28\text{ V}$                                                      | -   | 3:1 | -         | VSWR  |
| Load Mismatch Tolerance       | $V_{SUPP} = 28\text{ V}$ , $P_{OUT} = 4\text{W}$                              | -   | 3:1 | -         | VSWR  |
| Even Harmonics                | $V_{SUPP} = 28\text{ V}$ , $P_{OUT} = 4\text{W}$                              | -   | -   | -25       | dBc   |
| Odd Harmonics                 | $V_{SUPP} = 28\text{ V}$ , $P_{OUT} = 4\text{W}$                              | -   | -   | -15       | dBc   |
| Spurious Output               | $V_{SUPP} = 28\text{ V}$ , $P_{OUT} = 4\text{W}$                              | -   | -   | - 60      | dBc   |
| IP3                           | $V_{SUPP} = 28\text{ V}$ , $P_{OUT} = 4\text{W}$ , $\Delta F = 100\text{kHz}$ | -   | 50  | -         | 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.

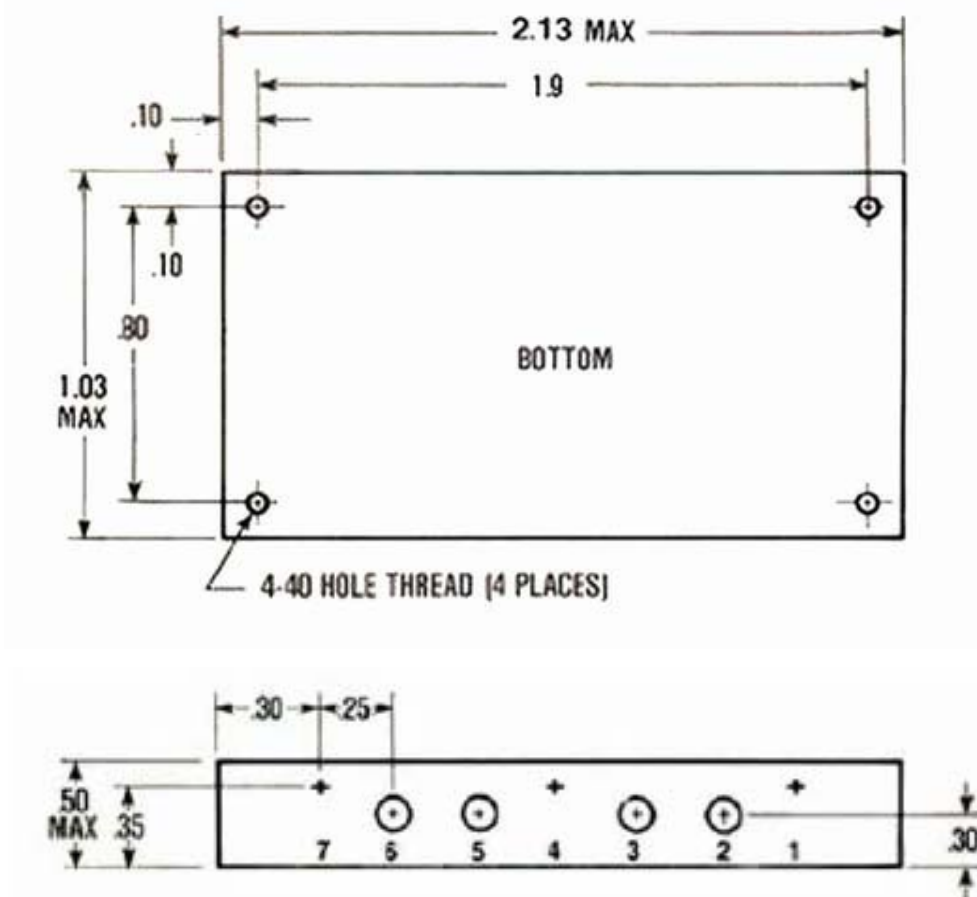
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- **North America** Tel: 800.366.2266 / Fax: 978.366.2266
- **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298

Visit [www.macom.com](http://www.macom.com) for additional data sheets and product information.

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## Outline Drawing



## Nickel Plated Aluminum Housing

| PIN FUNCTION |              |        |           |
|--------------|--------------|--------|-----------|
| PIN(S)       | Function     | PIN(S) | Function  |
| 1, 4, 7      | Ground       | 5      | Vdc Input |
| 2            | RF Input     | 6      | RF Output |
| 3            | Gain Control |        |           |