

# Broadband VHF Power Module, 13W

## 30 - 400 MHz

PHA4000-1

V4.00

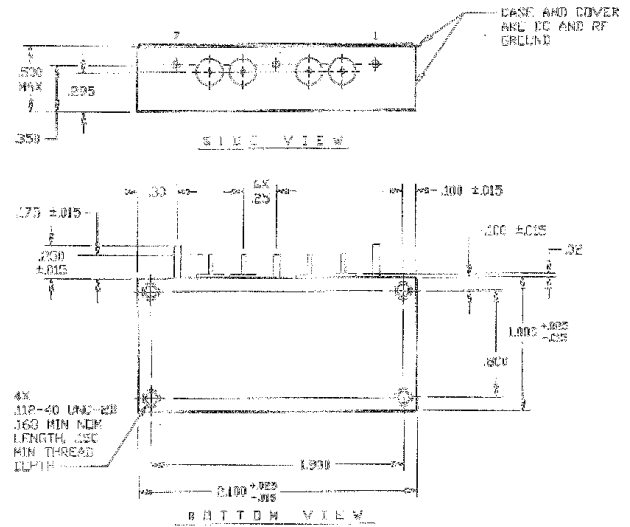
### Features

- Broadband Operation 30 to 400 MHz
- 60 dB Gain Control Range
- Thousands of Sets in Use Worldwide
- Optimized for Airborne Environment
- Built to MIL Standards

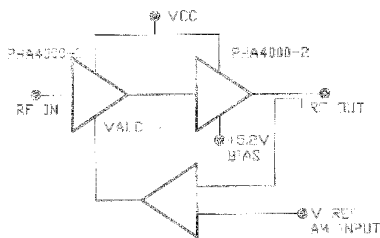
### Absolute Maximum Ratings at 25°C<sup>1</sup>

Parameter	Absolute Maximum
Supply Voltage	30V
Input Power	0.025W
Output Power	16W
ALC Voltage	-4.0 to +10V
Operating Case Temp.	-30 to +100°C
Storage Temperature	-40 to +125°C

1. Operation of this device outside any of these limits may cause permanent damage.



### Application



### Pin Configuration

Pin	Description
1	Ground (GP3)
2	RF Input (FT4)
3	V Gain Control (FT3)
4	Ground (GP2)
5	+27 Volts (FT2)
6	RF Output (FT1)
7	Ground (GP1)

### Electrical Characteristics at 25°C

Parameter	Symbol	Test Conditions	Units	Min.	Max.
Output Power	P <sub>OUT</sub>	V <sub>CC</sub> =27 V, P <sub>IN</sub> =0.02 W, F=30-88, 116-174, 225-400 MHz	W	13	-
Power Gain	G <sub>P</sub>	V <sub>CC</sub> =27 V, P <sub>OUT</sub> =13 W, F=30-88, 116-174, 225-400 MHz	dB	28	-
Collector Efficiency	η <sub>C</sub>	V <sub>CC</sub> =27 V, P <sub>OUT</sub> =13 W, F=30-88, 116-174, 225-400 MHz	%	25	-
Input VSWR	VSWR	V <sub>CC</sub> =27 V, P <sub>OUT</sub> =13 W, F=30-88, 116-174, 225-400 MHz	-	-	3:1
Load VSWR Tolerance	VSWR-T	V <sub>CC</sub> =27 V, P <sub>OUT</sub> =13 W, F=30-88, 116-174, 225-400 MHz	-	-	2.5:1
Gain Variation With Freq	G <sub>VAR</sub>	V <sub>CC</sub> =27 V, P <sub>OUT</sub> =13 W, F=30-88, 116-174, 225-400 MHz	dB	-	+/-3
Harmonic Output	-	V <sub>CC</sub> =27 V, P <sub>OUT</sub> =13 W, F=30-88, 116-174, 225-400 MHz	dBc	-	-15
Spurious Output	S	V <sub>CC</sub> =27 V, P <sub>OUT</sub> =13 W, F=30-88, 116-174, 225-400 MHz	dBc	-	-80

Specifications Subject to Change Without Notice.

M/A-COM, Inc.