

Broadband VHF Power Module, 13W

30 - 400 MHz

PHA4000-1

V4.00

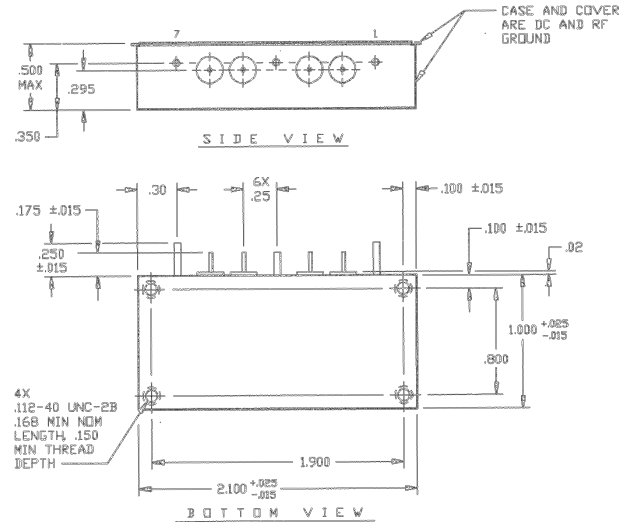
Features

- 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°C¹

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

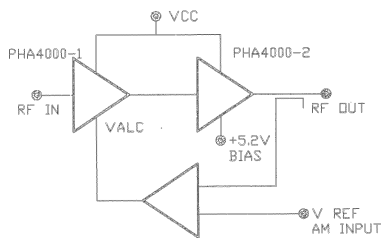
1. Operation of this device outside any of these limits may cause permanent damage.



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)

Application



Electrical Characteristics at 25°C

Parameter	Symbol	Test Conditions	Units	Min.	Max.
Output Power	P_{OUT}	$V_{CC}=27\text{ V}$, $P_{IN}=0.02\text{ W}$, $F=30\text{-}88, 116\text{-}174, 225\text{-}400\text{ MHz}$	W	13	-
Power Gain	G_P	$V_{CC}=27\text{ V}$, $P_{OUT}=13\text{ W}$, $F=30\text{-}88, 116\text{-}174, 225\text{-}400\text{ MHz}$	dB	28	-
Collector Efficiency	η_C	$V_{CC}=27\text{ V}$, $P_{OUT}=13\text{ W}$, $F=30\text{-}88, 116\text{-}174, 225\text{-}400\text{ MHz}$	%	25	-
Input VSWR	VSWR	$V_{CC}=27\text{ V}$, $P_{OUT}=13\text{ W}$, $F=30\text{-}88, 116\text{-}174, 225\text{-}400\text{ MHz}$	-	-	3:1
Load VSWR Tolerance	VSWR-T	$V_{CC}=27\text{ V}$, $P_{OUT}=13\text{ W}$, $F=30\text{-}88, 116\text{-}174, 225\text{-}400\text{ MHz}$	-	-	2.5:1
Gain Variation With Freq	G_{VAR}	$V_{CC}=27\text{ V}$, $P_{OUT}=13\text{ W}$, $F=30\text{-}88, 116\text{-}174, 225\text{-}400\text{ MHz}$	dB	-	+/-3
Harmonic Output	-	$V_{CC}=27\text{ V}$, $P_{OUT}=13\text{ W}$, $F=30\text{-}88, 116\text{-}174, 225\text{-}400\text{ MHz}$	dBc	-	-15
Spurious Output	S	$V_{CC}=27\text{ V}$, $P_{OUT}=13\text{ W}$, $F=30\text{-}88, 116\text{-}174, 225\text{-}400\text{ MHz}$	dBc	-	-80

Specifications Subject to Change Without Notice.

M/A-COM, Inc.

North America: Tel. (800) 366-2266 ■ Asia/Pacific: Tel. +81 (03) 3226-1671 ■ Europe: Tel. +44 (1344) 869 595
 Fax (800) 618-8883 Fax +81 (03) 3226-1451 Fax +44 (1344) 300 020