

TA1128

13500-14500 MHz 3 W POWER AMPLIFIER

DESCRIPTION

This class A GaAs module is designed for both military and commercial applications. It is capable of supporting any signal type and modulation format, including but not limited to 3-4G telecom, WLAN, OFDM, DVB, and CW/AM/FM. The latest device technologies and design methods are employed to offer high power density, efficiency, and linearity in a small, lightweight package.



FEATURES

Optional Heatsink

Temperature Output

Specifications subject to change without notice. Typical performance at +12VDC +25°C, and in a 50Ω system.

RF / ELECTRICAL				
PARAMETER	MIN	TYP.	MAX	UNIT
Operating Frequency	13500		14500	MHz
P1dB Power Output	+34.0	+35.0		dBm
Gain		43.0		dB
Gain Flatness		0.5	1.0	dB ¹
Input Return Loss	-10	-13		dB
Operating Voltage	+11	+12	+13	VDC
Current Draw		1.5	2.0	A
Switching Time		1.0	2.0	μS

1 – Gain flatness recorded represents a peak-peak measurement across the **entire operating band**. Gain flatness is typically much lower across significant portions of this band. Consult the gain response plots for details if available.

MECHANICAL

PARAMETER	VALUE	UNIT
Dimensions (L x W x H)	3.25 x 2.265 x 0.5	in
RF Connectors (Input / Output)	SMA-F / SMA-F	--
DC / Control Connector	Feedthru Pins	--
Cooling	Baseplate Conduction - Optional Heatsink Available	--
Mounting	4-40 Threaded Holes	--
Weight	4	oz.
Weight with Heatsink	14	oz.

ENVIRONMENTAL / PROTECTIONS

PARAMETER	MIN	MAX	UNIT
Operating Temp. (Housing Temp.)	-40	+85	°C
Humidity Range	0-100		%
Altitude	0-30,000		ft.
Shock / Vibration	MIL-STD-810 and equivalents		--
Max RF Input	-5		dBm
PA Baseplate Shutoff Temperature	+ 90		°C

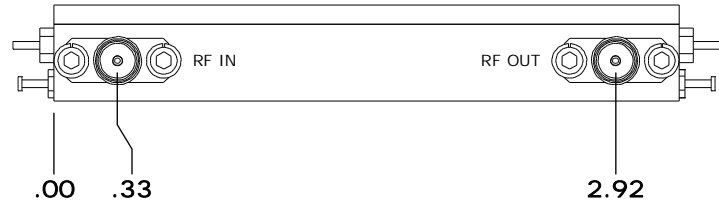
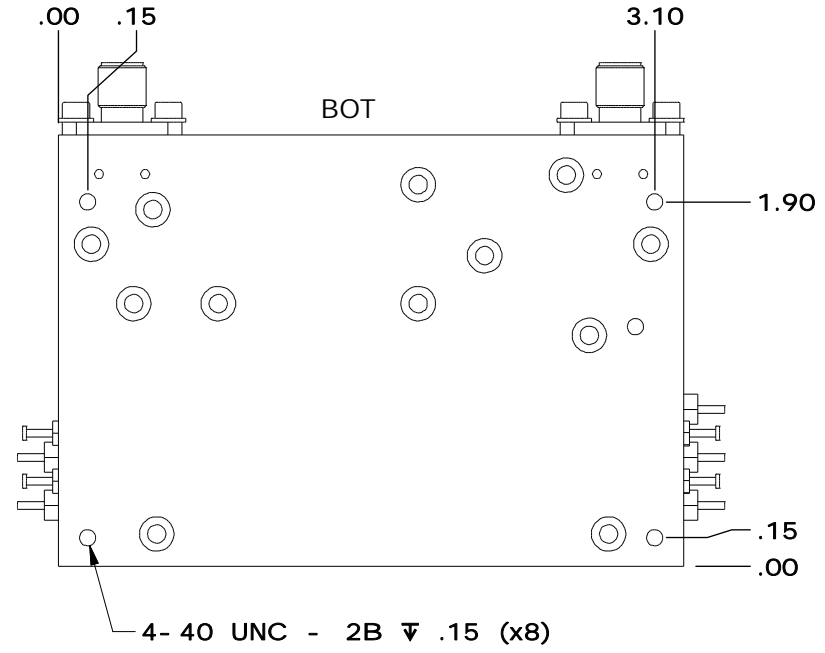
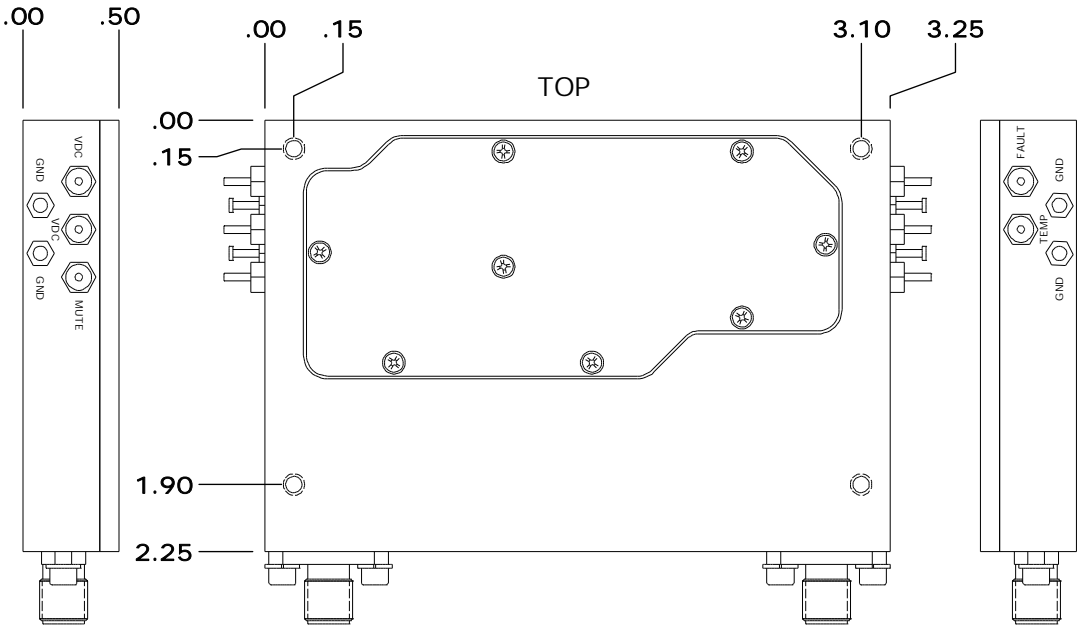
INPUT/OUTPUT PINS

AMPLIFIER CONNECTOR TYPE:		FEEDTHROUGH PINS
TRIAD CABLE PART NUMBER:		N/A
PIN NUMBER	LABEL	DESCRIPTION
1	+VDC	Supply Voltage - Range Specified in Datasheet
2	+VDC	Supply Voltage - Range Specified in Datasheet
3	MUTE	TTL Hi or No Connection = Amp Enabled, TTL Lo = Amp Muted
4	AGC Disable	Auto Gain Control Disable- No connection or TTL Lo= AGC On, TTL Hi =AGC Disabled
5	TEMP	Temp Monitor: Temp in DegC = (Vout - 0.5V) / 10
6	FAULT	Auto Internal Fault Detection- Low= No Fault, High= Internal Fault
7-10	GND	Ground

Configuration Options


Model Number	Description
TA1128	No Heat Sink Included
TA1128 – HS	Standard Heat Sink
TA1128 – HSF	Heat Sink with Integrated Cooling Fan
TA1128 – HSX	Custom Heat Sink Configuration
TA1128 – DOX	Custom Amplifier Configuration (issued by Triad upon customer request)

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE	4/16/13	DMC



PIN FUNCTION			
PIN	FUNCTION	TYPE	RANGE
VDC	PRIME POWER INPUT	ANALOG INPUT	12-18 VDC
GND	PWR/CNTRL SIGNAL RETURN	CHASSIS GROUND	-
MUTE	ENABLES/DISABLES THE AMPLIFIER	TTL INPUT	TTL HIGH OR OPEN - ON, TTL LOW - OFF, +15VDC MAX
FAULT	CURRENT DRAW OUT OF RANGE INDICATOR	TTL OUTPUT	TTL HIGH - ABNORMAL CURRENT DRAW, TTL LOW - NORMAL OPERATION
TEMP	ANALOG BASEPLATE TEMPERATURE VOLTAGE	ANALOG OUTPUT	0 - 1.25V, TEMP=(Vt - .5) x 100 C

WEIGHT: 6 oz.

DRAWN	DMC	4/16/2013	 180 TICES LN BLDG A STE 107 EAST BRUNSWICK NJ 08816 855- 558- 1001
DESIGNED	DMC	3/13/2013	
CHECKED			
ENG APPROVED			
MFG APPROVED			HOUSING OUTLINE DRAWING 133
DIMENSIONS ARE IN INCHES UNLESS SPECIFIED OTHERWISE TOLERANCES DECIMALS FRACTIONS ANGLES XX ±.01 ± 1/32 ± 2° .XXX ± .005			SIZE A DWG NO. OL_133 REV 0
SCALE: NONE	CAGE CODE 67DZ3	SHEET 1 OF 1	