

TA1109

2000-2500 MHz 4 W POWER AMPLIFIER

DESCRIPTION

This class AB GaN 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

Over-Temperature Protection

High Speed On/Off Control

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

TX SPECIFICATIONS				
PARAMETER	MIN	TYP.	MAX	UNIT
Operating Frequency	2000		2500	MHz
PSat Power Output	+35.0	+36.0		dBm
Gain		28.0		dB
Gain Flatness		0.5	1.0	± dB
Input Return Loss	-15			dB
Operating Voltage	+9	+12	+14	VDC
Current Draw		0.8	1.25	A
Tx / Rx Switching Time		1.0	2.0	uS

MECHANICAL		
PARAMETER	VALUE	UNIT
Dimensions (L x W x H)	2.7 x 1.3 x 0.339	in
RF Connectors (Input / Output)	MMCX Edge / MMCX Edge	--
DC / Control Connector	6 Pin Rectangular	--
Cooling	Baseplate Conduction - Optional Heatsink Available	--
Mounting	2-56 Thru Hole	--
Weight	1	oz.
Weight With Heatsink	2	oz.

TA1109

2000-2500 MHz 4 W POWER AMPLIFIER

ENVIRONMENTAL / PROTECTIONS			
PARAMETER	MIN	MAX	UNIT
Operating Temperature (Housing Temp.)	-40	+85	°C
Humidity Range	0-100		%
Altitude	0-30,000		ft.
Shock / Vibration	MIL-STD-810 and equivalents		--
Max RF Input	16		dBm
PA Baseplate Shutoff Temperature	+90		°C

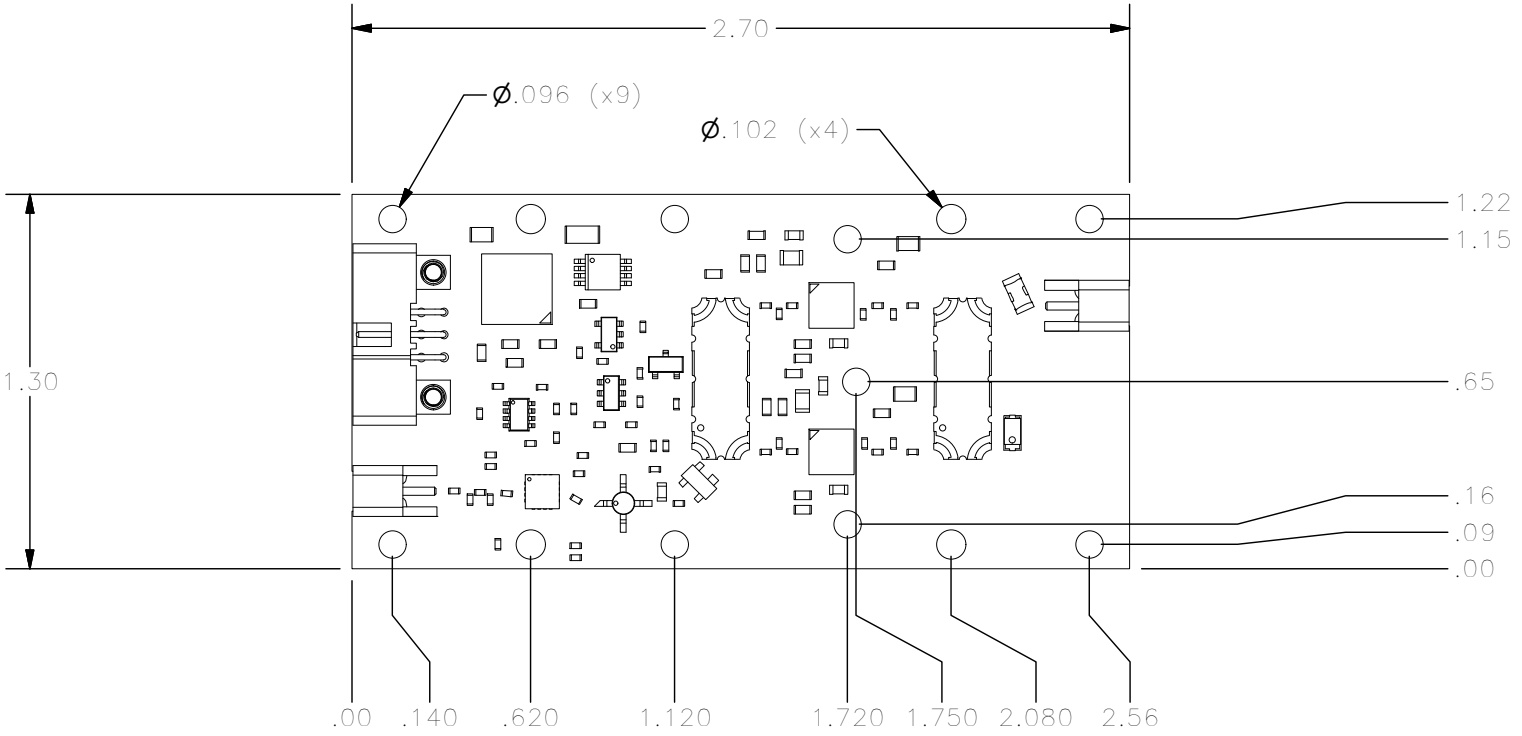
INPUT/OUTPUT PINS		
AMPLIFIER CONNECTOR TYPE:		6 PIN RECTANGULAR MALE
TRIAD CABLE PART NUMBER:		CBL53
PIN LABEL	NAME	DESCRIPTION
1	Amp Enable	TTL Hi or No Connection = Enable, TTL Lo = Disable
2	Sig. GND	Signal Ground
3,4	GND	Ground
5,6	+VDC	Supply Voltage - Range Specified in Datasheet

Configuration Options	
Model Number	Description
TA1109	No Heat Sink Included
TA1109 – HS	Standard Heat Sink
TA1109 – HSF	Heat Sink with Integrated Cooling Fan
TA1109 – HSX	Custom Heat Sink Configuration
TA1109 – DOX	Custom Amplifier Configuration (issued by Triad upon customer request)

Please confirm with Triad that the desired configuration is available prior to ordering.

A B C D E

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE	4/14/20	DMC



1
2
3
4

1
2
3
4

A B C D E

DRAWN	DMC	4/14/2020
DESIGNED	DMC	1/22/2018
CHECKED	DMC	4/14/2020
ENG. APPROVED	DMC	6/19/2019
MFG. APPROVED	DMC	6/19/2019

TRIAD RF SYSTEMS
 11 HARTS LANE SUITE 1
 EAST BRUNSWICK, NJ 08816
 855-558-1001

HOUSING OUTLINE 181

DIMENSIONS ARE IN INCHES UNLESS SPECIFIED OTHERWISE		SIZE	DWG. NO.	REV
DECIMALS .XX ±.01 .XXX ±.005	FRACTIONS ± 1/32	A	OL_181	0
ANGLES ± 2°	SCALE: NONE	CAGE CODE	SHEET 1 OF 1	
		67DZ3		