

TA1280

4400-5000MHz 10W 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 / Under / Reverse Voltage Protection	Forward Power Measurement
Over-Temperature Protection	Temp. Monitor Output
Optional Heatsink	Manual or Automatic Tx/Rx Switching Available
Tx / Rx Status Monitor	

Specifications subject to change without notice. Typical performance at +28VDC +25°C, and in a 50Ω system.

RF / ELECTRICAL				
PARAMETER	MIN	TYP.	MAX	UNIT
Operating Frequency	3300		4200	MHz
PSat Power Output		+40.0		dBm
Gain		25.0		dB
Gain Flatness		1.0		dB ¹
Input Return Loss	-15			dB
Operating Voltage	+10	+28	+30	VDC
Switching Time		1.0	2.0	uS

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)	2.3 x 2.3 x 0.45	in
RF Connectors (Input / Output)	SMA-F / SMA-F	--
DC / Control Connector	21 Pin Micro-D	--
Cooling	Baseplate Conduction - Optional Heatsink Available	--
Mounting	4-40 Thru Holes	--
Weight	3	oz.
Weight with Heatsink	0	oz.

ENVIRONMENTAL / PROTECTIONS

PARAMETER	MIN	MAX	UNIT
Operating Temp. (Housing Temp.)	-40	+85	°C
Humidity Range	0-95		%
Altitude	0-30,000		ft.
Shock / Vibration	MIL-STD-810 and equivalents		--
Max RF Input	+17		dBm
PA Baseplate Shutoff Temperature	+ 85		°C

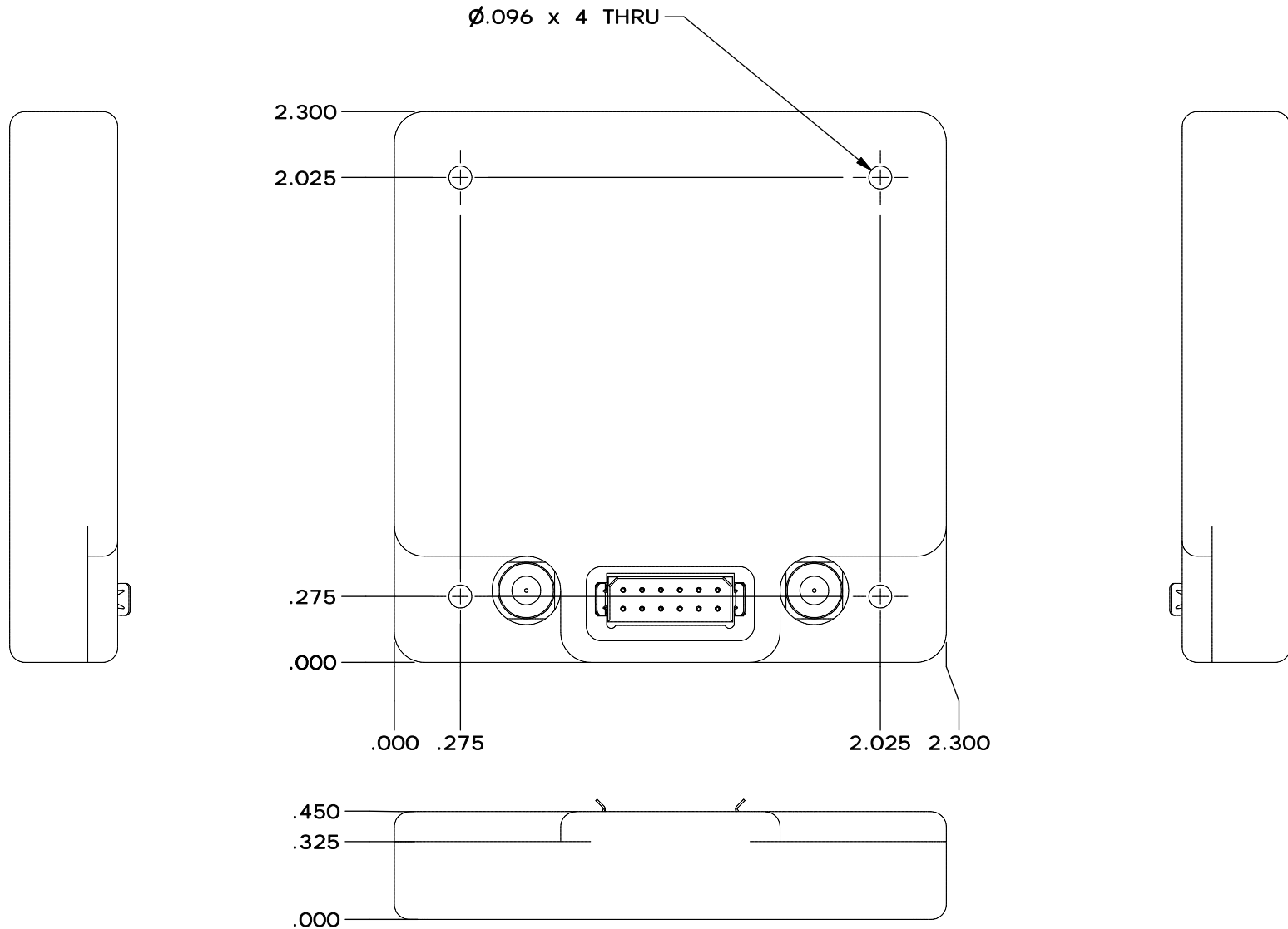
INPUT/OUTPUT PINS

AMPLIFIER CONNECTOR TYPE:		12 PIN RECTANGULAR LOCKING
TRIAD CABLE PART NUMBER:		CBL78
PIN NUMBER	LABEL	DESCRIPTION
1,3,5	GND	Ground
2	STATUS 1	PA Operational State - TTL High = Tx Amp Active, TTL Low = Tx Amp Inactive
6	TEMP	Temp Monitor: Temp in DegC = (Vout - 0.5V) * 100
7	STATUS 2	PA Status - TTL High = Normal Operation, TTL Low = Error Condition
9	BYPASS	Bypass Control: TTL High: Bypass Mode, GND: Amplifier On
11	Amp Enable	TTL High or No Connection = Enable, TTL Low = Disable
8,10,12	VDC	Supply Voltage - Range Specified in Datasheet

Configuration Options

Model Number	Description
TA1280	No Heat Sink Included
TA1280 – HS	Standard Heat Sink
TA1280 – HSF	Heat Sink with Integrated Cooling Fan
TA1280 – HSX	Custom Heat Sink Configuration
TA1280 – DOX	Custom Amplifier Configuration (issued by Triad upon customer request)

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
O	INITIAL RELEASE	3/20/19	SC



DRAWN	scopp	10/3/2013
DESIGNED	scopp	4/25/2018
CHECKED		
ENG APPROVED		
MFG APPROVED		



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

Housing Outline 195

DIMENSIONS ARE IN INCHES UNLESS SPECIFIED OTHERWISE TOLERANCES		SIZE A	DWG NO. OL_195	REV O
DECIMALS XX ±.01 .XXX ±.005	FRACTIONS ± 1/32	ANGLES ± 2°	SCALE: NONE	CAGE CODE 67DZ3
			SHEET 1 OF 1	