Power Amplifiers

TA1016 |1900-2000MHz 25W
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

Over / Under / Reverse Voltage Protection
Reflected Power Measurement
Temperature Output
Forward Power Measurement
High Speed On/Off Control
Optional Heatsink

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	1900		2000	MHz
P1dB Power Output	+43.0	+44.0		dBm
Gain	44.0	45.0		dB
Gain Flatness		1.0		dB [1]
Linear Power Output		37.0		dBm
Input Return Loss	-16	-18		dB
Operating Voltage	+11	+12	+13	VDC
Current Draw		11.0	12.0	A
Quiescent Current Draw		12.0		A
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.

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Tel: 1-(855) 558-1001 x1 | sales@triadrf.com

TRIAD RF SYSTEMS

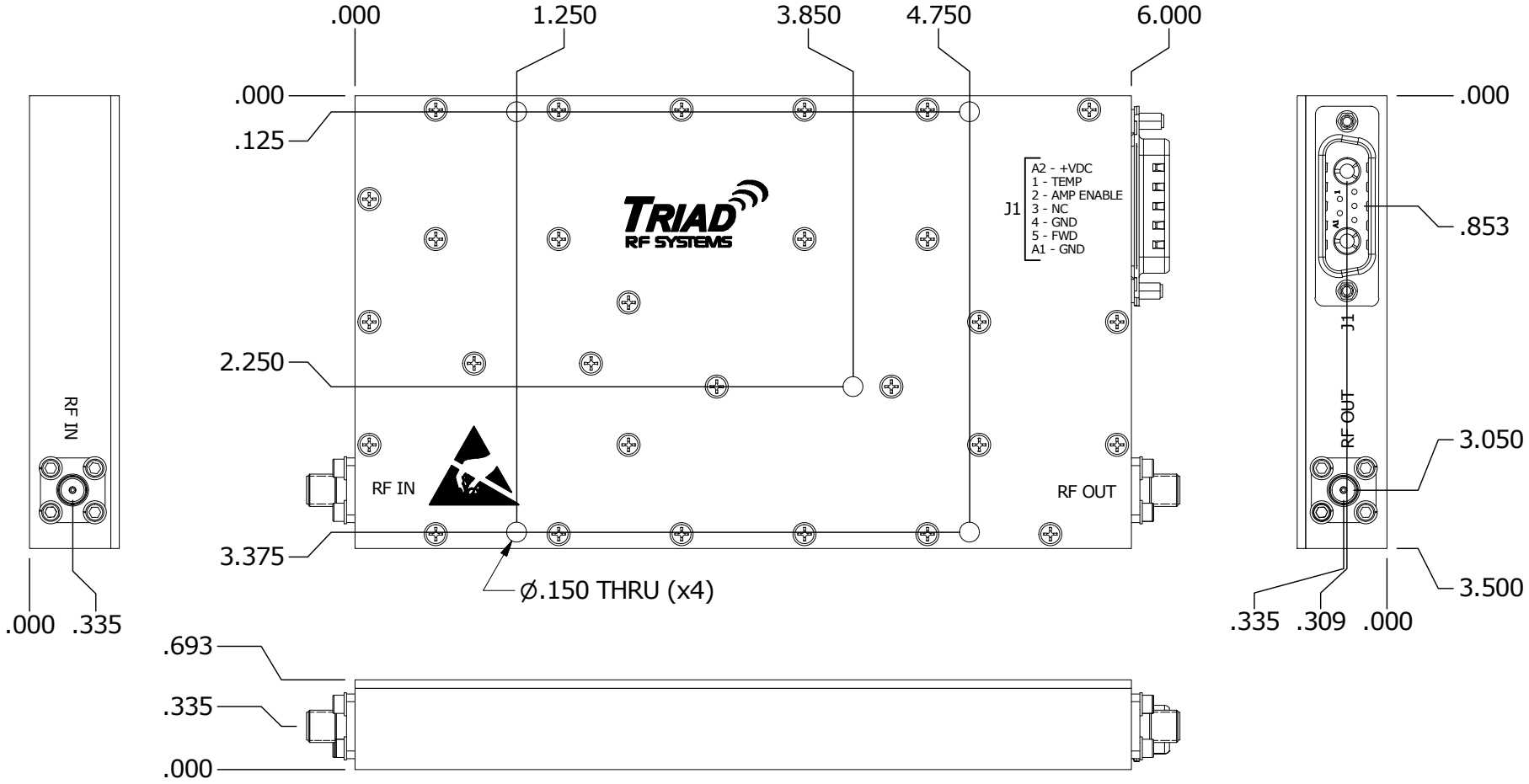
TA1016 |1900-2000MHz 25W
POWER AMPLIFIER

MECHANICAL		
PARAMETER	**VALUE**	**UNIT**
Dimensions (L x W x H)	6 x 3.5 x 0.693	in
RF Connectors (Input / Output)	SMA-F / SMA-F	--
DC / Control Connector	7W2 Male	--
Cooling	Baseplate Conduction - Optional Heatsink Available	--
Mounting	4-40 Thru Holes	--
Weight	14	oz.
Weight with Heatsink	24	oz.

ENVIRONMENTAL / PROTECTIONS			
PARAMETER	**MIN**	**MAX**	**UNIT**
Operating Temp. (Housing Temp.)	-40	+85	℃
Storage Temp Range	-60	+100	℃
Humidity Range	0-100		%
Altitude	0-30,000		ft.
Shock / Vibration	MIL-STD-810 and equivalents		--
Max RF Input	+2		dBm
Load VSWR @ P1dB	Open / Short Output Protection		--
PA Baseplate Shutoff Temperature	+ 90		℃

DC / CONTROL PINS		
PIN LABEL	**NAME**	**DESCRIPTION**
A1	GND	Ground
1	TEMP	Temp Monitor: Temp in DegC = (Vout - 0.5V) / 10
2	Amp Enable	TTL On/Off Low=Enable, High=Disable
3	NC	Not Connected
4	GND	Ground
5	FWD	Forward Power Detection
A2	+VDC	Supply Voltage - Range Specified in Datasheet

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE	08/15/2014	DMC



DRAWN	AHA	7/9/2014
DESIGNED	DMC	10/6/2013
CHECKED	BG	7/9/2014
ENG APPROVED		
MFG APPROVED		

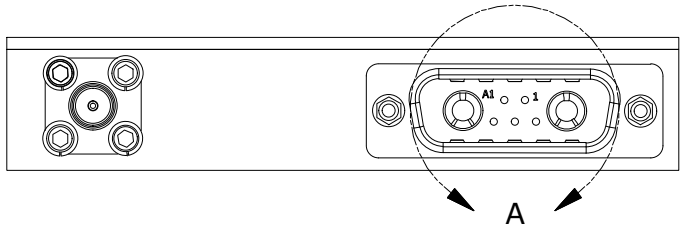
DIMENSIONS ARE IN INCHES
UNLESS SPECIFIED OTHERWISE
TOLERANCES
DECIMALS .XX ±.01 .XXX ±.005
FRACTIONS ±1/32
ANGLES ±2°

TRIAD RF SYSTEMS
180 TICES LANE
BUILDING A, SUITE 107
EAST BRUNSWICK, NJ 08816
855-558-1001

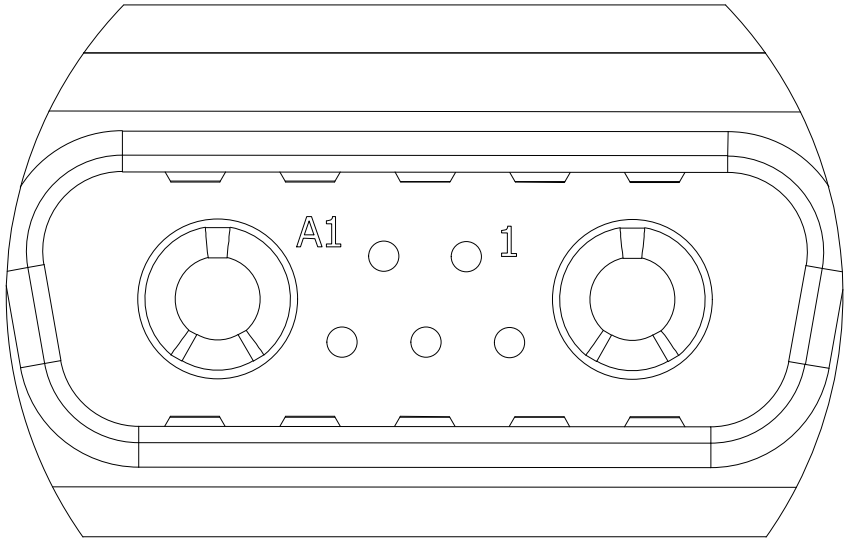
Housing Outline 107

SIZE	DWG NO.	REV
A		0

SCALE: NONE | CAGE CODE 67DZ3 | SHEET 1 OF 3



DETAIL A



CONNECTOR PINOUT		
PIN	FUNCTION	NOTES
1	TEMP	Temp Monitor: Temp in DegC = (Vout - 0.5V) / 10
2	AMP ENABLE	TTL On/Off Low=Enable, High=Disable
3	NC	Not Connected
4	GND	Ground
5	FWD	Forward Power Measurement
A1	GND	Ground
A2	+VDC	Supply Voltage - Range Specified in Datasheet

NOTES:

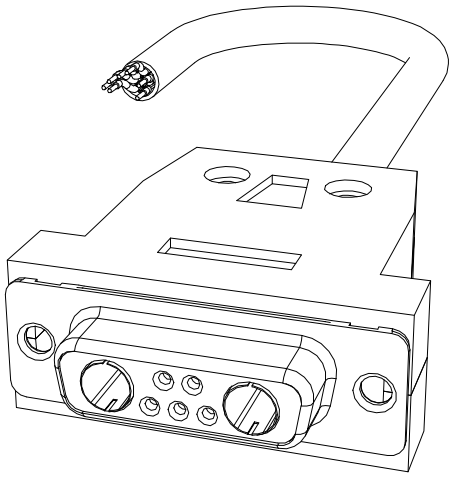
1. P/N OF CONNECTOR ON AMPLIFIER: CONNEC 3007W2PCM99A10X
2. EXACT PINOUT MAY VARY WITH MODEL AND CUSTOMER SPECIFICATIONS

DRAWN	AHA	7/9/2014
DESIGNED	DMC	10/6/2013
CHECKED	BG	7/9/2014
ENG APPROVED		
MFG APPROVED		

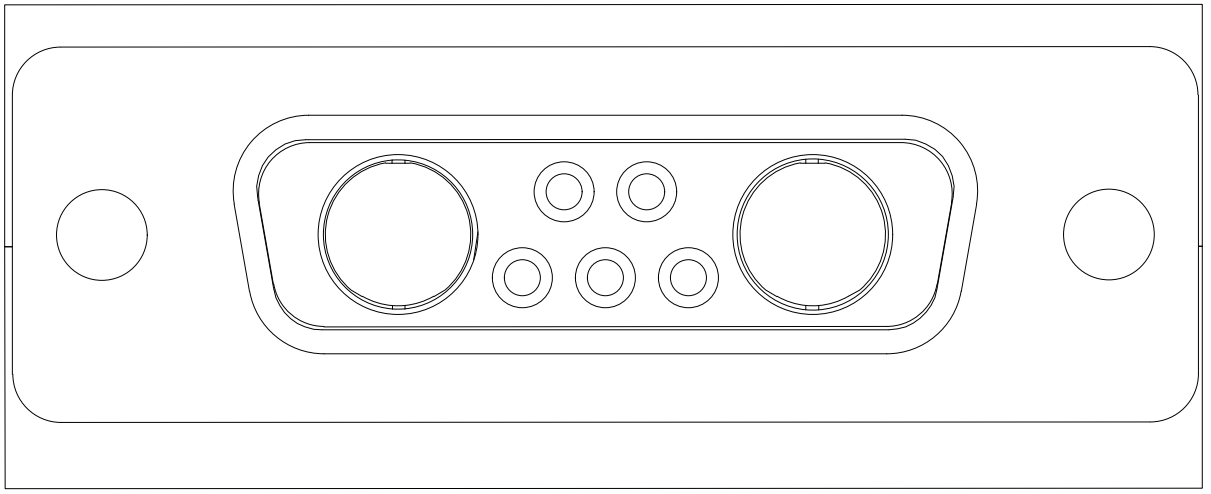
Housing Outline 107

SIZE A | DWG NO. | REV 0

SCALE: NONE | CAGE CODE 67DZ3 | SHEET 2 OF 3



MATE CABLE



3007W2SCM99A10X

NOTES:

1. P/N OF MATING CONNECTOR REQUIRED: CONNEC 3007W2SCM99A10X OR EQUIVALENT
2. P/N OF BACKSHELL/HOOD: EMERSON NETWORK POWER CON AIM - CAIMBRIDGE 40-9715H
3. TRIAD CABLE P/N: C12080301
4. WIRE DIAMETER: 24 AWG

DRAWN	AHA	7/9/2014	Housing Outline 107
DESIGNED	---	6/4/2014	
CHECKED	BG	7/9/2014	SIZE A / DWG NO. / REV 0
ENG APPROVED			
MFG APPROVED			SCALE: NONE / CAGE CODE 67DZ3 / SHEET 3 OF 3