

TA1028

6400-7100 MHz 25 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 / Under / Reverse Voltage Protection Thermal Shutdown
Versatile DC Supply (VDS) +9V to +36V Optional Heatsink

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	6400		7100	MHz
PSat Power Output		+44.0		dBm
Gain		50.0		dB
Gain Flatness		2.0	2.5	dB ¹
Input Return Loss	-14	-15		dB
Operating Voltage	+ 9	+28	+36	VDC
Current Draw		2.3		A
Quiescent Current Draw		0.75		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.

MECHANICAL

PARAMETER	VALUE	UNIT
Dimensions (L x W x H)	6 x 2.5 x 1.06	in
RF Connectors (Input / Output)	SMA-F / SMA-F	--
DC / Control Connector	7W2 Male	--
Cooling	Baseplate Conduction - Optional Heatsink Available	--
Mounting	6-32 Thru Hole	--
Weight	17	oz.
Weight with Heatsink	27	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	-11		dBm
PA Baseplate Shutoff Temperature	+ 90		°C

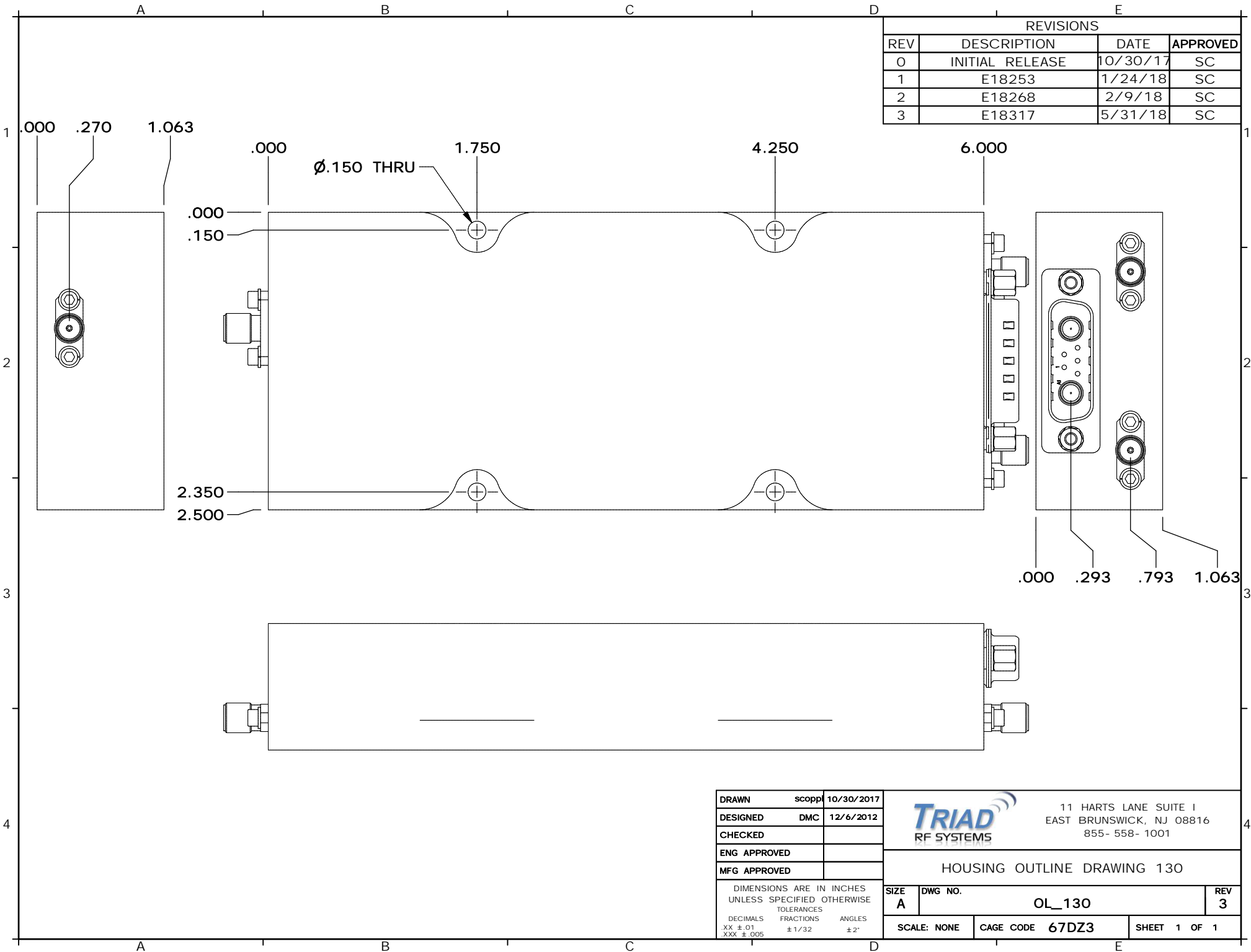
INPUT/OUTPUT PINS

AMPLIFIER CONNECTOR TYPE:		7W2 MALE
TRIAD CABLE PART NUMBER:		CBL21
PIN NUMBER	LABEL	DESCRIPTION
A1	GND	Ground
1	TEMP	Temp Monitor: Temp in DegC = (Vout - 0.5V) *100
2	Amp Enable	TTL Hi or No Connection = Enable, TTL Lo = Disable
3	REV	Reverse Power Detection
4	SGND	Signal Ground
5	FWD	Forward Power Detection
A2	+VDC	Supply Voltage - Range Specified in Datasheet

Configuration Options

Model Number	Description
TA1028	No Heat Sink Included
TA1028 – HS	Standard Heat Sink
TA1028 – HSF	Heat Sink with Integrated Cooling Fan
TA1028 – HSX	Custom Heat Sink Configuration
TA1028 – DOX	Custom Amplifier Configuration (issued by Triad upon customer request)

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE	10/30/17	SC
1	E18253	1/24/18	SC
2	E18268	2/9/18	SC
3	E18317	5/31/18	SC



DRAWN	scopp	10/30/2017
DESIGNED	DMC	12/6/2012
CHECKED		
ENG APPROVED		
MFG APPROVED		



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HOUSING OUTLINE DRAWING 130

DIMENSIONS ARE IN INCHES UNLESS SPECIFIED OTHERWISE TOLERANCES		SIZE A	DWG NO. OL_130	REV 3
DECIMALS XX ±.01 .XXX ±.005	FRACTIONS ± 1/32	ANGLES ± 2°	SCALE: NONE	CAGE CODE 67DZ3
			SHEET 1 OF 1	