

**DESCRIPTION**

This class AB LDMOS 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**

- High Speed On/Off Control
- Manual Tx/Rx Switching (TTL)
- Over-Temperature Protection

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

TX SPECIFICATIONS (PER CHANNEL)				
PARAMETER	MIN	TYP.	MAX	UNIT
Operating Frequency	2200		2500	MHz
PSat Power Output		+48.0		dBm
Gain		25.0		dB
Gain Flatness		1.0		± dB
Input Return Loss		-18		dB
Operating Voltage	+27	+28	+30	VDC
Current Draw		6.5		A
Tx / Rx Switching Time		1.0	2.0	uS

RX SPECIFICATIONS (PER CHANNEL)				
PARAMETER	MIN	TYP.	MAX	UNIT
P1dB Power Output		+7.0		dBm
Gain		12.0		dB
Gain Flatness		1.0		± dB
Noise Figure		2.3	3.0	dB
Input Return Loss	-12			dB
Current Draw		1.4		A

MECHANICAL		
PARAMETER	VALUE	UNIT
Dimensions (L x W x H)	4.95 x 8.35 x 1.31	in
RF Connectors (Input / Output)	TNC / TNC	--
DC / Control Connector	Circular Locking	--
Cooling	Baseplate Conduction - Optional Heatsink Available	--
Mounting	#6 Through Holes	--
Weight	63	oz.
Weight With Heatsink	92	oz.

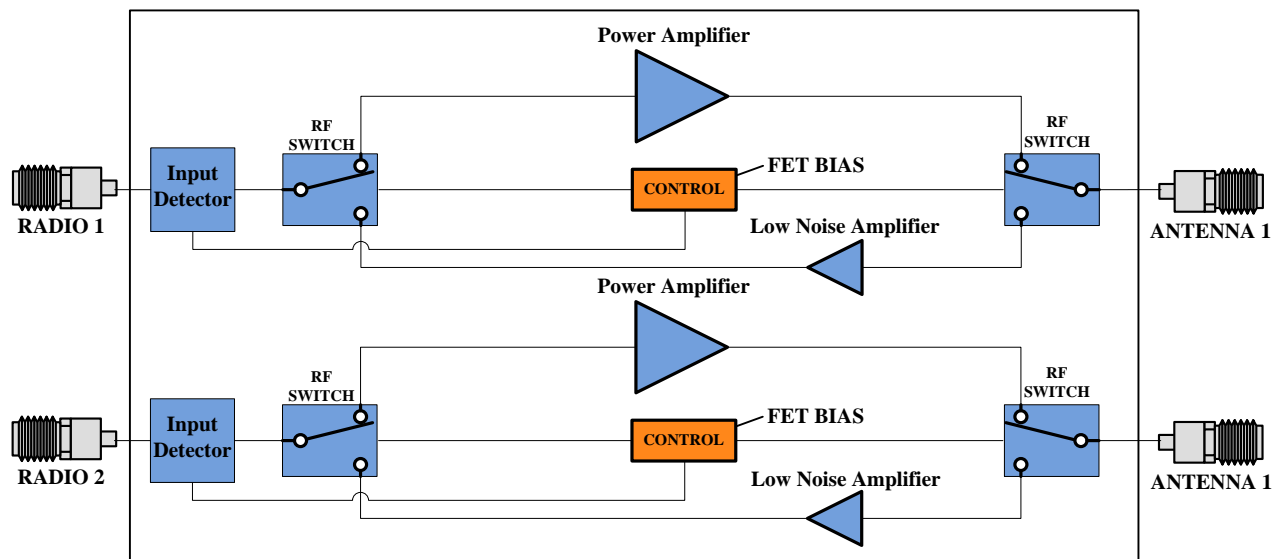
ENVIRONMENTAL / PROTECTIONS			
PARAMETER	MIN	MAX	UNIT
Operating Temp. (Housing Temp.)	-40	+85	°C
Humidity Range	0-100		%
Altitude	0-30,000		ft.
Shock / Vibration	MIL-STD-810 and equivalents		--
Max RF Input (Per Channel)	+25		dBm
PA Baseplate Shutoff Temperature	+85		°C

DC / CONTROL PINS		
AMPLIFIER CONNECTOR TYPE:		CIRCULAR BAYONET LOCKING MALE
TRIAD CABLE PART NUMBER:		CBL52
PIN LABEL	NAME	DESCRIPTION
A	SGND	Signal Ground
B	TEMP	Temp Monitor: Temp in DegC = (Vout - 0.5V) *100
E	STATUS	TTL High = OK, TTL Low = Fault
F	Tx/Rx	TTL High = TX Mode, TTL Low = RX Mode
G	FWD 1	TX FWD Power BDA 1
H	FWD 2	TX FWD Power BDA 2
J,L	GND	+VDC Supply Return
K,M	+VDC	Supply Voltage - Range Specified in Datasheet
C	Fan+	+VDC for Fan Connector Pin
D	Fan-	GND for Fan Connector Pin

802-11G (20 MHz BW) DATA RATE VS. OUTPUT POWER (PER CHANNEL)			
OFDM MODULATION	DATA RATE	POUT (W) MIN.	EVM
64QAM	54 Mbps	10	≤ -27 dB
16QAM	36 Mbps	20	≤ -21 dB
QPSK	12 Mbps	35	≤ -15 dB
BPSK	9 Mbps	50	≤ -7 dB

See our [application note](#) that describes how this table was calculated and provides notes on in-system performance

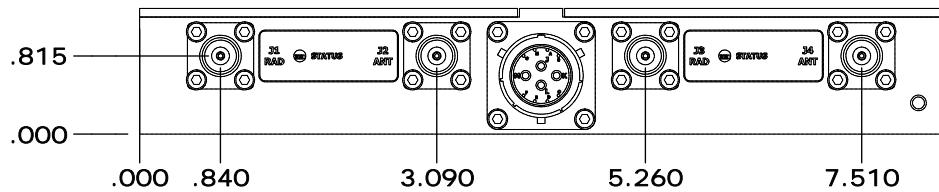
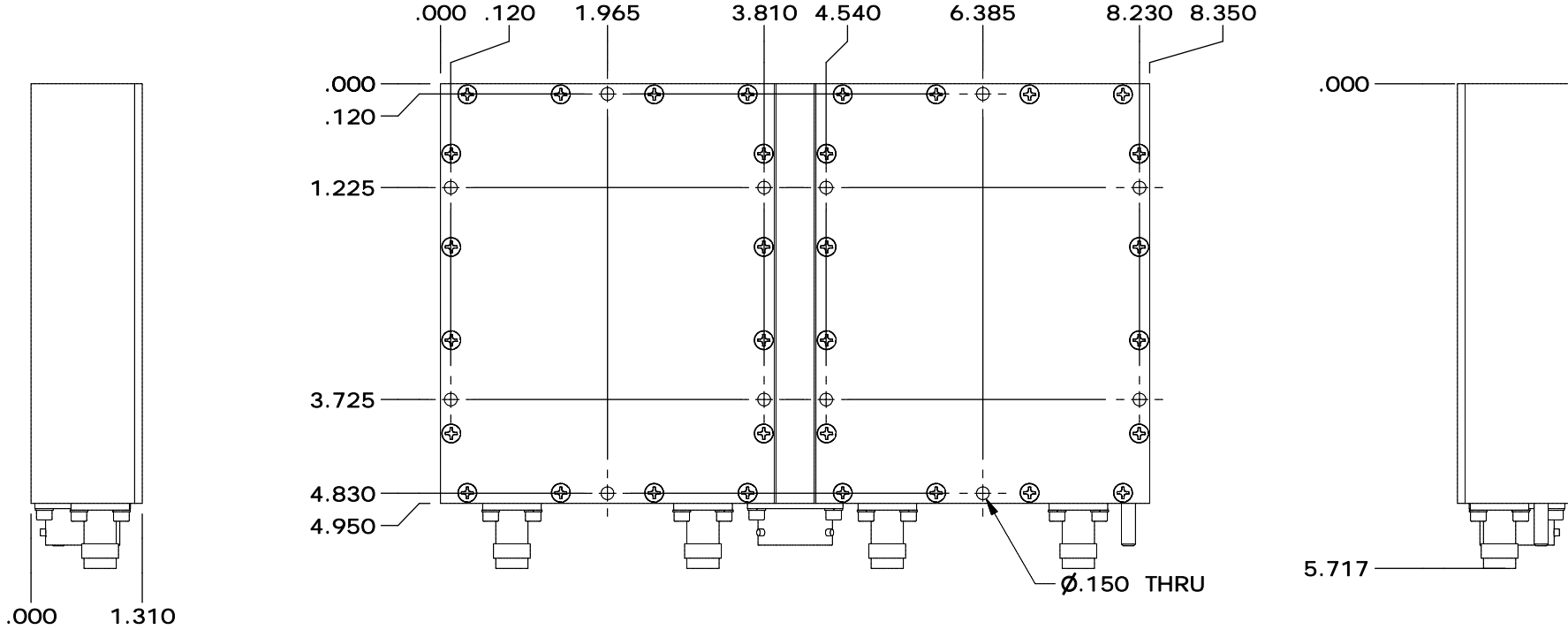
### High-Level Block Diagram



Ordering Guide – Configuration Information		
Model Number	Amplifier Option	Heat Sink Option
<b>TTRMXXXXD - XXX - XXX</b>		

Amplifier Options		Heat Sink Options	
Suffix	Description	Suffix	Description
D01	Automatic Tx/Rx Switching	(none)	No Heat Sink Included
D02	Manual Tx/Rx Switching	HS	Standard Heat Sink
DXX	Custom Amplifier Configuration (issued by Triad upon customer request)	HSF	Heat Sink with Integrated Cooling Fan
		HSX	Custom Heat Sink Configuration

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE	2/21/18	SC
1	E18326	6/4/18	SC



DRAWN	CFD	1/31/2018
DESIGNED	DMC	8/16/2017
CHECKED		
ENG APPROVED		
MFG APPROVED		



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

HOUSING OUTLINE DRAWING 187

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

SIZE	DWG NO.	REV
A	OL_187	1
SCALE: NONE	CAGE CODE 67DZ3	SHEET 1 OF 2

A B C D E

HEATSINK

3.328

.000

.000

.840

3.090

5.260

7.510

8.350

.000

1.225

3.725

4.950

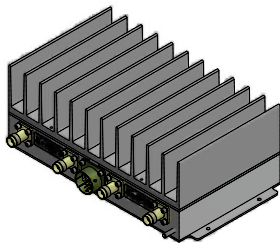
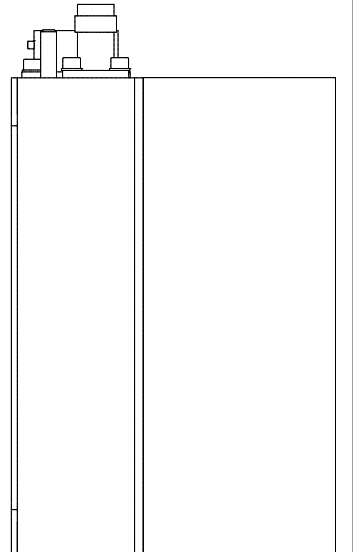
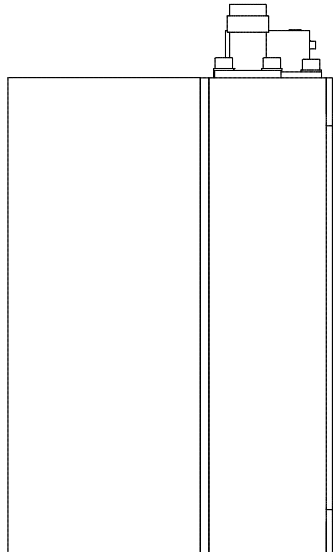
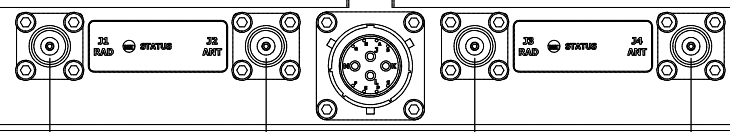
.000

.200

8.950

9.150

0.129 X 4 THRU



A B C D E

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