

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 or Automatic Tx/Rx Switching Available
- 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		13.0		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 16.9 x 1.3	in
RF Connectors (Input / Output)	TNC / TNC	--
DC / Control Connector	Circular Locking	--
Cooling	Baseplate Conduction - Optional Heatsink Available	--
Mounting	#6 Through Holes	--
Weight	255	oz.
Weight With Heatsink	326	oz.

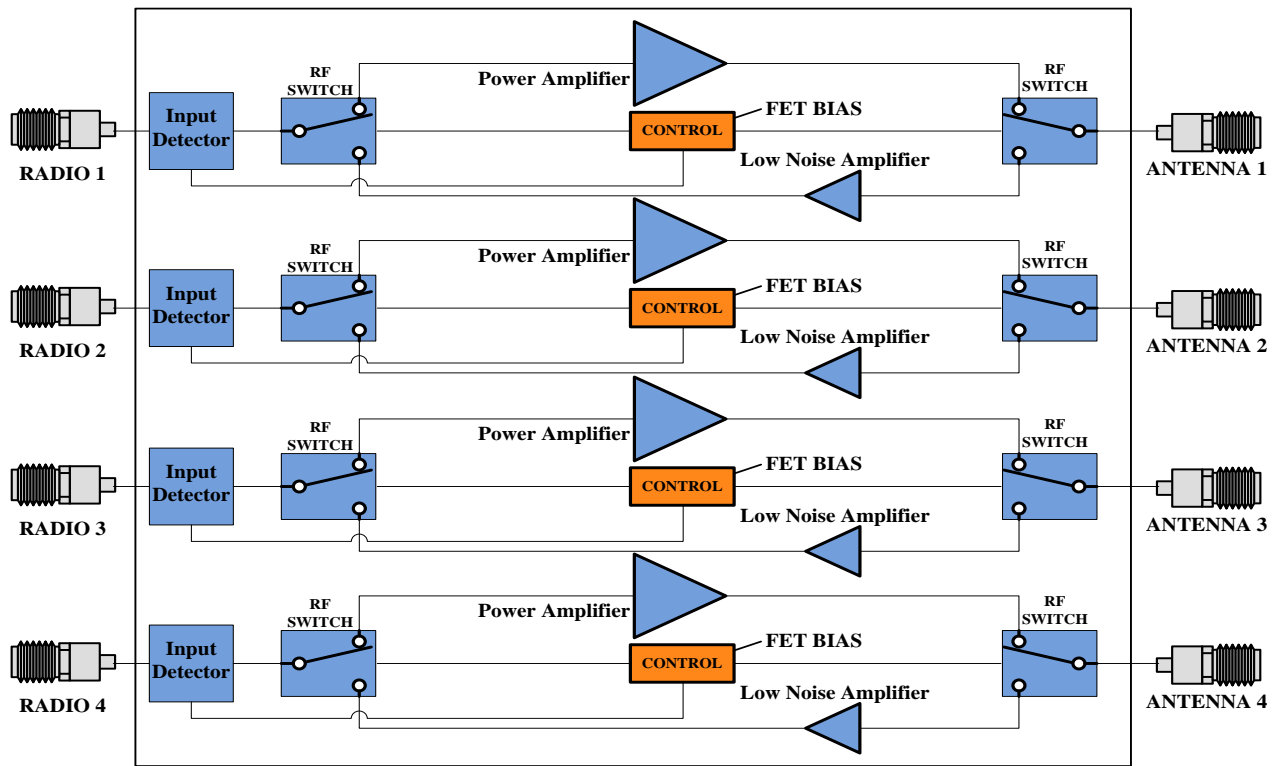
ENVIRONMENTAL / PROTECTIONS			
PARAMETER	MIN	MAX	UNIT
Operating Temp. (Housing Temp.)	-40	+85	°C
Humidity Range	0-100		%
Altitude	0-30,000		ft.
Shock / Vibration	MIL-STD-810 and equivalents		--
Max RF Input (Per Channel)	+25		dBm
PA Baseplate Shutoff Temperature	+85		°C

DC / CONTROL PINS		
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
D	Fan-	GND for Fan Connector

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

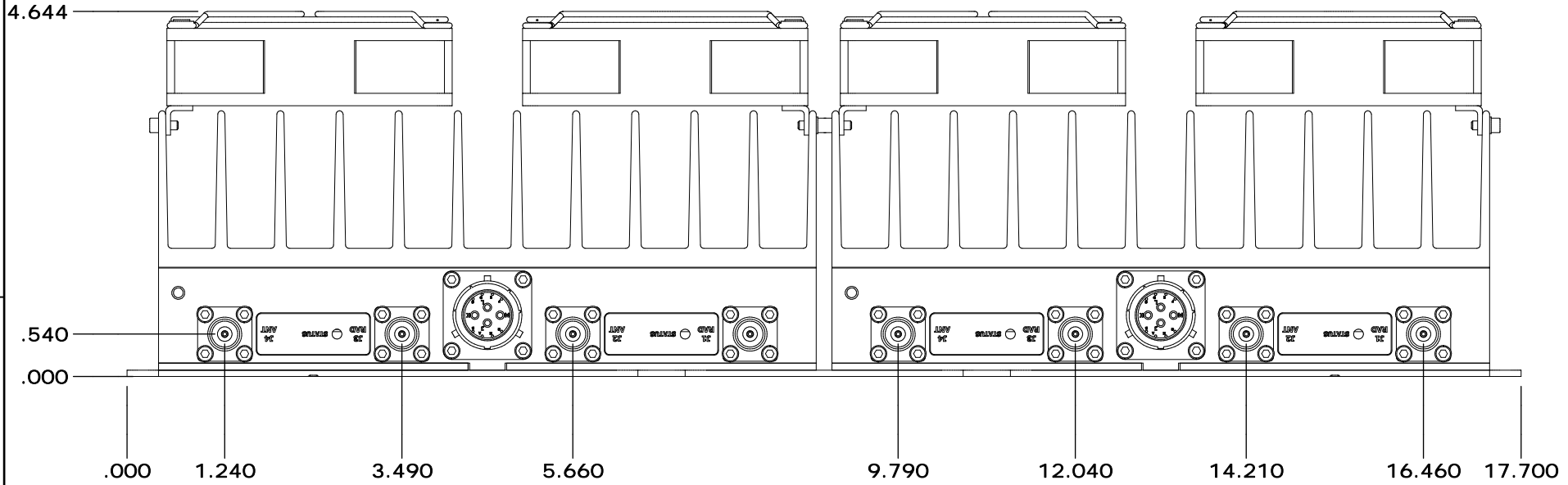
High-Level Block Diagram



Ordering Guide – Configuration Information		
Model Number	Amplifier Option	Heat Sink Option
TTRMXXXXQ	- XXX	- XXX

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	3/11/20	DH



DRAWN	DEAN	3/11/2020
DESIGNED	DEAN	3/10/2020
CHECKED		
ENG APPROVED		
MFG APPROVED		

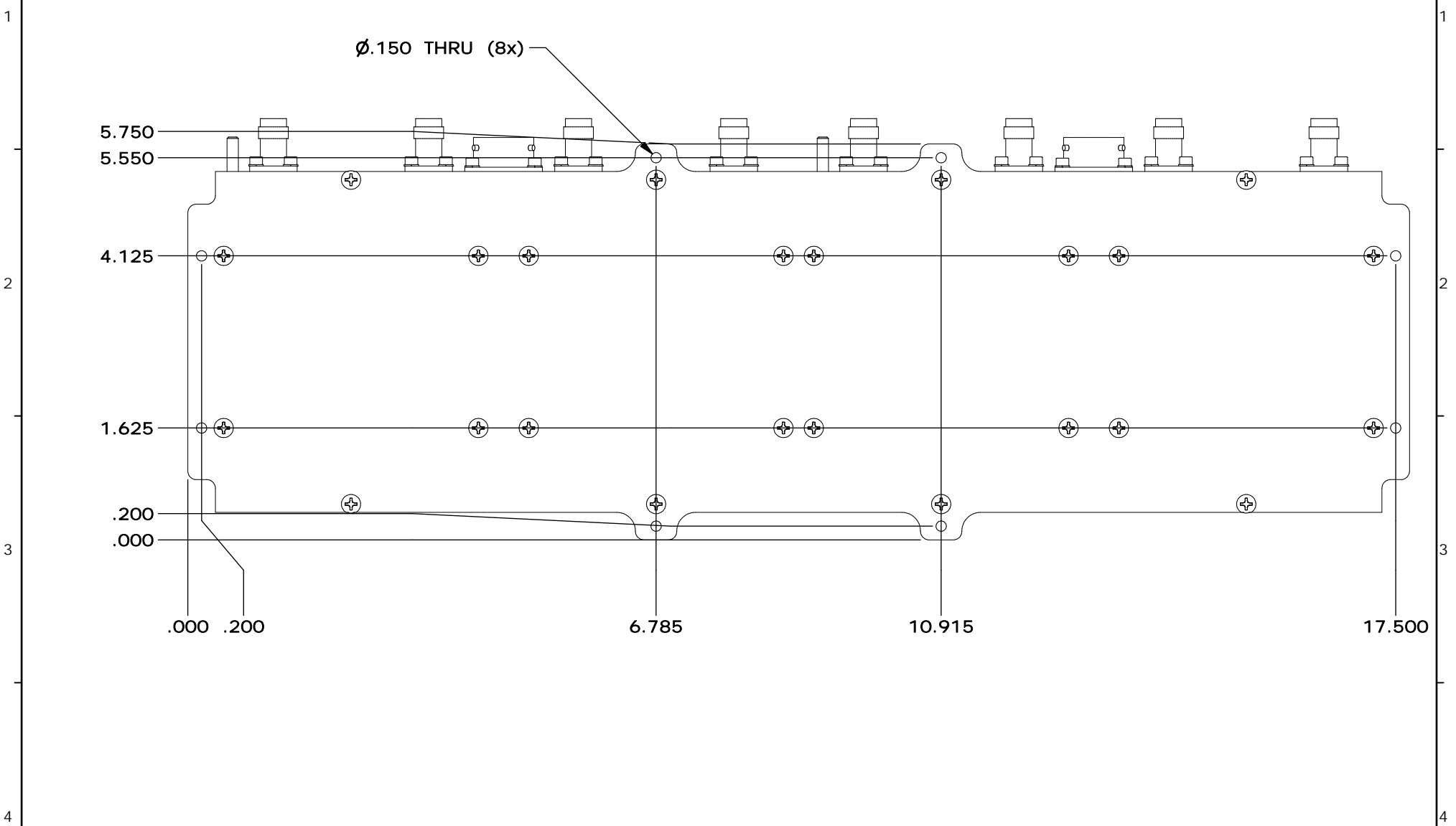
TRIAD RF SYSTEMS
 11 HARTS LANE SUITE 1
 EAST BRUNSWICK, NJ 08816
 855-558-1001

OUTLINE DRAWING 253

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

SIZE	DWG NO.	REV
A	OL_253	0
SCALE: NONE	CAGE CODE 67DZ3	SHEET 1 OF 4

A B C D E



DRAWN	DEAN	3/11/2020	OUTLINE DRAWING 253		
DESIGNED	DEAN	3/10/2020			
CHECKED			SIZE	DWG NO.	REV
ENG APPROVED			A	OL_253	O
MFG APPROVED			SCALE: NONE	CAGE CODE 67DZ3	SHEET 2 OF 4

A B C D E