

**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**

- Manual or Automatic Tx/Rx Switching Available
- Auto Gain Control
- Optional Heatsink

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

Tx SPECIFICATIONS				
PARAMETER	MIN	TYP	MAX	UNIT
Operating Frequency	2300		2400	MHz
PSat Power Output		+44.0		dBm
Gain	24.0	25.0		dB
Gain Flatness		1.0	1.5	dB
Input Return Loss	-14	-16		dB
Operating Voltage	+27	+28	+30	VDC
Current Draw		1.0	2.0	A
Tx / Rx Switching Time		1.0	2.0	uS

Rx SPECIFICATIONS				
PARAMETER	MIN	TYP	MAX	UNIT
P1dB Power Output		+5.0		dBm
Gain	18.0	20.0		dB
Gain Flatness		0.5	1.3	dB
Noise Figure		2.0	3.0	
OIP3		+15.0		dBm
Input Return Loss	-12	-11		dB
Current Draw		80.0	100.0	mA

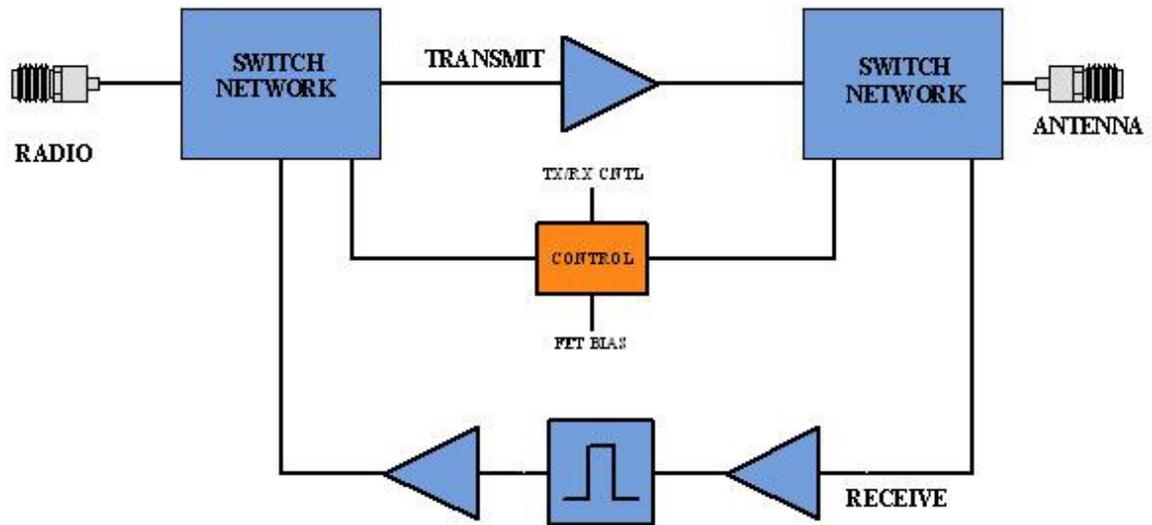
MECHANICAL		
PARAMETER	VALUE	UNIT
Dimensions (L x W x H)	3.33 x 2.69 x 0.65	in
RF Connectors (Input / Output)	SMA-F / SMA-F	--
DC / Control Connector	Circular Locking	--
Cooling	Baseplate Conduction - Optional Heatsink Available	--
Mounting	4-40 Thru Holes	--
Weight	5	oz
Weight With Heatsink	15	oz

ENVIRONMENTAL / PROTECTIONS			
PARAMETER	MIN	MAX	UNIT
Operating Temp. (Housing Temp.)	-40	+85	°C
Storage Temp Range	-60	+100	°C
Humidity Range	0-100		%
Altitude	0-30,000		ft.
Shock / Vibration	MIL-STD-810 and equivalents		--
Max RF Input	+22		dBm
Load VSWR @ P1dB	Open / Short Output Protection		--
PA Baseplate Shutoff Temperature	+90		°C

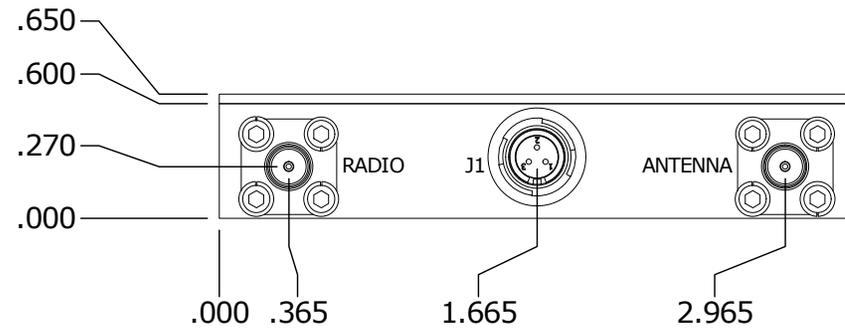
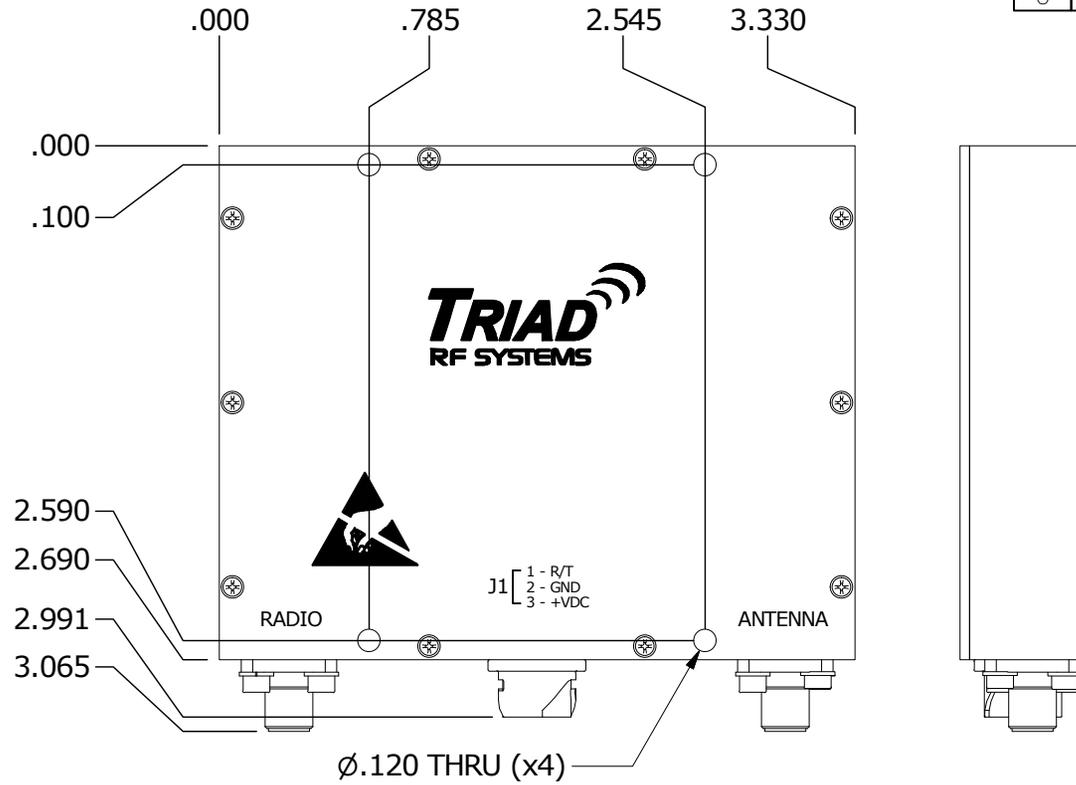
DC / CONTROL PINS		
PIN LABEL	NAME	DESCRIPTION
1	GND	Ground
2	Amp Enable	TTL On/Off Low=Enable, High=Disable
3	+VDC	Supply Voltage - Range Specified in Datasheet

DATA RATE VS. OUTPUT POWER	
OFDM MODULATION	POut (W)
64QAM OFDM	6.31
16QAM OFDM	11.22
QPSK	12.59
BPSK	19.95

See our [application note](#) that describes how this data was taken and how you can apply it to your system



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE	08/03/2014	DMC



DRAWN	AHA	6/17/2014
DESIGNED	DCH	7/12/2013
CHECKED	BG	6/17/2014
ENG. APPROVED		
MFG. APPROVED		



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

Housing Outline Drawing 118

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

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

A

B

C

D

E

1

1

2

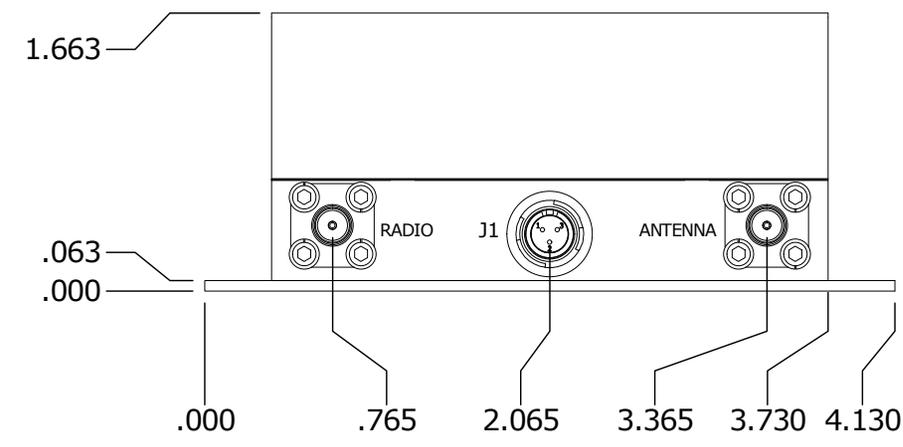
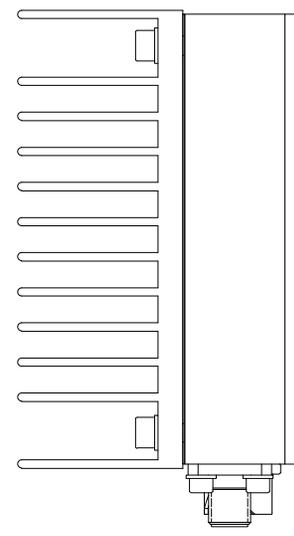
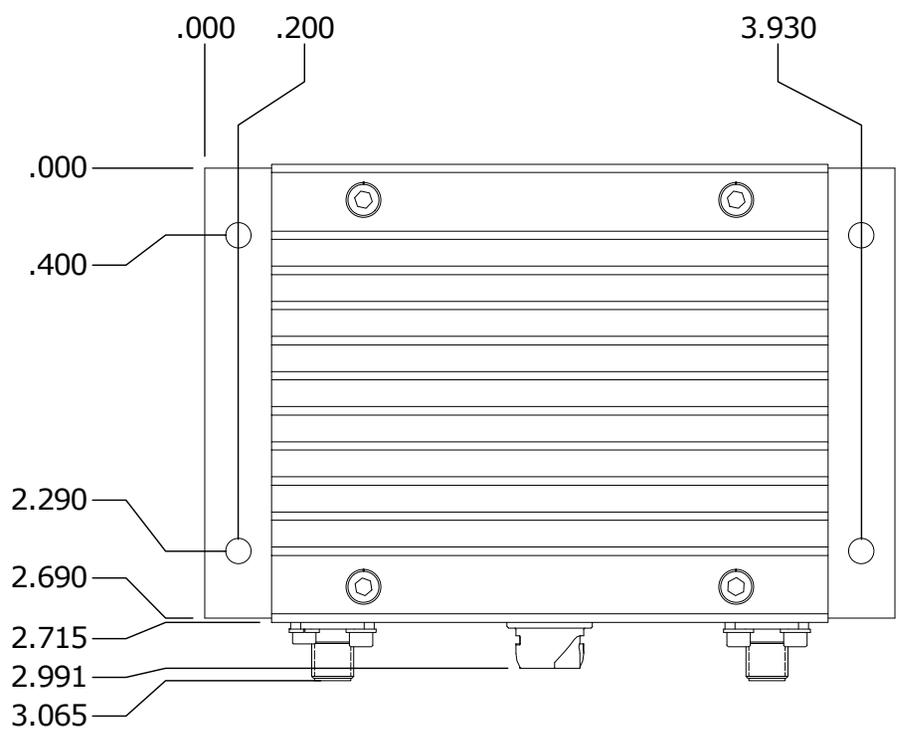
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4

4



DRAWN	AHA	6/17/2014	Housing Outline Drawing 118		
DESIGNED	DCH	7/12/2013	SIZE	DWG NO.	REV
CHECKED	BG	6/17/2014	A		0
ENG. APPROVED			SCALE: NONE	CAGE CODE 67DZ3	SHEET 2 OF 4
MFG APPROVED					

A

B

C

D

E

A

B

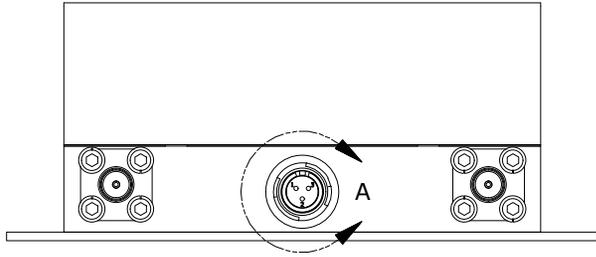
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D

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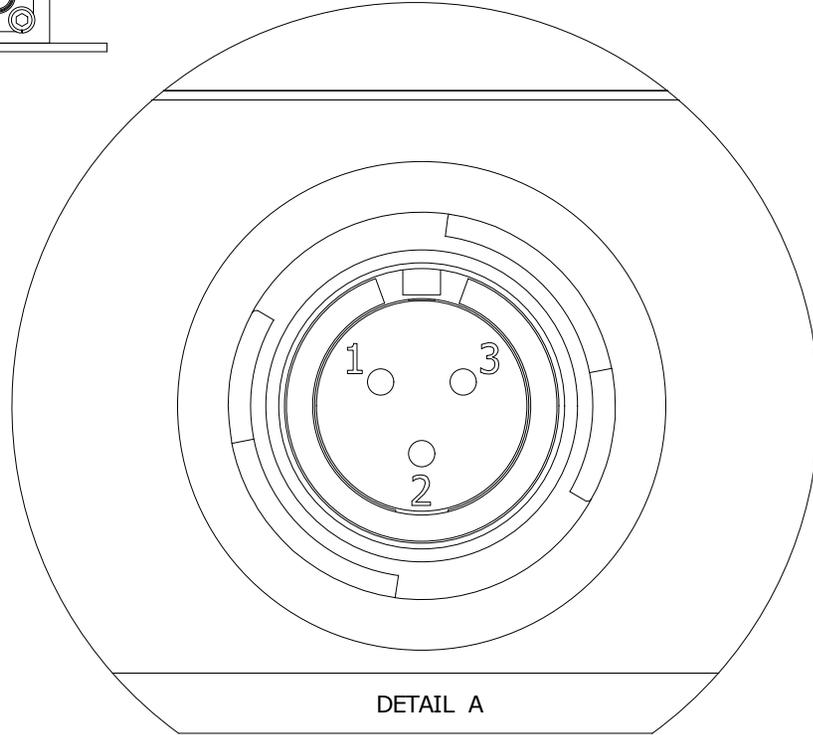
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2

2



3

3

PINOUT TABLE		
PIN	LABEL	FUNCTION
1	R/T	RX/TX
2	GND	GROUND WIRE
3	+DC	SUPPLY VOLTAGE

4

4

NOTES:

- 1. VIEW FACING CONNECTOR INTERFACE (AMP SIDE)
- 2. P/N OF CONNECTOR ON AMPLIFIER: HIROSE LF07WBP-3P

DRAWN	AHA	6/17/2014	Housing Outline Drawing 118		
DESIGNED	DCH	7/12/2013			
CHECKED	BG	6/17/2014	SIZE	DWG NO.	REV
ENG. APPROVED			A		0
MFG APPROVED			SCALE: NONE	CAGE CODE 67DZ3	SHEET 3 OF 4

A

B

C

D

E

A

B

C

D

E

1

2

3

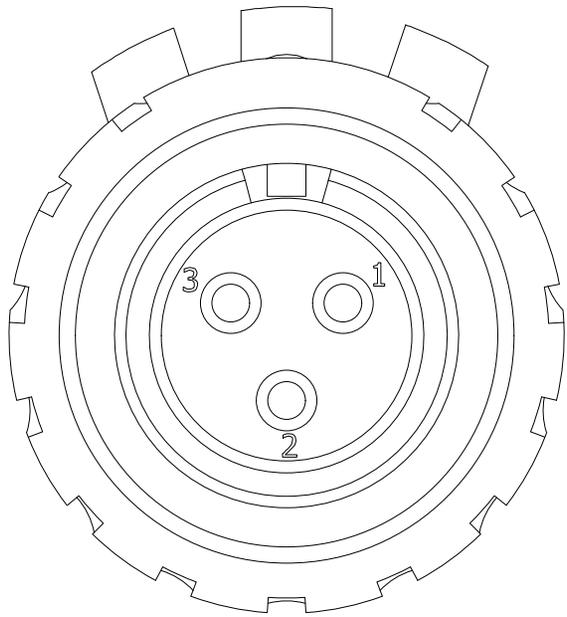
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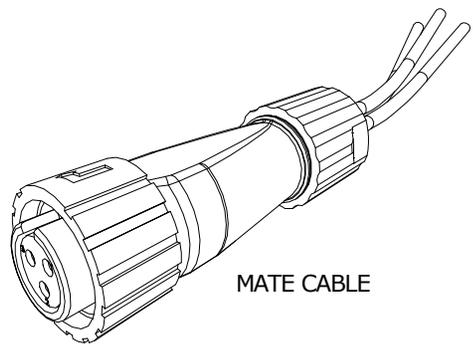
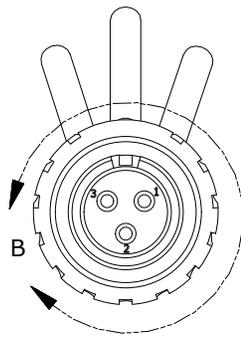
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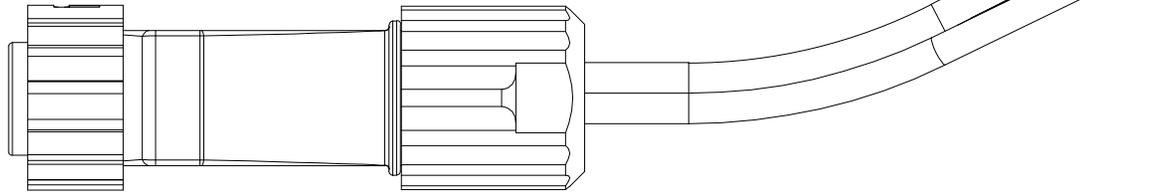
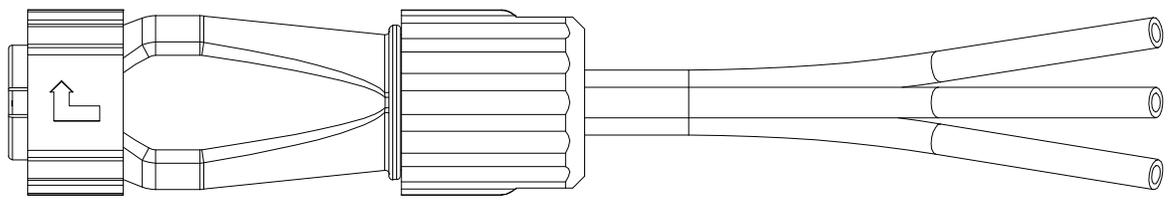
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DETAIL B



MATE CABLE



C138302

NOTES:

- 1. P/N OF MATING CONNECTOR REQUIRED: Hirose LF07WBP-3S OR EQUIVALENT
- 2. TRIAD CABLE P/N: C13080302
- 3. WIRE DIAMETER: 24 AWG

DRAWN	AHA	6/17/2014	Housing Outline Drawing 118		
DESIGNED	---	8/30/2013	SIZE	DWG NO.	REV
CHECKED	BG	6/17/2014	A		0
ENG. APPROVED			SCALE: NONE	CAGE CODE 67DZ3	SHEET 4 OF 4
MFG APPROVED					

A

B

C

D

E