

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
 Manual or Automatic Tx/Rx Switching Available

Forward Power Measurement
 High Speed T/R Switching Control
 Optional Heatsink

Specifications subject to change without notice. Typical performance at +12VDC at 25°C in a 50Ω system

Tx SPECIFICATIONS				
PARAMETER	MIN	TYP	MAX	UNIT
Operating Frequency	1700		1800	MHz
P1dB Power Output		+42.0		dBm
Gain	49.0	50.0		dB
Gain Flatness				dB
Input Return Loss	-17			dB
Operating Voltage	+11	+12	+13	VDC
Current Draw		6.0	7.0	A
Tx / Rx Switching Time		1.0	2.0	μs

Rx SPECIFICATIONS				
PARAMETER	MIN	TYP	MAX	UNIT
P1dB Power Output		+5.0		dBm
Gain	19.0	20.0		dB
Gain Flatness		0.0	0.0	dB
Noise Figure		3.0		
OIP3		+15.0		dBm
Input Return Loss	-8	-10		dB
Current Draw		200.0		mA

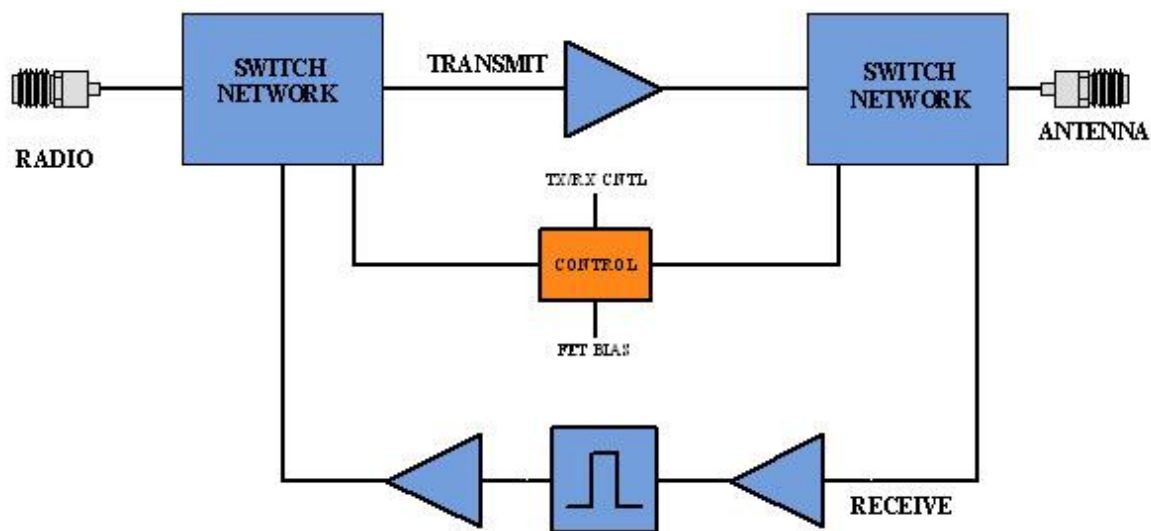
MECHANICAL		
PARAMETER	VALUE	UNIT
Dimensions (L x W x H)	3.33 x 2.69 x 0.65	in
RF Connectors (Input / Output)	SMA-F / SMA-F	--
DC / Control Connector	7W2 Male	--
Cooling	Baseplate Conduction - Optional Heatsink Available	--
Mounting	4-40 Thru Holes	--
Weight	5	oz
Weight With Heatsink	15	oz

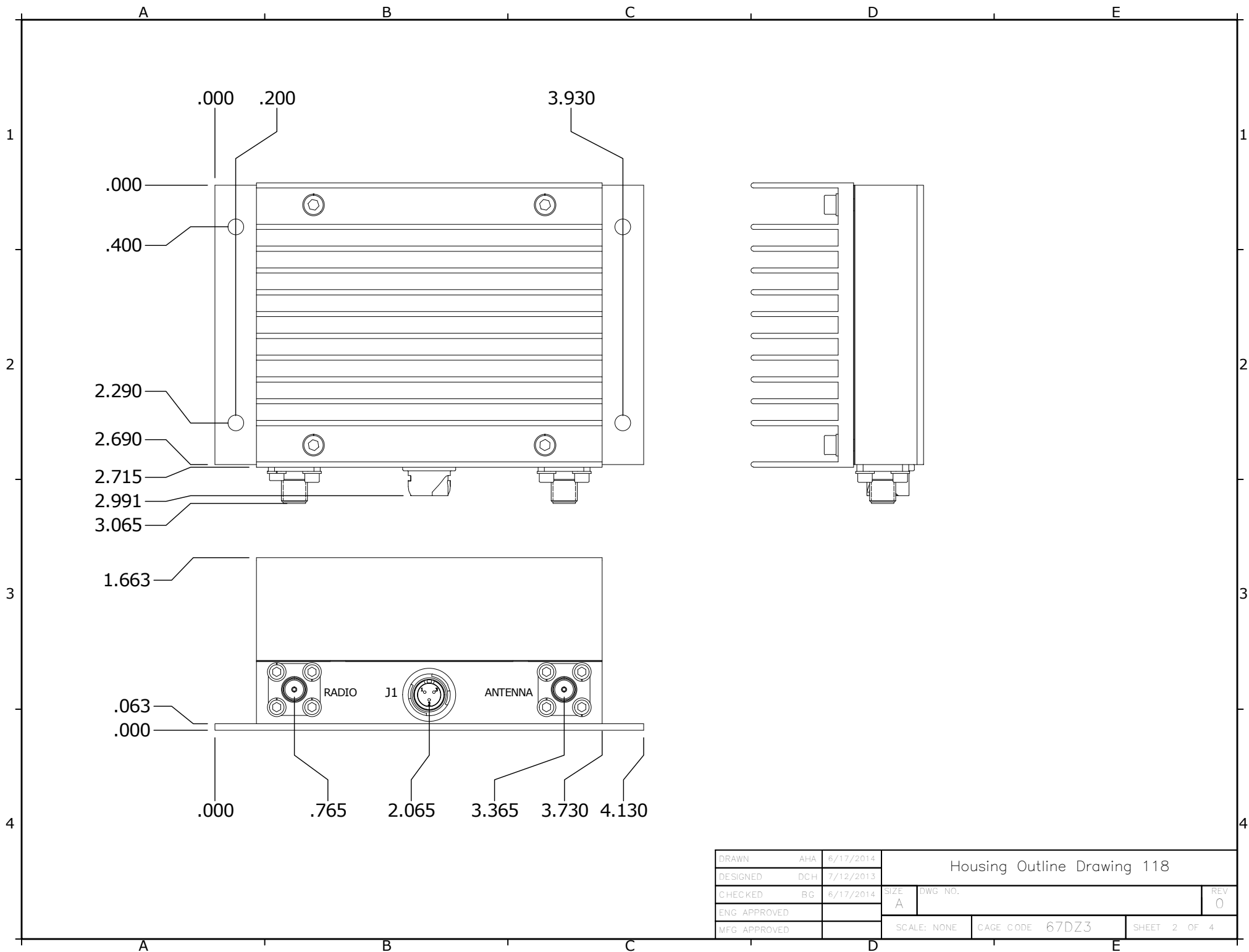
ENVIRONMENTAL / PROTECTIONS			
PARAMETER	MIN	MAX	UNIT
Operating Temp. (Housing Temp.)	-40	+85	°C
Storage Temp Range	-60	+100	°C
Humidity Range	0-100		%
Altitude	0-30,000		ft.
Shock / Vibration	MIL-STD-810 and equivalents		--
Max RF Input	-5		dBm
Load VSWR @ P1dB	Open / Short Output Protection		--
PA Baseplate Shutoff Temperature	+90		°C

DC / CONTROL PINS		
PIN LABEL	NAME	DESCRIPTION
A1	GND	Ground
1	TEMP	Temp Monitor: Temp in DegC = (Vout - 0.5V) / 10
2	Tx/Rx	Tx / Rx Switching (+5V = Tx Amp Active / 0V = Rx Amp Active)
3	REV	Reverse Power Detection
4	GND	Ground
5	FWD	Forward Power Detection
A2	+VDC	Supply Voltage - Range Specified in Datasheet

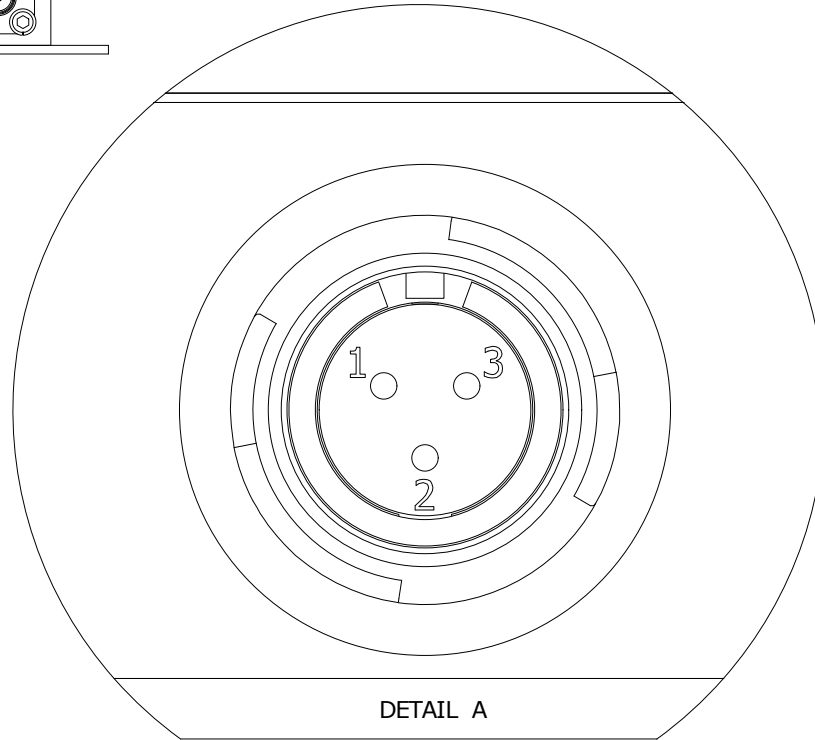
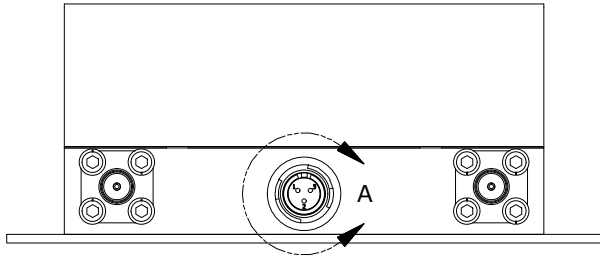
DATA RATE VS. OUTPUT POWER	
OFDM MODULATION	POUT (W)
64QAM OFDM	5.01
16QAM OFDM	7.94
QPSK	11.22
BPSK	15.85

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





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



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

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 A	DWG NO.	REV 0
ENG. APPROVED					
MFG. APPROVED			SCALE: NONE	CAGE CODE 67DZ3	SHEET 3 OF 4

A

B

C

D

E

1

1

2

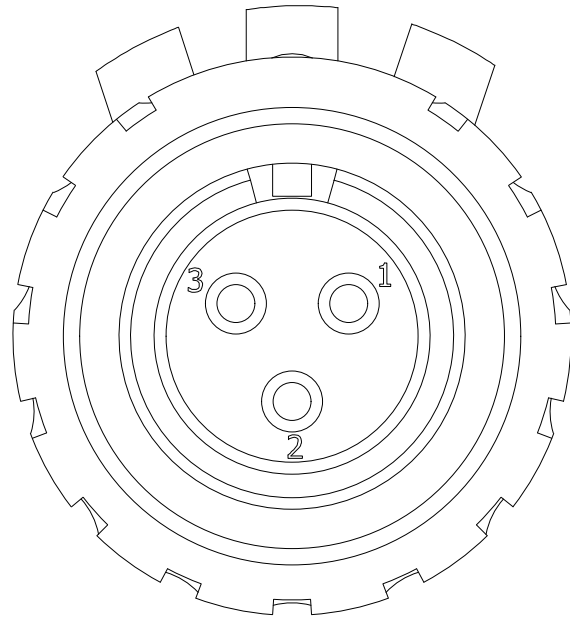
2

3

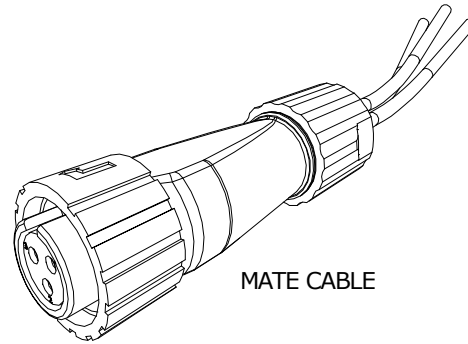
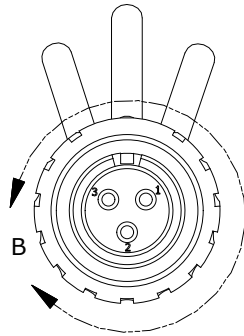
3

4

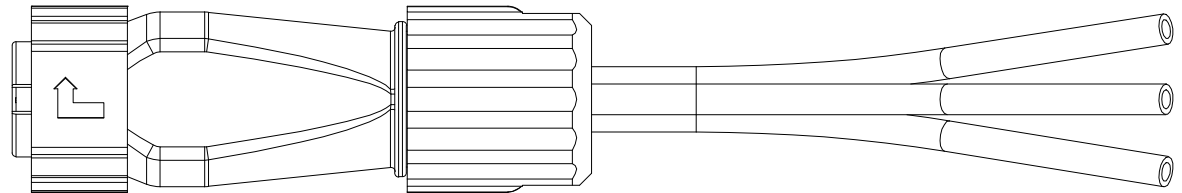
4



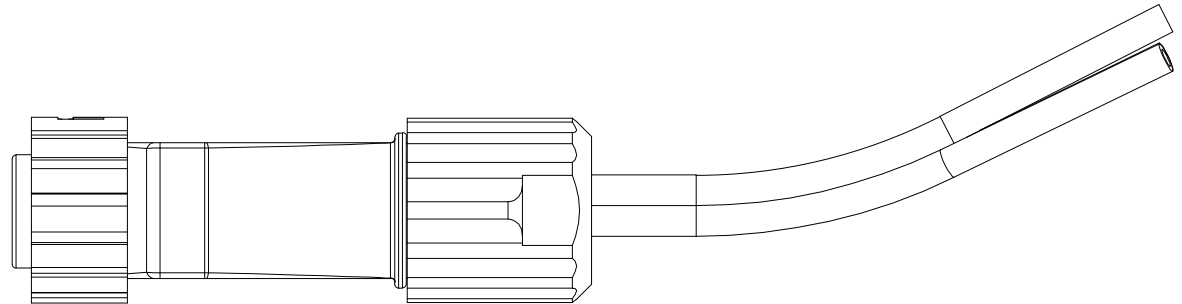
DETAIL B



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				
CHECKED	BG	6/17/2014	SIZE	DWG NO.	REV	
ENG. APPROVED			A		0	
MFG. APPROVED			SCALE: NONE	CAGE CODE	67DZ3	SHEET 4 OF 4