DCH SYSTEMS

TRM001 | 30-3000 MHz 4W BDA

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

- Manual Tx/Rx Switching (TTL)
- Optional Heatsink

APPLICATIONS

- Military / Commercial Data links
- Telecommunications
- BTS / Repeaters / DAS
- Test and Measurement
- General Purpose Lab Use

TX SPECIFICATIONS

PARAMETER	MIN	TYP	MAX	UNIT
Operating Frequency	30		3000	MHz
P1dB Power Output	34.0	36.0		dBm
PSat Power Output	36.0	36.5		dBm
Gain	20.0	23.0		dB
Gain Flatness		1.0	1.5	dB
OIP3		48.0		dBm
OIP3 Measurement Conditions	@ 1 GHz			--
Input Return Loss	11	16		dB
Operating Voltage	9		36	VDC
Current Draw		0.6	0.9	A
Tx / Rx Switching Time		0.8	1.0	uS

RX SPECIFICATIONS

PARAMETER	MIN	TYP	MAX	UNIT
P1dB Power Output	20.0	22.0		dBm
Gain	20.0	22.0		dB
Gain Flatness		1.5	2.0	dB
Noise Figure		3.0	3.5	
OIP3		30.0		dBm
Input Return Loss	14	7		dB
Current Draw		200.0	250.0	mA

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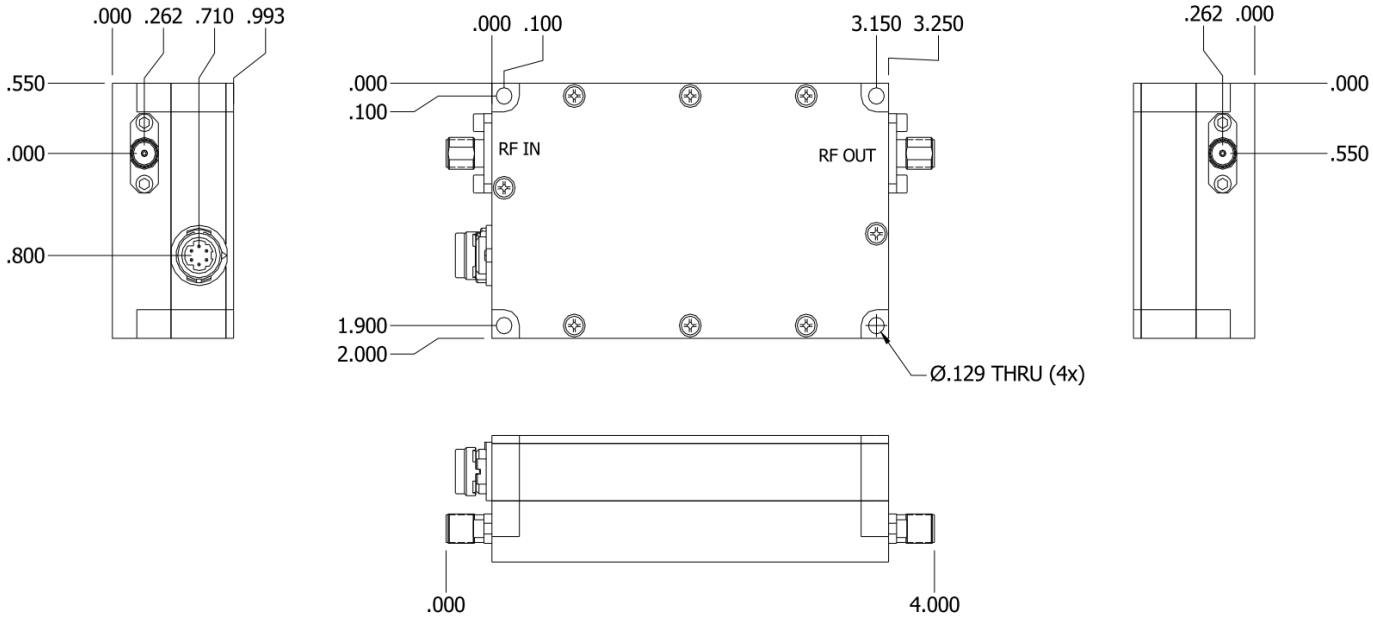
MECHANICAL

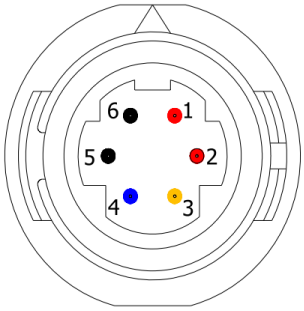
PARAMETER	VALUE	UNIT
Dimensions (L x W x H)	3.25 x 2 x 1	in.
RF Connectors (Input / Output)	SMA-F / SMA-F	--
DC / Control Connector	Circular Locking	--
Cooling	Baseplate Conduction - Optional Heatsink Available	--
Mounting	2-56 Thru Holes	--

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	16.5		dBm
Load VSWR @ P1dB	Open / Short Output Protection		--
PA Baseplate Shutoff Temperature	85		°C

OUTLINE DRAWING

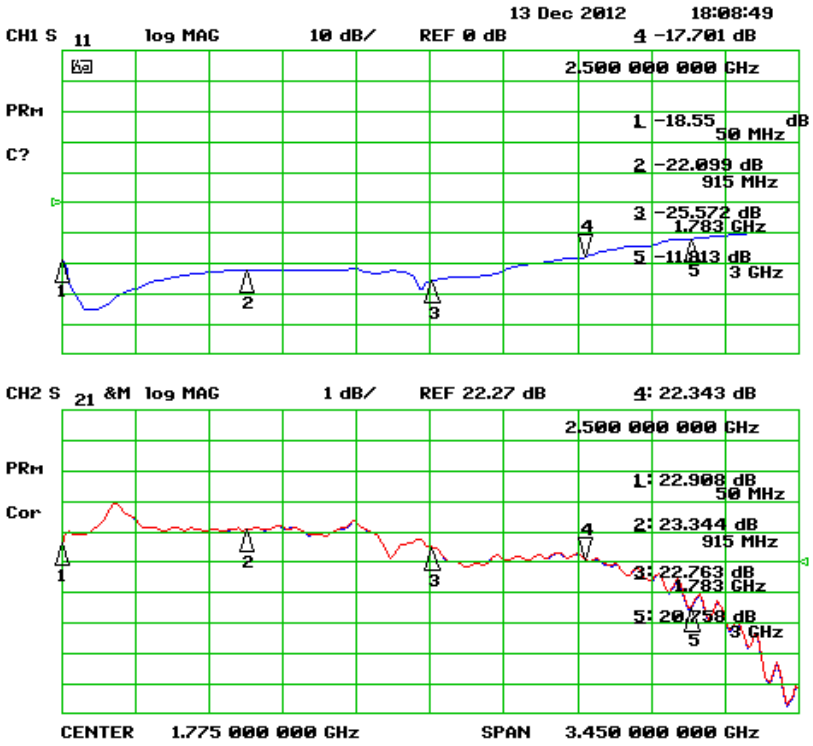




DC / Control Pins

Pin Label	Name	Description
1	+VDC	Supply Voltage - Range Specified in Datasheet
2	+VDC	Supply Voltage - Range Specified in Datasheet
3	TEMP	Temp Monitor: Temp in DegC = (Vout - 0.5V) / 10
4	Tx/Rx	TTL T/R Control (+5V = Tx / 0V = Rx)
5	GND	Ground
6	GND	Ground

S_{11} / S_{21} Plot – Tx



S_{11} / S_{21} PLOT – RX