

### 3.4-3.5GHz/100Watt/Module

Model Number: KN3450M50B

The model KN3450M50B is a multi-octave high power amplifier operating between 3.4 and 3.5 GHz and offering a wide dynamic Range with 100 Watts typical saturated power. The employment of advanced high power devices in manufacturing ensures this module exceptional power performance, long term reliability and high efficiency. It is ideal for multi octave broadband high power RF applications.

**FEATURES:**

- Narrowband & High power;
- High Efficiency;
- 2 Channels;
- Small Size & Light Weight;
- Low Distortion

**ELECTRICAL SPECIFICATIONS @ +28.0VDC,1 Channel, 25°C, 50Ω**

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	3.4		3.5	GHz
RF Output Power (CW\Pulse)	Psat		100		Watt
Duty Cycle	Duty Cycle	10			%
Pulse Width	PWIDTH			5	mS
PRI	PRI	0.2		50	mS
Power Gain @CW	Gp		50		dB
Power Gain Flatness @CW	Δ Gp		±2		dB
Power droop@Pulse	Droop		1		dB
Input Return Loss	S11			-10	dB
Harmonics @80W CW	H		-15		dBc
Spurious Signals	Spur		-60		dBc
Rise /Fall time (Pulse Performance)	TRISE/FALL/O		100		nS
Switch On/Off@10-90% Time	TON/OFF		2		μs
In/Output Impedance	Impedance		50		Ω
Operating Voltage	VDC	26	28	30	Volt
DC Current @100W CW	IDD		15		Amp
Average Current Consumption@100W Pulse,10%	IDD		1.3		Amp

**MECHANICAL SPECIFICATIONS**

Parameter	Value	Units	Notes
Dimensions	PA:200x140x25 [7.87x5.5x0.98] Heat sink:200x140x40 [7.87x5.5x1.57]	mm [inch]	Maximum
Weight	2 [4.4]/2[4.4]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	N, Female		
DC Interface Connector	Hybrid, D-Sub 17-Pin, Male		
Cooling	External Heatsink Required (Not Supplied)		

**ENVIRONMENTAL CHARACTERISTICS (Design to Meet)**

Parameter	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	-40		75	°C	
Non-operating Temperature	-45		80	°C	Storage
Relative Humidity (non-condensing)			95	%	

*Focus on Your Application*

**\*Chengdu KeyLink Microwave Technology Co., Ltd.\***

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Specifications subject to change without notice

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#### ABSOLUTE MAXIMUM RATING

Input RF drive level without damage	+5 dBm (Max)
Load VSWR @ P <sub>OUT</sub> =50W	∞ @ all load phase & amplitude for duration of 1 minutes; 3:1 @ all load phase & amplitude continuous
Over Temperature	85°C @ heatsink [restored @ 60°C]

#### DC INTERFACE CONNECTOR

Pin #	Description	Specifications
A1	GND	Ground
A2	VDD	28VDC
1	CH1 ENABLE	RF On: TTL Logic High (2.8-5.5V)
2	CH1 CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
3	CH1 FORWARD MONITOR	Analog voltage relative to forward power level
4	CH1 REVERSE MONITOR	Analog voltage relative to reflected power level
5	TEMP SENSE	Analog voltage relative to Module's Temperature @ 10 mV/°C
6	GND	Ground
7	GND	Ground
8	CH2 ENABLE	RF On: TTL Logic High (2.8-5.5V)
9	CH2 CURRENT SENSE	Analog voltage relative to IDD @ 100mV per Ampere
10	CH2 FORWARD MONITOR	Analog voltage relative to forward power level
11	CH2 REVERSE MONITOR	Analog voltage relative to reflected power level
12	NC	No electrical connection
13	NC	No electrical connection
14	GND	Ground
15	GND	Ground

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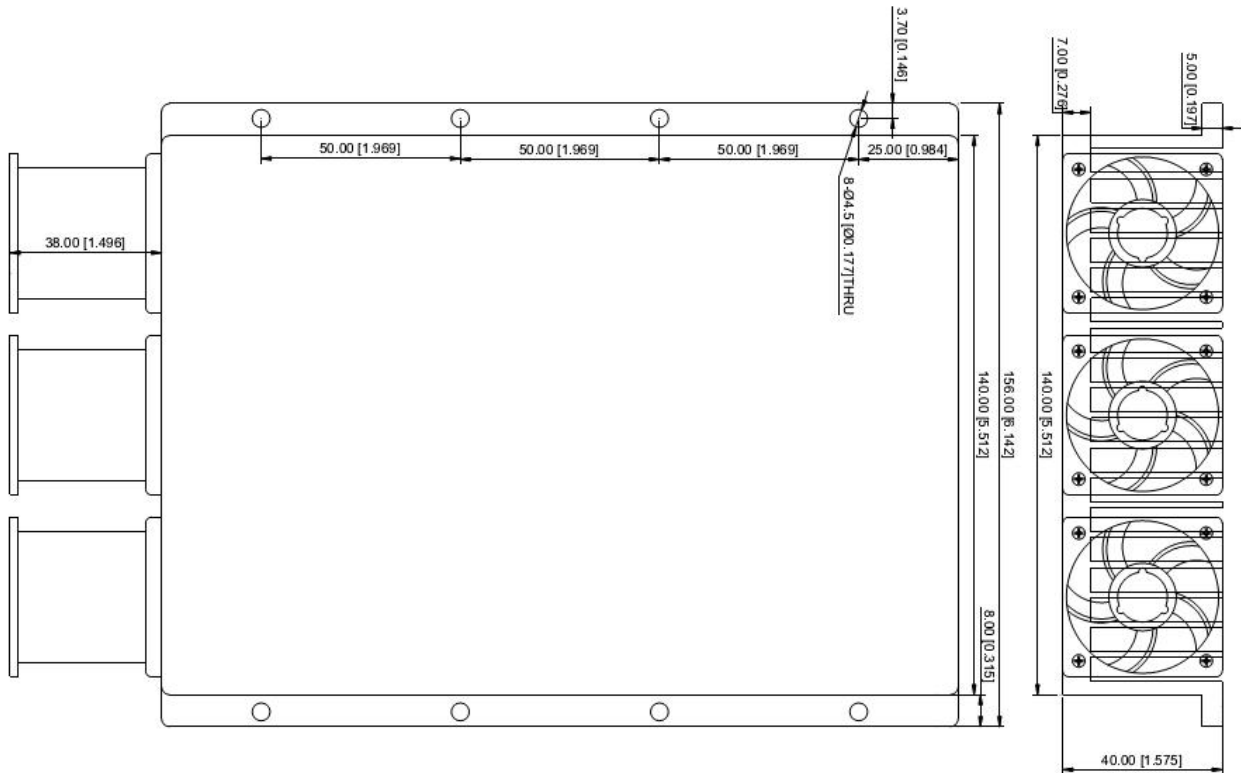
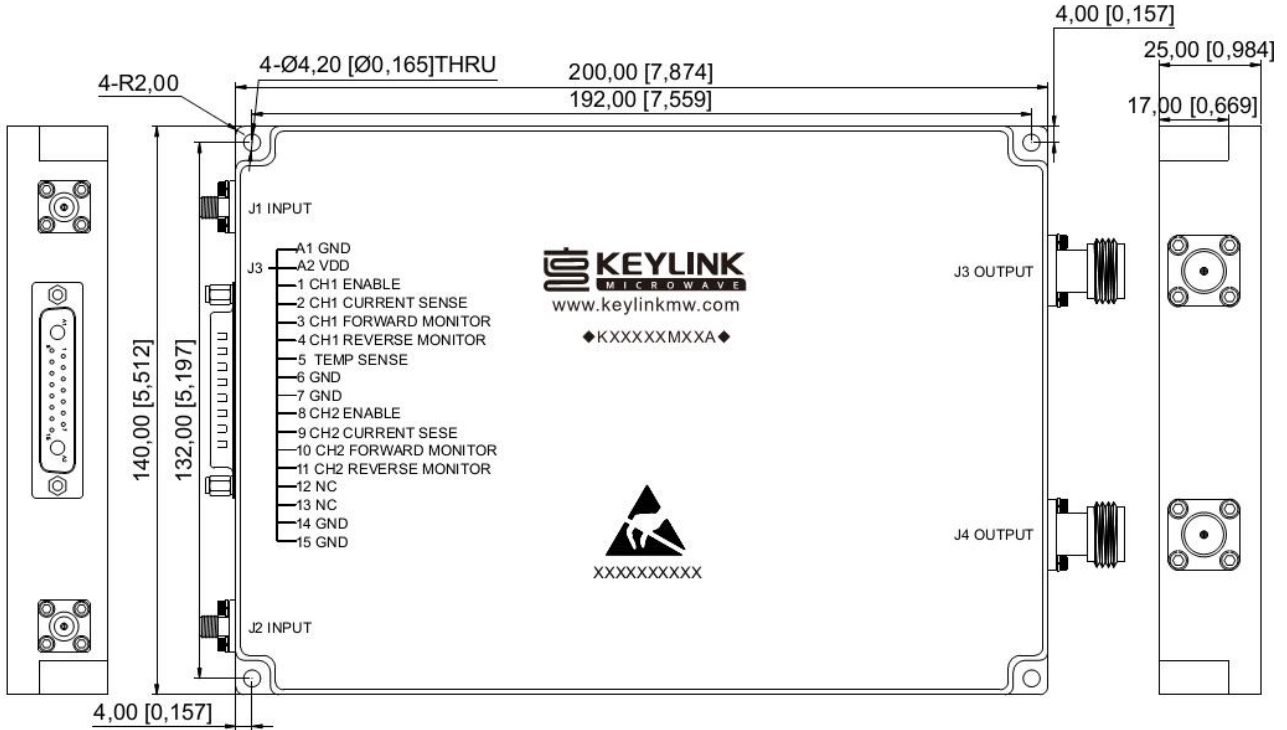
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OUTLINE DRAWING (All dimensions in mm [inch])



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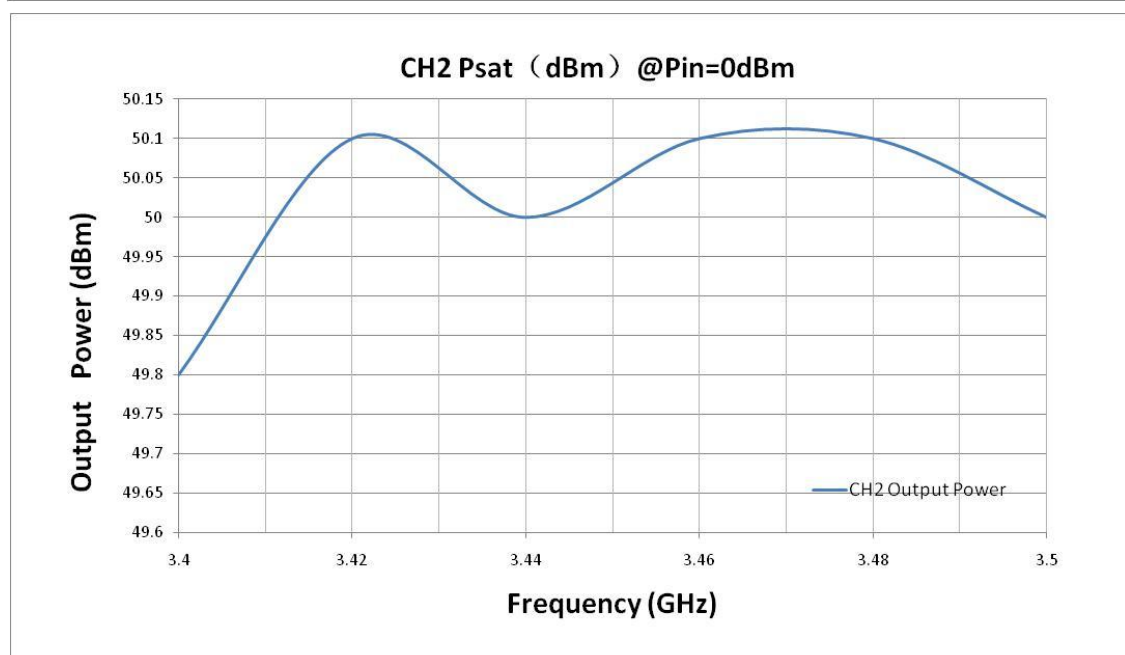
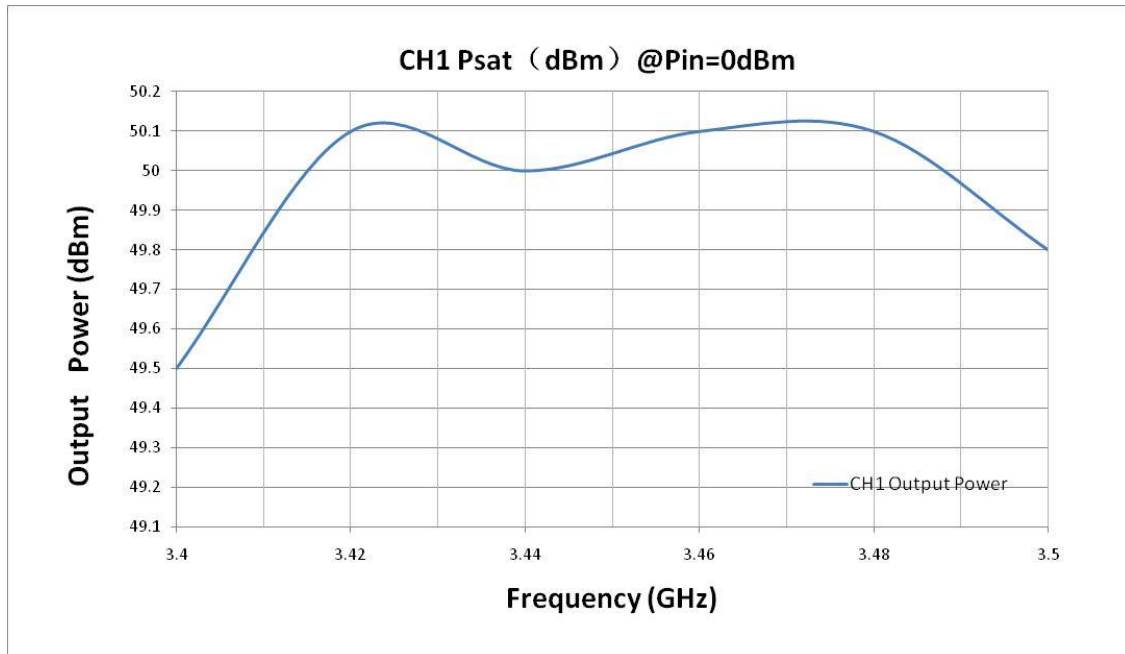
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#### TYPICAL PERFORMANCE PLOTS



**Note:**

1. Adequate heatsink required.
2. This product will be developed upon contract/order. All the above specs are for reference only. Actual product may be different. Please check with KeyLink sales team if you have any question.

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