

## WPA Series

## 300MHz–18GHz 1W RF Power Amplifier

### Features

- Frequency Range: 0.3-18GHz
- Gain: 37dB min.
- P<sub>1dB</sub>: +30dBm (1W) typ.
- P<sub>SAT</sub>: +30dBm (1W) min.
- OIP3: +42dBm
- DC Power: +15V @ 750mA
- RF Connector: SMA-female

### Photo



### Description

WPA-0318-3037 is a high performance 1W RF Power Amplifier, with standard frequency range of 300MHz to 18GHz.

### Electrical Specifications @ +25 °C, Z<sub>in</sub>=Z<sub>out</sub>=50Ω, DC Supply = +15VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	0.3		18
Gain S21	dB	37	40	
Gain Flatness	dB		±2.0	±2.5
Output Power P <sub>1dB</sub>	dBm	+29.5	+30.5	
Output Power P <sub>SAT</sub>	dBm	+30	+31	
Output IP3	dBm		+42	
Noise Figure	dB		2.5	4.0
Reverse Isolation	dB		60	
Input Return Loss	dB		-10	
Output Return Loss	dB		-5	
DC Power Supply - voltage	V	+14.5	+15	+18
DC Power Supply - current	A		0.75	1.2
Size (RF/DC feedthrough excluded)	Inch (mm)	2.36"x1.77"x0.55" (60x45x14mm)		
Weight (without heatsink)	g	150		

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**Absolute Maximum Ratings**

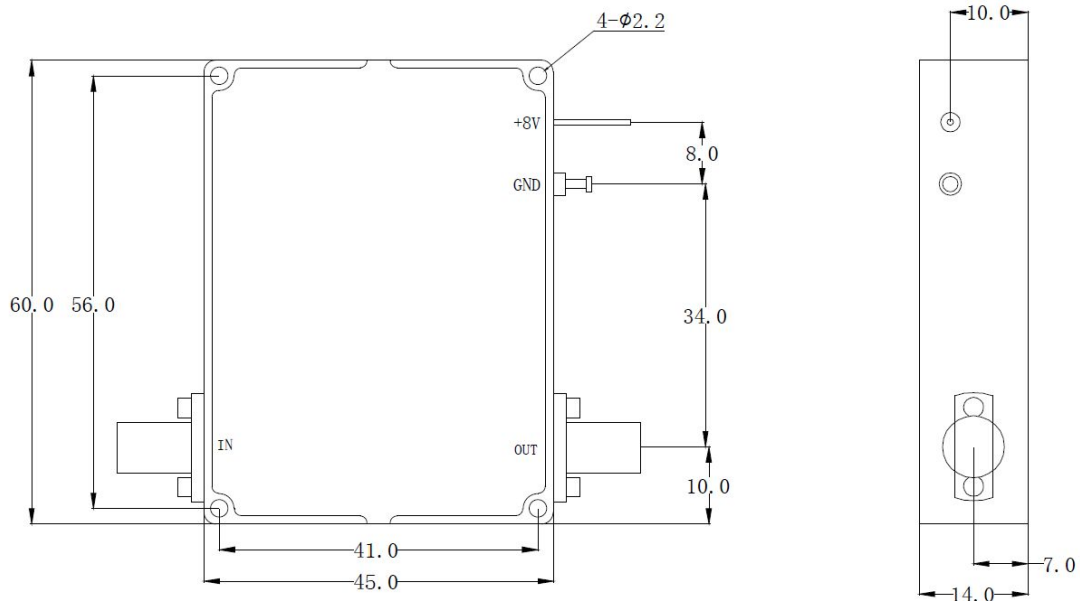
Parameter	Absolute Maximum
Supply Voltage	+18V
RF Input Power	+15dBm
Operating Temperature	-40 °C to +75 °C
Storage Temperature	-55 °C to +125 °C

**ESD Sensitive Material**



**WARNING: MUST USE HEAT SINK WITH COOLING FAN OR MOUNT ON LARGE METAL PLATE TO MAINTAIN BASE PLATE TEMPERATURE UNDER +50**

**Outline (mm)**



RF Connector Input: SMA Female  
 RF Connector Output: SMA Female