

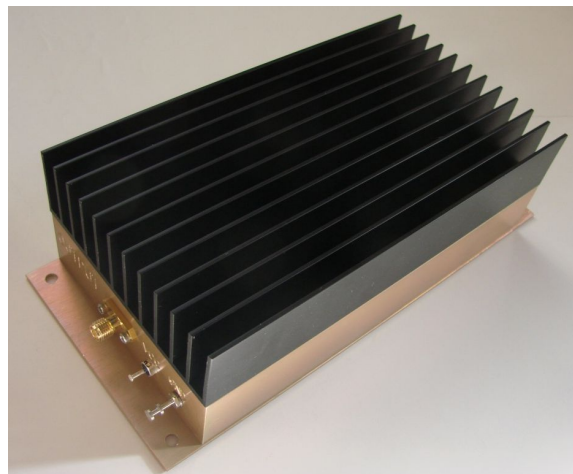
## HPA Series

## 30 - 600MHz 10W RF Power Amplifier

### Features

- Frequency Range: 30 - 600MHz
- Gain: 30dB @ P<sub>out</sub>= 10W
- P<sub>out</sub>: +40dBm
- Reverse Voltage Protection
- DC Power: +12V to +15V
- Class AB
- SMA Connector

### Picture



### Description

HPA-300 is a 10Watt (+40dBm) output RF Power Amplifier designed and operated for FM application. It operates in Class AB mode from single 12 to 15V DC power supply with frequency range in 30 - 600MHz.

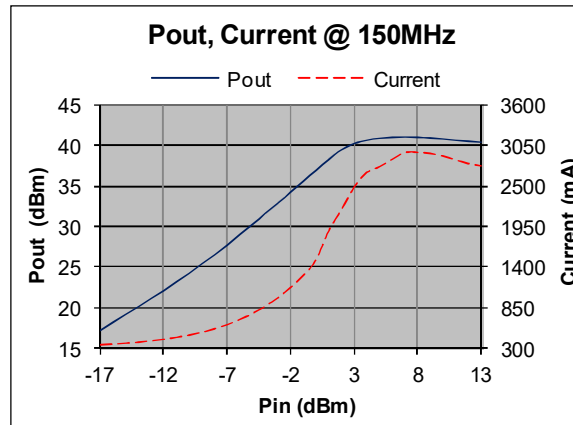
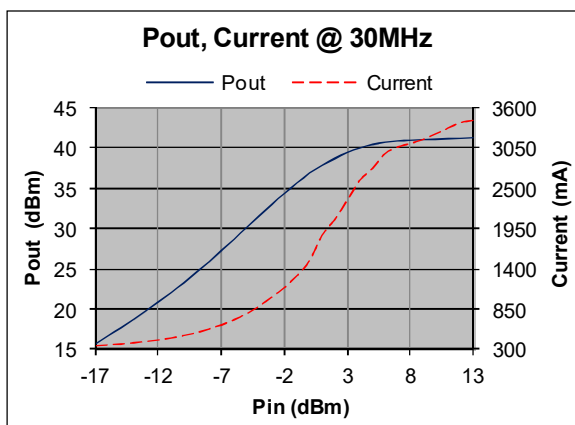
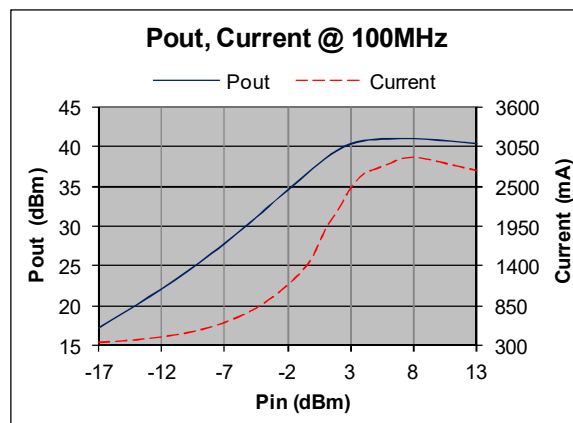
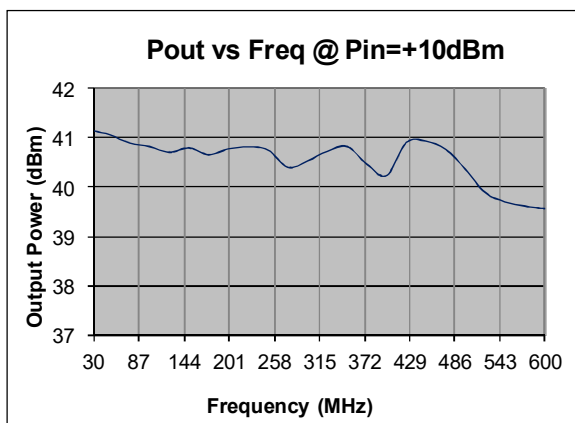
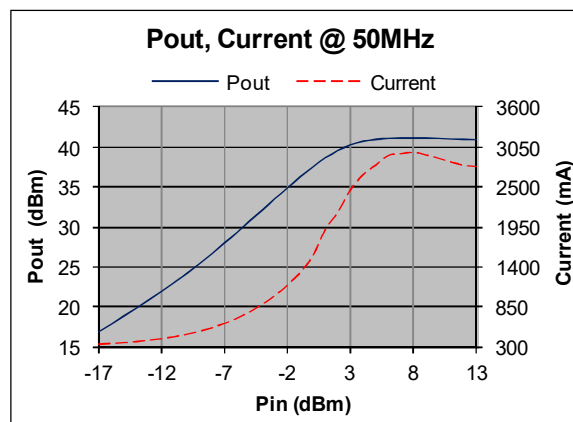
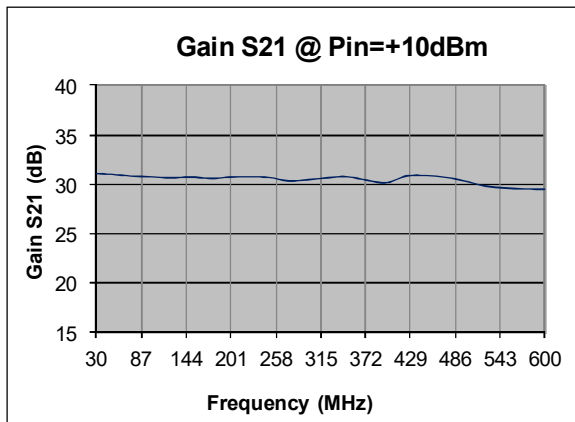
### Electrical Specifications @ +25 °C, Z<sub>in</sub> = Z<sub>out</sub> = 50 Ω, DC Supply = +12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	30		600
Gain S <sub>21</sub> @ P <sub>in</sub> = +10dBm	dB		30	
Output Power P <sub>out</sub> @ P <sub>in</sub> = +10dBm	dBm		+40	
Reverse Isolation S <sub>12</sub> f = 300MHz	dB	-40	-48	
Noise Figure f = 300MHz	dB		5.0	6.0
Efficiency at P <sub>out</sub> = +40dBm f = 300MHz	%		32	
Input VSWR S <sub>11</sub> f = 300MHz			1.1:1	1.5:1
DC Power Supply	V	+11	+12	+15
Supply Current Quiescent (no RF)	mA		340	400
@ P <sub>out</sub> = +40dBm	mA		2900	3700
Size (Excluding SMA Connector)	inch	7.000" x 3.250" x 2.000"		
Weight	Oz.	24 (680g)		

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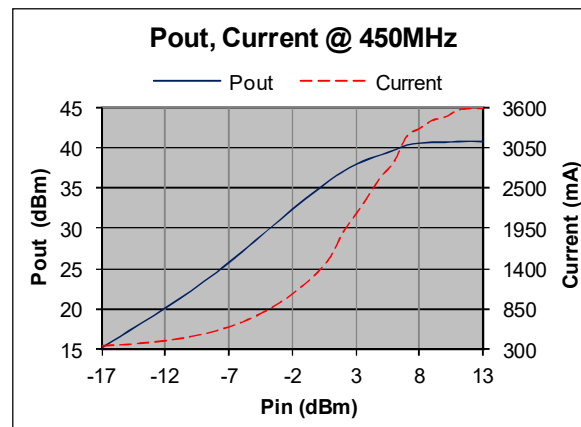
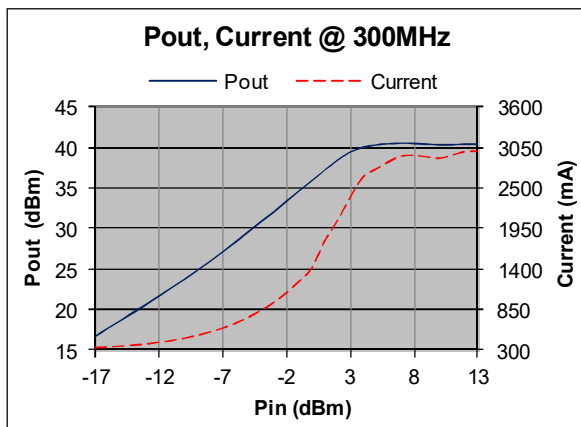
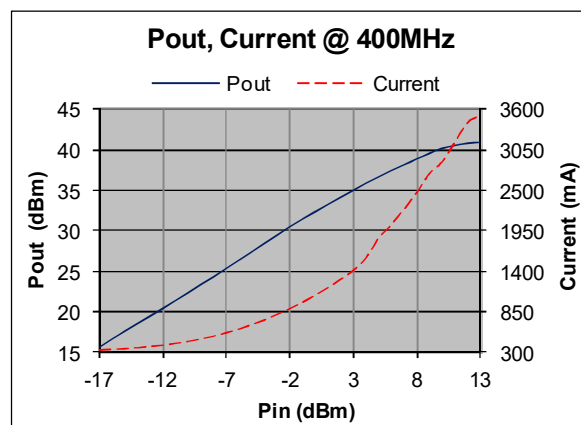
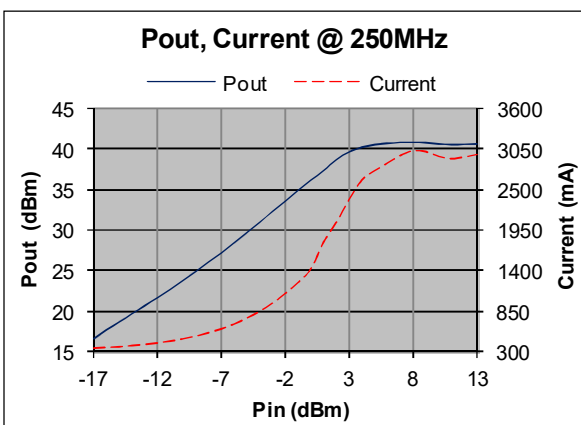
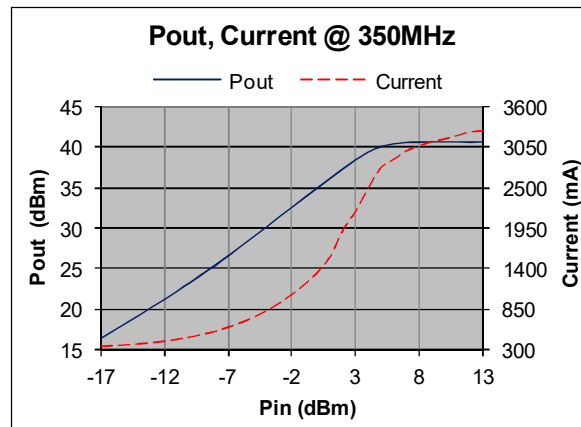
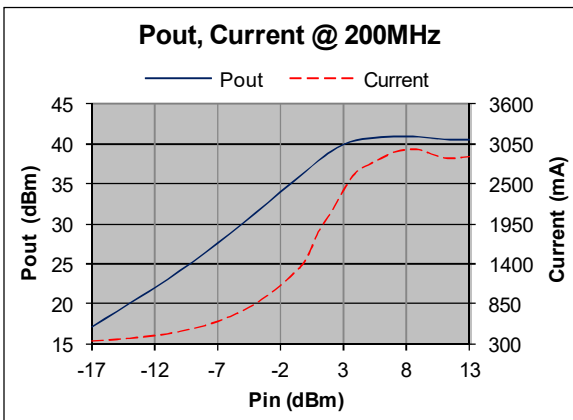
**Typical Performance @ +25 °C**



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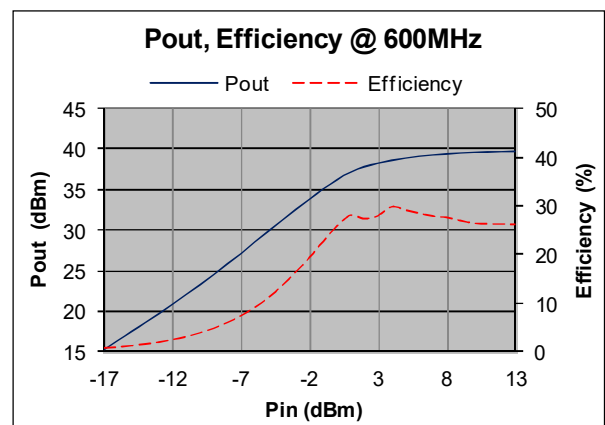
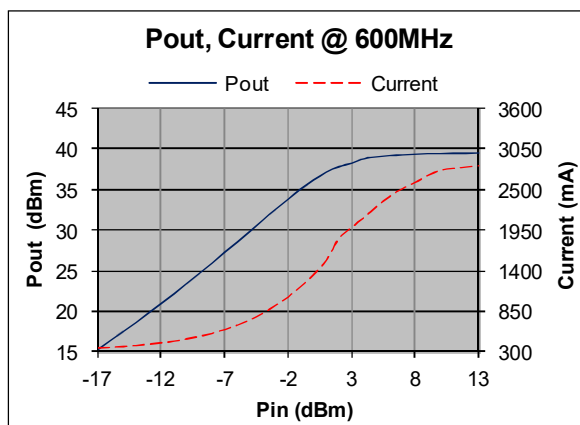
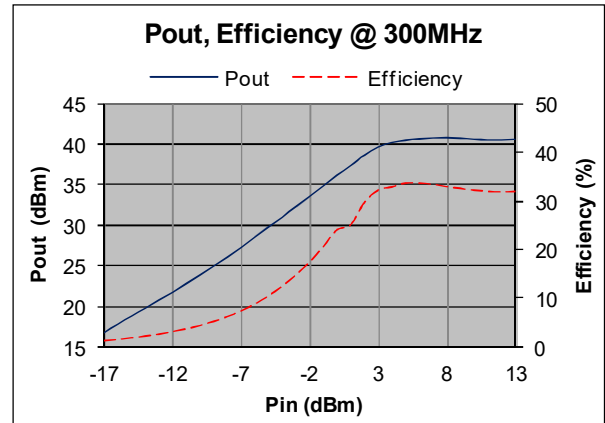
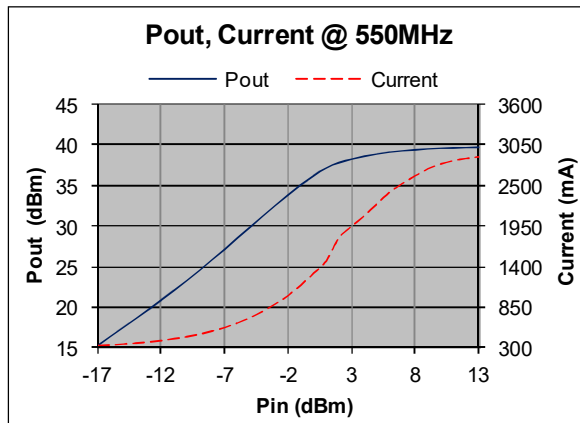
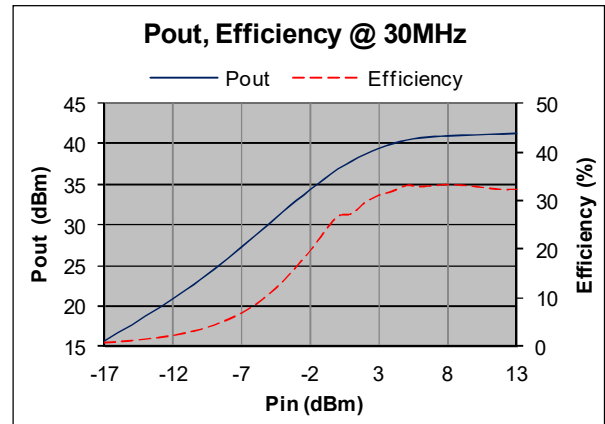
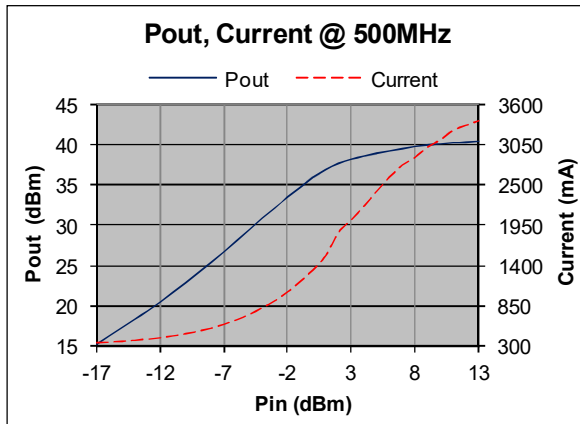
**Typical Performance @ +25 °C**



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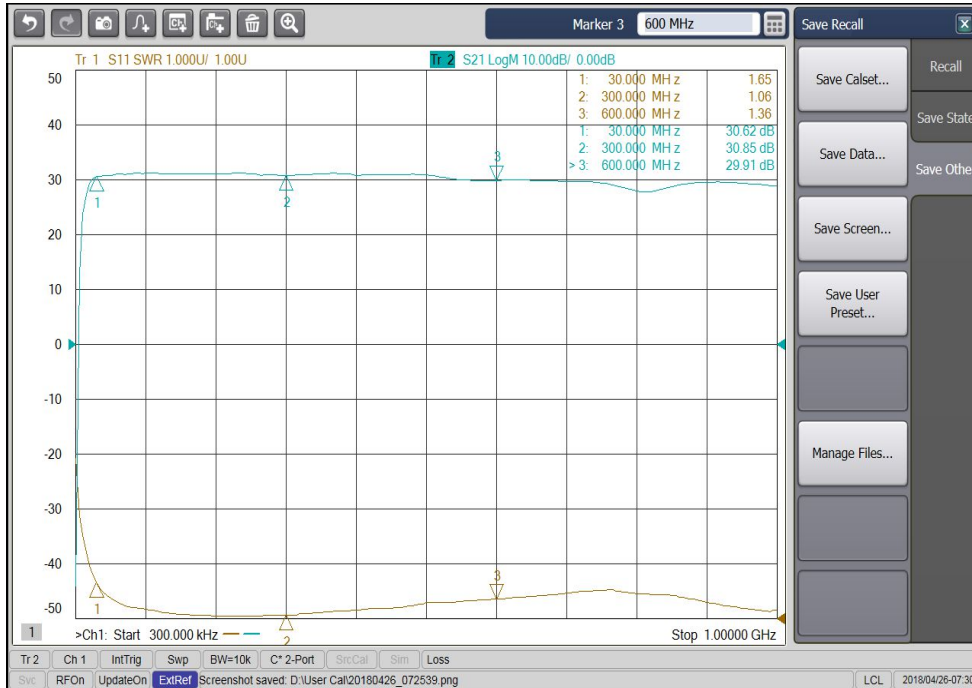
**Typical Performance @ +25 °C**



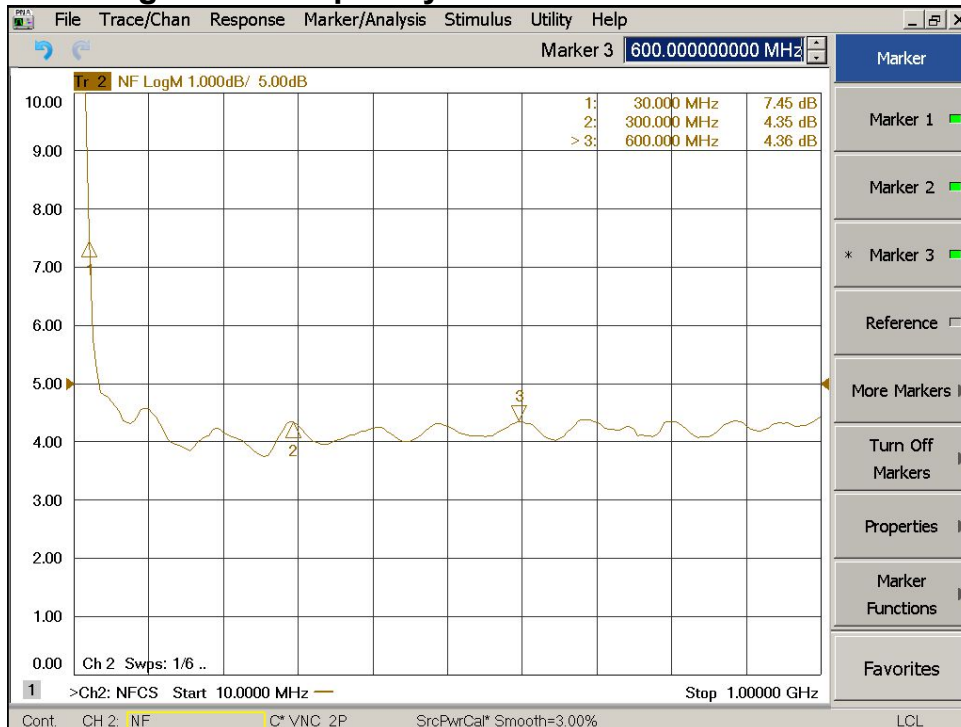
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**Gain S21, Input VSWR S11 vs Frequency**



**Noise Figure vs Frequency**



## HPA Series

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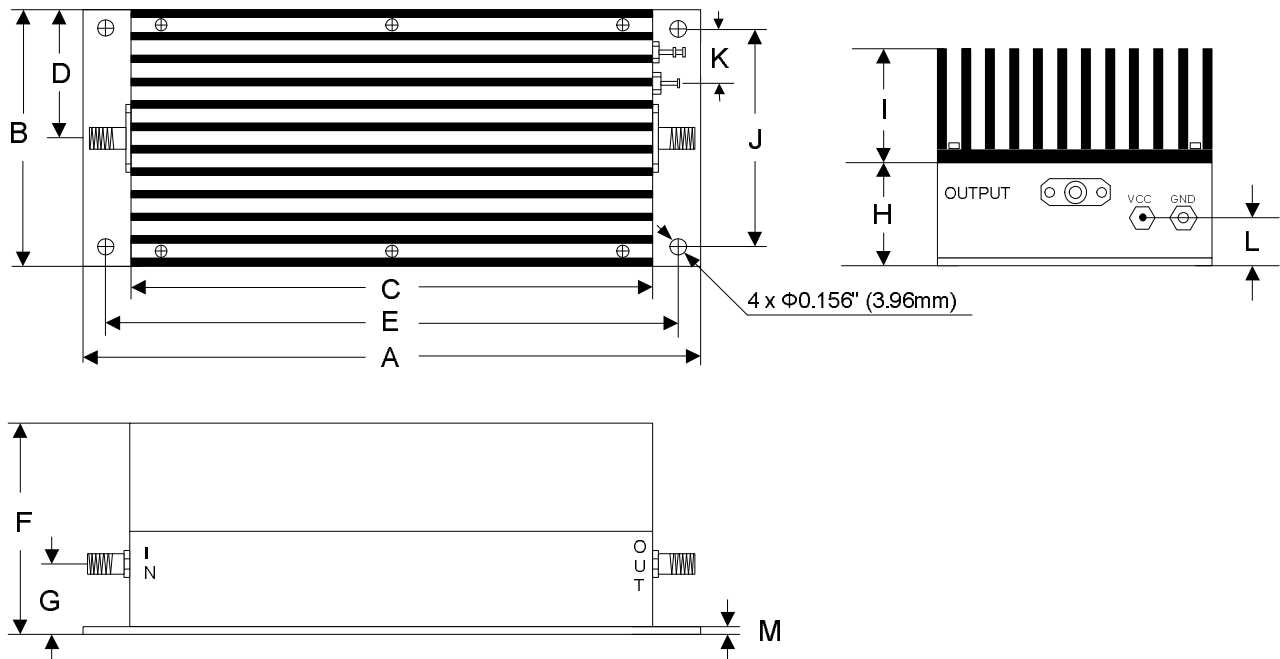
### Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+18V
RF Input Power	+15dBm
Operating Temperature	-30 °C to +65 °C
Storage Temperature	-55 °C to +125 °C

### ESD Sensitive Material



### Outline



	A	B	C	D	E	F	G	H	I
Inch	7.000	3.250	6.000	1.625	6.500	2.000	0.650	1.000	1.000
mm	177.80	82.55	152.40	41.28	165.10	50.80	16.51	25.40	25.40
	J	K	L	M					
Inch	2.750	0.625	0.450	0.090					
mm	69.85	15.88	11.43	2.29					