

**SPEC-A11HS** 

500-6000 MHz High Dynamic Range Balanced Amplifier

The Spectrolite product line leverages Silver Palm Technologies' field-proven proprietary designs into compact modules for military, commercial, and laboratory use. The high-dynamic range balanced amplifiers used in the Spectrolite products were conceived out of the need for RF performance not previously achievable with off-the-shelf components. The SPEC-A11HS offers excellent performance within the UHF to SHF bands. With its great second-and third-order intercept points, the SPEC-A11HS provides high dynamic range amplification without sacrificing noise figure or power consumption.





### Features

- High IP3
- Excellent Second-Order Performance
- Low Noise
- Low Power

### Applications

- Portable Wireless
- Base Station Infrastructure
- MMDS and Wireless LAN



**SPEC-A11HS Electrical Schematic** 

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## **Electrical Specifications**

All measurements are made at +25 °C unless otherwise noted.

#### Table 1: Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Frequency	Freq.	500	_	6000	MHz
Gain	$S_{21}$	_	12.0	_	dB
Noise Figure	NF	_	7.0	_	$\mathrm{dB}$
Output Third-Order Intercept	$OIP_3$	_	+41	_	dBm
Output Second-Order Intercept	$OIP_2$	_	+65	_	dBm
Output Power at 1dB Compression	P1dB	_	26.0	_	dBm
Input VSWR	VSWR1	_	1.3:1	_	_
Output VSWR	VSWR2	_	1.4:1	_	_
Dimensions	—	_	2.5" x 2.6" x .71"	_	in
Weight	—	_	.25	_	$1\mathrm{bs}$
Power	_	_	2.01	_	Watts
Current at $+5.5V$	_	_	.365	_	Amps
Supply Voltage	—	+5.5	_	+16	Volts

### Absolute Maximum Ratings Without Damage

Stresses above those listed under Absolute Maximum Ratings will cause permanent damage to the module.

 Table 2: Absolute Maximum Ratings

Parameter	Rating
Storage Temperature	-65 to $+150$ °C
Operational Temperature	$-40 \text{ to } +70 ^{\circ}\text{C}$
Supply Voltage	+20V
Maximum Continous RF Input Power	+26dBm

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### **Product Dimensions**



# **Ordering Options**

We offer RoHS compliant and RoHS Non-compliant options.

Spectrolite Product Number	RoHS	
SPEC-A11HS	RoHS Non-Compliant	
SPEC-A11HS#PBF	RoHS Compliant	

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