Spectrolite

SPEC-A11EM

20-3000 MHz   High Performance 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-A11EM offers excellent performance within the HF to UHF bands. With high second-and third-order intercept points, the SPEC-A11EM provides high dynamic range amplification without sacrificing noise figure or power consumption.
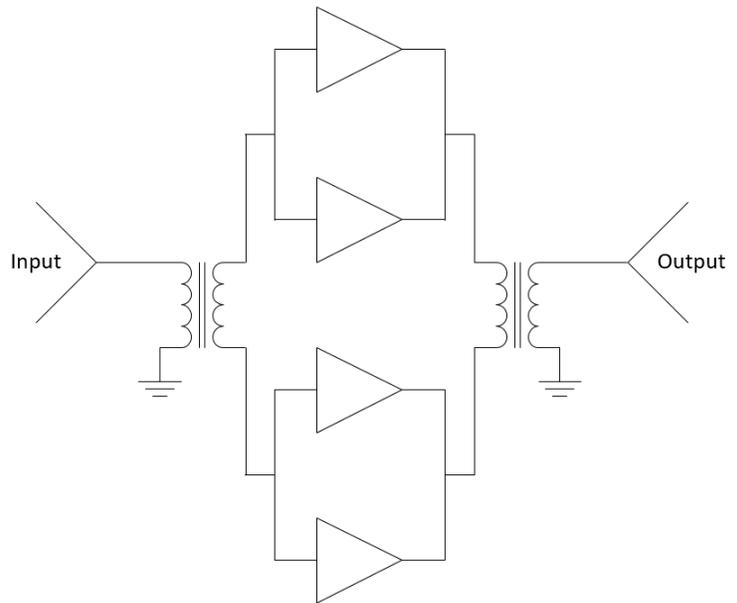

SPEC-A11EM

Features

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

Applications

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

SPEC-A11EM 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	$Freq.$	20	–	3000	MHz	
Gain	S_{21}	–	13.5	–	dB	
Noise Figure	NF	–	4.0	–	dB	
Output Third-Order Intercept	OIP_3	–	+43	–	dBm	
Output Second-Order Intercept	OIP_2	–	+65	–	dBm	
Output Power at 1dB Compression	$P1dB$	–	27.6	–	dBm	
Input VSWR	$VSWR1$	–	1.2 : 1	–	–	
Output VSWR	$VSWR2$	–	1.3 : 1	–	–	
Dimensions	–	–	2.5" x 2.6" x .71"	–	in	
Weight	–	–	.25	–	1bs	
Power	–	–	2.31	–	Watts	
Current at +5.5V	–	–	.42	–	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 to +70 °C
Supply Voltage	+20V
Maximum Continous RF Input Power	+29dBm

Product Dimensions
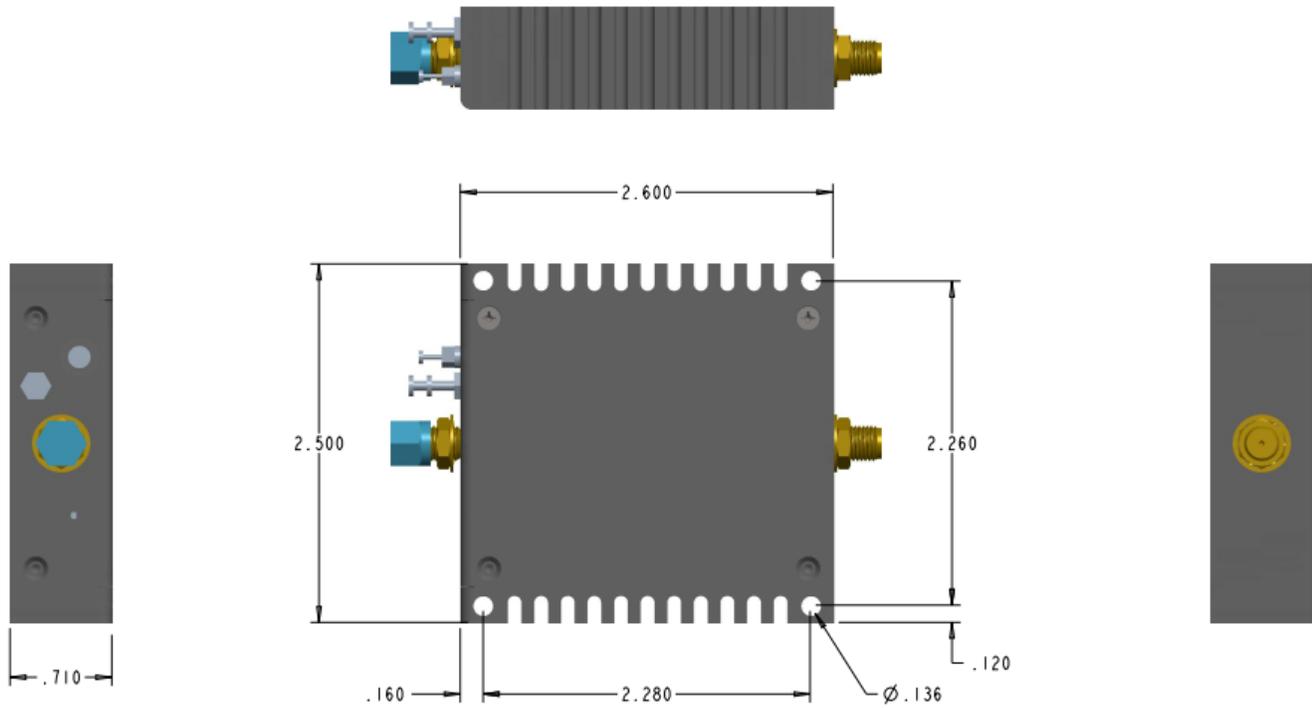
Ordering Options

We offer RoHS compliant and RoHS Non-compliant options.

Spectrolite Product Number	RoHS
SPEC-A11EM	RoHS Non-Compliant
SPEC-A11EM#PBF	RoHS Compliant

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