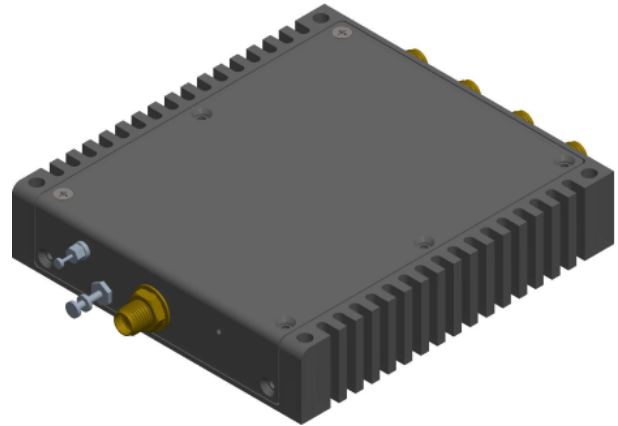




20-6000 MHz 4-Way Unity Gain Multicoupler

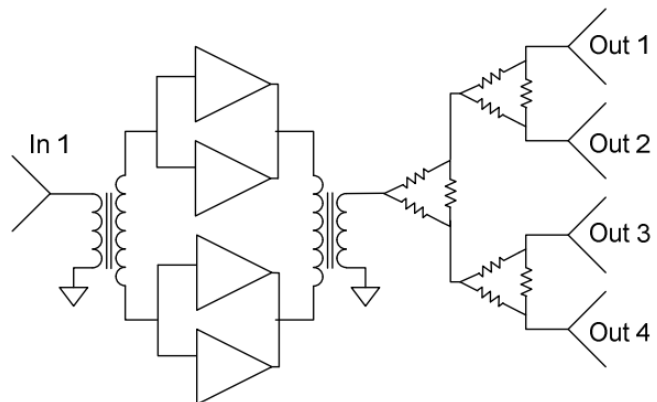
The Spectrolite product line leverages Silver Palm Technologies' field-proven proprietary designs into compact modules for military, commercial, and laboratory use. Spectrolite is an extensive product line of economical high-performance amplifiers and multicouplers conceived out of the need for RF performance not previously achievable with off-the-shelf products. The SPEC-M14ES uses a high-performance resistive-reactive splitter fed by balanced low-noise amplifiers. This architecture greatly improves intercept point performance while maintaining excellent noise figure and isolation across the entire product bandwidth.



SPEC-M14ES

Features

- High IP3
- Excellent Second-Order Performance
- Low Noise
- Low Power
- Flexible 5.5V to 16V DC Input



SPEC-M14ES Electrical Schematic

Applications

- Communication Systems
- Instrumentation
- Dividing Cellular Signals

Electrical Specifications

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

Table 1: Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Frequency	$Freq.$	20	–	6000	MHz
Gain	$S_{21}, S_{31}, S_{41}, S_{51}$	–	1.6	–	dB
Noise Figure	NF	–	5.0	–	dB
Output Third-Order Intercept	OIP_3	–	+22	–	dBm
Output Second-Order Intercept	OIP_2	–	+52	–	dBm
Input VSWR	S_{11}	–	1.35 : 1	–	–
Output VSWR	$S_{22}, S_{33}, S_{44}, S_{55}$	–	1.15 : 1	–	–
Dimensions	–	–	3.3" x 3.5" x .6"	–	in
Weight	–	–	.38	–	lbs
Power	–	–	2.75	–	Watts
Current at 5.5V	–	–	0.50	–	Amps
Supply Voltage	–	+5.5	–	+16	Volts

Absolute Maximum Ratings Without Damage

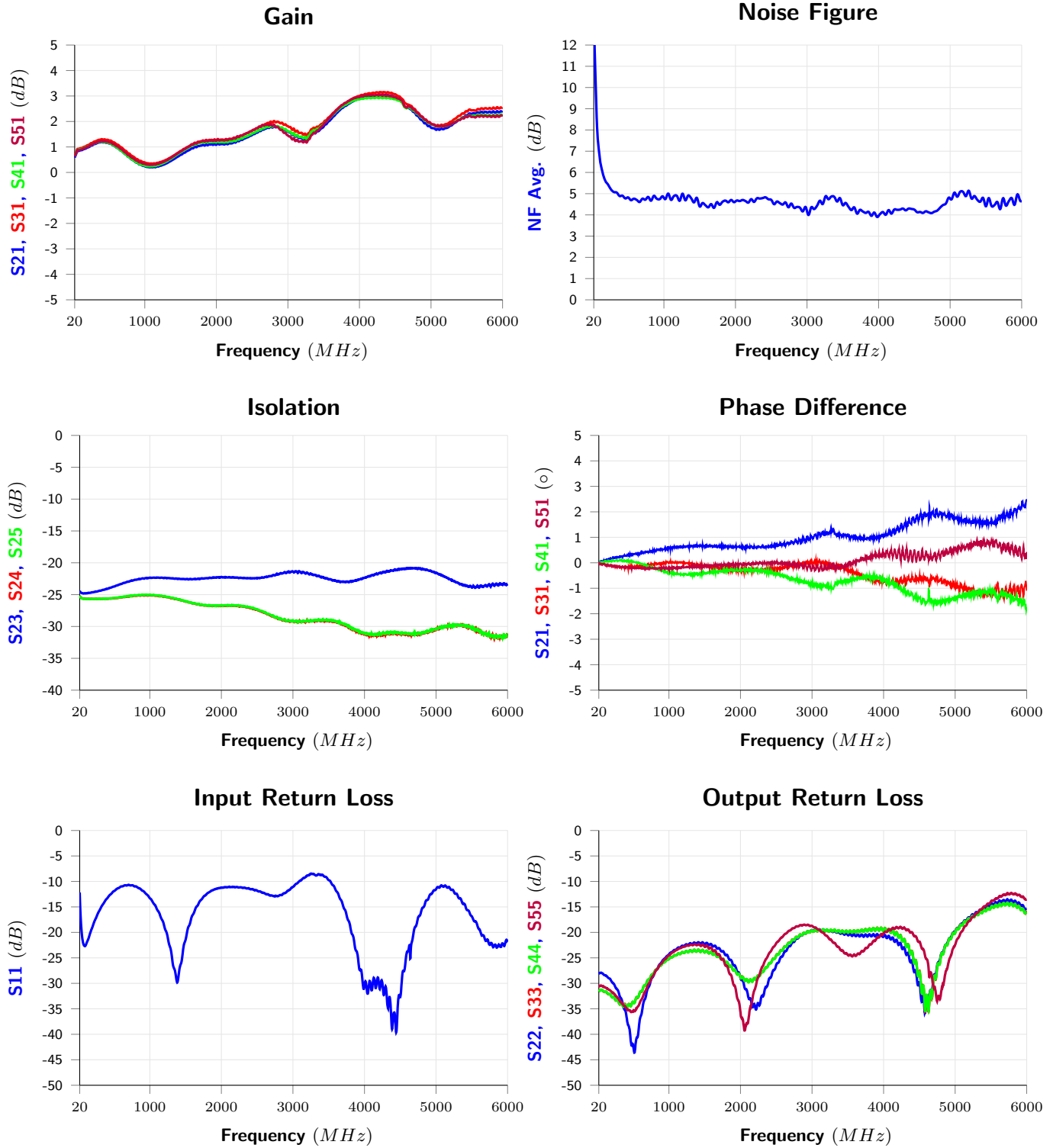
Stresses above those listed under Absolute Maximum Ratings will cause permanent damage to the module.

Table 2: Absolute Maximum Ratings

Parameter	Rating
Storage Temperature	-65 to +150 °C
Operational Temperature	-40 to +70 °C
Supply Voltage	+20V
Maximum Continuous RF Input Power	+26dBm

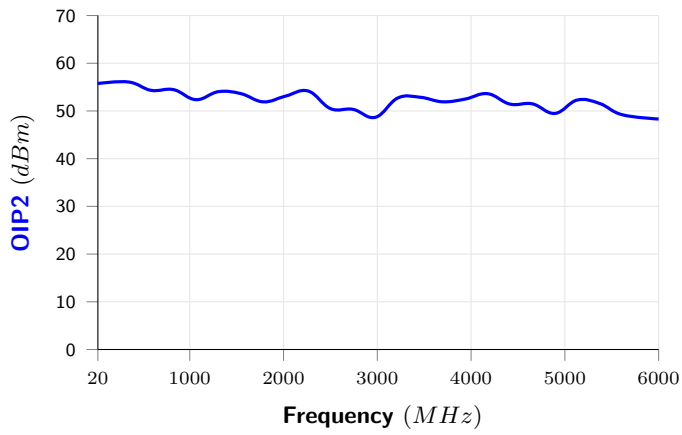
Typical Performance Data

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

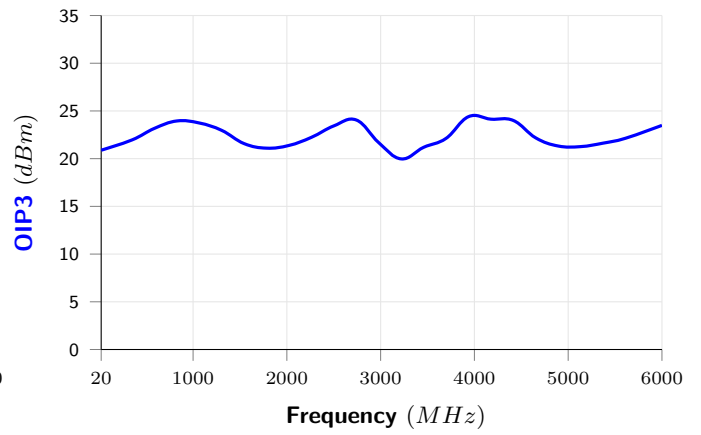


Typical Performance Data (Continued)

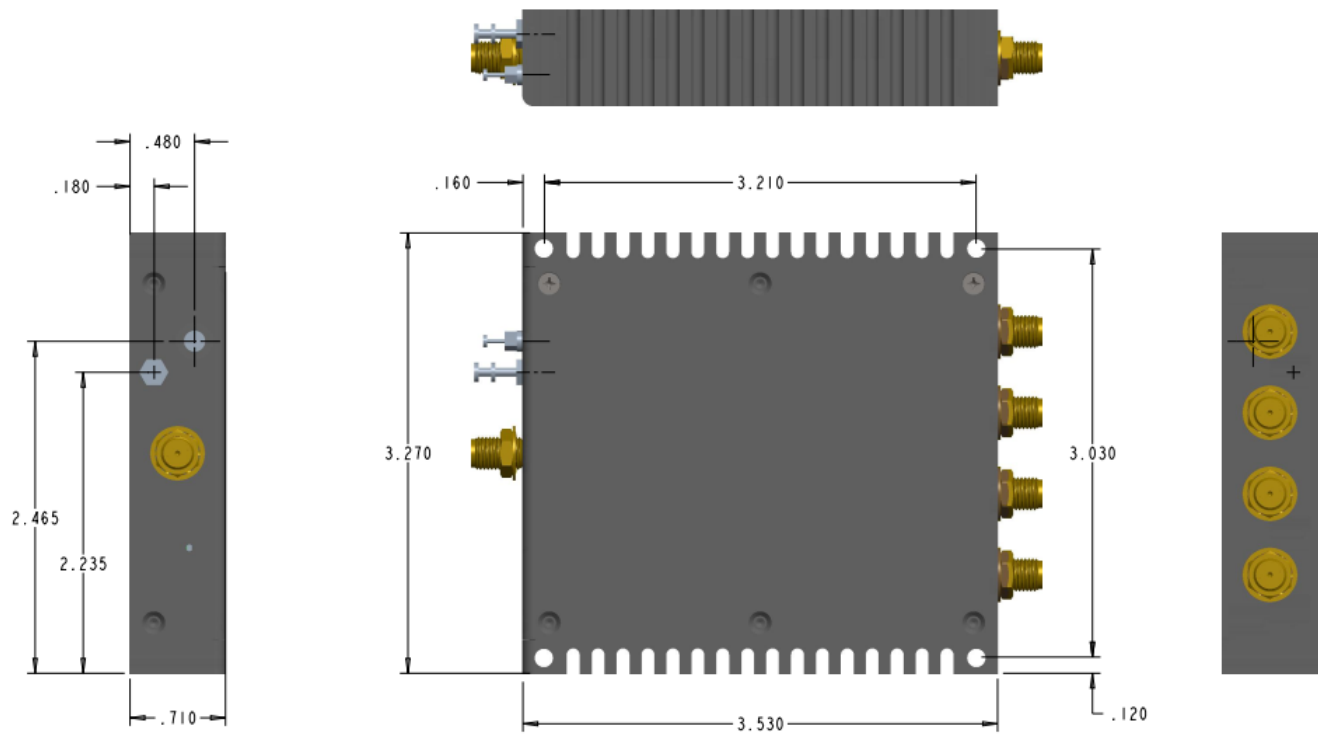
Second-Order Intercept



Third-Order Intercept



Product Dimensions



Ordering Options

We offer RoHS compliant and RoHS non-compliant options.

Spectrolite Product Number	RoHS
SPEC-M14ES	RoHS Non-Compliant
SPEC-M14ES#PBF	RoHS Compliant