

Surface Mount Voltage Variable Attenuator

EVA-1500+

50Ω 100 to 1500 MHz

Maximum Ratings

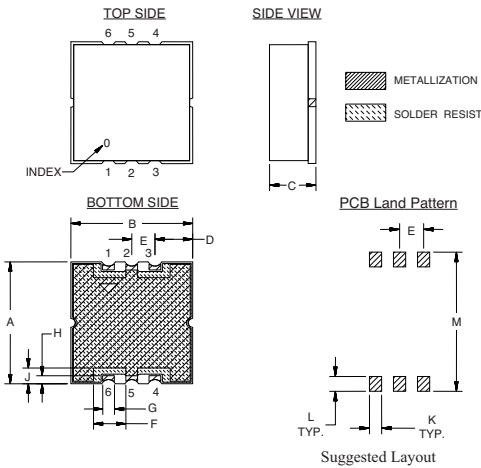
Operating Temperature	-45°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage(V+)	6V
Absolute Max. Control Voltage(Vctrl)	10V
Absolute Max. RF Input Level	+20dBm

Permanent damage may occur if any of these limits are exceeded.

Pin Connections

RF IN	1
RF OUT	6
V CONTROL	3
V+	4
GROUND	2,5

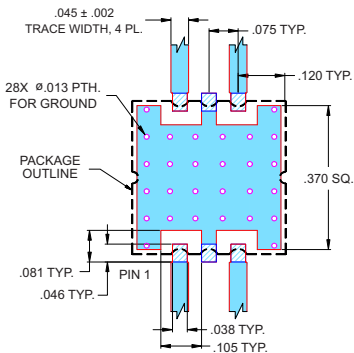
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	wt. grams
.394	.394	.150	.122	.075	.098	.038	.026	.051	.038	.046	.434	0.7
10.01	10.01	3.81	3.10	1.90	2.49	0.97	0.66	1.29	0.97	1.17	11.02	

Demo Board MCL P/N: TB-474+ Suggested PCB Layout (PL-285)



- NOTES:
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025" ± .002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- Frequency range, 100-1500 MHz
- Low current consumption
- Low insertion loss
- IP2 +85 dBm typ.
- IP3 +49 dBm typ.
- Minimal phase deviation over attenuation range
- No external bias and RF matching network required
- Shielded case
- Aqueous washable

Applications

- Power level control
- Feed forward amplifier
- Test equipment
- VHF



CASE STYLE: HE1354
PRICE: \$9.95 ea. QTY (10-49)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

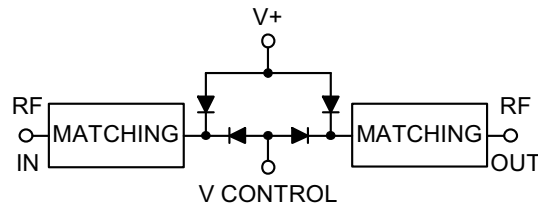
The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications (T_{AMB} = 25°C)

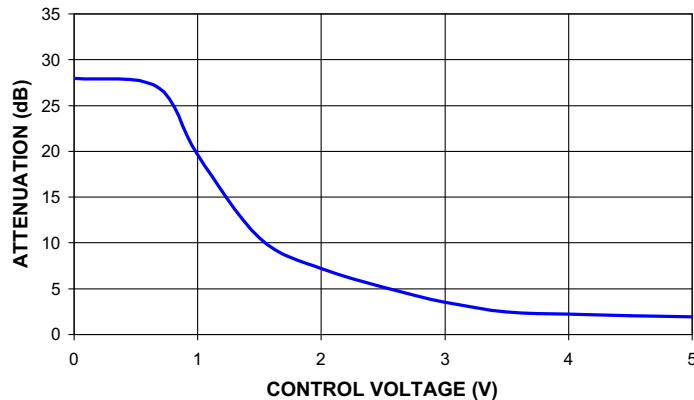
FREQ. (MHz)	MIN. INSERTION LOSS, dB (+5V)		MAX. ATTEN. dB (0V)		INPUT POWER (dBm)		CONTROL Voltage Current (V) (mA)		IP3* (dBm)	IP2* (dBm)	RETURN LOSS (dB)	POWER SUPPLY Voltage Current (V) (mA)	
	Min.	Max.	Typ.	Max.	Typ.	Min.	Max.	Max.	Typ.	Typ.	Typ.	V	Max.
100 - 500	1.5	2.5	35	25	+20	0 - 5	7	47	80	17	+3	0.5	
500 - 1000	1.7	3.0	30	20	+20	0 - 5	7	50	85	20	+3	0.5	
1000 - 1500	2.0	3.5	25	17	+20	0 - 5	7	50	85	20	+3	0.5	

- Notes:
- Rise/Fall time: 13 μSec / 15 μSec Typ.
 - Switching Time, turn on/off: 15 μSec / 25 μSec Typ.
 - * Typical IP2 & IP3 at Vc=5V

Equivalent Schematic



EVA-1500+ TYPICAL ATTENUATION AT 1000 MHz



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED
The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com
IF/RF MICROWAVE COMPONENTS

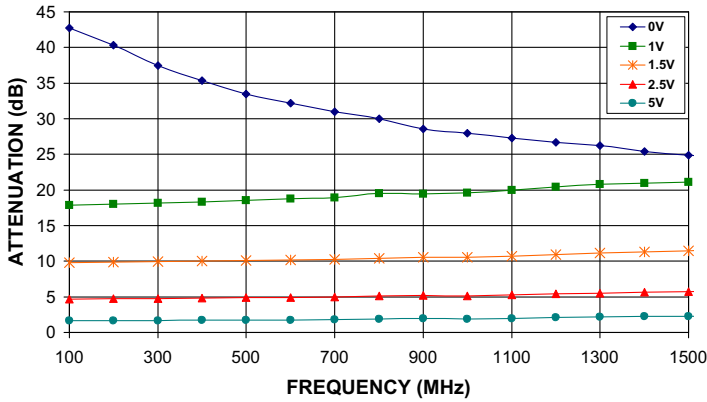
For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

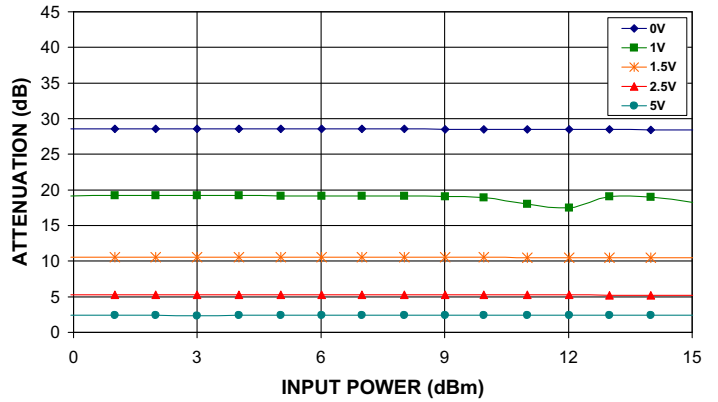
Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

REV. OR
M124434
EVA-1500+
EDR-9027AU
URJ/RAV
090910
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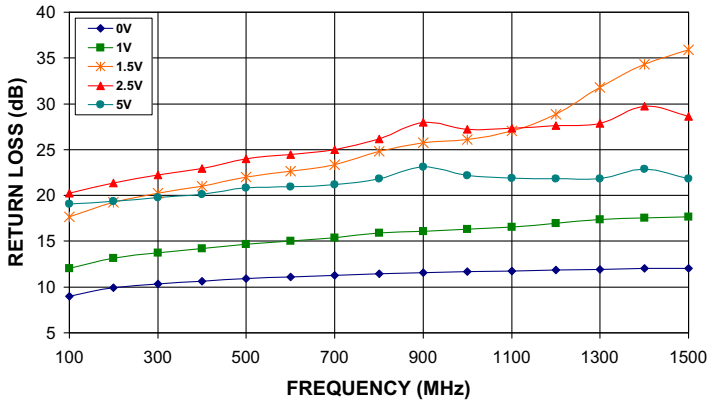
EVA-1500+
ATTENUATION Vs. FREQUENCY
OVER CONTROL VOLTAGES



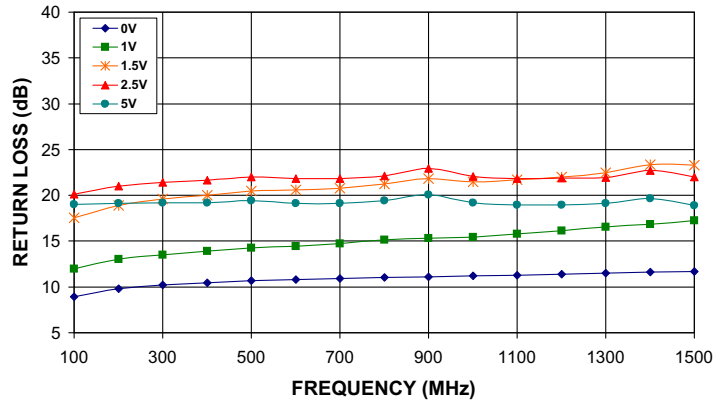
EVA-1500+
ATTENUATION Vs. INPUT POWER
OVER CONTROL VOLTAGES AT 1000 MHz



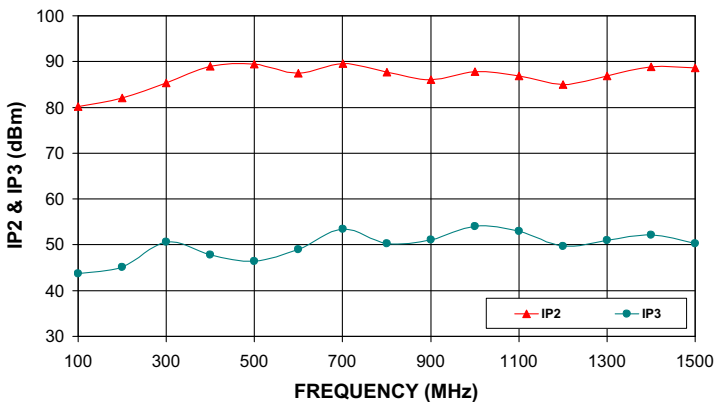
EVA-1500+
INPUT RETURN LOSS Vs. FREQUENCY
OVER CONTROL VOLTAGES



EVA-1500+
OUTPUT RETURN LOSS Vs. FREQUENCY
OVER CONTROL VOLTAGES



EVA-1500+
IP2 & IP3 Vs. FREQUENCY
@ Vc=5V



EVA-1500+
PHASE SHIFT Vs. FREQUENCY
OVER CONTROL VOLTAGES

