Surface Mount

Voltage Variable Attenuator

SVA-2000+

50Ω 50 to 2000 MHz

Maximum Ratings

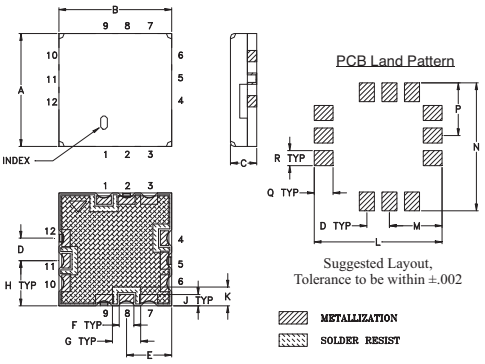
Operating Temperature	-45°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage(V+)	7V
Absolute Max. Control Voltage(Vctrl)	15V
Absolute Max. RF Input Level	+17dBm

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

Pin Connections

RF IN	8
RF OUT	1
V CONTROL	4
V+	11
GROUND	2,3,5,6,7,9,10,12

Outline Drawing

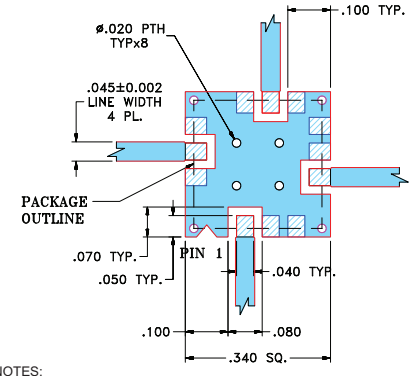


Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H	J
.300	.300	.100	.060	.120	.039	.075	.120	.030
7.62	7.62	2.54	1.52	3.05	0.99	1.91	3.05	0.76

K	L	M	N	P	Q	R	wt.
.050	.340	.140	.340	.140	.050	.040	grams
1.27	8.64	3.56	8.64	3.56	1.27	1.02	.25

Demo Board MCL P/N: TB-457+
Suggested PCB Layout (PL-277)



NOTES:

1. TRACE WIDTH IS SHOWN FOR RF4 WITH DIELECTRIC THICKNESS .025" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. 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, 50-2000 MHz
- Low insertion loss, 1.6dB typ.
- Maximum attenuation at minimum current
- No external bias and RF matching network required
- Small size, 0.3" x 0.3" x 0.1"
- Shielded case
- Aqueous washable

CASE STYLE: FZ990
PRICE: $13.95 ea. QTY (10-49)

Applications

- CATV
- Power level control
- Feed forward amplifiers

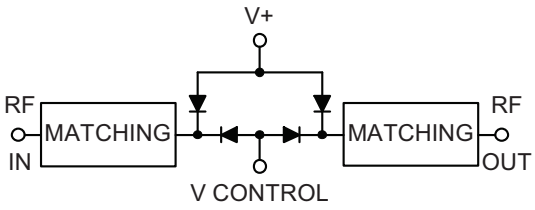
+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

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

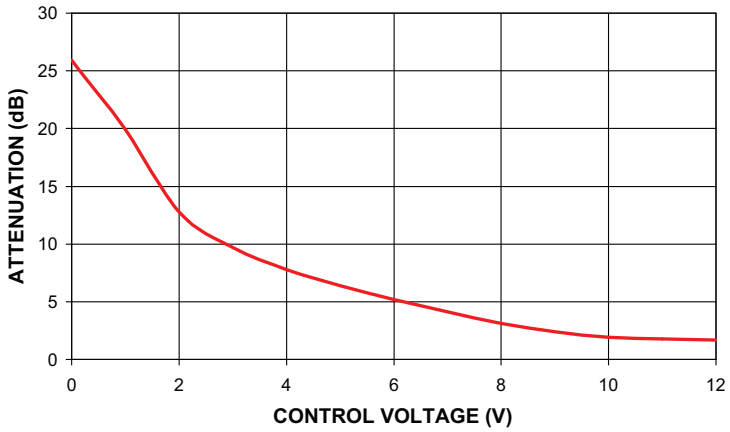
FREQ. (MHz)		MIN. INSERTION LOSS, dB (+12V)		MAX. ATTENUATION dB (0V)		INPUT POWER (dBm)	CONTROL Voltage (V)	CONTROL Current (mA)	IP3 (dBm)	RETURN LOSS (dB)	POWER SUPPLY Voltage (V)	POWER SUPPLY Current (mA)
Min.	Max.	Typ.	Max.	Typ.	Min.	Max.		Max.	Typ.	Typ.		Max.
50 -	500	1.5	2.0	35	26	+17	0 - 12	5	38	23	+5	2
500 -	1000	1.6	2.2	29	21	+17	0 - 12	5	44	21	+5	2
1000 -	2000	1.9	2.6	23	15	+17	0 - 12	5	47	20	+5	2

Notes:
Rise/Fall time: 15μSec/19μSec Typ.
Switching Time, turn on/off: 20μSec. Typ.

Equivalent Schematic

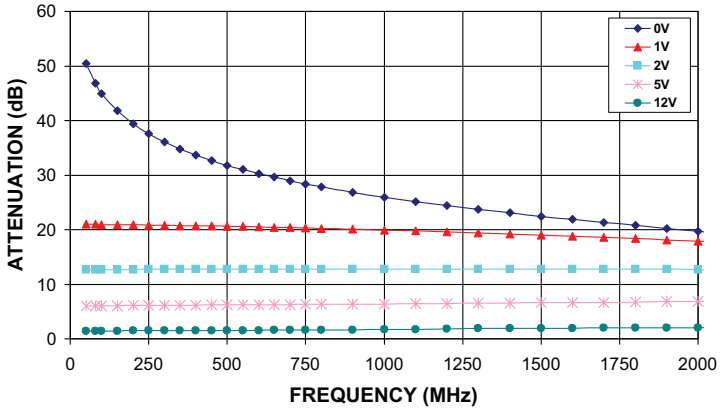


SVA-2000+
TYPICAL ATTENUATION AT 1000 MHz

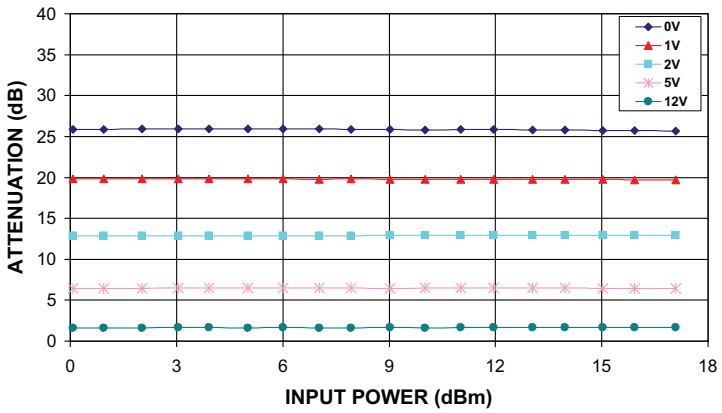


REV. OR
M110472
EDR-6631/3F1
SVA-2000+
RAV
121024

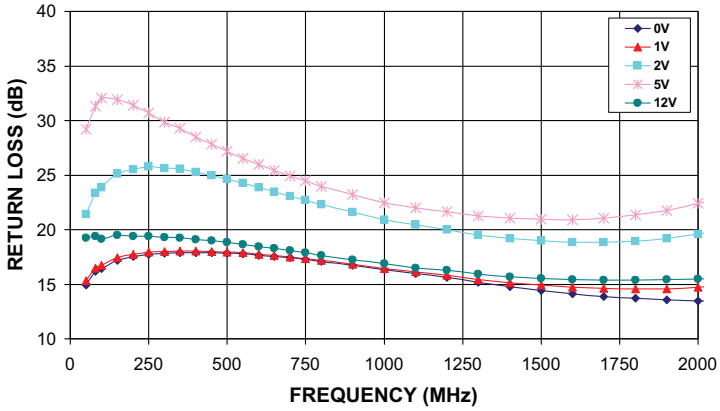
SVA-2000+
ATTENUATION Vs. FREQUENCY
OVER CONTROL VOLTAGES



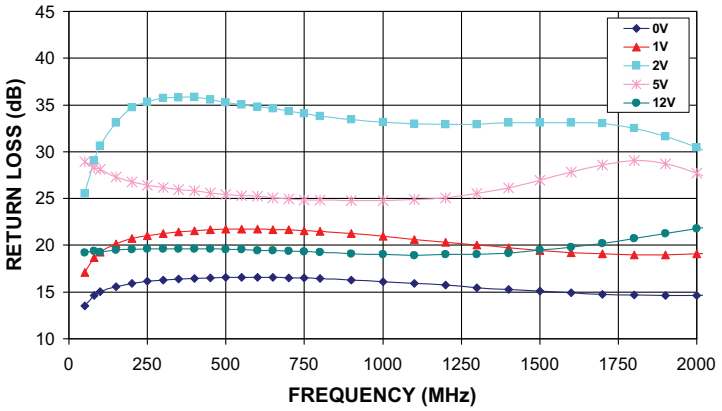
SVA-2000+
ATTENUATION Vs. INPUT POWER
OVER CONTROL VOLTAGES AT 1000MHz



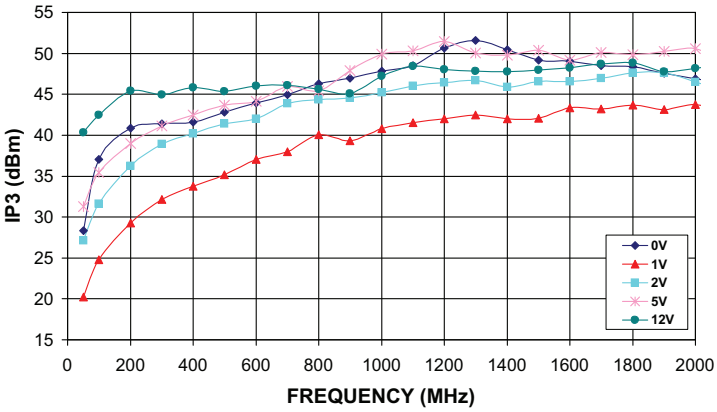
SVA-2000+
INPUT RETURN LOSS Vs. FREQUENCY
OVER CONTROL VOLTAGES



SVA-2000+
OUTPUT RETURN LOSS Vs. FREQUENCY
OVER CONTROL VOLTAGES



SVA-2000+
IP3 Vs. FREQUENCY
OVER CONTROL VOLTAGES



SVA-2000+
PHASE SHIFT Vs. FREQUENCY
OVER CONTROL VOLTAGES