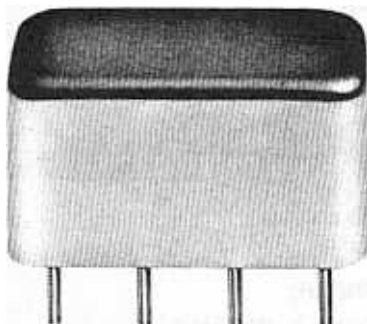




CM-2  
Low Cost  
Miniature  
Double  
Balanced  
Mixer  
10-1000 MHz

MIXERS



## DESCRIPTION

CM-2 is a low cost double balanced mixer offering excellent performance to 1000 MHz in a miniature package. Its performance/cost ratio offers advanced mixer technology with wide bandwidth, low conversion loss and outstanding isolation performance. It has multiple applications over the same wide bandwidth, such as a phase detector, electronic attenuator and modulator.

The circuitry consists of four precisely matched Schottky diodes and two rugged transmission line transformers. Each CM-2 is individually tested to Vari-L's demanding quality and performance specifications.

## LIMITED WARRANTY

Vari-L Company, Inc. warrants its products against defects in parts and workmanship for a period of one year.

## GUARANTEED MINIMUM PERFORMANCE DATA

### TEST CONDITION:

LO + 7 dBm (High side LO)  
RF — 10 dBm  
IF 100 MHz

### NOTE:

Specifications below, guaranteed with IF from DC to 200 MHz. For higher IF frequencies, consult IF response curve for typical rolloff.

### OVERALL FREQUENCY RANGE IN MHz:

L	R	X
10-1000	10-1000	DC-1000

### FREQUENCY BANDS IN MHz:

	10-100	100-700	700-1000
Conversion Loss	8.0	7.5	8.0
L-R Isolation	30	25	20
L-X Isolation	25	15	15
R-X Isolation	20	15	10

### ABSOLUTE MAXIMUM RATINGS:

Operating Temp. — 54 to + 100°C  
X-port Input Current 50 mA  
Total Input Power 200 mW @ + 25°C  
Derate linearly to 50 mW @ 100°C

### DC POLARITY:

Negative with L and R port signals in-phase.

# XERS

# VARIL

The graph shows the X-port Response  $\Delta$ dB on the y-axis (ranging from -2 to 0) versus Frequency in MHz on the x-axis (logarithmic scale from 1 to 1000). The response is constant at 0 dB for frequencies up to approximately 200 MHz, after which it decreases to about -1.5 dB at 1000 MHz.

