

HIGH-PERFORMANCE LOGARITHMIC AMPLIFIERS

MODEL: MLS SERIES

FEATURES

- 70 dB dynamic range at 1 GHz
- Improved sensitivity
- Rise time up to 1 ns
- Fast recovery time
- ± 1.5 dB video flatness over 500 MHz bandwidth
- Low output noise for increased accuracy
- Improved sensitivity through low noise figure input stages

OPTIONS

- Customized center frequencies and frequency agility
- Dynamic range and operational bandwidth
- Custom packaging
- Extended environmental limits
- Military screening available



MODEL NUMBER	OPERATIONAL FREQUENCY RANGE (MHz)	INPUT DYNAMIC RANGE (dBm)	TANGENTIAL SENSITIVITY (dBm)	VIDEO FLATNESS (\pm dB)	RISE TIME (ns)	FALL TIME (ns)	RECOVERY TIME (ns)
MLS-375/250-70	250 – 500	-70 to 0	-75	1	15	30	40
MLS-550/500-70	300 – 800	-70 to 0	-73	1.5	10	25	35
MLS-1000/500-70	750 – 1250	-67 to +3	-70	1.5	10	25	35
MLS-2000/1000-70	1500 – 2500	-67 to +3	-70	1.5	15	30	40
MLS-3000/2000-70	2000 – 4000	-65 to +5	-68	2	10	25	35
MLS-5000/2000-70	4000 – 6000	-65 to +5	-68	2	10	25	35

ADDITIONAL SPECIFICATIONS

Log linearity at midband is $\leq \pm 1$ dB at 25°C.

Add ± 0.5 dB over operating bandwidth and ± 0.5 dB over operating temperature of -40 to +85°C.

Video flatness is given at 25°C.

An additional ± 1 dB will occur over operating temperature of -40 to +85°C.

Log slope is 25 mV/dB nominal at midband at 25°C.

Slope variations of $\pm 5\%$ can be expected over operating bandwidth.

An additional $\pm 5\%$ variation will occur over operating temperature range of -40 to +85°C.

RF input/output impedance is 50 Ω (VSWR < 2.0:1 typical).

Video output is DC coupled and rated into 93 Ω .

Optional limited RF output provides excellent phase characteristics while second-harmonic rejection is typically better than -14 dBc. Limited output level is available from 0 to +10 dBm.

Power: +8 VDC at 475 mA typical, -8 VDC at 45 mA typical.

ORDER OPTIONS

For limited RF output, add suffix "L".

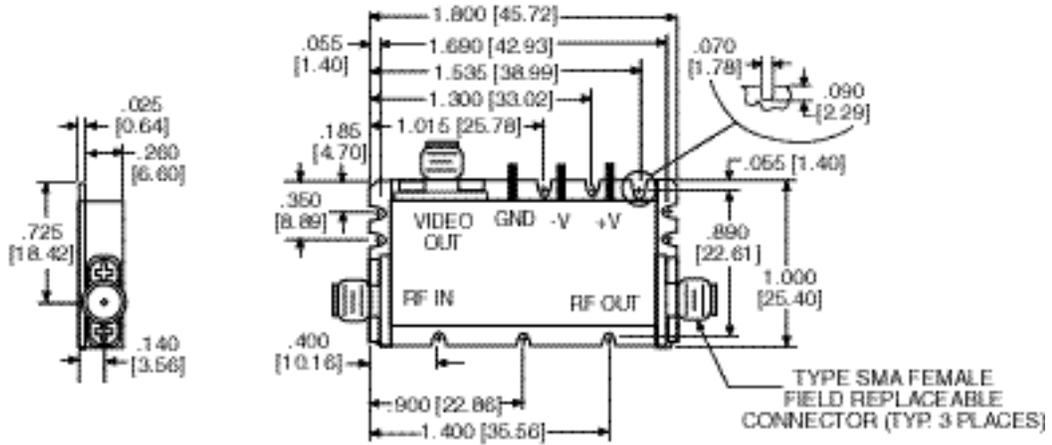
Typical part number: MLS-375/250-70L.

NOTE: FOR MODIFICATION OF OUR STANDARD MODELS, PLEASE CONSULT FACTORY.

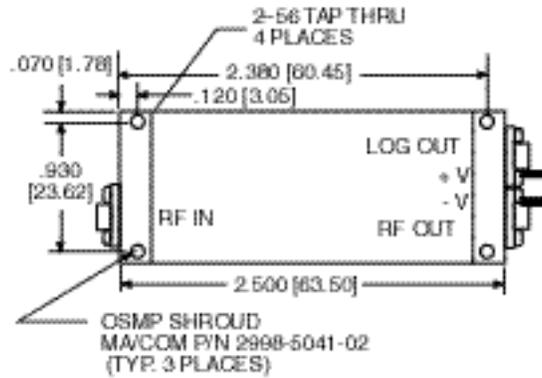


MLS SERIES OUTLINE DRAWINGS

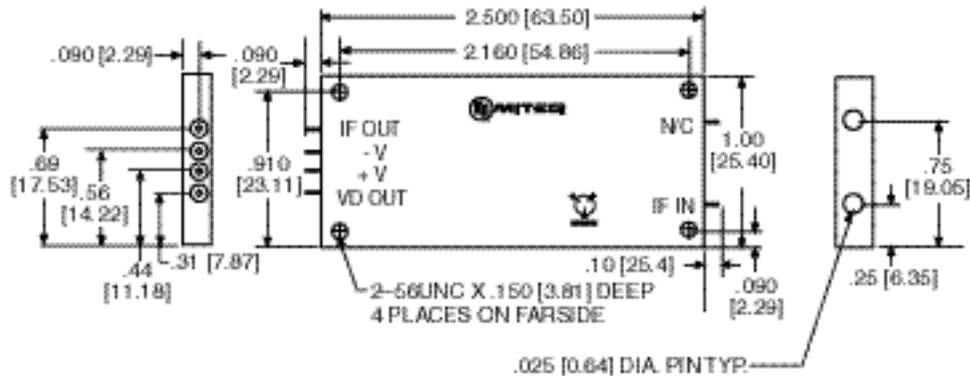
OUTLINE A



OUTLINE G



OUTLINE P



NOTE: WEIGHT..... Approximately 30.75 grams
 DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

