

ULTRAFAST WIDEBAND HIGH-FREQUENCY LOGARITHMIC AMPLIFIERS

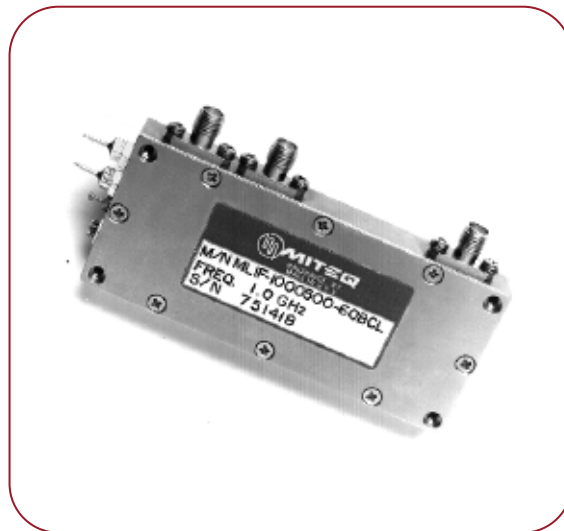
MODEL: MLIF SERIES

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 | CENTER FREQUENCY (MHz) | OPERATIONAL BANDWIDTH (MHz) | DYNAMIC RANGE (dBm) | TANGENTIAL SENSITIVITY (dBm) | VIDEO FLATNESS (\pm dB) | RISE TIME (ns) | FALL TIME (ns) | RECOVERY TIME (ns) |
|------------------|------------------------|-----------------------------|---------------------|------------------------------|----------------------------|----------------|----------------|--------------------|
| MLIF-500/100-70 | 500 | 100 | -70 to 0 | -73 | 1 | 5 | 15 | 25 |
| MLIF-750/500-65 | 750 | 500 | -65 to 0 | -68 | 1.5 | 3 | 10 | 15 |
| MLIF-900/100-75 | 900 | 100 | -70 to +5 | -73 | 1 | 10 | 30 | 45 |
| MLIF-1000/500-60 | 1000 | 500 | -60 to 0 | -63 | 1 | 3 | 10 | 15 |
| MLIF-1000/500-75 | 1000 | 500 | -70 to +5 | -73 | 2 | 10 | 30 | 45 |
| MLIF-1500/500-60 | 1500 | 500 | -60 to 0 | -63 | 1.5 | 3 | 10 | 15 |
| MLIF-1800/200-70 | 1800 | 200 | -65 to +5 | -68 | 1 | 10 | 30 | 45 |

ADDITIONAL SPECIFICATIONS

The above models are available in 'A, B, G, K and M' housings.

Linearity measured at center frequency and 25°C is ± 1 dB.

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

Slope is 15 mV/dB at center frequency and 25°C.

Slope variations of $\pm 5\%$ will occur over operating temperature of -40 to +85°C.

An additional $\pm 5\%$ variation will occur over operating bandwidth.

Video output is DC coupled and rated into 93 Ω .

DC offset drift over operating temperature of -40 to +85°C is ± 50 mV typical.

Input impedance is 50 Ω (VSWR < 1.5:1 typical).

Improved second-harmonic rejection on limited IF out.

Power: +12 VDC at 400 mA typical, -12 VDC at 75 mA typical.

ORDER OPTIONS

For ± 15 VDC, add suffix "C".

For limited IF output at 0 dBm nominal, (VSWR < 2.0:1 typical) add suffix "L".

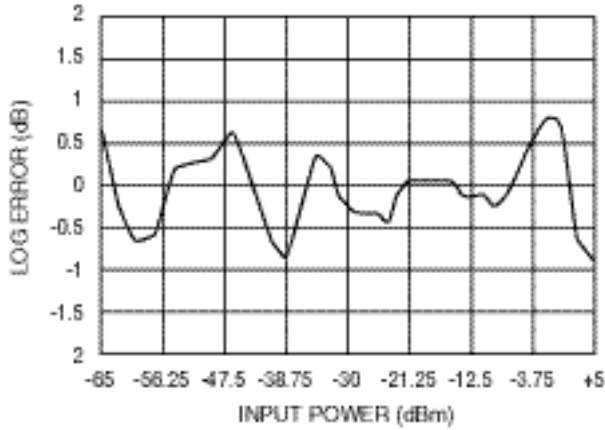
Typical part number: MLIF-1000/500-75BCL (for 'B' housing at ± 15 VDC with limited IF output).

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

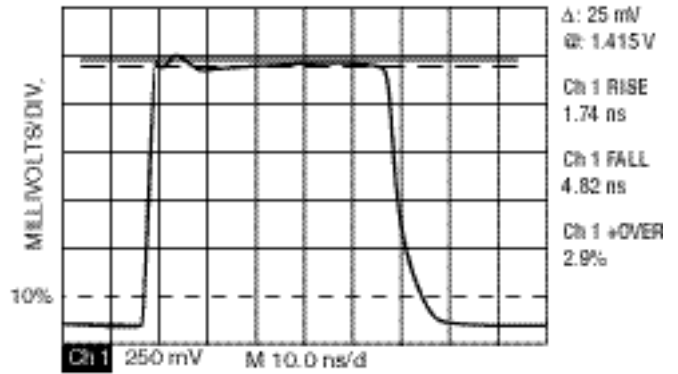


MLIF SERIES TYPICAL TEST DATA

LOG LINEARITY
(MLIF-1000/500-70)

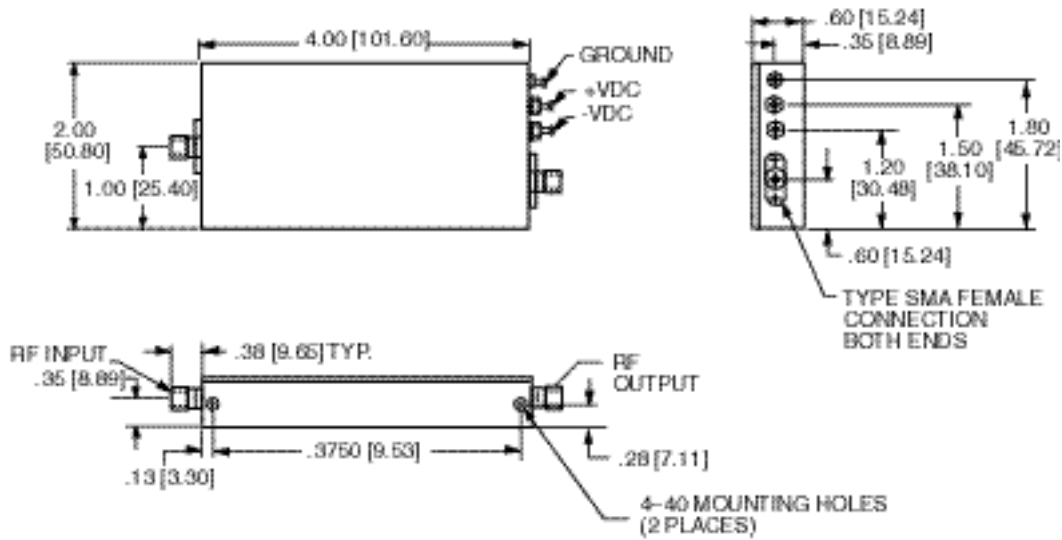


PULSE RESPONSE
(MLIF-1000/300-60)



MLIF SERIES OUTLINE DRAWINGS

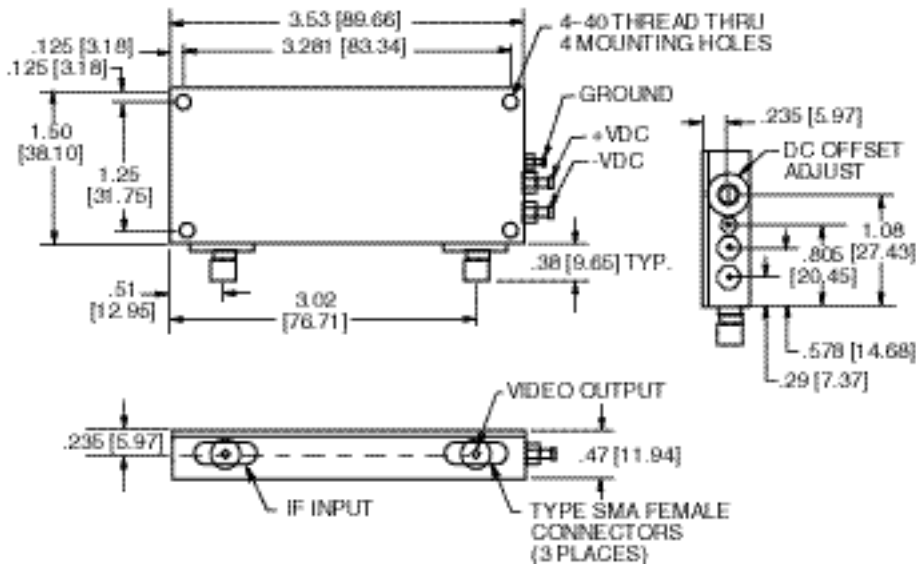
OUTLINE A



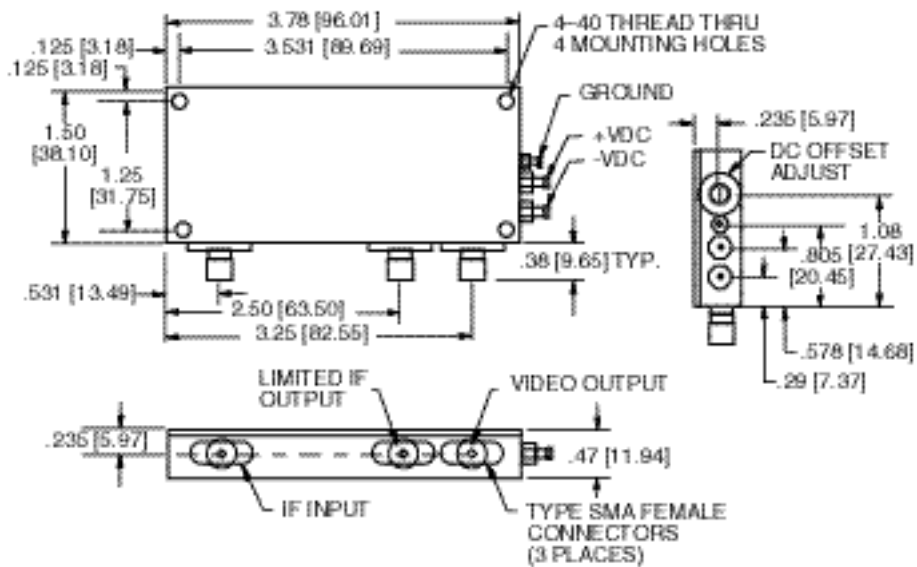
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

MLIF SERIES OUTLINE DRAWINGS

OUTLINE B



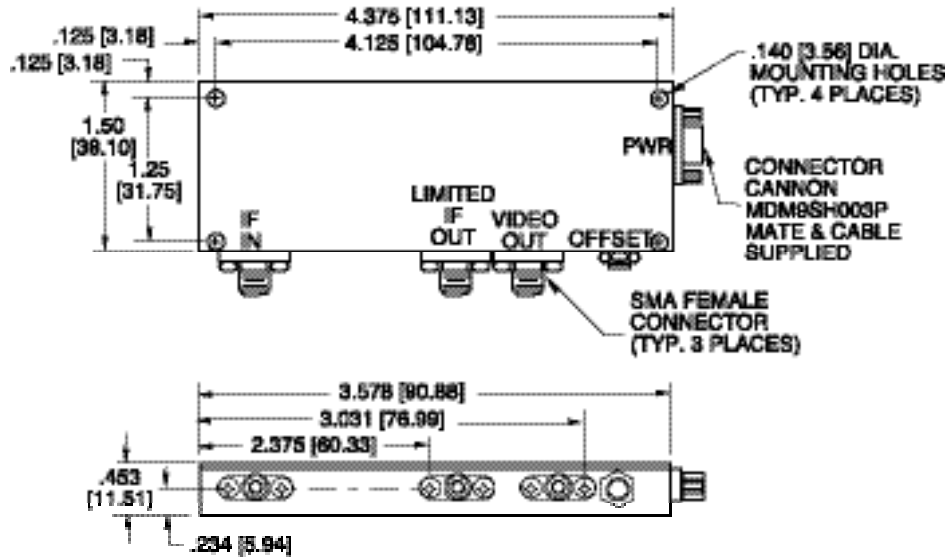
OUTLINE G*



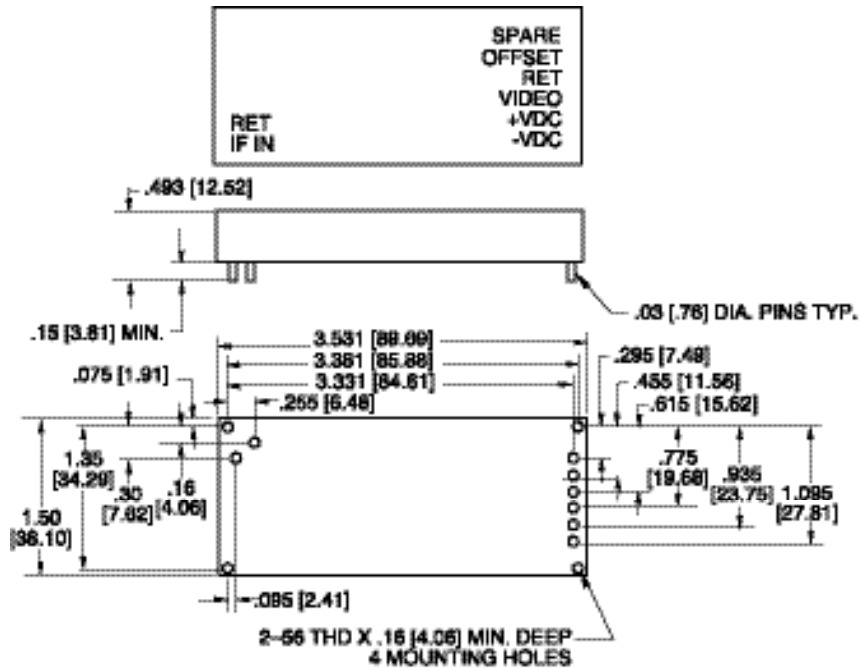
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.
 * ABOVE DRAWING INCLUDES LIMITED IF OUTPUT (OPTIONAL).

MLIF SERIES OUTLINE DRAWINGS

OUTLINE K*



OUTLINE M



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 * ABOVE DRAWING INCLUDES LIMITED IF OUTPUT (OPTIONAL).