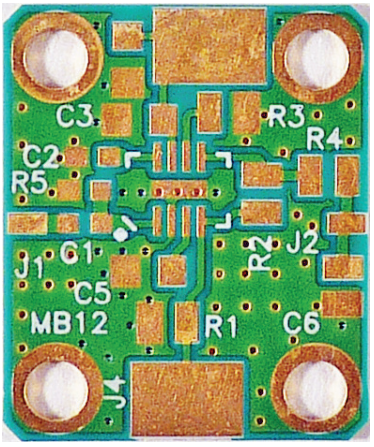
Twin Industries
Electronic Hardware Prototyping Tools

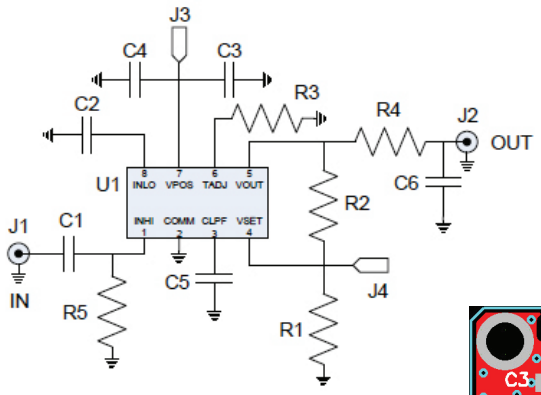
MicroAmp MB-12 Circuit Board For Analog Devices Log Detectors



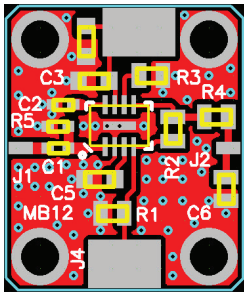
FEATURES

- Fits Analog Devices AD8317/8319 LFCSP packages
- 10 GHz frequency range
- Controller or Measurement mode
- Uses standard SMD passive parts
- RO-4350 board material
- Fits MicroAmp MH-series housings

The MicroAmp MB-12 circuit board is designed for rapid prototyping of RF log detector circuits using Analog Devices AD8317/8319 devices in LFCSP packages. It can be configured in measurement or controller modes by selectively installing the appropriate resistors. Using these detectors, the MB-12 can provide a wide dynamic range log detection function at frequencies up to 10 GHz. This board will fit the MicroAmp MH series of connectorized housings that allow it to be used as a stand-alone detector or cascaded with other MicroAmp boards for added versatility. Boards are fabricated from a high-performance 13 mil thick RO-4350 laminate with RoHS compatible ENIG plating (electroless nickel/immersion gold) on both the component side and the solid bottom ground plane. The board measures 0.490" x 0.590" and mounts into the housing with four #1-72 screws. Detector circuits can be easily designed and assembled with standard surface-mount passive components. It includes provisions for input DC blocking, impedance matching, and other RC components for adjusting performance parameters of the log detector. Pads for the input/output connectors allow the SMA center pins to be easily soldered to the board after it is installed into the housing, as well as large pads to connect the bias voltage and controller mode input pins to feed-throughs.



LOG DETECTOR SCHEMATIC



ASSEMBLY

REF	SIZE	FUNCTION
C1	0402	DC block
C2	0402	DC block/bypass
C3	0603	Bypass
C4	0603	Bypass (not labeled)
C5	0603	Lowpass filter
C6	0603	Output lowpass filter
R1	0603	Meas mode divider
R2	0603	Meas mode divider
R3	0603	Temp comp
R4	0603	Output lowpass filter
R5	0603	Input match
U1	LFCSP	Log Detector IC
J1		RF input
J2		Log video output
J3		+ Bias (not labeled)
J4		Controller mode input

For additional product information, please visit www.twinind.com
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