

EVAL-AD8305EB

Table I. Evaluation Board Configuration Options

Component	Function	Default Condition
P1	Supply Interface. Provides access to supply pins, VNEG, COMM, and VPOS.	P1 = Installed
P2, R8, R9, R10, R11, R17, R18	Monitor Interface. By adding 0 Ω resistors to R8, R9, R10, R11, R17, and R18, the VRDZ, VREF, VSUM, VOUT, and VLOG pin voltages can be monitored using a high impedance probe.	P2 = Not Installed R8 = R9 = R10 = Open (Size 0603) R17 = R18 = Open (Size 0603)
R2, R3, R4, R6, R14, C2, C7, C9, C10	Buffer Amplifier/Output Interface. The logarithmic slope of the AD8305 can be altered using the buffer's gain-setting resistors, R2 and R3. R4, R14, and C2 allow variation in the buffer loading. R6, C7, C9, and C10 are provided for a variety of filtering applications.	R2 = R6 = 0 Ω (Size 0603) R3 = R4 = Open (Size 0603) R11 = R14 = 0 Ω (Size 0603) C2 = C7 = Open (Size 0603) C9 = C10 = Open (Size 0603) VLOG = VOUT = Installed
R1, R7, R19, R20	Intercept Adjustment. The voltage dropped across resistor R1 determines the intercept reference current, nominally set to 10 μA using a 200 kΩ 1% resistor. R7 and R19 can be used to adjust the output-offset voltage at the VLOG output.	R1 = 200 kΩ (Size 0603) R7 = R19 = 0 Ω (Size 0603) R20 = Open (Size 0603)
R12, R15, C3, C4, C5, C6	Supply Decoupling	C3 = C4 = 0.01 μF (Size 0603) C5 = C6 = 0.1 μF (Size 0603) R12 = R15 = 0 Ω (Size 0603)
C11	VSUM Decoupling Capacitor	C11 = 1 nF (Size 0603)
R13, R16, C1, C8	Input Compensation. Provides essential HF compensation at the input pins, INPT and IREF.	R13 = R16 = 1 kΩ (Size 0603) C1 = C8 = 1 nF (Size 0603)
IREF, INPT, PD, LK1, R5	Input Interface. The test board is configured to accept a current through the SMA connector labeled INPT. An SC-style packaged photodiode can be used in place of the INPT SMA for optical interfacing. By removing R1 and adding a 0 Ω short for R5, a second current can be applied to the IREF input (also SMA) for evaluating the AD8305 in log-ratio applications.	IREF = INPT = Installed PD = Not Installed LK1 = Installed R5 = Open (Size 0603)
J1	SC-Style Photodiode. Allows for direct mounting of SC style photodiodes.	J1 = Not Installed

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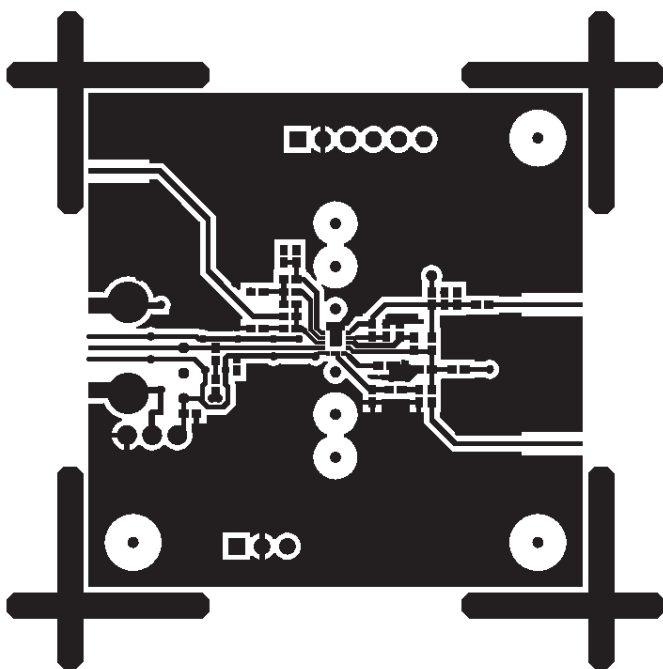


Figure 2. Component Side Layout

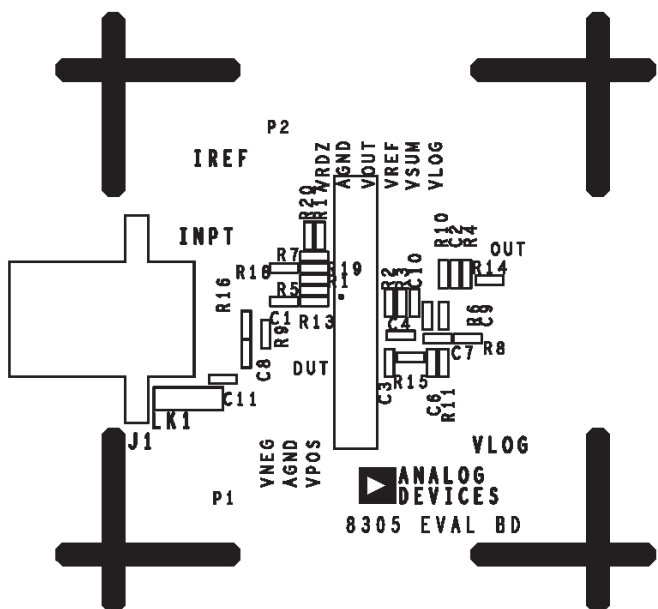


Figure 3. Component Side Silkscreen

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