

HL8334 DC Block (7 kHz to 40 GHz)

Features and Technical Specifications

| | |
|---------------------------------|--|
| Bandwidth | 7 kHz to > 40 GHz (opt. -220) 2 kHz to > 40 GHz (opt. -2200) |
| Amplitude Match | ± 0.1 dB, typ. |
| Phase Match | ± 4°, f = 40 GHz (opt. -M) |
| Insertion Loss | < 0.75 dB typ. < 1.0 dB max See Figs. 1-2 |
| Return Loss | 20 dB, 20 kHz < f ≤ 25 GHz 15 dB, f > 25 GHz See Fig. 3 |
| Breakdown Voltage | 10 V, max |
| Maximum Input Power | +30 dBm |
| Group Delay | ≈ 110 ps See Fig. 4 |
| Rise Time (10-90%) | 8.75 ps |
| Capacitance | 220 nF (opt. -220) 2200 nF (opt. -2200) |
| Impedance | 50 Ω |
| Connectors (Port 1 / Port 2) | 2.92 mm, jack-jack 2.92 mm, jack-plug (standard config) 2.92 mm, plug-plug |
| Dimensions | 1.23" x 0.375" x 0.375" 31.2 x 9.53 x 9.53 mm |
| Weight | 8 g (0.28 oz.) |
| Temperature Limits | -40° to +70° C, operating |
| RoHS Compliant | Yes, assembled with lead-free solder |
| REACH Compliant | Yes |
| Warranty | 1 year, see website |

PRODUCT SUMMARY

The HL8334 is an ultra-broadband DC Block with a typical insertion loss of < 0.75 dB throughout the specified bandwidth range.

The DC block will remove DC bias from the input signal to prevent damage to DC-sensitive devices or equipment.

These devices are suitable for use in 112 Gbps PAM4 communications systems, optical communication systems, high-speed data systems, level shifting, cascading, and interfacing between devices with incompatible DC operating points.

They can also be used to improve RF power measurements when a power meter with DC sensitivities is used.

OPTIONS

Please specify one of the following options from each category:

- M, matched pair
- U, unmatched part(s)

-220, 220 nF (0.22 μF) capacitor

-2200, 2200 nF (2.2 μF) capacitor

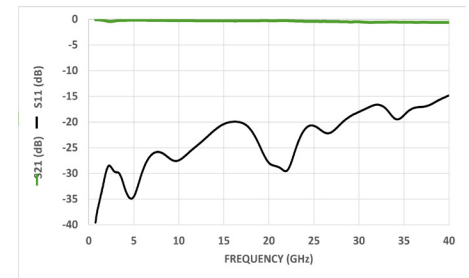
-JJ, jack RF 1 and RF 2

-JP, jack RF 1, plug RF 2

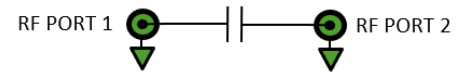
-PP, plug RF 1 and RF 2



HL8334, opt. -M-220-JP



Typical HL8334 Insertion and Return Loss



HL8334 Schematic and Port Assignments

Note: All specifications are based on test results using the standard connector configuration. Specifications may vary slightly for other configurations.

HL8334 Plot Diagrams

Figures 1-4 show the typical S-parameter characteristics and group delay for an HL8334.

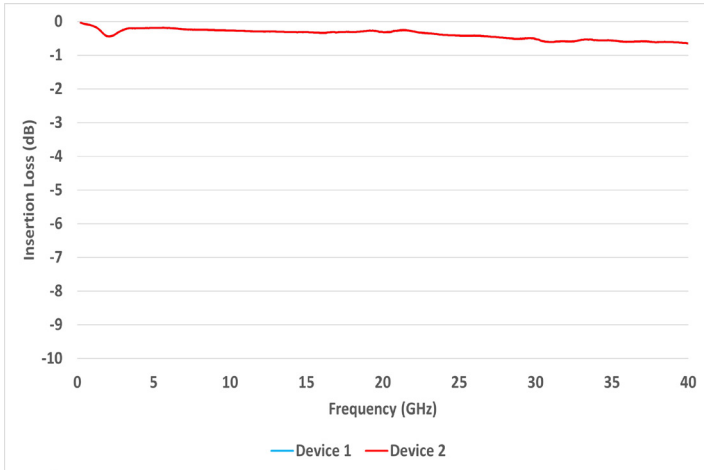


Figure 1: Typical HL8334 Insertion loss and Amplitude Match

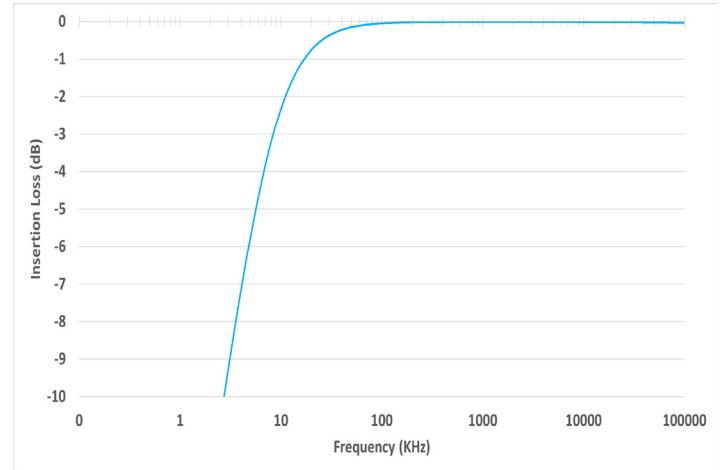


Figure 2: Typical HL8334 Low-frequency Performance

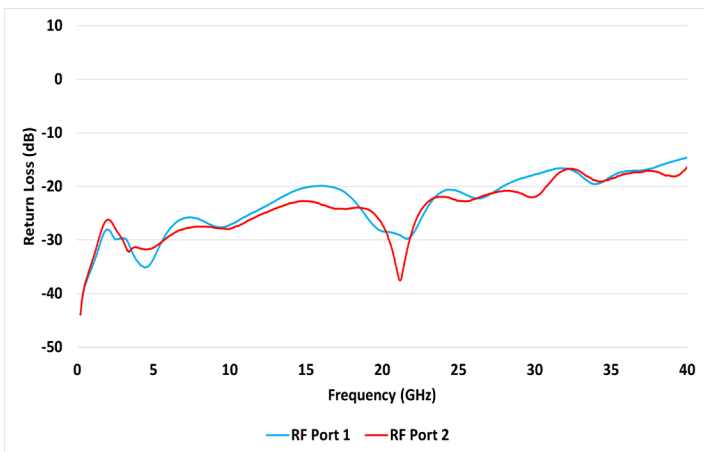


Figure 3: Typical HL8334 Return Loss

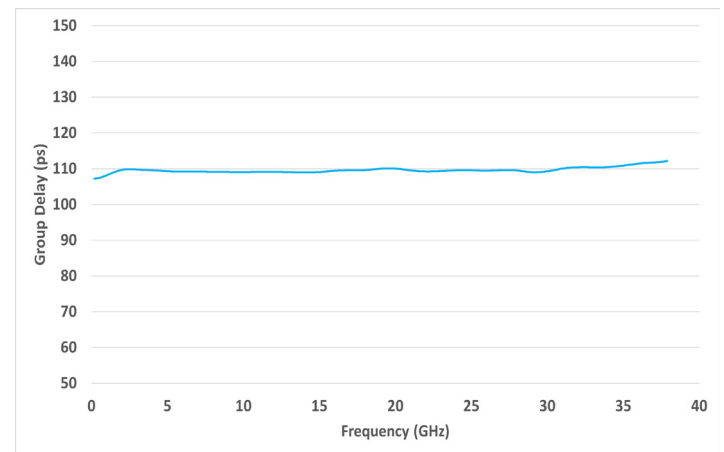


Figure 4: Typical HL8334 Group Delay

HL8334 Dimensional Drawing

Figure 5 shows a mechanical drawing of an HL8334. Unless otherwise noted, all units are in inches. See page 1 for full dimensions.

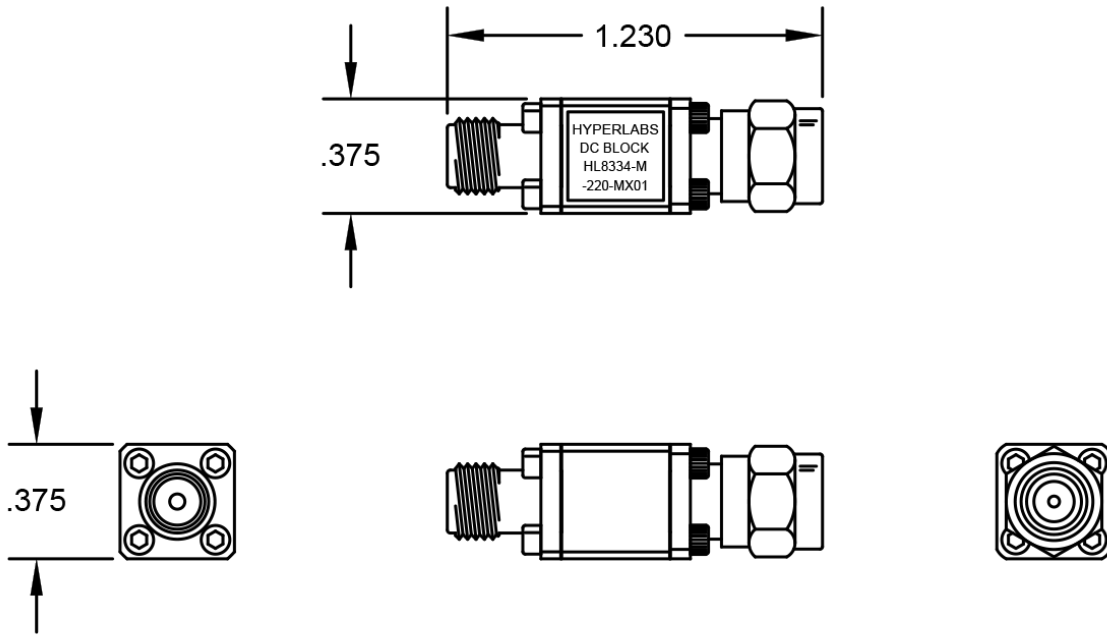


Fig 5: HL8334 Mechanical Drawing