

## HL3204 Ruggedized Controlled Impedance Analyzer

The electrostatic-robust HL3204 is a TDR-based controlled impedance analyzer instrument.

When paired with the available probes and accessories from HYPERLABS, the HL3204 turns any PC into a powerful, cost-effective PCB controlled impedance test system.

### Technical Specifications

Number of Channels	1 x truly differential pair 2 x single-ended
Measurement Types	Controlled impedance using TDR
Resolution	165 data points per inch 0.76 ps time resolution
Impedance Accuracy	± 0.5% at 50 Ω
Rise Time (10-90%)	200 ps, typical
Time Base Range	25 ns
Time Base Accuracy	± 5%
Impedance Range	0 to 200 Ω
Impedance Resolution	0.012 Ω
Static Robustness	Compliant with Class 2 of ESDS Component Sensitivity Classification (ESD STM5.1-1998)
Calibration Standards	NIST Traceable Calibration
Output Connectors	4 x SMA
Interface	Powered and controlled via one USB cable
Dimensions	176.3 x 107.9 x 61.7 mm 6.94" x 4.25" x 2.43"
Weight	560 g, 19.75 oz
Temperature Limits	0° to +40° C, operating -40° to +85° C, storage
Warranty	1 year, repair or return, see website for details



Figure 1: HL3204 Controlled Impedance Analyzer

### Deployment Notes

The HL3204 is designed specifically for use with the following accessories from HYPERLABS:

- HL9720 Differential Even Mode Pencil Probe
- HL9721 Single-ended Pencil Probe
- HL9722 Differential Odd Mode Pencil Probe
- HL9600 Calibration Standards Substrate

To verify compatibility with third-party test systems, please contact HYPERLABS before deployment.

### Calibration Metrology

Every instrument is calibrated by HYPERLABS at the time of sale using NIST-traceable calibration standards.

The HL3204 can be internally calibrated using the HL-PCB™ software to within ± 0.5% of 50 Ω.

To maintain NIST traceability, the HL3204 should be sent to HYPERLABS yearly for calibration and certification.

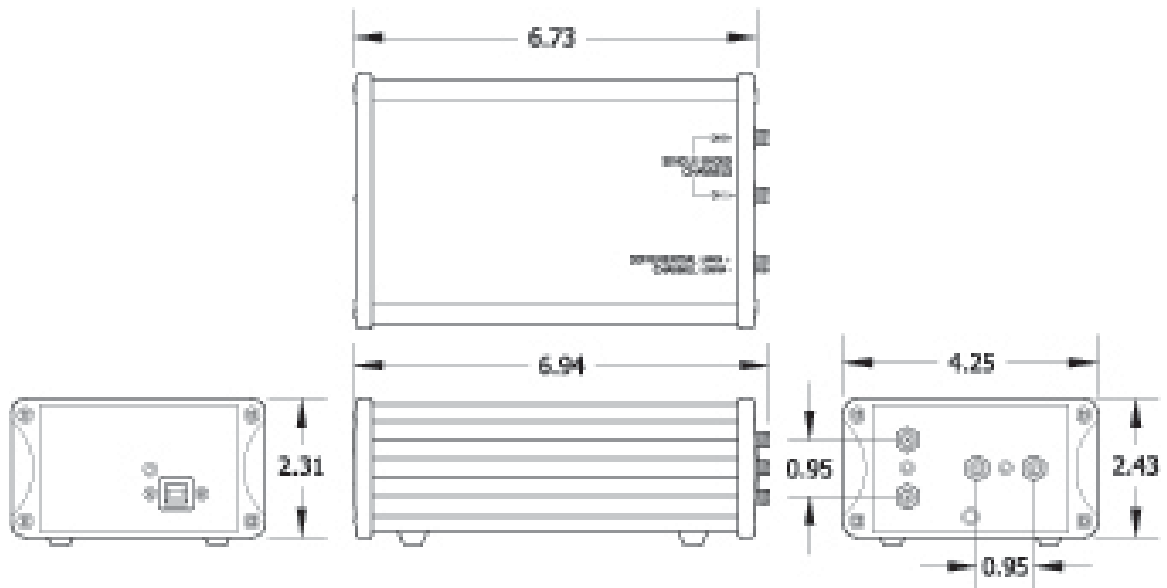


Figure 2: Dimensional drawing of the HL3204 Controlled Impedance Analyzer