



## HL2204 High-speed Signal Path Analyzer™

### Features and Technical Specifications

Number of Channels	2 differential pairs (4 channels)
Measurement Modes	TDR, TDT, return loss, insertion loss
Rise Time (10-90%)	35 ps sampler, 35 ps stimulus
Bandwidth	5.0 GHz
Time Base Range	75 ns, ± 5% accuracy
Time Resolution	3 ps
Functional Range	Systems up to 5 m
Distance Resolution	Within ≈ 7 mm
Amplitude	± 250 mV
Aberrations	+10%, -5%, max 15% peak-to-peak, first 1 ns +3%, -3%, max 5% peak-to-peak after 1 ns
Calibration	Software calibration to internal (± 1% at 50 Ω) or external reference cable
Static Sensitivity	Static protection required during use
Output Connectors	4 x SMA Jack
Interface	Powered and controlled via one USB cable
XTDR™ Software	Included, Windows only
Horizontal Scaling	Meters, feet, time (ns), frequency (GHz)
Vertical Scaling	mV, normalized, Ohm, Rho, dB
Dielectric Constant	Selectable, 1.0 to 10.0
Dimensions	137.4 x 62.0 x 37.6 mm   5.41" x 2.44" x 1.48"
Weight (SMA)	238 g   8.4 oz
Temperature Limits	0° to +40° C, operating   -40° to +85° C, storage



#### PRODUCT SUMMARY

The HL2204 measures TDR, TDT, return loss, and insertion loss in high-speed interconnects, cables, and PCB traces.

#### DEPLOYMENT NOTES

This product is vulnerable to damage from electrostatic discharge. Static protection should always be used during operation.

#### WARRANTY

All HYPERLABS products carry a limited 1 year warranty. Damage from ESD is not covered by the warranty. Please see our website for details.