



HL1302 Cable Skew Tester

Key Features and Technical Specifications¹

Number of Channels	2
Delay (Skew)	1 to 200 ps
Skew Resolution	0.5 ps
Time Base Range	1 ns to 4 μ s
Time Base Accuracy	\pm 3%
Dimensions	4.5" x 1.7" x 2.4" 110 x 170 x 60 mm
Weight	0.5 kg (1.1 lb.)
Temperature Limits	0° to +40° C, operating
RoHS Compliant	Yes, assembled with lead-free solder
REACH Compliant	Yes
Warranty	1 year, see website

NOTE 1 - The specifications in this table are typical. Full specifications, are available on Pages 2of of this datasheet.



HL1302



Alternate view of HL1302 with cables

PRODUCT SUMMARY

The HL1302 Matched Cable Skew Tester is a USB-connected device measuring the delay difference (skew) between a pair of coaxial cables connected to the Differential Stimulus and Receiver Ports. After a preliminary calibration of the time base using the first cable and terminations, the skew of the the second cable is transformed as an impulse on the PC screen. The amplitude is displayed directly as skew in pico-seconds.

DEPLOYMENT NOTES

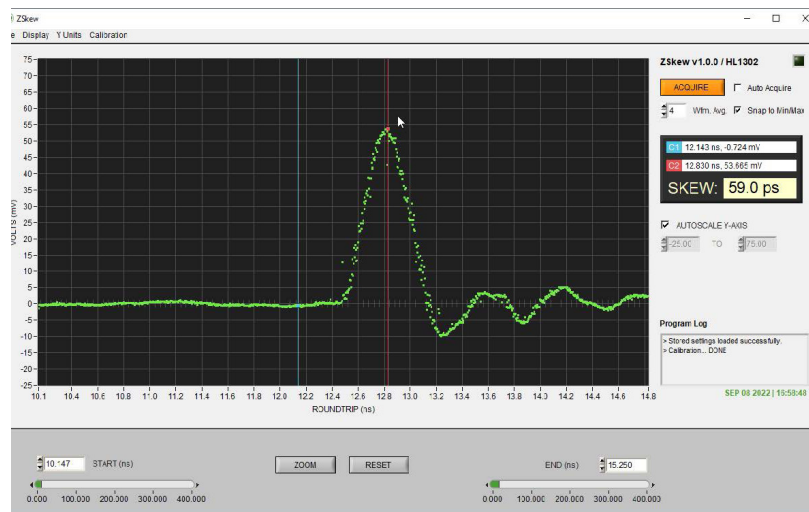
The HL1302 is connected and powered via a USB cable connected to a Windows-based PC or laptop.

All specifications contained herein are typical unless otherwise noted.

Calibration Metrology

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

To maintain NIST traceability, the HL1302 should be sent to HYPERLABS yearly for calibration and certification.





HL1302 Full Specifications

Parameter	Minimum	Typical	Maximum	Comments
Number of Channels		2 (1 pair)		
Delay (Skew)	1 ps		200 ps	
Skew Resolution		0.5 ps		
Stimulus Amplitude		± 500 mV		Into 50 Ω
Rise Time (10-90%)		200 ps		
Time Base Range	1 ns		4 μs	
Time Base Accuracy		± 3%		
Operating Temperature	0° C		40° C	Ambient temperature
Storage Temperature	-40° C		85° C	
Connectors	4 x SMA, USB			
Interface	Powered and controlled via one USB cable			
PC Operating System Requirement	Microsoft Windows 7 or later			
Static Robustness	Compliant with Class 2 of ESDS Component Sensitivity Classification (EDS STM5.1-1998)			
Calibration Standards	NIST Traceable Calibration			
Included Accessories	Two 1 ns matched delay coaxial cables and two 50 Ohm Terminations			
Dimensions (W x D x H)	4.5"x 1.7"x 2.4" 110 x 170 x 60 mm			
Weight	0.5 kg (1.1 lb.)			
RoHS Compliant	Yes, assembled with lead-free solder			
REACH Compliant	Yes			
Warranty	1 year, repair or replacement; see website for details			

HL1302 Dimensional Drawing

Figure 1 shows a mechanical drawing of an HL1302. Unless otherwise noted, all units are in inches.

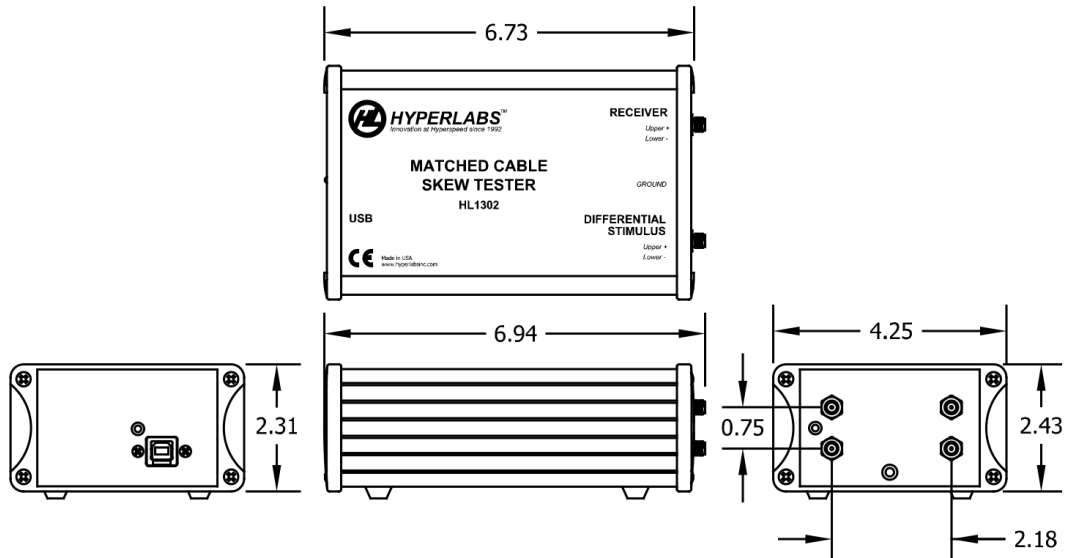


Figure 1: HL1302 mechanical drawing