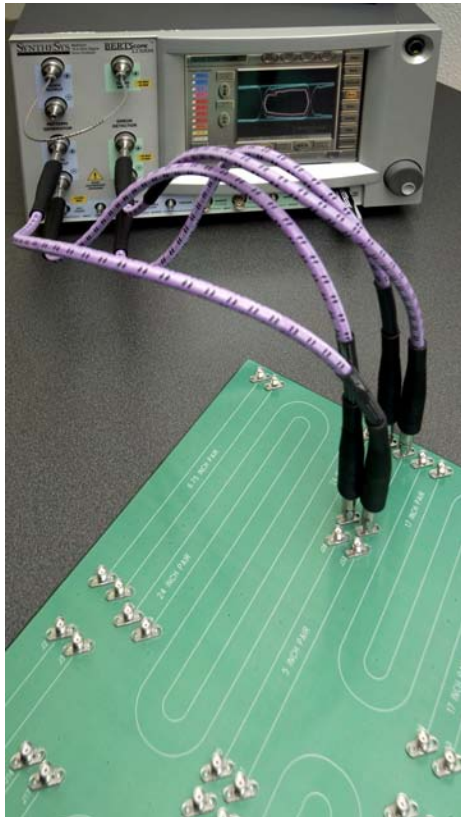


# The BERTScope™ Differential ISI Board Precision ISI Test Accessory

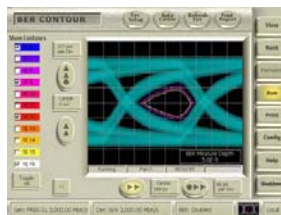


The BERTScope Differential ISI Board meets the needs of engineers constructing stressed eye type receiver jitter tolerance test signals. It also provides a convenient variety of realistic test channels for designers wanting to exercise semiconductor circuits with features such as de-emphasis.

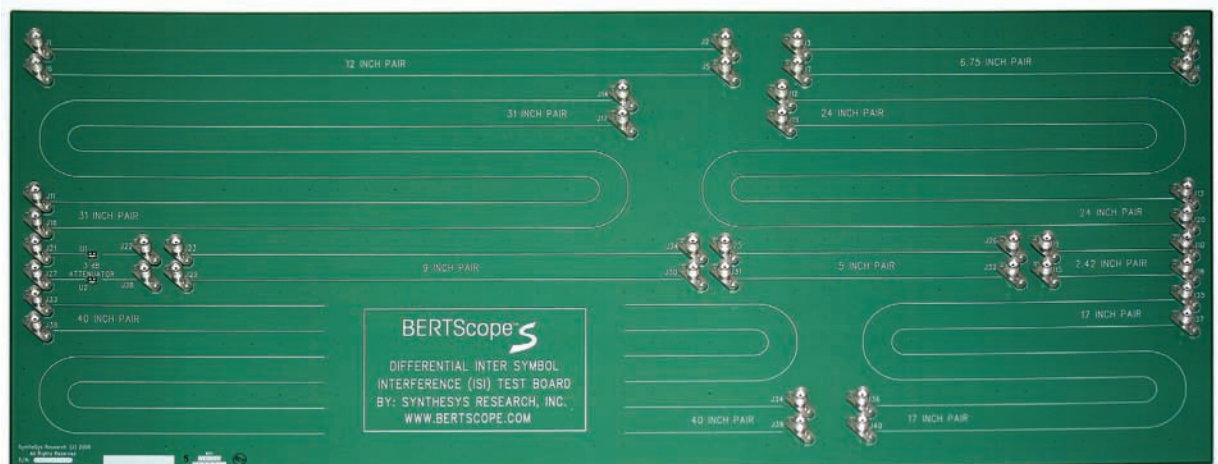
The board has been designed with the following features:

- Specially designed to provide a low cost, high accuracy method of introducing controlled amounts of Inter-Symbol Interference (ISI) for stress testing and general lab use
- Matched Differential Lines of the following nine lengths:
 

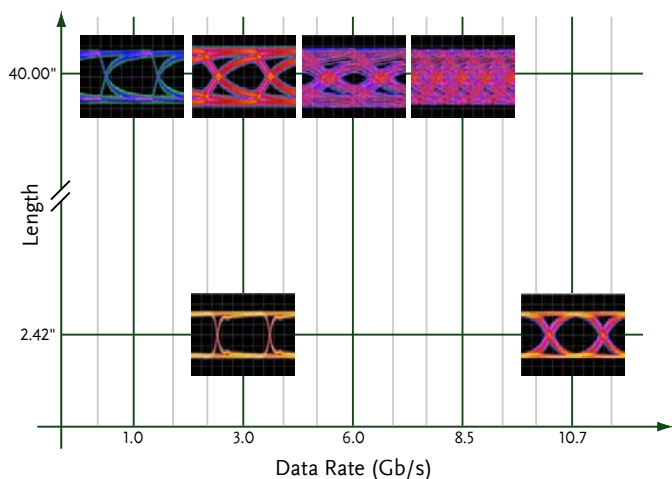
2.42"	17"
5"	24"
6.75"	31"
9"	40"
12"	
- Matched 3dB attenuators for easy amplitude adjustment in compliance testing for standards such as Serial ATA
- Flexible and easy to use around the lab with many different pieces of test equipment
- Connector pairs aligned for easy cascade of lines for added length
- Individually characterized s parameter data optionally available
- Correctly exhibits skin effect losses



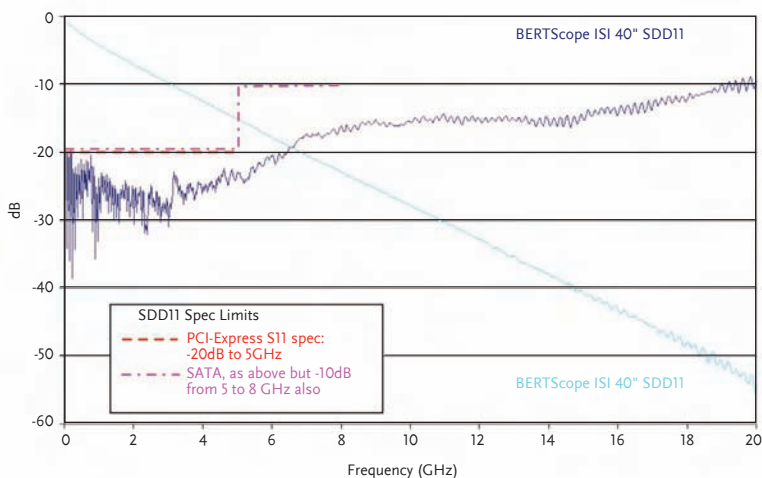
40 inches, 3Gb/s, PRBS7



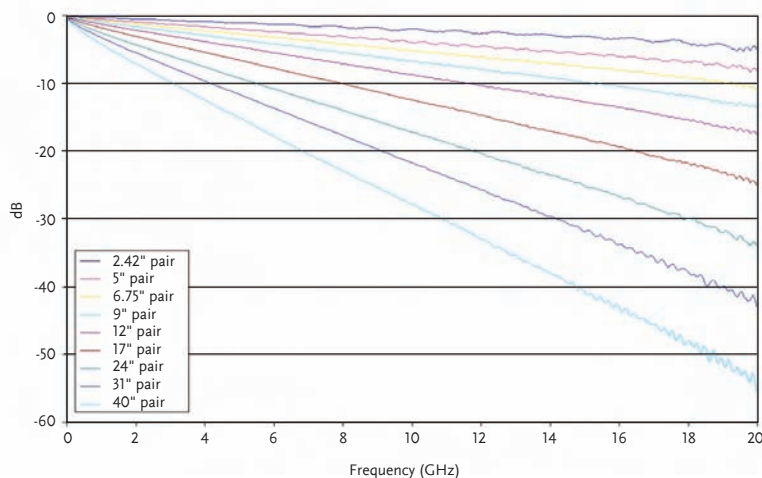
**Example Measured Eye Diagrams**



**Example Measured Responses for 40\"/>**



**Example Measured SDD21 Responses for All Lengths**



**Table of BERTScope ISI Board Compliance to Common Standards**

Standard	Requirement	BERTScope ISI Board Trace Length (inches)
DisplayPort, Reduced Bit Rate (RBR), 1.62 GHz	Inter Symbol Interference (ISI) Interconnect Media	40+31+24+17
DisplayPort, High Bit Rate (HBR), 2.7 GHz	ISI Interconnect Media	24
PCI-Express	Calibration Channel	40
Serial Advanced Technology Attachment (SATA), 6 Gbps	Compliance Interconnect Channel (CIC)	17
SATA, Gen1x and Gen2x	CIC	40
Serial Attached SCSI (SAS)	Low-loss Transmitter Compliance Transfer Function (TCTF) Test Load	24
	TCTF Test Load	40
XAU1 (802.3ae)	Compliance Interconnect	40
10GBASE-KX4 (802.3ap)	Test Channel	40+24
8x Fibre Channel (8xFC)	TCTF for 400-DF-EL-S Inter-cabinet Gamma Point	31

**Ordering information:**

Multi-purpose ISI test board:  
 BERTScope 12500A Differential ISI Board  
 Typical s parameters are available upon request.

**About BERTScope™**

BERTScope™ is a trademark of SyntheSys Research, Inc., a privately held California corporation. Founded in 1989, its mission is to develop advanced test instruments for identifying and locating the source of errors in high-speed digital bit streams. BERTScope CR pairs with BERTScope to offer the vision of a scope, the confidence of a BERT, and clock recovery you can count on. More information is available at [www.bertscope.com](http://www.bertscope.com).



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