

Introduction:

The Serial ATA interface represents one of the greatest shifts in storage technology to hit our industry over the past decade. Millions of Serial ATA ports and disk drives have shipped into the market, replacing the aging Parallel ATA interface in the desktop. Advancements to the interface encompass greater speed, longer more efficient cabling and advanced features for integration into servers and networked storage environments.

The LiTek LT-SATA1.0 is a total solution for SATA cable and cable assembly high-speed test for both TDR and VNA. It is a high-bandwidth, good matching, low skew, low crosstalk and reliable test solution.



Figure 1 Standard SATA test fixture set

Standard Sata test fixture set:

Item	Name	Q'ty	Remark
1	SATA-AR01AM	2	SATA Assembly Test Fixture
2	SATA-RW01AM	2	SATA Raw Cable Test Fixture
3	SATA-CK01AM	1	SATA Cal Kit Test Fixture

Measurement Parameters:

Specification: High Speed Serialized AT Attachment

Measurement Parameter	Test Method	Mode
Differential Impedance	TDR	TDR mode
Common mode Impedance	TDR	TDR mode
Cable pair matching	TDR	TDR mode
Mated connector Impedance	TDR	TDR mode
Intra-pair skew	TDR	TDR mode
Risetime	TDR	TDR mode
Near-end Crosstalk	VNA	S21
Insertion Loss	VNA	S21



Figure-2:SATA-AR01AM (with DUT)



Figure-3:SATA-RW01AM (with DUT)



Figure-4:SATA-CK01AM

Features & Benefits:

- *Both raw cable and cable assembly solution
- *Include wide-bandwidth Balun for frequency domain test
- *Combine with test software
- *Convenient report format (Excel)

Software Benefits:

- *Log in/out management
- *Customer data edit flexible
- *Project management
- *Auto-calibration save
- *Calibration database
- *Automatic TDR parameters test
- *Instant test result preview
- *Fully reporting
- *Convenient report format(Excel)
- *Both TDR and VNA

Software Introduction:



Figure-5: Software setup and execution



Figure-6: Test data edit

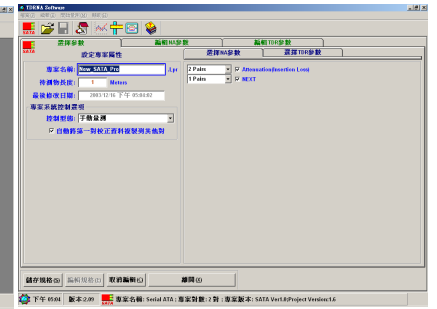


Figure-7: Project management

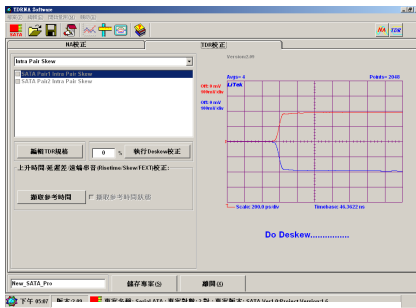


Figure-8: Calibration-1

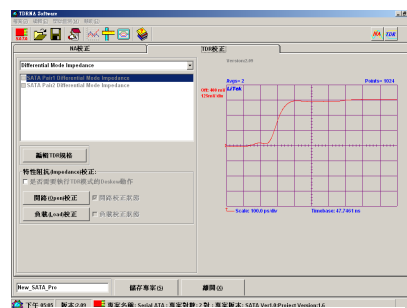


Figure-9: Calibration-2

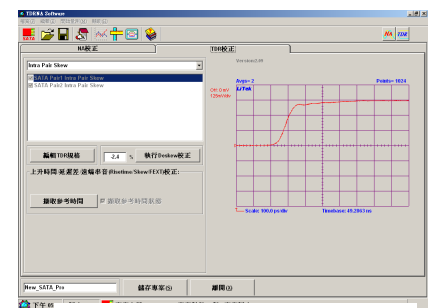


Figure-10: Calibration-3

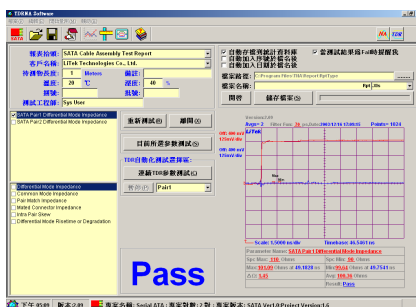


Figure-11: Differential Impedance

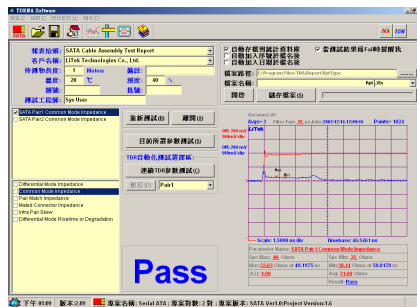


Figure-12: Common mode

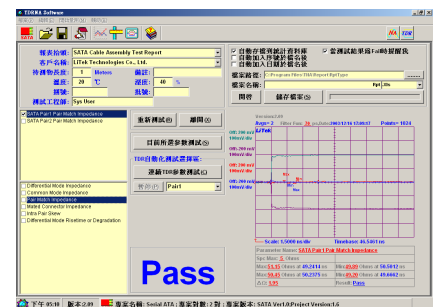


Figure-13: Cable par matching

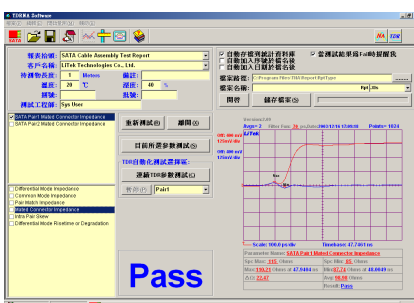


Figure-14: Connector Impedance

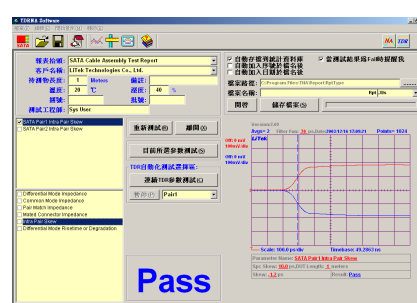


Figure-15: Skew test

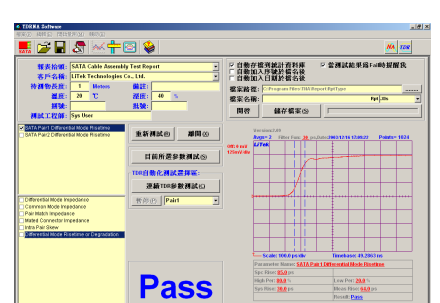


Figure-16: Risetime test

Contact LiTek:

Taiwan: 4F-3, No. 18, Huannan Rd., Pingzhen City, Taoyuan County 32448, Taiwan Tel: +886-3-4951851 Fax: +886-3-4951841

李文福 經理 Leo Lee leo@litek.tw Cell Phone: +886-922330325

China: 901R Shencai Building Fuyong Boulevard Fuyong Town Baoan District Shenzhen Guangdong

洪瑋駿 經理 Thomas Hung thomas630504@yahoo.com.tw Cell Phone: +86-13823201991