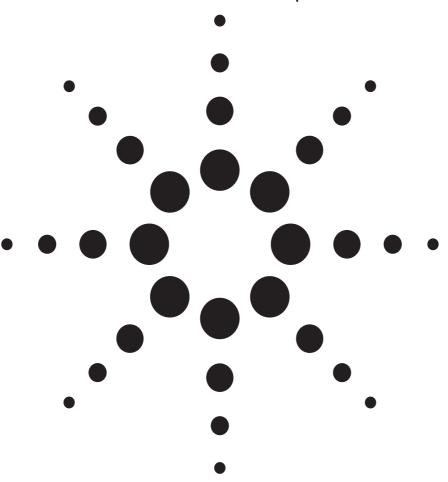
# Agilent E6092A Toolkit III Software for OTDR Trace Analysis and Fiber Optic Cable Acceptance Test Documentation

**Technical Specifications** 





The Agilent E6092A OTDR Toolkit III is the ultimate OTDR companion, an indispensable PC software solution for extreme productivity improvement for all fiber optic cable installers, fiber network operators and service providers.



#### Agilent E6092A Toolkit III

The Agilent E6092A OTDR Toolkit III is the ultimate OTDR companion, an indispensable PC software solution for extreme productivity improvement for all fiber optic cable installers, fiber network operators and service providers.

Installers will use the Toolkit III software for fast and efficient acceptance test report generation on very high fiber count cables (864 fibers). Intelligent bi-directional data post processing reduces documentation time from hours to minutes. The software allows customized acceptance test reports including project information, measurement data in table and graph views to be batch-printed. An EXCEL® export provides all measured connector and splice values, which are clearly organized by splice boxes and distances. Reduced size reports showing failed splices by location, give clear re-work instructions for splice crews.

Network operators & Service Providers can use the Toolkit III software for transparent fiber cable project management, accurate OTDR trace analysis and fast data post-processing. Powerful filter functions allow the user to quickly find and load OTDR traces not only by their measurement parameters, such as wavelength and pulse width settings, but also by measurement direction. The filter function can be set to find and load OTDR traces, which exceed the acceptance test pass/fail test criteria.

Test instruments such as Rack-OTDRs, the Mini-OTDR or the Modular Network Tester series can be controlled remotely and measured data displayed and post-processed locally.

The software is compatible with Bellcore/Telcordia GR-196/SR4731 based OTDR files. In addition the software will open & read several OTDR trace formats from other OTDR vendors and will correct incompatibilities with Bellcore/Telcordia file formats.

#### **Features**

- Desktop viewing of OTDR trace data in a Windows® environment
- Intuitive marker and zoom function
- Project creation wizard, automatic trace assignment and trace loading filters create complete documentation of high fiber count cable within minutes
- Data post-processing results export to Microsoft Excel®
- Analysis of splices, connectors and fiber attenuation
- Automatic splice box naming and adding
- Automated Bi-directional measurement analysis including two-way-averaging and bending detection
- Scan trace and pass/fail test
- Comparisons of multiple traces simultaneously adjusts refractive index and back scatter coefficient
- "Process multiple traces" capability to allow templating of traces after measurement
- Customized event table compiles acceptance reports and work orders for re-splicing and repair
- Comprehensive context sensitive online help
- Remote control via RS232 of E6000 Series Mini OTDR, E605x, E606X Rack OTDR and N3900A Modular Network Tester

#### **Documentation Examples**

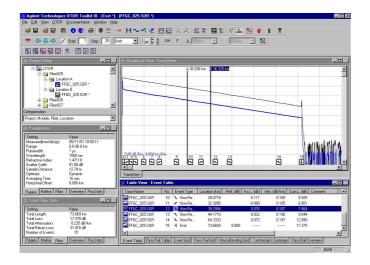


Figure 1: The Toolkit III desktop view provides all needed information such as OTDR traces including event tables, pass/fail table, measurement parameters, fiber parameters, project information etc.

∿ Splice-box 2									€ Splice-box 3					
Position	2.0231 km							5.0962 km						
Distance from Prev.	0.1992 km								3.0730 km					
Distance to End	31.0444 km								27.9714 km					
	λ=1310			λ = 1550			Δ	λ=1310			λ = 1550			
	A	В	AB	A	В	AB	Δ	A	В	AB	A			
Fiber001	0.168	0.410	0.289	0.124	0.322	0.223	0.066	0.066	0.112	0.089	0.058			
Fiber002	-0.032	0.252	0.110	-0.023	0.201	0.089	0.021	0.219	-0.113	0.053	0.223			
Fiber003	-0.124	0.155	0.015	-0.076	0.120	0.022	0.007	0.176	-0.102	0.037	0.167			
Fiber004	0.077	0.160	0.118	0.071	0.105	0.088	0.030	0.026		0.013	0.024			
Fiber005	-0.171	0.224	0.026	-0.136	0.182	0.023	0.003	0.226	-0.174	0.026	0.240			
Fiber006	0.088	0.270	0.179	0.092	0.185	0.138	0.041	0.192		0.096	0.187			
Fiber007	-0.127	0.256	0.064	-0.098	0.224	0.063	0.001	0.037	0.124	0.080	-0.009			
Fiber008	-0.008	0.061	0.026	-0.018	0.045	0.013	0.013	0.035		0.017	0.061			
4											Þ			

Figure 2: The Bending Grid Table provides all measured splice parameters (A & B direction, Two-Way-Average, bending loss) organized by splice box and fiber number.

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	A	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG
1																	
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3																	
4				-		-								_			
5				_					_			_				_	
6			Splice-box 6 Splice-box 7									_					
7	Position	15,4034 km						19,4191 km									
8	Distance from Prev.	3,3949 km					4,0156 km						5,6709 km				
9	Distance to End	17,6641 km						13,6485 km						_			
10 11		1310 nm 1550 nm A B AB A B AB Delta				1310 nm				1558 nm A B AB Delta			1318 nr				
12	Fiber001	0.107	-0,068	0,019	0,110	-0,072	0,019	0,000	0.053	• •	0,026	0,069	,	0,034	0.008	0,150	-0,082
13	Fiber002	0.130	0,041	0.085	0,110	-0,072	0.066	0,019	0.084	0.090	0.026	0,069	0.097	0,034	0.010	0,029	-0,082
14	Fiber003	0.085	-0.059	0,003	0.109	-0.078	0,000	0,002	0.010	0,080	0.035	-0.018	0,097	0,040		0,029	-0.028
15	Fiber004	0.107	-0,068	0,019	0.121	-0.075	0.023	0.004	0.089	0.087	0.088	0.080	0,107	0,093	0.005	0.011	0.032
16	Fiber005	0.065	-0.056	0.004	0.084	-0.057	0.013	0.009	0.025	0,001	0.012	0.028	0.031	0.029	0.017	0.135	0.021
17	Fiber006	0.068	-,	0.034	0.072	-,	0.036	0.002	0.001	0.057	0.029	0.042	0.051	0.046	0.017	0.020	0.035
18	Fiber007	0,057	0,056	0,056	0,100		0,050	0,006	0,042			0,030		0,015	0,006	0,052	0,053
19	Fiber008	0,073	-0,037	0,018	0,089		0,044	0,026	-0,005	0,008	0,001	0,011		0,005	0,004	0,056	-0,023
20																	
21																	

Figure 3: The Bending Grid Table and among others can be exported into Microsoft EXCEL® format.

07/03/2001 10:39:00												
			1	Splice-box 2								
Position	2p231 km											
Distance from Prev.	0,1992 km											
Distance to End	*11********											
		I = 131D				1,0444 km D						
	A	В	AB	A	В	AB	D					
Fiber001	0,168	0,410	0,289	0,124	0,322	0.223	0.066					
Fiber002	-0.032	0,252	0,110	-0.023	0,201	0.089	0.021					
Fiber003	-0.124	0,155	0,015	-0,076	0,120	0.022	0,007					
Fiber004	0,077	0,160	0,118	0,071	0,105	0,088	0.030					
Fiber005	-0.171	0.224	0.026	-0.136	0.182	0.023	0.003					
Fiber006	8800	0,270	0,179	0,092	0,185	0,138	0,041					
Fiber007	-0,127	0,256	0.064	-0.098	0,224	0,063	0,001					
Fiber008	-0.008	0.061	0.026	-0.018	0.045	0.013	0.013					
	ъ Splice-box 3											
osition	5,0962 km											
Distance from Prev.	3,0730 km											
Distance to End	36.0	2	27,9714 km									
		I = 1310			D							
	A	В	AB	A	В	AB	D					
Fiber001	9900	0,112	0,089	0,058	0,106	0.082	0,007					
Fiber002	0,219	-0.113	0,053	0.223	-0.127	0.048	0.005					
Fiber003	0.176	-0.102	0.037	0.167	-0.094	0.036	0.001					
Fiber004	0,026		0,013	0,024	000000000000000000000000000000000000000	0,012	0,001					
Fiber005	0,226	-0.174	0.026	0,240	-0.183	0.028	0.002					
Fiber006	0,192	77555560	0,096	0,187	-0,051	0,068	0,028					
Fiber007	0.037	0.124	0.080	-0.009	0.157	0.074	0.006					
Fiber008	0,035	I Spirital	0,017	0,061	10000000	0.030	0,013					
	•				•							
0 00 0	■ Splice-box 4											
Position				8,9432 km								
Distance from Prev.	3,8470 km											
Distance to End			24,1244 k									
		I = 1310	2000		D							
	A	В	AB	A	В	AB	D					
Fiber001	0,063	10/100/	0,031	0,063		0,031	0,000					
Fiber002	-0,136	0,195	0,029	-0,153	0,209	0,028	0,001					
Fiber003	-0,097	0,158	0,030	-0,090	0,149	0,029	0,801					
Fiber004	0,007	0,083	0,045	0,003	0,079	0.041	0,004					
Fiber005	-0,022	0,349	0,163	-0,063	0,303	0,120	0,043					
Fiber006	-0,051	0,195	0,072	-0,064	0,176	0,056	0,016					
Fiber007	0.127	-0.064	0.031	0.139	-0.072	0.033	0.002					

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Agilent Technologies OTDR Toolkit II plus

Figure 4: Customized acceptance test report including tabular and/or graphic views.

#### **Specifications**

#### Compatibility

- Compatible with E6000 series Mini OTDR and N3900A Modular Network Tester up to 64k data points.
- Trace format: Bellcore/Telcordia compliant according to GR-196-CORE Issue 2 OTDR Data Standard.
  - -GR 196, Revision 1.0
  - -GR 196, Revision 1.1
  - -GR 196, Revision 2.0 (SR-4731)
- Toolkit III can read most of Acterna, ANDO, Anritsu, EXFO, and Nettest "Belcore/Telcordia compliant" OTDR trace formats. However Agilent can not guarantee accurate analysis values for these traces.

#### Minimum system requirements

- 486 DX PC with at least 16 MB of RAM Windows 95/98/2000/ME/XP® or Windows NT® 4.0 operating system
- MS Internet Explorer 4.0 or higher (for Help screens)

#### **Accessories Supplied**

- Toolkit III Software CD (Available in English, French, German Spanish, Portuguese and Chinese. For other languages please contact your Agilent representative)
- Manual and Programming Guide
- RS 232 cable
- Compact® Flash Card Reader to connect to PC/USB port
- Free Toolkit III trace viewer



Figure 5: Toolkit III content: Manual, RS 232 cable for remote control, short reference card and CD with software



Figure 6: SanDisk® Image Mate adapter for fast data exchange of high number of OTDR trace files between E6000C Mini OTDR and N3900A Modular Network Tester.

#### **Related Products:**

N3980A Compact® Flash Card 192MB N3900A Modular Network Tester with N391X OTDR Modules E6000C Mini OTDR Series E605X, 6X Rack-OTDR Series

#### **Further Information:**

Download a free Toolkit III trace viewer for product evaluation from WWW.0TDR.COM.

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