

# **DSX** CableAnalyzer™ Getting Started Guide

The DSX-5000 CableAnalyzer modules attach to Versiv<sup>™</sup> main and remote units to make rugged, hand-held testers that let you certify, troubleshoot, and document twisted pair network cabling.

### **Accessing the Product Manuals**

This guide provides basic information to help you get started using the tester. For more detailed information, see the latest versions of the DSX CableAnalyzer Users Manual and the Versiv Technical Reference Handbook provided on the Product Manuals CD and on the Fluke Networks website.

### **▲**Warning **▲**

To avoid possible fire, electric shock, personal injury, damage to equipment, or inaccurate test results, read the safety information in the *DSX CableAnalyzer Users Manual* before you use the tester.



PN 4329967 May 2013 ©2013 Fluke Corporation. Printed in USA. All product names are trademarks of their respective companies.

### **Connectors, Keys, and LEDs**



Figure 1. Connectors, Keys, and LEDs

```
HFO00EPS
```

- (1) Connector for a link interface adapter.
- 2 RJ45 jack for communications between the main and remote testers when you do alien crosstalk measurements.
- ③ LCD display with touchscreen.
- (4) TEST: Starts a test. To start a test, you can also tap TEST on the display.
- 5 Power key.
- 6 @HOME: Press @HOME to go to the home screen.
- (7) Connector for the ac adapter. The LED is red when the battery charges, and green when the battery is fully charged. The LED is yellow if the battery will not charge.
- (8) RJ45 connector: For functions available in future software releases.
- Micro-AB USB port: This USB port lets you connect the tester to a PC so you can upload test results to the PC and install software updates in the tester.
- 10 Type A USB port: This USB host port lets you save test results on a USB flash drive or connect a video probe to the tester.
- (1) Headset jack.
- (12) PASS LED comes on when a test passes.

TEST LED comes on during a test.

FAIL LED comes on when a test fails.

TALK LED comes on when the talk function is on (see (13)). To adjust the volume, press OTALK or the button on the headset's microphone.

TONE LED flashes when the main tester sends a request to talk.

LOW BATTERY LED comes on when the battery is low.

Note

The LEDs also operate as a battery gauge when you turn on the remote. See the Users Manual.

(13 PTALK): Press TALK) to use the headset to speak to the person at the other end of the link. Press again to adjust the volume. To turn off the talk function, hold down PTALK.

### How to Certify Twisted Pair Cabling

#### 1. Power the Tester

Charge the battery if necessary. Connect the ac adapter to ac power and to the adapter connector ( $\bigcirc$ ) shown in Figure 1. You can use the tester while the battery charges.

#### 2. Select Settings

- **2-1** On the home screen, tap the test setup panel (see Figure 2).
- **2-2** On the **CHANGE TEST** screen, tap a twisted pair test, then tap **EDIT**.
- **2-3** On the **TEST SETUP** screen, tap the panels to change settings:
- **Cable Type**: Select a cable type that is correct for the type you will test.
- Test Limit: Select the correct test limit for the job. To see a different group of limits, tap MORE, then tap the name of a group.
- **2-4 Outlet Configuration**: Select the correct configuration for the cable you will test.
- 2-5 To save the settings, tap SAVE on the TEST SETUP screen.



#### Figure 2. Panels on the Home Screen

#### 3. Make Connections and Do a Test

- 3-1 Connect the testers to the link as shown in Figure 3 or 4.
- 3-2 Tap TEST on the main tester or press **TEST** on the main or remote tester.



**Figure 3. Permanent Link Connections** 



**Figure 4. Channel Connections** 

### 4. Examine the Results

The tester shows multiple views of the test results (Figure 5):

- WIRE MAP: Shows the connections between the ends of the cable under test. The tester compares the connections to the selected Outlet Configuration to get a PASS or FAIL result.
- **PERFORMANCE**: Shows the overall result for each test that is required by the selected test limit. To see detailed results for a test, tap the panel.
- DIAGNOSTIC: Shows the HDTDR<sup>™</sup> and HDTDX<sup>™</sup> analyzer results, which help you troubleshoot failures.

	18.03.2013 8:11:59 am	📼 (i = i)	18.03.2013 8:50:05 am		04/19/2013 8:59:24 am
Result not saved	PASS	Result not saved	PASS	HDTDX ANALYZE	l.
WIRE MAP PERFO	ORMANCE DIAGNOSTIC	WIRE MAP PERFO	RMANCE DIAGNOSTIC	[	1
T568B	1	ISO11801 PL3 Class Fa	(1 GHz) >	£	101
1	12	LENGTH	(51.2 m) 🖌		T
3	3	RESISTANCE	*	- <del>7</del>	
4	4	INSERTION LOSS	(21.9 dB) 🖌	1	11
5	s	RETURN LOSS	(4,4 dB) 🖌	A	
8	8	NEXT	(6.8 dB) 🖌	1	Aat
5	s	PS NEXT	(7.8 dB) 🖌	A A A	2 2 m
2	Next ID: 00-A	ACR-N	(19.2 dB) 🖌	m = 7.2	O PAIR O
	SAVE TEST		SAVE TEST		

Figure 5. Examples of Twisted Pair Results Screens

#### HFO02.EPS

#### 5. Save the Results

- 5-1 Tap SAVE if the test passed or FIX LATER if the test failed.
- 5-2 If the Cable ID box shows the correct ID, tap SAVE.

To enter a cable ID, tap the **Cable ID** box on the **SAVE RESULT** screen, use the keyboard to enter a name for the results, tap **DONE**, then tap **SAVE**.

The tester saves the results in the **DEFAULT** project, unless you selected a different project.

### **About Projects**

You can set up a project to specify the settings and tests necessary for a job, monitor the status of a job, and organize the test results.

To start a new project, tap **PROJECT** on the home screen, tap **CHANGE PROJECT**, then tap **NEW PROJECT**. See the Users Manual or Technical Reference Handbook on the CD for more information.

### About the AxTalk Analyzer Kit

The DSX-5000 kit includes the hardware and AxTalk Analyzer software you need to do tests for alien crosstalk on twisted pair cabling. Alien crosstalk is noise, or crosstalk, transmitted between adjacent cables in a bundle or patch panel. Alien crosstalk is a primary source of noise in cabling used for 10GBASE-T applications.

For instructions on how to do alien crosstalk tests, install the AxTalk Analyzer software supplied on the AxTalk Analyzer software CD, then see the online help in the software.

### Registration

Registering your product with Fluke Networks gives you access to valuable information on product updates, troubleshooting tips, and other support services.

To register, fill out the online registration form on the Fluke Networks website at www.flukenetworks.com/registration.

### **Contact Fluke Networks**



www.flukenetworks.com

support@flukenetworks.com

+1-425-446-4519

Fluke Networks operates in more than 50 countries worldwide. For more contact information, go to our website.

## **Certifications and Compliance**



Conformite Europeene. Conforms to the requirements of the European Union and the European Free Trade Association (EFTA).



Listed by the Canadian Standards Association.



Conforms to relevant Australian standards.



Conforms to relevant Russian standards.



KCC-REM-FKN-012001001: EMC approval for Korea

Class A Equipment (Industrial Broadcasting & Communication Equipment)

This product meets requirements for industrial (Class A) electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and is not to be used in homes.

A 급 기기 (업무용 방송통신기자재)

이 기기는 업무용 (A 급 ) 전자파적합기기로서 판매자 또 는 사용자는 이 점을 주의하시기 바라며 , 가정외의 지역 에서 사용하는 것을 목적으로합니다 .

### LIMITED WARRANTY AND LIMITATION OF LIABILITY

Fluke Networks mainframe products will be free from defects in material and workmanship for one year from the date of purchase. Parts, accessories, product repairs and services are warranted for 90 days, unless otherwise stated. Ni-Cad, Ni-MH and Li-Ion batteries, cables or other peripherals are all considered parts or accessories. This warranty does not cover damage from accident, neglect, misuse, alteration, contamination, or abnormal conditions of operation or handling. Resellers are not authorized to extend any other warranty on Fluke Networks' behalf. To obtain service during the warranty period, contact your nearest Fluke Networks authorized service center to obtain return authorization information, then send your defective product to that Service Center with a description of the problem.

THIS WARRANTY IS YOUR ONLY REMEDY. NO OTHER WARRANTIES, SUCH AS FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSED OR IMPLIED. FLUKE NETWORKS IS NOT LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, ARISING FROM ANY CAUSE OR THEORY.

Since some states or countries do not allow the exclusion or limitation of an implied warranty or of incidental or consequential damages, this limitation of liability may not apply to you.

Fluke Networks PO Box 777 Everett, WA 98206-0777 USA

4/04