

DSX-CHA021S

DSX-CHA-M12-X-S

M12 4-Position D-Coded and 8-Position X-Coded Adapters for Industrial Ethernet

The DSX-CHA021S and DSX-CHA-M12-X-S are sets of two adapters for use with Fluke Networks DSX CableAnalyzer™ testers. The adapters let you test and certify M12 links and patch cords to the IEEE 802.3 specifications often used for industrial Ethernet applications:

- DSX-CHA021 adapters for Fast Ethernet (100BASE-TX) networks have 4-position, D-coded female connectors.
- DSX-CHA-M12-X adapters for Gigabit Ethernet (10GBASE-T) have 8-position, X-coded female connectors.

DSX Firmware Requirements

Your DSX CableAnalyzer will show a message if it needs a firmware update to operate with these adapters. Firmware updates are available at no charge on the Fluke Networks website. To install an update, use the latest version of LinkWare PC or LinkWare Live. For details, see the Versiv Series Users Manual.

Symbols

	Warning or Caution: Risk of damage or destruction to equipment or software. See explanations in the manuals.
	Warning: Risk of fire, electric shock, or personal injury.
	Consult the user documentation.
	40 year Environment Friendly Use Period (EFUP) under China Regulation - Administrative Measure on the Control of Pollution Caused by Electronic Information Products. This is the period of time before any of the identified hazardous substances are likely to leak out, causing possible harm to health and the environment.
	This product complies with the WEEE Directive marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste. Product Category: With reference to the equipment types in the WEEE Directive Annex I, this product is classed as category 9 “Monitoring and Control Instrumentation” product. Do not dispose of this product as unsorted municipal waste. To return unwanted products, contact the manufacturer’s web site shown on the product or your local sales office or distributor.

Safety Information

Warning

To prevent possible fire, electric shock, or personal injury, read the safety information in the documentation supplied with your Versiv™ and DSX products before you use the tester.

Caution

To prevent damage to the tester, adapters, and cables under test, to prevent data loss, and to make sure your test results are as accurate as possible:

- Do not connect the adapters to telephone lines of any type, including ISDN lines.
- Set the reference before you use the M12 adapters for the first time, and approximately every thirty days after that.

Set the Reference

Before you use the M12 adapters to test and certify links, set the reference. Repeat the reference procedure every thirty days at minimum.

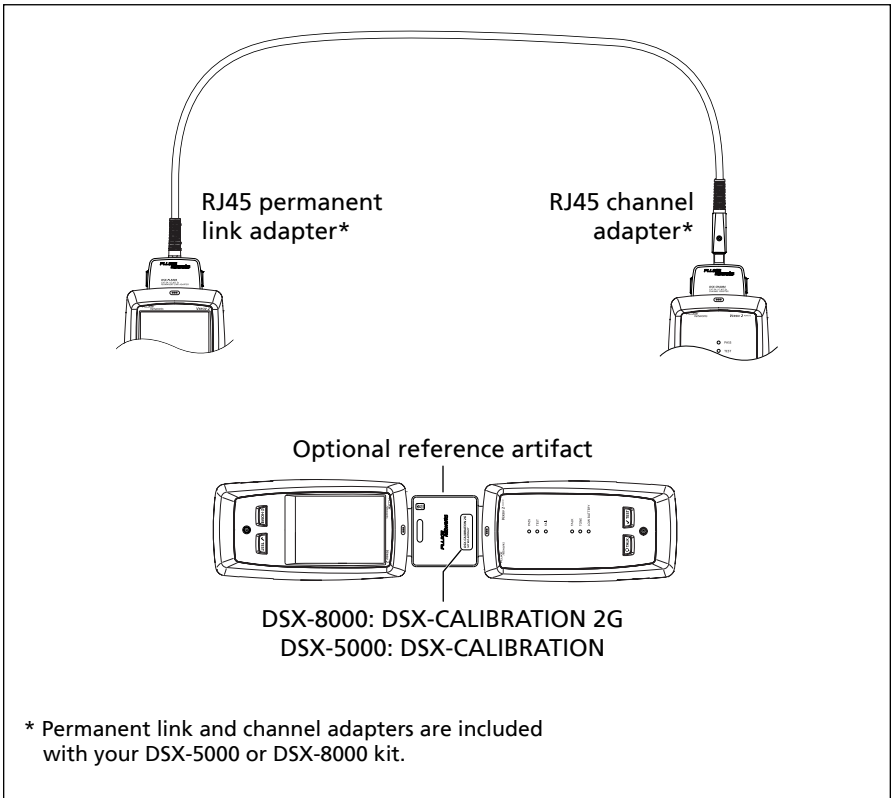
To set the reference

- 1 Turn on the tester and the remote a minimum of 1 minute before you set the reference.

Note

Set the reference only after the testers are at an ambient temperature between 50 °F and 104 °F (10 °C and 40 °C).

- 2 Connect the main and remote testers together as shown at the top or bottom of Figure 1.
- 3 On the home screen, tap **TOOLS**, then tap **Set Reference**.
- 4 On the **SET REFERENCE** screen tap **TEST**.



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Figure 1. Reference Connections

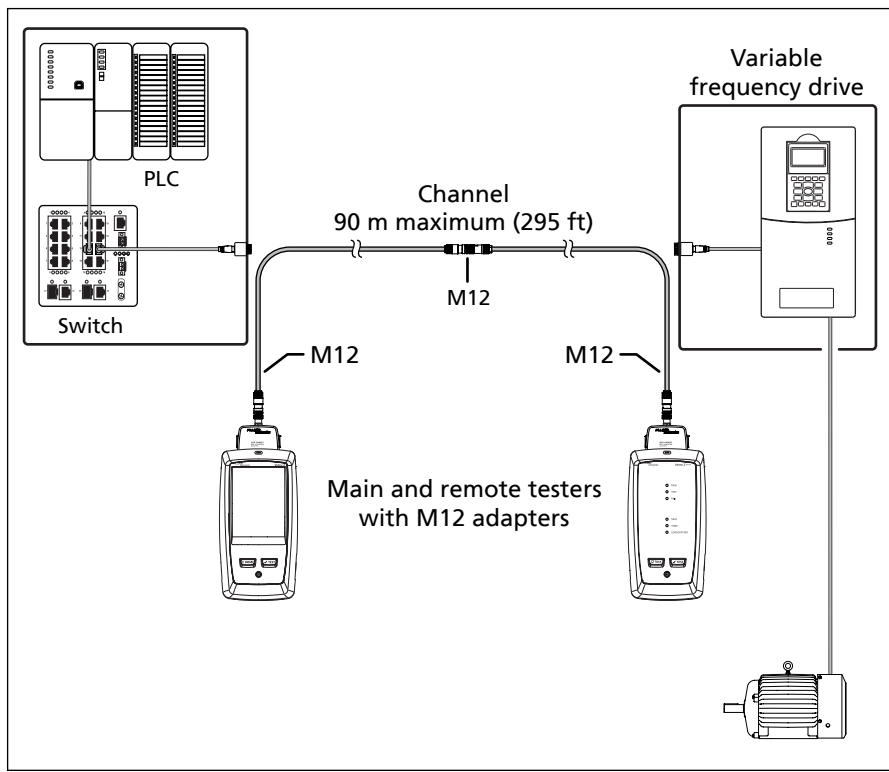
Test and Certify a Channel

Notes

You must select a test limit and outlet configuration that support tests on two-pair cable for the DSX-CHA021 adapters, or four-pair cable for the DSX-CHA-M12-X adapters.

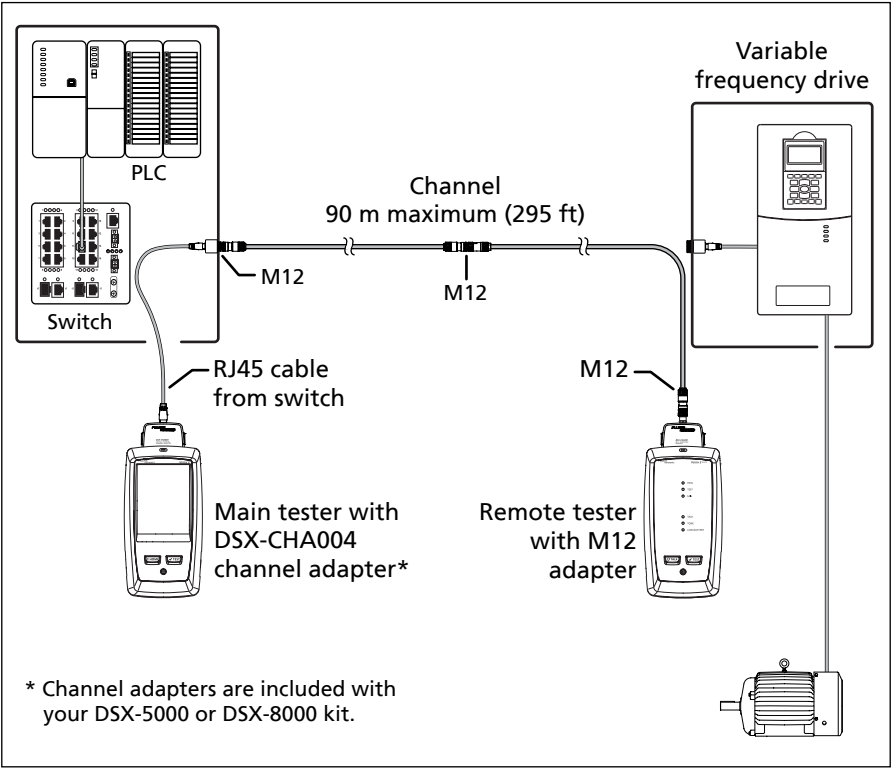
The IEEE 802.3 standards support only the channel link configuration.

- 1 On the home screen, tap the test setup panel.
- 2 On the **CHANGE TEST** screen, tap **NEW TEST**.
- 3 On the **TEST SETUP** screen, tap the panels to select settings:
 - **Cable Type:** If the correct type is not in the **LAST USED** list, tap **MORE**, tap **Manufacturers**, tap the correct manufacturer, then tap a cable type.
 - **Shield Test:** Shows only for shielded cable types. To get a **FAIL** result if the shield is open, select **On**. See the *Versiv Series Users Manual* for more information.
 - **Test Limit:** If the correct limit is not in the **LAST USED** list, tap **MORE**, then tap a group.
 - **Outlet Configuration:** Select the correct configuration for the connectors' wire map.
- 4 On the **TEST SETUP** screen, tap **SAVE** when your test setup is completed.
- 5 Connect the testers to the link, as shown in Figure 2, 3, or 4.
- 6 Tap **TEST** on the main tester or press  on the main or remote tester.



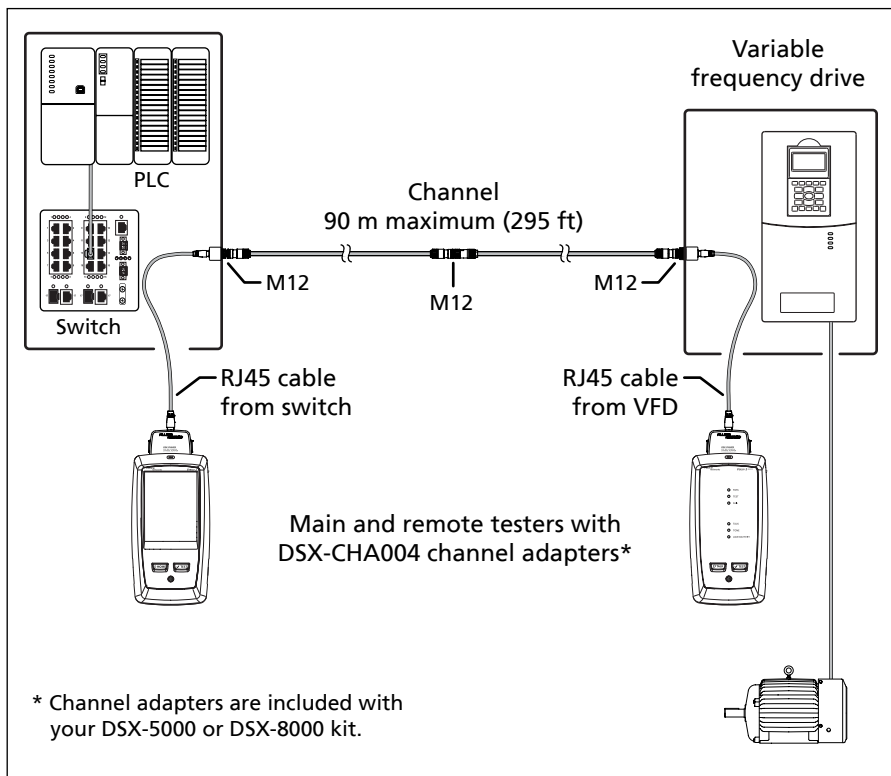
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Figure 2. Connections for Channel Tests with Two M12 Connectors



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Figure 3. Connections for Channel Tests with an RJ45 and an M12 Connector



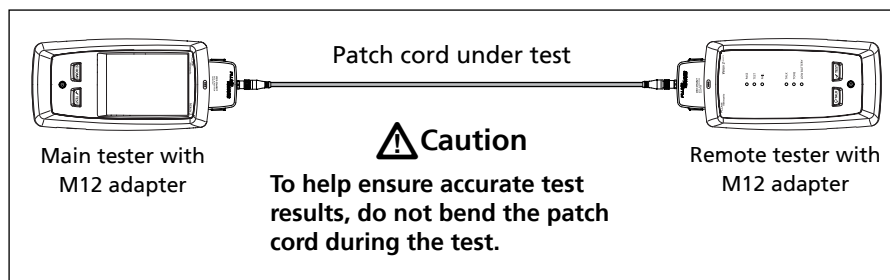
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Figure 4. Connections for Channel Tests with Two RJ45 Connectors

Test and Certify an M12 Patch Cord

Patch cord tests include results for the M12 connectors on the ends of cord. Use this procedure to do tests on M12 cords you make to connect the components in your system.

- 1 On the home screen, tap the test setup panel.
- 2 On the **CHANGE TEST** screen, tap **NEW TEST**.
- 3 On the **TEST SETUP** screen, tap the panels to select settings:
 - **Cable Type:** If the correct type is not in the **LAST USED** list, tap **MORE**, tap **Manufacturers**, tap the correct manufacturer, then tap a cable type.
 - **Shield Test:** Shows only for shielded cable types. To get a **FAIL** result if the shield is open, select **On**. See the *Versiv Series Users Manual* for more information.
 - **Test Limit:** If the correct patch cord limit is not in the **LAST USED** list, tap **MORE**, tap **Patch Cords**, then select the correct limit.
 - **Outlet Configuration:** Select the appropriate configuration.
- 4 On the **TEST SETUP** screen, tap **SAVE** when your test setup is completed.
- 5 Connect the testers to the patch cord (Figure 5), then tap **TEST** on the main tester or press  on the main or remote tester.



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Figure 5. Connections for Tests on a Patch Cord

Maintenance and Service

Clean the adapters with a soft cloth that is moist with water or water and a mild soap. Do not use abrasives, solvents, or alcohol.

If an adapter does not operate correctly, look for damage to the adapter's connectors. Make sure that the adapter is latched tightly to the tester.

The adapters have no serviceable parts. To get a replacement adapter, speak to a Fluke Networks representative.

For the most current test limits and features, keep your tester's firmware current. The latest version of firmware is available at no charge on the Fluke Networks website.

Contact Fluke Networks



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

Specifications

The DSX-CHA021 and DSX-CHA-M12-X adapters meet all measurement accuracy specifications for Level IIe test equipment. For more information, visit the Fluke Networks website.

Life of adapter contacts (typical): >5,000 cycles

Dimensions: 3.0 in x 2.1 in x 1.2 in (75 mm x 54 mm x 30 mm) (each adapter)

Weight: 2.6 oz (74 g) (each adapter)

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, unless stated otherwise herein. 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.

For a list of authorized resellers, visit www.flukenetworks.com/wheretobuy.

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