

1. General

This procedure describes EDGE8™ LC-LC tap modules, which are available for both multimode and single-mode applications. Compatible with all EDGE8 rack-mountable connector housings, all LC tap modules have twelve front-mounted shuttered LC adapters (Figure 1).

The module contains two fiber optic splitters which divide the incoming optical signals into two outputs, one for live link traffic and one for monitoring. The monitor traffic is routed via the “TAP”-labeled LC connectors to a monitoring device which filters the data and sends it to various software tools for analysis, where it is then viewed in application-layer software for security threats, performance issues, or system optimization.

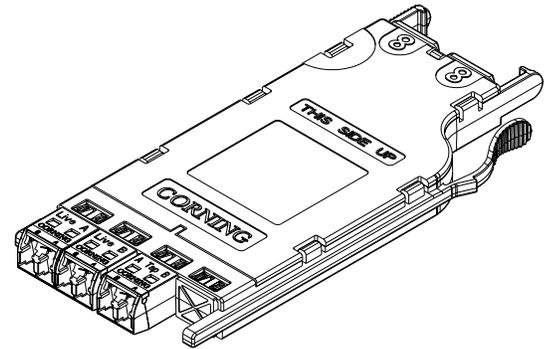


Figure 1

2. Precautions



WARNING: DO NOT use magnifiers in the presence of laser radiation. Diffused laser light can cause eye damage if focused with optical instruments. Should accidental eye exposure to laser light be suspected, arrange for an eye examination immediately.



CAUTION: Fiber optic cable is sensitive to excessive pulling, bending, and crushing forces. Consult the cable specification sheet for the cable you are installing. Do not bend the cable more sharply than the minimum recommended bend radius. Do not apply more pulling force to the cable than specified. Do not crush the cable or allow it to kink. Doing so may cause damage that can alter the transmission characteristics of the cable; the cable may have to be replaced.

3. Tools and Materials

The following tools and materials are required for this procedure:

- LC port cleaner (p/n CLEANER-PORT-LC)

4. Connector and Adapter Cleaning

Cleaning the LC adapters with an LC port cleaner before each mating is recommended (Figure 2).

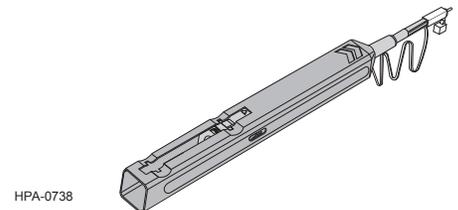


Figure 2

5. Installing an EDGE8™ LC-LC Tap Module

EDGE8 tap modules are installed like their normal EDGE8™ module counterparts. Refer to the Installation chapter in SRP 003-1002, *EDGE8 Solution*, for complete instructions. This procedure covers module installation, trouble shooting, and other module-related topics as well.

6. The Functionality of the Tap Module Splitters

6.1 Directionality

In simplest terms, the splitters inside a tap module act like a divider of a one-way traffic flow – in this case, light.

The **A-lettered** (see the inset) LIVE LC connectors (even fiber positions) only serve as *source input* in an LC-LC tap module and their traffic is split between the B-lettered LIVE and the A and B-lettered TAP output LC connectors (Figure 3).

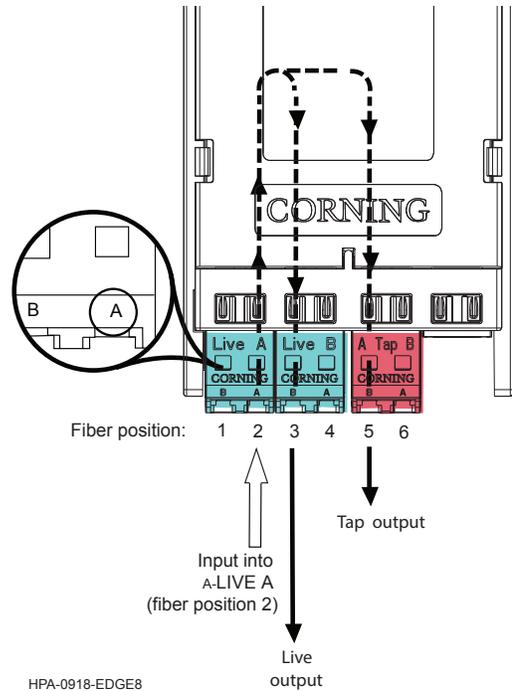


Figure 3

Figure 4 illustrates input into the LC **A-LIVE B** (fiber position 4).

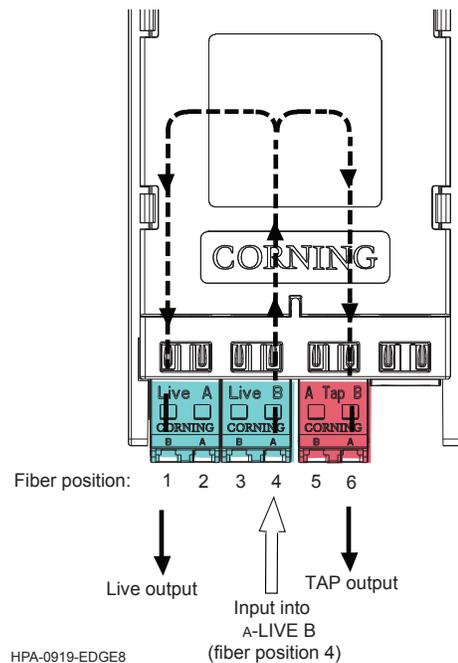


Figure 4

6.2 Input/Output Positions

Table 1 provides a full representation of the input and output positions.

Input LC (and fiber position)	Output LC (and fiber position)	TAP LC (and fiber position)
A-LIVE A (2)	B-LIVE B (3)	B-A TAP B (5)
A-LIVE B (4)	B-LIVE A (1)	A-A TAP B (6)

Table 1: Input and Output Positions

6.3 Testing the Live System

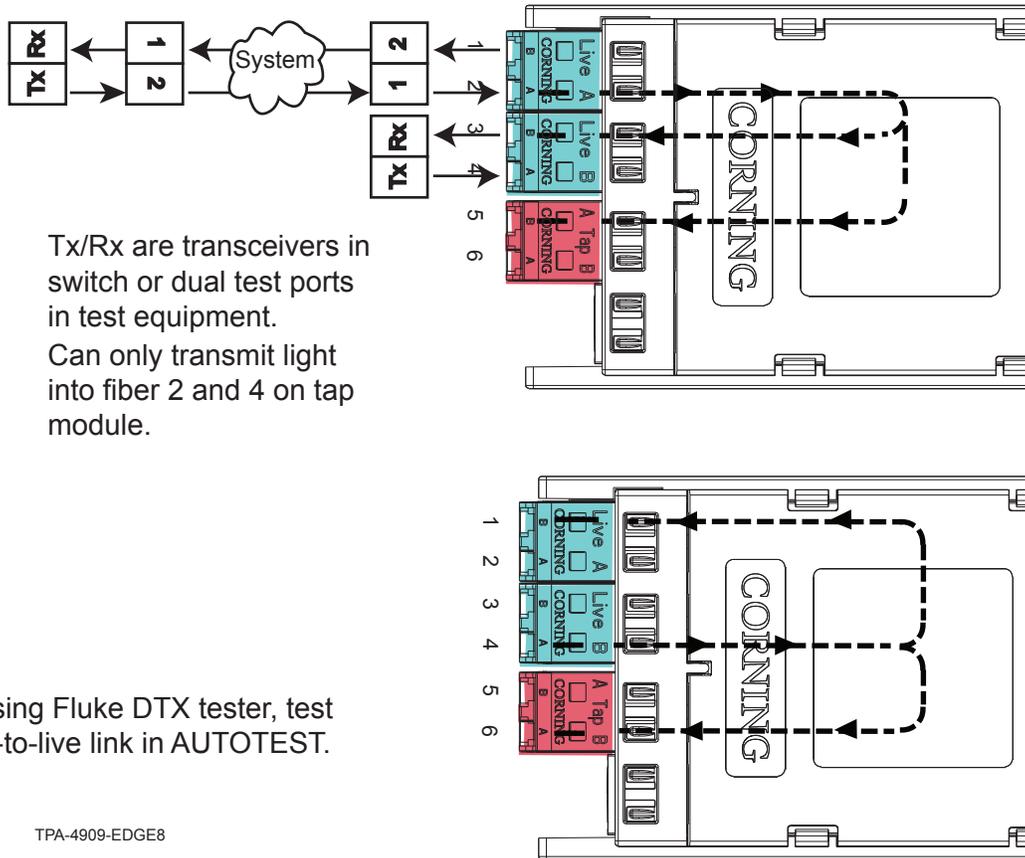
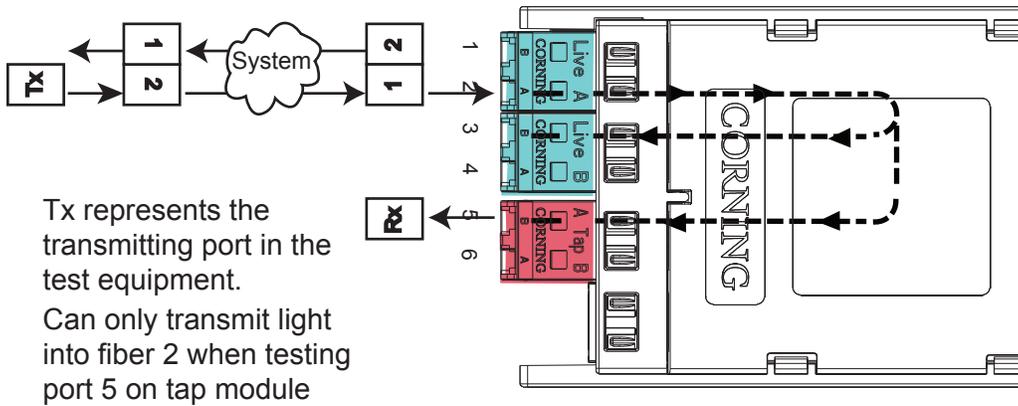


Figure 5

6.4 Testing the Tap Ports



- Tx represents the transmitting port in the test equipment.
- Can only transmit light into fiber 2 when testing port 5 on tap module

NOTE: If using Fluke DTX tester, testing live-to-tap-out, use REMOTE END SETUP (FAR END SOURCE). Refer to “How to Use the DTX-MFM2 Fiber Modules to Test Installed Corning Multimode EDGE8™ Tap Modules,” at <http://www.flukenetworks.com/findit/en-us/9830231>.

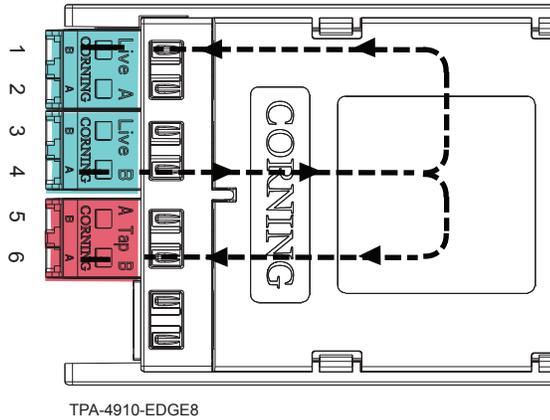
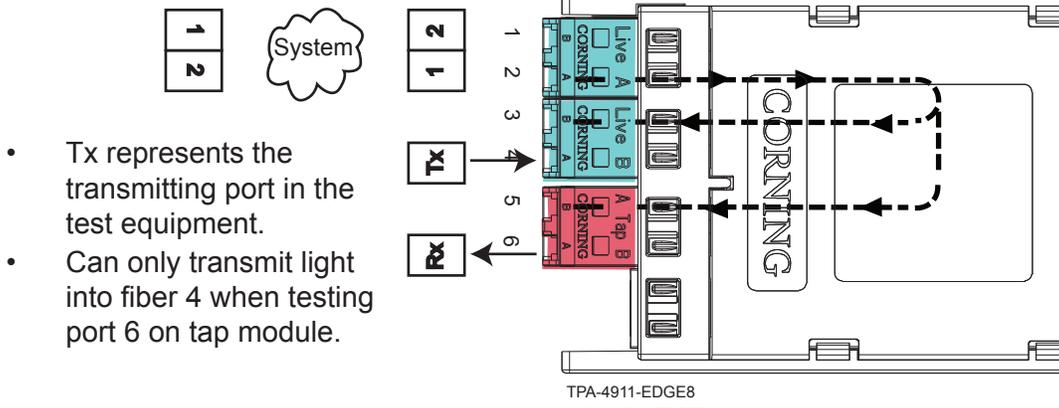


Figure 6



- Tx represents the transmitting port in the test equipment.
- Can only transmit light into fiber 4 when testing port 6 on tap module.

TPA-4911-EDGE8

Figure 7

NOTE: If using Fluke DTX tester, testing live-to-tap-out, use REMOTE END SETUP (FAR END SOURCE). Refer to “How to Use the DTX-MFM2 Fiber Modules to Test Installed Corning Multimode EDGE8™ Tap Modules,” at <http://www.flukenetworks.com/findit/en-us/9830231>.

Corning Optical Communications LLC • PO Box 489 • Hickory, NC 28603-0489 USA
 800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/opcomm

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