

## **Application Note**

## **Terminating FastCAM connectors with Fan Out kits**

Fast CAM connectors provide a precision yet easy to use termination process with minimal tools and consumables. Termination to loose tube or other 250  $\mu$ m bare fiber constructions requires the use of build-up tubing to protect the bare fibers from crushing or bending. Fan Out kits are a common product that provides this correct protection.

There are a few considerations when terminating with Fan Out kits and pre-polished connectors. This Applications Note will identify the necessary steps for successful termination.

Fan Out Kits may display memory from being coiled in the packaging upon removal. As with cable, it is recommended to acclimate the Fan Out kits to the operational room temperature 24 hours before use. Application Note ID: NS-AN-17-0026-060617

> Date: 06-06-17

Product Line: FastCAM connectors and Fan Out Kits

Part Numbers Affected: 49887-xxx, 49991-xLC, 49991-xSC, 49991-xST



Unlike tight buffered fiber, the fiber in the Fan Out tubing moves freely after insertion. If the tubing has any curvature while marking or cleaving the fiber it may affect the usable cleaved length of fiber when terminating to a connector.

To eliminate this effect, the following steps are recommended when terminating to Fan Out or other furcation tubing:

- Make sure a sufficient length of 250 µm bare fiber is exposed from the end of each Fan Out tube. This required length may vary based on the style of precision cleaver being used. Refer to the cleaver manufacture documentation for specific requirements.
- 2. Tape the Fan Out legs to the work surface just beyond the exit from the Fan out Kit housing.
- 3. Straighten out the tubing and tape the far end of the leg to the work surface 3-4 inches back from the end of the fan out tubing for marking and measuring of the fiber prior to cleaving.

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- 4. Mark tubing 12mm back from the exit point of the fiber.
- 5. Maintaining a straight line and mild tension on the fan out tube, place the fiber in the cleaver and perform the cleave at a slightly longer length (11-11.5 mm) than indicated in the FastCAM instructions (10.5 mm)



<u>NOTE:</u> Fan Out and furcation tubing outside diameters can vary by manufacturer. Diameters of less than 900  $\mu$ m will provide insufficient retention and/or interfere with the operation of the fiber clamping mechanism within the FastCAM connector preventing optical connection. If after following all termination instructions, the connector does not maintain termination to the fiber, increase the cleave length to 11.5 mm or greater as needed to properly secure the connector.

For more information on Leviton FastCAM connectors go to: <u>www.leviton.com/fastcam</u>

For more information on Leviton Fan Out kits select this link: <u>http://www.leviton.com/fiber-optic-fanout-kits</u>

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