



## Features & Benefits

- High performance singlemode and multimode pre-polished ferrules
- ST\* compatible bayonet coupling
- Field installable
- Standard crimp and crimpless screw type KEVLAR<sup>†</sup> retention
- Variety of ferrule styles: PC, PC<sup>+</sup> and stainless steel
- Low insertion loss:
  - < .34 dB typical MM
  - < .17 dB typical MM enhanced
  - < .35 dB typical MM stainless steel
  - < .15 dB typical SM
- Variety of connector styles: Long boot, short boot, 90° boot & 900µm buffered fiber

## Applications

- Telecommunication networks
- Local Area Networks (LAN's)
- Data processing networks
- Premise installations
- Instrumentation

The ST series of lightwave connectors are specially designed for distribution applications and are fully compatible with existing ST type hardware. Five connector styles are available in both the multimode and singlemode versions. The screw-on captivation mechanism, in the long boot style, provides excellent KEVLAR retention without the expense and inconvenience of crimp tools. If the crimping method of KEVLAR retention is preferred, 3 options are available. A long boot style is designed to provide superior strain relief while the short boot style is designed for small bend radius applications where space is limited. For sensitive applications where controlled and managed bends are required, the 90° boot is the answer. A boot for 900µm buffered fiber is also available.

High quality, pre-polished and pre-radiused zirconia ceramic ferrules are combined with the latest engineering polymers and metals to produce the ST connectors. Pre-polished ferrules minimize the polishing times and provide a consistent ferrule end face geometry. When combined with the Molex termination kit and methods, the Molex ST connectors produce superior results both in the factory and in the field.

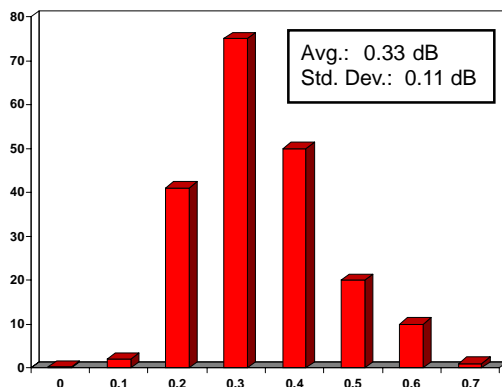
A broad range of ST adapters are available to compliment the connectors. Metal or polymer versions are available with either the extremely precise zirconia ceramic, the rugged phosphor bronze or the cost effective polymer alignment sleeves.

\*ST is a trademark of Lucent Technologies

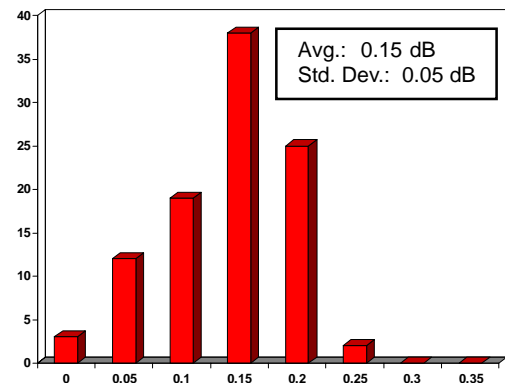
†KEVLAR is a registered trademark of E.I. duPont De Nemours & Co., Inc.

## Optical Performance Distribution

**Insertion Loss Performance  
(MM ferrule, 62.5/125µm fiber)**



**Insertion Loss Performance  
(SM ferrule, 9/125µm fiber)**

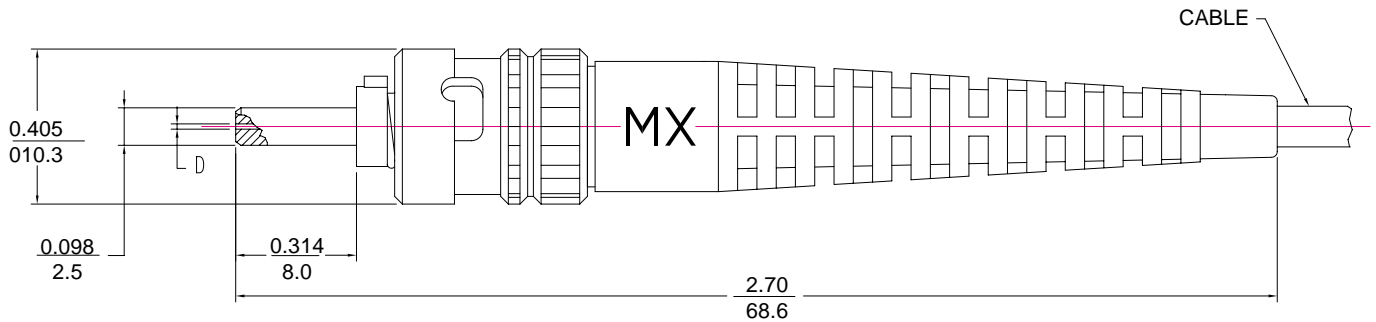


## Performance and Specifications

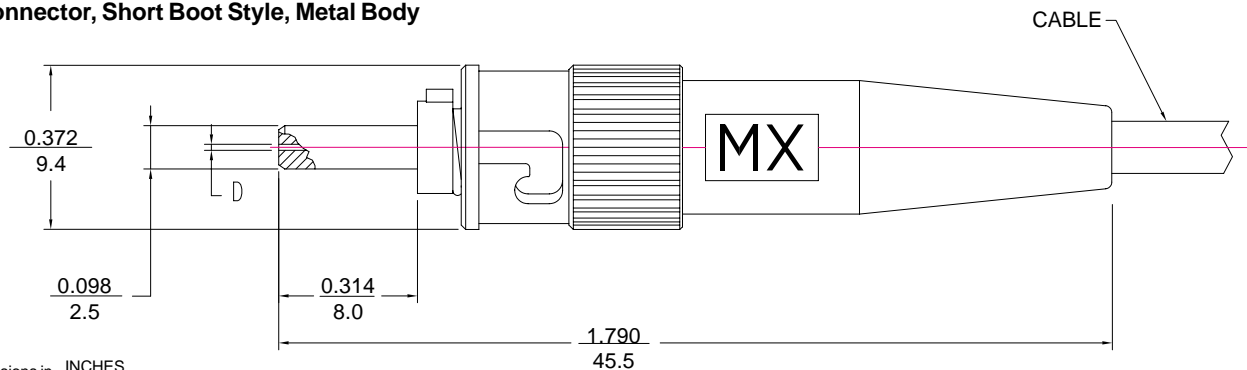
| Characteristics     | Units | Min. | Typ. | Max. | Comments  |
|---------------------|-------|------|------|------|---|
| Durability          | ~dB   | -    | -    | 0.1  | Per FOTP-21A, 1000 cycles cleaning every 100 cycles |
| Temperature Range:  |       |      |      |      |   |
| Storage             | °C    | -40  | -    | +80  | May be further limited by cable specifications      |
| Operating           | °C    | -40  | -    | +80  | May be further limited by cable specifications      |
| Thermal Shock       | ~dB   | -    | -    | 0.1  | -40°C to +60°C, 10 cycles                           |
| Temperature Cycling | ~dB   | -    | -    | 0.1  | -40°C to +80°C, 40 cycles                           |
| Humidity Cycling    | ~dB   | -    | -    | 0.1  | Per FOTP-5, +60°C at 95% RH for 504 hours           |
| Cable Retention     | ~dB   | -    | -    | 0.2  | Per FOTP-6, 40 lb. load without adhesive            |

## Mechanical Dimensions

ST Connector, Long Boot Style, Polymer Body



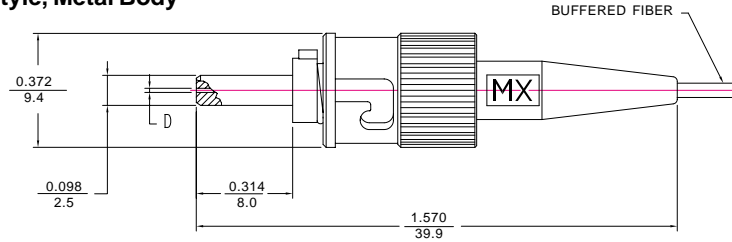
ST Connector, Short Boot Style, Metal Body



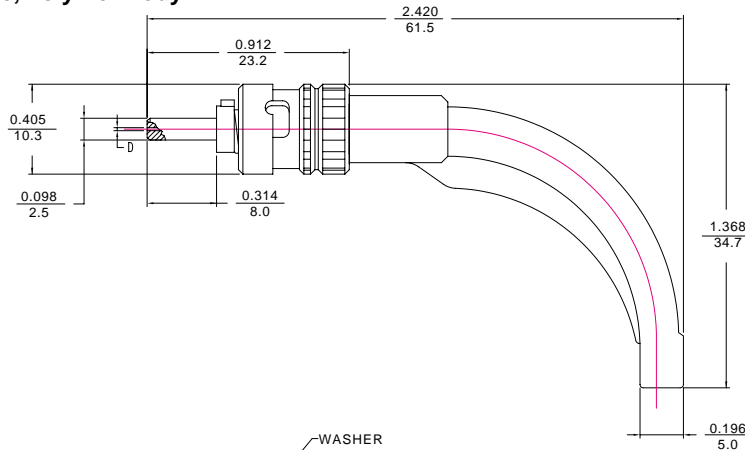
All dimensions in  $\frac{\text{INCHES}}{\text{mm}}$

## Mechanical Dimensions

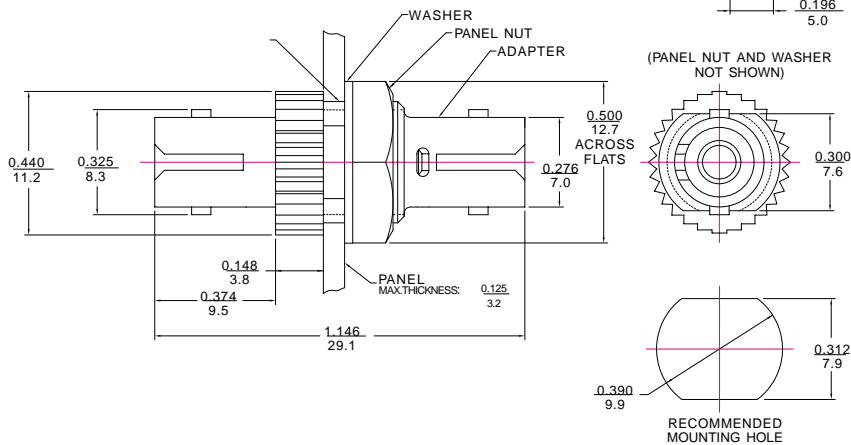
ST Connector, 900µm Boot Style, Metal Body



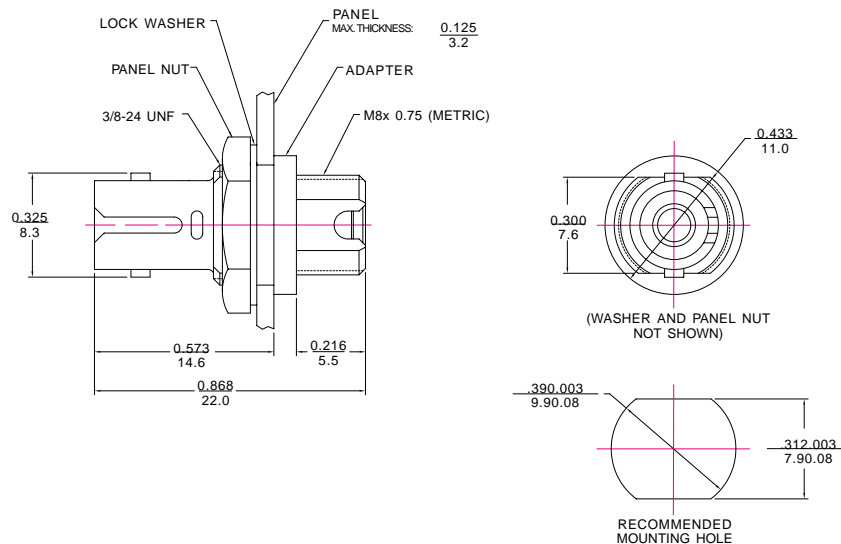
ST Connector, 90° Boot Style, Polymer Body



ST Adapter



ST to FC Adapter



## Standard Part Numbers

| Order Number | Description†   | Hole size "D" | Cable size           |
|--------------|--|---------------|----------------------|
| 86010-0000   | ST connector, MM, zirconia PC <sup>+</sup> ferrule, polymer coupling nut, long boot        | 127µm         | 2.4mm and 3.0mm      |
| 86010-0300   | ST connector, MM, zirconia PC <sup>+</sup> ferrule, polymer coupling nut, long boot crimp  | 127µm         | 2.4mm and 3.0mm      |
| 86010-0200   | ST connector, MM, zirconia PC <sup>+</sup> ferrule, polymer coupling nut, short boot crimp | 127µm         | 2.4mm and 3.0mm      |
| 86010-0500   | ST connector, MM, zirconia PC <sup>+</sup> ferrule, polymer coupling nut, buffered fiber   | 127µm         | 900µm buffered fiber |
| 86010-0400   | ST connector, MM, zirconia PC <sup>+</sup> ferrule, polymer coupling nut, 90° boot         | 127µm         | 3.0mm                |
| 86010-0440   | ST connector, MM, zirconia PC <sup>+</sup> ferrule, polymer coupling nut, red 90° boot     | 127µm         | 3.0mm                |
| 86012-0000   | ST connector, MM, zirconia PC <sup>+</sup> ferrule, metal coupling nut, long boot          | 127µm         | 2.4mm and 3.0mm      |
| 86012-0300   | ST connector, MM, zirconia PC <sup>+</sup> ferrule, metal coupling nut, long boot crimp    | 127µm         | 2.4mm and 3.0mm      |
| 86012-0200   | ST connector, MM, zirconia PC <sup>+</sup> ferrule, metal coupling nut, short boot crimp   | 127µm         | 2.4mm and 3.0mm      |
| 86012-0500   | ST connector, MM, zirconia PC <sup>+</sup> ferrule, metal coupling nut, buffered fiber     | 127µm         | 900µm buffered fiber |
| 86012-0400   | ST connector, MM, zirconia PC <sup>+</sup> ferrule, metal coupling nut, 90° boot           | 127µm         | 3.0mm                |
| 86012-0440   | ST connector, MM, zirconia PC <sup>+</sup> ferrule, metal coupling nut, red 90° boot       | 127µm         | 3.0mm                |
| 86010-3000   | ST connector, MM enhanced, zirconia PC ferrule, polymer coupling nut, long boot            | 128µm         | 2.4mm and 3.0mm      |
| 86010-3300   | ST connector, MM enhanced, zirconia PC ferrule, polymer coupling nut, long boot crimp      | 128µm         | 2.4mm and 3.0mm      |
| 86010-3200   | ST connector, MM enhanced, zirconia PC ferrule, polymer coupling nut, short boot crimp     | 128µm         | 2.4mm and 3.0mm      |
| 86010-3500   | ST connector, MM enhanced, zirconia PC ferrule, polymer coupling nut, buffered fiber       | 128µm         | 900µm buffered fiber |
| 86010-3400   | ST connector, MM enhanced, zirconia PC ferrule, polymer coupling nut, 90° boot             | 128µm         | 3.0mm                |
| 86010-3440   | ST connector, MM enhanced, zirconia PC ferrule, polymer coupling nut, red 90° boot         | 128µm         | 3.0mm                |
| 86012-3000   | ST connector, MM enhanced, zirconia PC ferrule, metal coupling nut, long boot              | 128µm         | 2.4mm and 3.0mm      |
| 86012-3300   | ST connector, MM enhanced, zirconia PC ferrule, metal coupling nut, long boot crimp        | 128µm         | 2.4mm and 3.0mm      |
| 86012-3200   | ST connector, MM enhanced, zirconia PC ferrule, metal coupling nut, short boot crimp       | 128µm         | 2.4mm and 3.0mm      |
| 86012-3500   | ST connector, MM enhanced, zirconia PC ferrule, metal coupling nut, buffered fiber         | 128µm         | 900µm buffered fiber |
| 86012-3400   | ST connector, MM enhanced, zirconia PC ferrule, metal coupling nut, 90° boot               | 128µm         | 3.0mm                |
| 86012-3440   | ST connector, MM enhanced, zirconia PC ferrule, metal coupling nut, red, 90° boot          | 128µm         | 3.0mm                |
| 86010-1000   | ST connector, MM, zirconia PC ferrule, polymer coupling nut, long boot                     | 144µm         | 2.4mm and 3.0mm      |
| 86010-1300   | ST connector, MM, zirconia PC ferrule, polymer coupling nut, long boot crimp               | 144µm         | 2.4mm and 3.0mm      |
| 86010-1200   | ST connector, MM, zirconia PC ferrule, polymer coupling nut, short boot crimp              | 144µm         | 2.4mm and 3.0mm      |
| 86010-1500   | ST connector, MM, zirconia PC ferrule, polymer coupling nut, buffered fiber                | 144µm         | 900µm buffered fiber |
| 86010-1400   | ST connector, MM, zirconia PC ferrule, polymer coupling nut, 90° boot                      | 144µm         | 3.0mm                |
| 86010-1440   | ST connector, MM, zirconia PC ferrule, polymer coupling nut, red 90° boot                  | 144µm         | 3.0mm                |
| 86012-1000   | ST connector, MM, zirconia PC ferrule, metal coupling nut, long boot                       | 144µm         | 2.4mm and 3.0mm      |
| 86012-1300   | ST connector, MM, zirconia PC ferrule, metal coupling nut, long boot crimp                 | 144µm         | 2.4mm and 3.0mm      |
| 86012-1200   | ST connector, MM, zirconia PC ferrule, metal coupling nut, short boot crimp                | 144µm         | 2.4mm and 3.0mm      |
| 86012-1500   | ST connector, MM, zirconia PC ferrule, metal coupling nut, buffered fiber                  | 144µm         | 900µm buffered fiber |
| 86012-1400   | ST connector, MM, zirconia PC ferrule, metal coupling nut, 90° boot                        | 144µm         | 3.0mm                |
| 86012-1440   | ST connector, MM, zirconia PC ferrule, metal coupling nut, red 90° boot                    | 144µm         | 3.0mm                |
| 86010-8000   | ST connector, MM, stainless steel flat ferrule, polymer coupling nut, long boot            | 127µm         | 2.4mm and 3.0mm      |
| 86010-8300   | ST connector, MM, stainless steel flat ferrule, polymer coupling nut, long boot crimp      | 127µm         | 2.4mm and 3.0mm      |
| 86010-8200   | ST connector, MM, stainless steel flat ferrule, polymer coupling nut, short boot crimp     | 127µm         | 2.4mm and 3.0mm      |
| 86010-8500   | ST connector, MM, stainless steel flat ferrule, polymer coupling nut, buffered fiber       | 127µm         | 900µm buffered fiber |
| 86010-8400   | ST connector, MM, stainless steel flat ferrule, polymer coupling nut, 90° boot             | 127µm         | 3.0mm                |
| 86010-8440   | ST connector, MM, stainless steel flat ferrule, polymer coupling nut, red 90° boot         | 127µm         | 3.0mm                |
| 86012-8000   | ST connector, MM, stainless steel flat ferrule, metal coupling nut, long boot              | 127µm         | 2.4mm and 3.0mm      |
| 86012-8300   | ST connector, MM, stainless steel flat ferrule, metal coupling nut, long boot crimp        | 127µm         | 2.4mm and 3.0mm      |
| 86012-8200   | ST connector, MM, stainless steel flat ferrule, metal coupling nut, short boot crimp       | 127µm         | 2.4mm and 3.0mm      |
| 86012-8500   | ST connector, MM, stainless steel flat ferrule, metal coupling nut, buffered fiber         | 127µm         | 900µm buffered fiber |
| 86012-8400   | ST connector, MM, stainless steel flat ferrule, metal coupling nut, 90° boot               | 127µm         | 3.0mm                |
| 86012-8440   | ST connector, MM, stainless steel flat ferrule, metal coupling nut, red 90° boot           | 127µm         | 3.0mm                |

†Standard boot color is black

## Standard Part Numbers

| Order Number | Description  | Hole size "D" | Cable size           |
|--------------|--|---------------|----------------------|
| 86010-5000   | ST connector, SM zirconia PC ferrule, polymer coupling nut, long boot        | 126µm         | 2.4mm and 3.0mm      |
| 86010-5300   | ST connector, SM zirconia PC ferrule, polymer coupling nut, long boot crimp  | 126µm         | 2.4mm and 3.0mm      |
| 86010-5200   | ST connector, SM zirconia PC ferrule, polymer coupling nut, short boot crimp | 126µm         | 2.4mm and 3.0 mm     |
| 86010-5500   | ST connector, SM zirconia PC ferrule, polymer coupling nut, buffered fiber   | 126µm         | 900µm buffered fiber |
| 86010-5400   | ST connector, SM zirconia PC ferrule, polymer coupling nut, 90° boot         | 126µm         | 3.0mm                |
| 86010-5440   | ST connector, SM zirconia PC ferrule, polymer coupling nut, red 90° boot     | 126µm         | 3.0mm                |
| 86012-5000   | ST connector, SM zirconia PC ferrule, metal coupling nut, long boot          | 126µm         | 2.4mm and 3.0mm      |
| 86012-5300   | ST connector, SM zirconia PC ferrule, metal coupling nut, long boot crimp    | 126µm         | 2.4mm and 3.0mm      |
| 86012-5200   | ST connector, SM zirconia PC ferrule, metal coupling nut, short boot crimp   | 126µm         | 2.4mm and 3.0mm      |
| 86012-5500   | ST connector, SM zirconia PC ferrule, metal coupling nut, buffered fiber     | 126µm         | 900µm buffered fiber |
| 86012-5400   | ST connector, SM zirconia PC ferrule, metal coupling nut, 90° boot           | 126µm         | 3.0mm                |
| 86012-5440   | ST connector, SM zirconia PC ferrule, metal coupling nut, red 90° boot       | 126µm         | 3.0mm                |
| 86010-7000   | ST connector, SM zirconia PC ferrule, polymer coupling nut, long boot        | 127µm         | 2.4mm and 3.0mm      |
| 86010-7300   | ST connector, SM zirconia PC ferrule, polymer coupling nut, long boot crimp  | 127µm         | 2.4mm and 3.0mm      |
| 86010-7200   | ST connector, SM zirconia PC ferrule, polymer coupling nut, short boot crimp | 127µm         | 2.4mm and 3.0mm      |
| 86010-7500   | ST connector, SM zirconia PC ferrule, polymer coupling nut, buffered fiber   | 127µm         | 900µm buffered fiber |
| 86010-7400   | ST connector, SM zirconia PC ferrule, polymer coupling nut, 90° boot         | 127µm         | 3.0mm                |
| 86010-7440   | ST connector, SM zirconia PC ferrule, polymer coupling nut, red 90° boot     | 127µm         | 3.0mm                |
| 86012-7000   | ST connector, SM zirconia PC ferrule, metal coupling nut, long boot          | 127µm         | 2.4mm and 3.0mm      |
| 86012-7300   | ST connector, SM zirconia PC ferrule, metal coupling nut, long boot crimp    | 127µm         | 2.4mm and 3.0mm      |
| 86012-7200   | ST connector, SM zirconia PC ferrule, metal coupling nut, short boot crimp   | 127µm         | 2.4mm and 3.0mm      |
| 86012-7500   | ST connector, SM zirconia PC ferrule, metal coupling nut, buffered fiber     | 127µm         | 900µm buffered fiber |
| 86012-7400   | ST connector, SM zirconia PC ferrule, metal coupling nut, 90° boot           | 127µm         | 3.0mm                |
| 86012-7440   | ST connector, SM zirconia PC ferrule, metal coupling nut, red 90° boot       | 127µm         | 3.0mm                |
| 86110-0000   | ST adapter, zirconia alignment sleeve, black polymer housing                 |               |                      |
| 86112-0000   | ST adapter, phosphor bronze alignment sleeve, black polymer housing          |               |                      |
| 86113-0000   | ST adapter, polymer alignment sleeve, black polymer housing                  |               |                      |
| 86110-1000   | ST adapter, zirconia alignment sleeve, metal housing                         |               |                      |
| 86112-1000   | ST adapter, phosphor bronze alignment sleeve, metal housing                  |               |                      |
| 86113-1000   | ST adapter, polymer alignment sleeve, metal housing                          |               |                      |
| 86172-0000   | ST to FC adapter, zirconia alignment sleeve, metal housing                   |               |                      |