

# FIBER OPTIC FIBER OPTIC PATCH CORD

IS CONSTRUCTED FROM A CORE WITH A HIGH REFRACTIVE INDEX, SURROUNDED BY A COATING WITH A LOW REFRACTIVE INDEX, THAT IS STRENGTHENED BY ARAMID YARNS AND SURROUNDED BY A PROTECTIVE JACKET. TRANSPARENCY OF THE CORE PERMITS TRANSMISSION OF OPTIC SIGNALS WITH LITTLE LOSS OVER GREAT DISTANCES.



## PATCH CORD LC-ST SINGLE MODE DX 3M

NS-LCUPC-STUPC-DX-SM-3M

### DESCRIPTION

#### Singlemode 9/125- $\mu\text{m}$ {0S1} Optical Fiber Patch Cords:

- Singlemode optical fiber patch cords can be used as cross-connect jumpers, equipment and work area cords.
- All Netsys optical fiber patch cords are 100% factory tested for insertion and return loss to ensure transmission performance per ANSI/TIA-568-C.3 standard specifications.
- Cordage used in singlemode fiber cords is color-coded per ANSI/TIA-598-C - 9/125- $\mu\text{m}$  10G singlemode cables are yellow in color.

- Position A/Position B markings.
- Slim-profile boots with durable flexible cable strain relief.
- Comply with RoHS.
- Available Cable Diameters: 3mm, 2mm, 1.6mm 0.9mm, 250 $\mu\text{m}$ .
- Fiber Type: Corning SMF28 or Better.

### TRANSMISSION PERFORMANCE

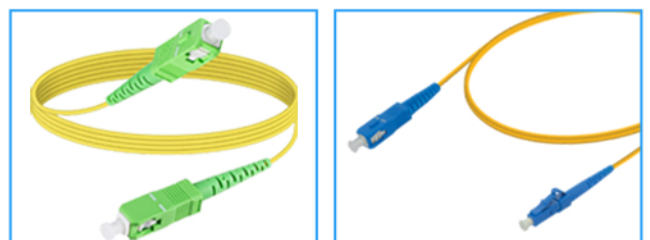
- ANSI/TIA/EIA-568-C.3: insertion and return loss (100% tested).

### TRANSMISSION MEDIA

- 9/125- $\mu\text{m}$  singlemode optical fiber.

### FEATURES

- Duplex and simplex versions.
- Uniform and hybrid cord versions.
- 100% factory transmission tested per ANSI/TIA-568-C.3.
- Cordage color coding per ANSI/TIA-598-C.
- Plastic body color coding per ANSI/TIA-598-C.3.



# TECHNICAL SPECIFICATION

## CONNECTOR TYPES

- Connector type: ST/SC/LC/FC/MT-RJ UPC singlemode ST/SC/LC/FC APC singlemode FOCIS (ANSI/TIA/EIA-604) compliant.

## CONSTRUCTION

- simplex or duplex fiber cordage.
- thermoplastic outer jacket (OFNR-rated) Or Plenum ( OFNP-rated ).
- thermoplastic strain relief

## MECHANICAL

- Connector ferrule: ceramic.
- End-face radius of curvature: 10 mm (0.39 in) < R < 30 mm (1.18 in).
- Apex offset: < 50 µm.
- Cable material: PVC OFNR.
- Cable jacket color: yellow.

## ENVIRONMENTAL

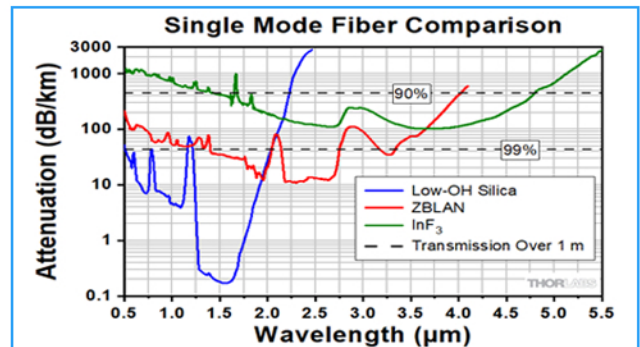
- Operation temperature: Riser; -20 °C to +70 °C (-4 °F to +158 °F).
- Plenum; 0 °C to + 60 °C {32 °F to +140 °F}.
- Storage temperature: -40 °C to +80 °C (-40 °F to +176 °F).
- Humidity: 95 %RH (non-condensing).
- Cable jacket color: yellow.

## SIMPLEX VS DUPLEX

	Simplex	Duplex
Direction of communication	Simplex communications are sent in one direction	Devices that are connected via Duplex are able to send data in both directions simultaneously.
Examples	A signal is transmitted via a Simplex Fiber Optic Cable from device A to device B, the signal cannot return from device B via the same cable.	A good example of a duplex connection is your everyday telephone line, which allows for communications from both parties at the same time.

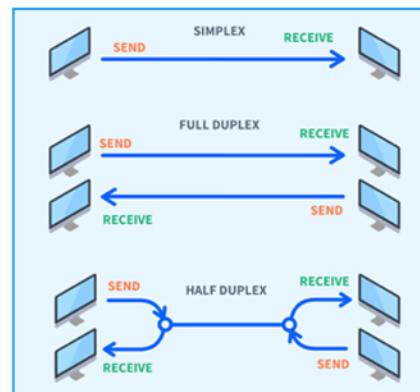
## COMPLIANCE

- ANSI/TIA-568-C.3, ISO/IEC 11801 2nd Ed. CENELEC EN 50173, UL94V-0, TIA-604-3 ( FOCIS-3 ).



## TRANSMISSION PERFORMANCE

- Return loss: UPC: ≤ -50 dB
- APC: ≤ -60 dB
- Insertion loss: ST, SC, LC, FC: typical -0.2 dB, max -0.3 dB.
- MT-RJ: typical -0.3 dB, max -0.5 dB.



# FIBER OPTIC CONNECTORS TYPES

## LC CONNECTORS

LC connectors are licensed by Lucent Technologies, now known as Alcatel-Lucent. These connectors are ideal for use in high-density applications due to their small size and feature a pull-proof design. They are available in both simplex and duplex versions with a 1.25mm zirconia ferrule. Additionally LC connectors also make use of a specialized latch mechanism in order to provide stability within rack mounts.



## SC CONNECTORS

SC connectors, also known as Subscriber Connectors, Square Connectors or Standard Connectors are non-optical disconnect connectors with a 2.5mm pre-radius-ed zirconia ferrule. They are ideal for quick patching of cables into rack or wall mounts due to their push-pull design. Available in simplex and duplex with a reusable duplex holding clip to allow for duplex connections.



## FC CONNECTORS

FC connectors are known as both Ferrule Connectors and Fiber Channel Connectors. They feature a durable threaded coupling and are best suited for use within telecoms applications and make use of non-optical disconnect.



## ST CONNECTORS

ST connectors or Straight Tip connectors make use of a semi-unique bayonet connection with a 2.5mm ferrule. ST's are great fiber optic connectors for field installation due to their reliability and durability. They are available in both simplex and duplex

