

# 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 SC-SC SINGLE MODE DX 1M

NS-SCUPC-SCUPC-DX-SM-1M

### 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

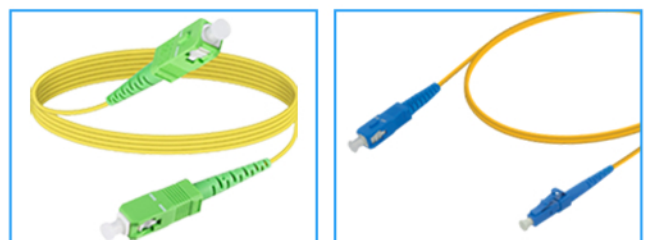
- ANSI/TIA/EIA-568-C.3: insertion and return loss (100% tested).

### 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

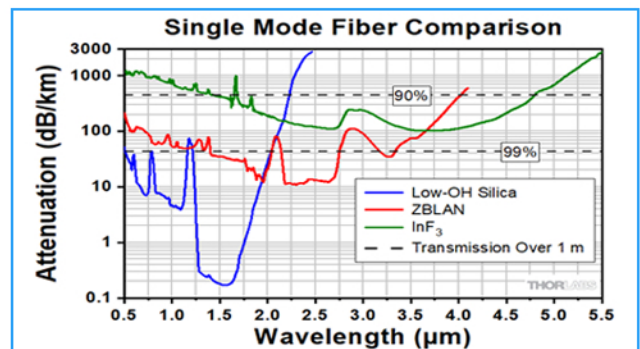
- Operation temperature: Riser; -20 °C to +70 °C (-4 °F to +158 °F).
- Plenum; 0 °C to + 60 °C {32 °F to +140 °F}.
- Storage temperature: -40 °C to +80 °C (-40 °F to +176 °F).
- Humidity: 95 %RH (non-condensing).
- Cable jacket color: yellow.

## 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. |

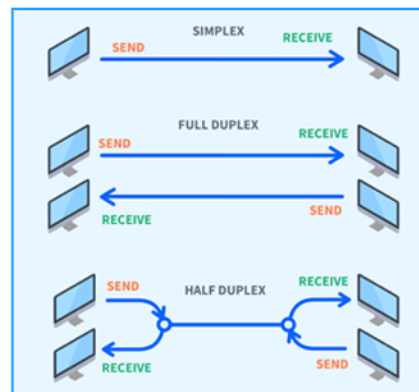
## COMPLIANCE

- 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

