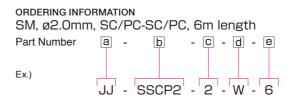
[Jumper Cable]

- Our precision optical cable manufacturing services can provide a wide range of standard and custom cables to meet a wide range of requirements
- Specialty cables, master reference and key adjust cables available
- •All cables are tested, serialized, labeled in individual bags with complete test information
- Production facility meets the strictest quality control under ISO9001 and connector components meet or exceed industry standard performance levels

U.S. Pat. No. 5,668,905

Standard Jumper





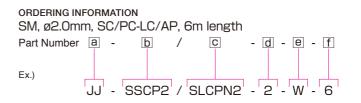
| | Jumper Type | Jumper | JJ |
|---|----------------------------|------------------------|----|
| | | Pigtail | JP |
| а | | Master jumper | MJ |
| | | Master pigtail | MP |
| b | Connector Type See Table 1 | | |
| | Fiber Diameter | φ0.9mm buffer | 1 |
| С | | φ2.0mm cable | 2 |
| | | φ3.0mm cable | 3 |
| | Fiber Type | Single-Mode | W |
| d | | Multi-Mode(50/125µm) | M1 |
| | | Multi-Mode(62.5/125μm) | M2 |
| е | Length | 5m | 5 |
| | | 10m | 10 |

Hybrid Jumper



Table 1. Connector Type

| | Type | ф1 | ф2 | ф3 |
|-------------|-------------------|---------|---------|---------|
| | FC | SAP4 | SAP3 | SAP3 |
| PC | | SGP4 | SGP3 | SGP3 |
| RL≧ | SC | SSCP1 | SSCP2 | SSCP3 |
| 50dB | MU | SMUC1 | SMUC2 | _ |
| | LC | SLCC1 | SLCC2 | _ |
| | FC Narrow key (R) | SGPN4 | SGPN3 | SGPN3 |
| | ro Nariow key (h) | (SNP5K) | (SNP3K) | (SNP3K) |
| Angle | FC Wide key (N) | SNP5D | SNP3D | SNP3D |
| PC | SC(step) | SSCPG1 | SSCPG2 | SSCPG3 |
| RL≧ 60dB | SC(conical) | SSCPN1 | SSCPN2 | SSCPN3 |
| COUB | MU | SMUCN1 | SMUCN2 | _ |
| | LC | SLCCN1 | SLCCN2 | _ |



| | Jumper Type | Jumper | JJ |
|-----|----------------|------------------------|----|
| а | | Master jumper | MJ |
| b/c | Connector Type | See Table 1 | |
| | | φ0.9mm buffer | 1 |
| d | Fiber Diameter | φ2.0mm cable | 2 |
| | | φ3.0mm cable | 3 |
| | Fiber Type | Single-Mode | W |
| е | | Multi-Mode(50/125µm) | M1 |
| | | Multi-Mode(62.5/125μm) | M2 |
| f | Length | 5m | 5 |
| | | 10m | 10 |

Option

- · Available custom designed jumper cable
- AR coating, and fiber metalization are available
- FC/Angle PC connector ferrule combination
 - Narrow key (R) ... Step ferrule
- Wide key (N) ... Conical ferrule

PM Jumper

PM Hybrid Jumper





| | Number of Connector | PM jumper | PJ | |
|---|-----------------------|----------------|------|---|
| a | | PM pigtail | PP | |
| b | Connector Type | See Table 2 | | |
| | Axis (See Table 3) | Free (FC Only) | F | |
| | | Fast | X | |
| С | | (See Table 3) | Slow | Υ |
| | | Other | 0 | |
| ٦ | Wavelength | 1310nm | 13 | |
| d | | 1550nm | 15 | |
| е | Length | 10m | 10 | |

PM Hybrid Jumper ORDERING INFORMATION SC/PC-FC/APC, Key=X, 1550mm, Ø2.0mm, 8m length Part Number a - b - c / d - e - f - g Ex.)

| _ | Ni walan af Oamaantan | DM inner en | D.I. |
|---|-----------------------|----------------|------|
| а | Number of Connector | PM jumper | PJ |
| b | Connector Type | See Table 2 | |
| | Axis (See Table 3) | Free (FC Only) | F |
| С | | Fast | X |
| | | Slow | Υ |
| | | Other | 0 |
| d | Connector Type | See Table 2 | |
| | Axis (See Table 3) | Free (FC Only) | F |
| | | Fast | X |
| е | | Slow | Υ |
| | | Other | 0 |
| f | Wavelength | 1310nm | 13 |
| | | 1550nm | 15 |
| g | Length | 10m | 10 |

PJ - PC12B - X / PF12C - X - 15 - 8

• Available ER \geq 30dB Jumper

Table 2. Connector Type

| Table 2. Connector Type | | | | |
|-------------------------|-------------------|--------|--------|--|
| | Type | ф1 | ф2 | |
| | FC | PF11 | PF12B | |
| PC | SC | PC11 | PC12B | |
| RL≧50dB | MU | PU11 | PU12 | |
| | LC | PL11 | PL12 | |
| A I . DO | FC Narrow key (R) | PF11A | PF12C | |
| Angle PC RL≧60dB | FC Wide key (N) | PF11AN | PF12CN | |
| TIL = 000D | SC | PC11A | PC12C | |

Table 3. Polarization Axis

| Polarization | F (Free) | X (Fast) | Y (Slow) | O (Other) |
|--|---|---|---|--|
| Direction of the stress | $\bigcirc \circ \bigcirc$ | 0.0 | 0.0 | 0. |
| producing members against the key | The stress producing members are free to the key. (the key is not fixed) | The stress producing members are horizontal to the key: 0°±3° | The stress producing members are perpendicular to the key: 0°±3° | The stress producing members are at the desig- nated angle to the key |