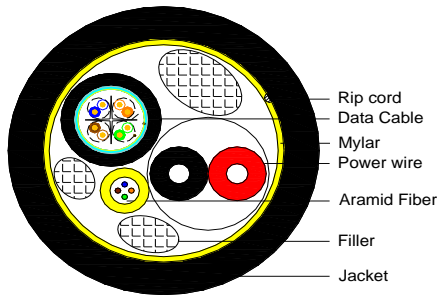




Cross Section



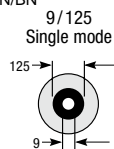
Cable Description

Power Wire - 2C x (12 AWG)

| | |
|----------------------------|---------------------------|
| Center Conductor | Bare Copper Stranded Wire |
| Conductor Dia.(+/-0.015mm) | 2.36 (65/0.254) |
| Insulation | PVC |
| Color | Red / Black |
| Centricity (%) | ≥ 90 |
| Dia.(+/-0.20mm) | 3.50 |

4C Singlemode Tight Buffered Optical Fiber

| | |
|----------------------------|-------------|
| Fiber Count | 4 |
| Fiber Dia.(+/-0.03um) | 0.245 |
| Buffering Dia. (+/-0.10um) | 0.6 |
| Color | BL/OR/GN/BN |
| Tensile Strength Element | Kevlar |
| Jacket | PVC |
| Thickness (+/-0.10mm) | 0.6 |
| Outer Dia (+/-0.20mm) | 3.80 |
| Jacket Color | Yellow |



CAT.6 FTP 4PR x 23AWG

| | |
|-----------------------|--|
| 1) Conductor : | |
| Material | Bare Copper |
| Stranding | Solid |
| Wire Gage | 23AWG |
| Dia.(+/-0.02mm) | 0.570 |
| 2) Insulation : | |
| Material | HDPE |
| Dia.(+/-0.05mm) | 1.10 |
| Color Code | WH/BL&BL,WH/OR&OR WH/GN&GN,WH/BR&BR |
| 3)Shielding: | |
| Vertical Wrap | Al-Mylar Tape |
| Coverage % | 100% |
| Drain Wire(+/-0.02mm) | 0.4 Solid Tinned Copper |
| 4) Outer Sheath : | |
| Material | PVC |
| Rip Cord | 200D*3 |
| Thickness(+/-0.05mm) | 0.54 |
| Dia.(+/-0.2mm) | 7.00 |
| Jacket Color | Black |

Total Composite Cable

| | |
|-----------------------|--------|
| Jacket | LDPE |
| Thickness (+/-0.15mm) | 1.00 |
| Dia. (+/-0.80mm) | 14.00 |
| Ripcord | 500D*3 |

Electrical Characteristics(20 °C)

| Test Item | Units | Spec | |
|---------------------------------------|-----------------|--------------|--------|
| Power | | | |
| Max. DCR | Ω/km | 5.6 | |
| Capacitance of Con. To Con. | pF/m | 148 | |
| Operation Voltage | V RMS | 300 | |
| SM. Fiber | | | |
| Bandwidth | 850nm | Units MHz.km | |
| Attenuation | 1310nm | Spec ≥ 750 | |
| Fiber optical index | | dB/km | |
| | | ≤0.40 | |
| Cable optical index | 1550nm | dB/km | |
| | | ≤0.30 | |
| Numerical Aperture | | 0.14 | |
| Effective Group Index of Refraction | 1310nm | 1.4676 | |
| | 1440nm | 1.4682 | |
| DATA Cable | | | |
| 1.Max.Conductor DC Resistance | Ω/km | 93.8 | |
| 2.Max.Unbalance of Pair DC Resistance | % | 2.5 | |
| 3.Dielectric Strength between Pairs | kV/min | DC1.0 | |
| 4.Min.Insulation Resistance | MΩ.km | 5000 | |
| 5.Max.Pair Mutual Capacitance | nF/100m | 5.6 | |
| 6.Max.Pair Capacitance Unbalance | pF/100m | 330 | |
| 7.Impedance (1 to 250MHz) | Ω | 100±15 | |
| | (250 to 550MHz) | Ω | 100±25 |

| Frequency (MHz) | Min.RL (dB) | Max.IL (dB/100m) | Min.NEXT (dB) | Min.PSNEXT (dB) |
|-----------------|-------------|------------------|---------------|-----------------|
| 1 | 20.0 | 2.0 | 74.3 | 72.3 |
| 4 | 23.0 | 3.8 | 65.3 | 63.3 |
| 8 | 24.5 | 5.3 | 60.8 | 58.8 |
| 10 | 25.0 | 6.0 | 59.3 | 57.3 |
| 16 | 25.0 | 7.6 | 56.2 | 54.2 |
| 20 | 25.0 | 8.5 | 54.8 | 52.8 |
| 25 | 24.3 | 9.5 | 53.3 | 51.3 |
| 31.25 | 23.6 | 10.7 | 51.9 | 49.9 |
| 62.5 | 21.5 | 15.4 | 47.4 | 45.4 |
| 100 | 20.1 | 19.8 | 44.3 | 42.3 |
| 200 | 18.0 | 29.0 | 39.8 | 37.8 |
| 250 | 17.3 | 32.8 | 38.3 | 36.3 |
| 300 | 16.8 | 36.4 | 37.1 | 35.1 |
| 400 | 15.9 | 43.0 | 35.3 | 33.3 |
| 550 | 14.9 | 51.8 | 33.2 | 31.2 |

| Frequency (MHz) | Min.ELFEXT (dB) | Min.PSELFEXT (dB) | Max.Delay (ns/100m) | Max.Delay skew(ns/100m) |
|-----------------|-----------------|-------------------|---------------------|-------------------------|
| 1 | 67.8 | 64.8 | 570 | 45 |
| 4 | 55.8 | 52.8 | 552 | 45 |
| 8 | 49.7 | 46.7 | 547 | 45 |
| 10 | 47.8 | 44.8 | 545 | 45 |
| 16 | 43.7 | 40.7 | 543 | 45 |
| 20 | 41.8 | 38.8 | 542 | 45 |
| 25 | 39.8 | 36.8 | 541 | 45 |
| 31.25 | 37.9 | 34.9 | 540 | 45 |
| 62.5 | 31.9 | 28.9 | 539 | 45 |
| 100 | 27.8 | 24.8 | 538 | 45 |
| 200 | 21.8 | 18.8 | 537 | 45 |
| 250 | 19.8 | 16.8 | 536 | 45 |
| 300 | 18.3 | 15.3 | 536 | 45 |
| 400 | 15.8 | 12.8 | 536 | 45 |
| 550 | 13.0 | 10.0 | 536 | 45 |