

Digi-Link Fiber Optic Solutions



Standard Color Coding

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|------------|-----------|-----------|
| 1. Blue | 2. Orange | 3. Green |
| 4. Brown | 5. Slate | 6. White |
| 7. Red | 8. Black | 9. Yellow |
| 10. Violet | 11. Rose | 12. Aqua |

For indoor/outdoor, fibers are identified with standard color code

For 18 and 24 fiber single unit cables, fibers 13 through 24 repeat the sequence with tracer stripe (i.e. fiber 13 is blue with tracer stripes)

For central tube cables, fiber bundles and fibers are identified with standard color code.

For stranded loose tube cables, buffer tubes and fibers are identified with standard color code.

Specification and Cable Sizing

When sizing and selecting cable the following rules of thumb are useful. Please note, they are only guidelines. As each site the requirements will be different.

Growth factor of 50% to 100% is often applied after sizing current needs. The factors which affect the backbone cable sizing include:

- ✓ Campus Layout
- ✓ Campus size (number of buildings)
- ✓ No. of network segments
- ✓ Level of automation (amount of computer connectivity)
- ✓ Amount of point-to-point traffic vs. LAN traffic
- ✓ Level of Redundancy
- ✓ Cable type selection is based on environment and cost
- ✓ Use a mixture of SM and MM fiber optic cables (recommend 25:75 split minimum respectively)

Installation of both MM and SM

Digi-Link OptiLink SCS recommends deploying SM and MM fiber in the back bone segments of both buildings and campuses in the industrial and office environment. This combination will most cost-effectively support present day applications as well as provide future proofing for tomorrow's higher speed LANs and broadband video. Of course these recommendations must be weighed against the application and planning horizons of each customer. The optimal ratio of singlemode to multimode depends on the predicted need to support applications that exceed the capability of multimode. Digi-Link OptiLink SCS generally recommends 25% SM to those customers forecasting gigabit applications in their future. If such applications are in the immediate or near future, then consider higher ratios.

Install Fiber in abundance

It is important to install enough fiber to support the present and future applications that will simultaneously share the cable segment. Take into account the type of fibers that each application requires and add in spare capacity for future proofing. Generally, LAN applications each require two fibers, while video applications will require one or two fibers depending on whether they are unidirectional or bi-directional. (Video links that use bi-directional communications include those that return video, audio, camera control or data signals). Add in at least 50% spare capacity and round the fiber count upward to the next standard size.