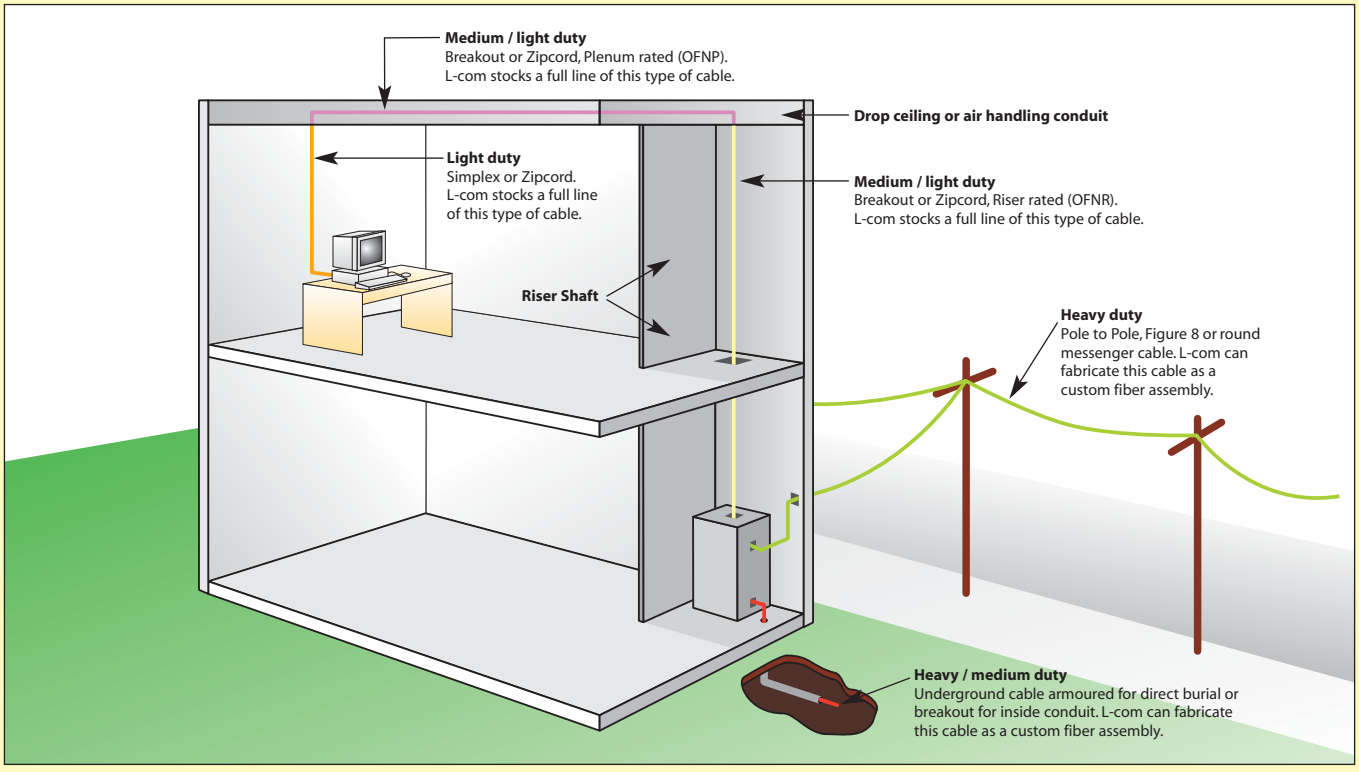
## TIP: *Selecting the right type of Fiber Optic Cable*

The figure below illustrates some of the common conditions in a typical fiber cable installation and indicates the type of fiber cable normally utilized in each environment.




## TIP: *Bandwidth and application differences, between copper and fiber optic cabling*

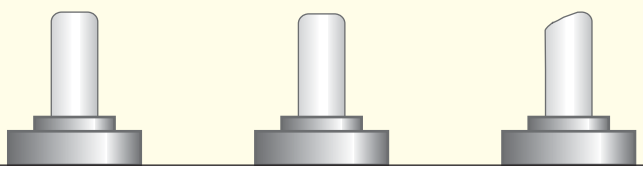
| Type: | Fiber Optic Cabling | Unshielded Twisted Pair Cabling (Copper) | Coaxial Cabling (Copper) |
|---|---|---|---|
| | 900 Micron Tight Buffered Fiber; Outer Jacket; Aramid Strength Elements | Outer Jacket; 4 Twisted Pairs | Outer Jacket; Shielding; Center Conductor; Dielectric |
| **Typical Bandwidth:** | < 10 GHz | < 100 MHz (Cat 5E) | < 1 GHz (RG6) |
| **Typical Use:** | Data communications<br>Broadcast | Structured wiring<br>in local area networks. | Cable TV / Broadcast<br>Test and instrumentation |
| **Benefits:** | Most bandwidth.<br>Fastest transmission speeds.<br>Immune to EMI/RFI. | Inexpensive, relatively easy<br>to install and terminate. | Inexpensive, relatively easy to<br>install and terminate. Can span<br>longer distances than UTP. |
| **Limitations:** | Difficult to terminate.<br>Most expensive cost / foot. | Maximum distance of 100m.<br>Can be affected by EMI/RFI. | Can be affected by EMI/RFI. |

## Polish Types / Typical Back Reflection

**PC**
<-40dB
Back Reflection

**ULTRA PC**
<-50dB
Back Reflection

**8° ANGLED PC**
<-60dB
Back Reflection



In Singlemode applications the amount of back reflection on assemblies can be critical. L-com utilizes PC or APC polish on all standard singlemode assemblies listed. UPC finishes are available by custom order.