Fibre Optic Cable Connectors:
There are three types of connectors for fibre-optic cables:

The Subscriber Channel (SC) connector is used for cable TV. It uses push/pull locking system. The Straight-Tip (ST) connector is used for connecting cable to the networking devices. MT-RJ is a connector that is the same size as RJ45.

Advantages of Fibre Optic Cable:
- Higher bandwidth
- Less signal attenuation
- Immunity to electromagnetic interference
- Resistance to corrosive materials
- Light weight
- Greater immunity to tapping

Disadvantages of Fibre Optic Cable:
- Installation and maintenance
- Unidirectional light propagation
- High Cost
**Applications of Fibre Optic Cable:**
- Often found in backbone networks because its wide bandwidth is cost-effective.
- Some cable TV companies use a combination of optical fibre and coaxial cable thus creating a hybrid network.
- Local-area Networks such as 100Base-FX network and 1000Base-X also use fibre-optic cable.
- Fiber optics is frequently used in a variety of medical instruments to provide precise illumination.
- Other medical applications for fiber optics include X-ray imaging, endoscopy, light therapy and surgical microscopy.

**Fiber Light Source:**
A fibre light source is used to inject light into a fibre optic cable for the purpose of testing it. They come in two basic varieties: light emitting diodes (LEDs) and laser diodes. They’re further differentiated by the wavelength they produce and the type of cable they test.

**LEDs** are low cost, slower speed, easy to use, multimode-only, and have a wide output pattern. Because LEDs produce a less concentrated light than lasers and have a much lower power output than lasers, they’re difficult to couple into fibres, limiting them to multimode fibres. LEDs have less bandwidth than lasers and can achieve a maximum throughput of 1 Gbps.

**Laser diodes** are higher cost and faster speed, allow single-mode or multimode, and have a narrow output pattern. Lasers can achieve throughput up to and beyond 10 Gbps.