



## 802.3ae Qualification Test Link

The Delaire USA qualification test links are designed to act as worst-case links for bandwidth/dispersion and attenuation. These links are intended to be used in the qualification of transceivers designed to meet the IEEE 802.3ae specifications for 10GB multimode links at 850nm. The links provided are not simply designed for the length requirements but are tailored to simulate the actual bandwidth defined by the length bandwidth (OFL or EMB) product called out in the standard.

Since fiber manufacturers routinely supply fiber that far exceeds the minimum requirements, Delaire USA hand selects the actual measured bandwidth closest to the desired value. Since the measured values do not exactly correspond to the minimum bandwidth specs, the links are then constructed in such a way as to insure that the length bandwidth product does correspond to the specified length and the OFL or EMB bandwidth.

Careful management of cladding modes in the link/attenuator configuration insures that the system will produce repeatable results.

Other Qualification Test Links available including:

- 1GB MM & SM
- 10GB MM & SM
- 850nm, 1310nm & 1550nm
- **LRM**
  - **802.3aq and 802.3z**

### 802.3ae 850nm Multimode Test Link Specs

| Link | Fiber  | Bandwidth | Method |
|------|--------|-----------|--------|
| 1    | 62.5um | 6.1 GHz   | OFL    |
| 2    | 50um   | 6.08 GHz  | OFL    |
| 3    | 50um   | 6.67 GHz  | EMB    |

| 802.3ae Spec @ 850nm |        |                  |
|----------------------|--------|------------------|
| Link                 | Length | Fiber Bandwidth  |
| 1                    | 26m    | 160MHz/km (OFL)  |
| 1                    | 33m    | 200 MHz/km (OFL) |
| 2                    | 66m    | 400 MHz/km (OFL) |
| 2                    | 82m    | 500 MHz/km (OFL) |
| 3                    | 300m   | 2000MHz/km (EMB) |

- **Worst case link performance simulation**
- **Variations and inaccuracies due to cladding modes are eliminated.**


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