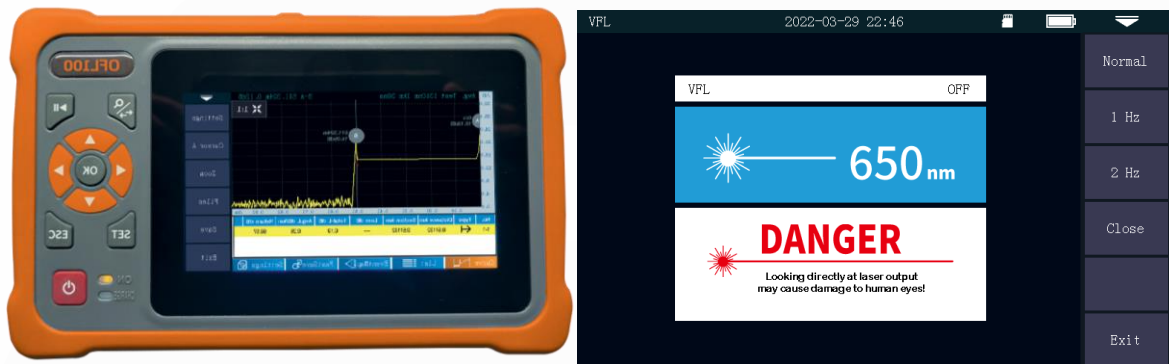
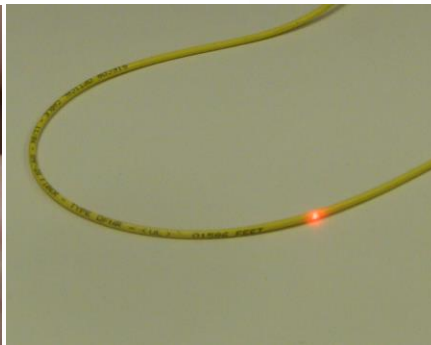


## Application Note Safe Visual Fault Locating Using the OFL100

The Tempo Communications OFL100 has a Visual Fault Locator (VFL) that has a 1mW (0dBm) power output that is used to visually identify damaged or cut fiber optic cables, contaminated or damaged fiber optic connectors and Macro bends on a fiber optic cable.



**Macrobend**



**Fiber Break**

The OFL100 VFL can also be used to perform visual continuity of a fiber optic cable.

The VFL incorporated in the OFL100 is approved by the FDA as a Class 2 device as defined by Telcordia **IEC60825**. A Class 2 device is deemed to be safe as the users “blink reflex” will protect the user from eye damage. **VFL’s with higher output power have the potential of causing permanent eye damage.**

Do not buy or use a VFL that does not have a decal at or near the bulkhead showing Class 2 compliance. If there is no decal, there is a high probability that the VFL is not compliant to the Telcordia and FDA requirements and is likely to be a risk to the user.



If the technician is using a microscope or other device that focuses the light while using a Class 2M or higher VFL, the person's blink reflex will not be sufficient to prevent eye damage. This means that a Class 2M VFL is deemed to be unsafe.

As part of FDA compliance, the applicant is required to provide statements of how the design includes various fail-safe circuitry, safety notifications and safety interlocks. Once there is FDA approval the applicant receives an ACCESSION NUMBER. Many times, customers ask for the ACCESSION NUMBER as it proves that the VFL does provide a high level of safety.

Reputable manufacturers and distributors will only consider selling a VFL that has an ACCESSION NUMBER as it gives assurance to the end user that the VFL is safe.

Some OTDR suppliers and manufacturers will provide an integrated VFL that has up to 40mW output power to perform continuity confirmation. These should never be used as they will cause permanent eye damage. The OFL100 OTDR is a much more capable instrument that can provide much more information to validate the fiber under test.

Please also note that the lasers used in the OTDR portion of the OFL100 are pulsed infrared sources of radiation that are rated as Class 1M. Class 1M are deemed to be safer than Class 2 lasers.