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VIAVI Solutions 5G

# *Enabling Australia's Field Technicians to build, troubleshoot and maintain better communications networks.*

VIAVI MASTER Distributor

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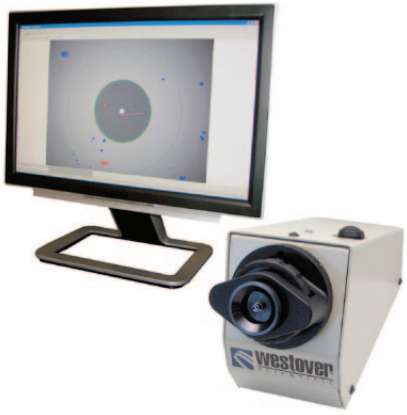
## FREECALL 1800 680 680

# FVD Bench-top Microscope & FiberChek2™

## Bench-top Microscope & Automated Inspection & Analysis Software




*PC / display not included.*

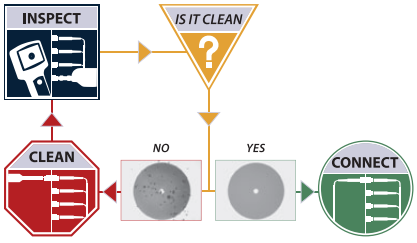
### Key Features

- **Determines acceptability of fiber end faces by utilizing an advanced automated inspection and analysis software**
- **Ensures consistent results by removing human subjectivity from fiber inspection and grading**
- **Identifies and characterizes each defect and contamination particle, and determines their location relative to the fiber core**
- **Archives results and images as HTML or PDF formats and generates integrated reports**
- **Plugs directly into PC/laptop via USB 2.0 connection**
- **Produces clear detailed view of fiber end face conditions with high-resolution camera and coaxial illumination**

### Applications

- Inspect and analyze patch cords and jumper cables in manufacturing and quality assurance environments
- Automatically capture and analyze fiber end face images, and obtain a PASS/FAIL result according to pre-configured criteria
- Standardize fiber inspection and analysis process

### Inspect Before You Connect℠

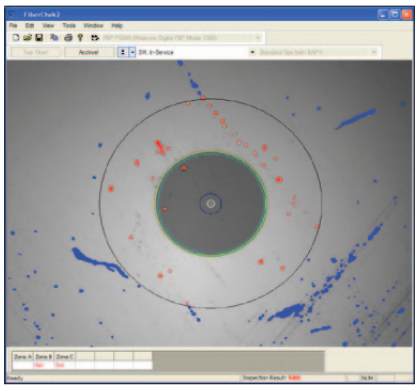



**Contamination is the number 1 reason for troubleshooting optical networks.** Proactive inspection and cleaning of fiber connectors can prevent poor signal performance, equipment damage, and network downtime.

## FVD Bench-top Microscope and FiberChek2

The FVD-series digital fiber microscope is used to inspect the polished surface or cleaved ends of fiber optic connectors. This high-resolution bench-top inspection microscope is ideally suited for post-polish inspection of high-quality end faces and can repeatedly detect scratches that may be missed by human technicians, delivering the level of sensitivity long sought in the industry. The FVD requires a connector adapter and PC to supply power to the unit through the USB 2.0 port.

FiberChek2 is an advanced application that determines the acceptability of optical fiber end faces through automated inspection and analysis. It identifies and characterizes defects and contamination and determines their location relative to the fiber core. It then provides a PASS or FAIL result according to a pre-configured failure criteria setting. It is an intuitive, effective, and practical solution for fiber end face grading and inspection.

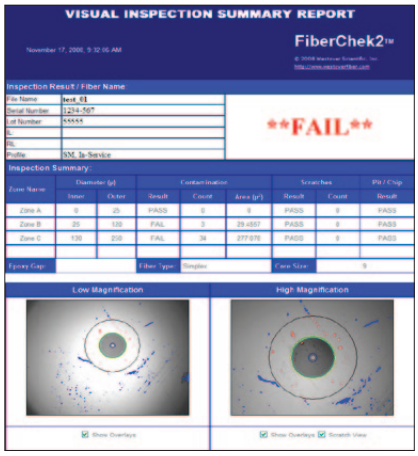


FiberChek2 User Interface

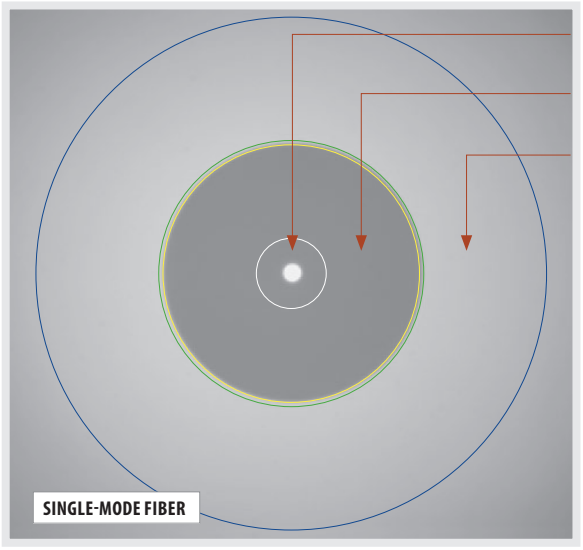
As different types of defects are located and identified, FiberChek2 measures the size of each feature, determines its location relative to the core, and analyzes the collected data to obtain a PASS or FAIL result based on parameters configured for each pre-defined setting.

Because defects and contamination on or near the core surface typically affect the light transmission most significantly, they require the most aggressive examination. FiberChek2 defines the concentric areas around the core as Zones, which let users establish failure criteria by evaluating various defect categories, including Contamination, Pit/Chip and Scratches.

***Note:*** *Zones are a series of concentric circles that identify areas of interest on the connector end face. The inner-most zones are more sensitive to contamination than the outer zones.*




FiberChek2 HTML Summary Report




**A** **CORE** Zone

**B** **CLADDING** Zone

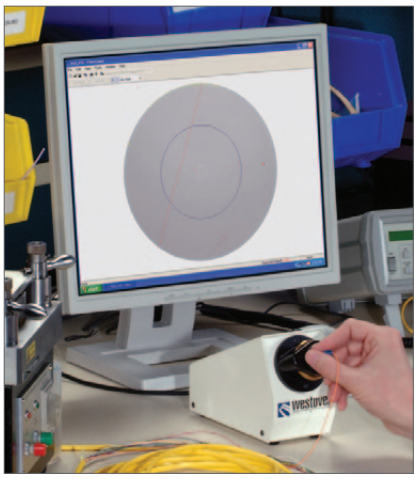
**C** **FERRULE/CONTACT** Zone

## Benefits

- Eliminates human subjectivity for consistent, standardized result when inspecting and grading fiber
- Configurability allows for user-defined PASS/FAIL criteria settings
- Standardizes inspection, analysis, and grading process throughout fiber networks
- Records and archives results in HTML or PDF formats

## FiberChek2 Automated Procedures

1. Acquires the fiber image
2. Analyzes the image
3. Finds defects and their location to fiber core
4. Measures and evaluates the defects within each specified Zone
5. Determines whether defects within the Zones are acceptable according to the pre-configured failure criteria for each Zone
6. Displays the results as PASS or FAIL
7. Saves or prints all relative results in designated directory or printer, respectively



## Field of View Values (µm)

| | High-mag | | Low-mag | |
|---|---|---|---|---|
| **FVD-2080** | Horizontal:<br>Vertical:<br>Diagonal: | 1060<br>800<br>1325 | Horizontal:<br>Vertical:<br>Diagonal: | 1710<br>1280<br>2135 |
| **FVD-2200** | Horizontal:<br>Vertical:<br>Diagonal: | 400<br>300<br>500 | Horizontal:<br>Vertical:<br>Diagonal: | 640<br>480<br>800 |
| **FVD-2400** | Horizontal:<br>Vertical:<br>Diagonal: | 185<br>140<br>230 | Horizontal:<br>Vertical:<br>Diagonal: | 300<br>225<br>375 |
| **FVD-2400-L** | Horizontal:<br>Vertical:<br>Diagonal: | 200<br>150<br>250 | Horizontal:<br>Vertical:<br>Diagonal: | 325<br>245<br>400 |

## FVD Bench-top Specifications

| | |
|---|---|
| **Dimensions** | 17.8 x 7.9 x 11.7 cm (7.0 x 3.1 x 4.6 in) |
| **Weight** | 1.36 kg (3.0 lbs) |
| **Live image** | 800 x 600; 15 fps |
| **Connector** | USB 2.0 |
| **Cord length** | 183 cm (6 ft) |
| **Camera sensor** | 1280 x 1024 black and white, 1/3-in (1.27 cm) CMOS |
| **Particle size detection** | < 0.5 µm |
| **Light source** | Blue LED, 100,000+ hour life |
| **Lighting technique** | Coaxial |
| **Power source** | USB port |
| **Certification** | CE |
| **Warranty** | 1 yr |

## Ordering Information

| | |
|---|---|
| **FVD-2080** | Digital fiber inspection bench-top microscope (80X); USB 2.0; FiberChek2 software; FMA adapter: universal 2.5 mm connectors |
| **FVD-2200** | Digital fiber inspection bench-top microscope (200X); USB 2.0; FiberChek2 software; FMA adapter: universal 2.5 mm connectors |
| **FVD-2400** | Digital fiber inspection bench-top microscope (400X); USB 2.0; FiberChek2 software; FMA adapter: universal 2.5 mm connectors |
| **FVD-2400-L*** | Digital fiber inspection long working distance (LWD) bench-top microscope (400X); USB 2.0; FiberChek2 software; FMA adapter: universal 2.5 mm connectors |

**Select FVD-2400-L when inspecting multi-fiber, or ribbon, connectors with guide pins.*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