

### LED Analog Color Analyser 2 and 8 Channel

LEDCHECK™ II and LEDCHECK™ VIII are a modular assembly designed specifically for color testing light emitting diodes on printed circuit boards under test on automatic test equipment. Each module can accommodate 2 or 8 LED's and modules can easily be cascaded should the need for additional channels arise.

Each channel measures true color of the LED under test, and provides an analog output to the test system proportional to the wavelength of the light detected from the LED. Using digital channel addressing, the channel selection is also under control of the test system.

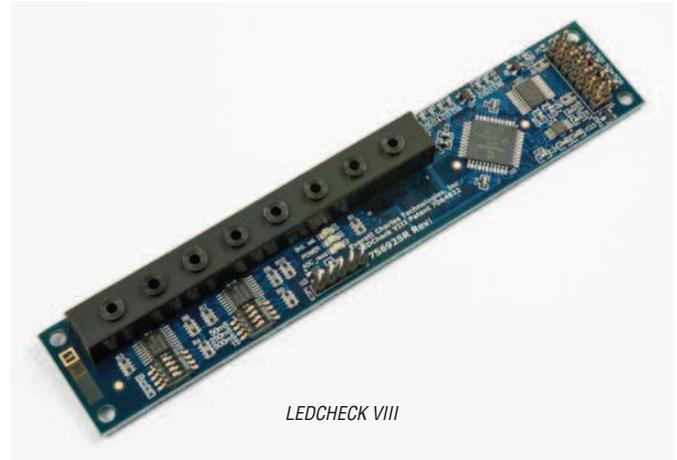
While the color measurement system has good wavelength accuracy designed in, various factors influence the true accuracy of the measurement. The treatment of the fibers, peak versus dominant wavelength of the LED with clear, tinted, or diffused lens and temperature influence the measurement of color. The LEDCHECK color test module is not a spectrometer, but rather an inexpensive multi-channel color-measuring device with excellent repeatability. Once the hardware and measurement are setup, LEDCHECK can be relied upon to perform the color tests within the prescribed criteria.

#### Applications

- PCB LED Testing
- Automotive Dashboard / Brake Lights / Daytime running lights / Interior
- Switches with LED Backlighting
- Mobile Applications / Cell Phones / Backlighting
- Industrial and Medical Instruments
- Signalling
- Architectural Lighting

#### Key Features

- Designed for any Test Platforms due to analog output
- Tests the full spectrum of visible LED's
- Tests Intensity from very dim to the brightest LED's
- Unrivalled repeatability for color and intensity readings
- Available with 2 or 8 channels
- Allows up to 128 LED's to test simultaneously with several modules
- Analog Interface with voltage readout
- Ease of Use – Instant on
- Excellent Technical Support
- Robust and small design



LEDCHECK VIII

### Specifications

#### Mechanical

|                             |   |
|-----------------------------|---|
| Board Dimensions (WxLxH)    | 1.00" x 5.375" x 0.57"<br>(25,4mm x 136,5mm x 14,5mm) |
| Mounting Dimensions (WxL Ø) | 0.75" x 5.125" Ø 0.128"<br>(19mm x 130,2mm Ø 3,25mm)  |
| Operating Temperature Range | 0°C to +50°C  |

#### Electrical

|                |                         |
|----------------|-------------------------|
| Supply Voltage | 5,0 V DC                |
| Supply Current | < 60 mA                 |
| Interface      | Analog Signal (Voltage) |

#### Optical

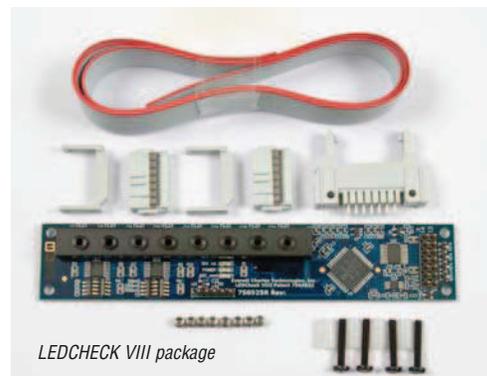
|                    |                  |
|--------------------|------------------|
| Wavelength Range   | 400 nm to 650 nm |
| Luminous Intensity | 1-2000 mcd       |

#### Accuracy

|                             |      |
|-----------------------------|------|
| Accuracy per Channel        | ± 3% |
| Accuracy Channel to Channel | ± 1% |

#### Partnumber

|                      |        |
|----------------------|--------|
| Analog LEDCHECK II   | 756927 |
| Analog LEDCHECK VIII | 756926 |



LEDCHECK VIII package



**Optical Fiber Cable**

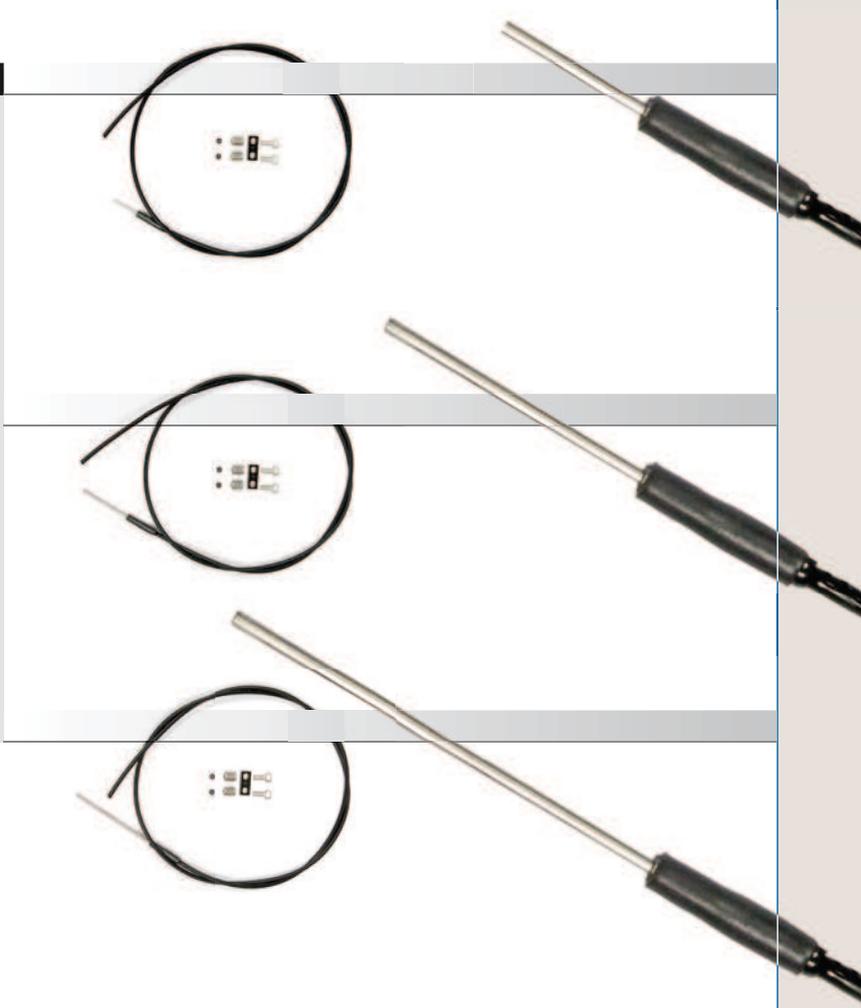
The Optical Fiber Cable includes a fastening kit to support each fiber cable to the adapter. The LEDCHECK Module end of the fiber cable is only being cut in length, making it easy to adjust and attach the fiber cable to the module. The light source end of the cable comes with different length metal tubes (tips) as listed below.

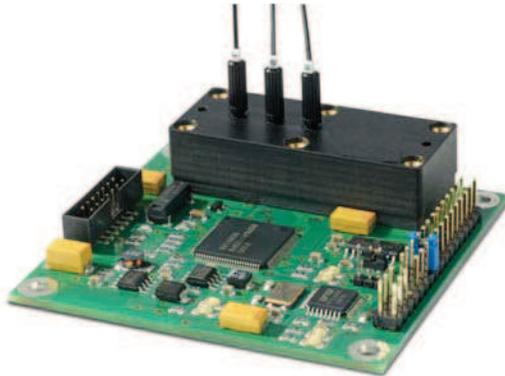
**Technical Details**

|                             |                  |
|-----------------------------|------------------|
| Fiber Cable Outer Diameter: | 0.087" (2,20 mm) |
| Fiber Cable Length:         | 27" (680 mm)     |
| Metal Tube Length:          | 0.75" (19 mm)    |
| Metal Tube Length:          | 1.25" (31 mm)    |
| Metal Tube Length:          | 2.00" (50 mm)    |

**Part Numbers**

|                                      |        |
|--------------------------------------|--------|
| Optical Fiber Cable 0.75" long Tube: | 756309 |
| Optical Fiber Cable 1.25" long Tube: | 756307 |
| Optical Fiber Cable 2.00" long Tube: | 756308 |





## Digital LEDCHECK 3 or 5 Channel

The ECT Digital Color Analyzer allows fast and automatic testing the Color and Brightness (Intensity) of Light Emitting Devices (LEDs). Tests the full spectrum of visible LEDs from very dim to the brightest on the market.

The new digital color sensor allows unrivalled repeatability for color and intensity testing.

### Applications

- PCB LED Testing
- Automotive Dashboard / Brake Lights, Daytime running lights / Interior
- Switches with LED Backlighting
- Mobile Applications - Cell Phones, Backlighting
- Industrial and Medical Instruments
- Signalling
- Architectural Lighting

### Key Features

- Designed for any Test Platforms
- Tests the full spectrum of visible LEDs
- Tests Intensity from very dim to the brightest LEDs
- Unrivalled repeatability for color and intensity readings
- Available with 3 or 5 channels
- Allows up to 495 LEDs to test simultaneously
- Ease of Use – Instant on
- Excellent Technical Support
- Free Drivers and Software
- Designed for Testing Color and White LEDs
- Tests Bicolor and Tricolor LEDs
- RS 232 and USB Interface
- Robust and reliable design
- Uses flexible plastic Optical Fibres for ease of installation

## Specifications LEDCHECK with 1mm Fiber

### Mechanical

|   |                |
|---|----------------|
| Board Dimensions (WxLxH)                | 70 x 65 x 35mm |
| Optical Fiber Length                    | 600 mm         |
| Fiber Outer diameter including cladding | 1,00 mm        |
| Number of Optical Fibers                | 3 or 5 pieces  |
| Tightest bend radius of Fiber           | 15 mm          |
| Operating Temperature Range             | 0°C to +50°C   |

### Electrical

|                |                        |
|----------------|------------------------|
| Supply Voltage | 5,0 V                  |
| Supply Current | 80 mA                  |
| Interface      | RS232 (Serial) and USB |

### Optical

|                                  |                  |
|----------------------------------|------------------|
| Red Peak Efficiency Wavelength   | 615 nm           |
| Green Peak Efficiency Wavelength | 540 nm           |
| Blue Peak Efficiency Wavelength  | 465 nm           |
| Total Operating Wavelength Range | 450 nm to 650 nm |

### Accuracy

|               |                                  |
|---------------|----------------------------------|
| White         | $x = \pm 0,0015, y = \pm 0,0015$ |
| Red (615nm)   | $\pm 3$ nm                       |
| Green (540nm) | $\pm 4$ nm                       |
| Blue (465nm)  | $\pm 3$ nm                       |

### Partnumber

|          |                      |
|----------|----------------------|
| LEDC-3-1 | Digital LEDCHECK III |
| LEDC-5-1 | Digital LEDCHECK V   |

## Specifications LEDCHECK with 2.2mm Fiber

Same as above with the exception that the fiber optic cable diameter is increased to 2,2mm for improved light intensity measurements.

### Mechanical

|   |               |
|---|---------------|
| Optical Fiber Length                    | 600 mm        |
| Fiber Outer diameter including cladding | 2,20 mm       |
| Number of Optical Fibers                | 3 or 5 pieces |
| Tightest bend radius of Fiber           | 17,6 mm       |

### Partnumber

|          |                      |
|----------|----------------------|
| LEDC-3-2 | Digital LEDCHECK III |
| LEDC-5-2 | Digital LEDCHECK V   |



LEDCHECK V

**Optical Head**

The Optical Head has been designed to reduce the placement sensitivity of the Optical Fiber when testing LED's.

|                              |            |
|------------------------------|------------|
| Optical Head Outer diameter  | 4,55 mm    |
| Optic capture angle          | 12 degrees |
| Optical Fiber Outer diameter | 1,00 mm    |

**Part Numbers**

|                                       |                  |
|---------------------------------------|------------------|
| Optical Head OH - 1,                  | Length: 36,75 mm |
| Optical Head OH - 2,                  | Length: 27,00 mm |
| Optical Head OH - 3, with Fiber Clamp | Length: 49,50 mm |

**Optical Fiber Clamp**

Attachment for positioning the thin fiber with 1mm outside diameter

**Partnumber**

|                                      |        |
|--------------------------------------|--------|
| Fiber Clamp for 1,0 mm Optical Fiber | CC - 1 |
| Fiber Clamp for 2,2 mm Optical Fiber | CC - 2 |

**Optical Fiber Receptacle**

75 mil receptacle with pressing  
75 mil receptacle for positioning the 1mm Optical fiber

**Partnumber**

|            |        |
|------------|--------|
| Receptacle | LTR-1W |
|------------|--------|

**Optical Fiber Knife**

Cutting tool for the optical fiber 1,0 mm and 2,2 mm fiber can be shortened with a the fiber knife to the correct length.

In order to guarantee a clean cut of the fiber it is recommended to use each cutting hole only once.

**Partnumber**

|                     |         |
|---------------------|---------|
| Optical Fiber Knife | OFK - 2 |
|---------------------|---------|

