Simplicity at its best with FINN® LED testing

We are all looking for ways to improve our products, and a big part of that means having a great Quality Control process. If you have LEDs on your PCBs and you want to guarantee the right one is in the right place, our FINN® products can help.

Early detection is the key to avoiding costly rework and repairs. Utilizing the FINN® to test your LEDs is the solution. Whether you are testing one LED or hundreds, our FINN® products can provide you with fast, accurate and repeatable LED color verification in any test environment.

The FINN® is a compact and durable LED sensor that fits just about anywhere. Test Coach has several configurations to accommodate your every need, including right angle and vertical styles, as well as a FINN® without probes.

The FINN® does not require power and is so simple to use. When placed in front of an illuminated LED of the corresponding color, the FINN® sends a signal through the probe to your test equipment, indicating color and brightness. Your LED test using the FINN® is simple to maintain because you control the limits of your Go/No-Go test.

The FINN®

- Provides color-specific LED testing for red, green, blue, clear, UV or IR LEDs
- Is a low-cost tool with big QC rewards
- Provides quick, reliable measurements
- Is consistent and accurate to three decimal points
- Offers simplicity of use—no calibration, no additional hardware and no fiber-optic connections required
- Is simple to mount and easy to implement

The FINN® is adaptable to any test platform and is great for both functional and ICT fixtures.

Make light work of testing LEDs. Use the FINN®

FINN®

PRINCIPLE OF OPERATION

The FINN® is a combination of a photo-sensitive semiconductor and an optical filter. The filter is designed to pass light from the target wavelength (color) and block the light of wavelengths outside that target color. The sensor produces current when excited by the target wavelength of light and creates a voltage across the bias resistor which is then measured by the target test system.

FEATURES

- Output range is 0.0–0.6 volts depending on color and brightness
- No power is necessary
- Small sensor may be easily mounted in fixture near the LEDs
- Readings are taken at a distance of 0.1–0.15 inches from the lens of the LED
- Two wires for the first sensor and one wire for each additional sensor, using a common return
- No need for optical cables and no potentiometers to adjust
- Special infrared FINN® available to detect infrared LEDs or light sources
- Fully automated; no operator action required
- USB data acquisition

PROPERTIES

- Clearance for sensor dimensions—0.25" x 0.40" x 0.15"
- Sockets—Sensor may be mounted using two industry standard 100 mil (2, 54 mm) sockets

SELECTING THE RIGHT FINN®

The FINN® is color-specific. *Example:* Order a red FINN® (TC3001) for a red LED.

LED Color	FINN	Part Number
Red	Red FINN	TC3001xx
Orange	Red FINN	TC3001xx
Yellow	Green FINN	TC2901xx
Green	Green FINN	TC2901xx
Blue	Blue FINN	TC2801xx
Clear	Clear FINN	TC8704xx
Ultraviolet	Clear FINN	TC8704xx
Infrared	IR FINN	TC8708xx

Readings range from 0–600mV, depending on the LED color and intensity. Although the FINN® can be used for yellow and amber LEDs, we recommend using Smart FINN® for these colors.

ORDERING INFORMATION

All FINN® parts are available in right angle (RP), vertical (VP), and probeless (P) configurations. Add the style letters to the end of the part number below to order the correct configuration. *Example:* For a green right angle FINN® to test a surface-mount LED, use part number TC2901RP.

Part Number	Description
TC2901xx	Green
TC3001xx	Red
TC2801xx	Blue
TC8704xx	Clear*
TC8708xx	Infrared

*This part may also be used to test ultraviolet LEDs.

Additional documentation is available for download from our web site.

U.S. Patent No. 6,490,037; international patent pending

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