

ULTRA FINN™

B e t t e r , S m a l l e r , F a s t e r

Discover the new standard in LED color and intensity testing - Ultra FINN™

The Ultra FINN™ is designed to make testing LEDs as simple and reliable as possible. This is the LED test solution the market has been waiting for. Improved accuracy provides wider range, greater discrimination between hues and increased precision. The new Ultra FINN's small size and streamlined shape allows for testing very closely spaced LEDs and its faster speed decreases test times significantly.

A customized sleeve means that the Ultra FINN™ can be placed directly into a top plate, much like a probe socket, thus reducing fixture build time and costs. The new design also incorporates added safety features to virtually eliminate the possibility of damage due to user mis-wiring.

Benefits of the new Ultra FINN™

- Detects 2000 different hues between Blue (400 nm) and Red (700 nm)
- Increased repeatability and reliability
- Tests most LEDs in less than 10 milliseconds
- Mini package is more than 8 times smaller than the Smart FINN®
- Eliminates the need for light pipes in almost all applications
- Durable package and sleeve protects parts from potential damage during handling



The Ultra FINN™ builds on the technology of its predecessor products, FINN® and Smart FINN®, to deliver the ultimate solution in LED testing available on the market today. Ultra FINN™ customers will love it for its accuracy and repeatability; test engineers for its ease of implementation and reliability; and fixture companies for its quick and simple installation.

FINN
TEST ELECTRONICS®

Ultra FINN™, the new standard in LED testing.

PRINCIPLE OF OPERATION

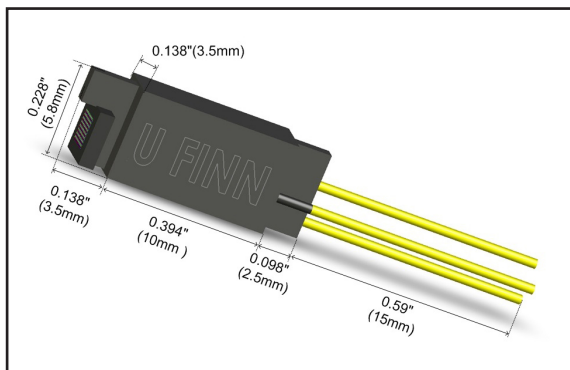
The Ultra FINN™ combines a custom packaged, four-band color sensor with a microprocessor to optimize all the functions necessary to precisely distinguish the color and intensity of a light source or LED. The Ultra FINN™ accurately takes measurements from the sensor, calculates the color and strength of the light being tested, and converts it to an easy to read signal for comparing LEDs and other light sources.

METHOD OF OPERATION

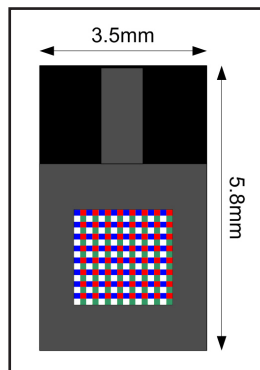
The small, slim packaging of the Ultra FINN™ allows for easy installation directly in front of or on top of the LED on a printed circuit board. During test, the light source (LED) is activated and the Ultra FINN™ outputs a frequency in kHz that quantifies the LED's color. The same signal quantifies the brightness of the LED with its pulse-width (average DC voltage). Now, engineers can use anything from simple stand-alone meters to fully integrated equipment in their automated test to implement a quality controlled, extremely reliable method for the test and measurement of light sources, a.k.a. LEDs.

PROPERTIES

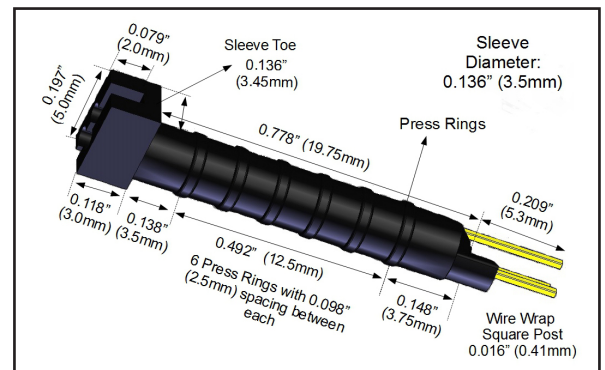
Dimensions



Ultra FINN™



Sensor View



Sleeve

FEATURES

- Covers complete visible spectrum, plus Ultraviolet and Infrared
- Operating voltage of 5.0Vdc
- Color identification determined by the frequency output and intensity indicated by the DC average of the same output (patented feature)
- Works with most types of LEDs on the market today – bright or dim, diffused or non-diffused, and smd or through-hole
- Can identify different types of multichromatic light (such as white, magenta, and purple)
- Fully automated testing
- Custom sleeve allows for easy installation – just drill, press fit, and wire wrap

APPLICATIONS

- Automates testing of LEDs for placement, color and brightness
- Used for Functional and In-circuit testing, on any test platform
- Quality control for characterizing and standardizing LED use

PINS

- Three pins are: Output (signal), Ground, and Power
- Pins are spaced 70 mil apart
- Sleeve uses standard 16 mil square posts for wire wrapping, 30 gauge wire recommended

POWER SOURCE

The Ultra FINN™ requires 5.0 volts DC. Current is typically 17 mA.

ORDERING INFORMATION

Part Number	Description
TCUF102	Ultra FINN™
TCUF102SL	Ultra FINN™ with Sleeve

Please visit our website for additional product information and application notes.
U.S. Patent No. 6,490,037 & 7,023,554 other U.S. and international patents pending.

PH 224.662.0383 • www.FINNTestElectronics.com