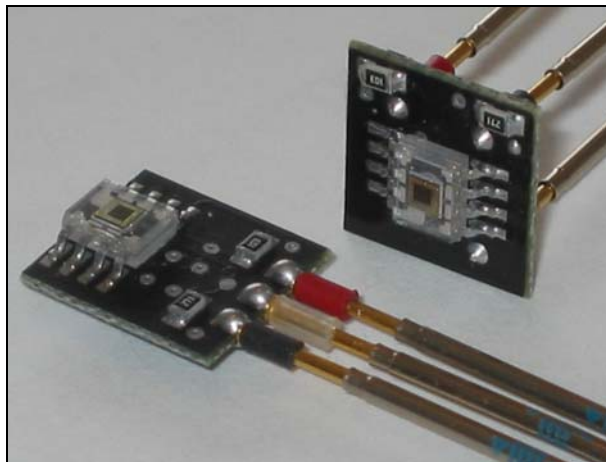




TEST COACH
CORPORATION

Smart FINN[®]

Migrating to TC11SF-x (Rev3.0)



December 1, 2010

*Test Coach Corporation
948 Donata Court
Lake Zurich, IL 60047 USA
1-847-885-4880
www.testcoachcorp.com*



TEST COACH
CORPORATION

Updated: December 2010

Smart FINN TC11SF-x (Rev3.0) Introduction

The Smart FINN TC11SF-x incorporates new part changes which have some minor effects on its functionality. Please review the following details outlining these changes.

- A new RGB color sensor replaces the previous, now obsolete sensor.
- The new sensor incorporates an Infra Red filter which reduces the IR effects on the Smart FINN readings.
- The surface area of the new sensor is slightly smaller. To compensate for this, the Smart FINN now includes a diffuser which aids in reading non-diffused LEDs. Another benefit of the diffuser is that the Smart FINN can now measure brighter LEDs without going into saturation. However the Smart FINN saturation output frequency (2.02k HZ) did not change.
- The new sensor, with the Infra Red filter, is 0.025” taller than the old sensor. Therefore the new sensor requires an additional 0.025” clearance between the LED and the sensor.
- Although the frequency response has changed slightly, the ability to discriminate between colors is improved over the old revision Smart FINNs. All part changes have been adjusted for in the new firmware for the Smart FINN TC11SF-x. **** Please see [Appendix A to compare TC08SF-x and TC11SF-x readings.](#)**
- The Smart FINN printed circuit board for the TC11SF-R is now marked with “REV D” located above the sensor. The printed circuit board for the TC11SF-V, TC11SF-C, and TC11SF-L is now marked with a letter “D” at the bottom left of the sensor. Prior version boards are marked with ‘C’ instead of ‘D’.
- The new part numbers are:
 - TC11SF-R Smart FINN[®] Right Angle
 - TC11SF-V Smart FINN[®] Vertical
 - TC11SF-C 3-Pin Header Connector Smart[®] FINN (no probes)
 - TC11SF-L L-shaped Smart[®] FINN

Output Frequency / Color Readings

Below is a chart that highlights the differences in responses from TC08SF-x (Rev 2.5) to TC11SF-x (Rev 3.0).

To adjust test limits, re-center the limits around the Rev3.0 responses.

Typical Measurements			
Color	nm	Smart FINN Rev 2.5 (kHz)	Smart FINN Rev 3.0 (kHz)
Red	635	11.7	12.2
Amber	608	10.6	10.6
Yellow	585	9.1	9.3
Green	565	8.5	8.5
Blue	470	6.90	6.80
Other Measurements			
Infrared	Up to 660	12.1-12.5	12.5
Ultraviolet	Down to 380	6.25-6.8	6.25-6.50
Fluorescent	multiple	4.0	4.0
White(red dominant)	multiple	4.4-6.0	4.4-6.0
White(blue dominant)	multiple	3.2-4.0	3.2-4.0
Saturation	n/a	2.02	2.02
Dark	n/a	0.998	0.998