Lighting Connectors Target Fluorescent Retrofit

AVX, a leading manufacturer of advanced passive components and interconnect solutions, has developed two new series of connectors for LED lighting systems that maintain the same luminosity and light intensity as florescent strip lights. The standard length of most fluorescent lights is 1.2m, and currently it is impossible to reflow-mount LEDs on such a long printed circuit board placed in the fitting. As a result, the lighting strip is divided into shorter lengths joined by connectors. AVX's new 9608 Series LED lighting connector and 9609 Series LED backlight connectors feature the lowest profile in the industry at 1.4mm, which minimizes the spacing between PCBs and allows for even light distribution.

"Our low-profile lighting connectors utilize a common footprint that eliminates the need for different PCB combinations, while providing maximum luminosity," said Nick Bogovich, product marketing manager at AVX.
"Additional design simplifications, including the fully customizable harness and the single-pole variation, allow for easy assembly and more LED fixtures at the center of PCB."

The 9608 Series LED lighting connectors are available in three styles: joint (relay) for connecting modularized boards; jumper (short-circuiting) to support a loop at the end of the electrical circuit; and wire-to-board for connection to the power supply unit. The PCB-mount plug connector's simplified design has the same footprint for all styles, which simultaneously saves space and eases the mounting process. The wire-to-board style connectors are mated horizontally and the joint and jumper style connectors are mated vertically, preventing interference between the metal fittings and molded parts. The RoHS-compliant 9608 Series is supplied and packaged on tape and reel (2,000 pieces per reel).

The 9609 Series LED backlight connectors are single-pin, board-to-board style connectors that can be mounted on the outside of lighting strips to provide a higher density of LEDs on the PCB. The design and mounting process is aided by the availability of similarly shaped receptacle connectors in both joint and wire-to-board styles. The floating structure of the joint style connector absorbs misalignment of ±0.1 mm along the X-axis (±0.2mm between connected boards) and ±0.2mm along the Y-axis (±0.4mm between connected boards), improving contact reliability. The RoHS-compliant 9609 Series is also supplied and packaged on tape and reel.

The advanced connector series are designed to withstand temperatures from a range of -40°C to +105°C, earning it an excellent temperature rating for automotive applications.

For more information, contact AVX at One AVX Boulevard, Fountain Inn, S.C. 29644; by calling 404-477-2453; or on the Web at www.avx.com [1].

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[1] http://www.avx.com