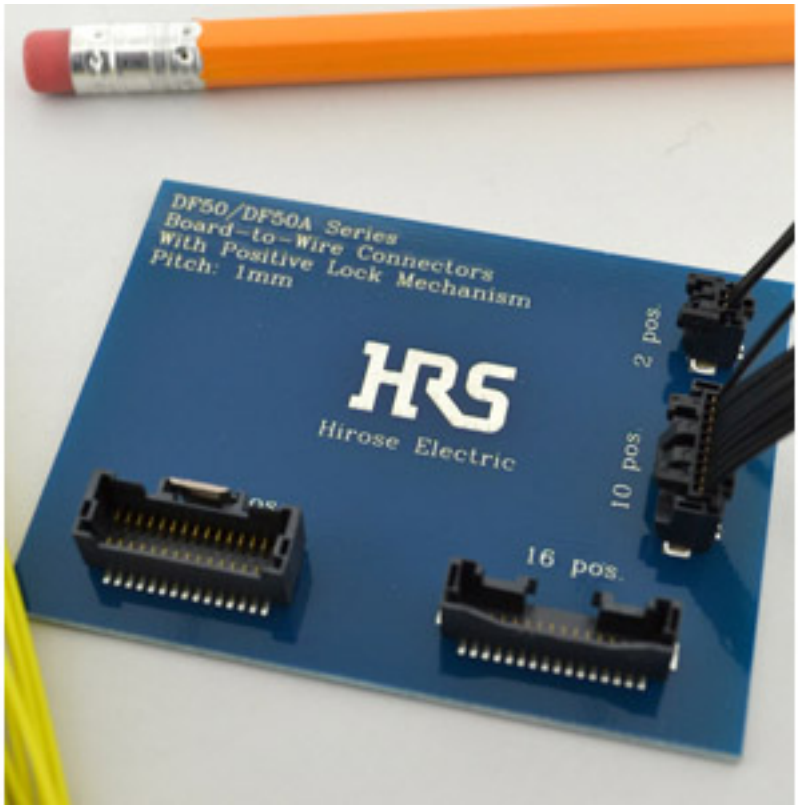
# 1 mm pitch board-to-wire connector features a locking mechanism for secure mating




Hirose Electric has introduced a narrow 1 mm pitch, board-to-wire connector that significantly reduces the required PC board mounting area. Designated as the DF50 Series, these miniature connectors feature a positive locking mechanism located at the center of the connector that provides a clear, tactile click sensation regardless of the number of repetitive cycles. This innovative latch is designed to prevent uneven locking commonly attributed to side locks and to prevent incomplete mating. The locking function and contact mating occur simultaneously on the DF50 Series connector. The distinct audible click confirms a secure mating sequence has been achieved and is a valuable feature when dealing with high vibration applications and other critical applications.

The DF50 Series connector has a robust and reliable lance structure with a high cable pull force of 10N minimum to prevent contacts from pulling loose during installation. Offering high-contact reliability via an effective mating length and a 2-point contact system, the DF50 Series board-to-wire connector is designed with blade type contacts attached to a thick, resilient housing wall that is resistant to cracking or deformation normally caused by wrenching forces during assembly.  The contacts utilize a nickel barrier plating to prevent solder wicking and this plating also helps to provide these connectors with its excellent soldering performance.

The RoHS-compliant DF50 Series connector is ideal for LCD, LCD TVs, PDP, wireless LANs, office equipment, high vibration applications such as notebook PCs/laptop

computers, industrial control units, automotive audio and navigation systems, medical devices, commercial gaming equipment and consumer hobby applications such as remote controlled cars and airplanes.

Offered in straight and right angle versions, the DF50 Series connector is available in a single-row with 2 to 16 positions or as a double-row with 30-positions. The DF50 Series has a current rating of 1A per pin, a voltage rating of 100 VAC / DC, contact resistance of 50 mO maximum at 20 mV (1 mA) and an operating temperature range of -35°C to 85°C.

For additional information about the DF50/DF50A Series connectors, please visit: www.hiroseusa.com [1].

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**Links:**
[1] http://www.hiroseusa.com