

Recently Introduced Ultra Hard Metric (UHM) Press-Fit Socket Connector from 3M Selected for Draft PICMG 2.30 Standard

RAND Licensing Now Available from 3M

The [PCI Industrial Computer Manufacturers Group \(PICMG\)](#) has selected 3M's recently introduced [Ultra Hard Metric \(UHM\) Socket Connector](#) for the upcoming PICMG 2.30 CompactPCI PlusIO standard.

The new PICMG 2.30 CompactPCI PlusIO draft standard is based on the current CompactPCI standard, PICMG 2.0, and will define the pin assignment and the function of the user pins on the J2 connector for 32-bit system slots. The J2 connector can then be used for transmission of a high density of high speed serial signals such as PCI Express, SAS/SATA, USB, and Gigabit Ethernet. The new UHM socket connector from 3M, in its J2 configuration, was chosen as the basis for the new standard due to its signal transmission quality and backward compatibility. In addition to maintaining PCB footprint compatibility and intermateability with current CompactPCI standard, PICMG 2.0, 3M's UHM socket connector shields each pin or pin pair individually, enabling over 7 Gbps signal performance in existing 2 mm hard-metric system designs. This allows end users of CompactPCI equipment to leverage their existing investment in PCI bus cards while using the same system for newer high speed serial data applications.

According to Manfred Schmitz of the PICMG CompactPCI Plus Working Group and [MEN Mikro Elektronik](#), "The connector's impedance is ideally suited for transmitting single-ended as well as differential signals. Forward and backward compatibility is incorporated into the design and PCI Express, SATA, USB and Ethernet are now available on the backplane in addition to the legacy PCI bus."

"Because the UHM socket connector from 3M is designed to be mechanically intermateable to the hard-metric connector for CompactPCI, we can easily upgrade the performance of our existing designs," said Barbara Schmitz, chief marketing officer with MEN. "With the uncertainty of today's economy, it is good to know we can rely on the quality of 3M interconnect solutions to protect our design investments and extend the lives of our customers' systems."

3M introduced the new UHM Socket Connector at the Embedded World Conference in Nuremberg, Germany earlier this year. As one of the most successful backplane connectors, 2 mm hard-metric connectors represent a greater than \$200 million annual market growing at a rate of 12 to 14 percent annually. The new UHM Socket Connector from 3M is designed to mate with industry-standard and widely available 2 mm hard-metric header connectors (IEC 61076-4-101). Patented and patent pending "virtual coaxial box" shielding technology from 3M dramatically reduces the severe crosstalk commonly experienced by 2 mm hard-metric connectors at 1 to 1.5 Gbps speeds, enabling the new UHM socket connectors from 3M to achieve speeds greater than 7 Gbps.

The UHM socket connector is available in 5-row (A, B, CL, CR, AB) and 8-row (D, E, DE, FL, FR) form factors allowing a very high signal density - 101 signals per linear inch for the 8-row and 63 signals per linear inch for the 5-row.

Reasonable and Non-Discriminatory (RAND) licensing for claims in 3M's patents and patent applications that are necessary to implement the new PICMG 2.30 Compact PCI PlusIO standard is available immediately. A copy of the license may be obtained under a Confidential Disclosure Agreement from the 3M Electronic Solutions Division by calling 512-984-6399.

About 3M Electronic Solutions Division

3M Electronics Solutions Division offers innovative solutions to the electronics market, such as static control products; copper interconnect systems; cables and cable assemblies; carrier and cover tapes and trays; flexible circuits; embedded capacitor materials; and Textool brand test and burn-in sockets. For more information on interconnect solutions available from the 3M Electronic Solutions Division, visit www.3m.com/UHM.

About 3M

A recognized leader in research and development, 3M produces thousands of innovative products for dozens of diverse markets. 3M's core strength is applying its more than 40 distinct technology platforms - often in combination - to a wide array of customer needs. With \$25 billion in sales, 3M employs 76,000 people worldwide and has operations in more than 60 countries. For more information, visit www.3M.com/.

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Release Summary:

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Keyword Tags:

2mm, 3m, backplane, compactpci, connector, pcb, pci, pci express, picmg, picmg 2.30, rand, usb

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