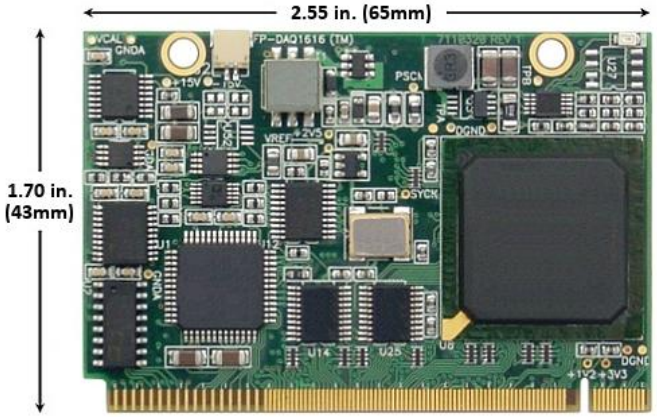
Tiny Embedded I/O Expansion Card Format Taps PCI Express

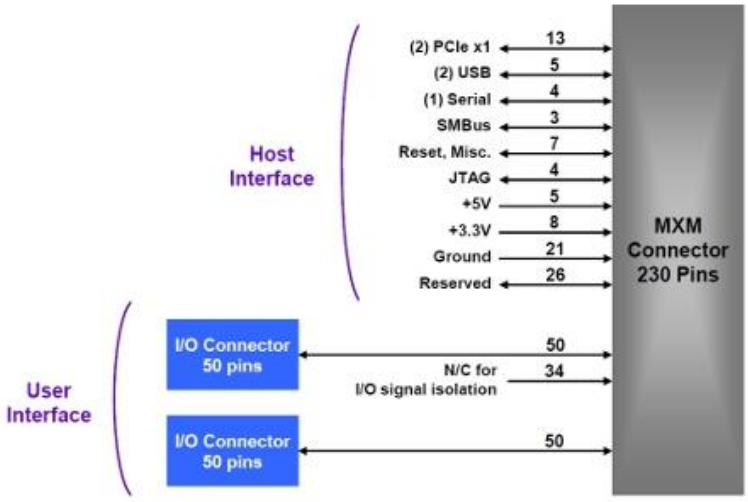
Ultra-small Personality Modules for Computer-on-Module Baseboards and Single Board Computers

March 2, 2010; Nuremberg, GERMANY – Eight companies in the global embedded computing market jointly unveiled the FeaturePak™ standard and products at the Embedded World tradeshow in Nuremberg today. The FeaturePak specification defines tiny, application-oriented personality modules – three-fifths the size of a credit card – that snap into low-cost, low-profile sockets on single board computers (SBCs), computer-on-module (COM) baseboards, and full-custom electronic circuit boards.



FeaturePak modules interface to the host system via a single low-cost, high-density, 230-pin connector, which carries PCI Express, USB, I^2C, and several other host-interface signals, plus up to 100 points of application I/O per module. The host interface is CPU agnostic and is compatible with both Intel- and RISC-architecture systems. Additionally, the modules can easily be integrated into embedded designs along with Qseven, COM Express, SUMIT, PCI/104-Express, EBX, and EPIC.

The companies participating in today's FeaturePak launch include Diamond Systems Corp., originator of the standard, plus FeaturePak Initiative Charter Members Arbor Technology Corp., Cogent Computer Systems Inc., congatec AG, Connect Tech Inc., Douglas Electronics Inc., Hectronic AB, and IXXAT Automation GmbH. FeaturePak-related products unveiled or announced today at Embedded World by the FeaturePak Initiative's Charter Members include several FeaturePak I/O modules and FeaturePak-expandable COM baseboards.



"Following the FeaturePak Initiative's initial launch, we intend to turn the FeaturePak specification, trademark, and logo over to a suitable standards organization so it can become an industry-wide, open-architecture, embedded standard," said Jonathan Miller, Founder and President of Diamond Systems Corp., which originated the FeaturePak standard and was a charter member of the PC/104 Consortium.

"VDC Research has believed in the modular approach to embedded computing since the introduction of COMs," commented J. Eric Gulliksen, Senior Analyst with VDC Research Group's Embedded Hardware and Systems practice. "FeaturePak provides a logical next step to this concept, providing versatile I/O in a standardized, small form factor, interchangeable module, with a value proposition similar to that of COMs. VDC commends Diamond Systems and the other firms involved in the FeaturePak effort for bringing modular embedded computing to an exciting new level."

"In order to reduce development time and risks, embedded developers are increasingly turning to modular design methodologies that leverage COTS macrocomponents," noted Dr. Jerry Krasner, Chief Analyst at Embedded Market Forecasters. "FeaturePak adds a new -- smaller and flatter -- dimension to what's been previously available in the embedded market. Additionally, it's CPU, bus, and host form-factor agnostic and can coexist synergistically with both stackable approaches like PC/104 and SUMIT and computer-on-module approaches like COM Express and Qseven."

"The FeaturePak I/O expansion standard will accelerate the development of application-oriented baseboards for Qseven, COM Express, and XTX COMs," added Gerhard Edi, CEO of congatec AG, which originated the Qseven COM standard and is one of the FeaturePak Initiative Charter Members. "In particular, FeaturePak I/O modules and Qseven COMs jointly provide the lowest profile modular board-level embedded solution available."

Summary of FeaturePak Features and Benefits

FeaturePak Features	FeaturePak Benefits
• Compact, low profile form-factor — three-fifths the size of a credit card, and one-third the size of a PC/104 module • Single low-cost 230-pin connector integrates all host and external I/O interfaces • Provides up to 100 I/O points per module • Leverages industry-standard buses such as PCI Express, USB, and I2C • Host form-factor and processor agnostic • Coexists with PC/104, SUMIT, Qseven, ETX, XTX, COM Express, etc. • Multiple I/O expansion modules may be present within one system • Open industry standard • Rugged and reliable	• Shortens time-to-market • Reduces board-level development costs and risks • Simplifies system design • Eliminates cables, resulting in higher reliability, lower cost, and faster assembly • Enables scalable and reconfigurable system design • Enables easy product upgrades • Protects from component obsolescence • Encapsulates intellectual property • Suitable for SBCs, baseboards, and proprietary all-in-one hardware designs • Ideal for rapid-prototyping through high-volume applications • Ideal format for silicon vendor reference designs • Open standard increases market acceptance

Further Information

To learn more about the FeaturePak I/O modules standard and the FeaturePak Initiative, visit the FeaturePak Initiative's website at FeaturePak.org, or send an email to featurepak@gmail.com.