

# Pico-ITXe Specification FAQ

## 1. What is the Pico-ITXe™ specification?

This is an open multi sourced standard designed by VIA in collaboration with the Small Form Factor Special Interest Group (SFF-SIG). The Pico-ITXe specification is a very small SBC form factor that is intended to support complete x86 platforms, aligning well with VIA's ultra low power processors. Its dimensions are the same as the VIA-developed Pico-ITX form factor; 10cm by 7.2 cm, which is about the size of a 2.5-inch notebook hard disk drive. In addition to its small dimensions, the Pico-ITXe specification also includes support for the SUMIT™ expansion interface.

## 2. What boards currently use the Pico-ITXe specification?

The VIA EPIA-P710 is the very first board to take advantage of the new Pico-ITXe standard and SUMIT™ connector specifications. Powered by a 1GHz VIA C7 processor and the VIA VX800 media system processor, the compact VIA EPIA-P710 is incredibly versatile with a full feature set that makes it perfect for a range of embedded applications.

## 3. What is SUMIT™?

SUMIT is an acronym for Stackable Unified Module Interconnect Technology, a stackable, I/O-centric, serial expansion approach to system design that was developed to combine the strengths of yesterday's general I/O architectures with the serial interconnect buses for future needs.

The SUMIT Interface Specification defines an electromechanical connectorization technology that enables all common serial and legacy chipset expansion busses for next generation products, including PCI Express, USB, LPC, I2C, SPI, and ExpressCard interfaces.

SUMIT defines two 52-pin, high-density (0.025" pitch) connectors with center ground blades for impedance, EMI, and DC ground return purposes. SUMIT is an open standard developed by the SFF-SIG.

## 4. How does the Pico-ITXe specification integrate with stackable expansion modules?

Pico-I/O™ is the name of a 6cm x 7.2cm "stackable" I/O bus expansion module for Pico-ITXe-compatible single board computers. These expansion modules are easily connected to the Pico-ITXe board through SUMIT connectors. This allows a designer the flexibility to add additional interface capability from either specialty designed custom or commercially available modules to meet the system's I/O requirements.

## 5. How many Pico-I/O modules can be placed in one stack?

Up to four Pico-I/O modules can be supported in one stack.

## 6. What kind of embedded applications will benefit from the Pico-ITXe specification?

The Pico-ITXe specification is ideally suited to demanding embedded applications that require customized I/O options, such as industrial automation, data acquisition and process monitoring, as well as a stand-alone platform for mid-range signage and kiosk solutions, and also ruggedized systems.

## 7. What are the key advantages of the VIA EPIA P710 and the Pico-ITXe specification?

The VIA EPIA P710 possesses the technical diversity to offer system developers considerable scope for customizing I/O simply and cost effectively through the addition of



selected Pico-I/O bus expansion modules. The inclusion in the Pico-ITXe specification of both legacy I/O architectures and more future-proof architectures makes it perfectly suited for embedded system development.

**8. Which stackable modules are currently available for the Pico-ITXe specification?**

The first Pico-I/O module to support Pico-ITXe SBCs is the PCO-UIO48 developed by WinSystems, a 48-point digital I/O interface with interruptible event sense.

For more information on the activities of the Small Form Factor Special Interest Group (SFF-SIG), or the SUMIT interface specification, please visit the SIG website at: [www.sff-sig.org](http://www.sff-sig.org)

Further information on the Pico-ITXe Specification may be found on the VIA website at: <http://www.via.com.tw/en/initiatives/spearhead/pico-itxe/index.jsp>

Full details and specifications of the VIA EPIA-P710 Pico-ITXe board may be found on the VIA website at: [http://www.via.com.tw/en/products/mainboards/motherboards.jsp?motherboard\\_id=730](http://www.via.com.tw/en/products/mainboards/motherboards.jsp?motherboard_id=730)

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