

▶ nanoETXexpress-SP

nano, vidi, vici!

Performance

High



Size
Small



Power
Low



- ▶ Based on Intel® Atom™ Processor Z5xx and Intel® SCH US15W
- ▶ COM Express™ compatible module size nano (55mm x 84mm)
- ▶ Based on COM Express™ Pin-out Type 1
- ▶ SerialATA, for highspeed drives
- ▶ Memory and FlashDrive on board

Product Overview

This credit card sized module is compatible to COM Express™ pin-out Type 1. On 55 mm x 84 mm footprint nanoETXexpress-SP is a perfect fit for the next generation of low power, ultra-mobile applications that require energy saving x86 processor performance, high-end graphics, PCI Express and Serial ATA combined with longer battery life. These include handheld devices for medical or multi-media applications, small mobile data systems and a host of new applications that have not previously been possible due to size or power consumption limitations.

This new COM form factor is 100 percent compatible with the COM Express™ COM.0 Type 1 with respect to connector location and pin definition. Thus guaranteeing scalability between modules.

The Kontron nanoETXexpress-SP COM is based on the

highly-efficient Intel® Atom™ 5xx processor series and Intel® System Controller Hub single chip that combines the memory controller, graphic engine and I/O in a single, space saving chipset design. With only one tenth of the Thermal Design Power and one seventh the size of ULV processors at an identical performance, the nanoETXexpress-SP COM offers an unprecedented power consumption/performance ratio for x86-based ultra-mobile designs.

The nanoETXexpress-SP with Flash and memory on-board support 1 PCI express x1 (opt. 2 x1 if no onboard LAN), Serial ATA, LVDS, and High definition Audio. 10/100/1000 Gigabit Ethernet is designed in onboard for high connectivity and 8x USB provides fast and sufficient interfaces for external peripherals.

All above mentioned requirements are supported by nanoETXexpress - small power - low size - high performance.

Technical Information

Processor	Intel® Atom™ processor Z510 (1.1GHz) and Z530 (1.6GHz)
Chipset	Intel® System Controller Hub US15W
Cache	32KB Instruction Cache + 24KB L1 Cache, 512KB L2 Cache
Memory	onBoard up to 1GB DDR2 400/533
Hard Disk	1 SATA
USB	8x USB 2.0 (1x USB Client)
PCI Express	1 PCI express x1 (opt. 2 x1 if no onboard LAN)
Ethernet	Onboard 10/100/1000 Mbit Intel® LAN
Sound	Intel® High Definition Audio
Graphics Memory	up to 256MB, UMA

Video Controller	Integrated Intel® Graphics, Intel® GMA 500, HDTV/HD capable, Decoder for MPEG2(HD)/H.264
LVDS Resolutions	Single Channel LVDS 18/24 Bit; WXGA 1366 x 768
Other Features	Onboard SSD Flash Drive up to 4GB
SDIO	1 SDIO port (shared with GPIO)
Operating Systems	Windows® XP SP3, XPe, CE, Linux, VxWorks, QNX
Form Factor	55mm x 84mm
Power Consumption	typ. Idle ~ 6 W @12V 4,75V – 14V wide range (5V SBY optional for ATX function)
Temperature (*)	operation: 0° to 60°C, storage: -10° to 85°C
Humidity	operation: 10% to 90%, storage: 5% to 95% (non condensing)

(*) Ask about extended temperature ranges

Ordering Information

Article	Part.-No.	Description
nanoETXexpress-SP 256MB w/o LAN	34001-2525-11-0	nanoETXexpress-SP with Intel® Atom™ 1,1GHz and Intel® SCH US15W, 256MB DDR2 SDRAM, 256MB onboard Flash drive, w/o LAN
nanoETXexpress-SP 512MB	34001-5151-11-1	nanoETXexpress-SP with Intel® Atom™ 1,1GHz and Intel® SCH US15W, 512MB DDR2 SDRAM, 512MB onboard Flash drive
nanoETXexpress-SP 2GB	34001-5120-16-1	nanoETXexpress-SP with Intel® Atom™ 1,6 GHz and Intel® SCH US15W, 512MB DDR2 SDRAM, 2GB onboard Flash drive
nanoETXexpress-SP HSP	34001-0000-99-0	Heatspreader thread hole corner standoff
nanoETXexpress-SP HSP	34001-0000-99-1	Heatspreader through hole corner standoff
nanoETXexpress-SP Heatsink	34001-0000-99-0C01	Heatsink for nanoETXexpress-SP
nanoETXexpress-HMI board	34100-0000-00-0	nanoETXexpress-HMI Baseboard
nanoETXexpress-HMI Starterkit	34100-0000-00-S	nanoETXexpress-HMI Starterkit, incl. nETXe-HMI Board 34100-0000-00-0, 7" WVGA Panel with touch, 12V power supply, cables and accessories, packed in plastic case
nanoETXexpress Evaluation Board	34101-0000-00-0	nanoETXexpress Evaluation board without nanoETXexpress module

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