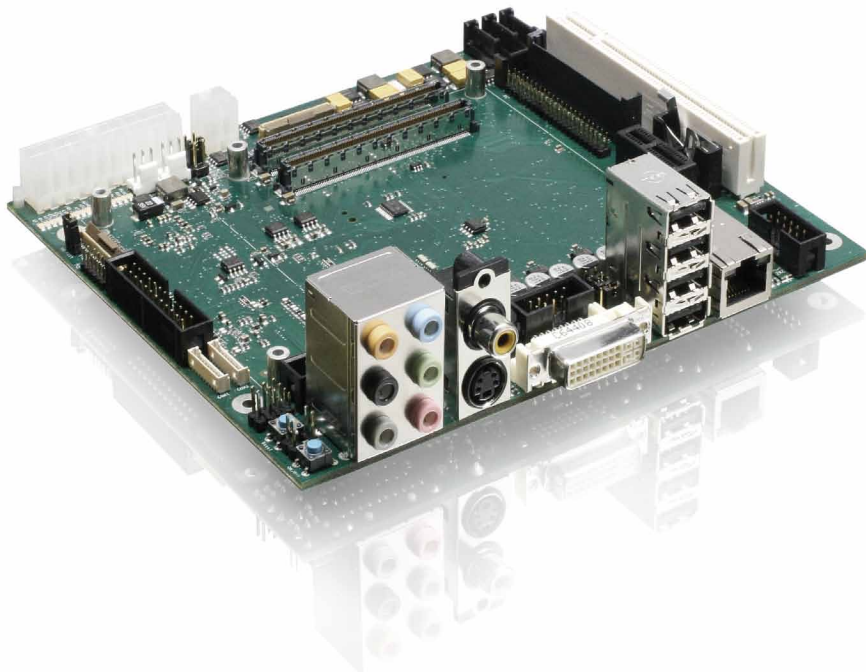


» Starterkits and Evaluation Boards for COM Express™ «



COM 
Express

For quick evaluation purposes

- » Evaluation Boards populate latest connectors and plugs
- » Starterkits include all required hard- and software for immediate start
- » For ETXexpress®, microETXexpress®, nanoETXexpress Form Factor
- » Choose any Kontron COM Express™ compatible module

Starterkits

Starterkits are complete care-free kits packaged in a single case. They give you a head start: Starterkits include an Evaluation Board which provides an easy plug-in of COM Express™ modules and line-up many connectors and

jacks. Those complete packages include everything needed for an immediate and efficient start and evaluation: PSU, Mass Storage, Documentation and cooler.

ETXexpress® Starterkit

A universal starterkit offering all common interfaces and accessories.



Technical Information

Evaluation Board	ETXexpress® Eval, for COM Express™ Pin-out Type 2 compatible modules
Power Supply	Switchable ATX PSU 115V/230V ~
Mass Storage	USB stick with manuals and datasheets
Documentation	Manuals and datasheets are included
Mounting Kit	Screws and washers to mount heatspreader and module onto the evaluation board
Supported Modules	Any Kontron COM Express™ Type 2 compatible board is supported, i.e. ETXexpress® and microETXexpress® modules. Module must be ordered separately

microETXexpress® Starterkit

The reduced size makes it fitting perfectly in environments with strict space limitations.

Although the carrier board does support COM Express™ basic (125x95mm), its size makes it the first choice for microETXexpress® modules (95x95mm).



Technical Information

Evaluation Board	ETXexpress® miniBaseboard, for COM Express™ Pin-out Type 2 compatible modules
Power Supply	PicoATX 120W and 12 V PSU for running the ETXexpress® miniBaseboard
Mass Storage	USB stick with manuals and datasheets
Fan	Fan with massive copper core Fits on standard ETXexpress® heatspreader or microETXexpress® heatspreader
Documentation	Quickstart Manual, datasheets and How-tos
Supported Modules	Any Kontron COM Express™ Type 2 compatible board is supported, i.e. ETXexpress® and microETXexpress® modules. Module must be ordered separately

Ordering Information

Article	Part-No.	Description
ETXexpress® Starterkit	38100-0000-01-S	Universal ETXexpress® Starterkit 10/100 MBit Ethernet w/o module, heatspreader and memory
ETXexpress® Starterkit GigE	38100-0000-00-S	Universal ETXexpress® Starterkit Gigabit Ethernet w/o module, heatspreader and memory
microETXexpress® Starterkit	36100-0000-00-S	Starterkit for microETXexpress® including Power Supply, Cables and ETXexpress® miniBaseboard

Please order separately your COM Express™ module with Heatspreader and SO-DIMM memory module.

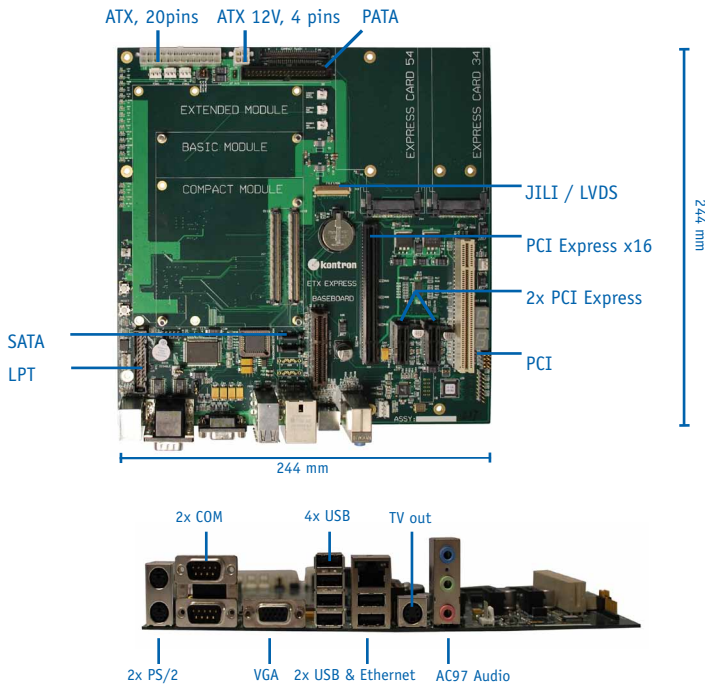
Evaluation Boards

These Evaluation Boards can be populated with any Kontron COM Express™ Pin-out Type 2 compatible module. They bring out a complete array of connectors. Evaluation

Boards minimize installation requirements and reduce dramatically design time. They help to control and cut-back pre-market costs. Evaluation boards are recommended for testing in every design-in.

ETXexpress® Eval

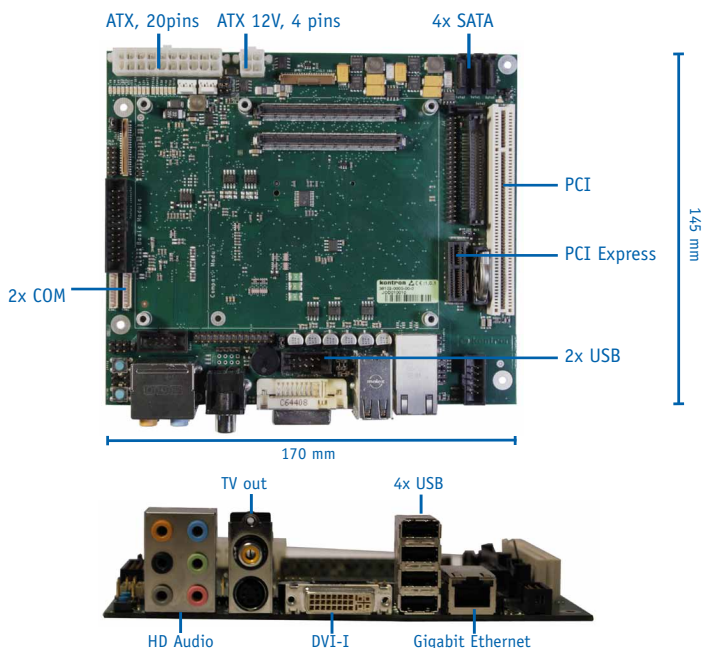
ETXexpress® Eval does not include any power supply, COM Express™ module, cooling solutions, memory or displays.



Technical Information	
Hard Disk	4x SerialATA 1x PATA (40 pins for 3.5" Hard Disks) 1x Compact Flash
Ethernet	1x 10/100/1000 MBit Ethernet magnetic connector
Legacy Interfaces	2x COM connector 1x LPT connector (pin header) 1x IR connector (pin header)
LVDS and CRT interfaces	1x CRT 1x FFC Connector for JILI/LVDS panels
USB	6x USB 2.0 ports (front)
PCI	1x PCI Slot
PCI Express	PCI Express Graphics 1x16 lanes 2x PCI Express x1 lanes
Express Card	2x Slots
Form Factor	microATX form factor, 244 x 244 mm
Supported Modules	Any Kontron COM Express™ Type 2 compatible board is supported, i.e. ETXexpress® and microETXexpress® modules. Module must be ordered separately
Power Connector	ATX, 20 pins + ATX 12V, 4 pins
Temperature	Operation: -5° to 70°C Storage: -30° to 85°C
Humidity	Operation: 10% to 90% Storage: 5% to 95% (non condensing)

ETXexpress® miniBaseboard

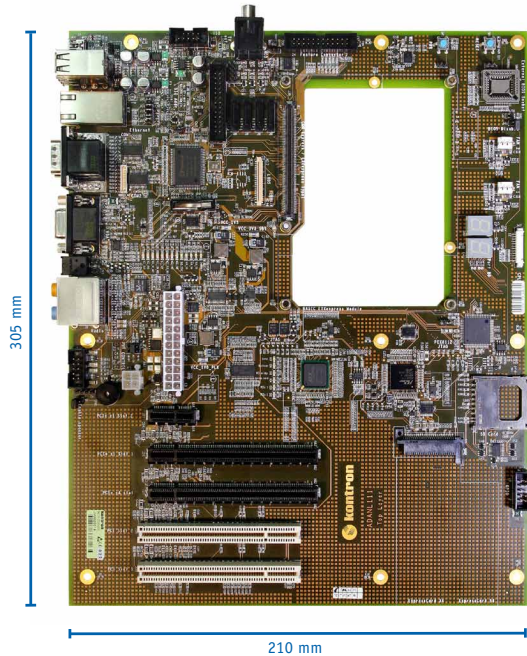
ETXexpress® miniBaseboard is similar to the ETXexpress® Eval board however does significantly differ in: 170 x 145mm allows evaluation in small and size-critical situations. Its 4 video interfaces and the integrated HD Audio codec are of interest for multimedia applications.



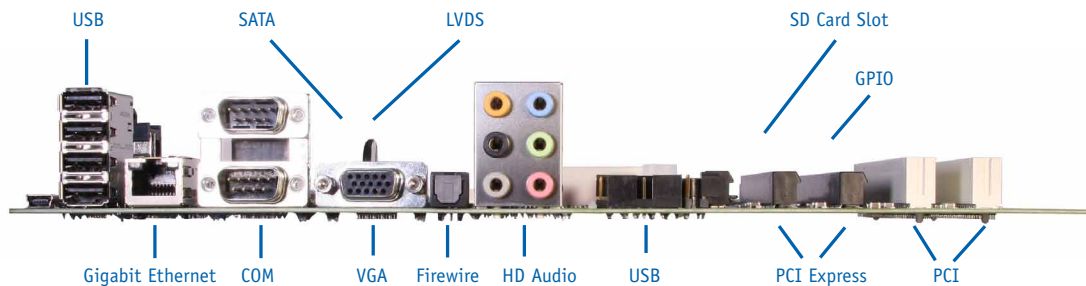
Technical Information	
Hard Disk	4x SerialATA 1x PATA (44 pins for 2.5" Hard Disks) 1x Compact Flash
Ethernet	1x 10/100/1000 MBit Ethernet magnetic connector
Legacy Interfaces	2x COM connectors (pin header) 1x LPT connector (pin header)
USB	4x USB 2.0 (front), 2x USB 2.0 (pin header)
PCI	1x Slot
PCI Express	1x PCI Express x1 lane 1x PCI Express Card connector on backside (optional)
LVDS and CRT interfaces	1x DVI with CRT supply 1x TV-out Two LVDS connectors: LVDS from module / LVDS from SDVO converter
Sound	7.1+2 Channel High Definition Audio Codec 6 jacks on front connector, 2 jacks on pin header
Form Factor	170 x 145 mm
Supported Modules	Any Kontron COM Express™ Type 2 compatible board is supported, i.e. ETXexpress® and microETXexpress® modules. Module must be ordered separately
Power Connector	ATX, 20 pins + ATX 12V, 4 pins
Temperature	Operating: 0 to +60°C Storage: -30 to +85°C
Humidity	Operating: 10% to 90% (non condensing) Non operating: 5% to 95% (non condensing)

nanoETXexpress Evaluation Board

The Ultra sized COM.0 Type 1 nanoETXexpress Evaluation carrier board is designed to allow embedded application developers to get up and running quickly on the nanoETXexpress modular platform, giving them a head start on the total system design. Simply select an nanoETXexpress CPU module, then Plug & Go.



Technical Information	
I/O Features	4 SATA standard connector 1 Xpress Card slot 1 PCIe x16 Slot, electrically x4 (not supported by nanoETXexpress-SP) 1 PCIe x16 Slot, electrically x1 1 PCIe x1 Slot PCIe to PCI bridge PEX8112AA - 2 PCI 32 Bit slots Feature connector (SM bus, MARS System) SD card slot shared with GPIO pins Onboard RTC Battery Power / Reset Button BIOS socket for external BIOS Port 80 POST code 1LPT and Fan control 2 serial Ports on DSUB9, optional 1 on 10pin header RT on DSUB15 (not supported by nanoETXexpress-SP) LVDS Panel connector TV out / S-Video
Ethernet	10/100/1000 MBit LAN magnetic RJ45 connector on front panel
USB	4x USB 2.0 front connectors (USB 0, 1, 2, 3) 2 USB internal on pin header (USB 4, 5), suitable for Intel® SSD 1 USB client port (USB port 7)
Graphic	CRT on DSUB15 (not supported by nanoETXexpress-SP) LVDS Panel connector TV out / S-Video TX power supply 24 + 4 pin
Power Supply	ATX power supply 24 + 4 pin
Form Factor	ATX Baseboard size; 12" x 8,3" Pin-Out COM Express™ COM.0 Type 1 Ultra size specification compatible
Supported Modules	COM Express™ COM.0 Pin-out Type 1 compatible modules, especially ultra sized nanoETXexpress-SP. Module must be ordered separately.
Sound	Intel® High Definition Audio / AC 97 codec Onboard HD Audio Codec Realtek ALC888 Analog 7.1 Audio, optical Toslink out and digital S/PDIF in & out



Ordering Information		
For a complete delivery with customer samples following articles are necessary:		
Article	Part-No.	Description
nanoETXexpress Evaluation Board	34101-0000-00-0	nanoETXexpress Evaluation board
ETXexpress® Eval w/10/100Base-T	38100-0000-00-0	Evaluation carrier board for ETXexpress modules with 10/100 MBit Ethernet
ETXexpress® Eval w/ 1000Base-T	38100-0000-00-1	Evaluation carrier board for ETXexpress modules with Gigabit Ethernet
ETXexpress® miniBaseboard	38102-0000-00-0	miniBaseboard for COM Express™ modules

nanoETXexpress Starterkit

The COM.0 Type 1 nanoETXexpress-HMI Starterkit is equipped for express evaluation purposes. The fully equipped nanoETXexpress Starterkit is shipped incl. a nanoETXexpress-HMI Board 34100-0000-00-0, a 7" WVGA Panel with touch, 12V power supply, cables and accessories and a USB stick with a demo image of Win CE 6.0, incl. a QNX® Neutrino® fastboot demo video.

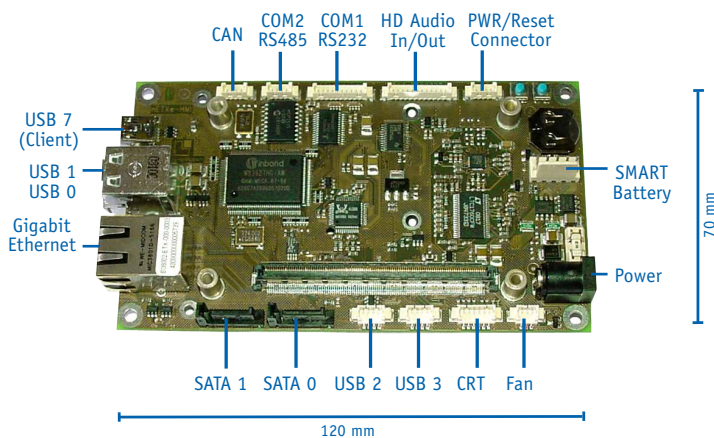


Technical Information

Evaluation Baseboard	nanoETXexpress HMI Baseboard Small form factor 120 x 70 mm; Max component height below 18mm
Display	1x Display PM070WL4, 7" WVGA 800x480, with assembled backlight cable
Power Supply	12V PowerSupply PAA060F, with power cable
Cables	2x USB socket, KAB-USB-1 2x CAN socket, KAB-CAN-1 (one for COM2/one for CAN) 1x RS232 socket (COM1), KAB-DSUB9-3 1x RS485 socket (COM2) 1x JILI cable, KAB-JILI30-TSLD01 1x USB cable for touch controller, ETP-CB-SXU00
Other Features	1x USB touch controller, ETP-MB-4000UACG 1x Audioboard, BO8700-KAB-XX-XX01, with cable
Software	BSP for WIN CE 6.0, WIN XP; WIN CE 6.0 demo image, QNX® Neutrino® fastboot demo video
Supported Modules	nanoETXexpress-SP. Module must be ordered separately.

nanoETXexpress-HMI Baseboard

The nanoETXexpress Human Machine Interface (HMI) Baseboard is suited for daily use and is designed to allow embedded application developers to get up and run quickly with the Ultra sized nanoETXexpress module platform.



Technical Information

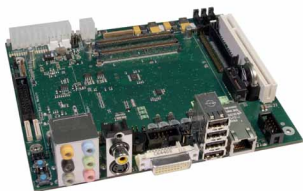
Power	SmartBattery, 2 cells Li-Ion; Single power supply +12V
Hard Disk	2 x SATA
Ethernet	10/100/1000 LAN magnetic connector
Interface	COM1 RS232 COM2 RS485 CAN
PCI Express	Expansion PCI Express Card 34/54 slot
Flash Extension	microSD Slot (depending on nETXe-module)
USB	2x USB 2.0 front connectors (USB 1,3) 2x USB internal on pin header (USB 0,2) 1x USB client port (USB port 7)
Display connectivity	JILI, LVDS Panel connector CRT internal (depending on nETXe-module)
Sound	HD Audio Codec ALC888 S/PDIF In/Out; Line In In/Out
Form Factor	120 x 70 mm
Supported Modules	COM Express™ COM.0 Pin-out Type 1 modules in ultra size only, e.g. nanoETXexpress-SP. Module must be ordered separately.
Temperature	0 - 60 °C operating temp.

Ordering Information

Article	Part-No.	Description
nanoETXexpress-HMI Starterkit	34100-0000-00-S	nanoETXexpress-HMI Starterkit, incl. nETXe-HMI Board 34100-0000-00-0, 7" WVGA Panelwith touch, 12V power supply, cables and accessories, packed in plastic case
nanoETXexpress-HMI Baseboard	34100-0000-00-0	nanoETXexpress-HMI Baseboard, COM Express™ COM.0 Type 1

HOW TO CUSTOMIZE YOUR KIT?

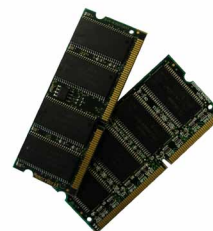
1. Select either a Starterkit or an Evaluation Board:



2. Select a COM Express™ compatible module of your choice:



3. Select memory modules:



4. Send your request to our Sales Representative or to info@kontron.com
 5. A customized offer will be send to you.

Heatspreader and Heatsink

By default starterkits are intended to be used with a **heatspreader**. On top of the heatspreader a standard fan (included in ETXexpress® and microETXexpress® Starterkits) can be mounted, if required.

Heatsinks are like heatspreaders however with additional cooling fins. Active heatsinks have a separate fan integrated, passive are only with fins. Passive heatsinks need to have a guaranteed air flow.



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