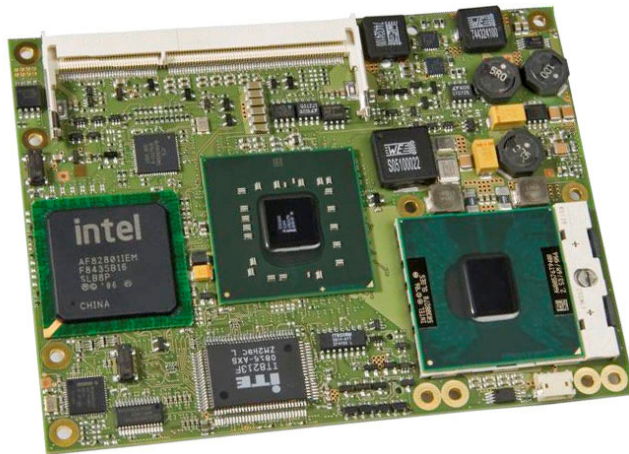


The H6309 COM Express module is based on Intel's 45nm dual core CPU technology enabling you to boost your embedded application to highest performance levels. Besides an extensive set of interfaces and features, the H6309 offers hardware and BIOS based security compliant to the requirements of TCG (Trusted Computing Group). The widely adopted "basic" form factor together with standard voltage processor models and dual channel DDR3 memory allow powerful system designs at reasonable costs for various embedded or industrial applications.



Features

- Four CPU options qualified:
 - Core™2 Duo T9400 (Standard voltage) BGA/PGA, 2,53GHz, 6M cache, 35W
 - Core™2 Duo P8400 (Standard Voltage) BGA/PGA, 2,26GHz, 3M cache, 25W
 - Celeron® Dual Core T3100 (Stand. Voltage) BGA/PGA, 1,9 GHz, 1M cache, 35W
 - Celeron® 575 (Standard voltage) PGA, 2,00GHz, 1M cache, 31W
 - Contact Hectronic for information on other CPU options
- Intel® GM45 Chipset (GL40 with Celeron processors) with integrated Mobile Intel® Graphics Media Accelerator 4500MHD and Intel® Clear Video Technology
- PCI Express x16 (PEG) support
- Up to 2x 4GB DDR3 SDRAM, dual channel
- Four SATA-300 mass storage interfaces
- 10/100/1000 Base-TX Ethernet interface
- LVDS interface (24 Bit, dual channel)
- CRT interface
- Dual Independent Display supported
- Five PCI Express x1 lanes
- Eight USB 2.0 interfaces
- TPM 1.2
- Phoenix SecureCoreBIOS
- ACPI power management
- Fully COM Express Type 2 compliant
- Windows Vista, XP (embedded) and Linux supported

H6309 - Technical Specifications

Core Logic and Memory		Miscellaneous	
CPU	<ul style="list-style-type: none"> Core™2 Duo T9400 (Standard voltage) BGA/PGA, 2,53GHz, 6M cache, 35W Core™2 Duo P8400 (Stand. Voltage) BGA/PGA, 2,26GHz, 3M cache, 25W Celeron® Dual Core T3100 (Stand. Voltage), BGA/PGA, 1,9 GHz, 1M cache, 35W Celeron® 575 (Standard voltage) PGA, 2,00GHz, 1M cache, 31W 	Watchdog Timer	Initiates system reset, (programmable, 0.4s ... 10min)
Chipset	Intel® GM45, ICH9M or Intel® GL40, ICH9M (with Celeron models)	Fan Supply	3-pin header (12V), fan speed control
Memory	2x 204-pin SO-DIMM socket for up to 8GB DDR3 SDRAM (DDR667/800/1066); dual channel operation	Battery	External
Drives		System Monitoring	Voltage, Temperature, CPU Fan
SATA	4x SATA-2 channels (up to 300MB/s)	LAN Interface	
PATA	1x Enhanced IDE port (ATA/UDMA166)	Ethernet	10/100/1000Base-TX
Standard Interfaces		Sound Interface	
USB	8x USB 2.0	HD audio	
Bus Interfaces		Security Device	
COM Express	Type 2 interface, fully compliant	Trusted Platform Module	
PCI Express	Six channels PCI Express x1 (one channel reserved for Gbit Ethernet), one PCI Express Graphics (PEG) x 16	BIOS	
PCI Bus	32 Bit, 33MHz (PCI 2.3)	Phoenix SecureCore	
LPC	Low Pin Count bus for legacy interfaces	Boot Options	Quick Boot, MultiBoot XP (HD, CD, LAN, USB), Boot without keyboard, LAN Boot via PXE (RPL optional), Wake on LAN supported
Flat Panel/ CRT Interface		Security	TPM 1.2 support, Secure Boot Technology
Graphics Ctrl.	Mobile Intel® Graphics Media Accelerator 4500MHD and Intel® Clear Video Technology (integrated in Intel® GM45/GL40), DirectX 10 and OpenGL 2.0 supported	Power Managem.	ACPI (S3, S4, S5 supported), Enhanced Intel SpeedStep® technology*, CPU fan control
Video Memory	UMA, up to 384MB	USB	USB legacy support (keyboard, mouse, storage)
LCD Interface	LVDS 18/24 Bit, dual channel	Video	Video BIOS with flat panel extensions (EPI)
CRT Interface	Resolution up to 2048 x 1536	Setup	CMOS configuration
		Power Supply	
		Power	Power +12V +/-10%, 5V Stby optional
		Power Cons.	TDP 35W up to 50 W. Processor and application dependant.
		Environment	
		Ambient	0°... 60°C (operating)
		Temp.	-25°... 85°C (storage)
		Humidity	5 ... 95% (operating, non-condensing) 5 ... 95% (storage, non-condensing)
		Mechanical	
		Size	125mm x 95mm x13mm

* Not on Celeron® 575 model

Hectronic is an Affiliate member of the Intel® Intelligent Systems Alliance, a global ecosystem of 200+ member companies that provide the performance, connectivity, manageability, and security developers need to create smart, connected systems.

Intel and the Intel logo are trademarks of Intel Corporation in the U.S. and/or other countries.

COM Express® is a registered trademark of the PCI Industrial Computer Manufacturers Group.

HECTRONIC AB
Box 3002
SE-750 03 Uppsala
SWEDEN

Visitors address:
Fälhagsleden 59
Uppsala

Telephone: +46.18.660 700
Telefax: +46.18.660 701
E-mail: info@hectronic.se
Web: www.hectronic.se