

Datasheet

COMe-mAL10

Kontron

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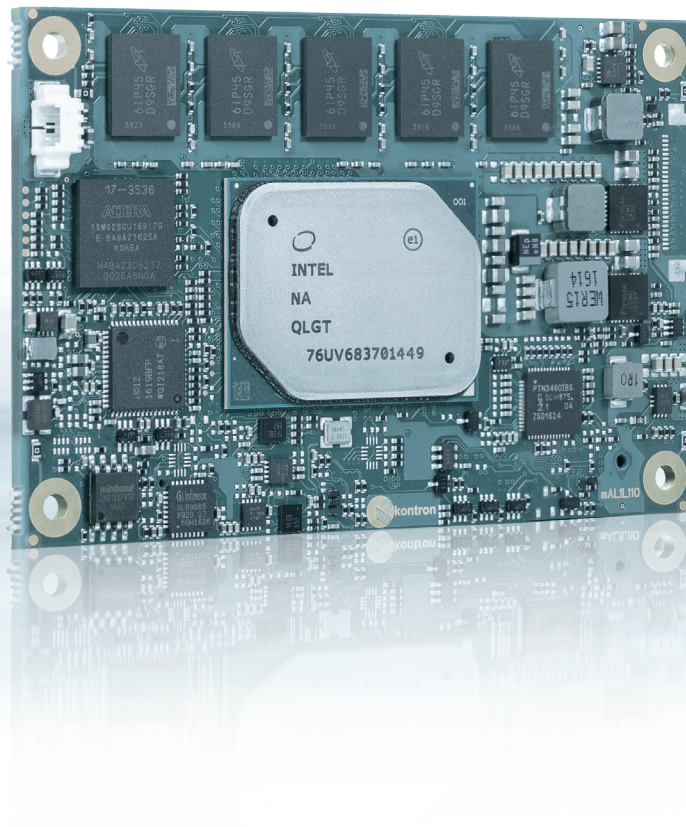
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COMe-mAL10 (E2)



COM EXPRESS® MINI TYPE 10 WITH LATEST GENERATION Intel® Atom™, Pentium® and Celeron® SERIES

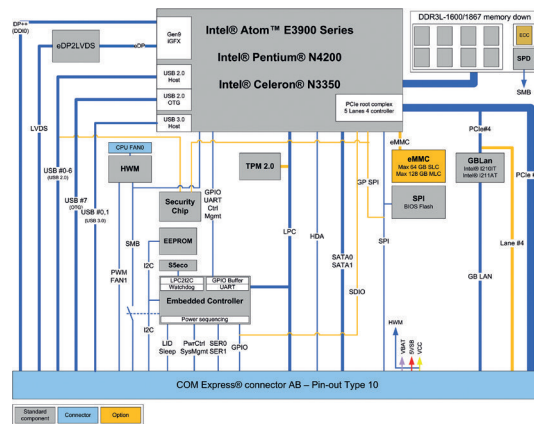
- ▶ low-Power – Performance / Watt optimized small form factor solution
- ▶ up to 8 GByte DDR3L memory down (ECC / non ECC)
- ▶ 2x USB 3.0/2.0, up to 6x USB 2.0, USB client optional, 2x SATA, eMMC Flash
- ▶ industrial grade temperature
- ▶ support of Kontron's Embedded Security Solution (Aprotect)

POSSIBILITIES START HERE



TECHNICAL INFORMATION

COMPLIANCE	COM Express® compact, Pin-out Type 10	
DIMENSIONS (H X W X D)	95 x 95 mm	
CPU	Intel® Atom™ x7-E3950, 4C, 1.6 / 2.0 GHz, 6 W TDP Intel® Atom™ x5-E3940, 4C, 1.6 / 1.8 GHz, 9 W TDP Intel® Atom™ x5-E3930, 2C, 1.3 / 1.8 GHz, 6.6 W TDP	Intel® Pentium® N4200, 4C, 1.1 / 2.5 GHz, 6 W TDP Intel® Celeron® N3350, 2C, 1.1 / 2.4 GHz, 6 W TDP
CHIPSET	-	
MAIN MEMORY	Up to 8 GByte DDR3-1866 (-1600) memory down (ECC for Atom-versions)	
GRAPHICS CONTROLLER	Intel HD Gfx Gen9: LVDS/eDP, 1x DP++, up to 4K	
ETHERNET CONTROLLER	Intel® I210IT/I211AT	
ETHERNET	10/1002/1000 MBit Ethernet	
HARD DISK	2x SATA 6 Gb/s, SDIO Interface (shared with GPIO)	
FLASH ONBOARD	32 GByte eMMC	
PCI EXPRESS® SUPPORT	3x PCIe x1, 1x PCIe x4	
PANEL SIGNAL	DDI: DP++, LVDS: Single Channel 18/24 bit or eDP	
USB	2x USB 3.0 (incl. USB 2.0) + 8x USB 2.0, Port 7 is dual role (Client/Host)	
SERIAL	2x serial interface (RX/TX only)	
AUDIO	Intel® High Definition Audio	
COMMON FEATURES	SPI, LPC, SMB, Fast I ² C, Staged Watchdog, RTC, MARS	
BIOS	AMI Aptio V	
HUMIDITY	93% relative Humidity at 40 °C, non-condensing (according to IEC 60068-2-78)	
FEATURES ON REQUEST	1x PCIe x1 additional w/o onboard LAN (configuration 4x PCIe x1), MMC Flash onboard (up to 32 GByte SLC, up to 128 GByte MLC), eDP instead of LVDS, General Purpose SPI instead of Boot SPI, FSP + Coreboot, AES-NI, USB client	
POWER MANAGEMENT	ACPI 4.0, S5 Eco	
POWER SUPPLY	4.75 V – 20 V Wide Range, Single Supply Power	
SPECIAL FEATURES	POSCAP capacitors, Trusted Platform Module TPM 2.0, Security Chip (Support of Kontron Approtect), 4k Resolutions, GPIO/SDIO Switch, General Purpose SPI optional, Industrial Temperature Grade versions	
OPERATING SYSTEM	Windows® 10, Enterprise, Windows 10 IoT, Linux, VxWorks	
TEMPERATURE	COMe-mAL10: Commercial temperature: 0 °C to +60 °C operating, -30 °C to +85 °C non-operating COMe-mAL10 E2: Industrial temperature: -40 °C to +85 °C operating, -40 °C to +85 °C non-operating	
SUPPORTED MODULES	COMe-mAL10 / COMe-mAL10 E2	



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