

COM EXPRESS® compact

low power mobile



COM EXPRESS® compact

COMe-cBL6

COMPLIANCE	COM Express® compact Pin-out Type 6
DIMENSIONS (H X W X D)	95 x 95 mm
CPU	Intel® Core™ i7-5650U, 2x 2.20 GHz, GT3, 15 W Intel® Core™ i5-5350U, 2x 1.80 GHz, GT3, 15 W Intel® Core™ i3-5010U, 2x 2.10 GHz, GT2, 15 W Intel® Celeron® 3765U, 2x 1.90 GHz, GT1, 15 W
CHIPSET	Integrated SoC
MAIN MEMORY	1x DDR3L-1866 SO-DIMM up to 8 GByte, 1x DDR3L-1600 memory down up to 8 GByte
GRAPHICS CONTROLLER	Intel® HD6000 (GT3), Intel® HD5500 (GT2), Intel® HD Graphics (GT1)
ETHERNET CONTROLLER	Intel® I218LM
ETHERNET	10/100/1000 MBit Ethernet
HARD DISK	4x SATA 6Gb/s
FLASH ONBOARD	-
PCI EXPRESS® / PCI SUPPORT	4x PCIe Gen 2.0
PANEL SIGNAL	DDI1: DP++, DDI2: DP++, DDI3: -, VGA: -, LVDS: Dual Channel 18/24bit
USB	2x USB 3.0, 6x USB 2.0
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	Phoenix Secure Core UEFI
ON REQUEST	1x PCIe x4 additional w/o onboard LAN, eDP instead of LVDS, vPRO (AMT/TXT/AES Support)
POWER MANAGEMENT	ACPI 4.0, S5 Eco
POWER SUPPLY	8.5 V – 20 V Wide Range, Single Supply Power
SPECIAL FEATURES	POSCAP capacitors, Trusted Platform Module TPM 1.2, 4k Resolutions
TEMPERATURE	Commercial temperature: 0 °C to +60 °C operating, -30 °C to +85 °C non-operating On request Extended temperature: -25 °C to +75 °C operating, -30 °C to +85 °C non-operating
OPERATING SYSTEM	Windows® 8, Windows® 7, WEBS, WE57, Linux, VxWorks

COMe-cSL6

COMPLIANCE	COM Express compact Pin-out Type 6
DIMENSIONS (H X W X D)	95 x 95 mm
CPU	Intel® Core™ i7-6600U, 2x 2.60 GHz, GT3, 15 W Intel® Core™ i5-6300U, 2x 2.40 GHz, GT3, 15 W Intel® Core™ i3-6100U, 2x 2.30 GHz, GT2, 15 W Intel® Celeron® Processor 3955U, 2x 2.0 GHz, GT1, 15 W
CHIPSET	Integrated SoC
MAIN MEMORY	1x DDR4 SO-DIMM up to 16 GByte, 2nd channel DDR4- memory down up to 8 GByte
GRAPHICS CONTROLLER	Intel® HD Graphics 520 (Celeron® 3955U: Intel® HD Graphics 510)
ETHERNET CONTROLLER	Intel® I219LM
ETHERNET	10/100/1000 MBit Ethernet
HARD DISK	2x SATA 6Gb/s
FLASH ONBOARD	up to 32 GByte SLC eMMC (depending on SKU - standard feature or available on request)
PCI EXPRESS® / PCI SUPPORT	5x PCIe3.0 on PCIe lane 0-4 (3.0 only i5/ i7 SKUs) 5 controllers, 5 x1, 1 x4 + 1x 1 Option: 6 Lanes if no LAN 4x PCIe3.0 on PEG Lanes 0-3 (3.0 only i5/ i7 SKUs) 1 Controller, 1 x4 or 1 x2 or 1 x1, (Intel® RST)
PANEL SIGNAL	DDI1: DP++, DDI2: DP++, DDI3: -, VGA: -, LVDS: Dual Channel 18/24 bit
USB	4x USB 3.0/2.0, + 4x USB 2.0
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 AptioV UEFI
ON REQUEST	1x PCIe x1 additional w/o onboard LAN, eDP, 32 GByte eMMC, instead of LVDS, vPRO (AMT/TXT/AES Support)
POWER MANAGEMENT	ACPI 4.0, S5 Eco
POWER SUPPLY	8.5 V – 20 V Wide Range ATX, Single Supply Power
SPECIAL FEATURES	Trusted Platform Module TPM 2.0 POSCAP capacitors
TEMPERATURE	Commercial temperature: 0 °C to +60 °C operating, -30 °C to +85 °C non-operating On request Extended temperature: -25 °C to +75 °C operating, -30 °C to +85 °C non-operating
OPERATING SYSTEM	Windows®10 (64), Windows® 8.1 (64), Windows® 7, WEI8, Linux, VxWorks

COMe-cKL6

COMPLIANCE	COM Express compact Pin-out Type 6
DIMENSIONS (H X W X D)	95 x 95 mm
CPU	Intel® Core™ i7-7600U, 2x 2.8 GHz (3.9 GHz), GT2, 15 W Intel® Core™ i5-7300U, 2x 2.6 GHz (3.5 GHz), GT2, 15 W Intel® Core™ i3-7100U, 2x 2.4 GHz, GT2, 15 W Intel® Celeron® 3965U, 2x 2.2 GHz, GT1, 15 W
CHIPSET	Integrated SoC
MAIN MEMORY	1x DDR4 SO-DIMM up to 16 GByte, 2nd channel DDR4- memory down up to 8 GByte
GRAPHICS CONTROLLER	Intel® HD Graphics 620 (Celeron® 3965U: Intel® HD Graphics 610)
ETHERNET CONTROLLER	Intel® I219LM
ETHERNET	10/100/1000 MBit Ethernet
HARD DISK	2x SATA 6Gb/s
FLASH ONBOARD	up to 64 GByte SLC eMMC 5.0 (depending on SKU - standard feature or available on request)
PCI EXPRESS® / PCI SUPPORT	5x PCIe3.0 on PCIe lane 0-4 (3.0 only i5/ i7 SKUs) 5 controllers, 5 x1, 1 x4 + 1x 1 Option: 6 Lanes if no LAN 4x PCIe3.0 on PEG Lanes 0-3 (3.0 only i5/ i7 SKUs) 1 Controller, 1 x4 or 1 x2 or 1 x1, (Intel® RST)
PANEL SIGNAL	DDI1: DP++, DDI2: DP++, DDI3: -, VGA: -, LVDS: Dual Channel 18/24 bit
USB	4x USB 3.0/2.0, + 4x USB 2.0
SERIAL	2x serial interface (RX/TX only)
AUDIO	Intel® High Definition Audio
COMMON FEATURES	SPI, LPC, SMB, Fast I ² C, Staged Watchdog, RTC, support of Intel® Optane™ memory technology via PCIe
BIOS	AMI AptioV UEFI
ON REQUEST	1x PCIe x1 additional w/o onboard LAN, eDP, max 64 GByte eMMC, instead of LVDS, vPRO (AMT/TXT/AES Support), industrial grade -40 °C to +85 °C
POWER MANAGEMENT	ACPI 4.0, S5 Eco
POWER SUPPLY	8.5 V – 20 V Wide Range ATX, Single Supply Power
SPECIAL FEATURES	Trusted Platform Module TPM 2.0, Security Chip, POSCAP capacitors
TEMPERATURE	Commercial temperature: 0 °C to +60 °C operating, -30 °C to +85 °C non-operating On request Extended temperature: -25 °C to +75 °C operating, -30 °C to +85 °C non-operating
OPERATING SYSTEM	Windows®10 (64), Linux, VxWorks

COM EXPRESS® compact

low power value



COM EXPRESS® compact

COMe-cBTc6 / cBTi6

COMe-cBTi6R

COMe-cBW6

COMe-cAL6 (E2)

COMPLIANCE	COM Express® compact Pin-out Type 6	COM Express® compact Pin-out Type 6	COM Express® compact Pin-out Type 6	COM Express® compact Pin-out Type 6
DIMENSIONS (H X W X D)	95 x 95 mm	95 x 95 mm	95 x 95 mm	95 x 95 mm
CPU	COMe-cBTi6: Intel® Atom™ E3845 (4x 1.91 GHz, 10 W) Intel® Atom™ E3827 (2x 1.75 GHz, 8 W) Intel® Atom™ E3826 (2x 1.46 GHz, 7 W) Intel® Atom™ E3825 (2x 1.33 GHz, 6 W) Intel® Atom™ E3815 (1x 1.46 GHz, 5 W) COMe-cBTc6: Intel® Celeron® J1900 (4x 2.00 GHz, 10 W) Intel® Celeron® N2930 (4x 1.83 GHz, 7.5 W) Intel® Celeron® N2807 (2x 1.58 GHz, 4.5 W) Intel® Atom™ E3815 (1x 1.46 GHz, 5 W)	Intel® Atom™ E3845 (4x 1.91 GHz, 10 W) Intel® Atom™ E3827 (2x 1.75 GHz, 8 W) Intel® Atom™ E3826 (2x 1.46 GHz, 7 W) Intel® Atom™ E3825 (2x 1.33 GHz, 6 W) Intel® Atom™ E3815 (1x 1.46 GHz, 5 W)	Intel® Pentium® N3710 (4x 1.60 GHz/2.56 GHz, 6 W) Intel® Celeron® N3160 (4x 1.60 GHz/2.24 GHz, 6 W) Intel® Celeron® N3060 (4x 1.60 GHz/2.48 GHz, 6 W) Intel® Celeron® N3010 (4x 1.04 GHz/2.24 GHz, 4 W) Intel® Atom™ Processor x5-E8000 (4x 1.04 GHz, 5 W)	COMe-cAL6 E2: Intel® Atom™ x7-E3950, 4C, 1.6 / 2.0 GHz, 12 W TDP Intel® Atom™ x5-E3940, 4C, 1.6 / 1.8 GHz, 9.5 W TDP Intel® Atom™ x5-E3930, 2C, 1.3 / 1.8 GHz, 6.5 W TDP COMe-cAL6: Intel® Pentium® N4200, 4C, 1.1 / 2.5 GHz, 6 W TDP Intel® Celeron® N3350, 2C, 1.1 / 2.4 GHz, 6 W
CHIPSET	Integrated SoC	Integrated SoC	Integrated SoC	Integrated SoC
MAIN MEMORY	2x DDR3L-1333 SODIMM up to 2x 4 GByte	2x DDR3L-1333 ECC memory down up to 4 GByte or 2x DDR3L-1333 memory down up to 8 GByte	2x SODIMM for DDR3L-1333/1600 (non ECC) up to 2x 4 GByte, 8 GByte total	2x SODIMM for DDR3L-1600/1867 (non ECC) up to 8 GByte
GRAPHICS CONTROLLER	Intel® HD Graphics (Gen7)	Intel® HD Graphics (Gen7)	Intel® HD® Graphics	Intel HD Gfx Gen9: 1x LVDS/eDP (3840 x 2160 @ 60 Hz) 2x DP (++) on DDI1/DDI2 up to 4K
ETHERNET CONTROLLER	COMe-cBTc6 Intel® I211AT COMe-cBTi6 Intel® I210IT	USB SMSC LAN7500i, PCIe Intel® I210IT optional	Intel® I211AT	Intel® I210IT / I211AT
ETHERNET	10/100/1000 MBit Ethernet	10/100/1000 MBit Ethernet	10/100/1000 MBit Ethernet	10/100/1000 MBit Ethernet
HARD DISK	2x SATA 3Gb/s	2x SATA 3Gb/s	2x SATA3 6Gb/s	2x SATA 6Gb/s, SDIO Interface (shared with GPIO)
FLASH ONBOARD	on E3800 CPU only: 2 - 64 GByte eMMC, 1x microSD Socket	2 - 64 GByte eMMC, 1x microSD Socket	Up to 32 GByte SLC eMMC (option)	32 GByte eMMC SLC on request: - up to 64 GByte eMMC SLC - up to 128 GByte eMMC MLC
PCI EXPRESS® / PCI SUPPORT	3x PCIe Gen 2.0 Option: 4 Lanes if no LAN	4x PCIe Gen 2.0	3x PCIe2.0 on PCIe lane 0-2 (3 controllers, 3 x1) Option: 4 Lanes if no LAN (4 controllers, 4 x1, 1 x4)	3x PCIe Gen 2.0 on request: - w/ LAN and PCIe hub: 5x PCIe x1 or 1x PCIe x2 + 3x PCIe x1 - w/o LAN and PCIe hub: 2x PCIe x2 or 1x PCIe x4
PANEL SIGNAL	DDI1: DP++, DDI2: DP++ (shared w/LVDS), DDI3: -, VGA: Yes, LVDS: Dual Channel 18/24bit	DDI1: DP++, DDI2: DP++ (shared w/LVDS), DDI3: -, VGA: Yes, LVDS: Dual Channel 18/24bit	3 independent Displays DDI1: DP++, DDI2: DP++, LVDS: Dual Channel 18/24bit, VGA optional on DDI2	DDI 1/2: DP++, LVDS: Single Channel 18/24 bit or eDP on request)
USB	1x USB 3.0 (incl. USB 2.0), 3x USB 2.0 from CPU, on COMe-cBTi6 Version only: 4x USB 2.0 from HSIC Hub	1x USB 3.0 (incl. USB 2.0), 2x USB 2.0 from CPU, 4x USB 2.0 from HSIC Hub, 1x USB OTG	4x USB 3.0/2.0, + 4x USB 2.0	4x USB 3.0 (incl. USB 2.0) + 7x USB 2.0 - Port 7 is used for Security Chip (8x USB 2.0 option w/o Security Chip)
SERIAL	2x serial interface (RX/TX only)	2x serial interface (RX/TX only)	2x serial interface (RX/TX only)	2x serial interface (RX/TX only)
AUDIO	Intel® High Definition Audio	Intel® High Definition Audio	Intel® High Definition Audio	Intel® High Definition Audio
COMMON FEATURES	SPI, LPC, SMB, Fast I²C, Staged Watchdog, RTC, MARS	SPI, LPC, SMB, Fast I²C, Staged Watchdog, RTC, MARS	SPI, LPC, SMB, Fast I²C, Staged Watchdog, RTC, MARS	SPI, LPC, SMB, Fast I²C, Staged Watchdog, RTC
BIOS	Phoenix Secure Core UEFI	Phoenix Secure Core UEFI	AMI AptioV UEFI	AMI Aptio V
ON REQUEST	1x PCIe x1 additional w/o onboard LAN, Trusted Platform Module TPM 1.2, on E38xx CPU only: eMMC Flash on board (2 - 32 GByte SLC, 4 - 64 GByte MLC), AES-NI	ECC or non-ECC memory, eMMC Flash onboard (2 - 32 GByte SLC, 4 - 64 GByte MLC), microSD Socket, PCIe GBEthernet, AES-NI	1x PCIe x1 additional w/o onboard LAN, onboard SSD (32 GByte eMMC), eDP instead of LVDS, VGA instead DDI2	PCIe configurations w/ PCI hub and w/o LAN chip eMMC Flash configuration eDP instead of LVDS General Purpose SPI instead of Boot SPI FSP + Coreboot, AES-NI, USB client
POWER MANAGEMENT	ACPI 4.0, S5 Eco	ACPI, S5 Eco Kontron Rapid Shutdown	ACPI 4.0, S5 Eco	ACPI 4.0, S5 Eco
POWER SUPPLY	4.75 V – 20 V Wide Range, Single Supply Power	4.75 V – 20 V Wide Range, Single Supply Power	8.5 V – 20 V Wide Range ATX, Single Supply Power	8.5 V – 20 V Wide Range, Single Supply Power
SPECIAL FEATURES	POSCAP capacitors, LVDS/DP Multiplexer	POSCAP capacitors, GPIO/SDIO Switch, LVDS/DP Multiplexer, 2x MIPI-CSI on PEG interface, memory down, Kontron Rapid Shutdown	POSCAP capacitors, LVDS/DP Multiplexer, microSD card socket*	POSCAP capacitors, Trusted Platform Module TPM 2.0, Security Chip (Support of Kontron Approtect), microSD card socket 4k Resolutions, GPIO/SDIO Switch, Industrial grade temperature
TEMPERATURE	Commercial temperature: 0 °C to +60 °C operating Industrial temperature: -40 °C to +85 °C operating	Industrial temperature: -40 °C to +85 °C operating	Commercial temperature: 0° C to +60° C operating, -30° C to +85° C non-operating	COMe-cAL6 - commercial temperature: 0 °C to +60 °C operating, -30 °C to +85 °C non-operating COMe-cAL6 E2 - industrial temperature: -40 °C to +85 °C operating, -40 °C to +85 °C non-operating
OPERATING SYSTEM	Windows® 8, Windows® 7, WEBS, WES7, Linux, VxWorks	Windows® 8, Windows® 7, WEBS, WES7, Linux, VxWorks	Win7, Win8.1, WES8, Win 10 (all 64Bit), Linux	Windows® 10, Enterprise, Windows 10 IoT, Linux, VxWorks