

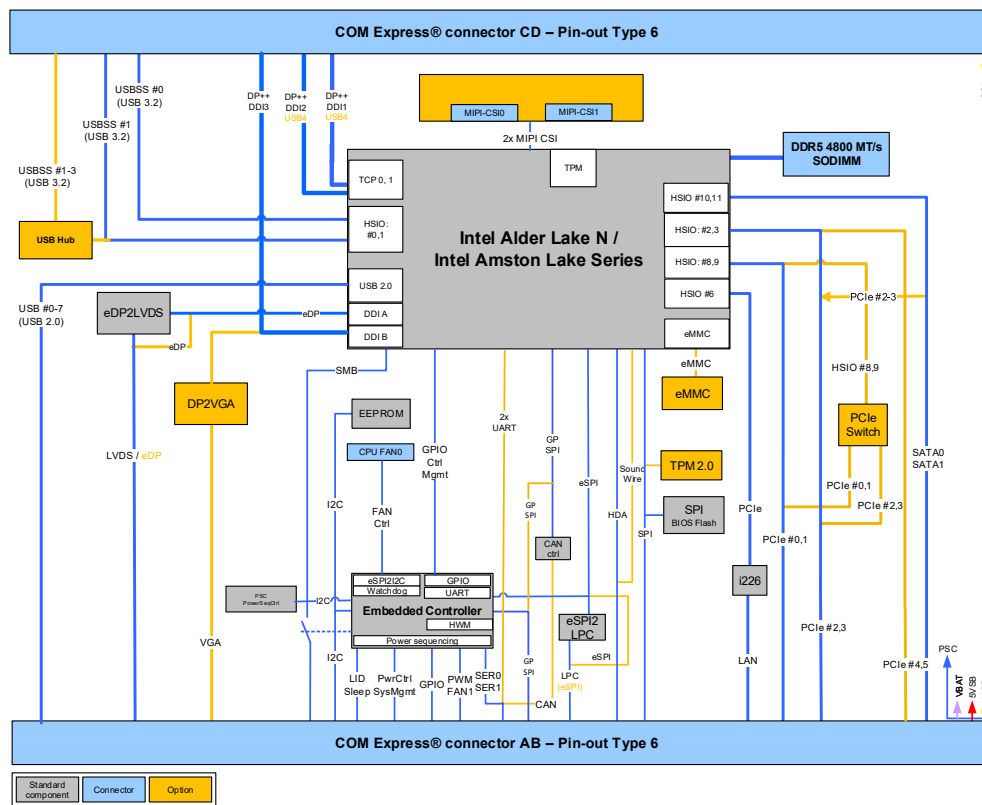
COMe-cAS6 (E2)



COM Express® compact Type 6 with Intel Atom® x7000E / x7000RE

- ▶ Low-Power – Performance/Watt optimized form factor solution
- ▶ Up to 16 GByte DDR5 4800 MT/s - In-Band ECC
- ▶ Up to 4x Graphics interfaces
- ▶ Up to 6x PCIe lanes, up to 4x USB 3.2/2.0, 6x USB 2.0
- ▶ 1 GbE (optional 2.5 GbE) with TSN support
- ▶ Industrial grade temperature

COMPLIANCE	COM Express® compact, Pin-out Type 6
DIMENSIONS (H X W)	95 x 95 mm
CPU	Intel Atom® x7000E, x7000RE Series, For details see table (CPU variants) given below
CHIPSET	Integrated in SOC
MAIN MEMORY	Up to 16 GByte DDR5 4800 MT/s via 1x SODIMM socket (In-Band ECC)
GRAPHICS CONTROLLER	SOC: Intel® HD Gfx Gen 12: LVDS/eDP, 2x DP
ETHERNET CONTROLLER	Intel® i226LM/i226IT
ETHERNET	Up to 2.5 Gb Ethernet with TSN support
STORAGE	2x SATA 6Gb/s
FLASH ONBOARD	eMMC option – up to 256 GByte eMMC TLC
PCI EXPRESS®	4x PCIe lanes: 4x 1 / 2x 2 (PCIe Gen3) optional 4x PCIe lanes w/o SATA-ports: 4x 1 / 2x 2 / 1x 4 (PCIe Gen3) optional 6x PCIe lanes with PCIe switch: 4x 1 / 2x 2 / 1x 4 (PCIe Gen2) + 2x 1 / 1x 2 (PCIe Gen3)
DISPLAY	DDI1/DDI2/DDI3: DP++, LVDS: Dual Channel 18/24bit optional DDI3: VGA optional eDP instead of LVDS
USB	2x USB 3.2 Gen2 (incl. USB 2.0) + 6x USB 2.0 optional 4x USB3.2 w/ add USB-Hub
SERIAL	2x serial interface (RX/TX only)
AUDIO	Intel® High Definition Audio
OTHER FEATURES	SPI, LPC, SMB, Fast I ² C, Staged Watchdog, RTC
SPECIAL FEATURES	Industrial grade temperature
FEATURES ON REQUEST	eMMC up to 256 GByte TLC, eDP instead of LVDS, DDI3: VGA 4x USB3.2 w/ add USB-Hub instead of 2x USB 3.2 General Purpose SPI instead of Boot SPI, Trusted Platform module TPM 2.0, de-populated LAN; 4x PCIe lanes w/o SATA-ports : 4x 1 / 2x 2 / 1x 4; 6x PCIe lanes with PCIe switch: 4x 1 / 2x 2 / 1x 4 + 2x 1 / 1x 2
POWER MANAGEMENT	ACPI 6.0
POWER SUPPLY	8.5 V – 20 V Wide Range, Single Supply Power
BIOS	AMI Aptio V
OPERATING SYSTEM	Windows® 10, Linux
TEMPERATURE	COMe-cAS6- commercial temperature: 0 °C to +60 °C operating, -30 °C to +85 °C non-operating COMe-cAS6 E2 - industrial temperature: -40 °C to +85 °C operating, -40 °C to +85 °C non-operating
HUMIDITY	93% relative Humidity at 40°C, non-condensing (according to IEC 60068-2-78)



CPU Variants

PROCESSOR NUMBER	TDP W	CORES	EUS	BASE FREQ GHZ	1C TURBO FREQ GHZ	TJUNCTION MIN °C	TJUNCTION MAX °C	ECC	USE CONDITION
X7211E	6	2	16	1,0	3,2	0	105	Yes-In Band	Embedded
X7213E	10	2	16	1,7	3,2	0	105	Yes-In Band	Embedded
X7425E	12	4	24	1,5	3,4	0	105	Yes-In Band	Embedded
X7211RE	6	2	16	1,0	3,2	-40	105	Yes-In Band	Embedded/Industrial*
X7213RE	9	2	16	2,0	3,4	-40	105	Yes-In Band	Embedded/Industrial*
X7433RE	9	4	32	1,5	3,4	-40	105	Yes-In Band	Embedded/Industrial*
X7835RE	12	8	32	1,3	3,6	-40	105	Yes-In Band	Embedded/Industrial*
N50	6	2	16	1,0	3,4	0	105	No	PC Client
N97	12	4	24	2,0	3,6	0	105	No	PC Client
N200	6	4	32	1,0	3,7	0	105	No	PC Client
I3-N305	9/15	8	32	1,0/1,8	3,8	0	105	No	PC Client

*For Industrial use condition turbo needs to be disabled

PART NO.	CPU	SODIMM	ETH PHY (1GbE OR 2.5GbE)	USB 3.2 (ZOR 4)	FLASH - EMMC	VARIOUS	OP. TEMPERATURE
36039-0000-R1-2	x7211RE	Inband-ECC, 4800MT/s	1GbE	2	no	LPC, LVDS	-40 °C - 85 °C
36039-0000-R2-2	x7213RE	Inband-ECC, 4800MT/s	1GbE	2	no	LPC, LVDS	-40 °C - 85 °C
36039-0000-R2-4	x7433RE	Inband-ECC, 4800MT/s	1GbE	2	no	LPC, LVDS	-40 °C - 85 °C
36039-0000-R2-8	x7835RE	Inband-ECC, 4800MT/s	1GbE	2	no	LPC, LVDS	-40 °C - 85 °C

Please contact your sales representative for other versions

Carrier

ARTICLE	PART NO.	DESCRIPTION
COMe EVAL CARRIER2	38116-0000-00-5	COM Express® Evaluation Carrier Type 6

Cooling

ARTICLE	PART NO.	DESCRIPTION
HSP COMe-cAS6 (E2) THREAD	36039-0000-99-0	Heatspreader for COMe-cAS6 commercial and E2, threaded mounting holes
HSP COMe-cAS6 (E2) THROUGH	36039-0000-99-1	Heatspreader for COMe-cAS6 commercial and E2, through holes
COMe ACTIVE UNI COOLER2 (W/O HSP)	36099-0000-99-4	COM Express® Universal Active Cooler for Heatspreader Mounting (95 x 95 x 14.3) - 90° turnable
COMe PASSIVE UNI COOLER2 (W/O HSP)	36099-0000-99-5	COM Express® Universal Passive Cooler for Heatspreader Mounting (95 x 95 x 14.3) - 90° turnable

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