

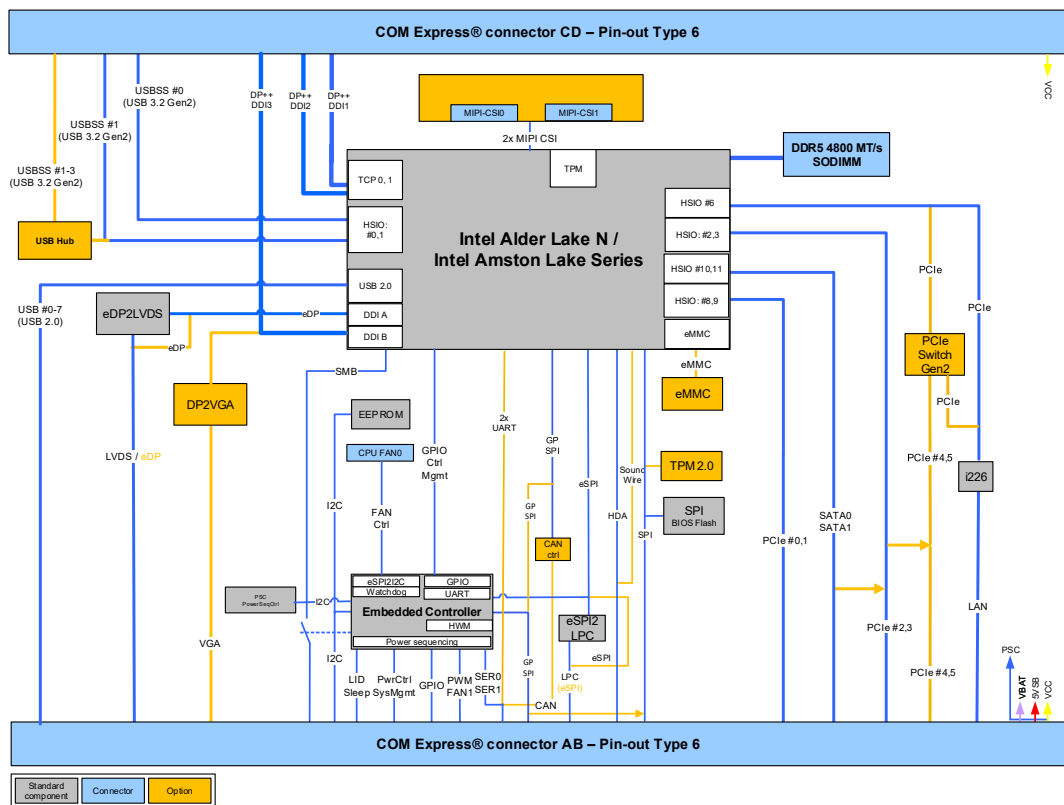
# COMe-cAS6 (E2)



## 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

<b>COMPLIANCE</b>	COM Express® compact, Pin-out Type 6
<b>DIMENSIONS (H X W)</b>	95 x 95 mm
<b>CPU</b>	Intel Atom® x7000E, x7000RE Series, For details see table (CPU variants) given below
<b>CHIPSET</b>	Integrated in SOC
<b>MAIN MEMORY</b>	Up to 16 GByte DDR5 4800 MT/s via 1x SODIMM socket (In-Band ECC)
<b>GRAPHICS CONTROLLER</b>	SOC: Intel® HD Gfx Gen 12: LVDS/eDP, 2x DP
<b>ETHERNET CONTROLLER</b>	Intel® i226LM/i226IT
<b>ETHERNET</b>	Up to 2.5 Gb Ethernet with TSN support
<b>STORAGE</b>	2x SATA 6Gb/s
<b>FLASH ONBOARD</b>	eMMC option – up to 256 GByte eMMC TLC
<b>PCI EXPRESS®</b>	4x PCIe lanes: 4x 1 / 2x 2 (PCIe Gen3) optional 6x PCIe lanes w/o SATA-ports: 2 x2 / 1 x4 + 1 x2 / 2 x1 (PCIe Gen3, max 4 PCIe root ports) optional 6x PCIe lanes with Gen2 switch: 1 x2 / 2 x1 + 1 x2 / 2 x1 (PCIe Gen3) + 2 x1 (PCIe Gen2) - onboard i226 connected via PCIe Gen2 lane
<b>DISPLAY</b>	DDI1/DDI2/DDI3: DP++, LVDS: Dual Channel 18/24bit optional DDI3: VGA optional eDP instead of LVDS
<b>USB</b>	2x USB 3.2 Gen2 (incl. USB 2.0) + 6x USB 2.0 optional 4x USB3.2 Gen2 w/ add USB-Hub
<b>SERIAL</b>	2x serial interface (RX/TX only)
<b>AUDIO</b>	Intel® High Definition Audio
<b>OTHER FEATURES</b>	SPI, LPC, SMB, Fast I <sup>2</sup> C, Staged Watchdog, RTC
<b>SPECIAL FEATURES</b>	Industrial grade temperature
<b>FEATURES ON REQUEST</b>	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 / 1 x 2
<b>POWER MANAGEMENT</b>	ACPI 5.0
<b>POWER SUPPLY</b>	8.5 V – 20 V Wide Range, Single Supply Power
<b>BIOS</b>	AMI Aptio V
<b>OPERATING SYSTEM</b>	Windows® 10, Linux
<b>TEMPERATURE</b>	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
<b>HUMIDITY</b>	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	No	Embedded
X7213E	10	2	16	1,7	3,2	0	105	No	Embedded
X7425E	12	4	24	1,5	3,4	0	105	No	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

## Global Headquarters

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