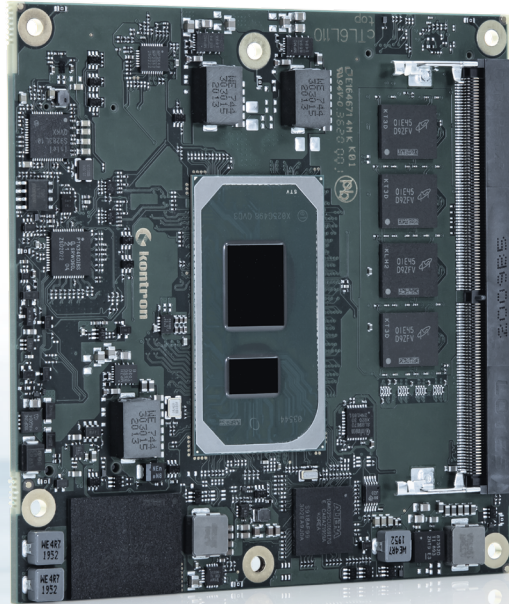


# COMe-cTL6 (E2)

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## COM Express® Compact Type 6 with 11th Generation Intel® Core™/Celeron® Processors

- ▶ Up to 48 GByte DDR4 memory (16 GByte DDR4 memory down)
- ▶ Up to 2.5 Gb Ethernet with TSN support
- ▶ Optional NVMe SSD onboard
- ▶ Industrial grade versions

POSSIBILITIES START HERE

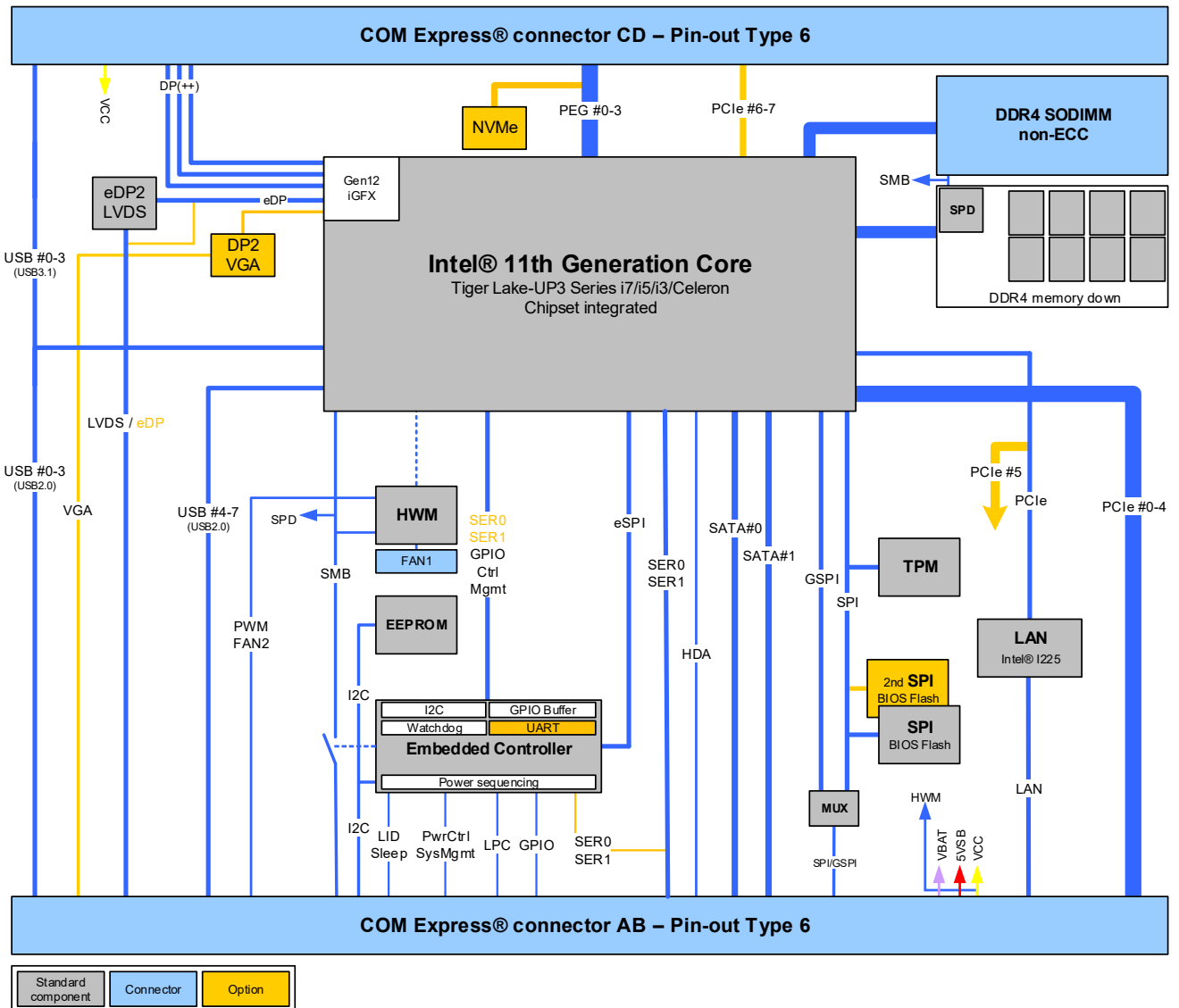
## ▶ TECHNICAL INFORMATION

COMPLIANCE	COM Express® Compact Pin-out Type 6
DIMENSIONS (H x W x D)	95 x 95 mm
CPU	Intel® 11th Generation Core™/ Celeron® family For details see table (CPU variants) given below
CHIPSET	Integrated SoC
MAIN MEMORY	1x DDR4 SO-DIMM up to 32 GByte, 2nd channel DDR4 memory down up to 16 GByte
GRAPHICS CONTROLLER	Intel® Iris®Xe Graphics on i7/i5 processors Intel® UHD Graphics on i3/Celeron® processors
ETHERNET CONTROLLER	Intel® I225LM/I225IT
ETHERNET	Up to 2.5Gb Ethernet with TSN support (depending on SKU)
STORAGE	2x SATA 6Gb/s
FLASH ONBOARD	Up to 1 TByte NVMe SSD (on request)
PCI EXPRESS®	5x PCIe 3.0 (On request: 6x without Ethernet, up to 8x without Ethernet & SATA) 1x4 PCIe 4.0 on PEG Lanes #0-3
DISPLAY	DDI1: DP++, DDI2: DP++, DDI3: DP++, VGA: -, LVDS: Dual Channel 18/24bit
USB	4x USB 3.1 (incl. USB 2.0) + 4x USB 2.0
SERIAL	2x serial interface (RX/TX only)
AUDIO	High Definition Audio interface
OTHER FEATURES	(G)SPI, LPC, SMB, Fast I <sup>2</sup> C, Staged Watchdog, RTC
SPECIAL FEATURES	POSCAP capacitors, Trusted Platform Module TPM 2.0
FEATURES ON REQUEST	vPRO (AMT/TXT/AES Support), eDP instead of LVDS, VGA, up to 3x PCIe x1 additional w/o Ethernet & SATA, NVMe SSD, Fail Safe via 2nd SPI Flash
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, VxWorks
TEMPERATURE	Commercial temperature: 0 °C to +60 °C operating, -30 °C to +85 °C non-operating Extended temperature: -25 °C to +75 °C operating, -30 °C to +85 °C non-operating 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

	11th GENERATION						
CPU	i7-1185G7E	i5-1145G7E	i3-1115G4E	6305E	i7-1185GRE	i5-1145GRE	i3-1115GRE
CORES	4	4	2	2	4	4	2
FREQUENCY BASE/TURBO	1.8/4.4 GHz	1.5/4.1 GHz	2.2/3.9 GHz	1.8/- GHz	1.8/4.4 GHz	1.5/4.1 GHz	2.2/3.9 GHz
TDP	28/15/12 W	28/15/12 W	28/15/12 W	15 W	28/15/12 W	28/15/12 W	28/15/12 W
CACHE	12 MByte	8 MByte	6 MByte	4 MByte	12 MByte	8 MByte	6 MByte
IBEC	no	no	no	no	yes	yes	yes
TCC/TSN	no	no	no	no	yes	yes	yes

## BLOCK DIAGRAM



## VARIANTS

PART NO.	CPU	PCH	MEM. DOWN	SO-DIMM	FLASH	OP. TEMPERATURE
36030-1610-18-7	i7-1185G7E	integrated	16 GByte	non-ECC	1 TByte	0 °C - 60 °C
36030-1600-18-7	i7-1185G7E	integrated	16 GByte	non-ECC	-	0 °C - 60 °C
36030-0000-18-7	i7-1185G7E	integrated	-	non-ECC	-	0 °C - 60 °C
36030-8000-15-5	i5-1145G7E	integrated	8 GByte	non-ECC	-	0 °C - 60 °C
36030-0000-15-5	i5-1145G7E	integrated	-	non-ECC	-	0 °C - 60 °C
36030-0000-22-3	i3-1115G4E	integrated	-	non-ECC	-	0 °C - 60 °C
36030-0000-18-2	6305E	integrated	-	non-ECC	-	0 °C - 60 °C
36031-1600-18-7	i7-1185GRE	integrated	16 GByte	non-ECC	-	-40 °C - 85 °C
36031-8000-15-5	i5-1145GRE	integrated	8 GByte	non-ECC	-	-40 °C - 85 °C
36031-0000-22-3	i3-1115GRE	integrated	-	non-ECC	-	-40 °C - 85 °C

## ► CARRIER

ARTICLE	PART NO.	DESCRIPTION
COMe EVAL CARRIER2 T6	38116-0000-00-5	COM Express® Evaluation Carrier Type 6
COMe REF.CARRIER-I T6 TMI	38115-0000-00-x	COM Express® Reference Carrier Type 6 for industrial temperature

## ► COOLING

ARTICLE	PART NO.	DESCRIPTION
HSP COMe-cTL6 CU-CORE THREADED	36030-0000-99-0	Heatspreader for COMe-cTL6, Cu-core, threaded mounting holes
HSP COMe-cTL6 CU-CORE THROUGH	36030-0000-99-1	Heatspreader for COMe-cTL6, Cu-core, through mounting 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

## ► MEMORY

PART NO.	MIN. SPEC.	SIZE	ECC	OP. TEMPERATURE
97020-3232-CTL6	DDR4-3200	32 GByte	no	0 °C - 60 °C
97020-1632-CTL6	DDR4-3200	16 GByte	no	0 °C - 60 °C
97020-0832-CTL6	DDR4-3200	8 GByte	no	0 °C - 60 °C
97020-0432-CTL6	DDR4-3200	4 GByte	no	0 °C - 60 °C
97021-3232-CTL6	DDR4-3200	32 GByte	no	-40 °C - 85 °C
97021-1632-CTL6	DDR4-3200	16 GByte	no	-40 °C - 85 °C
97021-0832-CTL6	DDR4-3200	8 GByte	no	-40 °C - 85 °C
97021-0432-CTL6	DDR4-3200	4 GByte	no	-40 °C - 85 °C

## ► GLOBAL HEADQUARTERS

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