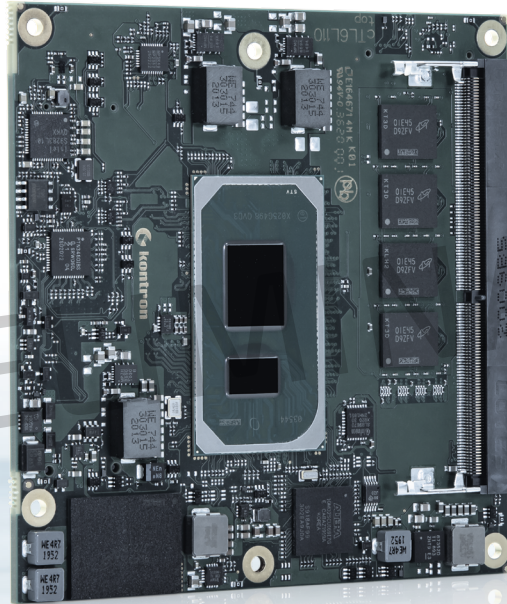


COMe-cTL6 (E2)



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

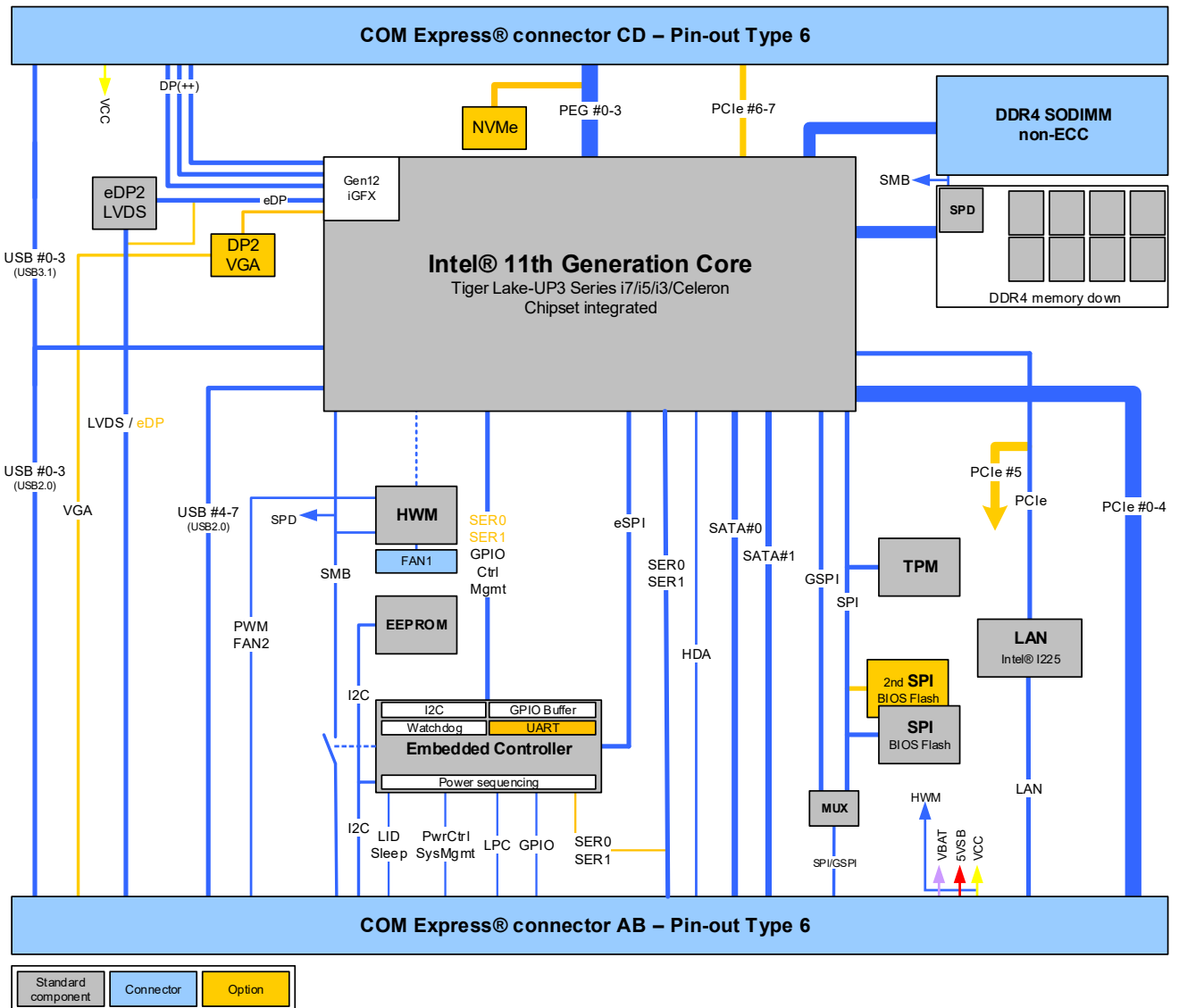
▶ TECHNICAL INFORMATION

| | |
|------------------------|--|
| 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 ² 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 COOLER (W/O HSP) | 36099-0000-99-0 | COM Express® Universal Active Cooler for Heatspreader Mounting (87 x 78 x 14.3 mm) (for CPU's <20 W) |
| COME PASSIVE UNI COOLER (W/O HSP) | 36099-0000-99-1 | COM Express® Universal Passive Cooler for Heatspreader Mounting (87 x 78 x 14.3 mm) (for CPU's <10 W) |

► 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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