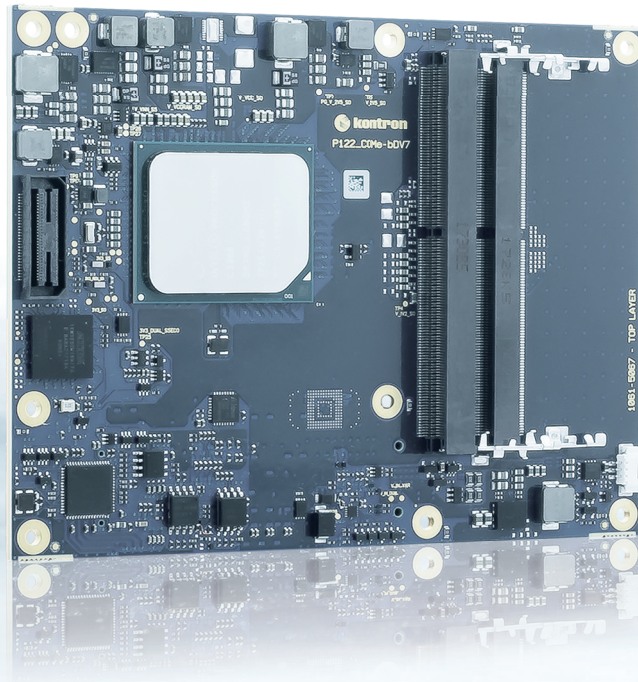# COMe-bDV7

▼



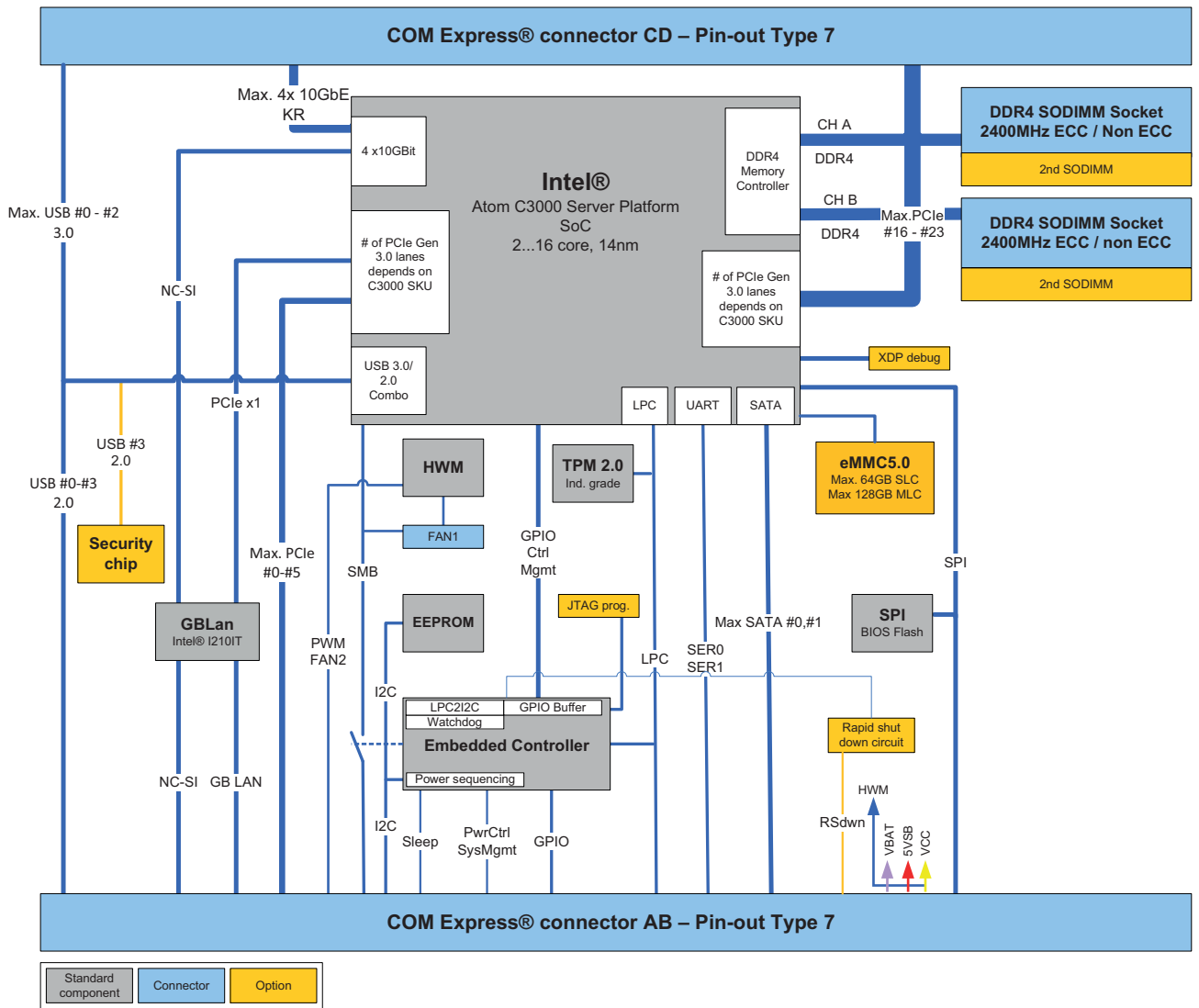## COM Express® Basic Type 7 with Intel Atom® C3000 SoC Processors

- ▶ Entry level server-grade platform
- ▶ Quad 10 GbE interfaces
- ▶ High-speed connectivity PCIe 3.0, SATA3, USB 3.0
- ▶ Industrial grade versions

POSSIBILITIES START HERE

**kontron**

S&T Group

## ▶ TECHNICAL INFORMATION

| | |
|---|---|
| **COMPLIANCE** | COM Express® Basic, Pin-out Type 7 |
| **DIMENSIONS (H x W x D)** | 95 x 125 mm |
| **CPU (SoC)** | Commercial temperature:<br>Intel® Atom® Processor C3958, 16C, 2.0GHz, 31W TDP<br>Intel® Atom® Processor C3858, 12C, 2.0GHz, 25W TDP<br>Intel® Atom® Processor C3758, 8C, 2.2GHz, 25W TDP<br>Intel® Atom® Processor C3558, 4C, 2.2GHz, 16W TDP<br><br>Industrial temperature:<br>Intel® Atom® Processor C3808, 12C, 2.0 GHz, 25 W TDP<br>Intel® Atom® Processor C3708, 8C, 1.7 GHz, 17 W TDP<br>Intel® Atom® Processor C3508, 4C, 1.5 GHz, 11 W TDP<br>Intel® Atom® Processor C3308, 2C, 1.6 GHz, 9 W TDP |
| **MAIN MEMORY** | 2x DDR4 SODIMM for up to 64 GByte ECC / non ECC<br>on request: 4x DDR4 SODIMM for up to 128 GByte ECC / non ECC |
| **ETHERNET CONTROLLER** | Intel® I210IT<br>Intel® Quad 10GbE LAN integrated in SoC |
| **ETHERNET** | 1x 10/100/1000 MBit Ethernet<br>Up to 4x 10GbE Interfaces (KR) – depending on C3000 SKU<br>NC-SI support |
| **HARD DISK** | Up to 2x SATA3, 6Gb/s |
| **FLASH ONBOARD** | eMMC 5.0 up to 64 GByte SLC or 128 GByte MLC (build option) |
| **PCI Express®/ PCI SUPPORT** | Up to 14x PCIe 3.0 lanes - depending on C3000 SKU |
| **USB** | Up to 3x USB 3.0, 4x USB 2.0 (3x USB 2.0 with Security chip populated) |
| **SERIAL** | 2x serial interface (RX/TX only) |
| **COMMON FEATURES** | SPI, LPC, SMB, Fast I²C, Staged Watchdog, RTC |
| **ON REQUEST** | eMMC size, additional 2 SODIMM sockets for overall 4 SODIMM sockets<br>Security chip for Kontron security stack APPROTECT based on WIBU Systems |
| **POWER MANAGEMENT** | ACPI 4.0 |
| **POWER SUPPLY** | ATX, 8.5 V – 20 V Wide Range, Single Supply Power |
| **SPECIAL FEATURES** | TPM 2.0 |
| **HUMIDITY** | 93 % relative at 40 °C, non-condensing (according to IEC 60068-2-78) |
| **TEMPERATURE** | Commercial grade Version Temperature 0 °C - 60 °C,<br>Industrial grade Versions -40 °C to +85 °C |
| **BIOS** | AMI UEFI |
| **OPERATING SYSTEMS** | Linux, Windows® Server 2012/2016 |
| **SUPPORTED MODULES** | COMe-bDV7 xxxxx commercial grade<br>COMe-bDV7 E2 xxxxx industrial grade |

**COM Express® connector CD – Pin-out Type 7**

Max. 4x 10GbE KR

4 x10GBit

Intel®
Atom C3000 Server Platform
SoC
2...16 core, 14nm

# of PCIe Gen 3.0 lanes depends on C3000 SKU

DDR4 Memory Controller

CH A
DDR4
CH B
DDR4

**DDR4 SODIMM Socket 2400MHz ECC / Non ECC**
2nd SODIMM

Max.PCIe #16 - #23

**DDR4 SODIMM Socket 2400MHz ECC / non ECC**
2nd SODIMM

Max. USB #0 - #2 3.0

NC-SI

# of PCIe Gen 3.0 lanes depends on C3000 SKU

XDP debug

USB 3.0/ 2.0 Combo

LPC    UART    SATA

USB #3 2.0

PCIe x1

USB #0-#3 2.0

Security chip

HWM

TPM 2.0
Ind. grade

eMMC5.0
Max. 64GB SLC
Max 128GB MLC

FAN1

GPIO Ctrl Mgmt

SPI

Max. PCIe #0-#5

SMB

EEPROM

JTAG prog.

SPI
BIOS Flash

GBLan
Intel® I210IT

PWM FAN2

I2C

Max SATA #0,#1

LPC    SER0 SER1

LPC2I2C    GPIO Buffer
Watchdog
**Embedded Controller**
Power sequencing

Rapid shut down circuit

NC-SI    GB LAN

I2C    Sleep    PwrCtrl SysMgmt    GPIO

RSdwn

HWM

VBAT 5VSB VCC

**COM Express® connector AB – Pin-out Type 7**

| Standard component | Connector | Option |

▶ **Global Headquarters**

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