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# Kontron COMe-mEL10

pic:



pn:

COMe-mEL10

formfactor:

COM Express Type 10

manufacturer:

Kontron

cpu:

Intel Atom x6000E

emmc:

16/32 GB

ram:

2/4/8 GB LPDDR4

temprange:

0...+60 °C, -40...+85 °C

edp:

1 (or LVDS)

dp:

1 DP/HDMI/VDI

lvd:

Single Channel via eDP<>LVDS IC (or eDP)

ethernet:

1 (2.5 GBit, SGMII) (GPY115/GPY215)

dsi:

-

csi:

-

usb2:

6(8) (port7 client)

usb3:

2

can:

2 (in place of UART0/1)

uart:

2 (UART or CAN) (from EC, from CPU option)

spi:

+ (BIOS, TPM)

pcie:

x4 x 1, x2 x 2, x1 x 4 gen 3

i2:

HDA

i2c:

1 (from EC)

smbu:

1

gpio:

4 GPI, 4 GPO from EC (or SDIO 3.0 from CPU option)

bmc:

EC (Altera MAX10 10M04SCU169I7G)

tpm:

TPM 2.0

sata:

2 SATA III

sdio:

SDIO 3.0 (option)

bio:

AMI Aptio V uEFI

dimension:

84 x 55 mm

lpc:

+ (via EC eSPI&lt;&gt;LPC)

espi:

+ (via 0R from CPU)

datasheetwww:

[link](#)

datasheet:

[link](#)

struct:

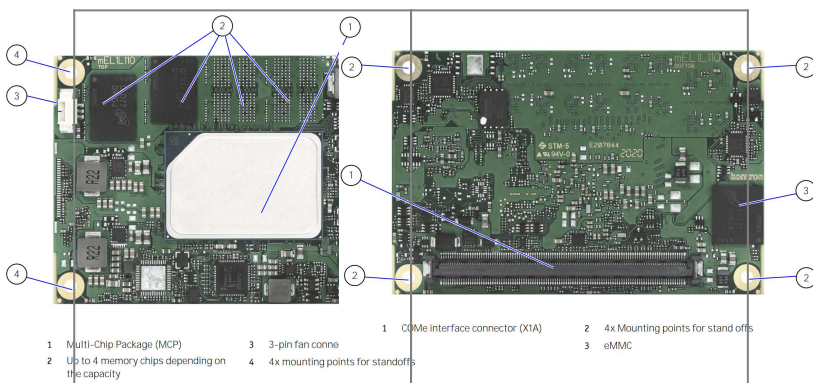


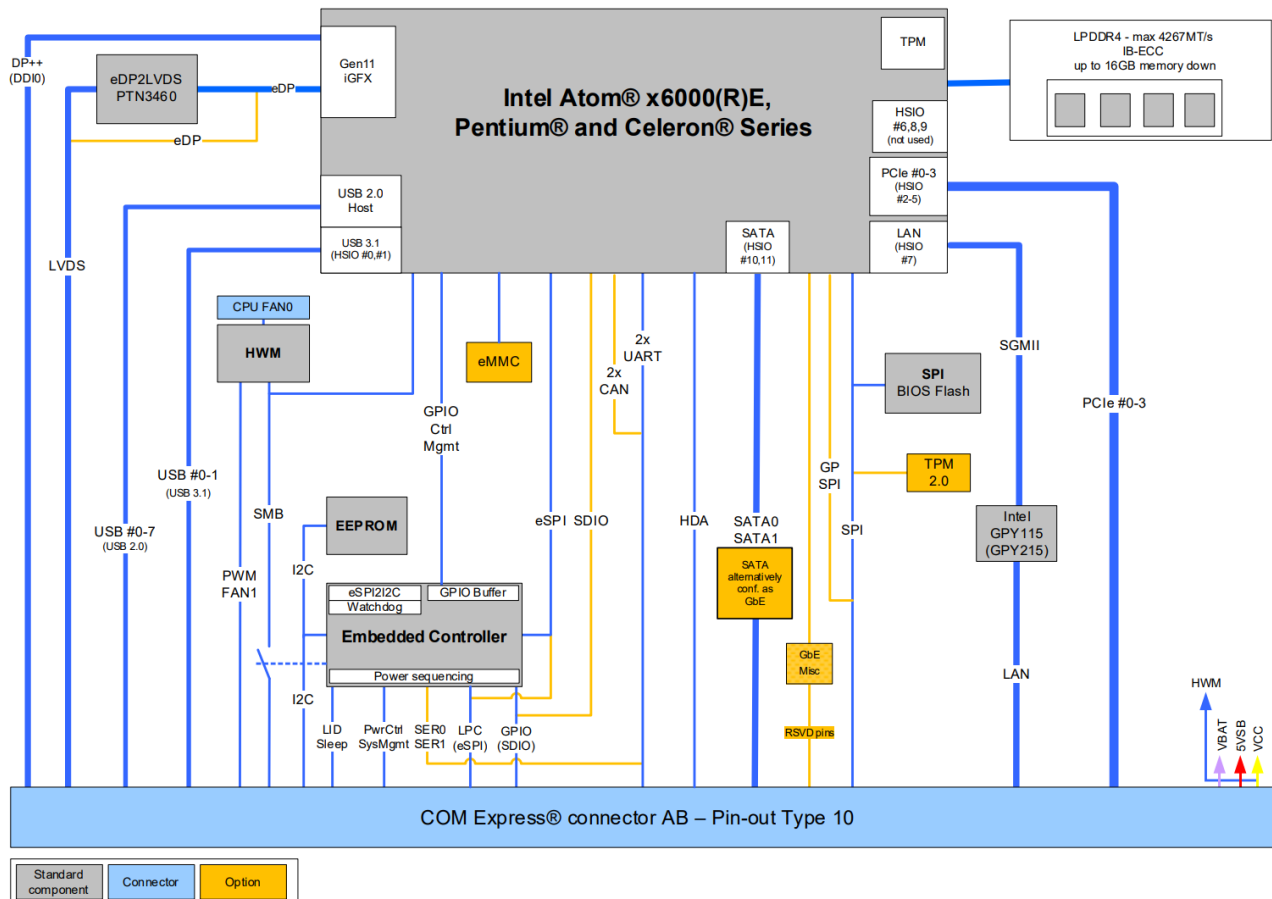
page:

[page](#)

power:

4.75-20V/5Vsb





## docs

|                      |         |                  |                      |
|----------------------|---------|------------------|----------------------|
| COMe-mEL10           | Kontron | SOM flyer        | <a href="#">link</a> |
| COMe-mEL10           | Kontron | User's guide     | <a href="#">link</a> |
| PTN3460              | NXP     | eDP<>LVDS bridge | <a href="#">link</a> |
| MAX10 10M04SCU169I7G | Altera  | EC               |                      |

## Boot flash

| Size | Manufacturer | Part Number           | Device ID       |
|------|--------------|-----------------------|-----------------|
| 32MB | Winbond      | W25Q256JV             | EFh / 40h / 19h |
| 32MB | Macronix     | MX25L25645GZ2I        | C2h / 20h / 19h |
| 32MB | Micron       | MT25QL256ABA1EW9-0SIT | 20h / BAh / 19h |
| 32MB | Cypress      | S25FL256LAGNFI010     | 01h / 60h / 19h |

## Hardware monitor

NCT7802Y (SMBus)

## USB

|       |        |                      |
|-------|--------|----------------------|
| USB 0 | HSIO 0 | from XHCI controller |
| USB 1 | HSIO 1 | from XHCI controller |

## PCIe

|       |        |
|-------|--------|
| PCIE0 | HSIO 2 |
| PCIE1 | HSIO 3 |
| PCIE2 | HSIO 4 |
| PCIE3 | HSIO 5 |

## SATA

|       |         |
|-------|---------|
| SATA0 | HSIO 10 |
| SATA1 | HSIO 11 |

## LPC

LPC\_CLK = 25 MHz, eSPI\_CK = 20 MHz