

TQMx70EB

x86 Family



COM Express® Basic Type 6 Module with Intel® Core™ (7th Generation) 7000E series („Kaby Lake-H”) and Intel® Xeon® E3-1500 v6 series.

Based on



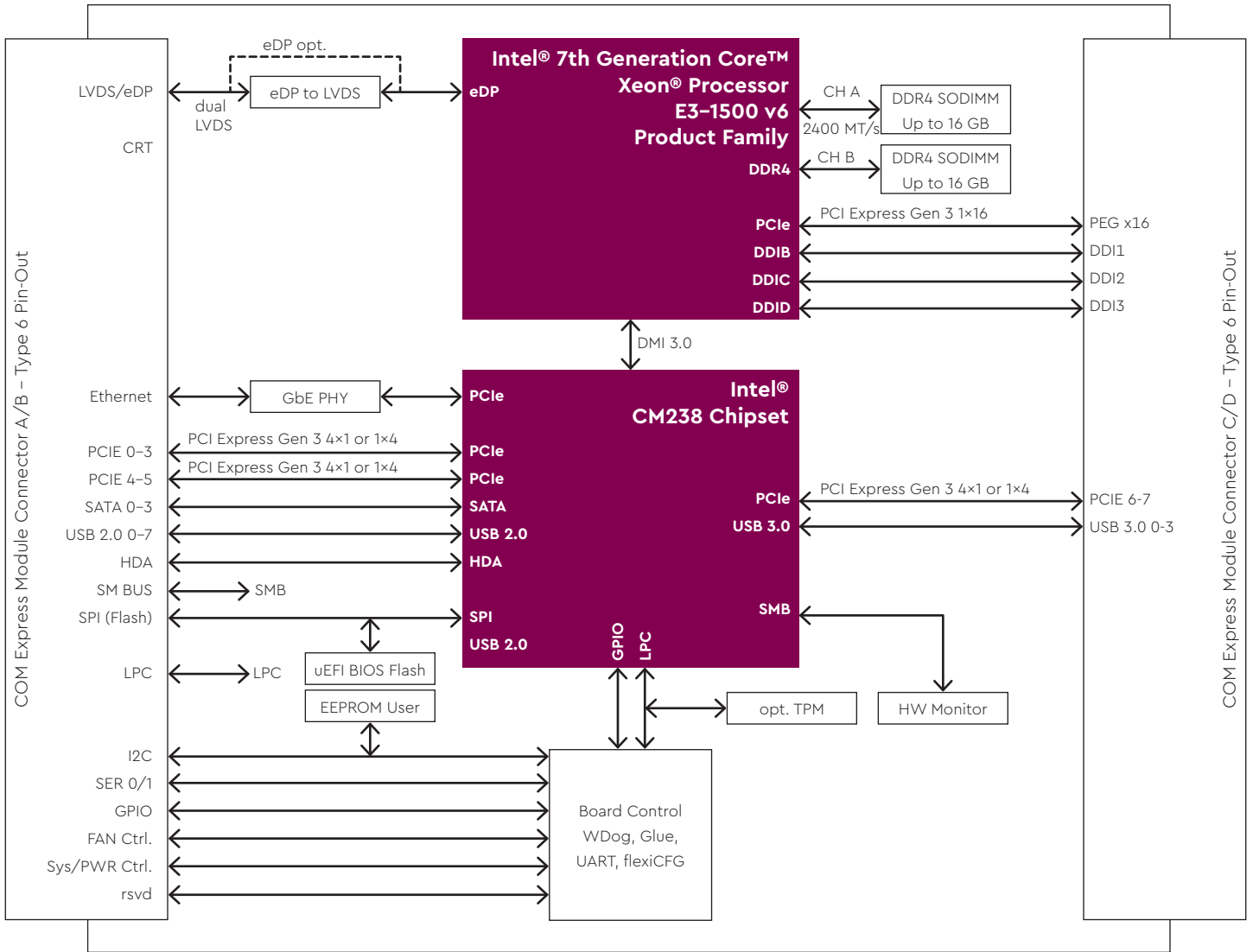
HIGHLIGHTS

- ▶ High end performance up to Quad-Core 3.7 GHz/ 8 MB cache
- ▶ Impressive graphics performance (Intel® Iris™ Pro 630) with hardwarebased 10-bit HEVC and VP9 en-/ decoding
- ▶ Intel® Optane™ 3D XPoint SSD support
- ▶ Best in class power optimization
- ▶ Up to 32 GB Dual-Channel DDR4 (2 SO-DIMMs), ECC
- ▶ High bandwidth with up to 24 PCIe Gen. 3 lanes (incl. PCIe x16 PEG port)
- ▶ TQMx86 board controller with flexible customization options (flexiCFG)
- ▶ Mobile Intel® 100 series chipset (CM238)
- ▶ TPM 1.2/2.0
- ▶ “Green ECO-Off” (minimum of standby power)
- ▶ Watchdog und thermal management
- ▶ Highest reliability, 24/7 certified
- ▶ Quality Made-in-Germany

TECHNICAL SPECIFICATION

CPU	Intel® Xeon® E3-1500 v6 series („Kaby Lake-H”) Xeon E3-1505L v6 (4x 2.2/3.0 GHz, 8 MB, 25 W) Intel® Core™ 7000E series („Kaby Lake-H”) Core i7-7820EQ (4x 3.0/3.7 GHz, 8 MB, 45/35 W) Core i5-7440EQ (4x 2.9/3.6 GHz, 6 MB, 45/35 W) Core i5-7442EQ (4x 2.1/2.9 GHz, 6 MB, 25 W) Core i3-7100E (2x 2.9, 3 MB, 35 W) Core i3-7102EQ (2x 2.1 GHz, 3 MB, 25 W)	Interfaces	1x Gbit Ethernet (Intel® i219-LM) 4x USB 3.0 (with USB 2.0 backward compatibility) 8x USB 2.0 (incl. USB 3.0 ports) 4x SATA Gen3 (up to 6 Gb/s) 1x PEG Port with PCIe x16 Gen 3 8x PCIe Gen 3 (4 × 1 or 1 x w4) 1x LPC bus 1x Intel® HD audio (HDA) 1x I2C, (2nd I2C optional) (master/slave capable) 1x SMBus 1x SPI (for external uEFI BIOS flash) 2x Serial Port (Rx/Tx, legacy compatible) (4 wire optional through TQ flexiCFG) 8x GPIO
Memory	DDR4-2400: up to 32 GB, w. ECC option, 2 SO-DIMMs EEPROM: 32-kBit (24LC32)	Power supply	Voltage: 8.5 V – 20 V, 5 V Standby (optional), 3 V battery Power: typ. 25–30 W/max. 60 W, (Green ECO-Off: < 0.1 W)
Graphics	Three independent display outputs: 3x Digital Display Interface/DP++ with up to 4K @ 60Hz LVDS Interface (18/24-bit, Single/Dual Channel) (optional eDP 1.4 with 4 lanes instead of LVDS) Intel® Quick Sync Video and Wireless Display	Environment	Temperature: 0°C...+60°C
Additional components and controller	TPM (SLB9660 TPM 1.2, alternatively SLB9665 TPM 2.0) TQMx86 board controller with watchdog and flexiCFG Hardware monitor for thermal management	Form factor/ dimensions	COM Express® Basic, type 6, PICMG COM.0 R2.1 125 mm x 95 mm

BLOCK DIAGRAM TQMx70EB



ORDERING INFORMATION

TQMx70EB-AA Intel® Core™ i7-7820EQ (4x 3.0 / 3.7 GHz, 8M, 45 W / 35 W), CM238, LVDS, Standard-Temp 0+60°

TQMx70EB-AB Intel® Core™ i5-7442EQ (4x 2.1 / 2.9 GHz, 6M, 25 W), CM238, LVDS, Standard-Temp 0+60°

TQMx70EB-AC Intel® Core™ i3-7102E (2x 2.1 GHz, 3MB, 25 W), CM238, LVDS; Standard-Temp 0+60°

TQMx70EB-AD Intel® Xeon® E3-1505L v6 (4x 2.2 GHz / 3.0 GHz, 8M, 25 W), CM238, LVDS; Standard-Temp 0+60°

Other configurations on request

Evaluation platform MB-COME6-2

Mainboard for COM Express® Compact/Basic, Type 6, Interfaces: 2x HDMI, DP++, LVDS, 2x Gb Ethernet, 4x USB 3.0, 8x USB 2.0, 2x COM, audio, mini PCIe, m.2, 2.5" SSD, riser extension with PCIe x16, fan, debug, 170 mm x 170 mm

STKx70EB

Starterkit Set with Mainboard MB-COME6-2, Module (TQMx70EB-xx) (please specify exact Version), Cooling solution (Heat spreader), Accessories

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