

TQMx80UC

x86 Family



COM Express® Compact Type 6 Module with 8th Generation Intel® Core™ Processor.

HIGHLIGHTS

- ▶ High end Intel® Core™ performance up to Quad Core 4.6 GHz/8 M cache
- ▶ Fast DDR4-2400 SO-DIMM Memory up to 64 GByte
- ▶ Onboard eMMC flash from 8 GByte to 128 GByte
- ▶ 4x USB 3.1 Gen 2 (10 GBit/s)
- ▶ 3 independent displays with up to 4K resolution
- ▶ Options for LVDS, TPM

Based on



TECHNICAL SPECIFICATION

CPU 8th Generation Intel® Core™ Processor
Core™ i7-8665UE (4x 1.7/4.4 GHz, 8 MB, 15 W)
Core™ i5-8365UE (4x 1.6/4.1 GHz, 6 MB, 15 W)
Core™ i3-8145UE (2x 2.2/3.9 GHz, 4 MB, 15 W)
Celeron® 4305UE (2x 2.0/2.0 GHz, 2 MB, 15 W)

Memory Dual Channel DDR4-2400; 8 GByte, 16 GByte, 32 GByte, 64 GByte SO-DIMM
On special request: memory down
EEPROM: 32-kbit

Graphics Three independent displays:
1x embedded DP with up to 4K @ 60 Hz or
1x LVDS Interface (18/24-bit, Single/Dual Channel)
2x Digital Display Interface/DP++ with up to 4K @ 60Hz
Intel® UHD Graphics 620

Additional components and controller TPM 2.0 (SLB9665)
TQMx86 board controller with watchdog and flexiCFG Hardware monitor for thermal management

Thermal Design Configurable TDP from 12.5 W to 25 W (SKU dependent)

Interfaces 1x Gbit Ethernet (Intel® i219-LM)
4x USB 3.1 Gen 2
8x USB 2.0
2x SATA Gen 3 (up to 6 Gb/s)
1x PEG Port with PCIe x1 Gen 3
8x PCIe Gen 3 (4 × 1 or 1 × 4 or 2 × 2)
1x LPC bus
1x Intel® HD audio (HDA)
1x I2C (master/slave capable)
1x SMBus (HW monitor)
1x SPI (for external uEFI BIOS flash)
2x Serial Port (Rx/Tx, legacy compatible) (4 wire optional through TQ flexiCFG)
8x GPIO or SD Card

Onboard Flash eMMC with 8 GByte, 16 GByte, 32 GByte, 64 GByte or 128 GByte

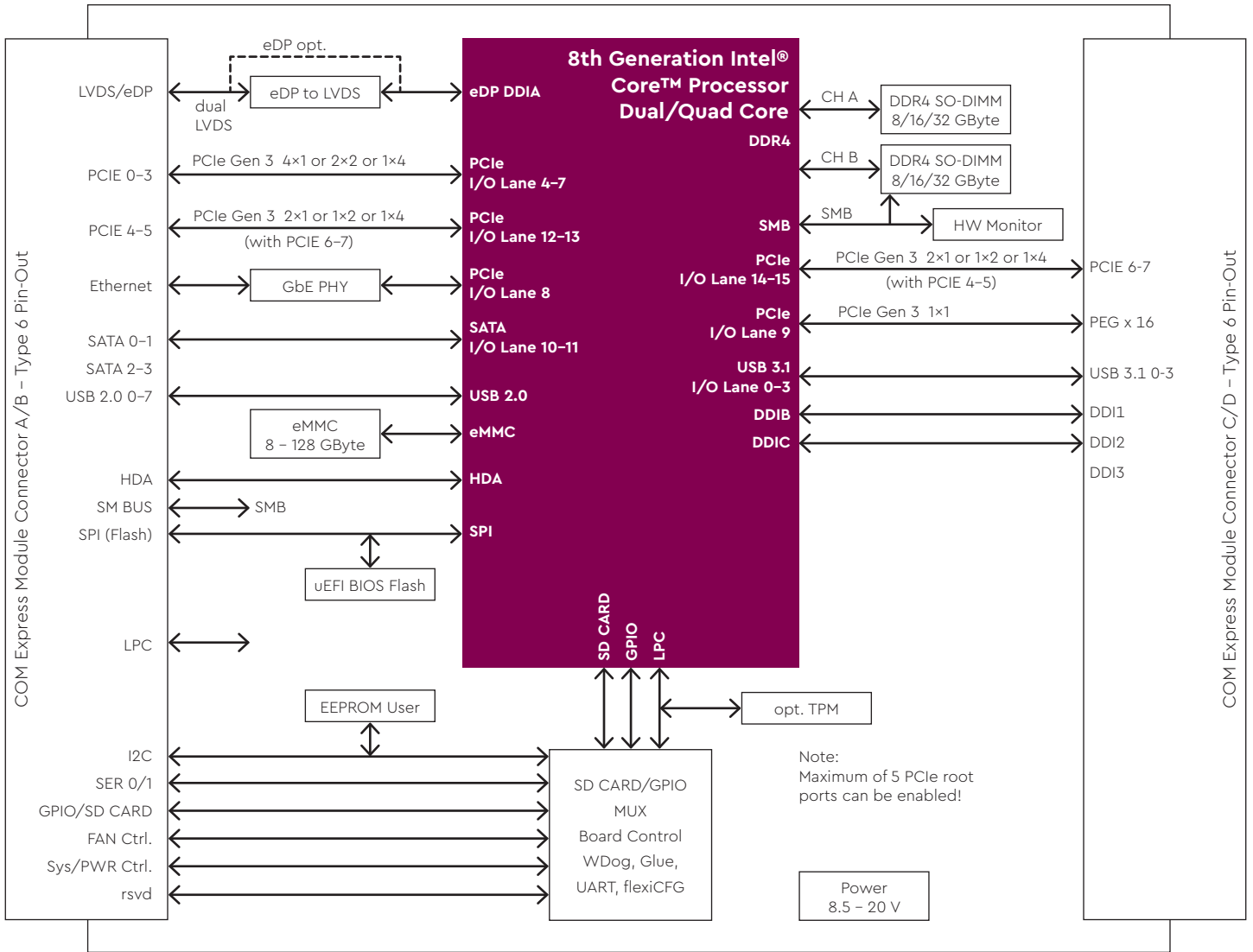
Power supply Input Voltage: 8.5...20 V

Environment Standard Temperature: 0 °C...+60 °C
Extended Temperature: -40 °C...+85 °C
Storage temperature: -40 °C...+85 °C

Form factor/dimensions COM Express® Compact, type 6,
PICMG COM.0 R3.0
95 mm x 95 mm

PCIe Storage Support Intel® RST for PCIe 3.0 Storage Ports (e.g. x4 M.2 modules) and Intel® Optane™ memory support

BLOCK DIAGRAM TQMx80UC



ORDERING INFORMATION

TQMx80UC-AA	Core™ i7-8665UE (4x 1.7/4.4 GHz, 8 MB, 15 W), eDP display, 32 GByte eMMC, Standard Temp. 0 °C...+60 °C
TQMx80UC-AB	Core™ i5-8365UE (4x 1.6/4.1 GHz, 6 MB, 15 W), eDP display, 32 GByte eMMC, Standard Temp. 0 °C...+60 °C
TQMx80UC-AC	Core™ i3-8145UE (2x 2.2/3.9 GHz, 4 MB, 15 W), eDP display, no eMMC, Standard Temp. 0 °C...+60 °C
TQMx80UC-AD	Core™ i3-8145UE (2x 2.2/3.9 GHz, 4 MB, 15W), LVDS display, TPM, 8 GByte eMMC, Standard Temp. 0 °C...+60 °C
TQMx80UC-AE	Celeron® 4305UE (2x 2.0/2.0 GHz, 2 MB, 15 W), eDP display, 8 GByte eMMC, Standard Temp. 0 °C...+60 °C
TQMx80UC-HSP-AA	Heatspreader for TQMx80UC based on COM Express® Specification
TQMx80UC-MEM-AA	SO-DIMM Memory: 8 GByte DDR4-2400 (2x 4 GByte); 0 °C...85 °C
TQMx80UC-MEM-AB	SO-DIMM Memory: 16 GByte DDR4-2400 (2x 8 GByte); 0 °C...85 °C
TQMx80UC-MEM-AC	SO-DIMM Memory: 32 GByte DDR4-2400 (2x 16 GByte); 0 °C...85 °C
TQMx80UC-MEM-AD	SO-DIMM Memory: 64 GByte DDR4-2400 (2x 32 GByte); 0 °C...85 °C
STKx80UC-Individual	Starterkit set for TQMx80UC Modules with Mainboard MB-COME6-3 (please specify module version and SO-DIMM capacity), active cooling solution (heatspreader and heatsink) and accessories