

# 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

**COM  Express**

### 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

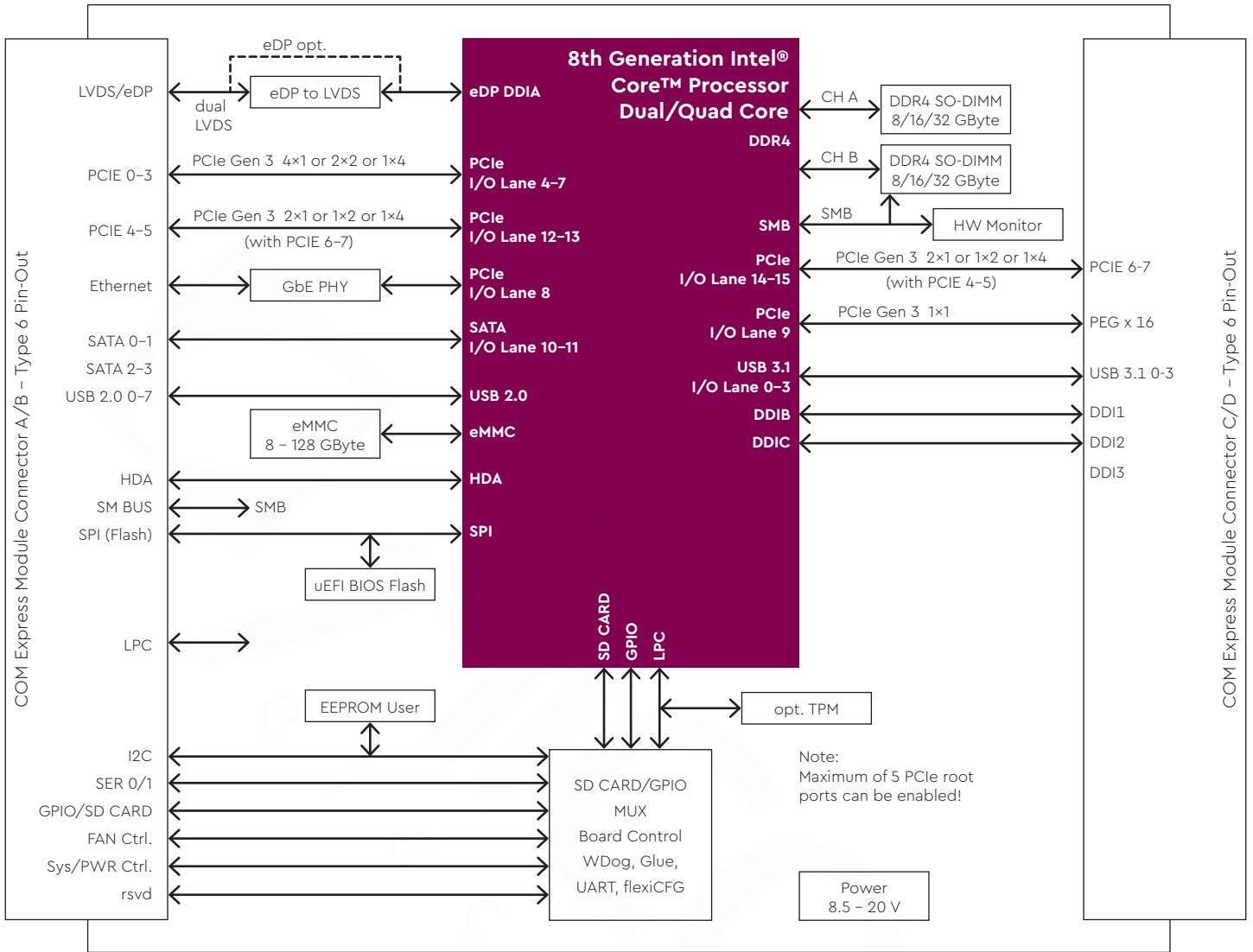
**Power supply** Input Voltage: 8.5...20 V

**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

<b>TQMx80UC-AA</b>	Core™ i7-8665UE (4x 1.7/4.4 GHz, 8 MB, 15 W), eDP display, 32 GByte eMMC, Standard Temp. 0 °C...+60 °C
<b>TQMx80UC-AB</b>	Core™ i5-8365UE (4x 1.6/4.1 GHz, 6 MB, 15 W), eDP display, 32 GByte eMMC, Standard Temp. 0 °C...+60 °C
<b>TQMx80UC-AC</b>	Core™ i3-8145UE (2x 2.2/3.9 GHz, 4 MB, 15 W), eDP display, no eMMC, Standard Temp. 0 °C...+60 °C
<b>TQMx80UC-AD</b>	Core™ i3-8145UE (2x 2.2/3.9 GHz, 4 MB, 15W), LVDS display, TPM, 8 GByte eMMC, Standard Temp. 0 °C...+60 °C
<b>TQMx80UC-AE</b>	Celeron® 4305UE (2x 2.0/2.0 GHz, 2 MB, 15 W), eDP display, 8 GByte eMMC, Standard Temp. 0 °C...+60 °C
<b>TQMx80UC-HSP-AA</b>	Heatspreader for TQMx80UC based on COM Express® Specification
<b>TQMx80UC-MEM-AA</b>	SO-DIMM Memory: 8 GByte DDR4-2400 (2x 4 GByte); 0 °C...85 °C
<b>TQMx80UC-MEM-AB</b>	SO-DIMM Memory: 16 GByte DDR4-2400 (2x 8 GByte); 0 °C...85 °C
<b>TQMx80UC-MEM-AC</b>	SO-DIMM Memory: 32 GByte DDR4-2400 (2x 16 GByte); 0 °C...85 °C
<b>TQMx80UC-MEM-AD</b>	SO-DIMM Memory: 64 GByte DDR4-2400 (2x 32 GByte); 0 °C...85 °C
<b>STKx80UC-Individual</b>	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