

TQMx80UC

x86 Family



COM Express® Compact Type 6 Module with Intel® Core™ (8th Generation) 8000U Series ("Whiskey-Lake-U").

HIGHLIGHTS

- ▶ High end Intel® Core™ performance up to Quad Core 4.6 GHz/8M cache
- ▶ Fast DDR4-2400 SODIMM Memory up to 64 GByte
- ▶ Onboard eMMC flash from 8 GByte to 128 GByte
- ▶ 4x USB3.1 Gen 2 (10Gbit/s)
- ▶ 3 independant displays with up to 4K resolution
- ▶ Options for LVDS, TPM

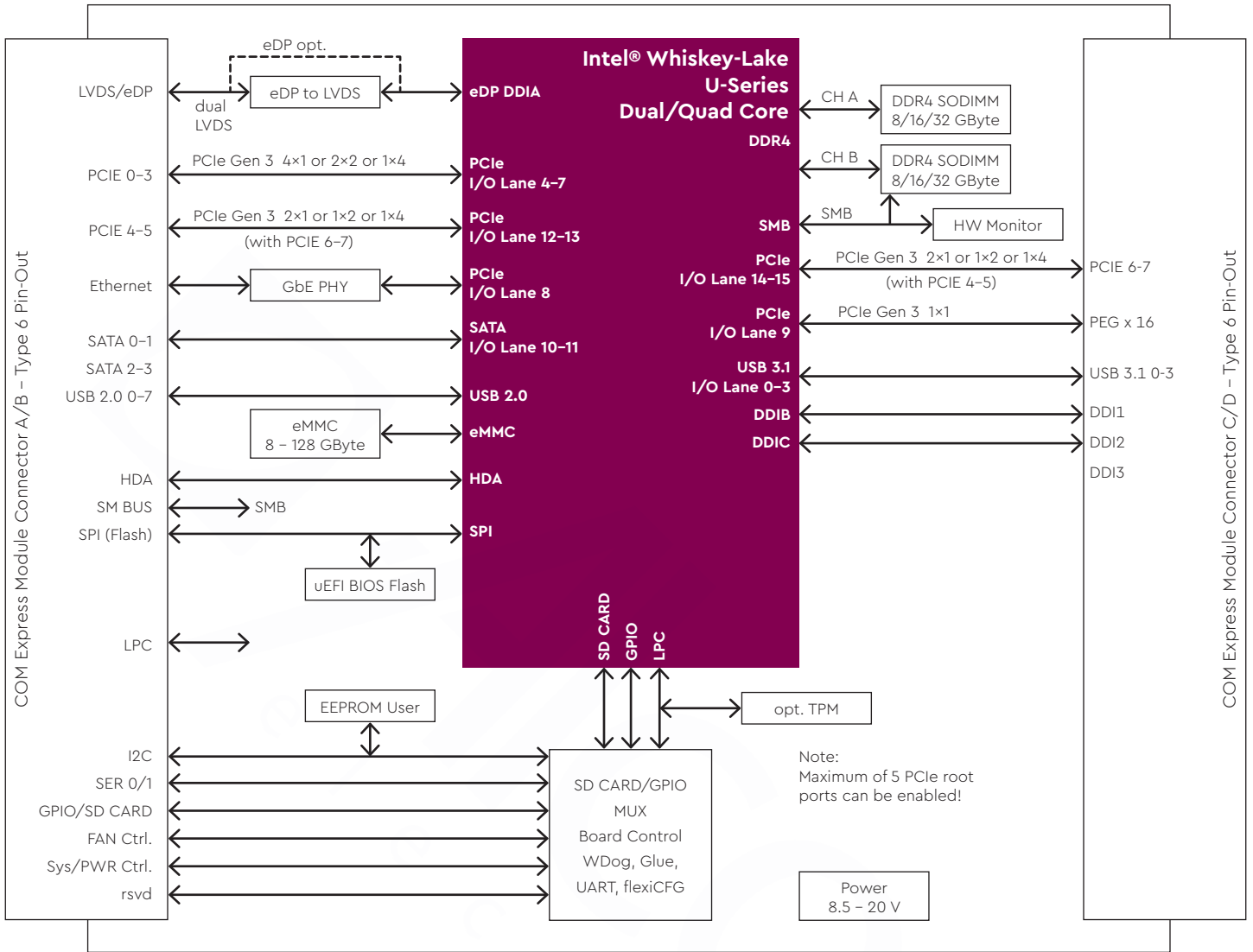
Based on

COM  Express

TECHNICAL SPECIFICATION

CPU	Intel® Core™ (8th Generation) 8000U Series ("Whiskey-Lake-U"). Core™ i7-8565U (4x 1.8/4.6 GHz, 8MB, 15W) Core™ i5-8265U (4x 1.6/3.9 GHz, 6MB, 15W) Core™ i3-8145U (2x 2.1/3.9 GHz, 4MB, 15W)	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
Memory	Dual Channel DDR4-2400; 8 GByte, 16 GByte, 32 GByte, 64 GByte SODIMM On special request: memory down EEPROM: 32-kbit	Onboard Flash	eMMC with 8 GByte, 16GByte, 32 GByte, 64 GByte or 128 GByte
Graphics	Three independent displays: 1x embedded DP with up to 4K @ 60 Hz or 1x LVDS Interface (18/24-bit, Single/Dual Channel) 1x DP1.2 with up to 4K @ 60 Hz 1x HDMI1.4 with up to 4K @ 30 Hz Intel® UHD Graphics 620	Power supply	Input Voltage: 8.5...20 V
Additional components and controller	TPM 2.0 (SLB9665) TQMx86 board controller with watchdog and flexiCFG Hardware monitor for thermal management	Environment	Standard Temperature: 0°C...+60°C Extended Temperature: -40°C...+85°C Storage temperature: -40°C...+85°C
Thermal Design	Configurable TDP from 12.5W to 25W (SKU dependant)	Form factor/ dimensions	COM Express® Compact, type 6, PICMG COM.0 R3.0 95 × 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-XX (tbd.)	Core™ i7-8565U (4x 1.8/4.6 GHz, 8MB, 15W), eDP display, 32 GByte eMMC, Standard Temp. 0...+60°C
TQMx80UC-XX (tbd.)	Core™ i5-8265U (4x 1.6/3.9 GHz, 6MB, 15W), eDP display, 32 GByte eMMC, Standard Temp. 0...+60°C
TQMx80UC-XX (tbd.)	Core™ i3-8145U (2x 2.1/3.9 GHz, 4MB, 15W), eDP display, no eMMC, Standard Temp. 0...+60°C
TQMx80UC-XX (tbd.)	Core™ i3-8145U (2x 2.1/3.9 GHz, 4MB, 15W), LVDS display, TPM, 8 GByte eMMC, Standard Temp. 0...+60°C
TQMx80UC-HSP-AA	Heatspreader for TQMx80UC based on COM Express® Specification
TQMx80UC-HSP-AB	Heatspreader for TQMx80UC based on COM Express® Specification
TQMx80UC-MEM-AA	SODIMM Memory: 8 GByte DDR4-2400 (2x 4 GByte); 0°C...85°C
TQMx80UC-MEM-AB	SODIMM Memory: 16 GByte DDR4-2400 (2x 8 GByte); 0°C...85°C
TQMx80UC-MEM-AC	SODIMM Memory: 32 GByte DDR4-2400 (2x 16 GByte); 0°C...85°C
TQMx80UC-MEM-AD	SODIMM 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 SODIMM capacity), active cooling solution (heatspreader and heatsink) and accessories)