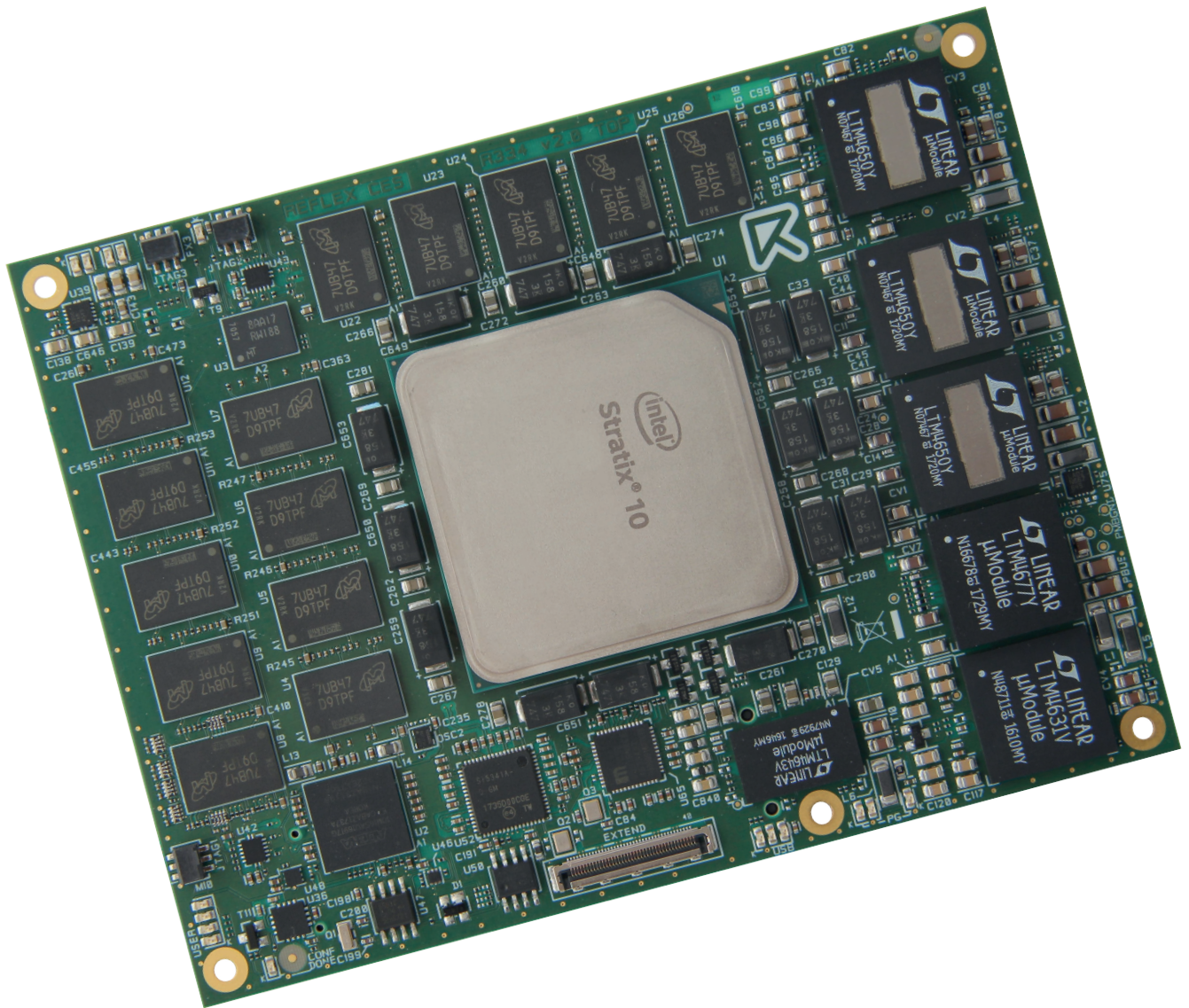




REFLEXCES
Custom Embedded Systems

COMXpress Stratix® 10 SoC

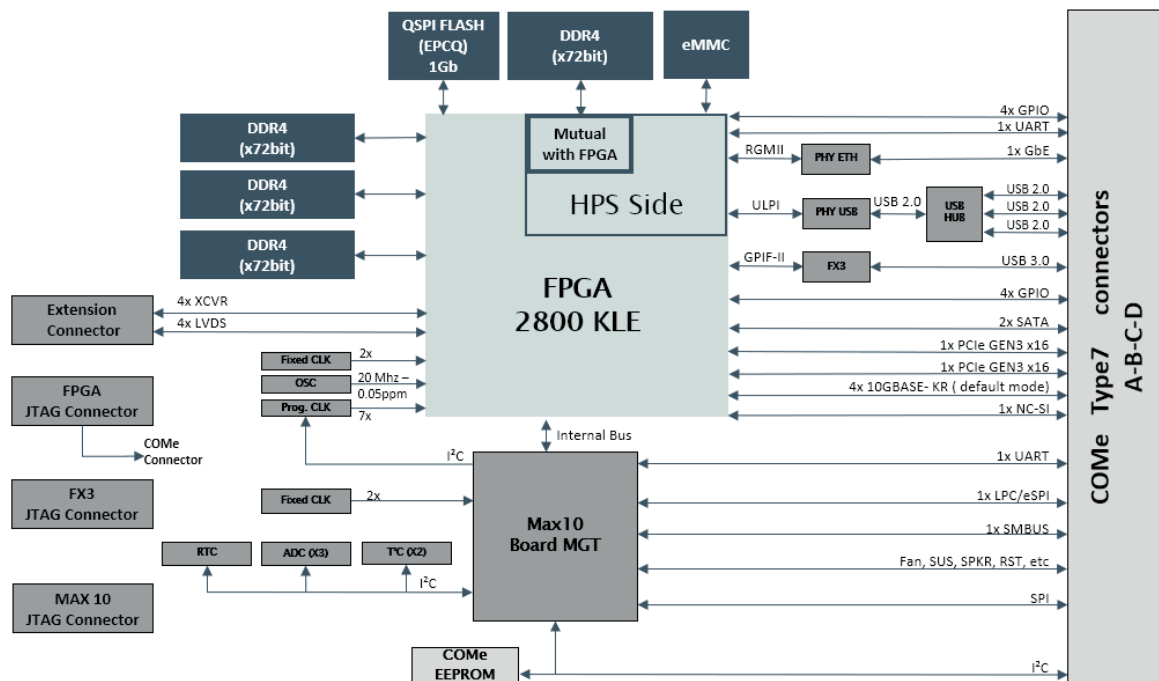


Intel® Stratix® 10 SX
2800 KLE

COM Express Basic form
factor module, Type 7

- 32 PCI Express lanes
- 4x DDR4 up to 56GBytes total
- IO and Transceiver extension connector

- Artificial Intelligence
- High Performance Computing



Full Specifications

FPGA Configuration	- Stratix® 10 SX with ARMV8 (Integrated quad-core 64 bit ARM CortexA53 hard processor system up to 1.5 GHz embedded) - MAX® 10 CPLD with board management control - JTAG connector for external USB cable - eMMC 32GBytes (HPS) / with U-boot, Linux kernel & Rootfs - Nor Flash for quad SPI (x4) FPGA configuration mode	Communication Interfaces	- Ethernet 10/100/1000 Base-T (HPS) 4x 10GbE base KR (default) 2x Serial SATA revision 3.0, 6Gb/s 4x XCVR lane connected to extension connector (Display Port/SDI capable) 3x USB2.0 HOST 1x USB3.0 1x SMB,I²C,UART 8 GPIOs (4 FPGA + 4 HPS) 2x PCI Express x16 (Gen 1, 2 or 3) end-point supported - eSPI interface multiplexed over Intel Low Pin Count (LPC) Interface - Network Controller Sideband Interface (NC-SI) supported (and optional)
Memory	4 memory banks on board DDR4: - Total 56GB + EC	Other Resources	- Extension connector : Interfaces (4x transceivers Rx/Tx and 4x LVDS interface) - Programmable PLL (Si5341), output clocks frequency 0.0001MHz to 750MHz - High precision on board oscillator, clock accuracy 20MHz-0.05ppm for Precision Time Protocol (PTP) IEEE 1588
Power	+12V primary power supply input, 120W max +5V standby and 3.3V RTC power supply inputs	SDK & Toolkit	The REFLEX CES Toolkit is provided with every board purchased, to be a link between the REFLEX CES board and the host system. It is a suite of software development tools, including drivers, libraries, utilities and example projects.
Operating Range	0°C to 40°C	Standards and Compliance	- RoHS/REACH compliant - UL certified - ISO9001 certified
Storage Temp Range	0°C to 70°C		
Board Dimensions	- Length : 125mm (4.92inches) Width : 95mm (3.74 inches) - Height (without heatsink) : 11.91mm (with 5mm Standoffs) 14.91mm (with 8mm Standoffs)		
Board Management Controller	- FPGA monitoring - NOR Flash and clock programming		

Deliverables

- Stratix® 10 SX COME Basic module type 7
- Delivered with a custom heatsink
- Board Support Package (Reference Manual, Design Carrier Guideline, HDL reference designs, Connectors to FPGA pin assignments)
- 3D Mechanical files (under request)
- Kernel Linux support, U-boot bootloader and comprehensive user documentation
- JTAG adapter cable for external USB blaster probe.
- Evaluation PCIe Carrier Board available (upon request)
- Online support at support.reflexces.com

Ordering information

Version	Part number	Comments
Turbo version	COMXpressSXS10L-2800T	Intel® Stratix® 10 SoC (1SX280LN3F43E2VG) / 2800 KLE FPGA On-board 56GB DDR4 + ECC [3x banks 16GB + ECC, x72bit @2400MT/s (FPGA) + 1x bank 8GB + ECC, x72bit @2133MT/s (used by HPS), @2400MT/s (used by FPGA)]

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ReFLEX CES:

[COMXpressSXS10L-2800T](#) [COMXpressSXS10L-2801T](#)