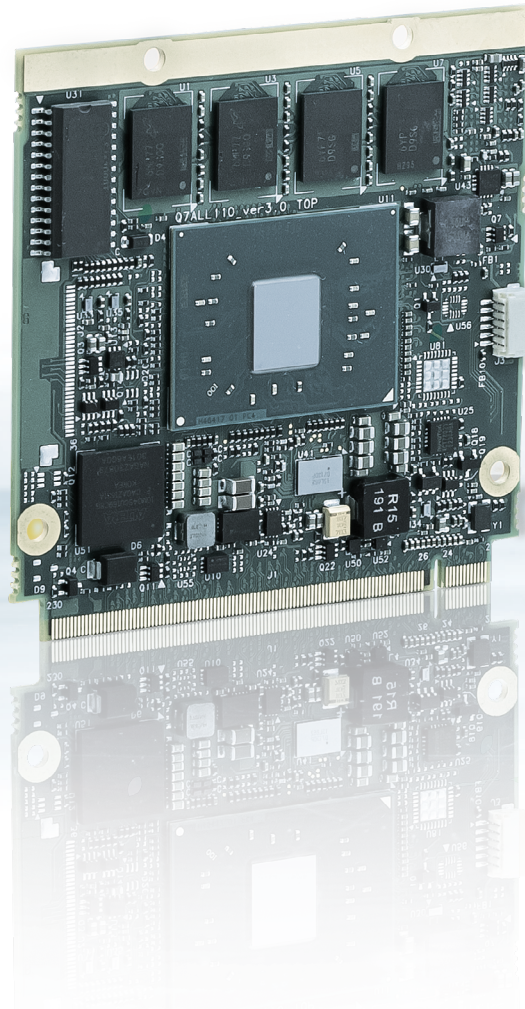


Qseven-Q7AL2



Latest Generation Intel Atom[®], Pentium[®] and Celeron[®] Processor Series

- ▶ Up to 8 GByte onboard LPDDR4 memory down (non ECC)
- ▶ Dual display support
- ▶ 2x USB 3.0, 4x USB 2.0 (1x OTG), 2x SATA, 1X CAN, emmConboard
- ▶ Industrial grade temperature

POSSIBILITIES START HERE



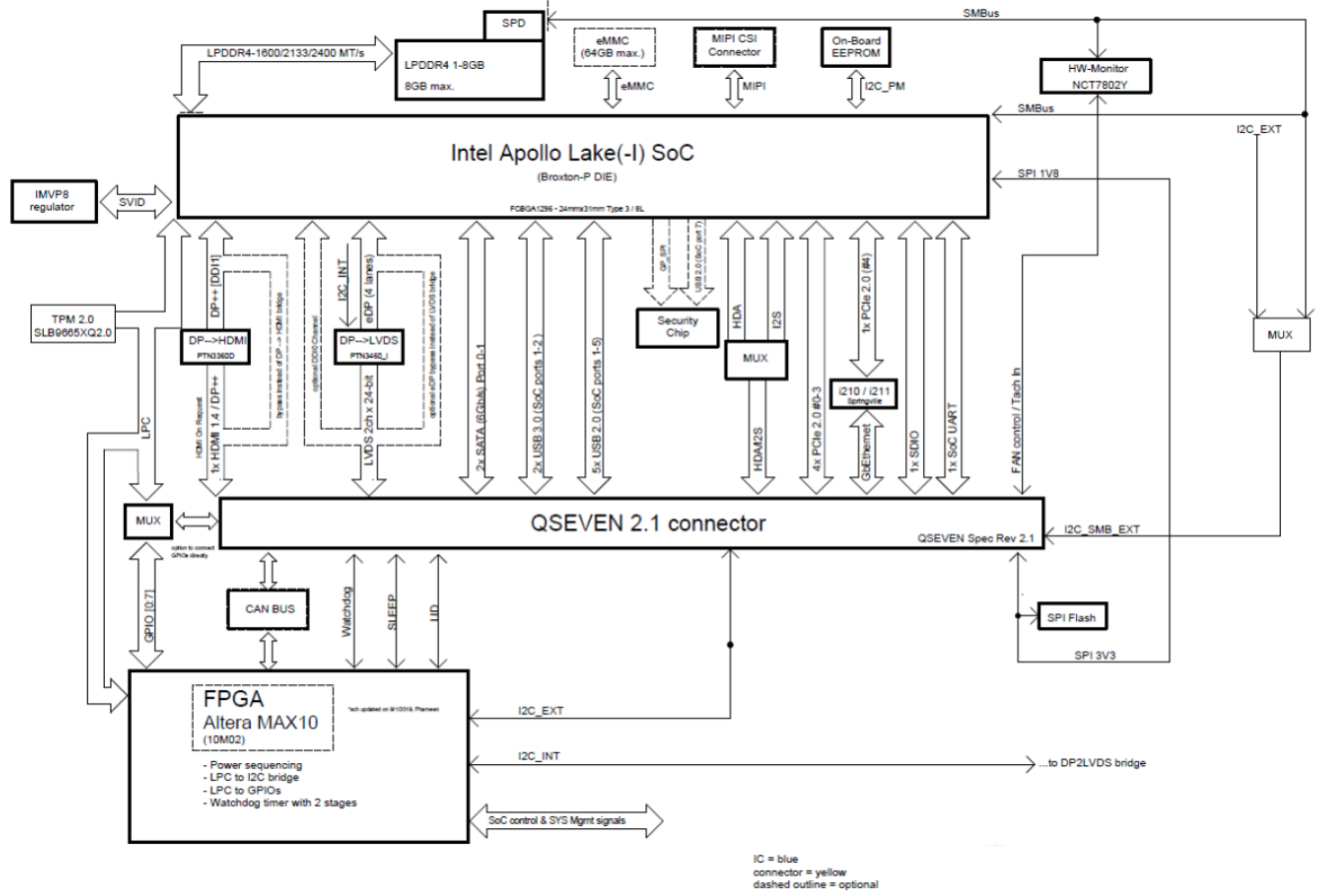
▶ TECHNICAL INFORMATION

COMPLIANCE	Qseven® Specifications 2.1
DIMENSIONS (H x W x D)	Standard Size, 70 x 70 mm
CPU	Intel Atom®/ Pentium®/ Celeron® series For details see table (CPU Variants) given below
CHIPSET	-
MAIN MEMORY	Up to 8 GByte LPDDR4 (-1600) memory down
GRAPHICS CONTROLLER	Intel® HD Gfx Gen9
ETHERNET CONTROLLER	Intel® I210IT/ I211AT
ETHERNET	10 / 100 / 1000 MBit Ethernet
STORAGE	2x SATA 6Gb/s
FLASH ONBOARD	Up to 32 GByte eMMC 5.0
PCI Express® SUPPORT	4x PCIe 2.0
PANEL SIGNAL	1x DP ++ (on request HDMI), 1x LVDS dual channel (on request eDP + DP)
USB	2x USB 3.0 (incl. USB 2.0), 4x USB 2.0, alternatively USB #1 as OTG
SERIAL	1x Serial Interface (RX, TX, RTS, CTS)
SPECIAL FEATURES	Trusted Platform Module TPM 2.0 (On-request) Security Chip (Kontron APPROTECT security solution based on Wibu-Systems CodeMeter®) Industrial Temperature Grade versions
FEATURES ON REQUEST	eMMC 5.0 Flash onboard (up to 64 GByte SLC, up to 128 GByte MLC), eDP + DP instead of LVDS, HDMI instead of DP, 1x CAN
BIOS	AMI Aptio V
OPERATING SYSTEM	Windows® 10, Enterprise, Linux
POWER SUPPLY	5V power supplies
TEMPERATURE	Qseven-Q7AL: Commercial temperature: 0 °C to +60 °C operating, -30 °C to +85 °C non-operating Qseven-Q7ALi E2: Industrial temperature: -40 °C to +85 °C operating, -40 °C to +85 °C non-operating
HUMIDITY	93 % relative Humidity at 40 °C, non-condensing (according to IEC 60068-2-78)

▶ CPU VARIANTS

CPU	x7-E3950	x5-E3940	x5-E3930	N4200	N3350
CORES	4	4	2	4	2
FREQUENCY BASE	1.60 GHz	1.60 GHz	1.30 GHz	1.10 GHz	1.10 GHz
FREQUENCY BURST	2.00 GHz	1.80 GHz	1.80 GHz	2.50 GHz	2.40 GHz
TDP	12 W	9.5 W	6.5 W	6 W	6 W
CACHE	2 MByte L2 Cache	2 MByte L2 Cache	2 MByte L2 Cache	2 MByte L2 Cache	2 MByte L2 Cache

BLOCK DIAGRAM



VARIANTS

PART NO.	CPU	RAM	FLASH	DISPLAY	LAN	TPM	SECURITY CHIP	TEMPERATURE
81004-0200-11-4	N3350	2 GByte LPDDR4	-	LVDS, DP++	1x	yes	no	commercial
81004-0408-11-4	N3350	4 GByte LPDDR4	8 GByte eMMC pSLC	LVDS, DP++	1x	yes	no	commercial
81004-0832-11-4	N4200	8 GByte LPDDR4	32 GByte eMMC pSLC	LVDS, DP++	1x	yes	no	commercial
81005-0200-13-5	E3930	2 GByte LPDDR4	-	LVDS, DP++	1x	yes	no	industrial
81005-0408-13-5	E3930	4 GByte LPDDR4	8 GByte eMMC pSLC	LVDS, DP++	1x	yes	no	industrial
81005-0832-16-5	E3940	8 GByte LPDDR4	32 GByte eMMC pSLC	LVDS, DP++	1x	yes	no	industrial
81005-0800-16-7	E3950	8 GByte LPDDR4	-	LVDS, DP++	1x	yes	no	industrial
81005-0832-16-7	E3950	8 GByte LPDDR4	32 GByte eMMC pSLC	LVDS, DP++	1x	yes	no	industrial