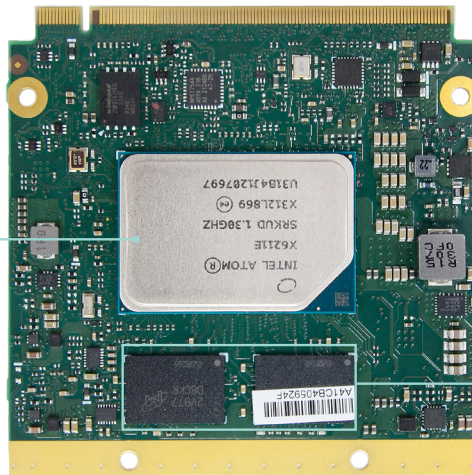


EHL701

Intel Atom® Processor
Qseven

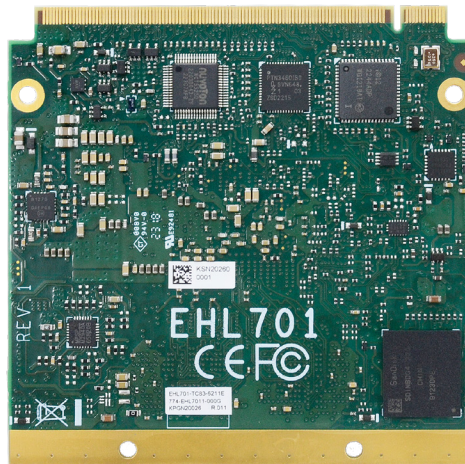


Intel Atom® x6000 Series Processors



LPDDR4

Front View



Bottom View

KEY FEATURES



LPDDR4

4GB/8GB/16GB
LPDDR4 Dual Channel
Memory Down



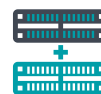
4K High Resolution

DP++ resolution
supports up to
4096x2160 @ 60Hz



Dual Displays

1 DDI* + 1 eDP/LVDS



Multiple Expansion

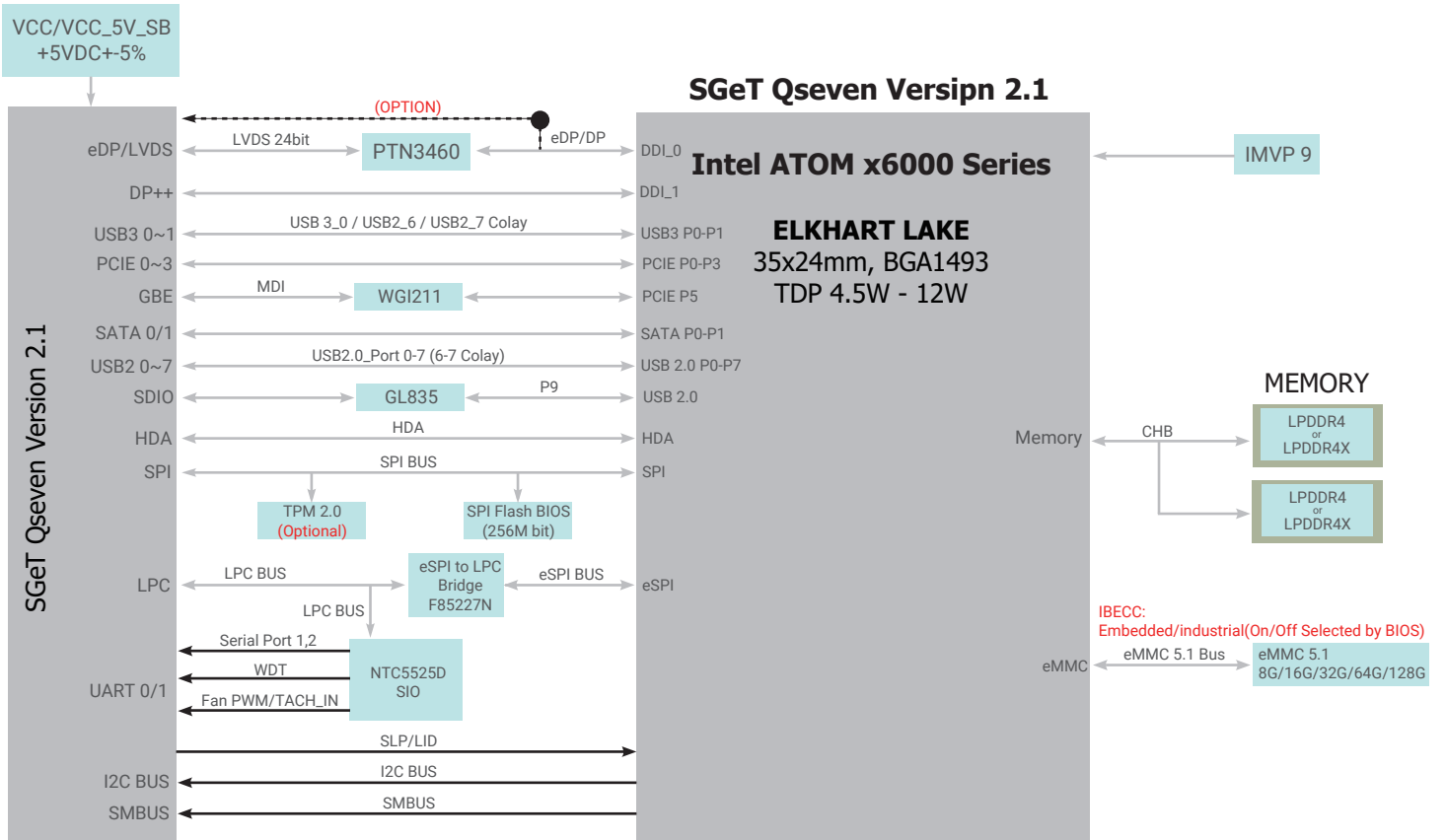
4 PCIe x1



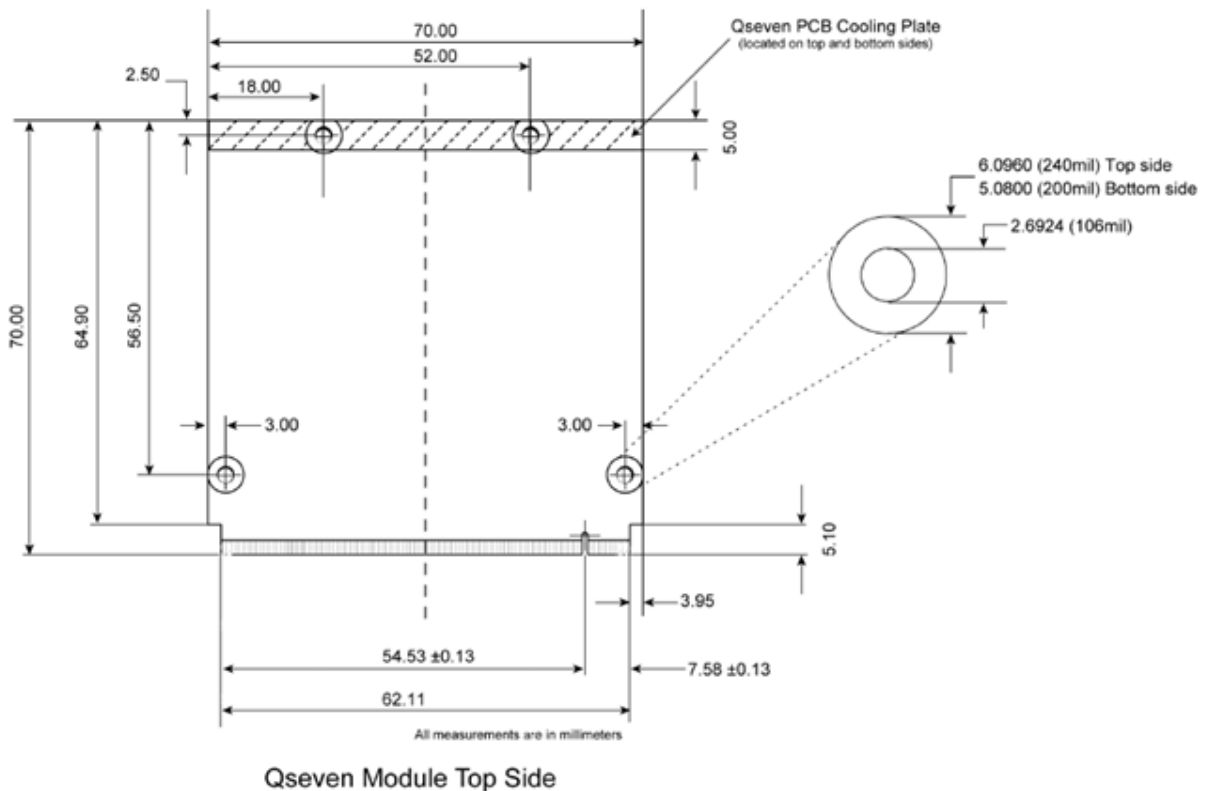
RICH I/O

1 Intel GbE, 2 USB 3.1,
8 USB 2.0

BLOCK DIAGRAM



MECHANICAL DRAWING



SPECIFICATION

SYSTEM	Processor	Intel Atom® x6000 Series Processors Intel Pentium® N and J Series Processors Intel Celeron® N and J Series Processors
	Memory	4GB/8GB/16GB LPDDR4 Memory Down Dual Channel LPDDR4 3200MHz
	BIOS	AMI SPI 256Mbit (supports UEFI boot only)
GRAPHICS	Controller	Intel® HD Graphics Gen9LP Series
	Feature	OpenGL 5.0, DirectX 12, OpenCL 2.1 HW Decode: AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H.265, VP8, VP9, MVC HW Encode: AVC/H.264, JPEG/MJPEG, HEVC/H.265, VP8, VP9, MVC
	Display	1 x DDI (HDMI/DVI/DP++) 1 x eDP/LVDS HDMI: resolution up to 3840x2160 @ 30Hz DP++: resolution up to 4096x2160 @ 60Hz eDP: resolution up to 3840x2160 @ 60Hz
	Dual Displays	eDP/LVDS + DDI
EXPANSION	Interface	4 x PCIe x1 (Gen 2) 1 x SDIO 1 x LPC 1 x I2C 1 x SMBus 1 x SPI 1 x UART (TX/RX)
AUDIO	Interface	HD Audio
ETHERNET	Controller	1 x Intel I211
I/O	USB	1 x USB 3.1 + 8 x USB 2.0 / 2 x USB3.1 + 6 x USB 2.0
	SATA	2 x SATA 3.0 (up to 6Gb/s)
	eMMC	Supports up to 128GB eMMC, NC as default eMMC 5.1, BGA-153 Ball 8~128G(MLC mode)
	GPIO	1 x 4-bit GPIO
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds
SECURITY	TPM	dTPM or fTPM (Optional)
POWER	Type	5V, 5VSB, VCC_RTC
	Consumption	Typical: x6212RE: 12V @ 0.98A (11.76W) Max.: x6212RE:12V @ 1.45A (17.4W)
OS SUPPORT (UEFI ONLY)	Microsoft	Windows 10 IoT Enterprise 64-bit
	Linux	Linux (Intel graphic driver available)
ENVIRONMENT	Temperature	Operating: 0 to 60°C, -40 to 85°C, -5 to 65°C(opt.) Storage: -40 to 85°C
	Humidity	Operating: 5 to 90% RH Storage: 5 to 90% RH
	MTBF	773,944 hrs @ 25°C; 335,063 hrs @ 45°C; 138,841 hrs @ 60°C; 29,888 hrs @ 85°C
MECHANICAL	Dimensions	Qseven form factor 70mm (2.76") x 70mm (2.76")
	Compliance	Qseven specification revision 2.1
STANDARDS AND CERTIFICATIONS	Certification	CE, FCC Class B, RoHS, UKCA

ORDERING INFORMATION

Model Name	P/N	CPU	Memory	eDP/LVDS	USB 3.1	USB 2.0	eMMC	Operating Temp.
EHL701-TC83-6211E	770-EHL7011-000G	x6211E	8GB	LVDS	1	8	32GB	-40 to 85°C
EHL701-TC80-6211E	770-EHL7011-100G	x6211E	8GB	LVDS	1	8	NA	-40 to 85°C

PACKING LIST

• EHL701 Board	770-EHL7011-000G 770-EHL7011-100G
• Cooler	A71-112000-030G

OPTIONAL ITEMS

• Heat spreader	A71-808348-010G
• Qseven Carrier Board	770-Q7X154-000G