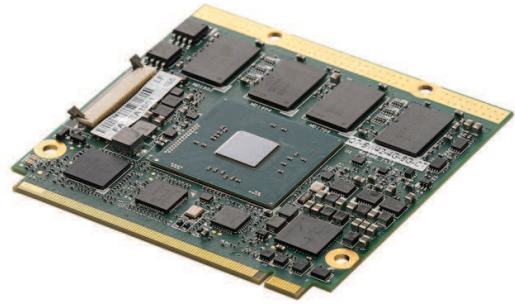


Q7-BW

Qseven® Standard Size Module with Intel® Pentium™ and Celeron™ Processor N3000 Series System-on-Chip

Features

- Dual or quad core Intel® N3000 Series System-on-Chip
- Up to 8 GB DDR3L at 1600 MHz
- eDP, LVDS, HDMI/DP
- 2x MIPI CSI camera interface, GbE
- 2x SATA3 6Gbit/s or 1x SATA and 1x SATA-SSD
- Operating temperature 0°C to +60°C
- Supports Smart Embedded Management Agent (SEMA) functions



Specifications

Core System

CPU	Intel® Pentium N3710, 4 cores, 2.6GHz, 6W TDP Intel® Celeron N3160, 4 cores, 2.2GHz, 6W TDP Intel® Celeron N3060, 2 cores, 2.5GHz, 6W TDP Intel® Celeron N3010, 2 cores, 2.2GHz, 4W TDP Intel® Atom™ X5-E8000, 1.04/2.0 (Burst) GHz, 320 (no Turbo), 5W (4C) Other processors on request
Memory	Up to 8 GB DDR3L at 1600 MT/s dual channel, 64bit
Embedded BIOS	AMI UEFI with CMOS backup in 8 MB SPI BIOS, Fast Boot support
Cache	2 MB L2 cache
SEMA® Board Controller	Supports: Voltage/Current monitoring, Logistics and Forensic information, Flat Panel Control, I2C Bus Control, User Flash, Failsafe BIOS (dual BIOS), Watchdog Timer and Fan Control

Video

GPU Feature Support	8th generation Intel® graphics core architecture with sixteen execution units, supports three independent displays 4K video (up to 3840 x 2160 @ 30fps) 2D and 3D graphics hardware acceleration Support for DirectX 12/11.2, OpenGL 4.2/3.3, OpenCL 1.2 Video decode HW acceleration for H.265, H.264, MPEG2, MVC, VC-1, WMV9, JPEG, VP8 Video encode HW acceleration for H.264, MVC, JPEG
Standard Display	Single/dual channel 18/24-bit LVDS HDMI/DP (3840x2160@30Hz or 2560x1600@60Hz)
Custom Options	2x eDP (2560x1440@60Hz) HDMI/DP (3840x2160@30Hz or 2560x1600@60Hz)

Audio

Ports	Intel® HD Audio for Audio codec on carrier
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Ethernet

Intel® MAC/PHY Interface	1x Intel® i211 Ethernet controller 10/100/1000 GbE
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I/O Interfaces

PCIe	3x PCIe x1 Gen2
USB	1x USB 3.0 host + 5x USB 2.0 host + 1x USB 2.0 client
SATA	2x SATA3 6Gbit/s or 1x SATA and 1x SATA-SSD (optional)
SSD	onboard SATA-SSD (optional)
SDIO	1x SDIO 3.0 (4bit)
Camera	2x MIPI CSI 4L/2L camera support
Serial	2x SPI, 1x I ² C, 1x UART, 1x DB40, 1x HDA, 1x SMBus, 1x LPC
eMMC	Onboard eMMC (optional)

Power

Standard Input	5.0 V ±5%
Power States	Supports C0-C6, S0, S3, S4, S5

Operation System

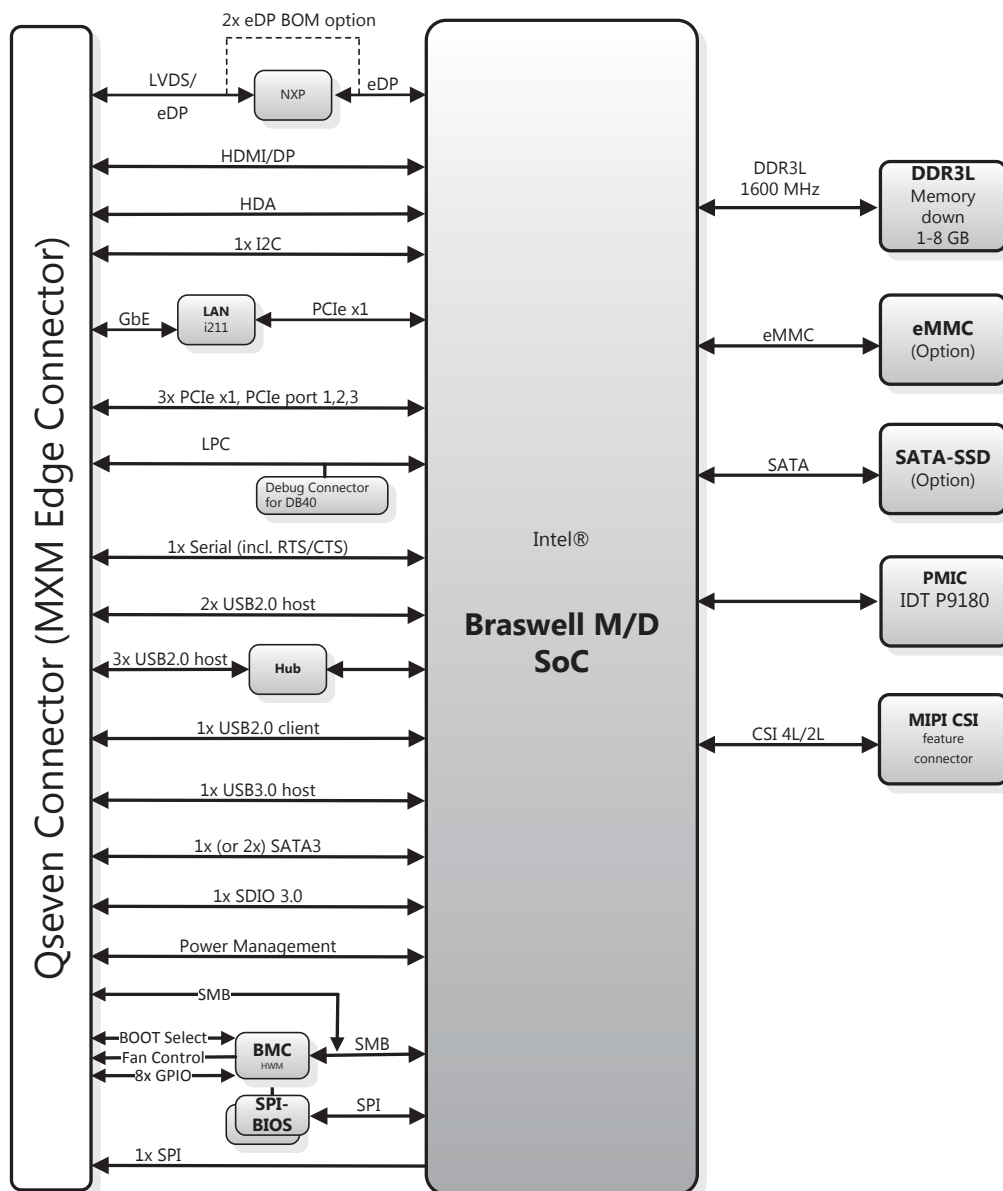
Standard Support	Linux, Windows 7/8.1/10
On Request	QNX, Android, VxWorks

Mechanical and Environmental

Form Factor	Qseven Specification 2.0
Dimension	Standard size, 70 mm x 70 mm
Operating Temperature	Standard: 0°C to +60°C
Humidity	5-90% RH operating, non-condensing 5-95% RH storage (and operating with conformal coating)
Shock and Vibration	IEC 60068-2-64 and IEC-60068-2-27 MIL-STD-202 F, Method 213B, Table 213-I, Condition A and Method 214A, Table 214-I, Condition D
HALT	Thermal Stress, Vibration Stress, Thermal Shock and Combined Test

Functional Diagram

ADLINK CONFIDENTIAL



SEMA®:

- Local management, control of embedded computer systems
- Extended EAPI for monitoring, controlling and analytics applications
- Multiple OS support and across platforms (x86, ARM)

SEMA Cloud®:

- Application ready comprehensive industrial grade IoT Platform
- Connecting Devices to a Cloud Platform and to Web Applications
- Remote monitoring and controlling managing of connected devices
- Enabling integration of operational device data into business processes
- Cloud based Platform as a Service (PaaS)

Ordering Information

- **Q7-BW41-4G-8G-CT**
Qseven module with Intel® Pentium N3710, quad core, 4 GB DDR3L, 8 GB eMMC, 0°C to 60°C
- **Q7-BW42-4G-8G-CT**
Qseven module with Intel® Celeron N3160, quad core, 4 GB DDR3L, 8 GB eMMC, 0°C to 60°C
- **Q7-BW42-4G-8GS-CT**
Qseven module with Intel® Celeron N3160, quad core, 4 GB DDR3L, 8 GB SATA SSD, 0°C to 60°C
- **Q7-BW21-2G-8G-CT**
Qseven module with Intel® Celeron N3060, dual core, 2 GB DDR3L, 8 GB eMMC, 0°C to 60°C
- **Q7-BW22-2G-8G-CT**
Qseven module with Intel® Celeron N3010, dual core, 2 GB DDR3L, 8 GB eMMC, 0°C to 60°C
- **Q7-BW-HS**
Heatspreader for Q7-BW
- **Q7-BW-HS2**
Passive heatsink for Q7-BW, 0°C to 60°C

*other configurations by request



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