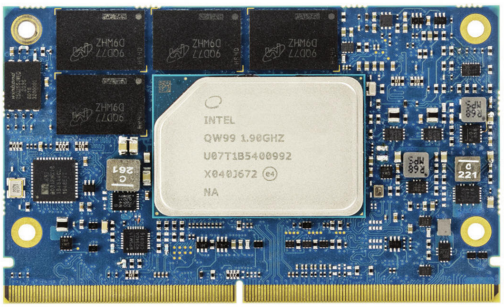
ENGICAM®
EMBEDDED SOLUTIONS

SMARC

SMARCORE EHL



The new Engicam's SMARC standard module is based on Intel processors ELKHART LAKE series ATOM® x6000E (Pentium® and Celeron® available soon).
The module is build on new levels of CPU and graphics performance and it integrates IoT features, real-time performance, manageability, security, and functional safety.

HIGHLIGHTS

- Standard SMARC 2.1
- Suitable for IoT and real time performance

Windows 10

APPLICATIONS

Industrial | *Digital Signage Infotainment* | *Transportation* | *Automotive* | *Avionics* | *Surveillance* | *Robotics* | *Biomedical/ Medical devices* | *Gaming* | *Home Automation*

FEATURES

CPU	• Intel Atom® X6211E Dual Core @ 1.2 GHz (burst 3.0 GHz) 1.5MB L2 cache, 6W • Intel Atom® X6413E Quad Core @ 1.5 GHz (burst 3.0 GHz) 1.5MB L2 cache, 9W • Intel Atom® X6425E Quad Core @ 1.8 GHz (burst 3.0 GHz) 1.5MB L2 cache, 12W • Intel Atom® X6212RE Dual Core @ 1.2 GHz, 1.5MB L2 cache, 6W • Intel Atom® X6414RE Quad Core @ 1.5 GHz, 1.5MB L2 cache, 9W • Intel Atom® X6425RE Quad Core @ 1.9 GHz, 1.5MB L2 cache, 12W • Intel Atom® X6427FE Quad Core @ 1.9 GHz, 1.5MB L2 cache, 12W • Intel Atom® X6200FE Dual Core @ 1.0 GHz, 1.5MB L2 cache, 4.5W
CORES	Up to 4 up to 1.9GHz, L2 cache 1.5MB
MEMORY	Starting from 2GB LPDDR4
GRAPHICS	• Intel® 11th generation LP graphics controller • DirectX 12.1 compliant • OpenGL ES 3.1/3.0/2.0/1.1 • OpenGL 4.5 supported • OpenCL™ 1.2, Vulkan 1.0 APIs • Dedicated FIVR for Graphics • Intel® Virtualization Technology for Directed I/O (VT-d)
MASS STORAGE	Starting from 16GB eMMC drive soldered on-board

VIDEO INTERFACES	• eDP to LVDS Dual channel up to 1920x1080@ 60Hz via eDP bridge • 1 x HDMI up to 4096x2160@60Hz • 1x DP up to 4096x2160@60Hz • eDP up to 4096x2160@60Hz
VIDEO PROCESSING UNIT CAPABILITIES	• HW accelerated encode HEVC/H.265,H.264, VP9, VP8, WMV9/VC1, MPEG-2,VC-1. JPEG/MJPEG dec • HW accelerated encode HEVC/H.265, H.264, VP9, JPEG/MJPEG enc
NETWORKING	2 x Gb Ethernet interface
PCIE	up to 4xPcie Gen3
USB	2 x USB
AUDIO	I2S interface
PERIPHERAL INTERFACES	UART, I2C, JTAG, CAN, SDIO, SPI, GPIO
POWER SUPPLY	+ 5V DC
OPERATING SYSTEM	Linux - Windows
OPERATING TEMPERATURE*	Industrial (-40°C to 110°C Tj)
DIMENSIONS	Standard SMARC short size module

* Valid for all components except CPU. Customer shall consider junction temperature for CPU. Temperature will widely depend on application. Specific cooling solutions could be necessary for the final system.