



The PSMC-M1011 SMARC 2.0 module is designed with Intel® Atom® processor E3900 series, Intel® Pentium® processor N4200, and Intel® Celeron® processor N3350 (codenamed Apollo Lake), featuring high graphic performance and great memory bandwidth. The PSMC-M1011 also supports an extended operating temperature range from -40°C to 85°C. Built with qualified industrial-grade components, PSMC-M1011 SMARC 2.0 module is an ideal building block for applications in automation, security, transportation and a variety of harsh environments.

FEATURES

- Intel® Atom® / Pentium® / Celeron® processors
- Up to 8 GB on Board LPDDR4 SDRAM
Triple display support (18/24-bit LVDS, HDMI, DP++)
- Dual GbE(Optional), Four PCI Express lanes, two USB 3.0 and six USB 2.0
- One SATA 3.0, on Board eMMC 5.0, on Board TPM(Optional)

GENERAL

Processor	- Intel® Atom E3950, 4 cores, 1.6GHz/2.0 GHz, 12W TDP - Intel® Atom E3940, 4 cores, 1.6GHz/1.8 GHz, 9.5W TDP - Intel® Atom E3930, 2 cores, 1.3GHz/1.8 GHz, 6.5W TDP - Intel® Pentium N4200, 4 cores, 1.1GHz/2.5 GHz, 6W TDP - Intel® Celeron N3350, 2 cores, 1.1GHz/2.4 GHz, 6W TDP
Cache	2 MB L2 cache
Memory	Up to 8 GB LPDDR4 at 2133/2400 MT/s Dual memory channel, 64bit, non-ECC
Storage	Onboard eMMC 5.0 flash up to 64 GB
BIOS	AMI UEFI with Fast Boot support Display Auto Detection Flash Update Password Lock OEM Logo for startup screen
Ethernet	2x Intel® i210AT (Commercial) / i210IT (Industrial)
Expansion Interface	4x PCIe x1 or 1x PCIe x4 Gen2
Operating System	Windows 10 Enterprise, Windows 10 IoT, Linux

I/O INTERFACE

Audio	Intel® HD Audio integrated in SoC
USB	4x USB2.0 2x USB 3.0/2.0
SATA	1x SATA 3.0 (6 Gbit/s)
Others	1x SDIO, 1x SATA 3.0, 1x I ² C/SMBus, 5x I ² C, 1x LPC, 2x HSUART, 2x UART, 1x HDA, 1x I ² S, 12x GPIO

DISPLAY

Graphic Controller	Intel® Gen 9 LP Graphics supporting DirectX 12 OpenGL 4.3 OpenCL 2.0 OpenGL ES 3.0 HW accelerated video decoding HEVC/H.264/MVC/MPEG2/VP9/VC1/WMV9/MJPEG and encoding HEVC/H.264/MVC/VP8/MJPEG
Display Interface	- DDI0: DisplayPort 1.2 up to 4096×2160@60Hz (DP++) - DDI1: HDMI 1.4b up to 3840×2160@30Hz - LVDS: 24-bit Dual Channel LVDS up to 1920×1200@60Hz

Mechanical & Environment

Dimension	SMARC module, 82 mm x 50 mm
Power Input	5V DC ±5%
Power Management	ACPI 5.0 compliant
Power Consumption	6W~12W (CPU)
Environment	Operating Temperature - Commercial: 0°C to +60°C - Industrial: -40°C to +85°C Humidity: 10-90% RH operating, non-condensing

PSMC-M1011

Block Diagram

