



Marvell ARMADA

# MicroSoM A388

Dual Core SoM (System-On-Module)  
Rev 2.0



Simple. Robust. Computing Solutions

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## Overview

Embedded system product developers, device makers and OEMs can now drastically shorten their development cycle and complexity with SolidRun's Micro-System on a Module (MicroSoM™) family. The ARMADA SOM is the perfect building block for a fast and efficient system, and especially optimized for IoT systems.

## ARMADA A388 Highlighted Features

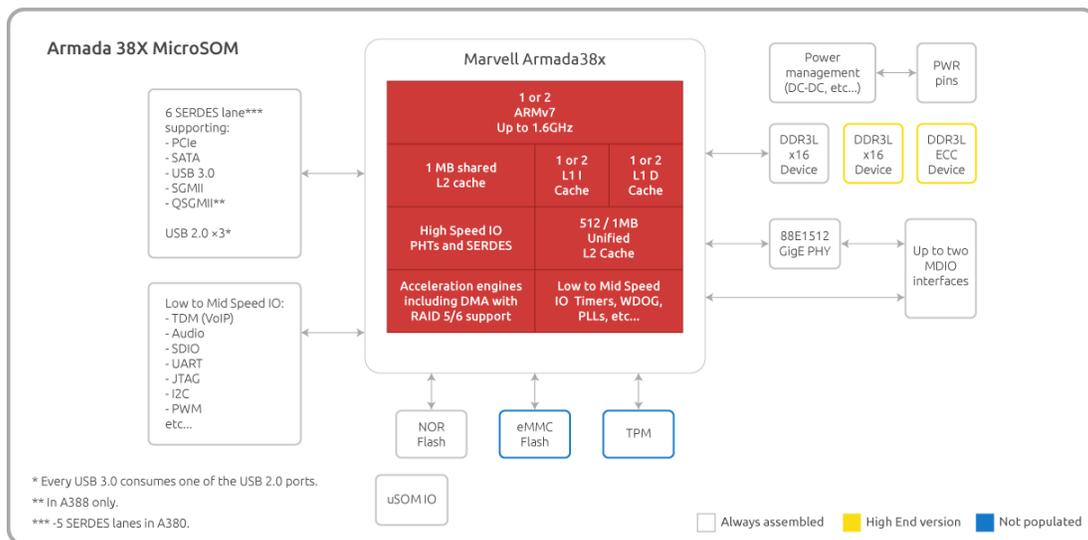
- ✿ Based on Marvell's ARMADA A388 SoC
- ✿ Up to 2GB DDR3L (Default size 1GB)
- ✿ Small size 50mm×35mm
- ✿ Variety of temperature grades:
  - Commercial 0°C...60°C
  - Industrial -40°C...85°C
- ✿ Long longevity of 10 years
- ✿ Optimal for networking and storage applications
- ✿ Broad SW support

## System Specifications

ARMADA A388	
<b>System On Chip</b>	Marvell ARMADA 388 (88F6828)
<b>Processor core</b>	Dual core ARM Cortex A9
<b>Processor speed</b>	Up to 1.6GHz in commercial grade Up to 1.3GHz in industrial grade
<b>Floating Point</b>	✓
<b>SIMD</b>	NEON
<b>L1 Cache</b>	32KB per core
<b>L2 Cache</b>	1MB shared
<b>Memory Type</b>	32 bit DDR3L
<b>ECC</b>	Optional
<b>Memory Capacity</b>	1GB (up to 2GB)
<b>SPI Flash</b>	Optional
<b>eMMC</b>	Optional (8GB)
<b>10/100/1000 Mbps MAC</b>	3 ports
<b>On uSOM GE PHY</b>	1
<b>SDIO</b>	✓
<b>I2S / SPDIF / TDM</b>	✓
<b>USB 2.0</b>	3
<b>RTC Support (battery on carrier)</b>	✓
<b>GPIO pins</b>	✓
<b>Power Managements Signaling</b>	Optional
<b>JTAG</b>	✓
<b>Total MUXED SERDES **</b>	6
<b>SATA</b>	4xGen III
<b>PCIe 2.0 x1</b>	4xGen II
<b>USB 3.0 (Requires USB 2.0 port too)</b>	2
<b>QSGMII</b>	1xQSGMII (3 MACs)
<b>OS Support</b>	U-boot Linux Kernel 3.x and 4.x OpenWrt Yocto
<b>Temperature Range</b>	Commercial/Industrial
<b>Supply Voltage</b>	3.3V-5V
<b>I/O Voltage</b>	3.3V, 1.8V
<b>SOM Interface</b>	Hirose DF40 connectors 1.5mm, 3mm mating height
<b>Dimensions (WxL)</b>	35mmx50mm

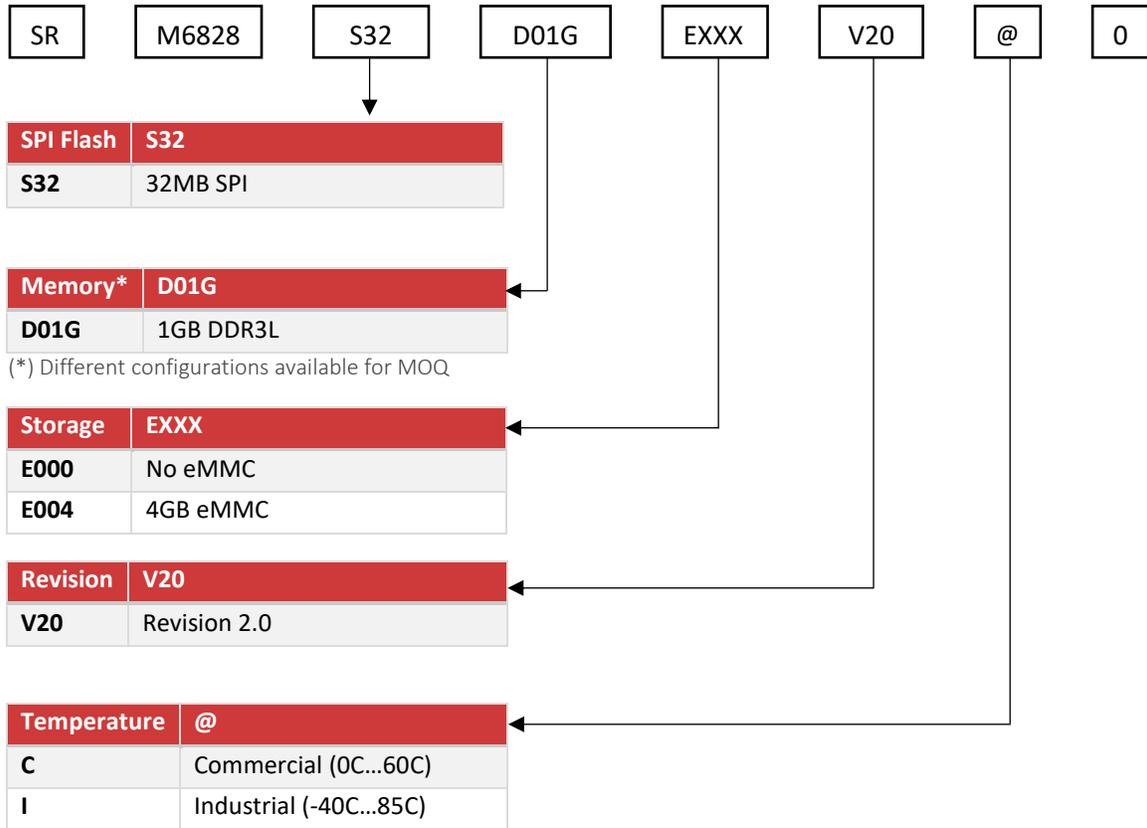
(\*) Refer to the SR-Armada-uSOM-Reference-Manual for complete table.

# Block Diagram



## Ordering Information

### SKU Format



## Available SKUs for MicroSoM A388

SKU	Description
SRM6828S32D01GE000V20C0	A388  32MB SPI 1GB DDR No eMMC Com. Temp R2.0
SRM6828S32D01GE004V20C0	A388  32MB SPI 1GB DDR 4GB eMMC Com. Temp R2.0
SRM6828S32D01GE000V20I0	A388  32MB SPI 1GB DDR No eMMC Ind. Temp R2.0
SRM6828S32D01GE004V20I0	A388  32MB SPI 1GB DDR 4GB eMMC Ind. Temp R2.0

## Available Accessories and Development Boards

SKU	Description
HS00007	MicroSoM Heatsink
SRCFCPE000CV21	ClearFog Pro Com. Temp R2.1
SRCFCBE000CV12	ClearFog Base Com. Temp R1.2
SRCFCPE000IV21	ClearFog Pro Ind. Temp R2.1
SRCFCBE000IV12	ClearFog Base Ind. Temp R1.2

## Safety Notice

- a. This device is to be used with Certified Power adaptor with output rated 12VDC, 1.5A. Power adapter must meet Limited power source (LPS) requirements.
- b. Power adapter must meet local safety standards and requirements based on product intended use.
- c. Power adapter must meet Operating environment conditions as specified above.

## Disposal

Follow local regulations regarding disposal of the product. Dispose of your product in accordance with local regulations. In some areas, the disposal of these items in household or business trash may be prohibited.

Help us protect the environment- recycle!

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Our Wiki – <http://wiki.solid-run.com/>

Our Forums - <http://forum.solid-run.com/>

For direct support please contact us at: [support@solid-run.com](mailto:support@solid-run.com)

## Documentation

Additional documentation available at:

<http://wiki.solid-run.com/doku.php?id=products:a38x:documents>