Intel Braswell

MicroSoM IB8000

Quad Core SoM (System-On-Module)
Rev 1.2

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Simple. Robust. Computing Solutions

Overview

Embedded system developers, device makers and OEMs: Shorten your development cycle and accelerate time-to-market with our Micro-System on a Module – SolidRun's MicroSoM™ family. We've harnessed Intel's powerful new Braswell line of 14 nm SoCs, producing a powerful, small form-factor module that is ideally suited for a wide range of Windows- and Linux-based IoT applications.

MicroSoM IB8000 Highlighted Features

- Based on Intel's Braswell SoC
- Up to 8GB Memory Size
- Small size 53mmx40mm
- Long longevity of 7 years
- 4K support
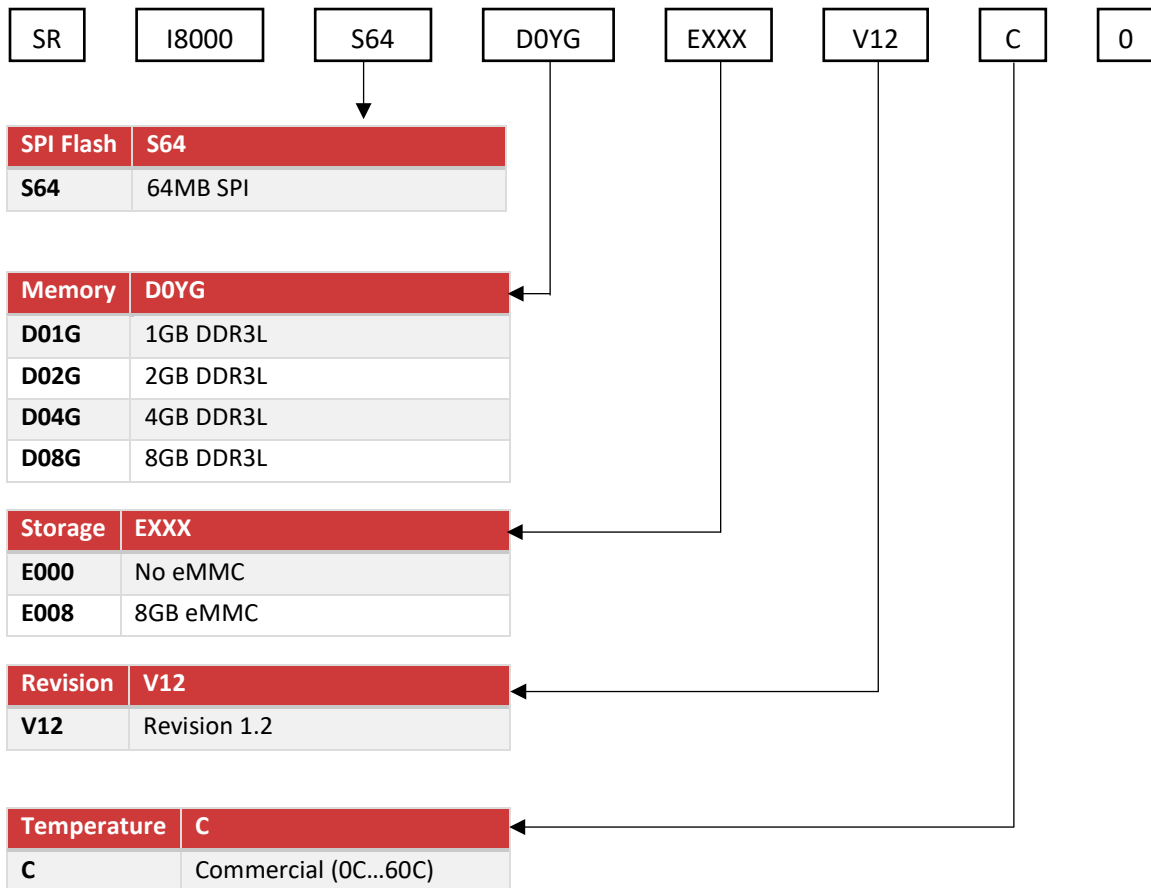- Optimized onboard power management
- Dramatically reduces complexity

System Specifications

Atom E8000	
Processor cores	4
Memory (RAM)	Up to 8GB (4GB default size)
CPU HFM Clock (GHz)	1.04, Burst 2.00
Graphic GPU	Intel Gen8 LP – 12EU
GPU HFM Clock (MHz)	320, Turbo Clock 600
Max Resolution (DP 1.1a, HDMI 1.4b)	3840×2160 @30 Hz, 2560×1600 @60; 24 bpp eDP 1.4 Max 2560×1600 @60; 24bpp
Junction temp. range	0C-90C
Dimensions	52.8mm x 40mm
Max. height from carrier	6.1mm to 8.6mm (depending on DF40 1.5-4.0 mm mating height on carrier board)
Mechanical fastening	3 x M1.8 mechanical holes
DDR-3L	Onboard one channel (1GByte version) and dual channel (all other) DDR3L 1600Mbps , up to 8GByte total
Network	Onboard 10/100/1000 Mbps (RTL8111G)
SPI flash (for BIOS)	Onboard 64 Mbit – externally programmable via 8 pin header
eMMC	8GB by default
PMIC	Onboard – battery powered optimized
Vin (Vsys)	Single 7v to 21v
Voltages out for carrier	MicroSoM™ provides voltage for carrier – V5S (2.8A), V3P3S (2.1A), V3P3A (2.8A), V1P8A (1.75A), V1P8S (1.05A)
B2B Connectivity	3×80 pin Hirose DF40 (1.5mm to 4mm mating)
Display	4K30 DisplayPort / HDMI and 4K30 DisplayPort / embedded DisplayPort
Camera	Via Flex cable – One 4 lane MIPI CSI-2 and one 2 lane MIPI CSI-2
USB 3.0	4 (one of them OTG)
PCIe Gen 2.0 1 lane	3
SATA 6 Gbps gen iii	2
Full UART	2
I2C	1
HD Audio	On carrier board
MCU: STM32F042K4U6	On board – 5 generic input/output, 1 x HDMI CEC, and 1 x IR input Connected by internal USB to main processor Reset and boot signals of MCU are processor-controlled to ease development
SD interface	4 data pins with programmable 3.3v / 1.8v voltage rail
PMU	2 wakeup signals and other power management indications
RTC Battery	RTC switchover on MicroSoM, 3.3v battery on carrier

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GPIOs	Multiplexed with multiple functions, including: UART, I2C, SATA DevSlp, PCIE CLKREQ, SDI
OS Support	Windows, Android, Linux

Ordering Information

SKU Format

SR	I8000	S64	D0YG	EXXX	V12	C	0

SPI Flash	S64
S64	64MB SPI

Memory	D0YG
D01G	1GB DDR3L
D02G	2GB DDR3L
D04G	4GB DDR3L
D08G	8GB DDR3L

Storage	EXXX
E000	No eMMC
E008	8GB eMMC

Revision	V12
V12	Revision 1.2

Temperature	C
C	Commercial (0C…60C)

Available SKUs for MicroSoM IB8000

SKU	Description
SRI8000S64D01GE000V12C0	IB8000|64MB SPI|1GB DDR|No eMMC|Com. Temp|R1.2
SRI8000S64D01GE008V12C0	IB8000|64MB SPI|1GB DDR|8GB eMMC|Com. Temp|R1.2
SRI8000S64D02GE000V12C0	IB8000|64MB SPI|2GB DDR|No eMMC|Com. Temp|R1.2
SRI8000S64D02GE008V12C0	IB8000|64MB SPI|2GB DDR|8GB eMMC|Com. Temp|R1.2
SRI8000S64D04GE000V12C0	IB8000|64MB SPI|4GB DDR|No eMMC|Com. Temp|R1.2
SRI8000S64D04GE008V12C0	IB8000|64MB SPI|4GB DDR|8GB eMMC|Com. Temp|R1.2
SRI8000S64D08GE000V12C0	IB8000|64MB SPI|8GB DDR|No eMMC|Com. Temp|R1.2
SRI8000S64D08GE008V12C0	IB8000|64MB SPI|8GB DDR|8GB eMMC|Com. Temp|R1.2

Available Accessories and Development Boards

SKU
HS00012
SRSPC0E000CV12

Safety Notice

a. This device is to be used with Certified Power adaptor with output rated 12VDC, 2.5A. 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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Documentation

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