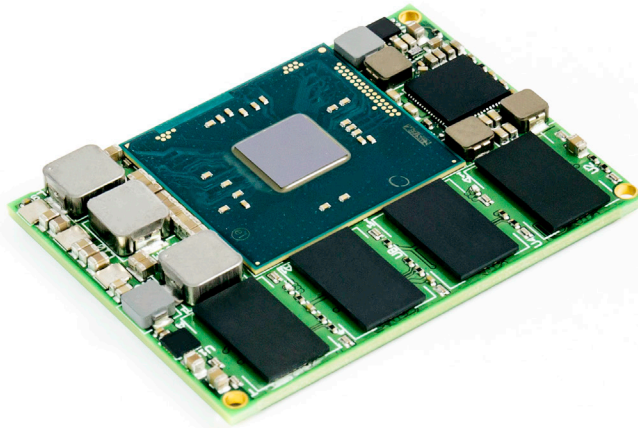


Intel Braswell SOM

System-on-Module



World's Smallest Intel Braswell-based SOM

Embedding Intel's SoC in your system has never been so easy... or so profitable. Why? Because SolidRun's MicroSoM™ gives you the unprecedented computing power of Intel's Braswell family of 14 nm Celeron® and Pentium® SoCs, but without the complexity.

No more browsing through hundreds of Intel-supplied PDF files for the data you need – we've done all the hard work, and give you all the flexibility:

No power design headaches – No more complex power conversions and sequencing. SolidRun's MicroSoM™ connects to the input power supply, and supplies your carrier board with five output power lines.

Small footprint – Our tiny, 53mm×40mm module provides you with optimal design flexibility. Now you can design your system in any shape, any size.

Complete system on a module – Our MicroSoM™ gives you everything you need for heavy-duty IoT apps, including video analytics.

Unified development platform – Develop, test, and deploy on the same x86 and GPU architecture. Simple and efficient.

- » Leverage Intel's Braswell 14nm SoC for reduced power consumption.
- » High reliability for mission-critical applications – Medical, Industrial, Drones, Point of Sale and more.
- » Price / Performance flexibility – scale memory size from 1 GB to 8 GB.
- » 1 Page PC - Carrier schematics on a single A3 page
- » Onboard eMMC.

Need to reduce development time further? Just attach our deployment-ready SolidPC Q4 carrier board, and you have a complete, application-ready hardware platform (or just take advantage of our field-proven reference design).

	SOM IB8000	SOM IB3710
System On Chip	Atom E8000	Pentium N3710
Processor cores	4	4
Memory (RAM)	Options: 1 GB / 2 GB / 4 GB / 8 GB	8 GB
CPU HFM Clock (GHz)	1.04, Burst 2.00	1.60, Burst 2.56
Graphic GPU	Intel Gen8 LP - 12EU	Intel Gen8 LP - 16EU
GPU HFM Clock (MHz)	320, Turbo Clock 600	400, Turbo Clock 700
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	3840×2160 @30 Hz, 2560×1600 @60; 24 bpp. eDP 1.4 Max 2560×1600 @60; 24 bpp
Junction temp. range	0°C-90°C	0°C-90°C
Mechanical		
Dimensions	52.8×40mm	
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×M1.8 mechanical holes	
Main Features		
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	Optional - from 8GB to 128GB	
Power		
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)	
MicroSoM™ to Carrier Connectivity		
Board to board connectivity	3×80 pin Hirose DF40 (1.5mm to 4mm mating)	
High Speed Connectivity		
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	
Low Speed Connectivity		
Full UART	×2	
I2C	×1	
HD Audio	On carrier board	
MCU: STM32F042K4U6	On board - 5 generic input/output, 1×HDMI CEC, and 1×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	
GPIOs	Multiplexed with multiple functions, including: UART, I2C, SATA DevSlp, PCIE CLKREQ, SDI	

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