

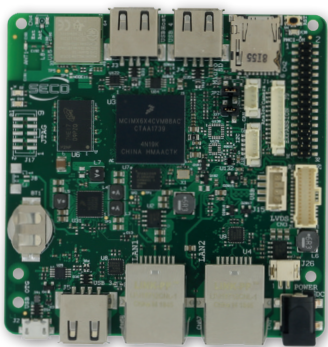
Single Board Computer



SBC-B08

SBC with NXP i.MX 6SoloX Processor

All-in-one IoT hybrid computing solution



HIGHLIGHTS

CPU
NXP i.MX6SX SoloX Processor, Single core
Cortex®-A9 @ 1GHz + Cortex®-M4 core @ 227MHz

CONNECTIVITY
up to 2x Fast Eth; optional WiFi + BT LE

GRAPHICS
Integrated Graphics Vivante GC400T, 2D and 3D HW
accelerator

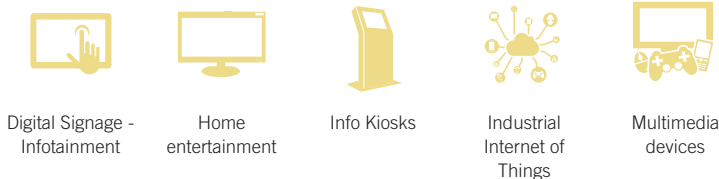
MEMORY
32-bit DDR3L memory soldered on-board, up to 1GB

Available in Industrial Temperature Range



DEVELOPMENT | SAMPLING | PRODUCTION

MAIN FIELDS OF APPLICATION



FEATURES

Processor	NXP i.MX 6SoloX , Single core Cortex®-A9 @ 1GHz + Cortex®-M4 core @ 227MHz	Other Interfaces 2 x I2C dedicated connectors (one reserved for Touch Screen) 6 analog inputs for A/D Conversion Programmable (*) expansion pin header connector, able to offer: • CSI interface input (PAL and NTSC formats supported) • Up to 20 GPIO • SPI interface • SPDIF Audio interface • I2S Audio interface • CAN interface (TTL level) • 5 x PWM • 3 x I2C • 3 x serial ports (2x RS-232 + 1xRS-485 interface) Embedded Low Power RTC (*) Please note that some of these interfaces are factory options, other configurations are made via SW using the pin multiplexing possibilities of the i.MX6SX processor.
Max Cores	1 + 1	
Memory	Soldered on-board DDR3L memory, 32-bit interface SYS-B08-BASIC/D: 512MB SYS-B08-FULL/D: 1GB	
Graphics	Integrated Graphics Vivante GC400T, 2D and 3D HW accelerator OpenGL ES 2.0, OpenGL ES 1.1, OpenVG 1.1 supported	
Video Interfaces	Single Channel 18-/24-bit LVDS connector + Touch Screen (I2C signals) 24-bit Parallel RGB Connector	
Video Resolution	LVDS: up to 1366x768 @60Hz, 24bpp RGB: up to 1920x1080p @60Hz, 24bpp	
Mass Storage	16MB NOR Quad-SPI Flash soldered onboard SYS-B08-FULL/D: 8GB eMMC soldered onboard	
Networking	SYS-B08-BASIC/D: 1x Fast Ethernet RJ-45 connector SYS-B08-FULL/D: 2x Fast Ethernet RJ-45 connector + WiFi (802.11 b/g/n) +BT LE combo module + antenna onboard	
USB	1 x USB 2.0 OTG port 3 x USB 2.0 Host port on standard Type-A socket 1 x USB 2.0 Host port on internal pin header	
Audio	I2S Audio interface on programmable pin header S/PDIF interface (In and Out) on programmable pin header	
Serial Ports	1 x CAN Port reconfigurable as GPIO 2x RS-232 (Tx/RX signals only) + 1x RS-485 serial ports on expansion pin header	
Integrated Sensors	Optional 9-Axis Motion Sensors (Accelerometer, Magnetometer and Digital Gyroscope)	
Power Supply	+12V _{DC} nominal voltage +3V _{DC} cabled Coin Cell Battery	
Operating System	Linux Yocto	
Operating Temperature*	0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (Industrial version)	
Dimensions	89.5 x 87 mm (3.52" x 3.43")	

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.

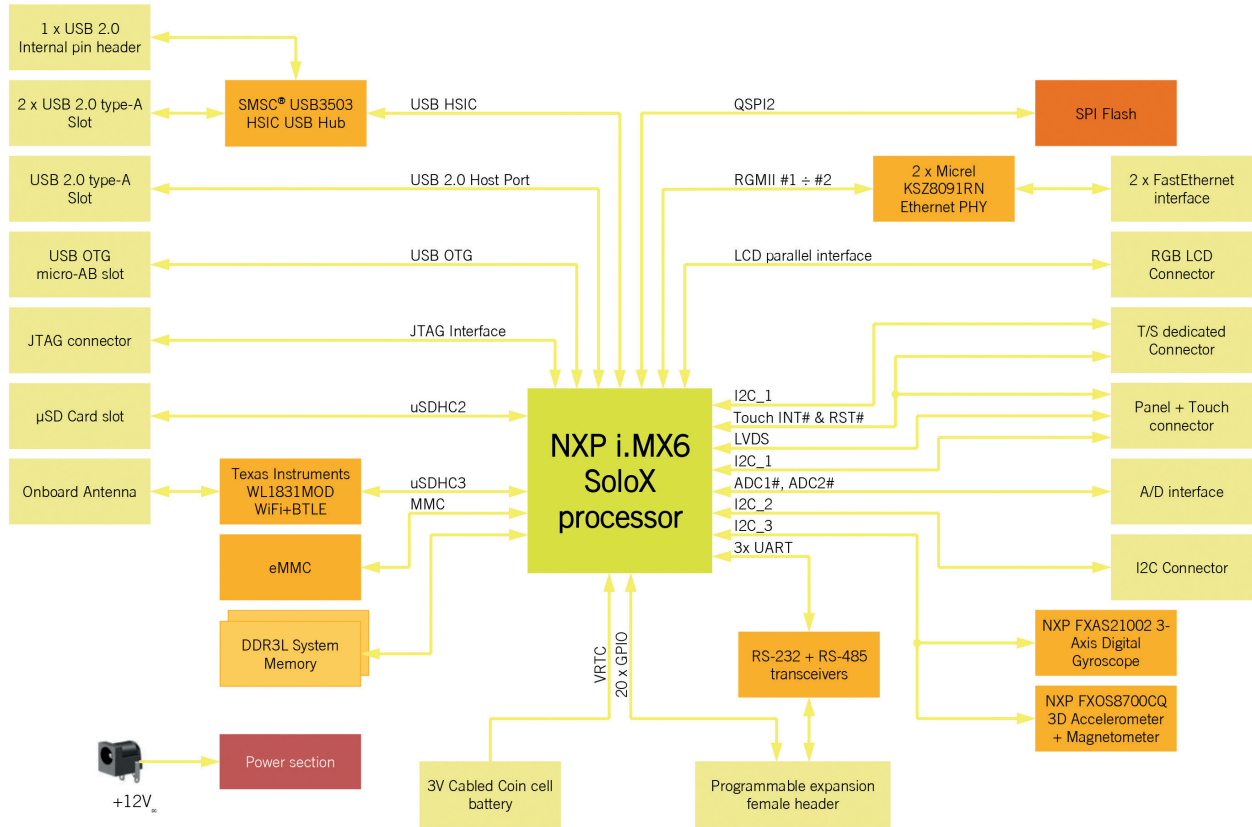


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BLOCK DIAGRAM



Information subject to change. Please visit www.seco.com to find the latest version of this datasheet.

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