

System On Module iMX6
 Freescale iMX6 embedded SOC
 Automotive grade applicable

AS-SOM-iMX6

Product Overview

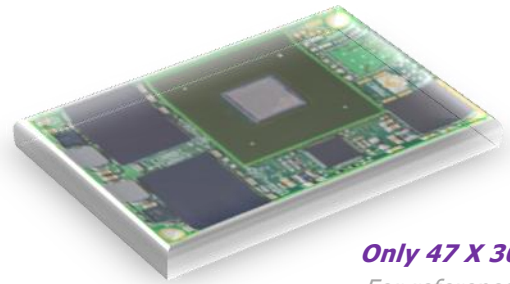
The AS-SOM-iMX6 integrated solutions family is designed for embedded systems product developers and OEMs.

Asine's AS-SOM-iMX6 ARM Cortex A9 based, utilize the rich experience and know-how in the design and implementation of embedded systems and modules, benefiting from the high level system engineering and development capabilities in cooperation with end user's R&D.

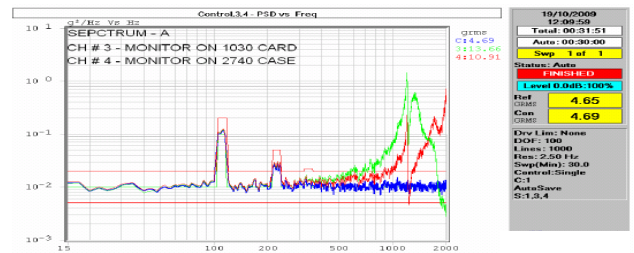
AS-SOM-iMX6 gives engineers a unique set of off-the-shelf design features and benefits enabling: shorter time to market, lower design cost, and reduction in a projects' risk.

The ASSOM-iMX6 is a top grade solution offered at commercial, industrial, and automotive grades.

ASSOM-iMX6 is a state of the art system technology for high availability embedded solutions, supporting the complete set of interfaces, as well as powerful processor.



Only 47 X 30 mm
 For reference only



Vibration test

Applications

- Industrial & Commercial PC/Tablet Systems
- ATM, Gaming, Lottery
- Automotive, Navigation, Infotainment, ECU
- Automotive Data Protection(CANbus)
- Point Of Sale- POS / Kiosk, Smart Terminals
- Medical
- Industrial & Airborne Systems
- Rugged Computer
- High-Speed Data Recording
- Security, HLS-Home Land Security
- Video Surveillance, JPEG2000 Capture
- Factory Automation
- JBOD, NAS, SAN, RAID
- Telecom Interconnect Appliance / Firewall



Features

- *Standard I/Fs included at all configurations
- SOC i.MX6: Solo, Dual Lite, Dual, Quad core
- *SOC speed 1GHz (Optional 1.2 GHz)
- 512MB-2GB DDR3 SDRAM
- *3X SD/MMC
- External storage I/F: NOR-Flash, eMMC, mSATA/SATA2 (Dual & Quad), SD/microSD, PCIe SSD
- *Power controller sequencer
- *LVDS, *HDMI 1.4, *DSI, *Parallel. Dual display support
- 1000 Gbit/s on Dual & Quad Second ETH via PCIe / USB
- *USB: 1X Host & 1X OTG
- *OS – Android 4.4.2 or Linux (No Android on Solo)
- Power: Operation 5V. All the I/O is 3.3V signaling
- Power: ~1.5 W idle and up to 10 W max (subject to utilized application)
- Processor Optional heat spreader to be considered (consult us)
- Operating temperature – Commercial 0°C to +70°C, Industrial -40°C to +85°C, and Optional: Extreme -45°C to +95°C
- Storage temperature -55°C to +100°C
- *Matching connector: Hirose DF40 connectors 1.5mm to 4.0mm mating height
- *Humidity 5% to 95% relative, non-condensing
- *Altitude (operating & non-operating) 0 to 80,000 feet
- *Reliability - MTBF - 1,000,000 hours MIL-HDBK271F
- Heat dissipation balancing for demanding applications
- *Sustained environmental: Shock - Half Sine, 40G peak, 11ms; Half Sine, 1500G (3 axes), Vibration - 16.3G RMS (Random, 20Hz to 2000 Hz, 3 vibrations axes)
- CAN bus
- *PCIe 2.0
- RTC (on carrier/SBC)
- Display max resolution: HDMI: 1080p LCD: WUXGA (1920 x 1200)
- GPU Vivante GC880
- *3D GPU OpenGL ES1.1/2.0. Also OpenCL 1.1E on Dual & Quad
- Floating Point VFPv. SIMD NEON
- *Camera 2 Lane CSI. 4 at Dual & Quad
- *I²C, *3X SPI / 3X serial ports (UART)
- *8 x GPIOs, * 4X PWM
- *Digital audio (serial I/F)
- *S/PDIF In and S/PDIF Out

The AS-SOM-iMX6 is based on Freescale® i.MX6 family processors ARM Cortex A9 based and supports wide connectivity options like Bluetooth, Wi-Fi, CAN bus, USB, Ethernet, and more. The AS-SOM-iMX6 shows very low power consumption at **single board solution for all functions & small physical size** (47 X 30 mm) also supporting Automotive grade applications. The AS-SOM-iMX6 is supported by Android and Linux OS, providing all BIOS, OS drivers, APIs for customer's applications development. The AS-SOM-iMX6 is implemented in demandable industrial applications, proving the "best of the breed".

Optional: (OEM)

- Touch screen controller by serial IO
- Audio stereo w/ Microphone input
- LCD interface – 21 bit DSS
- Bluetooth, 802.11 Wi-Fi a/ac/b/c/g/n
- MicroSD socket (boot supporting)
- Conduction Cooling

Dimensions: 47mm x 30mm

Weight: 60 gr. (config dependent)

Ordering Information: P/N Structure: ASSOM6[cpu]-[Flash][m][DDR][t][f][i][custom-suffix]

Cpu	Flash	m Flash	Type	DDR	t - op. temperature	f - coating	i - Interfaces	Customer Options
ASSOM6S Solo 1GHz	0 0 GB	0	No Flash	9 512 MB	C 0°C to +70°C	F Conformal	E0 10/100M/s ETH	Add suffixes for OEM customization
ASSOM6L Dual Lite 1GHz		M*	MLC	1 1 GB	Z -40°C to +85°C	Coating	E1** 1G/s ETH	
ASSOM6D Dual 1GHz		S*	SLC	2 2 GB	Z1 -45°C to +95°C		W1 b/g/n Wi-Fi	
ASSOM6Q Quad 1GHz		R*	NOR		0 Custom temp.		W2* a/b/g/n Wi-Fi	
	OEM - Other capacities available		*OEM or external		by suffix		W3* ac/b/g/n Wi-Fi	
							X1 PCIe	
							A1** SATA	

Additional Options:

- **Offset /Buy-back**
- **OEM Customization**

Ordering Examples: *Standard I/Fs included
ASSOM6S-009ZE0 Single Core 1GHz, no Flash, 512GB DDR, operating -40°C to +85°C, 10/100M/s ETH
ASSOM6D-001ZE0 Dual 1GHz, 1GB no Flash, 1GB DDR, operating -40°C to +85°C, 10/100M/s ETH

*OEM or external
 ** Only at Dual & Quad
 Additional interfaces add suffixes

The information contained in this document is subject to change without notice