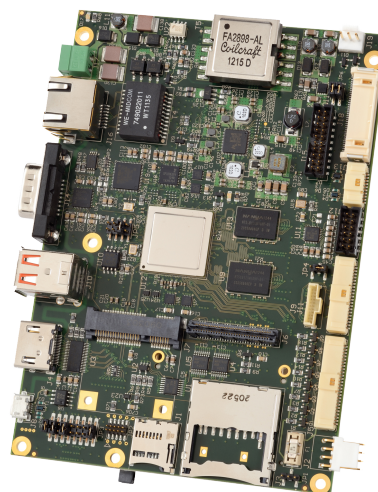


Features

- Freescale® i.MX 6Q Industrial Processor @ 800MHz
- Quad ARM Cortex™ -A9 CPU
- 2GB of Soldered DDR3 RAM
- High-Performance Video and Graphics
 - HD1080p, 3D, and 2D HW Accelerators
- Multiple Video Interfaces
 - HDMI 1.4 and Two Channel LVDS
 - MIPI Capture and Display and CMOS Camera Input
- Gigabit Ethernet (GbE) with IEEE-1588™
- Six USB 2.0 Ports and One USB On-The-Go Port
- Two CAN Ports
- Two RS-232/422/485 Serial Ports up to 1Mbps
- Three RS-422/485 Serial Ports up to 5Mbps
- 24 Lines GPIO Tolerant up to 30VDC
- HDMI and Stereo Audio
- CFAST, SD, and MicroSD Sockets
- Mini-PCIe and IO60 Expansion
- Powered by PoE or 10-50VDC Input
- Fanless -40° to +85°C Operation



Product Description

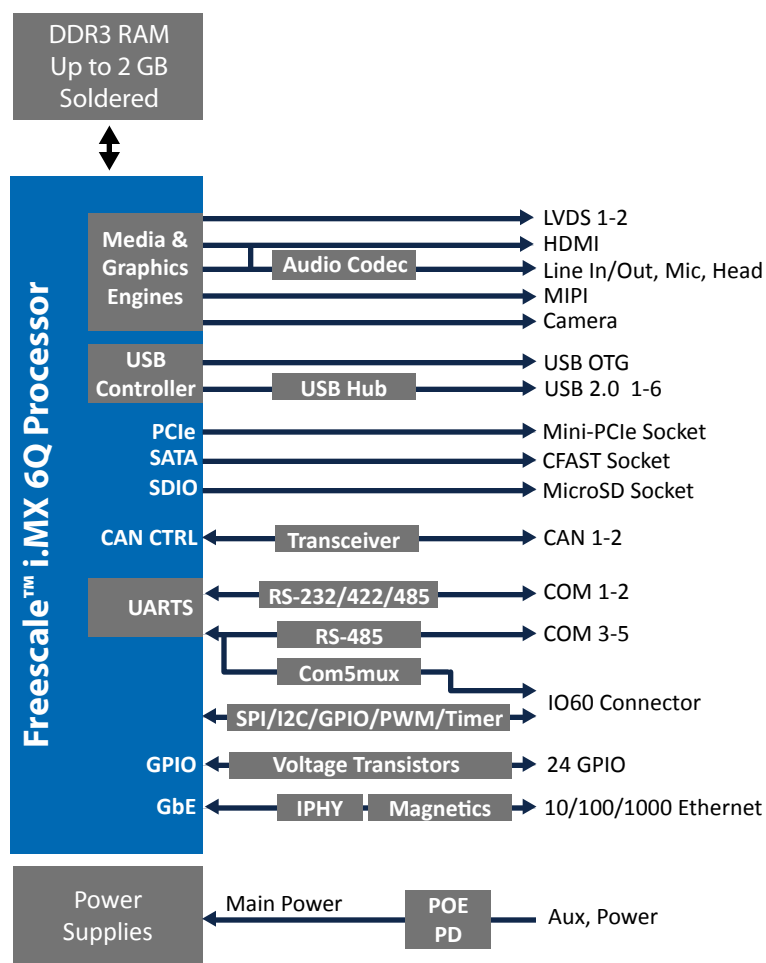
WinSystems' SBC35-C398Q quad-core enclosed single board computer combines high performance multimedia graphics with a rich mixture of Industrial I/O. The Freescale i.MX 6Q processor's integrated power management provides excellent efficiency and allows operation from -40°C to +85°C without active cooling. It is designed for demanding graphics applications in security, transportation, medical, and digital signage.

The low power, high-performance of ARM cores coupled with readily available software tools make them an excellent choice for embedded systems. Leveraging Freescale's proven track record in long term product support with the operating system and application development driven by consumer ARM devices, the SBC35-C398Q is ideal for off-the-shelf industrial designs.

Enclosed in a custom anodized aluminum enclosure for added protection, the SYS-398Q is durable and ready for the most rugged environments.

The SBC35-C398 series also introduces the IO60 expansion connector to allow for additional functionality. The IO60 specification supports I2C, SPI, TTL-UART, and PWM signals, allowing stackable expansion through off-the-shelf or application specific designed modules. When coupled with the Mini-PCIe socket, the SBC35-C398Q is one of the most expandable ARM designs currently on the market.

*WinSystems reserves the right to make changes to products and/or documentation without further notification.
Product names of other companies may be trademarks of their respective companies.*



	SBC35-C398Q-2-0	SBC35-C398DL-2-0	SBC35-C398S-1-0
Processor	Freescal i.MX 6Q	Freescal i.MX 6DL	Freescal i.MX 6S
Cores	4x ARM Cortex A9	2x ARM Cortex A9	ARM Cortex A9
Frequency	800MHz	800MHz	800MHz
Cache	32KB/32KB L1, 1MB, L2	32KB/32KB L1, 512KB L2	32KB/32KB L1, 512KB L2
Memory	2GB 64bit DDR3	2GB 64bit DDR3	1GB 32bit DDR3
Embedded	256KB	128KB	128KB
Hardware Display			
Accelerators	NEON Media Processor Engine	NEON Media Processor Engine	NEON Media Processor Engine
3D Graphics Core	Open GL ES 3.0, Open CL	Open GL ES 3.0	Open GL ES 3.0
2D Graphics Core	Dual BitBit	BitBit	BitBit
Vector Graphics Core	OpenVG 1.1		
Video Interfaces	Up to Four Active Displays	Up to Two Active Displays	Up to Two Active Displays
HDMI 1.4 Type A	HD1080p60	HD1080p30	HD1080p30
LVDS Interface	2x(2048x1536 or 2x(1280x720)	2x(1366x768)	2x(1366x768)
MIPI/DSI	Capture + Display		
MIPI	Display Port + Camera Input		
Camera Interface	CMOS 8 bit	CMOS 8 bit	
Ethernet	1Gbps	1Gbps	1Gbps
	Wake on LAN	Wake on LAN	Wake on LAN
	IEEE 1588	IEEE 1588	IEEE 1588
Serial			
RS-232/422/485	2x up to 1Mbps	1x up to 1Mbps	1x up to 1Mbps
RS-422/485	3x up to 5Mbps		
CAN Ports	Two	Two	
USB Ports with Over-Current Protection	6xUSB 2.0 + On The Go	6xUSB 2.0 + On The Go	2xUSB 2.0 + On The Go
Audio Interfaces	HDMI + Line In/Out, Mic, Head	HDMI + Line In/Out, Mic, Head	HDMI + Line In/Out, Mic, Head
General Purpose I/O	24 Lines Tolerant to 30V	24 Lines Tolerant to 30V	24 Lines Tolerant to 30V
Mass Storage	CFast +SD/SDIO + MicroSD	SD/SDIO + MicroSD	SD/SDIO + MicroSD
Expansion Bus Connectors			
Mini PCIe	One Half Size	One Half Size	
IO60	I2C, SPI, TTL & PWM	I2C, SPI, TTL & PWM	I2C, SPI, TTL & PWM
Operating Temperature	-40° to +85°C	-40° to +85°C	-40° to +85°C
Timers	Three	Three	Three
Real Time Clock	Secure RTC	Secure RTC	Secure RTC
Battery	Optional External	Optional External	Optional Exter
Watchdog Timer	Programmable + TrustZone	Programmable + TrustZone	Programmable + TrustZone
Electrical			
PoE PD	IEEE802.3at (Up tp 25W)	IEEE802.3at (Up tp 25W)	IEEE802.3at (Up tp 25W)
Aux. Input	+10 to 50VDC	+10 to 50VDC	+10 to 50VDC
Mechanical			
Dimensions	8 x 5 in (203.20 x 127 mm)	8 x 5 in (203.20 x 127 mm)	8 x 5 in (203.20 x 127 mm)
Weight	1.20 lbs (545 gm)	1.20 lbs (545 gm)	1.20 lbs (545 gm)
System Thickness	1.6 (40.64 gm)	1.6 (40.64 gm)	1.6 (40.64 gm)

Custom Configurations

Our engineering staff can utilize building blocks contained in our standard products to address most requirements that arise. We will work directly with your staff to define an optimum solution to reduce your time-to-market.

Ordering Information

Visit our website, send us an email or call directly to speak with an Applications Engineer who can advance your unique project. Please reference the product number below.

SBC35-C398Q-2G-0 Enclosed Quad-Core ARM 3.5" SBC