

Features

- Freescale® i.MX 6Q Industrial Processor @ 800 MHz 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, plus CMOS Camera Input
- Gigabit Ethernet 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
- Three RS-422/485 Serial Ports
- 24 lines GPIO tolerant up to 30V DC
- Audio Stereo In/Out/Headphones and Mic.
- CFAST, SD, and MicroSD sockets
- Mini-PCIe and IO60 expansion
- Wide Range DC or PoE PD Power Input
- Fanless -40°C to +85°C operation
- Runs Linux, Android™, Windows® Compact 7, and RTOS

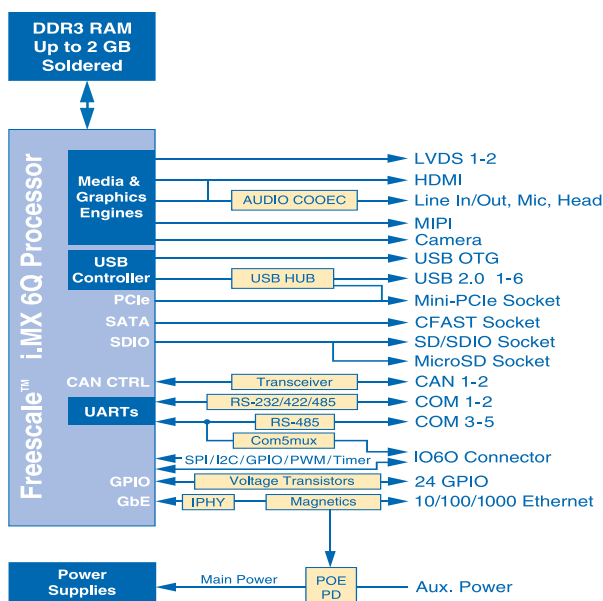


Product Description

WinSystems' SBC35-C398Q quad core single board computer combines high performance multimedia graphics with a rich mix 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 graphical applications in security, transportation, medical, and digital signage.

The efficient, 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-C398 is ideal for off-the-shelf industrial designs.

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-C398 is one of the most expandable ARM designs currently on the market.



SBC35-C398Q-2-0 Block Diagram

SBC35-C398Q: Quad Core ARM 3.5 Inch SBC

Technical Specifications			
Product Number	SBC35-C398Q-2-0	SBC35-C398DL-2-0	SBC35-C398S-1-0
Processor	Freescale i.MX6Q	Freescale i.MX6DL	Freescale i.MX6S
Cores	4x ARM Cortex A9	2x ARM Cortex A9	ARM Cortex A9
Frequency	800 MHz	800 MHz	800 MHz
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 SRAM	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 BitBlit	BitBlit	BitBlit
Vector Graphics Core	OpenVG 1.1	-	-
Video Interfaces	Up to 4 Active Displays	Up to 2 Active Displays	One Active Display
HDMI 1.4 Type A	HD1080p60	HD1080p30	HD1080p30
LVDS Interface	2x(2048x1536) or 2x(1280x720)	2x(1366x768)	-
MIPI/DSI	Capture + Display	-	-
Ethernet	1 Gbps	1 Gbps	1 Gbps
Wake on LAN (WOL)	IEEE-1588	Wake on LAN (WOL)	Wake on LAN (WOL)
IEEE-1588	IEEE-1588	IEEE-1588	IEEE-1588
Serial	2x up to 115.2 Kbps	1x up to 115.2 Kbps	1x up to 115.2 Kbps
RS-232/422/485	3x up to 115.2 Kbps	-	-
RS-422/485	-	-	-
CAN Ports	Two	Two	-
USB Ports with poly fuse protection	6x USB 2.0 + On-The-Go	6x USB 2.0 + On-The-Go	2x USB 2.0
Audio Interfaces	Stereo Line In/Out, Mic, Head	Stereo Line In/Out, Mic, Head	-
MIPI	Display Port + Camera Input	-	-
Camera Interface	CMOS 8 bit	CMOS 8 bit	-
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	SD/SDIO
Expansion Bus Connectors			
Mini-PCIe	One Half-size	One Half-size	-
IO60	I2C, SPI, TTL & PWM	I2C, SPI, TTL & PWM	-
Operating Temperature	-40° to +85°C	-40° to +85°C	-40° to +85°C
Timers	3	3	3
Real Time Clock	Secure RTC	Secure RTC	Secure RTC
Battery	Optional External	Optional External	Optional External
Watchdog Timer	Programmable + TrustZone	Programmable + TrustZone	Programmable + TrustZone
Electrical			
PoE PD	IEEE802.3at (Up to 25W)	IEEE802.3at (Up to 25W)	IEEE802.3at (Up to 25W)
Aux. Input	10 - 50V DC	10 - 50V DC	10 - 50V DC
Mechanical			
Dimensions	4 x 5.75 in (102 x 146 mm)	4 x 5.75 in (102 x 146 mm)	4 x 5.75 in (102 x 146 mm)
Weight	5.02 oz (142.20 gm)	tbd	tbd
PC Board Thickness	0.078"	0.078"	0.078"
Product Number	SBC35-C398Q-2-0	SBC35-C398DL-2-0	SBC35-C398S-1-0

Custom Configurations

If your application need a special configuration, please contact our Applications Engineers to discuss your requirements. We look forward to working with you.

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

Ordering Information

Visit our website, www.WinSystems.com, or contact us by email, Info@WinSystems.com, or call 1-817-274-7553 for complete ordering information.

