

DMS-BA16

Freescal e ARM Cortex-A9 i.MX6 Qseven V2.0 Module



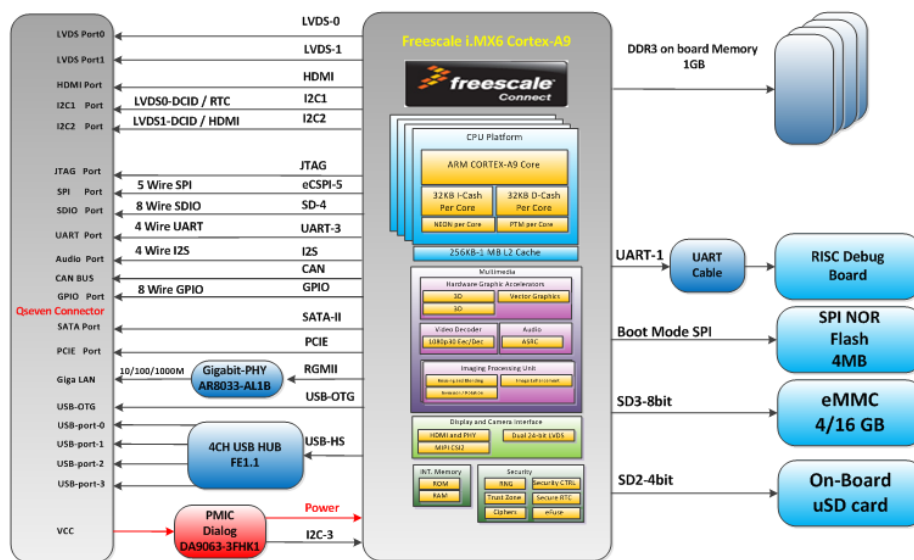
Features

- Freescale ARM Cortex-A9 i.MX6 Dual Core 1 GHz high performance processor
- Up to 2GB Onboard DDR3 Memory; Up to 16GB Onboard eMMC NAND Flash
- Supports OpenGL ES 2.0 and OpenVG 1.1
- HDMI, 24-bit LVDS
- 1x UART, 2x I²C, 8x GPIO, 4x Host USB 2.0 port, 1x USB OTG port, 1x micro SD (SDHC), 1x SDIO, 1x SATA II, 1x 10/100/1000 Mbps Ethernet, 1x PCIe X1 Gen2

Specifications

Computing System	CPU	Freescal e ARM Cortex-A9 i.MX6 Dual Core 1.0 GHz
Memory	Technology	DDR3 1600 MHz
	Capacity	On-board DDR3 1GB/2GB
	Flash	8GB/16G eMMC NAND Flash for OS. And 4MB NOR Flash for boot loader
	External Storage	Micro SD, up to 64GB
Graphics	LVDS	2 x 24-bit LVDS
	HDMI	1920 x 1080
	Graphic Engine	2 x IPUs (OpenGL ES 2.0 for 3D, BitBlit for 2D and OpenVG 1.1)
	H/W Video Code	Decoder: MPEG-4 ASP, H.264 HP, H.263, MPEG-2 MP, MJPEG BP Encoder: MPEG-4 SP, H.264 BP, H.263, MJPEG BP
Ethernet	Chipset	Freescal e i.MX6 integrated RGMII
	Speed	1 x 10/100/1000 Mbps
RTC	RTC	Yes
WatchDog Timer		256-level timer interval, from 0 ~ 128 sec
Expansion Interface	PCIe	1 x PCIe X1 Gen2, 1 x Lane
	SATA	1 x SATA II
	USB	4 x USB 2.0, 1 x USB 2.0 OTG
	Audio	I ² S
	SDIO	1
	Serial Port	1 x UART
	SPI	1
	GPIO	8
I ² C	2	
Power	Power Supply Voltage	5V
	Power Consumption	3.8W
Environment	Operating Temperature	0°C ~60°C
	Operating Humidity	10% ~ 90% @ 40°C, non-condensing
Physical Characteristics	Dimensions (W x D)	70 x 70 mm
Operating System		Linux Kernel Yocto 3.10.17

Block Diagram



Ordering Information

Part Number	CPU	Memory	Flash Memory	UART	LAN	USB Host	USB OTG	Display	SATA	PCIe	HDMI	Micro SD	I ² C	SPI
DMS-BA16-00A1E	i.MX6 Dual 1GHz	1GB	16GB	1	1	4	1	2x24-bit LVDS	1	1	1	1	2	1
DMS-BA16-10A1E	i.MX6 Dual 1GHz	2GB	8GB	1	1	4	1	2x24-bit LVDS	1	1	1	1	2	1
DMS-BA16-20A1E	i.MX6 Dual 1GHz	2GB	16GB	1	1	4	1	2x24-bit LVDS	1	1	1	1	2	1

Optional Accessory List

Part Number	Description
9698U10400E	DMS-BA16 Development Board
1757003934	ADAPTER 60W 12V 5A for Development Board
1702002600	Power Cord 3P UL/CSA(USA)
9698T90001E	Debug Board
1703100153	Debug Board RS232 Cable
1960061913N001	Heatsink 0-Freescale-S-5W 70x63x8-SC

For sales inquiries or further information, please contact us: Medical.dms@advantech.com.tw