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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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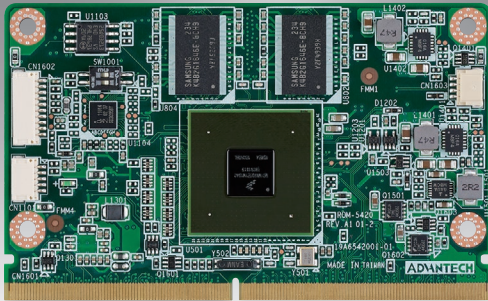
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ROM-5420

Freescale ARM Cortex-A9
i.MX6 SMARC v1.0 Module

NEW



Features

- Freescale ARM Cortex-A9 i.MX6 Dual 1 GHz high performance processor
- Onboard DDR3 1 GB
- Parallel RGB, HDMI, Single channel 18/24-bit LVDS, 1366 x 768
- Supports 4 GB eMMC Flash, 1 SD/MMC, 1 SATA
- 2 CAN, 4 UART, 5 I²C, 12 GPIO, 1 PCIe, 1 camera input and 1 Gigabit LAN
- Supports OpenGL ES 2.0 and OpenVG 1.1 hardware accelerators
- Supports full HD hardware encode/decode engine
- Supports image protection



Introduction

ROM-5420 series SMARC module has an integrated Freescale i.MX6 Cortex-A9 SoC. Freescale i.MX6 supports 2D/3D graphics accelerators, a full HD 1080p encode/decode hardware engine and two independent display outputs. ROM-5420 series support security protection and it protects user image from plagiarism. The camera input and power input +3V~5.25V support are specially designed for portable applications.

ROM-5420 SMARC module has Advantech ROM-DB5900 evaluation carrier board for easy integration and hardware design reference, and also provides Linux BSP, a schematic check tool, test utilities and reference codes for application development and device integration.

Specifications

Form Factor		SMARC v1.0
Processor System	CPU	Freescale ARM Cortex-A9 i.MX6 Dual 1 GHz
Memory	Technology	DDR3 1066 MHz
	Capacity	On-board DDR3 1 GB
	Flash	4 GB eMMC NAND Flash for O.S. and 4 MB SPI NOR Flash for Advantech boot loader
Graphics	LVDS	1 Single 18/24-bit LVDS, 1366 x 768
	HDMI	1920 x 1080
	Parallel RGB	1 24-bit TTL, 2048 x 1536
	VGA	-
	Graphics Engine	3 GPUs, OpenGL ES 2.0 for 3D, BitBlit for 2D and OpenVG 1.1
H/W Video Codec	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	Freescale i.MX6 integrated RGMII
	Speed	1 x 10/100/1000 Mbps
RTC	RTC	Yes
WatchDog Timer		S/W WDT, 256-level timer interval from 0 ~ 128 sec
I/O	PCIe	1 PCIe, 1 x Lane
	SATA	1 SATA II
	USB	1 USB 2.0, 1 USB 2.0 OTG
	Audio	I ² S
	SPDIF	1
	SDIO	1
	Serial Port	4 UART (2 x 2 wire, 2 x 4 wire w/ 3.3V)
	SPI	4
	CAN	2 x CAN bus 2.0B
	GPIO	12
	I ² C	5
	Camera Input	1 MIPI v1.0, 4x Lane
	System Bus	-
	Touch	-
Keypad	-	
Power	Power Supply Voltage	+3 ~ 5.25 V
	Power Consumption	Kernel idle: 1.25 W/ Maximum: 3.4W
Environment	Operational Temperature	0 ~ 60° C/ -40 ~ 85° C
	Operating Humidity	0% ~ 90% relative humidity, non-condensing
Mechanical	Dimensions (W x D)	82 x 50 mm
Operating System		Ltlib Linux Kernel v3.0.35/Android v4.2.2
Certifications		CE/FCC Class B

