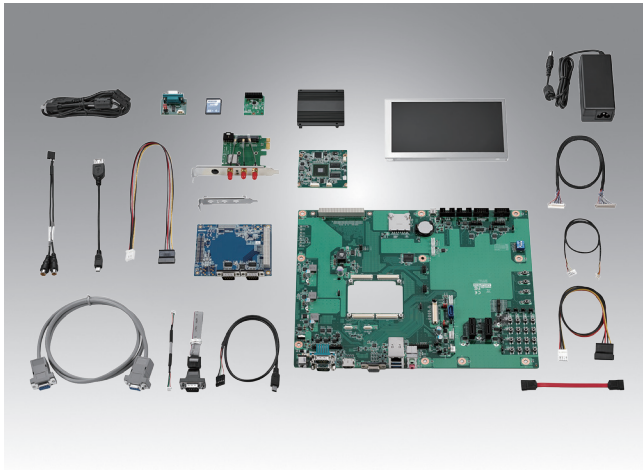


# ROM-3420 Evaluation Kit

## Development Kit for RTX CPU Module ROM-3420



### Features

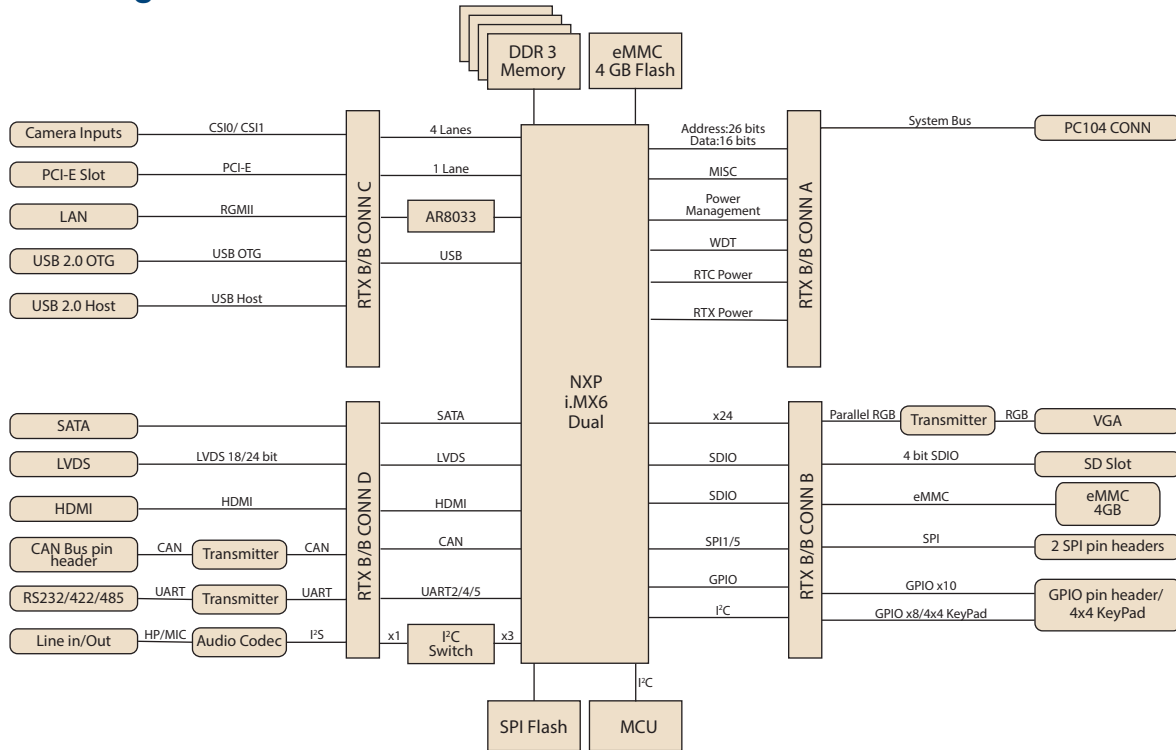
- Evaluation kit for ROM-3420
- High performance Freescale i.mx6 dual-core 1GHz processor
- Onboard DDR3 1GB memory and eMMC 4GB
- Parallel RGB, HDMI, Single channel 24bit LVDS, 1366 x 768
- Supports 4 GB eMMC Flash, 1 SD/MMC, 1 SATA
- Supports 1 PCIe, 1 GbE, 1 USB 2.0, 1 USB OTG2.0, 1 SATAII, 4 I<sup>2</sup>C, 1 I<sup>2</sup>S, 1 Camera in, 2 CANbus, 10 GPIO, 1 System bus
- Cable pack & panel included
- Evaluative image & test utility built-in



### Specifications

Form Factor		ROM-3420 Evaluation Kit
Processor System	CPU	NXP 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 24-bit LVDS, 1366 x 768 at 60Hz
	HDMI	1920 x 1080 at 60Hz
	Parallel RGB	-
	VGA	1920 x 1080 at 60Hz
	Graphics Engine	2 IPUs. 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	NXP i.MX6 integrated RGMII
	Speed	1 10/100/1000 Mbps
RTC	RTC	Yes
WatchDog Timer		256-level timer interval, from 0 – 128 sec
I/O	PCIe	1 PCIe x 1
	SATA	1 SATAII
	USB	1 USB 2.0, 1 USB 2.0 OTG
	Audio	1 Line in, 1 Audio out
	SPDIF	1
	SDIO	1 SD card slot
	Serial Port	3 UART (3 x 4 wire w / 3.3V)
	SPI	2
	CAN	2 CAN bus 2.0B
	GPIO	10
	I <sup>2</sup> C	5
	Camera Input	1 MIPI v1.0, 4x Lane
	System Bus	Address: 26 bits, Data: 16 bits
	Touch	-
Keypad	-	
Power	Power Supply Voltage	19V DC Jack
	Power Consumption	6.25W (Max)
Environment	Operating Temperature	0 – 60 °C
	Operating Humidity	0% – 90% relative humidity, non-condensing
Mechanical	Dimensions (W x D)	305 x 244 mm (12" x 9.6")
Operating System		Linux & Android
Certifications		CE/FCC Class B

## Block Diagram



## Ordering Information

Part No.	Description
ROM-DK3420-FOA1E	ROM-3420 Evaluation Kit

## Packing List

Part Number	Description
9696M39000E	RTX 2.0 development board ROM-DB3900 1
9696M34200E	RTX 2.0 CPU module Freescale i.mx6 dual core w/1GB memory (0 - 60 °C)
96PSA-A90W19V1-1	Power Adapter 100-240V 90W 19V
9170001524	Power cord 3P UL 180cm
9696ED2000E	SPI Debug adapter board
1700022373-01	Debug port cable for debug adapter board
1700019076	USB OTG to Type A female
1700019077	USB OTG to Type A male
1700021941-01	SATA power
1700004711	SATA signal
1701100300	D-SUB 9P(M) 30cm for UART and CAN
1700022840-01	SPDIF to RCA cable for audio in and out
1700019474	A Cable D-SUB 9P for RS232/RS485
9696MEG510E	Audio daughter board
9680015491	PCIe to miniPCIe adapter card
SQF-ISDS1-4G-82C	Advantech SD 4GB MLC
96LEDK-A070VW40NB1	7" LCD AUO G070VW01 V0 w/o touch
1700021882-01	LVDS backlight cable
1700021883-01	LVDS cable
1935020402	Screw for CPU module

## Option Accessories

Part No.	Description
170203183C	Power Code 3P EU 183cm
170203180A	Power Cord 3P UK 183cm
1700008921	Power Cord 3P PSE 183cm
EWM-W142F01E	802.11 b/g/n, AR9287, 2T2R, Full size Mini PCIe
EWM-C106FT01E	Cellular, HSUPA/WCDMA/GPRS, Full Mini PCIe
1750007156-01	Cellular/GPS SMA Short JACK(9.5MM) L=100mm (3G Cable)
1750007050-01	WiFi RP-SMA short SMA Jack(9.5mm) to U.FL_100mm (WiFi Cable)
1750000318	EMI Antenna 2DBI 2.4GHz SMA (WiFi Antenna)
1750005865	Antenna L=10.9cm 500hm AN8921F-5701SM (3G Antenna)
1960065189N001	Semi-Heatsink for ROM-3420
1930004835	Screw for Heatsink