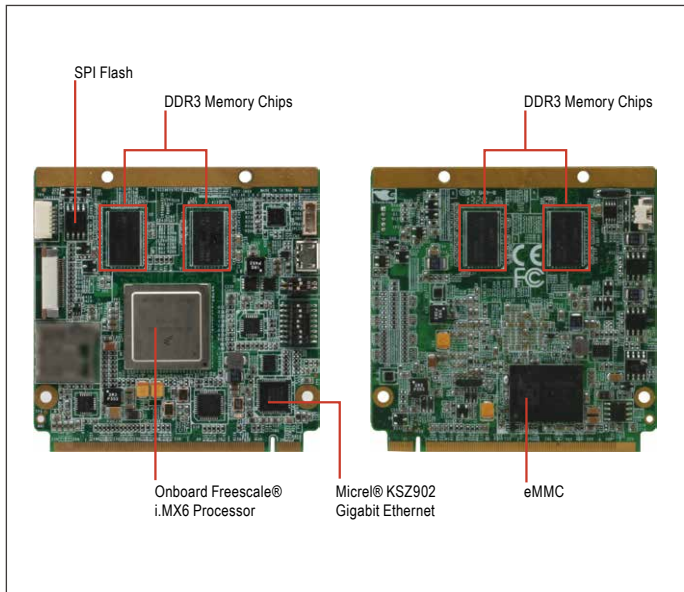


## Qseven CPU Module with Onboard Freescale® i.MX6 Dual Lite/ Quad ARM Cortex A9 Processor



## Features

- Freescale® i.MX6 Dual Lite/ Quad Processor (Commercial or Automotive Grade)
- Onboard DDR3 Memory 1 GB
- Gigabit Ethernet x 1 (KSZ9021RN)
- 18/24-bit Single Channel LVDS LCD x 2, HDMI
- I2S Audio Interface
- SATA x 1, eMMC (Optional)
- USB 2.0 x 5 (One for USB OTG), PCI-Express [x1] x 1
- Qseven Module Size, 70mm x 70mm, Qseven Rev. 2.0



## Specifications

System	
Form Factor	Qseven Rev. 2.0
CPU	Freescale® i.MX6 SoC Processor
CPU Frequency	1.0 GHz (Dual lite), 1.2 GHz(Quad)
Chipset	Freescale® i.MX6 Quad 1.0GHz Processor (Automotive) Freescale® i.MX6 Quad 1.2GHz Processor (Commercial) Freescale® i.MX6 Dual Lite 800MHz Processor (Commercial)
Memory Type	Onboard DDR3 1066MHz (Quad) Onboard DDR3 800MHz (Dual lite)
Max. Memory Capacity	Onboard DDR3 1066MHz, 1GB, up to 2GB (Quad) Onboard DDR3 800MHz, 1GB, up to 2GB (Dual lite)
BIOS	—
Wake on LAN	No
Watchdog Timer	255 level (per level 0.5 sec)
Power Requirement	+5V
Power Supply Type	AT/ ATX
Power Consumption (Typical)	Freescale iMX6 Quad 1.2GHz, DDR3 1GB, eMMC 8GB, 5.375W (w/ECB-970)
Dimension	2.75" x 2.75" (70mm x 70mm)
Operating Temperature	32 °F ~ 140 °F (0 °C ~ 60 °C) -40 °F ~ 185 °F (-40 °C ~ 80 °C) WITAS 2
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	100,000
Certification	CE/FCC
Display	
VGA/LCD Controller	Freescale® i.MX6 Quad 1.0GHz Processor (Automotive) Freescale® i.MX6 Quad 1.2GHz Processor (Commercial) Freescale® i.MX6 Dual Lite 800MHz Processor (Commercial)
Video Output	LVDS x 2 (24 bit x 1)/ LVDS x 1 (24 bit x 2), HDMI 1.4
Backlight Inverter Supply	—
I/O	
Ethernet	Micrel® KSZ9021RNI, 10/1000/1000Base-TX
Audio	I2S x 1
USB Port	USB 2.0 x 5 (Shared with USB OTG client x 1)
Serial Port	4-Wire UART x 1
Parallel Port	—
HDD Interface	SATA 3.0GB/s x 1 (Quad)
Parallel Port	—
SSD	eMMC x 1 (optional)
Expansion Slot	PCI Express [x1] x 1, CAN Bus x 1, I2C x 1, SDIO x 1
DIO	8 bit
TPM	—
Touch	—

## Packing List

- M2.5 Screws x 4
- Product CD
- AQ7-IMX6

## Optional Accessories

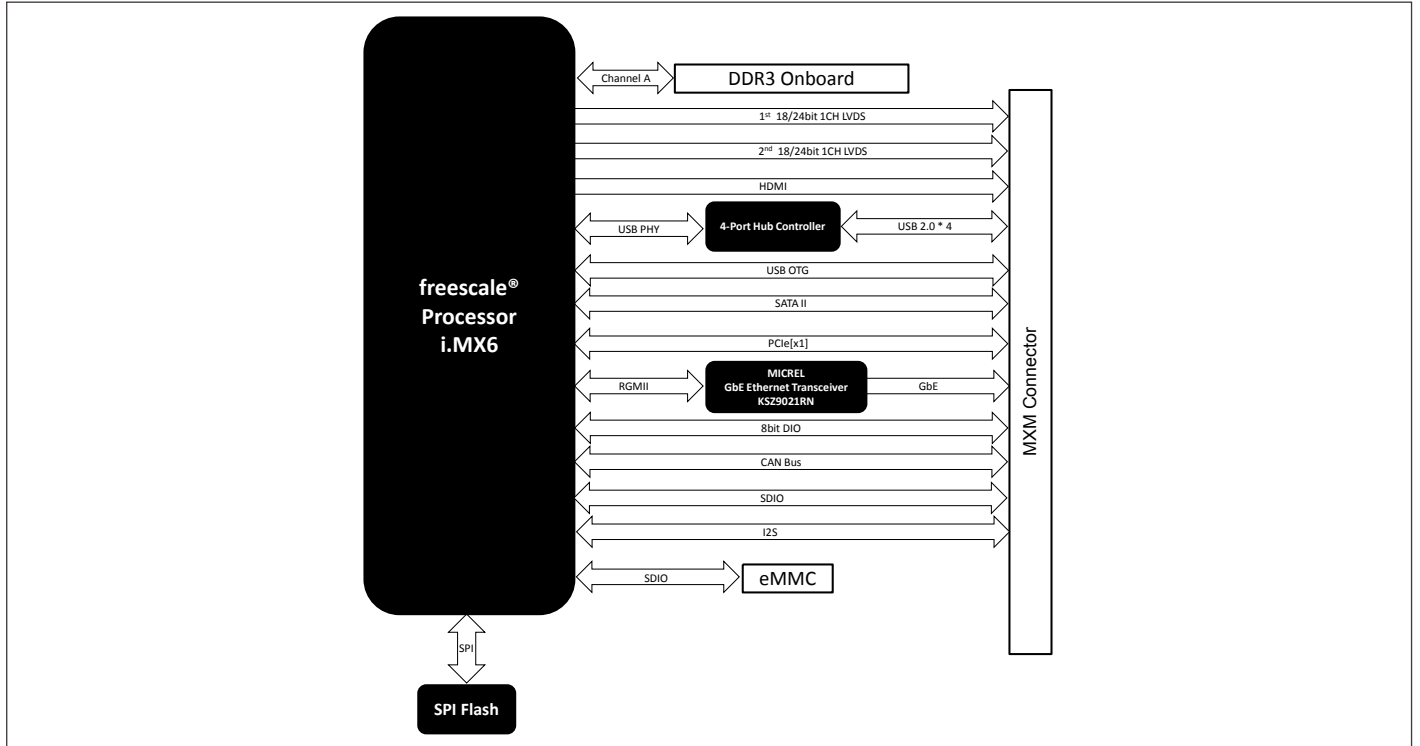
- ECB-970-A10-01  
Qseven Rev. 2.0 Carrier Board for ARM Solution
- PER-A128  
Heat Spreader, for AQ7-IMX6, Onboard CPU

## Starter Kit

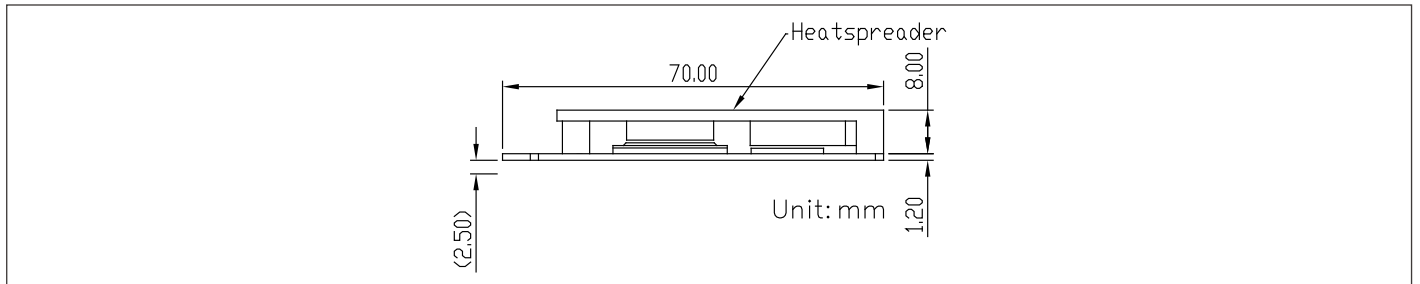
- SKC-AQ7-IMX6-A10  
Starter Kit, AQ7-IMX6-A10-01, ECB-970, 12.1" LVDS, eMMC: Android, SDx 2: Linux, Rev1.0

# AQ7-IMX6

## Block Diagram



## Dimension Unit: mm



## Ordering Information

Part Number	CPU	Memory	Fan/Fanless	Display	LVDS	Storage	LAN	USB	Expansion Slot	Power	Temp
AQ7-IMX6-A10-01	Freescale i.MX6 Quad- Automotive grade- 1.0 GHz	Onboard DDR3 1 GB	Fanless	HDMI, LVDS, eDP	18/24b, 1 CH	SATA x 1	GbE x 1	USB 2.0 x 5 (1 for USB OTG)	PCI-Express [x1] x 1	5V	0°C~60°C
AQ7-IMX6-A10-02	Freescale i.MX6 Quad- Commercial grade- 1.2 GHz	Onboard DDR3 1 GB	Fanless	HDMI, LVDS, eDP	18/24b, 1 CH	SATA x 1	GbE x 1	USB 2.0 x 5 (1 for USB OTG)	PCI-Express [x1] x 1	5V	0°C~60°C
AQ7-IMX6-A10-03	Freescale i.MX6 DualLite-Commercial grade- 1.0 GHz	Onboard DDR3 1 GB	Fanless	HDMI, LVDS, eDP	18/24b, 1 CH	SATA x 1	GbE x 1	USB 2.0 x 5 (1 for USB OTG)	PCI-Express [x1] x 1	5V	0°C~60°C
AQ7-IMX6W2-A10-0001	Freescale i.MX6 Quad-Automotive grade- 1.0 GHz	Onboard DDR3 1 GB	Fanless	HDMI, LVDS, eDP	18/24b, 1 CH	SATA x 1	GbE x 1	USB 2.0 x 5 (1 for USB OTG)	PCI Express[x1] x 1	5V	-40°C~85°C