

Product specification

Product Name: DSOM-070N

Product model: i.MX8m

Revision History

Specification		Sect.	Update Description	By
Rev	Date			
1.0	2022-03-24		New version release	Bruce

Approvals

Organization	Name	Title	Date

1. Introduction	3
1.1 Purpose& Description.....	3
1.2 Product design	3
2. Hardware specification.....	4
2.1 i.MX 8m Block Diagram	4
2.2 i.MX 8m specification	4

1. Introduction

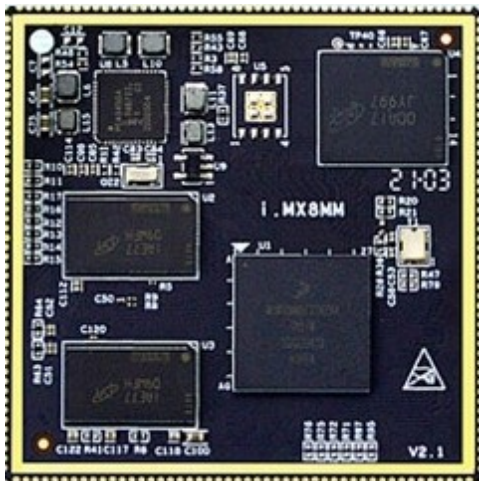
1.1 Purpose& Description

DSOM-070N is a i.MX8m core board, the i.MX8 family of applications processors based on Arm® Cortex®-A53 and Cortex-M4 cores provide advanced audio, voice and video processing for applications that scale from consumer home audio to industrial building automation and mobile computer

The board had the following features,

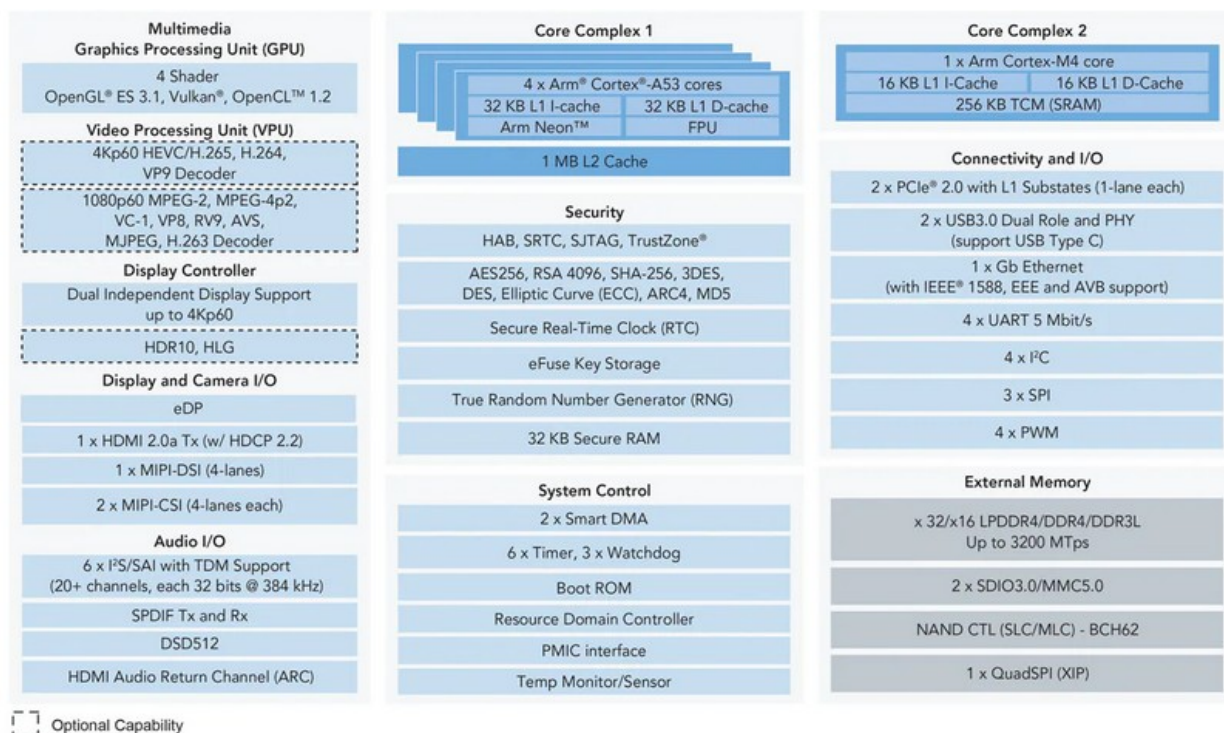
- Video quality with full 4K UltraHD resolution and HDR (HDR10 and HLG)
- Highest levels of pro audio fidelity with more than 20 audio channels each @384KHz
- DSD512 audio capability
- Optimized for fanless operation, low thermal system cost and long battery life
- Flexible memory options
- The newest high-speed interfaces for flexible connectivity

1.2 Product design



2. Hardware specification

2.1 i.MX 8m Block Diagram



2.2 i.MX 8m specification

Detailed features	
Multicore Processing	Quad Arm Cortex-A53; Cortex-M4F
GPU	OpenGL® ES 3.1, OpenGL® 3.0, Vulkan®, Open CL™ 1.2
Dual independent display interfaces	MIPI-DSI (4-lanes); HDMI 2.0a
Video Playback	4Kp60 with High Dynamic Range (h.265, VP9), 4Kp30 (h.264), 1080p60 (MPEG2, MPEG4p2, VC1, VP8, RV9, AVS/AVS+, h.263, DiVX), MJPEG - 8x8
Audio	6x I2S/SAI (20+ channels, each 32-bits @384 kHz); S/PDIF Tx/Rx; DSD512
Dual Camera Interfaces	MIPI-CSI (4-lanes each)
External Memory Interfaces	LPDDR4, DDR4, DDR3L; Quad SPI with XIP
USB	Dual USB 3.0 Type C with PHY
PCIe	Dual PCIe with L1 substates for fast wake-up from low-power mode
Ethernet	Gigabit Ethernet controller supporting AVB and EEE
Operating Systems	Linux® OS, Android™, Windows 10 IoT Core, FreeRTOS®
Temperature	Consumer (0°C to 95°C Tj); Industrial (-40°C to 105°C Tj)
Package	FCBGA, 0.65 mm pitch