

# Product specification

*Product Name: DSOM-060N*

## Revision History

Specification		Sect.	Update Description	By
Rev	Date			
1.0	2022-03-23		New version release	Bruce

## Approvals

Organization	Name	Title	Date

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## 1. Introduction

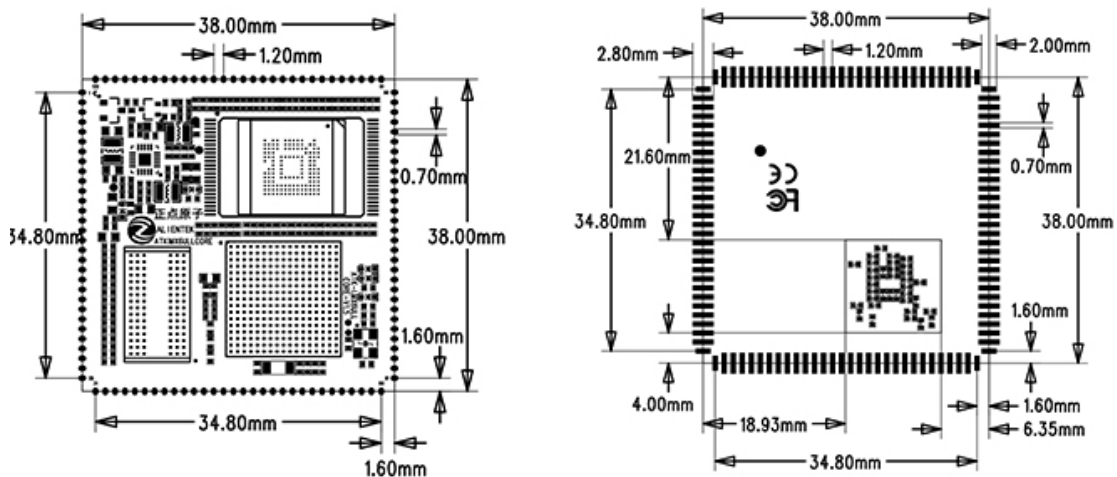
### 1.1 Purpose& Description

DSOM-060N is a i.MX6ULL core board, the i.MX6ULL is power efficient and cost-optimized applications processor family featuring an advanced implementation of a single Arm Cortex-A7 core, which operates at speeds up to 900 MHz. The i.MX 6ULL applications processor includes an integrated power management module that reduces the complexity of an external power supply and simplifies power sequencing. Each processor in this family provides various memory interfaces, including 16-bit LPDDR2, DDR3, DDR3L, raw and managed NAND flash, NOR flash, eMMC, Quad SPI and a wide range of other interfaces for connecting peripherals such as WLAN, Bluetooth®, GPS, displays and camera sensors.

### 1.2 Product design

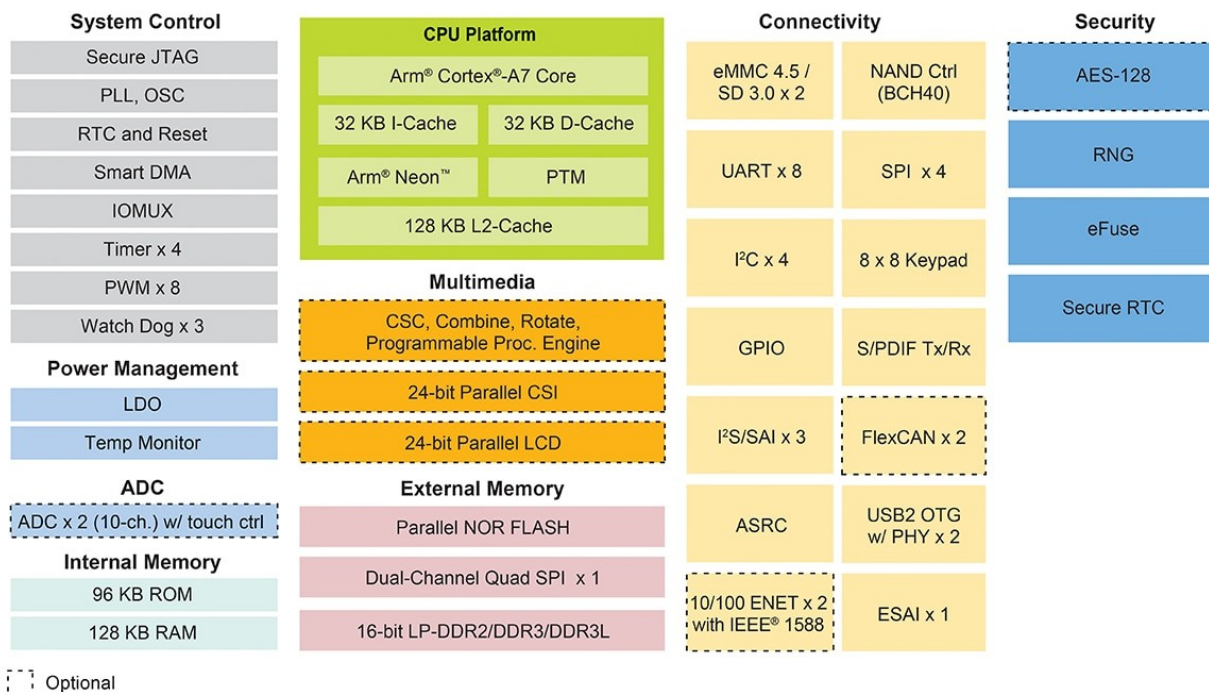


### 1.3 Mechanical parameter



## 2. Hardware specification

### 2.1 i.MX 6ULL Block Diagram



### 2.2 i.MX 6ULL specification

Detailed features	
<b>CPU Complex</b>	Cortex-A7 core up to 900 MHz, 128 KB L2 cache
<b>Display</b>	Parallel LCD Display up to WXGA (1366x768) 8/10/16/24-bit Parallel Camera Sensor Interface Electrophoretic display controller support direct-driver for E-Ink EPD panel, with up to 2048x1536 resolution at 106 Hz
<b>Memory</b>	16-bit LP-DDR2, DDR3/DDR3L 8/16-bit Parallel NOR FLASH / PSRAM Dual-channel Quad-SPI NOR FLASH 8-bit Raw NAND FLASH with 40-bit ECC
<b>Connectivity</b>	2x MMC 4.5/SD 3.0/SDIO Port 2x USB 2.0 OTG, HS/FS, Device or Host with PHY Audio Interfaces include 3x I2S/SAI, S/PDIF Tx/Rx 2x 10/100 Ethernet with IEEE 1588 2x 12-bit ADC, up to 10 input channel total, with resistive touch controller (4-wire/5-wire)
<b>Advanced Power Management</b>	Partial PMU Integration

<b>Security</b>	Security Block: TRNG, Crypto Engine (AES with DPA, TDES/SHA/RSA), Secure Boot
<b>Package</b>	14x14 289 MAPBGA 0.8mm pitch 9x9 272 MAPBGA 0.5 mm pitch

## 2.3 Board specification

Core board features	
<b>CPU</b>	i.MX6ULL@900Mhz
<b>USB</b>	2
<b>Voltage input</b>	5V
<b>Dimensions</b>	34* 38mm
<b>CAN</b>	2
<b>SD/ MMC/ SDIO</b>	2
<b>Ethernet</b>	2x 10/ 100M
<b>UART/ IrDA</b>	8
<b>EINT/ GPIO</b>	supported
<b>Video codec</b>	software codec
<b>Camera</b>	1, 8-bit (DVP) , up to 5-Megapixel
<b>PWM</b>	8
<b>RAM</b>	256MB
<b>ROM</b>	256MB
<b>Support system</b>	Common Linux distribution