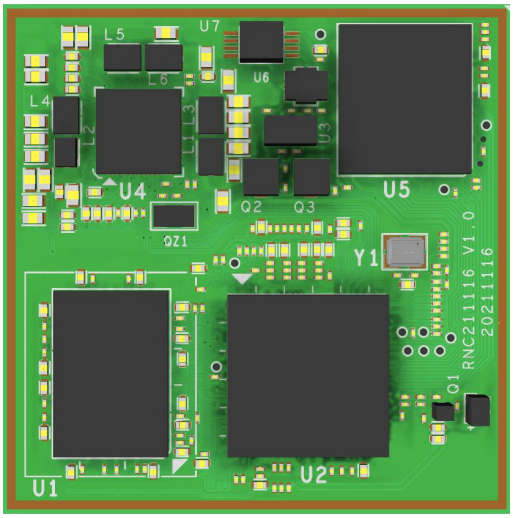
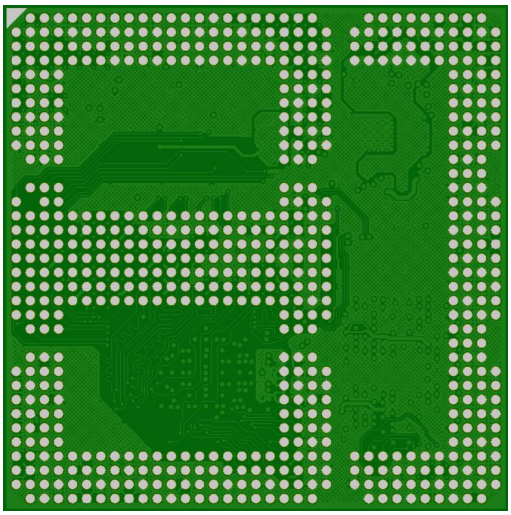
System on Module

SoM-iMX8MM-OSM





The SoM-IMX8MM-OSM core board is an embedded System on Module developed according to the latest OSM (Open Standard Modules™) standard released by SGeT (Standardization Group for Embedded Technology eV). It adopts NXP's iMX-8M-Mini processor with 2GB LPDDR4 and 8GB eMMC storage.

LGA package design, without connectors, can be directly soldered on the functional carrier board, which is more stable. The design of OSM-L is adopted, which is small in size, low in power consumption, and has rich functional interfaces for expansion. It can be configured with suitable development boards according to actual applications. It can be flexibly used in related fields such as Industrial Internet of Things and AIoT.

Multi-core Processing

4xCortex-A53 core up to 1.8GHz per core
32KB L1-I Cache/ 32 kB L1-D Cache
512 kB L2 Cache
1x Cortex-M4 core up to 400MHz
16 kB L1-I Cache/ 16 kB L2-D Cache

Scalability

Abundant application interfaces: 662 ball grid contact points, which can be expanded into a wealth of application interfaces

Balance of consumption and performance

- Support for high-performance scenarios
- Supports low power scenarios

Excellent audio and visual function

A variety of audio interfaces are available, including I2S, AC97, TDM and S/PDIF

OS Support

Yocto(Linux) （By default）
Android

Wide range of applications

- Home audio/video systems
- machine learning
- multimedia and industrial Internet of Things

LGA Package

Pre-tinned LGA package for direct PCB soldering without connector

Enterprise service

Provide comprehensive quality assurance, technical support, and mass production services

Product Specifications

CHIPSET	NXP iMX8M Mini	
MARKET AREA	Global	
Processor	OS	Yocto(Linux)/Android
	CPU	4xCortex-A53 core up to 1.8GHz per core 1x Cortex-M4 core up to 400MHz
	LPDDR4	2GB（1G-8G optional）
	EMMC FLASH	8GB eMMC5.1(8-32GB Optional)
Interfaces	Ethernet	*1 RGMII
	SDIO	*2
	USB 2.0	*2
	UART	*4 (UART4 --> Console)
	I2C	*4 （ I2C1-->PMU,I2C3-->MIPI CSI）
	SAI	*3 (SAI1 --> BOOT CFG)
	SPI	*1
	SPDIF	*1
	JTAG	*1
	GPIO	*16
	PCIe	*1
	MIPI DSI	*1
	MIPI CSI	*1 (4 lanes)
Mechanical properties		
Power		5V(PMIC:BD71847MWV)
Dimensions		45*45mm(Size-L)
Wide working range		Consumer (0° C to 70° C Tj) Industrial (-20° C to 85° C Tj)
RoHS and Reach compliant		Yes

Room 02-04, 10 / F, Block A, Building 8, Shenzhen International Innovation Valley, Dashi Road, Nanshan District, Shenzhen, Guangdong, China
www.geniatech.com E-mail:sales@geniatech.com TEL:+86-755-86028588

Geniatech