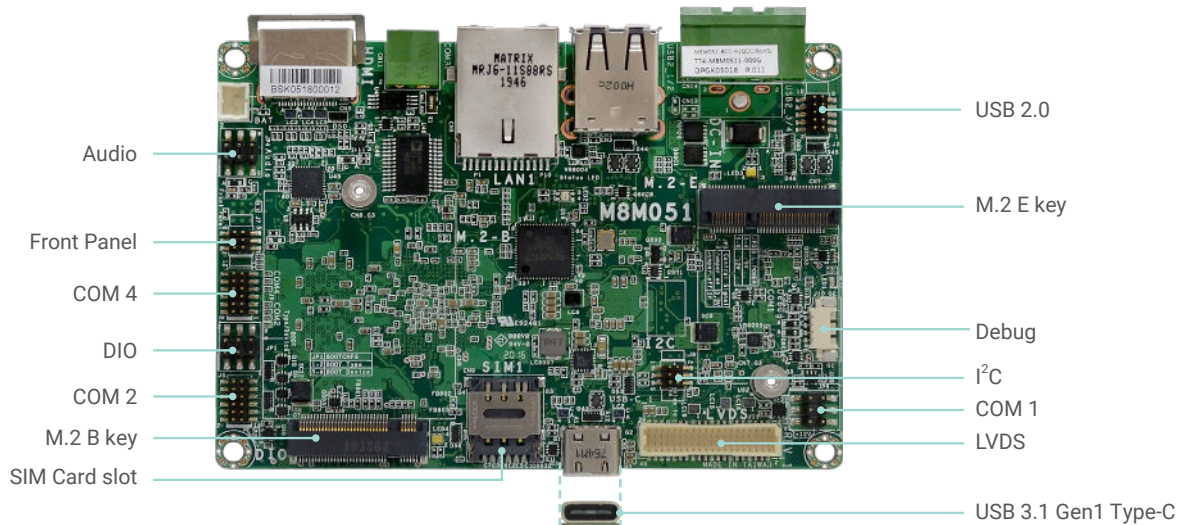


Bottom View



Top View

KEY FEATURES



LPDDR4

1 LPDDR4 3200MHz SODIMM



4K High Resolution

Supports 4K/2K resolution



Display

1 HDMI/1 LVDS



Multiple Expansion

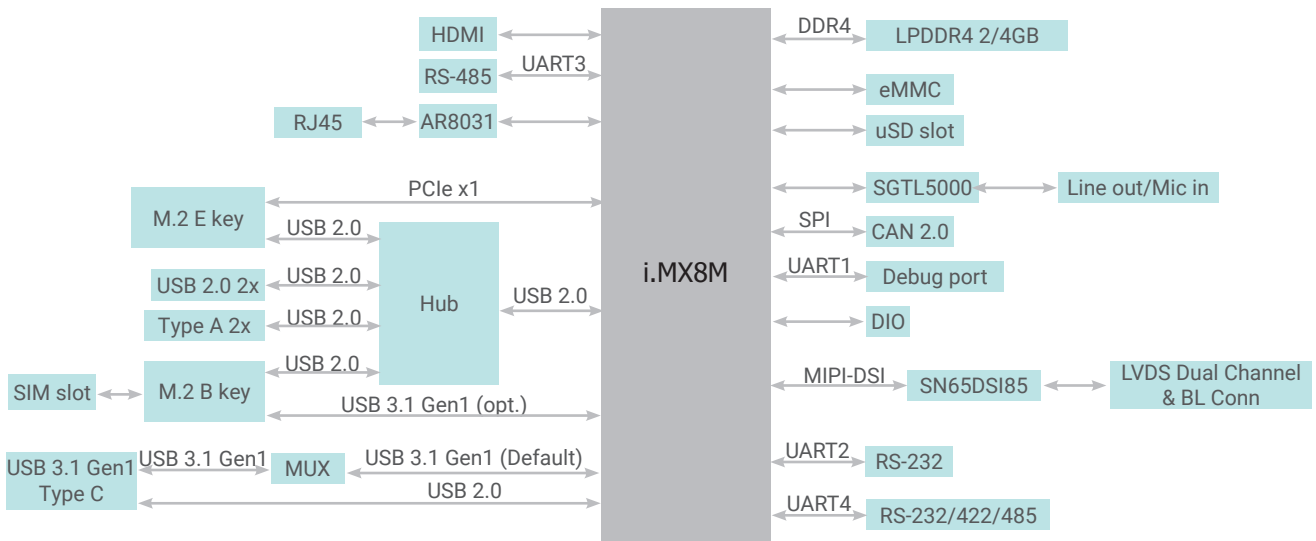
1 M.2 B Key,
1 M.2 E Key



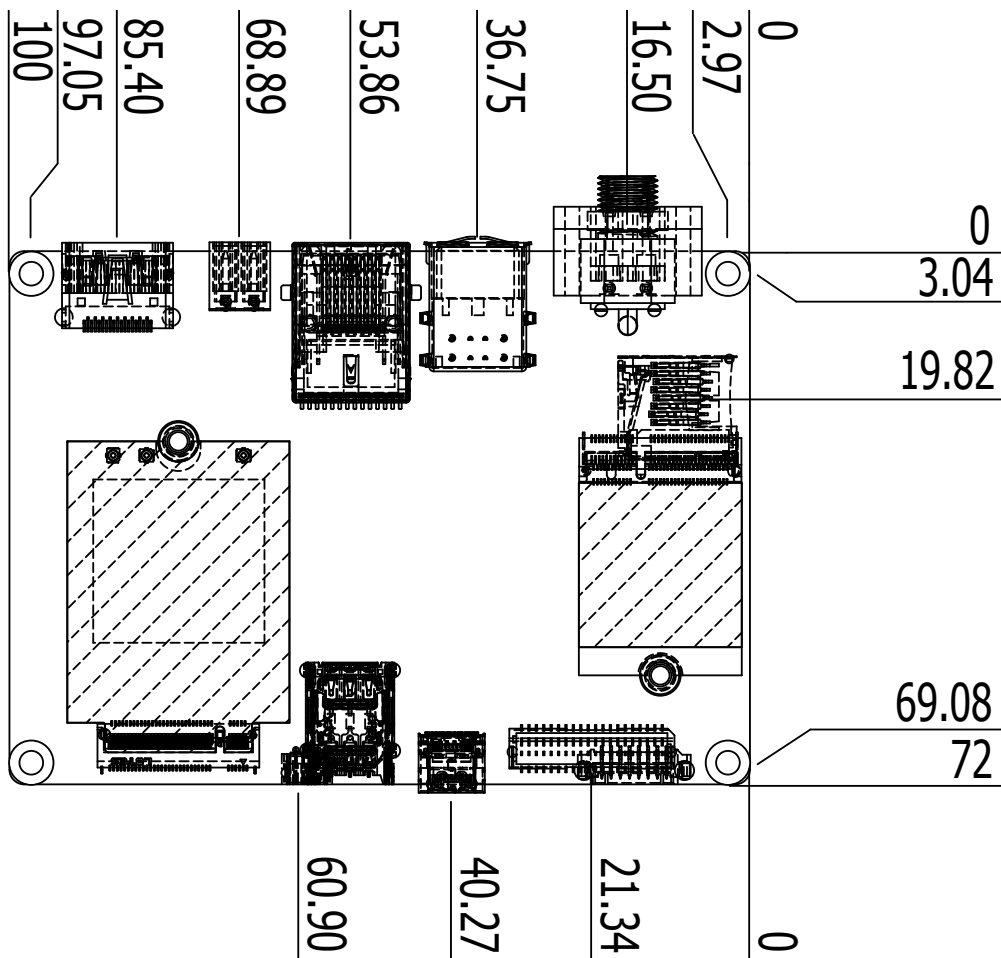
Rich I/O

1 Intel GbE, 3 COM,
1 USB 3.1 Gen1,
4 USB 2.0

BLOCK DIAGRAM



MECHANICAL DRAWING



SPECIFICATION

System	Processor	NXP i.MX 8M Quad Cortex-A53, 1.5GHz NXP i.MX 8M Dual Cortex-A53, 1.5GHz	
	Memory	2GB/4GB Memory Down Single Channel LPDDR4 up to 3200 MHz	
Graphics	Controller	GC7000 Lite	
	Feature	OpenVG 1.1, OGL ES 3.1, Vulkan, OCL 1.2 FP VPU Decode: 4Kp60 HEVC H.265, VP9, 4Kp60 H.264	
	Display	1 x HDMI 1 x LVDS	HDMI: resolution up to 4096x2160 @60Hz LVDS: resolution up to 1920x1080 @60Hz
	Single Display	HDMI or LVDS	
Expansion	Interface	1 x M.2 B key 3042/2242 (default: USB 2.0, opt.: USB 3.1 Gen1*) *USB 3.1 Gen1 channel is mutually exclusive with that of Rear I/O USB 3.1 Gen1 Type C. Nano SIM slot support (available upon request) 1 x M.2 E key 2230 (PCIe x1/USB 2.0)	
Audio	Audio Codec	SGTL5000	
Ethernet	Controller	1 x ATHEROS AR8031 Ethernet (10/100/1000Mbps)	
Rear I/O	Ethernet	1 x GbE (RJ-45)	
	Serial	1 x RS485	
	USB	1 x USB 3.1 Gen1 Type C (USB 3.1 Gen1/USB 2.0) 2 x USB 2.0	
	Display	1 x HDMI	
Internal I/O	Serial	1 x RS232 1 x RS-232/422/485 (2 x 6 pin header, 1.27mm pitch)	
	USB	2 x USB 2.0 (1.27mm pitch)	
	Display	1 x LVDS LCD Panel Connector 1 x Backlight Power	
	Audio	1 x Audio (Line-out/Mic-in, 2.00mm pitch)	
	eMMC	Support eMMC 5.1 16GB on board (default) Support up to 64GB (opt.)	
	SD	1 x Micro SD Slot	
	DIO	1 x 8-bit DIO (2 x 6 header, 1.27mm pitch)	
	I ² C	1 x I ² C (1.27mm pitch)	
	CANBus	1 x CANBus 2.0	
Watchdog Timer	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
Power	Type	Single 12V +/-10% DC	
	Connector	2-poles Terminal Block (default) DC Jack (available upon request)	
	Consumption	TBD	
	RTC Battery	CR2032 Coin Cell	
OS Support	OS Support	Yocto 2.5 on eMMC (default) Android 9.0	
Environment	Temperature	Operating: -5 to 65°C; -30 to 80 °C Storage: -40 to 85°C	
	Humidity	Operating: 5 to 90% RH Storage: 5 to 90% RH	
	MTBF	TBD	
Mechanism	Dimensions	2.5" SBC Form Factor 100mm (53.94 ^{mm}) x 72mm (2.83 ^{mm})	
	Height	PCB: 1.6mm Top Side: 15mm Bottom Side: 4mm	
	Certifications	CE, FCC, RoHS	

ORDERING INFORMATION

Model Name	P/N	Processor	Memory	eMMC	GbE	RS-485	RS-232	RS-232/ 422/485	USB 2.0	Power	Thermal	Temp.
M8M051-BCC-41QDC	770-M8M0511-000G	Quad core	4 GB	16 GB	1	1	1	1	4	12V DC 2-pole thermal block	Fanless	-5 to 65°C
M8M051-BCC-21DLC	770-M8M0511-100G	Dual core	2 GB	16 GB	1	1	1	1	4	12V DC Jack	Fanless	-5 to 65°C