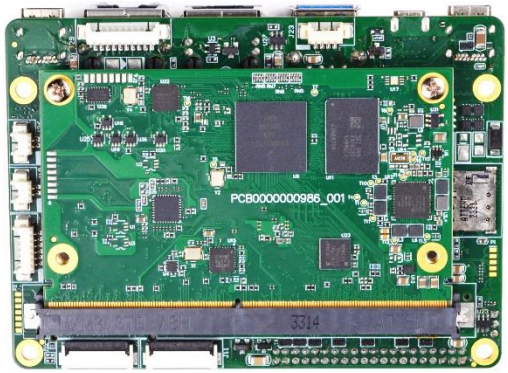
P05D00107-01

NXP i.MX8M Mini

Front View



Features

- Compacted design for space-constrained environments
- NXP i.MX8M Mini processor for embedded computing
- Energy-efficient with low power consumption
- High reliability for industrial automation and IoT

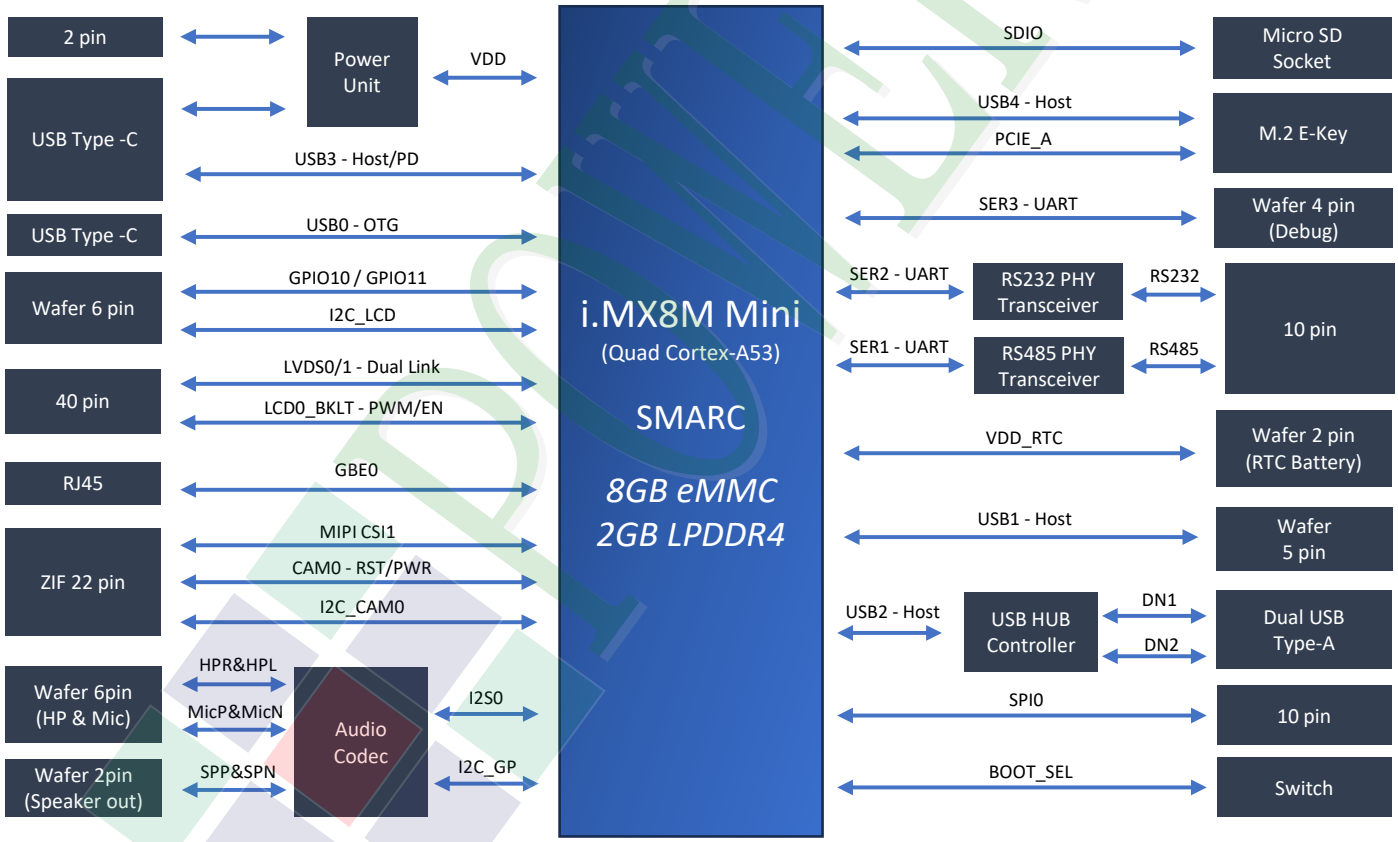
Specifications

Hardware		
CPU	i.MX8M Mini	Quad-Core ARM Cortex-A53
Memory	Onboard RAM	2GB LPDDR4 SDRAM
	Storage (Default boot device)	8GB eMMC flash (Option: 32/64GB)
I/O	Display	1 × LVDS (dual channel)
	Camera	1 × MIPI CSI (4-lane)
	USB	1 × USB 2.0 Host (Type-C) 3 × USB 2.0 Host (2 × type-A [J13], 1 × wafer connector [J14]) 1 × USB 2.0 OTG (Type-C)
	Ethernet	10/100/1000 Mbps
	Audio	1 × Headphone output 1 × Microphone input 1 × Speaker output
	Serial Port	3 × UART (1 × debug console, 1 × RS232, 1 × RS485)
I/O	I^2C	1 × I^2C
	I^2S	1 × I^2S
	PWM	2 × PWM
Expansion	M.2 Key E	1 × USB 2.0, 1 × PCIe 2.0 x1
	SD Socket	1 × microSD card socket
Power	Input Voltage	9 ~ 24V DC

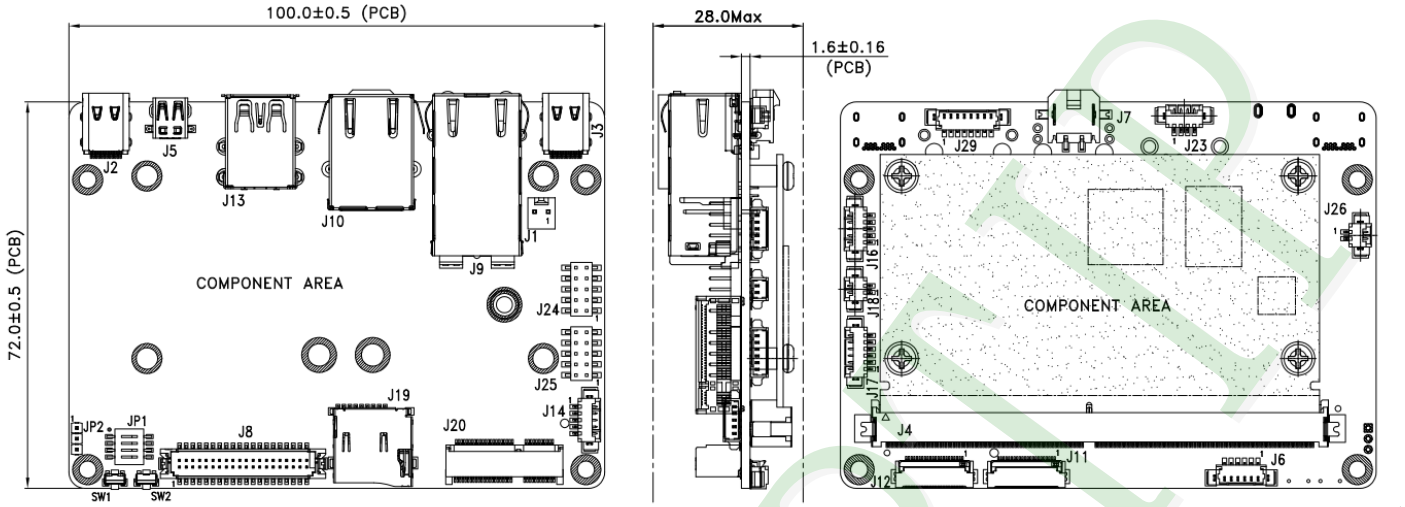
Hardware		
Environment	Operating Temp.	0 ~ 70 °C
	Storage Temp.	-30 ~ 85 °C
Mechanical	Form Factor	SMARC v2.2 Module + Pico Carrier Board
	SMARC Module	82 × 50 mm
	Pico Carrier Board	100 × 72 mm

Software		
OS	Default	Yocto 4.X
	Optional	Android

Block Diagram



Dimensions


100.0±0.5 (PCB)
72.0±0.5 (PCB)
COMPONENT AREA
J2
J5
J13
J10
J9
J3
J1
J24
J25
J14
J19
J20
J8
JP2
JP1
SW1
SW2
28.0Max
1.6±0.16
(PCB)
J7
J29
J23
J26
J16
J18
J17
COMPONENT AREA
J4
J11
J6
J12