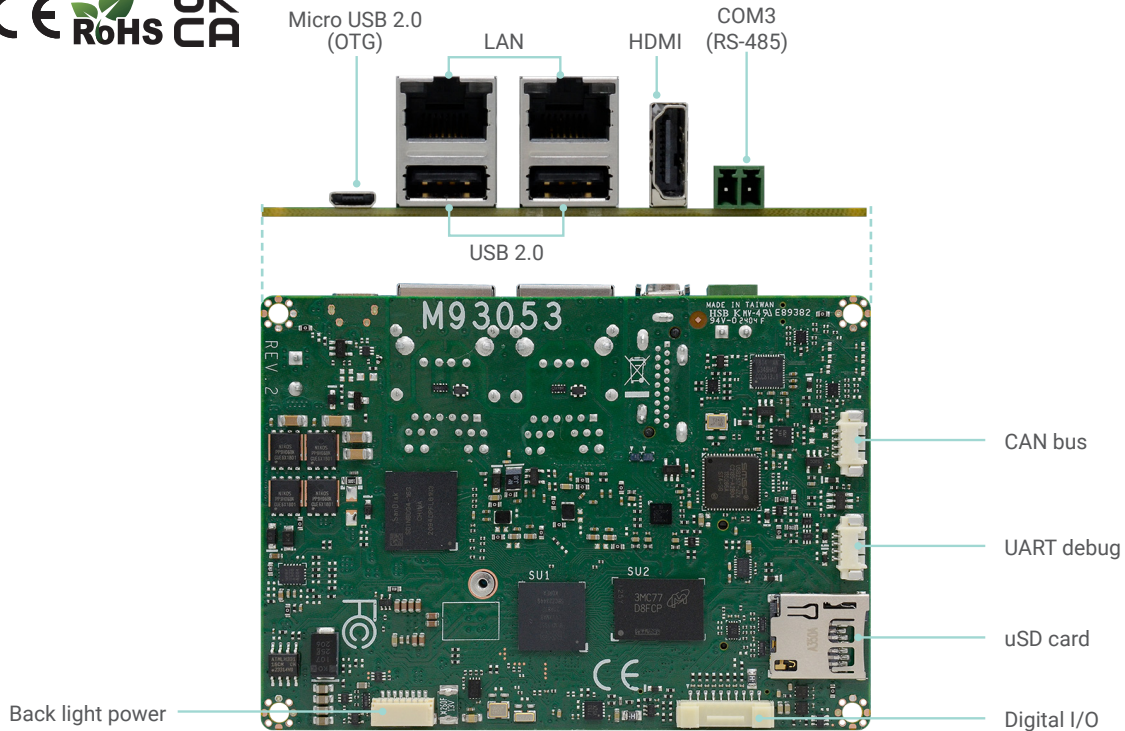


M93053

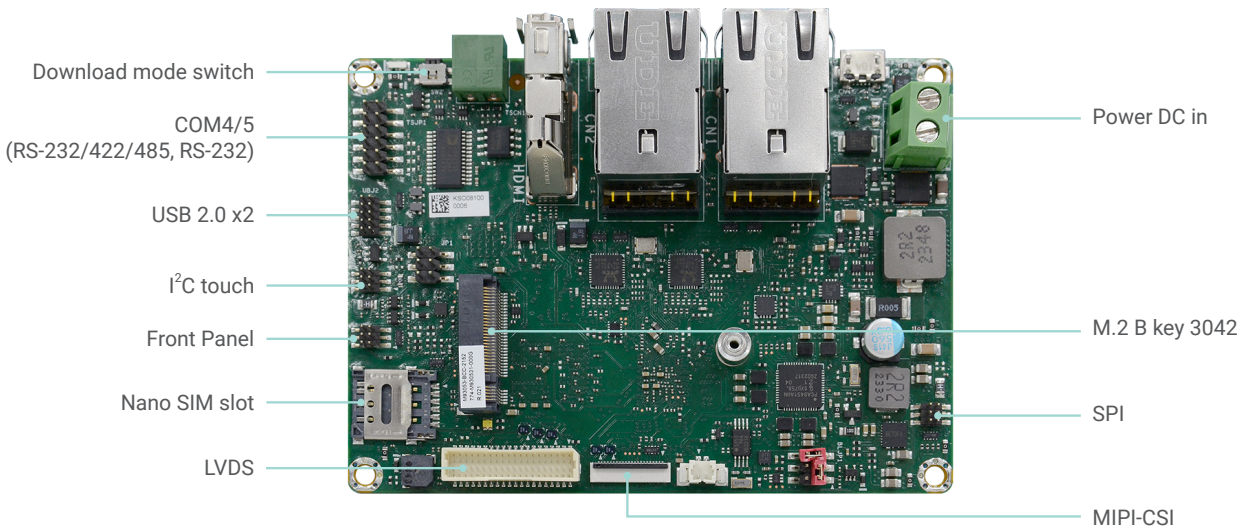
ARM



NXP i.MX93 series
2.5" SBC

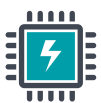


Bottom View



Top View

KEY FEATURES



NXP i.MX93 platform

Target on entry level application



Wide Voltage

Support 9~36VDC



2 GbE LAN

For automation application



CAN bus

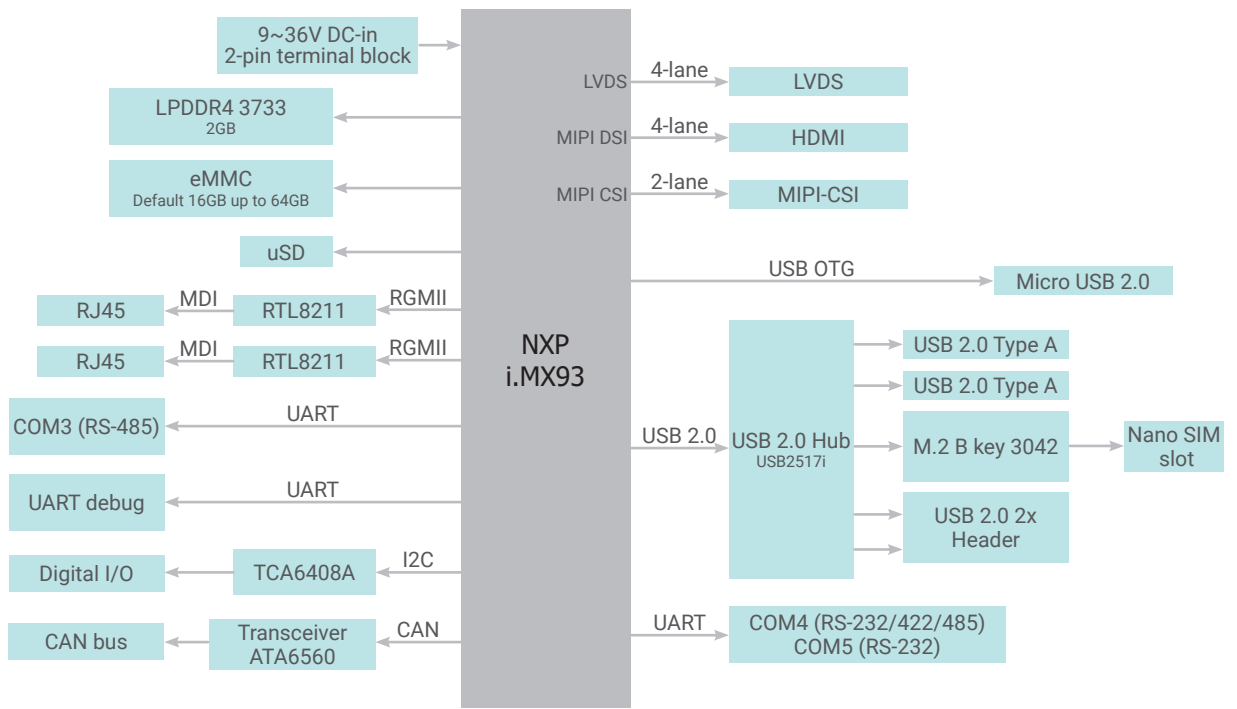
For automation equipments integration



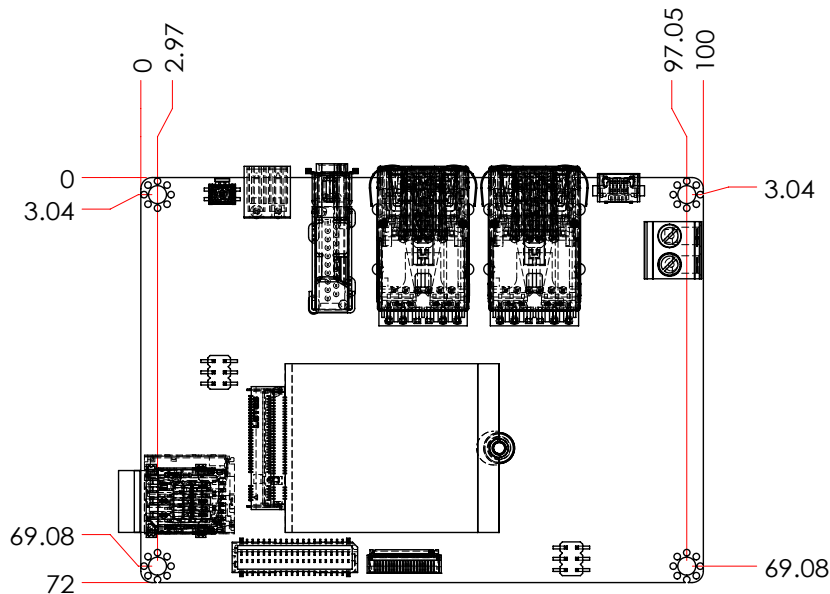
M.2 Expansions

1 M.2 B key 3042

BLOCK DIAGRAM



MECHANICAL DRAWING



SPECIFICATION

SYSTEM	Processor	i.MX 93 applications processor MIMX9352CVVXMAB, Dual core, 1.7GHz, NPU, -40°C~105°C	
	Memory	2GB LPDDR4 Memory Down	
GRAPHICS	Controller	2D Graphics: PXP Engine	
	Feature	Blending/Composition, Resize, Color Space Conversion	
	Display	1 x HDMI 1.4	HDMI: resolution up to 1920x1080 @60Hz
		1 x LVDS	LVDS: resolution up to 1366x768 @60Hz
Single Display	LVDS or HDMI		
STORAGE	eMMC	1 x eMMC 5.1 with default 16GB (up to 64GB)	
EXPANSION	Interface	1 x M.2 B key 3042 (USB 2.0) 1 x Nano SIM slot	
ETHERNET	Phy	RTL8211	
REAR I/O	Ethernet	2 x GbE (RJ-45)	
	Serial	1 x RS485 (2-wire)	
	USB	2 x USB 2.0	
		1 x Micro USB 2.0 (OTG)	
	Display	1 x HDMI	
	Download Mode Switch	1 x Download mode switch	
INTERNAL I/O	Serial	1 x RS232, 1x RS232/422/485 on 2x6 header	
	USB	2 x USB 2.0	
	Display	1 x LVDS LCD Panel connector (Default: 12V/Opt.: 5V)	
		1 x LCD Backlight Power (Default: 5V/Opt.: 3.3V)	
	SD	1 x uSD card	
	DIO	1 x 8-bit DIO	
	I ² C	1 x I ² C / Touch	
	CANBus	1 x CAN bus 2.0b	
	Camera	1 x MIPI-CSI for 2-lanes camera, reference to RPI-CAM-MIPI Camera adapter (AR0144 Sensor)	
Others	1 x SPI, 1 x Front Panel, 1 x UART debug		
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
POWER	Type	Wide Range 9~36VDC	
	Connector	2-pole terminal block	
	Consumption	TBC	
	RTC Battery	CR2032 Coin Cell	
OS SUPPORT	Linux	Linux Yocto 4.2 (Kernel 6.1.36)	
ENVIRONMENT	Temperature	Operating: -5°C ~ 65°C (-30°C ~ 80°C, TBC)	Storage: -40°C ~ 85°C
	Humidity	Operating: 5% ~ 90% RH	Storage: 5% ~ 90% RH
	MTBF	MIMX9352CVVXMAB, Dual core: 778,719 hrs @ 25°C; 497,925 hrs @ 45°C ; 331,500 hrs @ 60°C; 247,941 hrs @ 70°C Calculation model: Telcordia Issue 4 Environment: GB, GC – Ground Benign, Controlled	
MECHANISM	Dimensions	2.5" SBC Form Factor	100mm (3.94") x 72mm (2.83")
	Height	PCB: 1.6mm	
		Top Side: TBC Bottom Side: TBC	
STANDARDS AND CERTIFICATIONS	Certifications	CE, FCC, RoHS, UKCA	

ORDERING INFORMATION

Model Name	P/N	Processor	Memory	eMMC	GbE	RS-485	RS-232	RS-232/422/485	USB 2.0	Power	Thermal	Temp.
M93053-BCC-2152	770-M930531-000G	Dual core	2 GB	16 GB	2	1	1	1	5	9~36VDC	Fanless	-5°C ~ 65°C
M93053-ETC-2152	770-M930531-100G	Dual core	2 GB	16 GB	2	1	1	1	5	9~36VDC	Fanless	-30°C~80°C

PACKING LIST

1 M93053 board	
1 Terminal block for RS485 (COM3)	342-361021-000G
1 Heat spreader (Height: 11mm)	A71-808354-000G

OPTIONAL ITEMS

2 pole terminal to DC jack cable	A81-004013-000G
Power adapter (60W, 12V, DC Jack)	671-106012-000G
USB 2.0 cable (Length: 200mm)	A81-001084-016G
COM port cable (Length: 250mm, COM4/5 port)	A81-015088-016G
Debug console with cable (Length: 500mm)	770-IMX8M1-000G
Heat sink (Height: 17.7mm)	A71-008358-000G