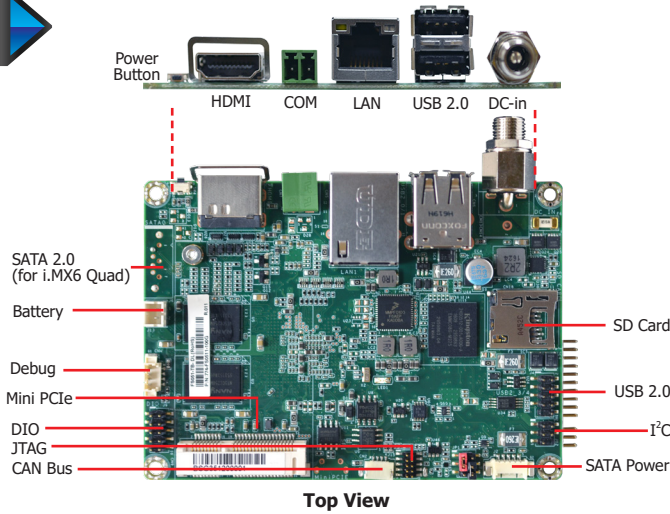
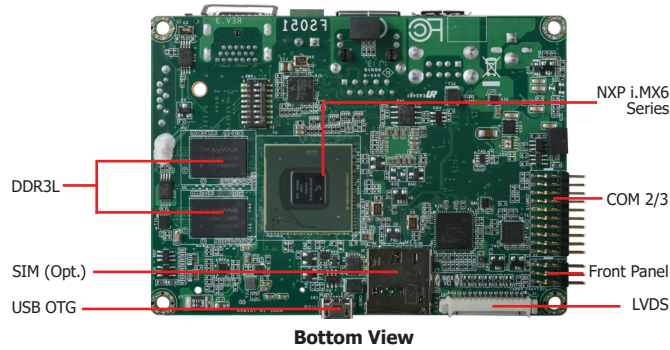


FS051

ARM



Top View



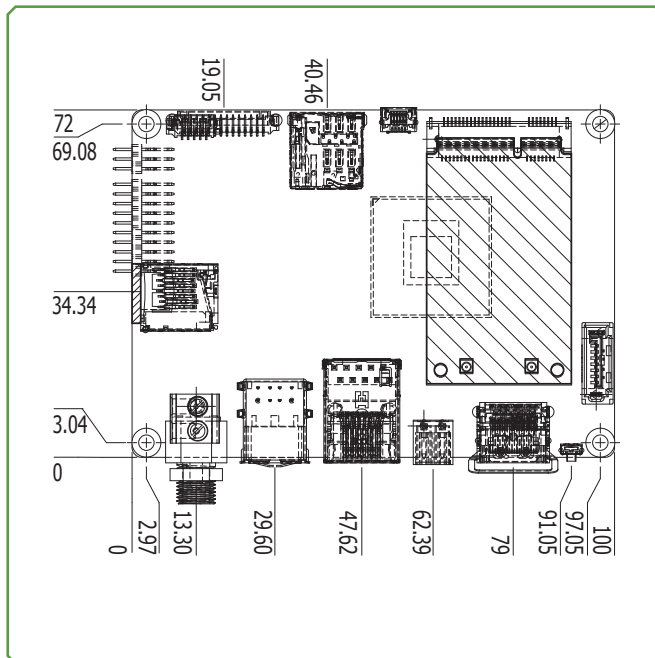
Bottom View

Features

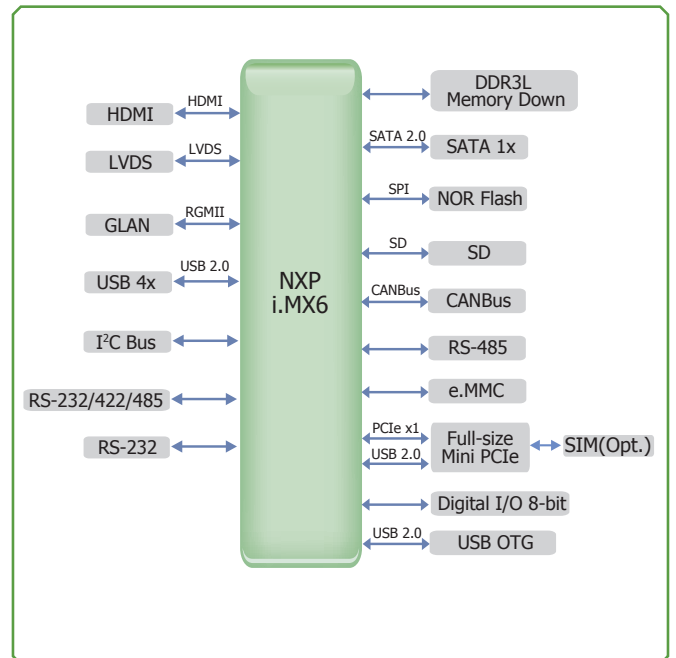
- NXP Cortex-A9 i.MX6 DualLite 1.0 GHz
- NXP Cortex-A9 i.MX6 Quad, 1.0 GHz
- DDR3L SDRAM memory down , up to 4GB.
- Dual independent displays: HDMI + LVDS
- Expansion: 1 Mini PCIe, 1 SD, 1 SIM (Optional)
- Rich I/O: 1 GbE, 3 COM, 5 USB 2.0, 1 CANBus



Mechanical Drawing



Block Diagram



Specifications

SYSTEM	Processor	NXP i.MX6 Cortex-A9 Dual Lite, 1.0 GHz NXP i.MX6 Cortex-A9 Quad, 1.0 GHz		
	Memory	1GB/2GB SDRAM Memory Down (default), 4GB (available upon request) Single Channel DDR3L 1600MHz/1866MHz		
	Flash	4MB NOR Flash		
GRAPHICS	Display	1 x HDMI 1 x LVDS	HDMI: resolution up to 1920x1080 @ 60Hz LVDS: single channel, resolution up to 1366x768 @ 60Hz	
	Single/Dual Displays	Yocto: HDMI or LVDS (Default) Android: HDMI + LVDS (available upon request)		
EXPANSION	Interface	1 x Full-size Mini PCIe (PCIe/USB) 1 x SIM (Option)		
ETHERNET	Controller	1 x Atheros AR8033 Ethernet (10/100/1000Mbps)		
REAR I/O	Ethernet	1 x GbE (RJ-45)		
	Serial	1 x RS-485 (2-wire)		
	USB	2 x USB 2.0 1 x USB 2.0 OTG Port		
	Display	1 x HDMI		
	Power	1 x Power Button		
INTERNAL I/O	Serial	1 x RS-232 (4-wire) 1 x RS-232/422/485 (8-wire)		
	USB	2 x USB 2.0		
	Display	1 x LVDS LCD Panel Connector		
	SATA	1 x SATA 2.0 (up to 3Gb/s) (Quad processor only)		
	DIO	1 x 8-bit DIO		
	eMMC	Supports 8GB, 16GB and 32GB eMMC onboard		
	SD	1 x Micro SD Slot		
	CANBus	1 x CANBus		
	WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
	POWER	Type	Single 5V +/-5% DC	
Connector		DualLite: DC jack Quad: Terminal block (2 poles)		
Consumption		Typical: i.MX6:5V @ 0.460A (2.30Watt) Max.: i.MX6:5V @ 0.963A (4.82Watt)		
OS SUPPORT		Yocto (1.8, Default Preloaded on eMMC) Android (5.1.1)		
ENVIRONMENT	Temperature	Operating: 0 to 60°C / -20 to 70°C	Storage: -40 to 85°C	
	Humidity	Operating: 5 to 95% RH	Storage: 5 to 95% RH	
	MTBF	491,355 hrs @ 25°C; 342,435 hrs @ 45°C ; 235,039 hrs @ 60°C		
MECHANICAL	Dimensions	2.5" Pico-ITX Form Factor	100mm (3.94") x 72mm (2.83")	
	Height	PCB: 1.6mm	Top Side: 16.15mm, 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.
FS051-BB-18DL	770-FS0512-300G	i.MX6 DualLite 1.0GHz	1GB DDR3	8GB	1	1	1	1	5	5V DC in DC jack	Fanless	0~60°C
FS051-BB-28QD	770-FS0512-200G	i.MX6 Quad 1.0GHz	2GB DDR3	8GB	1	1	1	1	5	5V DC in Terminal block	Fanless	0~60°C
FS051-EB-18DL	770-FS0512-100G	i.MX6 DualLite 1.0GHz	1GB DDR3	8GB	1	1	1	1	5	5V DC in DC jack	Fanless	-20 to 70°C
FS051-EB-28QD	770-FS0512-000G	i.MX6 Quad 1.0GHz	2GB DDR3	8GB	1	1	1	1	5	5V DC in Terminal block	Fanless	-20 to 70°C

Packing List

• 1 FS051 board	
• 1 1 terminal block for RS485	342-361021-000
• 1 Heat spreader (Height: 11mm)	A71-808303-000G

Note: Please choose "FS051 product page > Download button" to download the Driver.

Optional Items

• COM port cable (Length: 300mm, 2 x COM ports)	A81-015020-001G
• USB 2.0 port cable (Length: 200mm, 2x USB ports)	A81-001032-016G
• Power cable for SATA and LCD backlight (Length: 155mm)	A81-020016-018G
• Heat sink (Height: 16.8mm)	A71-008105-000G
• Power adapter (30W, 5V)	671-103002-000G