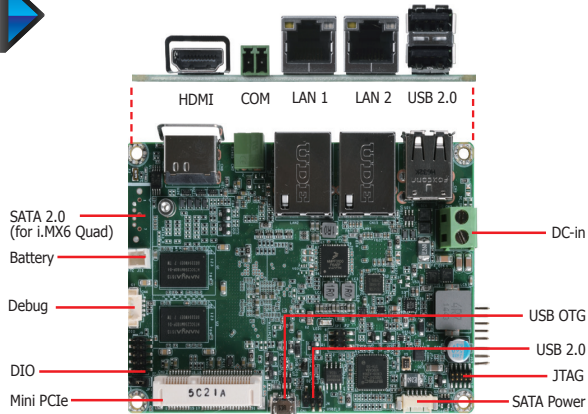




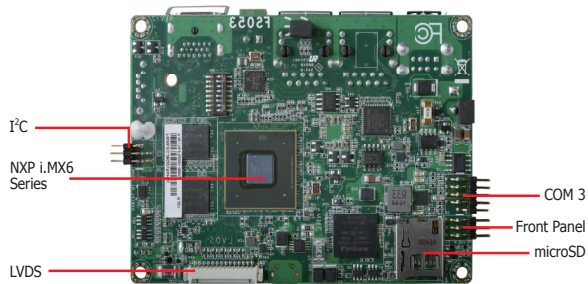
**NXP i.MX6 Series
2.5" Pico-ITX**

FS053

ARM



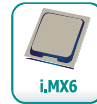
Top View



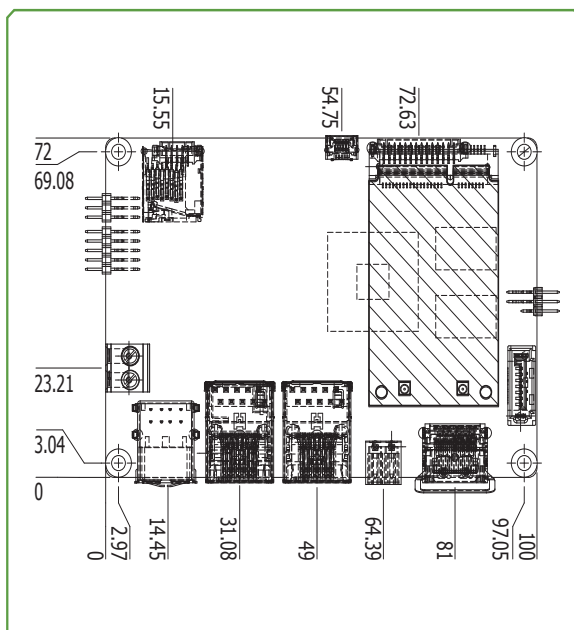
Bottom View

Features

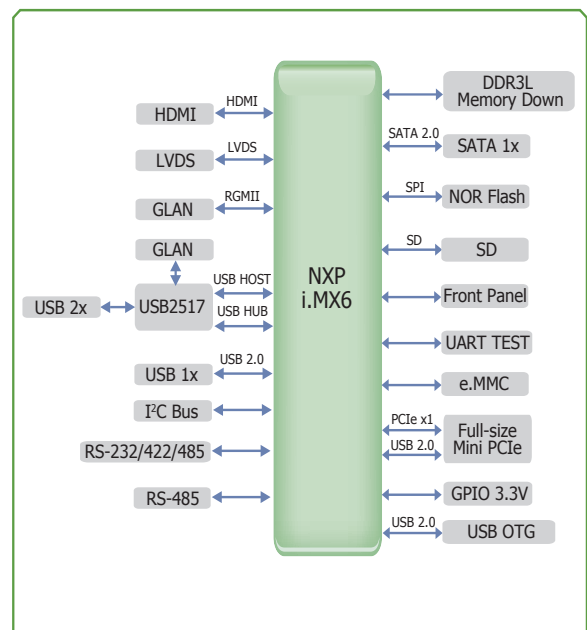
- NXP Cortex-A9 i.MX6 DualLite 1.0 GHz/Quad 1.0 GHz
- 9~36VDC wide voltage
- DDR3L SDRAM memory down , up to 4GB.
- Dual independent displays: HDMI + LVDS
- Expansion: 1 Mini PCIe, 1 SD
- Rich I/O: 2 GbE, 2 COM, 4 USB 2.0



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 1600/1866MHz	
	Flash	4MB NOR Flash	
GRAPHICS	Display	1 x HDMI 1 x LVDS	HDMI: resolution up to 1920x1080 @ 60 Hz 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)	
ETHERNET	Controller	1 x ATHEROS AR8033 Ethernet (10/100/1000Mbps) 1 x LAN7500 Ethernet (10/100/1000Mbps)	
REAR I/O	Ethernet	2 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	
INTERNAL I/O	Serial	1 x RS-232/422/485 (8-wire)	
	USB	1 x USB 2.0	
	Display	1 x LVDS LCD Panel Connector	
	SATA	1 x SATA 2.0 (up to 3Gb/s) (Quad processor only)	
	eMMC	Supports 8GB, 16GB and 32GB eMMC onboard	
	SD	1 x Micro SD Slot	
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
POWER	Type	9~36V DC	
	Connector	Terminal block (2-pin)	
	Consumption	Typical: 12V @ 0.355A (4.26Watt) Max.: 12V @ 0.631A (7.58Watt)	
OS SUPPORT		Yocto (1.8, Default Preloaded on eMMC) Android (5.1.1)	
ENVIRONMENT	Temperature	Operating: -20 to 70°C/0 to 60°C	Storage: -40 to 85°C
	Humidity	Operating: 5 to 95% RH	Storage: 5 to 95% RH
	MTBF	486,335 hrs @ 25°C; 342,613 hrs @ 45°C ; 237,430 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-232/422/485	USB 2.0	Power	Thermal	Temp.
FS053-BC-18DL	770-FS0532-300G	i.MX6 DualLite 1.0GHz	1GB DDR3	8GB	2	1	1	4	9~36V DC in terminal block	Fanless	0~60°C
FS053-BC-28QD	770-FS0532-200G	i.MX6 Quad 1.0GHz	2GB DDR3	8GB	2	1	1	4	9~36V DC in terminal block	Fanless	0~60°C
FS053-EC-18DL	770-FS0532-100G	i.MX6 DualLite 1.0GHz	1GB DDR3	8GB	2	1	1	4	9~36V DC in terminal block	Fanless	-20 to 70°C
FS053-EC-28QD	770-FS0532-000G	i.MX6 Quad 1.0GHz	2GB DDR3	8GB	2	1	1	4	9~36V DC in terminal block	Fanless	-20 to 70°C

Packing List

• 1 FS053 board	
• 1 terminal block for RS485	342-361021-000
• 1 Heat spreader (Height: 11mm)	A71-808303-000G

Note: Please choose "FS053 product page > Download button" to download the Driver.

Optional Items

• USB 2.0 port cable (Length: 200mm, 1x USB ports)	A81-001058-016G
• COM cable (Length: 250mm, 1x COM ports)	A81-015044-001G
• Power cable for SATA and LCD backlight (Length: 155mm)	A81-020016-018G
• Heat sink (Height: 16.8mm)	A71-008105-000G

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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