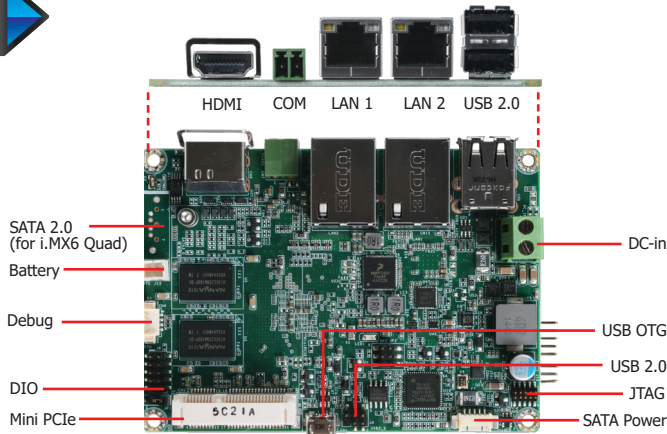
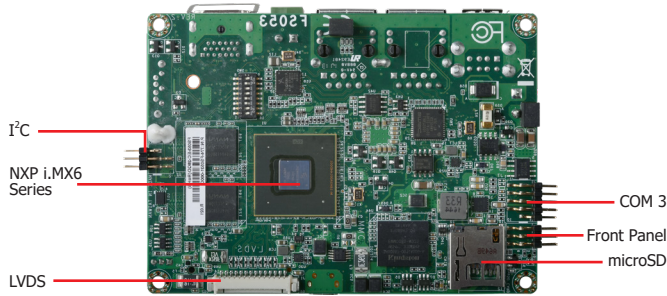


FS053

ARM



Top View



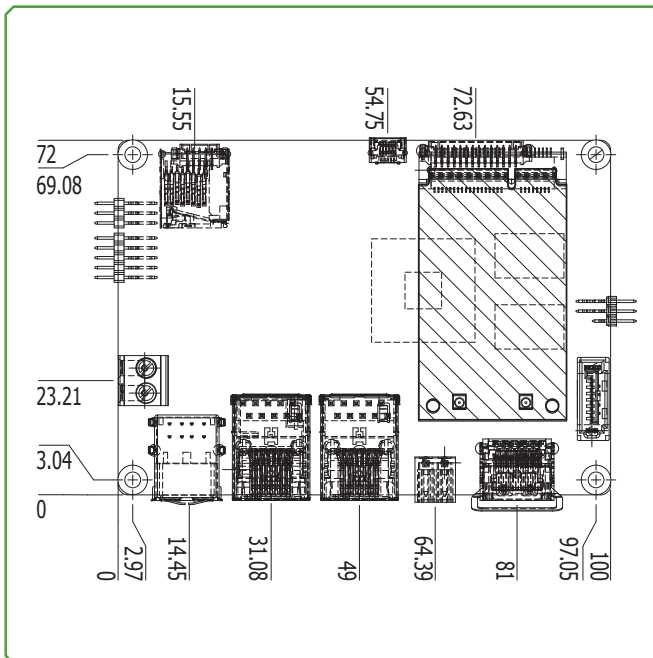
Bottom View

Features

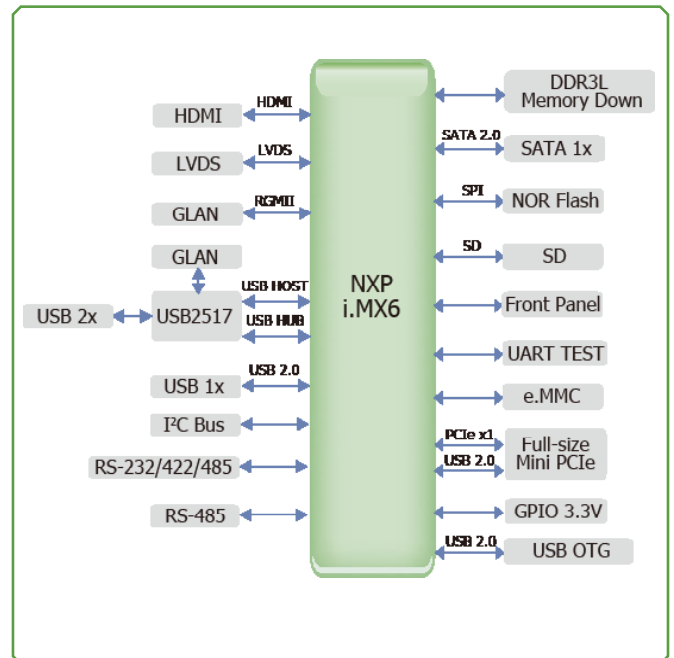
- NXP Cortex-A9 i.MX6 DualLite 1.0 GHz/Quad 1.0 GHz
- 9~36VDC wide voltage
- DDR3L SDRAM memory down , up to 4GB.
- Dual independent displays: HDMI + LVDS
- Expansion: 1 Mini PCIe, 1 SD
- Rich I/O: 2 GbE, 2 COM, 4 USB 2.0



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 | |
| | DIO | 1 x 8-bit DIO | |
| 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 |
| • Power adapter (60W, 12V, DC Jack) | 671-106012-000G |