Linux-ready Cortex-A7 Industrial IoT Gateway
Matrix-750

Features

- NXP i.MX6ULL Cortex-A7 CPU, Up to 800MHz
- Linux kernel 4.19.x with boot loader & file system
- Toolchain: gcc 8.2.0 + glibc 2.28
- 512MB LvDDR3 SDRAM
- 2 x 10/100Mbps Ethernet interface
- 1 x USB OTG port
- 1 x RS-485 / RS232 serial port
- 2 x Digital Input, 2 x Digital out
- 1 x full size miniPCIe socket inside
- 1 x Micro-SIM slot reserved, Two Antenna holes reserved
- 1 x Micro-SD slot reserved
- Ultra-low power consumption

■ H/W Specifications

CPU / Memory
- CPU: NXP i.MX6ULL Cortex-A7 MPCore, Up to 800MHz
- SDRAM: 512MB, LvDDR3

Network Interface
- Type: 2 x 10/100Mbps Ethernet
- Connector Type: RJ45 (with LED indicator)

TTY (Serial) Ports
- 1 x RS-485 or RS-232
- Direction Control (RS-485): Auto, by software
- Connector: Terminal block
- RS-485 Signal: Data+, Data-
- RS-232 Signal: TX, RX

USB Interface
- 1 x USB OTG Port
- microUSB connector

Console / Debug Ports
- Serial console port (inside the box)

Digital Input
- 2 x Digital Input channels
- Isolation Protection: 2500Vrms (Photo-Coupler)
- Logical High: 5~24VDC
- Logical Low: 0~1.5VDC

Relay Output
- 2 x Digital Output channels (Solid state Relay)
- Solid State Relay, Normal Open (NO) Type
- Contact Rating: 80VDC@1.5A
- LED Indicator: YES

SD Slot
- 1 x Micro-SD socket
- SD 2.0 Compliant, support SDHC
- Storage capacity: support up to 128G

Expansion
- 1 x miniPCIe Full-size socket
- 1 x micro-SIM card socket , USB interface reserved
- 2 x SMA-type Antenna hole reserved

General
- Watchdog: Yes
- Real-Time Clock (RTC): Yes, backup by super capacitor
- Power Input Voltage: +9~+48VDC (terminal block)
- Typical Consumption: 12VDC@250mA
- Dimensions (W x L x H): 89 x 112 x 30mm (3.5 x 4.4 x 1.18in)
- Net Weight: 350g (0.77lb)
- Operating Temperature: 0~70°C (32~158°F)
- Regulation: CE Class A, FCC Class A
- Installation: Wall mounting, DIN-rail mounting (with optional kit)

■ S/W Specifications

Operation System
- Linux kernel 4.19.x
- Support bootup from eMMC or SD card
- Boot Loader: U-Boot
- File System: EXT4/EXT3/EXT2, VFAT/FAT, NFS

Software Development
- Toolchain: gcc 8.2.0 + glibc 2.28
- Supports in-place C/C++ code compilation

Package Management
- Package repository: Artila self-maintained repository
- Command: Using standard apt-get command

Popular Packages
- Web server: Apache/Nginx/Lighttpd
- Database: MySQL/SQLite3/PostgreSQL
- Script Language: PHP/Python/Perl/NodeJS
- Text editor: vim/nano/sed
- Administration: Webmin

■ Ordering Information

Matrix-750
- Linux-ready Cortex-A7 800MHz Industrial IoT Gateway with 512MB SDRAM

PWR-12V-1A (31-62100-000)
- 110~240VAC to 12VDC 1A Power Adapter

Artila