NIO 53-CM

Main 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 RS485/RS232 serial port
- 2 x Digital input, 2 x digital out
- 1 x Full size mini-PCIe socket inside
- 1 x Micro SIM slot reserved, two antenna holes reserved
- 1 x Micro SD slot reserved
- Ultra low power consumption

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 mini-PCIe 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)

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

EMBUX®

Package Management
- Package repository: 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
- **NIO53-CM**
  Linux-ready ARM embedded system