

MVS 5603-C6SMK

6-CH PoE In-vehicle Mobile Computer





Main Features

- Modular design for flexible I/O expansion
- WLAN, 3G/LTE via 3 mini-PCIe + 1 M.2 slots
- Up to five SIM cards + triple WWAN modules support
- 6 x GbE 802.3 af/at PoE, 6 x M12 ports
- Built-in u-blox NEO-M8N module, optional Dead Reckoning support
- Intel[®] Core[™] dual core i7-6600U/i3-6100U Dual removable SATA 3.0 SSD/HDD
- iButton for driver ID identification
- Built-in CAN 2.0B. Optional OBDII function (SAE J1939/J1708)
- Pattern number M531607 registered, an easy way to expand diverse I/O cards

Product Overview

MVS 5603-C6SMK 6-CH PoE In-vehicle mobile computer increases safety and security for bus passenger transportation with high video resolution and 2 removable extensive HDD/SSD and CFast for storage capacity. It connects up to 6 IP cameras + PoE function providing reliable and high quality video coverage around the bus.

MVS 5603-C6SMK is a modular design, it is flexible to use other kinds of expansion boards to extend different I/O functions for different applications.

MVS 5603-C6SMK leverages wireless networks to simplify fleet management with capabilities such as remote, real-time video monitoring. This remote capability keeps transit fleets in service around the clock.

Vehicle data integration and diagnostics are also carried out via CAN Bus and OBDII. MIL-STD-810G for shock and vibration is designed to operate in harsh environments. Optional internal back-up battery guards against any unexpected vehicle power failure or unstable vehicle power.

Specifications

CPU

 6th generation Intel® Core™ dual core i7-6600U, 2.6GHz/i3-6100U, 2.3GHz

Memory

• 2-channel 204-pin DDR3L SO-DMIM socket support 1600MHz up to 16GB, default 2GB industrial grade memory

Storage

- 2 x 2.5" SATA 3.0 SSD/HDD (removable & hot swappable), RAID 0, 1 supported (optional lockable storage available)
- 1 x CFast (externally accessible)

Expansion

- 1 x full size mini-PCIe socket (USB 2.0)
- 1 x full size mini-PCIe socket (USB 2.0 + PCIe)
- 1 x half size mini-PCIe socket (USB 2.0 + PCIe)
 1 x M.2 B-key (3042)
- 1 x full size mini-PCIe socket (USB 2.0)

GNSS and On Board Sensor

 1 x default U-blox NEO-M8N GNSS module for GPS/Gloness/QZSS/ Galileo/Beidou • Optional modules with Dead Reckoning available

Built-in G-sensor

Power over Ethernet

 6-port M12 for 10/100/1000 Mbps PoE IEEE 802.3af/at conformity, total 60W PSE

Security

TPM in option

I/O Interface-Front

- 6 x LED indicators for power/storage/WLAN/WWAN/Status/Health
- 1 x Reset button
- 2 x USB type A USB3.0 port
- 2 x phone jacks 3.5mm for 1 x Mic-in and 1 x Line-out
- 1 x externally accessible SIM card socket
- 2 x antenna holes for WWAN/WLAN/BT/GPS

I/O Interface-Rear

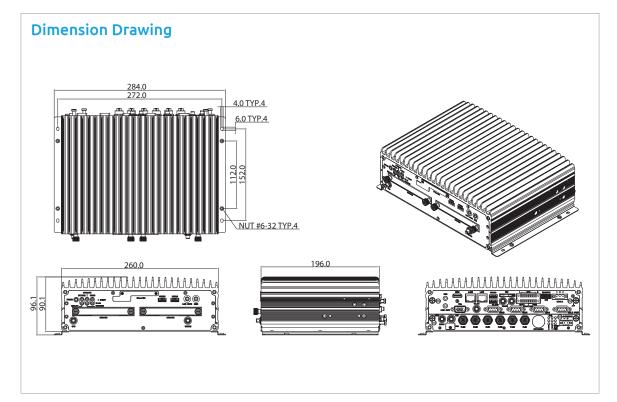
- 6 x M12 10/100/1000 Mbps PoE ports with LED
- 2 x RJ45 10/100/1000 Intel[®] Fast Ethernet with LED
- + $1 \times 9 \sim 36$ VDC input with ignition and 40W typical power consumption
- 2 x USB type A USB 3.0 port

Modular Vehicle Computer System



www.nexcom.com

NECOM



- 2 x phone jacks 3.5mm for 1 x Mic-in and 1 x Line-out
- 1 x DB-15 VGA, resolution up to 2560 x 1600 @60Hz
- 1 x HDMI port, resolution up to 2560 x 1600 @60Hz
- 2 x DB-9 RS-232
- 1 x DB-9 RS-232/422/485 (RI/5V/12V selectable)
- 1 x 12VDC output (2A) + SM Bus + 2 x MDI + power button
- 1 x DB9 connector for optional DR signal input, 2 x MDO and iButton
- 1 x 16-pin terminal block connector
 - 1 x CAN Bus 2.0B (on board)
 - 1 x OBDII from optional VIOB-CAN-03 module (SAE J1939)
 - 1 x CAN Bus 2.0B from optional VIOB-CAN-03 module
 - 8 x programmable GPIO
 - (4 x Digital inputs in default)
 - Input voltage (internal type): 5VDC TTL (default)
 - Input voltage (source type): 3 ~ 24VDC
 - (4 x Digital outputs in default)
 - Digital output (sink type): 5VDC TTL (default), max current: 20mA Digital output (source type): 3 ~ 24VDC, max current: 150mA
- 1 x externally acessible SIM card socket and 1x internal SIM card socket selectable

Power Management

 Selectable boot-up & shut-down voltage for low power protection by software. Setting 8-level power on/ off delay time by software. Support S3/S4 suspend mode

Rechargeable Battery (option)

- Lithium-ion Polymer
- Nominal capacity 1100mAh
- Maximum charge current 1.0CmA

Operating System

- Windows 7/WES7/Windows 8/WES8/Windows 10/Linux kernel 3.X
- Dimensions
- 260mm (W) x 196mm (D) x 91mm (H) (10.24" x 7.72" x 3.58")
- 4kg

Environment

Operating temperatures:

-30°C~60°C (w/ industrial SSD) with air flow

- Storage temperatures: -40°C~80°C
- Relative humidity: 10% to 90% (non-condensing)
- Vibration (random):
- $1.5g@5{\sim}500$ Hz (in operation, HDD), $2g@5{\sim}500$ Hz (in operation, SSD)
- Vibration (SSD):
 - Operating: MIL-STD-810G, Method 514.6C, Procedure 1, Category
 - 4, common carrier US highway truck vibration exposure - Storage: MIL-STD-810G, Method 514.6E, Procedure 1, Category 24,
- minimum integrity testShock (SSD/HDD):
 - Operating: MIL-STD-810G, Method 516.6, Procedure I, functional shock=20g (HDD); functional shock=40g (SSD)
- Non-operating: MIL-STD-810G, Method 516.6, Procedure V, crash hazard shock test=75g

Certifications

CE approval, FCC Class A, E13 Mark

Ordering Information

- MVS 5603-7C6SMK (P/N: 10VS0560304X0)
 6th generation Intel® Core™ dual core i7-6600U, 2.6GHz, 2GB DDR3L industrial grade SO-DIMM, 6 x 10/100/1000 PoE, 2 x 10/100/1000
 Ethernet, VGA/HDMI output, 2 x RS232, 1 x RS-232/422/485, 4 x USB3.0, 12VDC output, 1 x CAN
- MVS 5603-3C6SMK (P/N: 10VS0560303X0)
- 6th generation Intel® Core™ dual core i3-6100U, 2.3GHz, 2GB DDR3L industrial grade SO-DIMM, 6 x 10/100/1000 PoE, 2 x 10/100/1000 Ethernet, VGA/HDMI output, 2 x RS232, 1 x RS-232/422/485, 4 x USB3.0, 12VDC output, 1 x CAN

Battery Kit (P/N: 88VS0560303X0)

Rechargeable battery, Lithium-ion, capacity 1100mAh

NE;COM

We reserve the right to change specifications and product descriptions at any time without prior notice.

Last update: 11/14/2018

Modular Vehicle Computer System



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.

US

sales@assured-systems.com

Sales: +1 347 719 4508 Support: +1 347 719 4508

1309 Coffeen Ave Ste 1200 Sheridan WY 82801 USA

EMEA

sales@assured-systems.com

Sales: +44 (0)1785 879 050 Support: +44 (0)1785 879 050

Unit A5 Douglas Park Stone Business Park Stone ST15 0YJ United Kingdom

VAT Number: 120 9546 28 Business Registration Number: 07699660