ARM-based Systems

NEW

VIA

AMOS-800

Ultra Compact Fanless Embedded System with Mini-HDMI, VGA, COM, USB, GPIO and CANBus

Features

■ Fanless, ruggedized, and ultra compact design

■ Powered by Freescale Cortex-A8 single core i.MX537 with Pico-ITX board

■ 4GB onboard eMMC Flash memory

■ Supports integrated graphics processing (GPU) for 3D/2D graphics acceleration and dual displays

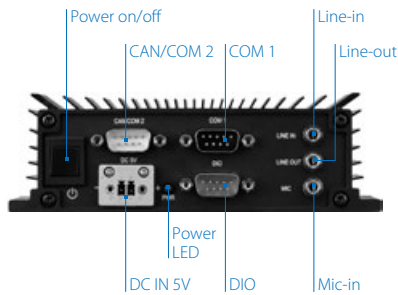■ Wide temperature support from -40℃ to 80℃

■ Support 8-bit GPIO and CAN

Specifications

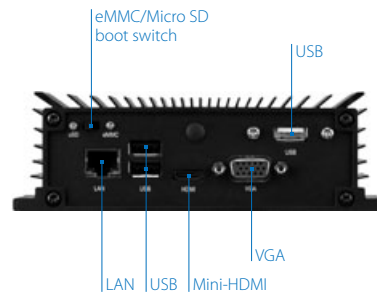| Part Number		AMOS-800-1S08A1
Computing System	Processor	800MHz Freescale Cortex-A8 single core i.MX537
System Memory	Technology & Max. Capacity	1GB DDR3-800 SDRAM using 128M x16 memory devices
Flash	Capacity	4GB onboard eMMC Flash memory
Graphic	Controller	Supports two integrated graphics processing units: an OpenGL® ES 2.0 3D graphics accelerator and an OpenVG™ 1.1 2D graphics accelerator
	CRT Interface	1 x Onboard VGA port
	HDMI Interface	Silicon image Sil9024A HDMI transmitter 1 x Mini-HDMI
Ethernet	Controller	SMSC LAN8720A 10/100 PHY transceiver with HP Auto-MDIX support
	Interface	1 x RJ45 connector
HD Audio	Controller	Freescale SGTL5000 low power stereo codec with headphone AMP
	Interface	Supports Line-In, Line-out, Mic-in connectors
Serial	USB	SMSC USB 2.0 high speed 4-port hub controller 4 x USB ports, USB 2.0 compliant - 3 x USB connectors - 1 x USB 2.0 pin header onboard supporting optional VIA 802.11n WiFi module VNT 9271
	COM	1 x D-Sub 9-pin female connector
CANBus	Controller	TI SN65HVD1050 EMC optimized CAN transceiver
	Interface	1 x D-Sub 9-pin female connector
GPIO	General Purpose I/O	1 x D-Sub 9-pin female connector (GPI x4 + GPO x4)
Storage Interface	Interface	4GB onboard eMMC Flash memory 1 x Onboard Micro SD connector
System Indicator	Power Status LED	1 x Red color LED
	HDD Activity LED	1 x Green color LED
Watch Dog Timer	Output	Integrated watch dog timer supporting two comparison points. First comparison point can interrupt ARM core, and the second comparison point is capable of generating external interrupts on WDOG line

CE FC

ROHS COMPLIANT

Front Panel External I/O
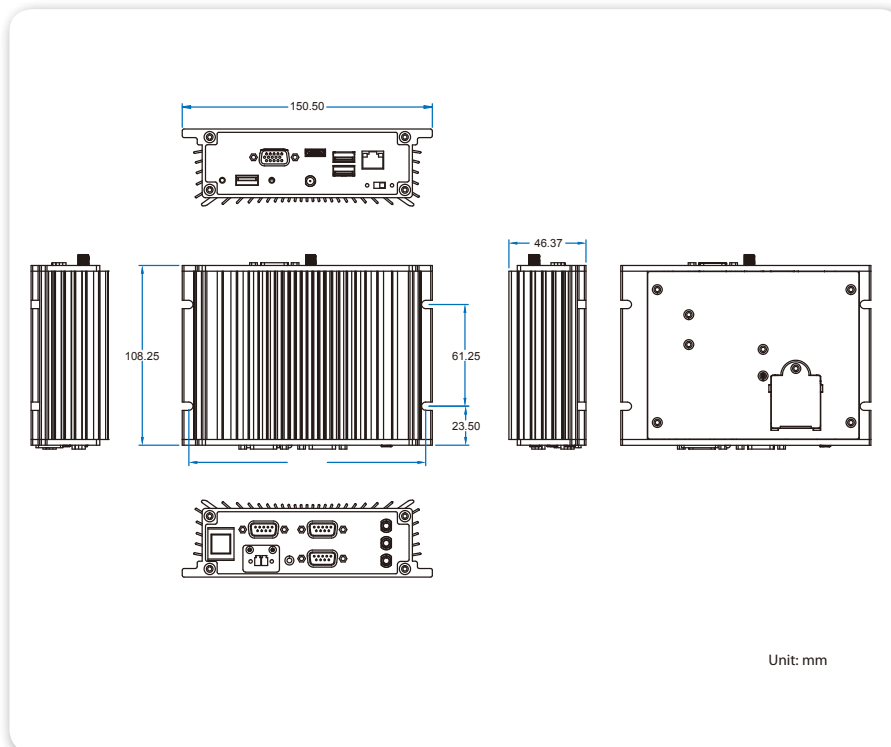
Rear Panel External I/O

Power on/off
CAN/COM 2   COM 1
Line-in
Line-out

eMMC/Micro SD
boot switch
USB

Power
LED

DC IN 5V   DIO   Mic-in

LAN   USB   Mini-HDMI

VGA

Specifications

Part Number		AMOS-800-1S08A1
Onboard I/O Coastline Connectors	**Front Panel I/O**	1 x COM port 1 x CANBus connector 1 x GPIO connector 3 x 3.5Ø phone Jack connectors as Line-out, Mic-In, Line-in 1 x HDD & Power LED 1 x Power on/off switch 1 x DC power input connector by 2-pole phoenix connector
	Rear Panel I/O	1 x Mini-HDMI port 1 x VGA port connector (1 x DB-15) 1 x 10/100Mbps Ethernet connector (1 x RJ-45) 3 x USB 2.0 connectors 1 x eMMC/Micro SD boot switch
	Bottom Opening Cover	Bottom removable door plate to access the Micro SD flash drive
Power Supply	**Input Voltage**	DC 5V
	Power Input Connector	1 x DC power input with DC Jack
	Power Consumption	Typical: 3.14W
Mechanical	**Construction**	Aluminum top cover Metal chassis housing Removable left & right of wall mountable bracket
	VESA	Optional VESA mounting bracket (75 mm x 75 mm and 100 mm x 100 mm)
	Dimension	150 mm (W) x 45 mm (H) x 108 mm (D) (5.9" x 1.77" x 4.25")
WiFi		VIA 802.11n Wireless module VNT 9271 (optional)
Environmental Specification	**Operating Temperature**	With VGA display output -40°C up to 80 °C With HDMI display output -20°C ~80°C
	Storage Temperature	-20°C ~70 °C@ 90%, non-condensing
	Relative Humidity	10 ~ 90% @ 45°C, non-condensing
	Vibration Loading During Operation	With onboard eMMC 5Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 1 Oct./min, 1hr/axis
	Shock During Operation	With onboard eMMC 50G, IEC 60068-2-27, half size, 11ms duration
	EMC Approved	CE, FCC, Class A
Software Compatibility	**Operation System**	Android 2.3 Embedded Linux

Ordering Information

Part Number	System Built-in CPU	Description
AMOS-800-1S08A1	i.MX537 @800MHz	AMOS System with Freescale Cortex-A8 800MHz, 4GB Flash, 1GB DDR3 SDRAM, 3 x USB 2.0, 1 x Mini-HDMI, 1 x VGA, 1 LAN, 1 x Micro SD Slot, 1 x COM, 1 x CANBus, 1 x GPIO, DC-in Power

Dimensions

150.50

46.37

108.25

61.25

23.50

Unit: mm

Packing List

1 x AC-to-DC adapter (DC 5V/2A,10W, 2-pole phoenix plug to DC Jack)

1 x Console cable

4 x Washer rubbers

1 x Screw pack