

COM Express Modules

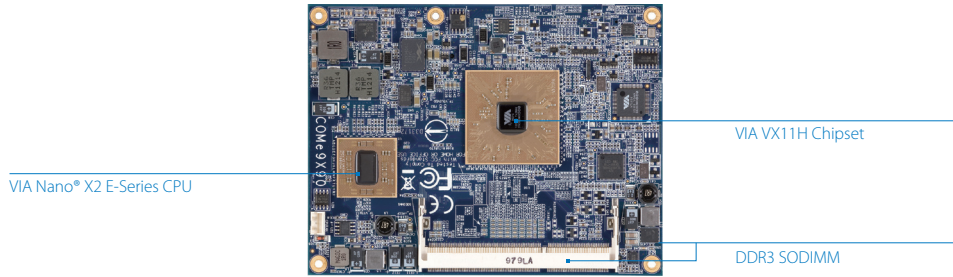
VIA COMe-9X90

COM Express Module with
Type 6 pin-outs and Basic
Form Factor

Features

- 1.2GHz VIA Nano® X2 E-Series processor
- Supports up to 16GB 1333 DDR3 SDRAM
- DX11 graphics with MPEG-2/WMV9/VC1/H.264 decoding acceleration
- Supports 18/24-bit dual-channel LVDS panel, two DisplayPort ports, or two HDMI ports
- Supports two USB 3.0 and six USB 2.0 ports

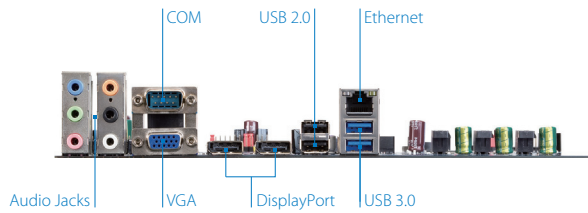
Board Placement



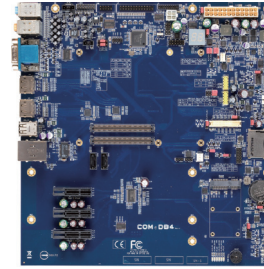
Specifications

Model Name	COMe-9X90
Processor	1.2GHz VIA Nano® X2 E-Series
Chipset	VIA VX11H Media System Processor
BIOS	AMI Aptio UEFI BIOS, 32Mbit Flash memory
System Memory	2 DDR3 1333 SODIMM slots Up to 8GB memory size per slot
Storage	2 SATA
Graphics	Integrated VIA C-640 DX11 3D/2D graphics with MPEG-2, WMV9, VC1 and H.264 video decoding acceleration
LAN	RealTek RTL8111G PCIe Gigabit Ethernet controller
Audio	1 HD audio digital interface
Supported Expansion I/O	4 PCIe x1
Supported I/O	2 USB 3.0 6 USB 2.0 Up to 2 HDMI or 2 DisplayPort 1 VGA 1 Dual channel 18/24-bit LVDS panel (VIA VT1636) 2 COM (TX/RX) 1 Gigabit Ethernet 1 LPC 1 SMBus 1 SPI 1 SDIO/GPIO 1 I ² C
Operating System	Windows 7/ 8, WES 7, Linux
System Monitoring & Management	CPU temperature reading, CPU fan speed reading, System voltage monitoring, Watch Dog Timer, Wake-on-LAN, System power management, AC power failure recovery
Operating Temperature	0°C ~ 60°C
Operating Humidity	0% ~ 95% (non-condensing)
Form Factor	9.5cm x 12.5cm (3.73" x 4.92")
Compliance	COM Express® type 6, basic module

Carrier Board Back Panel I/O



Carrier Board (COMEDB4)



* The carrier board is only for evaluation purposes.

Specifications

Model Name	COMEDB4
Audio	VIA VT2021 High Definition Audio Codec
Super I/O	Fintek F71869 LPC Super I/O
Onboard I/O	2 SATA connectors 2 USB 2.0 pin headers for 4 ports 1 Dual-channel 18/24-bit LVDS panel connector 1 COM port pin header (powered with selectable 5V/12V) 1 LPT pin header 1 LPC pin header 1 SMBus pin header 1 SPI connector 1 Digital I/O (4 GPI + 4 GPO) pin header 1 Front audio pin header for Line-out, Mic-in 2 Smart Fan connectors for CPU and system 1 I ² C pin header 1 BIOS select pin header for select module/carrier board SPI BIOS 1 ATX power connector and 1 AUX power connector (for ATX mode), or only 1 AUX power connector (for AT mode) 3 PCIe x1 1 miniPCIe 1 Reset Switch 1 Power button
Front Panel I/O	1 SD card slot
Rear Panel I/O	2 USB 3.0 ports 2 USB 2.0 ports 2 DisplayPort 1 VGA port 1 COM port 1 Gigabit Ethernet port 6 Audio jacks (support multi-channel audio outputs)
Power Supply	ATX power connector or 12V DC-in
Operating Temperature	0°C ~ 60°C
Operating Humidity	0% ~ 95% (non-condensing)
Form Factor	Micro-ATX (25.4cm x 24.4cm, 10" x 9.6")
COM Express Module Type	Supports basic/compact form factor type 6

Ordering Information

Model Name	CPU Frequency	Description
COMe-9X90	VIA Nano® X2 E-Series @ 1.2GHz	COM Express Module with 1.2GHz VIA Nano® X2 E-Series CPU with 2 HDMI or 2 DisplayPort, VGA, LVDS, 2 USB 3.0, 6 USB 2.0, Gigabit Ethernet, 2 SATA, 4 PCIe x1, ATX power connector
COMEDB4	N/A	COMe-9X90 evaluation carrier board
99G42-01380A	N/A	Heatsink with fan for COMe-9X90

Block Diagram

