

XENTHRA

XN-H81M-VH Motherboard Datasheet

Intel® LGA1150 Architecture | B85 Express Chipset | Micro-ATX Form Factor

1. SYSTEM OVERVIEW

Brand & Model	XENTHRA XN-H81M-VH
Form Factor	Micro-ATX (190 mm x 170 mm), 4-Layer PCB Structure
Chipset	Intel® B85 Express Chipset
OS Support	Windows® 7 / 10 / 11 Compatible (32-bit & 64-bit)

2. PROCESSOR (CPU) SUPPORT

CPU Socket	LGA 1150 Socket
Supported Processors	Intel® 4th Generation Core™ i7 / i5 / i3, Pentium®, Celeron®, and Xeon® E3-1200 v3 series
Validated CPUs	G1820, i3-4330, i5-4590S, i7-4770, Xeon® E3-1230 v3

3. MEMORY SUBSYSTEM

Memory Slots	2x DDR3 240-pin DIMM Slots
Channel Architecture	Dual-Channel DDR3 Support
Clock Speeds	DDR3 1600 MHz / 1333 MHz / 1066 MHz
Maximum Capacity	Up to 16 GB system memory (Supports up to 8 GB per single slot)

4. STORAGE INTERFACES

M.2 Slot	1x M.2 Slot (Supports NVMe PCIe 2.0 x4 & SATA 3.0 NGFF modes via jumper protocol switch)
SATA Ports	1x SATA 3.0 (6 Gbps) + 2x SATA 2.0 (3 Gbps)

5. EXPANSION & WIRELESS

PCI Express Slots	1x PCIe 2.0 x16 Slot (PCIe 2.0 x16 signal) 1x PCIe 2.0 x1 Slot (PCIe 2.0 x1 signal)
Wireless Expansion	1x M.2 Wi-Fi / WLAN Slot

6. REAR PANEL I/O PORTS

Display Interfaces	1x HDMI Port, 1x VGA (D-Sub) Port
USB Interfaces	2x USB 3.0 Ports, 4x USB 2.0 Ports
Network Interface	1x RJ45 Gigabit LAN Port (Realtek® Gigabit Chipset)
Audio Jacks	3x 3.5mm Audio Jacks (Line Out, Mic In, Line In)

7. INTERNAL HEADERS & CONNECTORS

USB Expansion Headers	2x FUSB 2.0 Headers (Expandable to 4 additional front USB 2.0 ports)
Fan Connectors	1x 4-Pin CPU Fan Header, 1x 3-Pin System (SYS) Fan Header
Security & Diagnostics	1x 14-Pin TPM 2.0 Port, 1x 2x5-Pin Diagnostic Card Interface, 1x JCMOS Pin Header
System Headers	1x FPANEL Front Panel Pin Header, 1x Front Audio Built-in Pin Header

8. POWER, AUDIO & POWER DISSIPATION

Power Connectors	24-Pin Main ATX Power + 4-Pin 12V CPU Power Connector
Audio Controller	Realtek® High-Definition Audio Codec
Power Dissipation	Standby Power: 20W - 45W Full Load Power: 90W - 120W (excluding discrete graphics card)