

GA-990XA-UD3 (rev. 1.0)

AMD 990X + SB950 Chipset

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CPU	AM3+ Socket: <ol style="list-style-type: none">1. Support for AMD AM3+ FX processors2. Support for AMD AM3 Phenom™ II processors / AMD Athlon™ II processors (Please refer "CPU Support List" for more information.)
Hyper Transport Bus	<ol style="list-style-type: none">1. 5200 MT/s
Chipset	<ol style="list-style-type: none">1. North Bridge: AMD 990X2. South Bridge: AMD SB950
Memory	<ol style="list-style-type: none">1. 4 x 1.5V DDR3 DIMM sockets supporting up to 32 GB of system memory (Note 1)2. Dual channel memory architecture3. Support for DDR3 2000(O.C.)/1866/1600/1333/1066 MHz memory modules (Note 2) (Please refer "Memory Support List" for more information.)
Audio	<ol style="list-style-type: none">1. Realtek ALC889 codec2. High Definition Audio3. 2/4/5.1/7.1-channel4. Support for Dolby Home Theater5. Support for S/PDIF Out
LAN	<ol style="list-style-type: none">1. 1 x Realtek RTL8111E chip (10/100/1000 Mbit)
Expansion Slots	<ol style="list-style-type: none">1. 1 x PCI Express x16 slot, running at x16 (PCIEX16) (Note 3)2. 1 x PCI Express x16 slot, running at x8 (PCIEX8) (Note 4)3. 1 x PCI Express x16 slot, running at x4 (PCIEX4)4. 2 x PCI Express x1 slots

	<p>(All PCI Express slots conform to the PCI Express 2.0 standard.)</p> <p>5. 2 x PCI slots</p>
Multi-Graphics Technology	<p>1. Support for AMD CrossFireX™ and NVIDIA SLI™ technology (PCIEX16 and PCIEX8) (Note 5)</p>
Storage Interface	<p>South Bridge:</p> <p>1. 6 x SATA 6Gb/s connectors supporting up to 6 SATA 6Gb/s devices</p> <p>2. Support for RAID 0, RAID 1, RAID5, RAID 10 and JBOD</p>
USB	<p>South Bridge:</p> <p>1. Up to 14 USB 2.0/1.1 ports (8 ports on the back panel, 6 ports available through the internal USB headers)</p> <p>2 x Etron EJ168 chips:</p> <p>1. Up to 4 USB 3.0/2.0 ports (2 ports on the back panel, 2 ports available through the internal USB header)</p>
IEEE 1394	<p>VIA VT6308 chip:</p> <p>1. Up to 2 IEEE 1394a ports (1 port on the back panel, 1 port available through the internal IEEE 1394a header)</p>
Internal I/O Connectors	<p>1. 1 x 24-pin ATX main power connector</p> <p>2. 1 x 8-pin ATX 12V power connector</p> <p>3. 6 x SATA 6Gb/s connectors</p> <p>4. 1 x CPU fan header</p> <p>5. 2 x system fan headers</p> <p>6. 1 x power fan header</p> <p>7. 1 x front panel header</p> <p>8. 1 x front panel audio header</p> <p>9. 1 x S/PDIF Out header</p> <p>10. 3 x USB 2.0/1.1 headers</p> <p>11. 1 x USB 3.0/2.0 header</p> <p>12. 1 x IEEE 1394a header</p> <p>13. 1 x Trusted Platform Module (TPM) header</p> <p>14. 1 x serial port header</p> <p>15. 1 x clearing CMOS jumper</p>
Back Panel Connectors	<p>1. 1 x PS/2 keyboard/mouse port</p> <p>2. 1 x optical S/PDIF Out connector</p> <p>3. 1 x IEEE 1394 port</p> <p>4. 8 x USB 2.0/1.1 ports</p> <p>5. 2 x USB 3.0/2.0 ports</p> <p>6. 1 x RJ-45 port</p> <p>7. 6 x audio jacks (Center/Subwoofer Speaker Out/Rear Speaker Out/Side Speaker Out/Line In/Line Out/Microphone)</p>

I/O Controller	<ol style="list-style-type: none"> 1. ITE IT8720 chip
H/W Monitoring	<ol style="list-style-type: none"> 1. System voltage detection 2. CPU/System temperature detection 3. CPU/System/Power fan speed detection 4. CPU overheating warning 5. CPU/System/Power fan fail warning 6. CPU/System fan speed control (Note 6)
BIOS	<ol style="list-style-type: none"> 1. 2 x 32 Mbit flash 2. Use of licensed AWARD BIOS 3. Support for DualBIOS™ 4. PnP 1.0a, DMI 2.0, SM BIOS 2.4, ACPI 1.0b
Unique Features	<ol style="list-style-type: none"> 1. Support for @BIOS 2. Support for Q-Flash 3. Support for Xpress BIOS Rescue 4. Support for Download Center 5. Support for Xpress Install 6. Support for Xpress Recovery2 7. Support for EasyTune (Note 7) 8. Support for Easy Energy Saver 9. Support for Smart Recovery 10. Support for Auto Green 11. Support for ON/OFF Charge 12. Support for Cloud OC 13. Support for 3TB+ Unlock 14. Support for Q-Share
Bundle Software	<ol style="list-style-type: none"> 1. Norton Internet Security (OEM version)
Operating System	<ol style="list-style-type: none"> 1. Support for Microsoft Windows 7/ Vista/ XP
Form Factor	<ol style="list-style-type: none"> 1. ATX Form Factor; 30.5cm x 24.4cm
Note	<p>(Note 1) Due to Windows 32-bit operating system limitation, when more than 4 GB of physical memory is installed, the actual memory size displayed will be less than 4 GB.</p> <p>(Note 2) To support a DDR3 1866 MHz (and above) memory, you must install an AMD AM3+ CPU first.</p> <p>(Note 3) For optimum performance, if only one PCI Express graphics card is to be installed, be sure to install it in the PCIEX16 slot.</p> <p>(Note 4) The PCIEX8 slot shares bandwidth with the PCIEX16 slot. When the PCIEX8 slot is populated, the PCIEX16 slot will operate at up to x8 mode.</p> <p>(Note 5) The PCIEX16 slot operates at up to x8 mode when AMD CrossFireX™ is enabled.</p>

	<p>(Note 6) Whether the CPU/system fan speed control function is supported will depend on the CPU/system cooler you install.</p> <p>(Note 7) Available functions in EasyTune may differ by motherboard model.</p>
Remark	<ol style="list-style-type: none">1. Due to different Linux support condition provided by chipset vendors, please download Linux driver from chipset vendors' website or 3rd party website.2. Most hardware/software vendors no longer offer support for Win9X/ME/2000/XP SP1/SP2. If drivers are available from the vendors, we will update them on the GIGABYTE website.

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* Advertised performance is based on maximum theoretical interface values from respective Chipset vendors or organization who defined the interface specification. Actual performance may vary by system configuration.

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* Due to standard PC architecture, a certain amount of memory is reserved for system usage and therefore the actual memory size is less than the stated amount.