A+ Server 4022G-6F

Integrated Board

H8DG6-F

Available Colors: Black ■

- ▶ **Drivers & Utilities** ▶ **BIOS** ▶ **IPMI** ▶ **Tested MEM** ▶ **Tested HDD**
- ▶ **Manuals** ▶ **Quick-References** ▶ **OS Certification Matrix**
- ▶ **Compatible GPU List**

Key Features

1. Dual AMD Opteron™ 6000 series processors (Socket G34) 16/12/8/4-Core ready; HT3.0 Link support

2. AMD SR5690 / SP5100 Chipset

3. Up to 512GB DDR3 1600MHz ECC Registered DIMM; 16x DIMM sockets

4. 3x PCI-e 2.0 x16 slots, 1x PCIe 2.0 x8 slot, and 2x PCIe 2.0 x4 (in x8 slots)

5. Dual-port GbE LAN Controller, 8x USB 2.0 ports, 1x dedicated LAN for system management (IPMI 2.0)

6. 8x Hot-swap SAS/SATA Drive Bays, 2x 5.25" Peripheral Drive Bays, and 1x 5.25" Bay that fits 3.5" Devices

7. LSI 2008 SAS2 RAID 0, 1, 10, 5 (Optional)

8. 920W **Platinum Level (94%+)** High-efficiency Power Supply (Optional redundant power upgradeable)

AMD OPTERON

Product Review

Specifications

Product SKUs	
AS-4022G-6F	A+ Server 4022G-6F (**Black**)
Motherboard	
Super H8DG6-F	
Processor/Chipset	
CPU	▪ Dual 1944-pin Socket G34 ▪ Supports up to two **16/12/8/4-Core ready AMD Opteron™ 6000 Series processors** ▪ HT3.0 Link support
Chipset	▪ AMD chipset SR5690 / SP5100
System Memory	
Memory Capacity	▪ Sixteen DIMM sockets ▪ Support up to 512GB Registered ECC or 128GB Unbuffered ECC/non-ECC DDR3 1600/1333/1066 SDRAM in 16 DIMMs ▪ Quad channel memory bus ▪ For Dual CPUs: Recommended that memory be populated equally in adjacent memory banks ▪ See Detailed Memory Support Matrix
Memory Type	▪ DDR3 1600/1333/1066 MHz Registered ECC Unbuffered ECC/non-ECC SDRAM 72-bit, 240-pin gold-plated DIMMs
DIMM Sizes	▪ 1GB, 2GB, 4GB, 8GB, 16GB, 32GB
Memory Voltage	▪ 1.35V or 1.5V
Error Detection	▪ Corrects single-bit errors ▪ Detects double-bit errors (using ECC memory)
On-Board Devices	
SAS/SATA RAID	▪ AMD SP5100 (RAID 0, 1, 10) ▪ LSI 2008 SAS2 (RAID 0, 1, 10, 5) ▪ (Optional) AOC-SAS2-RAID5-KEY: RAID 5 Support
IPMI	▪ Support for Intelligent Platform Management Interface v.2.0 ▪ IPMI 2.0 with virtual media over LAN and KVM over LAN support

Chassis	
Form Factor	▪ Tower / 4U Rackmountable ▪ Optional Rackmount kit: (CSE-PT26)
Model	▪ SC745TQ-920B
Dimensions	
Height	▪ 17.2" (437mm)
Width	▪ 7.0" (178mm)
Depth	▪ 25.5" (648mm)
Gross Weight	▪ 58 lbs (26.3kg)
Available Colors	▪ Black
Front Panel	
Buttons	▪ Power On/Off Button ▪ System Reset Button
LEDs	▪ Power status ▪ Hard drive activity ▪ 2x Network activity ▪ Overheat status
Ports	▪ 2x USB
Drive Bays	
Hot-swap	8x 3.5" SAS / SATA Hot-swap drive bays SAS or enterprise SATA HDD only recommended
SAS / SATA Hard Drive Backplane	
SAS/SATA backplane w/ Enclosure Management	
System Cooling	
Fans	5x 80x38mm 4-pin PWM Fans
Power Supply with Power Distributor	
920W high-efficiency (94+%) power supply with PMBus	
AC Input	▪ 100-240 V, 50-60 Hz, 11-4.5 Amp
DC Output	▪ 4 Amp @ +5V standby ▪ 75 Amp @ +12V
With Power Distributor	▪ +5V: 30 Amp ▪ +3.3V: 24 Amp ▪ -12V: 0.6 Amp

	■ Winbond® WPCM450 BMC
Network Controllers	■ Intel® 82576 controller, Dual-Port Gigabit Ethernet ■ 10/100/1000BASE-T support
VGA	■ Matrox G200eW 16MB DDR2
Super I/O	■ Winbond 83527 chip ■ Winbond WPCM450 (BMC)

Expansion Slots

PCI-Express	■ 3/1/2 PCI-E 2.0 x16/x8/x4 (in x8)

Input / Output

LAN	■ 2x RJ45 ports and 1x RJ45 Dedicated LAN supports IPMI
USB	■ 8x USB 2.0 ports
VGA	■ 1x VGA port
Keyboard / Mouse	■ PS/2 keyboard and mouse ports

System BIOS

BIOS Type	■ 16Mb Flash EEPROM with AMI® BIOS
BIOS Features	■ Plug and Play (PnP) ■ APM 1.2 ■ DMI 2.3 ■ PCI 2.2 ■ ACPI 2.0 ■ BIOS Rescue Hot Keys ■ USB Keyboard Support ■ Hardware BIOS Virus Protection ■ SMBIOS 2.3

Certification	80 PLUS PLATINUM 94 **Platinum Certified** [Test Report]

PC Health Monitoring

CPU	■ Monitors CPU Core Voltages, +3.3V, +5V, ±12V, HyperTransport Link voltage, memory voltage, VBAT, Chipset voltage ■ CPU switching voltage regulator
FAN	■ Total up to 8-fan status tachometer monitoring ■ Status monitor for speed control ■ Stauts monitor for on/off control ■ Low noise fan speed control
Temperature	■ Monitoring for CPU and chassis environment ■ CPU Thermal Trip Support ■ Thermal Control for 8x Fan Connectors ■ I²C Temperature Sensing Logic
LED	■ CPU / System Overheat LED ■ Suspend-State Indicator LED ■ +5V Standby Alert LED ■ UID/Remote LED
Other Features	■ Chassis Intrusion Detection ■ Chassis Intrusion Header

Operating Environment / Compliance

RoHS	■ RoHS Compliant
Environmental Spec.	■ Operating Temperature: 10°C to 30°C (50°F to 86°F) ■ Non-operating Temperature: -40°C to 70°C (-40°F to 158°F) ■ Operating Relative Humidity: 8% to 90% (non-condensing) ■ Non-operating Relative Humidity: 5% to 95% (non-condensing)

Parts List

See Parts List