

Single Board Computers

Crystal designs and manufactures SBCs with processor speeds up to 2.8 GHz using processors, components and chipsets that allow configuration control and long term availability. Custom BIOS services are available for unique configurations. All Crystal SBC cards are manufactured with extra layers to assure better PCI signal propagation and are designed so that all on-board peripherals are driven through a PCI bridge. This enables you to disable unused peripherals so they will not interfere with the operating system. All SBC's are tested compatible with major operating systems, including Microsoft® Windows™ 95, 98, 2000, XP or NT, SCO UNIX®, Linux®, and Solaris® x86.



Crystal Flex 370 BX

Processor System	
Maximum Processors	One (1)
CPU	Intel Celeron or Pentium III
Maximum Speed	850 MHz
L2 Cache	128 KB (Celeron) 256 KB (Pentium III)
Chipset	Intel 440BX AGPset
BIOS	AMI Flash BIOS
Bus	
Architecture	PCI/ISA; PICMG 2.1 compatible
Front Side Bus	66/100 MHz
PCI	32-bit/33 MHz
ISA	16-bit/8 MHz
Memory	
Technology	PC100 or PC133 SDRAM (ECC or Non-ECC, Non-registered)
Maximum Capacity	512 MB
Socket	168-pin DIMM x2
Graphic	
Controller	Chips & Technology 69000 PCI Video
VRAM	2 MB
Ethernet	
Interface	10/100 BASE-T
Controller	Intel 82559
Connector	RJ-45
SCSI	
Controller	LSI Logic 53C895 Wide Ultra2
IDE	
Mode	ATA/33
Channel (Max Devices)	2 (4)
I/O Interface	
USB	Two (USB 1.0 compliant)
Serial	Two (RS-232)
Parallel	One IEEE 1284-compliant
FDD	One
Keyboard	One
Mouse	Serial or PS/2
Watchdog Timer	
Interval	User Configurable
Power Requirement	
Typical	366 MHz Celeron CPU
+/-12V	100mA
+5V	5.0A
Physical Dimensions	
Length	13.3" (338mm)
Width	4.8" (122mm)

Single Board Computers



Crystal Flex 370 GX

Processor System	
Maximum Processors	One (1)
CPU	Intel Pentium III
Maximum Speed	850 MHz
L2 Cache	256 KB
Chipset	Intel 440GX AGPset
BIOS	AMI Flash BIOS
Bus	
Architecture	PCI/ISA; PICMG 2.1 compatible
Front Side Bus	100 MHz
PCI	32-bit/33 MHz
ISA	16-bit/8 MHz
Memory	
Technology	PC100 or PC133 SDRAM (ECC or Non-ECC, Non-registered)
Maximum Capacity	1 GB
Socket	168-pin DIMM x2
Graphic	
Controller	Chips & Technology 69000 PCI Video
VRAM	2 MB
Ethernet	
Interface	10/100 BASE-T
Controller	Intel 82559
Connector	RJ-45
SCSI	
Controller	LSI Logic 53C895 Wide Ultra2
IDE	
Mode	ATA/33
Channel (Max Devices)	2 (4)
I/O Interface	
USB	Two (USB 1.0 compliant)
Serial	Two (RS-232)
Parallel	One IEEE 1284-compliant
FDD	One
Keyboard	One
Mouse	Serial or PS/2
Watchdog Timer	
Interval	User Configurable
Power Requirement	
Typical	550 MHz Pentium III CPU
+/-12V	100mA
+5V	5.0A
Physical Dimensions	
Length	13.3" (338mm)
Width	4.8" (122mm)

Single Board Computers



Crystal Pentium III GX

Processor System

Maximum Processors	Two (2)
CPU	Intel Pentium III
Maximum Speed	1 GHz
L2 Cache	256 KB
Chipset	Intel 440GX AGPset
BIOS	AMI Flash BIOS

Bus

Architecture	PCI/ISA; PICMG 2.1 compatible
Front Side Bus	100 MHz
PCI	32-bit/33 MHz
ISA	16-bit/8 MHz

Memory

Technology	PC100 or PC133 SDRAM (ECC or Non-ECC, Non-registered)
Maximum Capacity	2 GB
Socket	168-pin DIMM x4

Graphic

Controller	Chips & Technology 69000 PCI Video
VRAM	2 MB

Ethernet

Interface	Two 10/100 BASE-T
Controller	Intel 82559
Connector	RJ-45

SCSI

Controller	LSI Logic 53C895 Wide Ultra2 or 53C1000R Wide Ultra3 SCSI Mezzanine Card Option
------------	--

IDE

Mode	ATA/33
Channel (Max Devices)	2 (4)

I/O Interface

USB	Two (USB 1.0 compliant)
Serial	Two (RS-232)
Parallel	One IEEE 1284-compliant
FDD	One
Keyboard	One
Mouse	Serial or PS/2

Watchdog Timer

Interval	User Configurable
----------	-------------------

Power Requirement

Typical	Two 850 MHz Pentium III CPUs
+/-12V	100mA
+5V	5.0A

Physical Dimensions

Length	13.3" (338mm)
Width	4.8" (122mm)

Single Board Computers



Crystal Pentium III HE-SL

Processor System

Maximum Processors	Two (2)
CPU	Intel Pentium III
Maximum Speed	1.4 GHz
L2 Cache	512 KB using FC-PGA2 packages
Chipset	ServerWorks ServerSet HE-SL
BIOS	AMI Flash BIOS

Bus

Architecture	PCI/ISA; PICMG 2.1 compatible
Front Side Bus	133 MHz
PCI	64/32-bit, 66/33 MHz
ISA	16-bit/8 MHz

Memory

Technology	PC133 SDRAM (ECC, Registered)
Maximum Capacity	3 GB
Socket	168-pin DIMM x4

Graphic

Controller	ATI Mobility Radeon M6 Video/Graphic Accelerator AGP
VRAM	16 MB

Ethernet

Interface	Two 10/100 BASE-T
Controller	Intel 82559
Connector	RJ-45

SCSI

Controller	LSI Logic 53C1000R Wide Ultra3 Mezzanine Card Option
------------	--

IDE

Mode	ATA/33
Channel (Max Devices)	2 (4)

I/O Interface

USB	Two (USB 1.0 compliant)
Serial	Two (RS-232)
Parallel	One IEEE 1284-compliant
FDD	One
Keyboard	One
Mouse	Serial or PS/2

Watchdog Timer

Interval	User Configurable
----------	-------------------

Power Requirement

Typical	Two 1.26 GHz CPUs with 512 KB L2 Cache
+5V	9.80A
+12V	.20A
-12V	.01A
+3.3V	3.80A

Physical Dimensions

Length	13.3" (338mm)
Width	4.8" (122mm)

Single Board Computers



Crystal DXL

Processor System

Maximum Processors	Two (2)
CPU	Intel Xeon
Maximum Speed	2.4 GHz
L2 Cache	512 KB
Chipset	Intel E7500/E7501 with ICH3-S and P64H2
BIOS	Award 4MB Flash Memory, PXE pre-boot

Bus

Architecture	ePCI-X; PICMG 1.2 compatible
Front Side Bus	400/533 MHz
PCI-X	64-32-bit, 133/100/66/33 MHz

Memory

Technology	200/266 DDR-SDRAM (ECC, Registered)
Maximum Capacity	8 GB
Socket	184-pin DIMM x4

Graphic

Controller	ATI RageXL
VRAM	8 MB

Ethernet

Interface	Two 10/100/1000
Controller	Intel 82546EB Dual Channel Controller
Connector	RJ-45

SCSI

Controller	SCSI Option Available
------------	-----------------------

IDE

Mode	ATA/100
Channel (Max Devices)	2 (4)

I/O Interface

USB	Two (USB 1.1 compliant)
Serial	Two (RS-232)
Parallel	One IEEE 1284-compliant
FDD	One standard 34-pin
Keyboard	One
Mouse	Serial or PS/2

Watchdog Timer

Interval	User Configurable
----------	-------------------

Power Requirement

+12V	1.04A
+5V	10.28A
+3.3V	13.16A

Physical Dimensions

Length	13.3" (338mm)
Width	4.8" (122mm)

Single Board Computers



Xeon

Processor System

Maximum Processors	One (1)
CPU	Intel Xeon
Maximum Speed	2.4 GHz
L2 Cache	512 KB
Chipset	Intel E7500
BIOS	AMI Flash BIOS 8.00 Core, Remote BIOS Setup, PXE and BOOTP Network Boot

Bus

Architecture	PCI/ISA; PICMG 1.0 compatible
Front Side Bus	400 MHz
PCI	64/32-bit, 66/33 MHz
ISA	8/16-bit/8 MHz

Memory

Technology	PC1600/ PC2100 DDR-SDRAM (ECC, Registered)
Maximum Capacity	2 GB
Socket	184-pin DIMM x2

Graphic

Controller	Chips & Technology 69030
VRAM	4 MB

Ethernet

Interface	Two 10/100/1000 BASE-T
Controller	Intel 82546 Dual Channel Controller
Connector	Two (2) RJ-45

SCSI

Controller	Qlogic ISP12160A Wide Ultra3 Mezzanine Card Option
------------	---

IDE

Mode	ATA/100
Channel (Max Devices)	2 (4)

I/O Interface

USB	Two (USB 1.0 compliant)
Serial	Two (RS-232)
Parallel	One IEEE 1284-compliant
FDD	One
Keyboard	One
Mouse	Serial or PS/2

Watchdog Timer

Interval	User Configurable
----------	-------------------

Power Requirement

+12V	6.4A
-12V	.05A
+5V	4.5A
+3.3V	6.0A

Physical Dimensions

Length	13.3" (338mm)
Width	4.8" (122mm)

Single Board Computers



Crystal Pentium 4

Processor System

Maximum Processors	One (1)
CPU	Intel Pentium 4
Maximum Speed	2.8 GHz
L2 Cache	512 KB
Chipset	Intel 845E
BIOS	AMI Flash BIOS 8.00 Core Remote BIOS Setup PXE and BOOTP Network Boot

Bus

Architecture	PCI/ISA; PICMG 1.0 Compatible
Front Side Bus	400/533 MHz
PCI	32-bit, 33 MHz
ISA	8/16-bit, 8.33 MHz

Memory

Technology	PC1600/PC2100 DDR-SDRAM (ECC, Non-Registered)
Maximum Capacity	2 GB
Socket	184-pin DIMM x2

Graphic

Controller	Chips & Technology 69030
VRAM	4 MB

Ethernet

Interface	One 10/100 BASE-T, One 10/100/1000 BASE-T
Controller	Provided as part of native chipset (82801DB), Intel 82540 dual channel controller
Connector	Two (2) RJ-45

SCSI

Controller	Adaptec AIC-7892 Single Channel Ultra3 Wide
------------	---

IDE

Mode	ATA/100
Channel (Max Devices)	2 (4)

I/O Interface

USB	Two (USB 2.0 compliant)
Serial	Two (RS-232)
Parallel	One IEEE 1284-compliant
FDD	One
Keyboard	One
Mouse	Serial or PS/2

Watchdog Timer

Interval	User Configurable
----------	-------------------

Power Requirement

+12V	3.91A
-12V	.05A
+5V	3.96A
+3.3V	2.68A

Physical Dimensions

Length	13.3" (338mm)
Width	4.8" (122mm)

Single Board Computers



Crystal CompactPCI LE

Processor System

Maximum Processors	One (1)
CPU	Intel Celeron or Pentium III
Maximum Speed	850 MHz (Celeron), 866 MHz (Pentium III)
L2 Cache	128 KB (Celeron), 256 KB (Pentium III)
Chipset	ServerWorks ServerSet LE
BIOS	AMI Flash BIOS

Bus

Architecture	CompactPCI
Front Side Bus	100/133 MHz
PCI	64/32-bit, 66/33 MHz

Memory

Technology	PC100 or PC133 SDRAM (ECC, Registered)
Maximum Capacity	1 GB
Socket	168-pin DIMM

Graphic

Controller	Chips & Technology 69030
VRAM	4 MB

Ethernet

Interface	Two 10/100 BASE-T
Controller	Intel 82559
Connector	RJ-45

SCSI

Controller	No SCSI Option
------------	----------------

IDE

Mode	ATA/33
Channel (Max Devices)	2 (4)

I/O Interface

USB	Two (USB 1.0 compliant)
Serial	Two (RS-232)
Parallel	One IEEE 1284-compliant
FDD	One
Keyboard	One
Mouse	Serial or PS/2

Watchdog Timer

Interval	User Configurable
----------	-------------------

Power Requirement

Typical	One 1GHz CPU
+/-12V	400mA
+5V	7.54A
+3.3V	2.84A

Physical Dimensions

1 Slot (4 HP)	
Length	6.875" (175mm)
Width	9.188" (233mm)

Single Board Computers



Crystal CompactPCI BX

Processor System	
Maximum Processors	One (1)
CPU	Intel Celeron or Pentium III
Maximum Speed	850 MHz
L2 Cache	128 KB (Celeron), 256 KB (Pentium III)
Chipset	Intel 440BX AGPset
BIOS	AMI Flash BIOS
Bus	
Architecture	CompactPCI
Front Side Bus	66/100 MHz
PCI	32-bit/33 MHz
Memory	
Technology	PC100 or PC133 SDRAM (ECC or Non-ECC, Non-registered or Registered)
Maximum Capacity	512 MB
Socket	168-pin DIMM DIMM x2
Graphic	
Controller	Chips & Technology 69030
VRAM	4 MB
Ethernet	
Interface	Two 10/100 BASE-T
Controller	Intel 82559
Connector	RJ-45
SCSI	
Controller	Adaptec AIC-7890 Ultra2 Wide
IDE	
Mode	ATA/33
Channel (Max Devices)	2 (4)
I/O Interface	
USB	Two (USB 1.0 compliant)
Serial	Two (RS-232)
Parallel	One IEEE 1284-compliant
FDD	One
Keyboard	One
Mouse	Serial or PS/2
Watchdog Timer	
Interval	User Configurable
Power Requirement	
Typical	850 MHz Pentium III CPU
+/-12V	100mA
+5V	5.6A
Physical Dimensions	
Length	6.875" (175mm)
Width	9.188" (233mm)