

# 4700 Series RAID-Enabled Industrial PCs

DS-470000\_RAID(C)



*The most susceptible component of any Industrial PC is the hard drive. Some sources suggest shock mounting the hard drive; unfortunately, shock mounting may cause the hard drive to become more vibration-sensitive at certain frequencies. The most common method to overcome a susceptibility to vibration is through the use of solid-state storage media or the use of redundant hard drives.*

Many of the Xycom brand Heavy-Duty Industrial PCs offer solid-state media in the form of CompactFlash or solid state hard drives. While many storage sizes are available, the cost increases drastically as the required size increases.

Another approach is to use RAID-enabled PC. RAID stands for Redundant Array of Independent Disks. In essence, RAID is two or more hard disks attached to the same controller, either SCSI or IDE. The RAID controller can "stripe" or "mirror" data.

Striping (RAID 0) is used to read and write to many disks at once to increase hard drive performance, while Mirroring (RAID 1) allows the same data to be available on two drives. Other RAID levels (2 and higher) are also available. These higher levels increase the number of disks being utilized.

In a RAID 1 system there is a primary and a secondary hard drive.

The RAID controller writes to both drives but only reads from the primary drive. If the RAID controller detects any problem with the primary drive it switches over to the secondary drive (which has an exact copy of all data on the primary drive) and utilizes it as the primary drive. The PC will continue to run allowing time to change the faulty hard drive without interruption in machine operation. Once the drive has been replaced the RAID controller automatically begins creating a mirror copy of the good drive. This process runs in the background while the machine operation is maintained. Once this new drive is operational it is recommended that the other drive be scheduled for replacement.

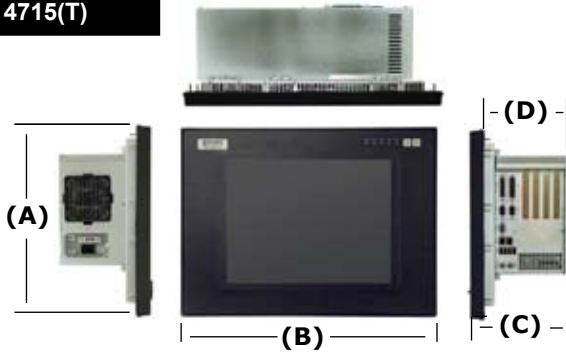
The 1547 and 4715 products can be factory configured with a RAID 1 implementation. These RAID-enabled configurations come standard with two easily removable Serial ATA hard drives and a built in RAID control-

## FEATURES

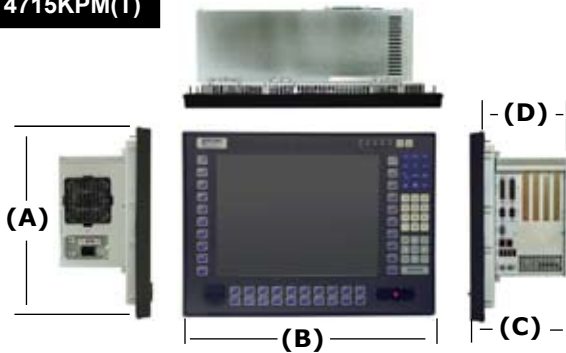
- 15.0" XGA TFT color flat panel / or No Display options
- Choice of operator inputs:
  - ♦ Reprogrammable keypad with integrated mouse (KPM);
  - ♦ Touchscreen only (T);
  - ♦ Combination of all 3 (KPMT);
  - ♦ Or / No optional input (1547)
- Intel® Celeron® M 1.3 GHz, 512 cache, 400 MHz system bus (optional Pentium® M 2.0 GHz, 2M cache, 533 MHz system bus)
- Up to 2 GB DRAM (512 MB standard)
- Dual 80 GB minimum Serial ATA hard drive (optional dual hard drives)
- RAID-Enabled (Level 1)
- 4X AGP graphics with 32 MB video memory (shared with system memory)
- Four full length expansion slots:
  - ♦ Three PCI expansion slot;
  - ♦ One PCI or ISA expansion slot
- 10/100, and 10/100/1000 BaseT Ethernet
- 4 USB 2.0 compliant ports (1.1 compatible port on front of KPM units)
- Three Serial, one Parallel, and one Video port
- Rear accessible Type I/II CompactFlash™ socket
- DVD-R/W, and floppy drives
- NEMA 4/4x/12 front panel
- UL, cUL, CE approvals
- UL listed for hazardous locations: Class I Division 2, Groups A, B, C, D; Class II Division 2, Groups F and G
- Windows® XP or Windows 2000 operating systems
- 100-240 VAC power supply (optional 24 VDC)
- 2-year warranty included

ler. This creates a more robust, fault tolerant system to help maintain your machine operation and production. When utilized correctly a RAID-enabled industrial PC can greatly improve the overall reliability of an application.

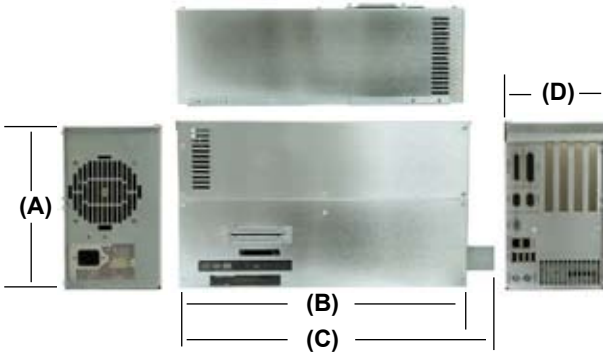


**4715(T)****4715 Unit Dimensions**

Model	4715T	4715KPM(T)
Height (A)	13.97" (354.8 mm)	13.97" (354.8 mm)
Width (B)	19.00" (482.6 mm)	19.00" (482.6 mm)
Depth (C)	7.64" (194.0 mm)	7.64" (194.0 mm)
Mounting Depth (D)	6.60" (167.6 mm)	6.60" (167.6 mm)
Weight	27 lbs (12.4 kg)	27 lbs (12.4 kg)

**4715KPM(T)****4715 Unit Configuration**

Display	15.0" LCD color display, 1024 x 768 (XGA)
Operator Input	Analog resistive touchscreen ( <b>4715T</b> ) Reprogrammable keypad and industrial mouse ( <b>4715KPM(T)</b> )
Processors	Intel® Celeron® M 1.3 GHz, 512 cache, 400 MHz system bus (optional Pentium® M 2.0 GHz, 2M cache, 533 MHz system bus)
Preloaded OS	Windows® XP or Windows® 2000 (multi-language)
Expansion	Three PCI full length expansion slots, One PCI or ISA full length expansion slot

**1547****1547 Unit Dimensions**

Model	1547
Height (A)	9.18" (233.17 mm)
Width (B)	16.16" (410.46 mm)
Width (C)	17.18" (436.37 mm)
Depth (D)	5.48" (139.2 mm)
Weight	18 lbs (8.2 kg)

**1547 Unit Configuration**

Model	1547
Processors	Intel® Celeron® M 1.31 GHz or optional Pentium M
Preloaded OS	Windows® XP or Windows® 2000 (multi-language)
Expansion	Three full length PCI and One full length PCI or ISA expansion slot

## Environmental

	Operating	Nonoperating
<b>Thermal</b>	0°C to 50°C	-20°C to 60°C
<b>Humidity</b>	20% to 80% RH, noncondensing	20% to 80% RH, noncondensing
<b>Shock <sup>a</sup></b>	15g peak acceleration, 11 msec duration	30g peak acceleration, 11 msec duration
<b>Vibration 5-2000 Hz <sup>a</sup></b>	.006" peak to peak displacement 1.0g maximum acceleration	.015" peak to peak displacement 2.5g maximum acceleration
<b>Altitude <sup>b</sup></b>	Sea level to 10,000 ft.	Sea level to 40,000 ft.

<sup>a</sup> These values are with solid state hard drives and not rotating media drives.

<sup>b</sup> Consistent with internal component specifications.

## Electrical

	4715/1547 AC	4715/1547 DC
<b>Power Supply</b>	250 Watt AC 100-240 VAC, 50-60 Hz <b>4715</b> - 88 Watt nominal power † <b>1547</b> - 74 Watt nominal power †	24 VDC 19-36 VDC <b>4715</b> - 68 Watts nominal power † <b>1547</b> - 54 Watts nominal power †
<b>Available Expansion Power</b>	+3.3V 4.0A maximum +5V 4.0A maximum -5V 160mA maximum +12 3.0A maximum -12 240mA maximum	+3.3V 4.0A maximum +5V 4.0A maximum -5V 160mA maximum +12 3.0A maximum -12 240mA maximum

† Nominal power is measured for a base configuration only. Any additional expansion and/or devices will increase the input power required.

## 4715 Compliance

### Regulatory Compliance

#### CE

- EN 55022: Class A
- EN 61000-6-2
- EN 61000-3-2, Class A
- EN 61000-3-3
- IEC 60950-1

#### FCC

- 47 CFR, Part 15, Class A

### Safety Agency Approvals

#### CUL

- UL 508 Listed
- UL 1604 Listed <sup>a</sup>

#### CUL

- CSA-C22.2, #142 Listed
- CSA-C22.2, #213 Listed <sup>a</sup>

<sup>a</sup> Class I Division 2, Groups A, B, C, D; Class II, Division 2, Groups F and G;  
Temp. Code: T6

### Front Panel

- NEMA 4/4X/12, IP65



## 1547 Compliance

### Regulatory Compliance

#### CE

- EN 55022: Class A
- EN 61000-6-2
- EN 61000-3-2, Class A
- EN 61000-3-3
- IEC 60950-1

#### FCC

- 47 CFR, Part 15, Class A

### Safety Agency Approvals

#### CUL

- UL 508 Listed
- UL 1604 Listed <sup>a</sup>

#### CUL

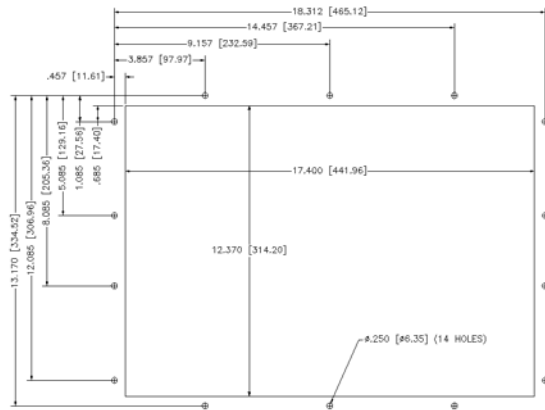
- CSA-C22.2, #142 Listed
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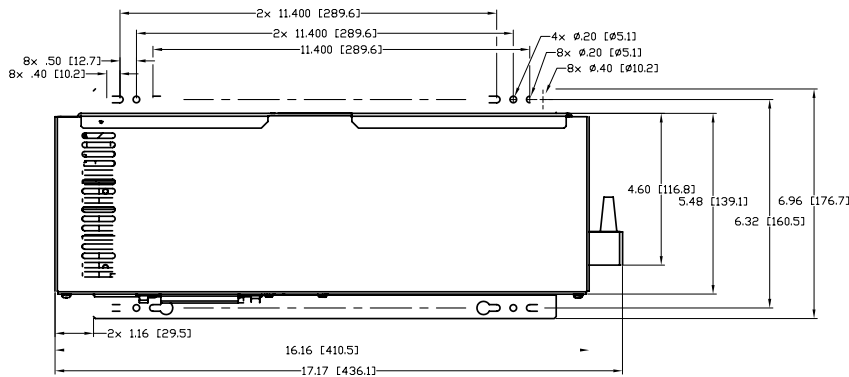


Product certification documentation available at: [www.xycom.com/certifications](http://www.xycom.com/certifications)

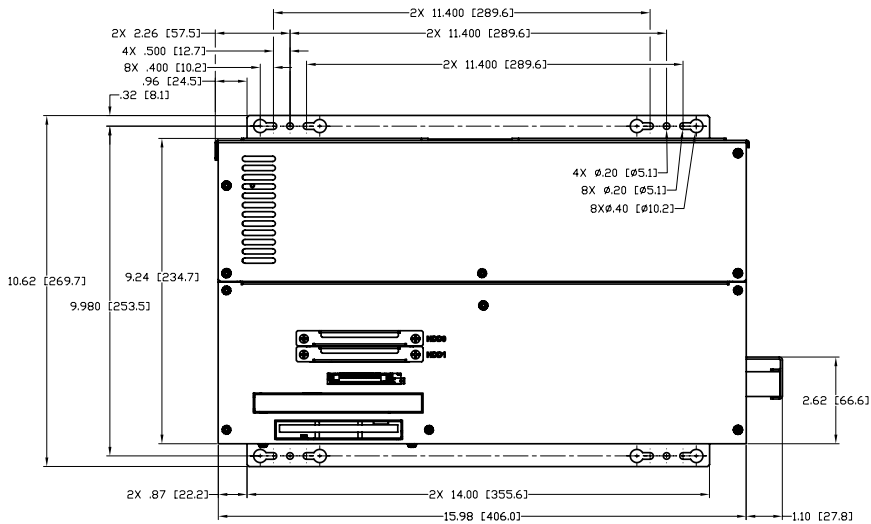
## 4715T and 4715KPM(T) Cutout



## 1547 Shelf Mounting



## 1547 Wall Mounting



To create an order number, follow the conventions defined by the example order numbers and product configurations.

## Example Order Number

Order Number	Description
4715T-1300-512-RAID-DVDW-XP	RAID-enabled 4715T with 15" XGA TFT color flat panel, Intel® Celeron® M 1.3 GHz, 512 cache, 400 MHz system bus, 512 MB, Two Serial ATA 80 GB minimum Hard Drives, Rear Access Type I/II CompactFlash socket and DVD R/W, Windows XP, On-board 10/100 and 10/100/1000 BaseT Ethernet and USB, three PCI, and one PCI or ISA available full-length expansion slots.

**4715 - -RAID**

**Display and Operator Input**

- T 15" w/ Touchscreen only
- KPM 15" w/ Keypad & Mouse
- KPMT 15" w/ Keypad, Mouse, & Touch

**CPU**

- 1300 Celeron M 1.3 GHz, 512K Cache, 400 MHz bus
- 2000 Pentium M 2.0 GHz, 2M Cache, 533 MHz bus

**DRAM**

- 512 512 MB DRAM
- 1000 1 GB DRAM
- 2000 2 GB DRAM

**Power Supply**

- Blank AC Power Supply
- 24V 24 VDC Power Supply

**Rotating Media Drives**

- Blank No Rear Access Media Drive
- DVDW Rear Access DVD-R/W Drive

**Floppy**

- Blank No Floppy Installed <sup>a</sup>
- F Rear Access Floppy Installed

**Externally Accessible Compact Flash**

- Blank Nothing Installed
- 4GCF 4 GB CompactFlash Installed

**Operating System**

- XP Pre-Activated Windows XP Professional
- 2K Windows 2000 (multi-language)

<sup>a</sup> When ordering a unit with no floppy operating system recovery will not be possible without adding an external USB floppy drive.

Important Notice for XP configurations: Certain Microsoft® software product(s) included with this computer may use technological measures for copy protection. IN SUCH EVENT, YOU WILL NOT BE ABLE TO USE THE PRODUCT IF YOU DO NOT FULLY COMPLY WITH THE PRODUCT ACTIVATION PROCEDURES. Product activation procedures and Microsoft's privacy policy will be detailed during initial launch of the product, or upon certain reinstallations of the software product(s) or reconfigurations of this computer, or may be completed by Internet or telephone (toll charges may apply).

**Warranty Information**  
 The 4715 series carries a two-year parts & labor warranty.

## Example Order Number

Order Number	Description
1547-1300-512-RAID-DVDW-XP	1547 Industrial "Node" PC, Intel® Celeron® M 1.3 GHz, 512K cache, 400 MHz system bus, 512MB DRAM, Two Serial ATA 80 GB minimum Hard Drives, RAID-Enabled Rear Access Type I/II CompactFlash socket and DVD R/W, Windows XP, On-board 10/100 and 10/100/ 1000 BaseT Ethernet, and USB, three PCI, and one PCI or ISA available full-length expansion slots.

1547 - - RAID

### CPU

1300 Celeron M 1.3 GHz, 512K Cache, 400 MHz bus  
2000 Pentium M 2.0 GHz, 2M Cache, 533 MHz bus

### DRAM

-512 512 MB DRAM  
-1000 1 GB DRAM  
-2000 2 GB DRAM

### Power Supply

Blank AC Power Supply  
-24V 24 VDC Power Supply

### Rotatin Media Drives

Blank No Rear Access Media Drive  
-DVDW Rear Access DVD-R/W Drive

### Floppy

Blank No Floppy Installed <sup>a</sup>  
-F Rear Access Floppy Installed

### Externally Accessible Compact Flash

Blank Nothing Installed  
-4GCF 4 GB CompactFlash Installed

### Operating System

-XP Pre-Activated Windows XP Professional  
-2K Windows 2000 (multi-language)

<sup>a</sup> When ordering a unit with no floppy operating system recovery will not be possible without adding an external USB floppy drive.

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### Warranty Information

The 1547 series carries a two-year parts & labor warranty.

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Fax: 734-429-1010  
<http://www.xycom.com>

Customer Support Hotline:  
734-944-0482



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## Avertissement concernant la Proposition 65 de Californie—Plomb et composés de plomb

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