# OpenCLIENT™ Industrial Windows® **Terminals and Nodes**

DS-370040(F)



# FEATURES

- Enabled by ACP ThinManager™ (ThinManager sold separately)
- 8.4" & 10.4" color flat panel display terminals or non-integrated display nodes
- Reprogrammable keypad or analog resistive touchscreen
- Built-in PCI 10/100 BaseT Ethernet
- PC/104 expansion up to two standard cards (only one on 1300 models)
- NS Geode GX1 300 MHz processors
- 128 MB DRAM
- Parallel, RS-232 and RS-485, PS/2 mouse and keyboard, and VGA ports
- NEMA 4/4X/12 front panel (units with integrated displays)
- UL listed for hazardous locations: Class I, Division 2, Groups A, B, C, D (1401, 1300HAZ - not 1300 non-HAZ models, 33XX); Class II Divison 2, Groups F and G (33XX)

OpenCLIENT™ Terminals & Nodes are industrially hardened platforms used for terminal server network applications. OpenCLIENT™ terminals are designed to support ACP's ThinManager server software. Several OpenCLIENT™ models are available based on your screen size and resolution requirements.

Each OpenCLIENT™ runs what looks like a full Windows operating system. The server runs a standard version of a Microsoft® operating system designed for thin clients (Windows® NT Server, Windows® 2000 Server, or Windows® 2003 Server) that allows users to log in and establish a full Windows® session running on the server. Multiple users

can repeat this process concurrently many times. Each user gets a dedicated share of memory and access to the server's applications.

When an OpenCLIENT™ terminal is powered up it logs on to the server just as a terminal would log on to a mainframe. In addition to giving the client access to its resources, the server also creates a virtual display, which is transferred to the OpenCLIENT™ terminal via an Ethernet link. The OpenCLIENT™ also takes input from the user (via the keypad, keyboard, mouse, or touchscreen) and sends it back to the server over the same link. This allows a user to control the Windows® session as if it were running locally.

While it appears that the control screens are running locally, they are actually running on the server in the climate controlled IT department. The client's session is configured just like any Windows session - the operator can either see a standard Windows screen (with the Internet Explorer icon, the Recycle Bin, the Start Menu, etc.) or a "locked down" version with limited functionality. For dedicated lines running an HMI or SCADA package, the session is usually set to start up with the HMI display exclusively.



### **Reduced Maintenance Costs**

Because all programs are centrally stored in the server, you can simply upgrade to the latest version of software, make any changes needed to the screens (one time, on the server) and every client in the factory is running the latest code with the updated screens.

The OpenCLIENT™ is a solid, rugged piece of equipment, with no moving parts of any kind, greatly increasing its MTBF. If the device is accidentally destroyed however, the program continues to run on the server and the application data is unaffected. To replace a damaged unit, the operator plugs in a replacement OpenCLIENT™ and turns it on. Once the client boots, it displays the same screen as the previous client. OpenCLIENT™s can be powered down and back up at any time without the risk of data loss or damage to the disk directory structure.

# **Enhanced Security**

If an operator powers down a traditional PC while it is running there is a good chance that it will go through a disk checking procedure at startup. At that time it can be halted or restarted to gain control. A malicious operator could insert a boot disk and restart the PC to add his own programs, or worse enter setup mode during the power-up sequence. The OpenCLIENT™ avoids both of these weaknesses. It has no disk drives and does not go through the traditional PC power-up sequence.

# Simplified Fault Tolerance

If a plant using individual Industrial PCs is really concerned with redundancy or fault tolerance, they must invest money to add special features to every PC in their plant. With a thin client system the IT department simply makes the server redundant and all clients linked to that server become redundant as well.

# Thin Client Management Software

ThinManager™ software is as easy to read as it is to use. Administrators can simply glance at the management screen and see which terminals are online. They can create a new terminal, or replace a damaged terminal. With ThinManager™'s "Default" and "AutoCreate" features, any terminal that has not been booted from that server before can be automatically

created and logged in using the parameters of the Default terminal. Clients can therefore be replaced and added directly from the floor without visiting the server. Clients at different locations frequently have different functions, requiring different configurations. If an OpenCLIENT™ must be reconfigured, the system administrator can restart it from the management interface. Since the client's software is running on the server, this will not affect the operation of any applications that are being displayed on the client.

OpenCLIENT™ terminals running the same application may have similar characteristics. In this case, terminals can be grouped together to provide a visually useful method of checking on the status of all of the clients in that group. Terminals added to the group will inherit all of the group's settings. Grouping terminals also makes it easy to apply configuration changes to every member of the group.

# Special Features for Industrial Applications

OpenCLIENT™ workstations also support industry specific protocols including DeviceNet, Profibus and high-speed serial ports. The ThinManager™ software will detect the OpenCLIENT™'s model number and build a basic set of modules to support its features. Settings are saved in a file on the server so wherever these OpenCLIENT™ terminals are installed they will always receive the correct software during boot up.

# **Flat Panel Monitor Connectivity**

OpenCLIENT™ Nodes (1300 and 1401 models) support connectivity to Xycom Flat Panel Monitors creating a complete industrial solution.



Consult www.xycom.com or contact your local Xycom representative for more details on available monitors.

# **LIGHT-DUTY 1300 PRODUCT CONFIGURATION**



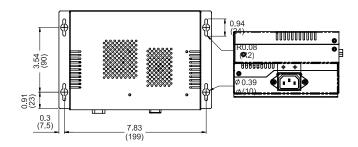
Model	1300 Node		
Processor	NS Geode GX1300 MHz		
System RAM	128 MB		
Integrated Video	Connector		
Supports:	VGA (640 x 480)		
	SVGA (800 x 600)		
	XGA (1024 x 768)		
	SXGA (1280 x 1024, 256 colors max)		
Ethernet	Built-in 10/100 BaseT		
Expansion	PC/104 expansion (1 card only)		

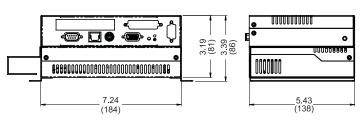
# **LIGHT-DUTY 1300HAZ PRODUCT CONFIGURATION**



Model	1300HAZ Node		
Processor	NS Geode GX1300 MHz		
System RAM	128 MB		
Integrated Video C	Connector		
Supports:	VGA (640 x 480)		
	SVGA (800 x 600)		
	XGA (1024 x 768)		
	SXGA (1280 x 1024, 256 colors max)		
Ethernet	Built-in 10/100 BaseT		
Expansion	PC/104 expansion (1 card only)		

# 1300 and 1300HAZ Product Dimensions





All dimensions are in inches [millimeters]

# **HEAVY-DUTY 1401 "NODE" CONFIGURATION**



Model	1401 Node
Processor	NS Geode GX1 5x86 300 MHz
System Ram	128 MB
Integrated Video C	Connector
Supports:	VGA (640 x 480)
	SVGA (800 x 600)
	XGA (1024 x 768)
	SXGA (1280 x 1024)
Ethernet	Built-in 10/100 BaseT
Expansion	PC/104 expansion (up to two cards)

For further product details, consult the 1401 datasheet available at www.xycom.com

# 3300 PRODUCT CONFIGURATIONS





Model 3308KP  Display 8.4" flat panel color display, 640 x 480 (VGA)		3308T		
		8.4" flat panel color display, 640 x 480 (VGA)		
Operator Input	51-position keypad	Analog resistive touchscreen		
Processor	NS Geode GX1 300 MHz	NS Geode GX1 300 MHz		
System RAM	128 MB	128 MB		
Ethernet	Built-in 10/100 BaseT	Built-in 10/100 BaseT		
Expansion	PC/104 expansion (up to two cards)	PC/104 expansion (up to two cards)		



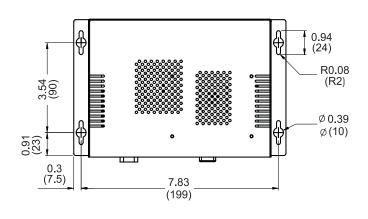


Model 3310KP(T)  Display 10.4" flat panel color display, 640 x 480 (VGA)		3310T		
		10.4" flat panel color display, 640 x 480 (VGA)		
Operator Input	63-position keypad (touchscreen option)	Analog resistive touchscreen		
Processor	NS Geode GX1 300 MHz	NS Geode GX1 300 MHz		
System RAM	128 MB	128 MB		
Ethernet	Built-in 10/100 BaseT	Built-in 10/100 BaseT		
Expansion	PC/104 expansion (up to two cards)	PC/104 expansion (up to two cards)		

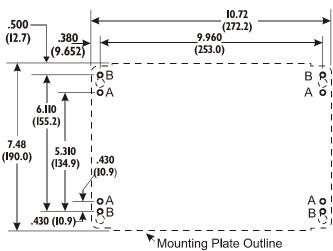
For further product details, consult the 3300 datasheet available at www.xycom.com

# **CUTOUTS & MOUNTING DIMENSIONS**

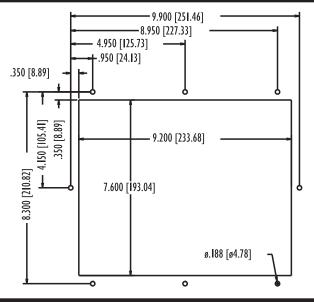
# 1300 & 1300HAZ



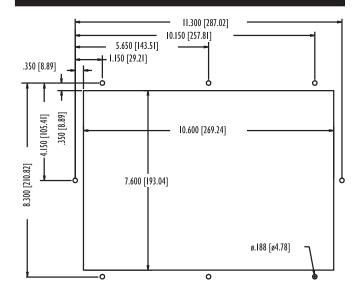
# 1401



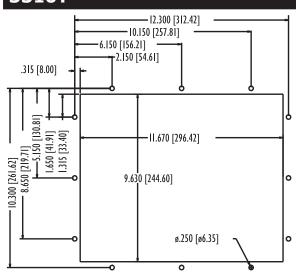
# 3308T



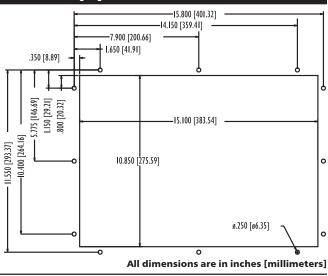
# 3308KP



# 3310T



# 3310KP(T)



# **PRODUCT SPECIFICATIONS AND RATINGS**

# **Environmental**

Operating           Thermal         0°C to 50°C		Nonoperating	
		-20°C to 60°C	
Humidity	umidity 20% to 80% RH, noncondensing 20% to 80% RH, noncondensing		
Shock <sup>a</sup>	15g peak acceleration, 11 msec duration	30g peak acceleration, 11 msec duration	
Vibration.006" peak to peak displacement5-2000 Hz a1.0g maximum acceleration		.015" peak to peak displacement 2.5g maximum acceleration	
Altitude b Sea level to 10,000 ft. Sea level to 40		Sea level to 40,000 ft.	

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

# **Electrical**

	1300 & 1300HAZ	1401	3308	3310
Power Supply AC Power	55 Watt power 100-240V AC wide ranging, 50/60 Hz, 0.5 A (maximum) 21 W nominal <sup>c</sup>	40 Watt power 100-240V AC wide ranging, 50/60 Hz, 1 A (maximum) 22 W nominal <sup>c</sup>	40 Watt power 100-240V AC wide ranging, 50/60 Hz, 1 A (maximum 22 W nominal <sup>c</sup>	40 Watt power 100-240V AC wide ranging, 50/60 Hz, 1 A (maximum 24 W nominal <sup>c</sup>
DC Power	18-32V DC, 24V nominal 0.9 A (max) 21 W nominal <sup>c</sup>	18-30V DC, 24V nominal 3.6 A (max) 22 W nominal <sup>c</sup>	18-30V DC, 24V nominal 3.6 A (max) 22 W nominal <sup>c</sup>	18-30V DC, 24V nominal 3.6 A (max) 24 W nominal <sup>c</sup>

<sup>&</sup>lt;sup>c</sup> Nominal Power is measured for a base configuration only. Any additional expansion and/or devices will increase the input power required.

• 47 CFR, Part 15, Class A

# Regulatory Compliance

# CE:

### EN 55022, Class A

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

# Front Panel

• NEMA 4/4X/12 IP65 (units with integrated displays)

# Safety Agency Approvals

	1300	1300HAZ	1401	3300
UL	UL 508 Listed	UL 508 Listed UL 1604 Listed <sup>d</sup>	UL 508 Listed UL 1604 Listed <sup>d</sup>	UL 508 Listed UL 1604 Listed <sup>e</sup>
cUL	CSA-C22.2, #142 Listed	CSA-C22.2, #142 Listed CSA-C22.2, #213 Listed <sup>d</sup>	CSA-C22.2, #142 Listed CSA-C22.2, #213 Listed <sup>d</sup>	CSA-C22.2, #142 Listed CSA-C22.2, #213 Listed <sup>e</sup>
Temp. Co	ode T6	Т6	T4A	T4A

<sup>&</sup>lt;sup>d</sup> Class I Division 2, Groups A, B, C, D.

<sup>&</sup>lt;sup>b</sup>Consistent with internal component specifications.

<sup>&</sup>lt;sup>e</sup> Class I Division 2, Groups A, B, C, D; Class II, Division 2, Groups F and G.

# **ORDERING INFORMATION**

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

**Example Order Number** Description

1300-CLIENT-AC-ACP

OpenCLIENT 1300 Industrial ThinCLIENT Node with 128 MB SDRAM.

1300\_\_\_\_-CLIENT\_\_\_\_-ACP

Class I, Div 2 –

blank Ordinary Locations Approvals only (No Class I, Div 2)

HAZ Class I, Div 2 Approvals

**Power Supply** -

-AC AC Power Supply

-DC 24V DC Power Supply

# **Example Order Number** Description

1401-CLIENT-300-128-ACP OpenCLIENT 1400 Industrial ThinCLIENT Node with 128 MB DRAM.

1401-CLIENT-300-128\_\_\_--ACP

**Power Supply -**

-AC AC Power Supply

-DC 24V DC Power Supply

**Example Order Number** Description

**3308T-CLIENT-300-128-ACP** OpenCLIENT Terminal with 8.4" color display, analog resistive touchscreen, 128 MB RAM.

Color Flat Panel Display and Operator Input

08KP 8.4" display with keypad
08T 8.4" display with touchscreen
10KP 10.4" display with keypad
10T 10.4" display with touchscreen
10KPT 10.4" display with keypad and touchscreen

Power Supply -

blank AC power supply -24V 24V DC power supply

Xycom Automation 734-429-4971 Fax: 734-429-1010 http://www.xycom.com Customer Support Hotline: 734-944-0482



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Light-Duty Industrial PC Computers

Heavy-Duty Industrial PC Computers

Heavy-Duty Industrial Flat Panel Monitors

Node and Rack Mount PC Computers

PC Accessories

# Pro-face



# Setting the Standards: New Generations of Industrial PC Technology

profaceamerica.com





# The Best in Human Machine Interfaces



- We are the leading independent global supplier of industrial computing and visualization solutions for automation and manufacturing applications.
- We continue to set the standards for HMI solutions by offering the industry's most extensive product offerings and the highest levels of connectivity and support.

# Pro-face Operator Interfaces



### Programmable Graphic HMIs

- III 3.8" to 15" Crisp, Clear HMI Displays
- III TFT, STN Color or Mono Touchscreens
- III Data Sharing & Collection through OPC, DDE, SQL, etc.
- III Web-enabled & Remote Monitoring Capabilities
- III Large Selection of Controller Connectivity
- III Ethernet, USB, RS232, RS422/485 and
- III CompactFlash™ Interfaces
- III Full-featured HMI Screen Editor Software

# HMI Logic Controllers



- III Supports Local or Distributed I/O Applications
- III Low Cost Stand-Alone or Networked Units
- TFT Color and Mono Graphics Displays
- III Large Selection of Protocol Connectivity
- Data Sharing & Collection through CompactFlash™, OPC, DDE, SQL, etc.

# Xycom Industrial Computers & Monitors



### **Industrial Computers**

- III 10.4" up to 17" TFT Displays
- III Up to 1280 x 1024 SXGA Resolution
- III Up to Pentium® 4 3.0 GHz
- III Processor Speed
- III UL, cUL HazLoc Approvals
- III NEMA 4/4X/12 Front Panel Ratings
- III Touchscreen and/or Keypads
- III Extensive I/O Connectivity
- III Over 20 years of Cutout Compatibility



#### **Flat Panel Monitors**

- II 12.1" up to 19" TFT Displays
- III Up to 1280 x 1024 SXGA Resolution
- III NEMA 4/4X/12 Front Panel Ratings
- III UL, cUL HazLoc Approvals
- III Touchscreen and/or Keypads
- **III** Adapters for Cutout Compatibility

World-class products, service, support, and reliability.

# **About Us**

We are Pro-face, the **#1 global supplier of Human Machine Interfaces (HMI)**. We offer an extensive line of visualization and control solutions with your choice of PC-based open architecture or dedicated HMI technology. Our product brands include Xycom and Pro-face industrial PC and flat panel monitor solutions, plus an extensive line of Pro-face brand dedicated operator interface touch screens HMI solutions. We offer the industry's most extensive product lines with the highest level of reliability and connectivity.

Value in every unit:

- Global Support Network with offices serving over 50 countries
- . Highest Quality and high reliability IPC and HMI products available
- Innovative "Best-in-Class" IPC and operator interface product designs
- Full Compliance including RoHS, UL, cUL, CE, NEMA, ISO9000, 14000
- Investment Protection minimizing your product migration costs by maintaining software compatibility and hardware cutout compatibility.

Celebrating Over 21 Years
of Cutout Compatibility!

**Right Size, Right Technology Solutions** 

# Industrial PC Solutions

Pro-face offers a line of Light Duty industrial PC products, and a Heavy Duty line of industrial PC products, to match your budget and your application environment.

#### **LIGHT-DUTY PC**

Offerings include all the features you expect to find in a PC, but are designed for controlled environments with limited shock and vibration and no exposure to extreme temperature variations. These Light Duty PCs are a cost effective solution in matching the right PC to the right application, and helping to stay within your budget.



#### **HEAVY-DUTY PC**

FEATURE / CRECIFICATION

Offerings are designed to withstand the rugged environments of a typical industrial automation factory floor environment. Designed for use in high temperature, shock and vibrations environments, these heavy duty PCs offer the longest product availability, and minimizing product changeover and upgrades. These PCs typically include certifications to UL, Class 1 Div 2 hazardous environments, plus an extended 2 year warranty



The following table summarizes the capabilities and recommended industrial environments for Light-Duty Industrial PCs and the more robust Heavy-Duty Industrial PCs.

LIGHT BUTY OFFERINGS

FEATURE / SPECIFICATION	LIGHT-DUTY OFFERINGS	HEAVY-DUTY OFFERINGS
Keypads	Not Available	Available
NEMA Hosedown (4/4X/12)	May not be Available	Available
Long-term Availability	May not be Available	Available
Extended Operating Temperature (50° C max.)	Not Recommended	Acceptable
High Shock and Vibration	Not Recommended	Acceptable
Approval for Hazardous Locations	Not Available	Available
High Level of Configurability	Not Available	Available
Warranty	1 Year Standard	2 Year Standard

# Why Pro-face?

# SETTING THE GLOBAL STANDARDS: AN INDUSTRIAL COMPUTER CHECK LIST

A true industrial computer is designed as one from inception, not by adding "hardening" features to an already designed "office-grade" desktop computer. Pro-face industrial computers set the standards for an industrial computer platform.

#### **INDUSTRIAL REQUIREMENTS**

#### **PRO-FACE RESPONSE**

INDUSTRIAL REQUIREMENTS		PRO-PAGE RESPONSE
Resistance to foreign containment penetration	<b>√</b>	NEMA-rated screens and PCs (4/4X/12) for industrial indoor and outdoor use
For use in Hazardous Locations	<b>√</b>	UL listed (UL 1604) and cUL listed (CSA 213)
Easy integration into an industrial control panel	<b>√</b>	UL 508 Listed for inclusion in the UL 508A Control Panel Builders Program
To avoid electromagnetic interference with or from other electrical equipment	✓	Meets FCC 47 CFR, Part 15, Class A and the EU EMC directive (CE)
Environmental (Green) issues	<b>√</b>	Meets European Union RoHs directives
Reliable operation of operator input components	<b>√</b>	Membrane keypad units and touch- screen units are designed for use with gloved hands; keypad buttons will exceed one million cycles before failure; most industrial chemicals won't affect touch- screens
One touch operator input capability	<b>√</b>	Relegendable membrane keypads
Low voltage power sources requirement	$\checkmark$	Computer may be driven by 24 VDC power
High ambient temperature operating environment	<b>√</b>	At ambient temperatures up to 50° C all components remain below maximum temperature specifications
Corrosive atmosphere resistance	<b>√</b>	NEMA-rated, bezel chemical resilience specifications available
Vibration and Shock loading resistance	<b>√</b>	Our diskless products (no rotating media) exceed industrial shock and vibration requirements
Maximize uptime	<b>√</b>	Units are "burned-in" at the factory (shock & vibration tested on the line & 24-hour burn-in). ISO 9001:2000 certified; UL, CSA, and CE approvals
Compatibility with legacy products	<b>√</b>	Units are backward compatible
Software compatibility of new and old equipment	<b>√</b>	Pro-face strives for compatibility between new and legacy software and hardware - HMI Investment Protection

# UL HAZARDOUS LOCATION DEFINITIONS



Most Pro-face computers meet Underwriters Laboratories explosive atmosphere protection tests for Class I and Class II, Division 2 locations.

Class I locations are those that may have airborne flammable gases or vapors in quantities sufficient to produce explosive or ignitable mixtures.

Class II locations are those that are, or may become, hazardous because of the presence of combustible dust.

**Division 2** locations are those that are not normally hazardous, but may become hazardous because of a failure or breakdown.

All standard panel-mounted Pro-face industrial computers carry a NEMA 4/4X/12 rating, as well as an IEC 529 IP65 rating that is applied outside of North America, and are CE approved.

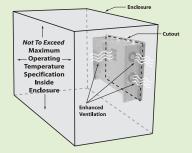
**NEMA 12** means that an enclosure is dust tight, drip proof, and approved for indoor industrial use.

**NEMA 4** means that an enclosure is waterproof and approved for outdoor industrial use.

The "X" identifier indicates that the enclosure can be used in areas that contain corrosive materials.

Most Pro-face industrial computers and HMI panels meets European Union **RoHs** directives.

### **TEMPERATURE CONSIDERATIONS**



When installing an industrial computer or flat panel monitor into an enclosure, extra care should be exercised to ensure that the ambient air around the unit (inside your enclosure, not outside the enclosure) does not exceed the maximum operating temperature specification for that unit. Exceeding this temperature may cause premature degeneration of the unit.

Consult your enclosure manufacturer for proper sizing and/or cooling options. The Pro-face datasheet for the appropriate unit contains information that your enclosure manufacturer will require. Datasheets can be obtained in the Resource Library at www.profaceamerica.com.

Get more info on these and more products!

Visit www.profaceamerica.com

# **Light-Duty Industrial PC Computers**











	100				
	1510	3112T	PS3650A	PS3710A	4117T
Brand	Xycom	Xycom	Pro-face	Pro-face	Xycom
Color Flat Panel Display	N/A	12.1" TFT	12.1" TFT	15" TFT	17" TFT
Display Resolution	N/A	800 x 600 SVGA	1024 x 768 XGA	1024 x 768 XGA	1280 x 1024 SXGA
Processor	Intel® Pentium® 4 3.0 GHz	Intel® Celeron® 1200 MHz	Intel® Celeron® M 1.3GHz	Intel® Pentium®M® 1.6GHz	Intel® Pentium® M 1.4 GHz
Memory	512MB to 2GB DRAM	256MB to 512MB DRAM	256MB to 1GB	256MB to 2GB SO-DIMM	512MB to 2GB DRAM
Front Panel Input Device	N/A	Analog Resistive Touchscreen	Analog Resistive Touchscreen	Analog Resistive Touchscreen	Analog Resistive Touchscreen
Onboard Features	Two USB Ports, Dual 10/100 Mbps Ethernet ports, 4X AGP Graphics Controller, Parallel port, Audio, Two RS-232 ports	Two USB Ports, Three Serial Ports, Audio In/Out/MIC, 10/100 Mbps Ethernet	Five USB Ports, Serial Port, Two Ethernet ports, RAS port, Audio Output	Four USB Ports, Three Serial Ports, Audio In/Out/MIC 1x 10/100 Base-T + 1x GB Ethernet, RAS Port	Two USB 2.0 Ports, Three Serial Ports, Audio In/Out/MIC, 10/100 and 10/100/1000 Base-T Ethernet ports, Parallel, PS/2 keyboard and mouse, 4X AGP Graphics Controller with up to 64MB video RAM
Expansion	Ten slot passive back- plane: Two full length ISA, Three full length PCI; One half length PCI available	Externally Accessible CompactFlash™ Slot	Externally Accessible CompactFlash™ slot, One PCI 2.2 slot (165 mm length), PCI 2.2, One PCMCIA Type III slot	Externally Accessible CompactFlash™ slot, One PCI 2.2 slot (230 mm length), Two PCMCIA Type II slots	One half-length PCI slot, Externally Accessible CompactFlash™ Slot
Storage	IDE Hard Drive	IDE Hard Drive	IDE Hard Drive	IDE Hard Drive	IDE Hard Drive
Removable Media	1.44 MB Floppy Drive CD-R/W w DVD-Read Only	1.44 MB Floppy Drive CD-ROM	USB memory	1.44 MB Floppy Drive CD/DVD Drive USB memory	CD-R/W Drive with DVD Read capability,
Mounting	Wall or Shelf	Panel or Wall	Panel	Panel	Panel or Wall
Operating System	Windows® XP/2000	Windows® 2000/XP	Windows® 2000/XP	Windows® 2000/XP	Windows® XP/2000
Standards & Ratings	UL, cUL, CE, FCC	NEMA 4/4X/12 UL, cUL, CE, FCC	UL, CE, CSA, FCC, RoHs compliant	UL, CE, CSA, FCC, RoHs compliant	NEMA 4/4X/12 UL, cUL, CE, FCC RoHS compliant
Warranty	1 year standard	1 year standard	1 year standard	1 year standard	1 year standard
Options	Flat Panel Monitor DVD-R/W	N/A	Memory, CF card, RS-232/RS485 conversion unit, upgraded HD	Memory, CF Card	DVD-R/W
Height	12.99" / 329.99 mm	10.24" / 260.0 mm	9.41" / 239 mm	12.15" / 308.61 mm	14.0" / 355.6 mm
Width	6.763" / 171.78 mm	13.39" / 340.0 mm	12.31" / 313 mm	16.14" / 409.956 mm	17.8" / 452.1 mm)
Depth	16.06" / 407.9 mm	4.25" / 107.95 mm	4.06" / 103 mm	3.93" / 99.822 mm	5.32" / 135.1 mm
Mounting Depth	See product datasheet for cutout & mounting dimensions at www.profaceamerica.com	3.90" / 99.0 mm	3.86" / 98 mm	3.91" / 99.2 mm	4.93" / 125.2 mm
Weight	24.3 lbs / 11.0 kg	14.5 lbs / 6.58 kg	9.92 lbs / 4.5kg - unit only	Approx. 17.64 lbs / 8kg	29 lbs / 13.15 kg

Get more info on these and more products!

Visit www.profaceamerica.com

# Heavy-Duty Industrial PC Computers









	Market .	BESSESSES - ^		838888888
	3310T	3310KP	4612T	4612KPM
Brand	Xycom	Xycom	Xycom	Xycom
Color Flat Panel Display	10.4" TFT	10.4" TFT	12.1" TFT	12.1" TFT
Display Resolution	640 x 480 VGA	640 x 480 VGA	800 x 600 SVGA	800 x 600 SVGA
Processor	NS Geode GX1 300 MHz	NS Geode GX1 300 MHz	Intel® Celeron® M 1.3 GHz or optional Pentium® M 2.0 GHz	Intel® Celeron® M 1.3 GHz or optional Pentium® M 2.0 GH
Memory	128MB to 256MB DRAM	128MB to 256MB DRAM	512MB to 2GB DRAM	512MB to 2GB DRAM
Front Panel Input Device	Analog Resistive Touchscreen	63 Position Keypad	Analog Resistive Touchscreen	Reprogrammable 74-position Keypad and Industrial Mouse
Onboard Features	PCI IDE Controller PCI Video Controller 10/100 Mbps Ethernet	PCI IDE Controller PCI Video Controller 10/100 Mbps Ethernet	4X AGP Graphics Controller Four USB 2.0 Compliant ports 10/100 and 10/100/1000 Base-T Ethernet ports, Two RS-232 ports, One Selectable RS-232/422/485 port	4X AGP Graphics Controller Four USB 2.0 Compliant ports 10/100 and 10/100/1000 Base- Ethernet ports, Two RS-232 ports, One Selectable RS- 232/422/485 port
Expansion	PC/104 (up to two modules)	PC/104 (up to two modules)	One (8.0" max.) PCI, Two (9.0" max.) PCI, and One (9.0" max.) PCI or ISA	One (8.0" max.) PCI, Two (9.0 max.) PCI, and One (9.0" max PCI or ISA
Storage	IDE Hard Disk, CompactFlash™ or IDE Solid State Drive	IDE Hard Disk, CompactFlash™ or IDE Solid State Drive	Easily removable Serial ATA Hard Disk, or CompactFlash™ Drive	Easily removable Serial ATA Hard Disk, or CompactFlash™ Drive
Removable Media	Optional External Floppy Drive	Optional External Floppy Drive	CD-ROM	CD-ROM
Mounting	Panel	Panel	Panel	Panel
Operating System	MS-DOS <sup>®</sup> Windows <sup>®</sup> NT/2000/CE	MS-DOS® Windows® NT/2000/CE	Windows® XP/2000	Windows® XP/2000
Standards & Ratings	NEMA 4/4X/12 IP65 (front panel) CE, FCC, UL, cUL Class 1 & 2, Div 2 Hazardous Location	NEMA 4/4X/12 IP65 (front panel) CE, FCC, UL, cUL Class 1, Div 2 Hazardous Location	NEMA 4/4X/12 (front panel) CE, FCC, UL, cUL Class 1 & 2, Div 2 Hazardous Location	NEMA 4/4X/12 (front panel) CE, FCC, UL, cUL Class 1 & 2, Div 2 Hazardous Location
Warranty	2-year standard	2-year standard	2-year standard	2-year standard
Options	External Floppy Drive 24V DC Power Supply	External Floppy Drive 24V DC Power Supply Touchscreen (3310KPT)	CD-R/W w DVD-Read Only, DVD-R/W, and floppy Dual hard drives Raid-enabled	CD-R/W w DVD-Read Only, DVD-R/W, and floppy Dual hard drives Raid-enabled, Touchscreen
Height	11.00" / 279.4 mm	12.25" / 311.5 mm	11.00" / 279.4 mm	12.45" / 316.2 mm
Width	13.00" / 330.2 mm	16.50" / 419.1 mm	13.00" / 330.2 mm	16.70" / 424.2 mm
Depth	4.50" / 114.3 mm	4.50" / 114.3 mm	7.4" / 187.0 mm	7.4" / 187.0 mm
Mounting Depth <sup>1</sup>	3.50" / 88.9 mm	3.50" / 88.9 mm	6.32" / 160.5 mm	6.36" / 161.5 mm

11.0 lbs / 5.0 kg

Weight



24 lbs / 10.9 kg

22 lbs / 10 kg

12.0 lbs / 5.5 kg

<sup>&</sup>lt;sup>1</sup> Consult product datasheet and/or manual for cutout and mounting dimensions.

# Heavy-Duty Industrial PC Computers









#### 4615T

#### 4615KPM

4715T

4715KPN

Brand	Xycom	Xycom	Xycom	Xycom
Color Flat Panel Display	15.0" TFT	15.0" TFT	15.0" TFT	15.0" TFT
Display Resolution	1024 x 768 XGA	1024 x 768 XGA	1024 x 768 XGA	1024 x 768 XGA
Processor	Intel® Celeron® M 1.3 GHz or optional Pentium® M 2.0 GHz	Intel® Celeron® M 1.3 GHz or optional Pentium® M 2.0 GHz	Intel® Celeron® M 1.3 GHz or optional Pentium® M, 2.0 GHz	Intel® Celeron® M 1.3 GHz or optional Pentium® M 2.0 GHz
Memory	512MB to 2GB DRAM	512MB to 2GB DRAM 512MB to 2GB DRAM		512MB to 2GB DRAM
Front Panel Input Device	Analog Resistive Touchscreen	Reprogrammable 74-position Analog Resistive Touchscreen Keypad and Industrial Mouse		Reprogrammable 74-position Keypad and Industrial Mouse
Onboard Features	4X AGP Graphics Controller Four USB 2.0 Compliant ports 10/100 and 10/100/1000 Base-T Ethernet ports, Two RS-232 ports, One Selectable RS- 232/422/485 port	4X AGP Graphics Controller Four USB 2.0 Compliant ports 10/100 and 10/100/1000 Base-T Ethernet ports, Two RS-232 ports, One Selectable RS-232/422/485 port  4X AGP Graphics Controll Four USB 2.0 Compliant p 10/100 and 10/100/1000 Base-T Ethernet ports, Two RS-232 ports, One Selectable RS-232/422/485 port  4X AGP Graphics Controll Four USB 2.0 Compliant p 10/100 and 10/100/1000 Base-T 10/100 and		4X AGP Graphics Controller Four USB 2.0 Compliant ports 10/100 and 10/100/1000 Base-T Ethernet ports, Two RS-232 ports, One Selectable RS-232/422/485 port
Expansion	One (8.0" max.) PCI, Two (9.0" max.) PCI, and One (9.0" max.) PCI or ISA	One (8.0" max.) PCI, Two (9.0" max.) PCI, and One (9.0" max.) PCI or ISA	Four available full-length Slots: Three PCI, One PCI or ISA expansion slot	Four available full-length Slots Three PCI, One PCI or ISA expansion slot
Storage	Easily removable Serial ATA Hard Disk, or CompactFlash™ Drive	Easily removable Serial ATA Hard Disk, or CompactFlash™ Drive	Easily removable Serial ATA Hard Disk, or CompactFlash™ Drive	Easily removable IDE Hard Disk, or CompactFlash™ Drive
Removable Media	CD-ROM	CD-ROM	CD-ROM	CD-ROM
Mounting	Panel	Panel or Rack	Panel or Rack	Panel or Rack
Operating System	Windows® XP/2000	Windows® XP/2000	Windows® XP/2000	Windows® XP/2000
Standards & Ratings	NEMA 4/4X/12 (front panel) CE, FCC, UL, cUL Class 1 & 2, Div 2 Hazardous Location	NEMA 4/4X/12 (front panel) CE, FCC, UL, cUL Class 1 & 2, Div 2 Hazardous Location	NEMA 4/4X/12 (front panel) CE, FCC, UL, cUL Class 1 & 2, Div 2 Hazardous Location	NEMA 4/4X/12 (front panel) CE, FCC, UL, cUL Class 1 & 2, Div 2 Hazardous Location
Warranty	2-year standard	2-year standard	2-year standard	2-year standard
Options	CD-R/W w DVD-Read Only, DVD-R/W, and floppy Dual hard drives Raid-enabled	CD-R/W w DVD-Read Only, DVD-R/W, and floppy Dual hard drives Raid-enabled, Touchscreen	24 VDC Power Supply CD-R/W w DVD-Read Only DVD-R/W Drive, and floppy Dual hard drives, RAID-enabled	24 VDC Power Supply CD-R/W w DVD-Read Only, DVD-R/W, and floppy Dual hard drives, RAID-enabled, Touchscreen
Height	12.62" / 320.5 mm	13.97" / 354.8 mm	13.97" / 354.8 mm	13.97" / 354.8 mm
Width	16.59" / 421.4 mm	19.00" / 482.6 mm	19.00" / 482.6 mm	19.00" / 482.6 mm
Depth	7.59" / 192.8 mm	7.64" / 194.0 mm	7.64" / 194.0 mm 7.64" / 194.0 mm	
Mounting Depth <sup>1</sup>	6.59" / 167.4 mm	6.60" / 167.6 mm	6.60" / 167.6 mm 6.60" / 167.6 mm	
Weight	25 lbs / 11.34 kg	27 lbs / 12.4 kg	27 lbs / 12.4 kg 27 lbs / 12.4 kg	

<sup>&</sup>lt;sup>1</sup> Consult product datasheet and/or manual for cutout and mounting dimensions.

Get more info on these and more products!

# Heavy-Duty Industrial Flat Panel Monitors











### FP3500/FP3600/FP3710

	50151/R2	50155LK	50171	50191	FP3500/FP3600/FP37
Brand	Xycom	Xycom	Xycom	Xycom	Pro-face
Display Size / Active Area (W x H)	15.0" / 11.97" x 8.98"	15" / 11.97" X 8.98"	17" / 13.30" x 10.64"	19" / 14.82" x 11.85"	10.4" / 8.31" × 6.24" (FP3500) 12.1" / 9.76" × 7.34" (FP3600) 15" / 11.97" × 11.34" (FP3710)
Display Resolution	1024 x 768 XGA	1024 x 768 XGA	1280 x 1024 SXGA	1280 x 1024 SXGA	640 × 480 VGA (FP3500), 800 × 600 SVGA (FP3600), 1024 × 768 XGA (FP3710)
Front Panel Input Device	Analog Resistive Touchscreen				
Color Depth	262,000	16.7 million	16.7 million	16.0 million	260,000 (FP3500/3600) 16.7 million (FP3710)
Brightness	350 Nit typical	1200 Nit typical	250 Nit typical	300 Nit typical	350 Nit/300Nit/350 Nit typical
Contrast Ratio	400:1 typical	350:1 typical	400:1 typical	700:1 typical	300:1/450:1/450:1 typical
Backlight Life	50,000 hours				
Horizontal Viewing Angle	150° typical	120° typical	140° typical	160° typical	140°/140°/160° typical
Vertical Viewing Angle	125° typical	100° typical	120° typical	160° typical	140°/140°/150°
Input Voltage	100-240 V AC				
Mounting	Panel or arm	Panel or arm	Panel or arm	Panel or arm	Panel or Wall
Standards & Ratings	NEMA 4/4X/12 CE, FCC, UL, cUL Class 1 & 2, Div 2 Hazardous Location	NEMA 4/4X/12 CE, FCC, UL, cUL Class 1 & 2, Div 2 Hazardous Location	NEMA 4/4X/12 CE, FCC, UL, cUL Class 1 & 2, Div 2 Hazardous Location	NEMA 4/4X/12 CE, FCC, UL, cUL Class 1 & 2, Div 2 Hazardous Location	UL, CSA, CE
Warranty	2-year standard	1-year standard	2-year standard	2-year standard	2 year standard
Options	19" Rack Mount Adapter Stainless Steel Bezel 24 V DC power supply	19" Rack Mount Adapter Stainless Steel Bezel 24 V DC power supply	19" Rack Mount Adapter Stainless Steel Bezel 24 V DC power supply	Stainless Steel Bezel 24 V DC power supply Rack Mount Bezel	Wall mounting adapter & Desktop stand (FP3500/3600) Serial Interface, RGB Analog and USB cables
Height	13.78" / 350.0 mm	13.78" / 350 mm	14.70" / 373.4 mm	15.70" / 398.8 mm	9.57" / 243 mm (FP3500)/ 9.57" / 243 mm (FP3600) 11.57" / 294 mm (FP3710)
Width	16.485" / 418.7 mm	16.485" / 418.7 mm	17.36" / 440.9 mm	18.51" / 470.2 mm	12.48" / 317 mm (FP3500) 12.48" / 317 mm (FP3600) 15.55" / 395 mm (FP3710)
Depth	3.10" / 78.74 mm	3.455" / 87.8 mm	3.10" / 78.74 mm	3.10" / 78.74 mm	2.28" / 58 mm (FP3500) 2.28" / 58 mm (FP3600) 2.36" / 60 mm (FP3710)
Mounting Depth <sup>1</sup>	2.85" / 72.39 mm	3.205" / 81.4 mm	2.85" / 72.39 mm	2.85" / 72.39 mm	1.97" / 50 mm (FP3500/3600) 2.16" / 98 mm (FP3700)
Weight	15.0 lbs / 7.0 kg	22 lbs / 9.0 kg	18.0 lbs / 8.2 kg	21.0 lbs / 9.6 kg	7.7 lb / 3.5kg (FP3500) 7.7 lb / 3.5kg (FP3600) 15.4 lb / 7.0kg (FP3710)

<sup>&</sup>lt;sup>1</sup> Consult product datasheet and/or manual for cutout and mounting dimensions.





# Industrial Node and Rack Mount PC Computers









1341

1!

1612/1613/161

Brand	Xycom	Xycom	Xycom	Xycom
Processor Intel® Celeron® M 1.3 GHz		Intel® Celeron® M 1.3 GHz, or optional Pentium® M 2.0 GHz	Intel® Celeron® M 1.3 GHz, or optional Pentium® M 2.0 GHz	Intel® Pentium® 4 3.0 GHz
Memory	512MB DRAM	512MB to 2GB DRAM	512MB to 2GB DRAM	256MB to 2GB DRAM
Onboard Features	Four USB 2.0 compliant ports, 10/100 Base-T Ethernet, Parallel, Four RS-232 ports	Four USB 2.0 compliant ports, 10/100, and 10/100/1000 Base-T Ethernet, 4X AGP Graphics Controller with up to 32MB Video RAM	Four USB 2.0 compliant ports, 10/100, and 10/100/1000 Base-T Ethernet, 4X AGP Graphics Controller with up to 32MB Video RAM	Two USB Ports, Dual 10/100 Mbps Ethernet ports, 4X AGP Graphics Controller, Parallel port, Audio, Two RS-232 ports
Expansion	One half-length PCI expansion slot	One (8.0" max.) PCI expansion slot, Two (9.0" max.) PCI expansion slots, One (9.0" max.) PCI or ISA expansion slot	Three PCI and One PCI or ISA full length expansion slots	Fourteen Slot Passive Backplane with up to Seven PCI & 3 ISA available expansion slots
Storage	CompactFlash™ Drive 4GB and 8GB options	Serial ATA Hard Drive or CompactFlash™ Drive	Serial ATA Hard Drive or CompactFlash™ Drive	IDE Hard Drive Three 5.25" Drive Bays
Removable Media	N/A	CD-ROM	CD-ROM	1.44 MB Floppy
Mounting	Wall or Shelf	Wall or Shelf	Wall or Shelf	Rack or Wall (Wall mount with optional brackets)
Operating System	Preloaded with Windows® XP Professional (optional Windows 2000 Professional)	Windows® XP or 2000 operating systems	Windows® XP or 2000 operating systems	Windows® XP or 2000 operating systems
Standards & Ratings	CE, FCC, UL, cUL	CE, FCC, UL, cUL Class 1 & 2, Div 2 Hazardous Location	CE, FCC, UL, cUL Class 1 & 2, Div 2 Hazardous Location	CE, FCC, UL, cUL
Warranty	2-year standard	2-year standard	2-year standard	2-year standard
Options	9-30 Volt regulated DC input (AC power supply sold separately)	24 VDC Power Supply CD-R/W w DVD-Read Only, DVD-R/W Drive, and floppy, Dual hard drives, RAID-enabled	24 VDC Power Supply CD-R/W w DVD-Read Only, DVD-R/W Drive, and floppy, Dual hard drives, RAID-enabled	CD, CD-RW, DVD, or DVD- R/W, IDE Removable Hard Drives, Redundant Hot- swappable AC, RAID- enabled
Height	3.75" / 95.25 mm	9.24" / 234.7 mm	9.24" / 234.7 mm	7.0" / 177.8 mm (4U)
Width	8.50" / 215.9 mm	11.47" / 291.3 mm	16.16" / 410.46 mm	19.0" / 482.6 mm
Depth	9.50" / 241.3 mm	5.75" / 146.1 mm	5.75" / 146.1 mm	17.75" / 450.85 mm (1612 19.75" / 501.65 mm (1613 22.75" / 577.85 mm (1614
Weight	12.5 lbs / 5.7kg	13.0 lbs / 7.2 kg	18.0 lbs / 8.2 kg	48.2 lbs / 23.0 kg
Mounting	See product datasheet for cutout & mounting dimensions at www.profaceamerica.com	See product datasheet for cutout & mounting dimensions at www.profaceamerica.com	See product datasheet for cutout & mounting dimensions at www.profaceamerica.com	See product datasheet for cutout & mounting dimensions at www.profaceamerica.com



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# Accessories



#### 9000-FFK

NEMA 4 sealed panel mount door for front floppy (9000-EXF sold separately) and keyboard access.



#### 9000-USBFKA

NEMA 4 sealed panel mount door with USB, floppy (9000-USBF included) and keyboard access (requires Windows® 98, 2000 or XP and USB port).



#### 9000-USB

USB Floppy for use with Xycom products (requires Windows® 98, 2000 or XP and USB port).



### 9000-EXF

1.44 MB hot-installable, removable external floppy drive (for use on 33xx Series and 1401 only).



#### 600-RMS

Rack Mount Slide Rail Kit. For use with 1600 rack mount PC units.



#### 1600-WMI

Wall or Shelf Mount Bracket Kit. For use with 1600 rack mount PC units.

#### **CUTOUT ADAPTER PLATES FOR IPC AND MONITOR PRODUCTS**



9000-CAP-3115T/3515	Cutout adapter plate for mounting 3115T or 4115T in an existing 3515, 3535, or 3015 cutout <sup>6</sup>
9000-CAP-3612KPM/9487	Cutout adapter plate for mounting 4612KPM(T) in an existing portrait (947X & 948X) or 9450 cutout <sup>6</sup>
9000-CAP-3612KPM/3515	Cutout adapter plate for mounting 4612KPM in an existing 3515, 3535, or 3015 cutout <sup>6</sup>
9000-CAP-3615T/3515	Cutout adapter plate for mounting 4615T in an existing 3515, 3535, or 3015 cutout <sup>6</sup>
9000-RF1	19" rack mount adapter plate for the 3612T or 4612T
9000-RFC	19" rack mount adapter for use with the 9000-FFK or 9000-USBFKA
2005-RMA	19" rack mount adapter plate for the 3310KP(T) or 4612KPM(T)
9457-CAP	Cutout adapter plate for mounting $5015KPM(T)$ , $4615KPM(T)$ , $4715T$ or $4715KPM(T)$ in an existing $9457$ or $9407$ cutout $^{\circ}$
9000-CAP	Cutout adapter plate for mounting 3310KP(T) — in an existing portrait (947X & 948X) or 9450 cutout <sup>6</sup>
MTG-RM5015/R2	Adapter panel for mounting 5015T/R2 or 5015SLR in 19" rack.
MTG-RM5017	Adapter panel for mounting 5017 in 19" rack. Panel measures 15.7" (9U) in height
MTG-PM5015/3015	Adapter plate for panel mounting a 5015T in place of a 3015. Requires a minimum of 15.4" of vertical panel space <sup>8</sup>
MTG-PM5015-9407	Adapter plate for panel mounting a 5015T in place of a 9407. Requires a minimum of 15.4" of vertical panel space <sup>8</sup>

#### CABLES FOR FLAT PANEL MONITOR PRODUCTS

#### **VIDEO**

3000-CBL-03V (3'/1 m) 3000-CBL-10V (10'/3 m) 3000-CBL-25V (25'/7.5 m) <sup>4</sup> 3000-CBL-50V (50'/15 m) <sup>4</sup>

### **TOUCHSCREEN¹**

CBL-SER03MF (3'/1 m) CBL-SER10MF (10'/3 m) CBL-SER25MF (25'/7.5 m) <sup>4</sup> CBL-SER50MF (50'/15 m) <sup>4</sup>

### **TOUCHSCREEN<sup>2</sup>**

CBL-SER10FF (10'/3 m) CBL-SER25FF (25'/7.5 m) CBL-SER50FF (50'/15 m)

### **USB TOUCHSCREEN**

3000-USB-03AB (3'/1 m) 3000-USB-10AB (10'/3 m) 3000-USB-16AB (16'/5 m) <sup>5</sup>

### PS/2 KEYBOARD/MOUSE<sup>3</sup>

CBL-PS2-10 (10'/3 m)

# DIGITAL VIDEO<sup>7</sup>

CBL-DVID10MM (10'/3 m)

- <sup>1</sup> For all monitors other than 5015T. <sup>2</sup> For use with 5015T monitors only. <sup>3</sup> For KPMT monitors only. <sup>4</sup> Consult factory for use with KPMT monitors.
- <sup>5</sup> Not for use with KPMT monitors. <sup>6</sup> Can also be utilized as a rackmount adapter. <sup>7</sup> Only for monitors with DVI connection.
- <sup>8</sup> Will require use of mounting spacers when used with a 5015T/R2.

# 21+ Years of Cutout Compatibility

III Xycom industrial computers offer cutout compatibility dating back to the 1970s. This means you can replace an older HMI device with a current Xycom IPC unit – and get all the new capabilities it provides – without altering your machine's original mounting hardware.



2004 Control Engineering magazine

Editor's



# **Product Modification Services**

For more than a decade, Pro-face has been providing product integration services to meet individual customer needs. As more and more customers are looking for a one-stop shopping house for their business needs, Pro-face has expanded its role in matching those requirements.

Product Integration Services are currently offered through our Product Modification department. Many of these standard integrations are done while maintaining Agency Approvals.

All of our integrated or modified products are validated for functionality according to Pro-face standard testing procedures. Consult your local Pro-face sales representative for more details.



# Warranty & Contact Information

All Pro-face and Xycom brand products are warranted by Pro-face to be free from defects in material and work-manship under normal use and service for the period stated for that particular product. Many of Pro-face's Heavy-Duty Industrial PCs and 5000 Series Flat Panel Monitors come standard with a 2-year warranty, while the Light-Duty PC products carry a 1-year standard warranty. Warranties begin on the date shipped. Verify the stated warranty at time of purchase. Extended warranties are available at time of purchase for a reasonable cost.

For additional information, contact our Customer Care Center at (734) 944-0482 or at customercare@profaceamerica.com



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**Pro-face** 

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