

eAutomation System Solutions

| | | |
|---|--|-------------|
| The Basics of Web-enabled Automation | | 1-2 |
| Advantech Studio | Web-enabled HMI/SCADA Software | 1-4 |
| Web-enabled Operator Interface Terminals | | |
| WebOIT-60S | Web-enabled Operator Interface Terminal with 5.7" QVGA STN Display | 1-6 |
| Web-enabled Gateway | | |
| WebLink-2050 | Web-enabled Gateway with 16-ch Isolated DI/O | 1-7 |
| WebLink-2053 | Web-enabled Gateway with Dual LAN | 1-7 |
| WebLink-2059 | Web-enabled Gateway with 4 x RS-232/422/485 ports | 1-8 |
| WebLink-2160 | Web-enabled Gateway with PC/104 Extension | 1-8 |
| KW MULTIPROG | IEC 61131 SoftLogic Control Software | 1-9 |
| ADAMView | Data Acquisition Software | 1-10 |

The Basics of Web-enabled Automation

Maintenance

Technicians can monitor equipment and quicker respond to problems.



Operators

SCADA/HMI software provides local operator control connection through a browser, allowing users to interact with the process from anywhere.

Support & Service

With better information available from anywhere at any time, your support & service staff can be more efficient.

Sales

Better information about manufacturing schedules and inventory levels enable new pricing and selling models.



Decision Makers

Real-time information through the internet can help manage inventory and reveal process bottlenecks.

Web-Enabled Automation- What is it?

The word "automation" needs no definition, but what about "web enabled"? Web enabled means real time access to data and control virtually anytime and from anywhere it's required. This is a very broad claim, and statements like this have been and are being made all the time. So what's different now? To oversimplify a bit, we can now think in terms of merging the world of the "consumer Internet" (cheap, fast, readily available access to almost everything from anywhere at anytime) with the traditional automation world (expensive, proprietary, limited accessibility, islands of knowledge). Most importantly, this merging goes well beyond the "horizontal" integration of standard B2B and B2C implementations. Web enabled automation drives this real time accessibility "vertically" down to the level where things are actually being produced, ordered, shipped, tested, stocked, etc. Web enabled automation can also be thought of as "visible automation".

What will web enabled automation do for me? Why do I need it?

So what can we do with this accessibility? We can now check production data on a critical process, machine, or orders in real time, without waiting on batch reports. Or, have a system notify a technician that it needs "help" via e-mail to a PC, PDA, or phone. Or, have a system linked in real-time to suppliers and customers to handle restocking or shipping. Or, collect data from many distributed machines or processes in real-time, analyze it, and send new optimized parameters back, all using the existing Internet/Intranet infrastructure. We now have a distributed, adaptive, closed loop factory.

OK, so some good, interesting, and useful things are possible. But why would anyone need this kind of access? Because all customers are coming to expect "real-time" deliveries

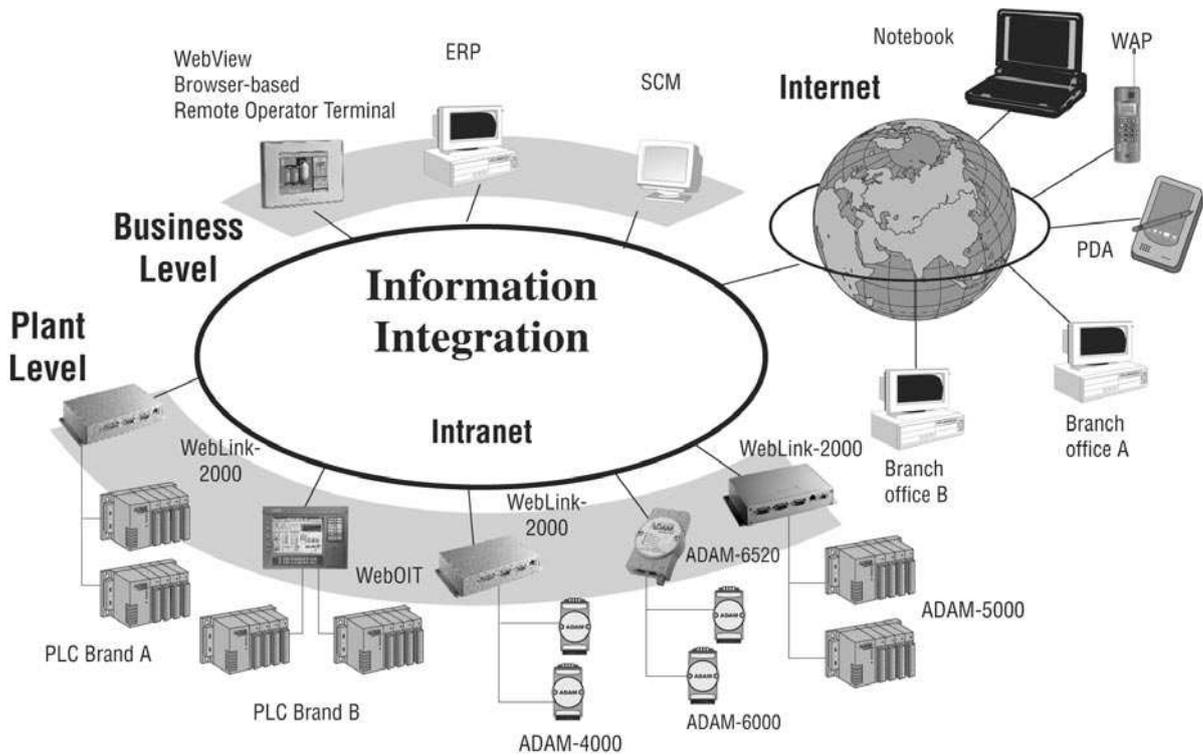
of product and information. As individual consumers we're being conditioned to expect this through our experiences with on-line ordering, status checking, and next day or same day deliveries of merchandise. Even more importantly, the competition will do it. And, once they have implemented web enabled automation successfully they'll be able to satisfy the customer more quickly and at a lower cost than non-web enabled companies. That's the real bottom line.

How Web-enabled Automation Works

Now that we're convinced of the benefits of web enabled automation, what pieces and parts are required to put this technology to work? The basic parts required for web based data acquisition and control are:

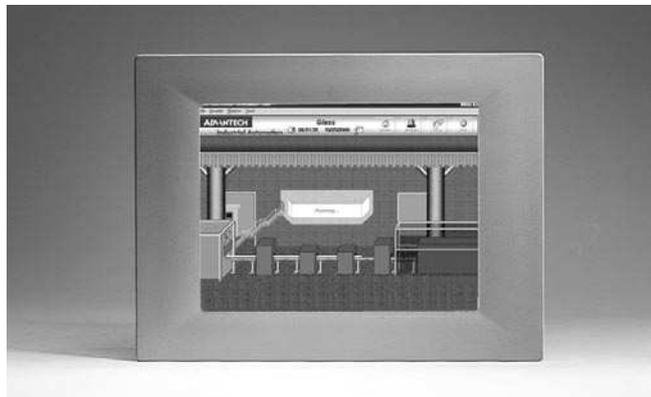
- 1) An interface to the machine/process/building/"thing" to be monitored or controlled via the web (network) connection.
- 2) A web server to make the desired display and/or control pages available to the remote browser, and
- 3) A data service or interface to handle exchanging data between the local "thing" (server) and the remote system (client).

For remote viewing of the data and/or web pages, the only requirement is a standard browser interface. For applications requiring SPC, optimization, or enterprise level software to exchange real time data with the "thing", a remote server PC and a compatible data exchange service are required.



WebLink Series

Embedded web-connectivity server: Advantech's new WebLink was designed for this task. WebLink is a complete "intelligent embedded server" solution including all hardware and runtime software required to web enable a system. It can connect to a device (machine/process controller, I/O, sensor, etc.) using a standard RS-232/485 serial port or an optional Fieldbus adapter. A network connection is then made through WebLink's standard Ethernet 10/100Base-T port or via optional modem or wireless network/Internet connections. Development software enables web pages and data connections to remote application software to be easily created and maintained from anywhere via a network connection. Security is provided by WebLink through password protected user login and optional restricted access by user IP.



WebOIT Series

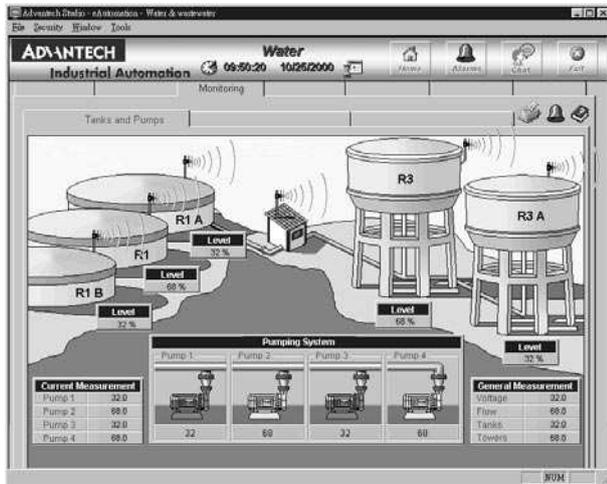
Embedded web-SCADA server: For applications where a local HMI is required at the system to be web enabled, Advantech offers the WebOIT operator interface terminal. This product series combines the features of WebLink with an integrated LCD and HMI software functionality.

Advantech's WebOIT solution comes with everything needed to make a connection from your PLC to the Internet with Web-enabled automation technology. Utilizing its eAutomation features, WebOIT allows you to connect back to a shop floor from anywhere in the world via a simple Internet connection. To receive machine and process data in real-time enables managers to monitor production, troubleshoot processes and diagnose equipment problems regardless of their location.

- 1 Software
- 2 IPPC
- 3 TPC
- 4 FPM
- 5 ATM & AWS
- 6 DA&C
- 7 cPCI
- 8 ADAM-3000
- 9 Motion Control
- 10 ICOM
- 11 eConnectivity
- 12 UNO
- 13 ADAM-4000
- 14 ADAM-5000
- 15 ADAM-6000
- 16 ADAM-8000
- 17 BAS

Advantech Studio

Web-enabled HMI/
SCADA Software



Features

- Publish real-time dynamic and animated graphic screens, trends, alarms, reports, and recipes to standard browsers
- Import and export recipes, reports and real-time data using the XML format
- Use the same development environment as applications running on Microsoft® Windows® NT/2000/XP and CE or on the Web
- Integrates seamlessly with your Windows desktop applications (such as Microsoft® Word and Excel)
- View multiple clients from one Web browser
- Multi-level security or applications, including use over Intranets and Internet.
- Conforms to industry standards such as Microsoft DNA, OPC, DDE, ODBC, XML, and ActiveX
- Software protection type: Softkey

Introduction

Advantech Studio is a powerful, integrated collection of automation tools that includes all the building blocks required to develop modern Human Machine Interfaces (HMIs), and Supervisory Control and Data Acquisition System (SCADA) applications that run on Windows NT/2000/XP and CE, or in an Internet / Intranet environment. A simple drag and drop, point and click development environment simplifies the most complex behavior of your live processes, but a flexible and easy-to-use scripting language is also available for special requirements. Advantech Studio is currently being used in nearly 2,000 installations worldwide.

Advantech Studio for Windows CE is based on Advantech Studio's full-scale supervisory control and monitoring system, and has almost all of the same features, including an object-oriented database, math functions, report generation, archiving, alarms, batch recipes, and interfaces to PLCs, remote I/O and TCP/IP networking. In other words, Advantech Studio for Windows CE is a full-function supervisory control and monitoring system that fits in the palm of your hand or can be embedded in the chipset of a low-cost operator interface. Advantech Studio for Windows CE is software for complete supervisory control and process monitoring with an operator interface that is available for the Microsoft Windows CE operating system platform.

System Requirements

| | Product Series or Part Number | AS256-WR60 | AS256-WD60 | AS512-WR60 | AS512-WD60 | AS1500-WS60 | AS1500-WR60 |
|---------------|-------------------------------|-------------|-------------|-----------------|-----------------|-----------------|-----------------|
| Type | S/W scope | Win32 Lite | Win32 Lite | Win32 Lite Plus | Win32 Lite Plus | Local Interface | Local Interface |
| | Authorized version | R | D | R | D | S | R |
| Overview | Development Tool OS | - | WinNT/2K/XP | - | WinNT/2K/XP | WinNT/2K/XP | - |
| | Runtime OS | WinNT/2K/XP | - | WinNT/2K/XP | - | WinNT/2K/XP | WinNT/2K/XP |
| Database | Application tags | up to 256 | up to 256 | up to 512 | up to 512 | up to 1,500 | up to 1,500 |
| Communication | Drivers | only 2 | only 2 | only 2 | only 2 | 3 by default | 3 by default |

| | Product Series or Part Number | AS1500-WD60 | AS4000-WS60 | AS4000-WR60 | AS1500-CD60 | AS4000-CD60 | WebLink/WebOIT |
|---------------|-------------------------------|--------------|----------------------|----------------------|---------------------------|---------------------------|----------------|
| Type | S/W scope | Development | Operator Workstation | Operator Workstation | Development or CE Runtime | Development or CE Runtime | CE Runtime |
| | Authorized version | D | S | R | D | D | R |
| Overview | Development Tool OS | WinNT/2K/XP | WinNT/2K/XP | - | WinNT/2K/XP | WinNT/2K/XP | - |
| | Runtime OS | - | WinNT/2K/XP | WinNT/2K/XP | - | - | WinCE |
| Database | Application tags | up to 1,500 | up to 4,000 | up to 4,000 | up to 1,500 | up to 4,000 | up to 4,000 |
| Communication | Drivers | 3 by default | 5 by default | 5 by default | only 3 | up to 3 | up to 3 |

| Legend | |
|-----------|--|
| Supported | ✓ |
| D | Determined by Development version only |
| R | Determined by Runtime version only |
| S | Suit version includes Development and Runtime versions |

Specifications

- Pre-built Servers** Web Server, FTP Server, Telnet Server, Remote Access Server (RAS)
- HMI Functions** 100+ built-in PLC drivers (up to 3 running simultaneously)
- 8 simultaneous web clients
- OPC Client and Server
- Email (SMTP) Integration
- Fully featured dynamic graphics with object library
- Alarming, Trending, Reporting features
- Scripting Language with 100+ standard functions
- Recipes (ASCII and XML formats)
- Remote project management including online editing
- Multi-level security or use over Intranet and Internet

System Requirements: Development Environment

- Microsoft® Windows® XP, 2000, NT 4.0 service pack 4 or higher
- Min. 256 MB of RAM. (512 MB Recommended)
- 100 MB of free hard-disk space for installation
- CD-ROM drive (for installation only)

System Requirements: Runtime Environment

- Windows® CE 4.2
- Min. 64 MB of memory

- or
- Microsoft® Windows® 2000/XP/NT 4.0 with Service Pack 4 or higher
 - Min. 32 MB of RAM. (64 MB Recommended)
 - Web Browser that supports ActiveX objects

Hardware Platforms Supported

- WebOIT-60S** Web-enabled Operator Interface Terminal with 5.7" QVGA STN Display
- WebLink-2050** Web-enabled Gateway with 16-ch Isolated DI/O and AStudio CE Runtime version (4000 tags)
- WebLink-2053** Web-enabled Gateway with Dual LAN and AStudio CE Runtime version (4000 tags)
- WebLink-2059** Web-enabled Gateway with 4 x RS-232/422/485 ports and AStudio CE Runtime version (4000 tags)
- WebLink-2160** Web-enabled Gateway with PC/104 extension and AStudio CE Runtime version (4000 tags)

Applications

- Remote Utility Management
- Building Automation
- Water and Wastewater Management
- Factory Automation
- Machine Builder

Ordering Information

Suit Version

- AS1500-WS60** AStudio Development Kit Professional Edition or Windows® XP/2000/NT (including DEV and RT Editions)
- AS4000-WS60** AStudio Workstation Professional Edition or Windows® XP/2000/NT (including DEV and RT Editions)

Development Version

- AS256-WD60** AStudio Development Kit or Windows® XP/2000/NT (Asia Only)
- AS512-WD60** AStudio Development Kit or Windows® XP/2000/NT (Asia Only)
- AS1500-WD60** AStudio Development Kit or Windows® XP/2000/NT (Asia Only)
- AS1500-CD60** AStudio Development Kit or Windows® CE .NET
- AS4000-CD60** AStudio Workstation Development Kit or Windows® CE .NET

Runtime Version

- AS256-WR60** AStudio Runtime Edition or Windows® XP/2000/NT (Asia Only)
- AS512-WR60** AStudio Runtime Edition or Windows® XP/2000/NT (Asia Only)
- AS1500-WR60** AStudio Runtime Edition or Windows® XP/2000/NT (Asia Only)
- AS4000-WR60** AStudio Runtime Edition or Windows® XP/2000/NT (Asia Only)

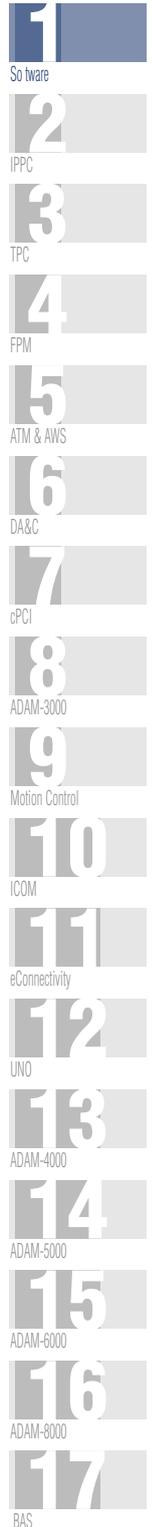
Upgrade Kit

- AS1500-CD60/U** Upgraded kit from AS1500-CD51 to AS1500-CD60
- AS1500-WD60/U** Upgraded kit from AS1500-WD51 to AS1500-WD60
- AS4000-CD60/U** Upgraded kit from AS4000-CD51 to AS4000-CD60
- AS4000-WS60/U** Upgraded kit from AS4000-WS51 to AS4000-WS60

Communication Drivers

| | |
|---|--|
| Advantech | ADAM-4000, ADAM-5000/485, ADAM-6000 |
| AEG Schneider (Modicon Square D Telemecanique) | AEG Compact PLC*, ModCon 984E*, Quantum Family |
| | ModCon 984E* Ethernet Quantum Ethernet Family |
| | MODBUS Plus compatible equipment |
| | Symax |
| Allen-Bradley® | Family PLC2 |
| | Family PLC5 |
| | Family SLC500 |
| | Family 5000 |
| Cutler-Hammer® | D50*, D300 |
| GE-Fanuc® | Series 90, 90/30 CPU 341* |
| Mitsubishi® | FX-232AW |
| Omron® | C-series Rack PCs |
| | Symac way |
| | Host link units |
| | Symac C200H* E5CK / E5AF |
| Phoenix® | Interbus Compatible |
| | S5 (PG port) |
| Siemens® | S5/S7 3964R, S7 (MPI) |
| | Pro ibus DP Slave Compatible |
| | Pro ibus DP Master Compatible |
| | Pro ibus FMS Compatible |
| | S5-945 PG Port |
| | MXT521 |
| Yokogawa® | UT35 |
| | HR2500E |
| | DA100 |
| | UT37/UT38 |
| | UT750, UP750, UT550, UT520, UP550, UT350, UT320, UM350, UM330, UP350 |
| | YS100 |
| Modbus Ethernet | Modbus/TCP |
| Modbus | RTU/ASCII |
| OPC | Server/Client |

Note: Advantech Studio V6.0 supports more than 150 communication drivers for 3rd party devices from different manufacturers such as Omron®, Allen-Bradley®, Siemens®, and many more.



WebOIT-60S

Web-enabled Operator Interface Terminal with 5.7" QVGA STN Display



Features

- 5.7" QVGA color STN LCD
- Super slim and compact design with lightweight ABS plastic housing
- Fanless cooling system
- NEMA4/IP65 compliant front panel
- Remote manageability
- Built-in flash memory and Windows® CE .NET OS
- One CompactFlash® slot
- Automatic data flow control RS-485
- Advantech Studio Runtime Software pre-built (4000 tags)

Introduction

WebOIT-60S is a compact platform without redundant functions, which have been designed for small-sized operator interface applications. It has a 5.7" STN LCD display which is a cost effective choice for a limited budget. Its RISC kernel, the Samsung® ARM9 processor, consumes minimum power without sacrificing performance. WebOIT-60S has a 10/100Base-T Ethernet port offering solid communication, and comes bundled with a Windows® CE .NET OS that supports thin client solutions. The built-in Windows® CE .NET OS platform lets WebOIT-60S become an open HMI solution for system integration.

Specifications

General

- **Certifications** BSMI, CCC, CE, FCC, UL
- **Dimensions (WxHxD)** 195 x 148 x 44.4 mm (7.68" x 5.83" x 1.75")
- **Enclosure** ABS
- **Mounting** Panel
- **Power Consumption** 15 W
- **Power Input** 24 V_{DC}
- **Weight (Net)** 0.8 kg (1.76 lb)

System Hardware

- **CPU** 266 MHz, Samsung® ARM9
- **LAN** 1 x 10/100Base-T (RJ-45)
- **Memory** 64 MB SDRAM on board
- **Serial Ports** 2 x Full RS-232; 1 x 4-pin RS-232/ RS-485
- **Storage** 64 MB flash memory on board
1 x CompactFlash® slot
- **USB** 2 x USB V1.1 ports (1 x host, 1 x client)
- **VGA** Controlled by CPU
- **Watchdog Timer** System type. Programmable as 250 ms, 500 ms, or 1 second

LCD Display

- **Backlight Life** 40,000 hrs
- **Contrast Ratio** 1:35
- **Display Size** 5.7"
- **Display Type** QVGA STN LCD (See TPC-60S)
- **Luminance** 201 cd/m²
- **Max. Colors** 256
- **Max. Resolution** 320 x 240
- **Pixel Pitch (HxV)** 0.36 x 0.36 mm
- **Viewing Angle** 110°

Touchscreen

- **Lifespan** 10 millions times with a silicone rubber of 8 mm diameter finger
- **Light Transmission** 75% (Min.)
- **Resolution** 1024 x 1024
- **Type** 4-wire, resistive

Environment

- **Humidity** 10 ~ 95% @ 40° C, non-condensing
- **Ingress Protection** Front panel: NEMA4/IP65
- **Operating Temperature** 0 ~ 50° C (32 ~ 122 °F)
- **Storing Temperature** -20 ~ 70° C (-4 ~ 158 °F)
- **Vibration Protection** 1 Grms (5 ~ 500 Hz)

Software Specifications

- **Operating System** Windows® CE .NET
- **Pre-built Servers** Web Server, FTP Server, Telnet Server, Remote Access Server (RAS)
- **HMI Functions** Advantech Studio CE Runtime with:
4000 tags (default), 100+ built-in PLC drivers (up to 3 running simultaneously), 8 simultaneous web clients, OPC Client and Server, Email (SMTP) Integration, Fully featured dynamic graphics with object library, Alarming, Trending, Reporting features, Scripting Language with 100+ standard functions, Recipes (ASCII and XML formats), Remote project management including online editing, Multi-level security or use over Intranet and Internet

Ordering Information

- **WebOIT-60SN-E1** Web-enabled Operator Interface Terminal with 5.7" QVGA STN Display
- **PS-DC24-50** 50 Watts 24 V_{DC} output, 110 V/220 V_{DC} 50/60 Hz input power adapter
- **AS1500-CD60** AStudio Development Kit for Windows® CE (1500 tags)
- **AS4000-CD60** AStudio Workstation Development Kit for Windows® CE (4000 tags)

WebLink-2050

WebLink-2053

Web-enabled Gateway with 16-ch
Isolated DI/O

Web-enabled Gateway with Dual LAN



WebLink-2050

CE FCC

Specifications

General

- **Certifications** CE, FCC Class A
- **Dimensions (WxDxH)** 188.8 x 106.5 x 35.5 mm (7.5" x 4.2" x 1.4")
- **Enclosure** Aluminum
- **Mounting** DIN 35 rail, wall
- **Power Consumption** 15 W (Typical)
- **Power Input** Min. 24 W (9~36 V_{DC}) (e.g +24 V @ 1 A)
- **Weight (Net)** 0.8 kg

System Hardware

- **CPU** 300 MHz, NS Geode™ GX1
- **Digital Input** Channels: 8 w/interrupt handling
ESD Protection: 2000 V_{DC} Isolation protection: 2000 V_{DC}
Over-Voltage protection: 70 V_{DC}
Input range: 0 ~ 50 V_{DC} and 10 kHz speed
- **Digital Output** Channels: 8, Isolation protection: 2000 V_{DC}
Max/channel sink current: 200 mA
Output status kept after system hot reset
Output range: - 5 ~ 40 V_{DC} and 10 kHz speed.
- **Indicators** Power LED, IDE LED, one programmable LED, buzzer
- **Keyboard/Mouse** 1 x PS/2
- **LAN** 2 x 10/100 Base-T RJ-45 ports
- **Memory** 64 MB SDRAM
- **Serial Ports** 2 x standard RS-232, 2 x isolated RS-232/422/485
- **Storage** SSD: 1 x Internal Type I/II CompactFlash® slot
HDD: 1 x 2.5" HDD with installation o extension kit
- **VGA** 1 x DB15 VGA connector

Environment

- **Humidity** 95% @ 40° C (non-condensing)
- **Ingress Protection** IP40
- **Shock Protection** 20 G @ DIN IEC 68 sec. 2-27, hal sine, 11 ms
50 G @ Wall/Panel IEC 68 sec. 2-27, hal sine, 11 ms
- **Vibration Protection** 2 G w/CF @ IEC 68 sec. 2-6, sine, 5 ~ 500 Hz, 10Oct./min, 1hr/axis. 1 G w/HDD @ IEC 68 section 2-6, sine, 12 ~ 300 Hz, 10Oct./min, 1 hr/axis
- **Operating Temperature** -10 ~ 55°C (14 ~ 131°F)

Ordering Information

- **WebLink-2050-BTO** Web-enabled Gateway with 16-ch Isolated DI/O and AStudio CE Runtime version (4000 tags)
- **PS-DC24-50** 50 watt 24 V_{DC} Power Supply
- **AS1500-CD60** Advantech Studio Development Software (1500 tags)
- **AS4000-CD60** Advantech Studio Development Software (4000 tags)



WebLink-2053

CE FCC

Specifications

General

- **Certifications** CE, FCC Class A
- **Dimensions (WxDxH)** 188.8 x 106.5 x 35.5 mm (7.5" x 4.2" x 1.4")
- **Enclosure** Aluminum
- **Mounting** DIN 35 rail, wall
- **Power Consumption** 15 W (Typical)
- **Power Input** Min. 24 W (10~30 V_{DC}) (e.g +24 V @ 1 A)
- **Weight (Net)** 0.8 kg

System Hardware

- **CPU** 300 MHz, NS Geode™ GX1
- **Indicators** Power LED, IDE LED
- **Keyboard/Mouse** 1 x PS/2
- **LAN** 2 x 10/100 Base-T RJ-45 ports
- **Memory** 64 MB SDRAM
- **PC Card** 1 x PC Card slot
Supports CardBus (Card-32) Card and 16-bit (PCMCIA 2.1/JEIDA4.2) card
Supports +3.3, +5, +12 V @120 mA working power
- **Serial Ports** 2 x standard RS-232
- **Storage** SSD: 1 x Internal Type I/II CompactFlash® slot
HDD: 1 x 2.5" HDD with installation o extension kit
- **USB** 2 x USB V1.1 (OpenHCI, Rev. 1.0 compliant)
- **VGA** 1 x DB15 VGA connector

Environment

- **Humidity** 95% @ 40° C (non-condensing)
- **Ingress Protection** IP40
- **Shock Protection** 20 G @ DIN IEC 68 sec. 2-27, hal sine, 11 ms
50 G @ Wall/Panel IEC 68 sec. 2-27, hal sine, 11 ms
- **Vibration Protection** 2 G w/CF @ IEC 68 sec. 2-6, sine, 5 ~ 500 Hz, 10Oct./min, 1hr/axis
1 G w/HDD @ IEC 68 section 2-6, sine, 12 ~ 300 Hz, 10Oct./min, 1 hr/axis
- **Operating Temperature** -10 ~ 55°C (14 ~ 131°F)

Ordering Information

- **WebLink-2053-BTO** Web-enabled Gateway with Dual LAN and AStudio CE Runtime version (4000 tags)
- **PS-DC24-50** 50 watt 24 V_{DC} Power Supply
- **AS1500-CD60** Advantech Studio Development Software (1500 tags)
- **AS4000-CD60** Advantech Studio Development Software (4000 tags)

| | |
|----|----------------|
| 1 | Software |
| 2 | IPPC |
| 3 | TPC |
| 4 | FPM |
| 5 | ATM & AWS |
| 6 | DA&C |
| 7 | cPCI |
| 8 | ADAM-3000 |
| 9 | Motion Control |
| 10 | ICOM |
| 11 | eConnectivity |
| 12 | UNO |
| 13 | ADAM-4000 |
| 14 | ADAM-5000 |
| 15 | ADAM-6000 |
| 16 | ADAM-8000 |
| 17 | BAS |

WebLink-2059

WebLink-2160

Web-enabled Gateway with 4 x RS-232/
422/485 ports

Web-enabled Gateway with PC/104
Extension



WebLink-2059

FCC CE

Specifications

General

- **Certifications** CE, FCC Class A
- **Dimensions (WxDxH)** 188.8 x 106.5 x 35.5 mm (7.5" x 4.2" x 1.4")
- **Enclosure** Aluminum
- **Mounting** DIN 35 rail, wall
- **Power Consumption** 15 W (Typical)
- **Power Input** Min. 24 W (9~36 V_{DC}) (e.g +24 V @ 1 A)
- **Weight (Net)** 0.8 kg

System Hardware

- **CPU** 300 MHz, NS Geode™ GX1
- **Indicators** Power LED, IDE LED, one programmable LED, buzzer
- **Keyboard/Mouse** 1 x PS/2
- **LAN** 1 x 10/100 Base-T RJ-45 ports
- **Memory** 64 MB SDRAM
- **PC Card** 1 x PC Card slot
Supports CardBus (Card-32) Card and 16-bit (PCMCIA 2.1/JEIDA4.2) card
Supports +3.3, +5, and +12 V @ 120 mA working power
- **Serial Ports** 2 x standard RS-232 ports, 2 x RS-232/422/485 ports
- **Storage** SSD: 1 x Internal Type I/II CompactFlash® slot
HDD: 1 x 2.5" HDD with installation o extension kit
- **USB** 2 x USB V1.1 (OpenHCI, Rev. 1.0 compliant)
- **VGA** 1 x DB15 VGA connector

Environment

- **Humidity** 95% @ 40° C (non-condensing)
- **Ingress Protection** IP40
- **Operating Temperature** -10 ~ 55°C (14 ~ 131° F)
- **Shock Protection** 20 G @ DIN IEC 68 sec. 2-27, hal sine, 11 ms
50 G @ Wall/Panel IEC 68 sec. 2-27, hal sine, 11 ms
2 G w/CF @ IEC 68 sec. 2-6, sine, 5 ~ 500 Hz, 10ct./min, 1hr/axis
1 G w/HDD @ IEC 68 section 2-6, sine, 12 ~ 300 Hz, 10ct./min, 1 hr/axis
- **Vibration Protection**

Ordering Information

- **WebLink-2059-BTO** Web-enabled Gateway with 4 x RS-232/422/485 ports and AStudio CE Runtime version (4000 tags)
- **PS-DC24-50** 50 watt 24 V_{DC} Power Supply
- **AS1500-CD60** Advantech Studio Development Software (1500 tags)
- **AS4000-CD60** Advantech Studio Development Software (4000 tags)



WebLink-2160

FCC CE UL

Specifications

General

- **Certifications** CE, FCC Class A, UL
- **Dimensions (WxDxH)** 255 x 152 x 50 mm (10.0" x 6.0" x 2.0")
- **Enclosure** Aluminum
- **Mounting** Wall
- **Power Consumption** 22 W (Typical)
- **Power Input** Min. 48 W (9~36 V_{DC}) (e.g +24 V @ 2 A)
- **Weight** 1.6 kg

System Hardware

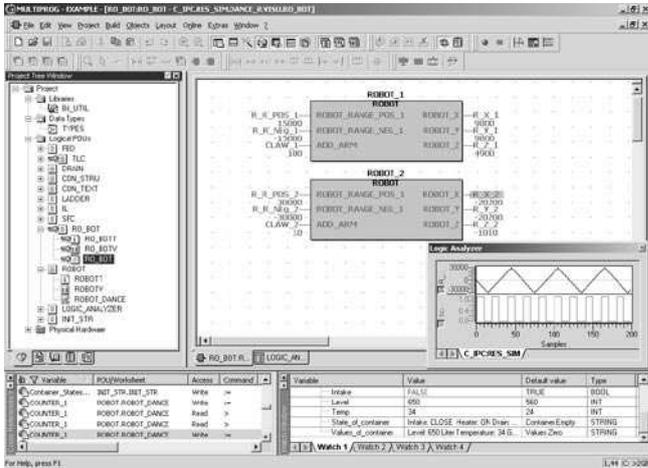
- **CPU** Celeron® 400 MHz Ultra low-voltage version
- **Indicators** Power LED, IDE LED, Alarm or RAM backup battery
- **Keyboard/Mouse** 1 x PS/2
- **LAN** 2 x 10/100 Base-T RJ-45 ports
- **Memory** 256 MB SDRAM
- **PC/104** 2 x PC/104 slots (optional). Supports +5 V power
- **PC Card** 1 x PC Card slot
Supports CardBus (Card-32) Card and 16-bit (PCMCIA 2.1/JEIDA4.2) card
Supports +3.3, +5, and +12 V @ 120 mA working power
- **Printer Port** One printer port
- **Serial Ports** 2 x standard RS-232 ports
2 x RS-232/422/485 ports
- **Storage** SSD: 1 x Internal Type I/II CompactFlash® slot
HDD: 1 x 2.5" HDD with installation o extension kit
- **USB** 2 x USB V1.1 (OpenHCI, Rev. 1.0 compliant)
- **VGA** 1 x DB15 VGA connector

Environment

- **Humidity** 95% @ 40° C (non-condensing)
- **Operating Temperature** -10 ~ 50°C (14~122°F)
- **Shock Protection** 20 G w/HDD @ IEC 68 section 2-27, hal sine, 11ms
50 G w/CF @ IEC 68 section 2-27, hal sine, 11ms
- **Vibration Protection** 2 Grms w/ CF @ IEC 68 section 2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1hr/axis. 0.5 Grms w/HDD @ IEC 68 section 2-64, random, 5 ~ 500 Hz, 10ct./min, 1hr/axis

Ordering Information

- **WebLink-2160-BTO** Web-enabled Gateway with PC/104 extension and AStudio CE Runtime version (4000 tags)
- **UNO-PCM21-A** UNO-2100 Series 2 x PC/104 extension kit.
- **PS-DC24-50** 50 watt 24 V_{DC} Power Supply
- **AS1500-CD60** Advantech Studio Development Software (1500 tags)
- **AS4000-CD60** Advantech Studio Development Software (4000 tags)



Features

- IEC 61131-3 Programming languages
- Intuitive programming with a clear project structure
- Cross-compiling: FBD, LD and IL can be cross-compiled to each other
- Multi user functionality shortens programming time
- Management of distributed controls
- Network variables: Easy and powerful configuration of distributed communication
- Powerful debugging tools: Online changes, PLC simulation, Overwriting & forcing, breakpoints, watch windows & recipes, Logic analyzer, and cross reference.

Introduction

MULTIPROG® supports all IEC 61131-3 programming languages. Depending on the task to be handled, your experience and company standards, you may choose one of the five standardized programming languages. The use of MULTIPROG offers you many advantages. Our long-term experience in the automation industry guarantees you a sophisticated software product.

The open architecture of MULTIPROG provides a new direction in the creation of automation software. MULTIPROG Automation Interface guarantees consistent data. Via the automation interface, MULTIPROG opens its data to other tools. MULTIPROG allows external creation and modification of its project data. Furthermore, specific attributes can be added. As all essential data can be displayed in MULTIPROG, frequent switching between different tools during PLC programming and commissioning is no longer necessary. Observers guarantee data consistency with other tools, thus the engineering effort of the programming of PLCs is reduced.

Reliability by Experience

KW MULTIPROG is based on an embedded software controller that has been applied in the automation industry since 1991. With over 250,000 runtime installations worldwide, a sophisticated and reliable product is available which is continuously adapted to new technologies.

Specifications

Hardware Requirements

| Device | Minimum | Recommended |
|----------------------------|----------------------------|-------------|
| IBM compatible PC | 200 MHz | 350 MHz |
| System RAM | 64 MB | 128 MB |
| Hard Disk | 60 MB free available space | |
| CD ROM drive | | |
| VGA Monitor Color Settings | 256 colors | True color |
| Resolution | 800 x 600 | 1024 x 768 |
| Communication Interface | RS-232 or Ethernet | |
| Mouse | Recommended | |

Advantech Hardware Supported

- UNO-2000 Series
- ADAM-5510KW Series
- BAS-2000 Series
- Data Acquisition and Control Card
PCI-1710 / PCI-1711 / PCI-1716 / PCI-1720 / PCI-1730 / PCI-1733 / PCI-1734 / PCI-1752 / PCI-1754 / PCI-1756 / PCI-1761 / PCI-1762

Software Requirements

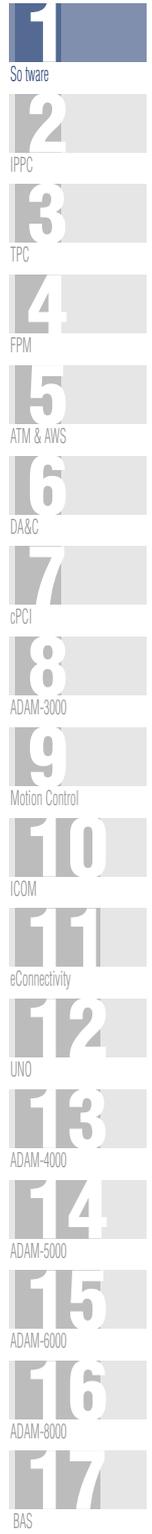
- Microsoft® Windows® NT 4.0 SP5 or Windows® 2000/XP
- Microsoft® Internet Explorer 5.02 or above

IEC 61131-3 Programming Languages (all supported)

- Instruction List (IL)
 - Structured Text (ST)
 - Function Block Diagram (FBD)
 - Ladder Diagram (LD)
 - Sequential Function Chart (SFC)
- All programming languages can be mixed within a project.

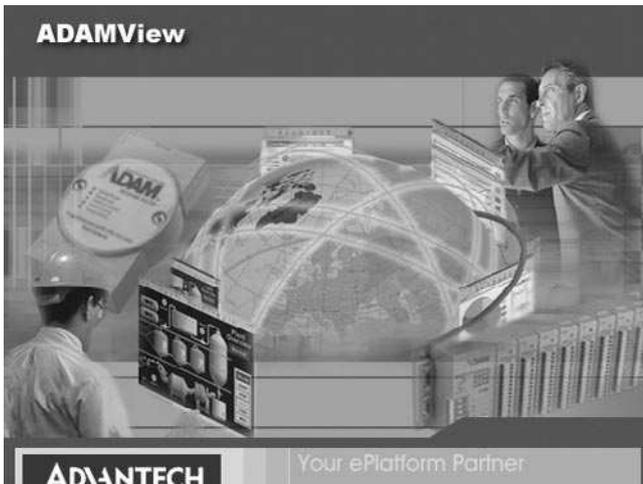
Ordering information

- **MPROG-BAS33** KW Multiprog Software Development Kit Basic Edition v3.3 or Windows® NT/2000/XP (128-byte I/O)
- **MPROG-ADV33** KW Multiprog Software Development Kit Advanced Edition v3.3 or Windows® NT/2000/XP (64-byte I/O)
- **PROCON-NT32** KW ProConOS Runtime License v3.2 or Windows® NT/2000/XP
- **PROCON-NTOPC20** KW ProConOS OPC Server Runtime License V 1.12 or Windows® NT/2000/XP (ADAM-5510KW Series is not supported)
- **PROCON-CEOPC20** KW ProConOS OPC Server Runtime License v2.0 or Windows® CE (ADAM-5510KW Series is not supported)



ADAMView

Data Acquisition Software



Features

- Complete software package
- Graphic panel configuration
- Modularized and prioritized task design
- BasicScript scripting language to customize your applications
- Plug & Play connect with ADAM I/O series

Introduction

We have noticed that many users apply the ADAM Data Acquisition modules in small base projects. Because the cost ran higher than system hardware, Human Machine Interface software were never suitable for these projects. ADAMView, the ADAM Data Acquisition software, is especially designed for low-volume ADAM projects. It provides a 150 physical points database, ADAM Drivers, and OPC Server for all monitoring and control functions. In brief, ADAMView is a cost-effective and simple SCADA software for the ADAM I/O series.

Specifications

System Requirements

- **CPU** Intel® Pentium® 200 MHz or higher
- **RAM** 64 MB Minimum
- **Disk Space** 20 MB Minimum
- **Display** VGA Resolution or Higher
- **Microsoft Compatible Mouse**
- **OS** Microsoft® Windows® 98, Windows® NT 4.0 SP4 or above, Windows® 2000, Windows® XP

Supported Hardware

- ADAM-4000/5000 Series Modules: Link through DLL Driver (Device Manager)
- ADAM-4000 Modbus Series Modules: Link through Modbus® OPC Server
- ADAM-5000/TCP, ADAM-6000 I/O Modules: Link by Modbus®/TCP OPC Server
- ADAM-4501 Controller: Link through Modbus®/TCP OPC Server
- ADAM-5510/5510 KW Series Controller: Link through Modbus® OPC Server

Feature Details

Complete Software Package

ADAMView takes advantage of Microsoft's Windows graphical interface, offering fast and intuitive configuration or human-machine interface and data acquisition applications. This application software combines easy-to-use graphical development and the flexibility of BasicScript, a powerful programming tool. With ADAMView, you can easily design both simple and complex applications, such as factory processes and utility monitoring, Lab testing, or environmental monitoring.

Graphical Panel Configuration

ADAMView provides a wide variety of graphical wizards, allowing users to quickly create an intuitive operator interface. Built-in display objects include bar graph, button, indicator, real time/historical trending, knob, gauge, slider, imported bitmap, numeric display and control.

Modularized and Prioritized Task Design

ADAMView development environment allows you to decompose your system into several smaller modules or tasks. The modular design is very useful to develop, and facilitate large and complicated system maintenance. Each module or task has its own properties, such as scan rate, start/stop method, and priority etc. With 32-bit Windows' multi-tasking capability, all tasks run simultaneously. Moreover, ADAMView software allows you to prioritize your tasks to increase overall performance.

BasicScript Scripting Language to Customize Your Applications

ADAMView is easy to use. It fully integrates BasicScript language in its kernel to meet your specific needs. Over 600 commands are available to perform almost any function you can imagine, including calculations, reading and writing files, DDE, and ODBC. It allows you to access and share data with other applications, such as Microsoft Access and Microsoft Excel. With BasicScript scripting language, you can reuse existing code and build your applications faster and easier.

Plug & Play Connect with ADAM I/O series

Once you install ADAMView software, you can immediately connect with ADAM-4000/5000 I/O as a complete Data Acquisition System. Current ADAM users can apply direct driver to access all ADAM-4000 modules and ADAM-5000/485 I/O system. Modbus users can link ADAM-5510/5510KW, ADAM-4000 Modbus I/O, and ADAM-6000 through the Modbus OPC server and Modbus/TCP OPC Server.

Ordering Information

- **PCLS-ADAMVIEW32** ADAMView Data Acquisition Software
- **PCLS-OPC/ADM** OPC Server for ADAM-4000/5000 Series (RS-485)
- **PCLS-OPC/MOD** Modbus® OPC Server
- **PCLS-OPC/MTP** Modbus®/TCP OPC Server

Industrial Panel PCs

Industrial Panel PCs Selection Guide

| | | |
|-------------------------|--|-------------|
| IPPC-9171G (New) | Rugged Intel® Pentium® 4/Celeron® Industrial Panel PC with 17" LCD | 2-2 |
| IPPC-9151G (New) | Rugged Intel® Pentium® 4/Celeron® Industrial Panel PC with 15" LCD | 2-4 |
| IPPC-9150G | Rugged Intel® Pentium® III/Celeron® Industrial Panel PC with 15" LCD | 2-8 |
| IPPC-9120G | Rugged Intel® Pentium® III/Celeron® Industrial Panel PC with 12.1" LCD | 2-10 |
| IPPC Accessories | | 2-12 |

| IPPC-9150G | IPPC-9120G |
|--|--|
| XGA TFT LCD | SVGA TFT LCD |
| 15" | 12.1" |
| 1024 x 768 | 800 x 600 |
| 262,144 | 262,144 |
| 120,100 | 100, 60 |
| 350 | 340 |
| 50,000 | 50,000 |
| 400:1 | 300:1 |
| Socket 370 Pentium III (up to 1.26 GHz) Socket 370 Celeron (up to 1.2 GHz) | Socket 370 Pentium III (up to 1.26 GHz) Socket 370 Celeron (up to 1.2 GHz) |
| Up to 1 GB SDRAM (SO-DIMM 168 pin) | Up to 1 GB SDRAM (SO-DIMM 168 pin) |
| 2 x RS-232, 1 x RS-232/422/485 (IPPC-9150G-RA) 3 x RS-232, 1 x RS-232/422/485 (IPPC-9150G-XA) | 2 x RS-232, 1 x RS-232/422/485 (IPPC-9120G-RA) 3 x RS-232, 1 x RS-232/422/485 (IPPC-9120G-XA) |
| One | One |
| - | - |
| 2 x USB V1.1 | 2 x USB V1.1 |
| 10/100Base-T | 10/100Base-T |
| - | - |
| Slim Type x 1 (optional) | Slim Type x 1 (optional) |
| 2.5" x 1 | 2.5" x 1 |
| Type II x 2 | Type II x 2 |
| PCI x 1, PCI/ISA x 1 | PCI x 1, PCI/ISA x 1 |
| Resistive | Resistive |
| 100 W | 100 W |
| 0 ~ 50° C (32 ~ 122° F) | 0 ~ 50° C (32 ~ 122° F) |
| -20 ~ 60° C (-4 ~ 140° F) | -20 ~ 60° C (-4 ~ 140° F) |
| BSMI, CCC, CE, FCC, UL | BSMI, CCC, CE, FCC, UL |
| 402 x 302 x 127 mm (15.9" x 11.9" x 5") | 402 x 302 x 127 mm (15.9" x 11.9" x 5") |
| 2-8 | 2-10 |



| IPPC-9150G | IPPC-9120G |
|--|--|
| XGA TFT LCD | SVGA TFT LCD |
| 15" | 12.1" |
| 1024 x 768 | 800 x 600 |
| 262,144 | 262,144 |
| 120,100 | 100, 60 |
| 350 | 340 |
| 50,000 | 50,000 |
| 400:1 | 300:1 |
| Socket 370 Pentium III (up to 1.26 GHz) Socket 370 Celeron (up to 1.2 GHz) | Socket 370 Pentium III (up to 1.26 GHz) Socket 370 Celeron (up to 1.2 GHz) |
| Up to 1 GB SDRAM (SO-DIMM 168 pin) | Up to 1 GB SDRAM (SO-DIMM 168 pin) |
| 2 x RS-232, 1 x RS-232/422/485 (IPPC-9150G-RA) 3 x RS-232, 1 x RS-232/422/485 (IPPC-9150G-XA) | 2 x RS-232, 1 x RS-232/422/485 (IPPC-9120G-RA) 3 x RS-232, 1 x RS-232/422/485 (IPPC-9120G-XA) |
| One | One |
| - | - |
| 2 x USB V1.1 | 2 x USB V1.1 |
| 10/100Base-T | 10/100Base-T |
| - | - |
| Slim Type x 1 (optional) | Slim Type x 1 (optional) |
| 2.5" x 1 | 2.5" x 1 |
| Type II x 2 | Type II x 2 |
| PCI x 1, PCI/ISA x 1 | PCI x 1, PCI/ISA x 1 |
| Resistive | Resistive |
| 100 W | 100 W |
| 0 ~ 50° C (32 ~ 122° F) | 0 ~ 50° C (32 ~ 122° F) |
| -20 ~ 60° C (-4 ~ 140° F) | -20 ~ 60° C (-4 ~ 140° F) |
| BSMI, CCC, CE, FCC, UL | BSMI, CCC, CE, FCC, UL |
| 402 x 302 x 127 mm (15.9" x 11.9" x 5") | 402 x 302 x 127 mm (15.9" x 11.9" x 5") |
| 2-8 | 2-10 |

| | |
|----|-----------------------|
| 1 | Software |
| 2 | IPPC |
| 3 | TPC |
| 4 | FPM |
| 5 | ATM & AWS |
| 6 | DAR&C |
| 7 | cPCI |
| 8 | ADAM-3000 |
| 9 | Motion Control |
| 10 | ICOM |
| 11 | Industrial Networking |
| 12 | UNO |
| 13 | ADAM-4000 |
| 14 | ADAM-5000 |
| 15 | ADAM-6000 |
| 16 | ADAM-8000 |
| 17 | BAS |

IPPC-9171G

Rugged Intel® Pentium® 4 / Celeron®
Industrial Panel PC with 17" LCD



Features

- Intel® Pentium® 4 processor up to 2.8 GHz
- 17" SXGA TFT LCD provides vivid, sharp and large images
- Offers two expansion slots for PCI add-on cards
- Heavy-duty stainless steel chassis with aluminum front panel
- Strengthened glass protects the front panel from shock damage and is NEMA4/IP65 compliant
- Front access USB connector
- Hard anodic coating to prevent panel abrasion and acid corrosion
- Supports industrial mounting rack and panel mounting

Introduction

The IPPC-9171G is an Industrial Panel PC with support for Pentium® 4 processors to meet the demands of today's applications. The IPPC-9171G is a rugged unit with an aluminum panel, tempered glass, 17" TFT LCD, a stainless steel structure and two expansion slots. The IPPC-9171G is rugged enough to handle the toughest industrial operating environments. With optional mounting accessories from panels to racks, it can be mounted almost anywhere.

Specifications

General

- **BIOS** Award® 256KB Flash BIOS
- **Certifications** CCC, CE, FCC, UL, BSMI
- **Cooling System** 2 x 10.1 CFM fans w/50,000 hrs MTBF
- **Dimensions (WxHxD)** 482 x 354.8 x 162 mm (18.97" x 13.96" x 6.37")
- **Disk Drive Bay** Supports one 3.5" HDD and slim size CD-ROM built in FDD
- **Enclosure** Stainless steel back housing
10 mm thick aluminum front panel
- **Mounting** Panel, rack
- **Power Input** 100 ~240 V_{AC} @ 50 ~ 60 Hz, 2 A
- **Power Output** + 5 V @ 15 A, +12 V @ 5 A, -12 V @ 0.5 A
- **Power Supply** 180 W, MTBF: 200,000 hrs
- **Weight (Gross)** 13 kg (28 lb)

System Hardware

- **Audio Ports** Mic-in, Line-in, Line-out, and game port
- **Chipset** Intel® 845GV
- **CPU** Socket 478, Intel Pentium 4 up to 2.8 GHz
Intel Celeron up to 2.5 GHz (400/533 MHz)
- **Expansion Slots** 2 x low-profile PCI
- **IEEE-1394 Ports** 2 x IEEE 1394 ports (Firewire)
- **Keyboard/Mouse** 1 x PS/2 mouse and keyboard interface
- **LAN** 1 x 10/100Base-T
- **Memory** Two 184 pin DDR DIMM sockets supports up to 2 GB (Clock 266)
- **Parallel Port** 1 x standard parallel port
1 x enhanced parallel port, supports SPP/EPP/ECP parallel mode. BIOS configurable to LPT1, LPT2, LPT3 or disabled
- **PCMCIA Slots** 2 x Type II
- **Serial Ports** 1 x RS-232, 1 x RS-232/422/485
- **USB Ports** 4 x USB 2.0
- **Video Port** S-Video

LCD Display

- **Backlight Life** 50,000 hrs
- **Contrast Ratio** 450:1
- **Display Size** 17"
- **Display Type** SXGA TFT LCD
- **Luminance** 260 cd/m²
- **Max. Colors** 16.2 M (RGB 6-bit + FRC data)
- **Max. Resolution** 1280 x 1024
- **OSD Control** LCD ON/OFF, Brightness down, up
- **Viewing Angle (H/V°)** 140/130

Touchscreen (Optional)

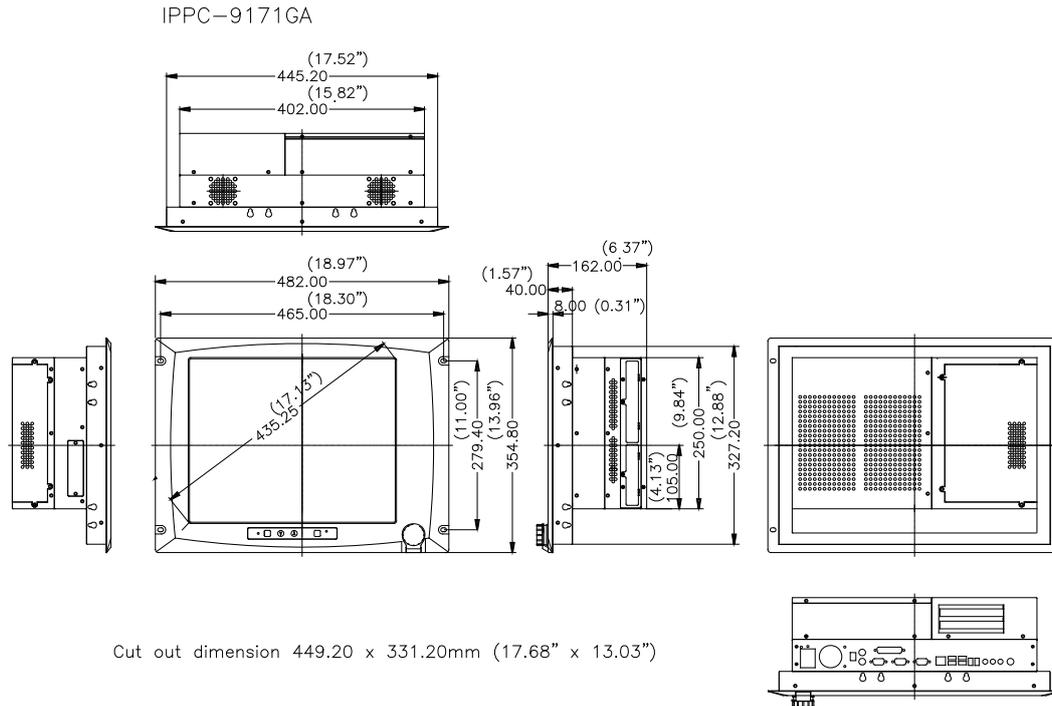
- **Interface** USB
- **Lifespan** 1 million touch lifetime at the single point
- **Light Transmission** 75%
- **OS Support** MS-DOS, Windows 95/98/NT/2000/XP, Linux
- **Type** Analog resistive (8-wire)

Environment

- **Humidity** 5 ~ 85% RH @ 40° C (non-condensing)
- **Ingress Protection** Front panel: NEMA4/IP65
- **Operating Temperature** 0 ~ 50° C (32 ~ 122° F)
- **Storage Temperature** -20 ~ 60° C (-4 ~ 140° F)
- **Vibration Protection** 5 ~ 500 Hz, 1 G_{RMS} random vibration (Operating)

Dimensions

Unit: mm



Ordering Information

- **IPPC-9171G-XA** Rugged Pentium® 4 Industrial Panel PC with 17" LCD, 180 W AC power supply, slim FDD. Stainless steel chassis and aluminum front panel
- **IPPC-9171G-RA** IPPC-9171G-XA with resistive touchscreen

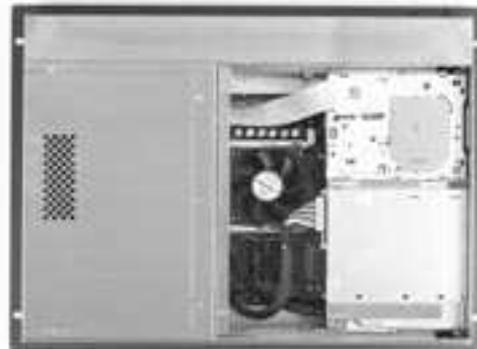
Accessory

- **CDR-9151-COMBO** Slim type Combo CD-ROM

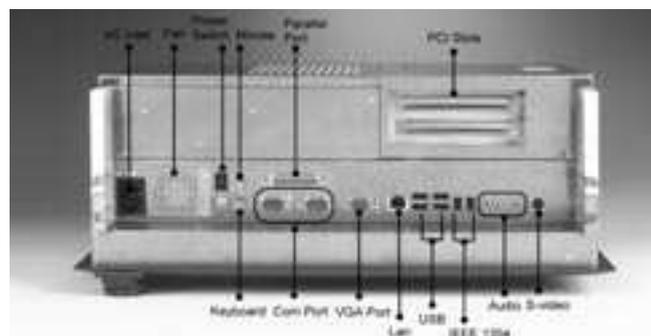
Notes:

1. When used in a panel mounted environment, the panel's thickness can not be over 10 mm
2. 4 mm stainless front panel supported by request

Back View



Bottom View



- 1 So tware
- 2 IPPC
- 3 TPC
- 4 FPM
- 5 ATM & AWS
- 6 DA&C
- 7 cPCI
- 8 ADAM-3000
- 9 Motion Control
- 10 ICOM
- 11 Industrial Networking
- 12 UNO
- 13 ADAM-4000
- 14 ADAM-5000
- 15 ADAM-6000
- 16 ADAM-8000
- 17 BAS

IPPC-9151G

Rugged Intel® Pentium® 4 / Celeron® Industrial Panel PC with 15" LCD



Features

- Intel® Pentium® 4 processors up to 2.8 GHz
- 15" XGA TFT LCD provides vivid, sharp and large images
- Offers two expansion slots for PCI add-on cards
- Front access USB connector
- Heavy-duty stainless steel chassis with aluminum front panel
- Strengthened glass protects the front panel from shock damage and is NEMA4/IP65 compliant
- Built-in FDD and support for one CD-ROM and 3.5" HDD Drive
- Hard anodic coating to prevent panel abrasion and acid corrosion
- Supports industrial mounting rack and panel mounting

Introduction

IPPC-9151G is a fully functional computer system with support for CPUs of different classes (Pentium 4 up to 2.8 GHz) and resolution up to 1024 x 768 to meet the demands of today's high-end industrial software. IPPC-9151G is a rugged unit with an aluminum panel, tempered glass 15" TFT LCD, a stainless steel structure and two expansion slots. IPPC-9151G is rugged enough to handle the toughest industrial operating environments. With optional mounting accessories, from panels to racks, it can be mounted anywhere. There is also IPPC-9151F-XA, which has a flat-sealed front panel for easier cleaning and liquid run-off, which is suitable for tough hygiene requirements in food & beverage manufacturing.

Specifications

General

- **BIOS** Award® 256 KB Flash BIOS
- **Certifications** BSMI, CCC, CE, FCC, UL
- **Cooling System** 2 x 10.1 CFM fans w/ 50,000 hrs MTBF
- **Dimensions (WxHxD)** 428 x 310 x 162 mm (16.85" x 12.2" x 6.37")
- **Disk Drive Bay** Supports one 3.5" HDD and slim size CD-ROM, built-in FDD
- **Enclosure** Stainless steel back case, 10 mm aluminum front panel
- **Mounting** Panel, rack
- **Power Input** 100 ~240 V_{AC} @ 50 ~ 60 Hz, 2 A
- **Power Output** + 5 V @ 15 A, +12 V @ 5 A, -12 V @ 0.5 A
- **Power Supply** 180 W, MTBF: 200,000 hrs
- **Weight (Gross)** 13 kg (28 lb)

System Hardware

- **Audio Ports** Mic-in, Line-in, Line-out, and game port
- **Chipset** Intel® 845 GV
- **CPU** Socket 478 Intel® Pentium® 4 up to 2.8 GHz
Intel® Celeron® up to 2.5 GHz (400/533 MHz)
- **Expansion Slots** 2 x low-profile PCI
- **IEEE-1394 Ports** 2 x IEEE 1394 ports (Firewire)
- **Keyboard/Mouse** 1 x PS/2 mouse and keyboard interface
- **LAN** 1 x 10/100Base-T
- **Memory** Two 184 pin DDR DIMM sockets supports up to 2 GB (Clock 266)
- **Parallel Ports** 1 x standard parallel port
1 x enhanced parallel port, supports SPP/EPP/ECP parallel mode.
BIOS configurable to LPT1, LPT2, LPT3 or disabled
- **PCMCIA Slots** 2 x Type II
- **Serial Ports** 1 x RS-232, 1 x RS-232/422/485
- **USB Ports** 4 x USB 2.0
- **Video Ports** S-Video

LCD Display

- **Backlight Life** 50,000 hrs
- **Contrast Ratio** 400:1
- **Display Size** 15"
- **Display Type** XGA TFT LCD
- **Luminance** 350 cd/m²
- **Max. Colors** 262,144
- **Max. Resolution** 1024 x 768
- **OSD Control** LCD ON/OFF, Brightness drop, up
- **Viewing Angle (H/V°)** 120/100

Touchscreen (Optional)

- **Interface** USB
- **Lifespan** 1 million touches at single point
- **Light Transmission** 75%
- **OS support** MS DOS, Windows® 95/98/NT/2000/XP
- **Type** Analog resistive (8-wire)

Environment

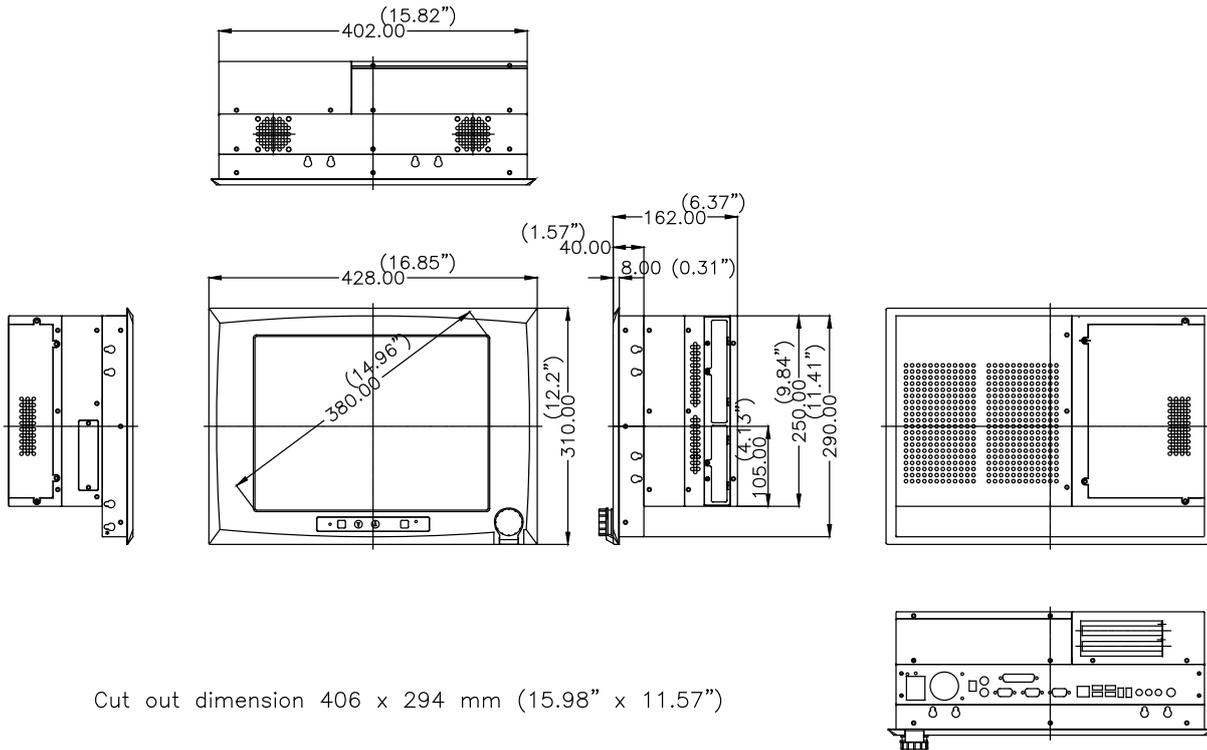
- **Humidity** 5 ~ 85% @ 40° C (non-condensing)
- **Ingress Protection** Front panel: NEMA4/IP65
- **Operating Temperature** 0 ~ 50° C (32 ~ 122° F)
- **Storage Temperature** -20 ~ 60° C (-4 ~ 140° F)
- **Vibration Protection** 5 ~ 500 Hz, 1 G_{RMS} random vibration

Ordering Information

- **IPPC-9151G-XA** Rugged Pentium® 4 Industrial Panel PC with 15" LCD, 180 W AC power supply, stainless steel chassis and aluminum front panel
- **IPPC-9151G-RA** IPPC-9151G-XA with resistive touchscreen
- **IPPC-9151F-XA** Rugged Pentium® 4 Industrial Panel PC with 15" LCD, 180 W AC power supply, stainless steel chassis and flat-sealed aluminum front panel
- **IPPC-9151F-RA** IPPC-9151F-XA with resistive touchscreen

Dimensions

Unit: mm



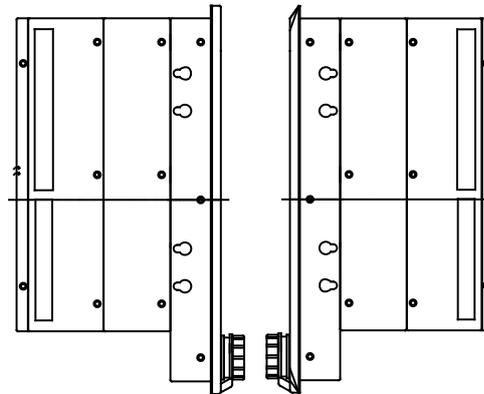
Accessories

- **IPPC-9151 Rack-MT** Mounting kit or standard 19" industrial rack
- **CDR-9151-COMBO** Slim type Combo CD-ROM

Notes:

1. When used in a panel mounted environment, the panel's thickness can not be over 10 mm.

Flat-Sealed Front Panel (IPPC-9151F-XA)



The flat-sealed front panel of IPPC-9151F-XA (shown above left), is designed for minimum projection in panel mounts. This ensures easier liquid run-off, prevents dirty edges, and is useful in applications where hygiene is crucial (e.g. food processing).

- 1 Software
- 2 IPPC
- 3 TPC
- 4 FPM
- 5 ATM & AWS
- 6 DA&C
- 7 cPCI
- 8 ADAM-3000
- 9 Motion Control
- 10 ICOM
- 11 Industrial Networking
- 12 UNO
- 13 ADAM-4000
- 14 ADAM-5000
- 15 ADAM-6000
- 16 ADAM-8000
- 17 BAS

IPPC-9150G

Rugged Pentium® III/Celeron® Industrial Panel PC with 15" LCD



Features

- Pentium® III processors up to 1.26 GHz and Celeron® processors up to 1.2 GHz
- 15" XGA TFT LCD provides vivid, sharp and large images
- Offers two expansion slots for PCI/ISA add-on cards
- Heavy-duty stainless steel chassis with aluminum front panel
- Strengthened glass protects the front panel from shock damage and is NEMA4/IP65 compliant
- Back door with lock allows easy maintenance and optimal security
- Support for optional PCMCIA wireless LAN adapter accessory
- Hard anodic coating to prevent panel abrasion and acid corrosion
- Supports industrial mounting rack and panel mounting

Introduction

The IPPC-9150G is a fully functional computer system with support for CPUs of different classes (Pentium® III up to 1.26 GHz & Celeron® up to 1.2 GHz) to meet the demands of today's industrial software. The IPPC-9150G is a rugged unit with an aluminum panel, tempered glass 15" TFT LCD, a stainless steel structure and two expansion slots. The IPPC-9150G is rugged enough to handle the toughest industrial operating environments. With optional mounting accessories, from swing arm to panels to racks, it can be mounted anywhere.

Specifications

General

- **BIOS** Award® 256 KB Flash BIOS
- **Certifications** BSMI, CCC, CE, FCC, UL
- **Cooling System** 2 x 15.6 CFM fans w/ 50,000 hrs MTBF
- **Dimensions (WxHxD)** 402 x 302 x 127 mm (15.8" x 11.9" x 5")
- **Disk Drive Bay** Supports one 2.5" HDD, and one slim size CD-ROM
- **Enclosure** Stainless steel back case, 10 mm aluminum front panel
- **Mounting** Panel, swing-arm, rack
- **Power Input** 100 V_{AC} ~240 V_{AC} @ 47 ~ 63 Hz
- **Power Output** +5 V @ 15 A, +12 V @ 5 A
- **Power Supply** 100 W, MTBF: 200,000 hrs
- **Watchdog Timer** 62-level, interval 1 ~ 62 seconds
- **Weight (Gross)** 10 kg (22 lb)

System Hardware

- **Chipset** VT82C686B
- **CPU** Socket 370, Intel® Pentium® III up to 1.26 GHz, Intel® Celeron® up to 1.2 GHz
- **Expansion Slots** 2 x low-profile PCI, or 1 x low-profile PCI and 1 x half-size ISA
- **LAN** 1 x 10/100Base-T
- **Memory** 2 x DIMM sockets support up to 1 GB SDRAM
- **Parallel Ports** 1 x enhanced parallel port, supports SPP/EPP/ECP parallel mode. BIOS configurable to LPT1, LPT2, LPT3 or disabled. 2 x Type II
- **PCMCIA Slots** 3 x RS-232 (COM1, 3, and 4)
- **Serial Ports** 1 x RS-232/422/485 (COM2). All ports are compatible with 16C550 UARTs.
- **USB Ports** 2 x USB 1.1

LCD Display

- **Backlight Life** 50,000 hrs
- **Contrast Ratio** 400:1
- **Display Size** 15"
- **Display Type** XGA TFT LCD
- **Luminance** 350 cd/m²
- **Max. Colors** 262,144
- **Max. Resolution** 1024 x 768
- **OSD Control** None
- **Viewing Angle (H/V°)** 120/100

Touchscreen (Optional)

- **Interface** RS-232 (through COM4)
- **Lifespan** 1 million touches at single point
- **Light Transmission** 75%
- **OS support** MS DOS, Windows® 95/98/NT/2000/XP
- **Type** Analog resistive (8-wire)

Environment

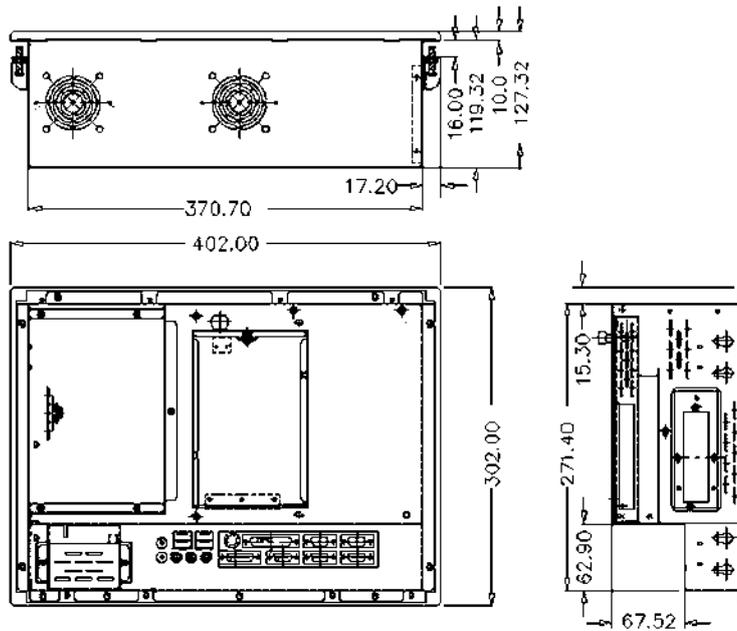
- **Humidity** 5 ~ 85% @ 40° C (non-condensing)
- **Ingress Protection** Front panel: NEMA4/IP65
- **Operating Temperature** 0 ~ 50° C (32 ~ 122° F)
- **Storage Temperature** -20 ~ 60° C (-4 ~ 140° F)
- **Vibration Protection** 5 ~ 500 Hz 1 G_{RMS} Random Vibration

Ordering Information

- **IPPC-9150G-XA** Rugged Pentium® III/Celeron® Industrial Panel PC with 15" LCD, PCM-9672 CPU board, 100 W AC power supply, stainless steel chassis and aluminum front panel
- **IPPC-9150G-RA** IPPC-9150G-XA with resistive touchscreen
- **IPPC-9150G-RNA** IPPC-9150G-XA bundled 1 GHz Pentium® III, 256 MB RAM

Dimensions

Unit: mm



Cut-out dimensions: 374 x 275 mm

Accessories

- **IPPC-9150 Stand** Stand kit or IPPC-9150/9120 series product
- **IPPC-9150 S-ARM** Swing arm or IPPC-9150/9120
- **IPPC-9150 Rack-MT** Mounting kit or standard 19" industrial rack
- **CDR-9150-COMBO** Slim type Combo CD-ROM

Notes:

1. When used in a panel mounted environment, the panel's thickness can not be over 10 mm.

| | |
|----|-----------------------|
| 1 | Software |
| 2 | IPPC |
| 3 | TPC |
| 4 | FPM |
| 5 | ATM & AWS |
| 6 | DA&C |
| 7 | cPCI |
| 8 | ADAM-3000 |
| 9 | Motion Control |
| 10 | ICOM |
| 11 | Industrial Networking |
| 12 | UNO |
| 13 | ADAM-4000 |
| 14 | ADAM-5000 |
| 15 | ADAM-6000 |
| 16 | ADAM-8000 |
| 17 | BAS |

IPPC-9120G

Rugged Pentium® III/Celeron®
Industrial Panel PC with 12.1" LCD



Features

- Pentium® III processors up to 1.26 GHz and Celeron® processors up to 1.2 GHz
- 12.1" SVGA TFT LCD provides vivid, sharp and large images
- Offers two expansion slots for PCI/ISA add-on cards
- Heavy-duty stainless steel chassis with aluminum front panel
- Strengthened glass protects the front panel from shock damage and is NEMA4/IP65 compliant
- Back door with lock allows easy maintenance and optimal security
- Support for optional PCMCIA wireless LAN adapter accessory
- Hard anodic coating to prevent panel abrasion and acid corrosion
- Supports industrial mounting rack and panel mounting

Introduction

IPPC-9120G is a fully functional computer system with support for CPUs of different classes (Pentium® III up to 1.26 GHz and Celeron® up to 1.2 GHz) to meet the demands of today's industrial software. IPPC-9120G is a rugged unit with an aluminum panel, tempered glass 12.1" TFT LCD, a stainless steel structure and two expansion slots. IPPC-9120G is rugged enough to handle the toughest industrial operating environments. With optional mounting accessories - from swing arm to panels to racks - it can be mounted almost anywhere.

Specifications

General

- **BIOS** Award® 256 KB Flash BIOS
- **Certifications** CCC, CE, FCC, UL, BSMI
- **Cooling Systems** 2 x 15.6 CFM fans w/ 50,000 hrs MTBF
- **Dimensions (WxHxD)** 402 x 302 x 127 mm (15.8" x 11.9" x 5")
- **Disk Drive Bay** Supports one 2.5" HDD, and one slim size CD-ROM
- **Enclosure** Stainless steel back case, 10 mm aluminum front panel
- **Mounting** Panel, swing-arm, rack
- **Power Input** 100 V_{AC} ~240 V_{AC} @ 47 ~ 63 HZ
- **Power Output** + 5 V @ 15 A, + 12 V @ 5 A, -12 V @ 0.5 A
- **Power Supply** 100 W, MTBF: 200,000 hrs
- **Watchdog Timer** 62-level, interval 1 ~ 62 seconds
- **Weight (Gross)** 10 kg (22 lb)

System Hardware

- **Chipset** Intel 82443B/82371EB
- **CPU** Socket 370 Intel® Pentium® III up to 1.26 GHz, Celeron® up to 1.2 GHz
- **Expansion Slots** 2 x low-profile PCI, or 1 x low-profile PCI and 1 x half-size ISA
- **LAN** 1 x 10/100Base-T
- **Memory** 2 x DIMM sockets supports up to 1 GB SDRAM
- **Parallel Ports** 1 x enhanced parallel port, supports SPP/EPP/ECP parallel mode. BIOS configurable to LPT1, LPT2, LPT3 or disabled.
- **PCMCIA Ports** 2 x Type II
- **Serial Ports** 3 x RS-232 (COM1, 3, and 4)
1 x RS-232/422/485 (COM2).
All ports are compatible with 16C550 UARTs
- **USB Ports** 2 x USB 1.1

LCD Display

- **Backlight Life** 50,000 hrs
- **Contrast Ratio** 300:1
- **Display Size** 12.1"
- **Display Type** SVGA TFT LCD
- **Luminance** 340 cd/m²
- **Max. Colors** 262,144
- **Max. Resolution** 800 x 600
- **Viewing Angle (H/V°)** 100/60

Touchscreen (Optional)

- **Interface** RS-232 (interface through COM4)
- **Lifespan** 1 million touches at single point
- **Light Transmission** 75%
- **OS Support** MS DOS, Windows® 95/98/NT/2000/XP
- **Type** Analog resistive (8-wire)

Environment

- **Humidity** 5 ~ 85% @ 40° C (non-condensing)
- **Ingress Protection** Front panel: NEMA4/IP65
- **Operating Temperature** 0 ~ 50° C (32 ~ 122° F)
- **Storage Temperature** -20 ~ 60° C (-4 ~ 140° F)
- **Vibration (operation)** 5 ~ 500 Hz 1 G_{RMS} random vibration

Ordering Information

- **IPPC-9120G-XA** Rugged Pentium® III/Celeron® Industrial Panel PC with 12.1" LCD, PCM-9672 CPU board, 100 W AC power supply. Stainless steel chassis and aluminum front panel
- **IPPC-9120G-RA** IPPC-9120G-XA with resistive touchscreen