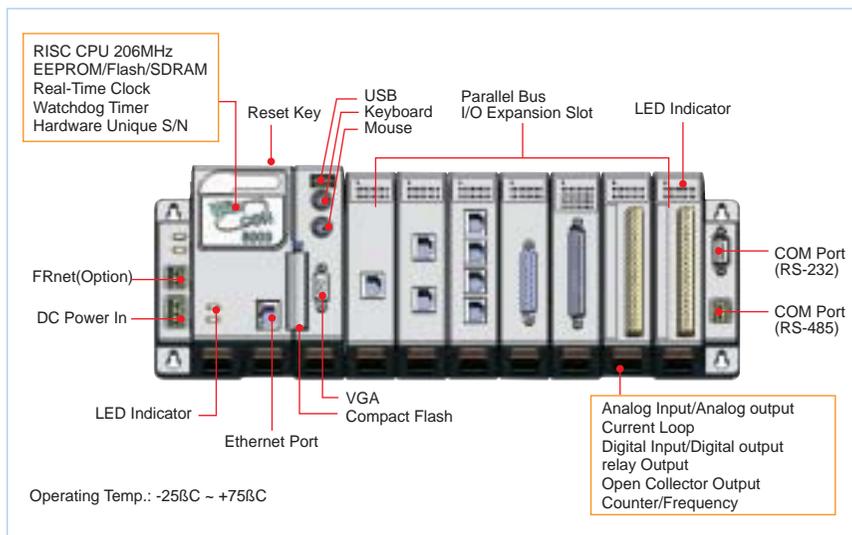


# WinCon-8000 *Compact Embedded Controller*



## Introduction

The WinCon-8000 is a leading edge embedded platform with an Intel Strong ARM CPU running the Windows CE .NET operating system. When compared to the standard Windows OS, Windows CE .NET has some advantages, including hard real-time capability, small core size, fast boot speed, interrupt handling at a deeper level, achievable deterministic control and low cost. Windows CE .NET provides WinCon-8000 with the ability to run PC-based control software such as Visual Basic .NET, Visual C#, Embedded Visual C++, SCADA software, Soft PLC ...etc. InduSoft versions of the WinCon-8000 are available and ISaGRAF versions will be available soon.

The WinCon-8000 includes a VGA port, allowing the user to choose a regular LCD monitor without the need for an expensive HMI or Industrial PC. WinCon-8000 is a cost-effective choice as a replacement for a regular PC or PLC based control system.

The operating system is resident in the flash memory of the WinCon-8000 CPU module. User programs can be saved in internal flash memory and external storage areas, such as Compact Flash Cards and USB drives or downloaded to RAM at run time through the LAN or USB. An SDK, used to control the I-8000 and I-7000 series I/O modules is provided for easy development of user applications using Visual Basic .NET, Visual C# or Embedded Visual C++. The included WinCon Utility is a convenient tool that enables system configuration, monitoring and software updates.

# WinCon-8000 Compact Embedded Controller

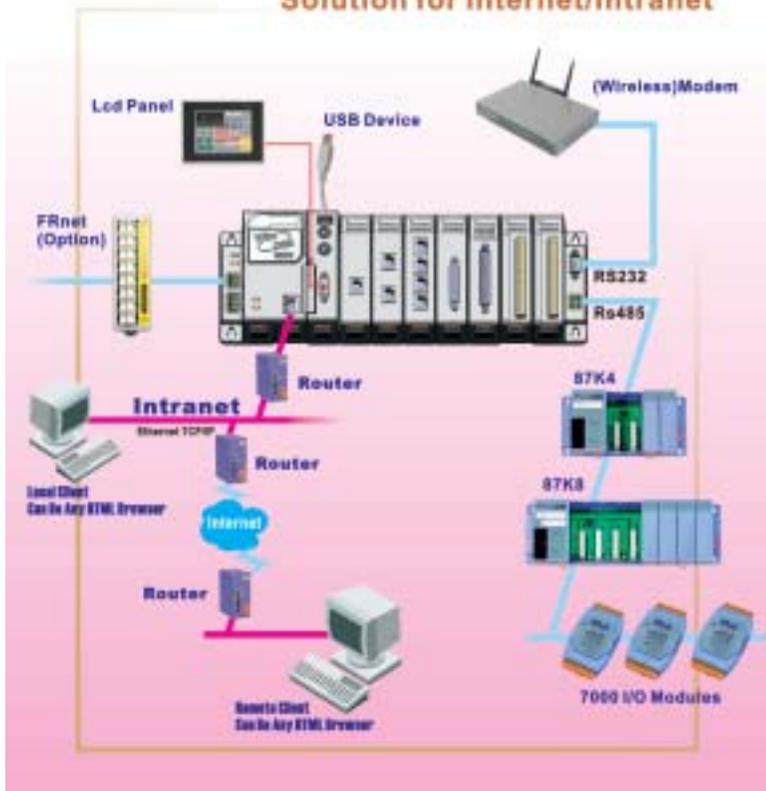


## Key Specifications & Features

- ¥ Intel Strong ARM CPU
- ¥ Windows CE .NET built-in
- ¥ Supports VGA , Ethernet, USB, Keyboard, Mouse, Compact Flash
- ¥ OPC server support
- ¥ Industrial Modbus/TCP, RTU Protocol Compliant
- ¥ CAN bus network will be supported
- ¥ Convenient utility for system configuration, monitoring and software upgrade
- ¥ Wide range of I/O modules: DI, DO, AI, AO, Counter/Frequency, Motion control...etc.
- ¥ Rich software development toolkit



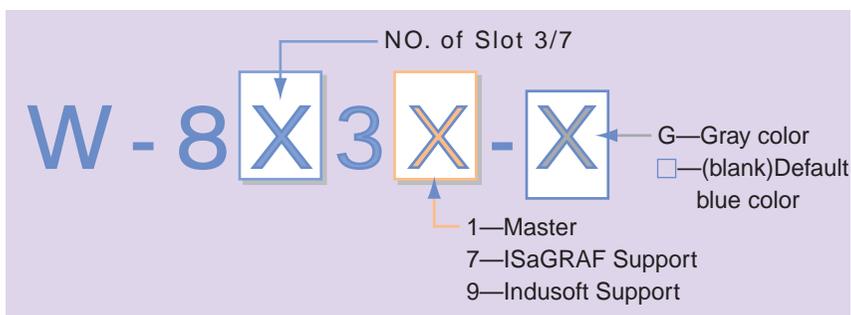
## Solution for Internet/Intranet



# WinCon-8000 *Main Control Unit (MCU)*

## Main Control Unit (MCU)

The MCU is the powerhouse of the 8000. Each MCU comprises a Central Processor Module(CPM), a power supply, a three (3) or seven (7) slot backplane for either 3 or 7 Parallel or Serial I/O modules. The CPM is a powerful integrated processing engine comprising a CPU, RAM, ROM and Ethernet.



### WinCon-8000 Main Control Unit Selection Guide

Model	Description	CPU Speed	Embedded OS	Slot	Flash	SDRAM	Peripherals
W-8331	Embedded Controller	206MHz	Windows CE.NET	3	32 Mbyte	64 Mbyte	10BaseT Ethernet Portx1 VGA Portx1 CF Slotx1 USBx1 PS/2 Keyboardx1 PS/2 Mousex1 RS-232x1 RS-485x1 FRnetx1 (Option)
W-8731				7			
W-8337	ISaGRAF Embedded Controller	206MHz	Windows CE.NET	3	32 Mbyte	64 Mbyte	
W-8737				7			
W-8339	Indusoft Embedded Controller	206MHz	Windows CE.NET	3	32 Mbyte	64 Mbyte	
W-8739				7			

### Optional LCD Monitor:



**DM-64T**  
**6.4" LCD Monitor**  
Analog VGA Input  
Front OSD Control  
Keypad to Adjust Best Screen Performance



**DM-121D-AL**  
**12.1" LCD Monitor**  
Analog VGA Input  
Front OSD Control  
Keypad to Adjust Best Screen Performance

# WinCon-8000 Compact Embedded Controller



## Ordering Information:

**W-8331-G:** Compact Embedded Controller

### OPT

¥ DM-64T:6.4" LCD Module

¥ DM-121D-AL:12.1" LCD monitor



## Ordering Information:

**W-8731-G:** Compact Embedded Controller

### OPT

¥ DM-64T:6.4" LCD Module

¥ DM-121D-AL:12.1" LCD monitor

## Specifications & Features

- Intel Strong ARM CPU, 206MHz
- SDRAM: 64M bytes
- Flash Memory: 32M bytes
- EEPROM: 16K bytes
- 64-bit hardware unique serial number
- Built-in Watchdog Timer
- Real Time Clock
- 10 BaseT: NE2000 compatible
- 1 VGA port:  
320x240x16 to 1024x768x16  
Default is 640x480x16
- 2 PS/2 ports: Keyboard and Mouse
- 1 Compact Flash slot:  
CF memory card
- 1 USB 1.1 Host:  
USB drive or USB mouse
- Reset button
- Power LEDs
- COM0: Internal use
- COM1: RS-232
- COM2: RS-485
- COM3: Serial Control for 87K Series  
FRnet (Option)
- I/O Expansion Slot:  
3-slot for W-8331  
7-slot for W-8731
- Power Supply: 20W  
Unregulated +10Vdc to +30Vdc
- Environment:  
Operating Temp.: -25°C to +75°C  
Storage Temp.: -30°C to +85°C
- Humidity: 5~95%
- Dimensions:  
418x110x97.5(75.5)mm - 7-slot  
213x110x97.5(75.5)mm - 3-slot

# WinCon-8000

## ISaGRAF/InduSoft Embedded Controller



### Ordering Information:

**W-8337-G:** ISaGRAF Embedded Controller



### Ordering Information:

**W-8737-G:** ISaGRAF Embedded Controller



### Ordering Information:

**W-8339-G:** InduSoft Embedded Controller



### Ordering Information:

**W-8739-G:** InduSoft Embedded Controller

## ISaGRAF Embedded Controllers available 2004 Q1

### Specifications & Features

- The W-8337 hardware is the same as W-8331. The W-8000 Target driver and ISaGRAF Target license are included.

#### OPT

- ¥ DM-64T:6.4" LCD Module
- ¥ DM-121D-AL:12.1" LCD monitor

- The W-8737 hardware is the same as W-8731. The W-8000 Target driver and ISaGRAF Target license are included.

#### OPT

- ¥ DM-64T:6.4" LCD Module
- ¥ DM-121D-AL:12.1" LCD monitor

## InduSoft Embedded Controllers

### Specifications & Features

- The W-8339 hardware is the same as the W-8331. The W-8000 Target driver and InduSoft Target development environment are built in.
- The W-8739 hardware is the same as the W-8337. The W-8000 Target driver and InduSoft Target development environment are built in.
- W-8339-R : WinCon 8000+InduSoft local interface (1500Tag) Run-time
- W-8739-R : WinCon 8000+InduSoft

#### OPT

- ¥ InduSoft-NT1500D: Local Interface development version for WinNT/2000/XP (1500Tags, 3 drivers)
- ¥ InduSoft-CE1500D: Local Interface development version for Windows CE (CE View) (1500Tags,3drivers)
- ¥ InduSoft-NT 300D: Launch version for WinNT/200/XP
- ¥ InduSoft-CE 300D: Launch version for Windows CE (CE View)
- ¥ InduSoft launch version (300Tag) can be upgraded to local interface development version.
- ¥ LCD monitor  
DM-64T:6.4" LCD Module  
DM-121D-AL:12.1" LCD monitor

### What is InduSoft ?

InduSoft Web Studio is a powerful, integrated collection of automation tools that includes all the building blocks required to develop modern Human Machine Interfaces (HMI), and Supervisory Control and Data Acquisition System (SCADA) applications that run natively on Windows XP, 2000, NT and CE .NET or in an Internet and Intranet environment. A simple drag and drop, point and click development environment mimics the most complex behavior of your live processes. InduSoft Web Studio is the most ideal E-Automation solution available in the industry.

InduSoft HMI/ SCADA software and automation technology can be used for:

- ¥ Monitoring: alarm monitoring, event monitoring, real time monitoring
- ¥ Control: Quality Control, Motion control, Statistical Process Control, Automation Control
- ¥ Measurement Software
- ¥ Automation: Building Automation, Process Automation, Plant Automation, Manufacturing Automation, Factory Automation Systems
- ¥ SCADA applications: SCADA Communication, SCADA Real Time System



### The WinCon-8000 and InduSoft Integration Application

The WinCon-8000 InduSoft Embedded Controller provides a bundled driver to integrate the application performance and the easy to use of software and hardware. It can operate as an intelligent distributed data acquisition front end connected to a Host machine running a standard SCADA package. The user can develop SCADA applications on a PC then download and apply them to the WinCon-8000 InduSoft Embedded Controller. In addition, InduSoft Web Studio allows you to save your application screens in HTML format and export them from Wincon-8000 http server for use with Internet Browsers (Internet Explorer).

# WinCon-8000 *Compact Embedded Controller*



## Embedded OS

Windows CE .NET is pre-installed and ready to run your embedded applications with or without a display. It is easy to use either Microsoft Embedded Visual C++, Visual Basic .NET or Visual C# to develop your application programs. Windows CE .NET is a Hard Real-time System, which supports handling priority inversion to a depth of one level and provides the same level of deterministic control as a PLC (or better). In addition, Windows CE .NET provides a number of benefits over traditional PLC systems, including network communications, graphical user interface, information processing, mass storage management, standard PC interface support and ease of programming. The combination of Windows CE .NET with the hard real-time characteristics of a PLC, yields a very powerful control solution. The WinCon-8000 series is a diskless, runtime control platform that gives you the best features of both traditional PLCs and Windows capable PCs.

## I/O modules:

WinCon-8000 can talk across the backplane to our original i-8000 and I-87K series standard digital/analog input and output modules, including many specialty modules. For further information, refer to the part of I-8000 and I-87K series I/O modules.

## Expansion Units:

WinCon-8000 can connect to the original I-8000 series I/O expansion units, 87K4/87K5/87K8/87K9, through an RS-485 to extend the number of available I/O modules. Please refer to the part of I-8000 series I/O expansion units.

## WinCon-8000 Software



WinConSDK  
(WinCon-8000  
DLL Drivers)

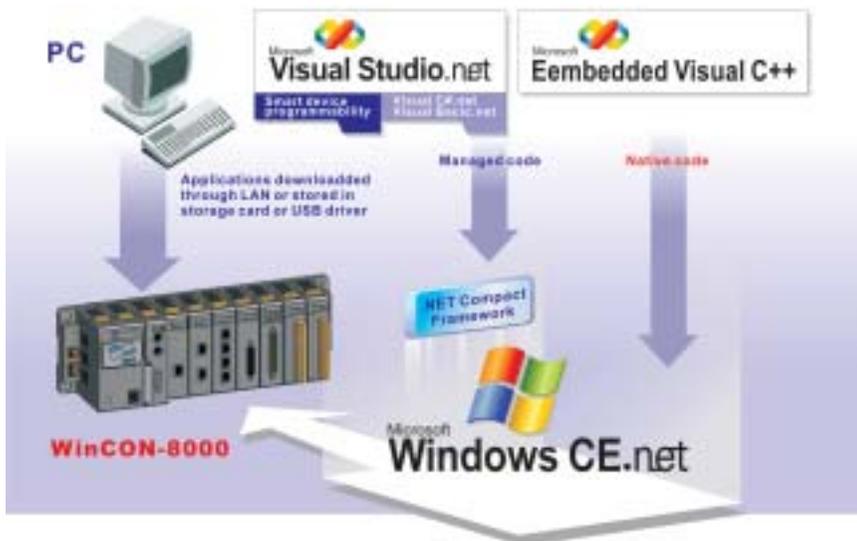


WinConOPC  
(WinCon-8000  
Windows CE  
OPC Server)



WinConUtility  
(WinCon-8000  
Windows CE Utility)

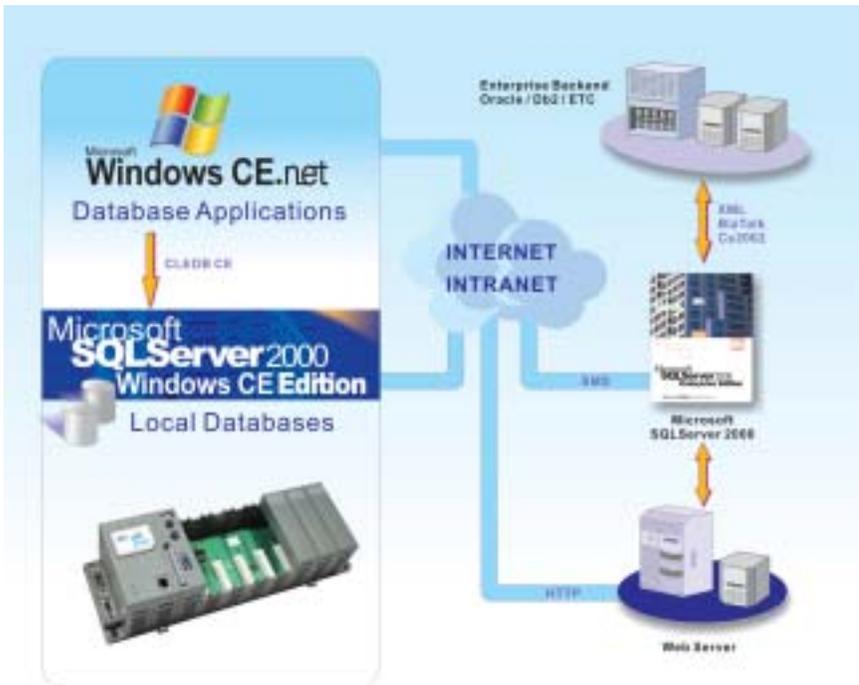
- ¥ ATL, ActiveX Component and MFC for Windows CE
- ¥ Embedded Visual C++
- ¥ Visual Basic .NET and Visual C#
- ¥ WinCon-8000 SDK to control I-8000 I/O modules
- ¥ OPC server and Modbus/TCP Protocol
- ¥ RS-232/485 Device Connection
- ¥ WinCon-8000 system configuration utility
- ¥ Integrated SCADA/HMI S/W or User's AP via Modbus/TCP Driver, ActiveX Component or Modbus/TCP OPC Server



# WinCon-8000

## Application Development Support

- ¥HTTP server, FTP server and Web-based automation/control application development
- ¥Database application development
- ¥ADOCE/OLEDBCE, ADO.NET
- ¥SQL Server CE V2.0
- ¥Robust connectivity to ERP including HTTP, IIS, RDA, Replication



WinCon-8000 With SQL Server CE