

i-7000 Remote I/O Modules

SERIES

Controller



Remote Data Acquisition



Introduction

I-7000 series provides cost-effective protection and conditioning for a wide range of valuable industrial control signals and systems. Our product line includes sensor-to-computer, computer-to-sensor, digital I/O, timer/counter, RS-232 to RS-485/422 converter, RS-485/422 repeater, Man machine interface, Data display and application software. I-7000 modules are good for small I/O channels, while I-87K I/O expansion units are good for middle-size I/O channels.

Features

- More than 70 modules are provided and more new modules are coming
- Industrial quality
- Self-Tuner design
- Dual Watchdog design
- High Speed Isolated Repeater
- Intelligent Inside
- I/O Range Programmable
- Wide Range Power Input
- Easy Mounting and Connection
- Complete software environment



Piggy Back



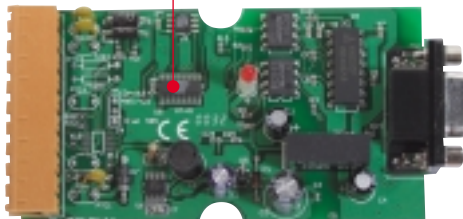
DIN-Rail Mounting

i-7000 "Self Tuner" Innovative Design SERIES

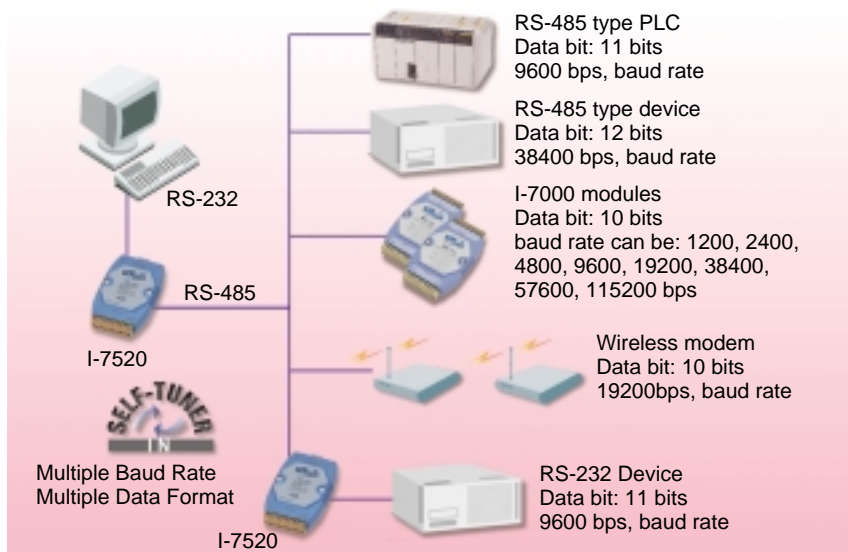
"Self Tuner" A New Technology You Should Know !

U.S. Patent Pending,
R.O.C. PAT No. 086674
R.O.C. PAT No. 132457

Self Tuner Chip



A conventional RS-232 to RS-485 converter uses the DIP switch to choose the baud rate and data format for the whole RS-485 network. All modules, devices and equipment in the network should be configured to the same baud rate and data format. Unfortunately most real world applications can't be implemented in such a simple way. The "Self Tuner" is an innovative chip designed to solve this problem. Every converter contains a "Self Tuner" chip. This chip can auto-tune the baud rate and data format to the whole network. Therefore the I-7520 can connect to different baud rate and different data format with devices in the same network.



i-7000 "Self Tuner" Innovative Design SERIES

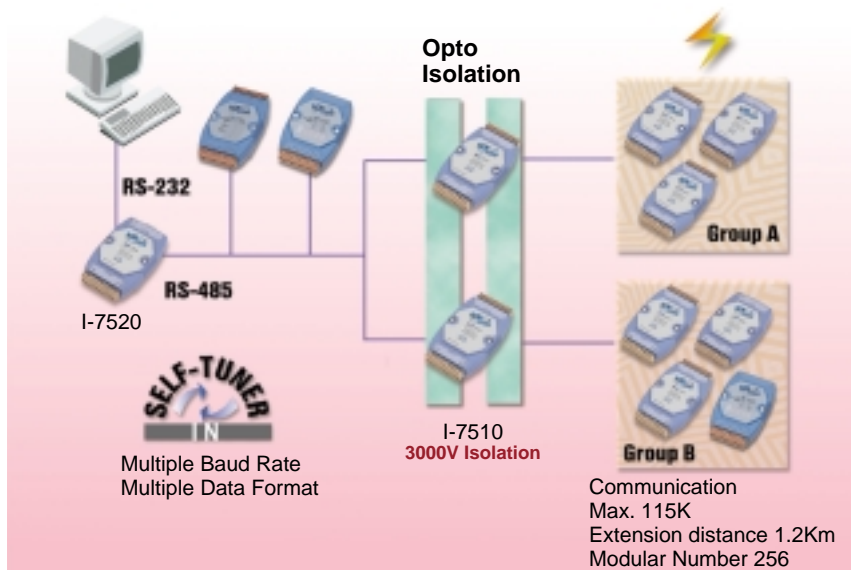
High Speed & High Quality Isolated RS-485 Repeater

**Drop the low-end Repeater,
Save your RS-485 Network**

Self Tuner Chip

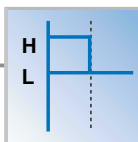
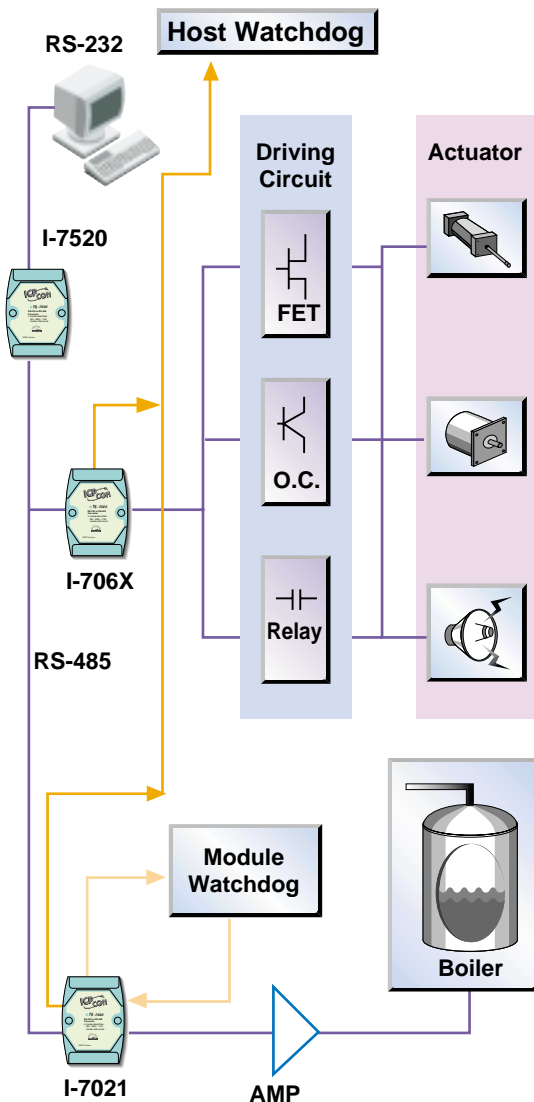


A conventional RS-485 repeater uses the DIP switch to choose the baud rate and data format for the whole RS-485 network. Our repeater contains an innovative "Self Tuner" chip. This chip auto-tunes the baud rate and the data format to the whole network and make the network very stable. Because Due to superior designs, every repeater can extend the communication to another 1.2 Km at 115K speed. If the speed is lower than 115k, the extended distance can be up to 2.1 Km or 3.4Km. Some low-end repeaters can't repeat signal well and cause the whole network to become unstable. Those low-end repeaters don't have isolation. The whole network could be destroyed by lighting or transient high voltage. If your RS-485 is unstable, please change the converter and repeater.



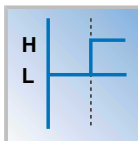
i-7000 "Dual Watchdog" SERIES

Network Control Made Reliable



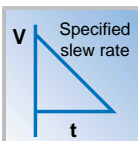
Active host watchdog

Output state go to safe state: L



Active host watchdog

Output state go to safe state: H



Active host watchdog

D/A output go to safe state

Why! "Dual Watchdog"

Some company's remote I/O modules doesn't have the "Dual Watchdog", it may cause unrecoverable damage to the whole control system.

What is "Dual Watchdog"

I-7000 Provides Module and Host Watchdog. The Module Watchdog is a hardware watchdog. The Host watchdog is a software watchdog. The module watchdog is designed to automatically reset the μ p when the module fails. The host watchdog monitors the host controller (PC or PLC). The output of module can go to the safe state, if the host fails.

Example 1

When the host watchdog active, the output of Digital I/O should go to the safe state, logical high or low. The user can specify the logical state.

Example 2

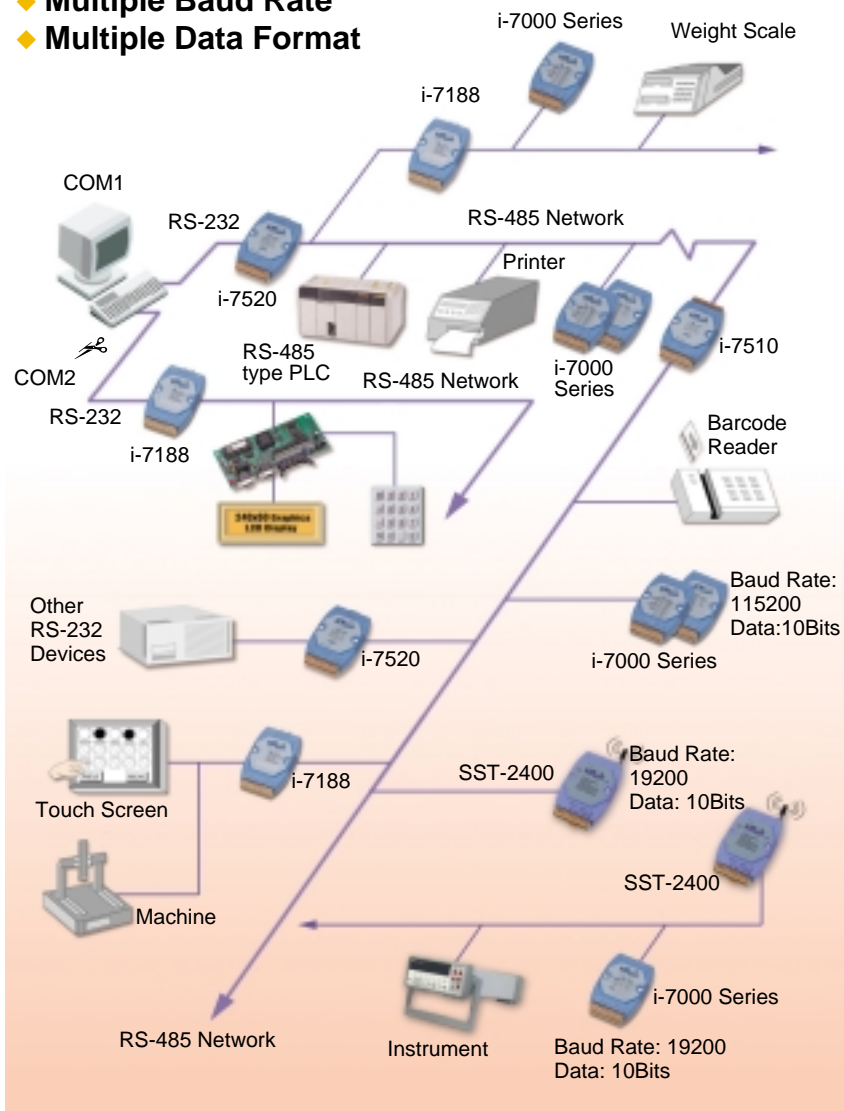
When the host watchdog active, the output of D/A is stepped until the final (safe) value is reached and a gradual controlled output slew rate is followed. The user can specify the slew rate of the output voltage.

i-7000 The Most Flexible RS-485 Network

SERIES

I-7000 Series RS-485 Network Configuration

- ◆ Multiple Baud Rate
- ◆ Multiple Data Format



i-7000 Selection Guide

SERIES

Analog Input/Output Modules Selection Guide

| Module | | I-7011/ I-7011D/ I-7011P/ I-7011PD | I-7012/ I-7012D | I-7012F/ I-7012FD | I-7013/ I-7013D | I-7033 I-7033D |
|--------------------------------|----------------------------|--|--|--|-----------------------|-----------------------|
| Analog Input | Resolution | 16 bit | 16 bit | 16/12 bit | 16 bit | 16 bit |
| | Input channel | 1 diff. | 1 diff. | 1 diff. | 1 diff. | 3 diff. |
| | Sampling rate | 10Hz | 10Hz | 10/100Hz | 10Hz | 15Hz (total) |
| | Voltage input | +/-15mV +/-50mV +/-100mV +/-500mV +/-1V +/-2.5V | +/-150mV +/-500mV +/-1V +/-5V +/-10V | +/-150mV +/-500mV +/-1V +/-5V +/-10V | – | – |
| | Current input | +/-20mA* | +/-20mA* | +/-20mA* | – | – |
| | Sensor input | J.K.T.E.R.S. B.N.C Add L,M for I-7011P | – | – | Pt Ni-RTD | Pt Ni-RTD |
| | 4 1/2 digit LED Display | Yes for I-7011D/ I-7011PD | Yes for I-7012D | Yes for I-7012FD | Yes for I-7013D | Yes for I-7033D |
| | Isolated loop power | – | – | – | – | – |
| | Input Linear scaling | – | – | – | – | – |
| | Isolation Voltage | 3000V | 3000V | 3000V | 3000V | 3000V |
| Digital input & digital output | Digital input channels | 1 | 1 | 1 | – | – |
| | Digital output channels | 2 | 2 | 2 | – | – |
| | Event counter | Yes | Yes | Yes | – | – |
| | High/Low Alarm | Yes | Yes | Yes | – | – |
| Dual Watchdog Timer | | Yes | Yes | Yes | Yes | Yes |
| Availability | | Yes | Yes | Yes | Yes | Yes |
| * with external 125Ω resistor | | | | | | |

i-7000 *Selection Guide*

SERIES

Analog Input/Output Modules Selection Guide

| Module | | I-7014D | I-7016/ I-7016D | I-7016P/ I-7016PD | I-7017 | I-7017F | I-7018/ I-7018P |
|--------------------------------|-------------------------|--|--|--|--|--|--|
| Analog Input | Resolution | 16 bit | 16 bit | 16 bit | 16 bit | 16/12 bit | 16 bit |
| | Input channel | 1 diff. | 2 diff. | 1 diff. | 8 diff. | 8 diff. | 8 diff. |
| | Sampling rate | 10Hz | 10Hz | 10Hz | 10Hz | 10/75Hz (total) | 10Hz |
| | Voltage input | +/-150mV +/-500mV +/-1V +/-5V +/-10V | +/-15mV +/-50mV +/-100mV +/-500mV +/-1V +/-2.5V | +/-15mV +/-50mV +/-100mV +/-500mV +/-1V +/-2.5V | +/-150mV +/-500mV +/-1V +/-5V +/-10V | +/-150mV +/-500mV +/-1V +/-5V +/-10V | +/-15mV +/-50mV +/-100mV +/-500mV +/-1V +/-2.5V |
| | Current input | +/-20mA | +/-20mA | +/-20mA | +/-20mA* | +/-20mA* | +/-20mA* |
| | Sensor input | — | 4 Wire | 6 Wire | — | — | J.K.T.E.R.S. B.N.C Add L, M for I-7018P |
| | 4 1/2 digit LED Display | Yes | Yes for I-7016D | Yes for 7016PD | — | — | — |
| | Isolated loop power | Yes, +15V | — | — | — | — | — |
| | Input Linear scaling | Yes | Yes | Yes | — | — | — |
| | Isolation Voltage | 3000V | 3000V | 3000V | 3000V | 3000V | 3000V |
| Digital input & digital output | Digital input channels | 1 | 1 | 1 | — | — | — |
| | Digital output channels | 2 | 4 | 4 | — | — | — |
| | Event counter | Yes | Yes | Yes | — | — | — |
| | High/Low Alarm | Yes | Yes | Yes | — | — | — |
| Dual Watchdog Timer | | Yes | Yes | Yes | Yes | Yes | Yes |
| Availability | | Yes | Yes | Yes | Yes | Yes | Yes |
| * with external 125Ω resistor | | | | | | | |

i-7000 SERIES Selection Guide

Digital I/O, Relay and Counter Selection Guide

| Module | | I-7050/ I-7050D | I-7052/ I-7052D | I-7053/ I-7053D | I-7041/ I-7041D |
|---|--|--------------------|---------------------|--------------------|----------------------|
| Digital input and Digital output | Digital input channels | 7 | 8 Isolation (5000V) | 16 | 14 Isolation (3750V) |
| | Digital output channels (open collector) | 8 | — | — | — |
| | Alarm Setting | — | — | — | — |
| Counter | Channels | 7 | 8 | 16 | 14 |
| | Input frequency | 100Hz for I-7050D | 100Hz for I-7052D | 100Hz for I-7053D | 100Hz for I-7041D |
| LED Display | | Yes for I-7050D | Yes for I-7052D | Yes for I-7053D | Yes for I-7041D |
| Safe Value (When Host Fail or communication fail) | | Yes | — | — | — |
| Power-on Preset Value | | Yes | — | — | — |
| Dual Watchdog Timer | | Yes | — | — | — |
| Availability | | Yes | Yes | Yes | Yes |

Digital I/O, Relay and Counter Selection Guide

| Module | | I-7042/ I-7042D | I-7043/ I-7043D | I-7044/ I-7044D | I-7060/ I-7060D |
|---|--|----------------------|--------------------|---------------------|---------------------------------------|
| Digital input and Digital output | Digital input channels | — | — | 4 Isolation (3750V) | 4 Isolation (3750V) |
| | Digital output channels (open collector) | 13 Isolation (3750V) | 16 | 8 Isolation (3750V) | 4 Channel Relay Form A x 2 Form C x 2 |
| | Alarm Setting | — | — | — | — |
| Counter | Channels | — | — | 4 | 4 |
| | Input frequency | — | — | 100Hz for I-7044D | 100Hz for I-7060D |
| LED Display | | Yes for I-7042D | Yes for I-7043D | Yes for I-7044D | Yes for I-7060D |
| Safe Value (When Host Fail or communication fail) | | Yes | Yes | Yes | Yes |
| Power-on Preset Value | | Yes | Yes | Yes | Yes |
| Dual Watchdog Timer | | Yes | Yes | Yes | Yes |
| Availability | | Yes | Yes | Yes | Yes |

i-7000 **Selection Guide**

SERIES

Digital I/O, Relay and Counter Selection Guide

| Module | | I-7063/63D/63A/63AD/ I-7063B/63BD | I-7065/65D/65A/65AD/ I-7065B/65BD |
|--|-------------------------|--|--|
| Digital input and Digital output | Digital input channels | 8 Isolation (3750V) | 4 Isolation (3750V) |
| | Digital output channels | 3 Channel Relay I-7063: Form A; AC 250V5A; DC 30V/5A I-7063A: AC type SSR I-7063B: DC type SSR | 5 Channel Relay I-7065: Form A; AC 250V5A; DC 30V/5A I-7065A: AC type SSR I-7065B: DC type SSR |
| | Alarm Setting | — | — |
| Counter | Channels | 8 | 4 |
| | Input frequency | 100Hz (*1) | 100Hz (*2) |
| LED Display | | Yes for 7063D/7063AD/7063BD | Yes for 7065D/7065AD/7065BD |
| Safe Value (When Host Fail or communication fail) | | Yes | Yes |
| Power-on Preset Value | | Yes | Yes |
| Dual Watchdog Timer | | Yes | Yes |
| Availability | | Yes | Yes |

* 1: for I-7063D, I-7063AD, I-7063BD * 2: for I-7065D, I-7065AD, I-7065BD

Digital I/O, Relay and Counter Selection Guide

| Module | | I-7066/ I-7066D | I-7067/ I-7067D | I-7080/ I-7080D |
|--|-------------------------|------------------------------|---------------------------|--------------------|
| Digital input and Digital output | Digital input channels | — | — | — |
| | Digital output channels | 7 Channel Photo Mos Relay | 7 Channel Relay Form A | 2 Channel |
| | Alarm Setting | — | — | — |
| Counter | Channels | — | — | 2 |
| | Input frequency | — | — | 100 KHz |
| LED Display | | Yes for I-7066D | Yes for I-7067D | Yes for I-7080D |
| Safe Value (When Host Fail or communication fail) | | Yes | Yes | Yes |
| Power-on Preset Value | | Yes | Yes | Yes |
| Dual Watchdog Timer | | Yes | Yes | Yes |
| Availability | | Yes | Yes | Yes |

i-7000 *Selection Guide*

SERIES

Analog Output Module Selection Guide

| Module | | I-7021 | I-7021P | I-7022 | I-7024 |
|--|-----------------|------------------|------------------|------------------|-------------------------------|
| Analog Output | Resolution | 12 bit | 16 bit | 12 bit | 14 bit |
| | Output Channels | 1 | 1 | 2 (* 1) | 4 |
| | Voltage Output | 0-10V | 0-10V | 0-10V | +/-10V, 0-10V, +/-5V, 0-5V |
| | Current Output | 0-20mA 4-20mA | 0-20mA 4-20mA | 0-20mA 4-20mA | 0-20mA 4-20mA |
| Safe Value (When Host Fail or communication fail) | | Yes | Yes | Yes | Yes |
| Power-on Preset Value | | Yes | Yes | Yes | Yes |
| Dual Watchdog Timer | | Yes | Yes | Yes | Yes |
| Availability | | Yes | Yes | Yes | Yes |

* 1: channel to channel isolation

Touch Panel Selection Guide

| Module | Touch 200 | Touch 250 | Touch 500S/ Touch 500T |
|-------------------------------|------------------|-----------------|-------------------------------|
| Display | 5.7" | 9.4" | 10.4" |
| Resolution | 320(W) x 240(W) | 640(W) x 480(W) | 640(W) x 480(W) |
| Display Type High Contrast | Blue mode LCD | Blue mode LCD | Color LCD (S: STN; T: TFT) |
| Backlight | CCFT | CCFT | CCFT |
| Interface Port | RS-232/RS-485 | RS-232/RS-485 | RS-232/RS-485 |
| Touch Type | Resistive | Resistive | Resistive |
| Display Area | 120(W) x 90(W) | 196(W) x 148(W) | 215(W) x 162(W) |
| Power Consumption | 12W | 12W | 15W |
| Dimension | 204 x 150 x 75mm | 90 x 230 x 60mm | 315 x 238 x 62mm |
| Weight | 1.0Kg | 1.8Kg | 2.5Kg |

i-7000 *Isolated RS-232/422/485 Card & Converter*

SERIES

PCISA-7520R



PCISA-7520R:

ISA Bus RS-232 to RS-485 Card

- PCI/ISA Bus interface
- Input: RS-232 protocol
- Output: RS-485 protocol
- "Self Tuner" inside
- Speed: 300 ~115,200 bps
- 3000 V isolation
- Multiple Baud Rate; Multiple Data Format

PCI-7520AR



PCI-7520AR:

PCI Bus RS-232 to RS-422/485 card

- PCI Bus interface
- Input: RS-232 protocol
- Output: RS-422/485 protocol
- Other spec. same as ISA-7520R

I-7520



I-7520:

RS-232 to RS-485 Converter

I-7520R:

RS-232 to RS-485 Converter

- Input: RS-232 protocol
- Output: RS-485 protocol
- "Self Tuner" inside
- Speed: 300 ~115,200 bps
- 250 modules in one RS-485 network without Repeater
- 3000 V isolation
- Multiple Baud Rate; Multiple Data Format
- Communication distance:
 - 2.1Km/9600 Bps
 - 2.7Km/4800 Bps
 - 3.6Km/2400 Bps
- 7520R is the best choice for PLC user

I-7520A



I-7520A:

RS-232 to RS-422/RS-485 converter

- Input: RS-232 protocol
- Output: RS-422/485 protocol
- Other spec. is the same as I-7520

I-7520AR:

RS-232 to RS-422/RS-485 converter

- Same as I-7520A, except the power side is different

i-7000 SERIES *Isolated RS-422/485 Repeater*

I-7510



I-7510:

RS-485 Repeater

- "Self-tuner" inside
- Multiple Baud Rate:
300,...9600,...115, 200 BPS
- Multiple Data Format
- Automatically adjust Baud Rate and Data Format

I-7510A:

RS-422/RS-485 Repeater

- Same as I-7510
- Plus RS-422 repeater

Analog I/O Modules

I-7011



I-7011:

Thermocouple Inut Module

I-7011D:

I-7011 with LED Display

- Analog input type: thermocouple, mV, V or mA
- Input Range: +/-15mV, +/-50mV, +/-100mV, +/-500mV, +/-1V, +/-2.5V, +/-20mA
- Thermocouple type: J, K, T, E, R, S, B, N, C
- Sampling rate: 10 samples/sec
- Programmable Hi/Low alarm

I-7011P



I-7011P

I-7011PD:

I-7011P with LED Display

- Analog input type: thermocouple, mV, V or mA
- Input Range: +/-15mV, +/-50mV, +/-100mV, +/-500mV, +/-1V, +/-2.5V, +/-20mA
- Thermocouple type: J, K, T, E, R, S, B, N, C, L, M
- Sampling rate: 10 samples/sec
- Programmable Hi/Low alarm

I-7012



I-7012:

Analog Input Module

I-7012D:

I-7012 with LED Display

- Analog input type: mV, mA
- Input Range: +/-150mV, +/-500mV, +/-1V +/-5V, +/-10V, +/-20mA
- Sampling rate: 10 samples/sec.
- LED indicator: 4 1/2 digit readout

i-7000 **Analog I/O Modules**

SERIES

I-7012F



I-7012F

I-7012FD

- High speed version of I-7012
- Can be configured as 12-bit resolution and 100Hz sampling rate
- Other spec. is the same as I-7012

I-7013



I-7013:

RTD Input Module

I-7013D:

I-7013 with LED Display

- Analog input type: Pt or Ni RTD
- Sampling rate: 10 samples/sec.
- Input connection: 2, 3, or 4 wires
- Pt 100 input range:
 - +/-100°C, 0-100°C, 0-200°C, 0-600°C
- Ni input range: -80-100°C, 0-100°C

I-7033



I-7033:3-channel RTD Input Module

I-7033D: I-7033 with LED Display

- Sampling rate: 15Hz (Total)
- Other Spec. is the same as I-7013

I-7014D



I-7014D:

Analog/Transmitter Input with LED Display

- Analog input type: V, mV, mA
- Input Range: +/-150mV, +/-500mV, +/-1V, +/-5V, +/-10V, +/-20mA
- Sampling rate: 10 samples/sec.
- Isolated loop power: +15Vdc
- Input Linear Scaling
- LED indicator: 4 1/2 digit readout

I-7016



I-7016/7016D/7016P/7016PD:

Strain Gauge Input Module

- Resolution: 16 bit
- Channel: 2 channel (I-7016/I-7016D)
- Channel: 1 channel (I-7016P/I-7016PD)
- Input type: mV and mA
- Input range: +/-15mV, +/-50mV, +/-100mV, +/-500mV, +/-20mA
- Isolation: 3000V
- Sampling rate: 10Hz
- I-7016/I-7016D for 4 wire
- I-7016P/I-7016PD for 6 wire

i-7000 *Analog I/O Modules*

SERIES

I-7017



I-7017:

8-channel Analog Input Module

- Input Range: same as I-7012
- Channels:
 - 6 differential, 2 single-ended or
 - 8 differential (jumper selectable)
- Sampling rate: 10 samples/sec total

I-7017F



I-7017F:

8-channel Analog Input Module

- High speed version of I-7017
- Can be configured as 12-bit resolution and 60Hz sampling rate
- Other spec. is the same as I-7017

I-7018



I-7018:

8-channel Thermocouple Input Module

- Input type: same as I-7011
- Input Range: same as I-7011
- Channels:
 - 6 differential, 2 single-ended or
 - 8 differential (jumper selectable)
- Sampling rate: 10 samples/sec total

I-7018P



I-7018P:

8-channel Thermocouple Input Module

- same as 7018
- Add two thermocouple input type: L, M

I-7021



I-7021:

Analog Output Module

- Analog output type: mA, V
- Output Range: 0-20mA, 4-20mA, 0-10V
- Accuracy:
 - +/-0.1% or FSR for current output
 - +/-0.2% or FSR for voltage output
- Programmable output slew rate:
 - 0.0625 to 64V/sec.
 - 0.125 to 128mA/sec.

i-7000 **Analog I/O Modules**

SERIES

I-7021P



I-7021P:

Analog Output Module

- High precision version of I-7021
- Current output 0-20mA, 4-20mA
- Voltage output 0-10V

I-7022



I-7022:

2-channel Analog Output Module

- Analog output channel: 2
- Current output: 0-20mA, 4-20mA
- Voltage output: 0-10V
- Channel to channel isolated

I-7024



I-7024:

4-channel analog output Module

- Current output 0-20mA, 4-20mA
- Voltage output: +/-10V, 0-10V, +/-5V, 0-5V
- Programmable output slew rate

Digital I/O Modules

I-7050



I-7050: Digital I/O Module

I-7050D: I-7050 with LED Display

- Digital input channels: 7
Level: TTL,
Logic level 0: +1V max.
Logic level1: +2.4 min.
- Digital output channels: 8
Open collector to 30V, 30mA max. load
Power dissipation: 300mW

I-7052



I-7052: Isolated Digital Input Module

I-7052D: I-7052 with LED Display

- Input: 6 differential and 2 single-ended
high level: 3.5V to 30V.
Low level: 0 to 1V.
- Isolation voltage: 5000V rms
- Input resistance: 3K Ω

i-7000 SERIES Digital I/O Modules

I-7053



I-7053:
Digital Input Module

I-7053D:

I-7053 with Display

- Input: 16 single-ended
high level: 4V to 30V.
Low level: 0 to 1V.

I-7041



I-7041:
Isolated Digital Input Module

I-7041D:

I-7041 with LED Display

- Input: 14 single-ended
high level: 3.5V to 30V.
Low level: 0 to 1V.
- Isolation voltage: 3750V rms
- Input resistance: 3K Ω

I-7042



I-7042:
Isolated O.C. Output Module

I-7042D:

I-7042 with LED

- Digital Output channels: 13
Open collector to 30V, 100mA max load
- Isolation voltage: 3750V rms
- Direct drive power relay module

I-7043



I-7043:
Nonisolated O.C. Output Module

I-7043D:

I-7043 with LED

- Digital Output channels: 16
Open collector or 30V, 100mA max load
- Direct drive power relay module

I-7044



I-7044: Isolated Digital Input & Output Module
I-7044D: I-7044 with LED Display

- Input: 4 single-ended
high level: 3.5V to 30V.
Low level: 0 to 1V.
- Input isolation voltage: 3750V rms
- Digital Output channels: 8
Open collector to 30V.
375mA max per channel

i-7000 **Digital I/O Modules**

SERIES

I-7060



I-7060:

Relay Output & Isolated Digital Input Module

I-7060D: I-7060 with LED Display

- Input: 4 single-ended
high level: 3.5V to 30V.
Low level: 0 to 1V.
- Isolation voltage: 3750V rms
- Input resistance: 3K Ω
- Output: 4-channel relay

I-7063



I-7063: Power Relay & Isolated Digital Input Module

I-7063D: I-7063 with LED Display

- Input : 8 single-ended
high level: 3.5V to 30V.
Low level: 0 to 1V.
Input resistance: 3K ohm
Isolation voltage: 3750Vrms
- Output: 3 Form A power relay
Contact rating: 5A@250VAC / 5A@30VDC

I-7063A



I-7063A: AC-SSR & Isolated Digital Input Module

I-7063AD: I-7063A with LED Display

- Digital input spec. is the same as I-7063
- Output: 3 AC-SSR , Normal open
Contact rating: Load voltage: AC 24 to 265Vrms
Leakage current: 1.5mA_{rms}
Max load current: 1.0A_{rms}

I-7063B



I-7063B: DC-SSR & Isolated Digital Input Module

I-7063BD: I-7063B with LED Display

- Digital input spec. is the same as I-7063
- Output: 3 DC-SSR , Normal open
Contact rating: Load voltage: DC 3 to 30V
Leakage current: 0.1mA
Max load current: 1.0A

I-7065



I-7065: Power Relay & Isolated Digital Input Module

I-7065D: I-7065 with LED Display

- Input : 4 single-ended
high level: 3.5V to 30V.
Low level: 0 to 1V.
Input resistance: 3K ohm
- Output: 5 Form A power relay
Contact rating: 5A@250VAC
5A@30VDC

i-7000 **Digital I/O Modules**

I-7065A



I-7065A: AC-SSR & Isolated Digital Input Module

I-7065AD: I-7065A with LED Display

- Digital input spec. is the same as I-7065
- Output: 5 AC-SSR , Normal open
- Contact rating:
- Load voltage: AC 24 to 265Vrms
- Leakage current: 1.5mA_{rms}
- Max load current: 1.0A_{rms}
- Isolation voltage: 3750Vrms

I-7065B



I-7065B: DC-SSR & Isolated Digital Input Module

I-7065BD: I-7065B with LED Display

- Digital input spec. is the same as I-7065
- Output: 5 DC-SSR , Normal open
- Contact rating:
- Load voltage: DC 3 to 30V
- Leakage current: 0.1mA
- Max load current: 1.0A
- Isolation voltage: 3750Vrms

I-7066



I-7066: Photo Mos Relay Output Module

I-7066D: I-7066 with Display

- 7 form A Photo Mos Relays
- Switch up to Max. 0.13A at Max. 350 VAC
- 5,000V Optional Isolation

I-7067



I-7067: Relay Output Module

I-7067D: I-7067 with Display

- Relay output: 7 Form A
- Ratingf: AC: 125V @0.5A
- DC: 24V @2A

Counter Modules

I-7080



I-7080: Counter/Frequency Input Module

I-7080D: I-7080 with LED Display

- Counter input: 2 independent 32 bit counter
- Frequency input: 100K Hz max
- Input: 3750V isolated or non-isolated
- Non-isolated programmable threshold value
- Programmable digital noise filter
- LED indicator: 5 digit readout (I-7080D)

i-7000 *Relay Module*

SERIES



Relay Modules

RM-10X Series Relay Module

- 16A, 1 form C Relay
- RM-104/RM-108/RM-116

RM-20X Series Relay Module

- 5A, 2 form C Relay
- RM-204/RM-208/RM-216

DN-PR4:

- Channels: 4
- Relay Type: Form A
- Load Voltage: 50~250VAC/5A

DN-SSR4:

- Channels: 4
- Relay Type: Form A
- Load Voltage: 50~250VAC/4A

Power Supply

ACE-540A/DIN-540A:

- Input Voltage: 85~264VAC
- Input Frequency: 47~63Hz
- Output Volotage: +24VDC
- Output Current: 2Amps
- Output power Range: 48 Watetts

KA-52F/DIN-KA52F

- Input Voltage: 100~250VAC
- Output Voltage: ± 24 VDC/1.05Amps

PWR-24/110

- Input Voltage: 110VAC
- Input Frequency: 60Hz

PWR-24/220

- Input Voltage: 220VAC
- Input Frequency: 50Hz
- Output Voltage: +24VDC

PWR-24/230

- Input Voltage: 230VAC
- Input Frequency: 50Hz
- Output Voltage: +24VDC



Man-Machine Interface

MMICON

- Man-Machine interface Control Board
- 240x64 bots Graphics LCD interface
- LCD display area: 107.97x77mm
- 4x4 keyboard interface
- RS-232/RS-485 interface

i-7000 *Man Machine Interface*

SERIES

Touch 200



- Touch panel: resistive type
- 5.7" high contrast blue mode LCD
- Resolution: 320(W) x 240(H) dots
- Display area: 120(W) x 90(W)
- Backlight: CCFT (MTBF, 10,000hr)
- RS-232/RS-485 Interface
- Connect to I-7188, PC or other embedded controller
- Power Consumption: 12W
- Dimensions: 240x150x75mm
- Weight: 1.0Kg

Touch 250



- Touch panel: resistive type
- 9.4" high contrast blue mode LCD
- Resolution: 640(W) x 480(H) dots
- Display area: 196(W) x 148(W)
- Backlight: CCFT (MTBF, 10,000hr)
- RS-232/RS-485 Interface
- Connect to I-7188, PC or other embedded controller
- Power Consumption: 12W
- Dimensions: 290x230x60mm
- Weight: 1.8Kg

Touch 500



- Touch panel: resistive type
- 10.4" high contrast color LCD
- Resolution: 640(W) x 480(H) dots
- Display area: 215(W) x 162(W)
- Backlight: CCFT (MTBF, 10,000hr)
- RS-232/RS-485 Interface
- Connect to I-7188, PC or other embedded controller
- Power Consumption: 15W
- Dimensions: 315x238x62mm
- Weight: 2.5Kg

Iview 100



- Handset Controller
- CPU: Am188ES, 20M Hz
 - SRAM: 256K bytes
 - Flash: 512K bytes
 - Display: LCD 128 x 64 dots STN, YellowGreen, Backlight
 - COM port:
 - Com1: RS-232
 - Com2: RS-485
 - Built-in EEPROM: 2048 bytes
 - Support I/O, Expansion Bus
 - Program download with COM1

i-7000 *Wireless Modem and Antenna*

SERIES



SST-2400EXT:

- Based on Direct Sequence Spread Spectrum and RF technology
- Operating in 2.45GHz
- Number of channel: 8
- Transmit Power: 0.1W

SST-900EXT:

- Based on Direct Sequence Spread Spectrum and RF technology
- Operating in 902~928MHz, ISM band
- Number of channel: 8
- Transmit Power: 0.1W
- Communication distance: 200M



SST-2400A-3:

1Km external antenna for SST-2400EXT

SST-2400A-12P:

5Km external antenna for SST-2400EXT

SST-900A:

5Km external antenna for SST-900EXT



Accessory

I-950-ENC Industrial Enclosure

- IP66 Industrial enclosure
- Built-in DIN-Rail for easy mounction
- Seal design provides anti-leak protection
- Dimensions: 247x180x90mm

I-3625-ENC

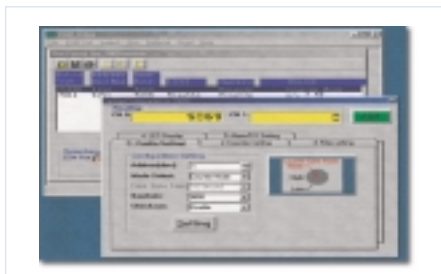
- Dimension: 360 x 254 x 165mm

i-7000 *Software for I-7000 & I-8000*

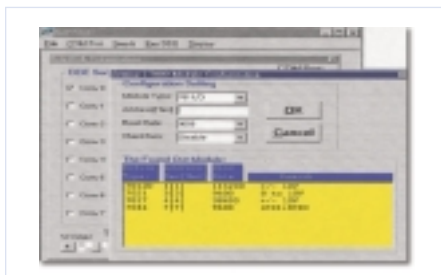
SERIES



NAP7000 Utility
(Windows Utility)



NAP7000S
DOS Software



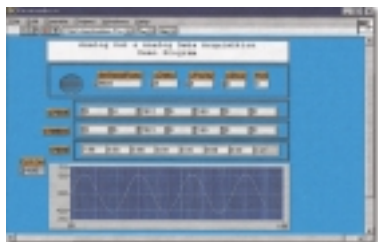
NAP7000D
DDE Server



NAP7000P
DLL Driver

i-7000 **Software for I-7000 & I-8000**

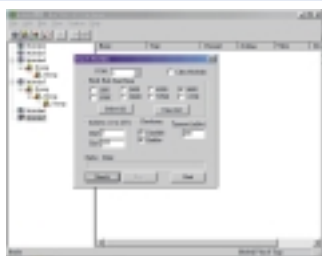
SERIES



NAP7000V
LabView Driver



NAP7000X
Active X (OCX)



NAP7000OPC
OPC Server



NAP7000Linux
Linux Software

i-7000 Learning Kit

SERIES



IKIT-01:

Digital Control Learning Kit

Purpose:

To use the RS-485 network to control digital I/O module

Including: I-7520x1

I-7060Dx1



IKIT-02:

Analog Learning Kit

Purpose:

To use the RS-485 network to acquire analog signal

Including: I-7520x1

I-7012Dx1



IKIT-03:

RS-485 Network Learning Kit

Purpose:

To use the RS-485 network to link PC and PLC via I-7520

RS-232 to RS-485 converter

Including: I-7520x3



IKIT-04: High Speed High Number Digital Control Kit

Purpose:

To use the RS-485 network to control high number DI/O in high speed mode (16,000 channels per second)

Including: I-7520x1 I-7053Dx1

I-7043Dx1



IKIT-05: High Speed High Number Data Acquisition Kit

Purpose:

To use the RS-485 network to acquire high number analog input channel in high speed mode.

(I-7017: 1704 channels/sec.

I-7018: 1100 channels/sec.)

Including: I-7520x1 I-7017Fx1

I-7018Px1

i-7000 **Learning Kit**

SERIES



IKIT-06: Professional Kit

Purpose:

This kit is designed for engineer to learn the implementation of network data acquisition and control system.

Including: I-7520x1 I-7060Dx1
I-7012Dx1 I-7021x1



IKIT-07: Embedded Controller Kit

Purpose:

Using I-7188 embedded controller to develop a digital control system

Including: I-7188D/DOS; I-7060D; Download cable; Power Supply; I-7188 manual; 7188 Demo Programs, utility disk of ROM-DOS; NAPDOS Disk 14



IKIT-08: Touch Panel Learning Kit

Purpose:

Using I-7188 embedded controller and the touch Panel to develop a digital control system

Including: I-7188D/DOS; I-7060D; Touch 200; Download cable; Power Supply; I-7188 manual; 7188 Demo Programs, utility disk of ROM-DOS; NAPDOS Disk 14

Note 1: Each kit includes NAP7000 Driver Pack, NAP7000S Manual, DB-9 to DB-9 cable, Power adapter.

Note 2: There are 8 different learning kits for the user to learn the basic skill of network data acquisition and control modules. The user can use I-7000 modules to replace some PLC application system. It is also very easy to use analog modules to implement network data logger.

Note 3: NAP7000 Driver Pack includes NAP7000S, NAP7000V, NAP7000D, NAP7000P, NAP7000X. The user can use NAP7000 Driver Pack to develop his own application program for the learning kit.



Training Box

Application:

Internal Training of Company, Sales tool, Exhibition Demo

Includes: I-7188D, 7013D, 7017F, 7021, 7060D, 7000 Driver Pack.

Note: Touch 200 (for Training Box II only)



Application:

Exhibition Demo, Product Display

Demo Board I: Includes: I-7520, I-7060D, I-7012D, 7013D, 7044D, 7000 Driver Pack

Demo Board II: Includes: I-7188, I-7060D, I-7012D, 7013D, 7044D, 7000 Driver pack

More 8000 Series Training Bos will be avaiable

Ordering INFORMATION

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|---------------------------------|-------|----------------------------|-------|
| I-8000 Main Control Unit | | I-8024 | P1-22 |
| I-8410 | P1-7 | I-8080 | P1-22 |
| I-8810 | P1-7 | I-8081 | P1-22 |
| I-8411 | P1-7 | I-8083 | P1-22 |
| I-8811 | P1-7 | I-8090 | P1-23 |
| I-8417/I-8817 | P1-11 | I-8091 | P1-23 |
| I-8418/I-8818 | P1-13 | I-8072 | P1-23 |
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| I-8820 | P1-9 | I-87051 | P1-28 |
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| I-8042 | P1-18 | I-87024 | P1-30 |
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| I-8051 | P1-18 | I-87082 | P1-30 |
| I-8052 | P1-19 | I-8112 | P1-25 |
| I-8053 | P1-19 | I-8114 | P1-25 |
| I-8054 | P1-19 | I-8142 | P1-25 |
| I-8055 | P1-19 | I-8142I | P1-25 |
| I-8056 | P1-19 | I-8144 | P1-25 |
| I-8057 | P1-20 | 2-port serial card | |
| I-8058 | P1-20 | VXC-182I | P1-26 |
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| I-8064 | P1-20 | I-7188/512; I-7188D/512 | P2-3 |
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Ordering INFORMATION

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| I-7521; I-7521D | P2-7 | X506 | P2-22 |
| I-7522; I-7522D | P2-7 | X507 | P2-22 |
| I-7523; I-7523D | P2-7 | X600 | P2-22 |
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| I-7188EX; I-7188EXD | P2-10 | X607 | P2-22 |
| I-7188EA; I-7188EAD | P2-13 | X608 | P2-22 |
| Internet Communication Controller | | Converter & Repeater | |
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| I-7188E2; I-7188E2D | P2-14 | PCI-7520AR | P3-11 |
| I-7188E3; I-7188E3D | P2-14 | I-7520 | P3-11 |
| I-7188E4; I-7188E4D | P2-14 | I-7520R | P3-11 |
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| X002 | P2-20 | I-7011/ I-7011D | P3-12 |
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| X005 | P2-20 | I-7012F / I-7012FD | P3-13 |
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| I-7060 / I-7060D | P3-17 | NAP7000 Utility | P3-22 |
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