Introduction

ICP DAS iVIEW-100 series are compact handheld controllers with low cost/high performance text/graphic LCD display, special for industrial environment requiring reliability & PC-compatibility.

The iVIEW-100, an all-in-one pack controller, can work independently with its own CPU, I/O Board, full keys Keypad, Text/Graphic LCD, inside buzzer and in-packed connecting cables to monitor and control the Data Inputs and Outputs.

The iVIEW-100-40 is powered by an 80188-40 (iVIEW-100: 80188-20) CPU with 512K bytes of SRAM and 512K bytes of flash memory, and built in MiniOS7, RTC, NVSRAM and EEPROM. It supports optional battery backup memory for retaining more data. There are 4 DI, 4 DO (2 relay), 2 COM for RS232 / RS485 communication.

The iVIEW-100 series can be also used as a HMI device for our I-7188 and I-8000 series embedded controller. Since the basic hardware design of iVIEW-100 is similar to that of I-7188 series, all our available software can be used in iVIEW-100. User can design iVIEW-100 application with C Language. We are porting ISaGRAF software PLC to iVIEW-100-ISaGRAF for more programming options and providing iVIEW-100E with a 10/100 mega Ethernet port for internet.

Features

- Provides 128x64 dots, 16x8 characters, STN, Yellow-Green Backlight LCD that can show text, number, real, Boolean icon, BMP graphic and draw pixel, line, box, Lamp icon in the same page and max to 48 pages.
- Default has 4 digital inputs and 2 relay outputs connected with a Mini-DIN connector (CA-M910).
- Jumper selected to switch the output from 2 relay to 4 open collector output channels via the internal jumper.
- Built-in COM1:RS232, COM2:RS232/RS485 port, Max Speed up to 115200, COM driver support interrupt & 1K QUEUE input buffer
- Allows C programming which can be downloaded from PC through COM1 via its in packed cable (CA-1509).

All-in-one Pack Solution
(For 4 Di / 2 Relay Do switch to 4 Do)

CA-M910   CA-1509

- Connects up to 64 numbers of remote I/O modules, and combines host PC, and power supply via its CA-1509 cable with one 5-wire RS-232 port, one RS-232/485 port, and one power connect line.

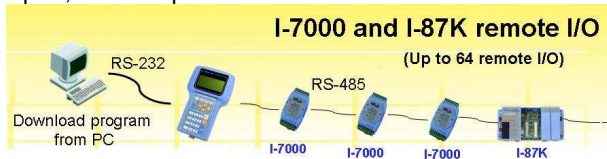### I-7000 and I-87K remote I/O
(Up to 64 remote I/O)

- Built-in watchdog timer for harsh environment. When iVIEW-100 is power-up, the watchdog is enabled.
- Provides several solutions combined with our I-7188 and I-8000 controller to control more DI/O even with different protocol.

- Built-in power and RS-485 network protection circuit.
- Supports Real time clock with time & date. RTC leap year compensation to 2079
- Supports user adding battery backup memory (S-256/ S-512) to retain more data.
- A wide temperature endurance ranged from -30℃ up to +85℃ for the storage temperature, and from -25℃ up to +75℃ for operating temperature.
- Equipped with a 64-bit unique hardware serial number, each serial number is distinct and individual. The application program can check this number for illegal copies. It is a low cost protection mechanism.
- Provides particular C programming Libraries so that user can easily call the functions to design their applications, such as using LCD, keypad, R/W COM port, EEPROM, RTC, I/O, FLASH memory, timer, watchdog, getting file system & connecting to I-7000…

Special Features

We are now porting ISaGRAF software PLC to iVIEW-100-ISaGRAF. This powerful PLC programming tools allows iVIEW-100 to have more flexible developmental solutions. We are also providing iVIEW-100E and iVIEW-100E-ISaGRAF with a 10/100 mega Ethernet port for internet and intranet necessity. About the I/O Expansion Board, if user has special requirement, customized I/O Expansion Boards can be ordered through ODM project.

Ordering Information

iVIEW-100	Handheld Controller, CPU:20MHz, Flash:512k, SRAM:512k
iVIEW-100-40	Handheld Controller, CPU:40MHz, Flash:512k, SRAM:512k
iVIEW-100-ISaGRAF	ISaGRAF Handheld Controller, CPU:40MHz, Flash:512k, SRAM:512k (available soon)
iVIEW-100E	Handheld Controller, CPU:40MHz, Flash:512k, SRAM:512k, Ethernet port:10/100m (available soon)
iVIEW-100E-ISaGRAF	ISaGRAF Handheld Controller, CPU:40MHz, Flash:512k, SRAM:512k, Ethernet port:10/100m (available soon)
S-256 / S-512	256/512K battery backup SRAM Module

Specifications of iVIEW-100-40 / iVIEW-100

Power supply	
Power requirements	10 to 30 VDC power
Power consumption	3.0 W
Protection	Built-in power protection and RS-485 network protection circuit
General environment	
Operating temperature	-25℃ to +75℃
Storage temperature	-35℃ to +85℃
Humidity	5 to 90 %
System	
CPU	80188, 40M Hz for iVIEW-100-40; 80188, 20M Hz for iVIEW-100
SRAM	512K bytes
Flash Memory	512K bytes, Erase unit is 64K bytes, 100,000 erase/write cycles
OS	MiniOS7 of ICP DAS (64K bytes)
NVSRAM	31 bytes, battery backup, data valid up to 10 years
EEPROM	2048 bytes, data retention > 100 years. 1,000,000 erase/write cycles
Real time clock	Gives time(sec, min, hour) & date, leap year compensation from 1980 to 2079
Watchdog timer	Yes,
Serial ports	
COM1	RS232 (5 pins): TXD,RXD,RTS,CTS,GND, Program download port. Speed: 115200 bps max. Double buffer
COM2	RS232 (5 pins) / RS485 self-tuner, Speed: 115200 bps max. RS232: TXD,RXD,RTS,CTS,GND, RS485: Data+, Data-
Ethernet	10M/100M bps, provides in iVIEW-100E & iVIEW-100E-ISaGRAF only
DIO channel	
Input	4 digital input channels for 3.5V~30V
Output	2 relay outputs (default) for contact rating: 30 VDC/ 1A to 125 VDC/ 0.5A or 4 open collector outputs (jumper selected) for 30V / 100mA maxi load / per channel
HMI interface	
LCD display	128x64dots, 16x8 character, text / BMP graphic, STN, yellow-green back light LCD, View area: 72 X 40mm
Keypad	Full numeric membrane keypad with number, character, direction, shift, enter, BS, ESC, function keys
buzzer	One internal buzzer
Development tool	
C programming	Supports compilers TC 1.0~3.0/TC++ 1.0~3.0/BC 2.0/BC++ 3.1~5.02/MSC 8.00c/MSVC++ 1.52. Provides C Lib functions for LCD, keypad, COM port, EEPROM, FLASH Memory, timer, watchdog, I/O, NVRAM, RTC, getting file system, connecting to I-7000… Program downloaded from PC via COM1
Protocols	
Remote I/O	Supports I-7000 I/O modules & (I-87K base + I-87K serial I/O boards) as remote I/O. Max. 64 remote I/O module for one controller
User defined protocol	User can write his own protocol applied at COM1, COM2
Battery backup SRAM	
S-256 / S-512	Supports S-256:256K bytes and S-512:512K bytes optional battery backup SRAM for retaining data
Case	
Dimensions	181mm X 116mm X 42mm
Weight	550g (375g when cables not included)