

VP-2111/VP-2111-TC

MiniOS7 Inside



VP-2111/VP-2111-TC

Highlight Information

- 80186, 80 MHz CPU (16 bits)
- C Language Based and MiniOS7 Inside
- IP65 Compliant Front Panel
- STN LCD with Chinese Font
- Rubber Keypad with 24 Keys
- 3 Slots for High Profile I/O Modules
- One 10/100M Ethernet Port
- 3 Serial Ports (RS-232, RS-485)
- Operating Temperature: -15 ~ +55 °C



Introduction

ViewPAC combines iPAC, graphic display and keypad in one unit. It equips an 80186 CPU (16-bit and 80 MHz) running a MiniOS7 operating system, several communication interface (Ethernet, RS-232/485), 3 I/O slots, STN LCD and a rubber keypad.

Its operating system, MiniOS7, can boot up in a very short time (0.4 ~ 0.8 seconds). It has a built-in hardware diagnostic function, and supports the full range of functions required to access all high profile I-8K and I-87K series I/O modules, such as DI, DO, DI/DO, AI, AO, Counter/Frequency, motion control modules, etc.

Compared with traditional HMI + PLC solutions, ViewPAC reduces overall system cost, space and gives you all the best features of HMIs and PLCs.

Features

Software

- MiniOS7 Embedded Operating System (DOS-like)
- C language Based Software Development Toolkit
- Modbus Library Provided
- Hardware Diagnostic Functions
- Load Files via RS-232 or Ethernet

Hardware

- 80186, 80 MHz CPU (16-bit)
- IP65 Compliant Front Panel
- STN LCD with Chinese Font
- Rubber Keypad with 24 Keys
- 3 Slots for High Profile I/O Modules
- 64-bit Hardware Serial Number for Software Protection
- 64 MB NAND Flash for Data Storage
- Dual Battery Backup SRAM (512 KB)
- Rich I/O Expansion Ability
 - Ethernet
 - RS-232/422/485
 - FRnet
 - CAN bus
- Operating Temperature: -15 ~ +55 °C

● Specifications

Models	VP-2111	VP-2111-TC
System Software		
OS	MiniOS7 (DOS-like embedded operating system)	
Program Download Interface	RS-232 (COM1) or Ethernet	
Programming Language	C language	
Compilers to create.exe Files	TC++ 1.01 (Freeware)	
	TC 2.01 (Freeware)	
	BC++ + 3.1 ~ 5.2x	
	MSC 6.0	
	MSVC++ (before version 1.5.2)	
CPU Module		
CPU	80186 or compatible (16-bit and 80 MHz)	
SRAM	768 KB	
Flash	512 KB (100,000 erase/write cycles)	
Flash Disk	64 MB NAND Flash (100,000 erase/write cycles)	
Dual Battery Backup SRAM	512 KB (for 5 years data retention)	
EEPROM	16 KB (data retention: 40 years; 1,000,000 erase/write cycles)	
NVRAM	31 bytes (battery backup, data valid up to 5 year)	
RTC (Real Time Clock)	Provide seconds, minutes, hours, day of week/month; month and year, valid from 1980 to 2079	
64-bit Hardware Serial Number	Yes	
Watchdog Timer	Yes (0.8 second)	
Communication Interface		
Ethernet	RJ-45 x 1, 10/100 Base-TX (Auto-negotiating, Auto MDI/MDI-X, LED indicators)	
COM0	Internal communication with the high profile I-87K series modules in slots	
COM1	RS-232 (to update firmware) (Rx/D, Tx/D and GND); Non-isolated	
COM2	RS-485 (D2+, D2-; self-tuner ASIC inside); 2500 V _{bc}	
COM3	RS-232/RS-485 (Rx/D, Tx/D, CTS, RTS and GND for RS-232, Data+ and Data- for RS-485); Non-isolated	
MMI (Man Machine Interface)		
LCD	STN, 128 x 64 Dot Matrix LCD	
Text Font	English + Simplified Chinese	English + Traditional Chinese
Display Mode	Text + Graphics	
Rubber Keypad	24 keys	
Buzzer	Yes	
LED Indicators	3 Dual-Color LEDs (PWR, RUN, LAN1, L1, L2, L3; L1 ~ L3 for User Programmable)	
I/O Expansion Slots		
Slot Number	3 (For High Profile I-8K and I-87K Modules only)	
Hot Swap * Will be available	Yes (For High Profile I-87K Modules Only)	
Data Bus	8/16 Bits	
Address Bus Range	2K for each slot	
Mechanical		
Dimensions (W x L x H)	182 mm x 158 mm x 125 mm	
Installation	Panel Mounting	
Ingress Protection	Front panel: IP65	
Environmental		
Operating Temperature	-15 ~ +55 °C	
Storage Temperature	-30 ~ +80 °C	
Ambient Relative Humidity	5 ~ 90 % RH, non-condensing	
Power		
Input Range	+10 ~ +30 V	
Isolation	1 kV	
Capacity	3 A, 5 V supply to I/O expansion slots	
Consumption	6 W (0.25 A @ 24 V)	

● Appearance

Side View



Init. & Flash Lock SW

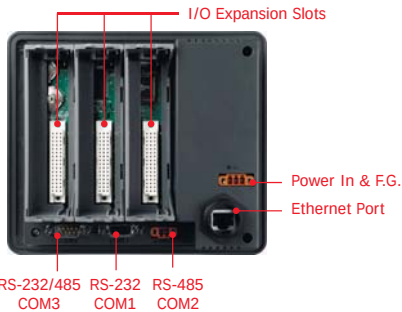
Front View



LED Indicators STN LCD

Rubber Keypad

Rear View



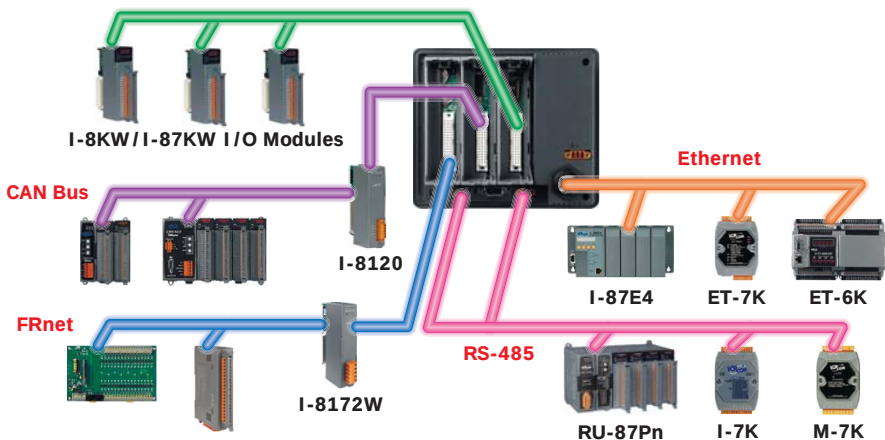
I/O Expansion Slots

Power In & F.G.

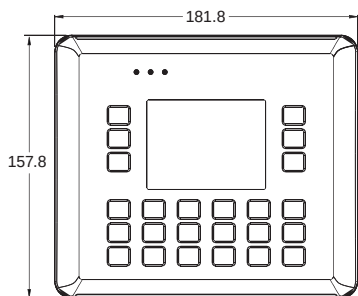
Ethernet Port

RS-232/485 COM3 RS-232 COM1 RS-485 COM2

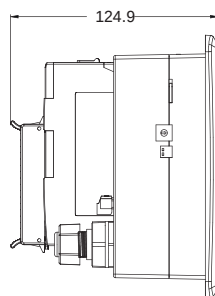
● Rich I/O Expansion Ability



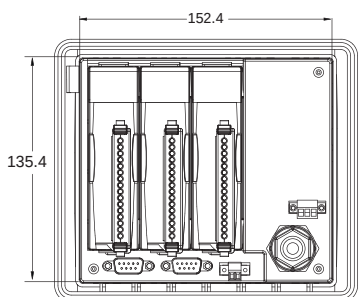
● Dimensions (Unit: mm)



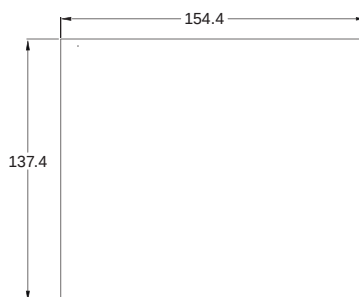
Front View



Side View



Rear View



CUTOUT

● Ordering Information

VP-2111 CR	C language Based ViewPAC with STN LCD (English + Simplified Chinese Font) (RoHS)
VP-2111-TC CR	C language Based ViewPAC with STN LCD (English + Traditional Chinese Font) (RoHS)

● Accessories

DP-660	24 V _{DC} /2.5 A, 60 W and 5 V _{DC} /0.5 A, 2.5 W Power Supply with DIN-Rail Mounting
MDR-20-24	24 V _{DC} /1.0 A, 24 W Power Supply with DIN-Rail Mounting
MDR-60-24	24 V _{DC} /2.5 A, 60 W Power Supply with DIN-Rail Mounting