

VP-2111/VP-2111-TC

C Language Based ViewPAC (MiniOS7 Inside)



Model: VP-2111



Model: VP-2111-TC

Introduction

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

Software features

- 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 features

- 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
- One 10/100M Ethernet Port
- 64-bit Hardware Serial Number for Software Protection
- 64MB 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

Specification

Model	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 80MHz)	
SRAM	768 KB	
Flash	512 KB (100,000 erase/write cycles)	
Flash Disk	64MB NAND Flash (100,000 erase/write cycles)	
Dual Battery Backup SRAM	512 KB (for 5 years data retain)	
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)	RTC (Real Time Clock) Provide seconds, minutes, hours, date 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) (RxD, TxD, and GND); Non-Isolated	
COM2	RS-485 (D2+, D2-; self-tuner ASIC inside); 2500VDC isolated	
COM3	RS-232/RS-485 (RxD, TxD, CTS, RTS and GND for RS-232, Data+ and Data- for RS-485); Non-Isolated	
MMI (Man Machine Interface)		
LCD Type and Size	STN, 128x64 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	
Ingress Protection	Front panel: IP65	
Environmental		
Operating Temperature	-20 ~ +70°C	
Storage Temperature	-30 ~ +80°C	
Ambient Relative Humidity	5 ~ 90% RH, non-condensing	
Power		
Input Range	+10V ~ +30V	
Isolation	1KV	
Capacity	3A, 5V supply to I/O expansion slots	
Consumption	6W (0.25A@24V)	

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)