

# Xpanel

Revolutionary HMI Experience



# CIMON Xpanel

WINDOWS CE BASED NEW TOUCH



## Durable Reinforced Plastic Applied

The improved heat resistant and shock resistant properties of the case safely protects the electrical components of the product.

## High Quality LED Display

Low-power, low-heat and full-brightness make it the most powerful and vivid high-definition HMI in the market.

## Variety of Interfaces

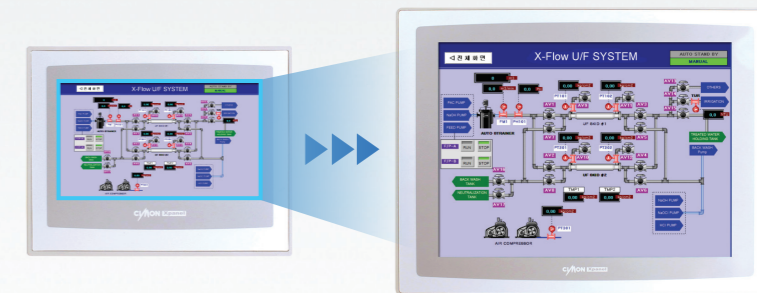
Ethernet, Serial (RS232/485), USB Host/Tool, SD card slot included. (except for some models)

## Convenient and Powerful Designing Tool

powerful features, such as infinite tag database, various communication drivers, more than 20,000 graphic library objects, and user-friendly interface make it very suitable for industrial applications.

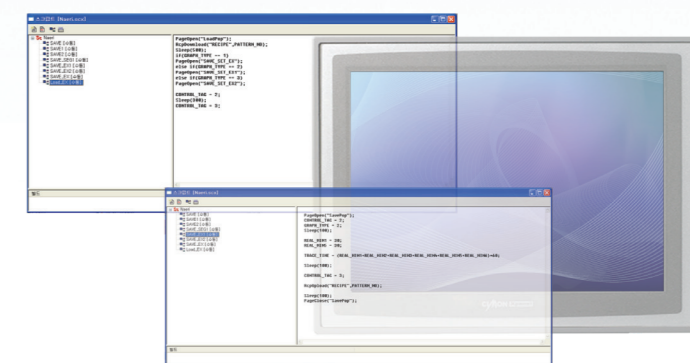
## Auto Page Resize

Same projects can be used on all XPANEL with different resolution and size.



## Easy-to-use Script Editor

Excellent applicability with a C language based macro editor.



## Project Protection Function

Non-authorized personnel cannot extract the project from a Xpanel.



## Real-time Data Logging

The reports can be saved as CSV files into the internal memory, SD card, or USB memory card, and it can be viewed in Microsoft EXCEL.



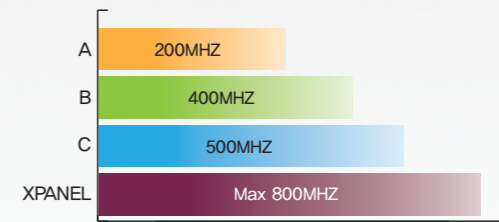


### Multi-Language Supported

Supports every language from around the world to be able to easily integrate the project anywhere in the world.

### Ultrafast CPU Processor

Equipped with high-speed industrial CPU which has low-power consumption and low-temperature operation for complex operations and fancy graphic processing.



### Powerful and Versatile Communication

Supports Serial communication (RS232, RS485/422) and Ethernet communication as standard, and Provides more than 200 communication drivers of major equipment used all around the world for an easy and flexible network solution.

### Operating Temperature of 0°C~60°C

Reliable operation even in extreme conditions of industrial environment.



### Unbreakable Security Control

Protects the system safely from unauthorized access with 10 security levels.



### Intelligent Self-Diagnosis Function

Easy monitoring of the current status of XPANEL with system status logging capabilities and communication frame monitoring function.



### Variety of Graphic Object Library

Provides more than 20000 kinds of graphic objects for visually pleasing projects.

### Painless Project Download/Upload



SD Card

USB

USB Cable

Ethernet



USB Scanner

USB Keyboard

USB Printer

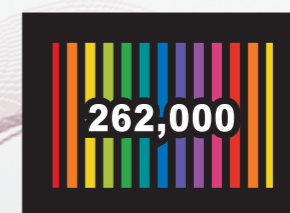
### Easy Connection with Peripherals



### Resistive touchscreen panel for durability and accuracy

### State-of-the-art High-Definition Display

Supports 262,000 FULL COLOR SVGA for delicate graphic tasks and the full-brightness and high-definition LED display that brings the pictures to life.



## Experience Ultimate Performance Beyond the Norm

- High-speed CPU embedded
- Large memory size and user storage
  - XT04/07 128MB, XT10/12 256MB DDR2 SDRAM
  - 128MB SLC NAND Flash
  - Multiple page components and objects
- High-quality color expression up to 16.7M colors
- High-resolution display up to Max 1024 x 768

## Easy Operating Environment

- Based on Windows CE / Windows Embedded Compact 7
- Manages the project data by Activesync or Mobile Device Center



## Convenient Project Download

- Project files downloadable through XpanelDesigner
- Easy project downloading through USB cable / Ethernet cable / SD memory card / USB memory



## Flexible

- Supports SD memory card
- Provides various communication drivers and if requested, wanted devices can be developed for free
- Enables to connect to various external devices through USB
- Easy to manage by built-in maintenance functions

## Comfortable Network Environment

- Supports various communication interface
  - Built-in 10/100M Ethernet port (except XT04CD-DN, XT07CD-AN/DN)
  - Two built-in serial ports
- Excellent Scalability
  - Built-in USB(Host) port which enables to connect to USB devices such as keyboard, mouse, USB storage, etc.
  - Built-in SDHC card slot (except XT04CD, XT07CD-AN/DN)
- Integrated Networking Solutions
  - Operates up to 3 communication ports concurrently (2 serial, 1 ethernet)
  - All models support multi-drop networking : RS485 port, 10/100M Ethernet port
  - Easy communication with other CIMON-Xpanels or CIMON-SCADA
  - Convenient communication with other monitoring devices or software by MODBUS RTU/TCP slave
  - Various drivers supported

## » General Specification

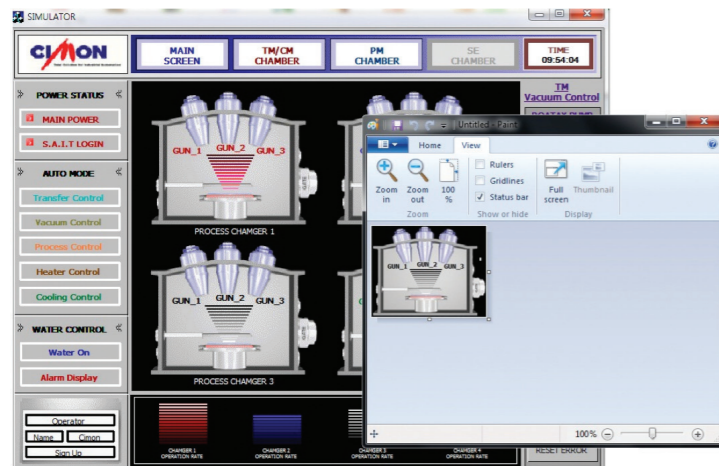
Item	Description
Permitted Voltage	DC24V or AC100-240V
Ambient Temperature	0°C ~ 60°C
Storage Temperature	-10°C ~ 60°C
Ambient Humidity	10%RH ~ 90%RH(Non-condensing, wet bulb temperature: 39°C max.)
Storage Humidity	10%RH ~ 90%RH (Non-condensing, wet bulb temperature: 39°C max)
Air Pressure Vibration Resistance (Availment altitude)	800hPa ~ 1114hPa(Up to 2000m/6,500ft)
Dust	0.1mg/m <sup>3</sup> or less
Pollution Degree	Less than equal to Pollution degree 2
Corrosive gases	Free from corrosive gases
Vibration Resistance	IEC61131-2 Compliant Occasional Vibration 10Hz to 75Hz 0.075mm, 57Hz to 150Hz 9.8m/s <sup>2</sup> Continuous Vibration 10Hz to 57Hz 0.035mm, 57Hz to 150Hz 4.9m/s <sup>2</sup> X,Y,Z directions for 10 cycle (80min.)
Noise resistance	± 2kV, 1uS
Electrostatic Discharge Immunity	Contact Discharge 4kV (IEC61000-4-2) Air Discharge 8kV

# CIMON-XPANEL

## User-Friendly Workspace

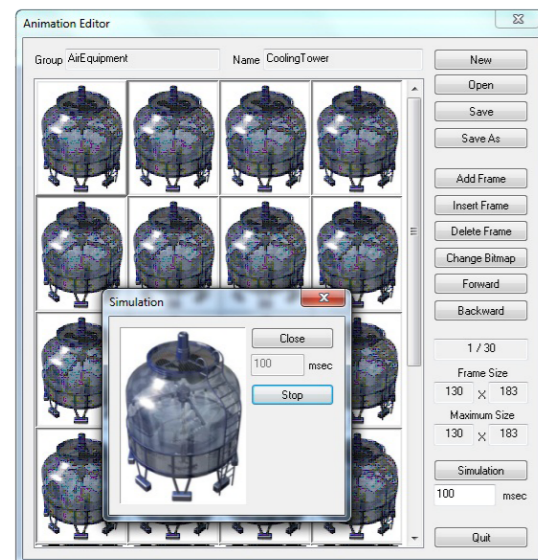
- Designing tool for Xpanel is called Xpanel Designer
- Development environment is similar to CIMON-SCADA.
- Various ways to download / update the project ( USB, Ethernet Loader, Removable Disk)

- Easy to insert images using the Clipboard



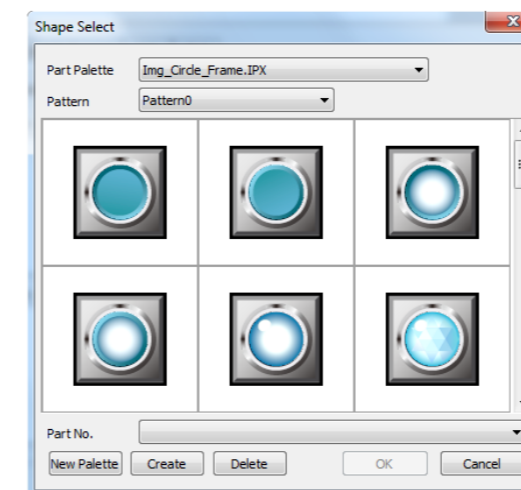
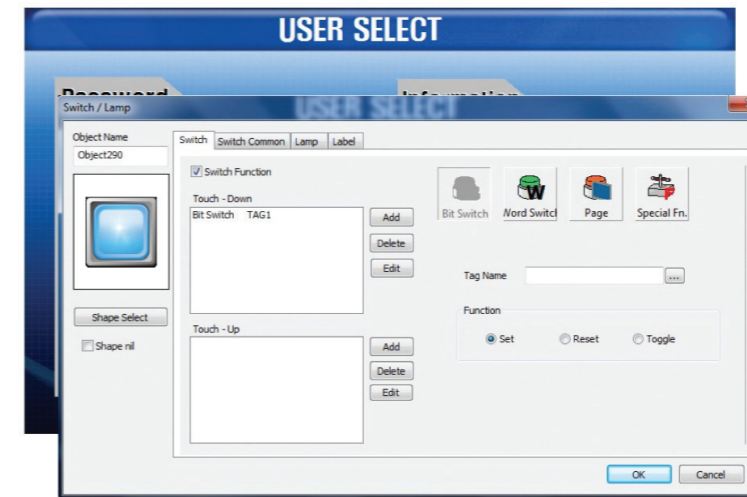
- External graphic images can be imported/exported by using windows clipboard.
- Supports transparent color function
- Supports image compression
- Supports 24bit bitmap image

- Animation Editor



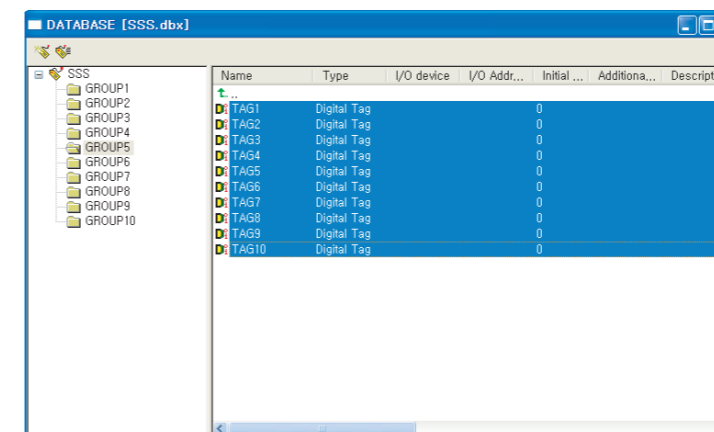
- User can create his own animation object
- Provides the simulator for animation object
- Newly made animation can be added to the library
- Supports 24bit bitmap image

- Convenient Switch/Lamp Object



- Simple mouse operations provide the switch and lamp functions
- Up/down action is divided in the switch function
- Up to 256 steps can be defined in the lamp function
- Provides 8000 part palette

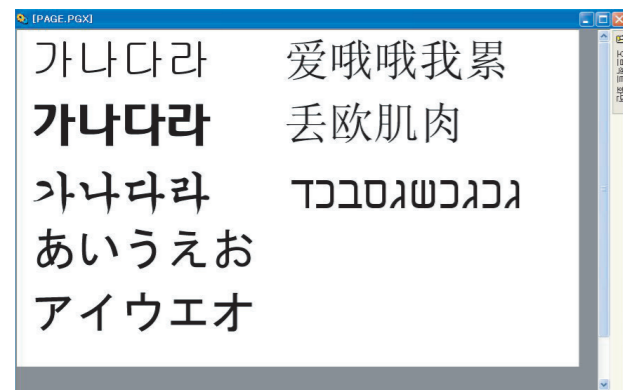
- Simple and Easy Database Manager



- All the address data can be identified and modified in the database
- Database compatible with Excel
- Easy to exchange the project to other devices

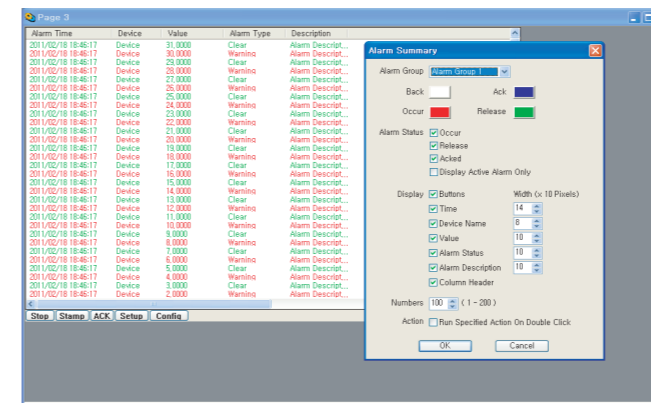
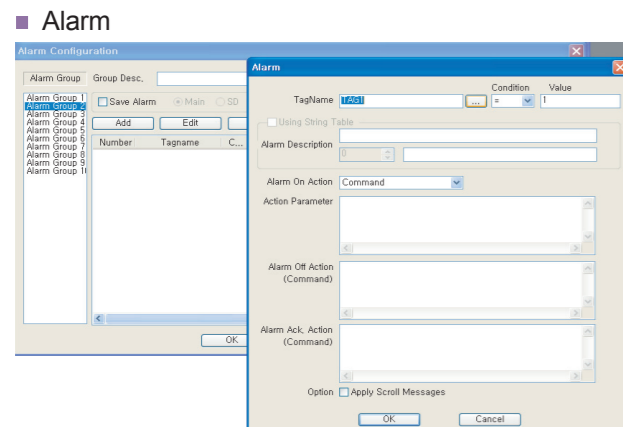
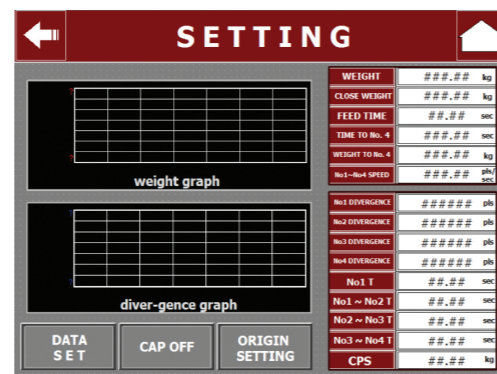
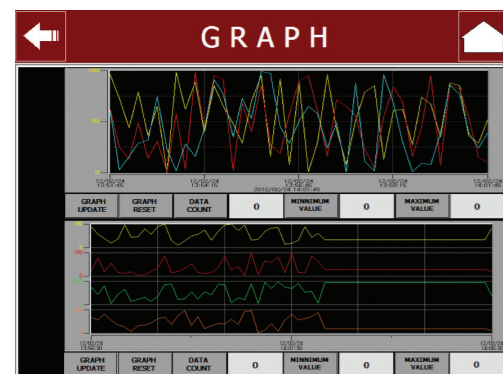
# CIMON-XPANEL

- Supports multi-language and various fonts
  - Enables the use of installed fonts from Windows
  - Supports unicode



## Supports a Variety of Special Function

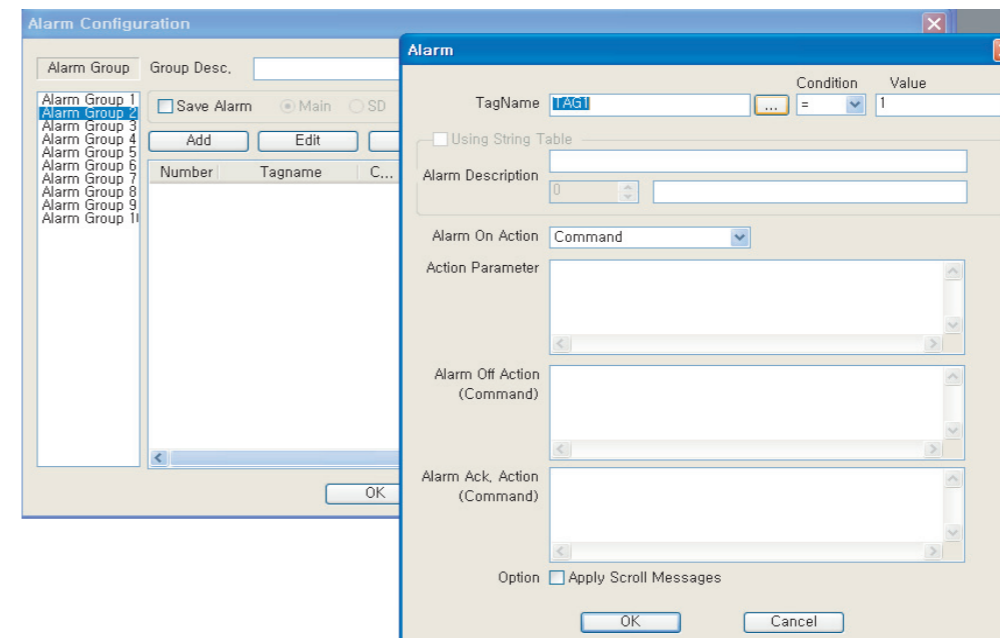
- Provides various Trend types
  - YT, XY, Log, ST, SPC, Scope
  - Enables to set a sampling period up to 100 ms
  - Provides historical Trend (YT, XY)
  - Supports zoom feature (YT, XY)
  - Save as a CSV file (YT, Log)
  - Enables to display a data log (Scope)
  - Supports special purpose Trend (ST, SPC)



- Supports 10 alarm groups
- Each alarm group stores up to 200 alarms
- Depending on the set, the alarm will be saved at power-off
- Alarm summary displays alarm history on the screen
- Desired status can be displayed on the screen
- Alarm on/off action can be specified (supports open page/command expression)
- Enables to change font and size of alarm summary object
- Provides alarm recognition functionalities
- Supports customized alarm summary control button

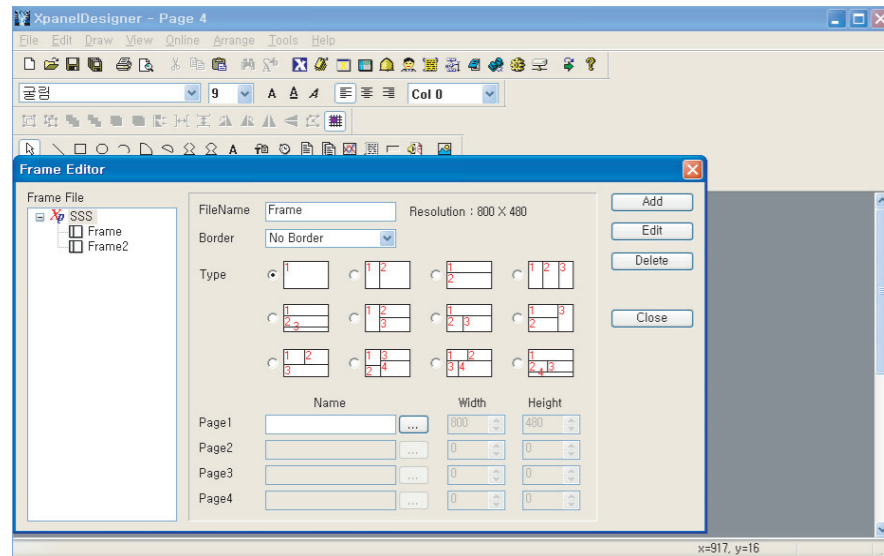
- Script
  - Scripts are activated to execute by event, time period or function call
  - Supports script language of C syntax
  - Internal script function can control the advanced features of Xpanel
  - Enables to call user-defined function

### Data Log



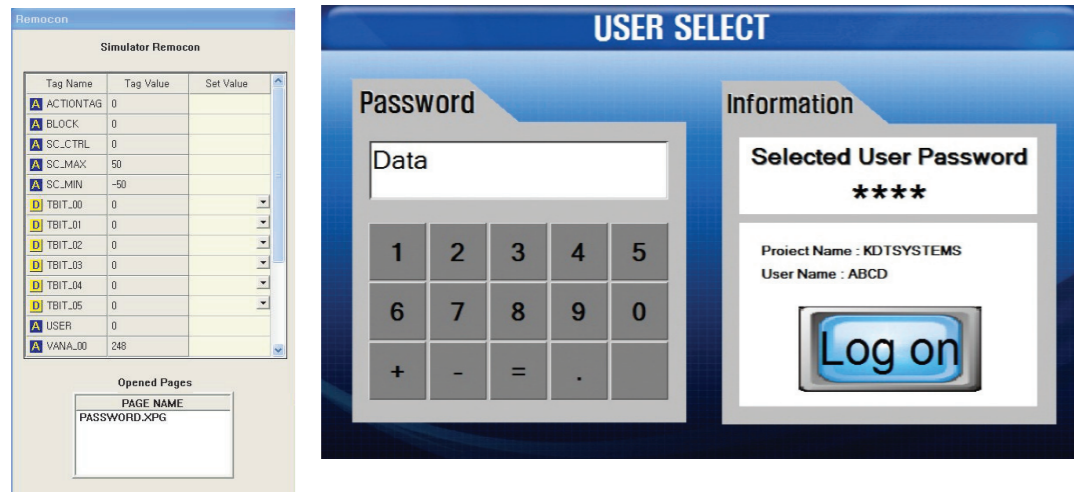
- Enables to create up to 32 data blocks (each data block can store up to 2048)
- Collected data through data collect object can be displayed on table
- Collected data through scope trend can be displayed on graph

## ■ Frame Editor



- Provides split-screen
- The structure and the size of the frame can be edited
- Provides various forms of frame

## ■ Simulator



- Enables to pre-check the project on the PC without the Xpanel
- Enables to modify the tag value on the simulator remote control window
- Runs on the PC with the same resolution as the real screen
- Enables to check the scripts and the alarm

## Dimension

Unit : mm

Model	Dimensions (mm)	Panel cut (mm)
<b>XT04CD</b>	<ul style="list-style-type: none"> <li>Dimensions: 128 (width), 102 (height), 92 (depth), 50 (bottom depth), 118 (bottom width)</li> </ul>	<ul style="list-style-type: none"> <li>Panel cut: 120 (width), 94 (height)</li> </ul>
<b>XT07CD</b>	<ul style="list-style-type: none"> <li>Dimensions: 185 (width), 127 (height), 118 (depth), 50 (bottom depth), 176 (bottom width)</li> </ul>	<ul style="list-style-type: none"> <li>Panel cut: 177 (width), 119 (height)</li> </ul>
<b>XT8CD</b>	<ul style="list-style-type: none"> <li>Dimensions: 227.5 (width), 176.5 (height), 164 (depth), 59.5 (bottom depth), 215 (bottom width)</li> </ul>	<ul style="list-style-type: none"> <li>Panel cut: 217 (width), 166 (height)</li> </ul>
<b>XT10CD</b>	<ul style="list-style-type: none"> <li>Dimensions: 280 (width), 220 (height), 206 (depth), 47 (bottom depth), 266 (bottom width)</li> </ul>	<ul style="list-style-type: none"> <li>Panel cut: 267 (width), 207 (height)</li> </ul>
<b>XT12CD</b>	<ul style="list-style-type: none"> <li>Dimensions: 330 (width), 250 (height), 238 (depth), 83 (bottom depth), 318 (bottom width)</li> </ul>	<ul style="list-style-type: none"> <li>Panel cut: 319 (width), 239 (height)</li> </ul>
<b>XT15CD</b>	<ul style="list-style-type: none"> <li>Dimensions: 395 (width), 310 (height), 296 (depth), 89 (bottom depth), 381 (bottom width)</li> </ul>	<ul style="list-style-type: none"> <li>Panel cut: 382 (width), 297 (height)</li> </ul>

# CIMON-XPANEL



XT04CD-DN



XT07CD-DN



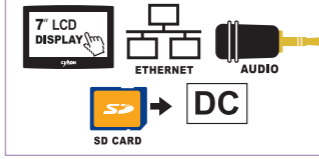
XT07CD-AN



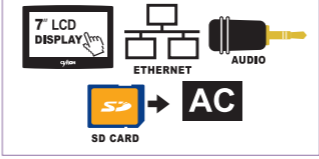
XT04CD-DE



XT07CD-DE



XT07CD-AE



**NEW** XT08CD-D



XT10CD-D



XT12CD-A



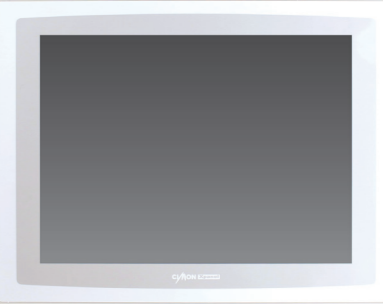
**NEW** XT08CD-A



XT10CD-A



XT15CD-A



## » Specification

Type	XT04CD-DN	XT04CD-DE	XT07CD-DN	XT07CD-AN	XT07CD-DE	XT07CD-AE
Panel Size	4.3"		7"			
Resolution	480 x 272		800 x 480			
LCD	Color TFT					
Color	262K Colors					
Luminance	400 cd/m <sup>2</sup>					
Memory	128MByte DDR2 SDRAM					
Storage	128MByte SLC NAND Flash					
Operating System	Windows CE 6.0					
Programming Tool (HMI)	Xpanel Designer					
Audio	None				1 Port	
Interface	Ethernet	None	10/100 BaseT	None	10/100 BaseT	
	Serial (COM1)	RS232C				
	Serial (COM2)	RS422/485				
	Serial (COM3)	None				
	USB Host	1 Port				
	Tool Port	1 Port (for Loader)				
	SD Card Slot	None				1 Slot
Input Power	DC24V		DC24V	AC100-240V	DC24V	AC100-240V
Dimension(mm)	128 X 102 X 50		185 X 127 X 50			
Panel Cut(mm)	120 X 94		177 X 119			

Type	XT08CD-A	XT08CD-D	XT10CD-D	XT10CD-A	XT12CD-A	XT15CD-A
Panel Size	8"		10.4"		12.1"	15"
Resolution			800 x 600		1024 x 768	
LCD	Color TFT					
Color	262K Colors				16.7M Colors	
Luminance	350cd/m <sup>2</sup>		400 cd/m <sup>2</sup>		450 cd/m <sup>2</sup>	400 cd/m <sup>2</sup>
Memory	128MByte DDR2 SDRAM		256MByte DDR2 SDRAM			
Storage	128MByte SLC NAND Flash					
Operating System	Windows CE 6.0			Windows Embedded Compact 7		
Programming Tool (HMI)	Xpanel Designer					
Audio	None					
Interface	Ethernet	10/100 BaseT				
	Serial (COM1)	RS232		RS422/485		
	Serial (COM2)	RS422/485		RS232C		
	Serial (COM3)	None		RS232C		
	USB Host	1 Port				
	Tool Port	1 Port (for Loader)				
	SD Card Slot	1 Slot				
Input Power	AC100-240V		DC24V		AC100-240V	
Dimension(mm)	227.5 X 176.5 X 59.5		280 X 220 X 47		330 X 250 X 83	395 X 310 X 89
Panel Cut(mm)	217 X 166		267 X 207		319 X 239	382 X 297



# CIMON HYBRID XPANEL (HMI+PLC)



Cost effective solution with high performance  
 Reduce wiring and programming time  
 7" touch screen with Relay DI8/DO8  
 Ethernet & Serial (RS232/RS485) option  
 Modbus TCP, Modbus RTU  
 VNC Server  
 Maximum 3 PLC-S modules expansion  
 More than 2,000 images for application

## HYBRID XPANEL LINE UP

No.	Model	Type
1	CM-HP07CD-DNR	XT07 + No LAN + PLC(CPU, RS232C), DC Type
2	CM-HP07CD-ANR	XT07 + No LAN + PLC(CPU, RS232C), AC Type
3	CM-HP07CD-DNS	XT07 + No LAN + PLC(CPU, RS485), DC Type
4	CM-HP07CD-ANS	XT07 + No LAN + PLC(CPU, RS485), AC Type
5	CM-HP07CD-DER	XT07 + LAN + PLC(CPU, RS232C), DC Type
6	CM-HP07CD-AER	XT07 + LAN + PLC(CPU, RS232C), AC Type
7	CM-HP07CD-DES	XT07 + LAN + PLC(CPU, RS485), DC Type
8	CM-HP07CD-AES	XT07 + LAN + PLC(CPU, RS485), AC Type

### Option

No.	Model	Type
1	CM-HP-DM	Expansion dummy for Xpanel-Hybrid
2	CM-HP-EAA	Analog module (AI 2ch, AO 2ch) for Xpanel-Hybrid

## PLC-S LINE UP

### Digital I/O

No.	Model	Type	Specification
1	CM3-SP32EDO	DI-32	DI 32 pts, DC 24V
2	CM3-SP32EOT	DO-32	DO 32 pts, DC 24V TR (Sink)
3	CM3-SP32EOC	DO-32	DO 32 pts, DC 24V TR (Source)
4	CM3-SP16EOR	DO-16	DO 16 pts, Relay Output
5	CM3-SP32EDT	DI-16 / DO-16	DI 16 pts, DO 16 pts, TR (Sink)

### Analog I/O & Temp. Measuring

No.	Model	Type	Specification
1	CM3-SP04EAO	AI-4	AI 4ch (0-5V, 1-5V, 0-10V, -10-10V, 0-20mA, 4-20mA)
2	CM3-SP04EAA	AIO-4	AI 2ch / AO 2ch (0-5V, 1-5V, 0-10V, -10-10V, 0-20mA, 4-20mA)
3	CM3-SP04EOAI	AO-4	AO 4ch Current Output (4-20mA)
4	CM3-SP04EOAV		AO 4ch Voltage Output (-10-10V, 0-10V)
5	CM3-SP04ERO	Temp.	4ch RTD (PT100, JPT100, PT1000, NI1000)
6	CM3-SP04ETO		4ch TC (K, J, E, T, B, R, S, N)

### Communication

No.	Model	Type	Protocol
1	CM3-SP02ERS	RS232C 1ch, RS422/485 1ch	CICON, CIMON HMI, MODBUS/RTU Slave & Master, Protocol Program
2	CM3-SP02ERR	RS232C 2ch	CICON, CIMON HMI, MODBUS/RTU Slave & Master, Protocol Program
3	CM3-SP01EET	Ethernet (10BaseT, 100BaseTX)	CICON, CIMON HMI, MODBUS/TCP Slave & Master, Protocol Program, DHCP

### Accessories

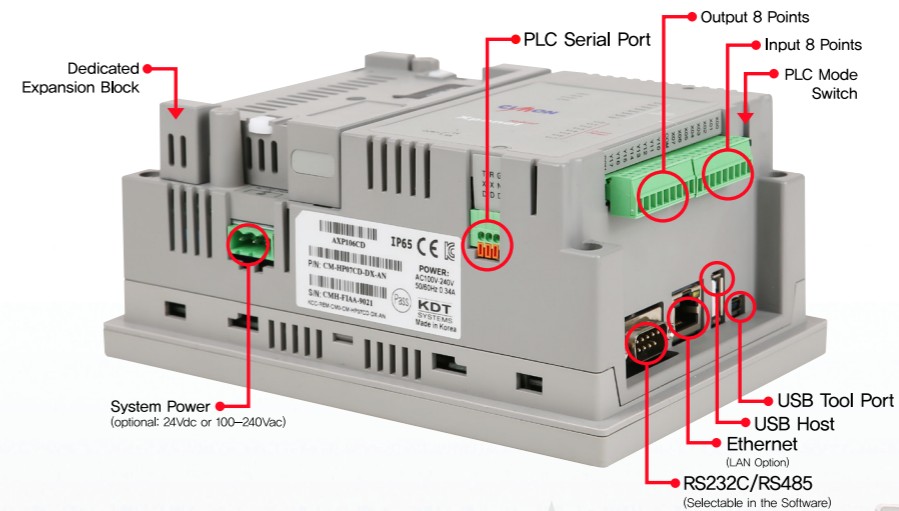
No.	Model	Type	Protocol
1	CM0-TM32M	SP32MDT	Multi-Terminal
2	CM0-SCB15M	SP32MDT	Main Block 1.5M Cable
3	CM0-SCB15E	SP32EDO, SP32EOT	I/O 32pts, 1.5M Cable

### VESA Wall Mount Ready

100X100mm standard VESA Wall Mount Hole is equipped on the back for easy attachment to a VESA mounting arm.

### Expandible with PLC-S Modules

Existing PLC-S expansion modules work with Xpanel Hybrid. (Maximum 2 PLC-S expansion modules can be used)



### High Reliability

The reliability required in the PLC is equally applied to Xpanel Hybrid.

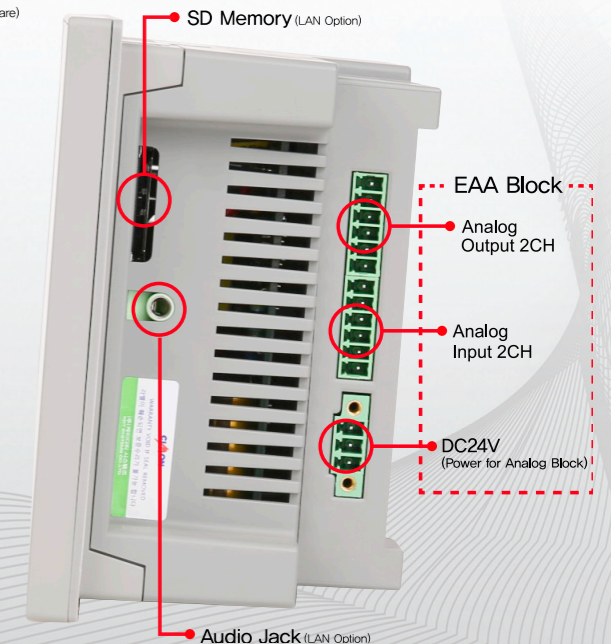
Highly reliable vibration resistance, temperature resistance, surge resistance, etc

### Detachable PLC Terminal

Every connection terminal is detachable for convenient installation and maintenance. USB Hub is built-in for simultaneous connection with XpanelDesigner and CICON.

### Genuine PLC Integrated

A true PLC is integrated with HMI to support the full functionalities of PLC-S and Xpanel.



MEMO

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The logo for KDT SYSTEMS is centered on a black background. It features the letters 'KDT' in a large, bold, white sans-serif font, with a thin white horizontal line above and below the letters. Below 'KDT', the word 'SYSTEMS' is written in a smaller, all-caps, white sans-serif font, also with a thin white horizontal line above and below it.

**KDT**  
SYSTEMS

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