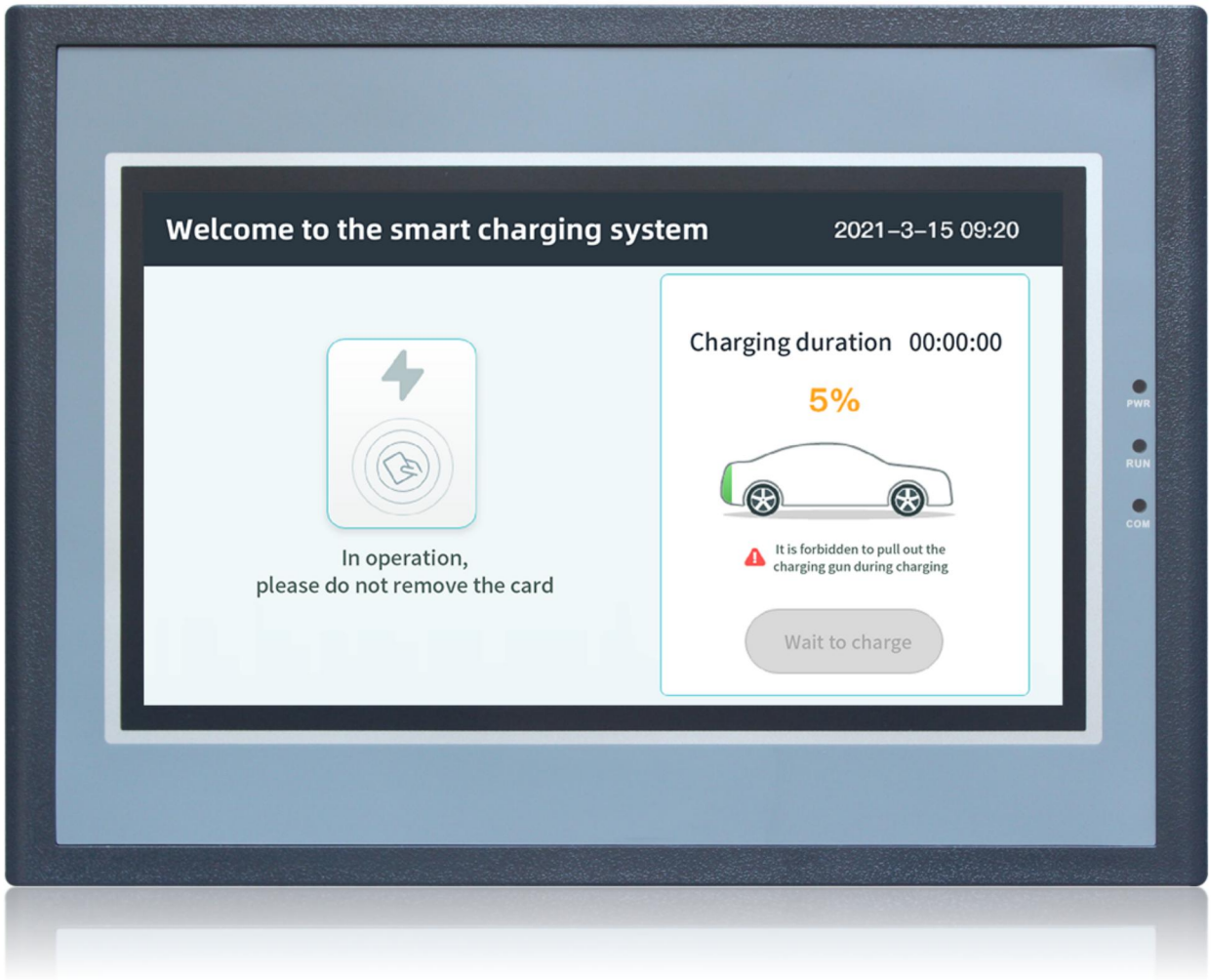
LCX070-A series specifications

Committed To Creating The Best
Intelligent Control Terminal

1. Product Description

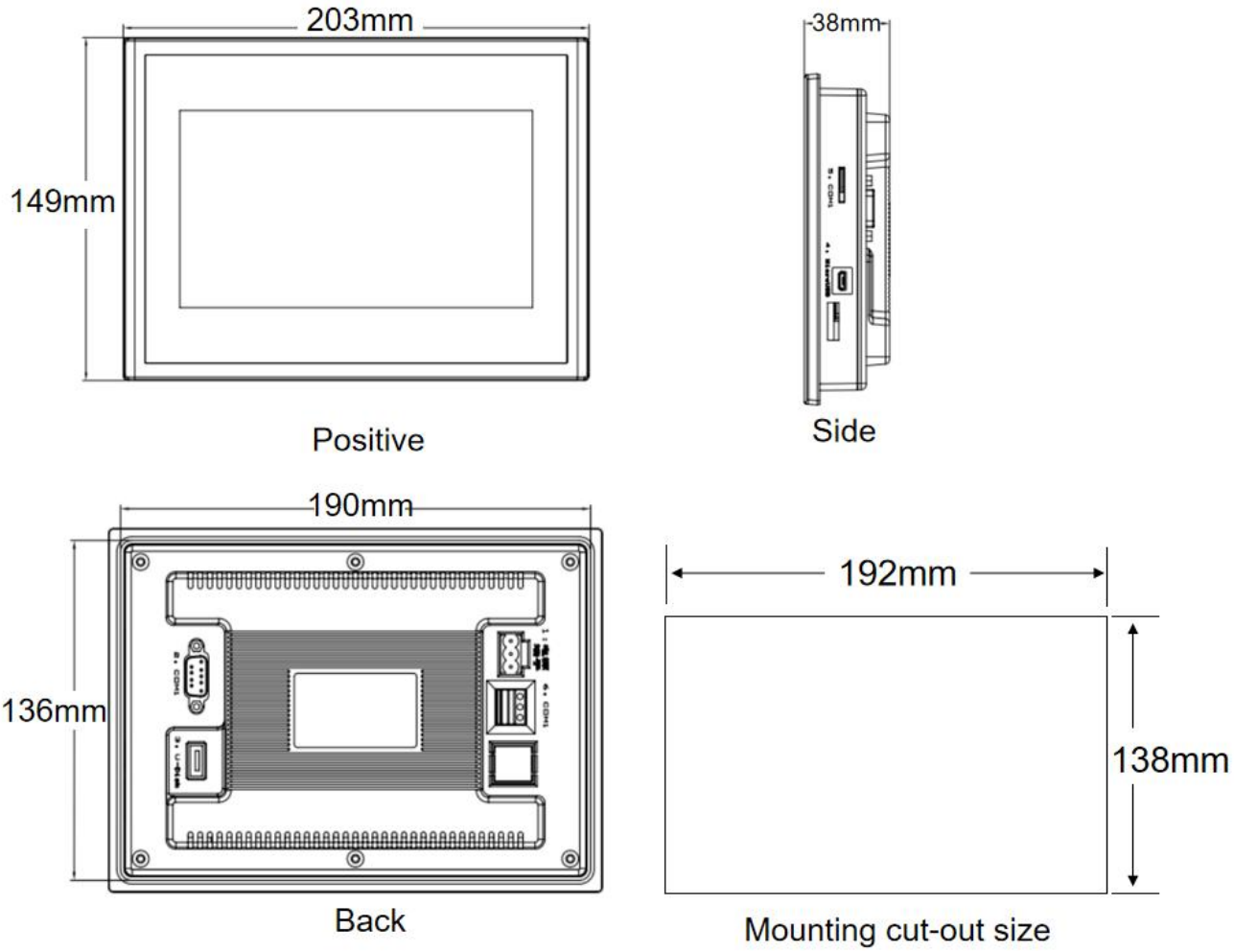
1.1 Product Models



Module	Specifications
LCX070-A1	LCX series, 7 inch, DC10-30V, a single serial port:RS232 / RS485 / RS422, 128 Mbyte SPI Nand, Resistive touch screen
LCX070-A2	LCX series, 7 inch, DC10-30V,serial port 1: RS232/RS485/RS422, serial port 2: RS485, 128Mbyte SPI Nand Flash, Resistive touch screen

1.2 Products Size

Show Dimensions	Product model	Overall dimensions	Effective display area size	Opening size	Recommended opening size
7inch	LCX070-A	203*149*38mm	153.84*85.63mm	190*136mm	192*138mm



1.3 Products Parameters

Product Specification		
Hardware Performance	Module	LCX070-A
	Display Size	7" TFT LCD
	Resolution（Px）	800X480
	Colors	260000 Colors
	Brightness	400 cd/m^2
	Backlight	LED
	LED life	20000 hours
	Touch screen	4-wire resistive touch screen touch screen（Surface hardness 4H）
	CPU	32-bit 600MHz ARM9 built-in 32MB DDR2 memory
	Memory	128Mbyte SPI Nand Flash
	RTC	Real-time clock built-in
	Buzzer	have
	Save power failure data	Support
	USB1	A USB2.0 Device port
	USB2	A USB2.0 HOST port
	Program download Mode	USB，U disk，SD card
	U disk	Support

	Communication port	Port1:RS232,RS485,RS422（3 choose 1） Port2：RS232,RS485（2 choose 1）
Electrical Specifications	Maximum power consumption	＜3.5W
	Voltage range	DC 10-30V
	Power protection	+/-2KV lightning surge protection capability
	The allowed loss of power	<5ms
	CE&ROHS	Comply with EN61000-6-2:2005, EN61000-6-4:2007 standards;Lightning surge +/ -2kV, EFT: +/ -4kV;Electrostatic contact discharge +/-8KV;Electrostatic air discharge +/-15KV.
Environmental Specifications	Operating temperature	-10℃~50℃
	Storage temperature	-30℃~70℃
	Environmental humidity	10~90%RH(non-condensing)
	Vibration	10-25Hz(X, Y, Z direction, 2g/30 min)
	Cooling way	Natural air cooling
The Other Parameters	Protection grade	The front panel conforms to IP65 (with flat plate cabinet installation), and the rear panel conforms to IP20
	Overall dimensions	203*149*38mm
	Effective display area size	153.84*85.63mm
	Opening size	190*136mm
	Recommended opening size	192*138mm
	The weight	400g

2. Hardware Introduction

2.1 Definition of terminal pin

Port Definitions	
Device Position Number	**Descriptions**

①	Power interface
②	Port1 communication：D-sub9 interface
③	USB TYPE A port
④	Micro USB port
⑤	SD card interface
⑥	Port2 communication

Power supply interface -- ①

Pin	Definition	Descriptions
1	+24V	Positive input of power supply, DC10-30V
2	GND	Negative power input
3	PE	GND

Port1 D-sub9 interface -- ②

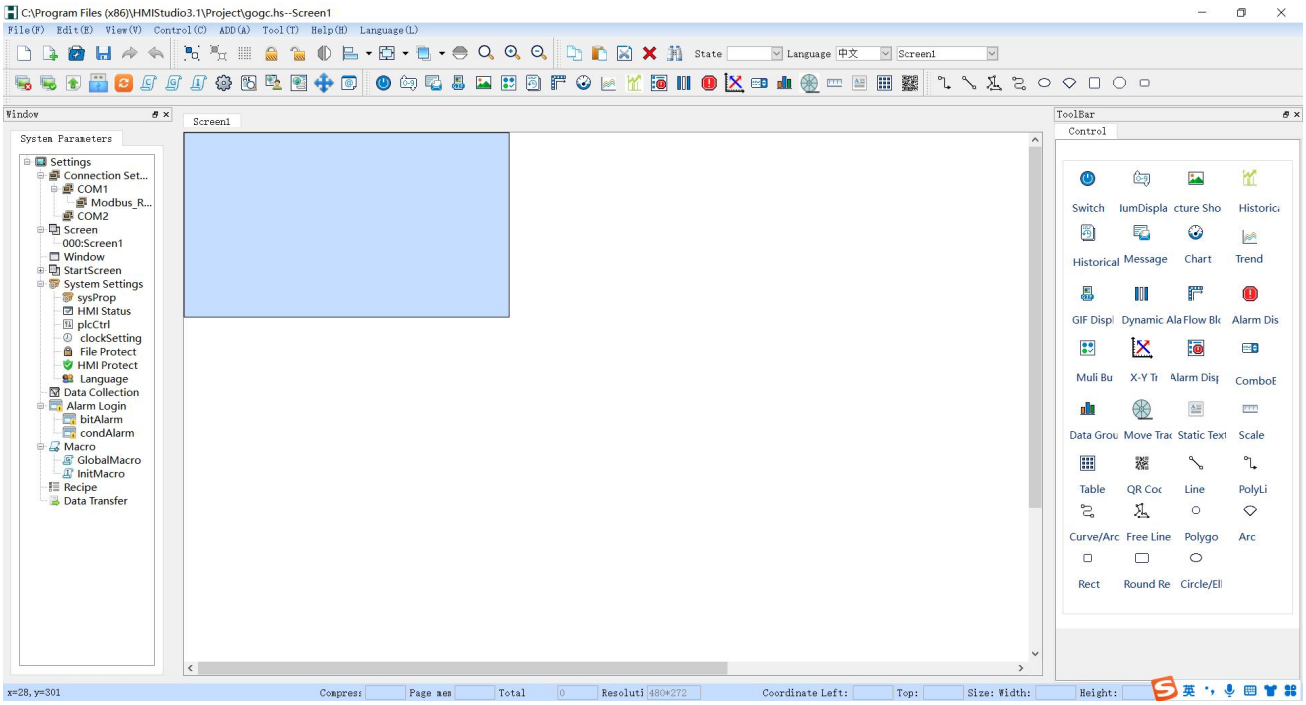
Pin	Define	RS232	RS485	RS422
1	N.C.			
2	RXD	RS232 receiver		
3	TXD	RS232 driver		
4	N.C.			
5	GND	RS232/RS422/RS485 Ground		
6	RX-			RS422 receiver-
7	RX+			RS422 receiver+
8	TX-		RS485 B-	RS422 driver-
9	TX+		RS485 A+	RS422 driver+

Port2 communication-⑥

Pin	Define	RS232	RS485
1	RX/B	RS232 receiver	RS485 B-
2	TX/A	RS232 driver	RS485 A+
3	GND	RS232/RS485 Ground	

3. Description PC Configuration Software

3.1 Develop software



PC Software HMIStudio is a tool that users can edit arbitrarily. All application programs are developed based on it. HMIStudio composes rich controls, which can be arbitrarily combined to achieve the functions that users want:

Features Includings:

Switch Button	Including "Bit Button" "Word Button" "Indicator" "Screen Button" "Function Button" "Polymorphic Button" touch the connected device to monitor the

	status
Numerical Input and Display	Including a variety of base input and display, ASCII code input and display, used to display the monitoring address value;Another time display is used to display the real-time time
Flow Block	An animated graphic that simulates the flow of liquid in a pipe
Static text/table/scale	A variety of basic shapes, including lines, circles, ellipses, rectangles, etc
Image Display and GIF animation	A picture display box that displays one or more pictures
Instrument	Bar chart, meter, ring, showing a value of some state of data
Message Display	Displays messages that be edited by user
Alarm Display	Display the alarm information of the current device (divided into digital alarm and analog alarm), Alarm settings must be configured before using the control
Dynamic Alarm	Used to display the current alarm, which is different from the alarm control is the dynamic alarm bar in the form of text scrolling display the current alarm content
X Y Curve	Real time and dynamic display of data trend of data collector
History Curve	Displays the data saved by the history collector in curvilinear form
Recipe	Create a recipe like menu
Multifunction Button	A switch button, through the button can be very convenient to achieve a variety of functional requirements
Trend Chart	Draw reference curves of multiple data to accurately and intuitively judge the change trend of a certain value in a period of time
Dropdownlist	Used to select the corresponding state function
Data group	To display the data change from register address N to register address N as a curve
Motion trail	Control address data by dragging a scroll block

Qr code	Dynamic generation of QR code, through scanning into the url, payment and other functions

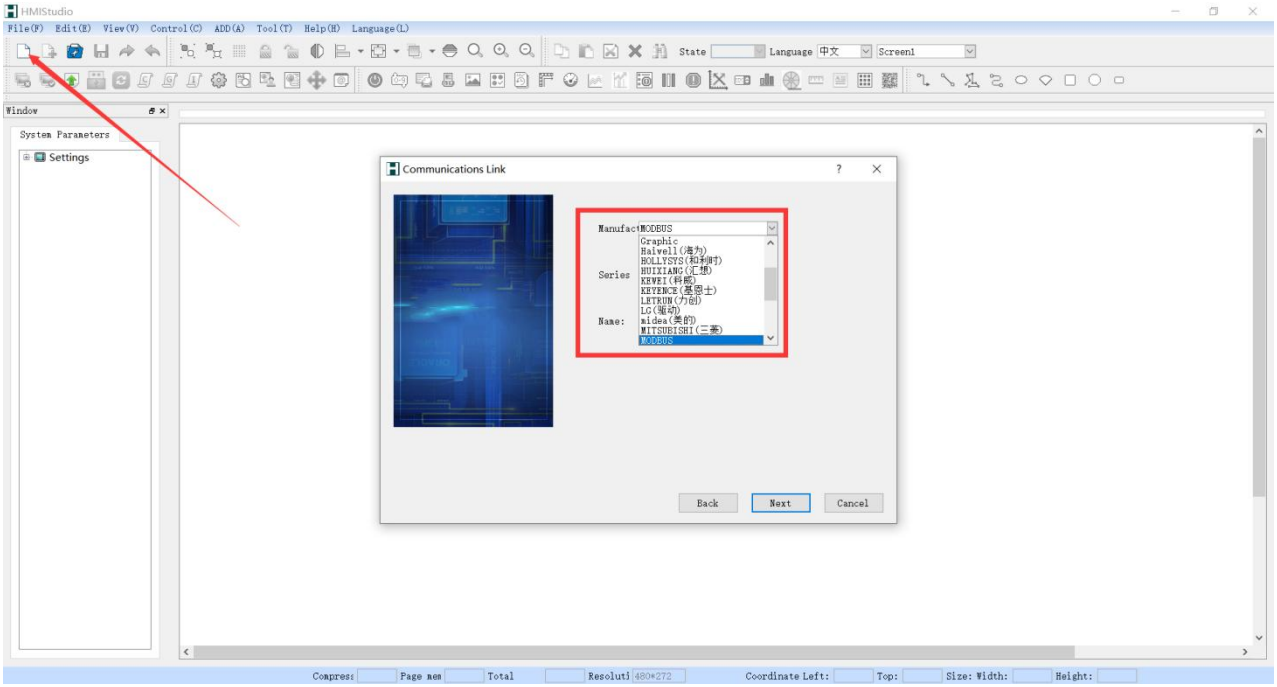
Extended Function Of Host Configuration Software:

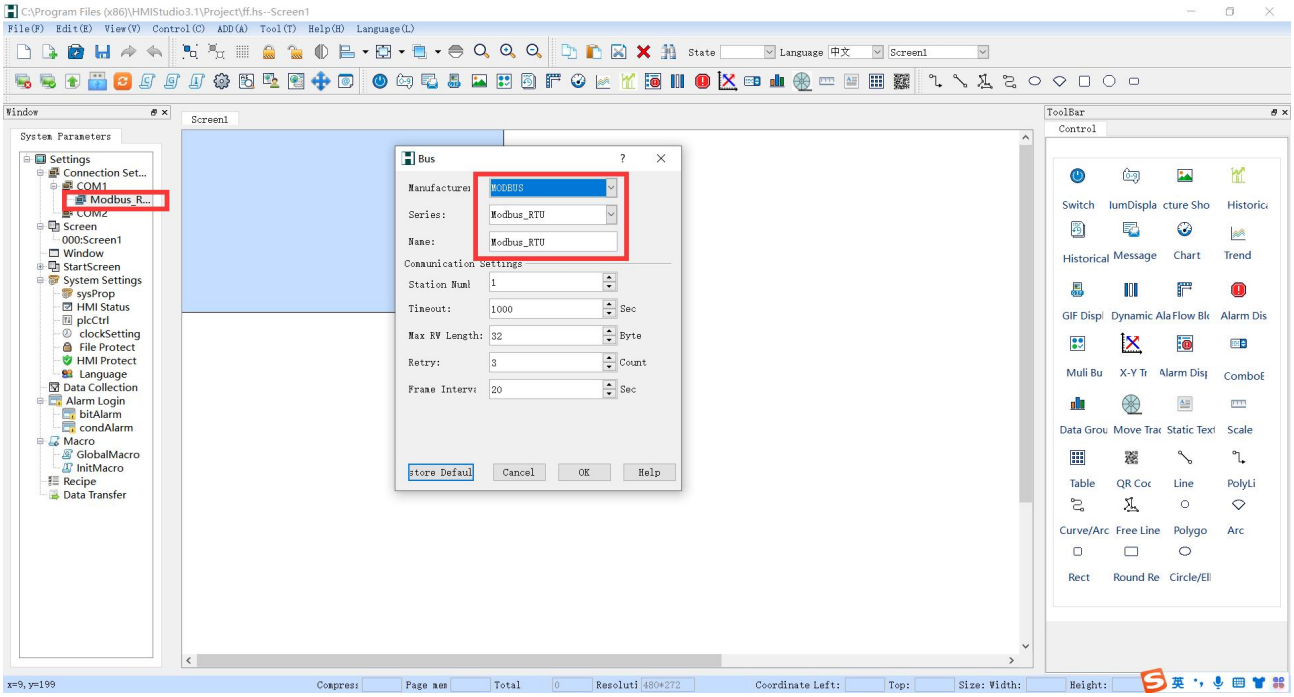
Macro Instruction	C programming language, to achieve a variety of more complex logic or functions
PLC Control	HMI is controlled by PLC
Language	Support for multiple languages
Data Collection	Data acquisition for temperature, pressure, humidity, etc
Data Transmission	Refers to the transmission of data over the same type of address. The transmission mode can be periodic (how many seconds) or triggered
HMI Protection	It is set that HMI can normally use HMI within a certain period of time. If the time exceeds the time specified by the user, HMI will jump to the specified screen previously set by the user. In the specified screen, the user only places the "Panel protection unlock button" under the function button.
File Protection	Whether to enter a password when opening the project
User password Level	Set the user permission and password. Enter the password to access the corresponding permission
Boot Screen	Users can customize the startup Logo screen
Online Simulation	Online simulation enables you to communicate with relevant devices such as PLC through personal computer (HMI configuration software needs to be installed first) without HMI
Offline Simulation	Before the picture is compiled and downloaded to the HMI device, the offline simulation function of HMIStudio can be used to check the correctness of the configuration picture and the effect display
Supports Multiple Controller Communication Protocols	It is applicable to various PLC, frequency converter, servo controller, single chip microcomputer control system, etc. (Mitsubishi, Panasonic, Omron, Delta, Xinjie, Fatek, Siemens, Keyence, LG, modbus, user-defined and other communication protocols) When users operate, they only need to directly select and call on the software
Custom Add Gallery	Support custom add gallery, users can according to the need to intercept their favorite picture loaded into the custom gallery to call

Keyboard	Support Chinese and English keyboard input, users can freely switch to use
Gallery	Image library rich, support Png, Jpg, Gif, Bmp and other formats of pictures, vector image library, arbitrary zoom without aliasing
Baud Rate Range	Support serial baud rate range of 1200-230400

3.2 Protocol Configuration

Users can run MODBUS RTU, Mitsubishi, Siemens, Delta,Xinje and other protocols through the configuration of the upper computer.Open HMIStudio configuration software and click on new project to select the desired communication protocol in new project. You can also modify the communicate on protocol you need in the project by opening the protocol under COM1 port Settings. The diagram below.




C:\Program Files (x86)\HMIStudio3.1\Project\ff.hs--Screen1
File(F) Edit(E) View(V) Control(C) ADD(A) Tool(T) Help(H) Language(L)
State
Language
Screen1
Window
System Parameters
Settings
Connection Set...
COM1
Modbus_R...
COM2
Screen
000:Screen1
Window
StartScreen
System Settings
sysProp
HMI Status
plcCtrl
clockSetting
File Protect
HMI Protect
Language
Data Collection
Alarm Login
bitAlarm
condAlarm
Macro
GlobalMacro
InitMacro
Recipe
Data Transfer
Screen1
Bus
Manufacture:
MODBUS
Series:
Modbus_RTU
Name:
Modbus_RTU
Comunication Settings
Station Numl
1
Tineout:
1000
Sec
Max RW Length:
32
Byte
Retry:
3
Count
Frame Interv:
20
Sec
store Defaul
Cancel
OK
Help
ToolBar
Control
Switch
lumDispla
cture Sho
Historic
Historical
Message
Chart
Trend
GIF Displ
Dynamic Ala
Flow Blc
Alarm Dis
Muli Bu
X-Y Tr
Alarm Disp
ComboE
Data Grou
Move Trac
Static Text
Scale
Table
QR Coc
Line
PolyLi
Curve/Arc
Free Line
Polygo
Arc
Rect
Round Re
Circle/El
x=9, y=199
Compress:
Page num
Total
Resoluti
480*272
Coordinate Left:
Top:
Size: Width:
Height:

Committed To Creating The Best
Intelligent Control Terminal