




# IT7000 Introduction

V1.6\_Mar 5, 2021\_PMTS







## *Basic Information*

Basic Information

IT7070E	IT7100E	IT7150E
		
<b>7'</b> E: With Ethernet Port	<b>10'</b> E: With Ethernet Port	<b>15'</b> E: With Ethernet Port

Only IT7000 has 15' display screen model

Only IT6000 has 4.3' display screen model

IT6043T	IT6070E	IT6070T	IT6100E
			
<b>4.3'</b> T: Standard Configuration	<b>7'</b> E: With Ethernet Port	<b>7'</b> T: Standard Configuration	<b>10'</b> E: With Ethernet Port

IT6000 series has 4.3', 7', 10' models, IT7000 series has 7', 10', 15' models.

**Basic Information**

Configuration	IT6043E/T	IT6070E/T	IT7070E	IT6100E	IT7100E	IT7150E
<b>CPU</b>	Cortex A8 600MHz	Cortex A8 600MHz	Cortex A8 600MHz	Cortex A8 600MHz	Cortex A8 1GHz	Cortex A8 1GHz
<b>Flash</b>	128M	128M	128M	128M	256M	256M
<b>DRAM</b>	128M DDR3	128M DDR3	128M DDR3	128M DDR3	256M DDR3	256M DDR3
<b>SD card slot</b>	--	√	√	√	√	√
<b>Serial port</b>	COM1(422/485) COM2(232) COM3(485)	COM1 COM2(only IT6070E) COM3(only IT6070E)	COM1 COM2 COM3	COM1 COM2 COM3	COM1 COM2 COM3	COM1 COM2 COM3
<b>Ethernet port</b>	√(only IT6043E)	√(only IT6070E)	√(only IT7070E)	√	√	√
<b>Mini USB B-type</b>	--	--	√	--	√	√
<b>USB B-type</b>	IT6043T	√	--	√	--	--
<b>USB A-type</b>	--	√	√	√	√	√
<b>Input voltage</b>	24VDC±20%	24VDC±20%	24VDC±20%	24VDC±20%	24VDC±20%	24VDC±20%
<b>Rated input current</b>	200mA	250mA	250mA	300mA	300mA	800mA
<b>Protection level</b>	Front panel IP65, back cover IP20	Front panel IP65, back cover IP20	Front panel IP65, back cover IP20	Front panel IP65, back cover IP20	Front panel IP65, back cover IP20	Front panel IP65, back cover IP20
<b>Display size</b>	4.3 inch	7 inch	7 inch	10.1 inch	10.1 inch	15 inch
<b>Resolution</b>	480*272	800*480	800*480	1024*600	1024*600	1024*768

- \* IT7000 (IT7100E/IT7150E) has better CPU processor than IT6000
- \* IT7000 has different programming port (mini B) compared with IT6000 (USB B type)
- \* IT7000 has different serial port compared with IT6000

# *Connection Terminals*

# Connection Terminals

## ❑ USB programming port

### ➤ IT6000: type B



**15041123** IT5-USB-CAB

### ➤ IT7000: mini B



**15041200** H2U-USB-CAB  
\*same as H3U/AM600 USB programming cable

## ❑ Serial Port

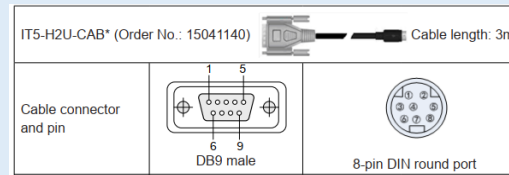
### ❖ **IT6000 & IT7150E**

#### ➤ DB9 female

COM1: RS485 (RS422)

COM3: RS485

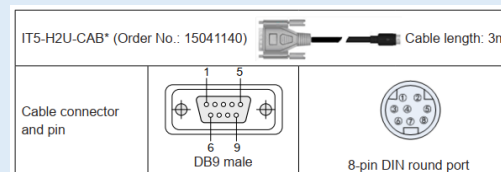
**15041140** IT5-H2U-CAB  
Connect to H3U PLC via COM1



#### ➤ DB9 male

COM2: RS232

**15042148** H2U-232-CAB  
Connect to H3U PLC via COM2



### ❖ **IT7000 (except IT7150E)**

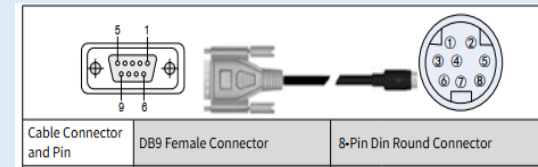
#### ➤ DB9 male (only 1 DB9 terminal)

COM1: RS485 (RS422)

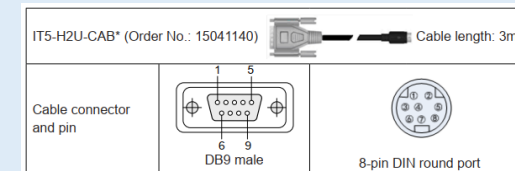
COM2: RS232

COM3: RS485

**1504AX53** IT7-H3U-CAB  
Connect to H3U PLC via COM1

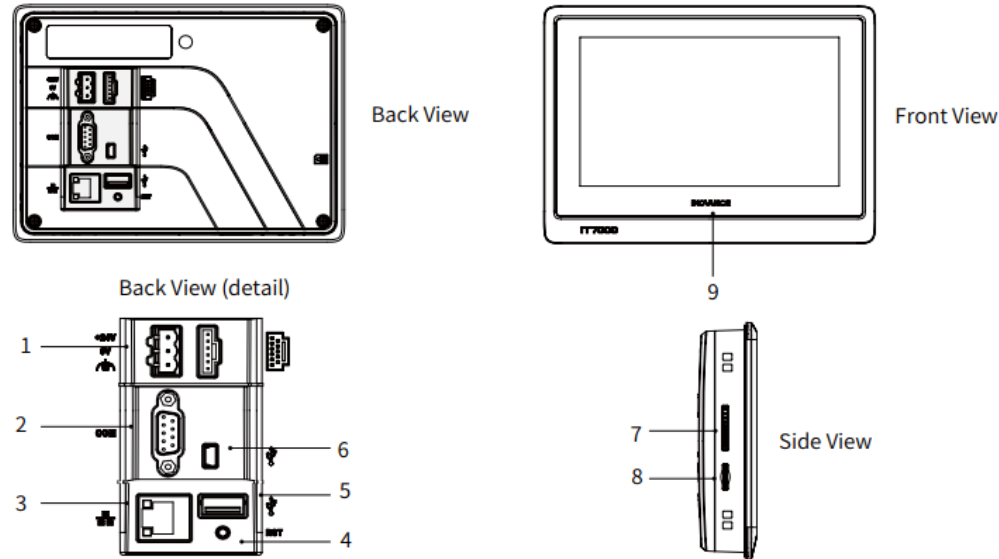


**15042148** H2U-232-CAB  
Connect to H3U PLC via COM2



\* IT7000 (except IT7150E) only has 1 DB9 terminal!

# IT7070E Terminals Overview

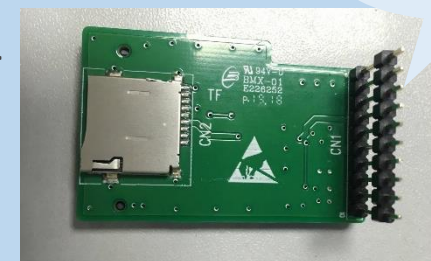


1. Power Supply: 24VDC (connector included)
2. DB9 **male** connector: serial port COM1/COM2/COM3
3. Ethernet Port: connect to PLC/PC
4. **Reset Button**: restores default settings
5. USB (Type A): read/write a USB drive
6. **Mini USB (Type B)**<sup>[1]</sup>: program upload/download
7. **Kernel/firmware update port**<sup>[2]</sup>
8. Micro SD card: data read/write, project file download and kernel/firmware update
9. Power Indicator

1504AX53	IT7-H3U-CAB	DB9 Female to DIN8, connect to PLC (RS422/485)
15041200	H2U-USB-CAB	USB A to mini B, programming cable
15040262	S6-L-T04-3.0	Ethernet Cable
15042148	H2U-232-CAB	DB9 female to DIN8, connect to PLC (RS232 to RS422)

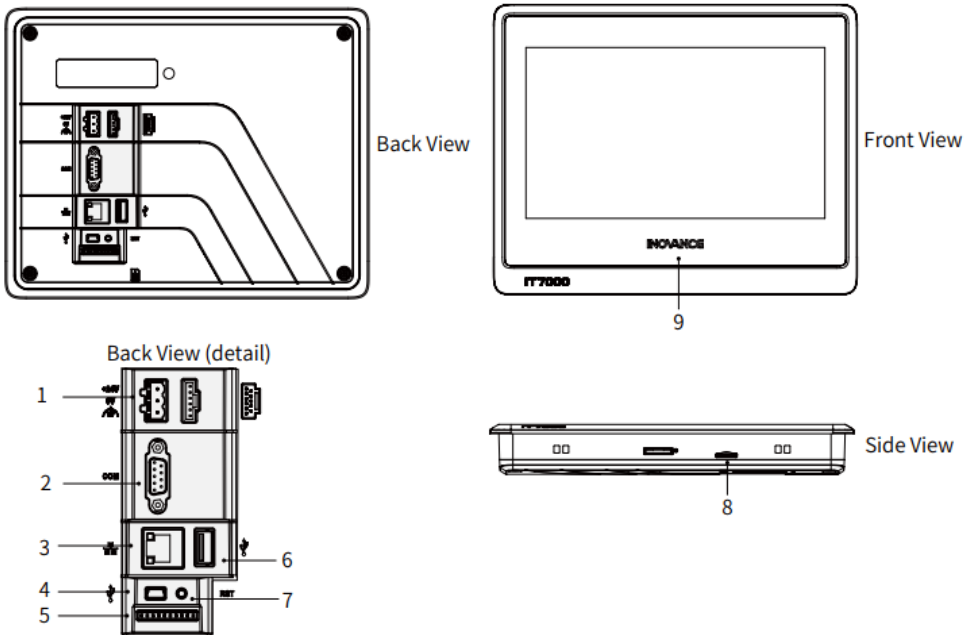
[1] Compared with IT6000, IT7000 use USB mini B type as programming port, in this sense, it can use the same programming cable as H3U/AM600.

[2] Requires external board.



Pin Header

# IT7100E Terminals Overview

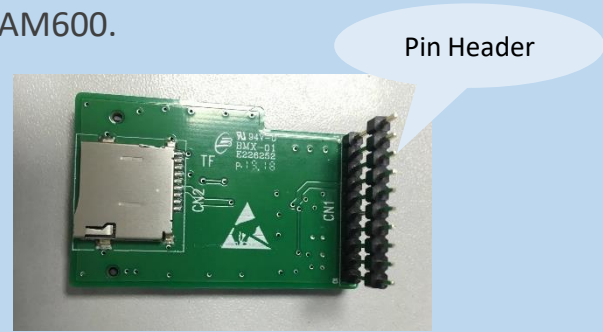


1. Power Supply: 24VDC (connector included)
2. DB9 **male** connector: serial port COM1/COM2/COM3
3. Ethernet Port: connect to PLC/PC
4. **Mini USB (Type B)**<sup>[1]</sup>: program upload/download
5. **Kernel/firmware update port**<sup>[2]</sup>
6. USB (Type A): read/write a USB drive
7. **Reset Button**: restores default settings
8. Micro SD card: data read/write, project file download and kernel/firmware update
9. Power Indicator

1504AX53	IT7-H3U-CAB	DB9 Female to DIN8, connect to PLC (RS422/485)
15041200	H2U-USB-CAB	USB A to mini B, programming cable
15040262	S6-L-T04-3.0	Ethernet Cable
15042148	H2U-232-CAB	DB9 female to DIN8, connects to PLC (RS232 to RS422)

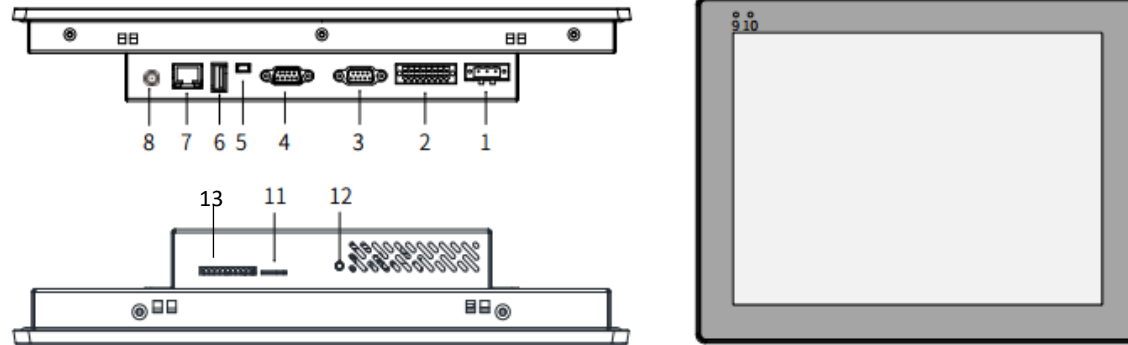
[1] Compared with IT6000, IT7000 use USB mini B type as programming port, in this sense, it can use the same programming cable as H3U/AM600.

[2] Requires external board.





# IT7150E Terminals Overview



1. Power Supply: 24VDC (connector included)
2. IO terminal (**reserved, available in customized version**)
3. DB9 **female** connector: serial port COM1/COM3
4. DB9 **male** connector:COM2
5. Mini USB (Type B)<sup>[1]</sup>: program upload/download
6. USB (Type A): read/write a USB drive
7. Ethernet Port: connect to PLC/PC
8. 4G antenna port (**reserved, available in customized version**)
9. Power Indicator
10. Network status indicator
11. Micro SD card: data read/write, project file download and kernel/firmware update
12. **Reset Button**: restores default settings
13. **Kernel/firmware update port**<sup>[2]</sup>

[1] Compared with IT6000, IT7000 use USB mini B type as programming port, in this sense, it can use the same programming cable as H3U/AM600.

[2] Requires external board.

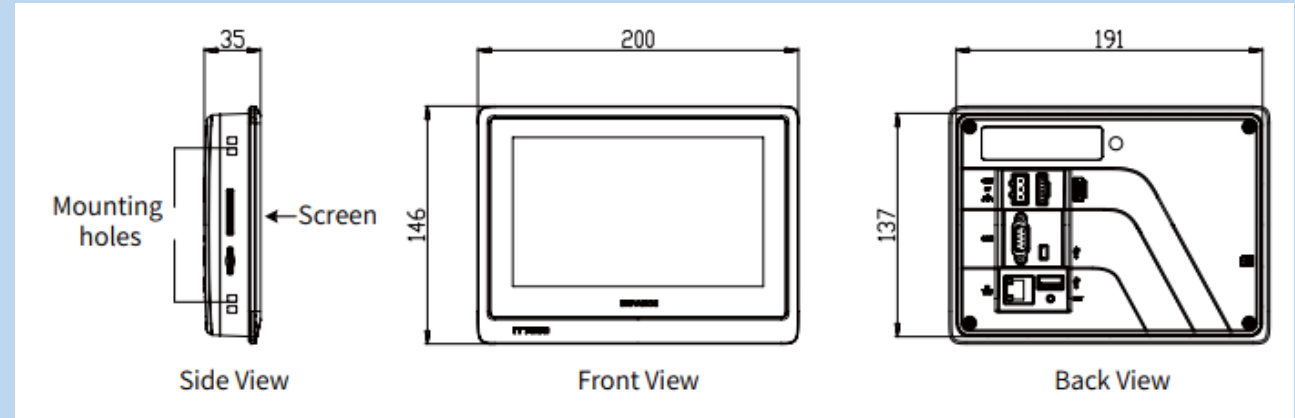


Female Header

15041140	IT5-H2U-CAB	DB9 Male to DIN8, connect to PLC(RS422/485)
15041200	H2U-USB-CAB	USB A to mini B, programming cable
15040262	S6-L-T04-3.0	Ethernet Cable
15042148	H2U-232-CAB	DB9 female to DIN8, connects to PLC (RS232 to RS422)

# *Dimensions*

IT7070 Dimensions



IT 7 070 E

INOVANCE touch screen

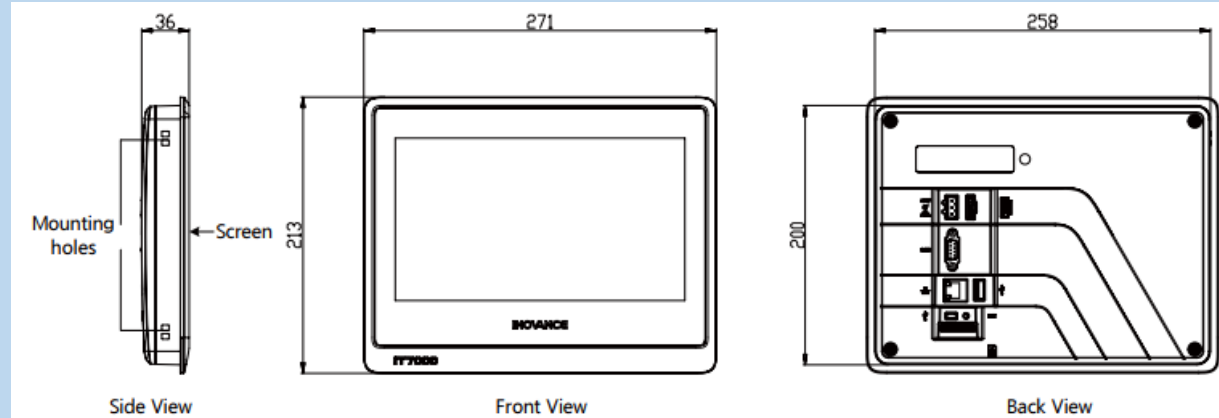
E: with EtherNet port

7000 series

7-inch

Model	IT7070E	IT6070E/T
Display Size (inch)	7	7
Overall Dimensions W x H x D (mm)	200 × 146 × 35	200 × 146 × 42
Installation Dimensions W × H (mm)	191×137	191×137
Recommended Screw Hole Size (mm)	193×139	192×138

# IT7100 Dimensions



## IT 7 100 E

INOVANCE touch screen

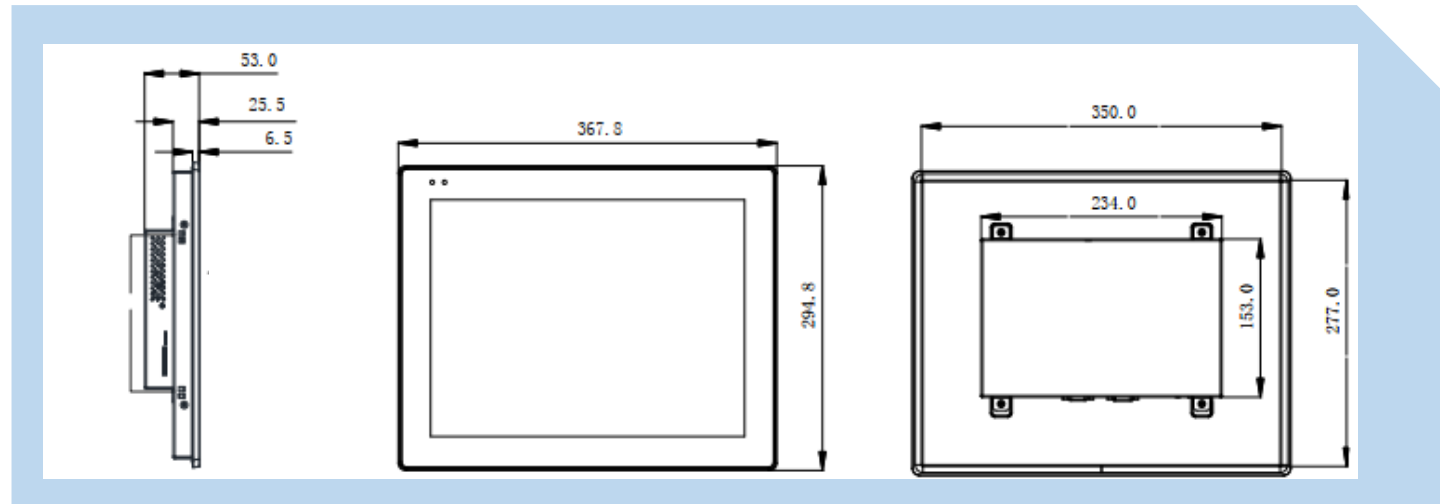
E: with EtherNet port

7000 series

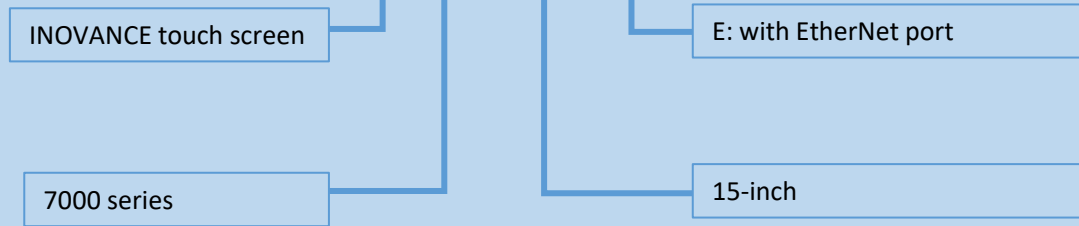
10-inch

Model	IT7100E	IT6100E
Display Size (inch)	10	10
Overall Dimensions W x H x D (mm)	271 x 213 x 36	271 x 213 x 40
Installation Dimensions W x H (mm)	258 x 200	258 x 200
Recommended Screw Hole Size (mm)	260 x 202	259 x 201

# IT7150 Dimensions



## IT 7 150 E



<b>Model</b>	IT7150E
<b>Display Size (inch)</b>	15
<b>Overall Dimensions W x H x D (mm)</b>	367.8 x 294.8 x 53
<b>Installation Dimensions W x H (mm)</b>	350 x 277
<b>Recommended Screw Hole Size (mm)</b>	352 x 279

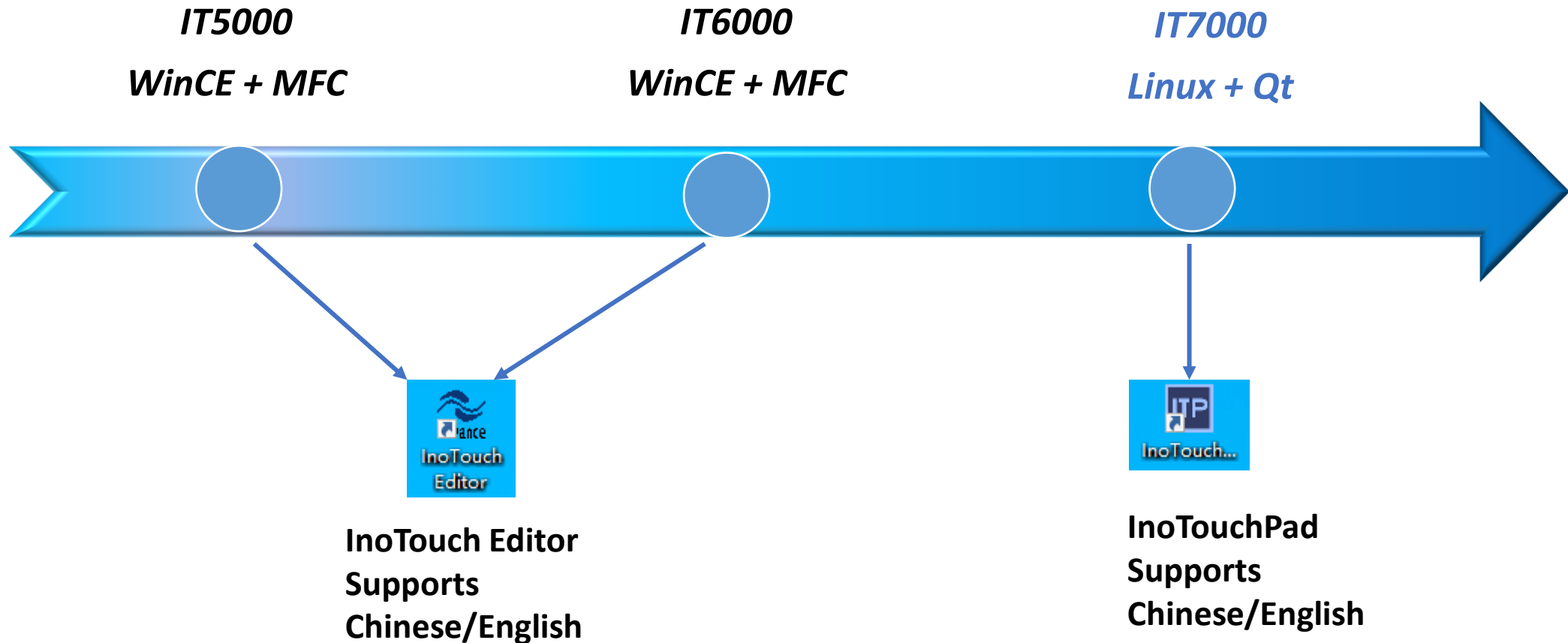
# *Communication*

Item	IT7000	IT6000
<b>INOVANCE</b>	INOVANCE PLC, Servo, AC Drive	INOVANCE PLC, Servo, AC Drive
<b>Siemens</b>	S7-200 smart (Ethernet)\S7-300 (Ethernet) S7-1200\1500 (Ethernet) S7-200	Siemens S7-200
<b>Mitsubishi</b>	MelSec-Q\L(Binary), MelSec-Q\L(ASCII) FX5U/3U/3G/2N/1S/1N	FX, FX1S,FX3G/3U
<b>Omron</b>	FINS Serial Protocol Fins TCP Protocol Hostlink	Omron C/COM1(Hostlink) Omron CP series Omron CJ/CS FINS/TCP
<b>KEYENCE</b>	KV-L120/700/1000/3000/5000/7500/Nano	--
<b>Panasonic</b>	Panasonic-FP	Panasonic-FP
<b>Delta</b>	Delta DVP series (RTU)	Delta DVP series(ASCII) Delta DVP series(RTU)
<b>Yaskawa</b>	--	YASKAWA CP-316(H/HQ) YASKAWA MemobusTCP
<b>Fatek</b>	FB/FBS series	FATEK FBS Series
<b>Xinjie</b>	XC/XD/XL series	--
<b>Koyo</b>	SN series	--
<b>LG</b>	--	LG Master-K Direct
<b>OPC UA Client</b>	Supported	--
<b>MQTT</b>	Supported	--

*Software*



*Development Platform*



\* Please note that IT6000 project cannot be converted to IT7000 project

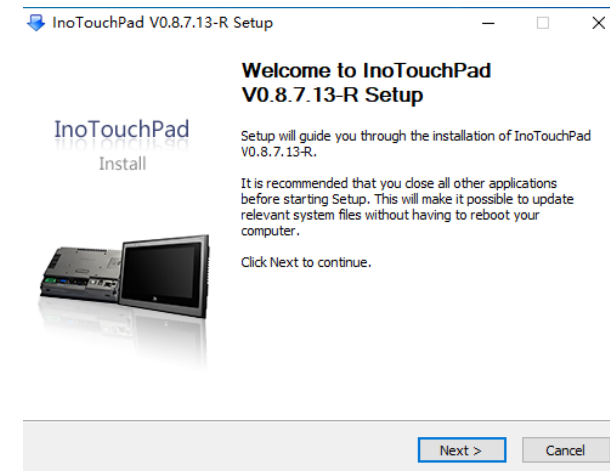
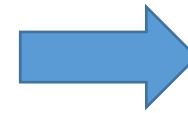
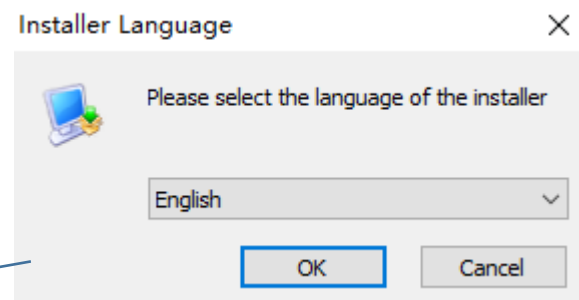
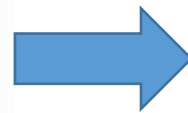
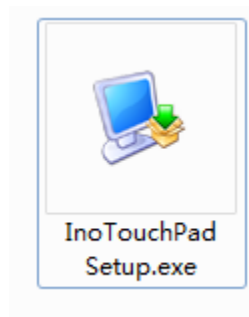
\* Qt is a cross-platform C++ GUI library

IT7000 Software

➤ InoTouchPad



- The development software of IT7000 is **InoTouchPad**, and the installation package currently supports three installation languages: English + simplified Chinese + traditional Chinese. The USB download driver will automatically registered after installation (the software can be downloaded from INOVANCE website: [Link](#)).
- **InoTouchPad** supports Windows XP /Windows 2000 /Windows Vista/Windows 7/8/10 and other operating systems(32/64 bit).



Language will be automatically selected according to the system language of PC.

Installation steps

# *Features*

Features



- **Complete human-computer interaction function + script program coordination:** indicator light, button, switch, curve, alarm, animation, report, formula, user management, data import and export, providing high-quality human-computer interaction experience
- **Abundant interfaces:** supports Ethernet, serial communication network scheme, support a variety of other equipment communication protocol
- **Extensible software platform:** users can customize the development of control objects
- **Abundant gallery resources + interface style Settings + smooth animation:** convenient development of a unified interface style screen, improve the interactive experience of equipment operators

➤ **Highly configurable software platform**

Graphics, text, data objects are freely configured into various functions

Canvas control script draws graphics freely

Multi-language internationalization, support all standard language text input and display

**InoTouchPad**

Scripts access local and remote databases

Extensible software platform, users can customize the controls

Supports the import of most vector and image formats

## ➤ Language Display

Languages Selection

<input type="checkbox"/> Afrikaans(SouthAfrica)	<input type="checkbox"/> English(NewZealand)
<input type="checkbox"/> Armenian(Armenia)	<input type="checkbox"/> English(Philippines)
<input type="checkbox"/> Basque(Spain)	<input type="checkbox"/> English(SouthAfrica)
<input type="checkbox"/> Bulgarian(Bulgaria)	<input type="checkbox"/> English(TrinidadAndTobago)
<input checked="" type="checkbox"/> Catalan(Spain)	<input type="checkbox"/> English(UnitedKingdom)
<input checked="" type="checkbox"/> Chinese(China)	<input type="checkbox"/> English(Zimbabwe)
<input type="checkbox"/> Chinese(HongKong)	<input type="checkbox"/> Estonian(Estonia)
<input type="checkbox"/> Chinese(Macau)	<input type="checkbox"/> Faroese(FaroeIslands)
<input type="checkbox"/> Chinese(Singapore)	<input type="checkbox"/> Finnish(Finland)
<input checked="" type="checkbox"/> Chinese(Taiwan)	<input type="checkbox"/> French(France)
<input type="checkbox"/> Croatian(Croatia)	<input type="checkbox"/> French(Belgium)
<input type="checkbox"/> Czech(CzechRepublic)	<input type="checkbox"/> French(Canada)
<input type="checkbox"/> Danish(Denmark)	<input type="checkbox"/> French(Luxembourg)
<input type="checkbox"/> Dutch(Netherlands)	<input type="checkbox"/> French(Monaco)
<input type="checkbox"/> Dutch(Belgium)	<input type="checkbox"/> French(Switzerland)
<input checked="" type="checkbox"/> English(UnitedStates)	<input type="checkbox"/> Galician(Spain)
<input type="checkbox"/> English(Australia)	<input type="checkbox"/> Georgian(Georgia)
<input type="checkbox"/> English(Belize)	<input type="checkbox"/> German(Germany)
<input type="checkbox"/> English(Canada)	<input type="checkbox"/> German(Austria)
<input type="checkbox"/> English(Ireland)	<input type="checkbox"/> German(Liechtenstein)
<input type="checkbox"/> English(Jamaica)	<input type="checkbox"/> German(Luxembourg)

IT7070E(800x480)

**Support truetype font**

以領先科技推動工業文明

продвигать промышленную цивилизацию передовой техникой

선도적인 과학 기술로 산업 문명을 추진 하다.

Com tecnologia de Ponta para a civiliza??o Industrial

Promoting Industrial Civilization with Leading Technology

以领先技术推进工业文明

\* Compared with IT6000, IT7000 series can display more languages, including Korean language which IT6000 cannot support well.

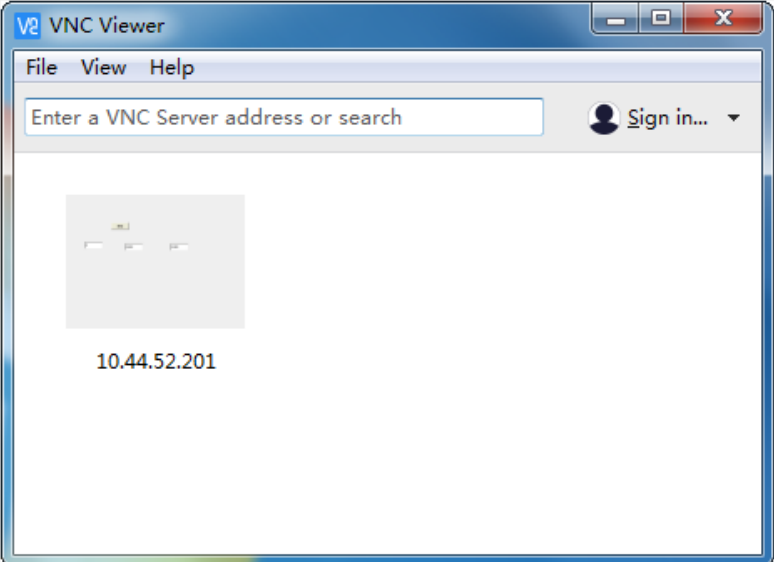
# Features

## ➤ VNC

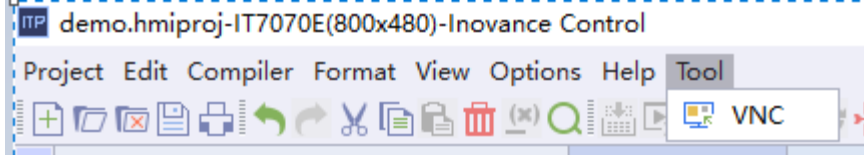
IT7070E(800x480)

**VNC remote desktop**

1. Open the VNC application program;
2. Directly enter the IP address of HMI and press enter;
3. RemoteToGo is recommended by Android phone VNC application;



The screenshot shows a VNC Viewer window with a menu bar (File, View, Help) and a text input field containing the IP address 10.44.52.201. A 'Sign in...' button is visible to the right of the input field. The background of the main window shows a sidebar with various features like '3D Pie Chart', 'Chinese Input', 'Vector Images', 'VNC', 'Drawing', 'Style', 'Script Drawing', 'Font', and 'Abundant Controls'.



The screenshot shows the top toolbar of the Inovance Control software. The title bar reads 'demo.hmiproj-IT7070E(800x480)-Inovance Control'. The menu bar includes 'Project', 'Edit', 'Compiler', 'Format', 'View', 'Options', 'Help', and 'Tool'. The toolbar contains various icons for file operations and editing, with a 'VNC' icon highlighted in a white box.



**\* IT7000 can support VNC remote access to the HMI**

# Features

## ➤ JavaScript

The screenshot displays a software development environment with the following components:

- Script menu bar:** Located at the top, it contains various icons for file operations and a dropdown menu currently set to "zh\_CN".
- Code Editor:** The main workspace showing JavaScript code for a function named "Alarm\_Calculate()". The code includes array assignments, a for loop, and an if statement. A yellow highlight covers the code, with the label "Work area" overlaid.
- Tools Panel:** On the right side, it features a "Code template wizard" with a list of code snippets such as "var", "if", "if...else", "switch", "for", "for...in", "while", "do...while", "break", and "continue". This panel is labeled "Script wizard".
- Properties Area:** At the bottom, there is a "Properties" window for the "Alarm\_Calculate (Script)" object, showing a "General" tab and a "Parameters" section. This area is labeled "properties area".

\* IT7000 can support JavaScript. Users can do logical operations, read and write variable values via script

\* Up to 100 scripts can be created, and scripts are not allowed to call each other



Features

➤ Control Style: Global Style

+	Name	Number	Comment
1	style1	1	
2	style2	2	
3	style3	3	

```

1 QSSWidget, QSSFrame, QSSTextBrowser, QSSPlainTextEdit {
2     border: 1px solid #adb1c2;
3 }
4
5 /*-----IO style-----*/
6 QSSLineEdit{
7     border: 1px solid #adb1c2;
8 }
9
10 QSSLineEdit:hover, QSSLineEdit:focus{
11     background: #fafafa;
12     border: 1px solid #a5c8ff;
13 }
14
15 QSSLineEdit:pressed{
16     background: #f8f8f8;
17     border: 1px solid #a5c8ff;
18 }
19
20 QSSLineEdit:disabled{
21     background: #f0f0f0;
22     border: 1px solid #dedede;
23     color: #999999;
24 }
25
26
27 /*-----button style-----*/
28 QSSPushButton, QSSButton{
29     border: 1px solid #adb1c2;
30     background: #f0f4f1;
31 }
32
33 QSSPushButton:hover, QSSButton:hover{
34     border: 1px solid #699ddd;
35     background: #ffffff;

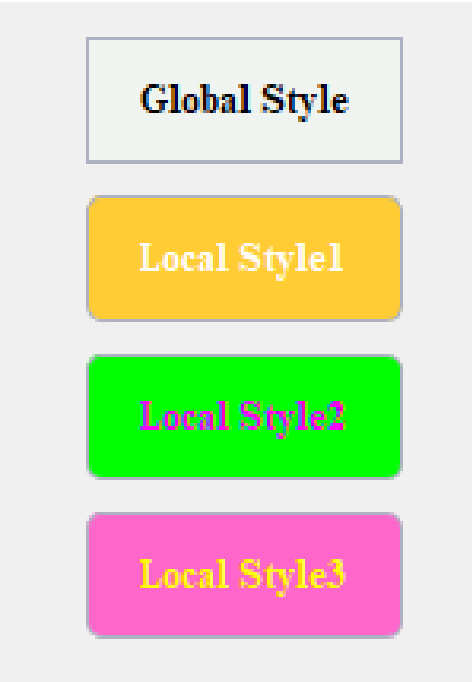
```

**\*Similar to CSS style of WEB, can configure beautiful interface by style**

**\*Built-in 3 types global style, users can select one of them as start style**

# Features

## ➤ Control Style: Local Style



```
Button_1_2(Button)
  General
  Properties
  Appearance
  Layout
  Text
  Flashing
  StyleSheet
  Misc
  Security
  Operation Record
  Animations
  Events


  StyleSheet
  1 /*-----button style customized-----*/
  2 QSSPushButton, QSSButton{
  3   border:1px solid #adb1c2;
  4   border-radius:5px;
  5   color: rgba(255, 255, 255,100%);
  6   background:#ffcc33;
  7 }
  8
  9 QSSPushButton:pressed, QSSButton:hover{
 10  border:1px solid #699ddd;
 11  color: rgba(255, 255, 255,30%);
 12  background:#999999;
 13 }
 14
 15 QSSPushButton:disabled, QSSButton:disabled{
 16  border:1px solid #adb1c2;
 17  background:#f0f0f0;
```

**\*Controls also support local style designed by users, configured local style will overwrite the global style**

# *Status*

**Current Status**

Currently we don't have completed English support document but we have made a request for R&D about this.

Option	Status Description	Remark
CE certification	Yes	Self-declared  Adobe Acrobat Document
Chinese Market Status	Launched at later 2019	
Chinese User Guide	Released	Simple instruction document sent with the product
Chinese Screen Design Manual	Yes	Version A00
Chinese Software	InotouchPad (V0.8.8.10)	There're some functions need to be improved.
English User Guide	Yes (IT7070/IT7100/IT7150)	
English Screen Design Manual	None	
English Software	InotouchPad (V0.8.8.10)	There's no English installation package but English will be automatically selected according to the system language of PC.

# INOVANCE

Forward Always Progressing