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Touch HMI Devices

TPD-280   **TPD-280U**

TPD-283   **TPD-283U**

⊞ Features

- ■ Excellent C/P ratio (cost/performance)
- ■ High-resolution color touch screen
- ■ PoE (Power over Ethernet)
- ■ RS-485 (including Self-Tuner)
- ■ RTC (Real Time Clock)
- ■ GUI design
- ■ Free HMIWorks development tool
- ■ Supports the popular C programming language
- ■ Supports Ladder Designer
- ■ Modbus TCP protocol
- ■ ESD Protection: 4 kV
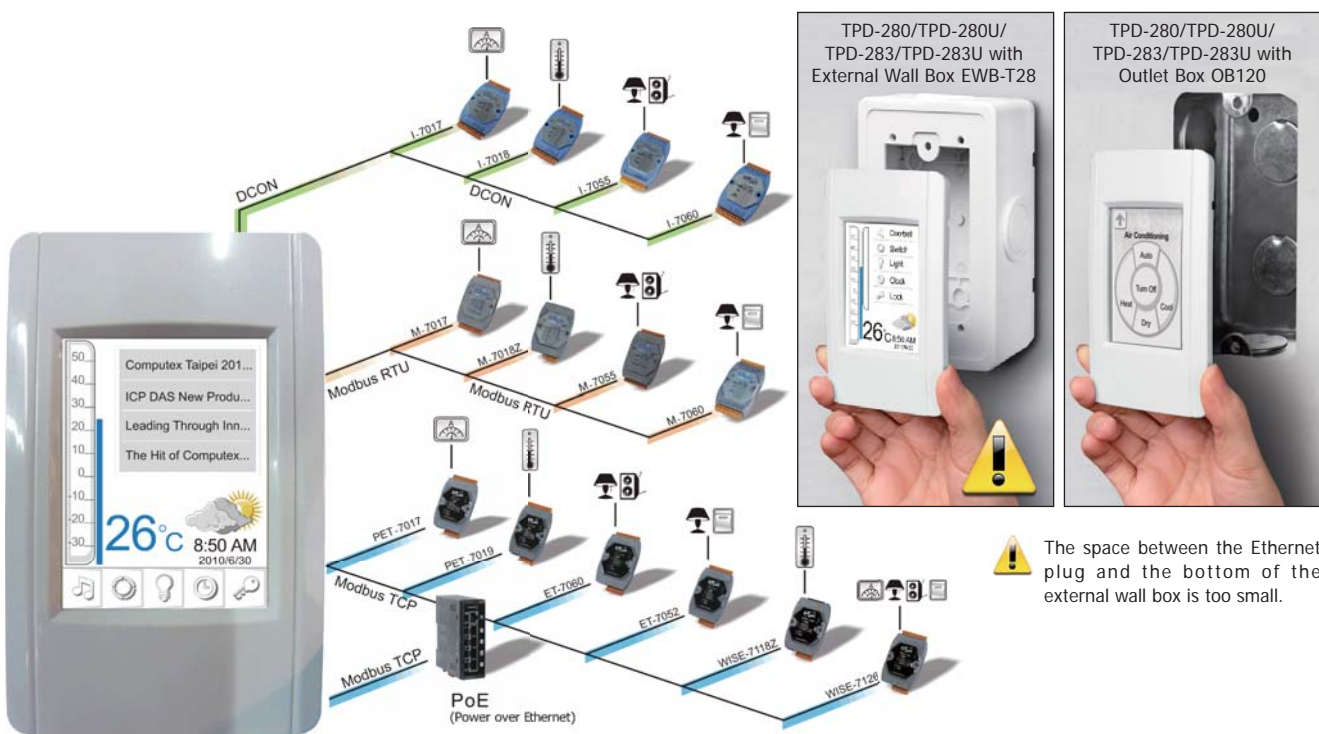- ■ Operating temperature: -20 ~ 70°C

▤ Introduction

TPD-280/TPD-280U/TPD-283/TPD-283U, is a series of tiny touch HMI and designed for building and home automation. TPD-280/TPD-280U/TPD-283/TPD-283U is equipped with high resolution TFT color touch screen and fits in with regular electrical wall-mount outlet. Besides, it is seamlessly integrated with rich I/O modules and presents beautiful, flexible and user-defined picture frame. In short, it is the best choice to upgrade the mechanical switch to intelligent control pads.
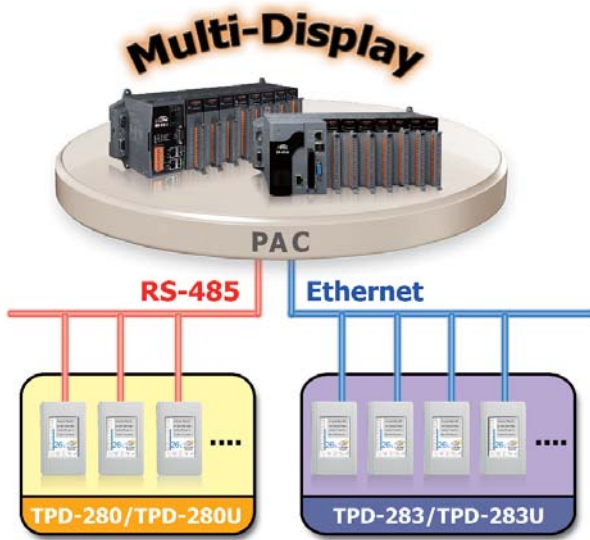
For PLC users, HMIWorks provides Ladder Designer, and for IT users, C language environment is provided. Especially, it only takes no more than 30 minutes to learn how to create an application program of TPD-series devices when using Ladder Designer. Moreover, we provide redundant solutions in our PoE version, TPD-283, of TPD-series HMI devices. With all the features provided, TPD-series touch HMI Devices must be the most cost effective HMI Device ever been in the market.
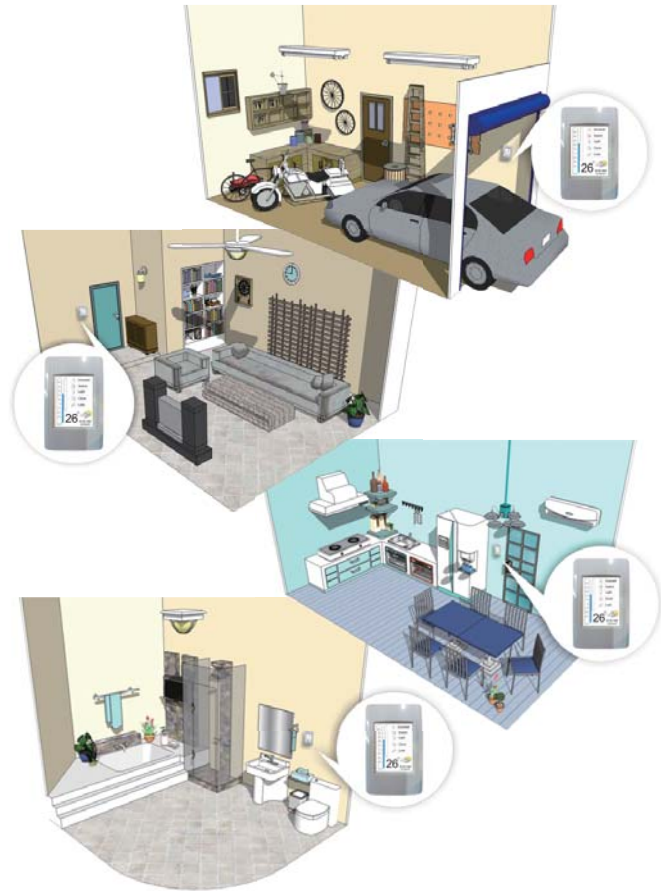
▤ Applications

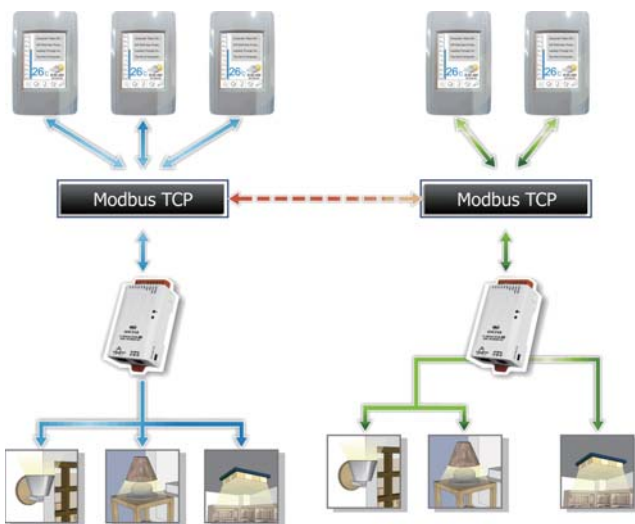TPD-280/TPD-280U/ TPD-283/TPD-283U with External Wall Box EWB-T28

TPD-280/TPD-280U/ TPD-283/TPD-283U with Outlet Box OB120

⚠ The space between the Ethernet plug and the bottom of the external wall box is too small.

Applications

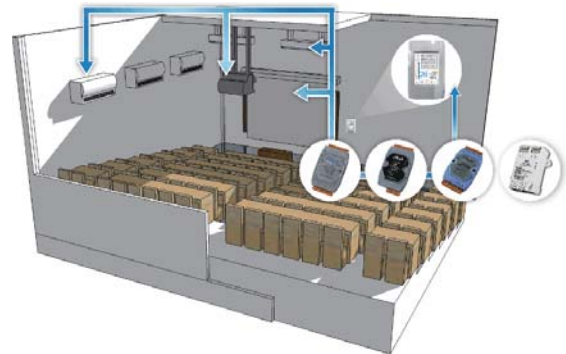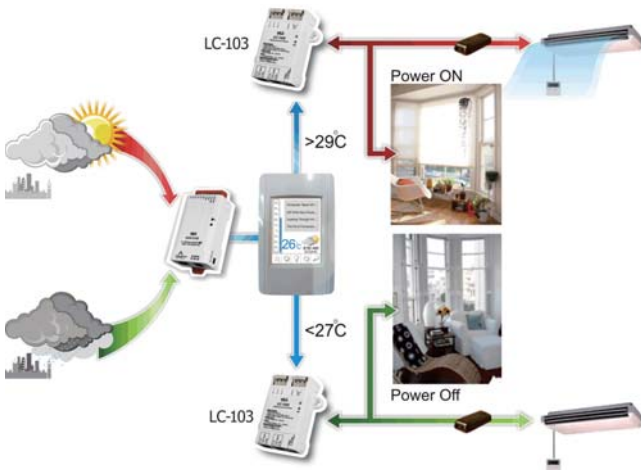## Multi-Display

TouchPAD Anywhere

Single-way, Two-way, Multi-way Switches Example

Classroom Automation Example

Temperature Control Example


Intelligent Building Example
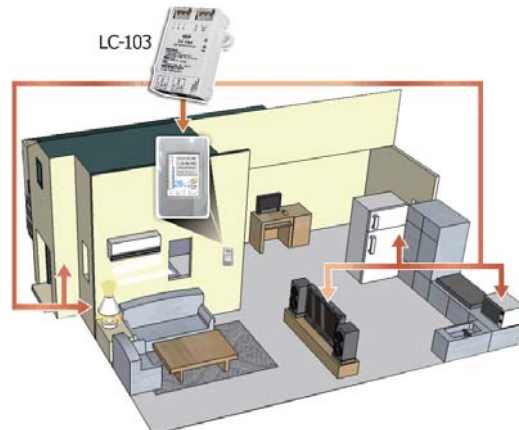
Specifications

Models	TPD-280	TPD-280U	TPD-283	TPD-283U
CPU Module				
CPU	32-bit RISC CPU			
Memory Expansion	-	16 MB SDRAM / 8 MB Flash	-	16 MB SDRAM / 8 MB Flash
Real Time Clock (RTC)	-	Yes	-	Yes
Buzzer	Yes			
Rotary Switch (0~9)	Yes			
Communication Interface				
Ethernet	-		RJ-45 x 1, 10/100 Base-TX	
Serial Port	RS-485 (including Self-Tuner)		-	RS-485 (including Self-Tuner)
USB 1.1 Client	-	Firmware updates only	-	Firmware updates only
MMI (Main Machine Interface)				
LCD	2.8″ TFT (Resolution 240 x 320 x 16), defective pixels <= 3			
Backlight Life	20,000 hours			
Brightness	160 cd/m2			
Touch Panel	Yes			
Reset Button	Yes			
Electrical				
Power Input Range	+10 ~ 30 V_{DC}		Power over Ethernet (PoE)	+10 ~ 30 V_{DC} or PoE (Power over Ethernet)
Power Consumption	1.2 W (50 mA @ 24 V_{DC})		IEEE 802.3af, Class 1	1.2 W (50 mA @ 24 V_{DC}) or IEEE 802.3af, Class 1
Mechanical				
Dimensions (W x L x H)	76 mm x 119 mm x 31 mm			
Installation	Wall Mount			
Ingress Protection	Front Panel: IP40			
Environmental				
Operating Temperature	-20 ~ +70 °C			
Storage Temperature	-30 ~ +80 °C			
Ambient Relative Humidity	10 ~ 90% RH, non-condensing			

Pin Assignments

TPD-280/TPD-280U/TPD-283U

F.G. VDC GND Data+ Data-
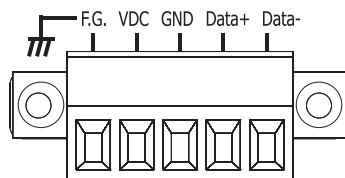
Appearance

TPD-280/TPD-280U/TPD-283/TPD-283U Front View

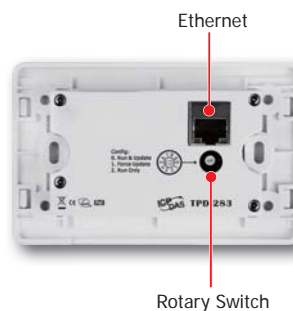2.8″ TFT LCD with Touch Panel

Alice HMI
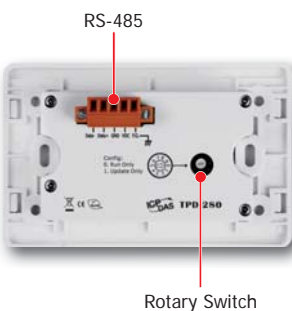
TPD-280 Rear View	TPD-280U Rear View	TPD-283 Rear View	TPD-283U Rear View
RS-485	RS-485	Ethernet	RS-485 Ethernet
Rotary Switch	USB Rotary Switch	Rotary Switch	USB Rotary Switch
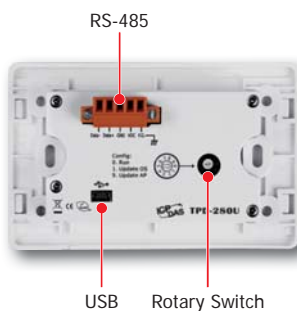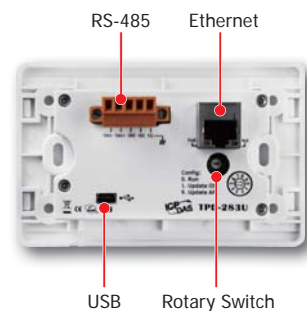
■ Dimensions (Units: mm)

TPD-280/TPD-280U

Left View	Front View	Right View	Rear View

76   2.8" LCD Display   15   7.3   119

33   25.7

Top View	Bottom View

TPD-283/TPD-283U

Left View	Front View	Right View	Rear View

76   2.8" LCD Display   7.3   119

31   23.7

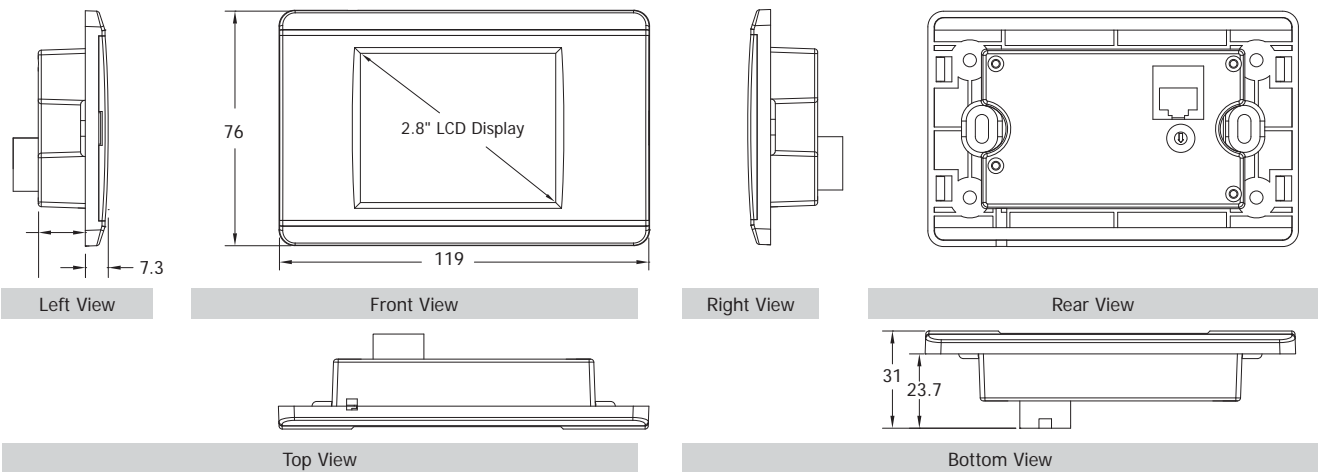|	
Top View	Bottom View
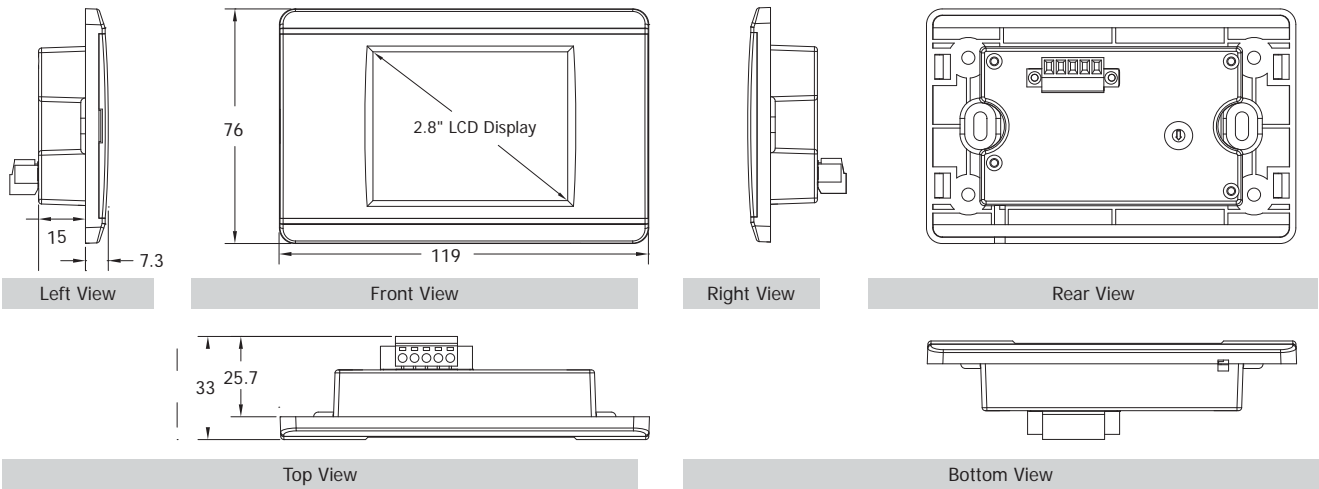
■ Ordering Information

TPD-280 CR	2.8″ Touch HMI device with RS-485 (RoHS)
TPD-280U CR	2.8″ Touch HMI device with RS-485, USB, RTC (RoHS)
TPD-283 CR	2.8″ Touch HMI device with Ethernet (RoHS)
TPD-283U CR	2.8 Touch HMI device with RS-485, USB, RTC, Ethernet (RoHS)

■ Accessories

	CA-USB10	USB to 5P Mini-USB, 28AWG, 1.5 m		DIN-KA52F CR	24 V$_{DC}$/1.04 A, 25 W Power Supply with DIN-Rail Mounting (RoHS)
	1C016	2.4 mm Screw driver		EWB-T28	External Wall Box for TPD-280/TPD-280U/ TPD-283/TPD-283U Devices
	NS-208PSE CR	Unmanaged Industrial PoE (Power over Ethernet) Ethernet Switch (RoHS)		OB120	Outlet Box for TPD-280/TPD-280U/ TPD-283/TPD-283U/TPD-430/TPD-433 Devices
	MDR-60-24 CR	24 V$_{DC}$/2.5 A, 60 W Power Supply with DIN-Rail Mounting (RoHS)		LC-103	Lighting Control Module with RS-485

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Touch HMI Devices

②

TPD Series

TPD-280/TPD-280U/TPD-283/TPD-283U