WebOP-2050T

5.6" QVGA Operator Panel with WebOP Designer Software

Features

- Various LCD sizes (4.3", 5.6", 7", 8", 10.1")
- Supports ARM9-based CPUs with 200MHz and 128MB flash memory
- Supports RTC, battery backup RAM, and Ethernet-based operator panels
- Supports runtime data downloads through Serial, Ethernet, USB
- Supports adjustable brightness controls via touch panel
- Reliable firmware for 24/7 operation
- Supports Windows XP/7/Vista-based WebOP Designer development tool
- Easy to switch one application to different LCD sizes in seconds
- Supports vertical and horizontal application screen rotation
- Supports over 400 PLC industrial communication protocols
- Communicates with up to four types of devices
- Panel mounting for machinery
- Front panel is IP66 compliant

Introduction

To satisfy the stringent standards required in the automation market, especially packaging, label slitting, and motion-based robot dispensing, Advantech offers the WebOP-2000T series with 200MHz ARM9-based RISC CPU's and 128MB flash memory for application software. The WebOP-2000T series also support a variety of LCD sizes from 4.3" to 10.1" for different applications involving the use of PLCs, motion/thermal controllers, inverters and sensors. The WebOP-2000T series is bundled with WebOP Designer: a software development kit which helps create application solutions for labor-saving, improved efficiency of manufacturing and easy control of every machine in the factory. WebOP Designer offers an outstanding price performance ratio for various markets such as conventional operator panels, HMI + Low mini SCADA systems, and HMI + communication gateways.

Specifications

General

- **Certification**: CE, BSMI, CCC, UL, FCC Class A
- **Dimensions (WxHxD)**: 188 x 143.3 x 30 mm (7.4" x 5.64" x 1.18")
- **Cut-out Dimensions**: 175 x 132.5 mm (6.89" x 5.21")
- **Front Panel Thickness**: 6mm
- **Operating System**: HMI RTOS, WebOP Designer
- **Power Supply Voltage**: 24V_{DC} ±10%
- **Power Consumption**: 10W
- **Enclosure Housing**: Plastic
- **Mounting**: Panel
- **Weight (Net)**: 0.51 kg (1.12 lbs)

System Hardware

- **CPU**: RISC 32bits, 200MHz
- **Battery Backup Memory**: 128KB
- **Flash Memory**: 8MB + 128M NAND flash
- **Power-On LED**: Yes
- **Communication LED**: No
- **Front USB Access**: No

Communication Interface

- **COM1**: RS-232/422/485 (DB9 Female)
- **COM2**: RS-422/485 (5-Pin Plug Connector)
- **COM3**: RS-232 (Com1: Pin5;7;8)
- **Ethernet (RJ45)**: None
- **I/Os**:
  - USB Client — Yes
  - USB Host — Yes
  - Micro-SD Slot — Yes

LCD Display and Touchscreen

- **Display Type**: QVGA TFT LCD
- **Display Size**: 5.6"
- **Max. Resolution**: 320 x 234
- **Max. Colors**: 65,536 colors
- **Luminance (cd/m²)**: 330
- **Backlight Life**: LED, 20,000 hrs
- **Dimming**: Adjustable by touch panel
- **Touchscreen**: 4 wire analog resistive

Environment

- **Operating Temperature**: 0 ~ 50°C (32 ~ 122°F)
- **Storage Temperature**: -20 ~ 60°C (-4 ~ 140°F)
- **Humidity**: 10 ~ 90% RH @ 40°C, non-condensing
- **Ingress Protection**: Front panel:IP66
- **Vibration Protection**: Operating, radom vibration 1 Grms (5 ~ 500 Hz)

Ordering Information

- **WOP-2050T-S1AE**: 5.6" QVGA, 32 MB (SDRAM), 8MB (NOR) & 128MB (NAND)

Dimensions

Unit: mm

143.3 (5.64")
131.5 (5.18")
6 (0.24")
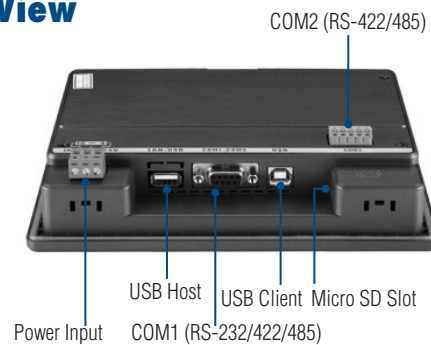188 (7.4")
30 (1.18")
174 (6.86")
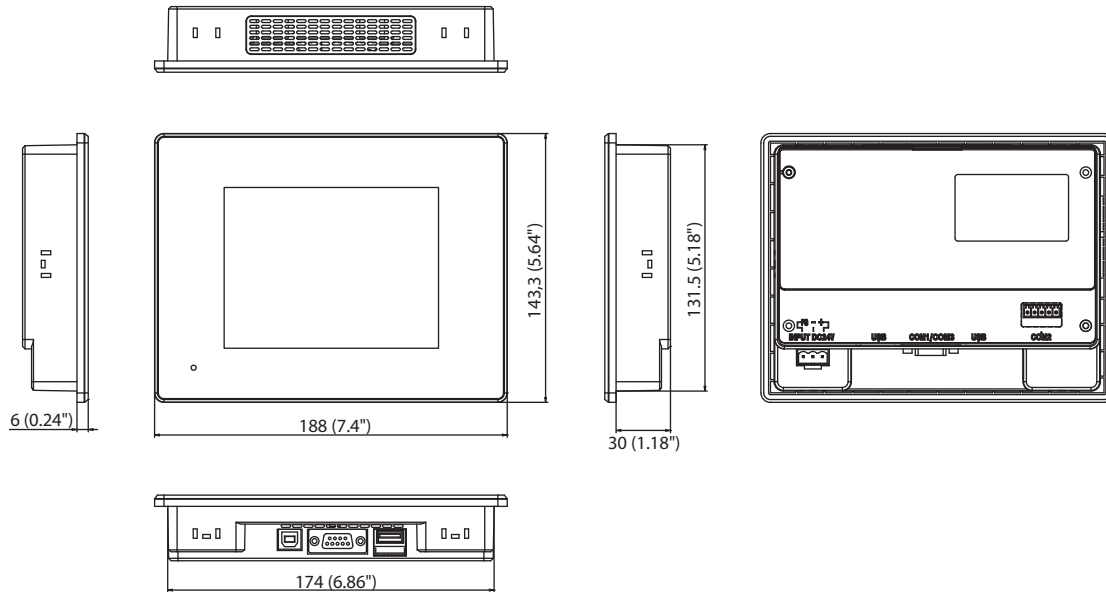
Panel Cut-out Dimensions: 175 x 132.5mm (6.89" x 5.21")

Accessories

- **CWOP-P2HFM-AD12E** PC to HMI program download cable, DB9/2m
- **CWOP-P2HAB-ADU2E** PC to HMI program download cable, USB/2m
- **PWR-247-BE** 63W DC 24V/2.62A Output Power Supply
- **1702002600** Power Cable US Plug 1.8 M
- **1702002605** Power Cable EU Plug 1.8 M
- **1702031801** Power Cable UK Plug 1.8 M
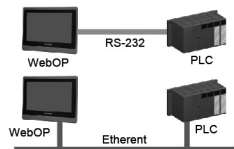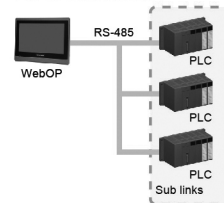- **1700000596** Power Cable China/Australia Plug 1.8 M

Rear View

COM2 (RS-422/485)

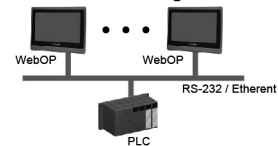USB Host   USB Client   Micro SD Slot

Power Input   COM1 (RS-232/422/485)

Communication Links

Direct Link

1-to-1 Connection

RS-232
WebOP   PLC

WebOP   Etherent   PLC

1-to-N Connection

RS-485
WebOP
PLC
PLC
PLC
Sub links

N-to-1 Data Sharing Connection

WebOP   WebOP
RS-232 / Etherent
PLC

In-Direct Link

2-to-1 Connection

WebOP   WebOP   PLC
Indirect link via   Direct link
2-to-1 connection   2-to-1 server

N-to-1 Connection

WebOP   WebOP   Indirect Link via N-to-1
Etherent   connection (Etherent)
N-to-1 master   Direct link
WebOP   PLC
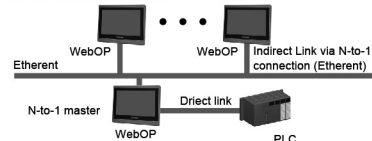
2-to-1 Transparent Connection

WebOP   WebOP   PLC
2-to-1 Transparent Server
PC   WebOP   PLC
2-to-1 Transparent Server