WebOP-3120T

12" XGA Operator Panel with ARM® Cortex™-A8 RISC Processor and Wide Operating Temperature

Features

- ARM® Cortex™-A8 32-bit, 600 MHz, RISC processor
- Available with a variety of LCD sizes (7/10.1/12")
- TFT LCD with 50K lifetime and LED backlight
- Embedded Microsoft® WinCE 6.0 OS
- Supports Advantech's WebOP Designer HMI Runtime development tool
- 128 KB (64 words) Backup memory FRAM without battery concerns
- Isolation protection for power and terminal I/O ports
- Wide operating temperature range -20 ~ 60 °C (-4 ~ 140 °F)
- Supports the CANopen library defined by the CiA 301 V4.02 specification
- RS-422, RS-485, CAN terminal I/O ports support terminating resistor value of 120Ω
- IP66-rated front panel
- Die cast aluminum alloy front bezel
- Level 4 ESD protection (Air: 15KV/Contact: 8KV)
- UL 508 certification for industrial control equipment

Introduction

The WebOP-3120T operator panel is powered by an ARM® Cortex™-A8 32-bit, 600 MHz, RISC processor that consumes minimal power without sacrificing performance and satisfies the stringent standards set for the automation market. Additionally, the WebOP-3120T system can be equipped with a variety of LCD sizes, ranging from 7 to 12", for diverse applications that involve PLCs, motion/thermal controllers, inverters, and sensors. Furthermore, the WebOP-3120T system supports a wide operating temperature range (-20 ~ 60 °C/-4 ~ 140 °F) to ensure reliable operation in harsh industrial environments.

Specifications

General

- **Certification** — CE, BSMI, CCC, UL 61010, FCC Class A
- **Dimensions (W x H x D)** — 311.8 x 238 x 54.5 mm (12.28 x 9.37 x 2.15 in)
- **Cutout Dimensions** — 302.5 x 228.5 mm (12.1 x 9.14 in)
- **OS Support** — Microsoft® Windows CE 6.0
- **Power Input** — 24 V_{DC} ±10%
- **Power Consumption** — 20 W
- **Enclosure Housing** — PC + ABS
- **Mounting** — Panel
- **Weight (Net)** — 2.5 kg (5.51 lb)

System Hardware

- **CPU** — ARM® Cortex™-A8 32-bit, 600 MHz, RISC processor
- **Backup Memory** — FRAM 1M bit (128 KB, 64 words)
- **Memory** — DDR2 256 MB
- **Storage** — 512MB on board SLC type
- **Power-On LED** — Yes

Communication Interface

- **COM1** — RS-232/RS-422,RS-485 (DB9), 300~115.2 kbps
- **COM2** — RS-422/RS-485 (Terminal 4 pin+Ground), 300~115.2 kbps
- **COM3** — RS-485 (Terminal 2 pin), 300~115.2 kbps
- **CAN** — Terminal 2 pin
- **Ethernet (RJ45)** — 10/100BASE-T
- **I/Os** — 1 x USB 2.0 (Client)
  1 x USB 2.0 (Host)
  1 x micro SD slot
  1 x Audio line out, 1 x mic in

LCD Display

- **Display Type** — XGA TFT LCD
- **Display Size** — 12"
- **Max. Resolution** — 1024 x 768
- **Max. Colors** — 64K

- **Luminance (cd/m²)** — 500
- **Viewing Angle (H/V)** — 160/140
- **Backlight Life** — LED, 50,000 hr
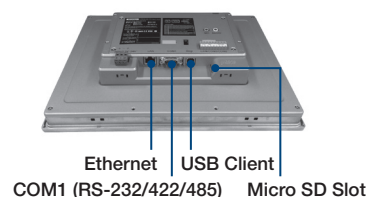- **Dimming** — Adjustable by touch panel
- **Contrast Ratio** — 500:1

Touchscreen

- **Lifespan** — 36 million touches of 8 mm in diameter through silicone rubber, with at least 250 g load, twice per second
- **Light** — Transmission above 80%
- **Resolution** — Linearity
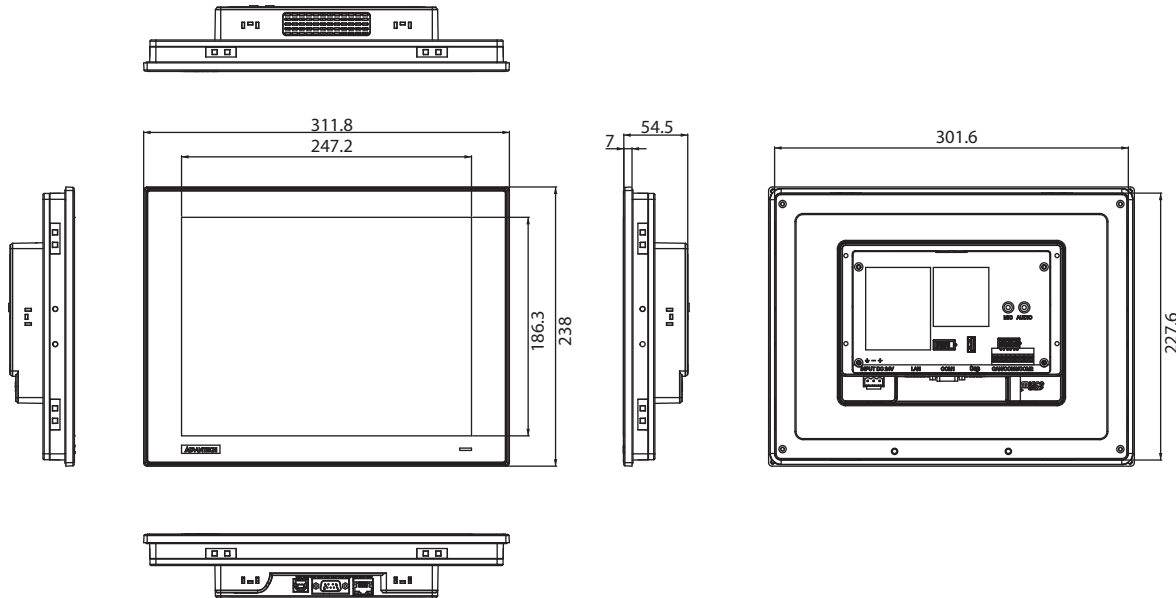- **Type** — 5-wire analog resistive

Environment

- **Operating Temperature** — -20 ~ 60 °C (-4 ~ 140 °F)
- **Storage Temperature** — -30 ~ 70 °C (-22 ~ 158 °F)
- **Humidity** — 10% ~ 90% RH @ 40 °C, non-condensing
- **Ingress Protection** — Front panel: IP66
- **Vibration Protection** — Operating, random vibration 1 Grms (5 ~ 500 Hz)

Base View

Ethernet | USB Client
COM1 (RS-232/422/485) | Micro SD Slot

Dimensions

Unit: mm

Panel Cutout Dimensions: 302.5 x 228.5 mm (12.1 x 9.14 in)

Ordering Information

- **WOP-3120T-C4AE** 12" XGA, Cortex™-A8, 256MB DDR, WinCE 6.0

Optional Accessories

- **PWR-247-BE** 63W DC 24V/2.62A Output Power Supply
- **WOP-3000T-WMKE** WOP-3000T Series Wallmount Kits
- **1702002600** Power Cable US Plug 1.8 M
- **1702002605** Power Cable EU Plug 1.8 M
- **1702031801** Power Cable UK Plug 1.8 M
- **1700000596-11** Power Cable China/Australia Plug 1.8 M

S/W Bundle Offering

- **WA-HT3120T-R15H001** WOP-3120T-C4AE, WebAccess/HMI Runtime 1500 tags, 512MB SD, WinCE6.0

Application Software

WebAccess/HMI	Advantech WebAccess/HMI is human-machine interface (HMI) software based on Microsoft's Windows operating system. This software features excellent communication and monitoring capabilities, supports more than 350 PLC communication protocols, and offers a wide choice of screen design objects to satisfy diverse integrations of factory automation and HMI operation and monitoring requirements.

Rear View

USB (Host) Audio mic in/line out

Isolated power input   Isolated terminal I/O ports

CAN/COM3/COM2

Isolated terminal I/O ports