

# WA-HT HMI Series

## 6.5"~21.5" TFT LCD Windows-based Thin Client Terminal with WebAccess/HMI Runtime

NEW



WebAccess/HMI



## Introduction

The WA-HT HMI standard series is a complete application-ready-package which includes a Thin Client Terminal with panel sizes from 6.5"~21.5" TFT LCD, 32GB CFast card, Microsoft Windows Embedded 7 Pro and WebAccess/HMI Runtime. This allows users to easily achieve efficient, integrated HMI solutions for flexible system integration in automation industries. The Thin Client Terminal with Intel® Atom™ or relevant processor providing computing performance in a compact fanless system for any field side operation.

The built-in Open HMI Runtime features a rich object library, online/offline simulation, and over 450 industrial protocols and drivers. It is dedicated to providing a wide range of HMI control and visualization for powerful, user-friendly and reliable solutions in most sophisticated applications.

### Ready-to-go Open HMI Solution Package enabling Industry 4.0 includes:

- Touch Panel Thin Client Terminal
- 32GB CFast card (Standard series) / 512 MB SD card (Lite series)
- Microsoft Windows embedded 7 Pro 64bit (Standard series) / WinCE 6.0 (Lite series)
- WebAccess/HMI Runtime 1500 tags

## Open HMI Solutions Specifications

### HMI Visualization for Process Information

- Wide panel size selection from 6.5" to 21.5"
- Multi-languages for HMI (up to 10 languages)
- Object library: includes default/common objects, objects groups and global objects
- HMI Designer: a powerful develop tool supports online/offline design simulation
- User-customized picture/sounds database

### Application-oriented HMI Design Function

- Data log: up to 16 datalog blocks (saved as csv/txt file)
- Operation log: operation history for process parameter inspection (saved as csv file)
- Alarm: up to 16 alarm blocks, e-mail notification (supports SSL/TSL encryption)
- Recipe: up to 16 Recipe blocks
- Schedule: up to 80 sets
- Event: up to 36 sets
- User-customized data process: Macros
- Security Authority: 9 levels password

### Communication with Multiple Systems

- Includes rich interfaces as RS-232/422/485, USB 3.0/2.0, Ethernet, Audio I/O
- Maximum Serial/Ethernet Links: 4-links (serial), 16-links (Ethernet)
- Supports 450 communication protocols and drivers for industrial devices
- Gateway service by Modbus for HMI devices communication
- Flexible I/O expansion by iDoor technology

## Features

### Open HMI Solution by Application-Ready-Package includes:

#### Thin Client Terminal

- Industrial 6.5"~21.5" TFT LCD Panel with 50K Lifetime LED backlight
- Durable 5-wire resistive / capacitive touch screen
- True-flat IP66 certified front panel protection
- 32GB industrial CFast card installed in standard series
- Microsoft Windows Embedded 7 Pro 64-bit installed in standard series
- Supports iDoor technology for diverse applications (optional accessory required)

#### WebAccess/HMI Runtime

- Includes HMI Runtime 1500 tags
- Supports 450 industrial communication protocol and drivers for PLC/devices
- Rich object library for easy application design
- Supports on-/off-line design simulation by the development tool

### Reliable Design for Field side Operation

- Backlight Life up to 50,000 hrs
- Touch screen passed 36 million touches test at single point
- True-flat touch screen designed with IP66 front protection
- Easy panel mounting installation
- Approved Certifications: BSMI, CCC, CE, FCC Class A, UL
- Wide operating temperature
- Vibration Protection With CFast: 2 Grms (5~500 Hz)



For more details of successful stories with Open HMI Solution and technical support documents, visit the Advantech website: <http://select.advantech.com/open-hmi-solutions>

## Configuration Options

Unit: mm

Series	Touch Panel HMI - Lite series		Touch Panel HMI - Standard series						
Ordering P/N	WA-HT3070T-R15H0AE	WA-HT3100T-R15H0AE	WA-HT651T-E15H1AE	WA-HT1051W-E15H1AE	WA-HT1251T-E15H1AE	WA-HT1551T-E15H1AE	WA-HT1751T-E15H1AE	WA-HT2140W-G15H1AE	
Thin Client Terminal	WOP-3070T-C4AE	WOP-3100T-C4AE	TPC-651T-6E3AE	TPC-1051WP-E3AE	TPC-1251T-E3AE	TPC-1551T-E3AE	TPC-1751T-E3AE	TPC-2140WP-T3AE	
Operating System	Microsoft WinCE 6.0		Microsoft Windows Embedded 7 Pro (64bit)						
HMI Software	WebAccess/HMI Runtime 1500 tags		WebAccess/HMI Runtime 1500 tags						
CPU	ARM® Cortex™-A8 600 MHz		Intel Atom E3827 1.75GHz						AMD G-series T56E 1.65GH
Memory	256MB DDR2		4GB DDR3L						
Aspect ratio	16 : 9		4 : 3	16 : 9	4 : 3	4 : 3	4 : 3	16 : 9	
Display (Size, Type)	7" WVGA TFT LCD	10.1" WVGA TFT LCD	6.5" VGA TFT LED LCD	10.1" WXGA TFT LED LCD	12.1" XGA TFT LED LCD	15" XGA TFT LED LCD	17" SXGA TFT LED LCD	21.5" Full HD TFT LED LCD	
Max. Resolution / Colors	800 x 480 / 64k	1024 x 600 / 64k	640 x 480 / 262k	1280 x 800 / 262k	1024 x 768 / 16.2 M	1024 x 768 / 16.7M	1280 x 1024 / 16.7M	1920 x 1080 / 16.7M	
Backlight MTBF(hrs)	50,000 hrs		50,000 hrs	25,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs	
Touchscreen	5-wire Resistive		5-wire Resistive	Projected capacitive	5-wire Resistive	5-wire Resistive	5-wire Resistive	Projected capacitive	
Storage	512M micro SD on board SLC type		32G CFast card x1						
Expansion Slots	micro SD x1		Full-size Mini PCIe x1						
Mounting	Panel		Desktop, Wall or Panel						
Network(LAN)	10/100 Base-T x 1		10/100/1000 Base-T x 2						
I/O	RS-232/422/485 x 1 (DB9) RS-422/485 x 1 (4 pin) RS-485 x 1 (2 pin) USB 2.0 x 1 (Client X1, Host x 1) Lin out x 1, Mic in x 1		RS-232 x 1 RS-232/422/485 x1 USB 3.0 x 1 USB 2.0 x 1	RS-232 x 1 RS-232/422/485 x1 USB 3.0 x 1 USB 2.0 x 1	RS-232 x 1 RS-232/422/485 x1 USB 3.0 x 1 USB 2.0 x 1	RS-232 x 1 RS-232/422/485 x1 USB 3.0 x 1 USB 2.0 x 1	RS-232 x 1 RS-232/422/485 x1 USB 3.0 x 1 USB 2.0 x 1	RS-232 x 3 RS-422/485 x1 USB 2.0 x 2 HDMI x 1 Mic in x 1, Line out x1	
iDoor Expansion (TPC-1251T-EHKE is required)*	N/A		iDoor x1 *						N/A
DC Power Input (Voltage)	24 V <sub>DC</sub> ± 10%		24V <sub>DC</sub> ± 20%						18 – 32 V <sub>DC</sub>
Power Consumption	7 W	9 W	19.2 W	36 W	45.6W	40.8W	43.2W	35 W	
Ingress Protection	Front Panel IP66		Front Panel IP66						
Operating Temperature	-20 ~ 60°C		-20 ~ 60°C	-20 ~ 55°C	-20 ~ 60°C	-20 ~ 60°C	-20 ~ 60°C	0 ~ 55°C	
Certification	CE, FCC, BSMI, CCC, UL		CE, FCC, BSMI, CCC, UL						

## Ordering Information

- WA-HT3070T-R15H0AE** WOP-3070T-C4AE, HMI Runtime 1500 tags, 512M SD, WinCE
- WA-HT3100T-R15H0AE** WOP-3100T-C4AE, HMI Runtime 1500 tags, 512M SD, WinCE
- WA-HT651T-E15H1AE** TPC-651T-6E3AE, HMI Runtime 1500 tags, 32G CFast, WES7P
- WA-HT1051W-E15H1AE** TPC-1051WP-E3AE, HMI Runtime 1500 tags, 32G CFast, WES7P
- WA-HT1251T-E15H1AE** TPC-1251T-E3AE, HMI Runtime 1500 tags, 32G CFast, WES7P
- WA-HT1551T-E15H1AE** TPC-1551T-E3AE, HMI Runtime 1500 tags, 32G CFast, WES7P
- WA-HT1751T-E15H1AE** TPC-1751T-E3AE, HMI Runtime 1500 tags, 32G CFast, WES7P
- WA-HT2140W-G15H1AE** TPC-2140WP-T3AE, HMI Runtime 1500 tags, 32G CFast, WES7P

## Accessories

- PWR-247-CE** 100-240V 60W 24V 2.5A Power Supply
- TPC-1251T-EHKE** HDD/SSD and iDoor extension kit for WA-HT651T/1051W/1251T/1551T/1751T
- 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

## Selected iDoor Modules

- PCM-24D2R2-AE** OXPcie-952 UART, Isolated RS-232, DB9 x 2
- PCM-24D2R4-AE** OXPcie-952 UART, Isolated RS-422/485, DB9 x 2
- PCM-24D4R2-AE** OXPcie-954 UART, Non-Isolated RS-232, DB37 x 1
- PCM-24D4R4-AE** OXPcie-954 UART, Non-Isolated RS-422/485, DB37 x 1
- PCM-27D24DI-AE** Isolated Digital I/O, 16DI/8DO, mPCIe, DB37 x 1
- PCM-27J3AU-AE** 3-Port Audio Stereo, mPCIe, 3.5 mm Jack
- PCM-24S2WF-AE** 802.11 a/b/g/n 2T2R w/ Bluetooth4.0, Half-size mPCIe
- PCM-24R1TP-AE** Intel® 82574L, GbE, RJ45 x 1