WA-HT HMI Series

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

NEW

WebAccess/HMI

intel Security Acronis **WISE-PaaS/RMM** iDoor R33138 CCC CE FCC c(UL)us LISTED

Features

Open HMI Application-Ready-Package with 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

Introduction

The WA-HT HMI series is a complete application-ready-package that includes a thin-client terminal with a 6.5 ~ 21.5" TFT LCD panel, 32 GB CFast card, Microsoft Windows Embedded 7 Pro, and WebAccess/HMI Runtime. This provides users with an efficient, integrated HMI solution for flexible system integration in the automation industry. The thin-client terminal equipped with an Intel® Atom™ processor provides a high-performance fanless, compact system for diverse field operations.

The built-in Open HMI Runtime software offers a rich object library, online/offline simulation, and over 450 industrial protocols and drivers. Open HMI Runtime is designed to enable a wide range of HMI control and visualization functions for creating powerful, user-friendly, reliable solutions for sophisticated applications.

Contents of the Open HMI Application-Ready-Package Solution for Industry 4.0

- Touch panel thin-client terminal
- 32 GB CFast card (standard series)/512 MB SD card (lite series)
- Microsoft Windows Embedded 7 Pro, 64 bit (standard series)/WinCE 6.0 (lite series)
- WebAccess/HMI Runtime 1500 tags

Open HMI Solution Specifications

HMI Visualization for Process Information

- Wide selection of panel sizes (6.5 ~ 21.5")
- Multiple 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 Functions

- 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

Reliable Design for Field Operations

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

For more Open HMI application stories and technical support documents, visit the Advantech website at http://select.advantech.com/open-hmi-solutions

Configuration Options

Series	Touch Panel HMI - Lite			Touch Panel HMI - Standard					
Part Number	WA-HT3070T-R15H0AE	WA-HT3100T-R15H0AE	WA-HT3120T-R15H001	WA-HT651T-E15H1AE	WA-HT1051W-E15H1AE	WA-HT1251T-E15H1AE	WA-HT1551T-E15H1AE	WA-HT1751T-E15H1AE	WA-HT2140W-G15H1AE
Thin-Client Terminal	WOP-3070T-C4BE	WOP-3100T-C4BE	WOP-3120T-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 (64 bit)					
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 1.65 GHz
Memory	256 MB DDR2			4 GB of 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	12" XGA 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	1024 x 768 / 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	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)			1 x 32G CFast card					
Expansion Slots	1 x Micro SD			1 x Full-size Mini PCIe					
Mounting	Panel			Desktop, wall, or panel					
Network (LAN)	1 x 10/100 Base-T			2 x 10/100/1000 Base-T					
I/O	1 x RS-232/422/485 (DB9), 1 x RS-422/485 (4 pin), 1 x RS-485 (2 pin), 1 x USB 2.0 (1 x Client X1, 1 x Host), 1 x Line Out, 1 x Mic In			1 x RS-232, 1 x RS-232/422/485, 1 x USB 3.0, 1 x USB 2.0	1 x RS-232, 1 x RS-232/422/485, 1 x USB 3.0, 1 x USB 2.0	1 x RS-232, 1 x RS-232/422/485, 1 x USB 3.0, 1 x USB 2.0	1 x RS-232, 1 x RS-232/422/485, 1 x USB 3.0, 1 x USB 2.0	1 x RS-232, 1 x RS-232/422/485, 1 x USB 3.0, 1 x USB 2.0	3 x RS-232, 1 x RS-422/485, 2 x USB 2.0, 1 x HDMI, 1 x Mic In, 1 x Line Out
iDoor Expansion (TPC-1251T-EHKE is required)*	N/A			1 x iDoor *					N/A
DC Power Input (Voltage)	24 V$_{DC}$ ± 10%			24 V$_{DC}$ ± 20%					18 ~ 32 V$_{DC}$
Power Consumption	7 W	9 W	20 W	19.2 W	36 W	45.6W	40.8W	43.2W	35 W
Ingress Protection	IP66-rated front panel			IP66-rated front panel					
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-C4BE, HMI Runtime 1500 tags, 512M SD, WinCE
- **WA-HT3100T-R15H0AE** WOP-3100T-C4BE, HMI Runtime 1500 tags, 512M SD, WinCE
- **WA-HT3120T-R15H001** WOP-3120T-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 Adapter
- **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/ Bluetooth 4.0, half-size mPCIe
- **PCM-24R1TP-AE** Intel® 82574L, GbE, RJ45 x 1