

# HMI-TPND0U-22SR-X00H

**21.5" HMI Panels with Rugged Stainless Steel Bezels  
High-Computing Intel® Core™ i7-4650U Processor**

## Features and Benefits

- Ruggedness, zero maintenance and fan-less HMI systems
- Field-replaceable units of modular touch displays and IPCs
- Rugged stainless steel bezels with compact aluminum housing
- Intel® Core™ i7-4650U CPU, DDR3L-1600 memory up to 16GB
- RAID 1 storage system with onboard RAID controller-SSD x 2
- Externally accessible dual SSD with tool-free installation
- Externally accessible one PCIe slot allows for easy expansion
- Electrical isolation protection on serial ports and DC power
- High temperature, vibration, shock and EMC resistance
- Supports Windows Embedded 7 or 8 operating systems
- UL listing and CB certificates, RoHS, FCC and CE compliant

## Introduction

AIS 21.5" Premium HMI Touch Panels and Modular Box PCs are equipped with high-performance processing power and speed with 64-bit operating systems, Intel® Core™ i7-4650U Processor, DDR3L-1600 memory up to 16GB, RAID 1 storage, IP66 stainless steel bezels and a rugged fan-less aluminum housing offering the most advanced features and capabilities. AIS touch panel HMI offers users a high degree of flexibility for interfaces and expansions. The ability to simply replace the box PC which houses the engine makes upgrading or expanding this AIS control and monitoring system extremely simple.

## Specifications

Display	
Size in inches / resolution in pixels	21.5" / FWXGA, 1920 x 1080
Brightness / luminance	250 nits / 250 cd/m <sup>2</sup>
MTBF of backlight	LED-backlight up to 100,000 hours in Eco mode
Touchscreen	Single-touch (resistive analog)
System Hardware	
Processor	Intel® Core™ i7-4650U Processor; 4M Cache up to 3.30 GHz, 15 W maximum TDP
Cores / speed	2 / 1.7 GHz
Memory / # of slots	From 8 GB DDR3L 1600 SDRAM, configurable up to 16 GB / 2 slots
Graphics / video	Intel HD graphics; DirectX 11.1, OpenCL /GL, and 4K videos Quick Sync encoder
RAID	RAID 1 system with onboard RAID controller
Drives	
Mass storage	1 x 180 GB SSD, configurable up to 2 x 180 GB SSD RAID1 preconfigured
Secondary storage	32GB m-SATA SSD
Optical drives	Connection via USB port

Interface ports	
Ethernet	2 x Ethernet TCP/IP - RJ45
USB	4 x USB 3.0
Serial	COM1: RS232/422/485; COM2: RS232, isolated
Graphic	1 x VGA; 1 x HDMI
Audio	1 x Line-in, 1 x Line-out
General features	
Operating system	Windows Embedded 7 32/64-bit ; Windows Embedded 8
Free expansion slot	1 x PCIe (4x)
Current supply	24 V DC; 9.6 to 28.8 V, isolated
Bezel / housing	Stainless steel / aluminum
Mounting options	Panel PC: Panel / wall mount Box PC: Wall / DIN rail mount
Packages / bundles	Packages with Wonderware InTouch, ready-to-use HMI software (optional)
Environment / ambient conditions	
Degree of protection / thermal	Front: IP66; Rear: IP20 / Fanless
Electromagnetic compatibility	CE, FCC A, EN 61000-6-4, EN 61000-6-3, CISPR22, RoHS
Vibration during operation	Tested according to DIN IEC 60068-2-64: 5 - 500 Hz: 1 Grms
Shock during operation	Tested according to DIN IEC 60068-2-27: 15 gn for 11 ms
Ambient temperature	0...50°C (32...122°F)
Relative humidity	30% to 95% at 40°C (no condensation)
Certifications / regulations	UL/cUL/IEC 61010-1, UL/cUL/IEC 62368-1, CB reports available for all models
Dimensions	
Operator panel / cut-out (W x H)	550.3 x 341.8 mm
Installation dimensions (W x H x D)	552.6 x 344.1 x 94.6 mm
Product weight (lb / kg)	
Contractual warranty	
Period	12 months

Unit: mm

