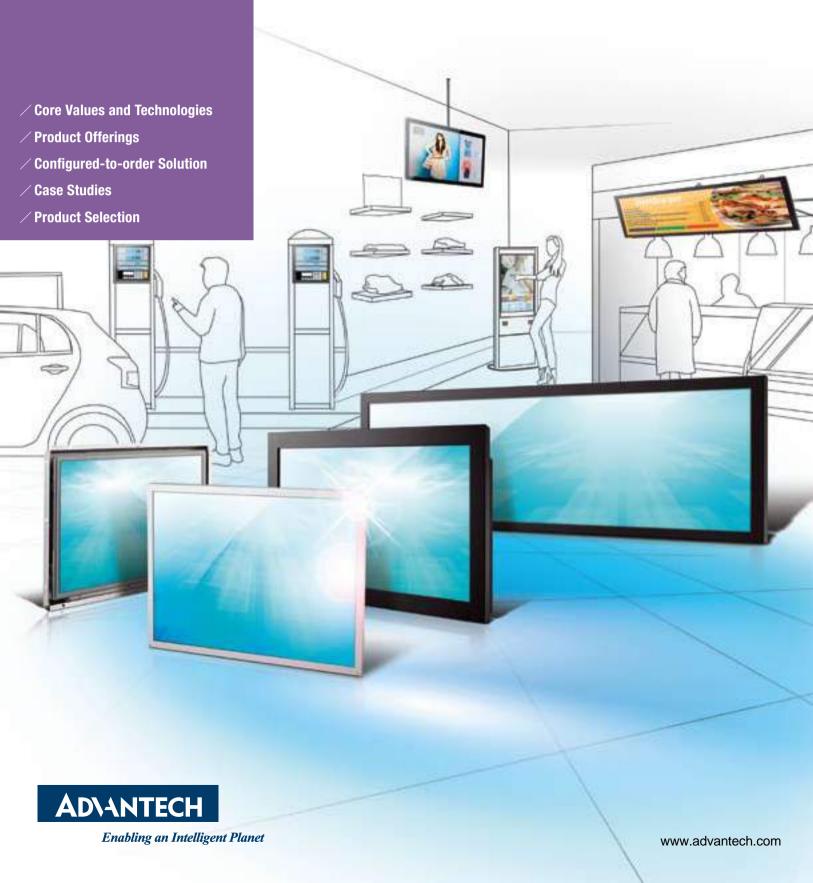
Advantech Display Systems

Differentiating Solutions for Every Application



Advantech Display Systems

Advantech designs, develops and manufactures in display systems that meet the demands of industrial display markets in transportation, medical, and many system integration markets globally. Combining proven technologies and flexible manufacturing, Advantech creates class leading solutions for your customers that deliver significant product differentiation and competitive advantage. Our customer-centric approach reinforces all of our activities and in an essential part of the thousands of products we ship daily. Advantech breathes new life into your next design with our award winning display systems.

Core Competency and Leading Technologies

Advantech provides comprehensive display products and systems through the integration of its broad technology base. This technology is brought together in our 10,000 clean room facilities for consistent class leading quality whether in standard, semi-custom or full custom systems.



Class 10,000



Value-added Services



Professional Engineers



Assured Quality

Optical Technology •

- High Brightness up to 2,000nit
- Thermal Design
- Anti-reflective coating: <1% reflection
- Privacy and Polarising Filters



Optical Bonding



Sunlight Readable



High Brightness

Mechanical Design •

- · Aluminium, Steel and Stainless Chassis
- Open, Closed Frame, Panel mount and Proflat designs
- · Panel cutting for panoramic and stretch format display
- Optional IP54/IP65 solution



IP54/IP65

Industrial Display Systems with integrated chassis and Video card

Industrial Open Frame Monitors



IDS-3000 Series

- 6.5"~21.5" size options
- DVI/VGA interface
- Open/Closed frame options
- Rear/VESA mounting

Digital Signage and Stretched Monitors



DSD-5000 Series

- 28"(16:3), 38"(16:4.5) size options
- DVI/VGA interface
- Wall mount

Proflat – professional series



IDP31 Professional Series

- 10.4" and 21.5" Wide
- 100% flush front contemporary style
- · Black or white colour options
- Multi-touch PCT

Configured to order Monitors

IDS-31 Series

- built-to-order from 6.5" to 65"
- Open and closed frame chassis
- · Choice of touch input including multi-touch
- · optional network management -m2talk
- VGA/DVI/HDMI/DP options



Industrial Display Kits

Standard Brightness



IDK-1000 Series

- 5.7"~21.5" options
- Outdoor applications
- LVDS signal interface



Sunlight Readable

IDK-2000 Series

- 8.4"~21.5"size options
- Outdoor applications
- LVDS signal interface

Industrial Display Modules

- 5.7"~65" size options
- MTBF: 50K/hr
- Viewing Angel: TN / MVA / IPS
- Operating temperature : -30~85° C
- · LVDS signal interface

4:3 Aspect Ratio



Wide Aspect Ratio



Industrial Display Systems

IDS-3000 Series

Advantech Ultra Slim Monitor includes Open Frame series -IDS-3100 Series and Panel Mount series -IDS-3200 series, provides 6.5"~21.5" industrial grade monitors with ultra slim and light design. The open front bezel architecture enables flexible and customized face plates for easy re-engineering and is ideal for any embedded applications. The panel mount design saves customer's design effort for front frame. The integrated brackets on the chassis edges make installation easier and more efficient.

Product Portfolio

IDS-3100 Series Slim Open Frame Monitors



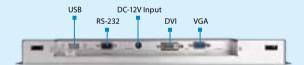
- 6.5"~21.5" wide size options
- Dual VGA/DVI Interface
- Integrated bracket
- Optional touchscreen: P-cap, resistive, non-touch
- Rear/VESA mount support

IDS-3200 Series Panel Mount Monitors



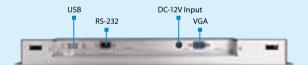
- 6.5"~21.5" wide size options
- Dual VGA/DVI Interface
- Rugged metal front frame
- Optional touchscreen: P-cap, resistive, non-touch
- Front/VESA mount support

Standard Version



- DVI/VGA signal interface
- -20~60°C wide operating temperature
- Combo touch interface of USB and RS232

Economical Version



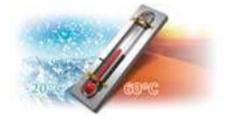
- VGA signal interface
- 0~45°C wide operating temperature
- Combo touch interface of USB and RS232

Key Features



Slim and Light Design

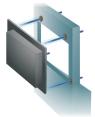
Saving 20% installation space



Wide Operating Temperature

-20~60 wide temperature support





Flexible Mounting support

Rear/Panel/VESA(75x75&100x100 mm) mounting support

Ultra Slim Modular Panel PC for Medical Device

Surface area and pore size distribution analyzers offer a complete solution for characterizing the surface of solid materials and utilizing the well-established gas adsorption technique to measure the surface area and porosity of solids. They are widely used in the medical field and provide single and multi-point surface area analysis, and multi-gas and full adsorption capability.



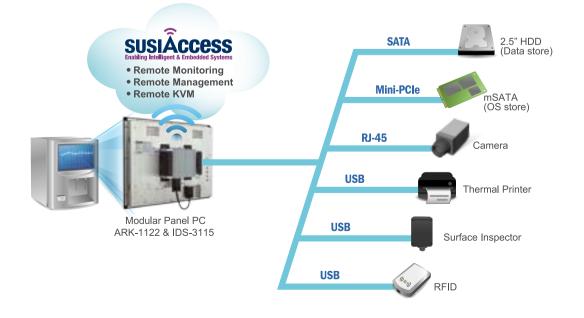
Application Requirement

A surface area and pore size distribution analyzer needs to be a complete solution for reliable long term use. It needs to have a high MTBF and longevity support to ensure a long product life time, and an interactive interface is necessary to provide accurate control and ease of operation. And lastly, an embedded fanless system with an integrated display assembled in a compact chassis is needed for rock-solid installation and space saving.

System Solutions

Advantech provided this customer with an ultra slim modular panel PC solution which included ARK-1122, a slim, and energy-saving embedded fanless system and IDS-3115, a 15" open frame touch monitor powered with an Intel Atom N2600 processor. The 15" XGA modular panel PC features a 5-wire resistive touch screen which enables reliable operation, and assured durability of 10 million touches. This combination fulfilled both computing and display needs and allowed the customer to build their system with flexibility in mind. Coming with an integrated kit, tailor-made cables, and VESA mounting bracket, the customer could easily integrate our solution into their application with a highly efficient cabling arrangement. Moreover, the modular panel PC is 30 mm thinner than the average panel and is therefore highly suitable for installation and space saving.

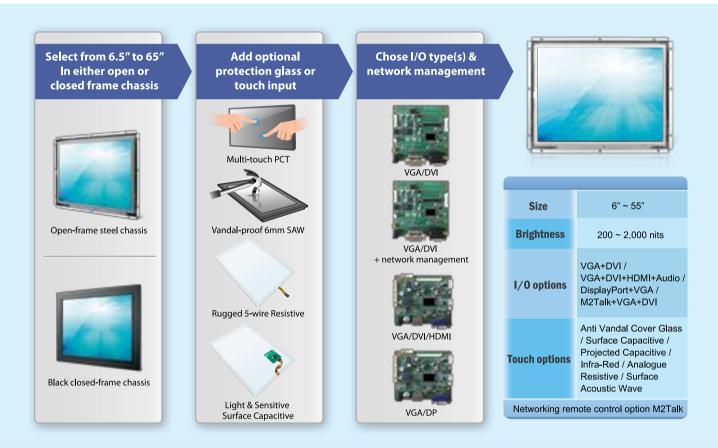
- Off the shelf modularized panel PC solution, for easy and reliable implementation
- Open frame architecture for customized face plate
- 5-wire resistive touch solution to provide quicker touch response
- Ready-to-use software platform to remote manage devices in a simple yet powerful way



Configurable Industrial Monitors

IDS31 Series

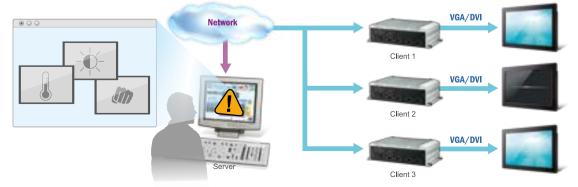
Advantech IDS31 series is a fully configurable display solution available in a range of screen sizes and enabling you to specify different touch technologies and user options from high brightness to video inputs, including DisplayPort. Choose from a variety of compact mechanical constructions for complete flexibility in product design. High quality industrial grade components ensure durability and meet the demands of the industrial market, supported by 100% product burn-in and the service back up of the global Advantech corporation



M2Talk Intelligent Management Solution

Advantech has developed intelligent display remote control and diagnostic system that enhances product lifetime and decreases service costs without the need for additional wiring.

It contains optional network management embedded in each monitor, which allowing remote control (backlight, on/off, etc.) and diagnostics (temp, shock, power, etc.) across the existing video link.



Vending Application Gets Perfect Fit from Configured Display Solution

Like many products that need to integrate into their environment, in-store vending requires a maximum display area that can be optimised to meet the available space. In developing a new automated vending solution the client needed to meet several different mechanical sizes with consistent drive, control and other engineering features for easy implementation.



Requirement

In order to perfectly present the product images, high resolution and wide viewing angle for maximizing audience impact are the crucial issues for a vending machine application. Additionally, the flexibility for VGA/DVI/HDMI option, and the compatibility with embedded computing platform are also emphasized by industrial customer's requirement. Furthermore, low profile appearance with different sizes open frame solution creates incentive to operate by consumers, which generates rapid production ramp-up.

Solutions

Advantech deployed three different size monitors for this application enabling the customer to sell its vending product to the widest variety of retailers including corner shops, convenience stores and supermarkets. IDS31-270, IDS31-29 and IDS31-185 implemented in a paired configuration exceeded the mechanical and optical requirements, optimising the limited space that was available in the various formats. The units all had a VGA/DVI input and a common 12V DC power supply. The integrated VESA standard scalar A/D card meant no further software development was required for common imaging.

- Integrated high quality A/D card with VGA/DVI/HDMI and FHD capability
- 0~60°C wide operating temperature
- 80°/80°/85°/85° viewing angle
- Trouble free Long service life
- 100% burn-in before delivery
- Rapid delivery using pre-configured options



Ultra Thin Contemporary Monitors

IDP31-ProFlat™

Advantech Proflat™ series of professional monitors responds to a demand for contemporary styling in demanding applications such as public signage, front of house information, medical and point-of-sale. The slim line monitors feature a flat, easy to clean and maintain glass surface that ensures product longevity. They can be used in either portrait or landscape mode and are cleverly designed so that no additional mechanical parts other than a VESA mount are needed to create a display system. The use of a metal chassis provides a rugged and stable platform to build solutions for the widest range of applications. Optional multi-touch and the choice of either black or white finishes enables further product differentiation.

Product Portfolio



IDP31-104

- 10.4" screen size, 60°/60°/55°/55° viewing angle
- VGA/DVI/HDMI/Audio signal interface
- 0~60°C wide operating temperature
- 2mm multi-touch PCT touchscreen option
- 230 cd/m2 high brightness solution, 500:1 contrast
- 800 x 600 high resolution



IDP31-215

- 21.5" widescreen size, 80°/80°/85°/85° viewing angle
- VGA/DVI/HDMI/Audio signal interface
- 0~60°C wide operating temperature
- 2mm Multi-touch PCT touchscreen option
- 300 cd/m2 high brightness solution, 1000:1 contrast
- 1920 x 1080 ultra high resolution

Key Features



Contemporary Style

True flat surface and rounded edges, no need for additional enclosures



Multi-Touch Options

PCT multi-touch in 2 to 10 point options



Integrated Audio System

Built-in audio and speakers



Flexible Viewing Usage

Wide view-angle for both portrait and landscape mode

100% Flat Fronted Industrial Monitors for Retail POS & Digital Advertising

Digital advertising and point-of-sales displays are widely used in the retail industry as a specialised form of sales promotion. They are intended to raise brand awareness, engage with customers and draw their attention to new arrivals, special offers and promoted events. Due to their accessibility and the potential to deliver a round the clock service to a large audience, there are an increasing numbers of customers looking to provide products and services through digital advertising and POS displays.



Application Requirements

An important aspect of this POS display was that it seamlessly integrated into and complemented the retail space, creating a unique visual promotion of the brand. The display had to operate 24/7; thus maintenance and durability issues were critical in order to maximise uptime. In addition, the display needed a wide viewing angle so it could be easily seen from different locations to have maximum impact, so a flexible solution was a necessity. Last but not least, a sleek enclosure without any brand logo was also required.

Solutions

Advantech IDS31-104 and IDS31-215 ProFlat monitors were used to create the POS displays. With its slim line profile, smooth rounded corners and a 100% flat glass front the IDS31-ProFlat created a contemporary and user-friendly product that matched the customer's specific needs. To differentiate the product a white finish was added and a non-branded chassis ensured the display was a coherent part of the in-store design. A high brightness display offering superb clarity and wide viewing angles ensured the images could be seen from different areas of the store, driving audience engagement. The customer also required a long service life to ensure the display was durable enough to operate during and outside store opening hours. Finally, IDS31-ProFlat worked perfectly in both portrait and landscape modes, offering excellent user preference and viewing solutions to customers.

- 0~60°C operating temperature supports semi-outdoor and outdoor applications
- 80°/80°/85° wide viewing angle for audience engagement
- 100% flat fronted touch and non-touch industrial grade monitors, offering contemporary presentation
- Non-brand product to allow differentiation



Digital Signage Displays

DSD Series

Advantech Digital Signage Display series is designed especially for digital signage applications. Our large-format, professional displays are not only attractive, but rugged enough to withstand the constant interactivity inherent in public access venues. Moreover, our digital signage displays can be easily integrated with Advantech ARK-DS series, providing a total solution for digital signage applications. Built to meet all the professional applications, Advantech Digital Signage Displays offer a longer life and a richer digital signage experience.

Product Portfolio



DSD-3000 Series

Large Format Signage Displays

- 32", 42", 55" LCD size options
- Optical multi-touch option(Win7 & Win8)
- Wall mount solution (200 x 200 mm, 400 x 200 mm)
- Full HD 1080P high resolution
- · Fanless design



DSD-5000 Series

Ultra Widescreen Signage Displays

- 28"(16:3) and 38"(16:4.5) size options
- Perfect for space limited applications
- High resolution and high brightness
- Wall mount solution (200 x 100 mm)
- Fanless design

Recommended Digital Signage Players



DS-060Ultra Slim Digital Signage Player



DS-570

Graphic Enhanced Digital Signage Player



DS-762

Multi-display Digital Signage Player

Key Features



Easy Installation

Supports wall mount solution



Vertical Image Capability

Supports horizontal/vertical installation



Better Image and Low Power(DSD-5000)

Compared to LED displays, DSD-5000 delivers better resolution and requires 50% less power.

Dynamic Dining Experience with Ultra Wide Displays

There are many sea view restaurants near the San Francisco Bay area which offer a contemporary west coast dining experience. Our customer was looking for displays which could be used to feature video of San Francisco Bay. The view captured in the video is the same view of the restaurant customers see outside the restaurant. The installation is unique in that it takes a day-long time-lapse and then slices it up into multiple slices, compressing the video into a kind of landscape puzzle. Restaurant customers can witness all the activity that happens daily on the bay, but it's mixed and compressed so it forces a more conscious consideration of what you're viewing—perfect for a dynamic dining experience.



Application Requirements

Because the display need to show super wide panoramic images of the landscape, the aspect ratio also needed to be super wide. Moreover, it needed to be high resolution enough to deliver stunning sea views in order to offer the best viewing experience from any angle. What's more, the light-weight and slim design was able to display both portrait and horizontal modes.

System Solutions

Advantech DSD-5028 perfectly met the customer's need. The monitor is designed with a 16:3 aspect ratio which can easily display the panoramic seascapes captured outside the restaurant. DSD-5028 supports Extended Display Identification Data (EDID) which scales Full HD content to fit into 1920 x 358 resolution automatically without distortion. The outstanding slim and light design also benefited the customer with efficient space saving and installation. The DSD-5028 offers a high brightness of 700nits and a wide view angle of $176^{\circ}(H) / 176^{\circ}(V)$ which together guarantees excellent visibility under semi-outdoor environments from any direction. Its multi-signal interface of VGA and DVI and wall mounting support provided the customer with easy installation and integration with additional box PCs.

- Slim and light design with ultra-wide ratio, suitable for limited spaces
- High brightness of 700 nits for semioutdoor application
- Wall mounting design for easy installation
- Plug and Play solution with dual signal interface of VGA and DVI and 24V power input



Industrial Display Kit

IDK Series

The Advantech industrial display kit series provides 5.7~21.5" industrial grade LCD panels, which are developed specially to work with all Advantech embedded boards. To better serve our customers, Advantech provides two product offerings including IDK-1000 and the ultra-high brightness IDK-2000 series to fulfill different application needs. Advantech also provides flexible customization services as follows: optical enhancement solutions, and LVDS cable customization, as well as on-demand technical support and panel repair services.

Product Portfolio



- 5.7~21.5" options
- 200~450 nits brightness
- Resistive / Projected Capacitive Touch solutions
- · LVDS signal interface



IDK-2000 series **Outdoor High Bright Display Kit**

- 8.4~21.5" options
- 1200 nits ultra-high brightness
- Resistive / Projected Capacitive Touch solutions
- Optional auto-dimming function
- · LVDS signal interface

100% Compatible with Embedded Board

Advantech provides helpful tools for System Integrators to choose seamless display solutions with Advantech embedded boards. A smart selection wizard "Build Your Display". http://www.advantech.com/buildyourdisplay

Consolidated LVDS Cable Design

- Support 18~48bits LVDS and backlight
- · Customizable cable length

VBIOS – Ready Setting

- Compatibility testing
- VBIOS customization

Touch Driver Support

- Driver support for various OS Windows, WinCE, and Linux
- Support USB and RS-232 touch interface

Value-added Solutions



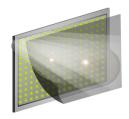
Smart Auto-Dimming

With a auto-sensor on the LED backlight, IDK-2000 can automatically adjust its brightness to ambient light saving energy up to 50%.



Edge to Edge Touch Solutions

Advantech provide edge to edge solutions both on p-cap and resistive touch screens with surface features such as logo printings, grooves, sliders, and indents.



Flexible Optical Enhancement

- · Anti-reflection, anti-glare, anti-finger, anti-IR coating glass and film lamination
- · Optical bonding for harsh environments
- Toughened glass for protection

Outdoor Self-service Bicycle Rental System

In order to push energy efficiency and carbon reduction, more and more governments in different countries have built automatic bicycle rental systems and been encouraging its citizens to use non-polluting bicycles for short journeys. As the bicycle rental systems are operated in outdoor environment and 24/7 non-stop, the system would have to be rugged, reliable, accurate and enduring. Advantech IDK-2108 ultra-high brightness panel and MIO-2261 ultra-compact robust single board computer are chosen as part of the solution.



Application Requirements

Several self-service bicycle rental stations needed to be installed in busy outdoor locations which would be exposed directly to sunlight. Therefore, clear visibility under strong sunlight was an essential priority. The stations also had to be able to resist fluctuating temperatures, sometimes extreme, with performance and stability unaffected.

Solutions

To solve sunlight readability issues, Advantech selected the IDK-2110, a 10.4" 1200-nit, high-brightness, industrial display kit able to withstand outdoor environmental conditions The LCD kit solution gave the customer complete flexibility in integrating the device, and let them focus more on their system design. The IDK-2110's wide temperature operation of -20° C \sim 70° C and its low power consumption feature of just 7.1watt made the device ideal for any location. Besides, Advantech also sealed a customized edge-to-edge projected capacitive touch screen by optical bounding on IDK-2110. Even though it operates in harsh outdoor environments for long periods, the content of the panel still can be seen clearly. IDK-2110 works perfectly with Advantech's wide temperature single board computer MIO-2261. With compatible LVDS and backlight cables, Advantech provides System Integrators with a highly integrated display solution, and a foundation for efficient development.

- Wide temperature support: -20° C to 70° C
- 1200 nits ultra-high brightness to enhance readability in sunlight
- Sealed edge-to-edge projected capacitive touch screens on panels by optical bounding
- Protection from moisture, dust and also enhance the transparency.
- Integrated solution with MIO-2261, plus LVDS and backlight cables
- Longevity and 2-year standard warranty support



Industrial Display Modules

More and more different types of panels are offered in the industrial field. However, most of them are not suitable and are quickly phased out. Advantech provides panels specially designed for specific fields such as HMI applications, Kiosk, ATM, POS, etc. These panels are also designed for Advantech products which have undergone DQA/QA testing internally. Moreover, the mechanical specs of our Industrial Display Modules are designed for easier integration. For example, the touch solution can be bonded on the surface of Industrial Display Modules with optical bonding. For outdoor applications, they can also have customized light enhancements of over 1000 nits, or have anti-reflection solutions.

Features

- Size options from 5.7"~65"
- · Industrial grade panel
- MTBF is 50K/hr
- Wide range operating temperature with -30~85° C
- 3 years longevity support





Benefits



2-year Extended Warranty

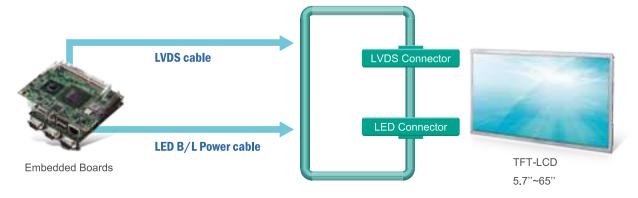


Global RMA Service



Panel Repair Service

Cables Available for Advantech Embedded Boards Integration



Product Selection Guide

	Diagonal Size	5.7"	6.5"	7"	8.4"	10.4"	12.1"	15.0"	15.6"	17"	17.3"		
Feature		Small size 4:3 ratio, high resolution				Industrial grade 4:3 and wide format							
Product Range	Open Frame Monitor : IDS-3100 series		Υ	Y	Υ	Υ	Υ	Υ	Υ	Υ	Υ		
	Panel Mount Monitor : IDS-3200 series		Υ			Υ	Υ	Υ		Υ			
	Closed/Open Frame Configured Monitor : IDS31 series		Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ		
	Proflat Monitor : IDP31 series					Υ							
	Digital Signage Display : DSD-3000 series												
	Ultra Widescreen Signal Display : DSD-5000 series												
	Display Kit LVDS : IDK-1000 series	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ		
Brightness	High Brightness Display Kit : IDK-2000 series			Υ	Υ	Υ	Υ	Υ		Υ			
	Regular Brightness	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ		
Touch	Analogue Resistive Touch					Υ	Υ	Υ		Υ			
	Surface Acoustic Wave			Υ		Υ	Υ	Υ		Υ			
	Surface Capactive	Υ	Υ	Υ		Υ	Υ	Υ	Υ	Υ	Υ		
	Muti-touch PCT	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ		
Others	Anti-reflective Cover Glass	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ		
	Outline Dimension(mm)		Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ		
	Wide Temperature			Υ		Υ	Υ	Υ		Υ			

	Diagonal Size	18.5"W	19"	21.5"	19"P	24"	27"	28"P	32"	38"P	42"	55"
Feature		Industrial grade 4:3 and wide format		Stretched format	Large Size		Stretched format	Large Size	Stretched format	Large Size	Large Size	
Product Range	Open Frame Monitor : IDS-3100 series	Υ	Υ	Υ								
	Panel Mount Monitor : IDS-3200 series		Υ									
	Closed/Open Frame Configured Monitor : IDS31 series	Υ	Υ	Υ	Υ	Υ	Υ		Υ		Υ	Υ
	Proflat Monitor : IDP31 series		Υ									
	Digital Signage Display : DSD-3000 series								Υ		Υ	Υ
	Ultra Widescreen Signal Display : DSD-5000 series							Y		Υ		
	Display Kit LVDS : IDK-1000 series	Υ	Υ	Υ	Υ			Υ				
Brightness	High Brightness Display Kit : IDK-2000 series		Υ	Υ				Y		Υ		
	Regular Brightness	Υ	Υ	Υ	Υ	Υ	Υ		Υ		Υ	Υ
Touch	Analogue Resistive Touch	Υ	Υ	Υ								
	Surface Acoustic Wave		Υ	Υ								
	Surface Capactive		Υ	Υ	Υ							
	Muti-touch PCT	Υ	Υ	Υ	Υ			Y	Υ	Υ	Υ	
Others	Anti-reflective Cover Glass	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ
	Outline Dimension(mm)	Υ	Υ	Υ	Υ	Υ	Υ	Y	Υ	Υ	Υ	Υ
	Wide Temperature		Υ									

Advantech Global Services and Support



Industrial grade products at competitive cost



Strict revision control and design reliability



Global logistics and RMA services with local support



Product longevity up to 3-5 years and superior warranty/service options



Customized embedded OS and BIOS services



Partnership with multiple software companies

Regional Service & Customization Centers

China Kunshan 86-512-5777-5666 **Taiwan** 886-2-2792-7818 **Netherlands** Eindhoven 31-40-267-7000

Poland Warsaw 48-22-33-23-740 / 41 **USA/** Canada Milpitas, CA 1-408-519-3898

Worldwide Offices

Greater China

China

Beijing Shanghai 86-10-6298-4346 86-21-3632-1616 86-755-8212-4222 86-28-8545-0198 Chengdu Hong Kong 852-2720-5118

Taiwan

Neihu Xindian Taichung Kaohsiung 0800-777-111 886-2-2792-7818 886-2-2218-4567 886-4-2378-6250 886-7-229-3600

Asia Pacific

Tokyo Osaka 81-3-6802-1021 81-6-6267-1887

82-2-3663-9494

65-6442-1000

62-21-7511939

Korea

Toll Free Seoul

Singapore

Singapore

Malaysia

Toll Free Kuala Lumpur 1800-88-1809 60-3-7725-4188 60-4-537-<u>918</u>8 Penang

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91-20-3948-2075 91-80-2545-0<u>206</u> Pune Bangalore

Australia

Toll Free Melbourne 61-3-9797-0100 Sydney

Europe

Germany

49-89-12599-0 Hilden / D'dorf 49-2103-97-885-0

France

33-1-4119-4666 **Paris**

Italy Milano 39-02-9544-961

Benelux & Nordics

Breda 31-76-5233-100

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44-0118-929-4540 44-0208-836-9730 Reading London

Poland Warsaw

48-22-33-23-740 / 41

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7-495-644-0364 7-812-332-5727 St. Petersburg

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1-513-742-8895 Cincinnati Milpitas 1-408-519-3898 1-949-420-2500

Toll Free Saude-São Paulo 0800-770-5355 55-11-5592-5355

Mexico

Mexico City 52-55-6275-2777



Enabling an Intelligent Planet

www.advantech.com

e verify specifications before ordering. This guide is intended for reference purposes only.

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