

# IOVU-751R

## MIPS-based Panel PC



MPEG1 MPEG2  
MPEG4 WMV9



Traditionally, Power over Ethernet (PoE) technology has been used to power low voltage devices such as wireless LAN Access Points, Voice over IP phones and IP-based cameras. However, the IOVU-751R is a 7" touch screen panel PC powered by Ethernet and with enhanced built-in hardware multimedia acceleration engine (MAE) to support MPEG1/2/4, DivX, and WMV9 in full D1 resolution. The power requirement is less than 13 W, and falls within the power specified in the IEEE 802.3af PoE industry standard.



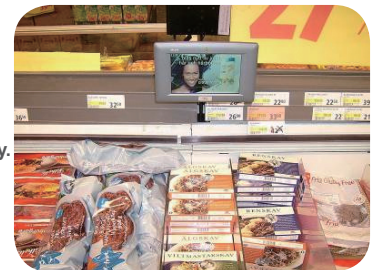
MPEG1 MPEG2  
MPEG4 WMV9



## Applications

The IOVU-751R is a rugged, compact device that has low power consumption and is designed without failure-prone hard disks and fans; moreover, its high-performance multimedia support is a solution for diverse range of applications :

- > POE supports Ethernet transmission for updating advertisement and doesn't need additional power supply.
- > Compliant with varied digital video media including MPEG1, 2, 4, DivX, and WMV9.
- > Internal speakers and fan-less feature for great audio presentation.



### Home / Building Automation

- Update the latest information by Ethernet like cookbook, entertainment program...etc.
- Power meter, lighting control, and home-safety.



### Slim POS

- PoE supports Ethernet service and power supply function directly.
- Easy to integrate optional barcode reader, magnetic card reader, and customer display.

### Thin/Client

- Provide the service information to all passengers.
- Varied movies, games, and chat room for all passengers.



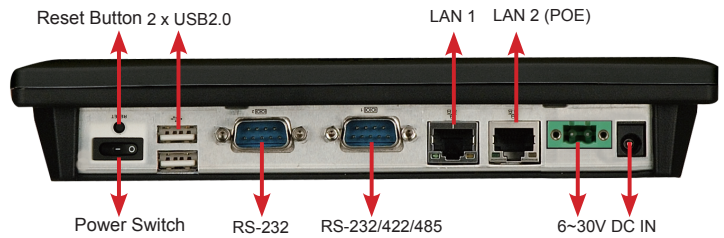
### Digital Signage & Game Device

- Update advertisement programs by Ethernet and support multimedia functions.
- Access games, sport training programs and internet service. Users don't need an individual coach anymore.



## Features:

- Processor includes MAE (Media Acceleration Engine) supports MPEG 1/2/4 and WMV9
- RISC-based processor provides high performance and extremely low power consumption
- POE (Power over Ethernet) function
- 7" widescreen WVGA TFT LCD with resistive touch screen
- Compact design with plastic housing
- Fanless system
- Built-in 1.5W speakers
- Secure Digital card slot for storage extension
- IP64 compliant front panel



## IOVU-751R Specifications

<b>Model</b>	IOVU-751R
<b>LCD Size</b>	7"
<b>Max. Resolution</b>	800 x 480
<b>Brightness (cd/m2)</b>	400
<b>LCD Color</b>	262K
<b>Pixel Pitch (mm)</b>	0.0635 (H) x 0.1905 (V)
<b>Backlight MTBF</b>	50000 hrs
<b>Touch Screen</b>	Resistive Type 4-wire
<b>CPU</b>	Alchemy™ Au1250™ 500 MHz
<b>RAM</b>	256 MB DDR2
<b>Bootloader Storage</b>	2 MB boot ROM
<b>OS/Program Storage</b>	1 GB Secure Digital card
<b>I/O Ports and Switches</b>	1 x RS-232 COM port
	1 x RS-232/422/485 COM port (Software Controllable)
	1 x Reset button
	1 x On/Off power switch
	2 x 10/100Mbps LAN (one supports POE)
	2 x USB2.0 host

<b>Audio</b>	1.5W speaker x 2
<b>Construction Material</b>	ABS + PC Plastic
<b>LED Function</b>	1 x Power ON/OFF LED on front panel
<b>Mounting</b>	Panel, Wall, Stand, Vstand and Arm (VESA 75 x 75)
<b>Front Panel Color</b>	Gray 7C
<b>Dimensions (W x H x D mm)</b>	226 x 140 x 40
<b>Operating Temperature (°C)</b>	-20 ~ 60
<b>Storage Temperature (°C)</b>	-20 ~ 80
<b>Net Weight (kg)</b>	0.8
<b>IP Level (front panel)</b>	IP 64
<b>Power Requirement</b>	6~30 V DC
<b>Power Consumption</b>	8.5 W

## Packing List

- 1 x IOVU-751R
- 1 x Utility CD includes application tools, SDK, and technical document.
- 1 x Null modem cable
- 1 x Touch pen
- 1 x Screw kit

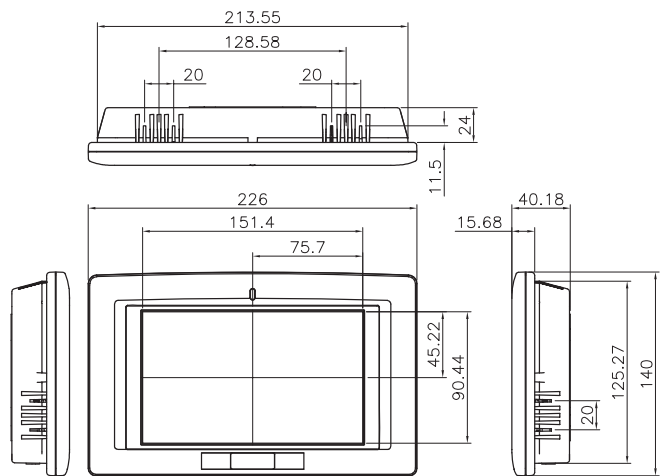
## Ordering Information

Part No.	Description
IOVU-751R-CE5/-R10	7", WVGA fan-less touch panel PC with RMI Alchemy AU1250 CPU, 256MB DDR2 SDRAM, LAN supports POE function and built-in Windows® CE5.0 Operating System
IOVU-751R-UX/-R10	7", WVGA fan-less touch panel PC with RMI Alchemy AU1250 CPU, 256MB DDR2 SDRAM, LAN supports POE function and built-in ARM-Linux 2.6.18 Operating System

## Options

Part No.	Description
AFLPK-08	Panel mount kit
AFLWK-07	VESA 75 wall mount kit
ARM-11-RS	LCD Monitor/PPC Arm kit loading capacity from 3kg~7kg
STAND-A08-RS	LCD Monitor/PPC Stand kit for VESA 75 and support up to 5 Kg
VSTAND-A07	LCD Monitor/PPC STAND V type for VESA 75, 0~90 degree adjustable hinge and support up to 2.5 Kg
AFLP-12BMSR-U	USB Magnetic Card Reader
AFLP-BRW01-U / AFLPBRB01-U	USB Barcode Reader (White / Black)
AFLP-CDB01 / AFLP-CDW01	VFD Customer Display (Green) 5 x 7 dot matrix (Black / White)
63000-FSP0361 AD101C-RS	POWER ADAPTER, 90V-264V input and 12V/36W output; PLUG $\psi$ 2.5/ $\psi$ 5.5/no lock
63000-FSP0601AD101C760-RS	12V DC 60W power adapter with bare wire, 90~264V AC input

## Dimensions (Unit : mm)



1 Automation

2 Point of Service

3 Digital Signage

4 RISC-based Solutions

5 Medical Solutions



# Power over Ethernet (PoE)

## What is POE?

- POE technology enables a PSE (Power Sourcing Equipment) to transfer electrical power, along with data, to a remote PD (Powered Device) over standard twisted-pair cable in an Ethernet network.
- This technology is useful for powering remote devices where it would be inconvenient, expensive (mains wiring must often be done by qualified and/or licensed electricians for legal or insurance reasons) or infeasible to supply power separately. It doesn't require modification of existing Ethernet cabling infrastructure.
- Using Power-over-Ethernet system eliminates the cable to run 110/220 VAC power and just installs only a single CAT5e Ethernet cable that carries both data and power to each device.
- The flexibility of many application and network devices is significantly decreasing installation cost.

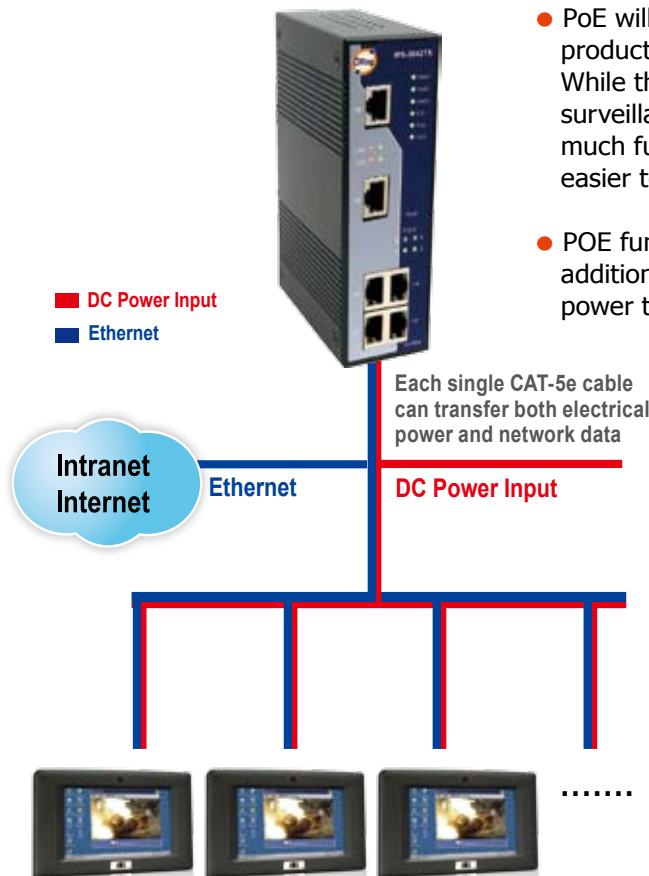
## POE Standard 802.3af

802.3af of the Ethernet family from the IEEE was launched in 1999 – largely driven by PowerDsine. With all the major manufacturers including Avaya, Cisco and Nortel (14 all together), contribute to the standard.

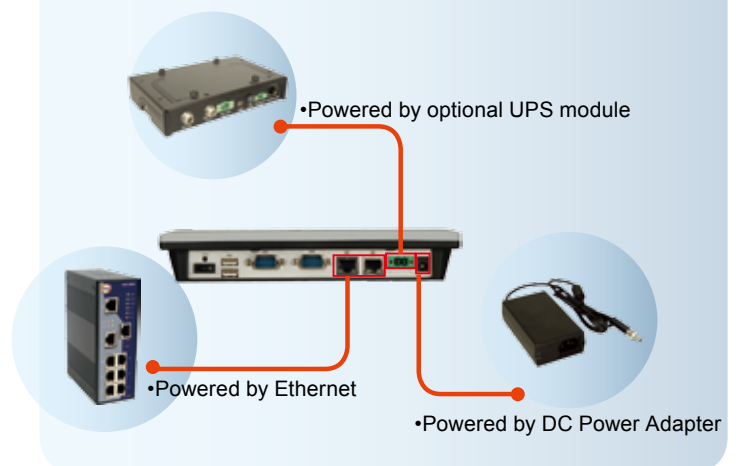
- Designed to work on Networks with existing CAT5e and above LAN Structured Cabling Systems utilizing RJ45 connector.
- End-span superimposes the power on the existing Data wires (1, 2, 3 and 6). Mid-span puts the power on the unused or spare wires (4, 5, 7 and 8).
- The amount of power launched by the End-span or Mid-span PSE is 15.4 watts per link (or per Port). Due to loss over the Structured Cabling System, the effective wattage available to the End device is about 13 watts.
- Support for 10Mb or 100Mb Ethernet connections for End devices

## What is the benefit of POE?

- PoE will revolutionize the way manufactures design and build new products and will open a whole new dimension to network designing. While the need for PoE has been largely driven by the VoIP, surveillance cameras, and Panel PC industry, the benefits spread much further. It only requires a single data connection – cheaper and easier to install.
- POE function can provide enough power for IOVU-751R panel PC and addition peripheral, so customer doesn't need other power supply to power the system. The function reduces engineering cost greatly.



## Power Input Options



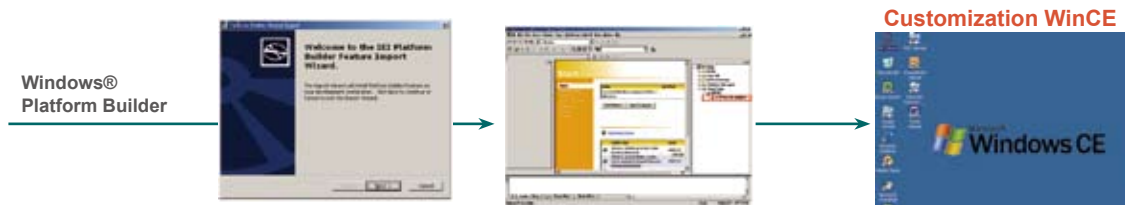


# Software Support

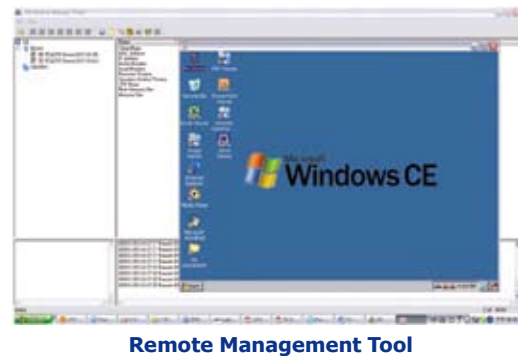
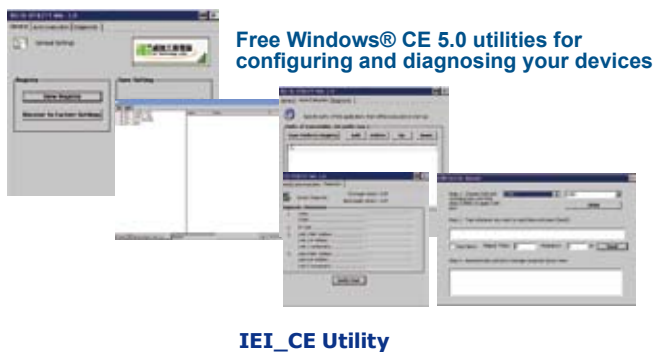
IOVU-751R is shipped with pre-installed Windows CE 5.0 or Linux kernel 2.6.x, along with rich application software development kit :

## Windows CE5.0

- Standard Windows® CE5.0 professional version license.
- Optional Board Support Package (BSP) for customers to customize their own OS image.



- Attached Software Development Kit (SDK) for eMbedded Visual C++ to program Windows CE application.
- Built-in .NET Compact Framework support with related SDK
- Thin Client Technology, Microsoft RDP (Remote Desktop Protocol), to enable IOVU-751R to access Microsoft Windows® based applications installed on Microsoft Terminal Service server.
- Free pre-installed utilities for configuring and diagnosing your IOVU-751R.
- Free remote management tools installed in laptop for remotely configuring, monitoring, and managing your IOVU-751R.



## Linux Kernel 2.6.x

- GNU standard Embedded Linux 2,6,x bootloader and OS image including.
- Secure Shell (OpenSSH) providing 128-bit, 192-bit or 256-bit encryption between the IOVU-751R and another system
- Built-in web browser and X-window system
- Related Linux drivers for onboard peripheral I/O, network and audio
- Attached SDK including GUI, Sample Code, and Tool chain make users program application readily.
- Optional Board Support Package (BSP) including kernel source code for customers to customize their own OS image.

### Embedded Linux X-Window

