

# RISC-based Multi-Media Panel PC

## • Introduction

The RISC-based system has many advantages, including high performance, lower power consumption, wide operating temperature, rugged compact form factor, and cost-effective. The new Alchemy™ RISC-based technology not only has above advantages but also provides integrated hardware Multimedia Acceleration Engine (MAE) to support common digital video media such as MPEG1/2/4, DivX, and WMV9, and delivers full D1 resolution without extra DSP or consuming CPU computing power.

### Main Feature:

- High performance
- Preloaded Windows® CE 5.0/6.0 embedded OS
- Rugged and compact design
- Small and compact form factor
- Low power consumption
- No cooling fan required
- Cost-effective
- Front-panel design compliant with IP 64/IP 65
- 9~36V DC single power input



## • RMI Alchemy™ Au1250™

The IEI IOVU-1051 and IOVU-751 are embedded with an RMI Alchemy™ Au1250™ RISC-based processor. The Au1250™ is a high-performance RISC-based system on chip (SOC) processor which provides a variety of PC-style peripherals and integrated hardware multimedia acceleration engine. Additionally, the Windows® CE embedded OS provides an open and flexible architecture for RISC-based panel PC solutions and meets the growing needs of high-quality multimedia.

Comparing to competitive X86 solutions, Alchemy™ technology achieves the support of complete multimedia display without extra hardware codec. Even the multimedia supports are done by CPU itself, it has no thermal issue and consumes lower electricity power.

	Alchemy™ Au1250™	AMD LX 800
CPU Speed	500 MHz	500 MHz
Companion Chipset	No need	AMD CS5536
Super I/O	No need	Winbond W83627EHG
System Memory	DDR I/II	DDR
Multimedia Support	Built-in Hardware MAE	MPEG1/2 with Software codec
H.D.D I/F	IDE	IDE
LCD I/F	24-bit TTL	24-bit TTL
Power Consumption	492 mW	4W
Working Temperature	0°C ~ 85°C or -40°C ~ 100°C	0°C ~ 50°C or -10°C ~ 70°C
Embedded OS Support	Windows® CE	Windows® XP/XPe/CE

## • Multimedia Support

### Video Decode Resolution Support :

- D1(PAL)
- Wide VGA (16:9)
- D1(NTSC)
- VGA
- Wide GIF (16:9)
- GIF
- QVGA
- H.264 support SW (GIF+)

### Video Performance at Full D1 Resolution (720 x 480) :

FORMAT	STREAM TYPE	A/V	AUDIO FORMAT	SUPPORTED BIT RATES
MPEG-1	SYSTEM	A/V	MPEG	8 Mbps
MPEG-2	PROGRAM	A/V	MPEG	10 Mbps
	TRANSPORT	A/V	MPEG	8 Mbps
WMV9	Unencrypted only	A and V	WMA	2.5 Mbps
	CBR w/o filters, 720x480	A and V	WMA	2.5 Mbps
	VBR w/o filters, 720x480	A and V	WMA	2.5 Mbps
DivX	Unencrypted only/ no subtitles - V3.11	A and V	MP3/AAC/MPEG	4 Mbps
	V4	A and V	MP3/AAC/MPEG	4 Mbps
	V5	A and V	MP3/AAC/MPEG	4 Mbps
MPEG-4 MP4 iso/iec 14496-2. For more information, please visit www.m4if.org.	Advanced Simple Profile - level 5	A/V	AAC	3 Mbps
MPEG-4 AVI	Advanced Simple Profile - level 5	A/V	MP3, AC-3	4 Mbps

### Supported Audio Formats :

AUDIO ONLY	CHANNELS	FORMATS PROFILES	SAMPLING RATES	SUPPORTED BIT RATES
MPEG	1 to 2 channels	MPEG1/2/2.5 layers 1,2,3 (mp3), MP3Pro (less SBR)	8 kHz to 48 kHz	8 kbps to 320 kbps
AAC	1 to 6 channels down mixed to 2	LC, MAIN, PNS, DRC, IS, MS, TNS, LD, LTP	8 kHz to 96 kHz	8 kbps to 448 kbps
PCM	1 to 6 channels down mixed to 2	24/16/8-bit, WAV, AIFF, ulaw/alaw, adpcm, LPCM	4 kHz to 96 kHz	32 kbps to 9216 kbps
Dolby Digital AC-3	1 to 6 channels (including 5.1) down mixed to 2	All	32, 44.1, & 48 kHz	56 kbps to 640 kbps
Windows Media Audio (WMA)	1 or 2 channels	MS, DC, JS, IS, no lossless or voice	8 kHz to 48 kHz	8 kbps to 320 kbps
OGG Vorbis	2 channels	All (less FLAC)	.5 kHz to 192 kHz	4 kbps to 1760 kbps

## • Application



Home Automation



Telematics



POS system



Manufacture



Digital Signage



Security

- 1 Application Server Platform
- 2 Single Board Computer
- 3 IBX Series POS PC
- 4 AFOLUX POS Panel PC
- 5 Video Capture Card
- 6 KAMIO RISC
- 7 IOVU Open HMI
- 8 VITO Universal Controller
- 9 DINO BLADE
- 10 LCD Product Series
- 11 Embedded System
- 12 Industrial Computer Chassis
- 13 Power Supply
- 14 Peripherals