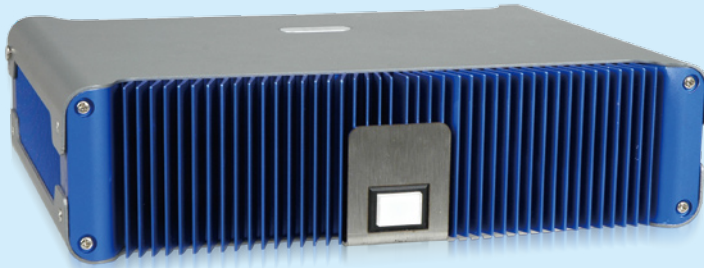# ECN–381B

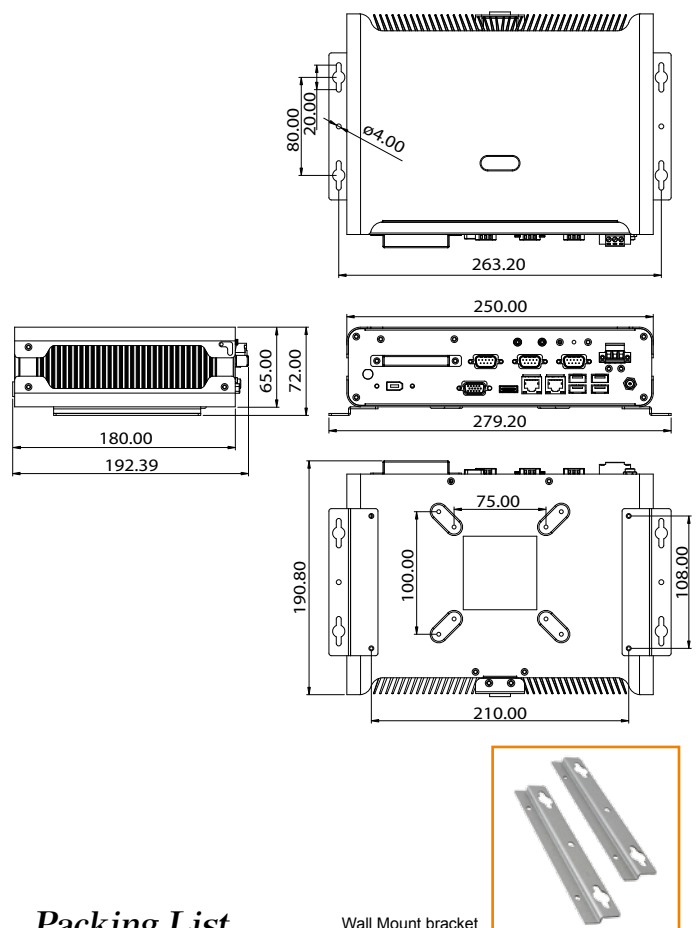*Intel® Socket P Core 2 Duo Fanless Multimedia Box*

Features

◆ Intel® 45nm mobile Core™ 2 Duo fanless Design

◆ Intel® GM45 rich media features with VGA+HDMI dual display

◆ 1080i/p Full HD by HDMI with HDCP support

◆ High quality media MPEG-2 decoding, WMV9 (VC-1), H.264 (AVC), DirectX 10

◆ IEI One Key Recovery solution allows you to create rapid OS backup and recovery

One Key Recovery · Fanless · HDMI™ · Dual Display · FireWire

Specifications

Model Name		ECN-381B
Platform		Intel®
Chassis	Color	Cool Gray+Blue
	Dimensions	252 x 186 x 64mm
	Chassis Construction	Aluminum alloy with heavy duty metal
Motherboard	Motherboard Model	NANO-GM45A2
	M/B Size	EPIC (165mm x 115mm)
	Processor CPU	Intel® Core™ Duo 2.26GHz, 3MB L2 cache, processor P8400 Intel® Celeron™ M 2.0GHz 1MB L2 cache, processor 575
	Chipset	Intel® GM45 + ICH9M
	System Memory	1 GB DDR3 200-pin SODIMM Memory Pre-installed
Storage	Hard Drive	1 x 2.5" SATA HDD Space
	CompactFlash®	1
System Function	USB 2.0	4
	Ethernet	2 x Realtek 8111CP PCIe GbE
	RS-232	3
	Display	1 x VGA +1 x HDMI
	Resoluiton	2048 x 1536 @ 75 Hz (Analog) 1080P (HDMI)
	Audio	1 x mic in, 1 x Speaker out
	Other	1 x IEEE-1394a
	Wireless	1 x 802.11 b/g/n
	Expansions	1 x PCIe Mini Card slot (reserved for wifi)
Power	Power input	12V DC in
	Power consumption	12V@3.24A (Intel® Core™2 Duo P8400 2.53G, DDR3 2GB)
Reliability	Mounting	Desk top, VESA mount, wall mount
	Operating Temperature	-10°C ~ 45°C with CompactFlash®/SSD -10°C ~ 40°C with 2.5" HDD
	Operating Shock	Half sine wave 3G; 11ms 3axis
	Operating Vibration	Meet MIL-STD-810F 514.5C-1 MIL-STD-810F 514.5C-2
	Weight (Net/Gross)	2.6kg/3.9kg

Dimensions *(Unit: mm)*

80.00
20.00
ø4.00
263.20
250.00
65.00
72.00
180.00
192.39
279.20
190.80
75.00
100.00
108.00
210.00

Wall Mount bracket

Packing List

1 x QIG

2 x wall mount bracket

1 x SATA hard drive cable

1 x 2dbi wireless antenna (for wireless model only)

1 x 12VDC 60W power adaptor (P/N:63000-FSP060DBAB1552-RS)

1 x screw set

1 x driver CD

1 x power cord

Core™2 Duo Fanless

The ECN-381B has a passive cooling architecture design. The heat pipes and extruded aluminum fins transfer heat from CPU and chipset instantly to the system aluminum enclosure by natural convection. With Intel® mobile Core™ 2 Duo 2.26GHz, the ECN-381B is verified its reliability and stability under 40°C high tempeature[1], and support up to 31W CPU TDP fan-less operation.
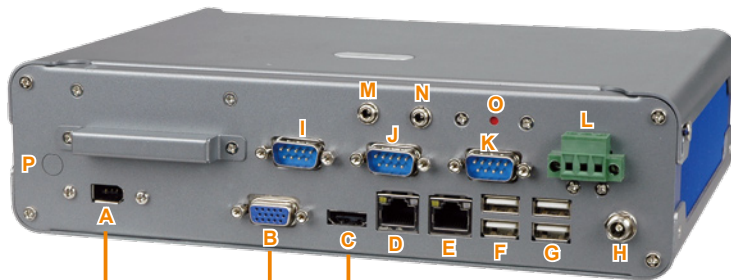
Intel® Core™2 Duo	Intel® mobile Core™2 Duo 2.26GHz, Processor P8400 3MB L2 cache TDP **25W**
Intel® Celeron® M	Intel® Celeron® M 2.0 GHz, Processor 575 1MB L2 cache TDP **31W**

1 *High temperature operation test is performed with ambient air speed 0.5 meter / sec, compliant to IEC-68-2-2 standard.*

I/O Interface

A. IEEE 1394a (6-pin)	**I.** RS-232
B. VGA	**J.** RS-232
C. HDMI	**K.** RS-232
D. GbE	**L.** TB DC in
E. GbE	**M.** Line out
F. Dual USB	**N.** Mic in
G. Dual USB	**O.** Reset
H. DC in	**P.** Antenna (option)

IEEE 1394a

♦ **Industrial high speed camera**
● Industrial inspection
● Machine vision
● Healthcare and medical
● Security and traffic

♦ **HD camcorder**
● Broadcasting business
● Professional video editing

VGA up to 2048x1536

Full HD Dual Display

As the latest 3-chip mobile solution, Intel® GM45 has substantial improvement on graphic and media including HD display and Blu-ray support as well as MPEG-2 decoding acceleration. Its High-Definition Multimedia Interface(HDMI) enables 1080p HD digital output to large size panel, ideal for signage application.

The ECN-381B has VGA and HDMI dual display interfaces which support high resolution and independent screen with audio output. Applications like fine art demonstration, high fashion show window, large screen digital signage, all need high definition graphic performance to show the true beauty of product and content. The ECN-381B is more than competent to fulfill these requirement.
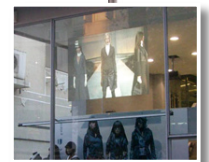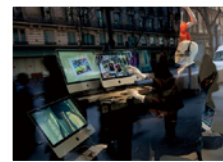
Storage Support

The ECN-381B supports three kinds of storage devices including 2.5" Serial ATA hard drive, CompactFlash® and SSD. Using the ECN-381B as signage player, you can install operating system in CF card, while storing multimedia content in the hard drive. This can protect OS image damage from frequent read/write during content playback and update.

2.5" SATA hard drive / SSD

CompactFlash® II

About HDMI

HDMI is a compact audio/video interface for transmitting uncompressed digital data. It represents a digital alternative to consumer analog standards such as Radio Frequency (RF) coaxial cable, composite video, S-Video, SCART, component video, D-Terminal, and VGA. HDMI connects digital audio/video sources such as set-top boxes, Blu-ray Disc players, personal computers, video game consoles, and AV receivers to compatible digital audio devices, computer monitors, and digital televisions.

Ordering Information

Part No.	Description
ECN-381B-R11/CM575/1GB	Fanless embedded system with Intel® Celeron M 575 2.0 GHz 1MB L2 cache, GM45 chipset , with 1GB DDR3 memory, 12VDC, 60W power adaptor with ERP and PSE certificates, Reflex Blue C+8403C, RoHS
ECN-381B-R11/P8400/1GB	Fanless embedded system with Intel® Core 2 Duo P8400 2.26 GHz 3MB L2 cache, GM45 chipset, with 1GB DDR3 memory, 12VDC, 60W power adaptor with ERP and PSE certificates, Reflex Blue C+8403C, RoHS
ECN-381BW-R11/CM575/1GB	Fanless embedded system, Intel® Celeron M 575 2.0 GHz 1MB L2 cache, GM45 chipset, built-in 802.11b/g/n wireless, with 1GB DDR3 memory, 12VDC, 60W power adaptor with ERP and PSE certificates, Reflex Blue C+8403C, RoHS
ECN-381BW-R11/P8400/1GB	Fanless embedded system, Intel® Core 2 Duo P8400 2.26 GHz 3MB L2 cache and GM45 chipset, built-in 802.11b/g/n wireless, with 1GB DDR3 memory, 12VDC, 60W power adaptor with ERP and PSE certificates, Reflex Blue C+8403C, RoHS