

PPC – 3000S

**Aesthetic 6.5”/10”/12”/15”/21.5” Panel PC,
Intel Celeron N2930/N2807, All-in-One Fan-less / Light.**

Sales Kit

Panel PC Division

V3.1

Jul., 2017

Agenda

- **Market & Strategy**
- **Roadmap**
- **Product at a glance**
- **Features & Specifications**
- **Performance**
- **Selling Point**
- **Ordering Information**

PPC Product Family

Standard

- Rich I/O • Slim • Expandible • Wide temperature range

PPC-3001

PPC-4151W

- 6/4th Gen Intel® Core™ i processor
- PCT/resistive touchscreen
- PCIe x4/PCI expansion



Light

- Essential I/O • Ultra slim • All-metal housing

PPC-3001S

- 6th Gen Intel® Core™ i processor
- PCT touchscreen
- All-metal body



PPC-3000

PPC-3170

- Intel® Atom™ E3845/D2550 processor
- Wide temperature -20 ~ 60°C
- Resistive touchscreen
- PCIe x1/PCI expansion



PPC-3000S

- Intel® Atom™ N2930/N2807 processor
- PCT/resistive touchscreen
- All-metal body



PPC-6000C

- Compatible with various Mini-ITX MBs
- Supports CPUs with up to 45 W TDP
- Resistive/PCT touchscreen
- PCIe x4/2 x PCI or PCIe x1



All-in-One

- Fanless
- Compact
- Low power consumption

intel Core i

intel Atom

Configurable







- Fan
- High computing power
- Selectable motherboard

intel Core i

Enabling an Intelligent Planet

ADVANTECH


PPC Key Message & Strategy

Positioning		Value Proposition / Messages
PPC-3000 	All-In-One (Fanless) PPC -Standard 	<ul style="list-style-type: none">● Rich I/O ports● Slim design● Support PCI/PCIe expansions● Wide operating temp. for ATOM models
PPC-3000S 	All-In-One (Fanless) PPC -Light 	<ul style="list-style-type: none">● Essential I/O ports● Ultra slim design● All-metal housing
PPC-3001 	All-In-One (Fanless) PPC -Core	<ul style="list-style-type: none">● Fan less Core i – High performance● Support PCI/PCIe expansions● Flexible /Rich IO ports
PPC-6000C 	Configurable (Fan)PPC	<ul style="list-style-type: none">● High computing power with Core I processor● Selectable mini-ITX M/B● Support PCI/PCIe expansions

All-In-One (Fanless-ATOM) PPC Portfolio

□ Available
 □ Developing
 □ Planning
 Wide-Temperature
  Fan-less

Standard


PPC-3150
PPC-3170
PPC-3190

- 15" & 17" & 19" TFT LED Panel
- Intel Atom E3845, 8GB DDR3L
- Wide temp.(-20 ~60°C)
- PCI or PCIe expansion

SUSIAccess


PPC-3100
PPC-3120

- 10.4" & 12.1" TFT LED Panel
- Intel Atom D2550, 4GB DDR3
- PCI or PCIe expansion

SUSIAccess


May


PPC-3100-E9
PPC-3120-E9

- 10.4" & 12.1" TFT LED Panel
- Intel Atom E3940, 8GB DDR3L
- Wide temp.(-20 ~60°C)
- PCI or PCIe expansion

SUSIAccess


Light


PPC-3100S
PPC-3120S
PPC-3150S

- 10.4" / 12.1" / 15" TFT LED Panel
- Intel Celeron N2930, 8GB DDR3L
- True-flat panel w/IP 65


SUSIAccess

New!


PPC-3210SW

- 21.5" (16:9) Wide-Screen LED Panel
- P-cap multi touch screen
- Intel Celeron N2930, 8GB DDR3L
- True-flat panel w/IP 65

SUSIAccess


PPC-3060S

- 6.5" TFT LED Panel
- Intel Celeron N2807, 8GB DDR3L
- True-flat panel w/IP65

SUSIAccess

Released
 2017 2H
 2018 1H

Target market

Process Monitor & Control



Machine builder & IEM

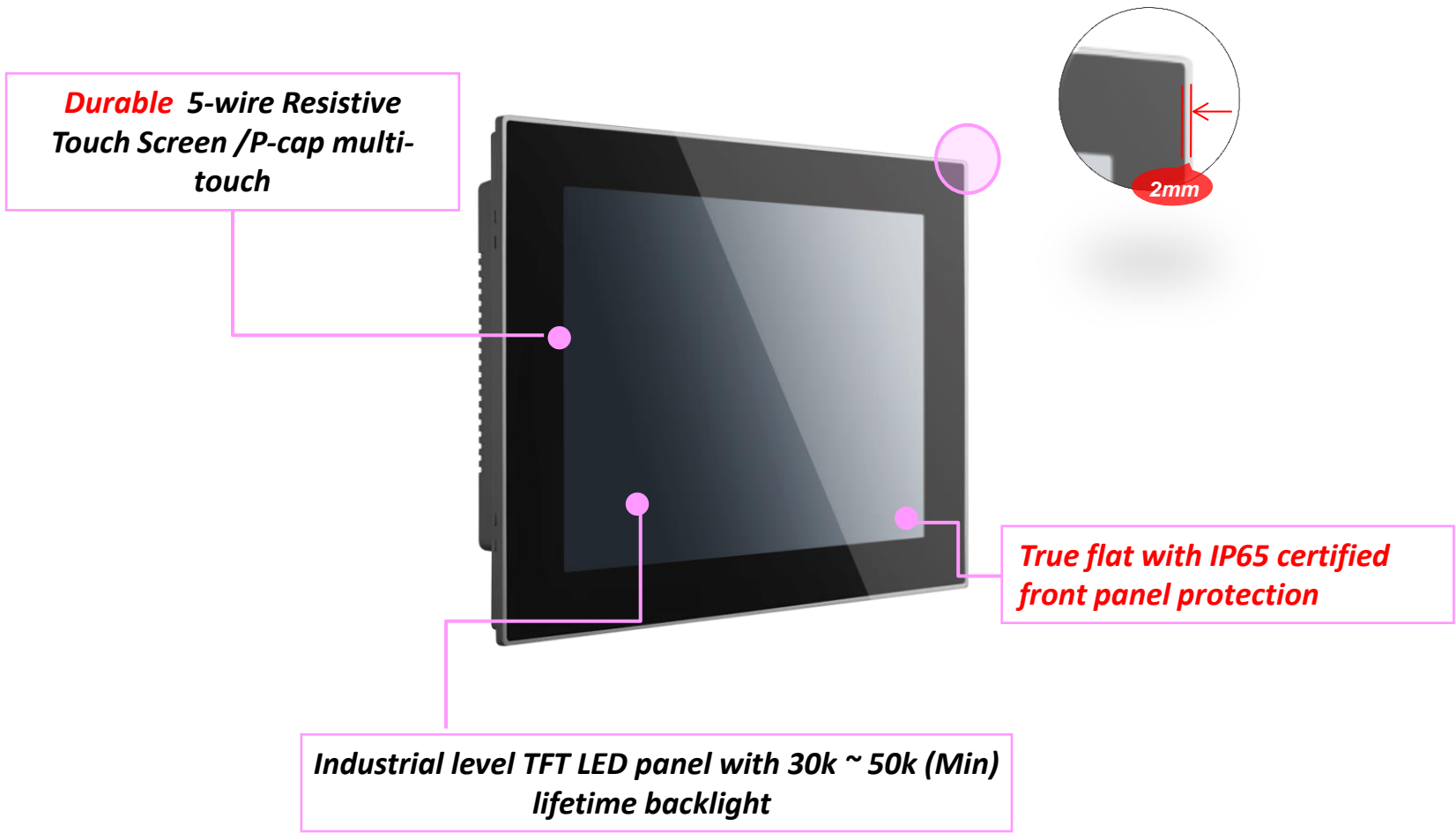


Features and Specifications

- **Industrial LED panel** with long lifetime backlight
- **Durable** 5-wire Resistive Touch Screen / P-cap multi-touch screen optional
- **Embedded Intel Celeron processor, Quad core N2930 /Dual core N2807 onboard**
- **Compact Fan less Design with solid Al Alloy enclosure**
- **True-flat with IP65** certified front panel protection
- **E-Eye** Monitoring and Protection
- **Supports Windows Embedded and Android**
- **Supports VESA 75**



Front View

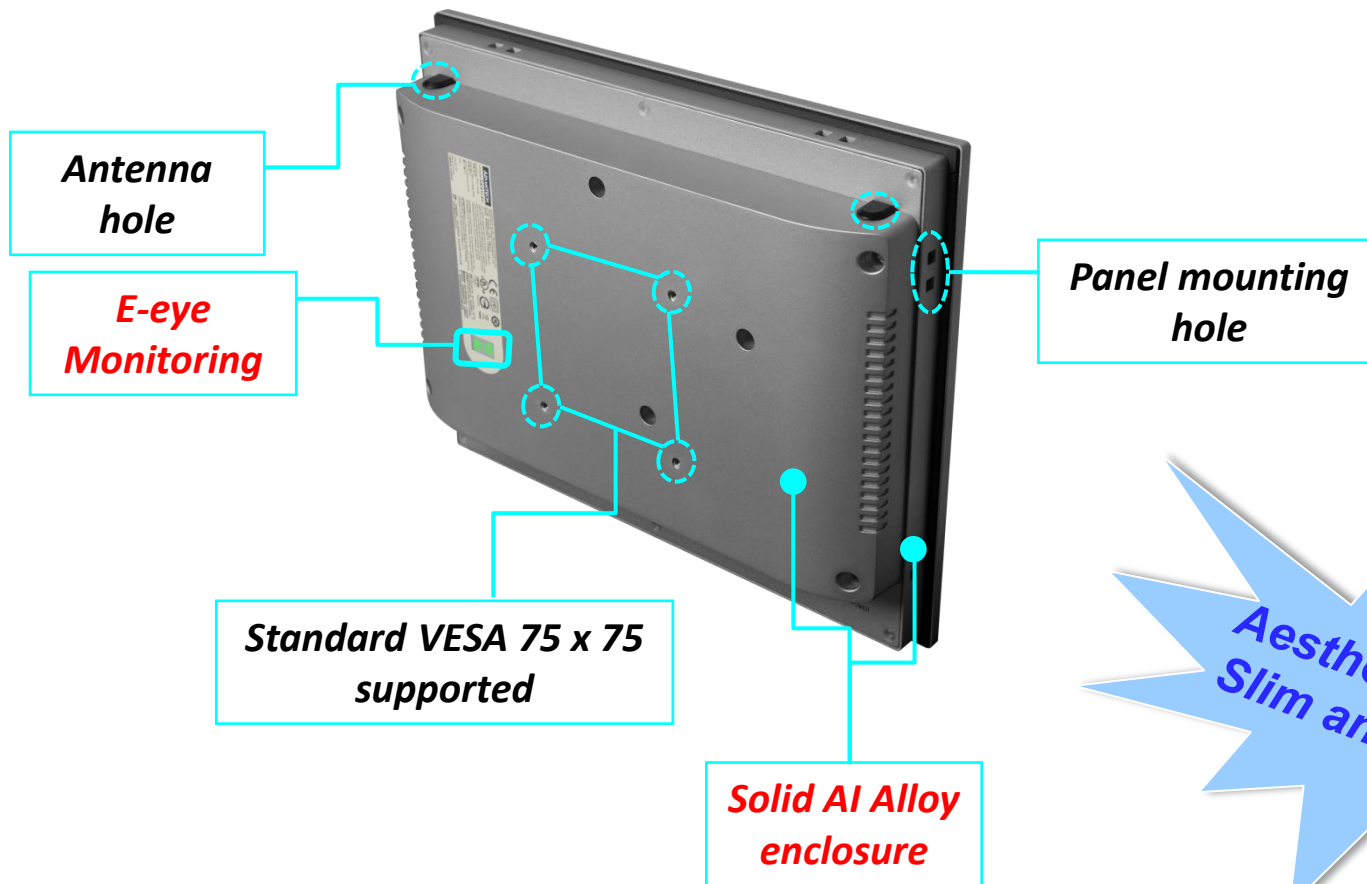


* Taking PPC-3100S as sample for side view, as PPC-3000S adopt same design.

PPC-3000S Front Panel Features

	PPC-3060S	PPC-3100S	PPC-3120S	PPC-3150S	PPC-3210SW
LCD Display	6.5"	10.4"	12.1"	15"	21.5"
Display Type	TFT LCD	TFT LCD	TFT LCD	TFT LCD	TFT LCD
Resolution Max.	640 x 480	800 x 600	1024 x 768	1024 x 768	1920 x 1080
Brightness	800	400	500	500	300
Viewing Angle	160, 140	160 , 140	160 , 140	160 , 140	178 , 178
Contrast	600	700	700	700	5000
Backlight Lifetime	50,000(Min.)	30,000(Min.)	30,000(Min.)	50,000(Min.)	50,000(Min.)
Touch screen	5-W Resistive(default) / P-cap multi-touch (optional)				P-cap
Resolution	4096 x 4096				/
Light Transmission	80±5% at 550nm wavelength				88 % ± 2 %
Durability	Greater than 35 million touches in one location without failure				/

Side view



* Taking PPC-3100S as sample for side view, as PPC-3000S adopt same design.

E-eye Monitoring



* Detail code description in Appendix

Function Monitoring

- Self-checking start from power on to operating system loaded
- All functions included to checking list



01

Easy to Monitoring

Failure Mode Analysis

- 'FF' - Function OK
- 'E0' ~ 'E8' – show different function failure mode code, including LCD display, Touch, main board start-up, memory, storage, USB, serial port...etc
- Suggestion of service mapping to each failure code

02

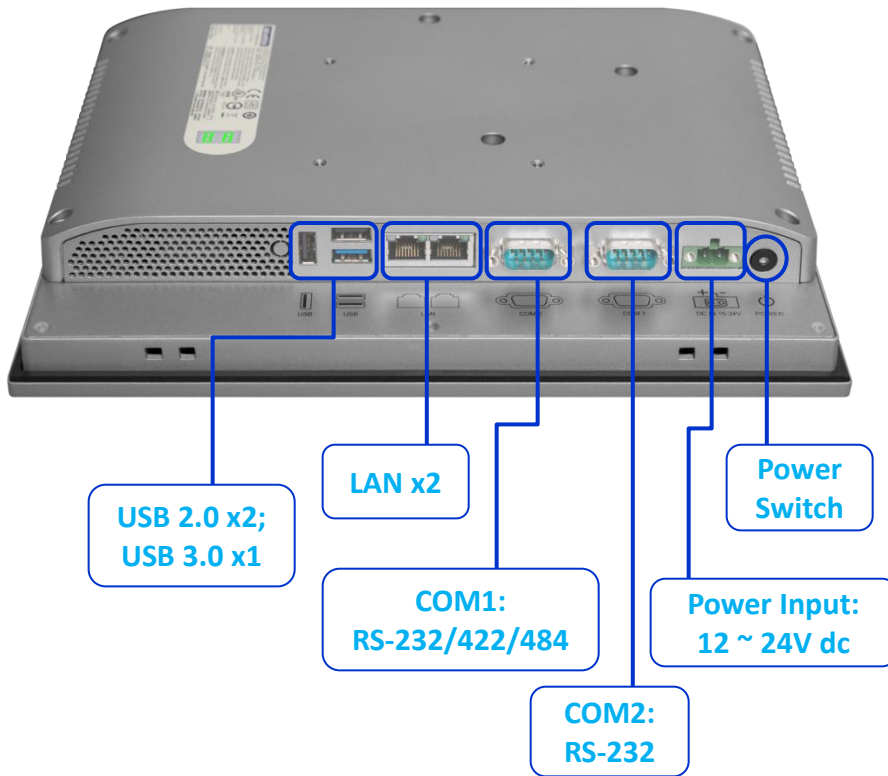
Easy for Repair Assessment

E-eye cable connection with main board



Back View

External I/Os



Inside Features



Intel Baytrail processor onboard
Dual core N2807 1.58GHz / Quad core N2930 1.83GHz
Memory up to 4G/ 8GB DDR3L SDRAM



mPCIe Slot x 2
One to WiFi module
One to mSATA module.



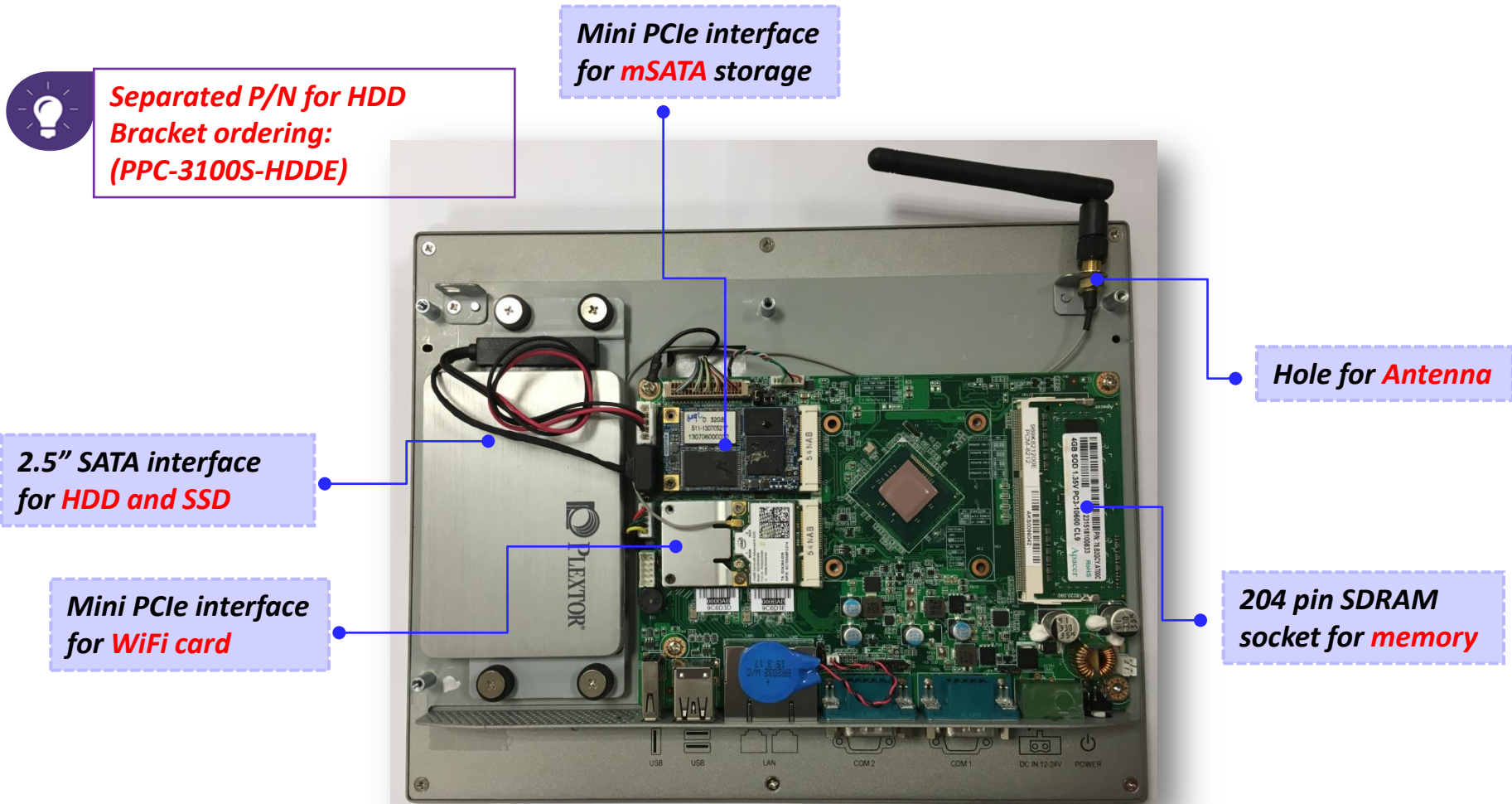
Watchdog Timer
255 timer levels;
Programmed by software



Ring Power
5v or 12v output on the 9th pin of COM1, setup by BIOS

* Taking PPC-3100S as sample for side view, as PPC-3000S adopt same design.

Internal Placement



* Taking PPC-3100S as sample for side view, as PPC-3000S adopt same design.

Dimensions

Outline Dimensions:

PPC-3060S:

W x H x D (mm): 198 x 150 x **41**

PPC-3100S:

W x H x D (mm): 272 x 216 x **45.7**

PPC-3120S:

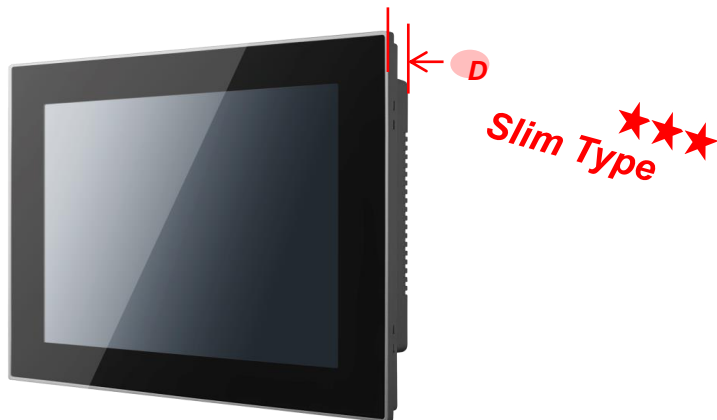
W x H x D (mm): 317 x 246 x **48.3**

PPC-3150S:

W x H x D (mm): 391 x 312 x **51.5**

PPC-3210SW:

W x H x D (mm): 559 x 350 x **56.2**



Cut-out Dimensions.:

PPC-3060S:

189 x 137 mm

PPC-3100S:

265 x 210 mm

PPC-3120S:

311 x 240 mm

PPC-3150S:

382 x 303 mm

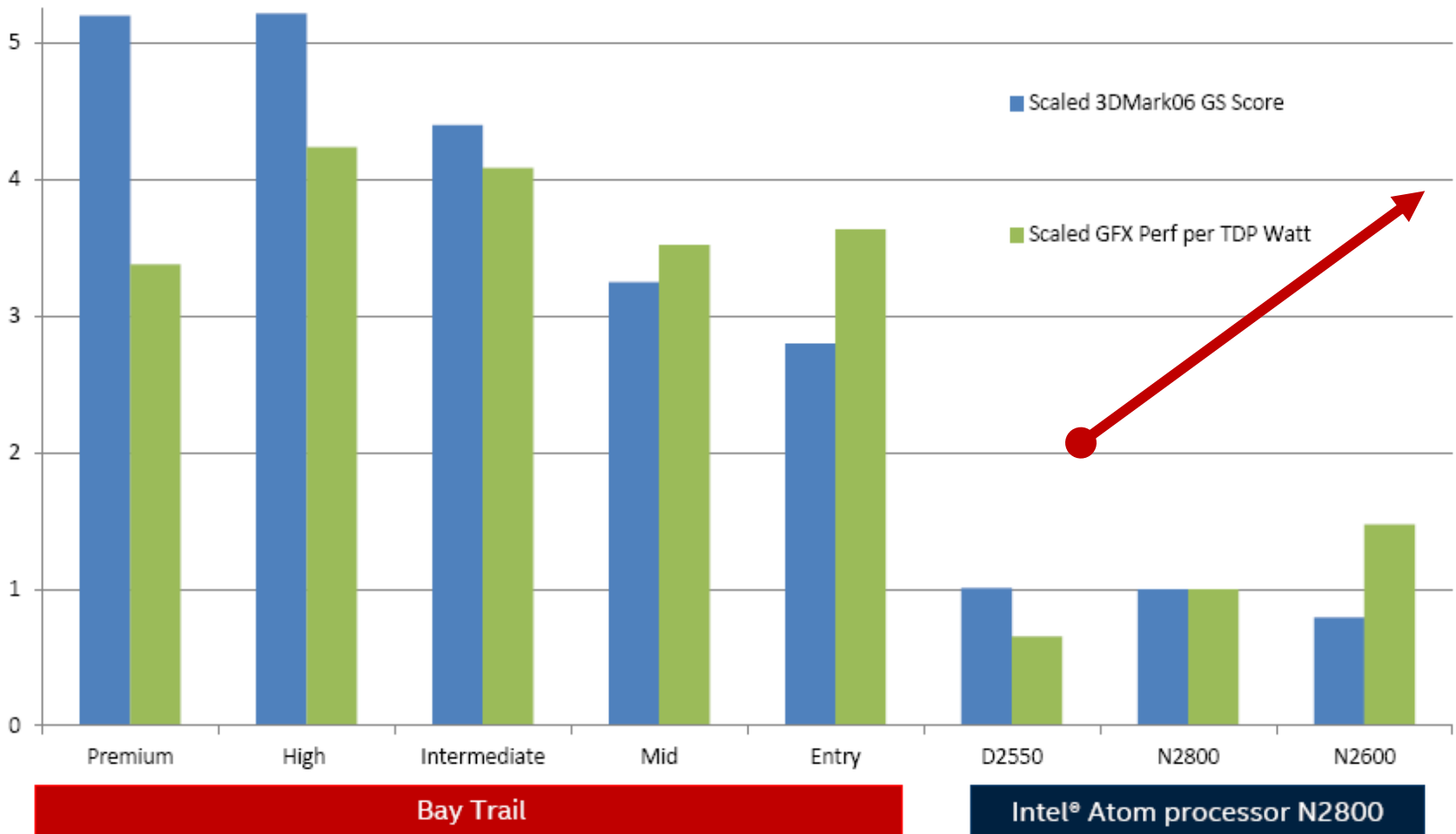
PPC-3210SW:

550 x 342 mm

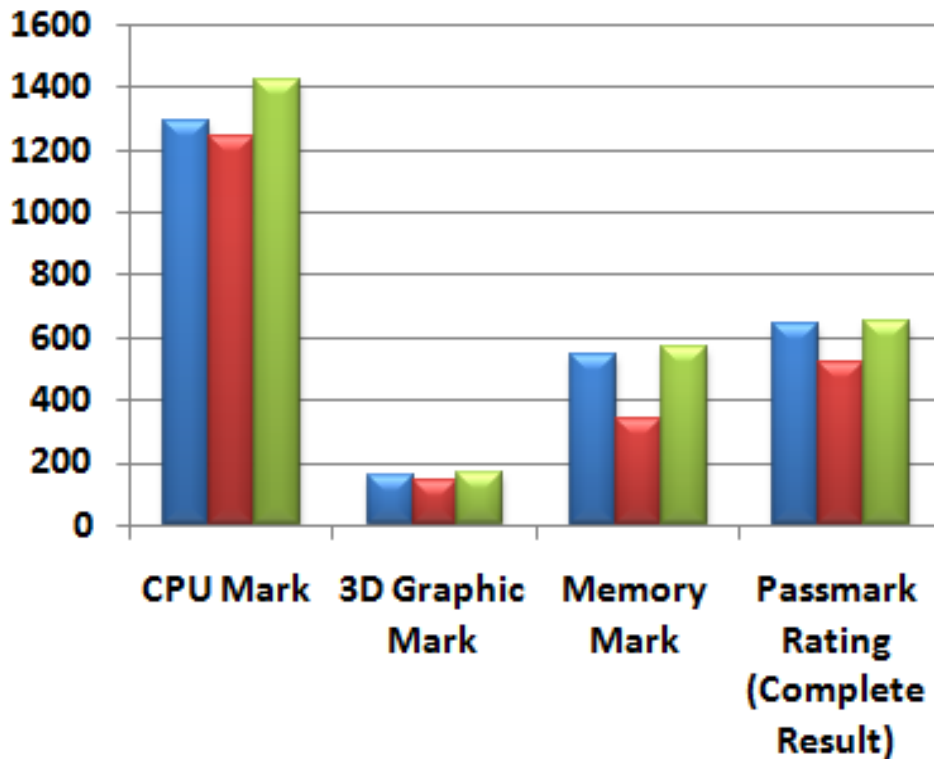


Performance

Performance and Performance/Watt Enhancements Over Previous Generation



Passmark Performance test of Intel Baytrail Generation



- N2930 1.83GHz Baytrail-M
- E3845 1.91GHz Baytrail-I
- J1900 1.99GHz Baytrail-D

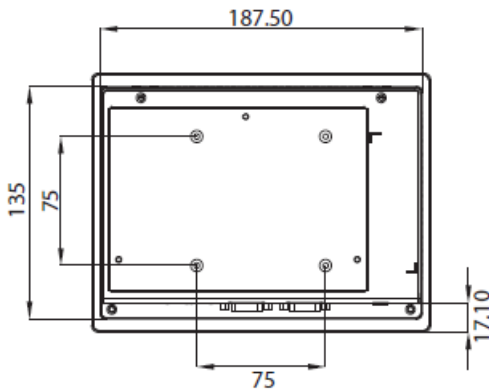
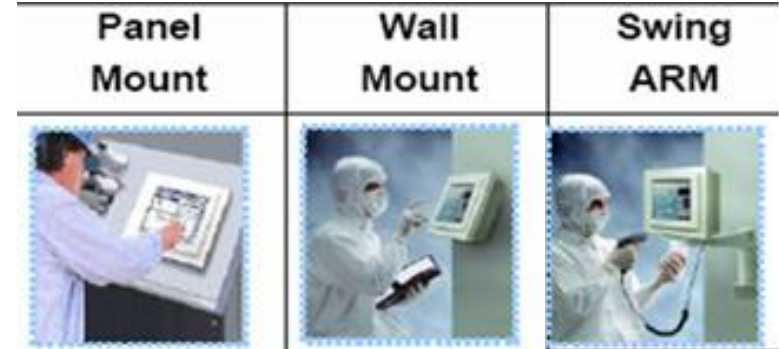
Testing Configuration:

- Hardware:
 - Baytrail-M & I & D
 - 4G DDR3 1600 memory
- Software
 - Microsoft Windows 7 320bit

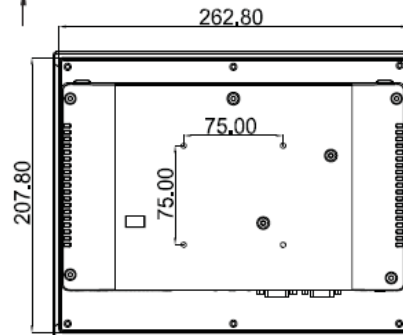
High Performance but Low-power !!!

Mounting Support

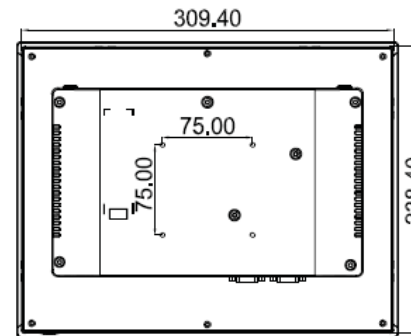
Description	Ordering Part Number
*Wall Mount Kit	PPC-174T-WL-MTE
*Swing Arm Kit	PPC-stand-A1E(support VESA 75)
Panel Mount	Included in the accessory box



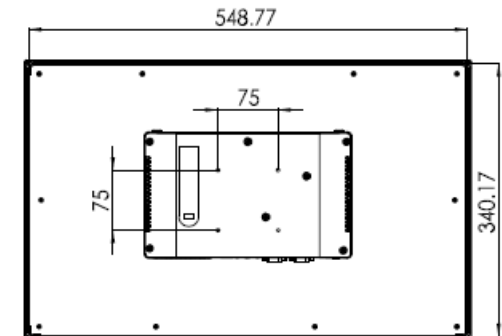
PPC-3060S



PPC-3100S



PPC-3120S



PPC-3210SW

Selling Point

PPC-3000s : **Slim** **Strong** **Simple**

Slim

- *Aesthetic ID for PPC*
- *True flat panel*
- *Friendly color for integration*
- *Thickness $\leq 50\text{mm}$*

Strong

- *Industrial materials adopted*
- *Solid Al Alloy enclosure*
- *Fan less compact embedded design*

Simple

- *Design for basic industrial application*
- *Easy to mounting*
- *E-eye value-added @ easy for using*



Best Choice of Valued Industrial Panel PC Application!






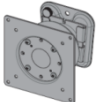



SUSIAccess support

- **Complete Protection**
- **Simplicity of All Backup and Recovery**
- **Stay in Sync with Device Health Status**
- **Saving Maintenance and Energy Cost**
- **Centralized and Remote Management**



Ordering Information

Item	Description	Image
PPC-3060S-N80AE PPC-3100S-RAE/PBE PPC-3120S-RAE PPC-3150S-RAE PPC-3210SW-PAE	Panel PC with Intel Celeron N2807/N2930 processor, w/ 5-w resistive or P-cap touch screen	
PPC-3100S-HDDE	Bracket module for 2.5' SSD/HDD installation	
96PSA-A90W19OT-1	Power Adapter, AC100 ~ 240V, 90W, 19V	
PPC-WLAN-B1E	WiFi module with wireless card and antenna	
PPC-ARM-A03	ARM kit	
PPC-174T-WL-MTE	Wall mounting kit	
PPC-Stand-A1E	Standing kit	

Appendix

E-eye : Function Monitoring List

Item	Function	Failure Code	Error Description	Checking/Repair Suggestion
1	Main Board	E0	Main board start-up error	<ol style="list-style-type: none"> 1. Check power input 2. Check no short circuit by cables or others in system 3. Send mainboard off for repair
2	Memory	E1	Memory error	<ol style="list-style-type: none"> 1. Check memory install and memory type 2. Check memory and memory slot function 3. Send mainboard off for repair
3	Resistant Touch Screen	E2	Touch screen controller error	<ol style="list-style-type: none"> 1. Check touch function in operating system 2. Check detecting touch controller type (PM6000) in device manager 3. Send main board off for repair
4	LVDS	E3	LVDS transfer controller error	<ol style="list-style-type: none"> 1. Check display in operating system 2. Send mainboard off for repair
5	USB	E4	USB internal detecting error	<ol style="list-style-type: none"> 1. Check USB function by external USB device testing 2. Send mainboard off for repair
6	Serial Port	E5	Serial port internal loopback error	<ol style="list-style-type: none"> 1. Check serial port function by external device testing 2. Send mainboard off for repair
7	LAN port	E6	LAN port controller error	<ol style="list-style-type: none"> 1. Check LAN port function by LAN connection testing 2. Send mainboard off for repair
9	SATA storage device	E8	SATA storage connection error	<ol style="list-style-type: none"> 1. Check SATA/mSATA device connected 2. Check SATA cable or mSATA device secure 3. Check connected SATA/mSATA device function 4. Send mainboard off for repair

- Note:
1. E-eye display "FF" function checking OK
 2. If E-eye display "E0" ~ "E8", there are one or more function error
 3. If E-eye display other codes, please ignore it which could be caused by driver or software installation.
 4. If E-eye display "FF" but some function error, it could be E-eye's limitation. Please contact Advantech RMA for service.

Power Consumption Reference

PPC-3060S

11W

(Burn-in test 7.0 in
Windows 7 32 bit)

PPC-3100S

16W

(Burn-in test 7.0 in
Windows 7 32 bit)

PPC-3120S

18W

(Burn-in test 7.0 in
Windows 7 32 bit)

PPC-3150S

20W

(Burn-in test 7.0 in
Windows 7 32 bit)

PPC-3210SW

25W

(Burn-in test 7.0 in
Windows 7 32 bit)

Test conditions of power consumption :

Memory: 4G DDR3L 1333

HDD: 500G 2.5" SATAIII

OS: Window 7 32 bit

Testing Software: Burn-In Test 7.0

Partnering for Smart City & IoT Solutions

驅動智慧城市創新 共建物聯產業典範

Industrial Cloud
& Cloud Networks

Private Cloud

iConnectivity

Transportation *IoT Devices* *Computer On Modules* *Video and RFID*
Power & Energy *Environmental & Facility Monitoring* *Embedded Software*
iBuilding/BEMS *Industrial HMI* *Embedded Design-in Services* *Intelligent Display*
Intelligent Systems *iRetail & Hospitality* *iHospital* *Image & Video Processing*
Machine Automation *WebAccess+* *Digital Healthcare* *Digital Logistics* *Industrial PCs*