

AFOLUX-5 Series AFL-517A-GM45

Fanless

● Optical Drive ● HDMI and Display Port Support



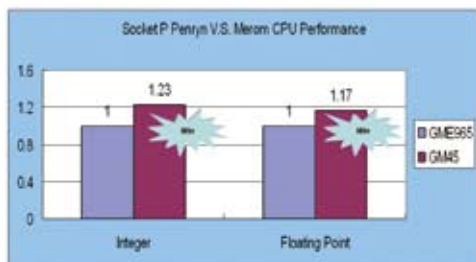
- 17" TFT LCD with Intel® GM45 chipset and 45nm mobile Core 2 Duo processor support
- High performance fanless design with optical drive
- Built-in 802.11 b/g/n Wireless LAN connection
- Built-in Bluetooth module
- Built-in HDMI and Display Port for digital dual display option.
- Built-in HSUPA module for mobile connection
- One compact flash slot for embedded applications.
- IP 64 compliant front panel with touch screen function.



Mobile Power Grade Fanless Panel PC

Fanless Dual Core Performance up to 2.53 GHz

45nm Penryn vs 65nm Merom Performance



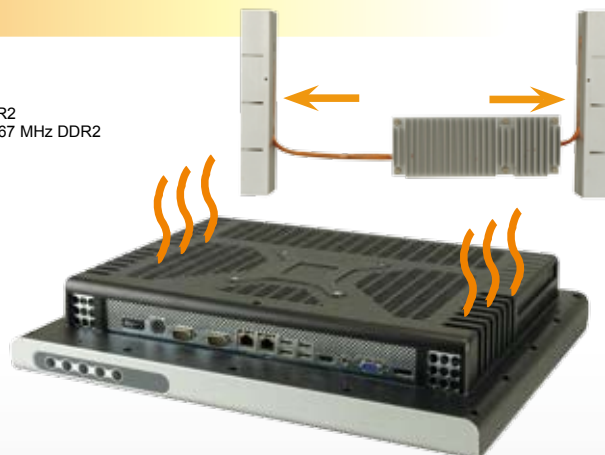
- Intel® Core™ 2 Duo T7500 (2.2 GHz, 800 MHz FSB) w/ GME965 Chipset and 667 MHz DDR2
- Intel® Core™ 2 Duo processor (Penryn) (2.53 GHz, 1066MHz FSB) w/ GM45 Chipset and 667 MHz DDR2

Dual-core computing architecture bring the necessary power to address performance-hungry applications like imaging and gaming powered by Intel® Core™ 2 Duo processors and the Intel® GM45 chipset.

Superior Silent Heat Dissipation

Good aerodynamics

Unique heat sink design for AFL-517A mechanism allows air to easily flow rapidly through the cooler and reach all the cooling fins.



Applications:



Medical Image Terminal Industrial Automation Network Security Transportation Interactive Kiosk Digital Signage POS Gaming

Mobile Intel® GM45 Solution

Performance Leadership

- Penryn on 45nm process
- Large L2 Cache and Faster FSB (6M, 1066MHz)
- Introduces DDRII Support (800/1067)
- Enhanced Graphics Engine (Gen 5)



Increased Integration

- Support for High Definition decode in H/W
- Integrated DisplayPort & HDMI/HDCP
- Integrated TPM and Packet Filtering



KIOSK



Unmatched Efficiency

- Deep Power Down Technology (w/ C6 state)
- Thermal compatibility with Santa Rosa
- Smaller Form Factor

Information



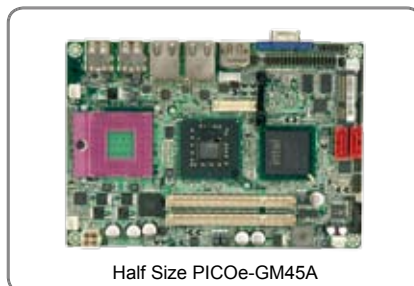
Digital Signage

New Platform Solution

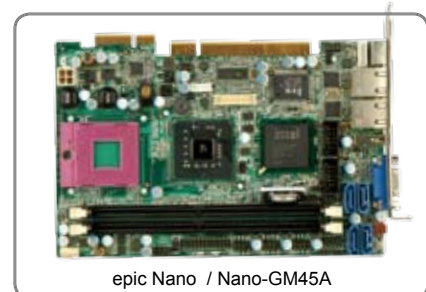
Generation	Pentium® M		Core™ Duo / Solo			Core™2 Duo	
	130 nm	90 nm	65 nm			45 nm	
FSB	400 MHz	533 MHz / 400 MHz	677 MHz / 533 MHz			800 MHz / 667 MHz	1066 MHz / 800 MHz
Architecture	Banias Socket 479	Dothan Socket 479	Dothan Socket M	Merom Socket M	Napa Refresh 	Merom Santa Rosa Socket P	Penryn Socket P
	TDP	24.5 W	21 W	31 W	34 W	35 W	35 W
Platform	 852GM / 855GM	 915GME	 945GME			 GME965	 GME45

IEI Penryn Solution

- Panel PC / AFL-517A/519A
- COM Express/ICE-GM45A



Half Size PICOe-GM45A



epic Nano / Nano-GM45A

Mobile Power Grade Fanless Panel PC

• Mobile Chipset Transition

	Year2006	Year2007	Year2008~9
Chipset Code Name	Mobile Intel®945GME/ICH7M	Mobile Intel®GME965/ICH8M	Mobile Intel®GM45/ICH9M
TDP	7W Max	9.5~13.5W	9~12W
Process	90nm	90nm	65nm
FSB	533/667MHz	667/800MHz	800/1066MHz
System Memory	4G Max	4G Max	8G Max
iAMT	Intel® AMT 1.0	Intel® AMT 2.5	Intel® AMT 4.0
Integrated Graphic Core	3.5th Generation	4th Generation	5th Generation
New Display Interface	-	-	Display Port HDMI/HDCP
Microsoft DirectX	DirectX 9.0	DirectX 9.0	DirectX 10.0
OpenGL Support	OpenGL 1.4	OpenGL 1.5	OpenGL 2



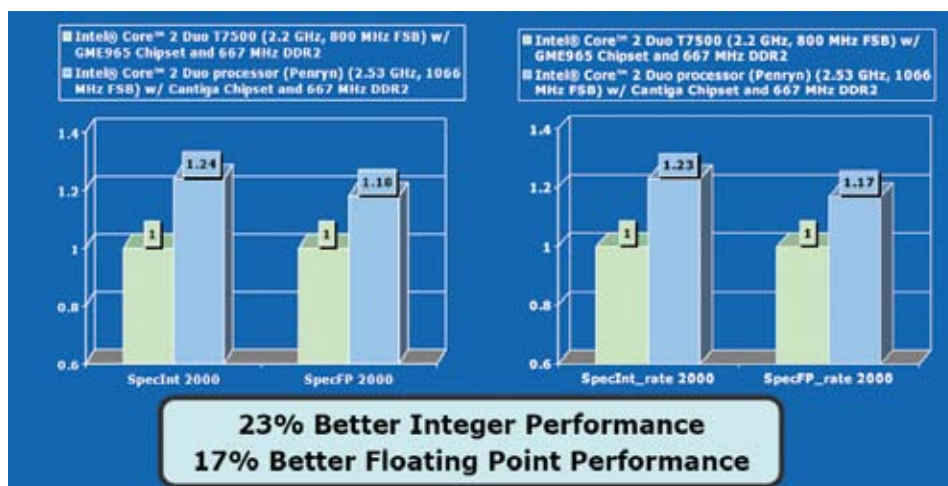
Format	Decoding Stage	GME965	GM45
MPEG2 (DVD)	HW Motion Comp	V	V
	Inverse DC Transform	V	V
	Variable Length Decode	V	V
VC-1 (WMV9)	HW Motion Comp + In Loop Deblocking	V	V
	Inverse Transform		V
	Variable Length Decode		V
AVC (H.264) (HD DVD)	HW Motion Comp + In Loop Deblocking	V	V
	Inverse Transform		V
	Variable Length Decode		V



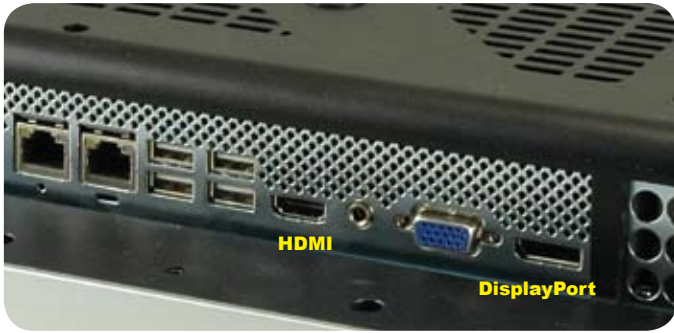
• Mobile Intel® GM45 Processor

Mobile CPU Transition	Year2006	Year2007	Year2008~9
Platform	Merom-Napa Reflash	Merom-Santa Rosa	Penryn-Montevina
SKUs	Intel® Core™2 Duo Intel® Core™2 Duo LV Intel® Celeron®M	Intel® Core™2 Duo Intel® Core™2 Duo LV Intel® Celeron®M	Intel® Core™2 Duo Intel® Core™2 Duo LV Intel® Core™2 Duo ULV Intel® Celeron®M Intel® Celeron®M ULV
Process	65nm	65nm	45nm
Cache	2MB, 4MB	2MB, 4MB	Up to 6MB
FSB	667MHz	800MHz	1066MHz
DDR	DDR2 533/667	DDR2 667/800	DDR2 667/800
Package	Mobile Socket-M, 35mm	Mobile Socket-M, 35mm Mobile Socket-P, 35mm	Mobile Socket-P, 35mm
TDP	34W Standard Voltage 17W Low Voltage 9W Ultra Low Voltage	35W Standard Voltage 17W Low Voltage	35W Standard Voltage 15W Low Voltage5. 5W Ultra-Low Voltage Single Core

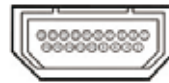
• Performance Upgrades



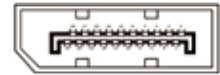
New HDMI/DisplayPort Choice



HDMI



DisplayPort



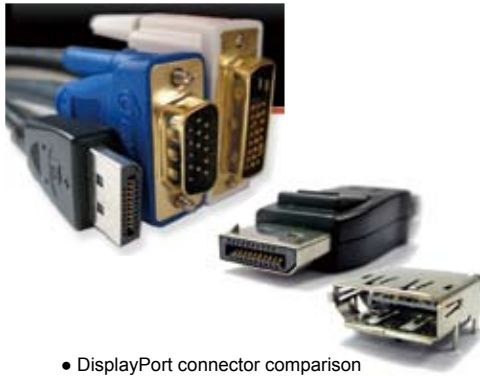
DisplayPort is a digital display interface standard put forth by the Video Electronics Standards Association (VESA). It defines a new license-free, royalty-free, digital audio/video interconnect, intended to be used primarily between a computer and its display monitor, or a computer and a home theater system.



• DisplayPort on projector



• DisplayPort on monitor



• DisplayPort connector comparison



• DisplayPort to DVI



• DisplayPort to HDMI

802.11 b/g/n ready with invisible antenna

The AFL 5 series features high speed WiFi 802.11 b/g/n protocol which builds on previous 802.11 standards by adding multiple-input multiple-output (MIMO) and 40 MHz operation to the physical (PHY) layer. MIMO uses multiple transmitter and receiver antennas to improve performance. The 40 MHz operation uses wider bands, compared to 20 MHz bands in previous 802. protocols operation, to support higher data rates. Wider bandwidth channels are cost effective and easily accomplished with moderate increases in digital signal processing.



27 times faster data transfer rate compare 802.11b

	802.11a	802.11b	802.11g	802.11n
Data Rate (Mbps)	54	11	54	540
Range (Radius Indoor)	35 Meters	38 Meters	38 Meters	70 Meters
Range (Radius Outdoor)	120 Meters	140 Meters	140 Meters	250 Meters
Radio Frequency	5.15 GHz to 5.85 GHz	2.4 GHz to 2.5 GHz	2.4 GHz to 2.5 GHz	2.4 GHz or 5.0 GHz



Saving cable & installation fees

802.11 b/g/n ready with invisible antenna

Applications:

• Medical



17" SXGA Fanless Dual Core Panel PC

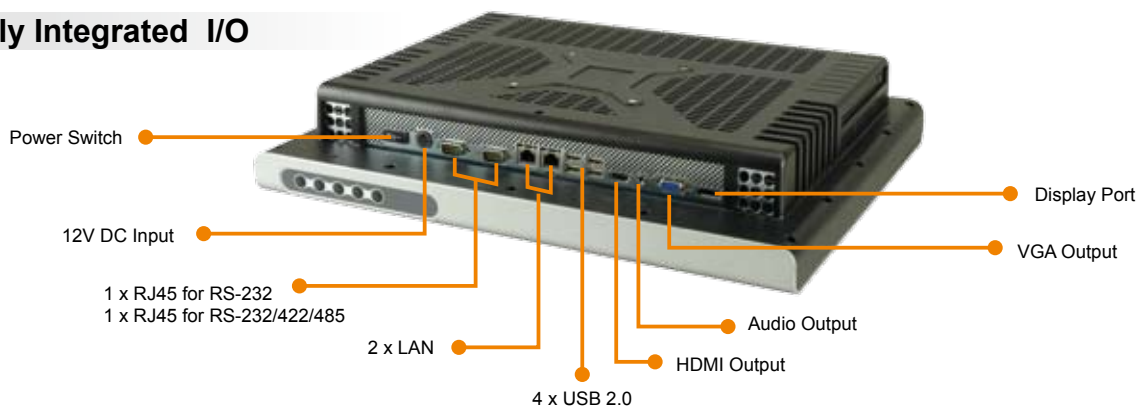
AFL-517A-GM45

Intel® Core 2 Duo T9400 2.53GHz Processor (max.)

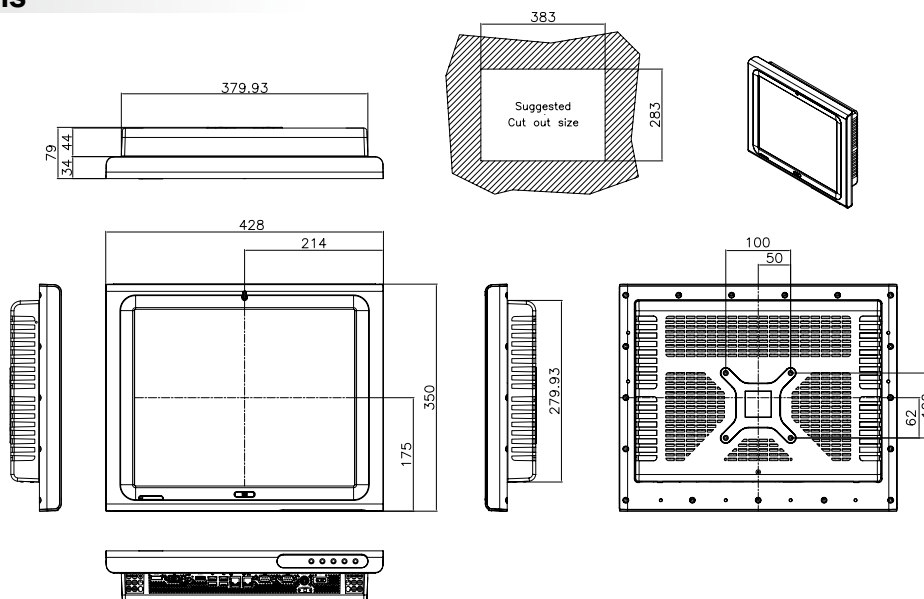
Specifications

Model		AFL-517A-GM45-R10
Display	LCD Size	17"
	Max Resolution	1280 x 1024
	Brightness (cd/m ²)	300
	Contrast Ratio	800 : 1
	LCD Color	16.7M
	Pixel Pitch (mm)	0.264(H) x 0.264(V)
	Viewing Angle (H-V)	160°/160°
	Backlight MTBF (hrs)	50000
Motherboard	CPU	Intel® Core 2 Duo T9400 2.53GHz Processor (max.)
	Chipset	Intel® GM45 Chipset + ICH9M
	RAM	Supports two 2.0GB 667MHz or 800MHz DDR2 SO-DIMM (System max. 4.0GB)
I/O Ports		1 x RS-232 COM Port
		1 x RS-232/422/485 COM port
		2 x Giga LAN
		4 x USB 2.0
		1 x Power Switch
		1 x Reset Button
		1 x VGA port
		1 x Audio port
		1 x HDMI port
		1 x Display port
Drive Bay	SSD	CF Typell
	HDD	1 x 2.5" SATA HDD bay
	CD-ROM	1 x Slim Type CD-ROM bay
	HSUPA Mobile Solution (Optional)	1 x HSUPA Mobile Module (USB Interface)
Other Features	Watchdog Timer	Software programmable supports 1~255 sec. System reset
	Audio	AMP 3W + AMP 3W
	Extension	1 x Wireless Lan Module (Mini PCIe Interface, 802.11 b/g /n LAN Module)
	Membrane Keypad	1 x Bluetooth Module (USB Interface, Bluetooth V2.0)
	LED Function	OSD Keypad below the Front Panel 1 x Power ON/OFF LED on Front Panel
Physical	Construction Material	ABS + PC Plastic front frame
	Mounting	Panel, Wall, Rack, Stand and Arm (VESA 100mm x 100mm)
	Front Panel Color	Sliver (877U) & Gray (ABSA2037)
	Dimension (WxHxD) (mm)	428 x 350 x 79
Environment	Operation Temperature (°C)	0°C ~40°C With HDD 0°C ~45°C with CF card or SATA interface 2.5" SSD HDD
	Storage Temperature (°C)	-20°C ~60°C
	Net Weight	7.5 Kg
	IP Level	IP64
	EMC	CE, FCC, CCC
	Safety	CB
Touch Screen		Resistive Type 5-Wire (Touch controller IC is on board) P/N:63000-FSP150AHA312-RS
Power Adapter		Power: 150W Input: 90VAC~264VAC, 50/60Hz Output: 12VDC
Power Requirement		12VDC
Power Consumption		108W

Fully Integrated I/O



Dimensions



CDRW-DVD Combo Drive Specifications

The drive is able to write CD-R/RW discs and also can perform as a regular DVD-ROM drive.

Drive Type	Internal Slim CD-RW/DVD Combo Drive	
Data Transfer Rate	Write: CD-R: 24X CD-RW: 24X	Read: DVD-ROM: 8X CD-ROM: 24X
Interface	SATA	
Buffer Memory	2MB	

Ordering Information

AFL-517A-GM45-T9400/WT-R/OD/2GB/**(HU01)-R10	17" 300cd/m ² SXGA panel PC with Core 2 Duo 2.53GHz CPU,2GB DDR2 RAM,802.11 b/g/n WiFi,touch screen,Bluetooth, DVD-COMBO, RoHS
AFL-517A-GM45-P8400/WT-R/OD/2GB/**(HU01)-R10	17" 300cd/m ² SXGA panel PC with Core 2 Duo 2.26GHz CPU,2GB DDR2 RAM,802.11 b/g/n WiFi,touch screen,Bluetooth, DVD-COMBO, RoHS
AFL-517A-GM45-T7500/WT-R/OD/2GB/**(HU01)-R10	17" 300cd/m ² SXGA panel PC with Core 2 Duo 2.2GHz CPU,2GB DDR2 RAM,802.11 b/g/n WiFi,touch screen,Bluetooth, DVD-COMBO, RoHS
AFL-517A-GM45-CM575/WT-R/OD/1GB/**(HU01)-R10	17" 300cd/m ² SXGA panel PC with Celeron M 2.0GHz CPU,1GB DDR2 RAM,802.11 b/g/n WiFi,touch screen,Bluetooth, DVD-COMBO, RoHS

ISMM Support Functions

	Voltage	Fan	Smart Fan	Temperature	DIO	WDT	Beep	Cash Drawer
AFL-517A-GM45-R10	V	V	V	V		V	V	

Options

Options	Model name	
Panel mount kit	AFLPK-517A	
Wall mount kit	AFLWK-19	
ARM	ARM-11-RS / ARM-31-RS	
Stand	STAND-A19 / STAND-B19 STAND-210-RS	
OS	WIN CE 5.0 (128 MB CF card)	N/A
	WIN CE 6.0 (128 MB CF card)	N/A
	WIN XPE (1 GB CF card)	AFLCF-517A-GM45-XPE-R10
Hybrid Card Reader	AFLP-17AMSI-U	
Magnetic Stripe Reader	AFLP-17AMSR-U	
DC 12V Input UPS	AUPS-B10-R10	
DC 9-36V Input UPS	AUPS-B20-R10	

Packing List

Item	P/N	Q'ty	Specifications
Screws	44233-030081-RS	4	M3; φ8mm
Power Adapter	63000-FSP0481AD101C-RS	1	90 ~ 264V 12v; 96W
Power Cable	32000-000002-RS	1	1750mm, European Standard
User's Manual CD ROM	7B000-000087-RS	1	
Touch Pen	XTR104-0002-RS	1	



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