AFOLUX 10.4” All-in-One Panel PC

Home Automation
Fanless Design

Shop Floor
Multimedia Fulfillment

Watchdog Timer

RS-232 /422/485

Bluetooth

TouchScreen

Wireless 802.11 b/g

Dual LAN

Integrated audio

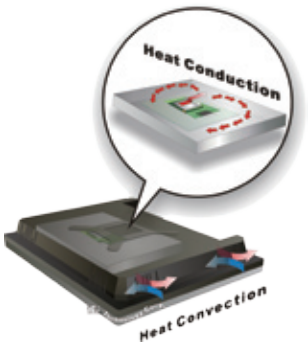
GPRS

Diverse Options for You

IEI has three 10.4" AFOLUX panel PC models. The AFL-10A-LX maximizes power saving, the AFL-10A-CX-15GZ has rich multimedia features, and the AFL-10A-CX-05GZ enjoys both benefits.

Fanless Model	Fanless and Multimedia Functionality Fulfillment Model	Multimedia Enjoyment Model
AFL-10A-LX	**AFL-10A-CX-05GZ**	**AFL-10A-CX-15GZ**
AMD LX800 500MHz (fanless)	**VIA Eden 500MHz (fanless)**	**VIA C7 1.5GHz (with fan)**
		
Low Power Consumption		MPEG-2/4 HD Decode Acceleration
The fanless, low power AFL-10A-LX is an ideal platform for industrial automation platforms. Low power utilization increases the clock frequency, improves reliability, decreases the noise margins and reduces both the capital and operational costs.	The fanless, multimedia enabled AFL-10A-CX-05GZ is easily integrated in to high-end, feature rich platforms and is perfect for vehicle PC applications.	The AFL-10A-CX-15GZ model with an integrated VIA C7 1.5GHz CPU can run high-end multimedia files and still have sufficient CPU resources available to run an array of external peripheral devices such as barcode readers in sophisticated retail applications.

Option 1 : Fanless and Low Power Options



The AFL-10A-LX and the AFL-10A-CX-05GZ with fanless design have less down time and extended operational lives as they are not exposed to overheating problems caused by fan failures.

The low power consumption, excellent heat dissipation and leading power efficiency makes the AFL-10A ideal for a wide range of compact, quiet devices for the home, office, shops, hospitals, public institutions, and industrial plants.

Option 2 : Multimedia Enjoyment

Excellent multimedia features make the IEI AFL-10A all-in-one panel PC model the best advertising and entertainment terminals.

Flawless digital video playback

The AFL-10A-CX-05GZ and the AFL-10A-CX-15GZ have an integrated VIA CX platform. The VIA CX chipset facilitates MPEG-2 and MPEG-4 decoding for flawless digital video playback with ultra-low CPU-utilization.

94% CPU Usage	79% CPU Usage WIN !
Without Hardware Decoder -Lagged image with Higher CPU usage	With Hardware Decoder -Good image quality with Lower CPU usage
	

The hardware decoding acceleration of MPEG-2/4 enables faster multimedia file transmission and better image quality while using fewer CPU resources.

Enhanced sound effects

AC'97 HD Audio and two 1.5W speakers installed on either side of the AFL-10A ensure the system provide high-quality sound and improved track effects to attract customers in public area.

Connect Everywhere

A preinstalled bluetooth module communicates with a wide range of electronic products from PDAs, cellphones and printers, to barcode readers.

Connect More!

Headset for gaming device

Cellular pone control and monitoring of logistics service vehicles

Best Control Master

- Better link quality through accurate frequency selection
- High speed transmission advantage through USB 2.0 interface
- Direct communication between WLAN device and Bluetooth device through a collaborative coexisting design
- Performance maximization through data prioritization technology
- High connection efficiency supports both page scan and inquiry scan modes

An optional IEI GPRS module on the AFOLUX all-in-one panel PC enables easier access to the internet through a GSM network allowing web browsing, corporate & internet Email, vehicle positioning, remote LAN access, and document sharing/ collaborative working.

Connect anytime !

Credit card service on taxi

Railway Information System

60 W DC/DC converter module can be easily mounted in the vehicle equipment to supply DC power source.

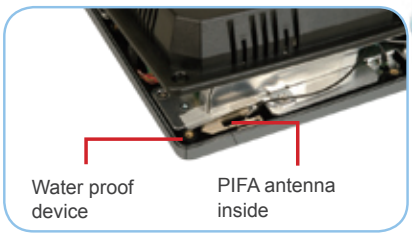
IDD-930160-KIT(Optional)

Best Mobile Solution

- Send and receive data in packet transfer mode
- Efficient use of radio bandwidth
- Constant connectivity
- Cost effective

The integrated PIFA antenna on the AFOLUX ensures an uninterrupted wireless connection. PIFA type antennas can receive high-quality, uniform signals in any location from all directions without any signal degradation or impedance and are the most efficient antennas on the market today. PIFA enhances transmission and reception through a special cubic structure to ensure optimum wireless performance.

Connect Reliably !



Embedded PIFA Antenna

Home Automation

802.11 b/g Compliance for Complete Interoperability

The built-in PIFA antenna for WLAN 802.11b/g, reduces the hazard of network collisions and crashes or virus infections.

Fast Transmission and Flexible Power Mode

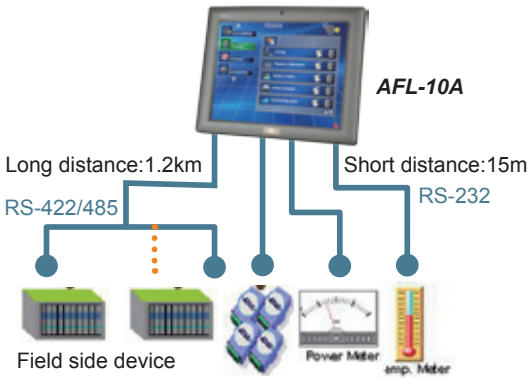
RS-232 /422/485

When communicating at high data rates, or over long distances in real world environments, single ended methods are often inadequate. Differential data transmission (balanced differential signal) offers superior performance in most applications. Differential signals can help nullify the effects of ground shifts and induced noise signals that can appear as common mode voltages on a network.

• RS-422 (differential) was designed for greater distances and higher Baud rates than RS-232.

• RS-485 meets the requirements for a truly multi-point communications network, and the standard specifies up to 32 drivers and 32 receivers on a single (2-wire)

Longer Transmission Distance!



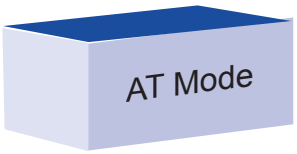
Fast Transmission !

Specifications		RS-232	RS-422	RS-485
Mode of Operation		Single ended	Differential	Differential
Total Number of Drivers and Receivers on One Line (One driver active at a time for RS485 networks)		1 Driver 1 Receiver	1 Driver 10 Receiver	32 Driver 32 Receiver
Maximum Cable Length		50 FT.	4000 FT.	4000 FT.
Maximum Data Rate (40ft. - 4000ft. for RS422/RS485)		20kb/s	10Mb/s-100Kb/s	10Mb/s-100Kb/s
Maximum Driver Output Voltage		+/-25V	-0.25V to +6V	-7V to +12V
Driver Output Signal Level (Loaded Min.)	Loaded	+/-5V to +/-15V	+/-2.0V	+/-1.5V
Driver Output Signal Level (Unloaded Max)	Unloaded	+/-25V	+/-6V	+/-6V
Driver Load Impedance (Ohms)		3k to 7k	100	54
Max. Driver Current in High Z State	Power On	N/A	N/A	+/-100uA
Max. Driver Current in High Z State	Power Off	+/-6mA @ +/-2v	+/-100uA	+/-100uA
Slew Rate (Max.)		30V/uS	N/A	N/A
Receiver Input Voltage Range		+/-15V	-10V to +10V	-7V to +12V
Receiver Input Sensitivity		+/-3V	+/-200mV	+/-200mV
Receiver Input Resistance (Ohms), (1 Standard Load for RS485)		3k to 7k	4k min.	>=12k

Flexible Power Mode

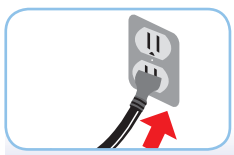
AT/ATX Mode Selection

IEI AT/ATX power mode flexibility allows you to select the most suitable power mode for your unique application requirements.

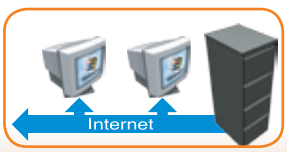


In AT mode the AFOLUX panel PC automatically starts when the central plug is connected.

In ATX mode the AFOLUX panel PC can be individually booted via remote network.



System Powered On/Off by Central Plug



System powered on/off remotely via network

Easily Power On/Off in mounting situation

System booted by central plug not individual switch, conveniently used in mounting applications which is difficult to power the system by switch.

Wall Mount

Easily boot many systems

Enabling multiple systems through the central power unit.

Public Information KIOSK

Power Saving

Standby mode activated, when the system is not used.

POS

Remote Control

Users can set up each panel PC to be turned on/off at different time via remote network.

Security Surveillance

Supported Software

Watchdog Timer

Watchdog Timer Software programmable supports 1~255 sec. System reset

Automatic Reboot

System Halted Manual Reboot

Watchdog Timer Function

IEI provides the value-added Watchdog Timer function for AFL-10A. Watchdog Timer ensures that if the system does not report completion of its information saving task within assigned period of time, the operating system will reboot with or without the information saved. When there's error in the system, the Watchdog Timer function can keep the system working normally through the automatic restart function within a certain amount of time, decreasing the maintenance expense caused by system halted.

Turnkey Solution

Embedded OS Supports

IEI provides optional pre-installed Windows® XP Embedded or Windows® CE 5.0 turnkey solutions tailored for the AFOLUX series. These turnkey solutions have one Compact Flash memory card with either Windows® XP Embedded or Windows® CE 5.0 pre-installed, one Windows® XP Embedded or Windows® CE 5.0 license, and one CD that contains all related SDK (Software Development Kit) and user manuals.

Windows CE 5.0

AFLCF-10-LX-CE
AFLCF-10-CX-CE

Include:
- Windows® CE 5.0 OS image with license
- Thin Client turnkey solutions
- SDK

Windows XP Embedded

AFLCF-10-LX-XPE
AFLCF-10-CX-XPE

Include:
- Windows® XPE OS image with license
- Thin Client turnkey solutions

Thin Client Technology

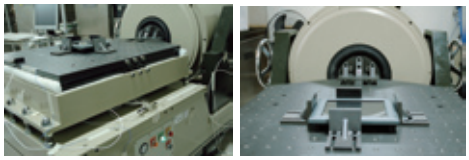
Advantages of Thin Client Technology
- Reduced hardware costs
- Reduced software cost
- Reduced maintenance cost
- Centrally controlled resources
- Security and protection
- Protection from client crash

Applications of Thin Client-Server Architecture
- KIOSK
- Thin Client POS
- Logistics
- Terminals for database system
- OA and IT

Reliable Luxury

Anti-vibration protection

The AFOLUX panel PC are equipped with a drive kit to increase the resistance of the hard drive to side shocks and vibrations.The drive kit extends the drive life cycle in environments such as vehicles and marine applications.



IP64 dustproof and waterproof front panel

The AFOLUX front panel is IP 64 compliant. IP 64 compliance guarantees the front panel is dustproof and water-proof. The AFOLUX front panel can withstand any industrial environment where dust and drizzle is encountered.

Rugged design

The AFOLUX is directly mounted internally to a metal main frame rather than a fragile plastic cover. In addition, the AFOLUX case is made from ABS/PC (Acrylonitrile Butadiene Styrene/Polycarbonate Alloy), which improves the stiffness over conventional material and makes the system more solid and durable.

Options and Dimensions

IEI Quick Mounting Technology

Wall Mount

Panel Mount

Rack Mount

Stand Kit

Optional Mounting Kits

Panel mounting kit	AFLPK-10
Wall mounting kit	AFLWK-10
Rack mounting kit	AFLRK-10
Stand	STAND-A12 (For 10.4" and 12.1" Model)

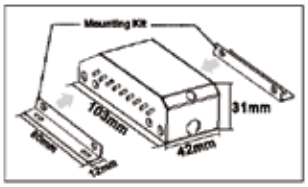
Optional Internal GPRS Spec (P/N:GPRS01)

EDGE/GPRS/GSM Air interface	Quad-band operation GSM850, EGSM 900, DCS 1800, PCS 1900
	GSM Power Class 4 (2W) for 850/900 bands, GSM Power Class 1 (1W) for 1800/1900 bands
	EDGE class E2 (+27dBm in 850/900 bands, +26dBm in 1800/1900 bands)
	GSM/GPRS Rel '97; PCS1900 Rel '98; EGPRS Rel '99 compliant
EGPRS/GPRS (PS) feature set	GPRS Class 10, coding schemes 1-4
	EDGE Class 10, Multi-slot classes 1-9
	GPRS/EGPRS class B type 1 MT
	Link Adaptation
	Incremental redundancy (IR)
Operating System Supported	Windows 2000/XP Home/XP Pro
USB Interface	USB2.0 +5V DC
SIM Card Interface	3.0V interface
Temperature	-30°C to +65°C
Humidity	up to 95% non-condensing
Dimensions	109.3 x 42.7 x 17.7mm

Optional 60W DC/DC Converter Module Spec (P/N:IDD-930160-KIT)

Input Voltage	9~30VDC
Input Current	Max. 8A at 6VDC
Output	12V@5A
Max. Total Output	60W
Performance Characteristics	Noise & ±Ripple:<320mV Line Regulation: <120mV Load Regulation: <120mV
Transient toggle rate	250Hz (50% duty ratio)
Transient current step	From 0% to 50% and 50% to 100% of max current
Efficiency	typ. 95% (Vin=12V, 80% of full load)
Dimensions	42mm x 103mm x 31mm
Mounting Kit	12mm x 80mm
Cable Length	180cm
Operating Temperature	-40°C~85°C

IDD-930160-KIT

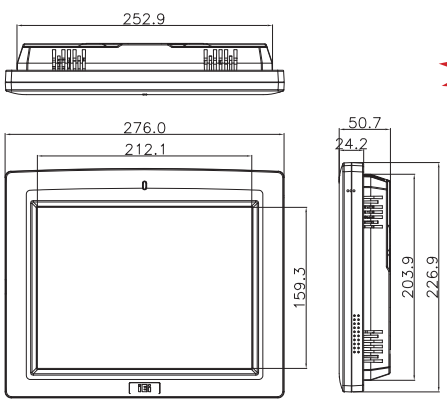


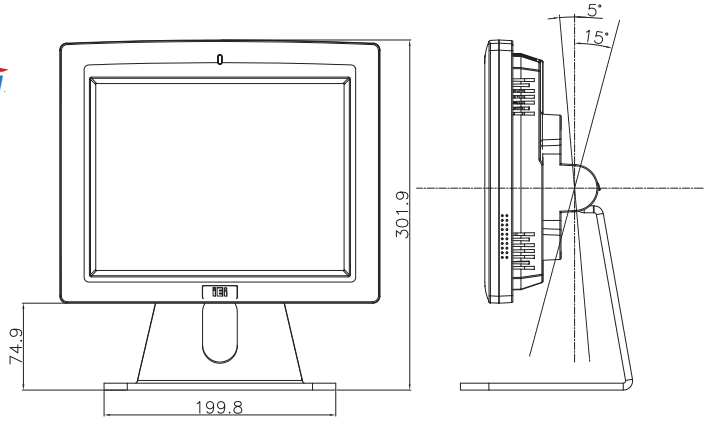
Optional Embedded OS

Embedded OS Supports	P/N
Windows® CE 5.0	AFLCF-10-LX-CEAFLCF-10-CX-CE
Windows® XPE	AFLCF-10-LX-XPEAFLCF-10-CX-XPE

* Note: Include-CF card, OS image with Windows® CE or Windows® XPE license and IEI Thin Client software package
* CF card capacity with Windows® CE 5.0:128MB, with Windows® XPE :1GB

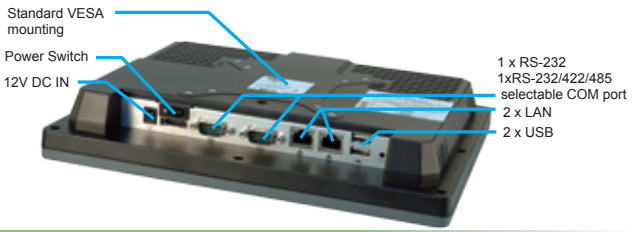
Dimensions





Specification

	AFL-10A-LX	AFL-10A-CX-05GZ	AFL-10A-CX-15GZ
CPU	AMD Geode™LX 800 (500MHz)	Fanless VIA Eden™ (500MHz)	VIA C7® (1.5GHz) with fan
Chipset	AMD Geode™LX 800 + AMD GeodeTMCS5536	CX700M	CX700M
RAM	Supports one 1GB(maximum) 333 MHz or 400 MHz SO-DMM	Supports one 200-pin 1GB (maximum) 400MHz or533MHz DDR2 SO-DIMM	
LCD Size	10.4"		
Max Resolution	800 * 600		
Brightness (cd/m²)	400		
Contrast Ratio	500:1		
LCD Color	262K		
Pixel Pitch (mm)	211.2(H) x 158.4(V)		
Viewing Angle (H-V)	120º/100º		
Backlight MTBF (hrs)	50000		
I/O Ports	1 x RS-232 COM port, 1 x RS-232/422/485 COM port, 2 x RJ-45 for GbE4 x USB 2.0, 1 x Power Switch, 1 x Reset Button	1 x External SATA1, 1x RS-232 COM port, 1 x RS-232/422/485 COM port, 2 x RJ-45 for GbE4 x USB 2.0, 1 x Power Switch, 1 x Reset Button	
SSD	CF Type II		
Watchdog Timer	Software programmable supports 1~255 sec. System reset		
Audio	AMP 1.5W + 1.5W		
Expansion	1 x Wireless LAN Module (Mini PCI Interface), 1 x Bluetooth Module (USB Interface, Bluetooth V2.0)		
HDD Drive Bay	N/A		
Optional GPRS Module(support GSM 850,EGSM900,DCS 1800 & PCS 1900)	YES		
Construction Material	ABS + PC Plastic front frame		
LED Function	1 x Power ON/OFF LED on front panel		
Mounting	Panel / Wall mountingVESA 75 x 75mm		
Front Panel Color	7539U		
Dimension (WxHxD) (mm)	276 x 226.9 x 50.7		
Operation Temperature (°C)	0°C~50°C	0°C~50°C	0°C~45°C
Storage Temperature (°C)	-20°C~60°C		
Net Weight	1.4		
IP Level	IP64		
Safety & EMI	Meet EMC, CE, FCC, UL and CCC		
Touch screen	Resistive Type 5-Wire (touch controller IC is on board)		
Power Adapter	48W Power Adapter		
Power Requirement	12VDC		
Power Consumption	25W	30W	34W



AFL-10A Ordering Information

Model	Description
AMD LX Solutioin	
AFL-10A-LX/WT-R/256MB/**(GPRS01)	10.4", 400cd/m² fanless panel PC with AMD Geode™ LX 800 CPU, 256MB DDR RAM, 802.11b/g wireless module, Bluetooth module and touch screen, RoHS
AFL-10A-LX/WT-R/512MB/**(GPRS01)	10.4", 400cd/m² fanless panel PC with AMD Geode™ LX 800 CPU, 512MB DDR RAM, 802.11b/g wireless module, Bluetooth module and touch screen, RoHS
VIA CX Solution	
AFL-10A-CX-15GZ/WT-R/512MB/**(GPRS01)	10.4", 400cd/m², panel PC with VIA C7R 1.5GHz CPU, 512MB DDR2 RAM, 802.11b/g wireless module, Bluetooth module and touch screen, RoHS
AFL-10A-CX-05GZ/WT-R/512MB/**(GPRS01)	10.4", 400cd/m², fanless panel PC with VIA Eden. 500MHz CPU,512MB DDR2 RAM, 802.11b/g wireless module, Bluetooth module and touch screen, RoHS

Built-in Bluetooth Spec
(USB 2.0 interface) (P/N:BT01)

Standard	Bluetooth V2.0
Frequency Band	2.402GHz ~ 2.480GHz unlicensed ISM band
Modulation Method	GFSK for 1Mbps; Π/4-DQPSK for 2Mbps; 8-DPSK for 3Mbps
Spread Spectrum	FHSS (Frequency Hopping Spread Spectrum)
RF Output Power	Class 2 (under 4 dBm)
Antenna terminal	50 Ohms
DC power	DC 3.3 V or DC 5V
I/O interface	USB v2.0 compliant interface
Two GPIO interface	LED link indicator interface
Dimension	35 x 11 mm
Operating system supported	Windows XP, 2000, 98SE, Me

Packing List

1 x AFL-10A	1 x Screw Kit
1 x Power Cable	1 x Touch Pen
1x User Manual-CD ROM	1x48W Power Adapter