

## 12.1" XGA AFOLUX Panel PC

### AFL-12A-LX

### AMD Geode™ LX-800 500 MHz Processor

### AFL-12B-LXPOS

### AMD Geode™ LX-800 500 MHz Processor

### AFL-12A-N270

### Intel® Atom™ Processor N270 1.6GHz Processor

### AFL-12B-9103

### Intel® Celeron® M 1GHz 512KB Processor



## Features

- 12.1" TFT LCD with resistive touch screen
- Fanless cooling system
- 18V~30V wide range DC power input (Optional)
- Selectable AT/ATX power mode through the switch on the chassis inside
- Built-in HSUPA module for mobile connection (Optional)
- One compact flash slot
- IP 64 compliant front panel

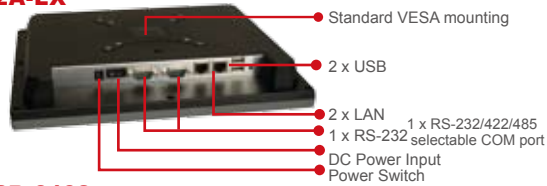


## Specifications

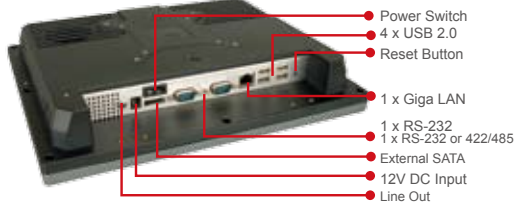
| Model                                                              | AFL-12A-LX-R12 / AFL-12A-LX24V                                                                                                                                                |  | AFL-12BX(S)-LXPOS                                                                                                                                                                                            |  | AFL-12A-N270-R10                                                                                                                                                                             |  | AFL-12B-9103                                                                                                                                                                                 |  |
|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| LCD Size                                                           | 12.1"                                                                                                                                                                         |  |                                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |
| Max Resolution                                                     | 1024 x 768                                                                                                                                                                    |  | 1024 x 768 or 800 x 600                                                                                                                                                                                      |  | 1024 x 768                                                                                                                                                                                   |  |                                                                                                                                                                                              |  |
| Brightness (cd/m²)                                                 | 450                                                                                                                                                                           |  | 400 or 350                                                                                                                                                                                                   |  | 400                                                                                                                                                                                          |  |                                                                                                                                                                                              |  |
| Contrast Ratio                                                     | 700:1                                                                                                                                                                         |  | 700:1 or 500:1                                                                                                                                                                                               |  | 500:1                                                                                                                                                                                        |  |                                                                                                                                                                                              |  |
| LCD Color                                                          | 262K                                                                                                                                                                          |  |                                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |
| Pixel Pitch (mm)                                                   | 0.240(H) x 0.240(V)                                                                                                                                                           |  |                                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |
| Viewing Angle (H-V)                                                | 160°/160°                                                                                                                                                                     |  | 160°/160° or 140°/120°                                                                                                                                                                                       |  | 120°/100°                                                                                                                                                                                    |  |                                                                                                                                                                                              |  |
| Backlight MTBF                                                     | 50000                                                                                                                                                                         |  |                                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |
| SBC Model                                                          | AFLMB-LX-800                                                                                                                                                                  |  | AFLMB-LXPOS-R10                                                                                                                                                                                              |  | AFLMB-945GSE-N270-R10                                                                                                                                                                        |  | AFLMB-9103-R11                                                                                                                                                                               |  |
| CPU                                                                | AMD LX 800 (500MHz)                                                                                                                                                           |  |                                                                                                                                                                                                              |  | Intel® Atom™ process N270 1.6GHz CPU                                                                                                                                                         |  | Intel® Celeron M process 1Gz 512KB Cache CPU                                                                                                                                                 |  |
| Chipset                                                            | AMD LX 800 + AMD CS5536                                                                                                                                                       |  |                                                                                                                                                                                                              |  | Intel® 945GSE + ICH7M                                                                                                                                                                        |  | Intel® 910GML Chipset                                                                                                                                                                        |  |
| RAM                                                                | Supports one 333MHz or 400MHz DDR SO-DIMM (1GB Max.)                                                                                                                          |  |                                                                                                                                                                                                              |  | Supports one 400MHz or 533MHz DDRII SO-DIMM (2GB Max.)                                                                                                                                       |  | Supports one 400MHz DDRII SO-DIMM (2GB Max.)                                                                                                                                                 |  |
| I/O Ports                                                          | 1 x RS-232 COM Port<br>1 x RS-232/422/485 COM port<br>2 x RJ-45 for 10/100Mbps LAN<br>2 x USB 2.0<br>1 x Power Switch<br>1 x Reset Button<br>1 x Power Jack<br>1 x Audio Port |  | 2 x RS-232 COM Port (pin9 with RI, 5V or 12V switch selectable)<br>1 x RJ-45 for 10/100Mbps LAN<br>2 x USB 2.0<br>1 x Power Switch<br>1 x Reset Button<br>1 x RJ-12(12VDC) for Cash Drawer<br>1 x Power Jack |  | 1 x RS-232 COM Port<br>1 x RS-232/422/485 COM port<br>2 x RJ-45 for Giga LAN<br>2 x USB 2.0<br>1 x Power Switch<br>1 x Reset Button<br>1 x External SATA<br>1 x Audio Port<br>1 x Power Jack |  | 1 x RS-232 COM Port<br>1 x RS-232/422/485 COM port<br>1 x RJ-45 for Giga LAN<br>4 x USB 2.0<br>1 x Power Switch<br>1 x Reset Button<br>1 x External SATA<br>1 x Audio Port<br>1 x Power Jack |  |
| SSD                                                                | CF Typell                                                                                                                                                                     |  |                                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |
| Watchdog Timer                                                     | Software programmable supports 1~255 sec. System reset                                                                                                                        |  |                                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |
| Audio                                                              | AMP 1.5W + 1.5W (internal speaker)                                                                                                                                            |  |                                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |
| Expansion                                                          | 1 x Wireless Lan 802.11 b/g Module (internal Mini PCI interface)<br>1 x Bluetooth Function (internal USB interface, Bluetooth V2.0)                                           |  | 1 x Wireless Lan 802.11 b/g Module (internal Mini PCI interface)                                                                                                                                             |  | 1 x Wireless Lan 802.11 b/g Module (internal PCIe mini card interface)<br>1 x Bluetooth Function (internal USB interface, Bluetooth V2.0)                                                    |  |                                                                                                                                                                                              |  |
| Drive Bay                                                          | 1 x 2.5" IDE HDD bay or Optional HSUPA Module                                                                                                                                 |  | 1 x 2.5" IDE HDD bay                                                                                                                                                                                         |  | 1 x 2.5" SATA HDD bay or Option HSUPA Module                                                                                                                                                 |  |                                                                                                                                                                                              |  |
| Optional HSUPA Module (support GSM 850, EGSM 900, DCS 1800 & 1900) | 1 x HSUPA Mobile Module (USB Interface)                                                                                                                                       |  | N/A                                                                                                                                                                                                          |  | 1 x HSUPA Mobile Module (USB Interface)                                                                                                                                                      |  |                                                                                                                                                                                              |  |
| Construction Front Panel                                           | ABS + PC Plastic front frame                                                                                                                                                  |  |                                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |
| LED Function                                                       | 1 x LED on Front Panel for Power ON/OFF                                                                                                                                       |  | 1 x LED on Front Panel for Power ON/OFF<br>2 x LED on Rear cover for COM port<br>12V : RED / 5V : YELLOW / RI : GREEN                                                                                        |  | 1 x Power ON/OFF LED on Front Panel                                                                                                                                                          |  |                                                                                                                                                                                              |  |
| Mounting                                                           | Panel, Wall, Rack, Stand and Arm VESA 75mm x 75mm / 100mm x 100mm                                                                                                             |  |                                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |
| Front Panel Color                                                  | Gray 7539U                                                                                                                                                                    |  |                                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |
| Dimension (WxHxD) (mm)                                             | 304 x 246 x 50                                                                                                                                                                |  | 304 x 246 x 56                                                                                                                                                                                               |  | 304 x 246 x 50                                                                                                                                                                               |  | 304 x 246 x 56                                                                                                                                                                               |  |
| Operation Temperature (°C)                                         | 0°C ~ 50°C                                                                                                                                                                    |  | 0°C ~ 50°C                                                                                                                                                                                                   |  | 0°C ~40°C with SATA HDD<br>-10°C ~50°C with CF Card or SATA interface 2.5" SSD HDD                                                                                                           |  | 0°C ~40°C : Fan mode<br>0°C ~45°C With CF Card or SATA interface 2.5" SSD HDD : Fanless                                                                                                      |  |
| Storage Temperayure (°C)                                           | -20°C ~ 60°C                                                                                                                                                                  |  |                                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |
| N/G Weight                                                         | 1.8 Kg                                                                                                                                                                        |  |                                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |
| IP Level                                                           | Front Frame IP64                                                                                                                                                              |  |                                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |
| Safety & EMC                                                       | CE / FCC / CB / CCC                                                                                                                                                           |  |                                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |
| Touch Screen                                                       | Resistive Type 5-Wire (Touch controller IC is on board)<br>or<br>Capacitive type touch screen without HDD bay                                                                 |  |                                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |                                                                                                                                                                                              |  |
| Power Adapter                                                      | P/N: 63000-FSP0361AD101C-RS<br>36W Power Adapter<br>Input: 90VAC~264VAC, 50/60Hz<br>Output: 12VDC                                                                             |  | P/N: 63000-FSP0481AD101C-RS<br>48W Power Adapter<br>Input: 90VAC~264VAC, 50/60Hz<br>Output: 12VDC                                                                                                            |  | P/N: 63000-FSP0481AD101C-RS<br>48W Power Adapter<br>Input: 90VAC~264VAC, 50/60Hz<br>Output: 12VDC                                                                                            |  | P/N: 63000-FSP0601AD101C-RS<br>60W Power Adapter<br>Input: 90VAC~264VAC, 50/60Hz<br>Output: 12VDC                                                                                            |  |
| Power Requirement                                                  | 12VDC/18~30VDC                                                                                                                                                                |  |                                                                                                                                                                                                              |  | 12VDC                                                                                                                                                                                        |  |                                                                                                                                                                                              |  |
| Power Consumption                                                  | 29W                                                                                                                                                                           |  | 29W                                                                                                                                                                                                          |  | 32W                                                                                                                                                                                          |  | 41W                                                                                                                                                                                          |  |

## Fully Integrated I/O

## • AFL-12A-LX



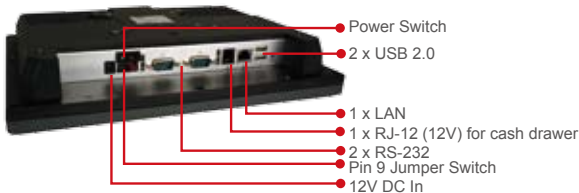
## • AFL-12B-9103



## • AFL-12A-N270

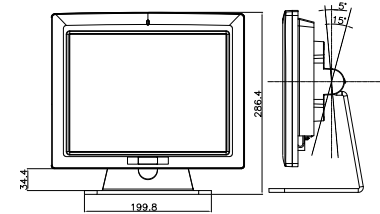
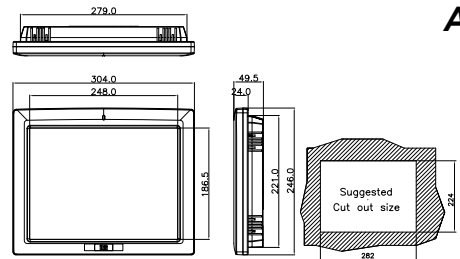


## • AFL-12B-LXPOS

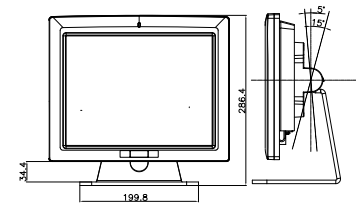
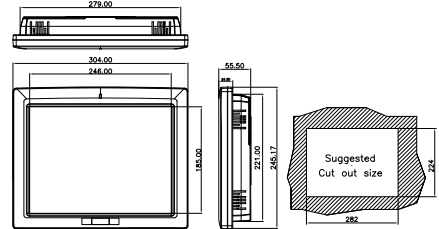


## Dimensions (Unit: mm)

## AFL-12A



## AFL-12B



## Ordering Information

| Part Number                                                   | Description                                                                                                                                                                    |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AFL-12A-LX/WT-R/256MB/**(HSUPA01)-R12                         | 12.1" 450 cd/m², XGA fanless panel PC with AMD LX-800 CPU, AT/ATX mode, 802.11b/g Wireless Module, Bluetooth Module, Touch screen and 256MB DDR RAM, R12, RoHS                 |
| AFL-12A-LX/WT-R/512MB/**(HSUPA01)-R12                         | 12.1" 450 cd/m², XGA fanless panel PC with AMD LX-800 CPU, AT/ATX mode, 802.11b/g Wireless Module, Bluetooth Module, Touch screen and 512MB DDR RAM, R12, RoHS                 |
| <b>18V~30VDC!</b><br>AFL-12A-LX24V/WT-R/256MB/**(HSUPA01)-R11 | 12.1" 450 cd/m², XGA fanless panel PC with AMD LX-800 CPU, 18~30VDC input, AT/ATX mode, 802.11b/g Wireless Module, Bluetooth Module, Touch screen and 256MB DDR RAM, R11, RoHS |
| <b>18V~30VDC!</b><br>AFL-12A-LX24VWT-R/256MB/**(HSUPA01)-R11  | 12.1" 450 cd/m², XGA fanless panel PC with AMD LX-800 CPU, 18~30VDC input, AT/ATX mode, 802.11b/g Wireless Module, Bluetooth Module, Touch screen and 512MB DDR RAM, R11, RoHS |
| <b>AFOLUX POS Solution!</b><br>AFL-12BS-LXPOS/WT-R/256MB      | 12.1" 350 cd/m² SVGA fanless PPC with AMD Geode LX 800 CPU, 256MB DDR RAM, 802.11 b/g wireless module and touch screen, without STAND, RoHS                                    |
| <b>AFOLUX POS Solution!</b><br>AFL-12BX-LXPOS/WT-R/256MB      | 12.1" 400 cd/m² XGA fanless PPC with AMD Geode LX 800 CPU, 256MB DDR RAM, 802.11 b/g wireless module and touch screen, without STAND, RoHS                                     |
| AFL-12B-9103-10G/WT-R/1GB/**(HSUPA01)                         | 12.1" 400 cd/m², XGA fanless panel PC with Celeron® M 1.0GHz 512K cache CPU, 1GB DDR2 RAM, 802.11 b/g wireless module, touch screen, Bluetooth, RoHS                           |
| AFL-12A-N270/WT-R/1GB/**(HSUPA01)-R10                         | 12.1" 400 cd/m², XGA fanless panel PC with Intel® Atom™ N270 1.6GHz, 802.11b/g wireless module, bluetooth module, touch screen, 1GB DDR2 533, RoHS                             |

Note 1 : WiFi 802.11 draft N is upgradable.

Note 2 : Capacitive type touch screen is upgradable.

## Options

| Model                             | AFL-12A-LX                                            | AFL-12B-LXPOS          | AFL-12A-N270            | AFL-12B-9103          |
|-----------------------------------|-------------------------------------------------------|------------------------|-------------------------|-----------------------|
| Panel mounting kit                |                                                       |                        | AFLPK-12                |                       |
| Wall mounting kit                 |                                                       |                        | AFLWK-12                |                       |
| Rack mounting kit                 |                                                       |                        | AFLRK-12                |                       |
| ARM                               |                                                       |                        | ARM-11-RS / ARM-31-RS   |                       |
| Stand                             | STAND-A12 / STAND-POS12 / STAND-100-RS / STAND-150-RS |                        |                         |                       |
| VSTAND                            | VSTAND-A12                                            |                        |                         |                       |
| 9~30VDC to 12VDC converter module | IDD-930160-KIT                                        |                        |                         |                       |
| OS: Win CE 5.0 (128 MB CF card)   | AFLCF-12-LX-CE-R11                                    | AFLCF-12-LXPOS-CE      | N/A                     | AFLCF-12-9103-CE      |
| OS: Win CE 6.0 (128 MB CF card)   | AFLCF-12-LX-CE060-R11                                 | AFLCF-12-LXPOS-CE060   | AFLCF-12-N270-CE060-R10 | AFLCF-12-9103-CE060   |
| OS: Win XPE (1 GB CF card)        | AFLCF-12-LX-XPE-R11                                   | AFLCF-12-LXPOS-XPE     | AFLCF-12-N270-XPE-R10   | AFLCF-12-9103-XPE     |
| OS: LINUX (2 GB CF card)          | AFLCF-12-LX-LNX-R10                                   | AFLCF-12-LXPOS-LNX-R10 | AFLCF-12-N270-LNX-R10   | AFLCF-12-9103-LNX-R10 |
| Hybrid Card Reader                | AFLP-12AMSI-U                                         |                        |                         |                       |
| Magnetic Stripe Reader            | AFLP-12AMSR-U                                         |                        |                         |                       |
| DC 12V Input UPS                  | AUPS-A10-R10 (7.4V 3800mAh)                           |                        |                         |                       |
| DC 9~36V Input UPS                | AUPS-A20-R10 (7.4V 3800mAh)                           |                        |                         |                       |

## ISMM Support Functions

|               | Voltage | Fan | Smart Fan | Temperature | DIO | WDT | Cash Drawer |
|---------------|---------|-----|-----------|-------------|-----|-----|-------------|
| AFL-12A-LX    | V       |     |           | V           |     | V   |             |
| AFL-12B-LXPOS | V       |     |           | V           |     | V   | V           |
| AFL-12B-9103  | V       | V   | V         | V           |     | V   |             |
| AFL-12A-N270  | V       |     |           | V           |     | V   |             |

## Packing List

| Item          | Part Number                                                                | Q'ty | Specification                                                                                                       |
|---------------|----------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------|
| Screws Pack   | 44013-030041-RS                                                            | 4    | M3;5mm                                                                                                              |
| Power Adpater | 63000-FSP0361AD101C-RS<br>63000-FSP0481AD101C-RS<br>63000-FSP0601AD101C-RS | 1    | 90~264V AC; 12V DC; 36W (for LX)<br>90~264V AC; 12V DC; 48W (for LXPOS, ATOM)<br>90~264V AC; 12V DC; 60W (for 9103) |
| Power Cord    | 32000-000002-RS                                                            | 1    | 1750mm; European Standard                                                                                           |
| Utilities CD  | 7B000-000087-RS                                                            | 1    |                                                                                                                     |
| Touch Pen     | XTR104-0002-RS                                                             | 1    |                                                                                                                     |

Note: AFL-LX24V model is without power adapter