

AFL2-12A-HM65 AFL2-12A-D525

- Intel® 2nd Gen Core™ i7/i5/i3 Solution
- Intel® Atom™ D525 Dual Core Solution

12.1" AFOLUX GEN2 Flat-bezel Panel PC

New

- 12.1" 600nits 1024 x 768 flat-bezel LCD with LED backlight
- Supports projected capacitive touchscreen or 5-wire resistive type touch screen
- Two built-in 1.5W speakers and microphone
- Dual GbE LAN for high speed network applications
- One 204-pin DDR3 SO-DIMM slot (system max. 4GB)
- Wi-Fi 802.11b/g/n 2T2R high speed wireless
- EM or Mifare RFID reader
- IP 64 compliant front panel
- Auto-dimming control
- Built-in 1.3 Megapixel webcam with AF, AE and AWB capabilities



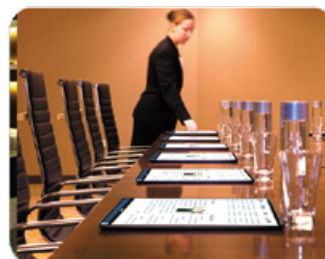
1 Applications



Medical treatment



Restaurant



Office



Library

2 Seamless Flat-Bezel Design

The flat-bezel design covers the entire front frame (bezel) to make the screen and bezel appear to blend together. The seamless flat-bezel touchscreen system offers a stylish and easy to clean surface.

Flat-Bezel Advantages

- Sleek and stylish appearance
- Perfect edge design prevents dust and water accumulation (IP 64)
- Easy-to-clean surface



Sleek & Stylish



Advanced Flat-Bezel Design

IP 64

1 IEI Mobile Solutions

2 Automation Panel Solutions

3 RISC-based Solutions

4 PACSmate Medical Solutions

5 Optional Peripherals

Multimedia Device Ready

Built-in 1.3 Megapixel CMOS webcam

- SXGA resolution image sensor
- Frame rate: 1280x1024@ 7.5fps max. 640x480@ 24~30fps
- Auto white balance
- Auto exposure
- Video resolution: 1280 x 1024, 800 x 600, 640 x 480, 352 x 288, 320 x 240, 176 x 144, 160 x 120.
- Auto compensation
- Focus range from: 25 cm to Infinity
- Flip control option
- High speed USB 2.0 interface
- Image storage format: AVI
- Photo storage format: BMP, JPEG



LED Backlight

The LED backlight panel displays clearer and more vivid images even in outdoor environments with bright sunlight.

- Wider color gamut
- More even screen illumination
- Longer display life
- Low temperature operation and greater power efficiency



Traditional Product

AFL2-12A Product

Auto Dimming

- More comfortable viewing, decreases eye strain and tiredness
- Power consumption saving
- Extend lamp lifetime



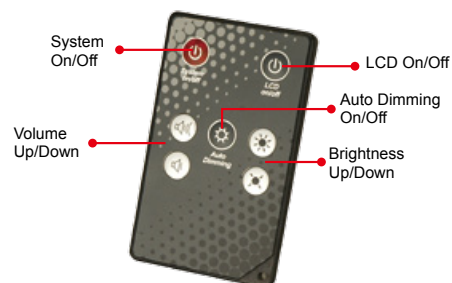
Two Touch Panel Options

Both the projected capacitive touch (PCAP) and 5-wire resistive touch screen provide powerful viewing options. See comparison below.

Touch Panel	Resistive Touch	Projected Capacitive Touch
Theory	There are two layers of insulation film, one has resistor, another can be considered a pure conductor, press to make them contact, to change resistance to position.	Make charge movement by a finger contacting. These charge comes from around wire of touch screen wire, IC analysis the current produced due to charge movement to position.
Transparency	above 78%	above 85%
Touch accuracy	above 98.5%	above 98.5%
Surface hardness	2H	7H
Indoor visual effect	Good	Good
Sunlight visual effect	Normal	Good
Touch sensitivity	Can use fingers (even wear gloves), nails, stylus etc.	Only live fingers, non-living objects, nails, gloves are invalid.
Multitouch	No	Support in windows 7
Scratch resistance	Easily scratched, need protected film and frequently calibration.	The outer use glass, anti-scratch
Immunity	No	Electromagnetic interference
Dust/Dirt effect	No	Small, but easy to clean
Environmental adaptability	No requirement for humidity, and can operate under wider temperature.	At least 5% operating humidity and temperature range is narrow.

IR Remote Controller

The IR remote controller is a convenient way to adjust visual settings.



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Optional Peripherals

Diverse Performance Options



- **Reliable Fanless System-Intel® Atom™ Platform**

High performance with low power consumption runs fast and stable for long-term usage.



- **Graphic Performance System-Intel® Sandy Bridge Platform**

Build-in H.264 / AVC-MPEG2 / VC1 full HD decoder and supports DirectX 10.1 and OpenGL 3.0

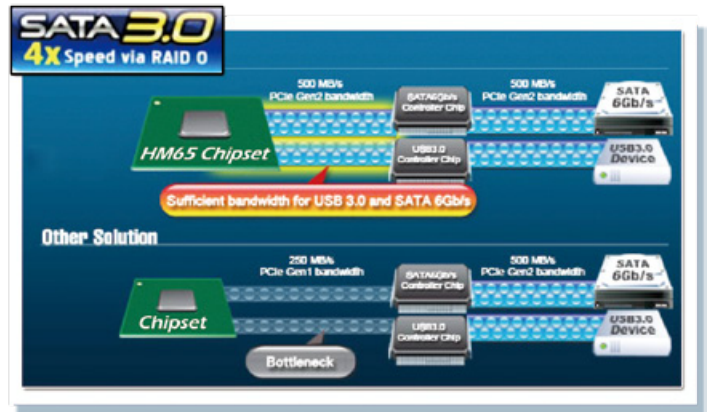
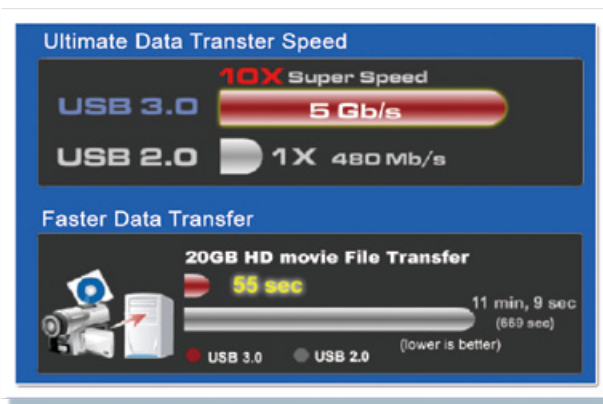


Performance	PCMark7 benchmark Test	3DMark 2006 v1.1.0	3DMark Vantage
Intel Core™ i7-2710QE quad core 2.1G processor and Intel® HM65	2107	3278	1562
Intel Core™ i5-2540M dual core 2.6G processor and Intel® HM65	990	2595	841
Intel Celeron B810 dual Core 1.6G processor and Intel® HM65	759	2041	415
Intel® Atom™ D525 1.8GHz 1MB/L2 Cache and Intel® ICH8M	665	180	N/A

N/A: 3DMark Vantage can't run on the Intel® Atom D525 platform because it requires DirectX10 support..

Super Speed-USB 3.0 & SATA 3.0

- Super speed USB 3.0 data transfer rates up to 10X faster than USB 2.0
- Extra SATA 3.0 doubles the current SATA transfer data rate to 6 Gb/s.



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HDMI Port Delivers High Quality Image on a Second Display (for HM65 model only)

- HDMI delivers high quality image on a second display with applications suitable for large screen digital signage.
- HDMI (High-Definition Multimedia Interface) is a compact audio/video interface for transmitting uncompressed digital data. It delivers high-definition video support at 1080p resolution which equals 1920 x 1080 pixels. It also supports industry standard EIA-861B video modes including 480p, 720p, 1080i, and 1080p.



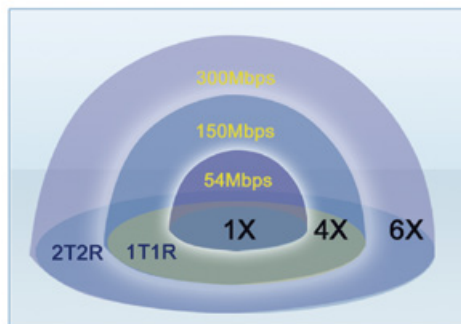
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RISC-based Solutions

Wi-Fi 2T2R Wireless LAN

The AFL2-12A integrates a PIFA antenna and provides 802.11n 2T2R wide bandwidth wireless communication.

- T:** Transmitter: the number T is absolutely relative with speed, 1T up to 150Mbps, 2T up to 300Mbps
- R:** Receive: the number R is relative with receiving dead angle and distance. The higher R is, the wider the receiving range.



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Optional Peripherals

Function Keys

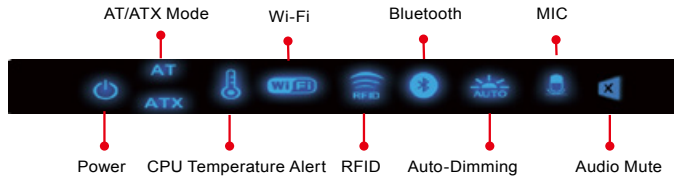
Function keys are shortcuts that perform commonly used functions. This is very convenient for panel PC users because no keyboard or mouse is required.



- Fn
- Backlight On/Off
- Audio -
- Audio +
- Brightness -
- Brightness +
- RFID Enable/Disable
- Audio Mute
- Camera Enable/Disable
- Side USB Enable/Disable
- Power On / Off

Indicators

Front panel has unique light indicators, to tell users which function is enabled.



EM or Mifare Card Reader

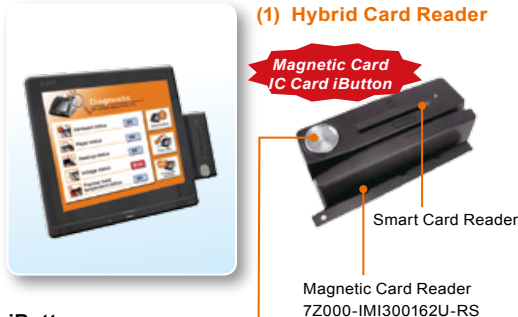
- EM card:**
Also called an ID card, card info is fixed and can't be re-written. Only a card reader can read the data, so security is low. EM cards can be used as staff badge cards.
- Mifare card:**
Also called an IC card, card info can be modified and password protected for higher security. IC cards can be used as bus passes.

Advantages:

- High Security: Each RFID tag contains an integrated chip with a Unique Permanent Identification (UID) number burned-in during the manufacturing process to make counterfeiting difficult.
- High Efficiency: Multiple tags can be read in parallel; no line of sight reading
- High Durability: Less subject to environmental damage



Optional Magnetic Stripe Card / Smart Card Reader



iButton:
The iButton can be used to store cash for small transactions or as an electronic asset tag to store and track information such as valuable capital equipment.



Convenient cable location



Back mounting holes for bracket kit installation



P/N	AFL2P-12AMSI-U	AFL2P-12AMSR-U
General	(1) Magnetic Card: ISO 7811, AAMVA, DMV, JIS II (2) Smart Card: ISO 7816, EMV (3) Dallas iButton	90 mm Magnetic Stripe Reader Programming: By Software Download Program Card Standard: ANSI , ISO , ABA Track Read: ISO 1,2,3 (IATA,ABA,THRIFT/MINTS), JISII100-1000mm/sec
Electrical	Voltage: DC+5V,+/-5% Reading Indicator: Beeper	Voltage: DC+5V, +/-5% Reading Indicator: Beeper
Environment	Operating Temperature: 0°C to 40°C Relative Humidity: 10% to 90 % (Non-condensing)	Operating Temperature: 0°C to 50°C Relative Humidity: 20% to 85 % (Non-condensing)
Physical	Cable: Straight 2.5ft Weight: Approx. 60g	Cable: Straight 70cm Weight: Approx. 61g
Interface	USB	USB

VESA Mounting

- Desktop Stand
- Wall Mount
- VESA Standard Multi-mounting Stand



12.1" AFOLUX GEN II Flat-bezel Panel PC

AFL2-12A-HM65

Intel® 2nd Gen Core™ i7/i5/i3 Solution



AFL2-12A-D525

Intel® Atom™ D525 Dual Core Solution



Features

- 12.1" 600nits 1024 x 768 flat-bezel LCD with LED backlight
- Supports projected capacitive touchscreen or 5-wire resistive type touch screen
- Built-in two 1.5W speakers and microphone
- Dual GbE LAN for high speed network applications
- One 204-pin DDR3 SO-DIMM slot (system max. 4GB)
- Wi-Fi 802.11b/g/n 2T2R high speed wireless
- EM or Mifare RFID reader
- IP 64 compliant front panel
- Auto-dimming control
- Built-in 1.3 Megapixel webcam with AF AE and AWB capabilities



Specifications

	Model	AFL2-12A-D525	AFL2-12A-HM65	
LCD Specifications	Size	12.1" (4:3)		
	Resolution	1024 (W) x 768 (H)		
	Brightness (cd/m ²)	600		
	Contrast Ratio	700:1		
	LCD Color	16.2 M		
	Pixel Pitch (mm)	0.240 (H) x 0.240 (V)		
	Viewing Angle (H-V)	176° / 176°		
	Backlight MTBF	50000 hrs		
System	CPU	Intel® Atom™ D525 1.8GHz dual core processor	2nd Generation Intel® Core™ i7/ i5/ i3 and Celeron® processor	
	Chipset	Intel® ICH8M	Intel® HM65	
	RAM	Support One 204-pin DDR3 SO-DIMM slot (max. 4G)		
	Ethernet	Realtek RTL8111E PCIe GbE controller support ASF2.0		
	SSD	CF Type II socket	N/A	
	HDD	2.5" SATA 2.0 HDD bay		
	Input / Output	RS-232 (DB-9 connector)	RS-232 (DB-9 connector)	RS-232 (DB-9 connector)
		RS-232 (RJ-45 connector)	RS-232 (RJ-45 connector)	RS-232 (RJ-45 connector)
Expansion Interface	2 x PCIe by one expansion interface for LAN card expansion			
	1 x PCIe Mini slot for WiFi 1 x PCIe Mini slot reserved			
Other Features	Audio	AMP 1.5 W + 1.5 W (internal speaker)		
	Camera	1.3 M pixels with low light function		
	RFID Reader	EM 125 KHz or Mifare 13.56 MHz card reader (optional)		
	MSR Card Reader	MSR card reader (Optional)		
	OSD Function	LCD on/off, brightness up/down, volume up/down, Hot Key		
	Ambient Light Sensor	Yes		
	Infrared Remote Controller	Yes		
	Touch Screen	5-wire resistive type or projected capacitive type touch screen		
Wireless	Fan Design	fanless	Smart fan	
		1 x Wireless LAN 802.11 b/g/n 2T2R module (internal PCIe mini card interface) (Optional, internal USB interface, bluetooth V2.1+EDR)		
Physical	Construction Front Panel	ABS + PC Plastic		
	Mounting	Panel, Wall, Rack, Stand and Arm VESA 100 mm x 100 mm		
	Color	Black		
	Dimensions (WxHxD)(mm)	310 x 265 x 52.6		
Environment	Weight (N/G)	3.2 kg / 5.5kg	3.8 kg / 6.1 kg	
	Temperature (°C)	Operation: -20°C ~ 50°C, Storage: -20°C ~ 60°C		
	IP Level	Front panel IP64		
Power	Safety&EMC	AFL2-12A-D525 / AFL2-12A-HM65 : CE / FCC		
	Power Supply	60W power adapter Input: 100VAC~240VAC, 50/60 Hz Output: 19VDC	90W power adapter Input: 100VAC~240VAC, 50/60Hz Output: 19VDC	
	Power Requirement	9 ~ 36 VDC		
	Power Consumption	42W	51W (Intel® Core™ i5-2510E processor with 4G DDR3 memory)	

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5 Optional Peripherals

Ordering Information

●AFL2-12A-D525

Part No.		Description
Projective capacitive Touch Screen	AFL2-12A-D525/PC-EM/1G-R10	12.1" 600cd/m ² XGA fanless panel PC with Intel® Atom™ D525 dual core 1.8GHz, 802.11b/g/n wireless module, projective capacitive touchscreen, 1.3 M camera, microphone, 1 GB DDR3 RAM, EM card reader, R10
	AFL2-12A-D525/PC-MF/1G-R10	12.1" 600cd/m ² XGA fanless panel PC with Intel® Atom™ D525 dual core 1.8GHz, 802.11b/g/n wireless module, projective capacitive touchscreen, 1.3 M camera, microphone, 1 GB DDR3 RAM, Mifare card reader, R10
	AFL2-12A-D525/PC/1G-R10	12.1" 600cd/m ² XGA fanless panel PC with Intel® Atom™ D525 dual core 1.8GHz, 802.11b/g/n wireless module, projective capacitive touchscreen, 1.3 M camera, microphone, 1 GB DDR3 RAM, R10
Resistive Touch Panel	AFL2-12A-D525/R-EM/1G-R10	12.1" 600cd/m ² XGA fanless panel PC with Intel® Atom™ D525 dual core 1.8GHz, 802.11b/g/n wireless module, resistive touch screen, 1.3 M camera, microphone, 1GB DDR3 RAM, EM card reader, R10
	AFL2-12A-D525/R-MF/1G-R10	12.1" 600cd/m ² XGA fanless panel PC with Intel® Atom™ D525 dual core 1.8GHz, 802.11b/g/n wireless module, resistive touch screen, 1.3 M camera, microphone, 1 GB DDR3 RAM, Mifare card reader, R10
	AFL2-12A-D525/R/1G-R10	12.1" 600cd/m ² XGA fanless panel PC with Intel® Atom™ D525 dual core 1.8GHz, 802.11b/g/n wireless module, resistive touch screen, 1.3 M camera, microphone, 1 GB DDR3 RAM, R10

●AFL2-12A-HM65

Part No.		Description
Projective capacitive Touch Screen	AFL2-12A-HM65/PC-EM-R10	12.1" 600cd/m ² XGA panel PC, 802.11b/g/n wireless module, projective capacitive touchscreen, 1.3M camera, microphone, EM card reader, R10
	AFL2-12A-HM65/PC-MF-R10	12.1" 600cd/m ² XGA panel PC, 802.11b/g/n wireless module, projective capacitive touchscreen, 1.3M camera, microphone, Mifare card reader, R10
	AFL2-12A-HM65/PC-R10	12.1" 600cd/m ² XGA panel PC, 802.11b/g/n wireless module, projective capacitive touchscreen, 1.3M camera, microphone, R10
Resistive Touch Screen	AFL2-12A-HM65/R-EM-R10	12.1" 600cd/m ² XGA panel PC, 802.11b/g/n wireless module, resistive touch screen, 1.3M camera, microphone, EM card reader, R10
	AFL2-12A-HM65/R-MF-R10	12.1" 600cd/m ² XGA panel PC, 802.11b/g/n wireless module, resistive touch screen, 1.3M camera, microphone, Mifare card reader, R10
	AFL2-12A-HM65/R-R10	12.1" 600cd/m ² XGA panel PC, 802.11b/g/n wireless module, resistive touch screen, 1.3M camera, microphone, R10
CPU Selection	CPU-MB-i7-2640M	2nd Generation Intel® Core™ i7 Processor [Mobile], PPGA-988, dual core 2.8GHz, 35W, iAMT
	CPU-MB-i5-2510E	2nd Generation Intel® Core™ i5 Processor [Mobile], PPGA-988, dual core 2.5GHz, 35W, iAMT
	CPU-MB-i3-2310M	2nd Generation Intel® Core™ i3 Processor [Mobile], PPGA-988, dual core 2.1GHz, 35W
	CPU-MB-CM-B840	Intel® Celeron® Mobile Processor, PPGA-988, dual core 1.9GHz, 35 W
	CPU-MB-CM-B710	Intel® Celeron® Mobile Processor, PPGA-988, single core 1.6GHz, 35 W
Memory Selection	DDR3-SO-1333-1GB	SO-DIMM DDR3 1333 1GB
	DDR3-SO-1333-2GB	SO-DIMM DDR3 1333 2GB
	DDR3-SO-1333-4GB	SO-DIMM DDR3 1333 4GB

Options

Item	AFL2-12A-D525	AFL2-12A-HM65
Panel Mounting Kit	AFLPK-15	
Wall Mounting Kit	AFLWK-19/AFLWK-19B	
Rack Mounting Kit	AFL2RK-12	
ARM	ARM-11-RS	
Stand	STAND-A12/ STAND-A19/ STAND-B19/ STAND-C19/ STAND-210-R11	
V-Stand	VSTAND-A12	
Hybrid Card Reader Kit	AFL2P-12AMSI-U-R10	
Bluetooth Module Kit	AFL2-BT-KIT01-R10	
Magnetic Stripe Reader Kit	AFL2P-12AMSR-U-R10	
OS: Win CE 6.0 (128MB CF Card)	AFL2CF-12-D525-CE060-128M-R10	AFL2CF-12-HM65-CE060-128M-R10
OS: Win XPE (2GB CF Card)	AFL2CF-12-D525-XPE-2G-R10	AFL2CF-12-HM65-XPE-2G-R10
OS: Win XPE (4GB CF Card)	AFL2CF-12-D525-XPE-4G-R10	AFL2CF-12-HM65-XPE-4G-R10
OS: Linux (2GB CF Card)	AFL2CF-12-D525-LNX-2G-R10	AFL2CF-12-HM65-LNX-2G-R10
OS: Win 7 Embedded (4GB CF Card)	AFL2CF-12-D525-WES7P-4G-R10 AFL2CF-12-D525-WES7E-4G-R10	AFL2CF-12-HM65-WES7P-4G-R10 AFL2CF-12-HM65-WES7E-4G-R10

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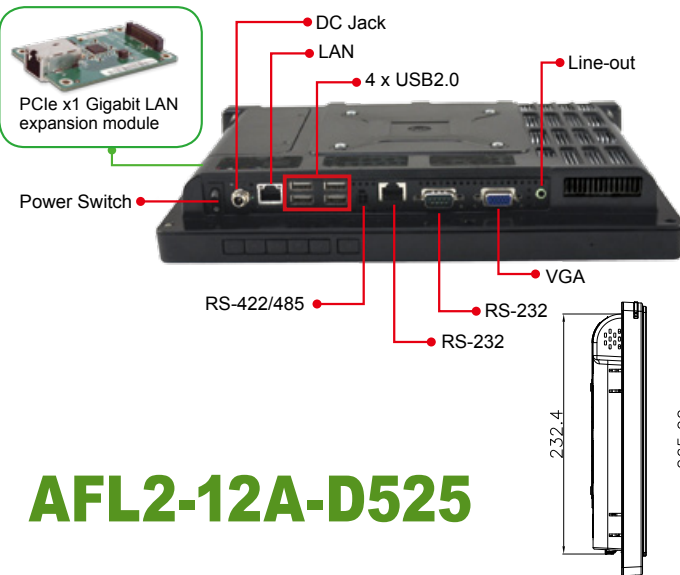
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Optional Peripherals

Packing List

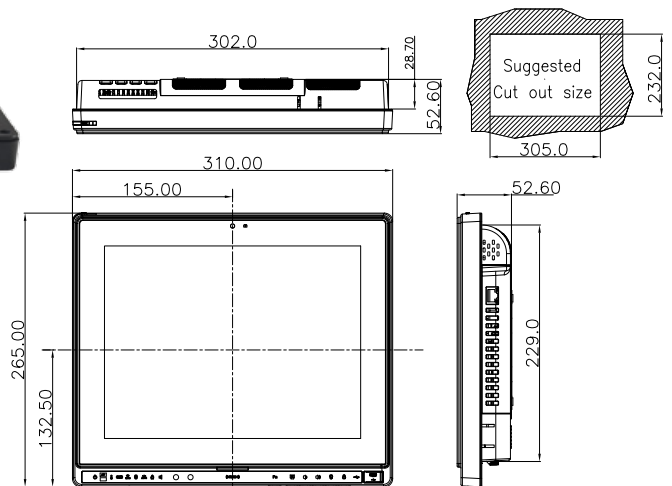
Item	P/N	Q'ty	Description
Utility CD		1	Drivers and user manual
One Key Recovery CD	7B000-000724-RS	1	
Power Adapter	63040-010065-010-RS (for AFL2-12A-D525) 63040-010090-030-RS (for AFL2-12A-HM65)	1	
Power Cord	32702-000401-100-RS	1	1500 mm, European Standard
Power Transfer Cord	32702-000300-100-RS	1	
M3 Screws Pack	44013-030041-RS	4	M3*4 fix HDD for packing
M4 Screws Pack	44403-040061-RS	4	M4*4 VESA screw
Touch Pen	43125-0002C0-00-RS	1	
RJ-45 to DB-9 COM port Cable	32005-000200-200-RS	1	
IR Remote Controller	7Z000-SLPCB005-RS	1	
RS-422 Cable	32205-002400-100-RS	1	

Fully Integrated I/O



AFL2-12A-D525 Dimensions

(Unit: mm)



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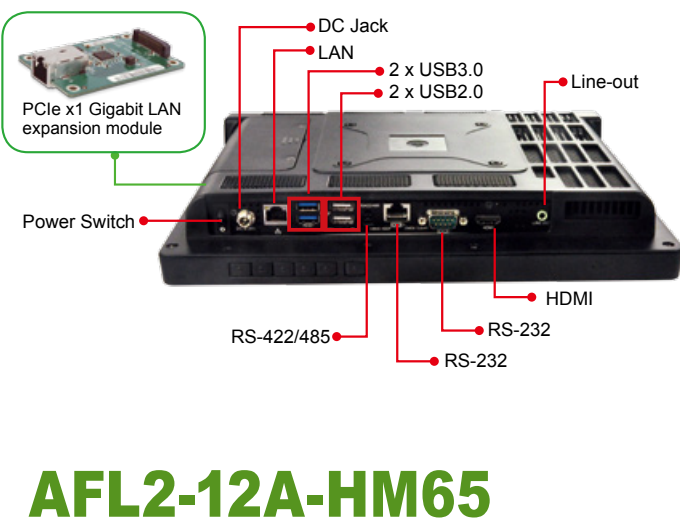
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(Unit: mm)

