

# Faster and New SATA Flash Storage

The anti-vibration IEI SLC flash modules featured low power consumption, high performance and perfect reliability are best for SATA SSD and SATA DOM solutions. The SSD not only has much higher performance than the HDD, but also can be operated anytime due to the lack of moving parts such as motor, bearing or rotating head. In addition, the SSD is able to fulfill any specialized application in any harsh environment.

## Complete Industrial SLC Solution

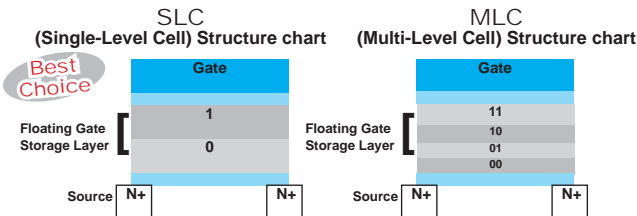


SLC Only



Interface	IDE PATA	SATA 1.5Gb/s	SATA 3Gb/s
Data Transfer Rate	66/100/133 MB/sec.	SATA 6Gb/s	SATA 6Gb/s 3Gb/s
Reliability	Fair	Better	Better
Power Consumption	Higher	Lower	Lower
Heat Delivery	Fair	Better	Better
Chipset Support after 945G/GM	No	Yes	Yes

## SLC vs. MLC Comparison Table



	SLC	MLC
Endurance (Erase cycle)	100,000	5,000-10,000
Operating Temp. Range	Support Wide Temp. -40°C~+85°C	0°C~+70°C
Power Consumption	Lower	Higher
Read/Write Performance	Better	Worse

## IEI SATA Flash Module Selection

Item	IFM-3010IS(WS)/IFM-3010IL(WL) IFM-3010IPS(WPS)	IFD-2520IS (WS)
Capacity	1GB~32GB	1GB~32GB
Interface	SATA 6Gb/s	SATA 6Gb/s
IDE Transfer Mode	PIO Mode 0-4 MwDMA Mode 0-2 UltraDMA Mode 0-2	PIO Mode 0-4 UltraDMA Mode 0-6
Data Transfer Rate	Read-300MB/sec. ; Write-130MB/sec.	Read-510MB/sec. ; Write-340MB/sec.
Operating Temp.	-0°C~+70°C ; -40°C~+85°C	IFD-25102S: 0°C~+70°C IFD-2520WT: -40°C~+85°C
Storage Temp.	-55°C~+95°C	-55°C~+95°C
Humidity	10%~95%, non-condensing	10%~95%, non-condensing
Vibration	20G	20G (7~2000Hz)
Shock	1500G/10 ms	1500G/0.5 ms
ECC Technology	High reliability based on the internal ECC function	High reliability based on the internal ECC function
MTBF	>3,000,000 hours	>3,000,000 hours
R/W Endurance	2,000,000 times	2,000,000 times
Wear-Leveing	Support	Support
DC Input Voltage	+5V single power supply operation	+5V single power supply operation
Power Mode	Auto stand-by and sleep mode	
Power Consumption	200 mA	
Enclosure Material	PC mechanical cover	Metal mechanical cover
Dimensions (WxLxH)	20.5 x 39.2 x 8 mm	69.8 x 100.1 x 9.3 mm
Certificate	RoHS / CE / FCC	

### Ordering Information

#### Industrial SATA Flash Card

Part No.	Interface	Capacity
IFM-3010IS-XXXX	Vertical SATA 6Gb/s 7 pin	1G~32G
IFM-3010WS-XXXX	Vertical SATA 6Gb/s 7 pin	1G~32G
IFM-3010IL-XXX	Vertical SATA 6Gb/s 7 pin	1G~32G
IFM-3010WL-XXXX	Vertical SATA 6Gb/s 7 pin	1G~32G
IFM-3010IPS-XXXX	Horizontal SATA 6Gb/s 7 pin	1G~32G
IFM-3010WPS-XXXX	Horizontal SATA 6Gb/s 7 pin	1G~32G

#### Industrial SATA 2.5" Flash Disk

Part No.	Interface	Capacity
IFD-2520IS-XXXX	SATA 6Gb/s 7+15 pin	8GB~128GB
IFD-2520WS-XXXX	SATA 6Gb/s 7+15 pin	8GB~64GB

XXXXX=Capacity-128MB/256MB/512MB/1GB/2GB/4GB/8GB/16GB/32GB/64GB/128GB

I= Standard grade operation temp.: 0°C~70°C

W=Industrial grade operation temp.: -40°C~85°C

# Intelligent DC UPS Module

## 12V/9~36V DC Input, 12V DC Output Uninterruptible Power Supply Module with Diagnostics

- VESA 75 or VESA 100 mounting
- 9-36V input through terminal or power jack, or 12V through power jack only
- Battery status and charge monitoring utility. Remote network management capabilities

### Features

- 60W (5A @ 12V) or 100W (8.3A @ 12V) output
- 28Wh or 56Wh, for more than 140 minutes operation time (depending on panel PC power requirements)
- Rugged metal enclosure for standard VESA 75/100 mounting
- Web-based, remote network management, no software installation required
- Local PC-based monitoring software for input detection and battery status monitoring
- Auto shut down when battery low
- Remote DC output on/off switch for external switch installation
- Provides stable power to the PC during line sags and spikes and absorbs power surges and transients, protecting expensive equipment



Model Name	AUPS-A10 / AUPS-A20	AUPS-B10 / AUPS-B20
Input Power	AUPS-A10 (12V)	AUPS-B10 (12V)
	AUPS-A20 (9~36V)	AUPS-B20 (9~36V)
Dimensions (mm)	150 x 95 x 34	170 x 150 x 34
Battery Capacity	28 Wh (Watt/Hour)	56 Wh (Watt/Hour)
Output Power	60W (5A@12V)	100W (8.3A@12V)
VESA Support (mm)	75 x 75	75 x 75 / 100 x 100

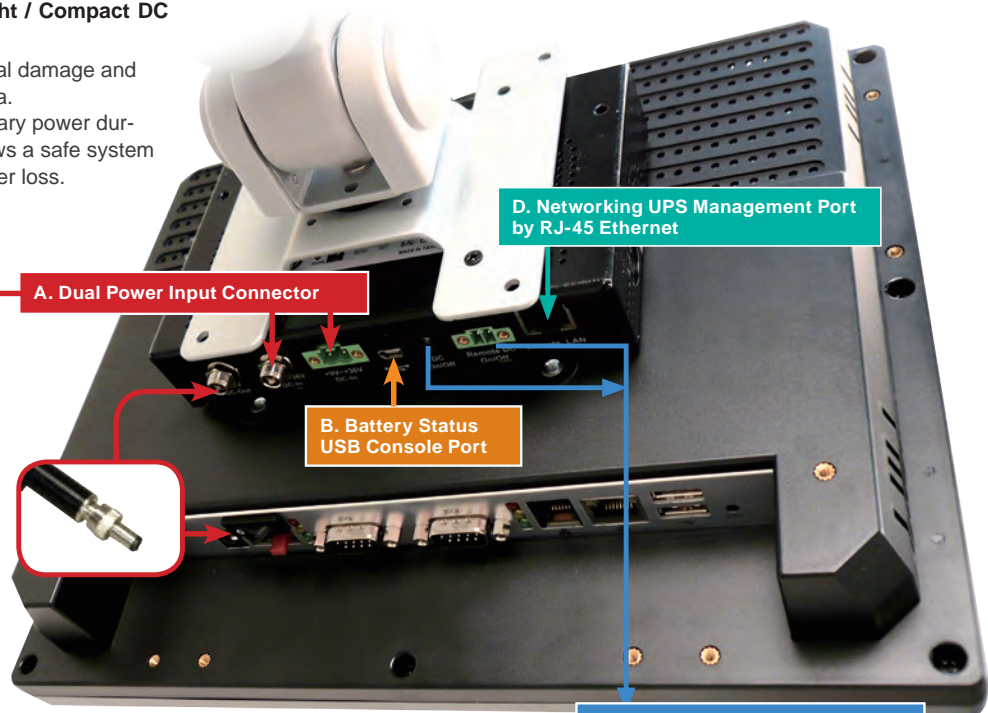
## Intelligent UPS Module

### High Energy Density / Lightweight / Compact DC to DC UPS & Power Module

Protect your panel PC from electrical damage and greatly reduce the risk of losing data. The UPS module serves as temporary power during a short break in power and allows a safe system shutdown for longer periods of power loss.

1. DC 9V~36V input by terminal block (Only AUPS-A20 / AUPS-B20)

2. (1) Only 12V input by DC jack (AUPS-A10 / AUPS-B10)  
(2) Wide 9V~36V input by DC jack (AUPS-A20 / AUPS-B20)



LED Signal Table			
	LED 1	LED 2	LED 3
Color	Green	Yellow	Orange
Function	Power Input	Charging Status	Battery Status
Dark	DC Power Out		
Light	DC Power In	Discharging	Battery Full
Blinking		Charging	Battery Low



## AUPS Network Administration Tool

- Network Remote Management Anywhere



- Network Remote Management Software



### Battery Capacity Status

POWER ON/OFF

STATUS: I/E

VOLTAJE(WV): 1000

Capacity(%): 1000

Temperature(C): 36

RemainTime(min): 1534

### Email Status Report

Send E-Mail

User Name: \_\_\_\_\_

Password: \_\_\_\_\_

Message: \_\_\_\_\_

Remote control DC output ON/OFF via web interface.

- Intelligent Software Utility

The remote management software utility and application program allow users to easily get the status of the AUPS and to control the AUPS power functions from anywhere with internet connection.



Network Remote Management Software

Click ALARM to get each AUPS status via internet

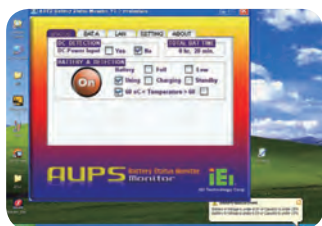
- STATUS
- Send E-mail
- Board configuration

## AUPS Local USB Utility Tool

## Battery Monitoring Utility

### Monitor the Most Critical Battery Functions on the Local Machine

The battery monitoring utility provides AUPS status monitoring and configuration ability. Uninterruptible Power Systems is a significant product that serves as emergency power when you suffer from electric event.



### Battery Monitoring Utility Networking Remote Management

- Battery detection
- Battery capacity status
- Battery charge
- DC input indicator
- Battery indicator
- Temperature warning
- Low battery alarm
- Connection port status

DC Input only	Charging 50%	Charging 100%
Normal Icon	Capacity 50%	Capacity 100%

### BATTERY STATUS

BAT.A shows Battery status real time monitoring

- Battery type
- Battery usage remaining time
- Battery capacity bar
- Real-time information update

### AUPS STATUS

STATUS shows DC / Battery power input

- DC Input Detection
- Battery Status Detection

### LAN CONFIGURATION

LAN shows system IP Address information

### ABOUT

ABOUT shows AUPS Utility information

### SETTING

SETTING shows Connection Detection port

- Auto-Scan Connection port
- System shutdown condition according to battery capacity setting



Meanwhile, IEI also provides AUPS API SDK and command list for customer programming under DOS or Linux system.

### AUPS API Content

- Inti()
- AUPS Close()
- WriteCommand()
- ReadCommand()
- Error Code Definition()

### AUPS API SDK

- AUPS API.pdf
- AUPSAPI.au
- AUPSAPI.h
- AUPSAPI.lib





## AUPS Module Specifications

Model Name		AUPS-A10	AUPS-A20	AUPS-B10	AUPS-B20
VESA Type		VESA 75	VESA 75	VESA 75 and 100	VESA 75 and 100
Input Data	Input voltage Unated/range	DC +12V	DC +9V~+36V	DC +12V	DC +9V~+36V
	Input current rated	1. Adapter is 12V-6A (Load is 60W) 2. Battery is 6V-12A (Load is 60W)		1. Adapter is 12V-9A (Load is 100W) 2. Battery is 12V-9A (Load is 100W)	
	Standby power consumption	0.3A (0.2A if Network Management disabled)			
	Operation with charging current	500mA			
	Operation with charging power consumption	6W		10W	
Charging time with system ON/OFF		8hrs / 2hrs (Battery empty)			
Output Data	Output voltage for normal operation	DC +12V +/-5%			
	Output voltage for battery operation(approx).	6~8.4V DC6 V (exhaustive discharge protection)		12~16.8V DC12 V (exhaustive discharge protection)	
	Output current	0A~5A		0A~8.3A	
	Efficiency (nominal operation) / power loss at Vin=12V, Iout=80% of full loading	89%	93%	95%	94%
Protection	Short-circuit protection	Yes			
	Exhaustive discharge protection	1. Battery low is 10% of battery capacity 2. Shutdown 5% of battery capacity (Default) 3. The end of battery discharge voltage is 6V			
	EMC / Safety certification	CE, FCC			
Monitoring	Ethernet interface	Web-based, specification 10/100Mbps with RJ-45 connection, Cat. 5 cable			
	USB interface	PC-capable, specification 2.0 with full speed, i.e. 2 Mbit/s. Standard 4-core shielded cable, USB Series "mini B" connector to DC-UPS			
Physical	Dimensions (LxWxH)	152mm x 96mm x 28mm		174mm x 147mm x 35mm	
	Weight	1.2 kg		1.8 kg	
LED Indicator	Green	DC power input			
	Yellow	Battery charging			
	Orange	Battery discharging			
Environment	Operating Tem.	0°C~40°C			
	Storage Tem.	-20°C~50°C			

Note1: Connecting DC input constantly is recommended. Battery will be drained after 14 hours.

Note2: System power consumption + AUPS charging power consumption = Total watts of power source

## Battery Module Specifications

Model Name		AUPS-A10	AUPS-A20	AUPS-B10	AUPS-B20
Battery Model Name		BAT-LI-2S2P3800		BAT-LI-4S2P3800	
Battery	Battery type	Li-Ion 2S2P 7.4V		Li-Ion 4S2P 14.8V	
	Battery capacity	7.4V 3800 mAH		14.8V, 3800 mAH	
	Maximum charge voltage	8.4V		16.8V	
	The end of discharging voltage	5.6V		11.2V	
	Recommended charging current (max.)	2A		2A	
	System continuous discharging current (max.)	7.6A		7.6A	
	The end of charge condition	250mA / 1Min		200mA / 1Min	
	Discharge protection	Under voltage protection / Over current protection			
	Charge protection	Over voltage protection / Over current protection			
	Ambient temperature	0°C~40°C			
	Storage temperature	-20°C~60°C			
	Self-discharge rate	340uA~440uA			
	Dimensions (LxWxH)	139mm x 47mm x 26mm		165mm x 76mm x 26mm	
	Weight	236g		450g	
	Cycle life	300 charge / discharge cycles			
	Backup	60W / 10Min		100W / 10Min	
Safety class	CE, FCC				

Note: Replacing battery module every 2 years is recommended.

### Selection Table for UPS Modules and Main Buffering Time

AFOLUX PPC	AUPS-A10	AUPS-A20	AUPS-B10	AUPS-B20
Under 50W solution				
AFL-057-LX (15W~20W)	145min	145min	290min	290min
AFL-07A-N270 (20W~25W)	100min	100min	200min	200min
AFL-08AH-N270 (25W~30W)	70min	70min	140min	140min
AFL-10A-N270 (25~30W)	70min	70min	140min	140min
AFL-10A-9103 (40W~45W)	50min	50min	100min	100min
AFL-10A-LX (25W~30W)	70min	70min	140min	140min
AFL-12A-LX (25W~30W)	70min	70min	140min	140min
AFL-12B-CX2 (38W~42W)	50min	50min	100min	100min
AFL-12A-N270 (25W~30W)	70min	70min	140min	140min
AFL-12B-9103 (45W~48W)	45min	45min	90min	90min
50W ~ 100W solution				
AFL-15B-915-CM370 (58W~63W)	-	-	35min	35min
AFL-15C-9652-T7500 (65W~70W)	-	-	30min	30min
AFL-17B-915-CM370 (75W~80W)	-	-	25min	25min
AFL-17C-9652-T7500 (85W~90W)	-	-	20min	20min
AFL-19B-915-CM370 (75W~80W)	-	-	25min	25min
AFL-19C-9652-T7500 (85W~90W)	-	-	20min	20min

Note: The backup time could be varied on different models or operating temperature.

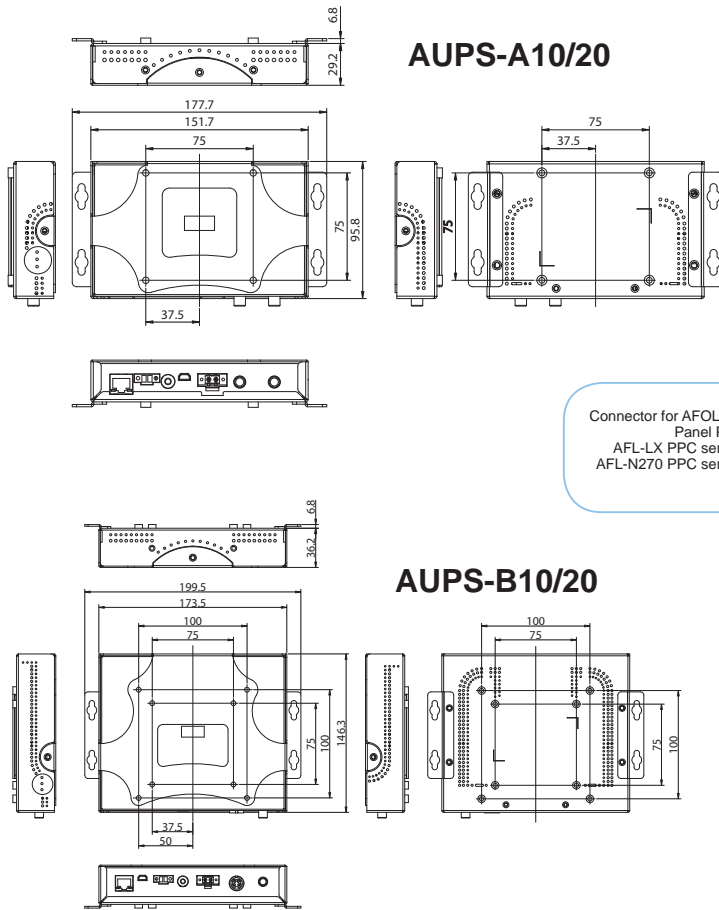


BAT-LI-2S2P3800



BAT-LI-4S2P3800

AUPS Mechanical Drawing (Unit: mm)

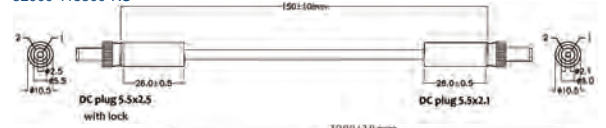


**AUPS-A10/20**

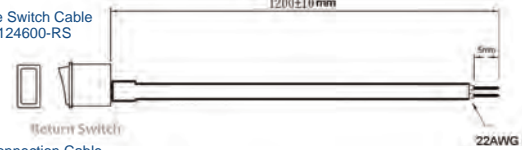
**AUPS-B10/20**

Connector for AFOLUX Panel PC:  
AFL-LX PPC series  
AFL-N270 PPC series

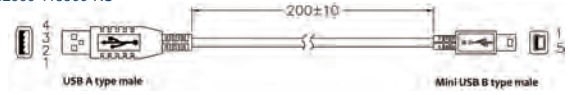
DC Power Cable (DC plug to DC plug) with lock  
32000-115300-RS



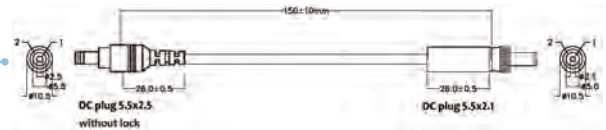
Remote Switch Cable  
32000-124600-RS



USB Connection Cable  
32000-115500-RS



DC Power Cable (DC plug to DC plug) without lock  
32000-120400-RS



DC Power Cable (DC plug to mini DIN)  
32002-002201-100-RS



Connector for AFOLUX Panel PC:  
AFL-HM55 PPC series

Ordering Information

Part No.	Description
AUPS-A10-R11	VESA 75, DC 12V input, 12V output 60W UPS module with 3800mAh, 2S2P Li-ion battery
AUPS-A20-R11	VESA 75, DC 9~36V input, 12V output 60W UPS module with 3800mAh, 2S2P Li-ion battery
AUPS-B10-R11	VESA 100, DC 12V input, 12V output 100W UPS module with 3800mAh, 2S4P Li-ion battery
AUPS-B20-R11	VESA 100, DC 9~36V input, 12V output 100W UPS module with 3800mAh, 2S4P Li-ion battery
BAT-LI-2S2P3800 (AUPS-A10/20)	Smart battery; TE9IC032K1002; Lithium ion battery (S2P); 7.4V; 3800mAh; RoHS
BAT-LI-4S2P3800 (AUPS-B10/B20/C20)	Smart battery; TE9IC042K1002; Lithium ion battery (4S2P); 14.8V; 3800mAh; RoHS

Packing List

Item	DC power cable, 300mm, male 4-pin mini-DIN to DC plug 5.0 x 2.1 (AUPS-B10/B20/C20 only)	DC power cable, 150mm, DC plug 5.5 x 2.1 to DC plug 5.0 x 2.5 without lock	USB cable, 200mm, USB type A male to mini USB	Remote switch cable, 1200mm	Screw kit	Utility CD (including utility software and user's guide)
Part Number	32002-002201-100-RS	32000-120400-RS	32000-115500-RS	32000-124600-RS	44013-030041-RS	7B000-000087-RS
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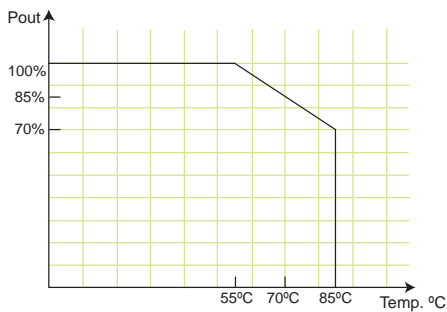
# IDD-930160-KIT

60 W DC/DC Converter Module for  
AFOLUX Panel PC and Monitor

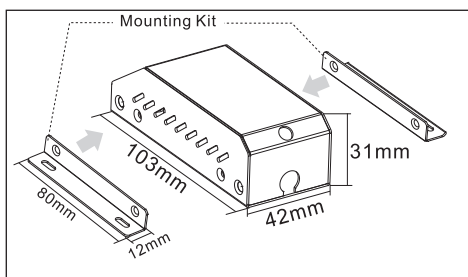


## Specifications

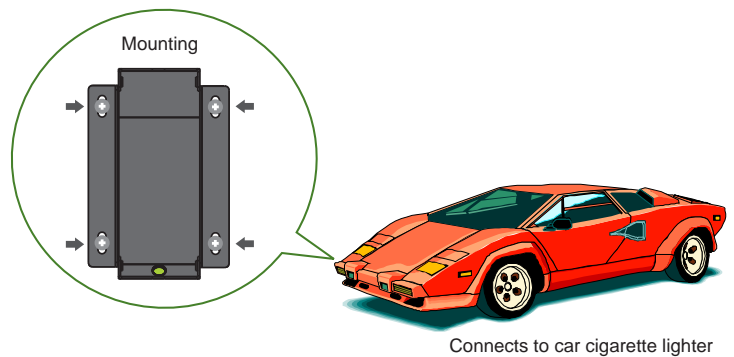
- Input voltage: 9-30 VDC
- Input current: Max. 8.2 A at 9 VDC
- Output: 12 V@5 A
- Max. total output: 60W
- Performance characteristics:
  - Noise and ripple: <120 mV
  - Line regulation: <2.5%
  - Load regulation: <2.5%
- Transient toggle rate: 250 Hz (50% duty ratio)
- Transient current step:
  - From 0% to 50% and 50% to 100% of max current
- Efficiency: typ. 95% (Vin=12 V, 80% of full load)
- Dimensions: 42 mm x 103 mm x 31 mm
- Mounting kit: 12 mm x 80 mm
- Cable length: 180 cm
- Operating temperature: -10°C~55°C
- Load down protection



## Dimensions (Millimeters)



## Typical Applications



## Packing Information

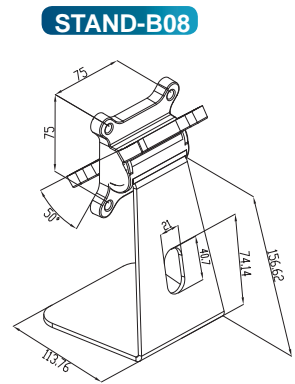
- 1 x IDD-930160-KIT-R20
- 1 x Mounting kit
- 1 x Screw kit
- 1 x Anti-slip strip
- 1 x Utility CD

## Ordering Information

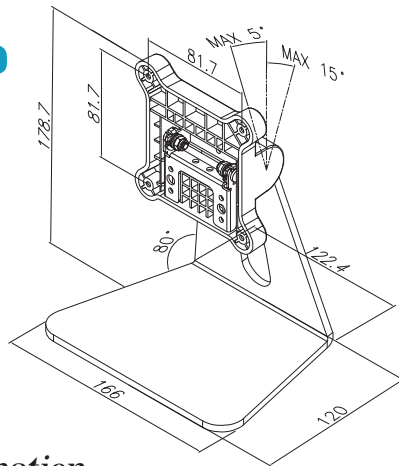
Part No.	Description
IDD-930160-KIT-R20	60 W DC/DC 9-30 VDC input vehicle power adapter



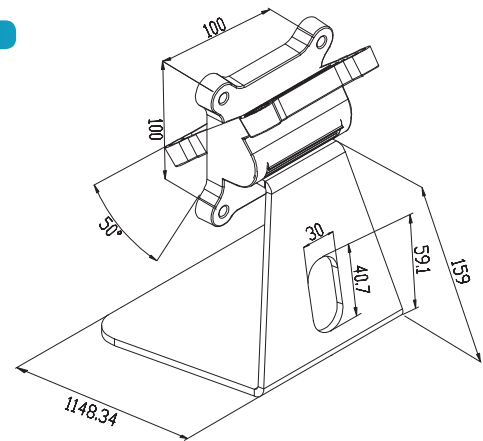
## VESA 75/100 Easy Stand



STAND-A19-RS



STAND-A12-RS



### Ordering Information

Part Number	Description
STAND-B08	5.6"-8.4" VESA 75x75mm PPC/monitor stand, support up to 5 kg, Silver color, RoHS
STAND-C12-R10	5.7" ~ 12.1" VESA 100x100mm, 75x75mm PPC/Monitor Stand, support up to 7.5kg, Black color, RoHS
STAND-A12-RS	10"-12.1" VESA 100x100mm PPC/monitor stand, support up to 5 kg, Silver color, RoHS
STAND-A19-RS	12.1"-19" VESA 100x100mm PPC/monitor stand, support up to 7.5 kg, Silver color, RoHS

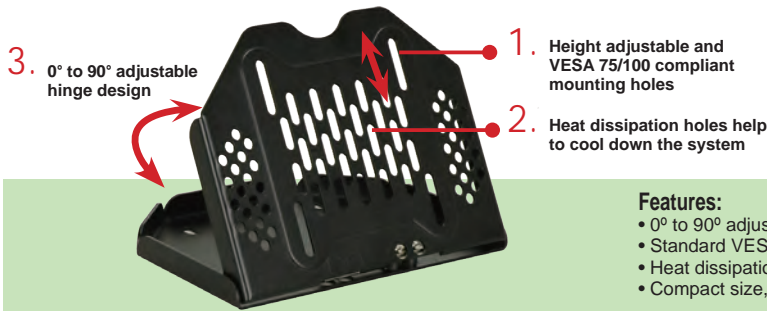


## 2. V-STAND

### VESA Multi-Mounting Stand

IEI patented multi-mounting V-Stand allows wall, ceiling, desk, rear and side mounting to meet diverse applications. Its 0° to 90° adjustable hinge design provides optimal viewing in various environments, such as kitchen, room or shelf.

VESA	Model
75 x 75mm	VSTAND-A07-R11
75 x 75mm / 100 x 100mm	VSTAND-A10-R11
	VSTAND-A12-R11



**Features:**

- 0° to 90° adjustable hinge design allows comfortable viewing
- Standard VESA 75/100 compliance
- Heat dissipation holes
- Compact size, easy to use for mounting anywhere

#### A. One fits all solution

The V-Stand is a compact and tilt adjustable mounting stand providing mobility and ergonomic comfort to fit common wall mounting and ceiling mounting situations.



#### B. 0° to 90° excellent adjustability

You can change the angle of the stand from 0° to 90° to reach almost any point with ergonomic features for comfortable viewing.



#### C. Space saving and easy installation

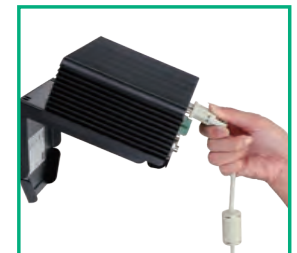
Compact size provides mobility



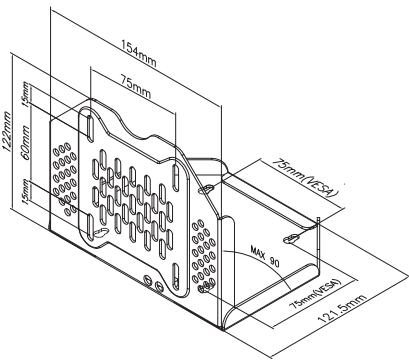
1: Tighten the screws in the rear of the AFOLUX PPC VESA mounting holes



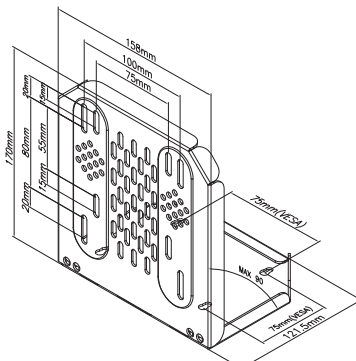
2: Select the position to mount stand kit



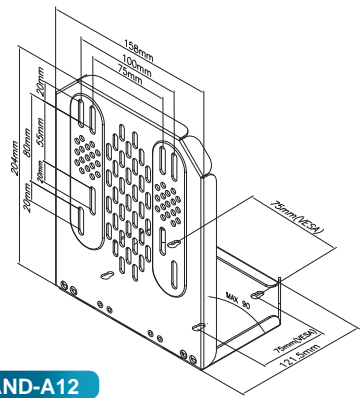
3: Plug in the system to operate



**VSTAND-A07**



**VSTAND-A10**



**VSTAND-A12**

## Ordering Information

Part No.	Description
VSTAND-A07-R11	LCD monitor / PPC stand V type, for AFL series, VESA 75, 0°~90° degree adjustable hinge, support up to 2.5 kg, RoHS
VSTAND-A10-R11	LCD monitor / PPC stand V type, for AFL series, VESA 75/100, 0°~90° degree adjustable hinge, support up to 3 kg, RoHS
VSTAND-A12-R11	LCD monitor / PPC stand V type, for AFL series, VESA 75/100, 0°~90° degree adjustable hinge, support up to 3.5 kg, RoHS

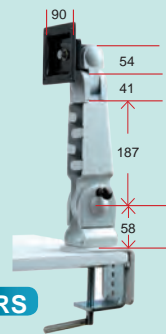
## 3. ARM

### VESA 75/100 Desk ARM

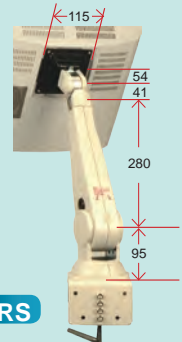
VESA	Model
75x75mm/100x100mm	ARM-11-RS ARM-31-RS

#### Ordering Information

Part No.	Description
ARM-11-RS	LCD Monitor / PPC ARM, VESA 75/100, 3kg~6kg, RoHS
ARM-31-RS	LCD Monitor / PPC ARM, VESA 75/100, 7kg~14kg, RoHS



**ARM-11-RS**

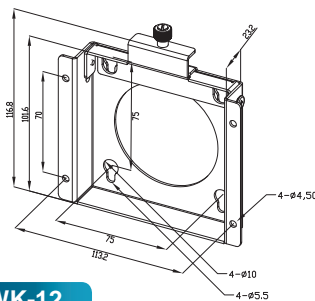
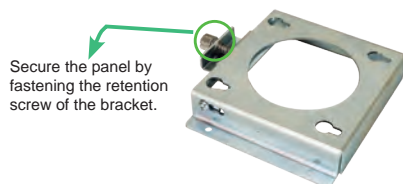


**ARM-31-RS**

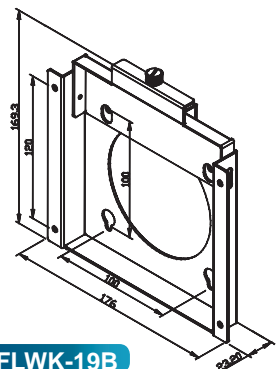
## 4. Wall Mounting

### VESA 75/100 Wall Mounting

VESA	Model
75x75mm 100x100mm	AFLWK-12 AFLWK-19B



**AFLWK-12**



**AFLWK-19B**

#### Ordering Information

Part No.	Description
AFLWK-12	5.6"~12" VESA 75x75mm PPC/Monitor Wall Mount Kit with Retention Screw, Silver color, RoHS
AFLWK-19B	15"~19" VESA 100x100mm PPC/Monitor Wall Mount Kit with Retention Screw, Silver color, RoHS

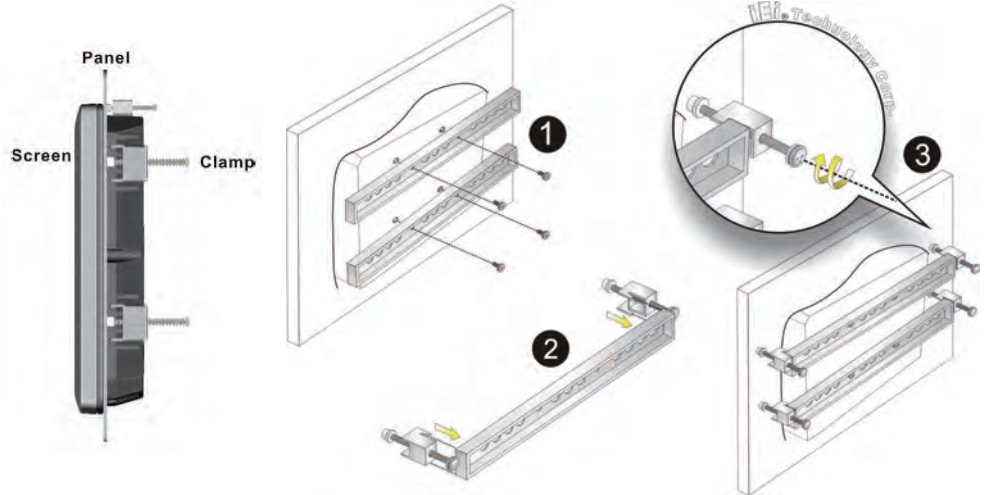
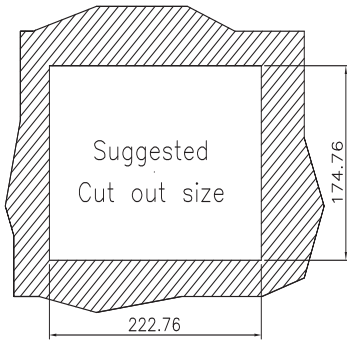
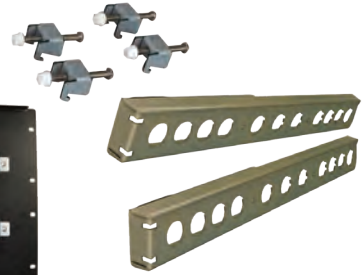
## 6. Panel Mounting

\*Please refer to product datasheet for mounting way suggestion

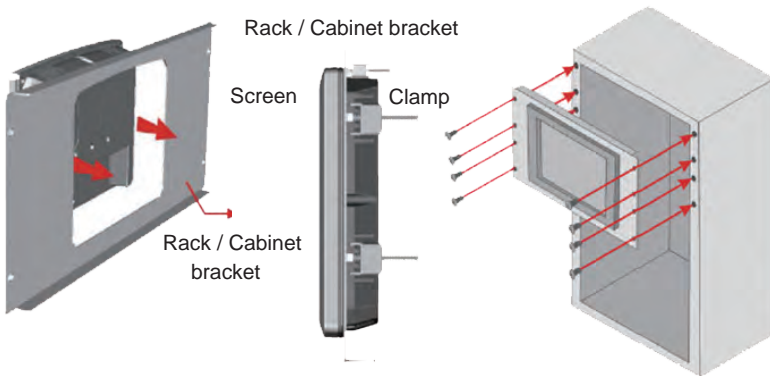
### Type A



### Type B



## 7. Rack Mounting



### Ordering Information

Part No.	Description
AFLRK-xx	For AFOLUX PPC/Monitor Series

## 8. Din Mounting



### Ordering Information

Part No.	Description
DK-84MS	For 6.5"-8.4" Industrial Aluminum Panel PCs/ Industrial Monitors