



MODEL:

AFOKAR-08A-RK39

**8" In-Vehicle Android Panel PC with P-CAP Touchscreen,
Rockchip RK3399 on-board SoC, OBD-II, GPS, HDMI,
microSD, USB 2.0/3.0, RS-232, Wi-Fi, Bluetooth, Camera,
Digital I/O, RoHS Compliant, IP 54 Front Panel**

User Manual



Revision



Date	Version	Changes
October 8, 2018	1.00	Initial release



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Manual Conventions



WARNING

Warnings appear where overlooked details may cause damage to the equipment or result in personal injury. Warnings should be taken seriously.



CAUTION

Cautionary messages should be heeded to help reduce the chance of losing data or damaging the product.



NOTE

These messages inform the reader of essential but non-critical information. These messages should be read carefully as any directions or instructions contained therein can help avoid making mistakes.

Table of Contents

1 INTRODUCTION.....	1
1.1 OVERVIEW.....	2
1.2 FEATURES.....	2
1.3 FRONT PANEL	3
1.3.1 LED Indicators.....	4
1.4 REAR PANEL.....	5
1.5 TOP & BOTTOM PANEL	6
1.6 SIDE PANEL	6
1.7 DIMENSIONS.....	7
1.8 SYSTEM SPECIFICATIONS.....	8
2 UNPACKING	10
2.1 PACKING LIST.....	11
2.2 OPTIONAL ITEMS.....	12
3 INSTALLATION	14
3.1 ANTI-STATIC PRECAUTIONS.....	15
3.2 INSTALLATION PRECAUTIONS	15
3.3 MICROSD CARD INSTALLATION.....	16
3.4 SIM CARD INSTALLATION (OPTIONAL)	17
3.5 MOUNTING THE SYSTEM	19
3.6 EXTERNAL I/O CONNECTORS	20
3.6.1 I/O Connector 1 (20-pin).....	20
3.6.2 I/O Connector 2 (24-pin).....	22
3.6.3 HDMI Connector	23
3.6.4 Power Input Connection	24
3.6.5 USB Connector	25
3.7 POWER-ON PROCEDURE.....	26
3.8 AVAILABLE DRIVERS	27
3.8.1 Driver Download	27
3.9 SYSTEM MAINTENANCE	29



4 ANDROID OS	30
4.1 HOME SCREEN	31
4.1.1 Adding a Home Screen.....	31
4.1.2 Switching between Home Screens.....	32
4.1.3 Favorites Tray.....	32
4.1.4 Adding Shortcuts.....	33
4.1.5 Arranging the Home Screen.....	35
4.2 NAVIGATION BUTTONS	36
4.3 STATUS BAR	37
A REGULATORY COMPLIANCE	39
B SAFETY PRECAUTIONS	44
B.1 SAFETY PRECAUTIONS.....	45
B.1.1 General Safety Precautions.....	45
B.1.2 Anti-static Precautions	46
B.1.3 Product Disposal	47
B.2 MAINTENANCE AND CLEANING PRECAUTIONS	48
B.2.1 Maintenance and Cleaning.....	48
B.2.2 Cleaning Tools.....	48
C HAZARDOUS MATERIALS DISCLOSURE	50



List of Figures

Figure 1-1: AFOKAR-08A-RK39 Panel PC	2
Figure 1-2: Front View	3
Figure 1-3: LED Indicators	4
Figure 1-4: Rear Panel	5
Figure 1-5: Top and Bottom Panels	6
Figure 1-6: Side Panel	6
Figure 1-7: Dimensions (unit: mm)	7
Figure 3-1: microSD Card Slot Access Panel Retention Screw	16
Figure 3-2: microSD Card Installation	16
Figure 3-3: SIM Card Slot Access Panel Retention Screw	17
Figure 3-4: SIM Card Installation	18
Figure 3-5: VESA Mount Retention Screw Holes	19
Figure 3-6: IO 1 Connector Pinout Locations	20
Figure 3-7: OBD-II Cable	21
Figure 3-8: OBD-II Connector Pinouts	21
Figure 3-9: IO 2 Connector Pinout Locations	22
Figure 3-10: HDMI Connector	23
Figure 3-11: Power Input Connector	24
Figure 3-12: Optional ACC Power Cable	24
Figure 3-13: Optional Cigarette Lighter Cable	25
Figure 3-14: USB Connector	25
Figure 3-15: IEI Resource Download Center	27
Figure 4-1: Adding a Home Screen	31
Figure 4-2: Multiple Home Screens	32
Figure 4-3: Favorites Tray	32
Figure 4-4: All Apps/WIDGETS Page	34
Figure 4-5: Trash an Item on Home Screen	35
Figure 4-6: Navigation Buttons	36
Figure 4-7: Status Bar	37
Figure 4-8: Notification List and System Status	38



List of Tables

Table 1-1: LED Indicators	4
Table 1-2: Technical Specifications.....	9
Table 2-1: Packing List.....	12
Table 2-2: Optional Items	13
Table 3-1: IO 1 Connector Pinouts.....	20
Table 3-2: IO 2 Connector Pinouts.....	22
Table 3-3: HDMI Connector Pinouts	23
Table 3-4: Power Input Connector Pinouts	24
Table 4-1: Navigation Buttons.....	36



Chapter

1

Introduction

1.1 Overview



Figure 1-1: AFOKAR-08A-RK39 Panel PC

The AFOKAR-08A-RK39 is an 8" Android panel PC designed for in-car use. At the heart of the system is the Rockchip RK3399 on-board SoC, offering low power in a powerful package.

The system also offers a multimedia experience with a built-in 5-megapixel camera, HDMI port and speaker. The OBD-II connection and GPS functionality make the AFOKAR-08A-RK39 an ideal system for in-vehicle applications.

Other peripherals include one USB 3.0 port, and two I/O connectors which support RS-232, RS485, OBD-II/J1939, digital I/O, USB and audio output. Wireless networking capabilities include Bluetooth 4.1 and 802.11a/b/g/n/ac.

1.2 Features

The AFOKAR-08A-RK39 features the following:

- Fanless design
- Projected capacitive touchscreen with AG coating
- Rockchip RK3399 on-board SoC
- On-board 1866 MHz 2 GB LPDDR3 memory
- 16 GB eMMC NAND flash and one microSD slot

AFOKAR-08A-RK39

- Support OBD-II/J1939, RS-232 and digital I/O
- GPS functionality with external antenna connector
- 5-megapixel front-facing camera and speaker
- One HDMI output connector
- 802.11a/b/g/n/ac and Bluetooth 4.1 wireless connection
- Optional WWAN connectivity with SIM slot and an external antenna
- IP 54 compliant front panel
- Android 7.1 OS pre-installed
- RoHS compliance

1.3 Front Panel

The front of the AFOKAR-08A-RK39 is a flat panel screen with a plastic frame. The components on the front panel are listed below:

- 5-megapixel camera
- Ambient light sensor
- RFID reader
- Digital microphones
- LED indicators (see **Section 1.3.1**)

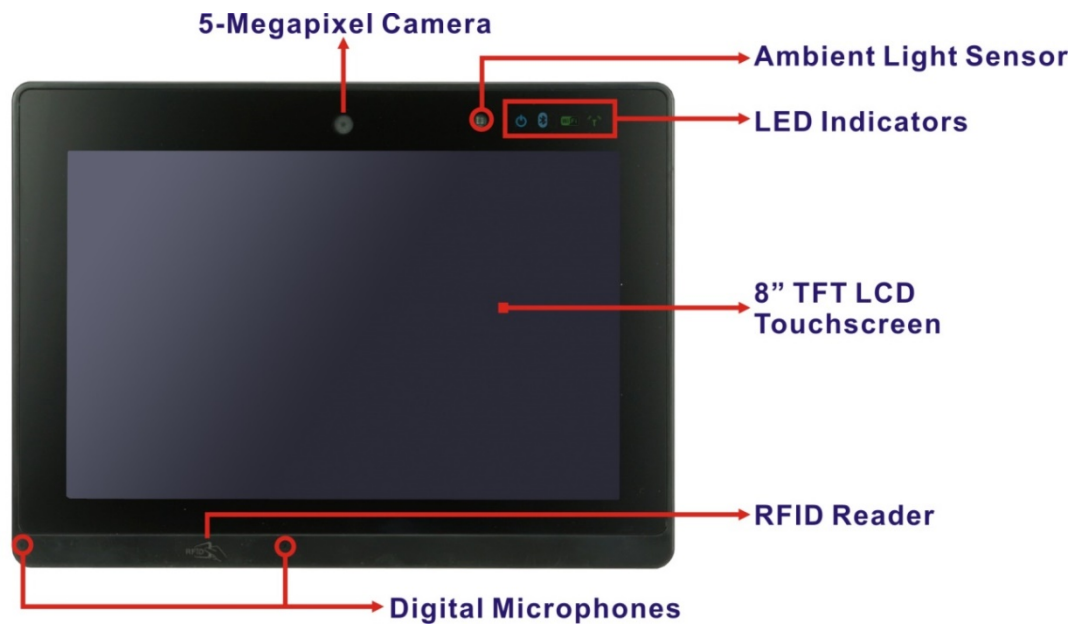


Figure 1-2: Front View

1.3.1 LED Indicators

The LED indicators on the front panel show the status of power, Bluetooth, Wi-Fi and WWAN connection.

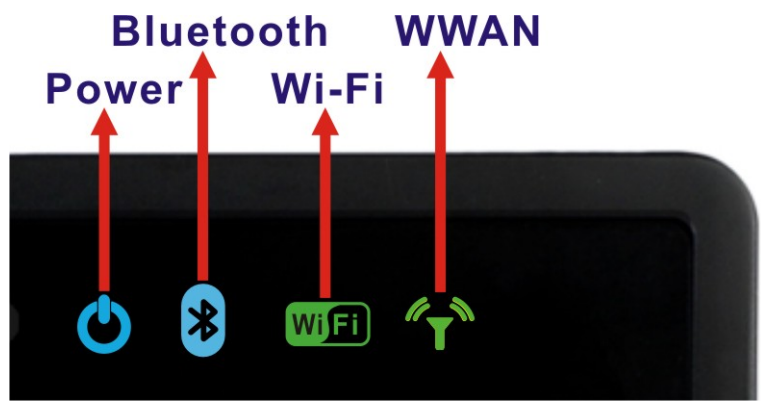


Figure 1-3: LED Indicators

Power LED	Off	The system is turned off.
	Blue	The system is turned on.
Bluetooth LED	Off	Bluetooth is disabled.
	Blue	Bluetooth is enabled.
Wi-Fi LED	Off	Wi-Fi is disabled.
	Green	Wi-Fi is enabled.
WWAN LED	Off	WWAN connection is disabled.
	Green	WWAN connection is enabled.

Table 1-1: LED Indicators

AFOKAR-08A-RK39**1.4 Rear Panel**

The rear panel has VESA mounting screw holes and an access panel for microSD card and SIM card. The following I/O connectors can also be found on the rear panel.

- 1 x 9 V~ 30 V DC input connector
- 20-pin connector:
 - 1 x OBD-II/J1939
 - 1 x USB 2.0
- 24-pin connector:
 - 1 x Audio out
 - 1 x RS-232
 - 1 x RS-485
 - 2-bit digital input and 2-bit digital output
- 1 x HDMI output connector
- 1 x GPS antenna connector
- 1 x WWAN antenna connector

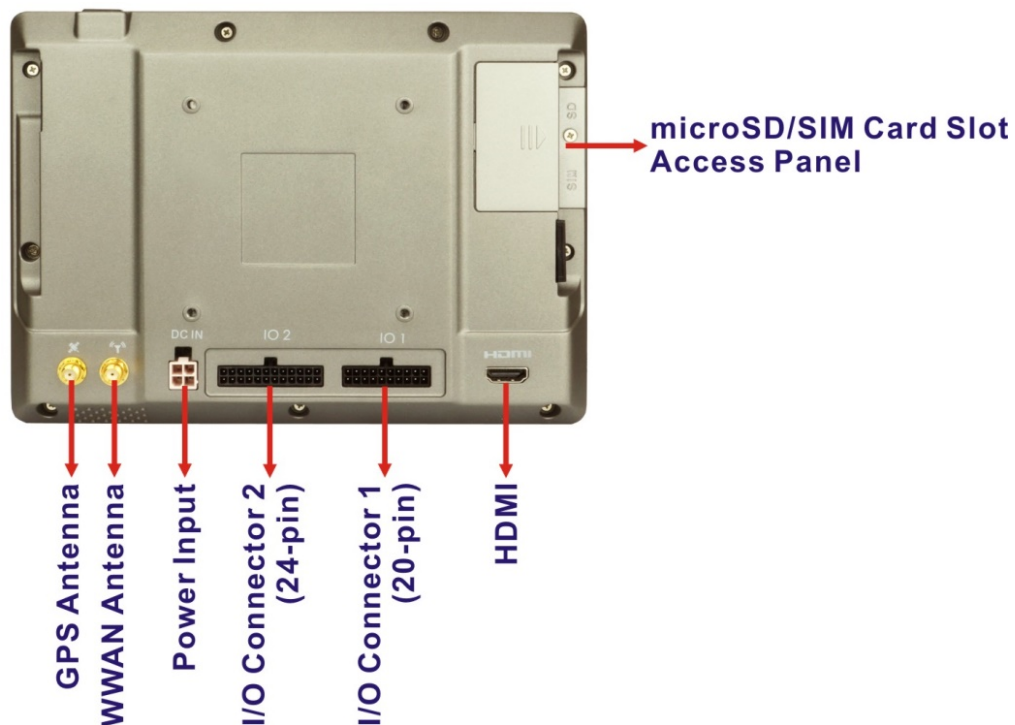


Figure 1-4: Rear Panel



1.5 Top & Bottom Panel

The top panel has a power button. Press the power button for 4~6 seconds to power on the system. The bottom panel has a 2 W speaker.

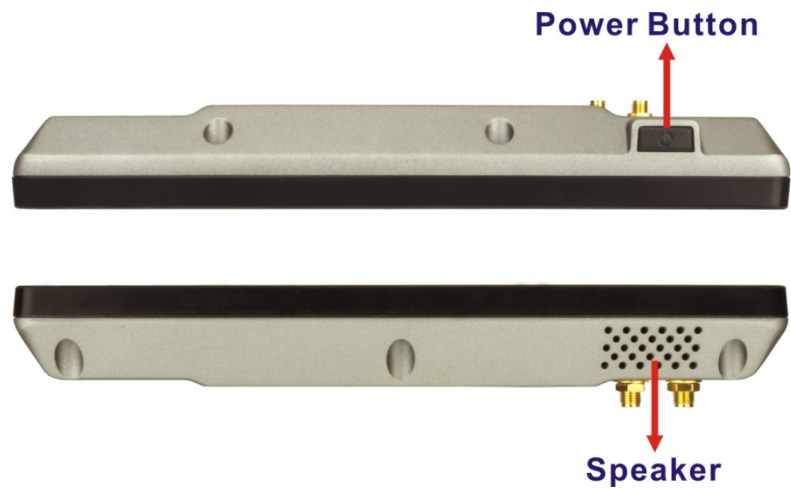


Figure 1-5: Top and Bottom Panels

1.6 Side Panel

The right side panel has one USB 3.0 port.



Figure 1-6: Side Panel



AFOKAR-08A-RK39

1.7 Dimensions

The dimensions are shown below.

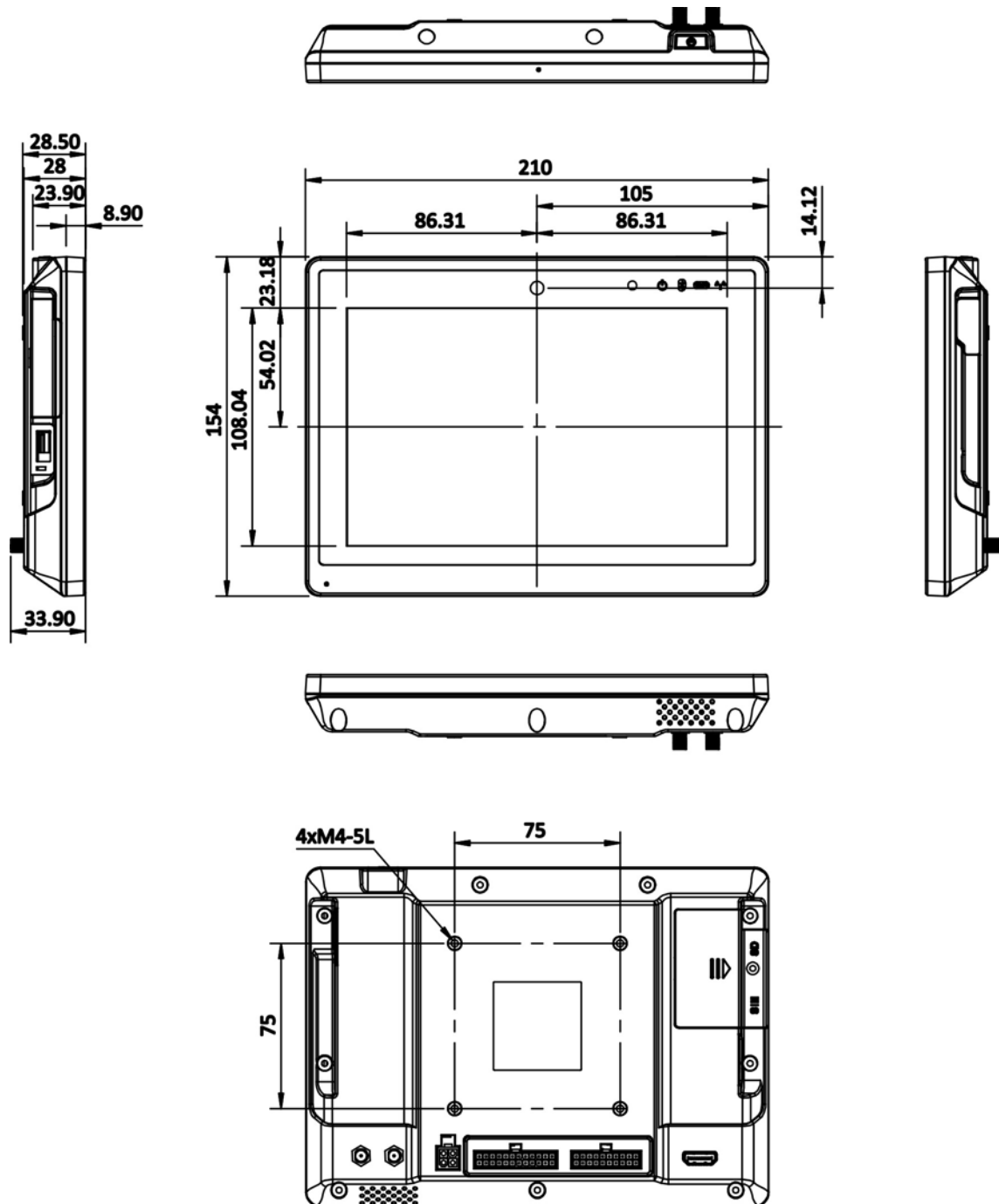


Figure 1-7: Dimensions (unit: mm)



1.8 System Specifications

The technical specifications for the AFOKAR-08A-RK39 systems are listed in **Table 1-2**.

System	
CPU	Rockchip RK3399 on-board SoC (dual-core Cortex-A72 + quad-core Cortex-A53, 64-bit)
Memory	2 GB 1866 MHz LPDDR3L on-board memory
Storage	One microSD card slot 16 GB eMMC NAND flash
Audio	One 2 W speaker and digital microphone
Camera	5-megapixel front-facing camera
Watchdog Timer	Yes
Real-time Clock	Battery backup RTC
OS	Android 7.1
Display	
LCD	8" TFT LCD with LED backlight
Max. Resolution	800 x 1280
Brightness (cd / m ²)	500
Contrast Ratio	800:1
Pixel Pitch (mm)	0.13455 (W) x 0.13455 (H)
Viewing Angle	170° (H)/170° (V)
Touchscreen	Projected capacitive touchscreen with AG coating
Auto-dimming	Ambient light sensor on the front panel
Communication	
Wireless LAN	802.11a/b/g/n/ac
Bluetooth	Bluetooth v4.1
WWAN	Optional by full-size PCIe Mini LTE module
SIM	On-board mini-SIM card (15 x 25 mm) slot
RFID	13.56 MHz ISO4443 A/B, read-write capable, ISO 14443A (MIFARE), ISO 14443B (FeliCa)
GPS	On-board GPS
Power	
Power Input	9 V ~ 30 V DC input



AFOKAR-08A-RK39

	4-pin (2x2) Molex power connector (with ACC ignition)
Power Consumption	12 V @ 2 A
Physical Character	
Construction Material	ABS + PC plastic
Mounting	VESA 75 mm x 75 mm
Dimensions (W x H x D)	210 mm x 154 mm x 33.9 mm
Operation Temperature	-10°C ~ 50°C with air flow
Storage Temperature	-20°C ~ 60°C
Humidity	10% ~ 95%, non-condensing
Weight (Net)	0.77 kg
Operating Shock	Half-sine wave shock 5 G, 11 ms, 3 shocks per axis
Operating Vibration	MIL-STD-810F 514.5C-2
IP Level	IP 54 compliant front panel
Certifications	CE, FCC, e-MARK
Connectors, Buttons and Indicators	
Antenna Connectors	1 x GPS antenna SMA female connector 1 x WWAN antenna SMA female connector
I / O Connector	1 x 9 V~ 30 V DC input connector 1 x USB 3.0 Type-A port 1 x HDMI output connector
	20-pin connector: 1 x OBD-II/J1939 1 x USB 2.0
	24-pin connector: 1 x Audio out 1 x RS-232 1 x RS-485 2-bit digital input with isolation 2-bit digital output with isolation
Button	1 x Power button
LED Indicators	Power, Bluetooth, Wi-Fi and WWAN

Table 1-2: Technical Specifications

Chapter

2

Unpacking

AFOKAR-08A-RK39

To unpack the panel PC, follow the steps below:



WARNING!

The front side LCD screen has a protective plastic cover stuck to the screen. Only remove the plastic cover after the system has been properly installed. This ensures the screen is protected during the installation process.

Step 1: Open the external box.

Step 2: Remove the two polystyrene strips that cover the system.

Step 3: Lift the AFOKAR-08A-RK39 out of the boxes.

Step 4: Take the AFOKAR-08A-RK39 out from the plastic bag.

Step 5: Pull the plastic cover off the AFOKAR-08A-RK39.

Step 6: Make sure all the components listed in the packing list are present.

2.1 Packing List



NOTE:

If any of the components listed in the checklist below are missing, do not proceed with the installation. Contact the IEI reseller or vendor the AFOKAR-08A-RK39 was purchased from or contact an IEI sales representative directly by sending an email to sales@ieiworld.com.

The AFOKAR-08A-RK39 is shipped with the following component:

Quantity	Item	Image
1	AFOKAR-08A-RK39 in-vehicle panel PC	

Table 2-1: Packing List

2.2 Optional Items

The following are optional components which may be separately purchased:

Item	Image
Power adapter with transfer cable (P/N: IVIPOWER-4PIN-R10)	
ACC power cable (P/N: 32002-001900-100-RS)	
Cigarette lighter power cable (P/N: 32002-004000-100-RS)	
OBD-II cable (P/N: 32025-003400-100-RS)	

AFOKAR-08A-RK39

Item	Image
GPS/LTE antenna (P/N: 32506-000400-100-RS)	
I/O connector 1 cable (20-pin) (P/N: 32024-003800-100-RS)	
I/O connector 2 cable (24-pin) (P/N: 32124-004400-100-RS)	
VESA mount stand (138 mm) (P/N: IVI-MK03-R10)	

Table 2-2: Optional Items

If any of these items are missing or damaged, contact the distributor or sales representative immediately.

Chapter

3

Installation

AFOKAR-08A-RK39

3.1 Anti-static Precautions

**WARNING:**

Failure to take ESD precautions during the maintenance of the AFOKAR-08A-RK39 may result in permanent damage to the AFOKAR-08A-RK39 and severe injury to the user.

Electrostatic discharge (ESD) can cause serious damage to electronic components, including the AFOKAR-08A-RK39. Dry climates are especially susceptible to ESD. It is therefore critical that whenever the AFOKAR-08A-RK39 is accessed internally, or any other electrical component is handled, the following anti-static precautions are strictly adhered to.

- ***Wear an anti-static wristband:*** Wearing a simple anti-static wristband can help to prevent ESD from damaging the board.
- ***Self-grounding:*** Before handling the board, touch any grounded conducting material. During the time the board is handled, frequently touch any conducting materials that are connected to the ground.
- ***Use an anti-static pad:*** When configuring the AFOKAR-08A-RK39, place it on an anti-static pad. This reduces the possibility of ESD damaging the AFOKAR-08A-RK39.
- ***Only handle the edges of the PCB:*** When handling the PCB, hold the PCB by the edges.

3.2 Installation Precautions

When installing the flat panel PC, please follow the precautions listed below:

- **Power turned off:** When installing the flat panel PC, make sure the power is off. Failing to turn off the power may cause severe injury to the body and/or damage to the system.
- **Certified Engineers:** Only certified engineers should install and modify onboard functionalities.

- **Anti-static Discharge:** If a user open the rear panel of the flat panel PC, to configure the jumpers or plug in added peripheral devices, ground themselves first and wear an anti-static wristband.

3.3 microSD Card Installation

To install the microSD card, follow the instructions below.

Step 1: Remove the retention screw and lift the microSD card slot access panel.



Figure 3-1: microSD Card Slot Access Panel Retention Screw

Step 2: Locate the microSD card slot. Insert the microSD card into the slot to install it. To remove the microSD card, push the microSD card inwards to release it.



Figure 3-2: microSD Card Installation

AFOKAR-08A-RK39

Step 3: Replace the microSD card slot access panel.

3.4 SIM Card Installation (Optional)

To install the SIM card, follow the instructions below.

**WARNING:**

The AFOKAR-08A-RK39 is not compatible with a micro-SIM (3FF) adapter or a nano-SIM (4FF) adapter. Please install a mini-SIM (2FF or Standard SIM) card for proper network connection.

**NOTE:**

Before installing a SIM card for WWAN connection, please make sure a WWAN module is installed in the PCIe Mini card slot of the AFOKAR-08A-RK39.

Step 1: Remove the retention screw and lift the SIM card slot access panel.



Figure 3-3: SIM Card Slot Access Panel Retention Screw



Step 2: Locate the push-push SIM card slot (**Figure 3-4**). Insert a SIM card into the slot to install it. To remove the SIM card, push the SIM card to release it.



Figure 3-4: SIM Card Installation

Step 3: Replace and secure the SIM card slot access panel with the previously removed retention screw.



AFOKAR-08A-RK39**3.5 Mounting the System**

The AFOKAR-08A-RK39 is VESA (Video Electronics Standards Association) compliant and can be mounted on a mounting device with a 75 mm interface pad. The AFOKAR-08A-RK39 VESA mount retention screw holes for fastening four M4*6 screws are shown in **Figure 3-5**. Refer to the installation guide that came with the mounting device to mount the AFOKAR-08A-RK39.

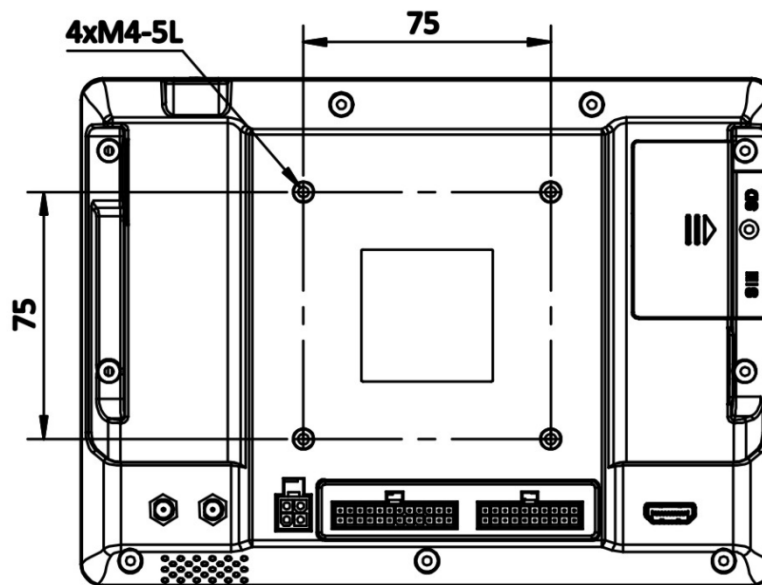


Figure 3-5: VESA Mount Retention Screw Holes

**NOTE:**

When purchasing the mounting device please ensure that it is VESA compliant and that the device has a 75 mm interface pad. If the mounting device is not VESA compliant it cannot be used to support the AFOKAR-08A-RK39.

3.6 External I/O Connectors

This section provides an overview of the external I/O connectors of the AFOKAR-08A-RK39.

3.6.1 I/O Connector 1 (20-pin)

The 20-pin I/O connector (IO 1) supports the following external peripheral devices:

- 1 x OBD-II/J1939
- 1 x USB 2.0

The pinouts for the IO 1 connector are listed in the figure and table below.

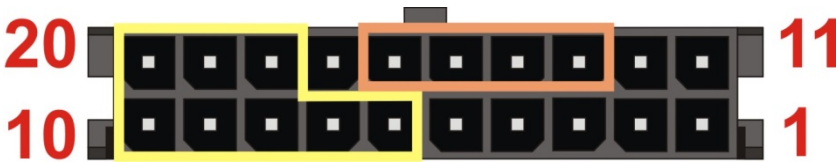


Figure 3-6: IO 1 Connector Pinout Locations

Pin		Description	Pin		Description
	1	NC	11	NC	USB 2.0
	2	NC	12	NC	
	3	NC	13	USB VCC (+5V)	
	4	NC	14	USB DATA-	
	5	NC	15	USB DATA+	
OBD-II	6	J2850_BUS+	16	GND	OBD-II
	7	J2850_BUS-	17	NC	
	8	GND	18	GND	
	9	OBD_CAN_H	19	ISO-9141-2-K	
	10	OBD_CAN_L	20	ISO-9141-2-L	

Table 3-1: IO 1 Connector Pinouts

AFOKAR-08A-RK39

User can purchase the optional OBD-II cable (**Figure 3-7**) to connect the AFOKAR-08A-RK39 with the vehicle.



Figure 3-7: OBD-II Cable

The pinout locations of OBD-II cable connector are shown below.

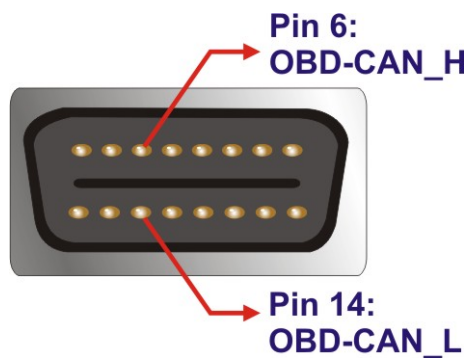


Figure 3-8: OBD-II Connector Pinouts

3.6.2 I/O Connector 2 (24-pin)

The 24-pin I/O connector (IO 2) supports the following external peripheral devices:

- 1 x Audio out
- 1 x RS-232
- 1 x RS-485
- 2-bit digital input with isolation
- 2-bit digital output with isolation

The pinouts for the IO 2 connector are listed in the figure and table below.

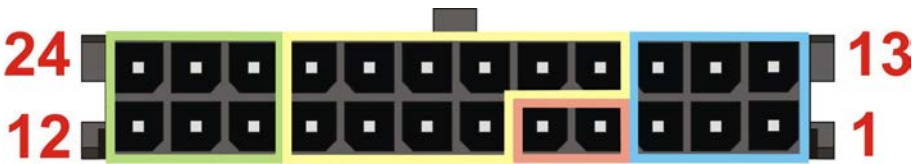


Figure 3-9: IO 2 Connector Pinout Locations

	Pin	Description	Pin	Description	
RS-232	1	RS232_TXD	13	RS232_RXD	RS-232
	2	RS232_RTS	14	RS232_CTS	
	3	GND	15	GND	
RS-485	4	RS485-	16	DIO_GND	Digital Output
	5	RS485+	17	DIO_OUT_1	
Digital Input	6	DIO_GND	18	DIO_GND	
	7	DIO_IN_1	19	DIO_OUT_2	
	8	DIO_GND	20	DIO_GND	
	9	DIO_IN_2	21	DIO_VCC	
Audio Out	10	AUDIO_GND	22	NC	Audio Out
	11	LINE_OUT_L	23	AUDIO_GND	
	12	LINE_OUT_R	24	Reserved	

Table 3-2: IO 2 Connector Pinouts

AFOKAR-08A-RK39

3.6.3 HDMI Connector

The AFOKAR-08A-RK39 has one HDMI output connector on the rear panel. The pinouts for the HDMI connector are listed in the figure and table below.

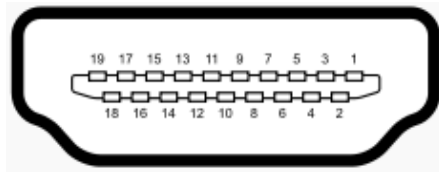


Figure 3-10: HDMI Connector

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	HDMI_DATA2	2	GND
3	HDMI_DATA2 #	4	HDMI_DATA1
5	GND	6	HDMI_DATA1 #
7	HDMI_DATA0	8	GND
9	HDMI_DATA0 #	10	HDMI_CLK
11	GND	12	HDMI_CLK #
13	N/C	14	N/C
15	HDMI_SCL	16	HDMI_SDA
17	GND	18	+5V
19	HDMI_HPD	20	HDMI_GND
21	HDMI_GND	22	HDMI_GND
23	HDMI_GND		

Table 3-3: HDMI Connector Pinouts

3.6.4 Power Input Connection

The AFOKAR-08A-RK39 has one 4-pin power input connector on the rear panel. The pinouts for the power input connector are listed in the figure and table below.

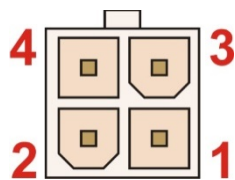


Figure 3-11: Power Input Connector

PIN NO.	DESCRIPTION
1	GND
2	GND
3	POWER
4	ACC

Table 3-4: Power Input Connector Pinouts

[Optional Choice]

The AFOKAR-08A-RK39 can use either ACC power or DC power from the vehicle. To use ACC power, connect the AFOKAR-08A-RK39 to the vehicle through the optional ACC power cable. See Figure 3-12.



Figure 3-12: Optional ACC Power Cable

AFOKAR-08A-RK39

To use DC power, connect the AFOKAR-08A-RK39 to the vehicle cigarette lighter connector through the optional cigarette lighter cable. See **Figure 3-13**.



Figure 3-13: Optional Cigarette Lighter Cable

3.6.5 USB Connector

The AFOKAR-08A-RK39 has one USB 3.0 port on the right side panel. The USB port has a screw on the side for securing the USB devices, such as barcode scanners and smart card readers. The following diagram shows the USB 3.0 port and the screw on the side panel.



Figure 3-14: USB Connector

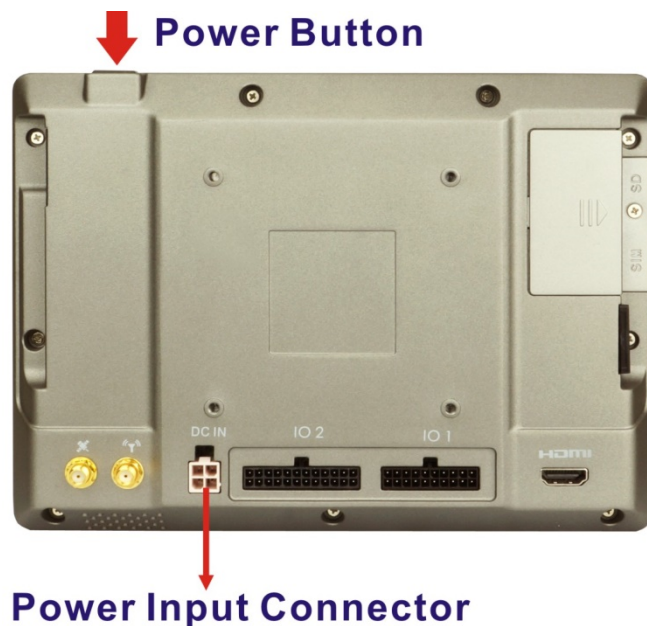
3.7 Power-On Procedure

**WARNING:**

Make sure a power supply with the correct input voltage is being fed into the system. Incorrect voltages applied to the system may cause damage to the internal electronic components and may also cause injury to the user.

To power-on the AFOKAR-08A-RK39, connect the AFOKAR-08A-RK39 to the vehicle through a power cable, or connect the system to a power source through the optional power adapter.

When the system is connected to power source, press the power button on the top panel for 4–6 seconds to power on/off the system.



AFOKAR-08A-RK39

3.8 Available Drivers

All the drivers for the AFOKAR-08A-RK39 are available on IEI Resource Download Center (<https://download.ieiworld.com>). Type AFOKAR-08A-RK39 and press Enter to find all the relevant software, utilities, and documentation.

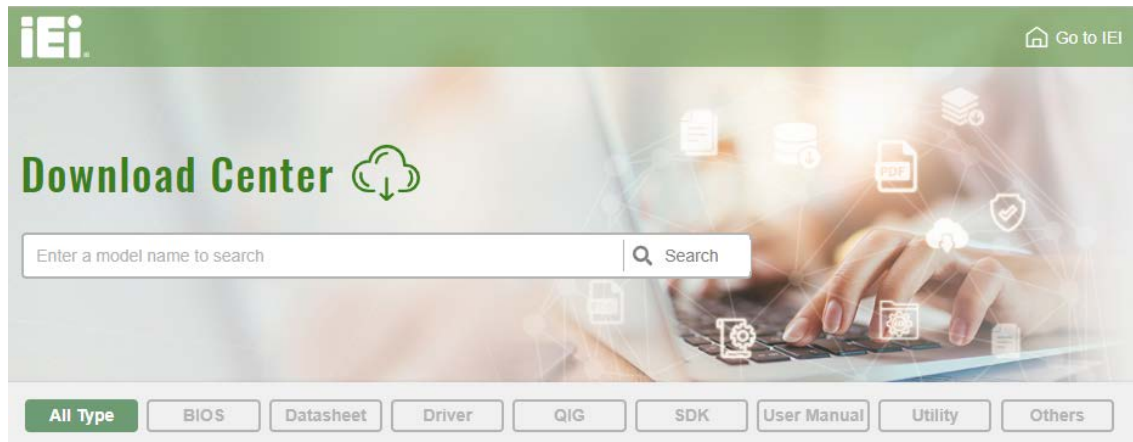
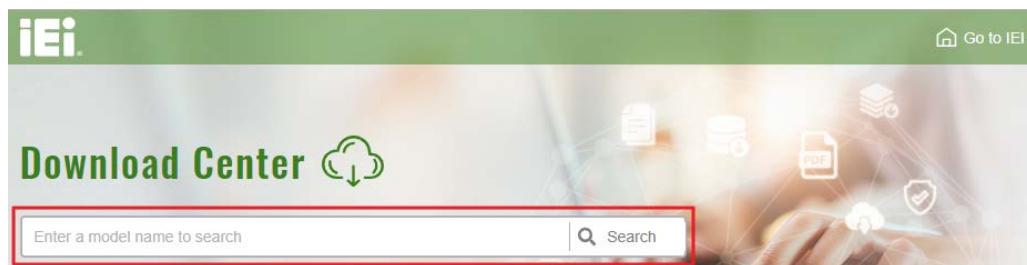


Figure 3-15: IEI Resource Download Center

3.8.1 Driver Download

To download drivers from IEI Resource Download Center, follow the steps below.

Step 4: Go to <https://download.ieiworld.com>. Type AFOKAR-08A-RK39 and press Enter.



Step 5: All product-related software, utilities, and documentation will be listed. You can choose **Driver** to filter the result.



All TypeBIOSDatasheetDriverQIGSDKUser ManualUtilityOthers

WAFER-BT-i1

Product Info ▶

Embedded Computer ▶ Single Board Computer ▶ Embedded Board

3.5" SBC with Intel® 22nm Atom™/Celeron® on-board SoC

Driver

File Name	Published	Version	File Checksum
7B000-001033-RS V2.3.iso (2.23 GB) 	2017/10/03	2.30	3B2DB1F792779A93A8F50DDBC3943E30

Step 6: Click the driver file name on the page and you will be prompted with the following window. You can download the entire ISO file (❶), or click the small arrow to find an individual driver and click the file name to download (❷).

7B000-001168-RS_V1.4.iso

X

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Docs

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2.VGA

3.Audio

4.Lan

5.USB 3.0

6.Serial IO

7.TXE

8.Manual



AFOKAR-08A-RK39**3.9 System Maintenance**

If the components of the AFOKAR-08A-RK39 fail, they must be replaced. Please contact the system reseller or vendor to purchase the replacement parts.

**NOTE:**

A user cannot replace a motherboard. If the motherboard fails it must be shipped back to IEI to be replaced. Please contact the system vendor, reseller or an IEI sales person directly.

Chapter

4

Android OS

AFOKAR-08A-RK39

The AFOKAR-08A-RK39 comes with Android OS pre-installed. This chapter introduces the user interface and basic functions of Android OS installed in the AFOKAR-08A-RK39.

4.1 Home Screen

Android OS supports multiple home screens allowing users to customize the screen with widgets, apps and shortcuts. The following sections describe the basic technique to manage the home screen.

4.1.1 Adding a Home Screen

To add a home screen, touch and hold an app/widget icon. The following screen appears, indicating that a new home screen is available. Drag and release the icon to the new home screen.

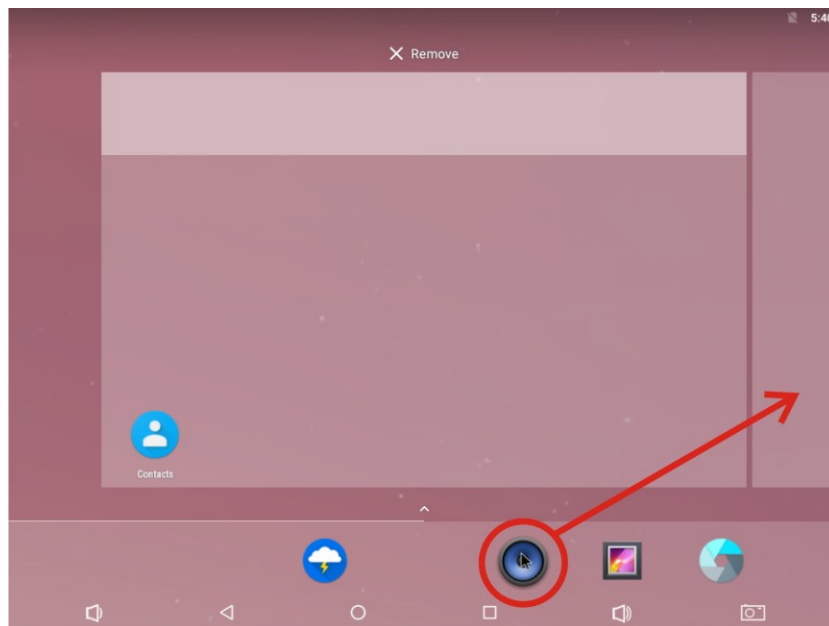


Figure 4-1: Adding a Home Screen



4.1.2 Switching between Home Screens

Swipe right or left to switch between home screens.

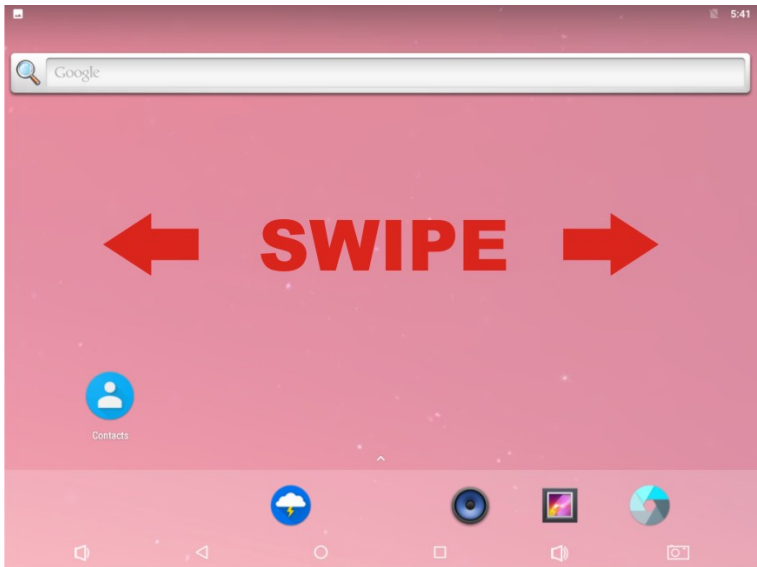


Figure 4-2: Multiple Home Screens

4.1.3 Favorites Tray

The Favorites tray at the bottom of each home screen allows users to keep the most important or frequently used shortcuts.

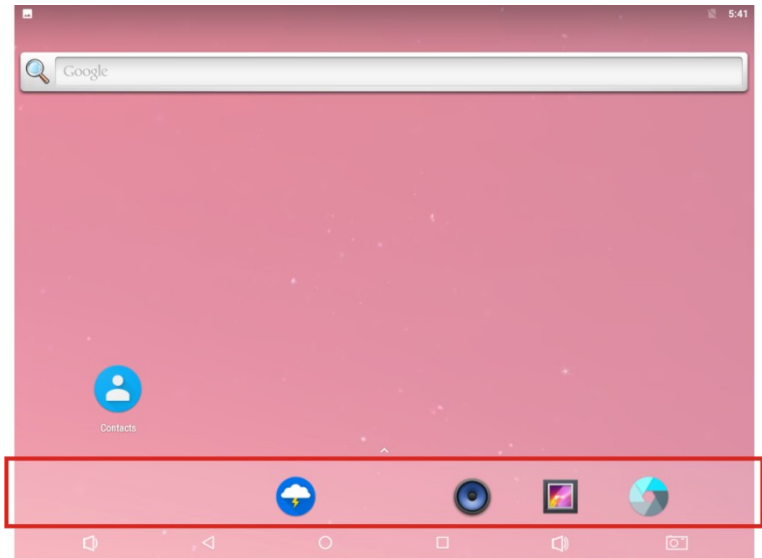


Figure 4-3: Favorites Tray

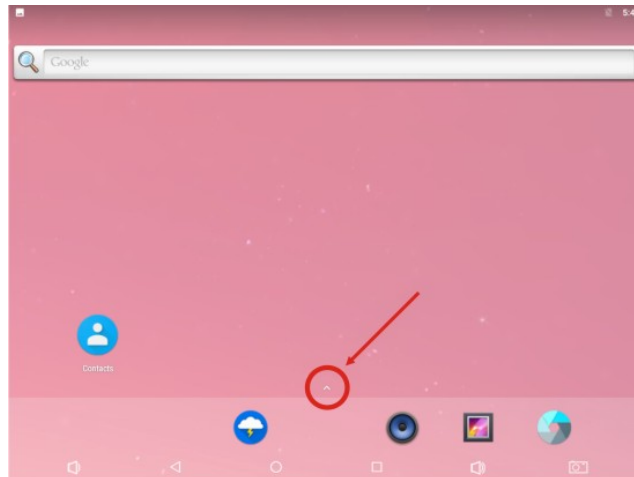


AFOKAR-08A-RK39

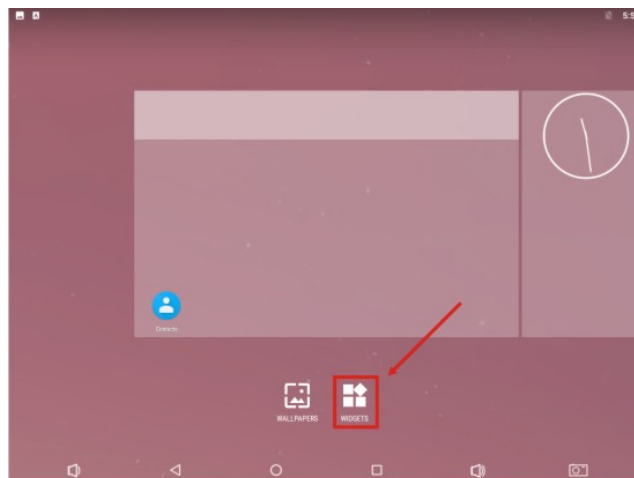
4.1.4 Adding Shortcuts

To add app or widget shortcuts on the home screen, follow the steps below.

Step 1: To add an app shortcut, tap the up arrow  on the home screen to access the All Apps page.



To add a widget shortcut, touch and hold the background of a home screen, then tap **WIDGETS**.



Step 2: Touch and hold an app icon or a widget, and drag it to the home screen.

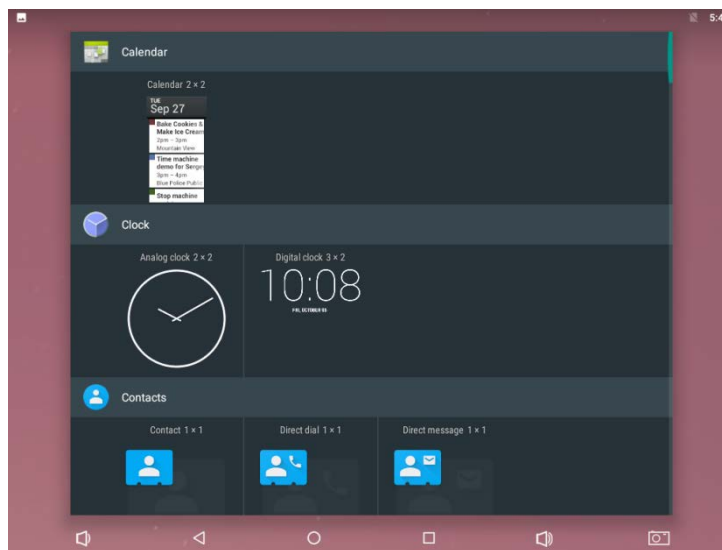
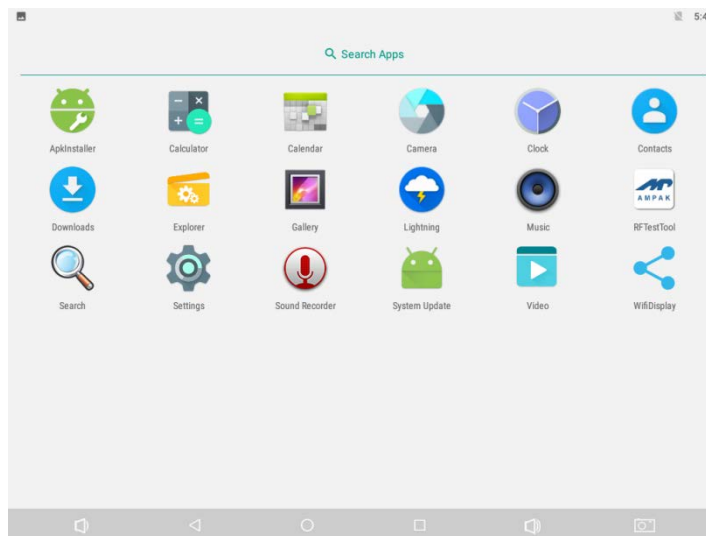


Figure 4-4: All Apps/WIDGETS Page

AFOKAR-08A-RK39**4.1.5 Arranging the Home Screen**

The items on the home screen can be moved and deleted. Touch and hold an item on the home screen and drag it where you want. To trash the item on the screen, drag it to the Remove icon. Release the icon when it turns gray.

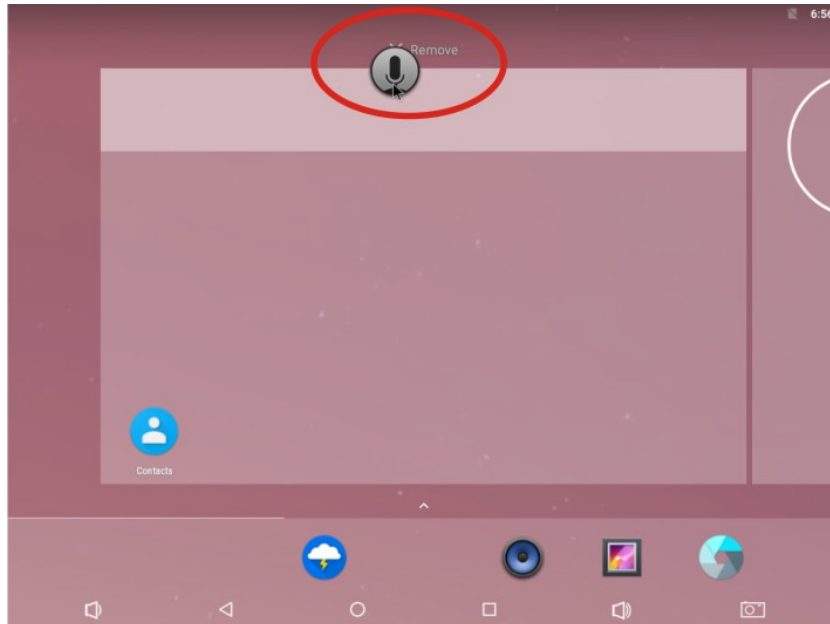


Figure 4-5: Trash an Item on Home Screen

4.2 Navigation Buttons

The navigation buttons shown in **Figure 4-8** can always be found at the bottom of every screen.

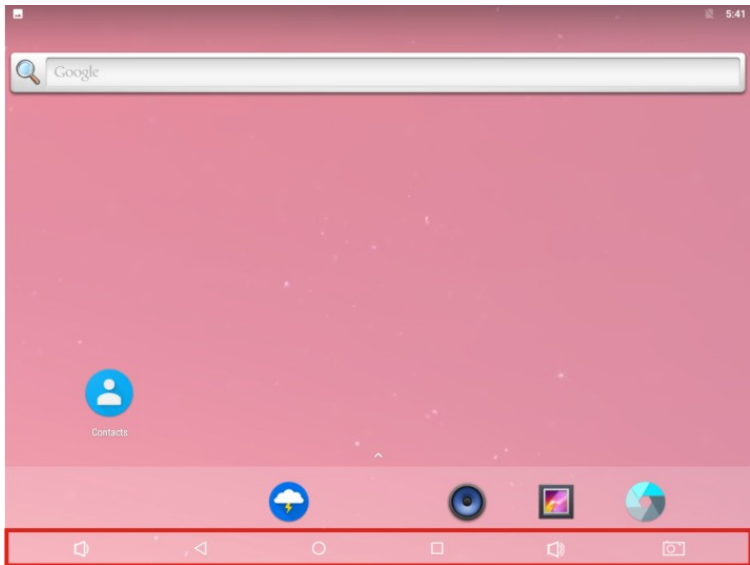


Figure 4-6: Navigation Buttons

Buttons	Description
	Tap to turn the volume down.
	Tap to return to the previous screen.
	Tap to return to the home screen.
	Tap to display all the recently used applications.
	Tap to turn the volume up.
	Tap to take a screenshot.

Table 4-1: Navigation Buttons

AFOKAR-08A-RK39

4.3 Status Bar

The status bar on the top of the screen (**Figure 4-9**) displays system status, such as battery level or signal strength.

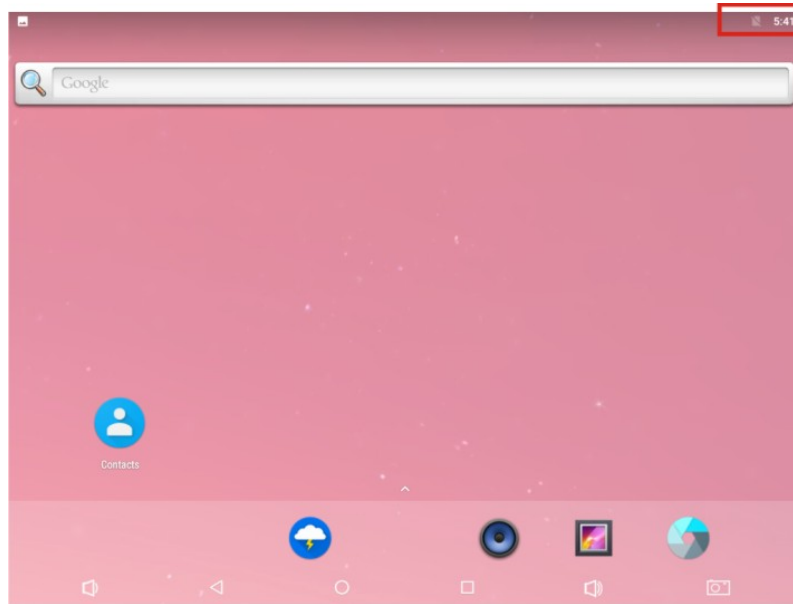
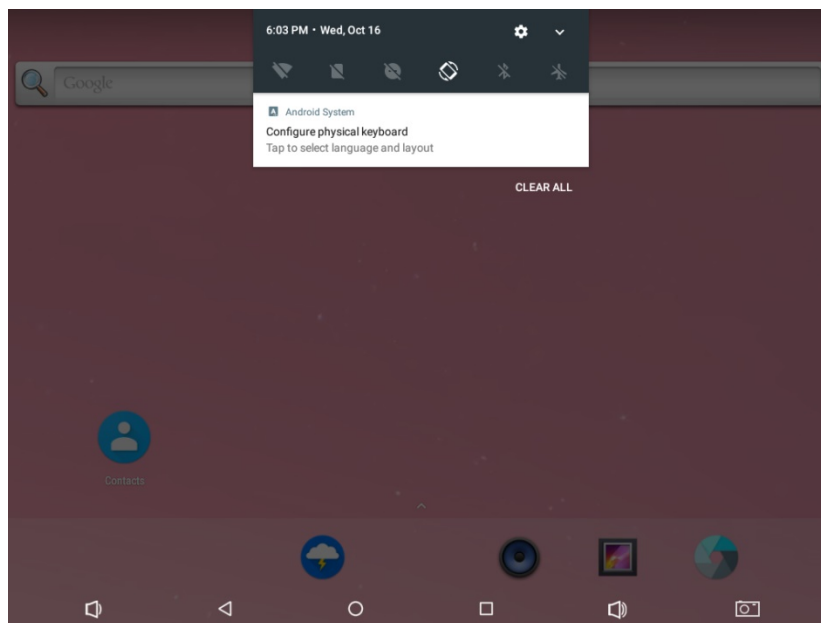


Figure 4-7: Status Bar

Swipe down from the status bar to view notification and status details (**Figure 4-10**).



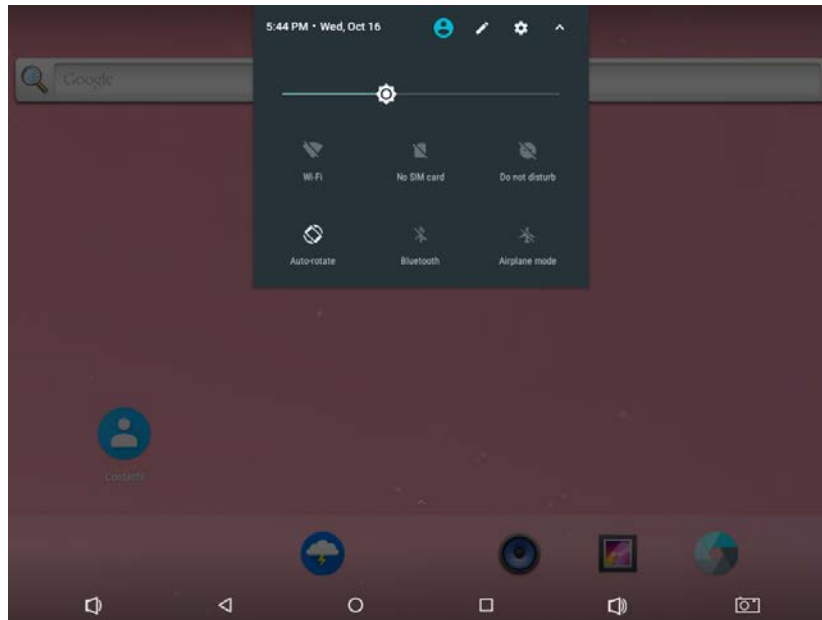


Figure 4-8: Notification List and System Status

Appendix

A

Regulatory Compliance

**DECLARATION OF CONFORMITY**

This equipment is in conformity with the following EU directives:

- EMC Directive (2004/108/EC, 2014/30/EU)
- Low-Voltage Directive (2006/95/EC, 2014/35/EU)
- RoHS II Directive (2011/65/EU, 2015/863/EU)

If the user modifies and/or install other devices in the equipment, the CE conformity declaration may no longer apply.

If this equipment has telecommunications functionality, it also complies with the requirements of the Radio Equipment Directive 2014/53/EU.

English

IEI Integration Corp declares that this equipment is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

Български [Bulgarian]

IEI Integration Corp. декларира, че този оборудване е в съответствие със съществените изисквания и другите приложими правила на Директива 2014/53/EU.

Česky [Czech]

IEI Integration Corp tímto prohlašuje, že tento zařizení je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 2014/53/EU.

Dansk [Danish]

IEI Integration Corp erklærer herved, at følgende udstyr overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/EU.

Deutsch [German]

IEI Integration Corp, erklärt dieses Gerät entspricht den grundlegenden Anforderungen und den weiteren entsprechenden Vorgaben der Richtlinie 2014/53/EU.

Eesti [Estonian]

IEI Integration Corp deklareerib seadme seadme vastavust direktiivi 2014/53/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.



AFOKAR-08A-RK39

Español [Spanish]

IEI Integration Corp declara que el equipo cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2014/53/EU.

Ελληνική [Greek]

IEI Integration Corp ΔΗΛΩΝΕΙ ΟΤΙ ΕΞΟΠΛΙΣΜΟΣ ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2014/53/EU.

Français [French]

IEI Integration Corp déclare que l'appareil est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 2014/53/EU.

Italiano [Italian]

IEI Integration Corp dichiara che questo apparecchio è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/EU.

Latviski [Latvian]

IEI Integration Corp deklarē, ka iekārta atbilst būtiskajām prasībām un citiem ar to saistītajiem noteikumiem Direktīvas 2014/53/EU.

Lietuvių [Lithuanian]

IEI Integration Corp deklaruoja, kad šis įranga atitinka esminius reikalavimus ir kitas 2014/53/EU Direktyvos nuostatas.

Nederlands [Dutch]

IEI Integration Corp dat het toestel toestel in □vereinstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EU.

Malti [Maltese]

IEI Integration Corp jiddikjara li dan prodott jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Direttiva 2014/53/EU.

Magyar [Hungarian]

IEI Integration Corp nyilatkozom, hogy a berendezés megfelel a vonatkozó alapvető követelményeknek és az 2014/53/EU irányelv egyéb előírásainak.

Polski [Polish]

IEI Integration Corp oświadcza, że wyrobu jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi □postanowieniami Dyrektywy 2014/53/EU.

Português [Portuguese]

IEI Integration Corp declara que este equipamento está conforme com os requisitos essenciais e outras disposições da Directiva 2014/53/EU.

Româna [Romanian]

IEI Integration Corp declară că acest echipament este în conformitate cu cerințele esențiale și cu celelalte prevederi relevante ale Directivei 2014/53/EU.

Slovensko [Slovenian]

IEI Integration Corp izjavlja, da je ta opreme v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 2014/53/EU.

Slovensky [Slovak]

IEI Integration Corp týmto vyhlasuje, že zariadenia spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 2014/53/EU.

Suomi [Finnish]

IEI Integration Corp vakuuttaa täten että laitteet on direktiivin 2014/53/EU oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.

Svenska [Swedish]

IEI Integration Corp förklarar att denna utrustningstyp står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/EU.

FCC WARNING

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Federal Communication Commission Interference Statement

This equipment has been assembled with components that comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Appendix

B

Safety Precautions

**WARNING:**

The precautions outlined in this chapter should be strictly followed. Failure to follow these precautions may result in permanent damage to the AFOKAR-08A-RK39.

B.1 Safety Precautions

Please follow the safety precautions outlined in the sections that follow:

B.1.1 General Safety Precautions

Please ensure the following safety precautions are adhered to at all times.

- ***Follow the electrostatic precautions*** outlined below whenever the device is opened.
- ***Make sure the power is turned off and the power cord is disconnected*** whenever the AFOKAR-08A-RK39 is being installed, moved or modified.
- ***To prevent the risk of electric shock, make sure power cord is unplugged from wall socket.*** To fully disengage the power to the unit, please disconnect the power cord from the power outlet. Refer servicing to qualified service personnel. The power outlet shall be readily available and accessible.
- ***Do not apply voltage levels that exceed the specified voltage range.*** Doing so may cause fire and/or an electrical shock. Use a power cord that matches the voltage of the power outlet, which has been approved and complies with the safety standard of your particular country.
- ***Electric shocks can occur*** if the AFOKAR-08A-RK39 chassis is opened when it is running. To avoid risk of electric shock, this device must only be connected to a supply mains with protective earth.
- ***Do not drop or insert any objects*** into the ventilation openings of the AFOKAR-08A-RK39.

- **If considerable amounts of dust, water, or fluids enter the device**, turn off the power supply immediately, unplug the power cord, and contact the AFOKAR-08A-RK39 vendor.
- **DO NOT:**
 - Drop the device against a hard surface.
 - Strike or exert excessive force onto the LCD panel.
 - Touch any of the LCD panels with a sharp object
 - In a site where the ambient temperature exceeds the rated temperature

B.1.2 Anti-static Precautions



WARNING:

Failure to take ESD precautions during the installation of the AFOKAR-08A-RK39 may result in permanent damage to the AFOKAR-08A-RK39 and severe injury to the user.

Electrostatic discharge (ESD) can cause serious damage to electronic components, including the AFOKAR-08A-RK39. Dry climates are especially susceptible to ESD. It is therefore critical that whenever the AFOKAR-08A-RK39 is opened and any of the electrical components are handled, the following anti-static precautions are strictly adhered to.

- **Wear an anti-static wristband:** Wearing a simple anti-static wristband can help to prevent ESD from damaging any electrical component.
- **Self-grounding:** Before handling any electrical component, touch any grounded conducting material. During the time the electrical component is handled, frequently touch any conducting materials that are connected to the ground.
- **Use an anti-static pad:** When configuring or working with an electrical component, place it on an anti-static pad. This reduces the possibility of ESD damage.
- **Only handle the edges of the electrical component:** When handling the electrical component, hold the electrical component by its edges.

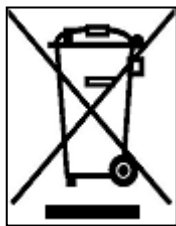
B.1.3 Product Disposal

**CAUTION:**

Risk of explosion if battery is replaced by an incorrect type. Only certified engineers should replace the on-board battery.

Dispose of used batteries according to instructions and local regulations.

- Outside the European Union—If you wish to dispose of used electrical and electronic products outside the European Union, please contact your local authority so as to comply with the correct disposal method.
- Within the European Union—The device that produces less waste and is easier to recycle is classified as electronic device in terms of the European Directive 2012/19/EU (WEEE), and must not be disposed of as domestic garbage.



EU-wide legislation, as implemented in each Member State, requires that waste electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste. This includes monitors and electrical accessories, such as signal cables or power cords. When you need to dispose of your display products, please follow

the guidance of your local authority, or ask the shop where you purchased the product. The mark on electrical and electronic products only applies to the current European Union Member States.

Please follow the national guidelines for electrical and electronic product disposal.

B.2 Maintenance and Cleaning Precautions

When maintaining or cleaning the AFOKAR-08A-RK39, please follow the guidelines below.



WARNING:

- For safety reasons, turn-off the power and unplug the panel PC before cleaning.
 - If you dropped any material or liquid such as water onto the panel PC when cleaning, unplug the power cable immediately and contact your dealer or the nearest service center. Always make sure your hands are dry when unplugging the power cable.
-

B.2.1 Maintenance and Cleaning

Prior to cleaning any part or component of the AFOKAR-08A-RK39, please read the details below.

- Except for the LCD panel, never spray or squirt liquids directly onto any other components. To clean the LCD panel, gently wipe it with a piece of soft dry cloth or a slightly moistened cloth.
- The interior of the device does not require cleaning. Keep fluids away from the device interior.
- Be cautious of all small removable components when vacuuming the device.
- Never drop any objects or liquids through the openings of the device.
- Be cautious of any possible allergic reactions to solvents or chemicals used when cleaning the device.
- Avoid eating, drinking and smoking within vicinity of the device.

B.2.2 Cleaning Tools

Some components in the AFOKAR-08A-RK39 may only be cleaned using a product specifically designed for the purpose. In such case, the product will be explicitly mentioned in the cleaning tips. Below is a list of items to use when cleaning the AFOKAR-08A-RK39.

- **Cloth**— Although paper towels or tissues can be used, a soft, clean piece of

AFOKAR-08A-RK39

cloth is recommended when cleaning the device.

- **Water or rubbing alcohol**—A cloth moistened with water or rubbing alcohol can be used to clean the device.
- **Using solvents**—The use of solvents is not recommended when cleaning the device as they may damage the plastic parts.
- **Vacuum cleaner**—Using a vacuum specifically designed for computers is one of the best methods of cleaning the device. Dust and dirt can restrict the airflow in the device and cause its circuitry to corrode.
- **Cotton swabs**—Cotton swabs moistened with rubbing alcohol or water are excellent tools for wiping hard to reach areas.
- **Foam swabs**—Whenever possible, it is best to use lint free swabs such as foam swabs for cleaning.

Appendix

C

Hazardous Materials Disclosure

AFOKAR-08A-RK39

The details provided in this appendix are to ensure that the product is compliant with the Peoples Republic of China (China) RoHS standards. The table below acknowledges the presences of small quantities of certain materials in the product, and is applicable to China RoHS only.

A label will be placed on each product to indicate the estimated “Environmentally Friendly Use Period” (EFUP). This is an estimate of the number of years that these substances would “not leak out or undergo abrupt change.” This product may contain replaceable sub-assemblies/components which have a shorter EFUP such as batteries and lamps. These components will be separately marked.

Please refer to the following table.

Part Name	Toxic or Hazardous Substances and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (CR(VI))	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
Housing	O	O	O	O	O	O
Display	O	O	O	O	O	O
Printed Circuit Board	O	O	O	O	O	O
Metal Fasteners	O	O	O	O	O	O
Cable Assembly	O	O	O	O	O	O
Fan Assembly	O	O	O	O	O	O
Power Supply Assemblies	O	O	O	O	O	O
Battery	O	O	O	O	O	O
O: This toxic or hazardous substance is contained in all of the homogeneous materials for the part is below the limit requirement in SJ/T11363-2006 (now replaced by GB/T 26572-2011). X: This toxic or hazardous substance is contained in at least one of the homogeneous materials for this part is above the limit requirement in SJ/T11363-2006 (now replaced by GB/T 26572-2011).						



此附件旨在确保本产品符合中国 RoHS 标准。以下表格标示此产品中某有毒物质的含量符合中国 RoHS 标准规定的限量要求。

本产品上会附有“环境友好使用期限”的标签，此期限是估算这些物质“不会有泄漏或突变”的年限。本产品可能包含有较短的环境友好使用期限的可替换元件，像是电池或灯管，这些元件将会单独标示出来。

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (CR(VI))	多溴联苯 (PBB)	多溴二苯 醚 (PBDE)
壳体	O	O	O	O	O	O
显示	O	O	O	O	O	O
印刷电路板	O	O	O	O	O	O
金属螺帽	O	O	O	O	O	O
电缆组装	O	O	O	O	O	O
风扇组装	O	O	O	O	O	O
电力供应组装	O	O	O	O	O	O
电池	O	O	O	O	O	O
O: 表示该有毒有害物质在该部件所有物质材料中的含量均在 SJ/T 11363-2006 (现由 GB/T 26572-2011 取代) 标准规定的限量要求以下。						
X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 (现由 GB/T 26572-2011 取代) 标准规定的限量要求。						

