VIA Mobile360 M800
AI Safety System
User Manual

1. Overview

① Reset Button
② Power LED
③ Micro SD Slot
④ Micro SIM Slot
⑤ DISP Port
⑥ CAN/COM Port
⑦ DIO Port
⑧ LAN Port

① DMS Camera
② Rear Camera
③ ADAS Camera
④ Power/CAN Port
⑤ ANT-M
⑥ ANT-D
⑦ Wi-Fi Antenna
⑧ GPS Antenna

LED indicator status description

LED	Flashing frequency	Description
Power LED	On	System is working
	Off	System shutdown or sleep
	1Hz	Power on / Off
	4Hz	Firmware / MCU upgrade
Remarks: 1Hz=1 flash per second, 4Hz=4 flash per second		

1.1 Specifications

Item	Description
Processor	SigmaStar SSC8629G
Memory	1GB DDR3 SDRAM
Storage	512MB SPI NAND Flash ROM
Display	1 Segment Display (Avionic Connector)
Sensor	ADAS Camera: IMX307 1/2.8 RGB CMOS, 1920*1080 FOV-D=60.8°，FOV-H=53°，FOV-V=29.8° Operation Temp -30℃~+70℃ DMS Camera: IMX307 1/2.8 RGB CMOS, 1920*1080 FOV-D=62°，FOV-H=54°，FOV-V=30° Operation Temp -30℃~+70℃ Rear Camera: IMX307 1/2.8 RGB CMOS, 1280*720 FOV-D=140°，FOV-H=109°，FOV-V=54° Operation Temp -30℃~+70℃
Audio	1 Speaker out (2W/4 OHM) 2 MIC
Wireless Connectivity	1 GPS/Beidou 1 WIFI 802.11b/g/n/ac 1 BT5.0
Mobile 360 M800 Output Power(EIRP)	5150-5250MHz WIFI :17dBm 5725-5850MHz WIFI:12dBm BT:9dBm 2.4G WIFI: 18dBm

Antenna	1 ANT-M connector (SMA) 1 ANT-D connector (SMA) 1 GPS/Beidou ANT connector (SMA) 1 WIFI/BT ANT connector (SMA)
I/O	1 MicroSD card socket 1 Micro SIM Socket 2 Digital OUT 5 Digital IN (1 for ACC/IGN detect) 1 Power LED 1 LAN 2 CAN bus (Avionic Connector) 1 RS-232 (Only TX/RX, Avionic Connector) 1 Reset Key 1 URAT for Debug (Avionic Connector)
G-Sensor	1 6-axis ACCELEROMETER BMI160
Power	DC9~36V (Avionic Connector)
Operating System	Embedded Linux
Dimensions	178mm x 160mm x 52.8mm
Software	Drive recorder SDK with Android and iOS smartphone reference apps AWS IoT, AWS SDK, AWS KVS SDK, AWS IoT Greengrass
Weight	1.382Kg
Environmental Specification	Operating Temperature: -20℃~70℃ Operating Humidity: 0~ 95% (non-condensing) Storage Temperature: -30℃~70℃ IP67 Vibration Loading During Operation: ISO-16750-3 Test VII compliance Shock During Operation: ISO-16750-3 Test VII compliance

Box Contents

- 1 x VIA Mobile360 M800 AI Safety System
- 1 x Three in One Antenna
- 1 x M800 - DMS Camera
- 1 x M800 - Rear Camera
- 1 x M800 - ADAS Camera
- 1 x M12 J1939 Cable (DCIN)
- 6 x M2.5 Tamper Screw
- 1 x Wrench
- 1 x Seal Ring B
- 1 x Front Panel Cove
- 1 x Segment
- 4 x M12 Aviation Head Plastic Dust Cove

2. AI Safety System Installing

2.1 Insert SD Card or SIM Card

The AI Safety System supports automatic video recording to a Micro SD card after startup which can be played back in the VIA Mobile360 App. To use this feature, you need to insert a Micro SD card into the Micro SD card slot on the system. And it can download maps through a 4G network which can be displayed in the VIA Mobile360 App. To use this feature you need to insert a 4G Micro SIM card into the Micro SIM card slot on system.

Insert SD Card or SIM Card: When inserting a SD card or SIM card, use your fingernail to press the card into the AI Safety System. When it is fully inserted, the card will snap into the slot. To remove the card, use your fingernail to gently press the card into the AI Safety System and it will pop up, allowing you to remove it.

*Note: It supports up to 512G SD card and must be formatted into FAT32 file system. Please confirm The SIM can connect to internet. The SIM card does not support hot plug.

2.2 Install Camera and Antenna

Connect the 3-in-1 antenna to the corresponding antenna interface of the device, and then connect the ADAS camera, DMS camera and Rear camera to CAM1, CAM2 and CAM3 interfaces of the device respectively. Connect PWR / CAN interface of device with J1939 interface of vehicle through M12 J1939 cable. Finally, install the 3-in-1 antenna, cameras to the appropriate position of the vehicle. The connection diagram is as follows：

2.3 Install Segment and Other Options

Connect the segment to the DISP interface of the device, and fix it in the appropriate position. Then connect the other optional equipment to the device and fix it in the appropriate position. The connection diagram is as follows:

3. Getting Started with your AI Safety System

After install the AI Safety System, you need to connect to your mobile phone to calibrate the AI function through VIA Mobile360 App first.

3.1 Connect Your System with a phone

In order to connect the AI Safety System to either an Android or iOS device, installation of the official VIA Mobile360 App is required. You can scan the corresponding QR code below for your device to download and install the VIA Mobile360 App.

Mobile phone system requirements: Android 5.0 or iOS 9.0 above is required.

Connect AI Safety System: Once the VIA Mobile360 App has been installed on your phone, open the app and follow the prompts to connect to the System's Wi-Fi named by "VIA_M800_XXX" in the phone's WLAN setting. The default password is 12345678：

After connecting to the AI Safety System's Wi-Fi, return to the VIA Mobile360 App. When the app has established a connection with the System, the home screen will appear as in the image below:

: Full screen;

: Mute audio;

: Switch camera view;

: Trip duration;

: Current vehicle speed;

: GPS signal strength;

: 4G network signal: If there is no signal or the SIM card cannot access the Internet, the map will not be displayed.

: Device Settings: Configuring the dash cam parameters;

: ADAS Calibration button (Red indicates no calibration, green indicates calibration complete)

: DMS Calibration button (Red indicates no calibration, green indicates calibration complete)

For full App instructions please visit official website: TBD

3.2 Segment Display

When the AI Safety System detect AI alerts, the speaker on segment will play alert audio and the leds will indicate at the same time.

FCW Warnings

Note：

Hereby, VIA Technologies,Inc. declares that the radio equipment type Mobile360 M800 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: https://www.viatech.com.cn

This device may be operated in all member states of the EU.

Do not expose your device to extreme temperatures lower than - 20°C and higher than + 70°C.

The product shall only be connected to a DC power supply source with output voltage higher than 9V and lower than 36V.

This equipment complies with CE radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Restrictions in the 5 GHz band

According to Article 10 (10) of Directive 2014/53/EU, the packaging shows that this radio equipment will be subject to some restrictions when placed on the market in Belgium (BE), Bulgaria (BG), the Czech Republic (CZ), Denmark (DK), Germany (DE), Estonia (EE), Ireland (IE), Greece (EL), Spain (ES), France (FR), Croatia (HR), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania (LT), Luxembourg (LU), Hungary (HU), Malta (MT), Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Slovenia (SI), Slovakia (SK), Finland (FI), Sweden (SE), the United Kingdom (UK), Turkey (TR), Norway (NO), Switzerland (CH), Iceland (IS), and Liechtenstein (LI).

The WLAN function for this device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range.

FCC Caution.

§ 15.19 Labeling requirements.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

§ 15.21 Information to user.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

§ 15.105 Information to the user.

Note: This equipment has been tested and found to 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 or more 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.

This equipment complies with radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated withminimum distance 20cm between the radiator & your body.