

# FM10A, 10.4-inch Vehicle Mounted Computer

A Rugged Vehicle Mounted Computer for Data Collection in Warehouse and Logistics Applications

FM10A is a rugged vehicle mounted computer delivers flexibility and mobility in a vehicle-mount form factor, designed to easily be removed from the dock with a one-click top latch. Since the dock remains attached to the vehicle, this device can easily be moved or switched from one vehicle to another vehicle. FM10A designed to fit seamlessly into forklifts and other warehouse vehicles, will help minimize errors, streamline ordering and inventory management, and improve operational efficiencies. The processing power comes from Freescale's Cortex A9 i.MX6 dual core processor. The computer features a brilliant projected capacitive touch screen, and offers 1024 x 768 pixel resolution.



#### Highlights

- Freescale Cortex A9 i.MX6 Dual Core Processor
- 10.4" 1024 x 768 Panel with projected capacitive touch screen
- Field replaceable front panel to reduce service costs
- Magnesium alloy housing
- Built-in Wi-Fi and Bluetooth 4.0
- IP65 waterproof and dustproof
- · Wide range operating temperature

| Order Information |          |          |         |  |
|-------------------|----------|----------|---------|--|
|                   | 3G       | 4G       | Heater  |  |
| FM10A             | Optional | Optional | N/A     |  |
| FM10A-HT          | Optional | Optional | Default |  |

# Winmate



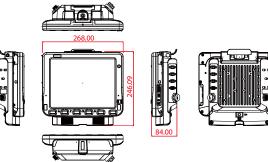
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| Display Specification | Display | Specification |
|-----------------------|---------|---------------|
|-----------------------|---------|---------------|

| <b>Display Specification</b>                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Size<br>Resolution<br>Brightness<br>Touch<br>Contrast Ratio<br>Viewing Angle<br>Technology | 10.4-inch display (4:3)<br>1024 x 768<br>400 nit<br>Projected capacitive (p-cap) touch<br>1200:1<br>88/88/88/88<br>• Light sensor                                                                                                                                                                                                                                                                                      |  |
| System Specification                                                                       | ı                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
| Processor<br>System Memory<br>Storage                                                      | Freescale Cortex A9 i.MX6 Dual Core, 1.0 GHz<br>1G LPDDR3 1<br>16GB eMMC<br>Additional storage with SD card slot                                                                                                                                                                                                                                                                                                       |  |
| Operating System                                                                           | Android 6.0<br>Ubuntu 16.04<br>Kernel 3.10.52                                                                                                                                                                                                                                                                                                                                                                          |  |
| Wireless Communica                                                                         | ation                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| WLAN<br>Bluetooth<br>GPS<br>WWAN                                                           | 802.11 a/b/g/n/ac<br>Bluetooth 4.0<br>u-Blox Neo-6Q located on the Vehicle Dock<br>Optional 4G/ LTE or 3G                                                                                                                                                                                                                                                                                                              |  |
| Interface                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| Computer<br>Docking                                                                        | 1 x SIM Card Slot<br>1 x SD Card Slot<br>1 x USB OTG<br>1 x 12V DC in power input jack<br>1 x COM 1, 1 x COM 2<br>1 x USB 2.0 port (support two USB 2.0)<br>1 x CANBus or 1 x Audio <sup>2</sup><br>1 x 400Mbps LAN port<br>Optional PoE as a Power sourcing equipment (PSE)<br>support 802.3at Type 2<br>1 x Power connector<br>SMA Connector(female) for external antenna<br>(WiFi, GPS (optional), WWAN (optional)) |  |
| Keyboard and Input                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| Touch<br>Button                                                                            | Projected capacitive (P-Cap),<br>support stylus On-screen QWERTY keyboard 1 x power,6 x function key (Programmable function key configured by Hottab Utility) Wi-Fi, Bluetooth, UPS battery, HDD, Blanking, Heater                                                                                                                                                                                                     |  |
| LED Indicators                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| Audio                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| Speaker                                                                                    | High power speaker (3W * 2),<br>located on the docking                                                                                                                                                                                                                                                                                                                                                                 |  |
| Cameras                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| Web Camera                                                                                 | 2MP webcam                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| Security Function                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| Mobile Device Manager                                                                      | nent SOTI Mobicontrol compatible <sup>3</sup>                                                                                                                                                                                                                                                                                                                                                                          |  |

| Dimension (W x L x H)                                                                                                                                                                                                                                      | Computer: 268 x                                              | 214 x 35 mm (10.6 x 8.42 x 1.37 inches                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                            | Docking: 202 x 2                                             | 45 x 52 mm (7.9 x 9.6 x 2.04 inches) <sup>4</sup>                                                                                                                                         |
| Weight                                                                                                                                                                                                                                                     | Computer 1.7 kg                                              |                                                                                                                                                                                           |
| Housing                                                                                                                                                                                                                                                    | Docking 1.6 kg (<br>Magnesium alloy                          |                                                                                                                                                                                           |
| Cooling System                                                                                                                                                                                                                                             | Fanless design                                               | nousing                                                                                                                                                                                   |
| Operating Temperature                                                                                                                                                                                                                                      | 0                                                            | ater : -30°C to 50°C (-22°F to 122°F)                                                                                                                                                     |
| operating remperature                                                                                                                                                                                                                                      |                                                              | to 50°C (-4°F to 122°F)                                                                                                                                                                   |
|                                                                                                                                                                                                                                                            |                                                              | 0°C to 50°C (14°F to 122°F)                                                                                                                                                               |
| Storage Temperature                                                                                                                                                                                                                                        | -30°C to 60°C (-2                                            | 2° to 140°F)                                                                                                                                                                              |
| Humidity                                                                                                                                                                                                                                                   | 5% to 90% RH, r                                              | ion-condensing                                                                                                                                                                            |
| IP Proof                                                                                                                                                                                                                                                   | IP65 certified, dustproof and waterproof                     |                                                                                                                                                                                           |
| Impact                                                                                                                                                                                                                                                     | Support EN62262 IK70 rating                                  |                                                                                                                                                                                           |
| Shock                                                                                                                                                                                                                                                      | MIL-STD-810G Method 516.6 Procedure I                        |                                                                                                                                                                                           |
| Vibration                                                                                                                                                                                                                                                  | MIL-STD-810G Method 514.6 Procedure I                        |                                                                                                                                                                                           |
| ESD                                                                                                                                                                                                                                                        | Compliant with E                                             |                                                                                                                                                                                           |
| Certifications                                                                                                                                                                                                                                             |                                                              | o ±12kV direct & ±15kV air<br>50-1, EN60950-1, PTCRB, FCC                                                                                                                                 |
| Certifications                                                                                                                                                                                                                                             |                                                              | Emissions), IC (ICES-003)                                                                                                                                                                 |
| Devue Mene en ent                                                                                                                                                                                                                                          | (Electromagnetic                                             | Emissions), ic (ices-003)                                                                                                                                                                 |
| Power Management                                                                                                                                                                                                                                           | 4014 0014                                                    |                                                                                                                                                                                           |
| Power Input                                                                                                                                                                                                                                                | 10V-60V,                                                     | ver and ignition control                                                                                                                                                                  |
| UPS Battery                                                                                                                                                                                                                                                | 11.1V typ Battery                                            | ver and ignition control                                                                                                                                                                  |
| UPS Battery Operating T                                                                                                                                                                                                                                    |                                                              | m 30 minutes <sup>5</sup>                                                                                                                                                                 |
| Accessories                                                                                                                                                                                                                                                |                                                              |                                                                                                                                                                                           |
|                                                                                                                                                                                                                                                            |                                                              |                                                                                                                                                                                           |
| Standard Accessories                                                                                                                                                                                                                                       |                                                              | 001/000400000                                                                                                                                                                             |
| Power Cable with Fuse                                                                                                                                                                                                                                      |                                                              | 98K000A0006O                                                                                                                                                                              |
| 84 Watt Adapter<br>Power Converter Cable                                                                                                                                                                                                                   |                                                              | 922D084W12V1<br>94J602G030K2                                                                                                                                                              |
| USB Cable                                                                                                                                                                                                                                                  |                                                              | 9483098080K0                                                                                                                                                                              |
| Wi-Fi Antenna (1 pcs)                                                                                                                                                                                                                                      |                                                              | 39700000000G                                                                                                                                                                              |
| External Antenna Fixing                                                                                                                                                                                                                                    | Bracket                                                      | 88111T201203                                                                                                                                                                              |
| Driver CD                                                                                                                                                                                                                                                  | Bradhot                                                      | 9171111102L                                                                                                                                                                               |
| Quick Start Guide                                                                                                                                                                                                                                          |                                                              | 9152111I101B                                                                                                                                                                              |
| Optional Accessories 6                                                                                                                                                                                                                                     |                                                              |                                                                                                                                                                                           |
| DC Power Jack Cable                                                                                                                                                                                                                                        |                                                              | 94J0086020K0                                                                                                                                                                              |
| 120 Watt Adapter (for Heater Mode)                                                                                                                                                                                                                         |                                                              | 90PO12120005                                                                                                                                                                              |
| 120 Watt Adapter (for He                                                                                                                                                                                                                                   | eater Mode)                                                  |                                                                                                                                                                                           |
|                                                                                                                                                                                                                                                            | eater Mode)                                                  |                                                                                                                                                                                           |
| 120 Watt Adapter (for He<br>RS232 Cable<br>Audio Cable                                                                                                                                                                                                     | eater Mode)                                                  | 94G3094090K2<br>94E215R060K0                                                                                                                                                              |
| RS232 Cable                                                                                                                                                                                                                                                | eater Mode)                                                  | 94G3094090K2                                                                                                                                                                              |
| RS232 Cable<br>Audio Cable                                                                                                                                                                                                                                 | eater Mode)                                                  | 94G3094090K2<br>94E215R060K0                                                                                                                                                              |
| RS232 Cable<br>Audio Cable<br>CAN Bus Cable<br>LAN Cable<br>Key for Vehicle Dock                                                                                                                                                                           | eater Mode)                                                  | 94G3094090K2<br>94E215R060K0<br>94E2150090K0<br>9410080080KF<br>9B00000007N                                                                                                               |
| RS232 Cable<br>Audio Cable<br>CAN Bus Cable<br>LAN Cable<br>Key for Vehicle Dock<br>WWAN Antenna (1 pcs)                                                                                                                                                   | eater Mode)                                                  | 94G3094090K2<br>94E215R060K0<br>94E2150090K0<br>94I0080080KF<br>9B00000007N<br>39700000000H                                                                                               |
| RS232 Cable<br>Audio Cable<br>CAN Bus Cable<br>LAN Cable<br>Key for Vehicle Dock<br>WWAN Antenna (1 pcs)<br>Fuse Kit                                                                                                                                       | ·                                                            | 94G3094090K2<br>94E215R060K0<br>94E2150090K0<br>94I0080080KF<br>9B00000007N<br>39700000000H<br>94JL01L01000                                                                               |
| RS232 Cable<br>Audio Cable<br>CAN Bus Cable<br>LAN Cable<br>Key for Vehicle Dock<br>WWAN Antenna (1 pcs)<br>Fuse Kit<br>Device Mounting Kit 1 (N                                                                                                           | lo Drill)                                                    | 94G3094090K2<br>94E215R060K0<br>94E2150090K0<br>94I0080080KF<br>9B00000007N<br>39700000000H<br>94JL01L01000<br>98K000A0005Y                                                               |
| RS232 Cable<br>Audio Cable<br>CAN Bus Cable<br>LAN Cable<br>Key for Vehicle Dock<br>WWAN Antenna (1 pcs)<br>Fuse Kit<br>Device Mounting Kit 1 (N<br>Device Mounting Kit 2 (D                                                                               | lo Drill)<br>brill)                                          | 94G3094090K2<br>94E215R060K0<br>94E2150090K0<br>94I0080080KF<br>9B00000007N<br>39700000000H<br>94JL01L01000<br>98K000A0005Y<br>98K000A0005Y                                               |
| RS232 Cable<br>Audio Cable<br>CAN Bus Cable<br>LAN Cable<br>Key for Vehicle Dock<br>WWAN Antenna (1 pcs)<br>Fuse Kit<br>Device Mounting Kit 1 (N<br>Device Mounting Kit 2 (D<br>Mounting Kit 3 (Keyboan                                                    | lo Drill)<br>brill)<br>d Mounting)                           | 94G3094090K2<br>94E215R060K0<br>94E2150090K0<br>94I0080080KF<br>9B00000007N<br>39700000000H<br>94JL01L01000<br>98K000A0005Y<br>98K000A0005P<br>98K000A0006P                               |
| RS232 Cable<br>Audio Cable<br>CAN Bus Cable<br>LAN Cable<br>Key for Vehicle Dock<br>WWAN Antenna (1 pcs)<br>Fuse Kit<br>Device Mounting Kit 1 (N<br>Device Mounting Kit 2 (C<br>Mounting Kit 3 (Keyboan<br>Magnetic Multi-Band Combx                       | lo Drill)<br>vrill)<br>d Mounting)<br>o Antenna -VM10S       | 94G3094090K2<br>94E215R060K0<br>94E2150090K0<br>94I080080KF<br>9B00000007N<br>39700000000H<br>94JL01L01000<br>98K000A0005Y<br>98K000A0006P<br>98K000A0005X<br>397SM0000006                |
| RS232 Cable<br>Audio Cable<br>CAN Bus Cable<br>LAN Cable<br>Key for Vehicle Dock<br>WWAN Antenna (1 pcs)<br>Fuse Kit<br>Device Mounting Kit 1 (N<br>Device Mounting Kit 2 (I<br>Mounting Kit 3 (Keyboar<br>Magnetic Multi-Band Comb<br>LTE MIMO/GNSS- VM24 | lo Drill)<br>vrill)<br>d Mounting)<br>o Antenna -VM10S<br>40 | 94G3094090K2<br>94E215R060K0<br>94E2150090K0<br>94I080080KF<br>9B00000007N<br>3970000000H<br>94JL01L01000<br>98K000A0005Y<br>98K000A0005Y<br>98K000A0005X<br>3975M0000006<br>39700000000M |
| RS232 Cable<br>Audio Cable<br>CAN Bus Cable<br>LAN Cable<br>Key for Vehicle Dock<br>WWAN Antenna (1 pcs)<br>Fuse Kit<br>Device Mounting Kit 1 (N<br>Device Mounting Kit 2 (C<br>Mounting Kit 3 (Keyboan<br>Magnetic Multi-Band Combx                       | lo Drill)<br>vrill)<br>d Mounting)<br>o Antenna -VM10S<br>40 | 94G3094090K2<br>94E215R060K0<br>94E2150090K0<br>94I080080KF<br>9B00000007N<br>3970000000H<br>94JL01L01000<br>98K000A0005Y<br>98K000A0005Y<br>98K000A0005X<br>3975M0000006<br>39700000000M |



4. Length measurements do not include protrusions. Weight varies with options. 5. Measured at dimming LCD brightness. Varies depending on the usage conditions, or

7. This is a simplified drawing and some components are not marked in detail.

when an external device is attached."

6. Accessories may vary depending on your configuration.

Do Not Expose the Battery Pack to Excessive Heat, or Extreme Heat (Near Fire, in Direct Sunlight for example) Do not expose bare skin to this product when handling this unit in extreme

Caution hot or cold environments

1. Total usable memory will be less depending upon actual system configuration. CANBus and audio are mutually exclusive.
SOTI is available upon request.



Release Date: 15-Aug-2019 V1.8



### **Assured Systems**

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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