

# MBS V11/V13



4 420 mAh removable battery



RAM 4GB + ROM 64GB



IP65  
-40°C ~+70°C  
5% RH ~95%RH non condensing  
Multiple 1.8m, 2.4m



RFID NFC  
Option: RAIN RFID (UHF) with MagSled



Keyboard emulation for 2D (HID)

V2.1  
Non-contractual datasheet

## General specifications

|                  |                                                                                                                                                                                                                               |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating System | Android 11 / Android 13                                                                                                                                                                                                       |
| CPU              | Qualcomm 2.0 GHz Octa-core                                                                                                                                                                                                    |
| Memory           | 4GB+64GB                                                                                                                                                                                                                      |
| Extended storage | Supports up to 128 GB Micro SD card                                                                                                                                                                                           |
| Dimensions       | 160 x 76 x 15.5mm                                                                                                                                                                                                             |
| Weight           | 287g (device with battery)                                                                                                                                                                                                    |
| Display          | 5.5-inch high definition full display (18:9), IPS LTPS 1440*720<br>Corning Gorilla Glass, multi-touch panel, gloves and wet hands supported                                                                                   |
| Battery          | 4 420 mAh removable main battery<br>Standby: over 490 hours (WiFi: up to 470h; 4G: up to 440h)<br>Continuous use: over 12 hours (depending on user environment)<br>Charging time: 2.5 hours by standard adaptor and USB cable |
| I/O Ports        | USB3.0, Type-C, OTG, extended thimble                                                                                                                                                                                         |
| Keys             | 1 power key, 2 scan keys , 2 volume keys , 1 configurable key                                                                                                                                                                 |
| Speaker          | Support                                                                                                                                                                                                                       |
| Vibrator         | Support                                                                                                                                                                                                                       |
| Microphone       | 2 Microphones, 1 for noise reduction                                                                                                                                                                                          |
| Sensors          | Gravity sensor, proximity sensor, light sensor, accelerometer sensor, vibration motor                                                                                                                                         |
| Indicator LED    | Power, charging, status indicator                                                                                                                                                                                             |
| Card slot        | slot for SIM card, 1 slot for SIM or TF card                                                                                                                                                                                  |
| Camera           | Rear 13MP Autofocus with flash, support for image and video formats                                                                                                                                                           |

## Wireless communication

|                                    |                                                                                                                                                                                                                                                                                     |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wifi                               | 802.11 a/b/g/n/ac                                                                                                                                                                                                                                                                   |
| Bluetooth                          | Bluetooth 5.0/4.1+HS/4.0/3.0+HS/2.1+EDR                                                                                                                                                                                                                                             |
| 3G / 4G                            | WWAN (Europe, Asie) : 2G: 850/900/1800/1900MHz, 3G: CDMA EVDO: BC0, WCDMA: 850/900/1900/2100MHz, TD-SCDMA: A/F(B34/B39), 4G: B1, B3, B5, B7, B8, B20, B38, B39, B40, B41<br>WWAN (Amérique) : 2G: 850/900/1800/1900MHz, 2G: 850/900/1800/1900MHz, 4G: B2, B4, B5, B7, B12, B17, B38 |
| GPS                                | GPS/AGPS, GLONASS, BeiDou, internal antenna                                                                                                                                                                                                                                         |
| Support Vo-LTE HD video voice call | Support Vo-LTE HD video voice call                                                                                                                                                                                                                                                  |

## User Environment

|                       |                                                                                                                                                                                                                                                           |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating temperature | -20°C to +50°C                                                                                                                                                                                                                                            |
| Storage temperature   | -40°C to +70°C                                                                                                                                                                                                                                            |
| Humidity              | 5% RH ~95%RH non condensing                                                                                                                                                                                                                               |
| Protection grade      | IP65 per IEC sealing specifications                                                                                                                                                                                                                       |
| Drop Specification    | Multiple 1.8m/5.9ft drops (at least 20 times) to the concrete across the operating temperature range<br>Multiple 2.4m / 7.87 ft. drops (at least 20 times) to the concrete after installed rubber bumper<br>1000 x 0.5m / 1.6ft falls at room temperature |
| ESD                   | ±15KV air discharge, ±8KV conductive discharge                                                                                                                                                                                                            |

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## Data collection

### UHF (option MagSled)

|           |                                           |
|-----------|-------------------------------------------|
| Engine    | CM710-1, based on Impinj E710             |
| Frequency | 865-868 MHz / 920-925 MHz / 902-928 MHz   |
| Protocol  | EPC C1 GEN2 / ISO18000-6C                 |
| Power     | 1W (30 dBm, +5 dBm to +30 dBm adjustable) |



### HF/NFC

|           |                                              |
|-----------|----------------------------------------------|
| Frequency | 13,56MHz                                     |
| Protocol  | ISO14443A/B, ISO15693, NFC-IP1, NFC-IP2, etc |
| Chips     | M1 card (S50, S70), CPU card, NFC tags, etc. |
| Range     | 2-4cm                                        |

### Barcode 1D/2D (option)

|                       |                                                                                                                                                                                                             |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1D/2D Barcode Scanner | SE4710                                                                                                                                                                                                      |
| 1D Symbolologies      | UPC/EAN, Code128, Code39, Code93, Code11, Interleaved 2 of 5, Discrete 2 of 5, Chinese 2 of 5, Codabar, MSI, RSS, etc.                                                                                      |
| 2D Symbolologies      | PDF417, MicroPDF417, Composite, RSS, TLC-39, Datamatrix, QR code, Micro QR code, Aztec, MaxiCode; Postal Codes: US PostNet, US Planet, UK Postal, Australian Postal, Japan Postal, Dutch Postal (KIX),etc.. |

## Accessories

Contact us to find out more about our accessories: [commercial@axemtec.com](mailto:commercial@axemtec.com)

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