

# M3 US20X | US20W

## Lightweight and rugged mobile handheld computer



- Android 10 GMS/AER
- 2.2GHz Octa core CPU
- 3 types keypad – 30/42/51
- 2D Imager, Long-range Scanner
- Fast charging / Battery Hot Swap
- 16 MP Auto Focus Camera

M3 Mobile's US20 series is a lightweight, rugged mobile handheld computer that helps you handle your work more efficiently than ever before in the retail market as well as in the transportation and logistics. The US20 series supports the Android 10 operating system with a high-end CPU, has customized displays and a variety of keypads, and offers many advantages, including a 16 MP rear camera. Also, the application solution, M3 SPEEDPACK (M3 application package) can be used to improve and manage device performance. The US20 series is waiting for users with a variety of scanner options, complete battery design, secure Android security support, and tremendous benefits.

### Support 2.2 GHz Octacore processor and Android 10 platform

With the 2.2 GHz Octa-core processor and support for the Android 10 platform, users can upgrade their productivity and efficiency.

### Ergonomic Design, easy handling

Easy to use with its lightweight, neat design and flexible curve aesthetics. Additionally, the display and the three keypads are designed with a sense of unity.

### Best application solution, M3 SPEEDPACK

M3 SPEEDPACK, an application solution developed by M3 Mobile. With this, you can fully manage your device. If you using the StartUp tool in M3 SPEEDPACK then the user can scan a few barcodes through your PC and device then thousands of devices can be customized and set up at once. Moreover, productivity and efficiency can be increased through various application tools.

### Data Capture

It supports a wide range of scanning options from 2D to Long-Range Scanner which can do reading by using the best scan engine, and It supports normal scanner engine also. Multi barcode reading is possible. It captures barcodes at once in any environment.

### User friendly Power as an option

By providing a 6,700mAh high-capacity battery, you can work all day long. The charging cradle and battery toaster enable faster and safer battery use than ever before. It also supports hot-swap functionality, allowing you to exchange batteries with confidence without turning off the device or shutting down the running app. 2,600mAh battery is ready for user who need light equipment.

### Android security and update support

M3 Mobile continues to provide security updates to help secure the device from the operating system, as well as future Android versions based on Google policy like GMS and AER.

# Specification

## Physical Characteristics

Dimensions	74 * 197.2 * 35.3mm / 2.91 * 7.76 * 1.38inch
Weight	450g / 15.8oz (LR Scanner with Extended battery) 416g / 14.6oz (2D Scanner with Extended battery) 403g / 14.2oz (LR Scanner with Standard battery) 369g / 13oz (2D Scanner with Standard battery)
Display	4.0" WVGA IPS, 480 x 800 pixels, Color Display
Touchpanel	Corning Gorilla Glass supports dual input mode with finger, gloved finger and stylus (conductive stylus sold separately)
Backlight	LED backlight display
Expansion Slot	User accessible MicroSD with 32GB SDHC and up to 512GB SDXC
SIM Slots (X model only)	2 micro SIM
Network Connections	USB 2.0 High Speed OTG (host/client), WLAN, Bluetooth and WWAN
Notification	Audible tone, multi-color LEDs, vibration
Keypad	Numeric (30 key), Function Numeric (42 key), Alpha Numeric (51 key)
Buttons	Buttons: Two programmable side scan keys
Voice	Internal speaker, Two microphone with noise cancellation; vibrate alert and Bluetooth wireless headset support; High quality speaker phone;
Audio	Built-in speaker and microphone

## Performance Characteristics

CPU	2.2 GHz Octa-core processor
Operating System	Android 10 with M3Mobile's StartUp for control over GMS and other services; will support future Android releases.
Memory	4 GB/64 GB Flash
Power	All models ship with rechargeable Li-Ion, 3.6V, 6700mAh Power Precision+ battery; full charge under five (5) hours; hot swap support with temporary WWAN/WLAN/Bluetooth session persistence, 2600mAh batteries(optional)

## User Environment

Operating Temp.	-4° F to 140° F/-20° C to 60° C
Storage Temp.	-22°F to 176°F/-30°C to 80°C
Humidity	5% to 95% RH (Non-condensing)
Drop Specifications	Multiple 6 ft./1.8 m drops to concrete across the operating temperature range per MIL-STD-810G
Tumble Specification	3,000 3.3 ft. /1.0 m tumbles; meets and exceeds IEC tumble specification
Sealing	IP65
Vibration	Sine: 4g's peak, 5hz to 2khz, Random: .04g <sup>2</sup> /hz, 20hz to 2khz
Thermal Shock	-40° F to 158° F/-40° C to 70° C
Electrostatic Discharge (ESD)	+/- 15kV air, +/-8kV contact discharge +/-8kV indirect contact discharge

## Interactive Sensor Technology (IST)

Light Sensor	Automatically adjusts the brightness of the display
Magnetometer sensor	eCompass automatically detects direction and orientation

Motion Sensors	Gyro Sensor, Accelerometers: for X,Y, and Z movement, and gyroscopes for measuring the extent and rate of rotation in space
Proximity Sensor	Detect the presence of nearby objects without any physical contact, during a telephone call, proximity sensors play a role in detecting accidental touchscreen taps

## Data Capture

Scanning	2D: 0° Scan(Straight Shooter) SE4770 2D: 45° Scan SE4770 LR: 0° Scan(Straight Shooter) SE4850 ERI Optional: SE4750 MR
Rear Camera	16 M pixels auto-focus (AF), PDAF
NFC	ISO 1443 A/B, ISO 15693, Mifare, P2P mode and Card Emulation via Host (HCE) support

## Wireless WAN Data AND VOICE COMMUNICATIONS (X model only)

Radio Frequency Band	Support VoLTE LTE FDD: 800/850/900/1800/2100/2600 (1/3/5/7/8/20); LTE TDD: 1600/2300/2500 (38/40/41); UMTS/HSDPA/HSPA+: 850/900/2100(1/5/8); GSM/GPRS/EDGE: 900/1800 (3/8);
GPS	Autonomous, Concurrent GPS; GLONASS; Galileo; Beidou, and A-GPS

## Wireless LAN

Radio	IEEE 802.11 a/b/g/n/ac/d/e/h/i/k/r/w, IPv4, IPv6, MU-MIMO
Operating Channels (depending on Regulatory)	Channel 1-13 (2412-2472 MHz): 1,2,3,4,5,6,7,8,9,10,11,12,13 Channel 36-165 (5180-5825 MHz): 36,40,44,48,52 56,60,64,100,104,108,112,116,120,124,128,132,136,140,144,149,153,157,161,165 Channel Bandwidth: 20, 40, 80 MHz Actual operating channels/ frequencies and bandwidths depend on regulatory rules and certification agency.
Security and Encryption	WEP (40 or 104 bit); WPA/WPA2 Personal (TKIP, and AES); WPA3 Personal (SAE); WPA/WPA2 Enterprise (TKIP and AES); WPA3 Enterprise (AES) — EAP-TTLS (PAP, MSCHAP, MSCHAPv2), EAP-TLS, PEAPv0-MSCHAPv2, PEAPv1-EAP-GTC, LEAP and EAP-PWD; WPA3 Enterprise 192-bit Mode (GCMP256) — EAP-TLS; Enhanced Open (OWE)
Fast Roam	PMKID caching; Cisco CCKM; 802.11r; OKC

## Wireless PAN

Bluetooth	Class 2, Bluetooth v4.1 with BR/EDR and Bluetooth Low Energy (BLE) Support
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## Regulatory

EMI/EMC	EN 301 489-1; EN 301 489-3; EN 55024; EN 55032 Class A
Electrical Safety	IEC 62368-1, EN 62368-1
RF Exposure	EU: EN 50364, EN 62369-1, EN 50566, EN 62311

## Environmental Compliance

Directive 2011/65/EU, Directive(EU)2015/863

## Warranty

Subject to the terms of M3Mobile's hardware warranty statement, the US20 series are warranted against defects in workmanship and materials for a period of 1 (one) year from the date of shipment. For complete warranty statement.

## Recommended Services

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M3Mobile speed care Essential and Select: Maximize M3Mobile device availability, device value and operational efficiency with these fully-featured support services that set the industry bar for support.

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#### Footnotes

1. Feature available Q4 2020
  2. Upgrading to new supported version of Android requires the purchase of a M3 SPEED CARE service contract.
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#### M3 Speedpack

"M3 Speedpack solutions help you get more value out of our mobile computers by adding functionality as well as simplifying deployment and management of our mobile devices. For more information on these M3Mobile-only feature."

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Application user manual <http://www.m3mobile.net/download/file/743>

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Startup PC User Manual <http://www.m3mobile.net/download/file/748>

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Startup PC for SOTI <http://www.m3mobile.net/download/file/746>

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M3 Speedpack is available on Android only. Features may vary by model and a Support Contract may be required.

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#### Service Center

Chun-ui Techno Park 201-610, 202, Chunui-dong, Wonmi-gu, Bucheon, Gyeonggi-do, 420-857, Korea Tel: +82 32 623 0037 Fax: +82 70 4015 6323

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Web site <http://itc.m3mobile.net>

E-mail Information Technology Team: [it@m3mobile.co.kr](mailto:it@m3mobile.co.kr)

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## Accessories

(Appearance can be changed.)



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