

SM20 X | F

An industrial mobile computer delivering performance and durability even in cold or high-traffic environment



Product Spec

- Android 14 GMS (Support to 11/12/14)
- Frozen Model Specialized for Cold Environments (Anti-fog technology keeps the screen clear and visible)
- 4G / Wi-Fi 5
- Bluetooth 5.1V. BLE Support
- Flexible Scanner Options (SE4710/SE5500)

Users can choose between the 2D Imager SE4710 and the Smart Focus SE5500 barcode scanners for flexible Configuration

The device offers a 4,100mAh standard battery and an optional 6,150mAh battery and with 4G connectivity, it ensures real-time data transmission and stable connections even in field environments without Wi-Fi

The F (Frozen) model, designed for cold environments such as frozen warehouses, provides reliable operation in extreme temperatures ranging from -30° C to 60° C, making it a robust mobile solution.

Flexible Scanner Options

User can choose between Zebra's 2D Imager SE4710 and the SE5500 barcode scanner with Smart Focus functionality. Both Scanners support fast and accurate 1D and 2D barcode recognition. The SE5500 in particular can scan from as close as 5.6cm up to 14 meters, enabling quick and precise barcode capture even in challenging or low-visibility environments, maximizing work efficiency.

F(Frozen) Model Specialized for Cold Environment

The F (Frozen) Model is designed for low-temperature environments, operating reliably in conditions ranging from -30° C to 60° C.

It can also be safely stored in extreme temperatures from -40° C to 80° C, demonstrating exceptional durability. Equipped with a battery optimized for cold conditions, it ensures stable performance and uninterrupted workflow even in harsh, freezing environments.

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Support for Stable and Efficient Communication

With support for WLAN, WWAN and WPAN the device enables real-time data transmission and reliable connectivity even in field environments without Wi-Fi. Featuring 4G support along with 1 Mini SIM and 1eSIM, it ensures fast and accurate task execution.

Battery Options Tailored to User Needs

Users can choose between the standard 4100mAh battery and the optional high-capacity 6,150mAh battery supports up to 15 hours of continuous operation without replacement and with hot-swap capability, tasks can continue uninterrupted even if the device is powered off, without the need for rebooting.

5-inch Display with Comfortable One-Handed Grip and Clear Visibility

Featuring a 5-inch HD display, it offers a wide viewing area and sharp visuals to enhance work efficiency. Its smartphone-like size provides a comfortable one-handed grip, delivering excellent portability and ease of operation.

HDMI Support for Extended Desktop Use

With an HDMI cradle, the device can be connected to a desktop monitor, allowing users to view and manage data more conveniently on a larger screen. This enables the mobile device to function like a desktop workstation in offices or remote work locations.

Clear Image and Video Capture

Equipped with a 5MP front camera and a 16MP rear camera, the device features PDAF technology, which compares multiple images to achieve fast and accurate focus. This ensures clear image and video capture in any environment.

Specification

	SM20 X	SM20 F
Physical Characteristics		
Dimensions	76.4 x 154.6 x 22 mm	
Weight	266 g (Including Standard Battery)	
Display	5.0 inch HD IPS (1280 x 720)	
Touchpanel	Corning® Gorilla® 5 Glass touch panel supports dual input mode with finger, gloved finger and stylus (conductive stylus sold separately)	
Backlight	LED backlight display	
Expansion Slot	User accessible MicroSD card supports up to 32 GB SDHC and up to 512 GB SDXC	
SIM Slots (X model only)	Dual SIM : 1 Mini SIM and 1 eSIM	-
Network Connections	USB 2.0 High Speed OTG (host/client); WLAN, Bluetooth and WWAN	
Notification	Audible tone, multi-color LEDs, vibration	
Keypad	4 Physical Buttons on the Bottom Volume +/- Key, Camera Key, Power Key 2 Scanner Keys (Left, Right)	
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	Qualcomm Snapdragon™662 (SM6115) Octa core processor 2.0Ghz with adreno 610 GPU	
Operating System	Android 11,12 and 14 are supported with M3 Mobile's StartUp solution providing control over GMS (Google Mobile Services) and other system services.	
Memory	DDR4 4GB/64GB UFS Flash	
Power	All models come standard with a rechargeable Li-Ion 3.8V, 4,100mAh smart battery and support hot-swap functionality that temporarily maintains WWAN/WLAN/Bluetooth sessions. A 6,150mAh extended battery (optional) is also available.	
Data Capture		
Scanning	2D Imager (SE4710), Smart Focus (SE5500)	
Rear Camera	Front CAM : 5M pixels, Rear CAM : 16 M pixels auto-focus (PDAF)	
NFC	ISO 14443 Type A and 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 : 2600/2300/2500 (38/40/41) UMTS/HSDPA/HSPA+:850/900/2100 (1/5/8) GSM/GPRS/EDGE : 850/900/1800 (3/5/8);	
GPS	GPS/GLonass/BeiDou/Galileo/QZSS/SBAS/NavIC(IRNSS)	
Wireless LAN		
Radio	IEEE 802.11 a/b/g/n/ac/d/e/h/i/k/r/w ax-ready, ac Wave2	
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	

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Wireless PAN		
Bluetooth	Bluetooth 5.1 BLE	
Regulatory		
EMI/EMC	EN 301 489-1; EN 301 489-3; EN 301 489-17; EN 301 489-19; EN 301 489-19; EN 301-489-52	
Electrical Safety	IEC 62368-1, EN 62368-1	
RF Exposure	EN 50566, EN 50360	
User Environment		
Operating Temp.	- 20° C to 60° C / -4° F to 140° F	- 30° C to 60° C / -22° F to 140° F
Storage Temp.	- 30°C to 80°C / - 22°F to 176°F	- 40° C to 80° C / -40° F to 176° F
Humidity	5% to 95% RH (Non-condensing)	
Drop Specifications	1.2m, 1.8m (with Boot) drops to concrete across the operating temperature range per MIL-STD-810G	
Tumble Specification	2,000 times 1.6ft. /0.5 m tumbles; without boot 1,000 times 3.2ft. /1 m tumbles; with boot	
*** The drop and tumble tests were conducted at temperatures ranging from -20°C to 60°C (-4°F to 140°F).		
Sealing	IP65 / IP67 (optional)	
Vibration	Sine: 4g's peak, 5hz to 2khz, Random: .04g ² /hz, 20hz to 2khz	
Thermal Shock	- 40° C to 70° C / - 40° F to 158° F rapid transition	
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	
Environmental Compliance	Directive 2011/65/EU, Directive(EU)2015/863	
Warranty	Subject to the terms of M3 Mobile's hardware warranty statement, the SM30 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.	
Footnotes	Feature available Q2 2026	
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 M3 Mobile-only feature.	
Application user manual / Startup PC for SOTI / Startup PC User Manual http://www.m3mobile.net/en/products/solution-support/m3-speedpack		
M3 Speedpack is available on Android only. Features may vary by model and a Support Contract may be required.		

Accessories

(Appearance can be changed.)

2 slot cradle



Trigger Handle



8 Slot Cradle



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