

SM30 X | W

Rugged Full-Touch Mobile Handheld Computer with Qualcomm Dragonwing™ QCM6490



Product Spec

- Qualcomm Dragonwing™ QCM6490 high-performance 2.7 GHz Octa-core
- Android 14 GMS (support up to 19)
- 5G / Wi-Fi 6E (802.11ax)
- Bluetooth 5.3 BLE, Class 2. BLE for Beacons
- IP68 / MIL-STD-810H

The SM30 is equipped with the Qualcomm Dragonwing™ QCM6490 processor, delivering high-performance data processing at speeds of up to 2.7GHz. It also features AI-based image analysis and high-speed barcode scanning, significantly enhancing workplace efficiency and performance. Designed for seamless operation, the SM30 ensures stable performance and maximizes productivity across various work environments. Additionally, it supports Android 14 through the upcoming Android 19, ensuring long-term software compatibility and regular security updates. With advanced wireless connectivity, enhanced security features, and AI & IoT optimizations, the SM30 maximizes operational efficiency and guarantees long-term device longevity.

High-Speed & Stable Data Processing

The SM30 supports Wi-Fi 6E (802.11ax) with a maximum speed of 9.6Gbps, providing 40% faster wireless network performance compared to Wi-Fi 5 (802.11ac). It minimizes speed degradation even when multiple devices transmit data simultaneously and prevents network interference in multi-AP environments. In non-Wi-Fi environments, it supports 2G to 5G networks, enabling ultra-fast data upload and download, while ensuring stable connectivity even with multiple device connection

AI-Enhanced Work Environment

The SM30, powered by AI capable of 12 trillion operations per second, significantly improves barcode and QR code scanning speeds and automatically corrects or removes noise from damaged or blurry codes for rapid recognition. Equipped with the Hexagon NPU, it delivers exceptional performance in QCR (Quick Capture Recognition) and image recognition, enabling the fast and accurate detection and categorization of defective products and parts in real time. Since all AI processing is performed directly on the PDA, these AI functions can operate without an internet connection or cloud server, ensuring reliable and efficient performance in any environment.

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Smart Location Management with BLE Beaconing

M3 Mobile's latest device, the SM30, is equipped with Bluetooth Low Energy (BLE) beaconing technology to enable real-time asset tracking and efficient operations. Without the need for device pairing, it ensures stable location tracking across large workspaces and continues to transmit BLE signals even when powered off—supporting accurate indoor positioning with minimal battery consumption. This technology is highly effective for asset identification and location-based automation across industries such as logistics, retail, and transportation.

Real-Time Device Management with the Device Locator App

Built on BLE beaconing, the SM30 comes pre-installed with the Device Locator App, ready to use with no additional setup. The app utilizes BLE signals to provide precise realtime location tracking— even when the device is turned off—and features a remote sound alert function to help quickly locate misplaced devices. It is especially effective in environments requiring simultaneous management of multiple devices, significantly improving productivity and operational safety.

All-Day Long Battery Life

The SM30 comes with a standard 5,000mAh battery and an optional 7,000mAh battery, allowing 12 to 24 hours of continuous use on a single charge. Even when utilizing high-performance AI and advanced wireless functions, frequent battery swaps are unnecessary, reducing downtime and cutting costs on additional batteries and chargers. In addition, the energy-efficient Qualcomm QCM6490 chipset built on a 6nm process optimizes power consumption across all operations, while the Hexagon NPU's highly efficient AI computation architecture minimizes energy usage during intensive AI workloads, extending battery life without compromising performance.

Exceptional Durability, Reliable Performance in Extreme Environments

This industrial PDA boasts an IP68 rating for water and dust resistance, and is certified with the MIL-STD-810H military standard, ensuring exceptional durability even in extreme conditions. It delivers stable performance in harsh working environments, such as rain, dust, and shock, maximizing operational efficiency in the field.

Specification

	SM30 X		SM30 W
Physical Characteristics			
Dimensions	78.5 x 161.64 x 17.5 mm		
Weight	297 g		
Display	5.7 inch FHD (1080 x 1920)		
Touchpanel	Corning® Gorilla® 5 Glass touch panel with air gap; 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 2 TB		
SIM Slots (X model only)	Dual SIM : 1 Nano SIM and 1 eSIM	-	
Network Connections	USB 3.1 High Speed OTG (host/client); USB-C Connector		
Notification	Audible tone, multi-color LEDs, vibration		
Keypad	4 Physical Buttons on the Bottom 5 Programmable Side Scan Keys + Power Button		
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	2.7 GHz Octa-core processor Qualcomm Dragonwing™ QCM6490		
Operating System	Android 14(Up to Android 19) with M3 Mobile's StartUp for control over GMS and other services; will support future Android releases committed support for Android 15, 16, 17,18 and 19, pending feasibility.		
Memory	DDR4 8GB/128GB UFS Flash		
Power	All models come standard with a rechargeable Li-Ion 3.8V, 5,000mAh hard pack smart battery and support hot-swap functionality that temporarily maintains WWAN/WLAN/Bluetooth sessions. A 7,000mAh extended battery (optional) is also available.		
Data Capture			
Scanning	2D Imager (SE4770), Smart Focus (SE5500)		
Rear Camera	Front CAM : 8M pixels, Rear CAM : 16 M pixels auto-focus (PDAF)		
NFC	ISO 14443 Type A and B; FeliCa and ISO 15693 cards; Card Emulation via Host		
Wireless WAN Data AND VOICE COMMUNICATIONS (X model only)			
Radio Frequency Band	5G FR1: n1/2/3/5/7/8/20/28/38/40/41/66/71/77/78; 4G: B1/2/3/4/5/7/8/13/17/20/28/38/39/40/41/42/43/ 66/71; 3G: 1/2/4/5/8 2G: 850, 900, 1800, 1900	-	
GPS	GPS, GLONASS, Galileo, Beidou, QZSS Dual-Band GNSS—concurrent L1/G1/E1/B1 (GPS/ QZSS, GLO, GAL, BeiDou) + L5/E5a/BDSB2a (GPS/ QZSS, GAL, BeiDou); a-GPS; supports XTRA	-	
Wireless LAN			
Radio	IEEE 802.11 a/b/g/n/ac/d/h/i/r/k/v/w/mc/ax; 2x2 MU-MIMO; Wi-Fi 6E (802.11ax); Dual Band Simultaneous; IPv4, IPv6		
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		

Specification

	SM30 X	SM30 W
Wireless PAN		
Bluetooth	Bluetooth 5.3 BLE, Class 2 BLE for beaconing	
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	
Cyber Security	EN18031-1, EN18031-2	
User Environment		
Operating Temp.	- 20° C to 55° C / -4° F to 131° F	
Storage Temp.	- 40°C to 80°C / - 40°F to 176°F	
Humidity	5% to 95% RH (Non-condensing)	
Drop Specifications	1.5m, 1.8m (with Boot) drops to concrete across the operating temperature range per MIL-STD-810H	
Tumble Specification	2,000 times 1.6ft. /0.5 m tumbles; without boot 1,000 times 3.2ft. /1 m tumbles; with boot	
Sealing	IP68	
Vibration	Sine: 4g's peak, 5hz to 2khz, Random: .04g²/hz, 20hz to 2khz	
Thermal Shock	-30° C to 70° C 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 Q3 2025	
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.)

1 slot cradle



2 slot cradle



4 slot cradle



Boots



Trigger Handle



4 slot battery charger



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