

X20

Compact Hybrid Handheld Computer

Smartphone-Inspired Device for Enterprise Mobile Operations

X20 combines the familiar design language of a modern smartphone with the proven stability required in enterprise environments. From retail and hospitality to logistics, field operations, healthcare and clinical settings, X20 supports reliable business execution while maintaining a professional, customer-facing image.

Key Features

Global Single SKU for Simplified Worldwide Deployment

X20 supports a unified WWAN Global SKU, enabling standardized configuration, streamlined procurement and simplified multinational rollouts.

High-Capacity & Replaceable Battery

Equipped with a 5000mAh replaceable battery, X20 supports extended daily operation while allowing battery replacement without full-unit servicing with fast charging. This architecture reduces operational disruption, lowers full-device replacement frequency and supports long-term enterprise deployment

Long-Term Lifecycle Stability and Support (3+3 Years)

Designed with a long lifecycle strategy, X20 offers 3 years of product availability followed by 3 years of maintenance and technical support ensuring stable supply, predictable planning, and lower long-term operational risk.

Enterprise-Ready Durability

With IP68 sealing, 1.5m drop resistance, MIL-STD-810H certification and tumble testing, X20 is built to withstand the demands of daily business environments while maintaining a refined form factor.



Applications

Healthcare

- Patient Identification and Monitoring
- Medication Administration
- Specimen Collection
- Hospital Asset Management and Tracking
- RTLS (Real-Time Locating System)
- Pharmacy Management
- Medical Data Management

Hospitality

- Check-in and Administration
- Ticketing: Concerts, sporting events and more
- Loyalty Cards
- Food Safety and Traceability
- Inventory Management
- Field Service

Retail

- Cycle Counting
- Item Finding
- Planogram Compliance
- Returns
- Inventory Management
- Warehouse Management
- Backroom Management
- BOPIS/BOPAC
- Direct Store Delivery
- Route Accounting

Government & Public Sector

- Identity Verification
- Incident Reporting
- Traffic Management
- Facility Audits
- Government Asset Tracking
- Environmental Monitoring

Key Features

Sustained Performance for High Demanding Workloads

X20 is built on a performance-focused industrial processing platform, delivering stronger and more consistent computational performance

Enterprise Software Customization

X20 supports enterprise-level software customization and is fully integrated with BOS™ NEST, it enables organizations to define device behavior and control functionality at scale.

Beyond standard smartphone settings, X20 allows tailored software integration to meet industry-specific operational requirements.

Guaranteed Android Upgrade Path

Launching with Android 16 and guaranteed upgrades through Android 20, X20 reduces OS revalidation and device replacement risk across long deployment cycles.

GMS and AER certifications ensure platform stability and manageability at scale.

Advanced Camera-Based Data Capture

Equipped with an autofocus imaging system and integrated enterprise barcode decoding, X20 enables reliable data capture without a dedicated scanning module.

Secure and Certified SoftPOS Capability

MPoC compliant and certified for Apple VAS and Google Smart Tap, X20 provides secure, standards-based SoftPOS capability ready for commercial deployment.

Key Enhancements Over Previous Generation

- Next-generation processing and system performance
- Fast charging
- Significantly improved display (6.72" FHD+ vs HD+)
- Enhanced durability with IP68 and MIL-STD-810H certification
- Next-Gen Enterprise high Performance Octa-core processor reaching speeds up to 2.6GHz for high-speed multitasking
- Wi-Fi 6E and 5G support for high-density enterprise environments
- Certified SoftPOS readiness improving commercial deployment confidence

Software Solutions & Service

- BOS™ Dr.Device (Devcheck)
- BOS™ Provisioning; Kiosk;
- BOS™ NEST
- BOS™ OTA Update
- BOS™ DeviceFinder
- BOS™ Logger
- BOS™ PowerManager
- BOS™ WiFine
- BOS™ VoIP, PTT, PTT Essential
- BOS™ FastRead
- eSIM LPA

Third Party Solutions Integration

- EMM : Airwatch , MobileIron , Mobicontrol, Mass360, XenMobile

X20 Specifications

Performance Characteristics

CPU	MediaTek MT8873 (Dimensity 7300) octa-core, up to 2.6GHz
Operating System	Android 16 (upgradeable to Android 18, 20) , GMS / AER Certified, Support Non-GMS
Memory	6GB RAM LPDDR5X / 128GB UFS 3.1 (Default) 6GB RAM LPDDR5X / 64GB UFS 3.1 (Optional) 8GB RAM LPDDR5X / 128GB UFS 3.1 (Optional)

Physical Characteristics

Dimensions (L x W x D)	169.45 x 78.9 x 10.2mm
Weight	226.7g
Display	6.72 inch FHD+ (1080 x 2400); 600 nits
Imager Window	Corning® Gorilla® Glass 5
Touch panel	Capacitive multi-touch / Stylus / Glove
Backlight	LED backlight
Power	Service replaceable battery 3.87V 5000mAh, 19.35 Watt Hours BOS™ Power Manager
Quick Charging	Support
Expansion Slot	User accessible MicroSD supports up to 1TB
SIM / SAM	Dual SIM (1 Nano SIM + eSIM) Dual SIM / Dual Standby
Interface	USB Type C Connector (USB 2.0 OTG) - Supports charging and data transfer using a USB-Y cable
Notification	Audible tone; multi-color LEDs; vibration
Keypad & Button	On-screen keypad and Enterprise Keyboard power button; volume up/down buttons; Programmable Side key
Voice and Audio	Dual noise-cancelling microphones; High-quality speaker phone; USB Type-C headset jack HAC Support
PTT Hot Key	Supported via Programmable Side key

Wireless Wan Data and Voice Communications

Radio Frequency Band	Worldwide 5G FR1: n1/2/3/5/7/8/12/13/14/20/25/26/28/29/38/39/40/41/48/66/71/77/78/79 4G : B1/2/3/4/5/7/8/9/12/13/14/17/18/19/20/25/26/28/29/34/38/39/40/41/42/43/48/66/71 3G : B1/B2/B4/B5/B6/B8/B9/B19 2G : 900/1800/850/1900 Dual SIM/Dual Standby, VoLTE, Gigabit LTE-A, 5G NR Sub-6 (NSA, SA), LTE/NR Carrier Aggregation, supports private networking (LTE/5G)
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GPS	(only on WWAN SKUs) GPS, GLONASS, Galileo, Beidou, QZSS Dual-Band GNSS – concurrent L1/G1/E1/B1 (GPS/QZSS, GL0, GAL, BeiDou) + L5/E5a/BDSB2a (GPS/QZSS, GAL, BeiDou); a-GPS;
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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 (801.11ax); Dual Band Simultaneous; IPv4, IPv6 Wi-Fi™ 6E Certified
Data Rates	6 GHz: 802.11ax – 20 MHz, 40 MHz, 80 MHz - up to 1200 Mbps 5 GHz: 802.11a/n/ac/ax – 20 MHz, 40 MHz, 80 MHz - up to 1200Mbps 2.4 GHz: 802.11b/g/n/ax – 20 MHz up to 286.8 Mbps
Security and Encryption	WEP (40 or 104 bit); Enhanced Open (OWE); 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, EAP-PWD; WPA3 Enterprise 192-bit mode (GCM P256) - EAP-TLS; WWAN models only: WPA3 Enterprise EAPSIM, EAP-AKA, EAP-AKA Prime

Wireless Pan

Bluetooth	Class 2, Bluetooth v5.3 BLE / Bluetooth LE 2M PHY
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Wired Lan

Dial-Up Modern	N/A
Ethernet	N/A

Communication and Messaging

VoIP / PTT

Data Capture

Scanning	Camera barcode reading Supports SW Barcode Decoder (Optional)
Camera	Rear : 50 MP AutoFocus; flash LED, PDAF, Torch mode; better low light performance; Front : 8MP fixed
NFC	(Optional) ISO 14443 Type A and B; FeliCa and ISO 15693 cards; Card Emulation via Host; Contactless payment support, ECP1.0 and ECP2.0 polling support, Apple VAS certified, Google Smart Tap ready, CPoC Compliant, Support EMV Contactless L1 RR2
Biometrics	Side-mounted fingerprint sensor (Power Button)

Sensor

Light Sensor	Ambient Light
Other Sensors	Proximity, Accelerometer, E-Compass, Gyro, Barometer

User Environment

Operating Temp	-20°C to 55°C / -4°F to 131°F
Storage Temp	-40°C to 70°C / -40°F to 158°F
Humidity	5% to 95% non-condensing
Drop Spec	MIL-STD 810H (STEEL), 1.2m drop resistance
Tumble Spec	300 1.6 ft./0.5 meter tumbles at room temperature
Sealing	IP68 dust/water resistant (up to 1.5m for 30 min)
Vibration	4G Peak Sine (5 Hz to 2 kHz); 0.04g2/Hz Random (20 Hz to 2 kHz); 60 minute duration per axis, 3 axis
Thermal Shock	-40° C to 70° C / -40° F to 158° F rapid transition 24 cycles (1 cycle = 1.25 hours at -40°C and 1.25 hours at 70°C)
Electrostatic Discharge (ESD)	+/-15kVdc air discharge +/-8kVdc direct discharge +/-8kVdc indirect discharge

Accessories

In-box	Battery, Battery Cover
Additional	Neck Strap, Standard Protective Clear Case, Soft Plastic Screen Guard 15W Power Adapter (PD), 30W Power Adapter (PD), 15W USB C Cable (A to C), 30W USB C Cable (C to C)

Software Solutions & Service

BOS™	BOS™ Dr.Device (Devcheck) BOS™ Provisioning; Kiosk; BOS™ NEST BOS™ OTA Update BOS™ DeviceFinder BOS™ Logger BOS™ PowerManager BOS™ WiFine BOS™ VoIP, PTT, PTT Essential BOS™ FastRead eSIM LPA
Service	BluebirdCare™ BluebirdCare™ TSE (Technical & Software Care) Bluebird SecureCare™ (Android Security Support Service)
3rd Party Solutions Integration	EMM : Airwatch, MobileIron, Mobicontrol, Mass360, XenMobile

Subject to the terms of Bluebird's hardware warranty statement, the X20 is warranted against defects in workmanship and materials for a period of 1 (one) year from the date of shipment