

Powerful Smart Mobile Computer with Integrated UHF RFID Reading Capabilities

X40



Meet Bluebird's X40 — the latest RFID-enabled enterprise mobile computer. With 2x faster processing, 2.7x faster speeds by Wi-Fi 6E, 1.5x more capacity, and a 2.6x faster application processor for on-device, the X40 makes retail operations smoother and smarter. As the first enterprise device with an AMOLED display, it enhances visibility and supports better customer assistance. Its lightweight, ergonomic design with 26% more screen space allows various users to operate it easily with one hand. Equipped with an advanced scan camera featuring a TOF sensor and AR Core, it enables faster autofocus and multi-barcode reading. Triple-side NFC improves flexibility in payments and card emulation, while a replaceable battery offers 20% longer usage. Unlock new levels of efficiency with the X40's integrated UHF RFID capabilities — built to power modern retail!

Key Features

BEST-IN-CLASS FEATURES AND POWERFUL PERFORMANCE

UHF RFID Support

X40 provides simultaneous RFID reading, supporting diverse use cases in various industries. By the RFID reading capability of X40, users can simplify their works including luggage scanning, passenger validation, inventory check & workforce management.

Enhanced Scan Camera

Workers using X40 are able to scan barcode easily and rapidly with autofocus by ToF sensor, aiming support, multi-barcode reading and AR Core.

Brilliant AMOLED Display

AMOLED display of X40, which was adopted to the enterprise device for the first time, helps workers with bright, clearer and vibrant visuals using less power consumption.

Industry & Applications



Retail – Store associates

- Price/Inventory checks
- Item locator
- Assisted selling
- Customer engagement
- Task/Price management
- Inventory/cycle count
- Front of store replenishment



Retail – Store managers

- Workforce/Back-of-store management
- Merchandising
- Promotion compliance



Healthcare Workers

- Patient tracking
- Clinical mobility
- Tracking & Locationing
- Pharmacy Management



Transportation / Logistics Workers

- Shipping
- Trucking
- Stock replenishment
- Passenger validation

BOS™ Solutions & Software

- BOS™ Nest
- BOS™ Provisioning; Staging; Kiosk
- BOS™ VoIP, PTT, PTT Essential
- BOS™ Wi-Fine™ (WiFi analyze application)
- BOS™ DeviceFinder
- BOS™ PowerManager

3'rd Party Solutions Integration

- EMM : Airwatch, MobileIron, Mobicontrol, 42Gears, Scalefusion
- PTT : ESChat, Zello, IMPTT, EveryTalk, AirPTT
- RFID : Nedap, checkpoint, sensormatic, Mojix

Key Features

BEST-IN-CLASS FEATURES AND POWERFUL PERFORMANCE

Replaceable Warm Swap Battery

Unlike the consumer smartphones, users are able to easily replace the batteries of X40 by themselves. By the warm swap battery which supports fast charging, you can reduce your working time and keep the work connectivity.

Supporting Biometrics

X40 supports biometrics which is capable of verifying user identity in various fields through fingerprint recognition(optional).

CONVENIENT CONNECTION & COMMUNICATION

Location-Free Two-Way Communication

If you use BOS™ PTT, a subscription-type Push-to-Talk (PTT) Essential service, you can communicate regardless of location. BOS™ PTT helps you send and receive calls and messages over a WiFi network.

MANAGE YOUR WORK EFFICIENCY BY BOS™ OF BLUEBIRD

Easy initial device setup & security provisioning for hardware

Bluebird BOS™ Provisioning is designed to make the installation process faster and simpler, allowing customers to have all their devices ready for use as easy as possible. Once you create a staging file with all the required configurations, device settings and applications, devices will automatically configure themselves whether you connect devices to PC or simply scan a QR code without manual procedures.

Support NFC 3-Face Reading

X40 supports 3-face NFC reading, which enables quick and flexible payments from any angle, ID checking and card emulation.

Maximized Productivity with Accessories

X40 can improve the cost efficiency of your business with accessories which are compatible with Bluebird HF550X. You don't have to buy X40 accessories again if you are already utilizing HF550X.

High Durability

X40 is durable device with drop, tumble and sealing tests. X40 will still work even after staying at temperatures between -20°C to 50°C(-4°F to 122°F) or falling from 1.2m(4 ft.) height.

Ultimate Performance

Adopting QC6490 CPU and 12.15 INT8 TOPS for On-device AI, users are available to upgrade their working efficiency.

Ergonomic Grip & Light Weight

Workers can experience easy one-handed use by ergonomic grip and suitable size of X40. The ergonomic grip reduces the burden on users and supports barcode scanning through side buttons, providing a convenient work environment for workers.

Advanced Rear & Front Camera

X40 has 50MP PDFA OIS Rear Camera & 8MP FF Front Camera for barcode scanning, which helps you to see clearer, high-quality images.

Stable Connection to 5G/WiFi 6E/Bluetooth 5.3/Dual GPS

X40 supports 5G, WiFi 6E, Bluetooth 5.3 and Dual GPS. With X40, you can boost efficiency with faster data speeds, and navigate with precise location tracking.

Reliable Security

BOS™ NEST delivers visibility and lets IT admin stay in control of multiple mobile devices in their system, regardless of type of devices or operating systems, all from a single dashboard—enabling access control for shared devices and managing user ID and device groups. From deployment to retirement, BOS™ NEST makes it easy to manage mobile devices and mobilize the workforce to gain competitive advantage, while maintaining corporate data security.

Simply find your lost device

You can find lost device easily & fast with BOS Device Tracker and UWB, even the battery is discharged or off.

Specifications

PERFORMANCE CHARACTERISTICS

CPU	Qualcomm Snapdragon™ QC6490 octa-core, 2.7GHz
Operating System	Android 14 Planned to be upgraded to Android 16, 18
Memory	12 GB LPDDR5 RAM / 256 GB UFS 3.1 (Optional) 8 GB LPDDR5 RAM / 128 GB UFS 3.1

PHYSICAL CHARACTERISTICS

Dimensions (L x W x D)	155.2 × 74.2 × 12mm
Weight	199g
Display	6.11 inches 1080 × 2340, AMOLED
Touchpanel	Multi-mode capacitive touch with bare or gloved fingertip input or stylus (sold separately), Corning Gorilla Glass; water droplet rejection; fingerprint resistant anti-smudge coating
Power	User replaceable battery Standard capacity 3.87V 4320mAh / 16.72Wh BOS™ PowerManager
Hot swap	Warm Swap
Quick Charing	Support
Expansion Slot	User accessible MicroSD supports up to 2TB
SIM / SAM	(only on WWAN SKUs) 1 Nano SIM / e-SIM Dual SIM/Dual Standby
Interface	Rear : 8-pin communication I/O Buttom : USB-C 3.1 OTG, 2-pin Charging Connector Side : 2-pin Charging Connector
Notification	Audible tone vibration
Keypad & Button	On-screen keypad and Enterprise Keyboard; power button; volume up/down buttons; dual-action side scan buttons; Dedicated PTT Button;
Voice and Audio	Three noise-cancelling microphones; vibrate alert; High-quality Single speaker phone; High-quality Dual stereo speaker (optional); PTT headset USB-C support; Bluetooth wireless headset support, SWB & FB audio cellular circuit switch voice; HD voice;
PTT Hot Key	Supports Dedicated PTT Button

WIRELESS WAN DATA AND VOICE COMMUNICATIONS

Radio Frequency Band	(only on WWAN SKUs) Worldwide 5G FR1: n1/2/3/5/7/8/12/13/14/20/25/26/28/ 29/38/40/41/48/66/71/77/78/79 4G : B1/2/3/4/5/7/8/12/13/14/17/18/19/20/25/26/ 28/38/39/40/41/42/43/48/66/71 3G : B1/B2/B4/B5/B8/B19 2G : 900/1800/850/1900
GPS	Dual SIM/Dual Standby, VoLTE, Gigabit LTE-A, 5G NR Sub-6 (NSA, SA), LTE/NR Carrier Aggregation, supports private networking (LTE/5G)

WIRELESS LAN

Radio	IEEE 802.11 a/b/g/n/ac/d/h/i/r/k/v/w/mc/ax; 2×2 MU-MIMO; Wi-Fi™ 6E (801.11ax); Wi-Fi certified; Wi-Fi™ 6E Certified; Dual Band Simultaneous; IPv4, IPv6
Data Rates	6 GHz: 802.11ax — 20 MHz, 40 MHz, 80 MHz, 160 MHz — up to 2402 Mbps 5 GHz: 802.11a/n/ac/ax — 20 MHz, 40 MHz, 80 MHz, 160 MHz — up to 2402 Mbps; 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-TLS (PAP, MSCHAP, MSCHAPv2), EAP-TLS, PEAPv0-MSCHAPv2, PEAPv1-EAP-GTC, LEAP, EAP-PWD; WPA3 Enterprise 192-bit mode (GCMP256) - EAP-TLS; WWAN models only: WPA3 Enterprise EAPSIM, EAP-AKA, EAP-AKA Prime

* Android version is subject to change depending upon Qualcomm's roadmap.

* Please be informed that Bluebird warranty program should be purchased to get Android upgrade service.

* Specifications are subject to change without notice and some features may vary by region.

Specifications

WIRELESS PAN

Bluetooth	Class 2, Bluetooth v5.3 Secondary BLE for beacons (Optional)
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DATA CAPTURE

Scanning	Camera Based Scanning - 8MP autofocus; PDAF - Aiming Green LED; Illumination 50 degree LED; AR Core Certification
Camera	Rear : 50MP autofocus; flash LED, PDAF; Torch mode; better low light performance; OIS Front : 8MP Fixed AR Core Certification
NFC	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
RFID	Built-In UHF RFID / HF - Read Range : ~ up to 1.2m - Read Rate : 50 tags/s
Biometrics	On-device Fingerprint into the Side (Optional) Face biometrics (OOB - Out-Of-Band)

SENSOR

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

USER ENVIRONMENT

Operating Temp	-20°C to 50°C / -4°F to 122°F
Storage Temp	-40°C to 70°C / -40°F to 158°F
Humidity	95% non-condensing
Drop Spec	1.2m / 4 ft. drops to tile over concrete over operating temp (-10° C to 50° C/14° F to 122° F) per MIL-STD 810H With Rugged boot: 5 ft./1.5 m drops to concrete over operating temp (-10° C to 50° C/14° F to 122° F) with Rugged boot per MIL-STD-810H
Tumble Spec	300 1.6 ft./0.5 meter tumbles at room temperature without Rugged boot 500 1.6 ft./0.5 meter tumbles at room temperature with Rugged boot
Sealing	IP68
Vibration	4 g's PK Sine (5 Hz to 2 kHz); 0.04 g 2/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 10 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

SOFTWARE SOLUTIONS

BOS™	- Dr. Device(Devcheck) - Provisioning - Kiosk - Nest - OTA Update - DeviceFinder - IP Wedge - Logger - PowerManager - WiFi - PTT - PTT Essential - VOIP - FastRead Barcode Test / Bbsettings eSIM LPA
3'rd Party Solutions Integration	EMM : Airwatch, MobileIron, Mobicontrol, 42Gears, Scalefusion PTT : ESChat, Zello, IMPTT, EveryTalk, AirPTT RFID : Nedap, checkpoint, sensormatic, Mojix

Specifications

ACCESSORIES

Accessories

- RFR90x Sled (Compatible with HF550X)
- 1 slot Charging Cradle (Compatible with HF550X)
- 4 slot Charging Cradle (Compatible with HF550X)
- Rugged Case
- Wrist / Neck / Shoulder Strap
- Glass Protective Film
- Protective Case (Wrist / Neck / Shoulder Strap hall)
- 30W PD wall Adapter + USB 3.1 superspeed Type C cable
- 15W(5V/3A) wall Adapter + USB 3.1 Type C cable
- USB-C headsets for voice,PTT, Multimedia
- BT headsets for voice,PTT, Multimedia

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