

The Ultimate Performance for
Enterprise Mobility based on 5G

S50



Industry & Applications



Retail – Store associates

- Price/Inventory checks
- Item locator
- Line busting
- Assisted selling
- Task management
- Front of store replenishment
- Price management
- Inventory/cycle counts



Retail – Store managers

- Fleet Management
- Planogram management
- Promotion compliance
- Merchandising
- Back of store management



Field Service Technicians

- Invoicing & Asset management
- Staff Communication



Postal Carriers/Courier Drivers

- Location services & Proof of Delivery
- Asset & Fleet management
- Packing, Staging, and Invoicing
- Work Order Validation



Public Official

- eCitation & Situational awareness
- Communication and Collaboration
- Parking & Traffic Law Enforcement
- Identification Authentication
- Patrol Mobile Solution

BOS™ Solutions & Software

- BOS™ Provisioning; Staging; Kiosk; Virtual Key; BOS™ Keyboard
- BOS™ VoIP
- BOS™ PTT, PTT Essential
- BOS™ Wi-Fine™ (WiFi analyze application)
- BOS™ EMM
- BOS™ OTA
- BOS™ OemConfig

Third Party Solutions Integration

- EMM: Airwatch, MobileIron, Mobicontrol, IBM MasS360, XenMobile
- PTT: ESChat, Zello, IMPTT, EveryTalk, AirPTT, RealTalk

✓ Meet the all-new next-generation device, Bluebird's S50, offering brilliant specifications that represent a significant upgrade from previous Bluebird devices. The S50 features best-in-class battery capacity. The design includes visible blue buttons on the sides, and the device incorporates various cutting-edge technologies in the camera, PTT key, display, and more.

Key Features

BEST-IN-CLASS FEATURES AND POWERFUL PERFORMANCE

Speed upgrade to another level

Increase your work efficiency with the Qualcomm® 6490 octa-core processor, up to 8GB of RAM and 128GB of Flash, plus a 2TB MicroSD card slot.

Fast and Stable Network

Experience fast business speeds with Wi-Fi 6E and 5G. You can achieve fast and stable performance, even when working in large facilities, through CBRS private LTE networks.

6-inch display with best-in-class outdoor readability

The S50 is waterproof and dustproof, and its screen provides a clear display view under bright sunlight. Bluebird's multi-touch technology supports glove and stylus touch input.

Robust & Slim Design

The S50 has improved durability and ergonomic design, making it thinner, larger, and stronger. It can withstand a drop from a height of 1.5m/5ft or 1,000 tumbles from a height of 0.5m/1.6ft and still function. Gorilla Glass has been applied to the Touch Panel and Imager.

Key Features

BEST-IN-CLASS FEATURES AND POWERFUL PERFORMANCE

Cutting-edge Battery technology

Bluebird's BOS™ Power Manager standard 5000 mAh and extended 7000 mAh batteries offer great power supply and long device working hour. S50 has the best battery capacity of the grade.

High-Resolution Camera

Experience a 16 MP integrated camera that delivers high-quality pictures with remarkable clarity.

Scan your data with 2 kind of scanning range

If you want to scan in standard range, you can use SE4720/SE4770 1D/2D scan engine. Meanwhile, you can use SE55 1D/2D scan engine for advanced scan range.

Supportive microphone and speaker

Three microphones and two speakers improve your communication with co-workers.

CONVENIENT CONNECTION & COMMUNICATION

Location-Free Two-Way Communication

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

Simply check your boxes by pressing a button

The S50 supports a Time of Flight (ToF) sensor to check parcel dimensions quickly and easily, saving you working time.

World-Class RFID Reader Connection Available

The RFR900 and its next-generation counterpart, the RFR901, are high-performance handheld UHF RFID readers engineered for rapid and secure data acquisition. The RFR900 delivers a read rate of up to 900 tags per second, while the RFR901 achieves up to 1200 tags per second. Integration with Bluebird's adapter mount, Bluetooth, NFC, and Wi-Fi 6E ensures reliable data management when connected to a mobile computing device.

MANAGE YOUR WORK EFFICIENCY BY BOS™ OF BLUEBIRD

Easy application performance and data management

The BOS SDK is a custom development tool designed for enterprise applications, enabling rapid application development with a fast, efficient, and optimized toolkit. Additionally, the Data Wedge API facilitates easy management of barcode data.

Reliable Security system

BOS SecureCare for Android™ can protect your devices safely. With BOS Kiosk, you can restrict apps and device features.

Manage your device easily

With Bluebird Zero-Touch, you can manage many devices simply by scanning. BOS Wi-Fine helps manage a stable Wi-Fi connection. Use Non-GMS OS Control to select Google Services. You can manage the device using BOS Dr. Device without needing to repair it.

Simply find your lost device

You can find a lost device easily and quickly with BOS Device Tracker, even if the battery is discharged or off.

Increase work efficiency with the device

With Terminal Emulation and BOS™ Keyboard, you get the touchscreen and keyboard you need for managing data. BOS Onescan can help you select barcodes, and OCR can help you capture standardized data.

Specifications

PERFORMANCE CHARACTERISTICS

CPU	Qualcomm Snapdragon™ QC6490 octa-core, 2.7 GHz
Operating System	Android 12; Upgradeable to Android 16
Memory	6GB RAM/ 64GB UFS Flash 8GB RAM/ 128GB UFS Flash (Optional)

PHYSICAL CHARACTERISTICS

Dimensions (L x W x D)	166.8 × 78.3 (Grip: 77.34) x 16.71 mm
Weight	290 g with standard battery
Display	6" FHD+ (1080×2160), LED back-light
Imager Window	Corning® Gorilla® Glass 5
Touchpanel	Multi-mode capacitive touch with bare or gloved fingertip input or conductive stylus (sold separately), Corning Gorilla Glass; water droplet rejection; fingerprint resistant anti-smudge coating
Backlight	LED backlight
Power	Rechargeable Li-Polymer, BOS™ PowerManager for realtime battery management Standard capacity 5000mAh / 19.25 Watt hours; Extended capacity 7000mAh / 26.95 Watt hours; *Fast charging & Hot Swap battery mode (All SKUs) (Optional) BLE Beacon Battery 5000mAh Qi compatible Wireless charging battery 5000mAh
Hot swap	Supported
Expansion Slot	User accessible MicroSD; supports up to 2TB
SIM / SAM	WWAN SKU Only: 1 Nano SIM; 1 eSIM
Interface	Rear: 8-pin communication connector Bottom: USB-C 3.1 OTG w/DP mode 2-pin Charging Connector
Notification	Audible tone; multi-color LEDs; Scan LED; vibration; Haptic Feedback
Keypad & Button	On-screen keypad and BOS™ Keyboard power button; Volume up/down buttons; Dual-action side scan buttons; Dedicated PTT Button; button of trigger handle via Back I/O.
Voice and Audio	Three microphones with noise-cancellation; Vibrate alert; High-quality Dual speaker phone; PTT headset USB-C Type support; Bluetooth wireless headset support, SWB & FB audio cellular circuit switch voice; HD voice; 3.5 mm audio jack only on WLAN SKUs
PTT Hot Key	Support Dedicated PTT Button

WIRELESS WAN DATA AND VOICE COMMUNICATIONS

Radio Frequency Band	Worldwide 5G FR1: n1/2/3/5/7/8/12/13/14/20/25/26/28/29/38/40/41/48/66/71/77/78/79 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 Supports private networking (LTE/5G) Support CBRS (US B48, Private LTE) Support 5G mmWave n257/258/260/261 (Optional)
GPS	(Only on WWAN SKUs) 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; 2×2 Mu-MIMO; Wi-Fi™ 6E (801.11ax); Wi-Fi certified; Wi-Fi™ 6E Certified; Dual Band Simultaneous; IPv4, IPv6
Data Rates	6GHz: 802.11ax - 20MHz, 40MHz, 80MHz, 160MHz — up to 2402 Mbps; 5GHz: 802.11a/n/ac/ax — 20MHz, 40MHz, 80MHz, 160MHz — up to 2402 Mbps; 2.4GHz: 802.11b/g/n/ax — 20MHz up to 286.8 Mbps
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, EAP-PWD; WWAN models only — EAP-SIM, EAP-AKA; WPA3 Enterprise 192-bit mode (GCMP 256) — EAP-TLS; Enhanced Open (OWE)

WIRELESS PAN

Bluetooth	Class 2, Bluetooth v5.2 and Secondary BLE for beaconing within BLE battery
-----------	--

WIRED LAN

Ethernet	Support (w/ Ethernet Cradle - 1GHz)
----------	-------------------------------------

* 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 (Continued)

COMMUNICATION AND MESSAGING

VoIP / PTT

DATA CAPTURE

Scanning	SE4720 1D/2D Scan Engine SE4770 1D/2D Scan Engine (Optional) SE55 1D/2D Advanced Range Scan Engine (Optional)
Camera	Rear – 16 MP AutoFocus; flash LED, PDAF, Torch mode+HDR; better low light performance; Time of Flight (ToF) Sensor (Optional) Front – 8MP Fixed focus (Optional) Rear: 50 MP autofocus; flash LED, PDAF; Torch mode+HDR; better low light performance
NFC	ISO 14443 Type A and B; FeliCa and ISO 15693 cards; Card Emulation via Host; Contactless payment support, (Optional) ECP1.0 and ECP2.0 polling support, Apple VAS certified

SENSOR

Light Sensor	Ambient Light Automatically adjusts display backlight brightness
Other Sensors	Proximity, eCompass, Accelerometer, Gyroscope, 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	5% to 95% non-condensing
Drop Spec	Multiple 5 ft./1.5 m drop to tile over concrete (-10°C to 50°C / 14°F to 122°F) per MIL-STD 810H Multiple 8 ft./2.4 m drop to concrete over operating temp. (-20°C to 50°C / -4°F to 122°F) with protective boot per MIL-STD 810H
Tumble Spec	1000 1.6 ft./0.5 m tumbles, meets or exceeds IEC tumble specification 1000 3.2 ft./1.0 m tumbles at room temperature with protective boot, meets or exceeds IEC tumble specification
Sealing	IP68 and IP65 with battery per applicable IEC sealing specifications
Vibration	4 g's PK 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
Electrostatic Discharge (ESD)	+/-15kv air discharge +/-8kV direct discharge +/-8kV indirect discharge

SOFTWARE SOLUTIONS

BOS™	BOS™ • Provisioning; • Staging; • Kiosk; • Virtual Key; • BOS™ Keyboard; • VoIP; PTT; PTT Essential • EMM; • Wi-Fine (WIFI analyze application) • Secure ID (Secure management solution)
3rd Party Solutions Integration	EMM: Airwatch, MobileIron, Mobicontrol, Mass360, XenMobile PTT: ESChat, Zello, IMPTT, EveryTalk, AirPTT

* Specifications are subject to change upon manufacturer's condition.



Scan to learn more about S50 >