

FX50

Flexible Kiosk System

RFID & NFC-enabled Android Kiosk: Built for seamless transactions

With integrated RFID and EMV-certified Tap-to-Pay, the FX50 Android Kiosk enables secure, seamless contactless transactions as the core of a flexible, modular system for retail, restaurant, and hospitality environments. Its sleek, inviting design drives instant engagement, while the proven enterprise Android platform ensures reliable, business-ready performance.

Key Features

Integrated RFID for Smarter Space Design

The internal RFID reader enhances spatial efficiency by eliminating bulky external hardware. This allows for sleeker kiosk installations even in narrow layouts like retail displays or wall-mounted setups. It also supports consistent kiosk design and user flow, enabling customers to tag and complete transactions without interruption – improving the overall shopping experience.

EMV-Certified NFC for Secure and Seamless Checkout

The FX50 supports mobile wallets and digital payments without requiring a separate terminal. EMV certification ensures secure encryption and broad compatibility, allowing customers to simply tap and pay – with fewer errors and a more fluid checkout process.

Slim bezels, modern appeal

FX50's ultra-thin bezels and sleek profile create a clean, modern look that draws users in. The minimalist design offers a more intuitive, premium-feeling interaction – perfectly aligned with today's consumer expectations.

Designed to blend, not block

Thanks to its slim design, the FX50 seamlessly integrates into any retail space without obstructing movement or interrupting store flow. It complements your interior design and allows customers to navigate freely, promoting a more comfortable and visually pleasing shopping experience.



Applications

Retail

- Self-service configuration & ordering
- Self checkout
- Item locator & wayfinding
- Price check
- Product information
- Stock check
- Payment / POS
- Endless aisle
- Inventory and stock level check
- Price and promotion updates
- Reporting

Hospitality

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

Healthcare

- Check-in / Check-out
- Appointment request
- Complete paperwork
- Patient surgery status
- Parcel Management

Parcel Management

- Package drop off

Airports/Travel

- Self check-in
- Baggage tags
- Seat upgrades

Management

- Package drop off

Key Features

Tailor it your way—size, layout, and peripherals

Whether you need a 15-inch or 22-inch screen, the FX50 adapts to your environment with flexible portrait or landscape setup. Smart design enables effortless connection of peripherals—scanners, light bars, and more—on any side, so you're free to build the configuration that suits your workflow best, without constraints.

Beyond payment—effortless tap-to-interact experiences

FX50 supports Apple VAS and Google Smart Tap, enabling customers to simply tap their smartphones to access digital items such as loyalty cards, boarding passes, tickets, healthcare IDs, or mobile driver's licenses. With SDK integration made easy, adding these tap-based services enhances the kiosk experience far beyond payments.

Seamless scanning, built right in

Easily enable scanning for loyalty cards, IDs, tickets, and more by connecting a removable scanner via the module port or using compatible Bluetooth or USB handheld scanners. Powered by Bluebird's intuitive BOS™ platform, deployment is quick and simple, delivering fast and reliable barcode capture in virtually any environment for smooth, frustration-free self-service.

EMV-certified contactless payment, right at the screen

Support secure, tap-to-pay transactions with leading third-party EMV-certified payment terminals. FX50's flexible mounting options allow seamless integration of NFC/contactless readers, and its dedicated USB connection ensures reliable communication. Best of all, contactless payments can also be enabled on the secondary display, allowing for fast, intuitive interactions no matter which side your customer is on.

Streamlined installation with PoE+ flexibility

No more complex cabling or high installation costs. The FX50 supports Power over Ethernet (PoE+), allowing both power and data to run through a single Ethernet cable. Whether mounted on a wall, stand, or enclosure, deployment is simple and clean—no external outlets or power adapters required.

Bright, durable AF display built to last

The FX50's display delivers vivid clarity even under bright ambient lighting or direct sunlight, ensuring excellent readability at all times. An anti-fingerprint coating keeps the screen clean during frequent use, while a 1.8T reinforced glass panel provides a solid touch feel and reliable impact resistance verified through ball drop testing. This balance of brightness and durability ensures a consistently clear and dependable display experience in any environment.

Dust-resistant design for clean and stable operation

The FX50 is designed with IP5X-rated dust protection for a clean appearance and stable performance in dusty environments. By minimizing dust ingress around the display and structural gaps, it reduces touch inaccuracies. Anti-static design further lowers the risk of unexpected system issues—ensuring a clean, reliable kiosk ready for continuous operation.

Enterprise-grade Android, optimized for every use case

FX50 is powered by a high-performance Android platform with strong processing and memory, enabling smooth multitasking of complex applications. With Bluebird's BOS™ platform, IT teams can manage device settings via existing EMM systems without custom development. From brightness and power profiles to I/O control and PoE+ configuration, deployment is faster and more consistent across locations.

Tough display, built to endure daily demands

The FX50's display is engineered to handle the rigors of high-traffic environments. With a reinforced structure, smudge-resistant surface, and all-day durability, it maintains visual clarity and responsiveness—even with constant public interaction and exposure to environmental stress.

Next-generation Wi-Fi 6E for unmatched wireless stability

The FX50 supports Wi-Fi 6E, offering faster speeds and lower latency compared to standard Wi-Fi 6. With wider channels and more efficient spectrum utilization, your kiosk experiences responsive performance and stable connections even in crowded environments. Whether deployed on busy retail floors or in public spaces, FX50 delivers enterprise-level wireless reliability you can trust.

Smarter control with Bluebird BOS™

With the comprehensive Bluebird BOS™ platform, you can remotely configure, secure, and maintain all your FX50 devices at scale. Easily integrate barcode input without coding, stay current with Android updates, and accelerate app development using EMDK and Enterprise Browser. From staging thousands of kiosks with a tap or scan to troubleshooting remotely, BOS™ brings enterprise-grade efficiency to every touchpoint.

A future-ready investment

The FX50 is designed for long-term availability—offered for a guaranteed four-year sales period, with up to four additional years of service and support. This extended lifecycle reduces the burden of mixed hardware fleets and delivers strong ROI over time.

FX50 Specifications

Performance Characteristics

CPU	Qualcomm Snapdragon™ QC6490 Octa-Core Processor
Operating System	Android 16 with GMS / AER Upgradeable to Android 18, 20
Memory	6GB RAM / 64GB Flash 8GB RAM / 128GB Flash (Optional)

Physical Characteristics

Dimensions (L x W x D)	15.6 inch: 372.2 X 223.6 X 14.3 (28.5) mm 21.5 inch: 516 X 319 X 34.8 mm
Weight	15.6" : 1.8 kg / 21.5" : 4.3 kg
Display	15.6 inch : 15.6" FHD (1920 x 1080); 500 nits 21.5 inch : 21.5" FHD (1920 x 1080); 500 nits (Optional)
Touch panel	10-point multi-mode capacitive touch with bare or gloved fingertip input or conductive stylus (sold separately); anti-reflective coating; fingerprint-resistant anti-smudge coating
Power	12V DC / 10A input via DC jack; Power over Ethernet (PoE): IEEE 802.3at/bt, Class 4-8; supports 30W to 90W PSE and receives up to 71W from a compliant PoE power source
Expansion Slot	User accessible MicroSD supports up to 2TB
Interface	1 x DC jack (12V/10A) 1 x RJ45 PoE (10/100/1000 Ethernet) 4 x USB-A 3.0 host ports 1 x MicroSD slot 1 x GPIO for external device connection 2 x UHF RFID expansion antenna ports (SMA-type) 4 x USB-C ports on four sides for integrated accessories
Notification	Power LED
Keypad & Button	Power Button Volume up/down buttons
Voice and Audio	Dual noise-cancelling microphones; Dual 1W speakers

Wireless Lan

Radio	IEEE 802.11 a/b/g/n/ac/ax/d/h/i/r/k/v/w/mc; 2x2 MU-MIMO; Tri-band (2.4 GHz, 5 GHz, 6 GHz); Wi-Fi CERTIFIED 6™ (Wi-Fi 6E); Dual Band Simultaneous; IPv4, IPv6
Data Rates	2.4 GHz : 802.11b/g/n/ax – 20 MHz – up to 286.8 Mbps; 5 GHz : 802.11a/n/ac/ax – 20 MHz, 40 MHz, 80 MHz, 160 MHz – up to 2402 Mbps; 6 GHz : 802.11ax – 20 MHz, 40 MHz, 80 MHz, 160 MHz – up to 2402 Mbps
Security and Encryption	WPA3 Enterprise 192-bit mode, GCMP256 – EAP-TLS; WPA3 Enterprise, AES-CCMP-128 – EAP-TTLS (PAP, MSCHAP, MSCHAPv2), EAP-TLS, PEAPv0-MSCHAPv2, PEAPv1-EAP-GTC, LEAP, EAP-PWD; WPA3 Personal (SAE), AES-CCMP-128; WPA/WPA2 Enterprise, TKIP and AES-CCMP-128; WPA/WPA2 Personal (PSK), TKIP and AES-CCMP-128; Enhanced Open (OWE), AES-CCMP-128; WEP 40 bit and 104 bit

Wireless Pan

Bluetooth	Class 2, Bluetooth v5.3 (BLE)
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Wired Lan

Ethernet	Gigabit Ethernet on RJ45 interface
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Data Capture

Scanning	(Optional Accessory) 1D/2D decoded scanner Support for external USB and Bluetooth Scanners
Camera	Front : 8MP AF Camera
NFC	Center of Display front facing; ISO 14443 Type A and B; Mifare, FeliCa and ISO 15693 cards; Card Emulation via Host; Contactless payment support, ECP1.0 and ECP2.0 polling support, NFC Forum Compliant, Google Smart Tap certified, Apple VAS ready Support EMV Contactless L1 Certification
RFID	(Optional) Short range integrated UHF RFID / HF - Read Range : ~ up to 2.3 ft(0.7m) - Read Rate : 50 tags/s - EU 865-868MHz and US 902-928Mhz Supports Dual External Antenna Ports for Antenna Expansion

Payment

MSR	MSR / Contact / Contactless (Optional accessory)
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Sensor

Motion Sensors	3-axis gyroscope; 3-axis accelerometer
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User Environment

Operating Temp	0°C to 50°C
Storage Temp	-20°C to 60°C
Humidity	5% to 80% non-condensing
Drop Spec	
Tumble Spec	
Sealing	Dust Protection (IP5X)
Vibration	Sine: 4 g's PK(5 Hz to 2 kHz) Random: 6 g RMS (20 Hz to 2 kHz) 60 minute duration per axis, 3 axis
Electrostatic Discharge (ESD)	+/-15kv air discharge +/-8kv direct discharge +/-8kv indirect discharge

Software Solutions

BOS™ Solutions & Software	BOS™ Provisioning BOS™ Staging BOS™ Kiosk BOS™ Nest BOS™ Wi-Fine(Wi-Fi analyze application)
3rd Party Solutions Integration	EMM : Airwatch, MobileIron, Mobicontrol, Mass360, XenMobile

*Subject to the terms of TSC hardware warranty statement, the FX50 is warranted against defects in workmanship and materials for a period of 2(two) years from the date of shipment.