cino®

FUZZYSCAN PA680BT
2D Rugged Companion Scanner

A portable and rugged 2D companion scanner for demanding enterprise applications

The compact yet rugged PA680BT blends portability with the mobility of Bluetooth connectivity. Powered by exclusive FuzzyScan imaging technology, the PA680BT boasts industry-leading reading performance to scan all your needs. The PA680BT delivers a competitive edge for mobile barcode capturing scenarios that require unrestricted agility and high reliability, such as retail, manufacturing, logistics, warehouse, field service and more.

- IP65 rating and 2m (6.6ft.) drop resistance
- A wide working range from -20°C to 50°C
- Compatible with most popular Android and iOS mobile devices
- Works with Bluetooth-enabled Windows, MAC, and Linux hosts
- Up to 100m of communication coverage while working with Smart Cradle
- One-step quick pairing with a scan or a tap
- Options of Standard-range and High-density models
- Batch scanning for simple stocktaking application
- Four programmable function keys streamline workflow
- Built-in vibration function for tactile confirmations
- Over 24 working hours per full charge
- Inherits the powerful FuzzyScan DNA
- Healthcare model available

Ultimate Reliability and Mobility

A rock-solid build sets the PA680BT apart from other commercial grade companion scanners. Integrated with Bluetooth wireless technology, it offers the convenience of cordless operations. The PA680BT changes the way you work with more agility and productivity.

Class-leading Reliability

Engineered with over-mold construction and an IP65 rating, the PA680BT is not only water-dust-proof, but can also withstand multiple drops from 2 meters onto concrete surfaces. It can work in extreme temperature conditions from -20°C to 50°C. The high reliability allows you to get a great return on investment and a lower total cost of ownership.

Go wherever you go

Small and compact, the PA680BT is built with portability in mind. It can easily fit into a pocket, or be carried around the neck or wrist using a lanyard for instant access.

Comprehensive Connectivity

Broad compatibility

Through the HID or SPP profile, the PA680BT is compatible with a wide range of Android and iOS mobile devices as well as the most popular Bluetooth-enabled Windows, MAC, and Linux hosts.

**Exclusive FuzzyScan
Imaging Technology**

Instant cordless migration

No Bluetooth? Not a problem! Pair your PA680BT with Cino's Smart Cradle or Smart Dongle to instantly overcome the lack of Bluetooth connectivity. Without any additional costs, this instant "Plug-and-Play" cordless migration provides you with a working range of up to 100 meters.

Easy and Quick Pairing

To pair with Cino's cordless scanner is a breeze with the "scan to pair" or "tap to pair" functionalities. The user just needs to scan a "quick pair barcode" generated by ConnectWizard™, or scan the "Quick Pair Barcode" on the smart cradle. Cino's companion scanners can also pair with any NFC-enabled devices with a quick tap. This one-step pairing process streamlines user's workflows.

Scan All Your Needs

Powered by exclusive FuzzyScan Imaging technology, the PA680BT scanner is capable of reading a vast array of challenging and problematic barcodes. The PA680BT scanner is capable of scanning wrinkled, dirty, or soiled barcodes that are displayed on paper, plastic, metal, digital screens, and curved surfaces.

Cutting Edge Imaging Technology

Powered by state-of-the-art AI-based machine vision, the exclusive FuzzyScan imaging technology is a performance-driven innovation. Incorporated with an advanced optical design and a powerful hardware platform, all Cino scanners deliver unrivaled scanning speed and accuracy across all types of real-world barcodes.

A Complete Lineup

The PA680BT Standard-range model offers superior reading performance on both regular and problematic real-world barcodes, making it suitable for a wide range of applications. While the High-density model is purpose-built to read DPM, high density and very small 2D barcodes that appear on items such as electronic components, jewelry tags, and medical equipments. Two different models are available to ensure maximum suitability for different scanning needs.

Extensive Functionalities

The advantages of the PA680BT go beyond the maximum mobility delivered via Bluetooth technology. Powered by more practical functions, the FuzzyScan PA680BT scanner enables you to complete various business tasks and maximize productivity.

"On the Spot" Data Transmissions

"Online Scanning" usually sends data to hosts immediately after each scan. However, if the "Out-of-range-scanning" function is enabled, the scanner can continue to scan and retain up to 5,000 EAN barcodes when it loses the Bluetooth connection. Once back into radio range, it will automatically reconnect and transmit all stored data to the host.

Inventory Counts Made Simple

"Batch Scanning" is ideal and useful for simple stocktaking. When you use this function, all scanned data will be stored into the scanner's flash memory. Once data transmission is activated, all stored data will be sent to the host as a batch. The PA680BT scanner can store a maximum of 100,000 EAN barcodes per batch. Moreover, you can add a quantity value following each scanned data.

FUZZYSCAN DNA

Verifying Data Uniformity Made Easy

"Validation Scanning" enables the PA680BT scanner to compare scanned data against the stored master data to verify data uniformity. This function is useful if data verification is needed during "shipping and receiving" or "order picking".

Streamline your workflow via function keys

The PA680BT is equipped with one big trigger button and four function buttons. These four function keys allow users to switch between different functions easily; increasing efficiency and productivity.

Enhanced User Experiences

Designed with sharp aiming and multifaceted notification feedback via visual, audio, as well as tactile indications, the PA680BT delivers superior usability and a great user experience.

Clear Audio and Visual Feedback

The PA680BT uses audio and visual indicators to indicate its various statuses. The scanner has a loud beeper with an adjustable volume and tone. The LED lights emit conspicuous and programmable multi-color signals to help users clearly identify the current status at a quick glance.

Tactile Feedback

Beeping sounds are considered disruptive in certain circumstances. Vibration is available on this scanner to provide tactile feedback to users. This is suitable for both quiet and noisy environments.

Value beyond Measure

FuzzyScan DNA is a collection of unique features that come with all Cino scanners at no additional costs. Aside from the exclusive FuzzyScan Imaging technology, Cino scanners also provide the following features to deliver exceptional value beyond barcode scanning:

- **DataWizard Premium,** a unique feature to perform advanced data formatting and complex data processing to fit specific needs without modifying host programs such as drivers license parsing.

- **iCode,** a macro command barcode that allows one-step configuration with a single scan.

- **Multilingual Edge,** a useful feature that enables data output in your desired language. Aside from Western European and Latin languages, it also supports many Asian languages such as Simplified Chinese, Traditional Chinese, Korean, Japanese, Thai, Hindi, and so on.

- **Smart Scene,** a choice of several preset configurations for various application scenarios to achieve optimal scanning performance.

- **Security Plus,** a user-defined security mechanism that prevents the access of unauthorized barcode scanners.

- **FuzzyScan Enabling Solution,** a suite of software utilities, including PowerTool, ConnectWizard, and SDK, for the easy configuration, management, and deployment of scanners.

SPECIFICATIONS

Performance Characteristics

Image Sensor	1280 x 800 Pixels
Print Contrast	15% minimum reflectance difference
Light Source	660nm LED
Imager Field of View	41.5˚H x 25.9˚V
Minimum Resolution	**HD Model** 2.4 mil Code 39 4.5 mil DM **SR Model** 2.7 mil Code 39 4.8 mil DM
Motion Tolerance *1	Up to 617 cm/s (243 in/s)
Reading Range *2	**HD Model** 13 mil (0.33mm) UPC/EAN up to 14.5" **SR Model** 13 mil (0.33mm) UPC/EAN up to 24.4"
Roll, Pitch, Skew	Roll: 360˚; Pitch: ± 75˚; Skew: ± 65˚
User Interfaces	4 function keys, one scan button LEDs for power, link and status indication Adjustable beeper Vibration function
Configuration Setup	FuzzyScan Barcode commands FuzzyScan iCode FuzzyScan PowerTool
Data Processing	DataWizard Premium
Image Capture	Graphic format: BMP

Electrical Characteristics

Standard Battery	3.7V, 1,150mAH Li-ion rechargeable battery
Battery Charge Time	Approx. 3-4 hours charge time over PSU
Scans per full Charge	More than 20,000 scans and transmissions
Operating Voltage	5 ± 10% VDC
Operating Current	Scanner with Smart Cradle Charging: Maximum 870 mA Standby: Maximum 190 mA

Communication Characteristics

RF Standard	Bluetooth Version 4.x
RF Frequency Band	2.402~2.4830 GHz unlicensed ISM band
Radio Link Modes	PAIR, PICO, SPP, HID
Communication Range	Up to 100 meters in open space when working with Smart Cradle, line of sight
Supported Profiles	HID (Keyboard), SPP (Serial Port)

1. Measured under factory perset test condition.
2. The Reading Range are measured under Cino's test environmental condition. For more details, please refer to Scan Map.
3. Codablock F, Code 16K, Code 49, and Chinese Sensible (Han Xin) Code are available upon request.
4. Don't stare into the LED beam.

Supported Symbologies

1D Linear Codes	Code 39, Code 39 Full ASCII, Code 32, Code 128, GS1-128, Codabar, Code 11, Code 93, GS1 DataBar, Standard & Industrial 2 of 5, Interleaved & Matrix 2 of 5, IATA, UPC/EAN/JAN, UPC/EAN/JAN with Addendum, Telepen, MSI/Plessey & UK/Plessey
2D Codes*3	PDF417, Micro PDF417, Composite Codes, DataMatrix, MaxiCode, QR Code, MicroQR, Aztec, Codablock F, Code 16K, Code 49, Chinese Sensible (Han Xin) Code
Postal Codes	Australian Post, US Planet, US POSTNET, Japan Post, Posi LAPA 4 State Code, German Post, British Post, Intelligent Mail, Korean Post, Dutch KIX Post, China Post

User Environment

Drop Specifications	Withstands multiple drops from 2.0m (6.6ft) to concrete
Environmental Sealing	IP65
Operating Temperature	-20°C to 50°C (-4°F to122°F)
Storage Temperature	-40˚C to 70˚C (-40˚F to 158˚F)
Humidity	0% to 95% relative humidity, non-condensing
Ambient Light Immunity	0 ~ 106,000 lux
ESD Protection	Functional after ±20KV direct air discharge

Safety & Regulatory

EMC & Radio	CE, UKCA, FCC, BSMI, RCM, KC, NCC, VCCI, MIC, SRRC
Safety *4	LED Eye Safety IEC62471, Exempt Group
Environmental	Compliant with RoHS and REACH

Physical Characteristics

Dimensions	119.0 mm (L) x 49.0 mm (W) x 24/38 mm (D)
Weight	135g (Battery included)
Color	Coffee Black, Ivory White

Accessories

Smart Cradle RF Standard Host Interfaces	HB3112 Smart Cradle Bluetooth Version 4.x USB HID (USB Keyboard) USB VCOM (USB COM port emulation) USB OEM POS Standard RS232
Charging Cradle Host Interface	HB3110 Charging Cradle USB
Cables	RS232 Serial cable USB-A Cable USB-C Cable USB Power Cable Micro USB Cable
Others	Power Supply Unit (5VDC, 2A outlet) BT3100 Battery Pack (1,150mAh) BT3200 Battery Pack (2,300mAh) Landyard