

# FUZZYSCAN A680BT

## 2D Cordless Imager



### The premium yet compact 2D cordless imager

By leveraging Cino's exclusive FuzzyScan imaging technology, the A680BT not only features a comprehensive lineup to fulfill various scanning needs, but also can read most real-world challenging and problematic barcodes. Boasting broad Bluetooth connectivity and a compact yet durable design, the A680BT is a reliable solution for a vast range of enterprise and general purpose applications. Moreover, the battery-free solution, versatile functionality, and FuzzyScan DNA make A680BT an excellent cordless handheld imager with top-tier performance.

- Instant cordless migration via Cino Smart Cradle
- Up to 100m of communication coverage while working with Cino Smart Cradle
- One-step & hassle-free pairing
- UltraCap™ Battery-Free solution supported
- Works with Bluetooth-enabled Windows, MAC, and Linux hosts
- Compatible with most popular Android and iOS mobile devices
- Reads most challenging and problematic barcodes
- Batch Scanning for simple stocktaking
- Optional vibration function for tactile confirmations
- Compact, sturdy construction
- Withstands 1.8m drops to concrete
- Inherits the powerful FuzzyScan DNA

### Wireless Connectivity and Beyond

For Cino cordless imagers, superior performance is just the start. Comprehensive connectivity and one-step pairing will change the way you work by providing more agility, flexibility and productivity.

#### Instant Cordless Migration

No Bluetooth? Not a problem! Pair your A680BT imager 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.

#### Broad Connectivity

Through the HID or SPP profile, Cino cordless imagers can connect to the most popular Bluetooth-enabled Windows, MAC, and Linux hosts as well as Android and iOS mobile devices.

#### One-Step & Hassle-Free Pairing

Pairing Cino cordless imagers is a breeze - just "Scan to pair". Scan the "Quick Pair Barcode" on the smart cradle or smart dongle to instantly create a pairing with your A680BT. To pair the A680BT with your remote host, you can easily scan the on-screen "Quick Pair Barcode" generated by Cino ConnectWizard™ to simplify Bluetooth pairing process.



## Exclusive FuzzyScan Imaging Technology

### Scan All Your Needs

Powered by exclusive FuzzyScan Imaging technology, the A680BT imager is capable of reading a vast array of challenging and problematic barcodes. Whether your barcodes are wrinkled, dirty, soiled or displayed on paper, plastic, metal, digital screens, or curved surfaces, your A680BT imager performs quick and accurate readings.

### Cutting Edge Imaging Technology

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

### A Complete Lineup

The A680BT provides three different models to ensure maximum suitability for different scanning needs.

#### Standard-range model (SR)

The standard-range model offers superior reading performance on both regular and problematic real-world barcodes, making it suitable for a wide range of applications.

#### High-density model (HD)

The high-density model is purpose-built to read DPM-like, ultra-high density, and very small 2D barcodes that appear on items such as electronic components, jewelry tags, and medical equipment.

#### Ultra-high-density model (XD)

The ultra-high-density model is designed to read ultra-high-density codes and Direct Part Marking (DPM) codes for manufacturing and demanding applications.

### Practical Functionalities

The advantages of Cino cordless imagers go beyond the ultimate mobility delivered via Bluetooth technology. Powered by more practical functions, the FuzzyScan A680BT imager enables you to complete various business tasks and maximize productivity.

#### “On the Spot” Data Transmissions

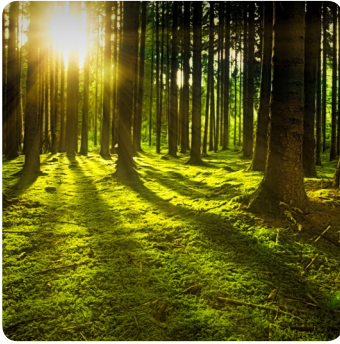
“Online Scanning” sends data to hosts immediately after each scan. If the “Out-of-range-scanning” function is enabled, the imager can continue to scan and retain up to 5,000 EAN barcodes when it loses the Bluetooth connection. Once back into radio range, it will automatically reconnect and transmit all 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 imager’s flash memory. Once data transmission is activated, all stored data will be sent to the host as a batch. The A680BT imager can store a maximum of 100,000 EAN barcodes per batch. Moreover, you can add a quantity value following each scanned data.

#### Verifying Data Uniformity Made Easy

“Validation Scanning” enables the A680BT imager 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”.



## Battery-Free Solution

### UltraCap™ Battery-Free Solution

The Cino Battery-Free solution is powered by the UltraCap™ Capacitor. This alternative power source is purpose-built on the concerns of cost saving and environmental sustainability. The UltraCap™ Capacitor is ideal for applications requiring a very quick charge to fulfill short-to medium-term operations, such as retail, hospitality, healthcare, and so on.

#### Swappable & Interchangeable

The UltraCap™ features a swappable design. It is not only interchangeable with Cino's standard Li-ion battery, but also compatible with all FuzzyScan cordless handheld imagers.

#### Lower Total Cost of Ownership

In an UltraCap™'s lifespan, you would otherwise use more than 25 standard Li-ion batteries. Therefore, this battery-free solution not only significantly lowers your replacement costs of battery, but also minimizes your potential productivity losses caused by dead batteries.

#### Extended Working Time

The UltraCap™ provides the longest working time by far compared to its competition. With a capacity of 750 Farads, the largest in its class, each full charge is able to support more than **4,200 scans**. Even under intensive use, this is enough to last for at least one hour.

#### Quick Get-Up-And-Go

Out of power? No worries. Every 1-minute quick charge is able to support **130 scans**. Compared to the standard Li-ion battery, this feature maximizes uptime and allows you to complete short-term scanning operations in a timely fashion.

#### Eco-Friendly for a Healthier Planet

Thanks to the long lifespan of UltraCap™, it helps to reduce lots of e-waste while also exemplifying ESG consciousness and environmental sustainability in the business world.

### Enhanced User Experiences

Designed with a sharp aiming and multifaceted notification feedback via visual, audio as well as tactile indications, the A680BT delivers superior usability and great user experience.

#### Clear Audio and Visual Feedback

The A680BT imager uses audio and visual indicators to indicate its various statuses. The imager has a loud beeper that allows you to adjust volume and tone, while LED lights emit conspicuous, multi-color signals to help users clearly identify the current status at a quick glance.

#### Tactile Feedback Option

Beeping sounds are considered disruptive in certain circumstances. Vibration is available as an option on this imager to provide tactile feedback to users. This is ideal for both quiet and noisy environments.



## FUZZYSCAN DNA

### Value Beyond Measure

FuzzyScan DNA is a collection of unique features that come with every Cino imagers at no additional cost. It delivers exceptional value beyond barcode scanning. Aside from the exclusive FuzzyScan imaging technology, Cino's scanners provide the following distinctive features to elevate user's experience:

#### DataWizard

DataWizard is a unique feature to perform advanced data formatting and complex data processing.

#### iCode

The iCode feature is a macro command barcode that allows one-step configuration with a single scan.

#### Multilingual Edge

Multilingual Edge is a useful feature that enables data output in your desired language.

#### Smart Scene

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

#### Security Plus

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

#### FuzzyScan Enabling Solution

FuzzyScan Enabling Solution is a suite of software utilities that enables easy integration, management, and deployment of scanners.

# SPECIFICATIONS

## Performance Characteristics

|                      |                                                                                                                                                   |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Image Sensor         | 1280 x 800 Pixels                                                                                                                                 |
| Print Contrast       | 15% minimum reflectance difference                                                                                                                |
| Light Source         | <b>XD</b> warm white LED<br><b>HD/SR</b> 660nm red LED                                                                                            |
| Imager Field of View | 41.5 ° H x 25.9 ° V                                                                                                                               |
| Minimum Resolution   | <b>XD</b> 2.0 mil Code 39, 4.0 mil DM<br><b>HD</b> 2.4 mil Code 39, 4.5 mil DM<br><b>SR</b> 2.7 mil Code 39, 4.8 mil DM                           |
| Reading Range *1     | <b>XD</b> 13 mil (0.33mm) UPC/EAN up to 8.1 "<br><b>HD</b> 13 mil (0.33mm) UPC/EAN up to 14.5 "<br><b>SR</b> 13 mil (0.33mm) UPC/EAN up to 23.6 " |
| Roll, Pitch, Skew    | Roll: 360 °; Pitch: ± 75 °; Skew: ± 65 °                                                                                                          |
| Motion Tolerance     | Up to 617 cm/s (243 in/s)                                                                                                                         |
| Configuration Setup  | FuzzyScan Barcode commands<br>FuzzyScan iCode<br>FuzzyScan PowerTool<br>FuzzyScan Serial Command                                                  |
| Data Processing      | DataWizard                                                                                                                                        |
| User Interfaces      | Blue link indicator and 2-color status indicator<br>Programmable beeper<br>Optional vibration function                                            |
| Image Capture        | BMP or JPEG format                                                                                                                                |

## Electrical Characteristics

|                   |                                                                                  |
|-------------------|----------------------------------------------------------------------------------|
| Operating Voltage | 5 ± 10% VDC                                                                      |
| Operating Current | Scanner with Smart Cradle<br>Charging: Maximum 870 mA<br>Standby: Maximum 190 mA |

## Power

|                     |                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Li-Ion Battery      | 2,550 mAh capacity<br>3-4 hour charge time over PSU<br>9-10 hour charge time over USB<br>Scan-ready at 30% power: 3 hr charge over USB                                                                                     |
| UltraCap™ Capacitor | 750 Farads<br>Less than 50 minute charge time over PSU<br>Less than 60 minute charge time over USB<br>Over 80 minutes of use per full charge<br>Over 4,200 scans per full charge<br>Over 130 scans after one minute charge |

## 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)                                            |

## Physical Characteristics

|            |                                                                                        |
|------------|----------------------------------------------------------------------------------------|
| Dimensions | 97.0 mm (L) x 65.0 mm (W) x 156.0 mm (D)<br>3.81 in. (L) x 2.55 in. (W) x 6.14 in. (D) |
| Weight     | 188g (with Li-Ion Battery)<br>166g (with UltraCap™)                                    |
| Color *5   | Classic Black, Ivory White                                                             |

## Supported Symbolologies

|                 |                                                                                                                                                                                                                                             |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 *2     | PDF417, Micro PDF417, Composite Codes, DataMatrix, MaxiCode, QR Code, MicroQR, Aztec, Codablock F, Code 16K, Code 49, Chinese Sensible (Han Xin) Code                                                                                       |
| Postal Barcodes | 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                                                                            |
| OCR *3          | OCR A/B, MICR-E13B, US Currency                                                                                                                                                                                                             |

## User Environment

|                        |                                                         |
|------------------------|---------------------------------------------------------|
| Drop Specifications    | Withstands multiple drops from 1.8m (6.0ft) to concrete |
| Environmental Sealing  | IP52                                                    |
| Operating Temperature  | -10 °C to 50 °C (14 °F to 122 °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 15kV discharge                         |

## Safety & Regulatory

|               |                                                    |
|---------------|----------------------------------------------------|
| EMC & Radio   | CE, UKCA, FCC, BSMI, RCM, KC, NCC, VCCI, MIC, SRRC |
| Safety *4     | LED<br>IEC 62471/EN 62471, Exempt Group            |
| Environmental | Compliant with RoHS 2.0 and REACH                  |

## Accessories

|                                                       |                                                                                                                                              |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Smart Cradle</b><br>RF Standard<br>Host Interfaces | HB2112 Smart Cradle<br>Bluetooth Version 4.x<br>USB HID (USB Keyboard)<br>USB VCOM (USB COM port emulation)<br>USB OEM POS<br>Standard RS232 |
| <b>Cables</b>                                         | RS232 Serial Cable<br>USB-A Cable<br>USB-C Cable<br>USB Power Cable                                                                          |
| <b>Others</b>                                         | UC2210 UltraCap™ (750 Farads)<br>BT2100 Battery Pack (2,550mAh)<br>US100 SmartStand<br>Power Supply Unit (5VDC, 2A outlet)                   |

1. The reading range is measured under the manufacturing preset test environmental conditions.
2. Codablock F, Code 49, Han Xin Code, and DotCode are available upon request.
3. MICR-E13B and US Currency are available upon request.
4. Don't stare into the LED beam.
5. The XD model is available only in classic black.

