

# ITDB-100 Series

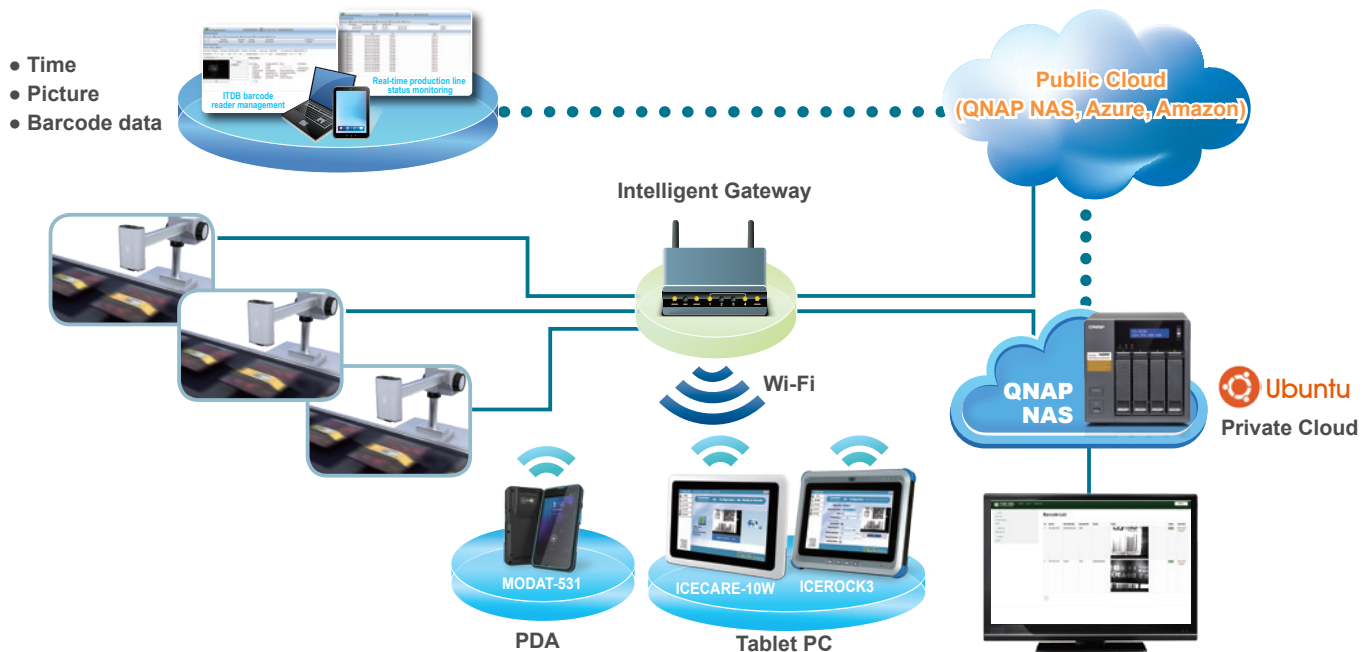
IoT High Speed 2D Barcode Reader



## Features

- Support remote monitoring and control via Android phones and tablets
- Connection I/O interface: USB, Ethernet TCP/IP
- Support hardware and software trigger modes, both with one shot, series shot, batch and presentation options
- Automatic or manual CMOS sensor configuration: exposure, gain and brightness options supported
- LED: External / Internal
- Image: Capture
- Image Format: BMP
- Region of Interest setting
- Firmware upgradable via USB / Ethernet
- Other Configurations:
  - » Decode Timeout / Decode Interval

Installing ITDB Series barcode reader with QNAP NAS system allows you to manage your production lines in a more efficient way. An ITDB system that runs over an IP network infrastructure enables the decoded images and results to be distributed to any number of sites (e.g. QNAP NAS, Android tablet or phone and Windows PC), within the constraints of available bandwidth. With the TCP interface supported by the ITDB Series, the information can be instantly transmitted to the NAS system making real-time production line monitoring more efficient.

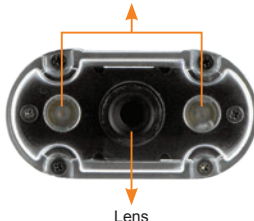


## Fully Integrated I/O

### Front View

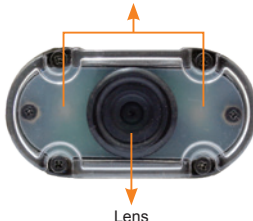
ITDB-100L Front

Illumination LEDs

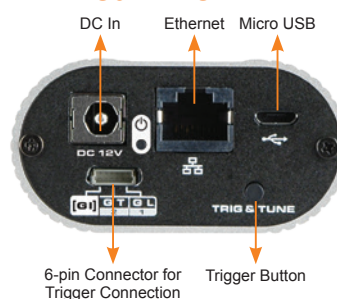


ITDB-100HD Front

Illumination LEDs

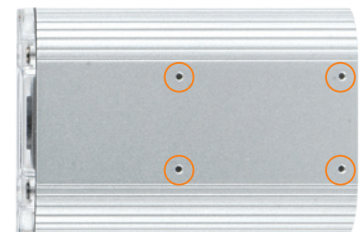


### Rear View



### Bottom View

The bottom surface of the ITDB-100 Series contains four retention screw holes for the mounting bracket.



## Successful Product Features

### ■ Ease of Connectivity

Popular interfaces are on board:  
USB, Ethernet TCP/IP

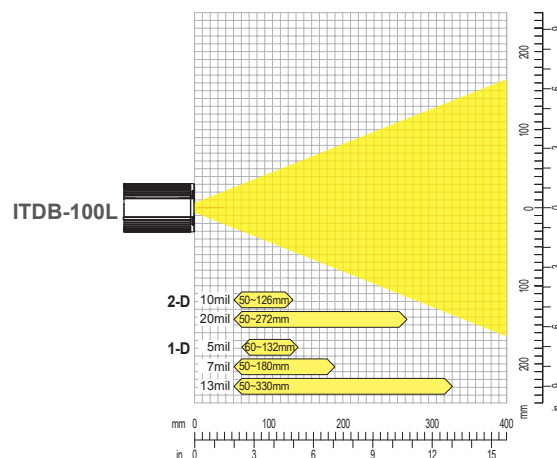


### ■ Easy to Read

Multiple focal options provide application-specific scanning, leading to improved productivity

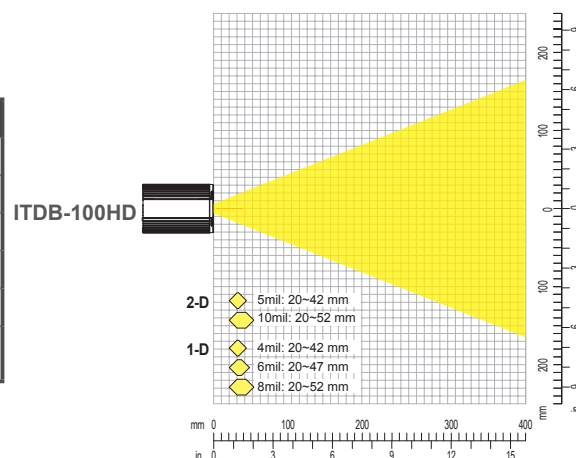
### ■ ITDB-100L Decode Range

| Typical Performance*  | ITDB-100L-R10  |
|---|----------------|
| 5 mil Code 39   | 60 mm - 132 mm |
| 7 mil Code 39   | 50 mm - 180 mm |
| 13 mil UPC  | 50 mm - 330 mm |
| 10 mil Data Matrix  | 50 mm - 126 mm |
| 20 mil QR   | 50 mm - 272 mm |
| * Performance may be impacted by barcode quality and environmental conditions |                |

















### ■ ITDB-100HD Decode Range

| Typical Performance*  | ITDB-100HD-R10 |
|---|----------------|
| 4 mil Code 39   | 20 mm - 42 mm  |
| 6 mil Code 39   | 20 mm - 47 mm  |
| 8 mil Code 39   | 20 mm - 52 mm  |
| 5 mil Data Matrix   | 20 mm - 42 mm  |
| 10 mil Data Matrix  | 20 mm - 52 mm  |
| * Performance may be impacted by barcode quality and environmental conditions |                |



### ■ Supported Barcode Types

| Linear          |   |                    |   |                     |   |
|-----------------|---|--------------------|---|---------------------|---|
| Codabar (NW7)   |  | Code 128           |  | Code 39             |  |
| Code 93 and 93i |  | Interleaved 2 of 5 |  | MSI (1/2 CRC check) |  |
| UPC             |  | ISBN               |  | EAN                 |  |
| Stacked         |   |                    |   |                     |   |
| PDF417          |  | MicroPDF417        |  |                     |   |
| Matrix          |   |                    |   |                     |   |
| Data Matrix     |  | QR Code            |  | Micro QR code       |  |

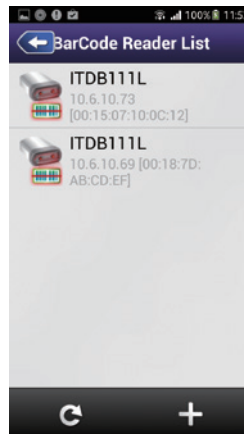
\* Besides the above barcode types, IEI has the ability to develop an algorithm for any barcode type upon customers' requests.

## IEI Barcode Solution

IEI barcode quick-setup solution allows you to easily and quickly setup your ITDB Series barcode reader through an Android phone or tablet that has IEI barcode reader APK installed.



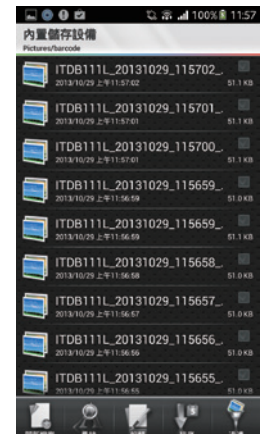
Scan this code with your phone to go to the Android Market and download the app for **FREE**.



Select an ITDB device



Quick setup & ready to decode



Can't decode?  
Report IEI with the saved image

IEI offers a barcode verifier software for Windows systems which is used to guarantee that the barcodes you print are 100% compliant to the ITDB barcode reader. Verification is akin to insurance: you hope you'll never need it but it's risky to function without it.



Barcode verification



Barcode reader configuration

## Applications



### Packaging

The ITDB-100 Series 2D barcode readers are ideally suited for a wide range of packaging applications.



### Document Handling and Sorting

The ITDB-100 Series 2D barcode readers are perfect for sorting documents, envelopes, and more.



### Pharmaceuticals

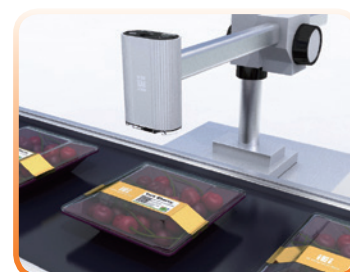
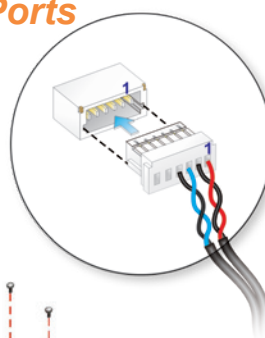
The ITDB-100 Series 2D barcode readers provide accurate reading of multiple code formats in a single view.



## Abundant Trigger Connection Ports

### Support up to 2 Trigger Connection Ports

| Group | Pin | Description                               |
|-------|-----|---|
| 1     | 1   | Output of LED Flash Trigger               |
|       | 2   | Ground for the Output LED Flash Trigger   |
| 2     | 3   | Input of Interrupt Trigger                |
|       | 4   | Ground for the Input of Interrupt Trigger |



Applications for Logistics Schematic Diagram

### Mounting Way



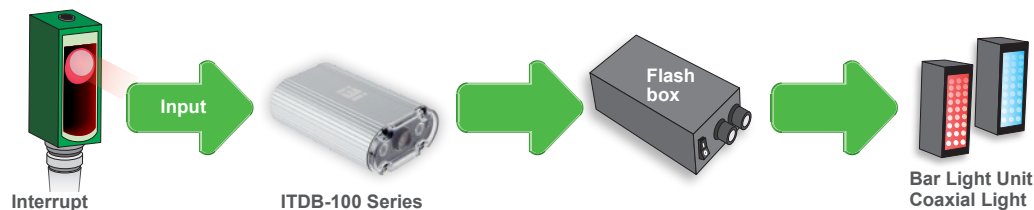
Mounting bracket size (50x31x8 mm)

Mounting bracket  
screw size: M2

Mounting screw

## Digital Input and Output Connection

The ITDB digital input and output ports enable connection to external devices, such as detectors (e.g. proximity and photoelectric sensors), flash power controller box and lights (e.g. bar and coaxial light). When input and output mechanisms are connected, you can manually or automatically request through the ITDB management software either from a remote PC, android phone or tablet, QNAP NAS or using the ITDB's built-in logic.

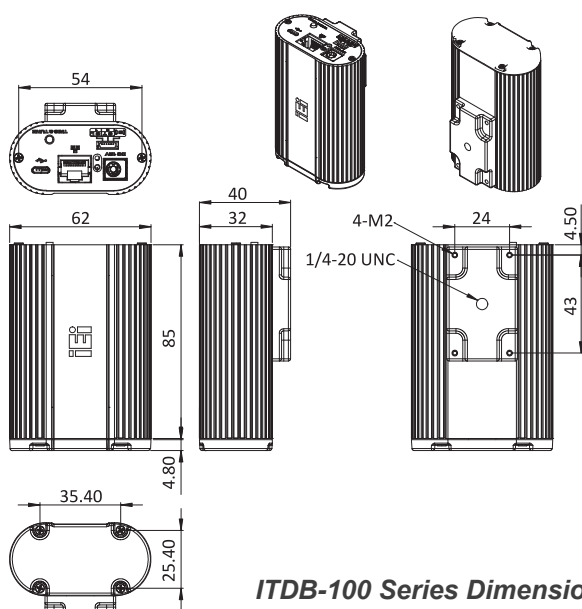


\* I/O usage example: An ITDB attached to a photoelectric sensor and to a flash power controller system.

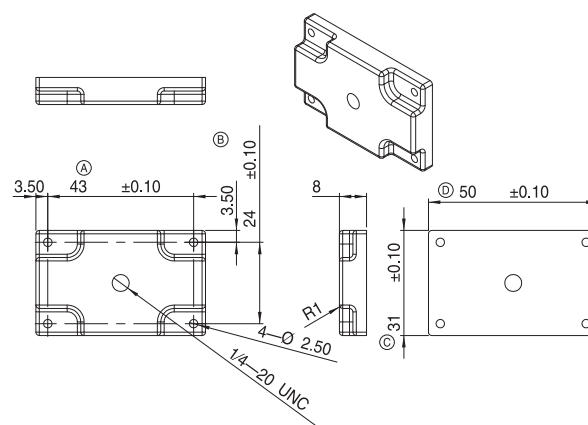
### Accessories

- External Lighting
  - » Bar Light Unit
  - » Coaxial Light
- Power Controller Box
- Trigger Sensors
  - » Proximity sensor
  - » Photoelectric sensor

## Dimensions (Unit: mm)



ITDB-100 Series Dimensions



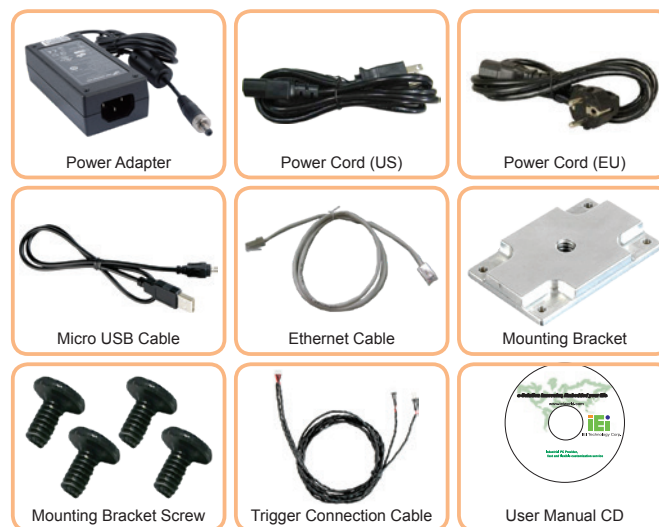
Mounting Bracket Dimensions

## Specifications

|                                    |  |   |   |
|------------------------------------|--|---|---|
| <b>Supported 1D Symbolologies</b>  | Code 39, code 93, interleaved 2 of 5, UPC/EAN (ISBN, UPCA, UPCE, EAN13, EAN8) EAN 128, code 128, MSI, codabar  | <b>Operating Limits of the 6-pin Connector for Trigger Connection</b> | Output of LED Flash Trigger<br>Current: 8mA<br>Voltage: 3.3VDC<br>Input of Interrupt Trigger<br>Current: 1.4mA@5VDC, 4mA@12VDC, 6.2mA@18VDC<br>Recommended operating voltage: 5VDC ~ 18VDC<br>Absolute voltage limits: 4.5VDC ~ 24VDC |
| <b>Supported 2D Symbolologies</b>  | PDF-417, Micro PDF-417, QR Code/microQR Code, Data Matrix  | <b>OS Support</b>   | Microsoft Windows 7/8.1 (32-bit & 64-bit)<br>Microsoft Windows 10 (32-bit & 64-bit) via network connection  |
| <b>Sensor Major Specifications</b> | Sensor: 1/3 inch CMOS with global shutter<br>Resolution: 752 x 480<br>Acquisition: Max. rate 60fps   | <b>SDK</b>  | Windows: Provides SDK and demo program with sample source code  |
| <b>Lens Major Specifications</b>   | Focus: Fixed<br><b>ITDB-100L</b> Code resolution: $\geq 0.33$ mm<br>Reading distance (at code resolution): 50 mm ~ 330 mm<br><b>ITDB-100HD</b> Code resolution: $\geq 0.2$ mm<br>Reading distance (at code resolution): 20 mm ~ 52 mm  | <b>Software</b>   | AP (without source code): Provide software installer to use directly  |
| <b>Illumination Element (nm)</b>   | 2 x Red LEDs<br>Visible red light ( $\lambda = 650$ nm ~ 660 nm)   | <b>Mechanical Specifications</b>                                      | Housing: Die-casting aluminum<br>Housing color: Silver<br>Front cover: Transparent plastic<br>Weight: 290 g (without mounting bracket)<br>Dimensions (LxWxH): 89.8 mm x 62 mm x 32 mm   |
| <b>I/O Interfaces</b>              | 1 x Micro USB port<br>(USB 2.0 data transmission rate: 480 M-bit/s)<br>1 x Ethernet port<br>(Ethernet data transmission rate: 10/100 M-bit/s)<br>1 x DC in jack ( $\Phi 2.5/\Phi 5.5$ )<br>1 x 6-pin connector for trigger connection<br>1 x Trigger and tuning control button<br>1 x power indicator<br>Acoustic indicators: Beeper | <b>Environment</b>  | RoHS compliant<br>Operating temperature: 0°C ~ 50°C<br>Storage temperature: -10°C ~ 60°C<br>Permissible relative humidity: 90% (non-condensing)<br>Ambient light safety: 2,000 lx, on code  |
| <b>Power Supply</b>                | Operating voltage: 12V/3.3A<br>Power consumption:<br>Power on = 7.7 W<br>Max. PD = 9.9 W   | <b>Shock Resistance</b>   | EN 60068-2-27 (2009-05)   |
|                                    |  | <b>Vibration</b>  | MIL-STD-810F 514.5C-1 and IEC-60068-2-06  |

## Packing List

| Item                     | Part No.                      | Q'ty |
|--------------------------|-------------------------------|------|
| ITDB-100 Series          | ITDB-100L-R10/ ITDB-100HD-R10 | 1    |
| Power Adapter            | 63000-FSP040DGAA1106-RS       | 1    |
| Power Cord (US)          | 32701-000700-100-RS           | 1    |
| Power Cord (EU)          | 32702-000200-100-RS           | 1    |
| Micro USB Cable          | 32001-016100-100-RS           | 1    |
| Ethernet Cable           | 32000-113100-RS               | 1    |
| Mounting Bracket         | 42010-0172E4-00-RS-N          | 1    |
| Mounting Bracket Screw   | 44045-020061-RS               | 4    |
| Trigger Connection Cable | 32125-008200-100-RS           | 1    |



## Ordering Information

| Part No.       | Description  |
|----------------|--|
| ITDB-100L-R10  | Image-based code reader system with 1D, 2D decoding code types, 752x480, 2 x LEDs, Reading distance (at code resolution): 50mm ~ 330mm, 12V DC Input, RoHS, I/O interface with 1 x USB 2.0, 1 x DC jack ( $\Phi 2.5 \times \Phi 6.3$ ), 1 x ethernet, 1x6-pin trigger port, 1 x trigger button |
| ITDB-100HD-R10 | Image-based code reader system with 1D, 2D decoding code types, 752x480, 2 x LEDs, Reading distance (at code resolution): 20mm ~ 52mm, 12V DC Input, RoHS, I/O interface with 1 x USB 2.0, 1 x DC jack ( $\Phi 2.5 \times \Phi 6.3$ ), 1 x ethernet, 1x6-pin trigger port, 1 x trigger button  |

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