

# ITDB-100 Series

IoT High Speed 2D Barcode Reader



## Features

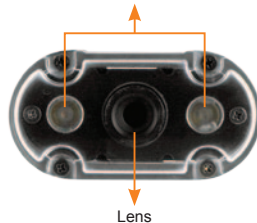
- Support remote monitoring and control via Android phones and tablets
- Connection I/O interface: USB, Ethernet TCP/IP
- Support hardware and software trigger modes, both with one shot, series shot, batch and presentation options
- Automatic or manual CMOS sensor configuration: exposure, gain and brightness 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

## Fully Integrated I/O

### Front View

ITDB-100L Front

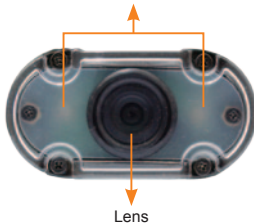
Illumination LEDs



Lens

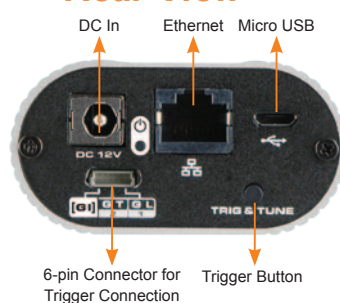
ITDB-100HD Front

Illumination LEDs



Lens

### Rear View



DC In

Ethernet

Micro USB

DC 12V

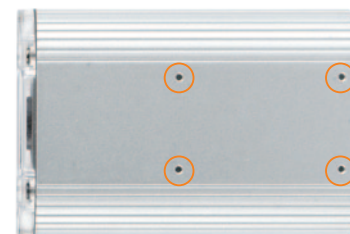
6-pin Connector for Trigger Connection

TRIG &amp; TUNE

Trigger Button

### Bottom View

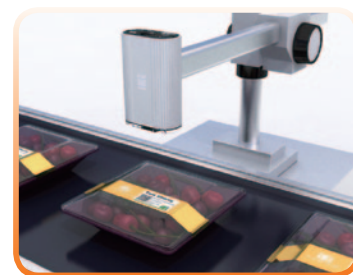
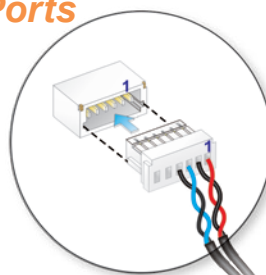
The bottom surface of the ITDB-100 Series contains four retention screw holes for the mounting bracket.



## 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

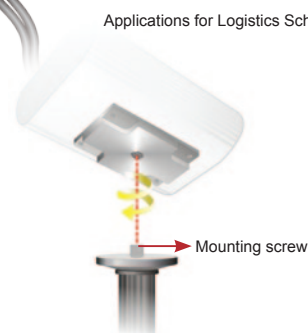
### Mounting Way



Mounting bracket size (50x31x8 mm)



Mounting bracket screw size: M2



Mounting screw

## Successful Product Features

### Ease of Connectivity

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

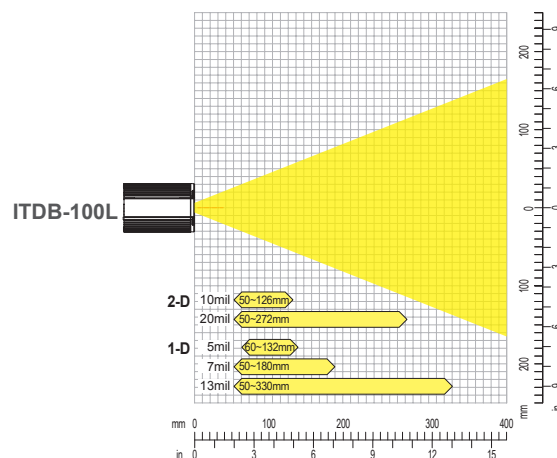


### Easy to Read

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

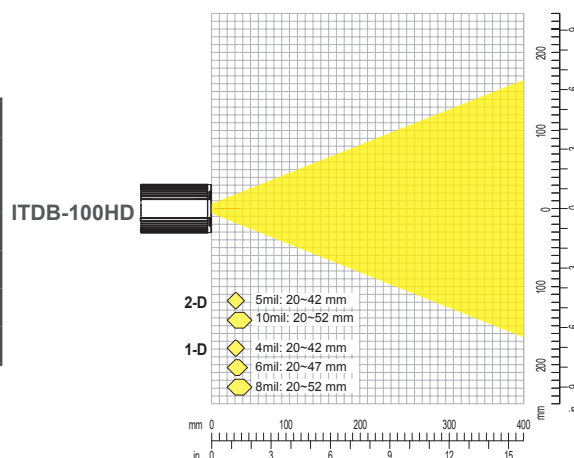
### ITDB-100L Decode Range

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.

## 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.

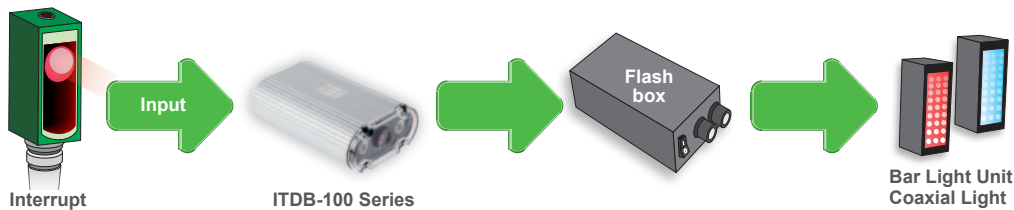


### Pharmaceuticals

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

## 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.

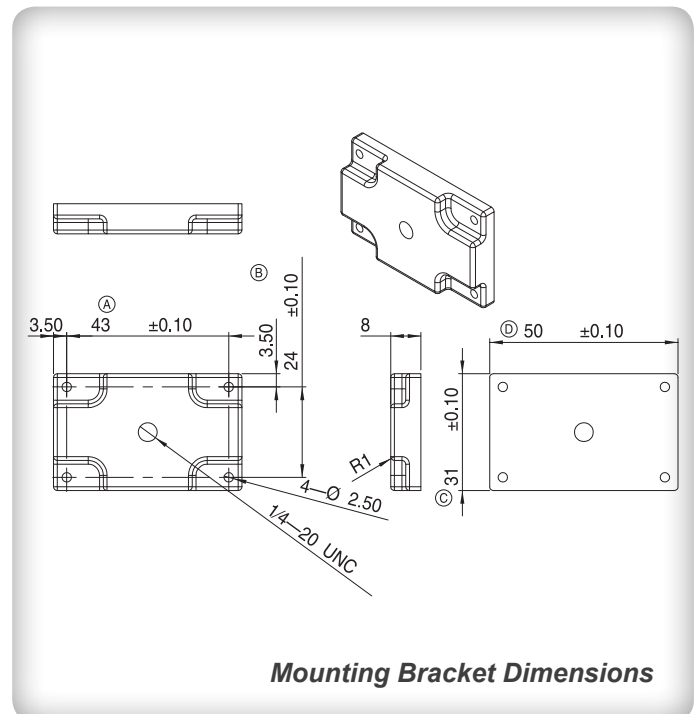
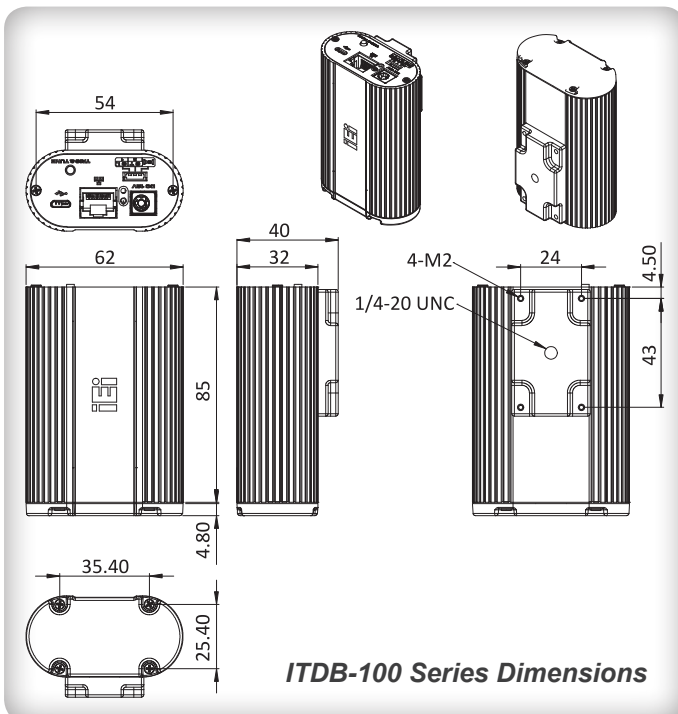


\* I/O usage example: An ITDB attached to a photoelectric sensor and to a flash power controller system.

### Accessories

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

## Dimensions (Unit: mm)



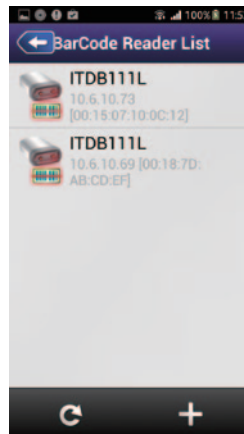


## IEI Barcode Solution

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.



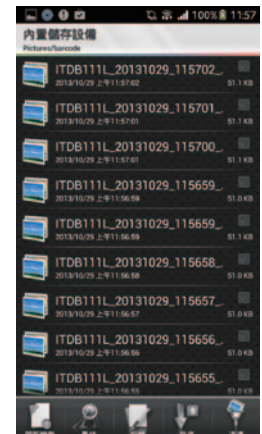
Scan this code with your phone to go to the Android Market and download the app for **FREE**.



Select an ITDB device

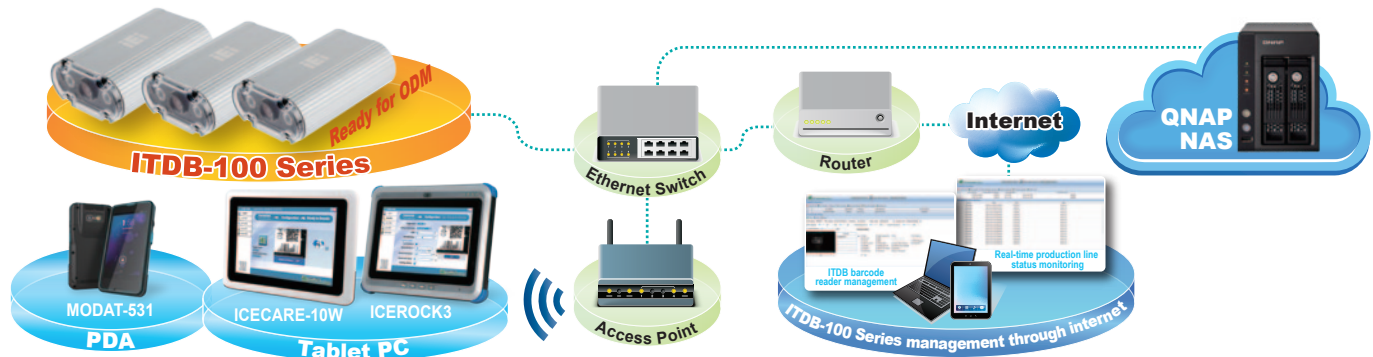


Quick setup & ready to decode



Can't decode? Report IEI with the saved image

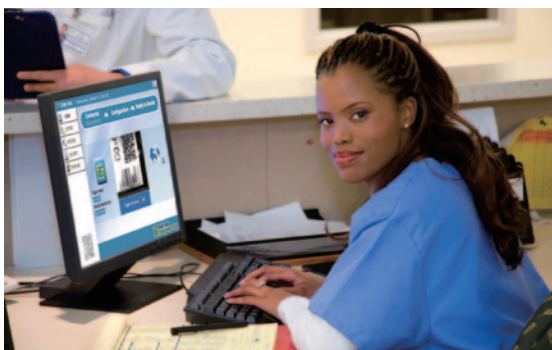
Installing ITDB Series barcode reader with QNAP NAS system allows you to manage your production lines in a more efficient way. An ITDB system that runs over an IP network infrastructure enables the decoded images and results to be distributed to any number of sites (e.g. QNAP NAS, Android tablet or phone 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.



### ■ ITDB Control Platform:

- Windows® 7/8.1 32-bit & 64-bit
- Android OS 4.1.2 or above
- QNAP NAS

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

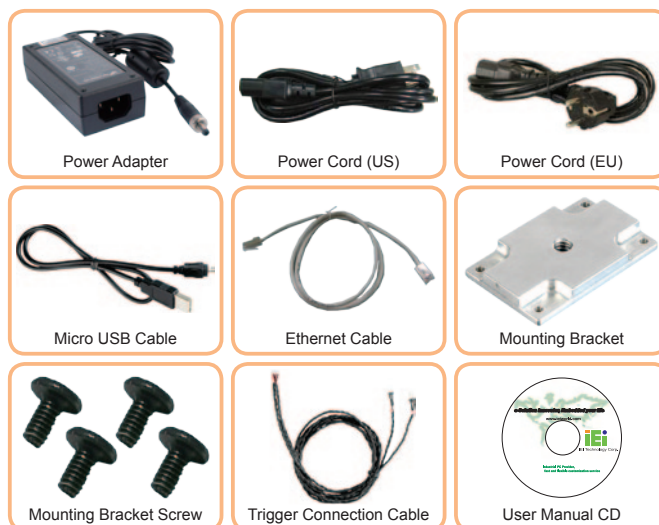
## Specifications

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



## 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
User Manual and Utility CD	7B000-000966-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