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# IG820/IG821

## Area Imager Barcode Scanner

### Introduction

IG820/IG821 is a brand new general purpose gun-type Area Imager Barcode Scanner which is designed especially for retail, logistic and warehousing management market. We include friendly functions with replaceable multiple interface cable options that makes it more easily to be operated by the customers to accommodate itself to user environment.

IG820/IG821 has most modern design with rugged casing and supports IP42 sealing protection, with its unmatched performance for the majority of 1D and 2D bar codes increasing your productivity. An optional stand can be ordered to facilitate hand-free reading application.

At auto-sense mode, it senses an object approaching and turns on the light to read barcodes. With its Intelligent Activation, it automatically switches over from button trigger mode to auto-sense mode while placing scanner on its stand.

In short, IG820/IG821 provides customer with the most cost-effective solution in the market. It is perfectly suitable and definitely the best choice for any retail and logistic environment.

### Features

- Support 1D, 2D and GS1 Databar codes.
- Good reading performance, e.g. good reading of QR code in 30% damage or even one finder pattern is missing.
- Good performance on both display and printed label reading.
- Support automatic sense reading and is able to read under 0 Lux dark environment.
- Support multiple interface options, USB HID, Virtual COM and RS-232.
- Designed as IP42 sealing protection.
- With intelligent activation\*, it automatically switches over to automatic-sense reading while placed on the stand.

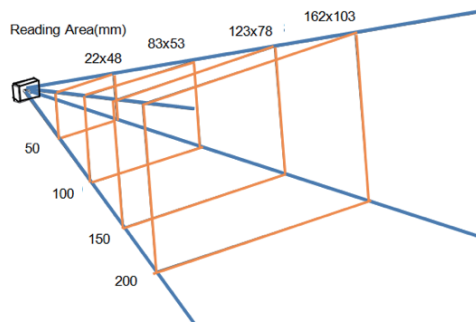
Note: \*Only for IG821

- Both contact and air 16KV Electro-Static discharge.
- A stand option can be ordered to facilitate hand-free reading options.
- Vibration when scanning (optional)
- Applicable on Android tablet or smart phone with optional cable.



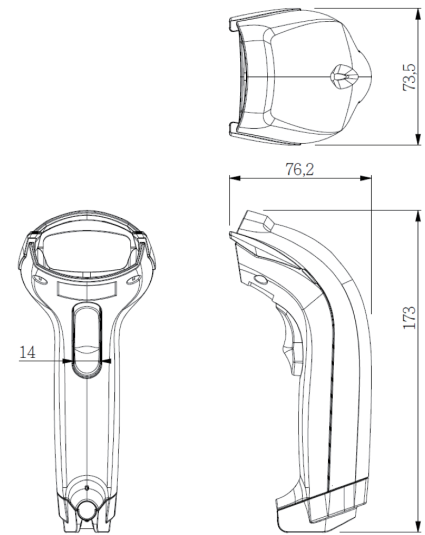
# IG820/IG821

Barcode	Depth of field
3mil Code39	30~60 mm
4mil Code39	20~90 mm
5mil Code39	20~100 mm
6mil Code39	20~110 mm
10mil Code39	20~150 mm
13mil Code39	20~180 mm
20mil Code39	20~250 mm
20mil QR Code	30~150 mm
10mil PDF417	30~110 mm
20mil PDF417	30~150 mm
20mil Data Matrix	30~200 mm



Note:

1. The test is under ambient light 700 ~ 800 Lux.
2. Reading area



**Mechanical Drawing**  
Unit: mm

## Specifications

### Physical Characteristics

<b>Weight</b>	
Body weight	Approx. 110g / 3,88 oz
<b>Material</b>	
	ABS / Rubber
<b>Cable Length</b>	
	5FT. ( 150cm )
<b>Dimension</b>	
	73.5 mm W x 76.2 mm H x 173.0 mm L
<b>Color Available</b>	
	Black/Gray

### Electrical Characteristics

<b>Interface</b>	RS232	USB
<b>Supply Voltage</b>		
<b>Output Voltage (Typ.)</b>	±9V	+5V
<b>Output low Voltage (Max.)</b>	-	0.7V
<b>Current Draw</b>		
<b>Stand by (Typ.)</b>	180 mA	180 mA
<b>Operation (Typ.)</b>	360 mA	360 mA

### Performance

<b>Light Source</b>	White light LED
<b>Sensor</b>	752 (H) x 480 (V) pixels
<b>Field of view</b>	Horizontal - 40°, Vertical - 25°
<b>Scan Rate</b>	60 fps (at full resolution)
<b>Reading Distance</b>	250mm@20mil/0.5mm, PCS90%
<b>Print Contrast Ratio</b>	PCS45%@5mil/0.127mm
<b>Resolution</b>	3mil/0.076mm@PCS90% Code39, 10mil/.26mm@PCS90% QRCode
<b>Reading Angle</b>	<i>Test Conditions : Code 39, 10mil/0.25mm,PCS90%</i>
<b>Pitch Angle</b>	5°~60° (±5°)
<b>Skew Tolerance</b>	5°~60° (±5°)
<b>Ambient Light</b>	100,000 Lux Max.

### Environmental

<b>Operating Temperature</b>	0 °C to 50 °C (32 °F to 122 °F)
<b>Storage Temperature</b>	-20 °C to 70 °C (-4 °F to 158 °F)
<b>Relative Humidity</b>	20% to 95% (Non-condensing)

### Reliability

<b>Life Time</b>	
<b>Trigger Switch</b>	1,000,000 times @1kg ±50g cycles
<b>MTBF(Calculated)</b>	50,000 hours
<b>Thermal Shock</b>	
<b>High Temp.</b>	60 °C (140 °F)
<b>Low Temp.</b>	-20 °C (-4 °F)
<b>Cycle time</b>	30 minutes for high temp. , 30 minutes for low temp.
<b>Cycles</b>	24 cycles
<b>Cable Bending Test</b>	25,000 times minimum (30 times/min @ 200g/90°)
<b>Drop Resistance</b>	70.86 inches (180cm) drop on concrete surface
<b>Electro-Static Discharge</b>	Both contact and air at up to 16KV

### Readable Symbologies

#### 1D Symbologies

UPC-A, UPC-E, EAN-8/JAN-8, EAN-13/JAN-13, Code 39, Code 128, Interleaved 25, Industrial 25, Matrix 25, Codabar/NW7, Code 93, China Post, MSI/Plessey, Telepen, GS1 Databar Omni-directional, GS1 Databar Limited, GS1 Databar Expanded

#### 2D Symbologies

Data Matrix, PDF 417, QR Code  
Option:  
Aztec, Micro PDF 417, Micro QR Code, Han Xin Code, GM Code

Due to Champtek/Scantech ID's continuing product improvement programs, specifications and features are subject to change.