IG1020
Wireless DPM Barcode Scanner
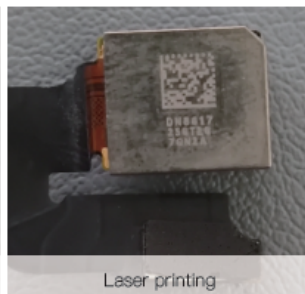
SCANTECH ID®
CHAMPTEK Group

Introduction

IG1020 is a high performance wireless industrial handheld 2D and DPM barcode scanner.

It utilizes advanced CMOS imaging recognition technology and an intelligent image recognition system, equipped with 1.3 million pixel global exposure camera, which effectively handles barcodes with dirt, defects, and low contrast . It is mainly used in DPM barcode scanning in industrial production, machinery manufacturing, PCB production and other scenarios.

It has most modern design with rugged casing and supports IP65 sealing protection, features enhanced wireless 2.4G RF and Bluetooth transmission technologies, with an effective range of over 60 meters in open outdoor environments. With its unmatched performance for the majority of 1D, 2D and DPM barcode reading to increase your productivity.

Features

- It is anti-drop and anti-vibration with highly integrated 2D decoding structure.
- Its high-performance MCU to easily identify the mainstream 1D, 2D and DPM barcodes in the market.
- Built in 1.3 megapixel global exposure camera that has excellent performance in reading 3mil and DPM codes in reflection, low contrast, perforation, distortion, corrosion on plastic, cast iron, PCB, aluminum and other types of DPM materials with processes such as drilling, laser printing, mechanical impact, etching.
- Enhanced wireless 2.4G RF transmission technology, with a reliable outdoor transmission range of over 60 meters.
- Supports synchronous mode (scan and transmit immediately) and storage mode, capable of storing over 20,000 EAN13 product codes.
- Communication configuration (1) Scanner to cradle via wireless 2.4G RF, cradle to PC host is via a wired USB cable (setup as USB-KBW or USB-COM) or (2) Scanner to PC/host via Bluetooth 4.2, cradle is for charging.
- Vibration feedback for clearer scanning.

Drilling DPM   Laser printing   Mechanical impact   Etching

IG1020

Depth of Field

Barcode Type	Barcode Density	Minimum	Maximum
Code 39	0.076mm(3mil)	40mm	75mm
Code 39	0.127mm(5mil)	30mm	90mm
Data Matrix	0.127mm(5mil)	40mm	70mm

Specifications

● Physical Characteristics

Weight	Scanner approx. 228g (incl. Battery)
Cable Length	1.5 meters
Dimension	Scanner : 72.00(W) x 171.21(H) x 80.9mm(L)
	Cradle : 94.0(W) x 75.8(H) x 122.5mm(L)
Color	Black and Light gray

● Performance

Light Source	White light illumiation, Red bar aimer
Sensor	1.3m / 1280*1024 pixels
Field of view	Horizontal – 40°, Vertical – 34°
Scan Speed	65 cm per second
Reading Distance	450mm@20mil/0.5mm, PCS90%, QRCode
Print Contrast Ratio	≥20%
Resolution	1D: 3mil/0.076mm PCS90%, Code39
	2D: 5mil/0.127mm PCS90%, DM code
Scanning Mode	Trigger, Induction, Continuous
Indicatior	LED, Buzzer, Vibrator
Storage Capacity	350KB (over 20,000 EAN13 codes)
Communication Mode	Synchronous or Storage mode

Reading Angle	
Pitch Angle	5°~60° (±5°)
Skew Tolerance	5°~60° (±5°)
Rolling	±360°
Ambient Light	Dark Environment, Indoor Natural Light
Sealing	IP65 water and dust protection

● Power

Voltage Battery	Li-Ion 3.7V/2600mAh
Recharge time	Approx. 5 hours (5V@1000mA)
Reads per charge	20,000Times in continuous read

● Radio Characteristics

Wireless Standard	2.4GHZ（ISM frequency band）, Bluetooth 4.2
Frequency Band	2.402GHz~2.480GHz
Transmission Range	>= 60m line of sight for 2.4G RF to cradle, up to 30m for Bluetooth 4.2 to host device

● Environmental

Operating Temperature	-20 °C to 50 °C (-4 °F to 122 °F)
Storage Temperature	-40 °C to 70 °C (-40°F to 158 °F)
Relative Humidity	5% to 95% (Non-condensing)
Vibration Test	10H@125RPM

● Reliability

Life Time	
Trigger Switch	1,000,000 times @1kg ±50g cycles
MTBF (calculated)	50,000 hours
Thermal Shock	
High Temp.	60 °C (140 °F)
Low Temp.	-20 °C (-4 °F)
Cycle time	30 minutes for high temp. , 30 minutes for low temp.
Cycles	24 cycles
Cable Bending Test	25,000 times minimum (30 times/min @ 200g/90°)
Drop Resistance	59.05 inches (150cm) drop on concrete surface

● Readable Symbologies

Code Symbologies
1D：UPC-A, UPC-E, EAN-8, EAN-13, Code 128, Code 39, Code 93, Interleaved 2 of 5.
2D: QR , Data Matrix, Micro QR , Aztec and Hanxin Code.

Good performance to read DPM barcode

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