S0703 SERIES

2D Scan Engines

Slim undecoded 2D Imager,SR (Standard Range), Optics, Advanced Laser

The S0703 Series 2D barcode scan engine is designed to provide high performance, motion-tolerant, reliable barcode scanning for mobile computers used in scan-intensive workflows in retail, healthcare, warehouse and transportation and logistics applications.

The S0703's MIPI interface simplifies integration into mobile devices and its compact dimensions (7.6 mm [0.30 in] height x 10.13mm [0.4 in] depth) free up room for other technology integration in compact mobility devices.

The S0703 Series features high motion tolerance, enabling increased scanning speed and productivity. The choice of high brightness LED and laser aiming systems provides the flexibility to better suit customer application requirements and environments while further improving aimer visibility for the users. Low power consumption (210 mA at 3.6 V, maximum) increases mobile computer battery life.

Customer has choices between host decode and Gen7M MIPI decoder board depending on their intergration needs.



S0703

The S0703 can help the enterprise mobility, tablet, sled and wearable device maker lead the way in offering products that may exceed general industry standards for scanning performance, reliability and integration flexibility.

Potential applications include use in professional-grade mobile devices such as tablets, wearable scanners, mobile terminals, accessories in retail stores, warehouses, and healthcare facilities, as well as delivery, pickup/drop-off, and field servicing.

FEATURES AND BENEFITS

- At 7.6 mm, the slim height makes it easier to fit today's and tomorrow's compact devices.
- Wider operational temperature range increases potential applications.
- Read UPC codes up to 573 mm (22.5in)
- Lower power consumption increases battery life.
- MIPI interface availability helps simplify integration.
- Laser aiming systems to better suit application requirements while improving aimer visibility.
- Supports Honeywell optional functionalities such as OCR and EasyDL.



Figure 1. Advanced Red Laser Aimer

LASER LIGHT-DO NOT STARE INTO BEAM RAYONNEMENT LASER-NE PAS REGARDER DANS LE FAISCEAU. MAX. 1 mW: 650 nm. IEC 60825-1:2007 and IEC 60825-1:2014. Pulse duration of 16.8 mSec. Complies with 21CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.
CLASS 2 LASER PRODUCT.
APPAREIL Á LASER DE CLASSE 2.

Honeywell

S0703 SERIES Technical Specifications

TABLE 1. MECHANICAL

CHARACTERISTIC	PARAMETER
DIMENSIONS	(H x W x D) 7.6 x 23.5 x 10.13 mm (0.30 x 0.93 x 0.4 in)
WEIGHT	2.5 g [0.08 oz]
INTERFACE	MIPI

TABLE 2. ELECTRICAL

CHARACTERISTIC	PARAMETER
INPUT VOLTAGE	3.0 V to 3.6 V
TYPICAL CURRENT	laser aimer: 210 mA

TABLE 3. ENVIRONMENTAL

CHARACTERISTIC	PARAMETER
OPERATING TEMPERATURE[1]	-30°C to 60°C [-22°F to 140°F]
STORAGE TEMPERATURE	-40°C to 70°C [-40°F to 158°F]
HUMIDITY (OPERATING AND STORAGE)	up to 95% RH, non-condensing at 60°C [140°F]
SHOCK	3500 G for 0.4 ms at 23°C [73°F]
VIBRATION	3 axes, 1 hour per axis: 2,54 cm [1 in] peak-to-peak displacement (5 Hz to 13 Hz), 10 G acceleration (13 Hz to 500 Hz), 1 G acceleration (500 Hz to 2,000 Hz)
AMBIENT LIGHT[2]	0 lux to 100,000 lux (total darkness to bright sunlight)
MEAN TIME BETWEEN FAILURE (MTBF)[3]	345,000 hr (with laser aimer)

TABLE 4. PERFORMANCE

CHARACTERISTIC	PARAMETER
SENSOR	1280 X 800 global shutter
ILLUMINATION	white LED: exempt risk group
OPTICS	SR (standard range)
AIMING	advanced red laser: cross target and framers
TYPICAL FRAME RATE	up to 60 frames/s
MOTION TOLERANCE 600	cm/s [236 in/s] maximum
FIELD OF VIEW	horizontal: 48°, vertical: 31°
SCAN ANGLES	tilt: 360°, pitch: ±60°, skew: ±60°
SYMBOL CONTRAST	20% minimum print contrast ratio
RESOLUTION	SR optics: 3 mils C39 (1D), 7 mils Data Matrix (2D), 7mils QR (2D), 4 mils PDF 417 (2D stacked)
WARRANTY	15-month limited warranty; the warranty period starts at date of shipment from Honeywell to customer

TABLE 5. SYMBOLOGIES

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Linear: Codabar, Code 11, Code 128,Code 2 of 5, Code 39, Code 93 and 93i, EAN/JAN-13, EAN/JAN 8, IATA Code 2 of 5, Interleaved 2 of 5, Matrix 2 of 5, MSI, GS1 Databar, UPC-A, UPC E, UPC-A/EAN-13 with Extended Coupon Code, Coupon **GS1 Code 32(PARAF), EAN-UCC Emulation, GS1 Data Bar**
2D Stacked: Codablock A, Codablock F, PDF417, MicroPDF417
2D Matrix: Aztec Code, Data Matrix, MaxiCode, QR Code, Chinese Sensible (Han Xin), Grid Matrix, Dot Code
Postal: Australian Post, British Post, Canadian Post, China Post, Japanese Post, Korea Post, Netherlands Post, Planet Code, Postnet

TABLE 6. S0703-SR READ RANGES (TYPICAL, WHITE ILLUMINATION)[4]

SYMBOLOGY	NEAR DISTANCE (MM [IN])	FAR DISTANCE (MM [IN])	DELTA (MM [IN])
13 MIL UPC	44 [1.73]	573 [22.5]	529 [20.77]
5 MIL C39	70 [2.76]	301 [11.85]	231 [9.09]
10 MIL C39	40 [1.57]	517 [20.3]	477 [18.73]
20 MIL C39	47 [1.85]	800 [31.5]	756 [29.77]
15 MIL C128	42 [1.65]	650 [25.6]	608 [23.95]
10 MIL DM	72 [2.84]	297 [11.7]	225 [8.86]
6,7 MIL PDF417	84 [3.3]	244 [9.6]	160 [6.3]
15 MIL QR	39 [1.54]	414 [16.3]	375 [14.76]

1. Extreme temperatures will reduce the depth of field.
2. Extreme ambient light conditions will reduce the depth of field.
3. Based on MIL-HDBK-217F (released December 1, 1991). The calculation is based on the part count method for the Ground Benign (GB) environmental conditions.
4. Barcode quality and environmental conditions may affect performance.

For more information
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