C2100 SERIES

COMPACT, UNDECODED 2D CAMERA MODULE

The C2100 Series Undecoded 2D Camera Module is a new, optical hardware offering. When bundled with the SwiftDecoder™ SDK (Software Development Kit), this product provides the first HaaS (Hardware-as-a-Service) offering which utilizes Honeywell's latest imaging and decoding technology.

Honeywell's new C2100 Series 2D Camera Module offering delivers fast, responsive performance to address a vast range of entry level scanning applications across industries. Built on Honeywell's powerful decoding platform and performance, the C2100 Series provides an easier to-integrate, enhanced-performance device which fits into sleeker device designs.

The C2100 Series provides footprint flexibility with its compact dimensions of 6,7 mm [0.26 in] height x 6,9 mm [0.27 in] width x 4,5 mm [0.17 in] depth. Its sleek size not only enables additional technology integration, it's naturally designed for retail mobile Point-of-Sale (mPOS) solutions. The MIPI interface provides a more seamless integration across a range of processor interfaces.

Based on a VGA sensor, the C2100 Series leverages global shutter technology with an image capture rate of 120 fps maximum. The C2100 Series is perfectly designed for on-screen barcodes with backlight from the display without the need for illumination. Customers may also design in additional illumination based on their application needs

The wide operational temperature range of -30° C to 60° C [-22° F to 140° F] allows expansion into more demanding applications. The lower power consumption (120 mW) increases the battery life provided by a single charge.



C2100 Series camera module

The C2100 Series comes bundled with Honeywell's SwiftDecoder, a comprehensive SDK for developing and deploying software solutions on any platform. SwiftDecoder has capabilities that help meet the most demanding applications for reading barcodes across workflows and industry profiles such as healthcare, retail, transport and logistics, etc.

Applications developed using SwiftDecoder's proprietary, field-proven algorithms improve productivity by increasing the speed and accuracy of scanning and decoding barcodes. SwiftDecoder offers comprehensive support for barcode symbologies which means higher productivity, reduced costs, and ultimately happier returning customers.

FEATURES AND BENEFITS



Extremely small form factor allows an easier fit into most scanning devices. MIPI interface availability helps simplify integration.



Reduced cost for entry level barcode scanning applications.



Wider operational temperature range increases potential applications. Lower power consumption increases battery life.



SwiftDecoder enables your applications for faster, more accurate barcoded decoding capabilities. It goes beyond barcodes by adding capabilities such OCR-A/B for text data parsing, enables parsing of barcode 417 data found on common documents such as driving licenses, boarding passes, and even vehicle certification titles, when available.



Supports optional Honeywell functionalities such as OCR and EasyParse for potential use with driving licenses and boarding passes.



C2100 SERIES Technical Specifications

TABLE 1. MECHANICAL				
CHARACTERISTIC	PARAMETER			
Dimensions	6.7~mm [0.26 in] height x $6.9~mm$ [0.27 in] width x $4.5~mm$ [0.17 in] depth			
Weight	0,21 g [0.007 oz]			
Interface	MIPI			
TABLE 2. ELECTRICAL				
CHARACTERISTIC	PARAMETER			
Input voltage	A_{VDD} : 2.8 V ±0.1 V D_{VDD} : 1.5 V ±0.1 V DO_{VDD} : 1.8 V ±0.1 V			
	D 0 (III). 1.0 V 10.1 V			

TABLE 3. PERFORMANCE			
CHARACTERISTIC	PARAMETER		
Sensor technology	global shutter		
Resolution	640 pixel x 480 pixel		
Imaging speed	120 fps		
Field of view	horizontal: 42°, vertical: 32°		
Warranty	15-month limited warranty; the warranty period starts at date of shipment from Honeywell to customer.		

TABLE 4. ENVIRONMENTAL				
CHARACTERISTIC	PARAMETER			
Operating temperature	-30°C to 60°C [-22°F to 140°F]			
Storage temperature	-40°C to 85°C [-40°F to 185°F]			
Humidity (operating and storage)	85 %RH ±0.3RH at 120 hr			
Shock	3500 G for 0.4 ms at 23°C [73°F]			
Vibration	frequency range: 40 Hz amplitude: 0.5 mm [0.02 in] duration: 1 h for each x, y, z direction			
Mean time between failure (MTBF)	20,408,163 hr			

TABLE 5. SYMBOLOGIES

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

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. READ RANGES*					
SYMBOLOGY	NEAR DISTANCE (MM [IN])	FAR DISTANCE (MM [IN])	DELTA (MM [IN])		
10 MIL QR	41	177	136		
	[1.61]	[6.97]	[5.34]		
13 MIL UPC	44	357	313		
	[1.73]	[14.06]	[12.32]		
20 MIL C39	71	593	522		
	[2.80]	[23.35]	[20.55]		
SCREEN QR	80	835	755		
	[3.15]	[32.88]	[29.72]		

^{*} Tested under 200 lux environment light.

FIGURE 1. DIMENSIONAL DRAWINGS (FOR REFERENCE ONLY (MM/IN)

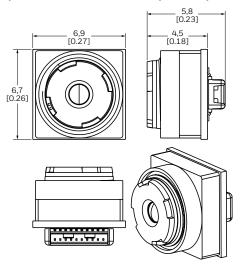


FIGURE 2. PROTECTIVE COVER



WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgment or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items that Honeywell, in its sole discretion, finds defective. The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.

While Honeywell may provide application assistance personally, through our literature and the Honeywell web site, it is buyer's sole responsibility to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this writing. However, Honeywell assumes no responsibility for its use.

ADDITIONAL INFORMATION

- Integration Manual is available upon request; contact your Honeywell representative
- For a listing of common compliance approvals and certifications, visit our website.

NOTICE MISUSE OF DOCUMENTATION

- The information presented in this datasheet is for reference only. Do not use this document as a product installation guide
- An installation manual is available by request on our <u>website</u>. Please contact your Honeywell sales representative

FOR MORE INFORMATION

To learn more about Honeywell scan engines and barcode decoding software, visit our website.

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