GRANIT™ ULTRA 2100i

Ultra-Rugged Corded Area-Imaging Scanner

Honeywell Granit Ultra 2100i Ultra-Rugged Scanner

> **Granit Ultra scanners expand capabilities and define the next generation of ultra-rugged scanning.**

ULTRA SCAN PERFORMANCE

For a scanner to optimize productivity, it should read and transmit common barcodes nearly as fast as the user can pull the trigger, and Granit Ultra is engineered to do just that. Granit Ultra integrates high speed processing, AI(Artificial Intelligence) algorithms, and decoding enhancements to result in an average 45% scanning speed increase vs. Granit XP[1], enabling improved productivity.

ULTRA DURABILITY

In modern warehouse, distribution center, and manufacturing environments, any scanner must be durable enough to survive harsh operating conditions. Under exactly that kind of rough treatment, Honeywell Granit Ultra is ready to deliver.

ULTRA EASE OF USE

Ready to operate right out of the box for many applications, Granit offers easy custom configuration in the time it takes to scan a barcode. For further workflow improvement, Granit can also read multiple codes in the field of view, organizing and outputting the data in a predefined order using Honeywell's Data Format Editor.

SCAN MODELS

SR (Standard Range) models are ready to read barcodes from contact to arms length

XR (Expanded Range) models are ready to read UPC/EAN13 from contact to nearly 6' (1.8m), or up to 33' (10.85m) for 100 mil Code 39

XLR (Ultra Long Range) models are ready to read barcodes up to 98' (30m) for 100mil Code 39

FEATURES AND BENEFITS

Built to survive harsh treatment including 3m (10ft) drops, 7500 1m (3.3ft) tumbles, operating temperatures from -30°C to 50°C (-22°F to 122°F), and IP65/68 sealing, Granit Ultra reduces service costs and increases device uptime

Granit Ultra provides rapid scanning, even on damaged and low quality barcodes. High quality barcodes transmit faster than ever.

SR model reads from contact to arms length. XR model is ideally suited to near and mid-field scanning operations on 1D and 2D barcodes. The XLR model is designed for ultra long range barcode reading.

The Honeywell Scanner Management Utility (SMU) creates a holistic solution that automates how you deploy and update the scanners in your environment.

Granit Ultra 2100i Technical Specifications

MECHANICAL

Scanner dimensions (L x W x H): 194.8mm × 75.8mm × 139.5mm (7.7 in × 3.0 in x 5.5 in)

Scanner Weight: 330g (11.64 oz)

User Indicators: Good decode LEDs, Beeper (adjustable tone and volume), Vibration (adjustable)

ELECTRICAL

Input Voltage: 4.0 VDC to 5.5 VDC

Operating Power: 2.15W (430mA @ 5VDC)

Standby Power: 0.875W (175mA @ 5VDC)

Host System Interfaces: USB, Keyboard Wedge, RS-232 TTL (cables available to convert for +/-12V True use)

ENVIRONMENTAL

Operating Temperature : -30°C to 50°C (-22°F to 122°F)

Storage Temperature: -40°C to 70°C (-40°F to 158°F)

Humidity: Up to 95% relative humidity, non-condensing

Drop:

3m (10 ft): MIL-STD-810G, 25°C (77°F), 55% relative humidity

2.5m (8.2 ft): 20 drops from -30°C to 50°C (-22°F to 122°F), 55% relative humidity

2m (6.5 ft): 50 drops from -30°C to 50°C (-22°F to 122°F), uncontrolled relative humidity

Tumble: 7,500 1m (3.3ft) tumbles

Vibration: Withstands 5G peak from 5 to 300Hz

Trigger activations: Tested to 3 million cycles

Environmental Sealing: IP65 and IP68

Light Levels: 0 to 100,000 lux (9,290 foot- candles)

ESD: +/-20KV air discharge, +/-8kV contact discharge, +/-8kV indirect coupling plane

SCAN PERFORMANCE

Scan Pattern –SR : Area imager (1280x1080 pixel array)

Scan Pattern -XR: Near and Far: Area imager (1280x1080 pixel array)

Scan Pattern -XLR: Near and Far Area Imager (1920x800 pixel array)

Illumination-SR: Warm White 2700K LED

Illumination-XR/XLR: Yellow-Green LED

Aimer -SR: Green LED, 525nm peak wavelength

Aimer-XR/XLR: Green class 2 laser, 520nm peak wavelength

Motion Tolerance: Up to 4000 mm/s

Scan Angle (Field of View):

SR: Horizontal: 42°, Vertical 36°
XR–Near: Horizontal 42°, Vertical 36°
XR-Far: Horizontal 16°, Vertical 14°
XLR-Near: Horizontal: 45°, Vertical 19.6°
XLR-Far: Horizontal 13.7°,Vertical 5.7°

Print Contrast: As low as 15%

Roll, Pitch, Skew: +/-360°, +/-65°, +/-65°

Minimum Barcode Resolution: 2.5 mil 1D, 5 mil 2D

Image Capture: Up to 109PPI on an A4 document

Decode Capabilities[2]:

1D: Code 39, code 128, code 93, code 11, code 32 Pharmaceutical, EAN, UPC, codabar, China Post, GS1 databar

2D: Aztec, Data Matrix, QR/Micro QR code, Maxicode, Chinese sensible (Han Xin) code, postal code, PDF417, DotCode,

Digital Watermarking: Digimarc

OCR: OCR A, OCR B, MICR E-13B and SEMI Font, in a 6 to 60 point OCR typeface

Note: Decode capabilities dependent on configuration.

REGULATORY[3]:

EMC: EN55032, EN55035, EN61000-3-2, EN61000-3-3, FCC Part 15 Subpart B, ICES-003 Issue 7

Safety, Health and Environmental Compliance: EN62368-1, IEC 62368-1, IEC62471, IEC-63000(ROHS), UL 62368-1, CSA C22.2 NO. 62368-1, IEC60825 for XR model (laser)

Accessories: Stands, holders, holsters, power supplies, cables, heaters.

Warranty: Three-year factory warranty

Services: Honeywell Edge Service

Utilities and Management: EZConfig, SMU, Total Freedom, Scanner Edge, SDKs, Various Drivers

SYMBOLOGY[4]	STANDARD RANGE(SR) - TYPICAL		EXPANDED RANGE(XR) - TYPICAL		ULTRA LONG RANGE (XLR) - TYPICAL	
	NEAR DISTANCE (MM [IN])	FAR DISTANCE (MM [IN])	NEAR DISTANCE (MM [IN])	FAR DISTANCE (MM [IN])	NEAR DISTANCE (MM [IN])	FAR DISTANCE (MM [IN])
5 mil C39	10 [0.39]	269 [10.59]	10 [0.39]	269 [10.59]	82 [3.23]	1,665 [65.55]
10 mil C128	0 [0.0]	531 [20.91]	0 [0.0]	1,503 [59.17]	43 [1.69]	3,032 [119.37]
13 mil UPC	0 [0.0]	634 [24.96]	0 [0.0]	1,780 [70.08]	19 [0.75]	3,679 [144.84]
20 mil C128	0 [0.0]	1,033 [40.67]	0 [0.0]	2,812 [110.71]	-	7,504 [295.43]
100 mil C39	-	-	-	10,848 [427.09]	-	29,918 [1,177]
10 mil DataMatrix	5 [0.20]	261 [10.28]	5 [0.20]	261 [10.28]	90	1,566 [61.26]
20 mil QR Code	0 [0.0]	480 [18.9]	0 [0.0]	1,464 [57.64]	*	*
100 mil DataMatrix	-	-	-	5,329 [209.80]	-	15,029 [591.69]

* Comparable to 10mil C128 decoding range

1. Honeywell standard benchmarking testing conducted on Granit Ultra SR and XR models vs. Granit XP on 6 collections of reference barcodes

2. For a complete listing of all supported barcode symbologies, please visit http://honeywell.com/PSS-symbologies.

3. For a complete listing of all compliance approvals and certifications, please visit www.honeywell.com/PSScompliance.

4. Performance may be impacted by barcode quality and environmental conditions

For more information

automation.honeywell.com

Honeywell Industrial Automation

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800-582-4263
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To learn more about how Granit Ultra is ready to improve your operations, contact your Honeywell representative or partner today.

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The all new charge and communication base is loaded with features to simplify common tasks. Easy drop-in charging makes scanner placement in the cradle fast and efficient for flat work surfaces; engaging the latching mechanisms helps ensure secure retention for vertical or vehicle mounting.

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Granit Ultra 2105i Technical Specifications

MECHANICAL

Scanner dimensions (L x W x H): 194.8mm × 75.8mm × 139.5mm (7.7 in × 3.0 in × 5.5 in)

Charge and Communication Base dimensions (L x W x H): 250.1mm x 102mm x 80.7mm (9.8 in x 4.0 in x 3.2 in)

Weight-Scanner: 425g (15 oz)

Weight—Charge and Communication Base: 357g (12.6 oz)

User Indicators: Good decode LEDs, Battery Status LED, Bluetooth Connection Status LED, Beeper (adjustable tone and volume), Vibration (adjustable)

ELECTRICAL

Input Voltage: 4.4VDC to 5.5 VDC

Operating Power(Charging): 2.5W (500mA @ 5V USB 2.0)

Operating Power(Charging): 7.5W (1500mA @ 5V BC1.2 or external power supply)

Standby Power: 0.6W (120mA @ 5VDC)

Host System Interfaces: USB, Keyboard Wedge, RS-232 TTL (cables available to convert for +/-12V True use)

Charging time:

　USB 2.0: <12 hours

　USB BC1.2: <4 hours

　Power supply (5V 3A): <4 hours

POWER OPTIONS

Battery: 3300 mAh Li-ion

Number of scans: Up to 100,000 scans per charge

Expected duration of operation: 14 hours operating at 2 scans per second

RADIO

Bluetooth® v4.2;

2.4 to 2.5 GHz (ISM Band)

Adaptive Frequency Hopping

Class 1: 100m (330 ft) line of sight with Honeywell Charge and Communication Base

ENVIRONMENTAL

Operating Temperature(non-charging): –20°C to 50°C (–4°F to 122°F)

Storage Temperature: –40°C to 70°C (–40°F to 158°F)

Charging Temperature: 5°C to 35°C (41°F to 95°F)

Humidity: Up to 95% relative humidity, non-condensing

Drop:

　3m (10 ft): MIL-STD-810G, 25°C (77°F), 55% relative humidity

　2.5m (8.2 ft): 20 drops from –20°C to 50°C (4°F to 122°F), 55% relative humidity

　2m (6.5 ft): 50 drops from –30°C to 50°C (–22°F to 122°F), uncontrolled relative humidity

Tumble: 7,500 1m (3.3ft) tumbles

Vibration: Withstands 5G peak from 5 to 300Hz

Trigger activations: Tested to 3 million cycles

Environmental Sealing:

　Scanner: IP65 and IP68

　Charge and Communication Base: IP65

Light Levels: 0 to 100,000 lux (9,290 foot-candles)

ESD: +/-20KV air discharge, +/-8kV contact discharge, +/-8kV indirect coupling plane

SCAN PERFORMANCE

Scan Pattern -SR : Area imager (1280x1080 pixel array)

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Scan Pattern–XLR: Near and Far Area Imager (1900x800 pixel array)

Illumination-SR: Warm White 2700K LED

Illumination-XR/XLR: Yellow-Green LED

Aimer –SR: Green LED, 525nm peak wavelength

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Motion Tolerance: Up to 4000 mm/s

Scan Angle (Field of View):

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Print Contrast: As low as 15%

Roll, Pitch, Skew: +/-360°, +/-65°, +/-65°

Minimum Barcode Resolution: 2.5 mil 1D, 5 mil 2D

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Radio: FCC CFR Title 47 Part 15 Subpart C, RSS-Gen/ RSS-247, EN 300 328.

Accessories: Stands, holders, holsters, power supplies, cables, heaters, charge and communication bases, Bluetooth access points, batteries, and battery charger.

Warranty: Three years factory warranty (Battery - one year)

Services: Honeywell Edge Service

Utilities and Management: EZConfig, SMU, Total Freedom, Scanner Edge, SDKs, Various Drivers

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