Honeywell
THE POWER OF CONNECTED | Industrial Scanners

Granit 1981i

Wireless Industrial-Grade Full-Range Area-Imaging Scanner

The Granit™ 1981i wireless industrial-grade scanner features full-range area-imaging technology capable of reading both 1D and 2D barcodes across a wide range of distances. From poor-quality 2 mil codes scanned at close range to 100 mil codes hanging from warehouse rafters scanned at ranges of 52 feet (16m), the Granit 1981i scanner is built to perform. With an unmatched range and wireless freedom providing incredible versatility, the Granit 1981i scanner enables maximum operator productivity in the harshest environments.

The Granit 1981i scanner is packed with technologies that make it simple to use. An integrated laser pointer aiming system with auto-illumination, omnidirectional reading capability and support for centering take the guesswork out of scanning at extended ranges. Operators of fork trucks equipped with vehicle-mounted mobile computers, such as the Honeywell Thor™ series, will appreciate how the full-range scanning capability of the Granit 1981i scanner allows them to remain seated – and hence more productive – while scanning pallets at extended ranges. And with Bluetooth® technology, complete freedom of movement up to 100 m (330 ft) away provides additional operator convenience.

As a member of the Granit family of scanners, the Granit 1981i scanner is built to withstand the varied demands of harsh working environments. Incorporating the Granit housing that has long set the standard for scanner reliability, the Granit 1981i scanner is rated IP65 and is built to survive 5,000 tumbles from 1 m (3.3 ft) and 50 drops to concrete from 2 m (6.5 ft) – even in temperatures as low as -20°C (-4°F). As a result, operations that deploy Granit scanners can expect to experience minimal device downtime and a lower overall cost of ownership.

The Granit 1981i wireless area-imaging scanner takes the guesswork out of extended-range scanning, with the ability to read 1D and 2D barcodes from 15 cm (6 in) to 16 m (52 ft).

FEATURES & BENEFITS

The Granit 1981i scanner scans low-density (100 mil) codes out to 16 m (52 ft) and high-density (2 mil) codes at close range – and everything in between.

Tested to withstand the toughest environments, the Granit 1981i scanner is rated IP65 and can withstand 5,000 tumbles from 1 m (3.3 ft) and 50 drops to concrete from 2 m (6.5 ft).

A laser-spot aimer, omnidirectional scanning and features such as centering take the guesswork out of scanning at extended ranges.

Bluetooth wireless technology provides freedom of movement up to 100 m (330 ft) from the base and reduces interference with other wireless systems.

The Granit 1981i scanner can replace and consolidate multiple purpose-built scanners in typical distribution center and warehouse environments, providing a single scanning solution.

Granit 1981i Technical Specifications

WIRELESS

Radio/Range: 2.4 GHz to 2.5 GHz (ISM Band) Adaptive Frequency Hopping; Bluetooth v2.1: Class 1: 100 m (330 ft) line of sight

Data Rate (Transmission Rate): Up to 1 Mbps

Number of Scans: At least 7,200 (1 scan every 4 seconds for 8 hours)

Expected Hours of Operation: 8 hours

Expected Charge Time: 4.5 hours (with external power supply on charger)

Battery: 2400 mAh Li-Ion minimum

MECHANICAL/ELECTRICAL

Dimensions (L x W x H):

- **Scanner (1981iFR-3):** 133 mm x 75 mm x 195 mm (5.2 in x 2.9 in x 7.6 in)
- **Charger/Communication Base (CCB05-100BT-07N):** 250 mm x 103 mm x 65mm (9.9 in x 4.1 in x 2.6 in)

Weight:

- **Scanner:** 420 g (14.8 oz)
- **Charger/Communication Base:** 290 g (10.2 oz)

Operating Power:

- **Scanner:** N/A
- **Charger/Communication Base:** 5 W (1A @ 5 V)

Non-Charging Power:

- **Scanner:** N/A
- **Charger/Communication Base:** 0.6 W (0.12A @ 5 V)

Host System Interfaces:

- **Scanner:** N/A
- **Charger/Communication Base:** USB, Keyboard Wedge, RS-232 TTL

ENVIRONMENTAL

Operating Temperature:

- **Scanner:** -20°C to 50°C (-4°F to 122°F)
- **Charger/Communication Base:** -20°C to 50°C (-4°F to 122°F)

Storage Temperature with Battery:

- **Scanner:** -40°C to 70°C (-40°F to 158°F)
- **Charger/Communication Base:** -40°C to 70°C (-40°F to 158°F)

Humidity:

- **Scanner:** Up to 95% relative humidity, non-condensing
- **Charger/Communication Base:** Up to 95% relative humidity, non-condensing

Drop:

- **Scanner:** Designed to withstand 50 2 m (6.5 ft) drops to concrete at -20°C (-4°F)
- **Charger/Communication Base:** Designed to withstand 50 1.2 m (4 ft) drops to concrete at -20°C (-4°F)

Tumble:

- **Scanner:** 5,000 1 m (3.3 ft) tumbles
- **Charger/Communication Base:** 5,000 1 m (3.3 ft) tumbles

Environmental Sealing:

- **Scanner:** IP65
- **Charger/Communication Base:** IP51

Light Levels:

- **Scanner:** 0 to 100,000 lux (9,290 foot-candles)
- **Charger/Communication Base:** N/A

ESD:

- **Scanner:** ±20 kV air discharge, ±8 kV contact discharge
- **Charger/Communication Base):** ±20 kV air discharge, ±8 kV contact discharge

SCAN PERFORMANCE

Scan Pattern: Area Image

Scan Angle:

- **Horizontal:** 12.9°
- **Vertical:** 8°

Symbol Contrast:

- **1D Codes:** 30% minimum reflectance difference
- **2D Codes:** 40% minimum reflectance difference

Min. Resolution: 1D & 2D Codes: 2 mil

Pitch, Skew: 70°, 80°

Warranty: 3-year factory warranty (Note: Battery warranty is 1-year.)

SYMBOLOGY	BARCODE NARROW WIDTH	DEPTH OF FIELD (TYPICAL*)
CODE 39	7.5 mil	10.0 cm – 164.9 cm (3.9 in – 64.9 in)
	10 mil	10.0 cm – 216 cm (3.9 in – 85.0 in)
	20 mil	15.2 cm – 434.5 cm (6.0 in – 171.0 in)
	40 mil	36.4 cm – 989.1 cm (14.3 in – 389.4 in)
	55 mil	52.2 cm – 1322.4 cm (20.5 in – 520.6 in)
	100 mil	103.4 cm – 1600 cm (40.7 in – 629.9 in)
EAN/UPC	13 mil	12.2 cm – 229.8 cm (4.8 in – 90.5 in)
DATAMATRIX	7.5 mil	10.0 cm – 75.9 cm (3.9 in – 29.9 in)
	10 mil	10.0 cm – 102.3 cm (3.9 in – 40.3 in)
	55 mil	42.8 cm – 591.3 cm (16.9 in – 232.8 in)
	100 mil	80.7 cm – 1032.5 cm (31.8 in – 406.5 in)

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

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

For a complete listing of all supported barcode symbologies, please visit www.honeywellaidc.com/symbologies.

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For more information

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