# GRYPHON™ 4500-HC 2D SERIES

**◆DATALOGIC**
*EMPOWER YOUR VISION*

## THE PURPOSE OF BAR CODE READERS IN THE HEALTHCARE INDUSTRY

The key mission of scanners in the healthcare industry is to improve the quality of patient care while reducing medication errors. Additionally, healthcare environments have requirements that scanners need to be regularly cleaned and disinfected. The Datalogic Gryphon™ HC product series is specifically developed for healthcare applications with Disinfectant-Ready enclosures treated with anti-microbial additives and are designed to withstand daily cleaning with harsh disinfectant solutions.

The Gryphon 4500-HC 2D readers can decode virtually any 1D and 2D bar code symbology and can read codes from LCD monitors, cell phones, smartphones and other mobile devices. High Density (HD) models are also available for reading smaller, condensed codes.

Ideally suited for stationary applications in administration, laboratory and hospital environments, the GD4500-HC 2D desktop model offers an affordable corded solution, while the GM4500-HC 2D or GBT4500-HC 2D cordless models (STAR or Bluetooth®) provide extended mobility for cordless operations.

Datalogic distinctive reading technology with highly visible white-illumination is easier on the human eyes and reads colored labels better. The highly visible 4-Dot aimer provides a clear indication of the reading area, making targeting codes quick and easy. Datalogic's patented 'Green Spot' technology provides additional visual good-read confirmation which is ideal for quiet environments like bedside patient care.

One of the most important technical innovations that the Gryphon 4500 wireless readers achieve is the wireless charging system for the battery, which enhances the reliability of the entire solution, while lowering the total cost of ownership (no need for contact cleaning or maintenance procedures).

## ALL PRODUCTS

- Disinfectant-Ready enclosures treated with anti-microbial additives (ISO22196 and JISZ 2801 compliant models available)
- Motionix™ motion-sensing technology for seamless reading mode transitions
- Omnidirectional reading of 1D, 2D and postal codes plus stacked and composite codes
- Extremely snappy reading performance
- Extended reading distances and improved capability of reading small, condensed, curved, poorly printed, and reflective bar codes
- Advanced motion tolerance optics
- Highly visible 4-Dot aimer with center cross for targeted scanning
- Image capture and document scanning capabilities
- Datalogic's patented 'Green Spot' technology and exclusive 3GL™ (3 Green Lights) for superior good-read feedback
- USB Certified Kits Available
- ISO22196 Compliant Models Available

## Wireless Models

- Choice of Bluetooth wireless technology version 4.0 with BLE or Datalogic's STAR Cordless System (radio frequencies available in 433 MHz or 910 MHz)
- Datalogic's distinctive Wireless Battery Charging System
- Adjustable position cradle with Scan-While-Charging capability
- Batch Mode capability
- Point-to-point / Point-to-multi-point transmission
- Long lasting user-replaceable Lithium-Ion battery
- Vibration feedback

## GRYPHON™ 4500-HC 2D SERIES
# TECHNICAL SPECIFICATIONS

### DECODING CAPABILITY

| | |
|---|---|
| **1D / linear codes** | Autodiscriminates all standard 1D codes including GS1 DataBar™ linear codes. |
| **2D codes** | Aztec Code; China Han Xin Code; Data Matrix; MaxiCode; Micro QR Code; QR Code |
| **Postal codes** | Australian Post; British Post; China Post; IMB; Japanese Post; KIX Post; Planet Code; Postnet; Royal Mail Code (RM4SCC) |
| **Stacked codes** | EAN/JAN Composites; GS1 DataBar Composites; GS1 DataBar Expanded Stacked; GS1 DataBar Stacked; GS1 DataBar Stacked Omnidirectional; MacroPDF; MicroPDF417; PDF417; UPC A/E Composites |

### ELECTRICAL

| | |
|---|---|
| **Current** | Operating: <300 mA @ 5V; < 200 mA @ 12V<br>Standby/Idle: < 90 mA @ 5V; <50 mA @ 12V |
| **Input voltage** | GD4520: 5 VDC<br>GD4590: 4.5 - 14.0 VDC |

### ENVIRONMENTAL

| | |
|---|---|
| **Ambient light** | 0 - 100,000 lux |
| **Drop resistance** | Withstands repeated drops from 1.8 m / 6.0 ft onto a concrete surface. |
| **ESD Protection (Air Discharge)** | 16 kV |
| **Humidity (Non-Condensing)** | 0 - 95% |
| **Particulate and Water Sealing** | IP52 |
| **Temperature** | Operating: 0 to 50 °C / 32 to 122 °F<br>Storage/Transport: -40 to 70 °C / -40 to 158 °F |

### INTERFACES

| | |
|---|---|
| **Interfaces** | GD4520: USB only<br>GD4590: RS-232 / USB / Keyboard Wedge Multi-Interface |

### PHYSICAL CHARACTERISTICS

| | |
|---|---|
| **Colors Available** | Light Green/Light Grey (Rubber/Plastic) |
| **Dimensions** | 16.6 x 6.8 x 10.9 cm / 6.5 x 2.7 x 4.3 in |
| **Weight** | 161.0 g / 5.7 oz |

## DATALOGIC DISINFECTANT-READY ENCLOSURES FOR HEALTHCARE

Datalogic offers bar code readers designed specifically for the healthcare industry with Disinfectant-Ready enclosures treated with anti-microbial additives that can help fight against the spreading of germs. This is particularly important if the scanner is traveling room-to-room on a medication cart with a nurse. The Disinfectant-Ready enclosures can withstand daily cleaning with harsh chemical cleaning solutions commonly used in a healthcare environment.



**REFER TO THE DEVICE INSTRUCTION MANUAL FOR PROPER CLEANING METHODS WHEN USING THESE CHEMICALS.
DISINFECTANTS SHOULD NOT BE SPRAYED OR POURED ONTO THE SCANNER UNIT.
THE SCANNERS MUST ALWAYS BE WIPED DRY AFTER DISINFECTING.**

### READING PERFORMANCE

| | |
|---|---|
| **Image Capture** | Graphic Formats: BMP, JPEG, TIFF;<br>Greyscale: 256, 16, 2 |
| **Image Sensor** | 1 Megapixel: 1280 x 800 pixels |
| **Light source** | Aiming: Red Laser 650 nm<br>Illumination: Warm White; Hyper Red LED for Digimarc |
| **Motion tolerance** | 35 IPS |
| **Print contrast ratio (minimum)** | 15% |
| **Reading angle** | Pitch: +/- 65°; Roll (Tilt): 360°; Skew (Yaw): +/- 65° |
| **Reading indicators** | Beeper (Adjustable Tone); Datalogic Three Green Lights (3GL) Good Read Feedback: Datalogic 'Green Spot' on the Code, Dual Good Read LEDs |
| **Resolution (maximum)** | High Density (HD): 1D Linear: 0.077 mm / 3 mils;<br>PDF417: 0.077 mm / 3 mils;<br>Data Matrix: 0.102 mm / 4 mils<br>Standard Range (SR): 1D Linear: 0.102 mm / 4 mils;<br>PDF417: 0.127 mm / 5 mils;<br>Data Matrix: 0.195 mm / 7.5 mils |

### READING RANGES

| | |
|---|---|
| **Typical depth of field** | Minimum distance determined by symbol length and scan angle. Printing resolution, contrast, and ambient light dependent. |

**GD4500 Standard Range (SR)**

Code 39: 5 mils: 7.0 to 38.0 cm / 2.7 to 14.9 in
Code 39: 10 mils: 2.2 to 58.0 cm / 0.8 to 22.8 in
Data Matrix: 10 mils: 5.5 to 27.0 cm / 2.2 to 10.6 in
Data Matrix: 15 mils: 2.8 to 41.0 cm / 1.1 to 16.1 in
EAN-13: 13 mils: 1.0 to 71.0 cm / 0.4 to 27.9 in
PDF417: 10 mils: 2.5 to 41.0 cm / 1.0 to 16.1 in
QR Code: 10 mils: 5.5 to 24.0 cm / 2.2 to 9.5 in

**GD4500 High Density (HD)**

Code 39: 3 mils: 5.0 to 15.0 cm / 2.0 to 5.9 in
Code 39: 5 mils: 0.5 to 25.0 cm / 0.2 to 9.8 in
Data Matrix: 5 mils: 5.5 to 9.0 cm / 2.2 to 3.5 in
Data Matrix: 10 mils: 2.0 to 27.0 cm / 0.8 to 10.6 in
EAN-13: 7.5 mils: 2.0 to 23.5 cm / 0.8 to 9.3 in
EAN-13: 13 mils: 1.0 to 40.0 cm / 0.4 to 15.7 in
PDF417: 4 mils: 3.0 to 12.0 cm / 1.2 to 4.7 in
PDF417: 10 mils: 0.5 to 31.0 cm / 0.2 to 12.2 in
QR Code: 10 mils: 2.0 to 25.0 cm / 0.8 to 9.8 in

### SAFETY & REGULATORY

| | |
|---|---|
| **Agency Approvals** | The product meets necessary safety and regulatory approvals for its intended use. The Quick Reference Guide for this product can be referred to for a complete list of certifications. |
| **Environmental Compliance** | Complies to China RoHS; Complies to EU RoHS |
| **Laser Classification** | Caution Laser Radiation - Do not stare into beam; IEC 60825 Class 2 |

### UTILITIES

| | |
|---|---|
| **Datalogic Aladdin™** | Datalogic Aladdin configuration program is available for download at no charge. |
| **OPOS JavaPOS** | JavaPOS and OPOS Utilities are available for download at no charge. |
| **Remote Host Download** | Lowers service costs and improves operations |

### WARRANTY

| | |
|---|---|
| **Warranty** | 5-Year Factory Warranty |

| PRODUCT | CHEMICAL CONTENT |
|---|---|
| Sani-Cloth® HB, Sani-Cloth® Plus, Super Sani-Cloth® | Quaternary Ammonium Chloride solution |
| Hepacide Quat II | Virucidal disinfectant cleaner |
| Alcohol Wipes | 70% Isopropyl Alcohol |
| CaviWipes™ | Isopropanol 10-20%; Ethylene Glycol Monobutyl Ether 1-5% |
| Virex® 256 | n-Alkyl Dimethyl Benzyl Ammonium Chloride; Didecyl Dimethyl Ammonium Chloride |
| 409® Glass and Surface Cleaner | n-Alkyl Dimethyl Benzyl Ammonium Chloride; n-Propoxypropanol |
| Windex® Blue | Isopropyl Alcohol |
| Clorox® Bleach | Sodium Hypochlorite; Sodium Hydroxide |
| 100% Gentle dish soap and water | |

# TECHNICAL SPECIFICATIONS

## CORDLESS COMMUNICATIONS

| | |
|---|---|
| *Datalogic STAR Cordless System™* | Effective Radiated Power: 433.92 MHz: < 6.3 mW; 910 MHz: < 50 mW<br>Multi-Point Configuration: Max. Readers per Radio Receiver: 16; Point-to-Point Configuration;<br>Radio Frequency: 433.92 MHz; 910 MHz;<br>Two Way Communications<br>Radio Range (Open Air): 50.0 m / 164.0 ft; Range distances are measured using the base station. |

## DECODING CAPABILITY

| | |
|---|---|
| *1D / linear codes* | Autodiscriminates all standard 1D codes including GS1 DataBar™ linear codes. |
| *2D codes* | Aztec Code; China Han Xin Code; Data Matrix; MaxiCode; Micro QR Code; QR Code |
| *Postal codes* | Australian Post; British Post; China Post; IMB; Japanese Post; KIX Post; Planet Code; Postnet; Royal Mail Code (RM4SCC) |
| *Stacked codes* | GS1 DataBar Expanded Stacked; GS1 DataBar Stacked; GS1 DataBar Stacked Omnidirectional; MacroPDF; MicroPDF417; PDF417; UPC A/E Composites |

## ELECTRICAL

| | |
|---|---|
| *Battery* | Battery Type: Lithium-Ion: 3250 mAh<br>Charge Time: External Power: 4 Hours @ 12 VDC;<br>Reads per Charge: 80,000 |
| *Cradle Indicator LEDs* | Battery Charging (flashing orange); Charge Completed (steady green) |
| *Current* | Charging (Typical): < 6 W;<br>Scanner only: 330 mA @ 3.7 V (Operative)<br>Cradle Only: 80 mA @ 5 V (Operative) |
| *Input voltage* | 4.5 - 14 VDC +/- 5% |

## ENVIRONMENTAL

| | |
|---|---|
| *Ambient light* | 0 - 100,000 lux |
| *Drop resistance* | Withstands repeated drops from 1.8 m / 6.0 ft onto a concrete surface. |
| *ESD Protection (Air Discharge)* | 16 kV |
| *Humidity (Non-Condensing)* | 0 - 95% |
| *Particulate and Water Sealing* | IP52 |
| *Temperature* | Operating: 0 to 50 °C / 32 to 122 °F<br>Storage/Transport: -40 to 70 °C / -40 to 158 °F |

## INTERFACES

| | |
|---|---|
| *Interfaces* | RS-232 / USB / Keyboard Wedge Multi-Interface |

## PHYSICAL CHARACTERISTICS

| | |
|---|---|
| *Colors Available* | Light Green/Light Grey (Rubber/Plastic) |
| *Dimensions* | 16.6 x 6.8 x 10.9 cm / 6.5 x 2.7 x 4.3 in |
| *Weight* | 235 g / 8.29 oz |
| *Enclosure* | Disinfectant-Ready Enclosure Treated with Anti-Microbial Additives (ISO22196 and JISZ 2801 compliant models available) |

## READING PERFORMANCE

| | |
|---|---|
| *Image Capture* | Graphic Formats: BMP, JPEG, TIFF;<br>Greyscale: 256, 16, 2 |
| *Image Sensor* | 1 Megapixel: 1280 x 800 pixels |
| *Light source* | Aiming: Red Laser 650 nm<br>Illumination: Warm White; |
| *Motion tolerance* | 35 IPS |
| *Print contrast ratio (minimum)* | 15% |
| *Reading angle* | Pitch: +/- 65°; Roll (Tilt): 360°; Skew (Yaw): +/- 65° |
| *Reading indicators* | Beeper (adjustable tone); Vibration feedback option available for quiet places; Datalogic Three Green Lights (3GL) Good Read Feedback: Datalogic 'Green Spot' on the Code, Dual Good Read LEDs |
| *Resolution (maximum)* | High Density (HD): 1D Linear: 0.077 mm / 3 mils;<br>PDF417: 0.077 mm / 3 mils;<br>Data Matrix: 0.102 mm / 4 mils<br>Standard Range (SR): 1D Linear: 0.102 mm / 4 mils;<br>PDF417: 0.127 mm / 5 mils;<br>Data Matrix: 0.195 mm / 7.5 mils |

## READING RANGES

| | |
|---|---|
| *Typical depth of field* | Minimum distance determined by symbol length and scan angle.<br>Printing resolution, contrast, and ambient light dependent. |

### GD4500 Standard Range (SR)

Code 39: 5 mils: 7.0 to 38.0 cm / 2.7 to 14.9 in

Code 39: 10 mils: 2.2 to 58.0 cm / 0.8 to 22.8 in

Data Matrix: 10 mils: 5.5 to 27.0 cm / 2.2 to 10.6 in

Data Matrix: 15 mils: 2.8 to 41.0 cm / 1.1 to 16.1 in

EAN-13: 13 mils: 1.0 to 71.0 cm / 0.4 to 27.9 in

PDF417: 10 mils: 2.5 to 41.0 cm / 1.0 to 16.1 in

QR Code: 10 mils: 5.5 to 24.0 cm / 2.2 to 9.5 in

## SAFETY & REGULATORY

| | |
|---|---|
| *Agency Approvals* | The product meets necessary safety and regulatory approvals for its intended use.<br>The Quick Reference Guide for this product can be referred to for a complete list of certifications. |
| *Environmental Compliance* | Complies to China RoHS; Complies to EU RoHS |
| *Laser Classification* | Caution Laser Radiation - Do not stare into beam; IEC 60825 Class 2 |

## UTILITIES

| | |
|---|---|
| *Datalogic Aladdin™* | Datalogic Aladdin configuration program is available for download at no charge. |
| *OPOS JavaPOS* | JavaPOS and OPOS Utilities are available for download at no charge. |
| *Remote Host Download* | Lowers service costs and improves operations |

## WARRANTY

| | |
|---|---|
| *Warranty* | 3-Year Factory Warranty |

## GRYPHON™ 4500-HC 2D SERIES
# TECHNICAL SPECIFICATIONS

## CORDLESS COMMUNICATIONS

| | |
|---|---|
| **Bluetooth Wireless Technology** | Piconet: Max. Readers per Radio Receiver: 7<br>Profiles: SPP (Serial Port Profile)<br>Protocol: Bluetooth 4.0 with BLE Certified Class 1, Class 2 and Class 3; Radio Frequency: 2.4 GHz<br>Radio Range (Open Air): 100.0 m / 328.0 ft; Range distances are measured using the base station. Range with connection to other Bluetooth peripherals may show different results.<br>Security: Data Encryption; Scanner Authentication |

## DECODING CAPABILITY

| | |
|---|---|
| **1D / linear codes** | Autodiscriminates all standard 1D codes including GS1 DataBar™ linear codes. |
| **2D codes** | Aztec Code; China Han Xin Code; Data Matrix; MaxiCode; Micro QR Code; QR Code |
| **Postal codes** | Australian Post; British Post; China Post; IMB; Japanese Post; KIX Post; Planet Code; Postnet; Royal Mail Code (RM4SCC) |
| **Stacked codes** | EAN/JAN Composites; GS1 DataBar Composites; GS1 DataBar Expanded Stacked; GS1 DataBar Stacked; GS1 DataBar Stacked Omnidirectional; MacroPDF; MicroPDF417; PDF417; UPC A/E Composites |

## ELECTRICAL

| | |
|---|---|
| **Battery** | Battery Type: Lithium-Ion: 3250 mAh<br>Charge Time: External Power: 4 Hours @ 12 VDC;<br>Reads per Charge: 80,000 |
| **Cradle Indicator LEDs** | Battery Charging (flashing orange); Charge Completed (steady green) |
| **Current** | Charging (Typical): < 6 W;<br>Gun Only: 330 mA @ 3.7 V (Operative)<br>Cradle Only: 80 mA @ 5 V (Operative) |
| **Input voltage** | 4.5 - 14 VDC +/- 5% |

## ENVIRONMENTAL

| | |
|---|---|
| **Ambient light** | 0 - 100,000 lux |
| **Drop resistance** | Withstands repeated drops from 1.8 m / 6.0 ft onto a concrete surface. |
| **ESD Protection (Air Discharge)** | 16 kV |
| **Humidity (Non-Condensing)** | 0 - 95% |
| **Particulate and Water Sealing** | IP52 |
| **Temperature** | Operating: 0 to 50 °C / 32 to 122 °F<br>Storage/Transport: -40 to 70 °C / -40 to 158 °F |

## INTERFACES

| | |
|---|---|
| **Interfaces** | RS-232 / USB / Keyboard Wedge Multi-Interface |

## PHYSICAL CHARACTERISTICS

| | |
|---|---|
| **Colors Available** | Light Green/Light Grey (Rubber/Plastic) |
| **Dimensions** | 16.6 x 6.8 x 10.9 cm / 6.5 x 2.7 x 4.3 in |
| **Weight** | 235 g / 8.29 oz |
| **Enclosure** | Disinfectant-Ready Enclosure Treated with Anti-Microbial Additives (ISO22196 and JISZ 2801 compliant models available) |

## READING PERFORMANCE

| | |
|---|---|
| **Image Capture** | Graphic Formats: BMP, JPEG, TIFF;<br>Greyscale: 256, 16, 2 |
| **Image Sensor** | 1 Megapixel: 1280 x 800 pixels |
| **Light source** | Aiming: Red Laser 650 nm<br>Illumination: Warm White; |
| **Motion tolerance** | 35 IPS |
| **Print contrast ratio (minimum)** | 15% |
| **Reading angle** | Pitch: +/- 65°; Roll (Tilt): 360°; Skew (Yaw): +/- 65° |
| **Reading indicators** | Beeper (adjustable tone); Vibration feedback option available for quiet places; Datalogic Three Green Lights (3GL) Good Read Feedback: Datalogic 'Green Spot' on the Code, Dual Good Read LEDs |
| **Resolution (maximum)** | High Density (HD): 1D Linear: 0.077 mm / 3 mils; PDF417: 0.077 mm / 3 mils;<br>Data Matrix: 0.102 mm / 4 mils<br>Standard Range (SR): 1D Linear: 0.102 mm / 4 mils;<br>PDF417: 0.127 mm / 5 mils;<br>Data Matrix: 0.195 mm / 7.5 mils |

## READING RANGES

| | |
|---|---|
| **Typical depth of field** | Minimum distance determined by symbol length and scan angle. Printing resolution, contrast, and ambient light dependent. |

| GD4500 Standard Range (SR) | GD4500 High Density (HD) |
|---|---|
| Code 39: 5 mils: 7.0 to 38.0 cm / 2.7 to 14.9 in | Code 39: 3 mils: 5.0 to 15.0 cm / 2.0 to 5.9 in |
| Code 39: 10 mils: 2.2 to 58.0 cm / 0.8 to 22.8 in | Code 39: 5 mils: 0.5 to 25.0 cm / 0.2 to 9.8 in |
| Data Matrix: 10 mils: 5.5 to 27.0 cm / 2.2 to 10.6 in | Data Matrix: 5 mils: 5.5 to 9.0 cm / 2.2 to 3.5 in |
| Data Matrix: 15 mils: 2.8 to 41.0 cm / 1.1 to 16.1 in | Data Matrix: 10 mils: 2.0 to 27.0 cm / 0.8 to 10.6 in |
| EAN-13: 13 mils: 1.0 to 71.0 cm / 0.4 to 27.9 in | EAN-13: 7.5 mils: 2.0 to 23.5 cm / 0.8 to 9.3 in |
| PDF417: 10 mils: 2.5 to 41.0 cm / 1.0 to 16.1 in | EAN-13: 13 mils: 1.0 to 40.0 cm / 0.4 to 15.7 in |
| QR Code: 10 mils: 5.5 to 24.0 cm / 2.2 to 9.5 in | PDF417: 4 mils: 3.0 to 12.0 cm / 1.2 to 4.7 in |
| | PDF417: 10 mils: 0.5 to 31.0 cm / 0.2 to 12.2 in |
| | QR Code: 10 mils: 2.0 to 25.0 cm / 0.8 to 9.8 in |

## SAFETY & REGULATORY

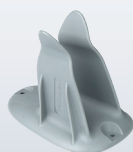| | |
|---|---|
| **Agency Approvals** | The product meets necessary safety and regulatory approvals for its intended use.<br>The Quick Reference Guide for this product can be referred to for a complete list of certifications. |
| **Environmental Compliance** | Complies to China RoHS; Complies to EU RoHS |
| **Laser Classification** | Caution Laser Radiation - Do not stare into beam; IEC 60825 Class 2 |

## UTILITIES

| | |
|---|---|
| **Datalogic Aladdin™** | Datalogic Aladdin configuration program is available for download at no charge. |
| **OPOS JavaPOS** | JavaPOS and OPOS Utilities are available for download at no charge. |
| **Remote Host Download** | Lowers service costs and improves operations |

## WARRANTY

| | |
|---|---|
| **Warranty** | 3-Year Factory Warranty |

# ACCESSORIES

## Mount / Stands



- **11-0362:** Holder, Multi-Purpose, Grey
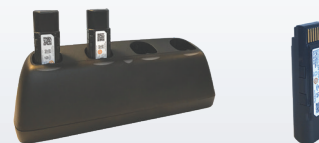- **HLD-G041-WH** Desk/Wall Holder, G041, White
- **STD-G041-WH** Basic Stand, G041, White

## Cordless Products

Battery/Battery Charger

- MC-GM45 Battery Charger, 4-Slot
- RBP-GM45 Removable Battery Pack

Base Stations/Chargers

- WLC4090-HC-BT Base station; Wireless Charger; Multi-Interface; HC; Bluetooth
- WLC4090-HC-433 Base station; Wireless Charger; Multi-Interface; HC; 433 MHz
- WLC4090-HC-910 Base station; Wireless Charger; Multi-Interface; HC; 910 MHz