



**NVH220
Lophius AI
Bluetooth
Handheld Scanners**

Features

AI-Powered Scanning Technology.

The NVH220 Lophius AI BT is equipped with Newland's UIMG and AI-Powered Barcode Detection scanning technologies. These advanced systems enable rapid, accurate, and reliable decoding of both 1D and 2D barcodes, even when they are damaged or distorted, as well as on reflective and curved surfaces.

AI-powered devices utilize computer vision and self learning to interpret barcodes accurately. They efficiently analyze images to detect, locate, and read barcodes. The NVH220 Lophius AI BT excels in challenging conditions, demonstrating advanced decoding performance and providing a reliable scanning solution that functions flawlessly in any situation.

High-Performance DPM Scanning

The NVH220 Lophius AI BT is distinguished by its outstanding ability to decode DPM barcodes, including those created using laser part marking and dotting techniques. Equipped with an upgraded dual-core processing platform, the NVH220 offers enhanced performance while consuming less power. This results in faster and more stable decoding, as well as improved image capture.

Robust by Design.

The NVH220 Lophius AI BT is built for durability, featuring a robust design that can endure challenging conditions. Its high-protection construction and IP64-

sealed housing ensure reliable performance, even in environments with dust and water exposure, as well as after repeated drops from heights of up to 1.8 meters.

Advanced Illumination.

The NVH220 Lophius AI BT features both red and blue direct illumination and white diffuse lighting. These lighting options can be easily activated using the auto-learning function button located on the top of the device. With this feature, the NVH220 automatically adjusts brightness and light source to optimize barcode decoding, even on challenging materials. This includes reflective surfaces, curved shapes, varied backgrounds (ranging from low to high contrast), and different barcode colors.

Reliable Data Transmission.

The NVH220 Lophius AI BT, equipped with Bluetooth 5.0, ensures fast wireless communication with low latency. This stable and reliable connection supports data transmission over a range of up to 150 meters, providing all-day flexibility and efficiency on the work floor.

Configure To Your Needs.

The NVH220 Lophius AI BT can be easily configured to meet the specific needs of any application using the free configuration software, EasySet.



Suggested industries



NVH220 Lophius AI Bluetooth Technical specifications

Data Capture

| | |
|--------------------------------|---|
| 1D | EAN-13, EAN-8, UPC-A, UPC-E, ISSN, ISBN, Codabar, Code128, Code93, ITF-6, ITF-14, Interleaved 2 of 5, Industrial 2 of 5, Standard 2 of 5, Matrix 2 of 5, Code 39, AIM 128, GS1 Composite, GS1-128(UCC/EAN), ISBT 128, Code 11, MSI-Plessey, Plessey, etc. |
| 2D | QR Code, PDF417, Micro QR, Data Matrix, AZTEC. |
| OCR | Optional |
| Image Sensor | 1280 × 800 CMOS |
| Aiming | 650nm, crosshair laser |
| Illumination | Direct: red & blue LEDs; Diffuse: white LED |
| Resolution | 1D: ≥1.25mil; 2D: ≥2.82mil |
| Depth of Field EAN 13 (13mil) | 15 mm - 220 mm |
| Depth of Field Code 39 (5mil) | 0 mm - 160 mm |
| Depth of Field Code 39 (20mil) | 65 mm - 350 mm |
| Depth of Field QR (10mil) | 0 mm - 160 mm |
| Depth of Field QR (20mil) | 0 mm - 225 mm |
| Field of View Horizontal | 33° |
| Field of View Vertical | 22° |
| Scan Angle Roll | 360° |
| Scan Angle Pitch | ±50° |
| Scan Angle Skew | ±50° |
| Minimal Print Contrast | 15% |

Physical

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| Battery Type | 2,900 mAh |
| Current Operating | 3.8VDC: 370mA (red LED by default) |
| Current Standby | 3.8VDC: 90mA |
| Dimensions (mm) | Scanner: 68 × 86 × 180mm; Cradle: 103 × 127 × 123 mm |
| Expected Battery Life | ≥17 hours of continuous operation, up to 60,000 scans per charge |
| Expected Charge Time | 3 hours |
| Interfaces | RS-232, TCP/IP, ModbusTCP, Ethernet/IP, Profinet, MELSEC/SLMP |
| Notifications | Beep, LED indicator, Vibrator |
| Power Consumption | 1400mW (typical) |
| Weight | Scanner: 218g (with battery); Cradle:217g |

Wireless

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| Radio Technology | Bluetooth 5.0 |
| Wireless Distance (max.) | 150m (line of sight) |

Environmental

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| Operating Temperature | -20°C to 50°C (-4°F to 122°F) |
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NVH220 Lophius AI Bluetooth Technical specifications

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|--------------------------------|---|
| Storage Temperature | -40°C to 70°C (-40°F to 158°F) |
| Charge Temperature | 0°C to 45°C (32°F to 113°F) |
| Humidity | 5% to 95% (non-condensing) |
| Electro Static Discharge (ESD) | ±16 KV (air discharge); ± 8 KV (direct discharge) |
| Drop | 1.8 m |
| IP Rating | Scanner: IP64; Cradle: IP42 |

Accessories

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| Standard | Docking station, USB cable, 5V power supply |
| Optional | USB cable, RS232 cable, Ethernet cable, multiplug adapter, wall mounted bracket, and rubber boot |

Certifications

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| Hardware | CE, CCC, FCC, RoHS2.0, IEC62471, IEC60825, ISO16750 |
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