



MS650

CCD Ring Scanner

Wearable Design for Hands-Free Scanning!

The MS650 wearable ring scanner is an ultra-light compact Bluetooth barcode scanner, allowing you to wear it on a finger to keep both hands free for easy movement scanning. This ring scanner can read 1D barcodes and it is designed to streamline the workflow for a wide range of applications such as warehouse, logistics, retail and inventory management.

Gaining freedom of movement and improving efficiency.

The MS650 wearable ring scanner enables its operator to move products, packages, materials and proceed with their barcode reading tasks more efficiently, safely and comfortably.

Compact design for mobile operators

Whether you prefer left or right-handed operation, the advanced ergonomic and lightweight design (20.5g) of the MS650, provides unrivalled freedom of movement to perform barcode scanning tasks, comfortably while keeping both hands free.

It's all in the touch! The MS650 is designed with a dual touch-2-activate trigger button to activate the barcode reading. Whether you are wearing the MS650 left- or right-handed, just motion the touch-2-activate trigger button to read the barcode you wish to scan. A great feature to enhance control and flexibility, while increasing the operator satisfaction during multi-tasking.

On-Screen Barcode Readability

Featuring the high-speed decoder, paired with an aggressive scan engine, the MS650 reads 1D barcodes and offers accurate barcode capture of either on-screen (LCD), or printed barcodes. To ensure accurate aim at barcodes, the MS650 is equipped with a thin sharp class-1 laser aim.

Data Protection Accountability

With the Bluetooth® HID interface of wireless Bluetooth® 4.1 technology, the MS650 is easy to pair with a smartphones and tablets (including iOS or Android system) without complex setting. The MS650 offers user the ability to operate around the clock productivity, during an entire busy 8-hour work shift.

Flexible wireless connections and operations

The MS650 is versatile with the advantage of conducting flexible data collection operations of both on-line wireless mode and off-line memory (Batch) mode, including multiple communication interfaces (BT HID/ USB HID/ USB VCP).

Features:

- Lightweight (only 20.5g) and unique wearable ring design – Comfortable Hands-free operation.
- Flexible design: Dual touch-2-activate trigger button (for left- and right-handed operation)
- Hands-free scanning with cordless freedom of movement
- Easily to pair to smartphone and tablets (Windows, iOS and Android devices) via Bluetooth® 4.1 / Class 2
- Aggressive scan engine – Reads off 1D barcodes from screens
- Rugged and durable design (IP42 and 1.5m drops)
- Full shift battery life – Up to 8 hours

LED Indicator



Function button

1D CCD

To ensure accurate aim at barcodes, equipped with a thin laser aim.



Touch-2-activate

the barcode reading



Micro USB port

(with protective cover)



v1 MS650 Specifications

Operational & Performance

| | |
|----------------------|---|
| Sensor | Linear Image Sensor |
| Scan Rate | 400 Scans/Sec |
| Resolution | 4mil/ 0.1mm |
| Scan Angle | 41° |
| Print Contrast Ratio | 30% |
| Light Source | Red Laser beam with enhanced white LED |
| Width of Field | 130mm (13Mil Code39) |
| Memory | 2MB |
| | Stores up to 150.000 barcodes / EAN-13 barcodes. (Storage depends on barcode length). |

Enclosure

| | |
|-------------------|--|
| Scanner Dimension | W29 x L46.5 x H27 mm |
| Scanner Weight | 20.5g (including Velcro strap) |
| Color: | Color: - Top housing: Blue - Bottom housing: Black |
| | Surface: - Top housing: Glossy - Bottom housing: Matte |
| Material | PC+ABS |
| Cable | 1.5M (Micro USB Cable) |
| Trigger | Dual touch-2-activate trigger button (Capacitive sensor *2 for left and right buttons) |
| Indicator | LED, Buzzer |

Reading distance (DOF)

(Environment: 800 lux)

| Label / DOF | near | far |
|----------------|------|-------|
| Code 39, 4mil | 50mm | 70mm |
| Code 39, 5mil | 45mm | 95mm |
| Code 39, 10mil | 40mm | 190mm |
| Code 39, 15mil | 55mm | 265mm |
| UPC/EAN, 13mil | 50mm | 225mm |

Environmental

| | |
|-----------------------|-----------------------|
| Operating Temperature | 0°C to 50°C |
| Storage Temperature | -20°C to 65°C |
| Humidity | 95% non-condensing |
| Drop Durability | 1.5M |
| Sealing | IP42 |
| Ambient Light | 70,000 Lux (Sunlight) |

Symbologies

1D: UPC-A/UPC-E, EAN-8/EAN-13, Industrial 2 of 5, Codabar, Matrix 2 of 5, Code 11, Code 93, Code 32, Code 128, Standard Code 39, Full ASCII Code 39, Interleaved 2 of 5, China Postal Code, MSI Plessey Code, UK Plessey Code, EAN/UCC 128, Telepen Code, IATA Code, GS1 Databar

Connectivity

| | |
|--------------------|--|
| Radio | BT 4.1 (Class 2) |
| Range | > 10 m (line-of-sight at open space) |
| Interface/ Profile | Bluetooth HID (HID Keyboard Device) USB HID (HID Keyboard Device) USB VCP (Virtual COM Device) Batch Mode (Mass Storage Device) |

Power Source

| | |
|----------------------------------|--|
| Operation Voltage | 3.7VDC \pm 5% |
| Working Current | < 85mA |
| Standby Current | < 45mA |
| Power Down Current (Sleep Mode) | < 200uA |
| Battery | 3.7V, 250mAh, Li-Polymer Battery |
| Number of Scan (per full charge) | 6000 scans (1 scan/ 5 secs, BT connected) |

Regulatory approvals

| | |
|-----------------|---|
| ESD | Functional after 4KV contact, 8KV Air discharge |
| EMC | CE, FCC, BSMI, NCC, TELEC, VCCI |
| Safety Approval | WEEE, RoHS 2.0, IEC 60825-1 |

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* General warranty: Unitech reserves the right to call back the defect units at her discrete sole decision if Unitech may find it necessary. Upon the calling, the returning shipping cost will be borne by Unitech except tax and duty if any. Unitech has full decision to stop the warranty coverage before expiration if the defect is found due to abused, sabotage, and/or caused by the acts of God Specifications subject to change without notice.

* NO Hassle Warranty: In case of defect during its valid warranty period, customer can simply register the defect symptom and serial number of the unit at Unitech portal. Unitech's logistic partner or service centre will send a replacement unit to the customer. The customer does not need to return the defect unit*.