

## H22

Beyond Smart. It's Brilliant.



Ideal mobile computer for:

- ✓ Logistics and Transportation
- ✓ Field Service
- ✓ Field Sales and Merchandising
- ✓ Facility and Security



Scan



Snap



Interact



Communicate

# OPTICON

3.2 MP COLOR CAMERA  
WITH AUTO-FOCUS

3.7" VGA 480 X 640 PIXEL  
TOUCH PANEL DISPLAY



CHOICE OF QWERTY OR NUMERIC KEYPADS, 1D  
LASER OR 2D IMAGER BARCODE SCANNER

The Opticon H22 supports a wide range of integrated features to collect, process and share information including barcode data, text, voice and images. The H22's sleek, but rugged design combines Windows Mobile 6.5.3, advanced GPRS/EDGE/3G/3.5G voice and data, Wi-Fi, Bluetooth, A-GPS, 3.2 mp auto-focus color camera, optional RFID module, and a high speed laser or 2D Imager barcode scanner into a small, easy to use form factor that is perfect for today's mobile workforce. With its IP65, 5' drop to concrete rating and best in the industry, two year warranty, the H22 is the ideal mobile computer for field sales and service, inventory control, asset management, security and inspections, and merchandizing.

## + 1D

The integrated Opticon laser barcode scan module captures a wide range of linear barcode symbologies at a speed of 100 scans per second.

## + 2D

For more scanning options, the H22 can be configured with a 2D imager. Besides linear barcodes, this 2D module also reads 2D and stacked barcodes, both of which provide additional space for any additional information that your business may require.

## + RFID OPTION

For advanced mobile data collection applications, the H22 features an optionally integrated, high frequency 13.56 Mhz RFID module.

## + DURABLE

Built to last, the H22 can withstand multiple 5 foot drops onto concrete. Its IP 65 compliant design provides resistance to moisture and dust in adverse environments.

## + KEYPAD

Maximize efficient data entry and choose the keypad that meets the requirements of your specific mobile applications. The H22 is available with a numeric, or QWERTY keypad.





# Snap

## + CAMERA



The 3.2 mp auto-focus color camera with flash snaps photos anywhere, adding valuable visual information to mobile transactions. Photos from the field provide confirmation that service, maintenance, and inspection tasks were performed. They can also verify the condition of delivered goods.

## + SIGNATURE CAPTURE

Take advantage of the high resolution color camera by documenting the act of signing, or use the 3.7" touch screen for signature capture directly into the H22. Signature capture helps companies meet customer expectations by providing proof of delivery.



## + GEOTAGGING

The H22 is equipped with A-GPS for logging geographical coordinates, and also provides date and time stamping for enhancing transactions with information as to where and when events occur.

## + PICTURE SHARING

Store, edit and share images. Select pictures and email them or send them with Messenger. Make use of ActiveSync to send pictures to your computer, or any other location.



The Opticon H22 with Windows Mobile® 6.5.3 provides a new look and feel with the latest Windows® software and numerous applications. The Windows® platform features Direct Push e-mail technology, messaging, Internet browsing, synchronization, the Microsoft Office® Mobile suite, and the ability to have global access to various third party applications available through the Windows Mobile® Developers community.



## + MICROSOFT OUTLOOK® MOBILE

Enjoy direct access to your e-mail, calendar, and contacts with all the familiar Outlook features.



## + ACTIVESYNC

Perform mobile syncing of contacts, e-mail/SMS, calendar items and images. Make automatic back-ups and restore services.



## + MICROSOFT OFFICE® MOBILE

Use Microsoft Office® Word, Excel and PowerPoint anywhere.



## + MARKETPLACE

Find thousands of mobile applications in Marketplace, Microsoft's online application store.



## + INTERNET EXPLORER® MOBILE

Access the Internet from any location with the latest version of Internet Explorer®.



## + WINDOWS LIVE®

Share and organize your messages and images.

## PROVIDING FLEXIBILITY AND ACCESSIBILITY

### + ENHANCED UMTS NETWORKS

Use cellular communication for phone calls and data package services. The third generation (3G and 3.5G) distribution channels provide more capacity and higher data rates.

### - GPRS/EDGE (850/900/1800/1900 HZ)

Send and receive data using the General Packet Radio Service. The Enhanced Data Rates extend GPRS speed.

### - WCDMA (3G)

The Wideband Code Division Multiple Access is the technology behind the 3G UMTS standard for increasing network capacity and reducing costs for voice and data services.

### - HSDPA/HSUPA (3.5G)

The High Speed Package Access for UMTS provides high data rates for downloads and uploads.

### + USB OTG

The on-the-go version of USB enables you to connect directly to other USB products without the need for a host. Various hardware extensions can also be plugged into the H22.

### + IRDA 1.4

This indoor short-range communication wave connects to other IrDA equipped computer peripherals.

### + BLUETOOTH 2.4 GHZ

A Bluetooth™ radio allows you to wirelessly connect and communicate to any other Bluetooth device.

### + WIRELESS LAN 802.11 B/G/N

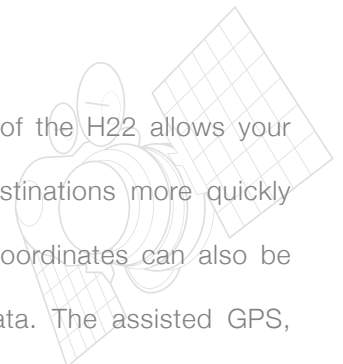
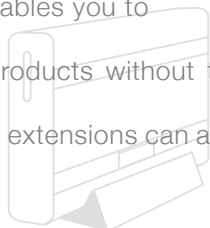
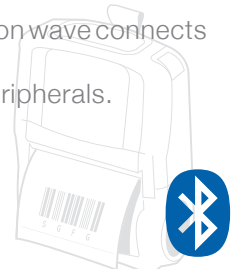
Connect to any WiFi® network for Internet access, or to connect to your enterprise network.

### + CHARGING AND COMMUNICATION

The H22 can be charged by the supplied AC adapter or USB cable. A single bay and multi-bay cradles for charging and communication are also available. Both cradles feature additional slots for charging spare batteries.

### + A-GPS

The integrated GPS feature of the H22 allows your mobile workforce to find destinations more quickly and efficiently. Geographic coordinates can also be added to other collected data. The assisted GPS, with the mobile phone operator, improves the start-up performance of a GPS system.



## Logistics and Transportation



### Applications

- Parcel identification
- Online delivery confirmation
- Drop off time registration
- Shipment condition confirmation (e.g. damage verification)
- Stock location
- Route tracking (GPS)
- Signature capture

The H22 keeps track of the logistics process: scanning the parcel's barcode, capturing an image, and tracking the geographical location. Use the color camera to capture the condition of the delivered goods. Drivers can scan bills and other documents on the road or at the point-of-delivery. All collected information can be transferred to the warehouse management system and enterprise network in real time.

## Field Service



### Applications

- Electronic document management
- Service documentation
- Completion verification
- Inventory management
- Signature capture
- Route tracking (GPS)
- Labor management

This durable mobile device is the perfect tool for communication between your staff at the office and the service crew in the field. Administrative data and photos of the field location are easily exchanged, verifying work status, and allowing for input from remote technicians. The H22 provides all connected employees with a continuous exchange of real time information.

## Field Sales and Merchandising



### Applications

- Sales team monitoring
- Order taking
- Inventory confirmation
- Routing and scheduling
- Stock replenishment
- Reporting display rack status
- Conducting surveys

Managing every field sales activity requires mobile computing technology integrated into the most compact and lightweight device possible. The H22 is the ideal solution—small and light, yet tough and durable. Variable corporate instructions for in-store merchandising can easily be managed and monitored constantly, in real time. The H22 offers significant cost savings and faster response times, which improves customer service.

## Facility and Security



### Applications

- Report interior (or exterior) environment
- Asset tracking
- Conduct inventory list
- Record checked-out items
- Trace vulnerability
- Theft/loss reporting

Security and patrol officers are tasked with preventing problems, dealing with emergencies, and maintaining business continuity. With the H22, they have a mobile facility planner. The H22 can hold workplace checklists, add pictures to improve situational awareness, or verify status. Besides helping to survey and assess, the H22 is also a communication tool that enables direct, real time communication with first responders and other external parties.

# + Product Specifications

## Operation

- CPU: Marvell PXA320 806MHz
- O/S: Microsoft® Windows Mobile® 6.5.3

## Memory

- RAM: 256MB
- ROM: 512MB
- Expansion: User accessible microSD + HC

## Display

- Type: Blanview VGA TFT LCD, 262k color, touch panel, backlit
- Size: 3.7", 480 x 640 pixels
- Mode: Portrait / Landscape

## Operating indicators

- Visual: 1 LED (red/orange/green)
- Non-visual: Vibrate, Buzzer

## Operating keys

- Entry options:
  - (alpha)Numeric or QWERTY keyboard
  - navigation key (scroll + select)
  - function keys (3 dedicated, 7 *fn* key enabled)
  - control keys
  - 1 power key
  - Windows Mobile key, *OK*
  - 2 phone keys
  - reset key
  - volume key
  - 4 scan keys, reconfigurable

## Communication

- USB: OTG, client and host
- IrDA: Ver. 1.4, 2400 bps - 115.2 kbps (SIR), 576 kbps - 1.152 Mbps (MIR)
- Bluetooth: Ver. 2.1 + EDR, class 2
- W-LAN: WiFi, IEEE.802.11b/g/n
- Telecom: GPRS/EDGE (quad-band 850/900/1800/1900), 3G UMTS (WCDMA band 1,II,V,VI,VIII), 3.5G UMTS (HSDPA 7.2M / HSUPA 5.76 M)
- GPS: Integrated A-GPS
- Audio: Speaker/microphone (mono), 3.5mm headset connector (stereo)
- Extension: User accessible microSD I/O

## Power

- Rechargeable battery: LI-ON 3.7V 3060mAh
- Backup battery: 18mAh for main battery hotswap
- Charging method: power supply (included), car adapter, and cradle (both sold separately)

## Camera

- Color camera: 3.2 mp, auto-focus, LED flash

## Barcode Laser Scanner Optics

- Light source: 650 nm visible laser diode
- Scan method: bi-directional scanning
- Scan rate: 100 scans/sec
- Reading pitch angle: -35 to 0°, 0 to +35°
- Reading skew angle: -50° to -8°, +8 to +50°
- Reading tilt angle: -20 to 0°, 0 to +20°
- Curvature: R>15 mm (EAN8), R>20 mm (EAN13)
- Min. resolution at PCS 0.9: 0.127 mm / 5 mil
- Min. PCS value: 0.45
- Depth of field: At PCS 0.9, Code 39
  - 65 - 645 mm / 2.56 - 25.39 in (1.0 mm / 39 mil),
  - 45 - 415 mm / 1.77 - 16.34 in (0.5 mm / 20 mil),
  - 45 - 255 mm / 1.77 - 10.04 in (0.25 mm / 10 mil),
  - 45 - 145 mm / 1.77 - 5.71 in (0.15 mm / 6 mil),
  - 55 - 115 mm / 2.17 - 4.53 in (0.127 mm / 5 mil)

## 2D Imager Optics

- Light source: Aiming laser diode, illumination LEDs
- Scan method: CMOS area sensor, 900 x 512 pixels, gray scale
- Scan rate: Up to 80 fps, after auto-focus activation (100 ms after triggering)
- Image format: Bitmap, JPEG
- Reading pitch angle: -50 to 0°, 0 to +50°
- Reading skew angle: -50 to 0°, 0 to +50°
- Reading tilt angle: 360°
- Min. resolution at PCS 0.9: 0.127 mm / 5 mil
- Min. PCS value: 0.45
- Field of view: Horizontal 40°, Vertical 23°
- Depth of field: at Code 39
  - 45 - 1000 mm / 1.77 - 39.37in (0.127 mm / 5 mil),
  - 45 - 110 mm / 1.77 - 4.33in (0.127 mm / 5 mil),
  - 50 - 260 mm / 1.97 - 10.24in (0.254 mm / 10 mil),
  - 120 - 1000 mm / 4.72 - 39.37in (1.0 mm / 39 mil)
- Depth of field: at QR Code
  - 45 - 65 mm / 1.77 - 2.56 in (0.127 mm / 5 mil),
  - 45 - 250 mm / 1.77 - 9.84 in (0.381mm / 15 mil)

## RFID (optional)

- Frequency: 13.56 MHz
- Supported Standards: ISO 14443A/B, Mifare Classic 1k, Mifare Classic 4k, Mifare Ultralight, Mifare DESFire 2k, 4k and 8k, ISO 15693, I-Code, Felica
- Reading Distance: Up to 70 mm / 2.75 in (depending on card/tag type)

## Supported Symbolologies

- Barcode (1D): JAN/UPC/EAN incl. add on, Codabar/ NW-7, Code 39, Code 93, Code 128, GS1-128 (EAN-128), GS1 DataBar (RSS), IATA, Industrial 2of5, Interleaved 2of5, ISBN-ISMN-ISSN, Matrix 2of5, MSI/Plessey, S-Code, Telepen, Tri-Optic, UK/Plessey
- Postal code: Chinese Post, Korean Postal Authority code
- 2D code: Aztec Code, Aztec Runes, Codablock F, Composite Codes, Data Matrix (ECC200/EC0-140), Maxi Code (mode 2~5), Micro QR Code, MicroPDF417, PDF417, QR code

## Durability

- Temperature in operation: -10 to 50° C / 14 to 122° F
- Temperature in storage: -30 to 80° C / -22 to 176° F; main battery storage: -20 to 60° C / -4 to 140° F
- Humidity in operation: up to 95% (non-condensing)
- Humidity in storage: up to 95% (non-condensing)
- Drop test: 5 foot drop onto concrete surface
- Protection rate: IP65

## Physical

- Dimensions (w x h x d) 5.94 x 2.95 x 0.98 in
- Weight body: Circa 340 g / 12 oz (including battery)
- Case: Black

## Regulatory & Safety

- Product Compliance: CE, FCC, PTCRB, GCF, RoHS, CTIA/IEEE1725, IEC 60825-1 Class 2

## Enclosed items

- USB AC adapter
- Standard battery Lithium-Ion 3060 mAh
- USB cable
- Hand strap
- Ear microphone
- Stylus + Cord

## Sold separately

- CRD22 Cradle: USB OTG, Active Sync, charging
- CRD22-E4 Cradle: Multi-cradle, 4 slots, Ethernet communication, charging
- Pistol grip