OPTICON

H21
Beyond Smart. It's Brilliant.

Ideal tool for:
- ✓ Logistics & Courier Services
- ✓ Field Service
- ✓ Field Sales & Merchandising
- ✓ Facility & Security

Scan   Snap   Interact   Communicate

The Opticon H21 supports a wide range of features to share information. Data of barcodes, text, voice and photos can all be exchanged. The H21 is equipped with Microsoft® Windows Mobile® 6.5 and a color camera, which can anchor actual situations by taking real-life pictures. The device embeds a laser scanner or a 2D imager to capture barcodes. The on-board AGPS module enables location tracking. Collected data can be send to any business platform by multiple communication features.

+ 1D

The integrated Opticon engine captures a wide range of linear barcode symbologies. The H21 with the laser scan engine reads barcodes at a speed of 100 scans per second.

+ 2D

For more scanning options Opticon provides the H21 with a 2D imager. Besides linear barcodes, this engine also reads 2D and stacked codes, providing additional space for all types of information that your business requires.

+ DURABLE

Built to last, the H21 can withstand multiple drops onto concrete from 1.5 meter as well as adverse environmental conditions, with its IP 64 compliant design.

+ KEYPAD

Maximize efficient data entry and choose the keypad that meets the requirements of your specific business applications. The keypad is available in an (alpha)numeric or a complete QWERTY version.

Snap

+ CAMERA

The 3.2 megapixel color camera with auto-focus and flash light snaps photographs on any location, adding valuable information to visualize the reality.

+ SIGNATURE CAPTURE

Take advantage of the color camera by capturing a signature or use the 2.8" touch screen for signature writing on the screen and have it captured on your H21.

+ GEO-TAGGING

The H21 is equipped with GPS. These coordinates might be used by developer tools to add information where the images are taken.

+ PICTURE SHARING

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

Interact

The Opticon H21 features full interaction. Windows Mobile® 6.5 provides a new look and feel with the latest Windows software and numerous applications. The Windows® platform features Direct Push email technology, messaging, Internet browsing, synchronization, the Microsoft Office® Mobile suite, and the ability to have global access to applications of other Windows Mobile users.

+ MICROSOFT OUTLOOK® MOBILE

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

+ ACTIVE SYNC

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

+ MICROSOFT OFFICE® MOBILE

Use Microsoft Office® Word, Excel and PowerPoint anywhere.

+ MARKET PLACE

Share the Windows Mobile 6.5 applications with a broad audience by using the pre-installed web-based developer portal.

+ INTERNET EXPLORER® MOBILE

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

+ WINDOWS LIVE®

Share and organize your messages and images.

Communicate

EXTENDING FLEXIBILITY AND ACCESSIBILITY

+ ENHANCED GSM 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 the GPRS speed.

- **WCDMA (3G)**

  The Wideband Code Division Multiple Access is the technology behind the 3G UMTS standard. It is developed to increase network capacity and reduce costs for voice and data services.

- **HSDPA/HSUPA (3.5G)**

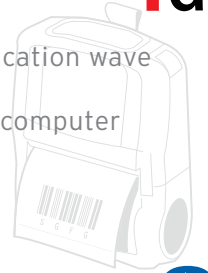 The High Speed Package Access for UMTS provides high data rates for Downloads and Uploads.

+ USB OTG

The on-the-go version of USB enables you to connect directly to other USB products without the interference of a host. Various hardware extensions can be plugged onto the H21.

+ IRDA 1.3

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

Login to any WiFi® network, supporting Internet browsing and connect to your enterprise network.
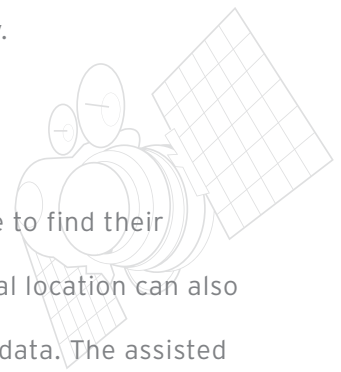
+ CHARGING AND COMMUNICATION

The H21 can be charged by the dedicated single cradle with charging and communication features. Two slots provide charging of both the docked terminal and a spare battery.

+ AGPS

GPS will help your workforce to find their destination. The geographical location can also be added to other collected data. The assisted GPS with the mobile phone operator improves the start-up performance.

Markets

☑ Logistics & Courier Services

Applications

- Parcel identification
- On-line delivery confirmation
- Drop-off time registration
- Shipment condition logging
  (report damaged shipments)
- Stock location
- Route tracking (GPS)
- Signature capturing

The H21 keeps track of the logistics process; scanning the parcel's barcode, capturing an image, and tracking the geographical location. Use the color camera when capturing the condition of the shipped or received goods. Moreover, 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 reporting
- Job proofing
- Inventory management
- Signature capturing
- Route tracking (GPS)

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 real-life photos of the field location are easily exchanged, improving the opportunities to proof finished work or consult a technician at the office for additional advice. The H21 provides all employees a continuous exchange of actual information.

☑ Field Sales & Merchandising

Applications

- Sales team monitoring
- Order taking
- Inventory confirmation
- Routing
- Stock replenishment
- Report display rack state

Managing every field sales activity requires mobile computing technology packed into the most compact and lightweight device possible. The H21 is the ideal solution; small and light, yet tough and durable. In-store merchandising can easily be managed so that head office instructions can be constantly varied in real time. Also, evidence of tasks completed can easily be passed back. This solution offers significant cost savings and faster response times.
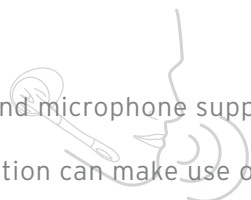
☑ Facility & Security

Applications

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

Officers for facility, security or maintenance help to prevent emergency accidents and maintain business continuity. With the H21 the officers have a mobile facility planner. It can hold workplace checklists, add pictures to guide the situational awareness or proof the finished work. Next to survey and assessment the H21 is also a communication tool that enables direct response and conversations with external parties.

✚ VOICE OVER IP

The WLAN integration and microphone support offer a platform to install VoIP. The external software tools for speech recognition can make use of the integrated communication technology.

✚ Basic Product Specifications

Operation
- CPU: Qualcomm MSM7225 528 Mhz
- O/S: Microsoft® Windows Mobile® 6.5

Memory
- NAND Flash: 256 MB
- RAM: 256 MB
- Expansion: User accessible microSD + HC

Display
- Type: Graphic Transflective TFT LCD with touch panel, 16-bit color with adjustable backlight
- Size: 2.8", 480 x 640 pixels
- Mode: Portrait / Landscape

Operating indicators
- Visual: 2 LEDs (red/orange/green/blue)
- Non-visual: Vibrate, Buzzer

Operating keys
- Entry options:
  navigation key (scroll + select),
  function keys,
  control keys,
  1 power key,
  2 hot keys,
  2 phone keys,
  1 camera key
  reset key,
  volume key,
  2 scan keys
- **Qwerty:**
  QWERTY keyboard
- **Numeric:**
  12 (alpha)numeric keys

Communication
- USB: OTG, client and host
- IrDA: Ver. 1.3, 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
- Telecom: GPRS/EDGE (quad-band 850/900/1800/1900), 3G UMTS (WCDMA band 1,II,V,VI), 3.5G UMTS (HSDPA 7.2M / HSUPA 5.76 M)
- GPS: Integrated AGPS
- Audio: Speaker/microphone (mono), headset connector (stereo)
- Extension: User accessible microSD I/O

Power
- Rechargeable battery: Lithium-Ion 3.7V 3060mAh
- Backup battery: 6mAh
- Charging method: Enclosed power supply, separate car charging adapter, separate cradle

Camera
- Color camera: 3.2 megapixels, auto-focus, LED flash

Barcode scanner Optics
1D model:
- Light source: 650 nm visible laser diode
- 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
  55 - 645 mm / 2.17 - 25.39 in

2D Imager Optics
2D model:
- Light source: Aiming laser diode, illumination LEDs
- Scan method: CMOS area sensor, 900 x 512 pixels, gray scale
- Scan rate: Up to 80 fps
- 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 40º, Vertical 23º
- Depth of field: At *QR Code* and Code 39
  45 - 1000 mm / 1.77 - 39.37 in (0.127 mm / 5 mil)

Supported Symbologies
- Barcode (1D): JAN/UPC/EAN incl. add on, Codabar/NW-7, Code 39, Code 93, 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: Composite Codes, MicroPDF417, PDF417 Extra 2D model: Aztec Code, Aztec Runes, Coda-block F, Data Matrix (ECC200/ECO-140), Maxi Code (mode 2~5), Micro QR Code, QR code

Durability
- Temperature in operation: -10 to 50 °C / 14 to 122 °F
- Temperature in storage: -40 to 60 °C / -40 to 140 °F
- Humidity in operation: up to 90% (non-condensing)
- Humidity in storage: up to 90% (non-condensing)
- Drop test: 1.5 m / 5 ft drop onto concrete surface
- Protection rate: IP 64

Physical
- Dimensions (w x h x d):
  67 x 135 x 22 mm / 2.64 x 5.31 x 0.87 in
- Weight body: Ca. 235 g / 8.3 oz (incl. battery)
- Case: Black

Regulatory & Safety
- Product compliance:
  CE, FCC, VCCI, PTCRB, GCF, RoHS,
  1D model: JIS-C-6802 Class 2, IEC 60825-1 Class 2, FDA CDRH Class II
  2D model: IEC 60825-1 Class 2, FDA CDRH Class II

Enclosed items
- USB AC Adapter
- Standard battery Lithium-Ion 3060 mAh
- USB cable
- Leather case
- Hand strap
- Ear microphone
- Screen protector
- Getting started disc
- Stylus + Cord

Sold separately
- CRD21: Serial communication, charging
- Car holder kit

Models

Scan versions
• Barcode scanner
• 2D imager
Keypad versions
• QWERTY
• Numeric

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