

# OPTICON

# Windows Mobile



GPRS/EDGE/3G/3.5G

## H21

2D CMOS imager & Color camera  
Qwerty keypad

Single cradle



AGPS

MicroSD I/O



+ Related products

### H21

- Windows Mobile
- Barcode laser scanner & Color camera
- Bluetooth, W-LAN (WiFi), GPRS/EDGE/3G/3.5G, microSD I/O
- AGPS, IP 64



### H19B

- Windows Mobile
- Barcode laser scanner
- Bluetooth, W-LAN (WiFi), GSM/GPRS/EDGE, miniSD I/O
- GPS, IP 54



### PHL8214

- Windows CE
- Barcode laser scanner
- Bluetooth, W-LAN (WiFi), GPRS/EDGE, serial connector
- IP 65, Full keypad



## 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:  
QWERTY keyboard,  
navigation key (scroll + select),  
function keys,  
control keys,  
1 power key,  
2 phone keys,  
1 camera key  
reset key,  
volume key,  
2 scan 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)

## 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

## 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 \*QR Code\* and Code 39  
\*45 - 65 mm / 1.77 - 2.56 in (0.127 mm / 5 mil)\*,  
\*45 - 230 mm / 1.77 - 9.06 in (0.381mm / 15 mil)\*,  
45 - 110 mm / 1.77 - 4.33 in (0.127 mm / 5 mil),  
50 - 260 mm / 1.97 - 10.24 in (0.254 mm / 10 mil),  
120 - 1000 mm / 4.72 - 39.37 in (1.0 mm / 39 mil)

## Supported Symbologies

- 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/ECO-140), Maxi Code (mode 2~5), MicroPDF417, Micro QR Code, PDF417, 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, 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: USB OTG, Active Sync, charging
- Car holder kit

Copyright Opticon. All rights reserved. This information is subject to change without prior notice. For availability, contact your local representative.

- **The Netherlands:** Hoofddorp  
- **France:** Issy Les Moulineaux  
- **Germany:** Dietzenbach  
- **Italy:** Villanova di Castenaso (BO)  
- **Sweden:** Järfälla  
- **United Kingdom:** Luton, Bedfordshire  
- **U.S.A.:** Renton, WA  
- **Brazil:** São Paulo

- **Japan:** Warabi City  
- **Taiwan:** Taipei  
- **P.R.China:** Shanghai  
- **Australia:** West Ryde

Opticon Limited  
960 Capability Green  
Luton, Bedfordshire  
LU1 3PE United Kingdom  
phone: +44 (0)1582-635100  
fax: +44 (0)1582-635200  
email: sales@opticon.co.uk  
internet: www.opticon.com

**OPTICON**  
WWW.OPTICON.COM