OPTICON

PHL7000 Series

Beyond Rugged. It's Flexible.

Ideal tool for:

- Transport
- Logistics
- Retail
- Mobility

Scan

Interact

Communicate

OPTICON

My Device
BCSTray
Recycle Bin
Microsoft WordPad
Internet Explorer
OPTICON
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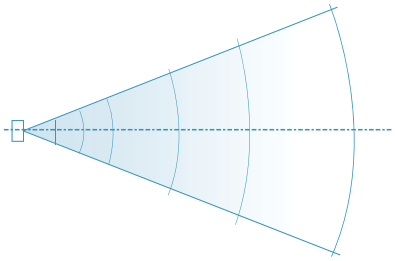
FAST AND AGGRESSIVE SCANNING PERFORMANCE

The PHL7000 series is equipped with a high-performance barcode scanner. The pre-installed software includes an on-board running application to read the barcodes instantly. There is no need to install any software development kit before scanning, the terminal scans out of the box.

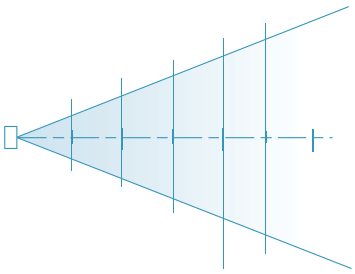
+ 1D

Opticon integrated its industry leading laser scan engine, reading barcodes at a speed of 100 scans per second. This engine is integrated in the PHL7112, 7114 and 7214.



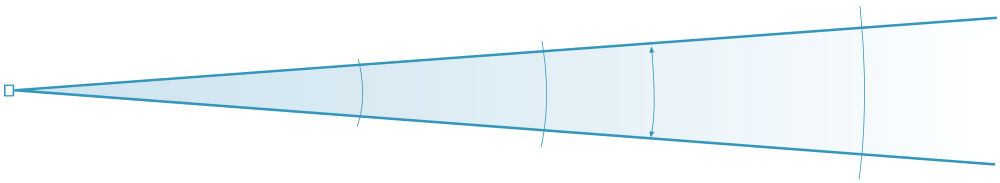
+ 2D

The PHL7254 uses Opticon's CMOS imager engine. This 1.3 mega-pixel grey-scale imager reads all 2D and stacked barcodes.

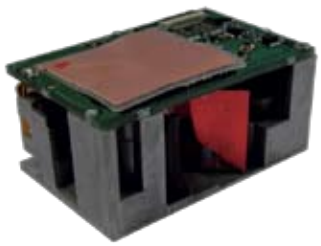


+ LONG RANGE

The optional long distance laser engine can be integrated for reading at distances from 60 centimers to 2.8 meters. This model is called PHL7142.



+ 1D SCAN ENGINE



+ 1D LONG RANGE SCAN ENGINE

+ 2D SCAN ENGINE

Interact

OPTIMIZE PRODUCTIVITY

The PHL7000 series is equipped with Windows CE, the core version of Windows operating systems, delivering fast on-demand access to well-known on-board applications. Version 5.0 features a Windows familiar graphical user interface and the most popular Windows applications, suitable for the storage capacity and speed of the device.

+ USER APPLICATIONS

Windows CE 5.0 together with the strong Intel Processor make it easy for organizations to run different applications on one device. Available technologies combined with software components enable the user to create customized solutions. The PHL7000 series has SDK support for its operating system. With the Software Development Kit and Visual Studio the user has the opportunity to build native applications, which can be loaded on the device.

+ REAL-TIME COMMUNICATION

Wireless real-time communication options support standard configuration. Bluetooth and WiFi connect to peripheral devices and to back-office data networks.

Bluetooth™ WiFi™ Microsoft Windows CE.net

+ DURABLE

The ruggedized PHL7000 series is equipped with rubber quards at the corners of the product, withstanding drops of 1.5 meter on concrete. Apart from that, the PHL7000 series is sealed up to IP 54 standards. This makes the terminals suitable for every day use in harsh situations.

RUGGED AND RELIABLE

The terminals extend network access and enforce business productivity regardless of the location. Wireless communication enables an up-to-date enterprise management system. The physical design of the terminals offers a convenient balance for user operation with a large display and a rugged keypad. This reliable data capturing tool creates efficiency in use.

+ KEYPAD VARIATIONS

The keypad layout provides clear and easily operable buttons. The backlight function on the keypad eases the distinction of the keys in weaker light conditions. Multiple keyboard options provide flexibility, to fit every user preference.

+ HIGH CAPACITY BATTERY

The PHL7000 series is standard equipped with a 3000 mAh battery, developed to be used in all kinds of demanding situations. This power supply can easily be replaced by an optional 4000 mAh battery, adding even more mobile power.

Communicate

CONNECTIVITY

Data management systems are standard equipped with network communication features to make real-time data available in every step of the business process. The PHL7000 series connects directly by offering a variety in wireless communication features like Bluetooth, WiFi and GSM/GPRS.

+ BLUETOOTH 2.4 GHZ

Use the widely available and reliable Bluetooth wireless communication protocol to connect to any mobile or stationary device with Bluetooth capacity.

+ WIFI WIRELESS LAN

The WLAN interface provides real-time interoperability and license-free use of the WiFi 802.11b standard.

+ GSM/GPRS 900/1800/1900HZ

The PHL7000 series, except for the PHL7112 and PHL7142, is standard equipped with GSM and GPRS, allowing employees to make optimal use of communication inside or outside. It keeps the workforce in touch with e-mail, Internet and enterprise applications.

+ VOIP PREPARED

WLAN integration in combination with a microphone enables the installation of VoIP sofware tools. The only investment is a one time training for speech recognition. The communication technology to send the voice over IP to the host and vice versa is already available.

+ CFII SLOT

The PHL7112 is equipped with a CFII slot. This slot can be used for any external CFII card and offers an opportunity for additional functionality. Extra memory, RFID reading or another external application can be installed easily.

+ CHARGING AND COMMUNICATION

The terminal can be charged by the dedicated cradle (IRU7000), with charging and communication features. Two slots provide charging of both the docked terminal and a spare battery. The cradle is equipped with an IrDA interface allowing data transfer when the scanner is inserted in the cradle. External communication is supported by either a RS232 or USB interface.

Markets

Transport

Applications

- On-line delivery confirmation
- Controlling (error reduction)
- Signature capturing
- Customer Relationship Management (CRM)
- Location tracking / Route status

In environments where goods are continuously moving from indoor to outdoor, scanning devices identifying these switching goods, need to be water-resistant and ruggedized. Article information and transport specific information are essential to keep track of the goods. With the PHL7000 series, this process can be optimized when truck drivers on the road scan the bills and other documents and transfer the collected information instantly.

Logistics

Applications

- Shipping confirmation
- Internal distribution
- Stock location
- Inventory management
- Order picking

The PHL7000 series is built from a user's perspective. Combined with a warehouse management system and communication network, employees have all necessary information available in real-time. Wireless connectivity allows you to use location-based tracking of stock enabling your staff to pinpoint the exact location of an item at any time. This leads to an increase in productivity. Staff in the warehouse can make use of the pistol grip for comfortable, wrist neutral ergonomics and intuitive aiming. This is especially important when the devices are used all day long.

Retail

Applications

- In-store management
- Stock movement
- Price checking
- Instant order entry
- Asset management

The PHL7000 series is designed to improve the employee's productivity. It realizes transparency in the flow of goods to improve in-store management. Proactive handling of accurate data is crucial. The PHL7000 series gives employees clear insight in the inventory and the ability to instantly enter orders. This not only helps to limit administration costs, it also provides visibility of economic trends for management decision making.

Mobility

Applications

- Customer Relationship Management (CRM)
- Inventory management
- Price checking
- Signature capture
- Voice
- Short message service (SMS)

The PHL7000 series enables organizations to run different applications on one device. Wireless communication combined with software components enable the user to create customized solutions.

Use Microsoft Visual Studio to build your own applications, or implement software components that enhance the use of the PHL7000 series.

+ Basic Product Specifications

Operation
- CPU: Intel® PXA255 32-bit RISC 400Mhz
- O/S: Windows CE 5.0
- Software: Wordpad, Internet Explorer, Inbox, Active Sync, Messenger, Opticon scanner application, Accessories, Upgradeable via integrated SD
- RTC: Supports year, month, day, hour, minute, second (leap year supported)

Memory
- FlashROM: 64 MB
- RAM: 128 MB SDRAM
- Expansion: Integrated SD
  Extra PHL7112, PHL7142: Integrated SD, CF Type II

Display
- Type: Graphic Transflective TFT with touch panel, 256K color with adjustable backlight
- Size: 3.5", 240 x 320 pixels
- Mode: Portrait

Operating indicators
- Visual: 2 LEDs (triple-color charging indication & dual-color scanning indication)
- Non-visual: Buzzer

Operating keys
- Entry options: Backlit keypad for all models
  PHL7214, PHL7254: Full keypad 60 keys total incl. 26 alpha-keys and 10 numeric keys
  PHL7112, PHL7114, PHL7142: Numeric keypad 29 keys total incl. 16-key (alpha)numeric/control keypad

Communication
- RS232: Baudrate 150 bps - 115.2 kbps, serial cable connector
- USB: Ver. 1.1, full speed, serial cable connector client, optional host
- Bluetooth: Ver. 1.2, SPP, DUN, OPP, HID (only keyboard support), output power class 2, range 5-10 m
- W-LAN:
  PHL7114, PHL7214, PHL7254: 802.11b, WEP, WPA, PSK
  PHL7112, PHL7142: 802.11b/g, CCK, TKIP, WEP, WPA, WPA2, EAP, LEAP, PEAP, AES, PSK (pre-shared, static, dynamic), Cisco CCX compatible Ver. 4
- Telecom: PHL7114, PHL7214, PHL7254: GSM/GPRS, tri-band 900/1800/1900, Class C
- Audio: Speaker/microphone (mono), headset connector (stereo)
  Extra PHL7114, PHL7214, PHL7254: GSM headset connector (mono) sold separately
- Extension: PHL7112, PHL7142 : User accessible CF Type II I/O

Power
- Rechargeable battery: Lithium-Ion 3.7V 3000mAh
- High-capacity battery: Optional 3.7V 4000mAh
- Backup Battery: 1 integrated rechargeable backup battery

Power (continued)
- Charging method: Enclosed power supply, separate cradle IRU7000, separate car charging adapter
- Battery charging time: Ca. 4 or 5.5 hours when charging through power supply, ca. 5 or 7 hours when charging by cradle Standard battery (resp. Standard or High-capacity battery)

Barcode scanner Optics
- Light source: 650 nm visible laser diode
- Scan method: Vibrating mirror
- Curvature: R>15 (EAN8), R>20 (EAN13)
- Min. PCS value: 0.45

Standard PHL7112, PHL7114, PHL7214:
- Scan rate: 100 scan/sec
- Reading pitch angle: -35 to 0º, 0 to +35º
- Reading skew angle: -50 to -8°, +8 to +50°
- Reading tilt angle: -20° to 0º, 0 to +20º
- Depth of field: At PCS 0.9, Code 39
  50 - 650 mm / 1.97 - 25.59 in

Long range PHL7142:
- Scan rate: 40 scan/sec
- Reading pitch angle: -20 to 0º, 0 to +20º
- Reading skew angle: -55 to -10º, +10 to +55º
- Reading tilt angle: -5° to 0º, 0 to +5º
- Depth of field: At PCS 0.9, Code 39
  420 - 2800 mm / 16.54 - 110.24 in

2D Imager Optics
PHL7254:
- Light source: Illumination 4 red LEDs 630 nm, aiming 2 green LEDs
- Scan method: CMOS area sensor (gray-scale), 1024 (V) x 1280 (H) Pixels = 1.3 million pixels
- Scan rate: Up to 30 fps
- Trigger mode: Manual, multiple read
- Reading pitch angle: -50 to 0°, 0 to +50°
- Reading skew angle: -60 to 0°, 0 to +60°
- Reading tilt angle: 360°
- Curvature: R>15 (EAN8), R>20 (EAN13)
  Min. PCS value: 0.45
- Field of view: Horizontal 47°, Vertical 37.5°
- Depth of field: At PCS 0.9, PDF417
  50 - 215 mm / 1.97 - 8.46 in (0.339 mm / 13 mil),
  95 - 135 mm / 3.74 - 5.31 in (0.127 / 6 mil)

Supported Symbologies
- Barcode (1D): All models: JAN/UPC/EAN incl. add on, Codabar/NW-7, Code 11, Code 39, Code 93, GS1-128 (EAN-128), GS1 DataBar (RSS), IATA, Industrial 2of5, Interleaved 2of5, Matrix 2of5, MSI/Plessey, Telepen
  Extra PHL7112, PHL7114, PHL7142, PHL7214: ISBN
  Extra PHL7254: UK/Plessey, S-Code
- Postal code: All models: Chinese Post, Korean Postal Authority code
- 2D code: PHL7254: Aztec Code, Aztec Runes, Composite Codes, Data Matrix (ECC200/EC0-140), Maxi Code (mode 2~5), MicroPDF417, PDF417, QR code

Durability
- Temperature in operation: -10 to 50 ºC (14 to 122. F)
- Temperature in storage: -20 to 70 ºC (-4 to 158. F)
- Humidity in operation: 5 - 95% (non-condensing)
- Ambient light immunity: White 4,000 lx max, Fluorescent 4,000 lx max, Direct sun 80,000 lx max
- Drop test: 1.5 m / 5 ft drop onto concrete surface
- Protection rate: IP 54

Physical
- Dimensions (w x h x d):
  PHL7254: 91.3/78 x 219.5 x 64.6/42.2 mm
  3.59/3.07 x 8.64 x 2.54/1.66 in
  Other models: 91.3/78 x 192.5 x 60.6/42.2 mm
  3.59/3.07 x 7.58 x 2.39/1.66 in
- Weight body: Depending on model (incl. battery) min. ca. 600 g / 1 lb 5 oz, max. ca. 665 g / 1 lb 7 oz
- Case: Black or Grey

Regulatory & Safety
- Product compliance: CE, FCC, cUL, RoHS, JIS-C-6802 Class 2, IEC 60825-1 Class 2, FDA CDRH Class II

Enclosed items
- Power supply 100-240V/0.6A, 50/60 Hz, 5V/2.6A + Power cord
- Standard battery 3.7V 3000mAh
- USB client cable
- Hand strap
- Stylus
- Ear microphone (stereo)
- PHL7112, PHL7142: CF support guide

Sold separately
- IRU7000 Cradle: Serial communication, charging
- IRU7004 spare battery charger
- High-capacity Lithium-Ion battery 3.7V 4000mAh
- GSM ear microphone (mono)
- RS232 serial cable
- USB host cable
- Car charging adapter
- Holster
- Pistol Grip

Models

	PHL 7112	PHL 7114	PHL 7142	PHL 7214	PHL 7254
Communication					
• Bluetooth	●	●	●	●	●
• W-LAN	●	●	●	●	●
• GSM/GPRS		●		●	●
• CF Type II I/O	●		●		
Scanner					
• Barcode	●	●		●	
• Long range			●		
• 2D imager					●
Keypad					
• Numeric	●	●	●		
• Full				●	●

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