



# **PHL 2700**

## handheld terminal

The PHL2700 terminal is a programmable handheld terminal, well suited for a variety of indoor portable applications. In the standard version the PHL2700 is provided with a barcode laser scanner for identification. Optionally the PHL2700 dual reader is available to read both barcodes and RF-ID tags. Alternatively it can be equipped with RF data communication (RD-DC).

The PHL2700 terminal can be programmed in C-language. The clear and easily readable graphic display enables the user to use the terminal in combination with advanced application programs.

Operating power is supplied by the main battery. A rechargeable battery pack, that can be charged in the cradle, or non-rechargeable penlite batteries can be used.

For communication the PHL2700 is provided with an IrDA interface. Through this interface the terminal is able to communicate with the cradle, or apart from the cradle to all computer devices that use IrDA. Also belt printers can easily be approached by the PHL2700 thanks to the smart location of the IrDA window.

## Features

### **Benefits**

<ul> <li>Rechargeable Nickel Metal Hydride battery pack</li> </ul>	e ■ Long life batteries
8 MB Memory available	<ul> <li>Enables continuous working even with large data storage</li> </ul>
Easily readable graphic display	Enables advanced applications
RS232 data transmission by cradle	<ul> <li>Easy data storage into the computer system</li> </ul>
Built-in IrDA interface	<ul> <li>Ideal to use together with portable computers, like note books.</li> </ul>
Optional RF reader	<ul> <li>optional model available to read bar codes and radio frequency tags</li> </ul>



cradle for terminal and rechargeable battery pack



Data collection programmability and portability in one terminal

Opticon Sensors Europe B.V. / Opaallaan 35 / 2132 XV Hoofddorp / The Netherlands phone: (31) 23-5692700 / fax: (31) 23-5638266 / e-mail: sales@opticon.nl internet: www.opticon.nl (www.opticon-sensors.com)



PHL2700 handheld terminal		Functionality	
		Memory	🗖 ROM: 32 kB
			□ FlashROM (for O/S and program): 512 kB
Main batterv	□ rechargeable pack: Ni-MH	<	battery backed up D-RAM (for data): 8 MB
<ul> <li>Indian Settery</li> <li>Indian Battery</li> <li>Indian Battery<td>C dry cell: Alkaline penlite</td><td>) Microprocessor</td><td>16-bit</td></li></ul>	C dry cell: Alkaline penlite	) Microprocessor	16-bit
	<ul> <li>optional: other 2 x AA-size penlite</li> <li>Ni-MH: When making every 5 seonds 1 scan</li> </ul>	Real time clock	Quartz RTC, time and date programmable, leap year handling, (accuracy $\pm$ 60 sec./month)
	<ul> <li>with 1 sec laserbeam on and 0.2 sec.</li> <li>green LED on and 0.2 sec. buzzer on,</li> <li>operating time is: approx. 40 hours</li> <li>Alkaline: When making every 5 seonds 1 scan</li> <li>with 1 sec laserbeam on and 0.2 sec.</li> </ul>	Display	<ul> <li>128x64 Pixels graphic LCD with backlight</li> <li>Character fonts: 4/8 lines x 16 characters 5/10 lines x 21 characters</li> </ul>
	green LED on and 0.2 sec. buzzer on, operating time is: approx. 78 hours Different operation conditions affect the	Keyboard	<ul> <li>27 keys total (26 keys user definable)</li> <li>8 Function keys</li> <li>Alpha/Numeric mode</li> </ul>
	operating time	Trigger mode	Manual
	operating time	Programming	Functionality is provided by user application. The application may be downloaded from PC via cable
Backup battery	If fully charged: 30 days backup time		com port or IrDA.
operating time Battery management	<ul> <li>Low voltage indicated on the terminal display.</li> </ul>	Interfaces supported	<ul> <li>RS232 by direct cable</li> <li>RS232 by cradle</li> <li>IrDA on terminal</li> </ul>
	When battery is low the terminal switches off automatically.	Transmission speed	<ul> <li>RS232 direct cable: 2400 - 115200 baud</li> <li>RS232 cradle: 2400 - 115200 baud</li> </ul>
Charging method Chargeable Ni-MH pack in terminal via cradle	Rechargeable Ni-MH pack in terminal via cradle		IrDA terminal: 2400 - 115200 baud
		Environmental specifications	
Optical specifications Light source	650 nm visible laser diode	Temperature	<ul> <li>-10 - 40 °C in operation</li> <li>-20 - 60 °C in storage</li> </ul>
Scan rate	100 scans/sec	Humidity	20 - 80 % in operation
Decode rate	100 decodes/sec	(non condensing)	□ 20 - 90 % in storage
Reading width	62 mm at 30 mm 111 mm at 100 mm	Shock: drop:	1.5 m drop onto concrete surface
		Shock: vibration:	10 - 50 Hz with 1G for 30 min, cycle for X,Y,Z.
Resolution at PCS 0,9	0.15 mm (6mil)	Ambient light rejection	□ fluorescent 3.000 lux max.
Depth of field 0 - 140 mm (at PCS 0.9, res. 0.25)	0 - 140 mm (at PCS 0.9, res. 0.25)	Emission	According to EN50081, part 1
Physical anapifications		Immunity	According to EN50081, part 1
Dimonsions (Lx w x d)	177 x 62 x 41 mm	Protection against	recording to Encourse, part i
		dust and moisture	dust and moisture According to IEC529, IP 42
Weight	hody (eycl hattery): 175 a	Safety, Laser class	According to IEC825, Class I laserproduct
Direct cable	optional for maintenance: RS232 - DB9 female		

 Supported symbologies
 Chinese Post 2of5 - Codabar incl. ABC and CX - Code 39 - Code 93 - Code 128 - EAN-8 incl. +2,+5 - EAN-13 incl. +2,+5

 IATA - Industrial 2of5 - Interleaved 2of5 - Italian Pharmaceutical - Laetus - Matrix 2of5

 MSI/Plessey - UK/Plessey - S-Code - Telepen - UPC-A incl. +2,+5 - UPC-E incl. +2,+5

Supported RF

Functionality Interfaces supported

Parity

Transmission modes

For more information about RF-tag reading ask Opticon for the applicable models.

# IRU-2700 cradle

**Electrical specifications** 

RS232
 RS485

Serial communication 🗖 RS232 Baudrate: 1200 - 115200

8 hours charge

Half duplex RS232
 Half duplex RS485

Odd, Even, None



#### **Environmental specifications**

Temperature	<ul> <li>0 - 40 °C in operation</li> <li>-20 - 60 °C in storage</li> </ul>
Humidity (non condensing)	<ul> <li>30 - 85 % in operation</li> <li>30 - 90 % in storage</li> </ul>
Shock: vibration:	10 - 50 Hz with 1G for 30 min, cycle for X,Y,Z.
Emission	According to EN50081, part 1
Immunity	According to EN50082, part 1

#### Physical specifications

Dimensions (I x w x d)	150 x 90 x 81 mm
Case material	ABS
Weight	250 g
Standard connector	RS232 - D Sub 9P Female RS485 - 6 pins modular plug

 The Netherlands
 Hoofddorp
 France
 Issy Les Moulineaux
 Cedex
 Germany
 Mainhausen

 Italy
 Padova
 Sweden
 Järfälla
 U.K. Banbury, Oxon

 Australia
 Lane
 Cove
 Japan
 Ashibetsu
 Warabi
 Taiwan
 Taipei
 U.S.A.
 Orangeburg

RS485 Baudrate: 1200 - 115200

Specifications are subject to change without notice. Printed 09-2001