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

IRU2700
cradle for terminal and rechargeable battery pack

Data collection
programmability and portability in one terminal

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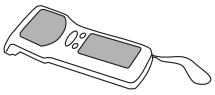
OPTICON

PHL2700 handheld terminal



Electrical specifications

Main battery	◻ rechargeable pack: Ni-MH ◻ dry cell: Alkaline penlite ◻ optional: other 2 x AA-size penlite
Main battery operating time	◻ Ni-MH: When making every 5 seonds 1 scan with 1 sec laserbeam on and 0.2 sec. green LED on and 0.2 sec. buzzer on, operating time is: approx. 40 hours ◻ Alkaline: When making every 5 seonds 1 scan with 1 sec laserbeam on and 0.2 sec. green LED on and 0.2 sec. buzzer on, operating time is: approx. 78 hours ◻ Different operation conditions affect the operating time ◻ Use of other penlite batteries affect the operating time
Backup battery	Lithium (CR2032)
Backup battery operating time	If fully charged: 30 days backup time
Battery management	◻ Low voltage indicated on the terminal display. ◻ When battery is low the terminal switches off automatically.
Charging method	◻ Rechargeable Ni-MH pack in terminal via cradle

Optical specifications

Light source	650 nm visible laser diode
Scan rate	100 scans/sec
Decode rate	100 decodes/sec
Reading width	62 mm at 30 mm 111 mm at 100 mm
Resolution at PCS 0,9	0.15 mm (6mil)
Depth of field	0 - 140 mm (at PCS 0.9, res. 0.25)

Physical specifications

Dimensions (l x w x d)	177 x 62 x 41 mm
Case material	ABS
Weight	body (excl. battery): 175 g
Direct cable	optional for maintenance: RS232 - DB9 female

Functionality

Memory	◻ ROM: 32 kB ◻ FlashROM (for O/S and program): 512 kB ◻ fast RAM: 2kB ◻ battery backed up D-RAM (for data): 8 MB
Microprocessor	16-bit
Real time clock	Quartz RTC, time and date programmable, leap year handling, (accuracy ± 60 sec./month)
Display	◻ 128x64 Pixels graphic LCD with backlight ◻ Character fonts: 4/8 lines x 16 characters 5/10 lines x 21 characters
Keyboard	◻ 27 keys total (26 keys user definable) ◻ 8 Function keys ◻ Alpha/Numeric mode
Trigger mode	Manual
Programming	Functionality is provided by user application. The application may be downloaded from PC via cable, com port or IrDA.
Interfaces supported	◻ RS232 by direct cable ◻ RS232 by cradle ◻ IrDA on terminal
Transmission speed	◻ RS232 direct cable: 2400 - 115200 baud ◻ RS232 cradle: 2400 - 115200 baud ◻ IrDA terminal: 2400 - 115200 baud

Environmental specifications

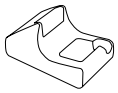
Temperature	◻ -10 - 40 °C in operation ◻ -20 - 60 °C in storage
Humidity (non condensing)	◻ 20 - 80 % in operation ◻ 20 - 90 % in storage
Shock: drop:	1.5 m drop onto concrete surface
Shock: vibration:	10 - 50 Hz with 1G for 30 min, cycle for X,Y,Z.
Ambient light rejection	◻ fluorescent 3.000 lux max. ◻ direct sun 50.000 lux max.
Emission	According to EN50081, part 1
Immunity	According to EN50082, part 1
Protection against dust and moisture	According to IEC529, IP 42
Safety, Laser class	According to IEC825, Class I laserproduct

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

IRU-2700 cradle



Electrical specifications

Battery charging time	◻ when battery in terminal: 8 hours charge

Functionality

Interfaces supported	◻ RS232 ◻ RS485
Serial communication	◻ RS232 Baudrate: 1200 - 115200 ◻ RS485 Baudrate: 1200 - 115200
Transmission modes	◻ Half duplex RS232 ◻ Half duplex RS485
Parity	Odd, Even, None

Environmental specifications

Temperature	◻ 0 - 40 °C in operation ◻ -20 - 60 °C in storage
Humidity (non condensing)	◻ 30 - 85 % in operation ◻ 30 - 90 % in storage
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 (l 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

Specifications are subject to change without notice. Printed 09-2001/2003