DLL6010-R

Cordless industrial laser gun

FEATURES

- Three versions available:
  - DLL6010-R NM without display
  - DLL6110-R NM with display
  - DLL6110-R NM Long Range with display
- Robust yet light weight (340 gr.)
- Point to Point and Multipoint transmission
- Base RF station with smart battery charger
- Smart battery charger for multipoint applications
- Field update firmware via OM6010-R
- Operating temperature: -10 to 40 °C

APPLICATIONS

- Work-in-progress control
- Warehouse management
- Shipping and receiving control
- Cash & carry retail applications
- Fork lifts
- General use in harsh environments

GENERAL DESCRIPTION

The Datalogic industrial laser scanner **DRAGON**™ series is enriched by two new models and three versions with radio frequency data transmission.

The **DLL6010-R** and **DLL6110-R** laser guns communicate through a low power, license free radio in the 433 Mhz (910 Mhz for USA version) band.

The operator is not limited by a cable and the device can be used up to 50 meters away from the base station.

In all applications where a particular amount of mobility is necessary, the new cordless guns represent the key to increasing productivity and flexibility in the working area. All models are equipped with bi-directional communication between the base station and the host. Therefore, they can transmit the code read and receive confirmation of correct reading in real time.

The **DLL6110-R** version also includes a display and 3 push-button keyboard.

Thanks to these characteristics, the operator can receive information from the host, actively interact with the central system and visualise the code read.

The cordless system supports 2 types of use:

- Point to Point: each gun is associated with its own base station.
- Multipoint: many guns (up to 32) transmit data to one base station.

Communication from the base station to the host can occur in 2 ways:

- Through an integrated multistandard decoder interface (connection possibility through RS232, Wedge, Pen)
- In LAN through an optional ECHELON module (up to 64 interconnected bases)

The Ni-Me-Hy batteries guarantee high autonomy: more than 60,000 reads in the covered area. It can also be used with commercial AA size Alkaline batteries.

Besides its robustness, durability and reliability, the **DRAGON**™ line offers a new way to boost productivity in many application fields.

DATALOGIC

SYSTEM CONFIGURATIONS AND COMMUNICATION FEATURES

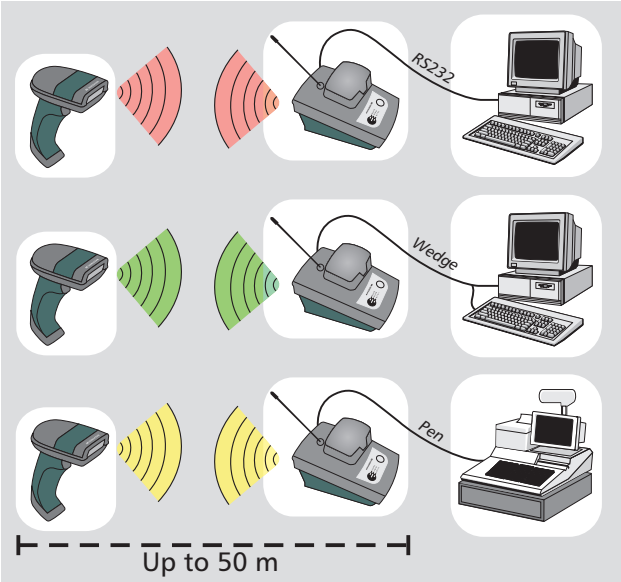


Fig. 1 - DLL6010-R point-to-point connection

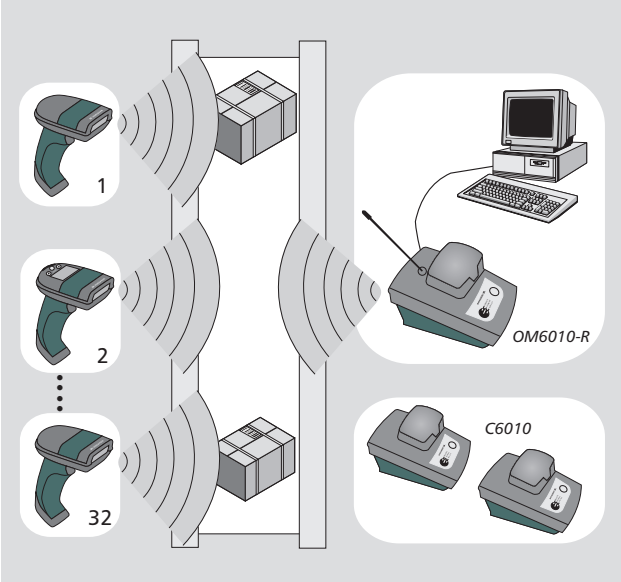


Fig. 2 - DLL6010-R multi-point connection

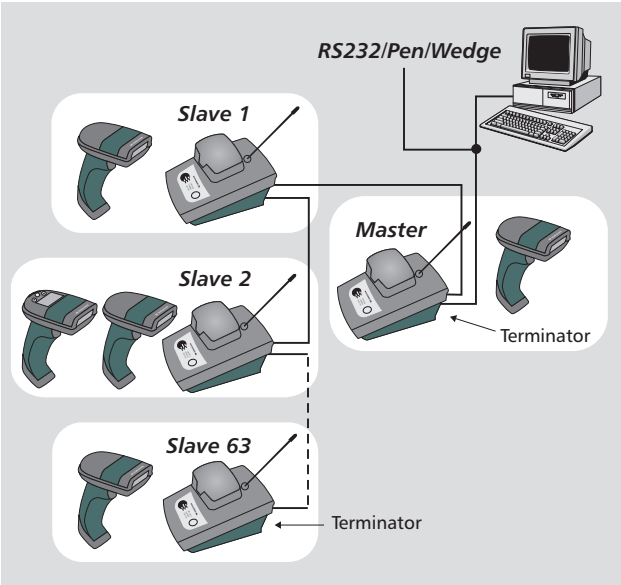


Fig. 3 - DLL6010-R network (Echelon kit required)

The basic configuration of the DLL6010-R system consists of 1 gun (DLL6010-R) and 1 cradle (OM6010-R).
In this case, a configuration is called *point-to-point* (fig. 1) and in terms of use, one has the same functionality of a standard gun without any cable constraint.
When more than one gun (up to 32) is connected to a single cradle a *multi-point* configuration is created (fig. 2). A multiple user data collection is available in the range of 50 mts with no cabling requirements.
The system can be completed with gun battery chargers, namely C6010, in order to make the whole system less expensive.
Moreover, different cradles can be connected to each other in a local area *network configuration* (fig. 3).
In this case, the first cradle becomes the master. It manages communication with its own slaves (up to 63) over a maximum length of 1300 meters. Network connection requires the optional field upgrade ECHELON kit. This possibility is available both with point to point and multipoint configurations.
Regarding communication between a remote gun and a cradle/host, we can identify two typical modes; the first with *audible feedback* from the cradle the second with *visible and audible feedback* from the host.
The first mode is typical of the gun model without display (connection A - fig. 4). When a code is read the data is sent to the cradle and then to the host. The user hears a beep tone signaling that the code has been read and transmitted. A second short beep confirms that the data has been correctly received by the CRADLE (acknowledge). The cradle, offered with integrated multistandard interface, immediately sends the data to the host (connection B) through the selected interface (WEDGE, PEN EMULATION or RS232).
The second communication mode is possible when RS232 is selected (connection B). It provides the greatest advantage when used with the DLL6110-R (with display). In this case, the system performs a virtual connection C, where the host can talk directly to the gun. The HOST system can send back a variety of messages or custom beeps, thanks to the easily programmable ESCAPE sequences (based on the VT100 set). In this manner, the use of the three keys available on the display version let the user interact with the host in a simple and intuitive way (ex: YES, NO, CONFIRM etc according to the software developed on the host).

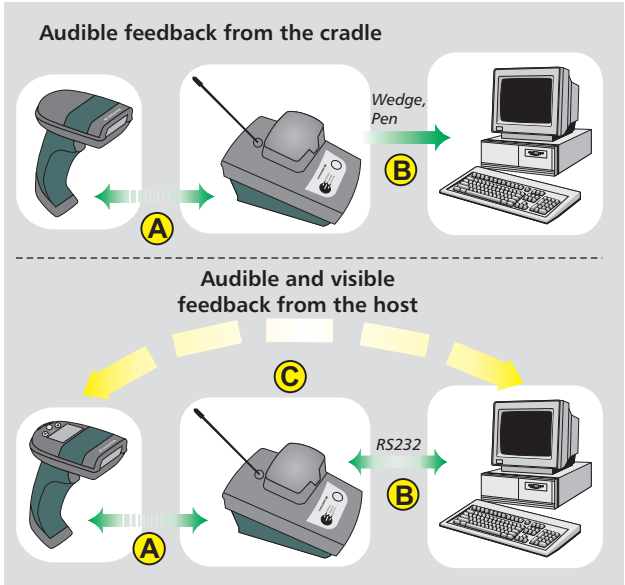


Fig. 4 - DLL6010-R communication

APPLICATIONS

Thanks to its powerful architecture, the Datalogic Cordless system represents an ideal and cost effective solution expanding and optimizing your data capturing application. Given that the scanner goes where you go, you can take it to the job, rather than taking the job to the scanner. This freedom of movement determines an amazingly increased level of productivity, making jobs easier, faster, smoother.

The DLL6010-R system is designed for tough industrial use, but it can conveniently cover applications in many other fields, thanks to its ergonomic design and light weight.

In factory or warehouse applications, DLL6010-R is a winning card: loading docks, shipping and receiving, inventory control and work in progress are the main activities that gain an incredible advantage with freedom from cable constraint.

Eliminating the cable and thanks to the possibility of visualizing information on the field (display versions only) provides the user with major benefits such as no worries about broken cables, no problems of entanglement in machinery and equipment, no need to verify data acquisition on the video of the host, and undisputed safety in data transaction.

Fork lift truck applications also based on vehicle RF terminals receive significant advantages in using the DLL6010-R system as a local extension of their data capturing capability.

In retail environments, the DLL6010-R Cordless system gains advantages from its ergonomic design and light weight, providing comfortable scanning even in continued data capture sessions. The operator scans each item without moving it, fast and easily. Once again, the downtime caused by cable constraint is automatically avoided.

These characteristics make the DLL6010-R's ideal applications in Cash and Carry, Do-It-Yourself shops and furniture outlets.

The Dragon™ provides fast and accurate bar code reading, as well as reliability in tough outdoor industrial environments, combining mobility with durability and robustness.

Cash and carry

Warehousing

Work-in-progress

Fork lift truck

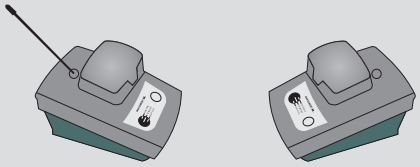
MODELS AND ACCESSORIES

MODEL	DESCRIPTION	ORDER NO.
DLL6010-R, 433 MHz	Cordless laser gun, General Purpose scanning engine, no display	902201690
DLL6110-R, 433 MHz	Cordless laser gun, General Purpose scanning engine, with display and keypad	902201710
DLL6110-R,LR, 433 MHz	Cordless laser gun, Long Range scanning engine, with display and keypad	902201700
DLL6010-R, 910 MHz	Cordless laser gun, General Purpose scanning engine, no display	902201590
DLL6110-R, 910 MHz	Cordless laser gun, General Purpose scanning engine, with display and keypad	902201600
DLL6110-R,LR, 910 MHz	Cordless laser gun, Long Range scanning engine, with display and keypad	902201610
ACCESSORIES		
OM6010-R RF (433 MHz)	Base station/charger with multistandard interface	90A301200
OM6010-R RF (910 MHz)	Base station/charger with multistandard interface	90A301160
C6010-1	Smart battery charger	90A301000
LA6010	Echelon network kit	90ACC1520
B6010-NM	3480 mWh Ni-Me-Hy battery set	90ACC1530
PB6010	Nylon protecting boot	90ACC1480
HLS6010	Belt support	90ACC1490
SPC-DRAGON	Desk/wall holder	90ACC1790
System manual	DLL6010-R/OM6010-R system manual	90ACC1550
PG110	Power supply unit (110 Vac to 12 Vdc)	B9751057
PG220	Power supply unit (220 Vac to 12 Vdc)	B9751027
Cables	See HHD standard cable series	

SPECIFICATIONS

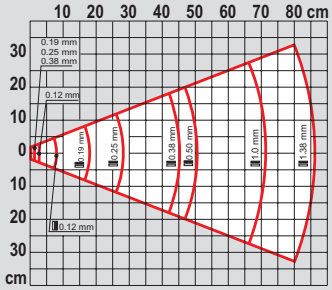
LIGHT SOURCE	670 nm (G.P.); 650 nm (L.R.)
MAXIMUM RESOLUTION	0.12 mm (G.P.); 0.25 mm (L.R.)
SCAN RATE	36 ±3 scan/sec
PRINT CONTRAST RATIO (min.)	15% (G.P.); 40% (L.R.)
READING FIELD	See diagrams
DEPTH OF FIELD	See diagrams
READING DISTANCE	See diagrams
READING INDICATORS	Laser ON, Good Read / Good transmission, Beeper
DISPLAY (DLL6110-R)	Graphic with backlight, 32 x 96 dots, font dimension selectable by user (with default selection 4 lines x 16 columns are available)
KEYPAD (DLL6110-R)	Membrane keypad with 3 keys
BAR CODES	2/5 family, code 39 (plus code 32, CIP39), EAN128, EAN/UPC, code 93, code 128, CODABAR
RADIO	
Operating range	Up to 50 m (depends on working area)
Frequency range	433.05 - 434.79 Mhz (909.94 - 910.06 Mhz for USA version)
Radio power	< 10 mW (433 Mhz) / < 1 mW (910 MHz)
BATTERIES	DLL6010-R/DLL6110-R*: NiMH (3480 mWh) *All AA (NiCD and Alkaline) batteries can also be used
AUTONOMY	Over 60,000 with NiMH batteries (Test mode: 100 reads/min)
DIMENSIONS	203.0 x 117.2 x 68.9 mm
WEIGHT	340 g
CASE MATERIAL	ABS and polycarbonate, plus co-moulded rubber
LASER CLASSIFICATION	Class 2 (IEC 825-1 CDRH)
AMBIENT LIGHT CONDITIONS	Immune to light exposure in offices and facilities, and direct exposure to sunlight
OPERATING TEMPERATURE	-10 to 40 °C
STORAGE TEMPERATURE	-20 to 50 °C
HUMIDITY	90% non condensing
DROP RESISTANCE	IEC 68-2-32 Test ED; withstands repeated drops from 1.5 m (DLL6110-R) or 1.8 m (DLL6010-R) onto a concrete surface
ENVIRONMENTAL PROTECTION	Immune to water and dust
BASE STATION	Power supply 10 to 28 VDC Dimensions without antenna: 185 x 115 x 104 mm
INTERFACES (with OM6010)	RS232, Wedge, Pen
BATTERY RECHARGING	2 hours for NiMH

ACCESSORIES

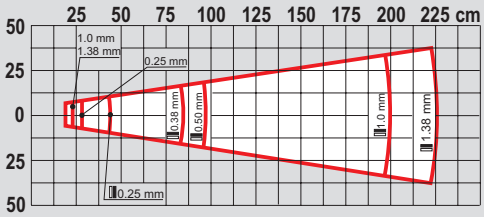


OM6010-R/C6010

READING DIAGRAM



General Purpose Model



Long Range model

DATALOGIC
code e-volution

We reserve the right to make modifications and improvements

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