

*LineaPro 12 mini - 13 mini*  
**User Manual**



## LEGAL NOTICE

THE INFORMATION IN THIS DOCUMENT CANNOT BE REPRODUCED IN ANY MECHANICAL, ELECTRICAL OR ELECTRONIC WAY AND UNDER ANY CIRCUMSTANCES WITHOUT THE WRITTEN CONSENT FROM DATECS LTD.

Address: 4 Datecs Street, Sofia 1592, Bulgaria  
Phone: +359 2 816 55 50  
Fax: +359 2 816 55 65  
E-mail: [export@datecs.bg](mailto:export@datecs.bg)

## REVISION HISTORY

Version	Data	Change description
1.0.0	22.06.2023	First Release
1.1.0	28.06.2023	Updated section "GETTING STARTED"
1.2.0	18.07.2023	Updated section "REGULATORY"

# CONTENTS

- REGULATORY..... 5
- TECHNICAL SPECIFICATIONS ..... 6
- GENERAL VIEW ..... 8
- GETTING STARTED..... 9
- ATTACHING APPLE DEVICE TO LINEAPRO 12 MINI - 13 MINI ..... 10
- REPLACING BATTERY OF LINEAPRO 12 MINI - 13 MINI..... 11
- OPERATION MODES ..... 12
  - SCANNING BARCODES ..... 12
  - CONTACTLESS CARDS READING..... 13
  - TURN OFF DEVICE FUNCTION ..... 14
  - CHARGING APPLE DEVICE..... 14
  - UPDATING FIRMWARE ..... 14
- CARE, MAINTENANCE AND WARRANTY..... 15

## REGULATORY

### FCC ID: YRW-LINEAPRO12IM

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### RF Exposure Information and Statement

This transmitter must not be in co-location or operating in conjunction with any other antenna or transmitter. This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

## TECHNICAL SPECIFICATIONS

Microcontroller	ARM Cortex® M4 Microcontroller
Keyboard and Buttons	Two Scan buttons
Contactless Card Reader (optional)	<p>Supports:</p> <ul style="list-style-type: none"> <li>- ISO/IEC 14443 Type-A/MIFARE</li> <li>- MIFARE MINI</li> <li>- MIFARE CLASSIC-1K, MIFARE CLASSIC-4K</li> <li>- MIFARE ULTRALIGHT, ULTRALIGHT-C</li> <li>- MIFARE PLUS 2K/4K</li> <li>- MIFARE DESFire</li> <li>- and other</li> </ul> <p>ISO/IEC 14443 Type-B</p> <ul style="list-style-type: none"> <li>- supports most of the cards</li> </ul> <p>ISO/IEC 15693</p> <ul style="list-style-type: none"> <li>- supports most of the cards</li> </ul> <p>JIS X 6319-4</p> <ul style="list-style-type: none"> <li>- compatible with FeliCa</li> </ul> <p>ISO/IEC 18000-3 mode 3</p> <ul style="list-style-type: none"> <li>- NFC</li> </ul>
2D Barcode Reader	<p>2D Opticon MDI-4000* CMOS Imager 640 x 480 pixels (optional)</p> <p>2D Zebra SE4750 SR/MR CMOS Imager 1280 x 960 pixels (optional)</p> <p>2D Zebra SE4770 CMOS Imager 1280 x 800 pixels (optional)</p> <p>2D Zebra SE5500 CMOS imager 2688 x 1520 pixels (optional)</p>
Supported 1D and 2D Symbology*	<p><b>BARCODE 1D:</b> JAN/UPC/EAN incl. add on, Codabar/NW-7, Code 11, Code 39, Code 93, Code 128, GS1-128 (EAN-128), GS1 DataBar (RSS), IATA, Industrial 2of5, Interleaved 2of5, ISBN-ISSN-ISMN, Matrix 2of5, MSI/Plessey, S-Code, Telepen, Tri-Optic, UK/ Plessey</p> <p><b>POSTAL CODE:</b> Chinese Post, Intelligent Mail Barcode, Korean Postal Authority code, POSTNET</p> <p><b>2D CODE:</b> Aztec Code, Aztec Runes, Chinese Sensible code, Codablock F, Composite codes, Data Matrix (ECC200), Passport MRZ (OCR-B), Maxi Code (mode 2~5), MicroPDF417, Micro QR Code, PDF417, QR code</p>
Connectivity	<p>Apple 9 pin connector (lightning connector)</p> <p>External trigger of barcode scanner via rear side connector</p> <p>Pass-through sync through USB type-C connector</p> <p>SAM holder</p> <p>Serial communication pass-through USB type-C connector</p> <p>Serial communication pass-through the Dock connector</p>
Device Compatibility	Apple iPhone 12 mini, iPhone 13 mini
Audio Features	Electro-Magnetic Buzzer
Power Supply	<p>DC 5V through USB type-C</p> <p>DC 5V through Dock connector</p>
Battery	Rechargeable Li-Ion Battery 3.6V / 2330mAh
Dimension W x H x D, mm	76.5 x 155.4 x 28
Weight, g	164
Operational temperature range	-10 °C to +40 °C / 5 to 90% RH
Storage temperature range	-20 °C to +50 °C / 5 to 90% RH

*\* Specification can be changed without any notice.*



Use only original equipped DATECS cable USB-A to USB-C (Z05C000000-05) or approved USB-C to USB-C cable for charging Apple device.

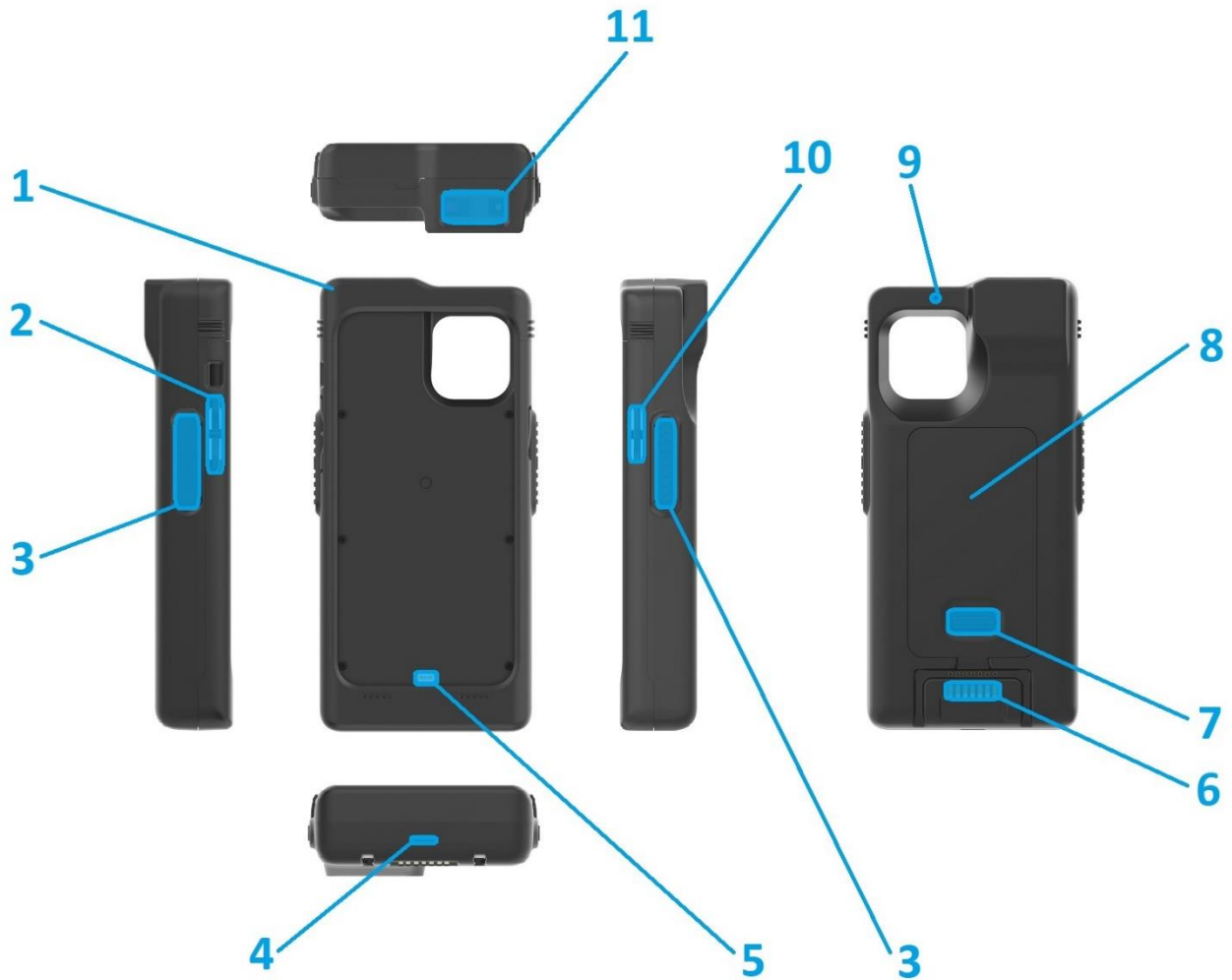
Use only approved USB adapters. The minimum requirements of USB adapter are 5V/1A. Recommended is 5V/2.1A.



#### Waste Electrical & Electronic Equipment

The symbol means that according to local laws and regulations your product shall be disposed of separately from household waste at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

**GENERAL VIEW**



- 1. Back Cover
- 2. Volume buttons of Apple device
- 3. Scan Buttons
- 4. USB type-C connector
- 5. Apple 9 pin connector
- 6. Dock connector
- 7. Battery cover latch
- 8. Battery cover/RFID reader for HF
- 9. Locking screw for back cover
- 10. On/Off button of Apple device
- 11. Barcode engine



## GETTING STARTED

LineaPro 12 mini - 13 mini has rechargeable Li-ion battery. Can be charge from USB port or External features connector. Power source can be variable from USB wall adapters or Datecs power stations.



**Before first use, battery must be fully charged.**  
**If the device is fully discharged, charging time to fully charged would be approx. 4 hours and 30min (for more details please refer to the table below).**

LineaPro 12 mini - 13 mini battery always start to charge when external power was provided. Charging stops when battery is fully charged. Charging power can be “LOW” and “HIGH” and depends on Apple device connection state. *(valid for firmware version 01.05.68.64)*

External Power supply*	Apple device connected	Apple device disconnected
500mA	LOW	LOW
1000mA	LOW	HIGH
>1000mA	HIGH	HIGH

\*Maximum current which can provide the power supply

LOW – 350mA

HIGH – 580mA

### Charging from USB adapter:



## ATTACHING APPLE DEVICE TO LINEAPRO 12 MINI - 13 MINI

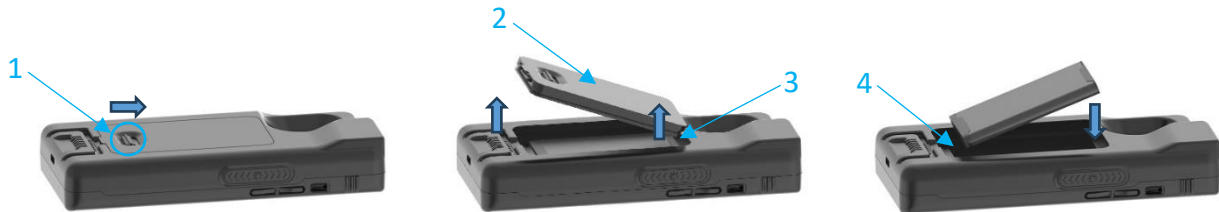
First needs to be removed back cover. Then must slide down Apple device to LineaPro 12 mini - 13 mini lightning connector. Slide Apple device until completely fit to LineaPro 12 mini - 13 mini. Place back cover to LineaPro 12 mini - 13 mini.



**Before removal back cover, locking screw of back cover must be unscrewing.**

## REPLACING BATTERY OF LINEAPRO 12 MINI - 13 MINI

The rechargeable battery of LineaPro can be replaced. Put the battery cover latch (1) to unlock position, by pushing it forward. Then pull up the battery cover (2). Remove old battery with lifting, from the bottom side (3). First insert the side with contacting pads (4) of the battery then press it down. Direction of battery cover closing. Place the clips to correct position. When the battery cover is completely closed, put back cover latch to lock position.



**Replace battery only with new original battery with part number PL-15-110.**

## OPERATION MODES

For start operating with LineaPro 12 mini - 13 mini needs to be attached Apple device and installed application for iOS. For downloading the latest SDK please contact with your distributor.

For turn On LineaPro 12 mini - 13 mini press one of the scan buttons and unlock Apple device screen.

### *Scanning barcodes*

LineaPro 12 mini - 13 mini can scan 1D and 2D barcodes. To scan barcode first, activate the scanner (by pressing and holding the scan button). Then position the scanning engine to the center of the barcode by aiming and the illumination box is over the outer edges of the barcode, as shown on the picture below. Slowly pull back or forward the unit, while increasing or decrease the distance between the barcode and the scanning head, until the barcode has been read by the scanner. Barcode data will have shown on the use application for iOS.

LineaPro 12 mini - 13 mini support different types of scanning modes:

- Single Scan
- Multi Scan
- Motion Detect
- Multi Scan without duplicates



**Contactless cards reading.**

The LineaPro 12 mini - 13 mini has RFID HF contactless cards reader. The antenna (1) of the reader is located on LineaPro 12 mini - 13 mini back side. Contactless card/tag must be placed on shown position (1). For list of supported standards, please refer to sections "TECHNICAL SPECIFICATIONS".



**Turn off device function**

When is pressed this turn off, LineaPro 12 mini - 13 mini is going to sleep mode immediately.

**Charging Apple device**

LineaPro 12 mini - 13 mini can charge Apple device, when power source (USB adapter) is attached to USB connector or LineaPro 12 mini - 13 mini is placed on Datecs charging station. Charging Apple device can be at LOW and HIGH power and depends on the battery charging state and power source.

External Power supply*	When Linea battery is charging, can be provided current to Apple device:	When Linea battery is charged, can be provided current to Apple device:
500mA	NONE	LOW
1000mA	LOW	HIGH
1500mA	LOW	HIGH
>1500mA	HIGH	HIGH

\*Maximum current which can provide the power supply

NONE – 0A

LOW – 500mA

HIGH – 1000mA

LineaPro 12 mini - 13 mini can charge Apple device from his own battery. Only needs to be activated function “Automated Charge”, to be start charging battery level of LineaPro 12 mini - 13 mini must be above 20%. Charging will stop when Linea battery is below 10%. Charging current to Apple device is 500mA.

**Updating Firmware**

Firmware of LineaPro 12 mini - 13 mini can be updated with newer version. Press “Update Firmware” from application, first will be shown current firmware version and to which version can be updated, then press update.

Firmware of LineaPro 12 mini - 13 mini barcode engine can be updated with newer version. Press “Update Barcode Engine Firmware” from application. First will be shown current firmware version and to which version can be updated, then press update.

## CARE, MAINTENANCE AND WARRANTY



- Keep the LineaPro 12 mini - 13 mini side of the reach of small children.
- Do not drop or knock LineaPro 12 mini - 13 mini.
- Don't charge LineaPro 12 mini - 13 mini when inside of USB connector is spilled liquid. Please first clean and dry the USB connector and then charge the device.
- Keep the device and battery away from excessive heat and direct sunlight. Do not place them on or in heating devices, such as microwave ovens, stoves, or radiators.
- Dispose the battery, and accessories according to local regulations. They should not be disposed of in normal household waste. Improper battery use may lead to fire, explosion, or other hazards.
- Do not use, store or transport the device where flammables or explosives are stored (in a gas station, oil depot, or chemical plant, for example). Using your device in these environments increases the risk of explosion or fire.



- Do not open the LineaPro 12 mini - 13 mini. Only qualified personnel can open the device and make repair. If the LineaPro 12 mini - 13 mini is not working, please contact your dealer.
- Allowing unqualified personnel to service your LineaPro 12 mini - 13 mini may result in damage to your LineaPro 12 mini - 13 mini and will void your warranty.