DATECS

User Manual

Linea TAB Mini

CONTENTS

Legal Notice

"Made for iPad" mean that an electronic accesory has been designed to connect specifically to iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible fort he operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accesory with iPad may affect wireless performance.

Compatibility

Made for

iPad mini with Retina display

iPad mini 3

iPad mini 4

iPad Air

iPad Air 2

9.7-inch iPad Pro

12.9-inch iPad Pro

iPad are trademarks of Apple Inc., registered in the U.S. and other countries. Lightning is a trademark of Apple Inc.

FCC Notice

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.

No changes shall be made to the equipment without the manufacturer's permission as this may void the user's authority to operate the equipment

Exposure to Radio Frequency (RF) Signals

The LineaTab mini, incorporating the iPad, has been tested and meets applicable limits for radio frequency (RF) exposure. Specific Absorption Rate (SAR) refers to the rate at which the body absorbs RF energy. The SAR limit is 1.6 watts per kilogram averaged over 1 gram of tissue.
During testing, the iPad devices, incorporated within the LineaTab mini, are set to their highest transmission levels and placed in positions that simulate use near the body.
Cases with metal parts may change the RF performance of the device, including its compliance with RF exposure guidelines, in a manner that has not been tested or certified.

The LineaTab mini complies with the FCC safety requirements for RF exposure in accordance with FCC rule part §2.1093 and KDB447498 D01 for portable use conditions.

The LineaTab mini, incorporating the iPad, must not be co-located or operated in conjunction with any other antenna or transmitter.

Linea TAB Mini

Model	Description
Linea TAB Mini MSR	*Linea TAB Mini with 3-Track mag-stripe reader*
Linea TAB Mini EMSR	*Linea TAB Mini with Secure Encrypting MSR Module*
Linea TAB Mini MSR 2D	*Linea TAB Mini with 3-Track mag-stripe reader and 1D/2D barcode scanner*
Linea TAB Mini EMSR 2D	*Linea TAB Mini with with Secure Encrypting MSR Module and 2D barcode reader*
Linea TAB Mini MSR 2D/BT	*Linea TAB Mini with 3-Track mag-stripe reader, 1D/2D and Bluetooth®*
Linea TAB Mini EMSR 2D/BT	*Linea TAB Mini with Secure Encrypting MSR Module, 1D/2D and Bluetooth®*
Linea TAB Mini MSR 2D/ BT/RFID	*Linea TAB Mini with 3-Track mag-stripe reader, 1D/2D/Bluetooth® and RFID reader*
Linea TAB Mini EMSR 2D/ BT/RFID	*Linea TAB Mini with Secure Encrypting MSR Module, 1D/2D/Bluetooth® and RFID reader*

Table 1

Overview

Linea TAB Mini allows mobile workers to convert their iPad Mini handset into a powerful point-of-sale solution. The Linea TAB Mini includes optional 1D or 2D barcode scanner, 3-tracks magnetic stripe reader, RFID reader and a rechargeable battery extender in a very compact and durable protective case.

Features:

Battery: Rechargeable Li-ion Battery - 1100 mAh, charging via USB or DATECS Power Station.

Magnetic Card Reader – 3-Track Head:
      Swipe Speed: Minimum of 1.97 in/sec
      MTBF: 1 million swipes
      Bidirectional reading capabilities

Barcode Scanner: Single / Multi-scan mode
      2D – EM2049 Image sensor 752x480 CMOS
      2D – MDI-3000 Image sensor 752x480, Scan rate: Up to 60fps

Indicators:
      Visual: 2 LEDs for device and battery status
      Audio: Electromagnetic Buzzer

I/O Connectors:
      9-pin lightning connector
      10-pin female Mini-B USB connector for charging and synchronization

Contactless indications:
      Four LEDs

Technical Data

Processor	32-bit ARM^{TM} Cortex^{TM} - M3 based Microcontroller
Magnetic Card Reader (option)	• 3-track bi-directional reading • ISO 7810, 7811 and 7813
Secure Magnetic Card Reader (option)	• PCI PTS 3.x certified • DUKPT and Fixed Key Management • 3DES-112, AES-128, AES-256 encryption algorithms
Contactless Card Reader (option)	ISO/IEC 14443 Type-A/MIFARE: - MIFARE MINI - MIFARE CLASSIC-1K, MIFARE CLASSIC-4K - MIFARE ULTRALIGHT, ULTRALIGHT-C - MIFARE PLUS 2K/4K - MIFARE DESFire - and others ISO/IEC 14443 Type-B: - supports most of the cards ISO/IEC 15693: - supports most of the cards
Contactless Card Reader for payment applications (option)	• AMEX ExpressPay MagStripe and EMV • Discover ZIP and D-PAS • MasterCard PayPass MagStripe and M/Chip • VISA PayWave MSD and qVSDC
Barcode Reader (option)	• Opticon MDI3100* - image sensor 752x480 CMOS, High Performance 2D Imager Scan Engine • Newland EM2049 – image sensor 752x480 CMOS, High Performance 2D Imager Scan Engine
Supported Barcode Types	**• 2D* Imager Supported Symbologies:** 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 Postal codes: Chinese Post, Intelligent Mail Barcode, Korean Postal Authority code Aztec Code, Aztec Runes, Chinese Sensible code, Codablock F, Composite codes, Data Matrix (ECC200/EC0-140), Maxi Code(mode 2~5), MicroPDF41, QR & Micro-QR Code, PDF417
Battery	Rechargeable Li-Ion Battery 3.7V / 1100 mAh
Connectivity	• Apple 9 pin connector • Pass-through sync through mini USB • BT 2.0 Class 2 (option) - SPP - Serial Port Profile • External serial port
Device compatibility	Apple iPad mini with Retina display, iPad mini 3, iPad mini 4, iPad Air, iPad Air 2, 9.7-inch iPad Pro, 12.9-inch iPad Pro
Buttons	1 scan button
LED indication	• 2 LEDs for battery and device status • 4 LEDs for contactless payment transactions
Audio Indication	Electro - Magnetic Buzzer

Certifications	CE, FCC, PCI PTS 3.x, Apple® MFi
Weight, g	140 with battery and 2D barcode reader (without iPad mini)
Dimensions (LxWxH), mm	103 x 88 x 23.5
Environmental	• Operating: -10ºC to +40ºC / 5% to 90% RH • Storage: -20ºC to +50ºC / 5% to 90% RH
Power supply	• 5V through mini USB • 5V through single or 5 station charger
Accessories	• Single station charger - SC-1 • 5 stations charger - GC-5 • Holster

* Specifications subject to change without notice.

Table 2

Box Contents

Your Linea Tab Mini comes with the following items listed below:

Item	Part Number	Descriptions	Image
1	Linea TAB Mini	Linea TAB Mini / Scanner	
2	USB A to mini USB B	USB Sync cable	
3	Linea TAB Mini User Manual	User's manual	

*Bulk Shipments may ship without cables and manuals in each box.

Table 3

Getting Started

   The Linea TAB Mini allows you to scan barcode and capture Magnetic Strip information onto your iPad Mini. Before using your Linea TAB Mini the battery should be properly charged. The following Quick Start guide will help to get your Linea TAB Mini ready for use.
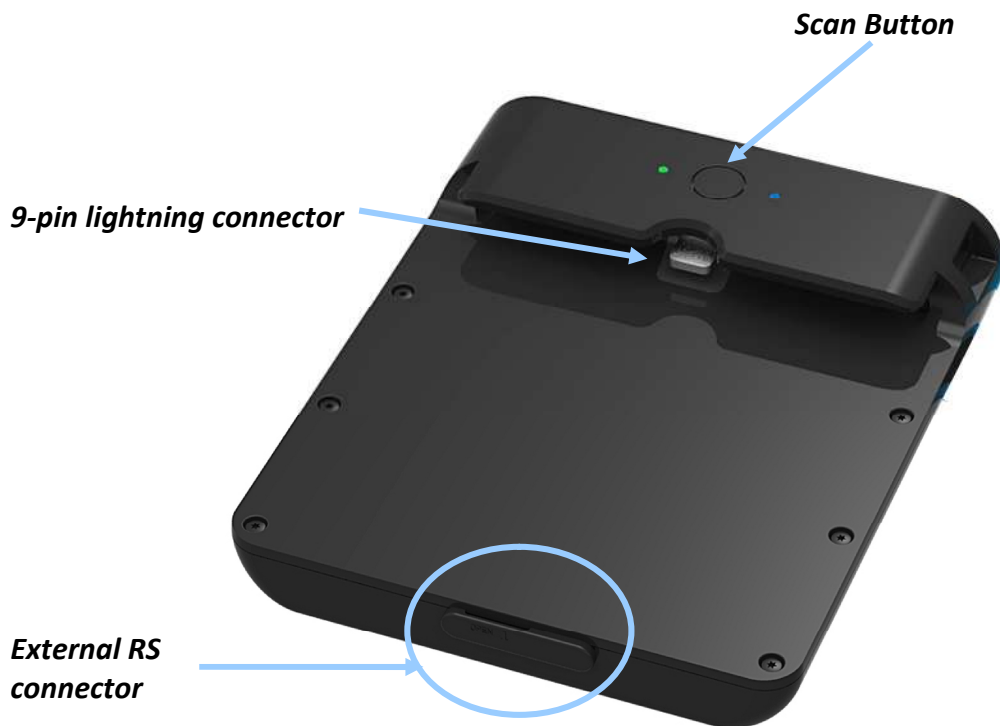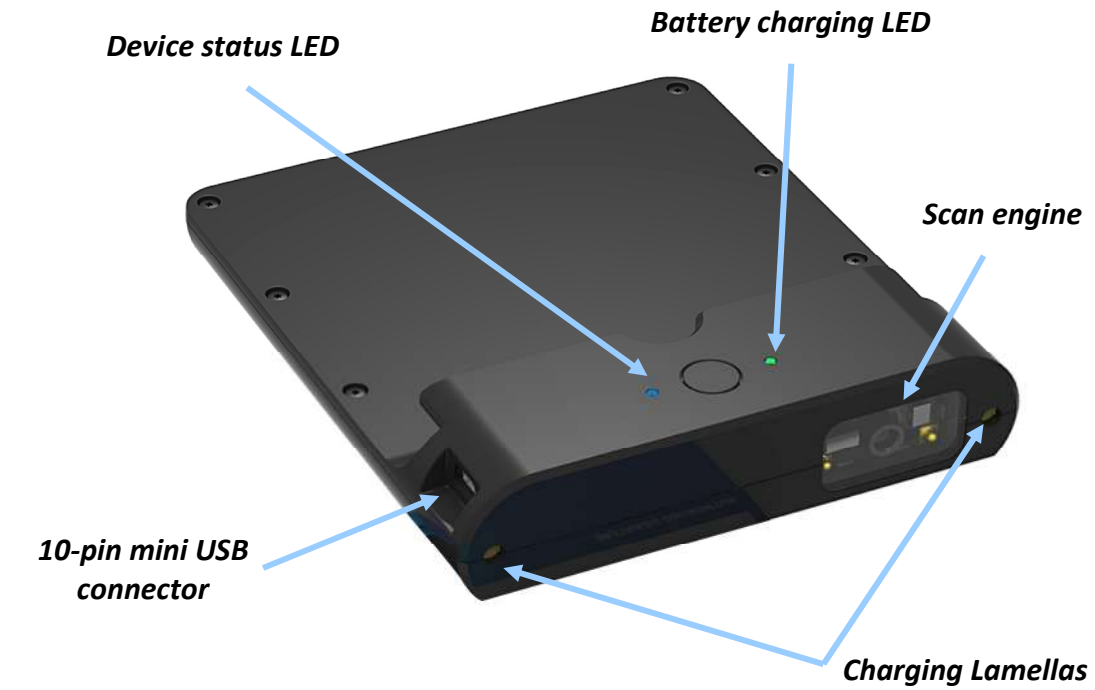
   Quick Start:

Step	What to do	Purpose	Where to find more information
1	Fully charge your Linea TAB Mini as recommended.	The battery pack should be fully charged before use to ensure long battery life.	Charging Battery, Page 14.
2	Install Software.	Barcode Scanning & Card Reading requires software to be installed onto your iPad Mini	Please contact your distributor
3	Attach device to Linea TAB Mini	Connecting your Linea TAB Mini and iPad Mini	Attaching device, Page 13.

Table 4

Buttons overview

Front side view

Device status LED

Battery charging LED

Scan engine

10-pin mini USB connector

Charging Lamellas

Scan Button

9-pin lightning connector

External RS connector

Back side view

Four LEDs for Contactless status

Magnetic Stripe Reader

Attaching device

Slide iPad mini to the 9-pin lightning connector of the Linea TAB Mini
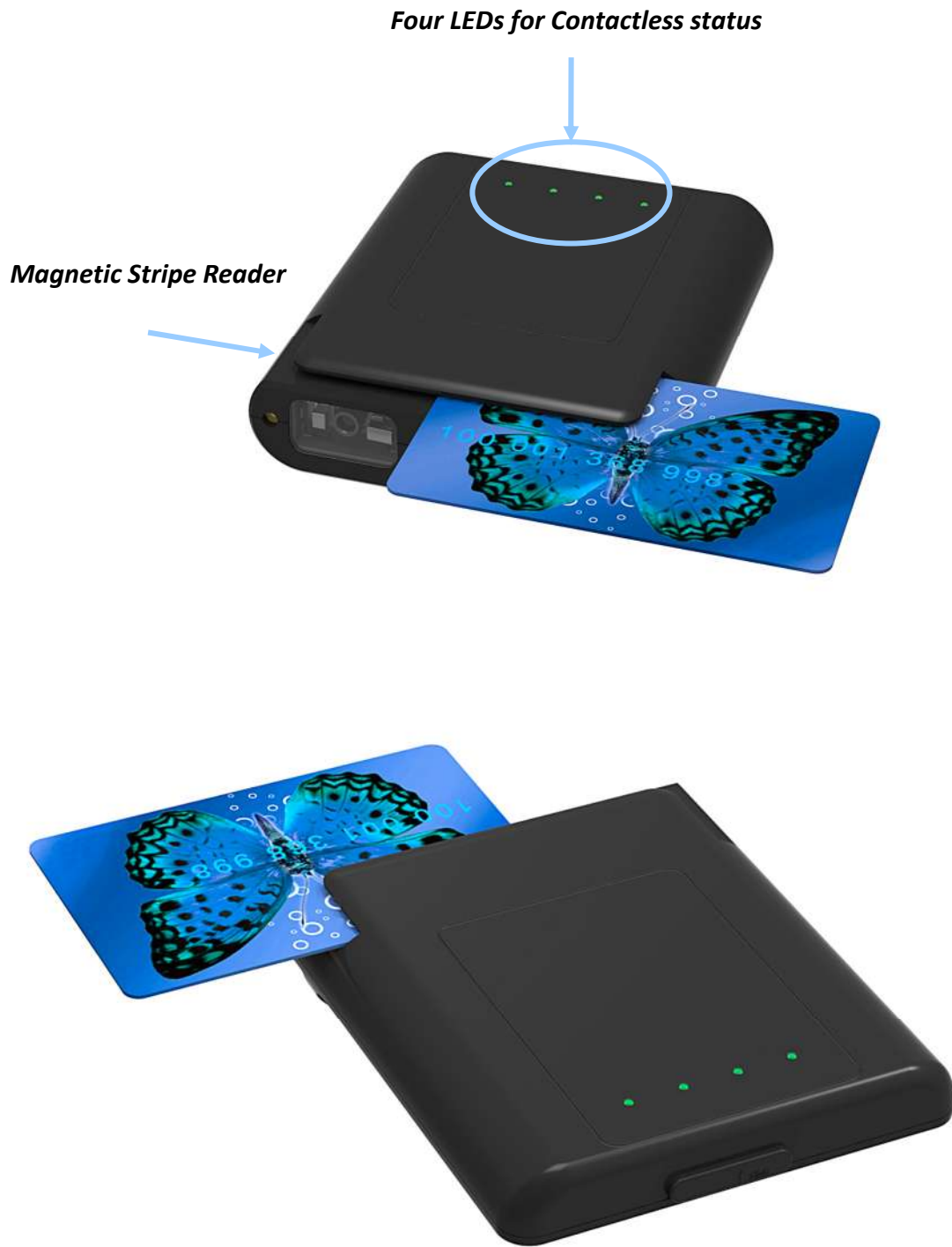
Operation modes

Active mode -   While iPad Mini is inserted.
                  While the Linea TAB Mini application is active.

Sleep mode -   While iPad Mini is removed (after ~10sec).
                  When iPad Mini On/Off button is pressed (after ~10sec).
                  When iPad Mini "Auto-Lock" function is activated (after ~10sec).

Charging Battery

The Linea TAB Mini uses a 1100mAh Lithium-Ion rechargeable battery pack. Before first use, the battery pack should be charged for at least (4) hours. Linea TAB Mini can be charged via USB port or DATECS Power Station. When the Linea TAB Mini charging is started, automatically starts the charging of the inserted inside the cradle iPad Mini.

WARNING: To prevent electrical damage to the Linea TAB Mini and/or battery pack, please use approved USB to Mini USB cables only!

Linea TAB Mini has one battery status LED:
- The green LED is blinking – Linea TAB Mini is charging
- Continuous light Green LED – Linea TAB Mini is charged

Charging Modes

- Enable pass-through sync (enable sync between iPad Mini and PC with charge)
- Enable 1A USB charging (use this setting with 2A adapter or high-power USB HUB)
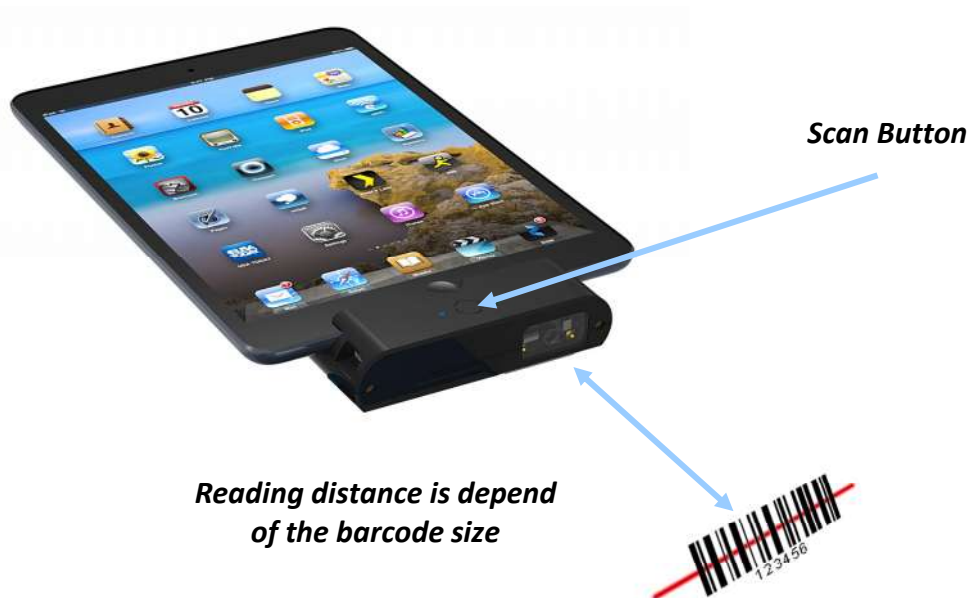
Barcode Scanning

Using the 1D barcode scanner:

The Linea TAB Mini 1D uses a scan engine that supports one-dimensional (1D) barcode symbols. The effective reading distance of the barcode reader varies depending on the barcode size.

Scanning 1D Barcodes:

To scan a 1D barcode, first activate the scanner. Then position the scanning head as close as possible to the barcode label so that the scan line crosses both ends of the barcode as shown on the figure below.

Slowly pull back the unit, while increasing the distance between the barcode and scanning head, until the barcode has been read by the scanner.

Scan Button

*Reading distance is depend
of the barcode size*

Linea TAB Mini supports different types of scan:
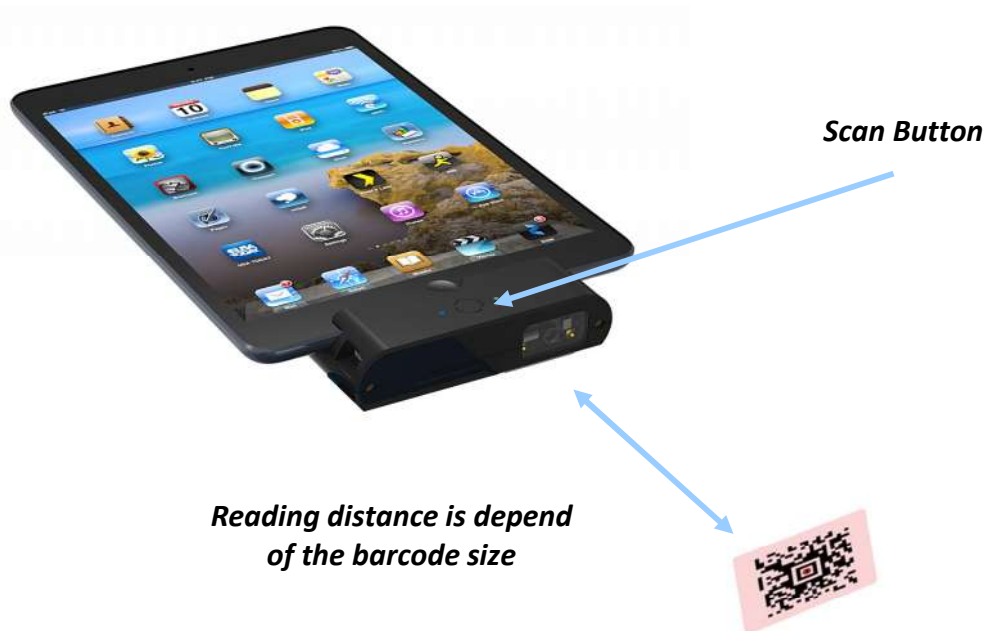
- Single Scan
- Multi Scan

Using the 2D barcode scanner:

The Linea TAB Mini 2D uses a scan engines that supports one-dimensional (1D) and two-dimensional (2D) barcode symbols. The effective reading distance of the barcode reader varies depending on the barcode size.

Scanning 2D Barcodes:

To scan a 2D barcode fist activate the scanner. Then position the scanning head to the center of the barcode by aiming with the red laser beam and the illumination box is over the outer edges of the barcode, as shown in the figure below.

Slowly pull back the unit, while increasing the distance between the barcode and the scanning head, until the barcode has been read by the scanner.

Scan Button

*Reading distance is depend
of the barcode size*

Linea TAB Mini supports different types of scan:

- Single Scan
- Multi Scan

Card Reading

Reading Magnetic Stripes:

The Linea TAB Mini has a built-in magnetic card reader. The card reader incorporates a (3) track magnetic read head, requiring a single swipe to read field data from all three tracks.

The magnetic reading head faces up, towards the top of the bottom cover of the cradle. When swiping the card into the reader, the magnetic stripe must be facing down, as shown in the figure below. Keep the edge of the card flat on the inner base of the reader to ensure that the magnetic stripe passes over the reading head evenly.

Swipe direction

Contactless Card Reading

In order to use the RFID card reading function, special software must be used. Please contact your distributor in order to get the latest demo application and SDK.

Place the card on the shown spot and press the reading RFID card button on the application. The data will be sent from the Linea TAB Mini RFID reader to the Apple Device.

Contactless Reader