DATECS

# *Infinea Tab M (CTLS, ICCR and MSR)*
# User Manual

## LEGAL NOTICE

“Made for iPhone” mean that an electronic accessory has been designed to connect specifically to the iPhone and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with an iPhone may affect wireless performance



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# REVISION HISTORY

| Version | Data | Change description |
|---|---|---|
| 1.0.0 | 28.09.2022 | First Release |
| 1.1.0 | 22.11.2022 | Updated section “Regulatory” |
| 1.2.0 | 08.12.2022 | Updated section “Regulatory” |

# REGULATORY

**FCC Statement**

**FCC ID: YRW-ITC**

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**

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

# CONTENTS

# TECHNICAL SPECIFICATIONS

| | |
|---|---|
| **Processor** | ARM Cortex® M4 Security Microcontroller |
| **Memory** | 32KB I&D-Cache<br>1MB Internal RAM<br>8KB OTP |
| **Application Memory** | 8MB Serial Flash |
| **Keypad** | • 1 button for device turning ON/OFF<br>• 1 button for scanning barcodes |
| **Magnetic Card Reader** | • 3-track bi-directional reading<br>• ISO 7810, 7811 and 7813 |
| **Smart Card Reader** | ISO7816, EMV L1 certified |
| **Contactless Card Reader for payment applications (option)** | • AMEX ExpressPay<br>• Discover D-PAS<br>• MasterCard Contactless<br>• VISA PayWave<br>• China Union Pay<br>• JCB |
| **Contactless Card Reader (option)** | • NFC-A/ISO 14443 Type-A<br>• NFC-B/ISO 14443 Type-B<br>• NFC-F/Felica<br>• NFC-V/ISO 15693 |
| **Barcode Reader (option)** | Newland EM3096* – image sensor 752x480 CMOS, High Performance 2D Imager Scan Engine<br>Newland EM3296 - image sensor 640x480 CMOS, High Performance 2D Imager Scan Engine<br>Newland EM3396 - image sensor 752x480 CMOS, High Performance 2D Imager Scan Engine (Laser AIM)<br>Opticon MDI-3000 - image sensor 752x480 CMOS, High Performance 2D Imager Scan Engine<br>Zebra SE4710 - image sensor 1280x800 CMOS, High Performance 2D Imager Scan Engine<br>Zebra SE4750 - image sensor 1280x960 CMOS, High Performance 2D Imager Scan Engine (Laser or LED AIM) |
| **Supported Barcode Types** | 2D* Imager Supported Symbologies:<br>PDF 417, Data Matrix（ ECC200,ECC000,050,080,100,140, QR Code Code 128, EAN-13, EAN-8, Code 39, UPC-A, UPC-E, Codabar, Interleaved 2 of 5, ITF-6, ITF-14, ISBN, Code 93, UCC/EAN-128, GS1 Databar, Matrix 2 of 5, Code 11, Industrial 2 of 5, Standard 2 of 5, Plessey, MSI-Plessey, etc. |
| **Battery** | Rechargeable Li-Ion Battery 3.6V / 2330 mAh |
| **Connectivity** | • USB<br>- Device<br>• Serial<br>• BLE 5.1<br>• Serial pass-through Apple lightning connector |
| **Audio indication** | Electro-Magnetic Buzzer |
| **Apple devices compatibility** | iPad Mini 2, iPad mini 3, iPad mini 4, iPad Mini 6th generation, iPhone 6 Plus, iPhone 6S Plus, iPhone 7 Plus, iPad Air, iPad Air2, iPad Pro 9.7 inch, iPad Pro 12.9 inch |
| **Reliability** | • 500 000 chip card cycles<br>• 1 000 000 magnetic card swipes<br>• 1 000 000 single button clicks |
| **Certifications** | CE, FCC, EMV Level 1, EMV Level 2, EMV Level 1 Contactless, PCI PTS 6.1 |
| **Dimensions (L x W x H), mm** | 112.4 x 88 x 27 |
| **Weight, g** | 168 |
| **Environmental** | Operating: -10℃ to +40℃ / 5 to 90% RH<br>Storage: -15℃ to +50℃/ 5 to 90% RH |
| **Drop Test** | 1.2 m, 6 faces + 4 edges on concrete |
| **Power Supply** | • 5V through USB type C connector<br>• 5V through single or 5 station charger<br>• 5V through Apple lightning connector or USB type C connector |
| **Accessories** | • Single station charger - SC-1<br>• 5 stations charger - GC-5 |

**** Specification can be change without any notice.***

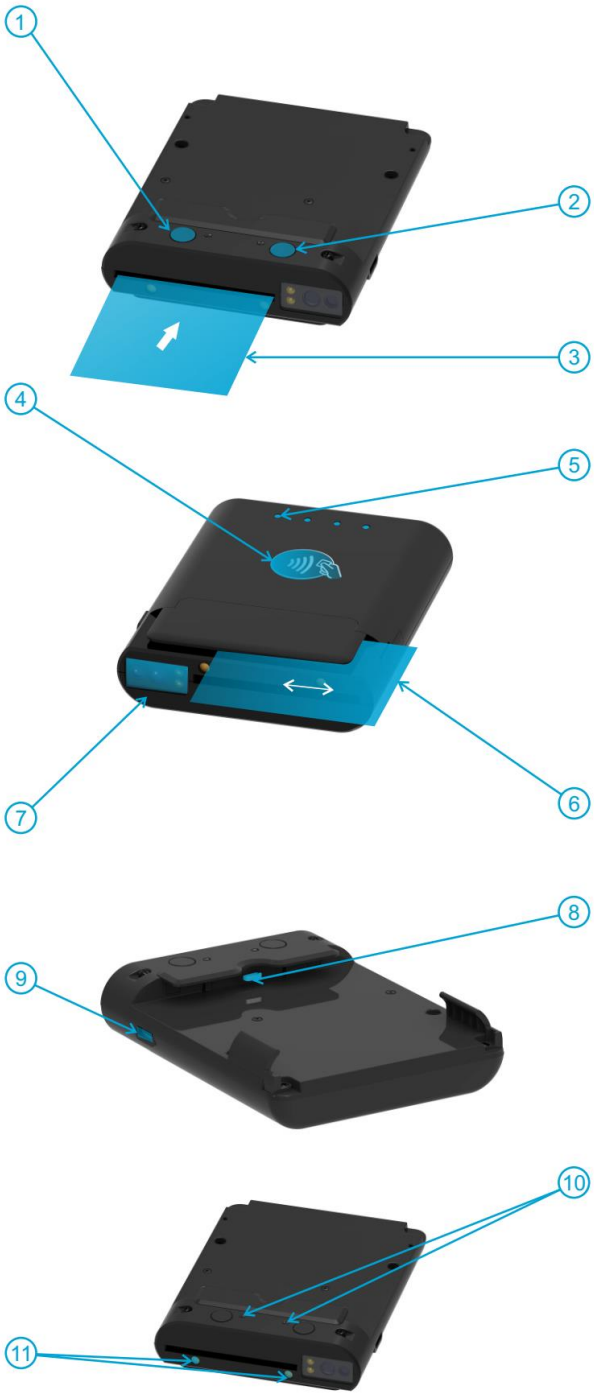
**Use only original equipped DATECS cable USB-A to USB-C (Z05C000000-05) for charging Apple device.**

**The minimum requirements of USB adapter 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. On/Off Button
2. Button for starting scanning barcodes
3. Opening for inserting smart card
4. Contactless reader
5. LEDs indication for Contactless transaction
6. Magnetic stripe reader
7. Barcode engine
8. Lightning connector
9. Micro USB port
10. Indication LEDs
11. Charging pads

## GETTING STARTED

Infinea Tab M has rechargeable Li-ion battery. Can be charge from USB port or Charging pads.

**Before first use, battery must be fully charged.**
**If the device is fully discharged, charging time to fully charged would be approx. 6 hours.**

Depends of the settings, Infinea Tab M can pass-through input power supply from USB connector or Charging pad to Apple device. Charging current to Apple device can be selected.

**Charging form USB adapter:**

- **When charging the device, make sure the power adapter is plugged into a socket near the devices and is easily accessible.**
- **Unplug the charger from electrical outlets and the device when not in use.**

**Table for Infinea Tab M status LED:**

| LED1 indication | | Description |
|---|---|---|
|  | No indication | Device is turned off/sleep mode |
|  | Blue Indication (blinking) | Device is in active mode/wake up |
| **LED2 indication** | | **Description** |
|  | Green indication (blinking) | Infinea Tab M is charging from outside power supply (from USB connector or Charging pads) |
|  | Green indication | Infinea Tab M mini is fully charged, can be disconnect the outside power supply |
|  | No indication | Not charging(no outside power) or Device is turned off |

## ATTACHING APPLE DEVICE TO INFINEA TAB M

Infinea Tab M and Apple device must be turn to top side, showed on picture below. After that Apple device must be sledded to Infinea Tab M lightning connector.

# OPERATION MODES

For start operating with Infinea Tab M is need to be attached Apple device and installed application for iOS. For downloading the latest SDK please contact with your distributor:

For turn On Infinea Tab M press On button and unlock Apple device screen.
When the Infinea Tab M is active blue LED on front side will blink. If the blue LED is not blinking Infinea Tab M is turned off.

## *Scanning barcodes*

Infinea Tab M 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.

Infinea Tab M support different types of scanning modes:
- Single Scan
- Multi Scan
- Motion Detect
- Multi Scan without duplicates

## *Magnetic cards reading*

The Infinea Tab M 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.

## *Contactless cards reading*

The Infinea Tab M has a contactless card reader. Contactless card reader is located on the bottom side. Contactless card must be placed there (showed on the picture below).

## *Smart cards reading*

The Infinea Tab M has a smart card reader. Smart card insertion direction is showed on the picture below.

# GETTING DEVICE INFORMATION WITH UNICOM TOOL

For start operating with Infinea Tab M need to be turned on. Then attached to PC via USB cable. Check in Windows device manager on which COM port it connected Infinea Tab M:

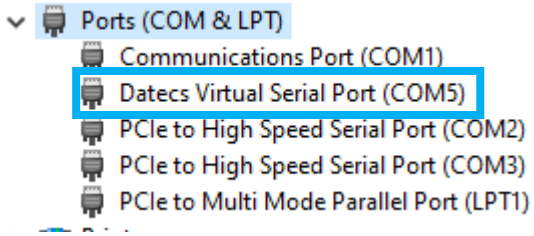



Figure 12

Run the “Unicom” app and select:
- correct COM port
- set baud rate to 115200
- set tick on “2SB” check box

Firmware and Application versions can be retrieved from tab “SYS”, and pressing button “Get Information”:

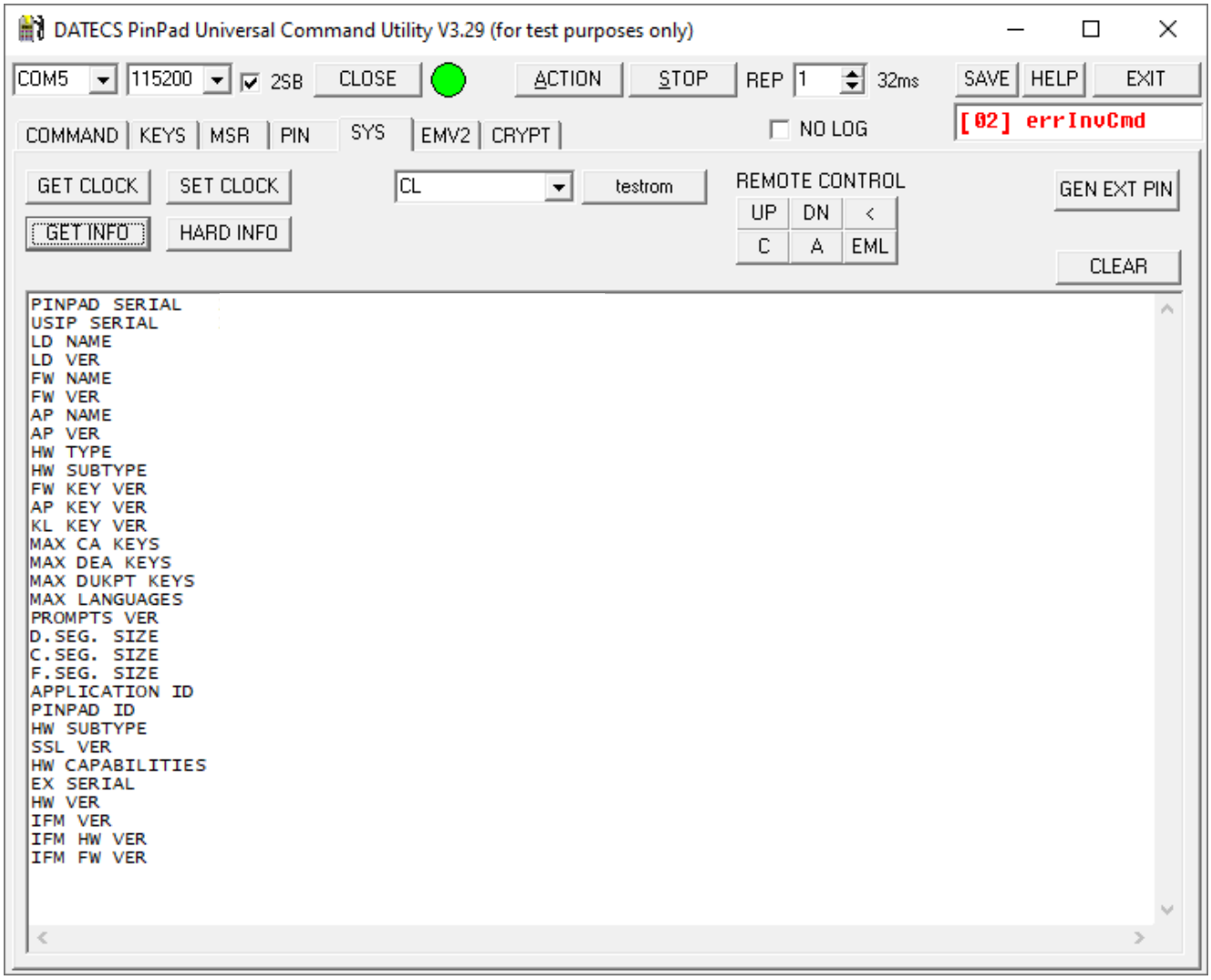



Figure 13

- **Because of the interpretation of the Unicom tool, FW and AP version showed on this way:**
  **03.00.xx.xx instead 3.0.xx.xx**

# CARE, MAINTENANCE AND WARRANTY

- **Keep the Infinea Tab M side of the reach of small children.**
- **Keep the Infinea Tab M dry. Precipitation, humidity and liquid contain minerals that will corrode electronic circuits.**
- **Do not use or store in dusty or dirty areas.**
- **Do not drop or knock Infinea Tab M**
- **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 Infinea Tab M. Only qualified personnel can open the device and make repair. If the Infinea Tab M is not working, please contact with your dealer.**
- **Allowing unqualified personnel to service your Infinea Tab M may result in damage to your Infinea Tab M and will void your warranty.**