

UNO-mini Specifications

Version 1.2

Notice

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RevisionHistory

Version	Description	Date
0.6	Updatedconnector,productdimensionsandtemperaturerange.	01-Apr-2024
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1.0	Updatedsystemarchitectureandnamingconventions	21-May-2024
1.1	Updatedtemperature Updateddocumentformat	16-June-2024
1.2	Updatedhumidity	16-July-2024

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1 Introduction

The UNO-mini is an ultra-compact, certified payment NFC Reader based on Nayax field proven technology which is specifically designed for unattended payment and mass transit applications.

Its compact design enables easy integration and installation in unattended self-service payment stations, such as EV Chargers, ATMs, AVMs, TVMs, gaming and gambling machines, kiosks, access control gates and more.

UNO-mini's plug-and-play design makes it easy to connect to any existing infrastructure and POS terminal, quickly upgrading to contactless operations without disrupting ongoing business operations.



Figure 1-1: UNO-mini

1.1 SupportedPaymentApplications&Technologies

- ContactEMV®
- EMV®**Modular**ArchitectureLabel
- ContactlessEMV®L1
- ContactlessEMV®L2:
 - KernelC-2(MasterCard)
 - KernelC-3(Visa)
 - KernelC-4(Amex)
 - KernelC-5(JCB)
 - KernelC-6(Discover)
 - KernelC-7(UnionPay)
- Interac
- Apple Pay®, Google Pay®, Samsung Pay®,Huawei Pay®
- AppleVAS
- Felica®
- Mifare–DESFire/Classic/Ultralight



1.2 SupportedStandards

TheUNO-miniiscompatiblewiththefollowingstandards:

- FCC*
- CE*
- UL*
- RoHScompliance
- ISO/IEC18092
- ISO/IEC14443TypeA&B
- ISO/IEC15693
- Mifare



*Inprocess

1.3 ProductHighlights

- UltracompactcontactlessEMVcardreader.
- Especiallydesignedforintegrationinto3rdpartyapplications.
- EMVL1,L2approvedenablesfastintegrationandtimetomarket.
- APIcompatiblewithUNO-8.
- EMVmodulararchitectureandkernels.
- Implementslatestchipsetincluding:
 - SecuredCortexM33microcontroller.
 - FullNFCcompatibility,includingcardemulation.
- EMVL3approvedwithNayaxEMVCore.

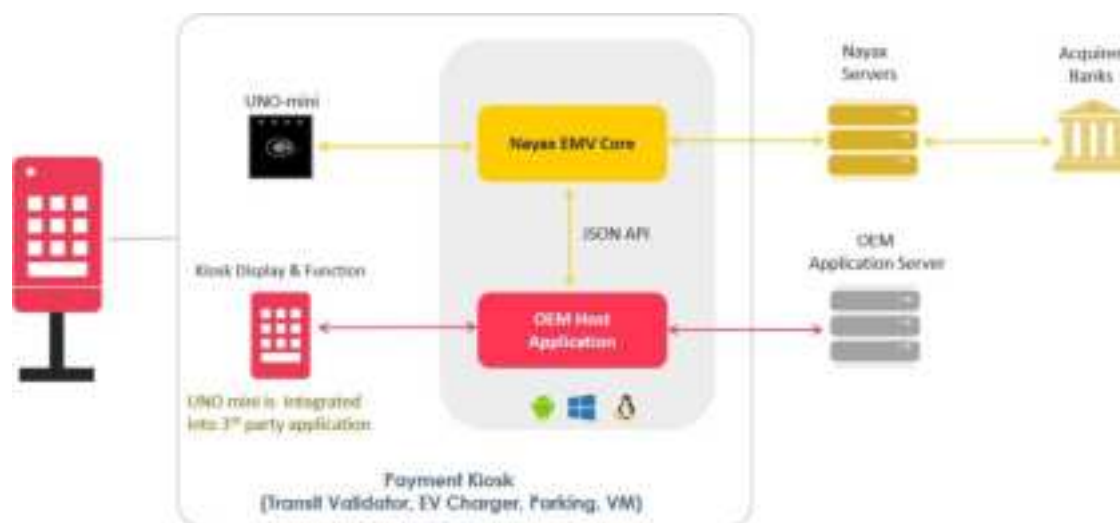


Figure1-2:NayaxSystemArchitecture

2 Technical Specifications

The performance/electrical specifications for each feature of the UNO-MINI reader are given in the table below:

Item	Specifications
Power	5-12VDC 0.7W in Idle, 3W Pick
CPU	Arm® 32-bit Cortex®-M33 with TrustZone® & enhanced security features
CPU Speed	160Mhz
CPU memory	Flash – 2MB RAM – 786KB
External memory	Flash-8MB
Host comms	USB 2.0 FS UART TTL
Contactless EMV	EMVCo L1 v3.x compatible, Full NFC support (including card emulation)
Security	2 AES coprocessors including one with DPA resistance Public key accelerator, DPA resistant True random number generator, NIST SP 800-90B compliant
SAM interfaces	x1 (microSIM)
LEDs	4 green (EMV)
Temperature	-35°C to 85°C
Humidity	Humidity (non-condensing): 10%–95%
Dimensions H x W x D [mm]	49.5x49.5x10.8/13.4 (see detailed dimension chart)
Connectors	Main connector: Molex 5054330871 (8 pins), see detailed connector chart 1 x micro SAM (3FF)
Regulatory	FCC, CE, UL, RoHS, TQM
 Warning: Power supply minimum requirements Keeping the DC supply voltage within the specified allowed range is crucial to guarantee proper operation of the equipment. The use of an AC rectified power supply source, which is not properly filtered, forms a risk of too low voltage dips and hence should be avoided. It is recommended to check this issue with proper tools (e.g. oscilloscope) during the reader installation. For more details contact Nayax technical team.	

1Dimensions

Allthedimensionsareinmillimeters.

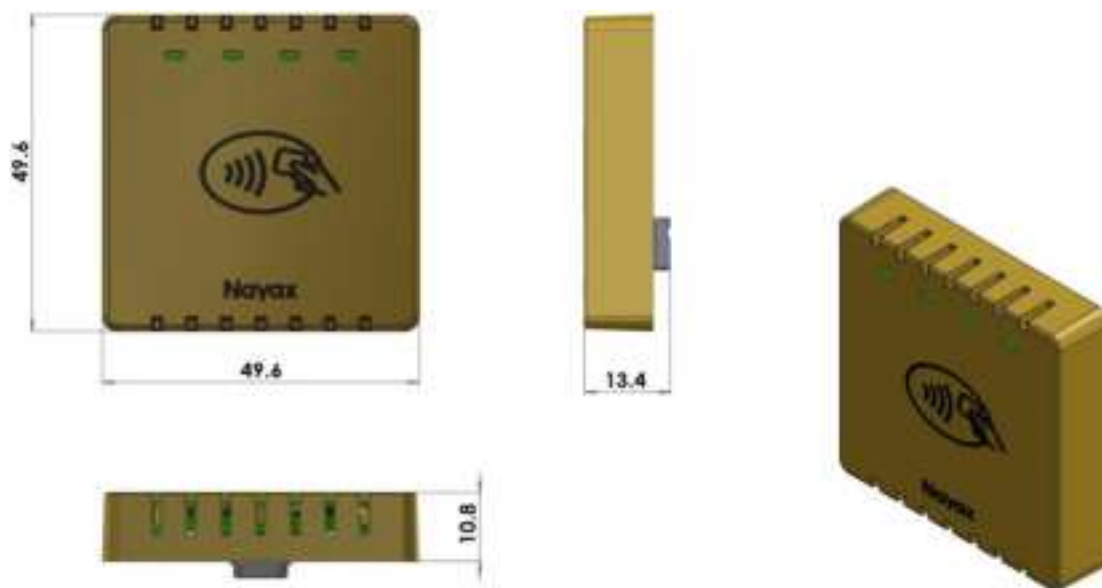


Figure1-1:UNO-miniDimensions

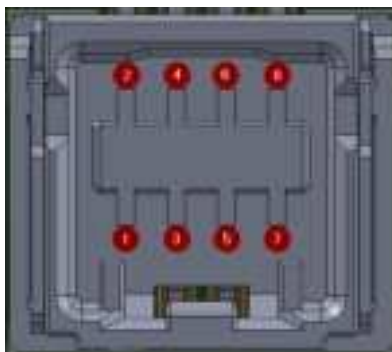
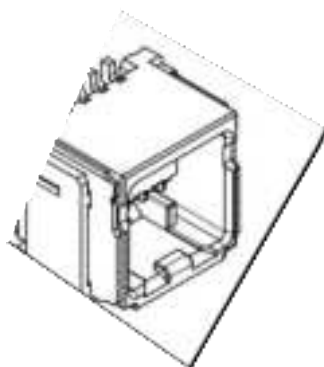
2 Connector and Cable

2.1 Connector

UNO-mini includes one 8pin Molex connector PN: 5054330871

Detailed connector specifications can be found at:

<https://www.molex.com/en-us/products/part-detail/5054330871?display=pdf>



Pin #	Description
1	HostUARTRX
2	HostUARTTX
3	TESTLED
4	GND
5	GND_EXT
6	USB-P
7	VinExt(5-12V)
8	USB-N

Figure 2-1: UNO-MINI Connector

2.2 Interface cable

For integration purposes, Nayax can provide the following cable:

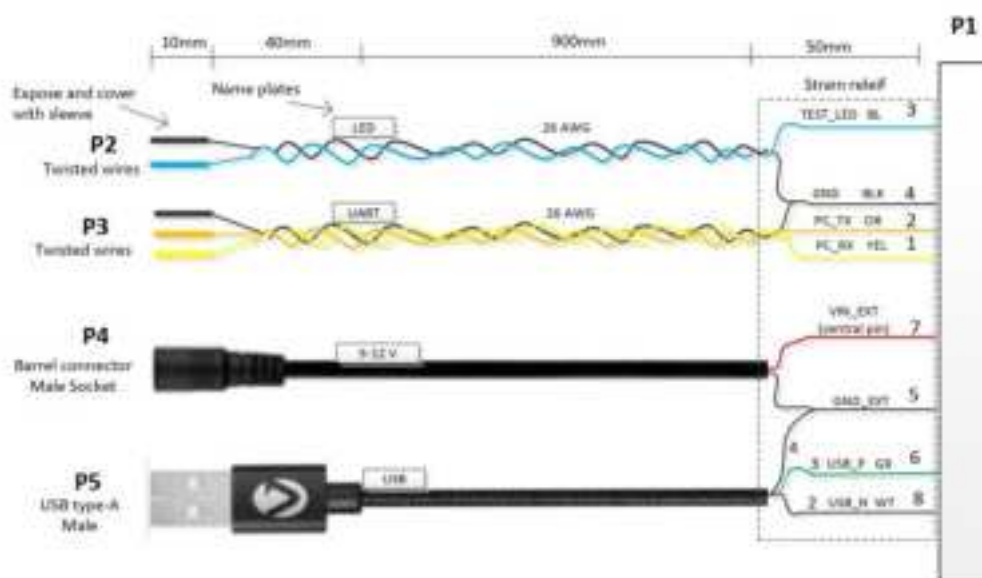


Figure 2-2: UNO-MINI Cable

NOTE: The cable is not included in the UNO-mini mass-production Bill of Materials (BOM).

3 ProductImages



4 FCC & ISED Warnings

The FCC Wants You to Know

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:

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

CANICES-3 (B) / NMB-3 (B)

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de classe B est conforme à la norme canadienne ICES-003.

IC STATEMENT

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- 1) This device may not cause interference.*
- 2) This device must accept any interference, including interference that may cause undesired operation of the device.*

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- 1) L'appareil ne doit pas produire de brouillage;*
- 2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement*

Modification statement

Nayax has not approved any changes or modifications to this device by the user. Any changes or modifications could void the user's authority to operate the equipment.

Modification statement

Nayax n'approuve aucune modification apportée à l'appareil par l'utilisateur, quelle qu'en soit la nature. Tout changement ou modification peut annuler le droit d'utilisation de l'appareil par l'utilisateur.

Mobile Device RF Exposure Statement:

For FCC: This device is only authorized for use in a mobile application. At least 20 cm of separation distance between the (Product Name) device and the user's body must be maintained at all times.

For IC: La distance entre l'utilisateur et de produits ne devrait pas être inférieure à 20cm

Interference statement

This device complies with Part 15 of the FCC Rules and Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Wireless notice

This device complies with FCC/ISED radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the ISED radio frequency (RF) Exposure rules. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Le présent appareil est conforme à l'exposition aux radiations FCC / ISED définies pour un environnement non contrôlé et répond aux directives d'exposition de la fréquence de la FCC radiofréquence (RF) et RSS-102 de la fréquence radio (RF) ISED règles d'exposition. L'émetteur ne doit pas être colocalisé ni fonctionner conjointement avec à autre antenne ou autre émetteur.

FCC ID: 2AK6L-UNOMINI

ISED ID: 10840A- UNOMINI