uPASS Go

long-range UHF reader for vehicle identification

Key features:

- ✓ automatic vehicle identification
- ✓ read range up to 10 meters* (33 feet)
- ✓ operates with passive UHF tags (EPC Gen 2)
- ✓ supports variety of communication protocols
- ✓ easy installation and maintenance
- ✓ robust reader for outdoor use

The uPASS Go is a UHF RFID reader for long-range vehicle identification. Based on passive UHF technology, vehicles are identified up to 10 meters* (33 feet). The uPASS Go complies with the ISO18000-6C and EPC Gen 2 directive.

As the uPASS Go is used in combination with battery free UHF (EPC Gen 2) tags, the solution is cost efficient. It is ideal for convenient vehicle access to car parks, gated communities and staff parking areas.

Communication interfaces

The uPASS Go supports a variety of industry-standard communication interfaces, such as RS485, Ethernet, Wiegand and clock & data. This enables seamless integration into any existing or new access control or parking system. Existing proximity Wiegand reader installations can be upgraded without additional wiring.

OSDP capability

The uPASS Go UHF RFID reader supports the Open Supervised Device Protocol (OSDP v2) for automatic vehicle identification applications. OSDP enables advanced and secure channel communication between the uPASS UHF RFID reader and the controller.

TCP-IP protocols supported

Connecting the uPASS Go reader over the Ethernet interface offers the possibility to support TCP-IP. This opens up new possibilities to perform remote configurations and updates with the user friendly online configuration interface.

Easy installation

Featuring a slim housing, the uPASS Go fits perfectly in any vehicle gate environment. The reader can be installed with the supplied mounting set on an entry pedestal or wall near the barrier. With the optional mount set extension it can be mounted on a wall or ceiling in every possible angle for an optimal read area. The service hatch offers convenient access to the interfaces for installation and maintenance.

Built for outdoor use at the perimeter

The reader features a weather resistant housing and is fully operable in -30...+60°C (-22...+140°F), which means it can withstand the harshest outdoor environments. When exposed to extreme sunny conditions it is recommended to to apply the optional weather protection hood. As the reader is typically positioned at the perimeter it has a tamper switch to immediately provide tamper indication.

Convenience for the driver

With the circular antenna polarization the tag orientation on the windshield becomes irrelevant as long as the tag is in line of sight for the reader. Especially convenient for cars with metalized windshields with only a small area without metal. The built-in beeper and high intensity LED provide audible and visual feedback on the identification of a tag in all operating modes.

* In combination with UHF Windshield Tag. The maximum read range depends on identifier type, the installation and environment.

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Technical specifications	uPASS Go – NVR2002
Part number	9234357 uPASS Go (FCC) including Mount Set 9234195 uPASS Go (ETSI) including Mount Set 9567801 uPASS Go (AU) including Mount Set 9567828 uPASS Go (NZ) including Mount Set 9567836 uPASS Go (MY) including Mount Set 9567844 uPASS Go (PH) including Mount Set 9567852 uPASS Go (MA) including Mount Set
Dimensions	240 x 225 x 71 mm (9.4 x 8.8 x 2.8 in.)
Color	RAL7016 cover / RAL9006 chassis
Weight	1 kg (2.20 lbs)
Protection class	IP66 (NEMA4x)
Material	UL ASA+PC chassis and cover
Operating temperature	-30...+60°C (-22...+140°F)
Storage temperature	-30...+60°C (-22...+140°F)
Relative humidity	10% ... 93% relative humidity, non-condensing
Power supply	24VDC recommended, for 12VDC see wiring preconditions 12-24VDC ±10% linear supply
Power consumption	0.5A@24VDC; 1A@12VDC
Power supply wiring	Max. 50 meter (150 ft), min. AWG23/0.25mm2 @24VDC Max. 5 meter (15 ft), min AWG26/0.15mm2 @12VDC
Read range	Up to 10 meters (33 feet) with UHF Windshield Tag
Operating frequency	865-928 MHz - set to regional requirements and restrictions
Antenna polarization	Circular
Air interface	According to ISO 18000-6 C; EPC Gen 2
Communication interfaces	Wiegand, RS485, Ethernet 10/100Mbps and USB-C service interface
Communication protocols	OSDP v2, including secure channel communication, TCP-IP, CR/LF and various OEM protocols (see uPASS firmware guide for more information)
Relay output	1 relay output (NO, common, NC), 24 VDC 2A
Input	Read disable input; 3 x TTL general purpose inputs
Output	Wiegand, Magstripe (clock & data)
Cable specifications	Wiegand - 150 m (500 ft.) 22AWG
Tamper switch	Magnetic switch, normally closed
Standards	CE, FCC, UL, IC, ACMA, R-NZ Consult your Nedap representative for country specific standards
Optional accessories	9567593 Mount Set Extension 9567658 Weather Protection Hood
Document version nr.	1.1

uPASS Go Accessories

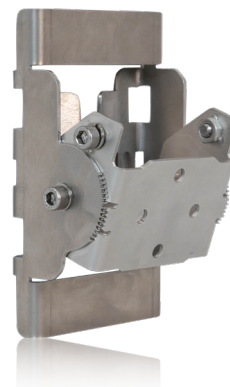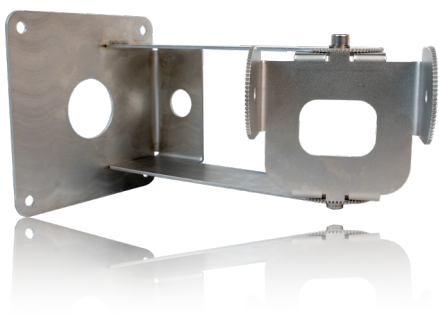Installation accessories for the uPASS Go long range reader

Mount Set Pole

With the Mount Set Pole, the uPASS Go reader can be mounted easily on a pole or flat surface. The front part is screwed to the back of the reader. The Reader can be positioned at an angle using the two side screws. The Mount Set Pole is standard included with the uPASS Go reader.

Mount Set Extension

The Mount Set Extension is an optional accessory to mount the uPASS Go reader to a wall or ceiling. The Mount Set Extension offers the possibility to position the reader both horizontally as vertically at the desired angle for an optimal line of sight. The front part of the standard Mount Set Pole needs to be installed in the extension set using the two screws.

Weather Protection Hood

If the uPASS Go reader is used in (extreme) sunny weather conditions, it is recommended to apply a Weather Protection Hood. This hood protects the reader from temperature rise by means of long lasting exposure to the sun. The Weather Protection Hood is an optional accessory and needs to be mounted on top of the front part of the standard Mount set Pole using two screws.

Technical information	Mount Set Pole
Part number	9567631 Mount set Pole
Dimensions	140 x 85 x 55 mm (5.5 x 3.3 x 2.2 in) maximum diameter for round pole: 133mm (5.19 in) maximum diameter for square pole: 100mm (3.9 in)
Color	Metal
Weight	400g (14.1 oz)
Material	Stainless Steel
Compatible readers	uPASS Go uPASS Target Transit Ultimate

Technical information	Mount Set Extension
Part number	9567593 Mount Set Extension
Dimensions	130 x 125 x 190 mm (5.1 x 4.9 x 7.5 in)
Color	Metal
Weight	750g (26 oz)
Material	Stainless Steel
Compatible readers	uPASS Go uPASS Target Transit Ultimate

Technical information	Weather Protection Hood
Part number	9567658 Weather Protection Hood
Dimensions	250 x 203 x 92.5 mm (9.8 x 8 x 3.6 in)
Color	Grey according to RAL9006
Weight	225g (7.9 oz)
Material	UL ASA+PC
Compatible readers	uPASS Go
Document version number	1.0

UHF Windshield Tag

long-range vehicle identification tag

uPASS

N3 XX 0123456
25 YY

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Key features:

- ✓ automatic vehicle identification
- ✓ identification up to 15 meters* (50 ft)
- ✓ passive, battery free tag
- ✓ EPC Gen 2 compatible
- ✓ thin, flexible sticker format
- ✓ UV- and tamper resistant
- ✓ customized printing available on request

The UHF Windshield Tag is a vehicle identification tag. It offers cost effective long-range identification for parking applications.

Based on passive UHF technology, the UHF Windshield Tag is identified up to 15 meters* (50 ft) with uPASS Target or up to 10 meters (33 ft) with uPASS Go. The tag does not contain a battery and is maintenance free.

Typical applications include secure vehicle access to car parks, gated communities/ condominiums and offices.

Easy installation
The UHF Windshield Tag can easily be fixed to a windshield as it has an adhesive front side. The thin, flexible, UHF sticker format tag is easy to install by permanently affixing it to the inside of a vehicle's windshield. The tag is protected against harmful UV rays.

Tamper resistant
For added security, the UHF Windshield Tags are tamper resistant so it will show visual proof of removal and are difficult to remove intact and functional.

Security
The UHF Windshield Tag is available in various formats, ensuring compatibility to any installation. Wiegand and Magstripe formatted tags are available to complement any access application. Nedap XS formatted tags are available to ensure easy integration for existing TRANSIT installations. Nedap formatted UHF Windshield Tags are featured with special security protection to provide data integrity and to prevent copying.

Customization
The layout of the tag can be customized to promote company logos, names, user distinction and/or designs. Optionally, the tag ID number can be printed on the UHF Windshield Tag in barcode 39 format. The barcode can be read by a barcode scanner to offer easy enrollment of tags into a management system and efficient enforcement of vehicles.
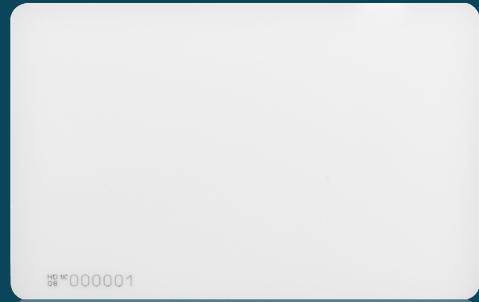
Note: custom format tags will have a different physical appearance than pre-programmed tags. Please contact your Nedap representative to discuss the customizaiton options.

In combination with the uPASS Target reader. The maximum read range depends on reader type, the installation and the environment.

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Technical information	UHF Windshield Tag
Part number	9942335 UHF Windshield Tag Tamper Resistant Wiegand 26
	9946918 UHF Windshield Tag Tamper Resistant
	9947426 uPASS Windshieldtag W26 Stock (US)
	9988807 uPASS Windshieldtag Spec (US)
	9988815 uPASS Windshieldtag Custom Art (US)
Dimensions	UHF Windshield Tag Tamper Resistant Wiegand 26 - 106,4 mm x 28,6 mm
	UHF Windshield Tag Tamper Resistant - 90 x 27 mm
	UHF uPASS Windshieldtag W26 Stock 4.18 in x 1.12 in
	uPASS Windshieldtag Spec 4.25 x 1.37 in
	uPASS Windshieldtag Custom Art 4.25 x 1.37 in
Color	White with printing
Weight	1 g (0.04 lbs)
Protection class	IP54 (approx. NEMA 2)
Material	Destructible (9942335 & 9947426), Polyester (9946918) or paper (9988807 & 9988815)
Customization	Customized printing available on request
Operating temperature	-20 ... +70°C (-4 ... +158°F)
Storage temperature	-20 ... +70°C (-4 ... +158°F)
Relative humidity	10% ... 93% relative humidity, non condensing
Read range	Up to 15 meters (50 feet) with uPASS Target
	Up to 10 meters (33 feet) with uPASS Go
Operating frequency	865 - 870 MHz / 902 - 928 MHz
Mounting	Onto the windshield, the tag is featured with a standard pressure-sensitive adhesive back
Compatible readers	uPASS Target
	uPASS Go
	uPASS Reach (EOL)
	uPASS Access (EOL)
Standards	EPC Gen2
Document version number	6.1

UHF Cards

UHF card with optional proximity or smartcard technology

Key features:

- ✓ one card solution for access control
- ✓ identification up to 10 meters (33 feet)
- ✓ passive, battery free tag
- ✓ EPC Gen 2 compatible
- ✓ thin, ISO card format

The UHF cards are featured with long-range UHF technology and optional proximity or smartcard technology.
These combi cards ensure the use of one single card for both vehicle and building access applications.

Based on passive UHF technology, the UHF Card is identified up to 10 meters [33 feet] with uPASS Target, 7 meters [23 feet] with uPASS Go. The card does not contain a battery and is maintenance free.

Typical applications include secure access to parking areas in combination with building access at offices, gated communities or universities.

UHF ISO Card

The UHF ISO Card is a long-range identification tag that only uses UHF technology for vehicle or people access control. Customized printing of the UHF Combi Card and UHF ISO Card is available on request.

Combined technologies

The UHF Combi Card combines UHF technology with proximity or smartcard technology that is used for building access. This combination ensures compatibility and seamless integration with existing access control applications.

There are several UHF Combi Cards directly available;
• UHF - Mifare
• UHF - Mifare Desfire
• UHF - Legic Advant
• UHF - HID prox
• UHF - HID iClass

UCODE DNA secure authentication

Prefer an EPC Gen2 V2 compliant card with secure authentication to protect against unwanted duplicates? Ask for our options.

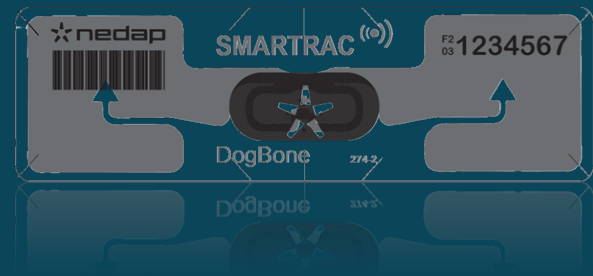| Technical information	UHF Cards
Part number	9943943 UHF ISO Card
	9942343 Combi Card UHF - Mifare
	9206388 Combi Card UHF - Mifare DESfire
	9943960 Combi Card UHF - Legic Advant
	9954104 Combi Card UHF- HID Prox
	9959343 Combi Card UHF - HID iClass
	9955836 Bundle 25 Combi Cards UHF – HID Prox Wiegand 26
Dimensions	85,5 x 54 x 5 mm (3.36 x 2.13 x 0.2 in)
Color	White
Weight	6 g (0.21 oz)
Protection class	IP65 (approx.NEMA4x)
Material	PVC
Customization	Customized printing available on request
Operating temperature	-10... +50°C (+14 ... +122°F)
Storage temperature	-10... +50°C (+14 ... +122°F)
Relative humidity	10% ... 93% relative humidity, non condensing
Read range	UHF - up to 10 meters (33 feet) with uPASS Target, up to 7 meters (23 feet) with uPASS Go
	Proximity / Smartcard - few cm, depending on applied reader and card technology
Operating frequency	UHF 865 - 870 MHz / 902 - 928 MHz (UHF ISO Card)
	UHF 865 - 870 MHz / 902 - 928 MHz & 13.56 MHz (Mifare / Legic/HID iClass)
	UHF 865 - 870 MHz / 902 - 928 MHz & 125 kHz (EM/HID Prox)
Antenna polarization	Linearly polarized antenna
Compatible readers	uPASS Target
	uPASS Go
	uPASS Reach (EOL)
	uPASS Access (EOL)
Standards	EPC Gen2
Document version number	6.1

uPASS UHF Exterior Tag

long-range vehicle identification tag

Key features:

- ✓ automatic vehicle identification
- ✓ identification up to 12 meters* (40 ft)
- ✓ passive, battery free tag
- ✓ EPC Gen 2 compatible
- ✓ transparent, thin sticker format
- ✓ protection against harmful UV rays
- ✓ tamper evident

The UHF Exterior Tag is a vehicle identification tag. The tag is mounted on the exterior of a vehicle, offering cost effective long-range identification for parking applications.

Based on passive UHF technology, the UHF Exterior Tag is identified up to 12 meters* (40 ft) with uPASS Target or up to 8 meters (26 ft) with uPASS Go. The tag does not contain a battery and is maintenance free.

Typical applications include secure vehicle access to car parks, gated communities and offices. Other applications include access control of motorbikes, scooters and mopeds. This sticker tag is purposely designed to be adhesive to the non-metal/metal containing exterior parts of the vehicle, preferably the headlight**. This tag is the best option to enable reliable vehicle identification in situations where the entire car windshield is covered by solar film with metal particles.

Easy installation

The UHF Exterior Tag is a transparent adhesive tag that can easily be fixed onto non-metal/metal containing exterior parts of the vehicle, preferably the headlight**.

Tamper resistant

The thin, flexible, UHF sticker format is easy to install and offers a tamper resistant solution by affixing it to the exterior of the vehicle. For added security, the UHF Exterior Tag is tamper evident; the tag shows visual proof of removal and are difficult to remove intact and functional**. The chip inside the tag is protected against harmful UV rays.

Security

The UHF Exterior Tag is available with various programming formats, ensuring compatibility to any installation. Wiegand and Magstripe formatted tags are available to complement any access control application. Nedap XS formatted tags are available to ensure easy integration into existing TRANSIT installations. Nedap formatted UHF Exterior Tags are featured with special security protection to provide data integrity and to prevent copying.

* In combination with the uPASS Target reader. The maximum read range depends on reader type, the installation and the environment.

** Application of the UHF Exterior Tag on vehicles may be subject to local legislation. Please verify if legal restrictions apply in your region.

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Technical information	uPASS UHF Exterior Tag
Part number	9215255 UHF Exterior Tag
Dimensions	97 x 27 mm (3.82 x 1.06 in)
Color	Transparent, interior is visible
Weight	1 g (0.04 lbs)
Protection class	IP65 (approx. NEMA 4x)
Material	Polyester
Operating temperature	-20 ... +70°C (-4 ... +158°F)
Storage temperature	-20 ... +70°C (-4 ... +158°F)
Relative humidity	10% ... 93% relative humidity, non-condensing
Read range	Up to 12 meters (40 feet) with uPASS Target Up to 8 meters (26 feet) with uPASS Go
Operating frequency	865 - 870 MHz / 902 - 928 MHz
Mounting	Onto the non-metal / metal containing exterior parts of the vehicle, preferably the headlight.
Compatible readers	uPASS Target uPASS Go uPASS Reach (EOL) uPASS Access (EOL)
Standards	EPC Gen 2
Document version number	2.4

UHF Hangtag

long-range vehicle identification tag

Key features:

- ✓ automatic vehicle identification
- ✓ identification up to 15 meters* (50 ft)
- ✓ convenient to hang on rear view mirror
- ✓ passive, battery free tag
- ✓ EPC Gen 2 compatible
- ✓ UV-resistant
- ✓ customized printing available on request

The UHF Hangtag is a long range vehicle identification tag. It is the optimal solution for temporary parking access control applications.

Based on passive UHF technology, the UHF Hangtag is identified up to 15 meters (50 ft) with uPASS Target or 10 meters (33 ft) with uPASS Go. The tag does not contain a battery and is maintenance free.

Temporary access control applications

For temporary access control applications, the UHF Hangtag is the optimal solution. As the tag is hung on the rear view mirror of the vehicle, it does not need to be attached to the windshield. It can be used for access control in parking lots, gated communities and any other situation where vehicles come and go.

Removable and reusable

The UHF Hangtag provides an excellent read range. It is completely removable and thus reusable. The logo and barcode are printed on both sides of the tag (standard part numbers). The barcode can be read by means of a barcode scanner to offer easy enrollment of tags into a management system and efficient enforcement of vehicles.

Customization

The layout of the tag can be customized to promote company logos, names and/or designs. The layout may include block type, stylized type, logos or other designs. All copy, block type, logos, designs and bar code are subsurface printed. This unique process provides excellent durability and rigidity.

In combination with the uPASS Target reader. The maximum read range depends on reader type, the installation and the environment.

Technical information	UHF Hangtag
Part number	9988823 uPASS Hangtag W26 Stock
	9988831 uPASS Hangtag Spec
	9988858 uPASS Hangtag Custom Art
Dimensions	8.5 x 13.3 cm - 3.375 x 5.25 Inch
Color	White with printing
Weight	7 g (0.25 oz)
Protection class	IP54 (approx. NEMA 2)
Material	Polyester
Customization	Customized printing available on request
Operating temperature	-20 ... +70°C (-4 ... +158°F)
Storage temperature	-20 ... +70°C (-4 ... +158°F)
Relative humidity	10% ... 93% relative humidity, non condensing
Read range	Up to 15 meters (50 feet) with uPASS Target
	Up to 10 meters (33 feet) with uPASS Go
Operating frequency	865 - 870 MHz / 902 - 928 MHz
Mounting	Hang around the rearview mirror of the car
Compatible readers	uPASS Target
	uPASS Go
	uPASS Reach (EOL)
	uPASS Access (EOL)
Standards	EPC Gen2
Document version number	1.1

UHF Heavy Duty Tag

long-range vehicle identification tag

Key features:

- ✓ automatic vehicle identification
- ✓ identification up to 18 meters* (60 feet)
- ✓ passive, battery free tag
- ✓ EPC Gen 2 compatible
- ✓ mounted on the exterior of the vehicle
- ✓ high performance on metal surfaces
- ✓ chemical resistant housing
- ✓ water and shock proof

The UHF Heavy Duty Tag is a vehicle identification tag. This tag features a rugged design for long term outdoor use in industrial environments. The UHF Heavy Duty Tag is a cost effective solution for installations that require the tag to be mounted onto the exterior of the vehicle.

Based on passive UHF technology, the UHF Heavy Duty Tag is identified up to 18 meters* (60 feet) with uPASS Target or 10 meters (33 feet) with uPASS Go. The tag does not contain a battery and is maintenance free.

Typical applications include secured vehicle access in vehicle logistics, industrial operations, automated truck activities and parking access.

Industrial environments

The UHF Heavy Duty Tag is capable of reading on, off and near metal surfaces. The shock and impact resistant housing provides high resistance to aggressive liquids and excellent stability over fluctuating temperatures. The chemical resistant housing ensures ongoing long term performance. The elaborated designed and manufactured housing structure enables the tag to be truly waterproof.

Easy installation

The UHF Heavy Duty Tag needs to be mounted directly onto metal for optimal performance. It is featured with two mounting holes allowing easy permanent mounting onto the metal exterior of the vehicle.

Security

UHF Heavy Tags are available in various formats ensuring compatibility to any installation. Wiegand and Magstripe formatted tags are available to complement any access application. Nedap XS formatted tags are available to ensure easy integration for existing TRANSIT users. Nedap formatted UHF Heavy Duty Tags are featured with special security protection to provide data integrity and to prevent copying.

In combination with the uPASS Target reader. The maximum read range depends on reader type, the installation and the environment.

Technical information	UHF Heavy Duty Tag
Part number	9219641 UHF Heavy Duty Tag
Dimensions	110 x 25 x 12,85 mm (4.33 x 0.98 x 0.51 in)
Color	Grey
Weight	26 g [0.92 oz]
Protection class	IP68
Material	ABS rigid plastic
Operating temperature	-20 ... +85°C (-4 ... +185°F)
Storage temperature	-20 ... +85°C (-4 ... +185°F)
Relative humidity	10% ... 93% relative humidity, non-condensing
Read range	Up to 18 meters (60 feet) with uPASS Target Up to 10 meters (33 feet) with uPASS Go
Operating frequency	865 - 870 MHz / 902 - 928 MHz
Mounting	Onto the metal exterior of the vehicle using M5 screws. Fixation hole: 4,9 mm (0.19 in) / Screw center to center distance: 97,5 mm (3.84 in)
Compatible readers	uPASS Target uPASS Go uPASS Reach (EOL) uPASS Access (EOL)
Standards	EPC Gen 2, CE
Vibration	MIL STD 810-F
Shock	MIL STD 810-F
Document version number	5.3