

uPASS Target

long-range UHF reader for
vehicle identification

Key features:

- ✓ automatic vehicle identification
- ✓ read range up to 15 meters* (50 feet)
- ✓ operates with passive UHF tags (EPC Gen 2)
- ✓ adjustable read range
- ✓ supported communication interfaces: RS485, RS422, Ethernet and Wiegand
- ✓ OSDP v2, including secure channel communication
- ✓ Power over Ethernet plus (PoE+)

The uPASS Target is a high-end UHF RFID reader for longrange vehicle identification. Based passive UHF technology, vehicles are identified up to 15 meters* (50 feet). The uPASS Target complies with the ISO18000-6C and EPC global Gen 2 directive.

Besides vehicle identification, the uPASS Target can also be used to identify people or rolling stock. Typical applications include access control at secured perimeters and monitoring of traffic flow activities at industrial sites and logistic depots.

Communication interfaces

The uPASS Target supports a variety of industry-standard communication interfaces, such as RS422 and RS485, Ethernet, Wiegand, Magstripe/Clock & Data, . This enables seamless integration into any existing or new access control or parking system.

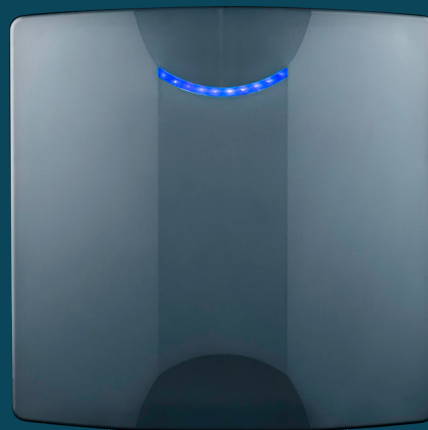
Easy installation

A Wall Mounting Set is standard included with the uPASS Target to ensure easy installation. With this mounting set, the reader can be adjusted at the desired angle to ensure reliable reading. The reader can be powered over the TCP-IP interface as it supports PoE+, with no need for separate power supply wiring.

Card orientation freedom

As the uPASS Target is used in combination with battery free UHF tags, the solution is cost efficient. The circular polarized antenna guarantees tag orientation freedom. This means credentials can be read at any angle as long as they are in direct line of sight of the reader.

Nedap's portfolio contains various UHF (combi) cards and special purpose UHF tags to ensure a fitting solution can be offered in any situation.



Heavy industrial equipment

Thanks to the durable IP66 rated industrial enclosure, the uPASS Target operates solidly in industrial environments and under all-weather circumstances. In case of ambient temperatures of 40°C (104°F) for higher and more than 2 hours of direct sunlight on the uPASS Target housing, a weather protection hood is advised. The uPASS Target features a connector based interfacing. All terminals are equipped with M12 industrial connectors and contra connectors, according to the latest industrial standards and quality.

LED indication

The built-in high intensity blue, green and red LED's provide the user with visual feedback that the reader is active, a tag has been read or authorized. The LED automatically indicates identification, but can also be controlled by the access control panel.

External antenna

An uPASS Target Antenna is optionally available. With this external antenna, the read-range of the reader can be extended for a wider scope. Additionally, the external antenna can be used in situations where reading of both vehicle entry and exit lanes is required.

OSDP capability

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

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

Technical information	uPASS Target
Part number	9217363 uPASS Target (Region 1) 9217371 uPASS Target (Region 2&3)
Dimensions	286 x 285 x 78 mm (11.26 x 11.22 x 3.01 in)
Color	RAL 7016 (cover), RAL 9006 (chassis)
Weight	3.5 kg (7.72 lbs)
Protection class	IP66 (NEMA4x)
Material	Aluminum chassis with UL94 ABS cover
Operating temperature	-30... +66°C (-22... +150°F)
Storage temperature	-30... +66°C (-22... +150°F)
Relative humidity	10% ... 93% relative humidity, non-condensing
Power supply	24VDC recommended, for 12VDC see wiring preconditions 12-24VDC ±10% linear supply or Power over Ethernet plus (IEEE 802.3at)
Power consumption	0.5A@24VDC; 1A@12VDC
Power supply wiring	Max. 50 meter (150 ft), min. AWG23/0.25mm ² @24VDC Max. 5 meter (15 ft), min AWG26/0.15mm ² @12VDC
Read range	Up to 15 meters (50 feet) in combination with UHF Windshield Tag
Operating frequency	865-868 MHz uPASS Target Region 1 902-928 MHz uPASS Target Region 2&3
Antenna polarization	Circular polarization
Air interface	According to ISO 18000-6 C; EPC Gen 2
Communication interfaces	RS422 / RS485 , Ethernet 10/100Mbps and USB service interface
Communication protocols	OSDP v2, including secure channel communication, TCP-IP, CR/LF, DC2/DC4 and various OEM protocols (for more information, see firmware manuals).
Relay output	1 relay output (NO, common, NC), 24 VDC 2A
Input	2 digital input for LED control - active low inputs (0V - 5V) 1 digital input for reader disable - active low inputs (0V - 5V)
Output	Wiegand, Magstripe (clock & data)
Antenna input	1x TNC, supports external (Nedap) antenna
Connectors	Cable assembly M12 and IP67 Ethernet connectors are included
Standards	CE, FCC, UL294, UKCA, IC, ACMA, N-R2 Consult your Nedap representative for country specific standards
Included accessories	9984364 Wall Mounting Set
Optional accessories	5626595 Pole Mounting Kit 9218335 Weather Protection Hood 8500681 RS485 Accessories Set 9219021 uPASS Target Antenna (Region 1) 9219048 uPASS Target Antenna (Region 2&3)
Document version number	3.0

uPASS Target Accessories

optional reader accessories



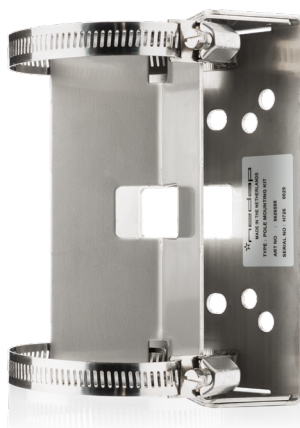
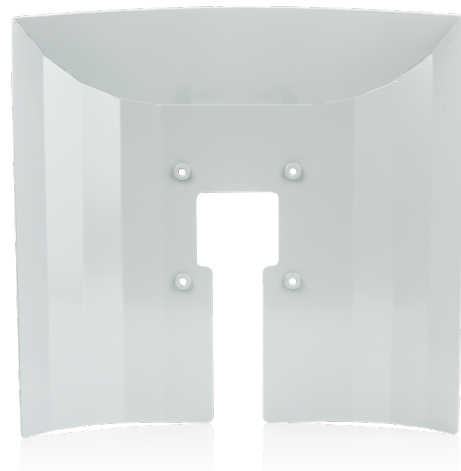
Products:

- ✓ Adjustable Mounting Set
- ✓ Pole Mounting Kit
- ✓ Weather Protection Hood

Weather Protection Hood

If the uPASS Target is used in (extreme) sunny weather conditions, it is recommended to apply a Weather Protection Hood to protect the reader from temperature rise by means of long lasting exposure to the sun.

The Weather Protection Hood can be mounted on the back side of the uPASS reader.



Pole Mounting Kit

With the Pole Mounting Kit the uPASS Target can be mounted on round or square masts.

Technical information	Weather Protection Hood
Part number	9218335 Weather Protection Hood
Dimensions	303 x 303 x 68 mm (11.9 x 11.9 x 2.7 in)
Color	Grey/White according to RAL 9002
Weight	470 g (16.6 oz)
Material	Powder coated aluminum
Compatible readers	9217363 uPASS Target (region 1) 9217371 uPASS Target (region 2 & 3)

Technical information	Pole Mounting Kit
Part number	5626595 Pole Mounting Kit
Dimensions	Ø 50 mm (1.97 in) - min. dimensions pole Ø 190 mm (7.48 in) - max. dimensions round pole 150 mm (5.9 in) - max. dimensions square pole
Color	Stainless steel
Weight	1 kg (2.2 lbs)
Material	Stainless steel
Compatible readers	9217363 uPASS Target (region 1) 9217371 uPASS Target (region 2 & 3) 5626595 TRANSIT Ultimate
Document version number	5.1

UHF Windshield Tag

long-range vehicle identification tag

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.*

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

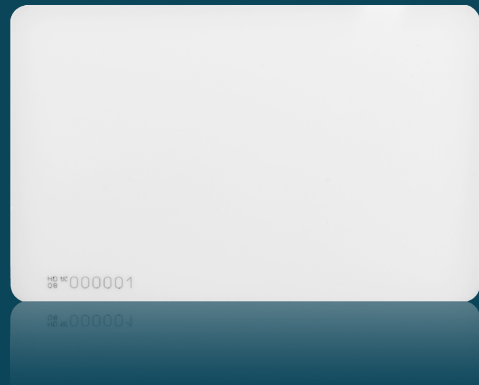
The UHF cards are featured with long-range UHF technology and optional proximity or smartcard technology. These combi cards ensure the use of one single card for both vehicle and building access applications.

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.

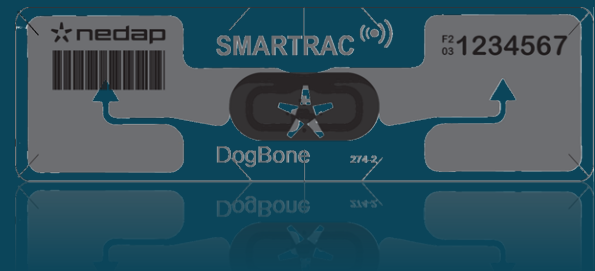
Technical information	UHF Cards
Part number	9943943 UHF ISO Card 9942343 Combi Card UHF - Mifare 9206388 Combi Card UHF - Mifare DESfire 9943960 Combi Card UHF - Legic Advant 9954104 Combi Card UHF- HID Prox 9959343 Combi Card UHF - HID iClass 9955836 Bundle 25 Combi Cards UHF – HID Prox Wiegand 26
Dimensions	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.

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