

## UHF ANTENNA

# NF A1030

### PRODUCT DESCRIPTION

As iDTRONIC's preferred proximity / near-field antenna with its ultra-low profile and unique size / surface design, the NF A1030 is a world first for the UHF near field antenna market. At just 7.1 mm / 0.25 in. thick, the NF A1030 is opening new possibilities for item level RFID tracking where a short-range read is required.

The NF A1030 antenna offers outstanding near field performance in a unique and optimized footprint, improving workflow and eliminating stray tag-reads. With flexible and easy mounting options and with a fire-retardant ABS radome, the NF A1030 is a strong performer - and packs a sizeable punch in the world of UHF antennas.

In the NF A1030 NearField antenna, polarization is not applicable as the magnetic fields are used for communication. Certain RFID applications involve metals and liquids such as jewellery, pharmaceutical vials, food products, bottles, blisters, etc. These pose challenges in reliable detection using far-field antennas and tags. Smaller assets like jewellery cannot bear larger far-field tags. Liquid assets would absorb the electric field components of the far-field radiation, leaving the tags unread. These challenges can be addressed using near-field tags and antennas. Magnetic fields are less harmed by liquids or metals.

This innovative antenna can be seamlessly combined with iDTRONIC's Embedded Modules or Industrial UHF Readers.



#### ▶ APPLICATIONS

- Valuable Asset Tracking
- Healthcare
- Retail POS
- Assembly / Production Lines

#### ▶ FEATURES

- Ultra-Low Profile
- Magnetic Coupling Effect
- No Surface Dead Spots
- Supports the standard EPC C1 GEN2 (ISO 18000-63)

#### ▶ RFID OPTIONS

- 864 – 868 MHz (ETSI)
- 902 – 928 MHz (FCC)

## TECHNICAL DATA

### ELECTRICAL SPECIFICATIONS

Frequency Range	864 – 869 MHz (EU)   902 – 928 MHz (US)
Connector Type	SMA female side connector
VSWR	1.8 typical
Nominal Impedance	50 Ω
Anti-static protection	DC Grounded
Antenna Detection	10K Ω resistance
Maximum Input Power	3 W

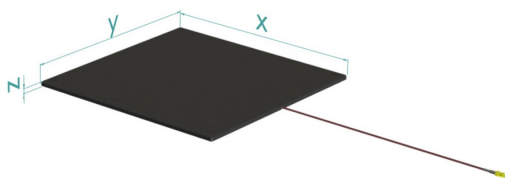
### SUPPORTED TRANSPONDERS

Standard ISO 18000-6C (EPC Class 1 Generation 2)  
E.g.: Alien Higgs 2/3/4, Impinj Monza, NXP UCODE, etc.

### MECHANICAL | ENVIRONMENTAL SPECIFICATIONS

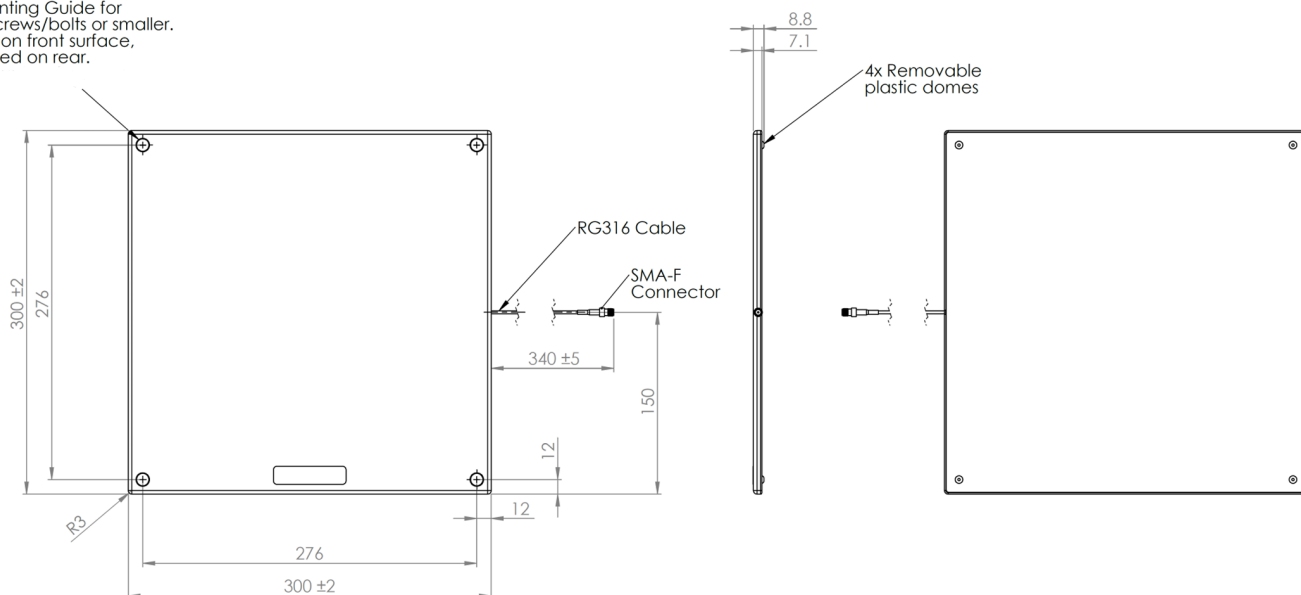
Dimensions	300 × 300 × 7.1 mm
Weight	0.55 kg
Housing-Material	Fire-Retardant ABS
Environmental Rating	IP53
Operating & Storage Temperature	0 ° to +50 °C / -30 ° to +60 °C
Mounting	Integrated mounting guides on the rear
Cable type / length	RG316 / 340 mm
Humidity	5% to 95%

## ANTENNA PLANES



## DIMENSIONS

4x Mounting Guide for  
Ø 4,5 screws/bolts or smaller.  
Marker on front surface,  
pre-drilled on rear.



## ORDER CODE

VERSION	ORDER CODE
NF A1030 UHF Antenna - ETSI	R-IN-UHF-A1030
NF A1030 UHF Antenna - FCC	R-IN-UHF-A1030-FCC

## APPLICATION EXAMPLES

### JEWELRY

Jewelry is a high-value product, and it is easy to be stolen. With the NF A1030 antenna you can track valuable jewelry assets in real time. With this antenna you can monitor when products are sold and or moved without permission.



### RETAIL POS

Save hundreds of hours of work by automating the receipt, tracking & storage of inventory with iDTRONIC's NF A1030 antenna. When RFID is integrated with a store's Point of Sale (POS), it can identify when a product leaves the store without being purchased.



### HEALTHCARE

The NearField NF A1030 is the perfect antenna for patient monitoring, inventory control and medical equipment storage. Automatically track or identify patients and personnel, pharmaceuticals saving valuable time and resources.

