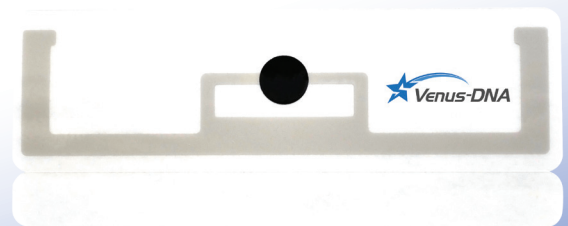


## Vehicle Transponder

### Applications

- Electronic Toll Collection
- Electronic Vehicle Registration
- Parking and Access Control
- Vehicle Emissions Inspection
- Fleet Management
- Proof of Insurance



Venus-DNA™

### Product Description

Venus-DNA transponder provides the ultimate in security and data protection in a high performing vehicle transponder. Venus-DNA utilizes the latest cryptographic technology to assure that transponders and readers are authentic. Also secures sensitive data while providing superior read and write performance in a high speed reading environment. Venus-DNA transponder is designed and tuned specifically for optimal performance when used on windscreens and headlamps of the vehicles.

Venus-DNA transponder is ideal to be used in high performance / security applications such as electronic vehicle registration, electronic toll collection, secure parking and access control, fleet management, and other critical vehicle tracking projects. Embedded cryptographic authentication provides dynamic security with each transmission being different from the one before, thus minimizing the ability for data to be emulated. Venus-DNA transponder uses ISO/IEC 29167-10 standardized cryptographic security with dual 128-bit key files based on AES (Advanced Encryption Standard) algorithms and is also compliant with EPC Gen2v2 air interface standard.

Venus-DNA transponder is constructed using NXP's UCODE DNA chip. Venus-DNA along with STAR's Titan, Procyon and Vela Readers fully conform to the ISO 18000-6C/63, RAIN RFID and EPC Gen2v2 standards allowing easy integration with legacy systems.

*Your Success is Our Vision*



The logo for Venus-DNA, featuring a stylized white star icon with a blue swoosh to the left of the text "Venus-DNA" in white.

## Specifications

Dimensions	1-part Label : 100 x 30mm ( 3.94 x 1.18" ) 2-part Label : 100 x 40 mm ( 3.94 x 1.57" )
RF Protocol	ISO 18000-6C/63 EPC C1G2
Operating Frequency	860-960 MHz
Operating Temperature (Installed)	-40°C to +85°C (-40°F to +185°F)
Relative Humidity (RH) (Installed)	100% Condensing Humidity
Chip Type	NXP UCODE DNA
EPC	up to 448 bits
User Data	up to 3 kb
Unique TID	96 bits
Access Password	32 bits
Kill Password	32 bits
EEPROM Data Retention	20 years
EEPROM Write Endurance	100,000 cycles
Custom TID Bitmask	Optional
Password Authentication	AES-128