



## **VeTWEET VEHICLE MANAGEMENT SYSTEM**

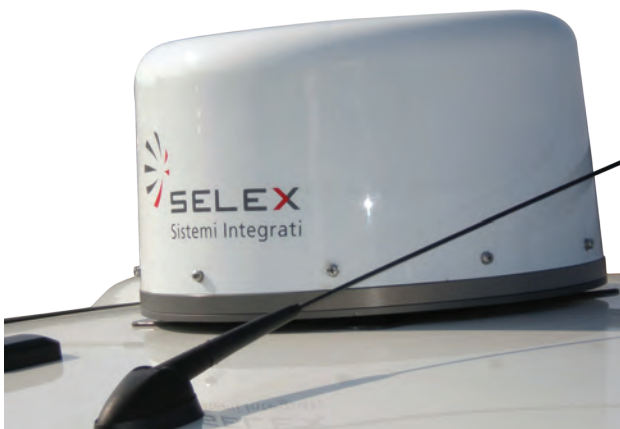
**VeTWEET is the SELEX Sistemi Integrati modular solution for vehicles management on Airport Movement Area.**

VeTWEET is a 1090 MHz Transmitter transponder, with an embedded DGPS/SBAS module, which can be easily and quickly installed on vehicles.

VeTWEET improves the Controllers Situation Awareness in Control Towers by providing positioning and identification of the equipped vehicles via Multilateration system and/or ADS-B ground stations installed at airports.

In order to maximize the continuity of the service VeTWEET uses a recognition technique with an internal gyroscopes and odometer, in order to determine the vehicle position in absence of GPS signals.

VeTWEET is also available in an enhanced version, named VeTWEET plus.



## VeTWEET PLUS

VeTWEET plus consists of a 1090 MHz Transceiver (RTX) and a graphical 10,4 inches touch-screen display with an integrated on-board computer to be installed inside the vehicle.

VeTWEET plus allows vehicle drivers to navigate, even in low visibility conditions, on the Airport Movement Area by means of a moving map where the vehicles and aircrafts positions are shown.

VeTWEET plus supports also digital communication between vehicle drivers and ATC Controllers/Airport Operators. A set of predefined messages is available to allow safer and more efficient airport operations.

## DUAL-LINK CAPABILITY

VeTWEET is available, on both versions, with a dual-link capability by adding a HyperLan 5 GHz or WiFi 2.4 GHz module.

Dual-link capability makes VeTWEET the best solution for satisfying the Air Traffic Services and Fleet Management requirements at the Airport.

## SYSTEM ARCHITECTURE

The TX/RTX component of VeTWEET is fully integrated for outdoor purposes. It is easy to install on the top of the vehicle by means of an embedded magnets. The Antenna (1090MHz, GPS, HyperLan or WiFi) and TX/RTX is fully embedded inside a radome and powered via RS422 by a simple car lighter.

The touch-screen on-board Computer component is composed by an integrated central unit and a graphical 10,4 inches touch-screen display.

## KEY FEATURES

- DGPS/SBAS position information
- ADS-B in/out
- TIS-B/FIS-B
- On board Situational Awareness
- Recognition capability
- Short and extended squitter transmission
- Easy installation
- Low and easy maintenance
- Small dimensions
- Easily configurable
- Low battery consumption
- Low electromagnetic emission

## CHARACTERISTICS

### Applicable Standards

- ICAO Annex 10, Vol.4
- RTCA DO-260A
- EEE 802.11/a-b-g

### 1090 MHz Section

#### RX Section

Bandwidth: ICAO Compliant  
Message types: DF17/18

#### TX Section

Bandwidth: ICAO Compliant  
Message types: DF11 (config. Format)  
DF18 (config. Format)  
Transm. freq. (jittered): 1 Hz (DF11)  
2 Hz / 0.2 Hz (DF18 surface)  
0.2 Hz (DF18 identification)  
0.2 Hz (DF18 Oper. Status)  
Output power: 40, 43 dBm (configurable)

### Display section

Display Type: TFT 800x600 pixel, 10.4"  
Input devices: Resistive Touch-Screen  
Fluorescent backlight  
Acoustic alarm

### 2.4GHz /5GHz Section

Bit rate: up to 54 Mbit/s  
Op. frequency: 2.4 ÷ 2.5 GHz  
5.47 ÷ 5.725 GHz  
Output power: 2.4 ÷ 2.5 GHz:  
20 dBm EIRP (adjustable)  
5.47 ÷ 5.725 GHz:  
30 dBm EIRP (adjustable)  
Data Encryption: WPA, WPA2, WEP

### Environmental

Operating Environment  
Temperature: -30° ÷ +55°  
Humidity: IP-67 Compliant

### Electrical

Input voltage: 10,8 ÷ 27 V  
Power consumption: < 10 W

### Interfaces

RS422 or Ethernet 10/100 BaseT (IEEE 802.3)

