infiniDome UAV Protection

BROCHURE

GPSdome Provides GPS protection to UAVs ensuring GPS continuity and enabling Beyond Visual Line Of Sight Operation for Border Security, Surveillance and Critical Commercial Missions.

GPS Dependency is Not Going Away

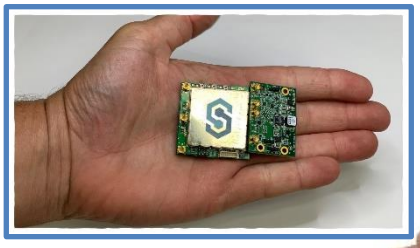
As GPS (GNSS) based navigation systems have become increasingly accurate, minimal in size and power, they have enabled beyond visual line of sight (BVLOS) and autonomous flight modes for UAVs.
Even when equipped with backup navigation systems like INS, optical / radar / LiDAR systems, GNSS is still periodically required for absolute positioning and calibration.

GPS Jamming – Ranked #1 Threat to UAVs

GPS is still the cornerstone of navigation and UAVs are vulnerable to GPS jamming attacks. Intentional jamming is no longer just a threat to military operations where jammers are the most commonly used weapon for disabling UAVs, but with jammers available for $30 online, they are now used extensively by robbers and civilians to impair tracking and surveillance capabilities.

Features

- Dual Use (non-ITAR)
- Null steering technology in tiny form factor
- Minimal form factor:
  - Enclosed: 74x47x25mm, 150g
  - Board level: 41x41x10mm & 41x27x15mm 60g
- Minimal power consumption: <1W
- IP67, -40°C to +85°C (enclosed)
- Protected frequency: GPS L1 (C/A Code)
- Passthrough frequencies: GPS L2 & Glonass G1
- Minimal latency: 100ns ± 15ns (constant)



60g

150g

How infiniDome GPS Protection Technology Works

The Vulnerability of GNSS is well known. The GNSS satellites orbit at 20,000 km and emit a signal which is incredibly weak when received by GNSS receivers (~-125dBm). An inexpensive jammer bought online can overpower and disrupt this signal from hundreds of meters away.

The Null Steering Algorithm was originally developed for military applications to protect wireless signals. GPSdome adds our own sophisticated algorithms and proprietary RFIC to detect the jamming signal, combine both antenna patterns and precisely target a null in the direction of the hostile signal in order to attenuate it and allow the GNSS system to continue operating.

infiniDome
THE GPS SECURITY COMPANY

infiniDome, Ltd • 7 Ha'eshel St. Industrial Park (South), P.O. Box 3358,
Caesarea 3079504, Israel • Tel: +972-4-6273111 info@infinidome.com