



INTERSOFT
ELECTRONICS



GapGuard

- Your local eye on the sky

Local Air Surveillance

The GapGuard ensures optimal coverage over local areas that have poor coverage by the installed sensor network. A small city, a regional airfield, a hidden valley, ... These are just some examples of typical environments that benefit from a local air surveillance system.

Best in class gap filler

The GapGuard is a compact gap filler radar that can be easily installed with limited logistics. It is typically mounted on the rooftop of a high building, a small tower or collocated with other telecom systems.

The GapGuard complements main radar systems by detecting low-flying targets that are not visible on ASR or en-route radar. GapGuard detects objects that might evade standard radar coverage due to terrain obstacles or other factors.

The GapGuard is built around the Next Generation System Platform (NGSP®), which has been used in a wide range of systems for service life extension and in new system designs.

It incorporates patented algorithms that deal with RF interference and clutter, resulting in exceptional detection performance. The GapGuard has comprehensive monitoring and data analysis capabilities for system status understanding and situational awareness.

Benefits

- Compact and easy to install on existing infrastructures
- Sub-clutter visibility and interference filtering
- Low-flying target detection
- Comprehensive monitoring and data analysis

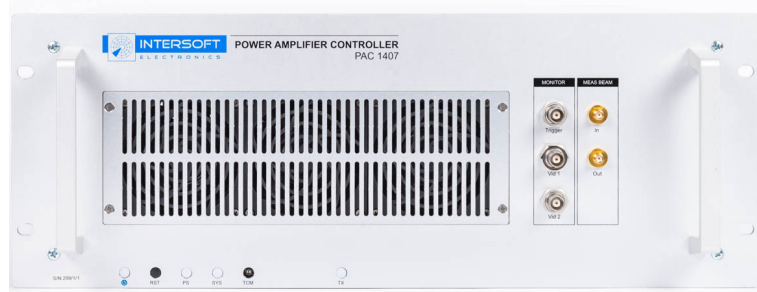
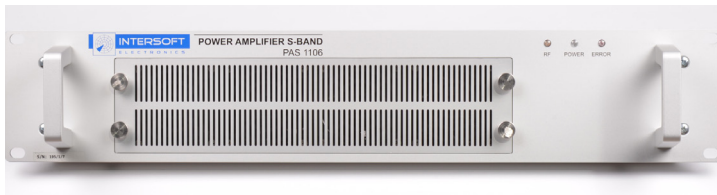
Implementation

The outdoor hardware of the GapGuard consists of a small parabolic antenna on a pedestal. It is mounted on a small construction that includes the power module for the antenna system and an ADS-B antenna for reference data. Power amplifier and receiver/processor electronics are in a medium size 19" rack

Advanced applications

Apart from the mere gap filler application, complementing existing radar sensor networks, the GapGuard can potentially be used for specific advanced applications.

- Coverage behind large wind farms
- Connecting multiple GapGuards for border protection



Specifications

- S-band single channel PSR
- 40 Nm instrumented range and 20NM detection range (RCS 1 m², 80% Pd, SW1, 10-6 PFA)
- 60 m range accuracy (1 σ)
- 0.3° azimuth accuracy (1 σ)
- 2 beam 0-30° Cosec² pattern
- 2.7° azimuth beam width
- Linear horizontal polarization
- 30 dBi nominal antenna gain
- 4 sec update rate

Together we make the sky safer

