

CAPEX or SaaS








BEST ISR SATELLITE TOOLKIT

Evaluate satellite RF onboard sensing & geolocation in real time. Designed for engineers, system designers & government agencies.

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Competitive Advantage

-  Advanced RF geolocation performance simulator specifically designed for satellite constellations.
-  Real-time estimation of theoretical geolocation accuracy for UHF, L, C, X, Ku, Ka, Q, U, W bands.
-  Flexible constellation architecture allowing full control of orbital and satellite parameters.
-  GDOP-based geometry evaluation.
-  Designed to support RF geolocation mission design, feasibility analysis and proposal preparation.



Features

-  Web-based graphical interface for configuring simulations and analyzing results.
-  Custom satellite constellation generator with configurable altitude, inclination and satellite spacing.
-  Multi-plane constellation configuration for advanced mission analysis.
-  Pseudo-TLE generation for satellite orbit representation.
-  Real-time geolocation error computation based on constellation geometry.
-  GDOP (Geometric Dilution of Precision) calculation or geometry quality assessment.
-  Signal parameter configuration including bandwidth and SNR.
-  Error modeling including satellite clock errors, position uncertainty, atmospheric effects and Doppler shift.
-  Exportable results for engineering documentation and analysis.

Benefits

-  Evaluate geolocation performance before deployment through realistic constellation simulations.
-  Optimize satellite constellation design to maximize geolocation accuracy.
-  Understand the impact of signal quality and environmental effects on localization performance.
-  Reduce mission design risks through early system performance validation.
-  Support engineering trade-off studies between constellation parameters and signal characteristics.
-  Accelerate decision-making during mission planning and system design.
-  Provide quantitative accuracy metrics for technical proposals and feasibility studies.
-  Improve understanding of geolocation limitations in complex RF environments.

Company Awards

