HTZ WARFARE

BATTLESPACE SPECTRUM ENGINEERING, NETWORK PLANNING AND EW MISSION MODELLING FROM A FEW kHz UP TO 1 THz

HTZ Warfare combines spectrum engineering, tactical network planning and EW modelling to help defence organisations understand, plan and operate within complex electromagnetic environments of land, air, sea and space.

It models communications performance, interference, terrain effects and system interactions before and during operations.

Integration with spectrum monitoring and AI-assisted capabilities adds operational awareness, helping operators identify changing RF conditions and assess their impact on mission-critical communications.

- **Tactical communications assurance:** predict coverage, manage interference and maintain communications across fixed and mobile assets.
- **Spectrum access and deconfliction:** identify usable spectrum, coordinate assignments and protect friendly systems from interference.
- **EW assessment and jamming:** assess interception and jamming vulnerabilities, predict effectiveness and optimise countermeasure deployment.
- **Detection and localisation:** model radar and intercept coverage, identify surveillance gaps and optimise sensor and DF deployments.
- **UAV/UAS mission support:** assess communications, flight paths, radar detection, jamming and countermeasure effectiveness.
- **Operational environment modelling:** understand RF performance and system interactions across complex terrain using detailed cartography and 3D modelling.

TACTICAL COMMUNICATIONS & NETWORK PLANNING

HF, LMR/PMR/DMR/P25/TETRA

MICROWAVE & TACTICAL LINKS (P2P & P2MP)

JAMMING & COUNTERMEASURE PLANNING

RADAR COVERAGE & DETECTION

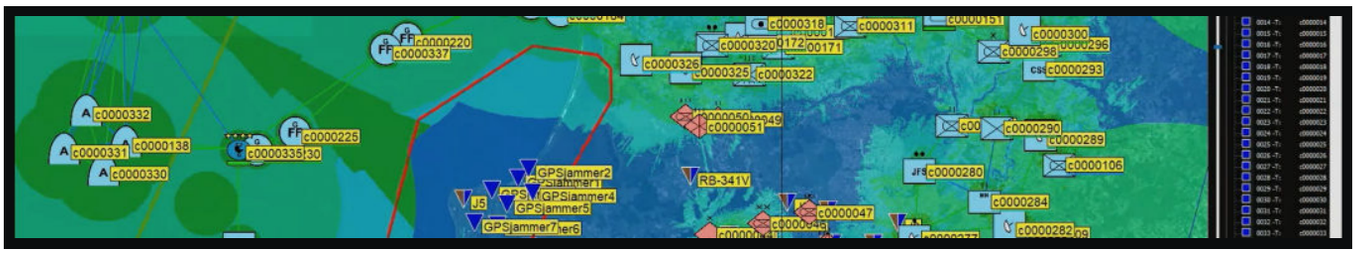
UAV/UAS MISSION PLANNING

ON-THE-MOVE MISSION — LAND, AIR AND SEA

SATELLITE & EARTH SEGMENT PLANNING

SPECTRUM PLANNING & COORDINATION

COEXISTENCE ANALYSIS & INTERFERENCE DECONFLICTION



HTZ WARFARE – THE ANALYSIS OF GPS JAMMING EFFECTS ON TACTICAL LINKS AND RADIOS ACROSS LAND, SEA, AND AIR DOMAINS

FROM SPECTRUM ENGINEERING TO MISSION INTELLIGENCE

HTZ Warfare extends spectrum engineering into electronic warfare, dynamic mission simulation and AI-assisted decision support. Operators assess offensive and defensive scenarios, evaluate evolving RF conditions and understand their potential impact on operations.

SPECTRUM ENGINEERING

UNDERSTAND THE ELECTROMAGNETIC ENVIRONMENT

HTZ Warfare combines propagation modelling, coverage prediction, interference analysis and spectrum deconfliction to assess RF performance under operational conditions.

Detailed analysis identifies system interactions and vulnerabilities, showing how spectrum, terrain, equipment and deployment choices affect mission performance.

ELECTRONIC WARFARE

MODEL OFFENSIVE AND DEFENSIVE OPERATIONS

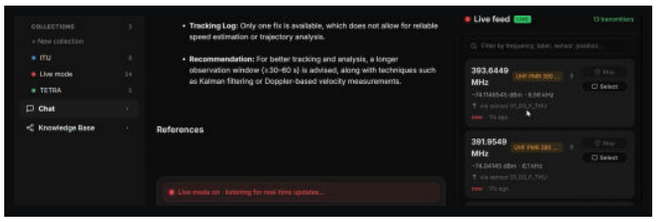
Model EW mission scenarios including interception, emitter detection and localisation, jamming, radar and countermeasures. HTZ Warfare assesses interactions between friendly, hostile and interfering systems to identify vulnerabilities and potential effects.

DYNAMIC EMS WARGAMING

RECREATE THE ELECTROMAGNETIC BATTLESPACE

Transform recorded RF activity into a virtual electromagnetic theatre. Real-world spectrum recordings support dynamic simulations for mission rehearsal and evaluating evolving threats and RF conditions.

Automated workflows enable teams to test scenarios, compare mission options and optimise networks without impacting live operations.



HiNT · AI-ASSISTED INTERROGATION OF LIVE RF INFORMATION

AI-POWERED ENGINEERING INTELLIGENCE

HiNT brings AI into the HTZ engineering environment, helping operators interrogate RF information, interpret engineering data and explore operational scenarios efficiently.

Natural-language interaction turns engineering analysis into mission insight, helping operators assess conditions, compare options and make informed decisions while retaining human control.

DESIGNED TO INTEGRATE

HTZ Warfare operates independently or within wider operational systems. Its open architecture integrates with spectrum monitoring, sensors, databases and third-party systems, while APIs support data exchange and workflow automation.

SUPPORT THROUGHOUT THE LIFECYCLE

ATDI supports customers from system configuration through deployment and operational use. Services include integration and customisation, RF engineering, digital cartography, training, technical support and software maintenance.

BUILT FOR THE EVOLVING ELECTROMAGNETIC ENVIRONMENT

For over three decades, ATDI has supported defence and security organisations worldwide with advanced spectrum engineering software and expertise. Our proven technology, RF engineering knowledge and flexible architecture support evolving mission requirements and emerging technologies.

SCAN FOR MORE

WWW.ATDI.COM · CONTACT@ATDI-GROUP.COM