ATDI
ADVANCED SPECTRUM SOFTWARE

HTZ COMMUNICATIONS

SPECTRUM ENGINEERING & RADIO PLANNING NEW GENERATION SOFTWARE ALL-IN-ONE TOOL FOR RADIO COMMUNICATION SERVICES

- AUTOMATION
- MODERN CLOUD-BASED SOFTWARE LICENSING
- IMPROVED UX/UI IN PROJECT MANAGEMENT
- WORLDWIDE CARTOGRAPHIC DATA

We are global leader in radio network planning & modelling, spectrum management and optimization solutions.

In a World where spectrum resources are being squeezed to achieve maximum efficiency and capacity...

We are offering advanced radio network planning and optimization capabilities for public safety, transport, utilities, satellite and network operators and regulators – to make your work faster!

HTZ communications

HTZ communications is ATDI's flagship RF engineering software. This new edition of World leading RF design and spectrum engineering solution includes several groundbreaking features such as AUTOMATIC RADIO NETWORK PLANNING, GIS ENGINE WHICH ENABLES to CREATE HIGH RESOLUTION building information in raster from Digital Surface Model – DSM samples.

Our radio simulation software incorporates every aspect of radio propagation and ensures public, private, licensed or unlicensed radiocommunication networks offer a high degree of reliability, are continuously available and do not suffer from harmful interference.

HTZ communications delivers an unmatched degree of precision and quality to users across the radiocommunications industry. The software incorporates features and functions to manage the latest technologies: LTE-A, 5G and IoT low power WAN. It also simulates PMR, drones, UAVs and radars to support the planning of radio networks from a few kHz to 1THz.

HTZ communications relies on a robust platform that integrates more than 50 radio propagation models and is supported by a GIS and a world class library of digital cartography offering medium to high resolution maps.
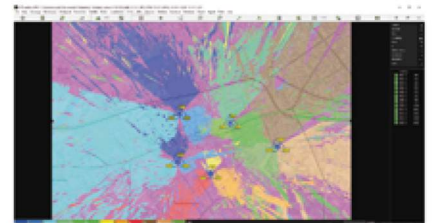
Discover a comprehensive solution
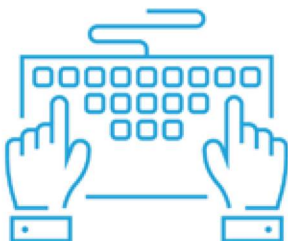
Superior prediction accuracy compared to other radio planning tools, with a high percentage of correlation between prediction and measurements in excess of 90%;

Best in class calculation speeds pixel by pixel, resulting from massive processing and virtual machine licensing scheme;

Features advanced simulation: HTZ communications is capable of handling prospective planning, automatic frequency allocation, coverage optimization, carrier aggregation, through put simulation, 3D coverage simulation including ground-air, air-air or sea-ground radiocommunication analysis;

Multiple technologies can be simulated in the same project and coexistence of technologies or objects such as the impact of windfarms on airport radars or human exposure to electromagnetic fields can be analyzed;

Smoother customer experience and easy import/export of most commonly used GIS formats including KML/KMZ, SHP and DXF, meaning the entire organization benefits from the outputs;

HTZ communications also features Antios for the design of antenna systems in 3D;

5G

mmWave coverage planning / Coverage planning (2D/3D) talking into account diffraction (2D/3D), absorption models and 3D reflections / Interference calculations /Capacity planning (DL/UL throughput) / Carrier aggregation simulations and traffic analysis / Monte Carlo simulations / Automated site planning / Automated site optimization / Automated frequency planning / Dynamic Beamforming / Massive MIMO / Re-farming frequency bands and inter-system coexistence / Microwave planning

INTERNET OF THINGS

Gateway/Hub/ e-nodeB setting parameters (duty cycle, power, bandwidth, antenna...) / Traffic modelling (aggregated traffic with related QoS-reliability targets) / Coverage, interference, capacity, reliability analysis / Automated site planning / Automated cell optimization / Mesh network clustering / Traffic & mobility profile editor end devices) / IoT DL/UL link budget / Geolocation analysis

PUBLIC SAFETY

Coverage planning / Interference calculations / Capacity planning / Automated handover, neighbor list planning and analysis / Monte Carlo simulations / Automatic site planning / Automatic site optimization / Automatic frequency planning and station parameters / Traffic & mobility profile editor (end devices) / LTE Pro: Parenting for MCPTT and Clustering for ProSe

AVIATION & UAV

GIS and cartography layers of the airport / Aeronautical propagation models ITU-R : P.528-2 and P.526-7 as well as HF module based on ITU-R P.533 and P.1240 / Coverage planning / Point to point/ Point to Multipoint link analysis (DL and UL) / Frequency planning and interference analysis / Land to air communication (VOR, ILS, MLAT, RADAR)/ / FM and aeronautical coordination / Traffic analysis / Automated site planning / Automated site optimization / Automated frequency planning / Radar coverage: monostatic, bistatic, multistatic

Available systems integrated: VOR, ILS, COM, Multilateration (TDOA, TSOA and mixed TDOA/TSOA), DME-DME, PMR communication networks, High- Altitude Platform stations (HAPS) for analysis of DL and UL connectivity between HAPS and fixed service stations on the Earth (CPE and Gateways) to deliver broadband accss.

LTE MOBILE NETWORKS

Coverage planning (RSRP, 2D/3D) / Interference calculations (RSRQ, SINR) / Capacity planning (DL/UL throughput) / Traffic analysis / PCI planning / RSI/PRACH planning / Automated handover, neighbor list planning and analysis / Monte Carlo simulations / Automated site planning / Automated frequency planning / Re-farming frequency bands and inter-system coexistence

DYNAMIC SPECTRUM

DTT coverage / Reserved channels / Allotments, Assignments, PSME, International coordination, Protected areas (polygons) / DTT white-space calculation / TVWS availability calculation / Available Spectrum maps / WSD channel assignment / WSD to DTT interference calculation / Data storage: Location / channel / WSD class / permitted power level/ online access

SATELLITES

Satellite propagation models(ITU-R P.526, P.618, etc) / GSO/non-GSO satellite coverage planning and link budgets (EIRP, G/T, C/N) / Wide-beam and HTS beam planning across all satellite frequency bands / Automated site planning / Automated site optimization / Automated frequency planning / GSO vs GSO and GSO vs non-GSO interference analysis ($\Delta T/T$, C/I, PFD and EPFD masks) / Satellite vs terrestrial co-existence analysis / Earth station coordination (ITU APP 7) / DTH network planning / VSAT network planning and optimization Covers all satellite services: FSS, BSS, MSS, earth exploration, meteorological and more

RAILWAYS

Radio planning / Environmental analysis (human hazard, Natura 2000) / Frequency Planning / Cross-Border Coordination/ Traffic analysis / Interference analysis / Intermodulation analysis / Network optimization / Prospective planning / Design of the ERTMS/GSM-R / Design transmission systems / Compares drive test measurements against predictions / LTE-R"/ Leaky feeder

MICROWAVE

Profile budget calculations / Frequency and space diversity / Multi-K factor calculations / Climate and rain parameters / Reliability calculations / Automatic antenna orientation / Link optimization / Automated frequency planning / Interference calculations / Quality objectives calculations (ITU-RF.1703 and ITU-TG.827)

BROADCASTERS

Coverage planning / Interference calculations / Population analysis / ITU procedures / Automated site planning / Automated site optimization / Automated frequency planning / SFN network optimization / Re-farming frequency band and inter system coexistence (LTE, ILS, White spaces etc.) / Transport (Microwave) planning / COFDM map / Location probability / k-lnm / t-lnm / Monte-Carlo
HTZ communications facilitates the design of analog and digital broadcast networks in a number of standards: DVB-T/T2, DVB-S/S2, ISDB-T, DTMB, MMDS, T-DAB+/DMB, FM mono/stereo

SALES@ATDI.COM

ATDI S.A. (Headquarters)
11, Boulevard Malesherbes,
75008 Paris, FRANCE
Tel +33 (0)1 53 30 81 41,
Fax +33 (0)1 53 30 81 49

ATDI is certified to the latest version of ISO 9001 and 27001 standards and each regional office meets all standards set by domestic legislation.