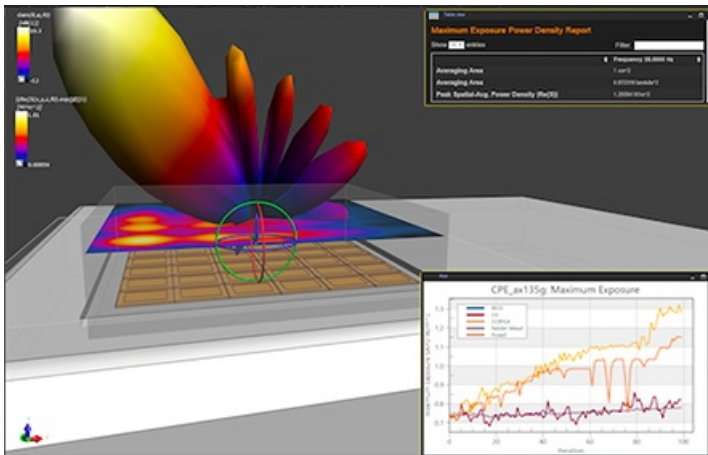


5G Simulation Toolbox

Toolkit for design, analysis, and optimization of 5G mm-wave antenna arrays



28 GHz active antenna with 36 elements. Best achievable performance for each subarray is assessed with the Max-Gain algorithm. Highest power-density levels are found by the Maximum Exposure Evaluator algorithm.

Product description

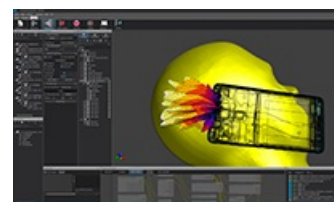
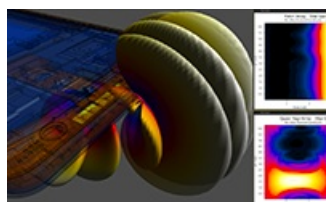
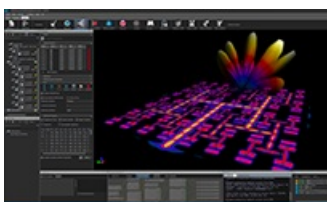
Sim4Life 5G Toolkit provides the most efficient solution for design, analysis, and optimization of 5G mm-wave antenna arrays. It empowers engineers to develop phased-array antennas in short time and to meet demanding performance requirements, including regulatory compliance.

The power density algorithm is fully compliant with the latest draft of IEC/IEEE 63195, both on flat or curved surfaces.

Watch [these user videos](#) which demonstrate the phased-array antenna design workflow and Maximum Exposure Evaluator for compliance testing of next-generation mobile phones, 5G base stations, or other mmWave applications.

Key Features

- Maximum Exposure evaluator to find the highest value of power density that can be obtained on a given surface by a phased-array antenna
- Compliance evaluations based on surface-averaged power density calculations
- Total Exposure Ratio (TER) evaluator for devices that have multiple electromagnetic field emission sources to assess overall exposure by considering all sources simultaneously
- Easy-to-use beam steering tool
- Power density algorithm both on flat or curved surfaces fully compliant with the latest draft of IEC/IEEE 63195
- Template-based tools for modeling of phased-array antennas
- Dedicated intuitive modelling tools to create CAD-models of phased arrays and to setup FDTD simulations
- Efficient array-factor far-field evaluators for fast prototyping
- MaxGain algorithm to compute the best achievable performance in each spatial direction
- Two-dimensional maps of spherical patterns such as gain or directivity to quantitatively determine regions with insufficient coverage
- Direct comparison with the DASY6 results of the 5G Module
- Compatible with circuit design software tools for analysis and further optimization of feeding network effects
- Power density algorithm accepting input data from cDASY6/8 mmWave/ICEy mmWave/SemcadX



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