EMPIRE XPU 8.0
3D EM DESIGN SUITE

High performance 3D time domain EM modeling tool for Antennas, Microwave Circuits, EM Chip design and much more....

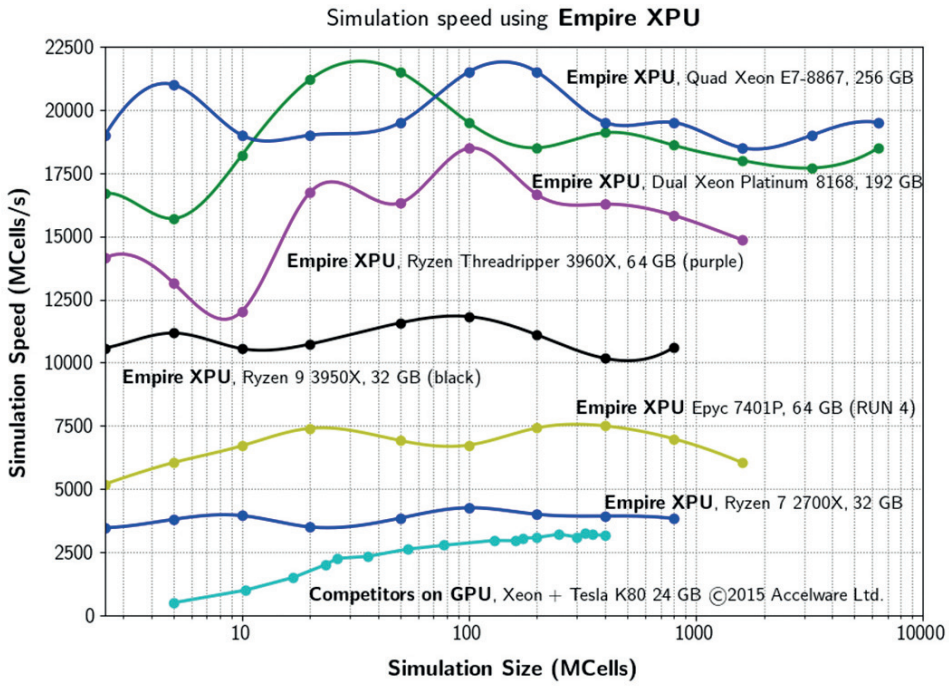
- **Extremely fast and highly memory efficient solver using IMST proprietary XPU Technology**
  - Full parallelisation on modern PCs (outperforms GPU supercomputers)
  - Just-in-time code generation and caching reduce required memory by 50%
- **Interoperability with all common 3D CAD data, layout formats and vendor simulation projects**
- **Intuitive 3D Design mode with fully integrated multilayer designer**

3D EMPIRE model of vehicle with bystander showing electric field and specfic absorbtion rate (SAR) in body model

NEW FEATURES INCLUDE:

- ✓ New modern easy-to-use graphical user interface
- ✓ Efficient 2D and 3D result plotting engine (easy handling of optimizations with hundreds of curves)
- ✓ New circuit simulation module and schematic editor
- ✓ Exposure evaluation compliant to IEC and IEEE standards

EMPIRE XPU TECHNOLOGY SURPASSES SIMULATION SPEED AND MAXIMUM MODEL SIZE OF GPU CARDS FOR FDTD SIMULATIONS



Simulation speed and size using

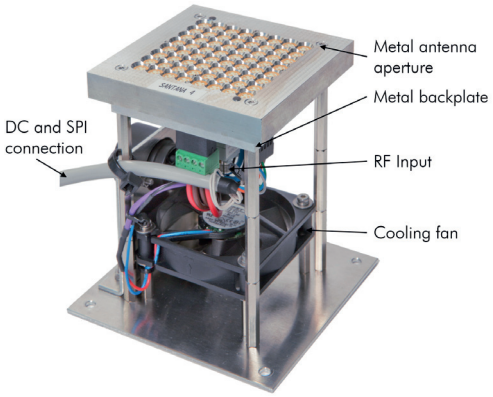
EMPIRE XPU on standard PCs

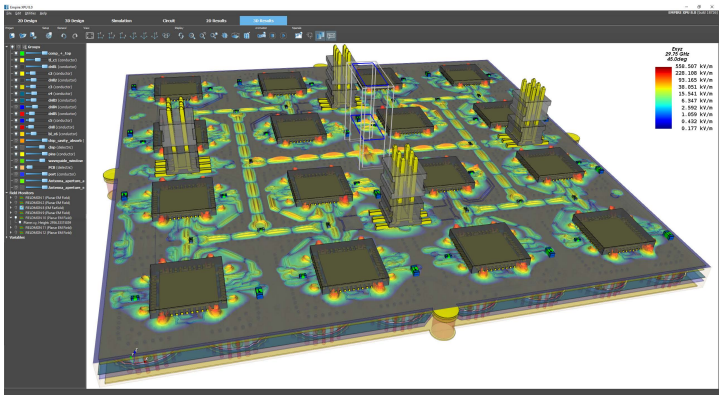
vs.

FDTD on dual Xeon PC with one Nvidia Tesla K80 GPU card

APPLICATION EXAMPLE:

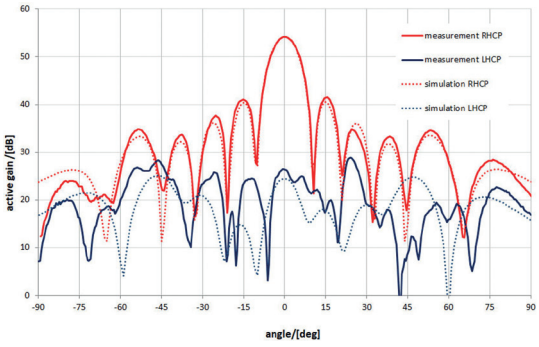
SATCOM / 5G Digital Beamforming frontend module





Electric field at chip feed network and antenna feed

Frequency: 20 - 35 GHz
Size: 600 Million cells
Memory usage: 16 GB
Simulation time: < 2 h
Dual Xeon workstation



Antenna Farfield pattern simulation vs. measurement

EMPIRE XPU™ is a product of IMST GmbH
Carl-Friedrich-Gauss-Str. 2-4
47475 Kamp-Lintfort
Germany

T +49-2842-981-400
F +49-2842-981-499
E empire@imst.com
I www.empire.de

03/2020