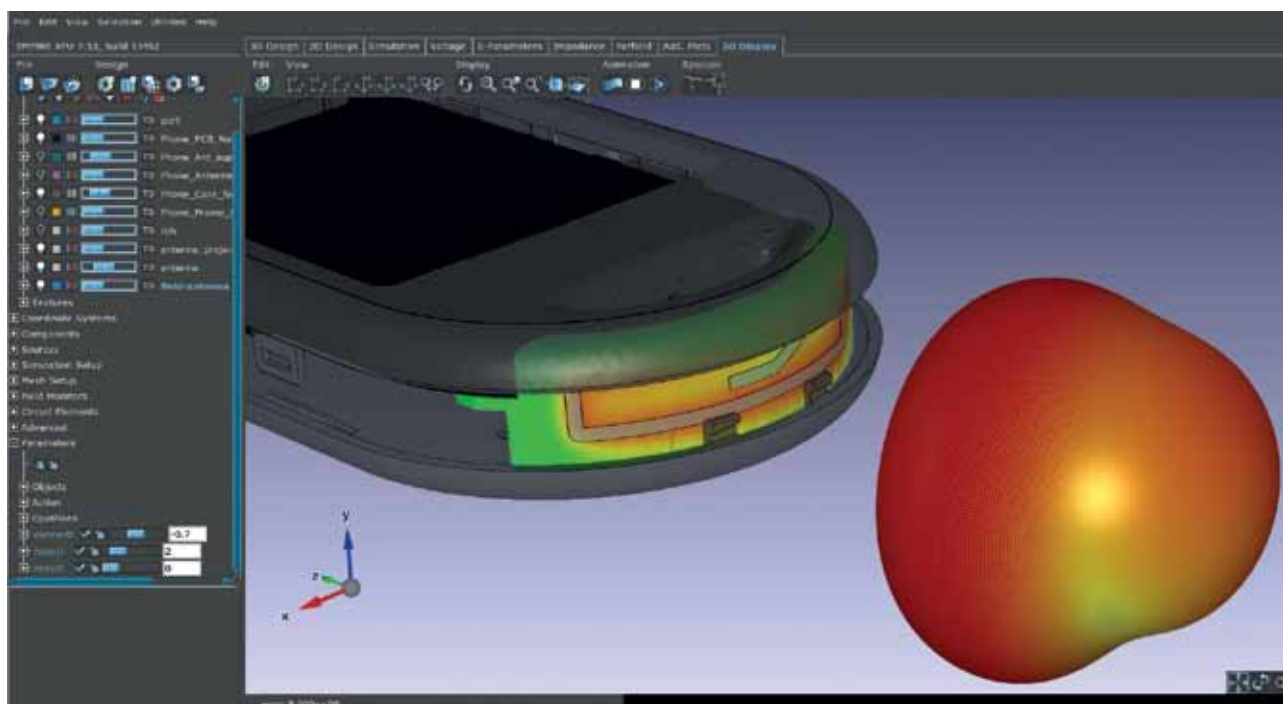


# EMPIRE XPU 7.5

## 3D EM DESIGN SUITE

INTUITIVE 3D DESIGN    SUPER FAST (XPU FDTD, JIT)    MEMORY EFFICIENT

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

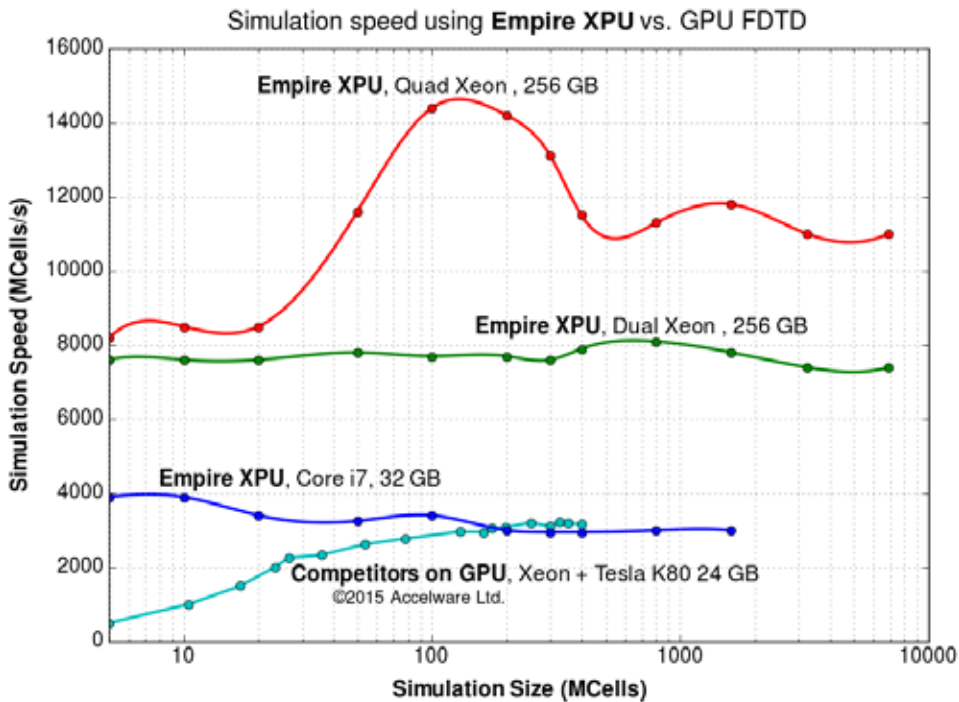


Mobile phone with integrated conformal antenna mapped from 2D layout

### NEW FEATURES INCLUDE:

- ✓ 3D Design mode & enhanced 3D modeling kernel
- ✓ Parameterized mapping of 2D layouts on 3D surfaces
- ✓ Cloud Computing using Amazon EC 2 from batchprocessing interface
- ✓ Direct Import & Export of 3D CADformats (IGES, Step, ACIS, Catia, Siemens NX,...)
- ✓ EDA Import of ODB++ files
- ✓ Importer for EM simulation vendor projects

**XPU TECHNOLOGY SURPASSES SIMULATION SPEED OF GPU CARDS FOR FDTD SIMULATIONS**



Simulation speed and size using

EMPIRE XPU on standard PCs

vs.

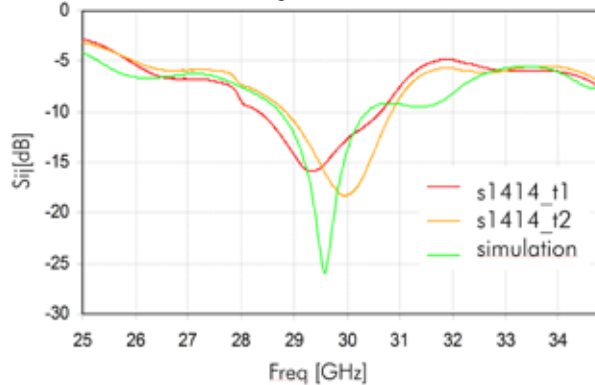
FDTD on dual Xeon PC with one Nvidia Tesla K80 GPU card

**APPLICATION EXAMPLES:**

Ka-Band / 5G DBF frontend module

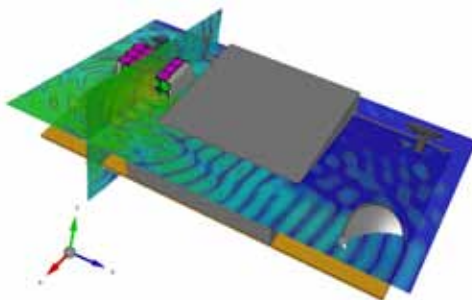


Antenna matching: simulation vs. measurement

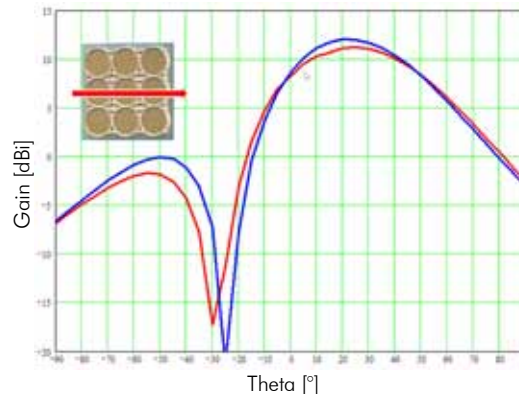


Simulation time: < 2 h  
Memory usage: 16 GB  
Size: 600 Mcells  
Dual Xeon workstation

ADS-B Satellite antenna



Antenna 2D Farfield: simulation vs. measurement



Simulation time: 6 min  
Memory usage: 2 GB  
Size: 44 Mcells  
Quad Xeon workstation



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