

AAVA MOBILE USES MICROWAVE OFFICE IN THE DESIGN OF WORLD'S FIRST OPEN MOBILE DEVICE PLATFORM

CUSTOMER BACKGROUND

Aava Mobile was founded in 2009 by a team of engineering wizards with a strong background in mobile phone development who wanted to build an open-source mobile device platform for the OEM/ODM market. Aava Mobile's open devices harness the creativity of developer communities and provide the flexibility to OEM/ODMs and mobile operators to incorporate their own user interface, content and services to differentiate their devices from competitors.

THE DESIGN CHALLENGE

Aava Mobile developed the world's first open mobile device platform. For developers seeking to write Android/MeeGo apps to run on upcoming Intel Atom Z600 smartphones, Aava provides a special software development kit (SDK) that is compatible with current Android/MeeGo SDK software, and also provides a fully-functioning hardware device with working modem/antennae connectivity and other peripherals. We use Microwave Office® in our printed circuit board (PCB) designs to simulate the critical tracks/traces and find optimum performance by varying the line widths and PCB layer stackups. Because we are a young start-up, design time and cycles are critical. AWR's APLAC® models are highly accurate - attributed to years of vetting by Nokia - and as such empowered us with right-the-first-time design of our open mobile device platform PCBs.



Aava Mobile reference device running MeeGo.



Application:
Mobile Platform

AWR Software:
Microwave Office®
APLAC®



“Because we are a young start-up, design time and cycles are critical and it is important for us to succeed on the first round. The ease-of-use of the software, simulation speed, and accuracy of models in Microwave Office gave us confidence for the first build.”

Sami Kolanen
RF Specialist
Aava Mobile Oy
www.aavamobile.com

THE SOLUTION

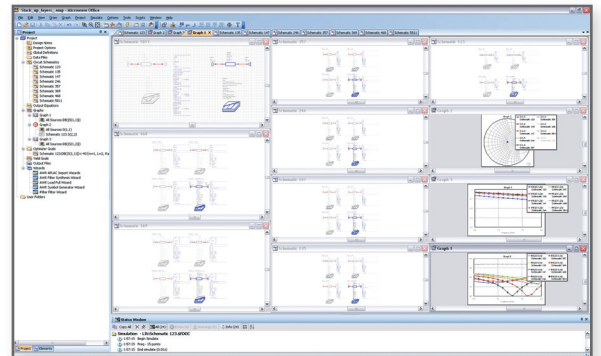
With Microwave Office, it is possible for us to find the optimum line width to different layers and PCB stackups. Microwave Office enables us to simulate key components/tracks for confidence and to help in tackling performance issues by providing a good starting point for the actual lab work. Our designers have worked with APLAC for over a decade and so were confident about working with APLAC models. Key benefits of Microwave Office for Aava include the software's ease of use, simulation speed, accuracy of models, and innovative technologies. In addition, AWR technical support is outstanding.

ABOUT MICROWAVE OFFICE

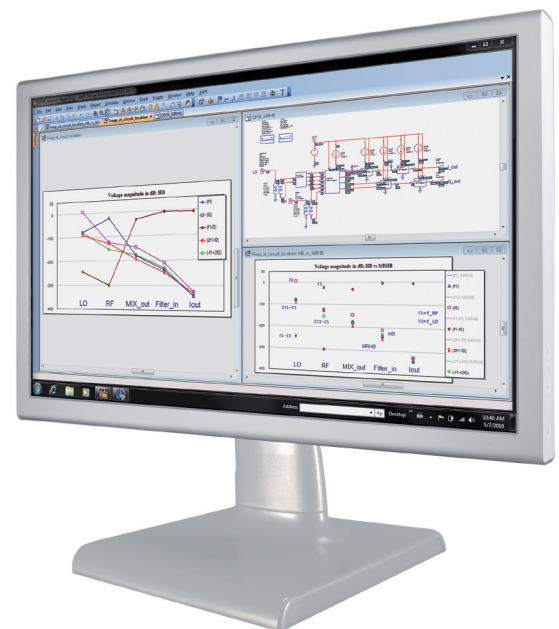
Microwave Office design suite is the industry's fastest growing microwave design platform and has revolutionized the communications design world by providing users with a superior choice. Built on the AWR high-frequency design environment platform with its unique Unified Data Model™, Microwave Office software is intuitive and offers powerful, innovative technologies and unprecedented interoperability, enabling integration with best-in-class tools for each part of the design process. The Microwave Office design suite includes all of the essential technology: linear and nonlinear circuit simulators, EM analysis tools, integrated schematic and layout, statistical design capabilities, and parametric cell libraries with built-in DRC.

ABOUT APLAC

AWR acquired APLAC in 2005 and has since integrated this world class, foundry-approved harmonic balance / transient circuit simulation engine into its product portfolio. This technology is only available within AWR design suites. The APLAC simulation engine has been used in Nokia product development for more than a decade now as its enhanced harmonic balance method enables simulation of larger RFIC circuits faster and with less memory. Today the APLAC harmonic balance simulation engine is further enhanced by releasing the patent-pending Multi-rate Harmonic Balance™. This technology enables to simulate designs that were previously beyond the reach of the harmonic balance technique, and provides a 5x speed increase when simulating large, complex multi-tone designs.



Microwave Office schematics and APLAC simulation results.



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