Datasheet

AWR Connected: Third-Party Tool Interoperability

Overview
Today's microwave/RF designs require the use of a variety of software tools and test and measurement (T&M) hardware to ensure the final product meets stringent size, operating, and performance specifications. The AWR Design Environment platform provides a comprehensive suite of software tools for end-to-end circuit and system design; however, engineers sometimes need a specialized tool for a specific design challenge. To that end, AWR software has been specifically designed to easily integrate with industry-leading software and hardware point-tool providers in order to offer streamlined design flows that help customers increase productivity and deliver optimized designs to market faster.

How It Works
The AWR Connected™ portfolio includes third-party software and hardware solutions that plug and play with AWR software to eliminate time-consuming manual data import/export operations and provide a more powerful and complete design flow.

AWR Connected solutions offer best-in-class point tools that work alongside and within the AWR Design Environment platform to give designers the flexibility to use their tool of choice for each design task and develop custom design flows that work for specific design needs.

These solutions address a breadth of design domains:
- Synthesis
- IC/PCB layout and verification
- Electromagnetic(EM)/thermal
- T&M
- Models and process design kits (PDKs)
Synthesis
AWR Connected synthesis solutions provide automated design and optimization for streamlined power amplifier (PA), filter, and antenna development.

- **AMCAD:** Stability analysis (STAN) software for locating and characterizing unwanted oscillations
- **AMPSA:** Amplifier design synthesis for impedance-matching networks and high dynamic range RF/microwave amplifiers
- **DGS Associates:** Sophisticated software for microwave filter design, optimization, and EM model building
- **Nuherzt:** Synthesis, analysis, and simulation capabilities for filter design
- **Optenni:** Integrated workflow transferring optimized matching circuits from Optenni Lab to Microwave Office software

EM/Thermal
AWR Connected EM/thermal solutions provide highly accurate EM characterization and optimization capabilities, as well as thermal analysis of integrated circuits (ICs).

- **ANSYS:** Automated flow of layout data from Microwave Office software into ANSYS HFSS, Icepak, and more
- **CapeSym:** Electrical/thermal co-simulation and FEM analysis for microwave monolithic integrated circuit (MMIC) design
- **Sonnet:** Automated 2D layout data flow from Microwave Office software into Sonnet EM
- **WiPL-D:** EM simulation of antennas embedded within AntSyn™ antenna design software

Model and PDK
AWR Connected offers specialized model libraries and PDKs from third-party model vendors and foundries to extend the breadth and accuracy of design flows.

- **Modelithics:** Highly-accurate model libraries
- **PDKs:** From gallium arsenide (GaAs), gallium nitride (GaN), glass, and silicon (Si) foundries
- **XML:** Specialized vendor parts libraries

IC/PCB Layout and Verification
AWR Connected solutions enable designers to seamlessly import and export IC/PCB data to third-party IC/PCB tools, inclusive of EM verification.

- **Cadence:** Data extraction from Allegro imported into AWR software for RF PCB design
- **Design Workshop Technologies (DWT):** Integrated design-rule check (DRC) and layout vs. schematic (LVS) flow
- **IPC2581:** Industry-standard PCB file format enabling design flows with Altium, Intercept Technology, and more
- **Mentor Graphics:** Integrated flow using ODB++ for Mentor’s PCB software solutions
- **POLYTEDA:** Physical verification technology with a unique one-shot DRC processing technology
- **Zuken:** Streamlined design flow from Zuken to AWR software for post-layout circuit design and EM verification

T&M
AWR Connected T&M solutions provide integration with industry-leading hardware solutions for real-world testing.

- **Anritsu:** Microwave Office software embedded into Anritsu VectorStar VNA
- **Rohde & Schwarz:** Links AWR software to Rohde & Schwarz T&M hardware
- **Focus Microwaves:** Links AWR software with Focus Microwaves/Mesuro load-pull solutions
- **Maury Microwaves:** Links AWR software with Maury Microwaves load-pull solutions
- **National Instruments:** LabVIEW embedded into AWR software and linked to NI T&M hardware
- **TestWave™:** T&M equipment integrated with AWR software