

## RZ Ecosystem Partner Solution

# Aurora PCB Verification Services



### Solution Summary

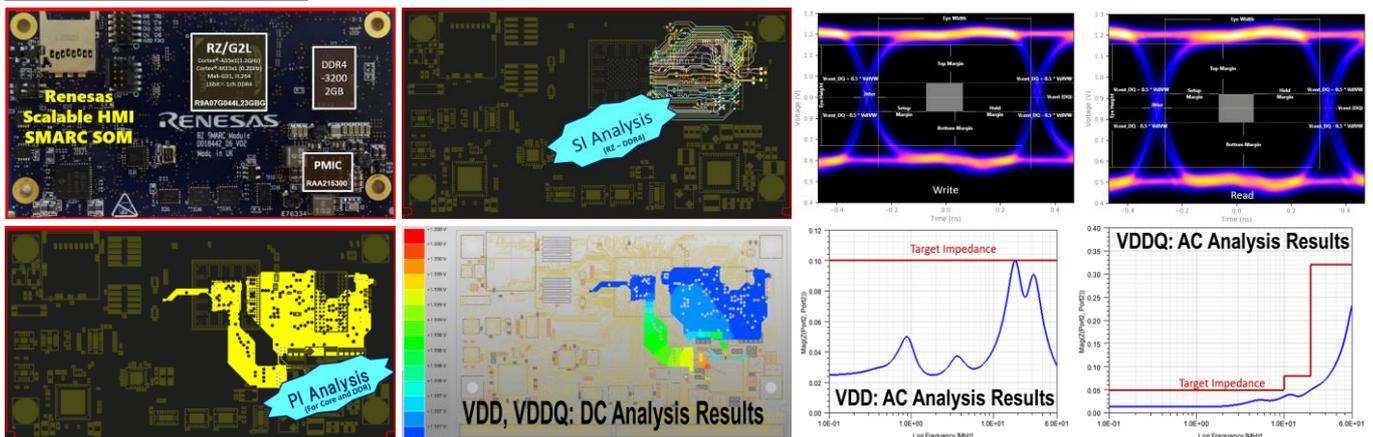
Based on Aurora's proprietary SI/PI verification platform that incorporates the industrial leading-edge simulation softwares, our service ensures simulation accuracy and fast turn-around time. Some [RZ devices](#) have high-speed parallel memory interfaces(DDR4/LPDDR4) and high-speed serial interfaces(USB, MIPI), Aurora's Signal Integrity(SI) simulation services make sure your PCB design meets the RZ PCB verification guide as well as each interface's specifications. Also, the RZ devices series has a verification guide for power-supply and Aurora's Power Integrity(PI) simulation services verify your PCB design meets the guide.

### Features/Benefits

Ensure your PCB design meets RZ Series PCB verification guide and interface specifications

- High-Speed Parallel Interface Analysis – DDR3/DDR4/DDR5/LPDDR4/LPDDR5/ONFI
- High-Speed Serial Interface Analysis – PCI Express/HDMI/MIPI/USB/Ethernet/...
- Low-Speed General Purpose I/F Analysis – I2C/SPI/I2S/...
- Power Integrity Analysis – AC/DC/Transient Analysis, Decap Optimization
- Thermal Analysis / EMI Analysis

### Diagrams/Graphics



### Target Markets and Applications

- IoT Applications
- Consumer Electronics
- Artificial Intelligence
- Computing Infrastructure
- Industrial Controls
- Smart Buildings
- HMI
- Communication

## Aurora System Inc.

### ➤ Company Information

- Established : 2016
- Headquarter : San Jose, CA, USA
- Development Office : USA, China
- Sales, Support Office : USA, Japan, China  
Taiwan, Singapore



### ➤ Aurora System Business

- LSI, Package, PCB Co-simulation Service, Consulting Service, Verification Platform Development
  - High-Speed Parallel Interface Signal Integrity Analysis(DDR3/4/5, LPDDR4/4X/5)
  - High-Speed Serial Interface Signal Integrity Analysis (PCIe, MIPI, HDMI, USB, ...)
  - General I/O Signal Integrity Analysis (I2C, I2S, I3C, ...)
  - Power Integrity Analysis (AC/DC/Transient Analysis)
  - Thermal / EMI Analysis

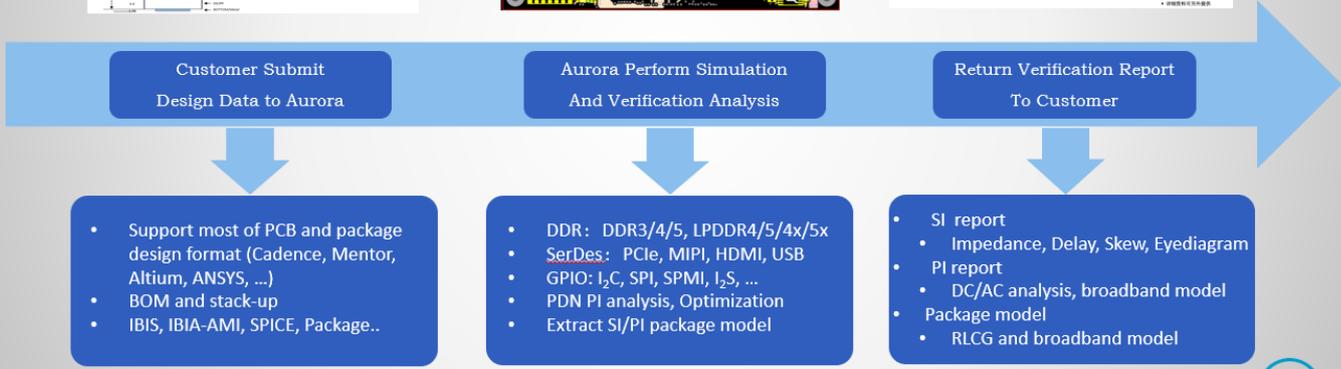
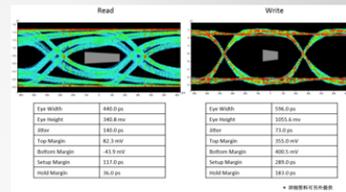
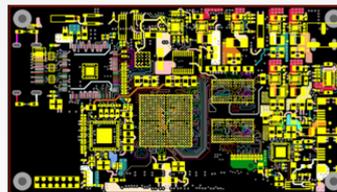


## Simulation Service Process

Information Required	Format	Comments
1. PCB layout file	ODB, ODB++(ODB++)	Support 2D/3D
2. BOM file	CSV	Support the manufacturer part number for each component and the primary component
3. Stackup file	Excel	Must follow the stackup format from the customer
4. Other special	Check Request	

Material	Thickness (mm)	Dielectric Constant	Loss Tangent
FR4	1.30	4.5	0.020
Prepreg	0.10	4.5	0.020
Core	0.50	4.5	0.020
Prepreg	0.10	4.5	0.020
Core	0.50	4.5	0.020
Prepreg	0.10	4.5	0.020
FR4	1.30	4.5	0.020



- Support most of PCB and package design format (Cadence, Mentor, Altium, ANSYS, ...)
- BOM and stack-up
- IBIS, IBIA-AMI, SPICE, Package..

- DDR: DDR3/4/5, LPDDR4/5/4x/5x
- SerDes: PCIe, MIPI, HDMI, USB
- GPIO: I<sup>2</sup>C, SPI, SPMI, I<sup>2</sup>S, ...
- PDN PI analysis, Optimization
- Extract SI/PI package model

- SI report
  - Impedance, Delay, Skew, Eyediagram
- PI report
- DC/AC analysis, broadband model
- Package model
  - RLCG and broadband model

