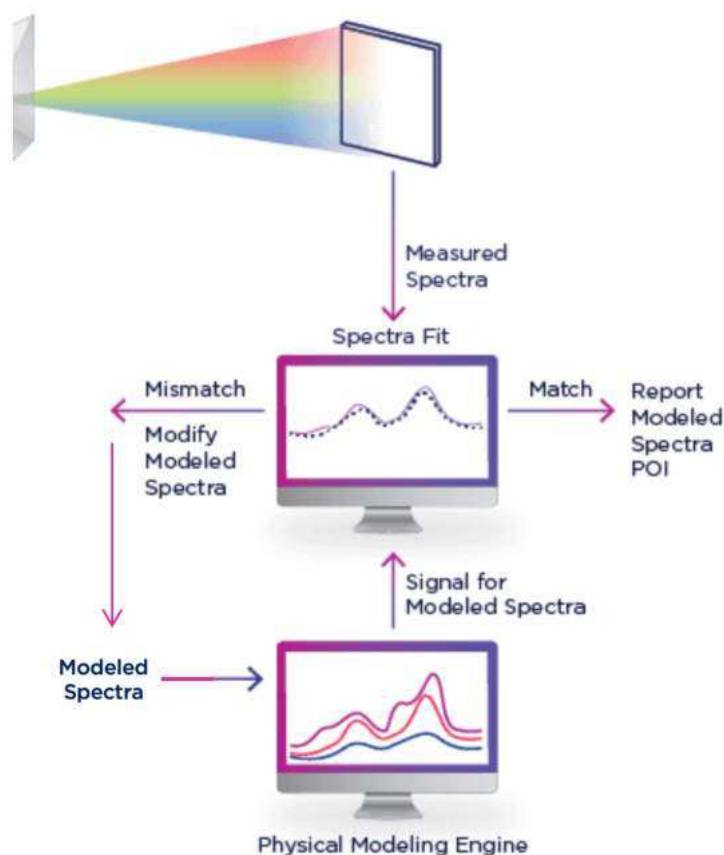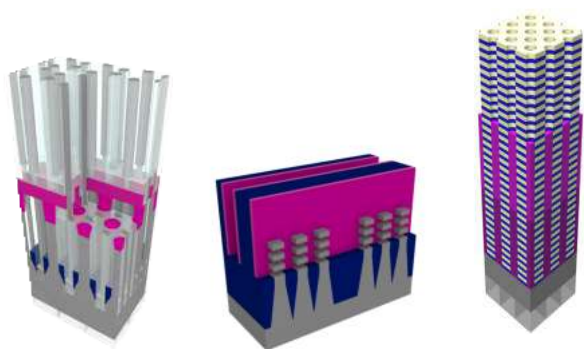# NOVA

NOVA MARS™ MODELING SOFTWARE

Complex 2D/3D Device Modeling

HIGHLIGHTS & BENEFITS

- **High accuracy:** Physical modeling inherently provides accurate sample description, because the scope of possible solutions is limited from the onset of this approach

- **Unphysical outlier rejection:** For the same reason, non-physical results are inherently filtered out

- **Speed-up:** With physical modeling, previous knowledge about the sample can be easily accounted for. This greatly speeds-up the solution

- **Physical results:** Physical modeling allows a straightforward connection to other metrology tools (refer to Hybrid metrology) as the parameters at its output have well-understood physical meaning

- Multi Channel Metrology Modeling Engine for Complex 2D/3D device

- Optimized for Accuracy, Ease of Use and Recipe Development Speed

- Modeling support for vast range of semiconductor fabrication materials

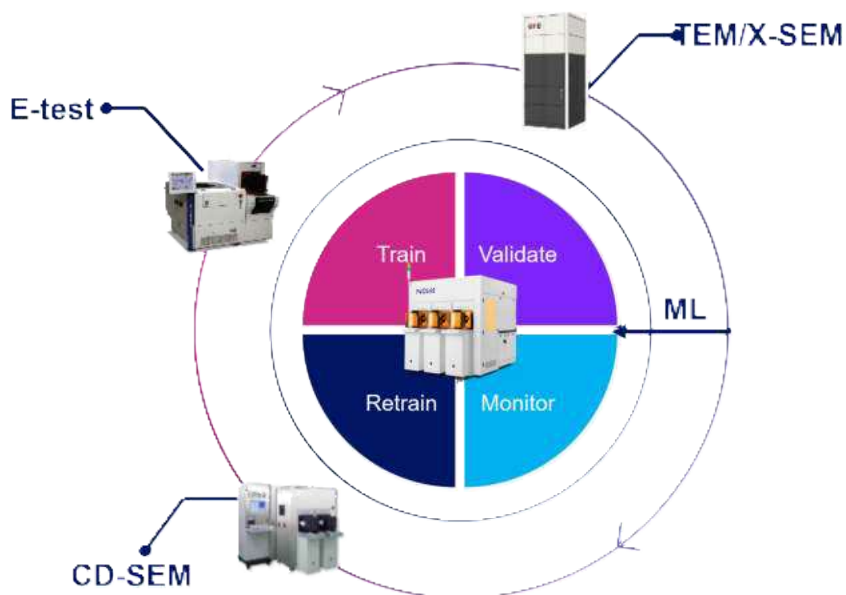- Seamless Connectivity with Nova HPC®

NOVA

NOVA FIT

Data Driven and Machine Learning Modeling

Gain accuracy and productivity

Short time-to-solution

Automated process

Increased Metrology Efficiency

PLATFORM FOR ADVANCED MACHINE LEARNING ALGORITHMS

- Machine Learning for T2T and repeatability
- Machine Learning with RCWA features
- Enabler for in-die IM, e-test prediction, non-periodic structures

SEAMLESS CONNECTIVITY BETWEEN FLEET MANAGEMENT & HOST

- No manual spectra transfer from tools
- Easy reference data import
- Recipe distribution with click of a button
- Recipe management in central software

PIP management according to strict standards

State-of-the-art UI operated by process engineers

Data retention for solution re-train

Advanced data analysis tools
Interpretation from database Filtering, outlier detection

Breaking the paradigm: accuracy and productivity

NOVA FM+

Central Recipe Management and Tracking

CENTRAL MANAGEMENT

- Central recipe management and distribution saves time and prevents human error
- Easy recipe transfer between different tool platforms and SW versions

HOST   Fleet Management & PMC

KEY FUNCTIONS

- No impact on tool performance
- User-defined logic clusters
- Central storage
- History & rollback
- Integrity comparison report
- Application solution integrity
- Engineering Station (SA) to IM
- Transferable between platforms and software releases