

What's New in Ansys Electronics Desktop 2026 R1

Ansys Electronics Desktop (AEDT) provides highly integrated electromagnetic simulators, circuit/system simulation, ECAD links, and compliance reporting. The single desktop allows users to insert and co-simulate among multiple design types. Click to see what's new for the following:

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HFSS

- Components, Assemblies, and Mesh Fusion:
 - Encrypted Layout components supported in HFSS design type
 - Mesh Fusion auto-resolves intersections with encrypted components
- Antenna Arrays:
 - Array mask setup enhanced to include cell visualization proportional to actual cell width/height
 - UI performance enhancements for viewing and interacting with large arrays
 - Auto option for array component adapt
 - Improved solver efficiency using balanced adapt option for large arrays
- General Enhancements:
 - Active SnP circuit elements supported in HFSS
 - Snapping support enabled by setting active drawing layer in Layout Components
 - Layout components supported in Eigenmode solution type
 - cuDSS GPU Direct Matrix solver enhanced to support frequency sweeps and multi-

- GPU distribution (Beta)
- Time Domain Analysis in Driven solution type (Beta)
- Hybrid and SBR+:
 - HFSS designs containing Layout components supported in SBR+ link

HFSS 3D Layout

- Flex Workflow:
 - Omega initial mesher: robust and efficient mesher for Flex PCBs
- IC Mode:
 - HFSS-PI solver for Power Integrity applications added to both IC and General modes
- General Enhancements:
 - Mesh Fusion: TAU initial mesh option available for 3D components
 - Option to create XY planar waveports
 - Enhancements to SPICE Model circuit element assignment
 - Enhanced PI Sweep (Beta)
 - Fields post-processing for HFSS-PI (Beta)

Icepak

- User Experience and Workflow Enhancements
 - Solution loading enhancements
 - Field plot and field summary enhancements
 - Case file migration to HDF5
 - CTM improvements
 - Enhanced UI handling for industrial
 - Activate/deactivate parts and components
 - Snapping updates
 - Heat flux vectors added for post-processing
- Meshing, Solving, and Physics Enhancements
 - Network Schematic Editor
 - Heat exchanger boundary
 - Dynamic thermal modeling enhancements
 - Mesh fusion and primitive object meshing enhancements
 - Native Joule heating for CPU and GPU (Beta)
- System Level Thermal Integrity Solutions
 - STM generation and workflow enhancements
 - Discovery export to Icepak with boundaries and excitations (Beta)

- Package-and-PCB Workflow Enhancements
 - Layout component enhancements
 - Package Native Component (Beta)

AEDT IcepakFEA

- IcepakFEA introduced as new name for former "Mechanical in AEDT"
- Thermal and Structural/Modal FEA are included with Icepak Premium and Electronics Enterprise licenses
- Layout components enhanced
- CTM component enabled (Beta)
- Vertex support for boundary conditions for IcepakFEA: Structural

Maxwell

- General:
 - Named selections as assignments
 - Visualization of mesh operation assignment
 - Motion/Maxwell 3D force coupling for element-based surface and volumetric force in Workbench for NVH
 - Python scripting enhancements:
 - Inception voltage calculation
 - Query skew model setup
 - Query expressions in Fields Calculator
- Solvers:
 - Faster 2D Transient solutions
 - 1st order element option available in 2D Transient solver
 - Global maximum length setting in 2D
 - Y-Connection winding setup for solid windings in 3D
 - SVPWM excitation improvements for periodicity and signal preview
 - Performance map for induction machines with Motor-CAD Lab
- A-Phi Solvers:
 - Commercial release of AC Magnetic A-Phi solution type
 - 3D component priority settings
 - Support distributed frequency sweep with GPU acceleration
 - Export layout grid max field data
 - Export via current and average current density
 - Export via force on selected vias between layers
 - Swap layout port direction

- Independent RL and CG matrix setups
- 3D components full encryption

Q3D Extractor

- AC-RL transition region solver performance improvements
- HPC Distributed memory AC-RL solver
- Improved AC-RL solver accuracy
- Layout component support (Beta)
- Q3D in 3D Layout - Electrothermal Flow (Beta)
- Q3D in 3D Layout General Mode for PCBs and Packages (Beta)

Circuit

General Enhancements:

- PAM3 AMI analysis support
- GPU support for QuickEYE and AMI simulations
- S-element Fast Solve enabled by default to accelerate Transient simulations
- Semiconductor characterization tool performance improvements
- Addition of Induction Motor model for power electronics
- Inclusion of Infineon semiconductor models
- Improved Transient convergence and stability

SPISim Enhancements:

- PAM3 IBIS-AMI model generation

Twin Builder

- Hybrid Analytics & Scaled Deployment:
 - Temporal Transformer Method (TFT) in Fusion
 - Neural ODE Method in Fusion
 - Fusion UI usability enhancements
- Reduced Order Models:
 - New ROM Wizard in TwinAI
 - Metrics for Static ROM builders
 - New Hammerstein LPV ROM in Twin Builder
 - MotorCAD Thermal ROM improvements
- Solver, Model Library, & User Experience:
 - Ansys Engineering Copilot in Twin Builder
 - Co-simulation FMU support enhancements

- Battery Wizard accuracy improvements
- General availability of Ansys CoSim

Granta

- See Release Notes at ansyshelp.ansys.com.

Electronics Desktop

- Components 2.0 with multiple physics representations (Beta)
- WebUI: report creation during batch solves (including S-parameters)
- HPC: allow limiting range of ports for IPC
- HPS: on-premise SLURM cluster support

3D Modeler

- AEDT-integrated CAD links for NX, Solid-Edge, Creo, Inventor, and Auto-CAD
- UX responsiveness improvements for large models

Selected Bug Corrections

Circuit

- 1229497 – Small perturbation in training data no longer gives rise to different RL fits when the data is non-causal.
- 1312652 – Corrected schematic generation IBIS error and longstanding crash with large scripts.

EMIT

- 1222951 – Coupling warnings should refresh and remain accurate.
- 1212508 – GLTF files exported from HFSS to EMIT should be scaled correctly and use the same orientation standard as Discovery and STK.

HFSS

- 1251230 – HFSS SBR+ improved handling of volume dielectric regions with dielectric losses.
- 1251234 – HFSS SBR+ improved EM calculations for meshes with curvature information.
- 1269645 – Weighted element pattern post-processing mode can now generate correct element patterns when phase reference CS is different from Far Field setup CS.
- 1281297 – ShowWindow script command now works properly.
- 1324616 – Pure imaginary renormalization impedance is working correctly with a modal lumped port.
- 1341863 – HFSS SBR+ does not hang indefinitely on Linux when parsing /proc for memory usage statistics.

- 1359113 – 3D component array now solves correctly with non-geometry variables in the design.

Icepak

- 1292979 – Incremental Mesh Fusion refinement now works for 2D sheet objects.
- 1258900 – Transient simulation successfully starts from previously linked Transient setup.
- 1243986 – Icepak design settings for entity check now default to 'Warning Only'
- 1243986 – Improved result loading time.

Maxwell

- 1278064 – Resolved Maxwell 3D Transient thermal modifier material property demagnetization curve reconstruction issue.
- 1305724 – Corrected inductor saturation when using HPC in Transient analysis.

Perceive EM

- 1251250 – Perceive EM will compute EM quantities more accurately with meshes with curvature information.
- 1310396 – Perceive EM plane-wave simulations correctly handle line-of-sight tests with GO Blockage feature.

Q3D Extractor

- 1357584 – Improved consistency of capacitance results using interpolating sweep.
- 1309084 – Adding a frequency sweep from the menu now works correctly.

SIwave

- 1347184 – Introduced ability to show and hide CPA AC and DC per-pin RL plots.
- 1355762 – Improved path tracing through SPICE RL components during SIwave DC power tree export.

SPISim

- 1237969 – Cascade operation in NDE now producing expected results.
- 1332011 – PSXT calculation results for NEXT and FEXT in ICN and cclCN have been corrected.
- 1364175 – Total ICN number and PCIe5 cclCN (FEXT) number calculated from SPISim have been corrected.

Known Issues and Limitations

The following items describe specific issues known at the time of release. Workarounds for these items, if available, are included in the respective descriptions. Inclusion in this document does not imply the issues and limitations are applicable to future releases. Go to the Ansys Electronics Desktop Customer Portal

(<https://support.ansys.com/portal/site/AnsysCustomerPortal>) for information about service packs and any additional items not included in this document.

Electronics Desktop

- 1385506 – For HPS (including Cloud Burst) multi-step jobs, using "Hard Abort" may result in an empty abort_intermediate_results.zip file.

Workaround: Manually download the results of the desired step.

- 1364701 – When aborting an HPS multi-step job (including Cloud Burst jobs), a following step may incorrectly be started. If this happens, the extra step will also be aborted, but the job state may become invalid both in AEDT and the web portal.
- 1233401 – Ansys Engineering Copilot window goes blank when out of focus or idle.

Workaround: Users must click within the Ansys Engineering Copilot window to display the page.

- 1392708 – When trying to create a VRT plot for parametric array antenna with a far-field (non current source) antenna element, the plot generation fails with a cryptic error message.

Workaround: There are various workarounds, including changing the array element type to a current source antenna or changing the VRT launch source to a specific point rather than the array antenna element.

- 1393603 – On Linux, for AEDT installed outside the HOME/<user> directory, users may experience application crashes when starting Ansys Engineering Copilot. This is particularly likely if multiple AEDT instances, irrespective of the installation directory (for the same user account), are running simultaneously.

Workaround: For a given user account, close all running instances of AEDT before starting Ansys Engineering Copilot on AEDT installed outside the HOME/<user> directory.

Circuit

- 1289017 – Remote solve is not supported for a Circuit design that uses nested SPICE files.

Workaround: Edit the SPICE files so that all nested files are in the same folder as the SPICE file.

- 1289017 – When using an RLGC dynamic link from Q3D Extractor or Maxwell, changing the names of the Q3D nets or Maxwell excitations does not change the pins of the dynamic link in Circuit. When the Circuit is analyzed, it will not generate correct data.

Workaround: After changing nets or excitations in Q3D Extractor or Maxwell, delete the dynamic link component from Circuit and then drag-and-drop the Q3D or Maxwell design to create a new dynamic link component.

EMIT

- 1354053 – Users unable to edit values in dialog boxes via keyboard.

Workaround: Users can usually regain keyboard access by pressing the up/down arrow keys. If that does not work, selecting a different window and then re-selecting the desired dialog box fixes it.

- 1357412 – Warnings not showing on load for old projects.

Workaround: Opening a dialog box (such as Coupling Editor, Component Editor, or Results) refreshes the warnings

HFSS

- 1343643 – With linked boundary conditions, enabling curvilinear meshing can make matching boundary slow and cause failures.

Workaround: If possible, do not enable curvilinear mesh with matching boundary. If using curvilinear geometries with matching boundary, avoid enabling curvilinear mesh until it is necessary.

Icepak

- 1334873 – For an AC two-way coupling case with a PCB native component or Layout component translated or rotated from its original imported position, the mapped loss values and temperature results are inaccurate

Workaround: The PCB component must be translated or rotated in HFSS 3D Layout before being imported to Icepak

PerceiveEM

- 1393448 – Simulation hangs indefinitely when rough surface is enabled. This can happen for large scenes, and the problem is due to integer overflow of the rough sub footprint counter, which occurs on the second ray batch processed.

Workaround: Force the solver to use smaller ray batches by setting a lower memory quota with `RssApi::setGPUDevices` and calling `RssApi::autoconfigureSimulation`

- 1393462 – Perceive RM rain shadow calculation does not work properly when ego blockage is enabled, such as when radar is behind a bumper. Rays terminate after hitting the EGO vehicle geometry, so rain scatter is not processed. It is obvious that the rain scatter is very nearly disabled. There is no workaround. The rain scatter model is not compatible with EGO blockage in 2026 R1.