

# Lattice Radiant 2024.1 Power Estimator Software Release Notes

Welcome to Lattice Radiant® Power Estimator software, a tool for estimating the power consumption of Lattice Semiconductor FPGA devices.

## Device Support and Features

### ◀ Device Support:

- Avant™ (LAV-AT)
  - LAV-AT-E30
  - LAV-AT-E70
  - LAV-AT-E70ES1
  - LAV-AT-E70B
  - LAV-AT-G70
  - LAV-AT-G70ES
  - LAV-AT-X70
  - LAV-AT-X70ES

A special license is required to access features of the Avant device. To request for a license, submit a ticket to the [Submit Support Ticket](#) page.

- CertusPro™-NX (LFCPNX)
  - LFCPNX-50
  - LFCPNX-100
- Certus™-NX (LFD2NX)
  - LFD2NX-9
  - LFD2NX-17
  - LFD2NX-28
  - LFD2NX-40
- MachXO5™-NX (LFMXO5)
  - LFMXO5-25
  - LFMXO5-55T
  - LFMXO5-100T

- CrossLink™-NX (LIFCL)
  - LIFCL-17
  - LIFCL-33
  - LIFCL-33U
  - LIFCL-40
- iCE40 UltraPlus™ (iCE40UP)
  - iCE40UP3K
  - iCE40UP5K

◀ **Features:**

- ▶ The Lattice Radiant Power Estimator provides the functionality of Power Calculator in Estimation mode. The tool uses parameters such as resource utilization, clock frequency, switching activity, temperature, voltage, process variation, air flow, heat sink, to estimate the FPGA power consumption. Refer to the Power Calculator User Guide for detailed instructions on power estimation.

Note: Frequency TWR options are not available in this release.

- ▶ Added Power Screen feature for Avant devices (with license-controlled access) This feature allows you to select power screen limits based on your FPGA. This feature sets the maximum static leakage current your device will consume when tested by Lattice Semiconductor. Please work with Lattice Sales to confirm that this setting is suitable for your FPGA project.

# License Information

Power Estimator software can be used with either free, subscription, or device license. These licenses provide access to different device families.

Device Family	Free License	Subscription License
Avant (LAV-AT)	Evaluation Mode	◀
CrossLink CertusPro-NX (LFCPNX)	Evaluation Mode	◀
CertusPro-NX (LFD2NX)	Evaluation Mode	◀
MachXO5-NX (LFMXO5)	Evaluation Mode	◀
CrossLink (LIFCL)	◀	◀
iCE40 UltraPlus	◀	◀

# Installation Instructions

## Installing Power Estimator on Windows

To install the stand-alone Power Estimator on Windows:

1. Close all applications before starting installation.
2. Double-click on the Power Estimator installer you downloaded to launch the installation process.
3. The Welcome To Lattice Radiant Power Estimator setup dialog box opens.
4. Click **Next** to Installation Folder dialog box.
5. The default destination folder is C:\lsc\powerestimator\radiant\2024.1. Click **Browse** to change the drive or destination folder.
6. Click **Next** to open the Select Components dialog box.
7. Click **Next** to open the License Agreement dialog box.
8. Read the license agreement. If you agree, click **I accept the license**.

9. Click **Next** to open the Start Menu shortcuts dialog box. The default name of the program group is **Lattice Radiant Power Estimator 2024.1**. If you want to change the name, change it in the Program Folder text box.
10. Click **Next** to start installing the selected components.
11. In the Install Wizard Complete dialog box, read the note and click **Finish**.

### Installing Power Estimator on Linux/Ubuntu

To install the stand-alone Power Estimator on Linux/Ubuntu:

1. Close all applications before starting installation.
2. Go to the Radiant software installers directory and execute the Radiant Power Estimator run file.

```
% cd <directory_with_RUN>
```

```
% ./2024.1.0.xx.x_Radiant_PowerEstimator_lin.run
```

3. The Welcome To Lattice Radiant Power Estimator setup dialog box opens.
4. Click **Next** to open the Installation Folder dialog box.
5. The default destination folder is /home/lattice/lsc/powerestimator/radiant/2024.1. Click **Browse** to change the destination folder.
6. Click **Next** to open the Select Components dialog box.
7. Click **Next** to open the License Agreement dialog box.
8. Read the license agreement. If you agree, click **I accept the license** to continue the installation process.
9. Click **Next** to Ready to Install dialog box. Review the destination folder and components selected. If everything is correct, select **Install** to start the installation.
10. In the Installation Wizard Complete dialog box, read the note and click **Finish**.