



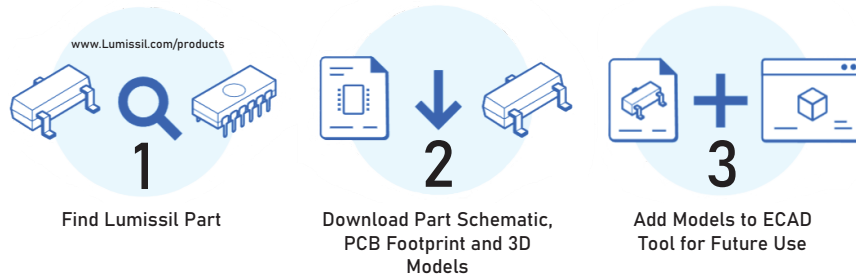
Green Icons and 2D/3D Models

Part Number	Status	Download Icon	Model Type	Configuration
				3/1 RGB
			3D	3/1 RGB
			3D	4/1 RGB+1 W
	Prod		3D	6/2 RGB
IS31FL3197	Prod		3D	4/1 RGB+1 W
IS31FL3198	Prod		3D	3/1 RGB

When doing circuit board designs, the exact electronic CAD [ECAD] model of every component is required to properly draw a schematic, layout a printed circuit board and visualize the final board dimensions. The availability of design-ready models is critical for accurate design cycles and fewer design iterations. Obtaining ECAD models has been both a chore and a challenge for design engineers. In the best case, their PCB design software has a library with these components. However, if the ECAD model is not found they must reach out to the component manufacturer such as Lumissil. In turn if we don't have that model, we

need to assign the task of creating the model to one of our application engineers. Unfortunately, the speed of creating the model and emailing it to the customer is heavily dependent on our application engineer's workload.

To address this, Lumissil teamed up with Supplyframe and it's SamacSys subsidiary to provide schematic symbols, pcb layout footprints and 3D models for all our components. The process of obtaining Lumissil's ECAD models has been streamlined to make it as easy as '1', '2' and '3'!

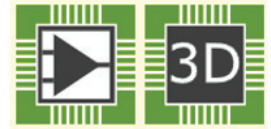


When visiting our website to download datasheets, demo board guide, or sample code, designers will now notice next to the 'Docu' column a new column named 'ECAD Model' with clickable green icons for each component. Click the [FxLED page](#).

Part Number	Status	Docu	ECAD Model	Chs or Matrix	RGB Group	IOUT max (mA)/CH	Ctrl. Interface	Operating Temperature	Pkg-Pin(mm)	Key Features
IS31FL3190	Prod			1/-		42	I2C-400kHz	-40°C ~ +85°C	UTQFN-9(1.5x1.5)	2.7v-5.5v, Output current can be adjusted in 5 levels, Auto. Dimming mode(7-bit PWM), PWM mode(8-bit PWM)
IS31FL3193	Prod			3/1	RGB	42	I2C-400kHz	-40°C ~ +85°C	DFN-10(3x3)	2.7v-5.5v, Two-dimensional Auto dimming, 8-bit PWM, Breathing mark, Auto breath, 5 levels output current, Selectable I2C address, 1 pre-established pattern
IS31FL3193D	NRND			3/1	RGB	42	I2C-400kHz	-40°C ~ +85°C	WLCSP-8(1x1.6)	2.7v-5.5v, Two-dimensional Auto dimming, 8-bit PWM, 5 levels output current, Fixed I2C address 0th with no breath mark, 1 pre-established pattern
IS31FL3194	Prod			3/1	RGB	40	I2C-400kHz	-40°C ~ +85°C	WLCSP-8(1x1.6)	2.7v-5.5v, Auto. Dimming, 8-bit PWM, One group RGB/RGB+W, Independent breath fade, 4 band programmable output current
IS31FL3195	Prod			4/1	RGB+1 W	20	I2C-1MHz	-40°C ~ +85°C	QFN-16(4x4), WLCSP-16(1.88x2.08)	2.7v-5.5v, 1MHz charge pump, 1x, 1.5x, 2x mode with high efficiency, 1uA shutdown, 3 programmable pattern sequence, 3-bit dot correction
IS31FL3196A	Prod			6/2	RGB	40	I2C-400kHz	-40°C ~ +85°C	QFN-20(3x3)	2.7v-5.5v, Audio Sync, Auto. Dimming, 8 levels programmable output current, 8-bit PWM, Auto breath, SDB rising edge resets the I2C module
IS31FL3197	Prod			4/1	RGB+1 W	10	I2C-400kHz	-40°C ~ +85°C	QFN-16(4x4), WLCSP-16(1.88x1.8)	2v-3.7v, 1MHz charge pump, 1x, 1.5x, 2x mode with high efficiency, 2.0 Voltage, 600uA Quiescent current, 1uA shutdown, Programmable pattern sequence, Crossfade color
IS31FL3198	Prod			3/1	RGB	80	GPIO Control	-40°C ~ +125°C	QFN-16(3x3)	3.135V-3.465V supply voltage, Built-in charge pump 2x mode, Adjustment external resistor: 22 ~ 80mA, ISET pin short protection, Less than 1uA shutdown
IS31FL3199	Prod			9/3	RGB	40	I2C-400kHz	-40°C ~ +85°C	QFN-20(3x3)	2.7v-5.5v, Audio Sync, Auto. Dimming, 8 levels programmable output current, 8-bit PWM, Auto breath

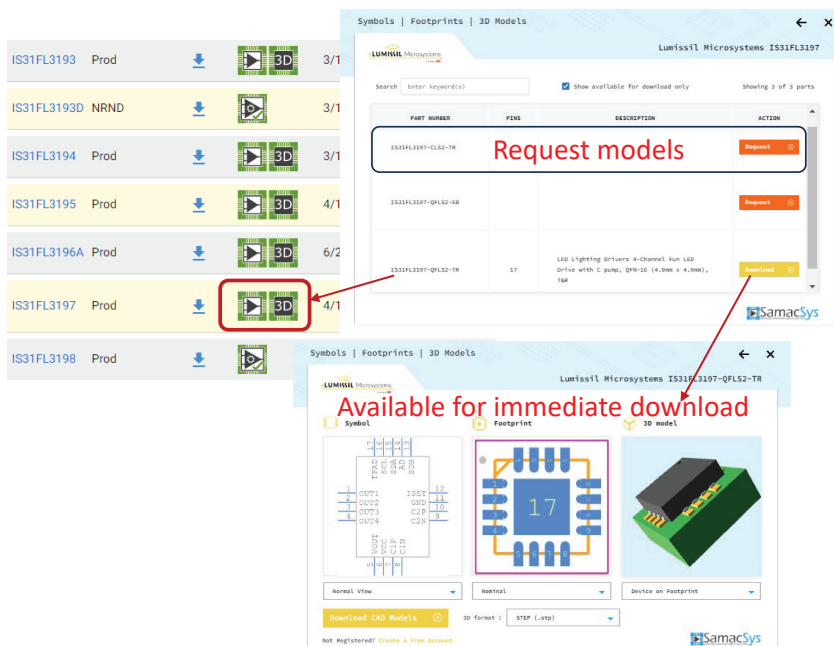
Lumissil provides these 2D and 3D models in formats for all the leading PCB and schematic design software programs. They are free to download and use; simply click on the component's green icons. All models are industry-compliant and checked to the highest quality standards. If designers wish, they can customize and keep their own modified versions of the models.

Components with two green icons (for 2D and 3D) signifies all three models are available. For example, the IS31FL3197 has all three models of the QFLS2 package for download. In this case the CLS2 package is not available. However, if they need the ECAD models for the CLS2 package, the designer can submit a request using our website and Supplyframe/SamacSys will generate the 2D and 3D models within a few days.

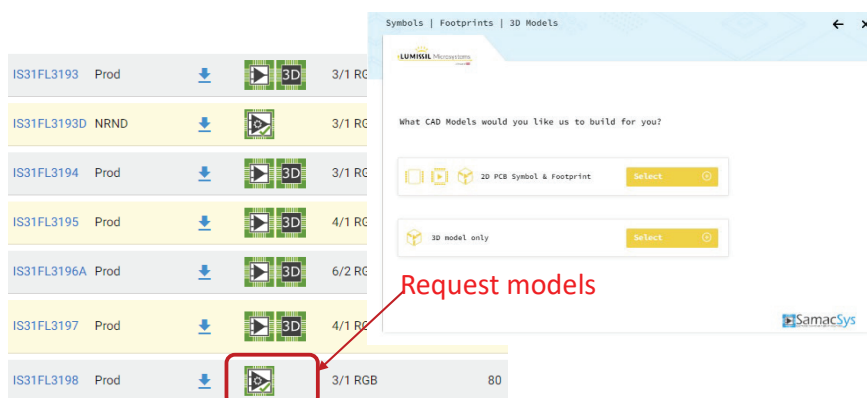


HOW TO USE THE SCHEMATIC SYMBOLS AND PCB FOOTPRINTS:

When browsing Lumissil parts, simply click the component ECAD Model symbol from the Lumissil site and drop it into your design. Once selected, the schematic symbols, PCB footprints and 3D models are immediately available for use and placement.



There are some listed components such as the IS31FL3198 which have only one green icon, meaning there are no associated 2D or 3D ECAD models. The designer needs to click on the single icon and request the models by filling in the required information, including email. Supplyframe/SamacSys will generate the 2D and 3D models within a few days and notify the requestor when they are ready. Once created, the Lumissil entry will automatically change to two green icons and the models become available to all Lumissil customers worldwide.





Several electronic components distributors across Asia, Europe, and North America have also adopted this ECAD model service with green icons. The list includes Mouser, Avnet, and Arrow for North America. Designers now have a choice of downloading models directly from our Lumissil website or from one of our distributor partners.

ECAD (Electronic Computer-Aided Design) models play a crucial role in circuit design by providing several benefits. Here are some key advantages:

Time and Cost Savings: By downloading ECAD models, designers can save time and costs since they no longer need to manually create their own models.

Accuracy and Precision: ECAD models provide a high level of accuracy in representing the component's schematic symbol, PCB footprint and package dimensions. This precision ensures that the designed circuits meet specifications and perform as intended.

Collaboration and Documentation: ECAD models facilitate schematic documentation, and pcb layout, making it easier for team members to collaborate and contribute to the design.

Design Reusability: ECAD models can be reused in different projects, saving time and effort in creating new designs from scratch. Designers can leverage existing models, modify them as needed, and apply them to similar circuitry.

In summary, ECAD models enhance the efficiency, accuracy, and collaborative aspects of electronic circuit design, ultimately leading to improved product quality and faster time-to-market. Lumissil with the addition of green icons for downloading ECAD models directly from our website helps our customers in their design efforts when using Lumissil components.