



Lynk Labs Inc., was founded in 1997 in Elgin, Illinois, USA by innovative technology leaders that in about 2003, foresaw the potential for LEDs in the general lighting industry and the need for enabling practical solutions for lighting products.

Lynk pioneered and manufactures many technologies that the US lighting industry relies upon to sustain their competitive advantage in both the commercial and residential lighting markets.

Examples of these patented technologies, and OEM products include; AC LED, Driver on Board (DoB), CCT Select, Brightness Select, Color Tuning, Warm Dimming, Smart Lighting and more. These innovations enable competitive lighting products that directly benefit OEM's, installers and customers with improvements in installation flexibility, SKU reduction, reliability, manufactured cost, and enhanced performance.





Founded 1997—Elgin, Illinois USA

Industry leading OEM supplier and partner for patented mainstream LED technology.





Ranked #3 Most Innovative Company by Crain's

Lynk licensed technologies such as Driver on Board (DoB), CCT Select, Brightness select, Color Tuning, Warm Dimming, Smart Lighting and other technologies are product mainstays for many of today's successful Commercial and Residential Lighting Products.





INTRODUCTION

Lynk Labs has been innovating and manufacturing industry leading LED technology solutions for OEM's in commercial grade lighting for almost 20 years. Unique solutions were pioneered to enable US manufacturers to capture early leads with product features that enable Solid State (LED) based lighting to economically replace incumbent lighting systems.

Key features valued by the industry such as more direct AC operation (Driver-On-Board), replaced the need for bulky power supplies, thereby simplifying the bill of materials (BoM). This enables manufacturers to capture cost savings and simplify their lighting product designs.

Additional examples of Lynk innovations leading to enhanced capabilities include, warm dimming (to mimic the natural dimming of incandescent lamps), or CCT Select and Brightness Select that provides simple field adjustment for various CCT 's or brightness level options at the luminaire, that enable manufacturers to reduce the number of SKU's and product returns with simple, field selectable product features. These innovations help lighting specifiers design lighting systems with flexible compatibility for a variety of field specifications with a single product solution that dramatically streamlines the lighting specification and installation process.



LYNK LABS INC. INNOVATION INTENSITY BY PATENT FILINGS

The goal of Lynk's intellectual property licensing program is to enable our partners to benefit from these practical innovations that support their competitiveness in the LED lighting industry.



LYNK'S TECHNOLOGICAL EFFORTS OVER 2 DECADES: FROM CIRCUITS TO SYSTEMS

Lynk Labs expertise and two decades of effort developing solutions for OEM's is tuned to the lighting market's need for flexibility and cost effective simplicity.



Circuits

engines and systems.



INTELLECTUAL PROPERTY PORTFOLIO PIONEERING SYSTEM TECHNOLOGY EXAMPLES



Lynk Labs pioneering technologies enable licensees to offer flexible and competitive lighting products to meet the market's evolving and most demanding lighting specifications. System Technologies cover Direct AC/Driver-On-Board Light Engines to Field Switchable luminaires through to Smart Lighting.



Independent

Claims

Patent

Number

PATENTS & CLAIMS COVERING EXAMPLE TECHNOLOGY/PRODUCT CATEGORIES

Dependent

Claims

Field Selectable CCT Lamps & Fixtures

Expiry



	\
Selectable UU	



2/25	US 10,091,842	33, 43	34, 36, 37, 44
8/32	US 10,757,783	1, 8	2, 3, 7, 10, 16
2/25	US 10,517,149	1	3, 17
8/32	US 10,349,479	2, 9	3, 5, 6, 11, 15, 16
2/25	US 10,492,251	1, 8, 11, 20	4, 6, 7, 9, 10
2/25	US 10,652,979	3	11
5/30	US 10,271,393	1, 12, 19	4, 11, 13
10/28	US 10,537,001	1, 6, 11, 16	2, 5, 10, 12, 18
2/25	US 10,575,376	1	3, 6
2/25	US 10,492,260	20	
10/28	US 10,932,341	1, 8, 15	2, 3, 9, 10, 16, 17
10/28	US 10,986,714	1, 7, 14	2, 3, 8, 9, 13
2/25	US 10,980,092	1	6
8/32	US 11,284,491	1, 8 , 15	6, 14, 21
10/28	US 11,297,705	1, 8, 15	3, 10, 17
10/28	US 11,317,495	1, 7, 14	6, 11

Field Selectable Bright- ness Lamps & Fixtures	Expiry	Patent Number	Independent Claims	Dependent Claims
	5/29	US 9,750,098	1, 11	2, 10
	5/30	US 10,271,393	1, 12, 19	4, 11, 13
45 5060 WATTS 36 4000 CCT 30 3500	5/30	US 10,537,001	1, 6, 11, 16	2, 5, 10, 12, 18
	2/25	US 10,091,842	33, 38, 43	34, 36, 37
TTIM	2/25	US 10,575,376	1	2, 6
(\bigcirc)	2/25	US 10,492,260	20	
	8/32	US 10,349,479	2, 9	3, 5, 6, 11, 15, 16
	2/25	US 10,492,251	1, 8, 11, 20	4, 6, 7, 9, 10
	10/28	US 10,986,714	7	6, 8 , 9

Smart Lighting LED Lamps & Fixtures	Expiry	Patent Number	Independent Claims	Dependent Claims
	2/25	US 10,517,149	1, 11	4, 13, 20
	2/25	US 10,687,400	1, 16, 21	12, 13
	2/25	US 10,492,251	1, 8, 14	2, 6, 9, 15
	2/25	US 10,652,979		4, 12, 18
	2/25	US 10,492,260	1, 13, 18	2, 5, 15, 16
\frown	2/25	US 10,904,967	13	4, 10
	2/25	US 10,980,092	1	5
	5/25	US 10,750,583	8	9, 10

Integrated or Program-
mable Driver Lamps &
Fixtures





Expiry	Patent Number	Independent Claims	Dependent Claims
2/25	US 10,517,149	1, 5, 11	2, 3, 6, 7, 20
2/25	US 10,555,385	1, 11	3, 4, 8, 9
8/32	US 10,349,479	2, 9	3, 5, 6, 11, 15, 16
2/25	US 10,492,251	1, 8, 11, 20	4, 6, 7, 9, 10
2/25	US 10,492,251	14	15, 17, 19
5/25	US 10,750,583	1	3, 4



PATENTS & CLAIMS COVERING EXAMPLE TECHNOLOGY/PRODUCT CATEGORIES

Driver-on-Board "DOB" Lamps & Fixtures



Expiry	Patent Number	Independent Claims	Dependent Claims
2/25	US 10,154,551	1, 5, 29	4, 7, 8
2/25	US 10,517,149	1	2, 3
2/25	US 10,652,979	7	8, 9, 10, 11, 12
2/25	US 10,687,400	7	8, 10, 11
2/25	US 10,091,842	29	31, 32
2/25	US 10,492,251	13	

Universal Voltage LED Lamps & Fixtures	Expiry	Patent Number
	2/25	US 10,555,385
1	2/25	US 10,687,400
	2/25	US 10,517,149
	2/25	US 10,091,842
	8/32	US 10,349,479
	2/25	US 10,575,376
*	2/25	US 10,492,251
	2/25	US 10,904,967
	2/25	US 10.980.092

D	Expiry	Patent Number	Independent Claims	Dependent Claims
	2/25	US 10,555,385	1, 7, 11	3, 4, 9
	2/25	US 10,687,400	14	15, 16, 17, 18, 19, 20
	2/25	US 10,517,149	1, 5	2, 10, 12
	2/25	US 10,091,842	13, 33, 43	12, 19, 25, 44
	8/32	US 10,349,479	2, 9	3, 5, 6, 11, 15, 16
	2/25	US 10,575,376	1, 11	2, 3, 6, 12,13, 20
	2/25	US 10,492,251	1, 8, 11, 20	4, 6, 7, 9, 10
4	2/25	US 10,904,967	1, 7, 13	2, 3, 4, 8, 9, 10
	2/25	US 10,980,092	1, 9	2, 3, 13

Linear, Tape Light, Track Lamps & Fixtures



Expiry	Patent Number	Independent Claims	Dependent Claims
2/25	US 8,531,118	1, 2	3, 4, 5
2/25	US 10,091,842	1, 7, 13, 20, 26	2, 4, 9, 12
2/25	US 10,517,149	17	18, 19, 20
2/25	US 10,575,376	1, 11	3, 13, 20
2/25	US 10,154,551	10	11, 12, 13
2/25	US 10,980,092	1, 9	2, 3, 13

Security or Sensing Lamps & Fixtures



Expi- ry	Patent Number	Independent Claims	Dependent Claims
2/25	US 10,517,149	5	6
2/25	US 10,555,385		2
2/25	US 10,492,251	8	7
2/25	US 10,904,967		5, 11





Independent

PATENTS & CLAIMS COVERING EXAMPLE TECHNOLOGY/PRODUCT CATEGORIES

Dependent

Color Tune & Dim to
Warm Lamps &
Fixtures

Expiry

Patent



	Number	Claims	Claims
8/32	US 9,247,597	1, 17, 19, 37, 45	2, 3, 4, 23, 24, 42
8/32	US 9,516,716	14, 19	6
2/25	US 10,091,842	43	44
5/30	US 10,271,393	1, 12	4, 13
2/25	US 10,575,376	1	2, 3, 6
8/32	US 10,349,479	2, 9	3, 5, 6, 11, 15, 16
2/25	US 10,492,251	1, 8, 11, 20	4, 6, 7, 9, 10
5/25	US 10,750,583	8	9

Class A T-LED Lamps	Expiry	Patent Number	Independent Claims	Dependent Claims
	2/25	US 8,531,118	2	3, 5
	2/25	US 9,807,827	14	
- T	2/25	US 10,154,551	24, 29	30, 32
- Sar	1/28	US 10,178,715	22	23, 24, 25, 26
	2/25	US 10,091,842	13, 20, 26, 29, 33	15, 19, 21,23, 28
	2/25	US 10,499,465	1	2, 3, 4, 6

Class B T-LED Lamps	Expiry	Patent Number	Independent Claims	Dependent Claims
	2/25	US 10,154,551	10, 29	
	2/25	US 10,517,149	1	2

Filament and Vintage LED Lamps	Expiry	Patent Number	Independent Claims	Dependent Claims
	2/25	US 10,492,251	20	21, 22, 23
and the second sec	2/25	US 10,575,376	7	5
	2/25	US 10,652,979	1, 13	2, 6, 14, 15

G	Type Bi-Pin LED	
	Lamps	



Expiry	Patent Number	Independent Claims	Dependent Claims
2/25	US 10,154,551	1, 5, 10	
2/25	US 8,531,118	2	3, 5
2/25	US 9,807,827	6	
2/25	US 10,091,842	13	

Class C T-LED Lamps	Expiry	Patent Number	Independent Claims	Dependent Claims
0000	2/25	US 8,531,118	1, 2	3, 4, 5
000000000000000	2/25	US 10,091,842	1, 7, 13, 20, 26	2, 4, 9, 12
101	2/25	US 10,517,149	17	18, 19, 20
	2/25	US 10,575,376	1, 11	3, 13, 20
	2/25	US 10,154,551	10	11, 12, 13

PL & Circline LED Lamps	Expiry	Patent Number	Independent Claims
	2/25	US 8,531,118	2
	2/25	US 10,154,551	24, 29
	1/28	US 10,178,715	22

Dependent

. Claims

3, 5



LED LIGHTING PATENT PORTFOLIO—US ISSUED PATENTS—AS OF MAY 2022

Lynk Labs Products and/or Technology comprise issued and pending patents in the field of LED lighting for Circuits, Chips, Packages, Assemblies, Drive Methods, Drivers/Power Supplies, Lamps and Lighting Systems and may fall under one or more of the following Patent numbers.

The following is a list of Lynk Labs issued patents, many of which have been licensed and/or are available for license.

UNITED STATES ISSUED PATENTS*

US 7489086	AC Light Emitting Diode and AC LED Drive Methods and Apparatus	US 10492260	LED Lighting System
US 8148905	AC Light Emitting Diode and AC LED Drive Methods and Apparatus	US 10492252	AC Light Emitting Diode and AC LED Drive Methods and Apparatus
US 8531118	AC Light Emitting Diode and AC LED Drive Methods and Apparatus	US 10499466	AC Light Emitting Diode and AC LED Drive Methods and Apparatus
US 9807827	AC Light Emitting Diode and AC LED Drive Methods and Apparatus	US 10499465	High Frequency Multi-Voltage and Multi-Brightness LED Lighting
US 8742630	One Wire Self Referencing Circuits for Providing Power and Data	10.40506674	
US 8179055	LED Circuits and Assemblies	US 10506674	AC Light Emitting Diode and AC LED Drive Methods and Apparatus
US 8841855	LED Circuits and Assemblies	US 10517149	AC Light Emitting Diode and ACLED Drive Methods and Apparatus
US 8177390	Electric Display Device with Integrated Lighting System	US 10537001	Multi-Voltage and Multi-Brightness LED Lighting Devices and Methods of Using Same
US 8648539	Multi-Voltage and Multi-Brightness LED Lighting Devices and Methods of Using Same	US 10555385	LED Lighting System
US 9750098	Multi-Voltage and Multi-Brightness LED Lighting Devices and Methods of using Same	US 10575376	AC Light Emitting Diode and AC LED Drive and Apparatus
US 6760380	Data Transmission Apparatus and Method	US 10652979	LED Lighting System
US 9198237	LED Lighting System	US 10687400	AC Light Emitting Diode and AC LED Drive Methods and Apparatus
US 9615420	LED Lighting System	US 10757783	Color Temperature Controlled and Low THD LED Lighting Devices and
US10051703	LED Lighting System		Systems and Methods of Driving Same
US 9249953	LED Lamp with Selectable Beam Angle Optic Method and Apparatus	US 10904967	LED Lighting System
US 9247597	Color Temperature Controlled and Low THD LED Lighting Devices and Systems and Methods of Driving the Same	US 10932341	Multi-Voltage and Multi-Brightness LED Lighting Devices and Methods
US 9516716	Color Temperature Controlled and Low THD LED Lighting Devices and Systems and Methods of Driving the Same	US 10750583	of Using Same
US 9693405	Devices and Systems Having AC LED Circuits and Methods of Driving the Same	US 10966298	AC Light Emitting Diode and AC LED Drive Methods and Apparatus
US 10178715	High Frequency Multi-Voltage and Multi-Brightness LED Lighting Devices and Systems and Methods of Using Same.	US 10986714	Lighting system having two or more LED packages having a specified
US 10154551	AC Light Emitting Diode and AC LED Drive Methods and Apparatus		separation distance
US 10091842	AC Light Emitting Diode and AC LED Drive Methods and Apparatus	US 10980092	High Frequency Multi-Voltage and Multi-Brightness LED Lighting
US 10257892	Devices and Systems Having AC LED Circuits and Methods of Driving	115 44040507	
115 10271202	ule same	US 11019697	AC Light Emitting Diode and AC LED Drive Methods and Apparatus
05 102/1393	of Using Same	US 11079077	LED Lighting System and Installation Methods
US 10334680	LED Lighting System	US 11297705	Multi-Voltage and Multi-Brightness LED Lighting Devices and Methods
US 10349479	Color Temperature Controlled and Low THD LED Lighting Devices and Systems and Methods of Driving Same		of Using Same
US 10433382	Low Flicker AC Driven LED Lighting System, Drive Method and Appa- ratus	US 11284491	Color Temperature Controlled and Low THD LED Lighting Devices and Systems and Methods of Driving the Same
US 10492251	AC Light Emitting Diode and AC LED Drive Methods and Apparatus	US 11317495	LED Circuits and Assemblies

* Visit https://www.lynklabs.com/wp-content/uploads/2021/08/LYNK-LABS-ISSUED-PATENTS-2021-08016.pdf for Lynk Labs current patent portfolio

© Lynk Labs, Inc. 2022



LED LIGHTING PATENT PORTFOLIO—FOREIGN ISSUED PATENTS AND US PENDING PATENTS—AS OF MAY 2022

Lynk Labs Products and/or Technology comprise approved and pending patents in the field of LED lighting for Circuits, Chips, Packages, Assemblies, Drive Methods, Drivers/Power Supplies, Lamps and Lighting Systems and may fall under one or more of the following Patent numbers.

FOREIGN ISSUED PATENTS		PENDING PA	ATENTS
AUSTRALIA		UNITED STATES	
AU 2005216335	AC Light Emitting Diode and AC LED Drive Methods and Apparatus	US 17/391611	LED Lighting System and Installation Methods
CHINA		US 16/378314	Devices and Systems Having AC LED Circuits and Methods of Driving Same
CN 1943276A	AC Light Emitting Diode and AC LED Drive Methods and Apparatus	US 17/157264	LED Lighting System
CN1639940A CN 103945589B	One Wire Self Referencing Circuits for Providing Power and Data Multi-Voltage and Multi-Brightness LED Lighting Devices and Methods	US 17/226505	High Frequency Multi-Voltage and Multi-Brightness LED Lighting Devices and Systems and Methods of Using Same
HONG KONG	or Using Same	US 17/216032	AC Light Emitting Diode and AC LED Drive Methods and Apparatus
HK 1105508	AC Light Emitting Diode and AC LED Drive Methods and Apparatus	US 17/306450	AC Light Emitting Diode and AC LED Drive Methods and Apparatus
HK 1251397	Low Flicker AC Driven LED Lighting System Method and Apparatus	US 17/699873	Color Temperature Controlled and Low THD LED Lighting Devices and Systems and Methods of Driving Same
EUROPE		US 17/391611	LED Lighting System and Installation Methods
EPO 1731003	AC Light Emitting Diode and AC LED Drive Methods and Apparatus		
DE 1731003	AC Light Emitting Diode and AC LED Drive Methods and Apparatus		
FR 1731003	AC Light Emitting Diode and AC LED Drive Methods and Apparatus		
UK 1731003	AC Light Emitting Diode and AC LED Drive Methods and Apparatus		
MEXICO			
MX 269561	AC Light Emitting Diode and AC LED Drive Methods and Apparatus		
MX 298488	AC Light Emitting Diode and AC LED Drive Methods and Apparatus		
MX 298034	LED Circuits and Assemblies		
CANADA			
CA 2557465	AC Light Emitting Diode and AC LED Drive Methods and Apparatus		
CA 2701780	LED Circuits and Assemblies		
CA 2763598	Multi-Voltage and Multi-Brightness LED Lighting Devices and Methods of Using same		
CA 2785721	High Frequency Multi-Voltage and Multi-Brightness LED Lighting Devices and Systems and Methods of Using Same		
MALAYSIA			
MY 153548A	LED Circuits and Assemblies		
TAIWAN			
1521972	Computer Display Work Lighting System Method and Apparatus		



SOME LICENSE FEES MAY BE DISCOUNTED IF PURCHASING MODULES FROM LYNK

Lynk Labs is a US-based, UL Recognized, supplier and established OEM partner that designs and manufactures a wide range of innovative "ready to use" modular solutions under the trade names SnapBrite[®] and BrightDrive[®] that can simplify your design, for residential, outdoor, commercial or industrial lighting applications and speed your time to market.

Module Capabilities

- Input 12 Vac to 277 Vac or Universal 120-277VAC
- Power from 1 Watt to 1000 Watts
- Flux 100 lumens to 100,000 lumens output
- Switched, automatic or controlled lumen output
- CCT from 1800 K to 10,000 K auto or switched
- Linear, square or round form factors
- Power Factor pF > 0.97, Title 24 Compliant
- Standard and Custom designs

EXAMPLES OF AVAILABLE LYNK LABS PRODUCTS

CCT SELECT AND DRIVER ON BOARD (DoB) PRODUCTS

Eg: MODEL: SnapBrite® SRL80-13W-SS 27K/30K/40K-120

(Downlights, Flush Mounts, Pendants, Sconces, Architectural)

- 2700K/3000K/4000K SWITCH SELECT
- DIRECT AC DRIVER ON BOARD
- PHASE CUT DIMMING
- UL8750 & CSA 22.2



DUSK TO WARM & WARM ON DIM

Eg: MODEL: SnapBrite[®] SRL65-13W-CM-22K/33K-120

(Downlights, Flush Mounts, Pendants, Sconces, Architectural)

- 2200K (590 lm) to 3300K (1375 lm)
- DIRECT AC DRIVER ON BOARD
- COOL MOTION DESIGN[™] MOTION DETECTION
- UL8750 & CSA 22.2



SMART "DRIVER ON BOARD" PRODUCTS

Eg: MODEL: SnapBrite® SSL 195 SMART DOB FAMILY

(Downlights, Flush Mounts, Low Bay, Area lighting)

- 2700K—5000 K CCT SWITCH SELECT
- 25W, UP TO 2500 LUMENS
- AC DRIVER ON BOARD—LOW THD
- LOW FLICKER CEC T24 & IEEE-1798





BECOME A LYNK LABS LICENSEE

Join others in the lighting industry that are benefiting from the patented advancements made by Lynk Labs.

Lynk Labs is an innovator and manufacturing partner, and for two decades has invested millions of dollars into R&D, product development, manufacturing and protection of their inventions. Lynk also stands up for their innovations to protect their licensees so they can capture the full value of Lynk IP in market-ready competitive product offerings.

Our experts can help you enter into a license agreement that will support your product portfolio and your competitive position in the lighting industry.





NEXT STEPS

For more information please contact us directly for answers to your questions.

Licensing Program Team

URL:	www.lynklabs.com/	licensing
------	-------------------	-----------

- Email: patents@lynklabs.com
- Phone: 1 (847) 783-0123
- Address: 2511 Technology Drive, Suite 108 Elgin, IL 60124, USA

