

THE  
LIGHT  
YOU  
NEED

Welt Electronic, part of the Stelbau Technology Company group and a leading distributor of electronic components since 1985, has always been a point of reference for the Industrial sector. Its experience is based on a mix of technical know-how, great professionalism, and top-level customer care. Thanks to its Leading Partners in the Industrial Division, it has always succeeded in predicting and staying one-step ahead of future trends and the needs of the market.

Moreover, it is capable of satisfying even the most demanding clientele, thanks to its wide range of high quality products that includes both standard and custom items, as well as a rapid and inexpensive service.

Over time, Welt has expanded and diversified its products and services to include highly technological Lighting applications (from LED drivers to Dimmers and Strip LED, and from Heatsinks to COB LED and complex control systems). Today, Welt Electronic is considered one of the most important European leaders of LED distribution, thanks to its Lighting Division and its flexibility in providing indoor and outdoor lighting solutions.

Welt Electronic is also a company that is in constant evolution, combining a strong commitment to precision with professionalism and flexibility, so that the needs of every customer are met in the best way possible. Welt offers the innovative solutions of tomorrow for every future customer need.



## OUR PARTNERS



# INDEX

## ► **SOLID STATE LIGHTING SOLUTION**

- 8 Greathome
- 12 Islt
- 16 Ledmy
- 12 Lextar
- 16 Nichia

## ► **OPTICAL MANAGEMENT**

- 22 Herculux
- 22 Ledil

## ► **LED DRIVER**

- 26 Eldoled
- 40 Lifud
- 46 Moso
- XX Self
- XX Sunricher
- XX Zetaqlab

## ► **IC LED DRIVER**

- 54 Altoran
- 58 Siti
- 60 Tm Tech

## ► **THERMAL MANAGEMENT E ADESIVI**

- 62 Henkel - Bergquist - Loctite
- 66 3m
- 70 Mingfa

## ► **LIGHTING CONNECTOR**

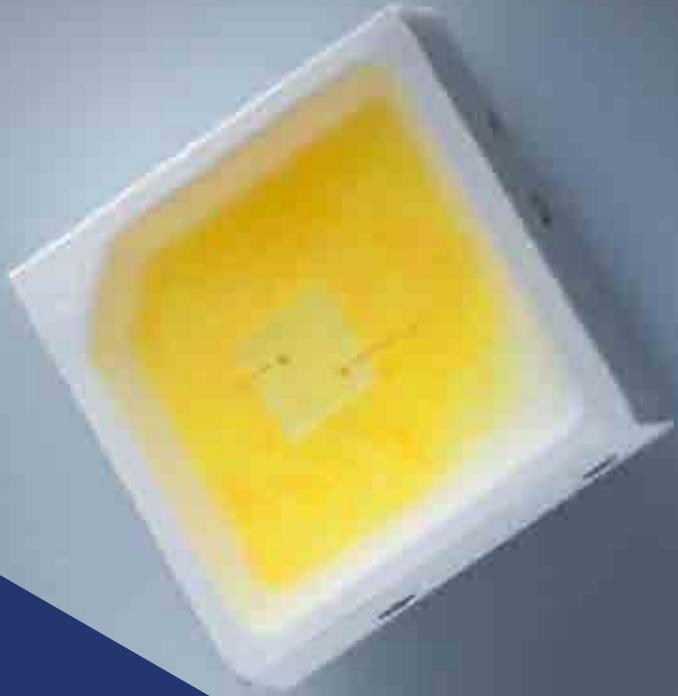
- 72 Arntek
- 74 Mkx

## ► **CIRCULAR PLASTIC CONNECTOR**

- 76 Techno

- 78 Standards and certifications
- 79 Lighting controls protocols

# SOLID STATE LIGHTING SOLUTION



## COMPANY PROFILE

Greathome Precision Circuit Technology (Shenzhen) Co., Ltd is a manufacturer integrating R&D, manufacturing, and sales of flexible printed circuit (FPC) boards, flexible printed circuit (FPCA) Assembly, and PCB Assembly. Greathome was founded in 2008 and has 532 employees, located in Shenzhen, China. The plant area is 17,500 square meters, the annual production capacity for FPC and PCB are 360,000 square meters and 1.2 Billion points per month for FPC Assembly and PCB Assembly.



## CUSTOMIZED SOLUTION FOR EVERY KIND OF PCB

Thanks to the long-term partnership with Greathome, a selected Far East printed circuit board manufacturer, Welt is able to provide customized solutions for any type of PCB. Our range of solutions includes flexible, rigid-flexible and rigid circuits. The fields of use are very wide: from Lighting, to industrial, from consumer electronics to biomedical and application for radio controls high frequency. The Greathome know-how in development and production, allows us to support the customer in all the design life cycle, from prototyping to mass production. Through a timely service, we are able to support the designers in the development phase of new PCB board.

- The average production capacity is 30,000mm<sup>2</sup> monthly for both PCB and FPC.
- Multi-layer processes up to 42 layers in case of rigid PCB. Up to 12 layers for flexible circuits.
- The minimum board thickness for a flexible board single layer is 0.05mm and 0.10mm for a double-layer rigid circuit.
- Standard production capacity can process PCB up to 660,000mm<sup>2</sup> of surface.

### SURFACE TREATMENTS

#### HASL-LF

#### ENIG

#### OSP

#### IMMERSION SILVER

#### IMMERSION TIN

#### ENEPIG, GOLD PLATING

### LAMINATES

#### IM3 aluminium or copper base with customized dielectric thickness according to specifications.

#### Max conductivity up to 11W/mK.

#### Polyamide, PET, Kapton, PI

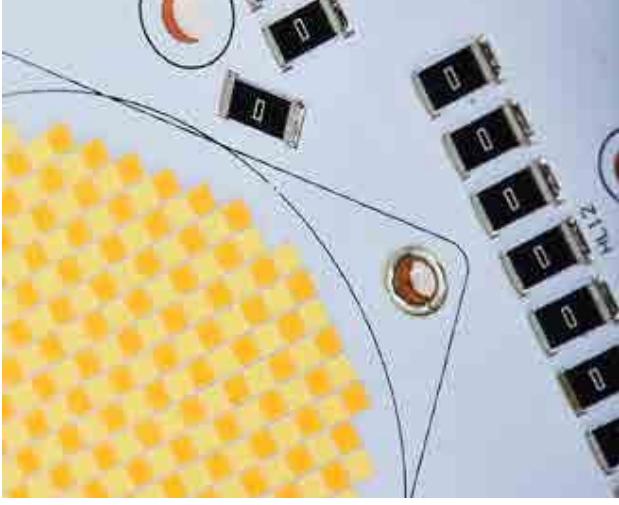
#### Fluoropolymers or liquid crystal polymers

## PCBA

Our specialized service offers rapid development and manufacturing of SMD-assembled LED modules.

We meticulously select components that perfectly align with your specific requirements, ensuring optimal performance. Our expertise extends to accommodating a wide range of LEDs and SMD components, enabling us to assemble any type of lighting module.

To expedite the prototyping process, we deliver functional prototypes within just one week. Additionally, we can provide comprehensive photometric testing upon request, leveraging our partnerships with external laboratories. Beyond the initial production phase, our commitment to quality doesn't end. We offer dedicated after-sales support to ensure your satisfaction and the continued performance of your LED modules. Furthermore, we provide valuable assistance in registering your products on the Eprel database, streamlining the energy labeling process.



Fast response and production time, high quality above average and a wide choice of laminates are our strengths. The very competitive prices make us a cost-effective alternative for those customers who buy directly from other Far East suppliers. Our quotations are always expressed in terms of fixed currency and are guaranteed for more than 12 months. Our team is in constant contact with our partners allowing immediate responses even in the most complex cases.

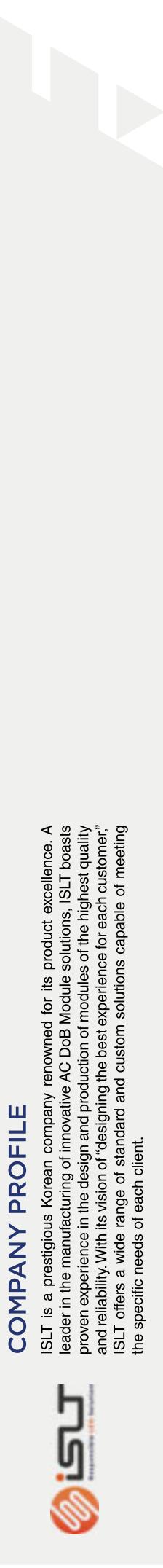
We can issue quotations within 24 hours and send samples and small pre-series to our customers in one working week from final confirmation of Gerber by the customer.

Although production times are very fast, never more than 3 working weeks for production batches, we are able to provide to our customers a warehouse stock service, compatible with storage times of the given laminates type or surface treatment.

## COMPANY PROFILE



ISLT is a prestigious Korean company renowned for its product excellence. A leader in the manufacturing of innovative AC DoB Module solutions, ISLT boasts proven experience in the design and production of modules of the highest quality and reliability. With its vision of "designing the best experience for each customer," ISLT offers a wide range of standard and custom solutions capable of meeting the specific needs of each client.



### ISE-ER-B1 SERIES Ø49MM

Model Name	Power/lm	LES	CCT	CRI	SVM
ISE-ER-B1-1000	7W - 1000lm	014	2700-6500K	92Ra	0.15
ISE-ER-B1-1600	14W - 1600lm	019	2700-6500K	92Ra	0.15
ISE-ER-B1-2400	19W - 2400lm	019	2700-6500K	92Ra	0.15
ISE-ER-B1-3000	25W - 3000lm	019	2700-6500K	92Ra	0.15



### ISE-ER-B SERIES Ø49MM

Model Name	Power/lm	LES	CCT	CRI	SVM
ISE-ER-B-1000	7W - 1000lm	014	2700-6500K	92Ra	0.15
ISE-ER-B-1600	14W - 1600lm	019	2700-6500K	92Ra	0.15
ISE-ER-B-2400	19W - 2400lm	019	2700-6500K	92Ra	0.15
ISE-ER-B-3000	25W - 3000lm	019	2700-6500K	92Ra	0.15



### ISE-ER-C-38 SERIES Ø38MM

Model Name	Power/lm	LES	CCT	CRI	SVM
ISE-ER-C-38-250	2W - 250lm	09.6	2700-6500K	92Ra	0.15
ISE-ER-C-38-500	4W - 500lm	09.6	2700-6500K	92Ra	0.15
ISE-ER-C-38-700	6W - 700lm	09.6	2700-6500K	92Ra	0.15
ISE-ER-C-38-900	8W - 900lm	09.6	2700-6500K	92Ra	0.15



### ISE-ER-C-46 SERIES Ø46MM

Model Name	Power/lm	LES	CCT	CRI	SVM
ISE-ER-C-46-1000	10W - 1000lm	09.6	2700-6500K	92Ra	0.15
ISE-ER-C-46-1600	16W - 1600lm	09.6	2700-6500K	92Ra	0.15
ISE-ER-C-46-2400	24W - 2400lm	09.6	2700-6500K	92Ra	0.15



### ISE-ER-D-47 SERIES TRIPLE VOLTAGE (120/230/277V) Ø47MM

Model Name	Power/lm	LES	CCT	CRI	SVM
ISE-ER-D-47-1000	10W - 1000lm	09.6	2700-6500K	92Ra	0.15
ISE-ER-D-47-1600	16W - 1600lm	09.6	2700-6500K	92Ra	0.15
ISE-ER-D-47-2400	24W - 2400lm	09.6	2700-6500K	92Ra	0.15



### ISE-ER-OBDC SERIES COB SELECTABLE Ø55MM

Model Name	Power/lm	LES	CCT	CRI	SVM
ISE-ER-OBDC-2000	16W - 1200lm	022	2700-6500K	97Ra	0.3
ISE-ER-OBDC-2000	26W - 2400lm	022	2700-6500K	97Ra	0.3



## COMPANY PROFILE

Founded in 2009, Shenzhen LEDMY CO.,Ltd is a leading comprehensive LED lighting manufacturer integrating R&D, production and sales with quality led lighting source as our core, providing customized lighting solutions and professional services. After years of development, Ledmy has become a highly competitive LED linear lighting brand and enjoys a good reputation at home and abroad.



abroad. The new LEDMY Industrial Park with 60,000 square meters have officially put into production in Jiangmen City in 2023. As one of the most professional manufacturers for LED Strip in China, we are qualified for ISO9001, UL, UKCA, CE, ROHS, ErP, Reach certifications. With more stable quality, faster delivery, higher cost-effective, we have won high recognition and favor of many customers.

## GENERAL STRIP

### REGULAR OFFER

- LED type: 2835 / 3528 / 5050 SMD Color: 1800K-6500K, Tunable White, RGB, RGBW, RGBW+W, Digital Color
- IP rated: IP20/IP62/IP65/IP67/IP88
- Packaging: Standard packaging 5m reel, Long packaging 10/20/50m reel
- Soldering-free PCB, Good bending and twisting resistance, easy match to fast connector.



## HIGH VOLTAGE OFFER

### DC220V

- ULTRA-LONG 50m with one end power in 1 Stable constant current IC solution
- Power: 12W/M (3.66 W/ft)
- CRI: 90 (2835 LEDs)
- LED Qty: 120 LEDs/M, 36 LEDs/ft
- CCT/Color: 2700K - 6000K
- Lumens: 1380-1500lm/m, 421-457lm/ft
- Length/Reel: 5M/50M, 16.41/164.04ft



## ENERGY SAVING 20% OFFER

Better than standard strip lights. Save electricity and reduce carbon emissions.

- 64 LEDs:** Power 3.6W/M, CRI 90, CCT/Color 2700K - 6500K, Lumens 445-475lm/m, Length/Reel 5m
- 128 LEDs:** Power 7.2W/M, CRI 90, CCT/Color 2700K - 6500K, Lumens 1355-1400lm/m, Length/Reel 5m
- 192 LEDs:** Power 11W/M, CRI 90, CCT/Color 2700K - 6500K, Lumens 1845-1920lm/m, Length/Reel 5m
- 240 LEDs:** Power 15W/M CRI 90, CCT/Color 2700K - 6500K, Lumens 2400-2500lm/m, Length/Reel 5m



## ULTRA-LONG OFFER

Better than standard strip lights. Save electricity and reduce carbon emissions.

- 24V Ultra-Long: One end powered. Up to 50M
- 48V Ultra-Long: One end powered. Up to 100M



## CUT-FREE OFFER

Free cutting, meets flexible length demands.

A	COB Strip, Cut-free	Length: 50m
B	LED Strip, 1 LED /cut	Length: 50m
C	Spotless strip, 1 LED /cut	Length: 50m
D	NEON 360°, Cut-free	Length: 50m

## CUT-LESS OFFER

Milky appearance, spotless lighting effect

A	COB Strip, Cut-free	Length: 50m
B	LED Strip, 1 LED /cut	Length: 50m
C	Spotless strip, 1 LED /cut	Length: 50m
D	NEON 360°, Cut-free	Length: 50m

## SPOTLESS SERIES

- Milky appearance, spotless lighting effect
- Free cut/mini cut
- Stronger bracket
- Larger beam angle 180°
- ErP Qualified SDCM 5

## 2216+ PLUS SERIES

- Stronger Bracket
- Higher lighting efficiency, up to 113LM/W.
- ErP qualified, Grade F.
- PCB Min. 3mm.



**NEON STRIP SERIES**

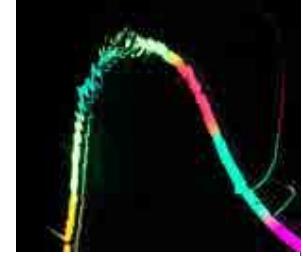
**Legend:** ● White ● Tunable ● CCT ● RGBW ● Colorful

**TOP BENDING**

Dimension	Colour	Voltage   Power
10x10mm	●	24V/14W
10x10mm	● ● ●	24V/14W
13x7mm	● ●	24V/18W
16x16mm	● ●	24V/16W
16x16mm	● ● ●	24V/19W
16x16mm	● ● ●	24V/16W
16x16mm	● ● ●	24V/19W
16x16mm	● ● ●	24V/16W
16x16mm	● ● ●	24V/19W
16x16mm	● ● ●	24V/16W
16x16mm	● ● ●	24V/19W
16x20mm	● ● ●	24V/12W
16x20mm	● ● ●	24V/14W
20x20mm	● ● ●	24V/14W
20x20mm	● ● ●	24V/16W

**SIDE BENDING**

Dimension	Colour	Voltage   Power
6x12mm	●	24V/10W
6x12mm	● ● ●	24V/10W
8x16mm	● ●	24V/12W
8x16mm	● ●	24V/12W
10x18mm	● ●	24V/14W
10x18mm	● ●	24V/19W
10x18mm	● ●	24V/14W
10x18mm	● ●	24V/14W
10x18mm	● ●	24V/14W
12x20mm	● ●	24V/12W
12x20mm	● ●	24V/14W

**MINI NEON**

Dimension	Colour	Voltage   Power
3x8mm	●	24V/6W
4x8mm	●	24V/6W
4x10mm	●	24V/10W
4x10mm	● ●	24V/10W
6x6mm	●	24V/8W

**LONG-RUN NEON**

Dimension	Colour	Voltage   Power
6x12mm	●	24V/5W
10x18mm	●	24V/10W
10x18mm	● ●	24V/10W
12x20mm	●	24V/10W
16x16mm	●	24V/6W/10W/15W
16x16mm	● ●	24V/6W/12W

**FLEXIBLE WALL WASHER SERIES**

**Legend:** White Tunable CCT RGB RGBW Digital Colorful

**MODULE WALL WASHER 30X21MM**

Name	Dimension	Colour	Voltage	Power
20LEDS/M	30x21mm		24V/36W	
20LEDS/M	30x21mm		24V/36W	

**SPOTLESS WALL WASHER 24X20MM**

Name	Dimension	Colour	Voltage	Power
60LEDS/M	24x20mm		24V/19W	
70LEDS/M	24x21mm		24V/20W	
70LEDS/M	24x21mm		24V/20W	

**MINI WALL WASHER 10X07MM**

Name	Dimension	Colour	Voltage	Power
56LEDS/M	10x7mm		24V/14W	
56LEDS/M	10x7mm		24V/19W	

**MINI WALL WASHER 12X8MM**

Name	Dimension	Colour	Voltage	Power
56LEDS/M	12x8mm		24V/14W	
28LEDS/M	12x8mm		24V/14.4W	
28LEDS/M	12x8mm		24V/19W	

**MINI WALL WASHER 20X10MM**

Name	Dimension	Colour	Voltage	Power
24LEDS/M	20x10mm		24V/18W	
24LEDS/M	20x10mm		24V/18W	

**RAINBOW SERIES 27X16MM**

Name	Dimension	Colour	Voltage	Power
24LEDS/M	27x16mm		24V/24W	
24LEDS/M	27x16mm		24V/20W	

**Legend:** W = Washing Height | D = Installation Distance



Name	Dimension	Colour	Voltage	Power
56LEDS/M	12x8mm		24V/14W	
28LEDS/M	12x8mm		24V/14.4W	



Name	Dimension	Colour	Voltage	Power
24LEDS/M	27x16mm		24V/24W	
24LEDS/M	27x16mm		24V/20W	

## COMPANY PROFILE

Lextar Electronics Corporation is a global leader in LED (Light Emitting Diode) solutions, characterized by a strategic ability to integrate upper stream epitaxial, middle stream chip, downstream package and LED lighting applications. Founded in May 2008, Lextar is a subsidiary of AU Optronics, the leading TFT-LCD and solar PV manufacturer. With over 1,500 patents worldwide, Lextar is an innovator of product applications, which include: LCD backlights, luminaire,

and various lighting solutions. To further extend its market advantage, Lextar acquired LightHouse Technology Inc. in March 2010, and well power Optronics in February 2013. It currently has three manufacturing plants in Taiwan and two in Suzhou China. Covering a land area of over 240,000 square meters, the facility was officially launched for production in 2012 and today, it has become Lextar's biggest LED production base in mainland China.

COB VER.5 E SOLAR

Model	Power	CCT	CRI	Beam	Luminous Flux	Forward Voltage	Forward Current	Package
	ANSI 3 SDCM	Min	29½	Typ	Typ	Typ	Max	Size mm
PB06H09 V2 (15W Max)	6W	2700-6500K	90	120°	989LM	34V	180mA	450mA 13.5x13.5 LES9.8
PB06U10 V1 (15W Max)	6W	2700-6500K	90	120°	831LM	34V	180mA	450mA 13.5x13.5 LES9.8
PB06V11 V0 (23W Max)	6W	2700-6500K	97 Typ (F9>90)	120°	755LM	34V	180mA	450mA 13.5x13.5 LES9.8
PB09H01 V1 (23W Max)	9W	2700-6500K	80	120°	1467LM	34V	270mA	675mA 13.5x13.5 LES9.8
PB09U02 V1 (23W Max)	9W	2700-6500K	90	120°	1232LM	34V	270mA	675mA 13.5x13.5 LES9.8
PB09V03 V0 (23W Max)	9W	2700-6500K	97 Typ (F9>90)	120°	1121LM	34V	270mA	675mA 13.5x13.5 LES9.8
PB13H01 V1 (30W Max)	12W	2700-6500K	80	120°	1908LM	34V	360mA	900mA 13.5x13.5 LES9.8
PB13U02 V1 (30W Max)	12W	2700-6500K	90	120°	1603LM	34V	360mA	900mA 13.5x13.5 LES9.8
PB13V03 V0 (37W Max)	12W	2700-6500K	97 Typ (F9>90)	120°	1458LM	34V	360mA	900mA 13.5x13.5 LES9.8
PB16H01 V1 (37W Max)	15W	2700-6500K	80	120°	2513LM	34V	450mA	1125mA 19.0x19.0 LES14.5
PB16U02 V1 (37W Max)	15W	2700-6500K	90	120°	2111LM	34V	450mA	1125mA 19.0x19.0 LES14.5
PB16V03 V0 (37W Max)	15W	2700-6500K	97 Typ (F9>90)	120°	1920LM	34V	450mA	1125mA 19.0x19.0 LES14.5

COB Tunable White version also available on request.  
Superwarm CCTs available on request

COB VER.5 E SOLAR

Model	Power	CCT	CRI	Beam	Luminous Flux	Forward Voltage	Forward Current	Package
	ANSI 3 SDCM	Min	29½	Typ	Typ	Typ	Max	Size mm
PB19H01 V1 (45W Max)	18W	2700-6500K	90	120°	2985LM	34V	540mA	1350mA 19.0x19.0 LES14.5
PB19U02 V1 (45W Max)	18W	2700-6500K	90	120°	2508LM	34V	540mA	1350mA 19.0x19.0 LES14.5
PB19V03 V0 (45W Max)	18W	2700-6500K	97 Typ (F9>90)	120°	2281LM	34V	540mA	1350mA 19.0x19.0 LES14.5
PB26H01 V1 (59W Max)	24W	2700-6500K	80	120°	3908LM	34V	720mA	1800mA 19.0x19.0 LES14.5
PB26U02 V1 (59W Max)	24W	2700-6500K	90	120°	3322LM	34V	720mA	1800mA 19.0x19.0 LES14.5
PB26V03 V0 (59W Max)	24W	2700-6500K	97 Typ (F9>90)	120°	2986LM	34V	720mA	1800mA 19.0x19.0 LES14.5
PB38H01 V1 (89W Max)	36W	2700-6500K	80	120°	6034LM	34V	1080mA	2700mA 28.0x28.0 LES22.0
PB38U02 V1 (89W Max)	36W	2700-6500K	90	120°	5069LM	34V	1080mA	2700mA 28.0x28.0 LES22.0
PB38V03 V0 (89W Max)	36W	2700-6500K	97 Typ (F9>90)	120°	4610LM	34V	1080mA	2700mA 28.0x28.0 LES22.0
PB54H01 V0 (140W Max)	55W	2700-6500K	97 Typ (F9>90)	120°	8550LM	51.1V	1080mA	2760mA 28.0x28.0 LES22.0
PB54V02 V0 (140W Max)	55W	2700-6500K	97 Typ (F9>90)	120°	7268LM	51.1V	1080mA	2760mA 28.0x28.0 LES22.0
PB54V03 V0 (140W Max)	55W	2700-6500K	97 Typ (F9>90)	120°	6413LM	51.1V	1080mA	2760mA 28.0x28.0 LES22.0

COB Tunable White version also available on request

## LOW-MID POWER 1

Model	Power	cct	CRI	Beam	Luminous Forward Flux	Forward Voltage	Forward Current	Package
ANSI 3 o 5 SDCM Min 20° Typ 20° Max								
PC20H01 V0	0.2W (0.35W Max)	2700-6500K	80	120°	31LM	2.95V	65mA	100mA 2.2x16x0.55
PC20U06 V0	0.2W (0.35W Max)	2700-6500K	90	120°	27LM	2.95V	65mA	100mA 2.2x16x0.55
PC35H12 V0	0.2W (0.25W Max)	2700-6500K	80	120°	29LM	3.00V	60mA	80mA 3.5x2.8x0.65
PC35H11 V3	0.2W (0.55W Max)	2700-6500K	80	120°	36LM	2.8V	65mA	180mA 3.5x2.8x0.65
PC35U16 V0	0.2W (0.55W Max)	2700-6500K	90	120°	29LM	2.95V	65mA	180mA 3.5x2.8x0.65
PC30H08 V1	0.2W (0.45W Max)	2700-6500K	80 <sup>(2)</sup>	120°	31LM	2.95V	65mA	150mA 3.0x1.4x0.65
PC30H08 V4	0.2W (0.3W Max)	2700-6500K	80	120°	31LM	2.95V	65mA	100mA 3.0x1.4x0.65
PC30U12 V1	0.2W (0.45W Max)	2700-6500K	90	120°	29LM	2.95V	65mA	150mA 3.0x1.4x0.65
PC38H01 V0	0.057W (0.10W Max)	2700-6500K	80	120°	9.5LM	2.95V	20mA	30mA 3.8x0.6x1.0
PC38U02 V0	0.057W (0.10W Max)	2700-6500K	90	120°	8.0LM	2.95V	20mA	30mA 3.8x0.6x1.0
PC40H03 V0	0.18W (0.25W Max)	2700-6500K	80	120°	31LM	3.05V	60mA	80mA 4.0x1.4x0.65
PC33H51 V1	0.2W (0.6W Max)	2700-6500K	80	120°	30.7LM	2.95V	65mA	200mA 3.2x3.0x0.65
PC33U55 V1	0.2W (0.6W Max)	2700-6500K	90	120°	28.25LM	2.75V	65mA	200mA 3.2x3.0x0.65
PC33H61 V0	1.2W (1.7W Max) 1.3W (1.6W Max)	2700-6500K	80	120°	145LM	48V	25mA	35mA 3.2x3.0x0.65
PC33U62 V0	1W (1.3W Max)	2700-6500K	80	120°	155LM	32V	40mA	50mA 3.2x3.0x0.6
PC33H11 V2	1W (1.3W Max)	2700-6500K	90	120°	105LM	6.2V	150mA	200mA 3.2x3.0x0.6
PC33U06 V3	2700-6500K	90	120°	105LM	6.2V	150mA	200mA	3.2x3.0x0.6

## LOW-MID POWER 2

Model	Power	cct	CRI	Beam	Luminous Forward Flux	Forward Voltage	Forward Current	Package
ANSI 3 o 5 SDCM Min 20° Typ 20° Max								
PC56H19 V0	0.2W (0.5W Max)	2700-6500K	80	120°	30.75LM	2.95V	65mA	180mA 5.6x3.0x0.65
PC56U21 V0	0.2W (0.5W Max)	2700-6500K	90	120°	28.25LM	2.95V	65mA	180mA 5.6x3.0x0.65
PC56H14 V0	0.45W (0.77W Max)	2700-6500K	80	120°	60LM	22V	20mA	35mA 5.6x3.0x0.65
PC55N13 V0	5.5W (8.5W Max)	2700-6500K	70	120°	800LM	36.8V	150mA	240mA 5.8x5.2x0.7
PC55N13 V1	5.5W (8.5W Max)	2700-6500K	70	120°	800LM	18.5V	300mA	480mA 5.8x5.2x0.7
PC55N13 V2	5.5W (8.5W Max)	2700-6500K	70	120°	800LM	12.5V	450mA	720mA 5.8x5.2x0.7
PC55H10 V0	5.5W (8.5W Max)	2700-6500K	80	120°	735LM	36.8V	150mA	240mA 5.8x5.2x0.7
PC55H10 V1	5.5W (8.5W Max)	2700-6500K	80	120°	690LM	18.1V	300mA	480mA 5.8x5.2x0.7
PC55H10 V2	5.5W (8.5W Max)	2700-6500K	80	120°	735LM	12.3V	450mA	720mA 5.8x5.2x0.7
PC55N17 V0	5.5W (7.4W Max)	2700-6500K	70	120°	880LM	36.8V	150mA	200mA 5.0x5.0x0.7
PC55N17 V1	5.5W (7.4W Max)	2700-6500K	70	120°	880LM	18.5V	300mA	400mA 5.0x5.0x0.7
PC55N17 V2	5.5W (7.4W Max)	2700-6500K	70	120°	880LM	12.5V	450mA	600mA 5.0x5.0x0.7
PC50X41 VY	0.2W (0.3W Max)	RGB	-	120°	(1)	(1)	20mA	30mA 5.0x5.0x1.6
PC50X01 V0	0.9W (1.1W Max)	RGB	-	120°	(1)	(1)	100mA	120mA 5.4x5.2x0.7
PC50X02 V0	1.9W (1.9W Max)	RGBWW	-	120°	(1)	(1)	100mA	125mA 5.4x5.0x1.6

<sup>(1)</sup> Values can change in accordance with the different colors<sup>(2)</sup> Solar™ version also available<sup>(1)</sup> Values can change in accordance with the different colors

## COMPANY PROFILE

Nichia has quickly grown in the field of manufacturing and sales of fine chemicals, and particularly inorganic luminescent materials (phosphors). In its endless pursuit of brighter luminescent and light-emitting materials, it succeeded in developing and marketing its super high brightness Blue LED in 1993, stunning the sector's global markets with its brilliance. Since Blue LED was first announced to the world in 1993, Nitride-based LEDs in different emission colors, ranging



from Ultraviolet to yellow have been contributing to the diversification of LED application fields. In addition to LEDs, many resources are now being focused on the R/D of bluish purple laser diodes, which will definitely play a key role for the further expansion of the information media industry. Nichia believes that Nitride-based Semiconductors will become one of the most exciting areas of the semiconductor industry in the near future.

### LOW-MID POWER



### HIGH POWER

Model	Power	CCT	CRI	Beam	Luminous Forward Flux	Forward Current	Package			Forward Voltage	Luminous Forward Flux	Forward Current	Package
							ANSI 3 SDCM	Min	2θ½				
NSSxT02A-V2	0.2W (0.4W Max)	2700-6500K	80 <sup>(2)</sup>	180°	29.5LM	2.94V	65mA	130mA	1220°	700 mA	1.7x1.7x0.35	1.7x1.7x0.35	
NF2W757G-MT	0.2W (0.5W Max)	Tunable	80 <sup>(2)</sup>	120°	32 lm / 31LM	2.84V	65mA	180mA	3.0x3.0x0.75	700 mA	1.7x1.7x0.27	1.7x1.7x0.27	
Nxx757G	0.3W (0.5W Max)	Colored	/	120°	(1)	(1)	(1)	*	3.0x3.0x0.65	700 mA	2.1x2.1x0.27	2.1x2.1x0.27	
NFSx757G-P5V1	0.2W (0.5W Max)	2000-6500K	80 <sup>(3)</sup>	120°	34.05LM	2.89V	65mA	180mA	3.0x3.0x0.65	1800 mA	3.65x3.65x0.73	3.65x3.65x0.73	
NFSW757G-P5H5	0.2W (0.5W Max)	2700-6500K	8020	120°	34.20LM	2.89V	65mA	180mA	3.0x3.0x0.65	1800 mA	3.5x3.5x2.0	3.5x3.5x2.0	
NF2x757GR-V4	0.95W (1.2W Max)	2700-6500K	80 <sup>(1)(3)</sup>	120°	148.5LM	6.2V	150mA	200mA	3.0x3.0x0.65	1500 mA	3.5x3.5x2.0	3.5x3.5x2.0	
NF2W757H-F1	0.2W (0.5W Max)	2000-6500K	80 <sup>(1)(3)</sup>	120°	147LM	6.2V	150mA	200mA	3.0x3.0x0.65	1800 mA	3.5x3.5x2.0	3.5x3.5x2.0	
NFSW757H-V1	0.2W (0.5W Max)	2000-6500K	80 <sup>(1)</sup>	120°	36.75	2.84V	65mA	180mA	3.0x3.0x0.8	1800 mA	3.5x3.5x2.3	3.5x3.5x2.3	
NF2W757H-V2F1	0.2W (0.5W Max)	2000-6500K	80 <sup>(1)</sup>	120°	37.55LM	2.72V	65mA	180mA	3.0x3.0x0.8	2000 mA	3.5x3.5x2.1	3.5x3.5x2.1	
NF2W757H-V2H5	0.2W (0.5W Max)	2700-6500K	8050	120°	38.25LM	2.71V	65mA	180mA	3.0x3.0x0.8	2000 mA	3.5x3.5x2.35	3.5x3.5x2.35	
NFSW757H-V2H5	0.2W (0.5W Max)	2700-6500K	8020	120°	37.8LM	2.82V	65mA	180mA	3.0x3.0x0.8	2000 mA	4.0x4.0x2.3	4.0x4.0x2.3	
NFSW757H-V1H6	0.2W (0.5W Max)	2700-6500K	9050	120°	36.05LM	2.8V	65mA	180mA	3.0x3.0x0.8	3000 mA	5.0x5.0x3.15	5.0x5.0x3.15	
NV9W149AM	19W (27 W Max)						5000-5600 K	80 <sup>(3)</sup>	130°	2720 lm	9.0 V	2100 mA	3000 mA
NV9W149AM	19W (27 W Max)						2700-5500 K	80 <sup>(3)</sup>	120°	192.5 lm	5.97 V	1400 mA	3000 mA

<sup>(1)</sup>Values can change in accordance with the different colors  
Also available: <sup>(1)</sup>CRI > 70 / <sup>(2)</sup>CRI > 70; <sup>(3)</sup>CRI > 90 R9>50; <sup>(4)</sup>CRI > 95 / CRI > 95;<sup>(5)</sup>Optisolis™ version also available

<sup>(1)</sup>Also available: <sup>(1)</sup>CRI > 70 / <sup>(2)</sup>CRI > 70; <sup>(3)</sup>CRI > 90 R9>50 / CRI > 90 R9>50; <sup>(4)</sup>CRI > 95; <sup>(5)</sup>Optisolis™ version also available

<sup>(1)</sup>Values can change in accordance with the different colors  
Also available: <sup>(1)</sup>CRI > 70 / <sup>(2)</sup>CRI > 70; <sup>(3)</sup>CRI > 90 R9>50; <sup>(4)</sup>CRI > 95 / CRI > 95;<sup>(5)</sup>Optisolis™ version also available

COB-B								
Model	Power	CCT	CRI	Beam	Luminous Flux	Forward Voltage	Forward Current	Package
	ANSI 3 SDCM	Min	20%	Typ	Typ	Typ	Max	Size mm
NFCWU024B-V5	4.5W (13.5W Max)	2200-6500K	80	120°	835lm	33.6V	135mA	400mA 15x12x2 LES6.7
NFCWU036B-V5	9W (20.5W Max)	2200-6500K	80	120°	1615lm	34.4V	260mA	600mA 19x16x2 LES8.7
NFCWU060B-V5	16W (35W Max)	2200-6500K	80	120°	2855lm	34.5V	460mA	1000mA 19x16x2 LES11.5
NFCWU108B-V5	30W (62.5W Max)	2200-6500K	80	120°	5270lm	34.6V	860mA	1800mA 24x19x2 LES14.6
NFDWU130B-V5	44W (76.5W Max)	2200-6500K	80	120°	7495lm	38.3V	1150mA	2000mA 24x19x2 LES14.6

Optisolis™, CRI > 70, > 90 R9>50 and CRI > 95 R9>80 also available. COB Tunable White version also available

COB-Z-V1								
Model	Power	CCT	CRI	Beam	Luminous Flux	Forward Voltage	Forward Current	Package
	ANSI 3 SDCM	Min	20%	Typ	Typ	Typ	Max	Size mm
NVNWS007Z-V1	12W (31W Max)	2200-6500 K	80	120°	1680 lm	20.6 V	580 mA	1500 mA 15x12x2 LES5.9
NJCWU024Z-V1	18W (46W Max)	2200-6500 K	80	120°	2310 lm	36.0 V	500 mA	1280 mA 19x16x2 LES7
NVEWU016Z-V1	28.2W (70.5W Max)	2200-6500 K	80	120°	3915 lm	47.0 V	600 mA	1500 mA 19x16x2 LES8.9
NVCWU024Z-V1	42.5W (106.5W Max)	2200-6500 K	80	120°	5970 lm	35.5 V	1200 mA	3000 mA 19x16x2 LES11
NVEWU048Z-V1	84.5W (155W Max)	2200-6500 K	80	120°	11765 lm	47.0 V	1800 mA	3300 mA 24x19x2 LES14.6

Optisolis™, CRI > 70, > 90 R9>50 and CRI > 95 R9>80 also available.  
COB Tunable White version also available

#### SMD HIGH POWER HIGH VOLTAGE



NFCWU0484AR

Model	Power	CCT	CRI	Beam	Luminous Flux	Forward Voltage	Forward Current	Package
	ANSI 3 SDCM	Min	20%	Typ	Typ	Typ	Max	Size mm
NFCWU0484AR	4.6W (5.7W Max)	2000-6500K	80	120°	625lm	22.9V	200mA	250mA 6.5x5.8x0.8
NFCWU0484AR	6.5W (8.2W Max)	2000-6500K	80	120°	885lm	32.8V	200mA	250mA 6.5x5.8x0.8
NFCWU0486AR	7.8W (9.8W Max)	2000-6500K	80	120°	1045lm	39.3V	200mA	250mA 6.5x5.8x0.8
NFCWU0488AR	9.2W (11.5W Max)	2000-6500K	80	120°	1215lm	45.9V	200mA	250mA 6.5x5.8x0.8

CRI > 90 R9>50 version also available

#### NICHIA RGB PACKAGE



NESM180A<sup>(1)</sup>

Model	Power	CCT	CRI	Beam	Luminous Flux	Forward Voltage	Forward Current	Package
	ANSI 3 SDCM	Min	20%	Typ	Typ	Typ	Max	Size mm
NESM180A <sup>(1)</sup>	0.14W (0.23W Max)	R - G - B	-	120°	280-440-45	2.1-3.5- 2.9V	10-10-20 mA	1.8x1.8x0.85
NSSM016G <sup>(3)</sup>	0.17W (0.3W Max)	R - G - B	-	120°	780-1720-410	2.1-3.2- 3.2V	20-20-20 mA	5.5x5.5x2.5
NSSM032A <sup>(2)</sup>	0.17W (0.34W Max)	R - G - B	-	120°	430 mcd	3.1V	20-20-20 mA	4.5x4.0x2.7
NSSM038A	0.17W (0.34W Max)	R - G - B	-	120°	550-1100-240	2.2-3.2- 3.2V	20-20-20 mA	4.7x1.5x1.2
NSSM124F	0.17W (0.3W Max)	R - G - B	-	120°	530 mcd	2.9V	20-20-20 mA	3.3x3.0x0.75
NSSM240A	0.17W (0.34W Max)	R - G - B	-	120°	840-2700	2.2-3.3- 2.9V	20-20-20 mA	2.4x2.4x0.6
NSSM225A <sup>(3)</sup>	0.17W (0.3W Max)	R - G - B	-	120°	760-2000- 420 mcd	2.2-3.2- 3.2V	20-20-20 mA	3.2x3.2x1.8
NSSM227A <sup>(2)</sup>	0.17W (0.3W Max)	R - G - B	-	120°	850-2000- 400 mcd	2.2-3.2- 3.2V	20-20-20 mA	3.2x3.2x1.8

<sup>(1)</sup> Black Package and Lens <sup>(2)</sup> Black Package <sup>(3)</sup> Black Surface

# OPTICAL MANAGEMENT



## COMPANY PROFILE



**HERCULUX**  
LED Optics

**COMPANY PROFILE**

**LEDil®** products and solutions bring out the best in lighting. It offers a wide range of high-quality standard products and custom solutions that meet the needs and requirements of lighting and electronic manufacturers. Its wide standard product range of over 1800 products includes lenses, and reflectors and their

combinations for various LED lights. With a global network of distributors and free of charge technical support to all customers LEDil provides the most competitive solutions available today.

**LEDil®**

**SINGLE LENSES**

BILLIE, CARMEN-50, CARMEN-70, CRYSTAL, EMERALD, EMILY, EMMA, EVA, FLARE, GABRIELLA, GERI, HEIDI, HELENA, IRENE, IRIE, JULIA, KIKI, LARISA, LAURA-G2, LAURA, LEIA, LEILA-G2, LEILA, LISA, MIRTA, MOLLY, OLGA, OLYVIA, REXX, RONDA, ROSE, SAGA, SAKURA, SEANNA, SIRI, SPUTNIK, SURI, STRADA-S, TINA, TITANUM, TWIDDLE, VERONICA, VENIA, WINNIE, ZORYA, ZOWIE

**REFLECTORS**

ALISE, ANGELA, ANGELETTE, ANGELINA, BARBARA, BLONDIE, BOOM, BRIDGET, BROOKE, ELISE, ELLA, LENA, LENINA, MINNIE, MIRELLA, REGINA, RITA, TYRA, VENIA

**MULTI-LENS ARRAYS**

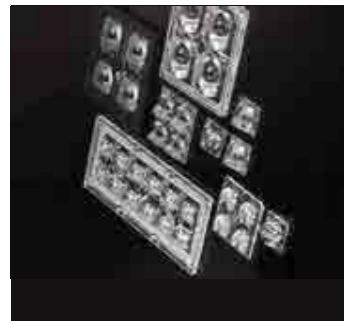
ANGIE, ANNA, CUTE, FLORENTINA, GT3, GT4, IDA, LUCIA, MARTHA, MELODY, PETUNIA, QUAK, SANDRA, SATU, TAMPA, TUJA, VICTORIA, VIRPI

**MULTI-LENS ARRAYS**

JENNY, SITARA, STELLA, STRADA, STRADELLA, TATIANA

**LINEAR LENSES**

ANGIE, ANNA, CUTE, FLORENTINA, GT3, GT4, IDA, LUCIA, MARTHA, MELODY, PETUNIA, QUAK, SANDRA, SATU, TAMPA, TUJA, VICTORIA, VIRPI  
CLAUDIA, DAHLIA, DAISY, FLORENCE, LILIAN, LINDA, LINNEA, SHELLY, VANESSA

**LINEAR LENSES****LINEAR LENSES**

HB

PRODUCT FAMILIES  
SUGGESTED  
APPLICATIONS

	OUTDOOR	INDOOR
ALISE	•	•
ANGELA / ANGELETTIE / ANGELINA	•	•
ANGIE	•	•
ANNA	•	•
BARBARA	•	•
BILLIE	•	•
BOOM	•	•
BRIDGET	•	•
BROOKE	•	•
CARMEN	•	•
CLAUDIA	•	•
CRYSTAL	•	•
CUTE	•	•
DAISY	•	•
DAHLIA	•	•
ELISE	•	•
ELLA	•	•
EMERALD	•	•
EMILY	•	•
EMMA	•	•
EVA	•	•
FLARE	•	•
FLORENCE-1R	•	•
FLORENCE (3R)	•	•
FLORENCE-3R-IP	•	•
FLORENTINA (12X1)	•	•
FLORENTINA-1,-2X2,-4X1	•	•
GABRIELLA	•	•
GERI	•	•
GT3 / GT4	•	•
HB-SQ	•	•
HB-2X2	•	•
HB-IP-2X6	•	•
HB-2X2MX / MXS	•	•
HEIDI	•	•
HELENA	•	•
IDA	•	•
ILONA	•	•
IFENE	•	•
IRIE	•	•
IRIS	•	•
JENNY	•	•
JULIA	•	•
KIKI	•	•
LARISA	•	•
LAURA	•	•
LEIA	•	•
LEILA	•	•
LENIA LENINA	•	•
LILIAN	•	•
LINDA	•	•
LINNEA	•	•
LISA	•	•

**PRODUCT FAMILIES  
& SUGGESTED  
APPLICATIONS**

	INDOOR	OUTDOOR
MENNIE	•	•
MIRA	•	•
MIRELLA	•	•
MOLLY	•	•
OLGA	•	•
OLIVIA	•	•
RGENX	•	•
RITA	•	•
RONDA	•	•
ROSE	•	•
SAGA	•	•
SAKURA	•	•
SANDRA	•	•
SATU	•	•
SEANNA	•	•
SHELLY	•	•
SIRI	•	•
SITARA	•	•
SPORT2X2	•	•
STELLA	•	•
STRADA (single)	•	•
STRADA-SQ	•	•
STRADA-2X2	•	•
STRADA-2X2GSP	•	•
STRADA-2X2-5050	•	•
STRADA-IP-216	•	•
STRADA-IP-8MX	•	•
STRADA-IP-16MX	•	•
STRADA-2X2MX/MXS	•	•
STRADA-6X1	•	•
STRADELLA(single) -8	•	•
STRADELLA-16	•	•
STRADELLA-IP-16	•	•
STRADELLA-IP-28/64	•	•
SURI	•	•
TAMPA	•	•
TATIANA	•	•
TINA	•	•
TITANIUM	•	•
TULIA	•	•
TWIDDLE	•	•
VANESSA	•	•
VENIA	•	•
VERONICA	•	•
VICTORIA	•	•
VIOLET	•	•
VIRPI	•	•
WINNIE	•	•
YASMEEN	•	•
ZORYA-MINI	•	•

# LED DRIVER & CONTROLLER



## COMPANY PROFILE

**Eldoled** is a world leader in the design and manufacture of intelligent drive solutions for LED based lighting systems. Its technologies empower our customers to deliver the promise of LED lighting: smarter, sleeker and more efficient systems

your product | our drive  
Eldoled

### ECODRIVE

Premium performance for general lighting. Smooth and flicker-free dimming down to 1% with programmable current setting.

Natural Dimming	Current	Power Levels	Application
Dim to 1%	Constant	DALI-2 or 0-10V controls	LEDCode for in-luminaire intelligence

### POWERDRIVE

Achieve more than the right color and the smoothest fade. POWERdrive is DMX and DALI compatible. In addition, it allows you to create your color or dynamic show without an external controller. POWERdrive's dynamic response allows you to fine-tune your application like no other drive!

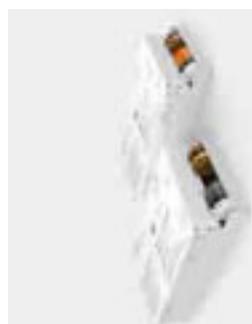
Natural Dimming	Current	Power Levels	Application
Dim to 1%	Constant	DMX/RDM or DALI controls	Application specific dynamic response



### SOLIDRIVE

The smoothest dimming all the way to dark. With any controller, in any application. What's more, LightShape allows you to tailor the dimming curve to perfectly match your lighting application.

Natural Dimming	Current	Power Levels	Application
Dim to Dark (0,1%)	Constant	DALI-2/0-10V controls, single channel	LEDCode for in-luminaire intelligence



### DUALDRIVE

The smoothest dimming all the way to dark. With any controller, in any application. What's more, LightShape allows you to tailor the dimming curve to perfectly match your lighting application.

Natural Dimming	Current	Power Levels	Application
Dim to Dark (0,1%)	Constant	DALI-2 controls, dual channel	LEDCode for in-luminaire intelligence



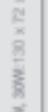
### LINEAR DRIVE

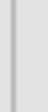
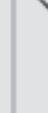
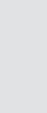
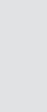
All the color you will ever need for low-voltage LED applications. LINEARdrive products cover applications from single colors for accent and cove lighting right up to RGBW for full-color entertainment product solutions. All industry control protocols are covered: DALI, DMX/RDM and 0-10V – you'll not run out of control options with LINEARdrive!

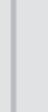
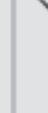
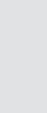
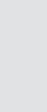
Natural Dimming	Current	Power Levels	Application
Dim to Dark (0,1%)	Constant	DALI-2/0-10V controls, single channel	LEDCode for in-luminaire intelligence



## FORM FACTOR OVERVIEW

<b>A</b>	 20W, single channel driver: 90 x 42 x 31 mm	 20W, dual channel driver: 90 x 42 x 31 mm	 100W, 388 x 42 x 30 mm	 POWERflow 40W, 90W, 100W (DC) produced: 103 x 50 x 23 mm	 COC driver 10W, 40W and 100W, 100W, 200W, 300W (DC) produced: 103 x 50 x 23 mm
<b>B</b>	 10W, 20W, 30W, 90W, 130 x 72 x 35 mm	 70W, 174 x 72 x 29 mm	 200W, 280 x 30 x 21 mm	 60W, 60W x 30 x 21 mm	

<b>L</b>	 30W, 50W, 300 x 30 x 20 mm	 20W dual channel driver: 104 x 42 x 31 mm
<b>M</b>	 20W, single channel driver: 120 x 42 x 31 mm	 100W, 120W, 370 x 42 x 30 mm
<b>S</b>	 10W, 20W, 30W, 130 x 70 x 30 mm	 80W, 130 x 70 x 30 mm
<b>U</b>	 10W, 20W, 30W, 130 x 72 x 35 mm	 100W, 230 x 80 x 30 mm

<b>L</b>	 30W, 50W, 300 x 30 x 20 mm	 20W dual channel driver: 104 x 42 x 31 mm
<b>M</b>	 20W, single channel driver: 120 x 42 x 31 mm	 100W, 120W, 370 x 42 x 30 mm
<b>S</b>	 10W, 20W, 30W, 130 x 70 x 30 mm	 80W, 130 x 70 x 30 mm
<b>U</b>	 10W, 20W, 30W, 130 x 72 x 35 mm	 100W, 230 x 80 x 30 mm

## LED DRIVER CERTIFICATI ENEC / ENEC CERTIFIED LED DRIVERS

		Constant current										Constant voltage												
		ECOdrive					SOLIDdrive					POWERdrive					LINEARdrive							
Form factor	Output power	A	M	L	S	U	A	M	L	S	U	A	M	L	S	U	A	M	R	S	U	A	M	S
10W																								
20W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
30W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
45W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
50W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
75W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
90W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
100W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
120W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
180W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
200W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
600W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
720W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	

- 0 - 10V
  - DMX
  - LEDcode2 only
  - DALI version-1
  - DALI Device Type 6 (DT6)
  - DALI-2 Device Type 8 (DT8)
  - PulseDimming
  - 6
  - 8
  - PD
- DC powered product (needs a separate power supply)  
 ■ LightShape: for Tunable White applications  
 ■ LightShape: for Dim to Warm applications

## LED DRIVER CERTIFICATI UL, CLASSE P / UL LISTED, CLASS P CERTIFIED LED DRIVERS

		Constant current						Constant voltage						
		POWERdrive			SOLOdrive			DUALdrive			POWERdrive			LINEARdrive
Form factor	B	L	S	U	B	L	S	U	B	L	S	U	R	s
20W	● 6 CA			● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA
30W	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA
50W	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA
75W	● 6 CA	● 6 CA	● 6 CA		● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	
100W					● 6 PD				● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	
600W									● 6 CA	● 6 CA	● 6 CA	● 6 CA	● 6 CA	

Output power

- 0 - 10V
- DMX
- LEDcode2 only
- DALI version-1
- DALI-2 Device Type 6 (DT6)
- DALI-2 Device Type 8 (DT8)
- PulseDimming
- CA CA Title 24 compliant (start-up time)
- DC powered product (needs a separate power supply)
- LightShape: for Tunable White applications
- LightShape: for Dim to Warm applications

LED DRIVER RICONOSCIUTI UL / UL RECOGNIZED LED DRIVERS

The figure is a 3D scatter plot illustrating the relationship between Output power, Constant current, and Constant voltage across different drive modes. The vertical axis represents Constant voltage (LINEARdrive, DUALdrive, SOLOdrive), the horizontal axis represents Output power (10W to 720W), and the depth axis represents Constant current (10W to 720W).

**Legend:**

- LINEARdrive:** Yellow spheres
- DUALdrive:** Red spheres
- SOLOdrive:** Green spheres
- ECOdrive:** Blue spheres

**Labels on Spheres:**

- CA:** Circles with a dot inside.
- TL:** Circles with a cross inside.
- 6:** Yellow circles with the number 6.
- 8:** Yellow circles with the number 8.

**Data Trends:**

- LINEARdrive:** Yellow spheres are primarily located in the higher constant voltage regions (DUALdrive/SOLOdrive) at lower output powers (10W-100W).
- DUALdrive:** Red spheres are scattered across the middle constant voltage range (SOLOdrive) at various output powers.
- SOLOdrive:** Green spheres are concentrated in the lower constant voltage region (ECOdrive) at higher output powers (100W-720W).
- ECOdrive:** Blue spheres are located in the lowest constant voltage region (ECOdrive) at the highest output powers (720W).
- Constant Current:** Most spheres have a 'CA' label, indicating they represent specific current settings.
- Constant Voltage:** Many spheres have a 'TL' label, indicating they represent specific voltage settings.
- Value Labels:** Some spheres are labeled with '6' or '8', likely representing specific parameter values.

0 - 10V  
DMX  
LEDcode2 only

DALI version-1  
DALI-2 Device T  
DALI-2 Device T  
PulseDimming

Type TI certification  
CA Title 24 compliant  
(start-up time)

- DC powered product (needs a separate power supply)
- LightShape: for Tunable White applications
- LightShape: for Dim to Warm applications

## LED DRIVER CERTIFICATI BIS / BIS CERTIFIED LED DRIVERS

		Constant current ECOdrive						SOLIDdrive						POWERdrive						Constant voltage LINEARdrive	
		A	B	M	L	S	A	B	M	L	S	A	L	S	U	A	M	S	U	A	
Form factor																					
20W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
30W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
50W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
100W							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
180W																					
200W																					
720W																					

## TISI certified LED drivers

## LED DRIVER CERTIFICATI TISI / TISI CERTIFIED LED DRIVERS

		Constant current ECOdrive						SOLIDdrive						DUALdrive							
		A	B	M	L	S	U	A	B	M	L	S	U	A	L	S	U	A	M	S	U
Form factor																					
20W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
30W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
50W		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

- 0 - 10V
- DMX
- LEDcode2 only
- DALI version-1
- DALI-2 Device Type 6 (DT6)
- DALI-2 Device Type 8 (DT8)
- DC powered product  
(needs a separate power supply)
- LightShape: for Tunable White applications
- LightShape: for Dim to Warm applications

## LED DRIVER CERTIFICATI PSE / PSE CERTIFIED LED DRIVERS\*

Constant current		Constant voltage	
ECOdrive	SOLOdrive	DUALdrive	POWERdrive
Form factor	A	A	A
15W	●		
30W	●	●	●
45W	●		●
50W	●	●	●
90W			
180W		●	●
200W		●	●
720W			●

\* Our DC drivers have an input voltage lower than 50V DC, therefore PSE certification is not required according to the official guide lines.

## LED DRIVER CERTIFICATI RCM / RCM CERTIFIED LED DRIVERS\*\*

Constant current		Constant voltage	
ECOdrive	SOLOdrive	DUALdrive	POWERdrive
Form factor	A	M	A
15W	●		
20W	●	●	●
30W	●	●	●
45W	●		
90W			
180W		●	●
200W		●	●
720W			●

\*\* For our DC drivers RCM certification is not required according to the official guide lines.

- DC powered product  
(needs a separate power supply)
  - LightShape: for Tunable White applications
  - LightShape: for Dim to Warm applications
- |               |                            |
|---------------|----------------------------|
| 0 - 10V       | DALI version-1             |
| DMX           | DALI-2 Device Type 6 (DT6) |
| LEDcode2 only | DALI-2 Device Type 8 (DT8) |
| PD            | PulseDimming               |

## COMPANY PROFILE

**Lifud** "Integrity, responsibility and dedication" are the values of Lifud Technology Co., Ltd, specialized in design and production of innovative LED drivers of the highest quality and reliability, intended for use in both outdoor and indoor lighting. Since its foundation in 2007 in Shenzhen, China, Lifud has strongly invested in research and development, establishing two R&D centers collaborating on electronic

technology research projects with leading Universities, such as Fuzhou and Southwest Jiaotong. Thanks to a policy focused on quality, Lifud has obtained the ISO9001: 2015 certification for quality management systems and ISO14001: 2015 certification for environmental management systems, thus guaranteeing excellent service always attentive to the needs of its customers.



## COMPANY PROFILE

Moso Power Supply Technology Co. is a national hi-and-new-tech/energy-saving enterprise supported by the National Twelfth Five-year Plan. It is also a professional power supply manufacturer with a far-ranging sphere of influence on a national level. Several years after its establishment in 2006, it managed to create a number of strategic partnerships with various fortune-500 companies worldwide. With technology and quality at the heart of the company, MOSO power Supply has also undertaken a number of industrial studies in collaboration with universities and colleges, in order to create the MOSO Power Supply Technology



Research Institute. This Institute has been recognized for the reliability and safety of its laboratories, which have set an example for the industry through its production and testing machinery. Among the machines, is a completely automated computer tester that has been used to develop the world-leading highly-efficient switching power supply products of MOSO and LED intelligent drivers for a number of categories. MOSO Power Supply has been granted more than one hundred national patents in just a few years time.

X6 / X7 / XCP / PHC / EHC / XUP / U6 / U7  
LCP / LSV / MNC / S6 SERIES

Model	Type	Input	Output	Power	Ambient Temperature	Dimming	Rating
X6	CC+CP	90-305 VAC	Current Programmable	36, 42, 60, 75, 100, 105, 150, 200, 240, 320, 600, 680, 800 W	-40°C ~ +60°C	0-10V PWM, Timing, DALI-2	IP65-If
X7	CC+CP	90-305 VAC	Current Programmable	75, 100, 150, 200, 240 W	-40°C ~ +60°C	0-10V PWM, Resistor	IP67
XCP	CC+CP	90-305 VAC	Current Programmable	75, 105, 150, 200, 240, 320 W	-40°C ~ +60°C	0-10V PWM, Timing	IP67
PHC	CC	90-305 VAC	Current Programmable	42, 60 W	-40°C ~ +60°C	0-10V PWM, Timing	IP67
EHC (CL I)	CC	108-305 VAC	0.35 ~ 1.05 A	26, 42, 60, 105, 150 W	-40°C ~ +60°C	NO	IP67
XUP							
U6							
U7							
LCP (CL II)	CC+CP	90-305 VAC	Current Programmable	75, 120, 150, 200, 240 W	-40°C ~ +60°C	0-10V PWM, Timing, DALI	IP67
LSV (CL I)	CV	90-305 VAC	12, 24, 36, 48 Vdc	35, 50, 75, 100, 150, 200, 264, 320 W	-40°C ~ +60°C	NO	IP67
LDC (CL I)	CC	90-305 VAC	0.5 ~ 1.20 A	42 W	-40°C ~ +60°C	1-10V	IP67
LUC (CL I)	CC	90-264 VAC	Current Programmable	19, 37 W	-40°C ~ +60°C	DALI	IP67
NEW (CL I)	CC	108-305 VAC	0.35 ~ 1.05 A	26, 42, 60, 105, 150 W	-40°C ~ +60°C	NO	IP67
NEW (CL II)	CC+CP	90-305 VAC	Current Programmable	26, 30, 35, 42, 60, 75, 105, 150, 200, 240, 320, 600 W	-40°C ~ +60°C	0-10V PWM, Timing	IP67
XCP	CC+CP	90-305 VAC	Current Programmable	75, 105, 150, 200, 240 W	-40°C ~ +60°C	0-10V PWM, Timing	IP67
PHC	CC	90-305 VAC	Current Programmable	42, 60 W	-40°C ~ +60°C	0-10V PWM	IP67
MNC							



LDP / LUP / LCP / LHP / LSV / LDC / LUC /  
EHC / X6 / XCP / PHC SERIES

Model	Type	Input	Output	Power	Ambient Temperature	Dimming	Rating
LDP (CL I)	CC+CP	90-305 VAC	Current Programmable	42, 60, 75, 105, 120, 150, 200, 240, 320 W	-40°C ~ +60°C	1-10V, PWM, Timing, DALI	IP67
LUP (CL I)	CC+CP	90-305 VAC	Current Programmable	75, 120, 150, 200, 240 W	-40°C ~ +60°C	0-10V, PWM, Timing, DALI	IP67
LCP (CL II)	CC+CP	90-305 VAC	Current Programmable	75, 120, 150, 200, 240 W	-40°C ~ +60°C	0-10V, PWM, Timing, DALI	IP67
LHP (CL I)	CC+CP	VAC	249-528 Vdc	60, 105, 150, 200 W	-40°C ~ +60°C	1-10V, PWM, Timing	IP67
LSV (CL I)	CV	90-305 VAC	12, 24, 36, 48 Vdc	35, 50, 75, 100, 150, 200, 264, 320 W	-40°C ~ +60°C	NO	IP67
LDC (CL I)	CC	90-305 VAC	0.5 ~ 1.20 A	42 W	-40°C ~ +60°C	1-10V	IP67
LUC (CL I)	CC	90-264 VAC	Current Programmable	19, 37 W	-40°C ~ +60°C	DALI	IP67
NEW (CL I)	CC	108-305 VAC	0.35 ~ 1.05 A	26, 42, 60, 105, 150 W	-40°C ~ +60°C	NO	IP67
NEW (CL II)	CC+CP	90-305 VAC	Current Programmable	26, 30, 35, 42, 60, 75, 105, 150, 200, 240, 320, 600 W	-40°C ~ +60°C	0-10V, PWM, Timing	IP67
XCP	CC+CP	90-305 VAC	Current Programmable	75, 105, 150, 200, 240 W	-40°C ~ +60°C	0-10V, PWM, Timing	IP67
PHC	CC	90-305 VAC	Current Programmable	42, 60 W	-40°C ~ +60°C	0-10V, PWM	IP67
MNC							

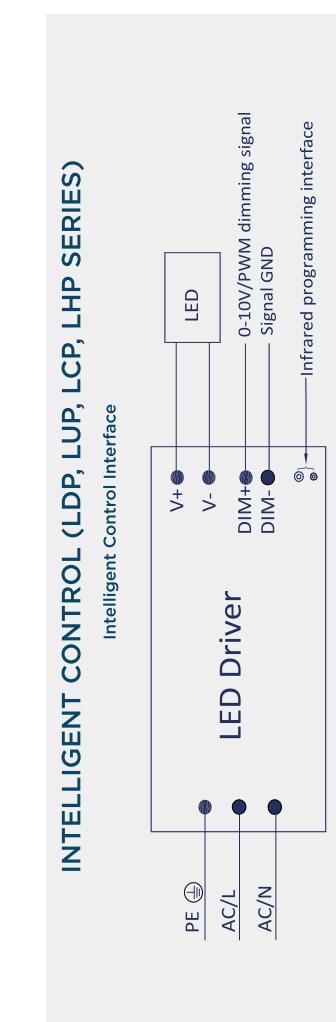
### LTP / MTP / MTN / RTN SERIES

Model	Type	Input	Output	Power	Ambient Temperature	Dimming	Rating
LTP (CL I)	CC+CP	90-305 VAC	Current Adjustable	100, 160, 200, 240 W	-40°C ~ +60°C	0-10V, PWM, DALI	IP65
MTP (CL I)	CC+CP	90-305 VAC	Current Programmable	60, 120, 160, 200, 240 W	-40°C ~ +60°C	0-10V, PWM	IP65
MTN (CL I)	CC	90-305 VAC	Current Programmable	96, 120, 160, 200, 240 W	-40°C ~ +60°C	0-10V, PWM	IP65
RTN	CC	90-305 VAC	0.37 - 0.92A	96, 120, 160, 200, 240 W	-40°C ~ +60°C	NO	IP65



### LDP / LUP / LCP, LHP SERIES

Model	Type	Input	Output	Power	Ambient Temperature	Dimming	Rating
LDP (CL I)	CC+CP	90-305 VAC	Current Adjustable	100, 160, 200, 240 W	-40°C ~ +60°C	0-10V, PWM, DALI	IP65



### U6 SERIES

Model	Type	Input	Output	Power	Ambient Temperature	Dimming	Rating
U6 (CL I - CL II)	CC+CP	176-264 VAC	Current Programmable	40, 80, 120, 165, 200 W	-40°C ~ +60°C	Dim to off, Timing, DALI	IP20



### PROGRAMMING OPERATION GUIDE



### PROGRAMMING CONNECTION DIAGRAMS

PROGRAMMING CONNECTION  
DIAGRAM 1



PROGRAMMING CONNECTION  
DIAGRAM 2



PROGRAMMING CONNECTION  
DIAGRAM 3



PC

Suitable for Windows system

## COMPANY PROFILE

Established in Ningbo, China in 1993, Self Electronics began as a small manufacturer of outdoor IR sensor lighting. In 1996, SELF developed electronic transformers for the European market, creating a reliable reputation for itself in the European market. SELF then went on to develop additional lines of electronic power supply. In 2000, SELF developed its first lines of LED drivers and LED

lighting. In 2003, it opened up a sales office in Shenzhen, followed by the creation of a new 32,000 square meter facility in 2008. Last but not least, sales offices were established in Germany and the US in 2009. SELF's vision is to become a leading international developer and manufacturer of LED Lighting and LED power supply.

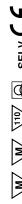


### CLASSIC SERIES



Model	Type	Input	Output	Power	Ambient Temperature	Dimming	Rating	Dimension LxWxH mm
SLT15-12VF-2s	CV	220-240 VAC	12 VDC	15 W	-20°C ~ +45°C	-	IP20	121x45x16
SLT15-24VF-2s	CV	220-240 VAC	24 VDC	15 W	-20°C ~ +45°C	-	IP20	121x45x16
SLT36-12VLG-Es	CV	220-240 VAC	12 VDC	30 W	-20°C ~ +50°C	-	IP20	165x40x30
SLT30-24VLG-Es	CV	220-240 VAC	24 VDC	30 W	-20°C ~ +50°C	-	IP20	165x40x30
SLT30-48VLG-Es	CV	220-240 VAC	48 VDC	30 W	-20°C ~ +50°C	-	IP20	165x40x30
SLT60-12VLG-E	CV	220-240 VAC	24 VDC	60 W	-20°C ~ +45°C	-	IP20	188x45x30
SLT60-24VLG-E	CV	220-240 VAC	48 VDC	60 W	-20°C ~ +50°C	-	IP20	188x45x30
SLT75-24VL-2	CV	100-240 VAC	24 VDC	75 W	-20°C ~ +50°C	-	IP20	180x60x30
SLT75-24VL-E	CV	220-240 VAC	24 VDC	75 W	-20°C ~ +50°C	-	IP20	185x60x31
SLT100-12VL-E	CV	220-240 VAC	12 VDC	100 W	-20°C ~ +40°C	-	IP20	185x60x31
SLT100-24VL-E	CV	220-240 VAC	24 VDC	100 W	-20°C ~ +40°C	-	IP20	185x60x31
SLT150-24VL-E	CV	220-240 VAC	24 VDC	150 W	-20°C ~ +40°C	-	IP20	223x64x32
SLT150-24VLG-E	CV	220-240 VAC	24 VDC	150 W	-20°C ~ +45°C	-	IP20	185x60x31
SLT150-48VLG-E	CV	220-240 VAC	48 VDC	150 W	-20°C ~ +45°C	-	IP20	185x60x31
SLD75-24VLDE	CV	220-240 VAC	24 VDC	75 W	-20°C ~ +45°C	DALI	IP20	185x60x31
SLD15-24VL-E	CV	220-240 VAC	24 VDC	15 W	-10°C ~ +50°C	TRIAC	IP20	83x37x34
SLD30-12VL-E	CV	220-240 VAC	12 VDC	30 W	-10°C ~ +45°C	TRIAC	IP20	145x50x20
SLD30-24VL-E	CV	220-240 VAC	24 VDC	30 W	-10°C ~ +45°C	TRIAC	IP20	145x50x20
SLD75-12VL-E	CV	220-240 VAC	12 VDC	75 W	-10°C ~ +45°C	TRIAC	IP20	185x60x31
SLD75-24VL-E	CV	220-240 VAC	24 VDC	75 W	-10°C ~ +45°C	TRIAC	IP20	185x60x31
SLD120-24VL-E	CV	220-240 VAC	24 VDC	120 W	-10°C ~ +45°C	TRIAC	IP20	223x64x32

### BASIC SERIES



Model	Type	Input	Output	Power	Ambient Temperature	Dimming	Rating	Dimension LxWxH mm
SLT3-350IS-1	CC	220-240 VAC	350 mA	3 W	-20°C ~ +50°C	-	IP20	50x30x20
SLT3-700IS-1	CC	220-240 VAC	700 mA	3 W	-20°C ~ +45°C	-	IP20	50x30x20
SLT3-350ISC	CC	220-240 VAC	350 mA	3 W	-20°C ~ +50°C	-	IP20	52x30x23
SLT3-700ISC	CC	220-240 VAC	700 mA	3 W	-20°C ~ +50°C	-	IP20	52x30x23
SLT4-500IS-1	CC	220-240 VAC	500 mA	4 W	-20°C ~ +50°C	-	IP20	52x30x23
SLT6-350ILs	CC	220-240 VAC	350 mA	6 W	-20°C ~ +45°C	-	IP20	66x35x20
SLT6-700ILs	CC	220-240 VAC	700 mA	6 W	-20°C ~ +45°C	-	IP20	66x35x20
SLT6-350IL4	CC	100-240 VAC	350 mA	6 W	-20°C ~ +50°C	-	IP20	66x35x20
SLT6-500IL4	CC	100-240 VAC	500 mA	6 W	-20°C ~ +50°C	-	IP20	66x35x20
SLT6-700IL4	CC	100-240 VAC	700 mA	6 W	-20°C ~ +40°C	-	IP20	66x35x20

### METALSLIM SERIES



Model	Type	Input	Output	Power	Ambient Temperature	Dimming	Rating	Dimension LxWxH mm
SLT75-12VFC-UN	CV	120-240 VAC	12 VDC	75 W	-20°C ~ +50°C	-	IP67	33x30x40.5
SLT75-24VFC-UN	CV	120-240 VAC	24 VDC	75 W	-20°C ~ +50°C	-	IP67	33x30x40.5
SLT100-24VFC-UN	CV	120-240 VAC	24 VDC	100 W	-20°C ~ +50°C	-	IP67	33x30x40.5
SLT96-12VLC-UN	CV	120-240 VAC	12 VDC	96 W	-40°C ~ +60°C	-	IP67	20x24x10.5
SLD96-12VCA-UN	CV	120-277 VAC	12 VDC	96 W	-40°C ~ +60°C	YES	IP67	20x24x10.5
SLD96-24VCA-UN	CV	120-277 VAC	24 VDC	96 W	-40°C ~ +60°C	YES	IP67	20x24x10.5

## ULTRATHIN SERIES

▼ □ C €

Model	Type	Input	Output	Ambient Temperature	Dimming	Rating	Dimension LxWxH mm
SLT15-12VFG	CV	220-240 VAC	12 VDC	15 W	-20°C ~ +50°C	-	IP20 138x40x12
SLT15-24VFG	CV	220-240 VAC	24 VDC	15 W	-20°C ~ +50°C	-	IP20 138x40x12
SLT20-12VFGs	CV	220-240 VAC	12 VDC	20 W	-20°C ~ +50°C	-	IP20 168x40x14
SLT20-24VFGs	CV	220-240 VAC	24 VDC	20 W	-20°C ~ +50°C	-	IP20 168x40x14
SLT30-12VFG	CV	220-240 VAC	12 VDC	30 W	-20°C ~ +50°C	-	IP20 246x30x16
SLT30-24VFG	CV	220-240 VAC	24 VDC	30 W	-20°C ~ +50°C	-	IP20 240x30x16
SLT60-12VFG-UN	CV	120-240 VAC	12 VDC	60 W	-20°C ~ +45°C	-	IP20 298x29.8x16
SLT60-24VFG-UN	CV	120-240 VAC	24 VDC	60 W	-20°C ~ +45°C	-	IP20 298x29.8x16
SLT60-48VFG-UN	CV	120-240 VAC	48 VDC	60 W	-20°C ~ +45°C	-	IP20 298x29.8x16
SLT75-12VFG	CV	220-240 VAC	12 VDC	75 W	-20°C ~ +45°C	-	IP20 298x29.8x16.5
SLT75-24VFG	CV	220-240 VAC	24 VDC	75 W	-20°C ~ +50°C	-	IP20 298x29.8x16.5
SLT100-12VFG	CV	220-240 VAC	12 VDC	100 W	-20°C ~ +45°C	-	IP20 298x29.8x16.5
SLT100-24VFG-UN	CV	120-240 VAC	24 VDC	100 W	-20°C ~ +45°C	-	IP20 298x29.8x16
SLT100-48VFG-UN	CV	120-240 VAC	48 VDC	100 W	-20°C ~ +45°C	-	IP20 298x29.8x16
SLT200-24VFG-UN	CV	120-240 VAC	24 VDC	200 W	-20°C ~ +45°C	-	IP20 384x30x22
SLT200-48VFG-UN	CV	120-240 VAC	48 VDC	200 W	-20°C ~ +45°C	-	IP20 384x30x22
SLT250-24VFG-UN	CV	120-240 VAC	24 VDC	250 W	-20°C ~ +40°C	-	IP20 384x30x22
SLT250-48VFG-UN	CV	120-240 VAC	48 VDC	250 W	-20°C ~ +40°C	-	IP20 384x30x22
SLT80-350IL-EU	CC	110-270 mA	200 ~ 350 mA	80 W	-20°C ~ +50°C	-	IP20 280x30x22
SLT80-700IL-EU	CC	120-246 mA	325 ~ 700 mA	80 W	-20°C ~ +50°C	-	IP20 280x30x22
SLT160-700IL-EU	CC	220-240 VAC	120-228 mA	160 W	-20°C ~ +50°C	-	IP20 280x30x22
SLD20-500ILA-UN	CC	110-227 mA	350 ~ 500 mA	20 W	-20°C ~ +50°C	YES	IP20 278x29.8x21
SLD40-1050ILA-UN	CC	110-227 mA	700, 800, 900, 1050 mA	40 W	-20°C ~ +50°C	YES	IP20 278x29.8x21

## COMPACT SERIES

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Model	Type	Input	Output	Ambient Temperature	Power	Dimming	Rating	Dimension LxWxH mm
SLT20-500IB-UN	CC	VAC	110-277 mA	150 ~ 500 mA	20 W	-25°C ~ +50°C	--	IP20 66.7x41x22
SLT20-500IL-UN	CC	VAC	110-277 mA	150 ~ 500 mA	20 W	-25°C ~ +50°C	-	IP20 85.3x41x22
SLT25-600IB-E	CC	VAC	220-240 mA	250 ~ 600 mA	25 W	-20°C ~ +50°C	-	IP20 66.7x41x22
SLT25-600IL-E	CC	VAC	220-240 mA	250 ~ 600 mA	25 W	-20°C ~ +50°C	-	IP20 85.3x41x22
SLT35-1000IB-UN	CC	VAC	110-277 mA	250, 350, 500, 750, 850, 1000 mA	35 W	-25°C ~ +50°C	-	IP20 95.5x39x30
SLT35-1000IL-UN	CC	VAC	110-277 mA	250, 350, 500, 750, 850, 1000 mA	35 W	-25°C ~ +50°C	-	IP20 95.5x39x30
SLT45-1050IB-E	CC	VAC	220-240 mA	700 ~ 1050 mA	45 W	-25°C ~ +50°C	-	IP20 96.4x29.8
SLT45-1050IL-E	CC	VAC	220-240 mA	700 ~ 1050 mA	45 W	-25°C ~ +50°C	-	IP20 135.5x39x30
SLD20-500IBD-UN	CC	VAC	110-277 mA	150 ~ 500 mA	20 W	-25°C ~ +50°C	DALI2	IP20 78.7x41x22
SLD20-500ILD-UN	CC	VAC	110-277 mA	150 ~ 500 mA	20 W	-25°C ~ +50°C	DALI2	IP20 97.3x41x22
SLD25-1000BD-UN	CC	VAC	110-277 mA	250 ~ 1000 mA	35 W	-20°C ~ +50°C	DALI2	IP20 96.4x29.8
SLD20-500IBD-UN	CC	VAC	110-277 mA	step 50 mA	20 W	-25°C ~ +50°C	DALI2	IP20 78.7x41x22
SLD20-500ILD-UN	CC	VAC	110-277 mA	step 50 mA	20 W	-25°C ~ +50°C	DALI2	IP20 139.4x29.8
SLD35-1000BA-UN1	CC	VAC	110-277 mA	150 ~ 500 mA	20 W	-20°C ~ +50°C	DALI2	IP20 96.4x29.8
SLD20-500IBA-UN1	CC	VAC	110-277 mA	150 ~ 500 mA	20 W	-20°C ~ +50°C	DALI2	IP20 78.7x41x22
SLD20-500ILA-UN1	CC	VAC	110-277 mA	150 ~ 500 mA	20 W	-20°C ~ +50°C	YES	IP20 97.3x41x22
SLD35-1000IBA-UN1	CC	VAC	110-277 mA	250 ~ 1000 mA	35 W	-20°C ~ +50°C	YES	IP20 139.4x29.8
SLD35-1000ILA-UN1	CC	VAC	110-277 mA	250 ~ 1000 mA	35 W	-20°C ~ +50°C	YES	IP20 96.4x29.8
SLD15-300IB-ES	CC	VAC	220-240 mA	300 mA	15 W	-25°C ~ +50°C	TRIAC	IP20 66.7x41x22
SLD15-350IB-ES	CC	VAC	220-240 mA	350 mA	15 W	-25°C ~ +50°C	TRIAC	IP20 85.3x41x22
SLD15-500IB-ES	CC	VAC	220-240 mA	500 mA	15 W	-25°C ~ +50°C	TRIAC	IP20 85.3x41x22
SLD15-700IB-ES	CC	VAC	220-240 mA	700 mA	15 W	-25°C ~ +50°C	TRIAC	IP20 66.7x41x22
SLD15-900IB-ES	CC	VAC	220-240 mA	900 mA	15 W	-25°C ~ +50°C	TRIAC	IP20 85.3x41x22
SLD15-350IL-ES	CC	VAC	220-240 mA	350 mA	15 W	-25°C ~ +50°C	TRIAC	IP20 85.3x41x22
SLD20-350IL-ES	CC	VAC	220-240 mA	500 mA	20 W	-20°C ~ +40°C	TRIAC	IP20 121x45x20
SLD20-500IL-ES	CC	VAC	220-240 mA	500 mA	20 W	-20°C ~ +40°C	TRIAC	IP20 121x45x20
SLD20-700IL-ES	CC	VAC	220-240 mA	700 mA	20 W	-20°C ~ +40°C	TRIAC	IP20 121x45x20

## COMPANY PROFILE

Shenzhen Sunricher Technology established in 2007, is a TUV SUD ISO 9001:2015 certified high-tech enterprise which specializes in intelligent control and smart home technology, especially intelligent LED lighting dimmers and controllers.

After years of fast development, Sunricher has become an industry leader in the field of intelligent lighting control with experienced professional R&D team, manufacturing base of 2 floors with over 12,000 square meters and advanced


**SUNRICHER**

## ALL SUNRICHER'S PRODUCTS CERTIFICATIONS



### SR-2411-BT/ZG

- Compatible with DALI DT6, DT8 devices
- Fast configuration of groups, scenes and addresses
- Mini format, easy installation. Compatible with wall box dim. 55mm
- Input: ZigBee/Bluetooth
- Output: DALI
- Power supply: 12-24Vdc
- IP20
- Fast wireless association

### SR-DA/ZGG9030

- Multisensor with integrated photocell and movement sensor
- Compatible with DALI2 / D4i
- Zhaga book 18 Socket connector
- Power supply: 12-24-36Vdc
- IP65
- Microwave High Frequency 5.8 GHz ±75 MHz ISM band
- Detection Sensitivity 0-15 Configurable
- Light Sensor (62386 - 304): 0-1000 Lux (10bit), risoluzione: 10lux
- Height installation: Up to 15m
- Angle: 150° (wall), 360° (ceiling)



### SR-2309PRO

- Input 12-48Vdc
- Integrated DALI Master
- OLED display on board for DALI address settings
- DALI2 DT8 device
- 4 Channels/4 Addresses
- CV (4x5A)
- CC Output current 350mA/700mA
- PWM frequency between 250 and 1500Hz for accurate setting parameters
- Fully configurable: Fade time, Fade rate, Power-on-level, System failure level, Dimming range
- Compatible with all DALI master on the market supporting DT8 standard.

### SR-C59032-MW

- Multisensor Microwave+Daylight sensor
- Input Voltage 12/24V dc
- Input current <30mA
- Dimming DALI/0-10V
- Transceiver 2.4GHz ISM band
- Cover 82m in open field
- Certifications FCC/C, CE
- Features: Dimming, Address/Group assignment (DALI version), Scheduler control
- Configurable via App Casambi
- Compatible with dim-to-off LED driver



**SR-9032-PIR**

- Multisensor PIR + Light sensor
- Powered by DALI bus
- Input current <20mA
- Dimming DALI0-10V
- Transceiver 2.4GHz ISM band
- Cover 50m in open field
- Lux detection range 0-1000lx
- Certifications FCC/I/C, CE
- Features: Dimming, Address/Group assignment (DALI version), Scheduler control
- Configurable via App Casambi
- Independent sensor-based control

**STAND-ALONE DALI CONTROLS****TOUCH PANEL FOR STAND-ALONE APPLICATION**

- Touch panels for luminous intensity, CCT and RGBWW regulation.
- Drive up to 50 DALI devices
- Powered by DALI bus. No external power supply unit
- Up to 16 programmable groups
- Supports DALI DT6

**SR-GW-TDA**

- Input Voltage 100-240Vac 50/60Hz Integrated Bus Power Supply Unit
- Input Voltage 5VDC when connected with an external Bus Power Supply Unit
- Fast connection with Windows PC through USB port
- Max 64 devices (16 groups for control devices, 32 groups for input devices), 16 scenes
- Supports DT6, DT8, TW, RGBWA
- Integrated battery
- Bluetooth/Zigbee interface for remote control through Smartphone App.
- IP20

**ZIGBEE REMOTE CONTROLLER**

- Remote controller for TW, RGBW, Dimming management.
- High reliability
- Suitable for low power point-to-point applications
- Fast association with SR-2309 device
- Range of transmit signal: 30m
- Compatible with any type of ZigBee gateway

**DIY LIGHT STRIP KIT**

- Light Strip Kit with integrated ZigBee driver and controller
- ON/OFF, Dimmer, CCT, RGBW
- Power supply compatible with EU, US and Australia standards
- Plug&Play. No other connectors required
- Compatible with any type of application
- Input Voltage 100-277vac (External driver)
- Strip Led Input Voltage 12-24Vdc
- Tunable White
- RGBWW

**SR-DA/ZG2833P-DA2**

- Fully configurable via Bus Master
- Bidirectional communication
- Integration with all type of DALI/DALI2 devices
- Supports Multi-Master configuration
- Powered by DALI bus
- DALI2 certificated
- Button acquisition as DALI input device



## COMPANY PROFILE

Zetaqlab was founded in 2014 and from 2021 has become former of Starlight Group SPA.

The company has a large expertise in lighting control systems and digital light management, representing the convergence of the fields of Lighting, Building Automation and IoT (Internet of Things). Zetaqlab designs and produces proprietary hardware and software systems, providing all related services to customers, including pre and post sales engineering and plants commissioning.



## DALI-2 MULTI MASTER SYSTEM

### D-SERVER

- DALI-2 bus control with Multi Master function, bus supply current 250 mA
- Up to 64 devices (LED driver, dimmer, relais output) and 64 input command devices
- Ethernet interface
- Astronomical clock with internal battery
- Integrated Web Server. Configurable via WebApp
- Power supply 230Vac

### Z-NODE



- Wireless gateway DALI 2.4 GHz Zigbee 3.0 / Bluetooth LE
- Integrates DALI DT6, DT8, DT1 (emergenza) and D4i protocols
- Auto sensing power supply 230Vac or from DALI bus (driver D4i)
- I/O connector for external sensors



## WIRELESS 2.4GHZ FOR INDOOR APPLICATIONS

### Z-GWETH

- Ethernet wireless Gateway 2.4 GHz Zigbee 3.0 / Bluetooth LE
- Power supply 12Vdc or PoE
- Astronomical clock with internal battery
- BMS integration
- Human Centric Lighting function
- Plastic case IP40

### Z-SENSE



- Multisensor DALI wireless 2.4GHz Bluetooth BLE/Zigbee 3.0
- Up to 32 driver DALI in broadcast mode
- Up to 32 driver 1/10V in broadcast mode
- Supports DALI DT6, DT8, DT1 (emergenza) and D4i protocols
- Auto sensing power supply 230Vac or from DALI bus (driver D4i)



### ZQxSERVER v3

- Linux server with integrated web server for centralized control of all Zetaqlab devices
- 2 x Ethernet, 1 x USB
- Serial: 2 x RS-232, 2 x RS-485
- I/O Analog and Digital
- Astronomical clock with internal battery
- BMS and third parts software integration through standard protocols Modbus TCP, HTTP Rest, MQTT
- Power supply 10-30Vdc

### DALI-SENSE



**WIRELESS 2.4GHZ FOR INDOOR APPLICATIONS****X-SENSE**

- Occupancy and light sensor wireless 2.4 GHz Zigbee 3.0 / Bluetooth LE
- Up to 32 DALI driver
- Relays output 12A
- Digital Input for buttons, Digital output for HVAC
- LED for emergency lighting (inverter and battery)
- Astronomical clock with internal battery
- Integrated sensors for detecting air quality (TVOC), CO2 estimation, temperature/humidity, noise level, movement and ambient brightness.

**Z-PAD**

- Wireless keypad 2.4 GHz Zigbee 3.0 / Bluetooth LE
- Z-PAD: wireless version with battery
- Z-PAD-DALI: wall version (502) wireless and DALI, power supply 230V
- 4 physical buttons configurable via smartphone App
- Astronomical clock with internal battery
- Display E-Ink 1.54"

**WIRELESS 868 MHZ FOR STADIUM, AIRPORTS, PARKING****RFxLT**

- Wireless gateway DALI and 1/10V 868 MHz Long Range
- Up to 8/16/32 driver DALI and 1/10V in broadcast mode
- 1/10V interface and dry contact relays (max 500VA)
- Power supply 24Vdc, IP20 with coated internal board
- ANT1: 868 MHz multidirectional, gain antenna 0 dBi, IP67
- ANT3: 868 MHz high gain antenna (4 dBi), IP67

**RFxGATE-LT**

- Wireless gateway Bluetooth / 868 MHz Long range portable for device configuration
- Allow plant commissioning through smartphone App Light360 Setup
- Up to 4 buttons configurations via software
- Supply with 9Vdc battery

**WIRELESS 2.4GHZ FOR OUTDOOR APPLICATIONS**

- Wireless gateway DALI 2.4 GHz Zigbee 3.0 / Bluetooth LE
- Control of DALI-2 D4i driver
- Digital Input (dry contact) for external sensor
- MASTER version with GPS, RTC and integrated sensors

**ZQxULC-LT**

- Ethernet wireless gateway 868 MHz / 2.4 GHz Zigbee 3.0 / Bluetooth LE
- 4 Inputs, 4 digital Outputs and RS485 interface
- (Modbus RTU) for energy meters integration
- DALI interface for up to 64 broadcast or addressed nodes management
- Astronomical clock with internal battery
- Power supply 24Vdc
- IP20

**LIGHT360 SETUP - APP**

- Easy smartphone connection via Bluetooth
- Automatic acquisition of the devices
- Customized management of groups
- Parameters setting and commissioning
- Luminous scenes creation



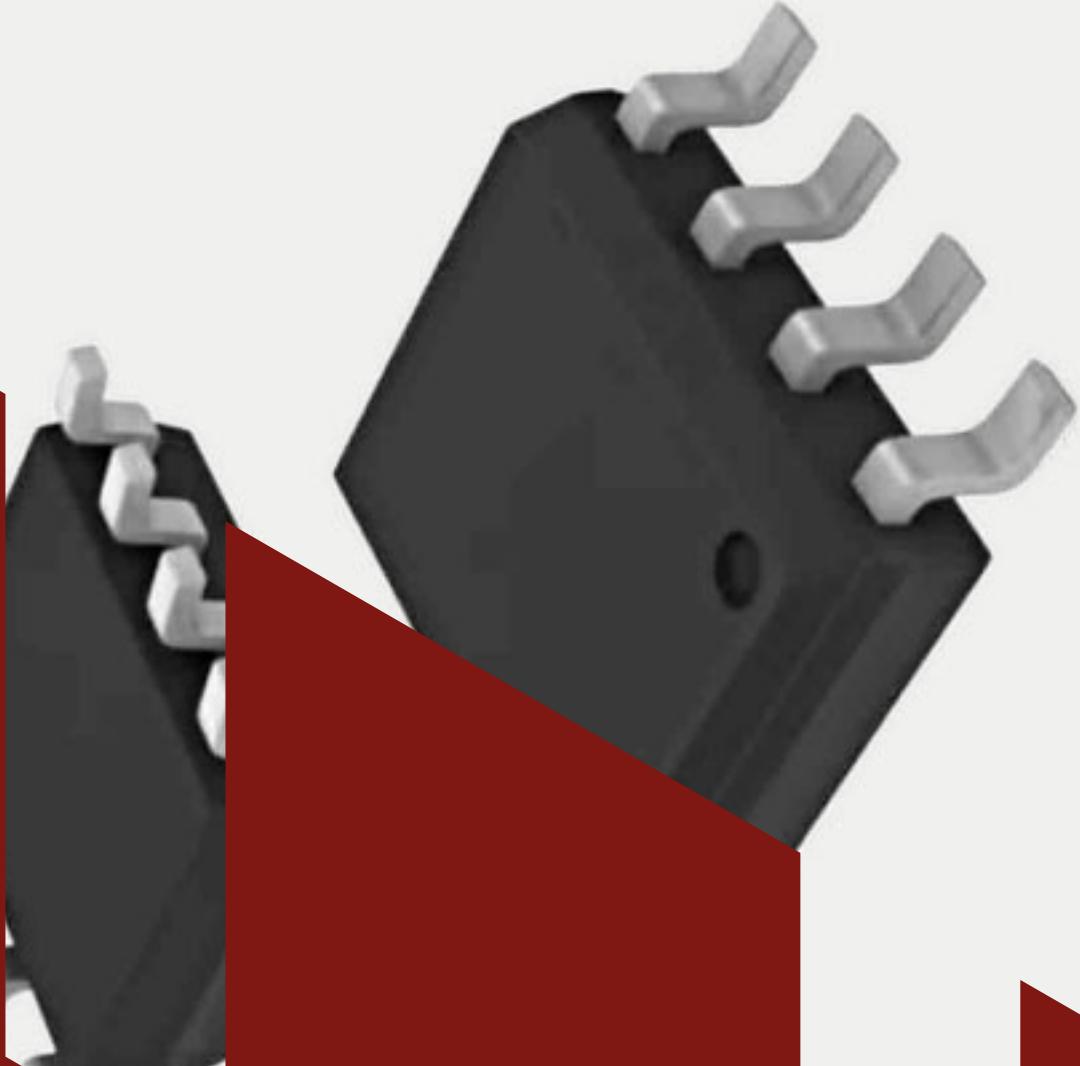
Available for: Smartphone and tablet iOS / Android.

- Easy smartphone connection via Bluetooth
- Automatic acquisition of the devices
- Customized management of groups
- Parameters setting and commissioning
- Luminous scenes creation



- Radar movement sensor for outdoor wireless 2.4 GHz Zigbee 3.0 / Bluetooth LE
- Radar sensor 24 GHz, EIRP 12.7 dBm, FOV 98°x48°
- Power supply 230Vac

# IC LED DRIVER



# Altoran

Chips & Systems

## COMPANY PROFILE

Altoran Chip & Systems Inc. was founded in 2010 as a fabless semiconductor company dedicated to the development of highly reliable, simple, and cost effective solutions for LED lighting. Altoran is based in Santa Clara, California, in the heart of the Silicon Valley, and strives to satisfy its customers by delivering quality products and offering reliable customer support.

### COMPACT LED DRIVER MODULE SIZE DUE TO MINIMAL NUMBER OF EXTERNAL COMPONENTS

Integrated 4 Ultra High Voltage Constant Current Sink.

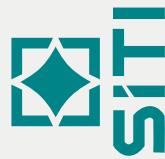
Direct drive from AC mains. Lowest solution cost. No electrolytic caps or transformers. No need for EMI filtering, PFC or THD reducing components. Up to 97% efficiency, Extremely Low THD <15%. Near unit Power Factor: 0.99.

Compatible with Triac and 0-10V dimmers and digital PWM (only on ACS1404). Adjustable LED Power with External Current Sense Resistor. Smooth Monotonic Dimming from 100% to 0%. Over Current / Over Temperature Protection.

Model	Type	Input	Output
ACS1004	90-280 VAC	75 mA (max 17 W*)	SOIC 8LD
ACS1404	90-280 VAC	150 mA (max 33 W*)	SOIC 16LD / QFN 7x7 48L



\* IC's can be linked to enable higher power designs. Max output power is referred to 220 VAC input voltage.



## COMPANY PROFILE

The Silicon Touch Technology Inc. Group is specialized in the research, development, manufacturing, and sales of electronic fan motor drive chips without brushes, digital camera control chips, subordinate computer manage chips, mix-digital chips, and analog chips.

### DD312

High Constant Current LED driver with error detection. DD312 is a high constant current driver designed for LED lighting application and power LEDs. It incorporates a constant current circuitry with current value set by an external resistor. The output enable terminal allows dimming control by system. The fast response of output current can adapt to high dimming resolution and high refresh rate applications. Built-in LED open detection, over temperature and over current protection functions ensure the system reliability.

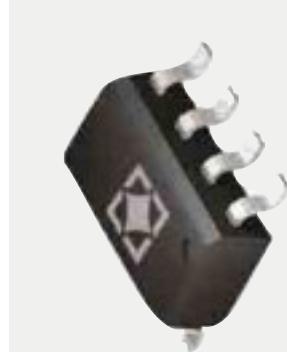
### DD313

3-channels Constant Current LED driver with independent dimming control and current adjustment. DD313 is a high constant current driver designed for power LED applications. It incorporates three-channel constant current circuitry with current value set by three external resistors. The three enable pins are specifically designed for independent control over each of the three output terminals. The fast response of the output current can adapt to high dimming resolution and high refresh rate applications. Built-in LED open detection, over temperature and over current protection functions ensure the system reliability.



### DD314

40V Adjustable Current Sink Linear LED driver. The DD313-4 IC is an economical, versatile, and robust device designed to provide cost-effective solution for regulating constant current in applications such as LED lighting over a 4.5 V to 40 V wide range of supply voltage which allows for single supply voltage operation from industry standard 5V, 12 V, 18 V, 24 V, 36 V power rails. The device is designed to operate as a constant current source.



### DD313

3-channels Constant Current LED driver with independent dimming control and current adjustment. DD313 is a high constant current driver designed for power LED applications. It incorporates three-channel constant current circuitry with current value set by three external resistors. The three enable pins are specifically designed for independent control over each of the three output terminals. The fast response of the output current can adapt to high dimming resolution and high refresh rate applications. Built-in LED open detection, over temperature and over current protection functions ensure the system reliability.

### DD314

Model	Input Voltage Range	Output Current	Package
DD313-4	4.5 to 40 VDC	Up to 150 mA	SOT26
DD312	5-18 VDC	Up to 1000 mA	TO-252, SOP8, MSOP8
DD313	5-18 VDC	Up to 500 mA	SOP16, TSSOP16



## COMPANY PROFILE

TM Technology Inc. was founded in July 1994 in Hsinchu Science Park, Taiwan. On October 1, 2007, it merged with iCreate Technologies Corporation. TM tech is a fabless IC company supported by professionals of the highest caliber.

Model	Input Voltage Range	Output Current	Type	Package
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T633A	7 - 42 V	up to 1500 mA	DC-DC Step Down Controller <sup>(1)</sup>	SOP-8, SOT-23
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T6322A	7 - 30 V	up to 1500 mA	DC-DC Step Down Controller <sup>(1)</sup>	SOP-8, SOT-23
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T8308	7 - 30 V	up to 800 mA	DC-DC Step Down Controller <sup>(1)</sup>	SOP-8, SOT-89
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T8302	6 - 60 V	up to 1000 mA	DC-DC Step Down Controller <sup>(1)</sup>	SOP-8, SOT-89
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T8306	7 - 36 V	up to 3000 mA	DC-DC Step Down Controller <sup>(1)</sup>	SOT-23
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T6331A	1.8 - 5.5 V	up to 1000 mA <sup>(3)</sup>	Buck/Boost Low Dropout	SOP-8, SOT-23-6
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T8341AD	2.5 - 6 V	up to 1000 mA	Buck/Boost Low Dropout	SOP-8
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T8332FI	5 - 60 V	up to 2000 mA	Buck-Boost external MOSFET	TSOS-P-16
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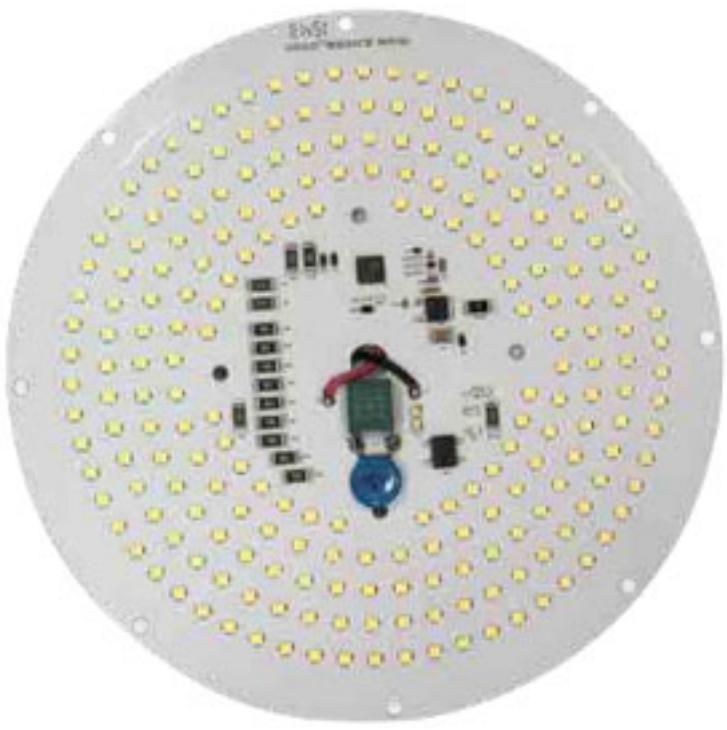
T8382GN	5 - 60 V	up to 3000 mA <sup>(3)</sup>	Buck-Boost external MOSFET	PFQFN26L
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T8616AI	110 - 220 VAC	300 mA (max 60W)	AC-DC Linear driver	TSOS-P-28
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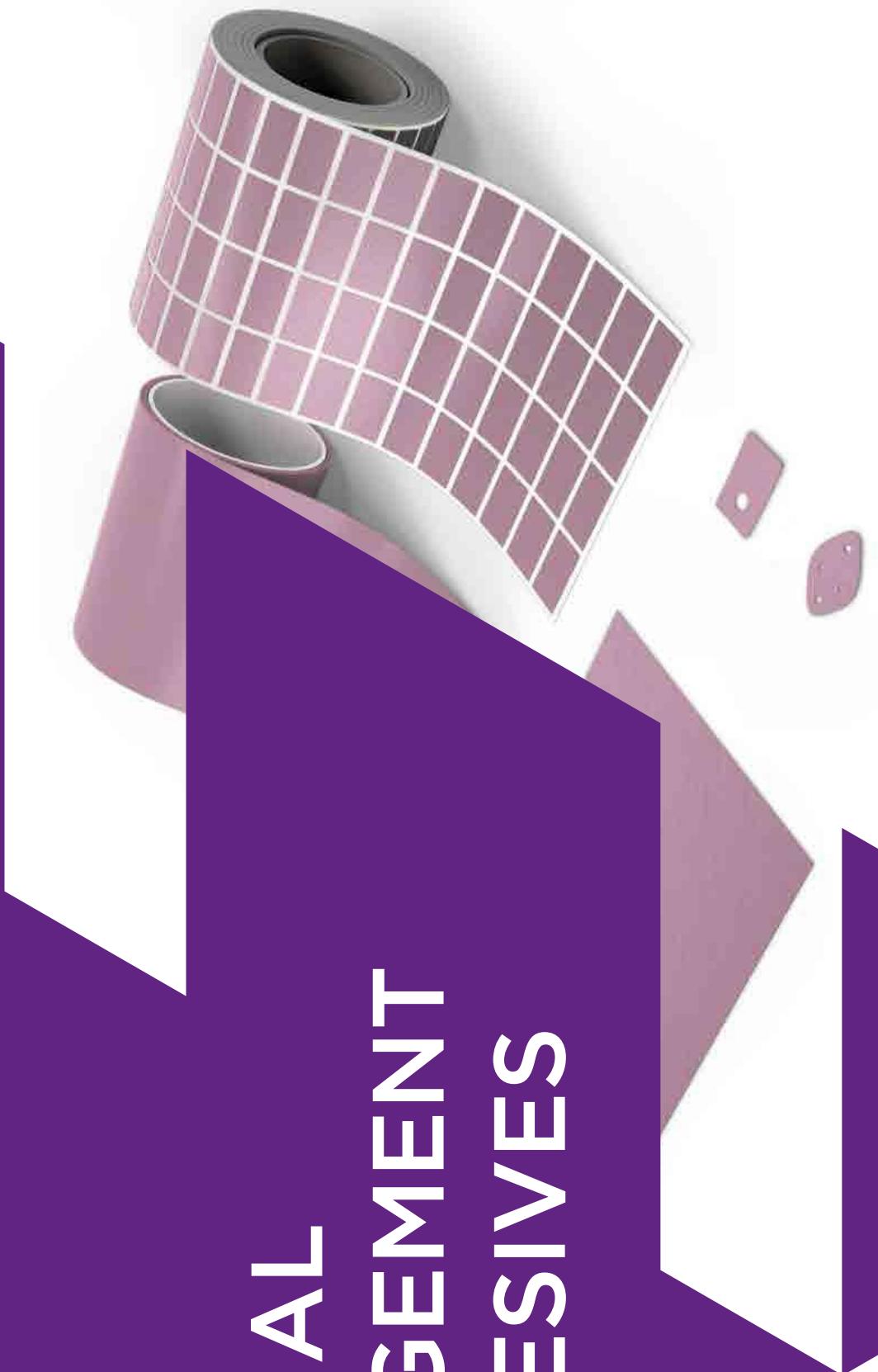
T8616AN	110 - 220 VAC	500 mA (max 100W)	AC-DC Linear driver	QFN7X7-48
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AC-DC Linear LED Driver

<sup>(1)</sup> PWM control, High efficiency up to 97% | <sup>(2)</sup> The Buck and Boost function is automatically switched<sup>(3)</sup> | For Buck/Boost topology

# Thermal Management & Adhesives





## COMPANY PROFILE

Founded in 1990, innovation, performance and customer satisfaction are Bergquist's guiding principles. In 2016 the company was acquired by Henkel. Today Bergquist supplies the world with some of the best-known brands in the

**BERGQUIST**  
**LOCTITE**

### THF 1600 OP (HI-FLOW 300P)

A high performance, electrically insulating, thermally conductive phase change material with polyimide reinforcement - designed for electronic power devices requiring electrical isolation to the heat sink. No spill, no mess, easy handling. High-performance electrically insulating, reinforced pad.



### TSP Q2000 (Q-PAD 3)

The compound is designed to flow at the phase change temperature, conforming to the surface characteristics of the heat sink and component. It has an aluminum foil structure coated with phase change material on two sides. LOCTITE TCF 1000 is a superior replacement for thermal greases and similar interface compounds.



### TCF 1000

The compound is designed to flow at the phase change temperature, conforming to the surface characteristics of the heat sink and component. It has an aluminum foil structure coated with phase change material on two sides. LOCTITE TCF 1000 is a superior replacement for thermal greases and similar interface compounds.

### TSP 1600 (SIL PAD 800)

General purpose high-performance thermal conductive insulator, suitable for all power applications.



### TBP 850 (BOND-PLY 100)

Pressure sensitive double side adhesive tape, fiberglass reinforced for permanent listening. Excellent electrical insulation and heat dissipation. Ideal for lighting applications.



### TSP 7039

LOCTITE® SF 7039 is a contact spray cleaner formulated for use on electrical contacts exposed to moisture or other contaminants, without damaging existing varnishes. It leaves a water repellent residue and is typically used in applications with an operating temperature range of -30 °C to +60 °C.



		CE	RoHS	RoHS
Category	Product	Formulation	Type	Application
				All products are customizable by custom design
				* ASTM D5470 **ASTM D5470 @ 90°pad
				All products are customizable by custom design

Product	Thickness	Thermal Conductivity*	Dielectric Strength @ 500V	Continuous Use Temperature	Phase Change Tempature	Thermal Conductivity*	Dielectric Breakdown Voltage	Continuous Use Temperature
THF 1600P	0.10 mm 0.15 mm	1.6 W/mK 1.6 W/mK	0.12°C/mW @ 50 psig 0.16°C/mW @ 50 psig 0.19°C/mW @ 50 psig	900 V	Up to +180 °C	65 °C	0.6 W/mK 0.72 W/mK	6000 V 6000 V
TCF 1000	0.076 mm 0.10 mm	1 W/mK 1 W/mK	0.08°C/mW @ 20 psig 0.068°C/mW @ 20 psig	Hot Melting	Up to +180 °C	60 °C	1.6 W/mK 0.45 °C/W	-40/+180 °C -60/+180 °C
TSP Q2000	0.13 mm	2 W/mK	0.36°C/mW @ 50 psig	Hot Melting	Up to +180 °C	N/A	UL 64 V-0	

**SF 7063**

LOCTITE® SF 7063 is our general-purpose product for cleaning and degreasing any kind of surface or machined component before proceeding with a repair or assembly job involving LOCTITE® adhesives. It is a solvent-based cleaner and the product leaves no residue. LOCTITE SF 7063 removes most greases, oils, lubrication fluids and metal cuttings.

**LOC TITE 384**

LOCTITE® 384 is a white to off-white, 1-part, thermally conductive, modified acrylic paste adhesive designed for bonding heat generating components to heat sinks. The high thermal conductivity provides excellent heat dissipation for thermally sensitive components, while the controlled strength permits field and service repair. It should be limited to a maximum of 500 °C in high heat applications.

**AA 3103**

LOCTITE AA 3103 is a light-cured acrylic-based adhesive formulated to provide flexible bonds when joining stress-sensitive plastics. The product offers a depth of cure of >13 mm and a fixture time of 12 sec. It is well suited to the bonding of plastics and metals, but can also be used on glass and ceramic materials. It is toxic to reduce adhesive migration after application.

**LOC TITE 315**

LOCTITE® 315 is a blue, 1-part, self-shrinking, thermally conductive, highly viscous, modified acrylic adhesive paste for bonding electrical components to heat sinks with an insulating gap. It provides excellent heat dissipation while the controlled strength permits field and service repair. It produces a consistent 5 - 6 mm gap between the component and heat sink.

**SF 7840**

LOCTITE® SF 7840 is a concentrated, biodegradable cleaner that contains no hazardous solvents and dilutes with water to serve a wide range of industrial cleaning applications. Typical applications for this product include engines, motors, castings, valves, bearings, tanks, machinery, windows, carpets, and concrete floors. The product can remove grease, lubricants, cutting oils, fuel oils, tar, road salts, light carbon, food stains, wax, animal fat, mildew, and soot.

**LOC TITE SI 5710**

LOCTITE® SI 5710™ is an ultra clear, two-part silicone which cures at room temperature and can be accelerated by heat. Thanks to poly-dilution technology the product releases no by-products, has low shrinkage, is non-carcinogenic and is health and safety friendly. LOCTITE® SI 5710™ provides high transparency with a high transmission rate and is used for potting applications in the Lighting, Electrical and Optical industries for LED channel or lens, optical sensors or coating processes.

**PF 7060**

Application			
Catalog Ref	Product	Formulation	Type
Pulizia	SF 7060	Solvente	Significativa generico
Aderito UV	AA 3103	Luz ultravioleta	Aderito con luce UV
Pulizia	SF 7840	Concentrato da diluire in acqua	Detergente concentrato

**CE, RoHS****RoHS**

Catalog Ref	Product	Formulation	Type
Pulizia	SF 7060	Solvente	Aderito a termoformabile
Pulizia	SI 5710	Aderito a 315	Aderito a termoformabile
Aderito	SI 5710	Silicato per poliuretano	Aderito silicato bicomponente

**CE, RoHS**

Catalog Ref	Product	Formulation	Type
Pulizia	SI 7060	Liquido	Incolore compreno
Pulizia	SI 5710	Liquido	Incolore compreno
Aderito	SI 5710	Liquido	Incolore compreno

**CE, RoHS**

Incolore compreno. In momento di condensazione bianco  
Pulizzante all'acqua (SF 7060) Prezzi esclusi IVA  
Incolore compreno. Termico che condensa in colore bianco subito dopo  
Prezzi esclusi IVA (SI 5710) Prezzi esclusi IVA  
Pulizie di LED. Flessibile deposito a termoformato incolore resina e silicono  
vistoso. Allo grado di trasparenza

**LOC TITE 3873**

LOC TITE® 3873 is a light grey, opaque, thixotropic, thermally conductive, liquid acrylic ester adhesive. When used with LOC TITE Activator 7387, its rapid cure forms a high strength, high modulus, thermoset acrylic polymer. Recommended applications include the bonding of various heat generating devices (power devices) to thermal spreaders. (-C to +90 °C).

**LOC TITE TG 100**

LOC TITE® TG 100 is a thermal management grease that when used between heat generating devices delivers excellent thermal resistance and high thermal conductivity without evaporation. With a large operating temperature range, this product is non-flammable and resistant to oxidation. Typical assembly applications include CPUs, GPU's, MOUs, ASICs, DC-DC converters, ICAT, and Transistors.

**LOC TITE 5140/5145**

For a non-corrosive potting compound and sealant that withstands weathering, moisture, and ozone, choose LOC TITE® SI 5140. This translucent white putty compound and sealant retains its strength through severe environments, making it ideal solution for various electronic, military and industrial components. LOC TITE® SI 5140 is non-corrosive, self-leveling, and offers high flexibility as it enhances the load-bearing and shock-absorbing characteristics of the bond area.

**LOC TITE EA 9497**

LOC TITE® EA 9497 is a general-purpose high temperature resistant structure of binder with thermal conductivity. The grey, 2-part, medium viscosity epoxy reliable bonds metal sheets or electrical components where toughness and thermal conductivity is required. It can be used in high temperatures up to +200 °C, provides large gap fill and high compression strength in harsh environments.

**LOC TITE SI 5615**

LOC TITE® SI 5615 is a 2-part black, fast cure aliphatic silicone with excellent bond strength to glass, metals and Ceran. It has excellent hot strength up to +200 °C with the capability to resist higher temperatures for short-term exposure. Typical applications include sealing/bonding of glass assemblies, weld and rivet reduction in high temperature applications.



Category	Product	Potting/Sealant	Type	Formula Sheet	Formulation	Application Note
Primer	Loc-Bite 3670	Ester acrilico	Adhesive termico microcomponente	Loc-Bite 3670	Siliconico	Utilizzata o si ricorda o si fa termica 0,4W/m², per applicazione fissa e rotante
Adesivo	Loc-Bite 5140	Silicone elastomerico	Adhesive al termico microcomponente	Loc-Bite EA 9497	Epossidico	Adhesive o di compone per uso generico per la ricopertura di un impianto varia da m a aria, con buone caratteristiche termiche (1,4 W/m²)
Adesivo	Loc-Bite 5145	Silicone elastomerico	Adhesive al termico microcomponente	Loc-Bite EA 9497	Epossidico	Per fissaggio rapido di materiali elettronici su struttura in fibra di vetro, termorelativa a strati e fornitore di tenuta a strati di funzione in struttura. Ricorda 400 °C (ricorda una fornitura a specie di curatore e adattatore all'applicazione richiederebbe bassa resistenza di taglio (100 °C))

Category	Product	Potting/Sealant	Type	Formula Sheet	Formulation	Application Note
Primer	Loc-Bite 10100	Siliconico	Utilizzata o si ricorda			
Adesivo	Loc-Bite EA 9497	Epossidico	Adhesive epoxi adatto a componente			
Adesivo	Loc-Bite 460	Cianoclorato	Adhesive in barattolo in autocoscimento			

Category	Product	Potting/Sealant	Type	Formula Sheet	Formulation	Application Note
Primer	Loc-Bite 3670	Ester acrilico	Adhesive termico microcomponente	Loc-Bite 3670	Siliconico	Utilizzata o si ricorda o si fa termica 0,4W/m², per applicazione fissa e rotante
Adesivo	Loc-Bite 5140	Silicone elastomerico	Adhesive al termico microcomponente	Loc-Bite EA 9497	Epossidico	Per fissaggio rapido di componenti elettronici, dolce bianco: Poltig. a temperatura ambiente, sigillato in tubo di gomma chiuso aperto: utilizzata a strati di funzione in struttura. Ricorda 400 °C (ricorda una fornitura a specie di curatore e adattatore all'applicazione richiederebbe bassa resistenza di taglio (100 °C))
Adesivo	Loc-Bite 5145	Silicone elastomerico	Adhesive al termico microcomponente	Loc-Bite EA 9497	Epossidico	Fissaggio a strati, sigillato in tubo di gomma chiuso aperto: utilizzata a strati di funzione in struttura. Ricorda 400 °C (ricorda una fornitura a specie di curatore e adattatore all'applicazione richiederebbe bassa resistenza di taglio (100 °C))
Adesivo	Loc-Bite 5615	Silicone elastomerico	Adhesive al termico microcomponente			Fissaggio a strati, sigillato in tubo di gomma chiuso aperto: utilizzata a strati di funzione in struttura. Ricorda 400 °C (ricorda una fornitura a specie di curatore e adattatore all'applicazione richiederebbe bassa resistenza di taglio (100 °C))



## COMPANY PROFILE

Founded in 1902 in Minnesota, 3M is present in 65 countries around the world with products suitable for various applications such as industry, electronics, energy, automotive and transport. In Italy for over fifty years, 3M is today strongly rooted in our country - the Design Lab Europe and the Customer Technical Center

**NASTRI BLADES IN TERMOCOCONDUTTIVI 3M / NASTRI BLADES IN TERMOCOCONDUTTIVI 3M (DUPONT™ KAPTON®)**

Innanzitutto i nastri termoconduttori 3M offrono una soluzione affidabile per la gestione termica in una vasta gamma di applicazioni industriali. Sono progettati per trasferire il calore in modo efficiente, fornendo un collegamento termico affidabile fra le superfici per ridurre la dissipazione del calore. Di seguito è riportato un breve confronto delle applicazioni principali dei nastri adesivi termoconduttori 3M.

**NASTRO ADESIVO TERMOCOCONDUTTIVO 3M 8926**  
A high performance, electrically insulating, thermally conductive phase change material with polyimide reinforcement - designed for electronic power devices requiring electrical isolation to the heat sink. No spil, no mess, easy handling.  
High-performance electrically insulating, reinforcement pad.



**NASTRO ADESIVO TERMOCOCONDUTTIVO 3M 5413**  
Applicazioni tipiche: applicazioni aeronautiche, dissipazione di potenza, moduli a elettronica ad alta potenza, mascheratura contatti in oro durante la soldatura a onda.



are located in the Piove di Sacco headquarters, near Milan.  
The creative spirit of 3M alongside each company to meet the demands of each customer with innovative and cutting-edge products.

**NASTRI BLADES IN TERMOCOCONDUTTIVI 3M / NASTRI BLADES IN TERMOCOCONDUTTIVI 3M (DUPONT™ KAPTON®)**

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High-performance electrically insulating, reinforcement pad.



**NASTRO ADESIVO TERMOCOCONDUTTIVO 3M 5413**  
Applicazioni tipiche: dissipazione di calore in elettronica di potenza, moduli a elettronica ad alta potenza, mascheratura contatti in oro durante la soldatura a onda.



**NASTRO ADESIVO TERMOCOCONDUTTIVO 3M 8982**  
Applicazioni tipiche: raffreddamento elettronico, applicazioni autonome, dissipazione di calore in dispositivi a semiconduttore.



**NASTRO ADESIVO TERMOCOCONDUTTIVO 3M 8982**  
Applicazioni tipiche: raffreddamento elettronico, applicazioni autonome, dissipazione di calore in dispositivi a semiconduttore.



Product	Thickness	Conformability	Thermal Conductivity <sup>a</sup>	Adhesive	Operating temperature	
					RWB	RoHS
8982	0.2 mm	High	1.5 W/mK	Silicone	-80°C to +80°C	
8982	0.05 mm	Medium	0.6 W/mK	Acrylic	-40°C to +160°C	
8985	0.13 mm	Medium	0.6 W/mK	Acrylic	-40°C to +160°C	
5413	0.069 mm	Low	0.8 W/mK	Silicone	-70 °C to +200°C	
8910	0.25 mm	Low	0.6 W/mK	Acrylic	-40°C to +160°C	

**NASTRO ADESIVO TERMOCOCONDUTTIVO 3M 9085**  
Applicazioni tipiche: dissipazione di calore in elettronica di potenza, moduli a semiconduttore, componenti di controllo termico.



Le caratteristiche riportate potrebbero variare leggermente a seconda delle specifiche del prodotto e delle esigenze dell'applicazione.  
È consigliabile consultare le schede tecniche ufficiali dei prodotti per informazioni più dettagliate.



## COMPANY PROFILE

Mingfa Tech is a LED heat sink designer and manufacturer. It has also worked with many famous LED lighting OEMs around the world for years, while assisting customers in led thermal analysis and management, heat sink calculations, prototyping and mass production for LED coolers.



tLED

Product	Thermal Res	Lumen	Dimensions (LxW)	Dimensions (LxW)	Standard height*
t-LED-9290 <sup>(1)</sup>	0.34 °C/W	7000 - 16000	L92 x W90 mm	30 / 50 mm	

Product	Thermal Res	Lumen	Dimensions (LxW)	Dimensions (LxW)	Standard height*
t-LED-19070 <sup>(2)</sup>	0.25 °C/W	12000 - 22000	L190 x W70 mm	30 / 50 mm	
GooLED-48	5.60 - 3.47 °C/W	300 - 1800	48 mm Ø	30 / 50 / 68 / 80 mm	
GooLED-68	3.50 - 2.27 °C/W	500 - 2800	68 mm Ø	30 / 50 / 60 / 80 mm	
GooLED-78	2.70 - 1.67 °C/W	800 - 3800	78 mm Ø	30 / 50 / 80 mm	
GooLED-110	1.30 - 0.92 °C/W	1800 - 6500	110 mm Ø	50 / 80 mm	



\* Other heights available upon request | <sup>(1)</sup> Compatible with Ledil IP Lens STRADA 2x2MX | <sup>(2)</sup> Compatible with Ledil IP Lens HB-IP-2x6

\* Other heights available upon request

<b>ETRALED</b>	<b>Product</b>	<b>Thermal Res</b>	<b>Lumen</b>	<b>Dimensions (LxW)</b>	<b>Standard height*</b>
EtraLED-48	6,25 - 3,60 °C/W	300 - 1800	48 mm Ø	20 / 50 / 80 mm	
EtraLED-70	3,57 - 1,80 °C/W	800 - 3700	70 mm Ø	20 / 50 / 80 mm	
EtraLED-85	2,00 - 1,30 °C/W	1200 - 5000	85 mm Ø	20 / 50 / 80 mm	
EtraLED-110	1,50 - 0,90 °C/W	2000 - 7200	110 mm Ø	20 / 50 / 80 mm	

\* Other heights available upon request

<b>ELED</b>	<b>Product</b>	<b>Thermal Res</b>	<b>Lumen</b>	<b>Dimensions (LxW)</b>	<b>Standard height*</b>
ELED-46	6,25 - 3,80 °C/W	300 - 1600	46 mm Ø	20 / 50 / 80 mm	
ELED-70	3,00 - 1,77 °C/W	500 - 3600	70 mm Ø	20 / 50 / 80 mm	
ELED-95	1,72 - 1,10 °C/W	1500 - 6300	95 mm Ø	20 / 50 / 80 mm	

\* Other heights available upon request

<b>BuLED</b>	<b>Product</b>	<b>Thermal Res</b>	<b>Lumen</b>	<b>Dimensions (LxW)</b>	<b>Standard height*</b>
BuLED-30E/50E	3,70 - 4,20 °C/W	400 - 1200	48 mm Ø	30 / 50 mm	
BuLED-30F/50F/68F	3,70 - 4,20 °C/W	500 - 1800	48 mm Ø	30 / 50 / 68 mm	
BuLED-30Fx/50Fx /68Fx	3,80 - 6,40 °C/W	500 - 1200	48 mm Ø	30 / 50 / 68 mm	

\* Other heights available upon request

#### **XLED**

<b>XLED</b>	<b>Product</b>	<b>Thermal Res</b>	<b>Lumen</b>	<b>Dimensions (LxW)</b>	<b>Standard height*</b>
XLED-45	6,40 - 4,20 °C/W	300 - 1600	45 mm Ø	30 / 50 / 68 mm	
XLED-60	4,20 - 3,30 °C/W	500 - 2000	60 mm Ø	30 / 50 mm	
XLED-70	3,30 - 2,56 °C/W	500 - 2500	70 mm Ø	30 / 50 mm	
XLED-80	2,70 - 1,96 °C/W	500 - 3300	80 mm Ø	30 / 50 mm	

\* Other heights available upon request

\* Other heights available upon request

\* Other heights available upon request

# LIGHTING CONNECTOR





## COMPANY PROFILE

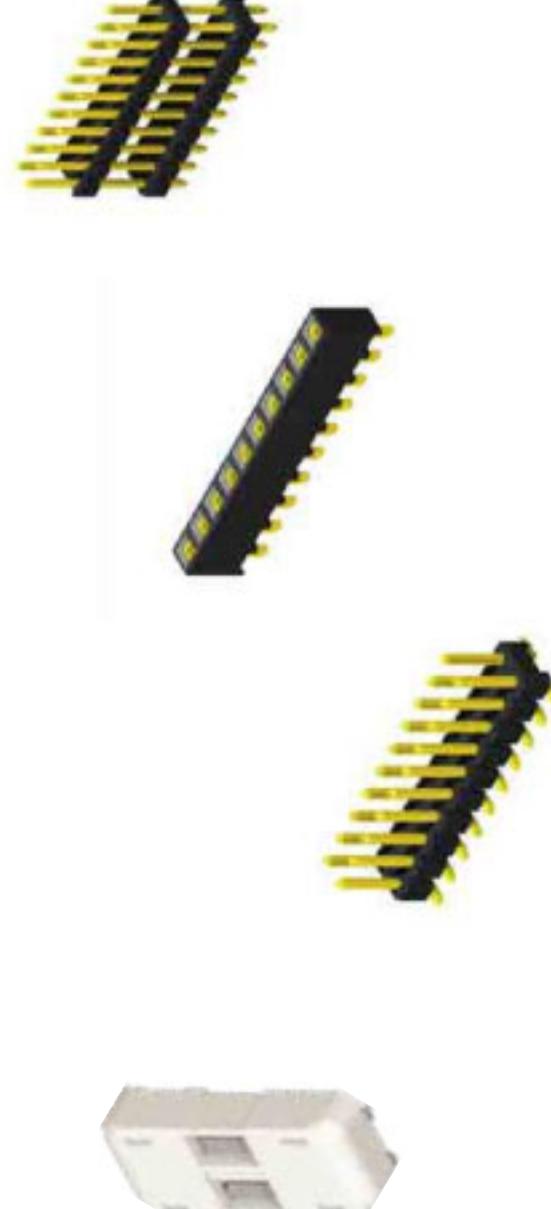
In the 25 years since it was first founded, Amtek Technology Co. has evolved into a leading worldwide professional manufacturer of various connectors. Its connectors are supplied in a wide range of styles and configurations to suit any design requirements. In addition to standard ranges, custom-built connectors

can be designed, developed, and manufactured to meet individual requirements. Its experienced Research and Development team makes constant efforts to research and develop new solutions that are capable of replying, in a flexible and low-cost way, to the most diversified needs of the market.

### **LEDM-XXTWR-U**

Hermaphroditic connector, pitch 4.00 mm from 2 to 6 pins. Hermaphroditic connector system for LED command. Wire-to-board and board-to-board connections. Can also be connected on planes with an inclination of 45 degrees.

Product	Rated Voltage	Rated Current	Wire range	Withstanding Voltage	Operating Temperature
LEDM-02TWR-U	300 VAC/DC	6A AC,DC	-	1500 V	-40°C ~ + 105°C
LEDM-02TWR-U	300 VAC/DC	6A AC,DC	-	1500 V	-40°C ~ + 105°C
LEDM-04TWR-U	300 VAC/DC	6A AC,DC	-	1500 V	-40°C ~ + 105°C
LEDM-04TWR-U	300 VAC/DC	6A AC,DC	-	1500 V	-40°C ~ + 105°C





## COMPANY PROFILE

Founded in 2012, Ningbo MKX Electronic Technology CO., LTD. is a professional manufacturer of Electronic Connectors, now we employed 200 workers, the main products of us are: Terminal blocks, Dip Switches. There are thousands products which are widely used in frequency converters, the control of servo

drives, switching power supply, electric lighting and industry automation. With the development of our factory, we set research and development center, workshops for Moulds, Punching, Injection, Precise Cutting, Assembling, Automatic Machines, we always keep "Attentive, Professional, Credibility..."



MX3858-XP

Product	Rated Voltage	Rated Current	Wire range	Withstanding Voltage	Operating Temperature
MX3858-2P	600 V	20 A	16-12 AWG	2000 V	-40°C ~ +105°C
MX3858-3P	600 V	20 A	16-12 AWG	2000 V	-40°C ~ +105°C
MX3858-4P	600 V	20 A	16-12 AWG	2000 V	-40°C ~ +105°C
MX3858-5P	600 V	20 A	16-12 AWG	2000 V	-40°C ~ +105°C



Product	Rated Voltage	Rated Current	Wire range	Withstanding Voltage	Operating Temperature
MX3258-2P	600 V	20 A	28-12 AWG	2000 V	-40°C ~ +105°C
MX3258-3P	600 V	20 A	28-12 AWG	2000 V	-40°C ~ +105°C
MX3258-4P	600 V	20 A	28-12 AWG	2000 V	-40°C ~ +105°C
MX3258-5P	600 V	20 A	28-12 AWG	2000 V	-40°C ~ +105°C



MX3258-XP

Product	Rated Voltage	Rated Current	Wire range	Withstanding Voltage	Operating Temperature
MX3258-2P	600 V	20 A	28-12 AWG	2000 V	-40°C ~ +105°C
MX3258-3P	600 V	20 A	28-12 AWG	2000 V	-40°C ~ +105°C
MX3258-4P	600 V	20 A	28-12 AWG	2000 V	-40°C ~ +105°C
MX3258-5P	600 V	20 A	28-12 AWG	2000 V	-40°C ~ +105°C

# CIRCULAR PLASTIC CONNECTOR



## COMPANY PROFILE



Forefront technology, innovative materials and functional creativity: for over 30 years Techno has been dedicated to the design and production of electrical connection solutions at high technical content, ISO 9002 (ISO 9001: 2008) compliance. Techno, Italian company based near Como, is specialized in circular plastic plug/socket connectors with high IP protection (IP66, IP68, IP69K),

junction boxes, socket/plug current distributors, as well as in study and production of customized solutions with attention to details for the full customer satisfaction. Exported in 60 countries all over the world, Techno guarantees the excellence of high innovative products suitable to a wide range of sectors such as lighting, industrial, infrastructure, transportation and energy.

### TEETUBE®

**IN-LINE AND JUNCTION CIRCULAR CONNECTOR:** The TEETUBE® family groups a wide range of in-line and junction connectors. Optimized dimensions with circular design. The TEETUBE® provide IP68/IP69K high protection waterproof connections without the need of gel or resin and allow inspection inside.



### TEEGLAND®

**INNOVATIVE IP68 CABLE GLAND:** The TEEGLAND® family groups a series of cable glands patented by Techno made with the innovative co-moulding of the rubber over the plastic. They are available in metric and PG versions.



### TEEBOX®

**JUNCTION BOXES AND CURRENT DISTRIBUTORS:** The TEEBOX® family groups a series of terminal blocks and junction boxes of small and medium dimensions in 3 and 4 ways versions particularly useful in small spaces and installation with high protection requirements.



### TEEBLOCK® e TEEDRUM®

**COMPACT TERMINAL BLOCKS:** The TEEBLOCK® and TEEDRUM® families group a wide range of compact terminal blocks which can be used as stand-alone or installed in TEEBOX® or TEETUBE® protected housing to guarantee a protected connection up to IP68.



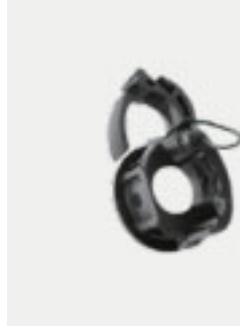
### TEEPLUG®

**PLUG & SOCKET CIRCULAR CONNECTORS:** The TEEPLUG® family groups a series of plug-socket connecting solutions, panel-mounting and special versions, for indoor and outdoor applications and particularly useful in installations with high protection requirements.



### TEEBOND®

**QUICK LOCKING CABLE CLAMPS:** The TEEBOND® family groups innovative quick locking cable clamps made with high quality UL94 VO/V2 polymer (yellow card) with high mechanical and thermal resistance.



# STANDARD & CERTIFICAZIONI

## STANDARDS & CERTIFICATIONS

# PROTOCOLLI DI CONTROLLO PER L'ILLUMINAZIONE

## LIGHTING CONTROLS PROTOCOLS

(Pan 21 Sec.3)  
 R-41136530

### BIS (INDIA)

Safety certification for India.  
The figure at the bottom of the label indicates the number of the certificate.



### ENEC (EUROPE)

The ENEC European safety certification and defines requirements for preventing electrical shock and fire.

There are two categories:

- Standard ENEC label indicates that the LED driver has passed the standard ENEC safety test with AC mains voltage.
- The standard reference is EN61347-1. The digits in the label (05) are the lab identification number.
- An EL label indicates that the driver has also passed the test with DC mains voltage for emergency lighting.
- The standard reference is EN-61347-2-13.



### DALI-2

DALI-2 is an international standard for the DALI dimming protocol.  
Compared to DALI version-1 devices current on the market, DALI-2 certified components bring the promise of significantly improved interoperability and additional functionality.



### DMX

The international standard reference for DMX dimming is ANSI E1.20 and E1.11 – 2008, USITT DMX512-A.



### O-10V DIMMING

The international standard for 0-10V dimming is IEC 60929 annex E, for Europe EN 60929 annex E.  
Compliance of eldoLED drivers:  
Below 0.6V - enabling standby mode.  
From 0.6V to 10V with IEC/EN 60929 annex E.  
For detailed dimming characteristics see the 0-10V response chart in the Control Characteristics section of the product datasheets.



### PULSE DIMMING

Pulse dimming is a feature on eldoLED DALI drivers that enables easy switching and dimming. Pulse dimming uses standard mains voltage (max 250V AC) switches for lighting control.

████████  
████████  
████████  
████████

### RCM (AUSTRALIA/NZ)

RCM is a certification for New Zealand and Australia. This consists of basic ENEC certification with additional testing for RCM.

The standard references are SAA 6134.7.1 and SAA 6134.7.13.

There are two RCM labels:

- The standard RCM label
- The label for independent drivers
- The LED driver is a standalone driver and should not be covered with isolation material.



### PSE (JAPAN)

PSE is the safety standard for Japan. PSE certified products have this label.



### UL

UL is a North American safety standard that defines requirements for preventing electrical shock and fire from LED drivers.  
There are three categories:

- UL recognized. This is the basic UL certification.
- The LED driver is a UL recognized component and only intended for use in other end-use products.

The standard references are UL8750 and UL1310.

In the label 'C' is for Canada and 'US' for United States of America.

The code 'Exxxxx' at the bottom is the company identification number.

• UL recognized, type 'TL'

The LED driver is a UL recognized component. In addition to standard UL certification, the LED driver has been tested and Trel and TreffMax value.

• UL listed, Class-P

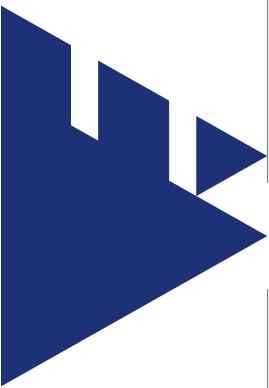
The LED driver is a UL listed product that can be used as end-use product.  
In addition to standard UL certification, the LED driver has been tested on temperature protection.



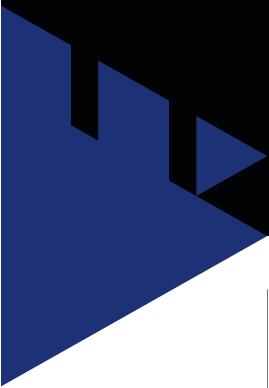
TIS 1955-2551



NOTE/NOTES



**NOTE/NOTES**



NOTE/NOTES



#### HEADQUARTER

Welt Electronic SpA

Via della Treccia, 33 - 50145 Firenze

Tel. +39 055 302631

[info@weltelecronic.it](mailto:info@weltelecronic.it) - [weltelecronic@pec.it](mailto:weltelecronic@pec.it)

[gdpr@weltelecronic.it](mailto:gdpr@weltelecronic.it) - [www.weltelecronic.it](http://www.weltelecronic.it)

#### PRODUCTION

Via della Treccia, 8 - 50145 Firenze

Tel. +39 055 302631

#### LOCAL OFFICES

Ancona - Bologna - Genova

Padova - Roma - Torino - Milano

#### COMPANY DATA

Trib. FI45117 - R.E.A. FI388341

C.F. e P.I. 03714360488

Social Capital: 2.000.000 i.v.

Registro Pile: IT19040P00005244

Scopri la



light-division

Discover the

light division