

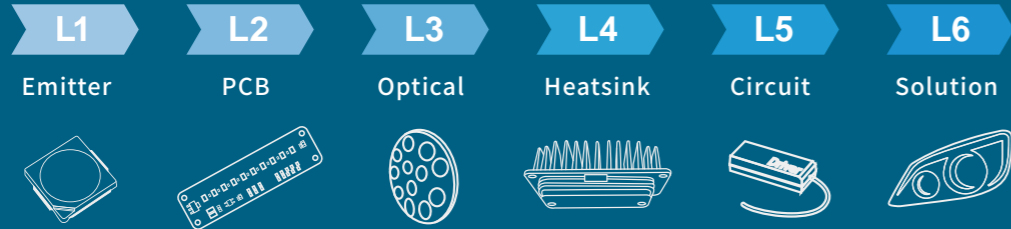


2024
EDISON OPTO
Automotive
LED



About EDISON OPTO

EDISON OPTO was established by Mr. Jason Wu, the chairman as well as the founder, at New Taipei City of Taiwan in 2001. For its innovated technology strength, EDISON OPTO provides comprehensive LED and solid-state lighting products from LED Component, Light Module, UV / IR LED, LED sensing, Horticulture and Automotive Lighting.



With a view to improve R&D process, EDISON OPTO develops the vertical platform on TEMO (Thermal·Electrical·Mechanical·Optical) to ensure the quality of products and services; Furthermore, EDISON OPTO creates LDMS (LED Design Manufacturing Service) from Automotive LED light source to Automotive Lamp manufacturing, to serve our customers a quality experience of customized solutions.

Establish | 2001
Capital | 45 Million
Employee | 800 people
Certificated | ISO 9001 / ISO 14001 / ISO IATF 16949



Automotive LED

PLCC Series

DongFeng Ceramic Series

Material

1st Tier Supplier

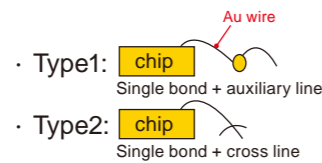
- Automotive Grade Chip.
- 99.99% Pure Au Wire, 1.0-1.2mil Diameter.
- Silicone-base Glue with Better Sulfur Resistance.



Design

Design Features

Extension Wire Bonding Technology



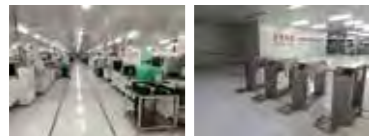
Lead-frame Design

- Optimized Ag Surface and Special Coating Enhance Lead-frame Strength and Reliability

Production

Professional Production Line

- Controlled Environment (25±3°C, 50±10%RH)
- Indep. Production Line for Automotive Products
- ESD Precautions: Air Ionizer, ESD Turnstile Gate



Quality

Manufacturing iMES System

- PTC 1000 cycles passed
- H2S and Mixed gas test passed
- AEC- Q102 ...passed



PLCC Series Typ. 0.06W-1W (Max.3W)



EMC 3030 Watt: 1W-3W
DRL, Turn Signal, Stop Light, Rear Light



EMC 3537 Watt: 0.5W-2W
DRL, Turn Signal, Stop Light



EMC 2720 Watt: 0.2W-3W
DRL, Turn Signal, Stop Light



PLCC 3433 Watt: 0.2W-0.5W
DRL, Turn Signal, Stop Light, Position Light, Ambient Light



PLCC 3528 Watt: 0.06W-0.5W
Turn Signal, Warning Light, Reading Light, Ambient Light, Dashboard



PLCC 2214 Watt: 0.06W
Ambient Light, Dashboard



SIDE VIEW 4043 Watt: 0.2W-0.5W
Turn Signal, Stop Light, Position Light



Material

Worldwide Brand in Taiwan

- LED Chip Supplier of Leading Brands
- Thermoelectric Separation Substrate with Optimized Thermal Performance
- Robust Phosphor Material: One-piece Phosphor in Glass

Design

Design Features

- Flip Chip and Eutectic Process Optimize Thermal Conductivity
- Electrically Isolated Thermal Pad Structure Makes Rth Lower
- One Piece Emitting Area for Uniform Light Pattern



Production

Professional Production Line

- Clean Room Classification: Class 100,000
- Eutectic Direct Bonding Technology
- 100% X-ray Inspection after Die Bonding



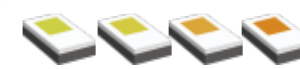
Quality

Manufacturing iMES System

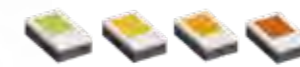
- MES System for Traceability
- Complied with IATF16949 Principles



DongFeng Ceramic Series Typ. 2W-24W (Max.40W)



CA2016T
Max. Watt: 2W
DRL, Fog Lamp, Turn Signal



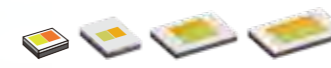
CA2016L
Max. Watt: 5W
DRL, Fog Lamp, Turn Signal



Single Row
Max. Watt: 10W-25W
Type: DF-2C, DF-3C, DF-4C, DF-5C
DRL, Fog Lamp, High/ Low Beam



Double Row
Max. Watt: 30W-40W
Type: DF-6C, DF-8C
High/ Low Beam, Bi-Beam



Dual Color
Max. Watt: 2W-20W
Type: CA2016D, DF-2CD, DF-6CD, DF-8CD
Dual Color Fog Lamp, Dual Color High/ Low Beam

PLCC Series

- Cool White: 5000-7000K
- Yellow: 585-595nm
- Blue: 460-476nm
- Ice Blue: X 0.1902,Y 0.2595
- Super Red: 627-639nm
- Green: 516-534nm
- Red: 612-624nm



EMC 3030

Series/ PKG	Watt	Color	Wavelength (nm)	Flux (lm)		If (mA) Typ.	Max. Cur. (mA)	VF (V)
				lm	Cd			
3030 2PIN 0.6H	0.5W	CW (CRI70)	-	55-70	18-21.2	140	200	3.05
		PC Amber	-	40-55	13.3-16.5	140	200	3.05
	1W	CW (CRI70)	-	130-170	42.9-56.1	350	700	3.1
		PC Amber	-	100-130	33-42.9	350	700	3.1
		Blue	463-480	30-45	11.2-14.6	350	700	3.1
	0.7W	Red	612-624	typ. 50	-	350	700	2.25
Red		612-624	30-45	-	200	250	2.25	

EMC 3537

Series/ PKG	Watt	Color	Wavelength (nm)	Flux (lm)		If (mA) Typ.	Max. Cur. (mA)	VF (V)	
				lm	Cd				
3537 0.8H Dual Color	2W	2in1	CW	-	80-100	-	250	350	3.3
			Amber	-	50-65	-	250	350	3.3
		2in1	Red	612-624	35-50	-	200	250	2.8
			Amber	-	45-60	-	200	350	3.3
	1.5W	2in1	Red	612-624	35-50	-	200	250	2.8
			Yellow	585-595	25-35	-	200	250	2.8

EMC 2720

Series/ PKG	Watt	Color	Wavelength (nm)	Flux (lm)		If (mA) Typ.	Max. Cur. (mA)	VF (V)
				lm	Cd			
2720 2PIN	0.2W	Red	612-624	-	2.2-4.5	50	70	2.25
	0.5W	Red	615-624	22-28	-	140	200	2.25
	0.7W	Red	615-624	30-36	-	200	250	2.25
		Super Red	627-639	16-22	-	200	250	2.25
	1W	Red	616-624	35-50	-	350	500	2.15
		CW (CRI70)	-	100-130	-	350	500	3.1
		PC Amber	-	45-63	-	350	500	3.2
	3W	Red	616-624	40-55	-	350	700	2.15
		CW (CRI70)	-	110-140	-	350	700	3.1
		PC Amber	-	50-71	-	350	700	3.2

PLCC Series

Third-party verified laboratory
AEC-Q102 qualified

- Complete Product Series Pin to Pin to Leading Brands
- Wire Bonding Technology with Patent and Extension wire
- Single Bond with Auxiliary Wire (Patented) & Extension Wire Bonding
- Laser Marks for Traceability
- Wide range applications for both Vehicle Interior and Exterior Lamps



PLCC Series

PLCC 3528



Series/ PKG	Watt	Color	Wavelength (nm)	Flux (lm)		If (mA) Typ.	Max. Cur. (mA)	VF (V)	
				lm	Cd				
3528 2PIN 0.8H	0.2W	CW (CRI70)	-	15-20	4.50-7.10	50	70	3.05	
		PC Amber	-	15-20	4.50-7.10	50	70	3.05	
		Red	612-620	7-13	2.24-4.50	50	70	2.25	
		Super Red	627-639	5-7	1.40-2.24	50	70	2.25	
		Yellow	589-595	8-13	2.24-4.50	50	70	2.25	
	0.1W	Blue	463-471	1.5-2	0.45-0.71	30	50	3.1	
		Green	520-535	7-10	2.24-3.50	30	50	3.1	
	0.5W	CW (CRI70)	-	50-65	16.4-19.6	140	200	3.05	
		PC Amber	-	30-45	10-14	140	200	3.05	
		Red	612-620	19-32	5.60-11.5	140	200	2.15	
3528 0.7H Dual Color	1W	2in1	CW	-	40-55	13.6-16.8	120	150	3.2
			PC Amber	-	30-45	10.4-13.6	120	150	3.2
		2in1	Red	612-624	15-20	5-6	120	150	2.4
			PC Amber	-	30-45	10.4-13.6	120	150	3.2

PLCC 3528



Series/ PKG	Watt	Color	Wavelength (nm)	Flux (lm)		If (mA) Typ.	Max. Cur. (mA)	VF (V)
				lm	Cd			
3528 2PIN 1.85H	0.06W	CW (CRI70)	-	6-10	1.8-4.0	20	30	3.0
		Ice-Blue	-	5-8	1.4-2.8	20	30	3.0
		Blue	463-475	1-2	0.28-0.56	20	30	3.2
		Red	616-624	2.5-4.0	0.71-1.40	20	30	2.15
		Super Red	627-639	1.5-3	0.45-0.90	20	30	2.15
		Yellow	589-595	3.15-5.0	0.90-1.80	20	30	2.15
3528 4PIN 1.8H	0.2W	CW (CRI70)	-	15-20	4.50-7.10	50	70	3.05
		PC Amber	-	15-20	4.50-7.10	50	70	3.05
		Red	612-620	7-12.6	2.24-4.50	50	70	2.25
		Super Red	627-639	5-6.5	1.40-2.24	50	70	2.25
		Yellow	585-595	7-12.5	2.24-4.50	50	70	2.25

PLCC 3433



Series/ PKG	Watt	Color	Wavelength (nm)	Flux (lm)		If (mA) Typ.	Max. Cur. (mA)	VF (V)	
				lm	Cd				
3433 6PIN 1.9H	0.5W	CW (CRI70)	-	45-60	14.8-18.0	140	200	3.05	
		PC Amber	-	35-50	11.7-14.8	140	200	3.05	
		Red	612-620	19.8-31.5	5.6-11.2	140	200	2.15	
		Super Red	627-639	15.7-25.1	4.5-9.0	140	200	2.15	
		Yellow	589-595	19.8-31.5	5.6-11.2	140	200	2.25	
Magic RGB + IC 6PIN	0.2W	RGB 3in1	R	616-624	-	0.71-11.2	20	30	2.05
			G	520-525	-	1.80-2.80	20	30	3.0
			B	460-470	-	0.35-0.56	20	30	3.0
Magic RGB + IC 6PIN	0.2W	RGB 3in1 +IC	R	612-624	-	0.56-0.90	12	20	-
			G	520-530	-	1.12-1.18	12	20	-
			B	460-470	-	0.22-0.35	12	20	-

PLCC 2214



Series/ PKG	Watt	Color	Wavelength (nm)	Flux (lm)		If (mA) Typ.	Max. Cur. (mA)	VF (V)
				lm	Cd			
2214 2PIN 1.30H	0.06W	CW (CRI70)	-	-	2.2-2.5	20	30	3.0
		Blue	453-476	-	0.27-0.34	20	30	3.0
		Chartreuse	550-560	-	1.1-1.4	20	30	3.0
		Red	619-623	-	0.11-0.26	20	30	2.15
		Super Red	630-639	-	0.50-0.60	20	30	2.15
		Yellow	590-591	-	0.44-0.67	20	30	2.15
		Green	521-531	-	0.99-1.59	20	30	2.8
		Orange	601-606	-	0.81-0.97	20	30	2.15

PLCC 4043



Series/ PKG	Watt	Color	Wavelength (nm)	Flux (lm)		If (mA) Typ.	Max. Cur. (mA)	VF (V)
				lm	Cd			
SIDE VIEW 4043	0.2W	CW (CRI70)	-	15-20	4.50-7.10	50	70	3.05
		PC Amber	-	10-14	3.30-4.60	50	70	3.05
		Red	612-624	7-13	2.24-4.50	50	70	3.05
		Super Red	627-639	5-7	1.40-2.24	50	70	3.05
		Yellow	585-595	8-13	2.24-4.50	50	70	3.05
	0.5W	CW (CRI70)	-	50-65	16.4-19.6	140	200	3.05
		PC Amber	-	30-45	10-14	140	200	3.05
		Red	612-624	19-32	5.60-11.5	140	200	2.25
		Super Red	627-639	16-22	5.28-7.26	140	200	2.25
		Yellow	585-595	19-31	5.6-11.2	140	200	2.25

DongFeng Ceramic Series

- Automotive Level Material but Cost Effective
- Professional Chip Bonding Process Contributes Extremely Low Thermal Resistance Performance
- Strict Quality Control Among the Whole Process Flow (X-ray, Inspection, Binning, Tests)
- One Piece Phosphor to Improve the Uniformity of Light Pattern
- Flexible Exterior Automotive Lighting Solution

CA2016

- Pin to Pin and Compatible with Leading Brands.
- Compact Size with High Lux
- Easy to Design Your Own Type of Array
- Electrically Isolated Thermal Pad Structure Makes Thermal Resistance Lower
- Applications: Headlamp, DRL, Fog Lamp, etc

DRL		Fog Light		Headlamp			
PKG	Emitting Area (mm)	IF(Typ.)/ IF(Max.)	Color	Binning Current, IF(Typ.)		Maximum Current, IF(Max.)	
				Flux (lm)	Power (W)	Flux (lm)	Power (W)
CA2016T	0.79x0.79	0.2A/ 0.7A	CW	75	0.6	205	2
			NW	75		205	
CA2016L	1.22x1.22	1A/ 1.5A	CW	370	3	480	5
			NW	370		480	
CA2016H	1.05x1.05	1A/ 3A	CW	360	3	650	10
			NW	360		650	



Turn Signal							
PKG	Emitting Area (mm)	IF(Typ.)/ IF(Max.)	Color	Binning Current, IF(Typ.)		Maximum Current, IF(Max.)	
				Flux (lm)	Power (W)	Flux (lm)	Power (W)
CA2016T	0.79x0.79	0.2A/ 0.7A	PC Amber	40	0.6	100	2
CA2016L	1.22x1.22	1A/ 1.5A		250	3	300	5



Fog Lamp							
PKG	Emitting Area (mm)	IF(Typ.)/ IF(Max.)	Color	Binning Current, IF(Typ.)		Maximum Current, IF(Max.)	
				Flux (lm)	Power (W)	Flux (lm)	Power (W)
CA2016L	1.22x1.22	1A/ 1.5A	Golden	370	3	470	5



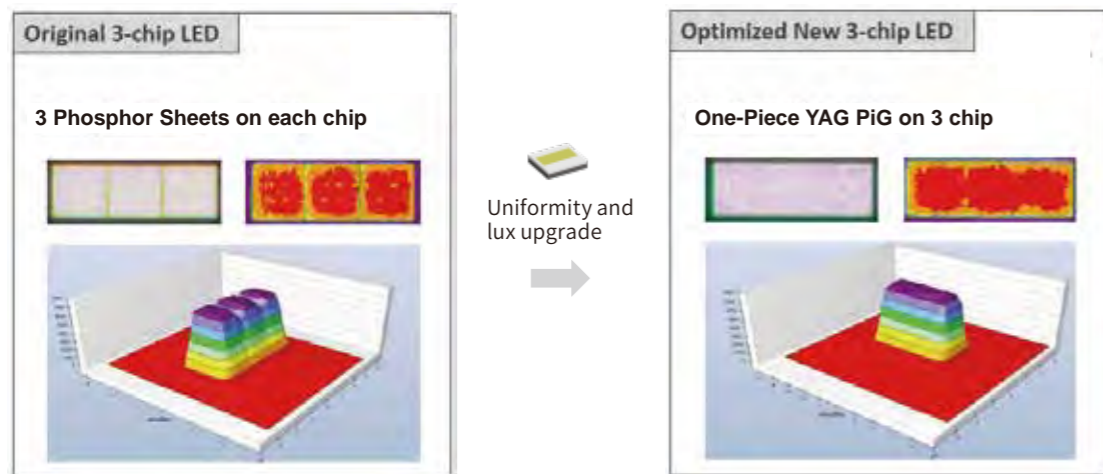
Rear Light							
PKG	Emitting Area (mm)	IF(Typ.)/ IF(Max.)	Color	Binning Current, IF(Typ.)		Binning Current, IF(Max.)	
				Flux (lm)	Power (W)	Flux (lm)	Power (W)
CA2016S	1.05x1.05	1A/ 2.5A	Red	170	3	290	5





DongFeng Ceramic Series

Optimization of Central Light Intensity



Benefits from one-piece YAG PiG and sophisticated bonding technology, Edison's new Dong Feng Series LEDs deliver higher lux performance, making it easier to pass the regulation while designing or simulating directional lighting applications. Furthermore, since YAG PiG covers the gaps between chips, conversion efficiency increases, and the generation of dark area also significantly reduces to meet a better light distribution.

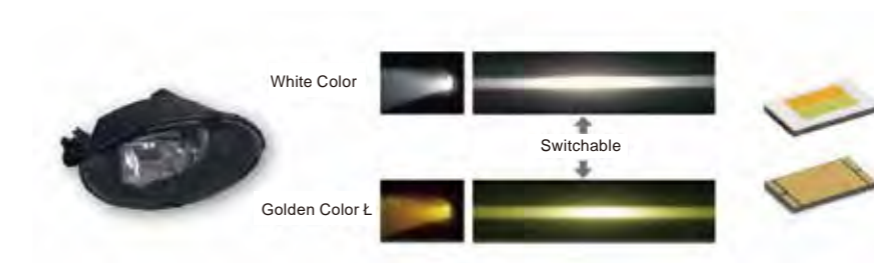
Single Row

PKG	IF(Typ.)/IF(Max.)	Color	Layout	Binning Current, IF(Typ.)		Maximum Current, IF(Max.)	
				Flux (lm)	Power (W)	Flux (lm)	Power (W)
DF-2C (6V)	1A/1.5A	CW	2S1P	720	6	1000	10
DF-3C (9V)			3S1P	1100	9	1500	15
DF-4C (12V)			4S1P	1425	12	2000	20
DF-5C (15V)			5S1P	1760	15	2500	25

Double Row

PKG	IF(Typ.)/IF(Max.)	Color	Layout	Binning Current, IF(Typ.)		Maximum Current, IF(Max.)	
				Flux (lm)	Power (W)	Flux (lm)	Power (W)
DF-6C	1A/1.5A	CW	6S1P	2170	18	3000	30
DF-8C			8S1P	2900	24	4000	40

Dual Color Fog Lamp Module



Dual Color PKGs can easily provide cool white and warmer CCT at the same time, meeting end user's expectations to switch between cooler to higher penetration color in foggy environment.

Dual Color

PKG	IF(Typ.)/IF(Max.)	Color	Layout	Binning Current, IF(Typ.)		Maximum Current, IF(Max.)	
				Flux (lm)	Power (W)	Flux (lm)	Power (W)
CA2016D (3V * 2 set)	0.2A * 2 set / 0.7A * 2 set	CW+PC Amber	1S1P * 2 set	75+40	0.6+0.6	205+100	2+2
DF-2CD (3V * 2 set)	1A * 2 set / 1.5A * 2 set	CW+CW	1S1P * 2 set	360+360	3+3	480+480	5+5
		CW+NW		360+360		480+470	
		CW+GD		360+360		480+470	
DF-6CD (9V * 2 set)	1A * 2 set / 1.5A * 2 set	CW+CW	3S1P * 2 set	1100+1100	9+9	1500+1500	15+15
		CW+NW		1100+1050		1500+1400	
		CW+GD		1100+1050		1500+1400	
DF-8CD (12V * 2 set)	1A * 2 set / 1.5A * 2 set	CW+CW	4S1P * 2 set	1425+1425	12+12	2000+2000	20+20
		CW+NW		1425+1400		2000+1850	
		CW+GD		1425+1400		2000+1850	



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