

**EVERLIGHT Electronics Co., Ltd.**

Attn: No.6-8, Zhonghua Road, Shulin Dist., New
Taipei City, 23860, Taiwan

PHONE:

FAX:

☒ **PRODUCT/PROCESS CHANGE NOTIFICATION**

☐ **PRODUCT TERMINATION NOTIFICATION**

PCN tracking number: **PCN20251110-01 - CN25110003**

DATE: 04/11/2025

Contact:

Title: PM

E-mail: _____

Phone:

Fax:

Product influenced: ☒ Major change ☐ Minor change

Product Identification: (e.g., affected supplier part number(s), affected product lines including specific package types, product family):

Please see enclosed list

Customer part number(s) (optional, if not required per agreed to customer criteria):

N/A

Method, if applicable, of identifying changed product:

The finished product dimensions remain unchanged

Reason for change(s):

☐ Products Package Outline Dimension

☐ Electrical/Optical Specification

☒ Material: Raw Material

☐ Equipment

☐ Data Sheet

☐ Packing:

☐ Other:

Detailed description:

**To ensure product quality and supply chain stability,
Everlight will introduce new chip as alternatives**

Anticipated (positive and negative) impact on form, fit, function, quality, or reliability:

Chip dimensions have been revised from 120 mil to 97 mil.

Output performance remains consistent across old and new versions.

The new chip complies with all specifications and does not impact end-use applications.

Supplier Qualification plan schedule and/or results, where applicable:

N/A

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Forecasted key milestones	Date
Date, if required, when qualification samples are available	--
Date, if required, when final qualification data are available	--
Proposed First Ship Date for change	--
Last buy date	01.04.2026
Execution date	01.04.2026
Customer acknowledgement of receipt within 30 days of delivery of the PCN:	
Customer: Name/Date: Title:	☐ Approval for shipments before effective date E-mail/Address: Phone/Fax:
Customer Comments:	
EVERLIGHT acknowledgement of receipt: RECORD BY: DATE:	

The document of individual PCN information will be retained for a minimum of 5 years.

新晶片導入比較報告

New Chip Introduction –Comparasion Report

2025/10/29

www.everlight.com

EVERLIGHT

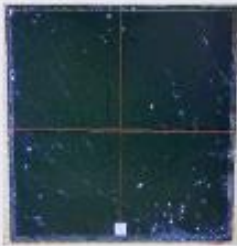
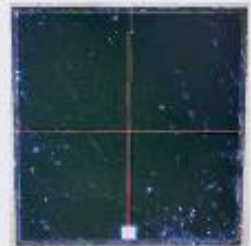
Purpose of Change/說明

為維護產品品質與供應鏈穩定，億光將新導入晶片選項

To ensure product quality and supply chain stability,

Everlight will introduce new chip as alternatives

晶片外觀對比 Comparison of the appearance of the chip

項目	Size 尺寸	Front 正面	Back 背面	Side 側面
New chip 新晶片	97*97mil			
Old chip 舊晶片	120*120mil			

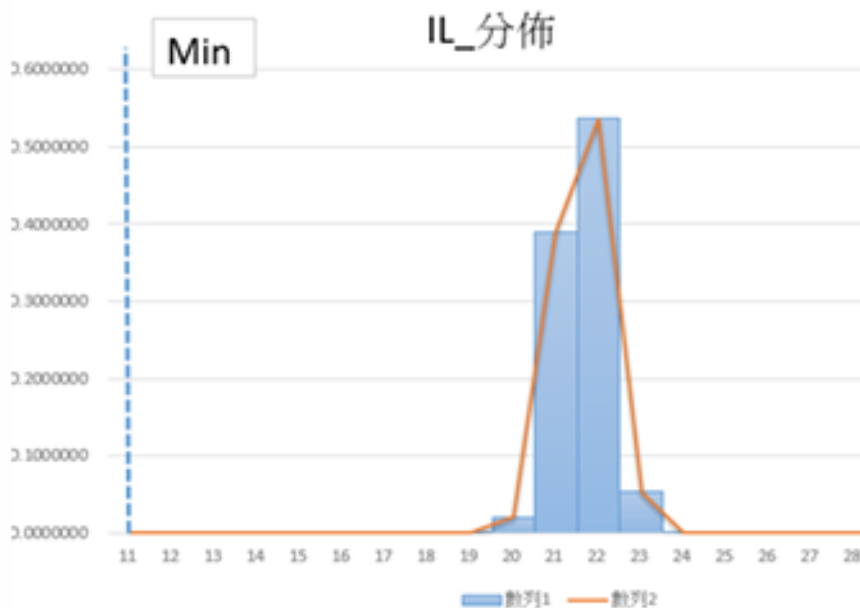
尺寸變更，外觀無異常

Change in size, the appearance remains normal

產出分布output distribution

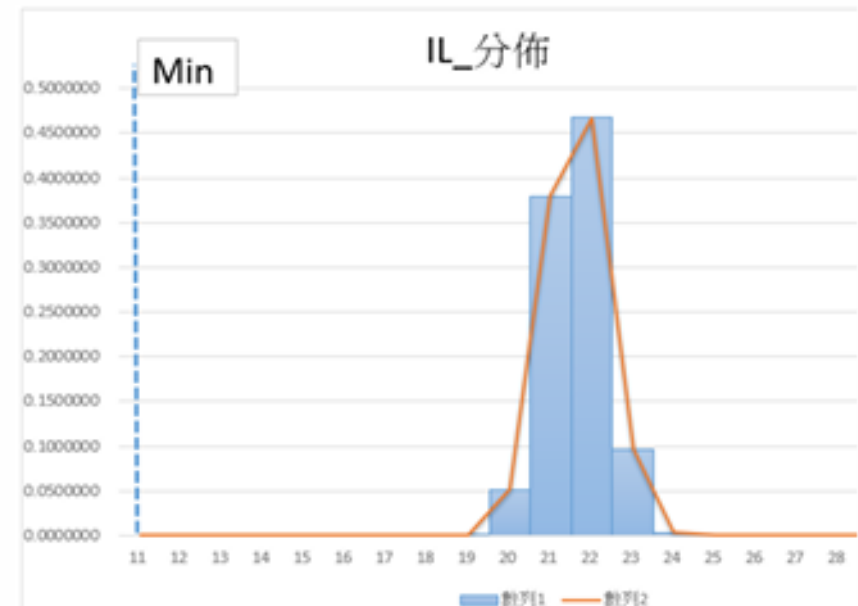
New chip output distribution

投入量 (pcs)	產出分佈統計		CTR	MIN.	19,854
	NG BIN	BIN			
1100	0~11	MIN:10.2			
	0	1100			
	0.00%	100.00%			
總佔比	0.00%	100.00%			
				AVG.	21.625
				MAX.	24,257
				STD.	0.618



original chip output distribution

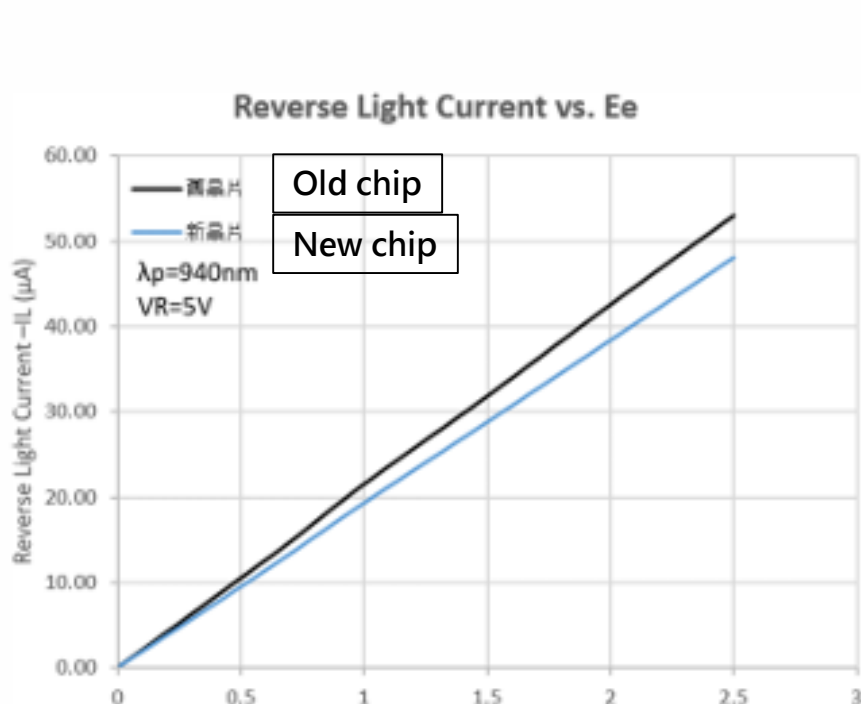
投入量 (pcs)	產出分佈統計		CTR	MIN.	19,858
	NG BIN	BIN			
1590	0~11	MIN:10.2			
	0	1590			
	0.00%	100.00%			
總佔比	0.00%	100.00%			
				AVG.	21.617
				MAX.	25,970
				STD.	0.748



註：新舊晶片產出對比,新舊晶片產出無差異,故可替代舊晶片。

Note: There is no output discrepancy between the old and new chips, indicating that the new chip is a suitable replacement

晶片特性曲線 Chip performance curve

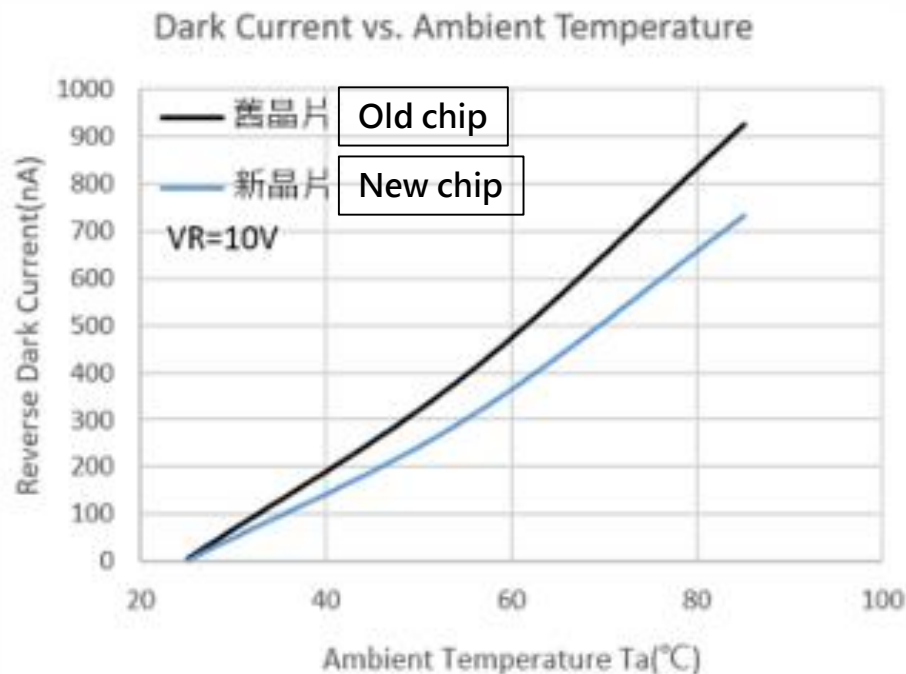
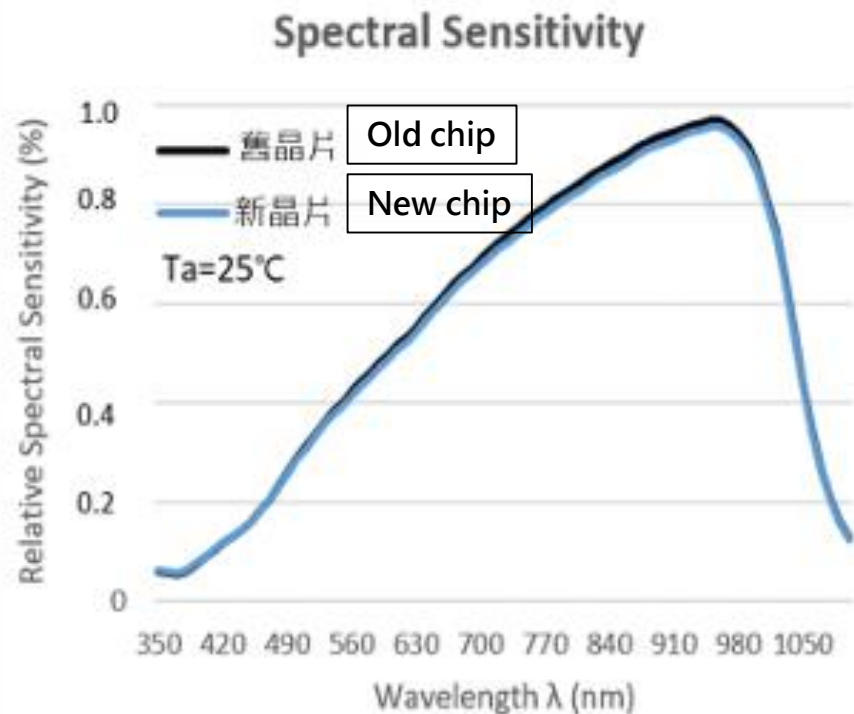


	Old chip	New chip
Ee/mW/sr	舊晶片	新晶片
0.01	0.24	0.22
0.05	1.05	0.95
0.1	2.09	1.89
0.3	6.28	5.65
0.5	10.52	9.46
0.7	14.75	13.31
1	21.54	19.26
1.5	31.85	28.74
2	42.61	38.31
2.5	53.03	48.00

符合規格，不影響使用

Specification compliance confirmed; usage remains unaffected

晶片特性曲線 Chip performance curve



符合規格，不影響使用

Specification compliance confirmed; usage remains unaffected

Thank You for Your Attention!!

RELIABILITY TEST REPORT

PRODUCT : PD438C
CUSTOMER :
TEST NO : 准-25-04-PD2CP-0153-SZ
TEST DATE : 2025/5/1-2025/6/14
TESTER :
MEASURING ENVIRONMENT : 22.7℃ , 45.2%RH

PRE	(Wave Solder) 260℃/10sec/3times							
NO.	TEST ITEM	CONDITION	DEVICES TESTED	DEVICE HOURS/CYCLE	Ee=1mW/cm2 VR=5V IL(uA)	Ee=0mW/cm2 VR=10V ID(uA)	VF(Voltage) IF=20mA	FAILURES
1	Resistance to Solder Heat(RSH)	(Wave Solder)260℃/10sec/3times	22	3times	-2.13%	0.0012	NA	0
2	Solderability	(Dip)245℃/10sec/1times	22	1times	Over 95% area			0
3	Thermal Shock (TS)	-10℃~100℃ /Dwell time 5min /transfer time < 15sec/300cycle	22	300 cycle	3.22%	0.0006	NA	0
4	Temperature Cycle (TC)	-40℃~100℃ /Dwell time 15min /transfer time 5min /300cycle	22	300 cycle	3.70%	0.0009	NA	0
5	High Temp/Humid Life(HTHB)	85℃/85% RH/1000hr VR=5V	22	168hrs	2.59%	0.0009	NA	0
				500hrs	2.77%	0.0007		0
				1000hrs	1.63%	0.0009		0
6	Low Temperature Life(LTOL)	-40℃/1000hr VR=5V	22	168hrs	3.24%	0.0006	NA	0
				500hrs	3.52%	0.0009		0
				1000hrs	1.81%	0.0009		0
7	High Temperature Life(HTOL)	100℃/1000hr VR=5V	22	168hrs	2.67%	0.0005	NA	0
				500hrs	2.28%	0.0005		0
				1000hrs	2.17%	0.0010		0
8	Room Temperature Life(RTOL)	25℃/1000hr VR=5V	22	168hrs	3.94%	0.0006	NA	0
				500hrs	2.24%	0.0007		0
				1000hrs	2.49%	0.0008		0
9	ORT實驗條件 Temperature Cycle (TC)	(Wave Solder) 260℃±5℃ /10sec/2times -40℃~100℃ /Dwell time 15min /transfer time 5min /50cycle VR=5V	22	50cycle	1.71%	0.12%	0.0225	0
10	ORT實驗條件 High Temperature Life(HTOL)	(Wave Solder) 260℃±5℃ /10sec/1times 85℃ VR=5V	11	14hrs	1.42%	0.17%	0.0114	0
11	ORT實驗條件 Low Temperature Life(LTOL)	(Wave Solder) 260℃±5℃ /10sec/1times -40℃ VR=5V	11	14hrs	1.57%	0.14%	0.0385	0

*IL: ≤±20%
*Id:≤0.01uA
ORT實驗判定 : VF<10% IL<14% Id<0.03uA

JUDGEMENT : OK

CHECKER : 魏衛娥 TESTER : 楊曉麗