



8755 W. Higgins Road
Suite 500
Chicago, Illinois USA 60631

March 31st, 2021

RE: PCN # ESU270-61 – DFN2510-10L additional backend location approval

To our valued customers,

Littelfuse would like to notify you of an additional approved backend location for DFN2510-10L TVS Diode Array (SPA® Diodes) products. This new additional backend factory in China is fully approved for all assembly, test, and packing operations. There are no changes to fit, form, and function of the finished products.

Qualification efforts are complete, and the new factory is ramping for shipments. Please see the documentation in the following pages for change details.

Products Affected:

DFN2510-10L Affected Part Numbers
SP1004U-ULC-04UTG
SP3012-04UTG-1
SP3420-04UTG
SP3420-04UTG-1

The affected product has been fully qualified in accordance with established performance and reliability criteria. Full qualification data and/or samples will be available upon request.

Form, fit, function changes: None
Part number changes: None
Effective date: Mar 31st, 2021
Replacement products: N/A
Last time buy: N/A

This notification is for your information and acknowledgement. If you have any other questions or concerns, please contact Sophia Hu, Assistant Product Manager.

We value your business and look forward to assisting you whenever possible.

Best Regards,

Sophia Hu
TVS Diode Array Assistant Product Manager
Semiconductor Business Unit, Wuxi, China
+86 510 85277701 - 7653
shu@littelfuse.com

PCN# : ESU270-61 Date: Mar 31 st , 2021 Product Identification : DFN2510-10L TVS Diode Array Product additional backend location approval Implementation Date for Change: Mar 31 st , 2021	Contact Information Name: Sophia Hu Title: Assistant Product Manager Phone # : +86 13771377277 Fax# : N/A E-mail : shu@littelfuse.com
Category of Change: <input type="checkbox"/> Assembly Process <input type="checkbox"/> Data Sheet <input type="checkbox"/> Technology <input type="checkbox"/> Discontinuance/Obsolescence <input type="checkbox"/> Equipment <input checked="" type="checkbox"/> Manufacturing Site <input checked="" type="checkbox"/> Raw Material <input type="checkbox"/> Testing <input type="checkbox"/> Fabrication Process <input type="checkbox"/> Other: _____	Description of Change: Approve additional backend assembly, test, and packing locations for DFN2510-10L. There are no changes to fit, form & function of the finished product.
Important Dates: <input checked="" type="checkbox"/> Qualification Samples Available: Upon request <input type="checkbox"/> Last Time Buy: <input checked="" type="checkbox"/> Final Qualification Data Available: Upon request <input type="checkbox"/> Date of Final Product Shipment:	
Method of Distinguishing Changed Product <input checked="" type="checkbox"/> Product Mark, See (8.0) in the succeeding PCN report for details <input type="checkbox"/> Date Code, <input type="checkbox"/> Other,	
Demonstrated or Anticipated Impact on Form, Fit, Function or Reliability: N/A	
LF Qualification Plan/Results: Yes	
Customer Acknowledgement of Receipt: Littelfuse requests you acknowledge receipt of this PCN. In your acknowledgement, you can grant approval or request additional information. Littelfuse will assume the change is acceptable if no acknowledgement is received within 30 days of this notice. Lack of any additional response within 90 days of PCN issuance further constitutes acceptance of the change.	



PCN Report

ETR # Various

Prepared By : Sophia Hu-Assistant Product Manager, Jordan Hsieh-Product Engineering Manager,
Raider Chen-Product Engineer
Date : 2021/3/9
Device : SP1004U-ULC-04UTG, SP3012-04UTG-1, SP3420-04UTG, SP3420-04UTG-1
Revision : A

1.0 Objective:

Qualify an additional backend location for DFN2510-10L package products. Summarize the physical items, electrical characteristics, and reliability result in qualification lots.

2.0 Applicable Devices:

DFN2510-10L Affected Part Numbers
SP1004U-ULC-04UTG
SP3012-04UTG-1
SP3420-04UTG
SP3420-04UTG-1

3.0 Assembly, Process & Material Differences/Changes:

3.1 Assembly Changes

No change of assemble process.

3.2 Process Changes

No change of process method.

3.3 Material Change

SP1004U-ULC-04UTG			
Item	Original	New	Change or not
Lead frame	Efect64T	A194	Yes
Epoxy	8008MD	S220	Yes
Wire	Gold	Gold	No
Mold Compound	G770HCD	CEL-9240HF-10BPT	Yes
Plating	PPF	Matte Tin	Yes

SP3420-04UTG/SP3420-04UTG-1			
Item	Original	New	Change or not
Lead frame	Effect64T/C7025	A194	Yes
Epoxy	8006NS	8006NS	No
Wire	Gold	Gold	No
Mold Compound	G770HCD	CEL-9240HF-10BPT	Yes
Plating	PPF	Matte Tin	Yes

SP3012-04UTG-1			
Item	Original	New	Change or not
Lead frame	Effect64T	A194	Yes
Epoxy	8008MD	S220	Yes
Wire	Gold	Gold	No
Mold Compound	G770HCD	CEL-9240HF-10BPT	Yes
Plating	PPF	Matte Tin	Yes

4.0 Packing Method

No change of packing method.

5.0 Physical Differences/Changes:

No change of this item.

6.0 Reliability Test Results Summary:

Test Items	Condition	S/S	Results	ETR #
Pre-conditioning (PC)	JESD22-A113	308 each lot	0/924	152831 152833 152834
DC Blocking (HTRB)	Bias = VRWM, Ta = 150°C, Duration = 1008 Hours	77 each lot	0/231	
Temperature Cycle (TC)	Ta = -55°C to 150°C, Duration = 1000 Cycles	77 each lot	0/231	
Temperature/Humidity (H3TRB)	Ta = 85°C, 85% RH, Bias = VRWM, Duration = 1008 Hours	77 each lot	0/231	
Autoclave (AC)	Ta = 121°C, 100%RH, 2ATM, Duration = 96 Hours	77 each lot	0/231	
Resistance to Solder Heat (RSH)	260°C, 10 sec, M-2031	10 each lot	0/30	
Moisture Sensitivity Level (MSL)	Per Jedec J-STD-020D Level 1	308 each lot	0/924	
Solderability (SD)	ANSI-J-STD-002	10 each lot	0/30	


7.0 Electrical Characteristic Summary:

Electrical performance were comparable and characterization data is available upon request.

8.0 Changed Part Identification:

All were qualified suppliers and it can be identified by CAT NO on the label.

Barcode Scanning Result

(P)PART NO: PSPXXXX-XXXX	HF	Pb Pb- FREE
PART DESCRIPTION	CAT NO: *	
(Q)Q'TY: QXXXX	(K)PO NO: KXXXXXX	
(1T)LOT NO: 1TXXXXXX		
(1T)LOT NO:(When necessary) 1TXXXXXX		
 COUNTRY OF ORIGIN "COUNTRY" DATE CODE(MM/DD/YY)		

9.0 Approvals:

Sophia Hu
SPA Assistant Product Manager
Littelfuse, Wuxi

Jordan Hsieh
SPA Product Manager
Littelfuse, HsinChu

Raider Chen
SPA Product Engineer
Littelfuse, HsinChu