

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

May 21st, 2021

RE: PCN # ESU270-64 - AQ3130-01ETG additional backend location approval

To our valued customers,

Littelf use would like to notify you of an additional approved backend location for AQ3130-01ETG TVS Diode Array (SPA® Diodes) product. This new 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 product.

Qualification efforts are completed, new factory is online for immediate shipments. Please see the documentation in the following pages for change details.

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: August 20th, 2021 or sooner 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 <u>shu@littelfuse.com</u>

PCN#:	Contact Information				
ESU270-64 Date: May 21 st , 2021	Name: Sophia Hu				
Product Identification :	Title: Assistant Product Manager				
AQ3130-01ETG additional backend location approval	Phone #: +86 13771377277				
Implementation Date for Change:	Fax#: N/A				
August 20 th , 2021 or sooner	E-mail : shu@littelfuse.com				
Category of Change:	Description of Change:				
Assembly Process	Approve an additional backend assembly, test, and packing				
Data Sheet	location for AQ3130-01ETG. There are no changes to fit, form				
Technology	& function of the finished product.				
Discontinuance/Obsolescence					
Equipment					
🛛 Manufacturing Site					
🛛 Raw Material					
Testing					
Fabrication Process					
□ Other:					
Important Dates:					
Qualification Samples Available: Available	Last Time Buy:				
Final Qualification Data Available: Available					
Date of Final Product Shipment:					
Method of Distinguishing Changed Product					
Product Mark, See (8.0) in the succeeding PCN report for details					
Date Code,					
□ 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.					



Prepared By: Jordan Hsieh-Product Engineering Manager,
Raider Chen-Product Engineer, Sophia Hu-Associate Product ManagerDate: 2021/5/12Device: AQ3130-01ETGRevision: A

1.0 Objective:

The purpose of this document is to qualify an additional assembly supplier for AQ3130-01ETG. Summarize the physical, electrical and reliability test performed in qualification lots.

2.0 Applicable Devices:

2.1 Product name: AQ3130-01ETG

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

AQ3130-01ETG						
ltem	Original	New	Change or not			
Lead frame	C7025	Eftect64T	Yes			
Die Attach Material	8006NS	8006NS	No			
Wire	Gold	Gold	No			
Mold Compound	CEL-9220HF10	G770HCD	Yes			
Plating	PPF	PPF	No			

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:

6.1 AQ3130-01ETG summary report:

Test Items	Condition	S/S	Results	ETR #
Pre-conditioning (PC)	JESD22-A113	308 each lot	0/924	
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	79803
Temperature/Humidity (H3TRB)	Ta = 85°C, 85% RH, Bias = VRWM, Duration = 1008 Hours	77 each lot	0/231	78492 155379
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	

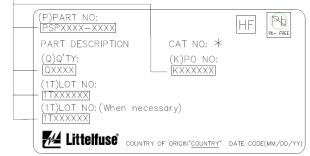
7.0 Electrical Characteristic Summary:

No change in electrical characteristics. Characterization data is available upon request.

8.0 Changed Part Identification:

Both were qualified suppliers and it can be identified by code of CAT NO on the label.

Barcode Scanning Result



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