



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

Sep 14th, 2022

RE: PCN # ESU270-83 – AQ24CANFD-02HTG additional backend location approval

To our valued customers,

Littelfuse would like to notify you of an additional approved backend location for AQ24CANFD-02HTG TVS Diode Array (SPA® Diodes) product. This additional backend factory, located in China is fully approved for all assembly, test, and packing operation. This factory currently supports commercial and automotive products in the same packages.

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

Form, fit, function changes: None

Part number changes: None

Effective date: Dec 14th, 2022 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
shu@littelfuse.com

<p>PCN# : ESU270-83 Date: Sep 14th, 2022</p> <p>Product Identification : AQ24CANFD-02HTG additional backend location approval</p> <p>Implementation Date for Change: Dec 14th, 2022 or sooner</p>	<p>Contact Information</p> <p>Name: Sophia Hu Title: Assistant Product Manager Phone # : +86 13771377277 Fax# : N/A E-mail : shu@littelfuse.com</p>		
<table border="0"> <tr> <td data-bbox="110 401 609 850"> <p>Category of Change:</p> <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: _____ </td> <td data-bbox="609 401 1541 850"> <p>Description of Change:</p> <p>Approve additional backend assembly, test, and packing location for AQ24CANFD-02HTG.</p> </td> </tr> </table>		<p>Category of Change:</p> <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: _____	<p>Description of Change:</p> <p>Approve additional backend assembly, test, and packing location for AQ24CANFD-02HTG.</p>
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<p>Important Dates:</p> <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:			
<p>Method of Distinguishing Changed Product</p> <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,			
<p>Demonstrated or Anticipated Impact on Form, Fit, Function or Reliability:</p> <p>N/A</p>			
<p>LF Qualification Plan/Results:</p> <p>Yes</p>			
<p>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.</p>			



Prepared By : Light Hsieh-Product Engineering Supervisor,
Raider Chen-Product Engineer, Sophia Hu- Assistant Product Manager
Date : 2022/9/8
Device : AQ24CANFD-02HTG
Revision : A

1.0 Objective:

The purpose of this document is to qualify an additional assembly supplier for AQ24CANFD-02HTG. Summarize the physical, electrical and reliability test performed in qualification lots.

2.0 Applicable Devices:

2.1 **Product name: AQ24CANFD-02HTG**

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

AQ24CANFD-02HTG			
Item	Original (V)	New (F)	Change or not
Lead frame	C194	CAC5	Yes
Die Attach Material	84-1LMISR4	84-1LMISR4	No
Wire	0.8mil Au	0.8mil Au	No
Mold Compound	Sumitomo G600	Sumitomo G600	No
Plating	Matte Tin	Matte Tin	No

4.0 Packing Method

No change of packing method.

5.0 Physical Differences/Changes:

No change of packing method.

6.0 Reliability Test Results Summary:

Test Items	Condition	S/S	Results	ETR #
Pre-conditioning (PC)	JESD22-A113	308 each lot	0/924	177525 103133 103134
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	

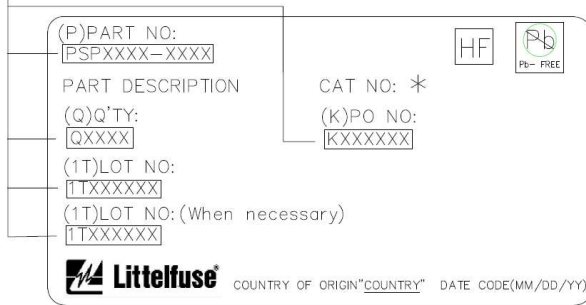
7.0 Electrical Characteristic Summary:

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

8.0 Changed Part Identification:

Both suppliers were qualified by Littelfuse and product can be identified by CAT NO on the label.

Barcode Scanning Result



9.0 Approvals:

Sophia Hu
SPA Assistant Product Manager
Littelfuse, Wuxi

Light Hsieh
SPA Product Engineering Supervisor
Littelfuse, HsinChu

Raider Chen
SPA Product Engineer
Littelfuse, HsinChu