




		APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL				Page 1 Appl. No. 289E	
		Component Title: RESISTOR, FIXED, SURFACE MOUNT, THIN FILM, NONHERMETICALLY SEALED BASED ON TYPE TNPS					
		Executive Member: DLR		Date: 18/11/2019			
1							
Components (including series and families) submitted for Extension of Qualification Approval:							
ESCC COMPONENT NO.	VARIANTS	RANGE OF COMPONENTS	BASED ON	TEST VEHICLE / S	COMPONENT SIMILAR		
4001/029	1-3	all	TNPS 0603	4001/029-01			
			TNPS 0805	4001/029-02			
			TNPS 1206	4001/029-03			
2		3			4		
Component Manufacturer Vishay Electronic GmbH		Location of Manufacturing Plant(s) Dr.-Felix-Zandman-Platz 1 D-95100 Selb Germany			Date of original qualification approval: Date: 01/05/2009 Certificate Ref No. 289		
5		6			7		
ESCC Specifications used for Maintenance of qualification testing: Generic: 4001 Issue: 4 Detail(s): 4001 / 029 Issue: 3		Deviations to LVT testing and Detail Specification used: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (supply details in Box 15) Deviation from current Specifications: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (Supply details)			Qualification Extension Report reference and date: Report Periodic tests No 289/19/024 21.05.2019		
8							
Summary of procurement or equivalent test results during current validity period in support of this application (those to ESCC listed first)							
Project Name	Testing Level	LAT	Date code	Quantity Delivered			
				See attached files: List of shipped TNPS_Period May 2017 to April 2018 List of shipped TNPS_Period May 2018 to April 2019			
9		10			11		
PID changes since start of qualification None <input type="checkbox"/> Minor* <input checked="" type="checkbox"/> Major* <input type="checkbox"/> *Provide details in box: Annex 2 – box 19		Current PID Verified by: DLR Name of Agency Representative Ref No: PID 145455 ESA Issue: 5 Date: 30/11/2018 Rev Date: 15/11/2019					
11							
Current Manufacturing facilities surveyed by: DLR on 26/06/2019 (Name of Agency Representative) (Date)							
Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain							
Report Reference: VIS-AUD-2019							

	<p align="center">APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL</p> <p>Component title: RESISTOR, FIXED, SURFACE MOUNT, THIN FILM, NONHERMETICALLY SEALED BASED ON TYPE TNPS</p> <p>Executive Member: DLR Date: 18/11/2019</p>	<p>Page 2</p> <p>Appl. No. 289E</p>	
<p>Failure Analysis, DPA, NCCS available: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (Supply data)</p> <p>Ref. No's and purposes:</p>			12
<p>The undersigned hereby certifies on behalf of the ESCC Executive - that the above information is correct; - that the appropriate documentation has been evaluated; - that full compliance to all ESCC requirements is evidence (except as stated in box 15;) - that the reports and data are available at the ESCC Executive and therefore applies on behalf of DLR as the responsible Executive Member for ESCC qualification status to be extended to the component(s) listed herein.</p> <p>Date: 18/11/2019</p> <p align="right"> i. A. Burak Gökğöz (Signature of the Executive Coordinator)</p>			13
<p>Continuation of Boxes above:</p> <p>Box 5: The Change of ESCC 4001 from Index 4 to Index 5 is included in PID Issue 5, and had no impact on MoQ-Testing.</p>			14

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Non compliance to ESCC requirements: 15

No.:	Specification	Paragraph	Non compliance


Additional tasks required to achieve full compliance for ESCC qualification or rationale for acceptability of noncompliance: 16

Executive Manager Disposition 17

Application Approval: Yes ☒ No ☐

Action / Remarks:

Date:



B. Schade: Head of ESA Product Assurance and Safety Department



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ANNEX 1: LIST OF TESTS DONE TO SUPPORT EXTENSION OF QUALIFICATION

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Tests conducted in compliance with:

- ESCC 4001 generic specification; Chart F4 (for ESCC/QPL parts);
- or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

TNPS0603 38R3 B2, 19K6 B2, 150K B1	TNPS0805 243R B2, 100K F3, 332K F3
TNPS1206 84R5 F3, 97K6 F3, 511K B1	

Detail Specification reference: ESCC 4001-029, Issue 3

Chart F4	Test	Tick when done	Conditions	Date Code	Tested Qty	N° of Rejects	Comments if not performed. Comments on Rejection
Environmental / Mechanical Subgroup	Mounting	<input checked="" type="checkbox"/>	IEC 60115-1 clause 4.31		45	0	
	Rapid Change Of Temperature	<input checked="" type="checkbox"/>	IEC 60068-2-14		45	0	
	Vibration	<input checked="" type="checkbox"/>	IEC 60068-2-6		45	0	
	Climatic test Sequence	<input checked="" type="checkbox"/>	ESCC 4001, Para 8.10		45	0	
	Seal Test	<input type="checkbox"/>	IEC 60068-2-17		N/A		
	Mounting	<input checked="" type="checkbox"/>	IEC 60115-1 clause 4.31		18	0	
	Robustness of Terminations	<input checked="" type="checkbox"/>	IEC 60068-2-21		18	0	
	Climatic test Sequence	<input checked="" type="checkbox"/>	ESCC 4001, Para 8.10		18	0	
	Seal Test	<input type="checkbox"/>	IEC 60068-2-17		N/A		
	Resistance to Soldering Heat	<input checked="" type="checkbox"/>	IEC 60068-2-20		18	0	
	Mounting	<input checked="" type="checkbox"/>	IEC 60115-1 clause 4.31		18	0	
	Climatic test Sequence	<input checked="" type="checkbox"/>	ESCC 4001, Para 8.10		18	0	
	Seal Test	<input type="checkbox"/>	IEC 60068-2-17		N/A		
	Mounting	<input type="checkbox"/>	IEC 60115-1 clause 4.31		N/A		
	Insulation Resistance	<input checked="" type="checkbox"/>	ESCC 4001, Para 8.3.1.2		45	0	
	Voltage Proof	<input checked="" type="checkbox"/>	ESCC 4001, Para 8.3.1.3		45	0	
Endurance Subgroup	Mounting	<input checked="" type="checkbox"/>	IEC 60115-1 clause 4.31		45	0	
	Operating Life	<input checked="" type="checkbox"/>	ESCC 4001, Para 8.13		45	0	
	Seal Test	<input type="checkbox"/>	IEC 60068-2-17		N/A		
Assembly Capability Subgroup	Solderability	<input checked="" type="checkbox"/>	IEC 60068-2-20		18	0	
	Permanence of marking	<input checked="" type="checkbox"/>	ESCC 24800		18	0	
	Operating Life	<input type="checkbox"/>	ESCC 4001, Para 8.13		N/A		Failure Rate Endurance Testing (8000h) not requested
	Seal Test	<input type="checkbox"/>	IEC 60068-2-17		NA		
Additional Tests		<input type="checkbox"/>					
		<input type="checkbox"/>					
		<input type="checkbox"/>					

Remark: Tested Quantity of 45 pieces refers to 3 component types of 3 different R-values (low, medium high) = 9 test lots with 5 pieces tested per test lot.
Tested Quantity of 18 pieces refers to 3 component types of 3 different R-values (low, medium high) = 9 test lots with 2 pieces tested per test lot.

