ESCC	APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL Component Title: Capacitors, Ceramic, Type II, types CNC 31 to CNC 34 Executive Member: CNES Date: 30/08/2019	Page 1 Appl. No. 315D

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
3001/037	01 to 04	All values, 16 and 25V	CNC3xNE	CNC33NE 8.2µF 25V	
	05 to 08	All values, 16 and 25V	CNC3xPE	CNC31PE 12µF 16V CNC32PE 4.7µF 16V CNC33PE 15µF 16V CNC33PE 22µF 16V	
	09 to 12	All values, 16 and 25V	CNC3xPLE	CNC31PLE 3.3µF 16V CNC31PLE 3.3µF 25V	Click here to enter text.
	13 to 16	All values, 16 and 25V	CNC3xLE		X

2 Component Manufacturer

EXXELIA Technologies

3 Location of Manufacturing Plant(s)

1, rue des Temps Modernes
77600 CHANTELOUP EN BRIE
FRANCE

4

Date of original qualification approval:
Date: 15/11/2011

Certificate Ref No. 315

5

ESCC Specifications used for Maintenance of qualification testing:

Generic: 3001 Issue : 3

Detail(s): 3001/037 Issue : 3

6

Deviations to LVT testing and Detail Specification used:

No ☒ Yes ☐ (supply details in Box 15)

Deviation from current Specifications:

No ☒ Yes ☐ (Supply details)

7

Qualification Extension Report reference and date:

Test Report 19/0660, January 2019
Test Report 19/0661, January 2019
Test Report 19/0662, January 2019
Test Report 19/0663, January 2019
Test Report 19/0664, January 2019
Test Report 19/0665, January 2019
Test Report 19/0666, January 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 annex		-		
		-		
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

9 PID changes since start of qualification

None ☐
Minor* ☐
Major* ☒ *Provide details in box: 19

10 Current PID Verified by: CNES
Agency Representative

Ref No: 640.03.390
Issue: G Date: 21/08/2019
Rev Date: 02/08/2019

11

Current Manufacturing facilities surveyed by: CNES on 23/07/2019
(Name of Agency Representative) (Date)

Satisfactory: Yes ☒ No ☐ Explain

Report Reference: 2019-0013650-CR

12

Failure Analysis, DPA, NCCS available: Yes ☐ No ☒ (Supply data)

Ref. No's and purposes:

13

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 CNES as the responsible Executive Member for ESCC qualification status to be extended to the component(s) listed herein.

Date: 04/09/2019

JP. BUSSENOT

(Signature of the Executive Coordinator)

14

Continuation of Boxes above:

Box 1 - Test vehicles submitted to Chart F4 ESCC 3001 issue 3 as described below:

site	famille	sous-famille	type	specification ESCC	variant		renouvellement de qualification					
					désignation		désignation	chart IV				
				référence	normalisée	commerciale		LVT 1A	LVT 1B	LVT 2A	LVT 2B	LVT 3
Chanteloup en Brie	ceramic	fixed	type II	3001/037	01 to 04	CNC31NE to CNC34NE	CNC33NE 8.2µF +/-10% 25 V	NA	NA	NA	NA	3
					05 to 08	CNC31PE to CNC34PE	CNC32PE 4.7µF +/-10% 16 V	20	NA	NA	NA	NA
							CNC33PE 15µF +/-10% 16 V	NA	3	NA	NA	NA
							CNC33PE 22µF +/-10% 16 V	NA	NA	10	NA	NA
							CNC31PE 12µF +/-10% 16 V	NA	NA	NA	NA	3
					09 to 12	CNC31PLE to CNC34PLE	CNC31PLE 3.3µF +/-10% 16 V	NA	3	NA	3	NA
							CNC31PLE 3.3µF +/-10% 25 V	NA	NA	10	3	NA
					13 to 16	CNC31LE to CNC34LE						

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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

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

Tests conducted in compliance with:

- ESCC 3001 generic specification; Chart F4 (for ESCC/QPL parts);
- PID- (for ESCC/QML parts)
- TFD (for ESCC/QML parts)

Tests vehicle identification/description:

CNC33NE 8.2µF ±10% 25V DC 1811, 300103703C-825KA	CNC31PE 12µF ±10% 16V DC 1745, 300103705C-126KX CNC32PE 4.7µF ±10% 16V DC 1836, 300103706-475KX
CNC31PLE 3.3µF ±10% 16V DC 1801, 300103709B-335KX CNC31PLE 3.3µF ±10% 25V DC 1808, 300103709B-335KA	CNC33PE 15µF ±10% 16V DC 1803, 300103707C-156KX CNC33PE 22µF ±10% 16V DC 1803, 300103707C-226KX

Detail Specification reference: 3001/037

Chart F4	Test	Tick when done	Conditions	Date Code	Tested Qty	N° of Rejects	Comments if not performed. Comments on Rejection
Subgroup 1	Rapid Change of Temperature	☒	IEC 60068-2-14, test Na	1836	20	0	
	Steady State Humidity (85/85) 1 000H	☒	ESCC 3001, Para 8.2	1836	20	0	
	External Visual Inspection	☒	ESCC 20500	1836	20	0	
	Rapid Change Of Temperature	☒	IEC 60068-2-14, test Na	1801	3	0	
	Vibration	☒	IEC 60068-2-6, test Fc	1801 1803	3 3	0	
	Shock	☒	IEC 60068-2-27, test Ea	1801 1803	3 3	0	
	External Visual Inspection	☒	ESCC 20500	1801 1803	3 3	0	
Subgroup 2	Operating Life	☒	IEC 60384-1 clause 4.23	1808 1803	10 10	0	
	Capacitance-Temperature Characteristic	☒	ESCC 3001, Para 8.13	1801 1808	3 3	0	
Subgroup 3	Solderability	☒	IEC 60068-2-20, test Ta	1745 1811	3 3	0	
	Resistance to Soldering Heat	☒	IEC 60068-2-20, test Tb	1745 1811	3 3	0	
	Permanence of marking	☒	ESCC 24800	1745 1811	3 3	0	
Additional tests		☐					
		☐					
		☐					

NOTES ON THE COMPLETION OF THE APPLICATION FORM FOR ESCC QUALIFICATION EXTENSION APPROVAL

ENTRIES

Form heading	shall indicate: - the title of the component as given in its detail specification or the name of the series, family; - the Executive Member; - the entering date; - the certificate number and its sequential suffix.
Box 1	shall provide details given in the table; in particular there shall be listed: - the variants or range of variants; - the range of components (the ESCC code is recommended to indicate the values or values range, the tolerance, the voltage, etc); the designation given in the detail specification as 'base on'; - under Test Vehicle enter either an ESCC code or the specific characteristic capable of identifying the component tested (e.g., voltage of coil for a relay); - under component similar enter a cross if relevant.
Box 2; 3 and 4	As per QPL entry; otherwise, an explanation of the changes must be supplied.
Box 5	Will show the ESCC Generic and Detail specifications, including issue number and revision letter, current at the time the tests reported were performed. If the specifications are different from those current on the date of the application, see Box 6.
Box 6	Will show the deviations from the Generic and Detail Specifications listed in Box 5, in particular deviations from testing. In case of deviations this must be listed in Box 15. In case the referenced specification in Box 5 have currently a different issue and/or revision indicate also whether the test data deviates or not from such current documents.
Box 7	Must reference the report(s) supplied in support of the application.
Box 8	Should provide the details of procurement to the full ESCC System, documentation of all of which should already have been delivered to the ESCC Executive under the terms of the relevant Generic Specification. An appropriate table has been drawn in this box.
Box 9	If the PID evolved after the Original Qualification or after the last Extension of Qualification, adequate details of such evolution shall be provided together with the reasons for the changes. Major changes shall be clearly marked.
Box 10	Identify the current PID issue status, date and actual date of verification. The date of verification of the current PID should be arranged as close as possible to the required date of extension.
Box 11	This box can be completed only after a physical visit to the plant to confirm that no unexplained changes occurred and that the practices, procedures, material, etc. used in manufacturing the components are as described in the PID. This survey shall be carried out in accordance with the requirements of ESCC Basic Specification No. 20200 and its findings shall be recorded.
Box 12	Provide details of, or reference to, any Destructive Physical Analysis (DPA) and Failure Analysis reports as well as any Nonconformance(s) (NCCS) occurred during the qualification validity period, stating if established corrective action have produced satisfactory results.
Box 13	Enter only the name of the Executive Member (i.e., CNES, DLR, ESTEC, etc.) and the signature of the responsible Executive Coordinator.
Box 14	To be used when there is a need to expand any of the boxes from 1 through 12. Identify box affected and reference the Box 14 in the relevant Box. Box 14 can be broken into 14a, 14b, etc. if several boxes have to be expanded.
Box 15	Fill in Table as requested.
Box 16	Any additional action deemed necessary by the Executive Member to bring the submitted data to a standard likely to be accepted by the ESCC Executive should be listed herein or the reason(s) to accept the noncompliance.
Box 17	All Executive Manager recommendations on the application itself, special conditions or restrictions, modifications of the QPL or QML entry, letters to the manufacturer, etc. shall be entered clearly in Box 19, signed by the representative for ESA, and dated.
Box 18	Fill in Table as requested.
Box 19	Confidential Details of PID changes including those of a confidential nature, shall be provided.
Box 20	State noncompliance with reference to specification(s) and paragraph(s). To simplify reference in Box 16 each nonconformance shall be sequentially numbered. If relevant state 'None'.
Box 21	Any additional action deemed necessary by the Executive Member to bring the submitted data to a standard likely to be accepted by the ESCC Executive should be listed herein or the reason(s) to accept the noncompliance.
Box 22	Additional Comments.