APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component Title: Capacitors, Ceramic, Chip, Type I, sizes 0402 to 2220

Executive Member: CNES Date: 31/07/2025

Appl. No. **323F**

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
3009/003 3009/004 3009/005	06 06 06	All values 16V to 100V	CEC2 02S CEC4 02S CEC6 02S	3009003066800JC 3009004061002KC	See box 14 for qualified ranges.
3009/006 3009/022 3009/037 -	06 06 06 -	All values 16V to 100V	CEC7 02S CEC12 02S CEC14 02S -	3009006065622FA 3009037061000KC 3009037065600JC	
3009/040	01 to 06	All values 16V to 100V	CEC2 04S to CEC14 04S	 300904001470JC	
3009/042 3009/040	06 13	All values 10V to 50V	CEC19 02S CEC19 04S		

2 Component Manufacturer

EXXELIA SAS

3 Location of Manufacturing Plant(s)

EXXELIA
1, rue des Temps Modernes
77600 CHANTELOUP EN BRIE
FRANCE

4 Date of original qualification approval:

Date: 24/10/2012

Certificate Ref No. 323

5 ESCC Specifications used for Maintenance of qualification testing:

Generic: 3009 Issue: 5

Detail(s):		Issue:
	3009/003	9
	3009/004	8
	3009/005	8
	3009/006	7
	3009/022	7
	3009/037	5
	3009/040	5
	3009/042	5

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:

CEC2-02 S 680pF ±5% 50V MG313220300897 230332 i.A
CEC4-02 S 10nF ±10% 50V MG313231100521 230875 i.A
CEC7 02 S 56.2nF +-1% 25V MG313220700413 230240 i.A
CEC14-02 S 100pF ±10% 50V MG313240100080 230729 i.A
CEC14-02 S 560pF ±5% 50V MG313230200321 230723 i.A
CEC14-04 S 47pF ±5% 50V MG313230600803 230543 i.A

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
ALTER TECHNOLOGY TUV APCON AEROSPACE & DEFENCE DA DESIGN OY SPUR ELECTRON LTD SWEDISH INSTITUTE OF SPACE PHYSICS SYRLINKS TERMA A/S TESAT-SPACECOM GMBH UND CO.KG THALES ALENIA SPACE XI'AN WELLKING ELECTRONIC HK LTD	-	-		Total 8882 parts

9 **PID** changes since start of qualification

None ☒
Minor* ☐
Major* ☐

*Provide details in box: 19

10 Current **PID** Verified by: CNES

Name of Excutive Representative

Ref No: PID 623.03.390
Issue: Rev L Date: 02/06/2021
Rev Date: 01/07/2023

11 Current Manufacturing facilities surveyed by: ESA & CNES on 13/10/2023

(Name of Executive Representative) (Date)

Satisfactory: Yes ☒ No ☐ Explain

Report Reference: 2023.0016237 ESCC Audit Report EXXELIA Chanteloup-En-Brie

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: 31/07/2025

Signature numérique de Fontaine Lya Date : 2025.07.31 11:36:22 +02'00'

Lya Fontaine

(Signature of the Executive Coordinator)

14

Continuation of Boxes above:

Box 1, Range of Components :

Style	Detail Spec.	Model	Variants	Capacitance Range (pF)	Rated Volt. (V)	Tolerance (pF, ±%)
0805	**3009/003** **3009/040**	**CEC2 02S** **CEC2 04S**	**06 02**	**1 to 2 700** **1 to 2 200** **1 to 1 800** **1 to 1 200**	**16** **25** **50** **100**	**< 10pF** **0,25 – 0,5 – 1 (pF)** **≥ 10pF** **1, 2, 5, 10 (%)**
1210	**3009/004** **3009/040**	**CEC4 02S** **CEC4 04S**	**06 04**	**10 to 15 000** **10 to 12 000** **10 to 12 000** **10 to 6 800**	**16** **25** **50** **100**	
1812	**3009/005** **3009/040**	**CEC6 02S** **CEC6 04S**	**06 05**	**100 to 33 000** **100 to 27 000** **100 to 22 000** **100 to 12 000**	**16** **25** **50** **100**	
2220	**3009/006** **3009/040**	**CEC7 02S** **CEC7 04S**	**06 06**	**470 to 68 000** **470 to 56 000** **470 to 47 000** **470 to 27 000**	**16** **25** **50** **100**	
1206	**3009/022** **3009/040**	**CEC12 02S** **CEC12 04S**	**06 03**	**1 to 6 800** **1 to 5 600** **1 to 5 600** **1 to 3 900**	**16** **25** **50** **100**	
0603	**3009/037** **3009/040**	**CEC14 02S** **CEC14 04S**	**06 01**	**1 to 1 000** **1 to 680** **1 to 560** **1 to 330**	**16** **25** **50** **100**	
0402	**3009/042** **3009/040**	**CEC19 02S** **CEC19 04S**	**06 13**	**1 to 330** **1 to 120** **1 to 100** **1 to 82**	**10** **16** **25** **50**	

15

Non compliance to ESCC requirements:

No.:	Specification	Paragraph	Non compliance

16

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

17

Executive Manager Disposition

Application Approval: Yes X No ☐

Action / Remarks:

Date: 30 August 2025

A. Zadeh: Head of the Avionics and EEE Division

ANNEX 1: LIST OF TESTS DONE TO SUPPORT EXTENSION OF QUALIFICATION 18

Tests conducted in compliance with:

- ESCC 3009 generic specification; Chart V (for ESCC/QPL parts);
- Or PID-TFD [redacted] (for ESCC/QML parts)

Tests vehicle identification/description:

CEC2 02S 680pF 5% 50V	3009003066800JC	DC2335
CEC4 02 S 10nF 5% 50V	3009004061002KC	DC2346
CEC7 02 S 56.2nF 1% 25V	3009006065622FA	DC2316
CEC14 02 S 100pF 10% 50V	3009037061000KC	DC2346
CEC14 02 S 560pF 5% 50V	3009037065600JC	DC2339
CEC14 04 S 47pF 5% 50V	300901001470JC	DC2348

Detail Specification reference: 3009/004/005/006/037/040, EFD 703.06.390 issue D

Chart F4	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Environmental / Mechanical Subgroup	Mounting	☒	IEC 60384-1, 4.33	2335 2346 2316 2346 2339 2348	20 20 20 20 20 20	**0**	
	Rapid Change of Temperature	☒	IEC 60068-2-14	2335 2346 2316 2346 2339 2348	20 20 20 20 20 20	**0**	
	Steady State Humidity	☒	ESCC 3009, Para. 8.2	2335 2346 2316 2346 2339 2348	20 20 20 20 20 20	**0**	
	Visual Inspection	☒	ESCC 3009, Para. 8.5	2335 2346 2316 2346 2339 2348	20 20 20 20 20 20	**0**	
Endurance Subgroup	Mounting	☒	IEC 60384-1, 4.33	2335 2346 2316 2346 2339 2348	10 10 20 10 10 10	**0**	
	Operating Life	☒	ESCC 3009, Para. 8.9	2335 2346 2316 2346 2339 2348	10 10 20 10 10 10	**0**	**1 000H**

Electrical Subgroup	Mounting	☒	IEC 60384-1, 4.33	2335 2346 2316 2346 2339 2348	3 3 6 3 3 3	0	
	Capacitance-Temperature Characteristics	☒	ESCC 3009, Para. 8.10	2335 2346 2316 2346 2339 2348	3 3 6 3 3 3	**0**	
	Robustness of Terminations	☒	ESCC 3009, Para. 8.7	2335 2346 2316 2346 2339 2348	3 3 6 3 3 3	**0**	
Ass. / Capab. Subgroup	Solderability	☒	IEC 60068-2-58	2335 2346 2316 2346 2339 2348	3 3 6 3 3 3	**0**	
	Permanence of Marking	☐	ESCC 24800	2335 2346 2316 2346 2339 2348	3 3 6 3 3 3	0	

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.