APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

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

Executive Member: CNES Date: 31/07/2025

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Appl. No. **324F**

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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
3009/008 3009/039 3009/009 3009/039	06 & 07 02 & 14 06 & 07 04 & 16	16V to 100V (See box 14)	CNC2 02S CNC2 04S CNC4 02S CNC4 04S	300900807154KX 300903915473KX 300903916224KE	See box 14 for qualified ranges.
3009/010 3009/039 3009/011 - 3009/039	06 & 07 05 & 17 06 & 07 - 06 & 18	16V to 100V (See box 14)	CNC6 02S CNC6 04S CNC7 02S - CNC7 04S	 300901106105KA 300901106564KC 300903918225KX	
3009/023 3009/039 3009/038 3009/039	06 & 07 03 & 15 06 & 07 01 & 13	16V to 100V (See box 14)	CNC12 02S CNC12 04S CNC14 02S CNC14 04S	 300903903223KE 300903807103KC 300903901102KC	
3009/039 3009/043	25 & 26 06	10V to 50V (See box 14)	CNC19 04S CNC19 02S	 300904306103KY	

2 Component Manufacturer

EXXELIA Technologies

3 Location of Manufacturing Plant(s)

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

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Date of original qualification approval:

Date: 24/10/2012

Certificate Ref No. 324

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ESCC Specifications used for Maintenance of qualification testing:

Generic: 3009 Issue: 4/5

Detail(s):		
3009/008	Issue:	7
3009/038		6
3009/039		5
3009/009		6
3009/010		6
3009/011		6/7
3009/023		8
3009/043		5

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Deviations to LVT testing and Detail Specification used:

No ☒ Yes ☐ (supply details in Box 15)

Deviation from current Specifications:

No ☒ Yes ☐ (Supply details)

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Qualification Extension Report reference and date:

CNC2-02 S 150nF ±10% 16V MG313240300110 240388 i.A
CNC2-04 S 47nF ±10% 100V MG313221100909 230803 i.A
CNC4-04 S 220nF ±10% 100V MG313230200351 230941 i.A
CNC7-02 S 1µF ±10% 25V MG313231000243 230598 i.A
CNC7-02 S 560nF ±10% 50V MG313220800165 230247 i.A
CNC7-04 S 2.2µF ±10% 16V MG313230400388 240042 i.A
CNC12-04 S 22nF ±10% 100V MG313230200946 230998 i.A
CNC14-02 S 10nF ±10% 50V MG3132401000985 230834 i.A
CNC14-04 S 1nF ±10% 50V MG313240100090 230544 i.A
CNC19-02 S 10nF ±10% 10V MG313211100410 230712 i.A

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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
3D PLUS ALTER TECHNOLOGY TUV ARC POWER GMBH ADVIONICS NV BHARAT ELECTRONICS LTD CSN ELEKTRONIK GMBH EXXELIA USA POWELL ELECTRONICS REMRED LTD RGM S.R.L. SAFRAN TIMING TECHNOLOGIES SA TESAT-SPACECOM GMBH UND CO.KG THALES ALENIA SPACE	-	-	Lots delivered since last MoQ	43 999 pièces

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 624.03.390

Issue: Rev L Date: 13/12/2023

Rev Date: 01/06/2023

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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

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

Ref. No's and purposes:

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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 14:35:01 +02'00'

Lya Fontaine

(Signature of the Executive Coordinator)

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Continuation of Boxes above:

Box 1, Range of Components :

Style	Detail Spec.	Model	Variants	Capacitance Range (pF)	Rated Volt. (V)	Tolerance (±%)
0805	**3009/008**	**CNC2 02S**	**06**	**1 000 to 150 000** **1 000 to 100 000** **1 000 to 47 000** **1 000 to 10 000**	**16** **25** **50** **100**	**5, 10, 20**
			07	**1 000 to 390 000** **1 000 to 150 000** **1 000 to 100 000** **1 000 to 47 000**	**16** **25** **50** **100**	
	3009/039	**CNC2 04S**	**02**	**1 000 to 150 000** **1 000 to 100 000** **1 000 to 47 000** **1 000 to 10 000**	**16** **25** **50** **100**	
			14	**1 000 to 390 000** **1 000 to 150 000** **1 000 to 100 000** **1 000 to 47 000**	**16** **25** **50** **100**	
1210	**3009/009**	**CNC4 02S**	**06**	**2 200 to 560 000** **2 200 to 390 000** **2 200 to 220 000** **2 200 to 56 000**	**16** **25** **50** **100**	
			07	**2 200 to 820 000** **2 200 to 560 000** **2 200 to 390 000** **2 200 to 220 000**	**16** **25** **50** **100**	
	3009/039	**CNC4 04S**	**04**	**2 200 to 560 000** **2 200 to 390 000** **2 200 to 220 000** **2 200 to 56 000**	**16** **25** **50** **100**	
			16	**2 200 to 820 000** **2 200 to 560 000** **2 200 to 390 000** **2 200 to 220 000**	**16** **25** **50** **100**	
1812	**3009/010**	**CNC6 02S**	**06**	**3 900 to 1 200 000** **3 900 to 680 000** **3 900 to 470 000** **3 900 to 120 000**	**16** **25** **50** **100**	
			07	**3 900 to 1 800 000** **3 900 to 1 200 000** **3 900 to 820 000** **3 900 to 470 000**	**16** **25** **50** **100**	
	3009/039	**CNC6 04S**	**05**	**3 900 to 1 200 000** **3 900 to 680 000** **3 900 to 470 000** **3 900 to 120 000**	**16** **25** **50** **100**	
			17	**3 900 to 1 800 000** **3 900 to 1 200 000** **3 900 to 820 000** **3 900 to 470 000**	**16** **25** **50** **100**	
2220	**3009/011**	**CNC7 02S**	**06**	**22 000 to 2 700 000** **22 000 to 1 500 000** **22 000 to 1 000 000** **22 000 to 270 000**	**16** **25** **50** **100**	
			07	**22 000 to 3 900 000** **22 000 to 2 200 000** **22 000 to 1 800 000** **22 000 to 1 000 000**	**16** **25** **50** **100**	
	3009/039	**CNC7 04S**	**06**	**22 000 to 2 700 000** **22 000 to 1 500 000** **22 000 to 1 000 000** **22 000 to 270 000**	**16** **25** **50** **100**	

			18	22 000 to 3 900 000 22 000 to 2 200 000 22 000 to 1 800 000 22 000 to 1 000 000	16 25 50 100	
1206	3009/023	CNC12 02S	06	1 800 to 270 000 1 800 to 180 000 1 800 to 82 000 1 800 to 27 000	16 25 50 100	5, 10, 20
			07	1 800 to 1 000 000 1 800 to 270 000 1 800 to 100 000 1 800 to 120 000	16 25 50 100	
	3009/039	CNC12 04S	03	1 800 to 270 000 1 800 to 180 000 1 800 to 82 000 1 800 to 27 000	16 25 50 100	
			15	1 800 to 1 000 000 1 800 to 270 000 1 800 to 100 000 1 800 to 120 000	16 25 50 100	
0603	3009/038	CNC14 02S	06	270 to 33 000 270 to 22 000 270 to 10 000 270 to 2 700	16 25 50 100	
			07	270 to 100 000 270 to 33 000 270 to 22 000 270 to 12 000	16 25 50 100	
	3009/039	CNC14 04S	01	270 to 33 000 270 to 22 000 270 to 10 000 270 to 2 700	16 25 50 100	
			13	270 to 100 000 270 to 33 000 270 to 22 000 270 to 12 000	16 25 50 100	
0402	3009/043	CNC19 02S	06	68 to 12 000 68 to 8 200 68 to 5 600 68 to 3 300	10 16 25 50	5, 10, 20
	3009/039	CNC19 04S	25	68 to 12 000 68 to 8 200 68 to 5 600 68 to 3 300	10 16 25 50	

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Non compliance to ESCC requirements:

No.:	Specification	Paragraph	Non compliance

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

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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

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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:

CNC2 02S 150nF 10% 16V	300900807154KX	DC2426	CNC7 04 S 2.2µF 10% 16V	300903918225KX	DC2349
CNC2 04 S 47nF 10% 100V	300903915473KX	DC2406	CNC12 04 S 22nF 10% 100V	300903903223KE	DC2409
CNC4 04 S 220nF 10% 100V	300903916224KE	DC2408	CNC14 02 S 10nF 10% 50V	300903807103KC	DC2411
CNC7 02 S 1µF 10% 25V	300901106105KA	DC2346	CNC14 04 S 1nF 10% 50V	300903901102KC	DC2338
CNC7 02 S 560nF 10% 50V	300901106564KC	DC2318	CNC19 02 S 10nF 10% 10V	300904306103KY	DC2403

Detail Specification reference: 3009/008/038/039/009/010/011/023/043

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	2426 2406 2408 2346 2318 2349 2409 2411 2338	20 20 20 20 20 20 20 20 20	**0**	
	Rapid Change of Temperature	☒	IEC 60068-2-14	2426 2406 2408 2346 2318 2349 2409 2411 2338	20 20 20 20 20 20 20 20 20	**0**	
	Steady State Humidity	☒	ESCC 3009, Para. 8.2	2426 2406 2408 2346 2318 2349 2409 2411 2338	20 20 20 20 20 20 20 20 20	**0**	
	Visual Inspection	☒	ESCC 3009, Para. 8.5	2426 2406 2408 2346 2318 2349 2409 2411 2338	20 20 20 20 20 20 20 20 20	**0**	
Electrical Subgroup	Mounting	☒	IEC 60384-1, 4.33	2426 2406 2408 2346 2318 2349 2409 2411 2338 2403	20 10 10 20 10 20 10 10 10 20	**0**	

	Operating Life	☒	ESCC 3009, Para. 8.9	2426 2406 2408 2346 2318 2349 2409 2411 2338 2403	20 10 10 20 10 20 10 10 10 20	**0**	
	Mounting	☒	IEC 60384-1, 4.33	2426 2406 2408 2346 2318 2349 2409 2411 2338	6 3 3 6 3 6 3 3 3	**0**	
	Capacitance-Temperature Characteristics	☒	ESCC 3009, Para. 8.10	2426 2406 2408 2346 2318 2349 2409 2411 2338	6 3 3 6 3 6 3 3 3	**0**	**Normally done prior to mounting**
	Robustness of Terminations	☒	ESCC 3009, Para. 8.7	2426 2406 2408 2346 2318 2349 2409 2411 2338	6 3 3 6 3 6 3 3 3	**0**	
Ass. / Capab. Subgroup	Solderability	☒	IEC 60068-2-58	2426 2406 2408 2346 2318 2349 2409 2411 2338	6 3 3 6 3 6 3 3 3	**0**	
	Permanence of Marking	☒	ESCC 24800	2426 2406 2408 2346 2318 2349 2409 2411 2338	6 3 3 6 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.