	APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL	Page 1
ESCC	Component Title: **Capacitors, Fixed, Reconstituted Mica, High Voltage, based on type HT86PS and HT97PS**	Appl. No.
	Executive Member: CNES Date: 09/12/2024	251M

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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
3006 022	01	See box 14	HT86PS	300602201101MJ 300602201102MJ	Values Covered by ESCCSpecification 3006/022
3006 027	01	See box 14	HT97PS	300602701302KJ 300602701102KK 300602701102KK 300602701332KK 300602701332KK	Values Covered by ESCCSpecification 3006/027

2 Component Manufacturer

EXXELIA Technologies

3 Location of Manufacturing Plant(s)

1, rue des Temps Modernes
77 600 CHANTELOUP en BRIE

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Date of original qualification approval:
Date: 01/08/1998

Certificate Ref No.
251

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ESCC Specifications used for Maintenance of qualification testing:

Generic: 3006 Issue: 4

Detail(s): 3006/022 Issue: 9
3006/27 1

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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:

Test Reports
HT86PS 1nF ±20% 12.5kV MG313221000075 230169 i.A
HT86PS 100pF ±20% 12.5kV MG313221100064 230265 i.A
HT97PS 1nF ±10% 15KV MG313230200255 230632 i.A
HT97PS 1nF ±10% 15KV MG313230400102 230872 i.A
HT97PS 3.3nF ± 10% 15kV MG313230400126 230844i.A
HT97PS 3.3nF ± 10% 15kV MG313230600192 231001 i.A
HT97PS 3nF ±10% 12.5kV MG313221100065 230288 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
See Dashboard - MOQ - ESCC 3006 - certificate 251 M – sales.xls				6140

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PID changes since start of qualification

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

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Current **PID** Verified by: G. Quadri, CNES
Name of Excutive Representative

Ref No: 423.91.390
Issue: L Date: 13/07/2023
Rev Date: 01/12/2023

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Current Manufacturing facilities surveyed by: ESA & CNES on 12/09/2023
(Name of Executive Representative) (Date)

Satisfactory: Yes ☒ No ☐

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: 1 CETE 204 : delay in the maintenance of qualification (bottleneck of the capacity vs load) CLOSED

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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.

Signature numérique de Fontaine Lya Date : 2024.12.09 15:12:16 +01'00'

Date:

(Signature of the Executive Coordinator)

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Continuation of Boxes above:

Range of Components:

- **HT86PS :**

Capacitance Range (nF)			Tol. (±%)	UR(kV)
22	to	2200	10	1,5
15	to	1500	10	2,5
10	to	1000	10	3,5
4,7	to	470	10	5
2,2	to	220	10	7,5
0,1	to	100	10	10
0,1	to	68	10	12,5
0,1	to	33	10	15
0,1	to	20	10	15

- **HT97PS :**

Capacitance Range (nF)			Tol. (±%)	UR(kV)
22	to	2200	10	1,5
15	to	1500	10	2,5
6,8	to	1500	10	3,5
3,3	to	680	10	5
2,2	to	330	10	7,5
1	to	150	10	10
1	to	100	10	12,5
1	to	68	10	15
0,1	to	33	10	20

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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 ☒ No ☐

Action / Remarks:

Date:

B. Schade: Head of the Quality Department

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

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Tests conducted in compliance with:

- ESCC 3006 generic specification; Chart V (for ESCC/QPL parts);
- Or PID-TFD [redacted] (for ESCC/QML parts)

Tests vehicle identification/description:

HT86PS 100pF ±20% 12.5kV	300602201101MJ	DC2311	HT97PS 1nF ±10% 15KV	300602701102KK	DC2340
HT86PS 1nF ±20% 12.5kV	300602201102MJ	DC2307	HT97PS 3.3nF ± 10% 15kV	300602701332KK	DC2341
HT97PS 3nF ±10% 12.5kV	300602701302KJ	DC2315	HT97PS 3.3nF ± 10% 15kV	300602701332KK	DC2346
HT97PS 1nF ±10% 15KV	300602701102KK	DC2328			

Detail Specification reference: ESCC 3006/022, iss 9 ; 3006/027 issue 1

Chart V	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Environmental / Mechanical Subgroup (Column 1)	Robustness of Teminations	☒	IEC 68-2-21	2311 2307	4 4	0	
	Resistance to Soldering Heat	☒	IEC 68-2-20	2311 2307	4 4	0	
	Climatic Sequence	☒	ESCC 3006, Para. 9.14	2311 2307	4 4	0	
	Seal Test	☐	IEC 68-2-17				NA
Environmental / Mechanical Subgroup (Column 2)	Rapid Change of Temperature	☒	IEC 68-2-14	2311 2307	4 4	0	
	Vibration	☒	IEC 68-2-6	2311 2307	4 4	0	
	Shock or Bump	☒	ESCC 3006, Para. 9.13	2311 2307	4 4	0	
	Climatic Sequence	☒	ESCC 3006, Para. 9.14	2311 2307	4 4	0	
	Seal Test	☐	IEC 68-2-17				NA
Endurance Subgroup	Operating Life	☒	ESCC 3006, Para. 9.16	2328 2340 2341 2346	16 16 16 16	0	1 000H
	Electrical Measurements during Endurance Testing	☒	ESCC 3006, Para. 9.6.5	2328 2340 2341 2346	16 16 16 16	0	
Electrical Subgroup (Electrical Measurements)	High and Low Temperature Stability	☒	ESCC 3006, Para. 9.15	2311 2307 2315 2328 2340 2341 2346	6 6 6 6 6 6 6	0	
	Electrical Measurements at Room Temperature	☒	ESCC 3006, Para. 9.6.4	2311 2307 2315 2328 2340 2341 2346	6 6 6 6 6 6 6	0	
	External Visual Inspection	☒	ESCC 20500	2311 2307 2315 2328 2340 2341 2346	6 6 6 6 6 6 6	0	
Electrical Subgroup (Assembly / Capability Tests	Solderability	☒	IEC 68-2-20	2311 2307 2315 2340 2341 2346	4 4 4 4 4 4	0	
	Permanence of Marking	☒	ESCC 24800	2311 2307 2315 2340 2341 2346	4 4 4 4 4 4	0	
Additional Tests		☐					
		☐					

ANNEX 2 : CONFIDENTIAL DATA

PID changes details 19

None ☐

Minor ☐

Major ☒

§ 2: addition Basic specification ESCC 24600 - Minimum quality Management system requirements/redesign
§ 4.3.1: addition of HT97PS
§ 4.3.2: addition ESCC Basic Specification 21700 - General
Requirements for marking ESCC components / marking
§ 7.3 Chart F2 / rework: creation
§ 12 Specificities by product family: creation
§ 14 Capacitive film type HT97 PS: creation

Noncompliance to ESCC requirements: 20

No.:	Specification	Paragraph	Non compliance

Additional tasks required to achieve full compliance for ESCC qualification or rationale for acceptability of noncompliance: 21

Additional Comments 22

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.