ESCC	APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL Component Title: Capacitors Filters, C-type, Feed through, based on types SFC30 Executive Member: CNES Date: 06/02/2024	Page 1 Appl. No. 375A

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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
3008 020	01 02 04 05	See box 14	SFC 030 SV	300802005682ME 300802005222ME	

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: 27/07/2021
Certificate Ref No. 375

5

ESCC Specifications used for Maintenance of qualification testing:

Generic: 3008 Issue: 3

Detail(s): 3008/020 * Issue: 3

*additional tests performed as described in annex 2 box 21

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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)

7

Qualification Extension Report reference and date:

S FC 030 3 222 SV 100V MG313200900498 201335 i.B
S FC 030 3 222 SV 100V MG313201000495 201334 i.B
S FC 030 3 222 SV 100V MG313201000881 201234 i.B
S FC 030 3 222 SV 100V MG313201100382 201237 i.B
S FC 030 3 222 SV 100V MG313201200151 210053 i.B
S FC 030 3 222 SV 100V MG313201200261 210049 i.B
S FC 030 3 222 SV 100V MG313210100085 210176 i.B
S FC 030 3 222 SV 100V MG313210100086 210192 i.B
S FC 030 3 222 SV 100V MG313210200045 210167 i.B
S FC 030 3 682 SV 100V MG313230700101 230137 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
RAKON France ASTRA MICROWAVE PRODUCTS TAS France TAS Spain				2929

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PID changes since start of qualification

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

10

Current **PID** Verified by: JP Bussenot, CNES
Name of Excutive Representative

Ref No: 505.95.390
Issue: K Date: 02/06/2021
Rev Date: 01/07/2021

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Current Manufacturing facilities surveyed by: D. Lacombe, ESA & L. Fontaine, 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: .

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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: 07/02/2024

Gianandrea Quadri

G. QUADRI, CNES

(Signature of the Executive Coordinator)

Continuation of Boxes above:

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Range of components :

Type Variant	Rated DC Voltage U_R (V) (at Tamb ≤ +85°C)	Range of Capacitance Values C (pF) E6 Series Tolerance ±20%	Voltage Proof V_P (V)	Voltage Drop V_{dr} (V)	DC Resistance R_s (mΩ)	Rated Current I_R (A)
01	50	470 to 22000	125	0.05	5	5
02	100	470 to 6800	250	0.05	5	5
04	50	470 to 22000	125	0.05	5	5
05	100	470 to 6800	250	0.05	5	5

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 ☒ No ☐

Action / Remarks:

Date:

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

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 (for ESCC/QML parts)

Tests vehicle identification/description:

S FC 030 3 682 SV 100V (ESCC 300802005682ME) DC 2107
S FC 030 3 222 SV 100V (ESCC 300802005222ME) DC 2112
S FC 030 3 222 SV 100V (ESCC 300802005222ME) DC 2107
S FC 030 3 222 SV 100V (ESCC 300802005222ME) DC 2105
S FC 030 3 222 SV 100V (ESCC 300802005222ME) DC 2117
S FC 030 3 222 SV 100V (ESCC 300802005222ME) DC 2114
S FC 030 3 222 SV 100V (ESCC 300802005222ME) DC 2122
S FC 030 3 222 SV 100V (ESCC 300802005222ME) DC 2123
S FC 030 3 222 SV 100V (ESCC 300802005222ME) DC 2116
S FC 030 3 222 SV 100V (ESCC 300802005222ME) DC 2315

Detail Specification reference:

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)	Shock	☒	IEC 68-2-27	2315	12	0	
	Vibration	☒	IEC 68-2-6	2315	12	0	
	Damp Heat	☒	ESCC 3008, Para. 9.24	2315	12	0	
	External Visual Inspection	☒	ESCC 20500	2315	12	0	
Environmental / Mechanical	Low Air Pressure	☒	IEC 68-2-13	2315	12	0	
	Damp Heat	☒	ESCC 3008, Para. 9.24	2315	12	0	
Endurance Subgroup	Operating Life	☒	ESCC 3008, Para. 9.19	2315 2107 2112 2107 2105 2117 2122 2123 2116	20 20 20 20 20 20 20 20 20	0	
	Electrical Measurements during Endurance Testing	☒	ESCC 3008, Para. 9.4.5	2315 2107 2112 2107 2105 2117 2122 2123 2116	20 20 20 20 20 20 20 20 20	0	
	External Visual Inspection	☒	ESCC 20500	2315 2107 2112 2107 2105 2117 2122 2123 2116	20 20 20 20 20 20 20 20 20	0	

	Damp Heat	☒	ESCC 3008, Para. 9.24	2315 2107 2112 2107 2105 2117 2122 2123 2116	20 20 20 20 20 20 20 20 20	0	
Electrical Subgroup (Elect. Meas.)	Electrical Measurements at Room Temperature	☒	ESCC 3008, Para. 9.4.4	2315 2107 2112 2107 2105 2117 2122 2123 2116	6 4 4 4 4 4 4 4 4	0	
	External Visual Inspection	☒	ESCC 20500	2315 2107 2112 2107 2105 2117 2122 2123 2116	6 4 4 4 4 4 4 4 4	0	
Electrical Subgroup (Ass. / Capab. Tests)	Solderability	☒	IEC 68-2-20	2315 2107 2112 2107 2105 2117 2122 2123 2116	6 4 4 4 4 4 4 4 4	0	
	Permanence of Marking	☐	ESCC 24800				NA
	Robustness of Terminations	☒	IEC 68-2-21	2315 2107 2112 2107 2105 2117 2122 2123 2116	6 4 4 4 4 4 4 4 4	0	
	External Visual Inspection	☒	ESCC 20500	2315 2107 2112 2107 2105 2117 2122 2123 2116	6 4 4 4 4 4 4 4 4	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.