



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component Title: Capacitors, Ceramic, Type II, types CNC 51 to CNC 54
 Executive Member: CNES Date: 28/08/2023

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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
3001/038	01 to 04	All values, 50 and 500V	CNC5xNE	CNC55 N E 15uF 10% 100V CNC54 N E 8.2uF 10% 100V CNC53 N E 0.22uF 10% 500V	
	08 to 11	All values, 50 and 500V	CNC5xPE	CNC55 P E 22uF 10% 50V CNC53 P E 4.7uF 10% 50V	
	15 to 18	All values, 50 and 500V	CNC5xPLE		X
	22 to 25	All values, 50 and 500V	CNC5xLE		X

Component Manufacturer EXXELIA SAS	2	Location of Manufacturing Plant(s) 1, rue des Temps Modernes 77600 CHANTELOUP EN BRIE FRANCE	3	Date of original qualification approval: Date: 01/03/2011 Certificate Ref No. 306	4
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ESCC Specifications used for Maintenance of qualification testing: Generic: 3001 Issue: 4 Detail(s): 3001/038 Issue: 4	5	Deviations to LVT testing and Detail Specification used: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (supply details in Box 15) Deviation from current Specifications: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (Supply details)	6	Qualification Extension Report reference and date: CNC53 NE 0.22µF +-10% 500V lot MG313230100698 230023 i.A CNC53 PE 4.7µF +-10% 50V lot MG313230100636 230022 i.A CNC54 NE 8.2µF ±10% 100V lot MG313230100700 230021 i.A CNC55 NE 15µF+-10% 100V MG313230100701 230024 i.A CNC55 PE 22µF+-10% 50V lot MG313230100702 230018 i.A	7
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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)

User Name	Testing Level	LAT	Date code	Quantity Delivered
BHARAT ELECTRONICS LTD EREMS RGM S.P.A. SPACETECH GMBH TAS ITALIA		-		711 parts

PID changes since start of qualification None <input checked="" type="checkbox"/> Minor* <input type="checkbox"/> Major* <input type="checkbox"/> *Provide details in box:	9	Current PID Verified by: JP.Bussenot,CNES Name of Executive Representative Ref No: 644.03.390 Issue: L Date: 21/08/2019 Rev Date: 02/08/2019	10
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Current Manufacturing facilities surveyed by: Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain Review of ceramic activities, new DL1 line Report Reference: 2022.0014770-CR-Fontaine- Qualifications -Exxelia- Septembre-2022	D. Lacombe, ESA and JP Bussenot, CNES on (Name of Executive Representative) 06/10/2022 (Date)	11
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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: 28/08/2023

Gianandrea Quadri
G. Quadri, CNES
(Signature of the Executive Coordinator)

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Continuation of Boxes above:



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Non compliance to ESCC requirements:

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No.:	Specification	Paragraph	Non compliance

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

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Executive Manager Disposition

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Application Approval: Yes No

Action / Remarks:

Date:

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



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

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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:

CNC55 P E 22uF 10% 50V	DC 2305	300103810226KC
CNC55 N E 15uF 10% 100V	DC 2304	300103803156KE
CNC54 N E 8.2uF 10% 100V	DC 2306	300103802825KE
CNC53 P E 4.7uF 10% 50V	DC 2304	300103808475KC
CNC53 N E 0.22uF 10% 500V	DC2304	300103801224KL

Detail Specification reference: 3001/038

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	<input checked="" type="checkbox"/>	IEC 60068-2-14, test Na	2305	20	0	
				2304	20		
				2306	20		
				2304	20		
				2304	20		
	Steady State Humidity (85/85) 1 000H	<input checked="" type="checkbox"/>	ESCC 3001, Para 8.2	2305	20	0	
				2304	20		
				2306	20		
				2304	20		
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC 20500	2305	20	0	
				2304	20		
				2306	20		
				2304	20		
	Rapid Change Of Temperature	<input checked="" type="checkbox"/>	IEC 60068-2-14, test Na	2305	6	0	
2304				6			
2306				6			
2304				6			
Vibration	<input checked="" type="checkbox"/>	IEC 60068-2-6, test Fc	2305	6	0		
			2304	6			
			2306	6			
			2304	6			
Shock	<input checked="" type="checkbox"/>	IEC 60068-2-27, test Ea	2305	6	0		
			2304	6			
			2306	6			
			2304	6			
External Visual Inspection	<input checked="" type="checkbox"/>	ESCC 20500	2305	6	0		
			2304	6			
			2306	6			
			2304	6			
Subgroup 2	Operating Life	<input checked="" type="checkbox"/>	IEC 60384-1 clause 4.23	2305	20	0	1000H
				2304	20		
				2306	20		
				2304	20		
				2304	20		
Capacitance-Temperature Characteristic	<input checked="" type="checkbox"/>	ESCC 3001, Para 8.13	2305	6	0		
			2304	6			
			2306	6			
			2304	6			

Subgroup 3	Solderability	<input checked="" type="checkbox"/>	IEC 60068-2-20, test Ta	2304	6	0	
				2305	6		
				2304	6		
				2306	6		
				2304	6		
	2304	6					
Resistance to Soldering Heat	<input checked="" type="checkbox"/>	IEC 60068-2-20, test Tb	2305	6	0		
			2304	6			
			2306	6			
			2304	6			
			2304	6			
Permanence of marking	<input checked="" type="checkbox"/>	ESCC 24800			0	NA	
Additional tests		<input type="checkbox"/>					
		<input type="checkbox"/>					
		<input type="checkbox"/>					



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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.