



**APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL**

Component Title: CONNECTORS, ELECTRICAL, RECTANGULAR, NON REMOVABLE SOLDER BUCKET, PCB AND WIRE-WRAP CONTACTS AND REMOVABLE COAXIAL AND POWER CONTACTS, BASED ON TYPE D\*M

Executive Member: CNES

Date: 29/01/2020

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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
3401/001 3401/004	01 & 02 01 to 25	Shell size : E, A, B, C, D, F Standard density layout : 9, 15, 25, 37, 50 size 20 contacts	D*M	See test report	D*MA
3401/022 3401/040	01 to 95 01 to 17	High density layout : 15, 26, 44, 62, 78, 104 size 22 contacts			
3401/080	01	Combined contact arrangements : 3W3 to 8W8, 5W1 to 47W1			
3401/072	05 to 14, 25 to 39, 46 to 55, 61 to 65, 72, 73, 76 to 80	Mounting Type: standard mounting holes; floating mount; captive nuts Termination contacts : solder bucket, straight PCB, 90° PCB, wire wrap Gold-plated non-magnetic coating Coaxial contact arrangements: 3401/004 variants 01 to 25 Power contact arrangements: 3401/040 variants 01 to 17 Operating Temperature Range (°C): -55 to +125			

Component Manufacturer <b>C&amp;K Components SAS</b>	Location of Manufacturing Plant(s) <b>Rue Bertholet B.P. 359 39105 DOLE Cedex - France</b>	Date of original qualification approval: Date: 12/02/1981  Certificate Ref No. 71
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ESCC Specifications used for Maintenance of qualification testing: Generic: 3401 Issue: 5  Detail(s): 3401/040 Issue: 6	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)	Qualification Extension Report reference and date: Report n° D190140C contact Report n° D190258C Report n° D190142C
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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 appendix				

PID changes since start of qualification None <input type="checkbox"/> Minor* <input checked="" type="checkbox"/> Major* <input type="checkbox"/> *Provide details in box:	Current PID Verified by: <u>CNES</u> Name of Agency Representative  Ref No: CS-FR030 Issue: 2 rev P Date: 29/01/2020 Rev Date: 29/01/2020
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Current Manufacturing facilities surveyed by: <u>CNES</u> on 16/09/2019 (Name of Agency Representative) (Date)
Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain
Report Reference: <u>CRIM 1040007 du 12 /09/19</u>



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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: 03/02/2020

JP BUSSEBOT  
(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 ESA Product Assurance and Safety Department



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

Tests conducted in compliance with:

- ESCC 3401 generic specification; Chart V (for ESCC/QPL parts);
- Or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

CTSKTD*M-POWER-C40A-AS-C97-T12	CTSKTD*M-HP40A-T12-C97-AS-CRIMP
CTSKTD*M-POWER-C40A-AS-C97-T12	

Detail Specification reference: 3401040

Chart V	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Environmental and Mechanical Subgroup	Wiring	<input type="checkbox"/>	ESCC 3401 Para. 9.10				
	Climatic Sequence	<input type="checkbox"/>	ESCC 3401 Para. 9.13				
	Permanence of Marking	<input type="checkbox"/>	ESCC 24800				
	Corrosion	<input type="checkbox"/>	IEC Publication No. 68-2-11				
	Seal Test	<input type="checkbox"/>	ESCC 3401 Para. 9.9				
	Plating Thickness	<input type="checkbox"/>	ESCC 3401 Para. 5.2.3				
Endurance Subgroups	Wiring	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.10	1902	20	0	
	Rapid change of Temperature	<input type="checkbox"/>	ESCC 3401 Para. 9.16				
	Contact Retention	<input type="checkbox"/>	ESCC 3401 Para. 9.17				
	Maintenance Ageing	<input type="checkbox"/>	ESCC 3401 Para. 9.27				
	Endurance	<input type="checkbox"/>	ESCC 3401 Para. 9.18				
	Seal Test	<input type="checkbox"/>	ESCC 3401 Para. 9.9				
	Joint Strength	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.15	1902	14	0	
	Engage/Separ. Forces	<input type="checkbox"/>	ESCC 3401 Para. 9.28				
	Oversize Pin Exclusion	<input type="checkbox"/>	ESCC 3401 Para. 9.29				
	Probe Damage	<input type="checkbox"/>	IEC Publication No. 512-8				
Additional Tests	Corrosion test	<input checked="" type="checkbox"/>	Corrsion test ESCC Para.9.22	1902	529	0	
	Hardness test	<input checked="" type="checkbox"/>	Hardness Measurements	1902	3	0	
	Cross Section	<input checked="" type="checkbox"/>	ECSS-Q-ST-70-26C	1902	4	0	



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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.