ESCC	APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL Component Title: CONNECTORS, ELECTRICAL, RECTANGULAR MICROMINIATURE, REMOVABLE CRIMP CONTACTS, BASED ON TYPE MDMA Executive Member: CNES Date: 05/07/2016	Page 1 Appl. No. 290C rev1

Components (including series and families) submitted for Extension of Qualification Approval: 1

ESCC COMPONENT NO.	VARIANTS	RANGE OF COMPONENTS	BASED ON	TEST VEHICLE / S	COMPONENT SIMILAR
3401/077	01 & 02	Range of contacts: 9 - 15 - 21- 25 - 31 - 37-51 Accepts wires AWG 24 or 2x28 in crimping barrel AWG 24 Accepts wires AWG 26 or 28 in crimping barrel AWG 26	MDMA	See test report	MDM
3401/078	01,02,03,04	Nickel or Gold Plated ShellsMax. rating for 1 isolated contact:- AWG 24 wire : 3.5A- AWG 26 wire and uninsulated AWG 25 solid wire: 2.5 A- AWG 28 wire: 1.5 A			
		Working Volage (Max): 150Vrms Operating Temperature Range (°C): -55 to +125			

Component Manufacturer (2)	Location of Manufacturing Plant(s) (3)	(4)
C&K Components SAS	**Rue Bertholet B.P. 359** **39105 DOLE Cedex - France**	Date of original qualification approval: Date: 15/06/2009 Certificate Ref No. 290

(5)	(6)	(7)
ESCC Specifications used for Maintenance of qualification testing: Generic: 3401 Issue: 3 Detail(s): 3401/077 Issue: 7 3401/078 7	Deviations to LVT testing and Detail Specification used: No ☒ Yes ☐ (supply details in Box 15) Deviation from current Specifications: No ☒ Yes ☐ (Supply details)	Qualification Extension Report reference and date: Report N° : 130-16C, February 24h 2016 Report N° : 477-16C, May 27th 2016

Summary of procurement or equivalent test results during current validity period in support of this application (those to ESCC listed first) 8

Project Name	Testing Level	LAT	Date code	Quantity Delivered
See appendix				

PID changes since start of qualification (9)	Current PID Verified by: CNES (10)
None ☐	Name of Excutive Representative
Minor* ☒	Ref No: CS-FR036
Major* ☐ *Provide details in box:	Issue: 2 rev E Date: 05/07/2016
	Rev Date: 01/06/2016

(11)

Current Manufacturing facilities surveyed by: CNES and ESA on 10/02/2016

(Name of Executive Representative) (Date)

Satisfactory: Yes ☒ No ☐ Explain

Report Reference: CRIM_1005612_le 10-02-2016_C&K.

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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 ..... as the responsible Executive Member for ESCC qualification status to be extended to the component(s) listed herein.

Date:

(Signature of the Executive Coordinator)

Continuation of Boxes above:

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Non compliance to ESCC requirements: 15

No.:	Specification	Paragraph	Non compliance

Additional tasks required to achieve full compliance for ESCC qualification or rationale for acceptability of noncompliance: 16

Executive Manager Disposition 17

Application Approval: Yes ☐ No ☐

Action / Remarks:

Date:

Signature, ESA Representative

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

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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:

340107702B MDMA51P-FO 340107702B MDMA51S-FO	340107702B MDMA51P-FO 340107702B MDMA51S-FO
340107702B MDMA51P-FO MDM 51SL2-A174-FR022	340107702B MDMA51S-FO MDM 51PL2-A174-FR022

Detail Specification reference: 3401077

Chart IV	Test	Tick when done	Conditions	Date Code	Tested Qty	N° of Rejects	Comments if not performed. Comments on Rejection
Subgroup I	Wiring	☒	ESCC 3401 Para. 9.10	1606	8	0	
	Vibration	☒	ESCC 3401 Para. 9.11	1606	8	0	
	Shock or Bump	☒	IEC Publication No. 512-4	1606	8	0	
	Climatic sequence	☒	ESCC 3401 Para. 9.13	1606	8	0	
	Seal	☐	ESCC 3401 Para. 9.9				NA
	Plating thickness	☒	ESCC 3401 Para. 5.2.3	1606	8	0	
	Joint strength	☒	ESCC 3401 Para. 9.15	1606	8	0	
Subgroup II	Wiring	☒	ESCC 3401 Para. 9.10	1606	8	0	
	Rapid change of temperature	☒	ESCC 3401 Para. 9.16	1606	8	0	
	Contact retention	☒	ESCC 3401 Para. 9.17	1606	8	0	
	Endurance	☒	ESCC 3401 Para. 9.18	1606	8	0	
	Permanence of marking	☒	ESCC 24800	1606	8	0	
	Seal	☐	ESCC 3401 Para. 9.9				
	Joint strength	☒	ESCC 3401 Para. 9.15	1606	8	0	
Subgroup III	Wiring	☒	ESCC 3401 Para. 9.10	1606	8	0	
	Mating / Unmating forces	☒	ESCC 3401 Para. 9.20	1606	8	0	
	High temperature storage	☒	ESCC 3401 Para. 9.21	1606	8	0	
	Corrosion	☒	IEC Publication No. 68-2-11	1606	8	0	
	Insert retention	☒	ESCC 3401 Para. 9.23	1606	8	0	
	Jackscrew retention	☒	ESCC 3401 Para. 9.24	1606	8	0	
	Seal	☐	ESCC 3401 Para. 9.9				
Subgroup IV	Wiring	☒	ESCC 3401 Para. 9.10	1606	8	0	
	High temperature measurement	☒	ESCC 3401 Para. 9.25	1606	8	0	
	Overload test	☒	ESCC 3401 Para. 9.26	1606	8	0	
	Maintenance aging	☒	ESCC 3401 Para. 9.27	1606	8	0	
	Joint strength	☒	ESCC 3401 Para. 9.15	1606	8	0	

Chart IV	Test	Tick when done	Conditions	Date Code	Tested Qty	N° of Rejects	Comments if not performed. Comments on Rejection
Subgroup V	Engagement / Separation forces	☒	ESCC 3401 Para. 9.28	1606	8	0	
	Oversize pin Excursion	☒	ESCC 3401 Para. 9.29	1606	8	0	
	Probe damage	☒	IEC Publication No. 512-8	1606	8	0	
	Plating thickness	☒	ESCC 3401 Para. 5.2.3	1606	8	0	
Subgroup VI	Solderability	☐	IEC Publication No. 512-6				NA
Additional Tests		☐					
		☐					
		☐					

Additional test for mass production retaining clips and insulators validation.

Chart V	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Environmental & Mechanical Subgroup	Wiring	☒	ESCC 3401 Para. 9.10	1621	4	0	
	Vibration	☒	ESCC 3401 Para. 9.11	1621	4	0	
	Climatic Sequence	☒	ESCC 3401 Para. 9.13	1451	4	0	
Endurance Subgroups	Wiring	☒	ESCC 3401 Para. 9.10	1621	4	0	
	Rapid change of Temperature	☒	ESCC 3401 Para. 9.16	1621	4	0	
	Contact Retention	☒	ESCC 3401 Para. 9.17	1621	4	0	
	Maintenance Ageing	☒	ESCC 3401 Para. 9.27	1621	4	0	
	Endurance	☒	ESCC 3401 Para. 9.18	1621	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.