

Component Title:

CONNECTORS, ELECTRICAL, RECTANGULAR, MICROMINIATURE,

BASED ON TYPE MDM

Appl. No.

Page 1

Executive Member: Date: 09/10/2017 140P Components (including series and families) submitted for Extension of Qualification Approval: ESCC TEST VEHICLE / S BASED COMPONENT COMPONENT **VARIANTS** RANGE OF COMPONENTS SIMILAR ON NO. 3401/029 01 & 02 Layout: 9 - 15 - 21 - 25 - 31 - 37 - 51 Contacts Non removable crimp MDM See test report MDMA contacts Terminaison type : AWG 26: ESCC 390101302, ESCC 390100256, ESCC 390101203 3401/041 01 to 07 2.5 A AWG 28: ESCC 390101301, ESCC 390100261, ESCC 390101202 1.5A AWG 25 - Uninsulated rigid wire-bent and straight PCB, 2.5A 3401/032 03, 04, 07 to 17 Nickel or Gold Plated Shells Operating Temperature Range (°C): -55 to +125 Location of Manufacturing Plant(s) Component Manufacturer 2 3 4 **C&K Components SAS** Rue Bertholet B.P. 359 Date of original qualification approval: 39105 DOLE Cedex - France 10/10/1986 Certificate Ref No. 140 5 7 6 ESCC Specifications used for Deviations to LVT testing and Detail Specification Qualification Extension Report Maintenance of qualification testing: used: reference and date: (supply details in Box Generic: 3401 Issue: No  $\boxtimes$ Yes PV 159-17C 17/02/2017 (contact test report) PV 160-17C 17/02/2017 (connector test report) Detail(s): 3401/029 Issue: 14 Deviation from current Specifications: 3401/041 5 (Supply details) No 3401/032 8 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 9 Current PID Verified by: **CNES** None Name of Excutive Representative CS-FR010 Minor\* X Ref No: П Major\* \*Provide details in box: Issue. 7 rev N Date: 09/10/2017 Rev Date: 01/05/2017 11 Current Manufacturing facilities surveyed by: CNES 14/12/2016 on (Name of Executive Representative) (Date) Satisfactory: Yes 🛛 No Explain Report Reference: CRIM\_1013659

	APPLICATI	ON FOR EXTE	NSION OF F	ESCC QUALIFICATI	ON APPROVAL	Page 2
ESCC	Component title:	AR, MICROMINIATURE,	Appl. No.			
	Executive Member:	CNES		Date:	09/10/2017	140P
Failure Analysis, DPA, NCCS ava	ilable: Yes	□ No	⊠ (Su	pply data)		12
The undersigned hereby certifies on behalf that the appropriate documentation has bee (except as stated in box 15;) - that the repo CNES as the responsible Executive Member	en evaluated; - that ful rts and data are availa	compliance to	all ESCC red	quirements is eviden	s on behalf of	13
Date: 13/10/2017				L.	JP. BUSSENOT	
				(S	ignature of the Executive C	coordinator)
Continuation of Boxes above:						14
Solder bucket termination contacts were inc 1096). Certificate shall mentioned solder bucket in					e when 3401/029 will be up	odated (DCR



CONNECTORS, ELECTRICAL, RECTANGULAR, MICROMINIATURE, BASED ON TYPE MDM

Executive Member: CNES Date: 09/10/2017

Component title:

Page 3

Appl. No.

140P

Non compliance to ESCC requirements:						
No.:	Specification	Paragraph	Non compliance			

Additiona noncomp	I tasks required	d to achiev	e full con	npliance	for E	SCC qualification	or rationale	for acceptability	of			16
noncomp	liance.											
Executive	Manager Disp	nosition						-				
	on Approval:		_ N	<b>1</b> 0 [								17
Action / R	temarks:											
												9.
										, ,		
									20	16	4	
Date:									V	V	/	

Signature, ESA Representative



Component Title:

CONNECTORS, ELECTRICAL, RECTANGULAR, MICROMINIATURE, BASED ON TYPE MDM

Executive Member: CNES Date: 09/10/2017

Appl. No. 140P

Page 4

## 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:

MDMA15P FO / MDM 15SFR114B	MDMA25P FO / MDM 25PS / MDM 25SFR112A			
MDM 31PFR136 / MDMA31S FO	MDMA51P FO / MDM 51SFR164-A174			
MDM 37PFR116 / MDMA37S FO MDMA9P FO / MDM 9SFR139	MDMA51P FO / MDM 51SFR164-A174			

Detail Specification reference:

34010029

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	×	ESCC 3401 Para. 9.10	1650	4	0	
	Climatic Sequence	⊠	ESCC 3401 Para. 9.13	1650	4	0	
	Permanence of Marking	×	ESCC 24800	1650	4	0	
	Corrosion	×	IEC Publication No. 68-2-11	1650	4	0	
Mect	Seal Test		ESCC 3401 Para. 9.9				Not applicable
	Plating Thickness		ESCC 3401 Para. 5.2.3	1650	4	0	
Endurance Subgroups	Wiring	×	ESCC 3401 Para. 9.10	1650	3	0	
	Rapid change of Temperature	×	ESCC 3401 Para. 9.16	1650	3	0	
	Contact Retention	×	ESCC 3401 Para. 9.17	1650	3	0	
	Maintenance Ageing		ESCC 3401 Para. 9.27				Not applicable
	Endurance	⊠	ESCC 3401 Para. 9.18	1650	3	0	
	Seal Test		ESCC 3401 Para. 9.9				Not applicable
durar	Joint Stength		ESCC 3401 Para. 9.15				Not applicable
End	Engage/Separ. Forces	×	ESCC 3401 Para. 9.28	1650	30	0	
	Oversize Pin Exclusion		ESCC 3401 Para. 9.29				Not applicable
	Probe Damage		IEC Publication No. 512-8				Not applicable
Additional Tests							

18



Component title:

CONNECTORS, ELECTRICAL, RECTANGULAR, MICROMINIATURE, BASED ON TYPE MDM

Executive Member: CNES

Date: 09/10/2017

Page 6 Appl. No.

140P

# 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.