



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component Title: CONNECTORS, ELECTRICAL, CRIMP CONTACTS, Z-AXIS INTERPOSER, PRINTED CIRCUIT BOARD, BASED ON TYPE RX
 Executive Member: CNES Date: 13/12/2023

Page 1
 Appl. No. 281H

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
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Parts used for the reconstruction test

3401 076		All design envelops specified in Table 1(a) of ESCC Detail	RX	340107601BRXA200 55FF078A	
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Description of the products – Catalog Data

3401 076	01	All design envelops specified in Table 1(a) of ESCC Detail Specification are qualified Max. number of rows 11 Max. number of contacts: 660	RX		
		Locking and Guiding Devices: -Through holes only -M2 studs with locking nuts and washers -Locating pins not available Rated current: 1A each contact			
		Total contact compression range: 0.1 to 0.65 mm per contact Compression force: 1.6N per contact Torque for locking devices: 10 N.cm			
		Operating Temperature Range (°C): -55 to +125			

Component Manufacturer Smiths interconnect	2	Location of Manufacturing Plant(s) 31 rue Isidore Maille 76410 Saint-Aubin les Elbeuf	3	Date of original qualification approval: Date: 15/08/2007 Certificate Ref No. 281	4
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ESCC Specifications used for Maintenance of qualification testing: Generic: 3401 Issue: 5 Detail(s): 3401076 Issue: 2	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: PV n°335342 of 31/5/2023	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) 8

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:	9	Current PID Verified by: <u>F. Nouals</u> Name of Executive Representative Ref No: P.I.D CDC N° 43 Issue: V Rev Date: 24/10/2023	Date: 27/11/2023	10
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Current Manufacturing facilities surveyed by

F. Nouals, CNES

on

18/09/2021

(Name of Executive Representative)

(Date)

Satisfactory: Yes No Explain

Report Reference: 1040193



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Page 3
Appl. No. 281H

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:

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



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Page 2

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Appl. No.

Executive Member: CNES

Date: 13/12/2023

281H

12

Failure Analysis, DPA, NCCS available: Yes No (Supply data)

Ref. No's and purposes:

13

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: 13/12/2023

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

14

Continuation of Boxes above:



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Page 4
 Appl. No. 281H

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

18

Tests conducted in compliance with:

- ESCC 3401 generic specification; Chart V (for ESCC/QPL parts); LAT 1
- Or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

See document N°335342

PART NUMBER	DATE CODE	LOT	SERIAL NUMBER	Qty	SIMILAR TO STYLE
3401 076 01 B RXA200 55 FF 078A	2307	A	-	5	RXA200 55 FF 078A -3401076

PART NUMBER	DATE CODE	LOT	Qty	SIMILAR TO STYLE	LEVEL	
					I	II
3401 076 01 B RXA200 55 FF 078A	2307	A	1	RXA200 55 FF 078A	1	
3401 076 01 B RXA200 55 FF 078A	2307	A	1	RXA200 55 FF 078A	2	
3401 076 01 B RXA200 55 FF 078A	2307	A	1	RXA200 55 FF 078A	3	
3401 076 01 B RXA200 55 FF 078A	2307	A	1	RXA200 55 FF 078A		4
3401 076 01 B RXA200 55 FF 078A	2307	A	1	RXA200 55 FF 078A		5

Detail Specification reference: [REDACTED]

Type of test	Details	Specification	PASS or FAIL	Page
Climatic sequence	Dry heat	ESCC Generic Specification n° 3401, ESCC Detail Specification n° 3401/076	PASS	15
	Damp heat accelerated, 1 st cycle		PASS	19
	Cold test		PASS	20
	Low air pressure		PASS	21
	Damp heat accelerated, remaining cycles		PASS	23
	Final measurements		PASS	26
Rapid change of temperature	Insulation resistance	Specification n° 3401, Specification n° 3401/076	PASS	39
	Voltage proof		PASS	40
Endurance	Contact resistance (initial measurement)	ESCC Generic Specification n° 3401, ESCC Detail Specification n° 3401/076	PASS	45
	Contact resistance (final measurement)		PASS	50
	Insulation resistance		PASS	52
	Voltage proof		PASS	53



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Page 6
Appl. No.
281H

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.