APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Page 1

Component Title: CONNECTORS,RF, COAXIAL, SOLDER AND CRIMP CONTACTS, MALE, FEMALE ADAPTORS AND CONNECTING PIECES,BASED ON TYPE SMA 2.9

Appl. No. 283 H

Executive Member: CNES Date: 12/05/2025

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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
3402/021	01 to 5 & 07	Frequency Range 0-40 GHz Frequency Range 0-36 GHz	SMA 2.9	340202101B301 340202102B301 1	
3402/022	01 to 05	Solder type contact for flexible and semi rigid cables, contacts for micro strip		340202203B301 340202202B301	
3402/023	01 to 06	Shell material and finish: passivated amafnetic stainless steel, Operating temperature range (°C): -65 to +165		340202302B301	

2 Component Manufacturer

Radiall

3 Location of Manufacturing Plant(s)

RADIALL (Usine de Centr'alp) 642 Rue emile Romanet 38340 vireppe (France)

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Date of original qualification approval:

Date: 01/12/2007

Certificate Ref No. 283

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ESCC Specifications used for Maintenance of qualification testing:

Generic: 3402 Issue 6

Detail(s): 3402/021 Issue 5 :

3402/022 Issue 6
3402/023 Issue 8

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Deviations to LVT testing and Detail Specification used:

No ☐ Yes ☒ (supply details in Box 15)

Deviation from current Specifications:

No ☒ Yes ☐ (Supply details)

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Qualification Extension Report reference and date:

TEST REPORT n° 2024.12.036 du 16/12/2024
TEST REPORT n°2023.50.145 du 19/02/2024

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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 PID Annex 4				

PID changes since start of qualification 9

None ☐
Minor* ☒
Major* ☐ *Provide details in box:

see box 14

Current **PID** Verified by: CNES 10

Name of Excutive Representative

Ref No: PAQP- VOR 0064(F)
Issue: 2 rev. A Date: 15/04/2024
Rev Date: 15/04/2024

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Current Manufacturing facilities surveyed by: CNES on 16/01/2020

(Name of Executive Representative) (Date)

Satisfactory: Yes ☐ No ☐ Explain

Report Reference: CR_visite_radiall_16_01_2020

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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: 12/05/2025

Fontaine Lya Signature numérique de Fontaine Lya Date : 2025.05.12 14:33:23 +02'00'

L. FONTAINE

(Signature of the Executive Coordinator)

Continuation of Boxes above:

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Box 5, box 6 and Box 9:

PID refers to the generic specification ESCC 3402 issue 6 (

Box 12

Modification of PID

Following the completion of the VOQ, changes to pages 4-6-8 following document updates
Page 4 – Modification of specifications issues
Pages 6 and 8 following organizational chart updates
Appendices updated due to version issue

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Non compliance to ESCC requirements:

No.:	Specification	Paragraph	Non compliance
1	ESCC 3402 issue 6	12.4	Deviation from Chart F4 Sequence

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Additional tasks required to achieve full compliance for ESCC qualification or rationale for acceptability of non-compliance

The justification for the deviation is described hereafter:

For the following categories which refer to connector to be cabled on semirigid cables or flexible cables:
ESCC3402/021 Variants 01 and 02
ESCC3402/022 Variants 01 and 02
ESCC3402/021 Variants 03 to 05

A RFD S240401 rev.A has been applied and consists in the following steps:
In Lot Validation testing Flow Chart (F4) of ESCC3402 issue 6, Random vibration and Electrical measurement are required: cable assembly is needed to electrically characterize the connectors.
Being not sustainable the random vibration level (50 grms) required by the ESCC3402 issue 6 for the concerned cable assemblies, additional pigtails have been dedicated to this purpose. In parallel taking advantage of a renewal of a capability approval under CNES control for cable assemblies, ESCC3408 chart F4B has been deployed only for connectors in these specific configurations (i.e. the ones to be crimped and brazed for cables).

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Executive Manager Disposition

Application Approval: Yes ☒ No ☐

Action / Remarks:

Date:

Ali Zadeh Digitally signed by Ali Zadeh Date: 2025.06.02 10:38:57 +02'00'

A.Zadeh: Head of the Avionics and EEE Division

ANNEX 1: LIST OF TESTS DONE TO SUPPORT EXTENSION OF QUALIFICATION 18

Tests conducted in compliance with:

- ESCC 3402 generic specification; Chart V (for ESCC/QPL parts);
- Or PID-TFD PAQP-VOR 0064 (F) issue 02 rev A (for ESCC/QML parts)

Tests vehicle identification/description:

ESCC 340202101B301 (DC2345A)	
ESCC 340202102B301 (DC 2347A) ESCC 340202203B301 (DC2339A) ESCC 340202303B301 (DC2339B), ESCC 340202302B301 (DC2339A))	

Detail Specification reference: Click here to enter text.

Chart	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
ESCC 3402 issue 5 chart F4	Mating and unmating Force	☒	ESCC 3402, Para. 8.11	2339A 2339B 2210A 2350A	4,2,2,4	0	
	Random Vibration	☒	ESCC 3402, Para. 8.15	2345A 2347A 2339A 2339B 2210A 2350A	3,3 4,2,2,4	0	
	Mechanical shock	☒	ESCC 3402, Para. 8.16	2339A 2339B 2210A 2350A	4,2,2,4	0	
	Temperature cycling	☒	ESCC 3402, Para. 8.8	2339A 2339B 2210A 2350A	4,2,2,4	0	
	Thermal Stability of insertion loss	☒	ESCC 3402, Para. 8.17	2339B 2210A	2 ,2	0	Only applicable to connector transition, adaptor and connecting piece components
	Shielding effectiveness	☒	ESCC 3402, Para. 8.18	2339B 2210A	2,2	0	Only applicable to connector transition, adaptor and connecting piece components
	Electrical measurements at room temperature	☒	ESCC 3402, Para. 8.9.9	2339A 2339B 2210A 2350A	4,2,2,4	0	
	Endurance	☒	ESCC 3402, Para. 8.19	2339A 2339B 2210A 2350A	4,2,2,4	0	
	Seal	☐	ESCC 3402, Para. 8.13	Click here to enter text.	Click here to enter text.		Only applicable to hermetically sealed, barrier-sealed or panel-sealed components
	Coupling Proof Torque	☒	ESCC 3402, Para. 8.10	2339A 2339B 2210A 2350A	4,2,2,4	0	

	External Visual Inspection	☒	ESCC 3402, Para. 8.14	2339A 2339B 2210A 2350A	4,2,2,4	0	
	Destructive Physical Analysis	☐	ESCC 3402, Para. 8.17	2339A 2350A	2	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.