APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

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Component Title: RF CABLE ASSEMBLY, 2.92MM CONNECTORS, LOW POWER. 50OHMS,FLEXIBLE CABLE,OC TO 45 GHZ BASED ON TYPE Appl. No. AXOWAVE SL34SQ

Appl. No. 365B

Executive Member: Date: 07/03/2025

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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
3408/003	01 to 3	Frequency range DC-45	2.4 mm type	3408003 02 01000 0 JS720-01	
		GHzStraight and swept cable assembly1 for flexible 04.4mm		3408003 02 01000 0 JS720-02 to 05	
		VSWR max Integrated of the cable1is qualified up to 300 Mrad			
		Temperature range:-55°C to125°C			

2 Component Manufacturer

AXON CABLES SA

3 Location of Manufacturing Plant(s)

2 Route de Chalons 51210 Montmirail France

4 Date of original qualification approval:

Date: 01/02/2020

Certificate Ref No. 365

5 ESCC Specifications used for Maintenance of qualification testing:

Generic: 3408 Issue: 4

Detail(s): 3408 003 Issue : 2

6 Deviations to LVT testing and Detail Specification used:

No ☒ Yes ☐ (supply details in Box 15)

Deviation from current Specifications:

No ☒ Yes ☐ (Supply details)

7 Qualification Extension Report reference and date:

23028-QTR-0001-AXON, 07/08/2023

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

9 **PID** changes since start of qualification

None ☐

Minor* ☒

Major* ☐ *Provide details in box:

10 Current **PID** Verified by: F. NOUALS, CNES

Name of Excutive Representative

Ref No: CNES-PID-18-AXON

Issue: 03 Date: 06/03/2025

Rev Date: 06/01/2023

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Current Manufacturing facilities surveyed by: JB Sauveplane, CNES on 14/05/2022

(Name of Executive Representative) (Date)

Satisfactory: Yes ☒ No ☐ Explain

Report Reference: AXOCOM -AU D-2019

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

Ref. No's and purposes: 2-C-AXO-4-01 closed

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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: 07/03/2025

Fontaine Lya Signature numérique de Fontaine Lya Date : 2025.03.07 16:40:29 +01'00'

L. FONTAINE, CNES

(Signature of the Executive Coordinator)

Continuation of Boxes above: 14

Box 11: line visit performed on 22/05/2022 with no additional remark to the former audit carried out on 2019
Box 12: 2-C-AXO-4-01 Shielding Effectiveness results after F4B chart tests do not meet the requirements of the Detail Specification
As part of the root cause analysis, the test sequence was re-done on two new cable assemblies P-JS720-01 & 02 up to extreme temperature test
=> SE & RF compliant
This issue does not impact the overall quality and reliability of the parts

15

Non compliance to ESCC requirements:

No.:	Specification	Paragraph	Non compliance

16

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

17

Executive Manager Disposition

Application Approval: Yes ☒ No ☐

Action / Remarks:

Date: 31-03-2025

A. Zadeh, Head of the Avionics and EEE Division, Electrical Department

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

Tests conducted in compliance with:

- ESCC 3408 generic specification; Chart F4 (for ESCC/QPL parts);
- Or PID-TFD [redacted] (for ESCC/QML parts)

Tests vehicle identification/description:

3408003 02 01000 0 JS720-01	3408003 02 01000 0 JS720-02 to 05

Detail Specification reference: S ESCC3408/003 issue 2

Chart F4	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Column 1 4 TVs	Shielding Effectiveness	☒	IEC Publication No. 61726	2327	4	0	
	Thermal Stability of Insertion Loss	☒	As specified in Detail Specification	2327	4	0	
	Temperature Cycling II (100 cycles)	☒	As specified in Detail Specification	2327	4	0	
	Thermal Stability of Insertion Loss	☒	As specified in Detail Specification	2327	4	0	
	RF Power Handling	☒	As specified in Detail Specification	2327	4	0	
	RF Power Cycling	☒	As specified in Detail Specification	2327	4	0	
	Shielding Effectiveness	☒	IEC Publication No. 61726	2327	4	2 *	* see 2-C-AXO-4-01
	Electrical Measurements at Room, High and Low Temperatures	☒	As specified in Detail Specification	2327	4	0	
	Coupling Proof Torque	☒	ESCC Generic Specification No. 3402	2327	4	0	
	Mating and Unmating Forces	☒	ESCC Generic Specification No. 3402	2327	4	0	
	ExtemalVisual Inspection	☒	ESCC Basic Specification No. 20500	2327	4	0	
	Pemanence of Marking	☒	ESCC Basic Specification No. 24800	2327	4	0	
	Radiographie Inspection	☒	ESCC Basic Specification No.20900	2327	3	0	
	Destructive Physical Analysis	☒	ESCC Basic Specification No. 21001	2327	3	0	
Column 2 1 TV	Control	☒	As specified in Detail Specification	2327	1	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.