



APPLICATION FOR EXTENSION OF ESCC PROCESS CAPABILITY APPROVAL

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Appl. No.  
332E

PROCESS CAPABILITY DOMAIN: Hermetic Hybrids Assembly Line

Executive Member: CNES

Date: 13/10/2025

Capability domain submitted for approval

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Capability Domain Description	Process Capability Abstract	Based on Technology	Test Structures	Component Proposed for Qualification
High Frequency Hybrid	Attached as Appendix	See appendix	(option 2)	Renewal

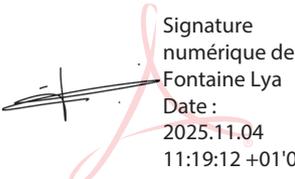
Component Manufacturer <b>Thales Alenia Space</b>	Location of manufacturing plant(s): <b>26, Av. J-F. Champollion 31037 Toulouse Cedex 1 France</b>	ESCC Specifications used for Process Capability Approval : <b>ESCC 2566000, Issue 2 (2014)</b>
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Report reference: <b>MoM 0005-0028604288</b>  Date: <b>September, 2025</b>	PID used for initial Process Capability Approval:  Reference No. : <b>39.731.284/924</b>  Issue : <b>09</b>  Revision : -  Date: <b>2017</b>
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<b>PID Changes since start of Process Capability Approval</b>  None <input type="checkbox"/> Minor* <input type="checkbox"/> * provide details in Box 12 Major* <input checked="" type="checkbox"/>	Current PID Verified by: <b>S. DAREYS</b> Name of Executive Representative Ref. No.: <b>39.731.284/924</b> Issue / Rev : 13/-  Date : September 2025
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Current Manufacturing Facilities and Quality System surveyed by: Sophie Dareys _____ on 30/09/2025 Minutes of meeting ref 0005-0028604288 Name of Executive Representative Date Report Reference Number  Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Corrective Actions Closed Out: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
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Quality and Reliability Data  Evaluation testing performed Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Report Ref. No.: <b>listed in minutes of meeting ref MoM 0005-0028604288</b> date: 30/09/2025 Equivalent data: (provide details) Certification: yes	Failure Analysis, DPA, NCCS: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (supply data) Ref. Nos. and purpose: SERMA 25-1083-300 : MLA + BR Hybrid (T5 family) SERMA 25-1083-100 : VGA 2.1 2.6 GHz hybrid (T2 family) SERMA 25-1083-200 : RFVIA CHA3666 OL 150F Hybrid (T9 family)
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	<p><b>APPLICATION FOR ESCC CAPABILITY APPROVAL (or its EXTENSION)</b></p> <p><b>CAPABILITY DOMAIN: Hermetic Hybrids Assembly Line</b></p> <p>Executive Member: <b>CNES</b> Date:04/11/2025</p>	<p>Page 2</p> <p>Application No. <b>332D</b></p>
<div style="text-align: right; border: 1px solid black; width: 40px; float: right; padding: 2px;">11</div> <p>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 evidenced except as stated in box 13; that the reports and data are available at the ESCC Executive and therefore applies for ESCC Capability Approval status to be given to the capability domain defined herein.</p> <p>Date: 04/11/2025</p> <div style="text-align: right;">  <p>Signature numérique de Fontaine Lya Date : 2025.11.04 11:19:12 +01'00'</p> <p><b>Lya FONTAINE</b> (Signature of the Executive Coordinator)</p> </div>		
<div style="text-align: right; border: 1px solid black; width: 40px; float: right; padding: 2px;">12</div> <p>Continuation of Boxes above:</p> <p><b>THALES ALENIA SPACE IN TOULOUSE IS PROPOSED TO BE APPROVED FOR THE SUPPLY OF HERMETIC HYBRID PRODUCTS AS A <u>CATEGORY 1, OPTION 2</u> MANUFACTURER, IN ACCORDANCE WITH ECSS-Q-ST-60-05C Rev1</b></p> <p># FURTHER DESCRIPTION OF ACTIVITIES LEADING TO EXTENSION OF PROCESS CAPABILITY APPROVAL MAY BE LISTED HERE , IF NECESSARY, LIKE DELTA EVALUATIONS, OTHER REPORTS</p> <p># REVISED PCA ABSTRACT SHOULD BE PROVIDED AS WELL AS ANNEX</p> <ul style="list-style-type: none"> <li>- Changes of PID 39 731 284/924 have been discussed and accepted during meeting.</li> <li>- Implementation of a new family T10, subject to satisfactory CTA results, forecasted for beginning of 2026</li> <li>- As no Hybrids from T1 and T8 families have been manufacturing during the two last years, in case of T1 or T8 families manufacturing, TAS-T will inform the agencies and share the analysis (design similarity, additional tests) for approval.</li> </ul>		

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		Date: 13/10/2025

Non compliance to ESCC requirements:

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No.:	Specification	Paragraph	Non compliance
2566000	ESCC	Chart 2.2 subgroup 3	Endurance (1000h + 1000h) not performed at evaluation phase

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

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**Endurance duration increased at CTA level from 1 000h to 2 000h. Data available for review**

**Executive Manager Disposition:**

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Application Approval:    Yes        No   

Action/Remarks:

Date:

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A. Zadeh: Head of the Avionics and EEE Division

	<b>APPLICATION FOR ESCC CAPABILITY APPROVAL</b> <b>CAPABILITY DOMAIN: Hermetic Hybrids Assembly Line</b> <b>Executive Member: CNES</b> <b>Date: 6/10/2023</b>	Page 4 Application No. <b>332D</b>
<b>NOTES ON THE COMPLETION OF THE APPLICATION FORM FOR ESCC CAPABILITY APPROVAL [or its EXTENSION, see BOX 12 below]</b>		
<b>GENERAL</b>	Whenever possible, all entries should be typed and in any case be suitable for legible reproduction by normal means.	
<b>ENTRIES</b>		
Form heading	shall indicate: - the title of the capability domain or the technology as given in the Capability Abstract - the Executive Member; - the entering date; - the serial number and the suffix of the form.	
<b>Box 1</b>	shall provide under capability domain description the full name or a description statement of the capability domain – the number of the Capability Abstract document – the basic technology used for capability approval – the test structures specification numbers or identification numbers – the components which successfully passed component approval test and are proposed for qualification within the domain. <b><u>N.B.</u></b> The capability abstract shall be attached as an Appendix.	
<b>Box 2 and 3</b>	Manufacturer's name and location of the plant(s) where the capability domain is situated.	
<b>Box 4</b>	The ESCC Generic and Detail specifications ( including issue number and date) used during Capability Approval.	
<b>Box 5</b>	Reference to test report(s) submitted in support of the application for capability approval and components proposed for qualification.	
<b>Box 6</b>	Enter details to identify the PID that was applicable at the time of manufacturing of samples for capability approval testing.	
<b>Box 7</b>	If the PID has been changed during or after capability approval testing, adequate details shall be provided together with the reasons for change. Major changes shall be clearly identified.	
<b>Box 8</b>	The box serves to identify the current PID and the Executive Representative that has verified it together with the date of this verification.	
<b>Box 9</b>	The box can be completed only after a physical visit to the plant to confirm that the practices, procedures, material, etc. used in manufacturing the components are as described in the PID. This audit shall be carried out in accordance with the requirements of ESCC Basic Specification No. 20200 and the results shall be formally recorded. The report number shall be referenced.	
<b>Box 10</b>	Details entered shall be sufficient to evidenced that an evaluation programme according to ESCC Basic Specification No. 24300 has been performed and that the results thereof are summarised in the audit and test reports. If the evaluation programme has not been carried out according to established ESCC Specifications, the applicant Executive Member shall provide alternative data and declare the assessed degree of satisfactory compliance with the ESCC requirements. Reference shall be made to the reports on Destructive Physical Analysis (DPA), Failure Analysis reports as well as any Non Conformance (NCCS) issued during the Evaluation and/or capability approval testing.	
<b>Box 11</b>	Enter the name of the Executive Member (i.e., CNES, DLR, ESTEC, etc.) and the signature and date of the responsible Executive Coordinator.	
<b>Box 12</b>	To be used when there is a need to expand any of the boxes from 1 through 10. Identify the Box affected and reference Box 12 in the relevant Box. Box 12 can be broken into 12a, 12b, etc. if several boxes have to be expanded. In the case of Application for the Extension of Capability Approval, the Box 12 may be used to provide a summary of lots of component types (types, date codes, quantity) manufactured and tested within the capability domain. Refer to ESCC 24300, paragraph 9.4.3 for complete requirements.	
<b>Box 13</b>	State noncompliance with reference to specification(s) and paragraph(s). To simplify reference in Box 14 each nonconformance shall be sequentially numbered. If relevant state 'None'.	
<b>Box 14</b>	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.	
<b>Box 15</b>	All Executive Manager recommendations on the application itself, special conditions or restrictions, modifications of the ESCC QPL entry, letters to the manufacturer, etc. shall be entered clearly in Box 15, signed by the representative for ESA, and dated.	