	APPLICATION FOR ESCC CAPABILITY APPROVAL (or its EXTENSION): CAPABILITY DOMAIN: Chip in Package Hermetic Integrated Circuits Modules Executive Member: ESA Date: 27/08/2024		Page 1 Appl. No. 390	
1 Capability domain submitted for approval				
Capability Domain Description	Capability Abstract Number	Based on Technology	Test Structures	Component Proposed for Qualification
Epoxy attached, wire bonded SiGe IC in hermetic LGA/BGA ceramic package	Attached as Appendix 572-512-01 PCA Abstract	AD/DA-Converter PLL	572-571-01 PCA Technical Note 2	SY1007 SY1007A SY1017C SY1017A
2 Component Manufacturer ALTER TECHNOLOGY TÜV NORD UK Ltd		3 Location of manufacturing plant(s) Livingston, Scotland, UK		4 ESCC Specifications used for Capability Approval Basic: ESCC 2567000 Issue 1 Details: N/a
5 Report reference: 572-572-00 PCA Technical Note 3 with its appendices Date: 07/08/2024		6 PID used for manufacturing Approval Testing Lot Reference No.: 572-513 PCA PID Issue: 00 Revision: - Date: 04/12/2023		
7 PID Changes since start of Capability Approval None <input type="checkbox"/> Minor* <input checked="" type="checkbox"/> * provide details in Box 12 Major* <input type="checkbox"/>		8 Current PID Verified by: Szymon Bednarski Denis Lacombe Ref. No.: 572-513-01 PCA PID Issue: 01 Date: 07/08/2024		
9 Current Manufacturing Facilities and Quality System audited by: Liam Murphy, Denis Lacombe on 6-7/10/2022 ESA-TECQES-AUD-RP-2024-002259 Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Corrective Actions Closed Out: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>				
10 Quality and Reliability Data				
Evaluation testing performed Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Report Ref. No 572-572-00 PCA Technical Note 3 date: 07/08/2024 Equivalent data: Appendices in above document (provide details) Certification:		Failure Analysis, DPA, NCCS: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (supply data) Included in Evaluation Testing reporting 572-572-00 and appendices Ref. Nos. and purpose:		

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.


ESCC Executive Coordinator:

Denis
Lacombe

Digitally signed by
Denis Lacombe
Date: 2024.08.28
13:46:55 +02'00'

12

PID up rev – minor administrative updates – company's structure. Removal of some references not included in PCA. Latest document format update.

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	CAPABILITY DOMAIN: Executive Member: ESA		Application No. 390
			Date: 27/08/2024

Non compliance to ESCC requirements:

13

No.:	Specification	Paragraph	Non compliance

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

14

Executive Manager Disposition:

15

Application Approval: Yes x No ☐

Action/Remarks:

Date:

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

CAPABILITY DOMAIN:

Executive Member: **ESA**

Date: 27/08/2024

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Application No.

390

GENERAL

Whenever possible, all entries should be typed and in any case be suitable for legible reproduction by normal means.

ENTRIES

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.

Box 1

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.

N.B. The capability abstract shall be attached as an Appendix.

Box 2 and 3

Manufacturer's name and location of the plant(s) where the capability domain is situated.

Box 4

The [ESCC Generic](#) and [Detail](#) specifications (including issue number and date) used during Capability Approval.

Box 5

Reference to test report(s) submitted in support of the application for capability approval and components proposed for qualification.

Box 6

Enter details to identify the **PID** that was applicable at the time of manufacturing of samples for capability approval testing.

Box 7

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.

Box 8

The box serves to identify the current PID and the [Executive Representative](#) that has verified it together with the date of this verification.

Box 9

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.

Box 10

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.

Box 11

Enter the **name** of the **Executive Member** (i.e., CNES, DLR, ESTEC, etc.) and the signature and date of the responsible **Executive Coordinator**.

Box 12

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.

Box 13

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'.

Box 14

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 15

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.