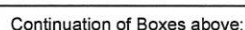
		APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL			Page 1 Appl. No. 371A
Component Title: CRYSTAL OSCILLATOR RK135, CLASS 2, 4MHz to 100MHz, AHCMOS compatible output, RAD-HARD		Executive Member: CNES		Date: 02/11/2023	
Components (including series and families) submitted for Extension of Qualification Approval:					1
ESCC COMPONENT NO.	VARIANTS	RANGE OF COMPONENTS	BASED ON	TEST VEHICLE / S	COMPONENT SIMILAR
3503001	01 to 04	FP1, FP2, FP3, FP4 packages	RK135 type	350300104R24M576 000HC	
				350300104R32M000 000HC	
				350300104R60M000 000HC	
				350300104R75M000 000HC	
				350300104R80M000 000HC	
Component Manufacturer RAKON France		Location of Manufacturing Plant(s) 2 rue Robert Keller 10150 Pont-Sainte-Marie		Date of original qualification approval: Date: 15/02/2021 Certificate Ref No. 371	
ESCC Specifications used for Maintenance of qualification testing: Generic: ESCC Issue: 05 3503 Detail(s): 3503/001 Issue: 07		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)		Qualification Extension Report reference and date: 520785_Acceptance_Test_Report_350300104R24M576 000HC DC2221 du 05/09/2022 520829_Acceptance_Test_Report_350300104R32M000 000HC DC2210 du 24/06/2022 519995_Acceptance_Test_Report_350300104R60M000 000HC_DC2143 du 22/02/2022 520359_Acceptance_Test_Report_350300104R75M000 000HC_DC2202 du 02/06/2022 520024_Acceptance_Test_Report_350300104R80M000 000HC_DC2142 du 02/06/2022 LVT report_51002685.570.00-A0_Chart F4_350300104R24M576000HC_DC2221 du 31/01/2023 LVT report_51002685.570.00-A0_Chart F4_350300104R32M000000HC_DC2210 du 31/01/2023 LVT report_51002685.570.00-A0_Chart F4_350300104R60M000000HC_DC2143 du 31/01/2023 LVT report_51002685.570.00-A0_Chart F4_350300104R75M000000HC_DC2202 du 27/01/2023 LVT report_51002685.570.00-A0_Chart F4_350300104R80M000000HC_DC2142 du 31/01/2023	
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 file SalesOverview_February2021-January2023.pdf					
PID changes since start of qualification None <input type="checkbox"/> Minor* <input checked="" type="checkbox"/> Major* <input type="checkbox"/> *Provide details in box:		Current PID Verified by: N. Gutierrez, CNES Name of Executive Representative Ref No: 51001742-E0_RK1x5 series Process Identification Document Issue: E0 Date: 15/02/2013 Rev Date: 17/10/2022			
Current Manufacturing facilities surveyed by: C. Doucet, CNES and D. Lacombe, ESA on 20/11/2019 (Name of Executive Representative) (Date)					
Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain					



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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

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

18

Tests conducted in compliance with:

- ESCC 3503 generic specification; Chart F4 (for ESCC/QPL parts);
- Or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

350300104R24M576000HC	
350300104R32M000000HC	
350300104R60M000000HC	
350300104R75M000000HC	
350300104R80M000000HC	

Detail Specification reference: 3503001

Chart F4	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Environmental/Mechanical Subgroup	Mechanical Shock	<input checked="" type="checkbox"/>	MIL-STD-202, Test Method 213	2202	5	0	
	Random Vibration	<input checked="" type="checkbox"/>	MIL-STD-202, Test Method 214	2202	5	0	
	Constant Acceleration	<input type="checkbox"/>	MIL-STD-883, Test Method 2001	Click here to enter text.			
	Temperature Cycling	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 1010	2202	5	0	
	Seal (Fine and Gross Leak)	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 1014	2202	5	0	
	Intermediate and End-Point Electrical Measurements	<input checked="" type="checkbox"/>	Intermediate and End-Point Electrical Measurements in the Detail Specification	2202	5	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 20500	2202	5	0	
	DPA	<input checked="" type="checkbox"/>	MIL-STD-1580	2202	5	0	
	Thermal Shock	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 1011	2202	2	0	
	Moisture Resistance	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 1004	2202	2	0	
	Seal (Fine and Gross Leak)	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 1014	2202	2	0	
	Intermediate and End-Point Electrical Measurements	<input checked="" type="checkbox"/>	Intermediate and End-Point Electrical Measurements in the Detail Specification	2202	2	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 20500	2202	2	0	
Endurance Subgroup	Operating Life	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 1005	2221 & 2210 & 2143 & 2142	2 & 3 & 3 & 2	0	
	Intermediate and End-Point Electrical Measurements	<input checked="" type="checkbox"/>	Intermediate and End-Point Electrical Measurements in the Detail Specification	2221 & 2210 & 2143 & 2142	2 & 3 & 3 & 2	0	
	Seal (Fine and Gross Leak)	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 1014	2221 & 2210 & 2143 & 2142	2 & 3 & 3 & 2	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 20500	2221 & 2210 & 2143 & 2142	2 & 3 & 3 & 2	0	


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Chart F4	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Radiation Subgroup	Radiation	<input type="checkbox"/>	ESCC Basic Specification No. 22900				
Assembly Capability Subgroup	Lead Integrity	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 2004	2202	3	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 20500	2202	3	0	
	Permanence of Marking	<input type="checkbox"/>	ESCC Basic Specification No. 24800				
	Solderability	<input checked="" type="checkbox"/>	MIL-STD-883 Test Method 2003 ESCC-Q-ST-70-08	2202	3	0	
	Seal (Fine and Gross Leak)	<input checked="" type="checkbox"/>	MIL-STD-883 Test Method 1014	2202	3	0	
	Internal Water Vapour	<input checked="" type="checkbox"/>	MIL-STD-883 Test Method 1018	2202	3	0	
Additional Tests		<input type="checkbox"/>					
		<input type="checkbox"/>					
		<input type="checkbox"/>					

*

**APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL**Component title: CRYSTAL OSCILLATOR RK135, CLASS 2, 4MHz to 100MHz,
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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.