

		<b>APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL</b>				Page 1
		Component Title: <b>Quartz Crystal Units in metal holder T08</b>		Appl. No.		
		Executive Member: <b>CNES</b>		Date: <b>19/09/2014</b>		
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	
3501002 , 3501009, 3501019,	All	<b>Frequency Range : 2.5 to 20 MHz</b>	Type T1507;	3501 019 C0013 , 12 Mhz ,	<b>All other variants in ESCC 3501002 ESCC 3501009 ESCC 3501019</b>	
Component Manufacturer <b>RAKON France</b>		Location of Manufacturing Plant(s) <b>44 rue de la Glacière BP165 95105 ARGENTEUIL - FRANCE</b>		Date of original qualification approval: Date: <b>01/10/1976</b>  Certificate Ref No. <b>34</b>		
ESCC Specifications used for Maintenance of qualification testing: Generic: <b>3501</b> Issue: <b>3</b>  Detail(s): <b>3501019</b> Issue: <b>5</b>		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: Dossier <b>4580_VOQ_T1507_12Mhz_C0013_DC1342, 04/06/2014</b>		
Summary of procurement or equivalent test results during current validity period in support of this application (those to ESCC listed first)						8
Project Name	Testing Level	LAT	Date code	Quantity Delivered		
Cf. Salleoverview_Mai201 2-August2014						
PID changes since start of qualification			Current PID Verified by: <b>CNES</b>			
None <input type="checkbox"/> Minor* <input checked="" type="checkbox"/> Major* <input type="checkbox"/> *Provide details in box:			Name of Executive Representative Ref No: <b>3-QLT-005-07</b> Issue: <b>07</b> Date: <b>09/09/2014</b> Rev Date: <b>09/09/2014</b>			
Current Manufacturing facilities surveyed by: <b>CNES &amp; ESA</b> on <b>21/09/2011</b>						11
(Name of Executive Representative) (Date)						
Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain						
Report Reference: <b>RAK-AUD-2011</b>						



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component title: Quartz Crystal Units in metal holder TO8

Executive Member: CNES

Date: 19/09/2014

Page 2

Appl. No.

34M

12

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

Ref. No's and purposes: 2CRAK401

- MRB CLOSED OUT 22.1X.14

13

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: 25/09/2014

**P.I. Philippe LAY (Head of Components and Qualification Section) For JP.BUSSENOT (Signature of the Executive Representative)**

(Signature of the Executive Coordinator)

14

Continuation of Boxes above:

PID Modification :

- Upload of FIF
- Correction of errors
- Add of materials or glue control

12] (THE FAILURE RELATED TO THE REFERENCED NCCS WAS ACTUALLY FOUND ON TROT PRODUCT). AS PART OF THE MRB INVESTIGATION, THE RELIABILITY OF RAKON PARTS (DESIGN AND PRODUCTION) COULD BE RE-CONFIRMED AND DEMONSTRATED. AN ISOLATED SINGLE CASE TRIGGERED THE NCCS; THE CAUSE OF FAILURE WAS CONSIDERED TO BE A THERMAL /MECHANICAL OVERSTRESS.



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component title: Quartz Crystal Units in metal holder TO8

Executive Member: CNES

Date: 19/09/2014

Page 3

Appl. No.

34M

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

THE NON-CONFORMANCE OBJECT OF NCCS, A) REFERENCED IN BOX 12, HAS BEEN CLOSED OUT BY MRB ON 22-SEPT WITH CONFIRMATION THAT A SINGLE ISOLATED FAILURE HAD HAPPENED AND WITH RE-ASSURANCE OBTAINED BY ANALYSIS AND TEST ON THE RELIABILITY OF PRODUCT'S DESIGN AND PRODUCTION.

Executive Manager Disposition

17

Application Approval: Yes  No

Action / Remarks:

Date:

Signature, ESA Representative



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component Title: Quartz Crystal Units in metal holder TO8

Executive Member: CNES

Date: 19/09/2014

Page 4

Appl. No.

34M

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

18

Tests conducted in compliance with:

- ESCC 3501 generic specification; Chart V (for ESCC/QPL parts);
- Or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

3501 019 C0013 , 12 Mhz , T1507	

Detail Specification reference:

Chart V	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Environmental/Mechanical Subgroup (Column 1)	Shock	<input checked="" type="checkbox"/>	IEC Publication No. 68-2-27	1342	3	0	
	Vibration	<input checked="" type="checkbox"/>	IEC Publication No. 68-2-6	1342	3	0	
	Seal Test	<input checked="" type="checkbox"/>	IEC Publication No. 68-2-17	1342	3	0	
	Electrical Measurements at Reference Temperature	<input checked="" type="checkbox"/>	Table 2 of the Detail Specification	1342	3	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 20500	1342	3	0	
Environmental/Mechanical Subgroup (Column 2)	Climatic Sequence	<input checked="" type="checkbox"/>	ESCC 3501 Para. 9.14	1342	3	0	
	Rapid Change of Temperature	<input checked="" type="checkbox"/>	IEC Publication No. 68-2-14	1342	3	0	
	Seal Test	<input checked="" type="checkbox"/>	IEC Publication No. 68-2-17	1342	3	0	
	Electrical Measurements at Reference Temperature	<input checked="" type="checkbox"/>	Table 2 of the Detail Specification	1342	3	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 20500	1342			
Endurance Subgroup	Life Test	<input checked="" type="checkbox"/>	ESCC 3501 Para. 9.17	1342	5	0	
	Electrical Measurements during Endurance Testing	<input checked="" type="checkbox"/>	Table 6 of the Detail Specification	1342	5	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 20500	1342	5	0	
Electrical Subgroup - Electr. Meas.	Electrical Measurements at Reference Temperature	<input checked="" type="checkbox"/>	Table 2 of the Detail Specification	1342	3	0	
	Electrical Measurements at High and Low Temperatures	<input checked="" type="checkbox"/>	Table 3 of the Detail Specification	1342	3	0	





APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component title: Quartz Crystal Units in metal holder TO8

Executive Member: CNES

Date: 19/09/2014

Page 5

Appl. No.

34M

Chart V	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Electrical Subgroup – Ass. Capab. Tests	Solderability	<input checked="" type="checkbox"/>	IEC Publication No. 68-2-20	1342	3	0	
	Permanence of Marking	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 24800	1342	3	0	
	Robustness of Terminations	<input checked="" type="checkbox"/>	ESCC 3501 Para. 9.16	1342	3	0	
Additional Tests	FIVE LEAK TEST	<input checked="" type="checkbox"/>	3501 9.5	"	5	0	PERFORMED
		<input type="checkbox"/>					IN ADDITION
		<input type="checkbox"/>					ON COMPLETION OF LIFE TESTS



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component title: Quartz Crystal Units in metal holder TO8

Executive Member: CNES

Date: 19/09/2014

Page 7

Appl. No.

34M

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.