		APPLICATION FOR ESCC QUALIFICATION APPROVAL				Page 1
		Component Title: Quartz Crystal Units in metal holder TO5 Executive Member: CNES				Date: 11/09/2015 Appl. No. 333
Components (including series and families) submitted for Qualification Approval						1
ESCC COMPONENT NO.	VARIANTS	RANGE OF COMPONENTS	BASED ON	TEST VEHICLE / S	COMPONENT SIMILAR	
3501001 3501008	All	Frequency Range :15 to 140 MHz	Type T807		All other variants	
3501011	All	Frequency Range :15 to 140 MHz	Type T807	T807 AT P1 25 Mhz	All other variants	
3501012	All	Frequency Range :15 to 140 MHz	Type T807	T807 P3 25Mhz	All other variants	
3501018	All	Frequency Range :15 to 140 MHz	Type T807	T807 AT P3 50MHz, T807 AT P1 33.33Mhz T807 P1 AT 16Mhz	All other variants	
Component Manufacturer RAKON France		Location of Manufacturing Plant 2 rue Robert Keller 10150 Pont Sainte Marie - FRANCE		ESCC Specification used for Qualification Generic: 3501 Issue: 4 Detail/s: 001 , 008, 011, 012, 018 Issue: 5		
Qualification Report Reference and date: 150812RQrev02_Q1_16Mhz, 150812RQrev02_Q3_33.330Mhz, 150812RQrev01_Q4_25Mhz, 150812RQrev02_Q5_50Mhz, 150812RQrev01_Q6_101.208Mhz, 150812RQrev03_Q7_46.876Mhz, 150812RQrev01_Q8_100Mhz, 150812RQrev02_Q10_6664Mhz Date: 12/08/2015			PID used for manufacturing Qualification Lot Ref No: PID ARG_PSM 51001881_A0 Issue: 0 Date: 17/10/2014			
PID changes since start of qualification None <input type="checkbox"/> Minor* <input type="checkbox"/> Major* <input checked="" type="checkbox"/> (* Details not published, provided in confidential annex 2.)			Current PID Verified by CNES Name of Executive Representative Ref No: PID ARG_PSM 51001881_A1 Issue: 1 Date: 31/07/2015			
Current Manufacturing facilities surveyed by: CNES & ESA (Name of Executive Responsible)						9
Report Reference Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain Report RAKPSM-AUD-2015 v1 (March 2015), ESA TEC-QES . Answers ESCC Findings 150513, teleconference 8th of September 2015						
Quality and Reliability Data Evaluation testing performed Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Report Ref. No.: 150210_EVAL4716_LOTE1-1 Date: 14/04/2015 150420_EVAL 4708_LOTE2-1 150421_EVAL4722_LOTE2-2, Equivalent Data: Certification:			Failure analysis, DPA, NCCS available Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> The NCCS 2CRAK501 has been closed out. ESTEC CA 0667, June 2015 IVA report 015778-001 Ref Nos. and purpose: 150210_DPA4716_LOTE1-1, 1504220_DPA4708_LOTE2-1, 150224_DPA4722_LOTE2-2,			



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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 13; that the reports and data are available at the ESCC Executive and therefore applies for ESCC qualification status to be given to the component(s) listed herein.



Date: 11/09/2015

JP. BUSSENOT

(Signature of the Executive Coordinator)

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Continuation of Boxes above: (Only non-confidential comments)

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Component Title: Quartz Crystal Units in metal holder TO5		Executive Member: CNES		Date: 11/09/2015
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Non compliance to ESCC requirements:				
No.:	Specification	Paragraph	Non compliance	
Additional tasks required to achieve full compliance for ESCC qualification or rationale for acceptability of noncompliance:				
Executive Manager Disposition				
Application Approval: Yes <input type="checkbox"/> No <input type="checkbox"/>				
Action / Remarks:				
Date:				
 Signature, ESA Representative				



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ANNEX 1: LIST OF TESTS DONE TO SUPPORT QUALIFICATION

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Tests conducted in compliance with:

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

Tests vehicle identification/description:

T807 AT P1 16 Mhz 3501/018	T807 AT p1 3501/018
T807 AT P3 50 Mhz 3501/018	T807 AT P5 100 Mhz

Detail Specification reference:

Chart IV	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Environmental/Mechanical Subgroup	Shock	<input checked="" type="checkbox"/>	IEC Publication No. 68-2-27	1415, 1445, 1443	12	0	
	Vibration	<input checked="" type="checkbox"/>	IEC Publication No. 68-2-6	1415, 1445, 1443	12	0	
	Seal Test	<input checked="" type="checkbox"/>	IEC Publication No. 68-2-17	1415, 1445, 1443	12	0	
	Electrical Measurements at Reference Temperature	<input checked="" type="checkbox"/>	Table 2 of the Detail Specification	1415, 1445, 1443	12	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 20500	1415, 1445, 1443	12	0	
	Climatic Sequence	<input checked="" type="checkbox"/>	ESCC 3501 Para. 9.14	1415, 1445, 1443	12	0	
	Rapid Change of Temperature	<input checked="" type="checkbox"/>	IEC Publication No. 68-2-14	1415, 1445, 1443	12	1	CF NCR VRT
	Seal Test	<input checked="" type="checkbox"/>	IEC Publication No. 68-2-17	1415, 1445, 1443	12	0	
	Electrical Measurements at Reference Temperature	<input checked="" type="checkbox"/>	Table 2 of the Detail Specification	1415, 1445, 1443	12	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 20500	1415, 1445, 1443	12	0	
Assembly Capability	Solderability	<input checked="" type="checkbox"/>	IEC Publication No. 68-2-20	1415, 1443, 1445	5		

	Robustness of Terminations	☒	ESCC 3501 Para. 9.16	1415, 1443, 1445	5		
Endurance Subgroup	Life Test	☒	ESCC 3501 Para. 9.17	1415, 1445, 1422	12	4	Reference of non conformity burn in CF
	Electrical Measurements during Endurance Testing	☒	Table 6 of the Detail Specification	1415, 1445, 1422	12	0	
	External Visual Inspection	☒	ESCC Basic Specification No. 20500	1415, 1445, 1422	12	0	
	Permanence of Marking	☒	ESCC Basic Specification No. 24800	1415, 1445, 14225	12	0	

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Chart IV	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Additional Tests		<input type="checkbox"/>					
		<input type="checkbox"/>					
		<input type="checkbox"/>					

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NOTES ON THE COMPLETION OF THE APPLICATION FORM FOR ESCC QUALIFICATION APPROVAL**ENTRIES****Form Heading**

shall indicate:— the title of the component as given in its detail specification or the name of the series or family; — the entering date; — the serial number and the suffix of the form.

Box 1

shall provide details given in table; in particular there shall be listed - the variants or range of variants; the range of components by using the ESCC code for values tolerances, etc.; the designation given in detail specification as 'based on'; —under Test Vehicle enter either a cross or the specific characteristic capable to identify the component tested; — under component similar enter a cross.

Box 2 and 3

Manufacturer's name and location of plant where the components were manufactured and tested.

Box 4

Generic and detail specifications used during qualification program.

Box 5

Reference to test report(s) submitted in support of application.

Box 6

Enter details to identify the PID that was applicable at the time the qualification lot was manufactured.

Box 7

If the PID was evolved after qualification lot manufacture, adequate details of such evolution shall be provided together with reasons for changes. Major changes shall be clearly marked.

Box 8

The box serves to identify the current PID and the Executive Representative that has verified it together with the date of this occurrence.

Box 9

This box can be completed only after a physical visit to the plant to confirm that the practices, procedures, materials, 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 10

Details entered shall be sufficient to evidence that an evaluation program according to ESCC Basic Specification No. 22600 has been performed and that the results thereof are summarized in the survey and test reports. If the evaluation program has not been carried out according to established ESCC documents, the applicant Executive Representative shall provide alternative data and declare its assessed degree of satisfactory compliance with the ESCC basic requirements. Reference shall be made to the reports on Destructive Physical Analysis (DPA), Failure Analysis and Non conformance (NCCS) issued during the Evaluation and/or Qualification Phase.

Box 11

Enter the name of the Executive Coordinator and the signature.

Box 12

To be used when there is a need to expand any of the boxes from 1 through 10. Identify box affected and reference the Box 12 in the relevant Box. Box 12 can be broken into 12a, 12b, etc. if several Boxes have to be expanded.

Box 13

Fill table as requested.

Box 14

Fill in any additional tasks required to achieve full compliance.

Box 15

All Executive recommendations on the application itself, special conditions or restrictions, modifications of the QPL or ESCC QML entry, letters to the manufacturer, etc. shall be entered clearly in Box 15, signed by the ESA Representative.

Box 16

Fill in Table as requested.

Box 17

Confidential details of PID changes shall be provided.

Box 18

State noncompliance with reference to specification(s) and paragraph(s). To simplify reference in Box 18 each nonconformance shall be sequentially numbered. If relevant state 'None'

Box 19

Any additional action deemed necessary by the Executive Representative 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 nonconformance.

Box 20

Additional Comments