



		APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL			Page 1
Component Title: Capacitors, Fixed, Chip, Ceramic Dielectric, type I, based on types 0805, 1206, 1210, 1812, 2220		Executive Member: CNES			Date: 11/04/2017
Appl. No. 109N					
Components (including series and families) submitted for Extension of Qualification Approval:					
ESCC COMPONENT NO.	VARIANTS	RANGE OF COMPONENTS	BASED ON	TEST VEHICLE / S	COMPONENT SIMILAR
3009 003 - 3009 004	03, 06	See box 14	0805 - 1210	3009003064750DE 3009003061001JE 3009004064701FE 3009004066801JE	
3009 005	03, 06		1812	3009005061502JE 3009005061001JE	Click here to enter text.
3009 006	03, 06		2220	3009006062202FE 3009006063302FE	Click here to enter text.
3009 022	03, 06		1206	AN20CE0332J2L	X
Component Manufacturer TPC A division of AVX Corporation		Location of Manufacturing Plant(s) Avenue du Colonel Prat 21850 SAINT APOLLINAIRE – France		Date of original qualification approval: Date: 01/02/1983 Certificate Ref No. 109	
ESCC Specifications used for Maintenance of qualification testing: Generic: 3009 Issue: 2 Detail(s): 3009/003 Issue: 6 / 5 3009/004 3009/005 3009/006 <i>3009/022</i>		Deviations to LVT testing and Detail Specification used: No <input type="checkbox"/> Yes <input checked="" 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: VOQ 2017 Certificate 109 (Type 1), 11/04/2017	
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	
EADS (70% TESAT) TAS			April 2015 to March 2017	39 607 parts	
ALTER RUAG		2	1627		
APC (UK) RGM					
ARROW TTI					
PID changes since start of qualification None <input checked="" type="checkbox"/> Minor* <input type="checkbox"/> Major* <input type="checkbox"/> *Provide details in box:		Current PID Verified by: CNES Name of Executive Representative Ref No: 1G2 PID 100 17WQ Issue: 17 Date: 29/07/2016 Rev Date: 11/07/2016			
Current Manufacturing facilities surveyed by:		ESA and CNES on 19/04/2012 (Name of Executive Representative) (Date)			
Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain		Status of actions appended to Application 109M			
Report Reference: QES/LB/120601, 25/06/2012 + cnes survey April 2017: CNES/DSO/AQ/ICQ-2017/06001					

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Executive Member: CNES		Date: 11/04/2017					
Failure Analysis, DPA, NCCS available: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (Supply data)		12					
Ref. No's and purposes:							
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.		13					
Date: 11/04/2017		JP. BUSSENOT (Signature of the Executive Coordinator)					
Continuation of Boxes above:		14					
Style	Model	Detail Spec.	Variants (1)	Capacitance Range (pF)	Rated Volt. (V)	Tolerance (±%)	TC (ppm/°C)
0805	A_12C	3009/003	03, 06	4.7 to 9.1 10 to 1 500	50, 100	0.5 pF 1, 2, 5, 10	± 30
1206	A_20C	3009/022	03, 06	10 to 3 900	50, 100	1, 2, 5, 10	± 30
1210	A_13C	3009/004	03, 06	22 to 6 800 8 200 to 10 000	50, 100 50	1, 2, 5, 10	± 30
1812	A_14C	3009/005	03, 06	100 to 15 000	50, 100	1, 2, 5, 10	± 30
2220	A_15C	3009/006	03, 06	470 to 33 000	50, 100	1, 2, 5, 10	± 30

(1) Variant 01 (AgPd) replaced in 2013 with variant 03 (AgPdPt) was removed from TPC PID revision 15

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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 Application Approval: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Action / Remarks:			17
 Franco Ongaro Director of Technology, Engineering and Quality Head of ESA/ESTEC Establishment			
Date:			_____ Signature, ESA Representative

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

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Tests conducted in compliance with:

- ESCC 3009 generic specification; Chart V (for ESCC/QPL parts);
- Or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

3009003064750DE – DC1640	30090030622C0JG – DC1627 (out of QPL range)
3009003061001JE / KE – DC1550, 1614	3009004064701FE – DC1547, 1637
3009003061201KE – DC1608	3009004066801JE – DC1641
3009005061502JE / JC – DC1606, 1648	3009006062202FE – DC1540, 1549, 1710
3009005061001JE – DC1610	3009006063302JE – DC1629, 1647

Detail Specification reference: 3009/003/004/005/006

Chart F4	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Environmental / Mechanical Subgroup	Mounting	<input checked="" type="checkbox"/>	IEC 60384-1	1640	20	0	(a) 1206 / AN20CE0332J2L (T3)
				1550	20		
				1614	20		
				1547	20		
				1637	20		
				1606	20		
				1610	20		
				1549	20		
				1629	20		
				1620 (a)	20		
Rapid Change of Temperature	<input checked="" type="checkbox"/>	IEC 60068-2-14	1640	20	0		
			1550	20			
			1614	20			
			1547	20			
			1637	20			
			1606	20			
			1610	20			
			1549	20			
			1629	20			
			1620 (a)	20			
Steady State Humidity	<input checked="" type="checkbox"/>	ESCC 3009, Para. 8.2	1640	20	0	1 000 hours	
			1550	20			
			1614	20			
			1547	20			
			1637	20			
			1606	20			
			1610	20			
			1549	20			
			1629	20			
			1620 (a)	20			

	Visual Inspection	<input checked="" type="checkbox"/>	ESCC 3009, Para. 8.5	1640 1550 1614 1547 1637 1606 1610 1549 1629 1620 (a)	20 20 20 20 20 20 20 20 20 20	0	
Endurance Subgroup	Mounting	<input checked="" type="checkbox"/>	IEC 60384-1	1640 1550 1614 1547 1637 1606 1610 1549 1629 1620 (a)	37 40 40 31 40 40 40 40 40 40	0	
	Operating Life	<input checked="" type="checkbox"/>	ESCC 3009, Para. 8.9	1640 1550 1614 1547 1637 1606 1610 1549 1629 1620 (a)	37 40 40 31 40 40 40 40 40 40	0	2 000 hours
	Electrical Measurements during Endurance Testing	<input checked="" type="checkbox"/>	ESCC 3009, Para. 8.9	1640 1550 1614 1547 1637 1606 1610 1549 1629 1620 (a)	37 40 40 31 40 40 40 40 40 40	0	
	Mounting	<input type="checkbox"/>	IEC 60384-1				Option
Electrical Subgroup (Elect. Meas.)	Temperature Coefficient (Type I)	<input checked="" type="checkbox"/>	ESCC 3009, Para. 8.10	1614 1641 1710 1647	5 7 6 6	0	
	Temperature Characteristic (Type II)	<input type="checkbox"/>	ESCC 3009, Para. 8.10				Not Applicable
	Robustness of Terminations	<input checked="" type="checkbox"/>	ESCC 3009, Para 8.7	1614 1648 1540 1635 (c)	6 6 20 (b) 20 (c)	0	(b) CECC testing qty (c) 1812 / AN14CD472KT2

Assembly Capability Subgroup	Solderability	<input checked="" type="checkbox"/>	IEC 60068-2-58 Test Td	1627	4	0	Customer LAT3
	Permanence of Marking	<input type="checkbox"/>	ESCC 24800				Not Applicable
Additional Tests	Insulation resistance at +125°C	<input checked="" type="checkbox"/>	ESCC 3009 Iss. 1 Para 9.4.1.3	1614 1608 1641 1629	6 6 6 6	0	
		<input type="checkbox"/>					
		<input type="checkbox"/>					



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Appl. No.

Executive Member: CNES

Date: 11/04/2017

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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.