ESCC

APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component Title:

Capacitors, Fixed, Chip, Ceramic Dielectric, type I, based on types 0805, 1206, 1210, 1812, 2220

Appl. No.

Page 1

		E	kecutive	Mem	ber:	CNE	S			D	ate: 05/04/2019		109P	
Components (includi	ng series and famili	es) sı	ubmitted	for E	xtensio	n of Q	ualification	n Approval:	:					1
ESCC COMPONENT NO.	VARIANTS		RA	NGE	BE OF COMPONENTS BASED ON TEST VEHICLE / S				COMPONEN SIMILAR	ΙΤ				
3009 003 3009 004	03, 06		See bo	See box 14 0805 1210				3009003061301JC 3009004061501FE 3009004061002JC AN13CE0392KT5						
3009 005	03, 06			1812				3009005061502JE	Clic	k here to enter	r text.			
3009 006	03, 06			2220				3009006063302FE	Clic	k here to enter	rtext.			
3009 022	03, 06					1206 3009022063921FE AN20CE0332KT2 AD20CE0272KT3			Clic	k here to enter	rtext.			
Component Ma	anufacturer	2	L	ocatio	on of M	lanufad	cturing Pla	int(s)	3					4
TPC A division of AVX Co	rporation		Avenue 21850				IRE – Frar	nce		Date Date	of original qualification : 01/02/1983	2.2	ıl:	
										Certi	ficate Ref No. 109			
		5							6					7
ESCC Specifications Maintenance of quali	fication testing:		used:					I Specificat		refer	ification Extension Repence and date:			
Generic: 3009	Issue: 2/	3	No		Yes	\boxtimes	(supply 15)	details in l	Box	VoQ	2019 Certificate 109 (Type 1), (05/04/2019	
Detail(s): 3009/00 3009/00 3009/00 3009/00	4 5	6	Deviation	on fro	om curr	rent Sp	pecification	ns:						
			No	⊠	Yes		(Suppl	y details)				,		
Summary of procure	ment or equivalent	test re	sults dur	ring c	current	validity	period in	support of	this ap	plication	on (those to ESCC liste	ed first)		8
Project Name	Testing Le				LAT			Date cod				ntity Delive	ered	
AIRBUS (TESAT) TAS							April 20	017 to Marc	h 2019	9	33 456 parts			
TTI A.BEHRENS (G)														
RUAG APC (UK)												and the same of the same of		
PID changes since si	lart of qualification				9	Cu	rrent PID	Verified by	y:		JP Bussenot	1		10
None 🗵										N	lame of Excutive Repre	esentative	е	
Minor* □						Re	f No:	1G2 PID	100 18	BWQ				
Major* □	*Provide details in	box:				_	sue: ev Date:	18 05/04/20	18		Da	ate:	12/04/2019	
•														11
Current Manufacturin	ig facilities surveyed	d by:			/Nor	-		ot (CNES) Representa	ativo)	or	î	18/12/20		
					(Man	HE OIL	_veculive i	representa	auve)			(Date)	!	
Satisfactory:	Yes ⊠		No] E:	xplain	Statu	s of action	s appe	ended to	o Application 109M			
Report Reference:	2018-0022759	-CR												



Capacitors, Fixed, Chip, Ceramic Dielectric, type I, based on types 0805, 1206, 1210, 1812, 2220

Executive Member: CNES Date: 05/04/2019

Page 2 Appl. No.

109P

12

13

Failure Analysis, DPA, NCCS available:

Yes

Component title:

⊠ No

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.

25/04/2019 Date:

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

100	FS	CC
		90

Component title: Executive Member:

Capacitors, Fixed, Chip, Ceramic Dielectric, type I, based on types 0805, 1206, 1210, 1812, 2220

CNES Date: 05/04/2019 Page 3

Appl. No. 109P

Non compliance to ESCC	requirements:		

Non comp	pliance to ESCC requirements:			15
No.:	Specification	Paragraph	Non compliance	
Additional noncompl	tasks required to achieve full compliance for	ESCC qualification or rationale for acceptability	of	16
Executive	Manager Disposition			17
Application Action / Re	n Approval: Yes ௴ No □ emarks:		3. Q1	
Date:			B. Schade, Head of ESA Product Assurance and Safety Department	



Capacitors, Fixed, Chip, Ceramic Dielectric, type I, based on types 0805, 1206, 1210, 1812, 2220 Component Title:

CNES Executive Member: Date: 05/04/2019 Page 4

Appl. No.

109P

18

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

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:

3009003061301JC - DC 1727	AN20CE0332KT2 - DC 1735
3009022063921FE - DC 1820	AD20CE0272KT3 - DC 1839
3009004061501FE – DC 1751 3009004061002JC – DC 1805 AN13CE0392KT5 – DC 1739	3009005061502JE - DC 1817 3009006063302FE - DC 1730, 1843

Detail Specification reference:

3009/003/004/005/006/022

Chart F4	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
lbgroup	Mounting	×	IEC 60384-1	1727 1820 1735 (a) 1839 (b) 1751 1805 1817 1730 1843	20 20 20 20 20 20 20 20 20 20	0	(a) 1206 / AN20CE0332J2L (T2) (b) 1206 / AD20CE0272J2L (T3)
Environmental / Mechanical Subgroup	Rapid Change of Temperature	⊠	IEC 60068-2-14	1727 1820 1735 (a) 1839 (b) 1751 1805 1817 1730 1843	20 20 20 20 20 20 20 20 20 20	0	
Enviror	Steady State Humidity	×	ESCC 3009, Para. 8.2	1727 1820 1735 (a) 1839 (b) 1751 1805 1817 1730 1843	20 20 20 20 20 20 20 20 20 20	0	1 000 hours

				1727 1820 1735 (a) 1839 (b)	20 20 20 20		
	Visual Inspection	⊠	ESCC 3009, Para. 8.5	1751 1805 1817 1730 1843	20 20 20 20 20 20	0	
	Mounting	⊠	IEC 60384-1	1727 1735 (a) 1751 1739 (c) 1805 1817 1730 1820 1839 (b) 1843	20 40 20 40 40 20 20 20 20 2 x 25	0	(c) 1210 / AN13CE0392J2K (T5)
Endurance Subgroup	Operating Life	⊠	ESCC 3009, Para. 8.9	1727 1735 (a) 1751 1739 (c) 1805 1817 1730 1820 1839 (b) 1843	20 40 20 40 40 20 20 20 20 2 x 25	0	2 000 hours
	Electrical Measurements during Endurance Testing	⊠	ESCC 3009, Para. 8.9	1727 1735 (a) 1751 1739 (c) 1805 1817 1730 1820 1839 (b) 1843	20 40 20 40 40 20 20 20 20 2 x 25	0	
	Mounting		IEC 60384-1				Option
group s.)	Temperature Coefficient (Type I)	⊠	ESCC 3009, Para. 8.10	1735 (a)	5	0	
Electrical Subgroup (Elect. Meas.)	Temperature Characteristic (Type II)		ESCC 3009, Para. 8.10			_	Not Applicable
Electr (El	Robustness of Terminations		ESCC 3009, Para 8.7	1735 (a) 1751 1817 1843	20 6 6 6	0	
Assembly Capability Subgroup	Solderability		IEC 60068-2-58 Test Td	1825	6	0	Customer LAT3
Asse Cap Sub	Permanence of Marking		ESCC 24800				Not Applicable

Additional Tests	Insulation resistance at +125°C	×	ESCC 3009 lss. 1 Para 9.4.1.3	1727 1730 1751 1817 1820 1843 1845	6 6 6 6 6 6	0	
Ac				1040	-		
¥							



Component title:

Capacitors, Fixed, Chip, Ceramic Dielectric, type I, based on types 0805, 1206, 1210, 1812, 2220

Page 6

Appl. No.

Executive Member:

CNES

Date: 05/04/2019

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.
	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.
I	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.
	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.
	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.
	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.
	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.
	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.
	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.