

Component Title: Capacitors, Fixed, Chip, Ceramic Dielectric, type II, based on types

Appl. No.

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3099010	Components (includi						Date: 05/04/2019	110P
ESCC COMPONENT		ng series and families) s	ubmitted for Fidencies					
COMPONENT NO. VARIANTS RANGE OF COMPONENTS ON VEHICLE / S COMPONENT S SMILLAR S	ECCC		ubmitted for Extension	of Qualification	Approval:			L
3009 009	COMPONENT	VARIANTS	RANGE OF CO	MPONENTS				
3009 009	3009 008	03, 06, 07	See box 14	See box 14 0805 300900807104KC AN12				
1812 30091007474KE 30091007474KE 30091007474KE 30091007474KE 30091007474KE 30091007474KE 30091007474KE 300910107474KE 30091007474KE 300910107474KE 300910107434KE AN15ZE0105KT2 AN15ZE0474KEY AN20ZE0104KT2 AN20Z	3009 009	03, 06, 07	1210			300900907334KC	Click here to enter tex	
2 Location of Manufacturing Plant(s) 3 Date of original qualification approval: Date: 01/02/1983 Certificate Ref No. 110 Click here to enter text.		03, 06, 07			-		300901007474KE 300901007684KC 300901007473KG 300901107105KE	- - AN15ZE0105KT2 AN15ZF0394KT3
Component Manufacturer TPC A division of AVX Corporation A division of AVX Corporation A division of AVX Corporation Deviations to LVT testing and Detail Specification Certificate Ref No. 110 Click here to enter text. Deviations to LVT testing and Detail Specification used: No Yes (supply details in Box 15) Deviation from current Specifications: VOQ 2019 Certificate 110 (Type 2), xx/04/2019 Deviation Report reference and date: VOQ 2019 Certificate 110 (Type 2), xx/04/2019 Deviation From current Specifications: VOQ 2019 Certificate 110 (Type 2), xx/04/2019 Deviation From Current Specifications: Deviation From Current Specification Specifications: Deviation From Current Specifications: Deviation From Current Specification Specifications: VOQ 2019 Certificate 110 (Type 2), xx/04/2019 Deviation From Current Specifications: Deviation From Current Specificati	3009 023	03, 06, 07			1206			AN20ZD0473KT2
Avenue du Colonel Prat 21850 SAINT APOLLINAIRE - FRANCE Date of original qualification approval: Date: 01/02/1983 Certificate Ref No. 110 Click here to enter text. ESCC Specifications used for Maintenance of qualification testing: User in South Sout	Component Ma	anufacturer 2	Location of Ma	nufacturing Plant	(s)	3		
ESCC Specifications used for Maintenance of qualification testing: Generic: 3009 Issue: 2 No Yes (supply details in Box 15) Detail(s): 3009/008 Issue: 5 / 6 3009/010 4 / 5 3009/011 4 / 5 3009/023 5 / 6 No Yes (Supply details) Deviation from current Specifications: 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 AIRBUS (TESAT) Click here to enter text. Click here to enter text. 6 Qualification Extension Report reference and date: VOQ 2019 Certificate 110 (Type 2), xx/04/2019 Click here to enter text. Cualification Extension Report reference and date: VOQ 2019 Certificate 110 (Type 2), xx/04/2019 Click here to enter text. Cualification Extension Report reference and date: VOQ 2019 Certificate 110 (Type 2), xx/04/2019 Click here to enter text. For all part of this application (those to ESCC listed first) Project Name Testing Level LAT Date code Quantity Delivered AIRBUS (TESAT) Click here to enter text. April 2017 to March 2019 305 534 parts TILL ALBEHRENS (G) RUAGG APC(UK		rporation	Avenue du Colonel F	Prat	• •			pproval:
ESCC Specifications used for Maintenance of qualification testing: Generic: 3009 Issue: 2 Deviations to LVT testing and Detail Specification used: No								
ESCC Specifications used for Maintenance of qualification testing: Generic: 3009 Issue: 2		5				6		
Semeric: 3009 Issue: 2 No		used for	Deviations to LVT te used:	esting and Detail S	Specification	_		
Detail(s): 3009/008 Issue: 5 / 6 3009/009 5 / 6 3009/010 4 / 5 3009/011 4 / 5 3009/023 5 / 6 No ⊠ Yes □ (Supply details) No ⊠ Yes □ (Supply details)	Generic: 3009	Issue: 2	No □ Yes		etails in Bo	x		pe 2), xx/04/2019
Project Name Testing Level LAT Date code Quantity Delivered AIRBUS (TESAT) TAS Click here to enter text. 1725 ABEHRENS (G) RUAG APC(UK	3009/00 3009/01 3009/01	9 5/6 0 4/5 1 4/5						
Project Name Testing Level LAT Date code Quantity Delivered AIRBUS (TESAT) TAS Click here to enter text. 1725 ABEHRENS (G) RUAG APC(UK	Summan, of procurer	nent or equivalent test re	soulte distinct assessment	-0.49		20.2000		
AIRBUS (TESAT) Click here to enter text. April 2017 to March 2019 305 534 parts TI A.BEHRENS (G) RUAG APC(UK			100			s app		
A.BEHRENS (G) RUAG APC(UK				The supposition of the same of	are of South Control	2019	The second secon	
APC(UK			2	1725				
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All changes since start of qualification 0 Current DID Marife at him	PID changes since et	art of qualification	9	Current BID. V	المناقعة المناقعة		10.0	
PID changes since start of qualification 9		an or qualification	[_9_	Juneal PID V	erilled by:			ntative
Minor* ☐ Ref No: 1G2 PID 100 18WQ				Ref No: 1	IG2 PID 10	0 18\	A LABORER FOR ET SON AND LET SON THOUGH THE COLD BY NOW THOUGH	pozmat.5.50:
Major* ⊠ *Provide details in box: Issue: 18 Date: 12/04/2019 Rev Date: 05/04/2018	Major* ⊠ [*Provide details in box:		Issue: 1	8			12/04/2019
	Surront Man fort	- Callittee average de						
Current Manufacturing facilities surveyed by: JP Bussenot (CNES) on 18/12/2018 (Name of Executive Personnelling)	Juneni Manufacturin	y racilities surveyed by:	/Name			٥)	=	
(Name of Executive Representative) (Date) Satisfactory: Yes ⊠ No □ Explain Status of actions appended to Application 110M			107 1000	ATTEN STREET		0.50		(Date)
To a Explain Status of actions appended to Application 1 Total	atisfactory	Yes ⊠	No 🗆 Evr					
Report Reference: 2018-0022759-CR	Satisfactory:	Yes ⊠	No □ Exp	orain Status	of actions a	ppen	ded to Application 110M	

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

Executive Member: CNES

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Failure Analysis, DPA, NCCS available:

Yes

Date: 05/04/2019

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Ref. No's and purposes:

No

X (Supply data)

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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 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:

25/04/2019

JP. BUSSENOT

(Signature of the Executive Coordinator)

Continuation of Boxes above:

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Style	Detail Spec.	Model	Variants (1)	Capacitance Range (pF)	Rated Volt. (V)	Tolerance (±%)
0805	3009/008	A_12G	03, 06	820 to 47 000 820 to 27 000 820 to 10 000	25 50	5, 10, 20
		A612Z	07	2 700 to 100 000 2 700 to 100 000 2 700 to 47 000	100 25 50 100	
1210	3009/009	A_13G	03, 06	330 to 15 000 3 900 to 220 000 3 900 to 150 000 3 900 to 47 000	200 25 50 100	
		A613Z	07	3 900 to 470 000 3 900 to 330 000 3 900 to 330 000 3 900 to 220 000 680 to 68 000	25 50 100 200	
1812	3009/010	A_14G	03, 06	6 800 to 470 000 6 800 to 270 000 6 800 to 82 000	25 50 100	
		A614Z	07	22 000 to 1 000 000 22 000 to 680 000 22 000 to 470 000 3 300 to 150 000	25 50 100 200	
2220	3009/011	A_15G	03, 06	18 000 to 1 000 000 18 000 to 680 000 18 000 to 180 000	25 50 100	
		A615Z	07	100 000 to 2 200 000 100 000 to 1 500 000 100 000 to 1 000 000 6 800 to 330 000	25 50 100 200	
1206	3009/023	A_20G	03, 06	2 200 to 100 000 2 200 to 68 000 2 200 to 22 000	25 50 100	
		A620Z	07	3 300 to 220 000 3 300 to 150 000 3 300 to 100 000 470 to 47 000	25 50 100 200	

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

Note that in order to facilitate deliveries, minimum values were harmonized on the basis that a capacitance value may be delivered with a qualified process using either a higher voltage product or a compatible temperature characteristics (i.e. a variant 06 design against a variant 07 order) provided that the maximum chip thickness is compliant.

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	122		-520

Component title:

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		Executive	Member: CNES	Date: 05/04/2019	110P
Non compliance to	ESCC requirements	s:			15
No.:	Specification		Paragraph	Non compli	ance
Additional tasks re	ruired to achieve full	compliance for	ESCC qualification or rationale for ac	acontobility of	
noncompliance:	quired to acriteve full	compliance for	ESCC qualification of fationale for ac	ceptability of	16
Executive Manage	Disposition				17
Application Approv	al: Yes □	No 🗆			
Action / Remarks:					
				0 1	
				3. D)	
Date:				0.001	

B. Schade, Head of ESA Product Assurance and Safety Department



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

Executive Member: CNES Date: 05/04/2019

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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:

300900807104KC/JC DC 1737, 1808, 1826	300902307104KE DC 1722
AN12ZD0683KT5 DC 1820	300902307473KG DC 1751, 1828
300900907334KC DC 1802	AN20ZD0473KT2 DC 1744
300900907154KE DC 1830	AN20ZE0104KT2 DC 1741
300901007474KE DC 1735 300901007684KC DC 1740 300901007473KG DC 1725	300901107105KE DC 1737, 1814, 1824, 1803 300901107334KG DC 1818 AN15ZE0105KT2 DC 1749, 1736
AN14ZD0334KT2 DC 1821	AN15ZF0394KT3 DC 1737 AN15ZE0474K2Y DC 1838

Detail Specification reference: 3009/008/009/010/011/023

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	\times \	IEC 60384-1	1737 1808 1826 1820 1722 1751 1744 1802 1830 1735 1740 1821 1737 1803 1814 1818 1824 1749 1737	20 20 20 20 20 20 20 20 20 20 20 20 20 2	0	

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Rapid Change of Temperature	⊠	IEC 60068-2-14	1737 1808 1826 1820 1722 1751 1744 1802 1830 1735 1740 1821 1737 1803 1814 1818 1824 1749 1737 1736 1838	20 20 20 20 20 20 20 20 20 20 20 20 20 2	0	
Steady State Humidity	⊠	ESCC 3009, Para. 8.2	1737 1808 1826 1820 1722 1751 1744 1802 1830 1735 1740 1821 1737 1803 1814 1818 1824 1749 1737 1736 1838	20 20 20 20 20 20 20 20 20 20 20 20 20 2	0	1 000 hours
Visual Inspection	×	ESCC 3009, Para. 8.5	1737 1808 1826 1820 1722 1751 1744 1802 1830 1735 1740 1821 1737 1803 1814	20 20 20 20 20 20 20 20 20 20 20 20 20 2	0	

				1818 1824 1749 1737 1736 1838	20 25 20 20 20 20 20		
dnonb	Mounting	⋈	IEC 60384-1	1820 1737 1808 1826 1744 1741 1722 1751 1828 1802 1830 1821 1735 1740 1725 1838 1736 1737 1814 1824 1749 1818 1737	20 20 25 20 40 40 20 30 40 25 20 20 20 20 40 20 20 40 20 40 20 40 20 40 40 20 20 40 40 40 40 40 40 40 40 40 40 40 40 40	0	
Endurance Subgroup	Operating Life		ESCC 3009, Para. 8.9	1820 1737 1808 1826 1744 1741 1722 1751 1828 1802 1830 1821 1735 1740 1725 1838 1736 1737 1814 1824 1749 1818 1737 1803	20 20 25 20 40 40 20 30 40 25 20 20 20 20 40 25 40 40 25 40 40 40 40 40 40 40 40 40 40 40 40 40	0	2 000 hours
	Electrical Measurements during Endurance Testing	×	ESCC 3009, Para. 8.9	1820 1737 1808	20 20 25	0	

				1826 1744 1741 1722 1751 1828 1802 1830 1821 1735 1740 1725 1838 1736 1737 1814 1824 1749 1818 1737 1803	20 40 40 20 20 30 40 25 20 20 20 20 40 20 30 40 25 40 25 40 25 40 40 40 40 40 40 40 40 40 40 40 40 40		
	Mounting		IEC 60384-1				
	Temperature Coefficient (Type I)		ESCC 3009, Para. 8.10				Not applicable
Electrical Subgroup (Elect. Meas.)	Temperature Characteristic (Type II)	⊠	ESCC 3009, Para. 8.10	1725 1826 1828 1830 1740 1824 1845 1805 1846	6 6 6 6 6 6 6 6	0	- - - - - 300901006223JE (2C1) 300900806103KE (2C1) 300900806103KE (2C1)
Electr (El)	Robustness of Terminations	⊠	ESCC 3009, Para.8.7	1826 1820 1736 1744 1751 1830 1821 1737 1749 1838	6 20 (a) 20 (a) 20 (a) 6 6 20 (a) 6 20 (a) 20 (a)	0	(a) CECC testing qty
Electrical Subgroup (Ass. / Capab. Tests)	Solderability	Ø	IEC 60068-2-58 Test Td	1725	4	0	
Electrical (Ass. / Te	Permanence of Marking		ESCC 24800				Not applicable
Additional Tests	Insulation resistance at +125°C	×	ESCC 3009 lss. 1 Para 9.4.1.3	1808 1722 1737 1739 1740	6 6 6 6	0	

		1818 1826	6 6		
		1751 1814	6 6		



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Executive Member: CNES

Date: 05/04/2019

NOTES ON THE COMPLETION OF THE APPLICATION FORM FOR ESCC QUALIFICATION EXTENSION APPROVAL

WARTER CARDON 201	
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.