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Component Title: Capacitors, Ceramic, Chip, Type II, sizes 0603 to 2220

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A STATE OF THE PARTY OF THE PAR	E	Executive Me	ember: (CNES			Date: 08/03/20	117	324B	
Components (including	ng series and families) s	submitted for	Extension	of Qualification	Approval:					_ 1_
ESCC COMPONENT NO.	VARIANTS	RANG	SE OF COM	MPONENTS		ASED ON	TEST VEHICLE		COMPONE! SIMILAR	
3009/008 3009/039 3009/009 3009/039	06 & 07 02 & 14 06 & 07 04 & 16	All values	All values 16V to 100V CNC2 02S CNC2 04S CNC4 02S CNC4 04S				CNC2 02SC - 300903904C-		See box 14 for quanges.	ualified
3009/010 3009/039 3009/011 3009/039	06 & 07 05 & 17 06 & 07 06 & 18	All values	All values 16V to 100V CNC6 02S CNC6 04S CNC7 02S CNC7 04S			300901007C- 300903918C-				
3009/023 3009/039 3009/038 3009/039	06 & 07 03 &15 06 & 07 01 & 13	All values	All values 16V to 100V CNC12 02S CNC12 04S CNC14 02S CNC14 04S			300903806C- 300903915C-				
Component Ma	anufacturer 2	Loc	ation of Ma	nufacturing Plan	nt(e)	3		l.		4
EXXELIA Technologi	SAVER DESCRIPTION OF THE PROPERTY OF THE PROPE	EXXELIA				Date of original qualification approval: Date: 24/10/2012			L	
							Certificate Ref No.	324		
	ESCC Specifications used for Maintenance of qualification testing:							Qualification Extension Report reference and date:		
Generic: 3009 Detail(s): 3009/01		Deviation from current Specifications:					6/0740 - CN 6/0742-A - (6/0738-A - (6/0741-A - (C7 04S 1µF, 100 C6 02S 820nF, 5 CNC12 04S 1µF, CNC2 02S 150nF CNC4 04S 220nF	50V , 16V F, 25V F, 50V	
3009/03 Click here to enter te	9 1	No 🗆] Yes	⊠ (Supply	details)		Reports 16/0111 & 1	6/0739-A – (CNC14 02S 10nF	=, 50V
										8
Summary of procurer Project Name	ment or equivalent test Testing Level	results durin	g current va	alidity period in s	Support of to		olication (those to ESC	C listed first Quantity De		
ALTER Technology Thales Alenia Space	С	-	LAI	192 lots			66 200 pièces (42,5% 0603,	Quality D	silvered	
EREMS	EM	- 25 lots					30% 0805 15% 1206,			
	В			3 lots			7% 1210, 5% 1812)			
				T a -t PID			- ONE	3		T 40
PID changes since s	tart of qualification		9	Current PID	Verified by	y:	Name of Excutive		ative	10
Minor* ⊠				Ref No:	PID 624.0	03,390	Victorial Control of C			
Major* □	*Provide details in box			Issue:	Rev H			Date:	16/03/2016	
	19			Rev Date:	29/02/201	16				11
Current Manufacturin	ng facilities surveyed by	ra.		ESA, CNE	ES		on	2	3/03/2017	1.
			(Nam	e of Executive R	Representa	ative)	_	(D	ate)	
Satisfactory:	Yes ⊠	No	□ Ex	plain						
Report Reference:	ESA report QCS dated 19/02/2011		CR 230320	17 CNES.						



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Executive Member:

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Date: 08/03/2017

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Failure Analysis, DPA, NCCS available:

Yes

⊠ No

☐ (Supply data)

12

13

Ref. No's and purposes:

NCCS 2CETE605 dealing with delay in delivering maintenance data is appended. The NCCS has been closed out.

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.

- Consult

Date:

21/03/2017

JP. BUSSENOT

(Signature of the Executive Coordinator)

Continuation of Boxes above:

Box 1. Range of Components:

14

Style	Detail Spec.	Model	Variants	Capacitance Range (pF)	Rated Volt. (V)	Tolerance (±%)
0805	3009/008	CNC2 02S	06	6 800 to 150 000	16	5, 10, 20
				6 800 to 100 000	25	
				100 to 47 000	50	
			68 to 10 000	100		
		07	6 800 to 220 000	16	1	
		100000	6 800 to 150 000			
			100 to 100 000	50		
				68 to 47 000	100	
	3009/039	CNC2 04S	02	6 800 to 150 000	16	7
	1000000		10,32	6 800 to 100 000	25	
				100 to 47 000	50	
				68 to 10 000	100	
			14	6 800 to 390 000	16	7
			1	6 800 to 150 000	25	
				100 to 100 000	50	
				68 to 47 000	100	
1210	3009/009	CNC4 02S	06	33 000 to 560 000	16	┥
.210	0003/003	01104 023	1 30	33 000 to 330 000	25	
		6		2 200 to 220 000	50	
				2 200 to 56 000	100	
			07	33 000 to 820 000	16	+
			U/		25	
				33 000 to 560 000		
				2 200 to 390 000	50	
	0000/000	01104.046	101	2 200 to 220 000	100	-
	3009/039	CNC4 04S	04	33 000 to 560 000	16	
				33 000 to 330 000	25	
				2 200 to 220 000	50	
				2 200 to 56 000	100	-
			16	33 000 to 820 000	16	
				33 000 to 560 000	25	
				2 200 to 390 000	50	
				2 200 to 220 000	100	4
1812	3009/010	CNC6 02S	06	100 000 to 1 200 000	16	
				100 000 to 680 000	25	
				3 900 to 470 000	50	
				3 900 to 120 000	100	
			07	100 000 to 1 800 000	16	
	-		7	100 000 to 1 200 000	25	
				3 900 to 820 000	50	
		į.		3 900 to 470 000	100	
	3009/039	CNC6 04S	05	100 000 to 1 200 000	16	7
925	versuself 350		-0.00	100 000 to 680 000	25	
				3 900 to 470 000	50	
				3 900 to 120 000	100	
			17	100 000 to 1 800 000	16	1
	1		1	100 000 to 1 200 000	25	
				3 900 to 820 000	50	
				3 900 to 470 000	100	
2220	3009/011	CNC7 02S	06	150 000 to 2 700 000	16	+
2220	3009/011	CNC/ 028	100	150 to 1 500 000		
					25	
			1	22 000 to 1 000 000	50	
			- 07	22 000 to 270 000	100	4
			07	150 000 to 3 900 000	16	
	1	1	1	150 000 to 2 200 000	25	1

ESCC

Component title: Capacitors, Ceramic, Chip, Type II, sizes 0603 to 2220

Chip, Type II, sizes 0603 to 2220

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N. Commission of the Commissio	200	Executive Member:	CNES	Date:	08/03/2017	324B	
Non complianc	e to ESCC requirements:						15
No.:	Specification		Paragraph		Non compliar	nce	
dditional task	s required to achieve full co	ompliance for ESCC qu	ualification or rationale for acc	eptability of			16
noncompliance							
Executive Man	ager Disposition						17
Application Ap Action / Rema		No 🗆					
		Di	anco Ongaro rector of Technolead of ESA/EST	logy, Engir EC Establi	neering and Q shment	uality	
Date:				Sign	nature, ESA Representat	live	

				22 000 to 1 800 000 22 000 to 1 000 000	50 100	
	3009/039	CNC7 04S	06	150 000 to 2 700 000 150 to 1 500 000 22 000 to 1 000 000	16 25 50	
				22 000 to 270 000	100	
			18	150 000 to 3 900 000 150 000 to 2 200 000	16 25	
				22 000 to 1 800 000 22 000 to 1 000 000	50 100	
1206	3009/023	CNC12 02S	06	10 000 to 270 000	16	5, 10, 20
				10 000 to 180 000 470 to 82 000	25 50	33 %
				470 to 27 000	100	
			07	10 000 to 390 000 10 000 to 270 000 470 to 180 000	16 25 50	
	0000000	011010.010		470 to 120 000	100	
	3009/039	CNC12 04S	03	10 000 to 270 000 10 000 to 180 000 470 to 82 000 470 to 27 000	16 25 50 100	
			15	10 000 to 1 000 000 10 000 to 270 000 470 to 180 000	16 25 50	
0603	3009/038	CNC14 02S	06	470 to 120 000 390 to 33 000 390 to 22 000 10 to 10 000 10 to 2 700	100 16 25 50 100	
		150	07	390 to 39 000 390 to 33 000 10 to 22 000 10 to 12 000	16 25 50 100	
	3009/039	CNC14 04S	01	390 to 33 000 390 to 22 000 10 to 10 000 10 to 2 700	16 25 50 100	
			13	390 to 100 000 390 to 33 000 10 to 22 000 10 to 12 000	16 25 50 100	

Box 7. Qualification Extension Report See box 22

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Executive Member: CNES

Date: 08/03/2017

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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:

CNC2 02S 150nF 25V DC 1603 (*) CNC4 04S 220nF 50V DC 1604	CNC7 04S 1µF 100V DC 1538 CNC6 02S 820nF 50V DC 1549	
CNC12 04S 1µF 16V DC 1551	CNC14 02S 10nF 50V DC 1606	

Detail Specification reference:

3009/010/038/039 and (*)EFD Specification 590.01.390 Issue E

Chart V	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
	Mounting	⊠	IEC 384-1	1603 1604 1606 1551 1538	12 x 5	0	
Subgroup	Adhesion	×	ESCC 3009, Para. 9.5	1603 1604 1606 1551 1538	4 x 5	0	
Environmental / Mechanical Subgroup	Rapid Change of Temperature	×	IEC 68-2-14	1603 1604 1606 1551 1538	8 x 5	0	
Environme	Visual Inspection	×	ESCC 3009, Para. 9.1	1603 1604 1606 1551 1538	12 x 5	0	
	Climatic Test Sequence	×	ESCC 3009, Para. 9.8	1603 1604 1606 1551 1538	12 x 5	0	
Endurance Subgroup	Mounting	×	IEC 384-1	1549 1538 1603 1606 1604 1551	20 20 10 10 10	0	

	Operating Life	⊠	ESCC 3009, Para. 9.10	1549 1538 1603 1606 1604 1551	20 20 10 10 10	0	1 000H
	Electrical Measurements during Endurance Testing	⊠	ESCC 3009, Para. 9.4.5	1549 1538 1603 1606 1604 1551	20 20 10 10 10	o	
Electrical Subgroup (Elect. Meas.)	Mounting	⊠	IEC 384-1	1538 1603 1606 1604 1551	6 3 3 3	0	
ctrical Subgro (Elect. Meas.)	Temperature Coefficient (Type I)		ESCC 3009, Para. 9.11				NA
Electric (Elec	Temperature Characteristic (Type II)	⊠	ESCC 3009, Para. 9.12	1538 1603 1606 1604 1551	6 3 3 3	0	
Electrical Subgroup (Ass. / Capab. Tests)	Solderability	⊠	IEC 68-2-20	1538 1603 1606 1604 1551	4 2 2 2 2	0	
Electrio (Ass. / C	Permanence of Marking		ESCC 24800				NA
la .							
Additional Tests							
A.							35

ESCC

ENTRIES

APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component title:

Capacitors, Ceramic, Chip, Type II, sizes 0603 to 2220

Executive Member: CNES Date: 08/03/2017

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

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 volt age, etc); the designation given in the detail specification as 'base on'; - un der 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.