



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component Title: Capacitors, Fixed, Surface Mount, D.C Self-Healing, Non-Inductive, Polyterephthalate Dielectric, Based on Type PM948S/94S, PM907S/90S
 Executive Member: CNES Date: 12/06/2020

Page 1
 Appl. No. 353A

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
3006 026	01 to 04 05 to 08	22nF to 47µF – 50V to 630V	PM948S PM948NS	PM948S-4 12µF 170V PM948S-4 5.6µF 250V	
3006 024	01 to 04	100nF to 47µF - 50V to 400V	PM94S	PM94S-4 22µF 63V PM94S-1 180nF 250V	
3006 025	01 to 32	82nF to 100µF - 50V to 1250V	PM907S/RxS/NS	PM907R1S 47µF 100V	
3006/020	01 to 21	220nF to 150µF – 50V to 630V	PM90S	PM90S 22µF 100V PM90S 100µF 100V PM90S 3.9µF 400V PM90S 1.5µF 630V	

Component Manufacturer EXXELIA	2	Location of Manufacturing Plant(s) 105, rue du Général Leclerc 67441 MARMOUTIER FRANCE	3	Date of original qualification approval: Date: 24/03/2016 Certificate Ref No. 353	4
-----------------------------------	---	---	---	---	---

ESCC Specifications used for Maintenance of qualification testing: Generic: 3006 Issue: 2 Detail(s): 3006/026 Issue: 1 3006/025 Issue: 1 3006/024 Issue: 5 3006/020 Issue: 2, 3	5	Deviations to LVT testing and Detail Specification used: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (supply details in Box 15) Deviation from current Specifications: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (Supply details)	6	Qualification Extension Report reference and date: Test Reports 19/1789A & 20/0341 (PM948S-4 170V), 20/0342 (PM948S-4 250V), 19/0042 (PM94S-4 63V), 19/0397 (PM94S-1 250V), 18/0930 (PM907R1S 100V), 19/0760 (PM90S 22µF 100V), 19/0732 (PM90S 100µF 100V), 18/1206 (PM90S 400V), 19/0228 (PM90S 630V)	7
--	---	--	---	---	---

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
PM90S	B (55%) C (45%)			100 lots
PM907S	B (17%) C (83%)			35 lots
PM94S	B (13%) C (87%)			144 lots
PM948S	B (15%) C (85%)			121 lots

PID changes since last maintenance of qualification None <input checked="" type="checkbox"/> Minor* <input type="checkbox"/> Major* <input type="checkbox"/> *Provide details in box:	9	Current PID Verified by: CNES Ref No: 912.18.390 Issue: A Rev Date: 01/05/2018	10	Name of Agency Representative Date: 22/05/2018
--	---	---	----	---

Current Manufacturing facilities surveyed by: ESA and CNES on 11/02/2015
 Name of Agency Representative (Date)

Satisfactory: Yes No Explain

Report Reference: CNES DCT/AQ/CQ-2015/02955, 17/02/2015



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Page 2

Component title: Capacitors, Fixed, Surface Mount, D.C Self-Healing, Non-Inductive, Polyterephthalate Dielectric, Based on Type PM948S/94S, PM907S/90S

Appl. No.

Executive Member: CNES

Date: 12/06/2020

353A

12

Failure Analysis, DPA, NCCS available: Yes No (Supply data)

Ref. No's and purposes: DPA performed by SERMA during procurement of PM90S 100µF 100V date code 1916 (See report 19/0732, May 2019) – No particular comment

13

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: 15/06/2020

JP. BUSSENOT
(Signature of the Executive Coordinator)

14

Continuation of Boxes above:

Box 6.: Some procurement sometimes use specifications agreed with EXXELIA (EFD documents as shown in Annex 1). These documents are similar to ESCC formats and data issued from lots manufactured against these EXXELIA specifications are accepted as relevant to the purpose of maintaining ESCC qualification.



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component title: Capacitors, Fixed, Surface Mount, D.C Self-Healing, Non-Inductive, Polyterephthalate Dielectric, Based on Type PM948S/94S, PM907S/90S

Executive Member: CNES

Date: 12/06/2020

Page 3

Appl. No.

353A

Non compliance to ESCC requirements:

15

No.:	Specification	Paragraph	Non compliance
1			

Additional tasks required to achieve full compliance for ESCC qualification or rationale for acceptability of noncompliance:

16


Executive Manager Disposition

17

Application Approval: Yes No

Action / Remarks:

Date:

 Digitally signed by Britta Schade
Date: 2020.06.30 14:00:56 +02'00'

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



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component Title: Capacitors, Fixed, Surface Mount, D.C Self-Healing, Non-Inductive, Polyterephthalate Dielectric, Based on Type PM948S/94S, PM907S/90S
 Executive Member: CNES Date: 12/06/2020

Page 4
 Appl. No.
 353A

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

18

Tests conducted in compliance with:

- ESCC 3006 generic specification; Chart V (for ESCC/QPL parts);
- Or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

300602604C 126KF (PM948S-4 12µF 170V) date code 1839 PM948S-4 5.6µF 250V date code 1916	300602514B 476KE (PM907R1S 47µF 100V) date code 1829 PM90S 22µF 100V date code 1850
300602404B 226KD (PM94S-4 22µF 63V) date code 1849 PM94S-1 180nF 250V date code 1910	300602008B 107KE (PM90S 100µF 100V) date code 1916 300602005C 395KK (PM90S 3.9µF 400V) date code 1838 300602005C 155KZ (PM90S 1.5µF 630V) date code 1905

Detail Specification reference: 3006/020 Iss. 2 & 3, 3006/024 Iss.5, 3006/025 Iss.1, 3006/026 Iss.1, EFD 516.95.390 Iss.H, EFD 573.00.390 Iss. F

Chart V	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Environmental / Mechanical Subgroup (Column 1)	Robustness of Terminations	<input checked="" type="checkbox"/>	IEC 68-2-21	1850 1916 1839	4 4 (*) 4 (*)	0	(*) Replaced with Adhesion as per para 4.2.4 (c) of 3006/026 for variants 01 to 04
	Resistance to Soldering Heat	<input checked="" type="checkbox"/>	IEC 68-2-20	1850 1916 1839	4 4 4	0	
	Climatic Sequence	<input checked="" type="checkbox"/>	ESCC 3006, Para. 9.14	1850 1916 1839	4 4 4	0	
	Seal Test	<input type="checkbox"/>	IEC 68-2-17				Not Applicable
Environmental / Mechanical Subgroup (Column 2)	Rapid Change of Temperature	<input checked="" type="checkbox"/>	IEC 68-2-14	1850 1916 1839	4 4 4	0	
	Vibration	<input checked="" type="checkbox"/>	IEC 68-2-6	1850 1916 1839	4 4 4	0	
	Shock or Bump	<input checked="" type="checkbox"/>	ESCC 3006, Para. 9.13	1850 1916 1839	4 4 4	0	
	Climatic Sequence	<input checked="" type="checkbox"/>	ESCC 3006, Para. 9.14	1850 1916 1839	4 4 4	0	
	Seal Test	<input type="checkbox"/>	IEC 68-2-17				Not Applicable
Endurance Subgroup	Operating Life	<input checked="" type="checkbox"/>	ESCC 3006, Para. 9.16	1849 1916 1838 1839	16 16 16 16	0	
	Electrical Measurements during Endurance Testing	<input checked="" type="checkbox"/>	ESCC 3006, Para. 9.6.5	1849 1916 1838 1839	16 16 16 16	0	
Electrical Subgroup (Electrical Measureme	High and Low Temperature Stability	<input checked="" type="checkbox"/>	ESCC 3006, Para. 9.15	1839 1910 1829 1916 1838 1905	6 6 6 6 6 6	0	

	Electrical Measurements at Room Temperature	<input checked="" type="checkbox"/>	ESCC 3006, Para. 9.6.4	1839 1910 1829 1916 1838 1905	6 6 6 6 6 6	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC 20500	1839 1910 1829 1916 1838 1905	6 6 6 6 6 6	0	
Electrical Subgroup (Assembly / Capability Tests	Solderability	<input checked="" type="checkbox"/>	IEC 68-2-20	1839 1910 1829 1916 1838 1905	4 4 4 4 4 4	0	
	Permanence of Marking	<input checked="" type="checkbox"/>	ESCC 24800	1839 1910 1829 1916 1838 1905	4 4 4 4 4 4	0	



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component title: Capacitors, Fixed, Surface Mount, D.C Self-Healing, Non-Inductive, Polyterephthalate Dielectric, Based on Type PM948S/94S, PM907S/90S

Executive Member: CNES

Date: 12/06/2020

Page 5

Appl. No.

353A

Chart V	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Additional Tests	Voltage ramp	<input checked="" type="checkbox"/>	MIL-C-87217, 4.7.4	1916	10	0	
		<input type="checkbox"/>					
		<input type="checkbox"/>					

**APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL**

Page 6

Component title: Capacitors, Fixed, Surface Mount, D.C Self-Healing, Non-Inductive, Polyterephthalate Dielectric, Based on Type PM948S/94S, PM907S/90S

Appl. No.

Executive Member: CNES

Date: 12/06/2020

353A

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.