

Component Title: Resistors, Fixed, Chip, Thick Film, based on type CHPHR and CHPFR

Page 1 Appl. No.

Executive Member: CNES

Date: 07/09/2015

314B

					Date.	0170072010	314	.В
Components (includ	ling series and familie	s) submitted for Extens	ion of Qualification	Approval:				L
ESCC COMPONENT NO.	VARIANTS	RANGE OF C	RANGE OF COMPONENTS		TEST VEHICLE / S		COMPONE	
4001/026	01 & 06 02 & 07 03 & 08	All values 50V to	All values 50V to 500V		400 400 400	4001026011272F4 40010260133R0G4 4001026023903F6 4001026075102J4 40010260356R2F4		
	04 & 09 05 & 10			CHPHR2010 CHPHR2512	400	01026045R62G4 01026093601J4 01026057R15G6		
	11 & 16 12 & 17 13 & 18			CHPFR0603 CHPFR0805 CHPFR1206	15	See box 14		
	14 & 19 15 & 20			CHPFR2010 CHPFR2512				
Component M VISHAY SA Division SFERNICE		2 Location of I 199 Bld de la Mad BP 1159 06003 NICE CED		nt(s) 3	Date of original Date:  Certificate 314	ginal qualification appl 11/10/2011 Ref No.	roval:	4
Generic: 4001  Detail(s): 400102		Deviation from cur No ⊠ Yes	15) rent Specifications ☐ (Supply	details)		Z/15.001, September		8
Summary of procure Project Name	ment or equivalent te Testing Leve	st results during current	validity period in s	support of this ap Date code	plication (tho	to a What are recommended	SECTION AND ADDRESS OF THE SECTION ADDRESS OF THE S	
See report CAZ/15.0 and box 22				Date Code		Quantity D	envered	
and the state of t								
PID changes since s  None □  Minor* ☑  Major* □	tart of qualification  *Provide details in bo	9 DX:	Ref No:	PID CHP HR FR		CNES  f Excutive Representa  Date:	02/09/2015	10
Current Manufacturir	ng facilities surveyed I	by:	Rev Date:	24/08/2015 IES	on	22/01	1/2015	11
		(Na	me of Executive R	epresentative)	Y	(Da	ate)	
Satisfactory:	Yes ⊠	No □ E	xplain					
Report Reference:	CNES DCT/A 2015/01664, 23							

						7
ESCC	Component title:		ON OF ESCC QUA Chip, Thick Film, ba		CHPHR and CHPFR	Page 2 Appl. No.
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Failure Analysis, DPA, NCCS ava	ailable: Yes	□ No ⊠	(Supply data)			12
The undersigned hereby certifies on behalf that the appropriate documentation has be (except as stated in box 15;) - that the repo CNES as the responsible Executive Mem	en evaluated; - that ful orts and data are availa	Il compliance to all E able at the ESCC E	SCC requirements recutive and therefo	is evidence are applies or onent(s) lister	JP. BUSSENO	CONTRACTOR
Continuation of Boxes above:				(Signi	ature of the Executive (	Joordinator)
Failure Rate Endurance Testing subgroup of CHPFR0603, 51,1 - 124 - 5,1k - 8,45k - 42; CHPFR0805, 15 - 560 - 8,2k - 39,2k - 110 CHPFR1206, 470 - 860 - 43,2k - 61,9k - 56; CHPFR2010, 4,99 - 200 - 1,2k - 47k - 80; CHPFR2512, 2,2 - 6,8 - 1,5k - 18k - 820k 40 or 90 parts for each lot. Failure Rate Endurance Testing subgroup of CHPFR0603, 100 - 332k CHPFR0805, 316 CHPFR0805, 316 CHPFR2010, 27k CHPFR2512, 200k 40, 60 or 90 parts for each lot.	2k – 1,3M k - 10M 60k – 4,99M 0k					



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No.:	Specification	Paragraph	Non compliance	
ditional tacks	required to achieve full compliance for	ESCC qualification or rationale for acceptability of		1
ncompliance:	required to achieve full compliance for	2000 qualification of rationale for acceptability of	ı	
cutive Mana	ger Disposition			T
	ger Disposition			
lication Appr	roval: Yes 🗆 No 🗆			
lication Appr	roval: Yes 🗆 No 🗆			
lication Appr	roval: Yes 🗆 No 🗆			
lication Appr	roval: Yes 🗆 No 🗆			
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lication Appr	roval: Yes 🗆 No 🗆			
ocutive Mana dication Appr on / Remark	roval: Yes 🗆 No 🗆			
lication Appr	roval: Yes 🗆 No 🗆			
lication Appr	roval: Yes 🗆 No 🗆			
lication Appr	roval: Yes 🗆 No 🗆		Woh	
lication Appr	roval: Yes 🗆 No 🗆		Signature, ESA Representative	



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

Tests conducted in compliance with:

ESCC 4001 generic specification; Chart F4 (for ESCC/QPL parts); or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

4001026011272F4 DC 1323	40010260133R0G4 DC 1403
4001026023903F6 DC 1322	4001026045R62G4 DC 1427
40010260356R2F4 DC 1318	4001026093601J4 DC 1427
4001026075102J4 DC 1345	4001026057R15G6 DC 1421

Detail Specification reference:

4001/026

Chart F4	Test	Tick when done	Conditions	Date Code	Tested Qty	N° of Rejects	Comments if not performed. Comments on Rejection
Environmental Mechanical Subgroup	Mounting	×	IEC 60115-1 clause 4.31	All TV	8 x 5	0	
	Rapid Change Of Temperature	×	IEC 60068-2-14	All	8 x 5	0	
	Vibration		IEC 60068-2-6				NA
	Climatic test Sequence	⊠	ESCC 4001, Para 8.10	All	8 x 5	0	
	Seal Test		IEC 60068-2-17				NA
	Mounting	Ø	IEC 60115-1 clause 4.31	All	8 x 2	0	
cal St	Robustness of Terminations	Ø	IEC 60068-2-21	All	8 x 2	0	
chanie	Climatic test Sequence	⊠	ESCC 4001, Para 8.10	All	8 x 2	0	
al /Me	Seal Test		IEC 60068-2-17				NA
menta	Resistance to Soldering Heat	⊠	IEC 60068-2-20	All	8 x 2	0	
ivironi	Mounting	×	IEC 60115-1 clause 4,31	Ali	8 x 2	0	
Ē	Climatic test Sequence	⊠	ESCC 4001, Para 8.10	All	8 x 2	0	
	Seal Test		IEC 60068-2-17				NA
	Mounting	0	IEC 60115-1 clause 4.31				NA
	Insulation Resistance	⊠	ESCC 4001, Para 8.3,1,2	All	8 x 5		
	Voltage Proof	⊠	ESCC 4001, Para 8.3.1.3	All	8 x 5		
8 <del>c</del>	Mounting	0	IEC 60115-1 clause 4.31				Not performed
Endurance Subgroup	Operating Life		ESCC 4001, Para 8.13				Replaced with FR data
SE	Seal Test		IEC 60068-2-17				
nbly pility oup	Solderability	⊠	IEC 60068-2-20	All	8 x 2		
Assembly Capability Subgroup	Permanence of marking		ESCC 24800				NA
Failure Rate	Operating Life 8 000 h	⊠	ESCC 4001, Para 8,13	33 lots	23 x 40 3 x 60 7 x 90	M = 1	11,3 M components.hours
Subgro up	Seal Test		IEC 60068-2-17				NA
a							
Additional							
Add							



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

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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 relev

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.