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CONT.	Sin.	36	
To the same			and the second

Component Title: Power Mosfet STRH40P10

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Appl. No.

		Executive Member:	CNES			Date: 11/02/2015	326A	
Components (includ	ing series and families) submitted for Extension	of Qualification	Approval:			<u> </u>	
ESCC COMPONENT NO.	VARIANTS	RANGE OF CO	DMPONENTS BASED ON			TEST VEHICLE / S	COMPONENT SIMILAR	
5205/025	01, 02		TO-254AA		10	ID33218002ZE ID33350005Z8		
Component M STMicroelectronics	lanufacturer 2	Location of Ma 3, rue de Suisse BP	anufacturing Plan 4199, 35041 Rei		3 Date	e of original qualification ap	proval:	
					Date	e: 22/03/2013 tificate Ref No. 326		
ESCC Specifications Maintenance of qual Generic: 5000 Detail(s): 5205/02	s used for ification testing: lssue: 6	Deviations to LVT to used: No	(supply	details in Box	Qua refe Data F4 0 Data	nlification Extension Report rence and date: apack STRH40P10HYG Lot 16/08/2014 apack STRH40P10HYG Lot 11/2015		
Summary of procure	ment or equivalent tes	NO. 00 10 10 10 10 10 10 10 10 10 10 10 10			annlicati	on (those to ESCC listed fir	8	
Project Name	Testing Level			Date code	аррисан	Quantity I	10 100 7/0	
HIREL/HK AVNETEM01			1310A 1417A	on to the same same				
PID changes since s None □	tart of qualification	9	Current PID	Verified by:		CNES	10_	
Minor* ⊠ Major* □	*Provide details in bo	x:	Ref No: Issue: Rev Date:	8097046 (gen	eric) Re	v 14 and 8212222 (specific Date:	Mosfet) rev 10 15/01/2015	
Current Manufacturin	g facilities surveyed b		ESA & CNE		0		11/2014 Date)	
Satisfactory: Report Reference:	Yes ⊠ ST-AUD-2014		olain					

	APPLICAT	ION FOR EXTEN	SION OF ESCC QUA	LIFICATION	APPROVAL	Page 2
ESCC	Component title:	Power Mosfet S	TRH40P10			Appl. No.
LOCC						W. W. Co., 1983.00
	Executive Member:	CNES		Date: 1	1/02/2015	326A
- 1 1 7 551 11555	4.77					12
Failure Analysis, DPA, NCCS ava	ailable: Yes	□ No				
Ref. No's and purposes:						
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 Membranes.	en evaluated; - that ful orts and data are availa	I compliance to all able at the ESCC	I ESCC requirements Executive and therefo	is evidence ore applies or	n behalf of herein.	13
Date: 13/02/2015				-	JP. BUSSEN	от
State of the State of				(Sign	ature of the Executive	e Coordinator)
Continuation of Boxes above:	- Company of the Comp				20000	14

of the state of	E	5	-
ALC:			

Component title: Power Mosfet STRH40P10

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Executive Member: CNES

Appl. No.

Date: 11/02/2015 326A

Non compliance to ESCC requirements:

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No.:	Specification	Paragraph	Non compliance	
	ореолюцион	Paragraph	14011 Compilation	
Additional task	s required to achieve full compliance for ESG:	CC qualification or rationale for acceptabilit	ty of	16
noncompliance	:			
Executive Man	rager Disposition			17
	rager Disposition			17
Application Ap	proval: Yes No			17
Application Ap	proval: Yes No			17
Application Ap	proval: Yes No			17
Application Ap	proval: Yes No			17
Application Ap	proval: Yes No			17
Application Ap	proval: Yes No			17
Application Ap	proval: Yes No			17
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Application Ap	proval: Yes No			17
Application Ap	proval: Yes No			17
Application Ap	proval: Yes No			17
Application Ap	proval: Yes No			17
Application Ap	proval: Yes No			17
Application Ap	proval: Yes No		Lon	17
Application Ap Action / Remai	proval: Yes No		Long the second	17
Executive Man Application Ap Action / Remai	proval: Yes No		Signature, ESA Representative	17



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Date: 11/02/2015

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

Tests conducted in compliance with:

ESCC 5000 generic specification; Chart F4 (for ESCC/QPL parts); or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

STRH40P10 Lot ID33218002ZE DC1352A STRH40P10 Lot ID33350005Z8 DC1428A	Chart F4 sg1, sg2 & sg3	

Detail Specification reference:

Chart F4	Test	Tick when done	Conditions	Date Code Diffusion Lot	Tested Qty	N° of Rejects	Comments if not performed Comments on Rejection
	Mechanical shock	×	MIL-STD-750 TM2016	1352A 1428A	15 +15	0	
Environmental/Mechanical Subgroup	Vibration	×	MIL-STD-750 TM2056	1352A 1428A	15 +15	0	
	Constant acceleration	⊠	MIL-STD-750 TM2006	1352A 1428A	15 +15	0	
	Seal Fine leak Gross leak	⊠	MIL-STD-750 TM1071	1352A 1428A	15 +15	0	
	Electrical Measurement	N	Intermediate and End- Point Electrical Measurements	1352A 1428A	15 +15	0	
	External Visual	×	ESCC Basic Spec 20500	1352A 1428A	15 +15	0	
	Thermal shock		MIL-STD-750 TM1056	Click here to enter text.			Only applicable to axial lead glass diodes
	Temperature Cycling	×	MIL-STD-750 TM1051	1352A 1428A	15 +15	0	
	Moisture Resistance	×	MIL-STD-750 TM1021	1352A 1428A	15 + 15	0	
	Seal Fine leak Gross leak	×	MIL-STD-750 TM1071	1352A 1428A	15 + 15	0	
	Electrical Measurement	×	Intermediate and End- Point Electrical Measurements	1352A 1428A	15 + 15	0	
	External Visual	⊠	ESCC Basic Spec 20500	1352A 1428A	15 + 15	0	
7	Operating Life	⊠	ESCC 5000 Para, 8,19	1352A 1428A	15 + 15	0	
Endurance Subgroup	Electrical Measurement	⋈	Intermediate and End- Point Electrical Measurements	1352A 1428A	15 + 15	0	
Endur	Seal Fine leak Gross leak	×	MIL-STD-750 TM1071	1352A 1428A	15 + 15	0	
	External Visual Inspection	⊠	ESCC Basic Spec 20500	1352A 1428A	15 + 15	0	
	Permanence of Marking		ESCC Basic Spec 24800				Not applicable to Laser Marking
g 15 g	Terminal Strength	⊠	ESCC 5000 Para. 8.18	1352A 1428A	5 + 5	0	
Assembly Capability Subgroup	Internal Visual	⊠	ESCC Basic Spec 20400	1352A 1428A	5 + 5	0	
Ca	Bond Strength	⊠	MIL-STD-750 TM 2037	1352A 1428A	3 + 3	0	
	Die Shear	⊠	MIL-STD-750 TM 2017	1352A 1428A	3 + 3	0	



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Ch art F4	Test	Tick when done	Conditions	Date Code Diffusion Lot	Tested Qty	N° of Rejects	Comments if not performed. Comments on Rejection
lal							100 A
Tests							
Ad							



Component title:

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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.