

		APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL			Page 1
Component Title: Power Mosfet STRH100N10 – STRH40N6 – STRH100N6 – STRH8N10		Executive Member: CNES			Date: 01/09/2016
					Appl. No. 303C
Components (including series and families) submitted for Extension of Qualification Approval:					1
ESCC COMPONENT NO.	VARIANTS	RANGE OF COMPONENTS	BASED ON	TEST VEHICLE / S	COMPONENT SIMILAR
5205/021	01, 02	TO-254AA	STRH100N10	ID33428001ZY	
5205/022	01, 02	TO-254AA	STRH100N6		
5205/023	01	SMD0.5	STRH8N10	ID3353700CZW	
5205/024	01	SMD0.5	STRH40N6		
Component Manufacturer STMicroelectronics		2	Location of Manufacturing Plant(s) 3, rue de Suisse BP4199, 35041 Rennes Cedex		3
			Date of original qualification approval: Date: 14/10/2010		4
			Certificate Ref No. 303		
ESCC Specifications used for Maintenance of qualification testing: Generic: 5000 Issue: 6 Detail(s): 5205/021 Issue: 5 5205/022 Issue: 4 5205/023 Issue: 4 5205/024 Issue: 4		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: Datapack STRH100N10HYG Lot ID33428001ZY_Chart F4 03/09/2015 Datapack STRH8N10SG Lot ID3353700CZW_Chart F4 04/08/2016		7
Summary of procurement or equivalent test results during current validity period in support of this application (those to ESCC listed first)					8
Project Name	Testing Level	LAT	Date code	Quantity Delivered	
ASTRIUM SPACE			1537A		
PID changes since start of qualification None <input type="checkbox"/> Minor* <input checked="" type="checkbox"/> Major* <input type="checkbox"/> *Provide details in box:		9	Current PID Verified by: CNES Name of Executive Representative Ref No: 8097046 (generic) Rev 15 and 8212222 (specific Mosfet) rev 12 Issue: Date: 28/07/2016 Rev Date:		10
Current Manufacturing facilities surveyed by: ESA & CNES on 28/08/2016 (Name of Executive Representative) (Date) Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain Report Reference: ESCC-STMF-AUD-2016-01 - DCT_AQ_CQ-2016-0013092					11



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Non compliance to ESCC requirements:

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No.:	Specification	Paragraph	Non compliance

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

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Executive Manager Disposition

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Application Approval: Yes ☐ No ☐

Action / Remarks:

Date:

Signature, ESA Representative



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

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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:

STRH100N10HYG Lot ID33428001ZY DC1451A	Full Chart F4
STRH8N10SG Lot ID3353700CZW DC1549B	Full Chart F4

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
Environmental/Mechanical Subgroup	Mechanical shock	<input checked="" type="checkbox"/>	MIL-STD-750 TM2016	1451A 1549B	15 +15	0	
	Vibration	<input checked="" type="checkbox"/>	MIL-STD-750 TM2056	1451A 1549B	15 +15	0	
	Constant acceleration	<input checked="" type="checkbox"/>	MIL-STD-750 TM2006	1451A 1549B	15 +15	0	
	Seal Fine leak Gross leak	<input checked="" type="checkbox"/>	MIL-STD-750 TM1071	1451A 1549B	15 +15	0	
	Electrical Measurement	<input checked="" type="checkbox"/>	Intermediate and End-Point Electrical Measurements	1451A 1549B	15 +15	0	
	External Visual	<input checked="" type="checkbox"/>	ESCC Basic Spec 20500	1451A 1549B	15 +15	0	
	Thermal shock	<input type="checkbox"/>	MIL-STD-750 TM1056	Click here to enter text.			Only applicable to axial lead glass diodes
	Temperature Cycling	<input checked="" type="checkbox"/>	MIL-STD-750 TM1051	1451A 1549B	15 +15	0	
	Moisture Resistance	<input checked="" type="checkbox"/>	MIL-STD-750 TM1021	1451A 1549B	15 +15	0	
	Seal Fine leak Gross leak	<input checked="" type="checkbox"/>	MIL-STD-750 TM1071	1451A 1549B	15 +15	0	
	Electrical Measurement	<input checked="" type="checkbox"/>	Intermediate and End-Point Electrical Measurements	1451A 1549B	15 +15	0	
	External Visual	<input checked="" type="checkbox"/>	ESCC Basic Spec 20500	1451A 1549B	15 +15	0	
Endurance Subgroup	Operating Life	<input checked="" type="checkbox"/>	ESCC 5000 Para. 8.19	1451A 1549B	15 +15	0	
	Electrical Measurement	<input checked="" type="checkbox"/>	Intermediate and End-Point Electrical Measurements	1451A 1549B	15 +15	0	
	Seal Fine leak Gross leak	<input checked="" type="checkbox"/>	MIL-STD-750 TM1071	1451A 1549B	15 +15	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Spec 20500	1451A 1549B	15 +15	0	
Assembly Capability Subgroup	Permanence of Marking	<input type="checkbox"/>	ESCC Basic Spec 24800				Not applicable on Laser marking
	Terminal Strength	<input checked="" type="checkbox"/>	ESCC 5000 Para. 8.18	1451A 1549B	5 + 5	0	
	Internal Visual	<input checked="" type="checkbox"/>	ESCC Basic Spec 20400	1451A 1549B	5 + 5	0	
	Bond Strength	<input checked="" type="checkbox"/>	MIL-STD-750 TM 2037	1451A 1549B	3 + 3	0	
	Die Shear	<input checked="" type="checkbox"/>	MIL-STD-750 TM 2017	1451A 1549B	3 + 3	0	



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Chart F4	Test	Tick when done	Conditions	Date Code Diffusion Lot	Tested Qty	N° of Rejects	Comments if not performed. Comments on Rejection
Additional Tests		<input type="checkbox"/>					
		<input type="checkbox"/>					
		<input type="checkbox"/>					

Additional Comments	22

