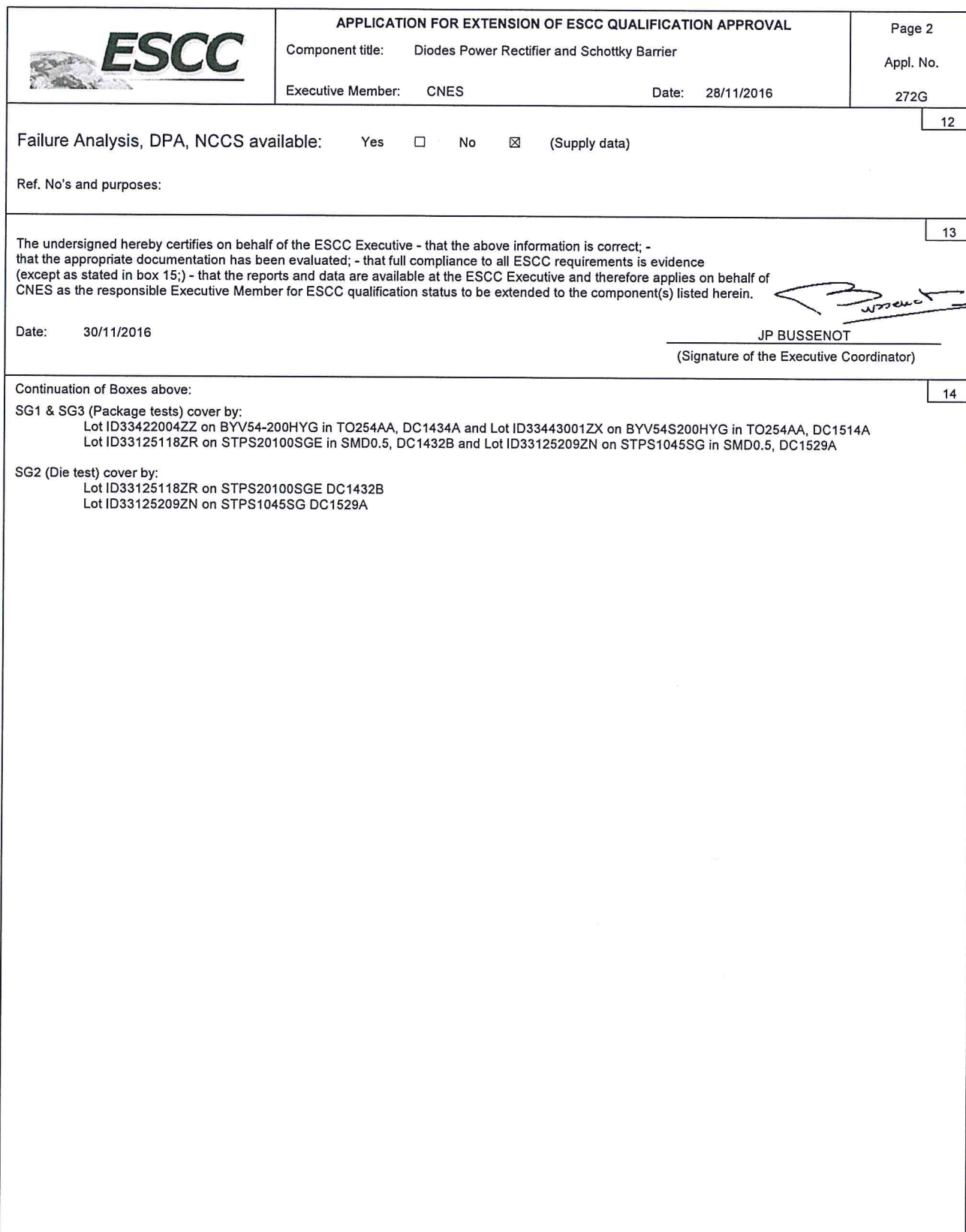
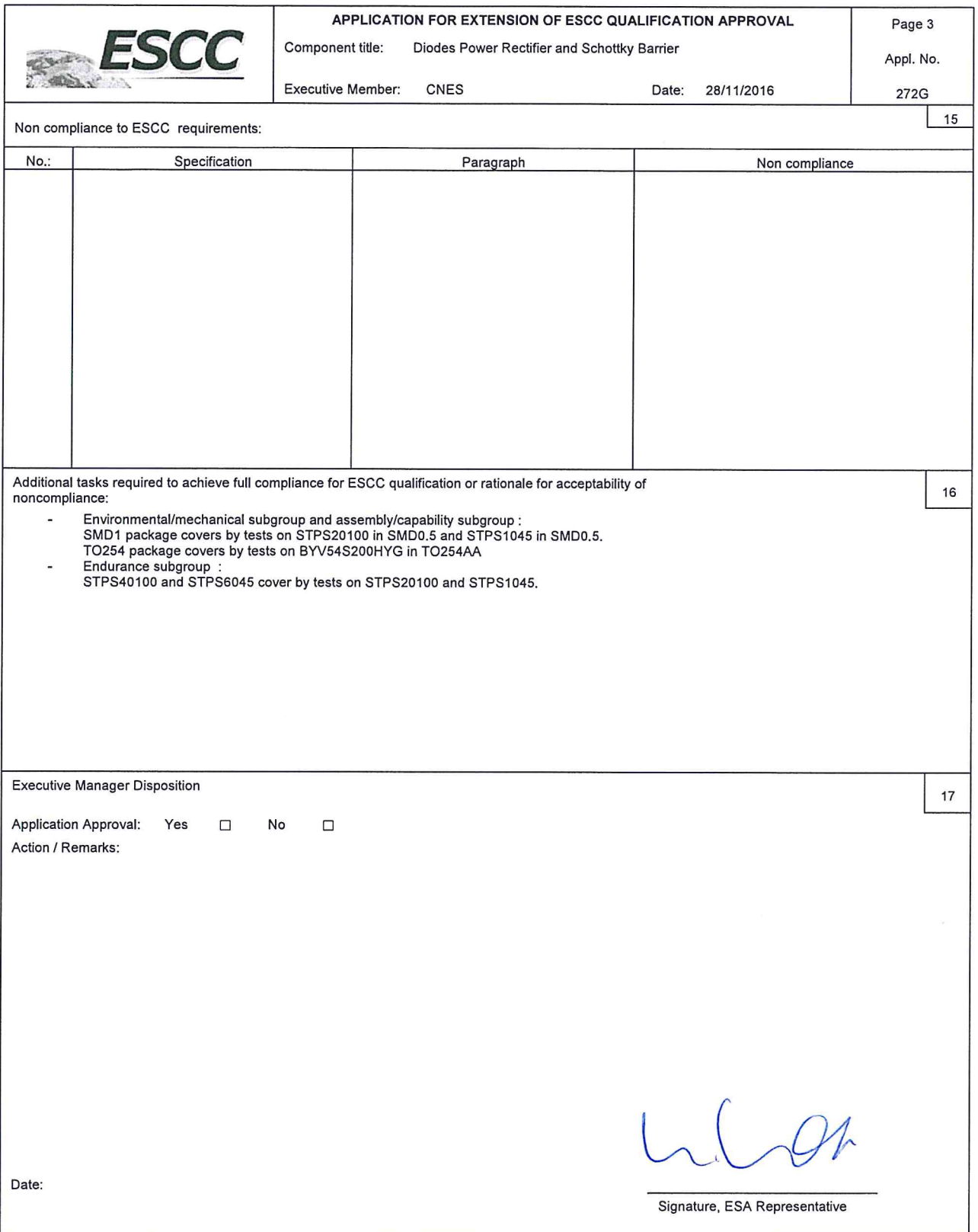
		APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL			Page 1 Appl. No. 272G	
Component Title: Diodes Power Rectifier and Schottky Barrier		Executive Member: CNES		Date: 28/11/2016		
Components (including series and families) submitted for Extension of Qualification Approval: 1						
ESCC COMPONENT NO.	VARIANTS	RANGE OF COMPONENTS	BASED ON	TEST VEHICLE / S	COMPONENT SIMILAR	
5106/016	05, 06, 07, 11	TO-254, SMD0.5, SMD1	STPS20100	33125118ZR		
5106/017	01, 02	SMD0.5	STPS1045	33125209ZN		
5106/018	02	SMD1	STPS6045			
5106/019	03, 05	TO254, SMD1	STPS40100			
Component Manufacturer STMicroelectronics		Location of Manufacturing Plant(s) 3, rue de Suisse BP4199, 35041 Rennes Cedex		Date of original qualification approval: Date: 01/11/2002 Certificate Ref No. 272		
ESCC Specifications used for Maintenance of qualification testing: Generic: 5000 Issue: 3 Detail(s): 5106/016 Issue: 7 5106/017 5 5106/018 5 5106/019 6		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)		Qualification Extension Report reference and date: Datapack BYV54-200 Lot ID33422004ZZ_Chart F4 22/06/2015 Datapack STPS1045 Lot ID33125209ZN_Chart F4 2/03/2016 Datapack STPS20100 Lot ID33125118ZR_Chart F4 9/01/2015 Datapack BYV54S200 Lot ID33443001ZX_Chart F4 01/12/2015		
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		
ALTER SPAIN			1507A, 1529A			
TESAT SPACECOM			1612A			
TAS ETCA			1450A			
Thales Italy			1509A, 1611A			
PID changes since start of qualification None <input type="checkbox"/> Minor* <input checked="" type="checkbox"/> Major* <input type="checkbox"/> *Provide details in box:		Current PID Verified by: CNES 10 Name of Executive Representative Ref No: 8097046 (generic) Rev 16 and 8122351 (specific Power Rectifier and Schottky Diodes) rev 12 Issue: Date: 06/10/2016 Rev Date:				
Current Manufacturing facilities surveyed by: ESA & CNES on 31/08/2016 11 <div style="text-align: center;"> (Name of Executive Representative) (Date) </div> Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain Report Reference: ESCC-STMf-AUD-2016/DCT_AQ_CQ_2016_13092						







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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:

STPS20100 Lot ID33125118ZR DC1432B STPS1045 Lot ID33125209ZN DC1529A	Chart F4 sg1, sg2 & sg3
BYV54S200HYG Lot ID33422004ZZ DC1434A BYV54S200HYG Lot ID33443001ZX DC1514A	Chart F4 sg1 & sg3 Chart F4 sg1 & 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
Environmental/Mechanical Subgroup	Mechanical shock	<input checked="" type="checkbox"/>	MIL-STD-750 TM2016	1432B 1529A 1434A 1514A	15 + 15 + 15 + 15	0	
	Vibration	<input checked="" type="checkbox"/>	MIL-STD-750 TM2056	1432B 1529A 1434A 1514A	15 + 15 + 15 + 15	0	
	Constant acceleration	<input checked="" type="checkbox"/>	MIL-STD-750 TM2006	1432B 1529A 1434A 1514A	15 + 15 + 15 + 15	0	
	Seal Fine leak Gross leak	<input checked="" type="checkbox"/>	MIL-STD-750 TM1071	1432B 1529A 1434A 1514A	15 + 15 + 15 + 15	0	
	Electrical Measurement	<input checked="" type="checkbox"/>	Intermediate and End- Point Electrical Measurements	1432B 1529A 1434A 1514A	15 + 15 + 15 + 15	0	
	External Visual	<input checked="" type="checkbox"/>	ESCC Basic Spec 20500	1432B 1529A 1434A 1514A	15 + 15 + 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	1432B 1529A 1434A 1514A	15 + 15 + 15 + 15	0	
	Moisture Resistance	<input checked="" type="checkbox"/>	MIL-STD-750 TM1021	1432B 1529A 1434A 1514A	15 + 15 + 15 + 15	0	
	Seal Fine leak Gross leak	<input checked="" type="checkbox"/>	MIL-STD-750 TM1071	1432B 1529A 1434A 1514A	15 + 15 + 15 + 15	0	
	Electrical Measurement	<input checked="" type="checkbox"/>	Intermediate and End- Point Electrical Measurements	1432B 1529A 1434A 1514A	15 + 15 + 15 + 15	0	
	External Visual	<input checked="" type="checkbox"/>	ESCC Basic Spec 20500	1432B 1529A 1434A 1514A	15 + 15 + 15 + 15	0	
Endurance Subgroup	Operating Life	<input checked="" type="checkbox"/>	ESCC 5000 Para. 8.19	1432B 1529A	15 + 15	0	
	Electrical Measurement	<input checked="" type="checkbox"/>	Intermediate and End- Point Electrical Measurements	1432B 1529A	15 + 15	0	
	Seal Fine leak Gross leak	<input checked="" type="checkbox"/>	MIL-STD-750 TM1071	1432B 1529A	15 + 15	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Spec 20500	1432B 1529A	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	1432B 1529A 1434A 1514A	5 + 5 + 5 + 5	0	
	Internal Visual	<input checked="" type="checkbox"/>	ESCC Basic Spec 20400	1432B 1529A 1434A 1514A	5 + 5 + 5 + 5	0	
	Bond Strength	<input checked="" type="checkbox"/>	MIL-STD-750 TM 2037	1432B 1529A 1434A 1514A	3 + 3 + 3 + 3	0	
	Die Shear	<input checked="" type="checkbox"/>	MIL-STD-750 TM 2017	1432B 1529A 1434A 1514A	3 + 3 + 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"/>					

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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.