

		APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL			Page 1
		Component Title: 2A Synchronous Rectified Step-Down converter SPPL12420RH			Appl. No. 376A
		Executive Member: DLR	Date: 19/03/2024		
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
910201401P	Variant 01	-	SPPL12420RH	-	-
Component Manufacturer 2		Location of Manufacturing Plant(s) 3		Date of original qualification approval: 4	
Space IC GmbH		Garbsener Landstraße 10 30419 Hannover, Germany (fables company)		Date: 01/11/2021 Certificate Ref No. 376	
ESCC Specifications used for Maintenance of qualification testing: 5		Deviations to LVT testing and Detail Specification used: 6		Qualification Extension Report reference and date: 7	
Generic: 9000 Issue: 11 Detail(s): 9102/014 Issue: 2		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 Testing Report E2304101, 02/19/2024	
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	
Stock (maintenance of qualification lot)	ESCC		2320A	-	
Multiple projects	ESCC		20xx	Refer to Annex 3 (confidential) for further details	
PID changes since start of qualification 9		Current PID Verified by: <u>Burak Gökgöz (DLR)</u> 10			
None <input type="checkbox"/> Minor* <input type="checkbox"/> Major* <input checked="" type="checkbox"/> *Provide details in box: change of bias to 15V at moisture resistance test, Issue 2 of detailed specification issued		Name of Executive Representative Ref No: PID.PL12420.01 Issue: 1.4 Date: 20/02/2024 Rev Date: 20/02/2024			
Current Manufacturing facilities surveyed by: <u>Burak Gökgöz (DLR)</u> on <u>13/09/2023</u> 11					
(Name of Executive Representative) (Date)					
Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain					
Report Reference: <u>SPACE IC-AUD-DLR-09-2023 Iss1</u>					

	<p style="text-align: center;">APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL</p> <p>Component title: 2A Synchronous Rectified Step-Down converter SPPL12420RH</p> <p>Executive Member: DLR Date: 19/03/2024</p>	<p>Page 2</p> <p>Appl. No. 376A</p>
<p>Failure Analysis, DPA, NCCS available: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (Supply data)</p> <p>Ref. No's and purposes: NCCS 2DSIC301 - Delay of periodic lot validation testing NCCS 2DSIC302 - Lead bent by mech shock testing, change of component fixture to beeswax NCCS 2DSIC303 - EOS by electrical bias during moisture resistance test at low temperature, change of supply voltage max rating to 15V in standby condition in Detail Spec and PID</p>		12
<p>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 DLR as the responsible Executive Member for ESCC qualification status to be extended to the component(s) listed herein.</p> <p>Date: 27/03/2024</p> <div style="text-align: right;">  <p style="font-size: small;">Digital signiert von Burak Goekgoez DN: C=DE, S=Nordrhein-Westfalen, L=Koeln, O=Deutsches Zentrum fuer Luft- und Raumfahrt e.V. (DLR), SN=Goekgoez, G=Burak, CN=Burak Goekgoez Grund: Ich bin der Verfasser dieses Dokuments Ort: Bonn Datum: 2024.03.27 18:31:22+01'00' Foxit PDF Editor Version: 13.0.1</p> </div> <p style="text-align: center;">(Signature of the Executive Coordinator)</p>		13
<p>Continuation of Boxes above:</p>		14



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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:

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



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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 9000 generic specification; Chart F4 (for ESCC/QPL parts);
- Or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

components from 2320A assembly lot	

Detail Specification reference: 9102/014

Chart F4	Test	Tick when done	Conditions	Date Code Diffusion Lot	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Environmental/Mechanical Subgroup	Mechanical Shock	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 2002	S46925	15	0	
	Vibration	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 2007	S46925	15	0	
	Constant Acceleration	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 2001	S46925	15	0	
	Seal (Fine and Gross Leak)	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 1014	S46925	15	0	
	Intermediate and End-Point Electrical Measurements	<input checked="" type="checkbox"/>	Intermediate and End-Point Electrical Measurements in the Detail Specification	S46925	15	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 20500	S46925	15	0	
	Thermal Shock	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 1011	S46925	15	0	
	Moisture Resistance	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 1004	S46925	15	0	
	Seal (Fine and Gross Leak)	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 1014	S46925	15	0	
	Intermediate and End-Point Electrical Measurements	<input checked="" type="checkbox"/>	Intermediate and End-Point Electrical Measurements in the Detail Specification	S46925	15	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 20500	S46925	15	0	



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Chart F4	Test	Tick when done	Conditions	Date Code Diffusion Lot	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Endurance Subgroup	Operating Life	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 1005	S46925	15	0	
	Intermediate and End-Point Electrical Measurements	<input checked="" type="checkbox"/>	Intermediate and End-Point Electrical Measurements in the Detail Specification	S46925	15	0	
	Seal (Fine and Gross Leak)	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 1014	S46925	15	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 20500	S46925	15	0	
Assembly Capability Subgroup	Permanence of Marking	<input type="checkbox"/>	ESCC Basic Specification No. 24800				according to ESCC 24800 §3.1.3 not applicable to components exclusively marked using a permanent engraving (here laser marking)
	Terminal Strength	<input checked="" type="checkbox"/>	MIL-STD-883, Test Method 2004	S46925	5	0	
	Internal Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 20400	S46925	5	0	
	Bond Strength	<input checked="" type="checkbox"/>	MIL-STD-883 Test Method 2011	S46925	2	0	
	Die Shear or Substrate Attach Strength	<input checked="" type="checkbox"/>	MIL-STD-883 Test Method 2019 or 2027	S46925	2	0	
Additional Tests		<input type="checkbox"/>					
		<input type="checkbox"/>					
		<input type="checkbox"/>					