



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component Title: TRANSISTORS, POWER, MOSFET, N-CHANNEL, BASED ON TYPE
BUY **CS**

Executive Member: DLR

Date: 15/06/2015

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Components (including series and families) submitted for Extension of Qualification Approval:

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ESCC COMPONENT NO.	VARIANTS	RANGE OF COMPONENTS	BASED ON	TEST VEHICLE / S	COMPONENT SIMILAR
5205/026	01R	-	BUY25CS12J01	-	5205/030
5205/027	01R	-	BUY25CS54A01	-	5205/030
5205/027 8	01R	-	BUY10CS12J01	-	5205/030
5205/030	01R, 02R and 03R	-	BUY25CS12K01 BUY25CS45B01	Var 01R and 03R	Var 02R

Component Manufacturer Infineon Technologies AG	2	Location of Manufacturing Plant(s) Am Campeon 1-12 D-85579 Neubiberg Germany	3	Date of original qualification approval: Date: 28/09/2012 Certificate Ref No. 319	4
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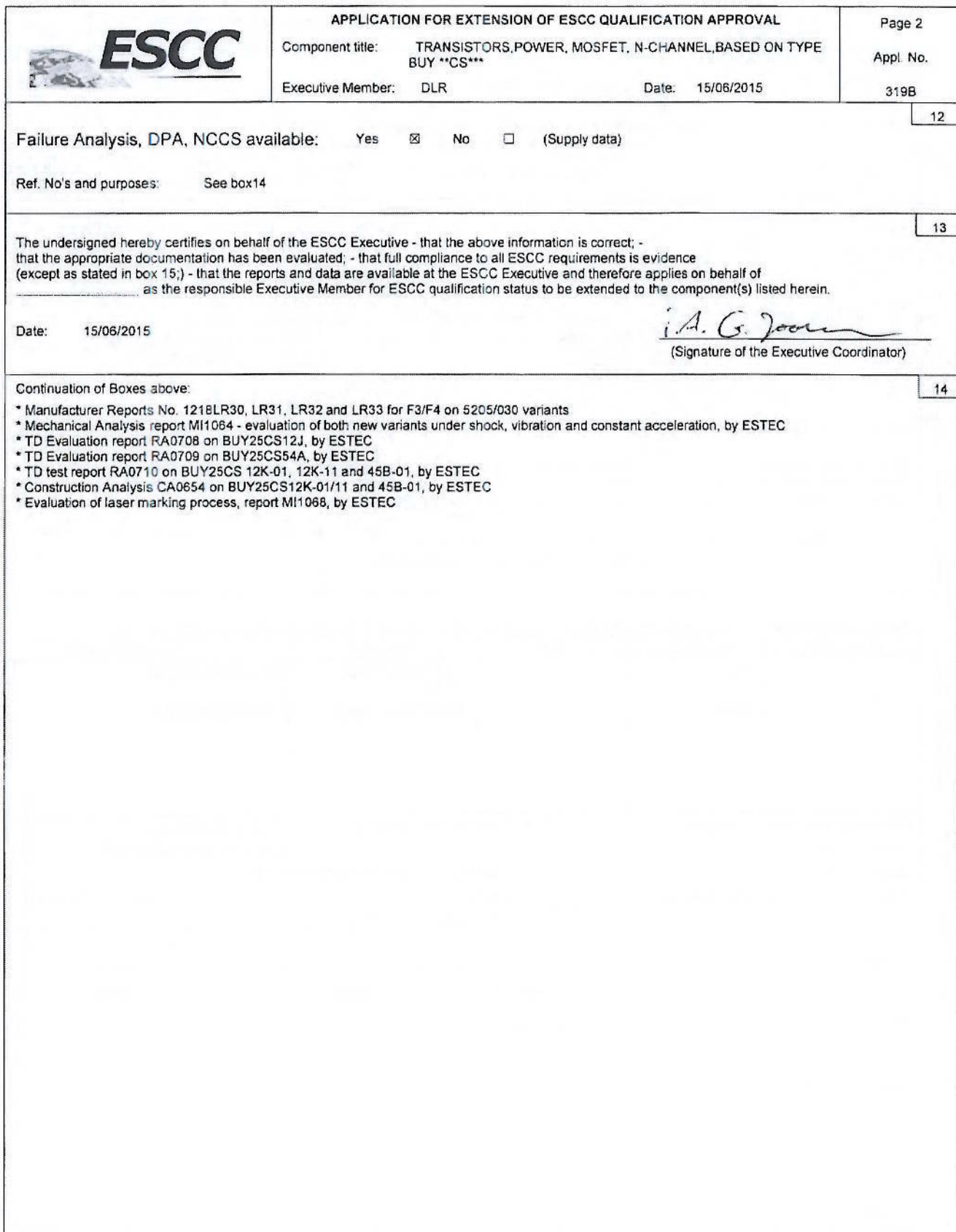
ESCC Specifications used for Maintenance of qualification testing: Generic: 5000 Issue: 6 Detail(s): 5205/030 Issue: 1	5	Deviations to LVT testing and Detail Specification used: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (supply details in Box 15) Deviation from current Specifications: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (Supply details)	6	Qualification Extension Report reference and date: See box 14	7
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Summary of procurement or equivalent test results during current validity period in support of this application (those to ESCC listed first)	8
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Project Name	Testing Level	LAT	Date code	Quantity Delivered
-	ESCC		1443, 1504A, 1506B, 1506C	BUY25CS12J-01(ES)
-	ESCC		1409A, 1426A, 1508A	BUY25CS54A-01(ES)

PID changes since start of qualification None <input checked="" type="checkbox"/> Minor* <input type="checkbox"/> Major* <input type="checkbox"/> *Provide details in box:	9	Current PID Verified by: DLR (G. Joermann) Name of Executive Representative Ref No: A63500-L5491-P000--76K5 Issue: 2 Date: 28/04/2015 Rev Date: 01/07/2014	10
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Current Manufacturing facilities surveyed by: DLR (J. Tetzlaff) on 17/09/2010 (Name of Executive Representative) (Date)	11
Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain	
Report Reference: _____	





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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:

520503001R, 1439C	
52050303R, 1438B, 1439A, 1439B	

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	1439C 1438B 1439A 1439B	15 8 16 16	0	
	Vibration	<input checked="" type="checkbox"/>	MIL-STD-750 TM2056	1439C 1438B 1439A 1439B	15 8 16 16	0	
	Constant acceleration	<input checked="" type="checkbox"/>	MIL-STD-750 TM2006	1439C 1438B 1439A 1439B	15 8 16 16	0	
	Seal Fine leak Gross leak	<input checked="" type="checkbox"/>	MIL-STD-750 TM1071	1439C 1438B 1439A 1439B	15 8 16 16	0	
	Electrical Measurement	<input checked="" type="checkbox"/>	Intermediate and End-Point Electrical Measurements	1439C 1438B 1439A 1439B	15 8 16 16	0	
	External Visual	<input checked="" type="checkbox"/>	ESCC Basic Spec 20500	1439C 1438B 1439A 1439B	15 8 16 16	0	
	Thermal shock	<input type="checkbox"/>	MIL-STD-750 TM1056	1439C 1438B 1439A 1439B			N/A
	Temperature Cycling	<input checked="" type="checkbox"/>	MIL-STD-750 TM1051	1439C 1438B 1439A 1439B	16 10 16 16	0	
	Moisture Resistance	<input checked="" type="checkbox"/>	MIL-STD-750 TM1021	1439C 1438B 1439A 1439B	16 10 16 16	0	
	Seal Fine leak Gross leak	<input checked="" type="checkbox"/>	MIL-STD-750 TM1071	1439C 1438B 1439A 1439B	16 10 16 16	0	
	Electrical Measurement	<input checked="" type="checkbox"/>	Intermediate and End-Point Electrical Measurements	1439C 1438B 1439A 1439B	16 10 16 16	0	
	External Visual	<input checked="" type="checkbox"/>	ESCC Basic Spec 20500	1439C 1438B 1439A 1439B	16 10 16 16	0	
Endurance Subgroup	Operating Life	<input checked="" type="checkbox"/>	ESCC 5000 Para. 8.19	1439C 1438B 1439A 1439B	16 10 16 16	0	2000h
	Electrical Measurement	<input checked="" type="checkbox"/>	Intermediate and End-Point Electrical Measurements	1439C 1438B 1439A 1439B	16 10 16 16	0	

	Seal Fine leak Gross leak	<input checked="" type="checkbox"/>	MIL-STD-750 TM1071	1439C 1438B 1439A 1439B	16 10 16 16	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Spec 20500	1439C 1438B 1439A 1439B	16 10 16 16	0	
Assembly Capability Subgroup	Permanence of Marking	<input checked="" type="checkbox"/>	ESCC Basic Spec 24800	1439C 1438B 1439A 1439B	6 6 6 6	0	
	Terminal Strength	<input checked="" type="checkbox"/>	ESCC 5000 Para. 8.18	1439C 1438B 1439A 1439B	6 6 6 6	0	
	Internal Visual	<input checked="" type="checkbox"/>	ESCC Basic Spec 20400	1439C 1438B 1439A 1439B	6 6 6 6	0	
	Bond Strength	<input checked="" type="checkbox"/>	MIL-STD-750 TM 2037	1439C 1438B 1439A 1439B	6 6 6 6	0	
	Die Shear	<input checked="" type="checkbox"/>	MIL-STD-750 TM 2017	1439C 1438B 1439A 1439B	6 6 6 6	0	



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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.