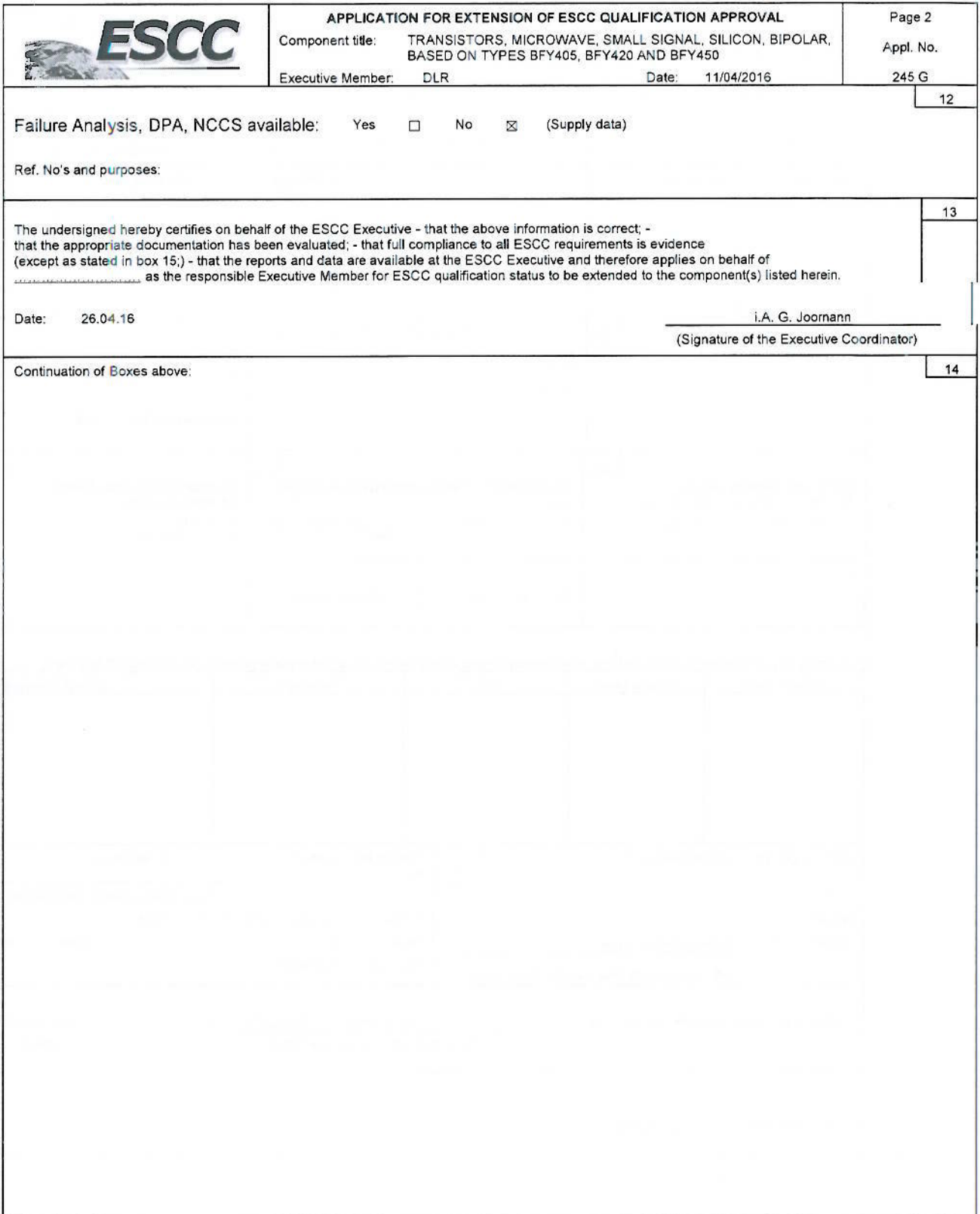


		<b>APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL</b>				Page 1 Appl. No. 245 G	
Component Title: TRANSISTORS, MICROWAVE, SMALL SIGNAL, SILICON, BIPOLAR, BASED ON TYPES BFY405, BFY420 AND BFY450		Executive Member: DLR		Date: 11/04/2016			
Components (including series and families) submitted for Extension of Qualification Approval:							1
ESCC COMPONENT NO.	VARIANTS	RANGE OF COMPONENTS	BASED ON	TEST VEHICLE / S	COMPONENT SIMILAR		
5611/008	01, 02 and 03		BFY404, BFY420, BFY450	BFY420(ES)			
Component Manufacturer: Infineon Technologies AG		Location of Manufacturing Plant(s): Am Campeon 1-12 D-85579 Neubiberg Germany		Date of original qualification approval: Date: 01/06/1997  Certificate Ref No. 245			
ESCC Specifications used for Maintenance of qualification testing: Generic 5010 Issue: 02 : Detail(s) 5611/008 Issue: 03 ):		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: 1609LR11 Iss. 1, Mar 2016			
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			
PID changes since start of qualification  None <input type="checkbox"/> Minor* <input checked="" type="checkbox"/> Major* <input type="checkbox"/>		*Provide details in box: PID adjusted to new Generic Spec 5010		Current PID Verified by: G. Joormann Name of Executive Representative Ref No: A63500 – T503 – P000 – * – 76K5 Issue: 2 Rev Date: Apr 2016 Date: 26.04.16			
Current Manufacturing facilities surveyed by: G. Joormann (DLR) on 08/10/2015 (Name of Executive Representative) (Date)							11
Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain							
Report Reference: IFX-AUD-2015							



		<b>APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL</b>		Page 3 Appl. No. 245 G
Component title: TRANSISTORS, MICROWAVE, SMALL SIGNAL, SILICON, BIPOLAR, BASED ON TYPES BFY405, BFY420 AND BFY450		Executive Member: DLR		Date: 11/04/2016
Non compliance to ESCC requirements:				15
No.:	Specification	Paragraph	Non compliance	
1	ESCC 5040	chart F4	periodic repetition of Endurance SG.	
Additional tasks required to achieve full compliance for ESCC qualification or rationale for acceptability of noncompliance:				16
<p>The approved PID describes the agreed methodology for maintenance of qualification w.r.t. similarity in its Para. 7</p>				
Executive Manager Disposition				17
Application Approval: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Action / Remarks:				
<div style="text-align: right; margin-right: 50px;">  </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div>             Date:           </div> <div>             Signature, ESA Representative           </div> </div>				

	<b>APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL</b>		Page 4
	Component Title: TRANSISTORS, MICROWAVE, SMALL SIGNAL, SILICON, BIPOLAR, BASED ON TYPES BFY405, BFY420 AND BFY450		Appl. No.
	Executive Member: DLR	Date: 11/04/2016	245 G

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

18

Tests conducted in compliance with:

- ESCC 5010 generic specification; Chart V (for ESCC/QPL parts);
- Or PID-TFD BFY405,420&450(ES) (for ESCC/QML parts)

Tests vehicle identification/description:

BFY420(ES)	

Detail Specification reference: 5611 008 / 02

Chart V	Test	Tick when done	Conditions	Date Code Diffusion Lot	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Environmental/Mechanical Subgroups	Thermal Shock Test	<input checked="" type="checkbox"/>	ESCC 5010 Para. 9.5.2	1434A	8	0	
	Shock Test	<input type="checkbox"/>	MIL-STD-750 Test Method 2016				n.a. acc. Detail Spec
	Vibration Test	<input type="checkbox"/>	MIL-STD-750 Test Method 2056				n.a. acc. Detail Spec
	Constant Acceleration	<input type="checkbox"/>	MIL-STD-750 Test Method 2006				n.a. acc. Detail Spec
	Seal Test	<input type="checkbox"/>	MIL-STD-750 Test Method 1071				n.a. acc. Detail Spec
	Moisture Resistance	<input checked="" type="checkbox"/>	MIL-STD-750 Test Method 1021	1434A	8	0	
	Seal Test	<input checked="" type="checkbox"/>	MIL-STD-750 Test Method 1071	1434A	8	0	
	Electrical Measurements at Room Temp.	<input checked="" type="checkbox"/>	Table 2 of the Detail Specification	1434A	8	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 20500	1434A	8	0	
Endurance Subgroup	Operating Life	<input type="checkbox"/>	MIL-STD-750 Test Method 1026				Former data from Wafer available
	Electrical Measurements during Endur. Test	<input type="checkbox"/>	Table 6 of the Detail Specification				Former data from Wafer available
	External Visual Inspection	<input type="checkbox"/>	ESCC Basic Specification No. 20500				Former data from Wafer available

\* LATZ on actual wafer was passed on d.c. 0007C and 0714A





**APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL**  
Component title: TRANSISTORS, MICROWAVE, SMALL SIGNAL, SILICON,  
BIPOlar, BASED ON TYPES BFY405, BFY420 AND BFY450  
Executive Member: DLR Date: 11/04/2016

Page 5  
Appl. No.  
245 G

Chart V	Test	Tick when done	Conditions	Date Code Diffusion Lot	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Electrical Subgroup - Electrical Measurements	Electrical Measurements at Room Temp.	<input checked="" type="checkbox"/>	Table 2 of the Detail Specification	1434A	4	0	
	Electrical Measurements at High & Low Temp's	<input checked="" type="checkbox"/>	Table 3 of the Detail Specification	1434A	4	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 20500	1434A	4	0	
	Special Testing	<input type="checkbox"/>	The Detail Specification				n.a. acc. Detail Spec
Electrical Subgroup - Assembly Capability Tests	Solderability Test	<input checked="" type="checkbox"/>	MIL-STD-750 Test Method 2026	1434A	4	0	
	Permanence of Marking	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 24800	1434A	4	0	
	Terminal Strength	<input checked="" type="checkbox"/>	MIL-STD-750 Test Method 2036	1434A	4	0	
De-encapsulation Tests	Internal visual inspection	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 20400	1434A	8	0	
	Bond Strength	<input checked="" type="checkbox"/>	MIL-STD-750 Test Method 2037	1434A	8	0	
	Die Shear	<input checked="" type="checkbox"/>	MIL-STD-750 Test Method 2017	1434A	8	0	

