



## **PRODUCT/PROCESS CHANGE NOTIFICATION**

---

**PCN IPG-IPC/14/8407**

**Dated 04 Apr 2014**

---

**ASSEMBLING AND TESTING TRANSFER FROM ST- LONGGANG TO  
NANTONG FUJTSU SUBCON AND ST-MUAR**

**Table 1. Change Implementation Schedule**

Forecasted implementation date for change	17-Jun-2014
Forecasted availability date of samples for customer	28-Mar-2014
Forecasted date for <b>STMicroelectronics</b> change Qualification Plan results availability	28-Mar-2014
Estimated date of changed product first shipment	04-Jul-2014

**Table 2. Change Identification**

Product Identification (Product Family/Commercial Product)	see attached list
Type of change	Package assembly location change, Testing location change, Test program / platform change
Reason for change	Our internal LGG facility is proceeding in a shut down road map
Description of the change	ST is pursuing the plan to rationalize the manufacturing processes. Because of this, ST is announcing the transfer of assembling and testing activities originally installed in our Longgang (LGG) facility in China to Nantong Fujitsu (NFME) subcon facility in China. Majority of the testing activities originally performed in LGG will be transferred to ST Muar-Malaysia facility. The transfer will impact on all packages families actually present in LGG. More specifically the different PDIP package families will be transferred to the NFME subcon facility. Implementation will occur all along the year, till end of 2014. Packages will be transferred in sequence and depending on Test Vehicles, implemented and released at different time frames within the year.
Change Product Identification	see assy code
Manufacturing Location(s)	1]St - Longgang - China 2]St - Longgang - China

## DOCUMENT APPROVAL

Name	Function
Riviera, Antonio	Marketing Manager
Barbieri, Danilo	Product Manager
Moretti, Paolo	Q.A. Manager
Motta, Antonino	Q.A. Manager

## **ASSEMBLING AND TESTING TRANSFER FROM ST- LONGGANG TO NANTONG FUJTSU SUBCON AND ST-MUAR**

### **WHAT is the change?**

ST is pursuing the plan to rationalize the manufacturing processes. Because of this, ST is announcing the transfer of assembling and testing activities originally installed in our Longgang (LGG) facility in China to Nantong Fujitsu (NFME) subcon facility in China. Majority of the testing activities originally performed in LGG will be transferred to ST Muar Malaysia facility.

The transfer will impact on all packages families actually present in LGG. More specifically the different PDIP package families will be transferred to the NFME subcon facility. Implementation will occur all along the year, till end of 2014. Packages will be transferred in sequence and depending on Test Vehicles, implemented and released at different time frames within the year.

The transfer will also imply several cases material changes in view of rationalization. These changes combination are reported with more details within the PCN.

The transfer will also impact on final testing activities: even if for some products both assy and testing will be transferred to NFME, for the majority all testing activities will be transferred to our ST-Muar Malaysia Facility.

Present PCN is focused on PDIP14 and PDIP16 assembling and testing transfer. Other PCNs will be issued and focused on the other packages families. Because of the nature of transfer, sample availability, qualification reports and initial shipping will occur not simultaneously but along a period of time. Estimated time frames are reported within the PCN.

Package	Impacted Product families	Change of Bill of Material (BOM) compared with previous BOM	FINAL TESTING SITE /TESTING PLATFORM CHANGE	
PDIP 14/16 Assy and testing transfer to NFME/LGG	Voltage Regulators . (See attached list Appendix 2 for specific commercial products)	YES: New Green Molding Compound and Glue	NFME subcon/ ASL1K	
PDIP 14/16 Assy transfer to NFME and testing Transfer to Muar	Power Conversion and Industrial products. (See attached list Appendix 3 for specific commercial products)	YES. New Green Molding Compound and Glue	ST-MUAR/No Testing platform change	

### **WHY:**

Our internal LGG facility is proceeding in a shutdown road map. Therefore the related activities will be transferred to other facilities like NFME.

## WHEN will this change occur?

Package	Test vehicles by Commercial Products (line codes)	Test Vehicles Samples availability	Qualification Report availability (upon request)	First Shipment start date
PDIP 16 Assy and testing transfer to NFME/LGG	ULN2003A (L203)	WK 13	WK13	WK26
PDIP14 Assy and Testing transfer to NFME/LGG	LM723CN (L923)	WK16	WK20	WK33
PDIP16 Assy transfer to NFME and Testing transfer to Muar	L6599N (U329)	WK16	WK30	WK42
	TSM1001DLM (UA05)	WK20	WK33	WK45
	E-TEA3718DP (3718)	WK25	WK38	WK45
	TD310IN (D310)	WK25	WK38	WK45

## HOW will the change be qualified?

- This change will be qualified using the standard STMicroelectronics procedures for quality and reliability. Major steps of the qualification are:
  - Process capability assessment and Workability on all TVs
  - Reliability Trials on all TVs
  - Corner lots for some representative TVs.
  - Line stressing and RTC Monitor for some representative TVs
- Depending on TVs all or subset of the above qualifications steps criteria will be applied

Test Vehicles	Workability	Corner Lots	Final test Data and Correlation	Reliability Trial	Line stressing	RTC Monitor
L203	X	X	X	X	X	
L923	X	X	X	X		
U329	X		X	X	X	X
UA05	X		X	X	X	
3718	X		X	X	X	
D310	X		X	X	X	X

**IMPACTS OF THE CHANGE:**

Form: No change  
Fit: No change  
Function: No change

**APPENDICES:**

- APPENDIX 1 Reliability plan for involved Test Vehicles

## APPENDIX 1: RELIABILITY PLAN

Test Vehicles by Line codes	HTOL/HTRB	TEMPERATURE HUMIDITY BIAS	THERMAL CYCLES	PRESSURE POT	HIGH TEMPERATURE STORAGE
L203	X	X	X	X	X
3718	X	X	X	X	X
U329	X	X	X	X	X
D310	-	-	X	X	X
L923	-	-	X	X	X
UA05	-	-	X	X	X



## Public Products List

PCN Title : ASSEMBLING AND TESTING TRANSFER FROM ST- LONGGANG TO NANTONG FUJTSU SUBCON AND ST-MUAR

PCN Reference : IPG-IPC/14/8407

PCN Created on : 01-APR-2014

Subject : Public Products List

Dear Customer,

Please find below the Standard Public Products List impacted by the change:

### ST COMMERCIAL PRODUCT

E-TEA3718DP	L6574	L6598
L6599N	LM723CN	SG2525AN
SG3524N	SG3525AN	TD310IN
ULN2001A	ULN2002A	ULN2003A
ULN2004A	ULQ2001A	ULQ2003A
ULQ2004A		

**Please Read Carefully:**

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST's terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

**UNLESS OTHERWISE SET FORTH IN ST'S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND / OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE ( AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION ), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.**

**ST PRODUCTS ARE NOT DESIGNED OR AUTHORIZED FOR USE IN: (A) SAFETY CRITICAL APPLICATIONS SUCH AS LIFE SUPPORTING, ACTIVE IMPLANTED DEVICES OR SYSTEMS WITH PRODUCT FUNCTIONAL SAFETY REQUIREMENTS; (B) AERONAUTIC APPLICATIONS; (C) AUTOMOTIVE APPLICATIONS OR ENVIRONMENTS, AND/OR (D) AEROSPACE APPLICATIONS OR ENVIRONMENTS. WHERE ST PRODUCTS ARE NOT DESIGNED FOR SUCH USE, THE PURCHASER SHALL USE PRODUCTS AT PURCHASER'S SOLE RISK, EVEN IF ST HAS BEEN INFORMED IN WRITING OF SUCH USAGE, UNLESS A PRODUCT IS EXPRESSLY DESIGNATED BY ST AS BEING INTENDED FOR "AUTOMOTIVE, AUTOMOTIVE SAFETY OR MEDICAL" INDUSTRY DOMAINS ACCORDING TO ST PRODUCT DESIGN SPECIFICATIONS. PRODUCTS FORMALLY ESCC, QML OR JAN QUALIFIED ARE DEEMED SUITABLE FOR USE IN AEROSPACE BY THE CORRESPONDING GOVERNMENTAL AGENCY.**

**RESTRICTIONS OF USE AND CONFIDENTIALITY OBLIGATIONS:**

**THIS DOCUMENT AND ITS ANNEXES CONTAIN ST PROPRIETARY AND CONFIDENTIAL INFORMATION. THE DISCLOSURE, DISTRIBUTION, PUBLICATION OF WHATSOEVER NATURE OR USE FOR ANY OTHER PURPOSE THAN PROVIDED IN THIS DOCUMENT OF ANY INFORMATION CONTAINED IN THIS DOCUMENT AND ITS ANNEXES IS SUBMITTED TO ST PRIOR EXPRESS AUTHORIZATION. ANY UNAUTHORIZED REVIEW, USE, DISCLOSURE OR DISTRIBUTION OF SUCH INFORMATION IS EXPRESSLY PROHIBITED.**

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.

Information in this document supersedes and replaces all information previously supplied.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners

©2014 STMicroelectronics - All rights reserved.

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan -  
Malaysia - Malta - Morocco - Philippines - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

[www.st.com](http://www.st.com)