

# 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 Schedu
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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 ot assembling and testing activities originally installed in our Longgang (LGG) facility in China to Nantong Fujtsu (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

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## Table 3. List of Attachments

Customer Part numbers list	
Qualification Plan results	

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Customer Acknowledgement of Receipt	PCN IPG-IPC/14/8407
Please sign and return to STMicroelectronics Sales Office	Dated 04 Apr 2014
Qualification Plan Denied	Name:
Qualification Plan Approved	Title:
	Company:
🗖 Change Denied	Date:
Change Approved	Signature:
Remark	

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

# **DOCUMENT APPROVAL**

# 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 ot assembling and testing activities originally installed in our Longgang (LGG) facility in China to Nantong Fujtsu (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 is 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	

#### <u>WHY:</u>

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:
  - o Process capability assessment and Workability on all TVs
  - o Reliability Trials on all TVs
  - Corner lots for some representative TVs.
  - o 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	Х	Х	Х	Х	Х	
L923	Х	Х	х	Х		
U329	Х		х	Х	Х	х
UA05	Х		х	Х	х	
3718	х		Х	х	Х	
D310	Х		х	Х	х	х

## **IMPACTS OF THE CHANGE:**

Form:No changeFit:No changeFunction:No change

#### **APPENDICES:**

APPENDIX 1 Reliability plan for involved Test Vehicles

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

### APPENDIX 1: RELIALIBILITY PLAN

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