



PRODUCT/PROCESS CHANGE NOTIFICATION

PCN APG/08/3923
Notification Date 11/06/2008

SOIC NARROW & WIDE : NEW LEADFREE PROCESS

Table 1. Change Implementation Schedule

Forecasted implementation date for change	15-Jan-2009
Forecasted availability date of samples for customer	30-Nov-2008
Forecasted date for STMicroelectronics change Qualification Plan results availability	04-Nov-2008
Estimated date of changed product first shipment	05-Feb-2009

Table 2. Change Identification

Product Identification (Product Family/Commercial Product)	ALL PRODUCTS IN SOIC NARROW & WIDE
Type of change	Logistics process change
Reason for change	TO BE COMPLIANT TO JEDEC 020C
Description of the change	To be compliant to JEDEC 020C according to specific package solutions - see details
Product Line(s) and/or Part Number(s)	See attached
Description of the Qualification Plan	See attached
Change Product Identification	e4 for NiPdAu preplated frame
Manufacturing Location(s)	1]St Muar - Malaysia

DOCUMENT APPROVAL

Name	Function
Foletto, Giovanni	Division Marketing Manager
Maggioni, Giampietro	Division Marketing Manager
Pengo, Tullio	Division Marketing Manager
Russo, Alfio	Division Marketing Manager
Aparo, Sebastiano	Division Product Manager
Cassani, Fabrizio	Division Product Manager
Conan-clement, Bertrand	Division Product Manager
Rivolta, Danilo	Division Product Manager
Amadeo, Matteo	Division Q.A. Manager
Mercandelli, Laura	Division Q.A. Manager
Parrino, Emanuele	Division Q.A. Manager

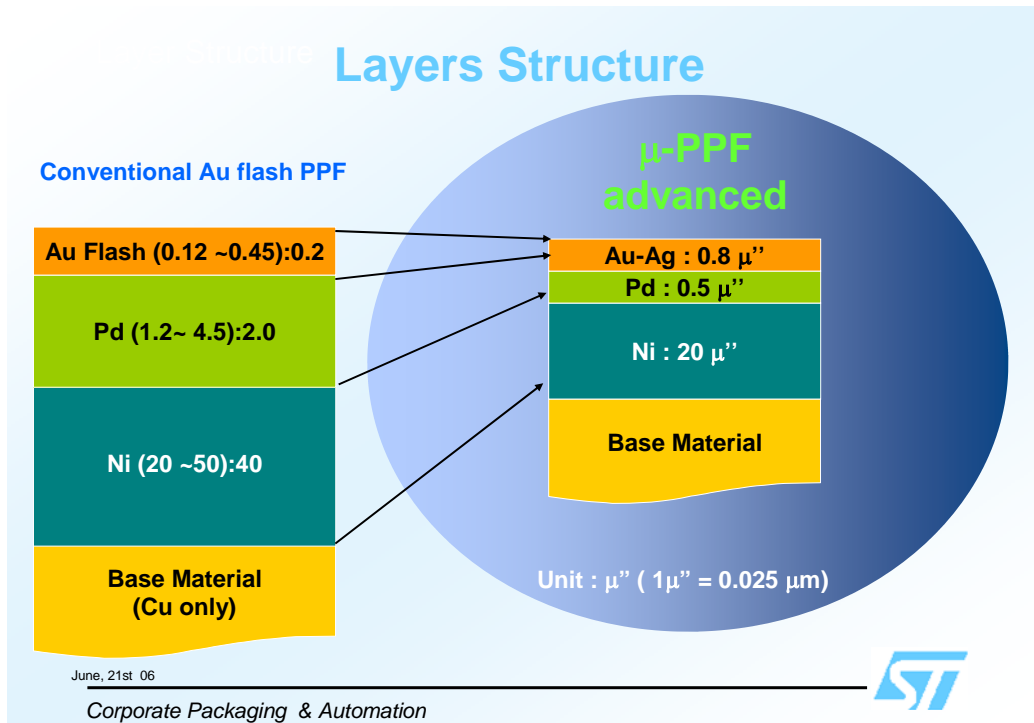


SOIC NARROW & WIDE: NEW LEADFREE PROCESS

WHAT:

In order to achieve full compliance with JEDEC J-STD-020C, we are launching a new program for the qualification of “Advanced micro-PPF frames” (uPPF –Samsung patent) for leadfree products, able to sustain 260°C as reflow temperature.

See below layers structures and differences between actual and new uPPF



The change applies to all products in production in our Muar plant.

Product identification: e4 (as per Jedec classification)

We invite all the customers that have not yet switched to leadfree to do it as soon as possible.



WHY:

Company roadmap and compliancy to standard spec IPC/JEDEC J-STD-020C.

HOW:

The two following package families will be qualified:

1st Package family: SO NARROW 8, 14, 16 leads - Muar plant

Glue: Ablebond 8601S-25, Resin: Nitto MP8000CH4-2A , Process: Advanced μ PPF

2nd Package family : SO WIDE 16 wide, 20, 24, 28 & 34sh leads - Muar plant

Glue: Hitachi 4900ST12, Resin: Nitto SUMITOMO 7026, Process: Advanced μ PPF

We are qualifying the change using below test vehicles that cover all front-end processes, die sizes and frame options.

SO-NARROW						
	UC24	U520	U537	UB13	L585	W023
JL3*+TC	77	77	77	77	77	77
JL3*+AC	77	77	77	-	77	-
JL3*+THB	77	-	77	-	70	77
HTSL	45	-	45	-	-	-
HTOL	77	-	-	-	-	-

FE TECH	BCD3	BCD2	BCD2	BCD2	BIP	Bipolar
FAB	AMK 6	AMK 6	AMK 6	AMK 6	AMK 5	AMK 5
DIE SIZE	1.7x2.3	2.3x1.8	1.9x2.2	3.6x2	2.2x4.5	3.5x3.1
PIN COUN	8	8	8	16	16	8
FRONT FIN.	PIX	SiN	SiN	SiN	SiN	PIX
BACK FIN.	Si	CrNi	CrNiAu	Si	CrNiAu	CrNiAu

* MSL3 preconditioning according to JEDEC J-STD-020C (Pb-free assembly, Tmax=260degC)



SO-WIDE					
	U447	UG04	UF33	W023	72T1
JL3*+TC	77	0/77	77	77	77
JL3*+AC	77	0/77	77	77	77
JL3*+THB	77	0/77	74	30	-
HTSL	-	-	45	-	45
HTOL	-	-	45	-	-

FE TECH	BCD3	BCD4	BCD3S	Bipolar	CMOSM5
FAB	AMK 6	AMK 6	AMK 6	AMK 5	AGR 8
DIE SIZE	4.1x2.6	2.9x4.2	4.6x3	3.5x3.1	4.7x5.5
PIN COUN	20	24	28	20	34
FRONT FIN.	PIX	PIX	PIX	PIX	SiON
BACK FIN.	Si	Si	Si	CrNiAu	Si

* MSL3 preconditioning according to JEDEC J-STD-020C (Pb-free assembly, Tmax=260degC)

Following qualification reports, for below test vehicles, are available on demand:

T.V. UC24 package SO8
T.V. U537 package SO8
T.V. L585 package SO16
T.V. UB13 package SO16
T.V. U447 package SO20
T.V. UF33 package SO28

Remaining reports:

T.V. U520 package SO8
T.V. W023 package SO8
T.V. W023 package SO20
T.V. UG04 package SO24
T.V. 72T1 package SO34

To be provided within year-end.

WHEN:

We are going to implement the new process progressively from Q1/09 after the qualification completion.

Samples to be provided on customer's request through our Sales offices.

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