

 Répondre  Répondre à tous  Transférer    Fermer  Aide

De: Damien Bruvier
À: Bertrand Clou; Jean-Louis Samudio; Alexandre Apcher
Cc: Geraldine Saint Upery; Patrice Delpy; Bernard Remaury
Objet : RE: NCP381 ,NCP383
Pièces jointes :

Date: lun. 29/08/2011 10:57

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Je vous fait un petit état des lieux

- => Alexandre a pu libérer Patrice pour s'occuper du layout
- => Il y a 2 semaines le layout du NCP383 était ok, je ne crois avoir ajouté de modifications
- => On a pas les résultats ESD
- => On ne sait pas si la modification charge pump est ok mais on devrait avoir des pièces aujourd'hui
- => Je n'ai pas le nouveau design kit avec les modifs HV30V (beg sept)
- => On attends des résultats sur la tenue en short du NCP381 (FA, test avec des pièces corrigées)

Status Design :

- Géraldine regarde ce que l'on peut faire pour la B2B ESD sur Out et In, Patrice commence l'implémentation layout
- La cross conduction du bulk vue par Maxime lors de la charac n'est pas corrigée (en cours mais ca ne pourra pas être fait pour demain)
- Le trim_short n'est pas mis en place pour une amélioration de la tenue en short (idem)
- Valeur d'Ilim à confirmer avec Bernard (je vais mettre du spare pour pouvoir le faire par metal)
- Boites de spare à ajouter pour faire des corrections métal

En résumé : Il est possible de faire le tape out avec une database valable, les modifs connues que je n'aurai pas le temps de mettre en place seront corrigable par tweak métal (tape out back end et front end séparé).

On se voit en début d'après midi pour statuer.

Damien.

-----Original Message-----

From: Bertrand Clou
Sent: Monday, August 29, 2011 9:19 AM
To: Damien Bruvier; Jean-Louis Samudio; Alexandre Apcher
Subject: FW: NCP381 ,NCP383

Ca me parait difficile de faire TO demain?

Ce matin j'attends la livraison d'un frigo chez moi, je devrais arriver au plus tard en début d'après midi.
On en rediscute pour faire une réponse.

Bertrand

-----Original Message-----

From: Thibault Kassir
Sent: Saturday, August 27, 2011 1:20 AM
To: David McDonald; Jean-Louis Samudio; Jacques Lavernhe; Catherine Goyon; Crystal Zins-Lam; Bertrand Clou
Cc: Bernard Remaury; Didier Besombes; Simon Keeton
Subject: Re: NCP381 ,NCP383

Good catch David! That is correct. Thank you.
Thibault from BlackBerry

----- Original Message -----

From: David McDonald
To: Thibault Kassir; Jean-Louis Samudio; Jacques Lavernhe; Catherine Goyon; Crystal Zins-Lam; Bertrand Clou

Cc: Bernard Remaury; Didier Besombes; Simon Keeton
Sent: Fri Aug 26 15:52:57 2011
Subject: RE: NCP381 ,NCP383

Hello Thibault, All,

To clarify the typo in the email - tapeout needs to be by Aug 30th (not Sept 30th) to avoid being hit by delays due to the Gresham shutdown.

Best regards,
David

-----Original Message-----

From: Thibault Kassir
Sent: Friday, August 26, 2011 11:48 AM
To: Jean-Louis Samudio; Jacques Lavernhe; Catherine Goyon; Crystal Zins-Lam; Bertrand Clou
Cc: David McDonald; Bernard Remaury; Didier Besombes; Simon Keeton
Subject: RE: NCP381 ,NCP383
Importance: High

Hello Jean-Louis, Bertrand,

You have my approval to tape out the NCP383 as soon as possible. We must tape out before the Sept 30th shut down in Gresham or we will have no way to hit the Compal/Dell schedule. Call my cell phone if you have any concerns/questions 6023327443.

Best Regards,
Thibault

-----Original Message-----

From: Jean-Louis Samudio
Sent: Wednesday, August 24, 2011 11:21 PM
To: Jean-Louis Samudio; Jacques Lavernhe; Thibault Kassir; Catherine Goyon; Crystal Zins-Lam; Bertrand Clou
Cc: David McDonald; Bernard Remaury; Didier Besombes
Subject: RE: NCP381 ,NCP383

Hi Thibault

Do you accept the proposal sent on my email of 23rd Aug?
Do we have the green light to prepare the NCP383 tapeout for Beg of Sept or do you want to wait for the electrical evaluation of the tweaked version next week to take the decision?

Thanks

Regards

-----Original Message-----

From: Jean-Louis Samudio
Sent: Tuesday, August 23, 2011 18:33
To: Jacques Lavernhe; Thibault Kassir; Catherine Goyon; Crystal Zins-Lam; Bertrand Clou
Cc: David McDonald; Bernard Remaury; Didier Besombes
Subject: RE: NCP381 ,NCP383

Hi Thibault

After discussion with Design team. We can do a tapeout of the NCP383 beg of September with the current architecture + some recommendation from appli team like Ishort threshold decrease.

So We can provide few samples mid of November with a P1 in Gresham and expedite fee for the leadframe development.

In parallel ,Design team is working on a new OCP architecture more robust which can induce maybe a technology change or device change.

This new architecture will be a backup in case of the improvements embedded in the current architecture are not sufficient to sustain UL standard.

Regards

-----Original Message-----

From: Jacques Lavernhe

Sent: Tuesday, August 23, 2011 18:25

To: Thibault Kassir; Jean-Louis Samudio; Catherine Goyon; Crystal Zins-Lam; Bertrand Clou

Cc: David McDonald; Bernard Remaury; Didier Besombes

Subject: RE: NCP381 ,NCP383

Thibault,

NCP383/381 have higher current protection level than NCP380/382.

I-NCP380/382:

In Foxconn, NCP382 has successfully passed their qualification test without damage. However, Foxconn demands UL certification to design NCP382 in and order.

First UL test certification has demonstrated that IC can be damaged under short circuit condition. During his visit to UL in California, Bernard has determined that UL test configuration is far away from normal and real application configuration:

- * NCP382 are located far away from the power supply and connected with long wires

- * Power supply is not representative to the system power supply NCP380/382 are designed to be connected to.

At the end of the day Bernard and UL team have set up a configuration that allows NCP382 UL certification. We still have 3 versions over 6 with pending qualification.

Most of the design in need effort to tune the application schematic to the particular customer configuration.

NCP382 SUMMARY:

I- Investigation following UL damages and customer experience have demonstrated that NCP380/NCP382 use cases are close to Gresham 5.5 V technology limit

II-NCP381/383

The trade off cost/techno/ASP led us to keep Gresham 5.5 V process, but implement design changes to improve IC robustness. Unfortunately, after first test on NCP381, we suspect similar operation and weakness. This has to be confirmed next week with tweaked samples.

III-ACTION PLAN FOR NCP383

- * Test NCP381 tweak samples to determine robustness level as well as application and real use case risk: WW35

- * Following Bernard's suggestion, decrease short circuit threshold detection to be able to give samples in November and slightly improve robustness.

- * Set up IEC60950-I-Edition2 Amendment 1 certification bench in Toulouse to be more cost / time effective for further qualification: on going

- * Jean Louis will provide schedules / scenario

ANNEX: CERTIFICATION LAB SUMMARY

I-UL: US lab. Develop their own standards. This certification was the first one that has been demanded by Foxconn and other customers

2-IEC60950 / CB Scheme: IEC standard. Level of qualification demanded by Foxconn too

2-a IEC60950-I-Edition2: Certification made in UL lab Europe in Feb 2011

2-b IEC60950-I-Edition2 Amendment 1: Released in May 2011. Certification demanded by Foxconn again, on going in TUV lab in Taiwan.

Best Regards

Jacques

-----Original Message-----

From: Thibault Kassir

Sent: Tuesday, August 23, 2011 14:32

To: Jean-Louis Samudio; Catherine Goyon; Crystal Zins-Lam; Bertrand Clou; Jacques Lavernhe

Cc: David McDonald; Bernard Remaury; Didier Besombes

Subject: RE: NCP381 ,NCP383

Importance: High

Hello Jean Louis, Jacques,

Can you please be more specific on your comments regarding the "weakness of the device in short circuit mode". Do we pass the UL spec? What are the implications/risks in real life applications? We need to be creative on how we get the design in at the customer while we address any concerns on the product robustness. Let me know your thoughts.

As for the NCP383, customer is looking for samples in October which is close to impossible given where we are in the development process. I am hoping with some expediting and hard push across the manufacturing we can get to mid-November... I look forward to your proposal/schedule.

Thanks,

Thibault

-----Original Message-----

From: Jean-Louis Samudio

Sent: Tuesday, August 23, 2011 12:55 AM

To: Catherine Goyon; Crystal Zins-Lam; Bertrand Clou

Cc: Jacques Lavernhe; Thibault Kassir; David McDonald; Bernard Remaury; Bruno Damien; Didier Besombes

Subject: RE: NCP381 ,NCP383

Hi Catherine

The latest NCP381 measurements show a weakness of the device in short circuit mode (UL standard mandatory for the customer).

The application engineer has to make more measurements next week on the tweaked samples to confirm the weakness but currently he is overloaded by the Japan sales team which requires a lot of 'emergency' measurements on the NCP380.

The NCP383 is based on the NCP381 architecture so it will have the same weakness.

If this issue is confirmed, the design architecture will have to be changed (new device or new technology) with an impact on the die size and project timing.

So I suggest to postpone the PSG meeting in wk 36.

Regards

-----Original Message-----

From: Catherine Goyon

Sent: Monday, August 22, 2011 21:19

To: Jean-Louis Samudio; Crystal Zins-Lam; Bertrand Clou

Cc: Jacques Lavernhe; Thibault Kassir; David McDonald; Bernard Remaury; Bruno Damien; Didier Besombes

Subject: NCP381 ,NCP383

Jean Louis ,

Would you please update the NCP383 project plan with the following assumptions :

- use ONC25 HV wafer cost of 550 \$/ wafer
- show a best plan with mnf priorities whenever it is possible .
- if the best tapeout date is next week , please provide it , as scenario (with associated risks)
- please add a normal cycle time scenario for comparison purpose .

I want to size the opportunity of this PSG to re assess NCP381

- add the NCP 381 ROI re assessment with above wafer cost . In the NCP381 , please specify the expenses that have been already done , as of today .

- we will update the revenue plan when Crystal will be back .

- if possible , please send your NCP 383 high level updated plan in the next 2 to 3 days .

I will schedule a PSG for next week .

Thank you very much

Catherine