

Original issue #447851

Original issue #445796: IICD

D41MAG00IICD0001x000_AC/DC

Added by **Le A. Kiet** about 1 year ago. Updated 7 months ago.

Status:

Closed

Priority:

Normal

Assignee:

FE/Horishima Masayoshi

Category:

DC/AC

Phase:

DC/AC debug finished

Start date:

10/05/2017

Due date:

10/27/2017

% Done:

50%

Spent time:

-

Gantt Chart

Display

In/Output

Note_1

Description

AISS2/BID/NguyenD-san,

This ticket is used to follow up the progress of Tester pattern D41MAG00IICD0001x000
Please refer Wiki for guidance:
<http://tdu-redmine10.eda.renesas.com:9410/redmine/projects/m3n-tester/wiki>

Thank you very much.
KietLe

Subtasks

Related issues

History

- Updated by **Le A. Kiet** about 1 year ago

#1

 - **Phase** set to *Not released(Default state)*
- Updated by **Le A. Kiet** about 1 year ago

#2

 - **Assignee** changed from *NguyenD (PER/IBUS)* to *FE/Horishima Masayoshi*
 - **Phase** changed from *Not released(Default state)* to *Func debug waiting - not reviewed*
 - **% Done** changed from 0 to 20

Dear Hori-san,
cc KietL-san,

I'd like to release 4 DC patterns of I2CU & 1 DC pattern of IICD

 - IICD
/design02/rcarm3n_sync/common/rcarm3n/VNET1/TESTER/PATTERN/IICD/
/-- doc
/ -- IICD_M3N.tpl
/ -- R-CarM3N_Tester_pattern_specification_IICD_rev1.0(template_rev1.2).xlsx ➤ *Tester pattern specification*
~~/ -- RcarM3N_DC_measurement_IICD.xlsx ➤ *DC measurement specification*~~
/ evcd
/ -- D41MAG00IICD00010000.evcd.gz
/-- scripts
/ -- D41MAG00IICD00010000.tgcntl.gz
/ -- D41MAG00IICD00010000.veditcntl.gz
/-- td
/ -- D41MAG00IICD00010000.td0.gz
/ -- D41MAG00IICD00010000.td1.gz
 - Note: I reviewed TPL file, Tester pattern with KietL-san

Thank you.

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Best regards. *****
Dao Khoi Nguyen (21G)
FE Dept/AISS2 Group/AIS4 Team
Phone: +84-946522247
- Updated by **Le A. Kiet** about 1 year ago

#3

 - **Subject** changed from *D41MAG00IICD0001x000* to *D41MAG00IICD0001x000_AC/DC*
- Updated by **Le A. Kiet** about 1 year ago

#4

 - **Status** changed from *New* to *In progress*

- **Phase** changed from *Func debug waiting - not reviewed* to 27032
- **% Done** changed from 20 to 50

Dear NguyenD-san, Noguchi-san,
CC Hori-san, Okoshi-san,

Your pattern was passed function.
I changed phase to DC/AC debug waiting.

Dear Noguchi-san,

Would you please share us the DC/AC measurement plan ?

Thank you very much.
KietLe

Updated by **NguyenD (PER/IBUS)** about 1 year ago

#5

- **Phase** changed from 27032 to *Func debug waiting - not reviewed*

Dear Hori-san,
cc KietL-san,

I'd like to update DC pattern of IICD

```
/design02/rcarm3n_sync/common/rcarm3n/VNET1/TESTER/PATTERN/IICD/ |-- doc | |-- IICD_M3N.tpl | |-- R-CarM3N_Tester_pattern_specification_IICD_rev1.1
(template_rev1.2).xlsx | `-- RcarM3N_DC_measurement_IICD_v2.xlsx |-- evcd | `-- D41MAG00IICD00011000.evcd.gz |-- scripts | |--
D41MAG00IICD00011000.tgcntl.gz | `-- D41MAG00IICD00011000.veditcntl.gz |-- td | |-- D41MAG00IICD00011000.td0.gz | `-- D41MAG00IICD00011000.td1.gz
```

- Note: I reviewed Tester pattern spec with KietL-san

Thank you.

Updated by **Le A. Kiet** 12 months ago

#6

- **Assignee** changed from *FE/Horishima Masayoshi* to *NguyenD (PER/IBUS)*
- **Phase** changed from *Func debug waiting - not reviewed* to *Func debug - confirming result*

Dear NguyenD-san,
CC Noguchi-san, Hori-san,

This pattern was fail at rev047:
/design02/rcarm3n_sync/common/rcarm3n/VNET1/TESTER/DEBUG_RESULT/20171228_rev047

Could you please give the debugging plan ?

Thank you very much.
KietLe

Updated by **NguyenD (PER/IBUS)** 12 months ago

#7

- **Assignee** changed from *NguyenD (PER/IBUS)* to *FE/Horishima Masayoshi*
- **Phase** changed from *Func debug - confirming result* to *Func debug waiting - not reviewed*

Dear Hori-san,
cc KietL-san,

I'd like to update DC pattern of IICD

```
/design02/rcarm3n_sync/common/rcarm3n/VNET1/TESTER/PATTERN/IICD/ |-- doc | |-- ACSPEC_LIST_IICD_M3N.csv | |-- IICD_M3N.tpl | |--
R-CarM3N_Tester_pattern_specification_IICD_rev1.2(template_rev1.2).xlsx | `-- RcarM3N_DC_measurement_IICD_v2.xlsx |-- evcd | `--
D41MAG00IICD00012000.evcd.gz |-- scripts | |-- D41MAG00IICD00012000.tgcntl.gz | `-- D41MAG00IICD00012000.veditcntl.gz |-- td | |--
D41MAG00IICD00012000.td0.gz | `-- D41MAG00IICD00012000.td1.gz
`-- tm
`-- IICDVFS_TESTMODE_PIN_CHK
```

Note: I reviewed Tester pattern spec with KietL-san

Thank you.

Updated by **Le A. Kiet** 12 months ago

#8

Dear Kobayashi-san, Noguchi-san, Hori-san,
CC NguyenD-san, Chi-san,

I confirmed Nguyen-san performed review.

Thank you very much.
KietLe

Updated by **FE/HilCS/hatakeyama akiyoshi** 12 months ago

#9

- **Phase** changed from *Func debug waiting - not reviewed* to *Func debug waiting - test*

Updated by **NguyenD (PER/IBUS)** 11 months ago

#10

- **Phase** changed from *Func debug waiting - test* to *Func debug waiting - not reviewed*

Dear Hori-san,
cc KietL-san,

I'd like to update DC pattern of IICD

```
/design02/rcarm3n_sync/common/rcarm3n/VNET1/TESTER/PATTERN/IICD/
/-- doc
/ |-- ACSPEC_LIST_IICD_M3N.csv
/ |-- IICD_M3N.tpl
```

```
/ | -- R-CarM3N_Tester_pattern_specifiction_IICD_rev1.3(template_rev1.2).xlsx
/ `-- RcarM3N_DC_measurement_IICD_v2.xlsx
/-- evcd
/ `-- D41MAG00IICD00013000.evcd.gz
/-- scripts
/ | -- D41MAG00IICD00013000.tgcntl.gz
/ `-- D41MAG00IICD00013000.veditcntl.gz
/-- td
/ | -- D41MAG00IICD00013000.td0.gz
/ `-- D41MAG00IICD00013000.td1.gz
`-- tm
`-- IICDVFS_TESTMODE_PIN_CHK
```

Note: I reviewed Tester pattern spec with KietL-san

Thank you.

Updated by [Le A. Kiet 11 months ago](#)

#11

- **Phase** changed from *Func debug waiting - not reviewed* to *Func debug waiting - reviewed*

Dear all,

Since this pattern was reviewed before, therefore I would like to change phase to "Func debug waiting - reviewed".

Thank you very much.
KietLe.

Updated by [FE/HilCS/hatakeyama akiyoshi 11 months ago](#)

#12

- **Phase** changed from *Func debug waiting - reviewed* to *Func debug waiting - test*

Updated by [HilCS/Kobayashi 小林 Nobuyuki 11 months ago](#)

#13

- **Phase** changed from *Func debug waiting - test* to *Func debug - confirming result*

Updated by [Le A. Kiet 11 months ago](#)

#14

- **Assignee** changed from *FE/Horishima Masayoshi* to *NguyenD (PER/IBUS)*
- **Phase** changed from *Func debug - confirming result* to *DC/AC debug tesing*

Dear NguyenD-san,
Dear Hori-san, Noguchi-san, Kobayashi-san,

This pattern was passed and no problem in shmoo in rev061.
And this pattern is AC pattern, so I would like to change to phase "DC/AC debug waiting - converted".

Thank you very much.
KietLe

Updated by [Le A. Kiet 11 months ago](#)

#15

- **Assignee** changed from *NguyenD (PER/IBUS)* to *HilCS/Kobayashi 小林 Nobuyuki*

Updated by [NguyenD \(PER/IBUS\) 11 months ago](#)

#16

- **Assignee** changed from *HilCS/Kobayashi 小林 Nobuyuki* to *FE/Horishima Masayoshi*

Dear Hori-san, Okoshi-san

I updated DC measurement spec of IICD. Could you help to review it ?

/design02/rcarm3n_sync/common/rcarm3n/VNET1/TESTER/PATTERN/IICD/doc/RcarM3N_DC_measurement_IICD_v3.xlsx

Thank you.

Updated by [FE/Horishima Masayoshi 9 months ago](#)

#17

- **Category** set to *DC/AC*

Updated by [NguyenD \(PER/IBUS\) 8 months ago](#)

#18

Dear Hori-san,
cc KietL-san

I'd like to feedback about AC measurement of IICD

/design02/rcarm3n_sync/common/rcarm3n/VNET1/TESTER/DEBUG_RESULT/Trial_AC_measurement/OUT_R-CarM3N_ACSPEC_LIST_20180418_matome_Eng.xlsx

I referred the result in this file. There is no FAIL point in measurement pin
I think this result is normal because there is no reference pin for "SCL/SDA signal fall time"
As you said before, tester engineer has experience to measure falling time, I just indicate
Pattern step in ACspec list
Could you tell me what should I do in this situation ?

Thank you.

Updated by [FE/Horishima Masayoshi 7 months ago](#)

#19

Dear NguyenD-san,

I'm sorry for the late response.

As you said before, tester engineer has experience to measure falling time, I just indicate
Pattern step in ACspec list

I rememeber that I had told you this idea.
However, this method is thought as not suitable way because it takes much time in MP test, too.
Actually, V2H MP test has this method and fall time measurement takes 6 seconds for a chip. It's most of function pattern test time.
This fact was realized this March.

Therefore, the currentl suitable way for fallig time test is
use function patten and mask 250ns from SCL falling edge in simulation.

Is this informaiton enough for you?

Horishima

Updated by [FE/Horishima Masayoshi](#) 7 months ago

#20

- **Assignee** changed from *FE/Horishima Masayoshi* to *NguyenD (PER/IBUS)*

Updated by [NguyenD \(PER/IBUS\)](#) 7 months ago

#21

- **Assignee** changed from *NguyenD (PER/IBUS)* to *FE/Horishima Masayoshi*

Dear Hori-san,

*Therefore, the current suitable way for falling time test is
use function pattern and mask 250ns from SCL falling edge in simulation.*

Why you select 250ns but 300ns ? (the specification in EC is 300ns)
The current function pattern already masked 225ns from SCL falling edge,
do we need to release the function pattern again ?
How about SDA falling edge, I think we should care it also, right ?

Thank you.

Updated by [FE/Horishima Masayoshi](#) 7 months ago

#22

Dear NguyenD-san,,

Why you select 250ns but 300ns ? (the specification in EC is 300ns)

I referred to I2C specficatoin.

*The current function pattern already masked 225ns from SCL falling edge,
do we need to release the function pattern again ?*

You don't have to release updated pattern.

How about SDA falling edge, I think we should care it also, right ?

Yes, it is.

Horishima

Updated by [NguyenD \(PER/IBUS\)](#) 7 months ago

#23

Dear Hori-san,

I understand you idea but it seems there is a problem with I2CU (channel 0,3,5)
After applying REL's countermeasure ([prj-cis-rcm3w:54368] Re: [M3W] [Tester] Release pattern for I2CU),
SDA pin already masked 450ns
ex: `SD1_WP = allmask hold(mode(SD1_WP ,ioc) , 30);`
so we cannot assure the max falling time of SDA is 250ns
How can I judge this case ?

Thank you.

Updated by [FE/Horishima Masayoshi](#) 7 months ago

#24

Dear NguyenD-san,

Now I understand your concern.

ex: `SD1_WP = allmask hold(mode(SD1_WP ,ioc) , 30);`

From the viewpoint of AC measurement, it should be 16.

Horishima

Updated by [FE/Horishima Masayoshi](#) 7 months ago

#25

- **Assignee** changed from *FE/Horishima Masayoshi* to *NguyenD (PER/IBUS)*

Updated by [NguyenD \(PER/IBUS\)](#) 7 months ago

#26

- **Assignee** changed from *NguyenD (PER/IBUS)* to *FE/Horishima Masayoshi*

Dear Hori-san,
cc KietL-san

As today our discussion (about AC measurement), my AI for I2UC is that revise the OSCTST patterns with strobe time 250ns
but I strobed 130ns for SDA/SCL pins in OSCTST patterns (still satisfy EC specification)
so I think we can judge AC measurement of I2CU as "Pass" & no need to release OSCTST pattern again

You can refer strobe time in this document (D41MAG00I2CU* sheets)
/design02/rcarm3n_sync/common/rcarm3n/VNET1/TESTER/PATTERN/I2CU/doc/R-CarM3N_Tester_pattern_specifiction_I2CU_rev1.6(template_rev1.2).xlsx
(D41MAG00I2CU* sheets)

If you have further concern, please tell me

Updated by [FE/Horishima Masayoshi](#) 7 months ago

#27

Dear NguyenD-san,

I accept not to update the pattern.
Thank you.

Horishima

Updated by [NguyenD \(PER/IBUS\)](#) 7 months ago

#28

- **Status** changed from *In progress* to *Closed*
- **Phase** changed from *DC/AC debug tesing* to *DC/AC debug finished*

Dear Hori-san,
cc KietL-san

Since this pattern Passed DC/AC so I'd like to close this ticket.

Thank you.