



# DOCUMENT CHANGE REQUEST

DCR number 611 Changes required for: General

Originator: S Jeffery

Date: 2010/05/26

Date sent: 2010/05/26

Organisation: CNES

Status: IMPLEMENTED

Title: HCMOS Quad Bilateral Switch, based on type 54HC4066

Number: 9408/052

Issue: 2

Other documents affected:

Page:

Paragraphs 2.3.1, 2.3.2, 2.3.3 and Appendix A

Paragraph:

Paragraphs 2.3.1, 2.3.2, 2.3.3 and Appendix A

Original wording:

Proposed wording:

Para. 2.3.1, Characteristic "Channel ON Resistance Matching 1", delete the following from the Test Conditions:

VIN(C)=3.15V  
IIN(A or B)=100µA  
VDD=4.5V, VSS=0V

Para. 2.3.1, Characteristic "Channel ON Resistance Matching 2", delete the following from the Test Conditions:

VIN(C)=4.2V  
IIN(A or B)=100µA  
VDD=6V, VSS=0V

Para. 2.3.2, add "Channel ON Resistance Matching 1" and "Channel ON Resistance Matching 2" (per Para. 2.3.1, as modified above) between "Channel ON Resistance 2" and "Input Clamp Voltage 1...".

Para. 2.3.3, Note 4, add the following under "RON2 is performed with VIS=1V, 3V and 5V":

"Channel ON Resistance Matching shall be calculated as follows:

The results of the Channel ON Resistance measurements of each Channel's Input/Output and Output/Input shall be compared and shall not exceed the specified Limits."



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Appendix 'A', add "The Channel ON Resistance Matching (1 and 2) calculations are not performed." as the first of the agreed "Deviations from High and Low Temperatures Electrical Measurements" and "Deviations from Room Temperature Electrical Measurements".

### Justification:

The proposed changes will clarify the Channel ON Resistance Matching tests and will also make it clear that STMicroelectronics do not perform the Channel ON Resistance Matching calculations.

### Attachments:

N/A

### Modifications:

Add the following to 'Justification': STMicroelectronics' test programme does not include Channel ON Resistance Matching. The matching test was never implemented prior to ESCC because Note 2 of the original (ESA/SCC) Detail Spec stated "... Channel ON resistance matching may be calculated... and the maximum limits... are guaranteed."

However, STMicroelectronics' engineering team performed Channel ON Resistance Matching calculations (using the results of the Channel ON Resistance Test) as part of Qualification Testing. These results showed that the actual Channel ON Resistance Matching was <10 Ohms, well within the spec limit of  $\pm 20$  Ohms maximum.

### Approval signature:

### Date signed:

2010-05-26