



DOCUMENT CHANGE REQUEST

DCR number 85 Changes required for: N/A

Date: 2004/01/12

Date sent: 2004/01/12

Originator: S Thacker

Organisation: -ESTEC

Status: IMPLEMENTED

Title: CMOS Analogue Multiplexer/Demultiplexer, based on type 4051B

Number: 9202/047

Issue: 1

Other documents affected:

Page:

1) Maximum Ratings Table - Table 1(b) page 6

2) Electrical test table - Table 2 page 22 & Test Circuits Fig 4(h) page 38 (also Table 3(a)&(b)) - parameter: Input Voltage tests VIL1, VIL2, VIH1, VIH2.

3) Electrical Test table Table 2 page 23&24 & Test C

Paragraph:

1) Maximum Ratings Table - Table 1(b) page 6

2) Electrical test table - Table 2 page 22 & Test Circuits Fig 4(h) page 38 (also Table 3(a)&(b)) - parameter: Input Voltage tests VIL1, VIL2, VIH1, VIH2.

3) Electrical Test table Table 2 page 23&24 & Test C

Original wording:

Proposed wording:

In addition to general changes to the specification format/layout/content for the 4000B series as summarised in DCR90, as already submitted to ESCC, there are some additional specific technical changes to this specification as follows :

1) Maximum Ratings Table (Table1(b)(para 1.5))

(a)Changes to take into account VEE as well as VSS - see attached sheets for current and new table.

(b) Note 6 referring to an application limitation is rewritten (as note 3) to correct and clarify the requirement.

2) Electrical test table (Table 2 note 5/Fig 4(h)(para 2.3.1/2.3.3 note 5)) - parameter: Input Voltage tests VIL & VIH.

Addition & clarification of the functional test condition to check for OFF channel current: IOFF<2uA.

- see attached sheets for current and new table & note.

(same change applies to Table 3(a)&(b)(para 2.3.2))

3) Electrical Test table & circuit (Table 2/Fig 4(p) (para 2.3.1/2.3.3 note 8)) - parameters: Propagation times.

Test conditions for channel inputs for tPLH2, tPLH3(=tPZH),tPHL2,tPHL3(=tPHZ) have been amended/clarified for correct



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switching. The switching waveforms have been corrected for $t_{PLH3}(=t_{PZH})$ & $t_{PHL3}(=t_{PHZ})$ in Fig 4(p)(para 2.3.3 note 8).
- see attached sheets for current and new table & fig/note.

Justification:

The current specification is incomplete, unclear or incorrect for these requirements.

Specific justifications are as follows:

1a) The current specification Maximum Ratings table does not specify the ratings with respect to VEE.

1b) The existing specification note 6 relevant to an application limitation is considered unclear when it refers to "When current is drawn from Z to Y the voltage drop across the bi-directional switch". Terminal Z and Y are incorrectly labelled. This should read "CHn to COM". "across the bi-directional switch" is clarified as "across the ON Channel".

2) The existing test details for Noise Immunity Input voltage functional tests does not actually specify any acceptance criteria.

3) The existing test details for the given timing parameters was incomplete and incorrect..

Note : Manufacturer ST has agreed these changes

Attachments:

N/A

Modifications:

N/A

Approval signature:

Date signed:

2004-01-12