



## DOCUMENT CHANGE REQUEST

DCR number 208 Changes required for: General

Date: 2005/10/31

Date sent: 2005/10/30

Originator: Carol Brooks

Organisation: ESA/ESTEC

Status: IMPLEMENTED

Title: Advanced CMOS Quad 2-Input NAND Gates, based on type 54AC00

Number: 9201/125

Issue:

1

Other documents affected:

9201/126-1, 9201/127-1, 9201/128-1, 9201/131-1, 9201/135-1, 9201/136-1, 9201/138-1, 9201/139-1, 9201/142-1, 9201/143-1, 9205/024-1, 9408/060-1, 9408/063-1

Page:

See below

Paragraph:

See below

Original wording:

Proposed wording:

Total rewrite of listed 54AC series specifications as part of the ongoing conversion to the ESCC format, plus to enable them to be used for new supporting manufacturer STMicroelectronics/F. (The current specifications originally were written around MOT/F components. MOT/F no longer supports ESCC procurement).

See attached specification 9201/125, Issue 2 Draft 1 as an example of the rewritten specifications from this series.

Summary of changes to current specifications is as follows:

1. Rewording and restructure of various sections and paragraphs of the specification based on the 54AC and 4000B series which includes:

-Deviations of any redundant paragraphs and information, e.g., Test Circuits, circuit schematic, Mechanical paragraph, Materials and Finishes Paragraph.

-Deviations from Generic Specifications are deleted.

-Test numbers and pin numbers deleted from test tables.

-Incorporate the two tables for High and Low Temperature electrical measurements into a single table.

Pin assignment is put into a tabular form rather than a figure.

Functional diagram amended to be the IEC diagram where available.

Additional abbreviations deleted.

Additional Radiation characteristic information.

2. Amended component type variants, physical, mechanical, material, radiation and electrical characteristics, ratings, test conditions and limits to reflect those of the STMicroelectronics components (based on the technical baseline specified in the



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applicable US Military SMD for the same component type.)

3. Delete requirement for marking of the testing level letter from the ESCC Component Number as per ESCC No.21700.

4. Replace LTPD7 sample for timing tests by a fixed sample of 5 components.

5. Add Appendix A for specific deviations for STM.

6. The following is a list of of part type and current spec number/issue number will be upissued:

PART TYPE	SPECIFICATION	CURRENT ISSUE
54AC00	9201/125	1
54AC08	9201/126	1
54AC10	9201/139	1
54AC11	9201/138	1
54AC32	9201/127	1
54AC86	9201/136	1
54AC138	9408/063	1
54AC139	9205/024	1
54ACT00	9205/128	1
54ACT08	9201/131	1
54ACT11	9201/142	1
54ACT32	9201/135	1
54ACT86	9201/143	1
54ACT138	9408/060	1

### Justification:

This DCR applies to the 14 54AC series devices listed in paragraph 9 herein, which are supported for procurement by STMicroelectronics. The original ESA/SCC specifications were written around a different manufacturer's (MOT/F) devices which are no longer supported for ESCC procurement.

- This is part of the conversion of cover-sheeted ESA/SCC specifications to ESCC format.

- To make the format and presentation consistent with the format already used for other series of integrated circuit ESCC specification (54HC and 4000B series) and ESCC 9000 Issue 2.

-To reflect all the characteristics of the supporting manufacturer's (STMicroelectronics) components and the technical baseline defined for the applicable US Military SMD level V component.



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- To incorporate specific deviation requests from STMicroelectronics (in spec Appendix A) which are considered technically acceptable based on the same deviations being accepted in the ESA 4000B series specification. Additional deviations in Appendix A for ESD and radiation testing have been reviewed and are considered equivalent to the ESCC requirements.

Attachments:

N/A

Modifications:

N/A

Approval signature:

Date signed:

2005-10-31