



## DOCUMENT CHANGE REQUEST

DCR number 697 Changes required for: General

Date: 2012/05/21

Date sent: 2012/01/11

Originator: Steve Jeffery

Organisation: ESCC Executive

Status: IMPLEMENTED

Title:	Integrated Circuits Silicon Monolithic CMOS Gate Array/Embedded Array , based on Type MH1RT		
Number:	9202/076	Issue:	4
Other documents affected:			
9202/080-1, 9304/008-1, 9512/003-2			
Page:			
9202/080 Page 12; 9512/003 Page 7; 9304/008 Page 8; 9202/076 Page 14			
Paragraph:			
9202/080 Para. 1.7.3; 9512/003 Para. 1.7; 9304/008 Para. 1.7.2; 9202/076 Para. 1.7.2			
Original wording:			
N/A			
Proposed wording:			
Delete the Paragraphs listed above in toto and replace them with updated package outline, table of dimensions and notes as shown in the attachment.			
Justification:			
To correct and homogenise this package type across all applicable ESCC Detail Specifications.			



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Title:	Integrated Circuits Silicon Monolithic CMOS Gate Array/Embedded Array , based on Type MH1RT		
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Other documents affected:

Page:

9202/076 only, Pages 5 to 11

Paragraph:

1.4.2

Original wording:

- a) In table header Terminal Material and Finish (Note 5) and Total Dose Radiation Level Letter (Note 6)
- b) For Variant Numbers 53 to 76 inclusive: Terminal Material and Finish = E2
- c) 6 Notes are listed (Nos. 1 to 6)

Proposed wording:

- a) In table header Terminal Material and Finish and Total Dose Radiation Level Letter (Note 7)
- b) For Variant Numbers 53 to 76 inclusive: Terminal Material and Finish = (Note 6). For Variant Numbers 01 to 52 inclusive: (Note 5) reference is added following the existing Material and/or Finish Code
- c) 7 Notes are listed (Nos. 1 to 7), with the addition of a new Note as follows, and Note 6 is re-numbered Note 7:
  - 6. The terminal material shall be tungsten and the finish shall be 0.03um to 0.1um gold over 3.2um minimum nickel underplating.

Justification:

Manufacturer Atmel has confirmed that the terminal material and finish originally specified in this spec for the Land Grid Array packages was incorrect; these details have been changed accordingly.



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Status: IMPLEMENTED

Title: Integrated Circuits, Silicon Monolithic, CMOS, Cell-Based Array Based on Type ATC18RHA

Number: 9202/080

Issue: 1

Other documents affected:

Page:

9202/080 only, Pages 5 to 8 and 22

Paragraph:

1.4.2 and 1.11

Original wording:

- a) In table header Total Dose Radiation Level Letter (Note 2)
- b) For Variant Numbers 08, 11 to 14, 17 to 23, 31, 34 to 37, and 40 to 46: Terminal Material and Finish = Note 3
- c) 3 Notes are listed (Nos. 1 to 3): Note 3 = See Materials and Finishes

Proposed wording:

- a) In table header Total Dose Radiation Level Letter (Note 5)
- b) For Variant Numbers 08, 11, 13, 14, 17, 19 to 21, 23, 31, 34, 36, 37, 40, 42 to 44 and 46: Terminal Material and Finish = (Note 3). For Variant Numbers 12, 18, 22, 35, 41 and 45: Terminal Material and Finish = (Note 4). For Variant Numbers 01 to 07, 09, 10, 15, 16, 24 to 30, 32, 33, 38 and 39: (Note 2) reference is added following the existing Material and Finish Code, D2
- c) 5 Notes are listed (Nos. 1 to 5), with the addition of 3 new Notes as follows, and Note 2 is re-numbered Note 5:
  - 2. The terminal material and finish shall be in accordance with the requirements of ESCC Basic Specification No. 23500.
  - 3. The terminal material shall be tungsten and the finish shall be 0.03um to 0.1um gold over 3.2um minimum nickel underplating.
  - 4. The terminal material shall be tungsten with 2.5um minimum gold plating over 3.2um minimum nickel underplating.
- d) Para. 1.11, Materials and Finishes, is deleted in toto

Justification:

- 1) To homogenise the layout and format of this spec with other published ESCC Detail Specs for similar device types, notably ESCC 9202/076.
- 2) Due to an oversight/error, the LGA-349 Land Grid Array package had not been listed in Para. 1.11 Materials and



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Finishes.

3) The reference to ESCC Basic Specification 23500 for Variants having MQFP-type packages, although specified in Para. 1.11, was not clear in Para. 1.4.2.

Title: Integrated Circuits, Silicon Monolithic, CMOS Digital, Field Programmable Gate Array, 40000 Gates,

Number: 9304/008

Issue: 1

Other documents affected:

9512/003-2

Page:

9512/003 Page 5; 9304/008 Page 5

Paragraph:

9512/003 Para. 1.4.2; 9304/008 Para. 1.4.2

Original wording:

For 9512/003, Variant Number 01: Terminal Material and Finish = G2 Weight Max g = 15

For 9304/008, Variant Number 02: Terminal Material and Finish = G2 Weight Max g = 15


Proposed wording:

For 9512/003, Variant Number 01: Terminal Material and Finish = D2 Weight Max g = 14

For 9304/008, Variant Number 02: Terminal Material and Finish = D2 Weight Max g = 14

Justification:

Manufacturer Atmel has confirmed that the material and maximum specified weight should be homogeneous across all specs containing Variants supplied in an MQFP-F256 package. This information therefore needs to be amended for 9512/003, Variant Number 01 and 9304/008, Variant Number 02.

Attachments:
dcr_attachment_mqfp_f256(6).pdf, null
Modifications:
N/A
Approval signature:

Date signed:
2012-05-21