



## DOCUMENT CHANGE REQUEST

DCR number 981 Changes required for: General

Date: 2016/02/29

Date sent: 2016/02/25

Originator: Steve Thacker

Organisation: ESCC Executive  
Secretariat

Status: IMPLEMENTED

Title: Generic Specification for Integrated Circuits (Monolithic and Multichip Microcircuits), Hermetically

Number: 9000 Issue: 7

Other documents affected:

Page:

This is a major revision; most pages have been affected. See attached 9000 issue 8 Draft C (2016-02-25) with track changes.docx for details

Paragraph:

This is a major revision; many paragraphs have been affected. See attached 9000 issue 8 Draft C (2016-02-25) with track changes.docx for details

Original wording:

As per ESCC 9000 issue 7

Proposed wording:

Specification is amended to add requirements applicable to Monolithic Flip-chip Integrated Circuit components in both Hermetic and Non-Hermetic Packages (in addition to the currently specified Monolithic and Multichip microcircuit, Wire-bonded Integrated Circuit components in Hermetic Packages).

Full details of the changes to ESCC 9000 issue 7 are as indicated by the Track Changes shown in the attached MSWORD 2010 draft specification ESCC 9000 draft 8C.

Note: a finalised version of 9000 Draft 8C is also attached for information purposes.

A summary of the changes is as follows:

1) General editorial changes for clarification purposes including renumbering of paragraphs and clarification of the current requirements that still apply to Wire-bonded IC components.

2) Addition of requirements for Flip-Chip IC components. The following paragraphs are affected (see attached for details):  
Paras: Title, 1.1, 2.2, 3, 4.1.5.1, 4.5, 4.6(new), 5.1, 5.1.1, 5.3.1, 5.3.2, 5.3.4(new), 5.3.5(new), 5.3.6(new), 5.3.7(new), 5.3.8(new), 8.2(new), 8.2, 8.2.1, 8.2.2, 8.3, 8.7(new), 8.8(new), 8.9(new), 8.11.1(new), 8.12.2(new), 8.23(b)(new), 8.24(new), 9.1, 9.7(new), Chart F2, Chart F3, Chart F4

3) Para 2.1 & 4.5: ECSS-Q-ST-70-02 is replaced by reference to ESCC 22600 for materials and finishes restrictions.

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4) Para 8.11 Mechanical Shock: requirement for large packages (&gt; 25.4mm x 50.8mm) is added (peak level = 1000g)

5) Para 8.14 Thermal Shock: test condition amended to be B (was C)

6) Para 8.18 Terminal Strength: requirements for ball grid array &amp; column grid array packages are added.

## Justification:

Item 1, 2: to add requirements for Flip-chip IC components in line with the ESA Working Group conclusions.

Item 4, 5, 6: additional changes to ESCC 9000 in line with the ESA Working Group conclusions.

Item 3: minor change to make 9000 consistent with the current ESCC 20600.

## Attachments:

9000\_issue\_8\_draft\_c\_(2016\_02\_25)\_finalised.docx, 9000\_issue\_8\_draft\_c\_(2016\_02\_25)\_with\_track\_changes.docx

## Modifications:

N/A

## Approval signature:



## Date signed:

2016-02-29