



DOCUMENT CHANGE REQUEST

DCR number 138

Changes required for: General

Originator: Anastasia Pesce

Date: 2004/08/20

Date sent: 2004/08/20

Organisation: ESA/ESTEC

Status: IMPLEMENTED

Title: Generic Specification for Integrated Circuits Monolithic

Number: 9000

Issue: 2

Other documents affected:

Page:

Page 7 Para. 2.1

Page 16 Para. 8

Paragraph:

Page 7 Para. 2.1

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Original wording:

Proposed wording:

Para. 2.1 change

"For procurement of unqualified components, where Manufacturers' specifications are equivalent to or more stringent than the ESCC Basic Specifications listed above, they may be used in place of the latter subject to the approval of the Orderer."

to

"For procurement of unqualified components, where Manufacturers' specifications are equivalent to or more stringent than the applicable ESCC Basic Specifications listed above, they may be used in place of the latter subject to the approval of the Orderer."

Such replacements may be listed in an appendix to the appropriate Detail Specification at the request of the Manufacturer or Orderer, subject to the approval of the ESCC Executive."

Para. 8 change the second clause from

"Documentation supporting the change shall be approved by the ESCC Executive and retained by the Manufacturer. It shall be copied, when requested, to the ESCC Executive."

to

"For a qualified component, documentation supporting the change shall be approved by the ESCC Executive and retained



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by the Manufacturer. It shall be copied, when requested, to the ESCC Executive. The change shall be specified in an appendix to the Detail Specification and in the PID."

and add, following this clause,

"For an unqualified component the change shall be approved by the Orderer. The change may be specified in an appendix to the Detail Specification at the request of the Manufacturer or Orderer, subject to the approval of the ESCC Executive."

Justification:

For both Paras. - editorial improvements to clarify the application of the Generic specification to unqualified sources.

For test methods (Para. 8) clarification that the change has to be in an appendix as it is manufacturer specific.

Attachments:

9000dcr_just.pdf, null

Modifications:

N/A

Approval signature:

Date signed:

2004-08-20

Supporting Discussion for DCR to 9000

The proposed changes arose from a review of the draft of 4009 Issue 2 by the Executive. The 4009 draft is based on the 9000 Issue 2 for all standard wordings.

Para 2.1

It was noted that an ESA/SCC requirement to list substituted specifications in an appendix to the Detail Specification for qualified manufacturers had been removed (see ESCC 9000 Issue 1 which equals ESA/SCC 9000 Issue 10 Rev. A). This deletion had been approved for 9000 Issue 2 but possibly as an oversight. The rationale for deletion, however, is confirmed. This is because the requirement is that the substitution is "equivalent to or more stringent than" the replaced specification. Thus, for a qualified source under the supervision of the Executive, the PID is the controlling document. Users, however, should apply the full rigour of the ESCC Basic specifications, e.g. at source or incoming inspection. This then acts as a check that the substitution is indeed valid. Any ESCC non-conformance arising would then force the Executive to re-examine the validity of the approved Basic Specification substitution.

For unqualified sources the review noted that the listed specifications are not all applicable e.g. 20100, 22800, 24600. The word "applicable" is therefore added. In addition, as there is no PID and no independent supervision the only possibility is to record the substitution of a Basic Specification by a manufacturer's equivalent or more stringent specification in the Detail Specification. This would only be advantageous to either the manufacturer or orderer with the likelihood of multiple procurements. Thus, the approval of the Executive would be based on assessing this aspect together with the assessment of "equivalent to or more stringent than" for the proposed substitution.

It may be noted that any such appendix entry would require a DCR and any refusal by the Executive to support and implement the change would be subject to the possibility of an ESCC Appeal. It may be further noted that this is a largely hypothetical situation as there are no known substitutions. (For example STMicronics substitute a visual inspection requirement but this is done at the detail of a parameter and hence is dealt with under the provisions of Para. 8 – see for example 9201/107 Appendix A.)

Para. 8

In this case it was noted that there was no provision for an unqualified source. Here "equivalent to or more stringent than" is not applicable as there is the policy that a test method may even be discarded provided that the parameters originally measured are now guaranteed. It is, therefore, important to inform users of such aspects and this requires an entry in the Detail Specification. As the change is manufacturer specific it has to be in an appendix, so this is added. A change to a test method specified in the Generic that is recorded as a deviation to the Generic in the Detail Specification (e.g. Para 2.1.1 in 9201/107) is of course universal i.e. a user requirement applied to every manufacturer.

For an unqualified source the system has to rely on the orderer to ensure that the ESCC part number is only applied to the component if the test method changes do not cause the part to

fail to meet "all of the performance, quality and reliability requirements defined in this (Generic) specification and the Detail Specification". As per the justification for Para 2.1 there could be utility in adding such changes to an appendix for an unqualified source in the case of repeat procurements. Again the approval of the Executive is to ensure that the change and the effort to implement it is indeed justified. The method is via DCR with the possibility for appeal in the case that the Executive refuses to implement the change.

These changes to Paras. 2.1 and 8.2 are considered editorial as the underlying policy is not affected, viz

Substitution of a Basic Specification by an equivalent or more stringent set of requirements.

Elimination or modification of a test method but with full responsibility borne by the Manufacturer for delivery of parts meeting all the testing requirements as specified.