DOCUMENT CHANGE REQUEST

DCR number 829	Changes required for: MRB decision	Originator: Torsten Schmidt	
Date: 2014/04/09	Date sent: 2013/11/18	Organisation: Isabellenhuette Heusler GmbH Co. KG	
Status: IMPLEMENTED			

Title:	Resistor Fixed Chip Metal Foil based on Type SMR-PW, SMV-PW		
Number:	4001/028	Issue:	2

Other documents affected:

Page:

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Paragraph:

Appendix A

Original wording:

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Proposed wording:

Voids in internal solder joints must be less than 50%. Isabellenhuette will perform mircosection on three layers during Burn-In. The results of mircosections will be implemented in the data documentation package.

Justification:

Complaint of customer Thales Alenia Space regarding voids in internal solder joint

Attachments:

N/A

Modifications:

The proposed wording of this DCR is replaced as follows, as agreed with the DCR originator (Isabellenhuette) and the ESCC Technical Writer, in order to clarify the implementation of an additional Microsection Examination in Screening Tests per Chart F3 of ESCC4001, applicable to components per ESCC4001/028.

Proposed Wording:

Para. 2.1.1.2; add new subpara (b) to Deviations from Screening Tests (Chart F3) in order to add a new inspection as follows [subsequent subparas to be renumbered as (c) to (g)]:

(b) Microsection Examination
A quantity of 10 components, selected at random from the production lot at the same time as the Screening Sub-lot

samples, shall be subjected to microsection examination of internal solder joints. These samples shall not form part of the delivery lot. The following requirements shall apply:
• The 10 samples shall be prepared for microsection examination by individually mounting them in suitable epoxy filled moulds.

• Each sample shall be cut, polished and examined sequentially in several parallel planes. The planes shall be chosen such that:
- All internal solder joints can be examined.
- Each internal solder joint is cut perpendicular to the joint plane thereby facilitating the examination for any voids in the solder joint.
- Each internal solder joint is sectioned and examined in 3 separate planes distributed along its length.

• Examination for any voids shall be performed for each internal solder joint in each of the 3 planes. Any voids identified in a solder joint in any of the 3 examinations, that total 50% of the visible solder joint area shall constitute a reject.

• A single reject shall be cause for production lot failure and the Manufacturer shall act in accordance with Lot Failure in ESCC Generic Specification No. 4001 Para. 4.3.3.

• Photographic results of all examinations traceable to the production lot, shall be included in the Screening Tests data documentation.

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Justification:
modification to take into account comments received during the initial review period on this DCR829 (in line with the original NCCS MRB conclusion)

Approval signature:

Date signed:

2014-04-09