

## Safe Handling and Packaging of Tray Product to be Returned

### CARE IN IDENTIFICATION AND HANDLING OF FAILURES

If a device is suspected of failing, it is to the benefit of the Customer and Wolfson that the problem is investigated as soon as possible. It is important the device is still handled with the same level of care as a good device. Damage incurred during and after removing the device from the application will make it impossible to identify the original failure mechanism.

If a failing device is requested to be returned for failure analysis:

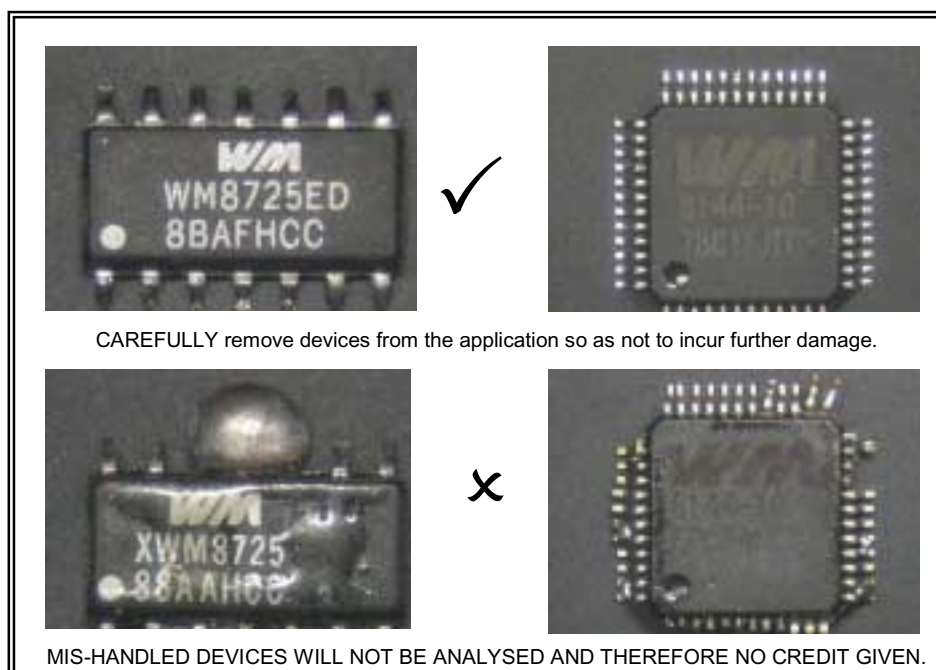
- It must reach Wolfson in a condition comparable to when suspected of failing by the customer.
- If it is necessary for the device to be removed from the application, this must be done carefully.
- Once isolated the device must at all times be stored in an ESD protective tube or tray and wrapped in ESD safe materials.
- This must be done in a static safe area and not opened again until received by Wolfson. A static safe area would consist of wrist straps, ESD protective bench mats, heel straps etc.

Refer to the following Application Note, ESD Damage in Integrated Circuits: Causes and Prevention WAN\_109, available from <http://www.wolfsonmicro.com>.

**WOLFSON CANNOT ACCEPT THE RETURN OF PRODUCTS THAT HAVE BEEN INADEQUATELY STORED, HANDLED OR RE-PACKED.**

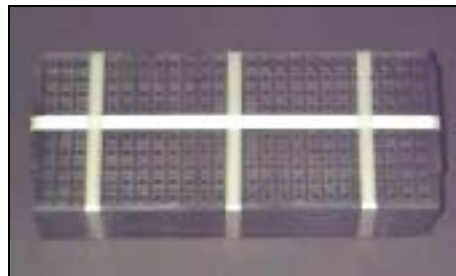
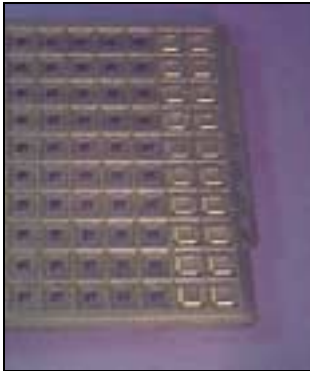
### LEVEL OF ACCEPTABILITY

The following pictures clearly indicate what is acceptable / not acceptable in the return of parts to Wolfson. Please refer to Wolfson's RMA Guidelines before requesting the return of parts and complete the Wolfson RMA request form, both available from local Sales office.



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Devices should be stored in the correct anti-static carrier for trays as shown below. Make sure that the trays have been tightly fixed with non-elastic straps or banded using a banding machine. **DO NOT USE RUBBER BANDS** as these will stretch and the parts will become dislodged and damaged.



If trays are not securely fixed, shocks during transit may cause the trays to briefly separate and the devices could become jammed in between them. **AT NO TIME SHOULD NORMAL ADHESIVE TAPE BE USED.** The act of pulling the tape from the reel generates static electricity, which can cause ESD damage.



Pack the trays securely in the appropriate container e.g. a cardboard box as shown below. All shipment material used inside the container such as bubble wrap should be non-static generating.



**Please use original packaging where possible**

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For small quantities it may be possible to use a padded envelope (example below). Ensure there is adequate packing material to prevent the devices from moving. All shipment material used inside the padded envelope such as bubble wrap should be non-static generating.



DO NOT pack devices loosely in polythene bags. They are not ESD protective and the leads will become tangled and damaged. Any devices returned in insufficient packaging e.g. envelopes that offer no resistance to ESD or physical damage will be rejected.



**APPLICATION SUPPORT**

If you require more information or require technical support please contact Wolfson Microelectronics Applications group through the following channels:

Email: apps@wolfsonmicro.com  
Telephone Apps: +44 (0)131 272 7070  
Fax: +44 (0)131 272 7001  
Mail: Applications at the address on last page.

or contact your local Wolfson representative.

Additional information may be made available from time to time on our web site at <http://www.wolfsonmicro.com>

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