

5. INTRODUCTION TO THE DIFFERENT SOLUTIONS

It is probably possible to say that all electronic equipment will be subjected to vibration at some time in its life, being it during its working life or simply during its manufacturing or transport. The vibration levels expected will be different, sometimes being completely neglectable while in others becoming the main source of reliability danger of the device. It is interesting then to have a wide range of different methods to obtain a high fatigue life in electronic components, in such a way that it is possible to choose the most suitable to every specific design.

The following section is divided in three main parts. The first cover procedures that while contributing to the vibration reliability do not complicate in excess the electronic design process. They are suggested then to be applied to any device containing electronic equipment.

The second part focuses on the methods available when a harsh vibration environment is expected, usually requiring calculations and deeper changes in the design of the PCB.

The third part covers the use of damping isolators. Although it should be included in the previous section, its importance suggested a separated treatment.

