

# EMC Shielding Introduction

Industry standard types of Board Level Shielding (BLS) to prevent electromagnetic interference often involves additional expensive secondary operations that can damage circuits and components. Harwin's EMC Shielding range provides BLS without the additional expense or damage.

Existing BLS solutions require the full shield can to be soldered to the circuit board. This normally involves a secondary soldering operation, often hand-soldered and therefore expensive and slow. This can also give rise to hotspots and potential IC or track damage. In addition, if any rework or in-field replacement is required, the whole can must be de-soldered, causing more delays and expenditure.

Harwin's solution involves two separate components. The first is a SMT clip, which can be assembled in the same SMT process as the rest of the PCB components. The second is the Shield can. This is a simple five-sided construction, which quickly and easily snaps into place into the clips – no heat source and very little assembly time required. If rework or in-field service is necessary, the can be simply lifted off, and replaced once the work is completed.

- ❖ Significant decreases in manual operation times and damage potential
- ❖ Simple to use, easy to assemble, more cost effective than fence and lid can solutions
- ❖ Development kit available – make your own shield can from scored flat sheet during low-volume prototyping phases
- ❖ All SMT clips supplied on Tape and Reel for fully automated assembly at the same time as the rest of the board is populated, eliminating post-operation hotspots
- ❖ Stocked in depth throughout Harwin's authorized distributor network

## SMT RFI Shield Clips

- ❖ Simple to assemble to the circuit board with conventional surface mount technologies, as the same pass as the rest of the components
- ❖ Very low profile designs, down to 0.8mm high
- ❖ Corner clip styles for options on track layouts, including an integrated corner shield cover to further minimise signal ingress/leakage and address localized eddy interference at folded can corners

## Shield Cans

- ❖ Available in miniature sizes with a choice of 0.15mm, 0.2mm or 0.3mm thickness material, compatible with most of the Harwin Shield Clips
- ❖ Manufactured from Nickel Silver, ideal for high frequency shielding
- ❖ Development kit consists of two 80 x 60mm scored flat sheets, and 24 SMT Shield Clips, for prototype, pre-production or very low volume requirements

