

BLS

Board Level Shielding



Standards · Modified Standards · Customs

**LEADER
TECH** 
a HEICO company

EMI/RFI Board, Enclosure, Cable Shielding and Thermal Solutions

Diverse Board-Level Shielding Solutions for All Electronic Applications

Leader Tech provides EMI designers flexibility and cost-effective standard or custom solutions. Additional features such as special cutouts, vent holes, insulating/thermal materials and other special requirements, can be added to create the right Circuit Board Shield for your application. Avoid long lead-times and expensive custom tooling by contacting one of our applications engineers today to discover what Leader Tech product you need for your next project.

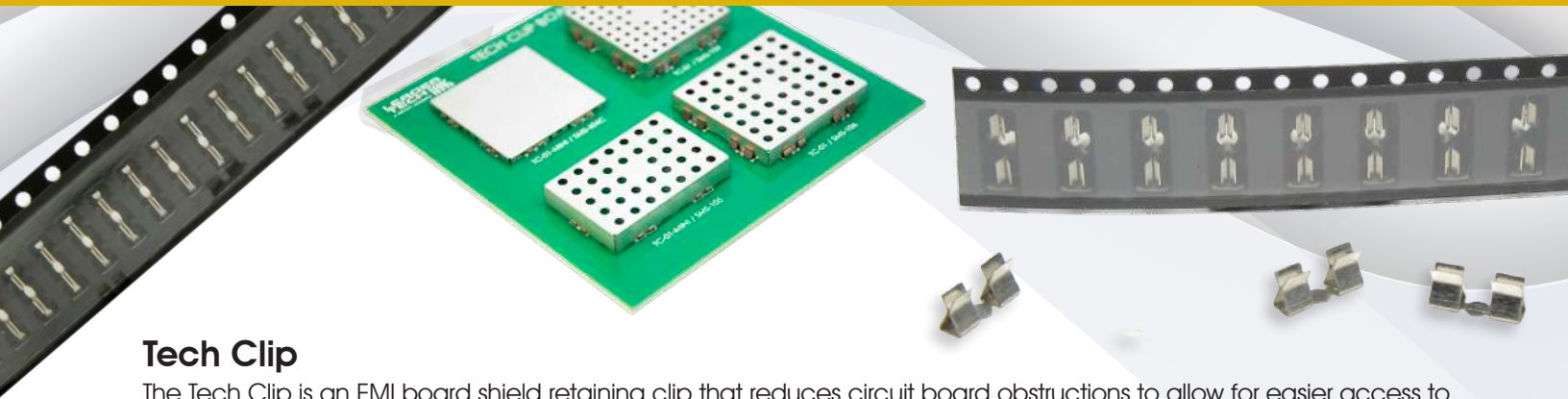
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Circuit Board Shield Design Guide

Leader Tech is a manufacturing innovator focused on constant improvement and refinement of proven product platforms and manufacturing methods. This allows us to deliver cost-effective shielding solutions that solve EMI problems for both current and emerging electronic applications. From small footprints and low-profile applications to multi-level board designs, we offer a wide selection of standard, modified standard and custom board level shielding products to fit your exact specifications. Our most popular product lines are described below in our Design Guide.

Products	Average Lead Time	Standard Pricing	Tape & Reel	Material	High Volume Tooling Capability
Tech Clips	Stock	\$	Standard	.008" Pre-Tin Phos. Bronze	No NRE/Fully Tooled
One Piece Shields	7-10 Business Days	\$-\$\$	Available	".008", .010", .012", .015" Pre-Tin Steel .014" Mu Metal .006" Stainless steel Custom Thicknesses and Materials Available Upon Request"	Full Design Flexibility - No NRE Required for small to mid-quantities. Low cost modular tooling available for mid-high quantities.
Standard One and Two piece Shields SMS Series	Stock - 3 Business Days	\$	Standard	".008" Pre-Tin Steel .008" Alloy 770"	No NRE - Fully Tooled to Print
Modifiable Standard Two piece shields CBS Series	3-8 Business Days	\$\$	Available	".015" Pre-Tin Steel .015" Alloy 770 .015" Pre-Tin Phos. Bronze"	"No NRE - No Tooling* Flexibility (*could be on covers)"
Form Down Shields Slot-Lok Standard Series	10-15 Business Days	\$-\$\$\$	Available	".008", .010", .012", .015" Pre-Tin Steel .008", .010", .012", .015" Alloy 770 .014" Mu Metal .006" Stainless Steel Custom Thicknesses & Materials Available Upon Request"	Full Design Flexibility - No NRE Required for small to mid-quantities. Low cost modular tooling available for mid-high quantities.
Welded shields Slot Lok Pro Series	10-15 Business Days	\$\$-\$\$\$	Available	".008", .010", .012", .015" Alloy 770 .014" Mu Metal Custom Thicknesses & Materials Available Upon Request"	Full Design Flexibility - No NRE Required for small to mid-quantities. Low cost modular tooling available for mid-high quantities.
Custom Shielding	7-15 Business Days	\$\$-\$\$\$	Available	"Custom Thicknesses & Materials Available Upon Request Tin-Plated CRS, Alloy 770, Stainless Steel, Phosphor Bronze, Copper."	Full Design Flexibility - No NRE Required for small to mid-quantities. Low cost modular tooling available for mid-high quantities.



Tech Clip

The Tech Clip is an EMI board shield retaining clip that reduces circuit board obstructions to allow for easier access to components. Simplify circuit board testing, inspection and maintenance by using Leader Tech Tech Clips. The Tech Clip eliminates the need for hand soldering, as the parts are delivered in tape & reel packaging and are compatible with high speed automated placement equipment. The Tech Clip allows for easy shield removal and replacement for PCB rework or maintenance, and saves money on PCB costs by eliminating the need for through holes.

Tech Clip Features and Benefits

- In Stock
- No tooling or NRE costs
- .008" Tin plated Phosphor Bronze
- Allows for 1 piece EMI/RFI shielding on PCBs with easy shield removal/replacement
- Universal clip with spring contact retention fingers compatible with .008" and .010" thick shield materials
- Suitable for automated placement with circular pick spot
- Tape and reel packaging
- Quick turn, low cost, standard and custom covers available
- Saves \$\$\$ on PCB costs
- Free Samples
- Works well with our SMS one piece shields
- Two sizes to chose from

Custom One Piece Shields

Decades of engineering and manufacturing experience provide you with the ultimate board level shielding flexibility. From 3D modeling, material selection and prototype to high volume production, we are with you every step of the way. Our one piece shields can be designed to mate properly with our tech clips.



Custom One Piece Features and Benefits:

- Full design flexibility with engineering support
- Quick turn proto types
- Surface mount and through hole mounting options
- Clinch nuts/Threaded fasteners , thermal, absorber and insulator options available
- .008", .010", .012", .015" Tin plated Steel
- .008", .010", .012", .015" Alloy 770
- .014" Mu Metal, ideal for magnetic shielding
- High quantity tooling options available
- Tape and Reel packaging available
- Tray packaging available

Leader Tech Surface Mount Shields (SMS)

Surface Mount Shields offer a highly reliable, cost effective, off-the-shelf solution for most surface mount shielding applications. Our SMS shields are supplied in tape & reel packaging and are suited for any volume application including automated pick and place assembly operations.

One Piece Surface Mount Shield

Our one piece SMS style can be specified for applications that require no inspection or repair of shielded elements.



SMS One Piece Features and Benefits

- Low piece part price
- In stock
- No tooling or NRE costs
- Largest standard selection in the industry
- .008" tin plated steel
- .008" Alloy 770
- Surface Mount
- Vented and Unvented options
- Automatic placement
- Tape and Reel packaging
- Works well with Tech Clips

Two Piece Surface Mount Shield

For board applications that require inspection, Leader Tech offers two piece SMS shields. This style allows for fast and easy removal of the cover providing full access to components



SMS Two Piece Features and Benefits

- Low piece part price
- In stock
- No tooling or NRE costs
- Largest standard selection in the industry
- .008" tin plated steel
- .008" Alloy 770
- Surface Mount
- Vented and Unvented options
- Automatic placement
- Tape and Reel packaging

Leader Tech Modifiable Standard CBS Shields

Simply one of the best shields ever made. Our standard CBS products are at the top of the board-level shielding industry in performance, flexibility and value. The highly reliable 2-piece design (fence and cover) accommodates virtually any through-hole or surface mount application.

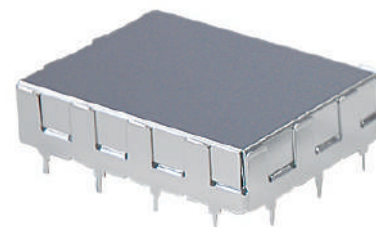


CBS Features and Benefits

- 3 – 5 Day Lead time
- No tooling or NRE costs
- 1/4" increment shield length and width
- Pin Spacing available in 1/4", 1/2", 1"
- .015 Tin plated steel
- .015 Phosphor bronze Alloy 510
- .015 Nickel silver alloy 770
- Surface mount or through hole
- Low Piece Price
- Many sizes available with minimum heights as shown
 - 10 Series = .130" (3,30)
 - 20 Series = .200" (6,60)
 - 40 Series = .400" (10,16)
 - 50 Series = .500" (12,70)
 - 80 Series = .800" (20,32)
 - KE Series = .400" (10,16)
= .500" (12,70)
= .800" (20,32)
- Additional options available online

CBS Part Number Builder

XX	-	CBS	X	X	X	X	-	XX	x	XX	x	XXX		
Select a CBS Series #			Assembly Options	Material	Vent Hole Options		Dimples			Shield Width (.25" increment)		Shield Length (.25" increment)		Undercover Height
F		Formed Fence & Cover Unassembled	Leave Blank	.015" thick Tin Plated Steel	Leave Blank	No Vent Holes Required	Leave Blank	No Dimples Required						
A		Formed Fence & Cover Assembled	N	.015" thick Alloy 770	SV	0.156" Single Vent Hole Pattern (15%)	D	Dimples Required (40, 50, 80, KE Series)						
U		Flat Fence & Formed Cover	P	.015" thick Tin Plated Phos. Bronze	SV2	0.080" Single Vent Hole Pattern								
					SV3	0.118" Single Vent Hole Pattern								
					DV	0.156" Double Vent Hole Pattern (30%)								
					DV2	0.080" Double Vent Hole Pattern								
					DV3	0.118" Double Vent Hole Pattern								



Part Number Examples

Standard Example:
54-CBSF-1.5x2.5x0.5

Example with Alloy 770 & SV Vent Holes:
54-CBSFNSV-1.5x2.5x0.5

Slot-Lok™ Form Down Single Cavity and Multi Cavity Shields

As close to custom as you can get...without the cost! Slot-Lok™ Form Down shields are designed and manufactured using modular manufacturing methods that increase shield design flexibility while reducing lead time and total product cost. Slot-Lok™ Circuit Board Shields achieve this by applying standardized manufacturing methods to produce what would traditionally be a custom manufactured product. The Slot-Lok™ manufacturing process has helped many companies reduce their design-to-delivery time without incurring tooling charges. An added feature of the Slot-Lok™ design is an audible click that confirms secure retention of the cover.

If you need a cost-effective shielding solution with near limitless design flexibility, Slot-Lok™ is the option of choice.



Slot-Lok™ Form Down Features and Benefits

- Short lead times
- No tooling or NRE costs
- Low cost design
- Full design flexibility with engineering support
- Squares, rectangles and odd shapes
- .008", .010", .012", .015" tin plated steel
- .008", .010", .012", .015" Alloy 770
- .014" Mu Metal for magnetic shielding
- Through-hole or surface mount
- Locking and grounding dimples standard
- Low cost production tooling for high quantities
- Interlocking corners
- Pick spot optional for automated pick and place
- Break away pick spot available
- Cover pull tabs optional for ease of cover removal
- Custom access holes and notches
- Limitless pin spacing options
- Multi cavity options available
- Tape and reel and tray packaging options
- Clinch nuts/Threaded fasteners, thermal, absorber and insulator options available



Slot-Lok™ Pro Single Cavity and Multi Cavity Shields

Our cost-effective Slot-Lok™ shielding solutions are also available with Slot-Lok™ Pro options. Our excellent design style is built specifically for high frequencies and special shapes. Our tested solid wall construction with welded corners eliminates apertures in corners for enhanced shielding performance at high frequencies.



Welded - Slot-Lok™ Pro Features and Benefits

- Short lead times
- No tooling or NRE costs
- Full design flexibility and Engineering support
- Solid wall design with welded corner to eliminate apertures in corners for enhanced shielding performance at high frequencies
- Unlimited flexibility in size and shape
- Through-hole or surface mount
- .008", .010", .012", .015" Alloy 770
- .014" Mu Metal for magnetic shielding
- Locking and grounding dimples standard
- Highly customizable platform
- Pull tabs optional for ease of cover removal
- Multi cavity options available
- Clinch nuts/Threaded fasteners, thermal, absorber and insulator options available



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CERTIFIED



Products and Capabilities



Thermal Gap Fillers



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Enclosure Shielding



FerriShield Ferrites



EMI Microwave Absorbers

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