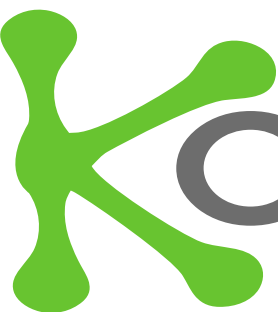




gecko  SL

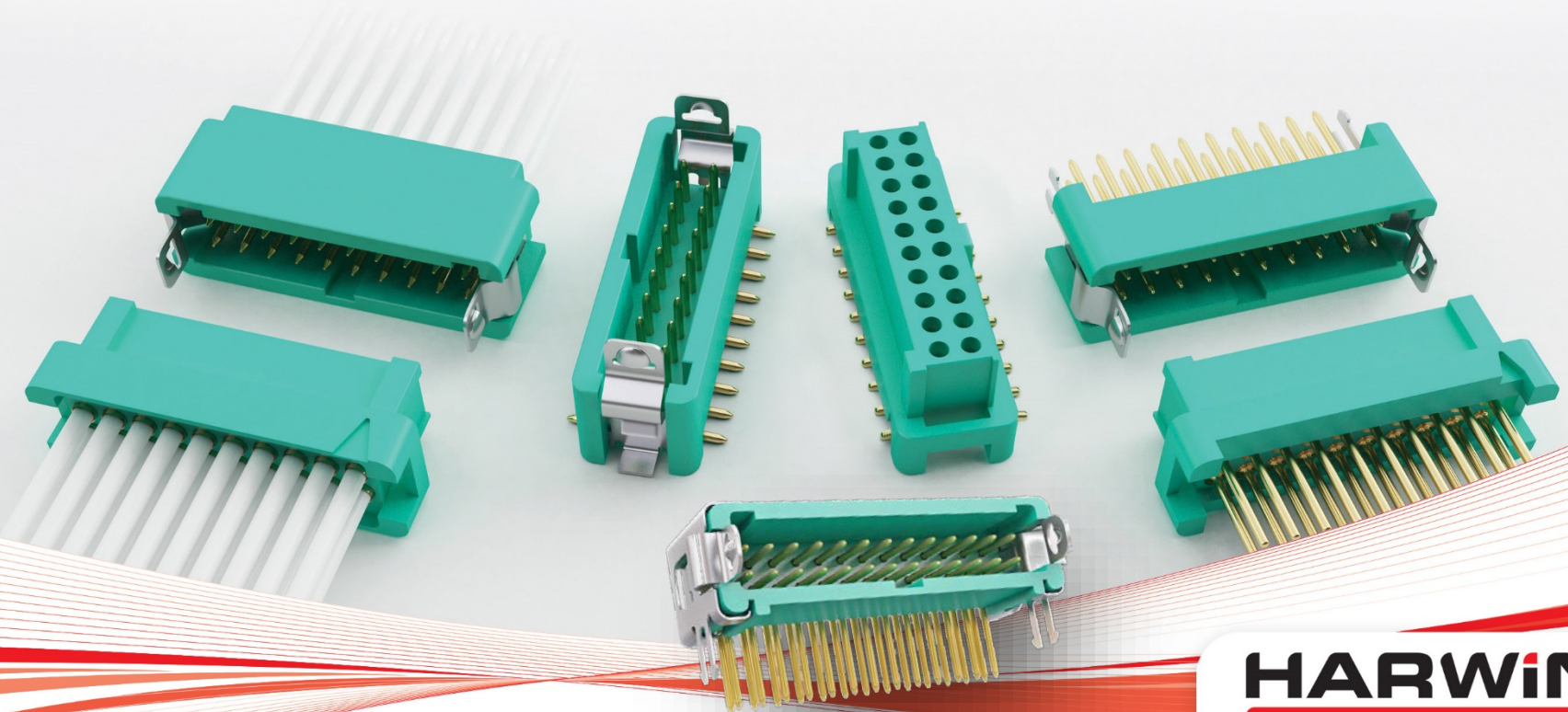
The Next Evolution...

**HARWIN**



# Gecko High-Reliability Connectors

The **current** range



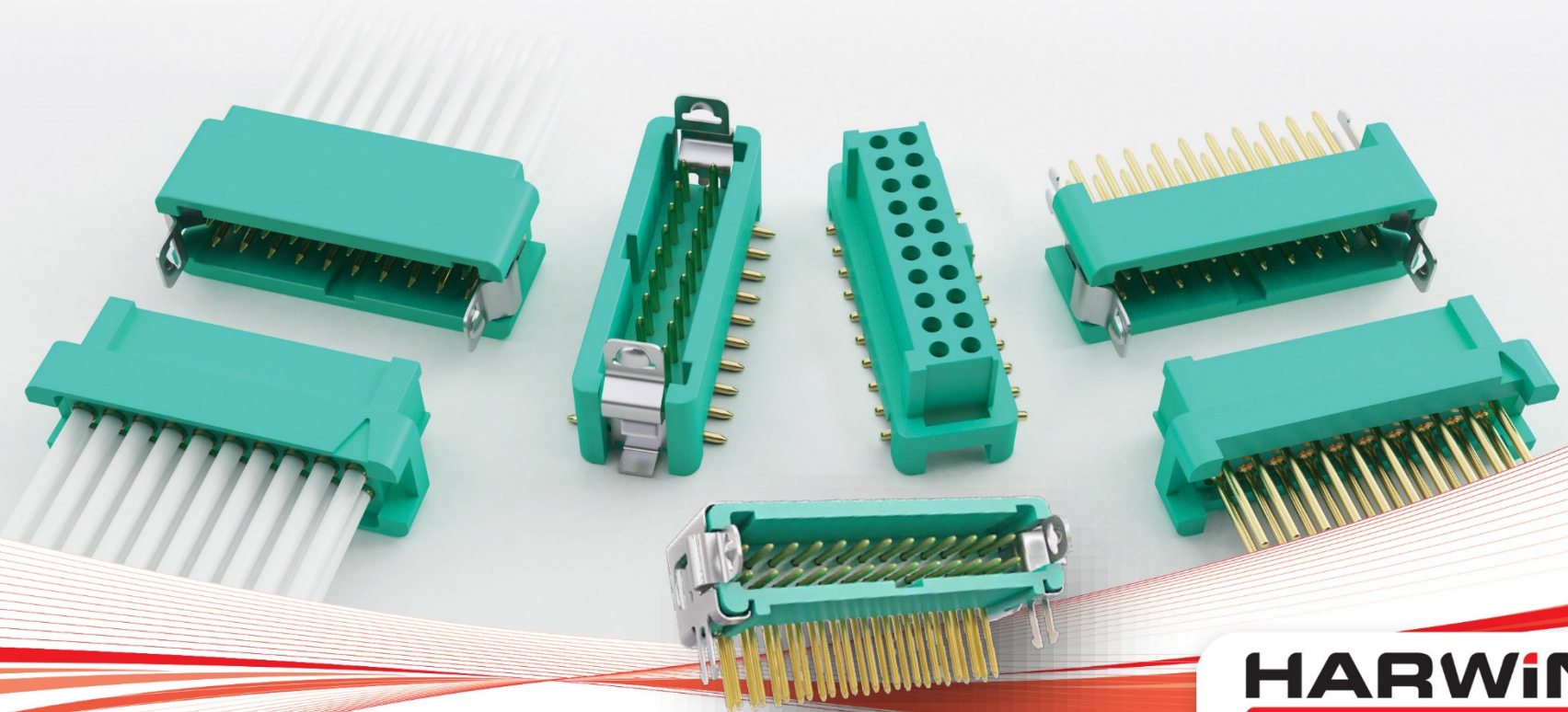
**HARWIN**

Harwin's Gecko (G125 series) connectors provide a low profile, dual row interconnect solution for cable-to-board, cable-to-cable and board-to-board. The product is ideally suited for stacking and cable mating in areas where PCB real estate is at a premium.



# Gecko High-Reliability Connectors

True **metric** system



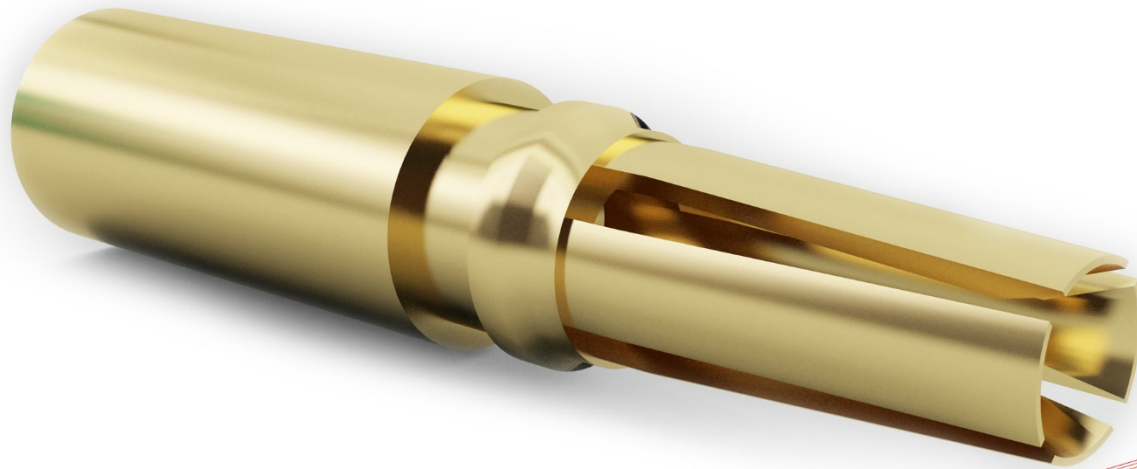
**HARWIN**

Gecko is a 1.25mm pitch connector, maintaining the selection of Harwin High-Reliability connectors at metric pitches (as demonstrated by [Datamate](#) 2mm or 4mm pitch). Recent range additions to the [latched range](#) include the Horizontal Male orientation.



# Gecko High-Reliability Connectors

The **heart** of the connector system



**HARWIN**

The patented single piece 4-fingered Beryllium Copper female contact gives high electrical performance and sustained mechanical durability. The crimp barrel meets IPC-A-620 specifications. It tolerates extremes of temperature, and withstands high vibration and shock. These contacts are precision-turned on state-of-the-art equipment at the UK headquarters, and plated with a gold finish to resist multiple insertions.



# Gecko-SL High-Reliability Connectors

Screw-Lok fixing hardware



**HARWIN**

Gecko-SL (short for Gecko Screw-Lok) is the latest evolution of the Gecko product. The latching system has been replaced with a more robust screw-lok connection. This gives the additional benefits of simpler access, stronger fixings, and panel mount options.

The screw-lok fixings are manufactured in stainless steel for strength and corrosion resistance, with M2 threads. These add just 8.90mm to the overall connector length over existing latched Gecko.

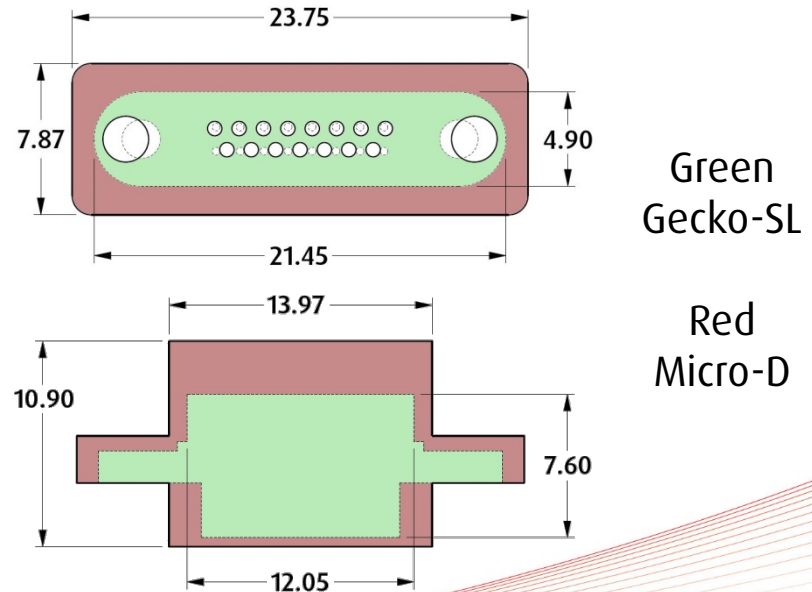


# Gecko-SL High-Reliability Connectors

Size & Weight **savings**

**Up to 45%**  
footprint saving on Micro-D

**Up to 75%**  
weight saving on Micro-D



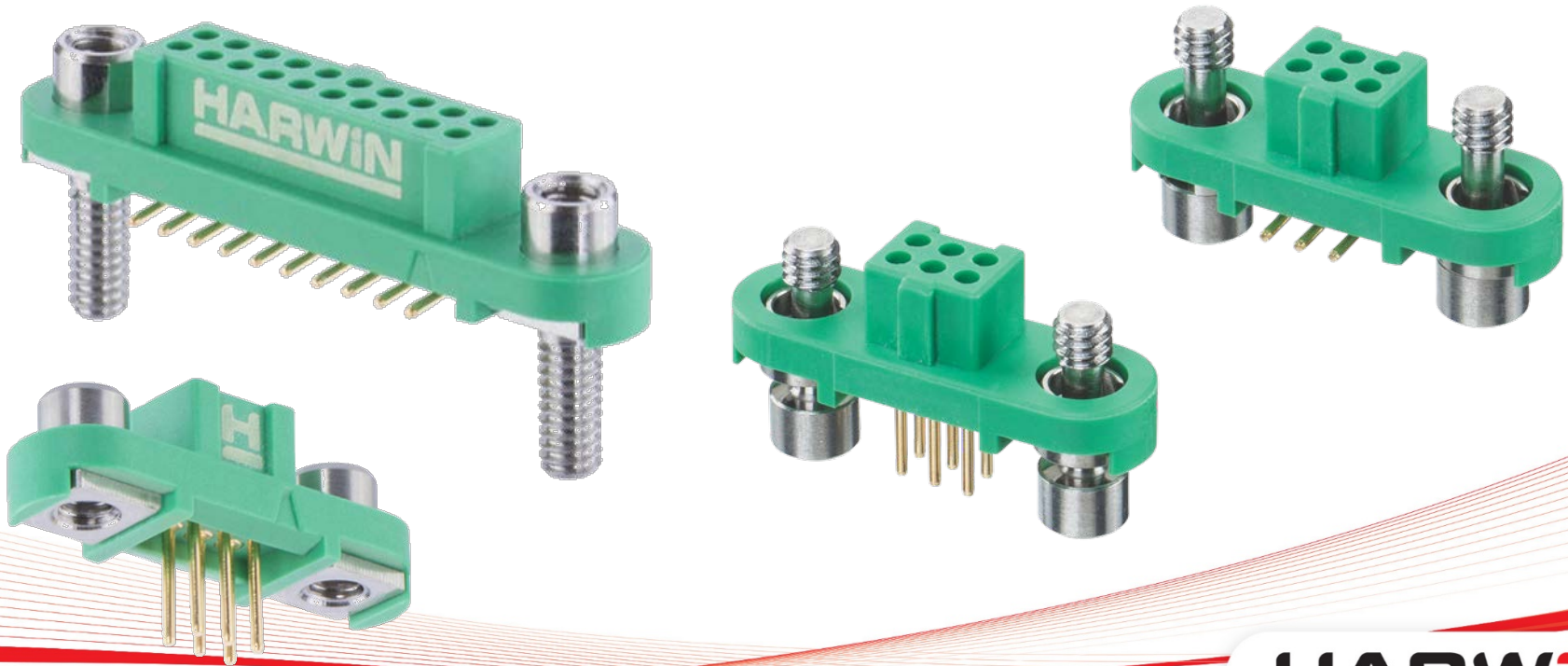
**HARWIN**

The small size of Gecko-SL enables a reduction in the real estate on the PCB taken up with connectors. This is up to 45% saving over Micro-D connectors. The space-saving obtained with Gecko-SL connectors gives a significant benefit over existing high-reliability connectors, reflected in both the footprint and the weight of the connectors being drastically reduced. Gecko-SL also offers an increased pin density compared to Micro-D.



# Gecko-SL High-Reliability Connectors

PCB mounted variants - Female Vertical



**HARWIN**

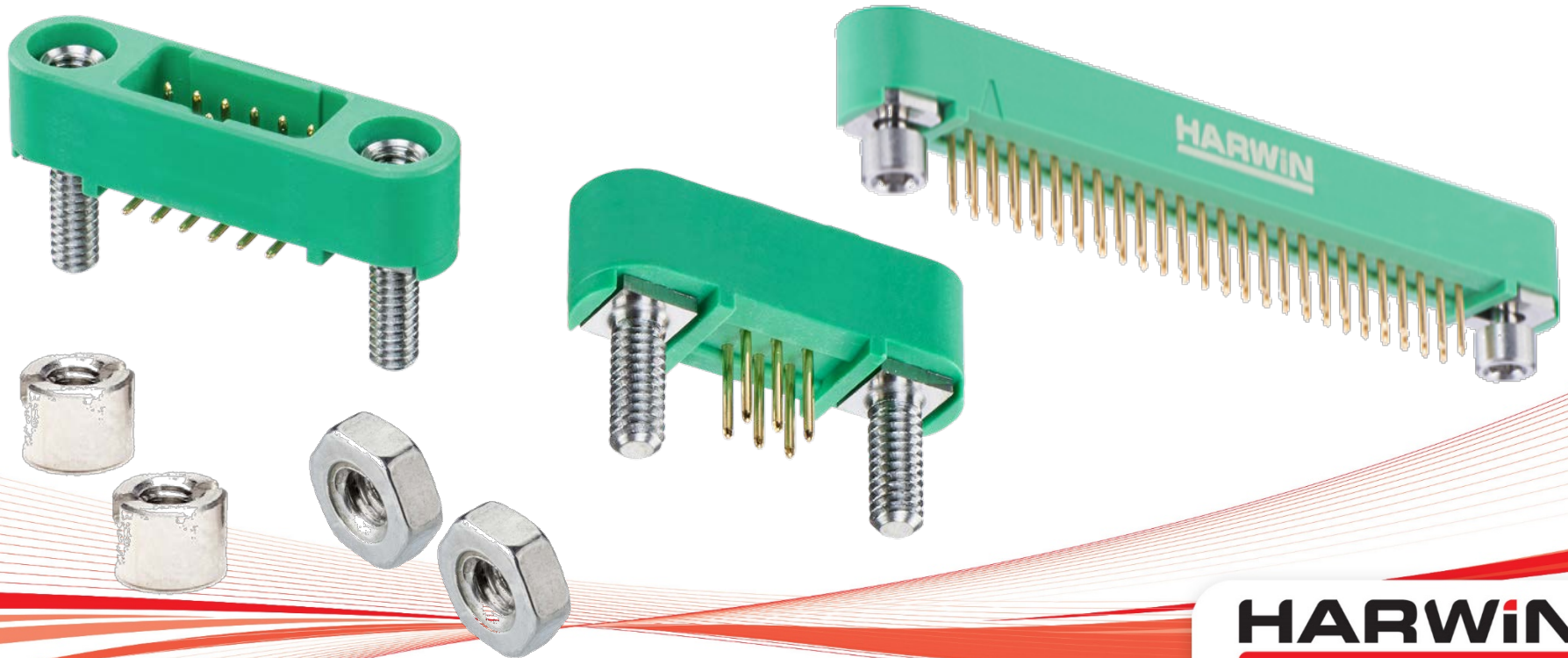
Available in Throughboard and SMT designs in pin counts of 6, 10, 12, 16, 20, 26, 34 and 50 contacts. The captive screws with hex socket heads prevent slipping during assembly. The design of these captive screws allows for 'Mate before Lock' – connectors can be fully mated before the screws need to be engaged. This provides for faster and easier assembly.

Reverse Fix options are also available, providing board mount screws to fasten to the PCB.



# Gecko-SL High-Reliability Connectors

PCB mounted variants - Male Vertical



**HARWIN**

Available in Throughboard and SMT designs in pin counts of 6, 10, 12, 16, 20, 26, 34 and 50 contacts. The board mount fixings provide strain relief for increased board retention. Board mount nuts are available in two styles, and are ordered separately:

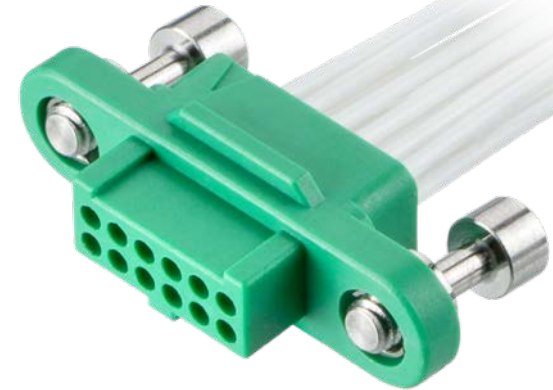
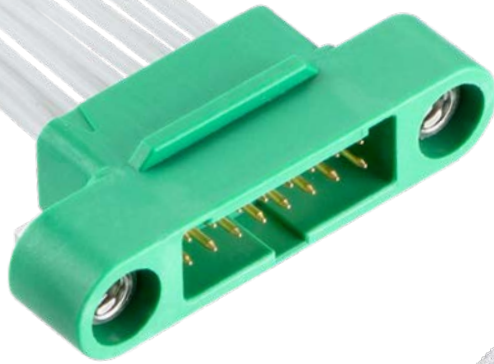
- Slotted Nut: [G125-4510000B](#)
- Hexagonal Nut: [G125-4500000B](#)

Both Throughboard and SMT designs also come without board mount, or with Reverse Fix floating screw-loks (with hex socket heads).



# Gecko-SL High-Reliability Connectors

Cable mounted variants – Cable Assemblies



**HARWIN**

The Male and Female Crimp Housings include the jackscrew fixing hardware and are also available in pin counts of 6, 10, 12, 16, 20, 26, 34 and 50 contacts. Both styles are additionally available with Reverse Fix or Panel Mount options.

Individually pre-wired contacts and full cable assemblies are available ready-made and stocked in depth, in lengths of 150, 300 and 450mm.



# Gecko-SL High-Reliability Connectors

## Crimp Housing features



**HARWIN**

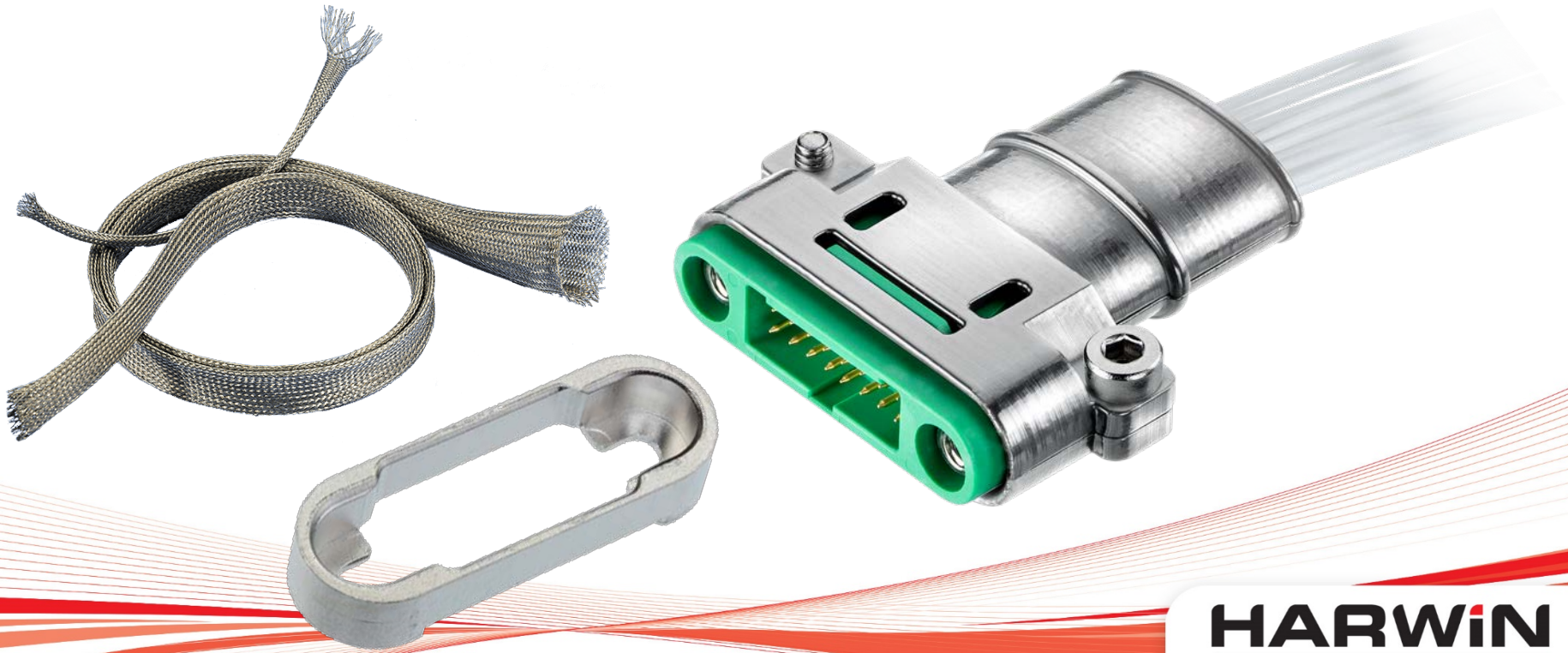
The No. 1 contact position is identified with a triangle-shaped indent on the rear wall of the crimp housings. Numbering then runs along the row, jumps back and starts again at the contact below No. 1, and runs along the second row. A 2.5mm deep potting wall is included on the housing for backpotting completed cable assemblies.

Standard cable assemblies are supplied already backpotted.



# Gecko-SL High-Reliability Connectors

New variants - Metal backshells



**HARWIN**

The strong and lightweight machined aluminium backshells provide additional strain relief. They are designed to accommodate flexible, abrasion resistant, metal braiding and are supplied with tie-bands to attach such braiding to the shell. The backshells, together with the braiding, provide shielding for enhanced electrical continuity and effective EMI/RFI protection.

Mating backshells for use with male board-mounted connectors are also available.



# Gecko-SL High-Reliability Connectors

## Flexible Cabling Options



**HARWIN**

Gecko cable connectors are supplied in a variety of options to provide maximum flexibility for user preferences. The cable connectors are supplied as separate components – loose housings with loose crimp contacts allow the customer to manufacture their own cable assemblies, using the hand tooling available. Crimp contacts are available with wires pre-assembled, in standard cable lengths 150mm, 300 mm and 450 mm – the same lengths are also available ready-made as full cable assemblies. Harwin can also offer a complete cable harness service (typically MOQ 100pcs) – submit your enquiry through our [Cable Assembly page online](#) for advice and quotations.



# Gecko-SL High-Reliability Connectors

Tape and reel packaging



**HARWIN**

All Gecko products for PCB mounting are available in Tape and Reel format, for automated PCB assembly. All connectors are packaged with a pick-and-place cap for vacuum nozzles.



# Gecko-SL High-Reliability Connectors

## Application Tooling

Contact positioner: Z125-901



Contact Insertion/Extraction tool: Z125-902



Hand Crimp Tool: Z125-900



# HARWIN

All hand tools required to manufacture cable assemblies are available from Harwin:

- Hand Crimp tool [Z125-900](#), and Positioner [Z125-901](#) (both are required for correct crimping);
- Insertion/Removal Tool [Z125-902](#) (for correctly inserting or removing the crimped contacts into a housing);
- [Click here for the Gecko crimping video.](#)



# Gecko-SL High-Reliability Connectors

## Performance – Electrical Specifications

Current Rating	2A	EIA-364-70
Contact Resistance	20mΩ	EIA-364-06
Insulation Resistance	1000MΩ	EIA-364-01

# 2A

**HARWIN**

The high reliability design of the Gecko connector means little compromise on current rating. The rating of 2.8A on an individual contact and 2.0A on all contacts simultaneously provides a high current for a reduced footprint. Other performance ratings are comparable or exceed the larger connectors.



# Gecko-SL High-Reliability Connectors

## Low Outgassing

NASA Accepted Levels	Gecko Material Levels	Comments
1.0 % or Less TML	0.68% TML	Total Mass Lost
0.10 % or Less CVCM	0.01% CVCM	Collected Volatile Condensable Materials
1.0% or less of the original mass	0.26% WVR	Water Vapour Recovered

**HARWIN**

The Nylon 4T plastic used in the construction of Gecko housings has a low outgassing index. Details can be found on the [Harwin Outgassing web page](#).



# Gecko-SL High-Reliability Connectors

What is the performance rating?

	Performance Levels	Test Standards
Operating Temperatures	<b>-65°C to +150°C</b>	EIA-364-32
Salt Spray	48 Hours	EIA-364-26
Humidity	65/150/56 days at 95% Relative Humidity	EIA-364-31
Vibration	20g No discontinuity greater than 1µs	EIA-364-28
Shock	Z axis 100g 6m/s No discontinuity greater than 1µs	EIA-364-27

**HARWIN**

The wide operating temperature range makes Gecko SL connectors suitable for a wide variety of harsh environments. Durability is set at 1,000 mating operations minimum, and has been tested up to 1,500 operations.



# Gecko-SL High-Reliability Connectors

Environmentally friendly material



**HARWIN**

The materials used in the Gecko SL connectors do not contain any Lead, Brominated Flame Retardants, Red Phosphor (PFOS/PFOA) or Antimony. They are fully RoHS Compatible and contain no REACH SVHCs.



# Gecko – Award-winning Product



**HARWIN**

The Gecko connector system has won multiple industry awards:

- Elektra Awards (2013) – Winner of “Passive & Electromechanical Product of the Year” category;
- EE Times/EDN Ace Awards (2014) – Winner of “Passive, Interconnects and Electromechanical” category;
- ECN Impact Awards (2014) – Winner of “Packaging and Interconnects” category.



# Gecko – Design Tools



## HARWIN

We can offer 3D CAD models in STP and IGES format, a Video to assist crimping techniques, Eye Diagrams and other Test Reports, as well as our Live Technical Support. Search our [Technical Resource](#) area of the website, or [contact Harwin](#) for more information.

# High Reliability

## Smaller Footprints




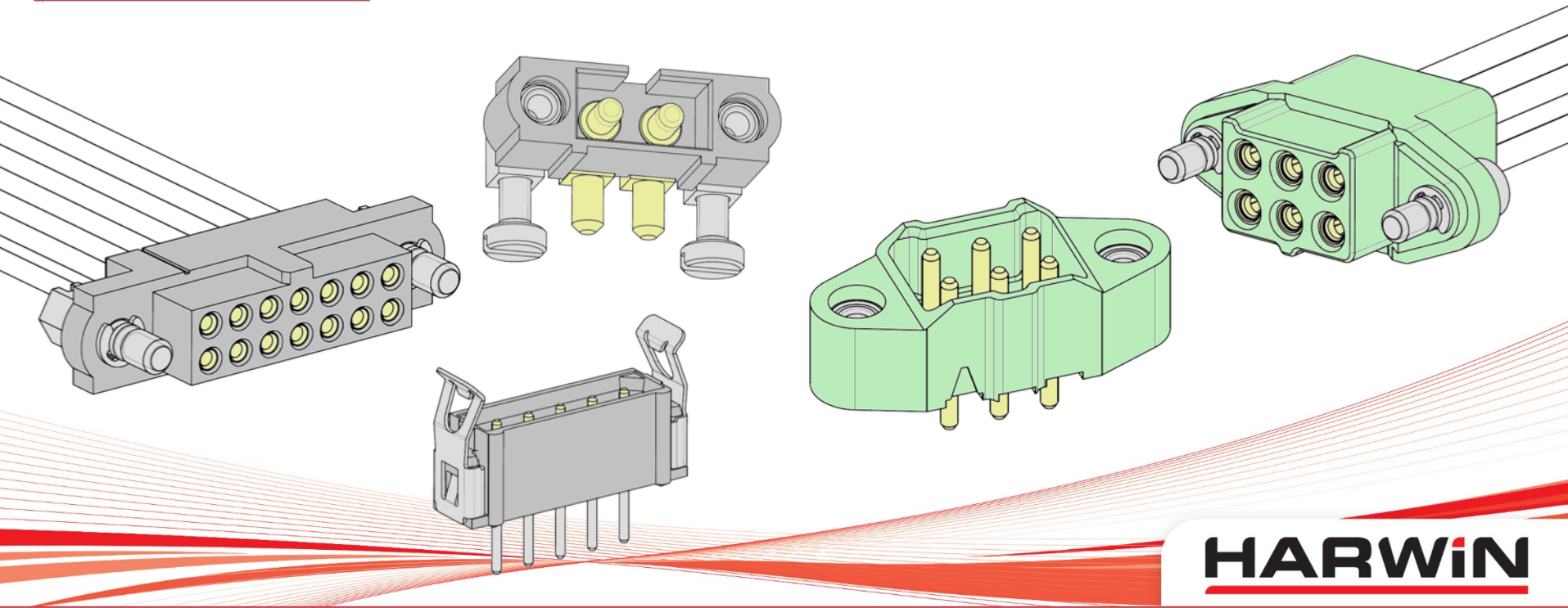
**HARWIN**



# If you like this product, try...

Datamate - 2.00mm Pitch

 **M300** - 3.00mm Pitch



**HARWIN**

- 3A per signal, up to 40A per power contact
- Jackscrew or latching system for strain relief
- Resists Vibration to 10G and Shock to 100G
- Temperature range -55 deg C to +125 deg C
- PCB connectors in Throughboard or SMT, Cable options

- Up to 10A per contact
- Jackscrew fixing system for strain relief
- Resists Vibration to 10G and Shock to 100G
- Temperature range -65 deg C to +175 deg C
- Vertical and Cable options

# Happy to Help

Contact our product support team

✦ **Live Help**



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for FREE

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samples

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support team

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**HARWIN**