



gecko  SL

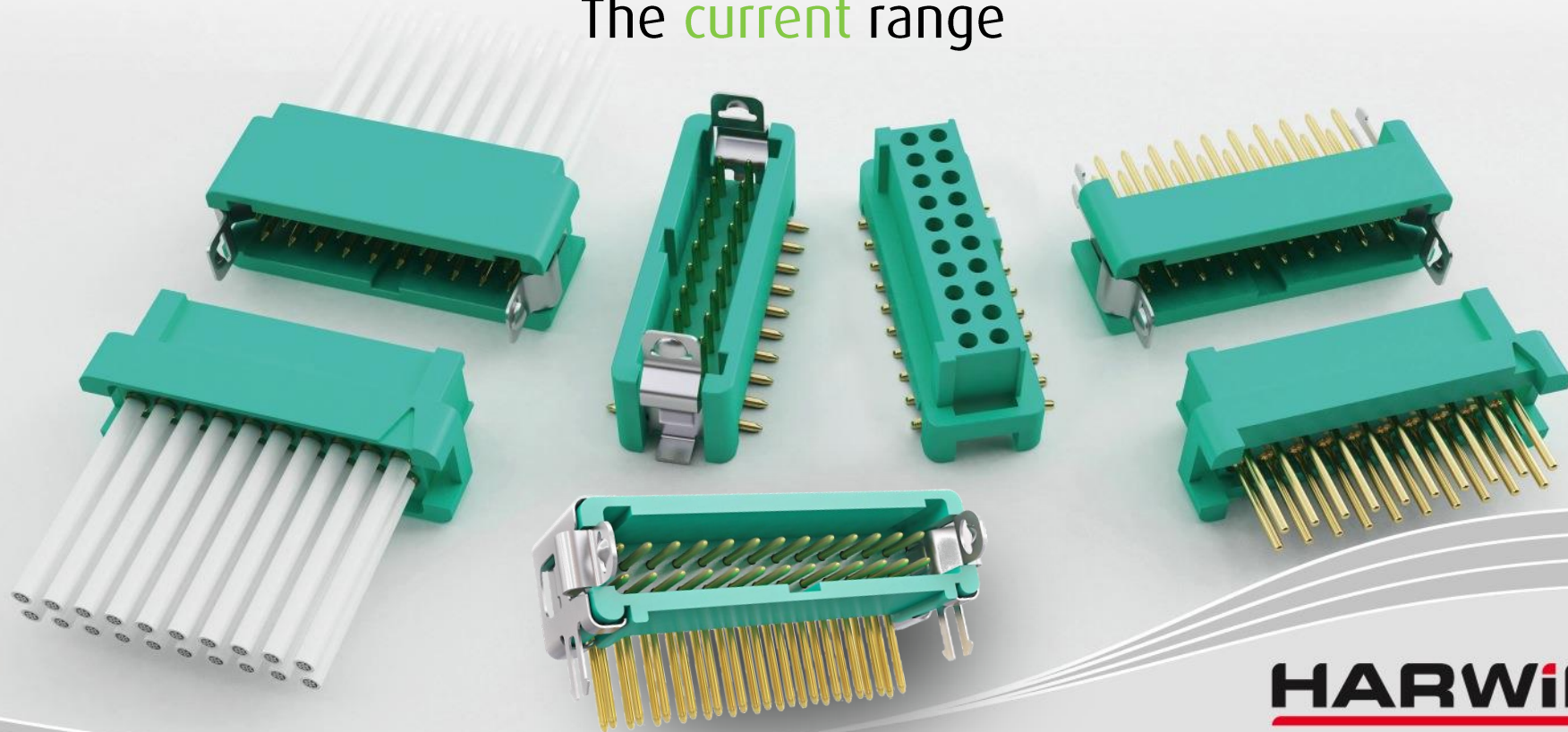
The Next Evolution...

HARWIN



Gecko High-Reliability Connectors

The **current** range



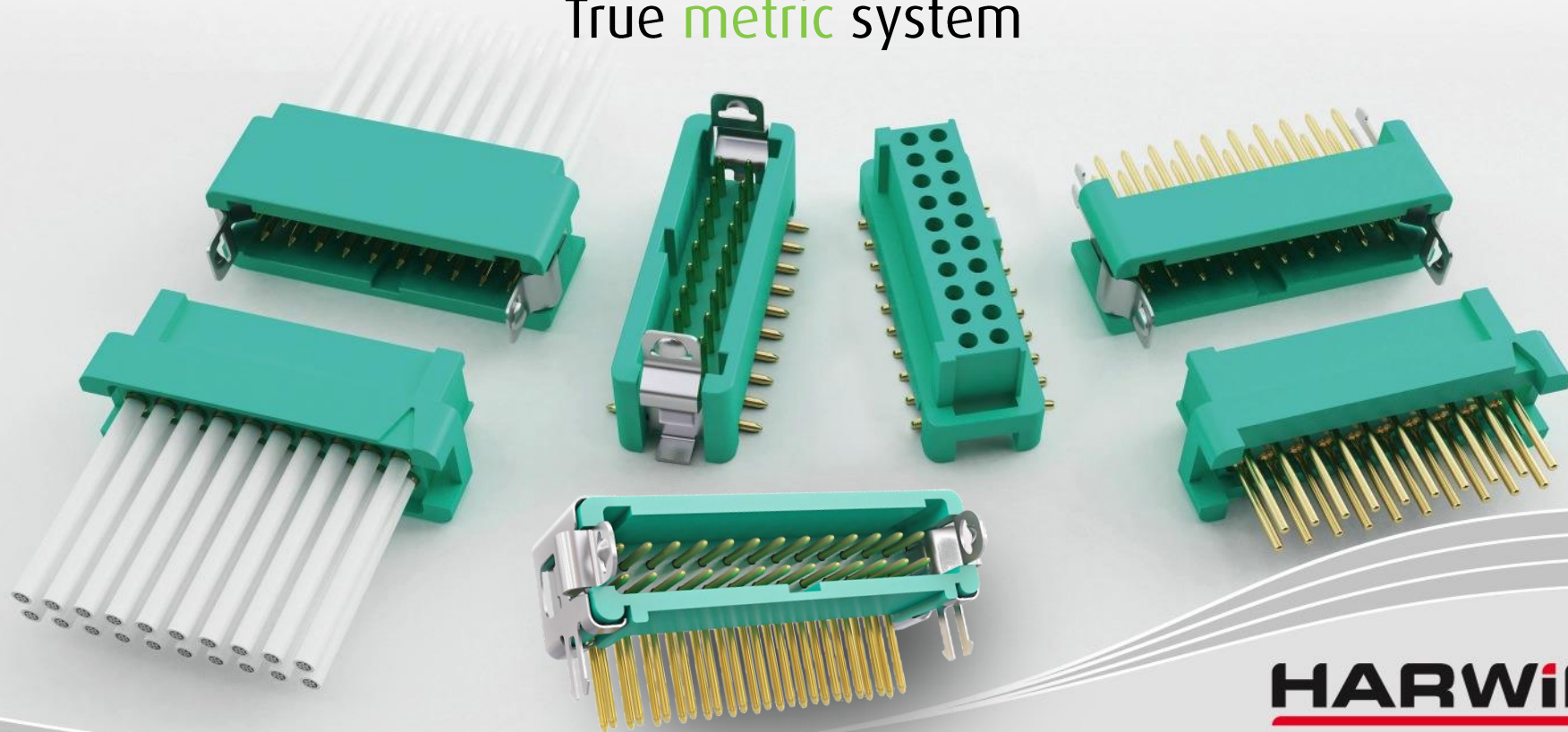
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Harwin's Gecko (G125 series) connectors provide a low profile, dual row interconnect solution for cable-to-board, cable-to-cable and board-to-board. The product is ideally suited for stacking and cable mating in areas where PCB real estate is at a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



Gecko High-Reliability Connectors

True metric system



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



Gecko High-Reliability Connectors

The **heart** of the connector system



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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.

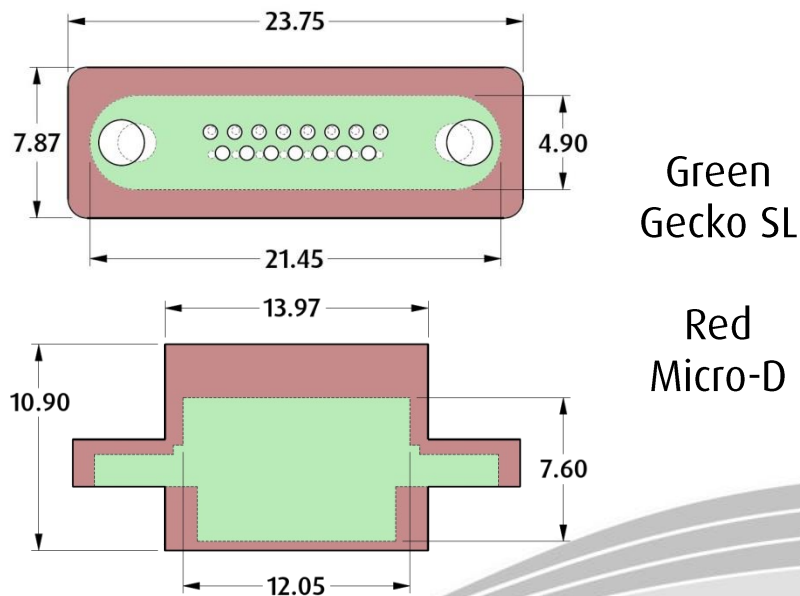


Gecko SL High-Reliability Connectors

Size & Weight **savings**

Up to 45%
footprint saving on Micro-D

Up to 75%
weight saving on Micro-D



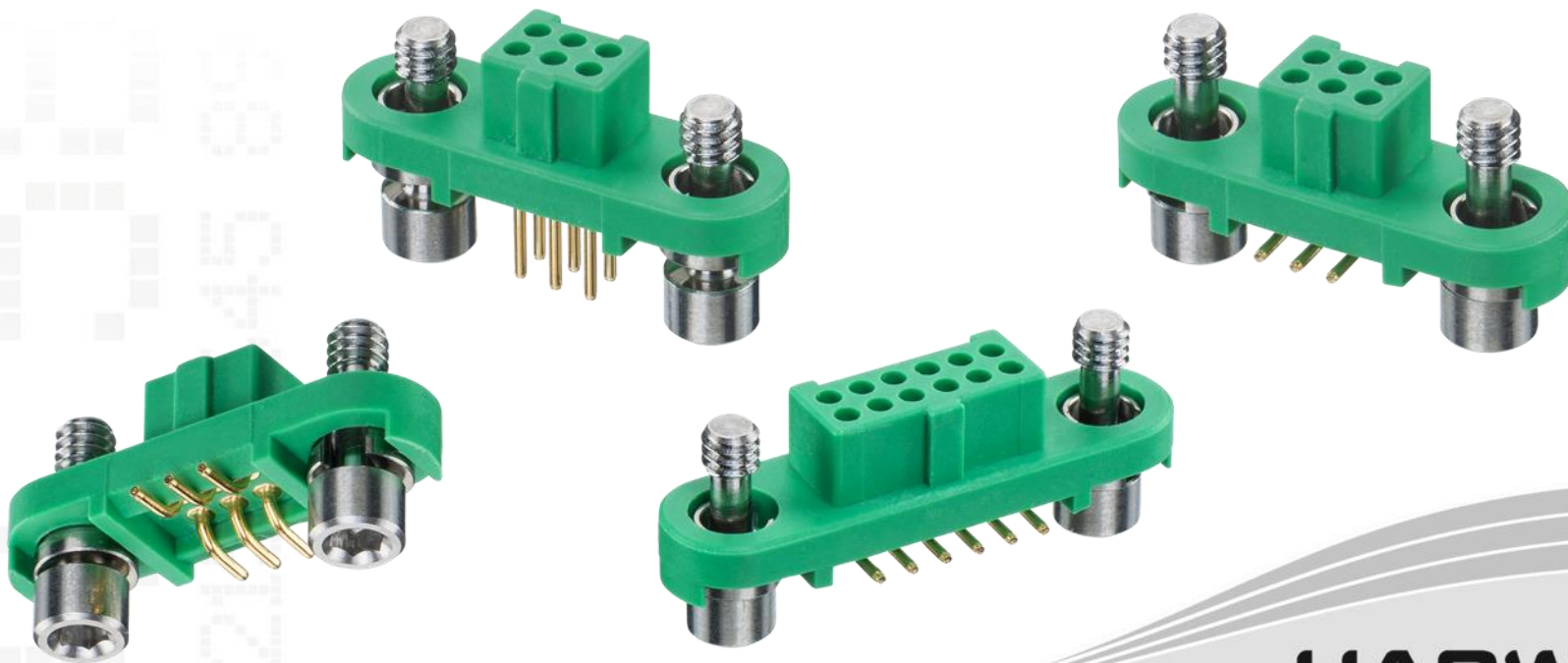
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The small size of Gecko enables a reduction in the real estate on the PCB taken up with connectors. This is up to 45% saving over Micro-D connectors. The space-saving obtained with Gecko connectors gives a significant benefit over existing high-reliability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



Gecko SL High-Reliability Connectors

New variants - Female Vertical PCB



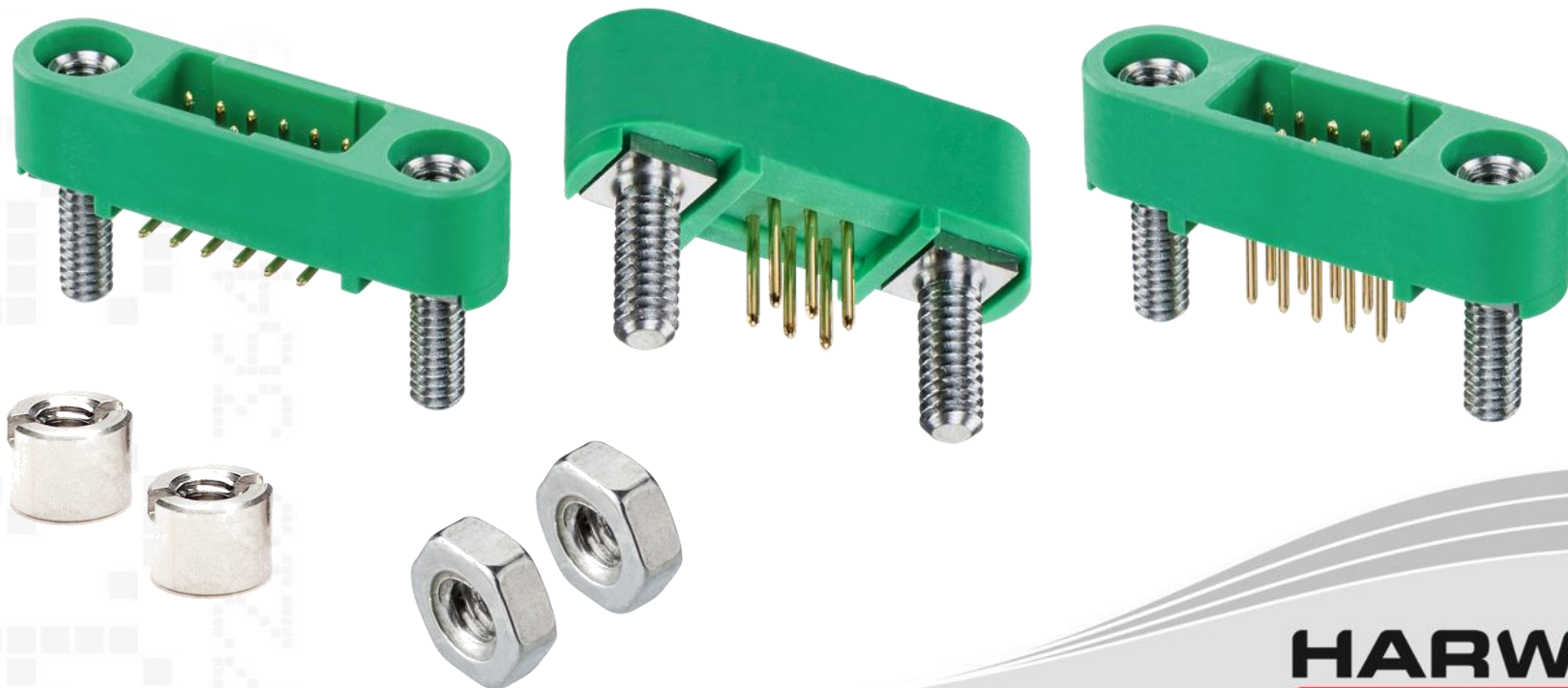
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Available in Through Hole and SMT designs in pin counts of 6, 10, 12, 16, 20, 26, 34 and 50 contacts. The jackscrew fixings are manufactured in stainless steel for strength and corrosion resistance. The captive screws with hex socket heads prevent 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.



Gecko SL High-Reliability Connectors

New variants - Male Vertical PCB



HARWIN

Available in Through Hole 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](#)



Gecko SL High-Reliability Connectors

New variants - Crimp Housings



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The Male and Female Crimp Housings include the jackscrew fixing hardware and are available in pin counts of 6, 10, 12, 16, 20, 26, 34 and 50 contacts.



Gecko SL High-Reliability Connectors

Crimp Housing features



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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. Fixings are manufactured from stainless steel with M2 threads, adding just 8.90mm to the overall connector length over existing latched Gecko.



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.



Gecko SL High-Reliability Connectors

Flexible Cabling Options



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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 also supplied with wires pre-assembled, in standard cable lengths 150mm, 300 mm and 450 mm. Harwin can also offer a complete cable harness service (typically MOQ 100pcs) – contact cables@harwin.com for advice and quotations.



Gecko SL High-Reliability Connectors

Tape and reel packaging



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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



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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	-65°C / +150°C	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 1,000 operations' and has been tested up to 1,500 operations.



Gecko SL High-Reliability Connectors

Environmentally friendly material



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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



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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




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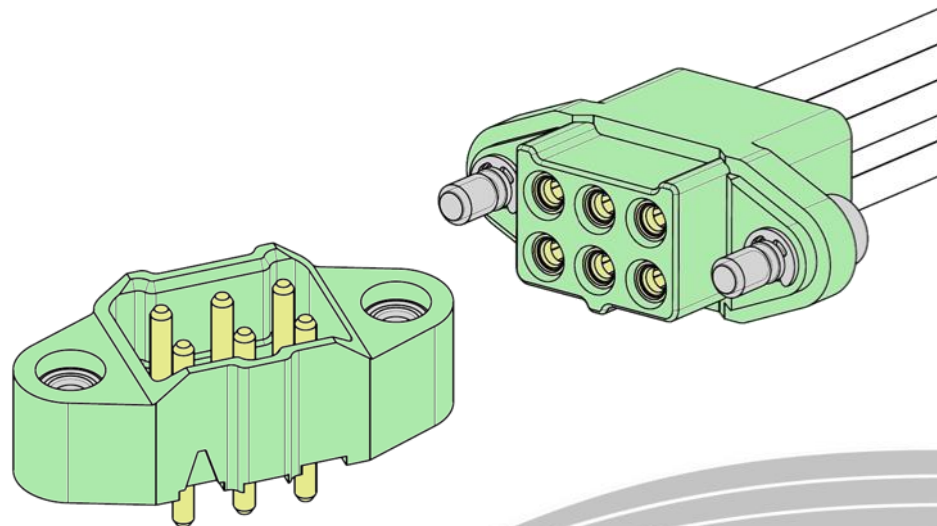
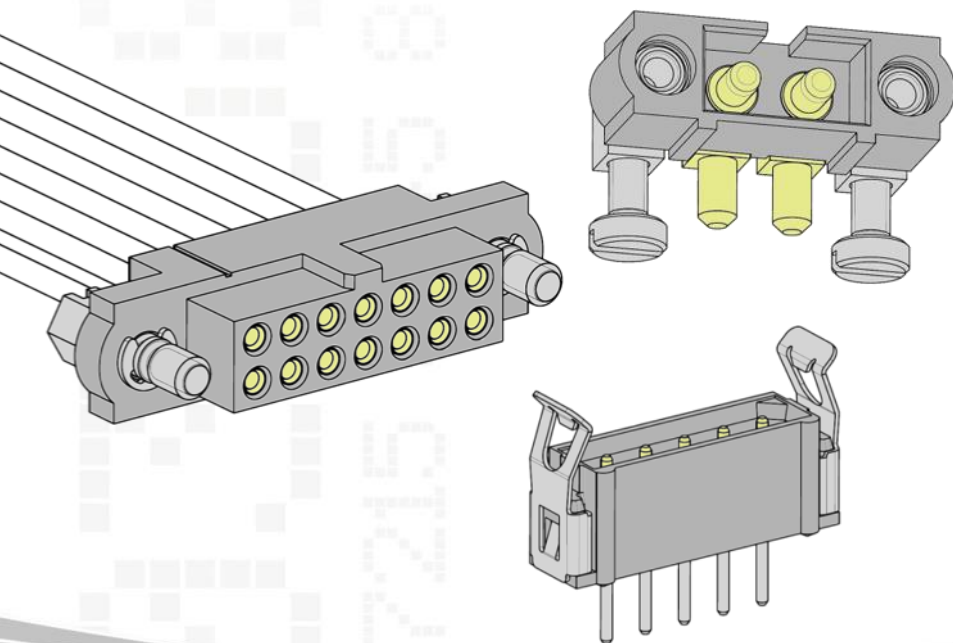
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If you like this product, try...

Datamate - 2.00mm Pitch

 **M300** - 3.00mm Pitch



- 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

HARWIN

Happy to Help

Contact our product support team

➤ **Live Help**



Get CAD models for FREE

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Request evaluation samples

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Contact our technical support team

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