

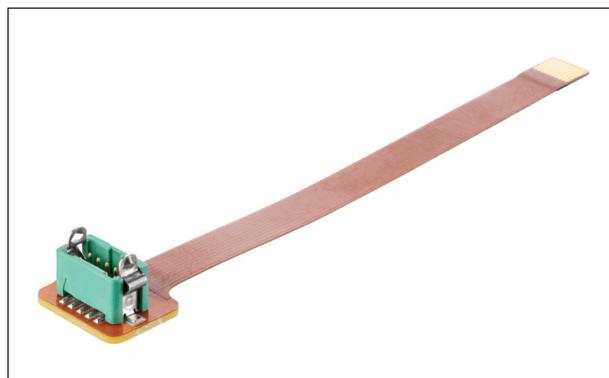
High Reliability Flex Printed Circuit Assemblies Datamate J-Tek and Gecko

Flexible Printed Circuit fitted with 2mm and 1.25mm pitch connectors

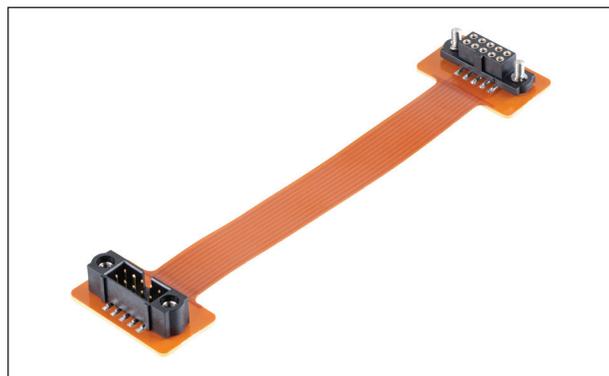
Discover the added versatility of flexible printed circuits (FPC) from Harwin. These low profile designs combine the go-anywhere routing of cables with the reduced vertical space required by SMT connectors.

When you replace standard cable connectors with these flex-mounted SMT connections, you'll be able to stack your PCBs closer. The FPC design allows for a right-angled connection.

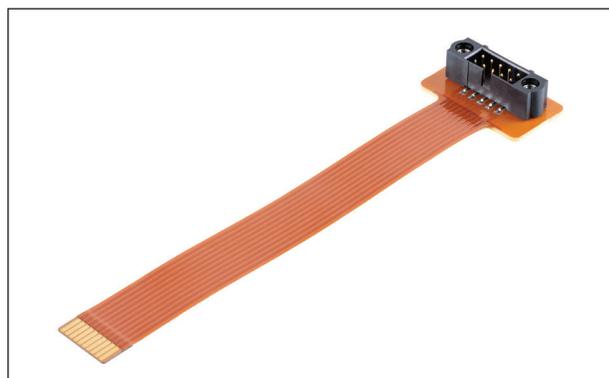
Choose between Datamate J-Tek for 2mm pitch connectors and 1mm pitch FPC, or Gecko for 1.25mm pitch connectors and 0.5mm pitch FPC. Standard 10-contact assemblies in single- and double-ended designs are available from stock – contact Harwin to specify other options. Stainless steel jackscrews are fitted to the Datamate connectors and latches to the Gecko, ensuring secure connection under duress.



Male 5+5 Gecko SMT connector



Male to female Datamate with flex



Male Datamate J-Tek single ended

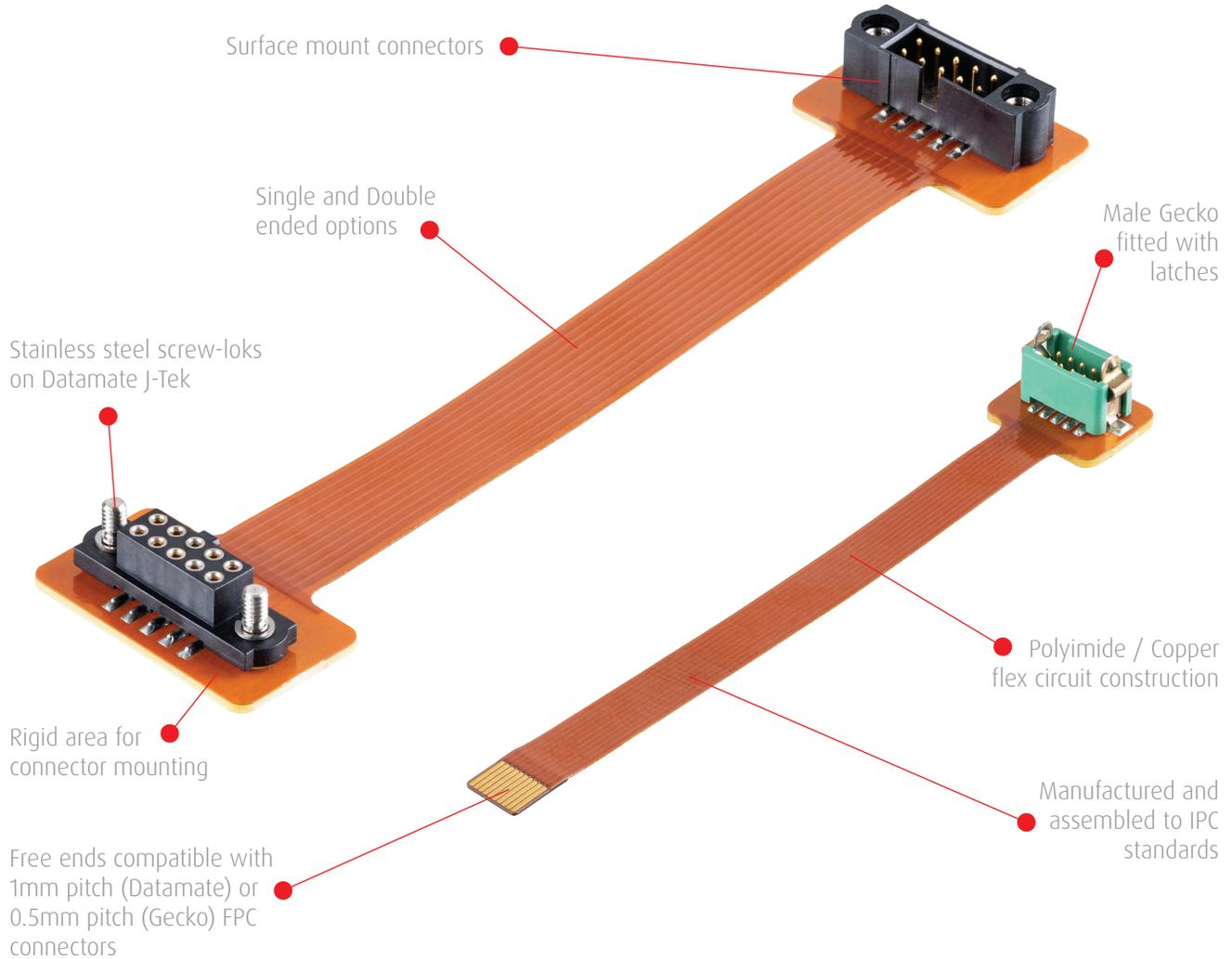
Features and Benefits

1A per contact on 1mm pitch FPC, 0.4A on 0.5mm pitch FPC	Good signal capacity in a compact cable alternative
Low profile connection	Denser PCB stacking possible, or space for other devices over the board
Tight bend radius under static and dynamic conditions	Sharper bend than standard cables, well suited to dynamic movement under bending
Shock (100G) and vibration (up to 20G) proof	Maintain electrical contact in harsh environments
Stainless Steel locking screws or latching	Ensure reliability with a strong and secure connection
4 finger Beryllium Copper signal contact	Signal integrity is assured under heavy vibration
Additional designs available upon request	Easily integrate ready-made assemblies and avoid tooling and process costs
Operates at extreme temperatures up to -65°C to +150 °C	Can be used in a wide variety of extreme environments

Key Applications

Aviation	Flight control systems, Gimble cameras, Radar and tracking, flight surface controls
Motorsport & Electric Vehicles	Navigation, GPS and tracking equipment, communications and telemetry, camera systems, ERS controls
Space	Satellites & CubeSats, radar, communications, launch systems
Defense & Security	UAVs, ground communications, rugged vehicle electronics, handheld portable equipment

Product Features



Specifications

Electrical		Mechanical		Physical	
Current rating (Datamate)	1A per track	Minimum Static Bend Radius	1.85mm	Flexible Printed Cable	Polyimide base, Copper clad with Bonded overlay
Current rating (Gecko)	0.4A per track	Minimum Dynamic Bend Radius	3.70mm	Rigid Areas	0.8mm HTG FR4
All other specifications as Datamate (C005XX) and Gecko (C125XX) Component Specifications				Finish	ENIG on exposed copper

Datamate J-Tek

- Single-ended Flex assembly, free end suitable for FPC connection - 100mm overall length
- 5+5 Male double row SMT connector with internal jackscrews fitted



Part No.
M80-F150210-100-L

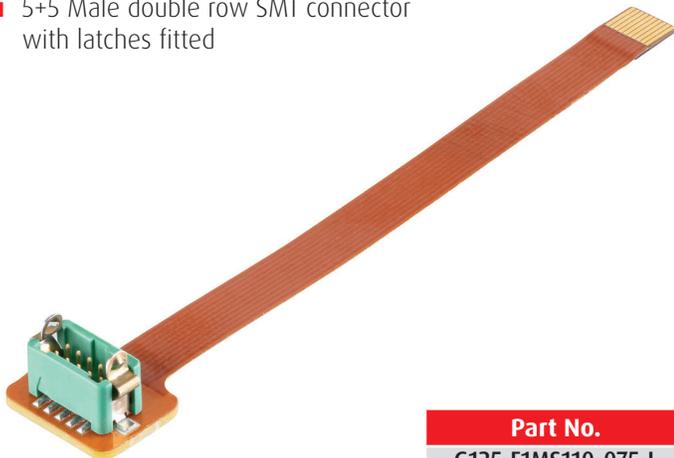
- Double ended Flex assembly, male to female - 100mm overall length
- 5+5 Male double row SMT connector with internal jackscrews fitted
- 5+5 Female double row SMT connector with floating hex slotted jackscrews



Part No.
M80-F150210-100-402

Gecko with Latches

- Single-ended Flex assembly, free end suitable for FPC connection - 75mm overall length
- 5+5 Male double row SMT connector with latches fitted



Part No.
G125-F1MS110-075-L

- Double ended Flex assembly, male to female - 75mm overall length
- 5+5 Male double row SMT connector with latches fitted
- 5+5 Female double row SMT connector compatible with latches



Part No.
G125-F1MS110-075-FS1

Other products available

- Gecko De-latching tools, to assist unmating



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