



HARWIN

CONNECT TECHNOLOGY
WITH CONFIDENCE

DEFENSE SYSTEMS

**CONTROL ACROSS ALL DOMAINS
MISSION-READY DEFENSE
INTERCONNECTS**

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DEFENSE SYSTEMS

RELIABILITY WITHOUT COMPROMISE

RELIABLE CONNECTIVITY FOR DEFENSE OPERATIONS.

From equipping ground troops in the heart of the desert to powering high-altitude surveillance drones, defense missions demand technology that performs without compromise. When conditions are harsh and failure is not an option, every component must deliver absolute reliability.

Harwin provides high-reliability interconnect solutions engineered specifically for the rugged demands of defense applications. With decades of experience supporting the global defense industry, our connectors are built to endure extreme vibration and shock, high temperatures, humidity, and the harshest operational environments — ensuring consistent performance when it matters most.

Certified to EN9100D / AS9100D standards, our products combine robust mechanical design with precision engineering to deliver secure, dependable connections across mission-critical systems.

ENGINEERED FOR EXTREMES. TRUSTED IN THE FIELD.

From battlefield communications and vehicle electronics to airborne ISR platforms and advanced defense systems, Harwin interconnects provide the rugged reliability today's operations require. Proven under the most demanding environmental conditions, our solutions give defense engineers the confidence to design without compromise.

HRI RANGE



The Harwin HRI range comprises high-reliability (Hi-Rel) interconnect solutions optimised for the UAV sector, where uncompromising performance and absolute dependability are essential. Designed

for autonomous systems, tactical defense, and mission-critical avionics, the HRI range delivers proven durability and innovation in every connection.

Whether operating at high altitudes, in autonomous flight, or on the front line, Harwin HRI connectors keep vital systems connected when it matters most.

WHY ENGINEERS TRUST HARWIN

- Proven supplier to the global defense UAV industries
- Lightweight, high-reliability interconnects with ultra-compact footprints
- Certified to EN9100D / AS9100D
- Resilient under extreme temperatures, high-G shock and vibration
- Backed by exceptional global support and expert guidance

TOOLS TO GET YOU THERE

We support engineers at every stage, from concept to deployment, with a full suite of technical resources: Expert advice / Training videos / Test reports and certifications / Assembly instructions / Datasheets and 3D CAD models.

Explore them all at: [harwin.com/resources/product-datasheets](https://www.harwin.com/resources/product-datasheets)

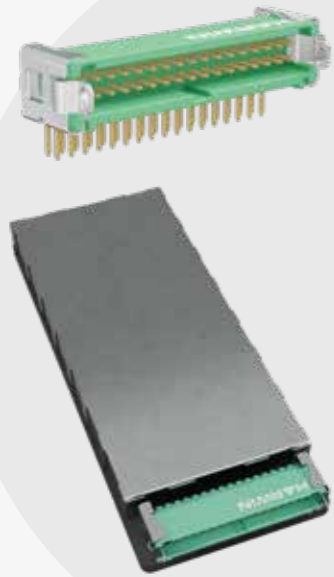
Whether you're designing for high-altitude endurance or the toughest tactical environments on Earth, Harwin delivers dependable, high-performance connectivity solutions that you can count on.

01

FLIGHT CONTROLLER
PRODUCTS: GECKO LATCH

Flight control systems demand compact, secure connections that withstand vibration, shock, and rapid manoeuvres. Harwin's Gecko Latch connectors deliver reliable signal integrity and positive retention for autopilot electronics in small drones and UAS platforms.

- Gecko Latch ensures secure mating under continuous vibration
- Compact, lightweight design supports space-constrained avionics
- Proven electrical stability for critical flight control functions



02

LASER GUIDED FUZE
PRODUCTS: GECKO-SL

In laser-guided fuze assemblies for precision-guided munitions, the Gecko Screw-Lok female PCB connector provides secure, vibration-resistant interconnects between guidance electronics and sensors, ensuring reliable signal integrity and compact integration in extreme launch environments.

- Screw-Lok fixings preventing connector disengagement under shock and vibration
- Compact footprint suits dense signal routing in minimal PCB space
- Reliable signal performance for fuze technology



03

TELEMETRY MODULES
PRODUCTS: GECKO-SL

In telemetry modules used within precision-guided systems, a Gecko male horizontal PCB connector enables compact, high-reliability data and power transmission between avionics and guidance electronics, maintaining secure connectivity under vibration, shock, and demanding operational environments.

- Gecko Screw-Lok fixings provide strong mechanical retention, preventing connector disengagement under shock and vibration
- Small footprint suits tightly packaged telemetry modules
- Maintains dependable data transmission in demanding defense conditions



APPLICATION

PRECISION GUIDED SYSTEMS

Precision-guided systems require exceptional accuracy, reliability, and performance in demanding environments. Our solutions support advanced defence technologies by delivering stable signal integrity and consistent operation. Engineered for mission-critical applications, they enable precise control, dependable data handling, and robust performance where accuracy and reliability are essential.

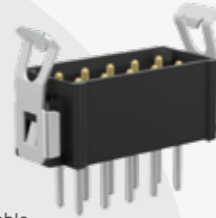
01

HANDHELD RADIOS

PRODUCTS:
DATAMATE L-TEK

Reliable interconnect solutions for handheld radios, ensuring stable signal integrity and power delivery. Designed to withstand repeated handling, enabling consistent communication performance in demanding tactical environments.

- Multi-finger contacts ensure stable performance under repeated handling
- Gold-plated contacts maintain low resistance and signal integrity
- Small footprint supports dense PCB connections and frequent mating cycles



02

NIGHT VISION GOGGLES

PRODUCTS:
GECKO-SL

Compact, lightweight interconnect solutions for night vision systems, delivering dependable power and signal continuity. Engineered for stability under movement, shock, and harsh operational conditions.

- Screw-Lok fixings prevent accidental unmating during rapid movement
- 1.25mm pitch helps minimise size and weight
- Stable electrical performance under shock, vibration, and temperature extremes



03

PORTABLE POWER SYSTEMS

PRODUCTS:
DATAMATE POWER

High-performance interconnect solutions supporting efficient power transmission in portable systems. Designed for durability and repeated use, ensuring reliable delivery between batteries and field-deployed electronic equipment.

- Supports high current transmission for soldier portable power systems
- Jack screw retention prevents accidental disconnection during movement and impact
- Gold-plated contacts maintain low resistance through repeated connection cycles



APPLICATION

SOLDIER & TACTICAL SYSTEMS

Soldier and tactical systems require rugged, lightweight interconnect solutions that perform reliably in demanding field environments. Our technologies support portable and body-worn equipment, delivering dependable power and signal integrity. Designed for durability and compact integration, they help ensure consistent performance across modern dismantled and tactical electronic systems.



01

ENGINE STARTER

PRODUCTS: KONA AND GECKO-SL

Engine start systems demand high-current capability and secure connections under shock and vibration. Harwin's Kona and Gecko SL connectors deliver reliable power and control signal performance for UAV engine starting in harsh operational environments.

- Kona supports high-current delivery for starter motors
- Gecko SL provides secure signal control under vibration
- Robust designs withstand repeated start cycles



02

POWER MANAGEMENT UNIT

PRODUCTS: DATAMATE SIGNAL, POWER, MIX TEK AND M300

UAV power management systems require compact, flexible interconnect solutions supporting power, signal, and mixed layouts. Harwin's Datamate ranges and M300 connectors provide scalable, high-reliability performance across converters, regulators, and distribution modules.

- Datamate Mix-Tek combines power and signal in one connector
- Datamate Power and Signal support modular system design
- M300 delivers robust performance for higher current demands



03

MAGNETOMETER

PRODUCTS: GECKO-SL

Accurate magnetic field sensing depends on stable, low-noise electrical connections. Harwin's Gecko SL connectors provide secure, lightweight interconnect solutions for magnetometers operating in vibration-prone UAV environments.

- Gecko SL ensures reliable mating under dynamic motion
- Compact format minimises sensor mass and footprint
- Stable signal performance for precise navigation inputs



APPLICATION

UAVs (UNCREWED AERIAL VEHICLES)

High-altitude, long-endurance UAVs rely on absolute system integrity. These complex platforms integrate advanced avionics, surveillance payloads and secure communications that must perform in demanding environments. Harwin connectors are proven in aerospace and defense applications, delivering dependable power and signal transmission across flight-critical and mission-critical architectures.

01

**RADIO SYSTEMS
(POWER AMPLIFIER)**

PRODUCTS: DATAMATE J-TEK

High-reliability interconnect solutions support power amplifier modules within radio systems, ensuring efficient power transmission and signal integrity. Designed for thermal and electrical stability, they enable consistent performance in demanding communication environments.

- Datamate J-Tek supports high-density, high-speed signal routing
- Proven resistance to vibration and mechanical stress
- Reliable performance signal transfer



02

**BATTLEFIELD
MANAGEMENT SYSTEMS**

**PRODUCTS: DATAMATE
MIX-TEK**

Interconnect solutions for battlefield management systems deliver reliable data and power transmission across integrated electronic networks. Engineered for durability and signal integrity, they support real-time information exchange in complex, mission-critical operational environments.

- Datamate Mix-Tek combines power and signal in one connector
- Compact design supports space-constrained management system
- Reliable contact integrity for continuous operation



03

**ADVANCED LAND
DEFENSE SYSTEM**

PRODUCTS: M300

Robust interconnect solutions enable reliable power and signal transmission across advanced land defence platforms. Designed to perform under shock, vibration, and environmental extremes, they support critical subsystems in highly integrated, space-constrained vehicle architectures.

- Enables reliable power delivery for motors and control electronics
- Maintains secure connections under shock, vibration, dust, and extremes
- Compact high-current connectors simplify power routing in constrained spaces



APPLICATION

LAND DEFENSE SYSTEMS

Land defense systems require rugged, high-reliability interconnect solutions capable of supporting complex electronic architectures. Our technologies deliver dependable power and signal integrity under shock, vibration, and temperature extremes, enabling consistent performance across vehicle platforms, subsystems, and mission-critical equipment in demanding operational environments.

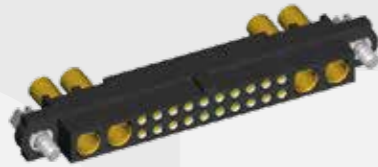
01

SONAR PROCESSING UNIT

PRODUCTS: GECKO-LATCH

Reliable interconnect solutions support sonar processing units, ensuring stable data transmission and power delivery. Designed for consistent performance, enabling accurate signal processing within critical onboard electronic systems.

- Gecko latch ensures secure mating in high-vibration environments
- Prevents accidental unmating during continuous operation
- Maintains stable signal integrity in critical sonar processing systems



02

NAVIGATION AND CONTROL SYSTEMS

PRODUCTS: DATAMATE J-TEK

Interconnect solutions for navigation and control systems provide dependable signal integrity and power transmission. Engineered for reliability, supporting precise operation of critical onboard guidance and vessel control electronics.

- Datamate J-Tek supports high-density, high-speed signal routing
- Proven resistance to vibration and mechanical stress
- Reliable performance for precision data processing



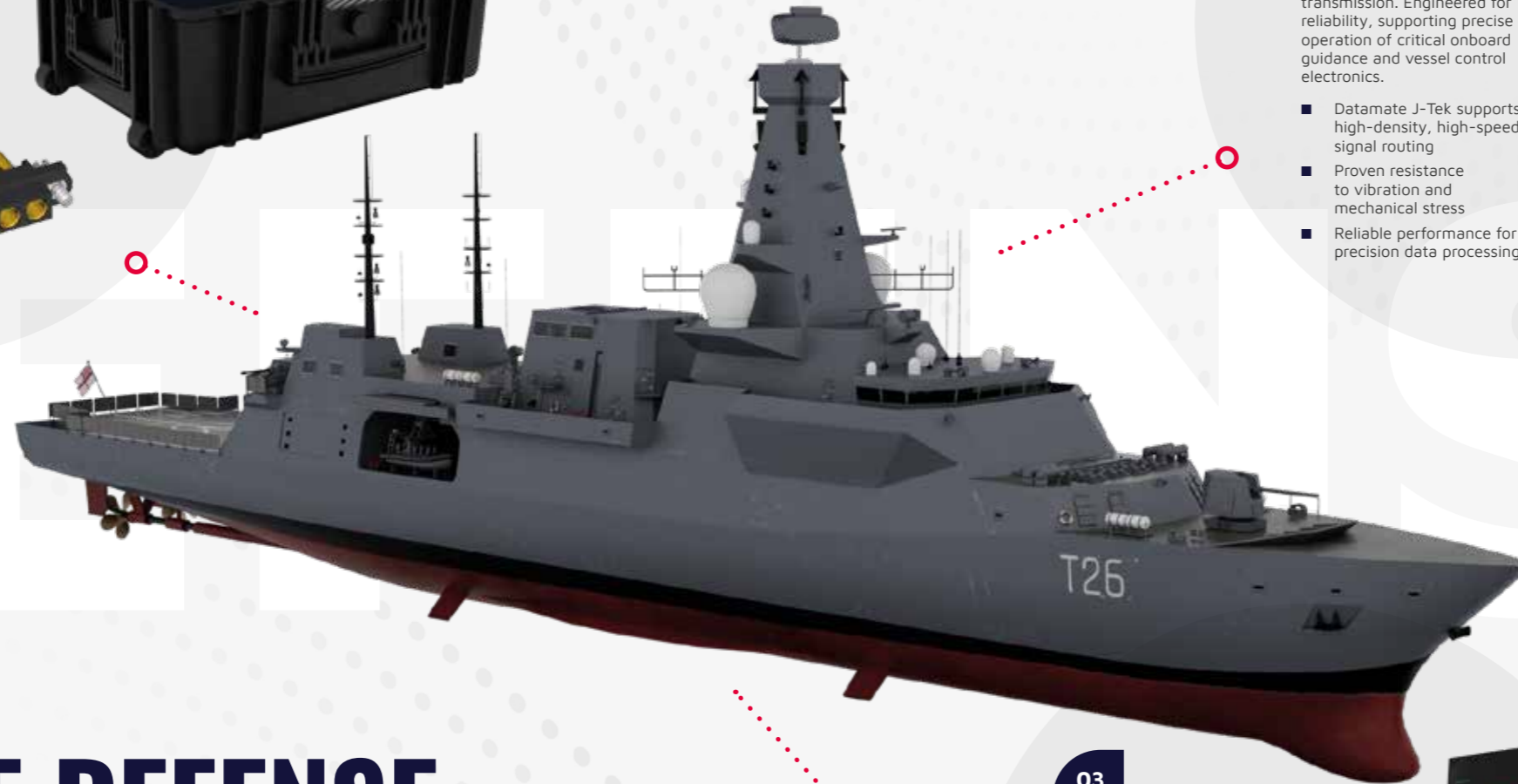
03

SHIPBOARD RADAR MODULE

PRODUCTS: GECKO SL

High-performance interconnect solutions support shipboard radar systems, ensuring stable signal and power transmission. Designed for reliability, enabling consistent detection, tracking, and operation within mission-critical maritime electronics.

- Screw-Lok fixings ensure secure retention in high-vibration environments
- Prevents disengagement during continuous radar operation
- Maintains reliable signal and power connections under demanding conditions



APPLICATION

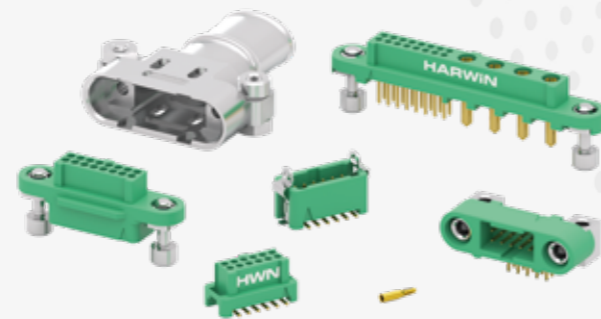
NAVAL & MARITIME DEFENSE

Naval and maritime systems require reliable interconnect solutions that perform consistently within enclosed electronic systems. Our technologies deliver stable power and signal integrity under vibration and temperature variation, supporting mission-critical equipment and ensuring dependable performance across onboard and offshore defence applications.

TECHNICAL SPECIFICATIONS



MICRO-MINIATURE CONNECTORS FOR SWAP-C OPTIMISATION



The Gecko series comprises micro-miniature, low-profile interconnects specifically designed for Space, Weight, and Power (SWaP) optimisation. These dual-row connectors are the ideal solution where PCB real estate is at a premium and every gram of weight affects flight endurance. The range includes standard latching for rapid assembly, Screw-Lok (Gecko-SL) for maximum security against high-G vibration, and Gecko-MT mixed-technology variants, integrating high-power contacts into a compact housing to streamline UAV payload and propulsion systems.

Scan to view the full range and for further information:



SPECIFICATIONS	
Pitch	1.25mm
Current Rating	2A (signal contacts)
Maximum Current (MT)	10A (power contacts)
Temperature Range	-65°C to +150°C
Vibration/Shock	Tested to 20G vibration and 100G shock
Durability	1,000 mating cycles
Contact Design	Six-finger Beryllium Copper
Housing Material	PA4T
Fixing Options	Jack screws, latches, quick-mating bayonet
Outgassing	TML = 0.68%, CVCM = 0.01%



HIGH RELIABILITY & HIGH CURRENT MAXIMUM POWER CONNECTORS



Kona is Harwin's maximum power, high-reliability connector range, built on an 8.50mm pitch. Available in 2, 3, and 4-contact options for vertical cable-to-board or cable-to-cable configurations, the series is engineered specifically for high-density power transmission. The Kona range is the ideal choice for Safety Critical Systems within heavy-lift UAVs, providing robust, high-current connectivity for battery management, motor drive systems, and power distribution units. Designed to handle up to 60A per contact, it ensures maximum power delivery and mission endurance in the most demanding flight environments.

Scan to view the full range and for further information:



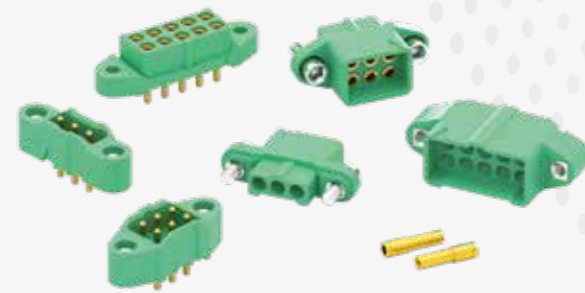
SPECIFICATIONS	
Pitch	8.50mm
Current Rating	Up to 60A per contact
Working Voltage	1,500V DC or AC peak
Temperature Range	-65°C to +150°C
Vibration/Shock	Tested to 20G vibration and 100G shock
Power Density	Up to 121A/inch
Contact Design	Six-finger Beryllium Copper
Housing Material	PPS
Outgassing	TML = 0.05%, CVCM = 0.00%

TECHNICAL SPECIFICATIONS

M300

COMPACT POWER SOLUTION, RESISTANT TO VIBRATION & SHOCK

The M300 series is a range of compact, durable power connectors designed for harsh environments and features a 3.00mm pitch. The series has been engineered to provide high-power connectivity within a smaller footprint, with connectors available in single and double-row configurations for up to 10 contacts. Suited for both wire-to-wire and wire-to-board applications, the M300 range is the definitive choice for demanding UAV defense settings. It provides the rugged reliability needed for internal power distribution and actuation systems where space is restricted but performance is non-negotiable.



Scan to view the full range and for further information:

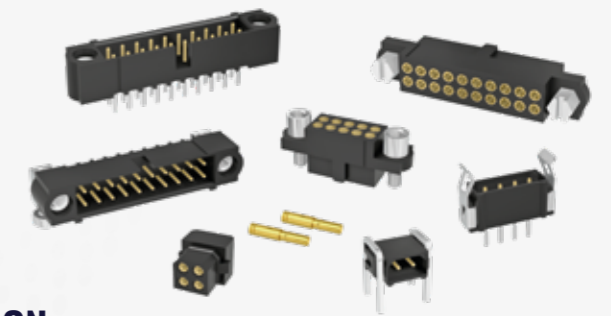


SPECIFICATIONS	
Pitch	3.00mm
Current Rating	Up to 10A per contact
Temperature Range	-65°C to +175°C
Vibration/Shock	Tested to 10G vibration and 100G shock
Durability	1,000 mating cycles
Housing Material	PA4T
Outgassing	TML = 0.68%, CVCM = 0.01%
Fixing Options	Fitted stainless steel jack screws

DATAMATE®

HIGH RELIABILITY, MINIATURE CONNECTORS FOR SWAP-C OPTIMISATION

Datamate is a field-proven, highly reliable, and flexible miniature connector system built on a 2.00mm pitch. It is available in single, double, and triple-row configurations to meet diverse interconnect needs, offering maximum security with fixing options including stainless steel jack screws (J-Tek), latches (L-Tek), and 101Lok fast-mating hardware for rapid field maintenance. The series includes Mix-Tek options for combined signal, power, and coax-optimising UAV cable management by consolidating data and video feeds into a single interface. Datamate is compliant with British and European defense sector standards BS 9525-F0033 / CECC 75101-008, while significantly exceeding the performance requirements of US MIL-DTL-55302.



Scan to view the full range and for further information:



SPECIFICATIONS	
Pitch	2.00mm (signal), 4.00mm (power/coax)
Current Rating	3A (standard signal)
Maximum Current (Mix-Tek)	20A or 40A (power contacts)
Temperature Range	-55°C to +125°C
Vibration/Shock	Tested to 20G vibration and 100G shock
Durability	500 mating cycles (1,000 for T-contact variant)
Contact Design	Four-finger Beryllium Copper
Housing Material	PPS or PBT
Outgassing	PPS: TML = 0.05%, CVCM = 0.00% PA6T: TML = 0.33%, CVCM = 0.07%

DEFENSE



HARWIN

FOR FURTHER INFORMATION PLEASE CONTACT:
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