

Applications



ADAS/Autonomous Driving Sensors



In-Vehicle Infotainment



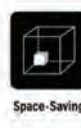
Humanoid Robotics



High-Speed



Noise Prevention



Space-Saving

Introducing Hirose's GT37 Series—a compact automotive-grade, fully shielded connector designed for high-speed differential signal transmission in space-constrained systems. With a narrow 8.6mm width and support for Gigabit Ethernet 1000BASE-T1 over a 2-wire interface, the GT37 helps reduce footprint while enabling stable communication through a simplified cable structure.

Operating from -40°C to +105°C, the GT37 supports reliable performance in automotive and industrial environments. Its shielded construction helps maintain signal integrity in electrically noisy conditions, while external harness compatibility supports flexible system integration.

KEY BENEFITS OF THE GT37 SERIES INCLUDE:

- A compact 8.6mm width that supports high-density PCB layouts in constrained systems
- Compatibility with Gigabit Ethernet 1000BASE-T1 over shielded twisted pair (STP), enabling high-speed communication over a simplified cable structure
- A fully shielded 2-wire differential signal design that supports stable high-speed data transmission and reduces electromagnetic interference
- Automotive-grade construction for reliable performance in vibration-sensitive environments.
- Operation from -40°C to +105°C for demanding automotive and industrial applications
- Simple harness assembly process improves manufacturing throughput
 - Supports both Class 1 and Class 2 harnesses
 - No dedicated processing equipment required. Supports manual and standard assembly processes



Automotive Network Overview

Growing demand for compact size, high-speed signal solutions

Shift toward vehicle electrification and autonomous driving

Various sensors installed, requiring high-speed transfer of large data volumes.

Massive ECU control for autonomous driving

- Different signal control per device: signal conversion lag, increased harness volume (CAN and LIN are commonly used)

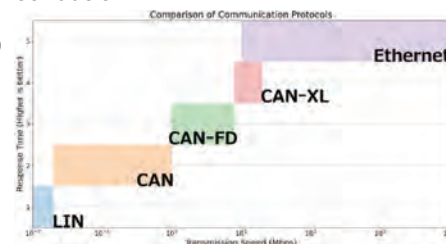
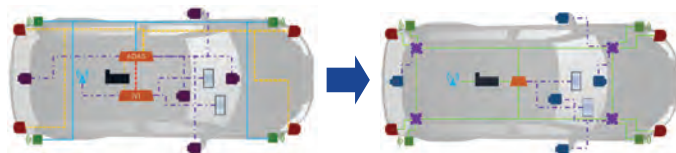


Standard signal control: **No signal conversion needed, harness consolidation**

- A standard signal covering low-to-high speed is needed (In next-gen vehicles, CAN and LIN transmission speeds are insufficient)
- Standard signal for high speed: **Ethernet**

Architectural changes reduce harness complexity, but communication standardization and higher capacity advance

- Integrated ECU adoption drives **High Density Mounting** demand
- **Downsizing of connectors**

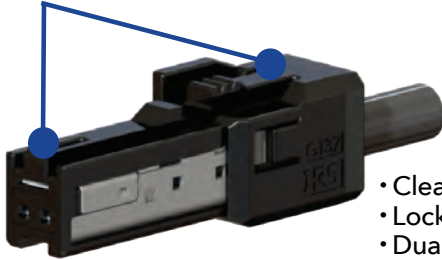


CLICK HERE
FOR MORE INFORMATION

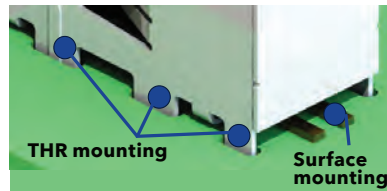
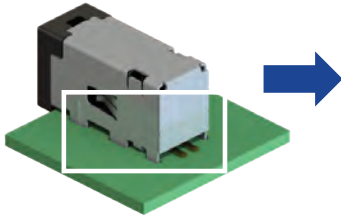
CLICK HERE TO ORDER
SAMPLE NUMBER:
US-GT37SAMPLE-26

User-Friendly Structure

Dual-Supported Lock Structure



- Clear click feel during mating
- Lock tensile strength: 98 N or more
- Dual-supported lock prevents deformation and damage



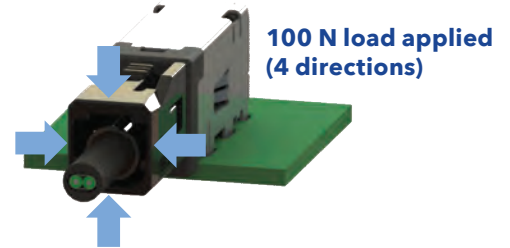
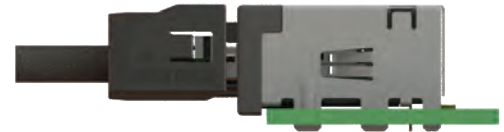
Shield section THR (Through-Hole Reflow) provides reduces mounting labor + improves board peel strength

Robust Design

Japanese OEM-compliant robustness

In half-mated state, 100 N applied in 4 directions (10 cycles)
→ 100 N force maintains mating integrity

Tested in half-mated state



Robustness with prying force resistance

Specifications

Material / Finish

Component		Material	Finish
Receptacle	Housing	PA	Black*/ Gray
	Center Contact	Brass	Tin Plating
	Shield Case	Copper Alloy	Tin Plating
	GND Contact	Phosphorous Bronze	Tin Plating
	Center Contact	Corson Alloy	Tin Plating
Plug	Insulation Case	PBT	Black
	Crimp Shield Cover	Copper Alloy	Tin Plating
	Outer Shell	Copper Alloy	Tin Plating
	Sleeve	Copper Alloy	Tin Plating
	Housing	PBT	Black*/Gray

Characteristics

*Standard product is black

Rated Current		1A
Rated Voltage		30V AC
Operating Temperature		-40 to +105°C*
Contact Resistance	Signal	30mΩ Max. (1,000Hz DC)
	Shield	60mΩ Max. (1,000Hz DC)
Withstanding Voltage		1,000V AC for 1 min
Insulation Resistance		100MΩ Min. (500V DC)
Mating Durability		30 cycles

*Including temperature rise during current flow



For additional information please go to
www.hirose.com/product/series/GT37

Specifications herein are subject to change without notice.
Contact Hirose for latest specifications, drawings, or availabilities.

STAY CONNECTED

