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TAK50 Terminals >

The TAK50 Terminal is a cutting-edge 0.50mm solution optimized for compact automotive signal and high-frequency data applications. The locking lance variant uses an innovative two-piece design to enhance electrical performance, improve durability and help reduce component sizes.



ADVANTAGES AND FEATURES

Reduces connector size, supporting component miniaturization while saving space and weight

The 0.50mm terminal enables a reduction in connector component size of 30 to 50% compared with 0.63mm terminal systems.

Maintains consistent electrical performance over the product lifetime

The terminal consists of two contact points covered by a stainless steel housing. The design limits relaxation over time, minimizing the reduction in normal force and improving reliability.

Terminal Size	0.50mm
Terminal Style	Locking lance
Plating	Tin
Mates With	AK standard cavity design and standard mating blade size 0.50 by 0.40mm
Validation Standards	LV214, GMW3191, USCAR-2, USCAR-21
Current (max.)	5.0A
Crimp Wire Size	0.13 to 0.35mm ²
Operating Temperatures	-40 to +105°C

Provides robust and reliable connectivity

The rugged two-piece design with integrated lead-in and contact spring protection features reduces the risk of damage, enhancing long-term reliability while improving overall electrical properties.

Eases assembly operations while preventing accidental disconnection

The two-piece body design enables reduced mating forces and improves retaining forces.





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CONNECTOR OPTIONS



ConnTAK50 Connectors Standard AK interface Surface-mount (SMT) header Validations:

- LV214
- USCAR2
- GMW3191



stAK50h Connectors Molex design Modular design Hybrid connector system using: • TAK50

- MCON1.2
- MCP2.8
- Validations:
- LV214
- GMW3191



MX-DaSH Connectors
Molex design
Modular design
Data-signal hybrid connector system using:
TAK50
MCP2.8

- H-MTD*
- Validations:
- USCAR

*H-MTD is a registered trademark of Rosenberger

SPECIFICATIONS

Reference Information

Packaging: Reel

- Terminal Style: locking lance (clean body also available)
- Mates With: AK standard cavity design and standard mating blade size 0.50 by 0.40mm
- Terminal Validation: LV214
- Additional Validations: GMW3191, USCAR-2, USCAR-21
- Vibration/Dynamic Load Classification: Class 1 and Class 2
- Crimp Validation: Crimp slow-motion test based on LV214-2
- Crimp Process Validation: Crimp process monitoring based on LV214-4
- RoHS: Yes
- Halogen Free: Yes

Electrical

Current (max.): 5.0A Contact Resistance (max.): 3 milliohms Crimp Resistance (max.): 1 milliohm

Mechanical

Crimp Wire Size Range: 0.13 to 0.35mm² Structure Type: Two-piece body Contact Overlap with Male Pin (min.): >1.00mm Insertion Force (max.): 2.9N Durability (max.): 20 mating cycles

Physical

Body: Copper Alloy Plating: Tin coating Spring Sleeve Material: Stainless Steel Operating Temperatures: -40 to +105°C

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