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**POWERING SPACE**  
Payload and Bus Satellite Systems, Launch Vehicles

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### Facts about Intersil Space Parts

Intersil offers a broad range of radiation hardened and Single-Event Effects (SEE) hardened IC products for RH and space applications.

- Over 300 space-qualified radiation hardened products available.
- Consistent design and manufacturing in Intersil's MILPRF-38535-qualified facility located in Palm Bay, Florida.
- Intersil is one of only 11 RHA Defense Logistics Agency (Land and Maritime) QML suppliers.
- All products are fully Class V (space level) compliant.
- All products are on individual DLA SMD drawings.

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### New ISL7202xSEH 3,3V CAN Bus Transceiver Released



Intersil Released three radiation tolerant 3.3 V controller area network (CAN) transceivers for satellite communication. The radiation hardened CAN transceiver family ISL7202xSEH is fully QML-V qualified and compliant with the ISO11898-2 physical layer standard. The Intersil CAN Bus Parts

are tailored to provide reliable serial data transmission between a CAN controller and CAN bus at speeds up to 1 Mbps.

Up to 120 ISL7202xSEH transceivers can be connected to a single CAN bus to reduce cabling/harness size, weight and power (SWAP) costs. Consequently, the CAN bus transceiver can eliminate the extra cabling.



The 3.3 V CAN transceivers ([ISL72026SEH](#), [ISL72027SEH](#) and [ISL72028SEH](#)) leverage proprietary silicon-on-insulator (SOI) process, which provides single event latch-up (SEL) and single event burn-out (SEB) robustness in heavy-ion environments.

Intersil's CAN transceivers are low-dose rate tested up to 75 krad on a wafer-by-wafer basis, and apply single event transient (SET) mitigation techniques to reduce system level bit error rates. To allow the connection of additional unpowered transceivers to the CAN bus, the transceivers are "cold spare" redundant capable.

Qualified to SMD 5962-15228 and compatibility with ISO11898-2, 4 kV human body model (HBM) ESD protection on all pins, 3.0 V to 3.6 V supply range, -7 V to 12 V common-mode input voltage range, 5 V tolerant logic inputs and bus pin fault protection to +/-20 V terrestrial and +/-18 V in orbit. In addition, it offers three selectable driver rise and fall times, glitch free bus I/O during power-up and power-down and full fail-safe receiver: open, short, terminated/undriven.

The ISL72026SEH also includes a loopback test capability that allows node diagnostics and reporting while the system is transmitting data. It also includes a listen mode feature that powers down the driver circuitry while keeping the receiver active to listen for data on the bus, and then activates the driver after data is received. The ISL72027SEH offers split termination output using the Vref pin to provide a Vcc/2 output reference. This improves network electromagnetic compatibility and stabilizes the bus voltage, preventing it from drifting to a high common-mode voltage during inactive periods. The ISL72028SEH includes a low-power shutdown mode that switches off the driver and receiver to draw 50 uA for power conservation.

The ISL72026SEH, ISL72027SEH and ISL72028SEH 3.3V CAN transceivers are available in 8-lead ceramic flatpack packages, and are U.S. Department of Commerce export approved under classification 5A991.b. Intersil also offers an evaluation board the rad hard CAN transceivers.