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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 MIL-PRF-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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Intersil Multiplexer Overview

Legacy MUX: HS-1840xx also available as ELDRs (Low Dose) version



The HS-1840xx Family are radiation hardened, monolithic 16 channel multiplexers constructed with the Intersil Rad-Hard Silicon Gate, bonded wafer, Dielectric Isolation process. They are designed to provide a high input impedance to the analog source if device power fails (open), or the analog signal voltage inadvertently exceeds the supply by up to $\pm 35V$, regardless of whether the device is powered on or off. Excellent for use in redundant applications, since the secondary device can be operated in a standby unpowered mode affording no additional power drain. More significantly, a very high impedance exists between the active and inactive devices preventing any interaction. One of sixteen channel selections is controlled by a 4-bit binary address plus an Enable-Inhibit input which conveniently controls the ON/OFF operation of several multiplexers in a system. All inputs have electrostatic discharge protection. The HS-1840ARH, HS-1840AEH, HS-1840BRH and HS-1840BEH are processed and screened in full compliance with MIL-PRF-38535 and QML standards. The devices are available in a 28 Ld SBDIP and a 28 Ld Ceramic Flatpack.

New → The Legacy Multiplexer is now also available with "Grounded Lid" HS9G-1840xx, please contact us for more information.

Next Generation MUX ISL71840/1SEH

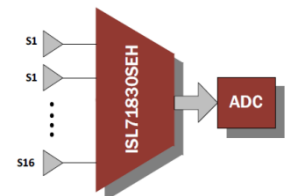
Cold Spare – 16/32 Channel - Supply Voltage $\pm 15V$

The ISL71840/1SEH is a radiation hardened, 16/32 channel multiplexer. It operates with a dual supply of either $\pm 12V$ or $\pm 15V$ and has a 4/5 bit address line plus an enable pin that can be driven with adjustable logic thresholds to conveniently select one of 16/32 available channels. An inactive channel is separated from an active channel by a high impedance which inhibits any interaction between them.

Soon Single Supply MUX ISL71830/1SEH

Cold Spare – 16/32 Channel – 5V Single Supply

The ISL71830/1SEH is a radiation hardened, 16/32 channel multiplexer. It operates with a single supply range from 3.3V to 5.0V and has a 4/5 bit address line plus an enable that can be driven with adjustable logic thresholds to conveniently select one of 16/32 available channels. An inactive channel is separated from the active channel by a high impedance which inhibits any interaction between them.



New and Improved Features of Next Gen and Single Supply MUXes from Intersil

- All New devices have much better ESD ratings than the Legacy Parts.
- much Lower Ron
- Rail to Rail capability
- Improved SET performance
- Lower leakage currents
- Faster propagation and timing delays
- Reduce power loss and limit the shutdown to that one switch instead of the whole IC.