

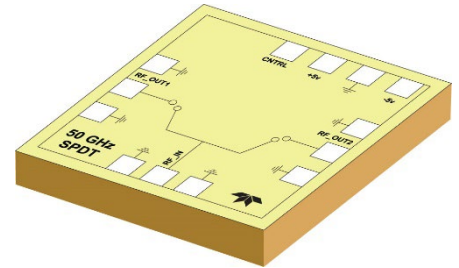
Press Release

Teledyne HiRel Semiconductors Releases Wideband 50 GHz RF Switch

DC to 50 GHz Reflective Single Pole Double Throw RF Switch for Aerospace and Defense high-reliability applications

MILPITAS, CA – February 4, 2025 – [Teledyne HiRel Semiconductors](#) announces the availability of its latest rad-tolerant wideband 50 GHz RF switch, model [TDSW050A2T](#). This switch operates from true DC to 50 GHz, delivering excellent RF performance down to zero Hertz, making this device ideal for many of today's complex space and defense applications. It has been developed in a 150nm pseudomorphic High Electron Mobility Transistor (pHEMT) Indium Gallium Arsenide (InGaAs) process and is available in a 1.15 mm x 1.47 mm x 0.1 mm die ideal for hybrid assembly products. It is qualified to an extended temperature range of -40°C to 85°C per MIL-PRF-38534 Class K equivalency for space applications and is available for immediate shipment.

The TDSW050A2T leverages monolithic microwave integrated circuit (MMIC) design techniques that delivers superior performance across frequencies up to millimeter wave bands. The RF switch delivers low insertion loss, high isolation, fast switching times, and high linearity across a wide frequency band from DC to 50 GHz. It attains an input power 1 dB compression of 23 dBm (typical) and supports 23 dB of port isolation at 50 GHz. It operates with $\pm 5\text{V}$ power supplies with minimal DC power consumption and is controlled with TTL-compatible voltage levels. The RF Switch is TID radiation tolerant to 100 krad (Si), making it an excellent choice for satellite systems. Class K equivalent element evaluation is performed per wafer.



“Today, we’re releasing our latest wideband RF Switch for K bands and beyond”, said Mont Taylor, Vice President and Business Development Manager at Teledyne HiRel. “To meet the higher operating frequencies associated with many of today’s high reliability systems, this RF switch supports operation from true DC out to 50 GHz making it an ideal solution for space, military, and defense applications.”

The TDSW050A2T devices are available for order and shipment today, from Teledyne HiRel Semiconductors or an [authorized distributor](#). They are shipped from our DoD Trusted Facility in Milpitas, California.

For more information on all of Teledyne HiRel’s offerings, review our portfolio of semiconductors, converters, processors, and related services on the [Teledyne HiRel Semiconductors](#) website.

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ABOUT TELEDYNE HIREL SEMICONDUCTORS

Teledyne HiRel’s innovations lead developments in space, transportation, defense and industrial markets. Teledyne HiRel’s unique approach involves listening to the market and application challenges of customers and partnering with them to provide innovative standard, semi-custom or fully custom solutions, bringing increased value to their systems. For more information, visit www.tdehirel.com

ABOUT TELEDYNE AEROSPACE & DEFENSE ELECTRONICS

Teledyne Aerospace & Defense Electronics offers a comprehensive portfolio of highly engineered solutions that meet the most demanding requirements, in the harshest environments. Manufacturing both custom and off-the-shelf product offerings, our diverse product lines meet the current and emerging needs of key applications for avionics, energetics, electronic warfare, missiles, radar and surveillance, satellite communications, air and space, and test and measurement. www.teledyneADE.com

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