

Teledyne e2v HiRel Releases Radiation Tolerant 60 GHz Reflective SPDT RF Switch for Space Applications

New product provides Space RF engineering and design community with a high frequency RF switch for the most challenging high-reliability space applications.

MILPITAS, CA – October 7, 2019 – [Teledyne e2v HiRel](#) announces the availability of a rad-tolerant 60 GHz, Single Pole Double Throw (SPDT) reflective RF switch, model [TDSW0602T](#), that is ideal for use in high reliability, demanding space and defense applications.

This new RF switch, developed with Silicon-on-Insulator (SOI) technology, will be available as flip chip die and is screened per MIL-PRF-38534 Class K for space applications. Until now, rad tolerant 60 GHz switch technology has only been available for less rigorous commercial application requirements.

This product leverages monolithic microwave integrated circuit (MMIC) design techniques that deliver unprecedented performance in the K and Ka microwave and millimeter-wave bands for customers. The Teledyne e2v HiRel [TDSW0602T RF switch](#) delivers benchmark low insertion loss, high isolation, fast switching times, and high linearity across a wide frequency band from 20 kHz to 60 GHz. The element evaluation is performed per wafer, per MIL-PRF-38534 Class K.

“We provide a very wide range of semiconductor screening for ruggedized environmental requirements,” said Mont Taylor, Vice President and Business Development Manager at Teledyne e2v HiRel. “Likewise, we are offering customers a rapidly expanding portfolio of RF products for Ka frequencies and beyond, including Amps, LNAs, PAs, DVGAs, DSAs, Limiters, Mixers, Prescalers, PLLs, Switches and more. The objective is to enable customers to save both time and money using Teledyne e2v HiRel as a ‘one-stop shop’ for procurement, processing, and qualification.”

The TDSW0602T is manufactured on an UltraCMOS® process, an advanced form of SOI technology that delivers the performance of GaAs with the economy and integration of conventional CMOS (UltraCMOS® is a registered trademark of Peregrine Semiconductor Corporation). The SOI process has space-flight heritage and is TID radiation tolerant to 20 krad and immune to SEL (Single Event Latchup), making it an excellent choice for satellites and other high-altitude, high reliability applications. For more information on all of Teledyne e2v HiRel’s space offerings, review our portfolio of semiconductors, converters and processors, and related services [here](#) on the Teledyne Defense Electronics website.

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About Teledyne e2v HiRel Electronics

Teledyne e2v HIREL Electronics offers high-performance, high-reliability semiconductor solutions to provide critical functions for Defense, Space and Commercial markets worldwide. Teledyne e2v HIREL Electronics offers a comprehensive portfolio of highly engineered semiconductors to meet the most demanding requirements in the harshest environments. Custom and off-the-shelf products are available for applications like avionics, electronic warfare, missiles, radar, satcom, space, and test and measurement. Teledyne e2v HIREL Electronics’ powerful pool of engineering expertise makes it a “go-to” supplier for customers looking for products that can deliver the highest reliability in the harshest environments. Teledyne e2v HIREL Electronics is a business unit of Teledyne Defense Electronics. teledynedefenseelectronics.com

About Teledyne Defense Electronics

Serving Defense, Space and Commercial sectors worldwide, Teledyne Defense Electronics offers a comprehensive portfolio of highly engineered solutions that meet your most demanding requirements in the harshest environments. Manufacturing both custom and off-the-shelf product offerings, our diverse product lines meet emerging needs for key applications for avionics, energetics, electronic warfare, missiles, radar, satcom, space, and test and measurement . www.teledynedefelec.com. TDE is a business unit of Teledyne Technologies, Inc., a leading provider of sophisticated instrumentation, digital imaging products and software, aerospace and defense electronics, and engineered systems. www.teledyne.com.

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