

Teledyne e2v HiRel Releases Catalog Radiation Tolerant X-Band (8 GHz to 12 GHz) Low Noise Amplifier for Space Applications

New product provides the Space RF engineering and design community with an off-the-shelf X-Band RF LNA for the most challenging high-reliability space applications.

MILPITAS, CA – December 14th, 2021 – [Teledyne e2v HiRel](#) announces the availability of a rad-tolerant X-Band Low Noise Amplifier, model [TDLNA001013](#) that is ideal for use in demanding high reliability, space and defense applications. This new LNA, developed on 0.15 μm InGaAs pHEMT technology, will be available as die and is qualified per MIL-PRF-38534 Class K-equivalent. It is now available for immediate shipment from our DoD Trusted Facility.

The TDLNA001013 LNA leverages monolithic microwave integrated circuit (MMIC) design techniques that deliver superior performance in the X-band communication channel. The TDLNA001013 delivers a gain of 26 dB from 8 GHz to 12 GHz while maintaining a noise figure of less than 1.4 dB and an output power (P1dB) of 12 dBm. The Class K-equivalent element evaluation is performed per wafer.

“Today we’re releasing our first LNA for space applications,” said Brad Little, General Manager of Teledyne e2v HiRel. “With a noise figure of less than 1.4 dB and the ease that comes from requiring only a single supply voltage, we believe this new product will make system designs easier for space-based communication and general radar applications.”

The TDLNA001013 is TID radiation tolerant to 100 krad (Si), making it an excellent choice for satellite communication systems by increasing the power of a radio signal with little of the noise and distortion that can degrade digital signals. For more information on all of Teledyne e2v HiRel’s space offerings, review our portfolio of semiconductors, converters, processors, and related services [here](#) on the Teledyne Defense Electronics website.

Devices are available for ordering and shipment today, from Teledyne e2v HiRel or an [authorized distributor](#), with the option of Classes H- or K-equivalent screening. They are shipped from our DoD Trusted Facility in Milpitas, California.

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ABOUT TELEDYNE e2v HIREL ELECTRONICS

Teledyne HiRel’s innovations lead developments in space, transportation, defense, and industrial markets. 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 <http://www.tdehirel.com>

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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.teledynedefenseelectronics.com/.

Media Contact:
Sharon Fletcher

