Press Release



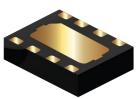
Teledyne e2v HiRel Releases Single-Supply, Radiation-Tolerant, UHF to S-Band (0.3 GHz to 3 GHz), Ultra-Low Noise Amplifier for Space Applications

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

MILPITAS, CA – January 30, 2024 – Teledyne e2v HiRel announces the availability of a rad-tolerant UHF to S-band low noise amplifier, model TDLNA0430SEP that is ideal for use in demanding high reliability space applications where low noise figure, minimal power consumption and small package footprint are critical to mission success. This new LNA is developed on a 90nm enhancement-mode pseudomorphic High Electron Mobility Transistor (pHEMT) process. It is available in an 8-pin dual-flat no-lead (DFN) 2 mm x 2 mm x 0.75 mm plastic surface mount package and is qualified per Teledyne's Space enhanced plastic flow. It is now available for immediate shipment from our DoD Trusted Facility.

The TDLNA0430SEP LNA leverages monolithic microwave integrated circuit (MMIC) design techniques that deliver exceptional performance for UHF to S-band communication channels. The amplifier delivers a gain of 21.5 dB from 0.3 GHz to 3 GHz while maintaining a noise figure of less than 0.35 dB and an output power (P1dB) of 18.5 dBm. The device should be biased at a V_{DD} of +5.0 volts and I_{DDQ} of 60mA and an evaluation kit is also available for customer evaluation.





"Today we're releasing our latest plastic space qualified LNA for harsh environment applications," said Mont Taylor, Vice President and Business Development Manager at Teledyne e2v HiRel. "With a noise figure of less than 0.35 dB coupled with ease of use from a positive single supply voltage, we believe this new product will enable system designers with a superior solution for a variety of applications including, space-based communication, phased array radar and electronic warfare (EW) system applications."

The TDLNA0430SEP is TID radiation tolerant to 100 krad (Si), making it an excellent choice for satellite communication systems by increasing the power of radio signals with minimal noise and distortion which 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 <u>authorized distributor</u>, in commercial versions and with the option of Classes H and K-equivalent screening. They are shipped from our DoD Trusted Facility in Milpitas, California.

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ABOUT TELEDYNE e2v HIREL ELECTRONICS

Teledyne e2v HiRel's innovations lead developments in space, transportation, defense and industrial markets. e2v 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

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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.teledynedefelec.com.

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