

At Satellite 2019, One of the Industry's Broadest Satcom Portfolios is Presented by

Teledyne Defense Electronics, Booth 1501

RANCHO CORDOVA, CA – May 6, 2019 – [Teledyne Defense Electronics](#) (TDE) is demonstrating a large footprint of innovative Teledyne technologies this week at Satellite 2019, reflecting the presence of 9 separate Teledyne brands currently operating in the satcom market.

These Teledyne brands together bring to market a unique portfolio of satcom solutions for all bands and power levels; for COTS, near COTS and full Mil-Spec; and for Air, Sea, Land or Space applications. These Teledyne brands include [Teledyne Defence & Space](#), [Teledyne e2v HiRel Electronics](#), [Teledyne e2v Semiconductors](#), [Teledyne Labtech](#), [Teledyne Microwave Solutions](#) (TMS), [Teledyne MEC](#), [Teledyne Paradise Datacom](#), and [Teledyne Relays / Teledyne Coax Switches](#).

The experienced satcom engineering resources available across Teledyne Defense Electronics continue to meet the challenges of the satellite marketplace, including innovating for the evolving LEO and MEO 'NewSpace' segment. Here is a sampling of the satcom capabilities being showcased in Booth 1501.

Satellite 2019: Featured Teledyne Offerings

- **The flagship [Q-Flex modems](#), including the [new '400' Series](#):** From Teledyne Paradise, the industry's leading line of software-defined satcom modems. The Q-Flex modem supports the most powerful bandwidth-saving technology available. DVB-S2/S2X is supported throughout, while Paired Carrier+ overlays transmit and receive carriers reducing satellite bandwidth by 50%. Advanced bandwidth-saving IP features reduce the required satellite bandwidth to a small fraction of the raw traffic bandwidth, saving users operating costs.
- **[SSPAs](#), including "[PowerMax](#)" [high power SSPA systems](#):** Also from Paradise, the industry's leading RF power density in a modular system for ground stations as well as SSPAs with the highest degree of earth station redundancy and mean time between failure (MTBF) possible.
- **[Channelisers and other "NewSpace" product technologies](#)** and manufacturing techniques: Teledyne Defence & Space leverages high volume manufacturing techniques and flexible locations to meet the needs of NewSpace, including LEO constellations needing high reliability supply chains and innovation production.
- **[Converters / Semiconductors for Space / Satcom](#):** From Teledyne e2v Semiconductors, broadband, high performance data converters with space level certification. The ADCs allow direct sampling of C-band signals with >3GHz signal bandwidth and the DACs allow direct RF output signals up to K-band with >3GHz signal bandwidth, improving and simplifying RF receive and transmit systems. Additionally, space level certified GHz+ class microprocessors that are radiation tolerant and available in advanced ceramic and plastic packaging.
- **[Semiconductor Partnerships for Space](#)** from Teledyne e2v HiRel Electronics, including DC-DC Converters, GaN Power FETs and Drivers for power, and for RF GaAs, GaN & SOI technologies, Space PLLs, PAs, LNAs, Gain Blocks, pre-scalers and more.
- **[SATCOM TWTs](#):** Rugged satcom Traveling Wave Tubes (TWTs) for Fixed, Mobile, or Air applications from Teledyne MEC.

- **Space Qualified RF/MW Components:** leveraging 25 years of deep heritage in space, Teledyne Microwave Solutions will be featuring low noise amps (LNAs), SSPAs, RF filters, voltage-controlled oscillators (VCOs), mixers and more.
- **Microwave PCBs, Assembly & Test:** from Teledyne Labtech, unique capabilities for RF assemblies up to 40GHz including metal backed PCBs for SSPAs, embedded copper coin technologies for advanced thermal management applications, large antenna / flat panel manufacturing capability, bonded metal waveguide structures backed with over 30 years of space heritage.
- **Relays & RF Coaxial Space Switching Solutions:** from Teledyne Relays / Teledyne Coax, space-grade solutions developed from over a 50 year heritage in space, with DC to 60 GHz bandwidth, individual and switch block assemblies, coaxial switches and switch matrices and much more.

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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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