

Teledyne e2v HiRel Unveils Two New High-Power PIN Diode Limiter Modules

*Limiter modules are designed for high reliability EW, radar applications
SCDs are supported, devices are tested and shipped from Teledyne's certified US production facility*

MILPITAS, CA – March 22nd, 2021 – [Teledyne e2v HiRel](#) today announced two new additions to its family of high power limiters, the TDLM052402, a quasi-active, 2 kW, L/S/C-band SMT PIN Diode Limiter and the TDLM961122 High Power Limiter Module a quasi-active, 1 kW, ARNS/IFF-band SMT PIN Diode Limiter. Both devices offer “always on” high power CW and peak protection.

The new power limiter modules are packaged in a small 8 mm x 5 mm form factor designed for demanding electronic warfare and radar applications and utilize proven hybrid assembly technology. Parts are screened and qualified for high reliability applications. Each has an operating temperature range of -65 °C to 125 °C. They boast excellent thermal management features, with a proprietary design methodology that minimizes thermal resistance from the PIN Diode junction-to-base plate (RTHJ-A). The limiter design employs a two-stage detector circuit which enables ultra-fast turn-on of the high-power PIN Diodes.

“These two devices are excellent additions to Teledyne e2v HiRel’s [high power limiter](#) portfolio for military applications, as we continue to expand our RF product line,” said Mont Taylor, VP of Business Development at Teledyne HiRel. “We support Source Controlled Drawings, and devices are tested and shipped from our certified facility in Milpitas, California, one of the industry’s most trusted production locations.”

The first device, the TDLM052402, is designed for optimal small signal insertion loss, permitting an extremely low receiver noise figure while simultaneously offering excellent large input signal in the range 0.5 GHz to 4 GHz. The second device, the TDLM961122, is also designed for optimal small signal insertion loss, permitting an extremely low receiver noise figure while simultaneously offering excellent large input signal in the Aeronautical Radio Navigation Service (ARNS)/ Identification Friend or Foe (IFF) frequency range of 960 MHz to 1215 MHz. Other key features and specifications include:

	TDLM052402	TDLM961122
CW power handling capability	53 dBm (200 W)	48 dBm (63 W)
Peak power handling capability	63 dBm (2,000 W)	60 dBm (1,000 W)
Frequency range	0.5 GHz to 4 GHz (25 µsec pulse width at 5% duty cycle)	960 MHz to 1215 MHz (1 µsec pulse width at 1% duty cycle).
Low insertion loss (typ)	0.7 dB	0.3 dB
Return loss (typ)	15 dB	17 dB
Low flat leakage power (max)	17 dBm	14 dBm
Low spike energy leakage (typ)	0.5 ergs	
Input/Output DC blocking capacitors	Yes	
RoHS compliant	Yes	
Operating temperature range	-65 °C to 125 °C	

Both devices are available for ordering and shipment today. [Contact Teledyne e2v HiRel](#) for information on similar devices for X, L, IFF and other bands.

##

ABOUT TELEDYNE E2V HIREL ELECTRONICS

Teledyne e2v innovations lead developments in space, transportation, defense, and industrial markets. Teledyne e2v’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>

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.

Media Contact:

Sharon Fletcher

Teledyne Defense Electronics

+1 323-241-1623 sharon.fletcher@teledyne.com