

Teledyne e2v HiRel releases new line of 10 GHz Gain Blocks for X-band

Customers can now access a standard amplifier solution covering L-band through X-band, simplifying the component procurement process for space and defense flight applications

MILPITAS, CA – May 12, 2020 – [Teledyne e2v HiRel](#), part of the [Teledyne Defense Electronics Group](#), today announced a new family of 10 GHz RF Gain Blocks using space-qualified InGaP amplifier technology.

Spearheaded by an 18.4 dB gain model, this new group of Gain Blocks, [TDGB010](#), is based on an indium gallium phosphide (InGaP) technology suitable for both space and, optionally, defense applications. It achieves this through its ceramic packaging and space qualification.

Teledyne e2v HiRel customers now have a standard amplifier solution that stretches from L-band through X-band. Since a standardized amplifier solution reduces the number of new qualified components that flight programs typically require, it greatly simplifies the procurement process for components. The X-band Gain Blocks are available in configurations of 13.6, 16.5 and 18.4 dB which enable RF design engineers to more precisely configure the signal gain.

The TDGB010 50-ohm Gain Block incorporates proprietary Monolithic Microwave Integrated Circuit (MMIC) design techniques and also utilizes a mature and reliable heterojunction bipolar transistor (HBT) InGaP process. With space-flight heritage, the process has shown to be radiation tolerant to 100 krad, making it an ideal choice for satellites and other high-altitude applications. For more information, please visit the [RF Solutions webpage](#) on the Teledyne e2v HiRel website.

“Our ongoing expansion of RF offerings is designed to help our customers produce high-reliability signal chains for the most demanding defense and space environments,” said Mont Taylor, Vice President of Business Development. “Our new gain blocks offer excellent gain flatness and high P1dB.”

Teledyne e2v’s Hi-Rel X-band Gain Blocks family is available now and is packaged in a 2-lead, ultra-small, hermetic, gullwing package. Both the wafer process technology and the package have space flight heritage.

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