

Teledyne e2v HiRel Adds New Rad-Tolerant Mixer to its RF Product Line

At Satellite 2020, company launches Double-Balanced Mixer for K- and Ka-band space applications

MILPITAS, CA – March 6, 2020 – [Teledyne e2v HiRel](#) today announced a new addition to its RF product portfolio, a radiation tolerant, passive diode Double-Balanced Mixer for operation from 18-46 GHz.

The new product, model [TDMX011037](#), offers engineers in the space design community a mixer with very low conversion loss, high linearity, and a wide IF bandwidth MMIC for K- and Ka-band communication links. This kind of RF mixer is also ideally suited for use in designing an up- or down-conversion stage in signal chains for radar, satellite transponders, and related RF communications circuits deployed in electronic warfare applications.

For more information, visit **Teledyne booth #708** at the [Satellite 2020 show in Washington, DC](#) March 9-12th, 2020.

The rad-tolerant mixer in die form is electrically screened to meet datasheet parameters and each wafer lot has been qualified per MIL-PRF-38534 Class K for use in demanding, high-reliability space environments. Importantly, as a passive mixer, it does not require one or more supply voltages as do its active-mixer counterparts.

"This new mixer continues to expand our HiRel RF product family and underscores our ongoing commitment to building the most comprehensive RF portfolio available," said Mont Taylor, VP of Business Development at Teledyne e2v HiRel.

The double-balanced circuitry delivers outstanding port isolation while the internal 50-ohm matching simplifies its application for customer ease-of-use.

Notable specifications of the new mixer include:

- Low Conversion Loss: 6.5 dB
- High Linearity: 20 dBm IIP3
- Wide IF Bandwidth: dc to 20 GHz
- Die Size: 1.15 x 0.97 x 0.10 mm
- RoHS Compliant

The mixer is also a good fit for test and measurement, microwave radio, and long term GEO-Sat space applications. The product line is now available for order and shipment.

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Media Contact:

Darrek Porter, Director of Marketing
Teledyne Defense Electronics
(404)-368-9714 darrek.porter@teledyne.com