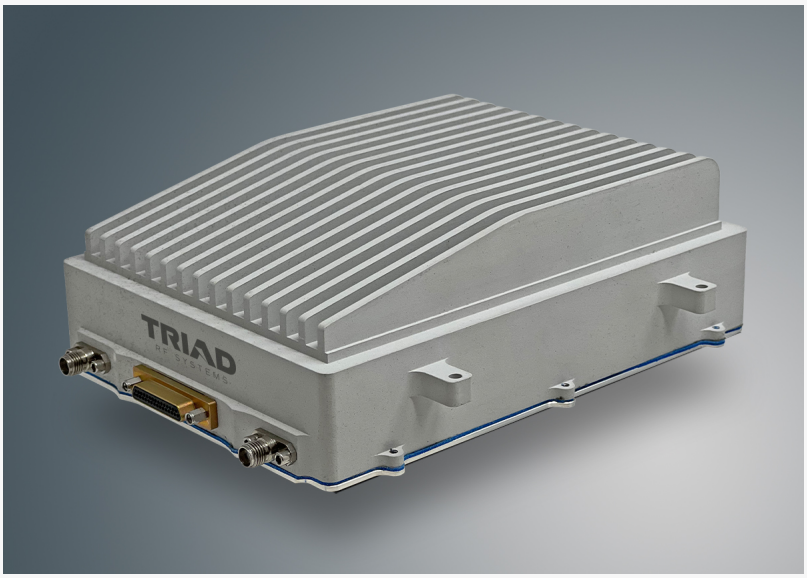
Triad’s High-Power Radio Uses Magnesium Alloy to meet UAV SWaP Requirements

Ideal for use in ground & air radio applications, THPR1039 is a 10W, L-Band, dual MIMO radio used for UAS Video & C2 links. It achieves RF link ranges >50 km.



Triad RF L-Band, dual MIMO radio

NEW BRUNSWICK, NEW JERSEY, USA, May 9, 2022 /EINPresswire.com/ -- Triad RF Systems has secured a seven-figure design and production order from a prominent South Asian aerospace and defense company for the THPR1039, Triad’s new, DTC-based, high-power radio system designed for use in Group 2 UAS.

The THPR1039 is a 10W (5W per channel), L-Band, dual MIMO radio that is used for long-distance UAS Video and C2 links, which achieves RF link ranges in excess of 50km when used in both the ground and air radio segments. This unit is an expansion of Triad’s High-Power Radio System (THPR) product line. It combines a DTC Solo8 MIMO radio, high-power amplification, and custom filtering into a single, easy-to-integrate package.

> When it comes to UAVs, every gram of payload matters… These efforts are reflected in our products, as we deliver some of the smallest and lightest high power RF systems in the industry.”
>
> *Dean Handrinos, co-founder/partner of Triad*

Group 2 UAS require the lightest payloads possible to maximize their flight endurance and mission duration. For this aircraft, Triad was given a directive to minimize the weight of the radio system. Triad’s engineering met this challenge by designing the THPR1039’s housing from magnesium alloy, instead of the aluminum alloys traditionally used for housing RF systems. A final weight of 32 oz (908 g) was achieved for the product, and amounted to a ~ 33% weight reduction compared with an aluminum-housed unit.

This effort highlights our engineering group’s continual focus on exploring new ways to design RF

systems. Innovation in materials, RF system design, and manufacturing help Triad meet performance goals and SWaP limitations that keep Triad ahead of the competition.

“When it comes to UAVs, every gram of payload matters,” says Dean Handrinos, co-founder/partner of Triad, “Our engineering team is not risk-averse when it comes to meeting extremely stringent size and weight requirements. These efforts are reflected in our products, as we deliver some of the smallest and lightest high-power RF systems in the industry.”

For more information about the THPR1039, contact the sales department at sales@triadrf.com, +1 (855) 558-1001 X 1.

About Triad RF Systems (www.triadrf.com)
Based in East Brunswick, New Jersey, Triad RF Systems is a recognized leading designer and manufacturer of integrated radio systems, RF power amplifiers, bi-directional amplifiers, assemblies and custom multi-functional amplifier systems for unmanned systems, drones, CubeSat platforms, custom military applications, as well as electronic warfare systems. Triad RF Systems is an AS9100 Certified company with products that are proven to perform to the most demanding requirements of MIL-STD-810. Triad RF Systems has delivered over 10,000 units in over 35 countries and 6 continents.

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