

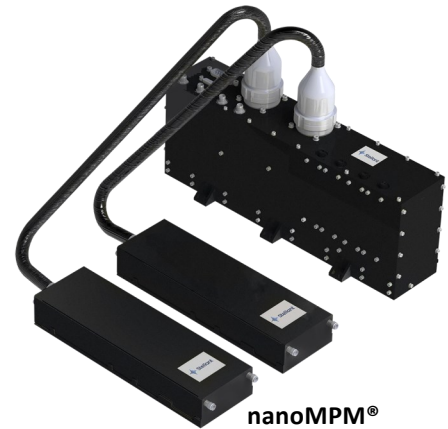
Space Quad nanoMPM® K-/Ku-Band

Stellant Systems' K- and Ku-Band Space Quad nanoMPM® is a state-of-the-art RF power amplifier for use in satellite downlink applications. This product delivers the ultimate performance by leveraging the best of solid-state and TWT vacuum technology.

It is specifically designed to enable the next generation of software-defined satellites utilizing phased-array antennas for increased flexibility while on-orbit.

This amplifier utilizes a high-gain pre-distortion solid-state linearizer, four wideband high-power mini-TWTs, and a proprietary compact nanoMPM® EPC.

Space-Qualified



K- and Ku-Band

17.3 to 21.2 GHz, 4 x 60 W
10.75 to 12.75 GHz, 4 x 80 W

Performance Specifications Summary

- * Frequency: 17.3 to 21.2 GHz or 10.7 to 12.75 GHz
- * Output Power: 60 Watts
- * Linear Output Power: 30 Watts
- * Nominal Input Power for Linear Operation: -24 dBm
- * Efficiency @ 15 dB NPR: 35%
- * DC Voltage: 100 VDC

KEY FEATURES

- * Space-qualified
- * High-Reliability
- * Ultimate Output Power Performance

Space Quad nanoMPM[®] K-/Ku-Band

Performance Specifications

Parameter	Specification
Frequency	17.3 to 21.2 GHz (K-Band) 10.7 to 12.75 GHz (Ku-Band)
Saturated Output Power	60 Watts
Linear Output Power	30 Watts
Nominal Input Power for Linear Operation	24 dBm
Efficiency @ 15 dB NPR	35%
DC Voltage	100 VDC
Size (Dual TWT Module)	23.4 (L) x 6.4 (W) x 3.1 (H) cm
Size (EPC-L Module)	27.9 (L) x 5.8 (W) x 10.2 (H) cm
Mass (Dual TWT Module)	1.25 kg (including HV cable) 2x TWT Dual Modules per Quad
Mass (EPC-L Module)	2.3 kg

The specifications and performance specified within this document are preliminary based on the current state of the design and are subject to change based on the final performance agreement with the customer.

Stellant Systems is a premier manufacturer of critical spectrum and RF power amplification products to the space, defense, medical, science and industrial markets for both domestic and international customers. Stellant has 5 domestic manufacturing facilities and approximately 1,100 employees.



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