

# 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.

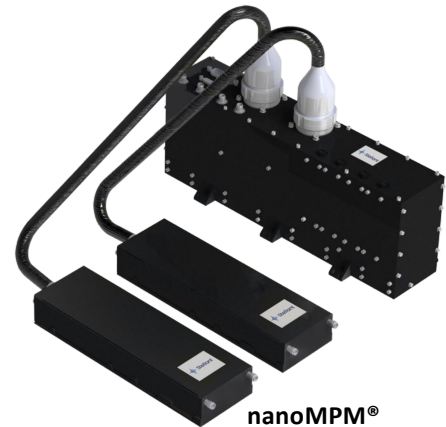
It is specifically designed to enable the next generation of software-defined satellites utilizing phased-array antennas for increased flexibility while on-orbit.

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

## 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

## 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

## KEY FEATURES

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

# Space Quad nanoMPM® K-/Ku-Band

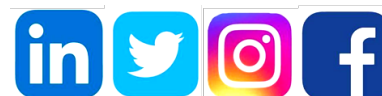
## Performance Specifications

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	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 2x Dual TWT Modules per Quad
Size (EPC-L Module)	27.9 (L) x 5.8 (W) x 10.2 (H) cm (Not including mounting feet)
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 partner for civil, military, and commercial organizations whose missions seek to ensure a safe, aware, and connected world. We are a premier manufacturer of critical spectrum and power amplification systems for defense, space, medical & scientific and industrial customers worldwide.

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