

# μKaPA-5W™ Ka-BAND POWER AMPLIFIER

## OVERVIEW

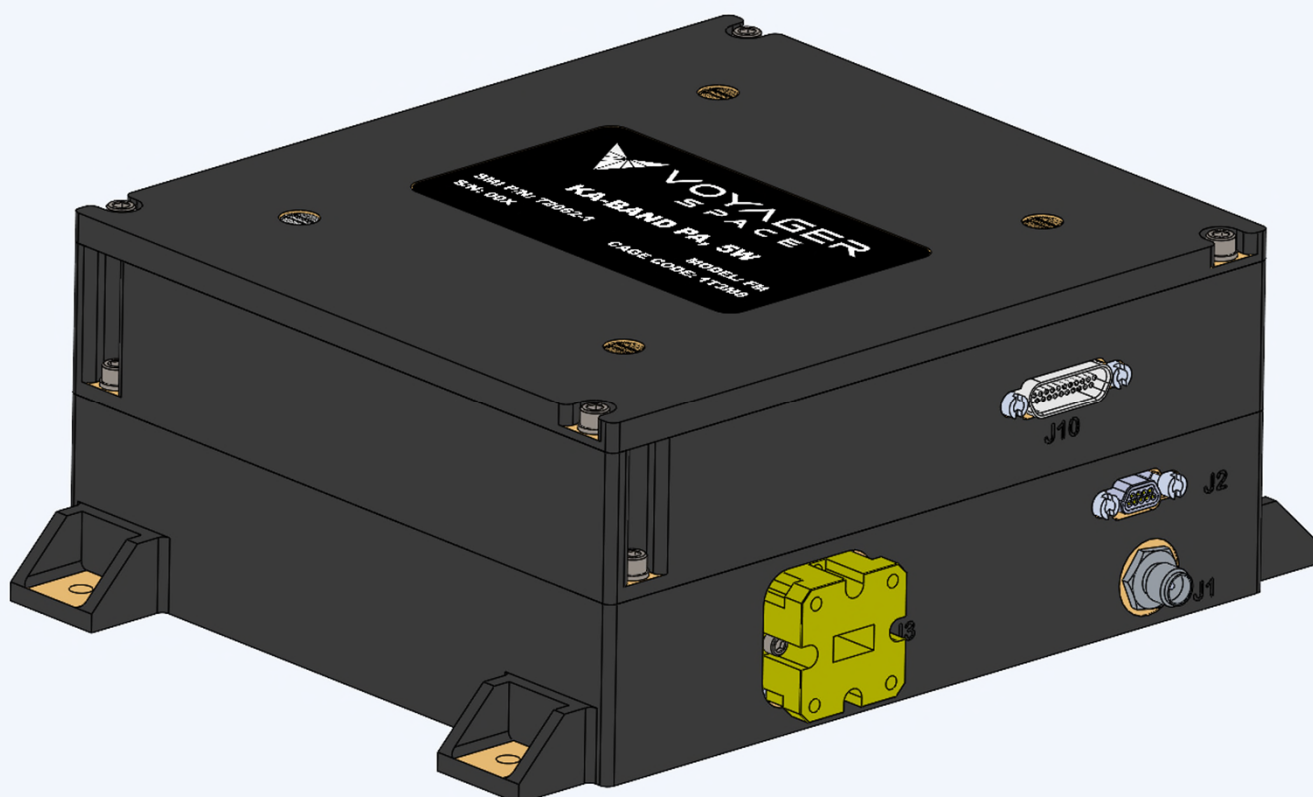
μKaPA-5W™ is a 5 W Ka-Band power amplifier that can be used as a stand-alone unit or with the μKaTx-300™ Ka-Band Transmitter. The control and status interface is handled by the μKaTx-300™ simplifying system integration.

## KEY FEATURES

- Radiation Tolerant Design
- Ruggedized for Launch and Deployment
- RF Output Power Configurable On-Orbit

## APPLICATIONS

- Long-term Space Missions
- Satellite Orbits: LEO, MEO, GEO, Cislunar



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## SPECIFICATIONS

AMPLIFIER	KA-BAND
Frequency	25.5 - 27 GHz
RF Output Power	+37 dBm (5 W)
Pout Tolerance	± 0.5 dB
RF Input Power	-10 to +5 dBm
Max RF Input Power	+15 dBm (survival)
Output Level Control	Automatic Level Control Loop Internal
Output Return Loss	< -14 dB
Input Return Loss	< -10 dB
Spurious And Harmonics	≤ -60 dBc, NTIA Spectral Mask Compliant
EVM	≤ 10% RMS @ 800 Mbps OQPSK
RF Output connector	WR-34
RF Input connector	2.92 mm
Outline Dimensions	5.5" x 5.5" x 2.5"
Mass	≤ 1.8 kg
Mission Life	1 to 7 years
Radiation	> 25 krads, LET > 62 MeV parts level
Parts Level options	NASA levels 1,2,3, Commercial Space
Input Voltage	18 - 40 VDC isolated
Power Consumption	≤ 50 W
EMI/EMC	MIL-STD-461
Data / Ctrl Interfaces	RS-422
Temperature Range	-24°C to +65°C (operating); -40°C to +85°C (unpowered)
Vibration	GSFC-STD-7000 (NASA GEVS) Qual Levels