HIGH POWER AMPLIFIERS

FOR MILITARY & DEFENSE

Engineered for mission-critical Ka-band platforms, Eravant power amplifier M/N: SBP-3233734045-KF28-E1-R delivers a 30 W output power with 40 dB power gain in CW mode. The amplifier is capable of operating in a pulsed mode, and covers 32 to 37 GHz frequency range. Housed in a 3/4 Short ATR chassis per ARINC 404, the module ships with a shock-isolated tray and front hooks for effortless integration into the vehicle. The amplifier is designed considering MIL-STD-810G for temperature, vibration, and mechanical shock to ensure stable performance during operation in the field.

The front panel includes all I/O-2.92 mm female RF input, WR-28 UG-599/U Waveguide RF output, Ethernet control, and LED status indicators—so integrators can complete system wiring in minutes. The amplifier control software allows remote on/off, and fine-tuning stand-by threshold levels. Its GUI mirrors all front panel indicators, and reports power draw, internal temperature, RF input drive level and other key parameters. RF overdrive events above +15 dBm, internal temperatures beyond 80 °C, or abnormal power supply conditions instantly revert the amplifier to standby mode to protect both the amplifier and downstream sub-systems components. Delivering 30 W across 32-37 GHz, wrapped in a compact 3/4-short ATR chassis, and equipped with remote control and status reporting features, this amplifier advances from bench-top prototype to systemready power module.

FEATURES

- 30 W Output in 32-37 GHz Bandwidth
- 3/4 Short ATR Chassis with Shock-Isolated Tray
- Remote Control through Ethernet
- Over Temperature, Overload, Overdrive and Output Standing Wave Protection
- Indicators for Temperature, Power Consumption, RF input power

Gain vs. Frequency

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HIGH POWER AMPLIFIERS FOR MILITARY & DEFENSE SYSTEM APPLICATIONS

The HPA M/N: SBP-3233734045-KF28-E1-R unlocks new possibilities wherever reliable high-power Kaband energy is required in constrained or mobile environments. Defense system integrators can bolt the unit into a truck-mounted tracking pedestal or test bed for electronic warfare equipment. Its remote-control feature lets operators command the unit and view its status when hands-on access is not possible. Higher power allows higher EIRP to maintain throughput during hostile jamming or spoofing attempts. For active sensing applications, high amplifier output power allows longer radar range, finer resolution, and better clutter rejection. Combat trucks that use Ka-band radar, navigation radar for unmanned vehicles, or surveillance systems can use such amplifiers. Companies building advanced target illuminators or seeker simulators also require a turnkey amplifier that can tolerate operational shock, vibration shock loads, and duty cycles common to range operations testing. The wide 32–37 GHz frequency span covers an important band allocated for military and lets engineers validate hardware, phased-array feeds, and modem algorithms under realistic link budgets. For testing an activeelectronically-scanned array, such HPA's can drive dozens of T/R modules from a single module.

Specification Highlights	
Frequency Range	32 to 37 GHz
Power Gain	40 dB
Gain Flatness (Over any 1 GHz Band)	±2.5 dB
P1dB	39 dBm
Psat	>45 dBm
Pin	20 dBm
Spurious	-55 dBc





