

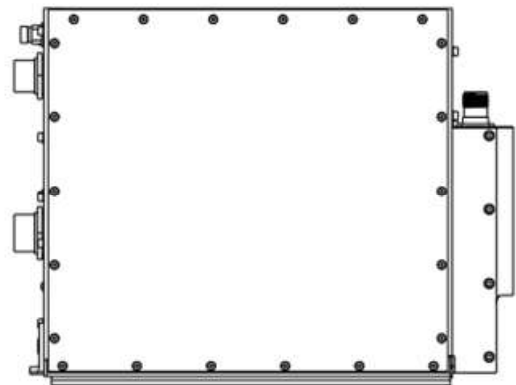
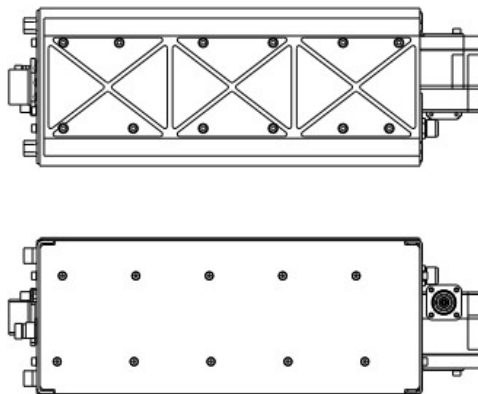
# Model 8508093-1 Wideband, High-Power, RF Amplifier

CAES Model 8508093-1 is a Low Band High Power Module covers more than decade of frequency in UHF band, with ~KW of RF power. The module contains DC Power Converter, Gain stages, Final power stage, control circuit and two chill plates. The final power stage consists of modular, Basic Power Amplifiers (BPA's), which are readily combined via CAES high-power combiner modules, allowing the RF output power to be scaled up or down in order to meet specific customer ERP requirements and prime power constraints. The final stage consists of the push-pull pairs and hybrid pairs to minimize in-band harmonics. In addition, out-of-band harmonics are further suppressed with high power low pass filter at the output port. The 8508093-Series HPA's utilize CAES developed, custom GaN devices, and can tolerate a wide range of load conditions. From a mechanical perspective, SWaP has been optimized via custom designed chill plates and flow-through cooling techniques.



**APPLICATIONS:**

- Airborne Electronic Attack
- Space-Based High Power Applications
- Ground-Based, Comm. Jamming
- Surface Vessel Information Ops EA



# Model 8505093-1 Wideband, High-Power, RF Amplifier

KEY FEATURES:

- Ultra Broadband Frequency Performance (10:1)
- Scalable RF Power via Basic Power Modules
- Multistage Harmonic Suppression Features
- Over-Temperature and Over-Drive Protection Circuits
- Rugged design for survivability in airborne applications
- Forward and Reverse Power Monitoring

Frequency	Modules available from VHF through S-Band
Impedance	50 Ohms Nominal
Power Gain	60dBm Nominal
RF Output Power	Scalable up to >1KW
Fwd Coupling Factor	~60dB
Reverse Coupling Factor	~60dB
Prime Power, Voltage	270VDC
Prime Power, Watts	3KW (under maximum load conditions)
Cooling	Liquid Flow-through (PGW Coolant)
Dimensions	10" x 14" x 4.5"
Weight	22 Lbs. (maximum)
Operating Environment	MIL-STD-810G Airborne

