

CMPA851A050



8.5 - 10.5 GHz GaN MMIC HPA

Wolfspeed’s CMPA851A050 MMIC HPA family supports up to 80 W utilizing Wolfspeed’s high performance, 0.15um GaN on SiC production process. The product family operates from 8.5-10.5 GHz and supports both defense and commercial-related radar applications. The CMPA851A050 family supports up to 80 W of saturated output power with 29 dB of large signal gain and is offered in various package platforms. Pulsed and CW are both available operating conditions depending on the package selection. The CMPA851A050 family offers bare die, SMT and flange package solutions allowing the user to optimize their SWAP-C analysis in meeting next generation requirements.

Products

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Product SKU	Buy Online	Request Sample	Data Sheet	Recommended For New Design?	Technology	Frequency Min	Frequency Max	Peak Output Power
CMPA851A050S-AMP1	NEW		Request Now	Yes	GaN on SiC	8.5 GHz	10.5 GHz	80 W
CMPA851A050S	NEW		Request Now	Yes	GaN on SiC	8.5 GHz	10.5 GHz	80 W
CMPA851A050D	NEW		Request Now	Yes	GaN on SiC	8.5 GHz	10.5 GHz	80 W
CMPA851A050F-AMP	NEW		Request Now	Yes	GaN on SiC	8.5 GHz	10.5 GHz	50 W
CMPA851A050F	NEW		Request Now	Yes	GaN on SiC	8.5 GHz	10.5 GHz	50 W

- ✓

Features

 - Superior Overall Performance
 - Pulsed and CW Operation
 - Environmental Protection
- +

Benefits

 - High SWAP-C Analysis
 - Superior Thermal Management
 - Automated Assembly
- ⚙️

Applications

 - Defense and Commercial Radar Systems

Technical & Sales Documents

Tools & Support

Compliance

Document Type

+

Document Type	Document Name
Application Notes	Eutectic Die Attach Procedure
Application Notes	GaN HEMT Bias Sequencing and Temperature Compensation Circuit
Product Catalog	RF Aerospace & Defense Line Card
Sales Terms	Wolfspeed, Inc. Sales Terms and Conditions

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Wolfspeed RF GaN meets 5G demands on PA design

Wolfspeed GaN on SiC products can replace inefficient silicon parts in 5G cellular transmitter amplifiers, achieving higher linearization, greater power density and improved thermal conductivity.

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Improving Pulse Fidelity in RF Power Amplifiers

A radar system designer’s most coveted objectives are achieving a long range, adequate resolution to distinguish objects in close proximity to each other, and the ability to not only determine target velocities but target types in order to help differentiate friendlies from adversaries.A combination of both approaches is essential, and engineers can design for peak power points of the load-pull simulation while also paying attention to other parts of the circuit for baseband signal fidelity.

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