

Powering the Future of Radar Technology with Sumitomo's 1000W GaN HEMT Amplifier

Description





Powering the Future of Radar Technology with Sumitomo's 1000W GaN HEMT Amplifier

As the radar industry evolves, solid-state power amplifier (SSPA) based systems are rapidly replacing conventional magnetron-based systems. Component Distributors, Inc. (CDI) is proud to partner with Sum Electric Device Innovations (SEDI) to bring you the latest in cutting-edge radar technology: the 1000W High Power, High-Efficiency GaN HEMT Amplifier for S-band radar applications. This breakthrough technology substantial advantages for Air Traffic Control (ATC) and meteorological radar systems, where power, reliand efficiency are critical.

Why Solid-State Radars Are the Future

Solid-state radar systems are gaining favor for several reasons:

- Extended Lifespan: Unlike magnetrons, which require periodic replacement, semiconductor-based systems, like those powered by GaN HEMTs, have a longer service life. This longevity translates to maintenance costs over time.
- Superior Detection Capabilities: Solid-state radars provide enhanced frequency stability, enabling
 to detect smaller objects that magnetron radars often miss due to frequency fluctuations. This
 improvement significantly enhances the radar's performance, especially in applications where
 precision is critical.

Sumitomo's 1000W S-band GaN HEMT Amplifier: A Game Changer

SEDIâ€[™]s **SGN2731-800L-R GaN HEMT amplifier** represents a leap forward in radar amplifier technologically between the performance of older magnetron-based systems.

Key Features:

Industry-Leading Output Power: With a typical output power of 1000W, this S-band GaN HEMT a
delivers the highest output power in its class.

Page High Efficiency: Achieving 60% efficiency, this device reduces overall energy consumption, making economical choice for long-term operation page: Tagline

• Broadband Capabilities: Covering a frequency range from 2.7 to 3.1 GHz, the amplifier is suitable



CDI

4770 N. Forest St., Unit C Denver, CO 80216

www.cdiweb.com | 1-800-777-7334 | sales@cdiweb.com

Category

- 1. Ewave
- 2. RF-Microwave
- 3. Sumitomo Electric Device Innovations U.S.A.

Date CreatedSeptember 6, 2024 **Author**cdiwebadmin

