Introducing New High-Efficiency GaN RF Amplifiers from Sumitomo: Perfect for Phased Array and L/S Band Radar Systems

Description

Component Distributors, Inc. (CDI) is excited to announce the release of two new high-efficiency GaN RF amplifiers from Sumitomo Electric Device Innovations. These compact and powerful devices-**SGNL005Z2** and **SGNL015Z2K-R** are designed for demanding radar applications, including phased array radar systen both the L and S bands. Both amplifiers offer impressive efficiency, high output power, and a convenients mount packaging option, making them a valuable addition to our lineup of cutting-edge RF products.

Meet the New Devices: **SGNL005Z2K-R** and **SGNL015Z2K-R** Sumitomo's GaN RF amplifiers bring effic and reliability to radar and communication systems.

Here's a closer look at their specifications:

SGNL005Z2K-R:

- Frequency Range: DC to 5 GHz
- Typical Output Power: 6.8W
- Saturated Gain: 12.8 dB
- Efficiency: 52%
- Package: Compact 4mm x 4.5mm plastic surface-mount

SGNL015Z2K-R:

- Frequency Range: DC to 3.8 GHz
- Typical Output Power: 17W
- Saturated Gain: 11.9 dB
- Efficiency: 56%
- Package: 4mm x 4.5mm plastic surface-mount

With their high output power, saturated gain, and efficiency, these amplifiers are ideal as pre-driver stages and S band radar systems and as final stage amplifiers in phased array radar applications.

Why Choose GaN for Radar Applications?

Gallium Nitride (GaN) technology is favored in radar systems due to its high power density, superior effici and ability to operate across a broad range of frequencies. GaN amplifiers like the **SGNL005Z2K-R** and **SGNL015Z2K-R** support high-speed operation with minimal heat generation, allowing for compact design without sacrificing performance. This efficiency translates to lower cooling requirements and longer operat life, critical factors in the demanding environments where radar systems are often deployed.

Phased Array Radar Systems and the Role of GaN Amplifiers

Phased array radar systems have gained popularity in modern radar technology due to their flexibility and performance. Unlike traditional radar, which relies on mechanically moving parts, phased array radar uses array of antennas that can electronically steer the beam direction. This results in faster target acquisition, improved tracking accuracy, and higher resolution.

The **SGNL005Z2K-R** and **SGNL015Z2K-R** amplifiers, with their compact form, high efficiency, and signifi saturated gain, are ideally suited to phased array systems. Their high output power enables them to serve final stage amplifiers, delivering reliable performance without the need for large, bulky components. Additi their broad frequency range ensures compatibility with systems in both the L and S bands.

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Category

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

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