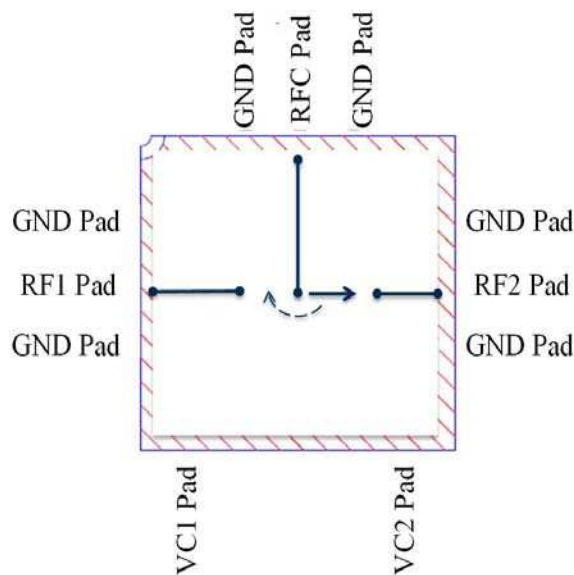


## Features

- Broadband Operation 30MHz to 6000MHz
- Advanced GaN HEMT Technology
- 2GHz Typical Performance
  - Insertion Loss ~ 0.25dB
  - Isolation ~ 40dB
- Small Form Factor: 1.1mm x 0.9mm
- High Power Capability:  
 $P_{0.1\text{dB}}$  of 75W at  $-60\text{V } V_{\text{LOW}}$
- Designed to present  $50\Omega$  I/O
- Hot Switching Capability

## Applications

- Military Communication
- Electronic Warfare
- Commercial Wireless Infrastructure
- Cellular and WiMAX Infrastructure
- Civilian and Military Radar
- General Purpose Broadband Amplifiers
- Public Mobile Radios
- Industrial, Scientific, and Medical



Functional Block Diagram

## Product Description

The RFSW2100D is a GaN-on-SiC high power discrete RF switch designed for military and commercial wireless infrastructure, industrial/scientific/medical and general purpose broadband RF control and switching applications. Using an advanced high power density Gallium Nitride (GaN) semiconductor process, the RFSW2100D is able to achieve low insertion loss and high isolation with better than 10dB return loss across a wide band from 30MHz to 6GHz with proper die attach and heat sinking. The RFSW2100D is an SPDT RF switch suitable for many applications with 75W CW input power compression capability under controlled conditions, VSWR (3:1) and  $25^\circ\text{C } T_{\text{CASE}}$  as well as  $\sim 0.25\text{dB}$  insertion loss and  $\sim 40\text{dB}$  small signal isolation at 2GHz.

## Ordering Information

RFSW2100D      75W GaN on SiC RF Switch

## Optimum Technology Matching® Applied

- |                                      |                                      |                                     |  |
|--------------------------------------|--------------------------------------|-------------------------------------|--|
| <input type="checkbox"/> GaAs HBT    | <input type="checkbox"/> SiGe BiCMOS | <input type="checkbox"/> GaAs pHEMT | <input checked="" type="checkbox"/> GaN HEMT |
| <input type="checkbox"/> GaAs MESFET | <input type="checkbox"/> Si BiCMOS   | <input type="checkbox"/> Si CMOS    | <input type="checkbox"/> BiFET HBT           |
| <input type="checkbox"/> InGaP HBT   | <input type="checkbox"/> SiGe HBT    | <input type="checkbox"/> Si BJT     | <input type="checkbox"/> LDMOS               |

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for more information.**