

### Description

The F2956 is a high-power, reflective 50Ω, single-pole double-throw (SPDT) RF switch. The device covers a 100MHz to 8GHz frequency range to support a wide variety of applications including WLAN 802.11.

The F2956 uses a single, positive supply voltage, and is compatible with both 1.8V and 3.3V control logic.

### Typical Applications

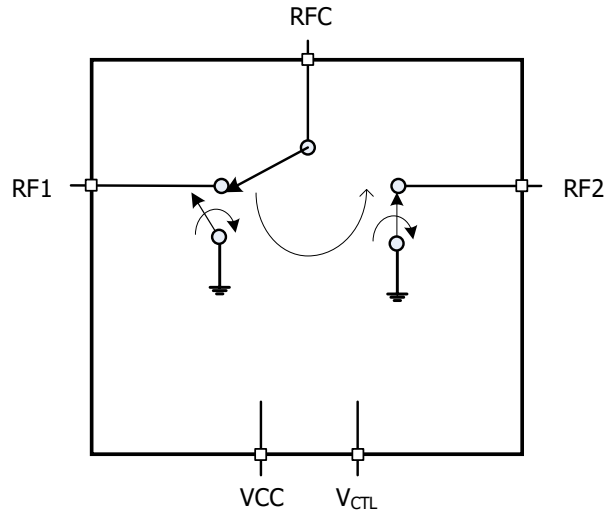
- 802.11 Wi-Fi
- Wireless access points, gateways, and router applications
- LTE and 4G communication systems
- 2-way radios
- General purpose

### Features

- Low insertion loss: Less Than 0.6dB
- High isolation: Greater Than 40dB
- Second harmonic: -93dBc
- Third harmonic: -85dBc
- Supply voltage: +2.7V to +5.5V
- 1.8V and 3.3V compatible control logic
- -40°C to +105°C operating temperature range
- 1.5 × 1.5 × mm, 6-DFN package

### Block Diagram

Figure 1. Block Diagram



## Ordering Information

Orderable Part Number	Package	MSL Rating	Shipping Packaging	Temperature
F2956NEGK	1.5 × 1.5 × 0.55 mm NEG6 DFN	MSL1	Cut Tape	-40°C to +105°C
F2956NEGK8	1.5 × 1.5 × 0.55 mm NEG6 DFN	MSL1	Reel	-40°C to +105°C
F2956EVB	Evaluation Board			

## Revision History

Revision Date	Description of Change
May 21, 2020	Initial release.

## IMPORTANT NOTICE AND DISCLAIMER

RENESAS ELECTRONICS CORPORATION AND ITS SUBSIDIARIES (“RENESAS”) PROVIDES TECHNICAL SPECIFICATIONS AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES “AS IS” AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for developers skilled in the art designing with Renesas products. You are solely responsible for (1) selecting the appropriate products for your application, (2) designing, validating, and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. Renesas grants you permission to use these resources only for development of an application that uses Renesas products. Other reproduction or use of these resources is strictly prohibited. No license is granted to any other Renesas intellectual property or to any third party intellectual property. Renesas disclaims responsibility for, and you will fully indemnify Renesas and its representatives against, any claims, damages, costs, losses, or liabilities arising out of your use of these resources. Renesas' products are provided only subject to Renesas' Terms and Conditions of Sale or other applicable terms agreed to in writing. No use of any Renesas resources expands or otherwise alters any applicable warranties or warranty disclaimers for these products.

(Rev.1.0 Mar 2020)

### Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu,  
Koto-ku, Tokyo 135-0061, Japan  
[www.renesas.com](http://www.renesas.com)

### Contact Information

For further information on a product, technology, the most up-to-date version of a document, or your nearest sales office, please visit:  
[www.renesas.com/contact/](http://www.renesas.com/contact/)

### Trademarks

Renesas and the Renesas logo are trademarks of Renesas Electronics Corporation. All trademarks and registered trademarks are the property of their respective owners.