

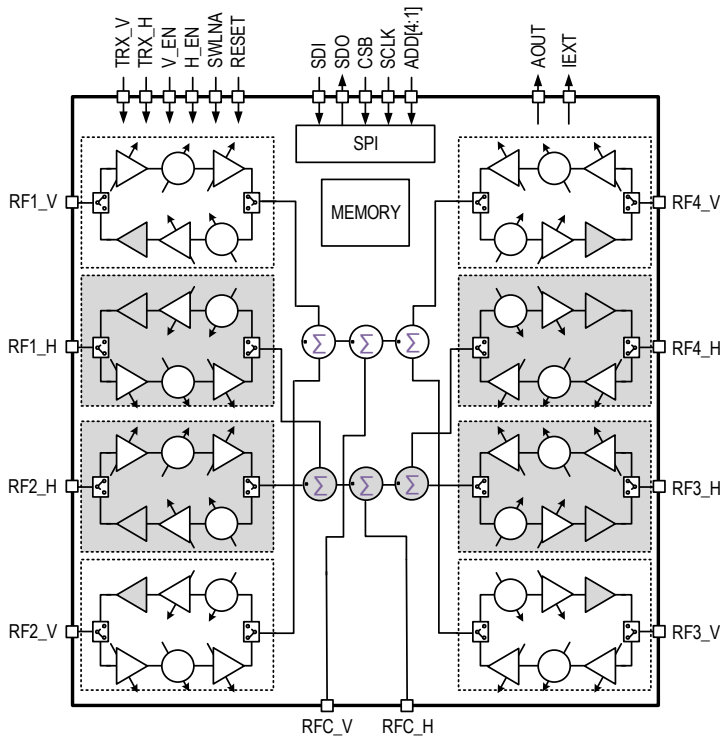
Description

The F5268 is an eight-channel TRX half-duplex silicon IC designed using a SiGe BiCMOS process for 26GHz dual polarization 5G phased-array applications. The core IC has very flexible gain and phase control on each channel to achieve fine beam steering and gain compensation between radiating channels. The core design includes standard SPI protocol that operates up to 50MHz with fast-beam switching and fast beam-state loading.

Typical Applications

- 5G Dual Polarization Phased-Array
- Beam Steering

Block Diagram



Features

- 24.25-27.5GHz operation
- 8 radiation channels
- 100ns typical Tx/Rx mode switching time
- 20ns typical gain and phase settling time
- 31.5dB gain attenuation range
- 4-bit chip address
- Integrated PTAT with external biasing
- Internal temperature sensor
- Internal power detection
- Up to 50MHz SPI control
- 2048 on-chip programmable beam states
- Supply voltage: +2.3V to +2.7V
- 4.2 × 5.5 mm, 80-BGA package
- -40°C to +95°C ambient operating temperature range
- 50°C typical ambient operating temperature

Ordering Information

Orderable Part Number	Package	MSL Rating	Shipping Packaging	Temperature
F5268ANGI	4.2 × 5.5 mm 80-BGA	MSL 3	Tray	-40° to +95°C
F5268ANGI8	4.2 × 5.5 mm 80-BGA	MSL 3	Reel	-40° to +95°C
F5268EVB	Evaluation Board			
F5268EVS	Evaluation System			

Revision History

Revision Date	Description of Change
May 19, 2020	Initial release.

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