

Description

The F4481 is a 400MHz to 1100MHz Quad Path Tx DVGA with matched 100Ω differential input and 50Ω single-ended output impedances for ease of integration into the signal path.

Using a single 3.3V power supply and only 520mA of I_{CC} , the F4481 provides four independent transmit paths, each with 28dB typical maximum gain, +17dBm output P1dB. Each channel includes a glitch-free digital step attenuator that reduces gain by up to 31.5dB in precise 0.5dB steps.

Packaged in an 8 × 8 mm, 56-LGA package, this device is part of a complete family of VGAs targeting FDD and TDD applications within the 400MHz to 4200MHz frequency range.

Typical Applications

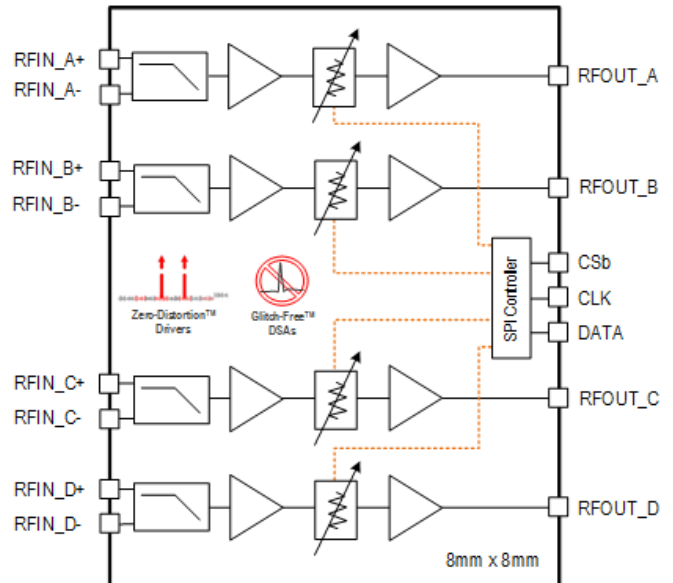
- 4G and 5G multi-mode, multi-carrier transmitters
- LTE and UMTS/WCDMA base stations
- Active antenna systems
- Digital radio

Features

- Independent quad channels for FDD Tx applications
- RF range: 400MHz to 1100MHz
 - F4482: 1300MHz to 2800MHz
 - F4483: 3000MHz to 4200MHz
- 28dB typical max gain at 900MHz
- Precise SPI-controlled Glitch-Free™ gain adjustment
 - 31.5dB gain range with 0.5dB step size
- +17dBm output P1dB at 900MHz
- 3.3V supply voltage
- $I_{CC} = 520\text{mA}$
- 100Ω differential input impedances
- 50Ω single-ended output impedances
- 1.8V and 3.3V logic support
- Independent Channel Standby modes for power savings
- Operating temperature (T_{EP}) range: -40°C to +115°C
- 8 × 8 mm, 56-LGA package

Block Diagram

Figure 1. Block Diagram



Ordering Information

Orderable Part Number	Package	MSL Rating	Shipping Packaging	Temperature
F4481LKGI	8.0 × 8.0 × 0.65 mm 56-LGA	TBD	Tray	-40° to +115°C
F4481LKGI8	8.0 × 8.0 × 0.65 mm 56-LGA	TBD	Reel	-40° to +115°C
F4481EVB	Evaluation Board			
F4481EVS	Evaluation Kit			

Revision History

Revision Date	Description of Change
May 11, 2020	Initial release.

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