## NFP315

## Multi-Channel Integrated Analog and Switch Biaser

## 1. Device Features

- SPI capable
- 6 analog outputs ( $\pm 3.3 \mathrm{~V}$ ) at 11 bit resolution
- 6 optional configurable switched outputs (sink / source capable, each supply rail)
- 4 configurable operating modes
- Optional external fault / power good monitoring
- QFN4x4 28 pin package
- Also available in die form


## 2. Device Applications

- Integrated front end module control
- Switch biasing
- Gate biasing for RF amplifiers
- Digital phase shifter control
- GaN, GaAs and other III-V amplifier biasing


## 3. Device Description

The NFP315 is a SPI capable integrated front end controller. NFP315 has 4 modes of operation, with the main mode of operation being 6 analog outputs that are able to sink \& source at 11-bit resolution steps from VEE to VDD, with independent enable for each output. When it's used in the other three modes, 6 additional switch outputs are available to be switched in different configurations and respond to different stimulus, to optimize for either mode selection (alternate between three modes), timing selection (independent control of switched outputs and biases), or external signal monitoring (power good or fault detection).

## 4. Simplified Block Diagram



## 5. Simplified Application Diagram



## 6. Chip Description (Packaged)

NFD315 comes in a packaged form factor of QFN28 $4 \times 4$ mm at 0.5 mm pitch.


