



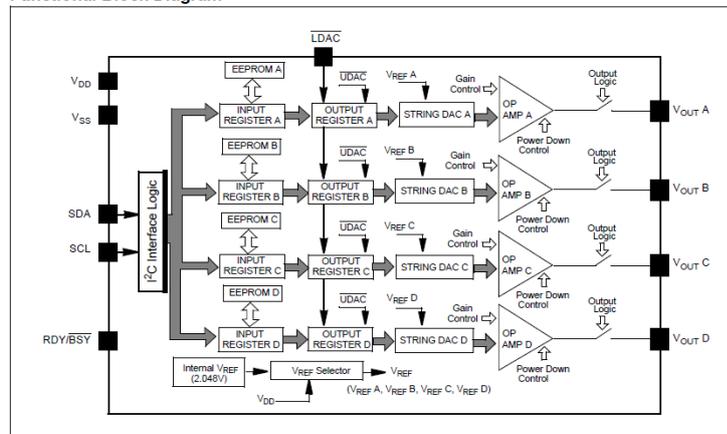
## MCP4728 12-Bit, Quad Digital-to-Analog Converter with EEPROM Memory

### General Description:

The MCP4728 device is a quad 12-bit voltage output Digital-to-Analog Converter (DAC) with non-volatile memory (EEPROM). The user can program the DAC input codes, device configuration bits, and I<sup>2</sup>C address bits to the non-volatile memory (EEPROM) by using I<sup>2</sup>C™ Compatible interface commands. The non-volatile memory feature enables the DAC device to hold the DAC input codes during power-off time, allowing the DAC outputs to be available immediately after power-up.



Functional Block Diagram



### Key Features:

- 12-Bit Resolution
- 4 Buffered Voltage Outputs
- Single-Supply Operation: 2.7V to 5.5V
- On-Board Non-Volatile Memory (EEPROM)
- Normal or Power-Down Mode
- Internal or External Voltage Reference Selection
- Rail-to-Rail Output
- Low Power Consumption

- $\pm 0.2$  LSB DNL (typical)
- I<sup>2</sup>C Interface - Address bits: User Programmable to EEPROM - Standard (100 kbps), Fast (400 kbps) and High Speed (3.4 Mbps) Modes
- 10-lead MSOP Package
- Extended Temperature Range: -40°C to +125°C

## Applications:

- Set Point or Offset Adjustment
- Sensor Calibration
- Closed-Loop Servo Control
- Low Power Portable Instrumentation
- PC Peripherals
- Programmable Voltage and Current Source
- Industrial Process Control
- Instrumentation
- Bias Voltage Adjustment for Power Amplifiers

## Related Products Information:

Mfr Part #	Farnell #	Newark #	Description
MCP4728-E/UN	1800217	08R1808	12-Bit, Quad Digital-to-Analog Converter with EEPROM Memory - MSOP