



# Programmable Gain Amplifier

## CCAD903 Datasheet

### Product Description

The CCAD903 is a 40 MHz Programmable Gain Amplifier. It is available as a GDSII layout file, and includes a Cadence library containing schematics, symbols and cell layouts. CCAD also provides an AHDL model for system simulation.

The circuit was designed and fabricated in TSMC's 0.18u CMOS technology, and has been fully characterized for adherence to the Electrical Performance Specifications. CCAD also offers customization and integration services.

The CCAD903 is an ideal circuit for integration into a wide variety of ASICs and ASSPs.

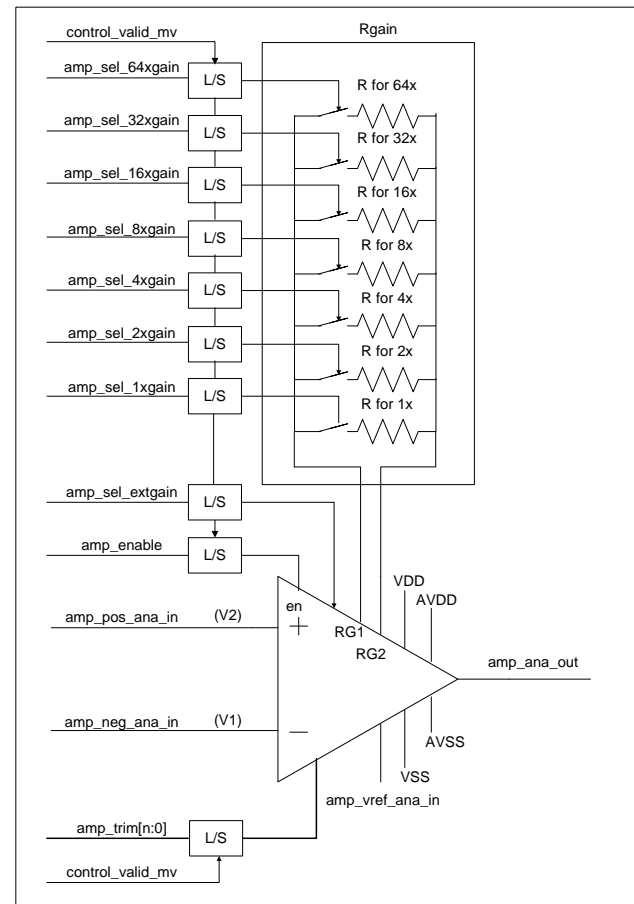
### Features

- Differential Inputs
- Input Range from AVSS to AVDD-1.3V
- 2 MHz min Gain Bandwidth (GBW) for all gain settings
- Selectable Gains: 1x, 2x, 4x, 8x, 16x, 32x, 64x
- Output voltage range within 60 mV of supply rails
- Output load capacitance 16 pF
- Wide Supply Range [VDD=1.58V to 2.02V, AVDD=2.30V to 3.65V]
- Industrial Temperature Range [-40C to 125C]
- Die Area [590um x 650um]
- Available in TSMC 0.18u CMOS
- Portable to other CMOS processes

### Applications

- Analog input amplifier for Analog to Digital Converter.
- Power Control.

### Circuit Diagram



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