



■ **DESCRIPTION**

The AA88347A is a CMOS processed digital to analog converter (DAC) with 8-bit resolution, low leakage and operating current. The AA88347A has 8 channels with build in operational amplifier output buffers which could operate in the full-swing voltage range from VCC to GND and enhance the Drive/Sink ability up to max. 1mA. Digital data (DI) input serially in a max. 2.5 MHz clock (CLK) rate. The latched 12-bit digital data is converted into an analog DC voltage in the range from VSS to VDD with 8-bit resolution in one of the 8 channels by the D/A converter in a max. 100µs setting time. AA88347A is a single 5V power DAC. Analog DC output could be full voltage swing as the analog power is equal to the system power. In addition to normal D/A converter applications, AA88347A is also available for electronic volume and instead of potentiometers for adjustment due to its high stability on the capacitive load. 16 pins TSSOP package type are available for AA88347A. Its operational temperature range is specified over -20°C to 85°C.

■ **FEATURES**

- 12 bits serial data input (3 wire serial data transfer method, DI, CLK, LD)
- R-2R resistor ladder used for D/A conversion
- 8 channels with 8-bit resolution monotonic D/A converter
- 8 channels buffer operational amplifiers operating in the full voltage range from VCC to GND only if VDD=VCC and VSS=GND
- Max. 2.5 MHz serial digital data input
- Serial I/O for cascade application
- Max. 1.0 mA output drive/sink current
- Two separate power supply/ground lines for system and analog power supply
- Single +5 V system power supply

■ **APPLICATION**

- DVD, CD-R, CD-RW, DVC, digital camera, and other industrial equipments

■ **BLOCK DIAGRAM**

