

# CDK3402/CDK3403

## 8-bit, 100/150MSPS, Triple Video DACs



### FEATURES

- 8-bit resolution
- 150 megapixels per second
- $\pm 0.2\%$  linearity error
- Sync and blank controls
- 1.0V<sub>pp</sub> video into 37.5Ω or 75Ω load
- Internal bandgap voltage reference
- Double-buffered data for low distortion
- TTL-compatible inputs
- Low glitch energy
- Single +5V power supply

### APPLICATIONS

- Video signal conversion
  - RGB
  - YC<sub>B</sub>C<sub>R</sub>
  - Composite, Y, C
- Multimedia systems
- Image processing
- True-color graphics systems

### General Description

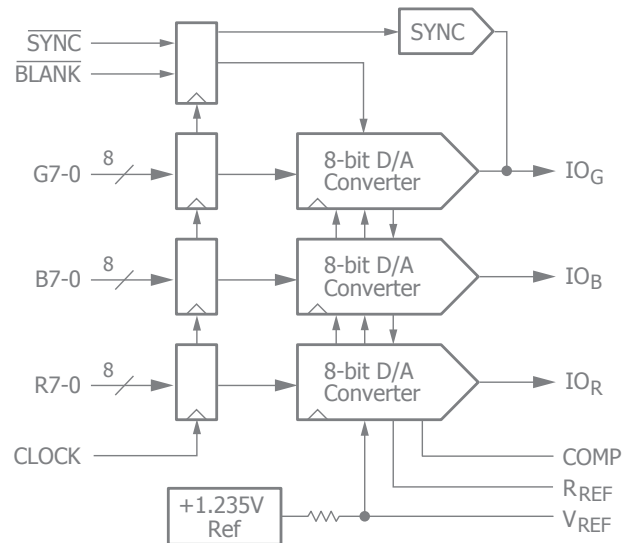
CDK3402/3401 products are low-cost triple D/A converters that are tailored to fit graphics and video applications where speed is critical. Two speed grades are available: CDK3402 at 100MSPS and CDK3403 at 150MSPS.

TTL-level inputs are converted to analog current outputs that can drive 25-37.5Ω loads corresponding to doubly-terminated 50-75Ω loads. A sync current following  $\overline{\text{SYNC}}$  input timing is added to the IO<sub>G</sub> output.  $\overline{\text{BLANK}}$  will override RGB inputs, setting IO<sub>G</sub>, IO<sub>B</sub> and IO<sub>R</sub> currents to zero when  $\overline{\text{BLANK}} = \text{L}$ . Although appropriate for many applications, the internal 1.235V reference voltage can be overridden by the V<sub>REF</sub> input.

Few external components are required, just the current reference resistor, current output load resistors, and decoupling capacitors.

Package is a 48-lead TQFP. Fabrication technology is CMOS. Performance is guaranteed from 0 to 70°C.

### Block Diagram



### Ordering Information

Part Number	Package	Pb-Free	RoHS Compliant	Operating Temp Range	Packaging Method	Package Quantity
CDK3402CTQ48	TQFP-48	Yes	Yes	0°C to +70°C	Tray	250
CDK3402CTQ48Y	TQFP-48	Yes	Yes	0°C to +70°C	Tray	1,250
CDK3403CTQ48	TQFP-48	Yes	Yes	0°C to +70°C	Tray	250
CDK3403CTQ48Y	TQFP-48	Yes	Yes	0°C to +70°C	Tray	1,250

Moisture sensitivity level for all parts is MSL-3.

