

QCTDAC11-13T



Two Triple (3X10 Bit) 350 MHz High Speed Current Digital to Analog Converters

General Description

QCTDAC11-13T contains two separate, 3x10bit triple DACs. The QCTDAC11-13T_M is the Master DAC and QCTDAC11-13T_S is the Slave DAC. These DACs are specifically optimized for 350 MHz digital video data transmission systems. The Slave DAC derives its reference from the Master DAC. The DACs operate from an analog supply of 3.3V and from a digital supply of 1.0V. Each constituent DAC channel provides a nominal full-scale output current of 18.67mA/per color typical or 34.77 mA/per color typical supporting single-ended applications. The output current can be directly fed to the load (e.g., external resistor load or transformer), with no additional external output buffer required. Antenna diodes are provided on all digital input signals.

Features

- TSMC 0.13um Logic Salicide (1.0v/3.3v, 1P7M+RDL) FSG LVOD (CL013LV).
- Cell uses 1P7M+RDL (M7 & RDL are thick)
- Size - 1330 um x 1600 um (without bondpads)
- Single ended current output
- Output compliance voltage is 1.35 V min
- Uses internal bandgap or external voltage reference
- External RSET resistor for scalable output current
- Output level programmability for RGB monitor, analog TV mode and fine-tuning
- Sense comparators for video applications
- Built in I/Os with ESD protection on 35 um pad pitch
- Antenna diodes included on all digital inputs

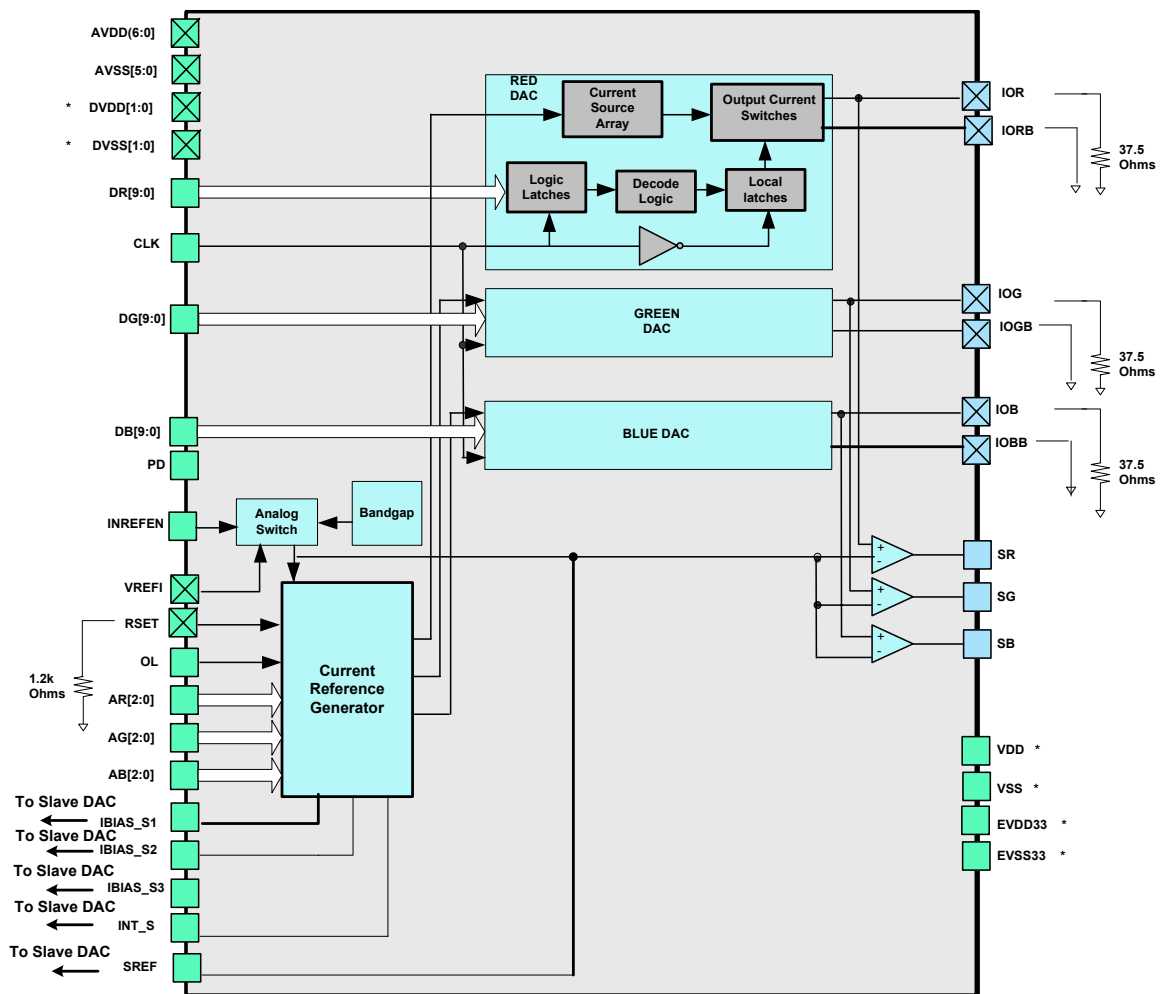


Fig 1a. QCTDAC11-13T_M Block Diagram - Master DAC Cell

QCTDAC11-13T

Two Triple (3X10 Bit) 350 MHz High Speed Current Digital to Analog Converters

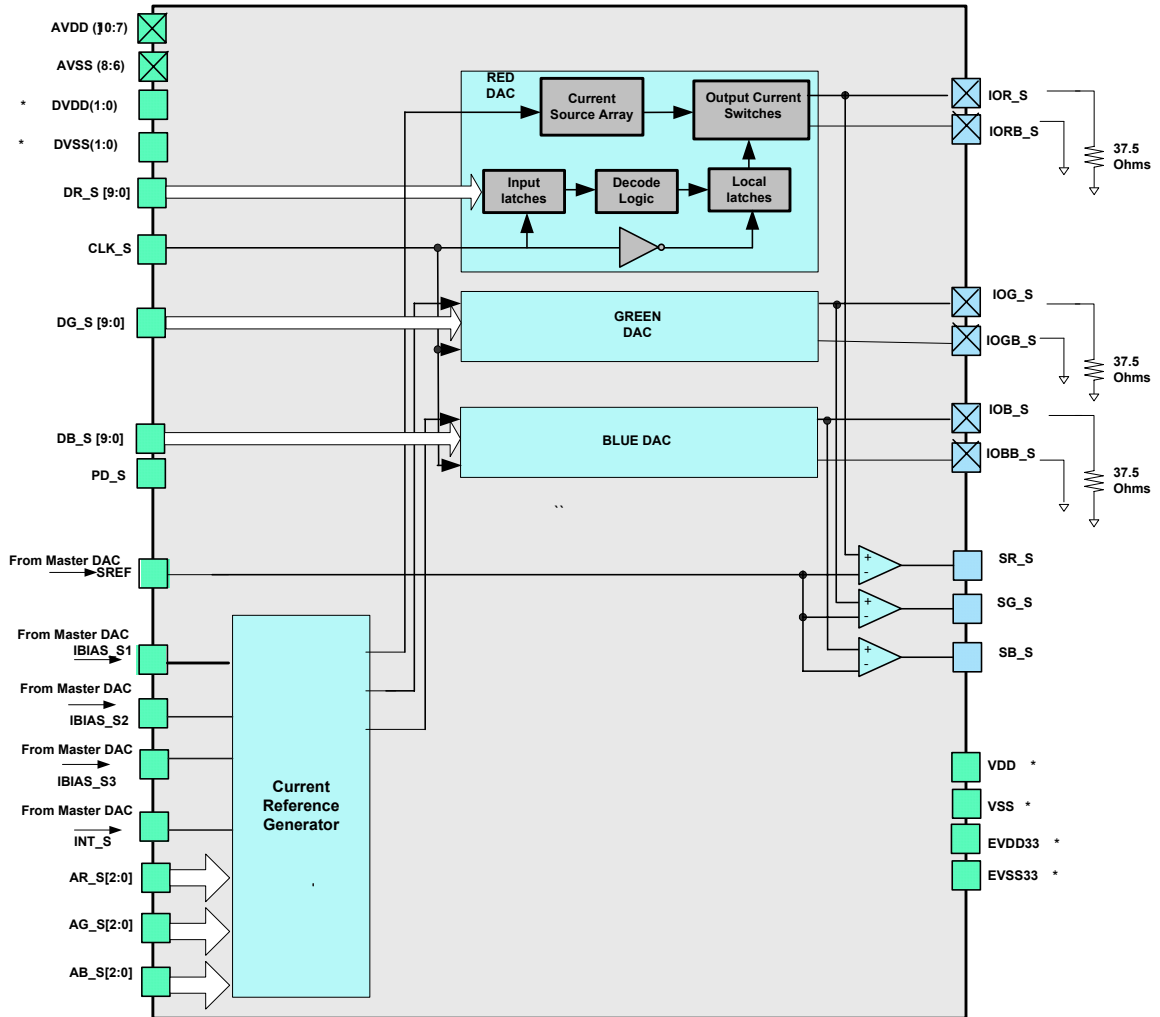


Fig 1b: QCTDAC11-13T_S Block Diagram –Slave DAC Cell