TriQuint PRODUCT INFORMATION

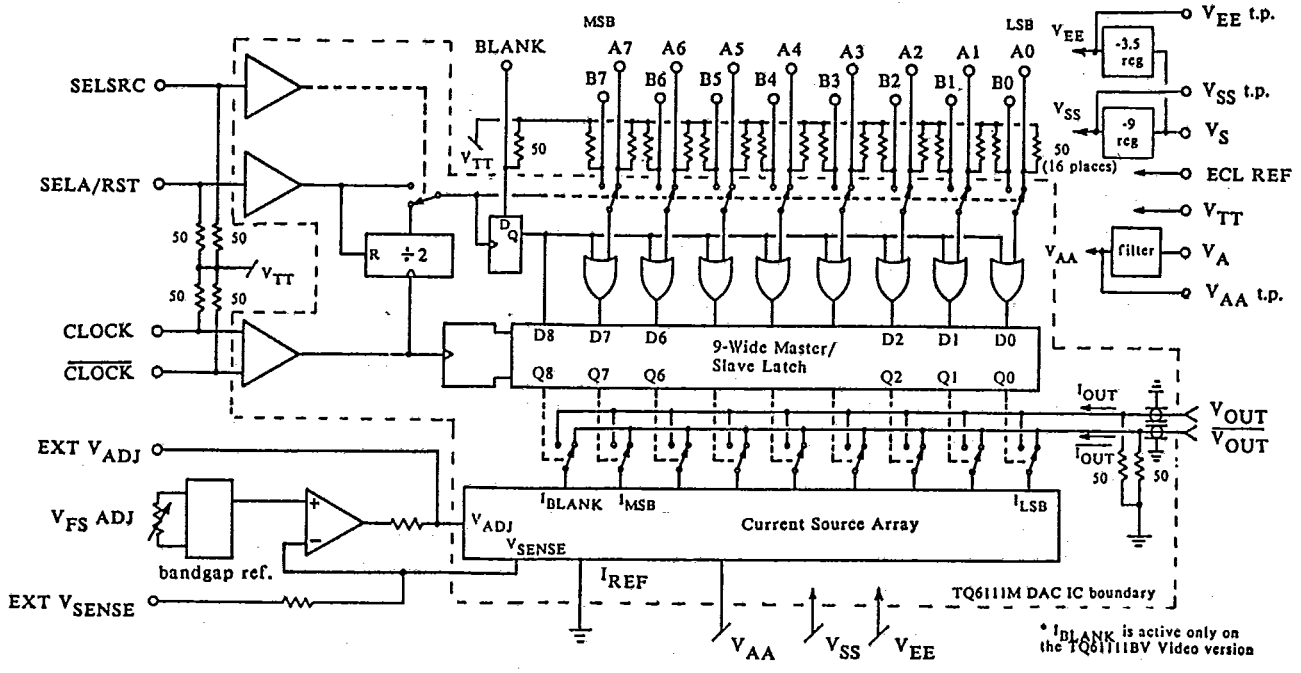
GIGADAC™ 8-Bit, 600 Ms/s or 1 Gs/s, GaAs Instrumentation or Video DAC Module

TQ6111BI, TQ6111BV
TQ6112BI, TQ6112BV

FEATURES:

* 1 Gs/s Minimum Conversion Rate (TQ6112)
  600 Ms/s Minimum Conversion Rate (TQ6111)
* **Multiplexed 2:1 Data Inputs**
* Settling Time: 1ns, to within 1%
  2 ns, to within 0.5%
* ECL Compatible Input Levels
* 8-Bit Resolution
* Glitch Energy: < 25 pV-sec

FUNCTIONAL BLOCK DIAGRAM:



DESCRIPTION:

The GIGADAC™ converter series extends the operation of high-speed D/A converters to the 600-1000 Ms/s range. Based upon the TriQuint GaAs depletion-mode process, the GIGADAC™ series interfaces directly to both silicon ECL circuits and to TriQuint's GaAs IC Q-LOGIC™ component series. The GIGADAC™ is available in two versions (600 Ms/s or 1000 Ms/s). Multiplexed data inputs allow the data circuitry to run half as fast as the DAC. On-chip output terminations give clean transitions.

The TQ6111 and TQ6112 DACs are designed for high-speed instrumentation system applications such as sub-nanosecond risetime arbitrary waveform generation and also for video applications (a blanking input overrides all data inputs).

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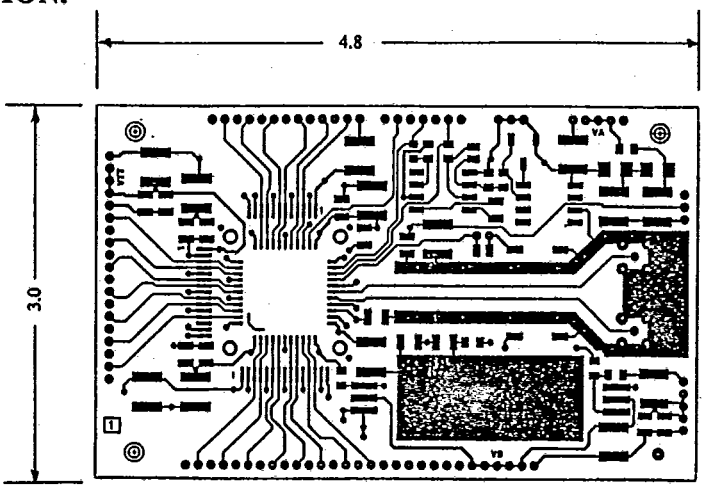
PRELIMINARY

MODULE DESCRIPTION:



Dimensions are in inches.

The DAC is available in a module which contains power supply control and interface circuitry. The module is about 3 inches by 5 inches, with pins around the edge (on 0.1-inch centers) for easy insertion into a system board. The analog outputs appear at 3mm SMA-type connectors above the module board.

PRODUCT SPECIFICATIONS:

* Conversion Speed:
  600Ms/s minimum (TQ6111B)
  1Gs/s minimum (TQ6112B)
* Settling Time: 1ns to within 1%
  2ns, to within 0.5%
* Glitch Energy: < 25 pV-sec
* Differential Non-Linearity:
  0.2% (8-bits)
* Resolution: 8 bits
* Full Scale Output Swing: 1 Volt
* Output Compliance Range: +2, -1.5 Volts
* Output Impedance: 50 Ohms/0.3 pF
* ECL Compatible DATA, SELECT inputs (Z_{in}=50 Ohms)
* CLOCK input 1V p-p, centered at -1.3 Volts (Z_{in}=50 Ohms)
* Power Supplies:
  V_{TT} = -2V ±5%
  V_{SS},V_{AA} = -11.5/-15.5V
* Power Dissipation: 5 Watts (typical)
* Available accuracies:
  8 bits (TQ6111B, TQ6112B)

For Further Information, Please Contact:

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