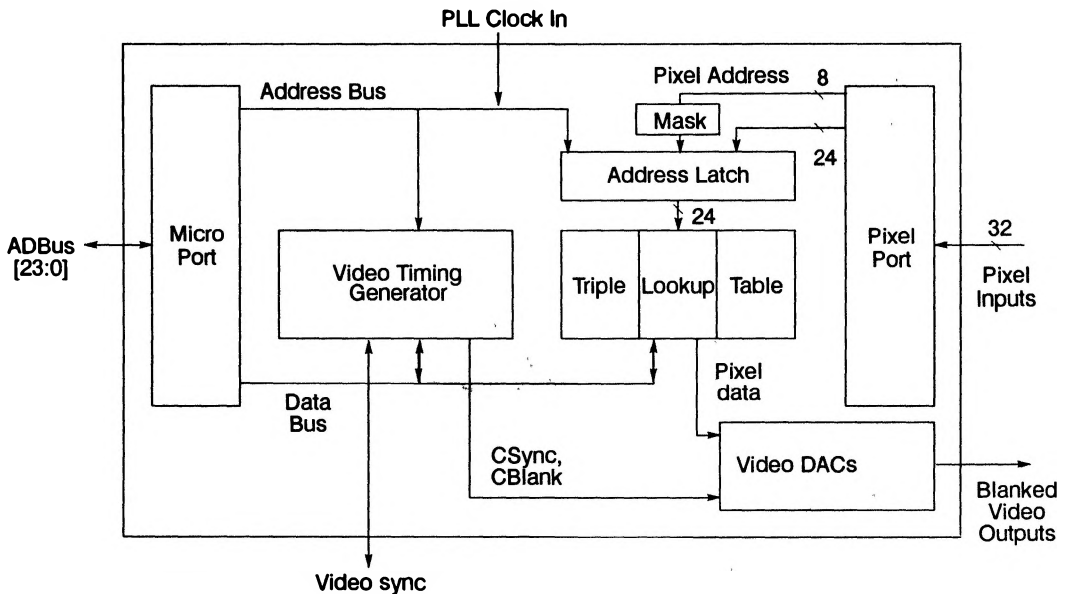


inmos[®]

IMS G300C colour video controller

Preliminary data



FEATURES

- Video rates up to 110 MHz
- Software configurable video timing generator
- Interlaced or non-interlaced video
- Generates Studio broadcast standard Sync signals
- Supplies blanked analogue video outputs
- Internal or external Sync options
- Single or synchronous multiple operation
- Variable multiplexed Pixel input
 - 1, 2, 4, 8 and 24 bit pixels
- On chip triple lookup table
- Triple high speed 8 bit video DACs
- CCIR and EIA 343-A compatible
- Full colour mode with hardware gamma translation

- General purpose Video RAM support
- Synchronous VRAM Data Transfer strobing
- Video RAM Row address auto-increment
- Screen width independent of VRAM architecture
- On-chip phase-locked loop (PLL)
- All external signals and clocks at 1/4 video rate

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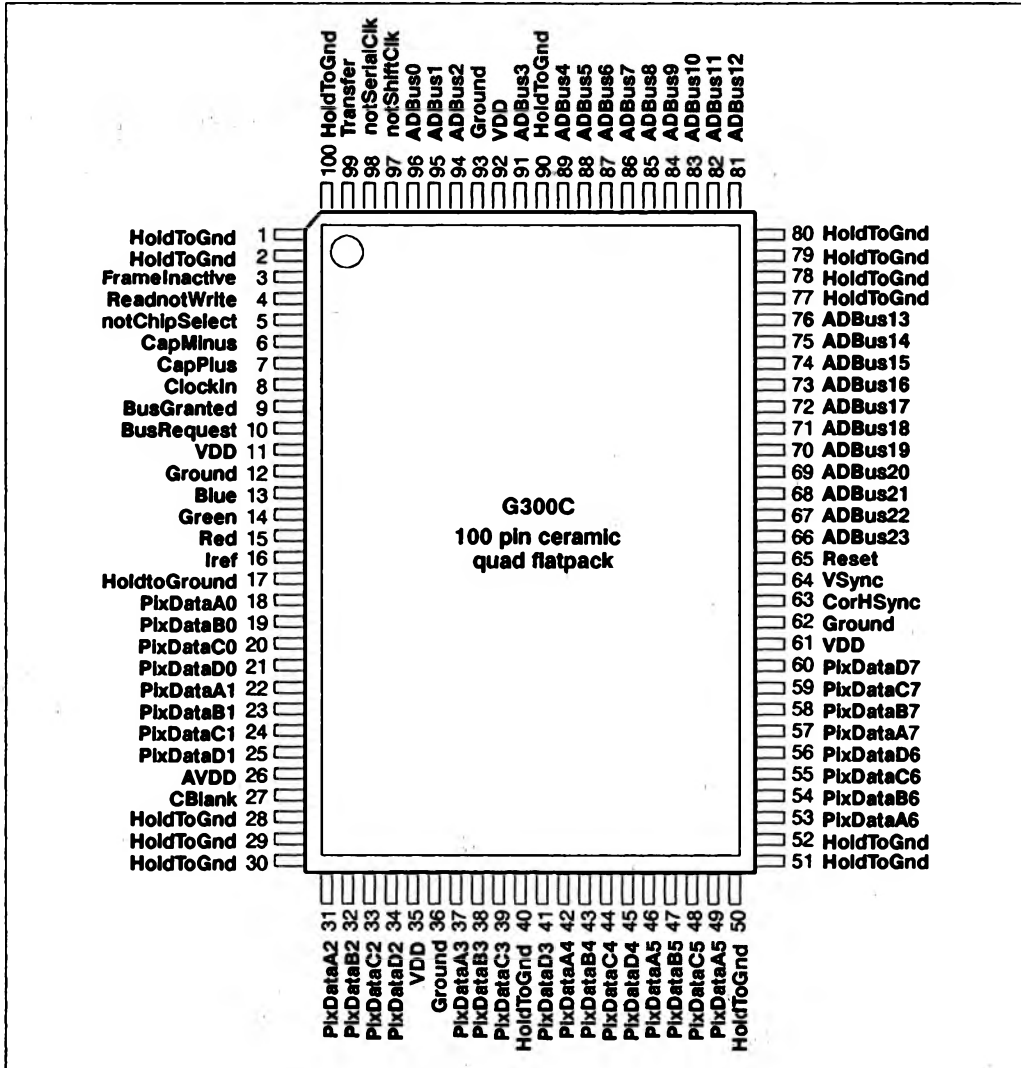
APPLICATIONS

- General purpose raster scan control
- CRT Screen control
- Colour plotters and printers
- Plane-based workstations
- Portable personal computers
- Three dimensional modelling
- Real time animation systems
- Computer visualisation
- Multiple processor systems
- Frame swapping systems
- Scene insertion into live camera data
- Distributed computing environments

Analog performance of the IMS G300 package

With very high edge rates into the P1xDatA pins of the IMS G300, there is a significant coupling between P1xDatA0 and Iref on both the Pin Grid Array (PGA) and Ceramic Quad Flat Pack (CQFP) packages. In order to remove this problem the IMS G300C is offered with an internally modified PGA package with no change to the pinout. In the CQFP version the pinout has been changed to conform to the diagram below. This diagram replaces figure 6.34 in the IMS G300B datasheet.

For both package variants the change introduces a grounded screen between the P1xDatA pins and Iref – eliminating the problem.



IMS G300C 100 pin ceramic quad flatpack pin configuration

NOTE! In all other respects the G300B and G300C are identical.

For future designs use IMS G300C revision. Unless IMS G300B revision is specified when ordering, the IMS G300C revision will be shipped. The IMS G300B revision will eventually be discontinued. The IMS G300B is marked as the IMS G300 and the IMS G300C will be marked as the IMS G300C.