

IBM-COMPATIBLE VGA CHIP SET

FEATURES

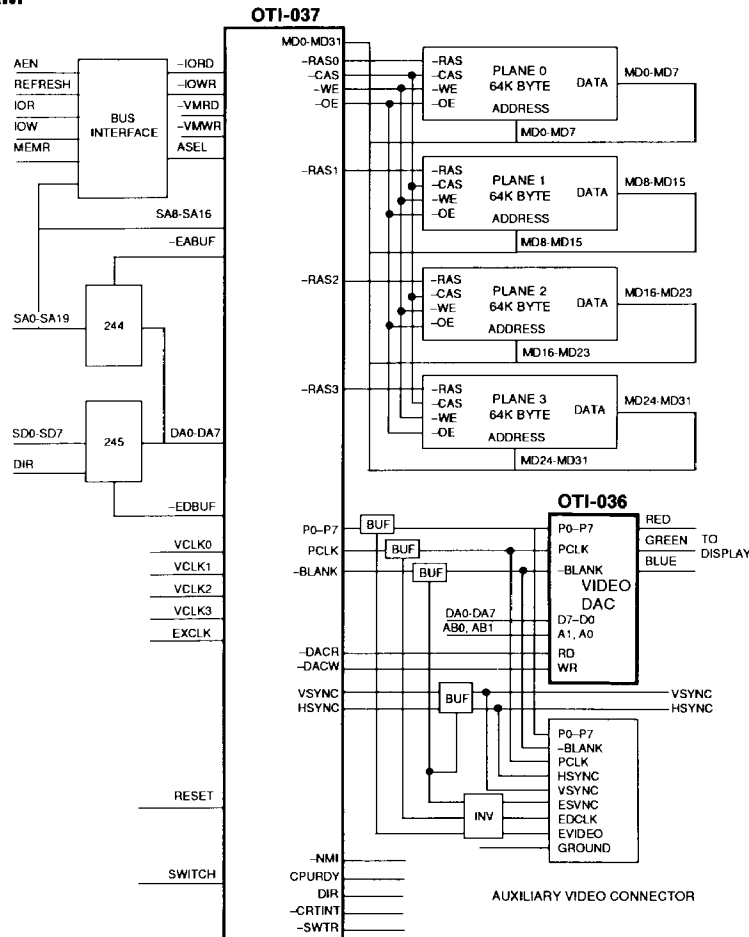
OTI-036 VGA-COMPATIBLE COLOR PALETTE CONTROLLER

- Pixel rates of 50 MHz (OTI-036-50) and 35 MHz (OTI-036-35)
- 256 × 18 bit color palette
- 256K possible colors
- Color palette read-back
- Three internal 6-bit DACs
- Directly drive (75Ω) video cable
- RGB analog output
- Composite blank
- Single +5V supply
- Low-power, high-performance CMOS processing
- TTL compatible inputs
- Full asynchronous μP interface
- Standard 28-pin plastic DIP

OTI-037 VIDEO GRAPHICS CONTROLLER

- Single-chip VGA video graphics device that is completely compatible in the following systems:
  - IBM PC®/AT®
  - IBM PC®/XT®
  - IBM PS/2®
- Fully compatible with IBM VGA in all modes
- Fully compatible with IBM basic input/output system (BIOS)
- Fully backward compatible with MDA, CGA, EGA and Hercules
- Provides 800 × 600 high-resolution graphics mode with 16 colors
- Flicker-free operation in all video modes
- Supports 132 column text mode
- Supports both digital and analog monitors

SYSTEM BLOCK DIAGRAM



# OTI-036/OTI-037

## DESCRIPTION

Oak Technology, Inc. now supplies two VGA-compatible devices: the OTI-036 Color Palette Controller, and the OTI-037 Video Graphics Controller. Both devices are intended for use in IBM PS/2 Model 30-compatible systems, as well as PC/AT and PC/XT-compatible systems.

The OTI-036 Color Palette Controller is a monolithic triple 6-bit video digital-to-analog converter with on-chip 256 × 18-bit color palette, intended for graphics applications. The color palette makes possible the display of 256 colors selected from a total of a possible 256K through the three internal 6-bit video DACs. The DACs are capable of driving single or double terminated 75Ω loads to normal video levels at pixel rates of 50 MHz (OTI-036-50) and 35 MHz (OTI-036-35). The OTI-036-50 and OTI-036-35 provide a bidirectional microprocessor interface with TTL compatible inputs. The OTI-036-50

and OTI-036-35 are pin compatible with the Inmos IMS G171-35/G171-50.

The OTI-037 Video Graphic Controller is a single-chip, high-integration, high resolution graphics device that provides high resolution graphics of 800 × 600 elements with 16 colors. It is fully compatible with IBM VGA in all modes, as well as being fully compatible with Hercules graphics. The OTI-037 compatibility also extends to IBM EGA, CGA, MDA and Hercules BIOS (basic input/output system).

The OTI VGA-compatible device allows flicker-free operation in all modes, and supports an external digital-to-analog lookup table. The OTI-037 is available from Oak Technology, Inc. in an industry-standard 100-pin flat pack.

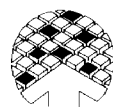
## ORDERING INFORMATION

PART NUMBER	PACKAGE
OTI-036	Plastic DIP
OTI-037	Plastic Flat Pack

### NOTES:

Operating temperature range is 0° to +70°C  
IBM PS/2, PC/AT/XT are registered trademarks of IBM Corp.

The OTI-031 System Controller, OTI-032 I/O Controller, OTI-033 Floppy Disk Controller/Data Separator and the OTI-034 Address/Data Buffer Driver can be used with the OTI-036/OTI-037 IBM-Compatible VGA Chip Set.



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