**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
- 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**
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 x 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 x 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

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<th>PACKAGE</th>
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<tr>
<td>OTI-036</td>
<td>Plastic DIP</td>
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<tr>
<td>OTI-037</td>
<td>Plastic Flat Pack</td>
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NOTES:
Operating temperature range is 0° to +70°C
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