

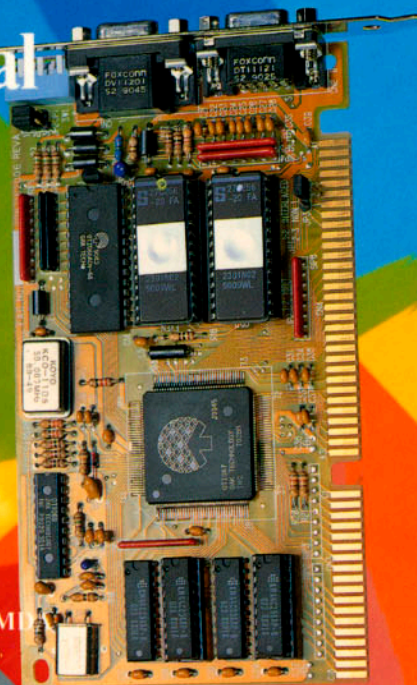


The VG-7000 is a cost effective Extended High Resolution VGA adapter board that is fully compatible with IBM PC/XT/AT. It has been designed for minimum part count while still providing high resolution, compatibility, and full monitor support. The VG-7000 provides the options necessary to receive the maximum benefits of its enhanced capabilities and can be installed in any open 8-bit/16-bit expansion slot.

# VG-7000

## 16-Bit Super-VGA Board

### User's Manual



- \* Full VGA, CGA, EGA, Hercules and MDA compatibility on a single board
- \* 100% IBM PC/XT/AT compatibility
- \* Auto bus detect for 8-bit or 16-bit slots
- \* Software drivers for Windows 3.0 and other popular software application programs

## FEATURES

- Uses Oak Technology's OTI-067 chip
- 100% hardware compatible with IBM VGA in all modes
- EGA, CGA, MDA, and Hercules Graphics compatibility
- Supports digital (TTL), analog (VGA), and portrait (768 x 1024) monitors, interlaced and non-interlaced
- 256KB memory configuration upgradeable to 512KB
- Uses 44256 DRAM DIP chips
- Fast host access to video memory
- Supports bus auto-detect mode
- Supports 132-column text mode
- 1024 x 768 high resolution mode with 4 or 16 colors depending on the memory configuration
- Analog and digital connectors
- Software drivers for Windows 3.0 and other popular application programs
- Two layer P.C.B.
- One year warranty

## PACKING CHECKLIST

The VG-7000 package contains the following items:

- The VG-7000 video display adapter card
- The VG-7000 utility diskettes (3)
- The VG-7000 user's manual

If any of these items are missing or damaged, please contact your dealer or sales representative for assistance.

## CONFIGURING THE VG-7000 CARD

Incorrect setting or use of the VG-7000 display adapter may damage your computer system, monitor, or the VG-7000 display adapter card. Carefully read through this manual before you install your VG-7000 display adapter card into your system. The section "Installing the VG-7000 Display Adapter Card" will guide you through the installation process.

## BOARD LAYOUT

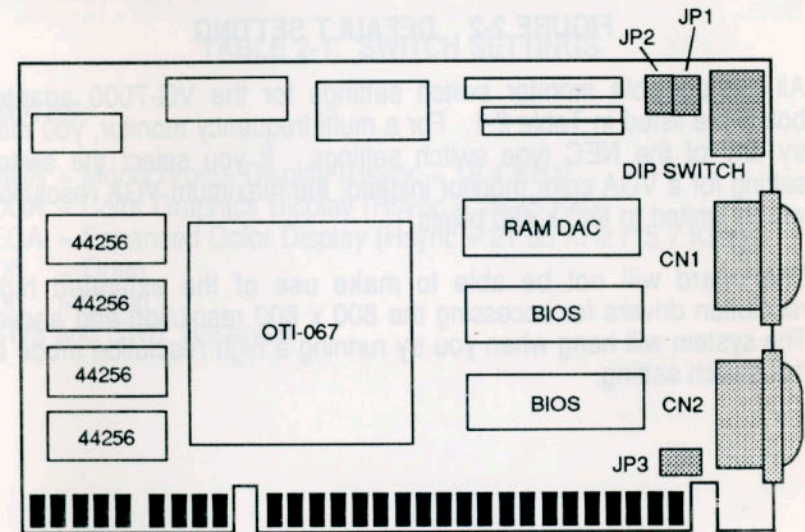


FIGURE 2-1. THE VG-7000 DISPLAY ADAPTER CARD

## DIP SWITCH SETTINGS

The VG-7000 display adapter card has a 6-position DIP switch which controls the monitor setting. Pick the monitor type which closely resembles your particular monitor. Try to pick the switch setting which will provide the most stable image on the screen.

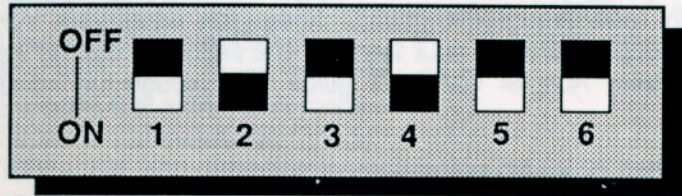


FIGURE 2-2 . DEFAULT SETTING

All the possible monitor switch settings for the VG-7000 adapter board are listed in Table 2-1. For a multi-frequency monitor, you may try any of the NEC type switch settings. If you select the switch setting for a VGA color monitor instead, the maximum VGA resolution will be limited to 640 x 480 pixels.

The board will not be able to make use of the extended high resolution drivers for accessing the 800 x 600 resolution and above. The system will hang when you try running a high resolution mode at this switch setting.

| SW1 | SW2 | SW3 | SW4 | CONFIGURATION           |
|-----|-----|-----|-----|-------------------------|
| ON  | ON  | ON  | ON  | CGA ATTACHED            |
| OFF | ON  | ON  | ON  | MDA ATTACHED            |
| ON  | OFF | ON  | ON  | PURE MDA (NO EMULATION) |
| OFF | OFF | ON  | ON  | EGA ATTACHED            |
| ON  | ON  | OFF | ON  | PURE EGA (NO EMULATION) |
| OFF | ON  | OFF | ON  | VGA COLOR (DEFAULT)     |
| ON  | OFF | OFF | ON  | VGA MONOCHROME          |
| OFF | OFF | OFF | ON  | 8514                    |
| ON  | ON  | ON  | OFF | NEC 2A                  |
| OFF | ON  | ON  | OFF | NEC                     |
| ON  | OFF | ON  | OFF | NEC XL                  |
| OFF | OFF | ON  | OFF | NEC 3D/NEC+             |
| ON  | ON  | OFF | OFF | NEC 4D/5D               |
| OFF | ON  | OFF | OFF | PORTRAIT                |
| ON  | OFF | OFF | OFF | RESERVED                |
| OFF | OFF | OFF | OFF | RESERVED                |

TABLE 2-1. SWITCH SETTINGS

### NOTES:

MDA = Monochrome Display (Hsync = 18.4 KHz)

CGA = Color Graphics Display (Hsync = 15.75 KHz)

EGA = Enhanced Color Display (Hsync = 21.85 KHz /15.7 KHz)

Off = Open

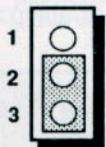
On = Close

SW5 and SW6: Reserved

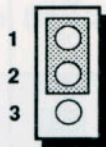
## JUMPER SETTINGS

### Jumper JP1

Interlaced/Non-interlaced Mode



Non-Interlaced Mode

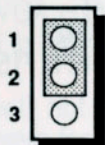


Interlaced Mode  
(Default)

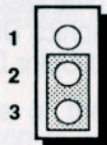
**Note:** Jumper JP2 is only active when the VG-7000 is operating in mode 55, 56, and 57.

### Jumper JP2

VGA BIOS Operation (Automatic Bus Size Detection)



16-Bit Operation  
(Default)



8-Bit Operation

### Jumper JP3

IRQ2 (Interrupt Request Level 2)



Enable Interrupt



Disable Interrupt  
(Default)

## INSTALLING THE VG-7000 CARD

The installation procedure for your VG-7000 graphics adapter will vary slightly depending on the type of system you have: IBM PC/XT/AT or any compatible system. Follow the general installation instructions and look for any special steps that you will need for your particular system.

### PHYSICAL INSTALLATION PROCEDURE

Once you have properly set the switches, you can install the VG-7000 adapter board in any open 8-bit/16-bit expansion slot in your computer system. Follow the steps outlined below:

#### 1. Prepare your computer system.

Turn off the power to the computer system and unplug the power cord. Disconnect all cables connected to the computer system. Using a screwdriver (or a nutdriver), remove the cover mounting screws. These screws are at the rear of a PC, PC/XT, and PC/AT and on each side (lower edge) of a PS/2 Model 30.

2. If you are installing the VG-7000 board in a PC, PC/XT or PC/AT, configure the computer system for the type of monitor you will be using. The computer can be configured for Monochrome or Color or No Display can be used to enable a VGA or EGA board to boot up properly. Refer to your system manual and follow the steps below:

Locate the monitor selection switch(es) on the computer's motherboard.

In an IBM PC, locate switches 5 and 6. They are located in switch block 1 on your computer's motherboard.