



VIVO

Guide to Installation
and Operation
M069-9900-200

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Miranda Technologies Inc.
Specifications may be subject to change.
Printed in Canada
August 2002*



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4:2:2 Video Port Interface for SGI 02 Workstation

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Warranty Statement

Miranda Technologies Inc. warrants that the equipment it manufactures shall be free from defects in material and workmanship for a period of two (2) years from the date of shipment from the factory. If equipment fails due to such defects, Miranda Technologies Inc. will, at its option, repair or provide a replacement for the defective part or product. Equipment that fails after the warranty period, has been operated or installed in a manner other than that specified by Miranda, or has been subjected to abuse or modification, will be repaired for time and material charges at the Buyer's expense.

All out-of-warranty repairs are warranted for a period of ninety (90) days from the date of shipment from the factory.

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Effective January 1, 2002

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All warranty exchange or loaner parts or products shall be shipped to the Buyer with a packing list clearly describing the items and stating the date of shipment. Repaired parts or products will be shipped to the Buyer with a similar packing list. In the case of exchange, the defective products or parts

must be returned to Miranda within fifteen (15) days from receipt by the customer of the exchange product. In the case of a loaner, the loaned products or parts must be returned to Miranda within fifteen (15) days from receipt by the customer of the repaired equipment.

If the equipment is not returned within fifteen (15) days, as described for either exchanges or loans, A Rental Invoice will be generated. Rental terms will be fifteen (15) percent of the current list price of the products or parts per month or a fraction thereof. Before returning the equipment to Miranda Technologies Inc., for any reason, the Buyer must first obtain a Return Authorization Number from Miranda Technologies Inc. Miranda Technologies Inc will pay freight and insurance charges for the delivery of the loaner or exchange products or parts. Freight and insurance charges for the return of the defective product or part will also be paid by Miranda Technologies.

Out-Of-Warranty Repair Policy

Miranda will repair equipment which is out of Warranty. The current pricing structure for this service is available from the Miranda web site at www.miranda.com or from Miranda Technical Support Services at (514) 333-1772. All out-of-warranty repairs are warranted for a period of 90 days from the date of shipment from the factory. Before returning the equipment to Miranda Technologies Inc., for any reason, the Buyer must first obtain a Return Authorization Number from Miranda Technologies Inc. In the case of a product deemed by Miranda to be beyond repair, the customer must purchase a new product at current retail prices.

The Buyer will pay freight and insurance charges for the return of the defective product or part to the manufacturer for repair. Miranda Technologies will pay freight and insurance charges for the return of the repaired product or part to the Buyer.

Out-Of Warranty Equipment Updates and Spare Parts Policy

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Radio Frequency Interference and Immunity

This unit generates, uses, and can radiate radio frequency energy. If the unit is not properly installed and used in accordance with this guide, it may cause interference with radio communications. Operation with non-certified peripheral devices is likely to result in interference with radio and television reception. This equipment has been tested and complies with the limits in accordance with the specifications in:

*FCC Part 15, Subpart B
CE EN50081-1:1992
CE EN50082-1:1992.*

Trademarks

SGI® is a registered trademark of Silicon Graphics Inc.

O2™ is a trademark of Silicon Graphics Inc.

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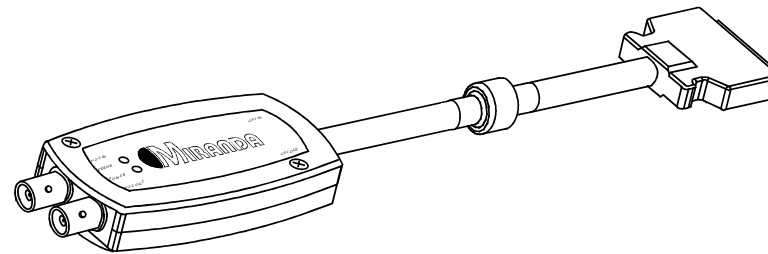
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1.0 VIVO Overview

VIVO is a small, compact serial digital 4:2:2 video interface for the SGI O2 workstation. This product provides real-time serial digital 4:2:2 simultaneous input/output via O2's Audio-Visual Module in both 525 and 625-line formats. Both input and output 4:2:2 signals respect the SMPTE 259M-C standard providing full 10-bit paths. The Digital Video I/O option interconnection with VIVO is made via a short-lengthed captive cable which routes power to VIVO eliminating the need for an external power supply. VIVO also provides input/output GPI connections. Refer to Figure 1.

Figure 1 VIVO 4:2:2 Video Port Interface



2.0 Features

- Small, compact packaging
- Aluminum machined body
- Connects to O2 workstation via a short captive cable
- No external power supply required
- Simultaneous support for both channel 4:2:2 input and 4:2:2 output
- Support for both GPI input and output
- Full 10-bit support
- Power and input error LED indicators
- Fully compatible with SGI software

3.0 System Requirements

To operate VIVO, you will require:

- A UNIX-based SGI O2 workstation equipped with the Audio-Visual Module
- IRIX operating system version 6.3 or later
- IRIX Digital Media Execution Environment tools: mediarecoder and videopanel (or equivalent).

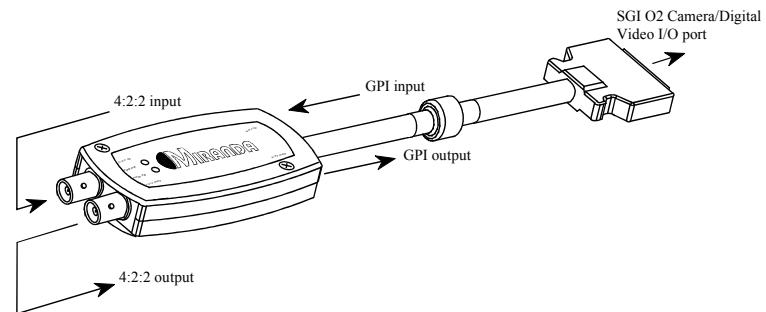
4.0 Installation

To install VIVO, follow these steps and refer to Figure 2.

- 1 Turn off your workstation.
- 2 Connect VIVO's cable to the workstation's Camera/Digital Video I/O connector.
- 3 Install a 4:2:2 signal to VIVO's input connector labeled **4:2:2 IN**.
- 4 Connect VIVO's 4:2:2 output to downstream equipment using the connector labeled **4:2:2 OUT**.
- 5 You may now turn on your workstation.

NOTE: *If you plan to use the GPI input and output connectors, refer to section 6, GPI Connections for the correct pinout.*

Figure 2 VIVO installation



5.0 Operation

VIVO provides visual status on the power applied to it and 4:2:2 input signal errors. The LED functions are described here.

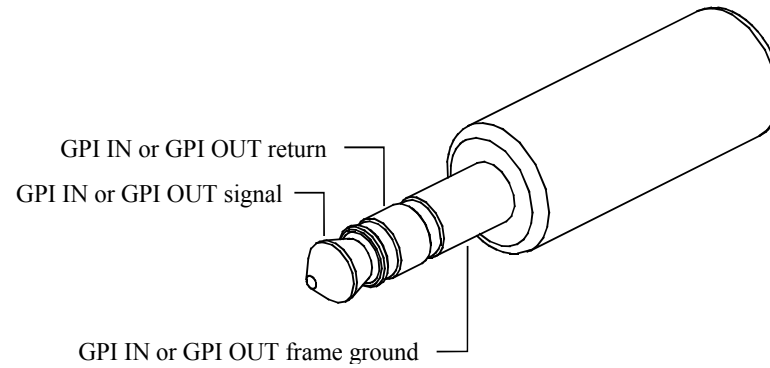
POWER This LED turns on to indicate VIVO has been powered by the SGI O2 workstation.

ERROR This LED turns on if there is no 4:2:2 signal installed on **4:2:2 IN**.

6.0 GPI Connections

VIVO's GPI connectors require 3.5 mm stereo jacks. Figure 3 provides the pinout of the stereo jack.

Figure 3 Stereo jack pinout for GPI connectors



7.0 Specifications

INPUT

Video Signal: SMPTE 259M-C (270 Mbps)
Cable length: 250 m (820')
Return loss: >15 dB up to 270 MHz
Processing delay: <0.2 us
Connector: 75 ohms BNC

OUTPUT

Video Signal: SMPTE 259M-C (270 Mbps)
Return loss: >15 dB up to 270 MHz
Added jitter: < 0.2 UI (0.7 ns) p-p
Processing delay: <0.2 us
Connector: 75 ohms BNC

GPI I/O

GPI Type: Level as per SGI specifications
Connector: 3.5 mm Stereo jack

SGI Camera/Digital Video I/O port

Interface type: SGI proprietary

ELECTRICAL

Supply source: O2 Digital Video I/O
Power: 1 W@12 V/750 mW@5 V

MECHANICAL

Overall size: 101 mm X 51 mm X 18 mm
(4.0" x 2.0" x 0.7")

Cable length: 190 mm (7.5")