

# *AVS IM-530*

## *Secure Isolation Module*

# Quick Setup and Operations Guide



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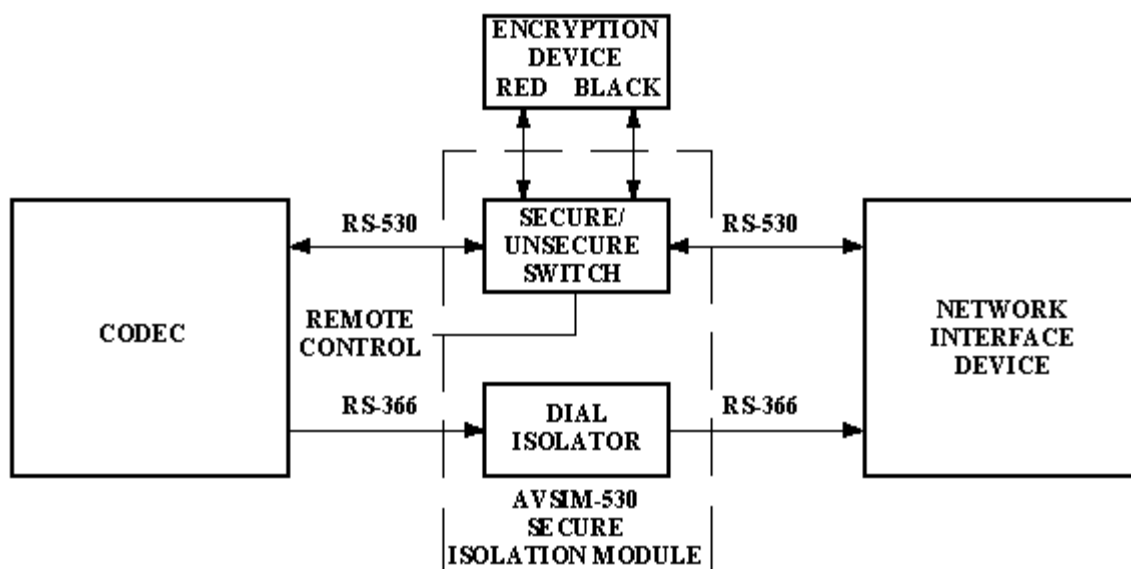
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# 1 AVSIM-530 Overview

The AVSIM-530 Secure Isolation Module provides an integrated secure dialing isolation module along with a secure/non-secure data switch for classified ISDN based video teleconferencing (VTC) applications. The dial isolation module is an optically isolated RS-366 path based upon the industry's first and leading product, the AVSIM-366 Dial Isolator. The secure/non-secure RS-530 data switch provides not only manual front panel switch control, but also remote control capability via either RS-232 data or contact closure. The switch module has been designed to meet or exceed Tempest and Emissions standards to ensure that secure environments are not electrically compromised.

Historically, secure video teleconferencing systems required a separate dialing terminal connected to the ISDN network interface device to provide secure isolation for the system while passing dialing digits to the public switched telephone network (PSTN). This is a separate function from the normal codec user interface and often also requires a separate operator. The dial isolator portion of the AVSIM-530 provides optical isolation on the RS-366 dialing interface automatically when the system is not in a call or the distant end has connected. The need for the extra equipment and personnel is thus eliminated, thereby permitting the user to utilize the normal codec dialing interface which makes the security provisions transparent.

The secure/non-secure switch provides the ability to switch an encryption device inline for classified VTC calls while still allowing the system to also make unclassified calls.



Typically these switches are under manual control either requiring an operator or placement where the user can easily access the unit. The AVSIM-530 provides the ability for the secure/non-secure switch function to be easily setup for remote operation. It can be as simple as a remote switch closure for the user or seamlessly integrated into a control system via easy RS-232 based ASCII commands. A contact closure output is provided to allow monitoring of the secure/non-secure switch mode.

## **2 Operating the AVSIM-530**

Operation of the AVSIM-530 can be accomplished using any of the three operating modes:

### **Manual Operation/Control**

This mode is available when the operator can easily access the unit. Manually operate the AVSIM-530 via push-button switches on the front panel allowing switching between secure and non-secure settings.

### **Remote Switch Closure**

See *Section 3 - Remote Contacts* - for connector and pin descriptions.

### **Control System**

Seamlessly operate the unit via easy RS-232 based ASCII commands. A contact closure output is provided to allow monitoring of the secure/non-secure switch mode.

See *Section 4 – Serial Control* - for connector/pinout and serial input information.

### **3 Remote Contacts – Connector Pinout**

#### DB-9M - Pin Description

- 1 Secure Control In (pull to gnd)
- 2 Gnd
- 3 Non Secure Control In (pull to gnd)
- 4 Gnd
- 5 Aux Control In (Future use)
- 6 Secure Out Dry
- 7 Non Secure Out Dry
- 8 Common Out Dry
- 9 +5V Out

The control inputs are internally pulled up to 5Vdc. Use a dry contact, open collector or TTL logic to drive these inputs. They are active low, that is, when pin 1 is pulled low, the unit is switched to the secure mode.

The control outputs are connected to the Common Out Dry pin in the appropriate mode. For example, when the unit is in the Secure mode, pin 7 is connected to pin 8.

## **4 Serial Control – Connector Pinout**

### DB-9F, DCE – Pin Description

- 1 NC
- 2 Rx out
- 3 Tx in
- 4 NC
- 5 Gnd
- 6 NC
- 7 NC
- 8 NC
- 9 NC

9600 BAUD, 8 bits, No parity, 1 stop bit

## 4.1 Serial Input

Input Command	Purpose	Response	Meaning
status<CR>	Request the status of AVSIM530	Paneloff/Unsecure Panelon/Unsecure Paneloff/Secure Panelon/Secure Nak	unsecure and panel off unsecure and panel on secure and panel off secure and panel on error
setsecure<CR>	Put 530 in secure mode	Secure  Nak	AVS-530 is in secure mode Error setting 530 to secure/Command not read
setunsecure<CR>	Put 530 in unsecure mode	Unsecure  Error  Nak	AVS-530 is in unsecure mode Error setting 530 to unsecure (secure button is pressed) Command not read
paneloff<CR>	Disable unsecure buttons	PanelOff  Nak	ONLY Unsecure button is disabled Command not read
panelon<CR>	Enable unsecure buttons	PanelOn Nak	Panel buttons are enabled Command not read
rev<CR> available Rev2.11	Return Software version info	AVSIM-530 Rev2.11 02-25-05	No effect on status

## 5 Specifications

- **Dimensions:** 1.75" H x 19" W x 8" D  
Rack mountable with supplied ears
- **Weight:** 4 lbs w/o Power Supply
- **Power:** 5 VDC, External Power Supply
- **Serial and Contact Control:** DB-9F and DB-9M

RS-366 - Input: DB-25F Output: DB-25M

RS-530 In/Out: DB-25F

Crypto Red/Black: DB-25F

## **6 Warranty**

### **LIMITED WARRANTY**

#### **AVSIM-530**

AUDIO VIDEO SYSTEMS, Inc (AVS) warrants to the original purchaser that this product shall be free from defects in materials and workmanship for a period of ONE (1) YEAR from the date of purchase. AVS agrees to repair or replace (at their discretion), defective standard AVS product free of charge within the stated time period.

This warranty is limited to the original purchaser and is not transferable. This warranty does not cover damage to material caused by improper or unreasonable use, including inadequate operating environments as well as failure to provide proper maintenance.

This warranty excludes all costs including, but not limited to AVS travel and time expense required to diagnose product failure/defect(s), product removal by AVS personnel, and subsequent reinstallation by AVS personnel.

AVS assumes no responsibility whatsoever from malfunctions, failures or defects resulting from misuse, abuse, neglect, alteration, modification or repairs by other than those with written authorization to do so.

Any implied warranty granted under state law, including warranties of merchantability or fitness for a particular purpose, are limited to the duration to the express warranty granted hereunder. AVS in no event shall be liable for direct, indirect, incidental or consequential damages of any nature.





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AVS distinguishes itself with its technical expertise, project management and onsite support. AVS' service team is comprised of highly experienced personnel proficient in the servicing of secure VTC, control systems and complex audiovisual systems. AVS also provides ongoing service and maintenance contracts that include 24 hour/seven day on-site technical support.



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