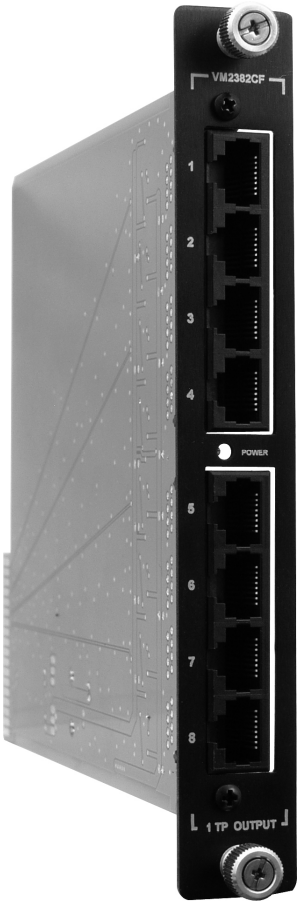

MANUAL PART NUMBER: 400-0387-003

VM2382CF

V-MATRIX, 8-OUT, SINGLE CHANNEL TWISTED PAIR OUTPUT CARD

USER'S GUIDE

ALTINEX®

SIGNAL MANAGEMENT SOLUTIONS®

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PRECAUTIONS / SAFETY WARNINGS 1

Please read this manual carefully before using your **VM2382CF** and keep it handy for future reference. These safety instructions are to ensure the long life of your **VM2382CF** and to prevent fire and shock hazards. Please read them carefully and heed all warnings.

1.1 GENERAL

- Qualified ALTINEX service personnel or its authorized representatives must perform all service.

1.2 HANDLING

- Handle the **VM2382CF** carefully. Dropping or jarring can damage the card.
- The **VM2382CF** contains components that are sensitive to electrostatic discharge (ESD). Always use ESD safety precautions when touching the card.
- To prevent fire or shock, do not expose this unit to water or moisture. Do not place the **VM2382CF** in direct sunlight, near heaters, or heat-radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.
- Do not pull any cables that are attached to the **VM2382CF**.

1.4 CLEANING

- Clean only the connector area with a dry cloth. Never use strong detergents or solvents such as alcohol or thinner. Do not use a wet cloth or water to clean the card. Do not clean or touch any component or PCB.

1.5 FCC NOTICE

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- Any changes or modifications to the unit not expressly approved by ALTINEX, Inc. could void the user's authority to operate the equipment.

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ABOUT YOUR VM2382CF 2

VM2382CF

8-OUT, 1TP Output Card for V-Matrix

The **VM2382CF** is an 8 Twisted Pair Output card designed for use with all ALTINEX standards for Twisted Pair signal transmission including TP receivers like the DA1931CT and MT103-123. The Twisted Pair signals from the **VM2382CF** may be easily distributed to the single channel inputs of a receiver using ALTINEX cables such as the MS8704TP.The **VM2382CF** Output card works with its counterpart, the VM2831CF Input Card. *See the VM2381CF for more information.*

Each **VM2382CF** can transmit 2 4TP ALTINEX Standard signals for a maximum of 32 4TP outputs per enclosure. The input and output cards both provide excellent bandwidth allowing them to pass high-resolution computer video + audio signals without signal degradation.

The **VM2382CF** is hot-swappable with finger adjustable lock-down screws and positive engagement card-edge connections.

The latest generation of Twisted Pair devices uses an innovative, patented technology* developed by ALTINEX. The new signal processing technology allows transmitting and receiving fully equalized computer video signals, stereo, and audio signals over long distances. The maximum distance at full UXGA resolution is 400 ft (122 m) between devices and may reach up to 750 ft (230 m) at VGA resolution.

* US Patent 7,065,190

TECHNICAL SPECIFICATIONS 3

Specifications are subject to change.

See www.altinex.com for up-to-date information.

FEATURES/ DESCRIPTION	VM2382CF
INPUTS	
Single Ended	Internal Bus
OUTPUTS	
Twisted Pair Single Channel	RJ-45 female (8)
RESOLUTIONS	
Analog Video	VGA through UXGA
Digital Video	480p through 1080i

Table 1. **VM2382CF** Description

MECHANICAL	VM2382CF
Enclosure Slots	One
Weight	0.5 lb (0.23 kg)
T° Operating	10°C-35°C
T° Maximum	40°C
Humidity	90% non-condensing

Table 2. **VM2382CF** Mechanical

ELECTRICAL	VM2382CF
Input Signals	
Input Signal (single ended)	Video/Sync/Audio Signals ALTINEX Standard
Input Impedance	75 ohms
Output Signals	
Differential Output	Video/Sync/Audio Signals ALTINEX Standard
Output Impedance	50 ohms
Power (from enclosure)	
+5V	110 mA (0.6 W)
-5V	110 mA (0.6 W)
Total Power	1.2 W max.

Table 3. **VM2382CF** Electrical

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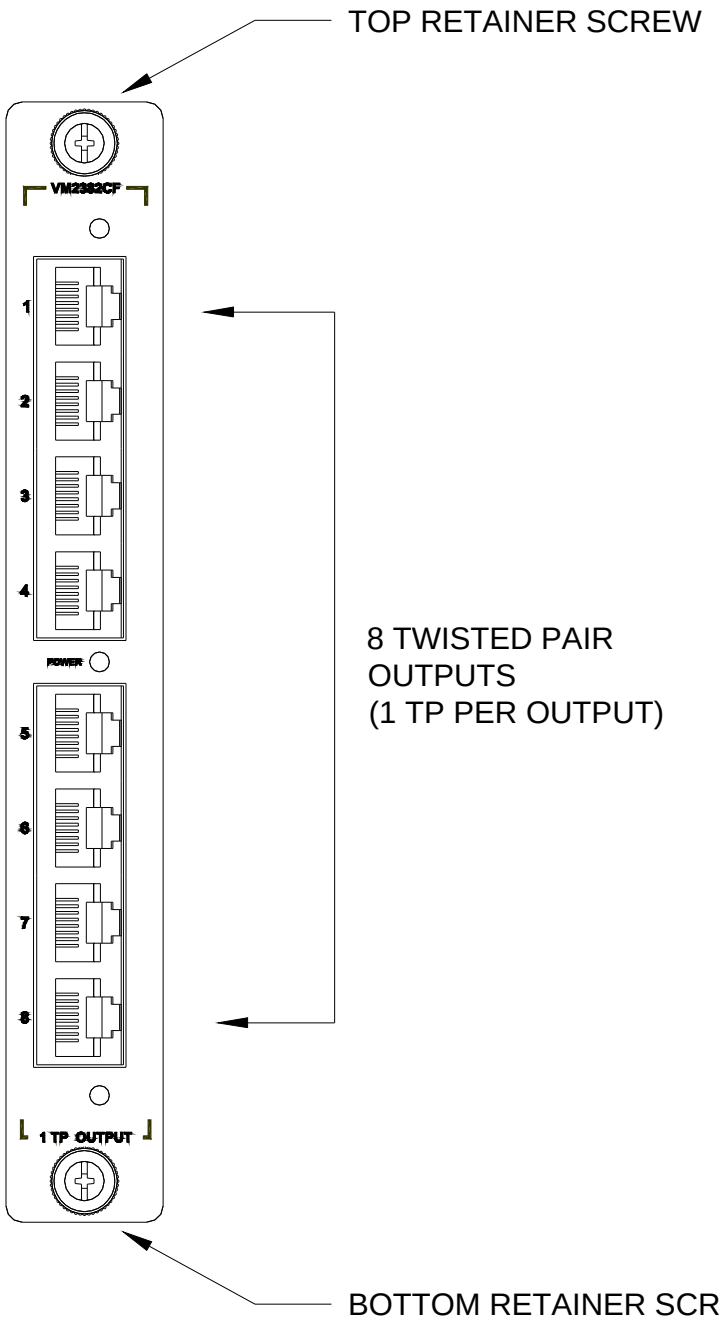
PRODUCT DESCRIPTION 4



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APPLICATION DIAGRAMS 5

DIAGRAM 1: TYPICAL SETUP

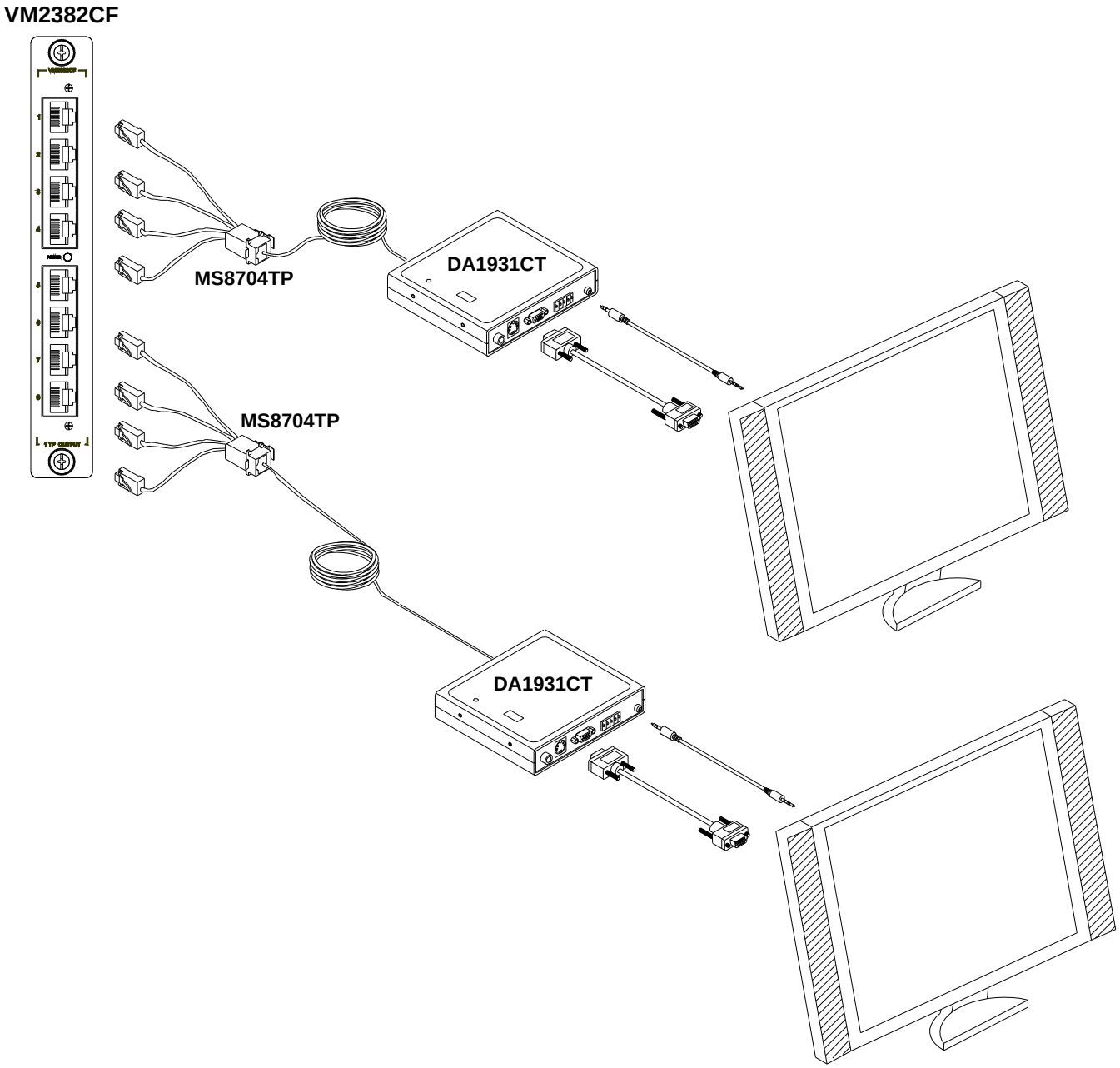
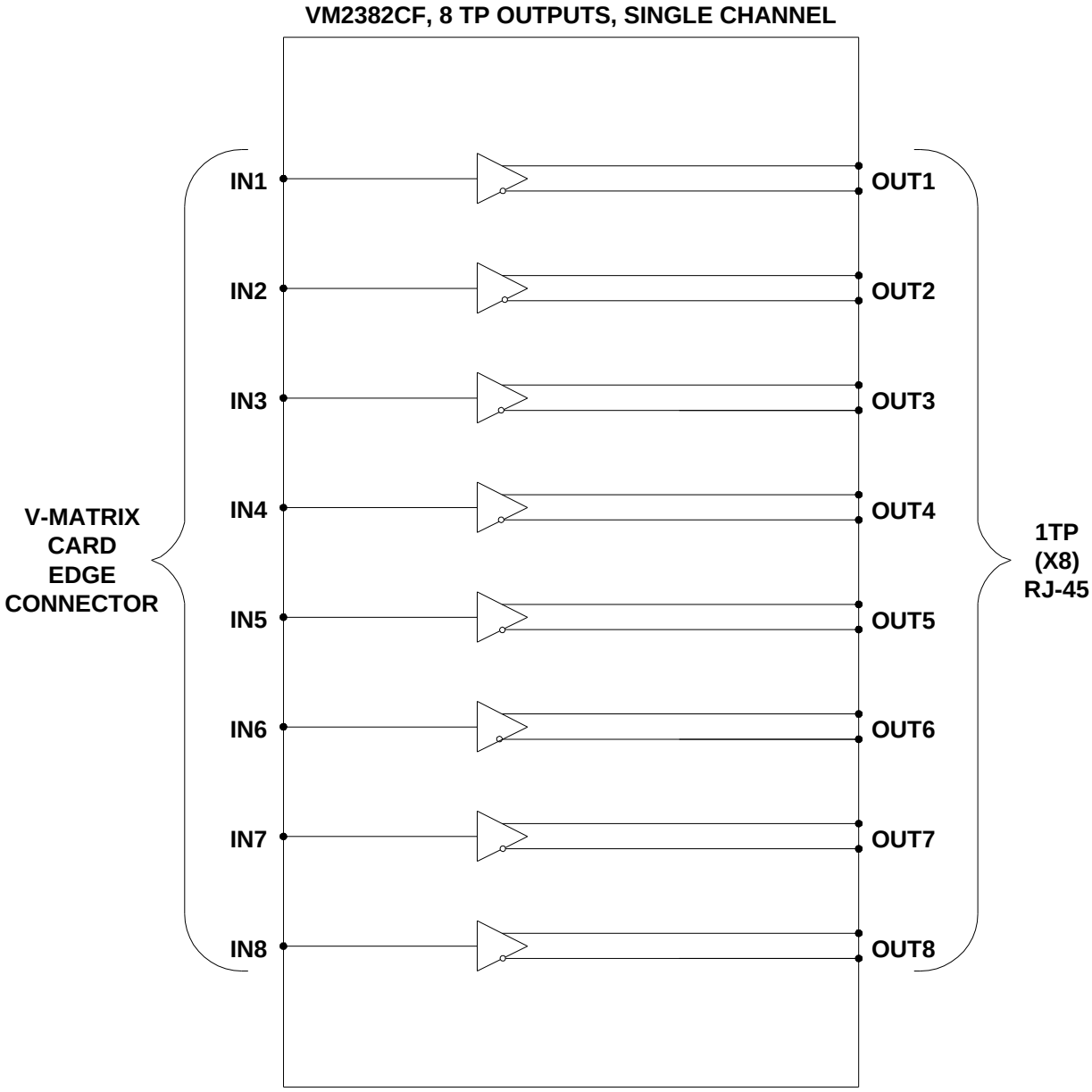


DIAGRAM 2: INTERNAL VIEW



INSTALLING YOUR VM2382CF 6

Step 1. Turn off power to the V-Matrix enclosure.

Step 2. Remove a slot cover (VM2005BP) from one of the unused slots of the enclosure in order to install the **VM2382CF**.

Step 3. Slide the **VM2382CF** into the slot in the enclosure in order to connect it to the bus.

Step 4. Make sure that the card fits into place and then secure the card by tightening the retainer screws located on the top and bottom of the card.

Step 5. Starting from the left, identify the slot number of the **VM2382CF** in the enclosure, and note that it will be used to determine the output numbers for the card.

Step 6. Restore power to the V-Matrix enclosure.

Step 7. Connect the Twisted Pair outputs of the **VM2382CF** to the inputs of the TP receiver using an adapter cable like the MS8704TP.

Step 8. The **VM2382CF** is ready for operation.

Step 9. Each output card in the enclosure handles 8 output signals. In order to determine the starting output number of the **VM2382CF** just installed, multiply the slot number by 8 and subtract 7.

Example: The card is in slot 4.

(4 x 8) – 7 = 25

Therefore, the new card outputs are numbered 25 through 32.

OPERATION 7

7.1 GENERAL OPERATION

The **VM2382CF** does not require any adjustments for proper operation. Once installed, the **VM2382CF** will operate trouble-free with no user intervention.

TROUBLESHOOTING GUIDE 8

The **VM2382CF** unit supplied was carefully tested and no problems were found. However, we would like to offer the following suggestions:

8.1 NO DISPLAY

Cause 1: The cable connections are wrong.

Solution: Make sure the cables are properly connected and that the inputs on the VM2381CF are receiving the input signals from the TP source. Next, make sure the selected outputs on the **VM2382CF** are connected to the TP receiver and that the continuity and wiring are good. If there is still no display, see Cause 2.

Cause 2: The path is not properly selected.

Solution: Verify the signal is being properly routed through the V-Matrix system.

NOTE: The ALTINEX Standard for TP signals requires 4 Twisted Pairs. All 4 pairs must be switched through the V-Matrix system.

Example: The TP transmitter pairs are being applied to inputs 1-4. If the TP receiver is connected to the first four outputs of the card in slot 1, make the following connections:

Input 1 to Output 1
Input 2 to Output 2
Input 3 to Output 3
Input 4 to Output 4

If the TP receiver is connected to first four inputs of the card in slot 2:

Input 1 to Output 9
Input 2 to Output 10
Input 3 to Output 11
Input 4 to Output 12

See RS-232 accessible commands for the VM2210BE V-Matrix Basic Enclosure User's Guide. If there is still no display, see Cause 3.

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Cause 3: The card has a problem.

Solution 1: Look at the card and verify that there is no damage. If there is no damage, see Solution 2.

Solution 2: Make sure the display is powered and turned on. If there is still no display, see Cause 4.

Cause 4: There is an unknown problem.

Solution: Bypass the V-Matrix and connect the TP transmitter directly to the TP receiver, and the receiver to the display. If possible, use the same cables as are being used with the V-Matrix system. If the display works properly, there may be a problem with the V-Matrix or in the setup. Please call ALTINEX at (714) 990-2300.

8.2 POOR DISPLAY QUALITY

Cause 1: Incompatible devices.

Solution: Make sure the video source and the display are compatible devices. Check the manufacturer's specifications if necessary. If the devices are compatible, see Cause 2.

Cause 2: Cable connections are incorrect.

Solution: Make sure that the cables are properly connected and that the continuity and wiring are good. If there is still no display, please call ALTINEX at (714) 990-2300.

ALTINEX POLICIES 9

9.1 LIMITED WARRANTY/RETURN POLICIES

Please see the ALTINEX website at www.altinex.com for details on warranty and return policies.

9.2 CONTACT INFORMATION

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