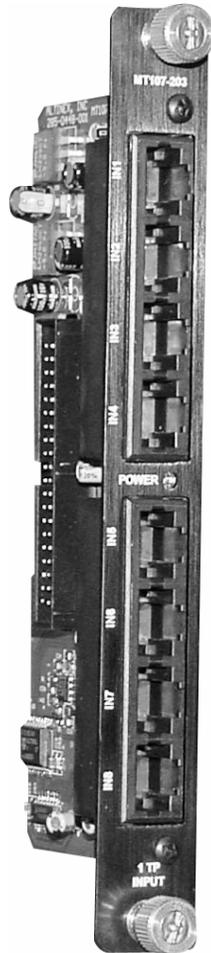


**Mult
Tasker®**



MANUAL PART NUMBER: 400-0371-004

MT107-203

**8-IN, TWISTED PAIR, SINGLE CHANNEL
INPUT CARD FOR MATRIX SWITCHER
USER'S GUIDE**

TABLE OF CONTENTS

	Page
PRECAUTIONS / SAFETY WARNINGS.....	2
GENERAL.....	2
INSTALLATION.....	2
CLEANING.....	2
FCC NOTICE	2
ABOUT YOUR MT107-203.....	3
TECHNICAL SPECIFICATIONS.....	3
PRODUCT DESCRIPTION	4
APPLICATION DIAGRAMS.....	5
DIAGRAM 1: TYPICAL SETUP	5
DIAGRAM 2: INTERNAL VIEW	6
INSTALLING YOUR MT107-203.....	7
OPERATION.....	7
RS-232 CONTROL.....	7
DESCRIPTION OF COMMANDS	7
TROUBLESHOOTING GUIDE.....	7
NO DISPLAY.....	7
ALTINEX POLICIES	8
LIMITED WARRANTY/RETURN POLICIES	8
CONTACT INFORMATION	8

PRECAUTIONS / SAFETY WARNINGS 1

Please read this manual carefully before using your **MT107-203**. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your **MT107-203** and to prevent fire and shock hazards. Please read them carefully and heed all warnings.

1.1 GENERAL

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

1.2 INSTALLATION

- To prevent fire or shock, do not expose this unit to water or moisture. Do not place the **MT107-203** in direct sunlight, near heaters, or heat-radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.
- Handle the **MT107-203** carefully. Dropping or jarring can damage the card.
- Do not pull any cables that are attached to the **MT107-203**.
- Insert the card carefully into the slots of the MultiTasker without bending any edges.

1.3 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.

1.4 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.

ABOUT YOUR MT107-203

2

MT107-203

8-In, Twisted Pair, Single Channel

The **MT107-203** is an 8 Input expansion card for use with the MT107-104 64X64 Matrix Engine®. The **MT107-203** is capable of receiving ALTINEX Twisted Pair Standard signals from transmitters such as the DA1930CT. The Twisted Pair signals from the transmitter may be easily distributed to the single channel inputs using ALTINEX cables such as the MS8704TP.

Each **MT107-203** connects to the Input Connector on the MT107-104 Matrix Engine. Up to 8 **MT107-203** cards may be connected to the engine. Each card is connected with the engine via specially provided, high-bandwidth video cables.

As part of the MT107-104 Matrix Engine, the **MT107-203** has special built-in features. Signal detection circuitry allows the user to determine the presence of an input signal on any channel.

Video input signals are buffered to the matrix system through high-bandwidth differential receivers.

ALTINEX's software and hardware allow for the switching of any input to output combination and prevents illegal switching combinations that may damage components.

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	MT107-203
GENERAL	
Input Connectors	8
Twisted Pair Input	RJ-45 female
Output Connectors	1
Twisted Pair to Engine	Internal Box Header
Compatibility	
Signal Types	ALTINEX Twisted Pair Standard
Signal Resolution	VGA through UXGA, C-Video, S-Video, Stereo Audio

Table 1. **MT107-203** General

MECHANICAL	MT107-203
Enclosure Slots Required	1
Weight	0.4 lb (0.18 kg)
Connector Panel	Black Anodized
T° Operating	10°C-50°C
T° Maximum	75°C
Humidity	90% non-condensing
MTBF (calc.)	38,000 hrs

Table 2. **MT107-203** Mechanical

ELECTRICAL	MT107-203
Input	
Twisted Pair	Video/Sync/Audio Signals ALTINEX Standard
Analog Signal Level	1.5 Vp-p max.
Output	
Bus to Matrix Engine	0 dB gain
Bandwidth	
Bandwidth	300 MHz @ -3dB
Power (from enclosure)	
+6V	0.110 A (0.7 W)
-6V	0.110 A (0.7 W)

Table 3. **MT107-203** Electrical

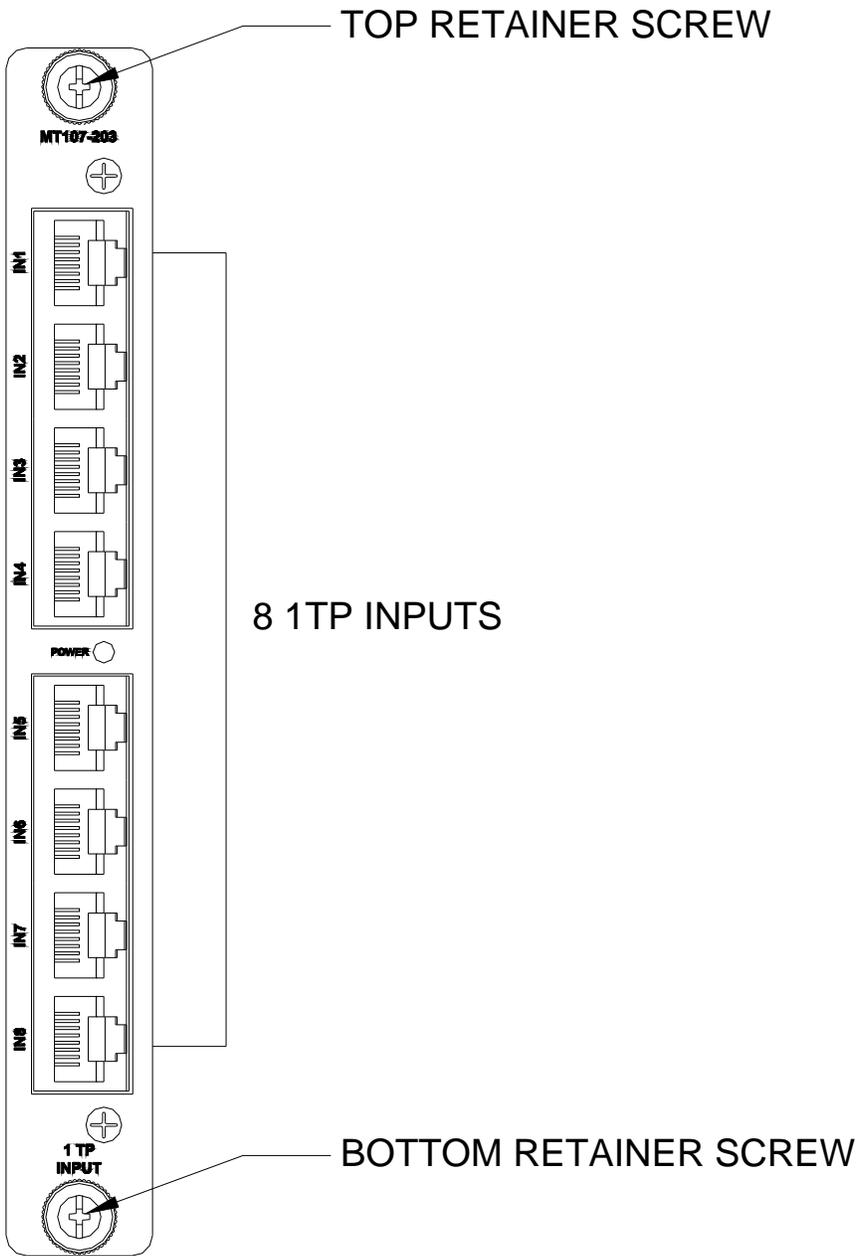


DIAGRAM 1: TYPICAL SETUP

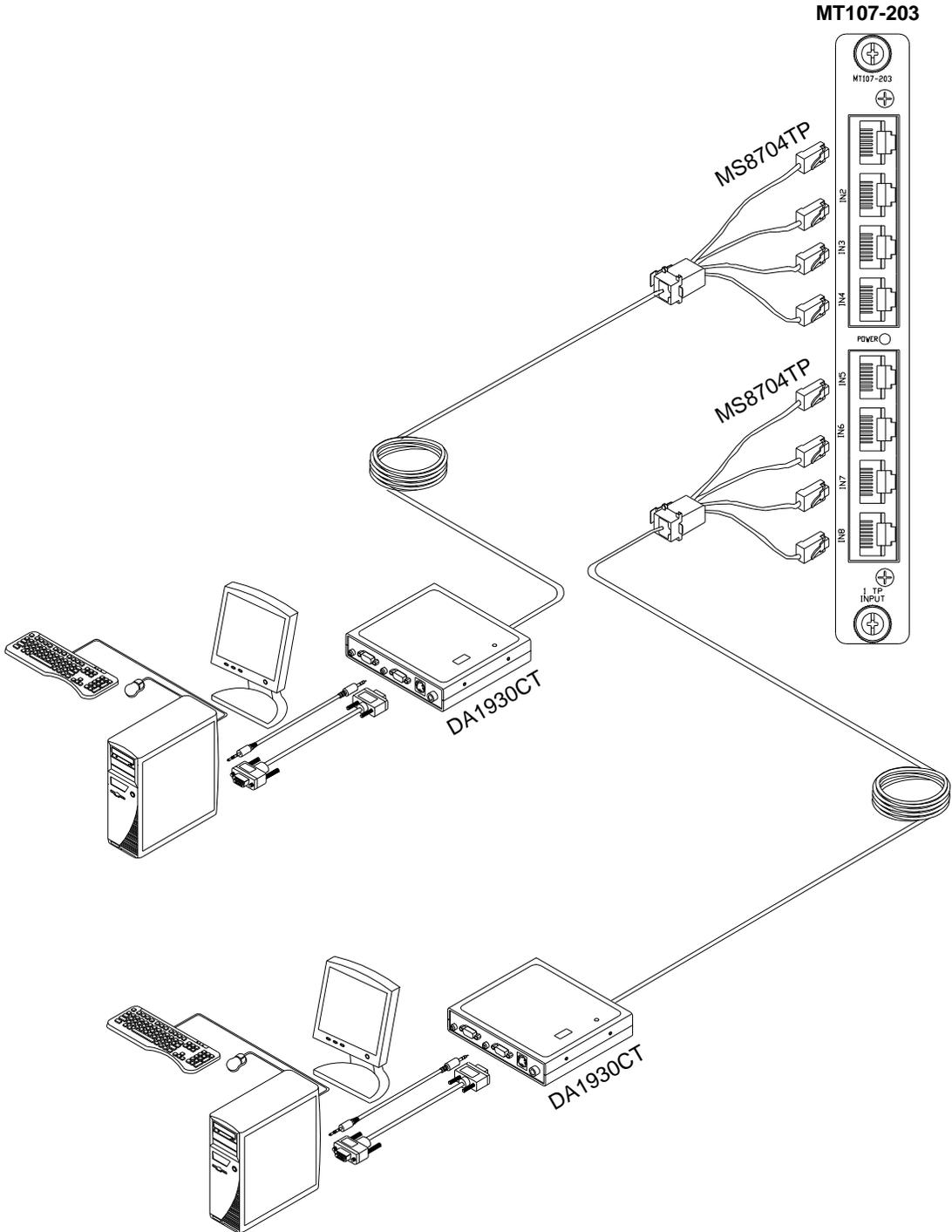
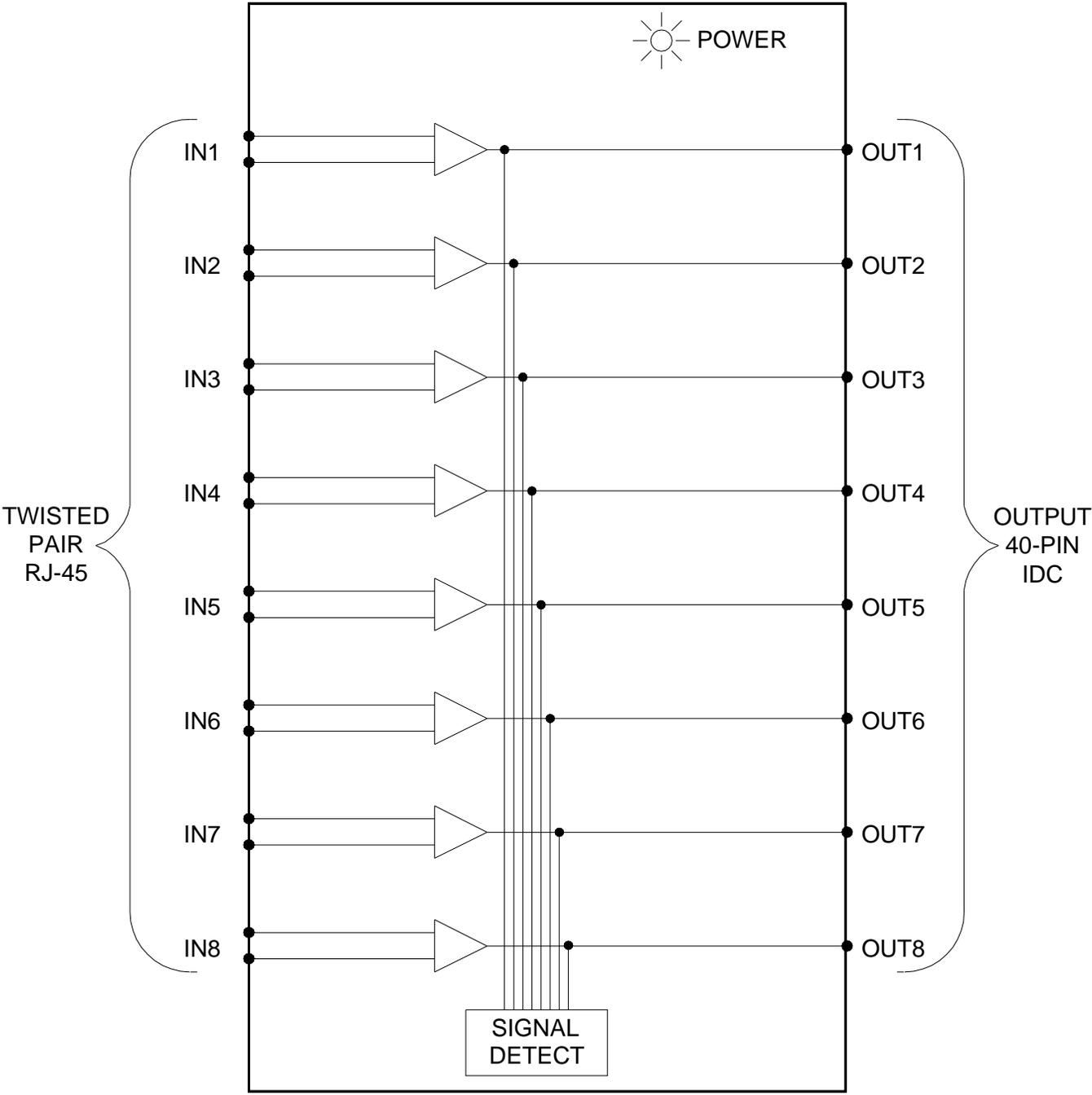


DIAGRAM 2: INTERNAL VIEW



INSTALLING YOUR MT107-203 6

- Step 1.** Turn off power to the MultiTasker enclosure and remove the input AC power cord.
- Step 2.** Locate the MT107-104 currently installed in the MultiTasker. Verify there is an empty slot in the enclosure for the new **MT107-203** card.
- The empty slot must be directly to the left of the MT107-104 Matrix Engine. For example, if the engine is installed in slot 8, the input card should be installed in the first empty slot number less than 8.
- Step 3.** Route the ribbon cables through the notch in the add-on boards and connect to the MT107-104 base assembly using the special high-bandwidth cables provided with the engine. Make sure the cable connector is secured in the socket of the input connector card.
- Step 4.** Attach the opposite end of the ribbon cable to the card and carefully slide the **MT107-203** into the empty slot in the MultiTasker enclosure.
- Step 5.** Secure the card by tightening the retainer screws at the top and bottom.
- Step 6.** Connect the output of a Twisted Pair transmitter to the inputs of the **MT107-203** using ALTINEX's special cable part number MS8704TP.
- Step 7.** Restore AC power to the enclosure.
- Step 8.** The **MT107-203** is now ready for operation.

OPERATION 7

7.1 RS-232 CONTROL

The **MT107-203** has many advanced remote-control capabilities as part of an MT107-104 Matrix Switcher. These capabilities are accessible through standard RS-232 communication. The actual controlling can be accomplished through a computer control system or any other device capable of sending RS-232 commands.

7.2 DESCRIPTION OF COMMANDS

Please see the MT107-104 User's Guide for a full listing of commands available for the **MT107-203** as part of a MultiTasker Matrix Switcher.

TROUBLESHOOTING GUIDE 8

We have carefully tested and found no problems in the supplied **MT107-203**. However, we would like to offer suggestions for the following:

8.1 NO DISPLAY

Cause 1: The source has a problem.

Solution: Check the source and make sure that there is a signal present and all source connections are correct. If the source is working and there is still no display, see Cause 2.

Cause 2: The input signal is not detected.

Solution 1: In AVSnap[®], or other control software, send the [SDI] command. This command is detailed in the MT107-104 User's Guide. Verify a signal is detected for the input number in question. If a signal is not detected, see Solution 2.

Solution 2: Verify the **MT107-203** is connected to the MT107-104 and that the cable is in good condition. If a signal is detected, see Cause 3. If there is no signal detected, please call ALTINEX at (714) 990-2300.

Cause 3: The path is not selected.

Solution: Make sure the input to output path is correctly selected.

For example, Input 2 is connected to Output 1 in the Matrix Engine status. Physically, the source signal should be connected to Input 2 and the display cable should be connected to Output 1. See RS-232 accessible commands in Section 7 of the MT107-104 User's Guide for command details.

If no display is present, see Cause 4.

Cause 4: Cable connections are incorrect.

Solution: Make sure that cables are properly connected. Also, make sure that the continuity and wiring are good. If there is still no display present, see Cause 5.

Cause 5: The display has a problem.

Solution: Make sure the display is powered and is turned on. 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

ALTINEX, Inc.

592 Apollo Street

Brea, CA 92821 USA

TEL: 714 990-2300

TOLL FREE: 1-800-ALTINEX

WEB: www.altinex.com

E-MAIL: solutions@altinex.com