

**Multitasker™**

MANUAL PART NUMBER: 400-0372-002

**MT107-303**

**8 OUTPUTS, UTP, SINGLE CHANNEL  
MATRIX SWITCHER  
USER'S GUIDE**

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## PRECAUTIONS / SAFETY WARNINGS 1

Please read this manual carefully before using your **MT107-303**. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your **MT107-303** 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 rain or moisture. Do not place the **MT107-303** 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 **MT107-303** carefully. Dropping or jarring can damage the card.
- Do not pull the cables that are attached to the **MT107-303**.
- 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 MT107-303 2

### MT107-303 8 OUTPUTS, UTP, SINGLE CHANNEL

The **MT107-303** is an 8 UTP Output expansion card for use with the MT107-104 64X64 Matrix Engine. The **MT107-303** outputs are single channel differential outputs for use over long cable lengths.

Each **MT107-303** connects to an output connector on the **MT107-104** Matrix Engine. Up to eight **MT107-303** 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 **MT107-303** has special built-in features. Signal detection circuitry allows the user to determine the presence of an output signal on any channel.

Output signals are driven by high speed, high bandwidth differential amplifiers.

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

## TECHNICAL SPECIFICATIONS 3

FEATURES/DESCRIPTION	MT107-303
<b>GENERAL</b>	
<b>Outputs</b>	8
Output Connectors	RJ-45 Female
<b>Compatibility</b>	
Signal types	Altinex UTP Standard
Signal resolution	VGA through UXGA, C-Video, S-Video, Stereo Audio

Table 1. **MT107-303** General

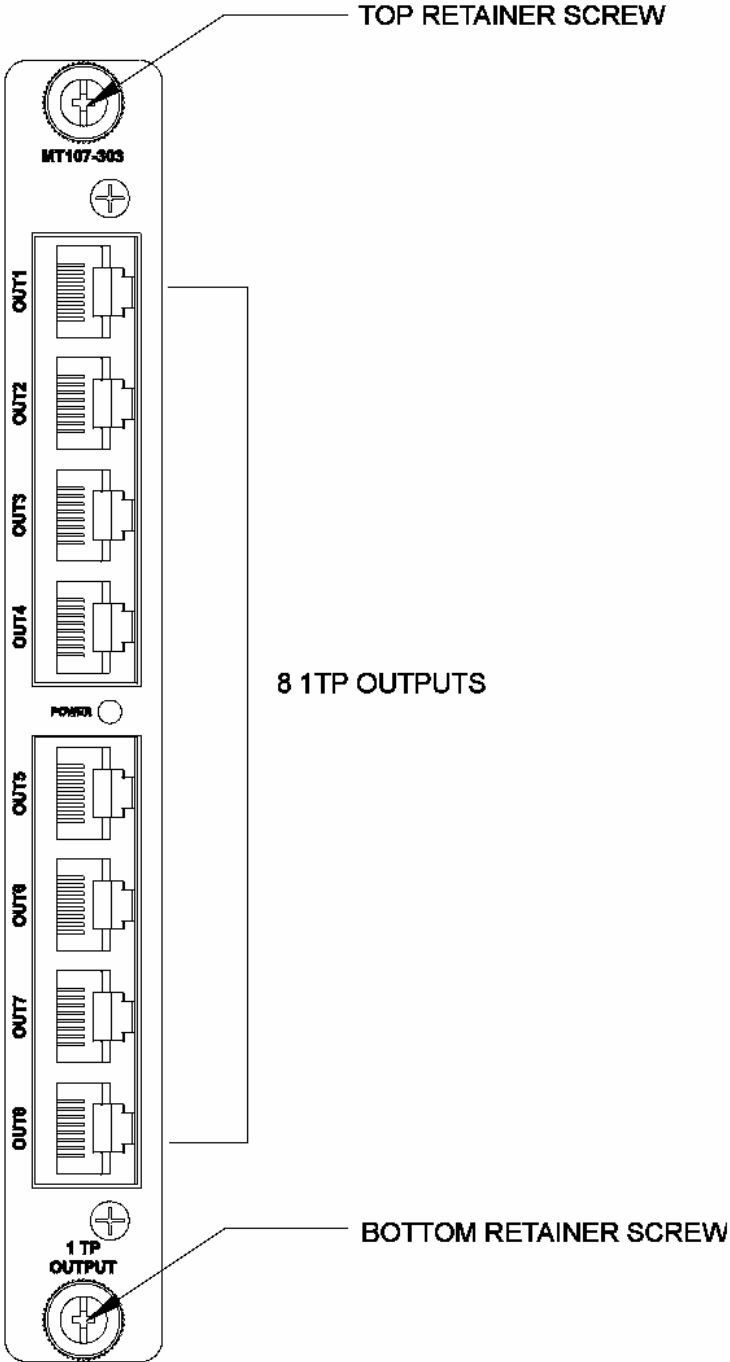
MECHANICAL	MT107-303
Enclosure Slots Required	1 Slot per Card
Weight	0.4 lb (0.2 kg)
Connector Panel	Black Anodized
T° Operating	10°C-50°C
T° Maximum	75°C
Humidity	90% non-condensing
MTBF (calc.)	38,000 hrs

Table 2. **MT107-303** Mechanical

ELECTRICAL	MT107-303
<b>Output</b>	
CAT-5/6 Twisted Pair	Video/Sync/Audio Signals Altinex UTP Standard
Analog Signal Level	1.5V p-p max.
<b>Input</b>	
Bus input from Matrix Engine	0dB Gain
<b>Bandwidth</b>	
Bandwidth	300 MHz @ -3dB

Table 3. **MT107-303** Electrical

PRODUCT DESCRIPTION



APPLICATION DIAGRAM

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DIAGRAM 1: TYPICAL CONFIGURATION

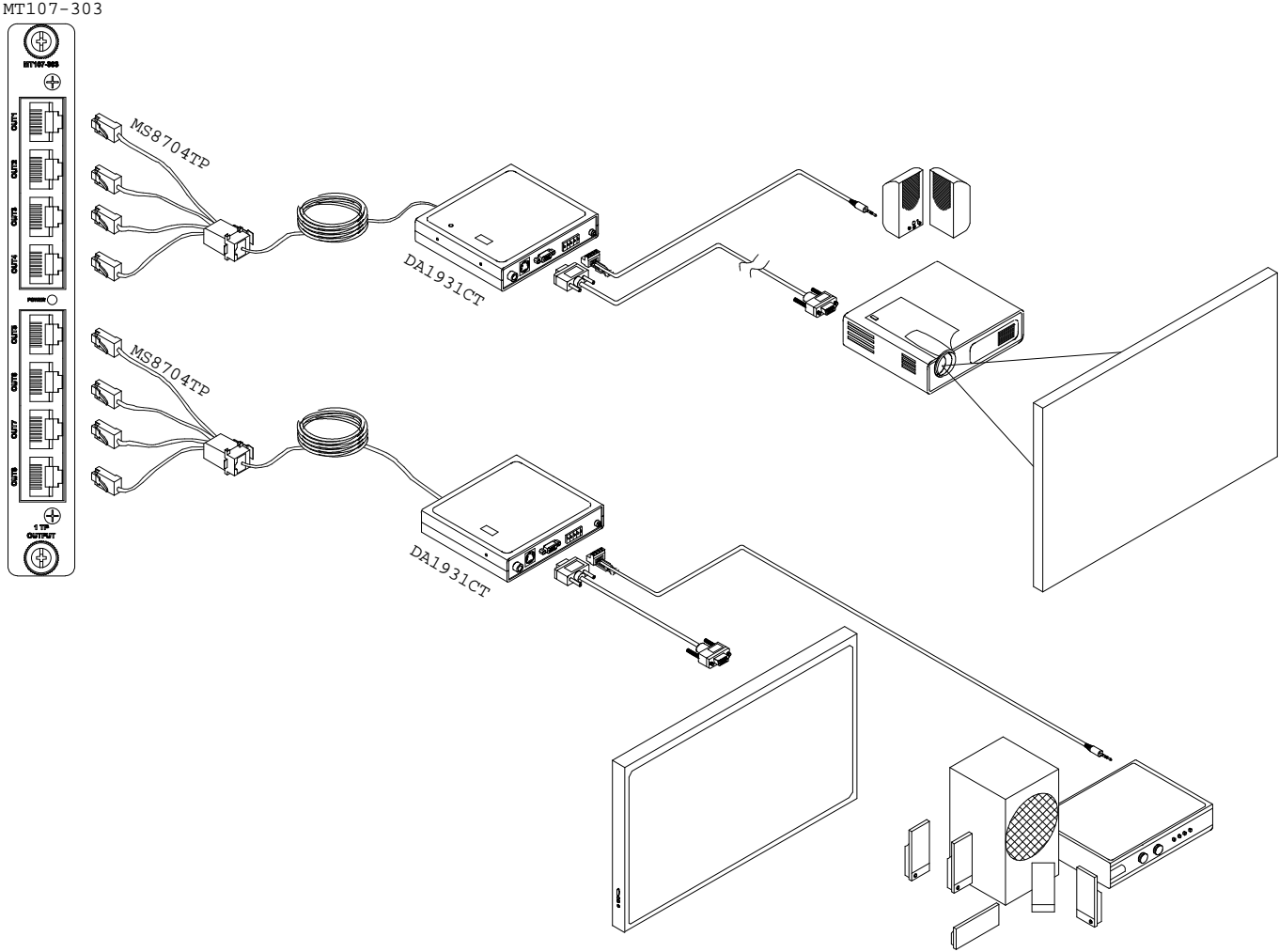
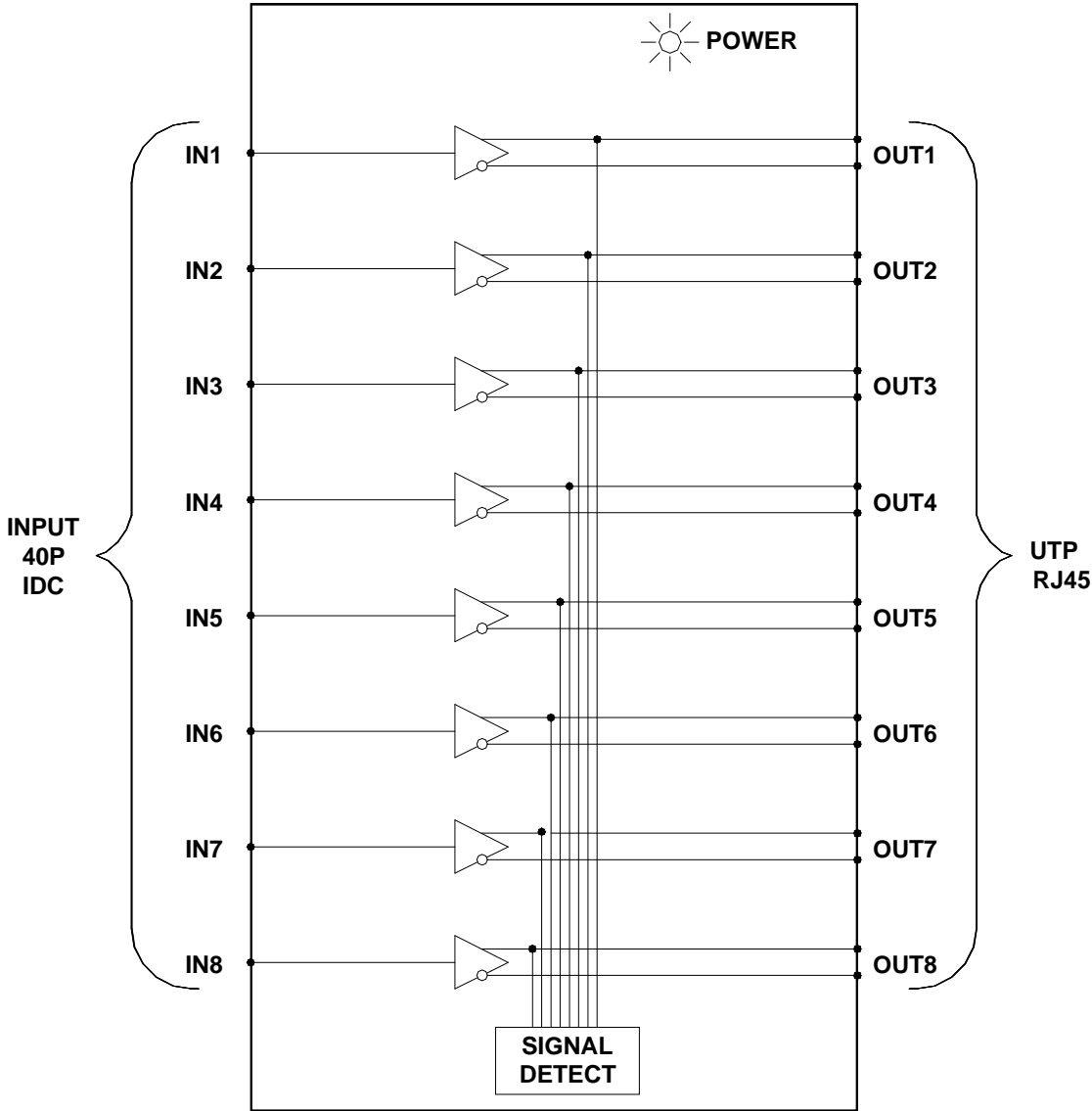


DIAGRAM 2 INTERNAL VIEW

MT107-303, 8 UTP OUTPUTS, SINGLE CHANNEL



## INSTALLING YOUR MT107-303 6

- Step 1.** Turn off power to the MultiTasker enclosure and remove the AC power cord.
- Step 2.** Locate the **MT107-104** currently installed in the MultiTasker. Verify there are enough empty slots in the enclosure to allow for the one or more **MT107-303s** to be installed.
- Step 3.** Route the ribbon cables through the notch in the add-on boards and connect to the **MT107-104** base assembly using special high-bandwidth cables provided with the engine. Make sure that the cable connector is secured in the socket of the output connector card.
- Step 4.** Carefully, slide the **MT107-303** into a slot in the MultiTasker enclosure.
- Step 5.** Secure each card by tightening the retainer screws at the top and bottom of each card.
- Step 6.** Restore power to the enclosure.

## OPERATION 7

### 7.1 RS-232 CONTROL

The **MT107-303** has many advanced remote-control capabilities when used in the MultiTasker enclosure 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 **MT107-303** as part of a MultiTasker Matrix Switcher.

## TROUBLESHOOTING GUIDE 8

We have carefully tested and found no problems in the supplied **MT107-303**. 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 MTSetup™, or other control software, send the [SDI] command. This command is detailed in the **MT107-104's** User 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 **MT107-303** 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 17 is connected to Output 1 in the matrix engine. Physically, the source signal is connected to Input 17 and the display cable is connected to Output 1. See RS-232 accessible commands in Section 7 of the **MT107-104's** User 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 has power and is turned ON. If there is still no display, please call Altinex at (714) 990-2300.

## ALTINEX POLICIES

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### 9.1 LIMITED WARRANTY/RETURN POLICIES

Please see the Altinex website at [www.altinex.com](http://www.altinex.com) for details on warranty and return policies.

### 9.2 CONTACT INFORMATION

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