



**Multi
Tasker™**

MANUAL PART NUMBER: 400-0183-002

MT103-116

2-IN, 2-OUT CAT-5 TO VGA RECEIVER

CARD FOR MULTI-TASKER™

USER'S GUIDE

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PRECAUTIONS / SAFETY WARNINGS 1

Please read this manual carefully before using your **MT103-116**. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your **MT103-116** and to prevent fire and shock hazard. Please read them carefully and heed all warnings.

1.1 GENERAL

- Qualified ALTINEX service personnel, or 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 **MT103-116** 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 **MT103-116** carefully. Dropping or jarring can damage the card.
- Do not pull the cables that are attached to the **MT103-116**.
- Insert the card carefully into the slots of the Multi-Tasker™ without bending any edges.
- When removing a card, please make sure that the card to which it is attached is also pulled out simultaneously. available

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 / CE 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 their 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 MT103-116 2

MT103-116

2-In 2-Out CAT-5 to VGA Receiver Card

The **MT103-116** is a high-resolution 2-in 2-out CAT-5 to VGA receiver. The **MT103-116** card receives computer video signals over twisted pair CAT-5 (Category 5, 5e, 6) type cable that are transmitted by a compatible transmitter card such as the ALTINEX MT103-115 or stand alone DA1920SX transmitter. The **MT103-116** converts differential signals to single ended video signals and distributes the source to large screen projectors or other displays.

The **MT103-116** offers two RJ-45 female input connectors and two fully buffered 15-pin HD female output connectors. The **MT103-116** can receive signal resolutions from VGA thru UXGA depending upon the cable length and quality. Used together with an ALTINEX CAT-5 transmitter, the maximum cable distance is approximately 500 feet/152 meters for VGA (640 x 480, 60 Hz refresh rate) and 250 feet/76.2 meters for UXGA (1600 x 1200, 60 Hz refresh rate). Built-in equalization controls allow the image to be fine tuned based on the cable length. Please see the complete specifications for other resolutions and their maximum cable lengths.

TECHNICAL SPECIFICATIONS 3

FEATURES/DESCRIPTION	MT103-116
GENERAL	
Inputs	Two
Input Connectors	RJ-45
Outputs	Two
Output Connectors	15-pin HD Female
Cable Distance Limitations	
640x480: 500ft/152m	1280x1024: 350ft/107m
800x600: 450ft/137m	1600x1200: 250ft/76m
1024x768: 400ft/122m	

Table 1. **MT103-116** General

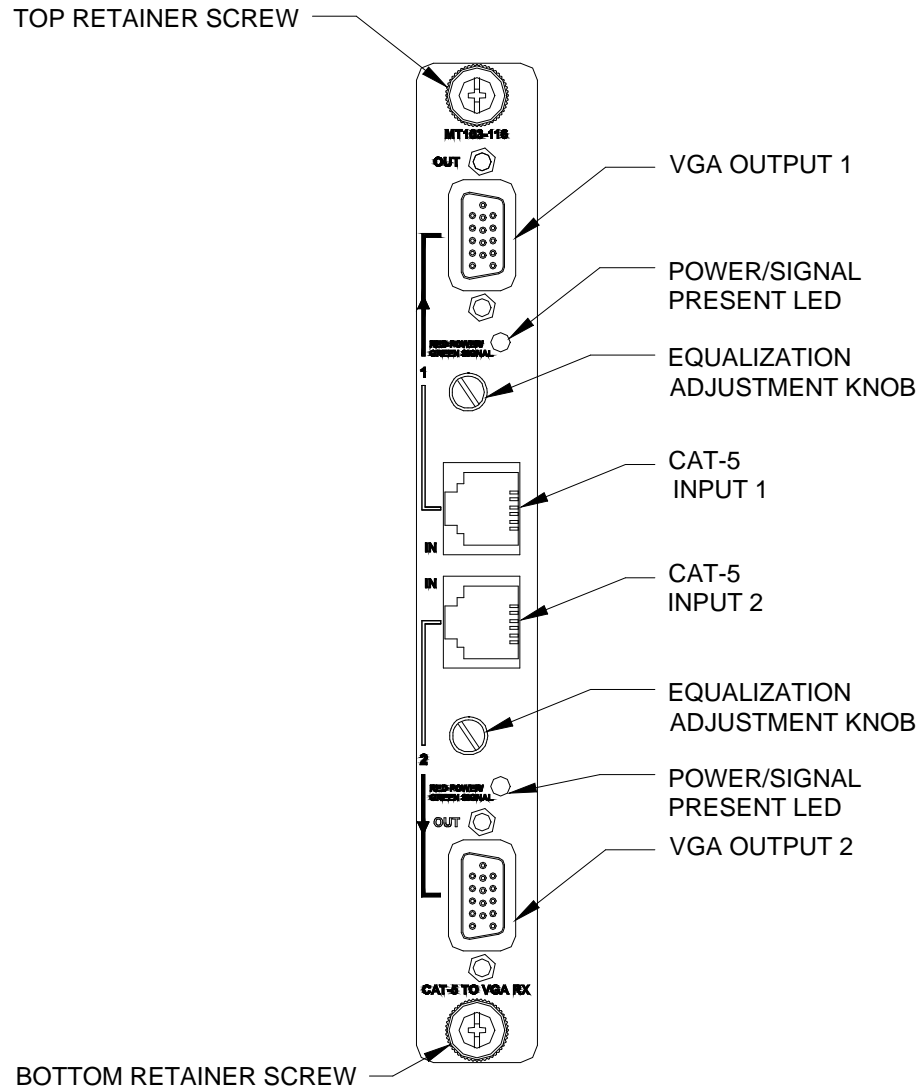
MECHANICAL	MT103-116
Enclosure Slots Required	One
Weight	0.43lb (0.19kg)
Shipping Weight	1 lb. (0.42kg)
Connector Panel	Black
T° Operating	10°C-40°C
T° Maximum	0 to 50°C
Humidity	90% non-condensing
MTBF (calc.)	55,000 hrs

Table 2. **MT103-116** Mechanical

ELECTRICAL	MT103-116
Input Video Signal	
Analog Signal Level	Differential ±0.75V max
Impedance	50 Ohms
Input Sync Signal	
Horizontal, Vertical, & C-Sync	Differential ±1V
Impedance	50 Ohms
Output Video Signals	
Analog Signal Level	1.5V p-p
Fall/Rise Time (ns)	2.0
Impedance	75 Ohms
Output Sync Signals	
Horizontal Sync	TTL (+/-)
Vertical Sync	TTL (+/-)
Power	
Power (from Enclosure)	+6V DC (170mA) -6V DC (110mA)
Power Consumption	1.7 watts max.

Table 3. **MT103-116** Electrical

MT103-116



APPLICATION DIAGRAM

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DIAGRAM 1: TYPICAL SETUP

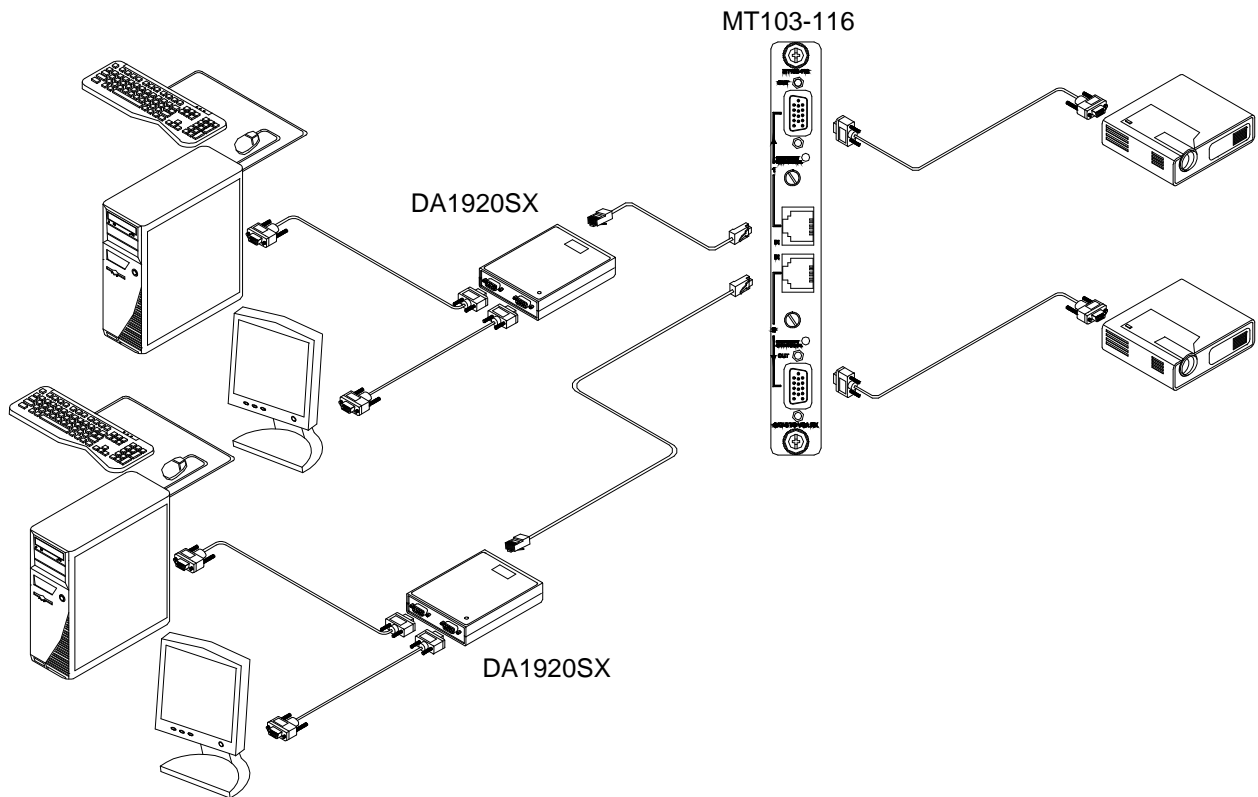
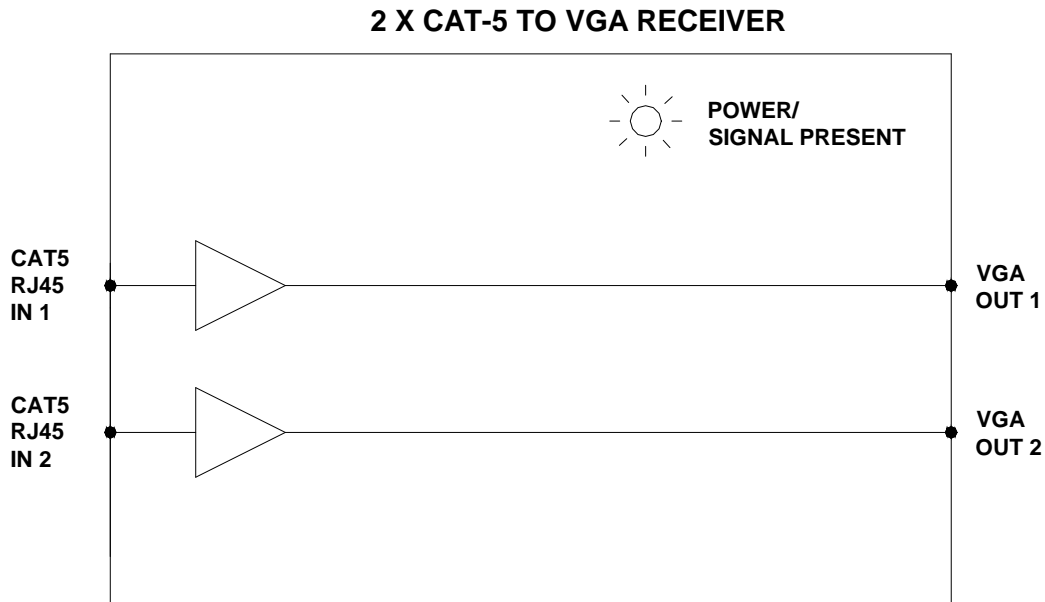


DIAGRAM 2: INTERNAL VIEW



INSTALLING YOUR MT103-116 6

- Step 1.** Turn off the power to the Multi-Tasker™ enclosure.
- Step 2.** Slide the **MT103-116** into an available slot in order to connect to the bus.
- Step 3.** Make sure that the **MT103-116** card fits into place. Secure the card to the Multi-Tasker™ by tightening the retainer screws located on the top and bottom of the card.
- Step 4.** Turn on the power to the Multi-Tasker™ enclosure.

- Step 5.** The LED on the card panel will turn red indicating that the card is in full operation. A green LED indicates that a signal is present.
- Step 6.** Connect a CAT-5 cable from the transmitter output to one of the inputs on the **MT103-116**.
- Step 7.** Next, connect a VGA cable from the video display to the output connector of the **MT103-116**.

OPERATION 7

There is only one adjustment necessary to operate the **MT103-116**. The adjustment is for equalization on long cable runs. It is adjustable according to the cable length.

The unit will operate successfully as long as cables are attached properly and other technical specifications are followed.

TROUBLESHOOTING GUIDE 8

We have carefully tested and have found no problems in the supplied **MT103-116**; however, we would like to offer suggestions for the following:

7.1 LED IS NOT LIT

Cause 1: Card cage is not plugged in.

Solution: Plug in the card cage. If the LED turns ON, the problem is solved. If not, see Cause 2.

Cause 2: Card is not plugged in all the way.

Solution: Push the card in all the way. If the LED is still not lit, see Cause 3.

Cause 3: Card cage slot has a problem.

Solution 1: Test the card in other slots. If other slots work, the problem is the card cage slot. The card cage may require service. Call ALTINEX at (714) 990-2300. If the other slots do not work, see Solution 2.

Solution 2: Take any other known good card with an LED and verify that the slot used is good by seeing if the other card's LED lights in that slot. If it lights, then the original card may be the source of the problem. Call ALTINEX at (714) 990-2300.

7.2 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: Cable connections are incorrect.

Solution: Make sure the cables are connected properly. Also, make sure the continuity and wiring are good. If there is still no display, see Cause 3.

Cause 3: The display has a problem.

Solution: Make sure that the display is powered. If there is still no display, call ALTINEX at (714) 990-2300.

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9.1 LIMITED WARRANTY/RETURN POLICY

Please see the Altinex website at www.altinex.com for details on warranty and return policy.

9.2 CONTACT INFORMATION

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