



# **Instruction Manual**

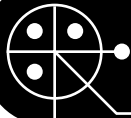
## **OMX-MDA10S**

**1 x 10 NTSC/PAL Video & Stereo Audio  
Distribution Amplifier**

**T**hank you for purchasing this Ocean Matrix component. This unit is designed to give you years of trouble free professional operation for your most demanding applications. It is our goal to develop long term partnerships with our customers through our commitment to exceed their expectations.

For Repair Information or to view the entire Ocean Matrix product line, please visit our web site.

**[www.oceanmatrix.com](http://www.oceanmatrix.com)**



# OMX-MDA10S

## 1x10 NTSC/PAL Video & Stereo Audio Distribution Amplifier



The **OMX-MDA10S** is a composite video and stereo (dual channel) audio signal distribution system. By connecting the proper signals to the specific inputs, the **OMX-MDA10S** will provide 10 identical broadcast signal outputs for use in duplication or any operation where multiple signals are required. The **OMX-MDA10S** features LOOPING signal inputs. This feature allows multiple connection of other **OMX-MDA10S** units or compatible equipment.

### VIDEO SIGNAL TERMINATIONS

The **OMX-MDA10S** has been designed to be used as a single distribution amplifier for up to 10 VCRs or other compatible equipment. The **OMX-MDA10S** can also be used in multiple unit configurations or in combination with other similar video equipment. Proper 75 $\Omega$  video termination procedure must be observed in either application.

The **OMX-MDA10S** is shipped with a 75 $\Omega$  TERMINATOR connected to the LOOPING output of the video section. If the **OMX-MDA10S** is to be the only distribution amplifier in the system, then there is no need to change anything: DO NOT REMOVE THE 75 $\Omega$  TERMINATOR. Just connect the source signals to the input connector below the terminator.

Should the **OMX-MDA10S** be used in a multiple configuration with other **OMX-MDA10S** units or any other compatible video device, then read the following notes carefully: IMPROPER 75 $\Omega$  VIDEO TERMINATION CAN CAUSE THE VIDEO SIGNAL TO DISTORT AND APPEAR TO BE MALFUNCTIONING.

Every video signal-processing device must be properly terminated. If the product is designed for "insertion" in the video signal path, it will have "lopped inputs". Simply put, a Looped input is a passive connector feed through of the input signal. This allows the signal to connect to one device and then continue on to another device for connection to that device. Looping can continue for many devices of similar design that accept the same type signal. The last device in the loop: MUST BE PROPERLY TERMINATED BY 75 $\Omega$ . For example: In a case where 2 **OMX-MDA10S** units are looped to provide a 1X20 system: Connect the source signal to the input of the first **OMX-MDA10S**. Remove the provided terminator and connect a cable to the BNC connector where the terminator was located. Feed this cable to the input of the second **OMX-MDA10S**: THE TERMINATOR ON THE SECOND UNIT MUST BE LEFT IN PLACE: IT MUST BE TERMINATED; LEAVE THE SUPPLIED 75 $\Omega$  CONNECTOR INSTALLED.

Be certain to store the removed 75 $\Omega$  terminator from the first unit in a place where you can find it again, as you will need it when you use the unit as a single unit in the future.

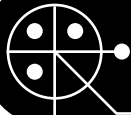
Using the same method, AUDIO can be looped as well, but there is no need to provide terminations for the audio signal.

The **OMX-MDA10S** is shipped factory calibrated for UNITY operation for 1.975 Vp-p of unbalanced audio and 1Vp-p of Video terminated into 75 $\Omega$ . There is no need to terminate unused video or audio outputs 1-10.

For additional information using the **OMX-MDA10S**: Call TecNec Customer Service @ 845-246-0428 10AM-4PM, M-F EST

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# OMX-MDA10S

## 1x10 NTSC/PAL Video & Stereo Audio Distribution Amplifier

### **SPECIFICATIONS**

- Video Inputs:** 1Vp-p Composite Video into 75Ω Terminated or Looped  
BNC Connectors
- Audio Inputs:** Unbalanced Stereo Audio, 10KΩ Looping  
RCA Connectors
- Video Outputs:** 1Vp-p Composite Video into 75Ω Terminated  
BNC Connectors
- Audio Outputs:** Unity at 1.97V into 10KΩ typical (per channel). (RCA outputs)

#### *Audio Performance*

- Stereo Crosstalk:** >110dB
- Audio Response:** 20-60kHz ± 0.1dB
- Distortion:** <0.5%
- Tilt:** <0.5%

#### *Video Performance*

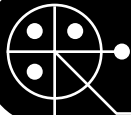
- Overshoot:** <0.15%
- Signal To Noise:** 85dB, 10Hz-30Khz
- Response:** DC to 80MHz, ±0.05dB Using 1VP-P into 75Ω
- Diff Gain:** Below 0.15% 2 10-90APL, Using 1VP-P into 75Ω
- Diff Phase:** Below 0.15% @ 10-80APL
- Y/C Delay:** <15ns
- DC Level** Clamped to 0

#### POWER

- AC Power:** 110/220V, AC 50/60Hz (**220V Model OMX-EU/MDA10S**)
- Dimensions:** 19" x 1.75" x 7"D (EIA rackmount)

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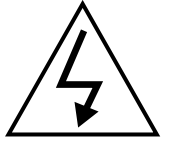


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# Safety Precautions



1. To prevent fire or shock hazard, do not expose this equipment to the environment of Humidity and/or dust. Do not use this equipment in an unprotected outdoor installation or any area classified as a wet area.
2. The operating temperature of this product must be kept between -40°C and +95°C. Direct sunlight or an intense source of heat, direct or ambient, must not be introduced to the product either by induction or contact.
3. Always keep the product on a stable and secure base or enclosure. Do not drop the product or subject it to sudden heavy impact.
4. Provide adequate ventilation so that thermal characteristics do not cause an increase in product temperature to resulting in overheating.
5. Do not clean the unit by using electrically conductive or corrosive chemicals. Always be certain to unplug the unit from AC wall power before any major cleaning. Use a damp cloth only for cleaning.
6. Do not subject the product to electrical mains power over voltage: The product must be used at the rated supply voltages indicated on the product rear panel only.
7. Do not plug the product into an overloaded electrical outlet. This may result in fire or electrical shock.
8. Object Ingress and Liquid Entry: Never insert or push sharp metal objects into the product or use such devices for an attempt at opening or servicing the product. Servicing should be referred to a trained and qualified technician only. Do not allow liquid of any type to enter the unit. Do not allow the unit to be submersed in water as this may cause a shock hazard.
9. A trained qualified technician should perform all servicing of the unit. There are no serviceable components within the unit for user access.

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