

AVFR-7564
Audio\Video Tray

AVM-7564-03

AUDIO VIDEO TRAY

This Audio/Video tray will more than satisfy the most demanding network considerations. The tray is visually attractive and incorporates advanced ventilation and cooling engineering. The tray holds 2 video amplifiers, 2 audio amplifiers, and one (1) PS-7103 video power supply. A power cord is provided for the power supply.

The tray door is completely removable to provide convenient access in any rack installation position. Pivot points are provided on the tray near the door bottom to make it easy to install the door. The door is designed to be placed on the pivots and then rotated until the latches click into position.

The audio connector strips are of a new smaller design that allows all pins to be identified at each connector. On the rear of the tray is a wiring guide diagram for the connector blocks.

Our unique design incorporates a shelf located on the rear of the frame which provides a means of keeping cabling uncluttered and orderly. It also prevents unnecessary stress which is usually placed on cables and connectors.

Note: The only **audio** products suitable for use in this tray are distribution amplifiers type ADA-7551, ADA-7554 and ADA-7555, both in normal and 600 ohm versions. The maximum output level shown in the specifications for these products must be reduced by 5dB due to the reduced voltage available from the power supply used with this tray. Because of the reduced voltage, other models of audio products will not function correctly in this frame.

Features

- ◆ Accommodates 2 audio and 2 video amplifiers in 1 rack unit
- ◆ Aluminum construction for increased heat dissipation
- ◆ Removable tray door for accessibility
- ◆ Optional module extender for servicing
- ◆ Power switch and fuse is accessible from front of the rack tray
- ◆ *PowerLock* cord retainer mechanism guards against accidental power loss
- ◆ Universal power supply accommodates all world standards (85 - 250 volts)
- ◆ High capacity power supply is cooler running
- ◆ 5 year transferable warranty
- ◆ Handles both Audio & Video Distribution in a 1-RU tray
- ◆ Also accepts GVG* Video DA's

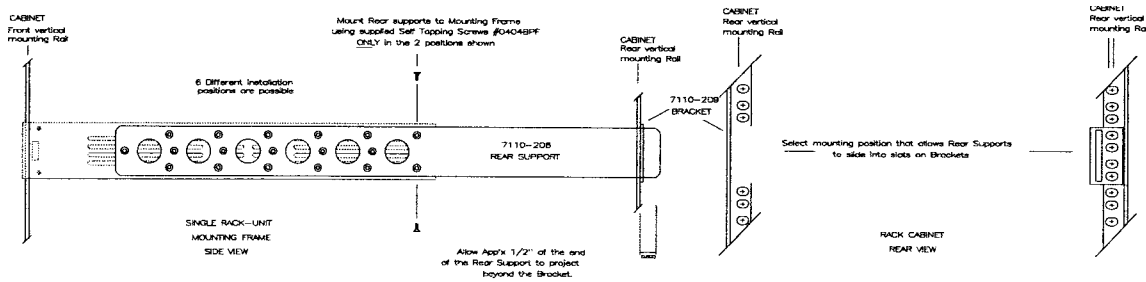
GVG* is a trademark of Tektronix Inc.

Installation

1. Mechanical

The tray mounts in the rack cabinet by means of four screws through the front mounting flanges. This should normally be sufficient to carry the load, including weight of cables. In some cases, (mobile trucks, etc.) it may be desirable to also support the rear of the tray. Rear support brackets (Ross part # FSB-7110) are available for a nominal cost.

To Install the support brackets (AVFR-7564):



A) The rear support bars can be attached to the Ross tray in six possible positions. See the illustration. Choose the position that suits the cabinet depth and will give approximately a 1/2 inch projection beyond the rear vertical mounting rails. Using four screw per bracket as shown in the illustration, attach both bars.

B) Mount the Ross tray to the front rails of the rack cabinet using rack screws.

C) At the rear of the cabinet, slide the bracket slots over the rear of the support bars and secure to the cabinet rear rails with rack screws.

2. Ventilation

This tray has been specially engineered to minimize internal heat buildup and thus improve module reliability. However, for improved air flow, it is best not to stack more than two frames without a blank panel above and below the pair.

3. Power Supply PS-7103 and Power Cord

Turning the power supply off before inserting or removing it from the tray will ensure long connector life.

4. Video Input and Output Cables

The tray BNC connectors have been marked as inputs and outputs. In some cases, the connectors will have been assigned a different function. Consult the installation section of each module for an illustration showing connector functions.

5. Video Terminations

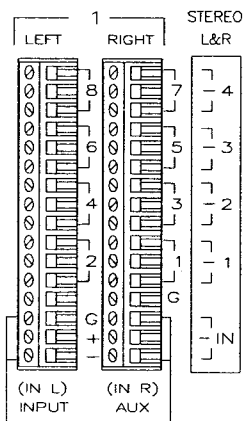
It is not necessary to terminate unused analog video outputs to meet 0 - 5 MHz performance. Terminations are required only if it is necessary to meet response specifications in the 5 to 20 MHz range.

6. Audio Input and Output Cables

The tray uses a new, smaller connector block, which has more terminals than previously possible in the space available.

The use of the smaller connector block made it possible to increase the number of amplifier outputs to eight and offer a dual four-output DA for stereo to fit the same tray.

Connect the external cables to the terminal blocks in accordance with the illustrations on the following page. The terminations are marked with output connection numbering for the 8-output mono amplifier. The stereo table below shows the corresponding output connection numbering for 4-output stereo amplifiers.



Note: It is easier to put two wires into one terminal if they have first been twisted together. It also helps if a small round tool or nail is used first to fully open the terminal hole when two wires are to be inserted.

7. PCB Designation Label

A PCB Designation Label Sheet with adhesive backing has been inserted inside the back cover of each of the tray binders.

Use scissors or a sharp knife to cut out two strips from the page. For all occupied tray slots write the amplifier type, signal source or function and amplifier number if applicable. Peel off the backing paper and stick the label to the tray according to the sketch on the label sheet. Please see the example illustrated in the installation section of this manual. (Please Note - This template may be copied in the event that the PCB Label insert is lost.)

Specifications

Power Supply, PS-7103	Input Voltage 85-250V, 50/60 Hz
	Input Power 55VA max.
	Output Voltage $\pm 13.5V$
	Output Current 1.7A
	Output power 46 W
	Line Regulation 350mV change over full input range
	Output ripple < 60 mVpp
For safety reasons, Ross power supplies do not fit into rack frames of other manufacturers.	
Rack Tray Mechanical (AVFR-7565)	Height 1 $\frac{3}{4}$ " (44mm)
	Width 19" (483mm)
	Depth 16" (407mm)
	Weight, average for all amplifiers installed: approx. 7.4 lbs. (3.35kg)
Environmental	Equipment is designed to operate in ambient temperature ranges from 0° C to 50° C
	Humidity <95% non condensing

Specifications are subject to change without notification

Ordering Information

AVFR-7564	Audio/Video Mounting Tray - 1RU, Holds 4 modules (Note: the tray does not include power supply)
PS-7103	Universal Power Supply (85-250 volts)
ADA-7551	Audio Distribution Amplifier
ADA-7551-600	Audio Distribution Amplifier (600 ohm version)
ADA-7554	Stereo/Mono Audio Distribution Amplifier
ADA-7554-600	Stereo/Mono Audio Distribution Amplifier (600 ohm version)
EXT-7511	Extender Board
FSB-7110	Rear Support Brackets
310-008	BNC Termination

An Owner's Manual is supplied with each product.

Note: The video frame does not include the power supply. The frame requires one supply.

AVFR-7564
Bill of Materials - Mechanical

7564A-010

Item	QTY	Description	Part #
1	2	Side	7114-201-01
2	1	Door	7114-202-02
3	1	Frame Mother PCB Assembly	7564A-001
4	1	Label, Power Supply Type (Maroon)	7210-084-01
5	1	Top	7114-203-02
6	1	Bottom	7114-204-02
7	3	Spacer	7114-206-01
8	1	Shield Plate	7114-207-01
9	1	Guide Mounting Bar	7114-212-01
10	2	Latch, Slide	312-063
11	10	Guide, PCB, 9" Edac 616-220-306	398-009
12	1	Lens, Reflective, Clear	466-017
13	1	Label, Serial #	613-016-01
14	2	Nut, Hex, Keps, 4-40	650-005
15	9	Eyelet, Brass, E39	843-008
16	12	Eyelet, Brass, E37	843-010
17	1	Screw, 4-40 x 3/8" Flat	850-008
18	28	Screw, 4-40 x 1/4" Flat, Phillips	850-038
19	3	Screw, 4-40 x 3/16" Flat SS, Straight	850-061

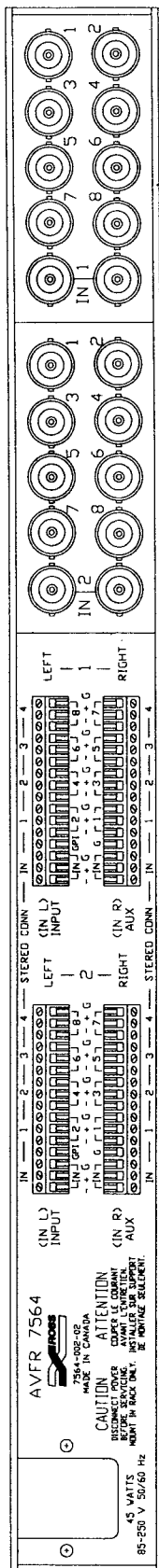
AVFR 7564
Bill of Materials - Mother PCB Assembly

7564A-001

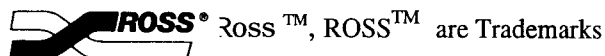
Item	QTY	Description	Part #	REF
1	5	NO VALUE, TEST POINT	-----	MP1, MP2, MP3, MP4, MP5
2	20	CONN, BNC, 5P, PCB MNT, 0.093 APPLICATION	310-012	V11, V12, V13, V14, V15, V16, V17, V18, V19, V20, V31, V32, V33, V34, V35, V36, V37, V38, V39, V40
3	1	CONN, 3P, PCB MNT, AC	311-023	J1
4	1	CONN, 24P, PCB MNT, 30P MOD	311-032	J6
5	4	CONN, 2X25P, PCB MNT, PRESS FIT	311-036	J2, J3, J4, J5
6	4	CONN, 16P, 3.5MM, TERM STRIP, 45DEG	311-040	J7, J8, J9, J10
7	1	1 R/U 4 CARD AUDIO/VIDEO MOTHER --- PCB	7564-001-03	PCB
8	1	1 R/U 4 CARD AUDIO/VIDEO MOTHER --- PCB	7564F-002	REAR PANEL
9	1	RETAINER, LINE/CORD A/C	842-003	AC CLIP1
10	1	TERMINAL, SOLDER LUG #4	910-007	MP1 LUG
11	2	WASHER, FIBRE, 1/8ID, 5/16OD, 1/16T	960-032	WASHER1, WASHER2
12	3	WIRE, 18AWG, STRANDED CSA	970-017	MP1 WIRE, MP2 WIRE, MP3 WIRE

NOTES

REVISION RECORD

[illegible]

FILE		L7564-23B		TYPE		LAYOUT	
DRAWN BY		DESIGNED BY		APPROVED BY		RELEASED BY	
D W R		D W R		D W R		D W R	
DATE		DATE		DATE		DATE	
2 JUL 96		2 JUL 96		2 JUL 96		2 JUL 96	
NUMBER		7564A-001		ISSUE		SHEET	
TITLE		AVFR-7564		2		1 of 1	



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