



## INSTRUCTION MANUAL



# RMDA

## Rack Mountable Distribution Amplifier Series

RMDA 550-30 Stock No. 5500-53	RMDA 750-30P Stock No. 5500P73	RMDA 550-50 Stock No. 5500-55	RMDA -860-30P Stock No. 5500P83
RMDA 550-30P Stock No. 5500P53	RMDA -860-15S Stock No. 5500S81	RMDA 750-15S Stock No. 5500S71	RMDA 860-43P Stock No. 5500P84
RMDA 550-30S Stock No. 5500S53	RMDA 860-30 Stock No. 5500-83	RMDA 750-30 Stock No. 5500-73	RMDA 1000-30 Stock No. 5500-13

### Description

The RMDA series of 19" rack mount amplifiers are completely self-contained broadband distribution amplifiers, designed specifically for signal distribution systems requiring the low distortion characteristics only available using hybrid CATV integrated circuits. Useful either in systems which use a "cable drop" as a signal source or as the launch amplifier in a headend, these amplifiers are available in various gain versions with four different bandwidths, 47 to 550 MHz, 47 to 750 MHz, 47 to 860 MHz or 47 to 1000 MHz.

These amplifiers are available with one or two hybrid amplifier gain blocks. The use of two gain block units with interstage controls provides superior noise performance along with an extended range of gain and slope. The single gain units provide good electrical performance at a modest price. The combination of these two architectures in the RMDA line results in models with a wide range of performance features to satisfy simple or stringent applications.

The series provides flat operating gain which can be reduced with a variable attenuator. Gain and slope controls are located on the front panel for fast set-up and adjustment.

Two 20 dB test points are provided to permit testing without interruption of service.

Hybrid IC modules enable the RMDA to operate at high output levels while retaining low distortion characteristics.

The aluminum chassis is designed to provide excellent heat dissipation, thus allowing operation at high ambient temperatures with no degradation of performance or reliability.

### Features

- 550, 750, 860 and 1000 MHz Units
- Hybrid IC Circuitry for High Output with Low Distortion
- Exceptional Temperature Stability Range
- Front Panel Gain and Slope Controls for Easy Adjustment
- Aluminum Chassis Designed for Superior Heat Dissipation
- Single or Dual Hybrid Models
- Push-Pull and Power Doubling Hybrid Models
- C/UL Listed

The lightning flash with arrow-head symbol within an equilateral triangle is intended to alert you to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.



**CAUTION**  
**RISK OF ELECTRIC SHOCK**  
**DO NOT OPEN**



The exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

**TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER FROM THIS UNIT. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

**WARNING: TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. THIS APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS. THE MAINS PLUG OR APPLIANCE COUPLER IS USED AS THE DISCONNECT DEVICE AND SHALL REMAIN READILY OPERABLE.**

### **NOTE TO CATV SYSTEM INSTALLER**

This reminder is provided to call the CATV System Installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

## **IMPORTANT SAFETY INSTRUCTIONS**

1. Read these Instructions- All the safety and operating instructions should be read before this product is operated.
2. Keep these Instructions- The safety and operating instructions should be retained for future reference.
3. Heed all warnings- All warnings on the product and in the operating instructions should be adhered to.
4. Follow all instructions-All operating and use instructions should be followed.
5. Do not use this apparatus near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like. Refer to individual instruction manuals included with products designed for indoor use only. Do not expose these products to rain or moisture.
6. Clean only with a dry cloth-Unplug this product from the AC power outlet before cleaning.
7. Do not block any ventilation openings-Install in accordance with the manufacturer's instructions.
8. Do not Install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

**RMDA Table**

Model: RMDA	550-30	550-30P	550-30S	550-50	750-15S	750-30	750-30P	860-15S	860-30	860-30P	860-43P	1000-30
Stock No.	5500-53	5500P53	5500S53	5500-55	5500S71	5500-73	5500P73	5500S81	5500-83	5500P83	5500P84	5500-13
Frequency Range (MHz)	47-550	47-550	47-550	47-550	47-750	47-750	47-750	47-860	47-860	47-860	47-860	47-1000
Gain (min.)	30	30	30	48	15	30	30	15	30	30	43	30
Flatness	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0
Gain Control Range	15	15	15	15	15	15	15	15	15	15	15	15
Slope Control Range	10	10	10	10	10	10	10	10	10	10	10	10
Input Return Loss	14	14	14	14	14	14	14	14	14	14	14	14
Output Return Loss	14	14	14	14	14	14	14	14	14	14	14	14
Noise Figure	7.0	7.0	8.0	7.0	7.5	8.0	8.0	8.0	8.0	8.5	7.0	8.0
No. of Channels (Loading)	77	77	77	77	110	110	110	129	129	129	129	152
Output Level (dBmV)	38/44	38/44	38/44	38/44	36/44	36/44	36/44	36/44	36/44	36/44	36/44	30/38
Composite Triple Beat (dB) [CTB]	-64	-70	-63	-63	-61	-61	-66	-56	-56	-62	-62	-67
Crossmodulation(dB) [XMOD]	-65	-72	-65	-64	-64	-64	-70	-56	-56	-67	-67	-67
Composite 2nd Order (dB) [CSO]	-63	-65	-62	-60	-59	-59	-64	-60	-60	-67	-67	-67
Hum Modulation (dB)	-65	-65	-65	-65	-65	-65	-65	-65	-65	-65	-65	-65
Input/Output Test Point Level (dB)	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20
Operating Temperature Range	-20° to +60° C	-20° to +60° C	-20° to +60° C	-20° to +60° C	-20° to +60° C	-20° to +60° C	-20° to +60° C	-20° to +60° C	-20° to +60° C	-20° to +60° C	-20° to +60° C	-20° to +60° C
Number of Hybrids	2	2	1	2	1	2	2	1	2	2	2	2
Type of Hybrids	Push-Pull	Power Doubling	Push-Pull	Push-Pull	Push-Pull	Push+Pull	Power Doubling	Push-Pull	Push+Pull	Power Doubling	Power Doubling	Push+Pull
Power Requirements	100 - 240 VAC 50/60 Hz @ 0.4A (Max.)											
Dimensions	19" W x 1 3/4" H x 5 1/8" D											
Shipping Weight	8 lbs											
RF Connectors	"F" Type											

## Service

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This product is designed to give long, trouble-free service when installed according to instructions found in this booklet. If you suspect trouble, check all connections between the antenna, amplifier and TV set. Check your cables for breakage and shorts. If you cannot restore normal operation, refer to Returning Product for Repair (or Credit) below.

### Returning Product for Repair (or Credit)

**A Return Material Authorization (RMA) Number is required on all products returned to Blonder Tongue, regardless if the product is being returned for repair or credit.** Before returning product, please contact the Blonder Tongue Service Department at 1-800-523-6049, Ext. 4256 or visit our website: [www.blondertongue.com](http://www.blondertongue.com) for further information.



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