

# Rack-Mount Distribution Amplifiers

## RMDA Series



The RMDA Series are professional quality, broadband, rack-mounted hybrid distribution amplifiers. The RMDA's are ideal as a headend launch amplifier or distribution amplifier for MATV, SMATV or CATV applications requiring rack mounting. A variety of models are available with operational gains of 15, 30, 43 or 50 dB and frequency ranges from 47, 550, 750, 860 or 1000 MHz. Refer to the RMDA specifications for available gain and bandwidth combinations.

The RMDA Series amplifiers have built-in variable gain and slope controls. The 5500S-XX models use a single push-pull hybrid module providing excellent performance and economy for headend applications. The 5500-XX employ dual push-pull hybrid modules and the 5500P-XX have a push-pull hybrid followed by a power doubling hybrid. The dual hybrid models will have better CNR performance, compared to single hybrid models in applications with low input levels coupled with reduced gain settings. Test ports for both the input and output are provided for monitoring signal levels without interrupting service. The RMDA Series products are housed in a single height, 1.75" high, rack mountable, aluminum chassis that provides exceptional heat dissipation.

Distribution

### ○ Features & Benefits

- Rack Mount - 1 EIA (1.75") Spacing, Rugged Aluminum Chassis
- Available in Frequency Ranges up to 1000 MHz
- Push-Pull and Power Doubling Models for High Output and Low Distortion
- Built-in Variable Gain and Slope Controls

### ○ Specifications

#### General

Power Requirements

Voltage: 100-240 VAC

Frequency: 50/60 Hz

Current: 0.4 Amps

Temperature Range: -20 to +60 °C

#### Mechanical

Dimensions (W x H x D): 19 x 1.75 x 5.13 in.  
483 x 44 x 130 mm

Weight: 8.00 lb., 3.64 kg

#### Indicators

Power On: LED, red

#### Connectors

RF Input: "F", Female - Rear Panel

RF Output: "F", Female - Rear Panel

Input Test Port: "F", Female - Front Panel

Output Test Port : "F", Female - Front Panel

#### Controls

Gain: Var. Control

Slope: Var. Control

### ○ Ordering Information

Model	Stock No.	Description
RMDA 550-30	5500 53	Rack Mounted Distribution Amplifier 30 dB, 47-550 MHz
RMDA 550-30P	5500P53	Rack Mounted Distribution Amplifier 30 dB, 47-550 MHz, Power Doubling
RMDA 550-30S	5500S53	Rack Mounted Distribution Amplifier 30 dB, 47-550 MHz, Single Hybrid
RMDA 550-50	5500 55	Rack Mounted Distribution Amplifier 50 dB, 47-550 MHz
RMDA 750-30	5500 73	Rack Mounted Distribution Amplifier 30 dB, 47-750 MHz
RMDA 750-30P	5500P73	Rack Mounted Distribution Amplifier 30 dB, 47-750 MHz, Power Doubling
RMDA 750-S15	5500S71	Rack Mounted Distribution Amplifier 15 dB, 47-750 MHz, Single Hybrid
RMDA 860-15S	5500S81	Rack Mounted Distribution Amplifier 15 dB, 47-550 MHz, Single Hybrid
RMDA 860-30	5500 83	Rack Mounted Distribution Amplifier 30 dB, 47-860 MHz
RMDA 860-30P	5500P83	Rack Mounted Distribution Amplifier 30 dB, 47-860 MHz, Power Doubling
RMDA 860-43P	5500P84	Rack Mounted Distribution Amplifier 43 dB, 47-860 MHz, Power Doubling
RMDA 1000-30	5500 13	Rack Mounted Distribution Amplifier 30 dB, 47-1000 MHz

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RF	RMDA 550-30S	RMDA 550-30	RMDA 550-30P	RMDA 550-50
Frequency Range (MHz):	47-550	47-550	47-550	47-550
Channel Loading:	77	77	77	77
Flatness (dB):	±0.75	±0.75	±0.75	±0.75
Hybrid Technology:	Push-Pull	Push-Pull	Power Doubling	Push-Pull
Gain (dB):	33	33	33	50
Noise Figure (dB):	8.0	7.0	7.0	7.0
Output Level (dBmV):	+38/+44	+38/+44	+38/+44	+38/+44
Test Port Level (dB)				
Input:	-20, ±2	-20, ±2	-20, ±2	-20, ±2
Output:	-20, ±2	-20, ±2	-20, ±2	-20, ±2
Gain Control Range (dB):	15	15	15	15
Slope Control Range (dB):	10	10	10	10
Composite Triple Beat - CTB (dB):	-65	-66	-72	-65
Composite Second Order - CSO (dB):	-65	-66	-68	-63
Cross Modulation - XMOD (dB):	-64	-64	-71	-63
Hum Modulation (dB):	-70	-70	-70	-70
Number of Hybrids:	1	2	2	2
Impedance - All Ports (Ω):	75	75	75	75
Return Loss (dB)				
Input:	14	14	14	14
Output:	14	14	14	14

RF	RMDA 750-30 (750-15S)	RMDA 750-30P	RMDA 860-30 (860-15S)	RMDA 860-30P	RMDA 860-43P	RMDA 1000-30
Frequency Range (MHz):	47-750	47-750	47-860	47-860	47-860	47-1000
Channel Loading:	110	110	129	129	129	152
Flatness (dB):	±1.00	±1.00	±1.00	±1.00	±1.00	±1.00
Hybrid Technology:	Push-Pull	Power Doubling	Push-Pull	Power Doubling	Power Doubling	Push Pull
Gain (dB):	31 <b>750-15S (16)</b>	31	31 <b>860-15S (15)</b>	30	43	30
Noise Figure (dB):	7.5	7.0	8.0	8.5	7.0	8.0
Output Level (dBmV) :	+36/+44	+36/+44	+34/+42	+36/+44	+36/+44	+30/+38
Test Port Level (dB)						
Input:	-20, ±2	-20, ±2	-20, ±2	-20, ±2	-20, ±2	-20, ±2
Output:	-20, ±2	-20, ±2	-20, ±2	-20, ±2	-20, ±2	-20, ±2
Gain Control Range (dB):	15	15	15	15	15	15
Slope Control Range (dB):	10	10	10	10	10	10
Composite Triple Beat - CTB (dB):	-61	-66	-60	-62	-62	-67
Cross Modulation - XMOD (dB):	-64	-70	-57	-67	-67	-67
Composite Second Order - CSO (dB):	-59	-64	-64	-67	-67	-67
Hum Modulation (dB):	-70	-70	-70	-70	-70	-70
Number of Hybrids:	2 <b>750-15S (1)</b>	2	2 <b>860-15S (1)</b>	2	2	2
Impedance - All Ports (Ω):	75	75	75	75	75	75
Return Loss (dB)						
Input:	14	14	14	14	14	14
Output:	14	14	14	14	14	14

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