

## Distribution Amplifier DA870



### Description

Antronix offers the Multimedia Distribution Amplifier (DA870) to serve MDU and similar applications. The DA870 is designed for two-way distribution networks with multiple functions. Four independent test points simplify the alignment for two-way operation. The amplifier meets the requirements for video, telephony and data interactive services.

The DA870 has optional accessories to meet the needs of almost any system. Optional forward and return attenuator plug-ins come in values from 0 to 19 dB. In situations where cable equalization is required, full bandwidth cable equalizers are available in values from 0 to 26 dB.

The standard DA870 has a passive return path. In addition, the DA870 can be outfitted with a Return Amplifier Module (DARA) providing 20 dB of return path gain. Additional plug-ins include a surge arrestor (factory installed) and fuses.

### Features and Benefits

- **High output and excellent distortion performance**  
Increased system performance and extended reach in a compact housing
- **Independent forward gain and tilt controls**  
1-8 dB slope control  
0-10 dB gain control
- **Power Doubling Technology**  
Provides maximum gain and excellent distortion performance
- **2-way communication**  
Forward Bandwidth 54-870 MHz  
Return Bandwidth 5-40 MHz
- **Plug-in forward and reverse equalizers**  
Various plug-ins help shape your frequency response to any system requirement
- **Plug-in forward and reverse attenuators**  
Various attenuators ensure proper RF levels in the forward and return paths independently
- **External forward test points**  
Simplifies set up and maintenance
- **Optional plug-in hybrid return amplifier**  
Provides a 20 dB gain in the return path for two-way broadband communication
- **Reverse input and output attenuators**  
Adds flexibility to amplifier to ensure optimal system levels are obtained
- **6 kV surge protection**  
Resists damage to lightning strikes and power surges
- **Switching power supply**  
Efficient and powerful operation
- **Input/output port: 5/8-24 UNEF-2B**  
Accepts standard KS entry connectors
- **24V DC LED power on monitor**

## ELECTRICAL SPECIFICATIONS

Items	Forward		Return	Units
Bandwidth	54-870		5-40	MHz
Technology	Power Double		Hybrid	
Channel Loading	77	110	4	Ch NTSC
Response Flatness	± 0.75	±0.75	± 0.7	dB
Minimum Full Gain	32	32	19	dB
Slope Control Range	1 – 8	1 – 8	Plug-in	dB
Gain Control Range	0 – 10	0 – 10	Plug-in	dB
Return Loss (5 – 550 MHz)	16	16	14	dB
Return Loss (550 - 870 MHz)	14	14	14	dB
Input/Output Test Points	-20 ± 1	-20 ± 1	-20 ± 1	dB
Rated Input Level	15	15	21	dBmV
Output Level (54/550/750/870)	38/44/36/37	38/44/36/37	40	dBmV
Noise Figure	10	10	6	dB
CSO (NTSC)	-67	-60	-73	dB
CTB (NTSC)	-69	-57	-70	dB
XMOD	-69	-60	-70	dB
HUM	-60	-60	-70	dB
Operating Voltage	100-240			V AC
Power Consumption	22.6		3.8	W

## FORWARD EQ SPECIFICATIONS

Model	54 MHz	300 MHz	550 MHz	750 MHz	870 MHz
EQ-870-02M	2.17	0.84	0.94	0.67	0.43
EQ-870-05M	4.43	2.60	1.50	1.02	0.44
EQ-870-08M	6.53	3.89	1.95	1.20	0.44
EQ-870-11M	8.95	5.23	2.93	1.45	0.38
EQ-870-14M	11.42	6.64	3.59	1.70	0.40
EQ-870-17M	14.03	8.41	4.69	2.26	0.74
EQ-870-20M	16.29	9.85	5.39	2.51	0.98
EQ-870-23M	18.64	12.42	6.06	2.73	0.94
EQ-870-26M	20.98	14.22	6.72	2.95	1.00

## GENERAL AND ENVIRONMENTAL SPECIFICATIONS

Operating Temperature                    -20 to 60 °C  
Surge withstand                            6 kV

## ACCESSORIES

Part Name	Quantity	Remarks	Model
Fwd/Rtn Attenuator (optional)	1-3	Values from 0 to 9 dB	AT
Fwd EQ (optional)	1	Values from 0 to 26 dB	EQ-870-XX
Rev EQ (optional for return)	1	Values from 0 to 9 dB	REQ-XX
Return Amplifier Module – DARA (Optional for return)	1	Gain = 20 dB	DARA
Surge Arrestor (factory installed)	1	Plug-in	B0588
Fuses (factory installed)	1	24V DC 5 A soldered in	MP400
Fuses (factory installed)	1	100-240 VAC 2.5 A Slow-Blow	NO164

NOTE: Shipped from factory with a jumper installed for all plug-ins (attenuator, EQ, and return amplifier)