

BIDA Series Broadband Indoor Distribution Amplifiers

ORDERING INFORMATION:

AMPLIFIERS WITH OPTIONAL RETURN FILTER

BIDA 450-30
Stock No. 5400-43

BIDA 450-50
Stock No. 5400-45

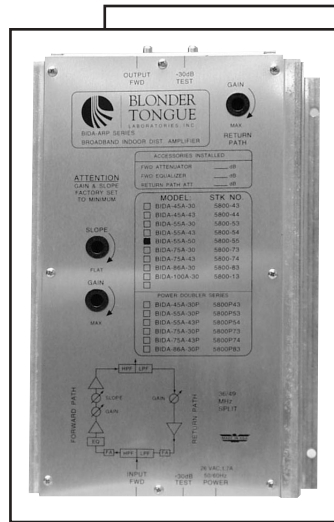
BIDA 550-30
Stock No. 5400-53

BIDA 550-50
Stock No. 5400-55

BIDA 750-30
Stock No. 5400-73

BIDA 5400 FEATURES:

- Several Models Available - 30 or 50 dB Gain, 450, 550, 750, 860 and 1000 MHz.
- Dual Push-Pull Hybrid Modules for High Output with Low Distortion
- Passive (With Optional or Integrated Return Filters) and Active Two-Way Capability
- Built-in Variable Gain and Slope Controls
- Input and Output Test Ports Allow Signal Testing without Interruption of Service
- Attenuator and Cable Equalization Options Available
- Exceptional Temperature Stability
- Line Transient Protection
- Aluminum Chassis Provides Excellent Heat Dissipation
- C-UL Listed



The BIDA Series are professional quality, broadband, two-way capable, indoor hybrid distribution amplifiers that are designed for RF distribution systems, such as apartment complexes, hospitals, schools, prisons, hotels, and a wide variety of similar applications. The product family has grown significantly in response to customer applications and available hybrid technology. The BIDA Series is ideal for multi-channel RF distribution systems whose input source is a "cable drop" or the output of a MATV/SMATV/CATV headend. Additionally, the BIDA Series may be used as the launch amplifier in a distribution network.

PRODUCT SIMILARITIES:

These amplifiers use dual push-pull hybrid modules, capable of delivering high output levels with low distortion, even in systems with over 100 channels of programming. The gain and slope controls are designed between the hybrid modules for optimum noise figure, input return loss and output capability. Test ports for both the input and output are provided for testing signal levels without interrupting service. The BIDA Series come in a rugged, aluminum chassis that provides exceptional heat dissipation. This allows the BIDA Series to be operated at high ambient temperatures with no degradation of

performance or reliability. The combination of features and durable construction ensures that the BIDA Series will provide years of reliable, trouble-free service.

PRODUCT SPECIFIC FEATURES:

- GAIN:** Forward gains of either 30, 32, 33, 43 or 50 dB
- POWER:** Hybrid push-pull or hybrid power doubling models are stocked
- BANDWIDTH:** Models 5400-xx forward bandwidths of 450, 550, or 750 MHz
Models 5800-xx forward bandwidths of 450, 550, 750, 860 or 1000 MHz
- RETURN PATH:** Model 5400-xx provides an optional return filter module
Model 5800-xx includes on board active return amplifier
- SLOPE CONTROL:** Model 5400-xx contains a continuous 10 dB control with optional plug-in equalizers in 3, 6, 9, 12, 15 & 18 dB values
Model 5800-xx features equalizers in 3, 6, 9, 12, 15 & 18 dB values and a continuous 8 dB slope control
- ATTENUATION CONTROL:** Model 5400-xx contains a continuous 15 dB adjustment. Attenuator pads are available in values from 1 - 20 dB in 1 dB increments
Model 5800-xx features pads in one dB increments from 1 to 20 dB. The output level control has an 8 dB adjustment range
- POWER:** Model 5400-xx contains an internal 120 VAC input power supply
Model 5800 features an external power transformer that provides a 26 VAC input to the amplifier

Distribution

BIDA 5400 ACCESSORIES

ACCESSORIES (OPTIONAL PLUG-INS FOR AMPLIFIERS)

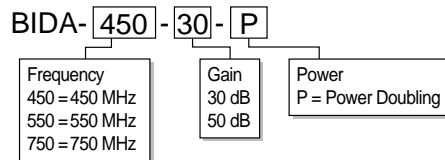
Fixed Attenuators - BIDA -FA
Stock No. 5411A⁽⁴⁾
(1-20 dB in 1 dB step):
Equalizers
Stock No. 547x^(1,4)
(3, 6, 9, 12, 15, 18, dB)

Return Amplifiers
Stock No. 5402
(5 to 30 MHz)

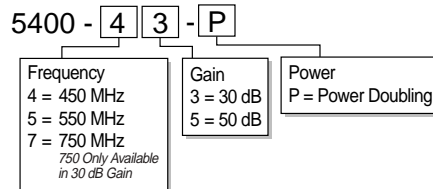
AMPLIFIERS WITH OPTIONAL RETURN FILTER ONLY

Return Filters - 2 Per Package
Stock No. 54071
(5 to 30 MHz)

MODEL NAME GUIDE



STOCK No. GUIDE



BIDA Series

Broadband Indoor Distribution Amplifiers



SPECIFICATIONS

RF	BIDA 450-30	BIDA 450-50	BIDA 550-30	BIDA 550-50	BIDA 750-30	Units
Frequency Range:	47-450	47-450	47-550	47-550	47-750	MHz
Channel Loading:	60	60	77	77	110	
Flatness:	±0.75	±0.75	±0.75	±0.75	±1.00	dB
Gain:	33	50	33	50	31	dB
Noise Figure (a):	6.0	6.0	7.0	7.0	9.0	dB
Output Level:	+46	+46	+44	+44	+44	dBmV
Test Port Level						
Input:	-30, ±2	-30, ±2	-30, ±2	-30, ±2	-30, ±2	dB
Output:	-30, ±2	-30, ±2	-30, ±2	-30, ±2	-30, ±2	dB
Gain Control Range:	15	15	15	15	15	dB
Slope Control Range:	10	10	10	10	10	dB
Composite Triple Beat - CTB (b):	-66	-65	-64	-64	-60	dB
Cross Modulation - XMOD (b):	-63	-63	-64	-64	-61	dB
Composite Second Order - CSO (b):	-66	-65	-64	-64	-61	dB
Hum Modulation:	-70	-70	-70	-70	-70	dB
Number Of Hybrids:	2	2	2	2	2	
Hybrid Technology:	Push-Pull	Push-Pull	Push-Pull	Push-Pull	Push-Pull	
Impedance - All Ports:	75	75	75	75	75	Ω
Return Loss						
Input:	14	14	14	14	13	dB
Output:	14	14	14	14	13	dB

SPECIFICATIONS

RF	BIDA-RF (c, d, e) LOW		BIDA-RA (c, d, e) HIGH		Units
Frequency Range:	5-30	47-800	5-30		MHz
Flatness:	±0.25	±0.25	±0.50		dB
Gain:	-0.50	-0.50	24		dB
Noise Figure:	NA	NA	6.0		dB
Output Level - Max:	NA	NA	+42		dBmV
Gain Control Range:	NA	NA	≥12		dB
Slope Control Range:	NA	NA	≥12		dB
Single Triple Beat - CTB:	NA	NA	-60		dB
Cross Modulation - XMOD (f):	NA	NA	-60		dB
Composite Second Order - CSO (g):	NA	NA	-72		dB
Hum Modulation:	NA	NA	-65		dB
Return Loss					
Input:	21	16	16		dB
Output:	21	16	16		dB

COMMON SPECIFICATION BIDA-RA AND BIDA-RF

GENERAL	BIDA	Units	INDICATORS (Side Panel)	Units
Power Requirements			Power ON:	LED, red
Voltage:	117, ±10%	VAC		
Frequency:	60	Hz		
Power (h):	19 to 21	W		
Fuse:	3/8	A		
Temperature Range:	-20 to +60	°C		
MECHANICAL			CONTROLS (Top Panel)	
Dimensions (WxHxD):	7.13 x 11.50 x 2.68	in	Gain:	Control
	181 x 292 x 68	mm	Slope:	Control
Weight:	5.75	lb		
	2.61	kg		
CONNECTORS (Side Panel)			CONNECTORS (Side Panel)	
RF Input:	Type "F", female		Input Test Port:	Type "F", female
RF Output:	Type "F", female		Output Test Port:	Type "F", female

ORDERING INFORMATION:

EQUALIZERS

BIDA-CE-4 (450 MHz)
Stock No. 5474⁽⁴⁾

BIDA-CE-5 (550 MHz)
Stock No. 5475⁽⁴⁾

BIDA-CE-7 (750 MHz)
Stock No. 5477⁽⁴⁾

BIDA-CE-8 (860 MHz)
Stock No. 5478⁽⁴⁾

BIDA-CE-9 (1000 MHz)
Stock No. 5479⁽⁴⁾

ATTENUATORS

BIDA-FA
Stock No. 5411A⁽⁴⁾

RETURN AMPS & FILTERS

BIDA-RA (Return Amp)
Stock No. 5402

BIDA-RF (Return Filter)
Stock No. 54071

Distribution

NOTES:

Specification charts represent overall performance between the BIDA amplifier's input and output ports with no optional field installed modules.

One-way and two-way integrated standard amplifier models are shipped with a 0 dB attenuator and a 0 dB cable equalizer.

- (a) measured at full gain with 8 dB slope
- (b) at specified channel loading at rated output capability
- (c) two-way configuration represent basic amplifier with field installed sub-channel passive filters or active return amplifier
- (d) measured with output set at +42 dBmV with three channel loading
- (e) BIDA-RF and BIDA-RA are used with the 5400 Series
- (f) measured with output set at +48 dBmV (channels 2 and 13)
- (g) measured with output set at +48 dBmV (channels T7 and T8)
- (h) depends on model selected

BIDA Series Broadband Indoor Distribution Amplifiers

ORDERING INFORMATION:

AMPLIFIERS

BIDA 45A-30
Stock No. 5800-43

BIDA 45A-43
Stock No. 5800-44

BIDA 45A-30P
Stock No. 5800P43

BIDA 55A-30
Stock No. 5800-53

BIDA 55A-30P
Stock No. 5800P53

BIDA 55A-43P
Stock No. 5800P54

BIDA 55A-43
Stock No. 5800-54

BIDA 55A-50
Stock No. 5800-55

BIDA 75A-30
Stock No. 5800-73

BIDA 75A-30P
Stock No. 5800P73

BIDA 75A-43
Stock No. 5800-74

BIDA 75A-43P
Stock No. 5800P74

BIDA 86A-30
Stock No. 5800-83

BIDA 86A-30P
Stock No. 5800P83

BIDA 86A-43
Stock No. 5800-84

BIDA 86A-43P
Stock No. 5800-P84

BIDA 100A-30
Stock No. 5800-13

FEATURES:

- Integrated Active Return
- UL Listed External Transformer
- Pad Values in 1 dB Steps
- Six Values of Equalization

ACCESSORIES:

FIXED ATTENUATORS

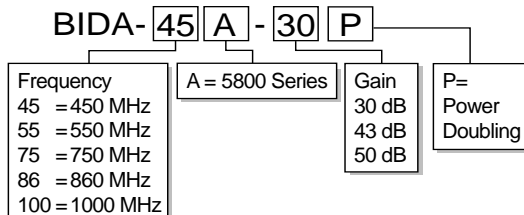
BIDA-FA
Stock No. 5411A⁽⁴⁾
(1-20 dB in 1 dB step)

EQUALIZERS

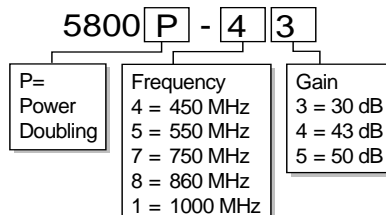
Stock No. 547X^(1,4)
(3, 6, 9, 12, 15, 18, dB)

SPECIFICATIONS						Integrated	Units
	BIDA 45A-30	BIDA 45A-43	BIDA 45A-30P	BIDA 55A-30	BIDA 55A-30P	Active Return Path(c)	
RF							
Frequency Range:	49-450	49-450	49-450	49-550	49-550	5-36	MHz
Channel Loading:	60	60	60	77	77	3	
Flatness:	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5 ref. to +1 dB tilt	dB
Gain:	32	43	32	32	32	20	dB
Noise Figure (a):	6.5	6.5	6.5	7.0	7.0	6	dB
Output Level:	+46	+46	+46	+44	+44	+42	dBmV
Test Port Level:	-30, ±2	-30, ±2	-30, ±2	-30, ±2	-30, ±2	-30, ±2	dB
Gain Control Range:	10	10	10	10	10	18	dB
Slope Control Range:	8	8	8	8	8	NA	dB
Composite Triple Beat - CTB (b):	-66	-65	-73	-64	-71	-66	dB
Composite Second Order - CSO (b):	-63	-62	-70	-61	-65	-63	dB
Cross Modulation - XMOD (b):	-67	-66	-74	-67	-74	-66	dB
Hum Modulation:	-70	-70	-70	-70	-70	-65	dB
Impedance - All Ports:	75	75	75	75	75	75	Ω
Return Loss							
Input:	16	16	16	16	16	16	dB
Output:	16	16	16	16	16	16	dB
Operating Temperature:	-20 to +60	-20 to +60	-20 to +60	-20 to +60	-20 to +60	-20 to +60	°C
Power Supply Requirements							
117 VAC, 60 Hz (d):	21.5	26	27.5	21.5	28	-	W
26 VAC, 60 Hz:	0.85	1.0	1.2	0.85	1.2	-	Amp
Size (WxHxL):	7.25 x 3.25 x 10.25	7.25 x 3.25 x 10.25	7.25 x 3.25 x 10.25	7.25 x 3.25 x 10.25	7.25 x 3.25 x 10.25	-	in.
	18.42 x 8.26 x 26.04	18.42 x 8.26 x 26.04	18.42 x 8.26 x 26.04	18.42 x 8.26 x 26.04	18.42 x 8.26 x 26.04	-	cm
Weight:	6	6	6	6	6	-	lbs.
	2.7	2.7	2.7	2.7	2.7	-	kg
Number Of Hybrids:	2	2	2	2	2	-	
Hybrid Technology:	Push-Pull	Push-Pull	Power Doubling	Push-Pull	Power Doubling	-	

MODEL NAME GUIDE



STOCK No. GUIDE



Ordering Notes: (1) Specify desired frequency. (2) Specify desired channel(s). (3) Specify desired option. (4) Specify desired isolation value or tap value.

BIDA Series

Broadband Indoor Distribution Amplifiers

SPECIFICATIONS	BIDA 55A-43	BIDA 55A-43P	BIDA 55A-50	BIDA 75A-30	BIDA 75A-30P	BIDA 75A-43	BIDA 75A-43P	BIDA 86A-30	BIDA 86A-30P	BIDA 86A-43	BIDA 86A-43P	BIDA 100A-30	Integrated Active Return Path	Units
Frequency Range:	49-550	49-550	49-550	49-750	49-750	49-750	49-750	49-860	49-860	49-860	49-860	49-1000	5-36	MHz
Channel Loading:	77	77	77	110	110	110	110	129	129	129	129	150	3	
Flatness:	±0.5	±0.5	±0.75	±0.7	±0.7	±0.7	±0.7	±0.75	±0.75	±0.75	±0.5	±0.75	±0.5 ref. to +1 dB tilt	dB
Gain:	43	43	50	32	32	43	43	32	32	44	43	32	20	dB
Noise Figure (a):	7.0	7.0	7.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	7	8.5	6	dB
Output Level:	+44	+44	+44	+44	+44	+44	+44	+44	+44	+42	36/44	+40	+42	dBmV
Test Port Level:	-30, ±2	-30, ±2	-30, ±2	-30, ±2	-30, ±2	-30, ±2	-30, ±2	-30, ±2	-30, ±2	-30, ±2	-30, ±2	-30, ±2	-30, ±2	dB
Gain Control Range:	10	10	10	10	10	10	10	10	10	10	10	10	18	dB
Slope Control Range:	8	8	8	8	8	8	8	8	8	8	8	8	NA	dB
Composite														
Triple Beat - CTB (b):	-63	-68	-63	-60	-64	-56	-64	-54	-62	-56	-60	-59	-60	dB
Composite														
Second Order - CSO (b):	-60	-58	-60	-56	-61	-59	-61	-57	-61	-59	-59	-59	-60	dB
Cross Modulation-														
XMOD (b):	-66	-69	-65	-62	-68	-60	-68	-54	-62	-60	-65	-60	-60	dB
Hum Modulation (b):	-70	-70	-70	-70	-70	-70	-70	-70	-70	-70	-70	-70	-70	dB
Impedance - All Ports:	75	75	75	75	75	75	75	75	75	75	75	75	75	Ω
Return Loss														
Input:	16	16	16	16	16	16	16	16	16	16	16	16	16	dB
Output:	16	16	16	16	16	16	16	16	16	16	16	16	16	dB
Operating Temp.:	-20 to +60	-20 to +60	-20 to +60	-20 to +60	-20 to +60	-20 to +60	-20 to +60	-20 to +60	-20 to +60	-20 to +60	-20 to +60	-20 to +60	-20 to +60	°C
Power Supply Req.														
117 VAC, 60 Hz (d):	26	34	26	23	30	26	34	23	31	31	34	24	-	W
26 VAC, 60 Hz:	1.0	1.5	1.1	0.9	1.3	1.1	1.5	0.9	1.3	1.5	1.5	1.0	-	Amp
Size (WxHxL):	7.25 x 3.25 x 10.25	7.25 x 3.25 x 10.25	7.25 x 3.25 x 10.25	7.25 x 3.25 x 10.25	7.25 x 3.25 x 10.25	7.25 x 3.25 x 10.25	7.25 x 3.25 x 10.25	7.25 x 3.25 x 10.25	7.25 x 3.25 x 10.25	7.25 x 3.25 x 10.25	7.25 x 3.25 x 10.25	7.25 x 3.25 x 10.25	-	in.
	18.42 x 8.26 x 26.04	18.42 x 8.26 x 26.04	18.42 x 8.26 x 26.04	18.42 x 8.26 x 26.04	18.42 x 8.26 x 26.04	18.42 x 8.26 x 26.04	18.42 x 8.26 x 26.04	18.42 x 8.26 x 26.04	18.42 x 8.26 x 26.04	18.42 x 8.26 x 26.04	18.42 x 8.26 x 26.04	18.42 x 8.26 x 26.04	-	cm
Shipping Weight:	6	6	6	6	6	6	6	6	6	6	6	6	6	lbs.
	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	kg
Number Of Hybrids:	2	2	2	2	2	2	2	2	2	2	2	2	-	
Hybrid Technology:	Push-Pull	Power Doubling	Push-Pull	Push-Pull	Power Doubling	Push-Pull	Power Doubling	Push-Pull	Power Doubling	Push-Pull	Power Doubling	Push-Pull	Push-Pull	

Distribution

NOTES:

Specification charts represent overall performance between the BIDA amplifier's input and output ports with no optional field installed modules.


One-way and two-way integrated standard amplifier models are shipped with a 0 dB attenuator and a 0 dB cable equalizer.

(a) measured at full gain with 0 dB slope

(b) at specified channel loading at rated output capability

(c) measured with output set at +42 dBmV with three channel loading

(d) measured at full gain with 8 dB slope

 Please Order by Stock Number!



Toll Free For Ordering!
800-883-8839

Ordering Notes: (1) Specify desired frequency. (2) Specify desired channel(s). (3) Specify desired option. (4) Specify desired isolation value or tap value.