

## TIBA Series CATV Distribution Amplifiers

Model	Bandwidth
TIBA-40-1000/42	5-42 MHz / 54-1000 MHz



The Toner two way apartment house type amplifiers with active return are broadband indoor GaAs Hybrid, high output level distribution amplifiers designed for 1 GHz RF distribution systems such as those in Cable Television Apartments, Hotels, Hospitals and other applications where a high quality low noise figure amplifier is necessary to amplify the signals in both the forward and return paths.

These are all designed with flat operational gain of 41dB in the forward bandwidth and 24 dB in the 5-42MHz reverse bandwidth. TIBA-40-1000 has sockets for plug-in controls of forward input stage gain, balancing and return gain at output stages. Forward path has also interstage variable gain and equalizer controls.

The amplifiers are powered by a plug in wall type 24 VDC power transformer that is available in either 90-240VAC universal applications.

### FEATURES

1 GHz forward bandwidth,

- GaAs Power Doubler Hybrid for high output levels with low distortions,
- Active Push Pull reverse,,
- Gain and equalization controls,
- Aluminum chassis designed for excellent heat dissipation,
- Surge protection at all ports,
- UL and CE listed power transformers,

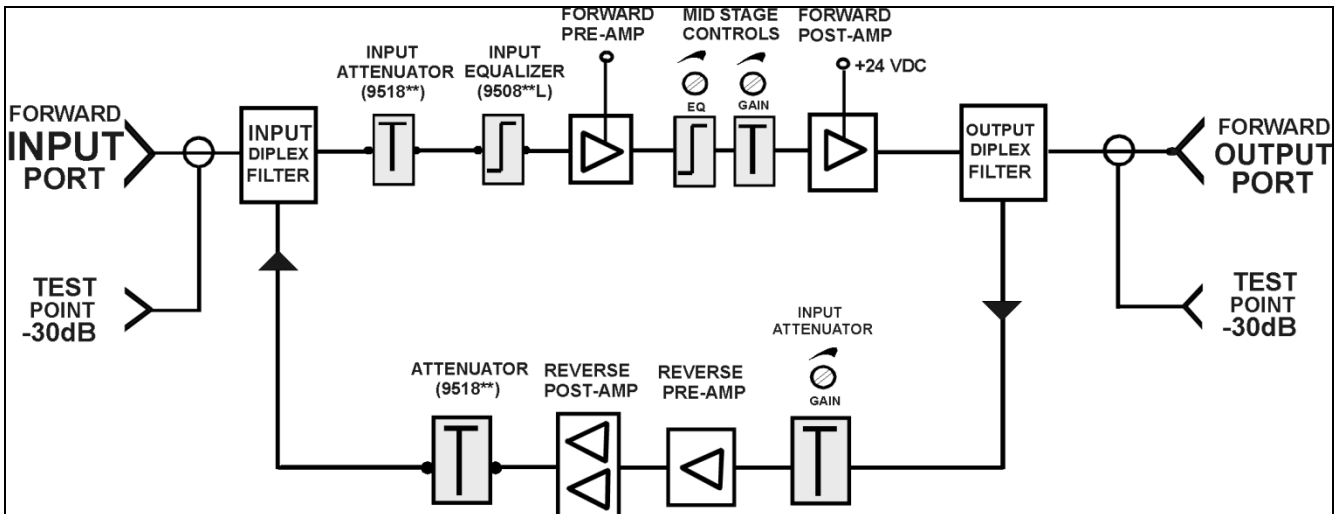


Figure 1 – Block Diagram

**INSTALLATION CAUTION NOTES**

1. Connect only to power adapter supplied with the amplifier.
2. Do not short power supply terminals, else protective fuse inside of sealed power supply case will become open.
3. Plug-in gain & cable slope controls are reachable under the cover. Refer to layout scheme for adjustable controls.

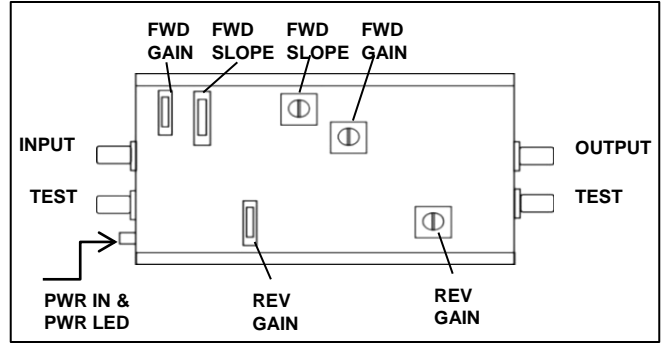


Figure 2 – Module & controls layout

**SPECIFICATIONS**

	Forward Path			Return Path
Technology	Power Doubling, GaAs, Hybrid			Push Pull, Si-Bipolar
Frequency Range	54-1000 MHz			5-42 MHz
Gain	41 dB			24 dB
Input Gain Control	Plug-in, fixed value , 0 to 20dB in 2dB steps,			0 to 18dB variable
Second Stage Gain Control	0 to 10dB variable, mid stage			Plug-in, fixed value , 0 to 20dB in 2dB steps
Input Slope Control	Plug in, fixed value, 0 to 20dB in 2dB steps			NA
Second Stage Slope Control	0 to 10dB variable, mid stage			NA
Input / Output Return Loss	16 dB			16 dB
Noise Figure	6 dB			6 dB
Channel Loading	79 ch. analog	129 ch. analog	151 ch. analog	4
Output Level	40 / 50 dBmV	38 / 48 dBmV	36 / 46 dBmV	52 dBmV
Composite Tripple Beat (CTB)	-63 dBc	-65 dBc	-65 dBc	-64 dBc
Composite Second Order (CSO)	-65 dBc	-66 dBc	-66 dBc	-68 dBc
Crossmodulation (XMOD)	-62 dBc	-61 dBc	-60 dBc	-65 dBc
Max. Input Level (per channel, w/o using fixed input attenuator)	20 dBmV @79 ch 18 dBmV @110 ch			
Optimum Input Level range	7 dBmV to 12 dBmV			
Impedance	75 ohm			
Hum Modulation	-70 dBc			
Input / Output Test Port Level	-30 +/- 1dB			
Operating Temperature Range	-4F .....+130 degree F			
Input / Output Connctcions	F type			
Surge Withstand (IN/OUT)	IEEEC62.41 Cat.A3(6kV,200A)			
Power Requirement	Wall Power Transformer, Input = 90-240VAC , 50-60Hz, 1A			
Size (L x W x H)	195 mm * 160 mm * 79 mm ( 7 - 3/4", 6-1/3", 3")			
Shipping Weight	6 lbs (1.8 kgs)			

Ordering Information – Plug In Accessories	
Attenuator Pads 870MHz 0 to 22dB in 1dB steps	9518**(replace ** with dB value)
Forward Equalizer 1000MHz 0 to 21dB in 1dB steps	MLEQ** (replace ** with dB value)