

TDA Series CATV Distribution Amplifiers

Model	Bandwidth
TDA-35-1000/42	5-42 MHz / 54-1000 MHz
TDA-35-1000/65	5-65 MHz / 85-1000 MHz



The Toner two way apartment house type amplifiers with active return are broadband indoor GaAsFET Push Pull 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.

Two models are available with two different reverse signal bandwidths: 5-42 MHz and 5-65 MHz.

These are all designed with flat operational gain of 35 dB in the forward bandwidth and 18 dB in the reverse bandwidth. They have an input equalizer in the forward bandwidth for balancing, a forward 20 dB gain control and a 20 dB reverse gain control.

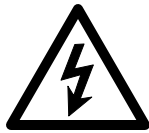
The amplifiers are powered by a plug in wall type 6 VDC power transformer that is available in either 117 or 230 volts. Internal power supply models are also available with item codes as TDA-35-1000/65IP etc.

Features

- 1 GHz forward bandwidth,
- GaAsFET Push Pull for high output levels with low distortions,
- Active Push Pull reverse,
- Gain and equalization (slope) controls,
- RFI housing for high screening,
- Aluminum diecast housing for heat dissipation,
- UL and CE listed power adapter,
- 117 or 230 volts powering.

Block Diagram

The Lightning flash with arrowhead symbol within an equilateral triangle is intended to alert you to the presence of uninsulated "dangerous voltage" within the products supplementary external power supply 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.

**REMEMBER TO REPLACE COVER AFTER ADJUSTING.
COVER MUST BE IN PLACE FOR CE, SAFETY AND PROTECTION.**

NO SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

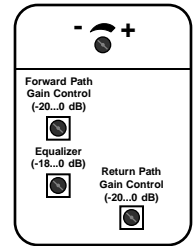
WARNING: TO PREVENT SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. THIS APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING WATER AND NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

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.

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. Adjustable gain & cable slope controls are reachable under the cover. Refer to layout scheme for adjustable controls.



Layout Scheme for Control Adjustments under the cover

SPECIFICATIONS

Typical, for T = 20°C, Z_{in} = Z_{out} = 75Ω

Parameter	Notes	Forward GaAsFET Push Pull	Reverse	Units
Bandwidth		54-1000 / 85-1000	5-42 / 5-65	MHz
Min Full Gain		35	18	dB
Flatness		±1	±1	"
Return Loss, In / Out		-16	-16	"
RF Test Points		-30 (Out)		"
Gain Control, variable		-20...0 (input)	-20...0 (output)	"
Slope Control, variable		-20...0 (input)	---	dB cable
Forward Distortions, 79 channels	Output Level, 34 / 46 dBmV			
CTB		-63	---	dBc
CSO		-70	---	"
XMOD		-62	---	"
Forward Distortions, 135 channels	Output Level, 34 / 46 dBmV			
CTB		-61	---	dBc
CSO		-67	---	"
XMOD		-60	---	"
Reverse Distortions, 4 Ch	52 dBmV flat output			
3rd on T10	T8+T9-T7	---	-68	dBc
2nd on T9	T7+12MHz	---	-65	"
XMOD on T10	T7, T8, T9, T10	---	-64	"
Noise Figure		7	7	dB
Hum Modulation			-70	dB
RFI Isolation	5-1000 MHz		-90	"
Surge Withstand	In / Out	IEEE62.41 Cat.A3 (6kV, 200A)		
Powering		With Plug-in Wall Type External Power Supply (6 VDC, 1A) Available in 117/230 VAC		VAC
Power Consumption		@ 117 VAC 0,11A, @ 220 VAC 0,06A		Watts
Temperature		-10 to +55		°C
Enclosure		IP54 Category, Diecast Aluminum		
Weight		1,7 / 3,75		kgs/lbs
Dimensions		19,5 x 13,6 x 7,5 cms 7-5/8 x 5-3/8 x 3 inches		

INSTALLATION PRECAUTIONS TABLE

PRECAUTIONS	REQUIREMENT
Ensure easy access to rack wiring	Allow a minimum of 20 in. (50 cm) clearance behind the equipment rack(s).
Facilitate service and maintenance	Allow a minimum of 35 in. (90 cm) clearance in front of the equipment rack(s).
Avoid direct heating or air conditioning	If unavoidable, use deflector plates.
AC Power source outlets	Locate equipment near sufficient outlets to provide power for test equipment and power tools.
Rack support	Make certain rack supports are sufficiently rigid to support rack(s).
Building leakage	Beware of dripping water onto equipment from leaky roofs, waveguide roof entries, and cold water pipe condensations.