



# TDA7490L

## 20W + 20W STEREO CLASS-D AMPLIFIER 40W MONO IN BTL

### 1 FEATURES

- 20W + 20W OUTPUT POWER:  
@  $R_L = 8\Omega/4\Omega$ ; THD = 10%
- HIGH EFFICIENCY
- WIDE SUPPLY VOLTAGE RANGE (FROM  $\pm 10$  TO  $\pm 25V$ )
- SPLIT SUPPLY, SINGLE SUPPLY OPERATION
- TURN OFF/ON POP FREE
- ST-BY AND MUTE FEATURES
- SHORT CIRCUIT PROTECTION ACROSS THE LOAD
- THERMAL OVERLOAD PROTECTION
- EXTERNALLY SYNCHRONIZABLE
- BRIDGE CONFIGURATION

Figure 1. Package



Table 1. Order Codes

Part Number	Package
TDA7490L	Flexiwatt 25

### 2 DESCRIPTION

The TDA7490L is a dual audio class D amplifier assembled in Flexiwatt 25 package; it is specially designed for high efficiency application mainly for TV and Home Stereo sets.

Figure 2. Test and Application Circuit. (Stereo Configuration)

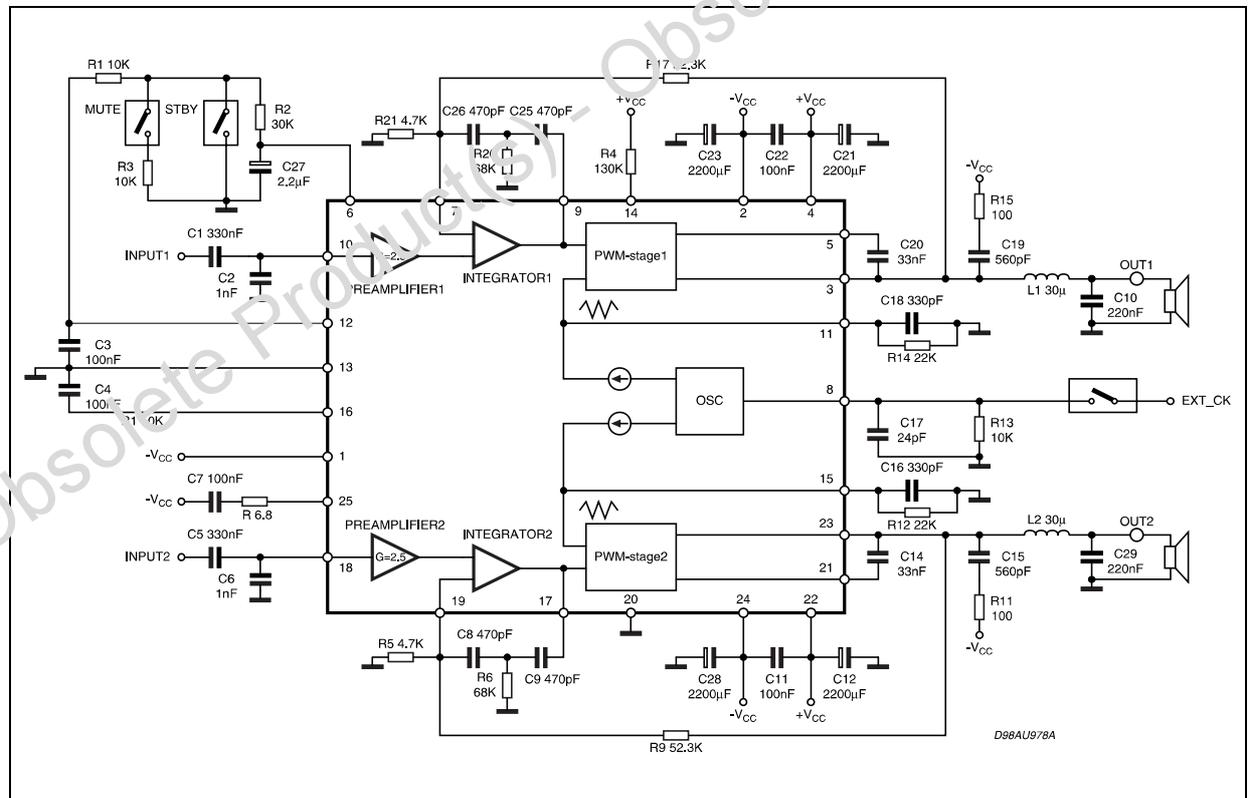


Figure 3. Test and Application Circuit. (Bridge Configuration)

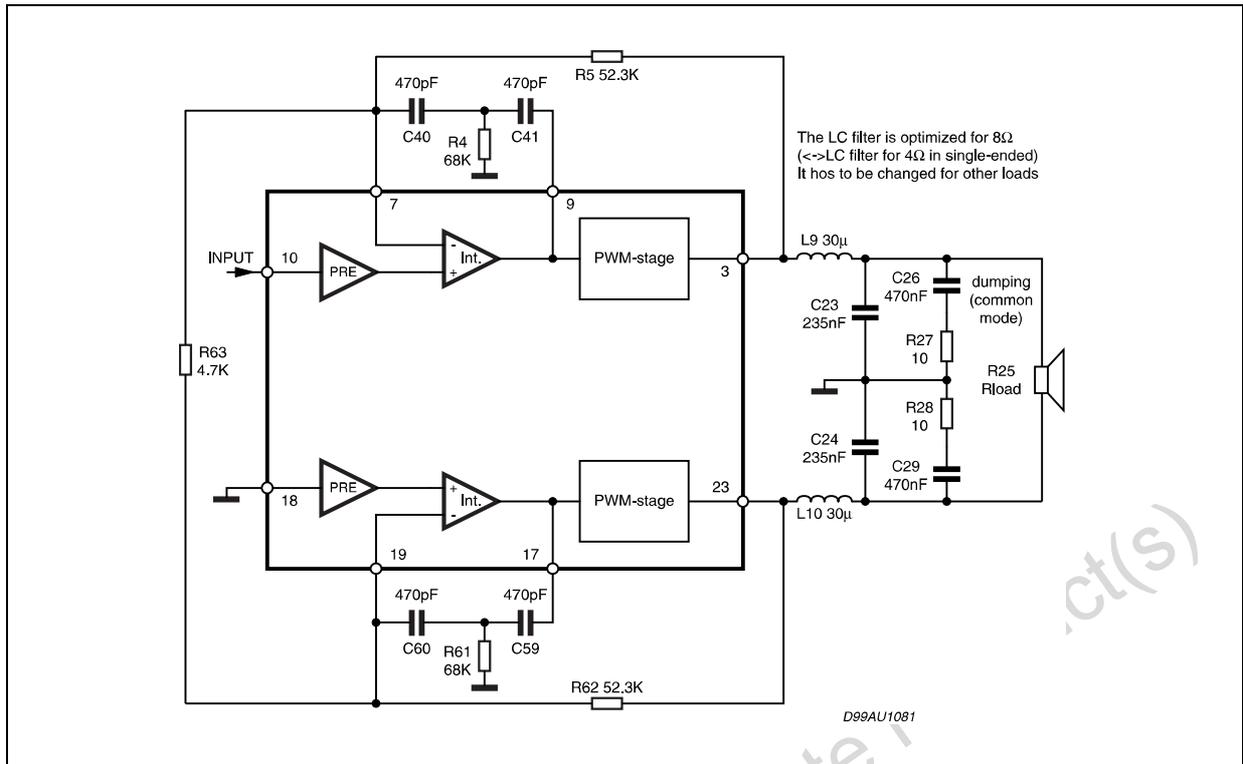


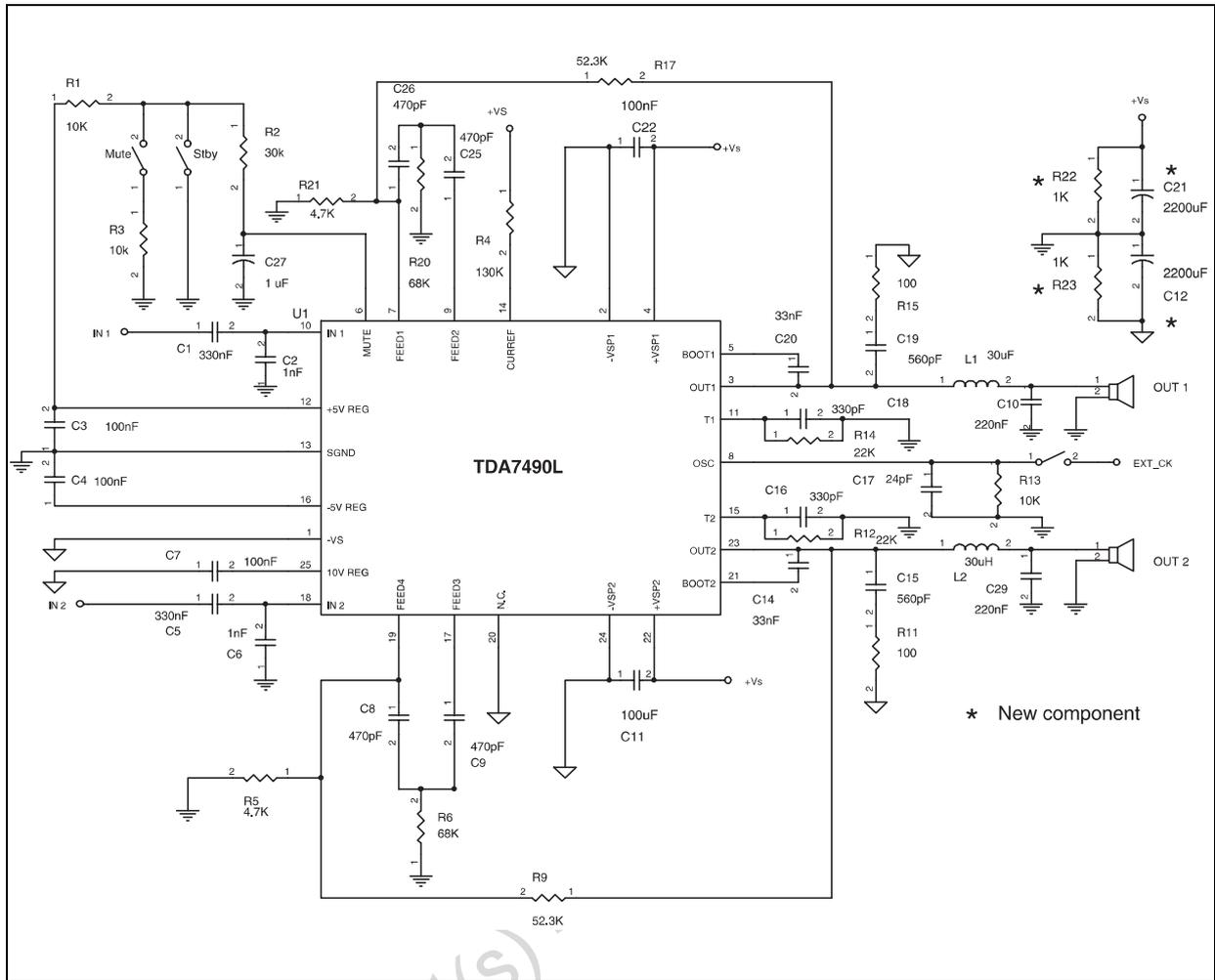
Table 2. Absolute Maximum Ratings

Symbol	Parameter	Value	Unit
$V_{CC}$	DC Supply Voltage (no signal)	$\pm 30$	V
$P_{tot}$	Power Dissipation $T_{case} = 70^{\circ}C$	35	W
$T_{stg}, T_j$	Storage and Junction Temperature	-40 to 150	$^{\circ}C$
$T_{op}$	Operating Temperature Range	0 to 70	$^{\circ}C$
$V_{6,8,10,18}$	Maximum Voltage on pins # 6,8,10,18 referred to GND	$\pm 5$	V

Table 3. Thermal Data

Symbol	Parameter	Value	Unit
$R_{th\ j-case}$	Thermal Resistance Junction-case	Typ. 1	$^{\circ}C/W$

Figure 4. Application in Supply Voltage



Obsolete Product(s)

Figure 5. Pin Connection

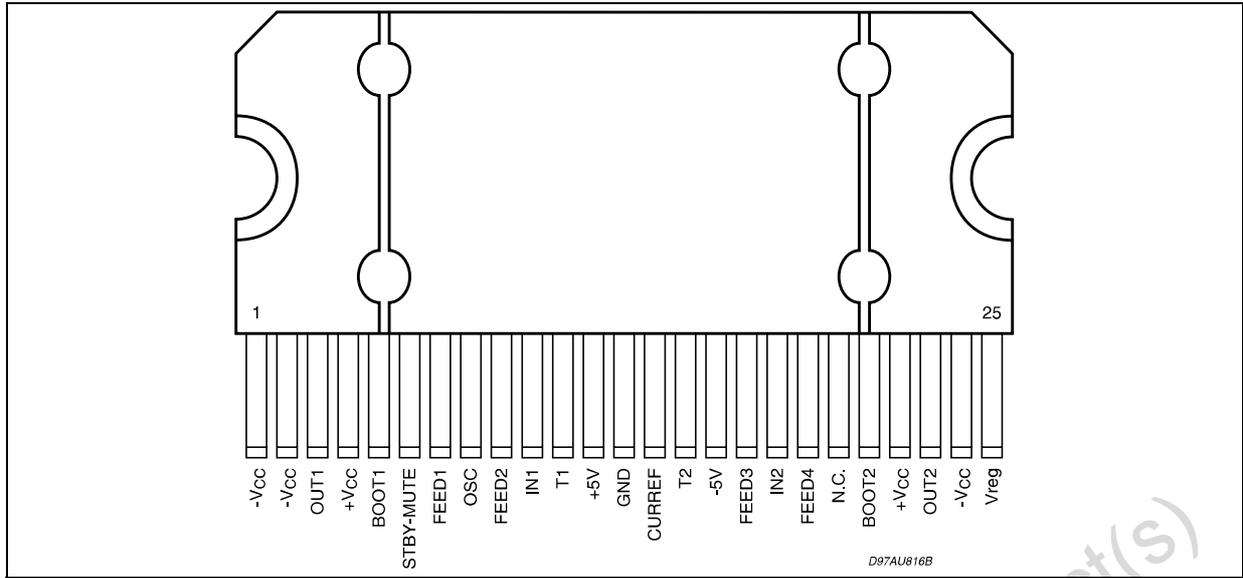


Table 4. Pin Description

Pin N°	Name	Function
1	-V <sub>CC</sub> sign/sub	Negative signal/substrate supply
2	-V <sub>CC</sub> pow1	Negative power supply CH1
3	out 1	PWM output of CH1
4	+V <sub>CC</sub> pow1	Positive power supply CH1
5	BOOT1	Bootstrap CH1
6	STBY-MUTE	Control State Pin
7	FEED1	Feedback pin 1 CH1
8	OSC	Master Oscillator Setting Freequency Pin (or external sync.)
9	FEED2	Feedback pin2 CH1
10	IN1	Input CH1
11	T1	Triangular waveform CH1
12	+5V	+5V regulator (only for internal purposes)
13	GND	Signal ground
14	CUREF	Setting current resistor
15	T2	Triangular waveform CH2
16	-5V	-5V regulator (only for internal purposes)
17	FEED3	Feedback pin1 CH2
18	IN2	Input CH2
19	FEED4	Feedback pin2 CH2
20	NC	Not connected
21	BOOT2	Bootstrap CH2
22	+V <sub>CC</sub> pow2	Positive power supply CH2
23	OUT2	PWM output of CH2
24	-V <sub>CC</sub> pow2	Negative power supply CH2
25	V <sub>reg</sub>	10V regulator