



LA4505	monolithic linear IC	CIRCUIT DRAWING No.2083
2-CHANNEL AF POWER AMPLIFIER FOR RADIO CASSETTE(15V)		 3037A

Features

- Small idling current (20mA/2 channels) enabling prolonged battery life.
- Small dependence of idling current on V_{CC}.
- High power (8.5W typ. x 2).
- High ripple rejection (60dB at steady state).
Since filters are arranged in 3 stages (including 1 stage inside IC) to attain satisfactory ripple rejection at transient state, ripple occurring at the time of motor start can be prevented from mixing in.
- Small pop noise at the time of power supply ON/OFF and good starting balance between both channels (0.6 sec.) due to built-in pop noise limiter.
- Pins provided for compensating high frequency response.
- Small residual noise (0.4mV).
- Wide supply voltage range (6 to 24V) easing design of transformer power supply.
- Built-in thermal shutdown circuit.
- Designed so that inverse insertion or short between adjacent pins causes no destruction.
- Channel-to-channel mirror image pin assignment and provision of Pre GND, Power GND pins enabling stable operation and easing artwork of printed circuit board.
- Minimum number of external parts required (9 pcs. min., 12 pcs. typ.).
- Audio muting capability (for automatic music selection, electronic tuner).

LA4507	monolithic linear IC	CIRCUIT DRAWING No.2082
DUAL-CHANNEL AF POWER AMP.		 3023A


Applications

- Dual-channel AF Power amp. for sound multi-plex TV
- Dual-channel AF power amp. for radio cassette

Features

- Small idling current (20mA/dual channels)
- High power Sample Application

4.5W x 2: 16V/8ohm } 8.0W x 2: 16V/4ohm }	Circuit 1
8.5W x 2: 15V/3ohm	Circuit 2
- High ripple rejection (at 60dB steady state)
- With pop noise preventer built in, pop noise is small at the time of power supply ON/OFF and starting balance between both channels is good.
- Built-in thermal protector
- Minimum number of external parts required
- Audio muting capability
- Easy to make heat radiation design because of SEP 14H ($\theta_{j-c} = 3^{\circ}\text{C/W}$)

LA4508	monolithic linear IC	CIRCUIT DRAWING No.2084
2-CHANNEL AF POWER AMP RADIO CASSETTE APPLICATIONS		 3023A

Features

- Low idling current (20mA/2 channels)
- Output power 8.5W x 2 typ ($R_L = 3\text{ohm}$)
- High ripple rejection (60dB at steady state)
- Small pop noise at the time of power supply ON
- Thermal protector
- Easy to design heat radiation due to adoption of SEP14H ($\theta_{j-c} = 3^{\circ}\text{C/W}$)

LA 4 1 2 6 T	130	DIP	18H	3009A	2063	4.2W typ 2-Channel (9W/8Ω typ for Br.)	12	4.2×2/10.4	45×2	1.5/0.25	60
LA 4 1 8 5 T	132	SEP	14H	3023A	2073	4.2W typ 2-Channel (9W/8Ω typ for Br.)	12	4.2×2/10.4	45×2	1.5/0.25	60
LA 4 5 0 0	135	DIP	20H	3037A	2083	5.3W typ 2-Channel (9.5W/12V, 6Ω for Br.)	12	5.3×2/10.3	50×2	1.5/2V	30
LA 4 5 0 5	136	DIP	20H	3037A	2083	8.5W typ 2-Channel (16W/15V, 6Ω for Br.)	15	8.5×2/10.3	50×2	1.5/2V	30
LA 4 5 0 7	136	SEP	14H	3023A	2082	8.5W typ 2-Channel (16W/15V, 6Ω for Br.)	15	8.5×2/10.3	50×2	1.5/2V	30
LA 4 5 0 8	136	SEP	14H	3023A	2084	8.5W typ 2-Channel (16W/15V, 6Ω for Br.)	15	8.5×2/10.3	50×2	1.5/2V	30
※LA 4 5 4 0	138	SEP	18	-	2088	18W, Br. OLC Only (18W/15V, 4Ω)	15	18/10.4	46	0.1typ/2W	56typ
LA 4 4 2 2	134	SEP	10F	3018A	2078	5.8W typ AF Power Amp for Car Stereo, Car Radio	13.2	5.8/10.4	53	2.0/1	80
LA 4 4 4 0	134	SEP	14H	3023A	2079	6.0W typ 2-Channel (19W typ for Br.)	13.2	6.0×2/10.4	51.5×2	1.0/1	200
LA 4 4 4 5	134	SEP	12H	3049A	2080	5.5W typ 2-Channel	13.2	5.5×2/10.4	51.5×2	1.0/1	75typ
LA 4 4 6 0	135	SEP	10H	3024A	2081	12W typ AF Power Amp for Car Stereo, Car Radio (Br. only)	13.2	12/10.4	51	1.0/1	120
LA 4 4 6 1	135	SEP	10H	3024A	2081	12W typ AF Power Amp for Car Stereo, Car Radio (Br. only)	13.2	12/10.4	51	1.0/1	120
LA 4 1 7 0	131	DIP	14T	3005A	2070	2-Channel Amp for Headphone	14	-	9×2	1/0.1V	15
LA 4 1 7 5	131	DIP	14T	3005A	2071	2-Channel Amp for Recording Output, Headphone	12	-	38×2	0.5/1V	15
LA 4 5 2 0	137	DIP	20S	3021B	2086	2-Channel Preamp + Power Amp for Headphone	4.5to6	Pre 1V/1.10K Power 1V/1.32	35×2 45×2	-	25
○LA 4 5 3 0 M	137	MFP	20	3036B	2087	2-Channel Amp for Headphone	3	33m/10.32	45×2	0.2typ/5mW	8typ
LA 4 5 3 0 S	137	SEP	16	3020A	2087	2-Channel Amp for Headphone	3	33m/10.32	45×2	0.2typ/5mW	8typ
○LA 4 5 6 0 M	138	MFP	24	3045A	2090	Auto Reverse 2-Channel Preamp + Power Amp for Headphone	4.5to6	-	(35+45)×2	-	10typ

ALL IN ONE/MONAUROAL AF POWER AMP'S (thick film hybrid integrated circuit)

●STK075 SERIES

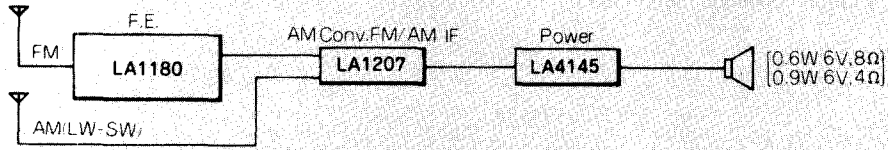
Type Number	Page	Case			Circuit Drawing No.	Circuit Functions & Applications ★Dual-Supply Operation	Recommended V_{CC}, R_L [V], [Ω]	Main Characteristics/ $T_a=25^\circ\text{C}$, recommended operating conditions			
		Package	Pins	Package No.				I_{CCO} [mAmax]	P_o/THD [Wmin/%]	THD/P_o [%max/W]	f response [Hz]
STK077	255	SEP	10	4007	6004	★ 20Wmin AF Power Amp	±22.0.8	100	20/0.3	0.3/0.1~20	10 to 100k
STK078	255	SEP	10	4007	6004	★ 24Wmin AF Power Amp	±25.0.8	100	24/0.2	0.2/0.1~24	10 to 100k
STK080	255	SEP	10	4007	6004	★ 30Wmin AF Power Amp	±27.0.8	100	30/0.2	0.2/0.1~30	10 to 100k
STK082	255	SEP	10	4007	6004	★ 35Wmin AF Power Amp	±30.0.8	100	35/0.2	0.2/0.1~35	10 to 100k
STK084	255	SEP	10	4007	6005	★ 50Wmin AF Power Amp	±35.0.8	100	50/0.2	0.2/1~50	10 to 100k
STK085-105	255	SEP	10	4030	6005	★ 60Wmin AF Power Amp	±38.0.8	100	60/0.2	0.2/1~60	10 to 100k
STK086	255	SEP	10	4007	6005	★ 70Wmin AF Power Amp	±42.0.8	100	70/0.2	0.2/1~70	10 to 100k

(Note) Type Numbers for $T_c=105^\circ\text{C}$ are also available.

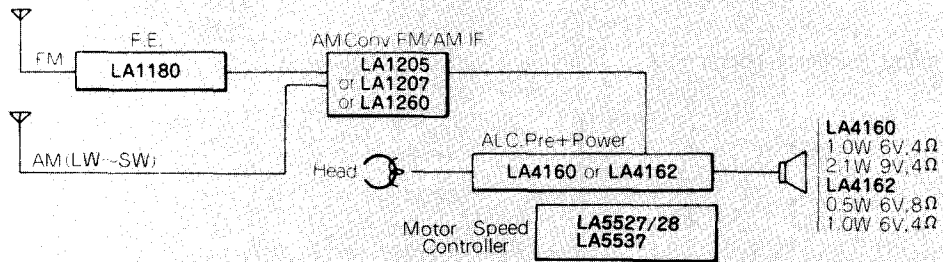
4. RADIO CASSETTES

* Under development

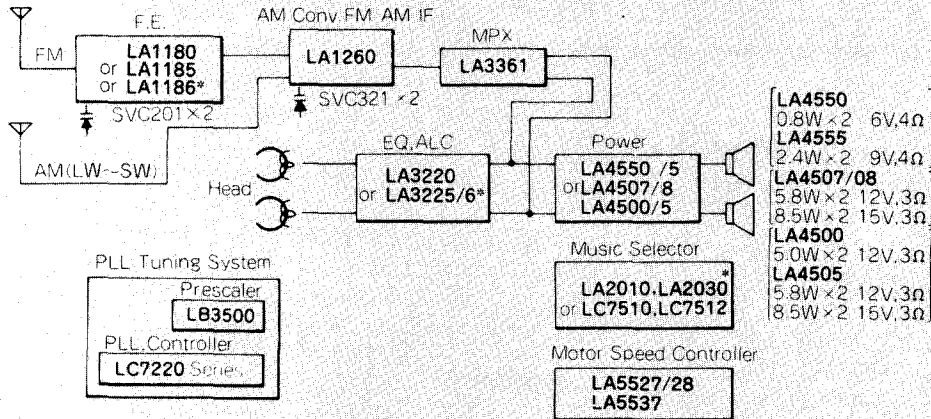
(a) Popular Type Monaural Radio



(b) Popular Type Monaural Cassette



(c) Middle-Grade Stereo Cassette



(d) High-Grade Stereo Radio Cassette

