

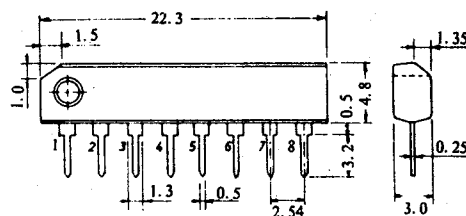
LA7224

遥控接收前置放大器

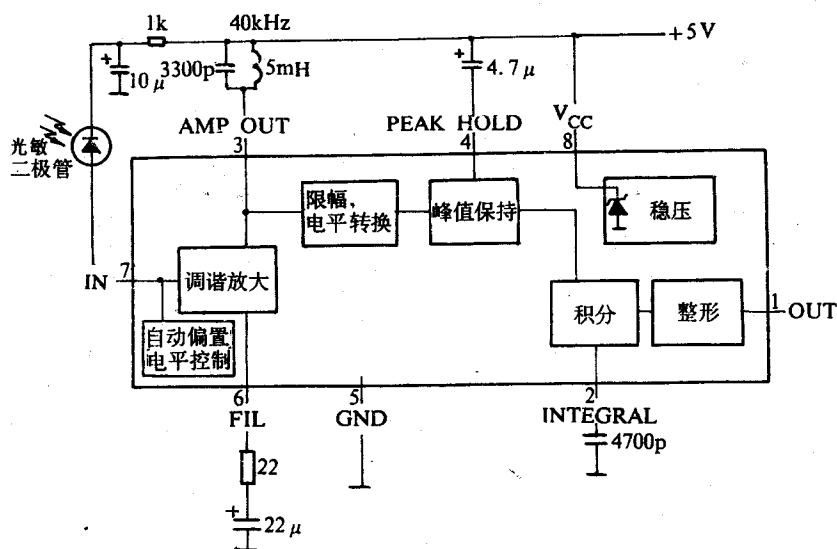
简要说明

LA7224 红外遥控接收前置放大器包括前置放大、峰值检波、整形和自动偏置电平控制等电路。具有工作电源电压低($V_{CC} = 4.5 \sim 5.5V$),灵敏度高等特点。可在 30~60kHz 频率下工作。

外形图



电路框图和典型应用 [$V_{CC(max)} = 7V, P_{D(max)} = 100mW (T_A \leq 60^\circ C)$]



电参数 [$V_{CC} = 9V (V_{CC}$ 端串联 1kΩ 限流电阻)]

电源电流	I_{CC1}	$V_{CC} = 9.0V (1k\Omega \text{ 限流电阻})$	2.5 ~ 3.5mA
	I_{CC2}	$V_{CC} = 5.0V (无 \text{限流电阻})$	1.0 ~ 2.5mA
输入端电压	$V_{7(1)}$	$I_i = 0$	1.0 ~ 1.6V
	$V_{7(2)}$	$I_i = 50\mu A$	2.6 ~ 4.0V
前置放大器电压增益	G_V	$f = 40kHz, V_O = 200mV_{pp}, Q = 20$	57 ~ 63dB
检波灵敏度	V_B	3 端输入	30 ~ 70mV _{pp}
输入电阻	R_{i7}	7 端	45 ~ 90kΩ
输出电压	V_O	$R_L = 20k\Omega, V_B = 100mV_{pp}$	$\leq 0.3V$
输出漏电流	I_{OH}	$V_B = 100mV_{pp}$	$\leq 2\mu A$



三洋半導体
ニュース

No1610

6084

LA7224

モノリシックリニア集積回路

赤外光リモコン受信プリアンプ

LA7224は チューニングアンプ、ピークホールド回路、積分回路を内蔵した テレビ、VTR等用の
赤外光リモコン受信用のプリアンプである。

特長

- ・5V - 低電流動作。
- ・定電圧回路内蔵。
- ・波形整形回路内蔵。

最大定格/ $T_a = 25^\circ\text{C}$

最大供給電圧

$V_{8\max}$

unit

7.0 V

$V_{1\max}$

15.0 V

許容消費電力

$P_{d\max}$

$T_a \leq 60^\circ\text{C}$

100 mW

動作周囲温度

T_{opg}

$-20 \sim +80^\circ\text{C}$

保存周囲温度

T_{stg}

$-55 \sim +125^\circ\text{C}$

動作条件/ $T_a = 25^\circ\text{C}$

動作電源電圧範囲

$V_{8(1)}$

SW1→b

4.5~5.5 V

$V_{8(2)}$

SW1→a, $V_{CC} = 9.0\text{V}$

5.5~6.5 V

発振周波数

f_{osc}

30~60 kHz

動作特性/ $T_a = 25^\circ\text{C}$, $V_{CC} = 9.0\text{V}$ (制限抵抗1k Ω), SW1→a

消費電流

$I_{cc(1)}$

$V_{CC} = 9.0\text{V}$, SW1→a

min

typ

max unit

2.5

3.0

3.5 mA

$I_{cc(2)}$

$V_{CC} = 5.0\text{V}$, SW1→b

1.0

1.6

2.3 mA

入力端子電圧

$V_{7(1)}$

$i_{in} = 0$

1.0

1.3

1.6 V

$V_{7(2)}$

$i_{in} = 50\mu\text{A}$

2.6

3.3

4.0 V

初段電圧利得

V_{G1}

$f = 40\text{kHz}$, $v_o = 200\text{mVpp}$, $Q = 20$

57

60

63 dB

検波感度

v_{in}

ピン3入力

30

50

70 mVpp

入力内部抵抗

r_{in}

45

68

90 k Ω

出力電圧

v_o

アルファ抵抗20k, ピン3入力100mVpp

0.3 V

出力リーク電流

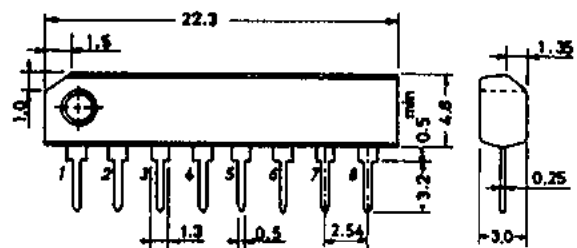
I_{OH}

ピン3入力100mVpp

2 μA

www.DataSheet.in

外形図 No3016B-S8IC
(unit: mm)



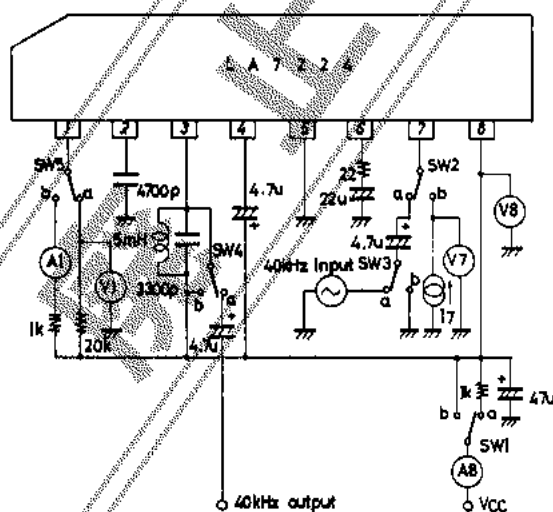
LA7224

測定条件

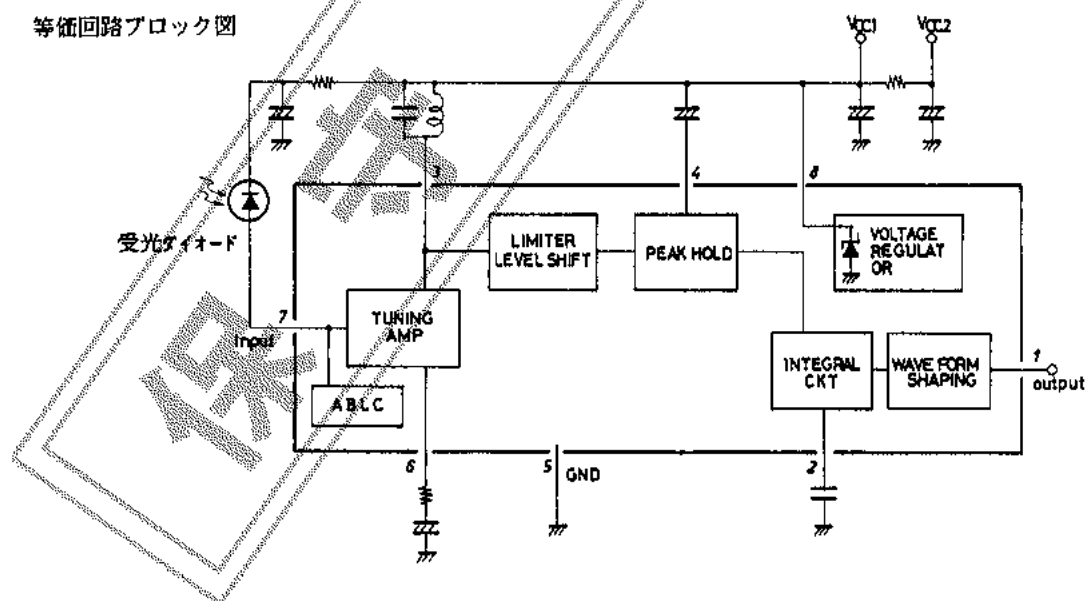
測定項目		SWの状態					測定点	備考
		SW1	SW2	SW3	SW4	SW5		
消費電流	I _{cc} (1)	a	a	b	b	a	ピン8	
	I _{cc} (2)	b	a	b	b	a	ピン8	
入力端子電圧	V ₇ (1)	a	b	b	a	a	ピン7	I _{in} =0μA
	V ₇ (2)	a	b	b	a	a	ピン7	I _{in} =50μA
初段電圧利得	V _G 1	a	a	a	a	a	ピン3	V _o =200mVpp
検波感度	V _{in}	a	a	b	a	a	ピン3	
入力内部抵抗	r _{in}	a	b	b	a	a	ピン7	*
出力電圧	V _o	a	a	b	a	a	ピン1	
出力リーク電流	I _{OH}	a	a	b	b	b	ピン1	

* I_{in}=10μA時のピン7電位V₇(3), r_{in}=(V₇(3)-V₇(1))/10μA

測定回路



等価回路ブロック図



7997076 SANYO SEMICONDUCTOR CORP

76C 01884

DT-77-07-13

LA7210,7212	monolithic linear IC	CIRCUIT DRAWING No.2155
SYNC DETECTOR FOR VTR USE		 3043A(LA7210) 3003A(LA7212)

The LA7210/7212 are sync detector IC's designed to obtain the optimum reception mode in the channel select system of a VTR. The use of a ceramic resonator-applied horizontal sync detector of VCO, PLL type can provide a non-adjusting system with high detect accuracy. The LA7210/7212 also meet the requirements of the new FTZ in West Germany.

Functions

- Sync separation
- VCO (32fH)
- AFC
- Comparator for sync detection
- AFT window comparator (LA7212 only)

Features

- The use of a ceramic resonator permits non-adjusting.
- Possible to control the threshold voltage of the AFT window comparator (LA7212)
- Package and output configuration

	LA7210	LA7212
Package	SEP10	DIP14
Output configuration	Emitter follower	Open collector

LA7220	monolithic linear IC	CIRCUIT DRAWING No.2159
ELECTRONIC SWITCH FOR USE IN VTR, AUDIO APPLICATIONS		 3006A

The LA7220 is a 3-channel 2-position high-performance analog switch having wide application from audio band to video band. It is also provided with 2 channels of muting function.

Features

- 3-channel 2-position switch
- Wide input dynamic range
- Low distortion
- Good frequency characteristic
- Muting available

LA7224	monolithic linear IC	CIRCUIT DRAWING No.2160
PREAMP FOR INFRARED REMOTE CONTROL RECEPTION		 3016B

The LA7224 is a preamp for infrared remote control reception that contains a turning amp, a peak hold circuit, an integration circuit and is suited for use in TV, VTR applications.

Features

- 5V-low current operation.
- On-chip voltage regulator.
- On-chip waveform shaper.

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