

SANYO

No.1337B

LA7822

Monolithic Linear IC

Color TV Synchronization, Deflection Circuit

The LA7822 is an IC containing not only the main functions required to achieve synchronization and deflection in color television receivers but also a generator of horizontal, vertical blanking pulses. It is a multifunctional IC ideally suited for use in color television receivers aiming at high-quality picture reproduction.

Functions

- Synchronizing separation
- Horizontal AFC
- Composite blanking pulse (vertical + horizontal blanking pulse)
- Vertical blanking pulse (Only vertical blanking pulse can be taken out.)
- Vertical oscillation
- Horizontal oscillation
- Vertical drive
- X-ray protection

Features

- Horizontal and vertical oscillations are stable against variations in ambient temperature and supply voltage due to small warm-up drift.
- Small variation in horizontal oscillation frequency.
- Good linearity and interlace because DC bias at vertical output stage is subjected to sampling control within retrace time.
- Vertical blanking pulse width can be set freely by peripheral parts.
- Minimized picture distortion because AFC circuit is defeated during vertical trigger pulse input period.
- Multifunctional and compact (DIP-16).

Maximum Ratings at $T_a = 25^\circ\text{C}$

			unit
Maximum Supply Voltage	V_{CC13}	14	V
Maximum Supply Current	I_{CC16}	16	mA
Allowable Power Dissipation	$P_d \text{ max}$ $T_a = 65^\circ\text{C}$	570	mW
Operating Temperature	T_{opg}	-20 to +85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

Operating Conditions at $T_a = 25^\circ\text{C}$

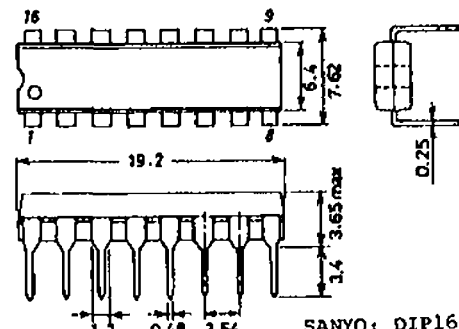
			unit
Recommended Supply Voltage	V_{CC13}	12	V
Recommended Supply Current	I_{CC16}	13	mA

Operating Characteristics at $T_a = 25^\circ\text{C}$, $V_{CC13} = 12\text{V}$, $I_{CC16} = 13\text{mA}$

		min	typ	max	unit
V_{CC14} Current Dissipation	I_{CC13}	16.8		26.0	mA
V_{CC18} Supply Voltage	V_{CC18}	11.8		13.2	V

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The application circuit diagrams and circuit constants herein are included as an example and provide no guarantee for designing equipment to be mass-produced. The information herein is believed to be accurate and reliable. However, no responsibility is assumed by SANYO for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

Case Outline 3006B-D16IC
(unit: mm)

Specifications and information herein are subject to change without notice.

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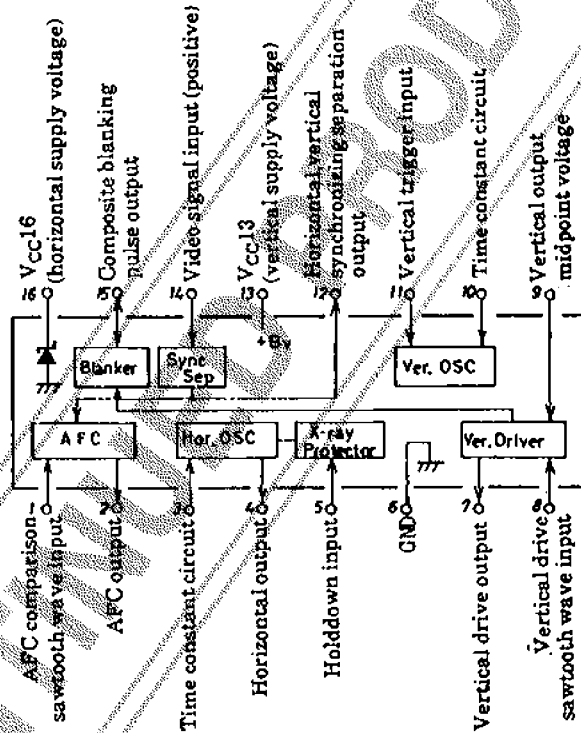
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		min	typ	max	unit
Vertical Frequency Pull-in Range		9.0		11.0	Hz
Vertical Free-running Frequency	f_V center 55Hz	50		60	Hz
Supply Voltage Dependence of Vertical Frequency	$V_{13} = 12 \pm 1V, 55Hz$ at 12V	-0.5		0.5	Hz
Temperature Characteristic of Vertical Frequency	$T_a = -10$ to $+60^\circ C$	-0.028		0.028	Hz/ $^\circ C$
Vertical Driver Amplification Factor		12		17	dB
Horizontal Free-running Frequency	f_H center 15.734kHz	750		750	Hz
Reduced Voltage Characteristic of Horizontal Frequency	$V_Z - V_Z \times 90\%$	-50		50	Hz
Temperature Characteristic of Horizontal Frequency	$T_a = -10$ to $+60^\circ C$ (IC only)	-3.4		3.4	Hz/ $^\circ C$
Horizontal Output Pulse Width	$f_H = 15.734kHz$	21.5		26.5	μs
Horizontal Output Drive Current		6.6		10.0	mA

Equivalent Circuit Block Diagram



Sample Application Circuit

