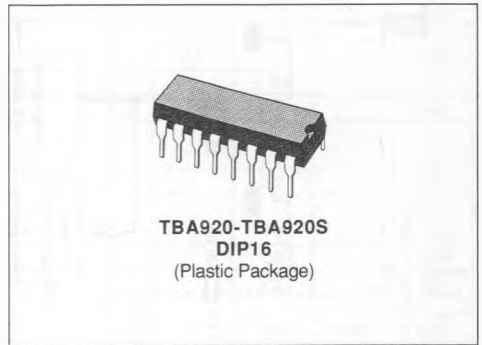


LINE OSCILLATOR COMBINATION FOR TV SET

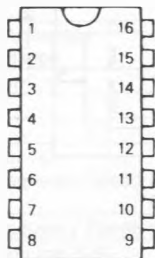
- SYNC-PULSE SEPARATION
- OPTIONAL NOISE INVERSION
- GENERATION OF A LINE FREQUENCY VOLTAGE BY MEANS OF AN OSCILLATOR
- PHASE COMPARISON BETWEEN SYNC-PULSE AND THE OSCILLATOR WAVEFORM
- PHASE COMPARISON BETWEEN THE OSCILLATOR WAVEFORM AND THE MIDDLE OF THE LINE FLY-BACK PULSE
- AUTOMATIC SWITCHING OF THE VARIABLE TRANSCONDUCTANCE AND THE VARIABLE TIME CONSTANT TO ACHIEVE NOISE SUPPRESSION AND, BY SWITCHING OFF, POSSIBILITY OF TAPE-VIDEO-REGISTERED REPRODUCTION
- SHAPING AND AMPLIFICATION OF THE OSCILLATOR WAVEFORM TO OBTAIN PULSES FOR THE CONTROL OF DRIVING STAGES IN HORIZONTAL DEFLECTION CIRCUITS USING EITHER TRANSISTORS OR THYRISTORS

DESCRIPTION

The line oscillator combination TBA920 is a monolithic integrated circuit intended for the horizontal deflection of the black and white and colour TV sets picture tube.



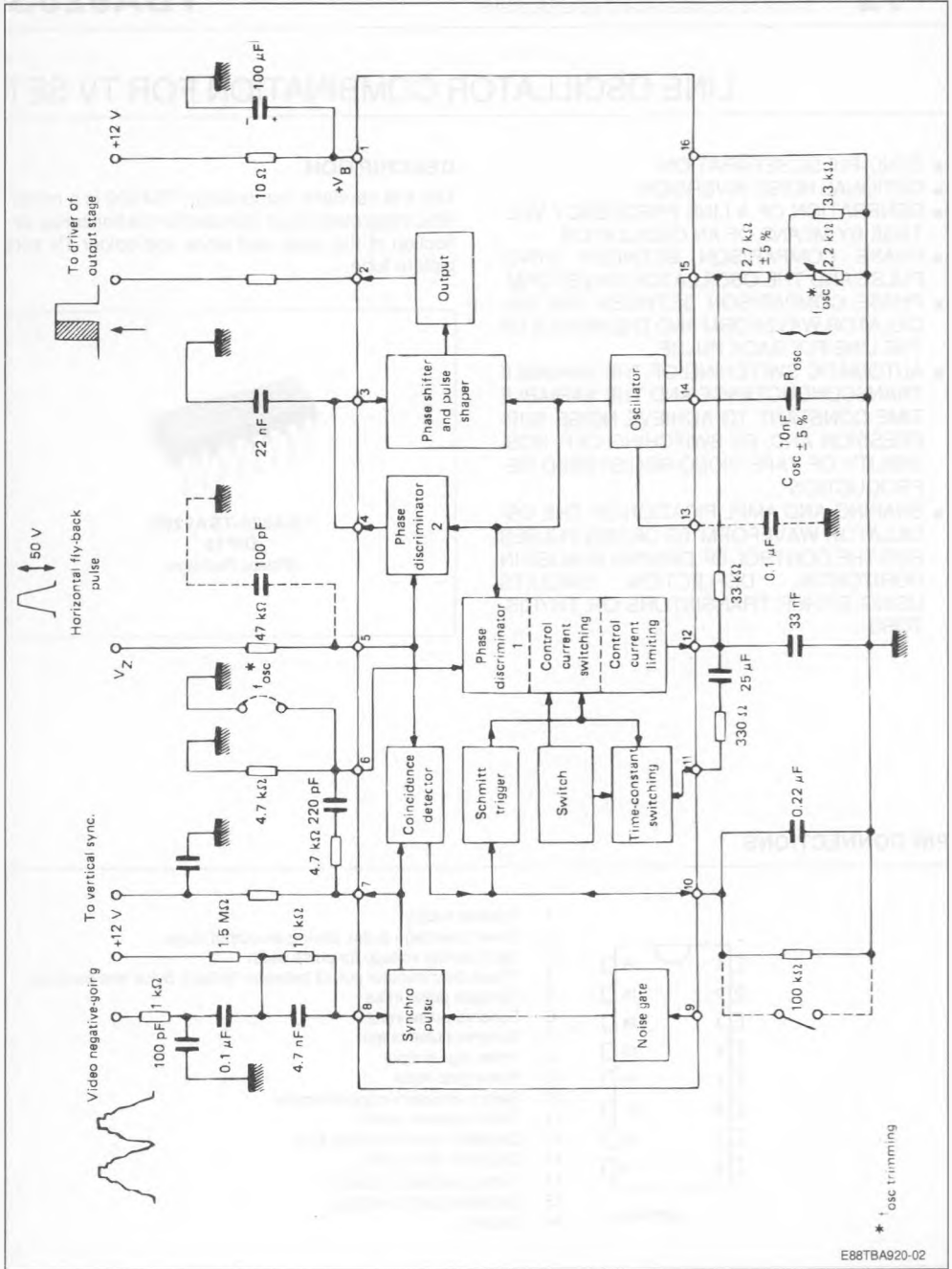
PIN CONNECTIONS



E88TBA920-01

- 1 - Positive supply
- 2 - Driver line stage pulse, driving an output stage
- 3 - Input control voltage for pulse width
- 4 - Phase discriminator output between fly-back pulse and oscillator
- 5 - Fly-back pulse input
- 6 - Synchro-pulse input
- 7 - Synchro pulse output
- 8 - Video signal input
- 9 - Noise gate input
- 10 - Switch emission-magnetoscope
- 11 - Time constant switch
- 12 - Oscillator control voltage loop
- 13 - Oscillator decoupling
- 14 - Tuning oscillator capacitor
- 15 - Oscillator control voltage
- 16 - Ground

BLOCK DIAGRAM



E88TBA920-02

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V _{CC}	Supply Voltage V ₁₋₁₆	4 to 14	V
P _{tot}	Total Power Dissipation	600	mW
T _{amb}	Ambient Temperature	- 20 to 60	°C
T _{stg}	Storage Temperature	- 55 to 150	°C

ELECTRICAL OPERATING CHARACTERISTICS

T_{amb} = 25 °C, V_{CC} = 12 V (unless otherwise specified)

Symbol	Parameter	Min.	Typ.	Max.	Unit
V _I	Video Signal (pin 8) Input Voltage (positive synch-pulse)	1	3	7	V
I _I	Input Current			0.2	mA
I _I	Fly-back (pin 5) Input Current	0.1	1	2	mA
V _I	Input Voltage		± 0.8		V
Z _I	Input Resistance		0.4		kΩ
I _I	Noise Gate (pin 9) Input Current		20		μA
V _I	Input Voltage		0.7		V
V _O	Synchro Pulse (pin 7) Output Voltage	9	10		V
Z _O	Output Impedance on Rise Time		50		Ω
Z _O	Output Impedance on Fall Time		2.2		kΩ
I _O	Line Amplifier Output Current (peak to peak)		25	200	mA
V _O	Output Voltage	9	10		V
t _P	Output Pulse Duration (adjust by V ₃₋₁₆)	12		32	μs
	Fly-back Pulse Phase Control Delay accepted between output pulse and fly-back pulse	0		15	μs
I _O	Output Current During Fly-back Pulse		± 0.5		mA
	Line Oscillator (no synchronized) for 625 Lines		15625 ± 5 %		Hz
	At Supply Cut-off, without synchronized for 625 Lines		15625 ± 10 %		Hz
	Phase Control between Oscillator and Synch-pulse • with Emission Pull in Range		± 1		kHz
	Keep in Range		± 1		kHz
S	Sensibility		3		kHz/μs
	• with Magnetoscope Keep in Range		± 350		Hz
	Pull in Range		± 350		Hz
S	Sensibility		± 1		kHz/μs
For TBA 9205 only					
ΔF _O	Oscillator (pin 14) Oscillator Frequency Spread R ₁₅₋₆ = 3.3 kΩ C ₁₄₋₁₆ = 10 nF		≤ 1.5		%
ΔF _O	Oscillator Frequency Range (figure 1 and 2)		± 5		%
Δt	Phase Position (pin 5-6) Phase spread between Front End Synch Pulse and Fly-back Pulse Center (figure 1)		≤ ± 0.4		μs

APPLICATION : EUROPEAN STANDARD 625 LINES

Figure 1.

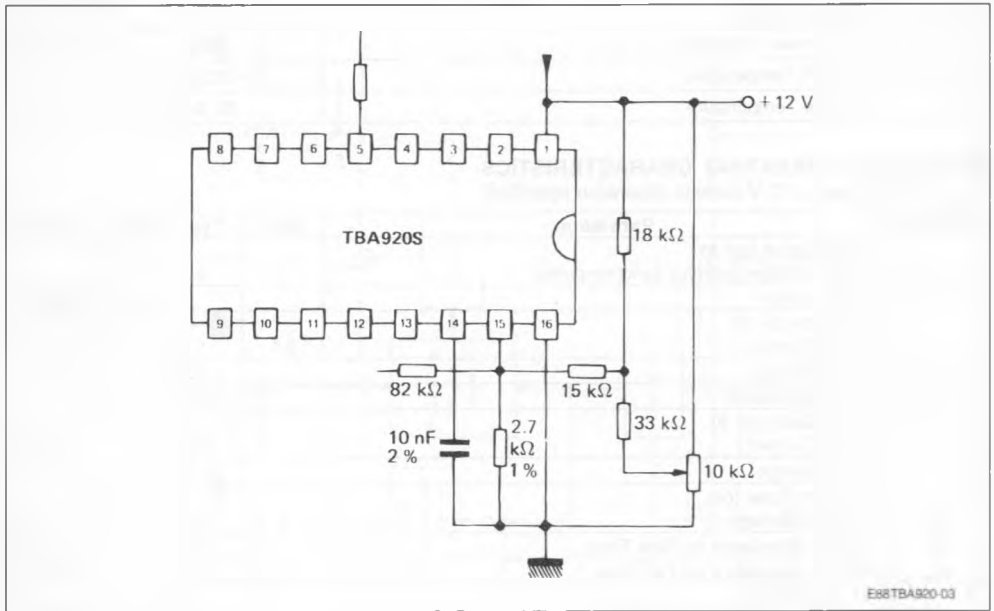
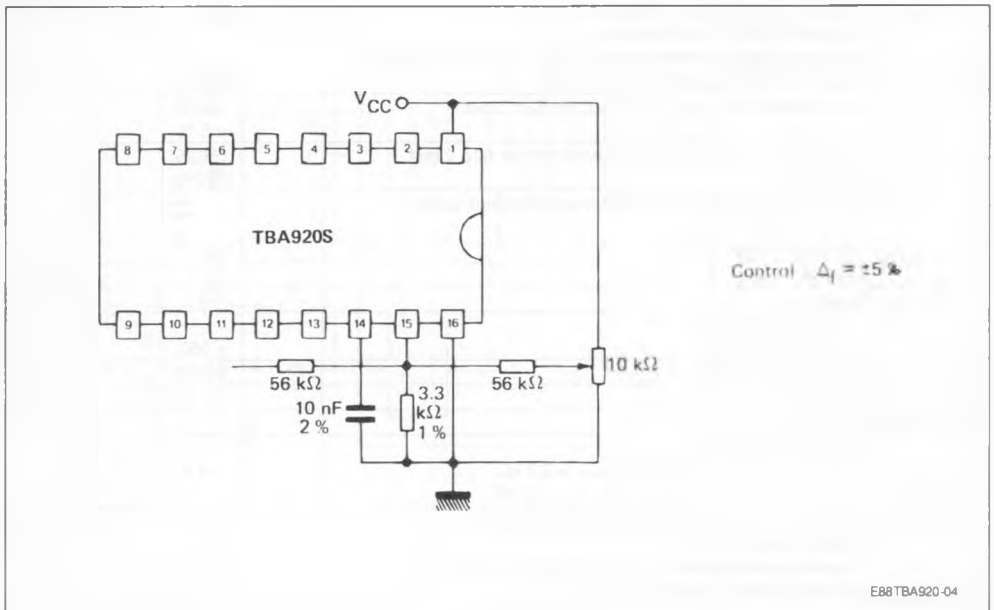


Figure 2.



PACKAGE MECHANICAL DATA

16 PINS – PLASTIC DIP

