

SANYO	No.3804A	LA7217,7217M
	Synchronizing Signal Separator with AFC and Sync Detector	

The LA7217 and 7217M are synchronizing signal separator ICs with AFC and AFC Lock detector designed to be used in video equipments such as VCR and TV sets. VCO with ceramic oscillator and PLL horizontal sync detector provide an adjust-free, precision sync detection system.

Functions

- Horizontal sync separation
- Vertical sync separation
- VCO (32f_H)
- AFC
- Sync signal detection

Features

- Use of a ceramic oscillator requires no adjustment
- Negative polarity output
- High impedance video signal input pin
- 5 V supply voltage

Maximum Ratings at Ta = 25°C

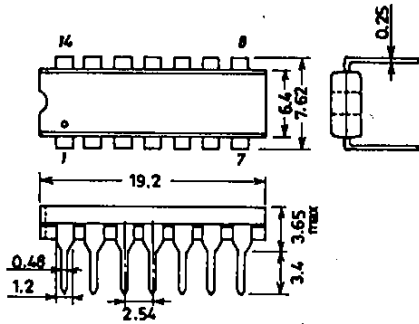
Maximum Supply Voltage	V _{CC} max	Quiescent time	7	unit
Allowable Power Dissipation	P _d max		150	V
Operating Temperature	T _{opr}		-15 to +65	mW
Storage Temperature	T _{stg}		-40 to +125	°C

Operating Conditions at Ta = 25°C

Recommended Supply Voltage	V _{CC}		5.0	unit
Operating Voltage Range	V _{CC} op		4.5 to 5.5	V

Package Dimensions 3003A

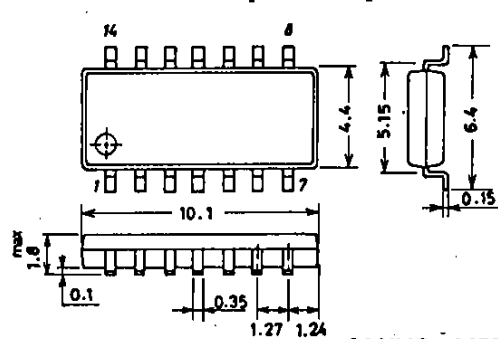
(unit: mm) [LA7217]



SANYO : DIP14

Package Dimensions 3034A

(unit: mm) [LA7217M]

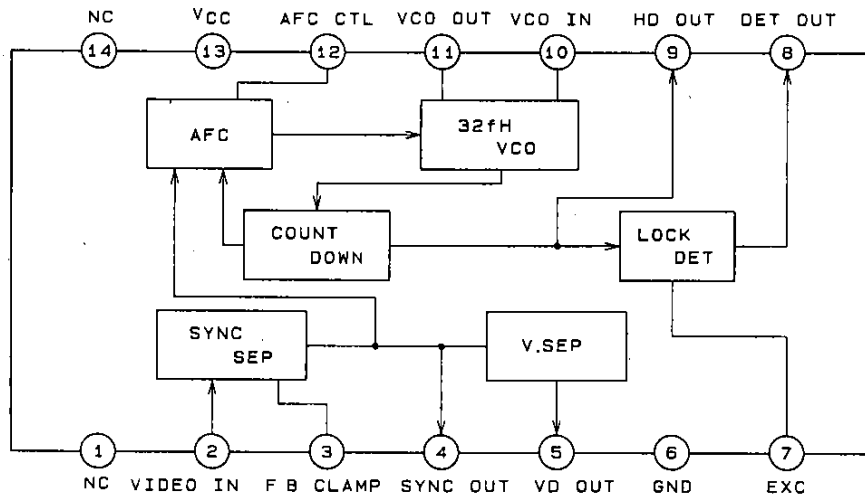


SANYO : MFP14

Operating Characteristics at Ta = 25°C, VCC = 5 V

			min	typ	max	unit
Current Dissipation	ICC	Standard color bar input	4.9	7	9.1	mA
Minimum Separable Input Voltage	VI min		-15	-11	-8	dB
HD Output Delay Time	THD	From pin 2 to pin 9	0.1	0.5	0.9	μs
HD Output Pulse Width	THW		3.6	4.0	4.4	μs
VD Output Delay Time	TVD	From pin 2 to pin 5	9	13	17	μs
VD Output Pulse Width	TVW		0.16	0.21	0.26	ms
Free-running Frequency	FO	SW1 off	15.4	15.75	16.1	kHz
Capture Range 1	FCH	Judgment by comparison of pin 9 with pin 2	300	500		Hz
Capture Range 2	FCL	Judgment by comparison of pin 9 with pin 2	1000	1500		Hz
SYNC Out, H Voltage	VSH	Level on pin 4	3.9	4.2		V
SYNC Out, L Voltage	VSL	Level on pin 4		0.8	1.0	V
HD Out, H Voltage	VHH	Level on pin 9	3.9	4.2		V
HD Out, L Voltage	VHL	Level on pin 9		0.8	1.0	V
VD Out, H Voltage	VVH	Level on pin 5	3.9	4.2		V
VD Out, L Voltage	VVL	Level on pin 5		0.8	1.0	V
DET Out, H Voltage	VDH		4.8	5.0		V
DET Out, L Voltage	VDL	SW1 off		0.1	0.3	V
Comparator Threshold H Voltage	VTH	SW2-a	2.7	2.95	3.2	V
Comparator Threshold L Voltage	VTL	SW2-a	2.4	2.7	3.0	V
Threshold Width	VTW	VTH-VTL	0.10	0.22	0.40	V
DET Operating Current, H	IDH	SW2-b	40	65	90	μA
DET Operating Current, L	IDL	SW2-b	40	65	90	μA

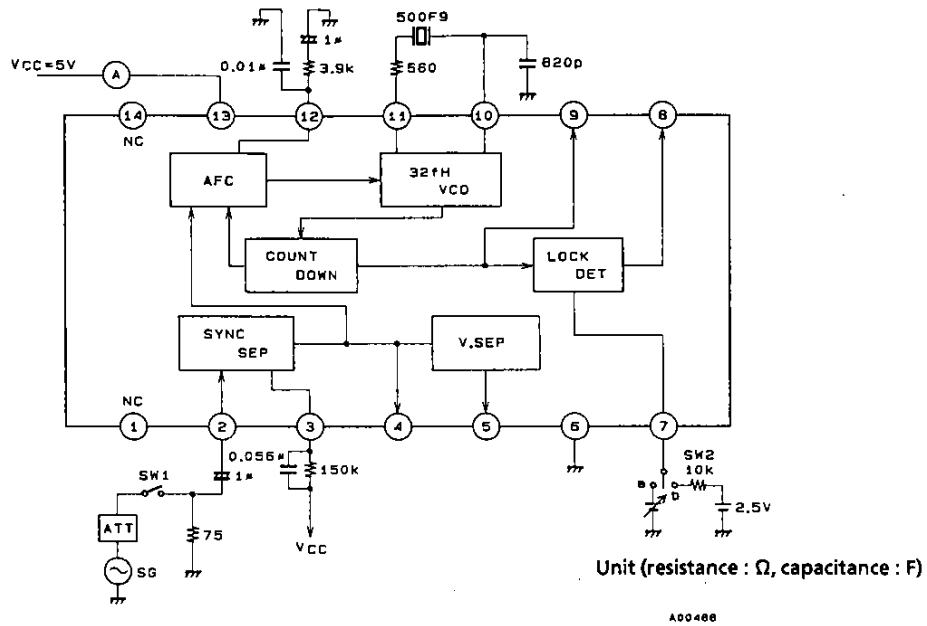
Block Diagram



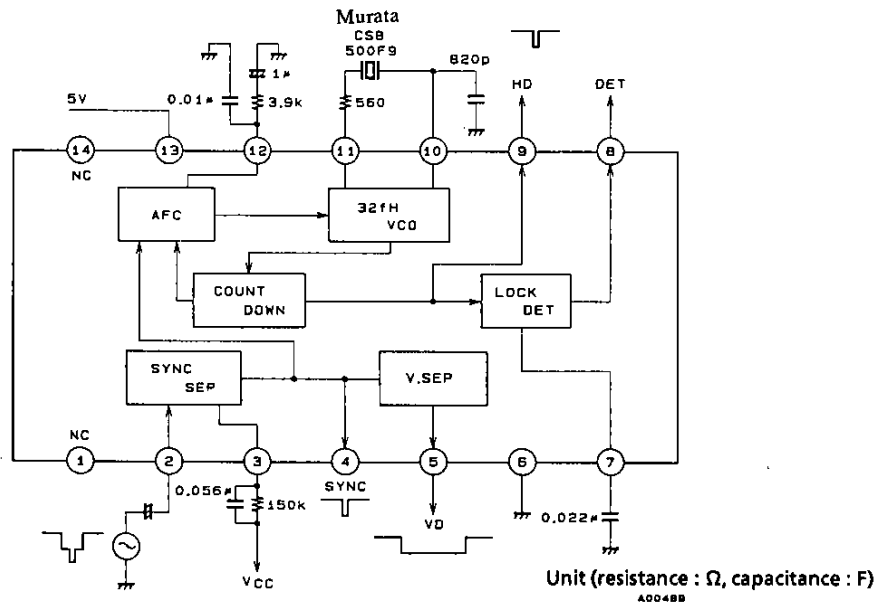
A00487

LA7217, 7217M

Test Circuit



Typical Application



- DET OUT becomes H upon lock
- When feeding video signal to the input pin directly, keep DC level between 2 and 3.5 volts.
- Standard video input is 1 Vp-p

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