

## BASEBAND DELAY LINE

### GENERAL DESCRIPTION

The ILA4661 is an integrated baseband delay line circuit with one line delay. It is suitable for decoders with colour-difference signal outputs  $\pm$  (R-Y) and  $\pm$  (B-Y). Device is functionally identical to the TDA4661 Philips.

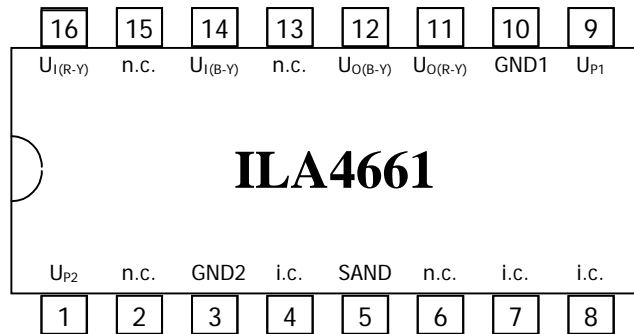
### FEATURES

- Two comb filters, using the switched-capacitor technique, for one line delay time (64  $\mu$ S)
- 3 MHz internal clock signal derived from a 6 MHz CCO, line-locked by the sandcastle pulse (64  $\mu$ S line)
- Comb filtering functions for NTSC colour-difference signals to suppress cross-colour
- Clamping of AC-coupled input signals  $\pm$  (R-Y) and  $\pm$  (B-Y)

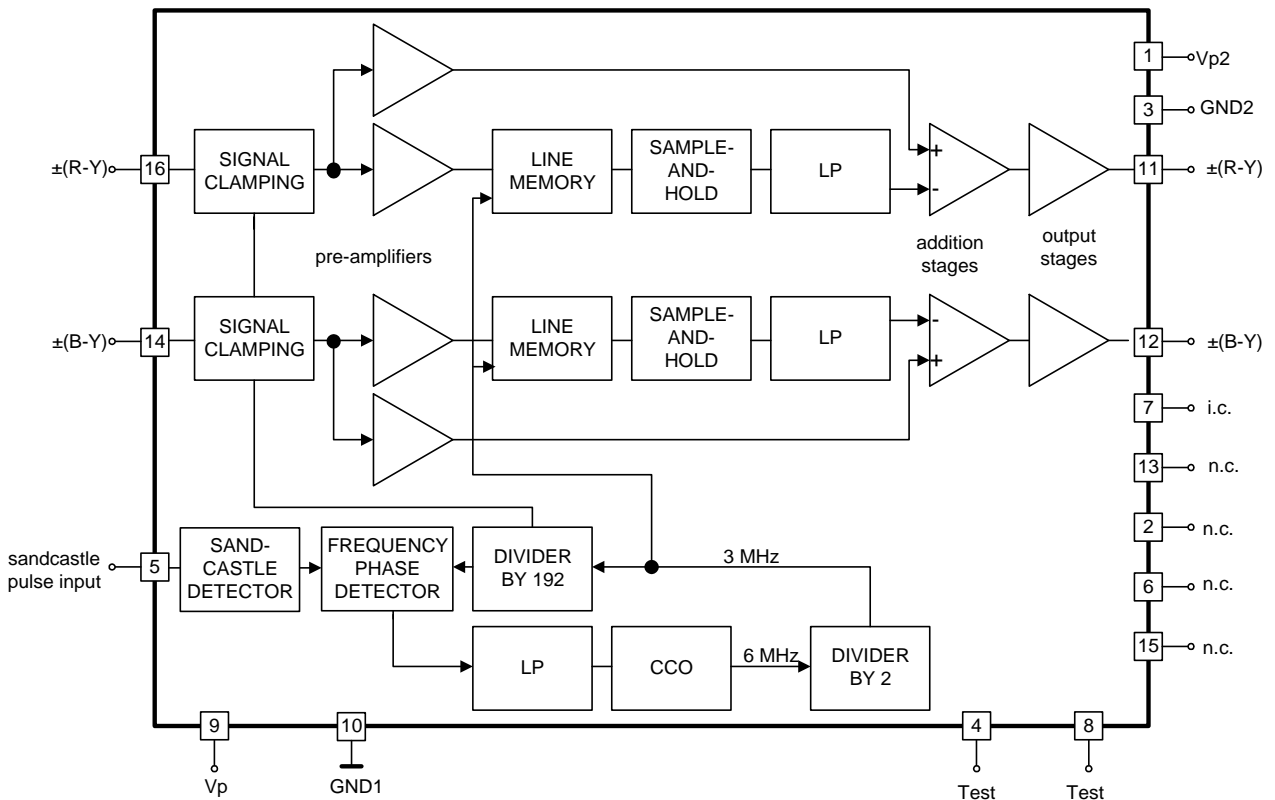
### QUICK REFERENCE DATA

Parameter	Symbol	Type $U_{VCC}=5.0$ V		
		Min.	Type	Max
Analogy supply current, mA	$I_{p1}$	-	-	6.0
Digital supply current, mA	$I_{p2}$	-	-	1.0
Input fixing voltage (on pins 14 and 16), V	$U_{14,16}$	1.3	-	1.7
Output voltage (on pins 11 and 12), V	$U_{11,12}$	2.5	-	3.3
Output signal (peak-to-peak value)				
$\pm$ (R-Y) on pin 11	$U_{011}$	-	1.05	-
$\pm$ (B-Y) on pin 12	$U_{012}$	-	1.33	-
Ratio of output amplitudes at equal input signals ( $U_{14}=U_{16}=1.33$ V), dB	$U_{11}/U_{12}$	-0.4	-	0.4
Ratio of output signals on pins 11 and 12 for adjacent time samples at constant input signals ( $U_{14}=U_{16}=1.33$ V), dB	$U_n/U_{n+1}$	-0.1	-	0.1
Gain for PAL and NTSC	$G_v$	5.3	-	6.3
Gain for SECAM (ratio $U_o/U_i$ ), dB		-0.6	-	0.4
Delay of delayed signals, $\mu$ S	$t_d$	63.94	-	64.06
Delay of non-delayed signals, nS	$t_{dn}$	40	-	80
Transient time of delayed signal on pins 11 respectively 12, nS	$t_{tr}$	-	350	-
Transient time of non-delayed signal on pins 11 respectively 12, nS	$t_{trn}$	-	320	-
Noise voltage (RMS value; pins 11 and 12), mV	$U_n$	-	-	1.2
Weighted signal-to-noise ratio, dB	S/N(w)	-	54	-

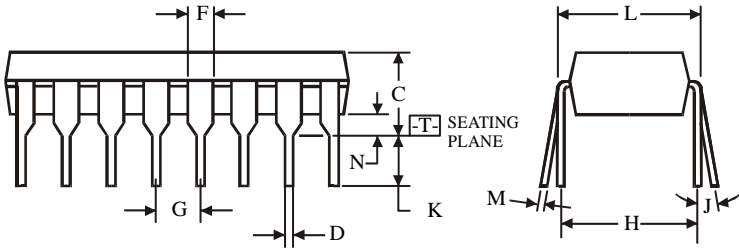
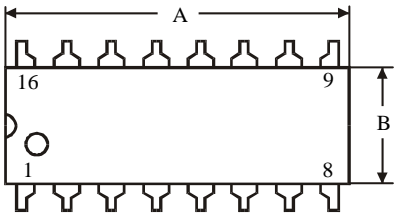
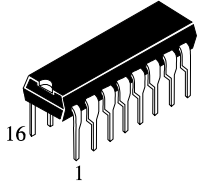
**PIN CONFIGURATION**



**BLOCK DIAGRAM**



**N SUFFIX PLASTIC DIP  
(MS - 001BB)**



$\oplus 0.25 (0.010) \text{ (M) T}$

**NOTES:**

- 1. Dimensions "A", "B" do not include mold flash or protrusions.  
Maximum mold flash or protrusions 0.25 mm (0.010) per side.

Symbol	Dimension, mm	
	MIN	MAX
A	18.67	19.69
B	6.1	7.11
C		5.33
D	0.36	0.56
F	1.14	1.78
G	2.54	
H	7.62	
J	0°	10°
K	2.92	3.81
L	7.62	8.26
M	0.2	0.36
N	0.38	