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NTE1208
Integrated Circuit
CMOS, Phase Comparator

Description:

The NTE1208 is an integrated circuit in a 9–Lead SIP type package consisting of a digital phase comparator and an amplifier. Three state output connected to low pass filter (using an internal amplifier) will produce DC voltage to control a VCO.

Low state pulses appear on phase out as long as the loop is unlocked and these can be utilized as lock indicator.

Absolute Maximum Ratings: (T_A = +25°C unless otherwise speciied)

Supply Voltage, V_{DD} 10V
Input Voltage, V_{IN} . . . . . –0.3V to V_{DD}+0.3V
Operating Temperature Range, T_{opr} . . . . . –30° to +75°C
Storage Temperature Range, T_{stg} . . . . . –55° to +125°C

Electrical Characteristics: (T_A = –35° to +75°C, V_{DD} = 7.5V unless otherwise speciied)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Operating Supply Voltage	V_{DD}		4.5	–	8.0	V
Output Voltage, “H” Level	V_{OH}	V_{IL} = 1.6V, V_{IH} = 6.6V, I_{OH} = –50µA	7.3	–	–	V
Output Voltage, “L” Level	V_{OL}		–	–	0.2	V
Quiescent Current	I_{DD}	V_{IH} = 7.5V, V_{IL} = 0V	–	–	200	µA
3 State Leakage Current	I_{TLH}		–	–	500	nA
	I_{TLL}		–	–	–500	nA
Filter Amp Voltage Gain	A_V	$R_{1–2}$ = 1MΩ, f_{IN} = 1kHz, R_g = 600Ω	–	3.0	–	dB

Pin Connection Diagram
(Front View)