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NTE1199 Integrated Circuit CMOS Frequency Divider

Description:

The NTE1199 is an LSI CMOS circuit in a 24-Lead DIP type package designed for use in frequency divider applications in CB transceivers. This device contains a prescaler, divider, and binary input programmable circuitry.

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Supply Voltage, V_{DD}	-0.3 to +6.0V
Input Voltage, V_I	-0.3 to +6.0V
Output Voltage, V_O	-0.3 to +6.0V
Output Current, I_O	
Pins 17, 21, 22, 24	$\pm 5\text{mA}$
Pins 13, 19	$\pm 10\text{mA}$
Operating Temperature Range, T_{opr}	-30° to $+60^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+125^\circ\text{C}$

Electrical Characteristics: ($V_{DD} = +5\text{V}$, $T_A = -30^\circ$ to $+60^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Voltage High Level	V_{IH}	All Inputs	4.0	-	$+V_{DD}$	V
	V_{IL}	All Inputs	-0.3	-	1.25	V
Output Voltage (Pins 17, 21, 22, 24) High Level	V_{OH}	$I_O = -300\mu\text{A}$	2.4	-	$+V_{DD}$	V
	V_{OL}	$I_O = 300\mu\text{A}$	-0.3	-	0.4	V
Output Voltage (Pins 13, 19) High Level	V_{OH}	$I_O = -4.8\text{mA}$	2.4	-	$+V_{DD}$	V
	V_{OL}	$I_O = 4.8\text{mA}$	-0.3	-	0.4	V
Total Current	I_{DD}	$f = 0$	-	10	-	mA
Count Pulse Rise Time	t_r	See Pulse Definition (Fig. 1)	-	-	5	μs
Count Pulse Fall Time	t_f		-	-	5	μs
Input Capacitance (Pins 14, 16, 18)	C_I	$V_I = 0$	-	-	10	pF
Frequency Response	f_s	Prescaler	10	-	-	MHz
	f_d	Divider	7	-	-	MHz
	f_p	Programmable Divider (Apply Program Table, Fig. 2)	5	-	-	MHz

Pin Connection Diagram

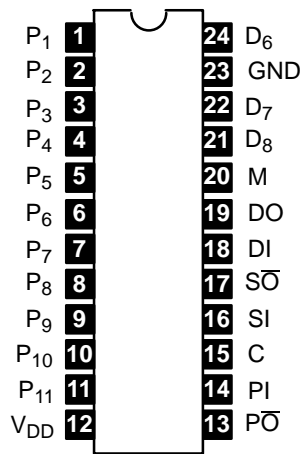


Fig. 1 Pulse Definition

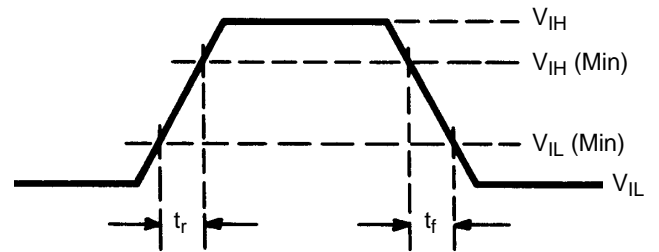


Fig. 2 Program Table

	P ₁	P ₂	P ₃	P ₄	P ₅	P ₆	P ₇	P ₈	P ₉	P ₁₀	P ₁₁
Pat. 1	1	0	0	1	1	0	0	1	1	1	1
Pat. 2	0	1	1	0	0	1	1	0	0	0	0
Pat. 3	1	1	0	0	0	0	0	0	0	0	0

