

NLB6201

NEL
SELIC

Quad 3 input OR/NOR

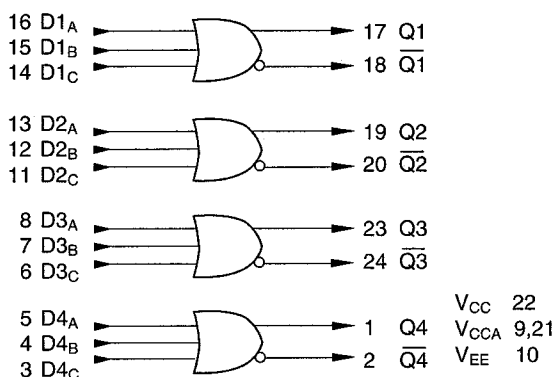
Description

The NLB6201 is an ultra high-speed monolithic quad 3-input OR/NOR gates.

Features

- Typical AC characteristics
Data rate up to 3.5 Gb/s.
 $t_r=120ps$
 $t_f=120ps$
- Internal pull down resistors on input pins to maintain logic LOW level with the pins left open.
- ECL 100K compatible I/O levels.
- Differential outputs.

Logic Symbol



Truth table

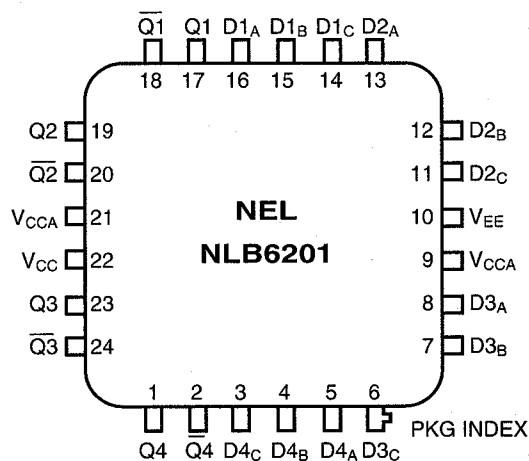
Input			output	
D_{nA}	D_{nB}	D_{nC}	Q_n	$\overline{Q}_n$
L	L	L	L	H
H	L	X	H	L
X	H	L	H	L
L	X	H	H	L
H	H	H	H	L

X : Arbitrary

H : High voltage level

L : Low voltage level

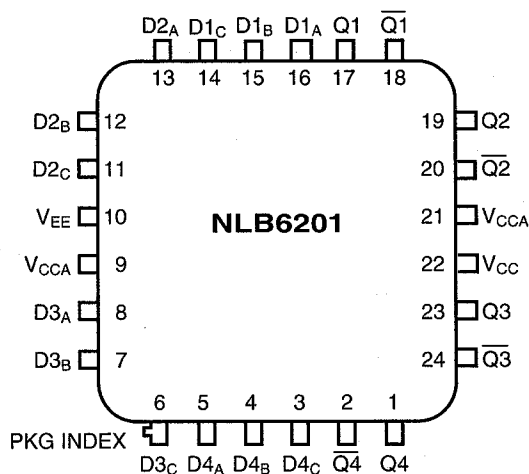
Pin Assignment Top View (Ceramic)



Pin Name

$D_n \sim D_n$	Data inputs
$Q_n, \overline{Q}_n$	Data outputs
V_{CC}	Circuit GND
V_{CCA}	Circuit GND for outputs
V_{EE}	-4.5V

Back View (Metal Cap)



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Quint 3 input OR/NOR

DC Characteristics

$V_{EE} = -4.5V \pm 0.3V$, $V_{CC} = V_{CCA} = GND$, $V_{TT} = -2V$, $T_C = 0^{\circ}C$ to $+85^{\circ}C$, $R_T = 50\Omega$ to V_{TT}

Characteristics	Symbol	Min.	Typ.	Max.	Unit
Power supply current	I_{EE}	80	140	190	mA

AC Characteristics

$V_{EE} = -4.5V \pm 0.3V$, $V_{CC} = V_{CCA} = GND$, $V_{TT} = -2V$, $T_C = 0^{\circ}C$ to $+85^{\circ}C$, $R_T = 50\Omega$ to V_{TT}

Characteristics	Symbol	Min.	Typ.	Max.	Unit
Propagation delay to output	t_{PLH}		280	380	ps
	t_{PHL}		285	390	
Rise time 20% to 80%	t_r		120	160	
Fall time 80% to 20%	t_f		120	160	

Typical Output Voltage Swing

$V_{EE} = -4.5V$, $V_{CC} = V_{CCA} = GND$, $V_{TT} = -2V$, $R_T = 50\Omega$ to V_{TT}

