NLB6210

NEL
SELIC

Dual 4 fan-out Buffer

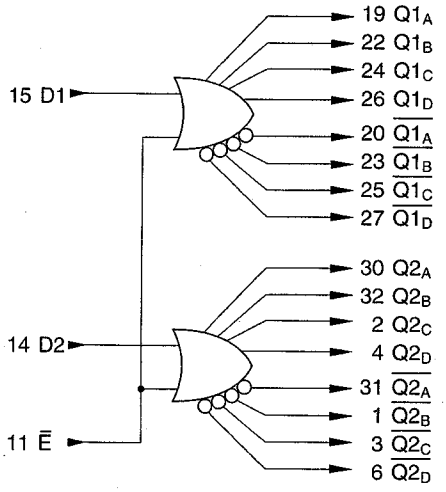
Description

The NLB6210 is an ultra high-speed monolithic dual 4 fan-out Buffers.

Features

- Typical AC characteristics
  Data rate up to 4 Gb/s.
  t_r=190ps
  t_f=200ps
- 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



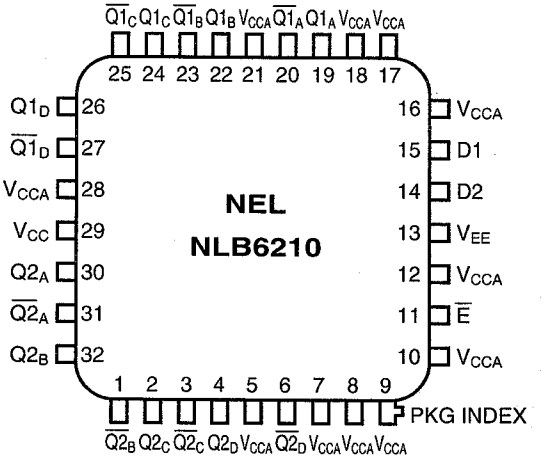
V_{CC}	29
V_{CCA}	5,7~10,12,16~18,21,28
V_{EE}	13

Truth table

Input		output	
$\overline{E}$	Dn	Qn	$\overline{Qn}$
L	L	L	H
L	H	H	L
H	X	H	L

H : High voltage level
L : Low voltage level
X : Arbitrary

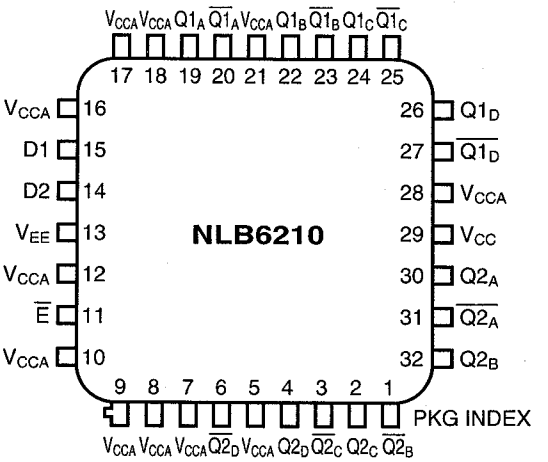
Pin Assignment
Top View (Ceramic)



Pin Name

Dn	Data inputs
$Qn_{A\sim D}$, $\overline{Qn_{A\sim D}}$	Data outputs
$\overline{E}$	Data enable input
V_{CC}	Circuit GND
V_{CCA}	Circuit GND for outputs
V_{EE}	-4.5V

Back View (Metal Cap)



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DC Characteristics

V_{EE}=-4.5V±0.3V, V_{CC}=V_{CCA}=GND, V_{TT}=-2V, T_C=0°C to +85°C, R_T=50Ω to V_{TT}

Characteristics	Symbol	Min.	Typ.	Max.	Unit
Power supply current	I_{EE}	80	130	190	mA

AC Characteristics

V_{EE}=-4.5V ±0.3V, V_{CC}=V_{CCA}=GND, V_{TT}=-2V, T_C=0°C to +85°C, R_T=50Ω to V_{TT}

Characteristics	Symbol	Input	output	Min.	Typ.	Max.	Unit
Propagation delay time to output	t_{PLH}	Dn	Qn		345	460	ps
	t_{PHL}				350	465	
	t_{PLH}	$\overline{E}$			365	485	
	t_{PHL}				340	455	
Skew between outputs	t_{SO}				50		
Rise time 20% to 80%	t_r	Dn,$\overline{E}$			190	255	
Rise time 20% to 80%	t_f				200	270	

Typical Output Voltage Swing

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