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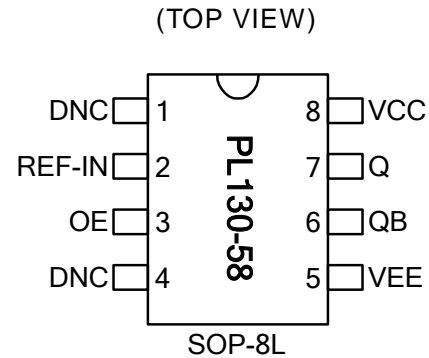
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## High Speed Translator Buffer to PECL

### FEATURES

- Input clock frequency  $\leq 266$  MHz
- JEDEC standard Differential LVPECL output
- 70mA typical power supply current
- 300ps Max. Rise/Fall time
- 740ps input propagation delay
- LVC MOS and LVTTTL Input compatible
- Single 2.5V  $\pm 5\%$  or 3.3V  $\pm 10\%$  power supply with  $V_{EE}=0V$
- Available in 8 pin SOP Green/RoHS compliant Package

### PIN CONFIGURATION

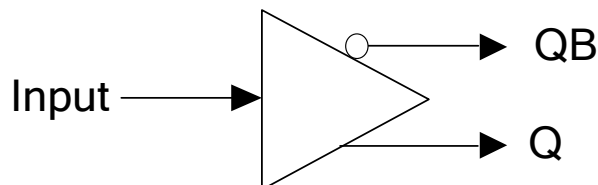


### DESCRIPTION

The PL130-58 is a low cost, high performance, high speed, translator buffer that produces a pair of differential LVPECL outputs from CMOS input. Outputs are JEDEC standard LVPECL signals.

The device is targeted for Backplane buffering, data distribution, Fibre Channel and many other applications.

### BLOCK DIAGRAM



**High Speed Translator Buffer to PECL**
**PIN DESCRIPTIONS**

Name	SOP-8L	Type	Description
DNC	1, 4	-	Do Not Connect
REF-IN	2	Input	Reference input signal. The frequency of this signal will be reproduced at the output (after translation to PECL level).
OE	3	Input	Output enable ('1' for enable). Internal pull-up (default is '1').
VEE	5	Power	Power Ground.
QB	6	Output	PECL Complementary output.
Q	7	Output	PECL True output.
VCC	8	Power	Positive Power Supply.

**ELECTRICAL SPECIFICATIONS**
**1. Absolute Maximum Ratings**

PARAMETERS	SYMBOL	MIN.	MAX.	UNITS
Supply Voltage	$V_{DD}$		4.6	V
Input Voltage, dc	$V_I$	-0.5	$V_{DD}+0.5$	V
Output Voltage, dc	$V_O$	-0.5	$V_{DD}+0.5$	V
Storage Temperature	$T_S$	-65	150	°C
Ambient Operating Temperature*	$T_A$	-40	85	°C
Junction Temperature	$T_J$		110	°C
Lead Temperature (soldering, 10s)			260	°C

Exposure of the device under conditions beyond the limits specified by Maximum Ratings for extended periods may cause permanent damage to the device and affect product reliability. These conditions represent a stress rating only, and functional operations of the device at these or any other conditions above the operational limits noted in this specification is not implied.

\* Note: Operating Temperature is guaranteed by design for all parts (COMMERCIAL and INDUSTRIAL), but tested for COMMERCIAL grade only.

**2. AC Specifications**

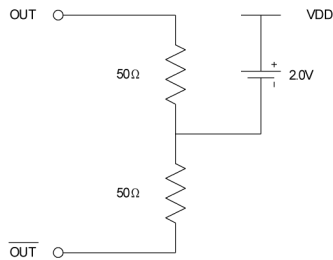
PARAMETERS	CONDITIONS	MIN.	TYP.	MAX.	UNITS
Input Frequency				266	MHz
Output Frequency				266	MHz

## High Speed Translator Buffer to PECL

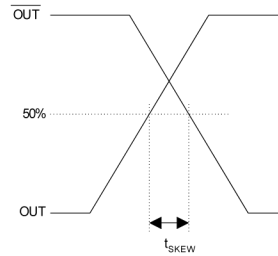
### 6. PECL Switching Characteristics

PARAMETERS	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNITS
Clock Rise Time	$t_r$	@20/80% of output waveform			300	ps
Clock Fall Time	$t_f$	@80/20% of output waveform			300	ps

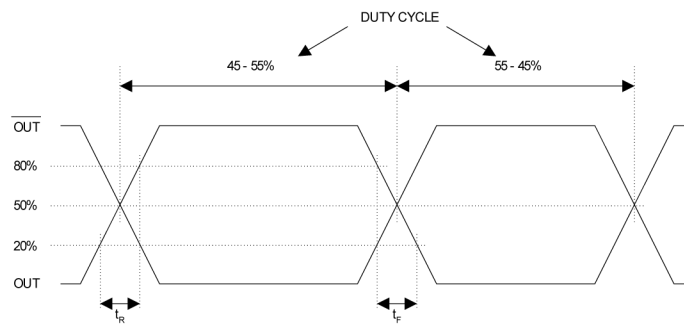
PECL Levels Test Circuit



PECL Output Skew



PECL Transition Time Waveform

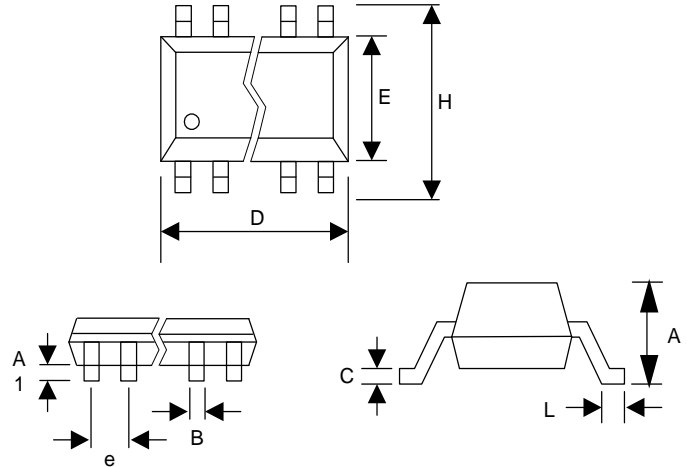


## High Speed Translator Buffer to PECL

### PACKAGE INFORMATION (GREEN PACKAGE COMPLIANT)

#### 8 PIN (dimensions in mm)

SOP-8L		
Symbol	Min.	Max.
A	1.47	1.73
A1	0.10	0.25
B	0.33	0.51
C	0.19	0.25
D	4.80	4.95
E	3.80	4.00
H	5.80	6.20
L	0.38	1.27
e	1.27 BSC	



### ORDERING INFORMATION

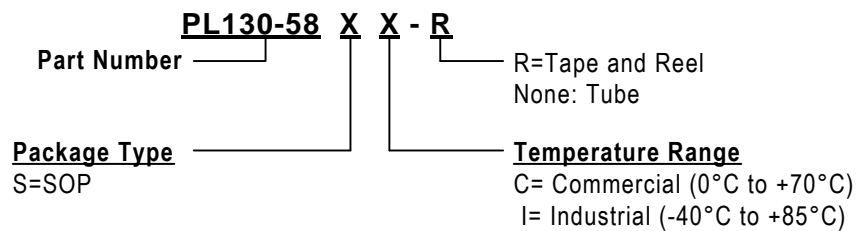
**For part ordering, please contact our Sales Department:**

2180 Fortune Drive, San Jose, CA 95131, USA

Tel: (408) 944-0800 Fax: (408) 474-1000

#### PART NUMBER

The order number for this device is a combination of the following:  
Part number, Package type and Operating temperature range



Order Number	Marking	Package Option
PL130-58SC-R	P130-58	SOP-8L - Tape and Reel
PL130-58SC	SC LLLLL	SOP-8L - Tube

\*Note: LLLLL designates lot number

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