

# **VLN9TS14A-4T4BL**

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## **4 INPUT 4 BUSY LOW TOUCH IC**

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## General Description

### Operating method :

Input : 4 touch keys (PA0, PA1, PA2, PA3) ◦

Output : 4 outputs (PE0, PE1, PE2, PE3) ◦

### Trigger mode :

PA0, PA1, PA2, PA3 : Touch Key ◦ L/H ◦

### Output signal : (PE0~PE3: CSC-100%)

PE0 : Normal-IO, Busy-Low (Control Low-Trigger IC)

PE1 : Normal-IO, Busy-Low (Control Low-Trigger IC)

PE2 : Normal-IO, Busy-Low (Control Low-Trigger IC)

PE3 : Normal-IO, Busy-Low (Control Low-Trigger IC)

## DC Characteristics

VDD: 2.0 ~ 6.0V

Isb: 2.3uA@3.0V, 4.1uA@4.5V,  
(Touch Scan)

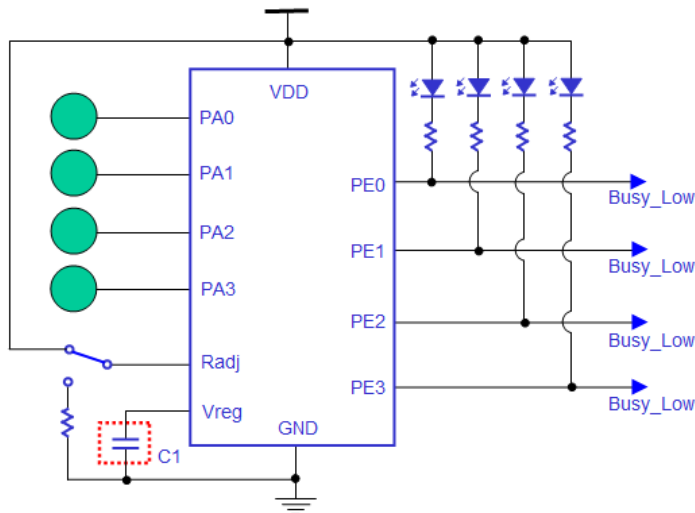
Iop (no load) : 350uA @3.0V  
500uA @4.5V

(CSC-100%) Iol : 19mA @3.0V  
20mA @4.5V

Oscillation Frequency : 400KHz

Low Voltage Reset : 1.8V

## Application circuit & Bonding diagram



\* Radj is set for sensitivity adjustment (w/o connected resistor,  
Radj has to connect to VDD)

\* In AC power condition, adding a C1 (102~104) if noise is high  
In DC, C1 is not needed (note: C1 value high, Isb high)

## Function Description

PA0, PA1, PA2, PA3 execute Level Hold function, PE0, PE1, PE2, PE3 output low level to control LED or Low-Trigger IC (example: VLN4, VLN5 or VLN7 Speech IC) ◦

When PA0 is touched, PE0 outputs low level. If not, PE0 will output high level as initial status.

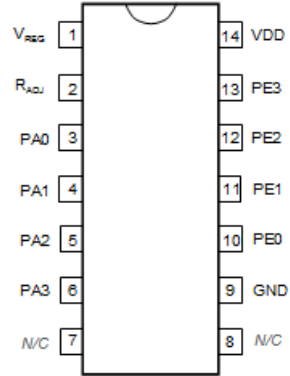
When PA1 is touched, PE1 outputs low level. If not, PE1 will output high level as initial status.

When PA2 is touched, PE2 outputs low level. If not, PE2 will output high level as initial status.

When PA3 is touched, PE0 outputs low level. If not, PE3 will output high level as initial status.

**Package IC pin definition**

**SOP-14 (4\*Touch, 4\*Out)**



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