

Question1

1 Features

- 1-of-4 Bidirectional Translating Switches
- I²C Bus and SMBus Compatible
- Four Active-Low Interrupt Inputs
- Active-Low Interrupt Output
- Three Address Pins, Allowing up to Eight Devices on the I²C Bus
- Channel Selection Via I²C Bus
- Power Up With All Switch Channels Deselected
- Low R_{ON} Switches
- Allows Voltage-Level Translation Between 1.8-V, 2.5-V, 3.3-V, and 5-V Buses
- No Glitch on Power Up
- Supports Hot Insertion
- Low Standby Current
- Operating Power-Supply Voltage Range of 2.3 V to 5.5 V
- **5.5-V Tolerant Inputs**
- 0 to 400-kHz Clock Frequency
- Latch-Up Performance Exceeds 100 mA Per JESD 78
- ESD Protection Exceeds JESD 22
 - 2000-V Human-Body Model (A114-A)
 - 200-V Machine Model (A115-A)
 - 1000-V Charged-Device Model (C101)

The pass gates of the switches are constructed such that the V_{CC} pin can be used to limit the maximum high voltage, which will be passed by the PCA9544A. This allows the use of different bus voltages on each pair, so that 1.8-V, 2.5-V, or 3.3-V parts can communicate with 5-V parts, without any additional protection. External pull-up resistors pull the bus up to the desired voltage level for each channel. **All I/O pins are 5-V tolerant.**

7.1 Absolute Maximum Ratings⁽¹⁾

over operating free-air temperature range (unless otherwise noted)

	MIN	MAX	UNIT
V _{CC} Supply voltage range	-0.5	7	V
V _I Input voltage range ⁽²⁾	-0.5	7	V

7.3 Recommended Operating Conditions⁽¹⁾

	MIN	MAX	UNIT
V _{CC} Supply voltage	2.3	5.5	V
V _{IH} High-level input voltage	SCL, SDA	0.7 × V _{CC}	6
	A2-A0, INT3-INT0	0.7 × V _{CC}	V _{CC} + 0.5

All I/O pins are 5-V tolerant

→ Are I/O pin SDA, SCL, SD0_3, SC0_3 only?

So I would like to know which pins whether it have ESD cell.

Question2

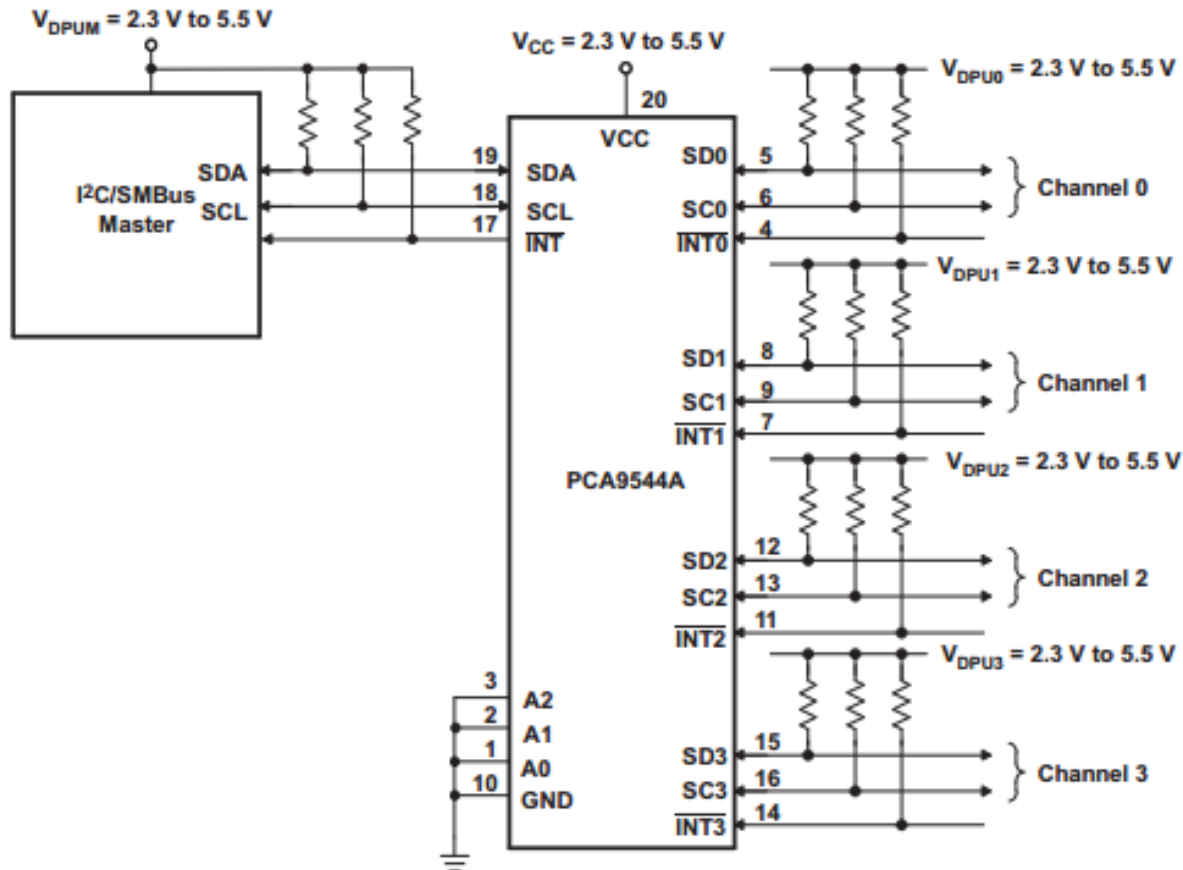


Figure 11. Typical Application

Is this typical application 's power supply the same power supply?
Can we supply power this device difference power supply to each line?
I think that INT0_3 are not tolerant input, so if this application is
difference power supply, this device can not be used.