PROXIMITY SENSORS
LIGHT TO DIGITAL - VCNL4X / VCNL3X SERIES

FEATURES

Presence and **proximity** sensing up to **1.5 m**

Programmable emitter current

Upper and lower thresholds and interrupt functions

16-bit resolution

Low profile of **0.75 mm**

Connects directly to a microcontroller via I^2C

Fully integrated solutions with infrared emitter, proximity photodiode, and signal conditioning IC



APPLICATIONS

- Touchscreen locking to save power in mobile devices (e.g., smartphones, touch phones, PDAs, GPS)
- Presence detection in automobiles
- Attract mode engagement
- Automatic doors, faucets, and toilets
- Cliff detection and docking for robots
- Edge of table detection and collision avoidance for toys



COMPETITIVE ADVANTAGE

- Sensors include an **16-bit** ambient light sensor at no extra cost
- Optical noise suppression

Part Number	L (mm)	W (mm)	H (mm)	IR LED	Proximity	ALS	Interrupt	Package	Range (m)	Remark
VCNL4030X01	4.00	2.36	0.75	•	•	•	•	FAM	0.3	Integrated proximity sensor, ALS, and IRED with four I^2C addresses
VCNL3030X01	4.00	2.36	0.75	•	•		•	FAM	0.3	Lowest profile package, AEC-Q101 qualified
VCNL4040	4.00	2.00	1.10	•	•	•	•	PCB	0.2	Smallest package in the market, improved ALS with Filtron™
VCNL4200	8.00	3.00	1.80	•	•	•	•	PCB	1.5	1.5 m proximity

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