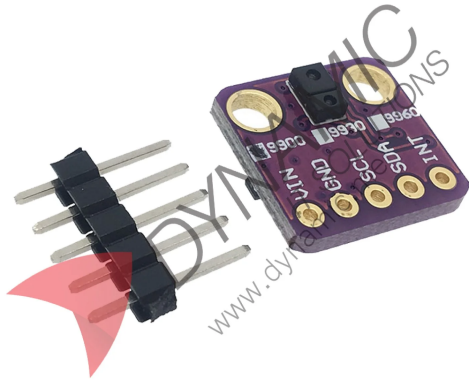


RGB and Gesture Sensor APDS-9960



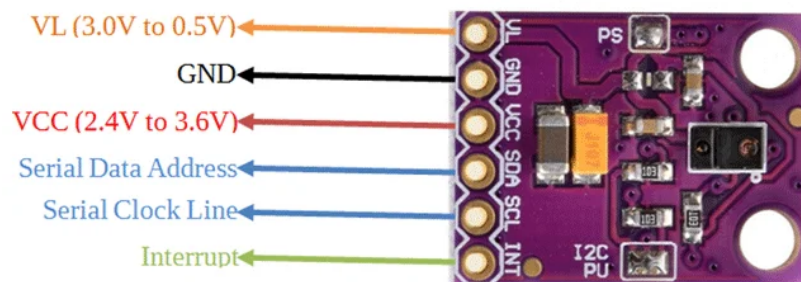
Features:

The APDS-9960 RGB and Gesture Sensor Module offers advanced optical sensing capabilities in a compact breakout format. It integrates gesture recognition, proximity detection, ambient light sensing, and RGB color sensing using a single I2C interface. Designed for intuitive touchless control, it features UV and IR blocking filters, directional photodiodes, programmable LED current control, and a high-sensitivity detection range of 10–20 cm. Ideal for embedded systems, smartphones, robotics, and smart interfaces, the module enables gesture-based navigation and ambient sensing behind dark glass surfaces.

Specifications	
Sensor Model	APDS-9960
Functionality	Gesture sensing, proximity, ambient light, RGB color detection
Detection Range (Gesture)	4–8 inches (10–20 cm)
IR LED Control	Programmable current driver
Integration Time	Programmable
Gain	Programmable
Sensitivity	High (supports detection behind dark glass)
Data Storage	32-byte FIFO buffer
Interface	I2C (Fast Mode up to 400 kHz)
Interrupt Support	Yes (dedicated INT pin)
Filters	UV and IR blocking
Supply Voltage	3.3 V – 5 V (depending on module)
Operating Temperature	-25°C to +85°C
Module Dimensions (approx.)	3.94 mm x 2.36 mm x 1.35 mm (sensor IC)
Use Cases	Touchless control panels, gesture-based UIs, robotics, smart lighting, mobile device interaction

Pinouts:

Pin Name	Type	Description
VIN	Power Input	Replaces both VCC and VL; powers sensor and IR LED
GND	Power Ground	Common ground
SCL	I2C Clock	I2C clock line
SDA	I2C Data	I2C data line
INT	Interrupt	Interrupt output for gesture or proximity events



Product Pictures:

