



Introduction

Infrared remote control has become a standard part of home entertainment equipment and appliances. Nearly all of the functions of TV sets, STB's, media players, audio equipment, and air-conditioners are or can be remote controlled.

Vishay Semiconductors became a major supplier of infrared remote control components right from the beginning of the IR industry in the 1970's. Today, Vishay is a leading manufacturer of IR receiver modules, IR emitting diodes as well as transceivers for data communications in accordance with the IrDA standard.

In all these products, signals are transmitted in the near infrared range with a wavelength between 840 nm and 960 nm.

Remote control receiver modules must be extremely sensitive and yet should not react to interference from other sources of infrared light other than the intended one. Multiple systems must operate in close vicinity without disturbing each other and also should not be affected by environmental noise signals such as ambient light, electromagnetic interference or supply voltage ripple.

Vishay offers a wide variety of different types of IR receiver modules in order to address the needs of the particular application being considered.

The following pages present an overview of the different types and provide help in finding the right part with respect to the mechanical requirements, the data format and possible disturbance sources.

The IR receiver modules of Vishay are easy to use. A highly sophisticated internal circuit enables reliable IR transmission for the customer under any conditions. The TSOP IR receiver modules are proven products. They are based on many years of experience from one of the most advanced infrared receiver manufacturers in the world.

TYPICAL APPLICATIONS

- TV sets
- Media players
- Set top boxes
- Toys
- Slide projectors
- Audio components
- Air-conditioners
- Data communication
- Sensors and light barrier systems for long distances

SPECIAL FEATURES

- High sensitivity for a large transmission range (35 m / 120 ft)
- Minimum interference from optical, electrical and electromagnetic disturbance sources
- Compact outline, many different mechanical versions
- Available for carrier frequencies from 30 kHz up to 56 kHz
- No external components necessary
- Output compatible for use with a micro-controller
- Relevant quality certifications ISO 9001, QS9000VDA6.1
- Automated large volume production