



## Upgraded TSOP18xx, TSOP58xx, and TSSP5xx Series IR Receiver Modules Offer Drop-in Replacements for Existing Solutions With Lower Current Consumption, Wider Voltage Range, and Improved ESD Robustness, Dark-Ambient Sensitivity, and DC Light Performance

### Product Benefits:

- Photodetector, preamplifier circuit, and IR filter in a single Minicast package
- Low current consumption of 0.45 mA over a wide supply voltage range from 2.0 V to 5.5 V
  - Increases battery life in mobile devices
- High ESD withstand capability to 12 kV
- High dark-ambient sensitivity
- High robustness under bright sunlight
  - Enables outdoor applications
- TSOP18xx and TSOP58xx series:
  - Offer increased robustness against disturbances such as IR emissions from different kind of lamps
  - Insensitive to supply voltage variations and ripple noise
  - Available with six automatic gain control (AGC) versions for short and long burst codes
- TSSP5xx series:
  - Fixed-gain
  - Long range proximity and presence sensing to 2 m
  - Can be paired with the TSAL6200 emitter for light barrier applications to 8 m (TSSP580xx)



### Market Applications:

- IR remote control in televisions, soundbars, video game systems, set-top boxes (STBs), and more
- Proximity and presence sensing for toys, drones, and robots; displays and user consoles; and garage door light barriers
- Reflective sensors for hand dryers, towel or soap dispensers, water faucets, toilets, vending machine fall detection, and security and pet gates

### The News:

Vishay Intertechnology announces that it has upgraded its TSOP18xx, TSOP58xx, and TSSP5xx series of infrared (IR) receiver modules for remote control, proximity sensing, and light barrier applications. Offered in Minicast packages, the enhanced solutions provide drop-in, plug and play replacements for existing devices in the series, while offering 50 % lower current consumption, improved ESD robustness to 12 kV, a wider voltage range from 2.0 V to 5.5 V, 20 % higher dark-ambient sensitivity, and improved performance under strong DC light.



- By upgrading the IR receivers with Vishay's latest in-house IC, the company is assuring the long term availability of the products — with reduced lead times — for its customers. And as drop-in replacements for existing devices, the modules help save costs by eliminating the need for PCB redesigns

## The Key Specifications:

- Supply current (typ.): 0.45 mA
- Supply voltage range: 2.0 V to 5.5 V
- Carrier frequency:
  - 30 kHz to 56 kHz (TSOP18xx and TSOP58xx)
  - 38 kHz (TSSP58P38)
  - 38 kHz, 56 kHz (TSSP580xx)
- Peak sensitivity: 940 nm (TSSP5xx)
- Angle of half transmission:  $\pm 45^\circ$
- Operating temperature range: -25 °C to +85 °C

## Availability:

Samples and production quantities of the upgraded IR receiver modules are available now, with lead times of four weeks.

To access the product datasheets on the Vishay Website, go to

- <http://www.vishay.com/ppg?82802> (TSOP181.., TSOP183.., TSOP185..)
- <http://www.vishay.com/ppg?82739> (TSOP182.., TSOP184.., TSOP186..)
- <http://www.vishay.com/ppg?82462> (TSOP581.., TSOP583.., TSOP585..)
- <http://www.vishay.com/ppg?82461> (TSOP582.., TSOP584..)
- <http://www.vishay.com/ppg?82476> (TSSP58P38)
- <http://www.vishay.com/ppg?82479> (TSSP580..)

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