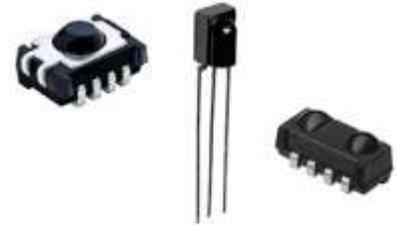




## Featuring Modulated Carrier Output for Code Learning Applications, Miniaturized IR Sensor Modules Provide Pin to Pin Replacements for Previous-Generation Solutions, While Offering 50 % Lower Power Consumption and Improved Performance

### Product Benefits:

- Feature modulated carrier output for code learning applications
- New in-house designed IC assures long term availability and reduced lead times
- Single- and dual-lens devices in Heimdall, Panhead, and Minicast packages
- Wide supply voltage range from 2.0 V to 5.5 V
- Low typical power consumption of 0.35 mA at 3.3 V
- Offer TTL and CMOS compatibility
- Typical irradiance of 12 mW/m<sup>2</sup>
- Transmission distance of 1.8 m typical when used with a single TSAL6200 emitter
- RoHS-compliant, halogen-free, and [Vishay Green](#)



### Market Applications:

- Learning remote controls in industrial warehouse robotics and consumer electronics like TVs, set-top boxes (STB), sound bars, gaming consoles, and more

### The News:

Vishay Intertechnology introduces three new miniaturized infrared (IR) sensor modules for remote control systems. Featuring modulated carrier output for code learning applications, the Vishay Semiconductors dual-lens TSMP95000 and single-lens TSMP96000 and TSMP98000 combine a wide supply voltage range from 2.0 V to 5.5 V with low typical power consumption of 0.35 mA at 3.3 V.

- Provide pin to pin compatible replacements for previous-generation solutions, while delivering higher performance. In addition to a wider supply voltage range and 50 % lower power consumption, the TSMP95000, TSMP96000, and TSMP98000 offer:
  - A smaller bandwidth from 30 kHz to 60 kHz for better noise robustness
  - Higher ESD withstand capability to the 12 kV human body model
  - Improved performance under strong DC light
- To simplify product designs, the TSMP95000, TSMP96000, and TSMP98000 each combine a photodiode(s) and preamplifier in a single epoxy package that acts as an IR filter



## The Key Specifications:

Part #	TSMP95000	TSMP96000	SMP98000
Dual / single lens	Dual	Single	Single
SMD / leaded	SMD	SMD	Leaded
Package	Heimdall	Panhead	Minicast
Supply voltage range	2.0 V to 5.5 V		
Typ. power consumption	0.35 mA at 3.3 V		
Bandwidth	30 kHz to 60 kHz		
Typ. irradiance	12 mW/m <sup>2</sup>		
Typ. transmission distance	1.8 m (when used with a single TSAL6200 emitter)		

### Availability:

Samples and production quantities of the TSMP95000, TSMP96000, and TSMP98000 are available now, with lead times of six weeks.

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

<http://www.vishay.com/ppg?82907> (TSMP95000)

<http://www.vishay.com/ppg?82906> (TSMP96000)

<http://www.vishay.com/ppg?82908> (TSMP98000)

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