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/m²
- 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:

<table>
<thead>
<tr>
<th>Part #</th>
<th>TSMP95000</th>
<th>TSMP96000</th>
<th>SMP98000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual / single lens</td>
<td>Dual</td>
<td>Single</td>
<td>Single</td>
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<tr>
<td>SMD / leaded</td>
<td>SMD</td>
<td>SMD</td>
<td>Leaded</td>
</tr>
<tr>
<td>Package</td>
<td>Heimdall</td>
<td>Panhead</td>
<td>Minicast</td>
</tr>
<tr>
<td>Supply voltage range</td>
<td>2.0 V to 5.5 V</td>
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<td>Typ. power consumption</td>
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<td>1.8 m (when used with a single TSAL6200 emitter)</td>
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</tbody>
</table>

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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