1.3μm High speed Scanning Laser

HSL-20

The HSL-20 is Santec's MEMS based swept laser that combines high speed operation with long coherence length in a compact package for the ultimate in integrated sources for SS-OCT imaging. Scan rates up to 100kHz are available from this robust laser that may be configured with start trigger and k-clock depending on system needs.

### Features

- 1310 nm Wavelength Range
- Wide Scan Range : ≥ 105 nm
- Long Coherence Length : ≥ 10 mm
- High Speed Scan Rate : 50 kHz, 100 kHz
- K-trigger integrated

### Applications

- Swept Source OCT (SS-OCT)
- SS-OCT Applications
  - Industrial non-invasive inspection
  - Cardiovascular imaging
  - Defect inspection (resin, molded plastic, etc.)
  - Figuration (semiconductor, etc.)
  - Biology & Medical microscope
- Spectroscopy
- Optical Sensing

### Measurement Data

![HSL-20 Optical Characteristics](image)

### Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main scan rate</td>
<td>kHz</td>
<td>50 or 100 +/- 0.1</td>
</tr>
<tr>
<td>Maximum optical output power</td>
<td>mW</td>
<td>≥ 40</td>
</tr>
<tr>
<td>Center wavelength</td>
<td>nm</td>
<td>1280 - 1340</td>
</tr>
<tr>
<td>Scan range</td>
<td>nm</td>
<td>≥ 105</td>
</tr>
<tr>
<td>Coherence Length</td>
<td>mm</td>
<td>≥ 16</td>
</tr>
<tr>
<td>Duty cycle</td>
<td>%</td>
<td>≥ 45</td>
</tr>
<tr>
<td>Size (W x D x H)</td>
<td>mm</td>
<td>150 x 226 x 72.5</td>
</tr>
</tbody>
</table>

www.santec.com  E-Mail : sales@santec.com

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SANTEC CORPORATION
5823 Ohkusa-Nenjozaka, Komaki, Aichi 485-0802, Japan  Tel: +81-568-79-3536  Fax: +81-568-79-1718

SANTEC U.S.A. CORPORATION
433 Hackensack Ave., Hackensack, NJ 07601, U.S.A. Toll Free: +1-800-726-8321 (santec-1)  Tel: +1-201-488-5505  Fax: +1-201-488-7702

SANTEC EUROPE LIMITED
Grand Union Studios, 332 Ladbroke Grove, London W10 5AD, U.K.  Tel: +44-20-3176-1550

SANTEC (SHANGHAI) Co., Ltd
11F Room E, Hua Du Bldg., No.838 Zhangyang Road, Pudong, Shanghai 200122 China  Tel: +86-21-58361261, +86-21-58361262 Fax: +86-21-58361263

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