# ZMI 7705 Laser Head

<table>
<thead>
<tr>
<th>P/N’s</th>
<th>Power</th>
<th>Compatibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>8070-0902-11</td>
<td>&gt;250 µW</td>
<td>ZMI 510</td>
</tr>
<tr>
<td>8070-0902-12</td>
<td>&gt;350 µW</td>
<td></td>
</tr>
<tr>
<td>8070-0902-13</td>
<td>&gt;250 µW</td>
<td>ZMI 501/501A</td>
</tr>
<tr>
<td>8070-0902-14</td>
<td>&gt;350 µW</td>
<td></td>
</tr>
</tbody>
</table>

## Physical Characteristics
- **Dimensions**: See Figure
- **Weight**: 1.0 Kg
- **Materials**: Aluminum, ABS
- **Nominal Cable Clearance**: 102 mm

## Electrical
- **Power Requirements (max)**: +15 VDC ± 0.5 V @ 0.6 A
- **Power Dissipation (max)**: 7 W during operation, 9 W during warm-up

## Laser Characteristics
- **Type**: Helium-Neon, CW, heterodyne, linearly polarized
- **Output Power**: See P/N section
- **Beam Diameter (1/e²)**: 4.1 ± 0.3 mm
- **Beam Pointing Stability**: 0.2 mrad
- **Time from turn-on to laser light**: <30 sec typical
- **Time to wavelength stability**: ≤15 minutes
- **Frequency Difference**: 3.6 MHz ± 0.3 MHz
- **Nominal Vacuum Wavelength**: 632.992 nm
- **Vacuum Wavelength Stability**: 0.2 ppm
- **Vacuum Wavelength Lifetime Accuracy**: 0.01 ppm/1 hr, 0.02 ppm/24 hrs
- **DHHS Laser Safety Classification**: Class II, conforms to NCDRH regulations
- **Operating Temperature**: 10 to 30°C
- **Non-operating Temperature**: -40 to 75°C
- **Operating Humidity**: 0 to 90%, noncondensing
- **Non-operating Humidity**: 0 to 90%, noncondensing
- **Shock (non-operational)**: 11 msec 40g shock on each of three orthogonal axes

## Diagrams
- Dimensions and layout images of the laser head.

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