## Product group specifications

### Camera system
- **Connection**
  - USB 3.0
- **Performance**
  - 60 fps at 1280 × 1024 px

### Optics
- **Focus**
  - software-controlled
- **Lens magnification**
  - 2.5× up to 100× nominal magnification
- **Field of view**
  - 0.2 mm × 0.16 mm to 8.0 mm × 6.4 mm
- **Resolution**
  - lateral, pixel-based 2): 0.16 µm to 6.25 µm
  - axial 3): 10 nm to 2.6 µm

### Illumination
- **Type**
  - laser diode
- **Wave length, dominant**
  - 450 nm

### Scanning table
- **x-y-positioning**
  - manual: 100 mm × 100 mm
  - automatic: 75 mm × 75 mm
- **z-positioning**
  - ultrasonic drive: 20 mm

### Software
- **itom MountainsMap®**
  - surface profiles, roughness parameters
  - imaging topography, contour analysis, advanced contour analysis, 3D advanced surface texture, 3D Fourier and wavelets

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## Measurement specifications

### Analyzed characteristics
- **topography**
  - spike-filter
  - median-filter
  - Gauss-filter
  - clip values
  - cut boarders
  - region of interest
  - mirror/rotate values
  - fill invalid pixels
  - step height

### area roughness
- waviness parameters:
  - \( W_a \), \( W_q \), \( W_z \), \( W_{\text{max}} \)
- roughness parameters:
  - \( S_u \), \( S_0 \), \( S_{2D} \), \( S_v \), \( S_p \), \( S_z \)

### likewise roughness
- waviness parameters: \( W_a \), \( W_q \), \( W_z \), \( W_{\text{max}} \)
- roughness parameters: \( R_a \), \( R_q \), \( R_z \), \( R_{\text{max}} \)

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1) optional
2) The lateral pixel-based resolution is the pixel size at the measurement object.
3) The axial resolution is given due to the \( S_q \) value of the difference of two measurements of a mirror.
<table>
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<th>General specifications</th>
<th>SRA</th>
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<tr>
<td><strong>Sample dimensions</strong></td>
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<tr>
<td>Maximum sample size (W × D × H)</td>
<td>∞ mm × 120 mm × 100 mm</td>
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<tr>
<td><strong>Environment</strong></td>
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<tr>
<td>Temperature</td>
<td>operating: 15 to 35 °C</td>
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<tr>
<td>Humidity</td>
<td>20 to 60 %</td>
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<tr>
<td><strong>Instrument dimensions</strong></td>
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<tr>
<td>Footprint (W × D)</td>
<td>Head: 110 mm × 86 mm</td>
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<tr>
<td></td>
<td>Stand: 300 mm × 470 mm</td>
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<tr>
<td></td>
<td>Electronic box: 210 mm × 210 mm</td>
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<tr>
<td>Height</td>
<td>Head: 180 mm</td>
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<tr>
<td></td>
<td>Stand: 450 mm</td>
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<tr>
<td></td>
<td>Electronic box: 80 mm</td>
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<tr>
<td>Weight</td>
<td>Head: 2 kg</td>
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<tr>
<td></td>
<td>Stand: 28 kg</td>
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<tr>
<td></td>
<td>Electronic box: 2.5 kg</td>
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<td><strong>Power supply</strong></td>
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<tr>
<td>Voltage</td>
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