Model LTI-5100
Digital, Mobile Shearography System

System Features
- Remote Control of all Camera functions
- Digital, Phase Step and Phase Reversal Real-time Subtraction Modes
- All mode Operation with User set macros
- Use on Base, Tripod Lift or Scan Gantry
- Powerful image Processing Suite
- Portable
- 2 Models
  5100 150 mw Laser
  5100e External Laser to 10 Watts

Benefits
- Large Area Inspection
- High Through-put
- Real-Time Imaging of:
  - Delaminations
  - Disbonds
  - Damage
- Large increase in Aerospace manufacturing productivity

The LTI-5100 is used for critical NDT inspection on these and many other programs.

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Model LTI-5100  
Digital, Mobile Shearography System

Technical Description:
The LTI-5100 is a modular, all mode, digital Shearography Camera System featuring complete Remote control of camera pan, tilt, zoom, iris, focus and shear vector as well as laser beam X/Y steering and Beam expansion. The LTI-5100 consists of the SC-5100 Digital Shearography Camera with built-in or external laser Remote Control Console, and the IP-5100 Image Processing Computer, all interconnecting cables, 2 Manuals and a One Year Warranty.

Optional Equipment:
- Tripod and Adapter Plate
- MECAD- 100, 200 Vibration Stress Units
- ACAD-100, 200 Acoustic Stress Units
- TS-100 Thermal Stress Unit
- Vacuum Windows and Generators
- LTI-9000 Vacuum Test Chambers
- Gantry and Mobile Lift Systems

<table>
<thead>
<tr>
<th>Shear Camera</th>
<th>Digital Phase Stepping Shearography Camera, real time mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress Methods</td>
<td>All Mode</td>
</tr>
<tr>
<td>Laser</td>
<td>Built in 150mW @532nm (Green) Laser Class IIIa (Safe for operator)</td>
</tr>
<tr>
<td>CCD Resolution</td>
<td>768x494 pixels</td>
</tr>
<tr>
<td>Zoom</td>
<td>F1.0, 8 w/2x Converter (effective performance F4, 16)</td>
</tr>
<tr>
<td>Shear Optic Placement</td>
<td>Shear Optics located in front of imaging lens, which gives the absolute best image quality with no distortion to the shearography image</td>
</tr>
<tr>
<td>Shear Angle</td>
<td>Continuously adjustable 0º - &gt;3º</td>
</tr>
<tr>
<td>Shear Direction</td>
<td>Continuously adjustable 0º - 360º</td>
</tr>
<tr>
<td>Field of View</td>
<td>Adjustable, x (distance)</td>
</tr>
<tr>
<td>Measuring Sensitivity</td>
<td>0.05 µm/shear distance</td>
</tr>
<tr>
<td>Computer and Remote Control Features</td>
<td>Camera Lens: Iris, Focus, Zoom, Shear Vector: X/Y Shear 0-5º, 0-360º Laser: X/Y Steer, Beam Expansion Motion: (Pan350º, Tilt 120º) Laser Spot Projector for Precision Image Calibration</td>
</tr>
<tr>
<td>Manual Adjustments</td>
<td>Laser Shutter on/off</td>
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</tbody>
</table>

The LTI-5100 is manufactured in the USA under US and foreign patents. 6,717,681; 5,257,088; 5,094,528 Additional patents applied and Pending. Specifications are subject to change without notice. 1/08

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