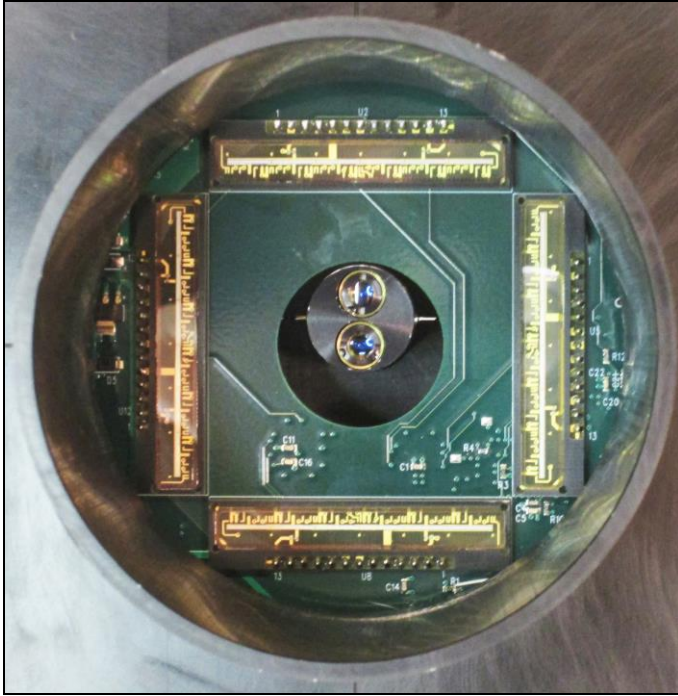


Deflection and Twist Measurement System (DTMS™)

A Better Way to Measure Dynamic Motion in Large Structures



Sensor Array and Cross-Hair Laser

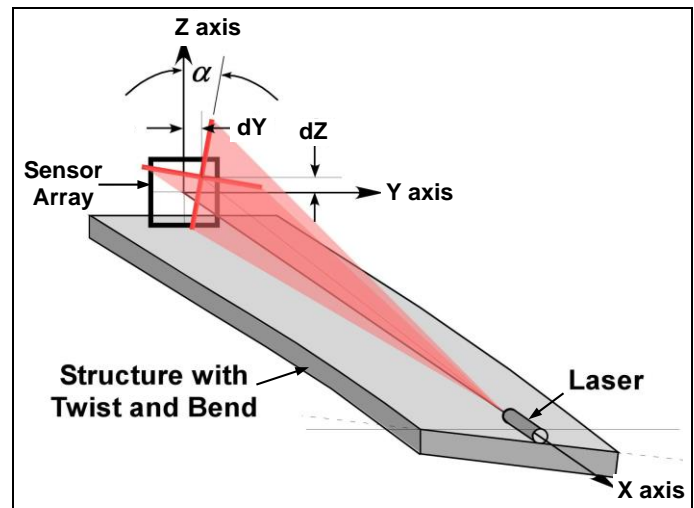
DTMS Advantages

- Measures five degrees of freedom at multiple points along the structure
- Records and displays dynamic mode shapes while the structure is moving
- Reports data relative to one end of the structure, not a fixed ground reference
- Results are not affected by the structure's motion or acceleration
- Accommodates unusual structural shapes and can be mounted inside hollow spaces
- Software included to provide configuration, data logging, and three ways to plot
- Simple communication via Modbus RTU protocol over RS485 network

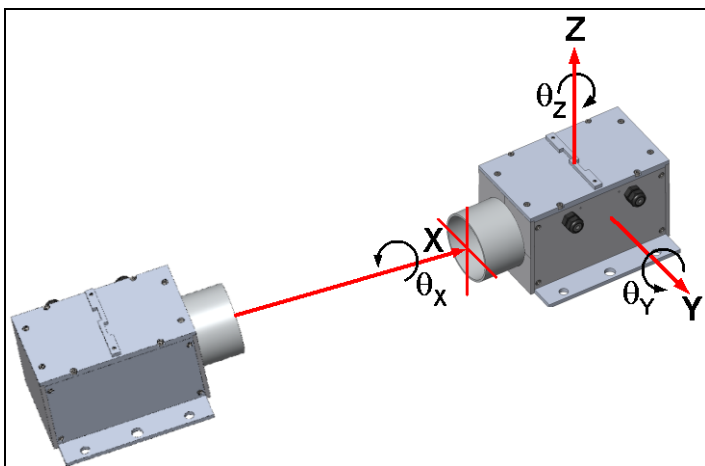
Description and Capabilities

- Scalable laser tool available in half or full segments or string of multiple segments
- Applications include bridges, buildings, boat hulls, trains, crane booms, vehicle frames, and airplane wings
- Accuracy certified by independent U.S. lab with NIST/NPL traceability
- Deflection and twist reported in real time
 - ♦ Deflection resolution: 0.0635 mm
 - ♦ Twist resolution: 0.06 degree
 - ♦ Frequency response: up to 100 Hz
- Y, Z measurement range per segment
 - ♦ 0 to 47 mm (+/- 23.5 mm)
- Maximum twist
 - ♦ X axis: 35 degrees per segment
 - ♦ Y, Z depend on number of segments

Schematic of Half Segment



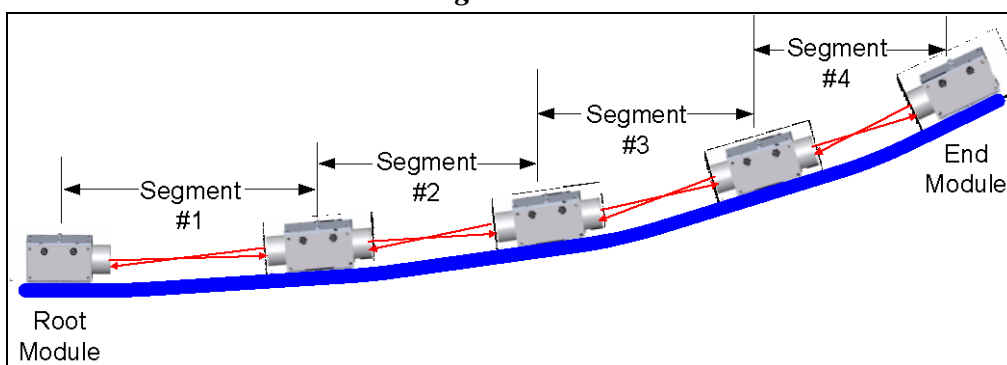
Schematic of Full Segment with Coordinate System



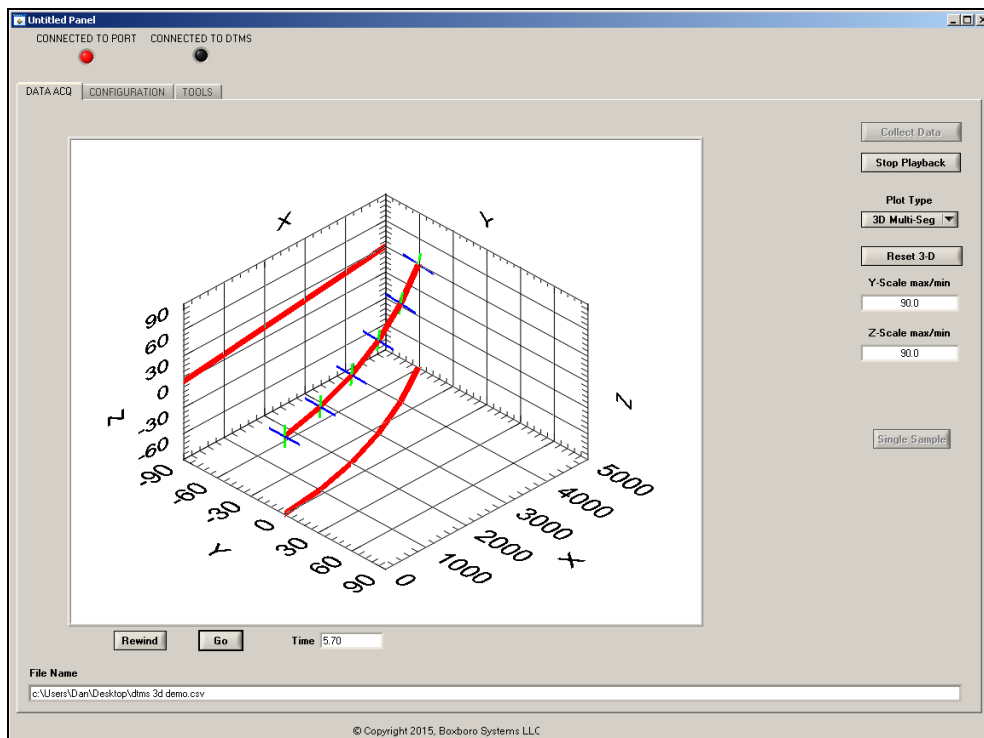
DTMS Module Enclosure in Multi-Segment System



Multi-Segment Schematic



DTMS Data 3-D Plot



For more information, go to www.boxborosystems.com
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