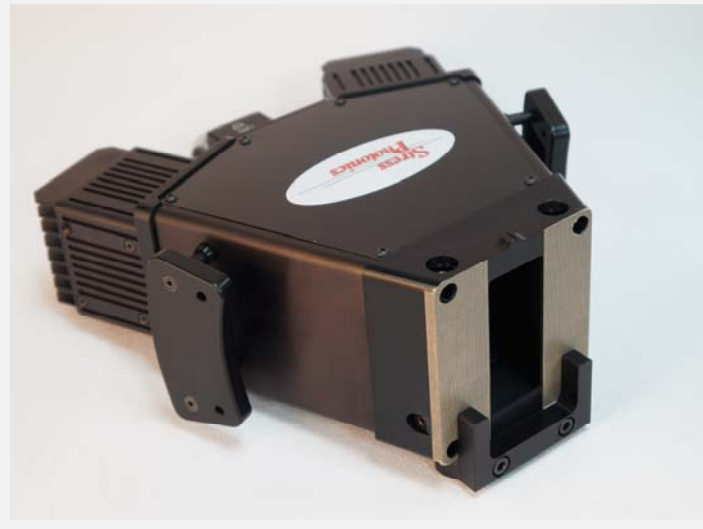


# EdgeMaster-2™

Edge Stress Measurement System  
by Stress Photonics Inc.



## BENEFITS

- Assess Windshield Glass Quality
- Control Manufacturing Processes
- Easily Check Incoming Materials
- Check Installed Glass

## EDGE STRESS MEASUREMENT

The **EdgeMaster-2** is a photoelastic stress analysis system optimized for measuring edge stresses in clear or tinted glass—with or without black paint. The system works on windshields, sidelights, and backlights.

The **EdgeMaster-2** makes checking edge stresses a snap.

The **EdgeMaster-2** measures stress in:

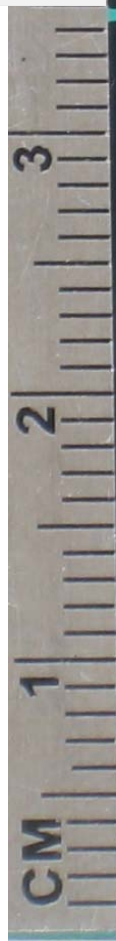
- Laminated Glass
- Black Painted Glass
- Flat or Curved Glass
- Clear Glass
- Tinted Glass
- Tempered Glass
- Coated Glass

The **EdgeMaster-2** measures the complete edge stress profile including:

- Tension Maximum
- Maximum Location
- Edge Compression
- Zero Stress Point Location

## FEATURES

- Simple Turn-key System
- Works on Black Paint Band
- Works on Tinted Shade Band
- Portable
- Integrated GO-NOGO Checking
- Integrated Calibration Standard
- Real-time Full-field Images
- Immediate Quality Report
- High Brightness, Low Power LED Illumination



# Stress Photonics

THE ANSWER IS CLEAR



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## EdgeMaster-2 Specimen

Specification	Value	Units
Minimum Thickness	0.5	mm
Maximum Thickness	6	mm
Glass Types	Single layer, Laminated, Tempered	
Tint	>30% Transmittance	
Coating	Black Print, Electrical Conductor, Tint Band	
Edge Finish	Measures up to grind, extrapolates to edge.	

## EdgeMaster Instrument

Spec.	New EM2	Old EMI
Size	28×23×11 cm	31×30×11 cm
Weight	1.6 kg	2.5 kg
Power	100-240 VAC 3A, 50-60Hz	100-240 VAC 3A, 50-60Hz
Cables	10 m long × 12 mm dia.	5 m long × 18 mm dia.
Camera	GigE (Ethernet)	CameraLink

## EdgeMaster-2 Measurements

Measurement	In 2mm Glass	In 4mm Glass	Units
Stress Range	±90	±45	MPa
Resolution (low stress)	±0.6 (Stresses ≤ 20MPa)	±0.3 (Stresses ≤ 10MPa)	MPa
Resolution (high stress)	10	10	%
Calibration Standard	Wave Plate	Wave Plate	Built In
Spatial Resolution	Better than 0.1	Better than 0.1	mm
Measurement Update Rate	4	4	Hz

The software interface displays a stress vs. length graph with a red curve. The y-axis is Stress (MPa) ranging from -40 to 10, and the x-axis is Length (mm) ranging from 0 to 49.25. A table below the graph shows data for four locations:

Location	Compression	Tension	TensPos	Cross	Edge Pos.	Paint Edge Pos.	Tens/At Pos	SweepComp	Sweep Tens
1	-31.6	9.3	15.0	10.9	3.2	49.2	-1.2	0.0	0.0
2	-31.6	9.3	15.0	10.9	3.2	49.2	-1.2	0.0	0.0
3	-31.6	9.2	14.8	11.0	3.2	49.2	-1.2	0.0	0.0
4	-31.6	9.2	14.9	11.1	3.2	49.2	-1.2	0.0	0.0

Control panels include:

- Armed Current Position:** 5
- Find Edge:** Manual Extrapolate (Adjust Up: 0.4 mm, Extrap. Length: 2.4 mm) and Auto Extrapolate.
- Shutter Speed:** 1/32, **Frame Rate:** 2 Hz.
- Data being saved to:** C:\Users\Engineer\Documents
- Max Compression:** -31.5 MPa (Allowed: -40.0 MPa)
- Max Tension:** 9.2 MPa (Allowed: 10.0 MPa)

THE ANSWER  
IS CLEAR

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