Contact-free Eye Path Tracking System

# **Contact-free Eye Mark Recorder EMR-AT VOXER**



100% Contact-free, thus an examinee does not wear any special device (helmet, headband, glasses, and others) for measurements. NAC EMR-AT VOXER allows users to tack gaze position on monitor/display without any physical contact with the examinee.

#### Features

Contact-free/Nonbinding System

The examinee does not wear any special device for measurements. Neither has to fix the head stable during measurements.

Auto-Tracking/Auto-Focusing

VOXER tracks head motion of examinee (right to left, up and down, back and forth). This makes it possible for users to conduct long-time and natural measurement.

•Absolute Coordinate System

VOXER outputs the data of gaze position in absolute coordinate system on a monitor (the origin is set at upper left corner pixel) for quantitative analysis.

 Code data superimposition onto video signal Gaze position is displayed on a monitor of the Control Unit for qualitative analysis. The data can be

saved with the Control Unit and also DV camera/VCR (superimposed onto a video signal).

Analysis System (Optional)

The analysis software supports an instantaneous viewing analysis, a convergence angle analysis and a measurement of pupil diameter in addition to analysis of eye movement.

#### **Applications**

#### Human Engineering

- VDT operation analysis
- -CG Research
- Comparison between beginner's view and expert's view
- Comparison between adult's view and child's view
- -Evaluation of web-site

#### Psychology/Cognitive Psychology

- Research on hallucination
- View at changing of mind
- Research on the recognizing process for color and shape

#### **Medical Science**

- Comparison between patient's view and healthy people's view
- Research on weak-sighted people
- -Discrimination of medicine

#### Education

- Research on educational effect
- Research on reading books
- Producing text
- Relationship between feeling and eve movement

#### **Environmental Engineering**

- Design of architecture
- Research on exhibition effect
- Research on products layout

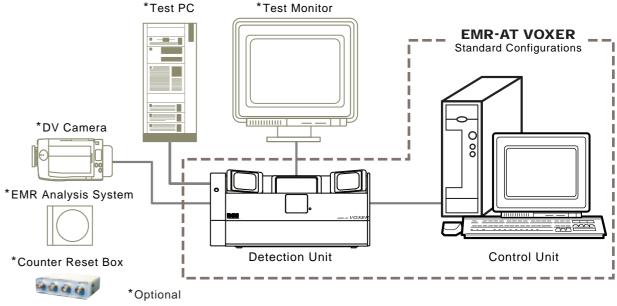
#### Contact-free Eye Path Tracking System

#### **Specifications**

Detection Method	Pupil/Cornea Reflection
LED lighting Wavelength	850nm
Sampling Rate	60Hz (either right or le
Detection Resolution	0.3 degree
Detection Angle	40 degree circle (from
Detection Range	240(W)X+/-100(H)X+/-
	(In case the distance b
Input Signal	NTSC Video Signal (V
	External Counter Rese
	External Cue Signal (T
Output Signal	NTSC Video Signal (in
	code data, field counter
	Serial Data (gaze posi
	* These signals can be
Dimensions / Weight	Approx. 350(W)X170(I

### System Configurations







Japan/Asia

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## **EMR-AT VOXER**

#### ion Method

eft eye selectable)

LED lighting)

-100(D)mm

between cameras and eye is 600mm)

BS signal and viewing images)

et Signal (TTL/Contact)

TTL/Contact)

ncluding VBS signal, gaze position coordinate,

er and others)

sition coordinate, field counter and others)

e stored in the control Unit.

(H)X178(D)mm (Detection Unit) / Approx. 5.5kg

#### The Americas

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