

RED500

Technical Specification



Human interface design	Contact-free, remote-controlled infrared eye camera with automatic eye and head tracker Modular design - integrated with 22" widescreen monitor (19" optional) and stand-alone setup for TV and projections
Eye tracking principle	Non-invasive, image based eye tracking Pupil with corneal reflection
Temporal resolution	500Hz binocular (250Hz, 120Hz, 60Hz)
Calibration mode	2 / 5 / 9 points
Spatial resolution	0.03°
Gaze position accuracy	0.4°
Operating distance	60cm-80cm (subject to Eye Tracking Device)
Tracking range (head box)	40x20cm at 70cm distance
Head movement velocity (max.)	50cm/s
System latency (end to end)	<4ms
Processing latency	<0.5ms
Blink recovery time (max.)	4ms
Tracking recovery time (max.)	90ms
Gaze tracking range	40° horizontal (+/- 20°), 60° vertical (+ 20/- 40°)
Eyewear compatibility	Works with most glasses and contact lenses
Real-time operator feedback	Gaze position, pupil diameter, pupil position, corneal reflex position, tracking status, eye image
Aux devices	Compatible with EEG and other sensors
API/SDK	Free SDK/API, sample code (e.g. EPrime, Matlab, C, C#, Python)
Digital data access	Network connection (Ethernet/UDP), serial port (RS-232), Optional Direct AOI™ port (16-channel TTL I/O)
Norm compliance	CE Declaration of Conformity Electrical Safety EN61010-1:2001 Eye Safety EN60601-1-2 + EN55011, class B

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