



**Cybernetyx** has developed several advanced Human-Computer Interaction products in the industry which are deployed across users from all ages and various market segments, including Education, Corporate, SME, PSU and Government. Cybernetyx believes that an interactive product must act as information and communication platform for its users by providing intuitive digital tools to fetch, create and share content, to engage the viewers and enrich the content creation and consumption capability in Classrooms, Training rooms, Conference rooms, NOCs, Open Spaces and beyond. Cybernetyx flagship product EyeRIS (Eye-like Rapid Imaging System) is getting extremely popular across the globe and now is widely acknowledged as a technology-benchmark in the interactive solutions space, already impacting more than 25 million Presenters, Educators and Learners in a short span of time and with a user-base growing at an exponential rate.

EyeRIS 8-Series IWB systems are the latest, upgraded and advanced interactive whiteboard system and IntelliSpace is the advance interactive software from Cybernetyx, Germany.

# EyeRIS 8090UST / EyeRIS 8120ST

### **Product Highlights**

- ✓ Surface Independent
- ✓ Fast Response Time : 195 Mn dots/sec
- ✓ True MultiTouch (255 Touch Points)
- ✓ Auto Calibration
- ✓ Portability
- ✓ Super-Capacitive Stylus
- ✓ Gesture Recognition
- ✓ Superior Ambient Light Resistance
- ✓ Robust Product Design

- ✓ Bundled with IntelliSpace IWB Suite
- Recording Tools (Video & Audio)
- ✓ Geometrical Tools
- ✓ Integration with MS Office<sup>™</sup>
- Import Images / Files / Videos
- ✓ Extensive Resource Library
- ✓ Cybernetyx MyCloud Content Engine
- Capture Tools : Snapshot from running video
- ✓ Multi Language Support

# **Technical Note : EyeRIS 8-Series**

**MultiTouch:** World's first Interactive Solution that supports 255 touch-points, simultaneously.



### Ultra Short Focus Optics (T/R upto 0.16):

EyeRIS 8-Series IWB systems are with

distributed low-level and high-level image processing between dedicated SoC and host CPU for super-high tracking speed of 195 Mn dots/sec and it could produce a very large interactive surface at world's smallest distance (T/R upto 0.16). EyeRIS driver automatically takes care and adjusts the massive un-distortion and de-warping to produce superior and smooth interactive experience.

High-Speed Tracking: Multi-core, Multi-threaded, High-speed



advanced image processing with base 60-70 FPS tracking rate (can be extrapolated and extended outpro 200 FPS).

**NUI Gesture Support:** EyeRIS provides Native gestures & touch inputs for a full smartphonelike Natural User Interface. EyeRIS 8-Series IWB systems are based on its revolutionary 'Visual Touch' 3-D optical tracking platform, designed for the NUI, which delivers intuitive, seamless experiences that unfold through natural human input.

**Higher Resolution:** Super-high resolution. 6768 x 4320 pxsq. Processes more than 195 Million dots/second. This is highest in the industry. Using a unique sub-pixel processing technique, Cybernetyx Visual Touch tracking engine is able toenhance the resolution upto 9 times the native resolution. It results in



- Sub-Pixel precision for higher resolution
- Jitter-free writing experience

**Real Time Writing Experience:** Fast writing speed and implementation of smoothing algorithms like Catmull-rom, Bezier etc. Feather-smooth writing experience with real-time response.

Automatic Calibration: Using an automatic filter switcher, EyeRIS 8-Series IWB products are able to + extract visible band images of the projection enabling the system to calibrate automatically within 5 seconds.



# IntelliSpace IWB Suite

EyeRIS 8-Series IWB systems come bundled with advanced Interactive software known as IntelliSpace having following features:

Multi-touch software suite (supports 255 touches simultaneously) - Supports Gesture Recognition like zoom, pan, tilt, flicks and so on - Native handwriting recognition, Shape-recognition up to six-sided figures - "Cloud Access" in IWB Application, content can be accessed for free on any topic in the world - Multiple formats of presentations, documents, images & videos can be imported, annotated & explained - Super Compressed recording (1 hour class room lecture Recording with approx. 80 MB file size only) - Full support for MS Office files like handwriting recognition in Word, Excel and PowerPoint - Extensive Resource Library with relevant content - Geometric Tools like protractor, compass, ruler etc. - Local Language Support like Mandarin, Chinese, Japanese, German, Spanish, French etc. -

**Superior Ambient Light Disturbance Resistance:** EyeRIS 8-Series IWB systems are having improved sunlight resistance based on Bandpass filters and patent-pending DBI (Differential background illumination) circuitry. It works in both full dark and full sunlight environments. Based on the dual layer band-pass filtering optical technology, EyeRIS does a heuristic sampling and active background subtraction of all physical space outside to projection. Thus, no external light sources can cause interference to EyeRIS 8-Series IWB systems.

**Driver Utility:** Improved troubleshooting due to live feed and tracking monitor. Remote support could be possible. Simple, Intuitive user interface, Live Status Indicators (connected, calibrated and OPTIBAR), Easier Troubleshooting, Blob Trace & more blob details, settings and monitor in one view.



#### Support for interactivity on Edge

**blended surface.** Edge-blending is a technique used to describe the process of visually combining several projected images to make a single seamless image. Generally, this is done to increase the size of a projected image to make a very wide image, or by combining a number of lower resolution devices together to increase the total resolution of a display. In both cases, a number of projectors are needed which are firstly overlapped and then visually joined together using an edge blending technique. EyeRIS 8-Series IWB systems are capable of making the edge-blended surface interactive & provides an advanced

interactive experience to the users. Combination of up to 4 projected images to a very large interactive projection screen could be developed with seamless & most advanced interactive experience.



**Consumable free stylus:** Extremely light weight, Ultra-fast full charging time, Feather smooth writing experience, Economical (no batteries required), A million times recharging possibilities. Full charging time is just 180 sec. which provides a writing time of multiple hours.





IntelliSpace IWB Suite with thousands of Educational Content and FREE 'Cloud-Content' Access

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Native Support for classroom camera solution (any USB camera or webcam or Laptop could be used as document camera with the same software) - Student Evaluation Functionality (Optional OMR software known as OPTIMARK).\*

### Interactive Classroom Setup using EyeRIS IWB System



EyeRIS 8090UST IWB system with UNIBOARD SLIM 1.1 (Vertical wall mounted Metal Cabinet) and Green board



EyeRIS iMOUNT (integrated with EyeRIS 8090UST IWB System) for Short Throw Projector set-up with UNIBOARD SLIM 1.1 (Vertical wall mounted Metal Cabinet) and Green board



UNIBOARD SLIM (Vertical wall mounted Metal Cabinet)



EyeRIS iMOUNT (integrated with EyeRIS 8090UST IWB System) for Short Throw Projector set-up with UNIBOARD SLIM (Horizontal wall mounted Metal Cabinet) and Green board



UNIBOARD SLIM 1.1 (Horizontal wall mounted Metal Cabinet)

# Different types of mounting arrangements for EyeRIS 8-Series

Pictorial representation of EyeRIS Mounting arrangement for different types of projectors:

#### Option 1:

Mounting arrangement of EyeRIS when used with any projector which is ceiling mounted or kept on table



Standard Mount for EyeRIS

#### **Option2:**

Mounting arrangement of EyeRIS ("U" Shaped Clip mount) for short throw projectors mounted with standard wall mount kit



"U" shaped clip Mount for EyeRIS

#### Option 3:

Mounting arrangement of EyeRIS when used with any ultra-short throw projector



UNIVERSAL Mount for EyeRIS

### **EyeRIS 8-Series IWB Systems**

### **Technical Specifications:**

Movement Detection Technology	3-D Optical
Tracking Active Area (max projection size)	Upto 90 inches (EyeRIS 8090 UST) & 120 inches (EyeRIS 8120 ST) diagonal
Tracking Speed	60-70 FPS. Extrapolated upto 200 FPS
Ambient Light Resistance Technology	850 +/- 20 & 650 +/-20 dual band tracking technology (Visible and IR bands)
Simultaneous Touch Point Support	255
Calibration Technology	Automatic as well as Manual Calibration
Response Time	195Mn dots/sec
Connectivity Interface	USB 2.0
Power Requirement	5 V
Power Consumption	<1W
Operating & Storage Environment	Temperature : -10 to +60 degree; Humidity: 0% to 95%
Dimension of EyeRIS Unit	98mm X 70mm X 35mm

#### Features/Benefits:

#### Features

Fast Response Time Higher Resolution (195 Mn dots/sec)

Preciseness Surface Independence Automatic Calibration

Superior Ambient Light Resistance

Supports 255 Touch Points Large Screen Area

Super-Capacitive Stylus

#### Benefits

Real-time writing speed without any lag and superior writing performance Using unique sub-pixel processing technique, Cybernetyx VisualTouch<sup>™</sup> tracking engine is able to enhance the resolution upto 9 times the native resolution resulting in less jitter while writing Gives an accurate performance while writing No special board required, makes any surface interactive Using a automatic filter switcher, EyeRIS is able to extract visible band images of the projection enabling the system to calibrate automatically within 5 seconds No sunlight disturbance. Based on the dual layer band-pass filtering optical technology, EyeRIS does a heuristic sampling and active background subtraction of all physical space outside to projection. Thus, no external light sources can cause interference to the EyeRIS system Multi touch gesture (zoom in / zoom out / rotate). MultiWriting Any screen/whiteboard/painted wall can be utilized. For large classrooms, bigger projection size can be supported Extremely light weight, Ultra-fast full charging time, Feather smooth writing experience, Economical (no batteries required), A million times recharging possiblities. Full charging time is just 180 sec. which provides a writing time of mutiple hours

# Super-Capacitive Stylus

### **Technical Specifications:**

Movement Detection Technology Technology Used Charging Time Pen Body Dimension Weight

### Super-Capacitive technology 3 minutes 134 mm (length); 16 mm (diameter) Under 30 g

Pressure Sensing Detection

### Features/Benefits:

#### Key Features

Weighs Under 30 gms Super-Capacitive Technology Ultra-Fast Charging Time Excellent Built Quality

#### Benefits to the User

Feels like a normal dry-erase marker, making it very comfortable to hold and use. Economical, no need of replenishing batteries ever. No long waits for charging. Uninterrupted usage for hours. Minimal wear and tear.

CYBERNETYX Interaktiv UG., Hefehof 23, 31785 Hameln, Germany.
CYBERNETYX Technik Pvt. Ltd. Plot : C-98, Sector-65, Noida - 201301, India

Phone : +49 162 342 8337 Phone : +91 120 421 8662

www.cybernetyx.com

**Registered Offices** 

Indian operation

info@cybernetyx.com, sales@cybernetyx.com