

# REAL TIME ENHANCED VIDEO (RTEV)

Video & Imagery Enhancement Without Added Latency



## Clarity. Control. Confidence.

Z Microsystems' Real Time Enhanced Video (RTEV) is a unique and proprietary technology that processes demanding algorithm enhancements in "real time," without adding latency to the video. Previous software-based enhancement applications required significant computing resources and processing delays. By leveraging our progressive video controller, hardware-based RTEV is able to perform advanced operations as the video is received, improving image quality and decision-making capabilities at the moment of reception.

## REAL TIME ENHANCED VIDEO (RTEV) IS AVAILABLE IN:

### DISPLAYS



### COMMAND & CONTROL



### INTEGRATIONS BOX



### HANDHELDS



## HIGHLIGHTS

- Video & imagery enhancement for any environment
- Advanced algorithm operations without added latency
- Operator controlled algorithm adjustments
- Large-kernel locally adaptive contrast enhancement
- Globally adaptive dehazing algorithm
- Advanced histogram enhancement processes
- Agnostic support for any video format
- Supports a wide variety of implementation
- Implementation options include: displays, handhelds, low-profile integration box, video switch, and more.
- Advantages include:
  - Fog
  - Haze
  - Smoke/Pollutants
  - Snow
  - Dust
  - Sandstorms
  - Low-light
  - Over-exposed
  - Infrared
  - and more...

For more information, or to see RTEV in action, visit us at: [www.zmicro.com/rtev](http://www.zmicro.com/rtev)

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## Enhancements for Any Environment

RTEV provides operators with adjustable settings and controls for quick precision tuning of algorithms and the ability to quickly toggle enhancements on and off. Implemented in our rugged displays and hardware, users can tweak algorithm settings using on-screen display (OSD) menus or Application Programming Interface (API) commands. For advanced controls Z Microsystems offers a Graphical User Interface (GUI) featuring intensive algorithm adjustments from an easy-to-use software menu.

## Advanced Open-Architecture Algorithm Processing

Our team of experts develop custom-tailored algorithms for tough environments. Z Micro's Clarifier and Dehaze algorithms significantly improve video quality in a number of degraded visual environments. Real Time Enhanced Video (RTEV) optimizes operating efficiency by improving the capabilities of displays, handhelds, and other systems with our custom integration solutions. Contact your local Z Microsystems Sales Representative for additional options and support for 3<sup>rd</sup> party algorithms.

## CLEARLY IDENTIFY YOUR TARGET



Fog & Haze



Rain & Fog



Smoke & Pollutants

## ENHANCE DETAIL FOR IMPROVED CONFIDENCE



Fog

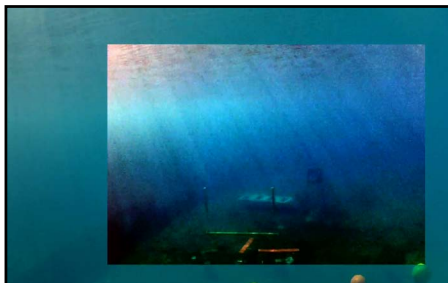


Infrared

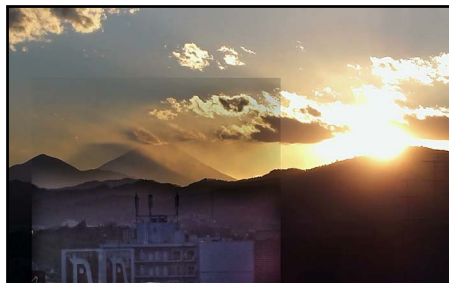


Clouds

## SEE PREVIOUSLY INDISTINGUISHABLE OBJECTS



Underwater



Over-Exposure



Snow

**\*ACTUAL RTEV IMAGES - NO MANIPULATION HAS BEEN PERFORMED**

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Z Microsystems, Inc. is an ISO 9001:2008 certified company and compliant with AS 9100 requirements. Product information and technical data provided are typical of standard configurations of the described products. Measured results may vary slightly between units. This information is subject to change without notice. For more information, or the latest version of this product sheet, please visit our website @ [www.zmicro.com](http://www.zmicro.com)

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