

RHP-IS (RHP Image Stabilizer)



Advanced Image/Video Stabilization Unit

The RHP Image Stabilizer Unit plugs in between any analog Color, B/W, IR or Thermal camera and down-stream devices such as recorders, multiplexer or transmission systems, and captures clear, crisp video images.

Security Cameras Shake

Video from Security cameras often shakes. Shake comes from many sources and is amplified by high-power zoom lenses. Swaying buildings, wind driven locations, cameras mounted near machinery, Heating Ventilation, Air Conditioning, PTZ servos and of course all mobile applications.



Raw shaky video from pole mounted camera



Steadied video coming from RHP Image Stabilizer

SteadyEye is More Than Beauty

- RHP Image Stabilizer is intelligent software developed for the surveillance professional to capture clear, crisp video images.
- A steady video shows cleaner details. Sharp details are a requirement for good and high quality security video.
- Steady video is less fatiguing to watch. Keeping the operator alert is a major challenge in real-life security CCTV. A simple change like a steady image helps a lot to meet this challenge.
- Steady video compresses better. Modern digital compressors use a lot of bits to encode moving features of a video. If the whole image shakes, it is all moving. This wastes an enormous number of bits. Remove the shake and digital recorders store more video. For the same reason, stable images have higher compression and quality for remote and Internet viewing.

SteadyEye Features

- The RHP Image Stabilizer Unit is simple to install. It plugs in between any analog Color, B/W, IR or Thermal camera and down-stream devices such as recorders, multiplexer or transmission systems.
- Works with standard analog cameras
 - New installations and retro-fit market are both available
 - NTSC or PAL video in and out
 - Composite Video in and out
- Corrects all shake
 - Left-Right (X)
 - Up-Down (Y)
 - Rotation
 - Zoom
- Full resolution
- Simple On-Screen or DIP switch selection of parameters



RHP Image Stabilizer at a glance

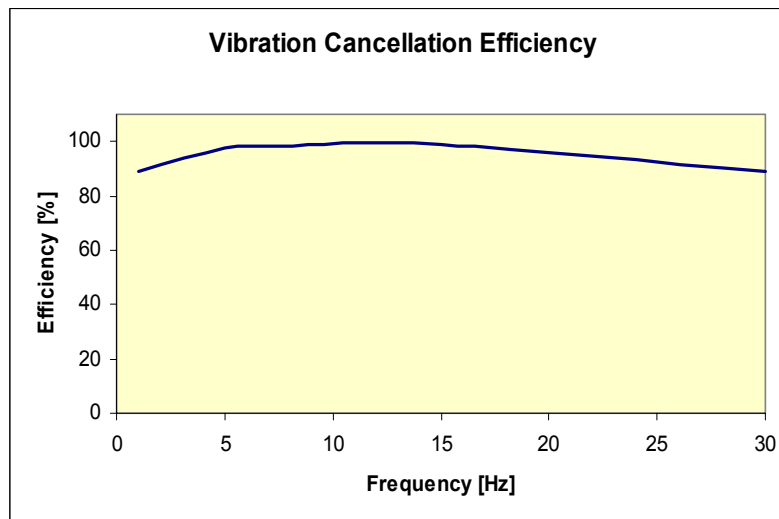
Application Scenarios - Digital Real Time Video Stabilization

RHP Image Stabilizer integrates with any analog Color, B/W, IR or Thermal camera and is particularly suitable for:

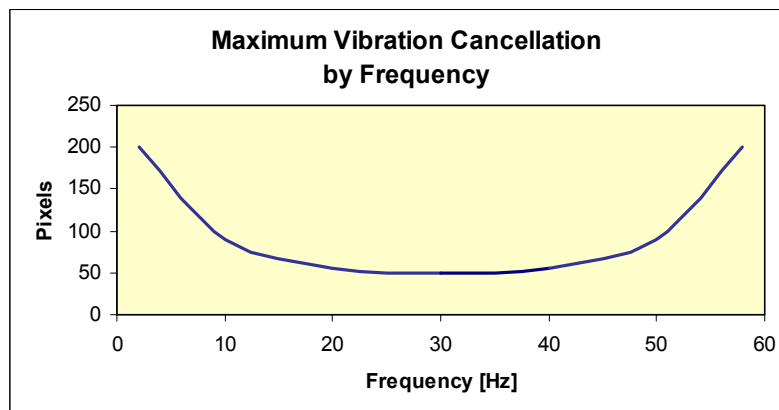
- Buses, trains, cars, ships and boats
- Airplanes and helicopters
- Unmanned Aerial Vehicles (Drones)
- Tall buildings, bridges and tunnels
- Coastal Surveillance at windy locations
- Factories with vibration from machinery or Air Conditioning
- Pole-mounted cameras e.g. traffic monitoring at highways



Vibration Cancellation by Frequency



Maximum Image Vibration Cancellation Amplitude





Technical Specifications

Video Input:

- 1 input channel
- Auto-detect PAL or NTSC
- 75 Ohm BNC connector

Video Output:

- 1 output channel
- Output automatically adapted to input format
- 75 Ohm BNC connector

Power:

- External power supply
- 12VDC, 1.2A
- DC Power Plug 2.5x5.5x14mm, Center+

Operating Conditions:

- Temperature: 30 – 120°F (0 – 50°C)
- Humidity: 20 – 95%, non-condensing

Dimensions and Mechanics:

- Height: 2.2" (5.5 cm)
- Width: 6.7" (16.9 cm)
- Length: 7.3" (18.5 cm)
- Weight: 2.4 lbs (1.1 kg)
- Finish: Black powder-coated aluminum
- Protection: Classification IP 65

EMC compliance:

- FCC part 15B class A
 - EN55022 class A
 - EN61000-3-2
 - EN61000-3-3
 - EN61000-6-2
- All user settings stored in EEPROM

Application Setup:

- 12 DIP-switches for parameter selection
- 6-key keypad for control of OSD.

Board Features:

- Equator BSP-15 DSP
- 64 MB SDRAM
- 4 MB Flash
- 4 kbit parameter memory
- Video decoder, ITU 656 YUV 4:2:2 format
- Video encoder, ITU 656 YUV 4:2:2 format

Stabilization Correction:

- X/Y correction
- Rotation correction
- Zoom correction

Zoom Settings:

- No digital zoom
- 5% - 15% digital zoom

Vibration Type:

- Fast/medium/slow/very slow

Output Video Latency:

- approx. 100 milliseconds

Exclusion Areas:

- Default Region of Interest is entire Frame
 - Definition of top and bottom frame exclusion areas (exclude lettering)
- Picture-in-picture demo mode
- Side-by-Side demo mode



RHP-IS (RHP Image Stabilizer)

19" Rack Unit Digital Real-Time Video Stabilizer



This version of the RHP Image Stabilizer is a 19" Rack mount solution for professional security customers. It can be equipped with a maximum of two of our board based video processing modules. The 19" Rack Unit includes all the features of the Desktop Unit plus Ethernet connectivity.

Technical Specifications 19" Rack Unit

Video Input:

- Up to 2 input channel
- Auto-detect PAL or NTSC
- 75 Ohm BNC connector
- S-Video on 4-pin mini-DIN connector

Video Output:

- Up to 2 output channel
- Output automatically adapted to input format
- 75 Ohm BNC connector
- S-Video on 4-pin mini-DIP connector

Power:

- 100-240VAC, 50/60Hz

Operating Conditions:

- Temp.: 0 – 50°C (32 – 122°F)
- Humidity: 20 – 90%, non-cond.

Dimensions and Mechanics:

- Height: 1U (44 mm)
- Width: 448 / 482 mm (19")
- Depth: 284 mm (11")

EMC compliance:

- FCC part 15B class A
- CE
- UL and CSA

Application Setup:

- Via OSD from external joystick or DVR
- Via OSD from keypad at front panel
- Via Web browser

Board Features:

- Equator BSP-15 DSP
- 64 MB SDRAM
- 4 MB Flash
- 4 kbit parameter memory
- Video decoder
ITU 656 YUV 4:2:2 format
- Video encoder
ITU 656 YUV 4:2:2 format

Firmware upgrade ability:

- Through 9-pin serial (COM) port
- Through terminal block
- Via Ethernet connection

Power Failure Safe:

- All settings stored in EEPROM

