

DNE-2

Digital Noise Eraser



Film Dust, Grain Noise Eraser

The DNE-2 is a realtime noise eraser that incorporates the best of FOR-A's image processing technology. Image processing with motion compensation is used to accurately remove only the noise without harming the quality of the original video. The DNE-2 is ideal for removing grain noise and specks in video converted from film media and for removing block noise occurring during compression and enhancement of low SN video.

Main Features

- HD noise eraser that enables removal of grain noise and dust in film
- Image processing with motion compensation enables accurate noise removal without motion distortion while maintaining the image outlines
- Removes block noise and mosquito noise caused by low SN video and compression in video
- Ideal as a preprocessor for improving image quality for DVD mastering (compression) and other processes
- Major functions (planned)
 - Removes grain and electronic noise
 - Process control and color correction
 - Detail enhancer
 - Film line scratch removal tool (to be available as option)
 - Stabilizer and luminance flicker correction (to be available as option)

Specifications (Preliminary)

Standard	1080/59.94i, 1080/50i, 1080/24p, 1080/24psf, 1080/23.98p, 1080/23.98psf, 720/59.94p, 720/50p (selectable)
Video Input	HD-SDI: 1.485Gbps or 1.485/1.001 Gbps, 75Ω, 1 input, BNC
Reference Input	BB: 0.429Vp-p (NTSC) / 0.45Vp-p (PAL) or Tri-level sync: ±0.3V, loophrough, 2 inputs, BNC
Video Outputs	HD-SDI: 1.485Gbps or 1.485/1.001Gbps, 75Ω, 1 channel 4 outputs, BNC (Output 1 functions as bypass output)
Quantization	Y: 10-bit, C: 10-bit
Sampling Frequency	Y: 74.25 MHz or 74.25/1.001 MHz, C: 37.125 MHz or 37.125/1.001 MHz
Process Control	Video level: -30% - +30% (0.5% step) Chroma level: -30% - +30% (0.5% step) Chroma phase: -30° - +30° (0.5° step) Setup level: -30% - +30% (0.5% step) Clip: Y 100% ON/OFF, Y 0% ON/OFF, C 100% ON/OFF
Color Correction	Mode: balanced, differential, sepia (selectable) White level: 50% - 200% ea., G, B, and R Black level: 50% - 200% ea., G, B, and R Gamma level: 75% - 125% ea., G, B, and R (Adjustable between Highlight, Middle and shadow level) Y-white clip: Approx. 50% - Approx. 110% C-white clip: Approx. 50% - Approx. 110% Y-black clip: Approx. -15% - Approx. 50%
Detail Enhancer	0% to 200% of the luminance signal (Can be set for the low/midrange/high frequency ranges)
2D Filter	Y and C: 4-level selector, image detail adaptive filter system
3D Filter	Y and C: 4-level selector, motion adaptive frame cyclic filter system
Phase Control	Video horizontal phase: -128 clk - +127 clk, Video vertical phase: -10H - +10H System horizontal phase: -512 clk - +511 clk, System vertical phase: -512 H - +511 H
I/O Delay	Max. 4 frames
Audio inputs	Embedded audio: Group x 2 (4 stereo channels)
Audio outputs	Embedded audio: Group x 2 (4 stereo channels)
Audio sampling frequency/Quantization	48 kHz/24 bit
Audio delay	+5 - +350 ms (1 ms steps, four channels can be adjusted separately)
Interfaces	Alarm output: D-sub 15-pin (female), 1 channel (Power, fan, and temperature alarm) RS-422/Remote: D-sub 9-pin (female), 1 channel (shared RS-422/Remote)
Temperature / Humidity	10°C - 40°C / 30% - 85% (no condensation)
Power / Consumption	100 VAC - 240 VAC ±10%, 50/60 Hz / Approx. 440 VA (Approx. 440 W) (When 100 VAC supplied, at maximum output current)
Dimensions / Weight	430 (W) x 132 (H) x 500 (D) mm EIA 3 RU / Approx. 20.0 kg (with one power supply unit)
Accessories	Operation manual, AC cord, rack mount brackets
Option	Redundant Power Supply Unit Remote Control Panel (TBA) Film line scratch removal tool (TBA) Stabilizer and luminance flicker correction (TBA)

*The specifications presented here are not final and are subject to change without notice in the course of product development.

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