■ Algorithm Specialist

TMC

"LucidEye" Visibility Improver Hardware IP

Powered by original computing algorithm "DMNA"
based on mathematical methods

1 Summary

- "LucidEye" improves the visibility of unclear images such as those deteriorated due to weather conditions (snow, haze, or fog), and dark images due to backlight or insufficient illumination.
- This hardware IP is suitable for security, surveillance applications, etc., as well as for improving image recognition rate by AI.

2 Features

- Improves the visibility in various shooting conditions.
- Supports both AXI4-stream I/F and DE (data enable) I/F as input/output video interface.
- Selectable starting by software or hardware event.

3 Specifications

Throughput	1pixel/clock, 4pixel/clock
Image size	320x240P～4096x2160P. Must be multiple of 4 in case of 4pixel/clock.
Color format	8bit YUV444, 8bit YUV422
Video signal interface	·Valid/ready signal handshake in AXI4-stream standard compliant ·Fixing the ready of master to high, fixed cycle delay operation by DE (data enable) is possible
Control interface	APB3

4 Application Examples

Improved visibility of ship name in the fog

Improved visibility of license plate in the dark

Contact Information
7F, Gotanda NN Bldg., 2-12-19, Nishi-gotanda, Shinagawa-ku, Tokyo 141-0031
Techno Mathematical Co., Ltd.
TEL: +81-3-3492-3633   FAX: +81-3-3492-3631
E-mail: info-sales@tmath.co.jp   URL: https://www.tmath.co.jp/en/