Product Brief - preliminary

Introducing a New Approach To 3D Mapping eTOF[™] Li∩AR

by Newsight Imaging

NEWSIGHT

Solid-State LiDAR Reference Design

Newsight's enhanced Time-of-Flight (eTOF[™]) solid-state LiDAR is our new complete solution for a versatile and affordable 3D mapping device. Based on the successful NSI1000 sensor, the reference design supports the patented eTOF[™] technology for improved performance. The reference design is highly configurable for different applications and very flexible in coping with different scenarios and environmental conditions.

The eTOF[™] LiDAR is designed for a wide horizontal field of view (FOV) and a high frame rate. It provides high accuracy and precision with a high dynamic range.



Depth Imaging Using eTOF™

Depth Image Color Coded, Before Image Processing

<u>Original Setting</u>

Contact us: Info@nstimg.com

Product Brief - preliminary

eTOF[™] Li ∩∧R

by Newsight Imaging

Product Features



Acquisition 32x1024 depth points







Indoor-outdoor Auto exposure



Object Detection Of different colors/grays



Range 0.2 to 100 meters - Distance error < 1%

Parameter	enhanced Time-of-Flight (eTOF™)
Resolution (H x V Pixels)	1024 x 32 (full resolution)
Field of View (H x V)	30/60/120 x 1.37/2.74/4.7
Indoor Range	0.2-100 meter
Outdoor Range	0.2-50 meter
Accuracy	Better than 1%
Power Consumption	Low
Depth Image Max Frame Rate	200 fps (for 2 meter)
Communication Interface	USB-C, UART, MIPI
Camera Power Requirements	5 VDC, supplied via the USB connector
Size (W x H x L)	99.6 mm x 80.6 mm x 63.1 mm

See Beyond the Fog

Module includes:

- NSI1000 sensor pixel array 32 x 1024, global shutter
- RDC board
- On-board ST MCU ARM® Cortex®-M4, 1M Flash.
- Imaging lens with a BP filter to fit selected FOV
- On-board VCSEL and driver with high peak power.

Full software application package (runs on windows)

