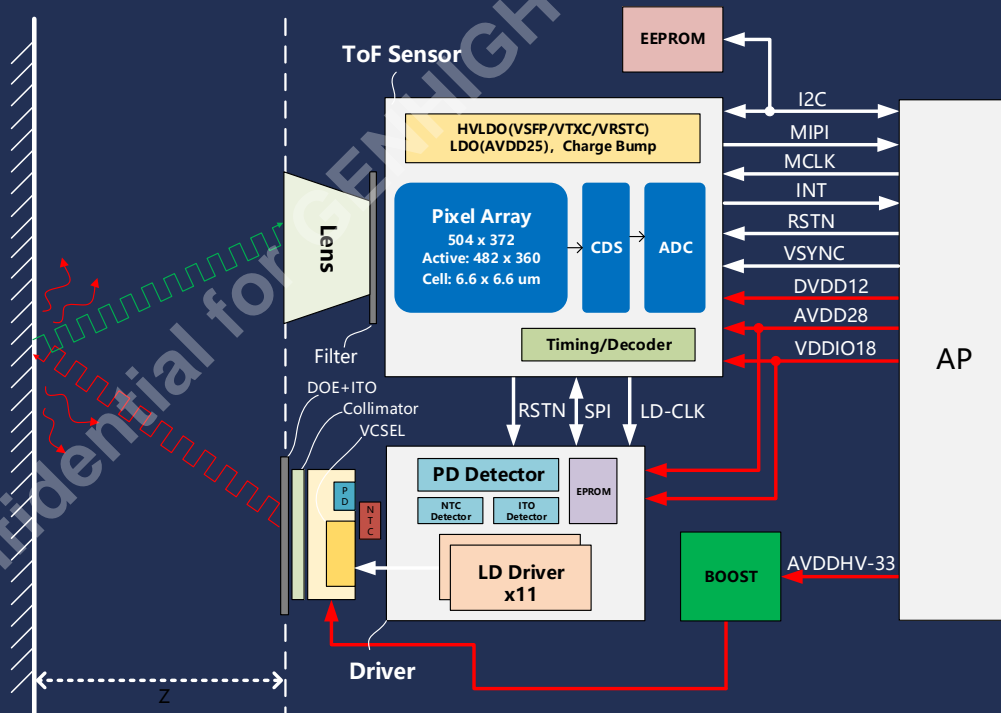




Goodix ToF 解决方案

2022/02/16

GOODIX



汇顶提供:

- TOF传感器芯片: GVW8366B (BSI + 全局曝光 + 高QE)
- 激光驱动芯片: GD8573B (多达11个驱动通道, 高达11A峰值电流)
- 完整解决方案: 硬件、光路参考设计、深度算法SDK以及更多



*主要差别在于发射模组和算法.

All Rights Reserved.

Goodix iToF Features

GOODIX



Sunlight Suppression



Low Power



Anti-interference

HDR

High Dynamic Range



Pulse

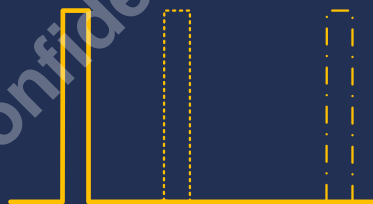


CW



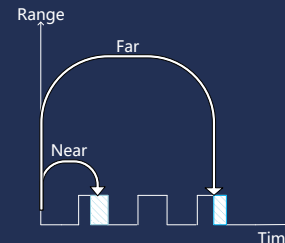
- Hybrid-modulation

- Higher SNR
- Shorter exposure time
- Less sunlight received



- Pseudo random pulse

- Lower interference probability
- Less EMI



- Time gating HDR

- Single frame HDR
- Less motion blur

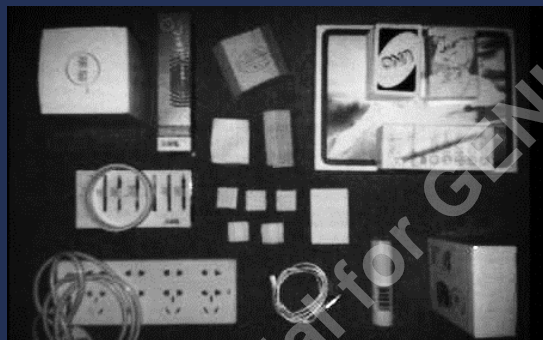


Flood-ToF方案

GOODIX



RGB图



IR图



点云图

□ 特性: {
✓ 分辨率: 480*360px
✓ 高精度: <1%

□ 应用: {
✓ 智能避障
✓ 人脸识别
✓ 手势识别
✓ 物体测量

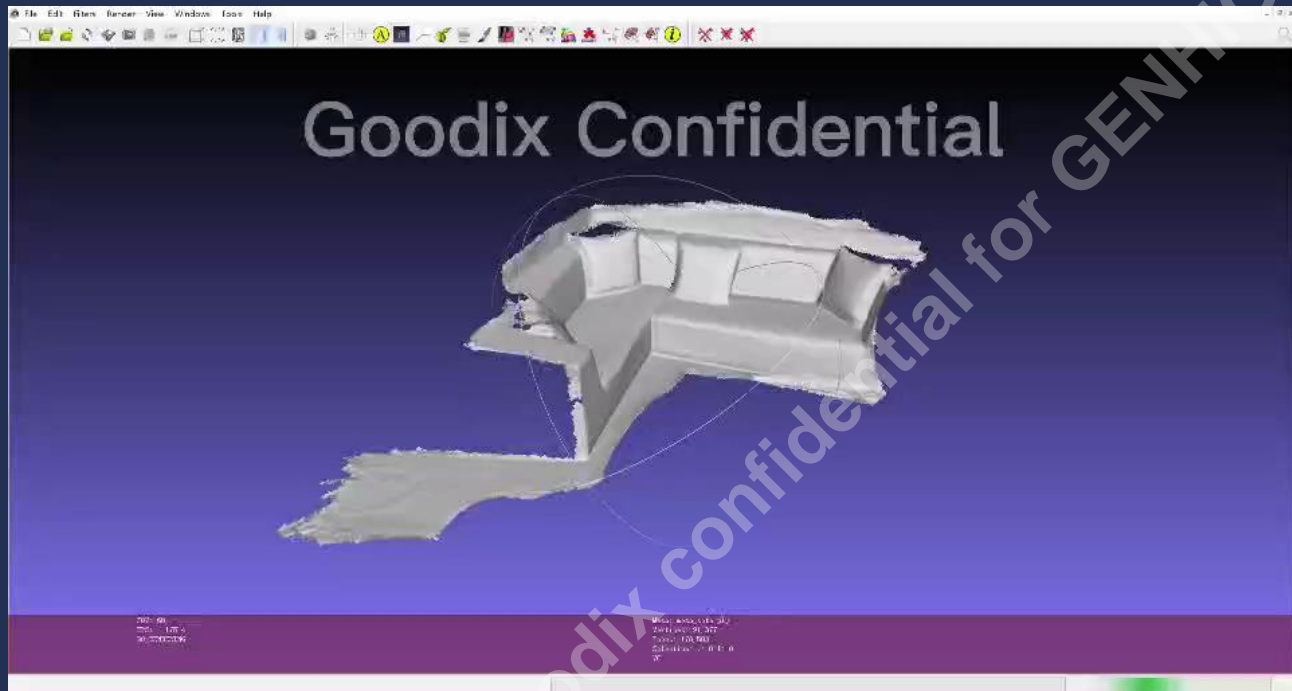


Spot-ToF方案

GOODIX

3D场景重建 (576散斑Spot-ToF + RGB Camera)

稀疏转稠密算法



- 方案特性:
- ✓ 远距离: 可达5m
 - ✓ 低功耗: ~300mW@1%精度
 - ✓ 弱多径: <3°

- 应用场景:
- ✓ SLAM
 - ✓ 影像增强
 - ✓ AR

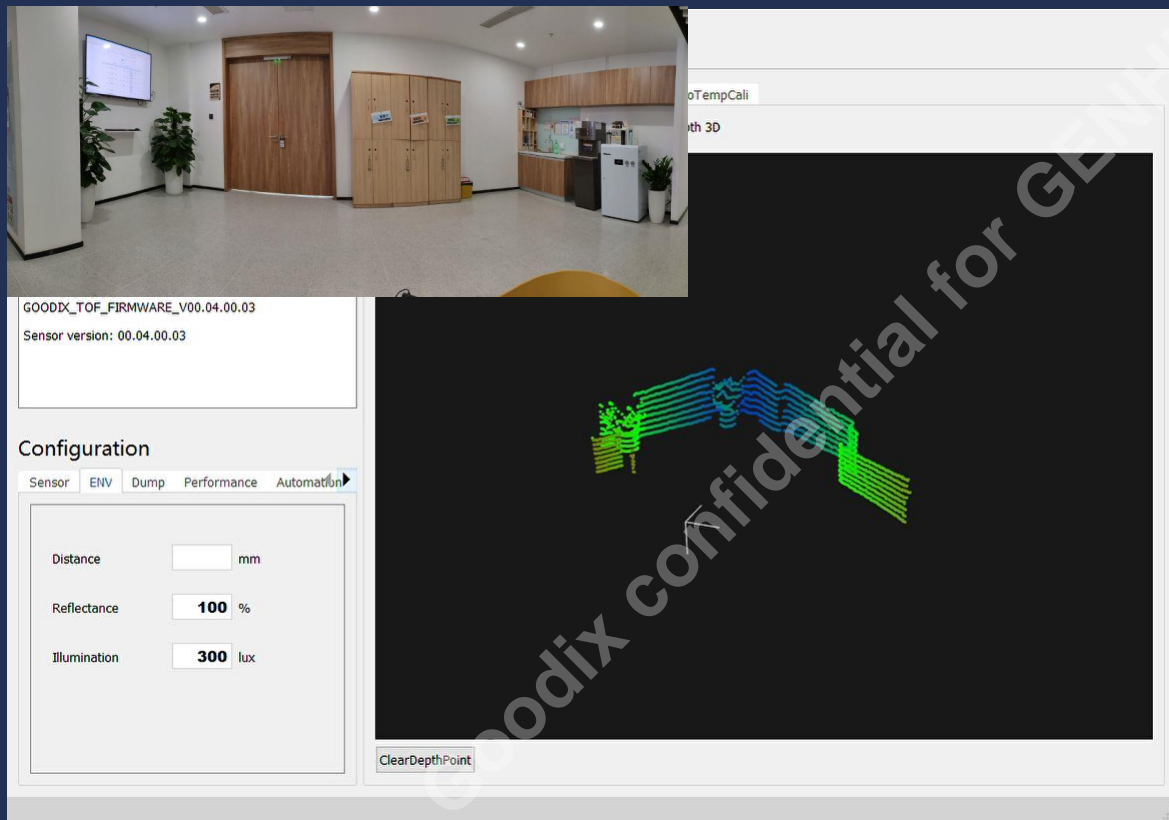
(备注: 1、可通过提高功率, 测量更远距离; 2、当前在高通865平台运行稀疏转稠密算法。)

All Rights Reserved.



Line-ToF方案：8线固态激光雷达

GOODIX



方案特性:

- ✓ 超广角: $>100^{\circ}$
- ✓ 远距离: 8m
- ✓ 低功耗: $<1000\text{mW}$

应用场景:

- ✓ 导航
- ✓ 避障
- ✓ 建图



Solutions Selection Guide

GOODIX

系列	应用	名称	光场类型	FOV (°)	最大距离 (m)	分辨率	精度	Demo
WALLE (瓦力)	机器人导航及避障	WALLE-64F	Flood	64x50	3 or 5	480x360 or 240x180	<1%	Ready
		WALLE-120F	Flood	120x28	2	240x180	<1%	Ready
		WALLE-120L8	8 Line	120x15	8	240H	<1%	Developing
MOAI (摩艾)	人脸识别及人体识别	MOAI-64F	Flood	64x50	1.2	480x360	<3mm@1m	Ready
		MOAI-76F	Flood	76x61	1.2	480x360	<3mm@1m	Developing
FALCO (隼)	飞行器避障及测高等	FALCO-64F0H	Flood	64x50	20	240x180	<5%	Developing
LENS (镜头)	移动终端影像及AR	LENS-60S578	Spot	60x45	5	256x192	<1%	Ready
		LENS-64F	Flood	64x50	5	240x180	<1%	Ready
KARL (卡尔)	汽车安全	KARL-64F	Flood	64x50	3	480x360	<1%	Ready

Note: The DEMOs only show depth map, not show application.



All Rights Reserved.

Thank you!

Goodix confidential for GENHIGH