

청소로봇용 YDLIDAR社 G6 2D LiDAR (삼각측량) BM

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Customers cases



Customers cases



Customers cases



Catering Robots



Delivery Robots



Cobots



AI Home robot

Triangulation lidars



YDLIDAR Triangulation series lidar is a 360° scanning 2D rangefinder, which has ultra-high range accuracy in short range, max distances range from 8m to 25m and max range frequency up to 18000 Hz. X series lidar provides cost effective solutions for service robot, industrial AGV, home robot, robot vacuum cleaner

[More info.](#)

ToF lidars

YDLIDAR ToF series lidar is a 2D TOF 360° rangefinder. With high resistance to ambient light interference, it is suitable for outdoor robots to realize mapping and obstacle avoidance; It is IP67 protection level, which is suitable to deal with complex environment outdoor. The max range distance could reach to 50m and max range frequency 30000 HZ. It could be applied in various outdoor robotics

[More info.](#)



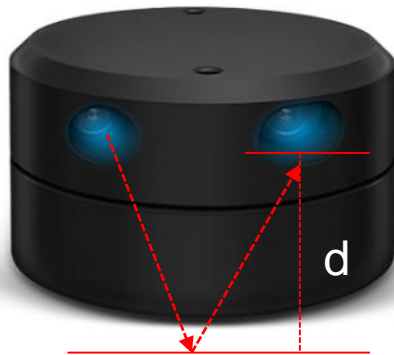
Solid-state lidars

YDLIDAR GS2 is a linear array solid lidar (hereinafter referred to as GS2). Based on the principle of triangulation, GS2 can achieve 100° high-precision laser ranging and environmental point cloud data output, especially for tiny obstacles, which can be accurately identified and have excellent processing capabilities. With its high precision, high stability, high resolution, GS2 can be widely used in intelligent obstacle avoidance, positioning mapping and path planning of intelligent equipment such as robot vacuum cleaner and service robots to effectively improve the intelligent perception performance and user experience of robots.



YDLIDAR G6

- ✓ 삼각측량법을 이용한 2D LiDAR (X,Z)
- ✓ 360 Scan, 0.12~16m 거리



Range Frequency
10000-18000Hz



Scan Frequency
5-12Hz



Range Distance
0.12-16m



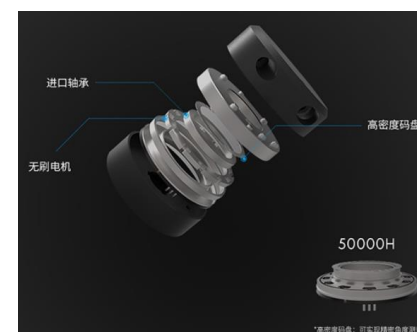
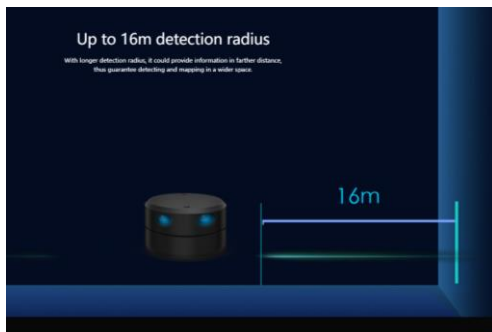
Scan Angle
360°



Angle Resolution
0.1-0.24°



Size
Φ72.3*41.2mm



2 SPECIFICATIONS

2.1 Product Parameter

CHART 1 YDLIDAR G6 PRODUCT PARAMETER

Item	Min	Typical	Max	Unit	Remarks
Ranging frequency	10000	18000	18000	Hz	/
Motor frequency	5	7	12	Hz	/
Ranging distance	0.12	/	16	m	Ranging frequency = 10KHz (to be customized), 80% Reflectivity
	0.26	/	16	m	Ranging frequency = 16KHz (to be customized), 80% Reflectivity
	0.28	/	16	m	Ranging frequency = 18KHz, 80% Reflectivity
Field of view	/	0-360	/	°	/
Systematic Error	/	2	/	cm	Range ≤ 1m
Statistical Error	/	2.0%	/	/	1m < Range ≤ 8m

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2 / 7

YDLIDAR Make machines serve people more intelligently

Laser pitch angle	0.25	1	1.75	°	/
Angle resolution	0.1 (Frequency @5Hz)	0.14 (Frequency @7Hz)	0.24 (Frequency @12Hz)	°	frequency of sample=1800Hz

Note1: The range and relative accuracy in the above table are factory values, statistical error changes with the actual distance value.

CHART 3 YDLIDAR G6 INTERFACE DEFINITION

Pin	Type	Description	Defaults	Range	Remarks
VCC	Power Supply	Positive	5V	4.8V-5.2V	/
Tx	Output	System serial port output	/	/	Data stream: Lidar → Peripherals
Rx	Input	System serial port Input	/	/	Data stream: Peripherals → Lidar
GND	Power Supply	Negative	0V	0V	/
NC	Reserve	Reserved pin	/	/	/

792nm Laser 사용

CHART 5 YDLIDAR G6 LASER OPTICAL PARAMETERS

Item	Min	Typical	Max	Unit	Remarks
Laser Wavelength	775	792	800	nm	Infrared band
Laser Power	/	3.5	6	mw	Average power
FDA	⚠ Class I				



모터부 (Voice coil motor)



모터부 PCB 앞면



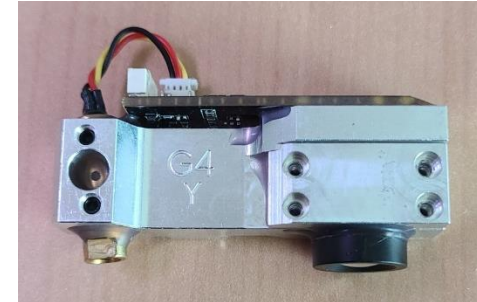
모터부 PCB 뒷면

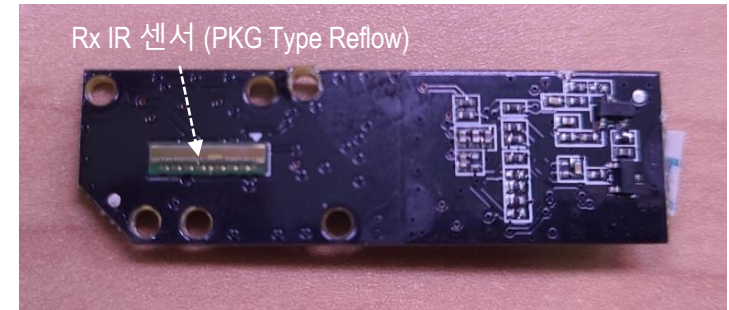
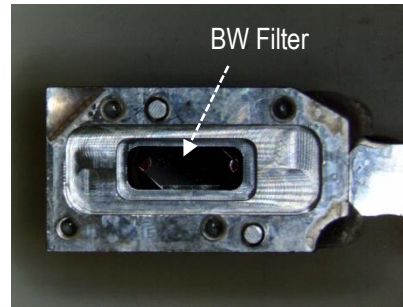
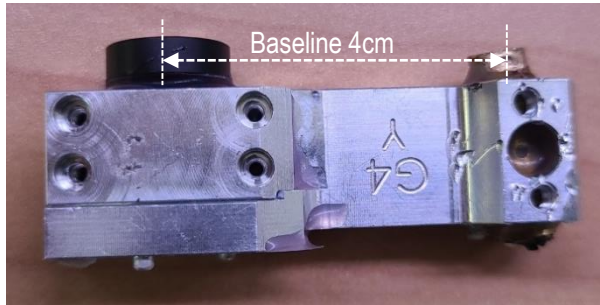


Transceiver 옆면 + 모터 PCB

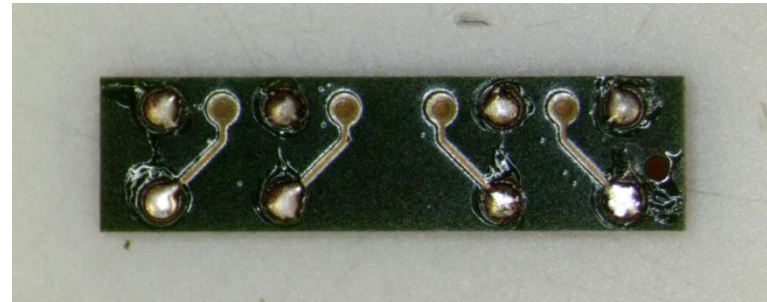
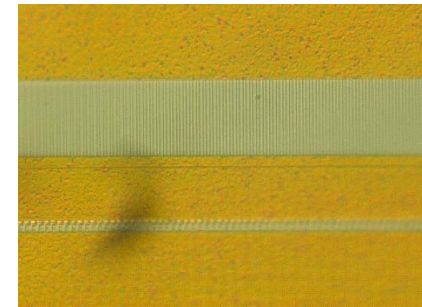
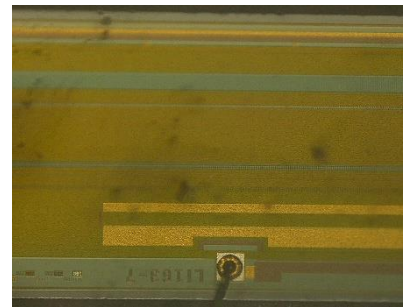
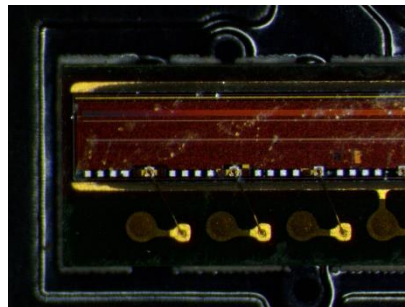
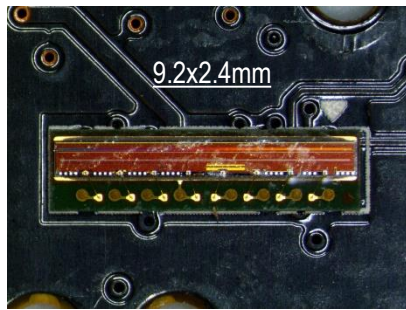


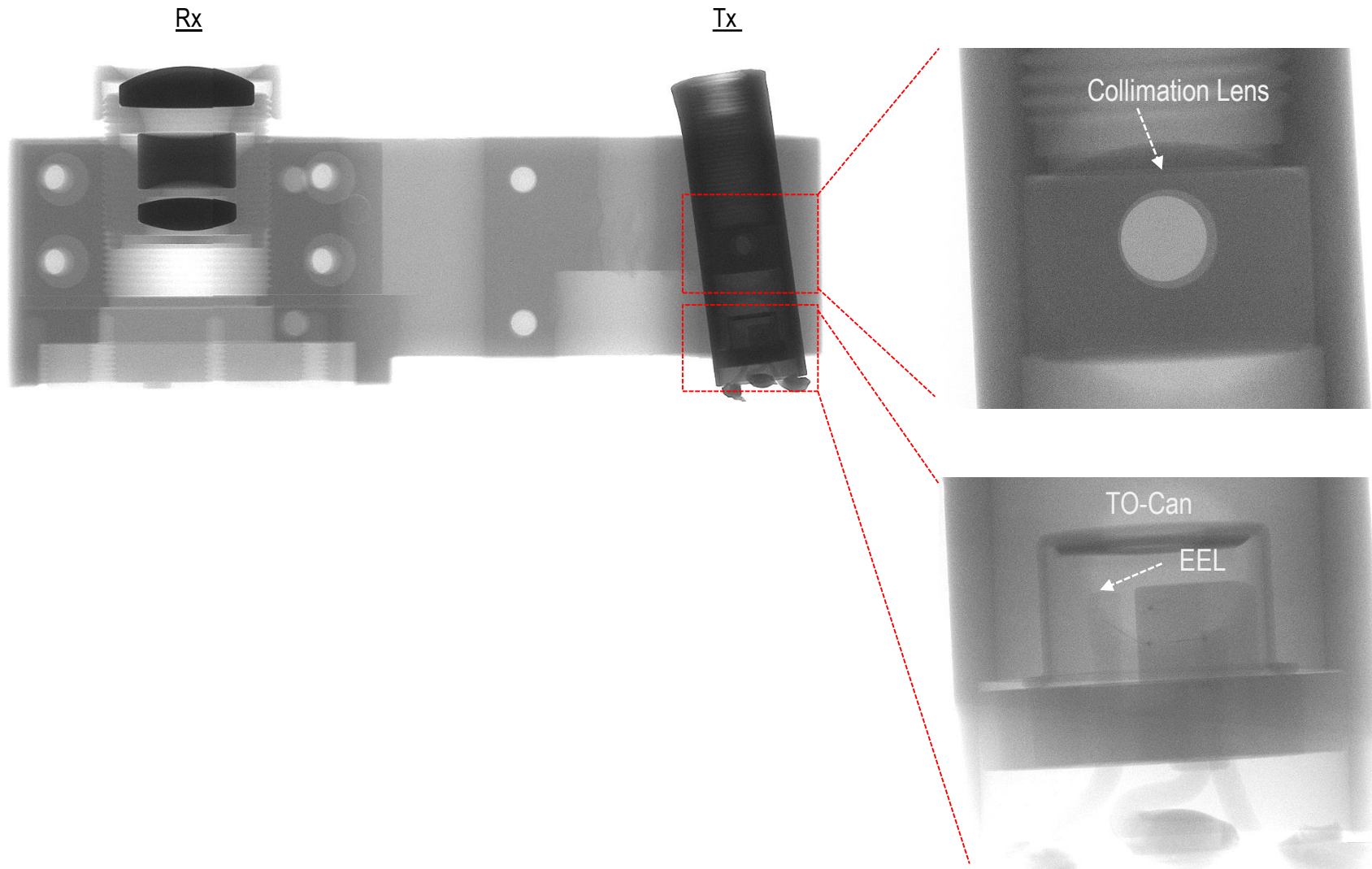
Transceiver & PCB



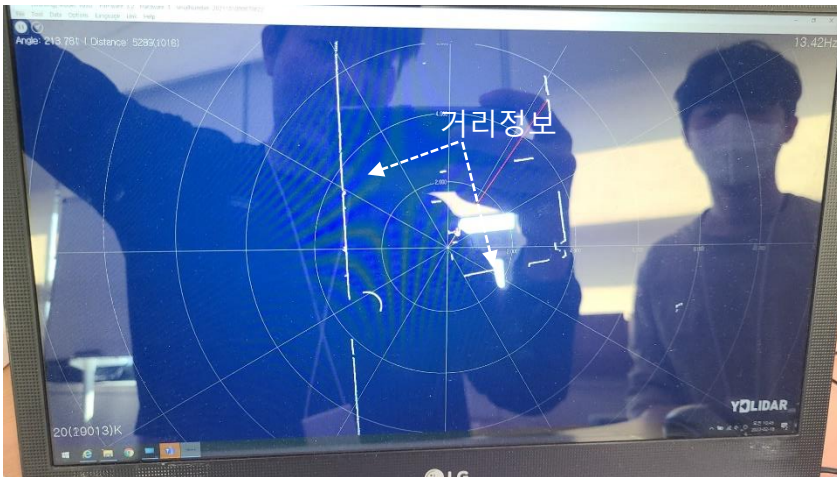
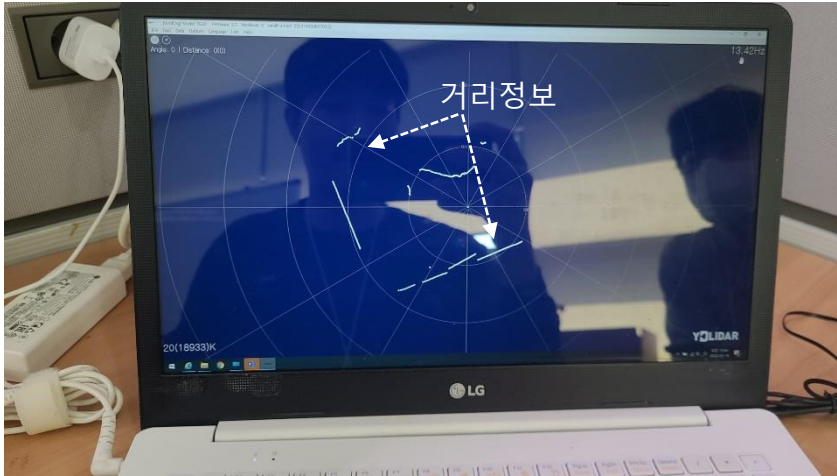


Rx IR 센서





✓ 모서리 및 0.26~16m 거리 확인



동영상

