

OVERVIEW

ZG2 is a Linear array solid LiDAR. Based on the principle of Triangulation, it is equipped with related optics, electricity, and algorithm design, to achieve 100 degrees high-precision laser distance measurement, and output point cloud data of the scanning environment. It can be used for robot obstacle avoidance, path planning, etc.



TECHNICAL SPECIFICATIONS

PERFORMANCE PARAMETER

Item	Min	Typical	Max	Unit	Remarks
Ranging frequency	7.5	/	28	Hz	Indicates the ranging times per second, and the frequency changes in real time according to the scene
Ranging distance	25	/	300	mm	80% reflectivity
Field of view	100	/	108	Deg	/
Angle resolution	/	0.6	/	Deg	/
Relative error	/	≤3	/	mm	Distance ≤ 100mm
	/	≤3%	/	/	100 < Distance < 200mm
	/	≤8%	/	/	200 ≤ Distance < 300mm
Angle error	/	±3	/	Deg	/
Sunlight resistant	/	/	25k	Lux	/
Life-time	10000	/	/	h	/

ELECTRICAL PARAMETER

Item	Min	Typical	Max	Unit	Remarks
Supply voltage	3.2	3.3	3.4	V	Excessive voltage might damage the Lidar while low affect normal performance
Voltage ripple	0	78	90	mV	High ripple effects performance or even distance measurement
Start-up current	/	240	/	mA	/
Working current	/	100	/	mA	/


INTERFACE DEFINITION

Pin	Type	Description	Defaults	Range	Remarks
VCC	Power supply	Positive	3.3V	/	/
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	/

SERIAL PORT SPECIFICATION

Item	Min	Typical	Max	Unit	Remarks
Baud rate	/	921600	1500000	bps	8-bit data bit, 1 stop bit, no parity
High signal level	2.4	3.3	3.4	V	Signal voltage > 2.4V is high signal
Low signal level	0	0	0.5	V	Signal voltage < 0.5V is low signal

LASER OPTICAL PARAMETERS

Item	Min	Typical	Max	Unit
Laser wavelength	798	808	818	nm
	840	850	860	nm
Laser power	/	25	/	mW
FDA	 Class I IEC60825-1			
FPC description	Yellow FPC/ Screen printing 808 Black FPC/ Screen printing 850			

OTHERS

Item	Min	Typical	Max	Unit	Remarks
Operating temperature	-10	25	40	°C	Long-term working in a high temperature environment will reduce the life span
Storage temperature	-30	25	70	°C	/
weight	/	4.2	/	g	N.W. (Without cable)