Introduction to CCD Module

1.What is CCD?

CCD refers to a charge coupled device, which is a detection element that represents the signal size using the amount of charge and transmits the signal through coupling. It has a series of advantages such as self scanning, wide sensing spectrum range, small distortion, small volume, light weight, low system noise, low power consumption, long lifespan, high reliability, and can be made into highly integrated components.
CCD can be divided into lattice CCD and linear CCD in the field of application.

2.What are the applications of CCD?

- Dot matrix CCD is widely used in digital photography, astronomy, especially optical telemetry technology, optical and spectral telescopes, and high-speed photography technology, such as Lucky imaging. Especially applied in cameras and digital cameras, CCD cameras composed of them have small volume, light weight, and are not affected by magnetic fields.
- The application of linear CCD: scanner, which accurately presents the scanning results formed by it.

3.The difference between dot matrix CCD and linear CCD?

- Dot matrix CCD: It includes two directions: x and y, pursuing the breadth of results
- Linear CCD: It only has one direction of x, pursuing the accuracy of the results

4.Introduction to the CCD camera of this product

1. This product uses a linear CCD, which can be installed on a small car to track black and white lines. It can be applied to microcontrollers with relatively low data processing volume, greatly reducing the difficulty of data processing compared to dot matrix CCD.

2.This product uses a 56 degree distortion free lens equipped with a TSL1401 linear CCD.

3.The image of this product is as follows: