|  |  |
| --- | --- |
| Product name and model | Periscopic dual camera high magnification zoom motor |
| Main technical performance index of the product | Function: anti tremor and automatic focusing optics  Suitable pixel: 16M/13M |
| Compared with the old products, what are the improvements  (structure, material, technology, process, performance, use function) | Optical zoom camera has been the goal of mobile camera development, but due to the volume limitations of the camera, the camera's optical zoom lens structure is difficult to narrow and become an optical zoom mobile phone camera. Thus, with the dual camera, telephoto lens and short focus lens, it becomes an effective way to improve the quality of the digital zoom camera and approach the camera zoom lens quality. However, to increase the optical zoom magnification, the effective focal length EFL telephoto lens must be long, thin trend to meet the mobile phone, it is necessary to develop periscopic camera architecture. At present, the market of mobile phone camera, and no periscope camera architecture, the product innovation and development of mobile phone camera periscope focus motor, collocation 2 times optical telephoto lens with short focal lens composed of two cameras, reach the camera quality 3 ~ 5 times optical zoom. The new product has the following improvements:   |  |  |  |  | | --- | --- | --- | --- | |  | Old products | New product | Utility | | Structure | Straight in type optical path camera. The focusing movement direction of the lens is consistent with the incident light entering the camera direction. The lens focal length affects the camera height, and then affects the cell phone thickness. | Periscope optical camera. The incident light reflects and changes the direction through the reflector, so that the focusing movement direction of the lens is close to 90 degrees with the incident light entering direction, so that the telephoto lens does not increase the height of the camera, and does not influence the thickness of the mobile phone. | Without affecting the height of the camera and the thickness of the handset, the zoom lens focal length can be matched with the dual camera to achieve the high magnification optical zoom camera quality. | | Design Technique | Traditional focusing motor design technology | Periscope focus motor design technology innovation | The focusing movement direction of the lens is close to 90 degrees with the incident light entering direction, so that the telephoto lens does not increase the height of the camera head. | | Technology | Magnet, single sided monopole, magnetic polarization | Magnet single side multipole magnetic polarization | Reduce the coil configuration area, effectively control the camera height close to the lens diameter, so that the camera height is minimized. | | Use function | Autofocus. But the overall optical path of the lens is usually less than 5mm, so that the camera height can meet the requirements of the thickness of the phone, but it can not match the telephoto lens, and can not achieve large magnification optical zoom. | Autofocus. The utility model can be matched with a telephoto lens, and the focusing movement direction of the lens is close to 90 degrees with the incident light entering direction, so that the telephoto lens does not increase the height of the camera, and achieves large magnification optical zooming. | The telephoto lens can be added without increasing the height of the camera to achieve a large magnification optical zoom. | |