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| Product name and model | Periscopic dual camera high magnification zoom optical anti tremor motor |
| Main technical performance index of the product | Function: anti tremor and automatic focusing opticsSuitable 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, no periscope optical anti tremor focus motor, can not make the periscopic camera with anti tremor stabilized camera quality function. The product innovation and development of periscope optical anti tremor focus motor, can be 3 times optical collocation telephoto lens with short focal lens, double camera, up to 5 ~ 8 times optical zoom camera quality. The new product has the following improvements:

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|  | 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 | The traditional anti tremor focus motor design technology | Handshaken focus motor design technology innovation periscope. The rotation angle of the mirror, to achieve anti tremor without increasing the height of the camera function. | 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 | Handshaken, optical anti AF. 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. | Handshaken, optical anti AF. 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 camera does not increase the height, achieve high magnification optical zoom, and have anti tremor focus, effectively enhance the quality of mobile phone camera. |

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