What is claimed is:

1. A measurement system, comprising:

a light source configured to produce an original beam, wherein a return beam is formed by the original beam returning from a measured area of a measured object;

an optical assembly configured to obtain a pending beam based on the return beam, wherein at least part of the pending beam acts as a first beam;

a first detection device configured to obtain first detection information based on the first beam;

a mobile device configured to move the optical assembly and the measured object with respect to each other in a direction of an optical axis of the optical assembly; and

a processing system configured to determine an actual distance between the optical assembly and a fixed plane of the measured object at first moment, according to the first detection information at first moment.

2. The measurement system according to claim 1, wherein the optical assembly comprises:

a first splitter configured to divide the original beam into a reference beam and an object beam incident into the measured area, wherein the return beam is formed by the object beam returning from the measured area; and

a reference mirror configured to propagate the reference beam along a preset trajectory to obtain a pre-interference beam, wherein the pre-interference beam and the return beam are interfered to obtain the pending beam;

the first detection information includes intensity of a light with a predetermined wavelength of the pending beam.

3. The measurement system according to claim 1 or 2, wherein the processing system configured to determine an actual distance between the optical assembly and a fixed plane of the measured object at each first moment comprises:

controlling the mobile device such that the optical assembly and the measured object are moved with respect to each other in the direction of the optical axis, so that there are a desired

plurality of predetermined distances between the optical assembly and the fixed plane at a plurality of second moments;

obtaining the first detection information at each second moment of the plurality of second moments; and

determining the actual distance between the optical assembly and the fixed plane at first moment based on the plurality of predetermined distances and the plurality of first detection information at each second moment.

4. The measurement system according to claim 3, wherein the processing system configured to determine the actual distance between the optical assembly and the fixed plane at each first moment based on the plurality of predetermined distances and the plurality of first detection information at each second moment comprises:

linear processing each predetermined distance of the plurality of predetermined distances to obtain a moving parameter;

~~taking a difference between~~determining a function relationship based on the moving parameter and ~~a parameter to be determined at each second moment as an independent variable and~~ the first detection information at ~~each second moment as~~ the ~~dependent variable to fit a function to be fitted to obtain a fitting function; and~~plurality of the second moments;

determining the actual distance between the optical assembly and the fixed plane at first moment according to the function relationship and the first detection information at the first moments~~.~~,

wherein determining a function relationship based on the moving parameter and the first detection information, includes: taking a difference between the moving parameter and a undecided parameter at each second moment as an independent variable and the first detection information at each second moment as the dependent variable to fit a function to be fitted to obtain a fitting function; and the fitting function is the function relationship.

5. The measurement system according to claim 4, wherein the optical assembly comprises:

a first splitter configured to divide the original beam into a reference beam and an object beam incident into the measured area, wherein the return beam is formed by the object beam returning from the measured area; and

a reference mirror configured to propagate the reference beam along a preset trajectory to obtain a pre-interference beam, wherein the pre-interference beam and the return beam are interfered to obtain the pending beam;

the first detection information includes intensity of a light with a predetermined wavelength of the pending beam;

the fitting function is: $I = A + \cos r(x - x_0) + B$, wherein the linear process includes being multiplied by 2Π/λ, r = 1; or the linear process includes being multiplied by 1, r=2Π/λ, λ is a wavelength of the light with a predetermined wavelength,

the processing system configured to take a difference between the moving parameter and the undecided parameter at each second moment as an independent variable and the first detection information at each second moment as the dependent variable to fit a function to be fitted to obtain a fitting function includes:

taking the moving parameter at each second moment as an *x* of the fitting function, taking the intensity of the light with the predetermined wavelength at each second moment as the *I* of the fitting function to fit the fitting function to obtain A, the undecided parameter x_0 and B to obtain the fitting function, the number of first moments being multiple, a processing system being configured to determine an actual distance between the optical assembly and a fixed plane of the measured object at each first moment, according to the first detection information at each first moment of first moments;

determining the actual distance between the optical assembly and the fixed plane at each first moment according to the fitting function and first detection information at the plurality of the first moments includes:

taking intensity of the light with the predetermined wavelength at each first moment as I in the fitting function to compute the x of the fitting function as the moving parameter at each first moment; and

determining the actual distance between the optical assembly and the fixed plane at each first moment according to the moving parameter at each first moment.

6. The measurement system according to claim 2, wherein:

the reference mirror is configured to propagate the reference beam along a preset trajectory by reflecting the reference beam to obtain a pre-interference beam;

the reference mirror and the first splitter are semi-translucent mirrors, and the reference mirror and the first splitter are arranged in parallel; or

the reference mirror is a mirror~~.~~,

~~7. The measurement system according to claim 1,~~and wherein the first detection device comprises:

a grating or a filter; and

a light intensity detector.

~~8. The measurement system according to claim 1, further comprising:~~

~~a first diaphragm configured to block a portion of the beam to be processed into the first detection device, wherein an angle between a central axis of the beam to be processed and the portion is greater than a first preset angle.~~

~~9.~~7. The measurement system according to claim 1 or 2, wherein the number of first moments is multiple, further comprising:

a second detection device configured to obtain second detection information according to a second beam, the second beam is a portion of the return beam or a portion of the pending beam, the second detection information characterizes a relative distance between the optical assembly and the measured area in the direction of the optical axis of the optical assembly;

the processing system is further configured to obtain a first moment when the second detection information is preset detection information as a feature moment; obtain the actual distance between the optical assembly and the fixed plane at the feature moment; determine height information of the measured area according to the actual distance between the optical assembly and the fixed plane at the feature moment.

~~10.~~8. The measurement system according to claim ~~9~~7, wherein the second detection device configured to obtain a second detection information according to the second beam comprises:

obtaining a detection image according to the second beam; and

obtaining the second detection information according to the detection image, the second detection information includes at least one of light intensity of the second beam and contrast of the detection image.

~~11.~~9. The measurement system according to claim ~~9~~8, further comprising:

a second splitter configured to split the return beam or the pending beam to obtain the second beam~~.~~

~~12. The measurement system according to claim 11~~, wherein the ~~optical assembly further comprises:~~

~~a first lens configured to collect the return beam, the first beam is formed by the return beam collected by at least part of the first lens; or the first lens configured to collect the beam to be processed, the first beam is formed by the beam to be processed collected by at least part of the first lens.~~

~~13. The measurement system according to claim 12, wherein:~~

~~when the first lens is configured to collect the return beam, the~~ second splitter is configured to split the return beam ~~collected by the first lens~~ to ~~form~~obtain the second beam and ~~a third beam, the optical assembly is configured to obtain the beam to be processed according to the third beam;~~

~~when the first lens is configured to collect the beam to be processed, the second splitter is configured to split the beam to be processed collected by the first lens to form the first beam and the second beam.~~

~~14. The measurement system according to claim 12, the optical assembly further comprising:~~

~~a second lens configured to collect the second beam.~~

~~15. The measurement system according to claim 14, wherein:~~

~~the second splitter is configured to split the return beam to obtain the second beam, the second lens makes the center axis of the second beam parallel to the direction of movement of the optical assembly;~~

~~the second splitter is fixedly connected to the optical assembly.~~

~~16. The measurement system according to claim 13, wherein:~~

~~the optical assembly is configured to move with respect to the second splitter.~~

~~17. The measurement system according to claim 11, wherein:~~

~~the second splitter is configured to split the return beam to obtain the second beam;~~

the optical assembly includes a lens configured to collect the return beam and propagate the return beam to the second splitter, or configured to collect the second beam~~;~~,

and wherein the measurement system further comprises:

a second diaphragm configured to block a portion of the second beam into the second detection device, an angle between the portion of the second beam and the central axis of the second beam is greater than a second preset angle, the second diaphragm and the second detection device are conjugated with the focal plane of the lens.

~~18.~~10. The measurement system according to claim ~~9~~7, wherein:

the original beam includes a first original beam and a second original beam;

the light source includes:

a first sub-light source configured to produce the first original beam, and

a second sub-light source configured to produce the second original beam;

the return beam includes a first return beam and a second return beam, the first return beam is the first original beam returned from the measured area, the second return beam is the second original beam returned from the measured area;

the optical assembly includes:

a first optical assembly configured to form the pending beam according to the first return beam, the first beam is the pending beam, and

a second optical assembly configured to collect the second return beam, the second beam is the second return beam, the first optical assembly is fixedly connected to the second optical assembly.

~~19.~~11. The measurement system according to claim ~~18~~10, wherein:

the first optical assembly is further configured to collect the first original beam to enable the first original beam arrive to the measured area;

the first optical assembly includes: a dispersive prism configured to converge lights with different wavelengths of the first original beam to different positions of the optical axis of the first optical assembly.

~~20.~~12. The measurement system according to claim ~~9~~7, further comprising:

a data acquisition system configured to emit a synchronous trigger signal at each first moment;

the first detection device configured to obtain the first detection information based on the first beam in response to the synchronous trigger signal;

the second detection device configured to obtain the second detection information according to the second beam in response to the synchronous trigger signal.

~~21.~~13. The measurement system according to claim ~~10~~8, wherein:

the second detection information includes the light intensity of the second beam;

the light intensity of the second beam at the feature moment is greater than the light intensity of the second beam at any first moment of the plurality of the first moment in addition to the feature moment, the second beam having multiple wavelengths.

~~22. The measurement system according to claim 21, wherein:~~

~~the measured area includes at least one subarea, the detection image includes at least one pixel corresponding to the at least one subarea, each pixel is configured to obtain a second beam of a subarea; the second detection information includes light intensity of a second beam formed by each subarea,~~

~~wherein at the feature moment of any subarea, the gray level value of pixels of the subarea is greater than the gray scale value of the pixels at any first moment of the plurality of the first moment in addition to the feature moment;~~

~~the processing system configured to determine the height information of the measured area according to the actual distance between the optical assembly and the fixed plane at the feature moment includes:~~

~~determining the height information of the subarea according to the actual distance between the optical assembly and the fixed plane at the feature moment of each subarea to obtain the height information of the measured area.~~

~~23.~~14. A measurement method comprising:

producing an original beam by a light source, wherein the original beam returned from the measured area of the measured object is a return beam;

obtaining a pending beam based on the return beam by an optical assembly, at least part of the pending beam acts as first beam;

obtaining first detection information based on the first beam;

moving the optical assembly and the measured object with respect to each other in a direction of an optical axis of the optical assembly; and

determining an actual distance between the optical assembly and a fixed plane at ~~each~~ first moment according to the first detection information at ~~each~~ first moment ~~in a plurality of first moments~~.

~~24.~~15. The measurement method according to claim ~~23~~14, wherein determining an actual distance between the optical assembly and the measured object at each first moment comprises:

moving the optical assembly and the measured object with respect to each other in the direction of the optical axis, such that there are a desired plurality of predetermined distances between the optical assembly and the fixed plane at a plurality of second moments;

obtaining the first detection information at each second moment of the plurality of second moments; and

determining the distance between the optical assembly and the fixed plane at each first moment based on the plurality of predetermined distances and the plurality of first detection information at each second moment.

~~25.~~16. The measurement method according to claim ~~24~~15, wherein determining the actual distance between the optical assembly and the fixed plane at each first moment based on the plurality of predetermined distances and the plurality of first detection information at each second moment comprises:

linear processing each predetermined distance of the plurality of predetermined distances to obtain a moving parameter;

determining a function relationship based on the moving parameter and the first detection information at the plurality of the second moments;

determining the actual distance between the optical assembly and the fixed plane at first moment according to the function relationship and the first detection information at the first moments,

wherein determining a function relationship based on the moving parameter and the first detection information, includes: taking a difference between the moving parameter and a

undecided parameter ~~to be determined~~ at each second moment as an independent variable and the first detection information at each second moment as the dependent variable to fit a function to be fitted to obtain a fitting function; and the fitting function is the function relationship.

~~determining the actual distance between the optical assembly and the fixed plane at first moment according to the function and the first detection information at the first moments.~~

~~26.~~17. The measurement method according to claim ~~25~~16, wherein the optical assembly includes a first splitter and a mirror, the measurement method further comprising:

dividing the original beam into a reference beam and an object beam incident into the measured area by the first splitter, wherein the return beam is the object beam returned from the measured area returning to the optical assembly; and

propagating the reference beam along a preset trajectory to obtain a pre-interference beam by the reference mirror, wherein the pre-interference beam and the return beam are interfered to obtain the pending beam;

the first detection information includes intensity of a light with the predetermined wavelength of the pending beam;

the fitting function is: $\boldsymbol{I = A + \cos r(x - x_0) + B}$, wherein the linear process includes being multiplied by 2Π/λ, r = 1; or the linear process includes being multiplied by 1, r=2Π/λ, λ is a wavelength of the light with a predetermined wavelength;

taking a difference between the moving parameter and the undecided parameter at each second moment as an independent variable and the first detection information at each second moment as the dependent variable to fit a function to be fitted to obtain a fitting function includes:

taking the moving parameter at each second moment as an x of the fitting function, taking the intensity of the light with the predetermined wavelength at each second moment as the I of the fitting function to fit the fitting function to obtain A, the undecided parameter x_0 and B to obtain the fitting function, the number of first moments being multiple, a processing system being configured to determine an actual distance between the optical assembly and a fixed plane of the measured object at each first moment, according to the first detection information at each first moment of first moments;

determining the actual distance between the optical assembly and the fixed plane at each first moment according to the fitting function and first detection information at the plurality of the first moments includes:

taking the intensity of the light with the predetermined wavelength at each first moment as I of the fitting function to compute the x of the fitting function as the moving parameter at each first moment; and

determining the actual distance between the optical assembly and the fixed plane at each first moment according to the moving parameter at each first moment.

~~27.~~18. The measurement method according to claim ~~23,~~ 14, wherein the number of first moments is multiple, further comprising:

obtaining second detection information according to a second beam, the second beam is a portion of the return beam or a portion of the pending beam, the second detection information characterizes a relative position between the optical assembly and the measured area;

obtaining a first moment when the second detection information is preset detection information as a feature moment;

obtaining the actual distance between the optical assembly and the fixed plane at the feature moment; and

determining height information of the measured area according to the actual distance between the optical assembly and the fixed plane at the feature moment.

~~28.~~19. The measurement method according to claim ~~27~~18, wherein obtaining second detection information according to the second beam comprises:

obtaining a detection image according to the second beam; and

obtaining the second detection information according to the detection image, the second detection information includes at least one of light intensity of the second beam and contrast of the detection image.

~~29~~20. The measurement method according to claim ~~28~~19, wherein:

the second detection information includes the light intensity of the second beam;

the light intensity of the second beam at the feature moment is greater than the light intensity of the second beam at any first moment of the plurality of the first moment in addition to the feature moment~~.~~

~~30. The measurement method according to claim 27, further comprising:~~

~~obtaining topography of the measured object according to height information of a plurality of the measured area relative to a same datum.~~, the second beam having multiple wavelengths.