WHAT IS CLAIMED IS:

1. A manufacturing method of a polarizer structure, comprising:

forming a first mold material layer on a substrate;

forming a hard mask layer on the first mold material layer, wherein the hard mask layer has a first region and a second region surrounding the first region, and a thickness of the second region is greater than a thickness of the first region;

forming a patterned first photoresist material layer on the hard mask layer;

etching the hard mask layer and the first mold material layer to form a first mold;

forming a second mold by using the first mold as a master mold;

forming a reflective material layer on a cover lens;

forming a second photoresist material layer on the reflective material layer;

transferring a pattern of the second mold onto the second photoresist material layer to form a patterned second photoresist material layer; and

etching the reflective material layer to form a plurality of grids and a reflective layer surrounding the grids.

2. The manufacturing method of claim 1, wherein a material of the hard mask layer comprises aluminum, titanium, molybdenum, or a combination thereof.

3. The manufacturing method of claim 1, wherein a material of the first mold material layer comprises silicon dioxide.

4. The manufacturing method of claim 1, wherein the hard mask layer comprises:

a first mask layer located in the second region and having an opening corresponding to the first region; and

a second mask layer covering the first mask layer and located in the opening.

5. The manufacturing method of claim 4, wherein a difference between a thickness of the first mask layer and a thickness of the patterned first photoresist material layer is less than 50

nm, and a difference between a thickness of the second mask layer and the thickness of the patterned first photoresist material layer is less than 50 nm.

6. The manufacturing method of claim 1, wherein a coating thickness of the patterned first photoresist material layer is half a thickness of the first mold material layer.

7. The manufacturing method of claim 1, wherein a coating thickness of the patterned second photoresist material layer is half a thickness of the reflective material layer.

8. A manufacturing method of a display device, comprising:

providing a liquid crystal display module, wherein the liquid crystal display module has a display area and a non-display area connected to the display area, and the liquid crystal display module comprises:

a bezel;

a backlight module located in the bezel; and

a display panel located on the backlight module, and the display panel comprises:

a first substrate;

a lower polarizer located below the first substrate;

a second substrate facing the first substrate;

a liquid crystal layer located between the first substrate and the second substrate; and

a filter element located between the first substrate and the second substrate;

manufacturing the polarizer structure according to claim 1, wherein the reflective material layer is etched to form the polarizer structure comprising the plurality of grids and the reflective layer surrounding the plurality of grids on the cover lens;

disposing the cover lens and the polarizer structure on the liquid crystal display module, wherein the polarizer structure located between the cover lens and the second substrate, wherein

the plurality of grids are covering the display area, and

the reflective layer is covering a sidewall of the display panel and a sidewall of the bezel in a direction perpendicular to the cover lens, wherein the plurality of grids and the reflective layer are disposed on the same layer, and the plurality of grids and the reflective layer are a continuous layer; and

disposing the liquid crystal display module and the bezel in a casing, and the reflective layer is disposed between the casing and the plurality of grids in a first direction and the plurality of grids and the reflective layer are not overlapped in a second direction, wherein the first direction is parallel to the cover lens and the second direction is perpendicular to the cover lens, and the first direction is perpendicular to the second direction.

9. The manufacturing method of claim 8, wherein the cover lens has an outer surface and an inner surface opposite to the outer surface of the cover lens, the sidewall of the casing has an outer surface, an inner surface opposite to the outer surface of the sidewall of the casing, and a top surface connected with the outer surface of the sidewall of the casing and the inner surface of the sidewall of the casing, wherein the top surface of the sidewall of the casing is substantially parallel to the outer surface of the cover lens, wherein the outer surface of the cover lens is coplanar with the top surface of the sidewall of the casing, and the polarizer structure is disposed on the inner surface of the cover lens.

10. The manufacturing method of claim 8, wherein an outer of the sidewall of the cover lens and an outer of the sidewall of the reflective layer are contacted with an inner of the sidewall of the casing.

11. The manufacturing method of claim 8, wherein the casing contains the cover lens, the polarizer structure, the bezel, the backlight module and the display panel.

12. The manufacturing method of claim 8, wherein the bezel contains the display panel and the backlight module.

13. The manufacturing method of claim 8, wherein the polarizer structure is in contact with the cover lens.