CLAIM:

1. A polarizer module, comprising:

a bifacial reflective polarizer, having a first surface and a second surface opposite to each other;

a first liquid crystal layer and a second liquid crystal layer, disposed on the first surface and the second surface respectively; and

a first polarizer and a second polarizer, disposed on the first liquid crystal layer and the second liquid crystal layer respectively,

wherein a reflection axis of the bifacial reflective polarizer is perpendicular to an absorption axis of one of the first polarizer and the second polarizer.

2. The polarizer module according to claim 1, wherein the reflection axis of the bifacial reflective polarizer is perpendicular to an absorption axis of the first polarizer and an absorption axis of the second polarizer.

3. The polarizer module according to claim 1, wherein the reflection axis of the bifacial reflective polarizer is parallel to an absorption axis of another one of the first polarizer and the second polarizer.

4. The polarizer module according to claim 1, further comprising:

a first substrate, disposed between the first liquid crystal layer and the second liquid crystal layer.

5. The polarizer module according to claim 4, further comprising:

a second substrate, disposed between the bifacial reflective polarizer and the second

liquid crystal layer, wherein the first substrate is disposed between the bifacial reflective polarizer and the first liquid crystal layer.

6. The polarizer module according to claim 5, wherein an air gap is provided between the first substrate and the second substrate.

7. The polarizer module according to claim 1, further comprising:

a side light source, provided on one side of the bifacial reflective polarizer; and

a light guide plate, disposed between the bifacial reflective polarizer and at least one of the first liquid crystal layer and the second liquid crystal layer.

8. An operation method of polarizer module, comprising:

providing the polarizer module of claim 1; and

enabling the polarizer module to perform a dual mirror mode, a single mirror mode or a transparent mode,

wherein when light is reflected by the bifacial reflective polarizer and pass through the first polarizer and the second polarizer, respectively, the polarizer module is in the dual mirror mode,

wherein when the light is reflected by the bifacial reflective polarizer and pass through only one of the first polarizer and the second polarizer, the polarizer module is in the single mirror mode,

wherein when the light transmits through the bifacial reflective polarizer, the polarizer module is in the transparent mode.

9. The operation method of polarizer module according to claim 8, wherein when

the reflection axis of the bifacial reflective polarizer is perpendicular to an absorption axis of the first polarizer and an absorption axis of the second polarizer, the dual mirror mode is performed by not applying voltage to the first liquid crystal layer and the second liquid crystal layer.

10. The operation method of polarizer module according to claim 8, wherein when the reflection axis of the bifacial reflective polarizer is perpendicular to an absorption axis of the first polarizer and an absorption axis of the second polarizer, the single mirror mode is performed by applying voltage to only one of the first liquid crystal layer and the second liquid crystal layer.

11. The operation method of polarizer module according to claim 8, wherein when the reflection axis of the bifacial reflective polarizer is perpendicular to an absorption axis of the first polarizer and an absorption axis of the second polarizer, the transparent mode is performed by simultaneously applying voltage to the first liquid crystal layer and the second liquid crystal layer.

12. The operation method of polarizer module according to claim 8, wherein when the reflection axis of the bifacial reflective polarizer is perpendicular to the absorption axis of one of the first polarizer and the second polarizer, the single mirror mode is performed by simultaneously applying voltage to the first liquid crystal layer and the second liquid crystal layer or not applying voltage to the first liquid crystal layer and the second liquid crystal layer.

13. The operation method of polarizer module according to claim 8, wherein when the reflection axis of the bifacial reflective polarizer is perpendicular to the absorption axis of one of the first polarizer and the second polarizer, the dual mirror mode or the transparent mode

is performed by applying voltage to only one of the first liquid crystal layer and the second liquid crystal layer.