December 2019

CAMERA PRIVACY SLIDER SHUTTER DESIGN

HP INC

Camera privacy slider shutter design

New design concept for Camera privacy slider shutter which will improve customer experience in use; User will be feeling smoother on movement of the shutter.

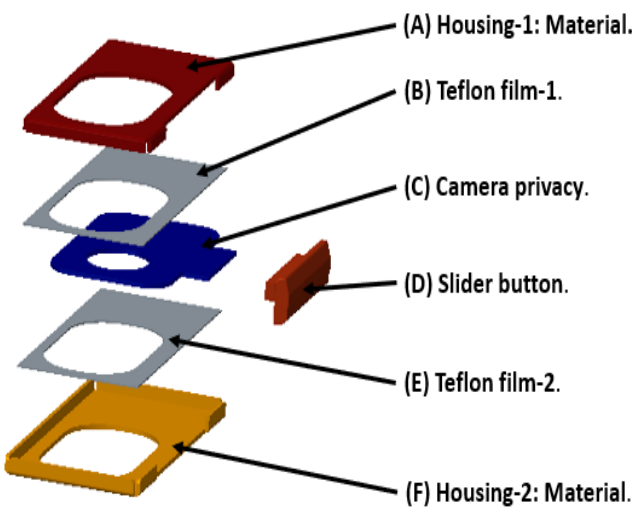
By using this Camera privacy slider shutter module design, you will;

1) Good customer experience in use.
2) Slide force stable, no user force decrease / increase issue after using long times.
3) Leverage the same camera privacy slider shutter module on similar size product, there is good cost benefit.

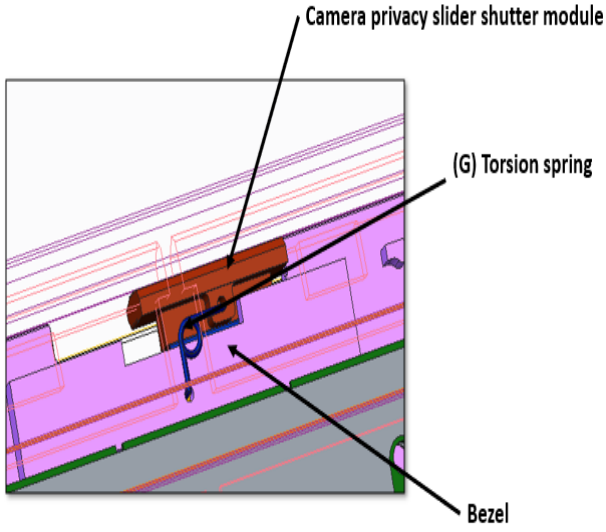
New Camera privacy slider shutter module solution:

- Concept:

➢ **Camera privacy slider shutter module**



➢ **Camera privacy slider shutter module + torsion spring**

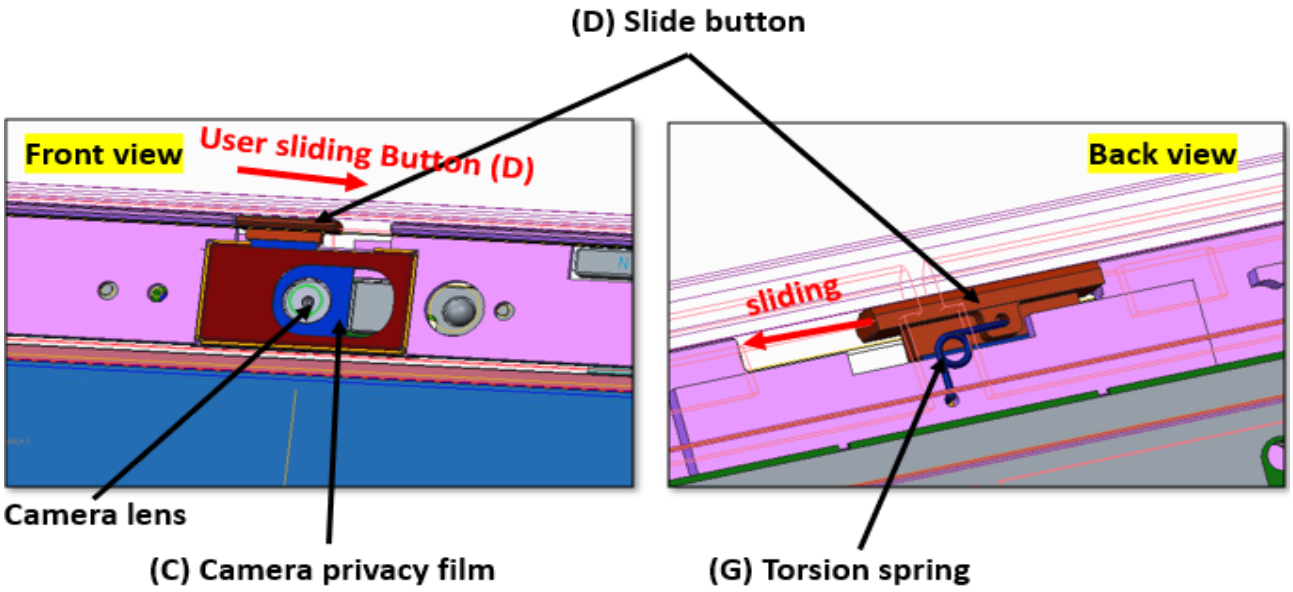


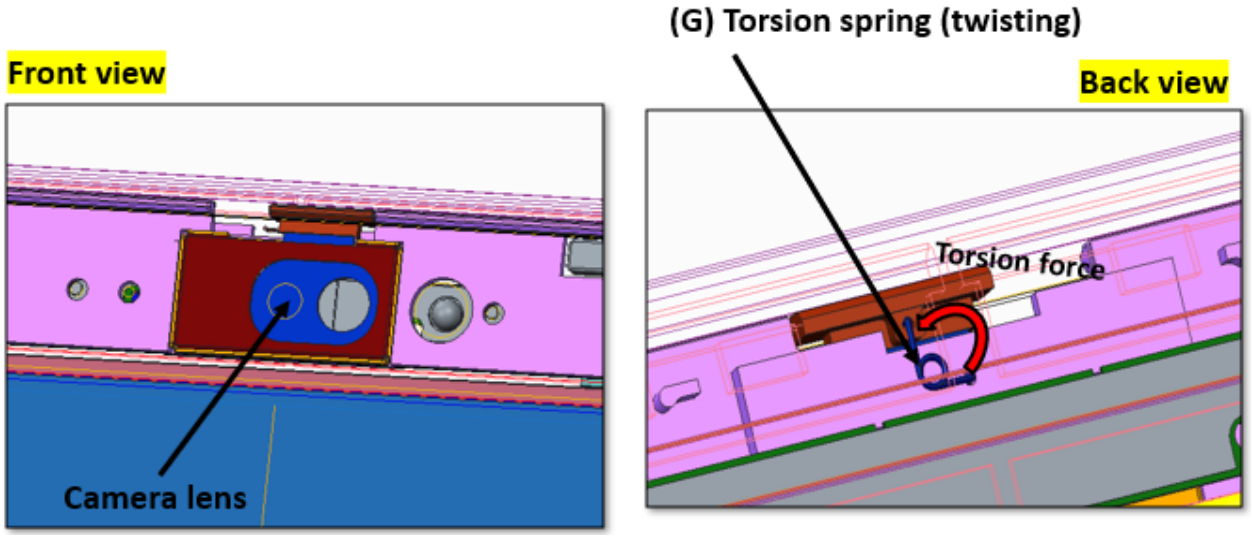
(A) Housing-1: Material→ 0.3mm SUS.
(B) Teflon film-1: to make sure (C) camera privacy film sliding smooth.
(C) Camera privacy film: to cover or uncover camera lens.
(D) Slider button: for user open / close camera lens.
(E) Teflon film-2: to make sure (C) camera privacy film sliding smooth.
(F) Housing-2: Material→ 0.3mm SUS.
(G) Torsion spring: to bring shutter stay at lock position or provide one force for shutter in sliding process.

- Operating principles:

1) Cover camera process:

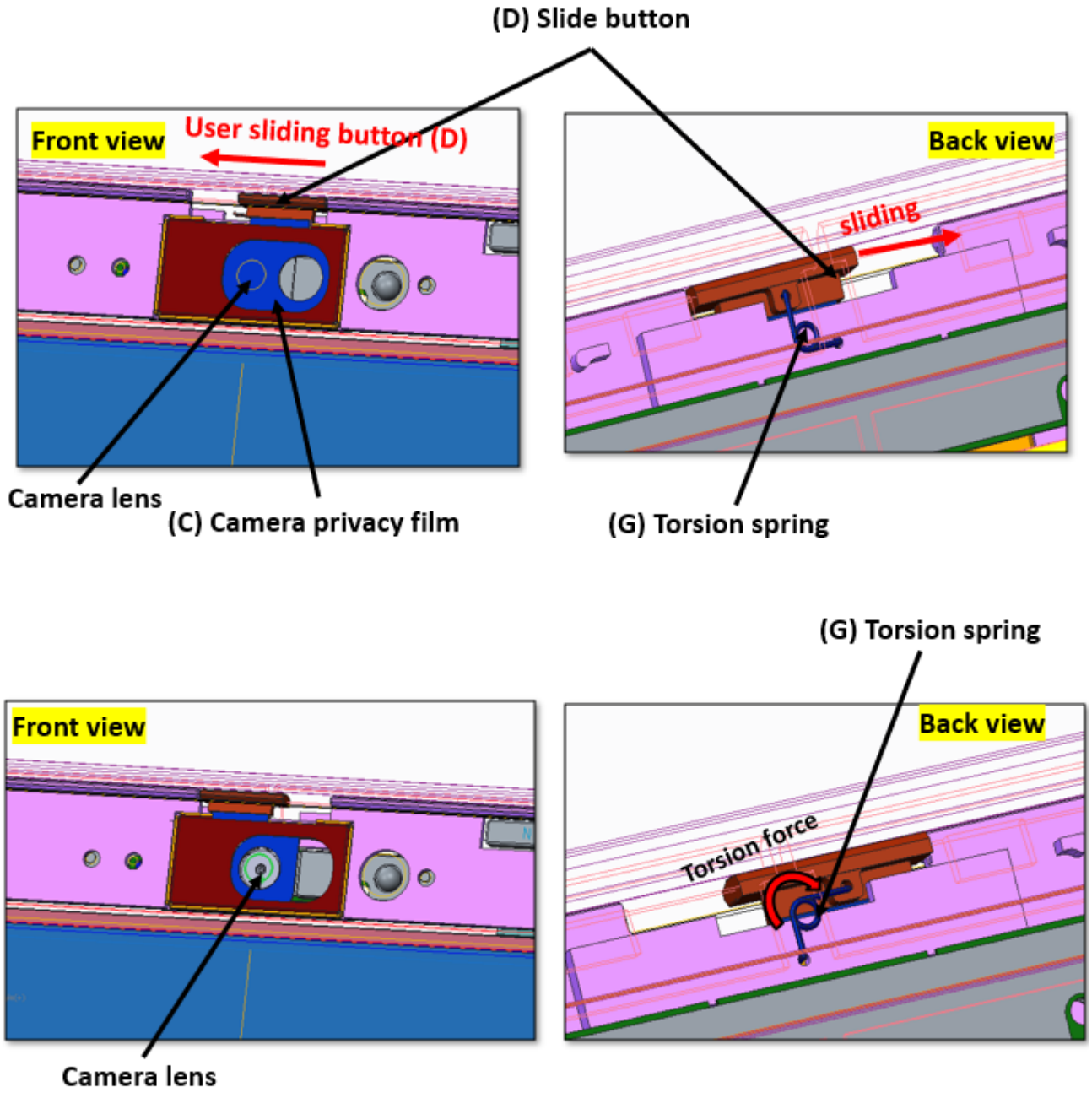
- Camera lens stays at open position.
- User sliding Button (D).
- Button (D) is pulling Camera privacy film (C) and twisting Torsion spring (G).
- Button (D) is moving to middle of slide stroke.
- Torsion spring (G) has been twisted.
- User releases button (D) when button has passed out the midpoint of slide stroke.
- Torsion spring (G) exerts a torque in the opposite direction.
- Torsion spring (G) pulling Button (D) and Camera privacy film (C) to move to lock position.
- Camera lens has been covered.





2) Uncover camera process:

- Camera lens stays at close position.
- User sliding Button (D).
- Button (D) is pulling Camera privacy film (C) and twisting Torsion spring (G).
- Button (D) is moving to middle of slide stroke.
- Torsion spring (G) has been twisted.
- User releases button (D) when button has passed out the midpoint of slide stroke.
- Torsion spring (G) exerts a torque in the opposite direction.
- Torsion spring (G) pulling Button (D) and Camera privacy film (C) to move to un-lock position.
- Camera lens has been uncovered.



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