

Automotive dashboard overlays

Engineering review and quotation note | Revision 2026-10-15

Custom printed or formed overlays for instrument clusters and vehicle display interfaces. Review day and night artwork, window datums and the bonding surface before sampling.

Baoshengda supplies the overlay component. The vehicle maker or Tier 1 owns display and lighting electronics, software, optical targets and final vehicle validation.



Instrument overlay with two dial areas and a central window. Geometry and finishes are specified for each project.

Use this note with the current drawing and equipment requirements. It is not a fixed performance specification, test report or finished-equipment approval.

Construction and scope review

Item	Options / Description
Product Type	Automotive dashboard overlay, instrument cluster overlay, automotive graphic overlay, vehicle HMI panel
Substrate Material	Optical-grade PC, PMMA or customized materials based on project requirements
Thickness	Thickness specified against the drawing, forming and optical requirements
Surface Treatment	Anti-glare, anti-fingerprint, anti-scratch, hard coating, matte or glossy finish
Printing Process	Multi-color screen printing, reverse printing, translucent window printing, dead-front printing
Visual Effect	Dead-front effect, hidden display window, high contrast icons, transparent or semi-transparent display areas
Forming Support	2D, 2.5D or 3D forming available based on part structure
Adhesive	3M automotive-grade adhesive, VHB adhesive or customized bonding solution
Environmental Resistance	UV resistance, temperature resistance, humidity resistance, abrasion resistance and chemical resistance available based on requirements
Applications	Instrument cluster, digital dashboard, vehicle display window, automotive control panel, EV HMI interface
Certification Support	ISO 9001 and IATF 16949 company certificates; review their stated scope. Agree required material-compliance records for the project.

Final specifications depend on the customer drawing, optical requirements, vehicle environment, bonding structure and validation standards.

Mounted-sample review

Before approving an automotive dashboard overlay sample, review the part as a mounted vehicle HMI surface, not only as a printed film. The sample should prove that the display window, backlit icons, dead-front graphics, surface finish and adhesive layer still work after the overlay is placed on the real housing or a representative test fixture.

For most RFQs, the highest-risk details are heat exposure, glare from the driver angle, window alignment to the display, adhesive contact around curves or cutouts, and whether hidden icons look clean when the backlight is off and readable when the backlight is on.

Agree the scope of any inspection records, test conditions and acceptance criteria before sampling. A company certificate does not replace approval of the actual component in the intended equipment.

Prepare your quotation

To help us provide a faster and more accurate quotation, please send the following information if available:

- 2D drawing or 3D structure file
- Artwork file, icons, scale marks or display window layout
- Separate day-state artwork, night legend map and blocker or diffusion intent
- Common datums, orientation marks, tolerance targets and revision identifiers for each controlled layer
- Material requirement, such as PC, PMMA or other optical substrate
- Thickness requirement
- Surface treatment requirement, such as AG, AF, hard coating or matte finish
- Dead-front or translucent window requirement
- Backlight or display module matching requirement
- LED or light-guide layout, stack height, color groups, dimming states and buyer-owned optical targets
- Glare, reflection, night-readability or driver-viewing-angle concerns
- 2D / 2.5D / 3D forming requirement
- Adhesive and bonding surface information, including housing material and texture
- Application environment, heat exposure, UV, cleaning and reliability requirements
- Sample approval evidence required by your team, such as mounted photos, backlight review or heat-condition notes
- Required sample matrix, such as lights off, low dimming, brighter state, oblique view and mounted housing condition
- Estimated annual quantity
- Sample, reference part or product photos

If your design is still in the early development stage, you can send us your concept drawing or sample photos. Our team can help review material, printing, forming and bonding feasibility.

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Shenzhen Baoshengda Technology Co., Ltd. | szbld@vip.163.com