

OPTICAL BONDING AND DISPLAY ENHANCEMENTS

Improve the Clarity and Durability of Your LCDs



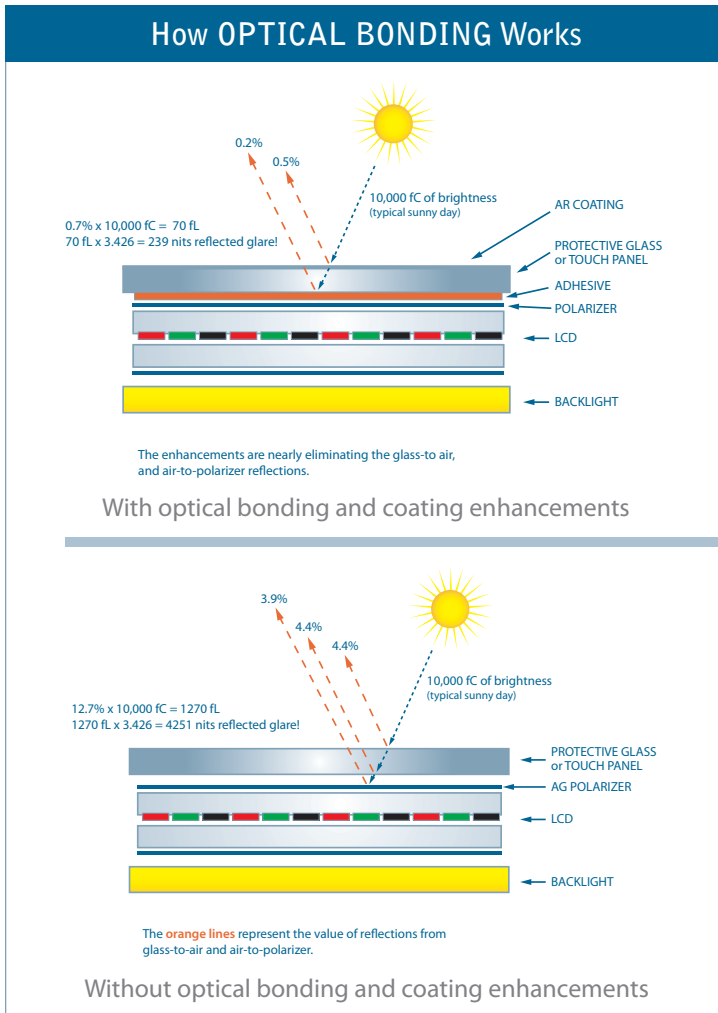
Let Planar Make Your TFT Displays Look Fantastic

With Planar's optical bonding and film enhancement technologies, average TFT displays can be upgraded to look fantastic. Our ISO 9001 production facility delivers consistent quality and results.

Optical bonding is the process of laminating cover glass or touchscreens to the LCD cell. Silicone gel is inserted between the cover glass and LCD to completely fill the air gap. The assembly is cured in a process that affixes the panels together while solidifying the gel.

Why would a display need optical bonding? As the drawings depict, optical bonding eliminates the internal reflection between the LCD and the cover glass or touchscreen because the bonding process creates a single index of refraction. Reducing internally reflected light loss increases display contrast. Improved display contrast enables displays to be more readily seen in bright ambient conditions, without increasing backlight brightness. A significant increase to the durability of the display is recognized with optical bonding added to the assembly, making the display adaptable to rugged environments.

Film and coating enhancements to the cover glass or touchscreen reduce or change the characteristics of light reflected from the face of the display. Planar can add films to eliminate diffuse reflections (mirror reflection) or change diffuse reflections into specular reflection (change mirror reflection into a hazy reflection) to eliminate glare or fingerprints.



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PLANAR
Optical Bonding Vendor Checklist

Make sure your optical bonding vendor has or can do the following:

Item	Yes	No	Notes
1. Provide a detailed description of your optical bonding process.			
2. Provide a detailed description of your adhesive and curing process.			
3. Provide a detailed description of your bonding equipment.			
4. Provide a detailed description of your bonding environment.			
5. Provide a detailed description of your bonding materials.			
6. Provide a detailed description of your bonding process control.			
7. Provide a detailed description of your bonding quality control.			
8. Provide a detailed description of your bonding safety procedures.			
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Download an optical bonding vendor checklist to help with your selection process.



Improved contrast via optical bonding and utilizing anti-reflective surface coating on touchscreen



Display with air-gap between display and touchscreen (note reflections)