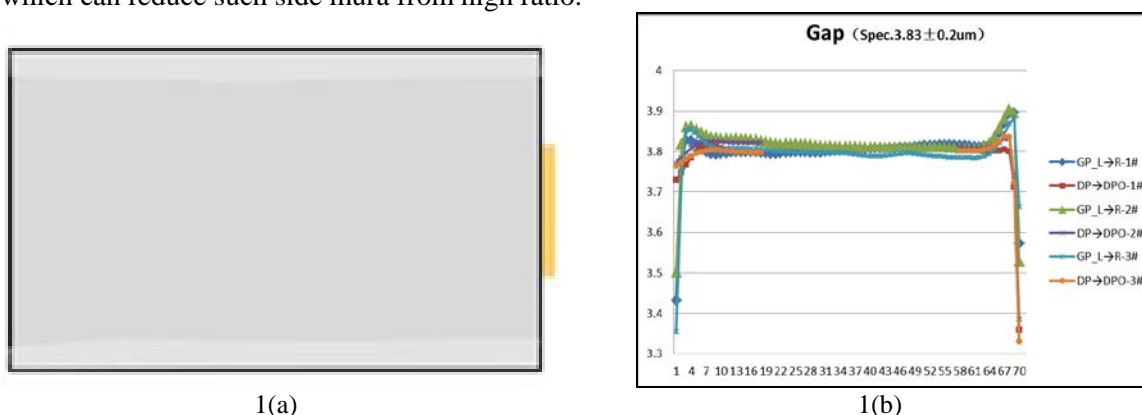


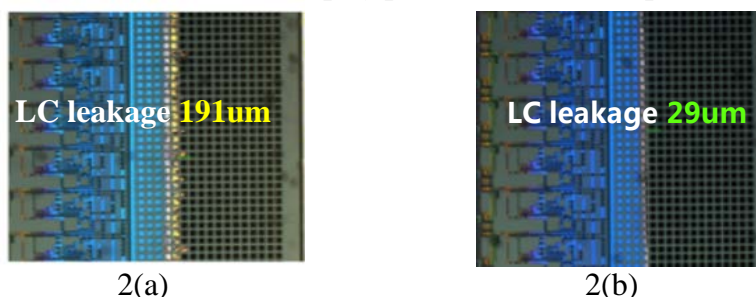
# Analysis and Improvement of Side Mura Defect in TN mode Liquid Crystal Panel

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During the production of TN mode liquid crystal panels, side mura is always occurred, shown in Fig.1(a), which is harmful to improve product display quality. The reason of side mura has close relation with LCD cell process conditions, causing the shift of cell gaps in Fig1(b). By optimizing the size of silicon ball in sealant, changing the open dummy seal numbers, and researching the liquid crystal dot sizes and patterns, the side mura status is improved, the penetration of LC to sealant differently as shown in Fig3(a)(b). Those improving methods of side mura are proved to be effective by visual check. Futher more, adding dummy PS in CF mask, see Fig.3, which can reduce such side mura from high ratio.



1(a) Side Mura in black display pattern, (b) Cell Gap data of side mura area



2(a) LC leakage up to 191 um in side mura defect area, (b) only 29 um in normal area

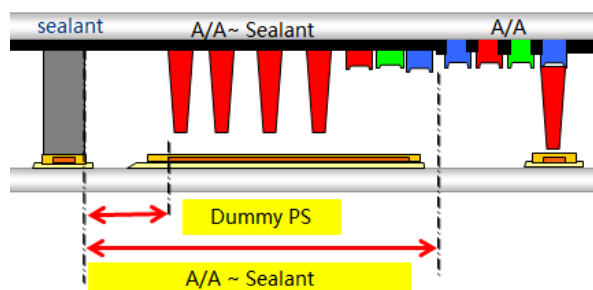


Fig. 3 Adding Dummy PS between sealant and display area

## References

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