LG Display will increase its OLED business through OBM projects

LG Display plans to expand its OLED business through OBM projects in 2020 and beyond.

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Key findings

- LG Display plans to expand its organic light-emitting diode (OLED) business in 2020.
- LG Display will increase OLED basic module (OBM) projects to help TV makers improve their OLED products' profits.

LG Display plans to expand its OLED business in 2020

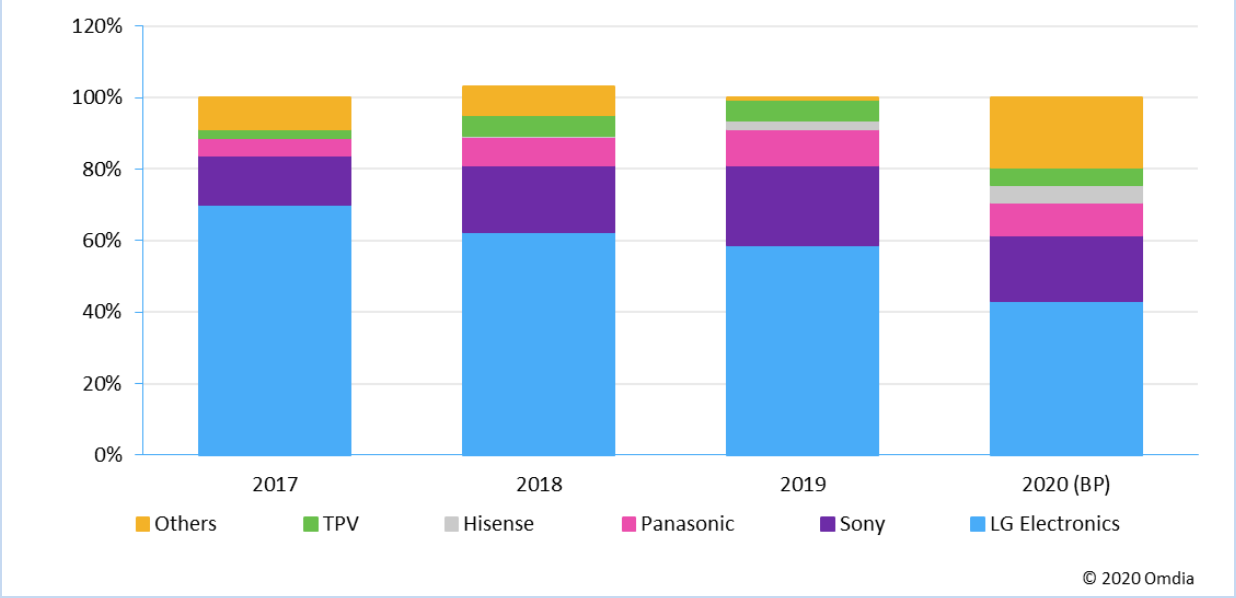
LG Display plans to expand its OLED business through OBM projects in 2020 and beyond.

LG Display is focusing on OLED and has invested in a G8.5 OLED fab in Guangzhou, China. It plans to produce OLED TV panels at its Guangzhou fab in 2020. Its OLED TV panel shipment is forecast to be 6 million in 2020, up 82.8% from 2019.

OLED TV panel supply is forecast to range from balanced to tight in 2019 and 2020, so panel makers have been selecting strategic TV customers. However, there are increasing challenges in retaining its high premium. This is because of a fall in OLED TV prices that was driven by competition and the widening price gap between ultra-large LCD TVs and OLED TVs—greater than 2.5X times—in main markets such as North America and China, where LCD TV prices fell much faster than in other markets. The demand for OLED TVs will be affected; consumers will require more convincing reasons to pay such high premiums.

To maintain the OLED TV's premium position in the market, LG Display has been selecting strategic customers for its OLED TV business. LG Electronics remains the largest customer, but its share has decreased while Sony and other TV brands such as Hisense have become more important. LG Electronics would still like to secure 65% of LG Display's OLED TV panel supply as a long-term strategy, although it was 62% in 2018, 59% in 2019, and 43% in 2020, which are declines compared with 70% in 2017.

Figure 1: OLED TV panel shipment share by TV brand, 2017–2020 (BP) - March 2020 update



Source: Omdia

LG Display will increase OBM projects to help TV makers improve their OLED products' profits.

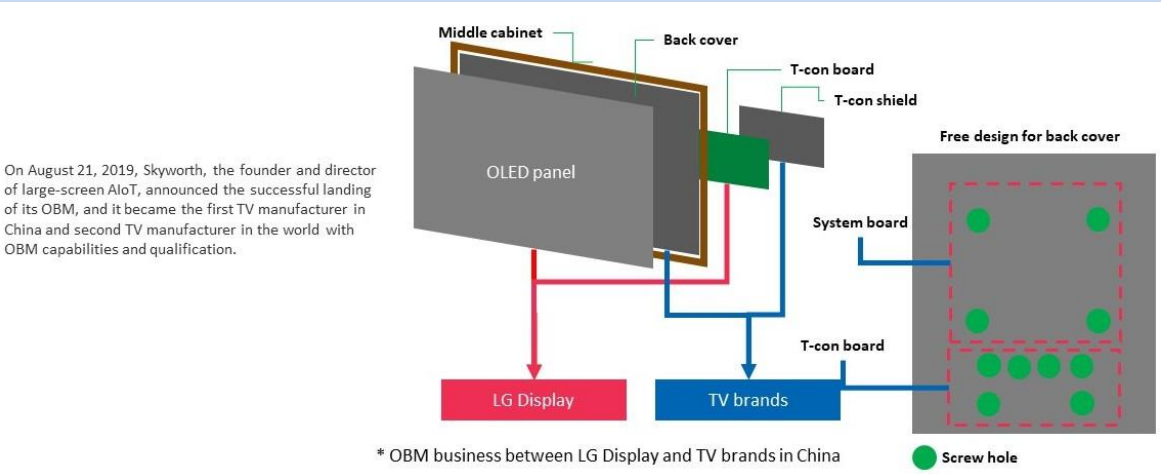
On August 21, 2019, Skyworth, the founder and director of large-screen artificial Internet of Things (AIoT), announced the successful landing of its OBM and became the first TV manufacturer in China and second TV manufacturer in the world with OBM capabilities and qualification.

As of 2020, the number of customers that invested in OBM has expanded to four: LG Electronics, Sony, TPV, and Skyworth. Panasonic could be LG Display's next customer. The aforementioned customers have invested in and produced OBM projects for themselves. LG Electronics invested in an OBM fab in Korea, Mexico, and Poland, whereas Sony invested in Malaysia. Expansions might continue in the future because LG Display might change all of its business modes from OLED customized module (OCM) to OBM. LG Display's reasons for changing the business mode are as follows:

- Decrease financial pressures: Chinese panel makers invested in more LCD technology capacities, so there was an oversupply of LCD TV panels in 2019. This caused panel prices to decrease sharply at the end of 2019. Hence, LG Display's key problem is finances.
- Management reduction: This would shorten the OLED-producing process and reduce management. The reason for this is LG Display produced OLED modules alone in past years. However, LG Display had to expand its management mode because of the high level of quality needed and different requirements from its customers.

- Improve customer relationships: TV makers hope to improve high-end production through OLED panels because of the different technology between OLED and amorphous silicon (a-Si) LCD. TV makers can freely design back covers through OBM projects, which allows them to design the screw hole location and the sizes of the main power and main board. Hence, this means OBM projects improve customers' autonomous abilities.
- Lower TV set costs: TV makers can adjust their TV set costs because of localized materials and a simplification of OLED TV set production processes. Even if they invest in OBM manufacturing fabs, the cost will be offset by the advantage of an increase in volume. If LG Display wants to change all of its OCM business modes to OBM in the future, its customers must increase their investments in OBM projects. Hence, they must expand their volumes to reduce depreciations costs.

Figure 2: Chinese top tier TV brand starts OLED OBM business with LG Display



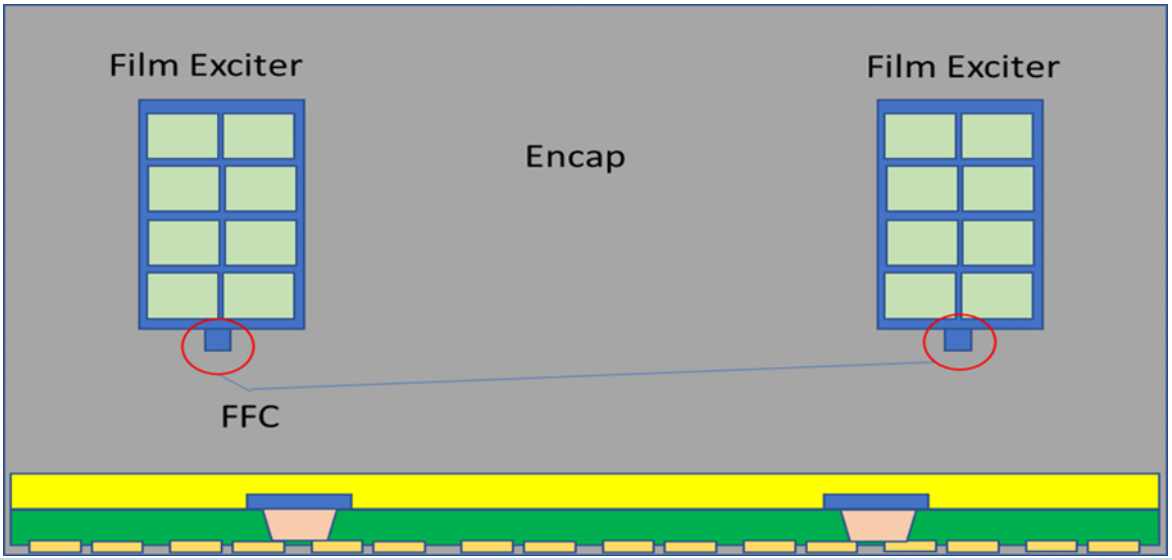
Source: Omdia

LG Display has decided to produce film cinematic sound OLEDs (F-CSOs) in the future.

LG Display announced its crystal sound OLED (CSO) at the Consumer Electronics Show (CES) 2019. The panel's sizes included 65 and 55 inches. So far, many TV makers, especially LG Electronics, Sony, and Skyworth, have launched CSO products.

LG Display wants to change the coil exciter to film exciter in the future. The film's specifications will be better than coil, especially the thickness that is under 300 micrometers. This is slimmer compared with coil's 19.9 millimeters. F-CSO has a complex process, so LG Display might produce F-CSO directly, whereas TV makers will perform the OBM process. However, TV makers can possibly perform the F-CSO process in LG Display's place with future technological improvements.

Figure 3: F-CSO



Source: Omdia

Appendix

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