

AMOLED Emitting Material Market Track

- 1Q19 Data Tables

> Average Sales Price of Emitting Materials

> Sales Performance

Emitting Material Market Sales Performance

Emitting Material Supply Volume

> Forecast

Emitting Materials Market Forecast Summary

Emitting Materials Market Sales Forecast

Emitting Materials Market Usage Forecast

Panel Companies' Demand Forecast

■ Average Sales Price of Emitting Materials

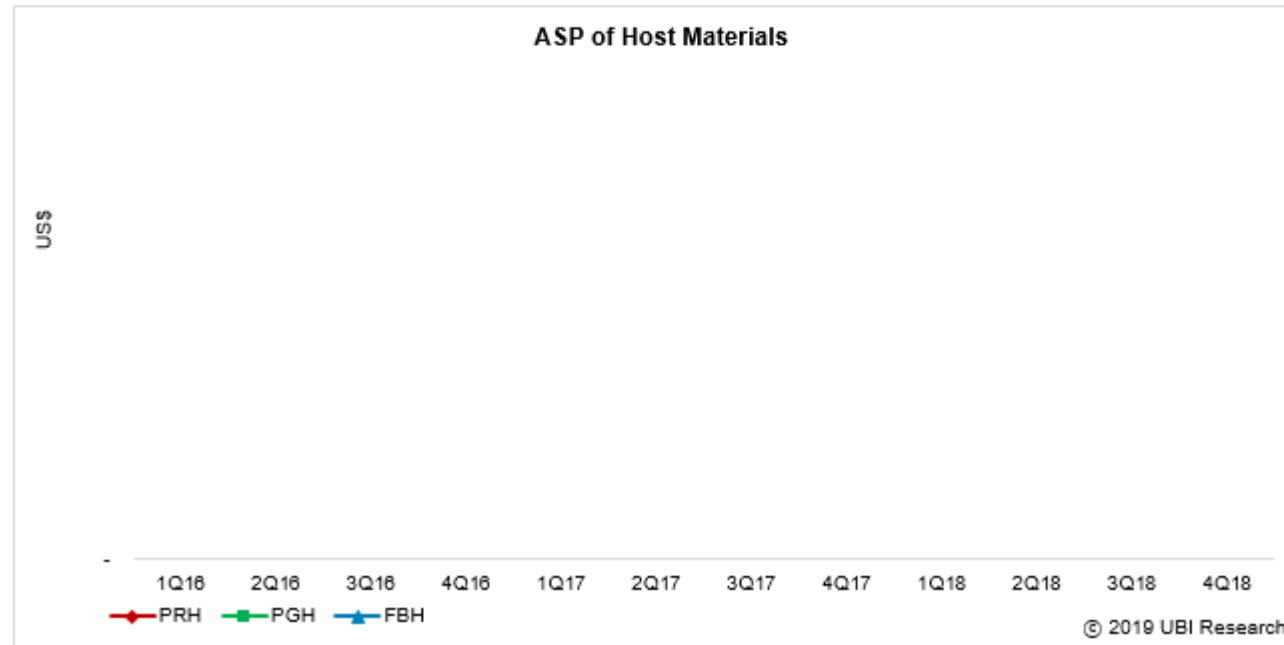
<Contents>

- ASP of Emitting Materials
- ASP of Host Materials
- ASP of Dopant Materials
- ASP of Common Layer Materials

<Image Example>

> ASP of Host Materials

	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18
PRH												
PGH												
FBH												



■ Emitting Material Market Sales Performance_Quarterly

<Contents>

- Total Sales
- Sales by Company and the Market Share
- Sales of Emitting and Common Layers and the Market Share
- Sales by Emitting Layer and the Market Share
- Sales by Common Layer and the Market Share

<Image Example>

(US\$ million)

Company	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18
Doosan												
Dow Chemical												
Duksan Neolux												
Heesung Material												
Idemitsu Kosan												
JNC												
Jinwoong												
LG Chemical												
Merck												
Novaled												
NSSC												
Samsung SDI												
SFC												
Toray												
Tosoh												
UDC												
Total												



■ Emitting Material Supply Volume_Quarterly

<Contents>

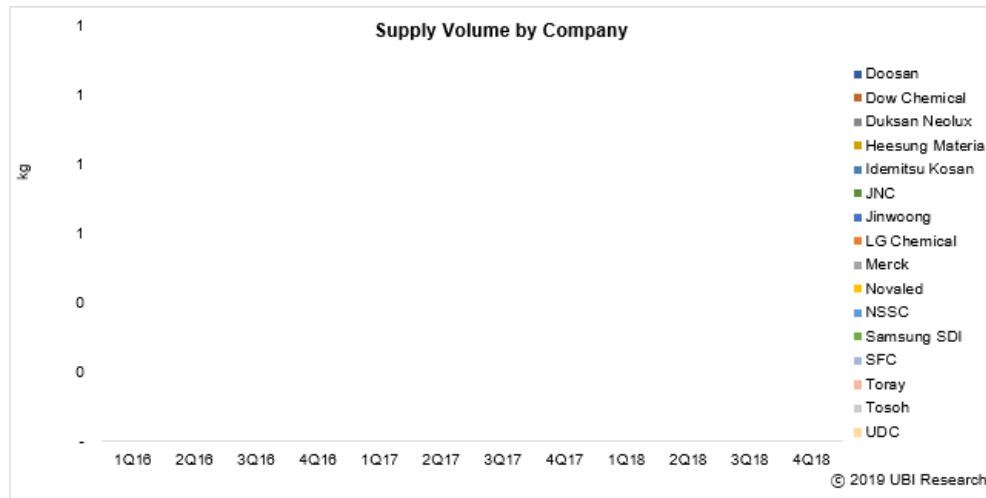
- Total Supply Volume
- Supply Volume by Company and the Market Share
- Supply Volume of Emitting and Common Layers and the Market Share
- Supply Volume by Emitting Layer and the Market Share
- Supply Volume by Common Layer and the Market Share

* Note: Supply Volume data is currently available from 2016

<Image Example>

> Supply Volume by Company

Company	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18
Doosan												
Dow Chemical												
Duksan Neolux												
Heesung Material												
Idemitsu Kosan												
JNC												
Jinwoong												
LG Chemical												
Merck												
Novald												
NSSC												
Samsung SDI												
SFC												
Toray												
Tosoh												
UDC												
Total												



■ Emitting Materials Market Forecast Summary

<Contents>

- Expenses
- Usage Amount

<Image Example>

> Expenses

(US\$ million)

Nation	Company	OLED Method	2019	2020	2021	2022	2023
Korea	Samsung Display	RGB					
		QD-OLED					
	LG Display	RGB					
		WRGB					
China	BOE	RGB					
	Everdisplay	RGB					
	Tianma	RGB					
	Visionox	RGB					
etc		RGB					
Total							

> Usage Amount

(kg)

Nation	Company	OLED Method	2019	2020	2021	2022	2023
Korea	Samsung Display	RGB					
		QD-OLED					
	LG Display	RGB					
		WRGB					
China	BOE	RGB					
	Everdisplay	RGB					
	Tianma	RGB					
	Visionox	RGB					
etc		RGB					
Total							

■ Emitting Materials Market Sales Forecast

<Contents>

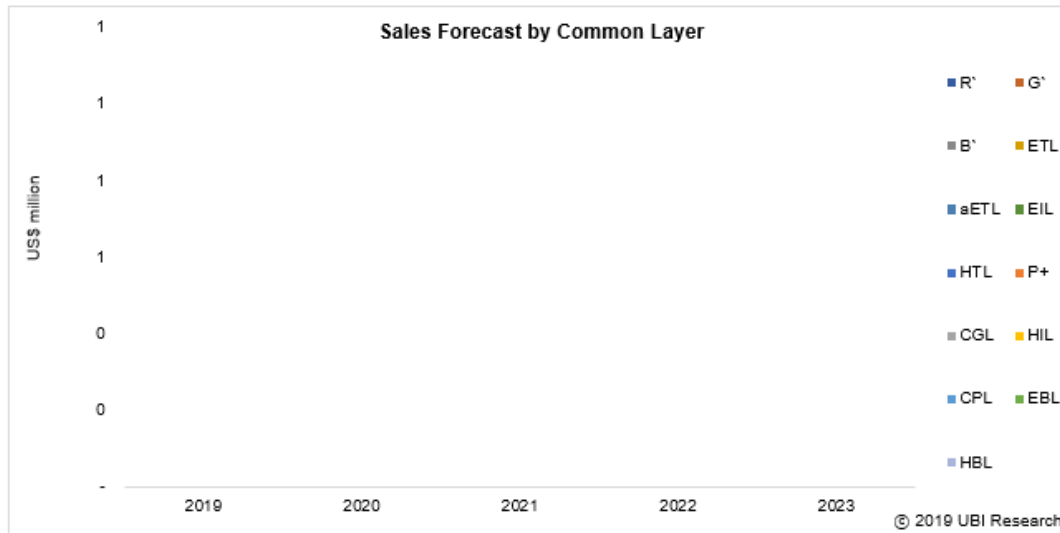
- Total Sales Forecast
- Sales and the Market Share Forecast of Emitting and Common Layers
- Sales and the Market Share Forecast by Emitting Layer
- Sales and the Market Share Forecast by Common Layer
- Sales and the Market Share Forecast by OLED Method

<Image Example>

> Sales Forecast by Common Layer

(US\$ million)

Material	2019	2020	2021	2022	2023
R'					
G'					
B'					
ETL					
ⓂETL					
EIL					
HTL					
P+					
CGL					
HIL					
CPL					
EBL					
HBL					
Total					



■ Emitting Materials Market Usage Forecast

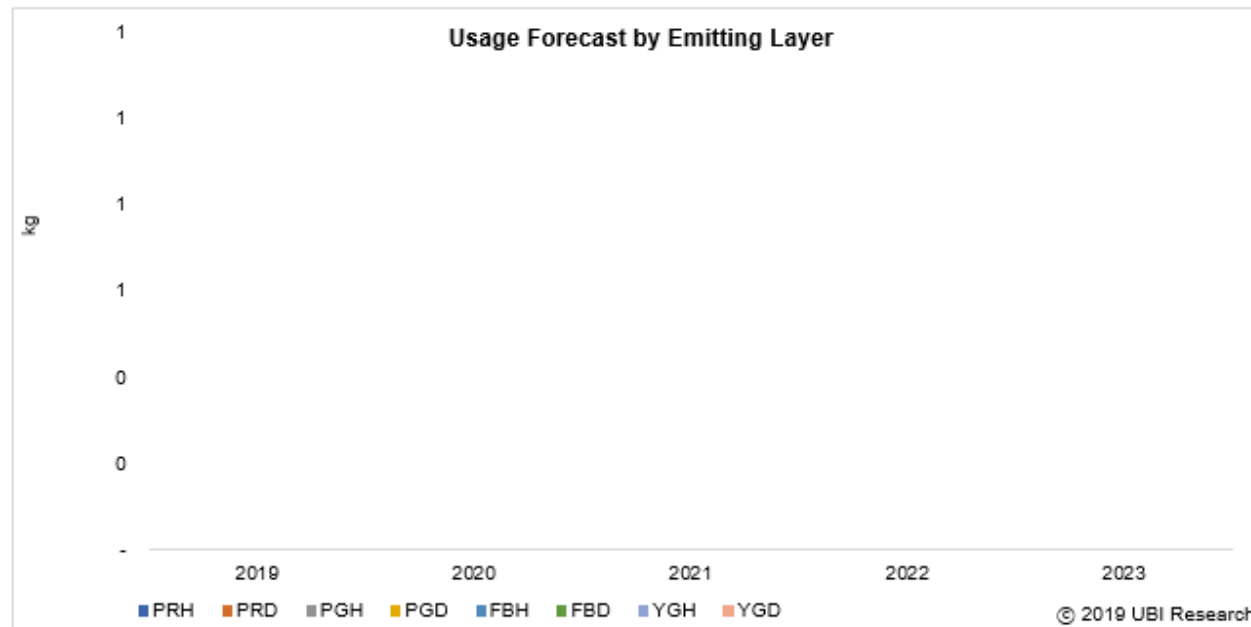
<Contents>

- Total Usage Forecast
- Usage and the Market Share Forecast of Emitting and Common Layers
- Usage and the Market Share Forecast by Emitting Layer
- Usage and the Market Share Forecast by Common Layer
- Usage and the Market Share Forecast by OLED Method

<Image Example>

> Usage Forecast by Emitting Layer (kg)

Material	2019	2020	2021	2022	2023
PRH					
PRD					
PGH					
PGD					
FBH					
FBD					
YGH					
YGD					
Total					



■ Panel Companies' Demand Forecast

<Contents>

- Demand Volume(\$) and the Market Share Forecast by Company
- Demand Volume(kg) and the Market Share Forecast by Company

<Image Example>

> Demand Volume(\$) Forecast by Company (US\$ million)

Company	2019	2020	2021	2022	2023
Samsung Display					
LG Display					
BOE					
Everdisplay					
Tianma					
Visionox					
etc					
Total					

