



Rating  
**Buy**

North America  
United States

TMT  
Semicap Equipment

Company  
**Universal Display Corp.**

Reuters  
OLED.OO

Bloomberg  
OLED US

Exchange  
NMS

Ticker  
OLED

Date  
30 April 2023

Company Update

Price at 27 Apr 2023 (USD)	132.99
Price target	150.00
52-week range	155.13 - 89.97

## 1Q Preview: Data points from OEMs reflect risks in the short-term

### Samsung/LG Display depict incremental weakness

We see risks to the company's 1Q results, as our industry checks suggest a worsening in smartphone unit volumes, while recent data points from Samsung/LG Display also reflect sluggish demand OLED panel shipments. As demand pressures are likely to persist in the short-term, we view the Street's 2Q revs/EPS estimates of \$132m/\$0.76 (vs. DBE \$128m/\$0.74) a touch too optimistic. That said, we do not expect UDC to lower its full-year revenue outlook of \$550-600m, as we recognize management's prudent guidance for the year and believe it would be premature at this point in the year. Looking beyond CY23, we remain convinced that the commercialization of blue emitters in the context of an improved macro could drive significant revenue growth in the out-years, and we continue to view our forecast for revenue growth of ~20% per year in CY24/CY25 as reasonable. With the long-term outlook and OLED adoption story remaining intact, we continue to like the growth story for UDC and we maintain our Buy rating.

### Risks to 1Q on incremental worsening demand

UDC is scheduled to report 1Q results after the market close on Wednesday, May 3<sup>rd</sup>, with a conference call at 5:00 pm ET. We see risks to 1Q results based on the incremental worsening in demand trends for OLED-based products. Specifically, we point to LG Display's sluggish sales across its "high-end" OLED products (i.e., TVs) as well as Samsung's sequential declines in mobile panel business as indicative of weakening demand trends into 1Q for UDC.

We model 1Q revenue/EPS of \$132m (down -22% q/q)/\$0.78, slightly below Street estimates of \$137m/\$0.86. As a reminder, UDC does not provide quarterly guidance, but its full-year outlook implies revenue to be down -7% y/y at the mid-point. We model materials revenue of \$75m, licensing revenue of \$52m, and tech development/support revenue of \$5m. We estimate revenue from Samsung Display at \$45m (down -31% q/q), LG Display at \$32m (down -10% q/q) and BOE at \$32m (down -15% q/q). We model gross margins of 76.8% (down -540bps q/q) and operating expenses of \$58m.

### 2Q likely below Street estimates

Incremental to our prior views of inventory adjustments persisting through 1H CY23, our industry checks suggest a weaker recovery in OLED smartphones toward the 2H CY23, in part due to the tailwinds from the re-opening of China having yet

### Valuation & Risks

Sidney Ho  
Research Analyst  
+1-415-262-2061

Deutsche Bank Securities Inc.

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to materialize. We also point to Samsung's expectations for a slow recovery in its large panel business as incremental to our views of a lengthening in the duration of inventory adjustments within consumer IT. As such, we believe the Street's revenue estimates of \$132m (vs. DB's of \$128m) could be too optimistic.

We model 2Q revenue/EPS estimates of \$128m/\$0.74, below the Street at \$132m/\$0.76. We model materials revenue of \$71m, licensing revenue of \$51m and tech development/support revenue of \$5m. We estimate revenue from Samsung Display at \$49m, LG Display at \$34m and BOE at \$22m. We model gross margins of 77.3% and operating expenses of \$58m.



Figure 1: OLED income statement summary

Year End December (\$ in millions)	Fiscal 2021				Fiscal 2022				Fiscal 2023E				Fiscal 2024E				2020	2021	2022	2023E	2024E
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	CY	CY	CY	CY	CY
	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24	Sep-24	Dec-24					
<b>INCOME STATEMENT</b>																					
Material sales	79.8	77.4	75.6	85.8	86.7	71.9	84.2	88.3	75.1	71.2	85.4	93.4	88.7	90.5	108.6	114.0	229.7	318.6	331.1	325.1	401.7
Royalty and license fees	50.9	48.2	63.9	56.0	59.8	60.3	71.5	75.6	52.0	51.2	61.5	63.8	60.8	60.5	71.9	74.4	185.1	219.0	267.1	228.4	267.6
Tech development and support rev	3.3	4.0	4.1	4.5	4.0	4.4	4.9	5.1	5.2	5.3	5.4	5.5	5.6	5.8	5.9	6.0	14.1	15.9	18.4	21.5	23.2
<b>Total revenues</b>	<b>134.0</b>	<b>129.7</b>	<b>143.6</b>	<b>146.2</b>	<b>150.5</b>	<b>136.6</b>	<b>160.6</b>	<b>169.0</b>	<b>132.3</b>	<b>127.7</b>	<b>152.3</b>	<b>162.6</b>	<b>155.2</b>	<b>156.8</b>	<b>186.3</b>	<b>194.4</b>	<b>428.9</b>	<b>553.5</b>	<b>616.6</b>	<b>575.0</b>	<b>692.6</b>
QoQ	-5%	-3%	11%	2%	3%	-9%	18%	5%	-22%	-3%	19%	7%	-5%	1%	19%	4%	6%	29%	11%	-7%	20%
YoY	19%	124%	23%	3%	12%	5%	12%	16%	-12%	-6%	-5%	-4%	17%	23%	22%	19%					
<b>Total cost of sales</b>	<b>23.3</b>	<b>28.0</b>	<b>31.5</b>	<b>32.2</b>	<b>33.2</b>	<b>27.2</b>	<b>37.4</b>	<b>30.1</b>	<b>30.7</b>	<b>29.0</b>	<b>33.3</b>	<b>35.6</b>	<b>33.7</b>	<b>33.9</b>	<b>38.8</b>	<b>39.5</b>	<b>85.5</b>	<b>115.0</b>	<b>127.9</b>	<b>128.5</b>	<b>145.9</b>
<b>Gross profit</b>	<b>110.7</b>	<b>101.7</b>	<b>112.1</b>	<b>114.0</b>	<b>117.3</b>	<b>109.3</b>	<b>123.2</b>	<b>138.9</b>	<b>101.6</b>	<b>98.7</b>	<b>119.0</b>	<b>127.0</b>	<b>121.5</b>	<b>122.9</b>	<b>147.5</b>	<b>154.8</b>	<b>343.4</b>	<b>438.5</b>	<b>488.7</b>	<b>446.4</b>	<b>546.7</b>
Research and development	23.3	24.1	25.3	26.9	26.5	28.2	30.4	31.9	33.5	32.5	32.5	32.8	34.5	35.5	37.3	39.1	83.9	99.7	117.1	131.3	146.4
Sales and marketing	16.4	20.2	21.0	22.8	21.1	19.9	18.4	18.5	19.4	20.0	21.0	22.1	22.5	22.3	23.0	23.0	61.3	80.4	77.9	82.6	90.7
Patent costs and amort of acq tech	7.3	7.3	7.9	7.7	7.3	7.8	5.6	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	29.5	30.2	25.8	20.6	20.6
Royalty and license expense	0.1	0.1	0.3	0.2	0.2	0.2	0.3	0.3	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	11.1	0.7	0.9	0.6	0.7
<b>Total operating exp</b>	<b>47.1</b>	<b>51.8</b>	<b>54.4</b>	<b>57.5</b>	<b>55.1</b>	<b>56.0</b>	<b>54.7</b>	<b>55.9</b>	<b>58.2</b>	<b>57.8</b>	<b>58.8</b>	<b>60.2</b>	<b>62.3</b>	<b>63.1</b>	<b>65.6</b>	<b>67.4</b>	<b>185.9</b>	<b>210.9</b>	<b>221.6</b>	<b>235.1</b>	<b>258.4</b>
<b>Operating Income</b>	<b>63.6</b>	<b>49.9</b>	<b>57.7</b>	<b>56.5</b>	<b>62.3</b>	<b>53.3</b>	<b>68.5</b>	<b>83.1</b>	<b>43.4</b>	<b>40.9</b>	<b>60.2</b>	<b>66.8</b>	<b>59.2</b>	<b>59.8</b>	<b>81.9</b>	<b>87.4</b>	<b>157.5</b>	<b>227.6</b>	<b>267.1</b>	<b>211.4</b>	<b>288.3</b>
Interest income, net	0.1	0.1	0.1	0.2	0.3	1.6	2.4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.1	0.5	7.8	14.0	14.0
Other income (loss)	0.1	0.2	(0.1)	(0.1)	0.0	0.1	(0.8)	(5.9)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.1	(6.7)	0.0	0.0
<b>Total other income/(expense)</b>	<b>0.2</b>	<b>0.3</b>	<b>0.0</b>	<b>0.1</b>	<b>0.3</b>	<b>1.7</b>	<b>1.6</b>	<b>(2.4)</b>	<b>3.5</b>	<b>3.5</b>	<b>3.5</b>	<b>3.5</b>	<b>3.5</b>	<b>3.5</b>	<b>3.5</b>	<b>3.5</b>	<b>6.0</b>	<b>0.6</b>	<b>1.1</b>	<b>14.0</b>	<b>14.0</b>
<b>Income before income taxes</b>	<b>63.8</b>	<b>50.2</b>	<b>57.8</b>	<b>56.5</b>	<b>62.5</b>	<b>55.0</b>	<b>70.1</b>	<b>80.6</b>	<b>46.9</b>	<b>44.5</b>	<b>63.7</b>	<b>70.3</b>	<b>62.7</b>	<b>63.3</b>	<b>85.4</b>	<b>90.9</b>	<b>163.5</b>	<b>228.2</b>	<b>268.2</b>	<b>225.4</b>	<b>302.3</b>
Income taxes	(12.1)	(9.7)	(11.7)	(10.7)	(12.5)	(13.5)	(16.6)	(15.5)	(9.4)	(8.9)	(12.7)	(14.1)	(12.5)	(12.7)	(17.1)	(18.2)	(30.2)	(44.0)	(58.2)	(45.1)	(60.5)
<b>Net Income, non-GAAP</b>	<b>51.7</b>	<b>40.5</b>	<b>46.1</b>	<b>45.9</b>	<b>50.0</b>	<b>41.5</b>	<b>53.5</b>	<b>65.1</b>	<b>37.5</b>	<b>35.6</b>	<b>51.0</b>	<b>56.3</b>	<b>50.2</b>	<b>50.6</b>	<b>68.3</b>	<b>72.7</b>	<b>133.4</b>	<b>184.2</b>	<b>210.1</b>	<b>180.3</b>	<b>241.8</b>
Net Income, GAAP	51.7	40.5	46.1	45.9	50.0	41.5	53.5	65.1	37.5	35.6	51.0	56.3	50.2	50.6	68.3	72.7	133.4	184.2	210.1	180.3	241.8
GAAP EPS (Diluted)	\$1.09	\$0.86	\$0.97	\$0.97	\$1.05	\$0.87	\$1.13	\$1.37	\$0.79	\$0.74	\$1.06	\$1.17	\$1.03	\$1.04	\$1.40	\$1.48	\$2.82	\$3.89	\$4.43	\$3.76	\$4.96
<b>Non-GAAP EPS</b>	<b>\$1.08</b>	<b>\$0.85</b>	<b>\$0.97</b>	<b>\$0.96</b>	<b>\$1.05</b>	<b>\$0.87</b>	<b>\$1.12</b>	<b>\$1.36</b>	<b>\$0.78</b>	<b>\$0.74</b>	<b>\$1.06</b>	<b>\$1.17</b>	<b>\$1.04</b>	<b>\$1.05</b>	<b>\$1.41</b>	<b>\$1.50</b>	<b>\$2.80</b>	<b>\$3.86</b>	<b>\$4.40</b>	<b>\$3.75</b>	<b>\$5.00</b>
Avg. Shares - Diluted (Non-GAAP)	47.3	47.4	47.4	47.4	47.4	47.5	47.5	47.5	47.6	47.7	47.8	47.9	48.0	48.1	48.2	48.3	47.2	47.4	47.5	47.7	48.1
Dividends per share	\$0.20	\$0.20	\$0.20	\$0.20	\$0.30	\$0.30	\$0.30	\$0.30	\$0.35	\$0.35	\$0.35	\$0.35	\$0.40	\$0.40	\$0.40	\$0.40	\$0.60	\$0.80	\$1.20	\$1.40	\$1.60
<b>Margin Structure</b>																					
Gross margin (overall)	82.6%	78.4%	78.1%	78.0%	78.0%	80.1%	76.7%	82.2%	76.8%	77.3%	78.2%	78.1%	78.3%	78.4%	79.1%	79.7%	80.1%	79.2%	79.3%	77.6%	78.9%
Gross Margin (material)	73.7%	67.3%	61.8%	66.0%	65.5%	65.2%	59.5%	69.9%	64.0%	64.5%	65.5%	66.0%	66.5%	67.0%	68.0%	69.0%	66.9%	67.2%	65.1%	65.1%	67.7%
Research and development	17.4%	18.6%	17.6%	18.4%	17.6%	20.6%	18.9%	18.9%	25.3%	25.4%	21.3%	20.2%	22.2%	22.6%	20.0%	20.1%	19.6%	18.0%	19.0%	22.8%	21.1%
Sales and marketing	12.2%	15.6%	14.6%	15.6%	14.0%	14.5%	11.5%	11.0%	14.7%	15.7%	13.8%	13.6%	14.5%	14.2%	12.3%	11.8%	14.3%	14.5%	12.6%	14.4%	13.1%
Patent costs and amort of acq tech	5.5%	5.6%	5.5%	5.2%	4.8%	5.7%	3.5%	3.0%	3.9%	4.0%	3.4%	3.2%	3.3%	3.3%	2.8%	2.7%	6.9%	5.4%	4.2%	3.6%	3.0%
Royalty and license expense	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	2.6%	0.1%	0.1%	0.1%	0.1%
Operating Expenses	35.2%	39.9%	37.9%	39.3%	36.6%	41.0%	34.1%	33.0%	44.0%	45.2%	38.6%	37.0%	40.1%	40.2%	35.2%	34.7%	43.3%	38.1%	35.9%	40.9%	37.3%
Operating Margin	47.4%	38.5%	40.2%	38.6%	41.4%	39.0%	42.6%	49.2%	32.8%	32.1%	39.5%	41.1%	38.2%	38.1%	44.0%	45.0%	36.7%	41.1%	43.3%	36.8%	41.6%
Tax Rate	18.9%	19.2%	20.2%	18.9%	20.1%	24.5%	23.7%	19.2%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	18.4%	19.3%	21.7%	20.0%	20.0%
Net Margin	38.6%	31.3%	32.1%	31.4%	33.2%	30.4%	33.3%	36.5%	28.4%	27.8%	33.5%	34.6%	32.3%	32.3%	36.7%	37.4%	31.1%	33.3%	34.1%	31.4%	34.9%

Source : Company data, Deutsche Bank estimates



# Appendix 1

## Important Disclosures

\*Other information available upon request

Disclosure checklist			
Company	Ticker	Recent price*	Disclosure
Universal Display Corp.	OLED.OO	132.99 (USD) 27 Apr 2023	2

\*Prices are current as of the end of the previous trading session unless otherwise indicated and are sourced from local exchanges via Reuters, Bloomberg and other vendors. Other information is sourced from Deutsche Bank, subject companies, and other sources. For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at <https://research.db.com/Research/Disclosures/EquityResearchDisclosures>. Aside from within this report, important risk and conflict disclosures can also be found at <https://research.db.com/Research/Disclosures/Disclaimer>. Investors are strongly encouraged to review this information before investing.

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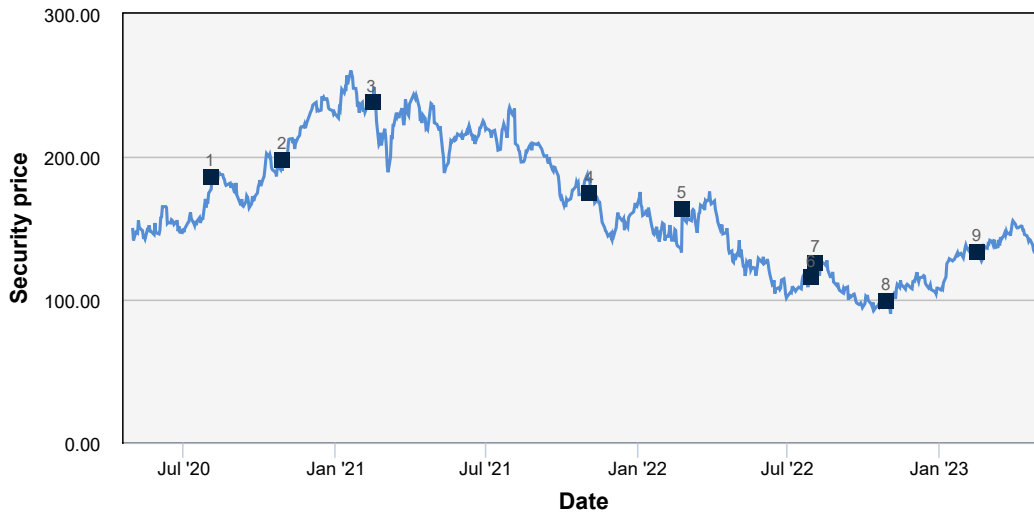
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## Historical recommendations and target price: Universal Display Corp. (OLED.OQ)

(as of 04/27/2023)



### Current Recommendations

Buy  
Hold  
Sell  
Not Rated  
Suspended Rating

\*\* Analyst is no longer at Deutsche Bank

1.	08/04/2020	Buy, Target Price Change USD 205.00 Sidney Ho	6.	07/31/2022	Buy, Target Price Change USD 150.00 Sidney Ho
2.	10/29/2020	Buy, Target Price Change USD 220.00 Sidney Ho	7.	08/05/2022	Buy, Target Price Change USD 140.00 Sidney Ho
3.	02/15/2021	Buy, Target Price Change USD 270.00 Sidney Ho	8.	10/30/2022	Buy, Target Price Change USD 130.00 Sidney Ho
4.	11/05/2021	Buy, Target Price Change USD 240.00 Sidney Ho	9.	02/16/2023	Buy, Target Price Change USD 150.00 Sidney Ho
5.	02/24/2022	Buy, Target Price Change USD 180.00 Sidney Ho			

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**Buy:** Based on a current 12-month view of TSR, we recommend that investors buy the stock.

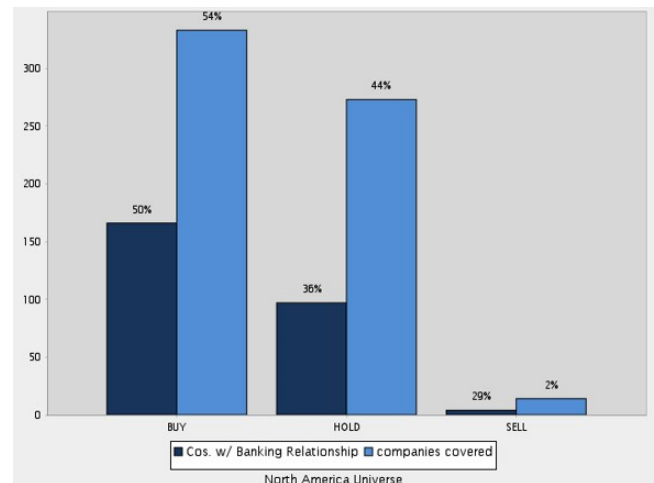
**Sell:** Based on a current 12-month view of TSR, we recommend that investors sell the stock.

**Hold:** We take a neutral view on the stock 12-months out and, based on this time horizon, do not recommend either a Buy or Sell.

TSR = Total Shareholder Return. Percentage change in share price from current price to projected target price plus projected dividend yield

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## David Folkerts-Landau

Group Chief Economist and Global Head of Research

Pam Finelli  
Global Chief Operating Officer  
Research

Steve Pollard  
Global Head of Company  
Research and Sales

Jim Reid  
Global Head of  
Macro and Thematic Research

Tim Rokossa  
Head of Germany  
Research

Gerry Gallagher  
Head of European  
Company Research

Matthew Barnard  
Head of Americas  
Company Research

Peter Milliken  
Head of APAC  
Company Research

Debbie Jones  
Global Head of  
Company Research ESG

Sameer Goel  
Global Head of EM & APAC  
Research

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Global Head of Rates Research

George Saravelos  
Global Head of FX Research

Peter Hooper  
Vice-Chair of Research

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## International Production Locations

### Deutsche Bank AG

Deutsche Bank Place  
Level 16  
Corner of Hunter & Phillip Streets  
Sydney, NSW 2000  
Australia  
Tel: (61) 2 8258 1234

### Deutsche Bank AG

Equity Research  
Mainzer Landstrasse 11-17  
60329 Frankfurt am Main  
Germany  
Tel: (49) 69 910 00

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Filiale Hongkong  
International Commerce Centre,  
1 Austin Road West, Kowloon,  
Hong Kong  
Tel: (852) 2203 8888

### Deutsche Securities Inc.

2-11-1 Nagatacho  
Sanno Park Tower  
Chiyoda-ku, Tokyo 100-6171  
Japan  
Tel: (81) 3 5156 6000

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### Deutsche Bank AG

1 Great Winchester Street  
London EC2N 2EQ  
United Kingdom  
Tel: (44) 20 7545 8000

### Deutsche Bank Securities Inc.

The Deutsche Bank Center  
1 Columbus Circle  
New York, NY 10019  
Tel: (1) 212 250 2500

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