

Technology

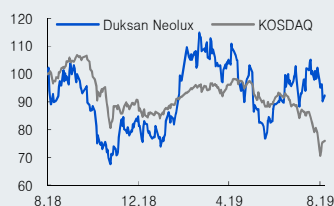
Results Comment
August 13, 2019

(Maintain)	Buy
Target Price (12M, W)	24,000
Share Price (08/12/19, W)	16,100
Expected Return	49%

OP (19F, Wbn)	22
Consensus OP (19F, Wbn)	18
EPS Growth (19F, %)	1.5
Market EPS Growth (19F, %)	-26.1
P/E (19F, x)	20.2
Market P/E (19F, x)	11.9
KOSDAQ	594.17

Market Cap (Wbn)	387
Shares Outstanding (mn)	24
Free Float (%)	42.9
Foreign Ownership (%)	8.8
Beta (12M)	1.34
52-Week Low	11,800
52-Week High	20,050

(%)	1M	6M	12M
Absolute	-0.9	-12.0	3.5
Relative	13.6	8.2	36.8



Mirae Asset Daewoo Co., Ltd.

[Display/Batteries]

Chuljoong Kim
+822-3774-1464
chuljoong.kim@miraeasset.com

Duksan Neolux

(213420 KQ)

New opportunities, more customers

China's OLED operation to get underway; Reiterate TP of W24,000

We reiterate our target price of W24,000 on Duksan Neolux and continue to recommend the stock as our top pick in OLED materials. Despite Samsung Display's sluggish utilization rate in 1H19, Duksan Neolux reported 2Q19 revenue and margins that were better than our expectations. As evidenced by the recent stock performance of US peer Universal Display (OLED US/CP: US\$209.86), there is strong visibility on the medium/long-term growth of the OLED organic materials industry. We continue to expect 1) the full-fledged operation of China's OLED lines, 2) a recovery in Samsung Display's utilization in 2H19, and 3) QD-OLED spending momentum.

2Q19 review: Earnings beat consensus expectations

For 2Q19, Duksan Neolux posted revenue of W22.6bn (+16.9% QoQ, +1.2% YoY) and operating profit of W3.9bn (+82.7% QoQ, -6.8% YoY). Despite the low utilization of a key customer's flexible OLED line, earnings beat our expectations on the back of 1) a thriving rigid OLED cycle and 2) the full-fledged operation of Chinese customers' OLED lines.

China's OLED cycle has only just begun

We expect the operation of Chinese panel makers' OLED lines to get underway in 2H19. We believe BOE's (000725 CH/CP: RMB3.85) B7 fab will produce panels for Huawei's Mate 20 Pro and P30 Pro. BOE's B11 fab (for which investments in back-end processes were made in 1H19) is likely to test volume production of foldable panels. Visionox (002387 CH/CP: RMB14.83) is also expected to begin operation of its OLED lines. The company's 5.5G V1 line is currently shipping panels to the white box market (electronics markets, etc.), while its V2 line is set to supply panels for ZTE (000063 CH/CP: RMB28.75) and Lenovo (0092 HK/CP: HK\$6.00). Tianma's (000050 CH/CP: RMB13.29) G6 phase 1 line in Wuhan is also believed to have secured Lenovo (Moto) and Asus (2357 TT/CP: NT\$202.00) as customers.

It is important to note that the new lines now coming online were part of the 2017 investment cycle. The production lines for which capex began in early 2019 will likely go into operation in 2020. We believe Duksan Neolux is currently supplying a variety of products, such as red host, red prime, and green prime, to Chinese panel makers. Such customer and product diversification increases the company's medium/long-term growth visibility.

QD-OLED: The birth of a new market

We also continue to see momentum from Samsung Display's QD-OLED investments. While initial capex will be for around 30,000 sheets/month, the panel maker is likely to initiate a second phase of investments in 2020 for volume production. As such, we expect Duksan Neolux to begin generating QD-OLED-related revenue in 2H20. Given its larger area per unit compared to mobile devices and high initial pricing, QD-OLED should provide a significant boost to the company's top-line growth from 2020. We think the company will supply HTL and blue prime products.

FY (Dec.)	12/16	12/17	12/18	12/19F	12/20F	12/21F
Revenue (Wbn)	42	100	91	96	117	137
OP (Wbn)	4	18	20	22	29	34
OP margin (%)	9.5	18.0	22.0	22.9	24.8	24.8
NP (Wbn)	5	17	19	19	25	32
EPS (W)	195	699	784	795	1,052	1,314
ROE (%)	4.4	14.5	14.3	12.7	14.6	15.7
P/E (x)	81.8	35.2	18.1	20.2	15.3	12.3
P/B (x)	3.5	4.8	2.4	2.4	2.1	1.8
Dividend yield (%)	0.0	0.0	0.0	0.0	0.0	0.0

Note: All figures are based on consolidated K-IFRS; NP refers to net profit attributable to controlling interests
Source: Company data, Mirae Asset Daewoo Research estimates

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Table 1. 2Q19 review

(Wbn, %, %p)

	2Q18	1Q19	2Q19P			Growth	
			Preliminary	Mirae Asset Daewoo	Consensus	YoY	QoQ
Revenue	22.3	19.3	22.6	18.2	21.1	1.2	16.9
Operating profit	4.2	2.1	3.9	3.3	3.5	-6.8	82.7
OP margin (%)	18.8	11.1	17.4	18.2	16.6	-1.5	6.2
Pretax profit	4.3	2.3	3.8	3.6	4.1	-11.0	67.7
Net profit	4.3	2.0	3.9	3.1	3.0	-8.9	93.8

Notes: All figures are based on consolidated K-IFRS; NP refers to net profit attributable to controlling interests.
Source: Company data, WISEfn, Mirae Asset Daewoo Research estimates

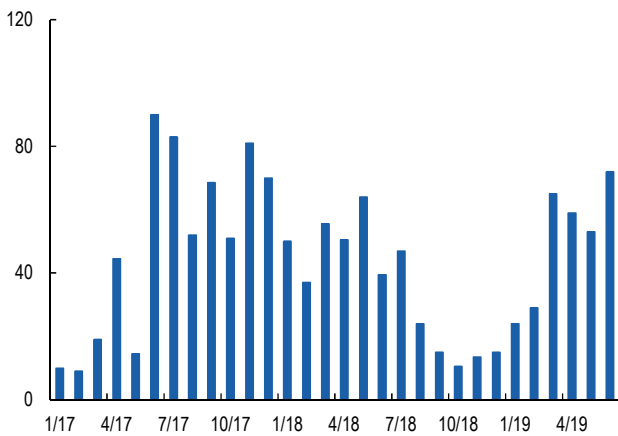
Table 2. Quarterly and annual earnings

(Wmn, %)

	1Q19	2Q19P	3Q19F	4Q19F	1Q20F	2Q20F	3Q20F	4Q20F	2018	2019F	2020F
Revenue	19,340	22,607	26,922	27,515	24,589	25,176	33,719	34,013	90,690	96,384	117,497
HTL	16,705	19,607	22,572	23,144	20,324	20,810	27,871	28,114	69,014	82,028	97,119
Red host	2,609	3,000	4,350	4,371	4,265	4,366	5,848	5,899	19,468	14,329	20,378
Proportion (%)	100	100	100	100	100	100	100	100	100	100	100
HTL	86	87	84	84	83	83	83	83	76	85	83
Red host	13	13	16	16	17	17	17	17	21	15	17
Operating profit	2,150	3,923	8,121	7,459	4,266	4,808	10,051	9,765	20,320	21,652	28,890
Pretax profit	2,260	3,796	7,994	7,332	4,139	4,681	9,924	9,638	21,130	21,381	28,383
Net profit	2,010	3,903	6,875	6,305	3,684	4,166	8,833	8,578	18,820	19,093	25,261
OP margin	11.1	17.4	30.2	27.1	17.3	19.1	29.8	28.7	22.4	22.5	24.6
Pretax margin	11.7	16.8	29.7	26.6	16.8	18.6	29.4	28.3	23.3	22.2	24.2
Net margin	10.4	17.3	25.5	22.9	15.0	16.5	26.2	25.2	20.8	19.8	21.5
Growth (QoQ/YoY, %)											
Revenue	-6.6	16.9	19.1	2.2	-10.6	2.4	33.9	0.9	-9.7	6.3	21.9
Operating profit	-56.2	82.5	107.0	-8.1	-42.8	12.7	109.0	-2.9	10.4	6.6	33.4
Pretax profit	-54.6	68.0	110.6	-8.3	-43.5	13.1	112.0	-2.9	15.2	1.2	32.7
Net profit	-38.2	94.2	76.1	-8.3	-41.6	13.1	112.0	-2.9	12.2	1.5	32.3

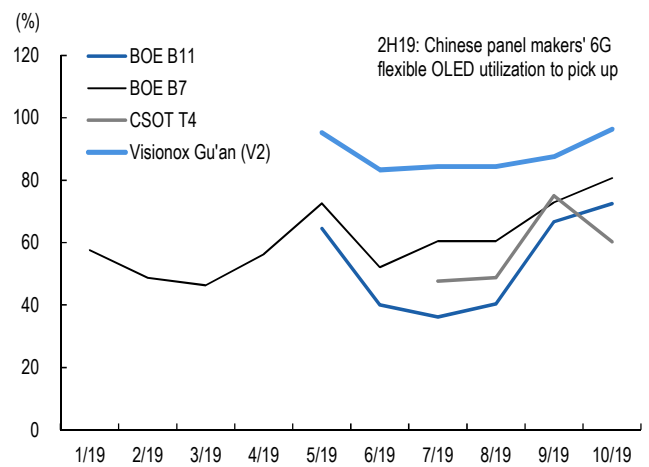
Source: Company data, Mirae Asset Daewoo Research estimates

Figure 1. Number of 6G AMOLED bid invitations from Chinese panel makers



Source: China Bidding, Mirae Asset Daewoo Research

Figure 2. Chinese 6G flexible OLED line utilization



Source: IHS, Mirae Asset Daewoo Research

Table 3. Global OLED overview

Company	Location	Gen.	Type	Capacity ('000 sheets/mo.)	Status	Notes
Samsung Display						
A1	Cheonan	4.5G	Rigid	56	MP	2018 low/mid-range smartphone displays; HMD
A2	Tangjeong	5.5G	Rigid	180	MP	Galaxy A; China, etc.; facility investments underway for H1AA
A2	Tangjeong	5.5G	R/F	35	MP	Non-Y-OCTA flexible; watch displays; automotive; UT R&D
A3	Tangjeong	6G	Flexible	30	MP	Galaxy S9, S10, Note 9, etc.; foldable phones
A3	Tangjeong	6G	Flexible	105	MP	QD-OLED for use in iPhones (R&D)
A4	Tangjeong	6G	Flexible	30	MP	Galaxy S10
A5	Tangjeong	-	-	-	Planning	-
LG Display						
E2	Paju	4.5G	Flexible	24	MP	Apple Watch; only two out of three vapor deposition units in operation; LTPO backplane
E5-1	Gumi	6G	Flexible	7.5	MP	Automotive panel samples
E5-2	Gumi	6G	Flexible	7.5	MP	Panels for use in G8 and V50 smartphones; TOE facility (13,300 sheets/mo.) completed
E6-1	Paju	6G	Flexible	15	MP	Dedicated to development of OLED panels for iPhones
E6-2	Paju	6G	Flexible	15	MP	2019 Apple iPhone model (6.46" screen); TOE facility investment (30,000 sheets/mo.) confirmed (equipment delivery expected in 1H20)
E6-3	Paju	6G	Flexible	15	Pending	Delivery of deposition equipment
BOE						
B7	Chengdu	6G	Flexible	15	MP	Huawei Mate 20 Pro
B7	Chengdu	6G	Flexible	15	MP	Huawei P30 Pro
B7	Chengdu	6G	Flexible	15	MP testing	Volume production testing for smartphone-use panels is ongoing
B11	Mianyang	6G	Flexible	15	MP testing	Foldable phones; module process is ongoing for foldable panels produced at the B7 fab; volume production testing is ongoing
B11	Mianyang	6G	Flexible	15	Setup	Equipment delivery in Nov. 2018
B11	Mianyang	6G	Flexible	15	Planning	Equipment delivery in Apr. 2019
B12	Mianyang	6G	Flexible	45	Planning	Equipment delivery expected in 2020 (site preparation is ongoing; order placements for relevant equipment expected in 2H19)
B15	Fuzhou	6G	Flexible	45	Planning	Equipment delivery expected in 2021 (total investment of RMB46.5bn, of which RMB14.7bn was funded by the local government)
Visionox						
V1	Kunshan	5.5G	Flexible	11	MP	Expanding panel supply (mainly rigid) to the white box (electronics) market
V2	Gu'an	6G	Flexible	15	MP	Flexible full-HD notch panels (bound for ZTE and Lenovo)
V2	Gu'an	6G	Flexible	15	Pending	
V3	Hefei	6G	Flexible	30	Planning	Equipment delivery expected in 4Q19
V3	Hefei	6G	Flexible	30	Planning	Equipment delivery expected in 2H20
Tianma						
Sh-AM	Shanghai	5.5G	Rigid	11	MP	R&D for watch, automotive, and VR panels
Wh-AM	Wuhan	6G	R/F	15	MP	Supplies 6.01" FHD panels to Lenovo (Moto), Asus (ROG)
Wh-AM	Wuhan	6G	Flexible	15	Planning	Order placement for deposition (Canon Tokki) in 1H19; TOE facility establishment
CSOT						
T4	Wuhan	6G	Flexible	15	MP testing	Canon Tokki
T4	Wuhan	6G	Flexible	30	Planning	New deposition equipment bidding began in Jun. (15,000 sheets/mo.)
EDO						
Sh-1	Shanghai	4.5G	Rigid	21	MP	Produces panels for use in smartphones and watches
Sh-2	Shanghai	6G	R/F	15	Installation	Ulvac
Sh-3	Shanghai	6G	Flexible	15	Planning	Canon Tokki
Royole						
Sz-1	Shenzhen	5.5G	Flexible	4	MP	FlexPai (foldable)
Sz-1	Shenzhen	5.5G	Flexible	10	Planning	

Source: Stone Partners, Mirae Asset Daewoo Research

Duksan Neolux (213420 KQ/Buy/TP: W24,000)

Comprehensive Income Statement (Summarized)

(Wbn)	12/18	12/19F	12/20F	12/21F
Revenue	91	96	117	137
Cost of Sales	61	63	74	87
Gross Profit	30	33	43	50
SG&A Expenses	10	12	14	17
Operating Profit (Adj)	20	22	29	34
Operating Profit	20	22	29	34
Non-Operating Profit	1	-1	-1	1
Net Financial Income	1	1	1	1
Net Gain from Inv in Associates	0	0	0	0
Pretax Profit	21	21	28	35
Income Tax	2	2	3	4
Profit from Continuing Operations	19	19	25	32
Profit from Discontinued Operations	0	0	0	0
Net Profit	19	19	25	32
Controlling Interests	19	19	25	32
Non-Controlling Interests	0	0	0	0
Total Comprehensive Profit	18	19	25	32
Controlling Interests	18	19	25	32
Non-Controlling Interests	0	0	0	0
EBITDA	24	25	33	38
FCF (Free Cash Flow)	2	21	24	31
EBITDA Margin (%)	26.4	26.0	28.2	27.7
Operating Profit Margin (%)	22.0	22.9	24.8	24.8
Net Profit Margin (%)	20.9	19.8	21.4	23.4

Cash Flows (Summarized)

(Wbn)	12/18	12/19F	12/20F	12/21F
Cash Flows from Op Activities	8	21	24	31
Net Profit	19	19	25	32
Non-Cash Income and Expense	5	6	6	6
Depreciation	4	4	4	3
Amortization	0	0	0	0
Others	1	2	2	3
Chg in Working Capital	-15	-3	-5	-4
Chg in AR & Other Receivables	-1	-2	-2	-2
Chg in Inventories	-6	-8	-7	-7
Chg in AP & Other Payables	-3	2	1	1
Income Tax Paid	0	-2	-3	-4
Cash Flows from Inv Activities	-18	-17	-4	-3
Chg in PP&E	-6	0	0	0
Chg in Intangible Assets	-1	0	0	0
Chg in Financial Assets	-10	-4	-4	-3
Others	-1	-13	0	0
Cash Flows from Fin Activities	0	1	0	0
Chg in Financial Liabilities	1	0	0	0
Chg in Equity	0	0	0	0
Dividends Paid	0	0	0	0
Others	-1	1	0	0
Increase (Decrease) in Cash	-10	4	21	27
Beginning Balance	48	38	43	63
Ending Balance	38	43	63	91

Source: Company data, Mirae Asset Daewoo Research estimates

Statement of Financial Condition (Summarized)

(Wbn)	12/18	12/19F	12/20F	12/21F
Current Assets	72	88	120	157
Cash and Cash Equivalents	38	43	63	91
AR & Other Receivables	8	10	13	15
Inventories	23	31	39	45
Other Current Assets	3	4	5	6
Non-Current Assets	88	101	101	100
Investments in Associates	0	0	0	0
Property, Plant and Equipment	46	42	38	35
Intangible Assets	31	31	30	30
Total Assets	160	189	220	257
Current Liabilities	14	21	25	29
AP & Other Payables	8	11	14	16
Short-Term Financial Liabilities	2	5	5	6
Other Current Liabilities	4	5	6	7
Non-Current Liabilities	6	8	10	11
Long-Term Financial Liabilities	0	0	0	0
Other Non-Current Liabilities	6	8	10	11
Total Liabilities	19	29	35	40
Controlling Interests	141	160	185	217
Capital Stock	5	5	5	5
Capital Surplus	94	94	94	94
Retained Earnings	42	61	86	118
Non-Controlling Interests	0	0	0	0
Stockholders' Equity	141	160	185	217

Forecasts/Valuations (Summarized)

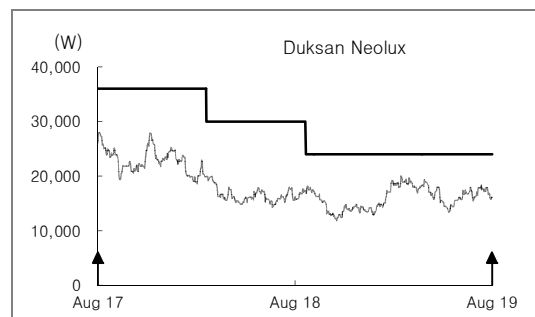
	12/18	12/19F	12/20F	12/21F
P/E (x)	18.1	20.2	15.3	12.3
P/CF (x)	14.6	15.5	12.5	10.3
P/B (x)	2.4	2.4	2.1	1.8
EV/EBITDA (x)	12.7	13.8	10.0	8.0
EPS (W)	784	795	1,052	1,314
CFPS (W)	972	1,038	1,287	1,566
BPS (W)	5,876	6,666	7,718	9,032
DPS (W)	0	0	0	0
Payout ratio (%)	0.0	0.0	0.0	0.0
Dividend Yield (%)	0.0	0.0	0.0	0.0
Revenue Growth (%)	-9.0	5.5	21.9	17.1
EBITDA Growth (%)	9.1	4.2	32.0	15.2
Operating Profit Growth (%)	11.1	10.0	31.8	17.2
EPS Growth (%)	12.2	1.4	32.3	24.9
Accounts Receivable Turnover (x)	12.6	10.7	10.2	9.9
Inventory Turnover (x)	4.4	3.5	3.4	3.3
Accounts Payable Turnover (x)	9.4	11.3	10.5	10.2
ROA (%)	12.2	10.9	12.3	13.2
ROE (%)	14.3	12.7	14.6	15.7
ROIC (%)	20.3	20.8	26.2	29.8
Liability to Equity Ratio (%)	13.7	18.2	18.9	18.5
Current Ratio (%)	527.3	418.0	476.0	546.0
Net Debt to Equity Ratio (%)	-26.1	-23.7	-31.5	-39.5
Interest Coverage Ratio (x)	1,132.1	834.2	987.7	1,121.9

APPENDIX 1

Important Disclosures & Disclaimers

2-Year Rating and Target Price History

Company (Code)	Date	Rating	Target Price
Duksan Neolux (213420)	09/02/2018	Buy	24,000
	03/02/2018	Buy	30,000
	07/03/2017	Buy	36,000



Stock Ratings

Buy	: Relative performance of 20% or greater
Trading Buy	: Relative performance of 10% or greater, but with volatility
Hold	: Relative performance of -10% and 10%
Sell	: Relative performance of -10%

Industry Ratings

Overweight	: Fundamentals are favorable or improving
Neutral	: Fundamentals are steady without any material changes
Underweight	: Fundamentals are unfavorable or worsening

Ratings and Target Price History (Share price (—), Target price (—), Not covered (≡), Buy (▲), Trading Buy (■), Hold (●), Sell (◆))

* Our investment rating is a guide to the relative return of the stock versus the market over the next 12 months.

* Although it is not part of the official ratings at Mirae Asset Daewoo Co., Ltd., we may call a trading opportunity in case there is a technical or short-term material development.

* The target price was determined by the research analyst through valuation methods discussed in this report, in part based on the analyst's estimate of future earnings.

* The achievement of the target price may be impeded by risks related to the subject securities and companies, as well as general market and economic conditions.

Equity Ratings Distribution & Investment Banking Services

	Buy	Trading Buy	Hold	Sell
Equity Ratings Distribution	83.14%	8.72%	8.14%	0.00%
Investment Banking Services	77.78%	11.11%	11.11%	0.00%

* Based on recommendations in the last 12-months (as of June 30, 2019)

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Mirae Asset Daewoo International Network

Mirae Asset Daewoo Co., Ltd. (Seoul)

Global Equity Sales Team
Mirae Asset Center 1 Building
26 Eulji-ro 5-gil, Jung-gu, Seoul 04539
Korea

Tel: 82-2-3774-2124

Mirae Asset Securities (USA) Inc.

810 Seventh Avenue, 37th Floor
New York, NY 10019
USA

Tel: 1-212-407-1000

PT. Mirae Asset Sekuritas Indonesia

Equity Tower Building Lt. 50
Sudirman Central Business District
Jl. Jend. Sudirman, Kav. 52-53 Jakarta Selatan
12190
Indonesia
Tel: 62-21-515-3281

Mirae Asset Securities Mongolia UTsK LLC

#406, Blue Sky Tower, Peace Avenue 17
1 Khoroo, Sukhbaatar District
Ulaanbaatar 14240
Mongolia

Tel: 976-7011-0806

Shanghai Representative Office

38T31, 38F, Shanghai World Financial Center
100 Century Avenue, Pudong New Area Shanghai
200120
China

Tel: 86-21-5013-6392

Mirae Asset Securities (HK) Ltd.

Suites 1109-1114, 11th Floor
Two International Finance Centre
8 Finance Street, Central
Hong Kong
China
Tel: 852-2845-6332

Mirae Asset Wealth Management (USA) Inc.

555 S. Flower Street, Suite 4410,
Los Angeles, California 90071
USA

Tel: 1-213-262-3807

Mirae Asset Securities (Singapore) Pte. Ltd.

6 Battery Road, #11-01
Singapore 049909
Republic of Singapore

Tel: 65-6671-9845

Mirae Asset Investment Advisory (Beijing) Co., Ltd

2401B, 24th Floor, East Tower, Twin Towers
B12 Jianguomenwai Avenue, Chaoyang District
Beijing 100022
China

Tel: 86-10-6567-9699

Ho Chi Minh Representative Office

7F, Saigon Royal Building
91 Pasteur St.
District 1, Ben Nghe Ward, Ho Chi Minh City
Vietnam

Tel: 84-8-3910-7715

Mirae Asset Securities (UK) Ltd.

41st Floor, Tower 42
25 Old Broad Street,
London EC2N 1HQ
United Kingdom

Tel: 44-20-7982-8000

Mirae Asset Wealth Management (Brazil) CCTVM

Rua Funchal, 418, 18th Floor, E-Tower Building Vila
Olimpia
Sao Paulo - SP
04551-060
Brasil
Tel: 55-11-2789-2100

Mirae Asset Securities (Vietnam) LLC

7F, Saigon Royal Building
91 Pasteur St.
District 1, Ben Nghe Ward, Ho Chi Minh City
Vietnam

Tel: 84-8-3911-0633 (ext.110)

Beijing Representative Office

2401A, 24th Floor, East Tower, Twin Towers
B12 Jianguomenwai Avenue, Chaoyang District
Beijing 100022
China

Tel: 86-10-6567-9699 (ext. 3300)