| Overweight (Initiate) |  |  |
| :---: | :---: | :---: |
| Company | Rating | TP (KRW) |
| - Melfas | BUY (-) | 67,000 ( $\mathbf{V}$ ) |
| - Iljin Display | BUY (Initiate) | 14,500 (-) |
| - S-MAC | BUY (Initiate) | 18,000 (-) |
| - ELK | BUY (-) | 27,000 ( $\mathbf{( 4 )}$ |
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## Focus on the fittest

Korea touchscreen to grow $90 \%$ YoY - Initiate with Overweight We initiate coverage of the touchscreen sector with Overweight. In 2011, we estimate the Korean touchscreen industry to continue its robust growth $(90 \%$ YoY) given Korean handset makers' bullish stance on smartphones. Samsung Electronics and LG Electronics guide 225\% YoY and 400\% YoY smartphone shipment growth, respectively, in 2011. We believe Samsung Electronics is the best positioned to enjoy strong growth in both smartphones and tablet PCs thanks to its 1 ) cost competitiveness among Android tablet PC makers, 2) increasing market share of Android in tablet PCs and smartphones given the skyrocketing number of free applications and diverse product lineup. Within our sector coverage, we recommend investors to focus on selective names in the Samsung Electronics tablet PC supply-chain.

## Samsung is the most cost-competitive in Android tablet PCs

We expect price competition to intensify in the tablet PC market due to Apple's aggressive pricing strategy, which is the biggest obstacle to Android tablet PC makers in 2011. We believe Samsung Electronics is the most competitive player among Android tablet PC makers thanks to its high exposure of in-house production ( $66 \%$ of total BOM). We expect Samsung Electronics to outperform peers and maintain its global market share of $13 \%$ in 2011 with 7.0 mn tablet PC shipments.

Selective names with high exposure of in-house components
We focus on selected names in the Samsung Electronics supply chain within our touchscreen coverage and expect component companies that can meet Samsung Electronics' cost reduction requirements to benefit. We estimate a $35 \%$ YoY price reduction in touchscreens is required for Samsung Electronics to meet the touchscreen costs for Apple's iPad 2. Our analysis under this scenario suggests that only Melfas and Iljin Display remain profitable with double-digit operating margins while others make losses. This is mainly due to the high exposure of in-house component production (Melfas: $67 \%$, Iljin Display: $37 \%$ ). We believe the more Samsung Electronics focuses on price-cuts, the more volumes selective companies will enjoy.

## Attractive valuation - We like Melfas and Iljin Display

History suggests component stock prices tend to move with earnings growth. Thus, we expect further upside at touchscreen names given the near-term earnings momentum (OP: $+66 \% \mathrm{QoQ}$ in $2 \mathrm{Q},+54 \%$ in 3 Q ). Pure touchscreen stocks are trading at 6-7x 2011EPS, undervalued to the 10x of global peers. We believe Melfas (10x) deserves a valuation premium given its in-house IC chip design capability. We note global IC chipmakers are trading at 13.1x 2011EPS on average. We like Melfas and Iljin Display given their 1) superior cost structure and 2) strong earnings momentum driven by Samsung Electronics tablet PC launch. Key risks on our sector call: 1) Samsung Electronics' lackluster tablet PC shipments, 2) poor yields of in-house component production.

## I. Investment summary

Good entry point with near-term earnings momentum at selective names. We initiate our coverage of touchscreen sector with Overweight. We forecast the combined operating profit of touchscreen makers will post sequential operating profit growth through the year (2Q: $+66 \%$ QoQ, 3Q: $+54 \%$ QoQ). We note their main customers Samsung Electronics (Samsung) and LG Electronics (LGE) are the most bullish on smartphone shipment growth, guiding 225\% YoY and 400\% YoY growth, respectively, in 2011.

Historically, the share prices of touchscreen makers tend to move with quarterly earnings. In this context, we see further upside on selective names in the Samsung tablet PC supply-chain, which should post strong operating profit growth over peers from 2Q11. We like Melfas and Iljin Display (Iljin) given their 1) superior cost structure and 2) strong earnings momentum driven by Samsung's tablet PC launch.
[Figure 1] Korea touchscreen makers earnings forecast
(W bn)

|  | 1Q10 | 2Q10 | 3Q10 | 4Q10 | 1Q11F | 2Q11F | 3Q11F | 4Q11F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Melfas |  |  |  |  |  |  |  |  |
| Sales | 50 | 47 | 73 | 82 | 68 | 113 | 176 | 174 |
| Operating profit | 5 | 7 | 12 | 13 | 9 | 18 | 28 | 27 |
| Operating margin | 10.6\% | 15.8\% | 16.8\% | 15.5\% | 13.6\% | 15.7\% | 16.1\% | 15.4\% |
| QoQ growth (\%) | 15.0\% | 39.8\% | 67.1\% | 4.1\% | -27.4\% | 91.8\% | 57.9\% | -4.8\% |
| Iljin Display |  |  |  |  |  |  |  |  |
| Sales | 12 | 23 | 30 | 49 | 49 | 75 | 108 | 102 |
| Operating profit | 1 | 2 | 4 | 6 | 6 | 11 | 16 | 14 |
| Operating margin | 4.2\% | 9.0\% | 14.3\% | 12.7\% | 12.2\% | 14.6\% | 15.0\% | 13.4\% |
| QoQ growth (\%) | -69.0\% | 306.5\% | 110.3\% | 46.2\% | -4.7\% | 82.4\% | 47.7\% | -15.9\% |
| S-MAC |  |  |  |  |  |  |  |  |
| Sales | 37 | 29 | 37 | 102 | 73 | 77 | 87 | 71 |
| Operating profit | 1 | -0 | 1 | 7 | 3 | 4 | 6 | 5 |
| Operating margin | 3.8\% | -0.4\% | 3.3\% | 6.6\% | 4.6\% | 5.4\% | 6.7\% | 7.2\% |
| QoQ growth (\%) | 348.2\% | NM | NM | 455.3\% | -49.7\% | 23.5\% | 39.0\% | -12.0\% |
| ELK |  |  |  |  |  |  |  |  |
| Sales | 40 | 57 | 74 | 68 | 61 | 80 | 121 | 110 |
| Operating profit | 5 | 3 | 7 | 9 | 7 | 10 | 15 | 13 |
| Operating margin | 12.0\% | 5.6\% | 9.1\% | 12.8\% | 11.5\% | 12.0\% | 12.8\% | 12.1\% |
| QoQ growth (\%) | -21.2\% | -33.2\% | 111.4\% | 27.9\% | -19.4\% | 37.8\% | 60.5\% | -13.1\% |
| Total |  |  |  |  |  |  |  |  |
| Sales | 138 | 155 | 214 | 302 | 251 | 345 | 492 | 457 |
| Operating profit | 12 | 12 | 25 | 34 | 26 | 42 | 65 | 59 |
| Operating margin | 8.6\% | 8.1\% | 11.4\% | 11.4\% | 10.2\% | 12.3\% | 13.3\% | 12.9\% |
| QoQ growth (\%) | -5.1\% | 4.5\% | 96.7\% | 40.3\% | -25.6\% | 65.9\% | 54.0\% | -10.1\% |

[^0]

Source: Company data, Korea Investment \& Securities
Source: Company data, Korea Investment \& Securities
[Figure 4] Smartphone market to grow 37\% YoY in 2011 [Figure 5] Strong shipment growth at Korean handset makers


Samsung is the most cost-competitive in Android tablet PCs. Apple has commanded a 70\% market share in the MP3 player market without any serious competition since 2005. Unlike the MP3 market, we believe Android has more chances to compete with Apple thanks to its 1) diverse product lineup, 2) skyrocketing number of free applications (Android: 65\% vs. Apple: 28\%), 3) high penetration of Android smartphones that lowers the entry barrier for customers' purchase of Android tablets.

In particular, we believe Samsung will outperform peers as we view Samsung as the most cost-competitive among them thanks to its high exposure of in-house production ( $66 \%$ of total BOM). We believe price-cut is the key factor for Android tablet makers to compete with Apple's iPad 2 as Apple retains its pricing advantage on iPad 2. Hence, we expect Samsung to maintain its global market share of $13 \%$ in 2011, 7.0 mn unit shipments of tablets PCs.


Source: Company data, Korea Investment \& Securities
Source: Company data, Korea Investment \& Securities
[Figure 8] Media tablet shipment forecast
[Figure 9] Samsung in-house component exposure (Galaxy Tab)


Source: iSuppi, Company data, Korea Investment \& Securities

Focus on winners in the Samsung tablet PC supply chain. As Samsung focuses on price reduction, we estimate a $35 \%$ price reduction of touchscreens is required for Samsung to meet the touchscreen costs for Apple's iPad 2. Our analysis suggests that only Melfas and Iljin remain profitable with double-digit operating margins while others make losses. This is mainly due to the high exposure to in-house component production (Melfas: 67\%, Iljin: 37\%). The more Samsung focuses on price cuts, the more volumes selective names enjoy, in our view.


Source: Gartner, iSuppi, Korea Investment \& Securities
[Figure 12] Melfas - Shipment growth offsets price-cut pressure

[Figure 13] Iljin Display - Shipment growth offsets pricecut pressure


Attractive valuation - We like Melfas and Iljin Display Pure touchscreen stocks are trading at $6-7 x 2011 E P S$, undervalued to the $10 x$ of global peers. We believe Melfas (10x) deserves a valuation premium given its in-house IC chip design capability. We note global IC chipmakers are trading at 13.1x 2011EPS on average. However, we see limited upside on ELK as the share price recently surged $35 \%$ from the trough in the March, reaching the global peer level.

Key risks on our sector call: 1) Samsung's lackluster tablet PC shipments, 2) poor yields of in-house component production.
[Figure 14] Korea touchscreen snapshot

| Company | Rating | TP | Return | Target Multiple | Valuation rationale | Investment points |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Melfas | BUY | 67,000 | 46.8\% | P/E14.6x | 2011F average of global touch IC chip/glass-type touchsceen names | Beneficiary of Samsung tablet PC <br> Taking leadership in touch IC chip <br> Korea's most cost-competitive touchscreen player |
| Iljin Display | BUY | 14,500 | 35.5\% | P/E9.8x | 2011F average of global filmtype touchsceen names | Beneficiary of Samsung tablet PC <br> High utilization rate to lift sapphire wafer margin Margin improvement thanks to high exposure of inhouse production |
| S-MAC | BUY | 18,000 | 33.3\% | P/E8.8x | 10\% discount to 2011F average of global film-type touchsceen names | Strong touch phone order flow from Samsung In-house ITO sensor lifts margin <br> Adding more global customers |
| ELK | BUY | 27,000 | 17.4\% | P/E9.8x | 2011F average of global filmtype touchsceen names | Near-term weakness due to market share decline in Motorola Stable margin trend thanks to diversified client portfolio |

Source: Korea Investment \& Securities
[Figure 15] Valuation comparison

| Company | Code | Market cap (USD mn) | P/E(x) |  | P/B(x) |  |  | ROE (\%) |  |  |  | EV/EBITDA(x) |  |  | EPS growth (\%) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2010A | 2011F | 2012F | 2010A | 2011F | 2012F | 2010A | 2011F | 2012F | 2010A | 2011F | 2012F | 2010A | 2011F | 2012F |
| Korea touchscreen |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Melfas | 096640 KS | 633 | 13.4 | 10.0 | 7.4 | 4.2 | 4.5 | 3.0 | 31.5 | 44.8 | 40.3 | 10.3 | 7.5 | 4.3 | 41.6 | 112.5 | 34.4 |
| Iljin Display | 020760 KS | 228 | 28.6 | 7.4 | 5.0 | 8.6 | 4.5 | 2.6 | 22.6 | 61.1 | 51.5 | 17.4 | 5.6 | 3.4 | n/a | 265.8 | 48.3 |
| S-MAC | 097780 KS | 82 | 7.7 | 6.6 | 3.9 | 2.5 | 2.2 | 1.5 | 34.4 | 33.0 | 38.7 | 7.6 | 4.5 | 2.1 | n/a | 10.8 | 69.3 |
| ELK | 094190 KS | 285 | 9.3 | 9.0 | 8.1 | 2.3 | 2.7 | 2.0 | 29.7 | 35.5 | 28.8 | 8.3 | 7.3 | 5.5 | 26.2 | 63.0 | 11.5 |
| Average |  |  | 14.8 | 8.3 | 6.1 | 4.4 | 3.5 | 2.3 | 29.6 | 43.6 | 39.8 | 10.9 | 6.2 | 3.8 | 33.9 | 112.8 | 41.0 |
| Touch IC chip |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Broadcom | BRCM US | 21,855 | 14.9 | 13.5 | 12.4 | 3.1 | 2.7 | 2.0 | 21.0 | 20.1 | 19.3 | 12.3 | 10.0 | 9.0 | 28.0 | 10.0 | 8.7 |
| Atmel | ATML US | 5,994 | 17.7 | 14.2 | 13.6 | 4.2 | 3.3 | 3.0 | 21.6 | 22.3 | $\mathrm{n} / \mathrm{a}$ | 10.4 | 8.3 | 6.9 | n/a | 24.6 | 4.0 |
| Cypress | CYUS | 3,437 | 16.9 | 13.9 | 11.1 | 4.4 | 3.7 | 2.9 | 29.0 | 28.5 | $\mathrm{n} / \mathrm{a}$ | 10.2 | 7.7 | 6.8 | 149.6 | 21.7 | 24.6 |
| Synaptics | SYNA US | 915 | 11.1 | 10.9 | 6.4 | 2.6 | 1.9 | n/a | 19.5 | 14.1 | n/a | n/a | n/a | n/a | 54.3 | 2.6 | 68.9 |
| Average |  |  | 15.1 | 13.1 | 10.9 | 3.6 | 2.9 | 2.7 | 22.8 | 21.2 | 19.3 | 10.9 | 8.7 | 7.5 | 77.3 | 14.7 | 26.6 |
| Glass-type touchscreen |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Wintek | 2384 TT | 2,539 | 28.5 | 10.5 | 10.0 | 2.2 | 1.8 | 1.6 | 8.4 | 18.9 | 17.1 | 10.2 | 6.0 | 5.6 | n/a | 170.1 | 5.2 |
| TPK | 3673 TT | 5,967 | 17.8 | 14.4 | 11.3 | 7.7 | 5.4 | 3.5 | 49.3 | 41.9 | 31.4 | 13.1 | 10.4 | 8.0 | 85.3 | 23.3 | 28.1 |
| Sintek | 3049 TT | 805 | n/a | 27.4 | 15.0 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | 82.6 |
| Average |  |  | 23.1 | 17.4 | 12.1 | 4.9 | 3.6 | 2.5 | 28.8 | 30.4 | 24.3 | 11.7 | 8.2 | 6.8 | 85.3 | 96.7 | 38.6 |
| Film-type touchscreen |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Young Fast | 3622 TT | 984 | 11.2 | 9.7 | 8.7 | 3.4 | 2.7 | 2.4 | 35.4 | 31.9 | 30.2 | 7.4 | 6.1 | 5.2 | 1.1 | 16.0 | 11.8 |
| J-Touch | 3584 TT | 295 | 20.3 | 9.8 | n/a | 6.2 | 4.0 | n/a | 33.4 | 64.9 | n/a | 15.1 | 8.5 | n/a | 94.5 | 106.6 | n/a |
| Average |  |  | 15.8 | 9.8 | 8.7 | 4.8 | 3.4 | 2.4 | 34.4 | 48.4 | 30.2 | 11.3 | 7.3 | 5.2 | 47.8 | 61.3 | 11.8 |
| Average |  |  | 18.0 | 13.4 | 10.6 | 4.4 | 3.3 | 2.5 | 28.7 | 33.3 | 24.6 | 11.3 | 8.1 | 6.5 | 70.1 | 57.6 | 25.7 |

Source: Korea Investment \& Securities

## II. Android to increase market share in tablet PC

Android vs. Apple. We believe the market concerns on Android tablet PCs are overblown. We agree Apple should remain dominant in tablet PCs in 2011. However, we expect a $70 \%$ market share is the upper bound for Apple. Judging from the MP3 player market, Apple has been commanding a 70\% market share over the past five years without any serious competition.

Android tablet PC's three positives. Unlike the MP3 market, we believe Android tablet PCs have more chances to erode Apple's market share in tablet PC based on the following: 1) Android's diverse product lineup. We note Apple has diversified its MP3 player portfolio from the low-end (iPod shuffle) to the high-end (iPod touch), but Apple has only one model in the tablet PC segment. 2) A skyrocketing number of free Android applications. During 2010, 170,000 applications were published on Android Market, and the percentage of free application (65\%) is much higher than that of Apple (28\%). We expect the increase rate to be much faster in tablet PCs, as developers only need to convert application versions. 3) High penetration rate of Android smartphones. Number of Android smartphones has reached 78.3 mn units on accumulated base as of end-2010, only $13 \%$ less than that of iPhone. We believe the high penetration of Android smartphones will lower the entry barrier for the purchase of Android tablet PCs.


Source: Company data, Korea Investment \& Securities
Source: Sybase, Korea Investment \& Securities


[^1][Figure 20] Android OIS vs. Apple iOS

[Figure 21] QoQ shipment growth by O/S


## III. Samsung is the most cost-competitive in Android tablet PCs

Samsung is the most cost-competitive among Android tablet PC peers. We think price cuts are inevitable for Android tablet PC makers to compete with Apple's iPad 2 as Apple retains its pricing advantage. We believe Samsung will outperform peers as we rate Samsung as the most cost-competitive among peers due to its high exposure to in-house production ( $66 \%$ of total BOM). Based on our BOM analysis of Galaxy Tab, Samsung uses an in-house LCD panel ( $28 \%$ of total BOM), memory (25\%), battery (5\%), AP (4\%) and camera module (4\%). We expect Samsung to maintain a global market share of $13 \%$ in 2011, 7.0 mn unit shipments of tablet PCs. This is in line with the company's guidance.
[Figure 22] Tablet PC shipments


Source: Gartner, Korea Investment \& Securities
[Figure 23] Price comparison by tablet PC model
[Figure 24] Samsung's in-house component exposure (Galaxy Tab)


Source: Company data, Korea Investment \& Securities
Source: iSuppi, Company data, Korea Investment \& Securities
[Figure 25] Tablet PC product line-up

|  | iPad 2 | Galaxy Tab 2 | Xoom | OptimusPad 3G | Playbook |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Manufacturer | Apple | Samsung | Motorola | LG Electronics | RIM |
| OS | iOS 4.3 | Android OS v3.0 | Android OS v3.0 | Android OS v3.0 | RIM OS |
| Thickness (mm) | 8.8 | 8.6 | 12.9 | 12.8 | 10.0 |
| Weight (g) | 600 | 595/475 | 730 | 630 | 425 |
| Processor | 1 GHz Apple A5 dualcore processor | 1GHz Nvidia Tegra 2 processor | 1GHz Nvidia Tegra 2 processor | 1GHz Nvidia Tegra 2 processor | 1 GHz dual-core processor |
| Display (inch) | 9.7 | 10.1/8.9 | 10.1 | 8.9 | 7.0 |
| Display (pixel) | 1024*768 | $1280 \times 800$ | $1280 \times 800$ | $1280 \times 768$ | $1024 \times 600$ |
| Storage | 16/32/64 GB | 16/32 GB | 32 GB | 32 GB | 16/32/64Gb |
| Internal memory | 512 MB RAM | 1 GB RAM | 1 GB RAM | 1 GB RAM | 1 GB RAM |
| External memory | n/a | microSD, up to 32GB | microSD, up to 32GB | microSD, up to 32GB | n/a |
| Price | USD499-729 | USD469-599 | USD599-799 | USD699 | USD499- |

[^2]
## IV. Selective names with high exposure of inhouse components

Price cut needed in touchscreen for Android to compete with iPad 2. We believe the bulk of the cost difference between Android tablets and iPad 2 comes from the touchscreen module including IC chips. In the case of Motorola's Xoom, the touchscreen module cost USD26 more than iPad 2's (USD20 for the touchscreen module, USD6 for the touch IC chip), representing $60 \%$ of the total cost difference. As such, we view the price cut in the touchscreen module as the most critical factor for Android tablet makers to compete with iPad 2.

Winners in the Samsung supply chain. Given the high exposure to in-house component production, we rate Melfas and Iljin as the best-positioned players in Samsung's tablet PC supply chain. This is mainly due to the high exposure of inhouse component production. For Melfas, it uses in-house IC chip and touchscreen sensor (DPW), which account for $67 \%$ of the total cost of a 10.1-inch touchscreen. We also like Iljin as it uses in-house ITO films. ITO film accounts for $37 \%$ of the total cost.


Source: Gartner, iSuppi, Korea Investment \& Securities
Source: Company data, Korea Investment \& Securities
[Figure 28] Touchscreen cost breakdown (3.5-inch) [Figure 29] Touchscreen cost breakdown (10.1-inch)



Focus on shipment growth over price cut. We estimate a $35 \%$ YoY price reduction of the touchscreen is required for Samsung to meet the touchscreen costs for Apple's iPad 2. Currently, five touchscreen makers are bidding for Samsung's new tablet PC business. Our cost analysis under the scenario suggests that only two makers remain profitable (4Q tablet PC operating margin: Melfas $12 \%$, Iljin 7\%) after the price cut. Accordingly, as Samsung focuses on price cut, we believe selective names should increase market share, offsetting the overall price-cut impact. In 3Q, we view Melfas and Iljin will maintain their operating margin thanks to strong QoQ shipment growth. Although the margin is likely to decline in 4 Q as QoQ shipment growth slows due to the base effect, we note that we have yet incorporated increased production yield and component price reduction at the touchscreen level.
[Figure 30] Media tablet touchscreen module costs by vendor

*Melfas - IC chip operating profit included
Source: Korea Investment \& Securities
[Figure 31] Melfas - Shipment growth offsets price-cut [Figure 32] Iljin Display - Shipment growth offsets pressure


Source: Korea Investment \& Securities
price-cut pressure


Samsung's market share decline has less impact on EPS. There are concerns in the market that Samsung may lose market share in tablet PCs as the number of participants increase. Our analysis suggests that a $10 \%$ decline in shipments of Samsung tablet PCs would have 2\% and 1.3\% negative impacts on Melfas's 2011 EPS and Iljin's 2011 EPS, respectively. We maintained our $35 \%$ price-cut assumption.
[Figure 33] Samsung tablet PC M/S sensitivity
( W bn, KRW)

|  | Samsung tablet PC shipments |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| (W bn) | $\mathbf{7 , 0 0 0}$ | $\mathbf{6 , 3 0 0}$ | $\mathbf{5 , 6 0 0}$ | $\mathbf{4 , 9 0 0}$ | $\mathbf{4 , 2 0 0}$ |
| Difference | $\mathbf{0 \%}$ | $\mathbf{1 0 \%}$ | $\mathbf{2 0 \%}$ | $\mathbf{3 0 \%}$ | $\mathbf{4 0 \%}$ |
| Melfas |  |  |  |  |  |
| Tablet PC sales | 102 | 91 | 81 | 70 | 60 |
| Tablet PC OP | 15 | 14 | 12 | 11 | 10 |
| EPS | 4,584 | 4,492 | 4,400 | 4,308 | 4,216 |
| $\quad$ Change |  | $-2.0 \%$ | $-4.0 \%$ | $-6.0 \%$ | $-8.0 \%$ |
| Iljin Display |  |  |  |  |  |
| Tablet PC sales | 99 | 92 | 84 | 76 | 68 |
| Tablet PC OP | 11 | 10 | 10 | 9 | 9 |
| EPS | 1,446 | 1,428 | 1,410 | 1,392 | 1,373 |
| $\quad$ Change |  | $-1.3 \%$ | $-2.5 \%$ | $-3.8 \%$ | $-5.0 \%$ |

Source: Korea Investment \& Securities

## Company

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Iljin Display (020760) ..... 18
S-MAC (097780) ..... 22
ELK (094190) ..... 25

## The best touchscreen player in Korea

## Our top pick in Korea touchscreen

We believe Melfas is best positioned in the Samsung tablet PC supply chain given its competiveness in both IC chip and touchscreen. We recommend accumulating shares for the following reasons: 1) the rapid penetration of Melfas's touchscreen solution (DPW) as it reduces thickness and costs, 2) the growing market share of IC chips thanks to cost-competiveness and superior features.

We tweaked 2011EPS by $9 \%$ to reflect key customers' new models delay. As such, we trimmed our price target from $W 73,000$ to $W 67,000$ using $14.6 \times 2011 E P S$. We applied the 2011F average multiple of global touch IC chip/glass-type touchscreen makers (unchanged) given 1) superior IC chip performance and 2) a growing presence in glass-type touchscreen (DPW). Our price target implies $47 \%$ upside. Reiterate BUY.

## 1Q11: Strong operating margin eases concern on DPW production yield

 In 1Q11, Melfas guides W65bn in sales ( $-17.5 \%$ QoQ, $+36.8 \%$ YoY) with an operating margin of $13-14 \%$. The QoQ sales growth will slightly miss our previous estimate mainly due to the delay in major customers' new models. However, we believe the continuing trend of strong operating margins will ease the industry concerns on DPW production yields. According to Melfas, the DPW production yield is up to $70 \%$ at present and has more room to improve, which lifts the operating margin.
## iPad 2 stimulates demand for Melfas's touchscreen solution (DPW)

We believe Apple's iPad 2 impact on the tablet PC industry will boost demand for Melfas's touchscreen solution. As Apple retains its attractive pricing policy and reduces the thickness of iPad 2, Melfas's DPW touchscreen solution should garner more attention from Samsung. The company's DPW solution reduces costs by $20 \%$ through the elimination of key components such as ITO film, OCA lamination. Furthermore, it offers two additional benefits for set makers: 1) high transparency (DPW: $93 \%$ vs. film: $89 \%$ ) and 2 ) slim design (DPW: 0.3 mm vs. glass: 0.5 mm ).

## Taking the lead in touch IC chip

Melfas is widening the gap with competitors in the IC chip business. Based on our channel check, touchscreen makers in Samsung's supply chain have started to replace competitors' IC chips with Melfas's IC chip. We believe Melfas will continue to extend its portion in Samsung thanks to 1) attractive chip pricing, and 2) superior features over peers. Using Melfas's IC chip saves USD6 per tablet PC device as it requires only two chips (>8.9" screen size) while other IC chipmakers need four chips. Furthermore, Melfas's chip outperforms peers in 1) noise suppression algorithm, and 2) recognition accuracy thanks to an increased number of input channels. Based on these superior features, we believe Melfas will take at least a $60 \%$ share of Samsung's tablet PC IC chips.

April 4, 2011 / W45,650 / Mkt cap: USD706mn / 6M avg. daily turnover: USD14.9mn

| Yr to | Sales | OP | EBT | NP | EPS | \% chg. | EBITDA | P/E EV/EBITDA | PBR | ROE |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Dec | $(\mathrm{W}$ bn $)$ | $(\mathrm{W}$ bn $)$ | $(\mathrm{W}$ bn $)$ | $(\mathrm{W}$ bn $)$ | $($ (won $)$ | $(\mathrm{YoY})$ | $(\mathrm{W}$ bn $)$ | $(\mathrm{x})$ | $(\mathrm{x})$ | $(\mathrm{x})$ | $(\%)$ |
| 2008A | 35 | 2 | 2 | 3 | 314 | $(66.1)$ | 3 | NM | NM | NM | 16.0 |
| 2009A | 152 | 17 | 17 | 16 | 1,523 | 385.0 | 18 | 42.0 | 14.4 | 12.2 | 28.9 |
| 2010F | 252 | 38 | 40 | 36 | 2,157 | 41.6 | 39 | 13.4 | 10.3 | 4.2 | 31.5 |
| 2011F | 531 | 82 | 85 | 76 | 4,584 | 112.5 | 87 | 10.0 | 7.5 | 4.5 | 45.0 |
| 2012F | 801 | 133 | 135 | 102 | 6,162 | 34.4 | 138 | 7.4 | 4.3 | 3.0 | 40.3 |

[Figure 35] DPW coverage (10.1-inch touchscreen module)


[Figure 36] Touchscreen comparison

|  | DPW | Film-type touchscreen |
| :---: | :---: | :---: |
|  | Window lens |  |
| Structure |  | Window lens ITO film ( 1 or 2 layer ) |


| Transparency | $93 \%$ | $89 \%$ |
| :---: | :---: | :---: |

Source: Company data, Korea Investment \& Securities
[Figure 37] Touchscreen IC chip comparison

|  | Melfas - MMS 100 series | Atmel -maXtouch |
| :---: | :---: | :---: |
| No. of touch point recognition | 30 points | >10 points |
| No. of chips required in media tablet (>8.9") | 2 | 3-4 |
| No. of input channels | 52 (X-Axis:30, Y-Axis:20) | 30 (X-Axis:16, Y-Axis:14) |
| Main processor | 32bit ARM core | 12bit in-house MCU |
| Chip cost per device (>8.9") | USD4 | USD10 |
| Release date | Dec-10 | Sep-09 |

Source: Company data, Korea Investment \& Securities
[Figure 38] Earnings revision
(W bn)

|  | 1Q11F |  |  |  | 2011F |  |  |  | 2012F |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Previous | Revised | Change | Change | Previous | Revised | Change | Change | Previous | Previous | Change | Change |
| Sales | 77.8 | 68.0 | (10) | -13\% | 570.7 | 531.1 | (40) | -7\% | 848.9 | 800.8 | (48) | -6\% |
| TSP | 71 | 61 | (10) | -14\% | 532 | 495 | (37) | -7\% | 805 | 767 | (38) | -5\% |
| Touch IC chip | 2 | 2 | 0 | 2\% | 17 | 15 | (2) | -14\% | 24 | 22 | (2) | -8\% |
| Touch key module | 5 | 5 | 0 | 0\% | 21 | 21 | 0 | 0\% | 20 | 12 | (8) | -40\% |
| OP | 12.0 | 9.3 | (3) | -23\% | 91.0 | 82.2 | (9) | -10\% | 146.4 | 132.6 | (14) | -9\% |
| OP margin | 15.4\% | 13.6\% | -1.8pp |  | 15.9\% | 15.5\% | -0.4pp |  | 17.2\% | 16.6\% | -0.6pp |  |
| EBT | 12.7 | 9.9 | (3) | -22\% | 93.5 | 84.7 | (9) | -9\% | 148.7 | 134.9 | (14) | -9\% |
| EBT margin | 16.3\% | 14.6\% | -1.7pp |  | 16.4\% | 15.9\% | -0.5pp |  | 17.5\% | 16.8\% | -0.7pp |  |
| Net profit | 11.4 | 8.9 | (2) | -22\% | 84.0 | 76.1 | (8) | -9\% | 112.7 | 102.3 | (10) | -9\% |
| Net margin | 14.7\% | 13.1\% | -1.6pp |  | 14.7\% | 14.3\% | -0.4pp |  | 13.3\% | 12.8\% | -0.5pp |  |

[^3]Touchscreen
[Figure 39] Quarterly earnings forecast

|  | FY09 | 1Q10 | 2Q10 | 3Q10 | 4Q10 | FY10 | 1Q11F | 2Q11F | 3Q11F | 4Q11F | FY11F | FY12F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sales | 151.5 | 49.7 | 46.5 | 73.0 | 82.5 | 251.7 | 68.0 | 112.9 | 176.4 | 173.8 | 531.1 | 800.8 |
| TSP | 136.1 | 45.7 | 42.3 | 62.8 | 72.5 | 223.4 | 60.8 | 104.8 | 166.4 | 163.3 | 495.3 | 766.7 |
| Touch IC chip | 5.2 | 2.0 | 1.2 | 2.2 | 1.9 | 7.3 | 1.8 | 2.8 | 4.4 | 5.5 | 14.6 | 22.1 |
| Touch key module | 10.2 | 2.0 | 3.0 | 8.0 | 6.3 | 19.4 | 5.3 | 5.3 | 5.6 | 5.1 | 21.2 | 12.0 |
| Sales contribution (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| TSP | 89.8\% | 92.0\% | 91.0\% | 86.0\% | 87.9\% | 88.7\% | 89.5\% | 92.8\% | 94.3\% | 93.9\% | 93.3\% | 95.7\% |
| Touch IC chip | 3.4\% | 4.0\% | 2.5\% | 3.0\% | 2.3\% | 2.9\% | 2.7\% | 2.5\% | 2.5\% | 3.1\% | 2.7\% | 2.8\% |
| Touch key module | 6.7\% | 4.0\% | 6.5\% | 11.0\% | 7.7\% | 7.7\% | 7.8\% | 4.7\% | 3.2\% | 2.9\% | 4.0\% | 1.5\% |
| Operating profit | 16.7 | 5.2 | 7.3 | 12.3 | 12.8 | 37.6 | 9.3 | 17.8 | 28.4 | 26.7 | 82.2 | 132.6 |
| OP margin | 11.0\% | 10.6\% | 15.8\% | 16.8\% | 15.5\% | 14.9\% | 13.6\% | 15.7\% | 16.1\% | 15.4\% | 15.5\% | 16.6\% |
| Earnings before tax | 17.0 | 6.1 | 7.9 | 12.5 | 13.3 | 39.8 | 9.9 | 18.4 | 29.0 | 27.3 | 84.7 | 134.9 |
| EBT margin | 11.2\% | 12.3\% | 17.0\% | 17.2\% | 16.1\% | 15.8\% | 14.6\% | 16.3\% | 16.4\% | 15.7\% | 15.9\% | 16.8\% |
| Net profit | 16.5 | 5.5 | 7.1 | 11.3 | 11.9 | 35.8 | 8.9 | 16.5 | 26.1 | 24.5 | 76.1 | 102.3 |
| Net margin | 10.9\% | 11.1\% | 15.3\% | 15.4\% | 14.4\% | 14.2\% | 13.1\% | 14.7\% | 14.8\% | 14.1\% | 14.3\% | 12.8\% |

Source: Korea Investment \& Securities

Balance Sheet

| Fiscal year ending Dec. (W bn) | 2008A | 2009A | 2010F | 2011F | 2012F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Current assets | 20 | 99 | 127 | 219 | 335 |
| Cash \& cash equivalent | 0 | 2 | 11 | 51 | 116 |
| Accounts receivable | 5 | 11 | 19 | 39 | 59 |
| Inventory | 9 | 17 | 28 | 59 | 89 |
| Fixed assets | 11 | 15 | 47 | 67 | 87 |
| Investments | 2 | 2 | 2 | 2 | 2 |
| Tangible assets | 8 | 12 | 37 | 57 | 77 |
| Intangible assets | 0 | 1 | 1 | 1 | 1 |
| Total assets | 31 | 115 | 174 | 286 | 422 |
| Current liabilities | 11 | 19 | 39 | 81 | 119 |
| Accounts payable | 9 | 17 | 39 | 80 | 118 |
| Short-term borrowing | 1 | 0 | 0 | 0 | 0 |
| Current portion of LT debt | 0 | 0 | 0 | 0 | 0 |
| Long-term debt | 1 | 1 | 1 | 1 | 1 |
| Debentures | 0 | 0 | 0 | 0 | 0 |
| Long-term borrowings | 1 | 0 | 0 | 0 | 0 |
| Total liabilities | 12 | 20 | 40 | 81 | 119 |
| Paid-in capital | 2 | 3 | 8 | 8 | 8 |
| Capital surplus | 3 | 61 | 61 | 61 | 61 |
| Capital adjustments | 0 | 1 | 2 | 2 | 2 |
| Retained earnings | 15 | 31 | 63 | 134 | 232 |
| Shareholders' equity | 19 | 95 | 133 | 205 | 302 |

## Cash Flow

| Fiscal year ending Dec. (W bn) | 2008A | 2009A | 2010F | 2011F | 2012F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| C/F from operating | $(2)$ | 16 | 39 | 69 | 95 |
| Net profits | 3 | 16 | 36 | 76 | 102 |
| Depreciation | 1 | 1 | 2 | 5 | 5 |
| Amortization | 0 | 0 | 0 | 0 | 0 |
| Net incr. in W/C | $(5)$ | $(6)$ | 2 | $(11)$ | $(13)$ |
| $\quad$ Others | $(0)$ | 4 | $(0)$ | $(0)$ | $(0)$ |
| C/F from investing | $(3)$ | $(71)$ | $(26)$ | $(25)$ | $(25)$ |
| Capex | $(8)$ | $(6)$ | $(25)$ | $(20)$ | $(20)$ |
| Decr. in fixed assets | 1 | 1 | $(2)$ | $(5)$ | $(5)$ |
| Net incr. in current assets | 3 | $(66)$ | 0 | 0 | 0 |
| Incr. in investment | 2 | $(0)$ | 0 | 0 | 0 |
| Others | $(0)$ | $(1)$ | 0 | 0 | 0 |
| C/F from financing | 1 | 58 | $(5)$ | $(5)$ | $(5)$ |
| Incr. in equity | 0 | 59 | 0 | 0 | 0 |
| Incr. in debts | 1 | $(1)$ | 0 | 0 | 0 |
| Dividends | $(0)$ | $(0)$ | $(5)$ | $(5)$ | $(5)$ |
| Others | $(0)$ | 0 | 0 | 0 | 0 |
| Increase in cash | $(4)$ | 2 | 9 | 40 | 65 |

Income Statement

| Fiscal year ending Dec. (W bn) | 2008A | 2009A | 2010F | 2011F | 2012F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Sales | 35 | 152 | 252 | 531 | 801 |
| Gross profit | 8 | 29 | 58 | 132 | 211 |
| SG\&A expense | 6 | 12 | 20 | 50 | 79 |
| Operating profit | 2 | 17 | 38 | 82 | 133 |
| Non-op. profit | 2 | 5 | 6 | 5 | 5 |
| $\quad$ Interest income | 0 | 0 | 2 | 1 | 1 |
| FX gains | 1 | 5 | 4 | 4 | 4 |
| Equity gains | 0 | 0 | 0 | 0 | 0 |
| Non-op. expense | 1 | 5 | 3 | 3 | 3 |
| Interest expense | 0 | 0 | 0 | 0 | 0 |
| FX losses | 1 | 2 | 3 | 3 | 3 |
| Equity losses | 0 | 0 | 0 | 0 | 0 |
| Earnings before tax | 2 | 17 | 40 | 85 | 135 |
| Income taxes | $(1)$ | 0 | 4 | 9 | 33 |
| Profit from discontinued | 0 | 0 | 0 | 0 | 0 |
| Net profit | 3 | 16 | 36 | 76 | 102 |
| EBITDA | 3 | 18 | 39 | 87 | 138 |

## Key Financial Data

| Fiscal year ending Dec. | 2008A | 2009A | 2010F | 2011F | 2012F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| per share data (won) |  |  |  |  |  |
| EPS | 314 | 1,523 | 2,157 | 4,584 | 6,162 |
| BPS | 1,784 | 5,262 | 6,884 | 10,194 | 15,294 |
| DPS | 0 | 0 | 0 | 0 | 0 |
| SPS | 10,143 | 37,772 | 14,799 | 31,615 | 47,667 |
| Growth (\%) |  |  |  |  |  |
| Sales growth | $(1.2)$ | 333.8 | 66.1 | 111.0 | 50.8 |
| OP growth | $(79.0)$ | 770.7 | 124.8 | 118.5 | 61.4 |
| NP growth | $(68.3)$ | 477.7 | 118.4 | 111.2 | 34.4 |
| EPS growth | $(66.1)$ | 385.0 | 41.6 | 112.5 | 34.4 |
| EBITDA growth | $(72.3)$ | 604.7 | 116.2 | 120.9 | 57.9 |
| Profitability (\%) |  |  |  |  |  |
| OP margin | 5.5 | 11.0 | 14.9 | 15.5 | 16.6 |
| NP margin | 8.2 | 10.9 | 14.3 | 14.3 | 12.8 |
| EBITDA margin | 7.4 | 12.1 | 15.7 | 16.4 | 17.2 |
| ROA | 11.3 | 22.7 | 25.0 | 33.1 | 28.9 |
| ROE | 16.0 | 28.9 | 31.5 | 45.0 | 40.3 |
| Dividend yield | NM | 0.0 | 0.0 | 0.0 | 0.0 |
| Stability |  |  |  |  |  |
| Net debt (W bn) | $(2)$ | $(68)$ | $(77)$ | $(117)$ | $(182)$ |
| Int. coverage (x) | 39.4 | 141.0 | $2,299.0$ | NM | NM |
| D/E ratio (\%) | 8.6 | 0.6 | 0.4 | 0.3 | 0.2 |
| Valuation (x) |  |  |  |  |  |
| PER | NM | 42.0 | 13.4 | 10.0 | 7.4 |
| PBR | NM | 12.2 | 4.2 | 4.5 | 3.0 |
| PSR | NM | 1.7 | 2.0 | 1.4 | 1.0 |
| EV/EBITDA | NM | 14.4 | 10.3 | 7.5 | 4.3 |
|  |  |  |  |  |  |

## Dual hearts - touchscreen and sapphire wafer

## Beneficiary of Samsung tablet PC and LED industry recovery

We initiate coverage of Iljin with BUY and a 12-month price target of W14,500 derived by using $9.8 \times 2011 E P S$. We applied the 2011F average multiple of global film-type touchscreen makers. Our investment points on Iljin are: 1) margin improvement driven by the utilization rate hike of sapphire wafer thanks to the overall LED industry recovery, 2) robust shipment growth of touchscreen modules given its cost competitiveness. We have incorporated a $22 \%$ increase in the number of outstanding shares into our valuation due to the possible BW rights exercise. Our price target implies 35\% upside. Key risks include: 1) Samsung's lackluster tablet PC shipments, 2) poor production yields of in-house components.

## 1Q11: Strong growth at sapphire wafer and touchscreen

In 1Q, we expect lljin to post W50bn sales ( $-0.8 \%$ QoQ, $+313.6 \%$ YoY) with an operating margin of $12 \%$. This is generally in line with the 4 Q 10 results and mainly driven by robust sapphire wafer sales in spite of the weak seasonality. Going forward, we sense strong growth in both sapphire wafer and touchscreen thanks to 1) faster recovery in the utilization rate of sapphire wafer and 2) an increased number of touchscreen models. From 2 Q , touchscreen modules should become a main growth driver as Iljin receives eight smartphone models and begin to replace Galaxy Tab (7-inch) with the new Galaxy Tab series.

## Touchscreen - Cost competitiveness leads greater shipments

In 2011, we believe price reduction is the key factor for Samsung to compete with Apple's iPad2 as Apple retains its pricing advantage. We like lljin among the Samsung tablet PC supply chain given its high exposure to in-house components which should enable it bear price-cut pressure. Iljin uses an in-house ITO sensor which accounts for $37 \%$ of total costs (10.1-inch touchscreen). The more Samsung focuses on price-cut, the more volumes Iljin enjoys, in our view. We expect Iljin to ship 2.3 mn units in 2011, representing $34 \%$ of Samsung's tablet PC shipments.

## Sapphire wafer - Bottoming out

Historically, the utilization rate has been the main driver of sapphire wafer operating margin. We forecast the utilization rate to pick up from 1 Q as we expect LED chipmakers to increase utilization rates given capex cuts and the fast transition to LED TV at set makers. We estimate the utilization rate to reach $85 \%$ in 3 Q , the highest since 3 Q 10 . Accordingly, we expect the operating margin to revamp from $5 \%$ in 4 Q10 to $13 \%$ in 3 Q11. We are also positive on Iljin's diverse client list; the contribution of Korea's top three LED chipmakers (Samsung LED, LG Innotek, Seoul Opto-device) account for $60 \%$ of its 2011 sapphire wafer sales. In addition, we forecast its market share in customers will reach 30-50\%.

April 4, 2011 / W10,700 / Mkt cap: USD254mn / 6M avg. daily turnover: USD3.9mn

| Yr to | Sales | OP | EBT | NP | EPS | \% chg. | EBITDA | P/E | EV/EBITDA | PBR | ROE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dec | ( W bn) | ( W bn) | ( W bn ) | ( W bn ) | (won) | (YOY) | (W bn) | (x) | (x) | (x) | (\%) |
| 2009A | 34 | 1 | 1 | 1 | 25 | NM | 4 | 225.2 | 37.0 | 7.4 | 1.9 |
| 2010A | 114 | 13 | 10 | 10 | 395 | 1,480.0 | 19 | 28.6 | 17.4 | 8.6 | 22.6 |
| 2011F | 333 | 47 | 45 | 45 | 1,445 | 265.8 | 55 | 7.4 | 5.6 | 4.5 | 61.1 |
| 2012F | 521 | 73 | 76 | 67 | 2,142 | 48.3 | 81 | 5.0 | 3.4 | 2.6 | 51.5 |
| 2013F | 599 | 99 | 102 | 78 | 2,479 | 15.7 | 107 | 4.3 | 2.2 | 1.7 | 38.3 |

[Figure 40] Touchscreen is a main driver of share price


Source: Korea Investment \& Securities
[Figure 42] Touchscreen - Near-term growth driver


Source: Korea Investment \& Securities
Source: Korea Investment \& Securities
[Figure 44] Sapphire wafer: Utilization rate is the key driver of earnings

[Figure 41] Revenue breakdown (2011)

2,000
,000
,000
,000
,000

2,000 1Q11


Source: Korea Investment \& Securities
[Figure 43] Touchscreen - In-house coverage (10.1inch)


Touchscreen

|  | FY09 | 1Q10 | 2Q10 | 3Q10 | 4Q10 | FY10 | 1Q11F | 2Q11F | 3Q11F | 4Q11F | FY11F | FY12F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sales | 33.8 | 11.8 | 22.6 | 30.1 | 49.4 | 114.0 | 49.0 | 74.8 | 108.0 | 101.6 | 333.4 | 520.7 |
| 3-4 inch touchscreen | 10.7 | 2.6 | 2.9 | 3.3 | 4.1 | 12.9 | 6.0 | 28.1 | 41.2 | 39.3 | 114.6 | 153.1 |
| >7 inch touchscreen | 0.0 | 0.0 | 0.0 | 0.0 | 30.6 | 30.6 | 21.0 | 17.6 | 30.8 | 30.0 | 99.4 | 170.9 |
| Sapphire wafer | 23.1 | 9.2 | 19.7 | 26.8 | 14.7 | 70.5 | 22.0 | 29.1 | 36.0 | 32.3 | 119.3 | 196.6 |
| Sales contribution (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| 3-4 inch touchscreen | 31.7\% | 22.0\% | 12.8\% | 11.0\% | 8.3\% | 11.3\% | 12.2\% | 37.6\% | 38.2\% | 38.7\% | 34.4\% | 29.4\% |
| >7 inch touchscreen | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 61.9\% | 26.8\% | 42.8\% | 23.5\% | 28.6\% | 29.5\% | 29.8\% | 32.8\% |
| Sapphire wafer | 68.3\% | 78.0\% | 87.2\% | 89.0\% | 29.8\% | 61.8\% | 44.9\% | 38.9\% | 33.3\% | 31.8\% | 35.8\% | 37.8\% |
| Operating profit | 0.6 | 0.5 | 2.0 | 4.3 | 6.3 | 13.1 | 6.0 | 10.9 | 16.2 | 13.6 | 46.7 | 73.2 |
| OP margin | 1.7\% | 4.2\% | 9.0\% | 14.3\% | 12.7\% | 11.5\% | 12.2\% | 14.6\% | 15.0\% | 13.4\% | 14.0\% | 14.0\% |
| Earnings before tax | 0.5 | 0.4 | 0.8 | 3.8 | 5.2 | 10.2 | 5.5 | 10.5 | 15.8 | 13.3 | 45.2 | 76.3 |
| EBT margin | 1.6\% | 3.2\% | 3.7\% | 12.7\% | 10.5\% | 9.0\% | 11.3\% | 14.1\% | 14.7\% | 13.1\% | 13.6\% | 14.6\% |
| Net profit | 0.5 | 0.4 | 0.8 | 3.8 | 5.1 | 10.2 | 5.5 | 10.5 | 15.8 | 13.3 | 45.2 | 67.1 |
| Net margin | 1.5\% | 3.2\% | 3.7\% | 12.7\% | 10.4\% | 8.9\% | 11.3\% | 14.1\% | 14.7\% | 13.1\% | 13.6\% | 12.9\% |

[^4]Balance Sheet

| Fiscal year ending Dec. (W bn) | 2009A | 2010A | 2011F | 2012F | 2013F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Current assets | 32 | 69 | 209 | 328 | 408 |
| Cash \& cash equivalent | 5 | 10 | 46 | 75 | 118 |
| Accounts receivable | 8 | 21 | 60 | 94 | 108 |
| Inventory | 7 | 28 | 83 | 129 | 148 |
| Fixed assets | 38 | 75 | 93 | 113 | 133 |
| Investments | 0 | 0 | 0 | 0 | 0 |
| Tangible assets | 19 | 55 | 75 | 95 | 115 |
| Intangible assets | 19 | 18 | 18 | 18 | 18 |
| Total assets | 70 | 144 | 302 | 441 | 541 |
| Current liabilities | 28 | 88 | 169 | 241 | 264 |
| Accounts payable | 11 | 33 | 123 | 195 | 217 |
| Short-term borrowing | 12 | 16 | 44 | 44 | 44 |
| Current portion of LT debt | 1 | 28 | 0 | 0 | 0 |
| Long-term debt | 3 | 4 | 38 | 38 | 38 |
| $\quad$ Debentures | 0 | 0 | 0 | 0 | 0 |
| Long-term borrowings | 2 | 3 | 36 | 36 | 36 |
| Total liabilities | 31 | 92 | 207 | 279 | 301 |
| Paid-in capital | 13 | 13 | 13 | 13 | 13 |
| Capital surplus | 36 | 28 | 28 | 28 | 28 |
| Capital adjustments | $(0)$ | $(0)$ | $(0)$ | $(0)$ | $(0)$ |
| Retained earnings | $(11)$ | 10 | 55 | 122 | 200 |
| Shareholders' equity | 38 | 51 | 97 | 164 | 241 |

Cash Flow

| Fiscal year ending Dec. (W bn) | 2009A | 2010A | 2011F | 2012F | 2013F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| C/F from operating | 3 | 7 | 34 | 62 | 75 |
| Net profits | 1 | 10 | 45 | 67 | 78 |
| Depreciation | 2 | 4 | 7 | 7 | 7 |
| Amortization | 1 | 1 | 1 | 1 | 1 |
| $\quad$ Net incr. in W/C | $(0)$ | $(12)$ | $(23)$ | $(17)$ | $(15)$ |
| Others | $(0)$ | 3 | 4 | 4 | 4 |
| C/F from investing | $(16)$ | $(36)$ | $(32)$ | $(32)$ | $(32)$ |
| Capex | $(10)$ | $(41)$ | $(20)$ | $(20)$ | $(20)$ |
| Decr. in fixed assets | 2 | 0 | 0 | 0 | 0 |
| Net incr. in current assets | $(8)$ | 6 | $(10)$ | $(10)$ | $(10)$ |
| Incr. in investment | 0 | 0 | 0 | 0 | 0 |
| Others | $(1)$ | $(2)$ | $(2)$ | $(2)$ | $(2)$ |
| C/F from financing | 17 | 33 | 33 | 0 | 0 |
| Incr. in equity | 23 | 0 | 0 | 0 | 0 |
| Incr. in debts | $(6)$ | 33 | 33 | 0 | 0 |
| Dividends | 0 | 0 | 0 | 0 | 0 |
| Others | 0 | 0 | 0 | 0 | 0 |
| Increase in cash | 4 | 4 | 36 | 30 | 43 |

Income Statement

| Fiscal year ending Dec. (W bn) | 2009A | 2010A | 2011F | 2012F | 2013F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Sales | 34 | 114 | 333 | 521 | 599 |
| Gross profit | 6 | 21 | 57 | 83 | 110 |
| SG\&A expense | 5 | 8 | 10 | 10 | 11 |
| Operating profit | 1 | 13 | 47 | 73 | 99 |
| Non-op. profit | 2 | 1 | 3 | 5 | 5 |
| $\quad$ Interest income | 0 | 0 | 0 | 0 | 0 |
| $\quad$ FX gains | 1 | 1 | 1 | 1 | 1 |
| Equity gains | 0 | 0 | 0 | 0 | 0 |
| Non-op. expense | 2 | 4 | 5 | 2 | 2 |
| Interest expense | 1 | 3 | 3 | 0 | 0 |
| FX losses | 0 | 1 | 2 | 2 | 2 |
| Equity losses | 0 | 0 | 0 | 0 | 0 |
| Earnings before tax | 1 | 10 | 45 | 76 | 102 |
| Income taxes | 0 | 0 | 0 | 9 | 25 |
| Profit from discontinued | 0 | 0 | 0 | 0 | 0 |
| Net profit | 1 | 10 | 45 | 67 | 78 |
| EBITDA | 4 | 19 | 55 | 81 | 107 |

## Key Financial Data

| Fiscal year ending Dec. | 2009A | 2010A | 2011F | 2012F | 2013F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| per share data (won) |  |  |  |  |  |
| EPS | 25 | 395 | 1,445 | 2,142 | 2,479 |
| BPS | 762 | 1,316 | 2,363 | 4,157 | 6,468 |
| DPS | 0 | 0 | 0 | 0 | 0 |
| SPS | 1,624 | 4,436 | 12,959 | 20,236 | 23,272 |
| Growth (\%) |  |  |  |  |  |
| Sales growth | 241.1 | 237.5 | 192.6 | 56.2 | 15.0 |
| OP growth | NM | $2,246.2$ | 256.5 | 56.7 | 35.7 |
| NP growth | NM | $1,850.1$ | 346.2 | 48.3 | 15.7 |
| EPS growth | NM | $1,480.0$ | 265.8 | 48.3 | 15.7 |
| EBITDA growth | NM | 379.1 | 192.7 | 48.3 | 32.1 |
| Profitability (\%) |  |  |  |  |  |
| OP margin | 1.7 | 11.5 | 14.0 | 14.0 | 16.6 |
| NP margin | 1.5 | 8.9 | 13.6 | 12.9 | 13.0 |
| EBITDA margin | 11.6 | 16.4 | 16.5 | 15.6 | 17.9 |
| ROA | 0.9 | 9.5 | 20.3 | 18.1 | 15.8 |
| ROE | 1.9 | 22.6 | 61.1 | 51.5 | 38.3 |
| Dividend yield | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Stability |  |  |  |  |  |
| Net debt (W bn) | $(0)$ | 34 | 32 | 2 | $(41)$ |
| Int. coverage (x) | 0.4 | 4.5 | 18.0 | NM | NM |
| D/E ratio (\%) | 37.4 | 91.2 | 83.0 | 49.0 | 33.2 |
| Valuation (x) |  |  |  |  |  |
| PER | 225.2 | 28.6 | 7.4 | 5.0 | 4.3 |
| PBR | 7.4 | 8.6 | 4.5 | 2.6 | 1.7 |
| PSR | 3.5 | 2.5 | 0.8 | 0.5 | 0.5 |
| EV/EBITDA | 37.0 | 17.4 | 5.6 | 3.4 | 2.2 |
|  |  |  |  |  |  |

## Under the Samsung umbrella

## Samsung smartphone play

We initiate coverage of S-MAC with BUY and a 12-month price target of W18,000 using $8.8 \times 2011$ EPS, applying a $10 \%$ discount to the 2011F average multiple of global film-type touchscreen makers. We incorporated S-MAC's low adoption rate of in-house ITO sensor at present into our valuation. We believe S-MAC will benefit from: 1) the highest smartphone shipment growth within the Samsung supply chain, 2) profitability improvement due to the increase of the in-house ITO sensor adoption rate, and 3) an increasingly diversified customer base based on global customers. We have incorporated an $11 \%$ increase in the number of outstanding shares into our valuation due to the possible BW rights exercise. Our price target implies 33\% upside. Key risks include: 1) Samsung's lackluster smartphone shipment 2 ) poor production yields of in-house components.

## Strong touchphone order flow from Samsung

At present, S-MAC is mass producing 15 models (vs. average of $<10$ models), guiding 4.6 mn units of $3-4$ " touchscreen modules with $23 \%$ QoQ growth in 1 Q . This is mainly due to S-MAC's fast response and strong ties with Samsung. Although 7" touchscreen module sales will likely decline as Samsung launches the new Galaxy Tab series in April, we believe robust smartphone shipments at Samsung will offset the decline in tablet PC sales.

## In-house ITO sensor lifts margin

Historically, an operating margin of $5 \%$ has been a hurdle for S-MAC as it outsources key components from third parties. However, as S-MAC gets approval for its in-house ITO sensor from Samsung in 1Q, we believe the operating margin will gradually improve going forward. Based on 3.5 -inch touchscreen, ITO film accounts for $24 \%$ of total costs. The company expects a $20 \%$ adoption rate of inhouse ITO sensor in 2011. Hence, we see the operating margin growing by $1.5 \%$ p YoY in 2011.

## Adding more global customers

From 1Q11, S-MAC has started to supply touchscreen modules to Sony Ericsson. We estimate the revenue contribution of Sony Ericsson will account for $10 \%$ of 2011 sales. Besides, S-MAC plans to ship mid- to large-size touchscreen modules to one of Korea panel makers from 3Q11. Although the revenue contribution of non-Samsung customers will remain low in the near term, we view this as an encouraging step for the company. In addition, the operating margin should enhance as S-MAC uses an in-house ITO sensor for those customers.

April 4, 2011 / W13,500 / Mkt cap: USD85mn / 6M avg. daily turnover: USD4.3mn

| Yr to | Sales | OP | EBT | NP | EPS | $\%$ chg. | EBITDA | P/E EV/EBITDA | PBR | ROE |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Dec | $(\mathrm{W}$ bn $)$ | $(\mathrm{W}$ bn $)$ | $(\mathrm{W}$ bn $)$ | $(\mathrm{W}$ bn $)$ | $($ (won $)$ | $(\mathrm{YoY})$ | $(\mathrm{W}$ bn $)$ | $(\mathrm{x})$ | $(\mathrm{x})$ | $(\mathrm{x})$ | $(\%)$ |
| 2009A | 143 | $(2)$ | $(1)$ | $(1)$ | $(239)$ | $(123.8)$ | 0 | NM | 136.0 | 1.4 | $(5.6)$ |
| 2010A | 205 | 9 | 12 | 12 | 1,853 | NM | 12 | 7.7 | 7.6 | 2.5 | 34.4 |
| 2011F | 319 | 18 | 18 | 15 | 1,881 | 1.5 | 18 | 6.5 | 4.2 | 2.0 | 30.7 |
| 2012F | 421 | 36 | 41 | 31 | 3,792 | 101.5 | 36 | 3.2 | 1.6 | 1.4 | 41.9 |
| 2013F | 484 | 42 | 46 | 35 | 4,302 | 13.4 | 42 | 2.8 | 0.8 | 0.9 | 32.8 |

## [Figure 47] Share price vs. operating profit

[Figure 48] Revenue breakdown (2011)


Source: Korea Investment \& Securities
[Figure 49] In-house ITO sensor lifts profitability


[Figure 51] Quarterly earnings forecast

|  | FY09 | 1Q10 | 2Q10 | 3Q10 | 4Q10 | FY10 | 1Q11F | 2Q11F | 3Q11F | 4Q11F | FY11F | FY12F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sales | 143.2 | 37.0 | 28.6 | 37.1 | 102.2 | 204.8 | 73.0 | 77.4 | 86.6 | 70.8 | 307.9 | 431.7 |
| Touchscreen | 69.8 | 28.6 | 21.8 | 31.2 | 93.8 | 175.4 | 65.0 | 75.4 | 82.6 | 65.8 | 288.9 | 415.7 |
| Touch key module | 73.4 | 8.4 | 6.8 | 5.9 | 8.4 | 29.4 | 8.0 | 2.0 | 4.0 | 5.0 | 19.0 | 16.0 |
| Sales contribution (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Touchscreen | 48.8\% | 77.4\% | 76.2\% | 84.1\% | 91.8\% | 85.6\% | 89.0\% | 97.4\% | 95.4\% | 92.9\% | 93.8\% | 96.3\% |
| Touch key module | 51.2\% | 22.6\% | 23.8\% | 15.9\% | 8.2\% | 14.4\% | 11.0\% | 2.6\% | 4.6\% | 7.1\% | 6.2\% | 3.7\% |
| Operating profit | -1.8 | 1.4 | -0.1 | 1.2 | 6.7 | 9.2 | 3.4 | 4.2 | 5.8 | 5.1 | 18.5 | 33.5 |
| OP margin | -1.3\% | 3.8\% | -0.4\% | 3.3\% | 6.6\% | 4.5\% | 4.6\% | 5.4\% | 6.7\% | 7.2\% | 6.0\% | 7.8\% |
| Earnings before tax | -1.5 | 2.9 | -0.1 | 1.6 | 7.3 | 11.6 | 3.5 | 4.2 | 5.9 | 5.2 | 18.7 | 37.7 |
| EBT margin | -1.0\% | 7.7\% | -0.5\% | 4.4\% | 7.1\% | 5.7\% | 4.7\% | 5.5\% | 6.8\% | 7.3\% | 6.1\% | 8.7\% |
| Net profit | -1.4 | 2.6 | 0.2 | 1.6 | 7.3 | 11.6 | 3.1 | 3.8 | 5.3 | 4.7 | 16.9 | 28.6 |
| Net margin | -1.0\% | 7.0\% | 0.5\% | 4.4\% | 7.1\% | 5.7\% | 4.3\% | 4.9\% | 6.1\% | 6.6\% | 5.5\% | 6.6\% |

Source: Company data, Korea Investment \& Securities

## Touchscreen

## Balance Sheet

| Fiscal year ending Dec. (W bn) | 2009A | 2010A | 2011F | 2012F | 2013F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Current assets | 27 | 78 | 104 | 143 | 184 |
| $\quad$ Cash \& cash equivalent | 2 | 26 | 27 | 38 | 64 |
| Accounts receivable | 12 | 30 | 46 | 64 | 74 |
| Inventory | 10 | 16 | 23 | 33 | 38 |
| Fixed assets | 25 | 28 | 38 | 48 | 58 |
| $\quad$ Investments | 3 | 4 | 4 | 4 | 4 |
| Tangible assets | 22 | 24 | 34 | 44 | 54 |
| Intangible assets | 0 | 0 | 0 | 0 | 0 |
| Total assets | 52 | 106 | 142 | 192 | 242 |
| Current liabilities | 24 | 56 | 78 | 103 | 114 |
| Accounts payable | 10 | 45 | 69 | 93 | 105 |
| Short-term borrowing | 3 | 6 | 7 | 7 | 7 |
| Current portion of LT debt | 10 | 1 | 0 | 0 | 0 |
| Long-term debt | 3 | 7 | 4 | 1 | 1 |
| Debentures | 0 | 0 | 0 | 0 | 0 |
| Long-term borrowings | 3 | 6 | 3 | 0 | 0 |
| Total liabilities | 27 | 63 | 82 | 104 | 115 |
| Paid-in capital | 3 | 4 | 4 | 4 | 4 |
| Capital surplus | 7 | 13 | 13 | 13 | 13 |
| Capital adjustments | $(0)$ | $(0)$ | 1 | 1 | 1 |
| Retained earnings | 14 | 26 | 43 | 71 | 110 |
| Shareholders' equity | 25 | 43 | 60 | 88 | 127 |

## Cash Flow

| Fiscal year ending Dec. (W bn) | 2009A | 2010A | 2011F | 2012F | 2013F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| C/F from operating | $(8)$ | 25 | 16 | 29 | 39 |
| Net profits | $(1)$ | 12 | 17 | 29 | 39 |
| Depreciation | 2 | 2 | 0 | 0 | 0 |
| Amortization | 1 | 0 | 0 | 0 | 0 |
| Net incr. in W/C | $(10)$ | 6 | $(2)$ | $(1)$ | $(1)$ |
| Others | 2 | 5 | 1 | 1 | 1 |
| C/F from investing | $(10)$ | $(5)$ | $(12)$ | $(14)$ | $(13)$ |
| Capex | $(11)$ | $(6)$ | $(10)$ | $(10)$ | $(10)$ |
| Decr. in fixed assets | 1 | 2 | 0 | 0 | 0 |
| Net incr. in current assets | 1 | $(0)$ | $(2)$ | $(4)$ | $(3)$ |
| Incr. in investment | 0 | 0 | 0 | 0 | 0 |
| Others | $(0)$ | $(0)$ | 0 | 0 | 0 |
| C/F from financing | 12 | 4 | $(3)$ | $(3)$ | 0 |
| Incr. in equity | 0 | 6 | 0 | 0 | 0 |
| Incr. in debts | 12 | $(3)$ | $(3)$ | $(3)$ | 0 |
| Dividends | $(1)$ | 0 | 0 | 0 | 0 |
| Others | 0 | 1 | 0 | 0 | 0 |
| Increase in cash | $(5)$ | 23 | 1 | 11 | 26 |

Income Statement

| Fiscal year ending Dec. (W bn) | 2009A | 2010A | 2011F | 2012F | 2013F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Sales | 143 | 205 | 308 | 432 | 496 |
| Gross profit | 3 | 16 | 29 | 55 | 72 |
| SG\&A expense | 5 | 7 | 11 | 21 | 25 |
| Operating profit | $(2)$ | 9 | 19 | 33 | 47 |
| Non-op. profit | 5 | 6 | 4 | 8 | 8 |
| $\quad$ Interest income | 0 | 0 | 0 | 0 | 0 |
| $\quad$ FX gains | 3 | 3 | 4 | 4 | 4 |
| $\quad$ Equity gains | 1 | 1 | 0 | 0 | 0 |
| Non-op. expense | 5 | 4 | 4 | 4 | 4 |
| Interest expense | 1 | 1 | 1 | 1 | 1 |
| FX losses | 3 | 2 | 3 | 3 | 3 |
| Equity losses | 1 | 0 | 0 | 0 | 0 |
| Earnings before tax | $(1)$ | 12 | 19 | 38 | 51 |
| Income taxes | $(0)$ | 0 | 2 | 9 | 12 |
| Profit from discontinued | 0 | 0 | 0 | 0 | 0 |
| Net profit | $(1)$ | 12 | 17 | 29 | 39 |
| EBITDA | 0 | 12 | 19 | 33 | 47 |

## Key Financial Data

| Fiscal year ending Dec. | 2009A | 2010A | 2011F | 2012F | 2013F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| per share data (won) |  |  |  |  |  |
| EPS | $(239)$ | 1,853 | 2,053 | 3,475 | 4,794 |
| BPS | 4,021 | 5,746 | 6,213 | 8,977 | 13,239 |
| DPS | 0 | 150 | 150 | 150 | 150 |
| SPS | 23,791 | 32,735 | 41,981 | 58,864 | 67,693 |
| Growth (\%) |  |  |  |  |  |
| Sales growth | 0.8 | 43.4 | 50.0 | 40.2 | 15.0 |
| OP growth | $(122.0)$ | $(611.9)$ | 100.2 | 80.8 | 40.9 |
| NP growth | $(123.7)$ | $(908.2)$ | 45.2 | 69.3 | 36.3 |
| EPS growth | $(123.8)$ | $(875.3)$ | 10.8 | 69.3 | 37.9 |
| EBITDA growth | $(96.4)$ | $3,275.8$ | 55.7 | 80.8 | 40.9 |
| Profitability (\%) |  |  |  |  |  |
| OP margin | $(1.3)$ | 4.5 | 6.0 | 7.8 | 9.5 |
| NP margin | $(1.0)$ | 5.7 | 5.5 | 6.6 | 7.8 |
| EBITDA margin | 0.2 | 5.8 | 6.0 | 7.8 | 9.5 |
| ROA | $(3.1)$ | 14.7 | 13.6 | 17.1 | 17.9 |
| ROE | $(5.6)$ | 34.4 | 33.0 | 38.7 | 36.2 |
| Dividend yield | 0.0 | 1.0 | 1.1 | 1.1 | 1.1 |
| Stability |  |  |  |  |  |
| Net debt (W bn) | 13 | $(13)$ | $(17)$ | $(32)$ | $(57)$ |
| Int. coverage (x) | $(3.2)$ | 10.4 | 22.1 | 40.0 | 56.3 |
| D/E ratio (\%) | 62.7 | 30.5 | 16.8 | 7.9 | 5.5 |
| Valuation (x) |  |  |  |  |  |
| PER | $(23.6)$ | 7.7 | 6.6 | 3.9 | 2.8 |
| PBR | 1.4 | 2.5 | 2.2 | 1.5 | 1.0 |
| PSR | 0.2 | 0.4 | 0.3 | 0.2 | 0.2 |
| EV/EBITDA | 136.0 | 7.6 | 4.5 | 2.1 | 0.9 |
|  |  |  |  |  |  |

## The most client-diverse play

## Diverse client base leads stable growth - Raise price target to W27,000

We maintain our BUY on ELK and raise our price target to W27,000 from W22,000. We revised up 2011F EPS by $19 \%$ to reflect shipment growth at non-Motorola customers. We applied the 2011F average multiple (9.8x) of global film-type touchscreen makers. Our investment points are 1) a varied client base and 2) comparable capacity to global film-type touchscreen makers ( 7 mn units of 4 -inch touchscreens).

That said, we see limited upside for ELK as it reaches the average multiple level of global peers. The share price recently surged $35 \%$ from the trough in March. Key risks to our rating are: 1) lackluster smartphone shipments at LGE and Motorola, 2) poor production yields of its in-house ITO sensor.

## 1Q11: Faster-than-expected margin improvement

In 1Q, ELK guides W60bn in sales ( $-10.3 \%$ QoQ, $+51.5 \%$ YoY) with an operating margin of $11.5 \%$. Top-line growth is likely to miss our estimate given the delay in LGE's tablet PC launch. However, profitability is climbing back faster than we anticipated thanks to 1 ) increased production yields and 2) a smartphone-centric product mix improvement.

## 2011 - Market share decline in Motorola vs. increased sales portion in LGE

 Motorola, ELK's major client, recently added a few Taiwanese glass-type touchscreen makers into its supply chain. We view ELK's market share decline in Motorola as near-term weakness. According to ELK, LGE's smartphone growth is the company's main driver in 2011, offsetting the market share decline in Motorola. However, we are cautious on LGE's smartphone outlook in 2011 as industry leaders such as Apple and HTC should expand market share with more diversified distribution channels. From the long-term perspective, we believe increased sales to LGE will offset the drop in its supply share in Motorola as we see LGE narrowing the gap with industry leaders (Apple, HTC) from 2012.
## Stable margin trend thanks to diversified client portfolio

We believe ELK will post a $12-13 \%$ operating margin through the year. We attribute this to its diverse customer base. In 2Q10, the operating margin contracted to $5.9 \%$ mainly due to more low-margin orders from its captive buyer Motorola, which lowered production yield and increased outsourcing costs. From 2011, we believe ELK will become more selective as it adds global customers. ELK has recently received W9.8bn worth of orders from Flextronics, the global ODM maker. In addition, ELK plans to supply touchscreen modules to Sony Ericsson from 2 Q .

April 4, 2011 / W23,000 / Mkt cap: USD285mn / 6M avg. daily turnover: USD3.6mn

| Yr to | Sales | OP | EBT | NP | EPS | \% chg. | EBITDA | P/E EV/EBITDA | PBR | ROE |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Dec | $(\mathrm{W}$ bn $)$ | $(\mathrm{W}$ bn $)$ | $(\mathrm{W}$ bn $)$ | $(\mathrm{W}$ bn $)$ | $($ (won $)$ | $(\mathrm{YoY})$ | $(\mathrm{W}$ bn $)$ | $(\mathrm{x})$ | $(\mathrm{x})$ | $(\mathrm{x})$ |
| $(\%)$ |  |  |  |  |  |  |  |  |  |  |
| 2009A | 119 | 17 | 14 | 13 | 1,316 | NM | 20 | 18.5 | 14.2 | 8.3 |
| 2010A | 239 | 25 | 18 | 19 | 1,661 | 26.2 | 30 | 9.3 | 8.3 | 2.3 |
| 29.7 |  |  |  |  |  |  |  |  |  |  |
| 2011F | 371 | 45 | 44 | 38 | 2,707 | 63.0 | 54 | 9.0 | 7.3 | 2.7 |
| 2012F | 446 | 57 | 56 | 42 | 3,019 | 11.5 | 67 | 8.1 | 5.5 | 2.0 |
| 20.5 |  |  |  |  |  |  |  |  |  |  |
| 2013F | 513 | 65 | 64 | 49 | 3,480 | 15.3 | 76 | 7.0 | 4.5 | 1.5 |

## Touchscreen

[Figure 52] Quarterly sales and operating margin trend

[Figure 53] Revenue breakdown (2011)


Source: Company data, Korea Investment \& Securities
Source: Company data, Korea Investment \& Securities
[Figure 54] Earnings revision
(W bn)

|  | 1Q11F |  |  |  | 2010F |  |  |  | 2011F |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Previous | Revised | Change | Change | Previous | Revised | Change | Change | Previous | Revised | Change | Change |
| Sales | 76.4 | 60.5 | (16) | -21\% | 340.4 | 371.3 | 31 | 9\% | 388.6 | 445.8 | 57 | 15\% |
| Operating profit | 8.2 | 7.0 | (1) | -15\% | 40.3 | 45.3 | 5 | 13\% | 48.5 | 56.8 | 8 | 17\% |
| OP margin | 10.7\% | 11.5\% | 0.8pp |  | 11.8\% | 12.2\% | 0.4pp |  | 12.5\% | 12.8\% | 0.3pp |  |
| Earnings before tax | 7.7 | 6.3 | (1) | -18\% | 38.6 | 43.7 | 5 | 13\% | 46.8 | 55.9 | 9 | 19\% |
| EBT margin | 10.1\% | 10.4\% | 0.3pp |  | 11.3\% | 11.8\% | 0.4pp |  | 12.0\% | 12.5\% | 0.5pp |  |
| Net profit | 6.7 | 5.5 | (1) | -18\% | 33.6 | 38.0 | 4 | 13\% | 35.5 | 42.4 | 7 | 19\% |
| Net margin | 8.8\% | 9.1\% | 0.3pp |  | 9.9\% | 10.2\% | 0.4pp |  | 9.1\% | 9.5\% | 0.4pp |  |

Source: Company data, Korea Investment \& Securities
[Figure 55] Quarterly earnings forecast

|  | FY09 | 1Q10 | 2Q10 | 3Q10 | 4Q10 | FY10 | 1Q11F | 2Q11F | 3Q11F | 4Q11F | FY11F | FY12F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sales by product | 119.3 | 40.0 | 57.1 | 74.2 | 67.5 | 238.7 | 60.5 | 79.7 | 120.6 | 110.4 | 371.3 | 445.8 |
| 3-4 inch touchscreen | 102.6 | 37.6 | 52.3 | 68.9 | 63.5 | 222.2 | 57.0 | 64.0 | 97.5 | 94.1 | 312.6 | 370.7 |
| >7 inch touchscreen | 0.0 | 0.4 | 1.3 | 2.5 | 0.0 | 4.3 | 0.0 | 12.4 | 20.1 | 13.5 | 46.0 | 65.5 |
| EL | 15.8 | 1.8 | 3.4 | 2.8 | 2.7 | 10.6 | 2.2 | 1.9 | 1.7 | 1.5 | 7.3 | 4.2 |
| Sales contribution (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| 3-4 inch touchscreen | 86.1\% | 94.1\% | 91.5\% | 92.9\% | 94.0\% | 93.1\% | 94.1\% | 80.3\% | 80.8\% | 85.2\% | 84.2\% | 83.1\% |
| >7 inch touchscreen | 0.0\% | 1.1\% | 2.3\% | 3.4\% | 0.0\% | 1.8\% | 0.0\% | 15.6\% | 16.6\% | 12.2\% | 12.4\% | 14.7\% |
| EL | 13.2\% | 4.5\% | 6.0\% | 3.7\% | 4.0\% | 4.5\% | 3.6\% | 2.4\% | 1.4\% | 1.4\% | 2.0\% | 0.9\% |
| Operating profit | 17.2 | 4.8 | 3.2 | 6.8 | 8.6 | 23.4 | 7.0 | 9.6 | 15.4 | 13.4 | 45.3 | 56.8 |
| OP margin | 14.4\% | 12.0\% | 5.6\% | 9.1\% | 12.8\% | 9.8\% | 11.5\% | 12.0\% | 12.8\% | 12.1\% | 12.2\% | 12.8\% |
| Earnings before tax | 14.3 | 3.9 | 4.2 | 1.9 | 7.2 | 17.2 | 6.3 | 9.1 | 15.1 | 13.2 | 43.7 | 55.9 |
| EBT margin | 12.0\% | 9.6\% | 7.4\% | 2.6\% | 10.7\% | 7.2\% | 10.4\% | 11.4\% | 12.5\% | 11.9\% | 11.8\% | 12.5\% |
| Net profit | 12.9 | 3.6 | 4.2 | 1.7 | 7.9 | 17.5 | 5.5 | 7.9 | 13.1 | 11.5 | 38.0 | 42.4 |
| Net margin | 10.8\% | 9.1\% | 7.4\% | 2.3\% | 11.7\% | 7.3\% | 9.1\% | 10.0\% | 10.9\% | 10.4\% | 10.2\% | 9.5\% |

[^5]Balance Sheet

| Fiscal year ending Dec. (W bn) | 2009A | 2010A | 2011F | 2012F | 2013F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Current assets | 68 | 121 | 167 | 206 | 245 |
| $\quad$ Cash \& cash equivalent | 12 | 22 | 15 | 24 | 36 |
| Accounts receivable | 20 | 27 | 42 | 50 | 58 |
| Inventory | 28 | 62 | 96 | 115 | 132 |
| Fixed assets | 52 | 85 | 96 | 95 | 115 |
| Investments | 2 | 2 | 2 | 2 | 2 |
| Tangible assets | 44 | 75 | 87 | 87 | 107 |
| Intangible assets | 6 | 6 | 6 | 6 | 6 |
| Total assets | 120 | 206 | 263 | 301 | 360 |
| Current liabilities | 59 | 74 | 94 | 90 | 100 |
| Accounts payable | 22 | 34 | 59 | 70 | 81 |
| Short-term borrowing | 23 | 21 | 31 | 15 | 15 |
| Current portion of LT debt | 3 | 9 | 9 | 9 | 9 |
| Long-term debt | 24 | 44 | 44 | 44 | 44 |
| $\quad$ Debentures | 13 | 8 | 8 | 8 | 8 |
| Long-term borrowings | 11 | 36 | 36 | 36 | 36 |
| Total liabilities | 83 | 118 | 138 | 134 | 144 |
| Paid-in capital | 5 | 7 | 7 | 7 | 7 |
| Capital surplus | 33 | 62 | 62 | 62 | 62 |
| Capital adjustments | $(8)$ | $(7)$ | $(7)$ | $(7)$ | $(7)$ |
| Retained earnings | 7 | 26 | 64 | 106 | 155 |
| Shareholders' equity | 37 | 88 | 126 | 168 | 217 |

## Cash Flow

| Fiscal year ending Dec. (W bn) | 2009A | 2010A | 2011F | 2012F | 2013F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| C/F from operating | 11 | $(5)$ | 13 | 33 | 43 |
| Net profits | 13 | 19 | 38 | 42 | 49 |
| Depreciation | 3 | 5 | 7 | 9 | 9 |
| Amortization | 1 | 1 | 1 | 1 | 1 |
| Net incr. in W/C | $(8)$ | $(32)$ | $(33)$ | $(19)$ | $(16)$ |
| Others | 3 | 2 | 0 | 0 | 0 |
| C/F from investing | $(22)$ | $(41)$ | $(20)$ | $(24)$ | $(30)$ |
| Capex | $(20)$ | $(37)$ | $(20)$ | $(10)$ | $(20)$ |
| Decr. in fixed assets | 0 | 0 | 0 | 0 | 0 |
| Net incr. in current assets | 1 | 0 | 0 | $(14)$ | $(10)$ |
| Incr. in investment | 0 | $(3)$ | 0 | 0 | 0 |
| Others | $(3)$ | $(2)$ | 0 | 0 | 0 |
| C/F from financing | 17 | 56 | $(4)$ | $(4)$ | $(4)$ |
| Incr. in equity | 4 | 25 | 0 | 0 | 0 |
| Incr. in debts | 26 | 35 | 0 | 0 | 0 |
| Dividends | 0 | 0 | 0 | 0 | 0 |
| Others | $(13)$ | $(4)$ | $(4)$ | $(4)$ | $(4)$ |
| Increase in cash | 10 | $(10)$ | 5 | 9 |  |

Income Statement

| Fiscal year ending Dec. (W bn) | 2009A | 2010A | 2011F | 2012F | 2013F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Sales | 119 | 239 | 371 | 446 | 513 |
| Gross profit | 26 | 38 | 60 | 78 | 90 |
| SG\&A expense | 9 | 14 | 14 | 21 | 25 |
| Operating profit | 17 | 25 | 45 | 57 | 65 |
| Non-op. profit | 6 | 7 | 6 | 4 | 4 |
| $\quad$ Interest income | 0 | 0 | 0 | 0 | 0 |
| $\quad$ FX gains | 4 | 7 | 3 | 3 | 3 |
| Equity gains | 0 | 0 | 0 | 0 | 0 |
| Non-op. expense | 9 | 14 | 7 | 5 | 5 |
| Interest expense | 2 | 3 | 3 | 0 | 0 |
| FX losses | 5 | 8 | 4 | 4 | 4 |
| Equity losses | 0 | 2 | 0 | 0 | 0 |
| Earnings before tax | 14 | 18 | 44 | 56 | 64 |
| Income taxes | 1 | $(0)$ | 6 | 14 | 16 |
| Profit from discontinued | 0 | 0 | 0 | 0 | 0 |
| Net profit | 13 | 19 | 38 | 42 | 49 |
| EBITDA | 20 | 30 | 54 | 67 | 76 |

## Key Financial Data

| Fiscal year ending Dec. | 2009A | 2010A | 2011F | 2012F | 2013F |
| :--- | ---: | ---: | ---: | ---: | ---: |
| per share data (won) |  |  |  |  |  |
| EPS | 1,316 | 1,661 | 2,707 | 3,019 | 3,480 |
| BPS | 2,939 | 6,625 | 8,922 | 12,065 | 16,197 |
| DPS | 0 | 100 | 100 | 100 | 100 |
| SPS | 12,175 | 19,278 | 27,542 | 33,072 | 38,032 |
| Growth (\%) |  |  |  |  |  |
| Sales growth | 240.2 | 100.1 | 55.6 | 20.1 | 15.0 |
| OP growth | 529.3 | 42.5 | 84.9 | 25.4 | 15.0 |
| NP growth | $(179.6)$ | 44.4 | 104.2 | 11.5 | 15.3 |
| EPS growth | $(172.0)$ | 26.2 | 63.0 | 11.5 | 15.3 |
| EBITDA growth | 382.2 | 48.9 | 76.8 | 25.1 | 12.7 |
| Profitability (\%) |  |  |  |  |  |
| OP margin | 14.4 | 10.3 | 12.2 | 12.8 | 12.8 |
| NP margin | 10.8 | 7.8 | 10.2 | 9.5 | 9.5 |
| EBITDA margin | 17.1 | 12.7 | 14.5 | 15.1 | 14.8 |
| ROA | 13.8 | 11.4 | 16.2 | 15.0 | 14.8 |
| ROE | 46.6 | 29.7 | 35.5 | 28.8 | 25.3 |
| Dividend yield | 0.0 | 0.6 | 0.4 | 0.4 | 0.4 |
| Stability |  |  |  |  |  |
| Net debt (W bn) | 38 | 51 | 67 | 44 | 16 |
| Int. coverage (x) | 8.1 | 7.2 | 16.6 | NM | NM |
| D/E ratio (\%) | 135.0 | 84.2 | 66.1 | 40.4 | 24.3 |
| Valuation (x) |  |  |  |  |  |
| PER | 18.5 | 9.3 | 9.0 | 8.1 | 7.0 |
| PBR | 8.3 | 2.3 | 2.7 | 2.0 | 1.5 |
| PSR | 2.0 | 0.8 | 0.9 | 0.7 | 0.6 |
| EV/EBITDA | 14.2 | 8.3 | 7.3 | 5.5 | 4.5 |
|  |  |  |  |  |  |

Touchscreen

Changes to recommendation and price target

| Company (Code) | Date | Recommendation | Price target | Company (Code) | Date | Recommendation | Price target |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Iljin Display (020760) | $12-29-10$ | NM | NM |  | $10-17-10$ | BUY | W38,000 |
|  | $04-04-11$ | BUY | W14,500 |  | $11-04-10$ | BUY | W41,000 |
| ELK (094190) | $04-09-10$ | BUY | W33,000 |  | $01-14-11$ | BUY | W51,000 |
|  | $07-30-10$ | BUY | W22,000 |  | $03-02-11$ | BUY | W73,000 |
|  | $04-04-11$ | BUY | W27,000 |  | $04-04-11$ | WUY | W67,000 |
| Melfas inc (096640) | $02-18-10$ | BUY | W112,000 | S-MAC (097780) | $11-24-10$ | NM | NM |
|  | $08-03-10$ | BUY | W91,000 |  | $04-04-11$ | BUY | W18,000 |
|  | $09-20-10 ~$ | BUY | W35,000 |  |  |  |  |

Iljin Display(020760)


ELK(094190)


MELFAS inc.(096640)


S-MAC(097780)


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- Hold: Expected to give a return between $-15 \%$ and $+15 \%$
- Underweight: Expected to give a return of $-15 \%$ or less
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- Neutral: Recommend maintaining the sector's weighting in the portfolio in line with its respective weighting in the Kospi (Kosdaq) based on market capitalization.
- Underweight: Recommend reducing the sector's weighting in the portfolio compared to its respective weighting in the Kospi (Kosdaq) based on market capitalization.
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