LEADING

Mid-Cap Research

Innochip (ICT) (080420 KQ)

Aug 17, 2011

Smart Innochip

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Leading Traffic Light: Green

ICT is…

- ✓ An exclusive domestic supplier of ESD, EMI filter for Smartphone and tablet PC
- ✓ The best technology in the domestic protection chip filed

Green light because:

- ✓ Strong revenue and earnings growth momentum ahead in line with protection chip demand for Smartphone
- ✓ Excellent value creation with highly profitable protection chip

Growth potential:

- ➢ Strong revenue growth with growing Smartphone market
- ➢ A new product, CMEF chip, to double the OP in 2011E

Management & shareholder concern:

- ➢ Synergy with co-CEO's with specialties in technology and management
- ➢ Dividend yield of 2% is low, but the company believes that share price appreciation will more than compensate for low dividend

Free cashflow generation:

- ➢ A new product (CMEF chip) completely changed value creating structure
- ➢ ROE to remain high at over 20%

Valuation:

- ➢ The improvement effect of growth and earnings structure stemming from CMEF chip has not been reflected in the share price, yet
- ➢ Target price of W9,240 = 91% upside

CAVEAT EMPTOR!!! – Watch out for…

- ➢ Concerns over the overhang of 7.9% share owned by Next Venture Investment is expected to be resolved soon, but a careful observation of the ongoing situation is necessary

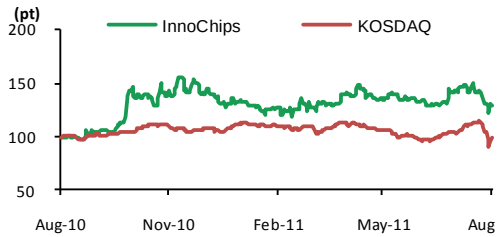
BUY

Target Price (KRW)	**9,240**
Current Price (KRW)	**4,840**
Upside potential	**91%**

Key Data	**Aug 12, 2011**
Sector	Hardware
KOSDAQ	474.2
Market Cap. (Wbn)	72.2
Shares Outstanding (m)	14.9
Foreign Ownership (%)	6.1
52 Week High (W)	5,820
Low (W)	3,640
60-d avg. turnover (Wbn)	0.1
Major Shareholders	**(%)**
Pilkor Electronics et al	49.4
Treasury	20.3

Performance (%)	**1M**	**6M**	**12M**
Absolute	(8.5)	1.4	31.5
Relative	(4.3)	9.8	30.8

Relative Performance



Valuation Forecast

FY	Sales (Wbn)	% chg yoy	OP (Wbn)	OPM (%)	NP (Wbn)	EPS (W)	EPS Growth (%)	P/E (x)	EV/EBITDA (x)	ROE (%)	P/B (x)
2008	38.7	1.8	3.1	7.9	2.9	193.3	(49.0)	25.0	6.5	6.0	1.2
2009	50.3	29.9	11.4	22.7	10.7	719.0	271.9	6.7	3.4	19.5	1.2
2010	53.1	5.7	7.6	14.4	7.9	533.2	(25.8)	9.1	5.0	13.4	1.2
2011E	58.7	10.6	15.9	27.1	15.0	1,007.1	88.9	4.8	2.5	23.2	1.0
2012F	67.8	15.4	18.7	27.6	17.8	1,191.6	18.3	4.1	1.8	22.3	0.8
2013F	78.4	15.6	21.4	27.3	20.3	1,363.7	14.4	3.5	1.1	20.9	0.7

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Key check points for ICT

✓ **W58.7bn Sales (up by 11% yoy), W15.9bn OP (up by 108% yoy)**

We estimate ICT's operating profit will more than double (108% yoy) to almost W16bn in 2011 on sales growth of 11% yoy. Operating margin will improve sharply to above 27% in 2011 from 14% in 2010 benefiting from rapid sales growth of highly profitable CMEF chip. ICT is the only CMEF chip producer. We expect CMEF chip profit margins to decline sometime in 2013 due to competition. Nevertheless, ICT will be able to maintain its operating margin at around 25% as the next generation Ultra-High-Speed CMEF chip will replace ICT's current product line up. (Page 15)

✓ **Rapid growth of domestic Smartphone makers**

Among the major 3 Smartphone producers (Nokia, Apple and Samsung), the sales unit of Samsung Smartphones increased more than 6 times yoy in 2Q11. Accordingly Samsung's share in the global Smartphone market (including the 3 major producers only) was expanded from 8.4% in 2Q10 to 35.3% in 2Q11, which is similar to Apple's. Demand for the very compact CMEF chip, which is used for a high speed interface of Smartphone and tablet PC, is tremendously growing along with the recent sales hike of android-lined Smartphones. Samsung, LG and Pentech all adopt ICT's CMEF chip for their android-lined Smartphones. (Page 14)

✓ **Securing competitive advantage through technological innovation**

ICT developed the world-first ESD/EMI Filter (an integrated chip of EMI Filter with ESD protection, which made mobile phones smaller and lighter) in 2003. Samsung and LG acknowledged ICT's technological excellence. ICT made the word-first CMEF chip (an integration of CMF and ESD) again in 2009 to respond to the trend of the miniaturization and integration of mobile devices. ICT's technology has been highly recognized as it has finished 7 national projects successfully and has 122 patents of ceramic chip technology. (Page 13)

✓ **Overhang issues expected to be dissolved**

Due to ICT's technological competitiveness and success, the company was exposed to the threat of a hostile takeover in 2009. As the company increased friendly share ownership to 69%, the hostile takeover issue was dissolved. However the 7.9% stake owned by Next Venture Investment, which gave up the hostile takeover, has been a potential selling pressure. However, ICT is reviewing diversified solutions to settle down this issue and will come up with a visible plan soon. (Page. 6)

✓ **Excellent ROIC and financial stability**

With technologically competitiveness, ICT has secured a high level of profitability even from the inception of business. ICT recorded 30% of ROE and 65% of ROIC in 2006. The company was challenged by the low-priced ESD/EMI filter from Amotech (ICT's competitor) in 2007 and its ROE decreased to as low as 8%. However, ICT kept investing in R&D for new products and succeeded in developing CMEF chip in 2009, which turned its ROE back to 20% levels again. (Page. 7)

✓ **Target price of W9,240 – 91% upside**

ICT's stock price is excessively undervalued, with its 2011E PER of 4.8x compare to the peer group average of 22.5x. We believe that the market will revalue the shares for the growth momentum and profit contribution from CMEF chips along with the growth of the Smartphone market. In addition, the overhang issue is expected to be solved sooner or later. Therefore we believe the company shares deserve at least the market average valuation. The target share price is W9,240, derived by applying PER of 7.8X to 2012F EPS of W1,192.

Section 1: Company at a glance

Producer of ceramic-lined protection chip

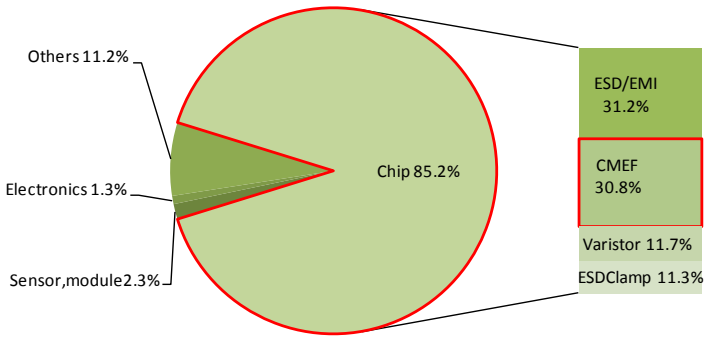
A producer of ceramic-lined protection chip

ICT (InnoChips Technology) produces ESD/EMI Filter, CMEF and Varistor, which are used for mobile devices. These are protective chips to keep the major chips of mobile devices safe from waveform or abnormal voltage and thus widely used for most electronic devices. As demand for mobile devices such as Smartphone and tablet PC recently increases tremendously, the chips with protective functions are also in high demand. In addition, mobile devices require a verity of protective chips that can control various waveform and voltage caused by the high-speed processing and integration of devices.

Securing a high profitability with advanced technology

Despite ICT's late entry to the protective part business, the company softly landed on the market by its excellent technology and the development of Varistor (a ceramic-lined chip). It developed the world-first ESD/EMI integrated chip in 2003 and took No. 1 market share while securing high profitability. In 2009, the company also developed CMEF chip (a chip with integrated functions of ESD protection and high frequency EMIFilter), which is specialized for Smartphone and tablet PC. This chip has become a major product for the company as the Smartphone and tablet PC markets are growing very fast.

Chart 1. Sales breakdown



Source: Company data, Leading Research Center estimate

Table 1. Core chips and characteristics

Devices	CMF/CMEF	ESD/EMI Filter	ESD Clamp	Varistor	Sensor, others
Function	High freq. filter, Electro static discharge protection	Low freq. filter, Electro static discharge protection	Electro static discharge protection for high speed	Electro static discharge protection	IR sensor, etc.
Characteristics	World 1st development	World 1st development	High performance	Ultra Slim	High Technology
Market share	Domestic 1st M/S	Domestic1st M/S	Domestic exclusive supply	Domestic 2nd M/S	-
Supplier	SEC,LG,Pentech etc	SEC,LG,Pentech etc	SEC,LG,Pentech etc	LG, Pentech etc	Domestic, abroad

Source: Company data

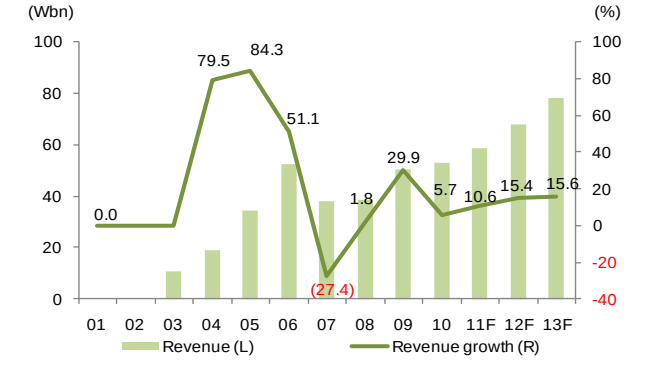
ICT's major products have the highest market shares in Korea.

Preoccupying the market with one-step advanced technology, the company's major products are maintaining the No. 1 market shares in the domestic market. Compared to the global leaders such as TDK and Murata, ICT still has small sales volume and low brand awareness. However, ICT has rapidly expanded its chip supply to about 450 companies including Samsung, LG and Pentech.

Chart2. Core protection chips for mobile devices and others

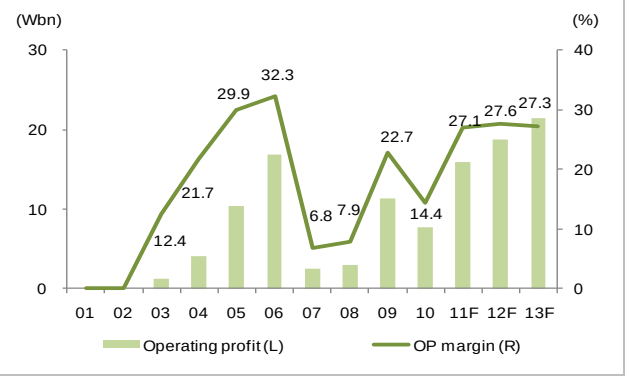
Source: Company data

Chart3. Revenue and growth trend



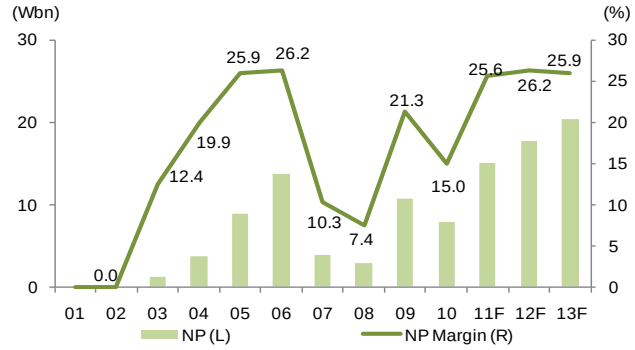
Source: Company data and Leading Research Center

Chart 4. OP and OPM trend



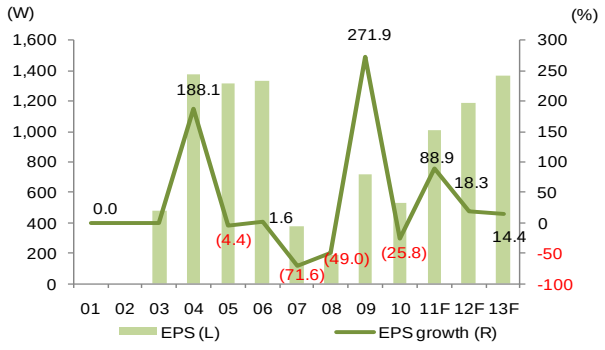
Source: Company data and Leading Research Center

Chart 5. NP and NP margin trend



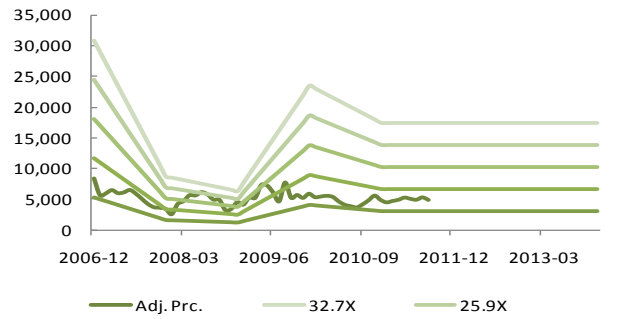
Source: Company data and Leading Research Center

Chart 6. EPS and EPS growth trend



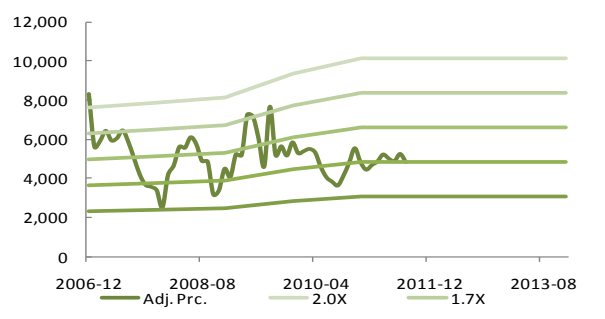
Source: Company data and Leading Research Center

Chart 7. PER band



Source: Company data and Leading Research Center

Chart 8. PBR band



Source: Company data and Leading Research Center

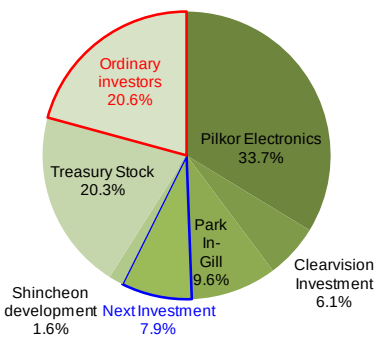
Defended a hostile M&A by increasing friendly shares

Noticing ICT's high level of technology, Next Venture Investment (NVI) increased its stake in ICT in a hostile takeover attempt in 2009. However, Pilkor Electronics Co and Clearvision Investment purchased 33.4% and 6.1% of ICT shares, respectively, as friendly shareholders. As such total friendly shareholder stakes increased to 69%, which defended the management of ICT from NVI's hostile M&A attempt.

There is an overhang issue, but is expected to be resolved soon

Meanwhile, 7.9% stake owned by NVI, which gave up the hostile M&A, has been is a potential selling pressure. Given that the friendly shareholder stakes are almost 70% and therefore trading volume is low, investors have worried about the negative impact of the 7.9% stake potential selling on the share price However, ICT has indicated that it is reviewing various solutions to this potential issue and will come up with a visible plan soon.

Chart 9. ICT's share structure



Source: Company data, Leading Research Center

Section 2: Is the company a value creator?

Value creation by an advanced technology

Consistently generated strong ROE

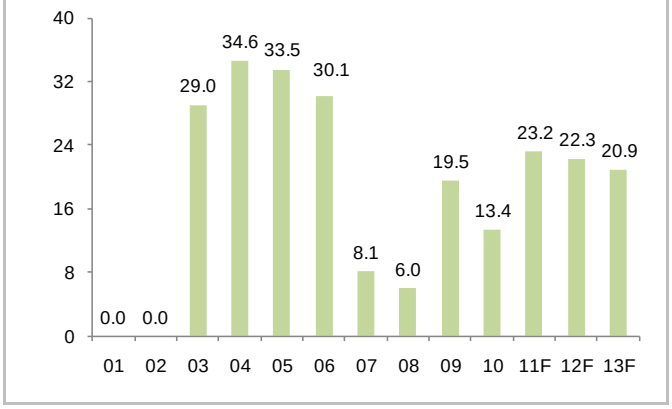
Since the company was founded, it achieved high level of profitability with competitive technological advantage. After developing Varistor chip, it also succeeded in developing and mass-producing ESD/EMI Filter. Such technological innovations were the source of ROE hovering over 30% during the early years of the company.

Expected to recover ROE over 20% level going forward

In 2007, the company was challenged by Amotech (052710 KS) who was armed with low-priced ESD/EMI filter. As a result, ICT's earnings dropped and ROE fell to 8% level. However, ICT's innovative R&D team succeeded in developing CMEF chip in 2009, which turned its ROE back to 20% level. Going forward, increasing demand for parts for Smartphone is expected to push ROE to over 25% level.

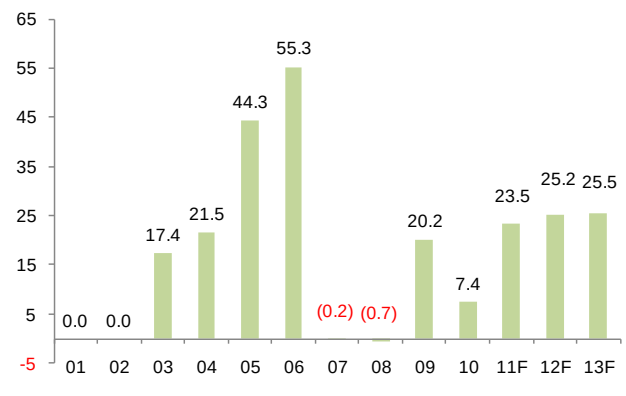
ICT's ROIC less WACC reached 55.3% in 2006, but dropped to negative territory as its earnings were deteriorated by a challenge from Amotech and a delay in new product development. However, the effect of the late-launched new products is expected to be reflected in the earnings and expected to bring ROIC less WACC to over 20% in 2011E.

Chart10. ROE (%)



Source: Company data and Leading Research Center

Chart11. ROIC less WACC (%)



Source: Company data and Leading Research Center

Section 3: Is the company a cash generator and share cash with shareholders?

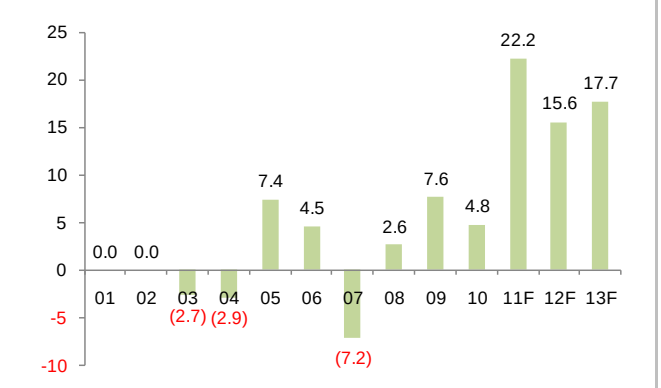
Stable and consistent cash flow

Despite the initial investment for equipment and consistent technology development, the company has been generating stable free cash flow since 2005, except in 2007. Even after W3.5bn in capital investment in 2011E, the sales and earnings growth from high value-added CMEF is expected help the company to generate strong free cash flow of W22bn in 2011E. Going forward, strong free cashflow of W15bn~W18bn is expected in 2012F and 2013F.

Dividend yield expected to remain low

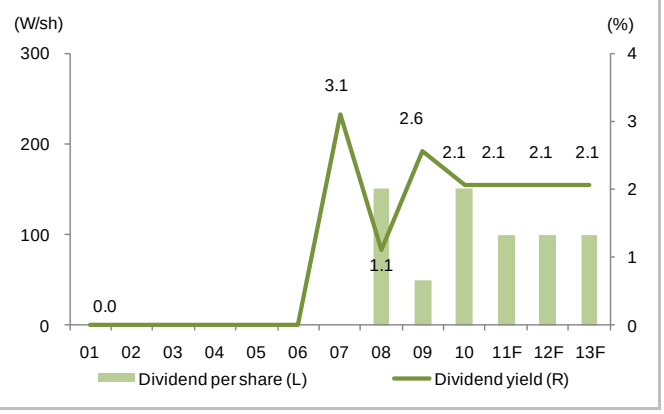
Despite such strong free cashflow, ICT is not planning on increasing dividend. We expect the company to maintain dividend yield at 2% level going forward. The company management believes that the company needs to retain cash as it is still in an early stage. They also believe that investors could be rewarded with an appreciation in share price as they wisely invest cash into a development of new profitable products.

Chart12. Free cash flow trend (Wbn)



Source: Company data and Leading Research Center

Chart13. Dividend per share and yield trend



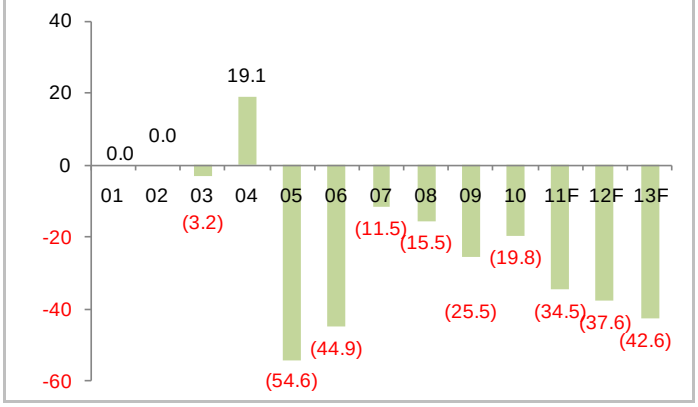
Source: Company data and Leading Research Center

Section 4: Are the debt and interest burden manageable?

Net cash position – no debt burden

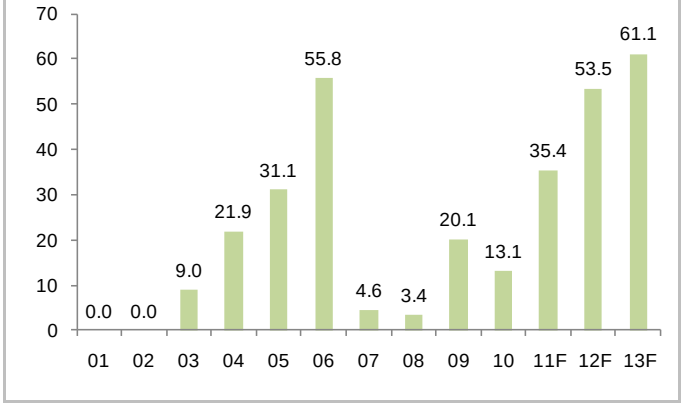
The company has maintained a strong balance sheet since the beginning. It was able to maintain a net cash position ever during the Global Financial Crisis and a challenge from Amotech. We believe the company's net cash position will reach W34.5bn in 2011E and exceed W40bn mark by 2013F. Thus, there is no concern for debt or interest expenses.

Chart14. Net debt to equity (%)



Source: Company data and Leading Research Center

Chart15. Interest coverage (x)



Source: Company data and Leading Research Center

Table2. Borrowings and interest expense

(Wbn)	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011E	2012F	2013F
Interest bearing debt	N/A	2.3	4.0	4.7	9.4	16.0	11.7	13.8	11.4	9.6	7.2	5.9
Cash & equivalents	N/A	2.6	1.6	27.0	32.1	21.4	19.3	29.3	22.9	34.3	40.2	51.3
Net interest bearing debt	N/A	(0.3)	2.4	(22.2)	(22.7)	(5.4)	(7.7)	(15.4)	(11.4)	(24.7)	(33.0)	(45.4)
Net int. bear debt/eq (%)	N/A	(3.2)	19.1	(54.6)	(44.9)	(11.5)	(15.5)	(25.5)	(19.8)	(34.5)	(37.6)	(42.6)
Interest expenses	N/A	0.1	0.2	0.3	0.3	0.6	0.9	0.6	0.6	0.5	0.4	0.4
Interest coverage (X)	N/A	9.0	21.9	31.1	55.8	4.6	3.4	20.1	13.1	35.4	53.5	61.1

Source: Company data and Leading Research Center

Section 5: What is the management philosophy?

CEI is an ex-Samsung Electro-Mechanics researcher

Company run by co-CEOs

ICT is run by a co-CEO system and Park In Gil and Choi Young Seok are co-CEO's. Mr. Park received a Ph.D. material engineering from KAIST. He started his career at KAIST as a chief researcher. He then moved to Samsung Electro Mechanics (SEM: 009150 KS) as a head of R&D where he successfully led a number of successful projects, such as manual electronic parts of multilayer structure. In April 2000, he founded ICT to utilize his experience at SEM. Mr. Choi was a CEO of Pilkor Electronics (033290 KS), but became a co-CEO of ICT as he became a major shareholder as a white knight protecting the company from a hostile takeover attempt.

Co-CEO Mr. Park is a technological innovator

Mr. Park succeeded in developing and mass-producing 1005 Varistor, which was the key product during the early stage of ICT. He also developed the world's first 'ESD/EMI Filter' (an integrated product of ESD and EMI) in 2003. Subsequently he developed ESD Clamp, Common Mode ESD Filter and Hall mouse products, which became the main products of the company. As such, Mr. Park's innovative skill has been the key to the company's new product development. In conclusion, Mr. Park is a co-CEO and an engineer actively participating in R&D.

Co-CEO Mr. Choi overlooks major investment decisions

Mr. Choi is the management specialist who is also a CEO of Pilkor Electronics. Since joining ICT, his main role is making decisions on large investments to allow Mr. Park to focus on technological development.

CEO profile

Park, In Gill CEO

Period (yr)	Education
2004	KAIST techno MBA executive program
2000	ICT CEO
1995	Samsung Electro-Mecahnics R&D center
1991	KAIST ceramic R&D center senior researcher
1991	PhD in material science ,KAIST
1985	B.S , Hanyang Univ.

Choi, Yong Seok CEO

Period (yr)	Education
2007~current	Pilkor electronics co. CEO
1996	Joined Pilkor electronics co.
1985	B.A , Seoul National Univ.

Section 6: Peer group comparison and Valuation

Undervalued compared to peers

The major competitors of ICT are Amotech in the domestic market. In the global market, TDK and Murata of Japan and Semtech of USA are main competitors. The domestic and Japanese competitors produce ceramic-lined chips and the American competitor manufactures semiconductor diode chips. The diode chips have similar functions and application as the ceramic chips, thus compared in the same category.

The share price of ICT is excessively undervalued at 4.8X 2011E EPS compared to over 20X for competitors. We believe the main reason for undervaluation is that the impact of the new products has not been reflected in the share price, yet.

Target price of W9,240/sh

Considering excellent technology and R&D, we believe that ICT deserves at least the market average PE valuation. Our target price is W9,240/sh, which was derived by applying the estimated 2012F market PER of 7.8X to ICT's estimated 2012F EPS of W1,192 (Page16).

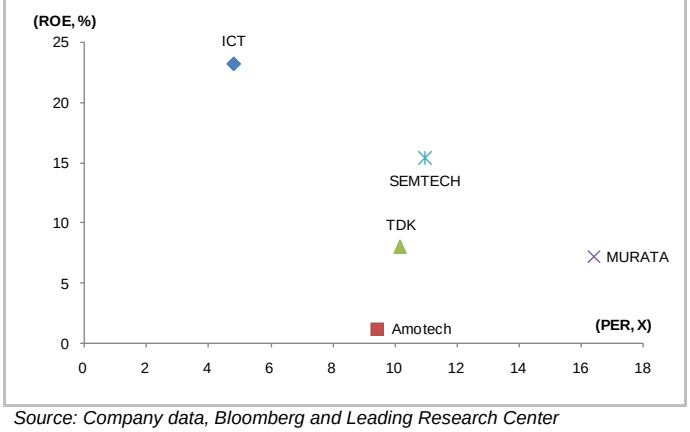
Table 4. Peer group comparison

Name	Ticker	Country	Mkt Cap (US$mn)	Sales (US$mn)				OP Margin (%)			
				09	10	11E	12E	09	10	11E	12E
ICTS	080420 KQ	KOREA	66.2	46.5	49.1	54.3	62.1	22.7	14.4	27.0	26.0
AMOTECH	052710 KQ	KOREA	34.0	59.7	78.6	104.1	109.0	8.2	6.4	6.5	6.1
TDK	6762 JP	JAPAN	5920.7	8722.5	10247.2	10675.9	11480.9	3.2	7.3	7.2	7.0
MURATA	6981 JP	JAPAN	13810.3	5724.2	7230.8	7570.7	8415.4	5.0	12.5	13.1	13.6
SEMTECH	SMTC UQ	USA	1384.5	286.6	454.5	451.9	521.0	11.8	17.3	28.0	27.6

Company	P/E (X)				EV/EBITDA (X)				P/B (X)				ROE (%)			
	09	10	11E	12E	09	10	11E	12E	09	10	11E	12E	09	10	11E	12E
ICTS	6.7	9.1	4.8	4.1	3.4	5.0	2.5	1.8	1.2	1.2	1.0	0.8	19.5	13.4	23.2	22.3
AMOTECH	24.2	35.1	9.4	11.5	7.8	7.2	4.7	3.2	1.0	0.7	0.3	0.3	5.9	2.0	1.2	2.6
TDK	59.3	14.0	10.2	10.2	7.8	4.9	3.6	3.4	1.5	1.2	0.8	0.8	8.4	8.4	8.0	8.5
MURATA	46.0	24.0	18.3	16.4	10.2	8.2	6.3	6.1	1.4	1.6	1.2	1.2	6.6	6.6	7.2	8.1
SEMTECH	22.4	16.9	12.7	11.0	18.6	12.2	-	-	2.3	2.6	-	-	10.4	17.9	15.4	23.0

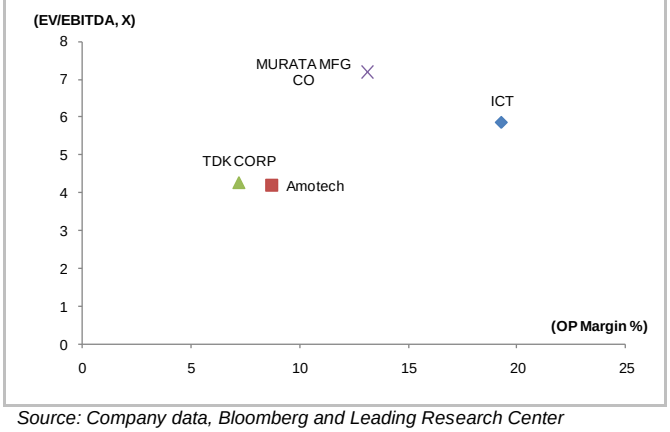
Source: Company data, Bloomberg and Leading Research Center

Chart16. Peer group PER vs. ROE



Source: Company data, Bloomberg and Leading Research Center

Chart 17. Peer group EV/EBITDA vs. OPM



Source: Company data, Bloomberg and Leading Research Center

Section 7: FX exposure

FX movement has little impact on earnings

In 2010, the company achieved 62% 2010 revenue from exports and imported 52% of RM. All in all, the net exposure to US$ was 27% of total revenue. We believe the US$ exposure will be similar going forward.

Our sensitivity test shows that a 1% change in the year average W/US$ exchange rate will change EPS by 12% in 2011E and 1.3% in 2012F. Thus, an impact of W/US$ rate on ICT's earnings is not excessive.

Table 5. 2011E FX sensitivity

% chg in KRW/US$ rate	-5%	-1%	Base	1%	5%
Year-end KRW/US$	1,020	1,063	1,074	1,085	1,128
Year-avg KRW/US$	1,028	1,071	1,082	1,093	1,136
Revenue (Wbn)	56.9	58.4	58.7	59.1	60.6
Operating profit (Wbn)	14.9	15.7	15.9	16.1	16.9
NP (Wbn)	14.0	14.8	15.0	15.2	16.0
EPS (W)	941	994	1,007	1,019	1,073
P/E (X)	5.1	4.8	4.8	4.7	4.5
Revenue change (%)	(3.1)	(0.6)	0.0	0.6	3.1
OP change (%)	(6.2)	(1.2)	0.0	1.2	6.2
NP change (%)	(6.6)	(1.3)	0.0	1.2	6.6
EPS change (%)	(6.6)	(1.3)	0.0	1.2	6.6

Source: Company data, Leading Research Center

Table 6. 2012F FX sensitivity

% chg in KRW/US$ rate	-5%	-1%	Base	1%	5%
Year-end KRW/US$	960	1,001	1,011	1,021	1,062
Year-avg KRW/US$	979	1,020	1,030	1,040	1,082
Revenue (Wbn)	65.7	67.4	67.8	68.2	69.9
Operating profit (Wbn)	17.6	18.5	18.7	18.9	19.9
NP (Wbn)	16.6	17.5	17.8	18.0	18.9
EPS (W)	1,115	1,176	1,192	1,206.9	1,268.2
P/E (X)	4.3	4.1	4.0	4.0	3.8
Revenue change (%)	(3.1)	(0.6)	0.0	0.6	3.1
OP change (%)	(6.1)	(1.2)	0.0	1.2	6.1
NP change (%)	(6.4)	(1.3)	0.0	1.3	6.4
EPS change (%)	(6.4)	(1.3)	0.0	1.3	6.4

Source: Company data, Leading Research Center

Table 7. 2013F FX sensitivity

% chg in KRW/US$ rate	-5%	-1%	Base	1%	5%
Year-end KRW/US$	1,014	1,056	1,067	1,078	1,120
Year-avg KRW/US$	1,002	1,044	1,055	1,066	1,108
Revenue (Wbn)	75.9	77.9	78.4	78.9	80.8
Operating profit (Wbn)	20.1	21.1	21.4	21.7	22.7
NP (Wbn)	19.0	20.1	20.3	20.6	21.6
EPS (W)	1,275	1,346	1,364	1,381.4	1,452.2
P/E (X)	3.8	3.6	3.5	3.5	3.3
Revenue change (%)	(3.1)	(0.6)	0.0	0.6	3.1
OP change (%)	(6.2)	(1.2)	0.0	1.2	6.2
NP change (%)	(6.5)	(1.3)	0.0	1.3	6.5
EPS change (%)	(6.5)	(1.3)	0.0	1.3	6.5

Source: Company data, Leading Research Center

Section 8: Operations overview

ICT's current position in the market is strong

Domestic No. 1 ceramic chip maker

Despite the late entrance into the ceramic chip industry in April, 2000, ICT's excellent technology made the company one of the major chip suppliers to Samsung Electronics (005930 KS) and LG Electronics (066570 KS). During the early stage of mobile devices in Korea, most of the Korean mobile device producers relied on Japanese and American companies for ceramic-lined protection chips. However a successful localization of the ceramic-lined protection chips by ICT allowed Korean producers to source them domestically. ICT is currently supplying to 250 domestic companies and 200 companies overseas.

Securing competitive advantage through technological innovation

ICT has dominated the ceramic-lined chip market since the beginning and developed the world-first ESD/EMI filter (an integrated chip of EMI Filter with ESD protection, which allowed mobile phone producers to make them smaller and lighter. Samsung Electronics and LG Electronics acknowledged the technological excellence of ICT's products. In 2009, ICT successfully developed world's first CMEF (an integration of CMF and ESD) in accordance with the trend of the miniaturization and integration of mobile devices.

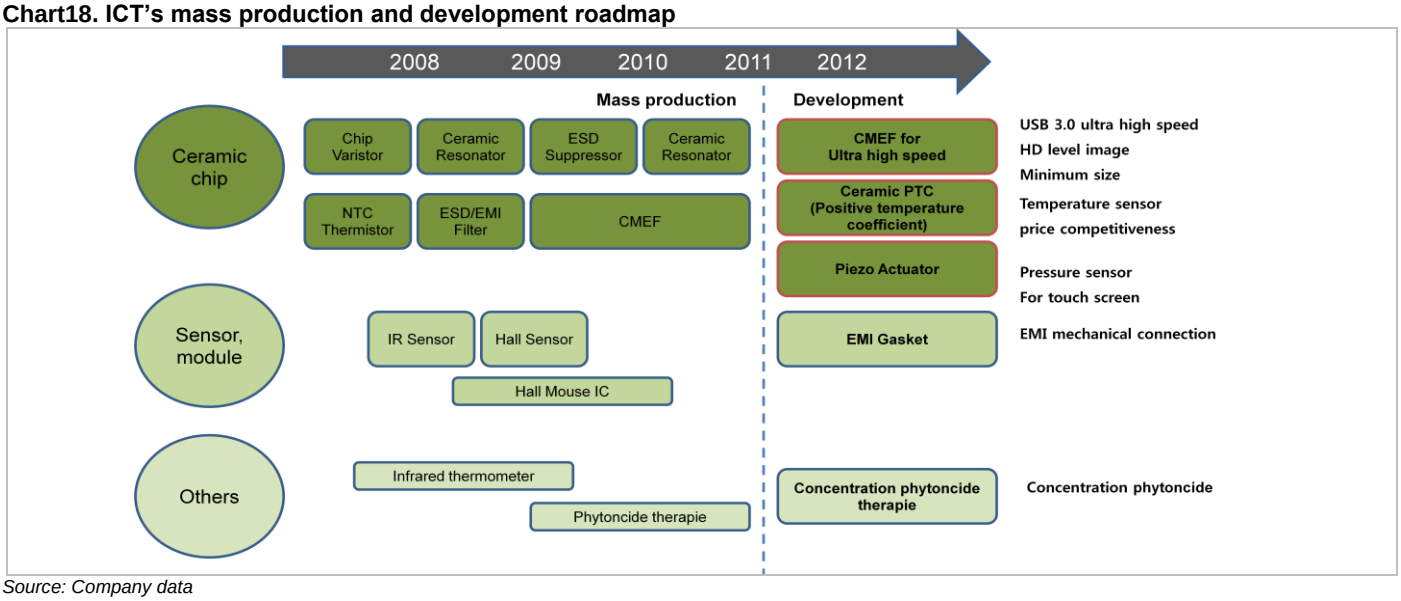
ICT's high value-added CMEF is an essential part of Smartphone and tablet PC

The demand for the very compact CMEF chip, which is used for a high speed interface of Smartphone and tablet PC, is growing fast in line with the recent popularity of smartphones. The new models of smartphones produced by Samsung Electronics, LG Electronics, and Pentech require more CMEF chips and sales of CMEF chips is expected to grow fast. ICT's CMEF technology is known to be two years ahead of Amotech, thus there will not be a major threat for at least the next two years.

Currently developing parts for the next generation Smartphone

Since the beginning, the company has prepared itself for the technological changes in mobile devices and parts. It has already set 2013 as the year of mass production for new products such as Ceramic positive temperature Coefficient and Piezo Actuator as well as Ultra high speed CMEF for the Smartphone of the next generation (Chart 18).

Chart18. ICT's mass production and development roadmap



Source: Company data

Smartphone market

A signal for the global IT industry is positive

The global IT products sales is on an uptrend. Gartner increased a forecast of 2011E IT spending from previous 5.6% to 7.1%. Gartner's forecast on telecommunications equipment sales growth is 8.1% and software sales growth is 9.5%. Such positive forecast is based on a rapid growth of smartphones, tablet PCs and the 4th generation communication LET.

Table 8. Global IT spending

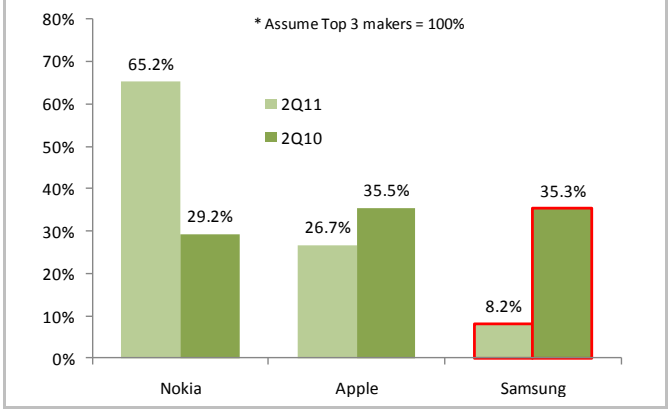
($B)	2008	2009	2010	2011E	2012F	2013F	2014F	2015F
Telecom Service	1,578.4	1,533.3	1,602.3	1,693.7	1,748.6	1,803.7	1,860.5	1,913.9
IT Service	810.9	769.2	793.0	845.7	882.5	919.9	960.8	1,004.0
Telecom Equipment	398.8	374.2	412.5	446.1	480.2	514.2	543.4	571.7
Software	231.2	225.5	244.4	267.6	288.1	308.4	329.4	350.9
Computing Hardware	381.6	334.6	375.1	418.9	454.8	496.6	540.5	603.5

Source: Gartner, Leading Research Center

Rapid growth of domestic Smartphone makers

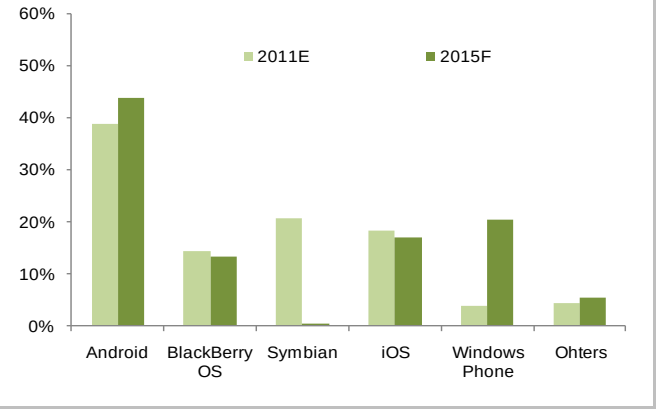
The total sales unit of the global major 3 Smartphone suppliers (Nokia, Apple and Samsung Electronics) was 3.7m in 2Q10, but increased 55.7% yoy to 5.7m in 2Q11. Among them, the sales unit of Samsung Electronic's Smartphone sales increased by more than 6 times yoy. Accordingly, Samsung Electronic's global M/S increased from 8.4% in 2Q11 to 35.3% in 2Q12, which is only 0.2%p behind Apple's M/S. It is expected that the Android OS Smartphone (used by Samsung Electronics and LG Electronics) will keep growing. According to Gartner, Android OS Smartphone is expected to grow to take over 40% of the world M/S in 2011 and reach up to 45% in 2015.

Chart 19. Smartphone M/S (Global Top 3)



Source: Gartner, Leading Research Center

Chart20. Global Smartphone operating system



Source: Gartner, Leading Research Center

Earnings outlook

Strong growth in operating profits

2Q11 OP more than doubled yoy

ICT's 2Q11 sales was W14.3bn, down by 1.6% yoy, but OP increased by more than 200% yoy to W4.0bn. A slight drop in revenue is not significant given the fact that it was due to sluggish sales of ICT's non-major products such as sensors or modules. Contribution of high value-added CMEF sales to revenue increased from 10% in 1Q11 to 30% in 2Q11 and improved OPM from 12.6% in 1Q11 to 28.7%1Q12. Given the expected increase in Smartphone sales in 2Q11, we believe the earnings in 2H11 will easily exceed that of 1H11.

Table 9. Quarterly results and outlook

(Wbn,%)	1Q11	2Q11	3Q11E	4Q11E	2011E
Sales	14.3	14.0	15.4	15.1	58.7
OP	1.8	4.0	4.2	4.0	15.9
Pretax profit	1.8	4.1	4.3	4.0	16.9
NP	1.7	4.0	4.2	3.9	15.0
OPM (%)	12.6	28.7	27.4	26.7	27.1
NPM (%)	12.0	28.6	27.4	26.0	25.6

Source: Company data and Leading Research Center

Table 10. Revenue forecast by division

Division (Wbn)	1Q11	2Q11	3Q11E	4Q11E	2011E
Chip	9.4	12.5	13.7	14.4	50.0
Sensor&module	0.6	0.3	0.3	0.2	1.4
Electronics	0.5	0.1	0.1	0.1	0.7
Others	3.8	1.1	0.9	0.8	6.6
Total revenue	14.3	14.0	15.0	15.5	58.7

Source: Company data and Leading Research Center

2011E OP to double yoy also

ICT's 2011E total sales and OP are expected to increase by 10.6% and 108.3% yoy, respectively. In 2012F and 2013F, when ICT's new products make full impact on revenue and earnings, While there is a possibility of new competitors by 2013F, we believe that the next generation products such as Ultra-High-Speed CMEF will allow the company to maintain OPM in the 27% range.

Table 11. Revenue trend and forecast

	Forecast (Wbn)				yoy growth		
	2010	2011E	2012F	2013F	2011E	2012F	2013F
Sales	53.1	58.7	67.8	78.4	10.6%	15.4%	15.6%
OP	7.6	15.9	18.7	21.4	108.3%	17.5%	14.3%
Pretax profit	8.2	16.9	20.0	22.8	106.4%	18.3%	14.4%
NP	7.9	15.0	17.8	20.3	88.9%	18.3%	14.4%
EPS	533	1007	1192	1364	88.9%	18.3%	14.4%
OPM (%)	14.4%	27.1%	27.6%	27.3%	-	-	-
NPM (%)	15.0%	25.6%	26.2%	25.9%	-	-	-

Source: Company data and Leading Research Center

Section 9: Valuation: Target price of W9,240

Previously commanded valuation premium to the market

ICT shares once traded at over 100% premium to the market as its technological advantage was recognized by the market. Even in 2007 and 2008 when ICT's earnings dropped from a challenge from Amotech, it received valuation premium from the market.

Given the value of CMEF chip and future R&D, ICT deserves at least the market PE valuation

Currently, ICT's share price is excessively undervalued at 34.9% discount to the 2011E market PER and 49.6% discount to 2012F market PER. One of the reasons is a concern over an overhang issue (7.9% owned by Next Venture Investment). However, the management is working hard to resolve the overhand issue and we expect that it will be resolved soon.

On the operating side, we believe the market will revalue ICT as its high value added CMEF and other results of R&D pushes its OPM to above 25% level in 2011E to 2013F period. Also, given that ICT has excellent technology and R&D, we believe that ICT deserves at least the market average PE valuation. Also, the fact that ICT is a major beneficiary of smartphones should help as well.

Target price of W9,240/sh implies 91% share price appreciation potential

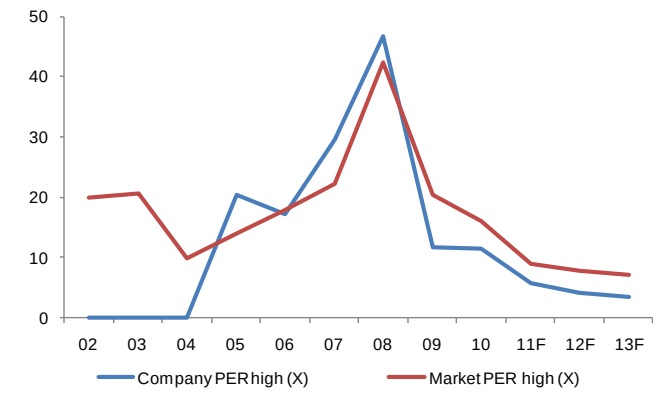
We assess the fair value of ICT at W9,240/sh, which was derived by the estimated 2012F market PER of 7.8X to ICT's estimated 2012F EPS of W1,192. Our target price implies 91% share price appreciation potential.

Table 12. Discount in ICT PER to market PER

(배, %)	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011E	2012F	2013F
ICT PER high	N/A	N/A	N/A	20.4	17.1	29.6	46.7	11.8	11.3	5.8	4.1	3.5
Market PER high	19.9	20.7	9.9	13.9	17.9	22.3	42.4	20.4	16.0	8.9	7.8	7.1
Discount to market	N/A	N/A	N/A	**(47.1)**	**4.5**	**(32.6)**	**(10.2)**	**42.2**	**29.0**	**34.9**	**49.6**	**51.6**
ICT PER low	N/A	N/A	0.0	14.6	8.5	12.5	15.2	5.6	6.8	3.5	4.1	3.5
Market PER low	9.9	10.2	5.7	7.2	11.0	10.9	16.2	9.8	9.6	8.9	7.8	7.1
Discount to market	N/A	N/A	N/A	**(102.6)**	**22.2**	**(15.1)**	**6.0**	**42.9**	**29.2**	**60.7**	**49.6**	**51.6**

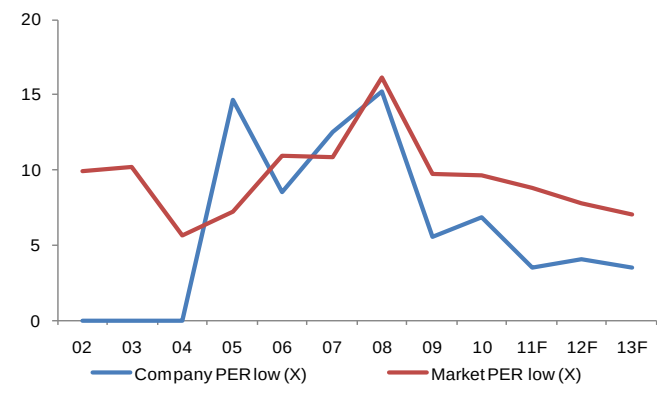
Source: Company data, Leading Research Center
**Market = KOSPI + KOSDAQ*

Chart21. ICT's Yr-high PER VS. Market Yr-high PER (X)



Source: Company data, FnGuide consensus and Leading Research Center

Chart22. ICT's Yr-low PER VS. Market Yr-low PER (X)



Source: Company, FnGuide consensus and Leading Research Center

Summary of financial

Income statement

(Wbn)	2003	2004	2005	2006	2007	2008	2009	2010	2011E	2012F	2013F
Revenue	**10.5**	**18.8**	**34.7**	**52.4**	**38.0**	**38.7**	**50.3**	**53.1**	**58.7**	**67.8**	**78.4**
% chg yoy	N/A	79.5	84.3	51.1	(27.4)	1.8	29.9	5.7	10.6	15.4	15.6
COGS	6.6	10.0	16.4	22.2	24.0	26.1	28.4	35.6	32.3	37.0	42.9
Gross profit	**3.8**	**8.8**	**18.2**	**30.1**	**14.0**	**12.6**	**21.9**	**17.5**	**26.4**	**30.8**	**35.5**
GP margin (%)	36.6	47.0	52.6	57.6	36.8	32.6	43.6	32.9	45.0	45.4	45.3
SG&A	**2.5**	**4.7**	**7.9**	**13.3**	**11.4**	**9.5**	**10.5**	**9.9**	**10.5**	**12.1**	**14.1**
Operating income	**1.3**	**4.1**	**10.4**	**16.9**	**2.6**	**3.1**	**11.4**	**7.6**	**15.9**	**18.7**	**21.4**
OP margin (%)	12.4	21.7	29.9	32.3	6.8	7.9	22.7	14.4	27.1	27.6	27.3
Non-operating income	0.2	0.2	0.5	1.2	2.1	3.2	2.1	2.2	2.2	2.4	2.6
Interest income	0.0	0.1	0.1	0.8	1.2	1.0	1.2	1.0	1.3	1.5	1.7
Net FX translation gains	(0.0)	(0.0)	0.2	(0.1)	0.0	1.1	(0.8)	(0.1)	0.1	0.1	0.1
Non-operating expenses	0.2	0.4	0.6	2.1	0.9	3.0	2.4	1.7	1.3	1.2	1.2
Interest expenses	0.1	0.2	0.3	0.3	0.6	0.9	0.6	0.6	0.5	0.4	0.4
Profit before tax	**1.3**	**3.9**	**10.3**	**16.0**	**3.8**	**3.2**	**11.1**	**8.2**	**16.9**	**20.0**	**22.8**
Tax	0.0	0.2	1.3	2.3	(0.2)	0.4	0.4	0.2	1.9	2.2	2.5
Tax rate (%)	3.0	4.2	12.6	14.3	(4.5)	11.0	3.6	2.7	11.0	11.0	11.0
Net income	**1.3**	**3.8**	**9.0**	**13.7**	**3.9**	**2.9**	**10.7**	**7.9**	**15.0**	**17.8**	**20.3**

Balance sheet

(Wbn)	2003	2004	2005	2006	2007	2008	2009	2010	2011E	2012F	2013F
Cash & deposit	0.7	0.6	9.3	7.1	1.4	3.7	11.3	1.3	6.0	7.9	11.8
Marketable securities	1.7	0.7	17.0	24.0	19.0	13.7	15.2	18.0	28.3	32.3	39.5
A/R	3.5	4.9	8.0	5.3	4.8	3.6	10.1	12.2	12.9	15.6	18.0
Other quick assets	0.3	0.3	0.8	1.4	2.2	1.2	1.9	1.5	4.0	6.0	6.8
Total quick assets	6.2	6.6	35.0	37.8	27.4	22.2	38.5	33.0	51.2	61.8	76.1
Inventory	1.6	3.8	3.3	6.2	7.7	8.3	9.8	11.7	4.8	5.6	6.4
Total current assets	**7.8**	**10.4**	**38.3**	**44.1**	**35.1**	**30.5**	**48.4**	**44.7**	**56.1**	**67.3**	**82.6**
Investments	0.2	0.3	1.7	1.3	4.0	5.8	6.1	6.5	5.1	7.0	8.1
Tangible assets	3.9	8.9	10.6	20.3	26.7	27.3	25.3	23.4	24.5	25.3	26.2
Others	0.5	0.7	1.6	0.8	2.1	1.3	1.0	0.8	1.2	1.1	1.3
Total non-current assets	**4.6**	**9.9**	**13.9**	**22.4**	**32.7**	**34.4**	**32.4**	**30.6**	**30.8**	**33.4**	**35.6**
Total assets	**12.4**	**20.2**	**52.3**	**66.5**	**67.8**	**64.9**	**80.8**	**75.4**	**86.9**	**100.8**	**118.2**
Trade Payables	0.2	0.2	0.4	0.4	0.4	0.4	1.7	0.9	1.0	1.1	1.3
Short-term borrowings	0.9	1.4	1.6	4.7	8.7	4.4	7.0	6.0	6.0	4.7	4.0
Current portion of LT debt	0.3	0.6	0.5	0.0	0.0	0.5	1.4	1.5	0.9	0.9	1.0
Others	0.7	2.9	5.9	4.5	2.8	1.4	3.5	3.1	3.1	2.9	2.9
Total current liabilities	**2.2**	**5.1**	**8.4**	**9.6**	**11.9**	**6.6**	**13.5**	**11.5**	**10.9**	**9.7**	**9.3**
Bonds	1.1	2.0	2.6	4.7	7.3	6.8	5.4	3.9	2.8	1.6	0.9
Long-term debt	0.1	0.3	0.5	0.9	0.9	0.8	0.7	0.7	0.7	0.7	0.7
Allowance for retirement reserve	0.0	0.0	(0.0)	0.8	1.0	1.4	0.7	1.4	1.0	1.1	0.8
Others	**1.2**	**2.4**	**3.1**	**6.4**	**9.1**	**9.0**	**6.8**	**5.9**	**4.5**	**3.4**	**2.4**
Total LT liabilities	**3.4**	**7.5**	**11.5**	**16.0**	**21.0**	**15.7**	**20.3**	**17.5**	**15.4**	**13.1**	**11.7**
Total liabilities	2.7	2.7	3.4	5.1	5.2	7.5	7.5	7.5	7.5	7.5	7.5
Paid-in capital	6.8	6.8	25.2	23.7	23.7	21.5	21.5	21.5	21.5	21.5	21.5
Capital surplus	(0.5)	3.2	12.2	25.9	29.8	29.7	39.8	44.7	58.2	74.4	93.3
Retained earnings	0.0	0.0	(0.0)	(4.3)	(11.9)	(9.5)	(8.2)	(15.7)	(15.7)	(15.7)	(15.7)
Capital adjustments	**9.0**	**12.7**	**40.7**	**50.5**	**46.8**	**49.2**	**60.5**	**57.9**	**71.4**	**87.7**	**106.5**

Free cashflow analysis

(Wbn)	2003	2004	2005	2006	2007	2008	2009	2010	2011E	2012F	2013F
Net profit	**1.3**	**3.8**	**9.0**	**13.7**	**3.9**	**2.9**	**10.7**	**7.9**	**15.0**	**17.8**	**20.3**
Add non-cash expenses	**2.0**	**4.0**	**6.1**	**10.3**	**8.3**	**9.1**	**7.5**	**6.4**	**5.1**	**5.1**	**5.0**
Depreciation	1.8	3.7	5.5	7.1	7.3	6.6	5.3	4.3	3.0	3.0	3.0
Equity method losses	0.0	0.0	0.0	0.0	0.0	1.2	0.4	0.6	0.5	0.5	0.5
Other non-cash expenses	0.1	0.4	0.6	3.2	1.1	2.5	2.2	2.1	2.1	2.1	2.0
Subtract non-cash incomes	**0.1**	**0.2**	**0.2**	**0.2**	**0.7**	**0.5**	**0.1**	**0.2**	**0.6**	**0.6**	**0.6**
Equity method gains	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other non-cash incomes	0.1	0.2	0.2	0.2	0.7	0.5	0.1	0.2	0.6	0.6	0.6
Add chgs in op asset &liab	**(2.1)**	**(1.7)**	**(0.2)**	**(2.3)**	**(4.3)**	**(0.7)**	**(6.8)**	**(6.7)**	**6.2**	**(3.2)**	**(3.1)**
Investment in WC	4.8	3.6	2.4	0.3	1.0	(0.7)	6.8	4.8	(6.2)	3.2	3.1
Others	2.7	2.0	2.2	(2.0)	(3.2)	(1.3)	(0.0)	(1.9)	0.0	0.0	0.0
Cash from operation	**1.1**	**5.9**	**14.7**	**21.5**	**7.3**	**10.8**	**11.3**	**7.5**	**25.7**	**19.1**	**21.7**
Subtract capital expenditure	3.8	8.8	7.3	17.0	14.5	8.2	3.7	2.7	3.5	3.5	4.0
Free cash flow	**(2.7)**	**(2.9)**	**7.4**	**4.5**	**(7.2)**	**2.6**	**7.6**	**4.8**	**22.2**	**15.6**	**17.7**
Dividend	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.7	1.5	1.5	1.5
Net investments	0.2	0.1	1.4	(0.4)	2.6	1.8	0.3	0.3	(1.3)	1.9	1.1
Share issues	4.2	0.0	19.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Increase in debt	2.3	1.7	0.7	4.7	6.6	(4.3)	2.2	(2.4)	(1.8)	(2.4)	(1.3)
Others	3.0	(1.2)	17.0	12.0	2.6	(5.9)	0.5	11.4	15.6	7.8	9.4
Net cash flow	**0.7**	**(0.1)**	**8.7**	**(2.1)**	**(5.7)**	**2.4**	**7.6**	**(10.0)**	**4.6**	**2.0**	**4.4**
Beginning cash	0.0	0.7	0.6	9.3	7.1	1.4	3.7	11.3	1.3	5.9	7.9
Ending cash	0.7	0.6	9.3	7.1	1.4	3.7	11.3	1.3	5.9	7.9	12.3

Key ratios and stability ratios

	2003	2004	2005	2006	2007	2008	2009	2010	2011E	2012F	2013F
Current ratio	352.7	201.8	455.6	458.7	295.4	459.3	357.7	387.9	515.8	692.4	889.2
Quick ratio	190.0	107.2	204.8	129.2	52.0	109.7	158.1	117.0	174.1	241.5	321.3
Inventory holding period (days)	43.3	98.3	78.9	78.3	106.0	112.3	116.9	110.4	93.6	51.3	51.0
A/R collection period (days)	61.1	81.7	67.8	46.2	48.5	39.5	49.5	76.5	78.0	76.8	78.3
A/P period (days)	5.5	7.4	7.3	5.6	5.6	5.5	12.7	12.6	13.4	10.1	10.3
Interest bear debt (Wbn)	2.3	4.0	4.7	9.4	16.0	11.7	13.8	11.4	9.6	7.2	5.9
Cash & equivalents (Wbn)	2.6	1.6	27.0	32.1	21.4	19.3	29.3	22.9	34.3	40.2	51.3
Net int. bear debt (Wbn)	(0.3)	2.4	(22.2)	(22.7)	(5.4)	(7.7)	(15.4)	(11.4)	(24.7)	(33.0)	(45.4)
Net debt/equity (%)	(3.2)	19.1	(54.6)	(44.9)	(11.5)	(15.5)	(25.5)	(19.8)	(34.5)	(37.6)	(42.6)
Liability/equity (%)	37.9	58.9	28.2	31.7	44.8	31.8	33.6	30.2	21.6	15.0	11.0

Valuations and margins

	2003	2004	2005	2006	2007	2008	2009	2010	2011E	2012F	2013F
EV/EBITDA (X)	4.1	2.0	0.7	1.1	4.5	6.5	3.4	5.0	2.5	1.8	1.1
EPS (W)	477	1,374	1,313	1,334	379	193	719	533	1,007	1,192	1,364
EPS y-y (%)	N/A	188.1	(4.4)	1.6	(71.6)	(49.0)	271.9	(25.8)	88.9	18.3	14.4
PER (X)	10.2	3.5	3.7	3.6	12.8	25.0	6.7	9.1	4.8	4.1	3.5
BVPS (W)	6,575	4,661	8,524	5,894	4,531	3,894	4,058	3,885	4,791	5,882	7,145
P/BVPS (X)	0.7	1.0	0.6	0.8	1.1	1.2	1.2	1.2	1.0	0.8	0.7
Dividend (W)	0.0	0.0	0.0	0.0	150.0	50.0	150.0	100.0	100.0	100.0	100.0
Yield (%)	0.0	0.0	0.0	0.0	3.1	1.0	3.1	2.1	2.1	2.1	2.1
ROE (%)	29.0	34.6	33.5	30.1	8.1	6.0	19.5	13.4	23.2	22.3	20.9
ROA (%)	21.0	23.0	24.7	23.1	5.9	4.3	14.7	10.2	18.5	18.9	18.6
GP margin (%)	36.6	47.0	52.6	57.6	36.8	32.6	43.6	32.9	45.0	45.4	45.3
OP margin (%)	12.4	21.7	29.9	32.3	6.8	7.9	22.7	14.4	27.1	27.6	27.3
NP margin (%)	12.4	19.9	25.9	26.2	10.3	7.4	21.3	15.0	25.6	26.2	25.9
EBITDA margin (%)	30.0	41.2	46.0	47.7	26.0	25.5	33.6	22.9	32.5	32.3	31.4
ROIC (%)	29.0	32.9	55.4	64.5	8.2	7.2	27.7	17.4	33.2	37.3	37.8
WACC (%)	11.6	11.3	11.0	9.2	8.3	7.8	7.6	10.0	9.7	12.1	12.3
ROIC less WACC (%)	17.4	21.5	44.3	55.3	(0.2)	(0.7)	20.2	7.4	23.5	25.2	25.5

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