

2022년 3분기 실적 발표

EARNINGS RELEASE

2022년 3분기

2022년 11월 9일

서울바이오시스㈜의 IR자료 및 재무제표는 인터넷을 통해 다운로드 받으실 수 있습니다.

- 1) IR Book: 서울바이오시스㈜ 홈페이지 (http://www.seoulviosys.com/kr/ir/data/)
- 2) 재무제표: 금융감독원 전자공시사이트 (http://dart.fss.or.kr)에서 회사명(서울바이오시스) 또는 회사코드 (092190)를 입력후 검색버튼 클릭, 재무제표는 분/반기 및 사업보고서를 통해 확인하실 수 있습니다.

유의 사항

본 자료에 포함된 실적은 K-IFRS 연결 기준입니다.

또한 본 자료는 미래에 대한 "예측정보"를 포함하고 있습니다. 이는 과거가 아닌 미래의 사건과 관계된 것으로 회사의 향후 예상되는 경영현황 및 재무실적을 의미하고 표현상으로 '예상', '전망', '계획', '기대' 등과 같은 단어를 포함합니다.

"예측정보"는 그 성격상 불확실한 사건들을 언급하는데, 회사의 향후 경영현황 및 재무실적에 긍정적 또는 부정적으로 영향을 미칠 수 있는 불확실성에는 다음과 같은 것들이 포함됩니다.

- 환율, 이자율 등의 변동을 포함한 국내외 금융시장의 동향
- 사업의 처분, 매수 등을 포함한 회사의 전략적인 의사결정
- 회사가 영위하는 주요 사업 분야의 예상치 못한 급격한 여건 변화
- 기타 경영현황 및 재무실적에 영향을 미칠 수 있는 국내외적 변화

이러한 불확실성으로 인해 회사의 실제 미래실적은 "예측정보"에 명시적 또는 묵시적으로 포함된 내용과 중대한 차이가 있을 수 있음을 양지하시기 바랍니다.

Table of Contents

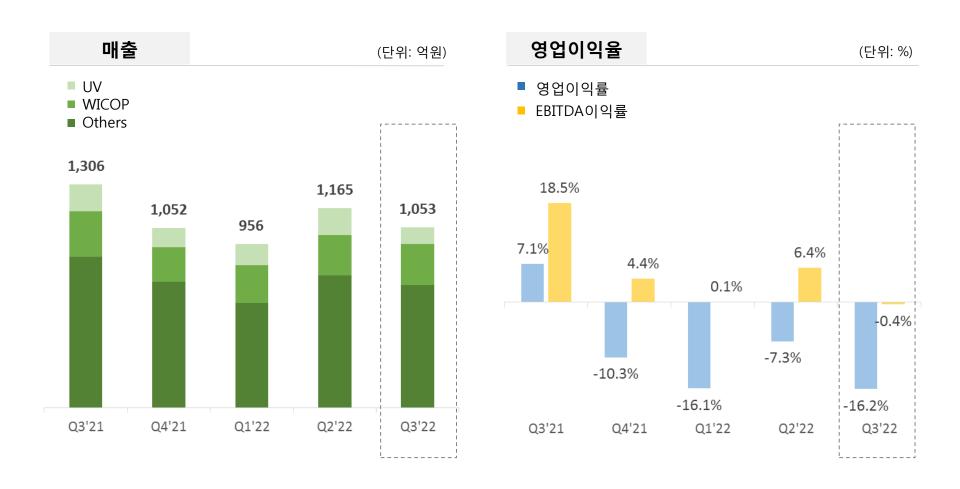
- I. 2022년 3분기 실적
- II. 2022년 4분기 매출 전망
- III. Appendix



2022년 3분기 실적

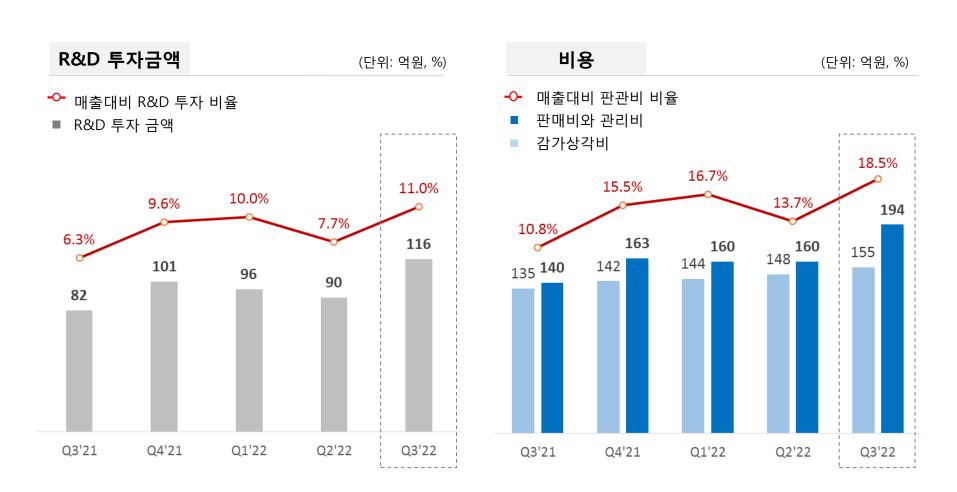
$I.\ 2022년\ 3Q\ 실적\ _1)$ 매출과 영업이익율

전방산업 재고조정 및 수요감소 영향으로 IT, UV제품 매출회복 주춤하며 매출 감소 및 영업손실 확대



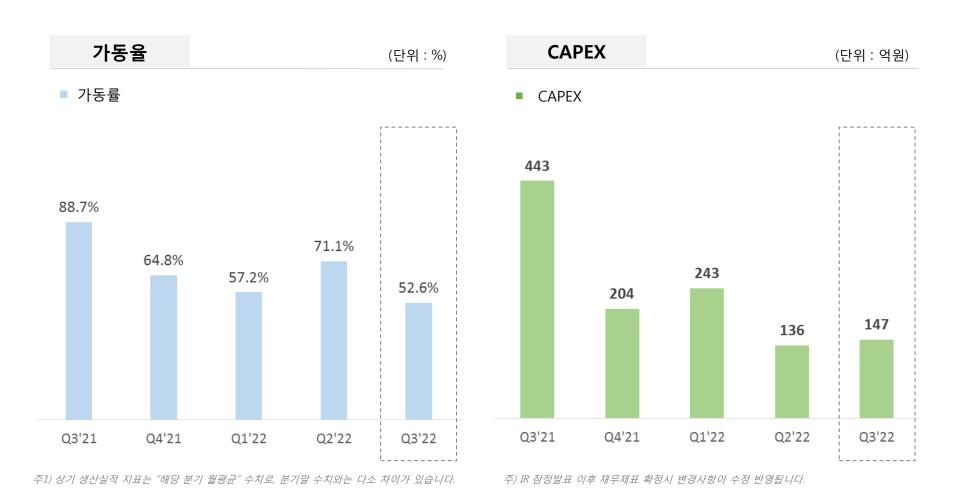
I. 2022년 3Q 실적 _ 2) 투자 및 비용

펜데믹 이후, 전시회 재개 등 신제품 고객문의 증가하며 샘플 등 R&D 투자는 확대, 미래 반전 준비



I. 2022년 3Q 실적 _ 3) 가동률과 CAPEX

수요약세 장기화로 생산 및 재고조정에 따른 가동율 감소, CAPEX는 보수적 기조 유지

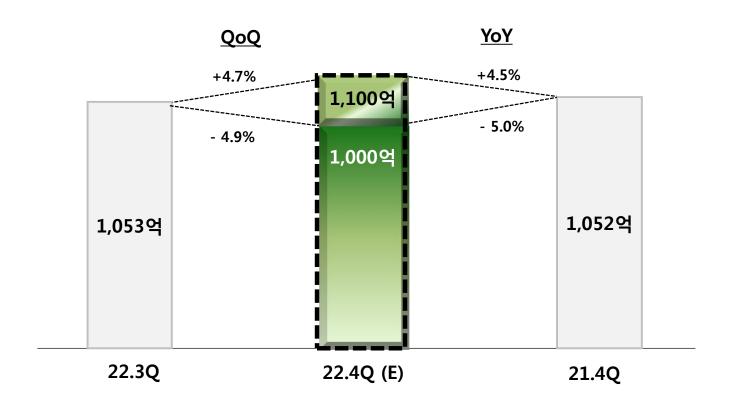


2022년 4분기 매출 전망

II. 2022년 4분기 실적 전망_1) 가이던스

어려운 거시경제 환경이지만, 선행된 수요감소 및 재고소진에 따른 추가적인 감소 없을 것 전망

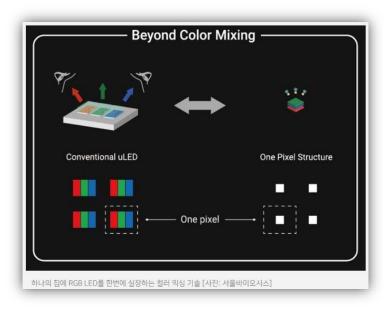
4분기 매출 가이던스



II. 2022년 4분기 실적 전망_2) 기술 현황과 전망

독자 기술 진보와 원가경쟁력 확보, 생활 속 기술적용 사례 많아지며 점진적 확대 기대

✓ Real One pixel Micro LED



- One Chip, One Pixel Structure
- Perfect Viewing Angle (All Around Same Color)
- Excellent Color Mixing
- All Around Same Color
- Extreme Black Area

✓ Violeds applicatios





- KT's "AI quarantine robot"
- Hyundai Motor's Genesis G90 storage box
- Application of Water Purification Plant

Ⅱ. 2022년 4분기 실적 전망_3) 응용분야별 지속성장 방안

2세대 기술 혁신으로 광반도체 Tipping Point 도래 예상

응용분야	솔루션과 성장 모멤텀	구현기술
• UV BIO, 공기, 표면 살균 3D 프린팅 경화	 글로벌 UV-C 1위 사업자 / MS 확대로 초격차 추진 자동차향 제품 진출 및 HVAC 등 신규 application 증가 글로벌 가전사 향 매출 확대 지속 유해물질 수은 대체하는 UV-C 수처리 시장 진출 	Violeds
• Micro LED LED Backlight AR/VR Watch Phone	 LCD, OLED 대체할 최고의 명암비 및 자유로운 사이즈가 구현 가능한 차세대 핵심 특허 기술 스마트 워치용 디스플레이 개발 / 양산 준비 AR 및 VR 시대에 대응하기 위한 직경 1μm 블루·그린 마이크로 (LED) 소자 개발 고휘도를 요구하는 자동차 외관 디스플레이와 ADB, RCL은 LED가 유일한 솔루션이 될 전망 	WICOP MC
• Chip	 PKG나 별도 실장없는 반도체 칩 기술 혁명 고 효율, 고 수명, 고 색재현성, 고 전압구동 가능한 최고의 솔루션 200nm대 UV부터 1400nm대 LD까지 전파장 EPI, CHIP 자체 생산하는 세계 유일한 회사 	WICOP

Q & A



APPENDIX

- 1) 미래 2세대 기술 사례, WSJ 게재된 기사
- 2) WICOP 특허소송 사례, Semiconductor Today 게재된 기사
- 3) UV 특허승소 사례, Bloomberg 게재된 기사
- 4) 재무현황
- 5) 요약재무제표

III. Appendix_1) 미래 2세대 LED 기술 사례

WSJ에 게재된 기사 - 미래 2세대 LED 기술 선점

16 June 2022

서울반도체는 대한민국 1위의 LED기업이면서 특허 출원 세계 1위 기업이다. **2세대 혁신 기술로 세계 1위 향해 도약 준비를 마쳤다.** 최근 시판되는 LED는 1만 시간 이상의 수명, 150 루멘퍼와트(lm/W)의 효율, 수준 높은 색 품질(CRI 90+)은 모두 **서울반도체의 특허가 필요하다**. 조명, 디스플레이, 자동차에 사용되는 가시광 LED는 2년 연속 3위로 1위에 도전하고 있다.

THE WALL STREET JOURNAL.

THE CONTROL OF THE CO

Seoul Semiconductor: #1 in Patent Power Pre-empting The Future with 2nd Generation LED Technologies

A LED patent monster: 18,000 patents, winning all 98 IP infringement cases since 2003

30 years all-in for Opto Semiconductors, Ranked 1st and 3rd in UV LED and visible LED secto
Son of a farmer shapes the future of light: inspiring young people to have a dream

referred to an Secular services of the Company of t	amy in the world to offer the from visible light to ultra- from visible light to ultra- e-mitting docke as well as e-mitting docke as well as he production capacity for all production capacity for all production capacity for all productions and cripps to production capacity for all productions and cripps to production of production prod	good op heath Silinos the bind of tiding of like has on a 24-day ball on a 24-day ball in the morning is section. In the control to the control the melalization in hor body to generate it immune colls. Seed has control soons the gibbs to Brazilla bedrodge, prevertis rypos, an the section prevents rypos, and public to soons the gibbs to Brazilla bedrodge, prevertis rypos, and public land soons the gibbs to Brazilla bedrodge, prevertis rypos, and the section soons the gibbs to land soons the gibbs to land soons the gibbs to land soons the gibbs to land soons the gibbs to soons the research soons the research soons the research soons the soons	recently 6.5 falling ventor ago, the evidence of executed under the withstence of results, our humans body operation services and the evidence of the evidence
fair opportunities.			
fair opportunities.	ED Technologies	Securs WICOP make	
fair opportunities.	ED Technologies 2™ Generation		
fair opportunities. 2 nd Generation L Industry Common		ED ISSIMW	es this possible.
2 nd Generation L 2 nd Generation L Issuity Common Requirements	2" Generation I	ess: 150km/WI CRIp Scr	es this possible. Scottl Eschnological EPI to PKG. 16,000 Pk
fair opportunities. 2 nd Generation L Industry Common	2 Generation I Lifetime: 10.000 HRI, Brights Color Rendesing Index	ess: 150km/WI CRIp Scr	es this possible. Scottl Fechnologies EPI to PKG, 16,000 Ph. CdO Phospher

	3
II 98 IP infringement cases sir	nce 2003
and 3rd in UV LED and visit	le LED sector
iring young people to have a	
condigeneration technology is already being used eadlamps of top brand cars in Europe, U.S. and	him. From that moment on, he decided to live by the same principle. He applied it when he studied physics university and while he studied for his MBA degree Okishoma Chy University and received As in all subject
s: Ultra-high-definition micro and mini LED / to Tablet s of the future including those for Augmented	and won the Presidential Award at graduation. Later, the established Seoul Semiconductor in a small rent office, and eventually grew Seoul into a billion-doll
, deliver exceptional image quality and have a repen. They require a light source in the form	For the past 30 years, he has directly led research ar development, and has amassed a vest collection 18,000 patients. He is listed as an inventor on 1,300 those, in the fight for fairness, Seoul has won all of the spatient infringement cases that were started
	To CH Lee, patents mean a lot. He believes that
princially. The emergence of COVID-19 increased tiber by 10x. It is expected that COVID-19 will a to produce variants and remain a variable we	developed countries where patents are respected industries develop more and popule live better leves. To 15th century industries develope live better leves. To 15th century industries revolution lowered the power test from 63% to 3% in cites, and the inflam entertially rat from 43% to 3%. The spread of the availability of election by and the leithernet, discreased the illibrary rate as information became unleverally accessible, and event ally improved human rights.
has developed Violeds technology that can without the use of any harmful chemicals or ics. Whether it is in residential appliances or large systems within commercial buildings, Violedis	it engers CEO Lee that there are still two-deced pate infringers prevalent who emphasizes environmental, soot infringers products by changing labels or who are vitil to buy infringing products for a cheep price. By defen my list FV upcountly, he warms to give young people hop that fairness done exist.
Iniversity to be able to bring this technology to Some of Seoul's most recent studies have shown leds technology kills 99% of Delta and Omicron in sust one second, During the same experiment.	CH Lee, founder of Seoul, has been fighting for fairness through patent lawsuits, and has not cut in hair to show his fighting spirit.
in just one second. During the same experiment, into in the amount of viruses in the air was ad of more than 90% within 20-30 minutes, which to significantly lower infection rates. For more tion about this and other studies, please visit the floxysful websidesttp://www.secukriosys.com/en/ ions/storikzation).	90
is commitment and obligations to	The same of the sa

"The Wall Street Journal news organization was not involved in the creation of this content

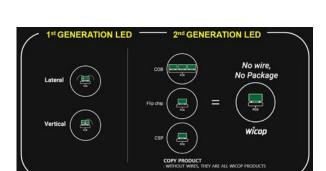
산업 구분	2세대 LED 요구사항	서울반도체 기술
공통	연색지수(CRI):90 이상, 밝기:150lm/W 이상	CdO 형광체, 18000특허
00	고전압 구동	<i>Acrich</i> Driver
조명	인간의 생체 리듬에 최적화된 자연광	SunLike
자동차	자율주행, 지능형 헤드램프	Wicop
디스플레이	명암 비, 해상도, AR/VR	Wicop mini/mc
가전 제품	NO 바이러스, 깨끗한 공기/물/표면	violeds

Semiconductor Today 게재된 기사 – WICOP 특허 소송 사례 소개

29 April 2022

필립스 TV 및 필라멘트 LED의 WICOP 기술 도용에 대한 소송





Seoul Semiconductor files patent lawsuits over Philips' TV and filament LED bulbs

South Korean LED maker Seoul Semiconductor Co Ltd says that it has launched patent infringement lawsuits in the USA against global retail company Ace Hardware and in Europe against a distributor of Conrad Electronic's sales platform.

In the two cases, which are pending in the US District Court for the Eastern District of Virginia and the German District Court of Düsseldorf, Seoul asserted infringement of its patents by Philips brand TVs, filament LED bulbs, and premium lighting products. Seoul also sought a recall of infringing products as well as the destruction of those products in the German case.

In these lawsuits, Seoul's patents cover phosphor technology for high-quality color gamut and WICOP (Wafer-level Integrated Chip on PCB) technology.

Seoul says that it has developed its phosphor technology together with a Japanese company (M) over the last 15 years and has succeeded in producing LED lights that are the closest spectrum to natural light. Based on the quality of these lights, Seoul's phosphor technology can be found in premium lighting products requiring a color rendering index (CRI) of more than 90, as well as display products.

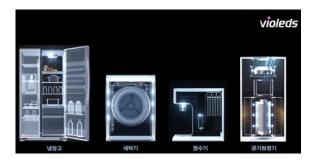
WICOP is a patented technology that is compactly designed without wire bonding or packaging, enabling LEDs to be mounted directly in a PCB assembly. The technology has been adopted in over models of 100 car (comprising about 10% of the global automobile market). The firm adds that it is also used in about 20% of the global TV market, as of 2020.

Seoul has already obtained permanent injunctions against various infringing products several times in Europe and the USA. In September 2020, the German District Court of Düsseldorf issued permanent injunctions, an order of recall and destruction against filament LED bulbs manufactured by a Phillips brand affiliate. In 2019 and 2021, the US District Court for the Central District of California and the New Jersey District Court issued permanent injunctions against the sales of a Phillips TV product and 13 automotive lighting brand LED products, respectively.

Bloomberg에 게재된 기사 – UV 특허 소송 사례 소개

19 April 2022

'바이오레즈(Violeds)'를 침해한 세미콘라이트의 제품을 사용한 기업을 상대로 한 소송에서 판매금지명령



Seoul Viosys Obtains Permanent Injunction Against UV LED Products That Infringe Violeds Patented Technology

April 19, 2022 08:00 PM Eastern Daylight Time

ANSAN, South Korea—(BUSINESS WIRE)—Seoul Viosys ("SVC") (KOSDAQ: 092190), a subsidiary of Seoul Semiconductor Co., Ltd., announced that the United States District Court for the Middle District of Florida issued a permanent injunction against Namsung America, Inc. ("Namsung"). Namsung sold home electronics incorporating UV LEDs manufactured and supplied by SL Vionics Co., Ltd. (previously known as Semicon Light).

"There are companies that seek to increase their profits by using other companies' patented technology. This is not only immoral, but it seeks to cheat inventors everywhere who have invested and believed in their ideas."



Prior to the lawsuit, Namsung ignored repeated notices of patent infringement from SVC. Since 2020, SVC has been requesting that companies stop selling SL Vionics' LED products. SVC believes that SL Vionics' LED products infringe SVC's proprietary Violeds technology, which SVC invented and has been utilizing to produce its UV LED products. When Namsung continued selling products after notice from SVC, SVC filed this lawsuit, which asserted infringement of eleven (11) patents.

The Court's permanent injunction order applies to any colorable variations of the infringing products, as well as any parties who are in active concert or participation with making or selling such products.

SVC's CEO, Young-joo Lee, said, "There are companies that seek to increase their profits by using other companies' patented technology. This is not only immoral, but it seeks to cheat inventors everywhere who have invested and believed in their ideas."

In order to protect its hard-earned technology and promote a fair marketplace, SVC actively pursues enforcement against suspected infringing UV LED products all over the world. As an example, SVC recently brought a search and seizure of suspected infringing products against FNAC Darty Group, a large European retailer, and subsequently filed a patent infringement lawsuit in France. SVC also filed a patent infringement lawsuit against a European distribution company in the Netherlands, seeking a preliminary injunction against its UV LED products.

III. Appendix_4) 재무현황

재무상태표

(단위 : 억원)

주요지표

(단위 : %, 일)

	Q3'21	Q4'21	Q1'22	Q2'22	Q3'22
자산	7,831	7,756	7,875	8,162	8,359
유동자산	2,298	2,192	2,133	2,234	2,204
현금 등가용	100	98	54	162	49
재고자산	965	1,002	1,009	1,133	1,068
비유동자산	5,534	5,564	5,742	5,928	6,156
부채	5,103	5,183	5,432	5,748	6,081
유동부채	3,106	2,690	2,924	3,121	3,012
비유동부채	1,997	2,493	2,508	2,628	3,069
자본	2,729	2,574	2,442	2,413	2,279
차입금	2,976	3,199	3,210	3,454	3,596
순차입금	2,876	3,101	3,156	3,292	3,547

	Q3'21	Q4'21	Q1'22	Q2'22	Q3'22
유동비율	74.0%	81.5%	72.9%	71.6%	73.2%
	187%	201%	222%	238%	267%
부채비율 (순차입율)	105%	120%	129%	136%	156%
	•				
재고자산 회전일	75	90	95	89	98

III. Appendix_5) 요약재무제표

(단위 : 억원)

																	\ 	1 – /
구분 (단위: 억원)	2022 Q3	Q2	Q1	2021 Q4	Q3	Q2	Q1	2020 Q4	Q3	Q2	Q1	2019 Q4	Q3	연도 2021	2020	2019	2018	2017
[손익계산서]																		
매출액	1,053	1,165	956	1,052	1,306	1,312	1,218	1,205	1,207	1,032	869	915	907	4,887	4,313	3,506	3,864	3,867
매출원가	1,029	1,090	950	998	1,072	1,059	947	960	990	807	711	703	729	4,075	3,467	2,808	3,053	3,160
매출원가율	98%	94%	99%	95%	82%	81%	78%	80%	82%	78%	82%	77%	80%	83%	80%	80%	79%	82%
매출총이익	24	75	6	54	234	253	271	245	217	225	158	213	177	812	846	698	811	707
매출총이익율	2%	6%	1%	5%	18%	19%	22%	20%	18%	22%	18%	23%	20%	17%	20%	20%	21%	18%
판관비	194	160	160	163	140	141	145	154	122	165	132	143	150	589	573	596	644	413
영업이익	(171)	(85)	(154)	(109)	93	112	126	91	95	61	27	70	27	223	272	103	167	294
영업이익율	-16%	-7%	-16%	-10%	7%	9%	10%	8%	8%	6%	3%	8%	3%	4.6%	6.3%	2.9%	4.3%	7.6%
세전이익	(270)	(163)	(174)	(132)	96	94	137	36	63	61	9	9	42	195	168	29	49	170
당기순이익	(297)	(127)	(133)	(112)	93	91	137	66	64	65	2	11	31	209	195	15	36	130

[재무상태표]

자산총계	8,359	8,162	7,875	7,756	7,831	7,252	6,604	5,829	6,083	6,023	6,029	5,791	5,554	7,756	5,828	5,791	5,554	5,584
유동자산	2,204	2,234	2,133	2,192	2,298	2,220	1,959	1,379	1,595	1,563	1,567	1,380	1,094	2,192	1,379	1,380	1,094	1,171
현금 및 현금성 자산	49	162	54	98	100	102	118	69	75	31	53	63	93	98	69	63	93	44
재고자산	1,068	1,133	1,009	1,002	965	790	706	641	747	745	677	549	556	1,002	641	549	556	480
비유동자산	6,156	5,928	5,742	5,564	5,534	5,032	4,645	4,449	4,488	4,460	4,462	4,411	4,461	5,564	4,449	4,411	4,461	4,413
부채총계	6,081	5,748	5,432	5,183	5,103	4,719	4,121	3,635	3,936	3,920	3,994	3,916	3,932	5,183	3,636	3,916	3,932	4,006
유동부채	3,012	3,121	2,924	2,690	3,106	3,101	3,343	2,975	2,765	2,721	2,877	2,741	2,583	2,690	2,976	2,741	2,583	2,916
비유동부채	3,069	2,628	2,508	2,493	1,997	1,618	778	660	1,171	1,200	1,118	1,175	1,349	2,493	660	1,175	1,349	1,090
자본총계	2,279	2,413	2,442	2,574	2,729	2,533	2,483	2,193	2,147	2,103	2,035	1,875	1,623	2,574	2,192	1,875	1,623	1,578

"인고의 세월 뒤 폭풍성장, 새로운 비상"



"저희는 끊임없는 연구개발과 지적재산권 존중을 통해 얻어진 우리의 성공 스토리가 꿈을 위해 도전하는 대한민국 젊은이들에게 희망을 줄 수 있는 모델이 되고 싶습니다."