IR Presentation
2021년 2Q

2021년 2Q 경영실적 & 2021년 3Q 전망

OE SOLUTIONS

August 2021

OE Solutions IR

Disclaimer

본 자료는 투자자들에게 정보 제공하기 위한 목적으로 (주)오이솔루션(이하"회사")에 의해 작성되었으며 이의 반출, 복사 또는 타인에 대한 재 배포는 금지됨을 알려드리는 바입니다.

본 자료의 열람 또는 수취는 위와 같은 제한 사항의 준수에 대한 동의로 간주될 것이며, 제한 사항에 대한 위반은 관련 증권거래 법률에 대한 위반에 해당될 수 있음을 유념해주시기 바랍니다.

본 자료에 포함된 "예측정보"는 개별 확인 절차를 거치지 않은 정보들입니다. 이는 과거가 아닌 미래의 사건과 관계된 사항으로 회사의 향후 예상되는 경영현황 및 재무실적을 의미하고, 표현상으로는 '예상', '전망', '계획', '기대', '(E)' 등과 같은 단어를 포함합니다.

위 "예측정보"는 향후 경영환경의 변화 등에 따라 영향을 받으며, 본질적으로 불확실성을 내포하고 있는 바, 이러한 불확실성으로 인하여 실제 미래 실적은 "예측정보"에 기재되거나 암시된 내용과 중대한 차이가 발생할 수 있습니다.

또한, 향후 전망은 Presentation 실시일 현재를 기준으로 작성된 것이며 현재 시장상황과 회사의 경영방향 등을 고려한 것으로 향후 시장환경의 변화와 전략수정 등에 따라 변경될 수 있으며, 별도의 고지 없이 변경 될 수 있음을 양지하시기 바랍니다.

본 자료의 활용으로 인해 발생하는 손실에 대하여 회사 및 회사의 임원들은 그 어떠한 책임도 부담하지 않음을 알려드립니다. (과실 및 기타의 경우 포함)

본 문서는 주식의 매매를 위한 권유를 구성하지 아니하며 문서의 그 어느 부분도 관련 계약 및 약정 또는 투자 결정을 위한 기초 또는 근거가 될 수 없음을 알려드립니다.

OE SOLUTIONS

Table of Contents

1. 2021년 2Q 경영실적 Review

2. 국내외 5G 무선통신 Business 전망

3. OE Solutions Vision & Strategy

4. 3Q Guidance

5. Appendix

OE SOLUTIONS

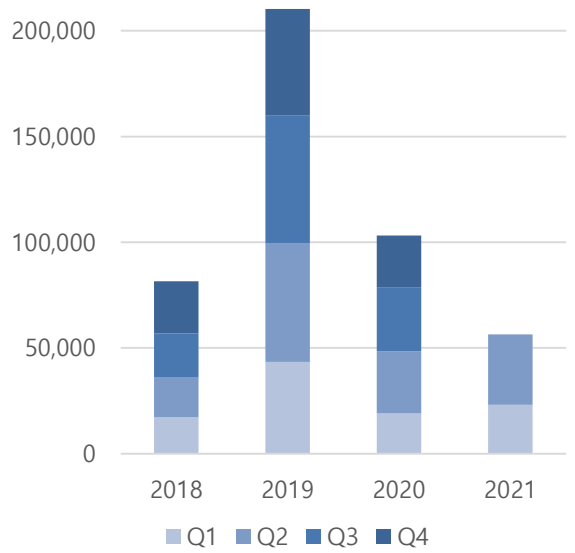
2021년 2Q 경영실적 Review

OE SOLUTIONS

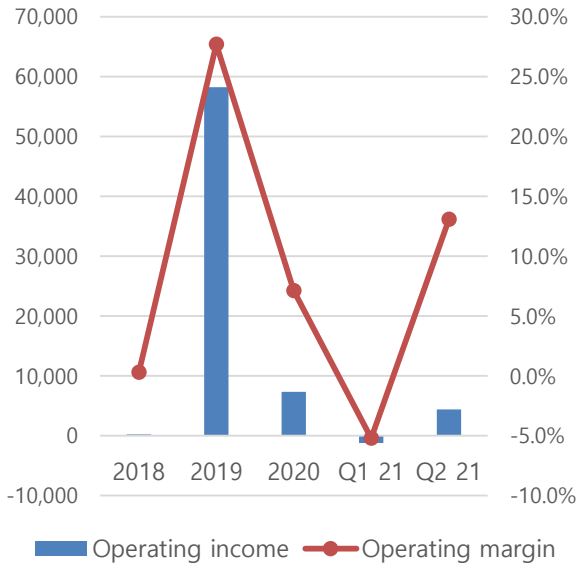
Financial Results

2021년 2Q 매출 334억원, 영업이익 44억원(13%), 당기순이익 61억원(18%)

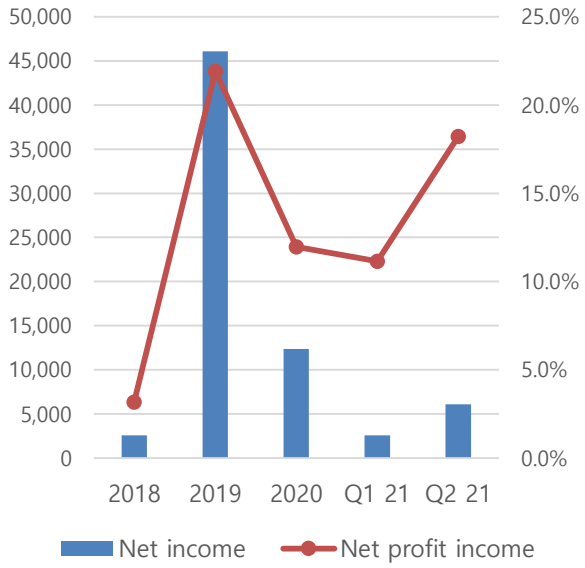
Revenue



Operating income



Net income



※ 연결 기준임

(단위: 백만원)

구 분	2018	2019	2020	Q1 21	Q2 21
• 매출액	81,504	210,283	103,178	23,068	33,397
• 영업이익	234	58,262	7,333	-1,203	4,370
• 영업이익율	0.3%	27.7%	7.1%	-5.2%	13.1%
• 당기순이익	2,584	46,065	12,352	2,573	6,085
• 당기순이익율	3.2%	21.9%	12.0%	11.2%	18.2%

© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

OE SOLUTIONS

Financial Results

2021년 2Q 매출 334억원

QoQ 44.8%, YoY 13.7%

(단위: 백만원)

구 분	Q1 21	Q2 21	%	QoQ	Q2 20	YoY
매출액	**23,068**	**33,397**		**44.8%**	29,378	13.7%
매출총이익	**8,345**	**14,018**	**42.0%**	68.0%	12,638	10.9%
판매관리비	**9,548**	**9,648**	**28.9%**	1.0%	8,462	14.0%
영업이익	**-1,203**	**4,370**	**13.1%**	**463.4%**	4,176	4.7%
경상이익	**-443**	**6,457**	**19.3%**	1556.6%	4,107	57.2%
당기순이익	**2,573**	**6,085**	**18.2%**	**136.5%**	3,798	60.4%

※ 상기 실적은 연결 기준임

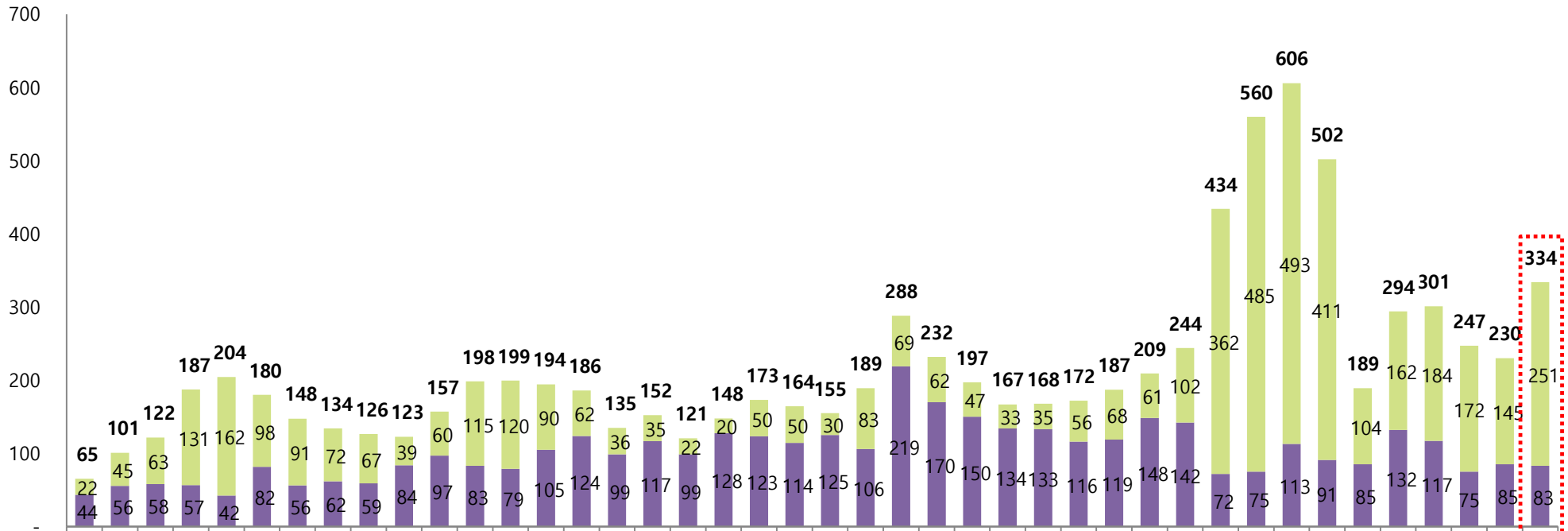
© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

OE SOLUTIONS

분기별 매출 추이

2021년 COVID-19 델타 변이 등의 영향으로 글로벌 5G 인프라 지속적인 확장 제한적
2022년 Global 5G 투자 본격화될 것으로 기대

(단위: 억원)



	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
	2011				2012				2013				2014				2015				2016				2017				2018				2019				2020				2021	
Total	65	10	12	18	20	18	14	13	12	12	15	19	19	19	18	13	15	12	14	17	16	155	189	288	232	197	167	168	172	187	209	244	434	560	606	502	189	294	301	247	230	334
Korean	22	45	63	13	16	98	91	72	67	39	60	11	12	90	62	36	35	22	20	50	50	30	83	69	62	47	33	35	56	68	61	102	36	48	49	411	10	16	18	172	14	25
Export	44	56	58	57	42	82	56	62	59	84	97	83	79	10	12	99	11	99	12	12	11	12	10	21	17	15	13	133	11	11	14	142	72	75	11	91	85	13	11	75	85	83

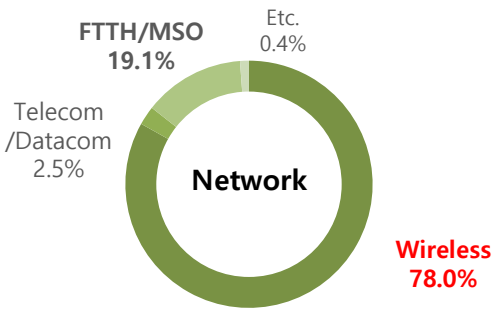
※ 상기 실적은 별도 기준임

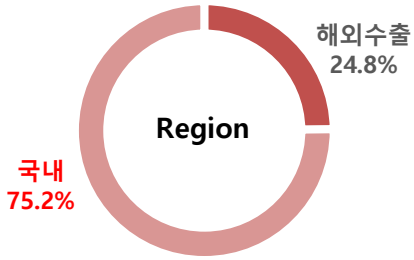
© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

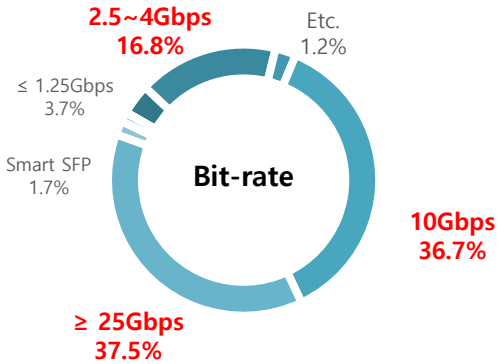
OE SOLUTIONS

매출분석

Global 5G 매출 확대 Wireless 83% 비중 차지







(단위: 억원)

구 분	1Q 2021	2Q 2021	QoQ (%)
응용산업별			
• Wireless	179.6	277.8	54.7%
• Telecom/Datacom	5.7	8.3	45.6%
• FTTH/MSO	44.1	44.2	0.2%
• etc.	1	3.9	290.0%
지역별			
• 국내	145.2	251.2	73.0%
• 해외	85.2	83.0	-2.6%
해외수출 비중	37.0%	24.8%	
전송속도별			
• ≤1.25Gbps	9	12.4	37.8%
• 2.5~4Gbps	52.1	56	7.5%
• 5~6Gbps	5.4	8.3	53.7%
• 10Gbps	101.4	122.6	20.9%
• ≥25Gbps	53.8	125.4	133.1%
• Smart SFP	7.7	5.6	-27.3%
• Component / Chip	1.0	3.9	275.0%
• 기타 (상품 등)			
총 계	230.4	334.2	45.0%

※ 상기 실적은 별도 기준임

© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

국내외 5G 무선 통신 Business 전망

OE SOLUTIONS

국내외 5G 모바일 통신 Business 전망

5G Network Supply chain

Telecommunication Carriers

LG U+, kt, SK telecom, verizon, AT&T, T-Mobile, Sprint, NTT docomo, KDDI

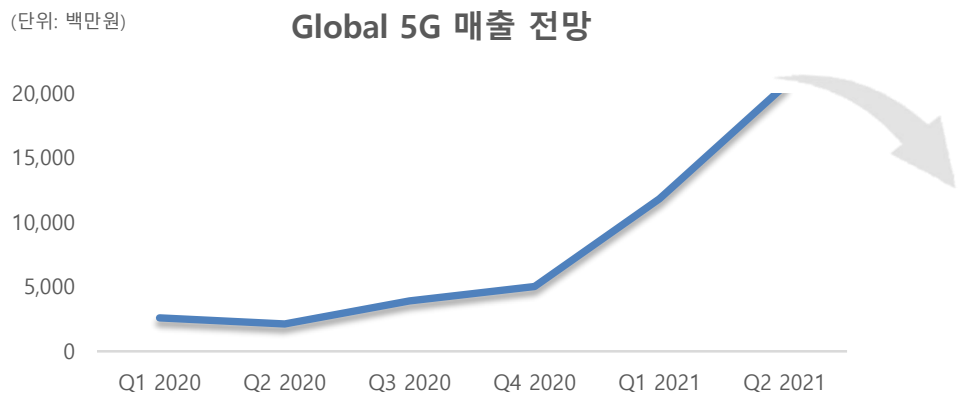
Network Equipment

SAMSUNG, NOKIA, ERICSSON, FUJITSU, NEC

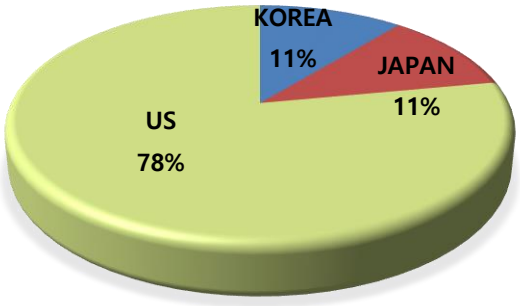
OE SOLUTIONS

Global 5G Revenue Forecast

하반기 Global(US, Japan 등) 5G 매출 소폭 감소될 것으로 전망



2Q 5G Revenue



(단위: 백만원)

Region	Operator	Revenue	%
US	Verizon	18,026	78%
JAPAN	KDDI	2,554	11%
	NTT docomo		
KOREA	KT	2,537	11%
	LG U+		
	SKT		
Total		23,117	

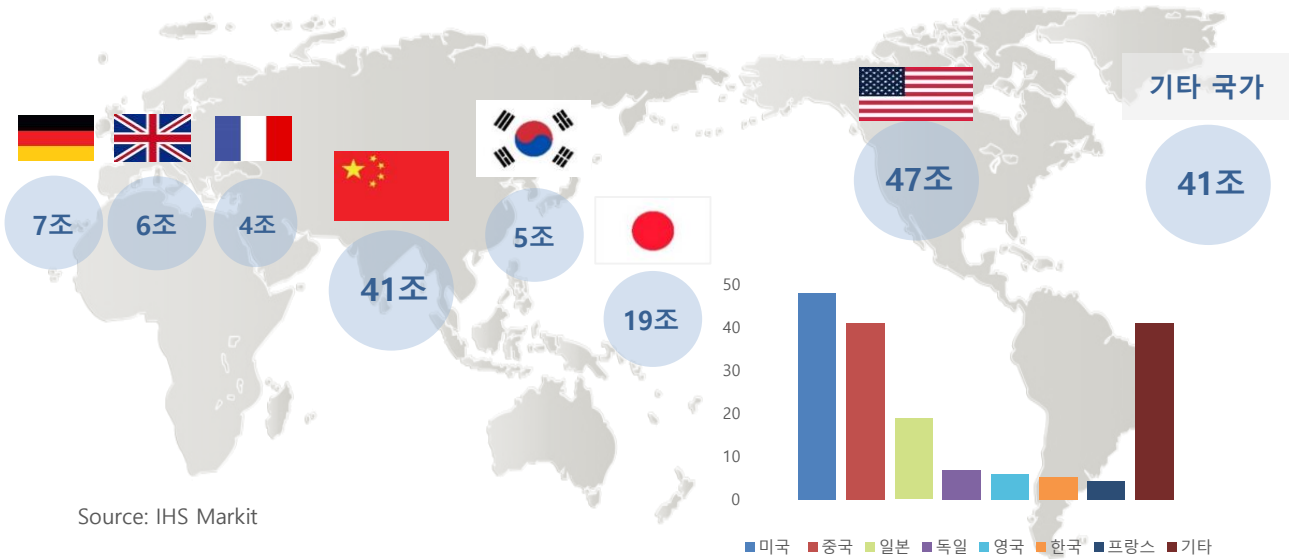
© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

OE SOLUTIONS

국내외 5G 무선통신 Business 전망

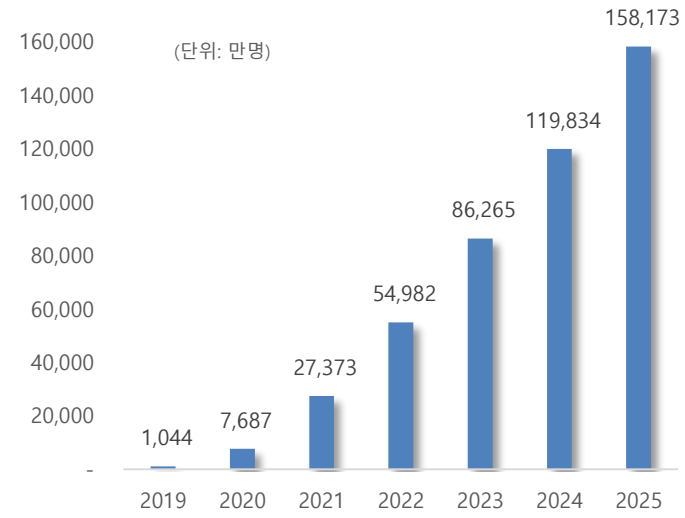
5G Market Forecast

5G Infra 장비투자 전망
- 5개년 평균치



Source: IHS Markit

Global 5G 가입자 전망



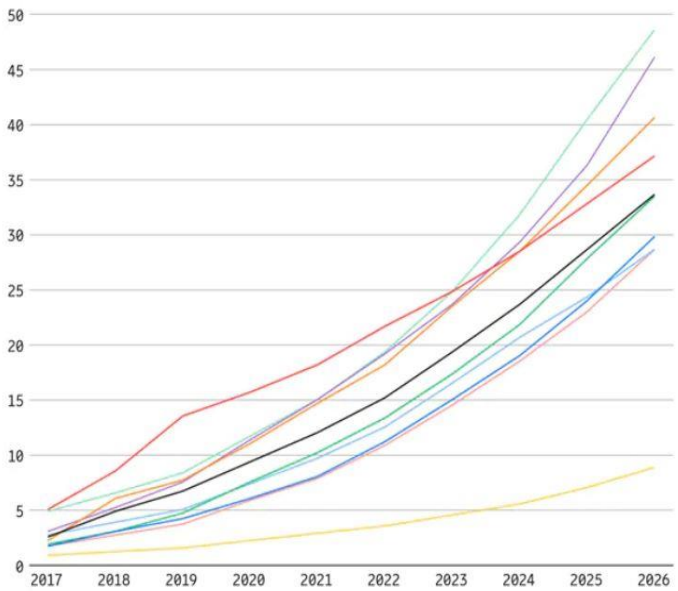
Source: IHS Markit

© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

국내외 5G 무선통신 Business 전망

Data traffic

Global Mobile data traffic outlook

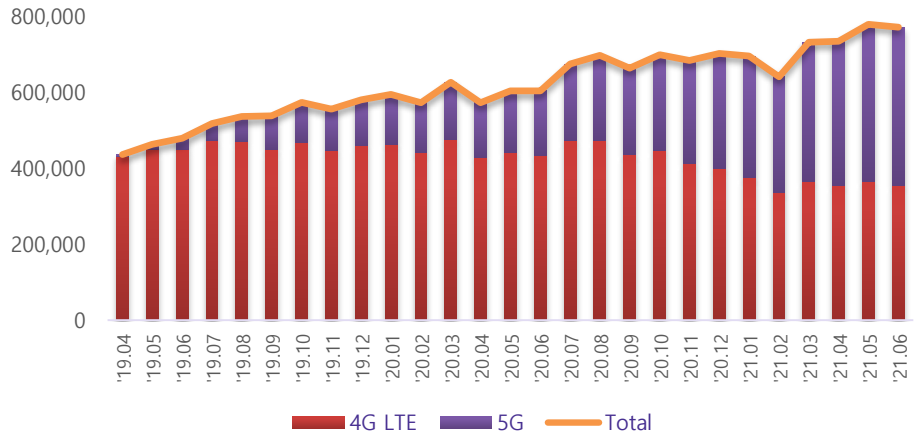


Regions	2020	2026	CAGR 2020–2026
North America	11.8	49	27%
Western Europe	11.3	46	26%
North East Asia	11.1	41	24%
India	15.7	37	15%
Global average	9.4	34	24%
South East Asia and Oceania	7.6	33	28%
Middle East and North Africa	6.0	30	30%
Central and Eastern Europe	7.3	29	26%
Latin America	5.8	29	30%
Sub-Saharan Africa	2.2	8.9	26%

Figure 13: Mobile data traffic per smartphone (GB per month)

(Source: Ericsson)

국내 Mobile Data traffic 현황



(Source: 과학기술정보통신부)

© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

OE SOLUTIONS

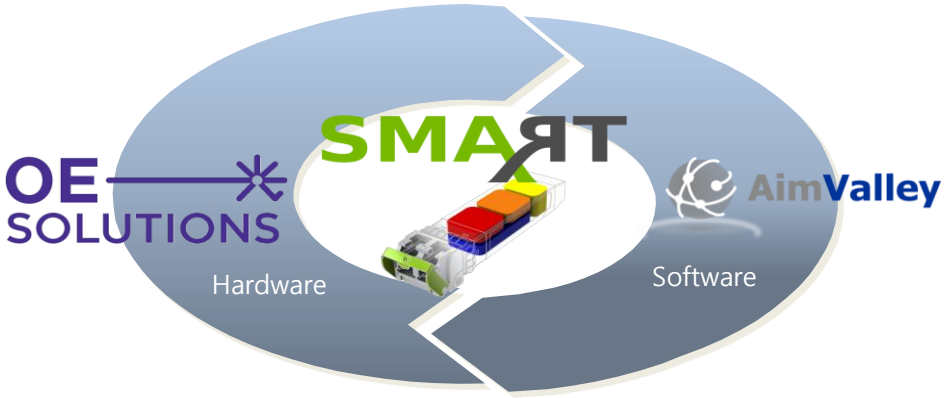
OE Solutions Vision & Strategy

OE SOLUTIONS

Unique Products-Smart Transceivers

World's First Leading Technology Smart Transceiver

Smart Transceiver



Product Features

Smart 트랜시버란?

통신시스템을 통해 구현되는 기능을 트랜시버에 탑재하여 **저비용· 고효율**로 네트워크 Migration 구축이 가능하게 하는 제품으로

OE Solutions/AimValley의

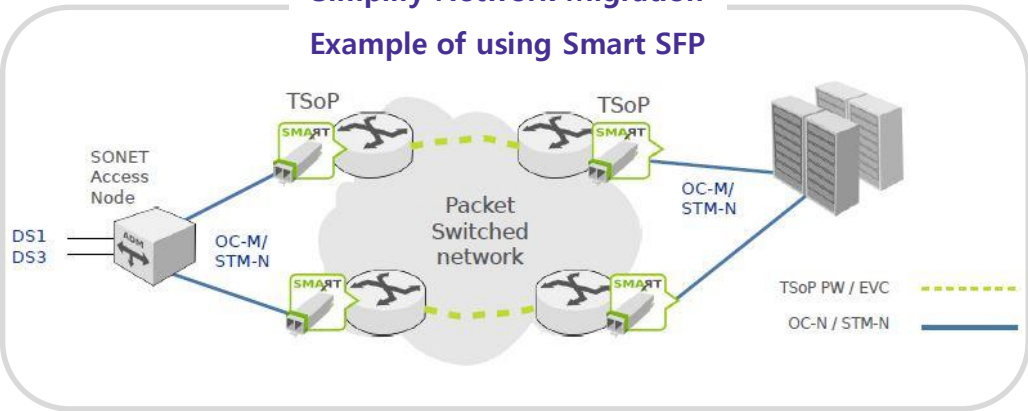
세계최초 독자 기술

Global Tier 1 고객들과 긍정적인 설계 진행

- CISCO, Nokia, Juniper, Ciena, ADVA 등

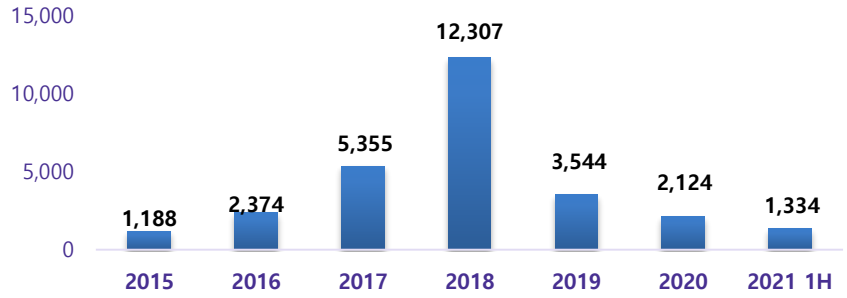
Simplify Network Migration

Example of using Smart SFP



(Unit: million KRX)

Smart Transceiver Revenue



© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

Vision & Strategy

Business 확대

As-is

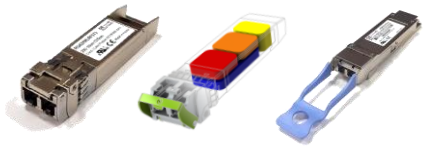
SUBSTRATE → EPITAXY → DEVICE → TRANSCEIVER → EQUIPMENT → OPERATOR

To be

Optical Component

- 2020년 Optical Component 국산화 양산 예정
- 10G/25G/100G 자사 Transceiver 내재화
- 중국 5G / Cloud Data center 시장 판매
- 높은 수익성 기대
- In-house capability를 통한 원가 경쟁력, 수급 안정화, 고객 맞춤형 개발 등
- Road map : 10G DML, 25G DFB, 25G EML, Tunable Chip
- 25G EML : Joint with ETRI

Transceiver

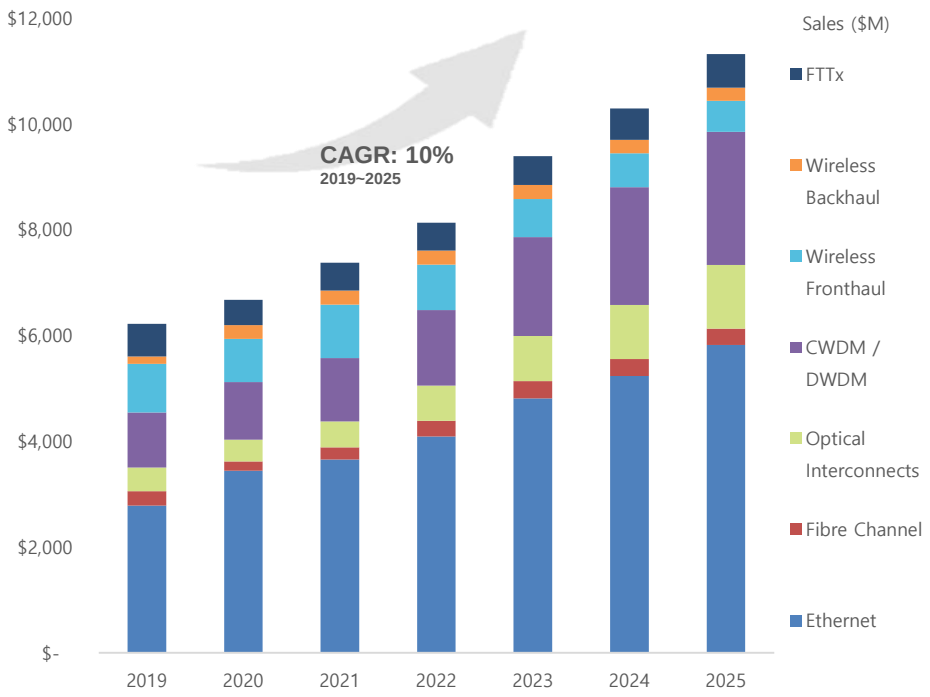


- Global 5G Transceiver line-up 구축
- 자사 Component 사용을 통한 경쟁력 확보
- High bit-rate Transceiver 개발을 통한 다양한 Network Target 제품 출시
- New Product in the second half
  - · 50Gbps, 100Gbps, 400Gbps PAM4 for wireless and Data Center interconnector
  - · 10Gbps Tunable Transceiver for WDM
  - · Digital Coherent TRx for 100Gbps >100km

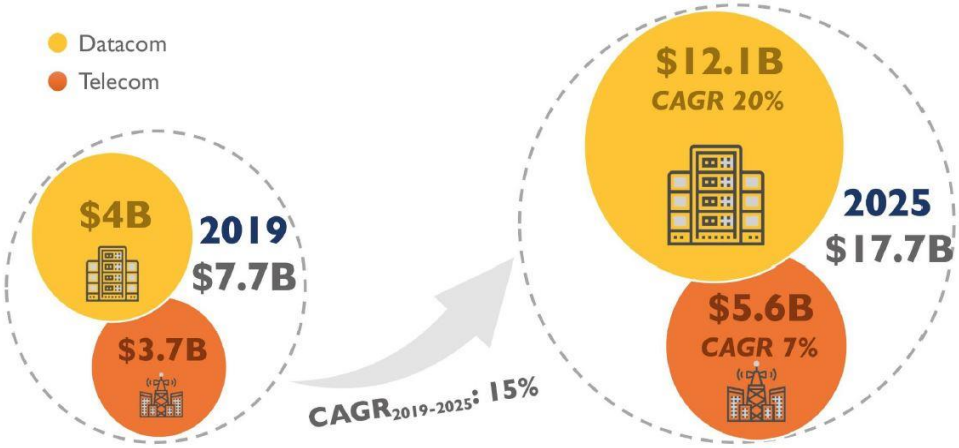
© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

Data 연결이 필요한 고성능 인프라 투자에 의한 Transceiver 수요 지속적인 증가

Transceiver Market Forecast



Source : LightCounting, 2020 October Report



Source : Yole Developpement, 2020

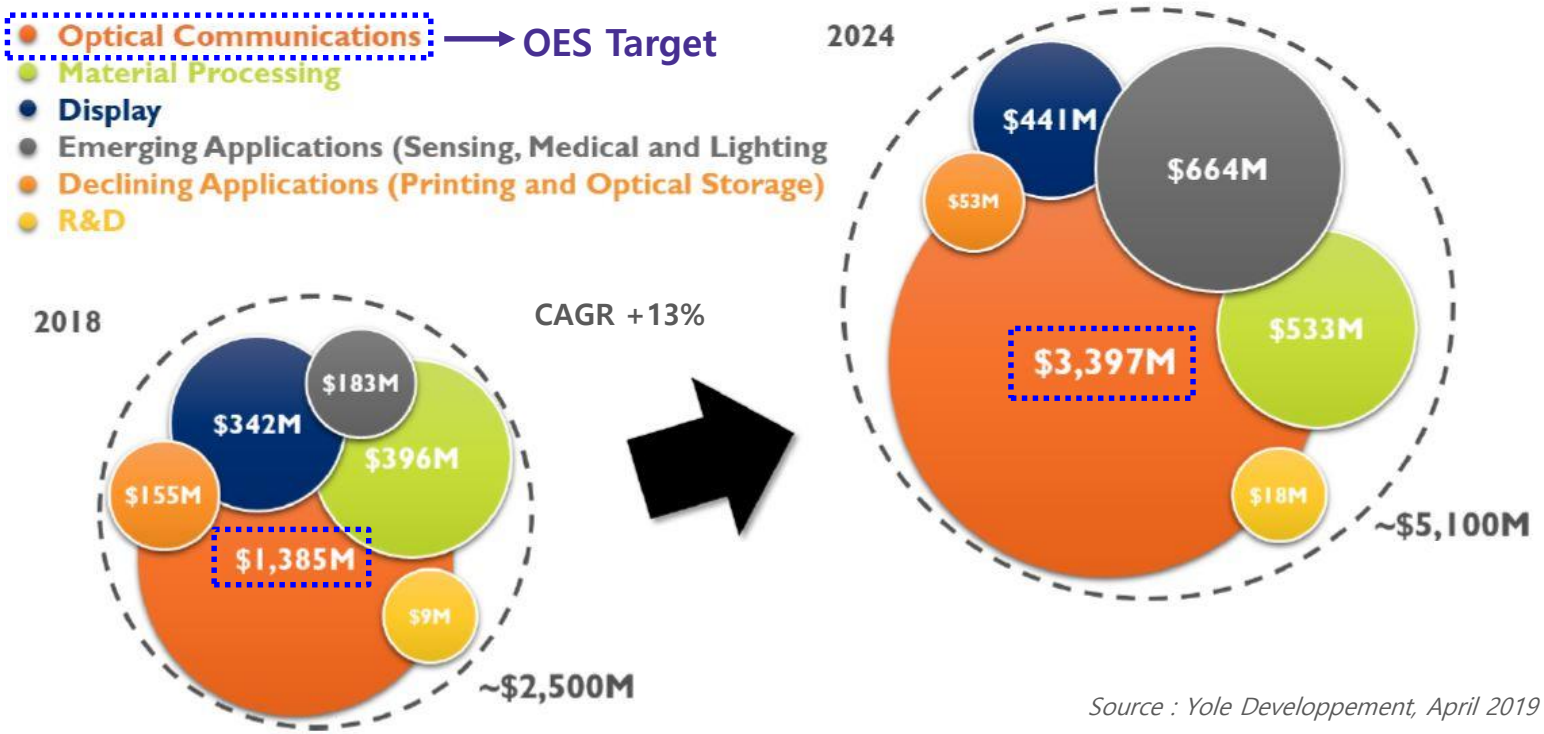
© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

Vision & Strategy for OES's Semiconductor Laser Diode Chip

Edge Emitting Lasers 기술을 통해 Optical Communication 시장 Target
EEL 기술 여러 사업으로 확장 가능성 존재함

***EEL Market**

**EEL : Edge Emitting Lasers*



Source : Yole Developpement, April 2019

© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

OE SOLUTIONS

3Q Guidance

OE SOLUTIONS

3Q Guidance

2021년 3Q 220억 매출 예상

YoY -27%, QoQ -34% 하락

Quarterly Guidance

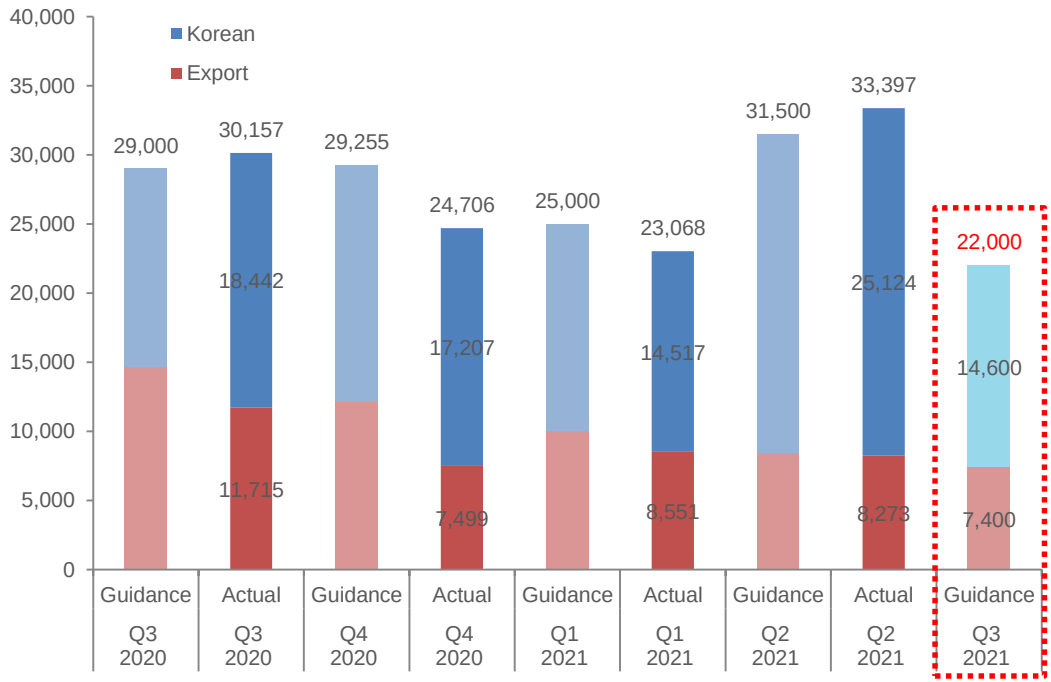
(단위: 백만원)

	Q3 2020 Actual	Q4 2020 Actual	Q1 2021 Actual	Q2 2021 Actual	Q3 2021 Guidance
Revenue (Sales)	30,157	24,706	23,068	33,397	**22,000**
Domestic	18,442	17,207	14,517	25,124	**14,600**
Export	11,715	7,499	8,551	8,273	**7,400**

※ 연결기준이며, 당사 2021년 8월 기준 전망치

Quarterly Trends

(단위: 백만원)



© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

Appendix

- Company Introduction
- Financials

OE SOLUTIONS

About OE Solutions

회사개요

회사명	주식회사 오이솔루션	**설립일**	2003년 8월 7일
종업원	**470명** (한국: 447명 / 미국: 19명 / 일본: 4명)	**상장일**	2014년 2월 27일 (KOSDAQ code : 138080)
주제품	통신용 모듈 (광 트랜시버)	**홈페이지**	www.oesolutions.com
소재지	**한국)** 광주 북구 첨단연신로 30번길 53 / 경기도 안양시 동안구 학의로 282 금강펜테리움 IT타워 B동 1619호		

('21년 07/31 기준)

Locations - 글로벌 영업 및 R&D

AimValley

OE SOLUTIONS

Hilversum, Netherlands
- Europe Headquarter
- Europe Sales
- Smart and system R&D

Gwangju, Korea
- Global Headquarter
- Manufacturing
- R&D

Seoul (Anyang), Korea
- Korea Sales
- R&D

Seoul (Suwon), Korea
- Korea Sales
- Engineering Support

Taipei, Taiwan
- China Sales
- Engineering Support

Tokyo, Japan
- Japan Sales
- Engineering Support

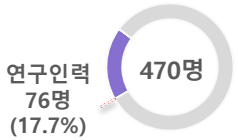
Ridgefield Park, NJ, USA
- US Headquarter
- US (East Coast) Sales
- Engineering Support

Irvine, CA, USA
- R&D

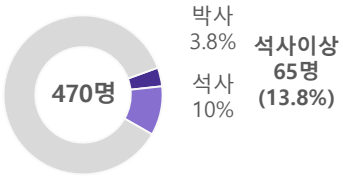
Santa Babara, CA, USA
- R&D

R&D 직원 및 투자 현황

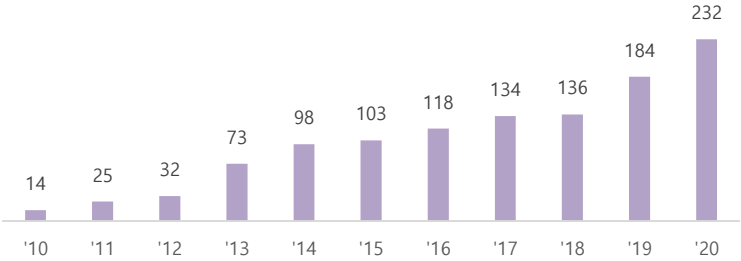
< 부문별 >



< 학력별 >



(단위: 억원)



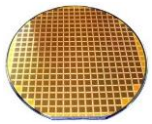
* 자회사 포함

© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

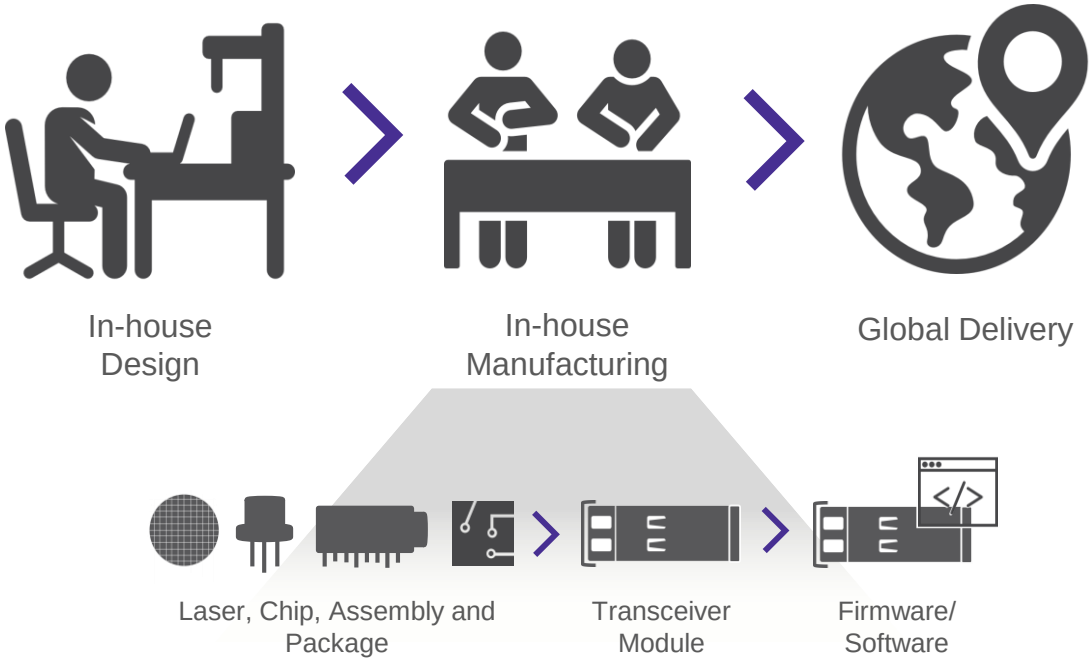
OE SOLUTIONS

OE Solutions – A Global Supplier of Transceivers

Leading Supplier of High-Reliability Optical Components for Challenging Deployment Environments

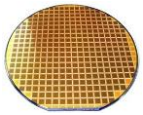
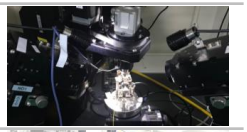


- Leading supplier of optical components since 2003
- Founded by a team of Bell Labs and Samsung veterans
- Traded on KOSDAQ since 2014
- Key supplier to tier-1 MSO and Wireless OEMs
- Serving global customer in over 50 countries
- Leading supplier of BIDI and I-Temp Optics
- Leading supplier of Smart SFPs (co-developed with AimValley)
- Vertically integrated production
- In-house production in Gwangju, S. Korea factory
- R&D sites in Korea, USA and the Netherlands



© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

Vertical Integration

Manufacturing Process			Manufacturing Technology	
Chip		Laser Diode Photo Diode	Epitaxy / Fabrication / Wafer Characterization	
Assembly		TO/ XMD (Cooled/ Uncooled)	Die Bonding, Wire Bonding, Seam Sealing, Burn-in, DC/AC Test	
Package		OSA (TOSA/ ROSA/ BOSA)	Laser welding, Epoxy bonding, DC/AC Test	
Circuit / Module		Transceiver (Tuning & Test)	Auto Soldering / Auto Tuning / Test	
Firmware / Software		Sub-system (Network Migration & Self-Monitoring Technology)	Co-developed with AimValley, a networking technology expert in Netherlands	
Production		Own manufacturing, assembly & testing facility	Low cost, flexible production	

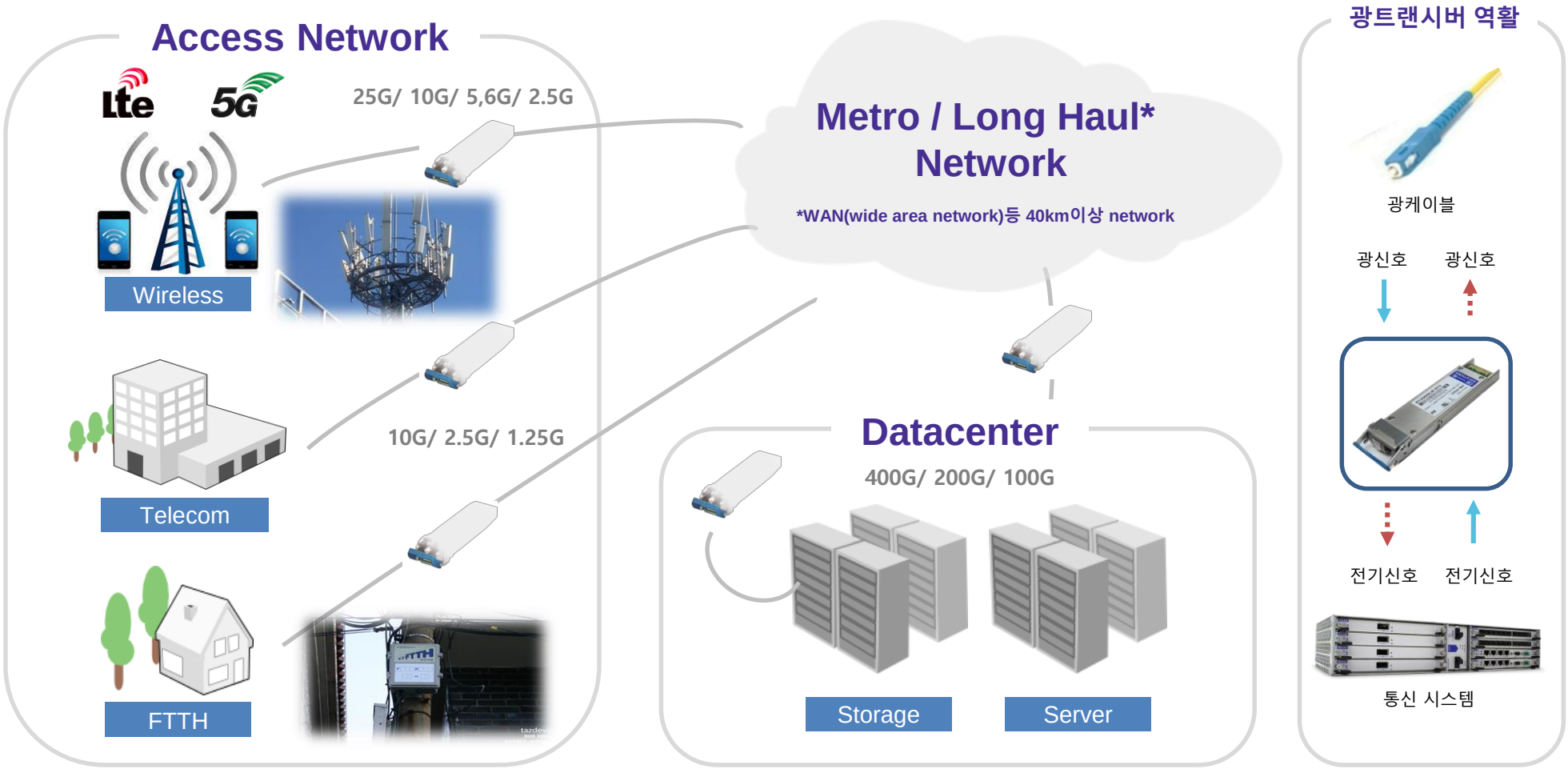
© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

OE SOLUTIONS

Products Application

통신 네트워크 내 트랜시버 응용 분야

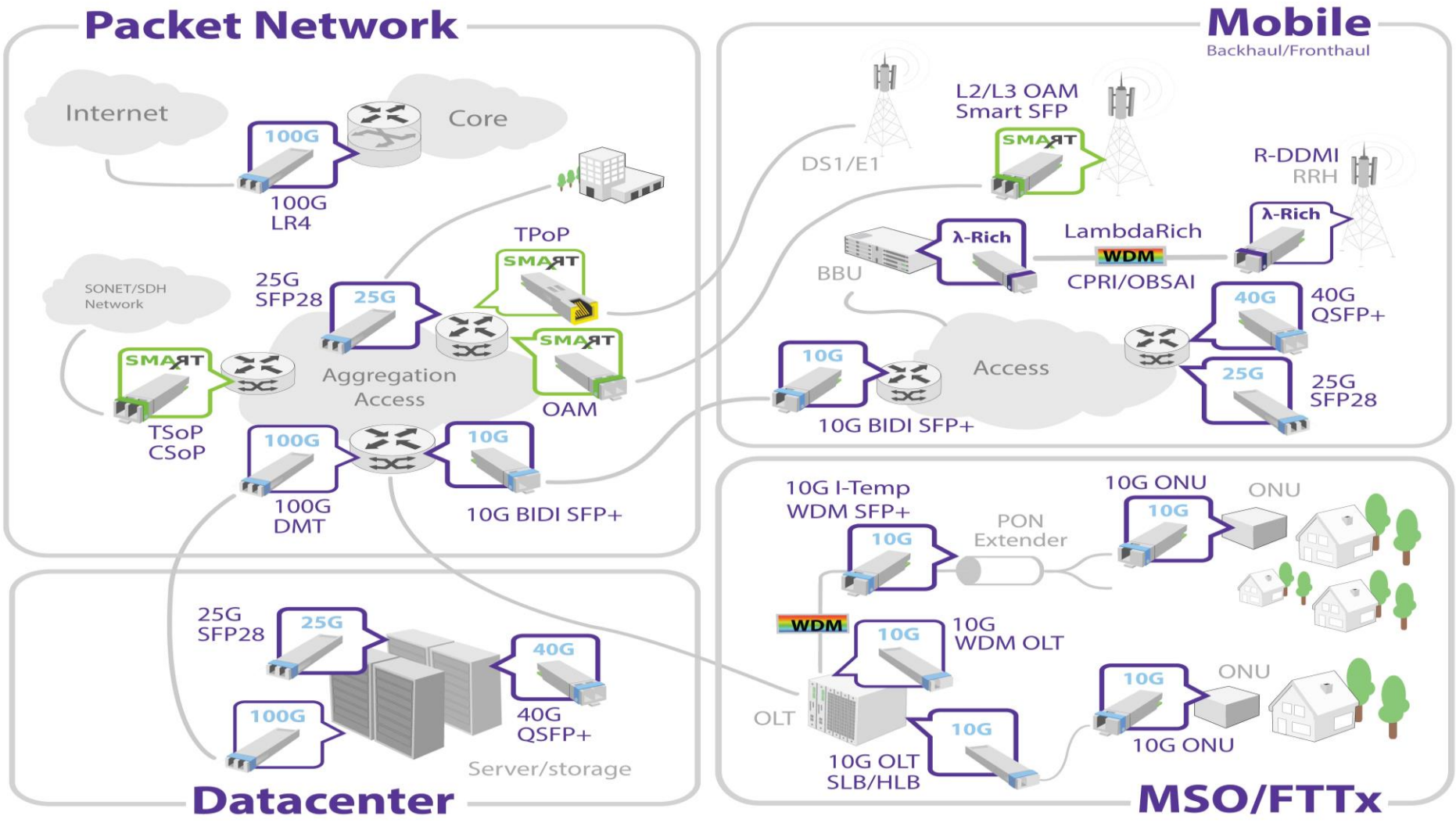
네트워크 연결 시 필수인 광 트랜시버



© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

OE SOLUTIONS

Key Application Areas



© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

OE SOLUTIONS

요약 손익계산서

연결

(단위: 백만원)

	2018	2019	2020	2021	
				1Q	2Q
매출액	**81,504**	**210,283**	**103,178**	**23,068**	**33,397**
매출원가	54,106	122,835	62,686	14,722	19,380
매출총이익	27,398	87,448	40,492	8,345	14,018
판매관리비	27,164	29,186	33,159	9,548	9,648
영업이익	**234**	**58,262**	**7,333**	**-1,203**	**4,370**
법인세차감전 순이익	1,951	58,388	6,699	-443	6,457
당기순이익	**2,584**	**46,065**	**12,352**	**2,573**	**6,085**

* K-IFRS 기준

별도

(단위: 백만원)

	2018	2019	2020	2021	
				1Q	2Q
매출액	**81,406**	**210,242**	**103,172**	**23,039**	**33,423**
매출원가	54,117	122,835	62,686	14,722	19,380
매출총이익	27,289	87,407	40,486	8,317	14,043
판매관리비	26,925	28,533	33,180	9,714	9,649
영업이익	**364**	**58,874**	**7,305**	**-1,397**	**4,395**
법인세차감전 순이익	1,945	59,436	6,990	-625	5,695
당기순이익	**2,641**	**47,026**	**12,227**	**2,390**	**5,352**

© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

요약 재무상태표

연결

(단위: 백만원)

	2018	2019	2020	2021	
				1Q	2Q
유동자산	57,027	137,422	129,808	129,878	118,317
현금및현금성자산	11,073	44,259	40,068	35,829	36,938
매출채권	18,969	33,138	14,847	14,454	10,543
재고자산	19,740	24,222	22,484	27,813	33,452
비유동자산	42,125	46,945	65,377	68,992	86,295
유형자산	30,476	30,161	39,269	39,938	41,066
무형자산	782	738	746	754	732
자 산 총 계	**99,152**	**184,367**	**195,184**	**198,870**	**204,612**
유동부채	25,369	42,847	45,749	49,841	49,446
단기차입금	19,400	27,000	36,000	36,000	36,000
비유동부채	5,736	2,211	2,455	2,602	2,640
부 채 총 계	**31,105**	**45,059**	**48,204**	**52,443**	**52,086**
자본금	3,870	5,312	5,312	5,312	5,312
주식발행초과금	26,969	52,031	52,002	52,002	52,002
이익잉여금	34,868	79,731	87,511	86,900	92,985
자 본 총 계	**68,047**	**139,308**	**146,981**	**146,427**	**152,526**

별도

(단위: 백만원)

	2018	2019	2020	2021	
				1Q	2Q
유동자산	55,790	136,299	127,504	127,904	116,319
현금및현금성자산	10,227	42,423	34,557	32,788	31,540
매출채권	18,299	33,096	18,137	14,804	12,368
재고자산	19,740	24,222	22,484	27,811	33,452
비유동자산	41,993	46,416	65,055	68,730	86,005
유형자산	30,119	29,192	38,592	39,314	40,518
무형자산	54	36	18	14	9
자 산 총 계	**97,783**	**182,715**	**192,559**	**196,634**	**202,324**
유동부채	26,119	43,065	44,794	49,529	49,827
단기차입금	19,400	27,000	36,000	36,000	36,000
비유동부채	5,643	1,676	2,164	2,300	2,339
부 채 총 계	**31,761**	**44,740**	**46,959**	**51,828**	52,166
자본금	3,870	5,312	5,312	5,312	5,312
주식발행초과금	26,969	52,031	52,002	52,002	52,002
이익잉여금	32,638	78,461	86,116	85,322	90,674
자 본 총 계	**66,022**	**137,975**	**145,600**	**144,806**	**150,158**

© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

Condensed income statement

Consolidated

(Unit : million KRW)

	2018	2019	2020	2021	
				1Q	2Q
Revenue (Sales)	**81,504**	**210,283**	**103,178**	**23,068**	**33,397**
Cost of sales	54,106	122,835	62,686	14,722	19,380
Gross margin	27,398	87,448	40,492	8,345	14,018
Operating expenses	27,164	29,186	33,159	9,548	9,648
Operating income(loss)	**234**	**58,262**	**7,333**	**-1,203**	**4,370**
Profit (loss) before tax	1,951	58,388	6,699	-443	6,457
Net income	**2,584**	**46,065**	**12,352**	**2,573**	**6,085**

* K-IFRS 기준

Separate standards

(Unit : million KRW)

	2018	2019	2020	2021	
				1Q	2Q
Revenue (Sales)	**81,406**	**210,242**	**103,172**	**23,039**	**33,423**
Cost of sales	54,117	122,835	62,686	14,722	19,380
Gross margin	27,289	87,407	40,486	8,317	14,043
Operating expenses	26,925	28,533	33,180	9,714	9,649
Operating income(loss)	**364**	**58,874**	**7,305**	**-1,397**	**4,395**
Profit (loss) before tax	1,945	59,436	6,990	-625	5,695
Net income	**2,641**	**47,026**	**12,227**	**2,390**	**5,352**

© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

OE SOLUTIONS

Condensed statement of financial position

Consolidated

(Unit : million KRW)

	2018	2019	2020	2021	
				1Q	2Q
Current assets	57,027	137,422	129,808	129,878	118,317
Cash and cash equivalents	11,073	44,259	40,068	35,829	36,938
Accounts receivable	18,969	33,138	14,847	14,454	10,543
Inventory asset	19,740	24,222	22,484	27,813	33,452
Non-current assets	42,125	46,945	65,377	68,992	86,295
Tangible assets	30,476	30,161	39,269	39,938	41,066
Intangible assets	782	738	746	754	732
Total assets	**99,152**	**184,367**	**195,184**	**198,870**	**204,612**
Current liabilities	25,369	42,847	45,749	49,841	49,446
Short-term debt	19,400	27,000	36,000	36,000	36,000
Non-current liabilities	5,736	2,211	2,455	2,602	2,640
Total liabilities	**31,105**	**45,059**	**48,204**	**52,443**	**52,086**
Capital	3,870	5,312	5,312	5,312	5,312
Premium on capital stock	26,969	52,031	52,002	52,002	52,002
Retained earnings	34,868	79,731	87,511	86,900	92,985
Total equity	**68,047**	**139,308**	**146,981**	**146,427**	**152,526**

Separate standards

(Unit : million KRW)

	2018	2019	2020	2021	
				1Q	2Q
Current assets	55,790	136,299	127,504	127,904	116,319
Cash and cash equivalents	10,227	42,423	34,557	32,788	31,540
Accounts receivable	18,299	33,096	18,137	14,804	12,368
Inventory asset	19,740	24,222	22,484	27,811	33,452
Non-current assets	41,993	46,416	65,055	68,730	86,005
Tangible assets	30,119	29,192	38,592	39,314	40,518
Intangible assets	54	36	18	14	9
Total assets	**97,783**	**182,715**	**192,559**	**196,634**	**202,324**
Current liabilities	26,119	43,065	44,794	49,529	49,827
Short-term debt	19,400	27,000	36,000	36,000	36,000
Non-current liabilities	5,643	1,676	2,164	2,300	2,339
Total liabilities	**31,761**	**44,740**	**46,959**	**51,828**	52,166
Capital	3,870	5,312	5,312	5,312	5,312
Premium on capital stock	26,969	52,031	52,002	52,002	52,002
Retained earnings	32,638	78,461	86,116	85,322	90,674
Total equity	**66,022**	**137,975**	**145,600**	**144,806**	**150,158**

© OE Solutions Co., Ltd. All rights reserved. Confidential & Proprietary

OE SOLUTIONS

Thank you.

OE SOLUTIONS