



INVESTOR PRESENTATION

November 2019
(Nasdaq: AOSL)



SAFE HARBOR STATEMENT

This presentation contains forward-looking statements that are based on current expectations, estimates, forecasts and projections of future performance based on management's judgment, beliefs, current trends, and anticipated product performance. These forward looking statements include, without limitation, statements relating to projected amount of revenues, gross margin, operating income, statements regarding market segments, diversification of products and new customers; the expected trend on revenue and sales for each segment of our serviceable market; the progress of construction of manufacturing facility in our joint venture with Chongqing funds; our ability and strategy to develop new products in DMOS, PIC and Digital Power Controller, expand our sales, revenue and profitability; expectation with respect to our license agreement with STMicroelectronics; our ability to manage supply constraints and the expectation with respect to capacity limitation; the execution of our business plan; and other information regarding the future development of our business. Forward-looking statements involve risks and uncertainties that may cause actual results to differ materially from those contained in this presentation. Additional information concerning these and other risk factors is contained in the Risk Factors sections of our most recently filed Forms 10-K and 10-Q. AOS undertakes no obligation and does not intend to update these forward-looking statements to reflect events or circumstances occurring after this presentation.

Non-GAAP Results

Non-GAAP results referenced in this presentation contain non-GAAP financial measures because the financial community uses non-GAAP results in its analysis and comparison of historical results and projections of the Company's future operating results. These non-GAAP results exclude share-based compensation expense, Chongqing pre-production expenses and certain other expenses and benefits. Management uses these non-GAAP measures to manage and assess the profitability of the business. These non-GAAP results are also consistent with another way management internally analyzes the company's results and may be useful.



ALPHA AND OMEGA SEMICONDUCTOR (NASDAQ: AOSL)

Emerging total solution provider in >\$40B market

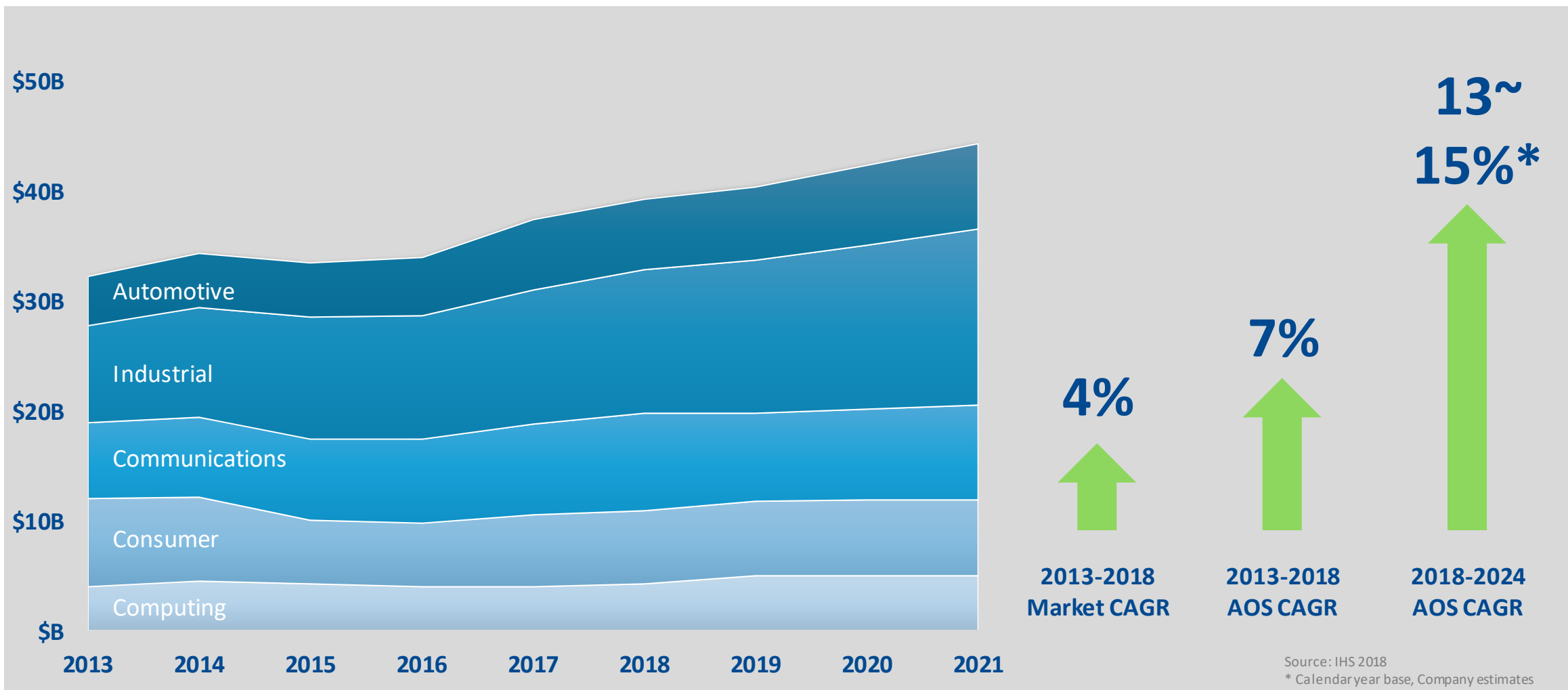
Solid foundation enabling accelerated growth

Strong pipeline with major growth drivers

Consistent execution approaching target model



IMMENSE MARKET FOR POWER

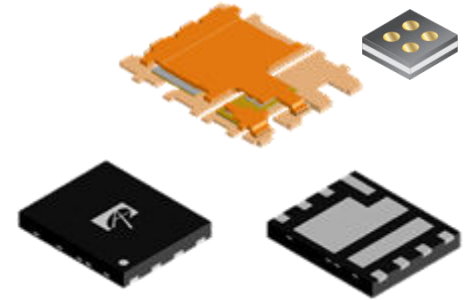




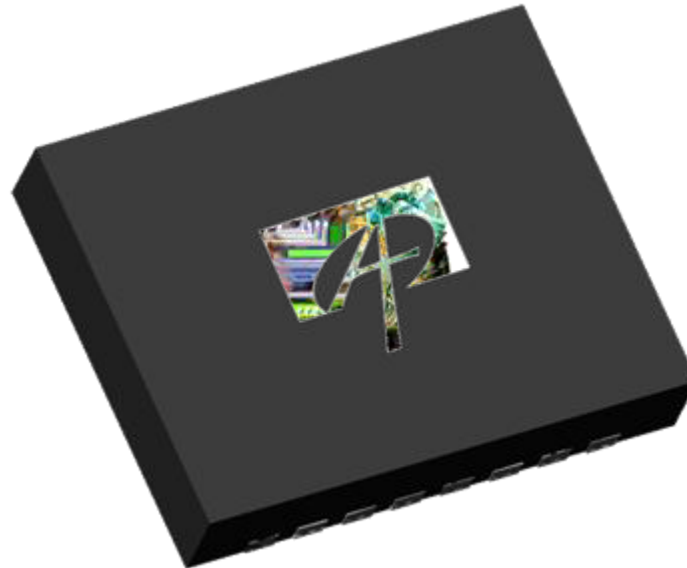
RAPID GROWTH WITH TOTAL POWER SOLUTION



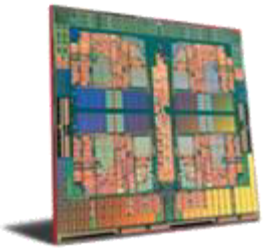
Power Discretes
MOSFETs, IGBT, GaN



Advanced Packaging



System Applications
Know-How



IC Design



Silicon Technology

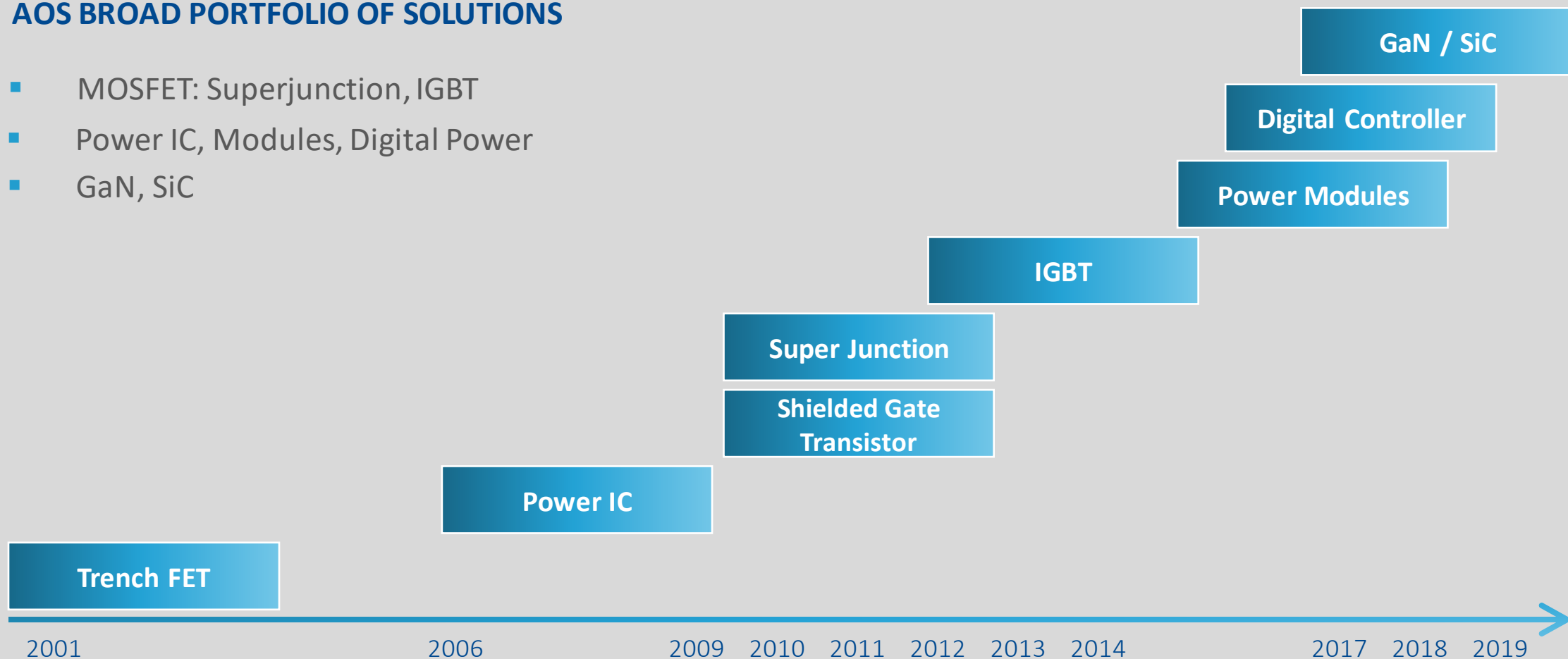
Total Power Solutions



TECHNOLOGY INVESTMENTS DRIVING DIVERSIFICATION

AOS BROAD PORTFOLIO OF SOLUTIONS

- MOSFET: Superjunction, IGBT
- Power IC, Modules, Digital Power
- GaN, SiC





BUILT FOR SCALE



Shanghai A&T



Oregon 8" Fab

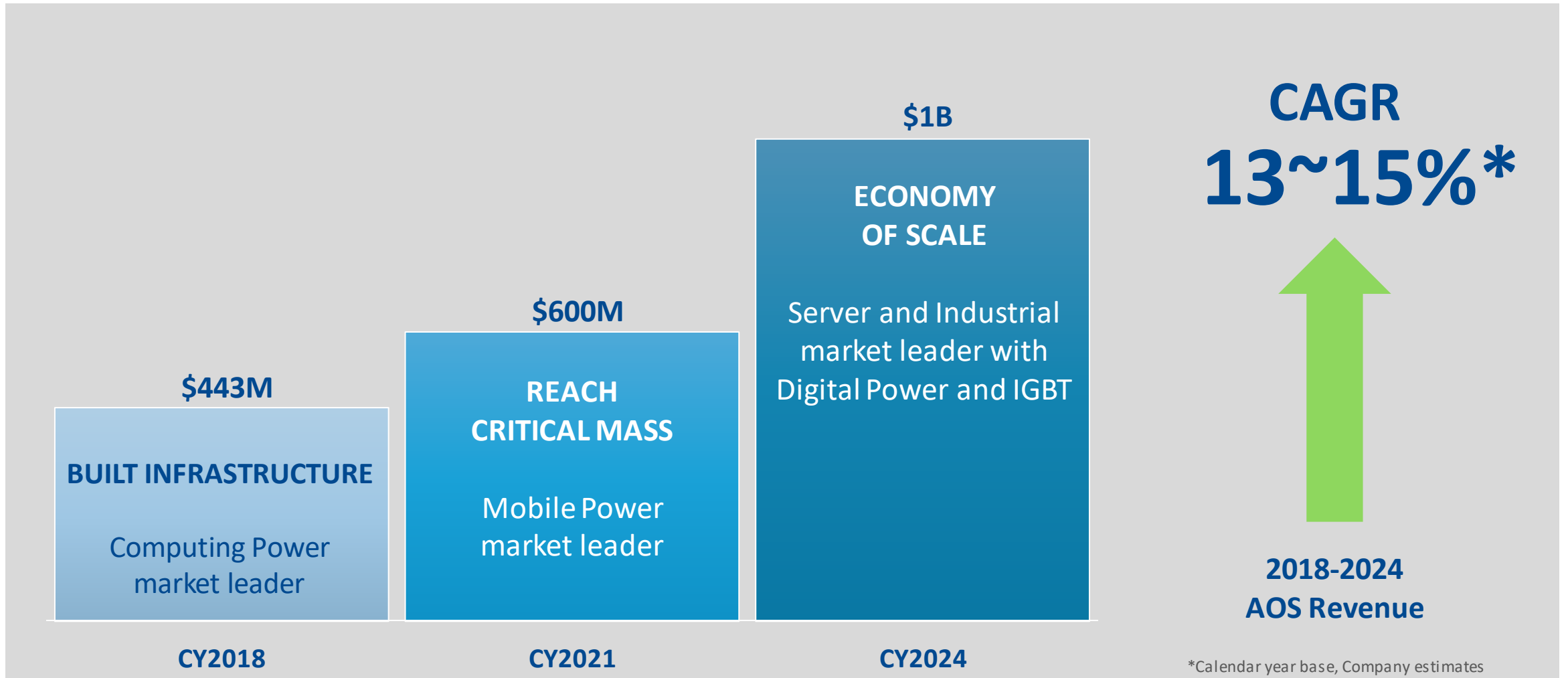


CQ JV: 12" Fab + A&T

AOS Confidential



ACCELERATING GROWTH





MAJOR GROWTH DRIVERS FOR MULTIPLE YEARS

COMPUTING



PC leader

SAM: \$400M

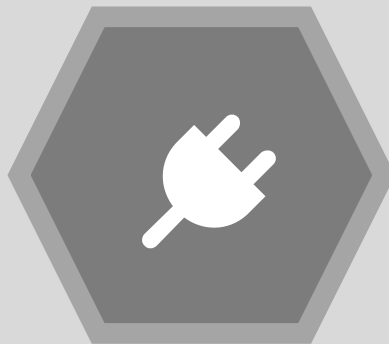
MOBILE POWER



Global
OEM customers

SAM: \$320M

AC/DC FOR PD



PD Total
Chipset Solution

SAM: \$270M

HOME APPLIANCE



Expand IGBT
and Modules

SAM: \$430M

SERVER / TELECOM



New market
entrance with
Digital Controller

SAM: \$1B

*Calendar year base, Company estimates

AOS Confidential



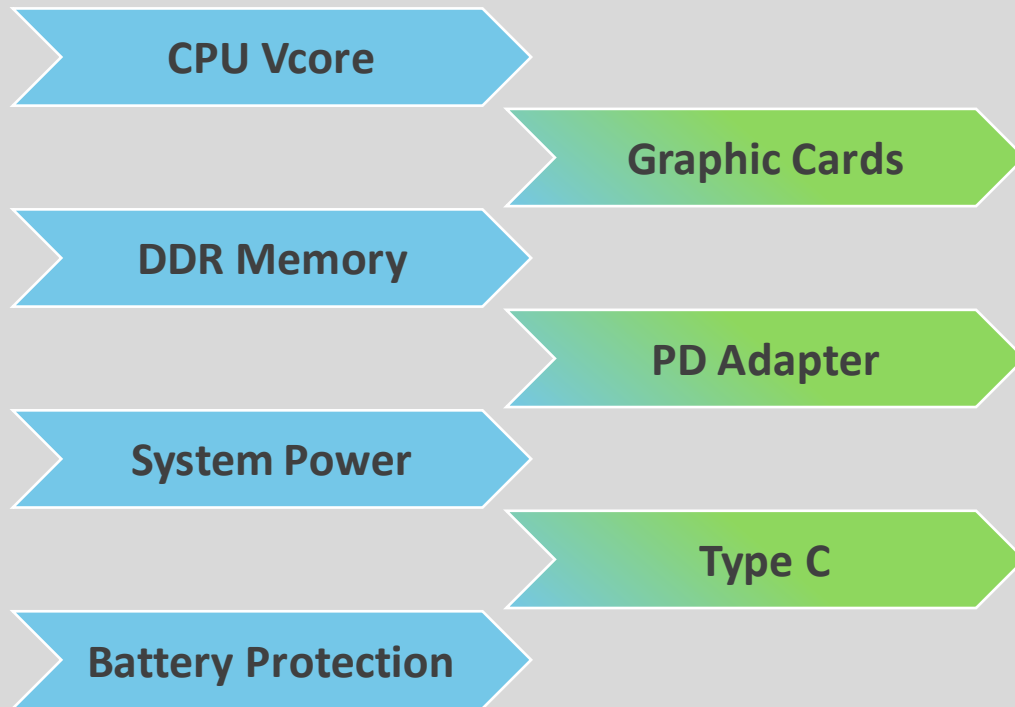
PC: SHARE GAINS, HIGH VALUE MIGRATION

COMPUTING



SAM: \$400M

EXPANDING BOM



- Market leader
- High performance MOSFET and PIC
- Expanding BOM





STRATEGIC ALIGNMENT WITH GLOBAL OEMS

MOBILE POWER



SAM: \$320M

Supply all major
smartphone
vendors

BATTERY PROTECTION



- Safe operation
- Longer battery life
- Robust performance

QUICK CHARGER



- AOS 1st to support QC
 - 10W → 18W+
- High performance MV FET



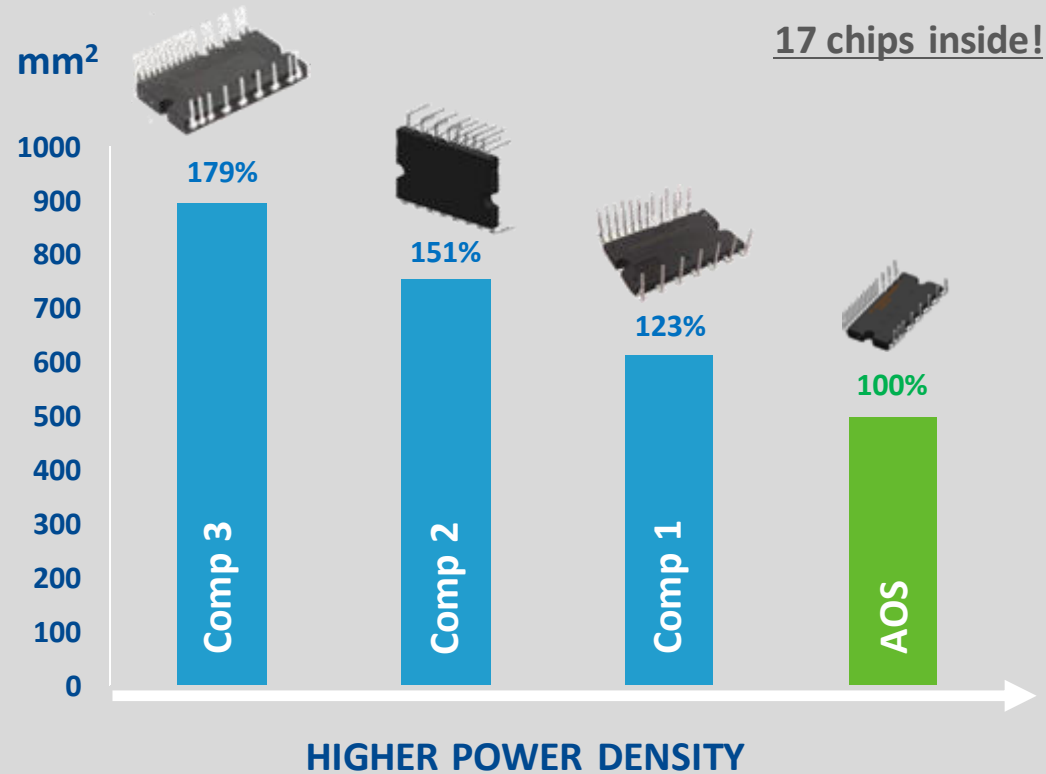
INTELLIGENT MODULES FOR HOME APPLIANCE

HOME APPLIANCE



SAM: \$430M

SIZE COMPARISON



AOS IPM Solution with IGBT offers:

- **Smaller** Footprint
- **Better** Efficiency
- **Higher** ESD and Reliability

Refrigerators, Washers / Dryers, Air-con Fans





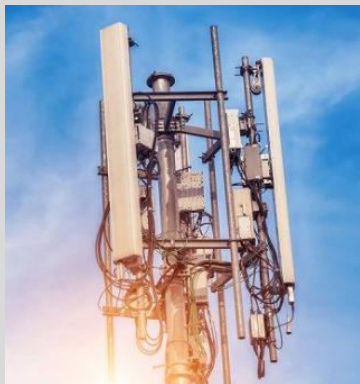
>\$1 BILLION NEW SAM WITH DIGITAL POWER

SERVER / TELECOM



SAM: \$1B

5G BASE STATION



SERVER



DIGITAL POWER TOTAL SOLUTION



Digital PWM Controller

2-7 per system



Power Stage

DrMOS

MOSFET

11-21 per system

Processors

FPGA

Graphics

DDR Memory

System Voltage Rails



EVERYONE NEEDS POWER

WORLD CLASS OEMS / ODMS

FUJITSU COMPUTERS
SIEMENS

nsn

PACE

PHILIPS

SagemCOM

sky

solar edge

Blue-way

BYD

CHANGHONG 长虹

dji

Haier

Hisense

HUAWEI

Lenovo

乐视

oppo

PCPartner

Salecomp

SKYWORTH

SUNWODA 欣旺达

TCL

vivo

mi

ZTE

Nidec

Nintendo

Panasonic

SANYO

SHARP

SONY

TOSHIBA

a

ARRIS

BLACK+DECKER

DELL

ENPHASE

f

GE Power

G

hp

intel

Lexmark

Microsoft

SUPERMICR

WD Western Digital

LG

SAMSUNG

acer

AOC

Chicony

COMPAL

DELTA

FOXCONN 鸿海科技集团

GIGABYTE

Inventec

LITEON

PEGATRON

Quanta Computer

wistron

KEY DISTRIBUTORS

FRONTEK
Technology Corporation

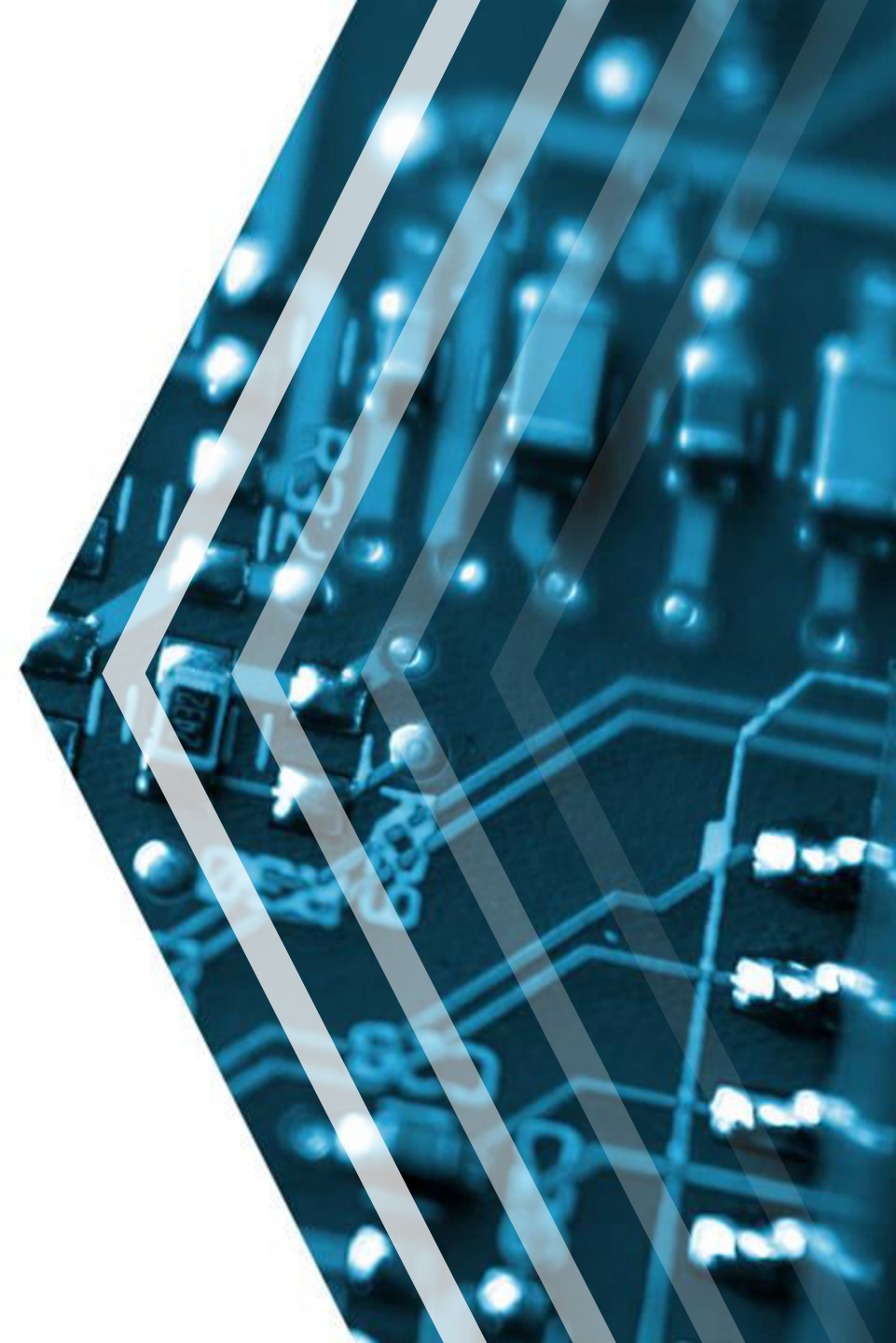
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wpg WPG Holdings

PROMATE[®]
Innovation and Excellence



FINANCIALS





Q1FY2020 HIGHLIGHTS

Record revenue quarter and 15th consecutive quarter of Year-over-year revenue growth

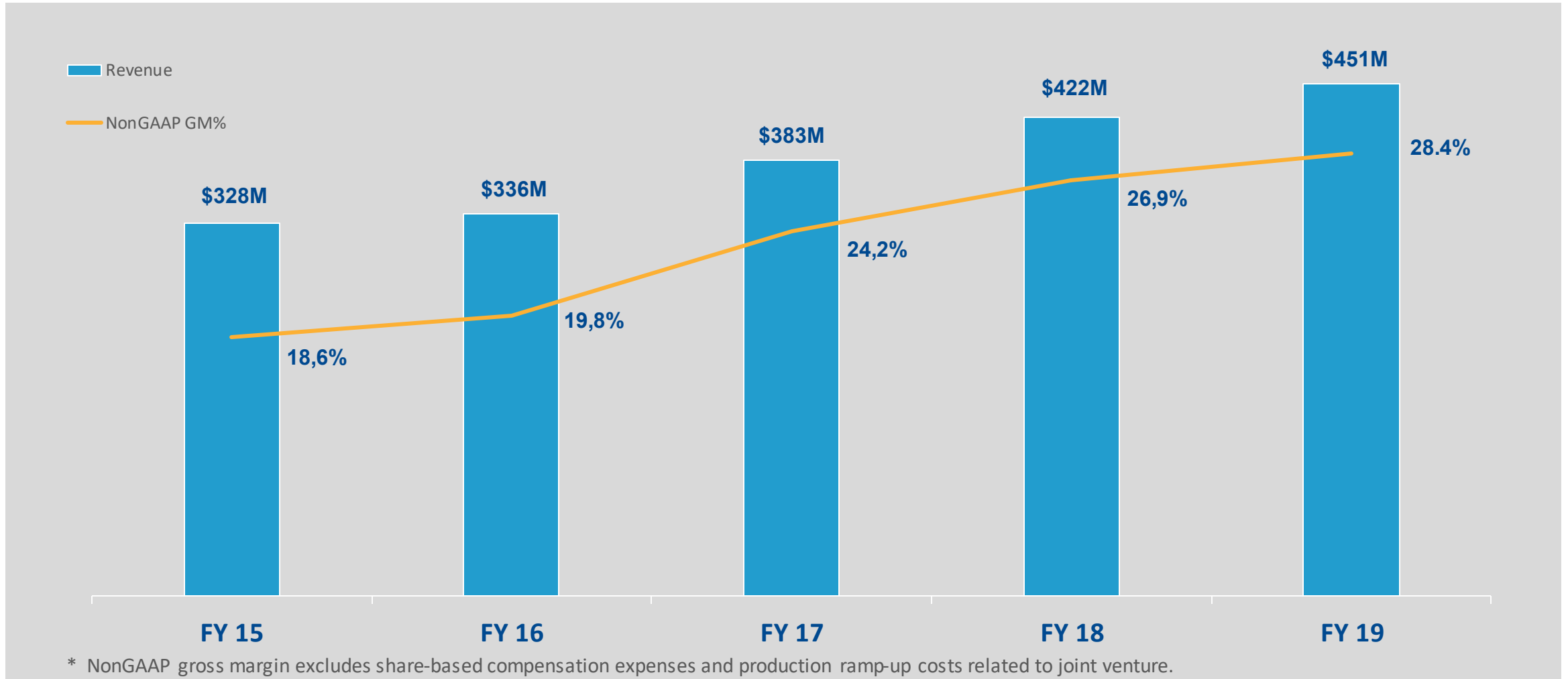
Driven by strong momentum of mobile business

Supported by additional supply contribution from Chongqing JV

Chongqing JV 12-inch Phase 1 target run rate by Q1FY2021



SOLID GROWTH IN REVENUE AND GM





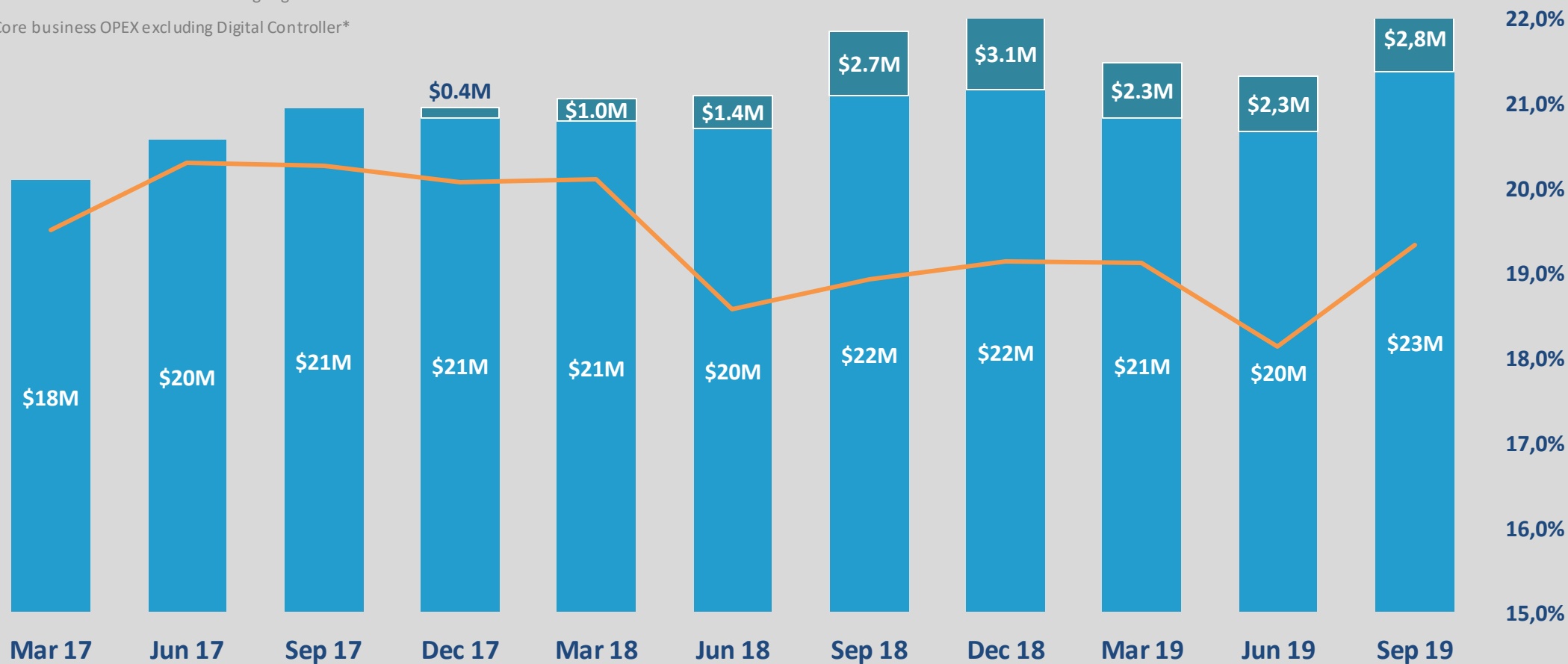
DISCIPLINED OPERATING EXPENSES

(in \$ millions)

Digital Controller Expenses

NonGAAP Core business OPEX *excluding Digital Controller*

% of Core business OPEX excluding Digital Controller*



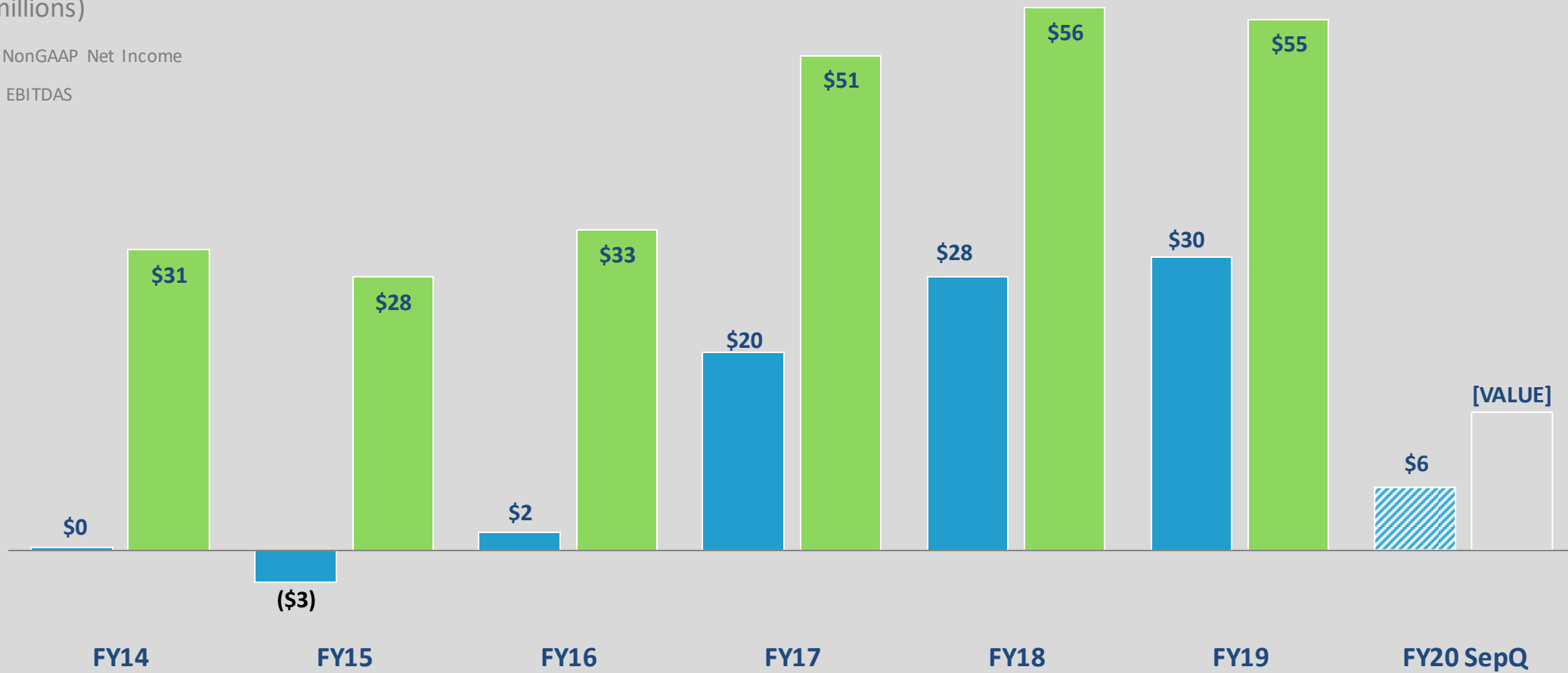
* NonGAAP Operating Expense excludes share-based compensation expenses and pre-production costs related to joint venture.



HEALTHY EBITDAS

(\$millions)

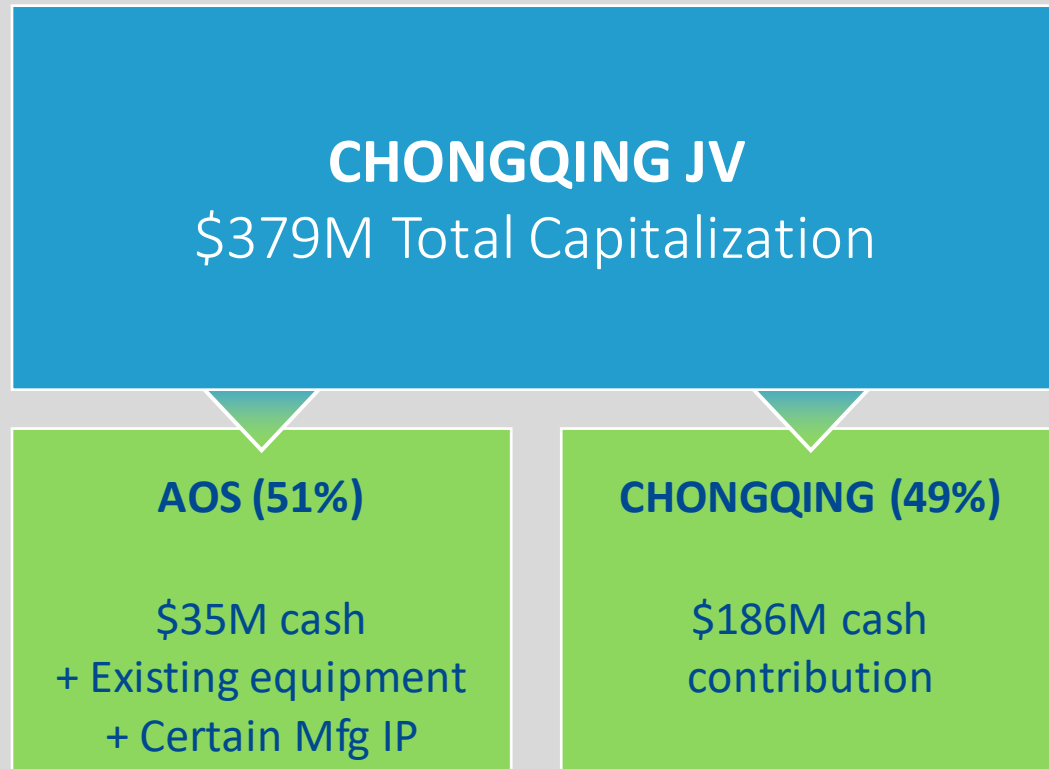
NonGAAP Net Income
EBITDAS



* Excludes share-based compensation expenses, production ramp up costs and pre-production costs related to joint venture.



JV ON TRACK TO ALLEVIATE CAPACITY CONSTRAINTS



- 12" fab Phase 1 mass production initiated in Q1 FY2020
- Reach Phased 1 target run rate by Q1FY2021
- Phase 1 supports about \$150M additional AOS revenue



KEY BALANCE SHEET METRICS

(in \$ millions)	JUN 2018			JUN 2019			SEP 2019		
	AOS	CQJV	Consolidated	AOS	CQJV	Consolidated	AOS	CQJV	Consolidated
CASH	88.3	43.2	131.5	100.7	21.2	121.9	88.1	15.0	103.1
DEBT	30.9	60.4*	91.3	41.0	99.9*	140.9	41.0	95.4*	136.4
INVENTORY	88.2	2.0	90.2	93.8	17.8	111.6	92.5	26.1	118.6
FIXED ASSETS	141.6	190.1	331.7	148.5	261.2	409.7	149.9	250.4	400.3
TOTAL ASSETS	384.4	282.7	667.1	375.0	364.4	739.4	374.9	372.9	747.8
TOTAL EQUITY	293.6	132.6	426.2	325.2	118.1	443.3	331.2	106.4	437.6
OPERATING CASH FLOW	8.7	-19.5	-10.8	15.2	-6.9	8.3	-4.2	3.0	-1.2
CAPEX PAID	13.8	41.3	55.1	4.6	17.5	22.1	8.3	7.5	15.8
EBITDAS	15.3	-6.5**	12.8	15.1	-5.6**	14.2	13.8	-2.4**	14.3

* AOS is not a guarantor of CQJV's debt.

** CQJV EBITDAS includes amounts attributable to noncontrolling interest.



APPROACHING TARGET MODEL

NON-GAAP MODEL

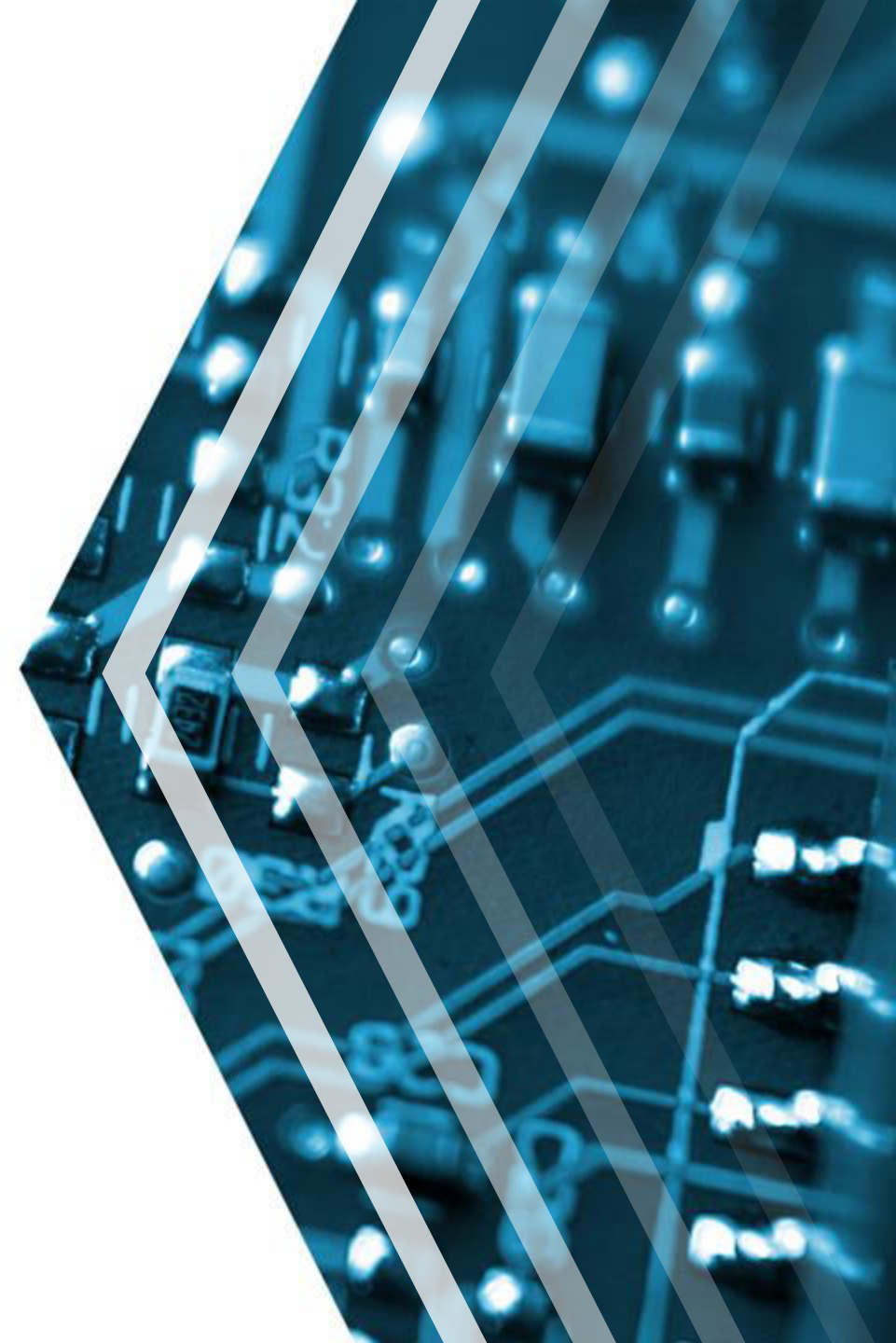
	CY2021	CY2024
REVENUE	\$600 MILLION	\$1 BILLION
GROSS MARGIN*	>30%	>30%
OPERATING EXPENSE**	~20%	~20%

* NonGAAP gross margin excludes share-based compensation expenses and production ramp up costs related to joint venture.

** NonGAAP Operating Expense excludes share-based compensation expenses..



APPENDIX





Alpha and Omega Semiconductor Limited

Reconciliation of Condensed Consolidated GAAP Measures to Non-GAAP

(in thousands, except percentages and per share data)
(unaudited)

	Three Months Ended		
	September 30, 2019	June 30, 2019	September 30, 2018
GAAP gross profit	\$ 26,932	\$ 27,636	\$ 32,611
Share-based compensation	436	431	497
Production ramp up costs related to joint venture	5,991	2,587	1,117
Non-GAAP gross profit	<u>\$ 33,359</u>	<u>\$ 30,654</u>	<u>\$ 34,225</u>
<i>Non-GAAP gross margin as a % of revenue</i>	28.3 %	27.4 %	29.7 %
GAAP net income attributable to AOS	\$ 1,009	\$ 2,545	\$ 2,416
Share-based compensation	2,369	2,518	3,129
Pre-production expenses related to joint venture	49	2,413	2,662
Production ramp up costs related to joint venture	3,049	1,317	582
Non-GAAP net income attributable to AOS	<u>\$ 6,476</u>	<u>\$ 8,793</u>	<u>\$ 8,789</u>
<i>Non-GAAP net margin attributable to AOS as a % of revenue</i>	5.5 %	7.9 %	7.6 %
GAAP diluted net income per share attributable to AOS	\$ 0.04	\$ 0.10	\$ 0.10
Share-based compensation	0.10	0.10	0.13
Pre-production expenses related to joint venture	—	0.10	0.11
Production ramp up costs related to joint venture	0.12	0.05	0.02
Non-GAAP diluted net income per share attributable to AOS	<u>\$ 0.26</u>	<u>\$ 0.35</u>	<u>\$ 0.36</u>
Shares used to compute GAAP diluted net income per share	25,130	24,996	24,594
Shares used to compute Non-GAAP diluted net income per share	25,130	24,996	24,594



FOCUSED MARKETS (AS OF Q1 FY2020)

Communications

- Smartphone
- Telecom

Consumer

- High-end TV
- Home Appliance

Power Supply / Industrial

- Quick Chargers / PD
- Power Tools, Welding

Computing

- Notebook / PC
 - Server / AI

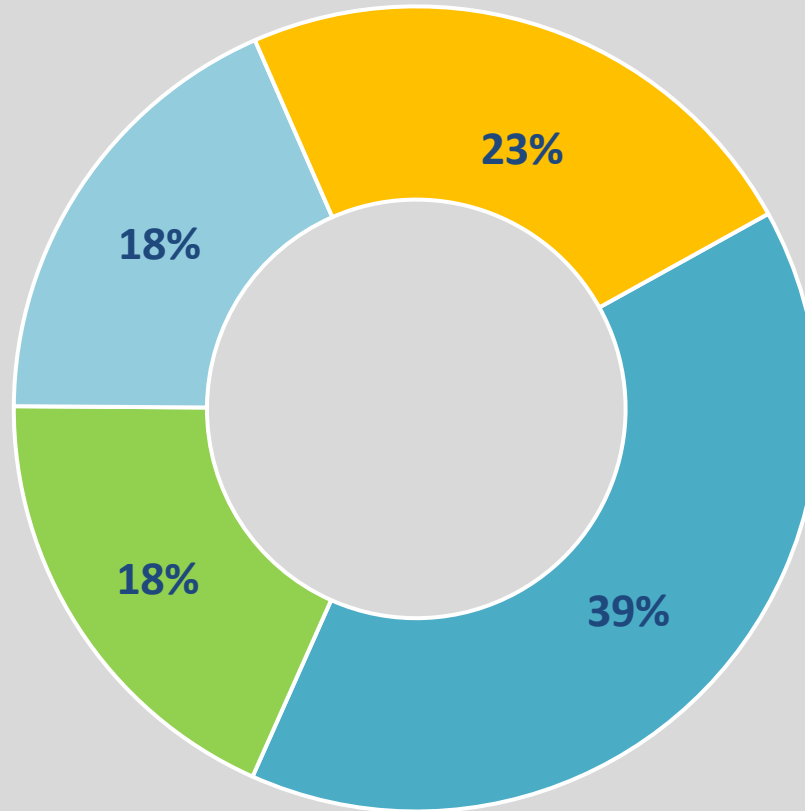


Chart excludes 'Service and Others' of 2%