



# Global Network Investment Competition

Fudan University

Supreme Pole - Allwinner Technology

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# Allwinner Technology -- Sail Again

We initiate coverage on Allwinner Technology with a strong **BUY** rating, target price is derived by DCF at CNY ¥ 35.91, indicating 30.1% upside potential.

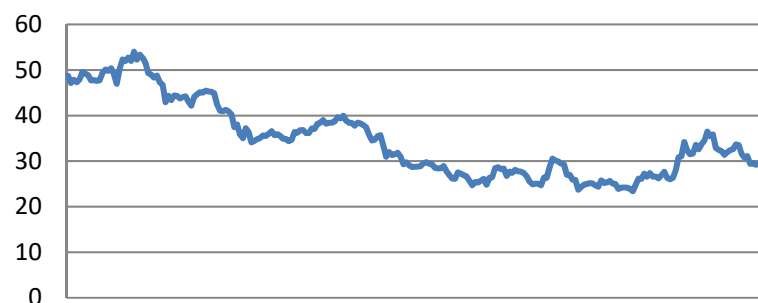
## We recommend based on:

- ✓ Broad prospects of the AI.
- ✓ Supporting of the industry policy.
- ✓ Allwinner has finished its transition. The rise of the various new products will put the margins back in the black.
- ✓ The current valuation, 64.x P/E, is lower than its competitor such as Ingenic which is trading at more than 100 and Nationz which is trading at 76.x P/E.

**BUY  
NOW**

Price	CNY ¥ 27.60
Price Target	CNY ¥ 35.91
Upside Potential	30.1%
Target Period	1 Year
52 week Low	CNY ¥ 23.4
52 week High	CNY ¥ 54.02
Average Volume	CNY ¥ 190.28 M
Market Cap	CNY ¥ 96.08 B
P/E	64

## Price Performance



# Overview for Allwinner

Allwinner Technology, founded in 2007, is a leading fabless design company dedicated to smart application processor SoCs and smart analog ICs. Its product line includes multi-core application processors for smart devices and smart power management ICs used worldwide. These two categories of products are applied to various types of intelligent terminals into 3 major business lines:

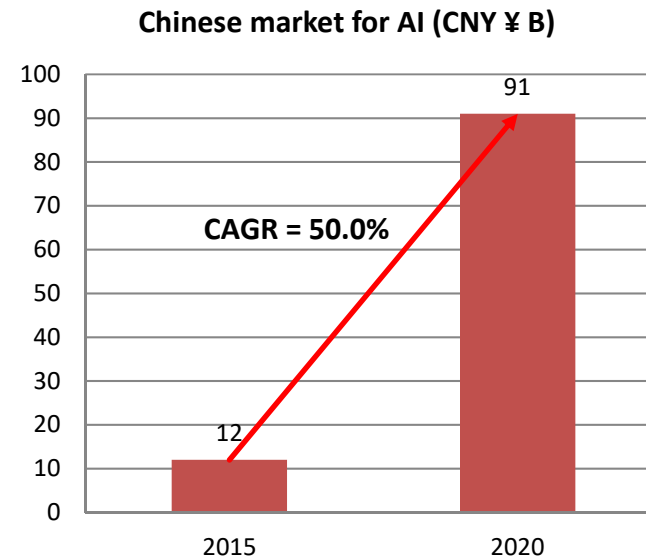
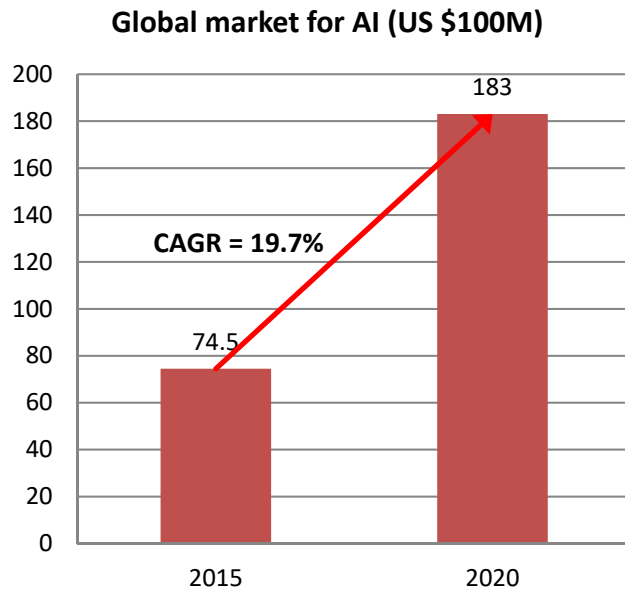
- Consumer Electronics: Robot, Smart Hardware Open Platform, Tablets, Video Theater Device, E-Reader, Video Story Machine, Action Camera, VR
- Home Entertainment: OTT Box, Karaoke Machine, IPC monitoring
- Connected Automotive Applications: Dash Cams, Smart Rear-view Mirror, In Car Entertainment



A grid of Allwinner processor models categorized into business lines. The grid is organized into two main columns. The left column contains: A Series (Tablets) with models A33, A63 (NEW), A64, and A83T; F Series (Power management) with models F1D100, F1C100A, F1C500, and F1C600; V Series (Action Camera etc.) with models V40, V66, V3, and V3s; and B Series (E-Reader) with model B288. The right column contains: H Series (OTT Box) with models H2, H3, H5, and H6 (NEW); R Series (Home Entertainment) with models R16, R18 (NEW), R40, and R58; T Series (Automotive Applications) with models T2, T3, and T8; and VR (Virtual Reality) with models H8vr and VR9 (NEW). Each model is represented by a white square with the Allwinner logo and model name, and a 'Processor Details' link below it.

# THE PROSPECT OF AI

AI(Artificial Intelligence) has a wider range of global concern and is entering its third golden period of development. According to iResearch report, the global AI market in 2015 was \$7.45 billion, and by 2020, the market will be expanded to \$ 18.3 billion, the compound annual growth rate will reach 19.7%. At the same time, by 2020, China's AI market will grow from ¥ 1.2 billion in 2015 to ¥ 9.1 billion, with a CAGR of 50%.

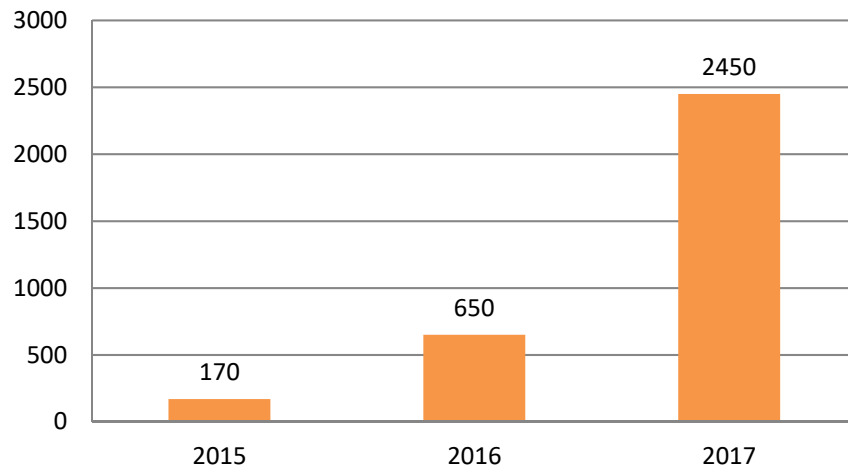


# INTERPRETAION – ALLWINNER

Ding-Dong, a smart sound box, jointly developed by JingDong and iFLYTEK, the sound box is equipped with the R16 chip by Allwinner technology.

As a new type of intelligent hardware, intelligent speaker has a huge market. The data shows that the intelligent voice device has entered the stage of rapid growth, and the market size will be over \$20 billion.

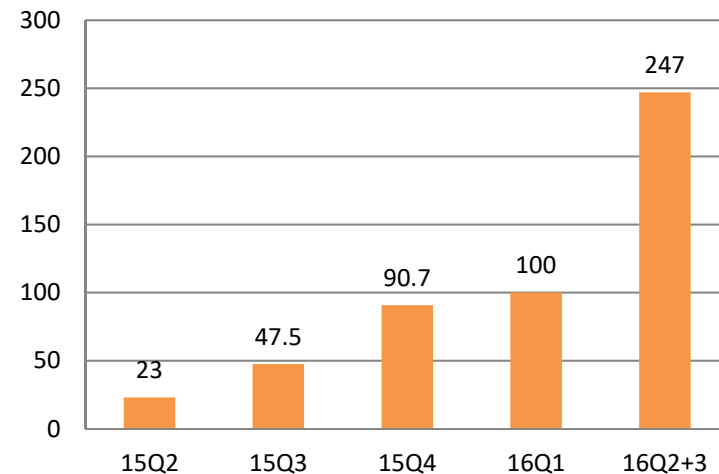
**Voice priority devices have entered a period of rapid growth in recent years (Unit: 10000)**



The domestic market of intelligent speaker is in the beginning stage, there is no data for reference so far. But we still can reference the sales and the feedback of Echo from Amazon.

Base on the statistics, 6 million Echo devices have been sold by Amazon in the end fo 2016; and the sales will reach 10 million in 2017. In the acceptance of the users, over 30 thousand people has given comments to the Echo, and rate for 4.5.

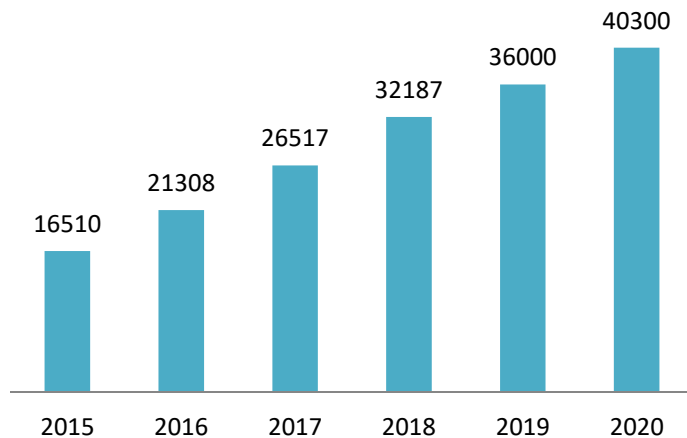
**Echo Sales volume (Unit: 10000)**



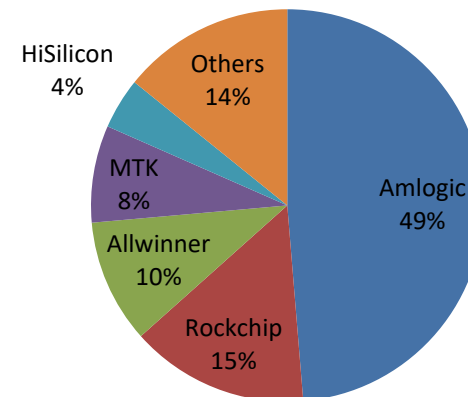
# INTERPRETAION – ALLWINNER

OTT box chips are expected to grow further. In 2016, its products H3 and H8 chip are all in the top 10 of domestic chip. In the market of OTT box chip, its product market share is third, accounting for 10.2%. According to the Blue Book of the 2016 Big Screen Ecological Operation Big Data, the OTT terminals ownership will exceed 400 million by 2020, and over 70% Chinese households will use OTT to watch the program.

OTT Box market holdings  
(Unit: 10000)



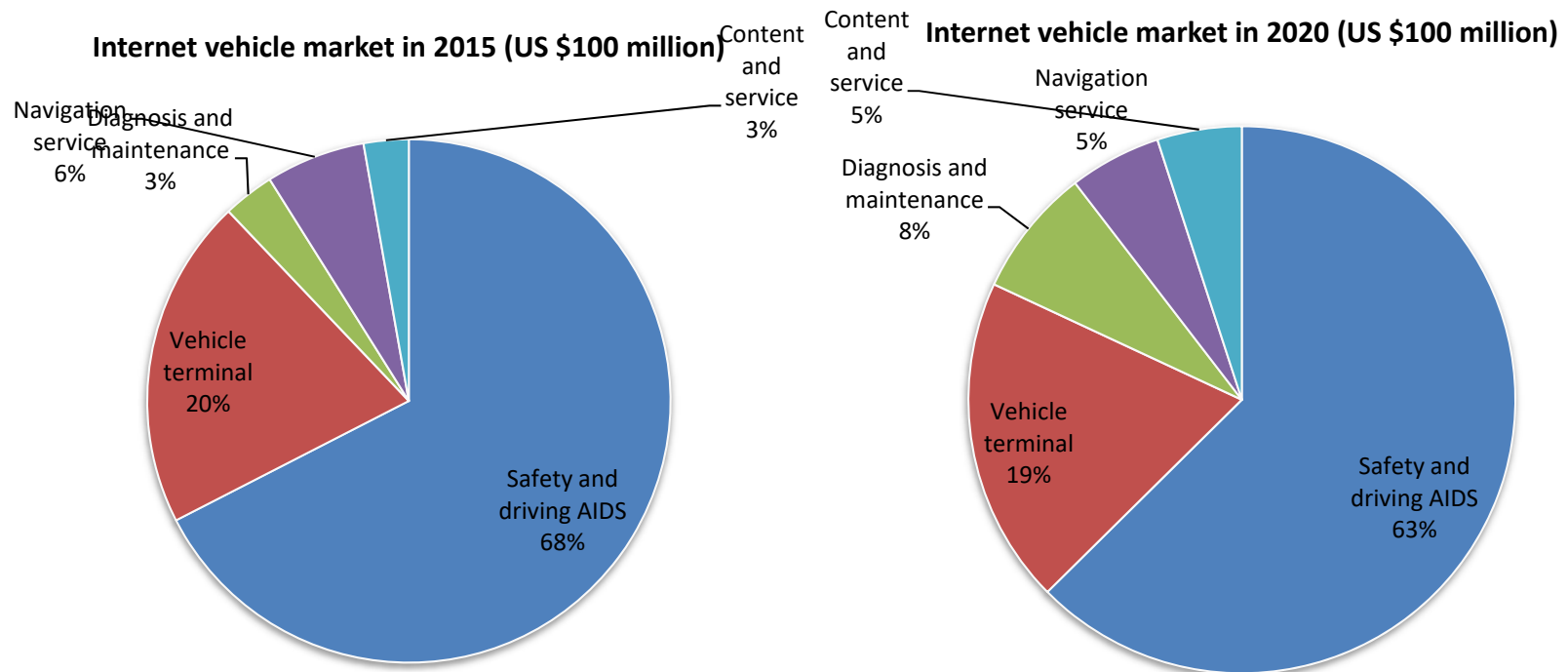
Sales share of OTT box chip maker



# INTERPRETAION – ALLWINNER

Allwinner has achieved mass production of several chips used in vehicle traveling data recorder, intelligent rearview mirror, intelligent control and other markets. Their clients include domestic and foreign high-quality companies such as BMW, SAST, BlackView.

According to the cic consultancy, China's vehicle networking market will reach 25.09 billion CNY in 2017



# WHY NOW?

- The worst is over

The tablet computer take the lead ship of the revenue in 2014, but the potential improvement of the product structure and the increased proportion of the revenue of several new product. somehow made up for Allwinner from the downturn in the tablet computer market (the proportion of the revenue declined to 42.91%). The annual report of 2016 shows the rise of the multiple product lines of Allwinner more precisely.

Category	2014E		2013E		2012E	
	Revenue	Proportion	Revenue	Proportion	Revenue	Proportion
Tablets	43,716.43	42.91%	104,537.23	78.68%	102,221.37	88.47%
OTT Box	16,213.54	15.91%	10,114.98	7.61%	1,757.24	1.52%
VSM	16,738.44	16.43%	4,811.08	3.62%	5,236.04	4.53%
VTD	13,526.04	13.28%	8,844.24	6.66%	3,307.38	2.86%
DashCams	7,676.02	7.53%	2,670.43	2.01%	2,301.10	1.99%
Others	4,009.62	3.94%	1,885.84	1.42%	721.02	0.62%
Total	101,880.09	100%	132,863.80	100%	115,554.15	100%



	2016E	2015E	2014E
Balance Project	61,173,571.50		
Wireless	13,089,708.87		
Power Management	220,984,246.05	241,590,325.73	214,482,900.00
Application	955,650,464.11	965,934,303.12	1,018,800,900.00
Others	1,141,246.80	1,940,867.25	8,680,000.00



# WHY NOW?

- Spring is just around the corner

According to the semi-annual report of 2017, the company has stepped out of the loss in the first quarter, and the performance will be improved with the delivery of the chips in the third quarter.

	2017 Q2	2017 Q1	2016 Q4	2016 Q3
Net profit	1.69 m	-7.40 m	149 m	138 m
Gross Revenue	449 m	180 m	1252 m	979 m
Asset liability ratio	10.06%	12.27%	14.48%	10.53%
Gross profit margin	42.11%	42.42%	41.10%	41.88%



In June 2017, Allwinner technology released a variety of AI chips, these chips will be delivered gradually in Q3 this year, including H6, V5, A63, VR9, XR871. According to the characteristics of the IC design industry, after the volume production of the new chips in Q3, the company will get benefit from its huge shipment in Q4. The end of 2017 is a particularly opportunistic time to invest in Allwinner.

# VALUATION

CNY mn	2017Q3
Risk-free tax rate	3.52%
Market risk premium	16.02%
Beta	1.22
Equity	9181.84
Cost of Equity	18.7%
Tax	25%
WACC=Cost of E	18.7%

- R&D dept. in Allwinner company of high-tech products for the future of the enterprise can display a strong profile of OCF, which can be reflect the development of the enterprise. And we believe the best way to evaluate the company is DCF based on the business is capital intensive, any cash flow will post significant impact on the valuation.
- We derive the cost of equity using CAPM model. We used the 1 year China bond rate of 3.52% as risk free rate, beta of 1.22 and market risk premium of 16.02% to get the cost of equity of 18.7% with no financing liabilities. The beta was calculated by regressing the 2 year daily returns of Allwinner against the CSI 300 Index and then obtained a WACC of 18.7%. To be conservative, we assume the terminal growth to be 2%, and give 18.7% liquidity discount.

# VALUATION

We derive the DCF results at CNY ¥ 35.91, indicating 30.1% upside compared with current stock price.

<b>CNY mn</b>	<b>2017E</b>	<b>2018E</b>	<b>2019E</b>	<b>2020E</b>	<b>2021E</b>
EBT- Taxes + D&A	173.08	178.27	189.62	218.13	222.49
Working capital change & Capex	(100.00)	(84.60)	(40.93)	(45.88)	(38.12)
FCFF	73.08	93.67	148.69	172.25	184.37
PV of terminal value	1126.09				
PV of total FCFF	4104.82				
No. of shares outstanding	332.67				
Liquidity discount	18.7%				
Fair Value	35.91				
Pirce now	27.60				
Upside potential	30.1%				



# Global Network Investment Competition

Thank you...



復旦大學  
Fudan University