



May, 2018  
Lili Wu

- Established in Nov. 15<sup>th</sup> , 2004
- Paid-In Capital: NTD 338M (USD 10.97M)
- Number of Employees: 84
- Location:
  - ASPEED Technology Inc.: Hsinchu Science Park, Taiwan
  - ASPEED Technology (U.S.A) Inc.: San Jose, USA
  - ASPEED Technology (India) PLT.: Bangalore, India



Server SoC Provider



**WW No. 1**

2005-2017  
CAGR



**55.9%**

**300x**

2005-2017  
Return-on-  
Investment



# Fabless-Lite Company

**ASPEED**



**Server Management  
SoC Solutions**

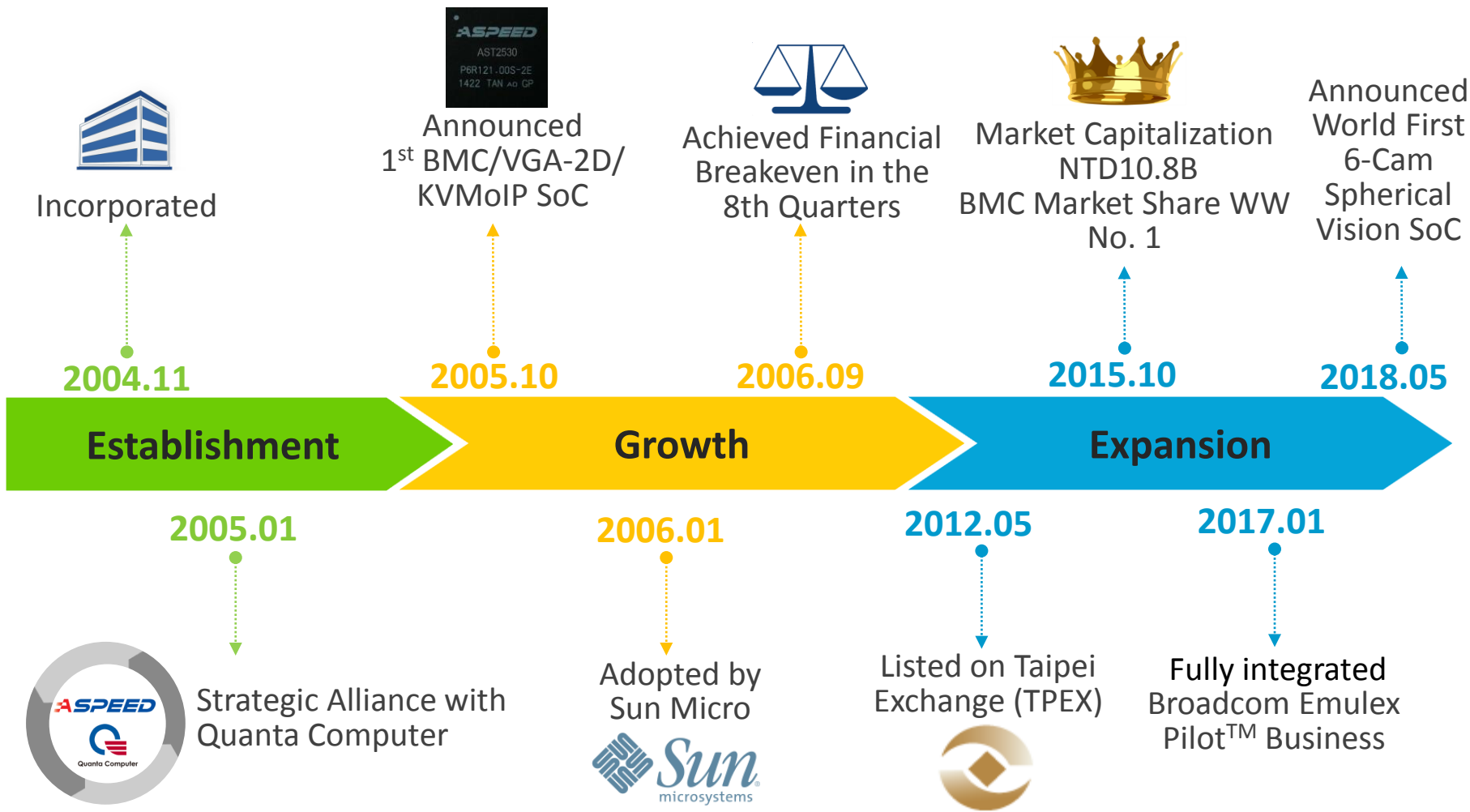


**PC/AV Extension  
SoC Solutions**



**360 Video Compression  
SoC Solutions**

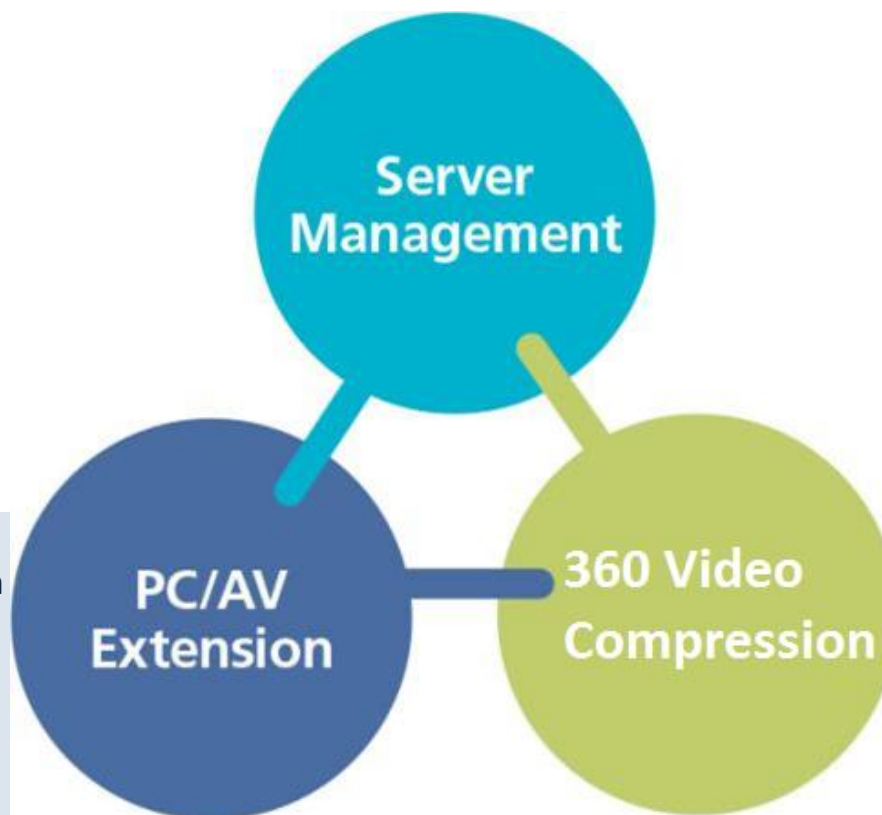
# Major Milestones





AST1010  
AST2200 / AST2150  
AST2300 / AST1300 / AST1050  
AST2400 / AST1400 / AST1250  
AST2500 / AST2510 / AST2520 / AST2530  
**AST2600/Pilot5**

28nm LP Process  
Dual Core 1GHz CPU  
DDR4 SDRAM  
Robust Security Architect  
and Features  
*ES: Q1/2019*  
*PS: Q1/2020*



AST1500 / AST1510  
AST1520 / AST1525  
**AST1620/AST1625**

130nm LP Process  
Support 4Kx2K Resolution  
<80 us latency  
1GHz CPU  
DDR4 SDRAM  
*ES: 2017/Q2*  
*PS: 2017/Q3*

**AST1220**

40nm LP Process  
1GHz CPU  
PLDDR3 SDRAM  
6-Cam Real Time Stitching  
H.264/265 4k2k Endcoding  
PCIe Gen-II  
*ES: Aug. 2018*  
*PS: Nov. 2018*

***ASPEED***



# Remote Server Management

## ◇ARM based server CPU

- Still no significant demand

## ◇IBM Open Power

- Less demand from China

## ◇Intel Purley, Whitley, Eaglestream

- Intel Purley launched in July, 2017, will cross over with Grantley in Q2, 2018
- Intel Whitley will be launched in 2019, ASPPED is in Intel's CRB
- Intel Eaglestream will be launched in 2020 or 2021
- ASPEED will present AST2600 + Pilot5 feature set to the OEMS in Apr. for Intel Eaglestream platform
- ASPEED AST2600 will need to meet automobile requirement. Eg. -40c~ +80c



# Market Highlights – Market Status



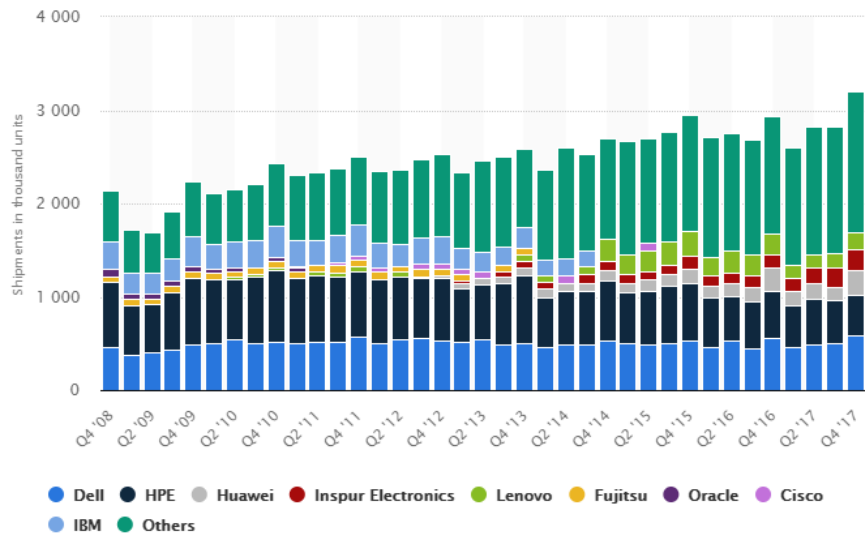
Source: Cisco Global Cloud Index, 2016–2021.



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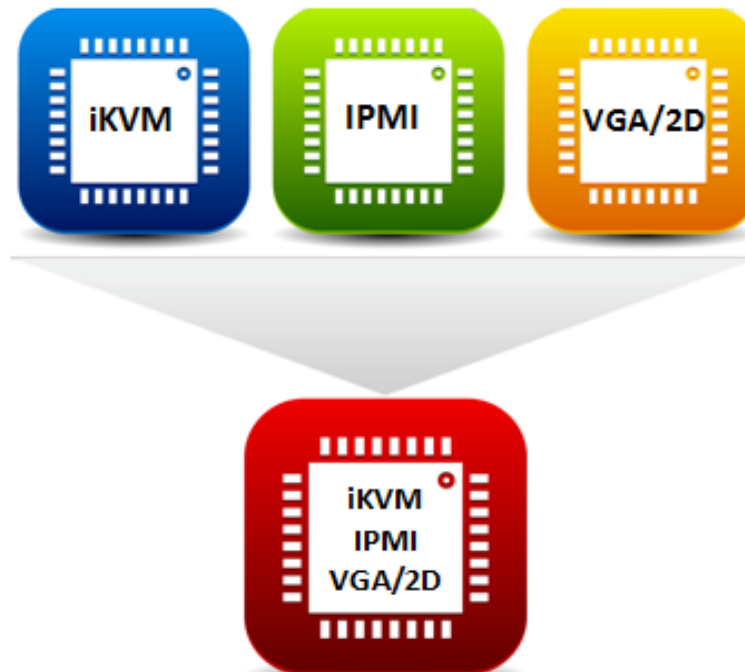
- % of Hyperscale data centers

- Cloud data centers CAGR22%



- \*Others continued to grow faster than brands

- Highly integration: 2D VGA / BMC / KVMoIP
- Dual Brand Strategy: Integrate ASPEED + Pilot
- Technology ownership
- Dual-IPMI: Maintain special spec , keep OEM/Branding variation





**ASPEED**



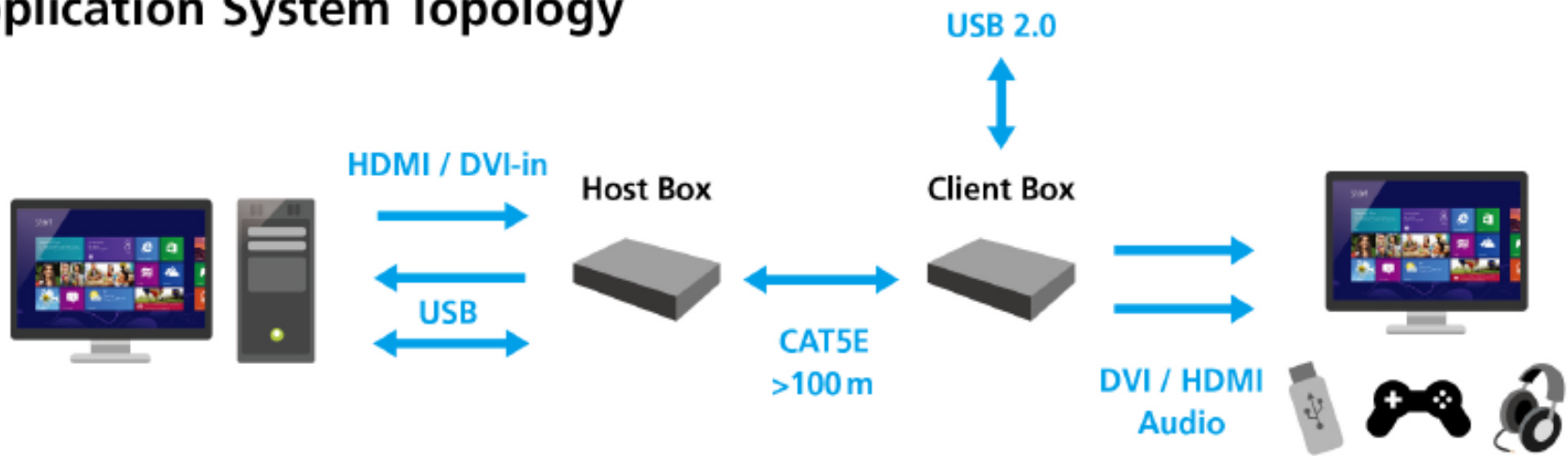
**iCafe Extender**

# Features & Benefits

## Features

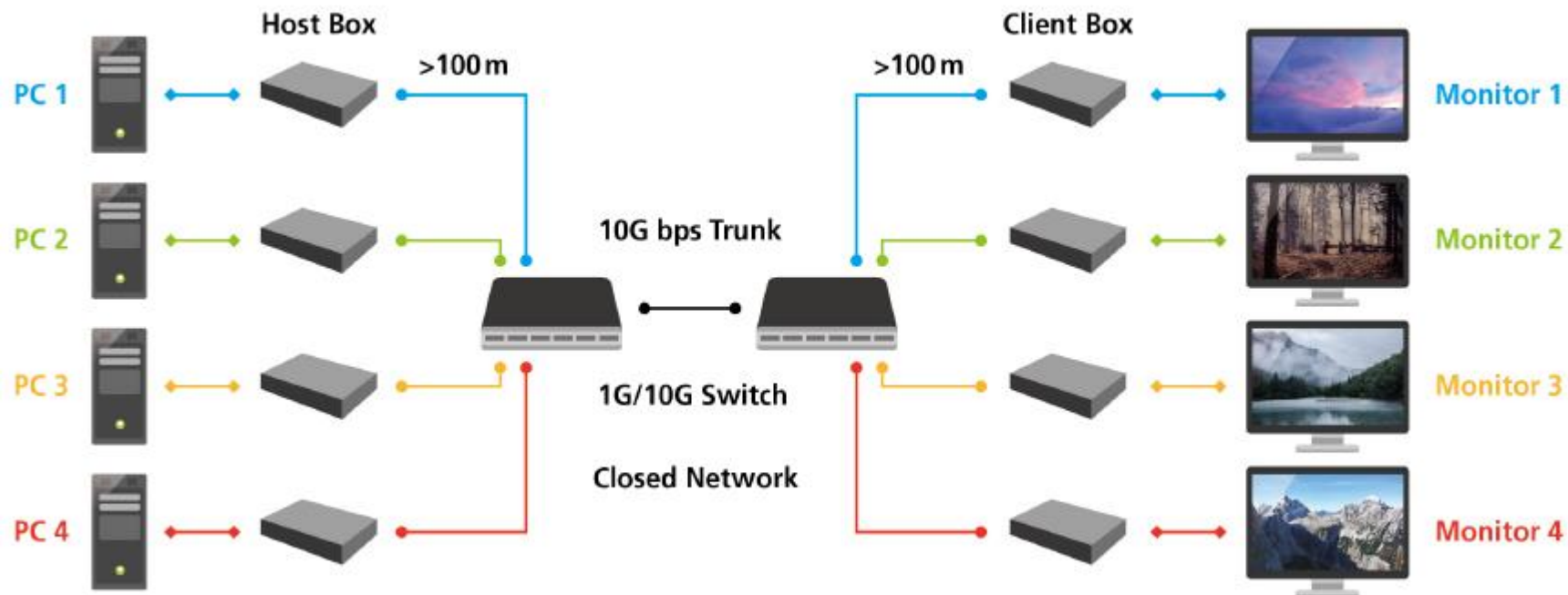
- Support UHD (4K2K) resolution extension
- Visually lossless compression algorithm
- Low latency  $\leq 80$  us
- Auto assign IP address
- No DRAM required

## Application System Topology





# Features & Benefits





## 360 Video Compression

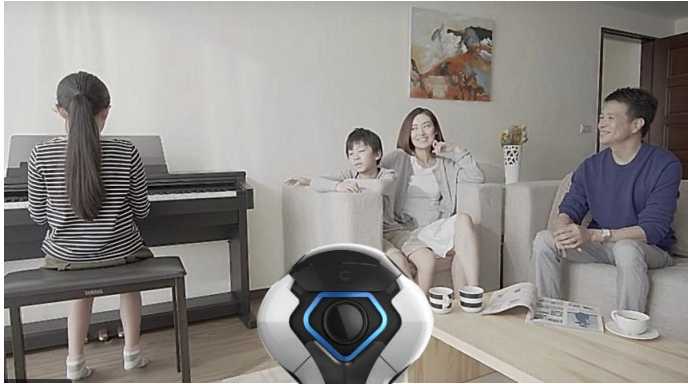
# Features & Benefits

- 12x12mm Package
- 360 degree 4K@30fps SoC
- Up to 6 camera Input
- High Quality Image processor
- Real-time stitching
- WDR Function
- H.264/H.265 compression ★
- 3D Anti-Shaking
- 32bit LPDDR3
- USB2.0 / Ethernet
- Wi-Fi Connectivity
- SD 3.0

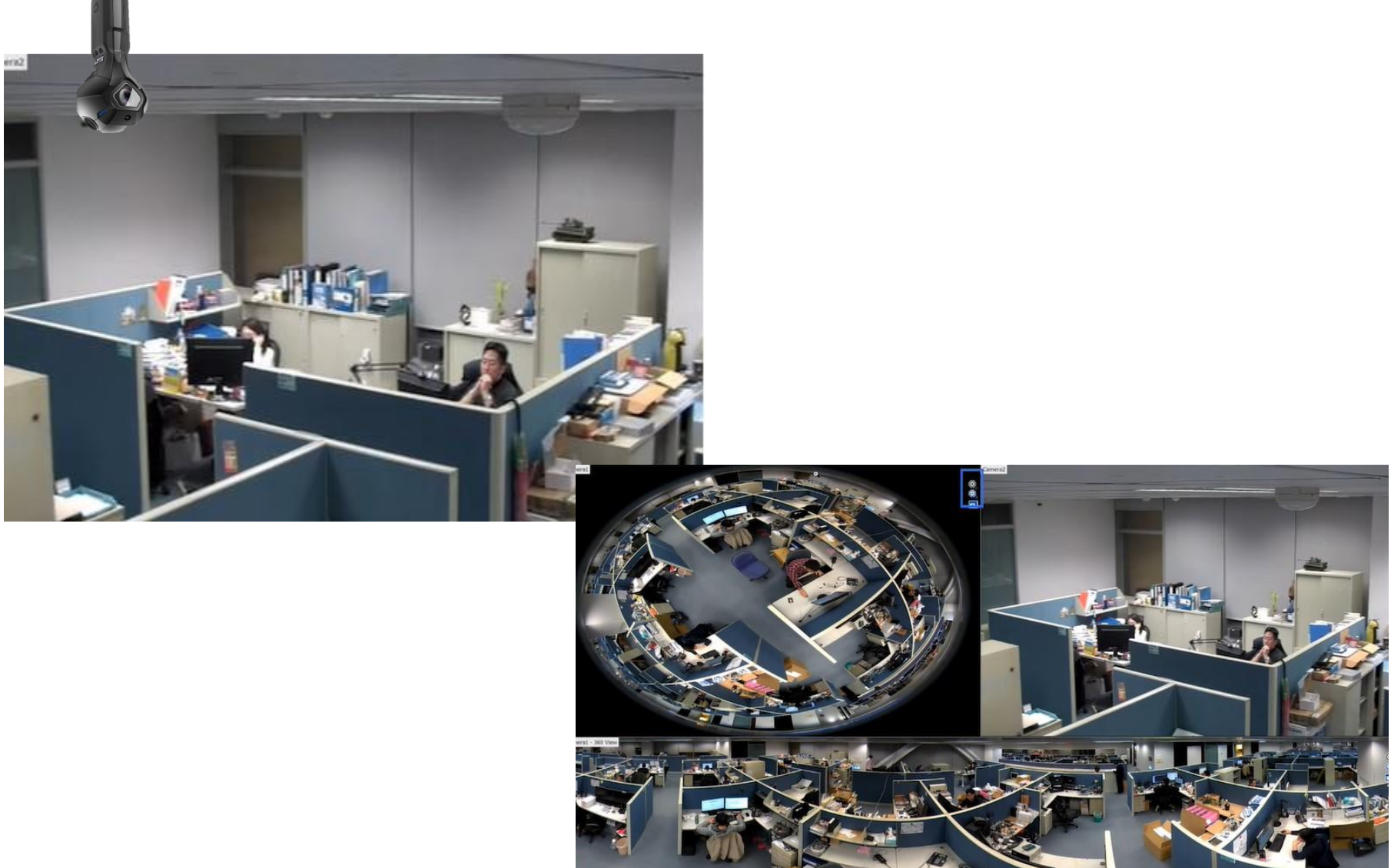




# Design for entertainment and travelers



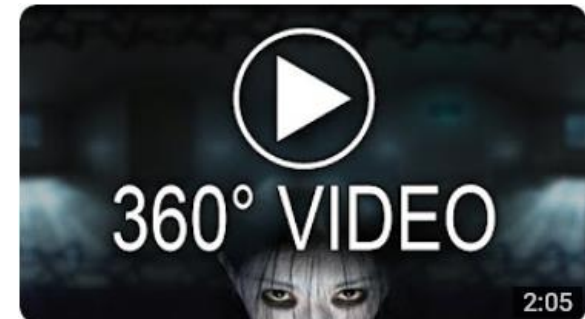
# Product for 360 degree Security





# Exclusively Designed for 360 degree Live Streaming

**ASPEED**



- 360 degree 4K2K@30fps Video
- 360 degree 18MP JPEG
- Six big pixel sensors
- Wide Angle lens
- Real-time stitching
- WDR Function
- H.264 MP4/AAC
- 3D Anti-Shaking
- WiFi 802.11ac/a/b/g/n
- OLED Menu control
- Battery Power
- Live Streaming by camera



# 2017Q1 vs 2018Q1 Sales & Profits

Unit : NTD 1,000	2017Q1		2018Q1		YoY
	Amount	%	Amount	%	%
<b>Sales Revenue</b>	452,976	100.00	538,253	100.00	18.83
<b>Gross Profit</b>	265,136	58.53	314,597	58.45	18.65
<b>Net Operating Profit</b>	151,429	33.43	192,861	35.83	27.36
<b>Pre-Tax Profit</b>	123,854	27.34	170,196	31.62	37.42
<b>Net Income</b>	102,797	22.69	130,648	24.27	27.09
<b>EPS</b>	3.04		3.85		

# 2016Q4 vs 2017Q4 Sales & Profits

Unit : NTD 1,000	2016Q4		2017Q4		YoY
	Amount	%	Amount	%	%
<b>Sales Revenue</b>	374,374	100.00	495,363	100.00	32.32
<b>Gross Profit</b>	221,376	59.13	284,648	57.46	28.58
<b>Net Operating Profit</b>	150,387	40.17	172,457	34.81	14.68
<b>Pre-Tax Profit</b>	178,916	47.79	172,191	34.76	(3.76)
<b>Net Income</b>	148,336	39.62	145,346	29.34	(2.02)
<b>EPS</b>	4.67		4.29		

# 2016 vs 2017 Sales & Profits



Unit : NTD 1,000	2016		2017		YoY
	Amount	%	Amount	%	%
<b>Sales Revenue</b>	1,345,678	100.00	1,894,194	100.00	40.76
<b>Gross Profit</b>	767,107	57.01	1,096,841	57.91	42.98
<b>Net Operating Profit</b>	534,782	39.74	647,571	34.19	21.09
<b>Pre-Tax Profit</b>	543,728	40.41	629,093	33.21	15.70
<b>Net Income</b>	445,919	33.14	531,366	28.05	19.16
<b>EPS</b>	14.07		15.70		



# Key Indices



	2016Q4	2017Q4	YoY
Unit : NTD 1,000	Amount	Amount	%
Cash	1,019,366	853,936	(16.23)
Account Receivable	288,287	363,452	26.07
Inventory	80,891	90,506	11.89
Debt	395,000	50,000	(87.34)
Shipment Qty (K/pcs)	4,781	7,016	46.75

# Dividend Policy



	2009	2010	2011	2012	2013	2014	2015	2016	2017
Cash dividend	2.29	3.00	4.00	5.00	5.50	7.00	8.00	12.00	15.00*
Stock dividend	2.00	1.42	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Dividend from capital reserves	0.30	0.60	0.22	0.20	1.00	0.00	0.00	0.00	0.00
Total Dividend	4.59	5.02	4.22	5.20	6.50	9.00	8.00	12.00	15.00
EPS	5.64	5.66	4.77	6.50	7.40	10.72	10.79	14.07	15.70

## Earning distributions:

- \*The appropriations of earnings for 2017 are to be presented for approval in ASPEED's shareholders' meeting to be held on May 30, 2018 (expected).



# Thank you