



Q3 2018 Investor Conference

Charles Hsu

Nov 9th, 2018

IPR Notice

All rights, titles and interests contained in this information, texts, images, figures, tables or other files herein, including, but not limited to, its ownership and the intellectual property rights, are reserved to eMemory. This information may contain privileged and confidential information. Some contents in this information can be found in Logic Non-Volatile Memory (The NVM solutions from eMemory), published in 2014. Any and all information provided herein shall not be disclosed, copied, distributed, reproduced or used in whole or in part without prior written permission of eMemory Technology Inc.

eMemory, NeoBit, NeoFuse, NeoFlash, NeoEE, NeoMTP, NeoROM, EcoBit and NeoPUF are all trademarks and/or service marks of eMemory in Taiwan and/or in other countries.

Cautionary Statement

This presentation contains forward-looking statements, which are subject to risk factors associated with semiconductor and intellectual property business. It is believed that the expectations reflected in these statements are reasonable. But they may be affected by a variety of variables, many of which are beyond our control. These variables could cause actual results or trends to differ materially which include, but are not limited to: wafer price fluctuation, actual demand, rapid technology change, delays or failures of customers' tape-outs into wafer production, our ability to negotiate, monitor and enforce agreements for the determination and payment of royalties, any bug or fault in our technology which leads to significant damage to our technology and reputation, actual or potential litigation, semiconductor industry cycle and general economic conditions. Except as required by law, eMemory undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

A hand is shown dropping a coin into a stack of coins. A small plant is growing out of the stack. The background is a blurred green and yellow bokeh.

Contents

1 Review of Operations

2 Future Outlook

3 Q3 Performance

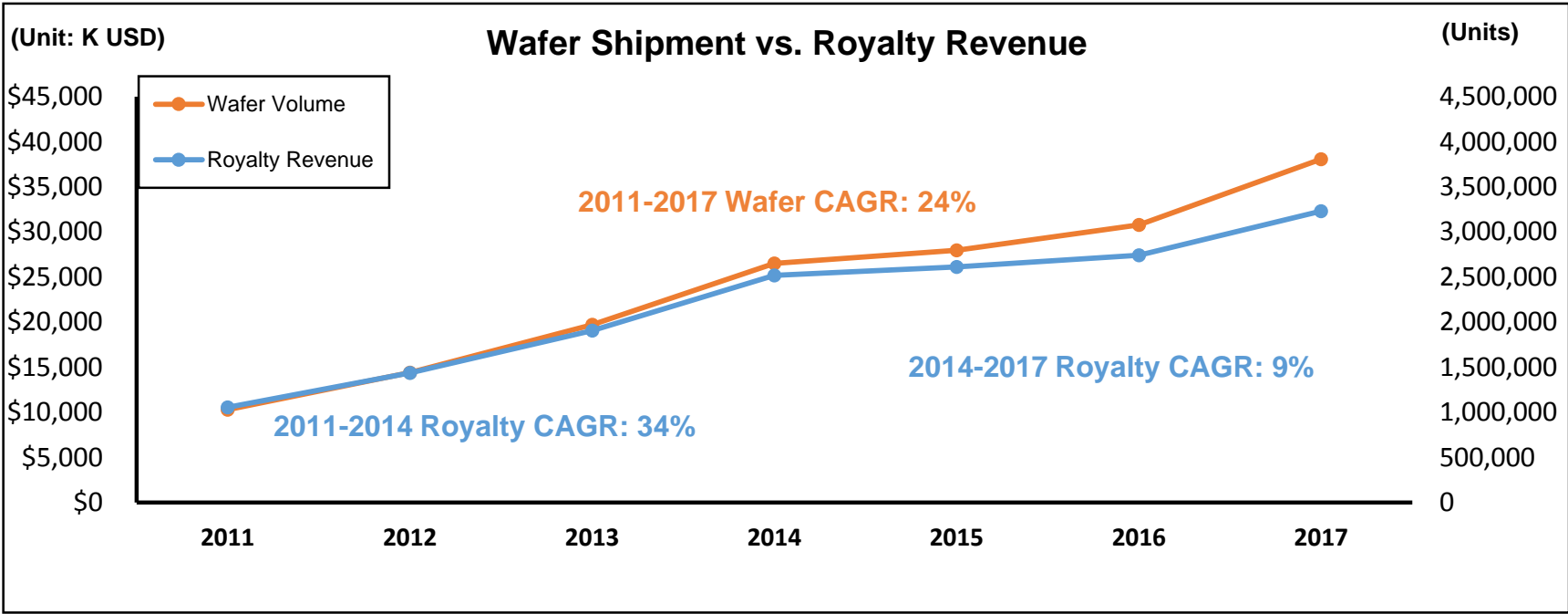
4 Q&A

A hand is shown dropping a coin into a stack of coins. A small green plant with three leaves is growing out of the stack. The background is a blurred green field. The image is framed by a white, torn-paper-like border.

Review of Operations

Review of Wafer Shipments and Revenue

While wafer shipments have maintained rapid growth, revenue growth has lagged since 2014



Wafer shipments volume increased at CAGR of 24%, however royalty revenue did not meet such growth, reasons include:

- ✓ Wafer price erosion for mature technology over the years.
- ✓ Migration of customers to 2nd tier foundries at lower wafer prices.
- ✓ Slow transition of new technology adoption due to lack of production track record.



Embedded wisely, Embedded widely

Our progress over the past 5 years

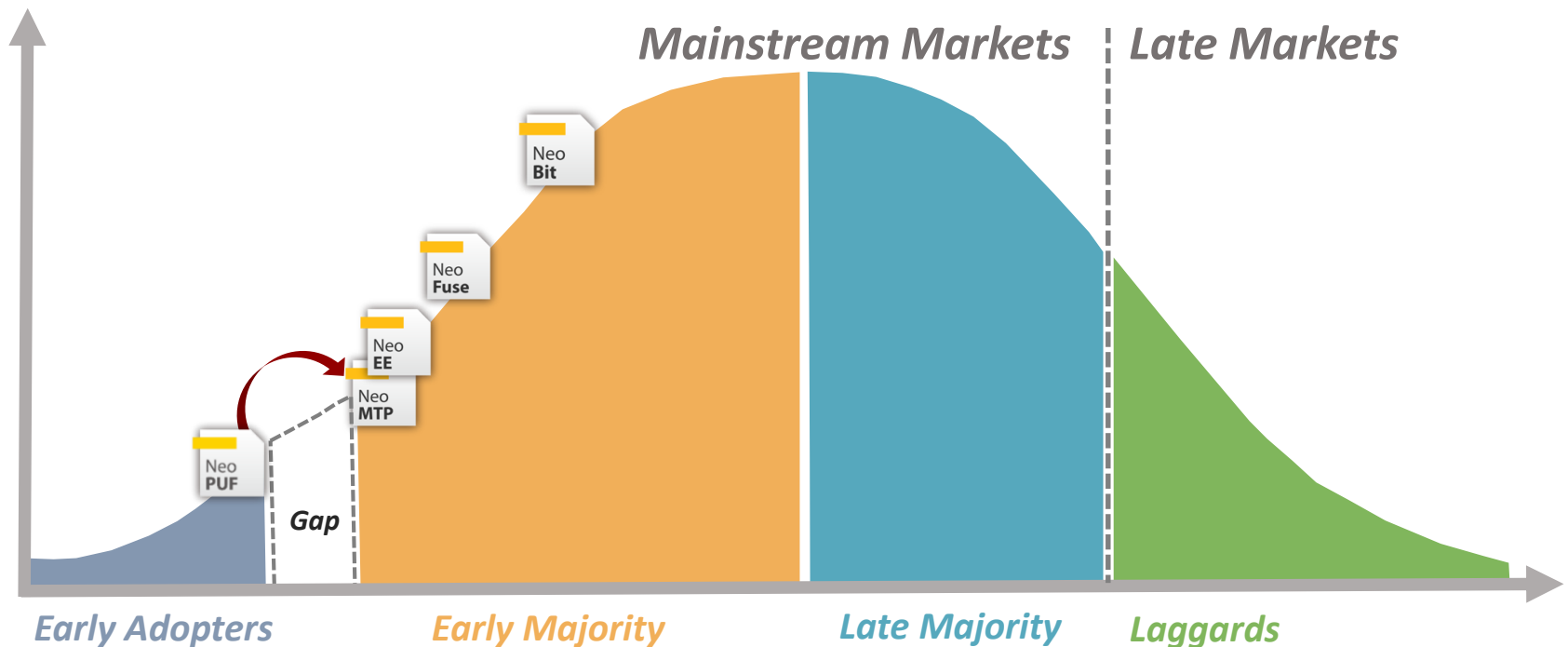
New technologies have become the driving force

Completed

- ✓ Developed new technologies including NeoFuse, NeoEE, and NeoMTP, that have crossed the chasm for commercialization
- ✓ Developed root of trust security IP - NeoPUF

In progress

- ✓ Partnering with a large IP company in the co-development of integrated security element IP
- ✓ Co-developing emerging memory with an IDM company



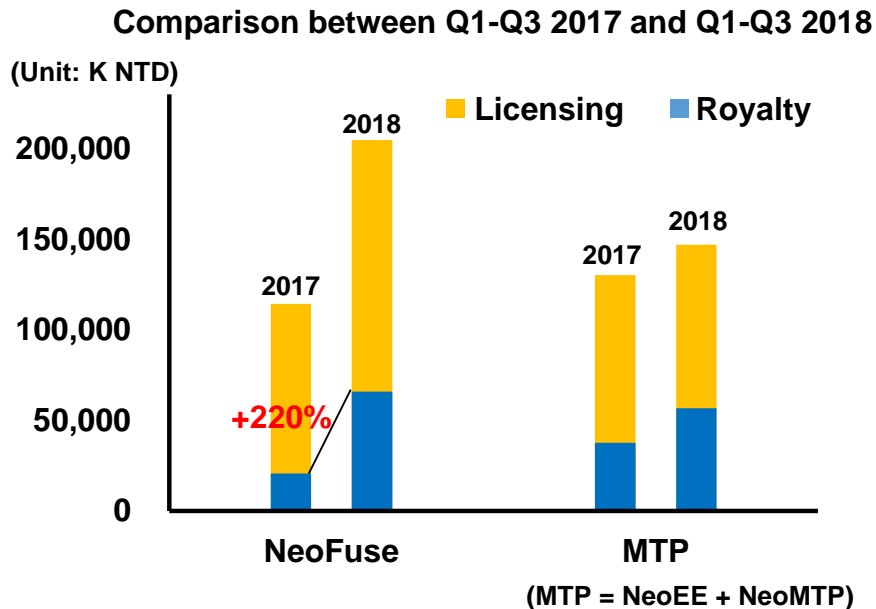
ememory

Embedded wisely, Embedded widely

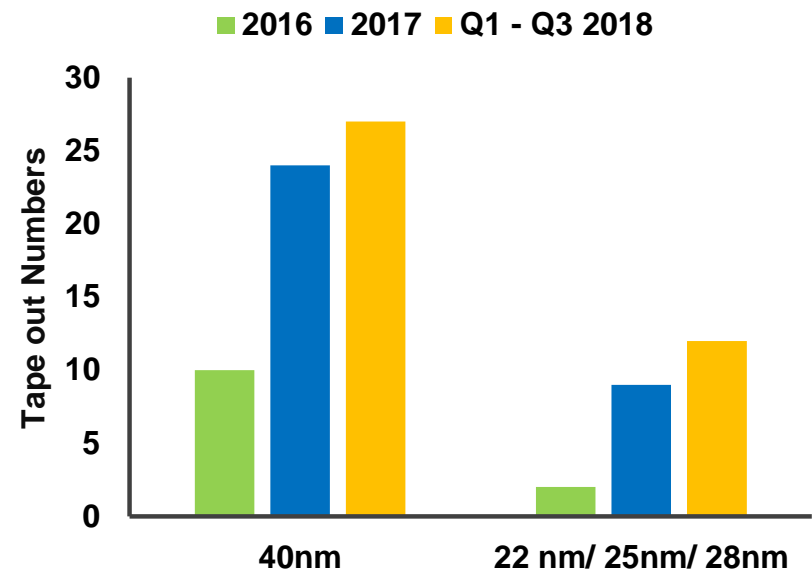
Previous efforts are paying off

NeoFuse is now the driving force for technologies at 40nm and below

NeoFuse is showing promising potential



Rapid growth in advanced nodes



- ✓ Revenue contribution from NeoFuse increased significantly from 2017 to 2018
- ✓ The growth in NeoFuse royalty revenue was driven by 2016-17 product tape-outs
- ✓ Product tape-outs in 2018 will bring in additional royalty in 2019 and 2020

Future Outlook



Total Coverage in Advanced Nodes

A complete spectrum of solutions is powering eMemory's growth

≤55 nm

eMemory has accumulated sufficient production records in 55nm and below, adoption will accelerate.

28 nm

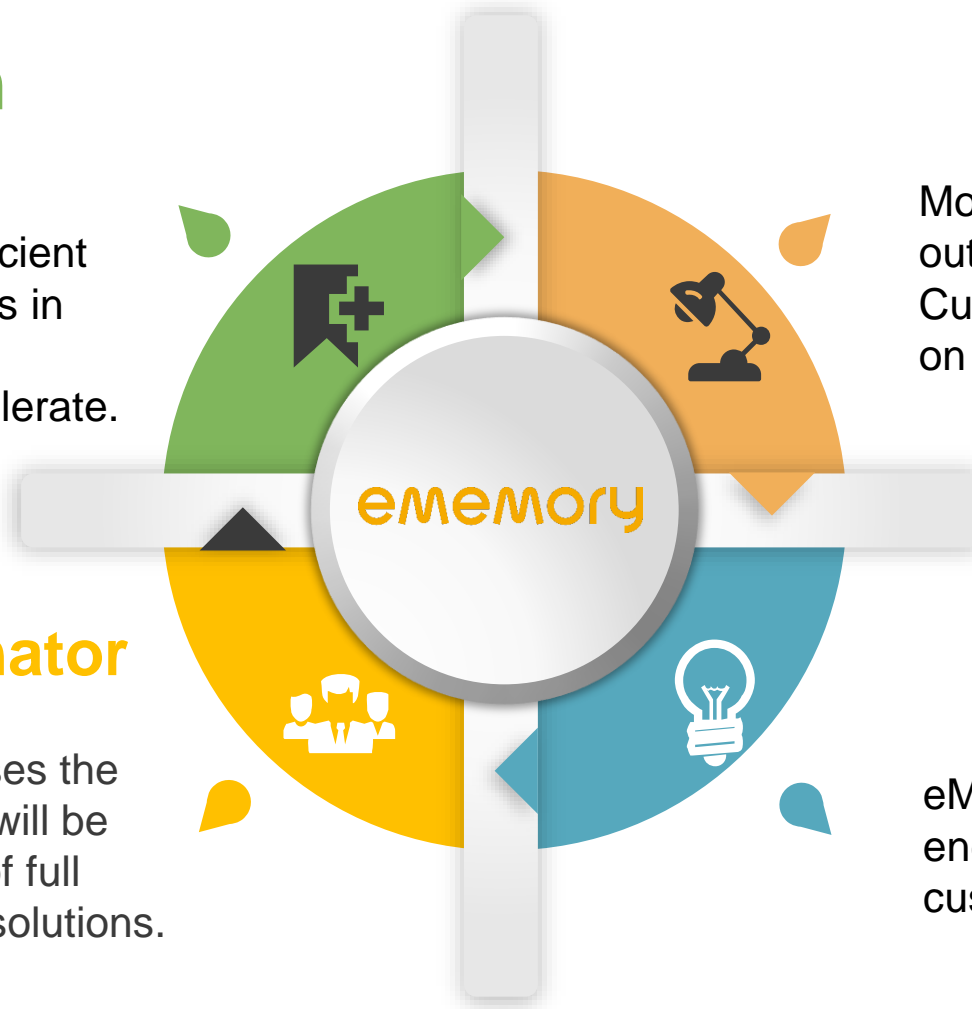
More 28 nm IP tape-outs in 2017 and 2018. Customers will move on to 16/14/12 nm.

OTP Dominator

After 7nm IP crosses the chasm, eMemory will be the sole provider of full spectrum of OTP solutions.

7 nm

eMemory is currently engaging 7 nm customers.



A hand is shown dropping a coin into a stack of coins. To the left, a small green plant with three leaves is growing out of a stack of coins. The background is a warm, golden-brown color with a white, brush-stroke-like border on the left side.

Q3 Performance

Financial Income Statement

Amount in Thousands of NT Dollars, except margins/EPS/ROE

(Unit: K NTD)

	Q3 2018	Q2 2018	Q3 2017	change (QoQ)	change (YoY)
Revenue	393,225	302,073	384,423	30.2%	2.3%
Gross Margin	100%	100%	100%	-	-
Operating Expenses	204,342	183,706	205,291	11.2%	-0.5%
Operating Income	188,883	118,367	179,132	59.6%	5.4%
Operating Margin	48.0%	39.2%	46.6%	8.8ppts	1.4ppts
Net Income	168,572	112,193	194,062	50.3%	* -13.1%
EPS	2.23	1.48	2.56	50.7%	-12.9%
ROE	34.8%	23.2%	40.2%	11.6ppts	-5.4ppts

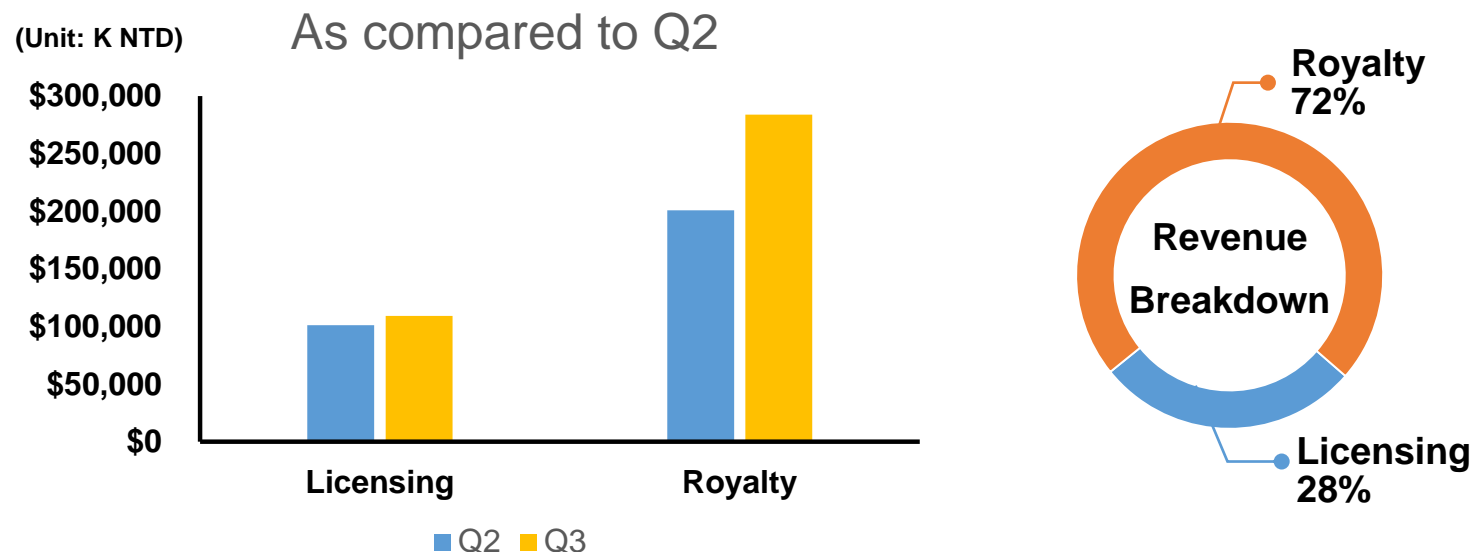
Note: Net Income declined due to non-operating gain in Q3 2017

ememory

Embedded wisely, Embedded widely

Q3 Revenue Breakdown

Amount in Thousands of NT Dollars, as compared to Q2



Revenue (Unit: K NTD)

	Q3 2018	Q2 2018	QoQ	Q3 2017	YoY	Q1 – Q3 2018	Q1 – Q3 2017	YoY
Licensing	109,257	101,283	7.9%	101,087	8.1%	325,080	309,373	5.1%
Royalty	283,968	200,790	41.4%	283,336	0.2%	744,684	744,519	0.0%
Total	393,225	302,073	30.2%	384,423	2.3%	1,069,764	1,053,892	1.5%



Q&A

ememory

Embedded wisely, Embedded widely



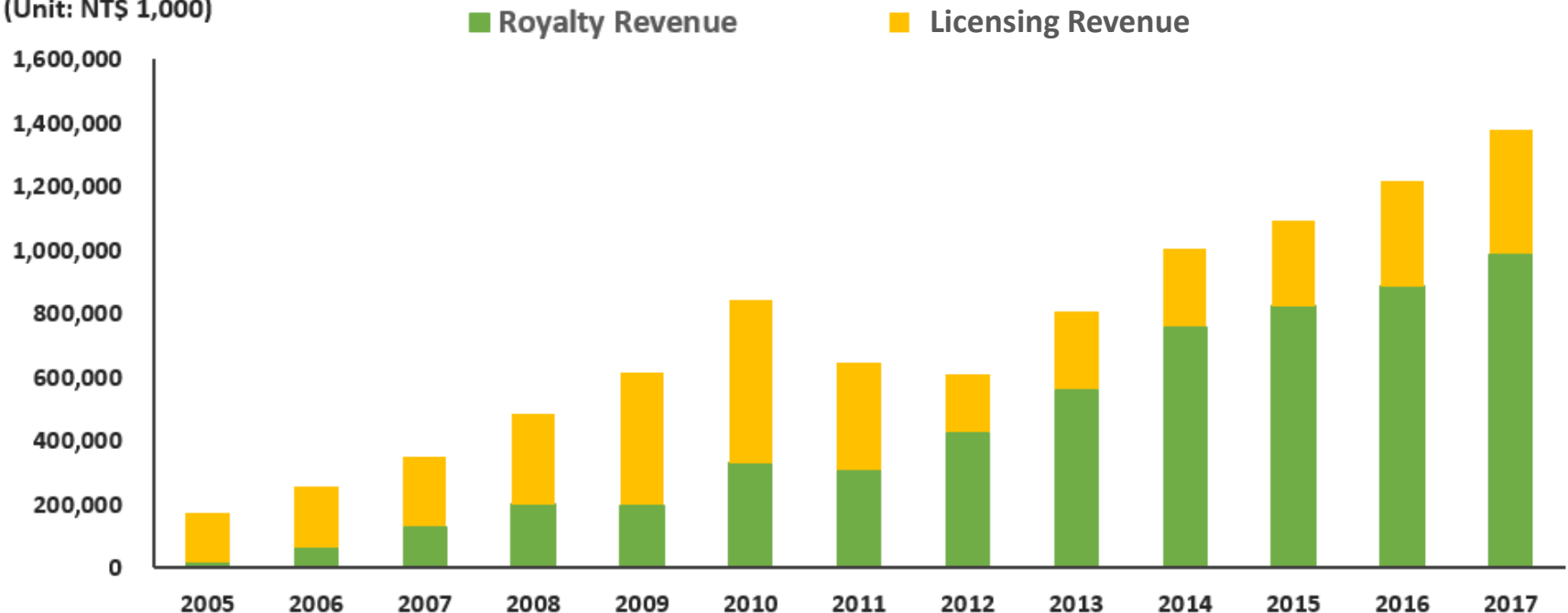
Appendix

Company Overview

eMemory is the global leader of embedded non-volatile memory IP

Revenue Trend

(Unit: NT\$ 1,000)



Founded
In 2000

Based in Hsinchu, Taiwan.
IPO in 2011

580+
Patents Issued

236 pending patents. 249
employees with 70% R&D
personnel

Best IP Partner
of TSMC

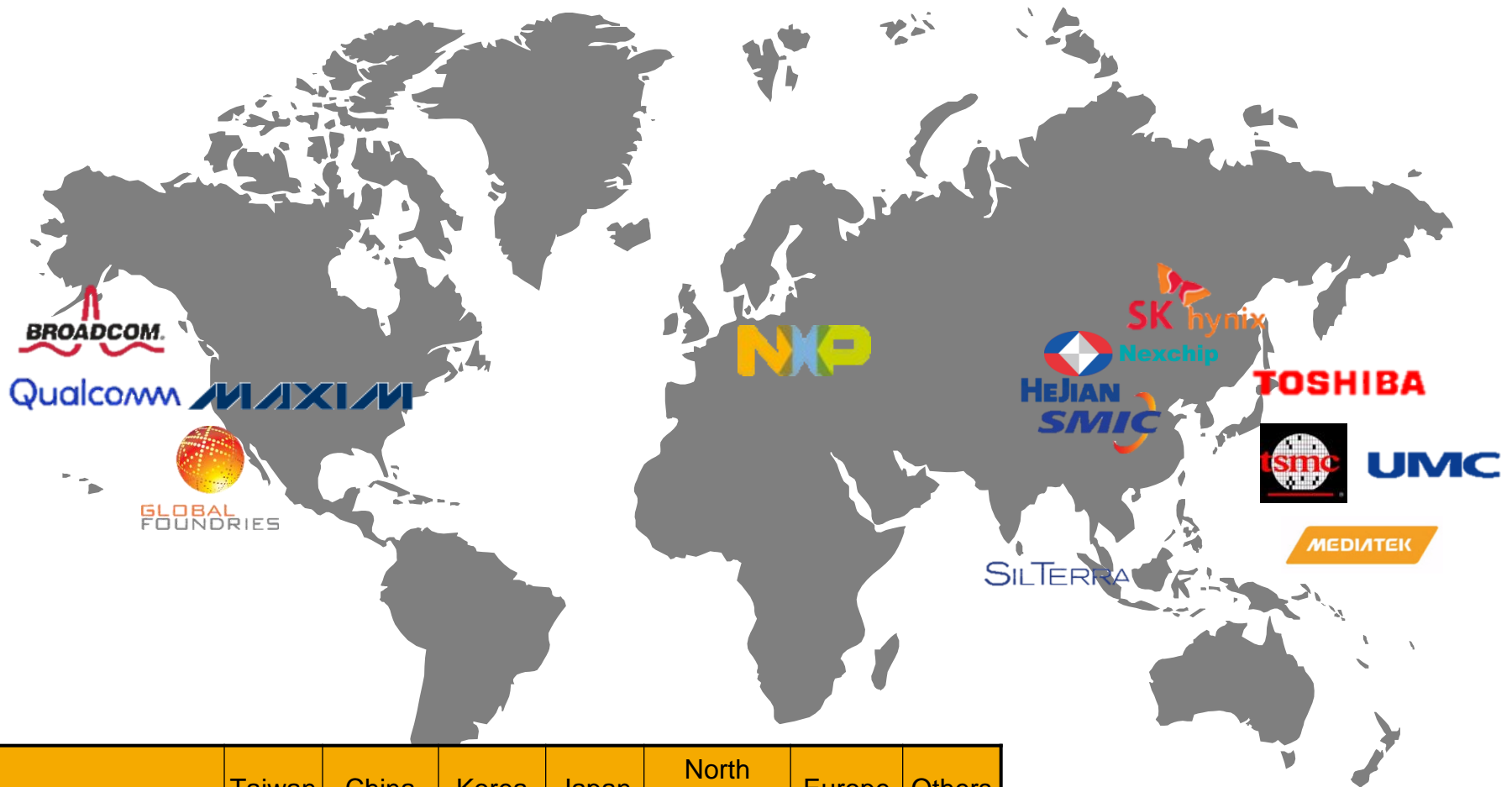
TSMC Best IP Partner Award
since 2010.

ememory

Embedded wisely, Embedded widely

Worldwide Customers

Our IP solutions are adopted by leading foundries, IDMs, and fabless worldwide

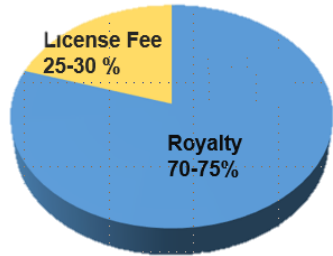


	Taiwan	China	Korea	Japan	North America	Europe	Others
Foundry	5	8	3	4	1	2	1
IDM	0	0	0	8	2	1	0
Fabless	261	592	71	52	242	111	53

ememory
Embedded wisely, Embedded widely

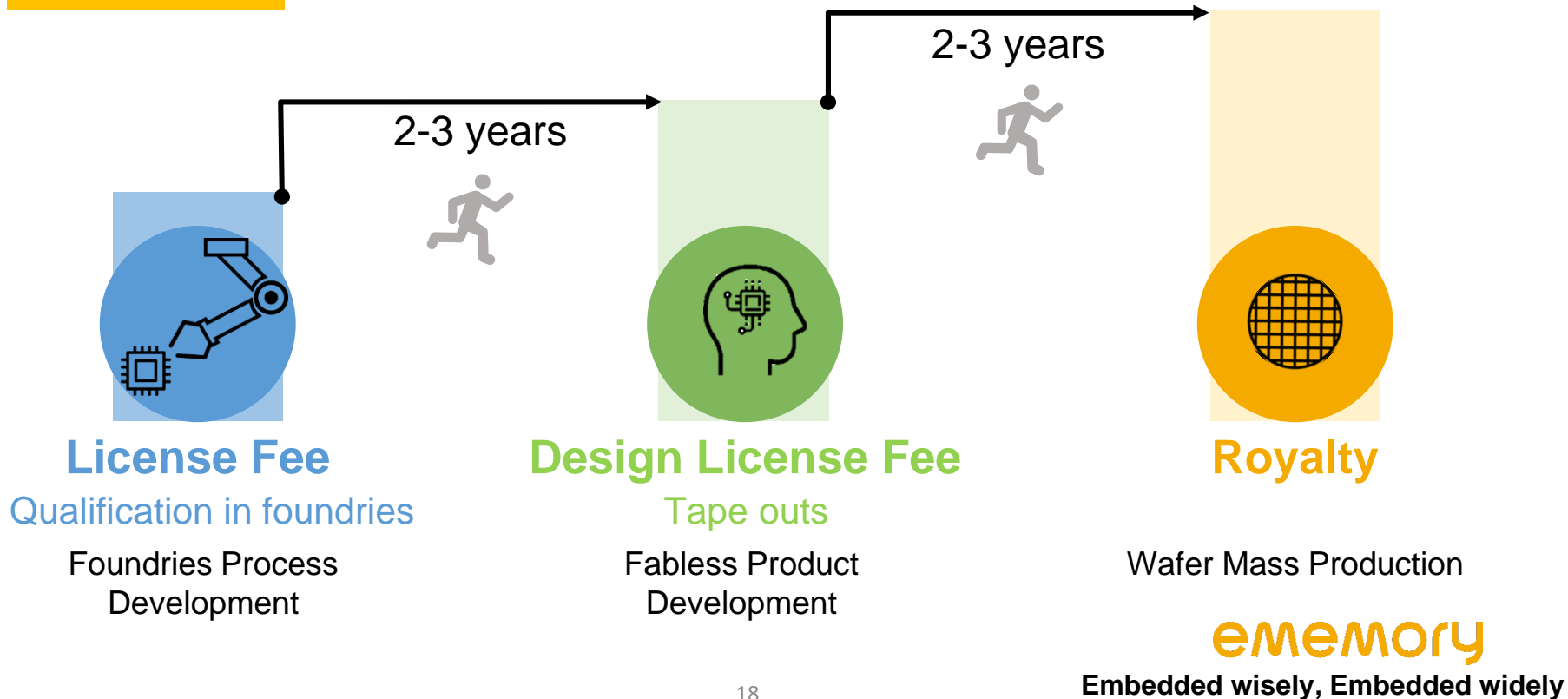
Business Model

Recurring royalty is the backbone of our business



**Revenue
Breakdown**

- ✓ 70-75% revenue are from royalty, based on wafer production
- ✓ More adoption = more wafer shipments
- ✓ More advanced node wafers = higher wafer ASP

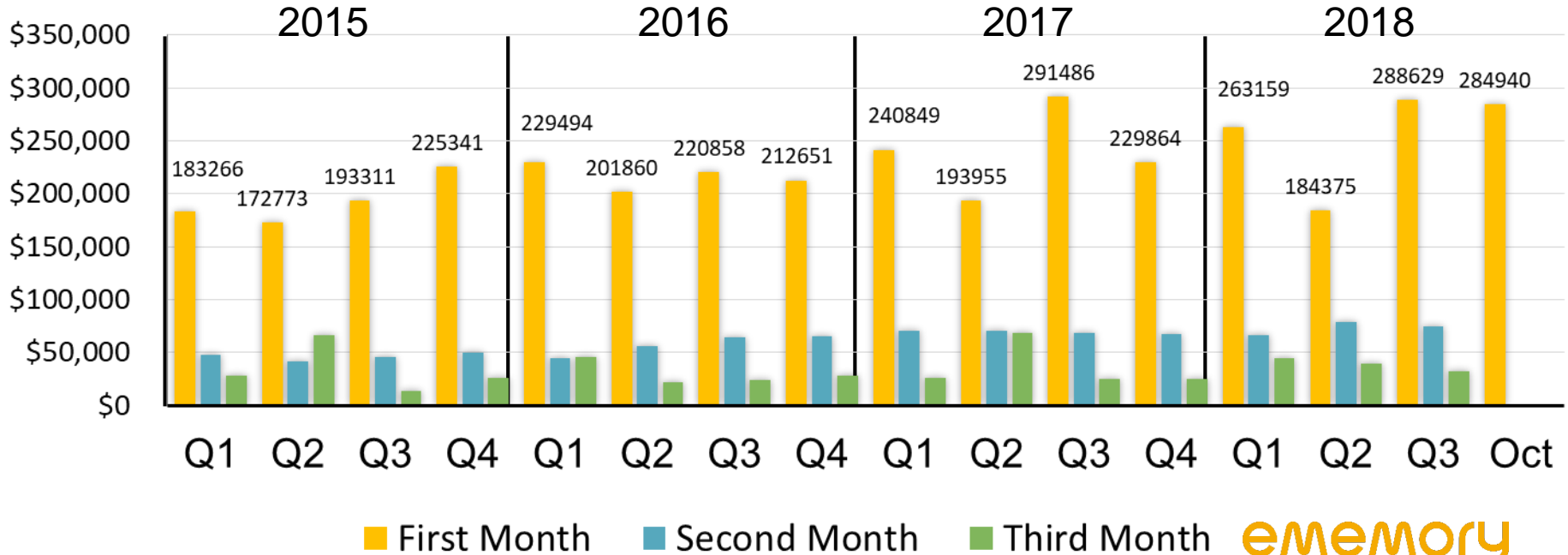


Quarterly Revenue Pattern

eMemory's revenues are usually received in the first month of each quarter

- ✓ 1st month: Receive **License Fees** of the month and **Royalty** from most foundries on previous quarter's wafer shipments
- ✓ 2nd month: Receive **License Fees** of the month and **Royalty** from other foundries
- ✓ 3rd month: Receive **License Fees** of the month only.
- ✓ Two foundries pay royalty semiannually in Jan and July.

Unit: K NTD



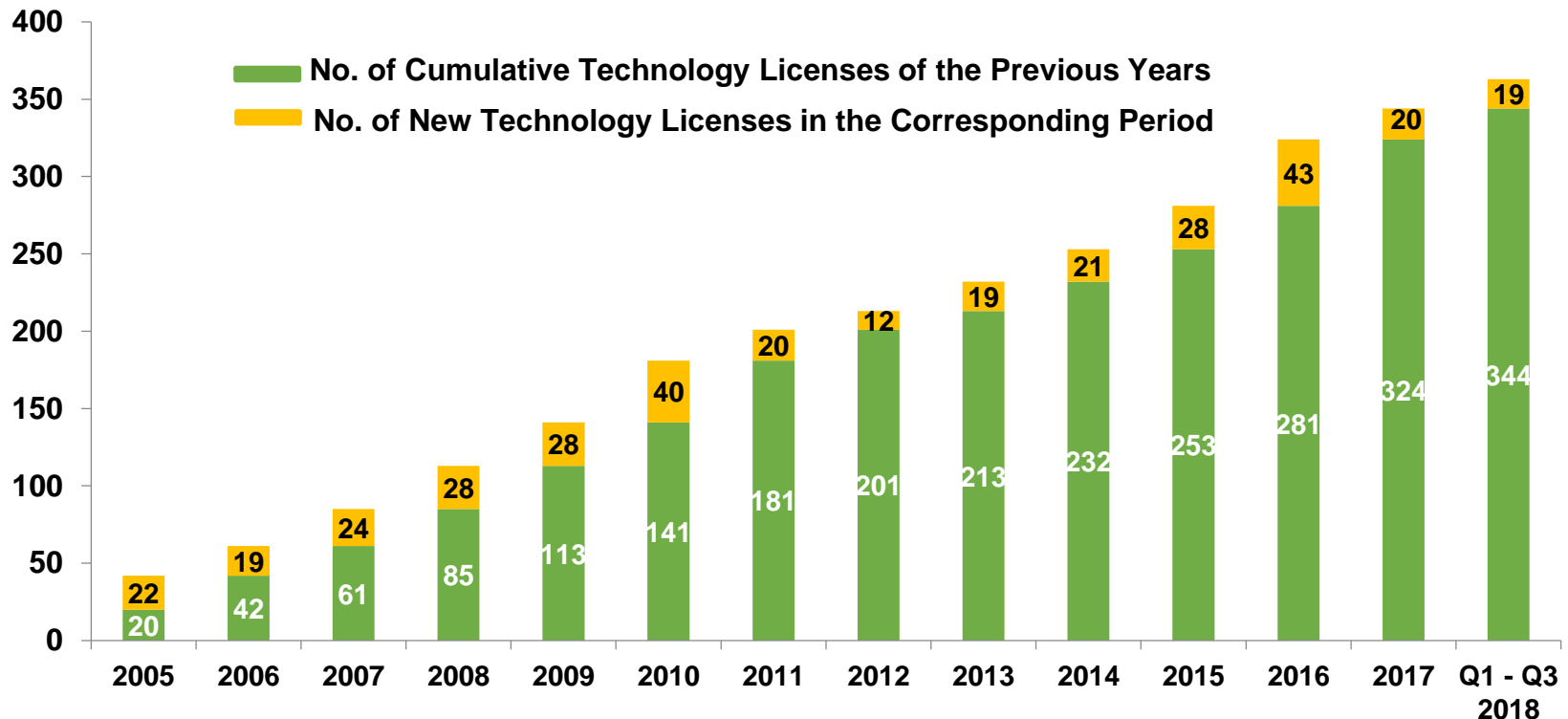
Technology Licenses

Cumulative technology licenses

Number of Licenses

Year	2015	2016	2017	Q1-Q3 2018
Licenses	28	43	20	19

Note: Terms (including number of process platforms and licensing fees) for each technology license are set contractually. Payments are made according to set milestones, and there are no particular seasonal factors involved.



ememory

Embedded wisely, Embedded widely

New Technology under Development

Products in different process nodes

- New technologies under development for **98** platforms as of Q3 2018
- **15** for NeoBit, **48** for NeoFuse, **5** for NeoPUF, **10** for NeoEE, and **20** for NeoMTP

	7/10nm	12/14/16nm	22/28nm	40nm	55/65nm	80/90nm	0.11~ 0.13um	0.15~ 0.18um
NeoBit	-	-	-	-	1	1	7	6
NeoFuse	2	4	13	6	7	11	3	2
NeoPUF	-	-	2	1	2	-	-	-
NeoEE	-	-	-	-	-	1	2	7
NeoMTP	-	-	-	-	2	1	8	9

As of Sep 30th, 2018

Technology Development

Development by process nodes

12" Fabs	Production	Development	IP Type	Process Type
7/10nm	0	2	OTP	FF
12/14/16nm	2	4	OTP	FF+
22/28nm	12	15	NeoPUF, OTP	LP/HPM, HLP/HPM, LPS, DRAM
40nm	10	7	OTP, MTP	HV-DDI, LP, eFlash
55/65nm	19	12	NeoPUF, OTP, MTP	LP, HV-DDI, HV-OLED, CIS, eFlash
80/90nm	8	9	OTP, MTP	HV-DDI, HV-OLED, LP, eFlash
0.13/0.11um	11	7	OTP, MTP	HV-DDI, BCD, Generic
0.18um	1	0	OTP	BCD
Total	63	56		

8" Fabs	Development	IP Type	Process Type
90nm	5	OTP	HV-DDI, LL
0.13/0.11um	13	OTP, MTP	HV-DDI, BCD, LP, RF, CIS, LL, Green
0.18/0.16/0.152um	24	OTP, MTP	Generic, LP, LL, MR, HV, Green, BCD
0.25um	0	OTP, MTP	BCD
0.35um	0	OTP	UHV
Total	42		

Note: As of Sep. 30th, 2018

ememory

Embedded wisely, Embedded widely



THANKS

Embedded wisely, Embedded widely

ememory

Embedded wisely, Embedded widely