

ADVANTECH

# ADVANTECH

## DRAM Memory Module

### Portfolio Introduction

PAPS Product Management  
Q3 / 2013

**PART I.**

**ADVANTECH QUALIFIED DIMM  
(AQD)**

# ADVANTECH QUALIFIED DIMM

***Built to Last ---***

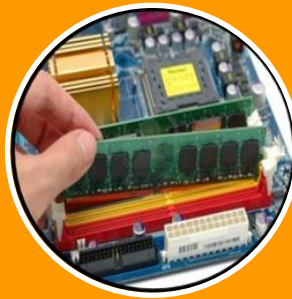
The toughest memory module for rigorous applications



**QUALITY**



**RELIABILITY**



**COMPATIBILITY**



**LONGEVITY**



**LIFE-TIME WARRANTY**



**Quality Assurance**

Rigorous Reliability Tests

Cross-Checked Compatibility

Longevity

Life-Time Warranty

# Quality Assurance Program

Carefully Selected Premium Materials

ISO-9000 Manufacturing Process

Industrial Testing Standard

Quality Assurance

**Rigorous  
Reliability  
Tests**

Cross-Checked  
Compatibility

Longevity

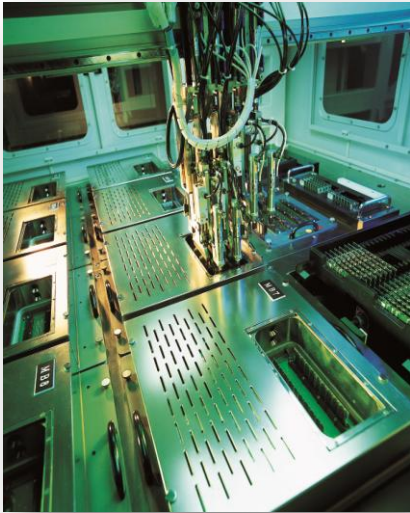
Life-Time Warranty

100% Module  
On Board  
Testing

Vibration  
Test

Chamber Test

Functional Test



Quality Assurance

Rigorous Reliability Tests

**Cross-Checked Compatibility**

Longevity

Life-Time Warranty

Motherboard Team  
DOA Testing Result

Memory Compatibility  
Testing Result

**Check & Compare**  
Both Teams Testing Result to  
Ensure M/B vs. Memory  
Compatibility



| Part No          | 9603-1G1069N-N-AP | 9603-1G1069N-N-TR | 9603-2C1069N-N-AP | 9603-2C1069N-N-TR | 9603-4G1069N-N-AP | 9603-1G1333N-N-AP | 9603-1G1333N-N-AP1 | 9603-1G1333N-N-SA | 9603-1G1333N-N-TR | 9603-1G1333N-N-TR1 | 9603-2C1333N-N-AP |
|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|-------------------|--------------------|-------------------|
| ARK-DS302-S6A1E  |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |
| ARK-DS302-S6A1E  |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |
| ARK-DS302-S6A2E  |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |
| ARK-DS302-S6A2E  |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |
| ARK-DS350-00A1E  |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |
| ARK-DS350-00B1E  |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |
| ARK-DS350-U0A1E  |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |
| ARK-DS350-U2A1E  |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |
| ARK-DS350-U7B1E  |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |
| ARK-DS350-USB1E  |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |
| ASMB-310-00A1E   |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |
| ASMB-310R-00A1E  |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |
| ASMB-781G2-00A1E | x                 | x                 | x                 | x                 | x                 | x                 | x                  | x                 | x                 | x                  | x                 |
| ASMB-781G4-00A1E | x                 | x                 | x                 | x                 | x                 | x                 | x                  | x                 | x                 | x                  | x                 |
| ASMB-920-00A1E   |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |
| ASMB-920R-00A1E  |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |
| FWA-3210A        |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |
| FWA-3210B        |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |
| FWA-6500BE       |                   |                   |                   |                   |                   |                   |                    |                   |                   |                    |                   |

Quality Assurance

Rigorous Reliability  
Tests

Cross-Checked  
Compatibility

**Longevity**

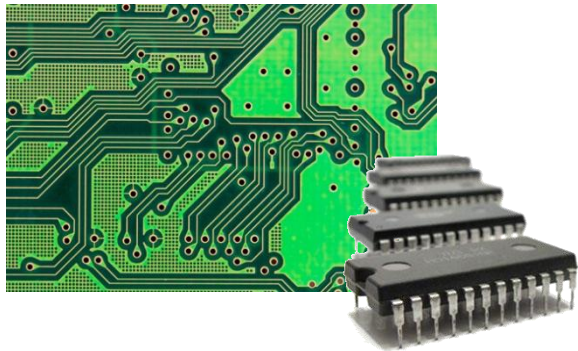
Life-Time Warranty

## Locked BOM

- IC Spec
- PCB Layout



**Minimum  
3 Years  
Longevity**



Quality Assurance

Rigorous Reliability  
Tests

Cross-Checked  
Compatibility

Longevity

**Life-Time Warranty**

**Every ADVATECH QUALIFIED  
DIMM (AQD) is back up by life-  
time warranty.**



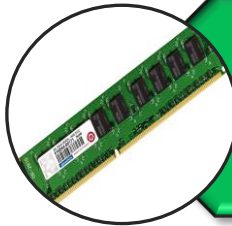


# AQD Product Portfolio



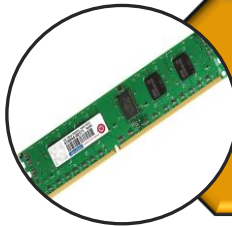
## *Unbuffered DIMM*

- \* General IPC Applications
- \* 1GB, 2GB, 4GB & 8GB



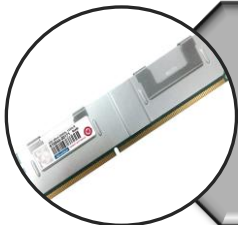
## *ECC Unbuffered DIMM*

- \* Improve system productivity and efficiency
- \* 4GB & 8GB



## *Registered DIMM*

- \* Providing the best solution for capacity and performance requirement.
- \* 8 GB & 16GB



## *Load Reduce DIMM*

- \* Providing the biggest capacity per server with the lowest energy costs
- \* 32GB

# AQD Products Offering

**LONG & SHORT  
Unbuffered DIMM**

LONG DIMM  
DDR3-1333  
1G



AQD-D31GN13-SX

LONG DIMM  
DDR3-1600  
2G



AQD-D3L2GN16-SQ

LONG DIMM  
DDR3-1600  
4G



AQD-D3L4GN16-SQ

LONG DIMM  
DDR3-1600  
8G



AQD-D3L8GN16-SQ

SHORT DIMM  
DDR3-1333  
1G



AQD-SD31GN13-SX

SHORT DIMM  
DDR3-1600  
2G



AQD-SD3L2GN16-SQ

SHORT DIMM  
DDR3-1600  
4G



AQD-SD3L4GN16-SG

SHORT DIMM  
DDR3-1600  
8G



AQD-SD3L8GN16-SG

**ECC Unbuffered DIMM**

LONG DIMM  
DDR3-1600  
4G



AQD-D3L4GE16-SG

LONG DIMM  
DDR3-1600  
8G



AQD-D3L8GE16-SG

**Load Reduce DIMM**

DDR3-1333  
32G



AQD-D3L32L13-SM

**Registered DIMM**

LONG DIMM  
DDR3-1600  
8G



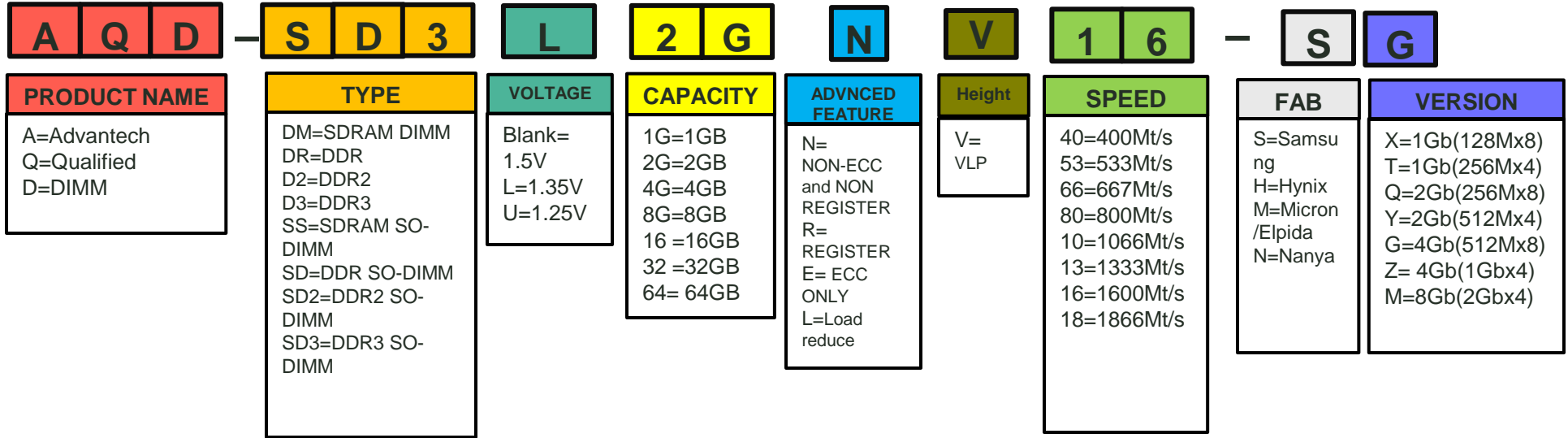
AQD-D3L8GRV16-SG

LONG DIMM  
DDR3-1600  
16GB

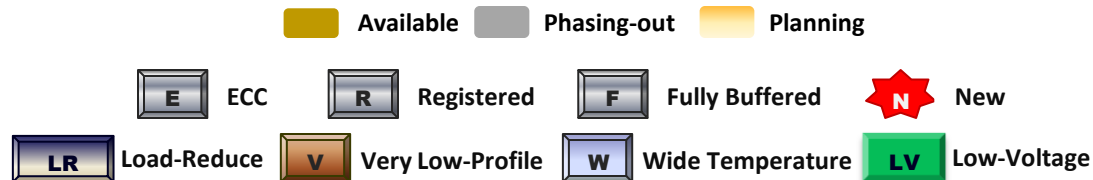


AQD-D3L16RV16-SM

# Part Number Decoder



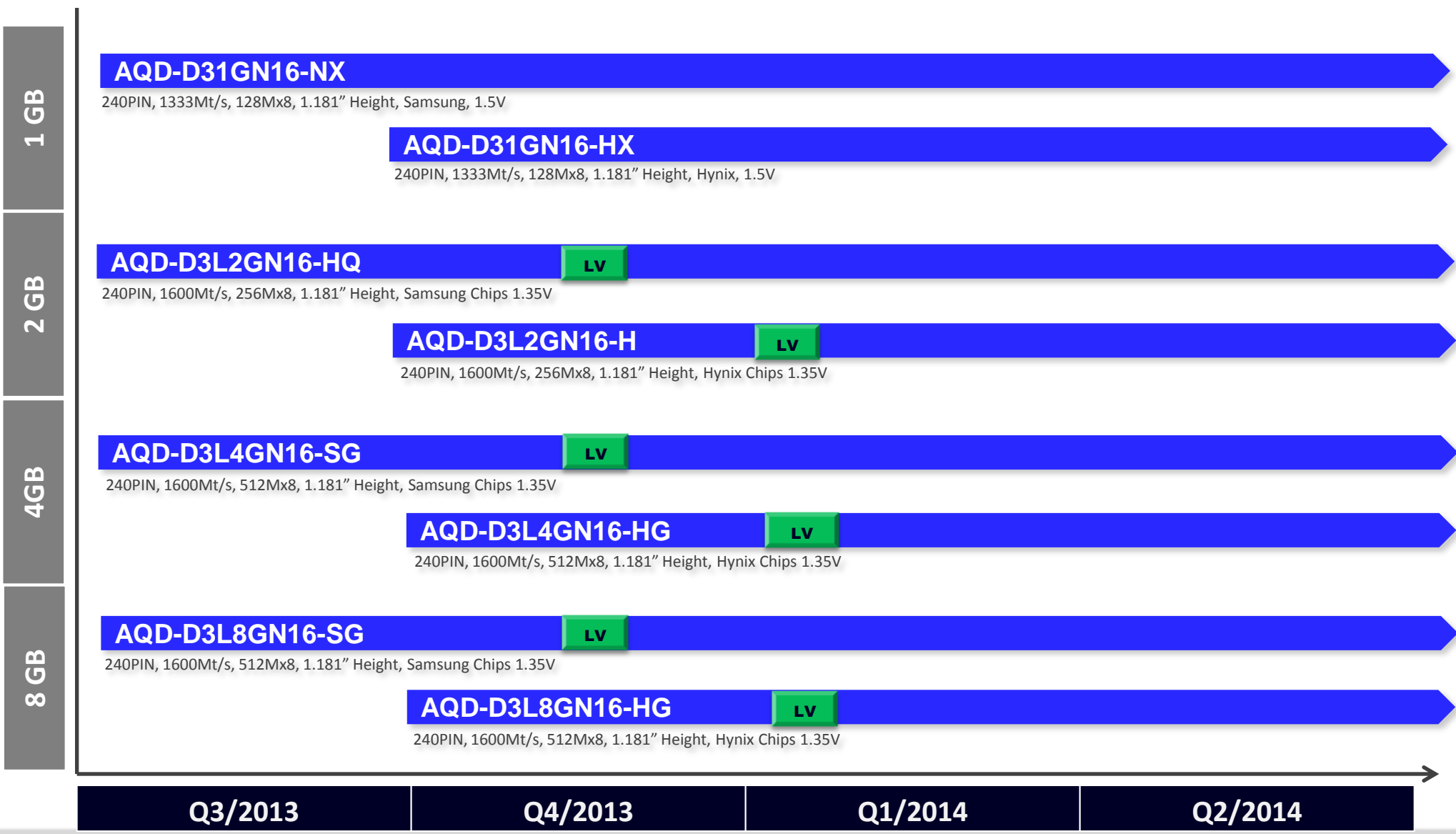
## Color / Symbol Key



# AQD DDR3 Memory Modules Portfolio

| DDR3<br>1.35 Low Voltage |              | 1333                     |                           | 1600             |                  |
|--------------------------|--------------|--------------------------|---------------------------|------------------|------------------|
|                          |              | LONG                     | SHORT                     | LONG             | SHORT            |
| U-DIMM                   | 1GB (128X8)  | AQD-D31GN13-SX<br>(1.5V) | AQD-SD31GN13-SX<br>(1.5V) |                  |                  |
|                          | 2GB (256MX8) |                          |                           | AQD-D3L2GN16-SQ  | AQD-SD3L2GN16-SQ |
|                          | 4GB (512MX8) |                          |                           | AQD-D3L4GN16-SG  | AQD-SD3L4GN16-SG |
|                          | 8GB (512MX8) |                          |                           | AQD-D3L8GN16-SG  | AQD-SD3L8GN16-SG |
| ECC U-DIMM               | 4GB (512MX8) |                          |                           | AQD-D3L4GE16-SG  |                  |
|                          | 8GB (512MX8) |                          |                           | AQD-D3L8GE16-SG  |                  |
| R-DIMM                   | 4GB (512MX8) |                          |                           |                  |                  |
|                          | 8GB (512MX8) |                          |                           | AQD-D3L8GRV16-SG |                  |
|                          | 16GB(2Gbx4)  |                          |                           | AQD-D3L16RV16-SM |                  |
| LOAD REDUCE              | 32GB (2GbX4) | AQD-D3L32L13-SM          |                           |                  |                  |

# DDR3 DIMM



Q3/2013

Q4/2013

Q1/2014

Q2/2014

# DDR3 SO-DIMM



Q3/2013

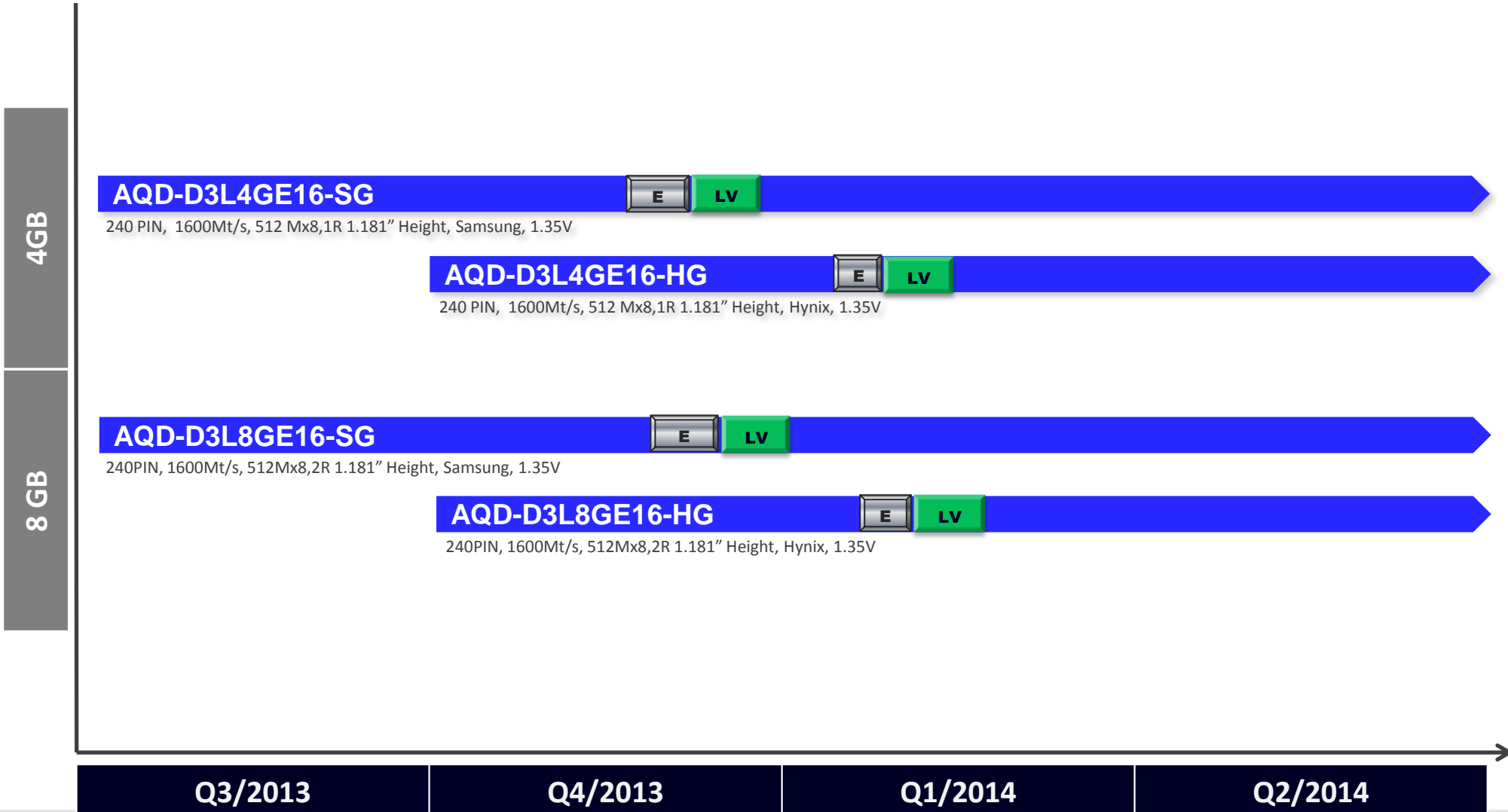
Q4/2013

Q1/2014

Q2/2014

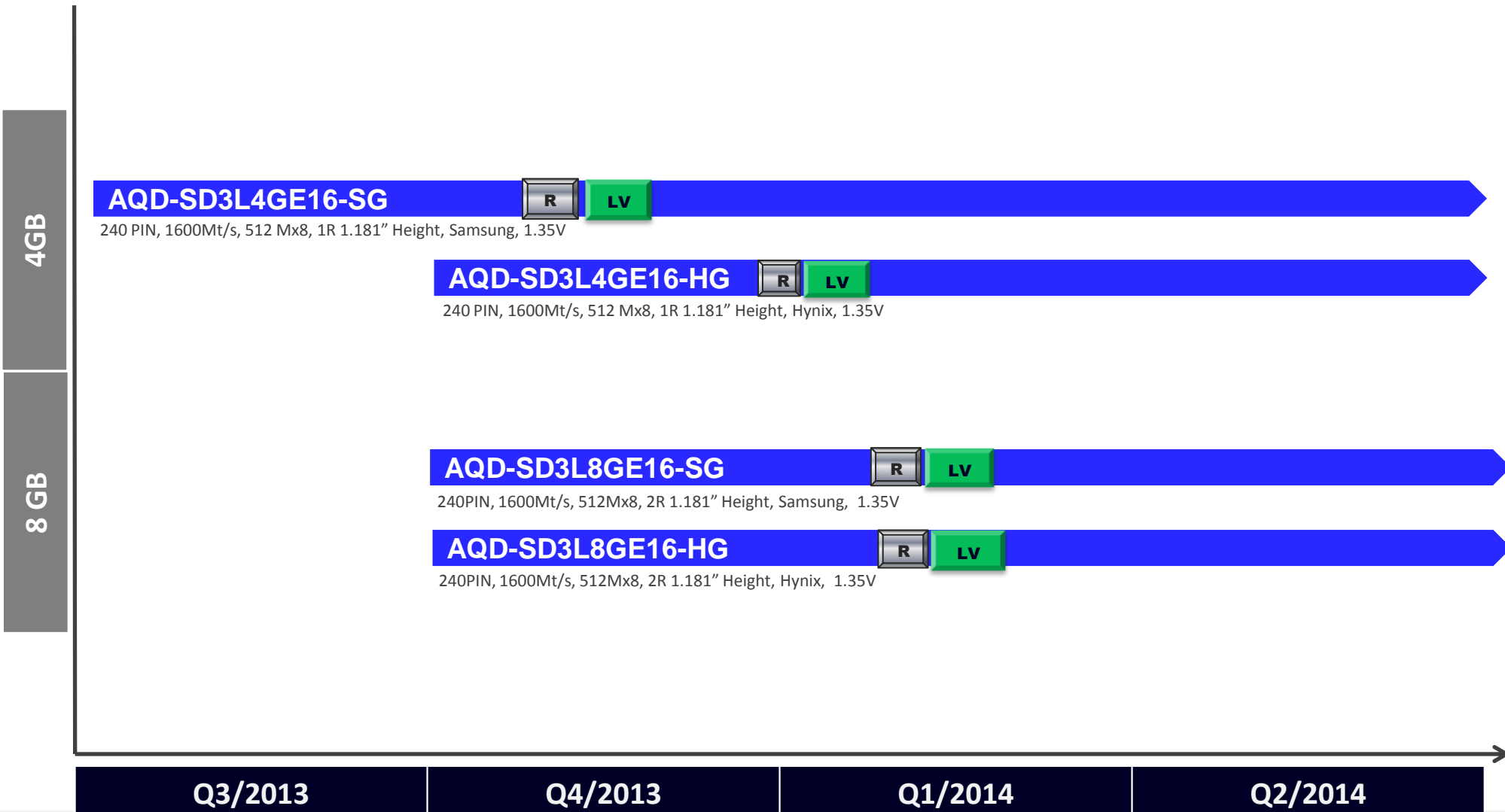
# DDR3 DIMM Advance Feature

## ECC



# DDR3 SO DIMM Advance Feature

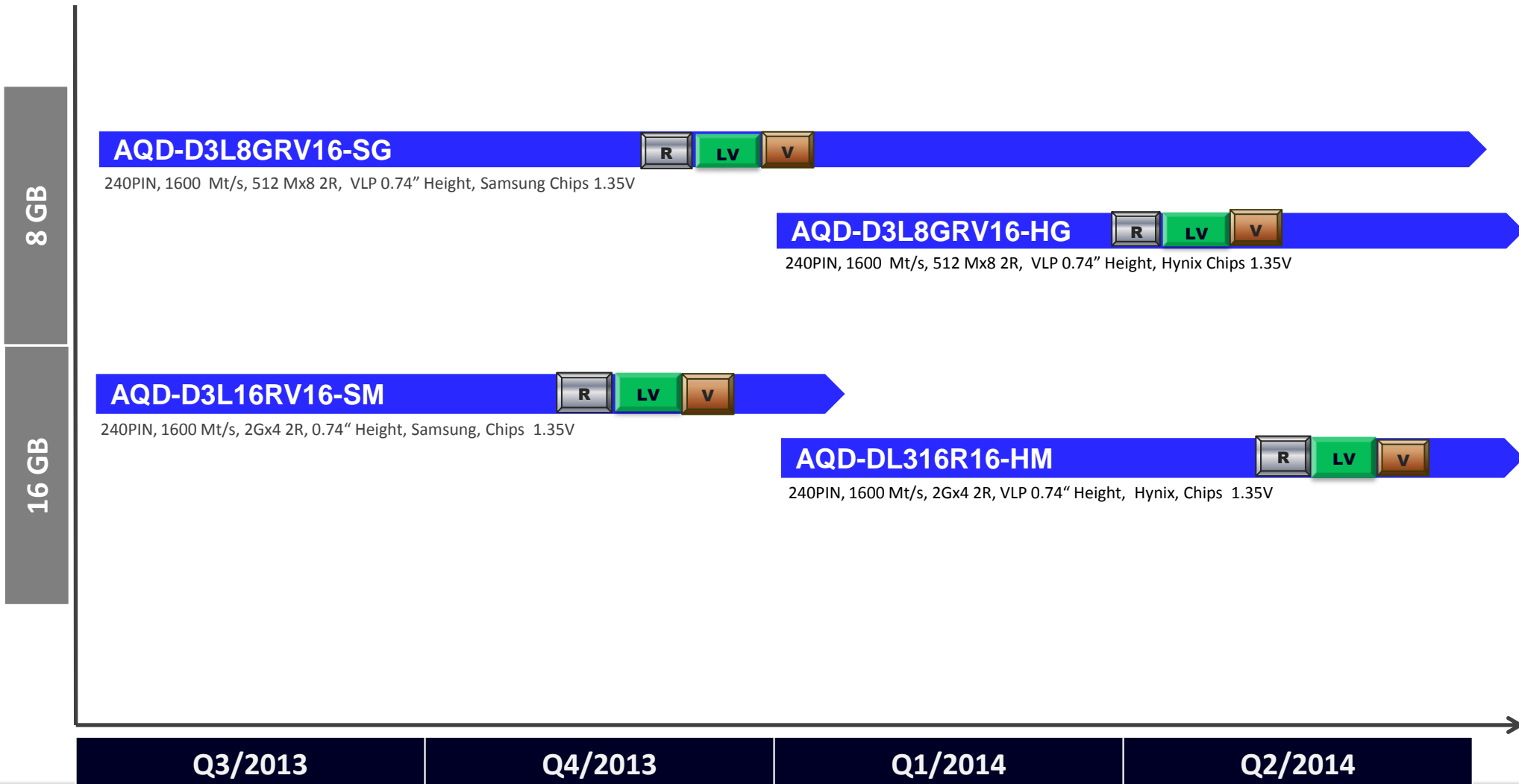
## ECC





# DDR3 DIMM Advance Feature

## ECC and Registered



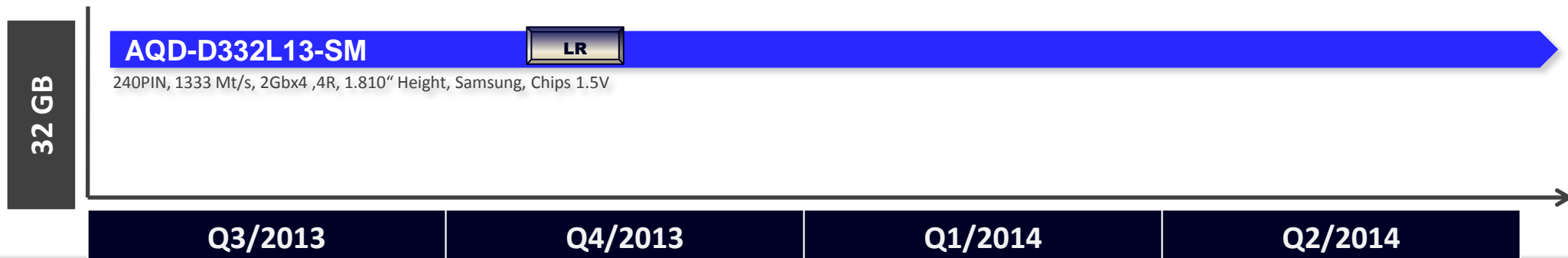
■ Available   
 ■ Phasing-out   
 ■ Planning

E ECC   
 R Registered   
 F Fully Buffered   
 N New

LR Load-Reduce   
 V Very Low-Profile   
 W Wide Temperature   
 LV Low-Voltage

# DDR3 DIMM Advance Feature

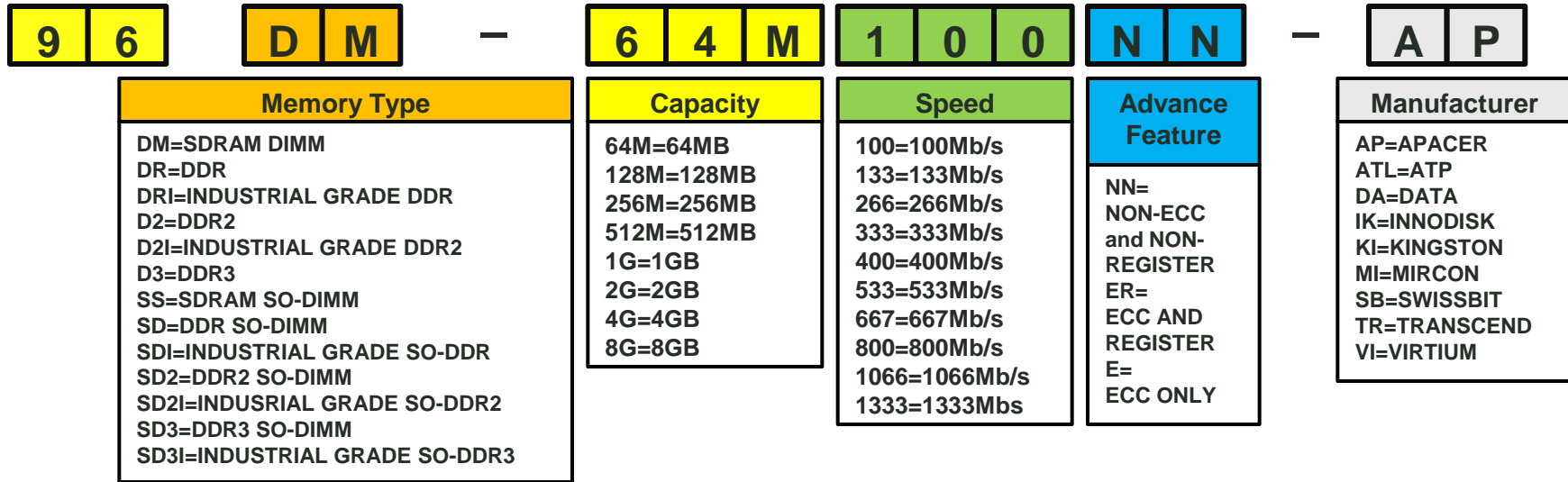
## Load Reduce



**PART II,**

**96 PARTS MEMORY MODULE**

# Part Number Decoder



## Color / Symbol Key

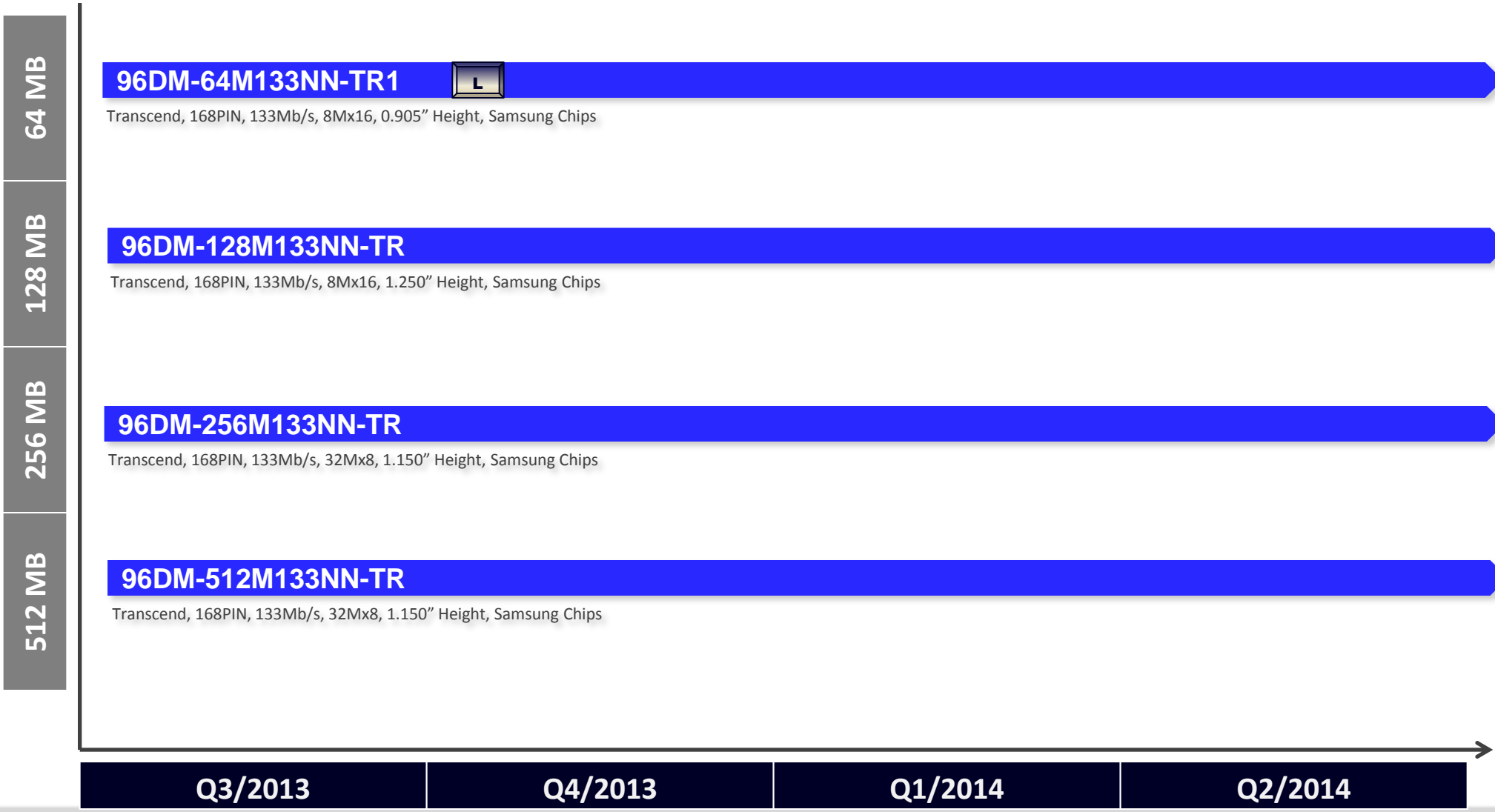
Available
  Phasing-out
  Planning



# SDRAM DIMM

Available Phasing-out Planning

E ECC   
 R Registered   
 F Fully Buffered   
 N New  
L Low-Profile   
 V Very Low-Profile   
 W Wide Temperature



**96DM-64M133NN-TR1**  
 Transcend, 168PIN, 133Mb/s, 8Mx16, 0.905" Height, Samsung Chips

**96DM-128M133NN-TR**  
 Transcend, 168PIN, 133Mb/s, 8Mx16, 1.250" Height, Samsung Chips

**96DM-256M133NN-TR**  
 Transcend, 168PIN, 133Mb/s, 32Mx8, 1.150" Height, Samsung Chips

**96DM-512M133NN-TR**  
 Transcend, 168PIN, 133Mb/s, 32Mx8, 1.150" Height, Samsung Chips

Q3/2013

Q4/2013

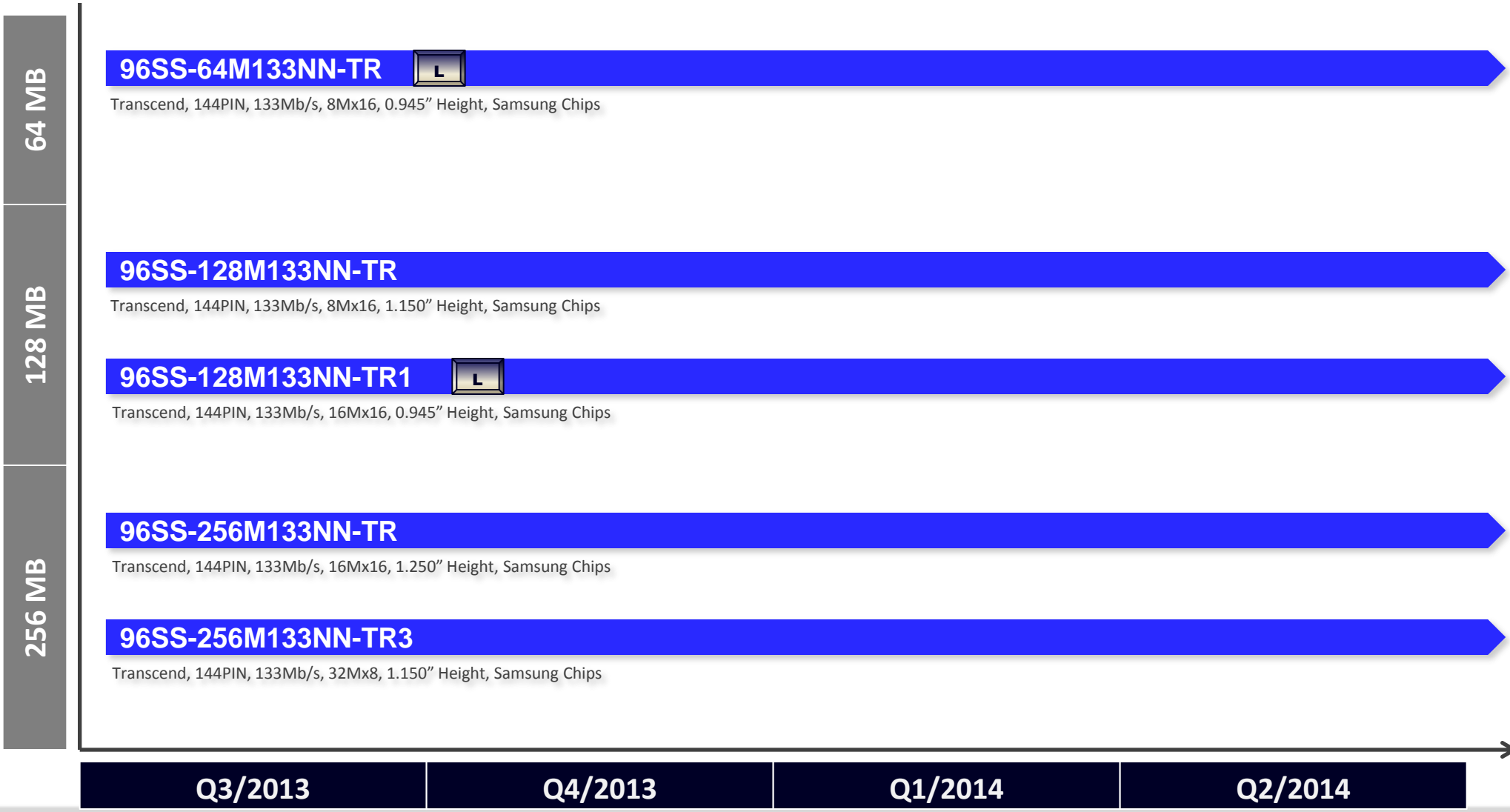
Q1/2014

Q2/2014

# SDRAM SO-DIMM

Available Phasing-out Planning

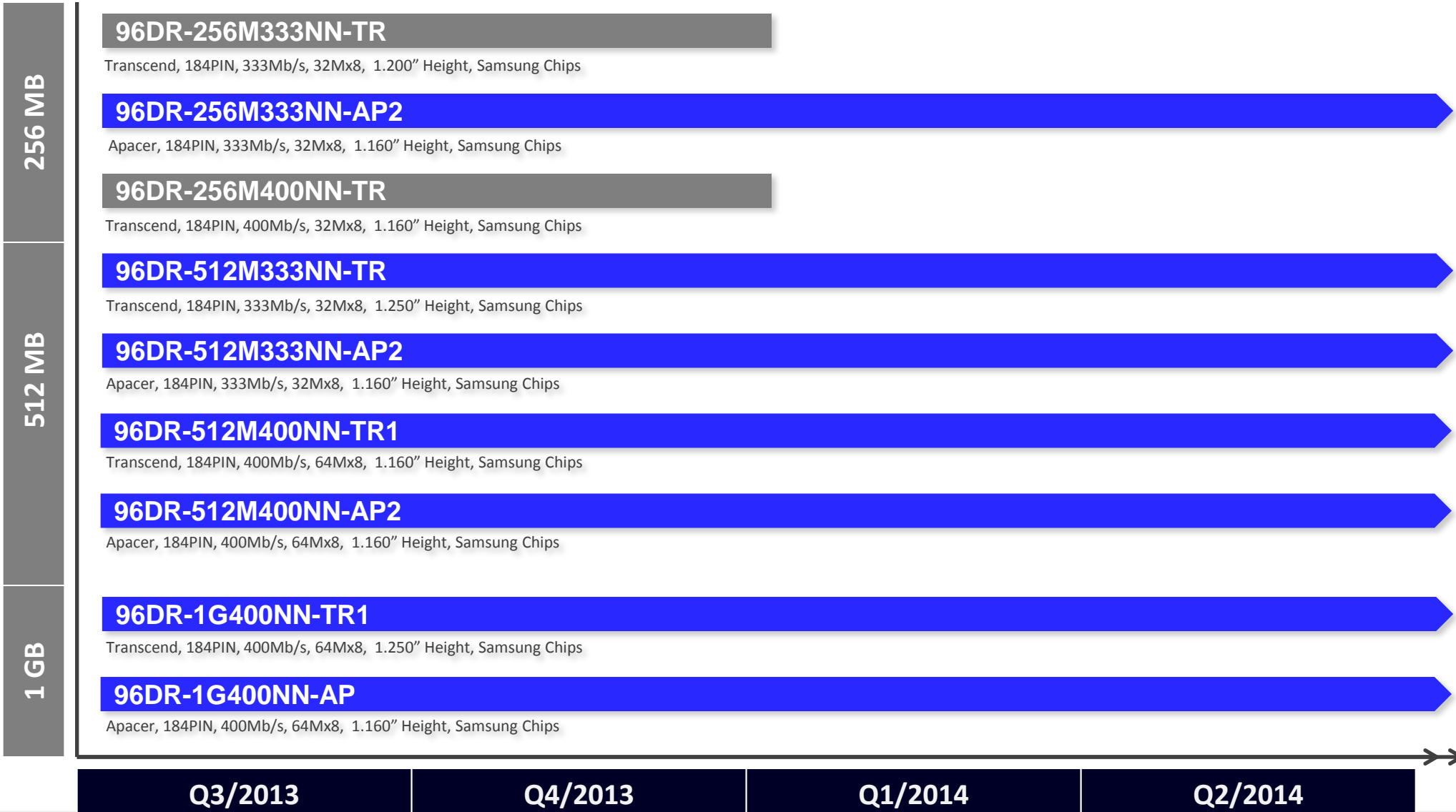
E ECC   
 R Registered   
 F Fully Buffered   
 N New  
L Low-Profile   
 V Very Low-Profile   
 W Wide Temperature



# DDR DIMM








Available    Phasing-out    Planning

E ECC   
 R Registered   
 F Fully Buffered   
 N New  
L Low-Profile   
 V Very Low-Profile   
 W Wide Temperature

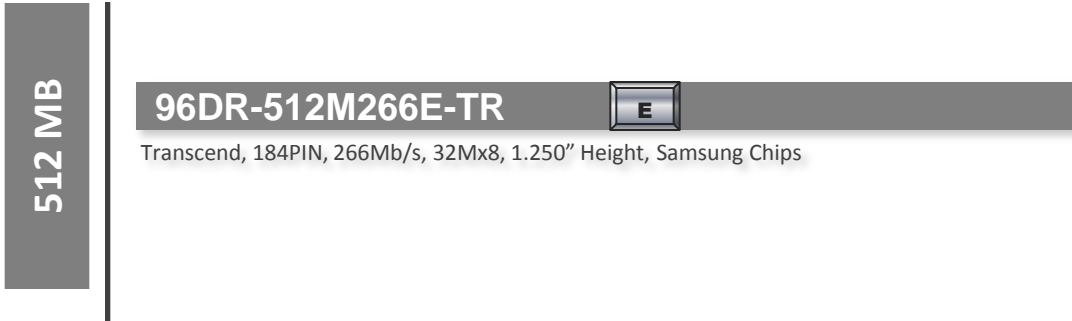


# DDR DIMM Advance Feature

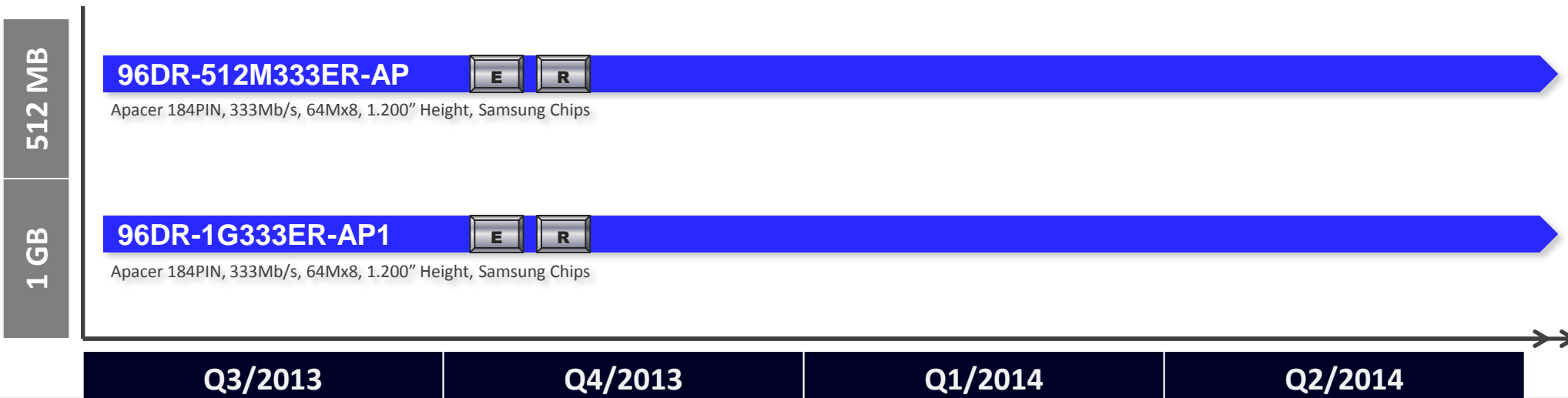
Available    Phasing-out    Planning

-  ECC
-  Registered
-  Fully Buffered
-  New
-  Low-Profile
-  Very Low-Profile
-  Wide Temperature

## ECC



## ECC and Registered

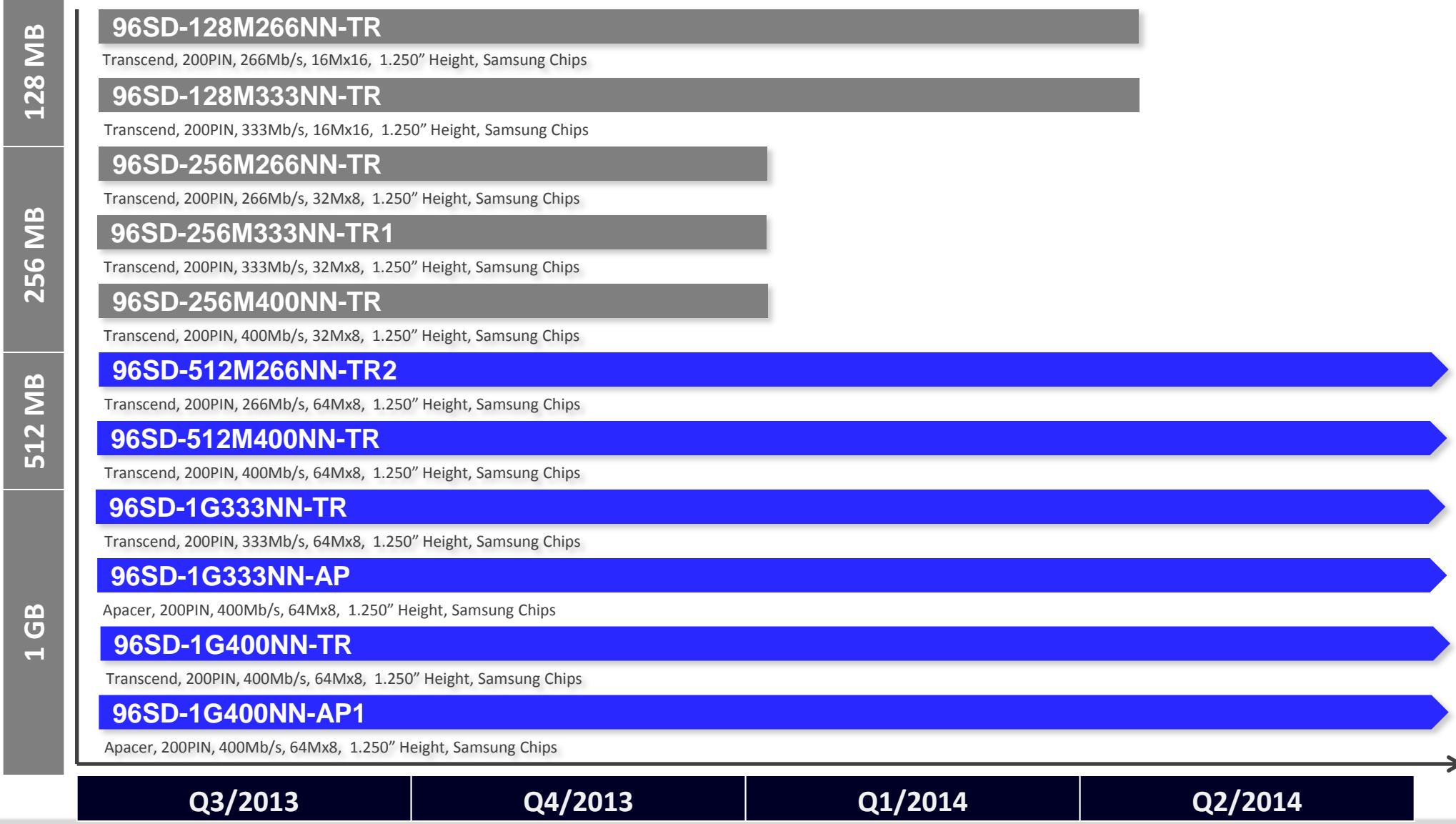




# DDR SO-DIMM

Available Phasing-out Planning

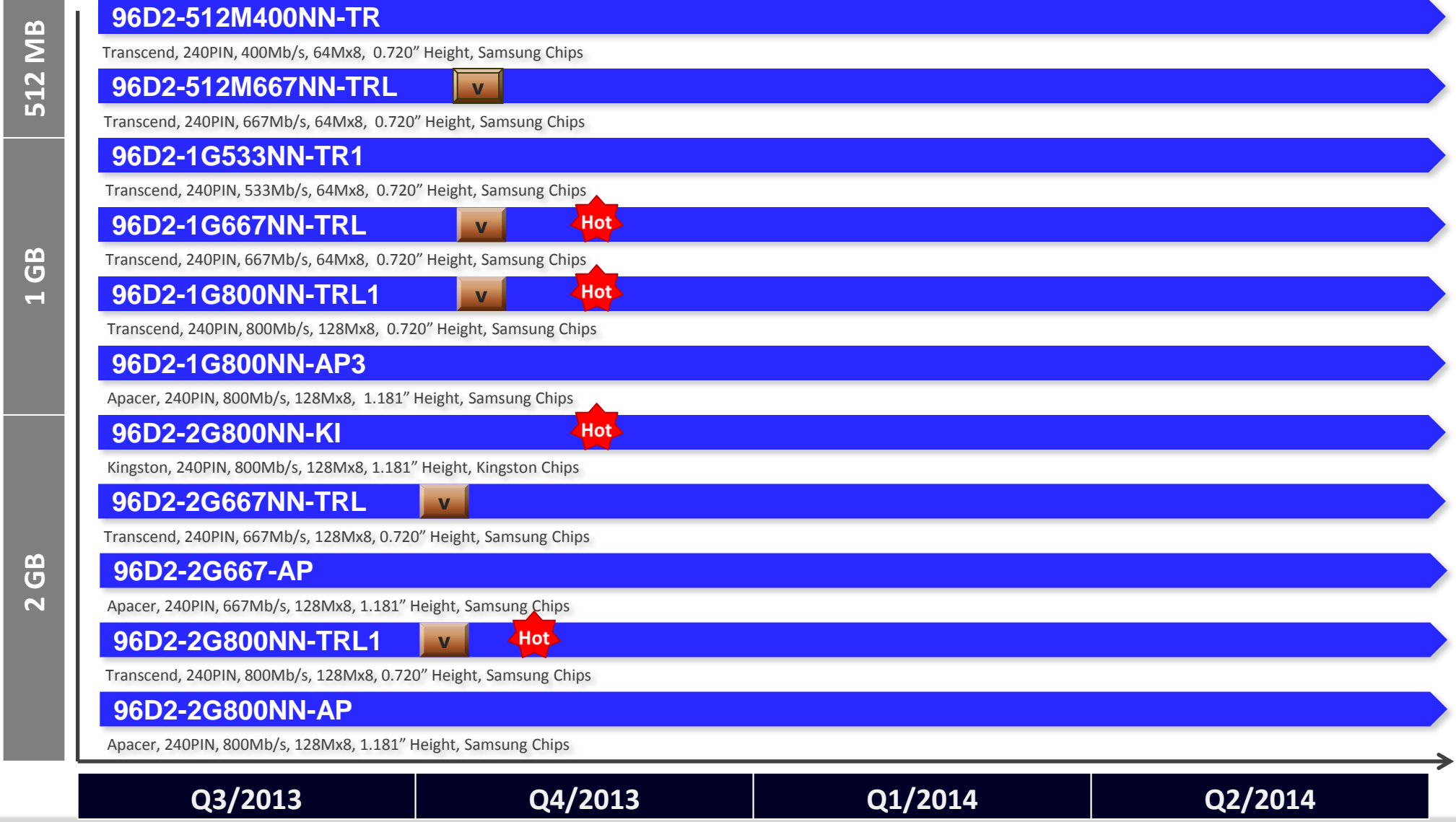
E ECC   
 R Registered   
 F Fully Buffered   
 N New  
L Low-Profile   
 V Very Low-Profile   
 W Wide Temperature



# DDR2 DIMM

Available Phasing-out Planning

ECC
 Registered
 Fully Buffered
 New
 Low-Profile
 Very Low-Profile
 Wide Temperature



Q3/2013

Q4/2013

Q1/2014

Q2/2014

# DDR2 DIMM Advance Feature

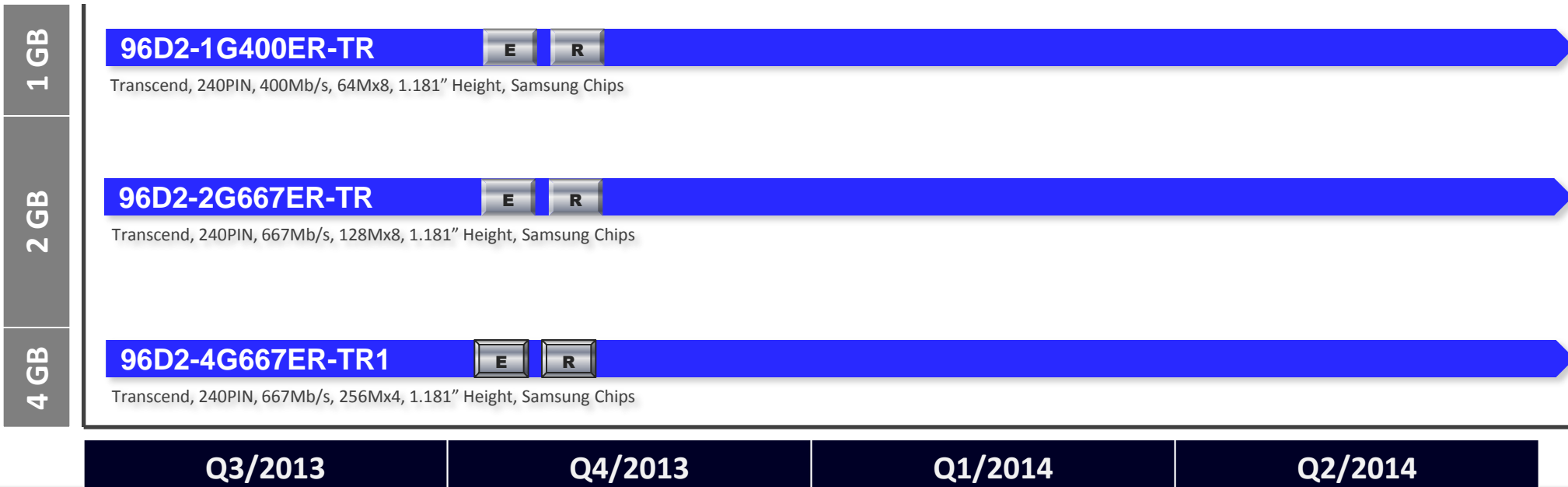
Available    Phasing-out    Planning

E ECC    R Registered    F Fully Buffered    N New  
L Low-Profile    V Very Low-Profile    W Wide Temperature

## ECC



## ECC and Registered



Q3/2013

Q4/2013

Q1/2014

Q2/2014

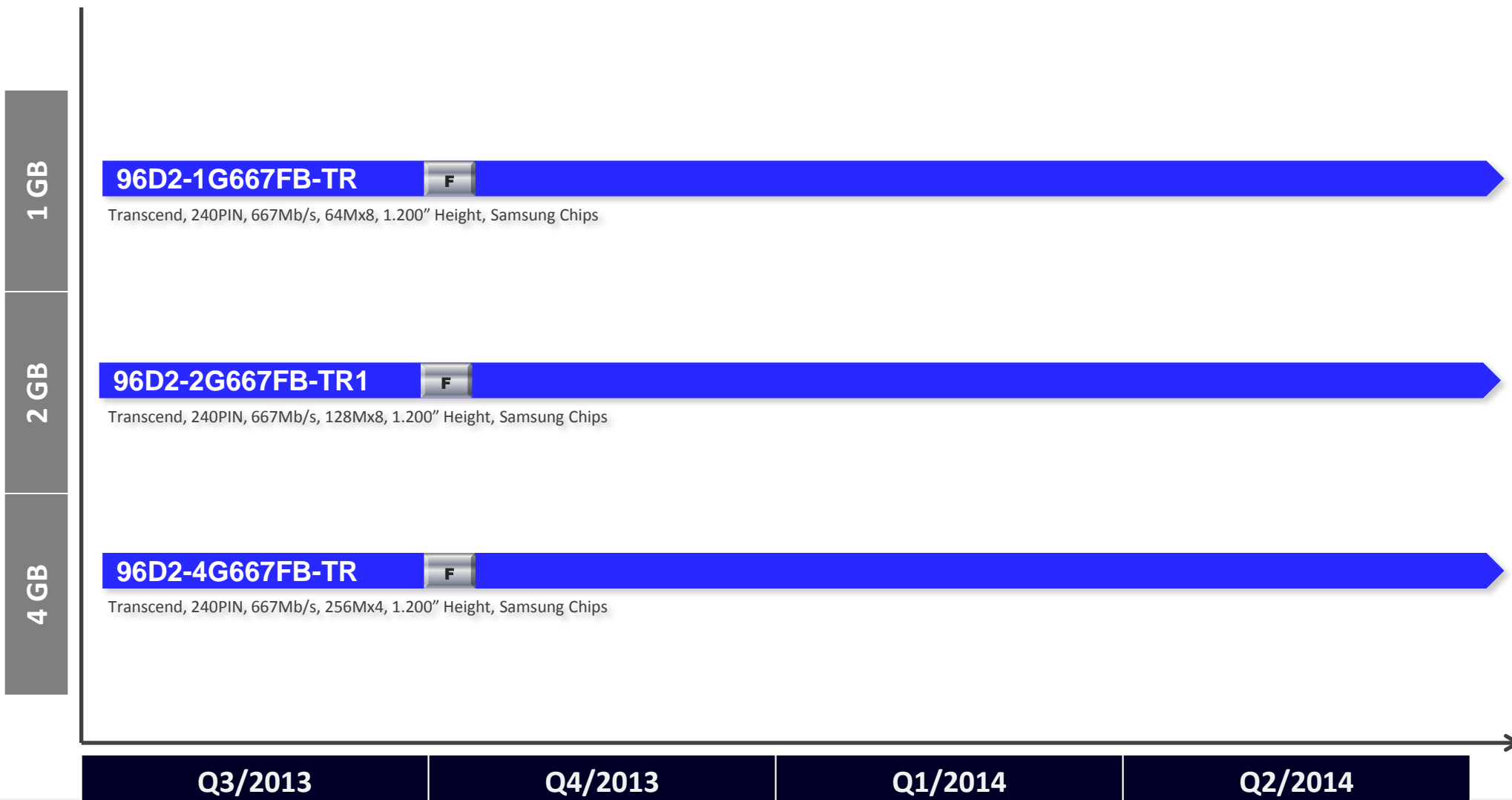
# DDR2 DIMM Advance Feature

Available    Phasing-out    Planning

**E** ECC    **R** Registered    **F** Fully Buffered    **N** New

**L** Low-Profile    **V** Very Low-Profile    **W** Wide Temperature

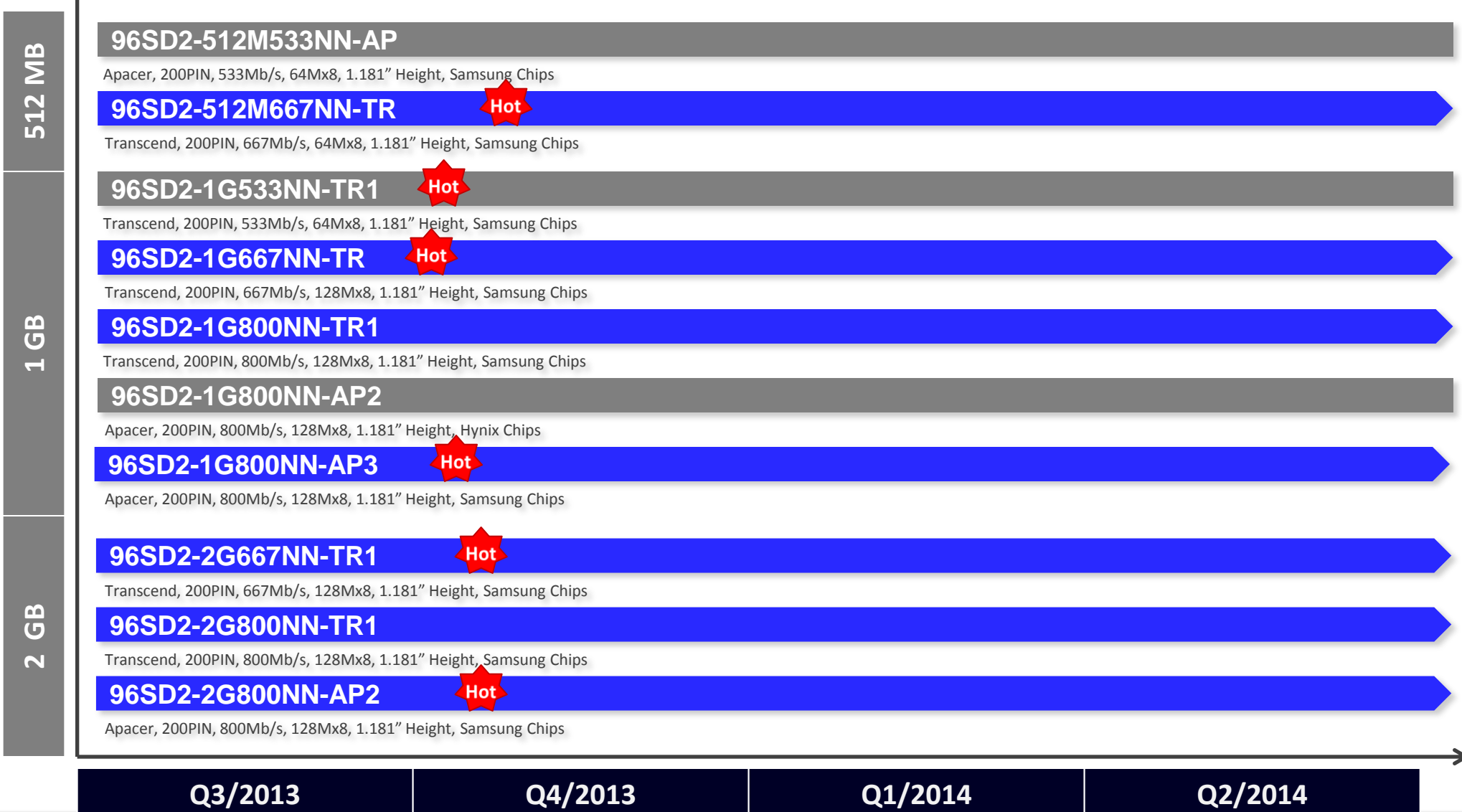
## Fully Buffered



# DDR2 SO-DIMM

Available Phasing-out Planning

ECC
 Registered
 Fully Buffered
 New
 Low-Profile
 Very Low-Profile
 Wide Temperature



Q3/2013

Q4/2013

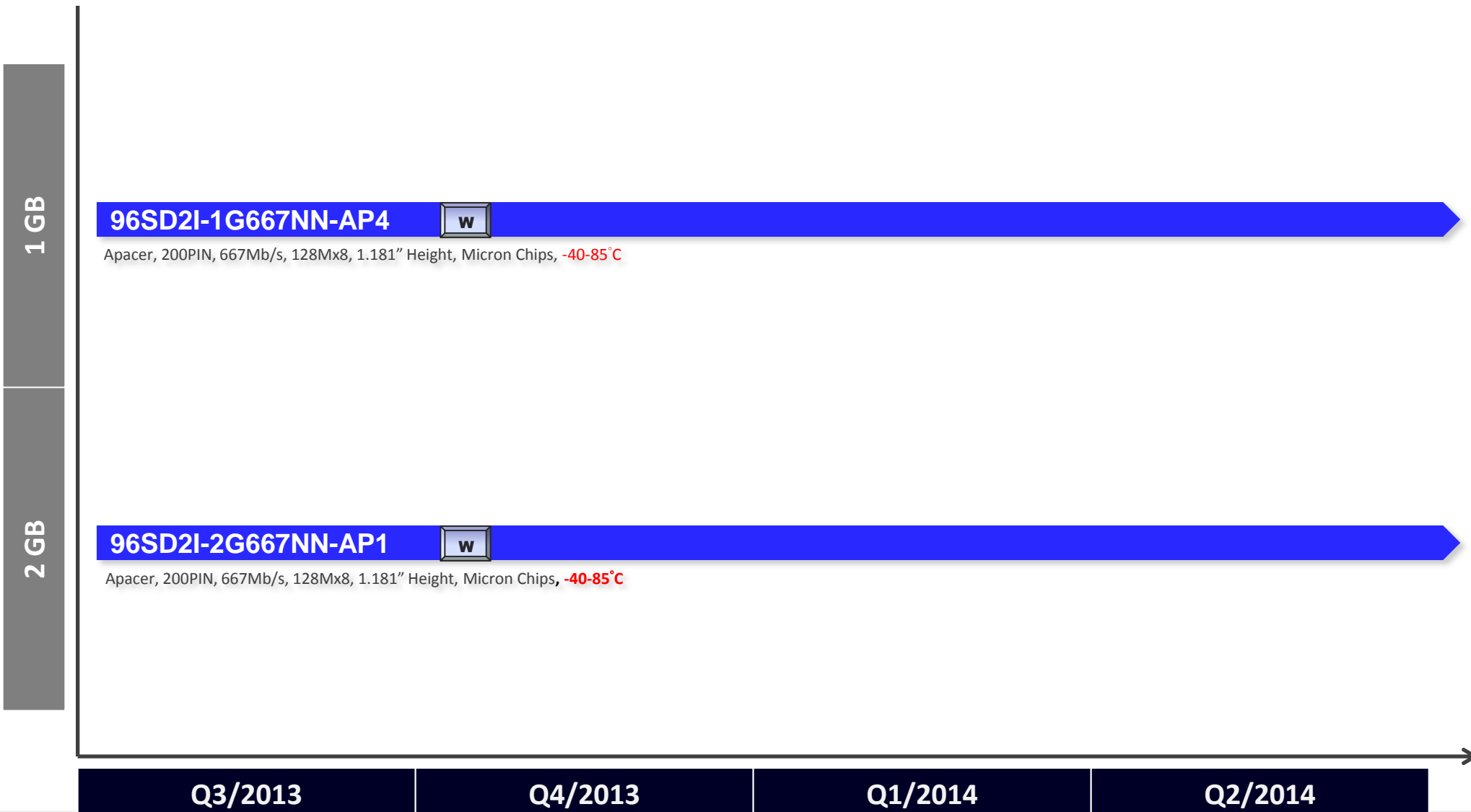
Q1/2014

Q2/2014

# DDR2 SO-DIMM Wide Temp.

Available Phasing-out Planning

**E** ECC **R** Registered **F** Fully Buffered **N** New  
**L** Low-Profile **V** Very Low-Profile **W** Wide Temperature



# DDR3 DIMM

Available Phasing-out Planning

ECC
 Registered
 Fully Buffered
 New
 Low-Profile
 Very Low-Profile
 Wide Temperature

1 GB

## 96D3-1G1333NN-TR1

Transcend, 240PIN, 1333Mb/s, 128Mx8, 1.181" Height, Samsung Chips

## 96D3-1G1333NN-AP1

Apacer, 240PIN, 1333Mb/s, 128Mx8, 1.181" Height, Hynix Chips

## 96D3-2G1066NN-TR

Transcend, 240PIN, 1066Mb/s, 128Mx8, 1.181" Height, Samsung Chips **EOL:7/9/13**

## 96D3-2G1333NN-TR2

Transcend, 240PIN, 1333Mb/s, 128Mx8, 1.181" Height, Samsung Chips

## 96D3-2G1333NN-AP4

Apacer, 240PIN, 1333Mb/s, 128Mx8, 1.181" Height, Hynix Chips

## 96D3-2G1333NN-TR1

Transcend, 240PIN, 1333Mb/s, 256Mx8, 1.181" Height, Hynix Chips

## 96D3-2G1333NN-AP1

Apacer, 240PIN, 1333Mb/s, 256Mx8, 1.181" Height, Hynix Chips

## 96D3-2G1600NN-APL

Apacer, 240PIN, 1600Mb/s, 256Mx8, 0.740" Height, Hynix Chips

## 96D3-2G1600NN-TR

Transcend, 240PIN, 1600Mb/s, 256Mx8, 1.181" Height, MICRON Chips

## 96D3-2G1600NN-TRL

Transcend, 240PIN, 1600Mb/s, 256Mx8, 0.74" Height, Samsung Chips

2 GB

Q3/2013

Q4/2013

Q1/2014

Q2/2014

# DDR3 DIMM

Available    Phasing-out    Planning

ECC   
 Registered   
 Fully Buffered   
 New  
 Low-Profile   
 Very Low-Profile   
 Wide Temperature

4 GB

**96D3-4G1333NN-TR**

Transcend, 240PIN, 1333Mb/s, 256Mx8, 1.181" Height, Hynix Chips

**96D3-4G1333NN-AP**

Apacer, 240PIN, 1333Mb/s, 256Mx8, 1.181" Height, Hynix Chips

**96D3-4G1600NN-APL**

Apacer, 240PIN, 1600Mb/s, 256Mx8, 0.740" Height, Hynix Chips

96D3-4G1600NN-TR

Transcend, 240PIN, 1600Mb/s, 256Mx8, 1.181" Height, Micron Chips **EOL:7/9/2013**

**96D3-4G1600NN-TR**

Transcend, 240PIN, 1600Mb/s, 256Mx8, 1.181" Height, Samsung Chips

8 GB

**96D3-8G1333NN-APL**

Apacer, 240PIN, 1333Mb/s, 512Mx8, 0.740" Height, Micron Chips

**96D3-8G1600NN-APL**

Apacer, 240PIN, 1600Mb/s, 512Mx8, 0.740" Height, Micron Chips

**96D3-8G1600NN-TR**

Transcend, 240PIN, 1600Mb/s, 512Mx8, 1.181" Height, Micron Chips

Q3/2013

Q4/2013

Q1/2014

Q2/2014

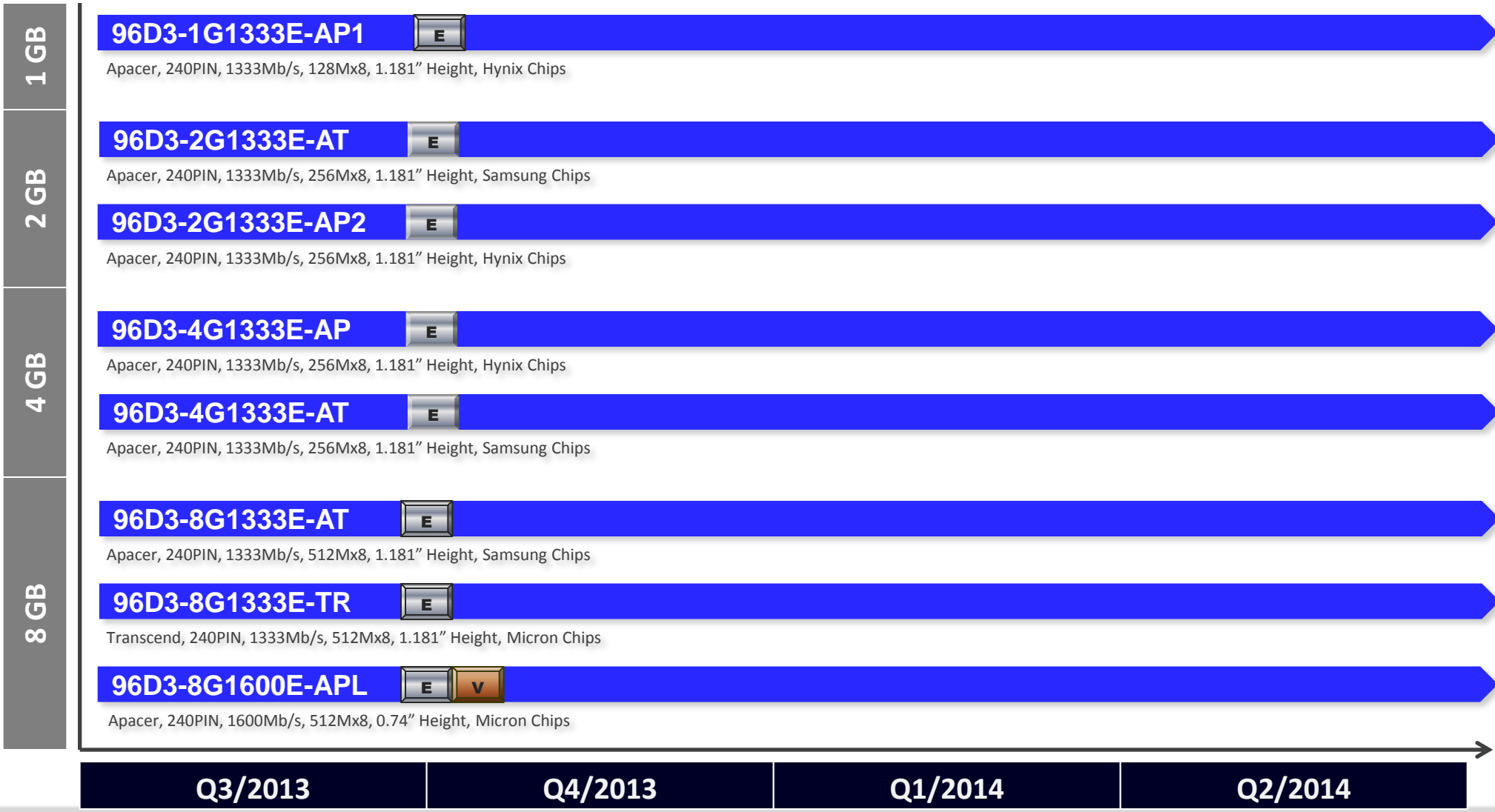


# DDR3 DIMM Advance Feature

Available    Phasing-out    Planning

E ECC   
 R Registered   
 F Fully Buffered   
 N New  
L Low-Profile   
 V Very Low-Profile   
 W Wide Temperature

## ECC



# DDR3 DIMM Advance Feature

Available Phasing-out Planning

E ECC   
 R Registered   
 F Fully Buffered   
 N New  
L Low-Profile   
 V Very Low-Profile   
 W Wide Temperature

## ECC and Registered

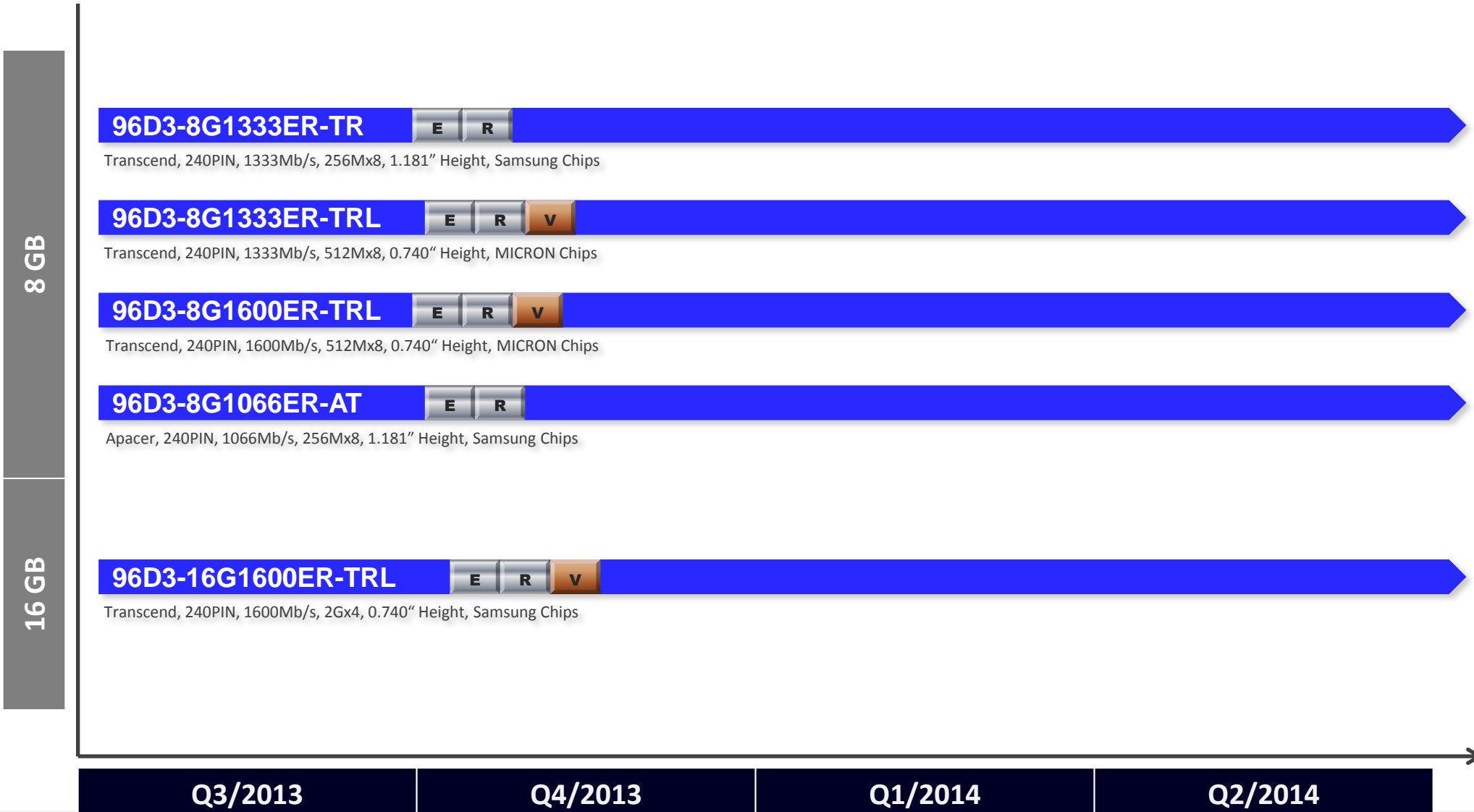


# DDR3 DIMM Advance Feature

Available Phasing-out Planning

E ECC R Registered F Fully Buffered N New  
L Low-Profile V Very Low-Profile W Wide Temperature

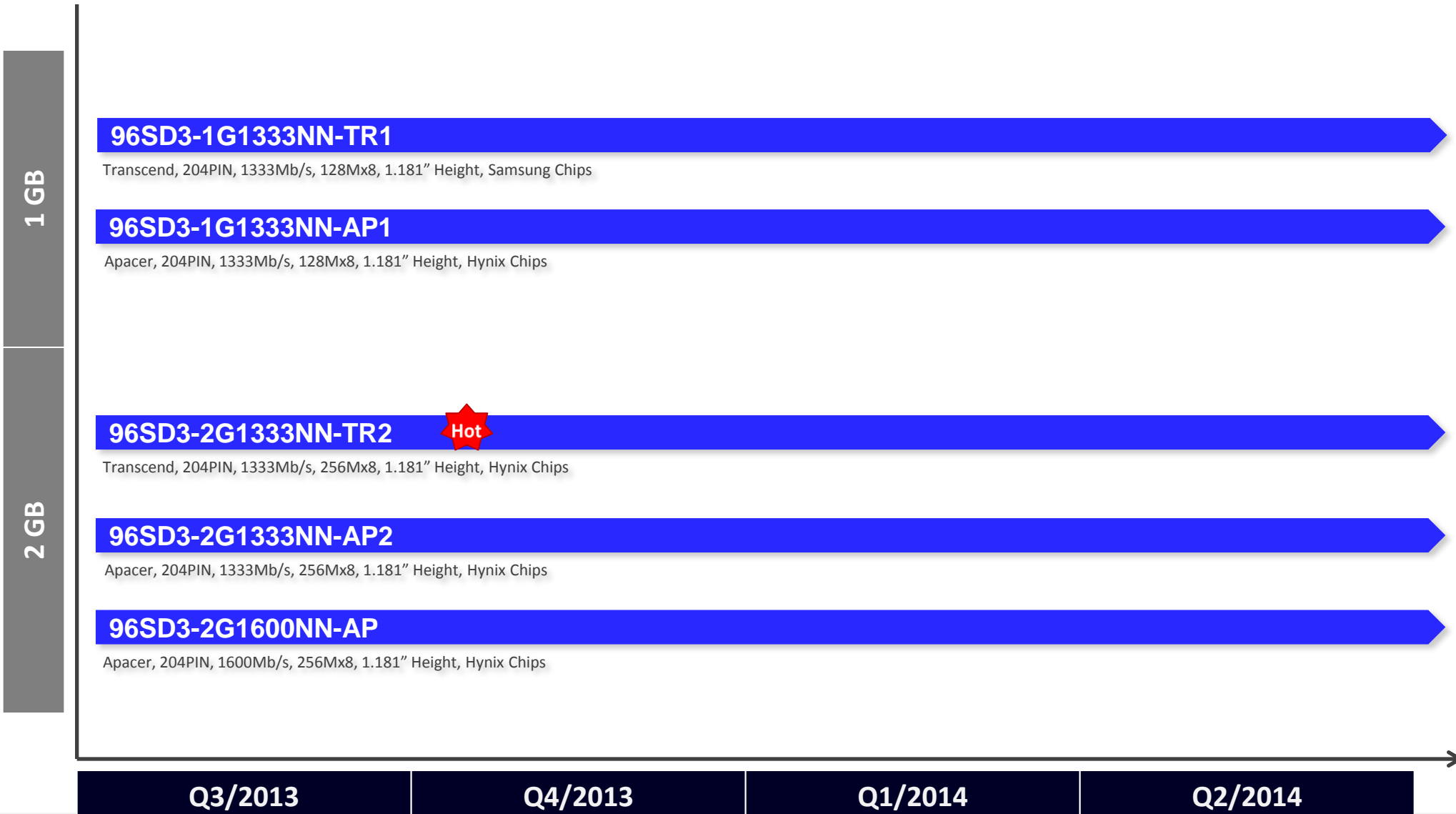
## ECC and Registered



# DDR3 SO-DIMM

Available    Phasing-out    Planning

E ECC    R Registered    F Fully Buffered    N New  
L Low-Profile    V Very Low-Profile    W Wide Temperature



Q3/2013

Q4/2013

Q1/2014

Q2/2014

# DDR3 SO-DIMM

Available Phasing-out Planning

E ECC   
 R Registered   
 F Fully Buffered   
 N New  
L Low-Profile   
 V Very Low-Profile   
 W Wide Temperature

4 GB

## 96SD3-4G1066NN-AP

Apacer, 204PIN, 1066Mb/s, 256Mx8, 1.181" Height, Hynix Chips

## 96SD3-4G1333NN-TR1

Transcend, 204PIN, 1333Mb/s, 256Mx8, 1.181" Height, Hynix Chips

## 96SD3-4G1333NN-AP1

Apacer, 204PIN, 1333Mb/s, 256Mx8, 1.181" Height, Hynix Chips

## 96SD3-4G1600NN-TR

Transcend, 204PIN, 1600Mb/s, 256Mx8, 1.181" Height, Micron Chips

## 96SD3-4G1600NN-AP

Apacer, 204PIN, 1600Mb/s, 256Mx8, 1.181" Height, Hynix Chips

8 GB

## 96SD3-8G1333NN-TR

Transcend, 204PIN, 1333Mb/s, 512Mx8, 1.181" Height, Micron Chips

## 96SD3-8G1600NN-TR

Transcend, 204PIN, 1600Mb/s, 512Mx8, 1.181" Height, Micron Chips

## 96SD3-8G1600NN-AP

Apacer, 204PIN, 1600Mb/s, 512Mx8, 1.181" Height, HYNIX Chips

## 96SD3-8G1600NN-AT

Apacer, 204PIN, 1600Mb/s, 512Mx8, 1.181" Height, Samsung Chips

Q3/2013

Q4/2013

Q1/2014

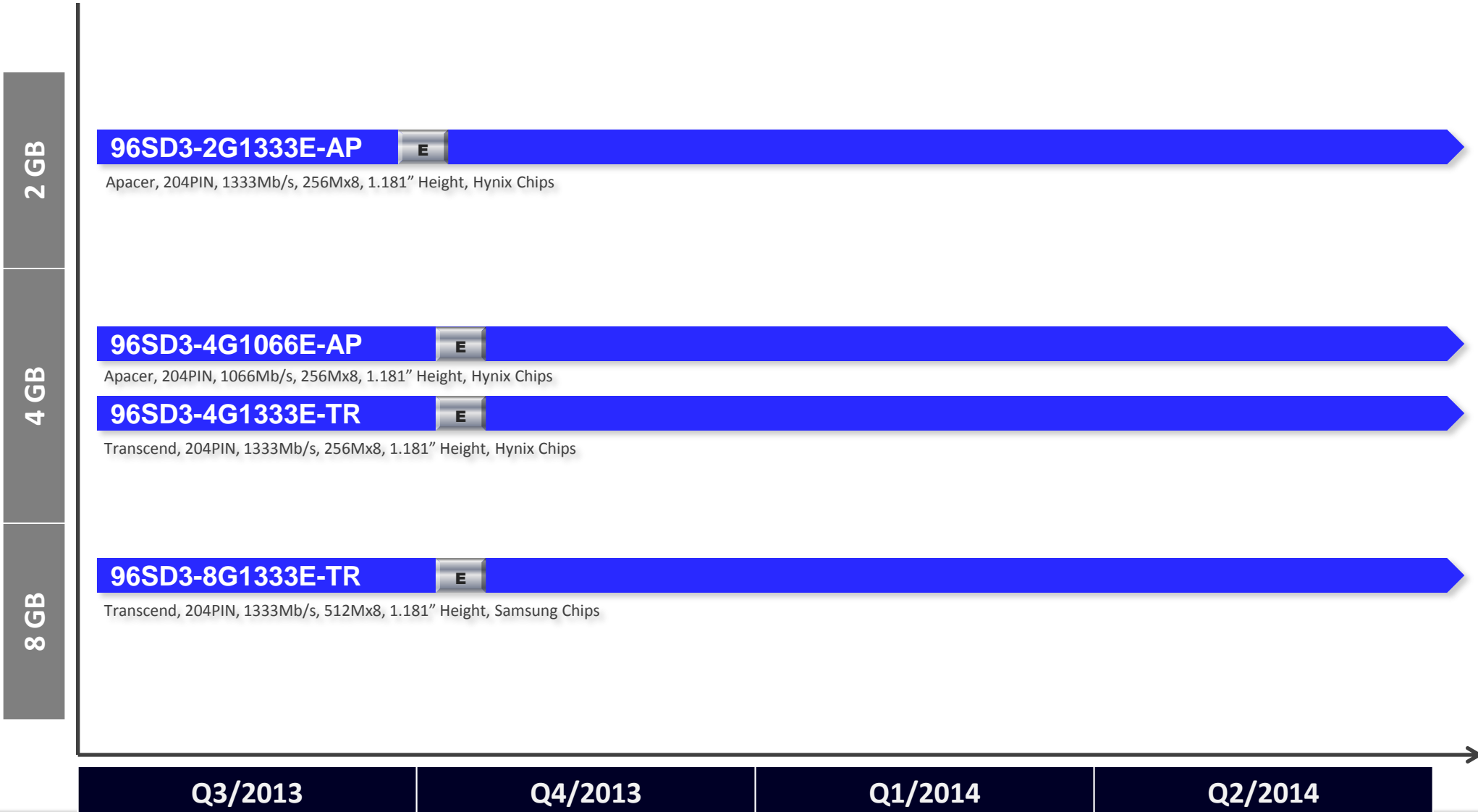
Q2/2014

# DDR3 SO-DIMM

## Advance Feature - ECC

Available    Phasing-out    Planning

**E** ECC    **R** Registered    **F** Fully Buffered    **N** New  
**L** Low-Profile    **V** Very Low-Profile    **W** Wide Temperature



# DDR3 SO-DIMM

## Low Voltage.

Available Phasing-out Planning

**E** ECC **R** Registered **F** Fully Buffered **N** New  
**L** Low-Profile **V** Very Low-Profile **W** Wide Temperature

2 GB

96SD3L-2G1600NN-TR

Transcend, 204PIN, 1600Mb/s, 256Mx8, 1.35V, 1.181" Height, Samsung Chips EOL:7/9/2013

4 GB

96SD3L-4G1333NN-AP

Apacer, 204PIN, 1333Mb/s, 512Mx8, 1.35V, 1.181" Height, MICRO Chips

96SD3L-4G1600NN-TR

Transcend, 204PIN, 1600Mb/s, 512Mx8, 1.35V, 1.181" Height, SAMSUNG Chips EOL:7/9/2013

8 GB

96SD3L-8G1333NN-AP

Apacer, 204PIN, 1333Mb/s, 512Mx8, 1.35V, 1.181" Height, MICRO Chips

96SD3L-8G1600NN-TR

Transcend, 204PIN, 1600Mb/s, 512Mx8, 1.35V, 1.181" Height, SAMSUNG Chips EOL:7/9/2013

Q3/2013

Q4/2013

Q1/2014

Q2/2014

# Memory EOL Procedure

- For support and product management optimization, PAPS will follow the Memory phase-out procedure as below.





*Thank you*



Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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