3D PLUS MEMORY MODULE P/N DECODER

	1	2	3	4	5	6	7	8	9	10	11	12	13
3D	XX	000X	00	X	X	0	000	X	X	X	X	00	X

Ex: 3DFN32G08VS8259 IS R00M

1 Module Type

DP : DPRam
EE : E²Prom
FN : Flash NAND
FO : Flash NOR
FR : FRam
MR : MRam
PO : PROM
SF : StrataFlash
SD : Synchronous DRam
SR : Static Ram
SS : µSolid State Drive (µSSD)
1D : DDR1
2D : DDR2
3D : DDR3
4D : DDR4

2 Module Density

***nnn* K** : *nnn* Kilobit
***nnn* M** : *nnn* Megabit
***nnn* G** : *nnn* Gigabit
***nnn* T** : *nnn* Terabit

3 Module Data Bit

04 : x4 Bit
08 : x8 Bit
16 : x16 Bit
32 : x32 Bit
40 : x40 Bit
48 : x48 Bit
64 : x64 Bit
72 : x72 Bit
***nn* :** *xnn* Bit

4 Module Voltage

C : 5.0 V
V : 3.3 V
S : 2.8 V
T : 2.5 V
U : 1.8 V
W : 1.5 V
Y : 1.35 V
L : 1.2 V

5 Module Package

B : BGA
L : LGA
S : SOP
Q : QFP
P : PGA
J : QFJ
C : Connector
W : Wire Bond
F : Flat Pack

6 Stacked Layers

1 : 1 Layer
2 : 2 Layers
4 : 4 Layers
8 : 8 Layers
A : 10 Layers
n : *n* Layers

7 Control Features

nnn : Product Flyer Number

Note: The Product Flyer's number characterizes a single product and takes into account the technology flow, the die source and revision, the module's features and the electrical and mechanical user interfaces.

8 Temperature Range

C : 0°C to +70°C
I : -40°C to +85°C
M : -55°C to +125°C
S : Specific

9 Quality Level

N : Commercial Grade
B : Industrial Grade
S : Space Grade

10 Screening Option

: The Space Quality Grade corresponds to the ESA Qualified Quality Grade for Space applications (Category 1 hybrid Manufacturer as per ECSS-Q-ST-60-05C).

P : The Space Quality Grade corresponds to the NASA PEM Selection, Screening and Qualification Flow ref. PEM-INST-002.

Y : The Space Quality Grade corresponds to the Class Y Screening and Qualification Flow.

H : The Industrial Quality Grade corresponds to the Class H Screening and Qualification Flow of the MIL-PRF-38534.

C : Custom screening as per Custom Product Detail Specification.

11 Radiation Assurance

R : Radiation Data Tested
A : Generic Radiation Data Available
- : Not Applicable

12 Speed/Access Time/Firmware Revision

00 : N/A

SRAM
08 : 8ns
10 : 10ns
12 : 12ns
15 : 15ns
20 : 20ns

MRAM
40 : 40ns

FRAM
60 : 60ns

SDRAM
50 : 5ns
60 : 6ns
55 : 5.5ns
70 : 7ns
75 : 7.5ns, PC133
80 : 8ns

DDR **0** **0**

5 : 200MHz
6 : 166MHz
7 : 133MHz
8 : 100MHz
C : CL3
B : CL2.5
A : CL2

DDR2 **0** **0**

4 : DDR2-400 (200Mhz)
5 : DDR2-533 (266Mhz)
6 : DDR2-667 (333Mhz)
8 : DDR2-800 (400Mhz)
9 : DDR2-1066 (533Mhz)
A : CL=3
C : CL=4
E : CL=5
G : CL=6
H : CL=7

DDR3 **0** **0**

F : DDR3-1066 (533Mhz)
H : DDR3-1333 (667Mhz)
K : DDR3-1600 (800Mhz)
M : DDR3-1866 (933Mhz)
8 : CL=7
9 : CL=9
0 : CL=11
A : CL=13

FLASH
03 : 30ns
05 : 50ns
07 : 70ns
08 : 80ns
09 : 90ns
10 : 100ns
11 : 110ns
12 : 120ns
13 : 130ns
35 : 35ns
25: 25ns

µSSD
nn : Firmware Revision Number

13 Module Option

: No Option*
A : "ARATHANE" Finish
S : "SOLITHANE 113" Finish
L : SnPb termination
M : "MAPSIL" Finish
T : TANTALUM Shielding
G : Gullwing

** By default, there is neither finishing nor shielding.*

Not all parameters listed can be combined to define an offered product.
3D PLUS reserves the right to change without notice – 3DPI-0030-9 –Revision 08/12/2015