

AN INNOVATIVE COMPANY



3D PLUS is a leading supplier of advanced high density 3D microelectronic products including die and wafer-level products. Thanks to our advanced technology, our products are dedicated to high performance devices used in harsh environments. We offer standard products and custom System-in-Package (SiP) solutions based on our patented technology portfolio. The company is ISO 9001:2015 certified. Scalable and cost efficient supply chain controls enable the quick introduction of new products to service fast ramp-up and high volume production markets.

A UNIQUE KNOW-HOW

3D PLUS technology enables the interconnection of electronic using the third dimension to provide an higher level of integration. By integrating heterogeneous semiconductor technologies, 3D PLUS modules are the solutions of choices when System On Chip or ASICs cannot be manufactured, while providing high reliability.

INDUSTRIAL APPLICATIONS EXPERTISE

Recognized for their electrical performance, miniaturization, quality and reliability assurance, 3D PLUS industrial products are optimally servicing the following applications :

- **Defense & Security**
- **Avionics**
- **Single Board Computers / Data Storage**
- **Heavy Industrial Applications**
- **Implantable Medical and Sciences**

Considerations for these highly demanding applications were incorporated from the design stage, up to the validation and testing.

KEY BENEFITS

- **SMALL FORM FACTOR**
75 % space and weight savings in the design
- **HIGH DENSITY**
- **WIDE DATA BUS**
- **HIGH PERFORMANCE**
- **HIGH RELIABILITY**
- **LONG TERM SUPPLY AND UPGRADES PATHS GUARANTEE**
- **COMPLIANT TO MILITARY STANDARD**
- **DECOUPLING CAPACITORS AND TERMINATION RESISTORS INCLUDED**



OUR MISSION IS THAT YOU ACHIEVE YOURS

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INDUSTRIAL MEMORY PRODUCTS



RELIABLE MINIATURIZATION TECHNOLOGIES FOR ELECTRONICS

DDR IV WIDE DATA BUS	DENSITY	CONFIG.	CLOCK RATE (MHZ)	VOLTAGE (V)	PACKAGE	PITCH	TEMP.	ROHS	SCD#
3D4D32G72LB2758	32Gbit	512Mbit x 64 +8b ECC	1200	1.2	BGA 267	1.00	I, S, M	5/6	3DDS-758
3D4D64G72LB2809	64Gbit	1Gbit x 64 +8b ECC	1200	1.2	BGA 267	1.00	I, S, M	5/6	3DDS-809
3D4D128G72LB2844 ⁽¹⁾	128Gbit	2Gbit x 64 +8b ECC	1200	1.2	BGA 267	1.00	I, S, M	5/6	3DFP-844

DDR IV	DENSITY	CONFIG.	CLOCK RATE (MHZ)	VOLTAGE (V)	PACKAGE	PITCH	TEMP.	ROHS	SCD#
3D4D8G08LB1845	8 Gbit	1Gbit x 8	1200	1.2	FBGA-78	0.8	I, S	Yes	3DFP-845
3D4D8G16LB1846	8 Gbit	512Mbit x 16	1200	1.2	FBGA-96	0.8	I, S	Yes	3DFP-846

DDR III WIDE DATA BUS	DENSITY	CONFIG.	CLOCK RATE (MHZ)	VOLTAGE (V)	PACKAGE	PITCH	TEMP.	ROHS	SCD#
3D3D16G72WB2768	16Gbit	256Mbit x 64 +8b ECC	533-667	1.5	BGA 223	1.00	I, S, M	5/6	3DDS-768

DDR III	DENSITY	CONFIG.	CLOCK RATE (MHZ)	VOLTAGE (V)	PACKAGE	PITCH	TEMP.	ROHS	SCD#
3D3D4G08WB1473	4Gbit	512Mbit x 8	533-800	1.5	BGA 78	0.80	I, M	Yes or 5/6	3DDS-473
3D3D4G16WB1627	4Gbit	256Mbit x 16	533-800	1.5	BGA 96	0.80	I, S, M	Yes or 5/6	3DDS-627
3D3D8G08WB2391	8Gbit	2 x (512Mbit x 8)	533-800	1.5	BGA 78	0.80	I, S, M	Yes or 5/6	3DDS-391
3D3D8G32WB1741	8Gbit	256Mbit x 32	533-800	1.5	BGA 136	0.80	I, S, M	Yes or 5/6	3DDS-741
3D3D16G16WB2659	16Gbit	2 x (512Mbit x 16)	533-800	1.5	BGA 96	0.80	I, S, M	5/6	3DDS-659
3D3D16G32WB2650	16Gbit	512Mbit x 32	533-800	1.5	BGA 136	0.80	I, S, M	5/6	3DDS-650

SRAM	DENSITY	CONFIG.	ACCESS TIME (NS)	VOLTAGE (V)	PACKAGE	PITCH	TEMP.	ROHS	SCD#
3DSR32M08VB2368	32Mbit	2 x (2Mbit x 8)	10	2.4 to 3.6	BGA 48	0.75	I, M	Yes or 5/6	3DDS-368
3DSR32M16VB2409	32Mbit	2 x (2Mbit x 16)	10	2.4 to 3.6	BGA48	0.75	I, M	Yes or 5/6	3DDS-409

FLASH NAND	DENSITY	CONFIG.	BITS/CELL	VOLTAGE (V)	PACKAGE	PITCH	TEMP.	ROHS	SCD#
3DFN64G08VB1388	64Gbit	8Gbit x 8	SLC	3.3	LGA 52	1.00	I, M	Yes	3DDS-388

FLASH NOR	DENSITY	CONFIG.	RAND. ACCESS (NS)	VOLTAGE (V)	PACKAGE	PITCH	TEMP.	ROHS	SCD#
3DFO512M16VB2359	512Mbit	2 x (16Mbit x 16)	100-110	2.7 to 3.6	BGA 64	1.00	I, S, M	Yes or 5/6	3DDS-359
3DFO2G16VB2361	2Gbit	2 x (64Mbit x 16)	110-120-130	2.7 to 3.6	BGA 64	1.00	I, S, M	Yes or 5/6	3DDS-361



HIGH RELIABILITY

- + Perfect technology in environments susceptible to vibration and acceleration.
- + 3D PLUS modules are proven to sustain more than 2000 thermal cycles at -55°C +125°C.



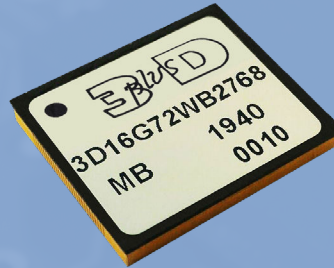
LIGHT WEIGHT SMALL FOOTPRINT

- + 3D PLUS modules are highly integrated, offering a small board footprint and extremely lightweight solution - a key parameter for airborne system.



SnPb LeadFree

- + Our modules are available with leadfree and SnPb lead finishes.



WIDE TEMPERATURE RANGE

- + 3D PLUS modules are tested and validated to operate under industrial and military temperature ranges.



COMPETITIVE EDGE

- + Upgrade your existing board with 3D PLUS memory modules and get densities not yet available in the market.



LONG TERM SUPPORT

- + By integrating all production and tests, 3D PLUS modules are available for applications where lifetime and obsolescence are critical.



WIDE BUS SOLUTIONS

- + 3D PLUS modules are available in wide bus configurations, a key benefit for applications requiring large amounts video processing and/or real time signal processing.



HIGH DENSITY JEDEC FOOTPRINT

- + Our modules are compliant with JEDEC footprint, offering multiple board configurations without requiring a redesign.

(1) Upon request

For speed grade/access time, see 3D PLUS Part Number Decoder at <http://www.3d-plus.com/quality-system.php>



QUALITY LEVEL



N : Commercial Grade
B : Industrial Grade

TEMPERATURE RANGES



C : Commercial (0°C to 70°C)
I : Industrial (-40°C to +85°C)
S : Specific (-40°C to +95°C)
M : Military (-55°C to +125°C)


TERMINATIONS



- : RoHS
L : SnPb

ORDERING INFORMATION



Part Number **XX XXX**
Temperature Range  Terminations