DRAM Portfolio Overview – Q3 / 2021

About Zentel Japan Cooperation

Zentel is a long term player in the DRAM market with its roots in Powerchip Semiconductor Manufacture Corp. Since 2002 the products are developed under the Zentel brand with a focus on industrial and automotive markets (TS16949:2009 was achieved in 2012). Special features like RH-free memory (immune against the "row hammer attack"*) or planned built-in ECC correction on DDR3 memory will add security and ease of use to the customer's application. Today the Zentel Japan Cooperation is an independent brand of AP memory.

(*Row-Hammer-Attack: Read more on our Homepage)

Do you want to upgrade the memory density in your design but don't want to start from scratch with a completely new design?
Ask us for Zentel's dual-die-packages with 2Gb (DDR2) and 8Gb (DDR3).

	64Mb	128Mb	256Mb	512Mb	1Gb	2Gb	4Gb	8Gb
DDR5								Planned
DDR4							1.2V x8/x16 2400/2666Mbps	Under Development
DDR3					1.5V x8/x16 1866Mbps	1.35V/1.5V x8/x16 1866/2133Mbps	1.35V/1.5V x8/x16 1866/2133Mbps	1.35V x4/x8/x16 1600Mbps
DDR2		1.8V x16 1066Mbps	1.8V x16 1066Mbps	1.8V x8/16 1066Mbps	1.8V x8/16 1066Mbps	1.8V x16 1066Mbps		
DDR1	2.5V x16 400Mbps	2.5V x16 400Mbps	2.5V x16 400Mbps	2.5V x165 400Mbps				
SDR	3.3V x16 166Mbps	3.3V x16 166Mbps	3.3V x16 166Mbps					

Options				
row hammer free	Dual Die Package	industrial temp.: -40°C ~ 85°C	commercial temp.: 0°C ~ 95°C	industrial temp.: -40°C ~ 95°C	AEC-Q100 Grade 2 -40°C ~ 105°C

color represents the widest temperature range available and includes the narrower ones, missing temperature grade options on DDR3(L) and DDR4(L) on development, for automotive grade on SDR and DDR1 please contact us

Do you have the need for advanced security in your application?
Ask us for Zentel's DDR3 memory with immunity against the row hammer attack.

If you have additional needs in your microprocessor design, we can help you finding the right:

◆ PMIC or power supply with needed sequencing

◆ Timing solutions with small PCB footprint

◆ Extension in connectivity for USB and Ethernet – hubs or wireless connectivity

◆ crypto companion ICs to meet requirements in the connected IoT world

◆ components for your HMI design

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