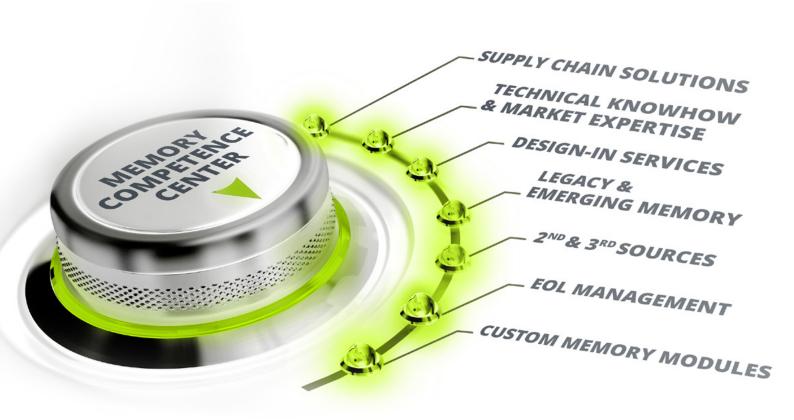


# **UP YOUR DESIGNS**

# MEMPHIS MEMORY COMPETENCE CENTER



# **Enabling Industrial, Embedded and Specialty Markets for over 30 Years**

Tap into our memory competence and benefit from the broadest portfolio in the industry. From legacy to latest components and modules, from standard to exotic memories – if it's a memory, we can help.

# **WHY MEMPHIS**

- For more than 30 years we have specialized in semiconductor memory only. This makes us a unique expert in memory technologies ranging from legacy to the latest technologies, from best-selling products to exotic emerging memories.
- We know the products of almost every memory vendor in the world, even if they are not in our line card, and can recommend the memory components and modules that best fit your application.
- If your perfect DRAM module doesn't exist, we configure it for you out of any available DRAM component in the market with a fixed BOM (bill of materials) over the required lifetime.
- With 15 offices and 3 warehouses worldwide, we can support you from design-in to your manufacturing site – regardless of where those locations are – and deliver the products you need, when you need them.

# **MEMORY COMPETENCY**

- Memory products are standard, but each application has a different focus, and every memory has strengths and weaknesses. Thanks to our broad portfolio, we can find the best match for you, no matter the vendor.
- We know all the nuances of the memory products in our line card and can help you with our technical expertise during design-in, the qualification of second and third sources for components as well as with finding alternatives to end-of-life products.
- Due to our focus on memory, we keep our fingers on the pulse of the entire memory ecosystem and can give insights into manufacturer roadmaps, long-term product availability, and cross-reference information.
- What's more, with our help end-of-life is not a disaster, because we help you prepare with alternatives and our obsolescence management services.

# **100% INDUSTRY FOCUS**

Completely lead-free or leaded? Conformal coating or controlled BOM?

You can get all this from us and more. Thanks to our 100% focus on industrial and embedded applications we know the requirements of the different industry segments and can serve your needs.



DRAM MODULE CONFIGURATOR









# **LINE CARD**





































# **OUR MEMORY COMPONENTS**

**MEMORY COMPETENCE CENTER** 

#### **VOLATILE MEMORY**

#### SDRAM

- DDR5 DDR4
- DDR3 DDR2 DDR SDRAM



#### **SRAM**

- Low Power SRAM
- Fast SRAM
- Synchronous SRAM
- Pseudo SRAM



#### **DRAM** (integrate

- DDR3, DDR2, DDR
- LPDDR4, LPDDRRobust & extra robust



#### **Graphic DRAM**





#### **Mobile DRAM**

- LPDDR5 LPDDR4 & 4x
- LPDDR3
  LPDDR2



#### **DRAM Modules**

• EDO & FPM to DDR5



#### **NON-VOLATILE MEMORY**

#### **NOR Flash**

· Parallel & Serial



#### **Managed Flash**

- eMMC & UFS
- BGA SSD (SATA, PCIe)



#### MCP & eMCP **PRODUCTS**



#### **NAND Flash**

· SIC MIC&TIC • Parallel & Serial (SPI)



#### SSD Drives

• M.2 2242, M.2 2280, mSATA, 2.5", Half Slim,



# **TAILOR-MADE DRAM MODULES**

#### Standards

- IEDEC and special customer designs
- Fixed BOM
- Buffered & unbuffered
- · Registered & unregistered
- ECC & non-ECC

#### **Temperature**

Commercial, Industrial, Automotive

#### Technology

- DDR5, DDR4, DDR3, DDR2, DDR, SDRAM, SRAM
- Component based versions (integrated ECC)

#### Configuration

· Single, Dual & Quad Rank

#### Form Factors

 UDIMM, FBDIMM, RDIMM, LRDIMM. SO-DIMM, SO-RDIMM, VLP RDIMM, Mini RDIMM, Mini VLP RDIMM, ULP RDIMM, Mini UDIMM, VLP Mini UDIMM

#### Organization

• 32 Bit, 64 Bit, 72 Bit (ECC)







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MEMPHIS complies with all major ISO and environmental regulations and follows ESG principles:













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