Memory Bus Width over Time 10,000 **Memory Bus type** 1T-SRAM O DDR O DDR2 O DDR3 (II) AA (II) 0 00 O DDR3L O DDR4 O DRAM 0 0 2,000 EDO VRAM O FPM O GDDR2 O GDDR3 0 1,000 O GDDR4 O GDDR5 O GDDR5X A AAA O GDDR6 O GDDR6X O GDDR7 O HBM O HBM2 200 Memory Bus width (bit) **ADA** 0 **A**O ○ HBM2E O HBM3 НВМЗЕ O LPDDR4 100 LPDDR4X O LPDDR5 0 A 00 00 0 000 A A LPDDR5X O SDR SGRAM 0 Δ Δ 0 0 O XDR Vendor O AMD 20 Intel **△** NVIDIA 10 2 -1988 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020 2024 1986 1990 2022 Launch