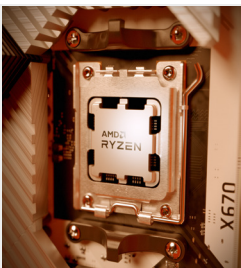




# QUICK REFERENCE GUIDE | AMD SOCKET AM5 MOTHERBOARDS

**THE NEXT FRONTIER OF AMD RYZEN™ MOTHERBOARDS.** Enabling PCIe® 5.0 for everyone.



### SOCKET AM5 INFRASTRUCTURE

With a 1718 pin LGA socket, native support for up to 170W TDP processors, DDR5 and PCIe® 5.0 support, and Socket AM4 cooler compatibility, the new AMD Socket AM5 motherboards are the next frontier of Ryzen™ motherboards.

### ADVANCED CONNECTIVITY FOR ENTHUSIASTS

Socket AM5 total platform I/O includes 24 usable PCIe® 5.0 lanes for storage and graphics, up to 14 SuperSpeed USB connections with 20Gbps and Type-C™ included, 6E Wi-Fi® Support, AMD EXPO™ technology, and up to 4 HDMI® 2.1 and DisplayPort® 2 Ports.

### AM5 ECOSYSTEM SOLUTIONS

The **X670E** for extreme overclocking<sup>2</sup> with PCIe® 5.0 storage and graphics.  
 The **X670** for enthusiast motherboards with PCIe® 5.0 storage.  
 The **B650E** for mainstream motherboards with PCIe® 5.0 storage and graphics.  
 The **B650** for entry level “Zen 4”<sup>3</sup> platform motherboards with PCIe® 4.0 infrastructure.

## CHIPSET SPECIFICATIONS

	USB 3.2 10Gbps SUPERSPEED (UP TO)	USB 3.2 20Gbps SUPERSPEED (UP TO)	MAXIMUM SATA PORTS (OR PCIe® 3.0, UP TO)	DIRECT PROCESSOR PCIe® LANES		USABLE PCIe® LANES TOTAL/PCIe® 5.0 (UP TO)	RYZEN PROCESSOR OVERCLOCKING ENABLED <sup>2</sup>
				GRAPHICS	NVMe (PLUS PCIe® GPP, UP TO)		
<b>AMD</b> SOCKET AM5 <b>X670E</b>	12	2	8	1x16 or 2x8 PCIe® 5.0	1x4 PCIe® 5.0 plus 4x PCIe® GPP	44/20	Yes
<b>AMD</b> SOCKET AM5 <b>X670</b>	12	2	8	1x16 or 2x8 PCIe® 4.0	1x4 PCIe® 5.0 plus 4x PCIe® GPP	44/4	Yes
<b>AMD</b> SOCKET AM5 <b>B650E</b>	6	1	4	1x16 or 2x8 PCIe® 5.0	1x4 PCIe® 5.0 plus 4x PCIe® GPP	36/20	Yes
<b>AMD</b> SOCKET AM5 <b>B650</b>	6	1	4	1x16 or 2x8 PCIe® 4.0	1x4 PCIe® 4.0 (PCIe® 5.0 Optional)	36/0	Yes



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## AMD SOCKET AM5 MOTHERBOARD CHIPSET SOLUTIONS

AMD  
RYZEN

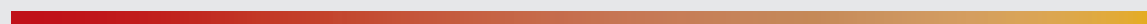
X670E

X670

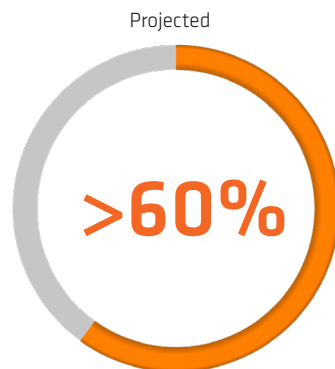
B650E

B650

AMD Ryzen™ 7000  
Series Processors



## BUILDING THE PCIe® 5.0 ECOSYSTEM



**Faster Sequential Read Speed<sup>1</sup>**  
with PCIe® 5.0 storage on AMD Socket AM5  
compared to PCIe® 4.0 drives

For more information visit [www.AMD.com/en/chipsets/am5](http://www.AMD.com/en/chipsets/am5)

1. RPL-002 Testing as of May 5, 2022, by AMD Performance Labs using pre-production silicon and performance projections for final products which are subject to change when released in market. Sequential/sustained disk throughput measured with CrystalDiskMark. AMD Ryzen 7000 Series: AMD Reference X670 Motherboard, 16-core AMD Ryzen 7000 Series pre-production sample, 2x16GB DDR5-6000CL30, PCIe® Gen 5 prototype SSD versus Phison E18+ PCIe® Gen 4 SSD, Radeon RX 6950XT (driver: 22.10 Prime), Windows 11 Build 22000.593, Asetek 280MM liquid cooler. Results may vary and/or are subject to change as the storage ecosystem develops and final products are available.  
2. GD-106 Overclocking and/or Undervolting AMD processors and memory, including without limitation, altering clock frequencies / multipliers or memory timing / voltage, to operate outside of AMD's published specifications will void any applicable AMD product warranty, even when enabled via AMD hardware and/or software. This may also void warranties offered by the system manufacturer or retailer. Users assume all risks and liabilities that may arise out of overclocking / undervolting AMD processors, including, without limitation, failure of or damage to hardware, reduced system performance and/or data loss, corruption or vulnerability.  
3. GD-122 The information contained herein is for informational purposes only, and is subject to change without notice. Timelines, roadmaps, and/or product release dates shown herein are plans only and subject to change. "Zen 4" is a codename for AMD architectures, and is not a product name.