



## AMD EXPO™ Technology Memory Profile Self-Certification Report

| [General Module Information] |                                                                              |
|------------------------------|------------------------------------------------------------------------------|
| Module Manufacturer:         | KINGSTON                                                                     |
| Module Part Number:          | KF560R32RBEK8-128 (Kit of 8)<br>KF560R32RBEK4-64 (x2)<br>KF560R32RBE-16 (x8) |
| Serial Number:               | N/A                                                                          |
| Module Revision:             | 1                                                                            |
| Module Size:                 | 16 GBytes                                                                    |
| Ranks per channel:           | 1                                                                            |
| JEDEC Memory Speed:          | DDR5-4800                                                                    |
| Module Type:                 | Registered DIMM (RDIMM)                                                      |
| SDRAM Manufacturer:          | SK Hynix                                                                     |
| DRAM Stepping:               | A                                                                            |
| Error Check/Correction:      | Yes                                                                          |

| [AMD EXPO Profile Support]       |     |
|----------------------------------|-----|
| AMD EXPO Version                 | 1   |
| Profile 0 Enabled                | Yes |
| Profile 0 DIMMs per Channel      | 1   |
| Profile 1 Enhanced Block Enabled | No  |
| Profile 1 Enabled                | Yes |
| Profile 1 DIMMs per Channel      | 1   |
| Profile 1 Enhanced Block Enabled | No  |

| [EXPO Profile 0 Voltage] |        |
|--------------------------|--------|
| SDRAM VDD (V)            | 1.35 V |
| SDRAM VDDQ (V)           | 1.35 V |
| SDRAM VPP (V)            | 1.80 V |



| [EXPO Profile 0 Timing] |           |         |
|-------------------------|-----------|---------|
| DDR Data Rate MT/S      | 6000 MT/s |         |
| tCK (ps / nCK)          | 333 ps    |         |
| tCAS (ps / nCK)         | 10666 ps  | 32 nCK  |
| tRCD (ps / nCK)         | 12666 ps  | 38 nCK  |
| tRP (ps / nCK)          | 12666 ps  | 38 nCK  |
| tRAS (ps / nCK)         | 26666 ps  | 80 nCK  |
| tRC (ps / nCK)          | 39333 ps  | 118 nCK |
| tRW (ps / nCK)          | 30000 ps  | 90 nCK  |
| tRFC1 (ns)              | 295 ns    |         |
| tRFC2 (ns)              | 160 ns    |         |
| tRFCsb (ns)             | 130 ns    |         |

| [EXPO Profile 0 Enhanced Timing] |     |  |
|----------------------------------|-----|--|
| tRRD_L (ps / nCK)                | N/A |  |
| tCCD_L (ps / nCK)                | N/A |  |
| tCCD_L_WR (ps / nCK)             | N/A |  |
| tCCD_L_WR2 (ps / nCK)            | N/A |  |
| tFAW (ps / nCK)                  | N/A |  |
| tWTR_L (ps / nCK)                | N/A |  |
| tWTR_S (ps / nCK)                | N/A |  |
| tRTP (ps / nCK)                  | N/A |  |

| [EXPO Profile 1 Voltage] |        |
|--------------------------|--------|
| SDRAM VDD (V)            | 1.25 V |
| SDRAM VDDQ (V)           | 1.25 V |
| SDRAM VPP (V)            | 1.80 V |



| [EXPO Profile 1 Timing] |           |         |
|-------------------------|-----------|---------|
| DDR Data Rate MT/S      | 5600 MT/s |         |
| tCK (ps / nCK)          | 357 ps    |         |
| tCAS (ps / nCK)         | 12857 ps  | 36 nCK  |
| tRCD (ps / nCK)         | 13571 ps  | 38 nCK  |
| tRP (ps / nCK)          | 13571 ps  | 38 nCK  |
| tRAS (ps / nCK)         | 28571 ps  | 80 nCK  |
| tRC (ps / nCK)          | 42142 ps  | 118 nCK |
| tRW (ps / nCK)          | 30000 ps  | 84 nCK  |
| tRFC1 (ns)              | 295 ns    |         |
| tRFC2 (ns)              | 160 ns    |         |
| tRFCsb (ns)             | 130 ns    |         |

| [EXPO Profile 1 Enhanced Timing] |     |  |
|----------------------------------|-----|--|
| tRRD_L (ps / nCK)                | N/A |  |
| tCCD_L (ps / nCK)                | N/A |  |
| tCCD_L_WR (ps / nCK)             | N/A |  |
| tCCD_L_WR2 (ps / nCK)            | N/A |  |
| tFAW (ps / nCK)                  | N/A |  |
| tWTR_L (ps / nCK)                | N/A |  |
| tWTR_S (ps / nCK)                | N/A |  |
| tRTP (ps / nCK)                  | N/A |  |

| [EXPO Tested Platforms] | [BIOS Version] | [Processor]                     | [ProcODT2] | [RTT2] | [DrvStr2] |
|-------------------------|----------------|---------------------------------|------------|--------|-----------|
| ASRock - WRX90 WS EVO   | 5.01           | Ryzen™ Threadripper™ PRO 7965WX | AUTO       | AUTO   | AUTO      |

*Notes:*

- The list of tested platforms (which includes the Motherboard, BIOS, and Processor configurations) is not an exhaustive list of supported configurations. It is solely a set of tested configurations to demonstrate AMD EXPO™ profile viability on actual hardware.*
- ProcODT, RTT, and DrvStr values per configuration, Auto, or selected value.*