



AMD EXPO™ Technology Memory Profile Self-Certification Report

[General Module Information]	
Module Manufacturer:	Kingston
Module Part Number:	KF556C36BBEK2-128 (Kit of 2) KF556C36BBE-64 (x2) KF556C36BBEAK2-128 (Kit of 2) KF556C36BBEA-64 (x2)
Serial Number:	N/A
Module Revision:	1
Module Size:	64GB
Ranks per channel:	2
JEDEC Memory Speed:	4800
Module Type:	Unbuffered DIMM (UDIMM)
RDIMM RCD Vendor:	N/A
SDRAM Manufacturer:	Samsung
SPD Byte 552:	80
SPD Byte 553:	CE
DRAM Stepping:	M
SPD Byte 554:	4D
SPD Byte 530:	36
PMIC Vendor:	RichTek
Error Check/Correction:	None

[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)	1.25V
SDRAM VDDQ (V)	1.25V
SDRAM VPP (V)	1.8V

[EXPO Profile 0 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	80nCK
tRC (ps / nCK)	42142 ps	118 nCK
tRW (ps / nCK)	30000 ps	84 nCK
tRFC1 (ns)	410 ns	
tRFC2 (ns)	220 ns	
tRFCsb (ns)	190 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)	1.25V
SDRAM VDDQ (V)	1.25V
SDRAM VPP (V)	1.8V



[EXPO Profile 1 Timing]		
DDR Data Rate MT/S	5200(MT/s)	
tCK (ps / nCK)	384 ps	
tCAS (ps / nCK)	15384 ps	40 nCK
tRCD (ps / nCK)	15384 ps	40 nCK
tRP (ps / nCK)	15384 ps	40 nCK
tRAS (ps / nCK)	30769 ps	80 nCK
tRC (ps / nCK)	46153 ps	120 nCK
tRW (ps / nCK)	30000 ps	78 nCK
tRFC1 (ns)	410 ns	
tRFC2 (ns)	220 ns	
tRFCsb (ns)	190 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]
ASUS ROG CROSSHAIR X870E HERO	1401	Ryzen9 9900X	AUTO	AUTO	AUTO

Notes:

- 1. 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.*
- 2. ProcODT, RTT, and DrvStr values per configuration, Auto, or selected value.*
- 3. Diagnostics used:*



MemTest86 (6.2 or later) for a minimum of 12 hours or 100 loops;

Prime 95(30.8 build 17 or later) Large FFT torture test for a minimum of 12 hours;

3DMark(2.16.7117 or later) Firestrike stress test for a minimum of 12 hours or 5000 loops;

Reboot test for a minimum of 50 cycles to ensure ACPI state transition stability.

AMD uses MemTestPro and 3DMark Firestrike and recommends MemTestPro version 6.2 or later and 3DMark Dandia version 2.16.7117 or later.

In addition, a reboot test (for example, one with 50 reboot cycles) should be performed to ensure ACPI state transition stability.