

# Raspberry Pi RetroArch emulation performance comparison (Rpi3 vs Rpi4)

Tested on the newest version of Raspbian without a desktop interface and no overlocks

GPU has 256mb of memory and used the GL Fake KMS driver

FPS Percentage increased

NES	209.5%
SNES	148.2%
GBA	155.8%
N64	68.6%
PS1	109.4%
GBC	86.4%

System	Core	Game	Rpi 3 FPS	Rpi 3 FPS fullspeed	Rpi 4 FPS	Rpi 4 FPS fullspeed	Without Dynarec (PS1)	Normal increased	Fullspeed Increased
NES	Mesen	Bionic Commando	31	31	60	95		93.5%	206.5%
NES	Mesen	Castlevania III	22	22	60	75		172.7%	240.9%
NES	Mesen	Contra	31	31	60	85		93.5%	174.2%
NES	Mesen	Dragon Warrior	31	31	60	100		93.5%	222.6%
NES	Mesen	Duck Tales	30	30	60	92		100.0%	206.7%
NES	Mesen	Excitebike	31	31	60	94		93.5%	203.2%
NES	Mesen	Final Fantasy	32	32	60	104		87.5%	225.0%
NES	Mesen	The Legend of Zelda	31	31	60	99		93.5%	219.4%
NES	Mesen	Megaman 2	30	30	60	95		100.0%	216.7%
NES	Mesen	Metroid	30	30	60	95		100.0%	216.7%
NES	Mesen	Mike Tyson's Punch-out	26	26	60	74		130.8%	184.6%
NES	Mesen	R.C. Pro-Am	31	31	60	97		93.5%	212.9%
NES	Mesen	River City Ransom	31	31	60	90		93.5%	190.3%
NES	Mesen	Super Mario Bros 1	31	31	60	100		93.5%	222.6%
NES	Mesen	Super Mario Bros 3	29	29	60	87		106.9%	200.0%
SNES	Snes9x 2010	Chrono Trigger	60	75	60	187		0.0%	149.3%
SNES	Snes9x 2010	Earthbound	60	90	60	240		0.0%	166.7%
SNES	Snes9x 2010	Final Fantasy 4	60	85	60	224		0.0%	163.5%
SNES	Snes9x 2010	Final Fantasy 6	60	82	60	190		0.0%	131.7%
SNES	Snes9x 2010	Legend of Zelda - aLttP	60	72	60	185		0.0%	156.9%
SNES	Snes9x 2010	Megaman X	60	82	60	195		0.0%	137.8%
SNES	Snes9x 2010	Secret of Mana	60	67	60	170		0.0%	153.7%
SNES	Snes9x 2010	Star Fox	60	67	60	160		0.0%	138.8%
SNES	Snes9x 2010	Street Fighter 2 Turbo	60	85	60	208		0.0%	144.7%
SNES	Snes9x 2010	Super Mario All-Stars	60	84	60	200		0.0%	138.1%
SNES	Snes9x 2010	Super Mario Kart	60	75	60	182		0.0%	142.7%
SNES	Snes9x 2010	Super Mario RPG	60	65	60	165		0.0%	153.8%
SNES	Snes9x 2010	Super Mario World	60	80	60	215		0.0%	168.8%
SNES	Snes9x 2010	Super Mario World 2	60	63	60	150		0.0%	138.1%
SNES	Snes9x 2010	Super Metroid	60	82	60	195		0.0%	137.8%
GBA	VBA Next	Dragon Ball Z - Buu's Fury	60	72	60	192		0.0%	166.7% NOTE: Menu does have
GBA	VBA Next	Dragon Ball Z - Supersonic Warriors	60	60	60	163		0.0%	171.7% Note: Rpi3 is on it's ma
GBA	VBA Next	Grand Theft Auto Advance	60	64	60	172		0.0%	168.8%
GBA	VBA Next	Kirby - Nightmare in dreamland	60	65	60	160		0.0%	146.2%
GBA	VBA Next	Legend of Zelda - ALttP 4S	60	63	60	156		0.0%	147.6% Note: Rpi3 has audio st
GBA	VBA Next	Legend of Zelda - The Minish Cap	60	85	60	200		0.0%	135.3%
GBA	VBA Next	Metal Slug Advance	58	58	60	150		3.4%	158.6%
GBA	VBA Next	Pokemon Fire-red	55	55	60	141		9.1%	156.4%
GBA	VBA Next	Super Mario Advance 2	52	52	60	130		15.4%	150.0%
GBA	VBA Next	Super Mario Advance 4	60	62	60	159		0.0%	156.5%

N64	Mupen64Plus	007 Goldeneye	15	15	20	25	33.3%	66.7% Note: This game runs li	
N64	Mupen64Plus	Banjo Kazooie	30	60	30	85	0.0%	41.7%	
N64	Mupen64Plus	Conker's Bad Fur day	13	13	20	26	53.8%	100.0% Note: Rpi3 intro almos	
N64	Mupen64Plus	Diddy Kong Racing	28	40	28	63	0.0%	57.5%	
N64	Mupen64Plus	F-Zero X	60	70	60	140	0.0%	100.0% Note: Rpi3 Almost to 0	
N64	Mupen64Plus	Legend of Zelda - Majora's Mask	20	45	20	66	0.0%	46.7% Note: Rpi3 Few graphic	
N64	Mupen64Plus	Legend of Zelda - Ocarina of Time	20	35	20	50	0.0%	42.9% Note:Rpi3 Graphical gli	
N64	Mupen64Plus	Paper Mario	30	55	30	91	0.0%	65.5%	
N64	Mupen64Plus	Perfect Dark	20	30	20	50	0.0%	66.7%	
N64	Mupen64Plus	Star Fox 64	30	40	30	75	0.0%	87.5%	
N64	Mupen64Plus	Super Mario 64	30	62	30	95	0.0%	53.2%	
N64	Mupen64Plus	Super Smash Brothers	52	52	60	90	15.4%	73.1%	
N64	Mupen64Plus	Wave Race 64	20	22	20	42	0.0%	90.9%	
PS1	PSCX - Rearmed	Castlevania - Symphony of the Night	60	140	60	300	80	0.0%	114.3%
PS1	PSCX - Rearmed	Crash Bandicoot - Warped	60	136	60	260	62	0.0%	91.2%
PS1	PSCX - Rearmed	Final Fantasy VII	60	155	60	300	66	0.0%	93.5%
PS1	PSCX - Rearmed	Harry Potter and the Philosopher's stone	60	120	60	260	62	0.0%	116.7%
PS1	PSCX - Rearmed	MediEvil	60	115	60	260	65	0.0%	126.1%
PS1	PSCX - Rearmed	Resident Evil 1	60	160	60	305	80	0.0%	90.6%
PS1	PSCX - Rearmed	Spyro - Year of the Dragon	60	120	60	260	57	0.0%	116.7%
PS1	PSCX - Rearmed	Tekken 3	60	76	60	163	58	0.0%	114.5%
PS1	PSCX - Rearmed	Tony Hawk's Pro Skater 2	60	104	60	230	64	0.0%	121.2%
GBC	Sameboy	Donkey Kong Country	46	46	60	87	30.4%	89.1%	
GBC	Sameboy	Dragon Warrior Monsters	60	65	60	113	0.0%	73.8%	
GBC	Sameboy	Legend of Zelda - Link's Awakening	49	49	60	90	22.4%	83.7%	
GBC	Sameboy	Legend of Zelda - Oracle of Seasons	48	48	60	91	25.0%	89.6%	
GBC	Sameboy	Magical Tetris Challenge	47	47	60	89	27.7%	89.4%	
GBC	Sameboy	Mario Golf	48	48	60	90	25.0%	87.5%	
GBC	Sameboy	Mario Tennis	45	45	60	85	33.3%	88.9%	
GBC	Sameboy	Metal Gear Solid	48	48	60	88	25.0%	83.3%	
GBC	Sameboy	Micro Machines V3	46	46	60	91	30.4%	97.8%	
GBC	Sameboy	Pokemon Gold	60	64	60	113	0.0%	76.6%	
GBC	Sameboy	Shantae	44	44	60	82	36.4%	86.4%	
GBC	Sameboy	Wario Land 3	50	50	60	91	20.0%	82.0%	
GBC	Sameboy	Warlocked	45	45	60	88	33.3%	95.6%	



FPS at the start of a race, But should be a bug. Also audio glitches in menu