

Comparison of 136 Open Spec, Hacker Friendly Single Board Computers -- Jan. 2022

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		Price (\$)	Vendor	Processor	Cores	3D GPU	MCU or AI chip	RAM	eMMC/flash	Other storage	LAN	Wireless	HDMI or DP	Camera output	USB ports	Expansion	OSes
A20-OLinuxino-Lime2		45 to 68	Olimex	Allwinner A20	2x A7 @ 1GHz	Mali-400	no	1GB	opt. 8GB or 16GB eMMC	SATA	GbE	no	yes	no	3	other	Linux, Android
A20-OLinuxino-Micro		46 to 70	Olimex	Allwinner A20	2x A7 @ 1GHz	Mali-400	no	1GB	opt. 8GB or 16GB eMMC	SATA	Fast	no	yes	no	3	other	Linux, Android
A33-OLinuxino		34 or 45	Olimex	Allwinner A33	4x A7 @ 1.2GHz	Mali-400	no	1GB	opt. 8GB NAND	no	no	no	no	yes	1	dual 40-pin	Linux, Android
A64-OLinuxino		41 to 79	Olimex	Allwinner A64	4x A53 @ 1.2GHz	Mali-400 MP2	no	1GB or opt. 2GB	opt. 4GB or 16GB eMMC	no	GbE	WiFi, BT	yes	via GPIO	1	40-pin custom	Linux
AIO-1808-JD4	NEW	149	T-Firefly	Rockchip RK1808	2x A35 @ 1.6GHz	no	3-TOPS NPU	1GB	8B eMMC	no	GbE	opt. WiFi/BT or 4G	no	yes	2	mini-PCIe	Linux
AIO-3566-JD4	NEW	139 or 155	T-Firefly	Rockchip RK3566	4x A55 @ 1.8GHz	Mali-G52	0.8-TOPS NPU	1GB or 2GB	8GB or 32GB	SATA and NVMe (via M.2)	GbE	opt. 3G/4G via mini-PCIe	yes	yes	2	M.2, mini-PCIe	Linux, Android
Banana Pi BPI-F2S		75	SinoVoip	SunPlus SP7021	4x A7 @ 1GHz	no	SAM9X60 and 8051	128MB or 512MB	8GB eMMC	no	2x Fast	no	yes	yes	3	40-pin and FPGA I/O	Linux
Banana Pi BPI-M2 Berry		42	SinoVoip	Allwinner V40	4x A7	Mali-400 MP2	no	1GB	no	SATA	GbE	WiFi, BT	yes	yes	4	Pi 40	Linux, Android
Banana Pi BPI-M2 Pro	NEW	61	SinoVoip	Amlogic S905X3	4x A55 @ 2GHz	Mali-G31	no	2GB	16GB eMMC	no	GbE	WiFi, BT	yes	no	3	Pi 40	Linux, Android
Banana Pi BPI-M2 Ultra		70	SinoVoip	Allwinner H2+	4x A7	Mali-400 MP2	no	2GB	8GB to 64GB eMMC	SATA	GbE	WiFi, BT	yes	no	4	Pi 40	Linux, Android
Banana Pi BPI-M2 Zero		23	SinoVoip	Allwinner R40	4x A7 @ 1.2GHz	Mali-400 MP2	no	512MB	no	no	no	WiFi, BT	yes	yes	1	Pi 40	Linux, Android
Banana Pi BPI-M3		73	SinoVoip	Allwinner A83T	8x A7 @ 2GHz	PowerVR SGX544 MP1	no	2GB	8GB eMMC	SATA	GbE	WiFi, BT	yes	yes	3	Pi 40	Linux, Android
Banana Pi BPI-M4		50 or 55	SinoVoip	Realtek RTD1395	4x A53	Mali-470 MP4	no	1GB or 2GB	8GB eMMC	no	Fast	WiFi, BT	yes	no	5	Pi 40	Linux, Android
Banana Pi BPI-M5	NEW	67 to 88	SinoVoip	Amlogic S905X3	4x A55	Mali-G31	no	4GB	16GB eMMC	no	GbE	opt. WiFi/BT	yes	no	5	Pi 40	Linux, Android
Banana Pi BPI-M64		62	SinoVoip	Allwinner A64	4x A53 @ 1.2GHz	Mali-450 MP2	no	2GB	8GB to 64GB eMMC	no	GbE	WiFi, BT	yes	yes	4	Pi 40	Linux, Android
Banana Pi BPI-P2 Maker		24 or 29	SinoVoip	Allwinner H2+	4x A7 @ 1.2GHz	Mali-400 MP2	no	512MB	8GB (Zero only)	no	Fast	WiFi, BT (only on Zero)	yes	yes	2	Pi 40	Linux, Android
Banana Pi BPI-R2		105	SinoVoip	MediaTek MT7623N	4x A7 @ 1.3GHz	Mali-450 MP4	no	2GB	8GB eMMC	SATA	4x GbE + WAN	WiFi, BT	yes	no	3	Pi 40	Linux, Android
Banana Pi BPI-R64		79	SinoVoip	MediaTek MT7622	4x A53 @ 1.35GHz	none	no	1GB	8GB eMMC	2x SATA	4x GbE + WAN	WiFi/BT	no	no	1	Pi 40	Linux
Banana Pi BPI-W2		88	SinoVoip	Realtek RTD1296	4x A53 @ 1.5GHz	Mali-T820 MP3	no	2GB	8GB to 64GB eMMC	yes	2x GbE	no	yes	no	4	Pi 40, 3x M.2	Linux, Android
BeagleBone AI		107	BeagleBoard.org	TI AM578	2x A15 @ 1.5GHz	PowerVR SGX544	PRU, 2x Cortex-M4, EVE AI chip	1GB	16GB eMMC	no	GbE	WiFi, BT	yes	no	2	Bbone	Linux
BeagleBone Black		53	BeagleBoard.org	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	4GB eMMC	no	Fast	no	yes	no	2	Bbone	Linux, Android
BeagleBone Black Wireless		104	BeagleBoard.org , Octavo	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	4GB eMMC	no	no	WiFi, BT	yes	no	2	Bbone	Linux, Android
BeagleBone Blue		70	BeagleBoard.org	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	4GB eMMC	no	no	WiFi/BT (some SKUs)	yes (some SKUs)	no	2	Bbone	Linux
BeagleBone Enhanced		99 to 125	Sancloud	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB or 1GB	4GB eMMC	no	GbE	WiFi/BT (some SKUs)	yes (some SKUs)	no	3	Bbone	Linux, Android
BeagleBone Green / Green Wireless		51 and 60	SeedStudio	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	4GB eMMC	no	Fast (Green only)	WiFi/BT (Wireless only)	no	no	2 or 5 (Wireless)	Bbone, Grove	Linux, Android
BeagleBone Green Gateway		79	SeedStudio	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	4GB eMMC	no	Fast	WiFi/BT	no	no	3	Bbone, Grove	Linux, Android
C-Sky Dev Board		16	Hangzhou C-SKY	Nationalchip GX6605S CK610M	1x C-SKY @ 574MHz	no	no	64MB	no	no	no	no	yes	no	4	no	Linux
Chameleon96		185	Novtech, Arrow	Intel Cyclone V SE SoC	2x A9 + FPGA	Intel Video Suite for FPGA	no	512MB	no	no	no	WiFi, BT	yes	yes	3	96Boards	Linux
Coral Dev Board		130	Google	NXP i.MX8M	4x -A53 @ 1.5GHz	Vivante GC7000Lite/GC7000VL X	Cortex-M4, Edge TPU	1GB	8GB eMMC	no	GbE	WiFi, BT	yes	yes	4	Pi 40	Linux
Coral Dev Board Mini		100	Google	MediaTek 8167s	4x -A35	PowerVR GE8300	Edge TPU	2GB	8GB eMMC	no	no	WiFi/BT	yes	yes	3	Pi 40	Linux
Cherry Pi PC	NEW	17 to 31	Shenzhen LC Tech	Allwinner H3	4x A7 @ 1.6GHz	Mali-400 MP2	no	512MB or 1GB	opt. 8GB eMMC	no	Fast	WiFi	yes	yes	3	Pi 40	
CubieBoard6 / CubieBoard7		89 or 75	Cubieboard.org	Actions S500 / Actions S700	4x A9 / 4x A53	PowerVR SGX544 / Mali-450 MP4	no	2GB	8GB eMMC	SATA	Fast	WiFi, BT	yes	no	3	other	Linux, Android
DE0-Nano-SoC Dev Kit		164	Terasic, RocketBoards.org	Cyclone V SE	2x A9 @ 952MHz + FPGA	no	no	1GB	no	no	GbE	no	no	no	2	Arduino	Linux
Developer Board 4IoT		69	Geniatech	Qualcomm Snapdragon 410E	4x A53 @ 1.2GHz	Adreno 306	no	1GB or 2GB	8GB or 16GB eMMC	no	no	WiFi, BT, GPS	no	yes	1	96Boards IE	Linux, Android, Win 10 IoT
DragonBoard 410c		133	Arrow, Qualcomm	Qualcomm Snapdragon 410	4x A53 @ 1.2GHz	Adreno 306	no	1GB	8GB eMMC	no	no	WiFi, BT	yes	yes	3	96Boards	Linux, Android
Firefly-RK3128		75	T-Firefly	Rockchip RK3128 or PX3-SE	4x A7 @ 1.3GHz	Mali-400 MP2	no	1GB	8GB NAND or eMMC	no	GbE	WiFi, BT	yes	yes	5	other	Linux, Android
Firefly-RK3399		179	T-Firefly	Rockchip RK3399	2x A72 @ 2GHz, 4x A53 @ 1.43GHz	Mali-T760	no	2GB	16GB eMMC	no	GbE	WiFi, BT	yes	yes	4	other	Linux, Android
Giant Board		55	Groboards	Microchip SAMA5D27	1x A5 @ 500MHz	no	no	128MB	no	no	opt.	opt. WiFi	no	no	1	Feather	Linux
Habanero DVK		119	8devices	Qualcomm IPQ4019	4x A7 @ 717MHz	no	no	512MB	opt. NAND and eMMC	no	5x Fast	WiFi	no	no	2	other	Linux
HummingBoard CBI		183 or 245	SolidRun	NXP i.MX6	2x or 4x A9 @ up to 1.2 GHz	Vivante GC355	no	1GB or 2GB	8GB eMMC	via M2	GbE	WiFi/BT, GPS	no	yes	4	Mini-PCIe, M.2	Linux, Android
HummingBoard Edge		200	SolidRun	NXP i.MX6 Quad	4x A9 @ up to 1.2GHz	Vivante GC355	no	2GB	8GB eMMC	mSATA & via M.2	GbE	opt.	yes	yes	4	Mini-PCIe	Linux, Android
HummingBoard Gate		119	SolidRun	NXP i.MX6 Solo	1x A9 @ up to 1.2GHz	Vivante GC355	no	512MB to 4GB	8GB eMMC	no	GbE	opt.	yes	yes	4	Mini-PCIe, MikroBus	Linux, Android
HummingBoard Mate		162 or 178	SolidRun	NXP i.MX8M Plus Quad	4x	Vivante GC7000UL (3D), GC520L (2D)	Cortex-M7, AI chip on Plus SoC	1GB	8GB eMMC	no	GbE	opt.	yes	yes	3	Mini-PCIe, MikroBus	Linux
HummingBoard Ripple		181 or 197	SolidRun	NXP i.MX8M Mini Quad	4x -A53 @ 1.8GHz	Vivante GCNanoUltra (3D), GC320 (2D)	Cortex-M4	2GB	8GB eMMC	no	GbE	opt.	yes	yes	3	Mini-PCIe, MikroBus	Linux
iPi SMARC PX30		166	Adlink	Rockchip PX30	4x A35	Mali-G31 MP2	no	2GB	no	no	2x GbE	no	yes	yes	5	other	Linux
Jalapeno DVK		99	8devices	Qualcomm IPQ4018	4x A7 @ 700MHz	no	no	256MB	no	no	2x GbE	WiFi	no	no	3	other	Linux
Jupiter Nano	NEW	99	Starcat	Microchip SAMA5D27C	1x A5 @ 498MHz	no	no	128MB	no	no	no	no	no	no	2	other	Linux, NuttX

Khadax Edge / Edge-V		100 and 110	Khadax	Rockchip RK3399	2x A72 @ 2GHz, 4x A53 @ 1.5GHz	Mali-T860	yes	2GB	16GB eMMC	via M.2 (Edge-V only)	GbE (Edge-V)	WiFi, BT	yes	Edge-V only	4	MXM with FPC or Pi 40; M.2 on Edge-V	Linux, Android	
Khadax Vim1		45 or 55	Khadax	Amlogic S905X	4x A53	Mali-450 MP	no	2GB	8GB or 16GB eMMC	no	Fast	WiFi, BT	yes	no	3	40-pin custom	Linux, Android	
Khadax Vim2		80 or 100	Khadax	Amlogic S912	8x A53 @ 1.5GHz	Mali-T820 MP3	yes	2GB or 3GB	16GB or 64GB	no	GbE	WiFi, BT	yes	no	3	40-pin custom	Linux, Android	
Khadax Vim3 / Vim3L		70 (3L) or 100 to 140	Khadax	Amlogic AM311D	4x -A73 @ 2.2GHz, 2x -A53 @ 1.8GHz	Mali-G52	yes	2GB or 4GB	16GB or 32GB	via M.2	GbE	WiFi, BT	yes	yes	3	40-pin custom, M.2, PCIe	Linux, Android	
Komikan DVK		59	8devices	Realtek RTL819FS	1x MIPS @ 1GHz	none	no	128MB	empty eMMC socket	no	Fast and GbE	WiFi, BT	no	no	3	other	Linux	
LaitiPanda Delta		99 or 159	DFRobot	Intel Celeron N4100	4x Gemini Lake @ 1.1 GHz/2.4GHz	Intel UHD Graphics 600	Arduino Leonardo	2GB or 4GB	32GB eMMC	via M.2	GbE	WiFi/BT	yes	no	4	2x M.2	Linux, Windows	
Libre Computer Board ALL: H3-CC (Trillium)		25 to 40	Libre Computer	Allwinner H2+, H3, or H5	4x A7 or A53	Mali-400 MP2 or Mali 450 MP4	no	512MB, 1GB, or 2GB	no	no	Fast	no	yes	no	5	Pi 40	Linux, Android	
Libre Computer Board AML-S905X-AC (La Frate)		25 or 30	Libre Computer	Amlogic S805X	4x A53 @ 1.2GHz	Mali-450	no	512MB or 1GB	empty eMMC socket	no	Fast	no	yes	no	3	Pi 40	Linux, Android	
Libre Computer Board AML-S905X-CC (Le Polato)		50	Libre Computer	Amlogic S905X	4x A53	Mali-450 MP2	no	2GB	opt. 8GB to 64GB eMMC	no	Fast	no	yes	no	5	Pi 40	Linux, Android	
Lindenis V5		95	Lindenis Tech	Allwinner V5 V100	4x A7 @ 1.5GHz	no	no	1GB	no	no	GbE	opt. WiFi, BT	yes	yes	5	Pi 40	Linux	
Lindenis V536		83	Lindenis Tech	Allwinner V536	2x A7 @ 1.2GHz	no	no	1GB	eMMC socket	no	GbE	opt. WiFi, BT	yes	yes	3	no	Linux	
Lindenis V833	NEW	125	Lindenis Tech	Allwinner V833	1x A7 @ 1.2GHz	no	0.4-TOPS NPU	512MB (upgr. To 3GB)	no	no	10/100	WiFi/BT	no	yes	1	no	Linux	
MaaxBoard iMX8MQ		150	Emtop/Avnet	NXP i.MX8M	4x A53 @ 1.4GHz	Vivante GC7000Lite	Cortex-M4	2GB	empty eMMC	no	GbE	WiFi, BT	yes	yes	3	Pi 40	Linux, Android	
MaaxBoard Mini		150	Emtop/Avnet	NXP i.MX8M Mini	4x A53 @ 1.8GHz	Vivante GCNanoUltra (3D), GC320 (2D)	Cortex-M4	2GB	empty eMMC	no	GbE	WiFi/BT	no	yes	5	Pi 40	Linux, Android	
MaaxBoard Nano	NEW	150	Emtop/Avnet	NXP i.MX8M Nano	4x A53 @ 1.5GHz	Vivante GC7000UL	Cortex-M7	1GB	empty eMMC	no	GbE	WiFi/BT	no	yes	5	Pi 40	Linux, Android	
MYS-6ULX SBC		37 or 40	MYIR	NXP i.MX6 ULL or i.MX6 UL	1x Cortex-A7 @ 528MHz or 696MHz	no	no	256MB	256MB NAND	no	Fast	WiFi	no	no	2	other	Linux	
MYS-8MMX	NEW	119 or 139	MYIR	NXP i.MX8M Mini Quad	4x A53 @ 1.8GHz	GCNanoUltra	Cortex-M4	2GB or 4GB	8GB to 128GB eMMC	opt. via M.2	GbE	WiFi/BT	yes	yes	3	M.2, other	Linux	
Nano PC-T3 Plus		99	FriendlyElec	Samsung S5P6818	8x A53 @ 1.4GHz	Mali-400 MP	no	2GB	16GB eMMC	no	GbE	WiFi, BT	yes	yes	4	other	Linux, Android	
NanoPC-T4		175	FriendlyElec	Rockchip RK3399	2x A72 @ 2GHz, 4x A53 @ 1.5GHz	Mali-T864	no	4GB	16GB eMMC	SATA; via M.2	GbE	WiFi, BT	yes	yes	4	M.2, Pi 40	Linux, Android	
NanoPi Duo2		25	FriendlyElec	Allwinner H3	4x A7 @ 1.2GHz	Mali-400 MP2	no	512MB	no	no	no	WiFi, BT	no	no	1	other	Linux	
NanoPi i.M1 Plus		48	FriendlyElec	Allwinner H3	4x A7 @ 1.2GHz	Mali-400 MP2	no	1GB	8GB eMMC	no	GbE	WiFi, BT	yes	yes	3	Pi 40	Linux, Android	
NanoPi-M4V2		80	FriendlyElec	Rockchip RK3399	2x A72 @ 2GHz, 4x A53 @ 1.5GHz	Mali-T864	no	4GB	opt. eMMC	no	GbE	WiFi, BT	yes	yes	5	Pi 40 and other	Linux, Android	
NanoPi Fire2A		30	FriendlyElec	Samsung S5P4418	4x A9 @ 1.4GHz	"3D GPU"	no	512MB	no	no	GbE	no	yes	yes	2	Pi 40	Linux	
NanoPi Neo-LTS		16 or 18	FriendlyElec	Allwinner H3	4x A7 @ 1.2GHz	Mali-400	no	256MB or 512MB	no	no	Fast	no	no	no	2	other	Linux	
NanoPi Neo3		44 or 49	FriendlyElec	Rockchip RK3328	4x A53 @ 1.4GHz	Mali-450 MP2	no	1GB or 2GB	no	no	GbE	no	no	no	2	no	Linux	
NanoPi Neo Air-LTS		28	FriendlyElec	Allwinner H3	4x A7 @ 1.2GHz	Mali-400 MP2	no	512MB	8GB eMMC	no	no	WiFi, BT	no	yes	1	other	Linux	
NanoPi R1 / R1S		60 or 40	FriendlyElec	Allwinner H3	4x A7 @ 1.2GHz	Mali-400 MP2	no	1GB (R1) or 512MB (R1S)	no	no	GbE & Fast (R1) or 2x GbE (R1S)	WiFi/BT (R1) or WiFi (R1S)	no	no	3 (R1) or 2 (R1S)	no	Linux	
NanoPi R2C	NEW	35	FriendlyElec	Rockchip RK3328	4x A53 @ 1.4GHz	Mali-450 MP2	no	1GB	no	no	2x GbE	no	no	no	2	no	Linux	
NanoPi R2S		48	FriendlyElec	Rockchip RK3328	4x A53 @ 1.4GHz	Mali-450 MP2	no	1GB	no	no	2x GbE	no	no	no	2	no	Linux	
NanoPi R4S		87	FriendlyElec	Rockchip RK3399	2x A72 @ 2GHz, 4x A53 @ 1.5GHz	Mali-T864	no	1GB (upg. to 4GB)	no	no	2x GbE	no	no	no	3	no	Linux	
NetSOM Development Board	NEW	96 to 126	M2M IOT	NXP i.MX6 ULL	1x A7 @ 900MHz	no	no	256MB	4MB NAND	no	2x Fast	opt. WiFi	no	yes	3	other	Linux	
Nitrogen8M_Mini		155 or 217	Boundary Devices	NXP i.MX8M Mini	4x A53 @ 2.0GHz	GCNanoUltra	Cortex-M4	2GB	16GB eMMC	no	GbE	opt. WiFi, BT	no	yes	2	PCIe	Linux, Android	
Odroid-C4		54	Hardkernel	Amlogic S905X3	4x A55 @ 2.0GHz	Mali-G31	no	4GB	Opt. eMMC	no	GbE	no	yes	no	5	Pi 40	Linux, Android	
Odroid-HC4		73 or 83	Hardkernel	Amlogic S905X3	4x A55 @ 1.8GHz	Mali-G31	no	4GB	no	2x SATA (PCIe)	GbE	no	yes	no	1	no	Linux, Android	
Odroid-N2+		66 or 83	Hardkernel	Amlogic S922X	4x -A73 @ 2.4GHz, 2x -A53 @ 2.0GHz	Mali-G52	no	2GB or 4GB	empty eMMC socket	no	no	GbE	opt.	yes	no	5	Pi 40	Linux, Android
Odroid-XU4 / -XU4Q		53	Hardkernel	Samsung Exynos5422	4x A15 @ 2GHz + 4x A7 @ 1.4GHz	Mali-T628 MP6	no	2GB	opt. eMMC	opt USB-based SATA	GbE	opt.	yes	no	3	other	Linux, Android	
Odyseev-X86J10580Q		181	Seed	Intel Celeron J4005	2x Gemini Lake @ 2.00 /2.7GHz	Intel UHD Graphics 600	Cortex-M0+	8GB	no	SATA & via M.2	2x GbE	WiFi/BT	yes	no	4	Pi 40, Arduino, 2x M.2	Linux, Windows	
Omega2 Dash		75	Onion	MediaTek MT7688	1x MIPS @ 580MHz	no	no	128MB	no	no	opt. Fast	WiFi	no	no	2	other	Linux	
Omega2 LTE		105	Onion	MediaTek MT7688	1x MIPS @ 580MHz	no	no	128MB	no	no	opt. Fast	WiFi, LTE, GNSS	no	no	1	other	Linux	
Omega2 Pro		55	Onion	MediaTek MT7688AN	1x MIPS @ 580MHz	no	no	512MB	8GB flash	no	opt.	WiFi	no	no	2	other	Linux	
Orange Pi 3 LTS	NEW	35	Shenzhen Xunlong	Allwinner H6	4x A53 @ 1.8GHz	Mali-T720 MP2	no	2GB	8GB eMMC	no	GbE	WiFi, BT	yes	no	4	Pi 26	Linux, Android	
Orange Pi 3G-IOT		22 (A) or 26 (B)	Shenzhen Xunlong	MediaTek MT6572	2x A7 @ 1.2GHz	Mali-400 MP1	no	256MB (A) or 512MB (B)	512MB (A) or 4GB eMMC	no	no	WiFi, BT, 3G, GPS, FM	no	yes	2	Pi 40	Android	
Orange Pi i96		10	Shenzhen Xunlong	RDA RDA8810PL	1x A5	Vivante GC860	no	256MB	500MB NAND	no	no	WiFi, BT	no	yes	2	40-pin custom	Linux, Android	
Orange Pi PC / PC Plus		28 and 36	Shenzhen Xunlong	Allwinner H3	4x A7 @ 1.6GHz	Mali-400 MP2	no	1GB	8GB eMMC (PC Plus only)	no	Fast	no	yes	yes	4	Pi 40	Linux, Android	
Orange Pi Zero LTS / Zero Plus		18 and 25	Shenzhen Xunlong	Allwinner H2+ or H5	4x A7 (H2+) or 4x A53 @ 1.2GHz	Mali-400 MP2 (LTS) or Mali-450 MP2	no	512MB	no	no	Fast	WiFi	no	no	2	Pi 26	Linux, Android	
Orange Pi Zero2 H3		35	Shenzhen Xunlong	Allwinner H3	4x A7 @ 1.2GHz	Mali-400 MP2	no	512MB	8GB eMMC	no	no	WiFi/BT	yes	yes	1	Pi 26	Linux, Android	
Orange Pi Zero2		25	Shenzhen Xunlong	Allwinner H616	4x A53 @ 1.5GHz	Mali-TG31	no	1GB	no	no	GbE	WiFi/BT	yes	no	2	Pi 26	Linux, Android	
Pine H64 Model B		45	Pine64	Allwinner H6	4x A53	Mali-T720	no	3GB	opt.	no	GbE	WiFi, BT	yes	no	2	Pi 40	Linux, Android	
Quantum Mini		58	Seed	Allwinner H3	4x A7 @ 1.0GHz	Mali-400 MP2	no	512MB	16GB eMMC	no	no	WiFi/BT	no	no	3	no	Linux	
Quartz64 Model-A	NEW	60 or 80	Pine64	Rockchip RK3566	4x A55 @ 1.8GHz	Mali-G52	0.8-TOPS NPU; 32-bit RISC-V	4GB	opt. eMMC	SATA	GbE	opt. WiFi/BT	no	yes	4	PCIe x1, other	Linux, Android	
Radxa Zero	NEW	22 to 86	Radxa	Amlogic S905Y2	4x A53 @ 1.8GHz	Mali-G31 MP2	no	1GB to 4GB	0 to 128GB eMMC	no	no	WiFi/BT	yes	no	2	Pi 40	Linux, Android	
Raspberry Pi Zero 2 W / Zero W / Zero	NEW	15	RPI Trading	Broadcom BCM2710A1	4x A53 @ 1GHz	VideoCore IV	no	512MB	no	no	no	WiFi/BT	yes	no	2	Pi 40	Linux	
Raspberry Pi 3 Model A+		25	RPI Trading	Broadcom BCM2837B0	4x A53 @ 1.4GHz	VideoCore IV	no	512MB	no	no	no	WiFi, BT	yes	yes	2	Pi 40	Linux	

Raspberry Pi 3 Model B+ / Model B		35	RPI Trading	Broadcom BCM2837B0	4x A53 @ 1.4GHz	VideoCore IV	no	1GB	no	no	GbE	WiFi/BT	yes	yes	5	Pi 40	Linux
Raspberry Pi 4 Model B		45	RPI Trading	Broadcom BCM2711	4x A72 @ 1.5GHz	VideoCore VI	no	2GB	no	no	GbE	WiFi/BT	yes	yes	5	Pi 40	Linux, Win 10 IoT
Recore	NEW	149	Intelligent Agent	Allwinner A64	4x A53 @ 1.2GHz	Mali-400 MP2	STM32	1GB	16GB eMMC	no	GbE	no	yes	no	4	other	Linux
RK3328-SOM-EVB	NEW	51 or 65	Olimex	Rockchip RK3328	4x A53 @ 1.5GHz	Mali-450 MP2	no	1GB or 2GB	empty socket	no	GbE, Fast	no	yes	no	3	other	Linux
Rico Board		89	MYIR	TI AM437x	1x A9 @ 1GHz	PowerVR SGX530	no	512MB (or 256MB or 1GB)	4GB eMMC	no	GbE	no	yes	yes	2	other	Linux
ROC-RK3308B-CC Plus		40	Firefly	Rockchip RK3308	4x -A35 @ 1.3GHz	no	yes	256MB	128MB NAND; 4GB eMMC	no	2x Fast	WiFi	no	no	2	Pi 40	Linux
ROC-RK3328-CC (Renegade)		50	Libre, Firefly	Rockchip RK3328	4x A53	Mali-400 MP2	no	2GB	opt. eMMC	no	GbE	no	yes	yes	4	Pi 40	Linux, Android
ROC-RK3399-PC Plus / Pro	NEW	109 to 149	Firefly	Rockchip RK3399	2x A72 @ 2GHz, 4x A53 @ 1.5GHz	Mali-T864	no	4GB	opt. 32GB eMMC	via M.2 on opt. exp card	GbE w/PoE	WiFi, BT	yes	yes	3	other	Linux, Android
ROC-RK3566-PC	NEW	\$75 to \$115	Firefly	Rockchip RK3566	4x A55 @ 1.8GHz	Mali-G52	0.8-TOPS NPU	1GB to 8GB	8GB or 32GB eMMC	opt. NVMe via M.2	GbE	WiFi, BT	yes	yes	3	M.2, other	Linux, Android
ROC-RK3568-PC	NEW	\$125 to \$179	Firefly	Rockchip RK3568	4x A55 @ 2.0GHz	Mali-G52 EE	0.8-TOPS NPU	2GB to 8GB	32GB or 64GB eMMC	opt. NVMe via M.2	2x GbE	WiFi, BT	yes	yes	4	M.2, other	Linux, Android
Rock 3 Model A	NEW	35 to 75	Radxa	Rockchip RK3568	4x A55 @ 2GHz	Mali-G52 EE	0.8-TOPS NPU	2GB to 8GB	empty eMMC	yes	GbE w/PoE	opt. via M.2	yes	yes	5	2x M.2; Pi 40	Linux
Rock64		43 or 55	Pine64	Rockchip RK3328	4x A53 @ 1.5GHz	Mali-450 MP2	no	1GB to 4GB	empty eMMC	no	GbE	no	yes	no	3	Pi 40	Linux, Android
Rock Pi 4 Model A+ and B+	NEW	49 to 99	Radxa	Rockchip RK3399	2x A72 @ 2.0 GHz, 4x A53 @ 1.5GHz	Mali-T864	no	4GB	0 to 128GB eMMC	via M.2	GbE	opt. WiFi/BT	yes	yes	5	Pi 40, M.2	Linux, Android
Rock Pi S		13 to 37	Radxa	Rockchip RK3308	4x A35 @ 1.3GHz	no	no	256MB or 512MB	opt. 1GB NAND	no	Fast	opt. WiFi, BT	no	no	2	other	Linux
RockPro64		80	Pine64	Rockchip RK3399	2x A72 @ 1.8GHz, 4x A53 @ 1.4GHz	Mali-T864	no	4GB	empty eMMC	no	GbE	opt. WiFi/BT	yes	yes	4	PCIe x4, Pi 40	Linux, Android
Shield96	NEW	193 or 268	Arrow	Microchip SAM5D27	1x A5 @ 500MHz	no	crypto chip	128MB	128MB NAND	no	Fast	WiFi	no	no	3	Pi 40	Linux
Sipeed LicheeRV-Nezha CM	NEW	17 to \$24 (w/Dock)	Sipeed	Allwinner D1	1x RISC-V C906 @ 1GHz	no	no	512MB	opt. empty NAND slot	no	no	w/Dock	w/Dock	no	1 or 2 w/Dock)	2x M.2 B2B; Pi 40 on Dock	Linux
Sipeed Nezha and RVBoards-Nezha	NEW	112 or 115	Sipeed or RVBoards	Allwinner D1	1x RISC-V C906 @ 1GHz	no	no	1GB	256MB NAND	no	GbE	WiFi/BT	yes	no	3	Pi 40	Linux
Sipeed TANGK Hex		115	Sipeed	Xilinx Zynq-7020	2x A9 @ 667MHz	no	FPGA on SoC	1GB	256MB NAND	no	Fast	no	no	no	4	Pi 26	Linux
Stinger96		148	Shiritech	STM32MP17	2x A7 @ 650MHz	no	Cortex-M4	256MB	1GB NAND	no	GbE	NB-IOT	no	yes	2	96Boards IoT	Linux
STM157-OLinuXino-Lime2	NEW	52 or 54	Olimex	STM32MP157	2x A7 @ 650MHz	no	Cortex-M4	1GB	empty socket	no	GbE	no	yes (some SKUs)	no	3	dual 40-pin + 20-pin	Linux
Tinker Edge R	NEW	182	Asus	Rockchip RK3399Pro	2x A72 @ 1.8GHz; 4x A53 @ 1.4GHz	Mali-T860	3-TOPS NPU on SoC	6GB (4GB CPU, 2GB NPU)	16GB eMMC	no	GbE	WiFi/BT	yes	yes	4	Pi 40, mini-PCIe	Linux, Android
Tinker Edge T		168	Asus	NXP i.MX8M	4x A53 @ 1.5GHz	Vivante GC7000Lite	Coral Edge TPU	1GB	8GB eMMC	no	GbE	WiFi, BT	yes	yes	3	Pi 40	Linux
VMARC RK3399Pro SoM Ficus2		199 to 249	Vams	Rockchip RK3399Pro	2x A72 @ 1.8GHz; 4x A53 @ 1.4GHz	Mali-T860	3-TOPS NPU on SoC	4GB, 6GB, 8GB	16GB, 32GB, 64GB	no	GbE and Fast	WiFi, BT	yes	yes	3	96Boards EE, PCIe, mini-PCIe	Linux, Android
Udoo Neo		60 to 80	Udoo (Seco)	NXP i.MX6 SoloX	1x A9 @ 1GHz	Vivante GC355	Cortex-M4	512MB or 1GB	no	no	Fast	opt.	yes	yes	2	Arduino	Linux, Android
UP board		109 to 209	Aaeon	Intel Atom x5-Z8350	4x Cherry Trail @ 1.44 GHz/1.92GHz	Intel HD 400	no	1GB to 4GB	16GB to 64GB eMMC	no	GbE	no	yes	yes	5	Pi 40	Linux, Android
UP Core		119 to 199	Aaeon	Intel Atom x5-Z8350	4x Cherry Trail @ 1.44 GHz/1.92GHz	Intel HD 400	no	1GB to 4GB	16GB to 64GB eMMC	no	no	WiFi, BT	yes	yes	1	Pi 40	Linux, Android
UP Core Plus		149 to 299	Aaeon	Intel Atom x5-E3930/E3940, x7-E3950	4x Apollo Lake @ 1.3 GHz to 2.0GHz	Intel HD Graphics 500/505	no	2GB to 8GB	32GB to 128GB eMMC	SATA	opt.	WiFi, BT	yes	yes	4	other	Linux, Android
UP Squared		149 to 361	Aaeon	Intel Celeron N3350, Pentium N4200	2x or 4x Apollo Lake @ 1.1GHz/2.4GHz or 1.1 GHz/2.5GHz	Intel HD Graphics 500/505	no	2GB or 8GB	32GB to 128GB eMMC	SATA	2x GbE	opt. via M.2 E-key	yes	yes	4	M.2, mini-PCIe, other	Linux, Android
UP Squared Pro	NEW	199 to 339	Aaeon	Intel Celeron N3350 or N3450, Pentium N4200	2x or 4x Apollo Lake @ 1.1GHz/2.4GHz or 1.1 GHz/2.5GHz	Intel HD Graphics 500/505	no	2GB or 4GB	32GB to 128GB eMMC	SATA, opt. SSD via M.2	2x GbE	opt. via M.2 E-key	yes	no	4	3x M.2	Linux
Vizi-AI		199	Adilink	Intel Atom x5-E3940	4x Apollo Lake @ 1.3 GHz/1.8GHz	Intel HD Graphics 500/505	Myriad X VPU	4GB	no	SATA	2x GbE	no	yes	no	5	Pi 40	Linux
VisionFive V1	NEW	175	StarFive	StarFive JH7100	2x RISC-V U74 @ 1.5 GHz	no	1-TOPS NPU	4GB or 8GB	no	no	GbE	WiFi	yes	yes	5	Pi 40	Linux
ZeroPi		26	FriendlyElec	Allwinner H3	4x A7 @ 1.2GHz	Mali-400 MP2	no	512MB	no	no	GbE	no	no	no	2	no	Linux
ZimaBoard	NEW	100 to 180	Icewhale Tech	Intel Celeron N3350 or N3450	2x or 4x Apollo Lake @ 1.1GHz/2.4GHz or 1.1 GHz/2.2GHz	Intel HD Graphics 500/505	no	2GB to 8GB	16GB or 32GB eMMC	2x SATA	2x GbE	no	yes	no	2	PCIe x4	Linux, Android
Z-turn Board		159 or 179	MYIR	Xilinx Zynq-7010/7020	2x Arm @ 667MHz + FPGA	no	no	1GB	no	no	GbE	no	yes	no	2	other	Linux
Z-turn Lite		129 or 149	MYIR	Xilinx Zynq-7007S/7010	2x Arm @ 667MHz + FPGA	no	no	512MB	4GB eMMC	no	GbE	no	no	no	1	other	Linux

NOTES

Price: Based on lowest prices found at publication date, rounded to US dollar, with ranges indicating different models or different processor and memory configurations, but not other options. The ranges are based only the lowest price site, not a range of retail outlets.

Vendor: Primary vendor and, if promoted by vendor, a separate manufacturer. May not include all entities involved, or necessarily name of sponsored open source project/website.

Processor/Cores: Clock rates may be max. limits. References to A7, A9, A53 (64-bit) etc. refer to Arm Cortex SoCs.

3D GPU: Only listed if GPU has 3D acceleration.

MCU or AI chip: Only listed if user-accessible; may not include minor MCU coprocessors.

RAM: First figure is default configuration matched with price.

eMMC/flash: On-board storage of 64MB or more only -- does not include microSD slot, which is available on all the SBCs.

Other storage: Mass storage via SATA, mSATA, NVMe, etc.

LAN: Refers to Ethernet; "Fast" = 10/100Mbps; "GbE" = 10/100/1000Mbps.

Wireless: WiFi and Bluetooth, although some have others (see brief descriptions in our survey articles).

HDMI or DP-out: Refers to real-world, coastline DDI, HDMI and/or DisplayPort; others may also be present (e.g. LVDS, RGB, MIPI-DSI, VGA).

Camera output: MIPI-CSI, DVP, or other cam outputs

USB ports: Refers to coastline, real-world ports only. Includes micro- and mini-USB, including power-only models, but does not include onboard USB headers

Expansion: Lists support for major expansion interfaces such as mini-PCIe, M.2, Arduino, Pi 40 (40-pin Raspberry Pi expansion), BeagleBone (BBone, dual 50x), 96Boards.org (40- and/or 60-pin), Grove, or MikroBus; "other" refers to a custom expansion interfaces, differentiated from "headers," referring to individual interfaces.

OSes: Linux-based OSes preloaded on device, available for download, or available from linked 3rd party site; Linux means any full featured Linux (Ubuntu, Fedora, Yocto Project, Debian, OpenWrt etc.);

