

Comparison of 125 Open Spec, Hacker Friendly Single Board Computers -- June 2019

Click on the product names to get more product information. In most cases these links go to LinuxGizmos.com articles with detailed product descriptions plus market analysis.

		Price (\$)	Vendor	Processor	Cores	3D GPU	MCU	RAM	Storage	LAN	Wireless	HDMI or DP-out	USB ports	Expansion	OSes
A20-OLinuXino-Lime2		50 to 67	Olimex	Allwinner A20	2x A7 @ 1GHz	Mali-400	no	1GB	Opt. 4GB/16GB eMMC or 8GB NAND; SATA	GbE	no	yes	3	other	Linux, Android
A20-OLinuXino-Micro		56 to 73	Olimex	Allwinner A20	2x A7 @ 1GHz	Mali-400	no	1GB	opt. 4GB NAND	Fast	no	yes	3	other	Linux, Android
A33-OLinuXino		40 or 50	Olimex	Allwinner A33	4x A7 @ 1.2GHz	Mali-400	no	1GB	opt. 8GB NAND	no	no	no	1	dual 40-pin	Linux, Android
A64-OLinuXino		40 or 56	Olimex	Allwinner A64	4x A53 @ 1.2GHz	Mali-400 MP2	no	1GB	opt. 4GB eMMC	GbE	WiFi, BT	yes	1	40-pin custom	Linux
Arduino Yun Rev 2		59	Arduino	Qualcomm Atheros AR9331	1x MIPS @ 400MHz	no	Atmega32U4	64MB	16MB	Fast	WiFi	no	2	Arduino	Linux
Atomic Pi	NEW	36	DLI	Intel Atom x5-Z8350	4x @ 1.9GHz	Intel HD 400	no	2GB	16GB eMMC	GbE	WiFi, BT	yes	2	other	Linux, Win10
Banana Pi BPI-M2 Berry		36	SinoVoip	Allwinner V40	4x A7	Mali-400 MP2	no	1GB	SATA	GbE	WiFi, BT	yes	4	Pi 40	Linux, Android
Banana Pi BPI-M2 Ultra		56	SinoVoip	Allwinner R40	4x A7	Mali-400 MP2	no	2GB	8GB to 64GB eMMC; SATA	GbE	WiFi, BT	yes	4	Pi 40	Linux, Android
Banana Pi BPI-M2 Zero		23	SinoVoip	Allwinner H2+	4x A7 @ 1.2GHz	Mali-400 MP2	no	512MB	no	no	WiFi, BT	yes	1	Pi 40	Linux, Android
Banana Pi BPI-M3		99	SinoVoip	Allwinner A83T	8x A7 @ 2GHz	PowerVR SGX544 MP1	no	2GB	8GB eMMC, SATA	GbE	WiFi, BT	yes	3	Pi 40	Linux, Android
Banana Pi BPI-M64		52	SinoVoip	Allwinner A64	4x A53 @ 1.2GHz	Mali-450 MP2	no	2GB	8GB to 64GB eMMC	GbE	WiFi, BT	yes	4	Pi 40	Linux, Android
Banana Pi BPI-P2 Zero/Maker	NEW	14 to 40	SinoVoip	Allwinner H2+	4x A7 @ 1.2GHz	Mali-400 MP2	no	512MB	8GB (Zero only)	Fast	WiFi, BT (only on Zero)	yes	2	Pi 40	Linux, Android
Banana Pi BPI-R2		90	SinoVoip	MediaTek MT7623N	4x A7 @ 1.3GHz	Mali-450 MP4	no	2GB	8GB eMMC	4x GbE + WAN	Wifi, BT	yes	3	Pi 40	Linux, Android
Banana Pi BPI-W2		88	SinoVoip	Realtek RTD1296	4x A53 @ 1.5GHz	Mali-T820 MP3	no	2GB	8GB to 64GB eMMC	2x GbE	no	yes	4	Pi 40, 3x M.2	Linux, Android
BeagleBone Black		54	BeagleBoard.org	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	4GB eMMC	Fast	no	yes	2	Bbone	Linux, Android
BeagleBone Black Wireless		65	BeagleBoard.org; Octavo	TI Sitara AM3358	1x A8 @ 1GHz	SGX530	PRU	512MB	4GB eMMC	no	WiFi, BT	yes	2	Bbone	Linux, Android
BeagleBone Blue		68	BeagleBoard.org	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	4GB eMMC	no	WiFi, BT, GPS, DSM	no	2	Bbone	Linux
BeagleBone Green		44	SeeedStudio	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	4GB eMMC	Fast	no	no	2	Bbone, Grove	Linux, Android
BeagleBone Green Wireless		53	SeeedStudio	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	4GB eMMC	Fast	WiFi, BT	no	5	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	yes	4	no	Linux
Chameleon96		155	Novtech, Arrow	Intel Cyclone V SE SoC	2x A9 + FPGA	Intel Video Suite for FPGA	no	512MB	no	no	WiFi, BT	yes	3	96Boards	Linux
CloudBit Starter Kit		60	LittleBits	Freescala i.MX233	1x ARM9 @ 454MHz	no	no	64MB	4GB microSD	no	WiFi	no	0	LittleBits	Linux
Coral Dev Board	NEW	150	Google	NXP i.MX8M with Edge TPU	4x -A53 @ 1.5GHz	Vivante GC7000Lite/GC7000VL	Cortex-M4	1GB	8GB eMMC	GbE	WiFi, BT	yes	4	Pi 40	Linux
CubieAIO-S700		139	Cubieboard.org	Actions S700	4x A53	Mali-450 MP4	no	2GB	8GB eMMC, SATA	GbE	WiFi, BT	yes	7	other	Linux, Android

Comparison of 125 Open Spec, Hacker Friendly Single Board Computers -- June 2019

Click on the product names to get more product information. In most cases these links go to LinuxGizmos.com articles with detailed product descriptions plus market analysis.

Cubieboard4		117	Cubieboard.org	Allwinner A80	4x A15 @ 2GHz + 4x A7 @ 1.3GHz	PowerVR G6230	no	2GB	8GB eMMC	GbE	WiFi, BT	yes	5	other	Linux, Android
Cubieboard5		109	Cubieboard.org	Allwinner H8	8x A7 @ 2GHz	PowerVR SGX544MP1	no	2GB	SATA	GbE	WiFi, BT	yes	3	other	Linux, Android
Cubieboard6/7		89 or 99	Cubieboard.org	Actions S500 / Actions S700	4x A9 / 4x A53	PowerVR SGX544 / Mali-450 MP4	no	2GB	8GB eMMC, SATA	Fast	WiFi, BT	yes	3	other	Linux, Android
DE0-Nano-SoC Dev Kit		99	Terasic, RocketBoards.org	Cyclone V SE	2x A9 @ 952MHz + FPGA	no	no	1GB	no	GbE	no	no	2	Arduino	Linux
DragonBoard 410c		75	Arrow, Qualcomm	Qualcomm Snapdragon 410	4x A53 @ 1.2GHz	Adreno 306	no	1GB	8GB eMMC	no	WiFi, BT	yes	3	86Boards	Linux, Android
Edge TPU Developer Board		129	Bitmain	Sophon BM1880	2x A53 @ 1.5GHz plus BM1880 TCU	no	750MHz RISC-V	1GB	8GB eMMC	GbE	WiFi, BT	no	4	96Boards	Linux
Firefly-RK3128		60	Firefly	Rockchip RK3128	4x A7 @ 1.3GHz	Mali-400 MP2	no	1GB	8GB NAND	GbE	WiFi, BT	yes	5	other	Linux, Android
Firefly-RK3288		119 or 189	Firefly	Rockchip RK3288	4x A17 @ 1.8GHz	Mali-T760	no	2GB (4GB on Plus)	16GB to 32GB eMMC (32GB on Plus)	GbE	WiFi, BT	yes	3	other	Linux, Android
Firefly-RK3399		149 to 259	Firefly	Rockchip RK3399	2x A72 @ 2GHz, 4x A53 @ 1.43GHz	Mali-T860	no	2GB to 4GB	16GB to 128GB eMMC	GbE	WiFi, BT	yes	4	other	Linux, Android
Firefly-ROC-RK3328-CC		35 or 50	Firefly, Libre	Rockchip RK3328	4x A53	Mali-400 MP2	no	1GB or 2GB	opt. eMMC	GbE	no	yes	4	Pi 40	Linux, Android
HummingBoard CBJ		189 or 255	SolidRun	NXP i.MX6	2x or 4x A9 @ up to 1.2 GHz	Vivante GC355	no	1GB or 2GB	8GB eMMC, M2	GbE	WiFi/BT, GPS	no	4	Mini-PCIe, M.2	Linux, Android
HummingBoard Edge		132 to 197	SolidRun	NXP i.MX6	1x/2x/4x A9 @ up to 1.2 GHz	Vivante GC355	no	512MB to 2GB	8GB eMMC, mSATA, M.2	GbE	opt.	yes	4	Mini-PCIe	Linux, Android
HummingBoard Gate		97 to 197	SolidRun	NXP i.MX6	1x/2x/4x A9 @ up to 1.2 GHz	Vivante GC355	no	512MB to 4GB	8GB eMMC	GbE	opt.	yes	4	Mini-PCIe, MikroBus	Linux, Android
HummingBoard Pro		97 to 177	SolidRun	NXP i.MX6	1x/2x/4x A9 @ up to 1.2 GHz	Vivante GC355	no	512MB to 2GB	8GB eMMC; mSATA	GbE	opt.	yes	2	Mini-PCIe	Linux, Android
HummingBoard Pulse		182 to 276	SolidRun	NXP i.MX8M Dual or Quad	2x/4x -A53 at up to 1.5GHz	Vivante GC7000 Lite	Cortex-M4	2GB to 4GB	8GB eMMC; M.2	2x GbE	opt.	yes	3	Mini-PCIe, M.2	Linux
Khadass Edge/Edge-V		100 to 230	Khadass	Rockchip RK3399	2x A72 @ 2GHz, 4x A53 @ 1.5GHz	Mali-T860	yes	2GB or 4GB	16GB to 128GB eMMC	GbE (Edge-V)	WiFi, BT	yes	4	MXM with FPC or Pi 40 with M.2 (Edge-V)	Linux, Android
Khadass Vim1		55 or 70	Khadass	Amlogic S905X	4x A53	Mali-450 MP	no	2GB	8GB or 16GB eMMC	Fast	WiFi, BT	yes	3	40-pin custom	Linux, Android
Khadass Vim2		100	Khadass	Amlogic S912	8x A53 @ 1.5GHz	Mali-T820 MP3	yes	3GB	32GB	GbE	WiFi, BT	yes	3	40-pin custom	Linux, Android
Komikan DVK	NEW	59	8devices	Realtek RTL819FS	1x MIPS @ 1GHz	none	no	129MB	empty eMMC socket	Fast and GbE	WiFi, BT	no	3	other	Linux
La Frite		25 or 30	Libre Computer	Amlogic S805X	4x A53 @ 1.2GHz	Mali-450	no	512MB or 1GB	empty eMMC socket	Fast	no	yes	3	Pi 40	Linux, Android
LeMaker Guitar		69	LeMaker	Actions S500	4x A9 @ 1.6GHz	PowerVR SGX544	no	1GB or 2GB	8GB eMMC	Fast	WiFi, BT	yes	3	Pi 40	Linux, Android
Le Potato		35 or 45	Libre Computer	Amlogic S905X	4x A53	Mali-450 MP2	no	1GB or 2GB	opt. 8GB to 64GB eMMC	Fast	no	yes	5	Pi 40	Linux, Android
Lindenis V5		87 to 204	Lindenis Tech	Allwinner V5 V100	4x A7 @ 1.5GHz	no	no	1GB	opt. 8GB eMMC	GbE	opt. WiFi, BT	yes	5	Pi 40	Linux
LinkIt Smart 7688		15 or 18	SeeedStudio, MediaTek	MediaTek MT7688AN	1x MIPS @ 580MHz	no	opt. ATmega32U4	128MB	32MB	no	WiFi	no	2	opt. Arduino and Grove	OpenWrt
LinkSprite Acadia V3		119	LinkSprite	NXP i.MX6 Quad	4x A9 @ 1.2GHz	Vivante GC355	no	1GB	SATA	GbE	no	yes	3	Arduino	Linux, Android
LinkSprite Arches		95	LinkSprite	Allwinner A80	4x A15 @ 2GHz + 4x A7 @ 1.3GHz	PowerVR G6230	no	2GB	8GB eMMC	GbE	WiFi, BT	yes	3	other	Linux, Android

Comparison of 125 Open Spec, Hacker Friendly Single Board Computers -- June 2019

Click on the product names to get more product information. In most cases these links go to LinuxGizmos.com articles with detailed product descriptions plus market analysis.

MinnowBoard Turbot Dual-Core		160	Silicom, Minnowboard.org	Intel Atom E3826	2x x86 @ 1.46GHz	Intel HD Graphics	no	2GB	SATA	GbE	no	yes	2	other	Linux, Android
MinnowBoard Turbot Quad-Core		190	Silicom, Minnowboard.org	Intel Atom E3826 or E3845	2x or 4x x86 @ 1.46GHz or 1.91GHz	Intel HD Graphics	no	2GB	SATA	GbE	no	yes	2	other	Linux, Android
MYS-6ULX SBC		29 or 30	MYIR	NXP i.MX6 ULL or i.MX6 UL	1x Cortex-A7 @ 528MHz or 696MHz,	no	no	256MB	256MB NAND	Fast	WiFi	no	2	other	Linux
Nano PC-T3 Plus		75	FriendlyARM	Samsung S5P6818	8x A53 @ 1.4GHz	Mali-400 MP	no	2GB	16GB eMMC	GbE	WiFi, BT	yes	4	other	Linux, Android
NanoPC-T4		110	FriendlyARM	Rockchip RK3399	2x A72 @ 2GHz, 4x A53 @ 1.5GHz	Mali-T864	no	4GB	16GB eMMC	GbE	WiFi, BT	yes	4	M.2, Pi 40	Linux, Android
NanoPi A64		20	FriendlyARM	Allwinner A64	4x A53 @ 1.2GHz	Mali-400 MP2	no	1GB	no	GbE	no	yes	2	Pi 40	Linux, Android
NanoPi Duo2		20	FriendlyARM	Allwinner H3	4x A7 @ 1.2GHz	Mali-400 MP2	no	512MB	no	no	WiFi, BT	no	1	other	Linux
NanoPi K1 Plus		35	FriendlyARM	Allwinner H5	4x A53 @ 1.4GHz	Mali-450	no	2GB	opt. eMMC	GbE	WiFi	yes	4	Pi 40	Linux
NanoPi M1 Plus		38	FriendlyARM	Allwinner H3	4x A7 @ 1.2GHz	Mali-400 MP2	no	1GB	8GB eMMC	GbE	WiFi, BT	yes	3	Pi 40	Linux, Android
NanoPi M4		65 or 95	FriendlyARM	Rockchip RK3399	2x A72 @ 2GHz, 4x A53 @ 1.5GHz	Mali-T864	no	2GB or 4GB	opt. eMMC	GbE	WiFi, BT	yes	5	Pi 40 and other	Linux, Android
Nano Pi Fire3-LTS		35	FriendlyARM	Samsung S5P6818	8x A53 @ 1.4GHz	"3D GPU"	no	1GB	no	GbE	no	yes	2	Pi 40	Linux, Android
NanoPi Neo-LTS		13 or 15	FriendlyARM	Allwinner H3	4x A7 @ 1.2GHz	Mali-400	no	256MB or 512MB	no	Fast	no	no	2	other	Linux
NanoPi Neo2-LTS		20 or 30	FriendlyARM	Allwinner H5	4x A53 @ 1.2GHz	Mali-450	no	512MB or 1GB	no	GbE	no	no	2	other	Linux
NanoPi Neo4		50	FriendlyARM	Rockchip RK3399	2x A72 @ 2GHz, 4x A53 @ 1.5GHz	Mali-T628	no	1GB	opt. eMMC	GbE	WiFi, BT	yes	3	Pi 40	Linux, Android
NanoPi Neo Air-LTS		28 or 39	FriendlyARM	Allwinner H3	4x A7 @ 1.2GHz	Mali-400 MP2	no	512MB	8GB or 32GB eMMC	no	WiFi, BT	no	1	other	Linux
NanoPi Neo Plus2		32 or 42	FriendlyARM	Allwinner H5	4x A53 @ 1.5GHz	Mali-450 MP2	no	512MB or 1GB	8GB eMMC	GbE	WiFi, BT	no	2	other	Linux
NanoPi R1	NEW	29 or 39	FriendlyARM	Allwinner H3	4x A7 # 1.2GHz	Mali-400 MP2	no	512MB or 1GB	8GB eMMC (only on 1GB RAM model)	GbE and Fast	WiFi, BT	no	3	no	Linux
Nitrogen8M Mini	NEW	135 to 175	Boundary Devices	NXP i.MX8M Mini	4x A53 @ 2.0GHz	GCNanoUltra	Cortex-M4	2GB or 4GB	8GB to 128GB	GbE	opt. WiFi, BT	no	2	PCIe	Linux, Android
Odroid-C0		30	Hardkernel	Amlogic S805	4x A5 @ 1.5GHz	Mali-450	no	1GB	opt. EMMC	no	no	yes	5	Pi 40	Linux, Android
Odroid-C1+		35	Hardkernel	Amlogic S805	4x A5 @ 1.5GHz	Mali-450	no	1GB	Opt. EMMC	GbE	no	yes	5	Pi 40	Linux, Android
Odroid-C2		46	Hardkernel	Amlogic S905	4x A53 @ 1.5GHz	Mali-450 MP2	no	2GB	Opt. EMMC	GbE	no	yes	5	Pi 40	Linux, Android
Odroid-H2		160	Hardkernel	Intel Celeron J4195	4x Gemini Lake @ 2.3GHz	Intel UHD Graphics 600	no	4GB and up	8GB eMMC and up; M.2, SATA	2x GbE	no	yes	4	M.2, other	Linux
Odroid-N2	NEW	63 or 79	Hardkernel	Amlogic S922X	4x -A73 @ 1.8GHz, 2x -A53 @ 1.9GHz	Mali-G52	no	2GB or 4GB	empty eMMC socket	GbE	opt.	yes	5	Pi 40	Linux, Android
Odroid-XU4 / -XU4Q		49	Hardkernel	Samsung Exynos5422	4x A15 @ 2GHz + 4x A7 @ 1.4GHz	Mali-T628 MP6	no	2GB	opt. SATA	GbE	opt.	yes	3	other	Linux, Android
Omega2 Pro		49	Onion	MediaTek MT7688AN	1x MIPS @ 580MHz	no	no	512MB	8GB flash	opt.	WiFi	no	2	other	Linux
Orange Pi 2G-IOT		10	Shenzhen Xunlong	RDA RDA8810PL	1x A5	Vivante GC860	no	256MB	500MB NAND	no	WiFi, BT	no	2	Pi 40	Linux, Android

Comparison of 125 Open Spec, Hacker Friendly Single Board Computers -- June 2019

Click on the product names to get more product information. In most cases these links go to LinuxGizmos.com articles with detailed product descriptions plus market analysis.

Orange Pi 3	NEW	30 to 40	Shenzhen Xunlong	Allwinner H6	4x A53 @ 1.8GHz	Mali-T720 MP2	no	1GB or 2GB	0 or 8GB	GbE	WiFi, BT	yes	6	Pi 26	Linux, Android
Orange Pi 3G-IOT		20 or 25	Shenzhen Xunlong	MediaTek MT6572	2x A7 @ 1.2GHz	Mali-400 MP1	no	256MB or 512MB	512MB or 4GB eMMC	no	WiFi, BT, 3G, GPS, FM	no	2	Pi 40	Android
Orange Pi 4G-IOT		45	Shenzhen Xunlong	MediaTek MT6737	4x A53	Mali-T720 MP1 GPU	no	1GB	8GB eMMC	no	WiFi, BT, 4G	yes	4	Pi 40	Android
Orange Pi i96		9	Shenzhen Xunlong	RDA RDA8810PL	1x A5	Vivante GC860	no	256MB	500MB NAND	no	WiFi, BT	no	2	40-pin custom	Linux, Android
Orange Pi Lite / Lite2		12 or 25	Shenzhen Xunlong	Allwinner H3 or H6 (Lite2)	4x A7 @ 1.2GHz or 4x - A53	Mali-400 MP2 or Mali-T720 MP2	no	512MB or 1GB	no	no	WiFi (also BT on Lite2)	yes	3	Pi 40 or 26 (Lite2)	Linux, Android
Orange Pi One Plus		20	Shenzhen Xunlong	Allwinner H6	4x A53	Mali-T720 MP2	no	1GB	no	GbE	no	yes	2	Pi 26	Linux, Android
Orange Pi PC / PC Plus		15 or 24	Shenzhen Xunlong	Allwinner H3	4x A7 @ 1.6GHz	Mali-400 MP2	no	1GB	8GB eMMC (PC Plus only)	Fast	no	yes	4	Pi 40	Linux, Android
Orange Pi PC.2		20	Shenzhen Xunlong	Allwinner H5	4x A53	Mali-450 MP2	no	1GB	no	GbE	no	yes	4	Pi 40	Linux, Android
Orange Pi Plus 2E		42	Shenzhen Xunlong	Allwinner H3	4x A7 @ 1.6GHz	Mali-400 MP2	no	2GB	8GB eMMC	GbE	WiFi	yes	4	Pi 40	Linux, Android
Orange Pi Prime		36	Shenzhen Xunlong	Allwinner H5	4x A53	Mali-450 MP2	no	2GB	no	GbE	WiFi, BT	yes	4	Pi 40	Linux, Android
Orange Pi R1		14	Shenzhen Xunlong	Allwinner H2+	4x A7 @ 1.2GHz	Mali-400 MP2	no	256MB	no	2x Fast	WiFi	no	1	Pi 26	Linux, Android
Orange Pi RK3399		89	Shenzhen Xunlong	Rockchip RK3399	2x A72 @ 2GHz, 4x A53 @ 1.5GHz	Mali-T628	no	2GB	16GB eMMC; mSATA sockets	GbE	WiFi, BT	yes	5	Pi 40, mini-PCIe	Linux, Android
Orange Pi Win Plus		37	Shenzhen Xunlong	Allwinner A64	4x A53	Mali-400 MP2	no	2GB	Opt. eMMC	GbE	WiFi, BT	yes	5	Pi 40	Linux, Android
Orange Pi Zero H2+, Zero Plus2, H3, Zero Plus2, H5		9, 23, 24	Shenzhen Xunlong	Allwinner H2+, H3 or H5	4x A7 (H2+/H3) or 4x A53	Mali-400 MP2 or Mali-450 MP2	no	256MB/512MB (H2+) or 512MB	8GB eMMC (H3/H5)	Fast (H2+ only)	WiFi (BT on H3/H5 only)	yes (H3/H5 only)	1 (H3/H5) or 2 (H2+)	Pi 26	Linux, Android
OSD3358-SM-RED		199	Octavo Systems	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	16GB eMMC	GbE	no	yes	5	Bbone	Linux
Pepper 43R / 43C		169	Gumstix	TI AM3354	1x A8 @ 800MHz	PowerVR SGX530	no	512MB	no	GbE	WiFi, BT	no	4	Other	Linux, Android
Pepper DVI-D		119	Gumstix	TI AM3354	1x A8 @ 800MHz	PowerVR SGX530	no	512MB	no	GbE	no	yes	4	Other	Linux, Android
PICO-PI-IMX7		99	Wandboard.org	NXP i.MX7	2x A7 @ 1GHz	no	Cortex-M4	512MB	4GB eMMC	Fast	WiFi, BT	no	2	Pi 40	Android Things
PICO-PI-IMX8M		159 to 299	Wandboard.org	NXP i.MX8M Quad	4x A53 @ 1.3GHz	Vivante GC7000Lite	Cortex-M4	1GB to 4GB	16GB eMMC	GbE	WiFi, BT	yes	3	Pi 40	Linux, Android
Pine A64+ / A64-LTS		15 to 32	Pine64	Allwinner A64	4x A53 @ 1.2GHz	Mali-400 MP2	no	512MB to 2GB	opt. eMMC on A64-LTS	Fast or GbE	no	yes	3	Pi 40	Linux, Android
Pine H64 Model B	NEW	36 or 45	Pine64	Allwinner H6	4x A53	Mali-T720	no	2GB or 3GB	opt.	GbE	WiFi, BT	yes	2	Pi 40	Linux, Android
PocketBeagle		21	BeagleBoard.org	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	no	no	no	no	1	other	Linux
Raspberry Pi Zero		5 to 25	Rpi Trading	Broadcom BCM2835	1x A8 @ 1GHz	VideoCore IV	no	512MB	no	no	no	yes	2	Pi 40	Linux
Raspberry Pi Zero W / Zero WH		10 to 25	Rpi Trading	Broadcom BCM2835	1x A8 @ 1GHz	VideoCore IV	no	512MB	no	no	WiFi, BT	yes	2	Pi 40	Linux
Raspberry Pi 3 Model A+		25	Rpi Trading	Broadcom BCM2837B0	4x A53 @ 1.4GHz	VideoCore IV	no	512MB	no	no	WiFi, BT	yes	2	Pi 40	Linux
Raspberry Pi 3 Model B		34	Rpi Trading	Broadcom BCM42837	4x A53 @ 1.2GHz	VideoCore IV	no	1GB	no	Fast	WiFi, BT	yes	5	Pi 40	Linux

Comparison of 125 Open Spec, Hacker Friendly Single Board Computers -- June 2019

Click on the product names to get more product information. In most cases these links go to LinuxGizmos.com articles with detailed product descriptions plus market analysis.

Raspberry Pi 3 Model B+		35	Rpi Trading	Broadcom BCM2837B0	4x A53 @ 1.4GHz	VideoCore IV	no	1GB	no	GbE	WiFi/BT	yes	5	Pi 40	Linux
Renegade Elite (ROC-RK3399-PC)		100	Libre Computer	Rockchip RK3399	2x A72 @ 2GHz, 4x A53 @ 1.5GHz	Mali-T864	no	4GB	opt. eMMC to 128GB	GbE w/PoE	no	yes	5	other	Linux, Android
ReSpeaker Core v.2.0		99	Seeed	Rockchip RK3229	4x A7 @ 1.5GHz	Mali-400MP	no	1GB	4GB eMMC	Fast	WiFi, BT	yes	4	Grove	Linux
Rico Board		99	MYIR	TI AM437x	1x A9 @ 1GHz	PowerVR SGX530	no	512MB (or 256MB or 1GB)	4GB eMMC	GbE	no	yes	2	other	Linux
Rock64		25 to 45	Pine64	Rockchip RK3328	4x A53 @ 1.5GHz	Mali-450 MP2	no	1GB to 4GB	empty eMMC	GbE	no	yes	3	Pi 40	Linux, Android
Rock Pi 4	NEW	39 to 75	Radxa	Rockchip RK3399	2x A72 @ 1.8GHz, 4x A53 @ 1.4GHz	Mali-T864	no	1GB to 4GB	empty eMMC	GbE	opt. WiFi/BT	yes	5	Pi 40, M.2	Linux, Android
RockPro64		60 or 80	Pine64	Rockchip RK3399	2x A72 @ 1.8GHz, 4x A53 @ 1.4GHz	Mali-T864	no	2GB or 4GB	empty eMMC	GbE	opt. WiFi/BT	yes	4	PCIe x4, Pi 40	Linux, Android
Rock960 Model A and B		99 or 139	Vamrs	Rockchip RK3399	2x A72 @ 1.8GHz, 4x A53 @ 1.43GHz	Mali-T864	no	2GB or 4GB	16GB or 32GB eMMC; opt. M.2	no	WiFi, BT	yes	3	96Boards; opt. M.2	Linux, Android
Rock960 Model C	NEW	69 to 99	Vamrs	Rockchip RK3399	2x A72 @ 1.8GHz, 4x A53 @ 1.43GHz	Mali-T864	no	1GB to 4GB	empty eMMC; opt. M.2	no	WiFi, BT	yes	3	96Boards; opt. M.2	Linux, Android
SAMA5D4 Xplained Ultra		149	Newark, Atmel	Atmel SAMA5D4	1x A5 @ 528MHz	no	no	512MB	512MB NAND	Fast	no	yes	3	Arduino	Linux
Seeeduino Cloud		50	SeeedStudio	Qualcomm AR9331	1x MIPS @ 400MHz	no	ATmega32u4	64MB	64MB NAND	Fast	WiFi	no	2	Arduino, Grove	Linux
Tinker Board S		82	Asus	Rockchip RK3288	4x A17 @ 1.8GHz	Mali-T760 GPU	no	2GB	16GB eMMC	GbE	WiFi, BT	yes	5	Pi 40	Linux
Tritium (E114ALL-H3-CC)		20 to 35	Libre Computer	Allwinner H2+, H3, or H5	4x A7 or A53	Mali-400 MP2 or Mali 450 MP4	no	512MB, 1GB, or 2GB	no	Fast	no	yes	5	Pi 40	Linux, Android
Udoo Neo		50 to 65	Udoo (Seco)	NXP i.MX6 SoloX	1x A9 @ 1GHz	Vivante GC355	Cortex-M4	512MB or 1GB	no	Fast	opt.	yes	2	Arduino	Linux, Android
Udoo Quad/Dual/Dual Basic		99 to 135	Udoo (Seco)	NXP i.MX6 Dual/Quad	2x/4x A9 @ 1GHz	Vivante GC355	SAM3X8E (-M3)	1GB	opt. SATA (Quad)	opt.	opt.	yes	4	Arduino	Linux, Android
Udoo X86		174 or 267	Udoo (Seco)	Celeron N3160	4x Braswell @ 2.24GHz	Intel Gen 8-LP GPU	Intel Curie (Quark SE)	4GB	32GB eMMC; SATA 3; M.2	GbE	WiFi, BT	yes	3	Arduino, other	Linux, Android
UP board		99 to 169	Aaeon	Intel Atom x5-Z8350	4x Cherry Trail @ 1.44 GHz/1.92GHz	Intel HD 400	no	1GB to 4GB	16GB to 64GB eMMC	GbE	no	yes	5	Pi 40	Linux, Android
UP Core		99 to 169	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	WiFi, BT	yes	1	Pi 40	Linux, Android
Up Core Plus		149 to 329	Aaeon	Intel Atom x5-E3930/E3940, x7-E3950	4x Apollo Lake @ 1.3GHz to 2.0GHz	Intel HD Graphics 500/505	no	2GB to 8GB	32GB to 128GB eMMC, SATA	opt.	WiFi, BT	yes	4	other	Linux, Android
UP Squared		149 to 339	Aaeon	Intel Celeron N3350	2x Apollo Lake @ 1.1 GHz/2.4GHz	Intel Gen9 HD 500/505	no	2GB or 8GB	32GB to 128GB eMMC, SATA	2x GbE	no	yes	4	other	Linux, Android
Wandboard		89 to 149	Wandboard.org	NXP i.MX6	1x, 2x, or 4x A9 @ 1GHz	Vivante GC355	no	512MB to 2GB	opt. SATA (Quad)	GbE	opt.	yes	2	other	Linux, Android
Z-turn Board		99 to 119	MYIR	Xilinx Zynq-7010/7020	2x ARM @ 667MHz + FPGA	no	no	1GB	no	GbE	no	yes	2	other	Linux
Z-turn Lite		69 or 75	MYIR	Xilinx Zynq-7007S/7010	2x ARM @ 667MHz + FPGA	no	no	512MB	4GB eMMC	GbE	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:	Only listed if user-accessible; may not include minor MCU coprocessors.
RAM:	First figure is default configuration matched with price.
Storage:	This column only shows on-board storage. It does not include microSD slot, which is available on all the SBCs.

Comparison of 125 Open Spec, Hacker Friendly Single Board Computers -- June 2019

Click on the product names to get more product information. In most cases these links go to LinuxGizmos.com articles with detailed product descriptions plus market analysis.

LAN:		Refers to Ethernet; "Fast" = 10/100Mbps; "GbE" = 10/100/1000Mbps.
Wireless:		Lists only 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).
USB ports:		Refers to coastline, real-world ports only. Includes micro- and mini-USB, including power-only models, but does not include onboard USB interfaces
Expansion:		Lists support for major expansion interfaces such as mini-PCIe, Arduino, Pi 40 (40-pin Raspberry Pi expansion), BeagleBone (BBone, dual 50x), 96Boards.org (40- and 60-pin), Grove, or MikroBus; "other" refers to a custom expansion interface, 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, etc.); OpenWrt includes lightweight, OpenWrt Linux-based Linino.
(copyright © 2019 LinuxGizmos.com) (Updated: 6/4/2019)		