

### Comparison of 116 Open Spec, Hacker Friendly Single Board Computers -- June 2018

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Product	Price (\$)	Vendor	Processor	Cores	3D GPU	MCU	RAM	Storage	LAN	Wireless	HDMI or DP-out	USB ports	Expansion	OSes
<a href="#">R6Duino Zero / Zero Plus</a>	39, 54	DMP	Vortex86EX	1x x86 @ 300MHz	no	no2	128MB	no3	Fast	no4	no5	1	headers	Linux
<a href="#">A20-OLinuXino-Lime2</a>	53 or 65	Olimex	Allwinner A20	2x A7 @ 1GHz	Mali-400	no	1GB	Opt. 4GB eMMC; SATA	Fast	no	yes	3	other	Linux, Android
<a href="#">A20-OLinuXino-Micro</a>	65 or 77	Olimex	Allwinner A20	2x A7 @ 1GHz	Mali-400	no	1GB	opt. 4GB NAND	Fast	no	yes	3	other	Linux, Android
<a href="#">A33-OLinuXino</a>	42 or 52	Olimex	Allwinner A33	4x A7 @ 1.2GHz	Mali-400	no	1GB	opt. 4GB NAND	no	no	no	1	dual 40-pin	Debian Linux 3.4.39, Android 4.4
<a href="#">A64-OLinuXino</a>	47 to 88	Olimex	Allwinner A64	4x A53 @ 1.2GHz	Mali-400 MP2	no	1GB	4GB (opt. 16GB eMMC)	GbE	WiFi, BT	yes	1	40-pin custom	Linux
<a href="#">Banana Pi BPI-M2 Berry</a>	36	SinoVoip	Allwinner V40	4x A7	Mali-400 MP2	no	1GB	SATA	GbE	WiFi, BT	yes	4	Pi 40	Linux, Android
<a href="#">Banana Pi BPI-M2 Magic</a>	21	SinoVoip	Allwinner A33	4x A7	Mali-400 MP2	no	512MB	8GB eMMC (opt. up to 64GB)	no	Wifi, BT	no	2	Pi 40	Linux, Android
<a href="#">Banana Pi BPI-M2 Ultra</a>	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
<a href="#">Banana Pi BPI-M2 Zero</a>	21	SinoVoip	Allwinner H2+	4x A7 @ 1.2GHz	Mali-400 MP2	no	512MB	no	no	WiFi, BT	yes	1	Pi 40	Linux, Android
<a href="#">Banana Pi BPI-M3</a>	79	SinoVoip	Allwinner A83T	8x A7 @ 2GHz	PowerVR SGX544 MP1	no	2GB	8GB eMMC, SATA	GbE	WiFi, BT	yes	3	Pi 40	Linux, Android
<a href="#">Banana Pi BPI-M64</a>	68	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
<a href="#">Banana Pi BPI-W2</a>	93	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
<a href="#">BeagleBone Black</a>	55	BeagleBoard.org	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	4GB eMMC	Fast	no	yes	2	Bbone	Linux, Android
<a href="#">BeagleBone Black Wireless</a>	69	BeagleBoard.org; Octavo	TI Sitara AM3358	1x A8 @ 1GHz	SGX530	PRU	512MB	4GB eMMC	no	WiFi, BT	yes	2	Bbone	Linux, Android
<a href="#">BeagleBone Blue</a>	80	BeagleBoard.org	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	4GB eMMC	no	WiFi, BT, GPS, DSM	no	2	Bbone	Linux
<a href="#">BeagleBone Green</a>	44	SeeedStudio	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	4GB eMMC	Fast	no	no	2	Bbone, Grove	Linux, Android
<a href="#">BeagleBone Green Wireless</a>	53	SeeedStudio	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	4GB eMMC	Fast	WiFi, BT	no	5	Bbone, Grove	Linux, Android
<a href="#">Bubblegum-96</a>	89	uCRobotics	Actions S900	4x A53 @ 1.8GHz	PowerVR G6230	no	2GB	8GB eMMC	no	WiFi, BT	yes	3	96Boards	Linux, Android
<a href="#">Chameleon96</a>	129	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
<a href="#">ChipPro Dev Kit</a>	49	Next Thing	Allwinner GR8	1x A8 @ 1GHz	Mali-400	no	256MB	512MB NAND	no	WiFi, BT	no	2	headers	Linux
<a href="#">CloudBit</a>	60	LittleBits	Freescale i.MX233	1x ARM9 @ 454MHz	no	no	64MB	4GB microSD	no	WiFi	no	0	LittleBits	Linux
<a href="#">CubieAIO-A20</a>	83	Cubieboard.org	Allwinner A20	2x A7 @ 1GHz	Mali-400 MP2	no	1GB	8GB eMMC, SATA	GbE	WiFi, BT	yes	7	other	Linux, Android
<a href="#">CubieAIO-S700</a>	139	Cubieboard.org	Actions S700	4x A53	Mali-450 MP4	no	2GB	8GB eMMC, SATA	GbE	WiFi, BT	yes	7	other	Linux, Android
<a href="#">Cubieboard4</a>	119	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
<a href="#">Cubieboard5</a>	99	Cubieboard.org	Allwinner H8	8x A7 @ 2GHz	PowerVR SGX544MP1	no	2GB	SATA	GbE	WiFi, BT	yes	3	other	Linux, Android
<a href="#">CubieBoard6/7</a>	79 or 98	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
<a href="#">DE0-Nano-SoC Dev Kit</a>	99	Terasic, RocketBoards.org	Cyclone V SE	2x A9 @ 952MHz + FPGA	no	no	1GB	no	GbE	no	no	2	Arduino	Linux
<a href="#">DragonBoard 820c</a>	199	Arrow	Snapdragon 820E	4x Kryo (2x 2.36GHz, 2x 1.6GHz)	Adreno 530	no	3GB	32GB UFS	GbE	WiFi/BT, GPS	yes	3	96Boards	Linux
<a href="#">Firefly-RK3128</a>	60	Firefly	Rockchip RK3128	4x A7	Mali-400 MP2	no	1GB	8GB NAND	GbE	WiFi, BT	yes	5	other	Linux, Android
<a href="#">Firefly-RK3288</a>	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
<a href="#">Firefly-RK3288 Reload</a>	159	Firefly	Rockchip RK3288	4x A17 @ 1.8GHz	Mali-T760	no	2GB	16GB eMMC, SATA	GbE	WiFi, BT	yes	4	other	Linux, Android
<a href="#">Firefly-RK3399</a>	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

<a href="#">Firefly-ROC-RK3328-CC</a>	35 to 80	Firefly, Libre	Rockchip RK3328	4x A53	Mali-400 MP2	no	1GB to 4GB								
<a href="#">HiKey</a>	140	LeMaker, 96Boards.org	HiSilicon Kirin 6220	8x A53 @ 1.2GHz	Mali-450 MP4	no	2GB	8GB eMMC	no	WiFi, BT	no	3	96Boards	Linux, Android	
<a href="#">HummingBoard-Edge</a>	126 to 241	SolidRun	NXP i.MX6	1x/2x/4x A9 @ up to 1.2GHz	Vivante GC355	no	512MB to 4GB	4GB eMMC, mSATA, M.2	GbE	opt.	yes	4	Mini-PCIe	Linux, Android	
<a href="#">HummingBoard-Gate</a>	96 to 226	SolidRun	NXP i.MX6	1x/2x/4x A9 @ up to 1.2GHz	Vivante GC355	no	512MB to 4GB	opt. eMMC or NAND	GbE	opt.	yes	4	Mini-PCIe, MikroBus	Linux, Android	
<a href="#">HummingBoard-Pro</a>	96 to 197	SolidRun	NXP i.MX6	1x/2x/4x A9 @ up to 1.2GHz	Vivante GC355	no	512MB to 2GB	mSATA; opt. eMMC or NAND	GbE	opt.	yes	2	Mini-PCIe	Linux, Android	
<a href="#">HummingBoard-Pulse</a>	160 to 185	SolidRun	NXP i.MX8M Dual or Quad	2x/4x -A53 at up to 1.5GHz	Vivante GC7000 Lite	Cortex-M4	2GB to 4GB	eMMC, NOR, and M.2	2x GbE	opt.	yes	3	Mini-PCIe, M.2	Linux	
<a href="#">Khadas Vim Pro</a>	60	Khadas	Amlogic S905X	4x A53	Mali-450 MP	no	2GB	16GB eMMC	Fast	WiFi, BT	yes	3	40-pin custom	Linux, Android	
<a href="#">Khadas Vim2</a>	90 to 130	Khadas	Amlogic S912	8x A53 @ 1.5GHz	Mali-T820 MP3	yes	2GB to 3GB	16GB to 64GB	GbE	WiFi, BT	yes	3	40-pin custom	Linux, Android	
<a href="#">LeMaker Guitar</a>	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	
<a href="#">Libre Computer Board (Le_Potato)</a>	35 or 45	Libre Computer	Amlogic S905X	4x A53	Mali-450 MP2	no	1GB or 2GB	opt. 8GB to 64GB	Fast	no	yes	5	Pi 40	Linux, Android	
<a href="#">LinkIt Smart 7688</a>	15 or 18	SeeedStudio, MediaTek	MediaTek MT7688AN	1x MIPS @ 580MHz	no	opt. ATmega32U4	128MB	32MB	no	WiFi	no	2	opt. Arduino and Grove	OpenWrt	
<a href="#">LinkSprite Acadia V3</a>	119	LinkSprite	NXP i.MX6 Quad	4x A9 @ 1.2GHz	Vivante GC355	no	1GB	SATA	GbE	no	yes	3	Arduino	Linux, Android	
<a href="#">LinkSprite Arches</a>	95	LinkSprite	Allwinner A60	4x A15 @ 2GHz + 4x A7 @ 1.3GHz	PowerVR G6230	no	2GB	8GB eMMC	GbE	WiFi, BT	yes	3	other	Linux, Android	
<a href="#">MediaTek X20 Dev Board</a>	199	ArcherMind, MediaTek	MediaTek Helio X20	2x A72 @ 2.5GHz + 4x A53 @ 1.95GHz + 4x A53 @ 1.4GHz	Mali-T880	no	2GB	8GB eMMC	no	WiFi, BT	yes	3	96Boards	Android	
<a href="#">MinnowBoard Turbot Dual-Core / Dual-Ethernet Dual-Core</a>	146 or 171	ADI, Minnowboard.org	Intel Atom E3826	2x x86 @ 1.46GHz	Intel HD Graphics	no	2GB	SATA	GbE opt 2x	opt.	yes	2	other	Linux, Android	
<a href="#">MinnowBoard Turbot Quad-Core / Dual-Ethernet Quad-Core</a>	190 or 196	ADI, Minnowboard.org	Intel Atom E3826 or E3845	2x or 4x x86 @ 1.46GHz or 1.91GHz	Intel HD Graphics	no	2GB	SATA	GbE opt 2x	opt.	yes	2	other	Linux, Android	
<a href="#">MYS-6ULX SBC</a>	29 or 32	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	
<a href="#">Nano PC-T3 Plus</a>	75	FriendlyARM	Samsung S5P6818	8x A53 @ 1.4GHz	Mali-400 MP	no	2GB	16GB eMMC	GbE	WiFi, BT	yes	4	other	Linux, Android	
<a href="#">NanoPC-T4</a>	129	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	
<a href="#">NanoPi A64</a>	20	FriendlyARM	Allwinner A64	4x A53 @ 1.2GHz	Mali-400 MP2	no	1GB	no	GbE	no	yes	2	Pi 40	Linux, Android	
<a href="#">NanoPi Duo</a>	8 to 22	FriendlyARM	Allwinner H2+	4x A7 @ 1.2GHz	Mali-400 MP2	no	256MB or 512MB	no	no	WiFi	no	1	other	Linux	
<a href="#">NanoPi K1 Plus</a>	35	FriendlyARM	Allwinner H5	4x A53 @ 1.4GHz	Mali-450	no	2GB	opt. eMMC	GbE	WiFi	yes	4	Pi 40	Linux	
<a href="#">NanoPi K2</a>	39	FriendlyARM	Amlogic S905	4x A53 @ 1.5GHz	Mali-450 MP2	no	2GB	no	GbE	WiFi, BT	yes	5	Pi 40	Linux, Android	
<a href="#">NanoPi M1 Plus</a>	38	FriendlyARM	Allwinner H3	4x A7 @ 1.2GHz	Mali-400 MP2	no	1GB	8GB eMMC	GbE	WiFi, BT	yes	3	Pi 40	Linux, Android	
<a href="#">NanoPi M2A</a>	42	FriendlyARM	Samsung S5P4418	4x A9. @ 1.4GHz	Mali-400 MP	no	1GB	no	GbE	WiFi, BT	yes	3	Pi 40	Linux, Android	
<a href="#">Nano Pi Fire3</a>	35	FriendlyARM	Samsung S5P6818	8x A53 @ 1.4GHz	"3D GPU"	no	1GB	no	GbE	no	yes	2	Pi 40	Linux, Android	
<a href="#">NanoPi Neo</a>	12 or 14	FriendlyARM	Allwinner H3	4x A7 @ 1.2GHz	Mali-400	no	256MB or 512MB	no	Fast	no	no	2	other	Linux	
<a href="#">NanoPi Neo2-LTS</a>	20 or 37	FriendlyARM	Allwinner H5	4x A53 @ 1.2GHz	Mali-450	no	512MB or 1GB	no	GbE	no	no	2	other	Linux	
<a href="#">NanoPi Neo Air</a>	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	
<a href="#">NanoPi Neo Plus2</a>	44	FriendlyARM	Allwinner H5	4x A53 @ 1.5GHz	Mali-450 MP2	no	1GB	8GB eMMC	GbE	WiFi, BT	no	2	other	Linux	
<a href="#">Odroid-C0</a>	30	Hardkernel	Amlogic S805	4x A5 @ 1.5GHz	Mali-450	no	1GB	opt. EMMC	no	no	yes	5	Pi 40	Linux, Android	
<a href="#">Odroid-C1+</a>	35	Hardkernel	Amlogic S805	4x A5 @ 1.5GHz	Mali-450	no	1GB	Opt. EMMC	GbE	no	yes	5	Pi 40	Linux, Android	
<a href="#">Odroid-C2</a>	46	Hardkernel	Amlogic S905	4x A53 @ 1.5GHz	Mali-450 MP2	no	2GB	Opt. EMMC	GbE	no	yes	5	Pi 40	Linux, Android	
<a href="#">Odroid-N1</a>	110	Hardkernel	Rockchip RK3399	2x A72 @ 2GHz, 4x A53 @ 1.5GHz	Mali-T860 MP4	no	4GB	eMMC and 2x SATA	GbE	no	yes	4	Pi 40	Linux, Android	

<a href="#">Odroid-XU4</a>	59	Hardkernel	Samsung Exynos5422	4x A15 @ 2GHz + 4x A7 @ 1.4GHz	Mali-T628 MP6	no	2GB	opt. SATA	GbE	opt.	yes	3	other	Linux, Android
<a href="#">Orange Pi 2G-IOT</a>	10	Shenzhen Xunlong	RDA RDA8810PL	1x A5	Vivante GC860	no	256MB	500MB NAND	no	WiFi, BT	no	2	Pi 40	Linux, Android
<a href="#">Orange Pi 3G-IOT</a>	25	Shenzhen Xunlong	MediaTek MT6572	2x A7 @ 1.2GHz	Mali-400 MP1	no	512MB	4GB eMMC	no	WiFi, BT, 3G, GPS, FM	no	2	Pi 40	Android
<a href="#">Orange Pi 4G-IOT</a>	45	Shenzhen Xunlong	MediaTek MT6737	4x A53	Mali-T720 MP1 GPU	no	1GB	8GB eMMC	no	WiFi, BT, 4G	yes	4	Pi 40	Android
<a href="#">Orange Pi i96</a>	9	Shenzhen Xunlong	RDA RDA8810PL	1x A5	Vivante GC860	no	256MB	500MB NAND	no	WiFi, BT	no	2	40-pin custom	Linux, Android
<a href="#">Orange Pi Lite</a>	12	Shenzhen Xunlong	Allwinner H3	4x A7 @ 1.2GHz	Mali-400 MP2	no	512MB	no	no	WiFi	yes	3	Pi 40	Linux, Android
<a href="#">Orange Pi Lite2</a>	25	Shenzhen Xunlong	Allwinner H6	4x A53	Mali-T720 MP2	no	1GB	no	no	WiFi, BT	yes	3	Pi 40	Linux, ndroid
<a href="#">Orange Pi One Plus</a>	20	Shenzhen Xunlong	Allwinner H6	4x A53	Mali-T720 MP2	no	1GB	no	GbE	no	yes	2	Pi 26	Linux, Android
<a href="#">Orange Pi PC / PC Plus</a>	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
<a href="#">Orange Pi PC 2</a>	20	Shenzhen Xunlong	Allwinner H5	4x A53	Mali-450 MP2	no	1GB	no	GbE	no	yes	4	Pi 40	Linux, Android
<a href="#">Orange Pi Plus2 / Plus2E</a>	49 or 42	Shenzhen Xunlong	Allwinner H3	4x A7 @ 1.6GHz	Mali-400 MP2	no	2GB	8GB eMMC, SATA (Plus2 only)	GbE	WiFi	yes	5 or 4 (2E)	Pi 40	Linux, Android
<a href="#">Orange Pi Prime</a>	36	Shenzhen Xunlong	Allwinner H5	4x A53	Mali-450 MP2	no	2GB	no	GbE	WiFi, BT	yes	4	Pi 40	Linux, Android
<a href="#">Orange Pi R1</a>	14	Shenzhen Xunlong	Allwinner H2+	4x A7 @ 1.2GHz	Mali-400 MP2	no	256MB	no	2x Fast	WiFi	no	1	Pi 26	Linux, Android
<a href="#">Orange Pi RK3399</a>	109	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
<a href="#">Orange Pi Win Plus / Win</a>	37 or 25	Shenzhen Xunlong	Allwinner A64	4x A53	Mali-400 MP2	no	2GB or 1GB (Win)	Opt. eMMC	GbE	WiFi, BT	yes	5	Pi 40	Linux, Android
<a href="#">Orange Pi Zero H2+, Plus2 Zero H3, Plus2 Zero H5</a>	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
<a href="#">OSD3358-SM-RED</a>	199	Octavo Systems	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	16GB eMMC	GbE	no	yes	5	Bbone	Linux
<a href="#">Parallella</a>	127 to 265	Adapteva	Zilinx Zynq-7020/7010	2x A7 @ 667MHz + FPGA	no	no	1GB	no	GbE	no	yes	2	other	Linux
<a href="#">pcDuino8 Uno</a>	49	LinkSprite	Allwinner H8	8x A7 @ 2GHz	PowerVR SGX544	no	1GB	no	GbE	no	yes	2	Arduino	Linux, Android
<a href="#">Pepper 43R / 43C</a>	169	Gumstix	TI AM3354	1x A8 @ 800MHz	PowerVR SGX530	no	512MB	no	GbE	WiFi, BT	no	4	Other	Linux, Android
<a href="#">Pepper DVI-D</a>	119	Gumstix	TI AM3354	1x A8 @ 800MHz	PowerVR SGX530	no	512MB	no	GbE	no	yes	4	Other	Linux, Android
<a href="#">PICO-PH-IMX6UL</a>	69	Wandboard.org	NXP i.MX6 UL	1x A7 @ 528MHz	no	no	512MB	4GB eMMC	Fast	WiFi, BT	no	2	RPI 40, MikroBus	Android Things
<a href="#">PICO-PH-IMX7</a>	79	Wandboard.org	NXP i.MX7	2x A7 @ 1GHz	no	Cortex-M4	512MB	4GB eMMC	Fast	WiFi, BT	no	2	RPI 40	Android Things
<a href="#">Pine A64 / A64-LTS</a>	15 to 32	Pine64	Allwinner A64 (R18 on A64-LTS)	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
<a href="#">Pine H64</a>	26 to 45	Pine64	Allwinner H6	4x A53	Mali-T720	no	1GB to 3GB	opt.	GbE	opt.	yes	2	pi 40, mini-PCIe	Linux, Android
<a href="#">PocketBeagle</a>	25	BeagleBoard.org	TI Sitara AM3358	1x A8 @ 1GHz	PowerVR SGX530	PRU	512MB	no	no	no	no	1	other	Linux
<a href="#">Raspberry Pi Zero</a>	5 to 25	Rpi Trading	Broadcom BCM2835	1x A8 @ 1GHz	VideoCore IV	no	512MB	no	no	no	yes	2	Pi 40	Linux
<a href="#">Raspberry Pi Zero W / Zero WH</a>	10 or 14 to \$25 or \$29	Rpi Trading	Broadcom BCM2835	1x A8 @ 1GHz	VideoCore IV	no	512MB	no	no	WiFi, BT	yes	2	Pi 40	Linux
<a href="#">Raspberry Pi 3 Model B</a>	30	Rpi Trading	Broadcom BCM42837	4x A53 @ 1.2GHz	VideoCore IV	no	1GB	no	Fast	WiFi, BT	yes	5	Pi 40	Linux
<a href="#">Raspberry Pi 3 Model B+</a>	30	Rpi Trading	Broadcom BCM2837B0	4x A53 @ 1.4GHz	VideoCore IV	no	1GB	no	GbE	WiFi/BT	yes	5	Pi 40	Linux
<a href="#">Rico Board</a>	99	MYIR	TI AM437x	1x A9 @ 1GHz	PowerVR SGX530	no	512MB (or 256MB or 1GB)	4GB eMMC	GbE	no	yes	2	other	Linux
<a href="#">Rockchip RK3399 Sapphire</a>	149 or \$349	Vamrs	Rockchip RK3399	2x A72 @ 2GHz, 4x A53 @ 1.43GHz	Mali-T860	no	4GB	8GB eMMC	GbE	no	yes	3	Pi 40	Linux, Android
<a href="#">Rock64</a>	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
<a href="#">RockPro64</a>	60 or 80	Pine64	Rockchip RK3399	2x A72 @ 2GHz, 4x A53 @ 1.43GHz	Mali-T864	no	2GB or 4GB	empty eMMC	GbE	opt. WiFi/BT	yes	4	PCIe x4, Pi 40	Linux, Android

<a href="#">SAMA5D4 Xplained</a>	107	Newark, Atmel	Atmel SAMA5D4	1x A5 @ 528MHz	no	no	512MB	512MB NAND	Fast	no	yes	3	Arduino	Linux
<a href="#">Seeduino Cloud</a>	70	SeedStudio	Qualcomm AR9331	1x MIPS @ 400MHz	no	ATmega32u4	64MB	64MB NAND	Fast	WiFi	no	2	Arduino, Grove	Linux
<a href="#">Tinker Board</a>	60	Asus	Rockchip RK3288	4x A17 @ 1.8GHz	Mali-T760 GPU	no	2GB	no	GbE	WiFi, BT	yes	5	Pi 40	Linux
<a href="#">Tritium</a>	20 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	Fast	no	yes	5	Pi 40	Linux, Android
<a href="#">Udoo Neo</a>	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
<a href="#">Udoo Quad/Dual/Dual Basic</a>	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
<a href="#">Udoo X86</a>	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
<a href="#">UP board</a>	99 to 169	Aaeon	Intel Atom x5-Z8350	4x Cherry Trail @ 1.44GHz/1.92GHz	Intel HD 400	no	1GB to 4GB	16GB to 64GB eMMC	GbE	no	yes	5	Pi 40	Linux, Android
<a href="#">UP Core</a>	99 to 169	Aaeon	Intel Atom x5-Z8350	4x Cherry Trail @ 1.44GHz/1.92GHz	Intel HD 400	no	1GB to 4GB	16GB to 64GB eMMC	no	WiFi, BT	yes	1	Pi 40	Linux, Android
<a href="#">UP Squared</a>	149 or 339	Aaeon	Intel Celeron N3350	2x Apollo Lake @ 1.1GHz/2.4GHz	Intel Gen9 HD 500/505	no	2GB or 8GB	32GB to 128GB eMMC, SATA	2x GbE	no	yes	4	other	Linux, Android
<a href="#">USB Armory</a>	150	Inverse Path	NXP i.MX53	1x A8 @ 800MHz	no	no	512MB	no	no	no	no	1	headers	Linux
<a href="#">VoltaStream Zero</a>	38	PolyVecion	NXP i.MX6 ULL	1x A7 @ 996MHz	no	no	512MB	no	no	WiFi (USB)	no	2	Pi 40	Linux
<a href="#">Wandboard</a>	69 to 139	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
<a href="#">Wand-Pi-8M</a>	99 to 129	Wandboard.org	NXP i.MX8M Quad	4x A53 @ 1.3GHz	Vivante GC7000Lite	Cortex-M4	1GB to 2GB	4GB to 16GB eMMC	GbE	yes (Pro/Deluxe only)	yes	3	Pi 40	Linux, Android
<a href="#">Z-tum Board</a>	99 to 119	MYIR	Xilinx Zynq-7010/7020	2x ARM @ 667MHz + FPGA	no	no	1GB	no	GbE	no	yes	2	other	Linux
<a href="#">Z-tum Lite</a>	69 or 75	MYIR	Xilinx Zynq-7007S/7010	2x ARM @ 667MHz + FPGA	no	no	512MB	4GB eMMC	GbE	no	no	1	other	Linux

NOTES	
<b>Price:</b>	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.
<b>Vendor:</b>	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.
<b>Processor/Cores:</b>	Clock rates may be max. limits. References to A7, A9, A53 (64-bit) etc. refer to ARM Cortex SoCs.
<b>3D GPU:</b>	Only listed if GPU has 3D acceleration.
<b>MCU:</b>	Only listed if user-accessible; may not include minor MCU coprocessors.
<b>RAM:</b>	First figure is default configuration matched with price.
<b>Storage:</b>	This column only shows on-board storage. It does not include microSD slot, which is available on all the SBCs.
<b>LAN:</b>	Refers to Ethernet; "Fast" = 10/100Mbps; "GbE" = 10/100/1000Mbps.
<b>Wireless:</b>	Lists only WiFi and Bluetooth, although some have others (see brief descriptions in our survey articles).
<b>HDMI or DP-out:</b>	Refers to real-world, coastline DDI, HDMI and/or DisplayPort; others may also be present (e.g. LVDS, RGB, MIPI-DSI, VGA).
<b>USB ports:</b>	Refers to coastline, real-world ports only. Includes micro- and mini-USB, including power-only models, but does not include onboard USB interfaces
<b>Expansion:</b>	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.
<b>OSes:</b>	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.
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