



**Emic Parallax Rev. A Bill-of-Materials**  
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**Note: BOM does not include PCB, assembly, or packaging**

Item	Quantity	Reference	Manufacturer	Manuf. Part #	Distributor	Distrib. Part #	Description
1	5	C1,C2,C3,C4,C15	Kemet	C0603C104K4RACTU	Digi-Key	399-1096-1-ND	0.1uF bypass capacitor, 16V, X7R, 0603
2	2	C5,C6	BC Components	0603N180J500NT	Digi-Key	BC1228CT-ND	18pF capacitor, 50V, NPO, 0603
3	2	C7,C10	Kemet	T491A475K010AS	Digi-Key	399-1561-1-ND	4.7uF capacitor, 10V, tantalum, size A
4	2	C8,C11	Kemet	T491B476M010AS	Digi-Key	399-3003-1-ND	47uF capacitor, 10V, tantalum, size B
5	1	C9	Kemet	T491A105K016AS	Digi-Key	399-1583-1-ND	1.0uF capacitor, 16V, tantalum, size A
6	1	C12	Kemet	C0805C473K5RACTU	Digi-Key	399-1166-1-ND	0.047uF capacitor, 50V, X7R, 0805
7	1	C13	Panasonic	ECJ-2YB1C334K	Digi-Key	PCC1817CT-ND	0.33uF capacitor, 16V, X7R, 0805
8	1	C14	Kemet	T491X227K010AS	Digi-Key	399-1582-1-ND	220uF capacitor, 10V, tantalum, size X or D
9	1	D1	Kingbright	KPB-3025ESGC	Future	N/A	Red/Green Bi-Color SMT LED
10	1	L1	TDK	NLC322522T-220K	Digi-Key	445-1148-1-ND	22uH inductor, 15Q, ferrite core, EIA1210
11	1	R1	Panasonic	ERJ-2GEJ103X	Digi-Key	P10KJCT-ND	10k, 5%, 1/16W, 0402
12	4	R2,R3,R8,R9	Panasonic	ERJ-2GEJ471X	Digi-Key	P470JCT-ND	470 ohm, 5%, 1/16W, 0402
13	1	R4	Panasonic	ERJ-2GEJ271X	Digi-Key	P270JCT-ND	270 ohm, 5%, 1/16W, 0402
14	2	R5,R14	Panasonic	ERJ-2GEJ223X	Digi-Key	P22KJCT-ND	22k, 5%, 1/16W, 0402
15	3	R6,R7,R12	Panasonic	ERJ-2GEJ472X	Digi-Key	P4.7KJCT-ND	4.7k, 5%, 1/16W, 0402
16	1	R10	Panasonic	ERJ-8GEYJ100V	Digi-Key	P10ECT-ND	10 ohm, 5%, 1/4W, 1206
17	1	R11	Panasonic	ERJ-8GEY0R00V	Digi-Key	P0.0ECT-ND	0 ohm, 1/4W, 1206
18	1	R13	Panasonic	ERJ-2GEJ222X	Digi-Key	P2.2KJCT-ND	2.2k, 5%, 1/16W, 0402
19	1	SW1	CTS	218-2LPST	Digi-Key	CT2182LPST-ND	2-position SPST DIP switch, half pitch SMT
20	1	U1	Microchip	PIC18F1320-I/SS	Digi-Key	PIC18F1320-I/SS-ND	Microcontroller, SSOP20, 18F or 18LF
21	1	U2	Winbond	WTS701EF/T	Kitchen & Kutchin	N/A	Text-to-Speech IC, TSOP56
22	1	U3	Zetex	ZXCL330H5	Digi-Key	ZXCL330H5CT-ND	3.3V LDO Linear Regulator, SC70-5
23	1	U4	National Semiconductor	LM4864MM	Digi-Key	LM4864MMCT-ND	Audio Power Amplifier, MSOP8
24	1	Y1	TXC	TXC-A16-24.576	N/A	N/A	24.576MHz ceramic crystal, SMT
25	1	JP1	Molex	22-28-8160	Digi-Key	WM6416-ND	Single row, right-angle vertical header, 16 pin