

EVB-20H04 Customer Evaluation Board

EVB-20H04		Revision A3				
						
Bill of Materials August 9, 2004						
Item Number	Quantity	Part Reference	Description	Manufacturer	Part Number	Notes
1	4	C1 C3 C4 C8	Capacitor, Low ESR, 150uF, 16VDC, 20%, Aluminum, Radial SMT, 6.3mm x 8mm	Panasonic	EEV-FK1V151XP	Substitutes available. Required for USB-IF compliance. Lower values acceptable
2	10	C2 C9 C14 C15 C23 C24 C25 C27 C28 C29	Capacitor, 0.1uF, 16V, 10%, X7R, 0603	Panasonic	ECJ-1VB1C104K	
3	2	C6 C7	Capacitor, 22pF, 50V, 5%, NPO, 0603	Yageo America	0603CG220J9B200	
4	4	C5 C10 C12 C31	Capacitor, 1.0uF, 16VDC, 10%, X5R, 0603	Panasonic	ECJ-1VB1C105K	
5	5	C11 C13 C16 C19 C22	Capacitor, 10uF, 6.3VDC, 20%, X5R, 0805	Panasonic	ECJ-2FB0J106M	Low ESR required
6	6	C17 C18 C20 C21 C26 C30	Capacitor, 0.01uF, 16V, 10%, X7R, 0603	Panasonic	ECJ-1VB1C103K	
7	3	FB1 FB2 FB3	Ferrite Bead, 120 Ohm, 0.5A, 0.1DCR, 0603	Panasonic	EXC-3BP121H	Substitutes available
8	1	J1	Connector, Power Jack, 2.0mm, 12V, 4A, Right Angle	Cui Stack	PJ-002AH	
9	2	J2 J4	Receptacle, USB, Style A, Dual, Right Angle, Through-hole	AMP	787617-1	
10	1	J3	Receptacle, USB, Style B, Right Angle, Through-hole	AMP	787780-1	
11	1	K1	Relay, DPDT, General Purpose, 5.0V	Takamisawa	A-5W-K	For demonstration purpose. Dedicated self-powered design does not require relay. Dynamically switching between self and bus power can use other implementation
12	4	LED1 LED2 LED3 LED4	LED, Dual, Yellow/Green, SMT-0605	Lite-On	LTST-C195KGJSKT	Indicators are optional
13	1	LED5	LED, Green, 0603	Stanley Electric	BG1111C-TR	Power LED optional
14	9	R1 R2 R3 R13 R14 R15 R18 R19 R21	Resistor, 220, 5%, 1/16W, 0603	Yageo America	9C06031A2200JLHFT	
15	5	R4 R5 R6 R8 R9	Resistor, 10K, 5%, 1/16W, 0603	Yageo America	9C06031A1002JLHFT	
16	1	R7	Resistor, 1K, 5%, 1/16W, 0603	Yageo America	9C06031A1001JLHFT	
17	1	R10	Resistor, 1Meg, 5%, 1/16W, 0603	Yageo America	9C06031A1004JLHFT	
18	1	R11	Resistor, 12.0K, 1%, 1/16W, 0603	Yageo America	9C06031A1202FKHFT	Critical value
19	1	R12	Resistor, 330, 5%, 1/8W, 0805	Yageo America	9C08052A3300JLHFT	
20	1	R16	Resistor, 470, 5%, 1/16W, 0603	Yageo America	9C06031A4700JLHFT	
21	1	R17	Resistor, 100K, 5%, 1/16W, 0603	Yageo America	9C06031A1003JLHFT	
22	0	RN1	Resistor Array, 4 Element, Do No Populate, 1206			
23	1	SOCKET1	Socket, IC, 8 Pin DIP, Leaf Contacts, Through Hole	Amp	2-641260-1	Socket not needed for production
24	1	U1	IC, AT24C02A, 2 Wire Serial EPROM, 2Kb, 2.7V, DIP-8	Atmel	AT24C02AN-10PI-2.7	Can use soic for production. Substitutes acceptable
25	1	U2	IC, USB20H04, 4 Port USB 2.0 Hub, TQFP-64	SMSC	USB20H04-JD	
26	1	U3	IC, PQ1T331M2ZP, Voltage Regulator, 3.3V, 400mA, Low Dropout, SOT-23-5	Sharp	PQ1T331M2ZP	Substitutes available
27	1	U4	IC, PQ1T181M2ZP, Voltage Regulator, 1.8V, 400mA, Low Dropout, SOT-23-5	Sharp	PQ1T181M2ZP	Substitutes available
28	2	U5 U6	IC, MIC2026-2BM, Power Distribution Switch, SO-8	Micrel	MIC2026-2BM	Substitutes available
29	1	Y1	Crystal, 24.000MHz, 50ppm, 18pF, HC-49SMT	Citizen America	HCM49-24.000MABJT	Substitutes available