

# EVB-USB2503 - USB2503 User Evaluation Platform Revised: September 28, 2006

AUS2004-05-23 (EVB-USB2503) Revision: A3



## Bill of materials - Option B populated

Item	Quantity	Part Reference	Description	Manufacturer	Part Number	Notes
1	1	C23	Capacitor, 0.01uF, 16V, 10%, X7R, 0603	Panasonic	ECJ-1VB1C103K	
2	5	C2, C3, C10, C11, C13	Capacitor, 4.7uF, 6.3VDC, 20%, X5R, 0805	Panasonic	ECJ-2FB0J475M	Low ESR required - C11 and C13 are critical
3	2	C15, C21	Capacitor, 10uF, 6.3VDC, 20%, X5R, 0805	Panasonic	ECJ-2FB0J106M	Option B
4	2	C4, C5	Capacitor, 1.0uF, 16VDC, 10%, X5R, 0805	Panasonic	ECJ-GVB1C105K	
5	9	C6, C7, C8, C14, C16, C17, C18, C20, C22	Capacitor, 0.1uF, 16V, 10%, X7R, 0603	Panasonic	ECJ-1VB1C104K	
6	2	C9, C19	Capacitor, 33pF, 50V, 5%, NPO, 0603	Yageo America	0603CG330J9B200	
	0	C1, C12	Capacitor, Do Not Populate, 0603			
7	3	C24, C25, C26	Capacitor, Low ESR, 150uF, 10VDC, 20%, Aluminum, Radial-SMT, 6.3mm x 5.8mm	Panasonic	EEV-FK1A151P	
	0	C27	Capacitor, Do Not Populate, 0805			
	0	D1, D5, D8, D11	Surge Suppressor, PGB002ST23, SOT-23	Littelfuse	PGB002ST23WR	Do Not Populate - ESD Suppressors
	0	D2, D3, D4, D6, D7, D9, D10, D12	Varistor, V5.5MLA0603H, 0603	Littelfuse	V5.5MLA0603H	Do Not Populate - ESD Suppressors
8	1	FB1	Ferrite Bead, 120 Ohm, 0.5A, 0.1DCR, 0603	Panasonic	EXC-3BP121H	Not required can be replaced with 0Ohm resistor or eliminated
	0	FB2, FB3, FB4, FB5, FB6, FB7, FB8, FB9	Ferrite Bead, 2000mA, DCR=0,05, 0805	Murata	BLM21PG221SN1D	Do Not Populate - EMI suppression
9	1	J1	Connector, Power Jack, 2.0mm, 12V, 4A, Right Angle	Cui Stack	PJ-002AH-SMT-1	
10	1	J2	Receptacle, USB, Style B, Right Angle, Through-hole	AMP	787780-1	
11	3	J3, J4, J5	Receptacle, USB, Style A, Right Angle, Through-hole	AMP	787616-1	
12	3	LED1, LED2, LED3	LED, Green, 0603	Stanley Electric	BG1111C-TR	
13	1	L1	Inductor, 10uH, DCR-0.5, 0.24A, 1210	Panasonic	ELJ-PA100KF	Option B
	0	L2, L3, L4, L5	Inductor, Common Mode Choke, 0805	Murata	DLW21SN900SQ2L	Do Not Populate - EMI suppression
	0	OSC1	Oscillator, Do Not Populate, SMT			
14	1	Q1	Transistor, NDC652P, P-Channel MOS-FET, 30V, 2.4A, SOT-23-6	Fairchild	NDC652P	Not critical - substitutes with similar Rdson and Vgs acceptable
15	3	R1,R2,R3	Resistor, 100K, 5%, 1/16W, 0603	Yageo America	9C06031A1003JLHFT	
16	4	R4, R7, R8, R12	Resistor, 10K, 5%, 1/16W, 0603	Yageo America	9C06031A1002JLHFT	
17	1	R5	Resistor, ZERO, 0.1W, 0603	Yageo America	9C06031A0R00JLHFT	
		R6, R11	Resistor, Do Not Populate, 0603			
18	1	R9	Resistor, 1.0, 5%, 0.25W, 1206	Yageo America	9C12063A1R00JGHFT	
19	1	R10	Resistor, 1Meg, 5%, 1/16W, 0603	Yageo America	9C06031A1004JLHFT	
20	1	R13	Resistor, 12.0K, 1%, 1/16W, 0603	Yageo America	9C06031A1202FKHFT	Critical value
	0	R14	Resistor, Do Not Populate, 0805			
21	3	R15, R16, R17	Resistor, 220, 5%, 1/16W, 0603	Yageo America	9C06031A2200JLHFT	
22	1	SKT1	Socket, IC, 8 Pin DIP, Leaf Contacts, Through Hole	Amp	2-641260-1	Not needed for production
	0	U1	IC, Do Not Populate, SOT-89-5			Do Not Populate
23	1	U2	IC, TPS62203DBV, Voltage Regulator, 3.3V, 300mA, DC-DC_1MHz, SOT-23-5	Texas Instruments	TPS62203DBV	Option B
24	1	U3	IC, USB2503, 3 Port USB 2.0 Hub, QFN-48	Standard Microsystems Corp	USB2503	
25	1	U4	IC, AT24C02A, 2 Wire Serial EPROM, 2Kb, 2.7V, DIP-8	Atmel	AT24C02AN-10PI-2.7	
26	2	U5, U6	IC, MIC2026-1BM, Power Distribution Switch, SO-8	Micrel	MIC2026-1BM	
27	1	Y1	Crystal, 24.000MHz, 50ppm, 18pF, HC-49SMT	Citizen America	CS10-24.000MABJTR	