

BOM-(RAB2000-1.00)-1.00								
Card Labs RAB2000 Development Board								
Update the document revision level (and file name) whenever changes are released to others.								
Rev.	Date	Who	Description					
1.00	3-Jul-2003	Scot Kornak	Original release, PCA-9/100-1.00 and PCA-9/200-1.00.					
Model Note: not all reference designators listed here								
100	200	are installed. Refer to Model 100/200 quantities and the schematic.						
Qty	Qty	Reference	CL Part#	Value	Rating	Description (dimensions in mils, 0.001")	Manufacturer	Man. #
1	1	BT1	BT-1	3V	220mAh	Battery, CR2032 Lithium Cell, 20mm, 3V, 220mAh	Panasonic	CR2032
1	1	BT1	J1-22			Holder, Vertical, CR2032 Coin Cell, TH	Keystone	1067
27	49	C1-42 C45 C47 C50 C52 C54 C56	C1-2/104	100n	50V	Capacitor, 10%, X7R, 50V, Radial 100sp	Kemet	C320C104K5R5CA
1	1	C57	C1-3/221	220u	35V	Cap, Elec, 35V, 20%, Radial, 400d, 200sp, TH	Panasonic	EEU-FC1V221
						Alternate	Nichicon	UPF1V221MPH6
1	1	C51	C1-5/681	680u	16V	Cap, Elec, 16V, 20%, Radial, 400d, 200sp, TH	Panasonic	EEU-FC1C681
						Alternate	Nichicon	UPF1C681MPH
1	1	D1	D1-2	200mA	75V	Diode, 1N4148, Signal, DO35	Fairchild	1N4148
5	5	D2, D4-7	D1-3	1A	50V	Diode, 1N4001, Rectifier, 1A, 50V, DO41	Fairchild	1N4001
1	1	DS3-4	DS1-3/G	GREEN	NA	LED, Green, Diffused, 19 MCD, T1-3/4	LiteOn	LTL-4233
						LED, Green, Diffused, 20 MCD, T1-3/4	Lumex	SSL-LX5093GD
1	9	DS1 DS5-12	DS1-3/RH	RED	NA	LED, Red, Hi-Efficiency, Diffused, 60 MCD, T1-3/4 (5mm)	Lumex	SSL-LX5093HD
1	1	F1	F1-2/050	0A5	60V	Fuse, PTC, 1.0A Trip, 0.50A Hold, TH	Tyco/Raychem	RXE050
1	1	U13	H1-401			Nut, #4-40, Plated		
1	1	U13	H1-404/250			Screw, Philips, #4-40, Pan Head, 250L, Plated		
1	1	U13	H1-408			Lock Washer, Internal Tooth, #4, Plated		
10	10		H-4			Adhesive Foot, Round, 440W, 200H, Black	3M	Digi-key SJ5003-0-ND
						Alternate		
1	1	J37	J1-62			Connector, DC Power Coaxial, 2.1mm pin, RA, TH	CUI Stack	PB-002A
						Alternate	Kycon	KLD-0202-AC
37	55	JU1-15 JU20-43 JU45-46 JU49 JU59-74	J1-12/2			Jumper, 1x2 pin, 100sp, 330h, Tin, TH	Samtec	TSW-102-07-T-S
						Alternate	Major League	TSHS-102-S-06-A-T
1	1	JU76	W-2/22			Wire, 22 AWG, Tinned Copper, Solid, Uninsulated		
1	1	JU75	J1-12/3			Jumper, 1x3 pin, 100sp, 330h, Tin, TH	Samtec	TSW-103-07-T-S
						Alternate	Major League	TSHS-103-S-06-A-T
3	4	J28 J32-34	J1-52/4			Header, SIL, 1x4, 100sp, 330h, Tin, TH	Samtec	TSW-104-07-T-S
						Alternate	Major League	TSHS-104-S-06-A-T
0	1	DS2	J1-52/14			Header, SIL, 1x14, 100sp, 330h, Tin, TH	Samtec	TSW-114-07-T-S
						Alternate	Major League	TSHS-114-S-06-A-T
4	4	J6-9	J1-60/10			Header, DIL, 2x5, 100sp, 330h, Tin, TH	Samtec	TSW-105-07-T-D
						Alternate	Major League	TSHS-105-D-06-A-T
0	1	J10	J1-60/12			Header, DIL, 2x6, 100sp, 330h, Tin, TH	Samtec	TSW-106-07-T-D
						Alternate	Major League	TSHS-106-D-06-A-T
7	9	J18-23 J29-31	J1-60/16			Header, DIL, 2x8, 100sp, 330h, Tin, TH	Samtec	TSW-108-07-T-D
						Alternate	Major League	TSHS-108-D-06-A-T
0	1	J15	J1-60/20			Header, DIL, 2x10, 100sp, 330h, Tin, TH	Samtec	TSW-110-07-T-D
						Alternate	Major League	TSHS-110-D-06-A-T

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4	4	J11-14	J1-60/28			Header, DIL, 2x14, 100sp, 330h, Tin, TH	Samtec	TSW-114-07-T-D
							Alternate Major League	TSHS-114-D-06-A-T
2	2	J35-36	J1-60/40			Header, DIL, 2x20, 100sp, 330h, Tin, TH	Samtec	TSW-120-07-T-D
							Alternate Major League	TSHS-120-D-06-A-T
2	2	PCA1	J1-66/40			Socket, DIL, 2x20, 2mm, Vert, Tin, TH	Samtec	SQT-120-01-F-D
							Alternate 3M	150240-6002-TB
							Alternate Major League	SSHQ-220-D-02-F
0	2	J24 J26	J1-7/14			Header, DIL, 2x7 pin, Male, Polarized, Vertical	Tyco/T & B	609-1427
2	2	J2 J4	J1-2/9			Connector, DB-9, Male, R.Angle, Screwlocks, Boardlocks, TH	Kycon	K22-E9P-NJ
2	2	J1 J3	J1-3/9			Connector, DB-9, Female, R.Angle, Screwlocks, Boardlocks, TH	Kycon	K22-B25P-NJ
0	1	J5	J1-61/6			Terminal Block, 1x6, Removable, Side Panels, 200sp, RA, TH	Phoenix Contact	MSTBA 2,5/6-G-5,08
							Alternate (black) Wiedmuller	1515310000
							Alternate (orange) Wiedmuller	1510760000
0	1	J5	P-41/6			Plug, Terminal Block, Removable, 1x6, 200sp, Vert	Phoenix Contact	MSTB 2,5/6-ST-5,08
							Alternate (black) Wiedmuller	1716510000
							Alternate (orange) Wiedmuller	1716360000
28	56		P-42			Jumper Shunt, Black, With Handle, 100sp, Tin	Samtec	SNT-100-BK-T-H
							Major League	SH-1-SH-00-T-01-H
1	1	MP1	MP-100/10		13.4 C/W	Heatsink, TO-220, 1380L x 500W x 1000H, Black, Vert, Pins, TH	AAVID	531002B02500
1	1	MP1	H-5			Adhesive Thermal Conductive Pad, TO-220	Berquist	K10-58
1	1	PCB	PCB-9-1.00			PCB, RAB2000 Development Board	Card Labs	PCB-9-1.00
0	1	R23	R1-1/101	100R	1/4W	Resistor, 5%, 1/4W, Axial	Generic	
4	4	R8-11, R27	R1-1/103	10K	1/4W	Resistor, 5%, 1/4W, Axial	Generic	
0	8	R28-35	R1-1/104	100K	1/4W	Resistor, 5%, 1/4W, Axial	Generic	
0	2	R2, R6	R1-1/221	220R	1/4W	Resistor, 5%, 1/4W, Axial	Generic	
0	1	R26	R1-1/271	270R	1/4W	Resistor, 5%, 1/4W, Axial	Generic	
2	11	R4, R36-45	R1-1/471	470R	1/4W	Resistor, 5%, 1/4W, Axial	Generic	
0	8	R13-20	R1-1/472	4K7	1/4W	Resistor, 5%, 1/4W, Axial	Generic	
0	4	R1, R3, R5, R7	R1-1/681	680R	1/4W	Resistor, 5%, 1/4W, Axial	Generic	
1	9	S2-10	S1-2	24VDC	50mA	Switch, SPST, Momentary, Pushbutton, Ground Term, Vert, TH	Omron	B3F-1150
							E-Switch	TLE-???
1	1	S1	S-4			Switch, DPDT, Toggle, 0.4VA/28VDC, RA, TH	NKK	M2022SS1G40
							Alternate E-Switch	
1	1	S11	S-3			Switch, DPDT, Toggle, 3A/250VAC or 6A/125VAC, RA, TH	NKK	M2022SS1W40
							Alternate E-Switch	
4	8	U3-10	U1-20			IC, RS232, 2 Tx, 2 Rx, ESD, 230kbps, 100n Caps, 0-70 C., DIP16	Maxim	MAX202CPE
							Alternate Analog Dev	ADM202EAN
							Alternate Intersil	HIN202ECP
0	2	U1, U2	U1-21/250			IC, RS485 XCVR, 250kbps, ESD, 0-70 C., DIP8	Linear Tech.	LT1785CN8
							Alternate Texas Inst.	SN75LBC184P
							Alternate Analog Dev	ADM483EAN
							Alternate Maxim	MAX483ECPA
0	1	U12	U1-42			IC, 74HC541, Octal Buffer, OE, 0-70 C., DIP20	Texas Inst.	SN74HC541N
							Alternate Fairchild	MM74HC541N
							Alternate Toshiba	TC74HC541AP
1	1	U13	U1-31/5	+5V	1A	IC, +5V Linear Regulator, 5%, 0-70 C., TO-220	Texas Inst.	UA7805CKCS
							Alternate Fairchild	MC7805CT
0	2	U1, U2	X-1/8			X, Socket, Dual Leaf, DIP8	Amp	2-641260-1
11	17	U3-10, X1-9	X-1/16			X, Socket, Dual Leaf, DIP16	Amp	2-641262-1
0	1	U12	X-1/20			X, Socket, Dual Leaf, DIP20	Amp	2-641264-1

Qty	Qty	Reference	CL Part#	Value	Rating	Description (dimensions in mils, 0.001")	Manufacturer	Man. #
Accessories								
0	2		CAB-2/18			Cable, DIP16 to DIP16, 18"	CW Industries	C6PPT-1618G-ND
0	16		CAB-3/12			Wire, Jumper, 12", 22 AWG Stranded	Card Labs	CAB-3/12
Multi-media Card Serial Dataflash Option								
1	1	DS3	DS1-3/G	GREEN	NA	LED, Green, Diffused, 19 MCD, T1-3/4	LiteOn	LTL-4233
						LED, Green, Diffused, 20 MCD, T1-3/4	Lumex	SSL-LX5093GD
1	1	J17	J2-1			Connector, Multi-media Card, RA, SMT	Molex	68156-0720
4	4	JU16-19	J1-12/3			Jumper, 1x3 pin, 100sp, 330h, Tin, TH	Samtec	TSW-103-07-T-S
							Alternate	Major League
4	4	JU16-19	P-42			Jumper Shunt, Black, With Handle, 100sp, Tin	Samtec	SNT-100-BK-T-H
							Alternate	Major League
1	1	Q1	Q1-6	200mA	60V	Transistor, 2N7000, N-Channel FET, TO92	Fairchild	2N7000
3	3	C43, C45, C50	C1-2/104	100n	50V	Capacitor, 10%, X7R, 50V, Radial 100sp	Kemet	C320C104K5R5CA
1	1	R12	R1-1/102	1K	1/4W	Resistor, 5%, 1/4W, Axial	Generic	
1	1	R24	R1-2/5110	511R,1%	1/4W	Resistor, 1%, 1/4W, Axial	Generic	
1	1	R25	R1-2/8250	825R,1%	1/4W	Resistor, 1%, 1/4W, Axial	Generic	
1	1	U11	U1-40		1A5	IC, LM317, Adjustable Linear Regulator, 0-70 C., TO-220	Fairchild	LM317T
							Texas Inst.	LM317KCS
							National	LM317T
1	1	U11	H1-401			Nut, #4-40, Plated		
1	1	U11	H1-404/250			Screw, Philips, #4-40, Pan Head, 250L, Plated		
1	1	U11	H1-408			Lock Washer, Internal Tooth, #4, Plated		
1	1	J17	U3-300/2			Multi-media Card, Dataflash, 2 Mbyte (16+512 bytes/page), SPI	Atmel	AT45DCB002
OR								
1	1	J17	U3-300/4			Multi-media Card, Dataflash, 4 Mbyte (16+512 bytes/page), SPI	Atmel	AT45DCB004
OR								
1	1	J17	U3-300/8			Multi-media Card, Dataflash, 8 Mbyte (32+1024 bytes/page), SPI	Atmel	AT45DCB008
VFD Display Option (2 x 16 character)								
1	1	DS2	DS1-5			Display, Vacuum Fluorescent (VFD), 2 x 16 Character	Noritake	CU16025ECPB-W6J
		Note:LCD Alternate				Display, LCD, 2 x 16 Character, Backlight	Optrex	DMC-16249
4	4	DS2	H1-205/500			Hex Standoff, #2-56, Thru Thread, 187od, 500L, SS		
8	8	DS2	H1-204/250			Screw, Philips, #2-56, Pan Head, 250L, Plated		
8	8	DS2	H1-401			Washer, #2, Plated		
8	8	DS2	H1-208			Split Washer, #2, Plated		
RCM2100 Core Module Option								
1	1	PCA1	PCA-6/2100			PCA, Rabbit Core Module, 512k SRAM, 512k Flash, Ethernet	Rabbit Semi	RCM2100
Other Parts With PCB Footprints. Not Installed								
		C44 C53	C1-1/NFIT	NO FIT		Capacitor, Radial 100sp, TH		
		C48	C1-100/NFIT	NO FIT		Cap, Tantalum, 175d, 100sp, Radial, TH		
		C49 C55	C1-2/NFIT	NO FIT		Capacitor, Radial 100sp, TH		
		C50	C1-5/NFIT	NO FIT	16V	Cap, Elec, 16V, 20%, Radial, 400d, 200sp, TH		
		D3	D1-3	1A	50V	Diode, 1N4001, Rectifier, 1A, 50V, DO41	Fairchild	1N4001
		J16	J1-63/6			Connector, Mini-DIN 6, Shield, RA, TH	Amp	84114-1
							Alternate	CUI Stack
								MD-60SMS

Qty	Qty	Reference	CL Part#	Value	Rating	Description (dimensions in mils, 0.001")	Manufacturer	Man. #
		J38	J1-23/4			Connector, Comm Mate-N-Lok, 4-pin Header, Vertical, Tin, 200sp, TH	Amp	350211-1
		MP2	MP-100/10		13.4 C/W	Heatsink, TO-220, 1380L x 500W x 1000H, Black, Vert, Pins, TH	AAVID	531002B02500
		MP2 Alternate	MP-100/15		10.4 C/W	Heatsink, TO-220, 1380L x 500W x 1500H, Vertical, Pins, TH	AAVID	531102B02500
Not Installed, LCD Backlight Parts								
		R42	R1-5/NFIT	NO FIT	1 W	Resistor, 5%, 1W, Axial	Generic	
		J25	J1-40/3			Connector, SIL, C-Grid/SL Header, 1x3, Tin, Vert, TH	Molex	70543-0037