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1.00	20-Jan-2012	Scot Kornak	Created for STM32-VLB1 (PCA-630-1.00).						
1.01	10-Oct-2012	Scot Kornak	Part numbers added.						
1.20	27-Jan-2015	Scot Kornak	Updated PCB rev 1.20. Serial parts can be installed directly on PCB (or use ComBoard modules).						
Qty	Reference	KT Part#	Value	Rating	Description (dimensions in mils, 0.001")	Manufacturer	Man. #	SMT?	
1	BT1	BT-20	CR2032	3V	Battery Holder, 2032 Coin Cell, Single, Horizontal, Low Profile, TH	Keystone	1059	No	
1	BT1	BT-1	3V	220mAh	Battery, CR2032, Lithium, 3V, 220mAh, -20to85C, Horiz, TH	Panasonic	CR2032	No	
1	C6	C1-5/477	470u	16V	Cap, Elec. 470uF, 16V, 20%, -55to105C, Radial, 400d, 200sp, 492h, TH	Panasonic	EEU-FC1C471	No	
2	C24 C41	C2-1/103	10n	50V	Capacitor, 10nF, X7R, 50V, 10%, 0805	Kemet	C0805C103K5RACTU	Yes	
2	C5 C42	C2-1/104	100n	50V	Capacitor, 100nF, X7R, 50V, 10%, 0805	Kemet	C0805C104K5RACTU	Yes	
1	C45	C2-100/106	10uT	10V	Capacitor, Tantalum, 10uF, 10V, 20%, SIZEA 3216	Kemet	T491A106M010AT	Yes	
2	DS1-2	DS1-3/G	Green		LED, Green, Diffused, T1-3/4, TH	LiteOn	LTL-4233	No	
2	DS3 DS5	DS1-3/R	Red		LED, Red, Diffused, T1-3/4, TH	LiteOn	LTL-4203	No	
2	J17-18	J1-5/2	2pin		Connector, MTA-100, 2 pin, Male, Vertical, 100sp, TH	Tyco	640456-2	No	
2	J15 J20	J1-5/4	4pin		Connector, MTA-100, Male, 4-pin, Vertical, 100sp, TH	Tyco	640456-4	No	
3	JU33-38	J1-90/4	4pin		Header, SIL, 4x1 pin, 100sp, 330h, Gold Flash, TH	Tyco	103185-4	No	
4	JU21 JU23-29	J1-91/6	6pin		Jumper, 3x2 pin, 100sp, 330h, Tin, TH	Tyco		No	
6	J5 J7-8 J16 J22-23	J1-91/16	16pin		Header, DIL, 2x8, 100sp, 330h, Gold Flash, TH	Tyco	103186-8	No	
	AS11-2 AS13-4 AS15-6	J1-96/28	28pin		Socket, SIL, 28x1, 100sp, 340h, Gold, TH	Tyco		No	
	CB1-3	J1-96/10	10pin		Socket, SIL, 10x1, 100sp, 340h, Gold, TH	Tyco	5-534237-8	No	
1	PCA1	J1-96/6	6pin		Socket, SIL, 6x1, 100sp, 340h, Gold, TH	Tyco	5-534237-4	No	
1	L2	L2-23/103	10uH	140mA	Inductor, Power, 10uH, 10%, 1210	Panasonic	ELJFA100KF	Yes	
2	L1 L4	L2-36/102		0A5	Ferrite Bead, 1000R@100MHz, DCR=0R3, 500mA, 0805	TDK	MMZ2012R102A	Yes	
1	PCB	PCB-630-1.00	2-Layer		PCB, STM32-VLB1 Printed Circuit Board, 2-Layer, 160x160mm	BPS	PCB-STM32-VLB1	-	
1	PCA1	PCA-32/VL			PCA, STM32 Discovery-VL Board with STM32F100RB, 62pin	STMicro	STM32VLDISCOVERY	No	
2	Q2 Q9	Q2-1	Ic=600mA	Vce=40V	Transistor, MMBT4401, NPN, SOT23	Fairchild	MMBT4401	Yes	
1	Q3	Q2-7	130mA	50V	Transistor, BSS84, P-FET, 130mA, 50V, Rds=10, SOT23	Fairchild	BSS84	Yes	
1	R13	R2-1/000	0R	1/10W	Resistor, 0R, 5%, 1/10W, 0805	Yageo	RC0805JR-070RL	Yes	
9	R3 R5 R6 R7 R10-12 R36 R47	R2-1/102	1K	1/10W	Resistor, 1K, 5%, 1/10W, 0805	Yageo	RC0805JR-071KL	Yes	
14	R1-2 R9 R14-23 R44	R2-1/103	10K	1/10W	Resistor, 10K, 5%, 1/10W, 0805	Yageo	RC0805JR-0710KL	Yes	
1	R35	R2-1/104	100K	1/10W	Resistor, 100k, 5%, 1/10W, 0805	Yageo	RC0805JR-07100KL	Yes	
2	R8 R24	R2-1/221	220R	1/10W	Resistor, 220R, 5%, 1/10W, 0805	Yageo	RC0805JR-07220RL	Yes	
2	R4 R42	R2-1/331	330R	1/10W	Resistor, 330R, 5%, 1/10W, 0805	Yageo	RC0805JR-07330RL	Yes	
Optional, RS232 DTE Installed On Board									
Optional, RS232 DCE Installed On Board									
Optional, RS485 Installed On Board									
Optional, SD Card									

1	J19	J2-5			Connector, Secure Digital Card, Top Mount, SMT	Hirose	DM1AA-SF-PEJ(21)	Yes
Optional, DC Power Connector								
1	J2	J1-7/20	20pin		Header, DIL, 10x2 pin, Male, Polarized, Shrouded, Vertical, 100sp, TH	FCI	75869-104LF	No
Optional, JTAG Connector (note: The discovery module has built-in JTAG)								
1	J4	J1-62			Connector, DC Power Coaxial, 2.1mm pin, RA, TH	CUI Stack	PJ-002A	No
Optional, Three RS232 ComBoard Modules								
1	CB1	CB-232F2			ComBoard RS-232 DB9F Module, DCE	BPS	CB-232F2-1.00	No
2	CB2, CB3	CB-232M2			ComBoard RS-232 DB9M Module, DTE	BPS	CB-232M2-1.00	No
6	CB1-CB3	H1-410/1000	1.00"		Screw, Philips, #4-40, Pan Head, L=1.00", Steel-Zinc	Spanauer		No
6	CB1-CB3	H1-416			Nut, #4-40, od=3/16", Steel-Zinc	Spanauer	HN-201	No
6	CB1-CB3	H1-402			Washer, Flat, #4, id=1/8", od=5/16", thick=0.032", SS	Spanauer	W-2019	No
6	CB1-CB3	H1-403			Split Washer, #4, od=0.040", thick=0.031", Steel-Zinc	Spanauer	W-309	No
6	CB1-CB3	H-6/438			Spacer, Nylon, 478h (7/16"), #4 Unthreaded, 125id, 188od (3/16")	Bivar	9908-437	No
Optional, Polarized Headers								
6	J5 J7-8 J16 J22-23	J1-7/16			Header, DIL, 2x8 pin, Male, Polarized, Vertical, TH	Tyco		No
Parts Not Installed								
1	J1	J1-25			Ground Bar, 2 pin, 300sp			No
1	J3	J1-68/2			Terminal Block, 1x2, Removable, Side Panels, 5mm-sp, RA, TH	Weidmuller	1626210000	No
5	J21 J24-25 J26-27	J1-5/4			Connector, MTA-100, Male, 4-pin, Vertical, 100sp, TH	Tyco	640456-4	No
3	J12-14	J1-7/10			Connector, DIL, 2x5 pin, Male, Polarized, Vertical, TH	Tyco		No
28	JU1-12 JU13-15 JU16-20 JU22 JU30 JU33-38	J1-90/2			Jumper, 2 pin, 100sp	Tyco		No
2	JU39-40	J1-90/3	3pin	2A	Jumper, 3 pin, 100sp, 330h, Tin, TH	Tyco	103747-3	No
1	J6	J1-5/2			Connector, MTA-100, 2 pin, Male, Vertical, 100sp, TH	Tyco	640456-2	No