

Design Rules Verification Report

Filename : N:\Lloyd\getNodeRevF\CableNodeRevF.PcbDoc

Warnings 3

Rule Violations 0

Warnings

Multilayer Pads with 0 size Hole found	3
Total	3

Rule Violations

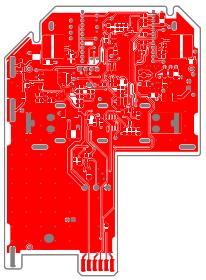
Clearance Constraint (Gap=20mil) (InNet('VBAT_POS')), (All)	0
Minimum Solder Mask Sliver (Gap=1mil) (InComponent('U2')), (All)	0
Net Antennae (Tolerance=0mil) (All)	0
Silk to Silk (Clearance=5mil) (All), (All)	0
Silk To Solder Mask (Clearance=6.5mil) (Disabled)(IsPad), (All)	0
Minimum Solder Mask Sliver (Gap=7mil) (InComponent('U2')), (All)	0
Hole To Hole Clearance (Gap=10mil) (All), (All)	0
Hole Size Constraint (Min=1mil) (Max=325mil) (All)	0
Height Constraint (Min=0mil) (Max=1200mil) (Preferred=500mil) (All)	0
Width Constraint (Min=7mil) (Max=50mil) (Preferred=10mil) (All)	0
Clearance Constraint (Gap=5mil) (InComponent('U10')), (All)	0
Un-Routed Net Constraint ((All))	0
Short-Circuit Constraint (Allowed=No) (All), (All)	0
Clearance Constraint (Gap=7.5mil) (InComponent('U2')), (All)	0
Clearance Constraint (Gap=10mil) ((InNamedPolygon('Top GND') OR InNamedPolygon('Bottom GND'))), (All)	0
Clearance Constraint (Gap=30mil) (InComponent('SP1')), (All)	0
Clearance Constraint (Gap=20mil) (InComponent('BATT1')), (All)	0
Power Plane Connect Rule(Direct Connect)(Expansion=20mil) (Conductor Width=10mil) (Air Gap=10mil) (Entries=4)	0
Clearance Constraint (Gap=8mil) (All), (All)	0
Power Plane Connect Rule(Relief Connect)(Expansion=20mil) (Conductor Width=20mil) (Air Gap=10mil) (Entries=4)	0
Total	0

Multilayer Pads with 0 size Hole found

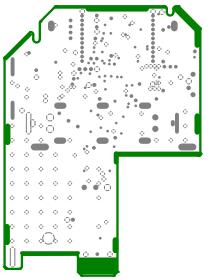
Pad FD1-0(3241.194mil,3471.662mil) Multi-Layer
Pad FD3-0(426.194mil,375mil) Multi-Layer
Pad FD2-0(426.194mil,3471.662mil) Multi-Layer

Source Data From: CableNodeRevF.PjrPcb														
Project: CableNodeRevF.PjrPcb														
Variants: Base Variant to Contract Manufacturer														
Created: 17/12/2014 8:07:19 AM Print Date: 17-Dec-14 8:07:31 AM														
Build Qty: 1														
#	Designator	Quantity	OPI_VID	Needs	Hire	Order	Vendor	Description	Manufacturer	Manufacturer Part Num	Postpart	Comment	Fitted	Other Info
1	C1, C2, C3, C4	3	101023					CAP CER 2.2PF 50V 5% X7R 0805	Yageo	CC0201B2205C20420	RC0205	4.7uF	Fitted	
2	C5, C8	3	101319					CAP CER 4.7uF 6.3V 10% X7R 1206	Taiyo Yuden	LMK1264J475ML-T	RC1206	4.7uF	Fitted	
3	C6	1	101320					CAP CER 10uF 50V 10% X7R 0805	Yageo	CC0201B1005C20420	RC0205	10uF	Fitted	
4	C7, C50, C54	3	101017					CAP CER 10000PF 50V 10% X7R 0805	TDK Corporation	C1608XTRH103K	RC0803	10nF	Fitted	
5	C9, C10, C11, C20	4	100309					CAP CER 1UF 10V 10% X7R 0805	AVX Corporation	0603YC104K12A	RC0803	1.0uF	Fitted	
6	C12, C13, C14	3	101022					CAP CER 2.2PF 50V 5% X7R 0805	Yageo	CC0201B2205C20420	RC0205	4.7uF	Fitted	
7	D1, D4	2	101018					DIODE SCHOTTKY 2A 200V PWR03 123	Diodes Inc	DFL512005-7	DFL512005-7		Fitted	
8	D2, D5, D10	3	101020					SUPPRESSOR 1SD 24VDC 0.025A SMD	Uniteus Inc	PGB10100303NR	RC0803	PGB10100303NR	Fitted	
9	D3, D4, D11, D12, D13	5	101321					DIODE SW DUAL 79V 350MW SO72-3	Diodes Inc	BAV997-F	SOT23	BAV99	Fitted	
10	D6, D8, D9	3	101019					TVS BI-DIRECT 5W SOD162	ON Semiconductor	ESD085 05T1G	SOD-523	ESD085 05T1G	Fitted	
11	D15	1	101383					DIODE ZENER 3.42V 500mW SO0323P	Diodes Inc	DO207V4ASF-7	SO0323P	DO207V4ASF-7	Fitted	
12	D18	1	101482					DIODE SCHOTTKY 40V 5mA SO72-3	Diodes Inc	EDM0204BL-7.7	SOT-323	EDM0204BL-7.7	Fitted	
13	P1	1	101365					POLYSWITCH 2.8A RESET 1.0USE 5AB	TE Connectivity	MN4040C20P	MN4040C20P	MN4040C20P	Fitted	
14	P2, P3	2	101164					POLYSWITCH 50A RESET FUSE SMD	TE Connectivity	MN55MC050F-2	MN55MC050F	MN55MC050F	Fitted	
15	J1	1	101531					CONN HEADER 2PDS 3MM VERT GOLD	Molex Inc	436502176	BATTER CONN ECTOR	CONN	Fitted	
16	L1	1	101322					INDUCTOR POWER 3.6UH 1.38A SMD	Würth Electronics Inc	IND-WURTH	3.6uH			
17	L2	1	101323					INDUCTOR PWRR 22uH 20% SHIELD SMD	Würth Electronics Inc	BR99504-220ML	IND-SRRN064	22uH	Fitted	
18	LED1, LED4	2	101324					LED 0.35W RED W/ CLR 3.3MM	OSRAM	CV39M4BC84	LED	CV39M4BC84	Fitted	
19	LED2, LED3	2	101534					LED 0.48W BLUE W/ CLR 3.5MM	OSRAM	CV39M8BC84	LED	CV39M8BC84	Fitted	
20	P4	1	101483					SWITCH POLARITY ADAPTER	TE Connectivity	MN55MC050F-2	MN55MC050F	MN55MC050F	Fitted	
21	P5	1	101377					CONN HEADER RT ANG IPDS 5.08MM	Phoenix Contact	PC-1795020	PC-1795020	PC-1795020	Fitted	
22	P6, P7	2	101515					CONN SOCKET 12PDS 2.5MM VERT TR	ON Semiconductor	9050512-02-AR	HEADER1X12	9050512-02-AR	Fitted	
23	G1	1	100638					MOSFET ICH 2N 2.2A SOT23-3	Vishay/Siliconix	S9221B021-7.3	SOT23(DS)	S9221B021	Fitted	
24	G2, G3, G4, G5	4	101327					MOSFET ICH 2N 2.8A SOT23-3	Vishay/Siliconix	S9220C0251-7.6	SOT23(CS)	S9220C0251	Fitted	
25	G6	1	101424					IC SWITCH CHANNEL SOT23	Vishay/Siliconix	S9221C0251-7.6	SOT23	S9221C0251	Fitted	
26	R1	1	101328					RES 3.3AM CHM 18V 1% 0603 SMD	Vishay Data	CRCW0803M324FKEA	RC0805	3.24M	Fitted	
27	R2, R6, R8	3	101329					RES 1.23M CHM 18V 1% 0603 SMD	Vishay Data	CRCW0803M123FKEA	RC0805	1.23M	Fitted	
28	R3	1	101330					RES 1.02M CHM 18V 1% 0603 SMD	Vishay Data	CRCW0803M102FKEA	RC0805	1.02M	Fitted	
29	R4, R10	2	101331					RES 5.7 3.9M CHM 1/10W 1% 0603 SMD	Vishay Data	CRCW0803M5703FKEA	RC0805	7.5M	Fitted	
30	R5	1	101332					RES 1.02M CHM 1/10W 1% 0603 SMD	Vishay Data	CRCW0803M102FKEA	RC0805	1.02M	Fitted	
31	R7	1	101450					RES 4.223 CHM 1/10W 1% 0603 SMD	Vishay Data	CRCW0803M4223FKEA	RC0805	4.223	Fitted	
32	R8	1	101333					RES 4.7 4.9M CHM 1/10W 1% 0603 SMD	Vishay Data	CRCW0803M4749FKEA	RC0805	4.7M	Fitted	
33	R9	1	101334					RES 1.02M CHM 1/10W 1% 0603 SMD	Vishay Data	CRCW0803M102FKEA	RC0805	1.02M	Fitted	
34	R12	1	101334					RES 5.38M CHM 1/10W 1% 0603 SMD	Vishay Data	CRCW0803M538FKEA	RC0805	5.38M	Fitted	
35	R13	1	101039					RES 4.7 4.9M CHM 1/10W 1% 0603 SMD	Panasonic - ECG	ERJ-30EY-J472V	RESC160806N	IMD	Fitted	
36	R15	1	101337					RES 27.0 5HM 1/10W 1% 0603 SMD	Panasonic - ECG	ERJ-30K-27R0V	RC0803	27R	Fitted	
37	R16, R20, R23, R24	12	101044					RES 10K CHM 1/10W 1% 0603 SMD	Panasonic - ECG	ERJ-30EY-J10V	RC0803	10K	Fitted	
38	R17	1	101382					RES 51.1 CHM 1/2W 1% 1210 SMD	Panasonic - ECG	ERJ-14N51S1R1U	RC3220N07N	51R1	Fitted	
39	R18	1	101380					RES 24.4 CHM 1W 5% 2512 SMD	TH1 Inc	CRW251224RQJNE0	RE-S2512	24R	Fitted	
40	R19, R67	2	101335					RES 10K CHM 1/10W 1% 0603 SMD	Panasonic - ECG	ERJ-30EY-J04V	RC0803	100K	Fitted	
41	R21, R52	2	101345					RES 2.0 2.0HM 1/4W 1% 1206 SMD	Vishay	RS-2502-05122R	RC1206	2.0R	Fitted	
42	R22, R23, R24, R43	4	101346					RES 1.2 1.2HM 1/4W 1% 1206 SMD	Vishay	RS-2502-07122R	RC1206	1.2R	Fitted	
43	R25, R26, R30, R33	5	101577					RES 1.0 1CHM 1/10W 1% 0603 SMD	Panasonic - ECG	ERJ-30EY-J10V2	RC0803	1K	Fitted	
44	R27, R28, R40, R41, R47, R60, R66	7	101402					RES 100 CHM 1/10W 5% 0603 SMD	Panasonic - ECG	ERJ-30EY-J10V1	RC0803	100R	Fitted	
45	R30, R36	2	101342					RES 1.00M CHM 1/10W 1% 0603 SMD	Panasonic - ECG	ERJ-30K-100V	RC0803	100M	Fitted	
46	R37, R65	2	101343					RES 715K CHM 1/10W 1% 0603 SMD	Panasonic - ECG	ERJ-30EY-J10V3	RC0803	715K	Fitted	
47	R38	1	101344					RES 432K CHM 1/10W 1% 0603 SMD	Panasonic - ECG	ERJ-30EY-J432V	RC0803	432K	Fitted	
48	R39	1	101386					RES 330 CHM 1/8W 5% 0605 SMD	KOA Speed	PK782A17D331J	RC0805	330R	Fitted	
49	R45	1	101463					RES 12 CHM 1W 5% 2512	Thermalloy	RPC2512JT12R0	RE-S2512	12R	Fitted	
50	R54	1	101487					RES 2K CHM 1/10W 1% 0603 SMD	Thermalloy	ERJ-30K2001V	RC0803	2K0	Fitted	
51	R55, R56, R57, R68	4	101175					RES 4.7 CHM 1/10W 5% 0603 SMD	Panasonic - ECG	ERJ-30EY-J472V	RC0803	4.7	Fitted	
52	R58	1	101538					RES 20K CHM 1/10W 5% 0603 SMD	Panasonic - ECG	ERJ-30EY-J024V	RC0803	200K	Fitted	
53	R64	1	101535					RES 3M65 CHM 1/10W 1% 0603 SMD	Samsung	RC100F365AC5	RC0803	3M65	Fitted	
54	SW1	1	101341					SWITCH REED MAG SMT 25-30 AT	Standard Modem	MK15-E-2	MK15-E-2	MK15-E-2	Fitted	
55	U1	1	101346					IC REG BOOST SYNC ADU 0.95A 0DFN	Linear Technology	LTC8202-BE0DC	LTC8202	LTC8202-BE0DC	Fitted	
56	U2	1	101347					IC ENERGY HARV CIRTRX BATT 8QFN	Texas Instruments	TPS25204RQJUTT	RC25204	TPS25204RQJUTT	Fitted	
57	U3, U5	2	101348					IC LOAD SWITCH INTEGRATED SC70-6	Fairchild	TOG342L	TS5A316D	TOG342L	Fitted	
58	U6	1	101350					IC BRIDGE DC TO 1-WIRE 8-SOIC	Maxim Integrated	DS24825-100+	DS24825	DS24825-100+	Fitted	
59	U8, U9	2	101351					IC SWITCH SPDT SC88	ON Semiconductor	NL8A54157D12G	TS5A316D	NL8A54157D	Fitted	
60	U10	1	101356					IC LEVEL TRANSLATOR - TSSOP8	ON Semiconductor	PC49000DTRGQ	TOG36900DF	PC49000DTRGQ	Fitted	
61	U11	1	101357					Low Quiescent Current, Programmable Delay Supercapacitor Circuits	Texas Instruments	TPS3805G01UVR	TS53805G01UVR	TPS3805G01UVR	Fitted	
62	BATT1	0	101332					2.5Ah 1.2V 1000mAh	TACBattery	25600-3.2V_1000mAh	TS5A316D	25600	Not Fitted	
63	C52, R46, R50	0	100558					CAP CER 0.01UF 10% 0603 SMD, RES 10K OHM 1/16W 5% 0603 SMD, RES 10K OHM 1/16W 5% 0603 SMD	AVX Corporation	0402040102A; ERJ-3GEYR00V, ERJ-3GEYR03V	RC0803		Not Fitted	
64	CANADAFLAG1, CANADAFLAG2	0	0					Canada Flag	CanadaFlag	x259		CanadaFlag	Not Fitted	
65	FD1, FD2, FD3	0	0					Fiducial Round	FRIDUCIAL	ROUND_SMOOTH		FRIDUCIAL	Not Fitted	
66	MH1, MH2, MH3	0	0					PCB Mounting Hole, 0.150" hole, 0.270" hole	MountingHole			MountingHole	Not Fitted	
67	P2	0	100210					Header, 4-Pin	SM	2340-4111TG	HDR1X4		Not Fitted	
68	P3	0	100210					Header, 2-Pin	SM	2340-4111TG	HDR1X2		Not Fitted	
69	P4	0	0					CONN EDGECARD 10POS, 10 FINGERS	EdgeConnector			EdgeConnector	Not Fitted	
70	RAD1	0	101308					Synapse RF200PFI Snappy Transceiver	Synapse Wireless	RF200PFI	RF200		Not Fitted	
71	SP1	0	101345					Solar Panel, Flexible, 3.6V and 4.5W footprints	Solar	MP17.5-300	SOLAR_PANEL_FLEX		Not Fitted	
72	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP16, TP17, TP18, TP19, TP20, TP21, TP22, TP23, TP24	0	0					2.5Ah 1.2V 330mAh	TACBattery	25600-3.2V_1000mAh	TS5A316D	25600	Not Fitted	

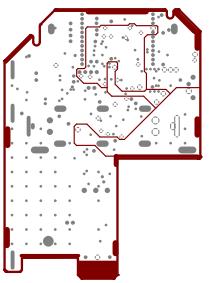
Top Copper Layer

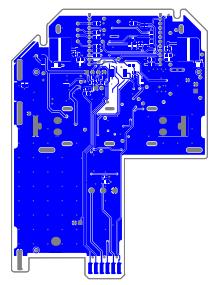


Internal Plate 1 (ON)

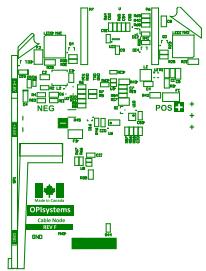


Internal Plane 2 (PWR)

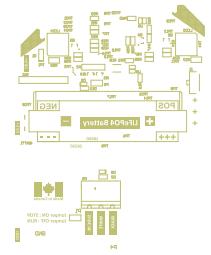




Top Silkscreen Layer



Bottom 24mm of PCB



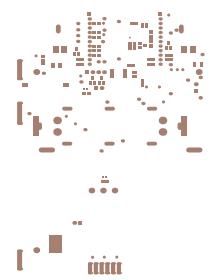
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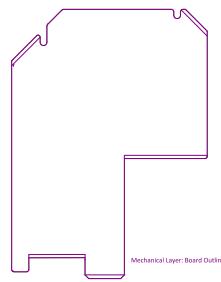
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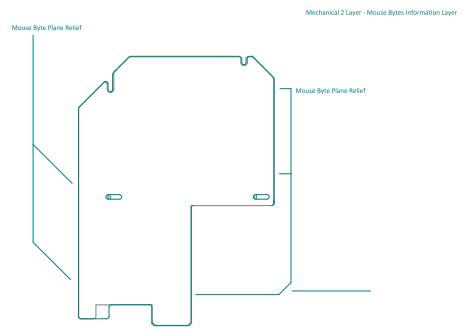


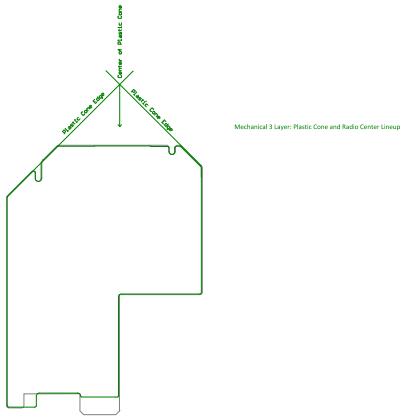
Mechanical Layer: Board Outline

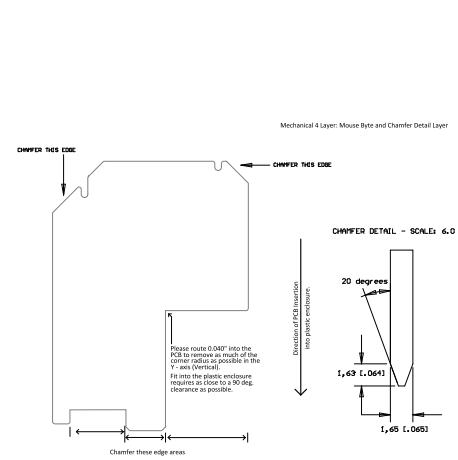
IMPORTANT:
Please make sure that perforated edges of Mouse Bites
are within the edge of the PCB - aka no jagged edges of
the bite can exist outside of the PCB edge.

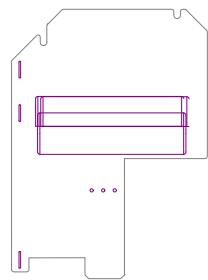
What prevents the design phase on Mouse Bites:
• Don't move the jagged edge of the bite behind the edge of the PCB.
• Move the bite

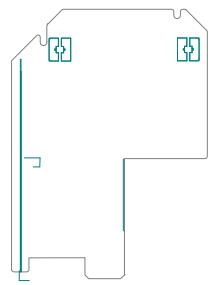
Mechanical 2 Layer: Mouse Bites Panelization Details



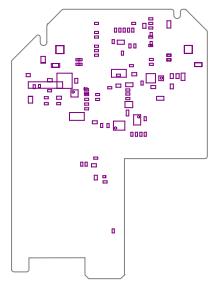


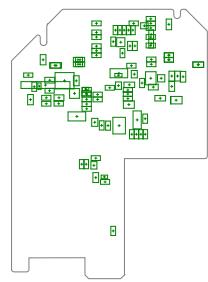


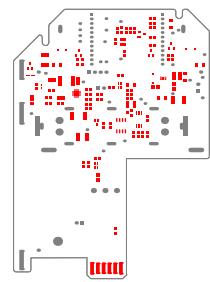


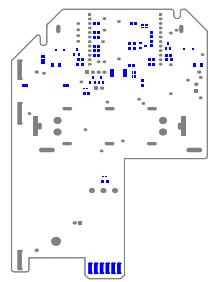


Mechanical 11 Layer: File and PCB Ordering Information









Keepout Layer

