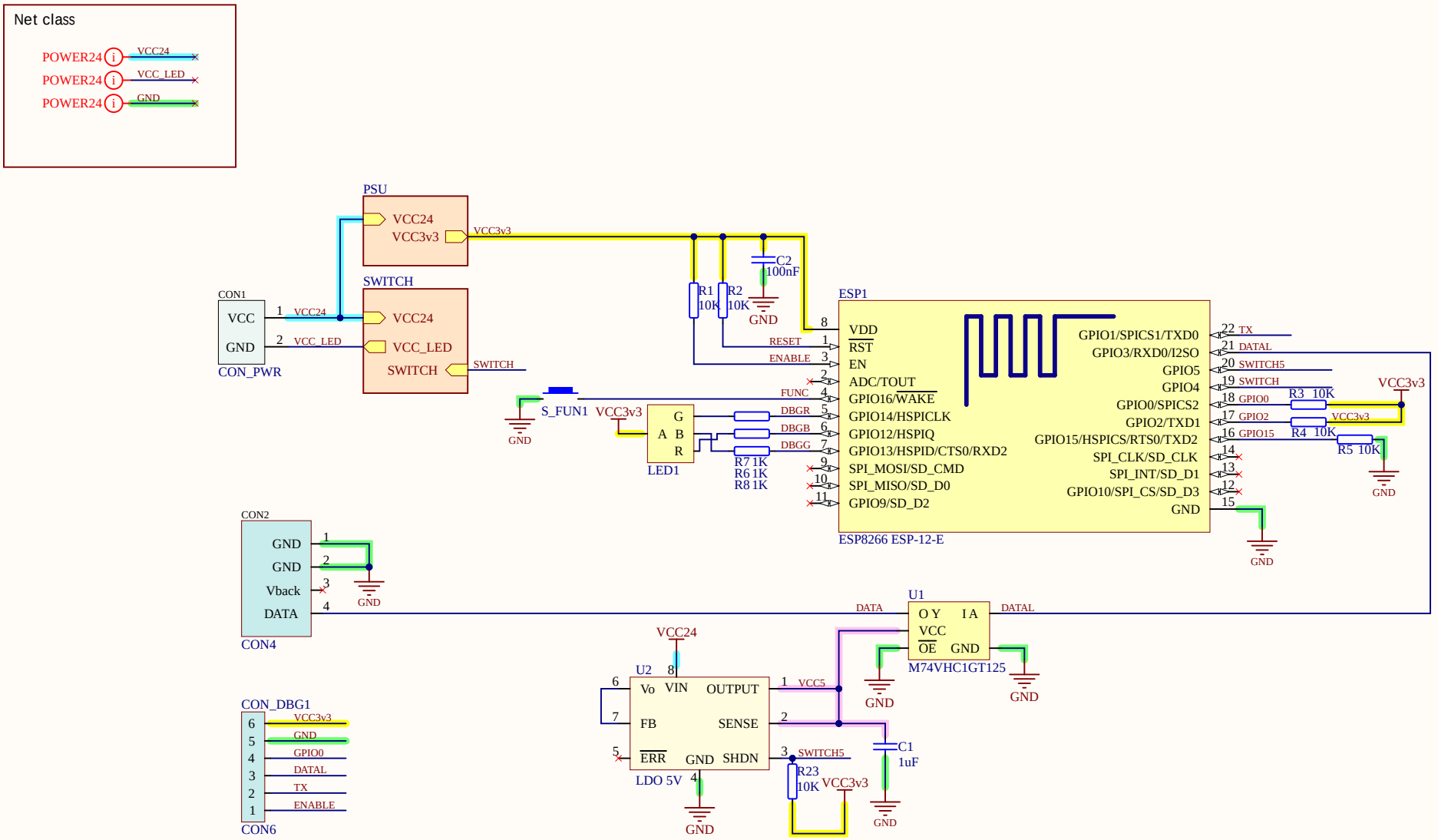
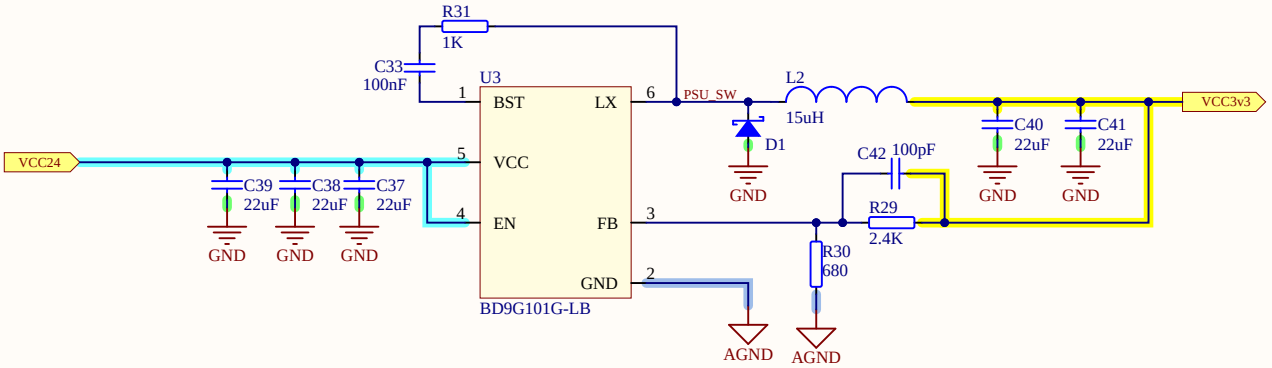


Title	CONTROLLER_ESP8266	
Size: A4	Number	Revision
Date: 5/29/2020		Sheet of
File: C:\Dev\..\controller_8266.SchDoc		Drawn By:



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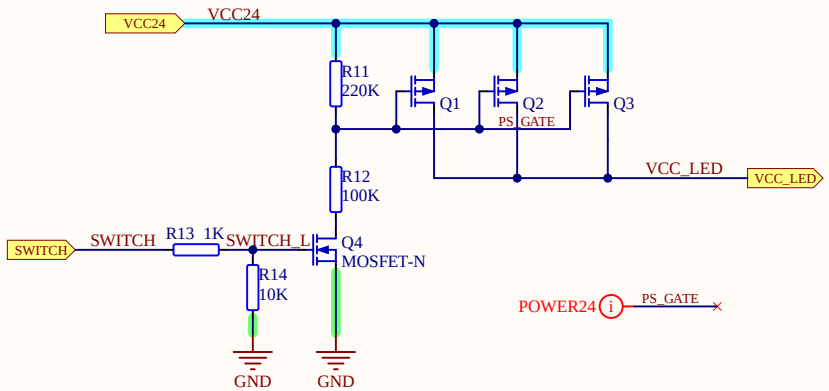
Size: A4	Number:	Revision:
Date: 5/29/2020		Sheet of
File: C:\Dev\..\controller_8266_psu.SchDoc		Drawn By:



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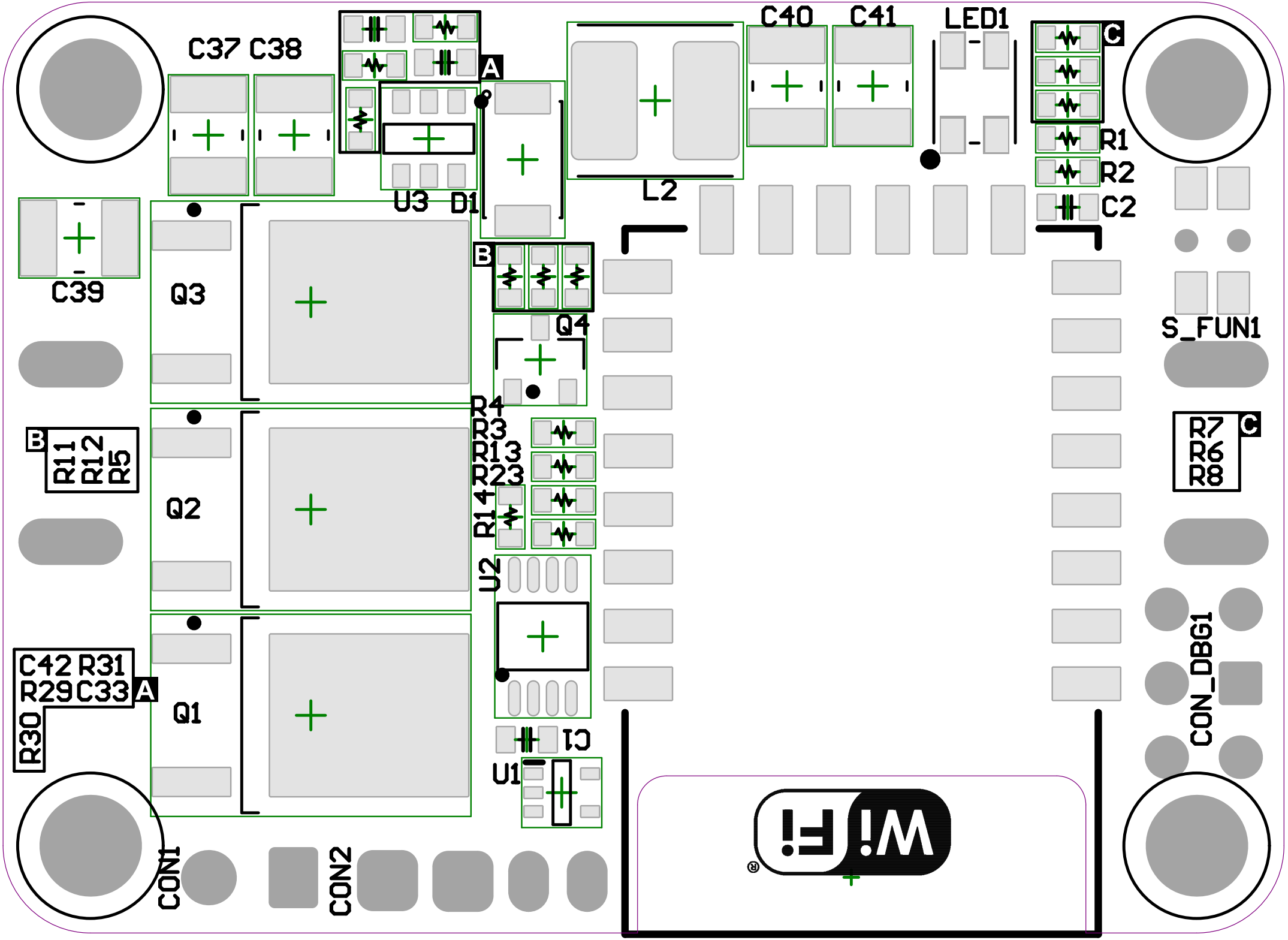
Size: A4	Number:	Revision:
Date: 5/29/2020		Sheet of
File: C:\Dev\..\controller_8266_switch.SchDoc		Drawn By:


C37 C38
C40
C41
LED1
C
A
U3
D1
L2
R1
R2
C2
C39
B
Q3
Q4
S_FUN1
R4
R3
R13
R23
R14
B
R11
R12
R5
Q2
R7
R6
R8
C
U2
C42 R31
R29 C33
A
R30
Q1
C1
U1
CON_DBG1
CON1
CON2

Designator	Quantity	Value	Name	Description	Footprint	Model:Footprint	LibRef
C1	1	1uF	Cap	Capacitor	CAPC_0603_1608X08L	Chip Capacitor 0603	Cap
C2, C33	2	100nF	Cap	Capacitor	CAPC_0603_1608X08L	Chip Capacitor 0603	Cap
C37, C38, C39, C40, C41	5	22uF	Cap	Capacitor	CAPC3224X25L	Chip Capacitor, 2-Leads, Body 3.20x2.45mm, IPC High Density	Cap
C42	1	100pF	Cap	Capacitor	CAPC_0603_1608X08L	Chip Capacitor 0603	Cap
D1	1		Schottky 40V 3A	Schottky Diode	SODFL470X110-2L	SODFL, 2-Leads, Body 2.50x4.70mm, IPC High Density	D Schottky
ESP1	1		ESP8266 ESP-12-E	ESP8266 ESP-12-E	ESP8266 ESP-12-E	ESP8266 ESP-12-E	ESP8266 ESP-12-E
L2	1	15uH	Inductor	Inductor	INDP5150X20L	Precision Wire Wound Inductor, 2-Leads, Body 5.15x5.00mm, IPC High Density	Inductor
LED1	1		RGB LED Common anode	Dot is _not_ anode!	PLCC-4	LED	RGB_LED
Q1, Q2, Q3	3		MOSFET-P		DPAK229P994X241-3L	D-PAK, 3-Pads, Body 6.21x6.73mm (max), IPC High Density	MOSFET-P
Q4	1		MOSFET-N		SOT23	SOT23, 3-Leads, Body 2.90x2.45mm, Pitch 0.95mm, IPC High Density	MOSFET-N
R1, R2, R3, R4, R5, R14, R23	7	10K	Res2	Resistor	RESC_0603_1608X08L	Chip Resistor, 2-Leads, Body 1.60x0.80mm, IPC High Density	Res2
R6, R7, R8, R13, R31	5	1K	Res2	Resistor	RESC_0603_1608X08L	Chip Resistor, 2-Leads, Body 1.60x0.80mm, IPC High Density	Res2
R11	1	220K	Res2	Resistor	RESC_0603_1608X08L	Chip Resistor, 2-Leads, Body 1.60x0.80mm, IPC High Density	Res2
R12	1	100K	Res2	Resistor	RESC_0603_1608X08L	Chip Resistor, 2-Leads, Body 1.60x0.80mm, IPC High Density	Res2
R29	1	2.4K	Res2	Resistor	RESC_0603_1608X08L	Chip Resistor, 2-Leads, Body 1.60x0.80mm, IPC High Density	Res2
R30	1	680	Res2	Resistor	RESC_0603_1608X08L	Chip Resistor, 2-Leads, Body 1.60x0.80mm, IPC High Density	Res2
S_FUN1	1		4-1437565-1	Tactile switch	EVQP7C01P	Side actuated tactile switch	4-1437565-1
U1	1		M74VHC1GT125	Level shifter non inverting	SOT65P210X100-5L	SOT23, 5-Leads, Body 2.00x2.10mm, Pitch 0.65mm, IPC High Density	M74VHC1GT125
U2	1		LDO 5V		Micro8 TSOP	TSOP, 8-Leads	LDO LP2950 5V
U3	1		BD9G101G-LB		TSOP95P280X125-6L	TSOP, 6-Leads, Body 2.90x1.65mm, Pitch 0.95mm, IPC High Density	BD9G102G-LB

Design Rules Verification Report

Filename : C:\Dev\wifi-christmas-tree-lights\pcbs\controller_8266\controller_8266.PcbDoc

Warnings 0
Rule Violations 0

Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=5mil) (All),(IsKeepOut)	0
Clearance Constraint (Gap=20mil) (InNetClass('POWER24') And ((IsPad And (InNet('GND') Or InNet('VCC_LED'))) Or	0
Clearance Constraint (Gap=5mil) (All),(All)	0
Clearance Constraint (Gap=-3.937mil) (InPadClass('AGND_TIE')),(InNet('GND') And OnBottomLayer)	0
Clearance Constraint (Gap=20mil) (InNet('PS_GATE') And (Not WithinRoom('LowPowerRoom'))),(InNet('VCC24'))	0
Short-Circuit Constraint (Allowed=Yes) (InPadClass('AGND_TIE')),(InNet('GND'))	0
Short-Circuit Constraint (Allowed=No) (All),(All)	0
Un-Routed Net Constraint ((All))	0
Modified Polygon (Allow modified: No), (Allow shelved: No)	0
Width Constraint (Min=5mil) (Max=50mil) (Preferred=5mil) (All)	0
Routing Via (Templates Used To Check Via: gnd_stitch, power_via, signal_routing) (All)	0
Power Plane Connect Rule(Relief Connect)(Expansion=20mil) (Conductor Width=5mil) (Air Gap=5mil) (Entries=4) (All)	0
Minimum Annular Ring (Minimum=5.118mil) (IsPad)	0
Minimum Annular Ring (Minimum=5.118mil) (IsVia)	0
Acute Angle Constraint [Tracks Only] (Minimum=45.000) (All)	0
Hole Size Constraint (Min=11.811mil) (Max=248.031mil) (All)	0
Hole To Hole Clearance (Gap=7.874mil) (All),(All)	0
Minimum Solder Mask Sliver (Gap=7.874mil) (All),(All)	0
Net Antennae (Tolerance=0mil) (All)	0
Board Clearance Constraint (Gap=0mil) (InLayerClass('Electrical Layers'))	0
LowPowerRoom (Bounding Region = (39504.59mil, 40260.392mil, 40172.144mil, 40418.41mil)	0
Component Clearance Constraint (Horizontal Gap = 0mil, Vertical Gap = 0mil) (All),(InComponentClass('TestPoint'))	0
Component Clearance Constraint (Horizontal Gap = 0mil, Vertical Gap = Infinite) (All),(All)	0
Height Constraint (Min=0mil) (Max=1000mil) (Prefered=500mil) (All)	0
Total	0