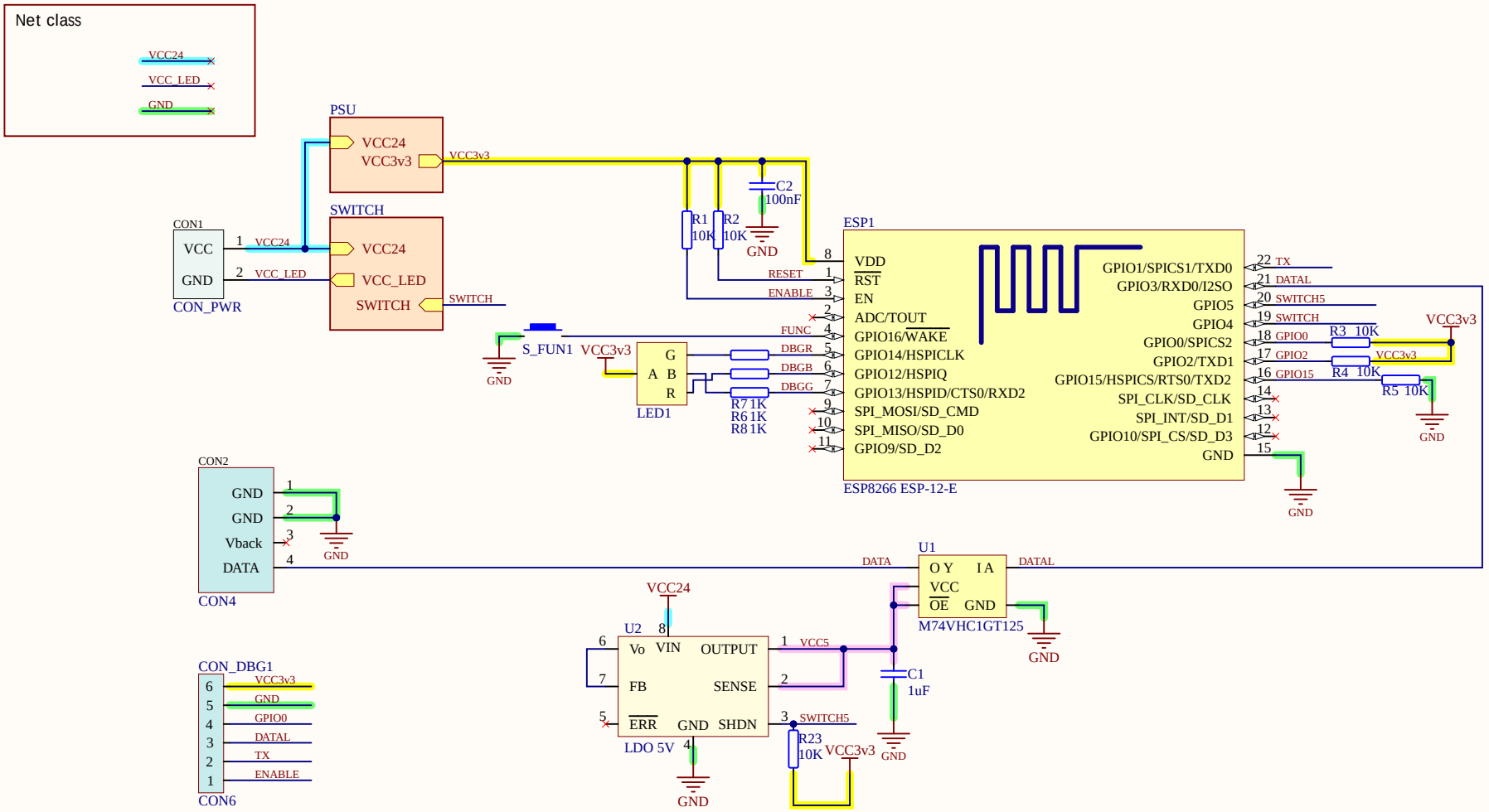
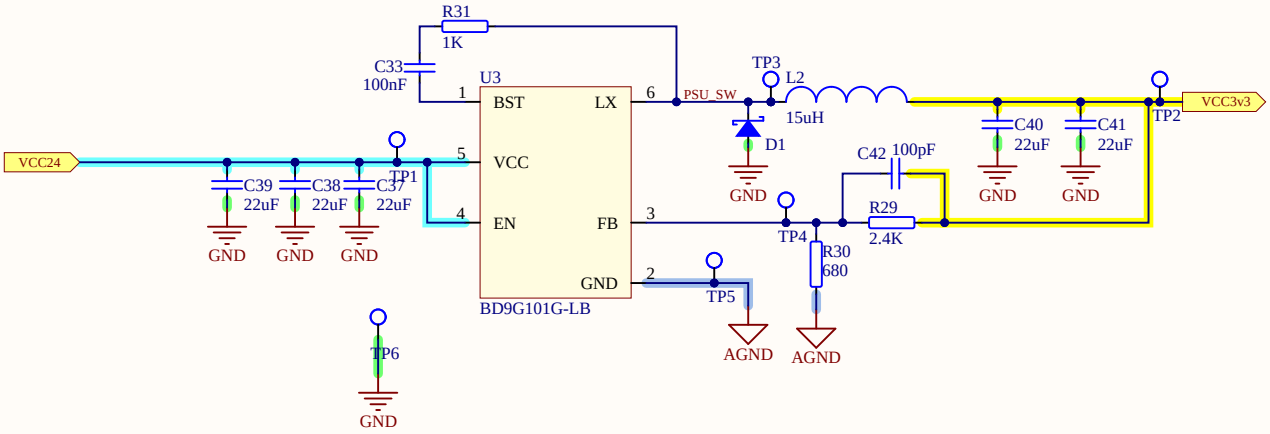


Title	CONTROLLER_ESP8266	
Size: A4	Number	Revision
Date: 5/28/2020	Sheet of	
File: C:\Dev\..\controller_8266.SchDoc	Drawn By:	



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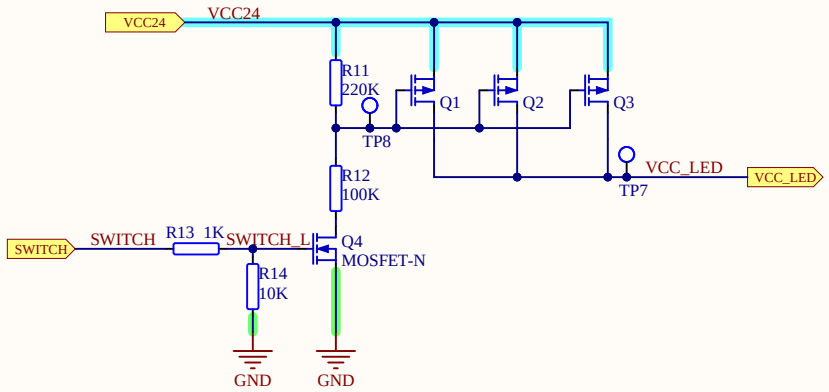
Size: A4	Number:	Revision:
Date: 5/28/2020		Sheet of
File: C:\Dev\..\controller_8266_psu.SchDoc		Drawn By:



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Size: A4	Number:	Revision:
Date: 5/28/2020		Sheet of
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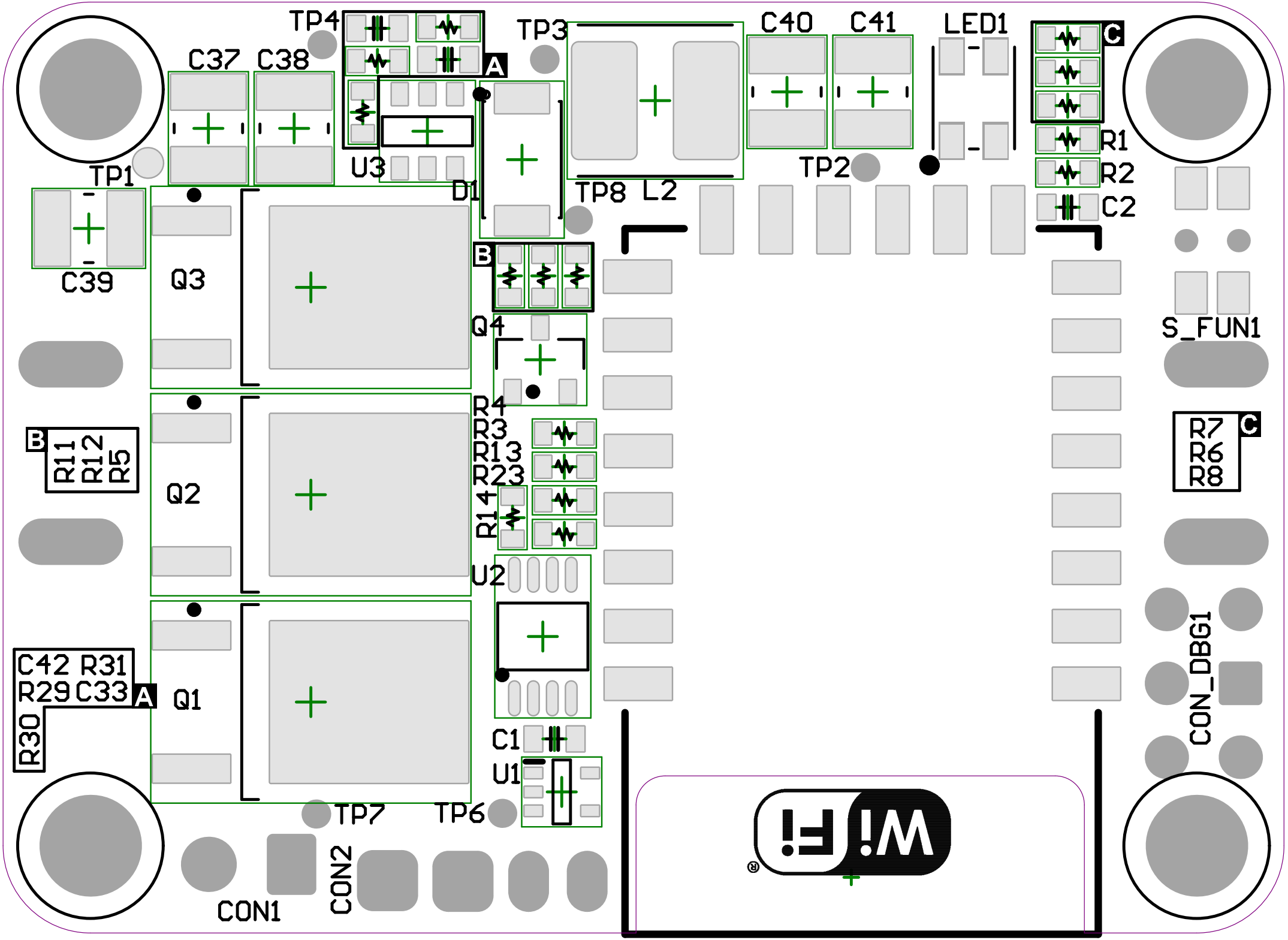
TP4
TP3
C40
C41
LED1
C37
C38
A
C
U3
D1
TP8
L2
TP2
R1
R2
C2
TP1
B
C39
Q3
Q4
S_FUN1
R4
R3
R13
R23
R14
B
R11
R12
R5
Q2
R7
R6
R8
C
U2
C42
R31
R29
C33
A
Q1
R30
C1
U1
CON_DBG1
TP7
TP6
CON1
CON2

Line #	Name	Description	Designator	Quantity	Footprint	Model:Footprint	LibRef	Value
	Cap	Capacitor	C1	1	CAPC_0603_1608X08L	Chip Capacitor 0603	Cap	1uF
	Cap	Capacitor	C2, C33	2	CAPC_0603_1608X08L	Chip Capacitor 0603	Cap	100nF
	Cap	Capacitor	C37, C38, C39, C40, C41	5	CAPC3224X25L	Chip Capacitor, 2-Leads, Body 3.20x2.45mm, IPC High Density	Cap	22uF
	Cap	Capacitor	C42	1	CAPC_0603_1608X08L	Chip Capacitor 0603	Cap	100pF
	Schottky 40V 3A	Schottky Diode	D1	1	SODFL470X110-2L	SODFL, 2-Leads, Body 2.50x4.70mm, IPC High Density	D Schottky	
	ESP8266 ESP-12-E	ESP8266 ESP-12-E	ESP1	1	ESP8266 ESP-12-E	ESP8266 ESP-12-E	ESP8266 ESP-12-E	
	Inductor	Inductor	L2	1	INDP5150X20L	Precision Wire Wound Inductor, 2-Leads, Body 5.15x5.00mm, IPC High Density	Inductor	15uH
	RGB LED Common anode	Dot is _not_ anode!	LED1	1	PLCC-4	LED	RGB_LED	
	MOSFET-P		Q1, Q2, Q3	3	DPAK229P994X241-3L	D-PAK, 3-Pads, Body 6.21x6.73mm (max), IPC High Density	MOSFET-P	
	MOSFET-N		Q4	1	SOT23	SOT23, 3-Leads, Body 2.90x2.45mm, Pitch 0.95mm, IPC High Density	MOSFET-N	
	Res2	Resistor	R1, R2, R3, R4, R5, R14, R23	7	RESC_0603_1608X08L	Chip Resistor, 2-Leads, Body 1.60x0.80mm, IPC High Density	Res2	10K
	Res2	Resistor	R6, R7, R8, R13, R31	5	RESC_0603_1608X08L	Chip Resistor, 2-Leads, Body 1.60x0.80mm, IPC High Density	Res2	1K
	Res2	Resistor	R11	1	RESC_0603_1608X08L	Chip Resistor, 2-Leads, Body 1.60x0.80mm, IPC High Density	Res2	220K
	Res2	Resistor	R12	1	RESC_0603_1608X08L	Chip Resistor, 2-Leads, Body 1.60x0.80mm, IPC High Density	Res2	100K
	Res2	Resistor	R29	1	RESC_0603_1608X08L	Chip Resistor, 2-Leads, Body 1.60x0.80mm, IPC High Density	Res2	2.4K
	Res2	Resistor	R30	1	RESC_0603_1608X08L	Chip Resistor, 2-Leads, Body 1.60x0.80mm, IPC High Density	Res2	680
	4-1437565-1	Tactile switch	S_FUN1	1	EVQP7C01P	Side actuated tactile switch	4-1437565-1	
	M74VHC1GT125	Level shifter non inverting	U1	1	SOT65P210X100-5L	SOT23, 5-Leads, Body 2.00x2.10mm, Pitch 0.65mm, IPC High Density	M74VHC1GT125	
	LDO 5V		U2	1	Micro8 TSOP	TSOP, 8-Leads	LDO LP2950 5V	
	BD9G101G-LB		U3	1	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=0.508mm) (InNetClass('POWER24') And ((IsPad And (InNet('GND') Or InNet('VCC_LED')))	0
Clearance Constraint (Gap=0.127mm) (All),(All)	0
Clearance Constraint (Gap=0.2mm) (All),(IsKeepOut)	0
Clearance Constraint (Gap=-0.1mm) (InPadClass('AGND_TIE')),(InNet('GND') And OnBottomLayer)	0
Short-Circuit Constraint (Allowed=No) (All),(All)	0
Short-Circuit Constraint (Allowed=Yes) (InPadClass('AGND_TIE')),(InNet('GND'))	0
Un-Routed Net Constraint ((All))	0
Modified Polygon (Allow modified: No), (Allow shelved: No)	0
Width Constraint (Min=0.127mm) (Max=1.27mm) (Preferred=0.127mm) (All)	0
Routing Via (Templates Used To Check Via: gnd_stitch, power_via, signal_routing) (All)	0
Power Plane Connect Rule(Relief Connect)(Expansion=0.508mm) (Conductor Width=0.127mm) (Air Gap=0.127mm)	0
Minimum Annular Ring (Minimum=0.13mm) (IsVia)	0
Minimum Annular Ring (Minimum=0.13mm) (IsPad)	0
Acute Angle Constraint [Tracks Only] (Minimum=45.000) (All)	0
Hole Size Constraint (Min=0.3mm) (Max=6.3mm) (All)	0
Hole To Hole Clearance (Gap=0.2mm) (All),(All)	0
Minimum Solder Mask Sliver (Gap=0.2mm) (All),(All)	0
Net Antennae (Tolerance=0mm) (All)	0
Board Clearance Constraint (Gap=0mm) (InLayerClass('Electrical Layers'))	0
Component Clearance Constraint (Horizontal Gap = 0mm, Vertical Gap = Infinite) (All),(All)	0
Component Clearance Constraint (Horizontal Gap = 0mm, Vertical Gap = 0mm) (All),(InComponentClass('TestPoint'))	0
Height Constraint (Min=0mm) (Max=25.4mm) (Prefered=12.7mm) (All)	0
Total	0