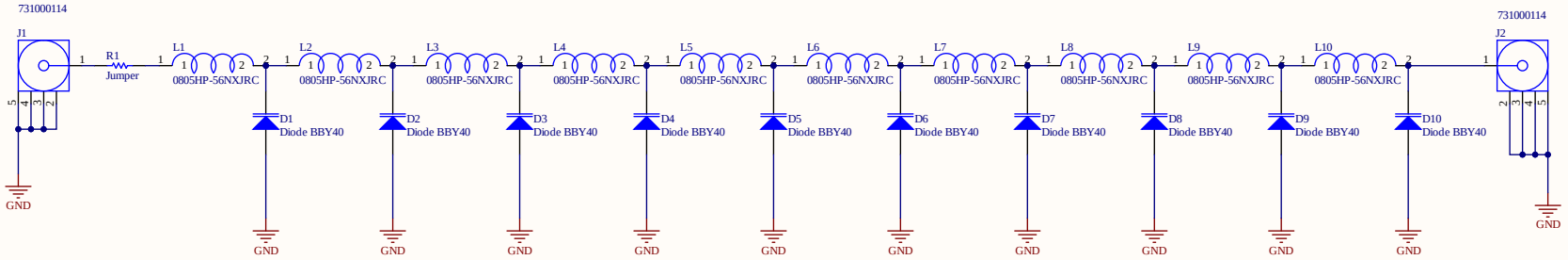
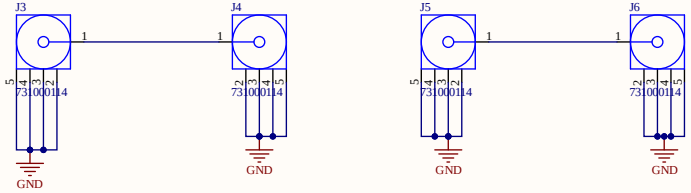
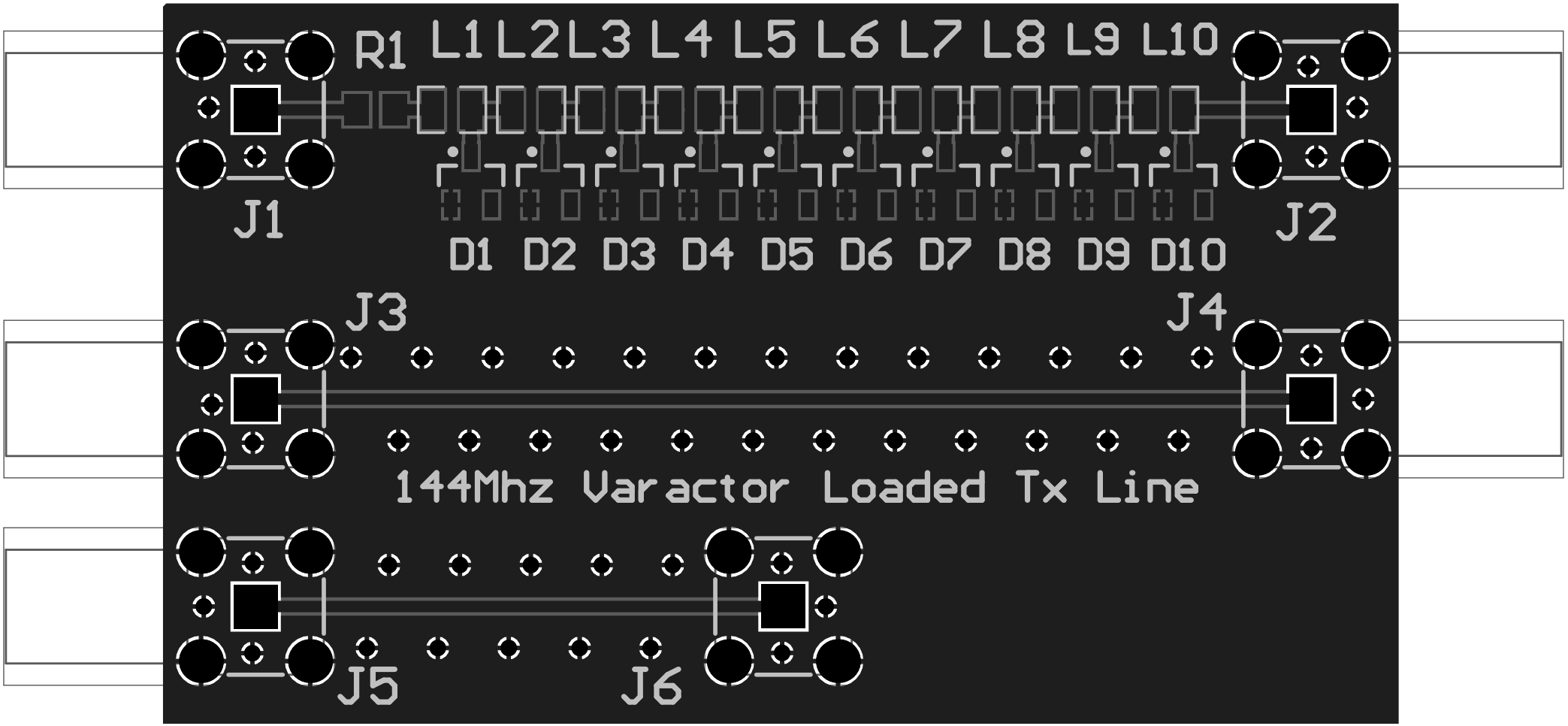




This is a discrete Tx Line to experiment with phase shifting and/or pulse shaping.
The four sets of connected SMA jacks are included on the same board for calibration and de-embedding of the test fixture

Calibration will be down with appropriate terminators using a 2x Thru. and a second line to be used in conjuction with the first to determine board characteristics using Two-Line method

Title: Discrete Varactor Loaded Tlines (144Mhz)		
Size: Orcad B	Number:	Revision: 1.0
Date: 3/21/2020	Sheet of	
File: C:\Users\..\RedesignVaractorTline144Mhz.SchDoc	Drawn By:	


R1
L1 L2 L3 L4 L5 L6 L7 L8 L9 L10
J1
J2
D1 D2 D3 D4 D5 D6 D7 D8 D9 D10
J3
J4
144Mhz Varactor Loaded Tx Line
J5
J6

Bill of Materials

Bill of Materials for BOM Document [VaractorTline144Mhz.BomDoc]

Source Data From: VaractorTline144Mhz.BomDoc

Project: VaractorTline144Mhz.PrjPcb

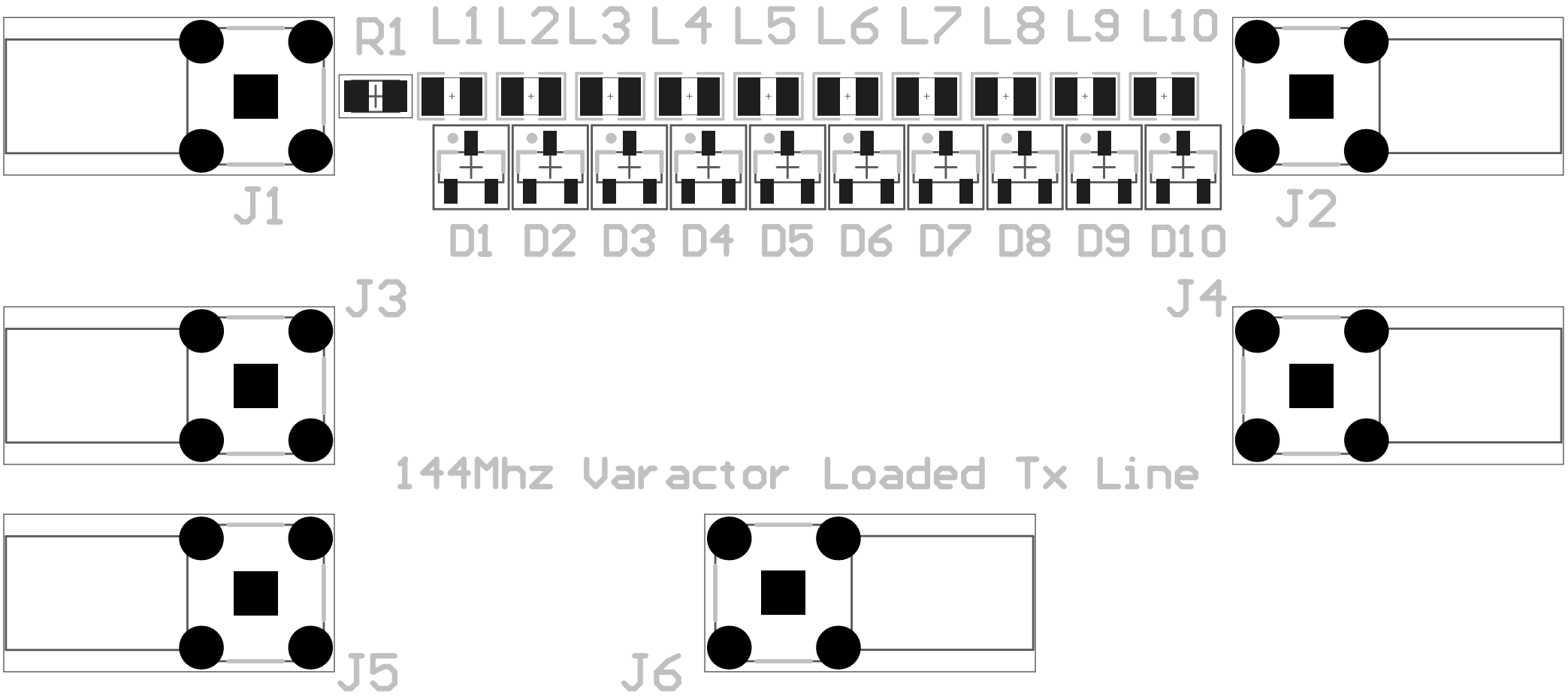
Variant: None

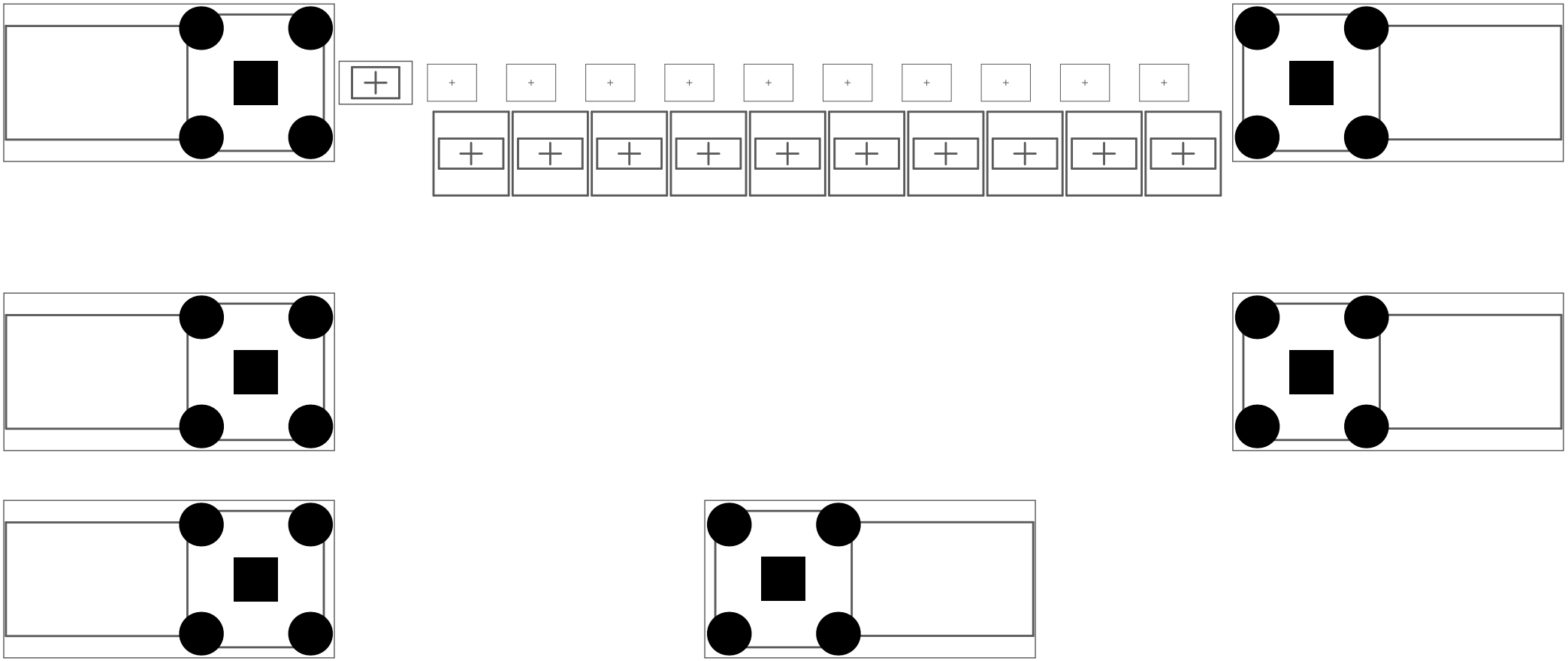
Creation Date: 3/21/2020 1:22 PM

Print Date: 43911 43911.5577

Footprint	Name	LibRef	Designator	Description	Quantity
SOT23_N	Diode BBY40	Diode BBY40	D1, D2, D3, D4, D5, D6, D7, D8, D9, D10	SOT23 Silicon Planar Variable Capacitance Diode	10
MOLX-731000114_V	731000114	CMP-2000-05487-1	J1, J2, J3, J4, J5, J6	SMA Right-Angle PCB Jack Receptacle, Brass Body, Gold Plated, 50 Ohm, 5-Pin THD, RoHS, Tray	6
0805HQ SERIES	0805HP-56NXJRC	0805HP-56NXJRC	L1, L2, L3, L4, L5, L6, L7, L8, L9, L10	0805HP-56NXJRC Coilcraft Variable Inductor	10
RESC2013X70X40NL20T20	Jumper	CMP-1665-00002-5	R1	Chip Resistor, 0 Ohm, +/- 1%, 0.125 W, -55 to 155 degC, 0805 (2012 Metric), RoHS, Tape and Reel	1
					27

Approved	Notes	


R1
L1 L2 L3 L4 L5 L6 L7 L8 L9 L10
J1
J2
D1 D2 D3 D4 D5 D6 D7 D8 D9 D10
J3
J4
144Mhz Varactor Loaded Tx Line
J5
J6



Design Rules Verification Report

Filename : C:\Users\Public\Documents\Altium\Projects\Varactor_TxCap_new\RedesignVarac

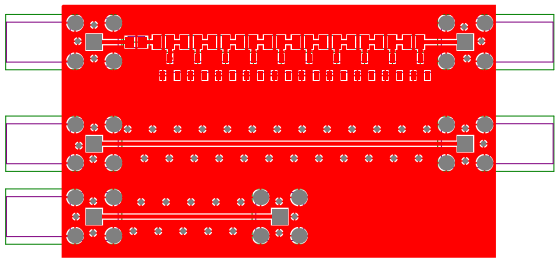
Warnings 0
Rule Violations 0

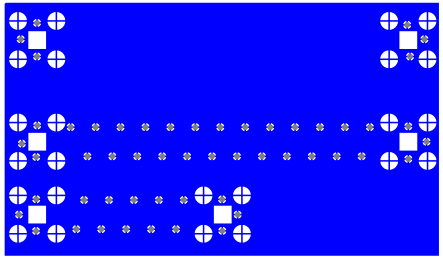
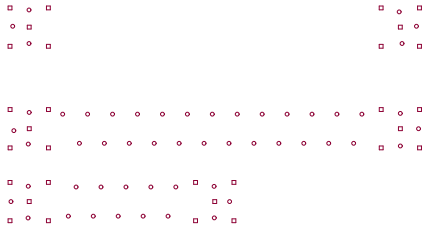
Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=6mil) (All),(All)	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=50.00ohms) (Max=50.00ohms) (Preferred=50.00ohms) (All	0
Power Plane Connect Rule(Direct Connect)(Expansion=16mil) (Conductor Width=6mil) (Air Gap=6mil) (Entries=4) (All	0
Minimum Annular Ring (Minimum=7mil) (All)	0
Hole Size Constraint (Min=13mil) (Max=265mil) (All)	0
Hole To Hole Clearance (Gap=10mil) (All),(All)	0
Minimum Solder Mask Sliver (Gap=0mil) (All),(All)	0
Silk To Solder Mask (Clearance=4mil) (IsPad),(All)	0
Silk to Silk (Clearance=0mil) (All),(All)	0
Net Antennae (Tolerance=0mil) (All)	0
Board Clearance Constraint (Gap=0mil) (All)	0
Room RedisignVaractorTline144Mhz (Bounding Region = (2475mil, 0mil, 4475mil, 1000mil	0
Height Constraint (Min=0mil) (Max=1000mil) (Prefered=500mil) (All)	0
Total	0

Electrical Rules Check Report

Class	Document	Message
		Successful Compile for VaractorTline144Mhz.PrjPcb





144Mhz Varactor Loaded Tx Line